CITY OF HOUSTON

HOUSTON PUBLIC WORKS

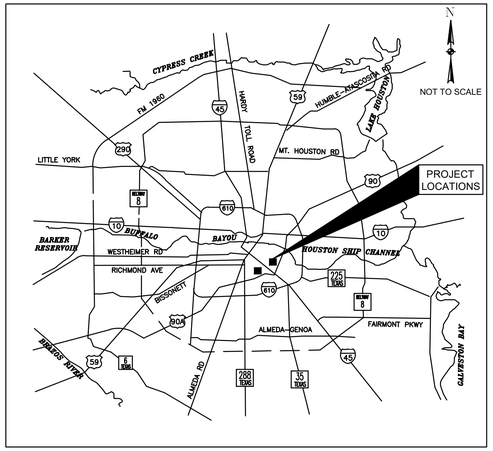
CAPITAL PROJECTS

CRMP PACKAGE 4~~A~~ - EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY

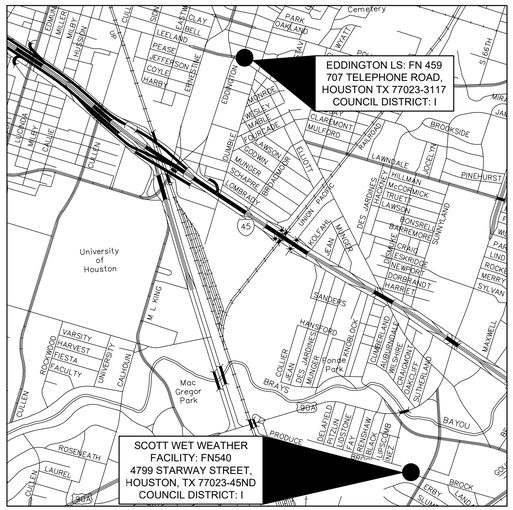
STORAGE TANK NO. 1

WBS NO. WBS R-001000-0035-4

60% SUBMITTAL - JANUARY 21, 2026



LOCATION MAP



VICINITY MAP

KEY MAP NO 534-G & 494-X

GIMS MAP NO 5555C & 5456B

TDLR EABPR _____

MAYOR

JOHN WHITMIRE

CONTROLLER

CHRIS HOLLINS

DISTRICT COUNCIL MEMBERS

AMY PECK — DISTRICT A
TARSHA JACKSON — DISTRICT B
ABBIE KAMIN — DISTRICT C
CAROLYN EVANS-SHABAZZ — DISTRICT D
FRED FLICKINGER — DISTRICT E
TIFFANY D. THOMAS — DISTRICT F
MARY NAN HUFFMAN — DISTRICT G
MARIO CASTILLO — DISTRICT H
JOAQUIN MARTINEZ — DISTRICT I
EDWARD POLLARD — DISTRICT J
MARTHA CASTEX-TATUM — DISTRICT K

COUNCIL MEMBERS AT-LARGE

JULIAN RAMIREZ — POSITION 1
WILLIE DAVIS — POSITION 2
TWILA CARTER — POSITION 3
LETITIA PLUMMER — POSITION 4
SALLIE ALCORN — POSITION 5

NO.	DATE	REVISION	APP.

DESIGN ENGINEER NAME

ARDURRA

3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

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B.W. NICHOLAS
TEXAS P.E. NO. 83349
DATE: 1/21/2026

PARKS-FORESTRY DEPT.

METRO

HOUSTON WATER

TRANSPORTATION & DRAINAGE OPERATIONS

CAPITAL PROJECTS — SURVEY

CITY ENGINEER — DATE

DIRECTOR OF HOUSTON PUBLIC WORKS — DATE

SHEET NO XX OF XX SHEETS

FOR CITY OF HOUSTON USE ONLY

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NO.	DATE	REVISION	APP.

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Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER
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SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4~~A~~ – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

DRAWING INDEX

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
G–2

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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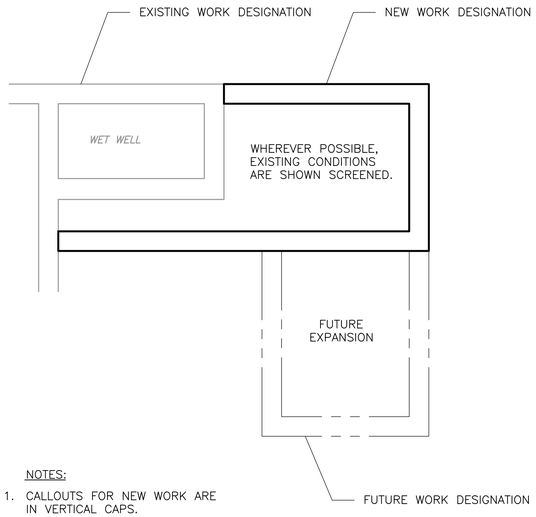
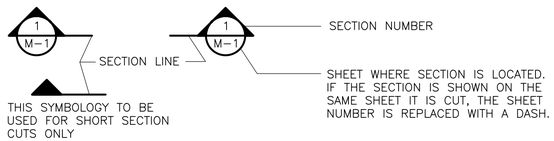
EXISTING OR FUTURE CONDITION DESIGNATION



NOTES:

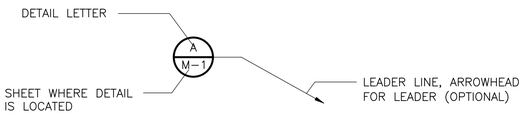
1. CALLOUTS FOR NEW WORK ARE IN VERTICAL CAPS.
2. FUTURE LINE WORK IS SHOWN IN A PHANTOM LINE AND LABELED 'FUTURE'.

SECTION CUT SYMBOLS



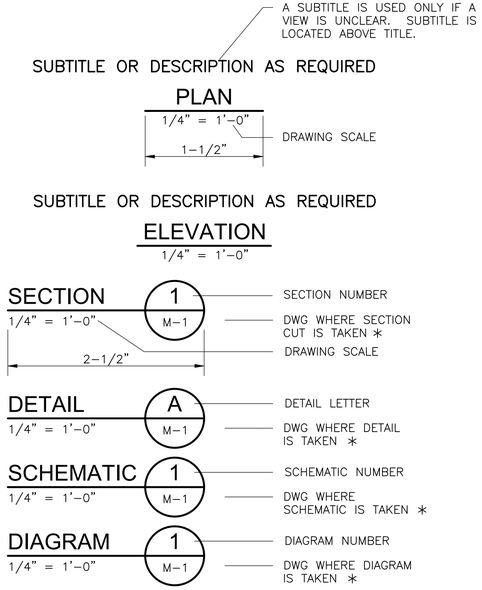
WHEN REFERENCING A SECTION IN A NOTE, USE 1/CF1-M-4 FORMAT INSTEAD OF THE BUBBLE

DETAIL CALL OUT SYMBOLS



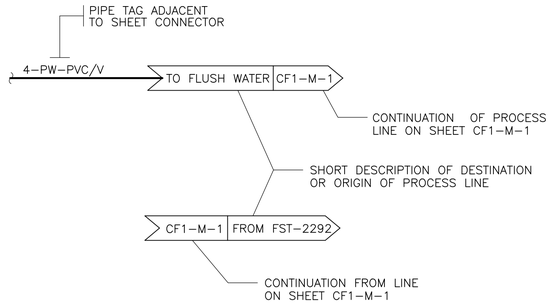
WHERE A NOTE IS REQUIRED FOR CLARITY, A/CF1-M-4 FORMAT IS USED IN THE NOTE INSTEAD OF BUBBLE. IF MULTIPLE DETAILS REFER TO THE SAME AREA OF THE DRAWING, THE BUBBLES ARE STACKED SIDE BY SIDE.

DRAWING, SECTION AND DETAIL TITLES



* IF SECTION, DETAIL, SCHEMATIC OR DIAGRAM IS DRAWN ON THE SAME SHEET THAT IT IS TAKEN FROM, REPLACE THE SHEET NUMBER WITH A HYPHEN. IF THE SECTION IS REFERENCED ON MULTIPLE SHEETS, THE SHEET NUMBER INDICATES THE FIRST SHEET THE SECTION IS TAKEN FROM.

FLOW DIAGRAM SHEET CONNECTIONS



DESIGN DISCIPLINE DESIGNATIONS

G	GENERAL	H	BUILDING MECHANICAL (HVAC)
P	PROCESS	PL	PLUMBING
C	CIVIL	F	FIRE
SC	SITE CIVIL	FA	FIRE ALARM
YP	YARD PIPING	FP	FIRE PROTECTION
D	DEMOLITION	E	ELECTRICAL
A	ARCHITECTURAL	I	INSTRUMENTATION AND CONTROL
S	STRUCTURAL	Z	STANDARD DETAILS
M	PROCESS MECHANICAL		

NOTES:

1. NOT ALL ABBREVIATIONS MAY BE USED IN A PARTICULAR PROJECT.
2. SOMETIMES A PROJECT MAY USE A SIMPLER ABBREVIATION SUCH AS C FOR ALL CIVIL RELATED ITEMS OF F FOR ALL FIRE RELATED ITEMS.
3. ON LARGER PROJECTS MAY ALSO HAVE A PROCESS AREA OR UNIT DESIGNATION AHEAD OF THE DISCIPLINE ABBREVIATION.

GENERAL LINETYPES

F F F	WATER LINE (FIRE)
WM WM	WATER LINE (DOMESTIC)
SAN SAN	SANITARY LINE
STM STM	STORM LINE
	PROPERTY LINE
	WETLANDS

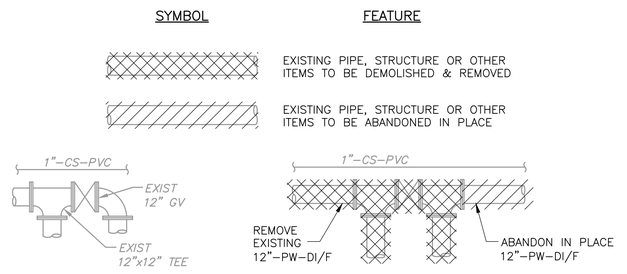
NOTES:

1. AREA ELECTRICAL CLASSIFICATIONS ARE SHOWN ON THE ELECTRICAL DRAWINGS. ALL PROCESS MECHANICAL EQUIPMENT, INSTALLATION AND CONNECTIONS ARE TO BE RATED FOR THE CLASSIFICATION OF THE AREA THEY ARE LOCATED IN.

EQUIPMENT / VALVE DESIGNATION

AB	AERATION BLOWER	LCP	LOCAL CONTROL PANEL	ST	STRAINER
AC	AIR COMPRESSOR	LE	LEVEL ELEMENT	STP	SLUDGE TRANSFER PUMP
ACU	AIR CONDITIONING UNIT	LI	LEVEL INDICATOR	SUP	SUBMERSIBLE PUMP
AE	ANALOG ELEMENT	LIT	LEVEL INDICATOR TRANSMITTER	SV	SOLENOID VALVE
AHU	AIR HANDLING UNIT	LPNL	LIGHTING PANEL	SWBD	SWITCH BOARD
AIT	ANALYTICAL INDICATING TRANSMITTER	LS	LEVEL SWITCH	SWC	SCREENINGS WASHING COMPACTOR
AR	AIR RECEIVER	LSH	LEVEL SWITCH HIGH	SWC	SCREENINGS WASHER COMPACTOR
ARV	AIR RELIEF VALVE	LSHH	LEVEL SWITCH HIGH HIGH	SWGR	SWITCH GEAR
ATS	AUTOMATIC TRANSFER SWITCH	LSL	LEVEL SWITCH LOW		
AVS	AUTOMATIC VACUUM SWITCHOVER	LSLL	LEVEL SWITCH LOW LOW	TE	TEMPERATURE ELEMENT
BAFP		LSP	LIFT STATION PUMP	TI	TEMPERATURE GAUGE
BC	BACKFLOW PREVENTER	LT	LEVEL TRANSMITTER	TIT	TEMPERATURE INDICATING TRANSMITTER
BCV	BELT CONVEYOR			TNK	TANK
BFP	BALL CHECK VALVE	MCC	MOTOR CONTROL CENTER	TS	TEMPERATURE SWITCH
BFV	BELT FILTER PRESS	MBS	MECHANICAL BAR SCREEN	TSH	TEMPERATURE SWITCH HIGH
BLR	BUTTERFLY VALVE	MFS	MECHANICAL FINE SCREEN	TSL	TEMPERATURE SWITCH LOW
BP	BLOWER	MV	MUD VALVE	TV	TELESCOPING VALVE
BPFP	BELT PRESS UNIT	MXR	MIXER		
BS	BELT PRESS FEED PUMP			UH	UNIT HEATER
BV	BAR SCREEN	NPW	NON-POTABLE WATER PUMP		
BWP	BALL VALVE	NPWT	NON-POTABLE WATER TRANSFER PUMP	VCP	VALVE CONTROL PANEL
	BACKWASH PUMP			VFD	VARIABLE FREQUENCY DRIVE
CF		OC	OIL COOLER	VI	VACUUM GAUGE
CHL	COALESCING FILTER			VP	VACUUM PUMPS
CLI	CHLORINATOR	PCV	PRESSURE CONTROL VALVE	VRV	VACUUM RELIEF VALVE
CLLD	CHLORINE INJECTOR	PF	PARSHALL FLUME	VTP	VERTICAL TURBINE PUMP
CLSC	CHLORINE LEAK DETECTOR	PI	PRESSURE INDICATOR	VV	VALVE VAULT
CNV	CHLORINE SCRUBBER	PIN	PRESSURE INJECTOR		
CP	CONVEYOR	PIT	PRESSURE INDICATING TRANSMITTER	WE	WEIGHT ELEMENT
CU	CONTROL PANEL	PLC	PROGRAMMABLE LOGIC CONTROLLER	WG	WEIR GATE
CV	CONDENSING UNIT	PM	POWER METER	WIT	WEIGHT INDICATING TRANSMITTER
CYL	CHECK VALVE	PMP	POLYMER FEED PUMP	WASP	WASTE SLUDGE PUMP
	CHLORINE CYLINDER SCALE	PNL	PANEL		
DB		PP	POWER PANEL	XE	UNDEFINED SENSOR
DCT	DIGESTER BLOWER	PRLV	PRESSURE RELIEF VALVE	XFMR	TRANSFORMER
DDCV	DECANTER	PRV	PRESSURE REDUCING VALVE	XIT	UNDEFINED TRANSMITTER
DFLT	DUAL-DISK CHECK VALVE	PS	PRESSURE SWITCH	XS	UNDEFINED SWITCH
DH	DISK FILTER	PSH	PRESSURE SWITCH HIGH		
DNP	DUCT HEATER	PSHH	PRESSURE SWITCH HIGH HIGH		
DPIT	DRAIN PUMP	PSL	PRESSURE SWITCH LOW		
DPR	DIFFERENTIAL PRESS INDICATOR TRANSMITTER	PSLL	PRESSURE SWITCH LOW LOW		
DS	DAMPER	PV	PLUG VALVE		
DST	DRUM SCALE	PWP	PLANT WATER PUMP		
DV	DIESEL STORAGE TANK				
	DIAPHRAGM VALVE	RP	RECIRCULATION PUMP		
EF		RD	REFRIGERATED DRYER		
	EXHAUST FAN	RIO	REMOTE I/O PANEL		
FE		RM	ROTAMETER		
FIT	FLOW ELEMENT	RTU	REMOTE TERMINAL UNIT		
FS	FLOW INDICATING TRANSMITTER	RV	RECIRCULATION VALVE		
	FLOW SWITCH				
GC		SAP	SAMPLE PUMP		
GEN	GRIT CLASSIFIER	SBSP	SODIUM BISULFITE FEED PUMP		
GLV	ELECTRIC GENERATOR	SC	SLUDGE COLLECTOR		
GP	GLOBE VALVE	SCV	SWING CHECK VALVE		
GR	GRIT PUMP	SD	SULFONATOR		
GRU	GRINDER	SDI	SULFUR DIOXIDE INJECTOR		
GSU	GRIT REMOVAL UNIT	SDLD	SULFUR DIOXIDE DETECTOR		
GCU	GRIT CAPTURE UNIT	SDS	SULFUR DIOXIDE CYLINDER SCALE		
GV	GRIT CONCENTRATOR UNIT	SEC	SECURITY EQUIPMENT		
	GATE VALVE	SF	SUPPLY FAN		
HPU		SG	SLIDE GATE		
	BELT TENSION AND STEERING HYDRAULIC PUMP	SHFP	SODIUM HYPOCHLORITE FEED PUMP		
INFP		SLG	SLUICE GATE		
	INFLUENT PUMP	SLH	SLUDGE HOPPER		
JB		SP	SUMP PUMP		
	JUNCTION BOX	SS	SOLID STATE REDUCED VOLTAGE STARTER		
KGV					
	KNIFE GATE VALVE				

DEMOLITION/ABANDONMENT LEGEND



EXISTING – RETAINED

EXISTING – DEMOLISHED OR ABANDONED

WARNING
0 1
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DWG NO
G-3

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Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER
DRAWN BY: J. GIBSON
CHECKED BY: T. REESER
REVIEWED BY: B. NICHOLAS
APPROVED BY: B. NICHOLAS

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4~~A~~ – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

LEGENDS AND ABBREVIATIONS I

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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PIPE AND FITTING SYMBOLS

DOUBLE LINE PIPING	SINGLE LINE PIPING	FEATURE
		PROCESS PIPING
		EXISTING PROCESS PIPING
		FUTURE PROCESS PIPING
		WELDED JOINT
		DIRECTION OF FLOW
		SCREWED OR THREADED JOINT (SEE NOTE 1)
		FLANGED JOINT (SEE NOTE 1)
F	R	COUPLING FOR GROOVED END JOINTS: (F) FLEXIBLE OR (R) RIGID
		MECHANICAL JOINT (SEE NOTE 1)
		PUSH ON JOINT OR CAULKED BELL & SPIGOT JOINT (SEE NOTE 1)
		FLANGE x PLAIN END PIPE COUPLING (FLANGE ADAPTOR)
		FLANGE x PLAIN END PIPE COUPLING, RESTRAINED (FLANGE ADAPTOR, RESTRAINED)
		PIPE COUPLING (SLEEVE–TYPE)
		PIPE COUPLING, RESTRAINED (AWWA–11)
		FLEXIBLE COUPLING OR EXPANSION JOINT (SLEEVE TYPE)
		UNION
		FLEXIBLE COUPLING OR EXPANSION JOINT (BELLOWS TYPE)
		FLANGE GUARD
		PLUG
		PIPE TURNED 90° TOWARD
		PIPE TURNED 90° AWAY
		TEE IN PIPE RUN WITH BRANCH DOWN

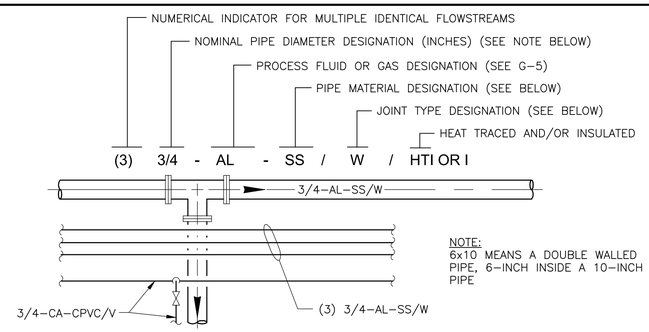
PIPE AND FITTING SYMBOLS (CONT.)

DOUBLE LINE PIPING	SINGLE LINE PIPING	FEATURE
		TEE IN PIPE RUN WITH BRANCH UP
		PITCH PIPE TO LOW POINT
		MECHANICAL JOINT – RESTRAINED
		BALL JOINT
		QUICK CONNECT COUPLING
		HOSE COUPLING
		HOSE COUPLING w/CAP
		BLIND FLANGE
		DRAIN
		LIQUID QUICK DISCONNECT
		AIR QUICK DISCONNECT
		DIAPHRAM SEAL STANDARD
		FLEXIBLE HOSE CONNECTION

PIPE AND FITTING SYMBOLS NOTES:

1. GENERIC JOINT SYMBOL IS USED FOR ALL SINGLE LINE PIPING SHOWN ON THE INTERIOR AND EXTERIOR PIPING DRAWINGS.
2. UNLESS MODIFIED BY THE GENERAL PROJECT NOTES OR DETAILED ON THE LAYOUT AND SCHEMATIC DRAWINGS, PIPE AND FITTING JOINT REQUIREMENTS FOR THE VARIOUS PIPE MATERIALS ARE DEFINED IN THE SPECIFICATIONS AND ARE INDICATED ON THE PROCESS PIPE SCHEDULES

PIPE IDENTIFICATION SYSTEM



NOTE:
6x10 MEANS A DOUBLE WALLED PIPE, 6–INCH INSIDE A 10–INCH PIPE

DEPICTED IS A THREE (3) 3/4–INCH DIAMETER STAINLESS STEEL PIPE WITH WELDED JOINT TO TRANSPORT ALUM.

PIPE MATERIALS LEGEND

DESIGNATION	PIPE MATERIALS
ABS	ACRYLONITRILE – BUTADIENE – STYRENE
BS	BLACK STEEL
CI	CAST IRON
CIS	CAST IRON – SOIL
CM	CORRUGATED METAL
CPVC	CHLORINATED POLYVINYL CHLORIDE
CS	CARBON STEEL
CU	COPPER
DI	DUCTILE IRON
FRP	FIBER REINFORCED PLASTIC
GCS	GALVANIZED CARBON STEEL
PE	POLYETHLENE
PP	POLYPROPYLENE
PVC	POLYVINYL CHLORIDE
PVCI	POLYVINYL CHLORIDE (DOUBLED WALLED PIPE)
RBH	RUBBER HOSE
RC	REINFORCED CONCRETE
RCC	REINFORCED CONCRETE CYLINDER
SS	STAINLESS STEEL
STL	STEEL (CARBON)
VC	VITRIFIED CLAY

PIPE JOINT LEGEND

DESIGNATION	JOINT TYPE
BSM	BELL & SPIGOT – MORTAR JOINT
BSO	BELL & SPIGOT – RUBBER O RING
C	COMPRESSION (TUBE FITTINGS)
F	FLANGED
G	GROOVED
H	HEAT FUSION
MJ	MECHANICAL JOINT
PE	PLAIN END
PO	PUSH ON
POR	PUSH ON RESTRAINED
RMJ	RESTRAINED MECHANICAL JOINT
S	SOLDERED
SW	SOCKET WELDED
T	THREADED
V	SOLVENT CEMENTED
W	BUTT WELDED
QD	QUICK DISCONNECT COUPLING

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TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER	SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
DRAWN BY: J. GIBSON	FB NO. 340S1
CHECKED BY: T. REESER	
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4~~A~~ – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

LEGENDS AND ABBREVIATIONS II

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	
DWG NO G–4	

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:06 PM
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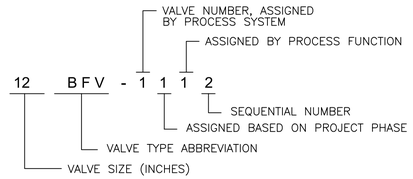
VALVE TAGS



NOTE:
ALL CONTROL VALVES, ALL ELECTRICALLY ACTUATED VALVES AND ALL VALVES WILL BE GIVEN INDIVIDUAL EQUIPMENT NUMBERS.

VALVE ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION
ARV	AIR RELEASE VALVE
AV	ANGLE VALVE
AVRV	AIR/VACUUM RELEASE VALVE
BCV	BALL CHECK VALVE
BFV	BUTTERFLY VALVE
BPRV	BACK PRESSURE REGULATING VALVE
BV	BALL VALVE
CV	CONE VALVE
CSCV	AIR OR OIL CUSHIONED SWING CHECK VALVE
DV	DIAPHRAGM VALVE
FCV	FLOW CONTROL VALVE
FG	FLAP GATE
FLV	FLOAT VALVE
FLPV	FLAP VALVE
GOV	GLOBE VALVE
GV	GATE VALVE
ICV	INLINE CHECK VALVE
KGV	KNIFE GATE VALVE
MV	MUD VALVE
NV	NEEDLE VALVE
PCV	PRESSURE CONTROL VALVE
PNV	PINCH VALVE
PRV	PRESSURE RELIEF VALVE
PVCV	PRESSURE REDUCING CHECK VALVE
PV	PLUG VALVE
PRCV	PRESSURE VACUUM RELIEF VALVE
SCV	SWING CHECK VALVE
SCRV	SELF-CONTAINED REGULATING VALVE
SDCV	SPLIT DISC CHECK VALVE
SG	SLIDE GATE
SOLV	SOLENOID VALVE
SRV	SURGE RELIEF VALVE
TDCV	TILTING DISC CHECK VALVE
TSV	TELESCOPING VALVE
VRV	VACUUM RELIEF VALVE

ACTUATOR SYMBOLS

DESIG.	PROCESS FLOW
	DIAPHRAGM – SPRING CLOSED
P	DIAPHRAGM – SPRING CLOSED W/ POSITIONER
	DIAPHRAGM – DOUBLE ACTING OR PRESSURE BALANCED
M	ELECTRIC MOTOR (CONSTANT SPEED)
M	ELECTRIC MOTOR (VARIABLE SPEED)
S	SOLENOID
	HAND
	AIR
	HYDRAULIC CYLINDER
E/H	ELECTRO-HYDRAULIC

VALVE SYMBOLS

SYMBOL	TYPE	SYMBOL	TYPE
K	KNIFE GATE VALVE		SELF-CONTAINED REGULATING VALVE
	PINCH VALVE		PRESSURE RELIEF VALVE
	BALL VALVE		VACUUM RELIEF VALVE
	DIAPHRAGM VALVE		AIR RELIEF/VACUUM BREAKER
	BUTTERFLY VALVE		
	GATE VALVE		EXTERNAL TAP REGULATING VALVE
	CONE VALVE		
	PLUG VALVE		THREE-WAY BALL VALVE
	SWING CHECK VALVE		FOUR-WAY VALVE
	BALL CHECK VALVE		FLAP VALVE (GATE)
	GLOBE VALVE		SHEAR GATE
	FLOAT ACTUATED VALVE		NEEDLE VALVE
	MUD VALVE		RUPTURE DISK FOR VACUUM RELIEF
	BACKFLOW PREVENTER		RUPTURE DISK FOR PRESSURE RELIEF
	TILTING DISC CHECK VALVE		ANGLE VALVE
	SPLIT DISC CHECK VALVE		
	SLEEVE VALVE	PCV	PRESSURE CONTROL REGULATOR (SELF CONTAINED)
S	SOLENOID VALVE	CV	CONTROL VALVE
M	MOTOR OPERERATED VALVE	FCV	FLOW CONTROL VALVE
	VALVE WITH CAP		
M	TELESCOPING VALVE (MOTORIZED)		
	QUICK DISCONNECT		
	AIR QUICK DISCONNECT		
	DIAPHRAM SEAL STANDARD		
	ROTAMETER		
	Y-STRAINER		
	PUMP CALIBRATION CYLINDER		

PROCESS FLOW STREAM ABBREVIATIONS

CODE	SERVICE	WORKING PRESSURE	TEST PRESSURE
DR	DRAIN	80 PSIG	125 PSIG
FS	FERRIC SULFATE (ODOR CONTROL)	40 PSIG	100 PSIG
HPW	HIGH PRESSURE WATER	150 PSIG	250 PSIG
IA	INSTRUMENT AIR	15–100 PSIG	25–150 PSIG
OF	OVERFLOW	10–40 PSIG	20–60 PSIG
PA	PLANT AIR	100–150 PSIG	150 PSIG
PW	POTABLE WATER	95 PSIG	150 PSIG
PPW	PROTECTED POTABLE WATER	75 PSIG	150 PSIG
RS	RAW SEWAGE	100 PSIG	150 PSIG
SPD	SUMP PUMP DISCHARGE	10 PSIG	40 PSIG
SS	STORM SEWER	–	5 PSIG
SSG	SANITARY SEWER – GRAVITY	5 PSIG	15 PSIG
SSF	SANITARY SEWER – FORCE MAIN (DRY WEATHER)	55 PSIG	75 PSIG
SSF	SANITARY SEWER – FORCE MAIN (WET WEATHER)	100 PSIG	150 PSIG
TW	TEPID WATER	75 PSIG	150 PSIG
V	VENT	ATM (1)	

NOTES:

1. WHEN TESTING GRAVITY DRAIN LINE, CONTRACTOR SHALL PROTECT ITEMS SUCH AS FLEXIBLE CONNECTORS, FLOOR DRAINS, AND EQUIPMENT NOT RATED FOR FULL TEST PRESSURE.
2. COMPLY WITH PIPE TESTING REQUIREMENTS OUTLINED IN SPECIFICATION 15050.
3. GRAVITY SANITARY SEWER AND PROCESS GRAVITY SEWERS SHALL BE TESTED IN ACCORDANCE WITH SECTION 02533 – ACCEPTANCE TESTING FOR SANITARY SEWERS.

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SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4~~A~~ – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

LEGENDS AND ABBREVIATIONS III

WARNING
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DWG NO
G-5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:06 PM
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PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/15/2026 3:16 PM

GENERAL NOTES

1. EXISTING UTILITIES ARE SHOWN ON THE PLAN IN A GENERAL MANNER FROM INFORMATION SUPPLIED BY THE SURVEYOR, EXISTING PLANS, AND / OR INFORMATION PROVIDED BY UTILITY OWNERS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICT.
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.
3. ALL STORM SEWER PIPE FOR THE PROJECT SHALL BE REINFORCED CONCRETE PIPE (OR AN APPROVED EQUAL) UNLESS OTHERWISE NOTED ON THE PLANS.
4. CONTRACTOR TO COORDINATE WITH THE SURVEYOR TO CHECK AND / OR RESET THE BENCHMARK AND THE PROPERTY CORNERS.
5. WHERE ANY EXISTING WATERLINE CONFLICTS WITH THE PROPOSED CONSTRUCTION OF STORM SEWERS AND / OR SANITARY SEWERS, THE WATERLINE SHALL BE ADJUSTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS PRESCRIBED BY THE UTILITY OWNER.
6. ALL WORK INDICATED ON THE DRAWINGS IS NEW AND SHALL BE PERFORMED AND PROVIDED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE AS NOT IN CONTRACT (NIC). SUB-CONTRACTORS ARE TO PROPERLY CONNECT AND COORDINATE THEIR WORK WITH THE WORK OF OTHERS AS SHOWN ON THE DRAWINGS AND AS INDICATED IN THE SPECIFICATIONS (IF APPLICABLE).
7. CONTRACTOR SHALL COORDINATE THE WORK OF VARIOUS TRADES TO AVOID POSSIBLE INTERFERENCES, DUPLICATION OF WORK, OR UNFINISHED GAPS BETWEEN OPERATIONS. ANY DELAYS OR CHANGES RESULTING FROM CONFLICTS BETWEEN TRADES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE GENERAL CONDITIONS OF THE CONTRACT SHALL BE THOSE AGREED UPON BY AND BETWEEN THE OWNER AND THE GENERAL CONTRACTOR.
8. ALL MATERIALS USED FOR THE COMPLETION OF THE WORK ELEMENTS NOTED HEREIN SHALL BE NEW, FIRST QUALITY CONDITION AND DELIVERED TO THE JOB SITE IN UNDAMAGED CONDITION.
9. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT INSTALLATION METHODS CONFORM TO ALL BUILDING CODE REQUIREMENTS. THE MATERIALS SPECIFIED HEREIN ARE INTENDED TO MEET CODE REQUIREMENTS; ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND CODE REQUIREMENTS SHALL BE IMMEDIATELY BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO PROCEEDING WITH WORK ELEMENTS SPECIFIED.
10. THE CONTRACTOR IS RESPONSIBLE THAT ALL ACCESSIBILITY CODES ARE MET TO THE FULLEST EXTENT. REQUIRED DIMENSIONS AND TOLERANCES SHALL BE MET AS REQUIRED AND ANY WORKMANSHIP ERRORS OR CORRECTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER OR ENGINEER.
11. THESE DRAWINGS AND WRITTEN SPECIFICATIONS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL.
12. NO SUBSTITUTIONS OF SPECIFIED MATERIALS SHALL BE ALLOWED UNLESS FIRST SUBMITTING SPECIFICATIONS, SAMPLES, COST AND TIME SCHEDULE IMPACT DATE TO ENGINEER FOR APPROVAL IN WRITING. NO CHANGES ARE TO BE MADE TO THE DESIGN INTENT, MATERIALS OR LAYOUT OF THE PROJECT UNLESS APPROVED IN WRITING, BY THE ENGINEER, PRIOR TO CHANGED BEING MADE.
13. ALL CONTRACTORS SHALL MAINTAIN THE PREMISES CLEAN AND FREE OF ALL TRASH AND DEBRIS, AND SHALL PROTECT ALL ADJACENT WORK FROM DAMAGE SPOILING.
14. IF APPLICABLE, THE CONSTRUCTION SHALL NOT RESTRICT A FIVE FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.

GRADING NOTES

1. PRIOR TO BEGINNING THE WORK, NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE PLANS OR FIELD CONFLICTS.
2. BEFORE PERFORMING ANY EARTHWORK, THE CONTRACTOR SHALL REMOVE ALL TOPSOIL, TREES, ROOTS, AND OTHER UNSUITABLE MATERIALS FROM THE CUT AND / OR FILL AREAS.
3. THE DEVELOPMENT OF THIS TRACT SHALL NOT ADVERSELY AFFECT THE DRAINAGE OF THE NEIGHBORING PROPERTY AT ANY TIME FOR ANY REASON.
4. NO EARTHEN SLOPE ON THIS PROJECT SHALL EXCEED 4:1 UNLESS OTHERWISE NOTED ON THE PLANS.
5. ALL EXISTING MANHOLE RIMS, VALVE COVERS, METER BOXES, ETC. SHALL BE RAISED OR LOWERED TO THE PROPOSED GRADE AS REQUIRED. THIS WORK SHALL MEET THE REQUIREMENTS OF THE UTILITY OWNER.
6. ALL PAVING AND FLATWORK SHALL MEET OR EXCEED THE RECOMMENDATIONS OUTLINED IN A SITE SPECIFIC GEOTECHNICAL REPORT PREPARED BY AN ENGINEER LICENSED TO PRACTICE IN THE STATE OF TEXAS.
7. FILL SHALL BE PLACED IN 8–INCH LOOSE LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY UNLESS A HIGHER STANDARD IS REQUIRED BY THE GEOTECHNICAL ENGINEER.
8. ALL EARTH WORK FOR THIS PROJECT SHALL BE IN CONFORMANCE WITH THE SWPPP.
9. PRIOR TO THE CONCLUSION OF THE PROJECT, THE CONTRACTOR SHALL ESTABLISH TURF COVER ON ALL DISTURBED AREAS. THE MINIMUM RATE OF GERMINATION SHALL BE 90%. THE CONTRACTOR'S BID PRICE SHALL COVER REAPPLICATION AS REQUIRED TO MEET THIS REQUIREMENT. EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL THIS REQUIREMENT IS SATISFIED.
10. ANY ADJUSTMENT TO FINISH FLOOR GRADES SHALL BE APPROVED BY THE ENGINEER.

DETENTION NOTES

1. **THE DETENTION POND SHALL BE CONSTRUCTED BEFORE ANY BUILDINGS OR PAVING TO ENSURE THAT STORM WATER RUNOFF FROM THIS SITE DOES NOT INCREASE AT ANY TIME FOR ANY REASON.**
2. **THE CONTRACTOR SHALL PROMPTLY REPAIR ANY WASHOUTS, RILLS, OR SLOPE FAILURES. THESE REPAIRS (IF ANY) SHALL BE INCLUDED IN THE BID PRICE.**
3. **SEE SITE GRADING AND SWPPP NOTES IN THESE PLANS FOR ADDITIONAL REQUIREMENTS.**
4. **THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE DETENTION POND UNTIL THE CONCLUSION OF CONSTRUCTION. MAINTENANCE SHALL INCLUDE DEBRIS CLEANUP, SEDIMENT REMOVAL, MOWING, AND IRRIGATION AND SHALL BE INCLUDED IN THE BID PRICE.**
5. **ADEQUATE DRAINAGE OF THE SITE SHALL BE MAINTAINED AT ALL TIMES. ANY DRAINAGE FACILITY DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.**
6. **AT THE CONCLUSION OF CONSTRUCTION, THE ENGINEER SHALL BE NOTIFIED AND GIVEN THE OPPORTUNITY TO INSPECT THE POND. THE ENGINEER RESERVES THE RIGHT TO REQUEST AS-BUILT SURVEY OF THE POND AT NO ADDITIONAL COST TO THE OWNER. THE OWNER SHALL ASSUME ALL RESPONSIBILITY FOR THE CONTINUED MAINTENANCE OF THE DETENTION POND AFTER THIS INSPECTION.**
7. **POND SHALL BE SEEDED AND WATERED TO ESTABLISH 90% GERMINATION. CONTRACTOR SHALL MONITOR WEATHER AND IS RESPONSIBLE FOR RESEEDING COSTS IF SEEDING IS WASHED OUT DUE TO RAIN.**

SWPPP NOTES

1. **THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND FOR INSTALLING, MAINTAINING, AND ADJUSTING ALL REQUIRED BMPs PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES AND THROUGH FINAL STABILIZATION, IN ACCORDANCE WITH THE TCEQ TPDES CONSTRUCTION GENERAL PERMIT (TXR150000) AND CITY OF HOUSTON SPECIFICATIONS.**
2. **THE CONTRACTOR SHALL COMPLETE AND SIGN THE T.C.E.Q. "CONSTRUCTION SITE NOTICE" (ATTACHMENT #2 OF THE TPDES GENERAL PERMIT TXR150000).**
3. **THE CONTRACTOR SHALL POST A SIGNED COPY OF THE "CONSTRUCTION SITE NOTICE" WHERE IT IS READILY AVAILABLE FOR VIEWING BY THE GENERAL PUBLIC, AND LOCAL, STATE, AND FEDERAL AUTHORITIES PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES AND SHALL MAINTAIN THIS NOTICE UNTIL COMPLETION OF THE WORK.**
4. **THE CONTRACTOR SHALL PROVIDE A COPY OF THE SIGNED "CONSTRUCTION SITE NOTICE" TO THE OPERATOR OF ANY MUNICIPAL STORM SEWER SYSTEM RECEIVING STORM WATER DISCHARGE FROM THE SITE AT LEAST TWO (2) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.**
5. **THE PROPERTY OWNER OR THE CONTRACTOR SHALL CONTACT THE CITY AND/OR COUNTY AS REQUIRED FOR A PRE-CONSTRUCTION INSPECTION PRIOR TO COMMENCING ANY CLEARING OR CONSTRUCTION ACTIVITIES ON THE SITE.**
6. **PERIMETER CONTROLS (RFB, IPB, ETC.) SHALL BE INSTALLED PRIOR TO CLEARING, GRUBBING, OR EARTHWORK AND SHALL REMAIN IN PLACE UNTIL PERMANENT STABILIZATION IS ACHIEVED.**
7. **BMPs SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN TWENTY-FOUR (24) HOURS AFTER EACH 0.5-INCH OR GREATER RAINFALL EVENT. DAMAGED BMPs SHALL BE REPAIRED OR REPLACED PROMPTLY. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES FIFTY PERCENT (50%) OF THE EFFECTIVE HEIGHT.**
8. **DISTURBED AREAS THAT WILL REMAIN INACTIVE FOR MORE THAN FOURTEEN (14) DAYS SHALL BE TEMPORARILY STABILIZED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.**
9. **STOCKPILES SHALL BE LOCATED WITHIN THE LIMITS OF DISTURBANCE, OUTSIDE DRAINAGE SWALES, AND SURROUNDED BY PERIMETER CONTROLS.**
10. **CONCRETE TRUCK WASHOUT SHALL BE PROVIDED ONLY AT DESIGNATED AREAS SHOWN ON THE PLANS OR AS APPROVED BY THE ENGINEER. DISPOSAL OF HARDENED CONCRETE AND WASH WATER SHALL BE IN ACCORDANCE WITH REGULATIONS.**
11. **ALL CONSTRUCTION VEHICLES SHALL USE THE STABILIZED CONSTRUCTION ENTRANCE. ANY MUD, SOIL, OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY, AT A MINIMUM, OR MORE FREQUENTLY AS NEEDED, USING NON-DESTRUCTIVE METHODS (E.G., MECHANICAL SWEEPING OR VACUUM SWEEPING). FLUSHING OR WASHING INTO STORM DRAINS IS PROHIBITED.**
12. **PRIOR TO PROJECT CLOSEOUT, THE CONTRACTOR SHALL ESTABLISH TURF COVER ON ALL DISTURBED AREAS. THE MINIMUM RATE OF GERMINATION SHALL BE NINETY PERCENT (90%). CONTRACTOR SHALL RESEED AS NECESSARY TO MEET THIS REQUIREMENT AT NO ADDITIONAL COST TO THE OWNER. UPON ACHIEVEMENT OF FINAL STABILIZATION, CONTRACTOR SHALL REMOVE ALL TEMPORARY STORM WATER QUALITY CONTROL MEASURES NOT REQUIRED TO REMAIN..**

NO.	DATE	REVISION	APP.

TRILOGY ENGINEERING SERVICES

TRILOGY ENGINEERING SERVICES
238 WESTCOTT STREET
HOUSTON, TEXAS 77007
PH: 877.463.1699

TX FIRM NO: 17715

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
NAZAR SABTI
TEXAS P.E. NO. 117913
DATE: 1/15/2026

DESIGNED BY: MS	SURVEYED BY:
DRAWN BY: MS	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: NS	FB NO. 340S1
REVIEWED BY: NS	
APPROVED BY: NS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4~~A~~ – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

DRAINAGE & SWPPP GENERAL CONSTRUCTION NOTES

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
G–7

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 39 OF 266	

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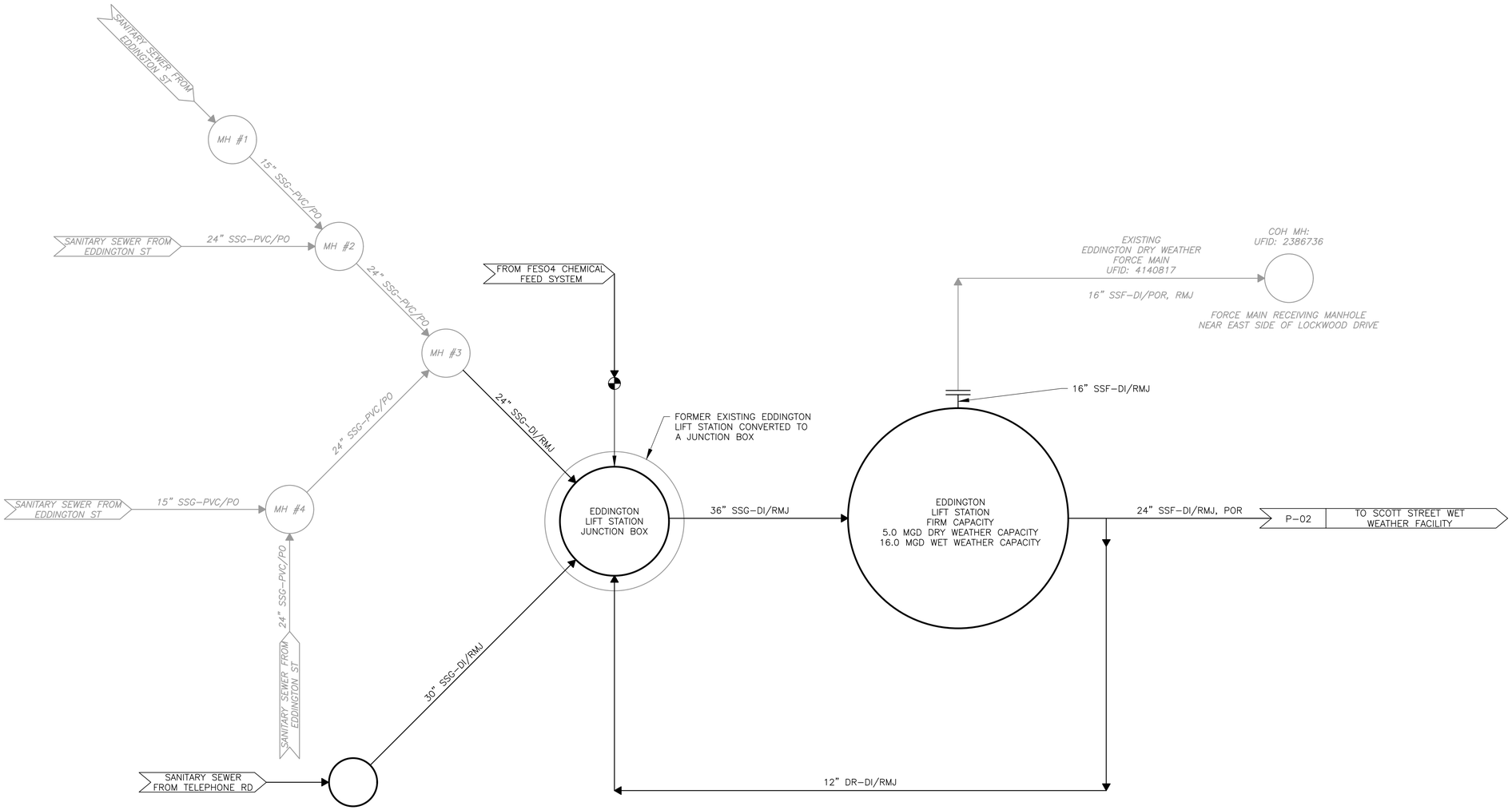

NOTES

1. THE PROCESS FLOW BLOCK DIAGRAM REPRESENTED HERE ILLUSTRATES A GENERAL REPRESENTATION OF THE IMPROVEMENTS AT THE EDDINGTON LIFT STATION AND ASSOCIATED 24-INCH WET WEATHER FORCE MAIN. REFER TO THE P&ID DRAWINGS AND DETAILED DESIGN DRAWINGS FOR ADDITIONAL DETAILS.
2. THESE DESIGN IMPROVEMENTS ARE BASED ON AN ADMINISTRATIVE ORDER TO CAPTURE THE 5-YEAR 6-HOUR STORM EVENT.
3. REFER TO THE DEMOLITION SERIES DRAWINGS FOR PROPOSED CONSTRUCTION SEQUENCING AND BYPASS PUMPING OPERATIONS.
4. MANHOLES #1 THROUGH #4 ARE POTENTIAL LOCATIONS WHERE BYPASS PUMPING OPERATIONS CAN BE SET UP. REFER TO THE DEMOLITION D SERIES DRAWINGS AND SPECIFICATIONS SECTIONS 01114 SEQUENCE OF CONSTRUCTION AND 11500 TEMPORARY BYPASS PUMPING.

NO.	DATE	REVISION	APP.

ARDURRA
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Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER	SURVEYED BY:
DRAWN BY: J. GIBSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4~~A~~ – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

PROCESS FLOW DIAGRAM I

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
P-1

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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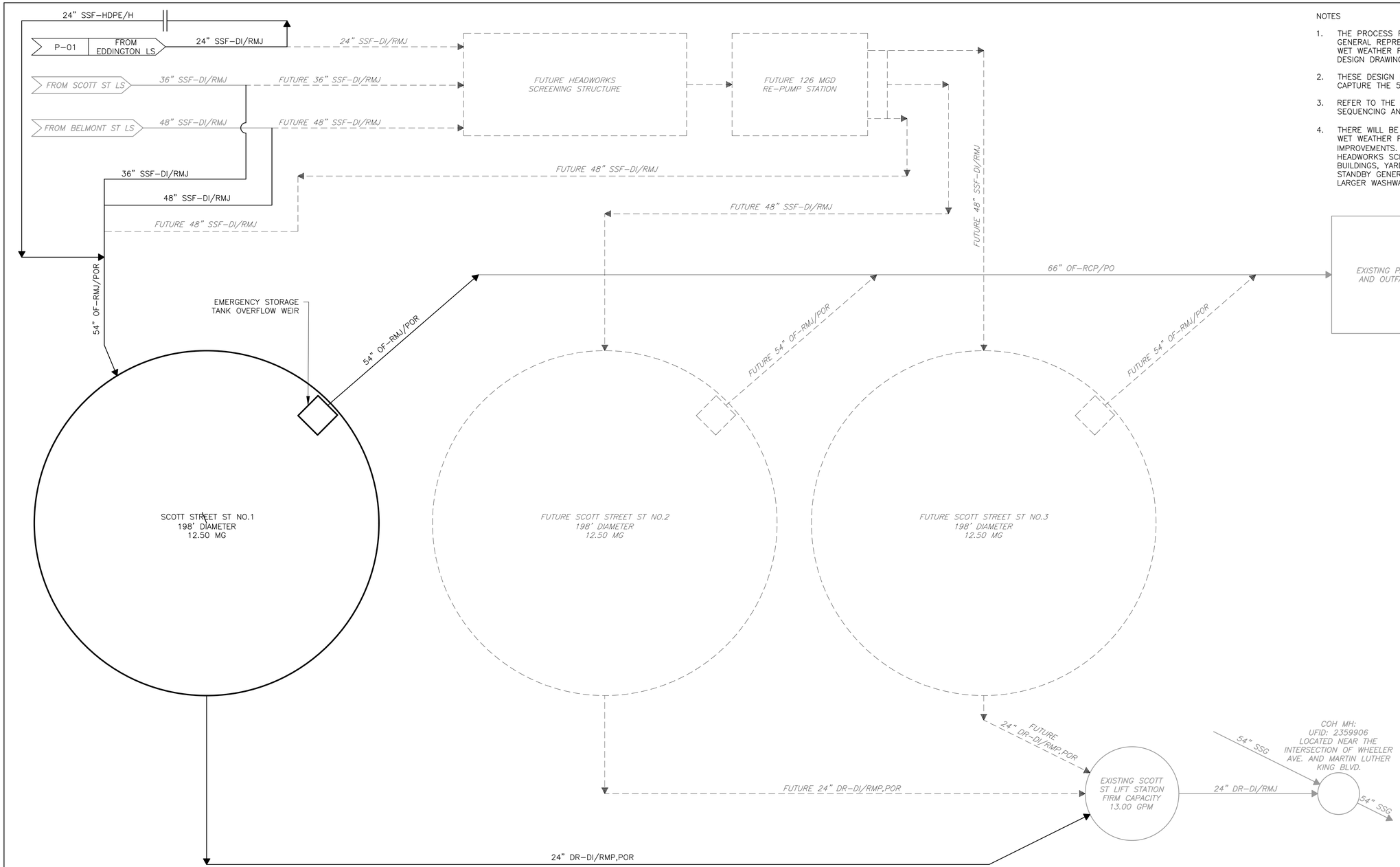

NOTES

1. THE PROCESS FLOW BLOCK DIAGRAM REPRESENTED HERE ILLUSTRATES A GENERAL REPRESENTATION OF THE IMPROVEMENTS AT THE SCOTT STREET WET WEATHER FACILITY. REFER TO THE P&ID DRAWINGS AND DETAILED DESIGN DRAWINGS FOR ADDITIONAL DETAILS.
2. THESE DESIGN IMPROVEMENTS ARE BASED ON AN ADMINISTRATIVE ORDER TO CAPTURE THE 5-YEAR 6-HOUR STORM EVENT.
3. REFER TO THE DEMOLITION SERIES DRAWINGS FOR PROPOSED CONSTRUCTION SEQUENCING AND BYPASS OPERATIONS.
4. THERE WILL BE A FUTURE PROJECT; "CRMP PACKAGE 4B – SCOTT STREET WET WEATHER FACILITY STORAGE TANKS NO. 2 AND 3 AND RELATED IMPROVEMENTS. WBS NO.: R-001001-0035-4", THAT WILL ADD A HEADWORKS SCREENING FACILITY, RE-PUMP STATION AND ELECTRICAL BUILDINGS, YARD PIPING, VALVING, STORAGE TANKS NO. 2 & NO. 3, STANDBY GENERATOR SETS, NEW REPLACEMENT OPERATIONS BUILDING, A LARGER WASHWATER STORAGE TANK AND OTHER RELATED IMPROVEMENTS.

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER	SURVEYED BY:
DRAWN BY: J. GIBSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4~~A~~ – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

PROCESS FLOW DIAGRAM II

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
P-2

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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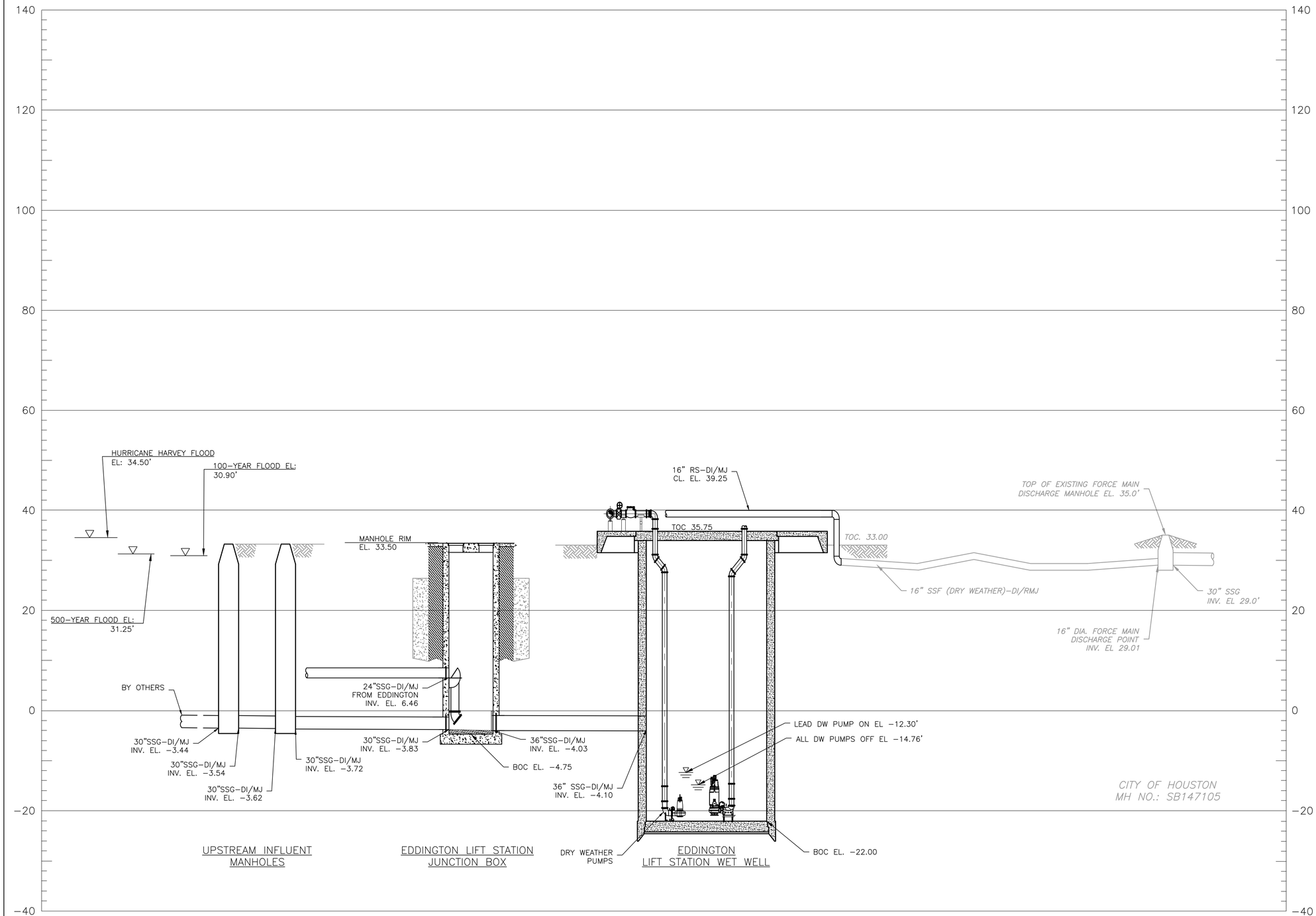

NOTES:

1. THE PROJECT LIES ON FEMA FIRM PANEL MAP NUMBER 48201C0880M PANEL 880 OF 1150, EFFECTIVE DATE JANUARY 6, 2017. ZONE AE AND BFE 31.3' AND THE 500−YEAR FLOOD ELEVATION IS 34.50'.
2. THIS PROJECT REPLACES AN EXISTING OLDER LIFT STATION CONSTRUCTED IN 1995 AND REPLACES WITH A LARGER CAPACITY LIFT STATION WHICH INCLUDES DRY WEATHER PUMPS AND WET WEATHER PUMPS. A NEW 24−INCH WET WEATHER FORCE MAIN WILL CONVEY WET WETHER PUMPED FLOW TO THE SCOTT STREET WET WEATHER FACILITY FOR TEMPORARY OFF LINE STORAGE UNTIL THE DESIGN 5 YEAR, 6 HOUR STORM HAS PASSED AND TRUNK SEWER LEVELS SUBSIDE TO DRAIN STORED FLOW BACK INTO THE COLLECTION SYSTEM.
3. BY OTHERS INDICATES WORK ON THE NEW COLECTION SYSTEM UNDER THE AMANI ENGINEERING PROJECT WBS NO. R−01000−0036−3. THE CONTRACTOR SHALL COORDINATE THE ROUTING OF THE ON−SITE SEWER LINE TO THIS MANHOLE.
4. EXISTING 16−INCH FORCE MAIN INFORMATION OBTAINED FROM RECORD DRAWING NO. SET 31543.

NO.	DATE	REVISION	APP.

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TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER	SURVEYED BY:
DRAWN BY: J. GIBSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

HYDRAULIC PROFILE EDDINGTON LS TO DRY WEATHER FM

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
P−3

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R−001000−0035−4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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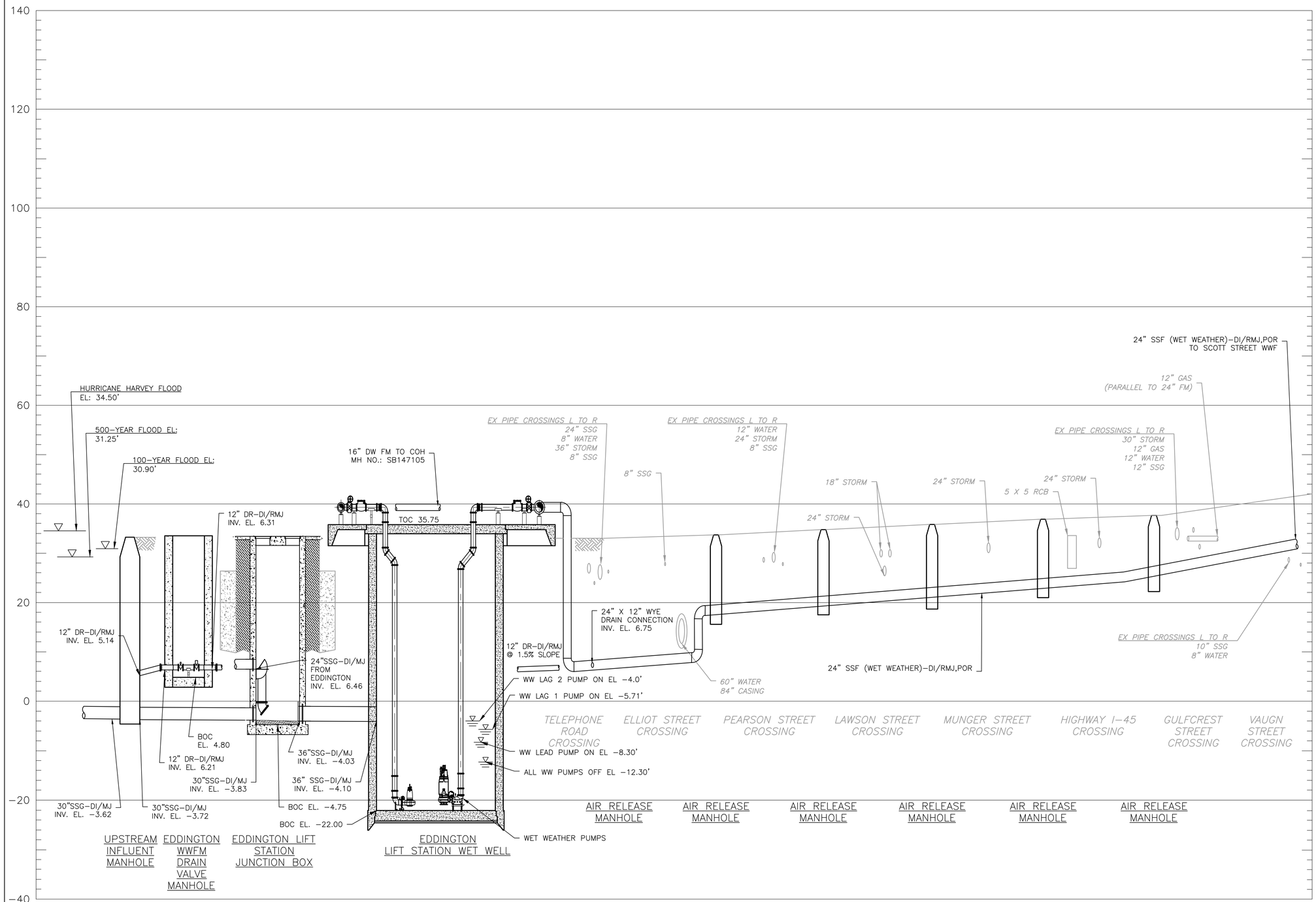

NOTES:

1. THE PROJECT LIES ON FEMA FIRM PANEL MAP NUMBER 48201C0880M PANEL 880 OF 1150, EFFECTIVE DATE JANUARY 6, 2017. ZONE AE AND BFE 31.3' AND THE 500−YEAR FLOOD ELEVATION IS 34.50'.
2. THIS PROJECT REPLACES AN EXISTING OLDER LIFT STATION CONSTRUCTED IN 1995 AND REPLACES WITH A LARGER CAPACITY LIFT STATION WHICH INCLUDES DRY WEATHER PUMPS AND WET WEATHER PUMPS. A NEW 24−INCH WET WEATHER FORCE MAIN WILL CONVEY WET WETHER PUMPED FLOW TO THE SCOTT STREET WET WEATHER FACILITY FOR TEMPORARY OFF LINE STORAGE UNTIL THE DESIGN 5 YEAR, 6 HOUR STORM HAS PASSED AND TRUNK SEWER LEVELS SUBSIDE TO DRAIN STORED FLOW BACK INTO THE COLLECTION SYSTEM

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY:	T. REESER
DRAWN BY:	J. GIBSON
CHECKED BY:	T. REESER
REVIEWED BY:	B. NICHOLAS
APPROVED BY:	B. NICHOLAS

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4~~A~~ − EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

HYDRAULIC PROFILE EDDINGTON LS TO SCOTT STREET WWF

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
P−4

WBS NUMBER	R−001000−0035−4
DRAWING SCALE	NONE
CITY OF HOUSTON PM	NEIL BARNSDALE, P.E.
SHEET NO.	XX OF XX

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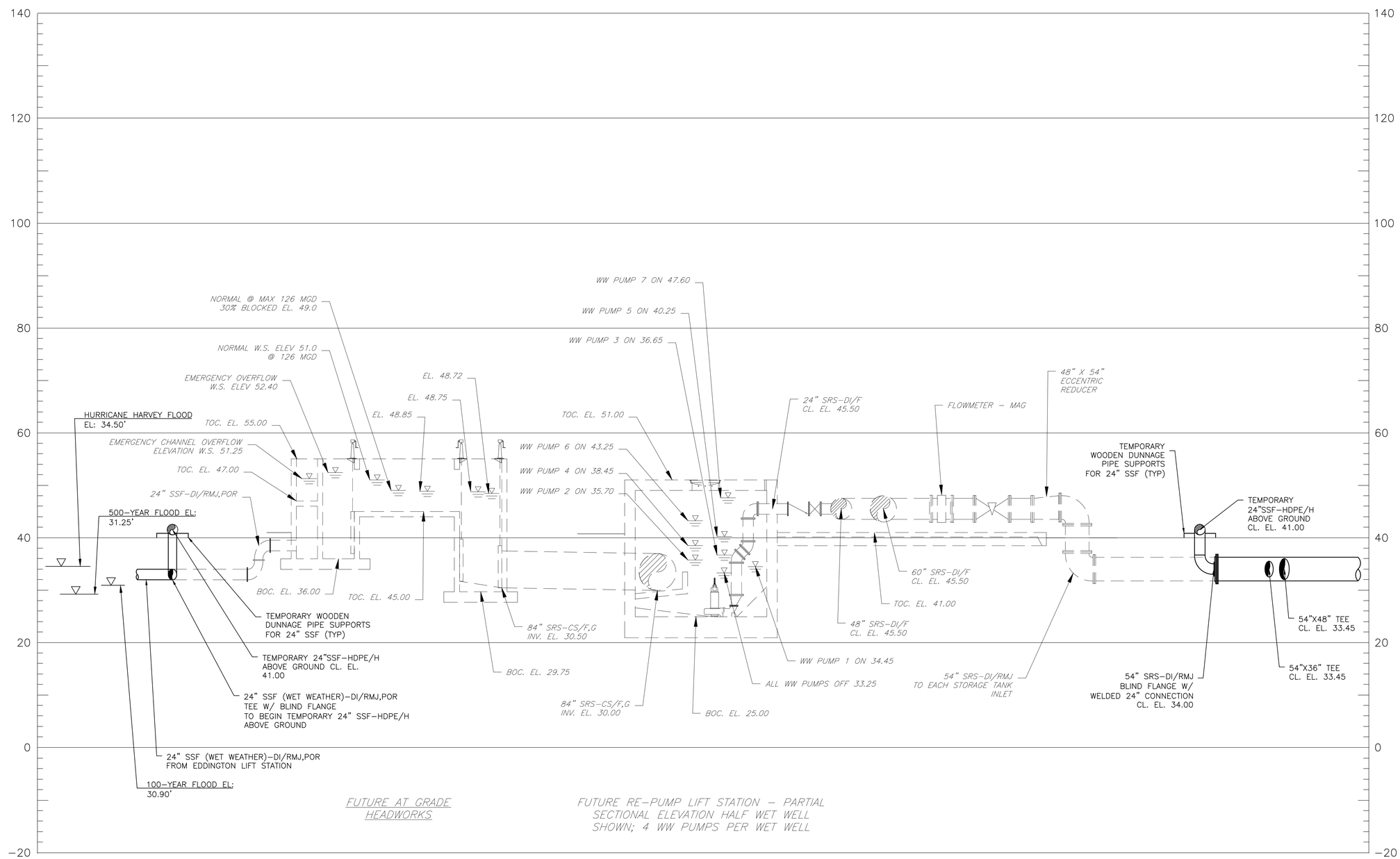

NOTES:

1. THE PROJECT LIES ON FEMA FIRM PANEL XXXXXXXXXXXXXXXX, EFFECTIVE DATE AUGUST 15, 2019. ZONE AE AND BFE 31.3' AND THE 500-YEAR FLOOD ELEVATION IS 34.50'.
2. THIS PROJECT REPLACES AN EXISTING OLDER LIFT STATION CONSTRUCTED IN 1995 AND REPLACES WITH A LARGER CAPACITY LIFT STATION WHICH INCLUDES DRY WEATHER PUMPS AND WET WEATHER PUMPS. A NEW 24-INCH WET WEATHER FORCE MAIN WILL CONVEY WET WETHER PUMPED FLOW TO THE SCOTT STREET WET WEATHER FACILITY FOR TEMPORARY OFF LINE STORAGE UNTIL THE DESIGN 5 YEAR, 6 HOUR STORM HAS PASSED AND TRUNK SEWER LEVELS SUBSIDE TO DRAIN STORED FLOW BACK INTO THE COLLECTION SYSTEM

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER	SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
DRAWN BY: J. GIBSON	FB NO. 340S1
CHECKED BY: T. REESER	
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4X - EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

HYDRAULIC PROFILE EDDINGTON LS TO SCOTT ST. SSO TANK SHEET 1

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
P-5

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:07 PM

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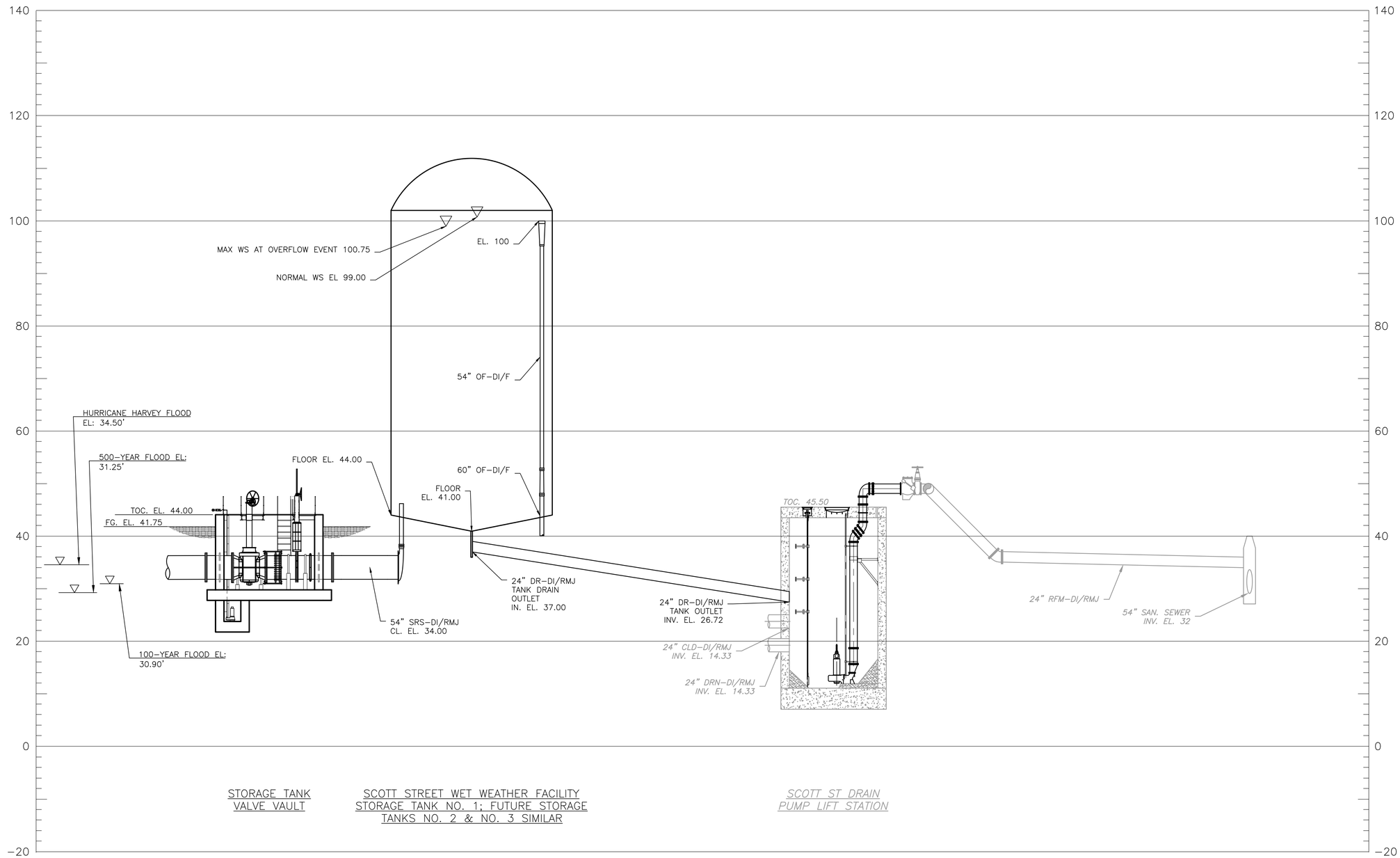

NOTES:

1. THE PROJECT LIES ON FEMA FIRM PANEL MAP NUMBER 48201C0880M PANEL 880 OF 1150, EFFECTIVE DATE JANUARY 6, 2017. ZONE AE AND BFE 31.3' AND THE 500-YEAR FLOOD ELEVATION IS 34.50'.
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NO.	DATE	REVISION	APP.

ARDURRA
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Houston, Texas 77019
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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER	SURVEYED BY:
DRAWN BY: J. GIBSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

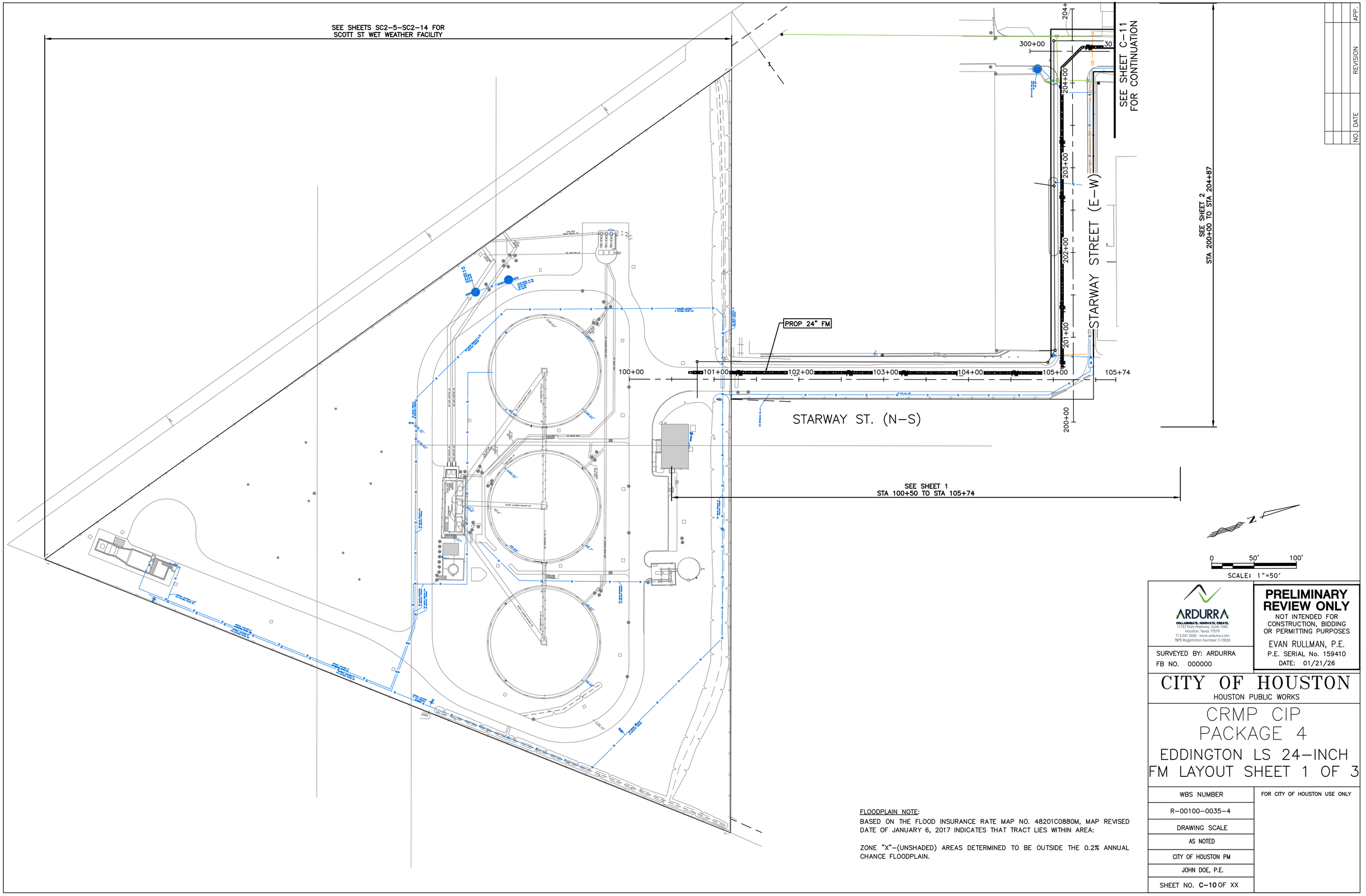
CRMP PACKAGE 4~~A~~ – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

HYDRAULIC PROFILE EDDINGTON LS TO SCOTT ST. SSO TANK SHEET 2

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
P-6

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	



NO.	DATE	REVISION	APP.

FLOODPLAIN NOTE:
BASED ON THE FLOOD INSURANCE RATE MAP NO. 48201C0880M, MAP REVISED DATE OF JANUARY 6, 2017 INDICATES THAT TRACT LIES WITHIN AREA:

ZONE "X"-(UNSHADED) AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

ARDURRA
COLLABORATE. INNOVATE. CREATE.
11767 Katy Freeway, Suite 1040
Houston, Texas 77079
713.541.3530 www.ardurra.com
TBPE Registration Number: F-10053

SURVEYED BY: ARDURRA
FB NO. 000000

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EVAN RULLMAN, P.E.
P.E. SERIAL No. 159410
DATE: 01/21/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP CIP PACKAGE 4
EDDINGTON LS 24-INCH FM LAYOUT SHEET 1 OF 3

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-00100-0035-4	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
JOHN DOE, P.E.	
SHEET NO. C-10 OF XX	

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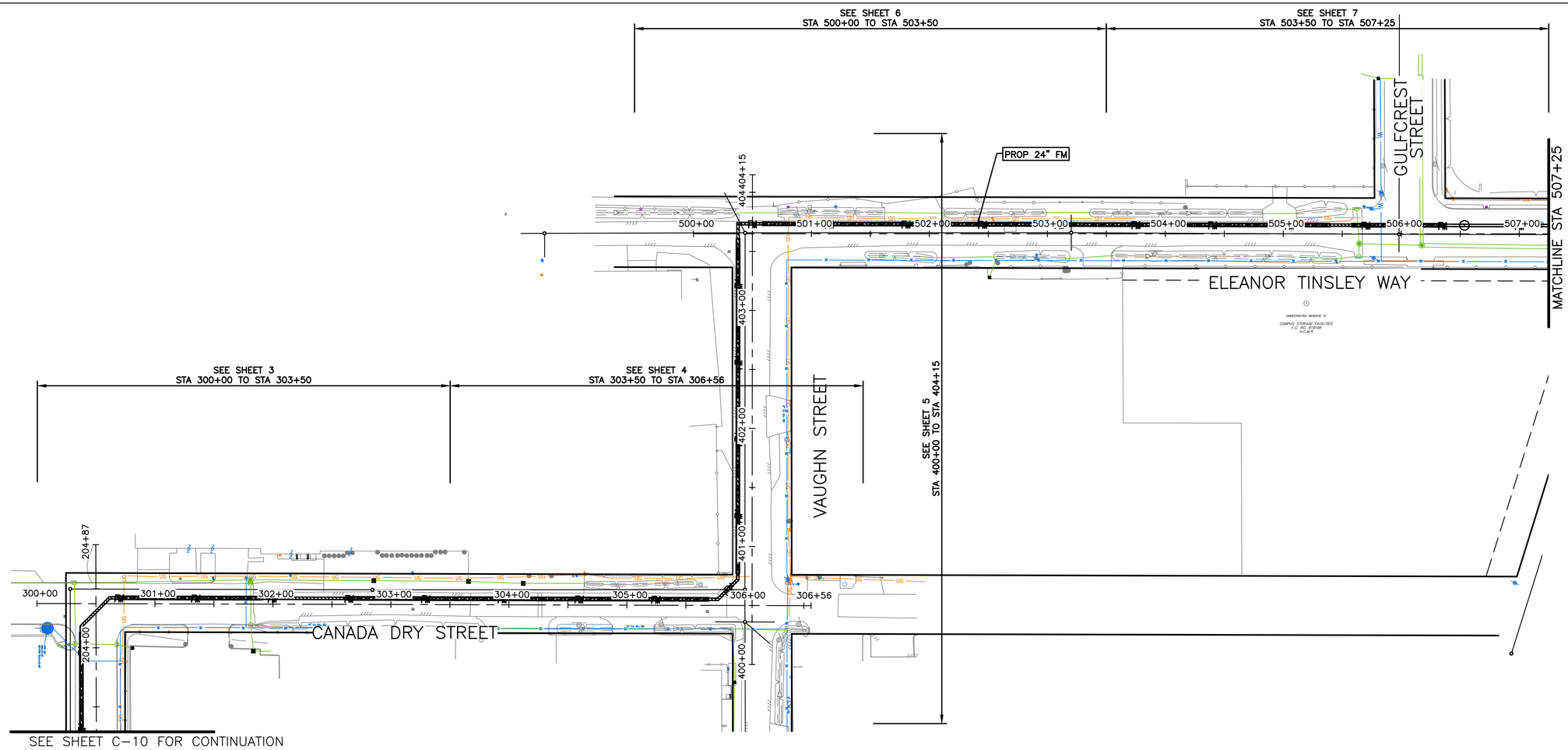

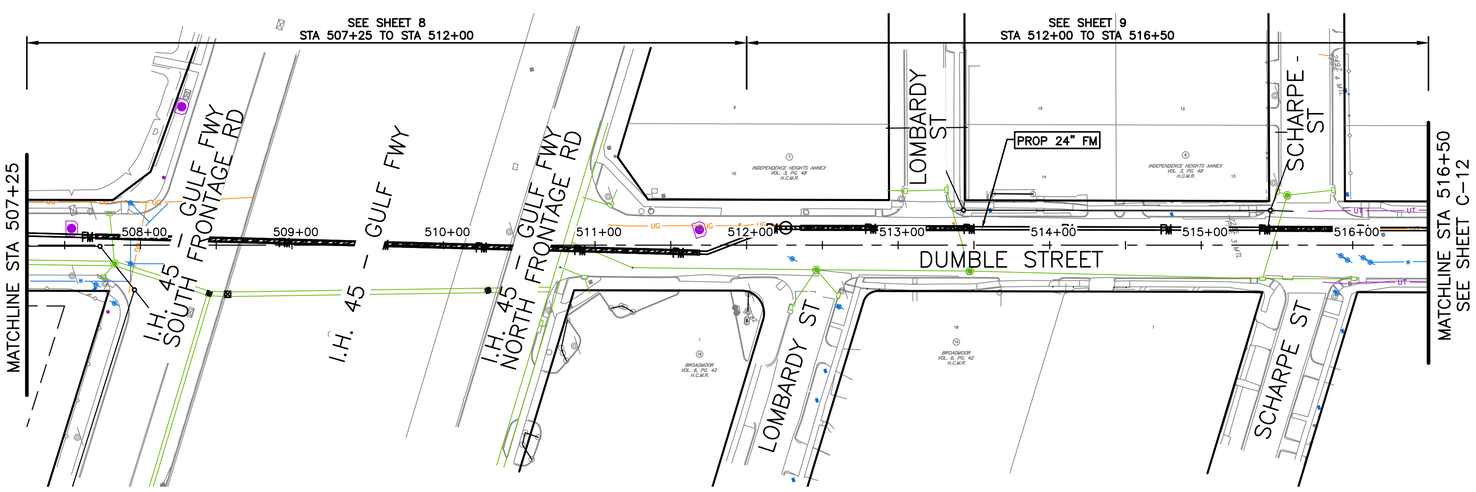

FLOODPLAIN NOTE:
BASED ON THE FLOOD INSURANCE RATE MAP NO. 48201C0880M, MAP REVISED DATE OF JANUARY 6, 2017 INDICATES THAT TRACT LIES WITHIN AREA:

ZONE "X"-(UNSHADED) AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

NO.	DATE	REVISION	APP.

ARDURRA
COLLABORATE. INNOVATE. CREATE.
11767 Katy Freeway, Suite 1040
Houston, Texas 77079
713.541.3330 www.ardurra.com
TBPE Registration Number: F-10053

SURVEYED BY: ARDURRA
FB NO. 000000

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EVAN RULLMAN, P.E.
P.E. SERIAL No. 159410
DATE: 01/21/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP CIP PACKAGE 4
EDDINGTON LS 24-INCH FM LAYOUT SHEET 2 OF 3

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-00100-0035-4	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
JOHN DOE, P.E.	
SHEET NO. C-11 OF XX	

SEE SHEET 10
STA 516+50 TO STA 520+50

SEE SHEET 11
STA 520+50 TO STA 525+50

SEE SHEET 12
STA 525+50 TO STA 530+50

MATCHLINE STA 516+50
SEE SHEET C–11

MUNGER ST

PROP 24" FM

DIEZ ST

MATCHLINE STA 530+50

517+00 518+00 519+00 520+00 521+00 522+00 523+00 524+00 525+00 526+00 527+00 528+00 529+00 530+00

DUMBLE STREET

DUMBLE STREET

MUNGER ST

FOURCADE ST

MABLE ST

DIEZ ST

LAWSON ST

WESLEY ST

0 50' 100'
SCALE: 1"=50'

SEE SHEETS SC1–4–SC1–7FOR
EDDINGTON LS

FLOODPLAIN NOTE:
BASED ON THE FLOOD INSURANCE RATE MAP NO. 48201C0880M, MAP REVISED DATE OF JANUARY 6, 2017 INDICATES THAT TRACT LIES WITHIN AREA:

ZONE "X"–(UNSHADED) AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

SEE SHEET 17
STA 700+00 TO STA 705+00

EDDINGTON STREET

700+00 701+00 702+00 702+76

SEE SHEET 16
STA 600+00 TO STA 605+00

604+00 603+00 602+00 601+00 600+00

TELEPHONE ROAD

SEE SHEET 13
STA 530+50 TO STA 535+00

SEE SHEET 14
STA 535+00 TO STA 538+75

SEE SHEET 15
STA 538+75 TO STA 543+00

MATCHLINE STA 530+50

PROP 24" FM

P.I.: 531+50.00

531+00 532+00 533+00 534+00 535+00 536+00 537+00 538+00 539+00 540+00 541+00 542+00 542+59

DUMBLE STREET

JEFFERSON ST

PEASE ST

PEARSON ST

ELLISTON ST

ELLIOTT ST

ARDURRA
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11767 Katy Freeway, Suite 1040
Houston, Texas 77079
713.541.3530 www.ardurra.com
TBPE Registration Number: F-10053

SURVEYED BY: ARDURRA
FB NO. 000000

PRELIMINARY REVIEW ONLY
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EVAN RULLMAN, P.E.
P.E. SERIAL No. 159410
DATE: 01/21/26

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP CIP PACKAGE 4
EDDINGTON LS 24–INCH FM LAYOUT SHEET 3 OF 3

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–00100–0035–4	
DRAWING SCALE	
AS NOTED	
CITY OF HOUSTON PM	
JOHN DOE, P.E.	
SHEET NO. C–12 OF XX	

NO.	DATE	REVISION	APP.

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PLOT STYLE: AGS.ctb
FILE PATH: T:\0060-014-24 COH Eddington LS - Ardurra\0060-014-24 COH Eddington LS - Ardurra.dwg

N

AGS

S

0 10 20 30 40

SCALE: 1" = 20'

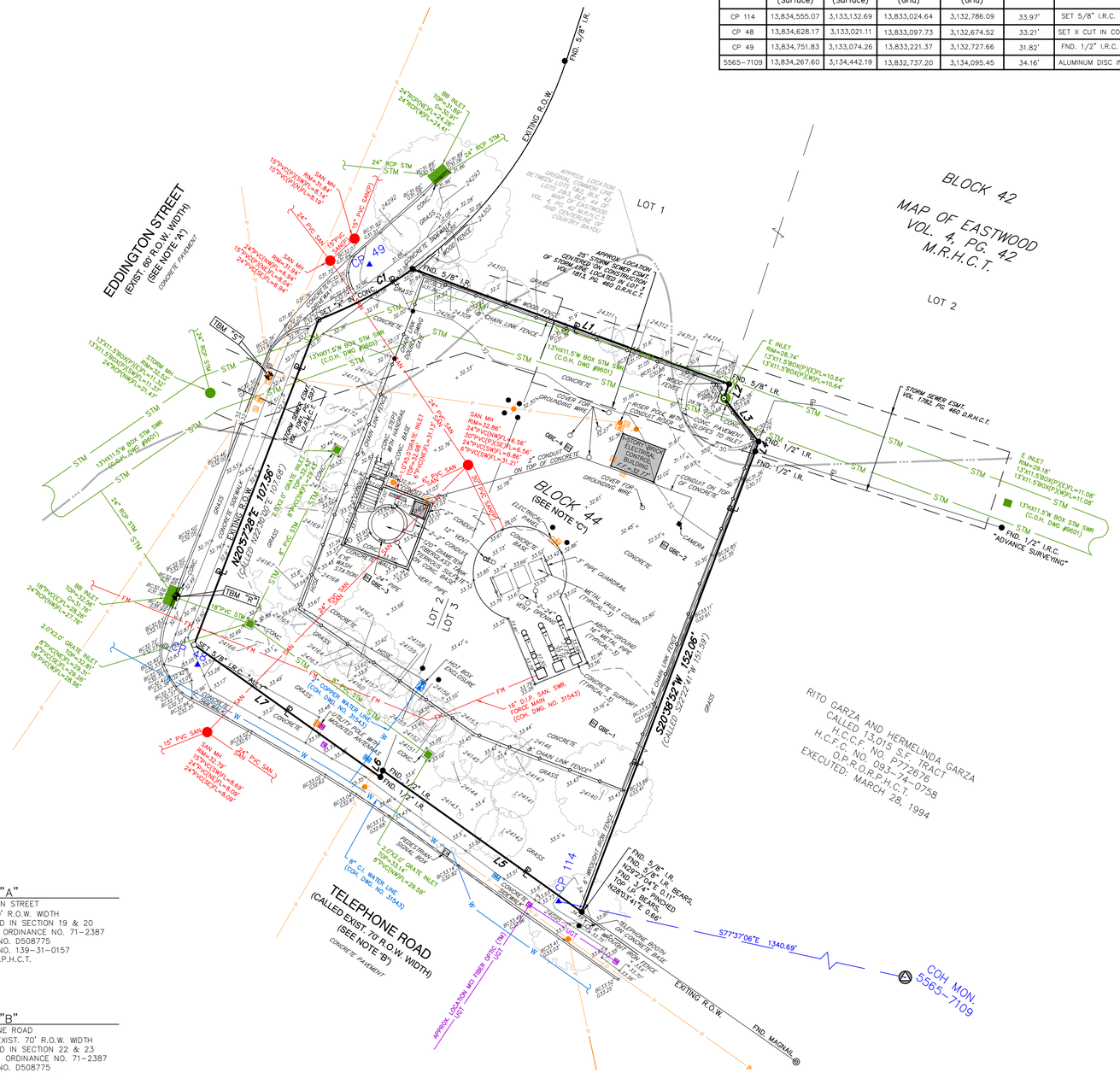
LEGEND

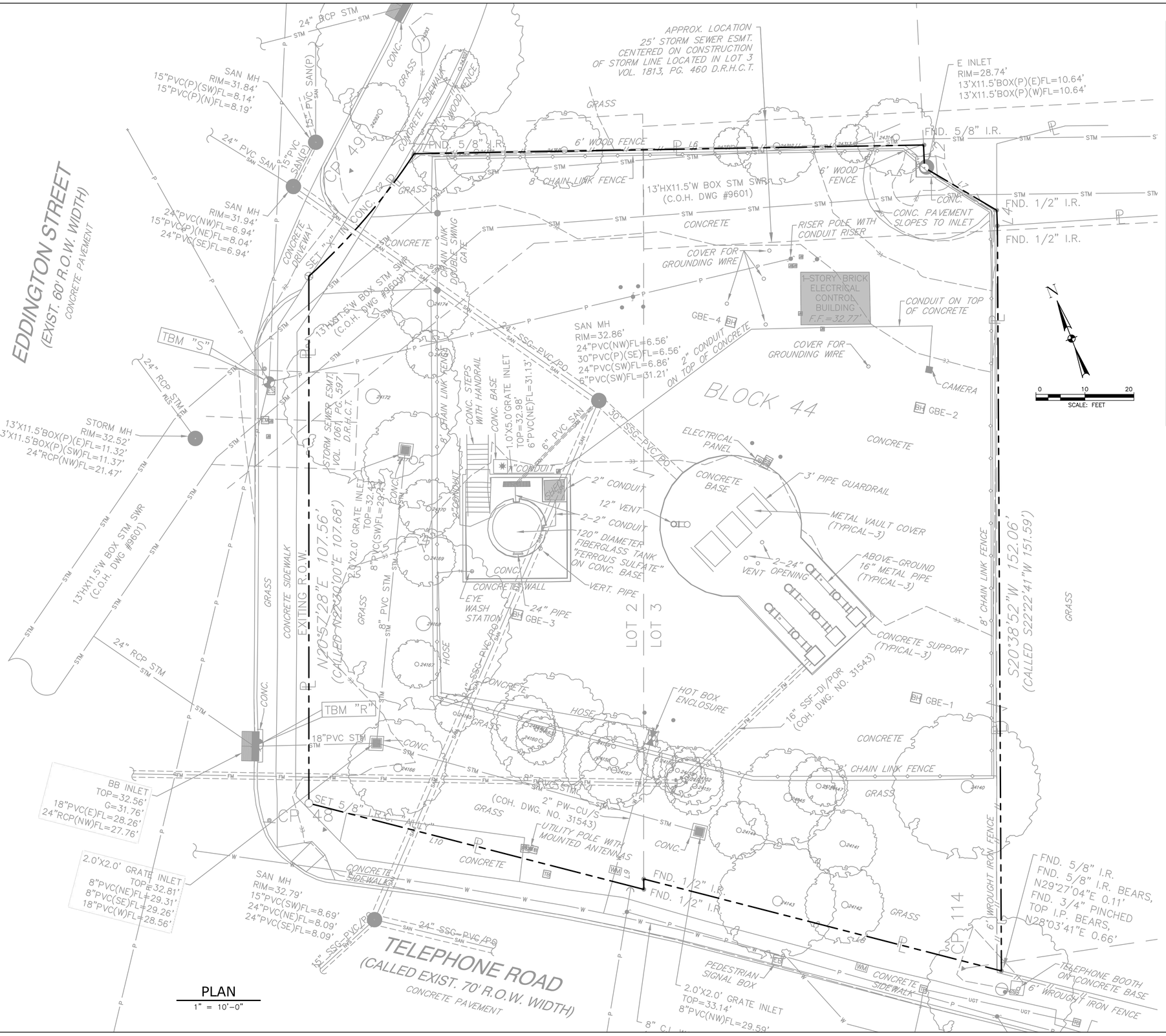
B.L.	BUILDING LINE
B.M.	BENCHMARK
CM	CONTROLLING MONUMENT
C.O.H.	CITY OF HOUSTON
CONC.	CONCRETE
D.R.H.C.T.	DEED RECORDS OF HARRIS COUNTY TEXAS
DRNG.	DRAINAGE
DWG.	DRAWING
ESMT.	EASEMENT
FL	FLOW LINE
FND.	FOUND
H.C.C.F.	HARRIS COUNTY CLERK FILE
H.C.F.C.	HARRIS COUNTY FILM CODE
H.C.T.	HARRIS COUNTY TEXAS
I.R.	IRON ROD
I.R.C.	IRON ROD CAPPED
I.P.	IRON PIPE
MH	MANHOLE
M.R.H.C.T.	MAP RECORDS OF HARRIS COUNTY TEXAS
NO.	NUMBER
O.P.R.O.R.P.H.C.T.	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY OF HARRIS COUNTY TEXAS
PG.	PAGE
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCING
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R.O.W.	RIGHT-OF-WAY
S.F.	SQUARE FEET
SAN. SWR.	SANITARY SEWER
STM.	STORM
STM. SWR.	STORM SEWER
SW	SIDEWALK
TBM	TEMPORARY BENCHMARK
VERT.	VERTICAL
VOL.	VOLUME
-o-	ELECTRIC OVERHEAD
-UGT-	UNDERGROUND TELEPHONE
-SAN-	SANITARY SEWER
-STM-	STORM SEWER
-W-	WATER LINE
	GUARDRAIL/HANDRAIL
	CHAIN LINK FENCE
	WROUGHT IRON FENCE
	HIGH BANK

SYMBOL LEGEND
BACKFLOW PREVENTER
BB INLET
BREAK LINE
BOLLARD
BORE HOLE
E INLET
ELECTRIC JUNCTION BOX
ELECTRIC METER
ELECTRIC STUB-UP
GATE POST
GRATE INLET
GUY WIRE
LAND HOOK
LIGHT POLE
MANHOLE
MISCELLANEOUS
PEDESTRIAN SIGNAL BOX
POWER POLE
PROPERTY LINE
SIGN
TELEPHONE JUNCTION BOX
TEMPORARY BENCHMARK
TIC
TREE
UTILITY POLE
WATER METER

SYMBOL LEGEND
FND IRON ROD
FND IRON PIPE
FND MAGNAIL
POINT FOR CORNER
SET IRON ROD
X CUT

LUKE MOORE SURVEY, ABSTRACT NO. 51


EDDINGTON STREET
(EXIST. 60' R.O.W. WIDTH)
(SEE NOTE "A")
CONCRETE PAVEMENT
EXISTING R.O.W.
FND. 5/8" I.R.
BLOCK 44
(SEE NOTE "C")
BLOCK 42
MAP OF EASTWOOD
VOL. 4, PG. 42
M.R.H.C.T.
LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
L1
L2
L3
L4
L5
L6
L7
CP 49
CP 114
SET 5/8" I.R.C. "ALLY"
FND. 1/2" I.R.
FND. 1/2" I.R. "ADVANCE SURVEYING"
TBM "R"
TBM "S"
N28°57'28"E 107.58'
(CALLED N28°28'00"E 107.58')
S20°38'52"W 152.06'
(CALLED S22°24'41"W 151.99')
S77°37'06"E 1340.69'
TELEPHONE ROAD
(CALLED EXIST. 70' R.O.W. WIDTH)
(SEE NOTE "B")
CONCRETE PAVEMENT
COH MON. 5565-7109
RITO GARZA AND HERMELINDA GARZA
CALLED 13.015 S.F. TRACT
H.C.C.F. NO. 093-74-0758
O.P.R.O.R.P.H.C.T.
EXECUTED: MARCH 28, 1994
STORM SEWER ESMT.
VOL. 7782, PG. 480 D.R.H.C.T.
APPROX. LOCATION OF 24" STORM SEWER CONST. CONTROLLED ON CONSTRUCTION PLANS LOCATED IN VOL. 1813, PG. 480 D.R.H.C.T.
APPROX. LOCATION BETWEEN LOTS 1&2, BLK. 42 OF MAP OF EASTWOOD VOL. 4, PG. 42 D.R.H.C.T. AND CENTERLINE OF COUNTY BAYOU
APPROX. LOCATION OF 6" C.I. WATER LINE (CONT. DWG. NO. 31543)
APPROX. LOCATION NO. RISER OPC (TYP.)
FND. 5/8" I.R. BEARS N0°22'04"E 0.12' FND. 3/4" I.R. BEARS S28°03'41"E 0.66'
24" RCP STM
24" PVC SAN.
6" PVC SAN.
6" FORCE MAIN
6" PVC STM
15" PVC SAN.
8" PVC SAN.
8" CONC. STM
8" CONC. SAN.
8" C.I. WATER LINE
2" CONDUIT
4" CONDUIT
12" CONDUIT
CHAIN LINK FENCE
WOOD FENCE
WROUGHT IRON FENCE
HIGH BANK
CONCRETE
GRASS
BB INLET TOP=32.78' 24"RCP(NW)FL=24.26' 24"RCP(W)FL=24.47'
SAN MH RIM=31.84' 15"PVC(NW)FL=8.94' 15"PVC(E)FL=8.94'
SAN MH RIM=31.79' 24"PVC(NW)FL=8.89' 24"PVC(SE)FL=8.89'
SAN MH RIM=31.56' 24"PVC(NW)FL=8.56' 24"PVC(SW)FL=8.56' 24"PVC(E)FL=21.21'
STORM MH RIM=32.32' 13"X11.5"BOX(E)FL=11.32' 24"RCP(NW)FL=21.47'
13"X11.5"BOX STM SWR (CONT. DWG #9601)
13"X11.5"BOX STM SWR (CO.H. DWG #9601)
E INLET RIM=29.18' 13"X11.5"BOX(W)FL=10.84'
E INLET RIM=29.18' 13"X11.5"BOX(E)FL=11.08' 13"X11.5"BOX(W)FL=11.08'
2.0'X2.0' GRATE INLET TOP=32.81' 8"PVC(NW)FL=29.31' 8"PVC(SW)FL=29.46' 18"PVC(NE)FL=28.96'
2.0'X2.0' GRATE INLET TOP=32.81' 8"PVC(NW)FL=29.09' 8"PVC(NE)FL=29.09'
2.0'X2.0' GRATE INLET TOP=32.78' 8"PVC(NW



PLAN
1" = 10'-0"

SYMBOL LEGEND
BACKFLOW PREVENTER
BB INLET
BREAK LINE
BOLLARD
BORE HOLE
E INLET
ELECTRIC JUNCTION BOX
ELECTRIC METER
ELECTRIC STUB-UP
GATE POST
GRATE INLET
GUY WIRE
LAND HOOK
LIGHT POLE
MANHOLE
MISCELLANEOUS
PEDESTRIAN SIGNAL BOX
POWER POLE
PROPERTY LINE
SIGN
TELEPHONE JUNCTION BOX
TEMPORARY BENCHMARK
TIC
TREE
UTILITY POLE
WATER METER

LEGEND	
B.L.	BUILDING LINE
B.M.	BENCHMARK
CM	CONTROLLING MONUMENT
C.O.H.	CITY OF HOUSTON
CONC.	CONCRETE
DRNG.	DRAINAGE
DWG.	DRAWING
ESMT.	EASEMENT
F.C.	FILM CODE
FL	FLOW LINE
FND.	FOUND
H..C.F.	HARRIS COUNTY CLERK FILE
H..D.R.	HARRIS COUNTY DEED RECORDS
H..M.R.	HARRIS COUNTY MAP RECORDS
H..T.	HARRIS COUNTY TEXAS
I.R.	IRON ROD
I.R.C.	IRON ROD CAPPED
I.P.	IRON PIPE
MH	MANHOLE
NO.	NUMBER
O..R.O.R.P.	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY
PG.	PAGE
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCING
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R.O.W.	RIGHT-OF-WAY
SAN. SWR.	SANITARY SEWER
STM.	STORM
STM. SWR.	STORM SEWER
SW	SIDEWALK
VOL.	VOLUME
-P-	ELECTRIC OVERHEAD
-GAS-	UNDERGROUND GAS
-UGP-	UNDERGROUND ELECTRIC
-UGT-	UNDERGROUND TELEPHONE
-SAN-	SANITARY SEWER
-STM-	STORM SEWER
-W-	WATER LINE
	CHAIN LINK FENCE
	WROUGHT IRON FENCE

NO.	DATE	REVISION	APP.

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC1-4

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY:	T. REESER
DRAWN BY:	J. GIBSON
CHECKED BY:	T. REESER
REVIEWED BY:	B. NICHOLAS
APPROVED BY:	B. NICHOLAS

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4~~A~~ – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

EXISTING EDDINGTON LIFT STATION SITE PLAN

WBS NUMBER	R-001000-0035-4
DRAWING SCALE	1" = 10'
CITY OF HOUSTON PM	NEIL BARNSDALE, P.E.
SHEET NO.	XX OF XX

FOR CITY OF HOUSTON USE ONLY

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:07 PM

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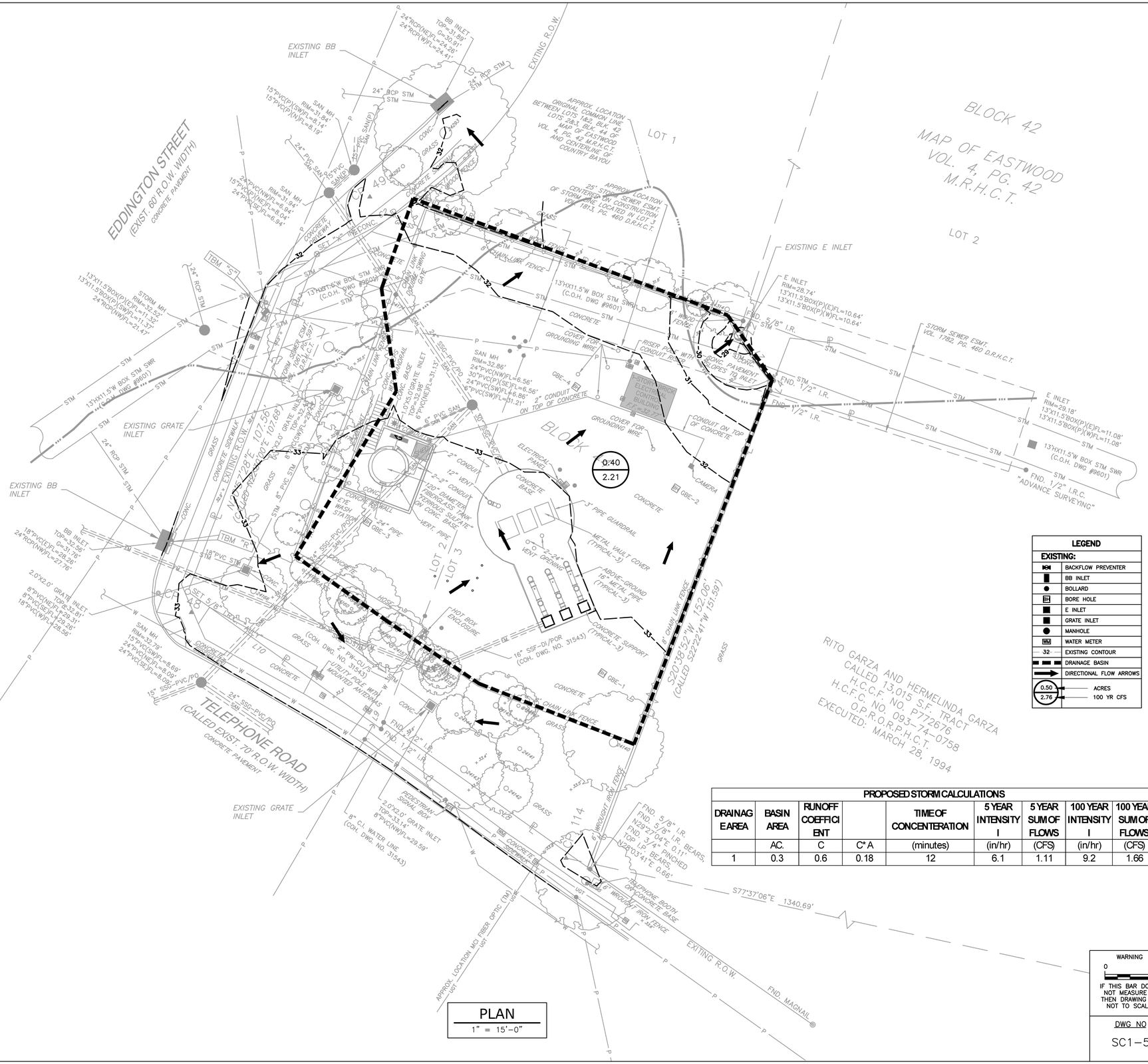

PLAN
1" = 15'-0"

LEGEND	
EXISTING:	
	BACKFLOW PREVENTER
	BB INLET
	BOLLARD
BH	BORE HOLE
	E INLET
	GRATE INLET
	MANHOLE
WM	WATER METER
32	EXISTING CONTOUR
	DRAINAGE BASIN
	DIRECTIONAL FLOW ARROWS
0.50 / 2.76	ACRES / 100 YR CFS

PROPOSED STORM CALCULATIONS

DRAINAGE AREA	BASIN AREA	RUNOFF COEFFICIENT		TIME OF CONCENTERATION	5 YEAR INTENSITY I	5 YEAR SUM OF FLOWS	100 YEAR INTENSITY I	100 YEAR SUM OF FLOWS
	AC.	C	C*A	(minutes)	(in/hr)	(CFS)	(in/hr)	(CFS)
1	0.3	0.6	0.18	12	6.1	1.11	9.2	1.66

N

0 15 30
SCALE: 1" = 15'

BENCHMARKS:

ELEVATIONS ARE BASED ON CITY OF HOUSTON SITE CONTROL MONUMENT.

SITE CONTROL MONUMENT 5565-7109:
LOCATED AT NORTHEAST CORNER OF LEELAND ST. AND GUSTAV ST.
ELEVATION=34.16'

TBM "R"
SET SCRIBED BOX ON TOP OF A "BB" INLET LOCATED AT THE NORTHEAST CORNER OF EDDINGTON STREET AND TELEPHONE ROAD.(AS SHOWN ON SURVEY)
ELEVATION=32.55'

TBM "S"
SET RAILROAD SPIKE ON THE EAST SIDE OF A POWER POLE WITH A LIGHT, 1.6 FEET ABOVE GROUND. THE POWER POLE IS LOCATED ON THE EAST SIDE OF EDDINGTON STREET, APPROXIMATELY 120 FEET NORTH OF THE INTERSECTION TELEPHONE ROAD AND EDDINGTON STREET.
ELEVATION=32.32'

FLOODPLAIN NOTE:

BASED ON THE FLOOD INSURANCE RATE MAP NO. 48201C0880M, MAP REVISED DATE OF JANUARY 6, 2017 INDICATES THAT TRACT LIES WITHIN AREA:
ZONE "X"-(UNSHADED) AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

IN ADDITION THIS MAP STATES "THIS MAP IS FOR USE IN ADMINISTERING THE NATIONAL FLOOD INSURANCE PROGRAM; IT DOES NOT NECESSARILY IDENTIFY ALL AREAS SUBJECT TO FLOODING, PARTICULARLY FROM LOCAL DRAINAGE SOURCES OF SMALL SIZE, OR ALL PLANIMETRIC FEATURES OUTSIDE SPECIAL FLOOD HAZARD AREAS. CERTAIN AREAS NOT IN SPECIAL FLOOD HAZARD AREAS MAY BE PROTECTED BY FLOOD CONTROL STRUCTURES". THE APPROXIMATE LIMITS OF SAID ZONES AS DETERMINED HEREON ARE SCALED FROM SAID MAP. THIS INFORMATION IS NOT INTENDED TO IDENTIFY SPECIFIC FLOOD CONDITIONS.

NO.	DATE	REVISION	APP.

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC1-5

TRILOGY ENGINEERING SERVICES

TRILOGY ENGINEERING SERVICES
238 WESTCOTT STREET
HOUSTON, TEXAS 77007
PH: 877.463.1699
TX FIRM NO: 17715

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
NAZAR SABTI
TEXAS P.E. NO. 117913
DATE: 1/15/2026

DESIGNED BY: MS
DRAWN BY: MS
CHECKED BY: NS
REVIEWED BY: NS
APPROVED BY: NS

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

EDDINGTON LIFT STATION SITE EXISTING SITE DRAINAGE MAP AND CALCULATIONS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1"=15'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 45 OF 266	

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/19/2026 10:26 AM

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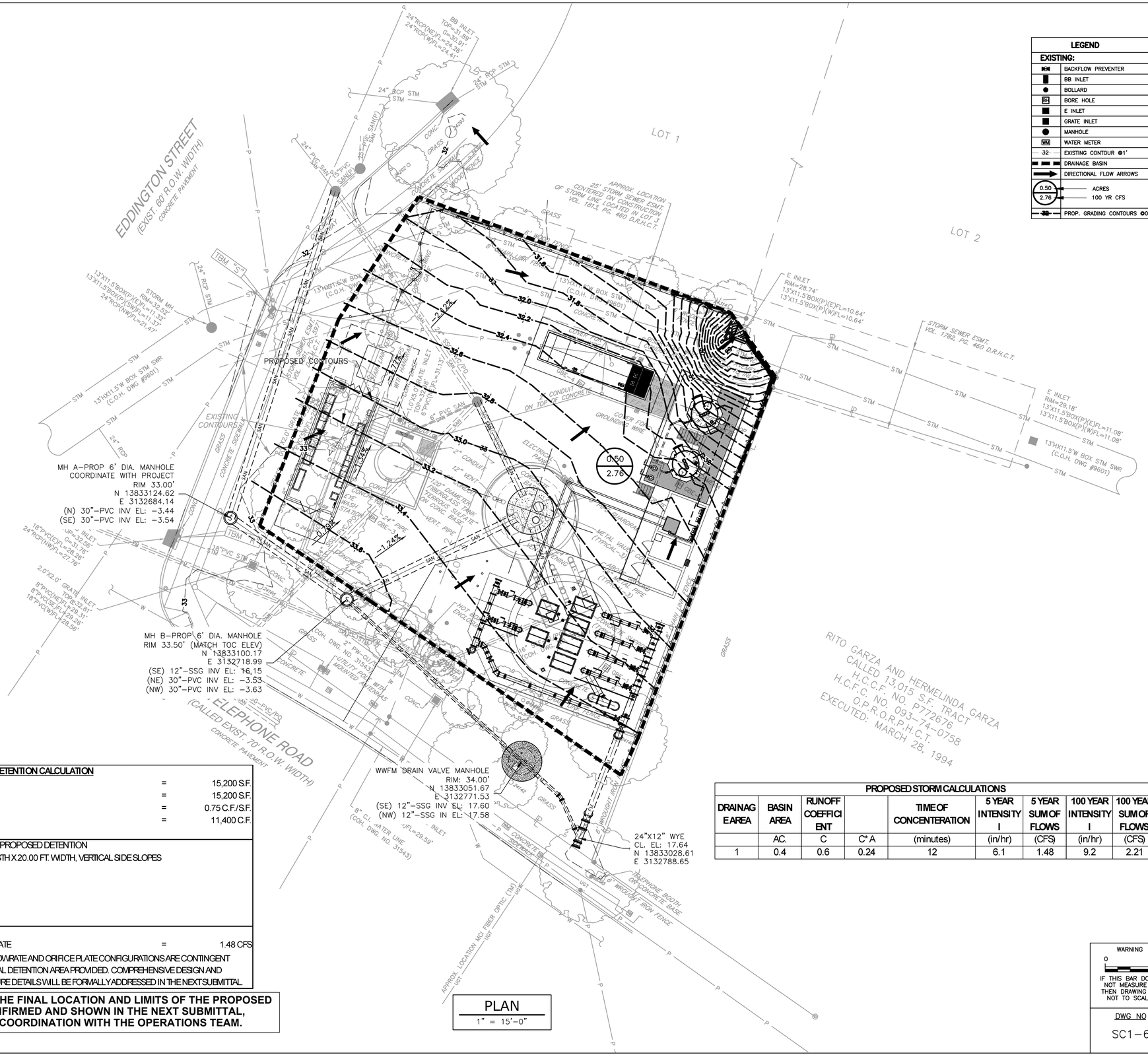

LEGEND	
EXISTING:	
	BACKFLOW PREVENTER
	BB INLET
	BOLLARD
BH	BORE HOLE
	E INLET
	GRATE INLET
	MANHOLE
WM	WATER METER
32	EXISTING CONTOUR @1'
	DRAINAGE BASIN
	DIRECTIONAL FLOW ARROWS
0.50 / 2.76	ACRES / 100 YR CFS
32	PROP. GRADING CONTOURS @0.2'

N

0 15 30

SCALE: 1" = 15'

BENCHMARKS:

ELEVATIONS ARE BASED ON CITY OF HOUSTON SITE CONTROL MONUMENT.

SITE CONTROL MONUMENT 5565–7109:
LOCATED AT NORTHEAST CORNER OF LEELAND ST. AND GUSTAV ST.
ELEVATION=34.16'

TBM "R"
SET SCRIBED BOX ON TOP OF A "BB" INLET LOCATED AT THE NORTHEAST CORNER OF EDDINGTON STREET AND TELEPHONE ROAD.(AS SHOWN ON SURVEY)
ELEVATION=32.55'

TBM "S"
SET RAILROAD SPIKE ON THE EAST SIDE OF A POWER POLE WITH A LIGHT, 1.6 FEET ABOVE GROUND. THE POWER POLE IS LOCATED ON THE EAST SIDE OF EDDINGTON STREET, APPROXIMATELY 120 FEET NORTH OF THE INTERSECTION TELEPHONE ROAD AND EDDINGTON STREET.
ELEVATION=32.32'

FLOODPLAIN NOTE:

BASED ON THE FLOOD INSURANCE RATE MAP NO. 48201C0880M, MAP REVISED DATE OF JANUARY 6, 2017 INDICATES THAT TRACT LIES WITHIN AREA:
ZONE "X"–(UNSHADED) AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

IN ADDITION THIS MAP STATES "THIS MAP IS FOR USE IN ADMINISTERING THE NATIONAL FLOOD INSURANCE PROGRAM; IT DOES NOT NECESSARILY IDENTIFY ALL AREAS SUBJECT TO FLOODING, PARTICULARLY FROM LOCAL DRAINAGE SOURCES OF SMALL SIZE, OR ALL PLANIMETRIC FEATURES OUTSIDE SPECIAL FLOOD HAZARD AREAS. CERTAIN AREAS NOT IN SPECIAL FLOOD HAZARD AREAS MAY BE PROTECTED BY FLOOD CONTROL STRUCTURES". THE APPROXIMATE LIMITS OF SAID ZONES AS DETERMINED HEREON ARE SCALED FROM SAID MAP. THIS INFORMATION IS NOT INTENDED TO IDENTIFY SPECIFIC FLOOD CONDITIONS.

NO.	DATE	REVISION	APP.

DETENTION CALCULATION		
TOTAL AREA	=	15,200 S.F.
TOTAL IMPERVIOUS	=	15,200 S.F.
DEENTION RATE	=	0.75 C.F./S.F.
DETENTION REQUIRED	=	11,400 C.F.

PROPOSED DETENTION

THE PROPOSED DIMENSIONS : 100.00 FT LENGTH X 20.00 FT. WIDTH, VERTICAL SIDE SLOPES
STORAGE DEPTH = 6.0 FT
FREEBOARD = 1.0 FT.
TOTAL DEPTH = 7.00 FT
PTOPOSED VOLUME = 12,000 C.F.

OUTFLOW RATE ALLOWED FOR 5-YEAR FLOWRATE = 1.48 CFS

THE SPECIFIC DESIGN OF THE RESTRICTOR FLOWRATE AND ORIFICE PLATE CONFIGURATIONS ARE CONTINGENT UPON THE FINAL SITE LOCATION AND THE TOTAL DETENTION AREA PROVIDED. COMPREHENSIVE DESIGN AND CORRESPONDING OUTLET CONTROL STRUCTURE DETAILS WILL BE FORMALLY ADDRESSED IN THE NEXT SUBMITTAL

DETENTION LOCATION NOTE: THE FINAL LOCATION AND LIMITS OF THE PROPOSED DETENTION AREA WILL BE CONFIRMED AND SHOWN IN THE NEXT SUBMITTAL, PENDING CONSULTATION AND COORDINATION WITH THE OPERATIONS TEAM.

PROPOSED STORM CALCULATIONS

DRAINAGE AREA	BASIN AREA	RUNOFF COEFFICIENT		TIME OF CONCENTERATION	5 YEAR INTENSITY I	5 YEAR SUM OF FLOWS	100 YEAR INTENSITY I	100 YEAR SUM OF FLOWS
	AC.	C	C* A	(minutes)	(in/hr)	(CFS)	(in/hr)	(CFS)
1	0.4	0.6	0.24	12	6.1	1.48	9.2	2.21

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC1–6

TRILOGY ENGINEERING SERVICES
238 WESTCOTT STREET
HOUSTON, TEXAS 77007
PH: 877.463.1699
TX FIRM NO: 17715

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
NAZAR SABTI
TEXAS P.E. NO. 117913
DATE: 1/15/2026

DESIGNED BY: MS	SURVEYED BY: ALLY GENERAL SURVEYING, LLC
DRAWN BY: MS	FB NO. 340S1
CHECKED BY: NS	
REVIEWED BY: NS	
APPROVED BY: NS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

EDDINGTON LIFT STATION SITE PROPOSED SITE DRAINAGE AND GRADING

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
1"=15'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 46 OF 266	

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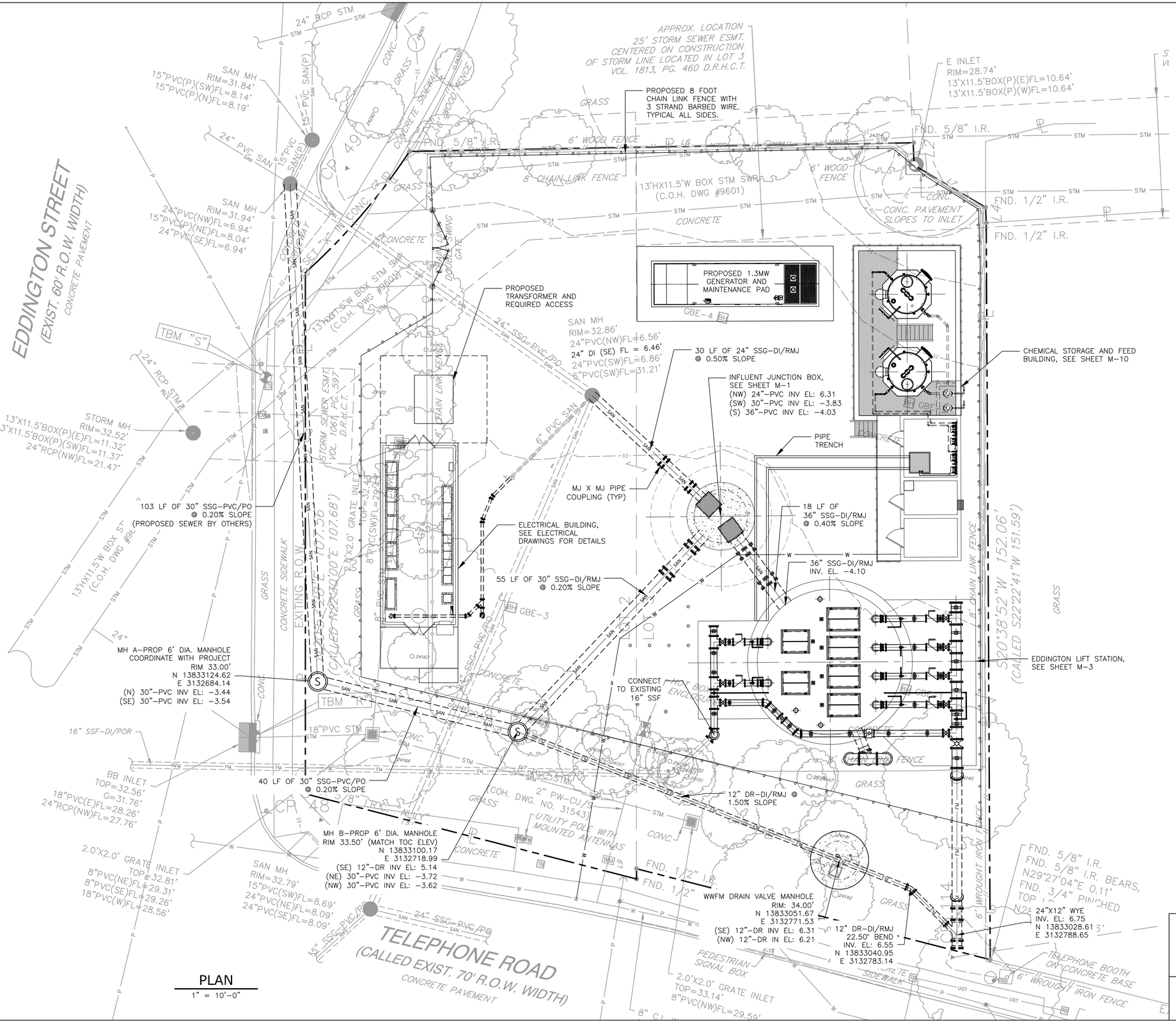

PLAN
1" = 10'-0"

NOTES:

1. PIPING DRAWINGS INDICATE INVERT ELEVATIONS FOR GRAVITY FLOW LINES. SLOPE PIPE UNIFORMLY BETWEEN ELEVATIONS SHOWN; NO VALLEYS OR PEAKS PERMITTED IN GRAVITY FLOW LINES. FOR OTHER PIPING, REFER TO DETAIL SHEETS FOR PIPE ELEVATIONS AT EACH STRUCTURE.
2. SITE PIPING DRAWINGS DO NOT INDICATE ALL VERTICAL BENDS AND TRANSITIONS. WHEN NECESSARY, MAKE VERTICAL TRANSITIONS OR FURNISH AND INSTALL VERTICAL BENDS AT NO EXTRA COST. MAINTAIN UNIFORM SLOPE AND AVOID HIGH POINTS. DO NOT EXCEED MANUFACTURER'S RECOMMENDATIONS FOR CURVATURE OF LINES AND / OR DEFLECTION.
3. CONTRACTOR SHALL PROVIDE TAPS, FITTINGS, PLUGS, AND OTHER DEVICES FOR USE IN FILLING, FLUSHING, AND TESTING, ETC AT NO ADDITIONAL COST TO THE CITY.
4. ALL UNDERGROUND PIPING SHALL BE OF RESTRAINED JOINT CONSTRUCTION. PROVIDE ADEQUATE HARNESSING AND RESTRAINT TO WITHSTAND TEST PRESSURES AS INDICATED.
5. PROVIDE THRUST BLOCKING ON EXISTING PIPING AND/OR OTHER MEANS OF RESTRAINT.
6. RECORD DRAWINGS ON PIPING MATERIALS FOR THE EXISTING YARD PIPING IS NOT ENTIRELY ACCURATE. CONTRACTOR SHALL EXCAVATE AND FIELD DETERMINE ALL PIPING MATERIALS FOR PIPING WHICH IS GOING TO BE TIED INTO. PROVIDE REPORT FOR SUBMISSION TO THE ENGINEER ON EXISTING PIPING AND ALL CRITICAL TIE-IN LOCATIONS.
7. REFER TO SECTION 01014 CONSTRUCTION SEQUENCING FOR REQUIREMENTS ON PHASING OF WORK AND ALLOWABLE PLANT SHUTDOWN DURATIONS.

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER	SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
DRAWN BY: J. GIBSON	FB NO. 340S1
CHECKED BY: T. REESER	
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

PROPOSED EDDINGTON LIFT STATION YARD PIPING PLAN

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1" = 10'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC1-7

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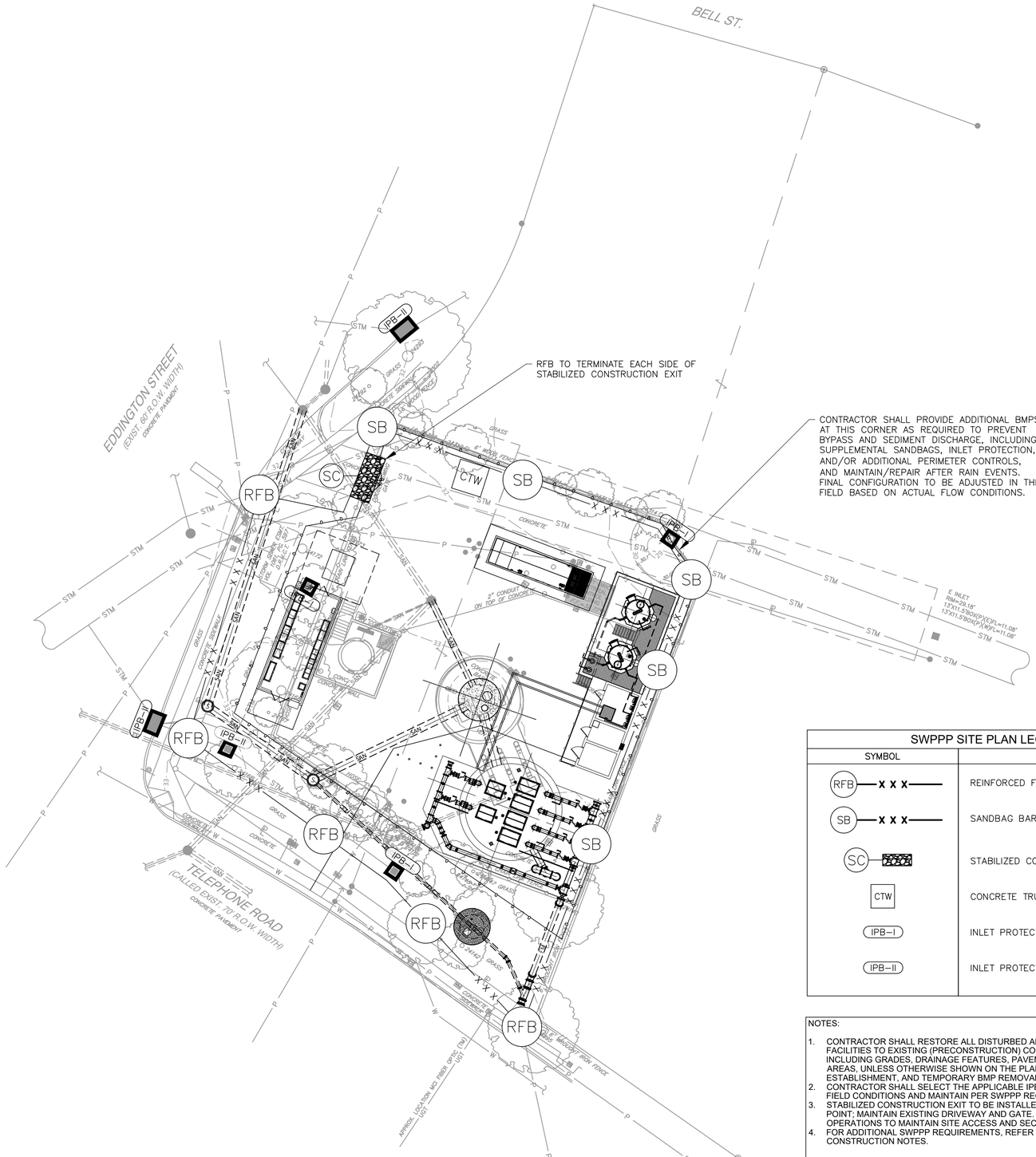

PLAN
1" = 20'–0"

SWPPP SITE PLAN LEGEND	
SYMBOL	DESCRIPTION
RFB — X X X	REINFORCED FILTER BARRIER
SB — X X X	SANDBAG BARRIER
SC	STABILIZED CONSTRUCTION ENTRANCE
CTW	CONCRETE TRUCK WASHOUT
IPB–I	INLET PROTECTION BARRIER FOR STAGE I
IPB–II	INLET PROTECTION BARRIER FOR STAGE II

NOTES:

1. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS AND IMPACTED FACILITIES TO EXISTING (PRECONSTRUCTION) CONDITIONS OR BETTER, INCLUDING GRADES, DRAINAGE FEATURES, PAVEMENT, AND LANDSCAPED AREAS, UNLESS OTHERWISE SHOWN ON THE PLANS. FINAL STABILIZATION, TURF ESTABLISHMENT, AND TEMPORARY BMP REMOVAL SHALL BE PER SWPPP NOTES.
2. CONTRACTOR SHALL SELECT THE APPLICABLE IPB TYPE BASED ON ACTUAL FIELD CONDITIONS AND MAINTAIN PER SWPPP REQUIREMENTS.
3. STABILIZED CONSTRUCTION EXIT TO BE INSTALLED AT THE EXISTING ACCESS POINT; MAINTAIN EXISTING DRIVEWAY AND GATE. COORDINATE PLACEMENT AND OPERATIONS TO MAINTAIN SITE ACCESS AND SECURITY.
4. FOR ADDITIONAL SWPPP REQUIREMENTS, REFER TO SHEET G-7 FOR SWPPP CONSTRUCTION NOTES.

N

0 20 40
SCALE: 1" = 20'

BENCHMARKS:

ELEVATIONS ARE BASED ON CITY OF HOUSTON SITE CONTROL MONUMENT.

SITE CONTROL MONUMENT 5565–7109:
LOCATED AT NORTHEAST CORNER OF LEELAND ST. AND GUSTAV ST.
ELEVATION=34.16'

TBM "R"
SET SCRIBED BOX ON TOP OF A "BB" INLET LOCATED AT THE NORTHEAST CORNER OF EDDINGTON STREET AND TELEPHONE ROAD.(AS SHOWN ON SURVEY)
ELEVATION=32.55'

TBM "S"
SET RAILROAD SPIKE ON THE EAST SIDE OF A POWER POLE WITH A LIGHT, 1.6 FEET ABOVE GROUND. THE POWER POLE IS LOCATED ON THE EAST SIDE OF EDDINGTON STREET, APPROXIMATELY 120 FEET NORTH OF THE INTERSECTION TELEPHONE ROAD AND EDDINGTON STREET.
ELEVATION=32.32'

FLOODPLAIN NOTE:

BASED ON THE FLOOD INSURANCE RATE MAP NO. 48201C0880M, MAP REVISED DATE OF JANUARY 6, 2017 INDICATES THAT TRACT LIES WITHIN AREA:
ZONE "X"–(UNSHADED) AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

IN ADDITION THIS MAP STATES "THIS MAP IS FOR USE IN ADMINISTERING THE NATIONAL FLOOD INSURANCE PROGRAM; IT DOES NOT NECESSARILY IDENTIFY ALL AREAS SUBJECT TO FLOODING, PARTICULARLY FROM LOCAL DRAINAGE SOURCES OF SMALL SIZE, OR ALL PLANIMETRIC FEATURES OUTSIDE SPECIAL FLOOD HAZARD AREAS. CERTAIN AREAS NOT IN SPECIAL FLOOD HAZARD AREAS MAY BE PROTECTED BY FLOOD CONTROL STRUCTURES". THE APPROXIMATE LIMITS OF SAID ZONES AS DETERMINED HEREON ARE SCALED FROM SAID MAP. THIS INFORMATION IS NOT INTENDED TO IDENTIFY SPECIFIC FLOOD CONDITIONS.

NO.	DATE	REVISION	APP.

TRILOGY ENGINEERING SERVICES
238 WESTCOTT STREET
HOUSTON, TEXAS 77007
PH: 877.463.1699
TX FIRM NO: 17715

ARDURRA
3115 Allen Parkway, Suite 300
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TBPE Firm Registration No. F-10053

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NAZAR SABTI
TEXAS P.E. NO. 117913
DATE: 1/15/2026

DESIGNED BY: MS	SURVEYED BY:
DRAWN BY: MS	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: NS	FB NO. 340S1
REVIEWED BY: NS	
APPROVED BY: NS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

EDDINGTON LIFT STATION SITE STORM WATER POLLUTION PREVENTION PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC1–8

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
1"=20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 40 OF 266	

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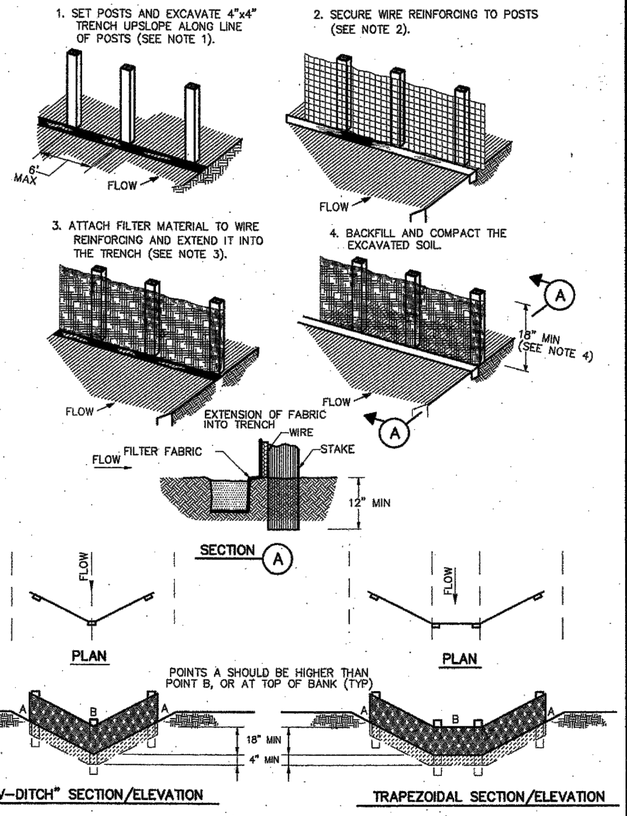
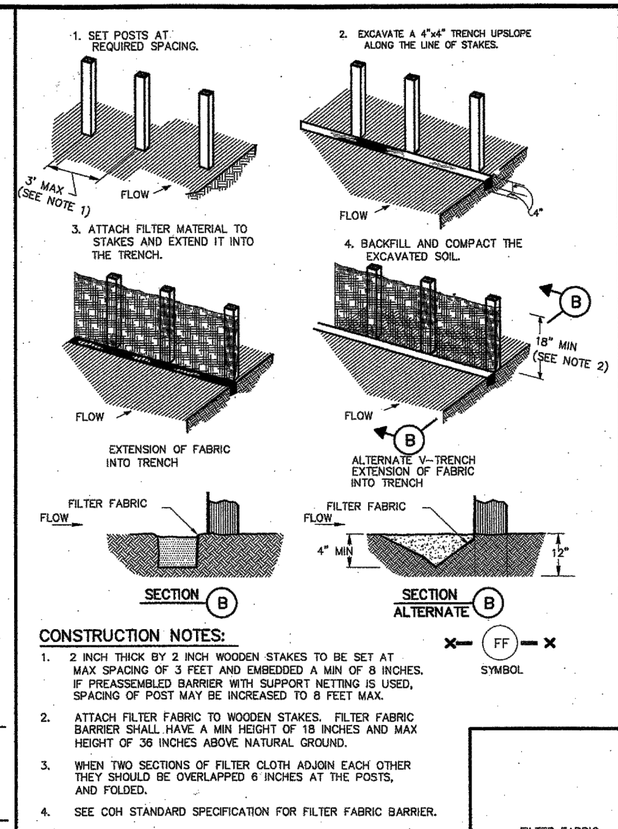


CONSTRUCTION NOTES:

1. SET 2 INCH BY 2 INCH WOODEN STAKES SPACED A MAX OF 6 FEET APART AND EMBEDDED A MIN OF 12 INCHES.
2. WOVEN WIRE REINFORCING TO BE FASTENED SECURELY TO BARRIER POSTS WITH STAPLES.
3. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE REINFORCING, WITH TIES SPACED EVERY 24 INCHES AT TOP AND MIDSECTION.
4. MINIMUM HEIGHT OF FILTER SHOULD BE 18 INCHES AND A MAXIMUM OF 36 INCHES ABOVE NATURAL GROUND.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED.
6. SEE COH STANDARD SPECIFICATION FOR FILTER FABRIC BARRIER.

SYMBOL

REINFORCED FILTER FABRIC BARRIER

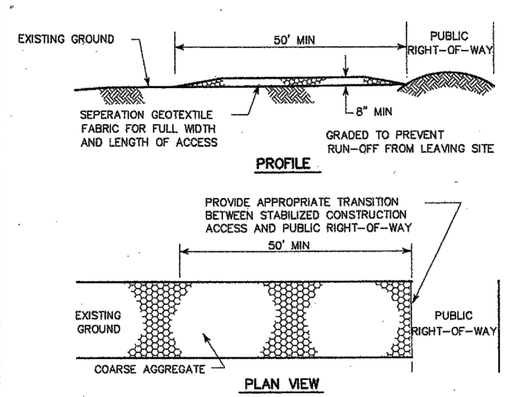


CONSTRUCTION NOTES:

1. 2 INCH THICK BY 2 INCH WOODEN STAKES TO BE SET AT MAX SPACING OF 3 FEET AND EMBEDDED A MIN OF 8 INCHES. IF PREASSEMBLED BARRIER WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAX.
2. ATTACH FILTER FABRIC TO WOODEN STAKES. FILTER FABRIC BARRIER SHALL HAVE A MIN HEIGHT OF 18 INCHES AND MAX HEIGHT OF 36 INCHES ABOVE NATURAL GROUND.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHOULD BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED.
4. SEE COH STANDARD SPECIFICATION FOR FILTER FABRIC BARRIER.

SYMBOL

FILTER FABRIC BARRIER

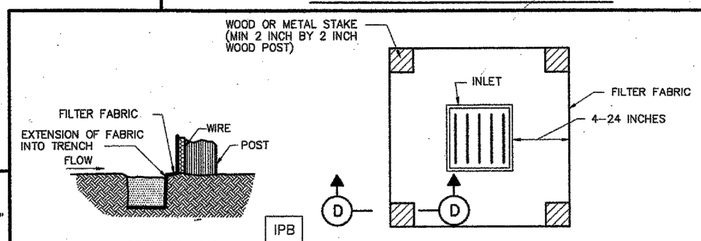


CONSTRUCTION NOTES:

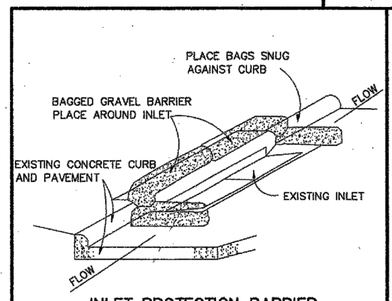
1. LENGTH SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS, BUT NOT LESS THAN 50 FEET.
2. THICKNESS SHALL BE NOT LESS THAN 8 INCHES.
3. WIDTH SHALL BE NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
4. STABILIZATION FOR OTHER AREAS SHALL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION ACCESS, UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS.
5. STABILIZED AREA MAY BE WIDENED OR LENGTHENED TO ACCOMODATE A WASHING AREA. AN OUTLET SEDIMENT TRAP MUST BE PROVIDED FOR THE WASHING AREA.
6. COH STANDARD SPECIFICATION FOR STABILIZED CONSTRUCTION ACCESS.
7. STABILIZED CONSTRUCTION ACCESS SHALL BE MAINTAINED FREE OF SEDIMENT FOR THE DURATION OF THE PROJECT.

SYMBOL

STABILIZED CONSTRUCTION ACCESS

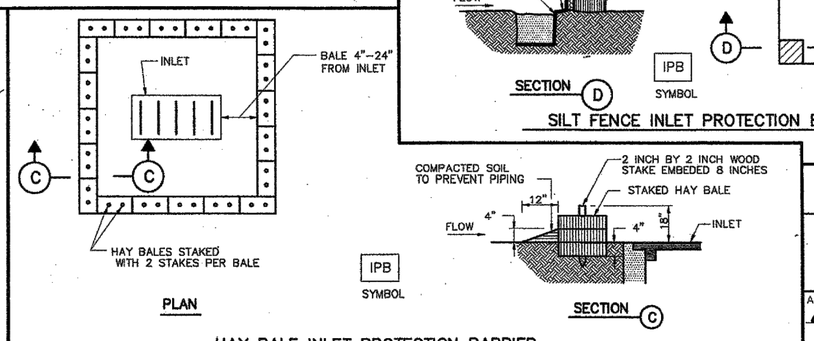


SILT FENCE INLET PROTECTION BARRIER



INLET PROTECTION BARRIER

(FOR STAGE II INLETS)
BAGGED GRAVEL BARRIER



HAY BALE INLET PROTECTION BARRIER

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

STORM WATER POLLUTION PREVENTION PLAN DETAILS

(NOT TO SCALE)

APPROVED BY: CITY ENGINEER
APPROVED BY: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010
DWG NO: **01571-01**

NO.	DATE	REVISION	APP.

TRILOGY ENGINEERING SERVICES

TRILOGY ENGINEERING SERVICES
238 WESTCOTT STREET
HOUSTON, TEXAS 77007
PH: 877.463.1699
TX FIRM NO: 17715

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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NAZAR SABTI
TEXAS P.E. NO. 117913
DATE: 12/16/2025

DESIGNED BY: MS	SURVEYED BY:
DRAWN BY: MS	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: NS	FB NO. 340S1
REVIEWED BY: NS	
APPROVED BY: NS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

STORM WATER POLLUTION PREVENTION PLAN DETAIL – 1

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 44 OF 266	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC1-9

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/15/2026 3:23 PM
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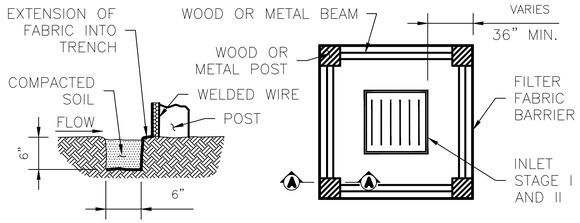
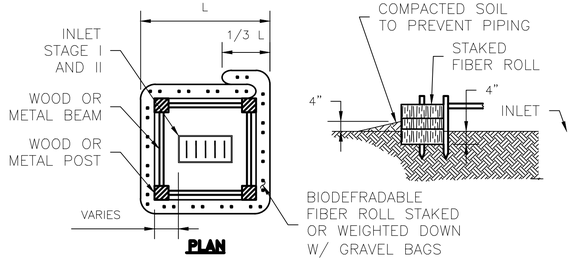


SECTION A–A **PLAN**

INLET PROTECTION WITH SEDIMENT CONTROL FENCE



PLAN

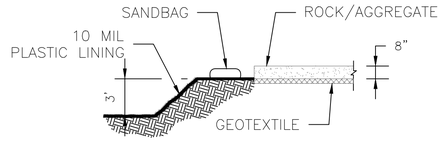
INLET PROTECTION WITH BIODEGRADABLE FILTER ROLLS

GENERAL NOTES:

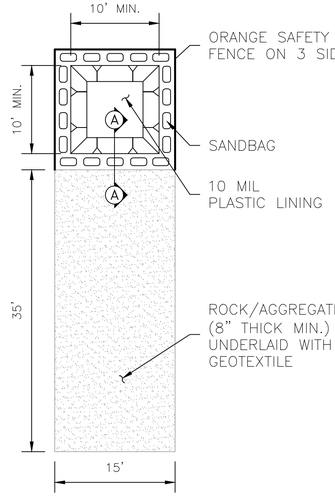
1. BIODEGRADABLE FIBER ROLLS WILL BE UTILIZED ONLY WHEN SITE CONDITIONS DO NOT PERMIT THE USE OF FILTER FABRIC BARRIER AND AS APPROVED BY THE ENGINEER.

INLET PROTECTION BARRIERS FOR STAGE I INLETS

IPB
SYMBOL



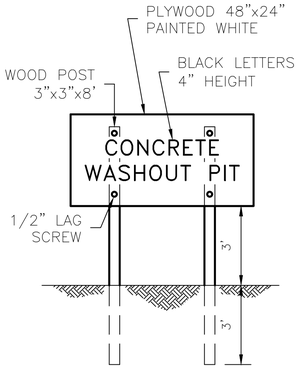
SECTION A–A



PLAN

GENERAL NOTES:

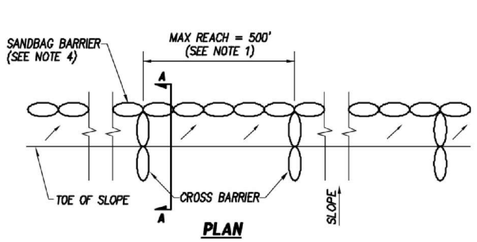
1. POST A SIGN READING "CONCRETE WASHOUT PIT" NEXT TO THE PIT.
2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASHOUT THEIR TRUCKS IN THE PIT AND NOWHERE ELSE.
3. UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND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



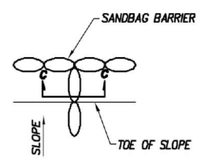
SIGN DETAIL (OR EQUIVALENT)

CONCRETE TRUCK WASHOUT

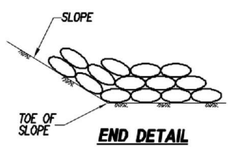
CTW
SYMBOL



PLAN



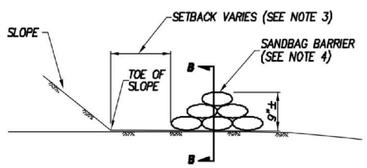
CROSS BARRIER DETAIL



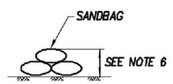
END DETAIL

NOTES

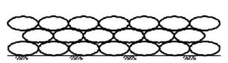
1. CONSTRUCT THE LENGTH OF EACH REACH SO THAT THE CHANGE IN BASE ELEVATION ALONG THE REACH DOES NOT EXCEED ½ THE HEIGHT OF THE LINEAR BARRIER. IN NO CASE SHALL THE REACH LENGTH EXCEED 500'.
2. PLACE SANDBAG TIGHTLY.
3. DIMENSION MAY VARY TO FIT FIELD CONDITION.
4. SANDBAG BARRIER SHALL BE A MINIMUM OF 3 BAGS HIGH.
5. THE END OF THE BARRIER SHALL BE TURNED UP SLOPE.
6. CROSS BARRIERS SHALL BE A MIN OF ½ AND A MAX OF ⅔ THE HEIGHT OF THE LINEAR BARRIER.
7. SANDBAG ROWS AND LAYERS SHALL BE STAGGERED TO ELIMINATE GAPS.



SECTION A-A



SECTION C-C



SECTION B-B

SANDBAG BARRIER

SB
SYMBOL

NO.	DATE	REVISION	APP.

TRILOGY ENGINEERING SERVICES

TRILOGY ENGINEERING SERVICES
238 WESTCOTT STREET
HOUSTON, TEXAS 77007
PH: 877.463.1699
TX FIRM NO: 17715

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
NAZAR SABTI
TEXAS P.E. NO. 117913
DATE: 12/16/2025

DESIGNED BY: MS	SURVEYED BY:
DRAWN BY: MS	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: NS	FB NO. 340S1
REVIEWED BY: NS	
APPROVED BY: NS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

STORM WATER POLLUTION PREVENTION PLAN
DETAIL – 2

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 44 OF 266	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC1–10

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/15/2026 3:25 PM
FILE PATH: D:\Eddington LS\Design\C–SWPPP–DETAILS.dwg

PLOTTED: 10/17/2025 3:03 PM

PLOT STYLE: AGS.ctb

FILE PATH: T:\0060-014-24 COH Eddington LS - Ardurra\0060-014-24 COH Eddington LS - Ardurra.dwg

SYMBOL LEGEND	
●	FND IRON ROD
⦿	FND IRON PIPE
◎	FND MAGNAIL
○	SET IRON ROD
⊗	X CUT

SYMBOL LEGEND			
AC	AIR CONDITIONER UNIT	●	MANHOLE
▮	BB INLET		POWER POLE
⋈	BLOWOFF VALVE	○	PVC PIPE RISER
●	BOLLARD	TB	TELEPHONE JUNCTION BOX
CO	CLEAN OUT		TEMPORARY BENCHMARK
EJB	ELECTRIC JUNCTION BOX	┼	TIC
EM	ELECTRIC METER	⋈	WATER BLOWOFF VALVE
ES	ELECTRIC STUB-UP		WATER FIRE HYDRANT
	ELECTRIC PEDESTAL	WM	WATER METER
●	GATE POST		WATER SPICKET
▦	GRATE INLET		WATER VALVE
(	GUY WIRE		TREE
⊠	IRRIGATION CONTROL VALVE		SHRUB
✱	LIGHT POLE		

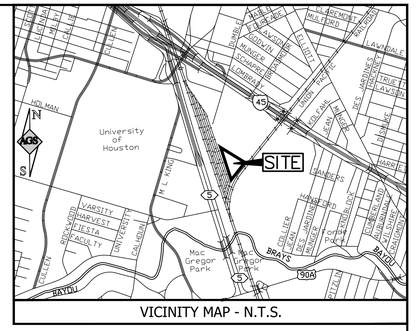
LEGEND			
B.L.	BUILDING LINE	PG.	PAGE
B.M.	BENCHMARK	P.O.B.	POINT OF BEGINNING
CM	CONTROLLING MONUMENT	P.O.C.	POINT OF COMMENCING
C.O.H.	CITY OF HOUSTON	PVC	POLYVINYL CHLORIDE PIPE
CONC.	CONCRETE	RCP	REINFORCED CONCRETE PIPE
DRNG.	DRAINAGE	R.O.W.	RIGHT-OF-WAY
DWG.	DRAWING	(R)	PIPE INFORMATION/LOCATION PER CITY OF HOUSTON RECORD PLANS (DWG. NO. 32325)
ESMT.	EASEMENT	SAN. SWR.	SANITARY SEWER
F.C.	FILM CODE	STM.	STORM
FL	FLOW LINE	STM. SWR.	STORM SEWER
FND.	FOUND	SW	SIDEWALK
H.C.C.F.	HARRIS COUNTY CLERK FILE	VOL.	VOLUME
H.C.D.R.	HARRIS COUNTY DEED RECORDS	–P–	ELECTRIC OVERHEAD
H.C.M.R.	HARRIS COUNTY MAP RECORDS	–GAS–	UNDERGROUND GAS
H.C.T.	HARRIS COUNTY TEXAS	–UGP–	UNDERGROUND ELECTRIC
I.R.	IRON ROD	–UGT–	UNDERGROUND TELEPHONE
I.R.C.	IRON ROD CAPPED	–SAN–	SANITARY SEWER
I.P.	IRON PIPE	–STM–	STORM SEWER
MH	MANHOLE	–W–	WATER LINE
NO.	NUMBER	——x——	CHAIN LINK FENCE
O.P.R.O.R.P.	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY	—·—·—	WROUGHT IRON FENCE

STATE OF TEXAS
DANIEL PAUL COYER
5627
REGISTERED PROFESSIONAL LAND SURVEYOR
10/17/2025
DPC

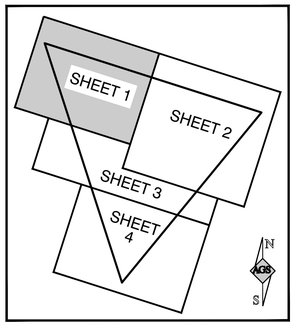
I, DANIEL PAUL COYER, A REGISTERED PROFESSIONAL LAND SURVEYOR OF THE STATE OF TEXAS, HEREBY CERTIFY THAT THE ABOVE PLAT CORRECTLY REPRESENTS THE FACTS FOUND AT THE TIME OF THE SURVEY MADE ON THE GROUND UNDER MY SUPERVISION. THIS SURVEY SUBSTANTIALLY COMPLIES WITH THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS' STANDARDS AND SPECIFICATIONS FOR A CATEGORY 1B, CONDITION 3, STANDARD LAND SURVEY AND A CATEGORY 6 CONDITION 1 TOPOGRAPHIC SURVEY.,

FIELD WORK WAS COMPLETED IN JULY, 2025

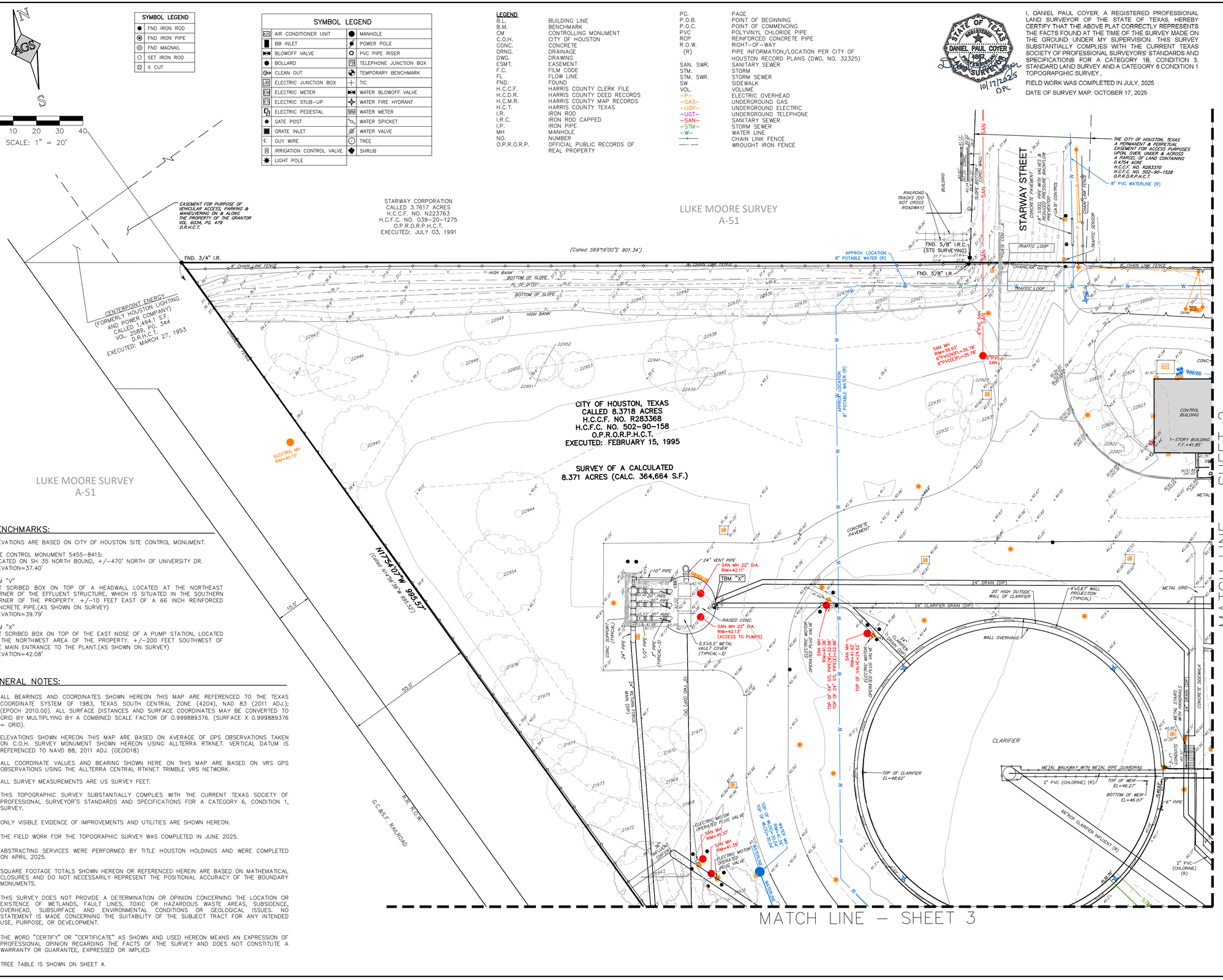
DATE OF SURVEY MAP: OCTOBER 17, 2025



VICINITY MAP - N.T.S.



KEY PLAN - N.T.S.



MATCH LINE – SHEET 3

MATCH LINE – SHEET 2

BENCHMARKS:

ELEVATIONS ARE BASED ON CITY OF HOUSTON SITE CONTROL MONUMENT.

SITE CONTROL MONUMENT 5455-8415:
LOCATED ON SH 35 NORTH BOUND, +/-470' NORTH OF UNIVERSITY DR.
ELEVATION=37.40'

TBM "V"
SET SCRIBED BOX ON TOP OF A HEADWALL LOCATED AT THE NORTHEAST CORNER OF THE EFFLUENT STRUCTURE, WHICH IS SITUATED IN THE SOUTHERN CORNER OF THE PROPERTY. +/-10 FEET EAST OF A 66 INCH REINFORCED CONCRETE PIPE.(AS SHOWN ON SURVEY)
ELEVATION=39.79'

TBM "X"
SET SCRIBED BOX ON TOP OF THE EAST NOSE OF A PUMP STATION, LOCATED IN THE NORTHWEST AREA OF THE PROPERTY. +/-200 FEET SOUTHWEST OF THE MAIN ENTRANCE TO THE PLANT.(AS SHOWN ON SURVEY)
ELEVATION=42.08'

GENERAL NOTES:

1. ALL BEARINGS AND COORDINATES SHOWN HEREON THIS MAP ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, TEXAS SOUTH CENTRAL ZONE (4204), NAD 83 (2011 ADJ.); (EPOCH 2010.00). ALL SURFACE DISTANCES AND SURFACE COORDINATES MAY BE CONVERTED TO GRID BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.999889376. (SURFACE X 0.999889376 = GRID).
2. ELEVATIONS SHOWN HEREON THIS MAP ARE BASED ON AVERAGE OF GPS OBSERVATIONS TAKEN ON C.O.H. SURVEY MONUMENT SHOWN HEREON USING ALLTERRA RTKNET. VERTICAL DATUM IS REFERENCED TO NAVD 88, 2011 ADJ. (GEOID18)
3. ALL COORDINATE VALUES AND BEARING SHOWN HERE ON THIS MAP ARE BASED ON VRS GPS OBSERVATIONS USING THE ALLTERRA CENTRAL RTKNET TRIMBLE VRS NETWORK.
4. ALL SURVEY MEASUREMENTS ARE US SURVEY FEET.
5. THIS TOPOGRAPHIC SURVEY SUBSTANTIALLY COMPLIES WITH THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYOR'S STANDARDS AND SPECIFICATIONS FOR A CATEGORY 6, CONDITION 1, SURVEY.
6. ONLY VISIBLE EVIDENCE OF IMPROVEMENTS AND UTILITIES ARE SHOWN HEREON.
7. THE FIELD WORK FOR THE TOPOGRAPHIC SURVEY WAS COMPLETED IN JUNE 2025.
8. ABSTRACTING SERVICES WERE PERFORMED BY TITLE HOUSTON HOLDINGS AND WERE COMPLETED ON APRIL 2025.
9. SQUARE FOOTAGE TOTALS SHOWN HEREON OR REFERENCED HEREIN ARE BASED ON MATHEMATICAL CLOSURES AND DO NOT NECESSARILY REPRESENT THE POSITIONAL ACCURACY OF THE BOUNDARY MONUMENTS.
10. THIS SURVEY DOES NOT PROVIDE A DETERMINATION OR OPINION CONCERNING THE LOCATION OR EXISTENCE OF WETLANDS, FAULT LINES, TOXIC OR HAZARDOUS WASTE AREAS, SUBSIDENCE, OVERHEAD, SUBSURFACE AND ENVIRONMENTAL CONDITIONS OR GEOLOGICAL ISSUES. NO STATEMENT IS MADE CONCERNING THE SUITABILITY OF THE SUBJECT TRACT FOR ANY INTENDED USE, PURPOSE, OR DEVELOPMENT.
11. THE WORD "CERTIFY" OR "CERTIFICATE" AS SHOWN AND USED HEREON MEANS AN EXPRESSION OF PROFESSIONAL OPINION REGARDING THE FACTS OF THE SURVEY AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EXPRESSED OR IMPLIED.
12. TREE TABLE IS SHOWN ON SHEET 4.

FLOODPLAIN NOTE:

BASED ON THE FLOOD INSURANCE RATE MAP NO. 48201C0880M, MAP REVISED DATE OF JANUARY 6, 2017 INDICATES THAT TRACT LIES WITHIN AREA:

ZONE "X"-(UNSHADED) AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

IN ADDITION THIS MAP STATES "THIS MAP IS FOR USE IN ADMINISTERING THE NATIONAL FLOOD INSURANCE PROGRAM; IT DOES NOT NECESSARILY IDENTIFY ALL AREAS SUBJECT TO FLOODING, PARTICULARLY FROM LOCAL DRAINAGE SOURCES OF SMALL SIZE, OR ALL PLANIMETRIC FEATURES OUTSIDE SPECIAL FLOOD HAZARD AREAS. CERTAIN AREAS NOT IN SPECIAL FLOOD HAZARD AREAS MAY BE PROTECTED BY FLOOD CONTROL STRUCTURES". THE APPROXIMATE LIMITS OF SAID ZONES AS DETERMINED HEREON ARE SCALED FROM SAID MAP. THIS INFORMATION IS NOT INTENDED TO IDENTIFY SPECIFIC FLOOD CONDITIONS.

ARDURRA
COLLABORATE. INNOVATE. CREATE.
11750 Katy Freeway, Suite 300
Houston, Texas 77079
(713) 541-3530 www.Ardurra.com
TBPE Registration Number: F-10053

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

PRELIMINARY REVIEW ONLY
NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMITTING PURPOSES
DAVID R. CASTELLANO, P.E.
P.E. SERIAL No. 97308
DATE: 10/17/25

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TOPOGRAPHIC AND BOUNDARY SURVEY OF SCOTT STREET AREA WET WEATHER FACILITY SITUATED IN THE LUKE MOORE SURVEY ABSTRACT NO. 51 HARRIS COUNTY, TEXAS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-3	
SCALE	
1"=20'	
CITY OF HOUSTON PM	
JOHN DOE, P.E.	
SHEET NO. 1 OF 4	

PLOTTED: 10/17/2025 3:04 PM
PLOT STYLE: AGS.ctb
FILE PATH: T:\0060-014-24 COH Eddington LS - Ardurra\0060-014-24 COH Eddington LS - Ardurra.dwg

VAUGHAN–ALAMO
BLOCK 1
RESTRICTED RESERVE "A"
RESTRICTED FOR COMMERCIAL USE ONLY
F.C. NO. 375029
M.R.H.C.T.

LUKE MOORE SURVEY
A-51

(Called S69°19'00"E 901.34')

FND. 1" I.P.

FND. 5/8" I.R.C. (PINNELL 5349)

8' CHAIN LINK FENCE

BOTTOM OF SLOPE

HIGH BANK

APPROX. LOCATION 8" POTABLE WATER (R)

8" HORIZ. PIPE

4" HORIZ. PIPE

VERTICAL LADDER

WATER TANK

CONC. SUPPORT (TYPICAL)

1" PVC

6" PIPE

10" PIPE

8" PIPE

CONTROL BUILDING

1-STORY BUILDING F.F.=41.85'

GROUND WIRE

CONCRETE SIDEWALK

RAMP

HANDRAIL

CONCRETE PAVEMENT

CHAINLINK FENCE

ELEC. MOTOR GATE

GUARDRAIL

APPROX. LOCATION 8" WASHDOWN WATER (R)

20' HIGH OUTSIDE WALL OF CLARIFIER

4'x0.67' WALL PROJECTION (TYPICAL)

METAL GRID

24" CLARIFIER DRAIN (DIP)

SAN MH RIM=40.65' BOTTOM=18.20'

ELECTRIC MOTOR OPERATED PLUG VALVE

WALL OVERHANG

CITY OF HOUSTON, TEXAS
CALLED 8.3718 ACRES
H.C.C.F. NO. R283368
H.C.F.C. NO. 502-90-158
O.P.R.O.R.P.H.C.T.
EXECUTED: FEBRUARY 15, 1995

SURVEY OF A CALCULATED
8.371 ACRES (CALC. 364,664 S.F.)

CLARIFIER

CONCRETE SIDEWALK

METAL STAIRS WITH HANDRAILS

CONDUITS

SAN MH RIM=39.58' BOTTOM=18.28'

METAL WALKWAY WITH METAL PIPE GUARDRAIL

TOP OF WEIR EL=46.32'

BOTTOM OF WEIR EL=46.11'

2" PVC (CHLORINE) (R)

2" PVC

6" STL PIPE

2" PVC

TOP OF WEIR EL=46.28'

BOTTOM OF WEIR EL=46.09'

66"RCP CLARIFIER INFLUENT (R)

TOP OF CLARIFIER EL=48.73'

24" DRAIN (DIP)

SAN MH RIM=39.47' BOTTOM=11.67'

SAN MH RIM=39.68' BOTTOM=11.28'

1" CONDUIT

ELECTRIC MOTOR OPERATED PLUG VALVE

48"RCP STM (EFFLUENT) (R)

CLEAR WELL

STORM MH RIM=40.65' 48"RCP(NW)EL=32.50' 54"RCP(SE)EL=32.50'

54" RCP STM (EFFLUENT)(M)

GRATE INLET TOP=39.04' BOTTOM=31.54'

STORM MH RIM=39.52' 54"RCP(NW)EL=31.92' 66"RCP(SE)EL=31.82'

SAN MH RIM=39.44' BOTTOM=11.24'

SAN MH RIM=39.75' BOTTOM=26.00'

2" PVC

6" PIPE

48" PIPE

36" INFLUENT (DIP)

48" INFLUENT (DIP)

3-66" OPENINGS

METAL GUARDRAILS

FIBERGLASS BUILDING (MOTOR ROOM)

METAL STAIRS WITH HANDRAILS

120" DIA., 11' HIGH CYLINDER

SEE DETAIL "A"

CONCRETE PAVEMENT

APPROX. LOCATION 8" PVC POTABLE WATER (R)

APPROX. LOCATION 8" WASHDOWN WATER (R)

APPROX. LOCATION 8" POTABLE WATER (R)

APPROX. LOCATION 8" PVC POTABLE WATER (R)

APPROX. LOCATION 24" GAS (R)

24" GAS (R)

HIGH BANK

TOP OF BANK

TOP OF DITCH

BOTTOM OF DITCH

(Called S42°20'55"W 870.59')

NOTE: WATER FLOWS OVER TOP OF ROAD

MATCH LINE – SHEET 1

MATCH LINE – SHEET 3

N AGS S

0 10 20 30 40

SCALE: 1" = 20'

SYMBOL LEGEND

AC	AIR CONDITIONER UNIT		MANHOLE
	BB INLET		POWER POLE
	BLOWOFF VALVE		PVC PIPE RISER
	BOLLARD	TB	TELEPHONE JUNCTION BOX
CO	CLEAN OUT		TEMPORARY BENCHMARK
JB	ELECTRIC JUNCTION BOX		TIC
EM	ELECTRIC METER		WATER BLOWOFF VALVE
ES	ELECTRIC STUB-UP		WATER FIRE HYDRANT
	ELECTRIC PEDESTAL	WM	WATER METER
	GATE POST		WATER SPICKET
	GRATE INLET		WATER VALVE
	GUY WIRE		TREE
	IRRIGATION CONTROL VALVE		SHRUB
	LIGHT POLE		

SHEET 1
SHEET 2
SHEET 3
SHEET 4
N AGS S

KEY PLAN - N.T.S.

LUKE MOORE SURVEY
A-51

DETAIL "A" - N.T.S.

BOTTOM EL=35.85' HEADWALL 42.66' 42.57' 43.10' 42.61' BOTTOM OF TANK EL=37.29'

BOTTOM EL=35.87' HEADWALL 40.59' 41.65' 41.65' BOTTOM OF DIVERSION STRUCTURE EL=35.67'

BOTTOM EL=35.77' HEADWALL 39.66' 38.64' 39.66' 38.64' BOTTOM OF TANK EL=37.01'

LEGEND

B.L.	BUILDING LINE	PG.	PAGE
B.M.	BENCHMARK	P.O.B.	POINT OF BEGINNING
CM	CONTROLLING MONUMENT	P.O.C.	POINT OF COMMENCING
C.O.H.	CITY OF HOUSTON	PVC	POLYVINYL CHLORIDE PIPE
CONC.	CONCRETE	RCP	REINFORCED CONCRETE PIPE
DRNG.	DRAINAGE	R.O.W.	RIGHT-OF-WAY
DWG.	DRAWING	(R)	PIPE INFORMATION/LOCATION PER CITY OF HOUSTON RECORD PLANS (DWG. NO. 32325)
ESMT.	EASEMENT	SAN. SWR.	SANITARY SEWER
F.C.	FILM CODE	STM.	STORM
FL	FLOW LINE	STM. SWR.	STORM SEWER
FND.	FOUND	SW	SIDEWALK
H.C.C.F.	HARRIS COUNTY CLERK FILE	VOL.	VOLUME
H.C.D.R.	HARRIS COUNTY DEED RECORDS	-P-	ELECTRIC OVERHEAD
H.C.M.R.	HARRIS COUNTY MAP RECORDS	-GAS-	UNDERGROUND GAS
H.C.T.	HARRIS COUNTY TEXAS	-UEP-	UNDERGROUND ELECTRIC
I.R.	IRON ROD	-UGT-	UNDERGROUND TELEPHONE
I.R.C.	IRON ROD CAPPED	-SAN-	SANITARY SEWER
I.P.	IRON PIPE	-STM-	STORM SEWER
MH	MANHOLE	-W-	WATER LINE
NO.	NUMBER	———	CHAIN LINK FENCE
O.P.R.O.R.P.	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY	—·—	WROUGHT IRON FENCE

STATE OF TEXAS
DANIEL PAUL COYER
4982
REGISTERED PROFESSIONAL LAND SURVEYOR
10/17/2025
DPC

I, DANIEL PAUL COYER, A REGISTERED PROFESSIONAL LAND SURVEYOR OF THE STATE OF TEXAS, HEREBY CERTIFY THAT THE ABOVE PLAT CORRECTLY REPRESENTS THE FACTS FOUND AT THE TIME OF THE SURVEY MADE ON THE GROUND UNDER MY SUPERVISION. THIS SURVEY SUBSTANTIALLY COMPLIES WITH THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS' STANDARDS AND SPECIFICATIONS FOR A CATEGORY 1B, CONDITION 3, STANDARD LAND SURVEY AND A CATEGORY 6 CONDITION 1 TOPOGRAPHIC SURVEY.,

FIELD WORK WAS COMPLETED IN JULY, 2025

DATE OF SURVEY MAP: OCTOBER 17, 2025

ARDURRA
COLLABORATE. INNOVATE. CREATE.
11750 Katy Freeway, Suite 300
Houston, Texas 77079
(713) 541-3530 www.Ardurra.com
TBPE Registration Number: F-10053

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

PRELIMINARY REVIEW ONLY
NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMITTING PURPOSES
DAVID R. CASTELLANO, P.E.
P.E. SERIAL No. 97308
DATE: 10/17/25

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

TOPOGRAPHIC AND BOUNDARY SURVEY OF SCOTT STREET AREA WET WEATHER FACILITY SITUATED IN THE LUKE MOORE SURVEY ABSTRACT NO. 51 HARRIS COUNTY, TEXAS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-3	
SCALE	
1"=20'	
CITY OF HOUSTON PM	
JOHN DOE, P.E.	
SHEET NO. 2 OF 4	

PLOTTED: 10/17/2025 3:04 PM
PLOT STYLE: AGS.ctb
FILE PATH: T:\0060-014-24 COH Eddington LS - Ardurra\0060-014-24 COH Eddington LS - Ardurra.dwg

MATCH LINE – SHEET 1

MATCH LINE – SHEET 2

MATCH LINE – SHEET 2

MATCH LINE – SHEET 4

N
AGS
S

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

LUKE MOORE SURVEY
A-51

CENTERPOINT ENERGY
(FORMERLY HOUSTON LIGHTING AND POWER COMPANY)
CALLED 1.9182 AC. TR. I
VOL. 2431, PG. 161
D.R.H.C.T.
EXECUTED: JULY 09, 1953

R.R. R.O.W.
G.C.&S.F. - RAILROAD

CHAIN LINK FENCE

N17°54'07"W 995.57'
(Called N14°50'50"W 995.42')

15.0'
55.0'

CITY OF HOUSTON, TEXAS
CALLED 8.3718 ACRES
H.C.C.F. NO. R283368
H.C.F.C. NO. 502-90-158
O.P.R.O.R.P.H.C.T.
EXECUTED: FEBRUARY 15, 1995

SURVEY OF A CALCULATED
8.371 ACRES (CALC. 364,664 S.F.)

36" INFLUENT (DIP) (R)
48" INFLUENT (DIP) (R)
60"ROP STM (EFFLUENT) (R)
WATER MH
RIM=41.42'
TOP OF W.(N)=32.32'
TOP OF W.(S)=32.32'
APPROX. LOCATION 8" POTABLE WATER (R)
APPROX. LOCATION 6" MISSION WATER (R)
APPROX. LOCATION 6" PVC POTABLE WATER (R)
APPROX STM (EFFLUENT)
(Called S42°20'35"W 870.69')

KEY PLAN - N.T.S.

SHEET 1
SHEET 2
SHEET 3
SHEET 4

SYMBOL LEGEND			
AC	AIR CONDITIONER UNIT		MANHOLE
	BB INLET		POWER POLE
	BLOWOFF VALVE		PVC PIPE RISER
	BOLLARD	TB	TELEPHONE JUNCTION BOX
CO	CLEAN OUT		TEMPORARY BENCHMARK
JB	ELECTRIC JUNCTION BOX		TIC
EM	ELECTRIC METER		WATER BLOWOFF VALVE
ES	ELECTRIC STUB-UP		WATER FIRE HYDRANT
	ELECTRIC PEDESTAL	WM	WATER METER
	GATE POST		WATER SPICKET
	GRATE INLET		WATER VALVE
	GUY WIRE		TREE
	IRRIGATION CONTROL VALVE		SHRUB
	LIGHT POLE		

LEGEND

B.L.	BUILDING LINE
B.M.	BENCHMARK
CM	CONTROLLING MONUMENT
C.O.H.	CITY OF HOUSTON
CONC.	CONCRETE
DRNG.	DRAINAGE
DWG.	DRAWING
ESMT.	EASEMENT
F.C.	FILM CODE
FL	FLOW LINE
FND.	FOUND
H.C.C.F.	HARRIS COUNTY CLERK FILE
H.C.D.R.	HARRIS COUNTY DEED RECORDS
H.C.M.R.	HARRIS COUNTY MAP RECORDS
H.C.T.	HARRIS COUNTY TEXAS
I.R.	IRON ROD
I.R.C.	IRON ROD CAPPED
I.P.	IRON PIPE
MH	MANHOLE
NO.	NUMBER
O.P.R.O.R.P.	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY
PG.	PAGE
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCING
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R.O.W.	RIGHT-OF-WAY
(R)	PIPE INFORMATION/LOCATION PER CITY OF HOUSTON RECORD PLANS (DWG. NO. 32325)
SAN. SWR.	SANITARY SEWER
STM.	STORM
STM. SWR.	STORM SEWER
SW	SIDEWALK
VOL.	VOLUME
-P-	ELECTRIC OVERHEAD
-GAS-	UNDERGROUND GAS
-UGP-	UNDERGROUND ELECTRIC
-UGT-	UNDERGROUND TELEPHONE
-SAN-	SANITARY SEWER
-STM-	STORM SEWER
-W-	WATER LINE
—o—	CHAIN LINK FENCE
—·—	WROUGHT IRON FENCE

STATE OF TEXAS
REGISTERED
DANIEL PAUL COYER
6852
PROFESSIONAL
LAND SURVEYOR
10/17/2025
DPC

I, DANIEL PAUL COYER, A REGISTERED PROFESSIONAL LAND SURVEYOR OF THE STATE OF TEXAS, HEREBY CERTIFY THAT THE ABOVE PLAT CORRECTLY REPRESENTS THE FACTS FOUND AT THE TIME OF THE SURVEY MADE ON THE GROUND UNDER MY SUPERVISION. THIS SURVEY SUBSTANTIALLY COMPLIES WITH THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS' STANDARDS AND SPECIFICATIONS FOR A CATEGORY 1B, CONDITION 3, STANDARD LAND SURVEY AND A CATEGORY 6 CONDITION 1 TOPOGRAPGHIC SURVEY.,

FIELD WORK WAS COMPLETED IN JULY, 2025

DATE OF SURVEY MAP: OCTOBER 17, 2025

ARDURRA
COLLABORATE. INNOVATE. CREATE.
11750 Katy Freeway, Suite 300
Houston, Texas 77079
(713) 541-3530 www.Ardurra.com
TBPE Registration Number: F-10053

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 34051

PRELIMINARY REVIEW ONLY
NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMITTING PURPOSES
DAVID R. CASTELLANO, P.E.
P.E. SERIAL No. 97308
DATE: 10/17/25

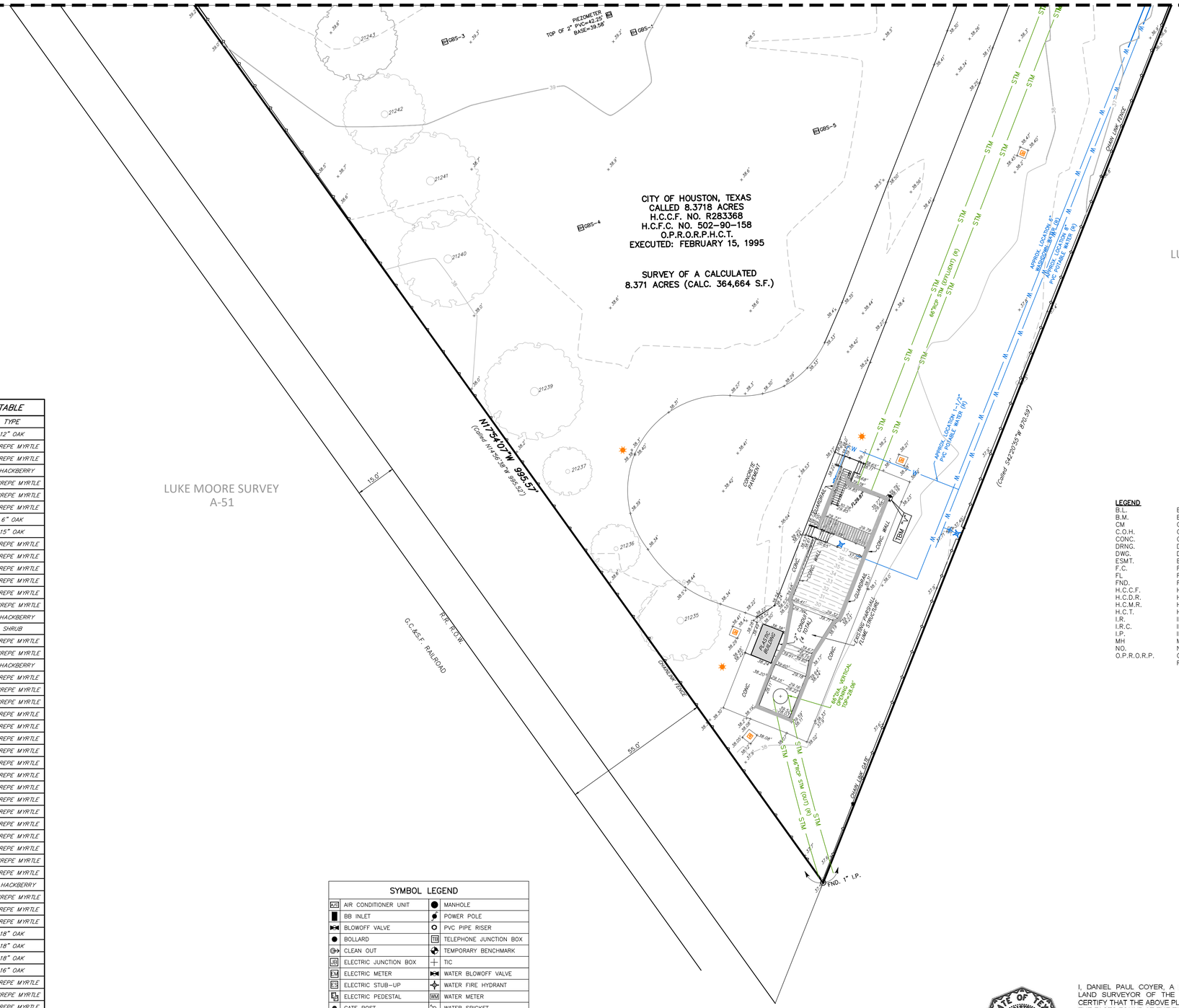
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

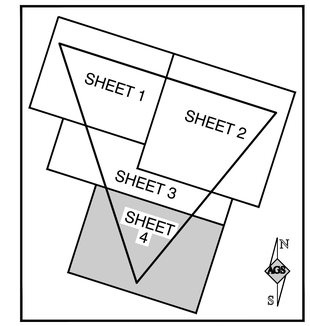
TOPOGRAPHIC AND BOUNDARY SURVEY OF SCOTT STREET AREA WET WEATHER FACILITY SITUATED IN THE LUKE MOORE SURVEY ABSTRACT NO. 51 HARRIS COUNTY, TEXAS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-3	
SCALE	
1"=20'	
CITY OF HOUSTON PM	
JOHN DOE, P.E.	
SHEET NO. 3 OF 4	

PLOT STYLE: AGS.ctb
PLOTTED: 10/17/2025 3:04 PM
FILE PATH: T:\0060-014-24 COH Eddington LS - Ardurra\0060-014-24 COH Eddington LS - Ardurra.dwg

MATCH LINE – SHEET 3





KEY PLAN - N.T.S.

N
AGS
S
0 10 20 30 40
SCALE: 1" = 20'

TREE TABLE	
No.	TYPE
21235	15" CEDAR TREE
21236	9" CEDAR TREE
21237	9" CEDAR TREE
21239	18" OAK
21240	18" OAK
21241	18" OAK
21242	15" OAK
21243	15" OAK
21350	18" OAK
21351	18" OAK
21352	15" OAK
21917	12" OAK
21918	18" OAK
21919	18" OAK
21934	10" CEDAR TREE
21935	10" CEDAR TREE
21936	12" CEDAR TREE
21942	18" OAK
21943	15" OAK
21968	10" CEDAR TREE
21969	10" CEDAR TREE
21970	12" CEDAR TREE
21971	8" CEDAR TREE
21972	15" OAK
21973	18" OAK
21974	12" OAK
21975	18" OAK
21976	15" OAK
22384	9" CEDAR TREE
22385	18" OAK
22386	14" CEDAR TREE
22387	18" OAK
22388	8" OAK
22389	15" OAK
22390	10" CREPE MYRTLE
22391	10" CREPE MYRTLE
22392	10" HACKBERRY
22393	10" CREPE MYRTLE
22394	10" CREPE MYRTLE
22395	10" CREPE MYRTLE
22396	8" CREPE MYRTLE
22397	10" CREPE MYRTLE
22398	10" CREPE MYRTLE
22399	15" HACKBERRY
22400	10" CREPE MYRTLE
22401	10" CREPE MYRTLE
22402	8" CREPE MYRTLE
22403	10" CREPE MYRTLE
22404	10" CREPE MYRTLE
22405	8" CREPE MYRTLE
22406	8" CREPE MYRTLE
22407	12" CREPE MYRTLE

TREE TABLE	
No.	TYPE
22423	12" OAK
22424	5" CREPE MYRTLE
22425	4" CREPE MYRTLE
22426	7" HACKBERRY
22598	10" CREPE MYRTLE
22599	12" CREPE MYRTLE
22600	6" CREPE MYRTLE
22601	6" OAK
22613	15" OAK
22614	6" CREPE MYRTLE
22615	6" CREPE MYRTLE
22616	6" CREPE MYRTLE
22617	6" CREPE MYRTLE
22618	8" CREPE MYRTLE
22619	10" CREPE MYRTLE
22620	6" HACKBERRY
22722	SHRUB
22780	8" CREPE MYRTLE
22802	10" CREPE MYRTLE
22821	4" HACKBERRY
22822	8" CREPE MYRTLE
22823	12" CREPE MYRTLE
22824	10" CREPE MYRTLE
22825	8" CREPE MYRTLE
22826	8" CREPE MYRTLE
22920	8" CREPE MYRTLE
22921	8" CREPE MYRTLE
22929	8" CREPE MYRTLE
22930	8" CREPE MYRTLE
22931	8" CREPE MYRTLE
22932	8" CREPE MYRTLE
22934	8" CREPE MYRTLE
22935	8" CREPE MYRTLE
22936	8" CREPE MYRTLE
22937	8" CREPE MYRTLE
22938	15" CREPE MYRTLE
22939	4" CREPE MYRTLE
22940	15" HACKBERRY
22941	12" CREPE MYRTLE
22942	6" CREPE MYRTLE
22943	8" CREPE MYRTLE
22944	18" OAK
22945	18" OAK
22946	18" OAK
22947	16" OAK
22948	8" CREPE MYRTLE
22949	10" CREPE MYRTLE
22950	8" CREPE MYRTLE
22951	6" CREPE MYRTLE
22952	8" PECAN
22953	8" CREPE MYRTLE
22954	18" OAK

SYMBOL LEGEND			
AC	AIR CONDITIONER UNIT	●	MANHOLE
▮	BB INLET		POWER POLE
	BLOWOFF VALVE	○	PVC PIPE RISER
●	BOLLARD	TB	TELEPHONE JUNCTION BOX
CO	CLEAN OUT		TEMPORARY BENCHMARK
JB	ELECTRIC JUNCTION BOX	┼	TIC
EM	ELECTRIC METER		WATER BLOWOFF VALVE
ES	ELECTRIC STUB-UP		WATER FIRE HYDRANT
	ELECTRIC PEDESTAL	WM	WATER METER
●	GATE POST		WATER SPICKET
▩	GRATE INLET		WATER VALVE
(	GUY WIRE		TREE
⊠	IRRIGATION CONTROL VALVE		SHRUB
✸	LIGHT POLE		

LEGEND

B.L.	BUILDING LINE
B.M.	BENCHMARK
CM	CONTROLLING MONUMENT
C.O.H.	CITY OF HOUSTON
CONC.	CONCRETE
DRNG.	DRAINAGE
DWG.	DRAWING
ESMT.	EASEMENT
F.C.	FILM CODE
FL	FLOW LINE
FND.	FOUND
H.C.C.F.	HARRIS COUNTY CLERK FILE
H.C.D.R.	HARRIS COUNTY DEED RECORDS
H.C.M.R.	HARRIS COUNTY MAP RECORDS
H.C.T.	HARRIS COUNTY TEXAS
I.R.	IRON ROD
I.R.C.	IRON ROD CAPPED
I.P.	IRON PIPE
MH	MANHOLE
NO.	NUMBER
O.P.R.O.R.P.	OFFICIAL PUBLIC RECORDS OF REAL PROPERTY
PG.	PAGE
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCING
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R.O.W.	RIGHT-OF-WAY
(R)	PIPE INFORMATION/LOCATION PER CITY OF HOUSTON RECORD PLANS (DWG. NO. 32325)
SAN. SWR.	SANITARY SEWER
STM.	STORM
STM. SWR.	STORM SEWER
SW	SIDEWALK
VOL.	VOLUME
-P-	ELECTRIC OVERHEAD
-GAS-	UNDERGROUND GAS
-UGP-	UNDERGROUND ELECTRIC
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HOUSTON PUBLIC WORKS

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WBS NUMBER	R-001000-0035-3
SCALE	1"=20'
CITY OF HOUSTON PM	JOHN DOE, P.E.
SHEET NO.	4 OF 4

FOR CITY OF HOUSTON USE ONLY

STATE OF TEXAS
DANIEL PAUL COYER
4862
REGISTERED PROFESSIONAL LAND SURVEYOR
10/17/2025
DPC

I, DANIEL PAUL COYER, A REGISTERED PROFESSIONAL LAND SURVEYOR OF THE STATE OF TEXAS, HEREBY CERTIFY THAT THE ABOVE PLAT CORRECTLY REPRESENTS THE FACTS FOUND AT THE TIME OF THE SURVEY MADE ON THE GROUND UNDER MY SUPERVISION. THIS SURVEY SUBSTANTIALLY COMPLIES WITH THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS' STANDARDS AND SPECIFICATIONS FOR A CATEGORY 1B, CONDITION 3, STANDARD LAND SURVEY AND A CATEGORY 6 CONDITION 1 TOPOGRAPGHIC SURVEY.,

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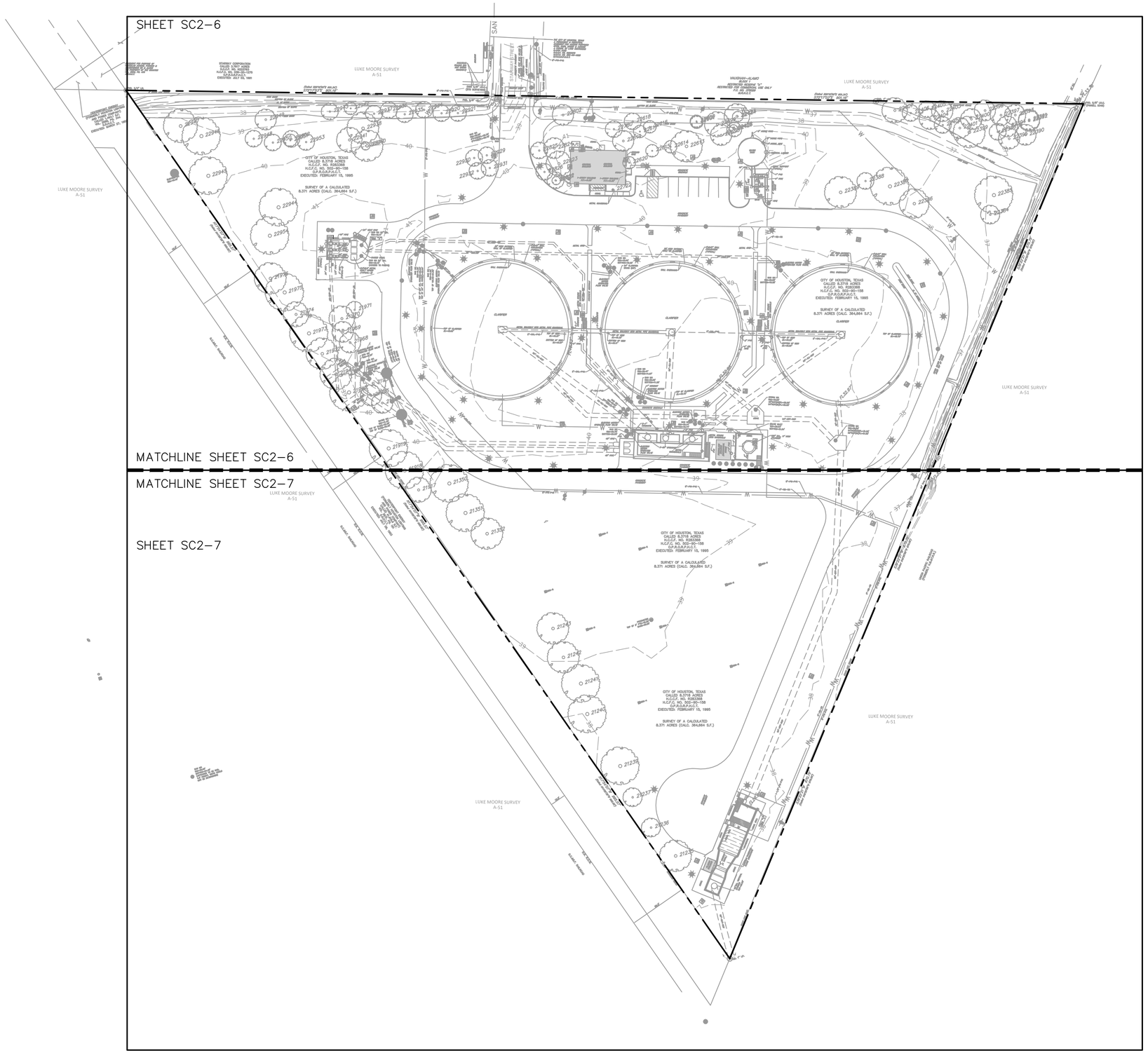
DATE OF SURVEY MAP: OCTOBER 17, 2025



PLAN
1" = 50'-0"

N

0 50 100
SCALE: FEET

SYMBOL LEGEND
AIR CONDITIONER UNIT
BB INLET
BLOWOFF VALVE
BOLLARD
BORE HOLE
CLEAN OUT
ELECTRIC JUNCTION BOX
ELECTRIC METER
ELECTRIC STUB-UP
ELECTRIC PEDESTAL
GATE POST
GRATE INLET
GUY WIRE
IRRIGATION CONTROL VALVE
LIGHT POLE
MANHOLE
POWER POLE
PVC PIPE RISER
SHRUB
TELEPHONE JUNCTION BOX
TEMPORARY BENCHMARK
TIC
TREE
WATER BLOWOFF VALVE
WATER FIRE HYDRANT
WATER METER
WATER SPICKET
WATER VALVE

LEGEND

B.L.	BUILDING LINE
B.M.	BENCHMARK
CM	CONTROLLING MONUMENT
C.O.H.	CITY OF HOUSTON
CONC.	CONCRETE
DRNG.	DRAINAGE
DWG.	DRAWING
ESMT.	EASEMENT
F.C.	FILM CODE
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-STM-	STORM SEWER
-W-	WATER LINE
——+——	CHAIN LINK FENCE
——·——	WROUGHT IRON FENCE

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
B.W. NICHOLAS
TEXAS P.E. NO. 83349
DATE: 1/21/2026

DESIGNED BY: B. NICHOLAS	SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
DRAWN BY: J. GIBSON	FB NO. 340S1
CHECKED BY: T. REESER	
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

SCOTT STREET WWF EXISTING OVERALL SITE PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC2-5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1" = 50'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:08 PM

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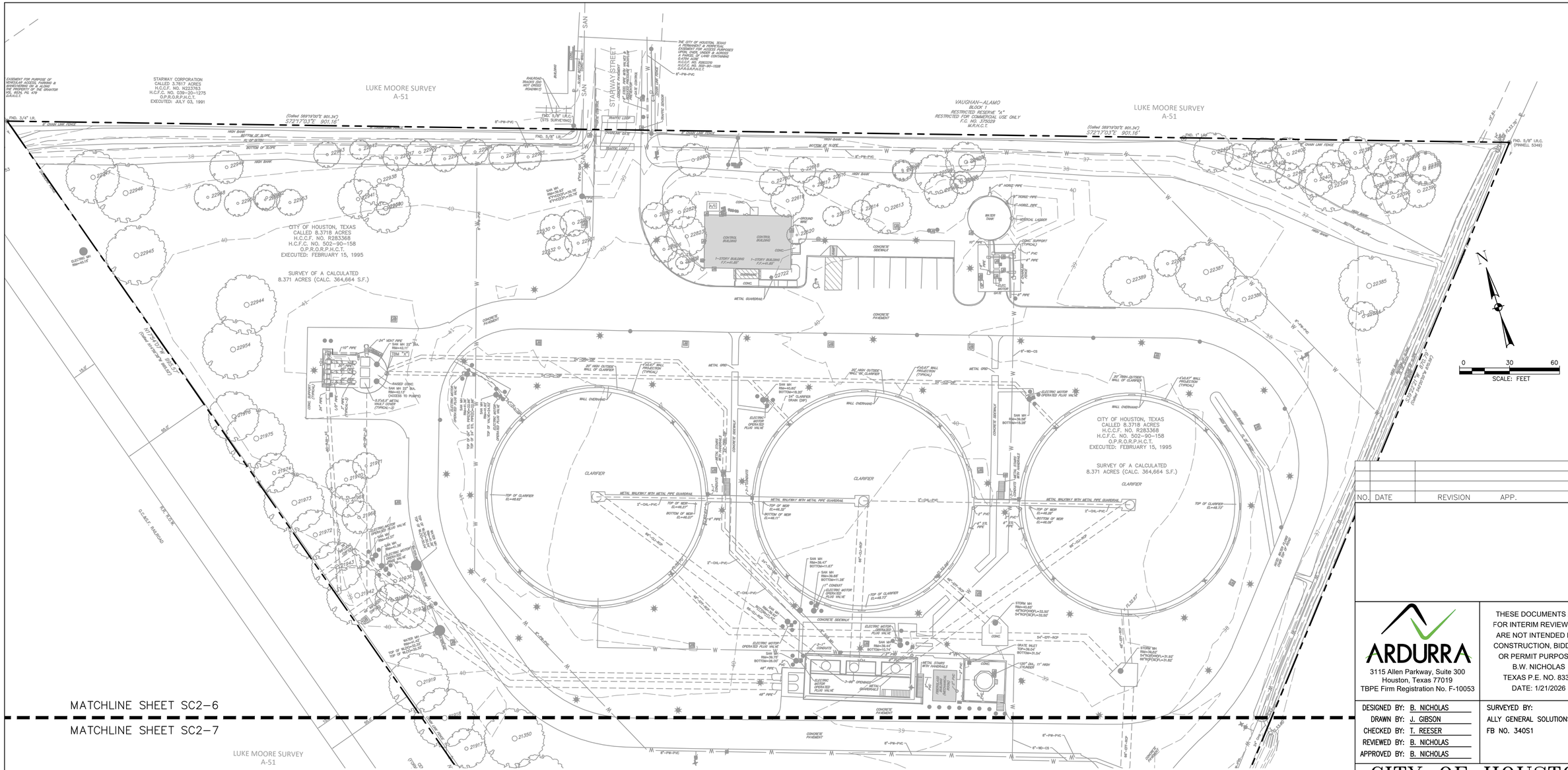

PLAN
1" = 30'-0"

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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DRAWN BY: J. GIBSON	FB NO. 340S1
CHECKED BY: T. REESER	
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

SCOTT STREET WWF EXISTING SITE PLAN (SHEET 1 OF 2)

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1" = 30'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC2-6

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:08 PM
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PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:08 PM

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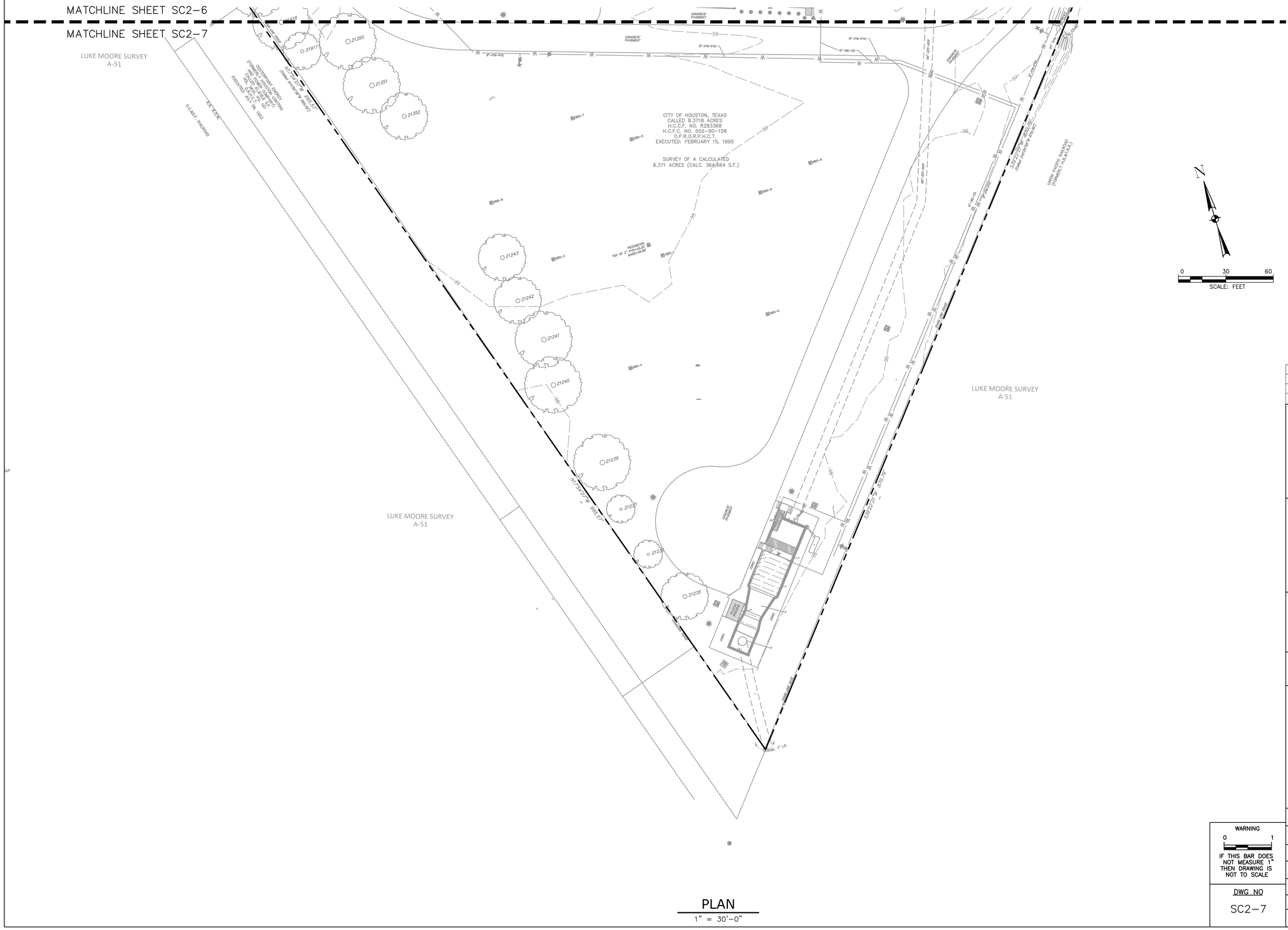

PLAN
1" = 30'-0"

NO.	DATE	REVISION	APP.

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TEXAS P.E. NO. 83349
DATE: 1/21/2026

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DRAWN BY: J. GIBSON	FB NO. 340S1
CHECKED BY: T. REESER	
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

SCOTT STREET WWF EXISTING SITE PLAN (SHEET 2 OF 2)

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC2-7

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1" = 30'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:08 PM

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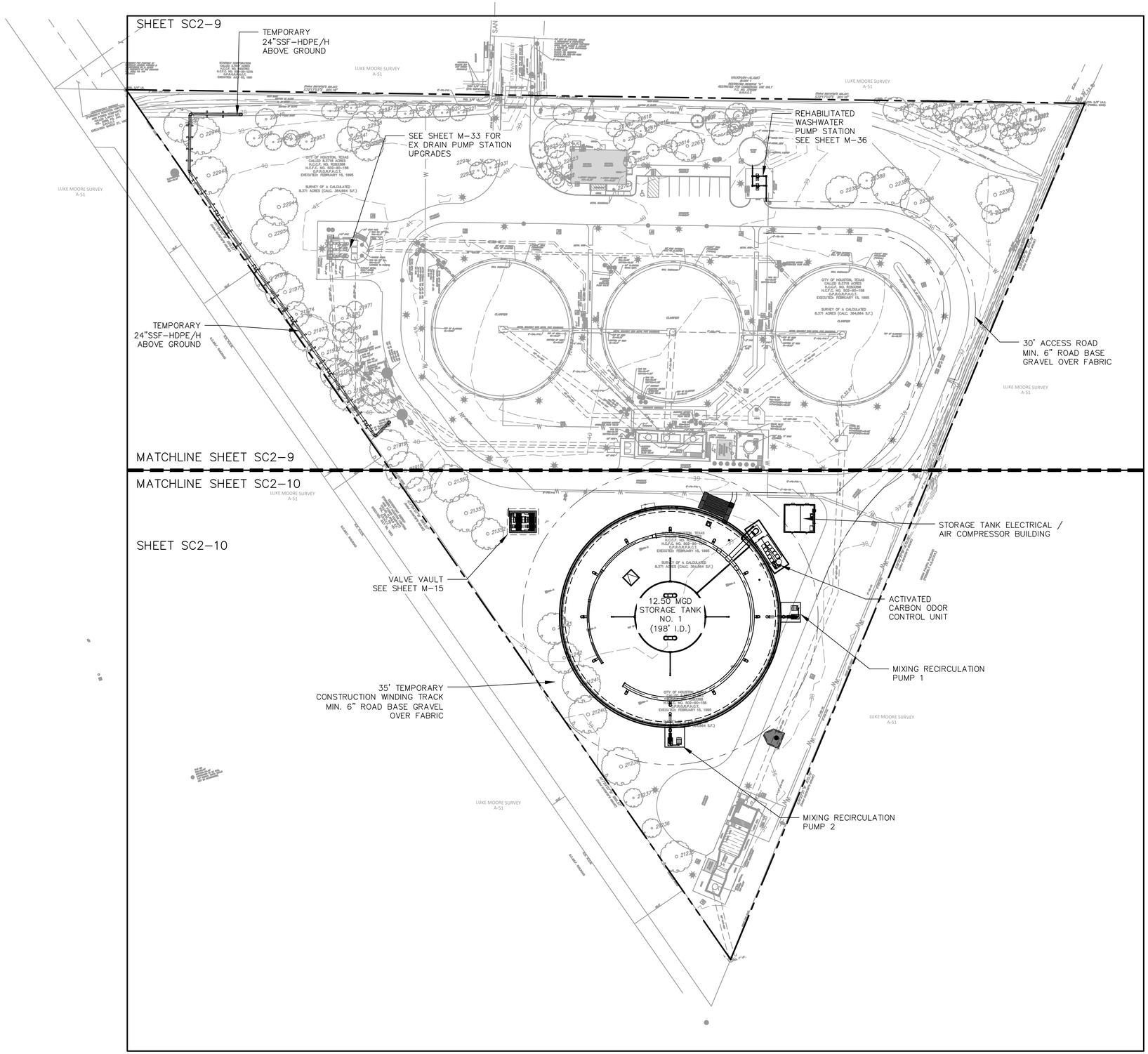

PLAN
1" = 50'-0"

NO.	DATE	REVISION	APP.

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TEXAS P.E. NO. 83349
DATE: 1/21/2026

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DRAWN BY: J. GIBSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

SCOTT STREET WWF PROPOSED OVERALL SITE PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC2-8

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1" = 50'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:09 PM

BEGIN TEMPORARY 24"SSF–HDPE/H ABOVE GROUND

TEMPORARY 24"SSF–HDPE/H ABOVE GROUND

END TEMPORARY 24"SSF–HDPE/H ABOVE GROUND

REHABILITATED WASHWATER PUMP STATION SEE SHEET M–36

SEE SHEET M–33 FOR EX DRAIN PUMP STATION UPGRADES

30' ACCESS ROAD MIN. 6" ROAD BASE GRAVEL OVER FABRIC

MATCHLINE SHEET SC2–9

MATCHLINE SHEET SC2–10

PLAN
1" = 30'–0"

0 30 60
SCALE: FEET

NO.	DATE	REVISION	APP.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

SCOTT STREET WWF PROPOSED SITE PLAN (SHEET 1 OF 2)

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
1" = 30'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
SC2–9

FILE PATH: C:\Users\jgibson\DC\ACCDocs\ardurra, inc\2024–1427\project Files\03–Prod\03–Dwgs\C–SP–SCOTT.dwg

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:09 PM

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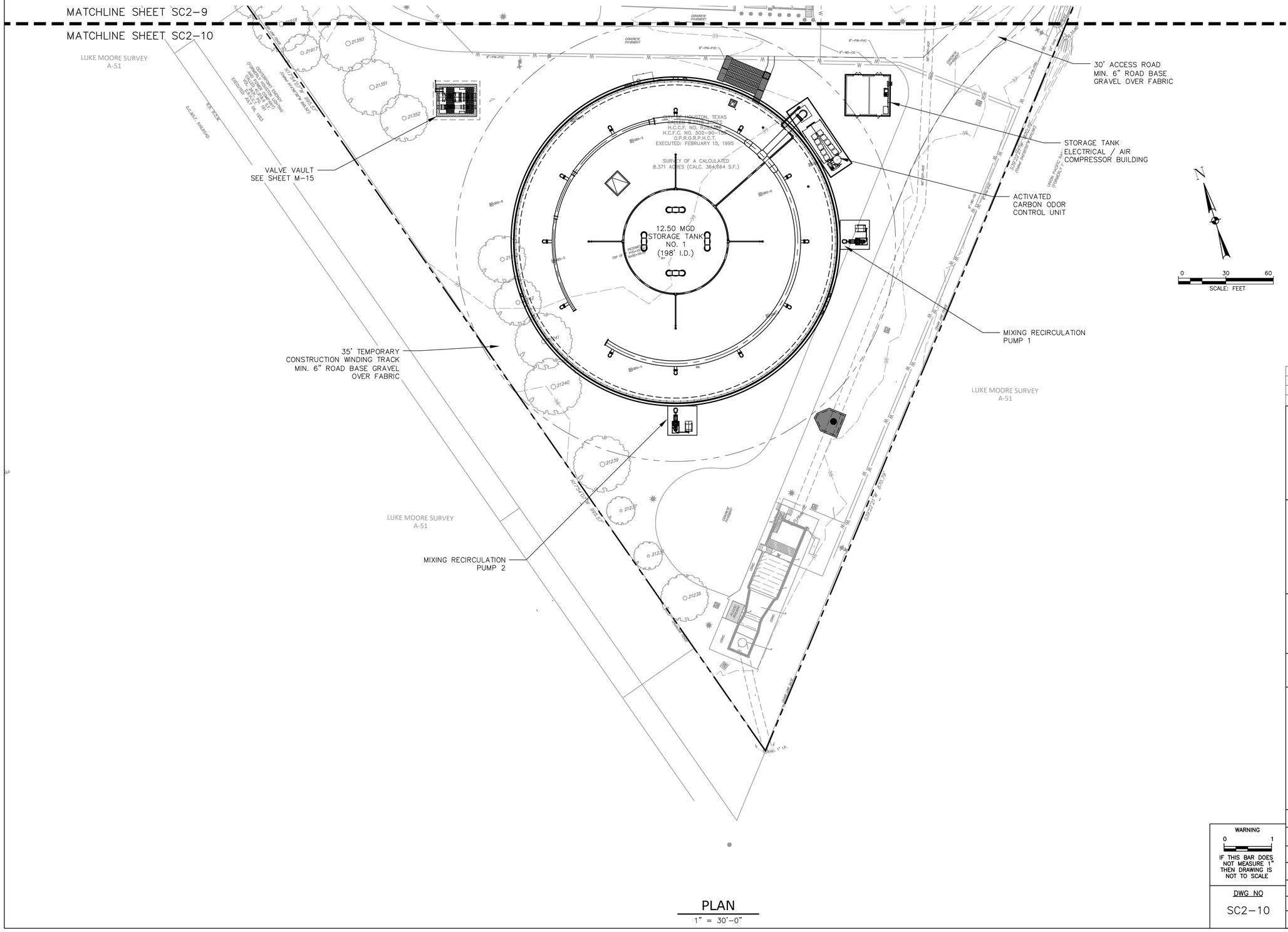

PLAN
1" = 30'-0"

NO.	DATE	REVISION	APP.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

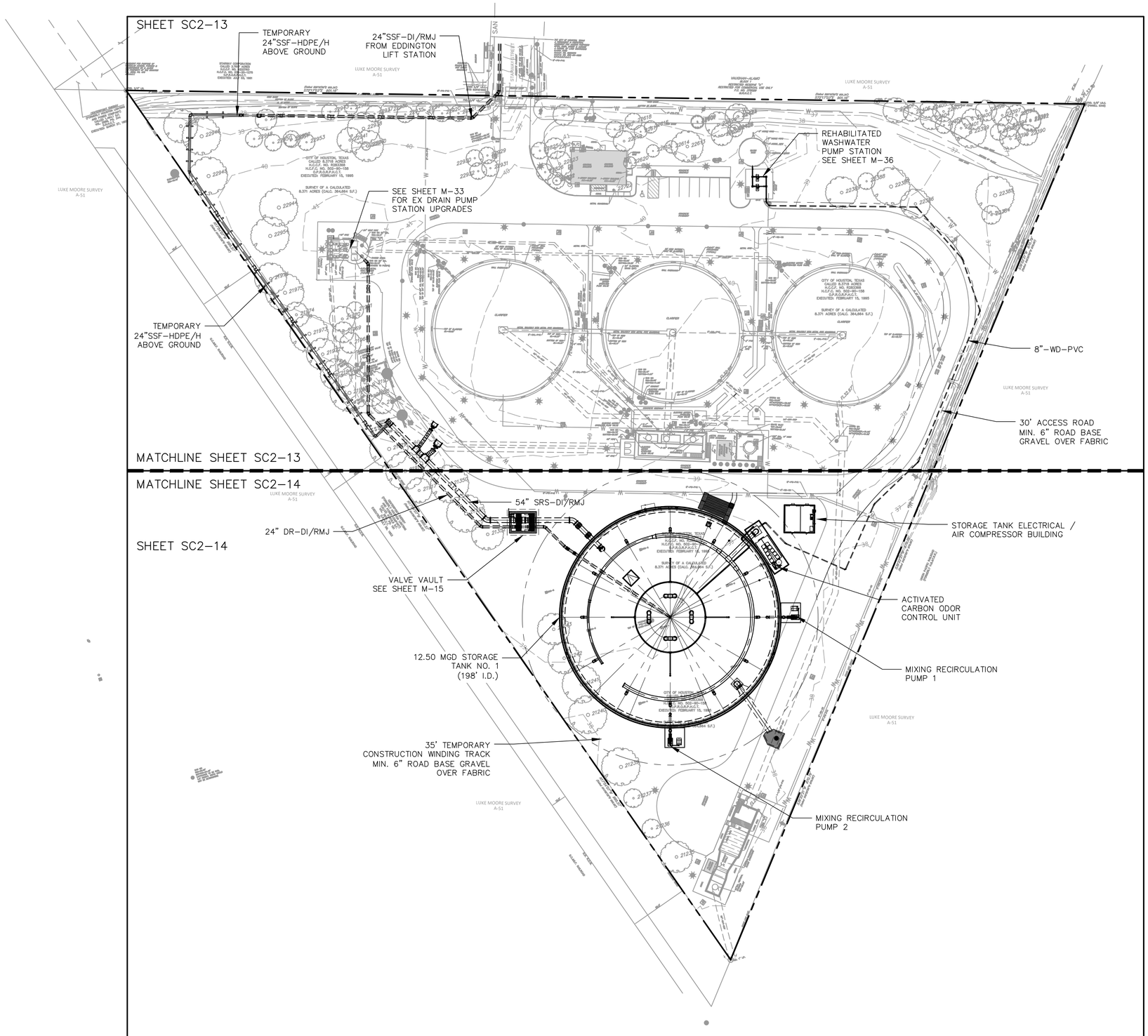
CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

SCOTT STREET WWF
PROPOSED SITE PLAN
(SHEET 2 OF 2)

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1" = 30'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
SC2-10



PLAN
1" = 50'-0"

0 50 100
SCALE: FEET

NOTES:

1. PIPING DRAWINGS INDICATE INVERT ELEVATIONS FOR GRAVITY FLOW LINES. SLOPE PIPE UNIFORMLY BETWEEN ELEVATIONS SHOWN; NO VALLEYS OR PEAKS PERMITTED IN GRAVITY FLOW LINES. FOR OTHER PIPING, REFER TO DETAIL SHEETS FOR PIPE ELEVATIONS AT EACH STRUCTURE.
2. SITE PIPING DRAWINGS DO NOT INDICATE ALL VERTICAL BENDS AND TRANSITIONS. WHEN NECESSARY, MAKE VERTICAL TRANSITIONS OR FURNISH AND INSTALL VERTICAL BENDS AT NO EXTRA COST. MAINTAIN UNIFORM SLOPE AND AVOID HIGH POINTS. DO NOT EXCEED MANUFACTURER'S RECOMMENDATIONS FOR CURVATURE OF LINES AND / OR DEFLECTION.
3. CONTRACTOR SHALL PROVIDE TAPS, FITTINGS, PLUGS, AND OTHER DEVICES FOR USE IN FILLING, FLUSHING, AND TESTING, ETC AT NO ADDITIONAL COST TO THE CITY.
4. ALL UNDERGROUND PIPING SHALL BE OF RESTRAINED JOINT CONSTRUCTION. PROVIDE ADEQUATE HARNESSING AND RESTRAINT TO WITHSTAND TEST PRESSURES AS INDICATED.
5. PROVIDE THRUST BLOCKING ON EXISTING PIPING AND/OR OTHER MEANS OF RESTRAINT.
6. RECORD DRAWINGS ON PIPING MATERIALS FOR THE EXISTING YARD PIPING IS NOT ENTIRELY ACCURATE. CONTRACTOR SHALL EXCAVATE AND FIELD DETERMINE ALL PIPING MATERIALS FOR PIPING WHICH IS GOING TO BE TIED INTO. PROVIDE REPORT FOR SUBMISSION TO THE ENGINEER ON EXISTING PIPING AND ALL CRITICAL TIE-IN LOCATIONS.
7. REFER TO SECTION 01014 CONSTRUCTION SEQUENCING FOR REQUIREMENTS ON PHASING OF WORK AND ALLOWABLE PLANT SHUTDOWN DURATIONS.

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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B.W. NICHOLAS
TEXAS P.E. NO. 83349
DATE: 1/21/2026

DESIGNED BY: B. NICHOLAS	SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
DRAWN BY: J. GIBSON	FB NO. 340S1
CHECKED BY: T. REESER	
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

SCOTT STREET WWF PROPOSED OVERALL YARD PIPING PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC2-12

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1" = 50'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:09 PM
FILE PATH: C:\Users\jgibson\DC\ACCDocs\ardurra, Inc\2024-1427\project Files\03-Prod\03-Dwgs\C-SP-SCOTT.dwg

NOTES:

1. THE CONTRACTOR SHALL COORDINATE ROUTING OF THE TEMPORARY ABOVEGROUND FORCE MAIN THROUGH THE ON-SITE TREES AND LANDSCAPE VEGETATION. CONTRACTOR SHALL ADJUST ROUTING AS REQUIRED.
2. MAKE CONNECTIONS TO EXISTING 36" AND 48" SSF PIPELINE USING TAPPING SADDLES AND TAPPING KNIFE GATE VALVES. SEE SPECIFICATION SECTION 02768 PIPELINE LINE STOPPING.
3. PROVIDE 3-INCH COMBINATION AIR RELEASE / AIR VACUUM RELEASE VALVE WITH ISOLATION VALVE AND VENT ASSEMBLY COMPATIBLE WITH RAW SEWAGE SERVICE.

WOODEN DUNNAGE PIPE SUPPORTS FOR TEMPORARY 24" SSF (TYP)

BEGIN TEMPORARY 24"SSF-HDPE/H ABOVE GROUND

24" SSF-DI/RMJ CL. EL. 33.25

24" SSF-DI/RMJ CL. EL. 33.25 FROM EDDINGTON LIFT STATION

24" SSF-HDPE/H 90° BEND CL. EL. 41.50 N: 13827767.60 E: 3131899.89

24" SSF-DI/RMJ TEE W/ BLIND FLANGE CL. EL. 33.25 N: 13827747.90 E: 3131961.84

SEE SHEET M-33 FOR EX DRAIN PUMP STATION UPGRADES

24" SSF-DI/RMJ 45° BEND CL. EL. 33.25 N: 13827703.25 E: 3132183.80

24" SSF-DI/RMJ 45° BEND CL. EL. 33.25 N: 13827687.19 E: 3132152.78

REHABILITATED WASHWATER PUMP STATION SEE SHEET M-36

8"-WD-PVC/PO 45° BEND CL. EL. 33.00 N: 13827531.10 E: 3132394.19

8"-WD-PVC/PO 45° BEND CL. EL. 33.00 N: 13827485.87 E: 3132527.98

24" SSF-HDPE/H 45° BEND CL. EL. 41.50 N: 13827716.20 E: 3131883.54

CONNECT 24" DR-DI/RMJ TO EX DRAIN PUMP STATION INV EL. 26.72 N: 13827599.96 E: 3132011.24

8"-WD-PVC/PO 45° BEND CL. EL. 33.00 N: 13827527.42 E: 3132395.80

8"-WD-PVC/PO 22.50° BEND CL. EL. 33.00 N: 13827426.99 E: 3132554.88

30' ACCESS ROAD MIN. 6" ROAD BASE GRAVEL OVER FABRIC

WOODEN DUNNAGE PIPE SUPPORTS FOR TEMPORARY 24" SSF, SEE NOTE 1 (TYP)

24" DR-DI/RMJ 45° BEND INV EL. 27.06 N: 13827584.68 E: 3132019.40

8"-WD-PVC/PO 45° BEND CL. EL. 33.00 N: 13827375.27 E: 3132556.68

TEMPORARY 24"SSF-HDPE/H ABOVE GROUND

24" DR-DI/RMJ @ 2% SLOPE

24" DR-DI/RMJ 45° BEND INV EL. 29.89 N: 13827449.65 E: 3131978.36

END TEMPORARY 24"SSF-HDPE/H ABOVE GROUND

36" SSF-DI/RMJ, FL EL 17.38'

24" DR (SSF)-DI/RMJ, FL EL 18.32'

48" SSF-DI/RMJ, FL EL 18.32'

36" SRS-DI/RMJ HOT TAP W/ VALVE CL. EL. 33.45

24" SSF-HDPE/H 90° BEND CL. EL. 41.50 N: 13827426.95 E: 3131978.32

54" SRS-DI/RMJ 54"x36" TEE CL. EL. 34.00 N: 13827404.37 E: 3132011.54

54" SRS-DI/RMJ 54"x48" TEE CL. EL. 34.00 N: 13827394.27 E: 3132016.99

48" TAPPING SADDLE WITH STOP GATE VALVE CL. EL. 33.95

8"-WD-PVC

8"-WD-PVC/PO 22.50° BEND CL. EL. 33.00 N: 13827256.11 E: 3132459.78

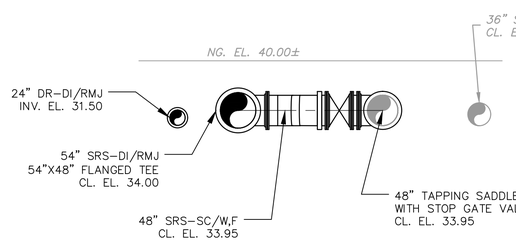
36" SSF-DI/RMJ CL. EL. 33.45

48" SSF-DI/RMJ CL. EL. 33.95

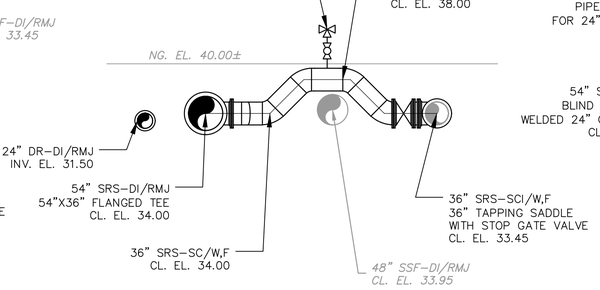
MATCHLINE SHEET SC2-13

MATCHLINE SHEET SC2-14

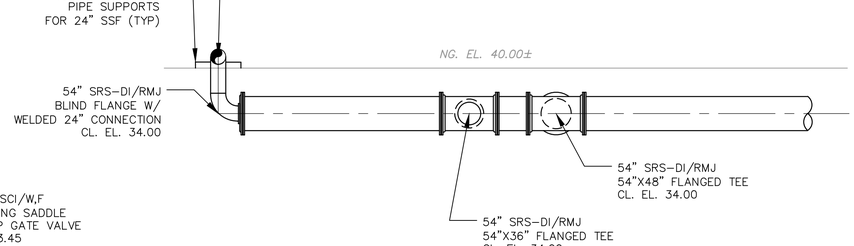
PLAN
1" = 30'-0"



SECTION 1
1" = 10'-0"



SECTION 2
1" = 10'-0"



SECTION 3
1" = 10'-0"

WARNING
0 1
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DWG NO
SC2-13

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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B.W. NICHOLAS
TEXAS P.E. NO. 83349
DATE: 1/21/2026

DESIGNED BY: B. NICHOLAS	SURVEYED BY:
DRAWN BY: J. GIBSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

SCOTT STREET WWF PROPOSED YARD PIPING PLAN (SHEET 1 OF 2)

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1" = 30'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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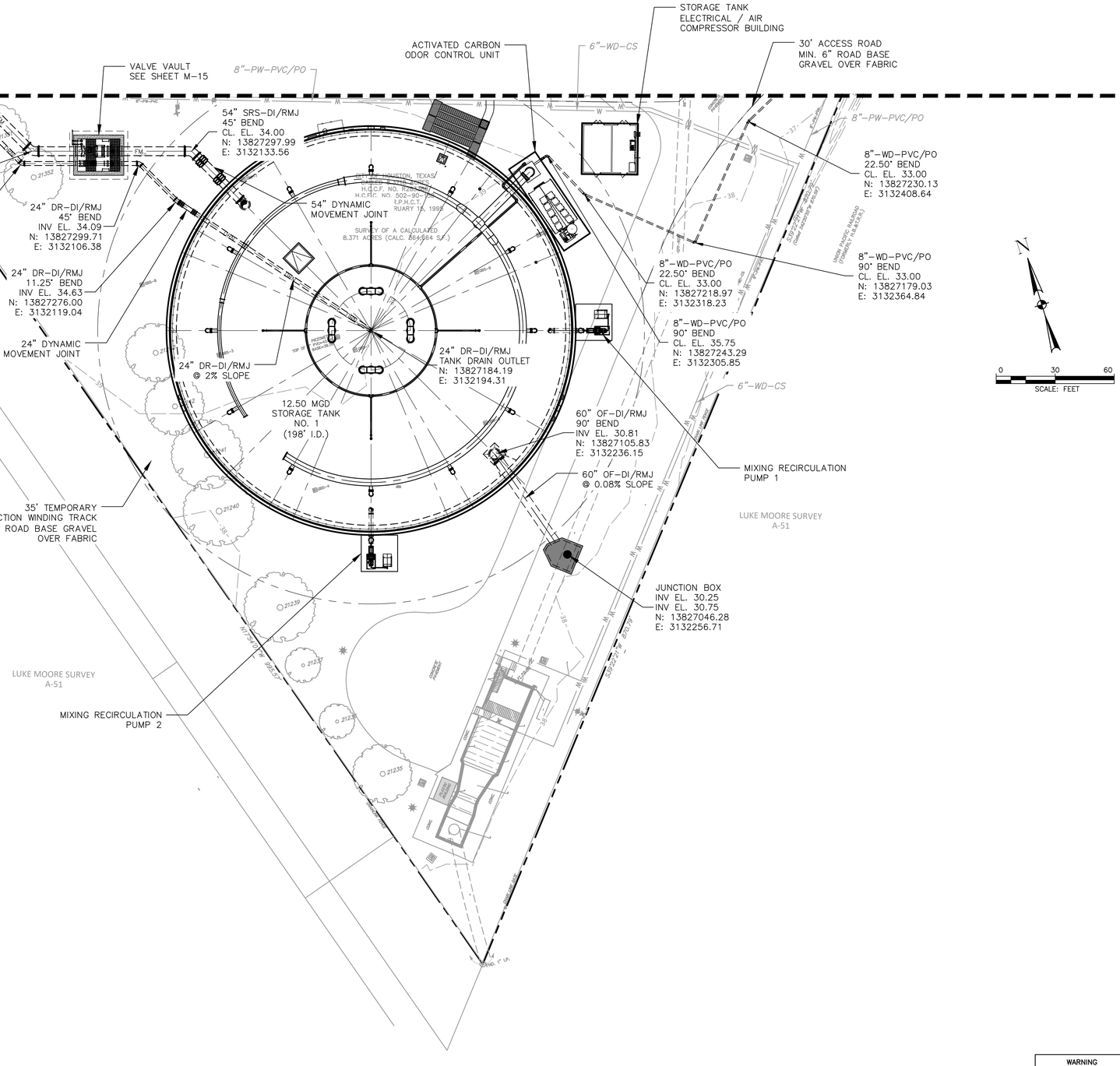

PLAN
1" = 30'-0"

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

SCOTT STREET WWF PROPOSED YARD PIPING PLAN (SHEET 2 OF 2)

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1" = 30'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC2-14

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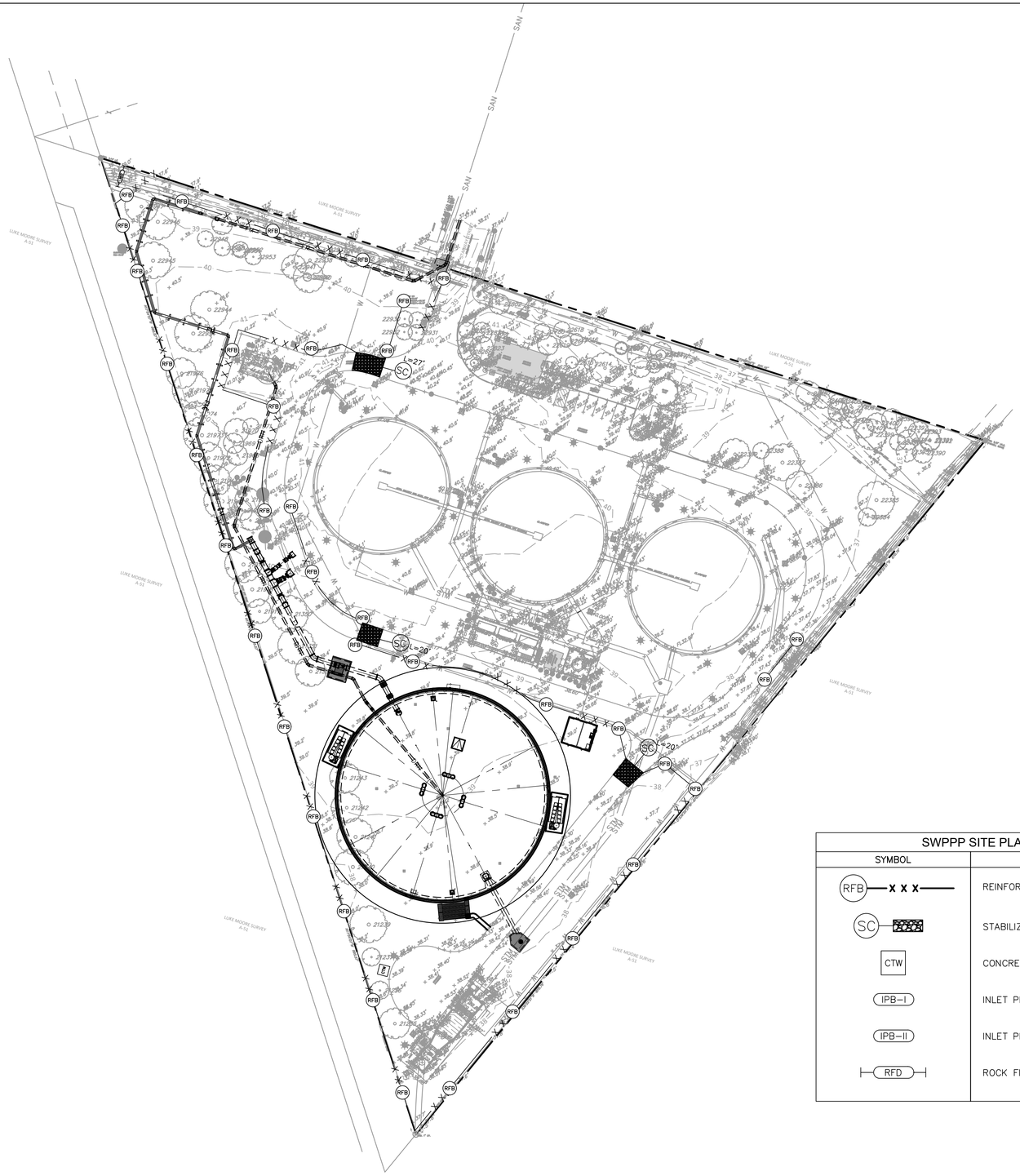

BENCHMARKS:

ELEVATIONS ARE BASED ON CITY OF HOUSTON SITE CONTROL MONUMENT.

SITE CONTROL MONUMENT 5455-8415:
LOCATED ON SH 35 NORTH BOUND, +/-470' NORTH OF UNIVERSITY DR.
ELEVATION=37.40'

TBM "V"
SET SCRIBED BOX ON TOP OF A HEADWALL LOCATED AT THE NORTHEAST CORNER OF THE EFFLUENT STRUCTURE, WHICH IS SITUATED IN THE SOUTHERN CORNER OF THE PROPERTY. +/-10 FEET EAST OF A 66 INCH REINFORCED CONCRETE PIPE.(AS SHOWN ON SURVEY)
ELEVATION=39.79'

TBM "X"
SET SCRIBED BOX ON TOP OF THE EAST NOSE OF A PUMP STATION, LOCATED IN THE NORTHWEST AREA OF THE PROPERTY. +/-200 FEET SOUTHWEST OF THE MAIN ENTRANCE TO THE PLANT.(AS SHOWN ON SURVEY)
ELEVATION=42.08'

FLOODPLAIN NOTE:

BASED ON THE FLOOD INSURANCE RATE MAP NO. 48201C0880M, MAP REVISED DATE OF JANUARY 6, 2017 INDICATES THAT TRACT LIES WITHIN AREA:

ZONE "X"-(UNSHADED) AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

IN ADDITION THIS MAP STATES "THIS MAP IS FOR USE IN ADMINISTERING THE NATIONAL FLOOD INSURANCE PROGRAM; IT DOES NOT NECESSARILY IDENTIFY ALL AREAS SUBJECT TO FLOODING, PARTICULARLY FROM LOCAL DRAINAGE SOURCES OF SMALL SIZE, OR ALL PLANIMETRIC FEATURES OUTSIDE SPECIAL FLOOD HAZARD AREAS. CERTAIN AREAS NOT IN SPECIAL FLOOD HAZARD AREAS MAY BE PROTECTED BY FLOOD CONTROL STRUCTURES". THE APPROXIMATE LIMITS OF SAID ZONES AS DETERMINED HEREON ARE SCALED FROM SAID MAP. THIS INFORMATION IS NOT INTENDED TO IDENTIFY SPECIFIC FLOOD CONDITIONS.

NO.	DATE	REVISION	APP.

SWPPP SITE PLAN LEGEND

SYMBOL	DESCRIPTION
RFB — X X X —	REINFORCED FILTER BARRIER
SC	STABILIZED CONSTRUCTION ENTRANCE
CTW	CONCRETE TRUCK WASHOUT
IPB-I	INLET PROTECTION BARRIER FOR STAGE I
IPB-II	INLET PROTECTION BARRIER FOR STAGE II
RFD	ROCK FILTER DAM

TRILOGY ENGINEERING SERVICES
238 WESTCOTT STREET
HOUSTON, TEXAS 77007
PH: 877.463.1699
TX FIRM NO: 17715

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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NAZAR SABTI
TEXAS P.E. NO. 117913
DATE: 1/15/2026

DESIGNED BY: MS	SURVEYED BY:
DRAWN BY: MS	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: NS	FB NO. 340S1
REVIEWED BY: NS	
APPROVED BY: NS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

SCOTT STREET SITE STORM WATER POLLUTION PREVENTION PLAN – 1

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC2-15

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1"=80'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 41 OF 266	

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/15/2026 3:29 PM
FILE PATH: D:\Eddington LS\Design\C-SWPPP-SCOTT.dwg

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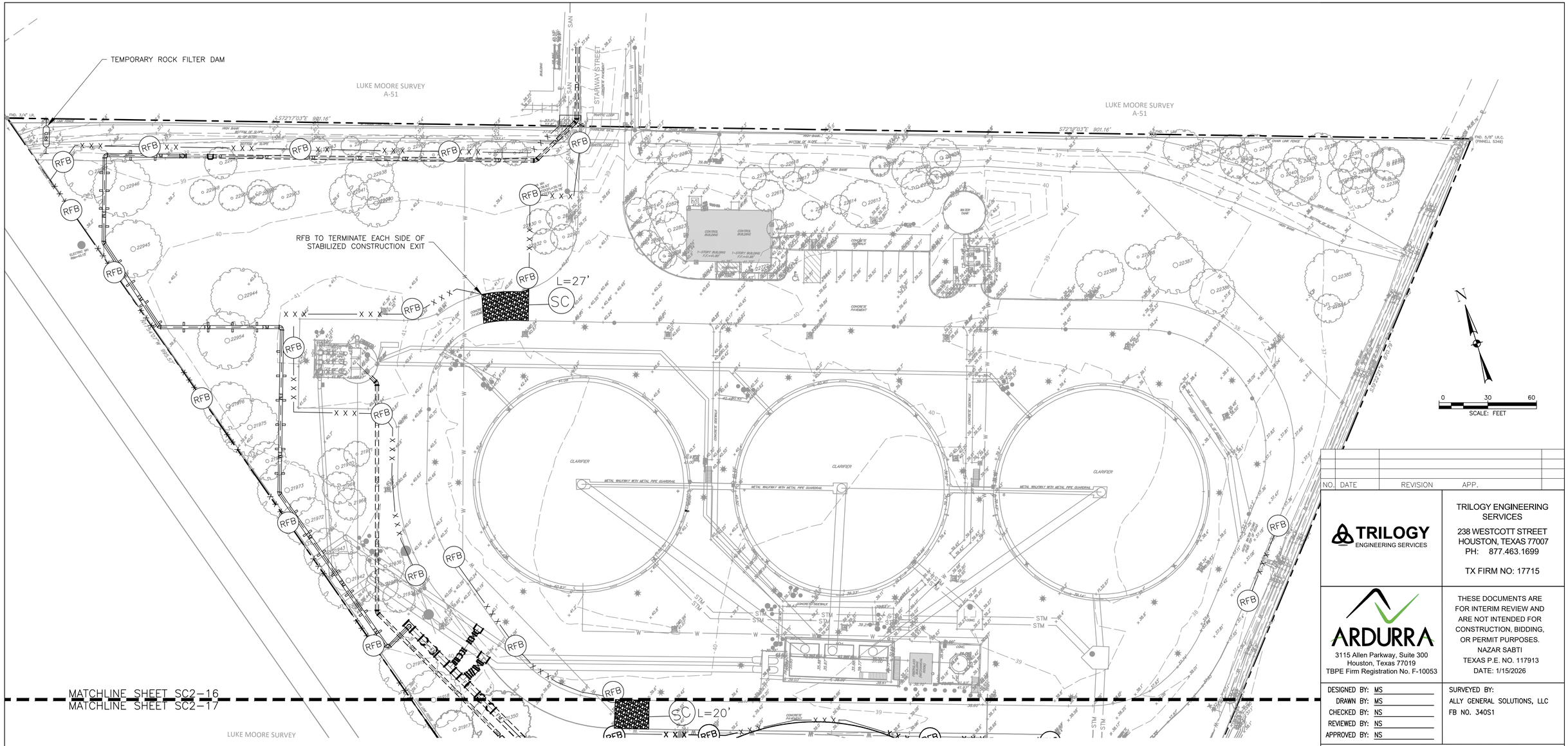

PLAN
1" = 30'-0"

SWPPP SITE PLAN LEGEND	
SYMBOL	DESCRIPTION
RFB — X X X	REINFORCED FILTER BARRIER
SC	STABILIZED CONSTRUCTION ENTRANCE
CTW	CONCRETE TRUCK WASHOUT
IPB-I	INLET PROTECTION BARRIER FOR STAGE I
IPB-II	INLET PROTECTION BARRIER FOR STAGE II
RFD	c

NOTES:
1. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS AND IMPACTED FACILITIES TO EXISTING (PRECONSTRUCTION) CONDITIONS OR BETTER, INCLUDING GRADES, DRAINAGE FEATURES, PAVEMENT, AND LANDSCAPED AREAS, UNLESS OTHERWISE SHOWN ON THE PLANS. FINAL STABILIZATION, TURF ESTABLISHMENT, AND TEMPORARY BMP REMOVAL SHALL BE PER SWPPP NOTES.
2. STABILIZED CONSTRUCTION EXIT TO BE INSTALLED AT THE EXISTING ACCESS POINT; MAINTAIN EXISTING DRIVEWAY AND GATE. COORDINATE PLACEMENT AND OPERATIONS TO MAINTAIN SITE ACCESS AND SECURITY.
3. FOR ADDITIONAL SWPPP REQUIREMENTS, REFER TO SHEET G-7 FOR SWPPP CONSTRUCTION NOTES.

BENCHMARKS:

ELEVATIONS ARE BASED ON CITY OF HOUSTON SITE CONTROL MONUMENT.

SITE CONTROL MONUMENT 5455-8415:
LOCATED ON SH 35 NORTH BOUND, +/-470' NORTH OF UNIVERSITY DR.
ELEVATION=37.40'

TBM "V"
SET SCRIBED BOX ON TOP OF A HEADWALL LOCATED AT THE NORTHEAST CORNER OF THE EFFLUENT STRUCTURE, WHICH IS SITUATED IN THE SOUTHERN CORNER OF THE PROPERTY. +/-10 FEET EAST OF A 66 INCH REINFORCED CONCRETE PIPE.(AS SHOWN ON SURVEY)
ELEVATION=39.79'

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SET SCRIBED BOX ON TOP OF THE EAST NOSE OF A PUMP STATION, LOCATED IN THE NORTHWEST AREA OF THE PROPERTY. +/-200 FEET SOUTHWEST OF THE MAIN ENTRANCE TO THE PLANT.(AS SHOWN ON SURVEY)
ELEVATION=42.08'

FLOODPLAIN NOTE:

BASED ON THE FLOOD INSURANCE RATE MAP NO. 48201C0880M, MAP REVISED DATE OF JANUARY 6, 2017 INDICATES THAT TRACT LIES WITHIN AREA:

ZONE "X"-(UNSHADED) AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

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WARNING
0 1
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DWG NO
SC2-16

NO.	DATE	REVISION	APP.

TRILOGY ENGINEERING SERVICES
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HOUSTON, TEXAS 77007
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TX FIRM NO: 17715

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NAZAR SABTI
TEXAS P.E. NO. 117913
DATE: 1/15/2026

DESIGNED BY: MS	SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
DRAWN BY: MS	FB NO. 340S1
CHECKED BY: NS	
REVIEWED BY: NS	
APPROVED BY: NS	

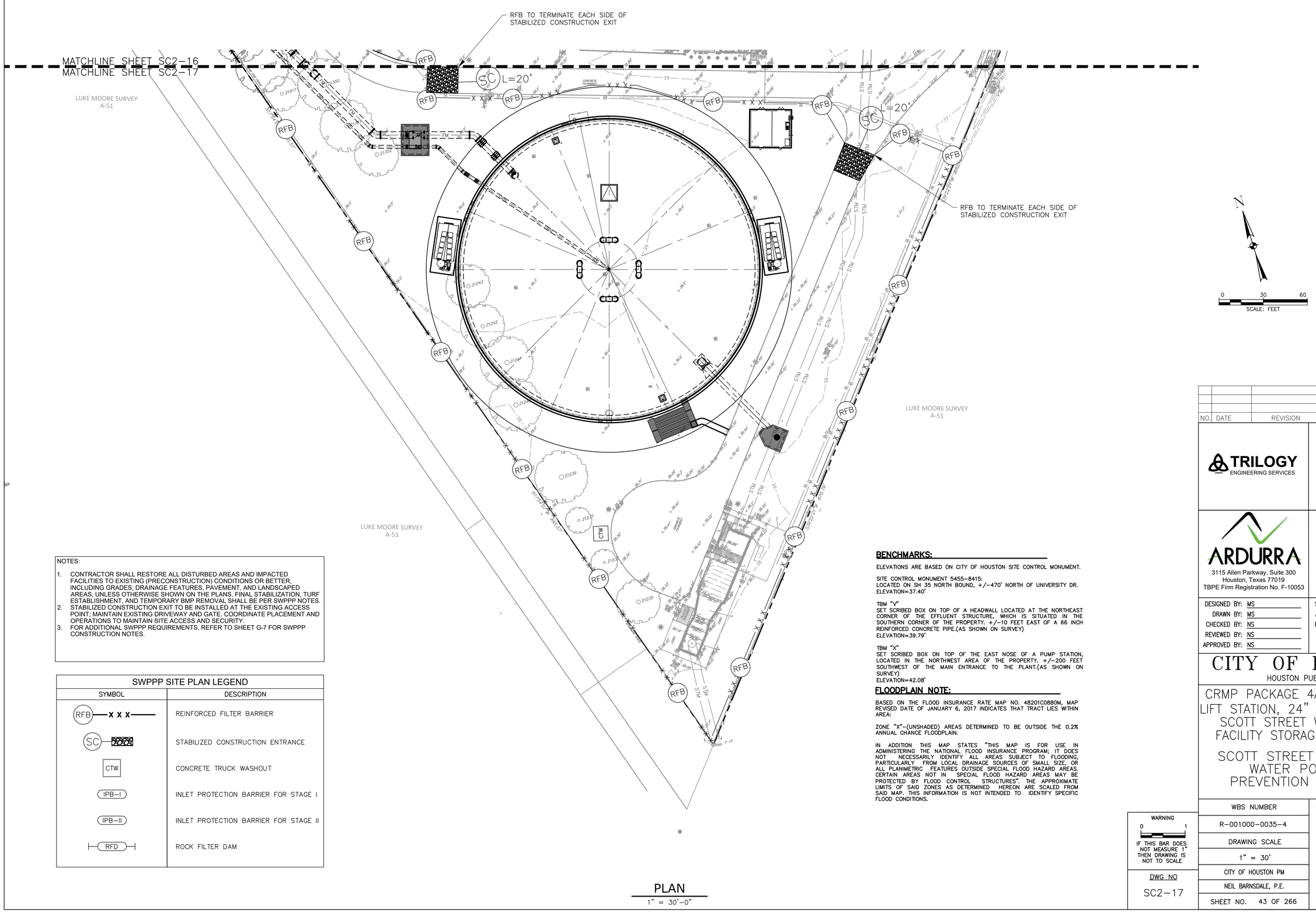
CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

SCOTT STREET SITE STORM WATER POLLUTION PREVENTION PLAN – 2

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1"=30'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 42 OF 266	

FILE PATH: D:\Eddington LS\Design\C-SWPPP-SCOTT.dwg



NOTES:

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SWPPP SITE PLAN LEGEND	
SYMBOL	DESCRIPTION
RFB — X X X —	REINFORCED FILTER BARRIER
SC	STABILIZED CONSTRUCTION ENTRANCE
CTW	CONCRETE TRUCK WASHOUT
IPB-I	INLET PROTECTION BARRIER FOR STAGE I
IPB-II	INLET PROTECTION BARRIER FOR STAGE II
RFD	ROCK FILTER DAM

BENCHMARKS:

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PLAN
1" = 30'-0"

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SURVEYED BY:
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FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

SCOTT STREET SITE STORM WATER POLLUTION PREVENTION PLAN – 3

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
SC2-17

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1" = 30'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. 43 OF 266	

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PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:10 PM

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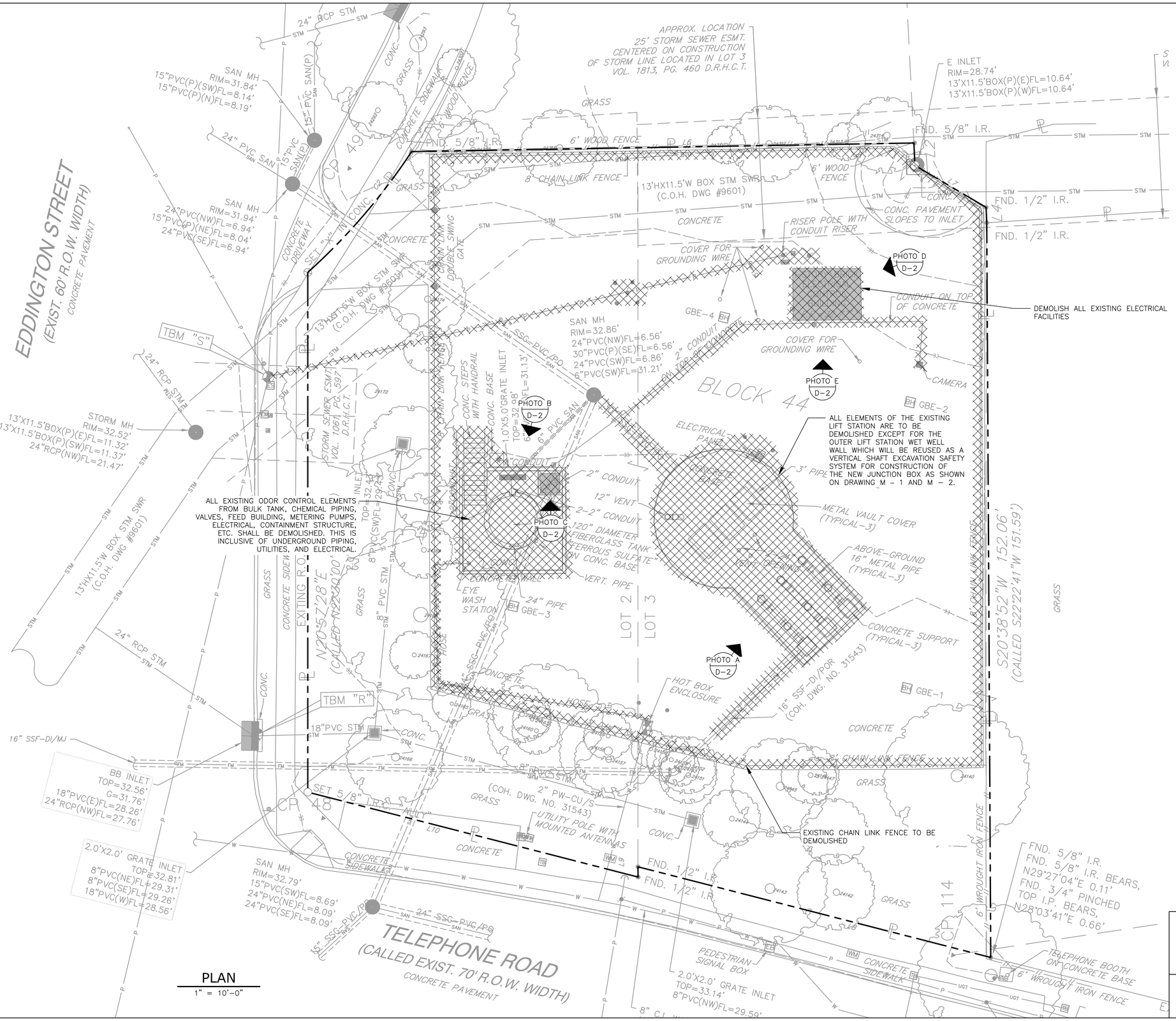


PLAN
1" = 10'-0"

NOTES

1. CONTRACTOR SHALL COORDINATE ALL ASPECTS OF DEMOLITION AND SCHEDULING, BYPASS PUMPING, ETC. REFER TO THE OTHER DEMOLITION DRAWINGS FOR CONSTRUCTION PHASING AND SPECIFICATION SECTION 01110 SUMMARY OF WORK FOR ADDITIONAL DETAILS.
2. AS PART OF THE WORK THE CONTRACTOR MAY REQUIRE DEMOLITION OF SOME OF THE EXISTING TREES AND LANDSCAPING VEGETATION. CONTRACTOR SHALL DEVELOP A FULLY DETAILED DEMOLITION PLAN INCLUSIVE OF ALL EXISTING TREES AND VEGETATION WHICH WILL REQUIRE REMOVAL TO PERFORM THE WORK.
3. EXISTING TREES AND LANDSCAPE VEGETATION THAT WILL REMAIN SHALL BE TRIMMED AND MAINTAINED BY A PROFESSIONAL ARBORIST DURING THE COURSE OF CONSTRUCTION.
4. THE CONTRACTOR SHALL MAINTAIN ALL TEMPORARY CONSTRUCTION SECURITY AND SAFETY FENCING AS REQUIRE TO SECURE THE JOBSITE FOR THE ENTIRETY OF THE CONSTRUCTION PHASE. COORDINATE WITH THE CONSTRUCTION MANAGER AND THE CITY WWOPS AS REQUIRED TO SUIT.

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER	SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
DRAWN BY: J. GIBSON	FB NO. 340S1
CHECKED BY: T. REESER	
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

EDDINGTON LIFT STATION DEMOLITION PLAN

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1" = 20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

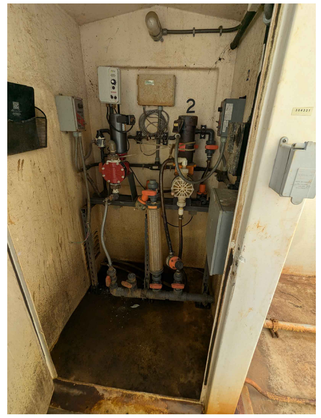
DWG NO
D-1

EDDINGTON PUMPS

PHOTOGRAPH A
NOT TO SCALE

EDDINGTON CHEMICAL FEED

PHOTOGRAPH B
NOT TO SCALE



EDDINGTON CHEMICAL FEED

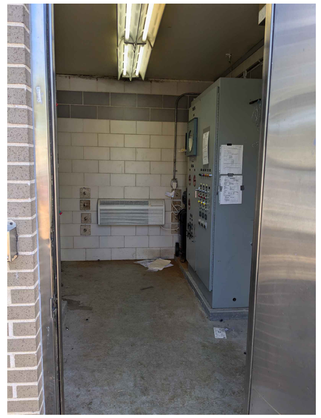
PHOTOGRAPH C
NOT TO SCALE

EDDINGTON CONTROL BUILDING

PHOTOGRAPH D
NOT TO SCALE

EDDINGTON CONTROL BUILDING

PHOTOGRAPH E
NOT TO SCALE



EDDINGTON CONTROL BUIDLING

PHOTOGRAPH G
NOT TO SCALE

NOTE:

1. SEE DRAWING D–1 FOR DIRECTION OF PHOTO TAKEN ON SITE.
2. THE CITY WILL HAVE FIRST RIGHT OF REFUSAL FOR ANY EQUIPMENT OR ITEMS SCHEDULED TO BE DEMOLISHED. DELIVER ITEMS TO LOCATION OF CITY'S CHOICE WITHIN THE CITY'S SERVICE BOUNDARY AFTER ITEMS ARE CLEANED.

NO.	DATE	REVISION	APP.

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APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

DEMOLITION PHOTOS I

WARNING
0 1
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DWG NO
D–2

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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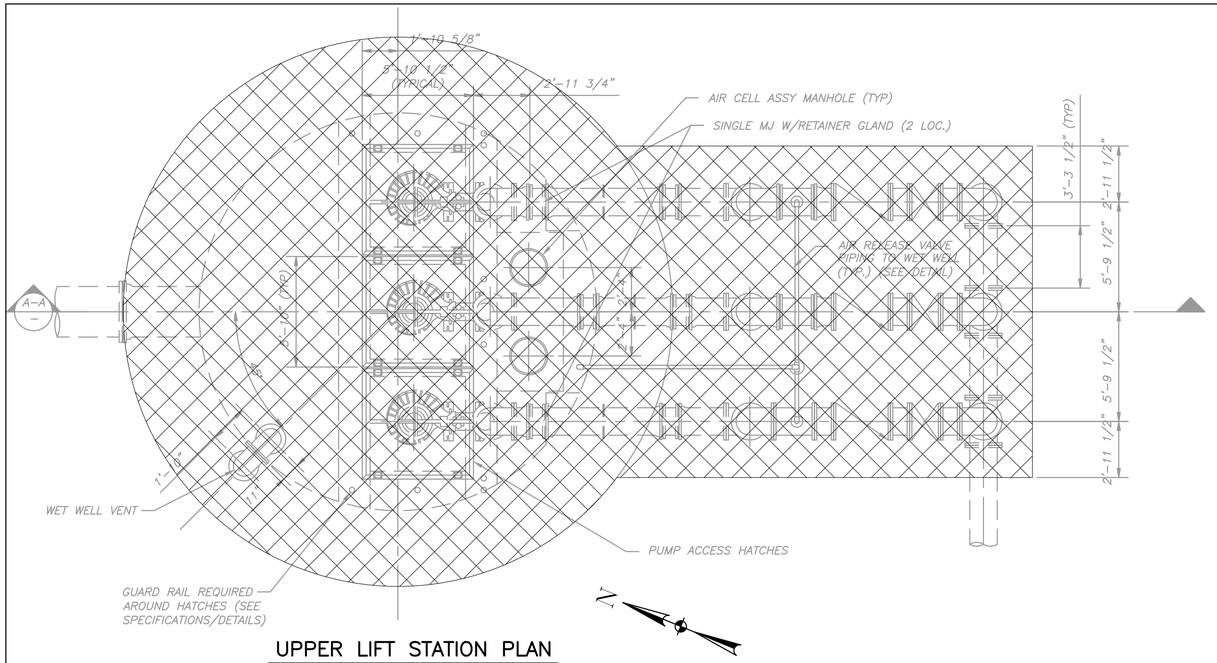
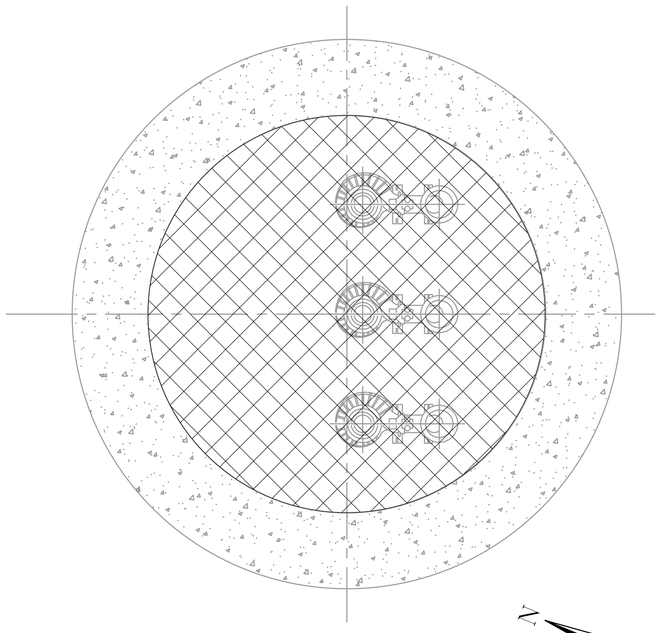


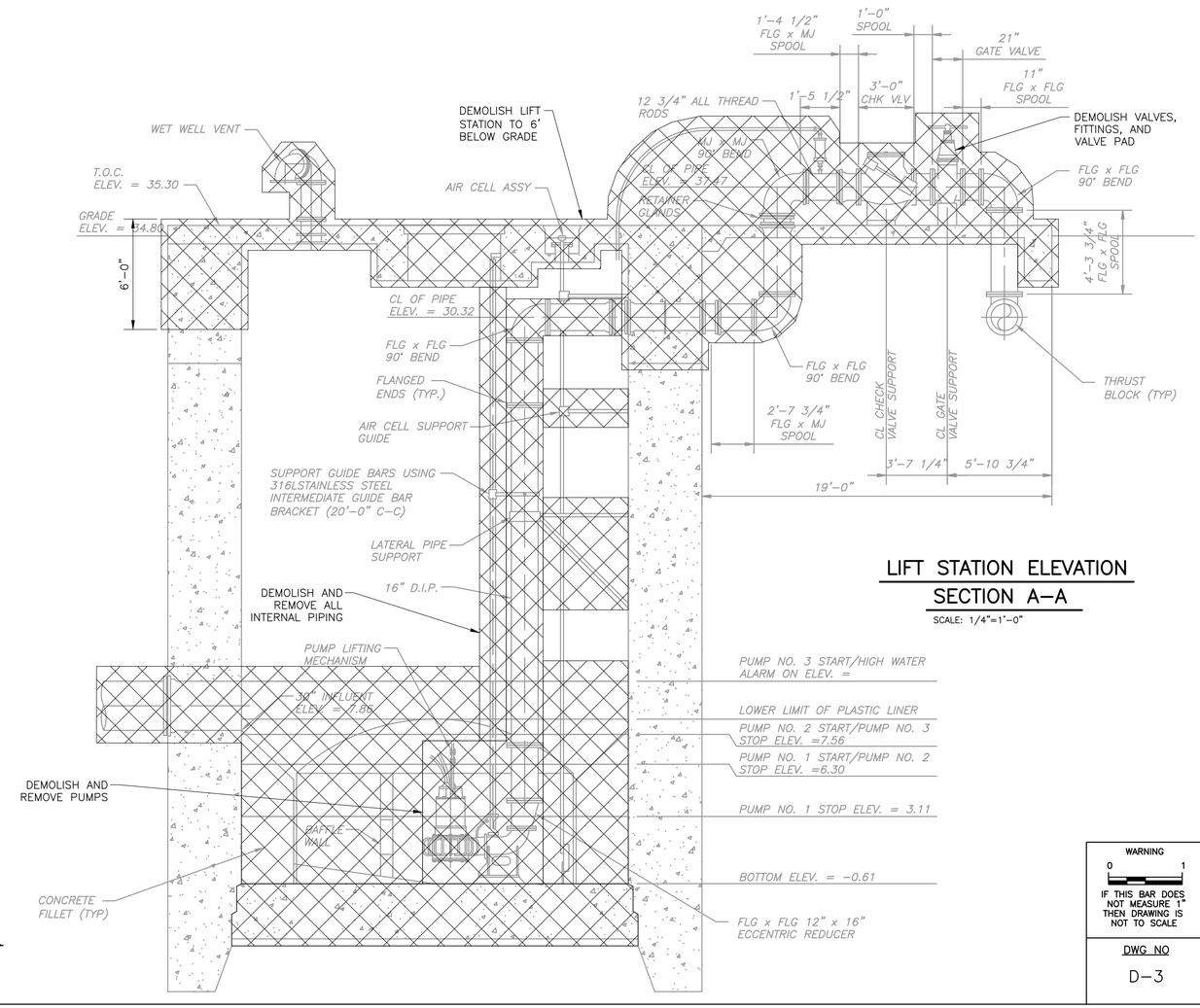
UPPER LIFT STATION PLAN

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



LOWER LIFT STATION PLAN

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



LIFT STATION ELEVATION
SECTION A-A

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

NOTE:

1. ONCE THE TEMPORARY BYPASS PUMPING PLAN IS CONSTRUCTED AND BYPASS PUMPING ESTABLISHED; THE EXISTING EDDINGTON LIFT STATION MAY BEGIN TO BE DEMOLISHED.
2. ALL WET WELL CONTENTS SHALL BE DRAINED AND PUMPED TO THE EXISTING FORCE MAIN TEMPORARY CONNECTION. WET WELL AND EQUIPMENT CONTENTS SHALL BE THOROUGHLY PRESSURE WASHED CLEANED, DISINFECTED, AND MADE READY FOR DEMOLITION ACTIVITIES. WASHWATER SHALL BE PUMPED TO TEMPORARY FORCE MAIN CONNECTION AS INDICATED ABOVE.
3. ALL ELEMENTS OF THE EXISTING LIFT STATION ARE TO BE DEMOLISHED EXCEPT FOR THE OUTER LIFT STATION WET WELL WALL WHICH WILL BE REUSED AS A VERTICAL SHAFT EXCAVATION SAFETY SYSTEM FOR CONSTRUCTION OF THE NEW JUNCTION BOX AS SHOWN ON DRAWING M-1.
4. ALL CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE BOTTOM OF THE WET WELL AND SWEPT CLEAN PRIOR TO BREAKOUT OF LIFT STATION BOTTOM SLAB.
5. THE CONTRACTOR SHALL ESTABLISH AN ON-SITE GROUNDWATER CONTROL SYSTEM TO CONTROL GROUNDWATER AS THE JUNCTION BOX IS CONSTRUCTED DEEPER THAN THE EXISTING LIFT STATION BOTTOM. SEE STRUCTURAL DRAWINGS AND THE GEOTECHNICAL REPORT FOR FURTHER INFORMATION.

NO.	DATE	REVISION	APP.

ARDURRA
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Houston, Texas 77019
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CHECKED BY: T. REESER	
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

EXISTING LIFT STATION DEMOLITION PLANS AND SECTIONS

WARNING
0 1
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WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
D-3

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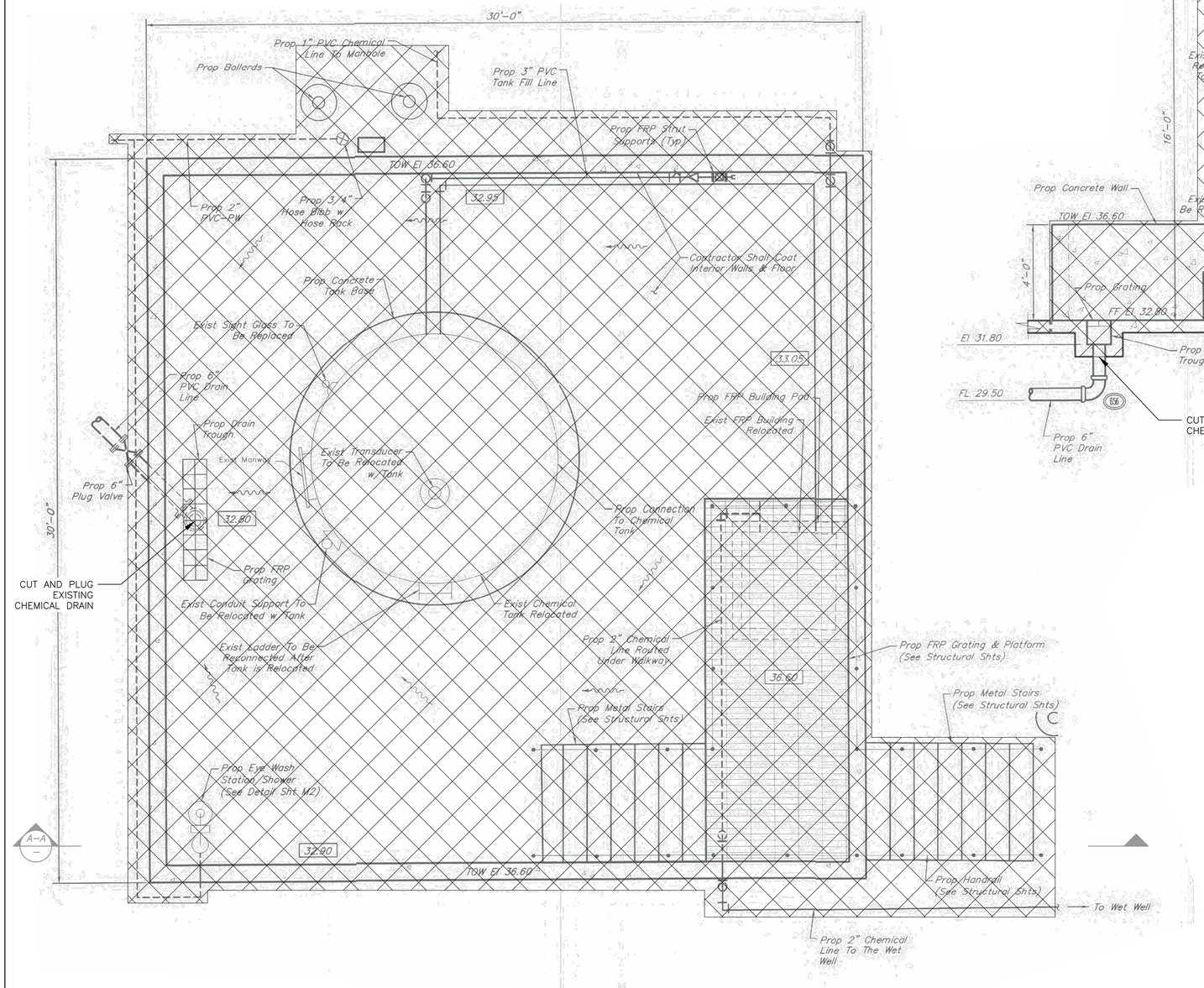
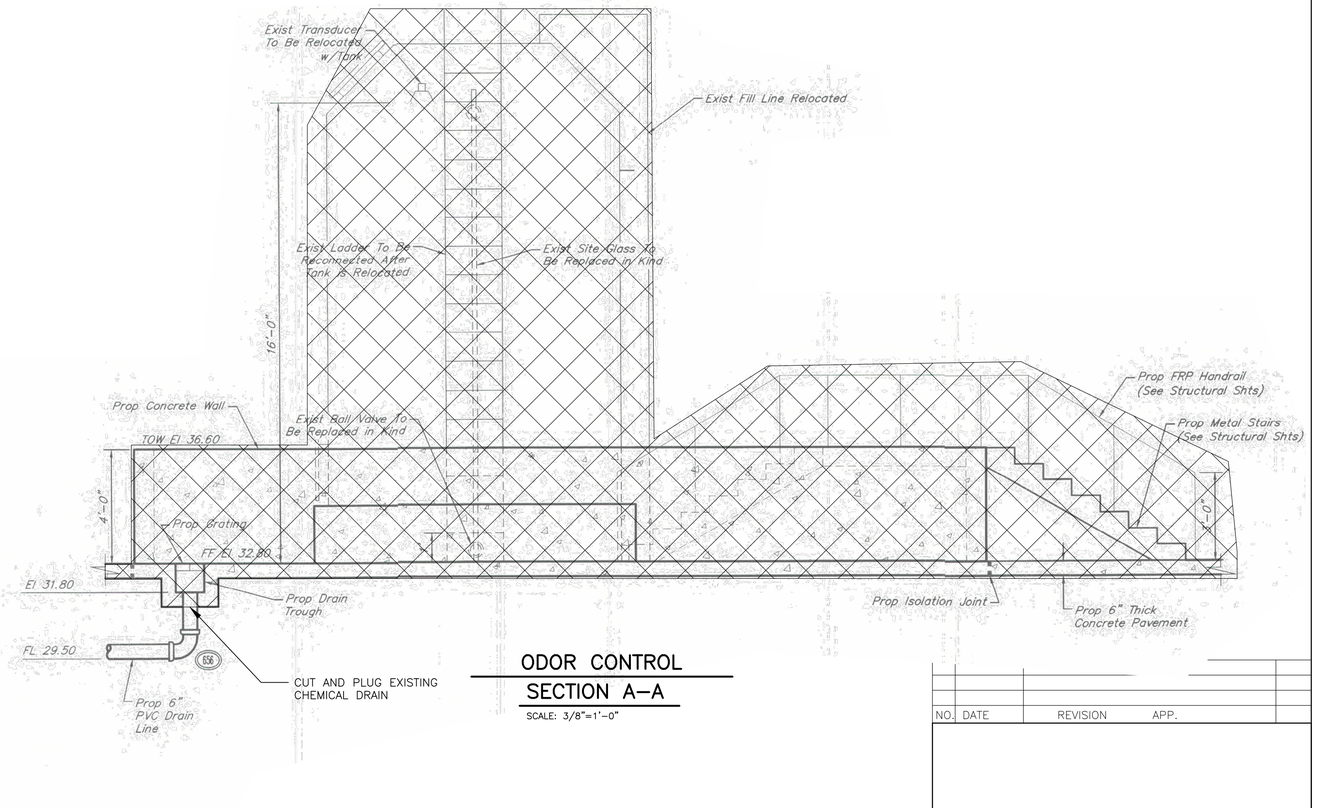


ODOR CONTROL PLAN

SCALE: 3/8"=1'-0"



ODOR CONTROL SECTION A-A

SCALE: 3/8"=1'-0"

NOTE:

1. IT IS DESIRABLE TO MAINTAIN OPERATION OF THE EXISTING ODOR CONTROL SYSTEM AS LONG AS POSSIBLE PRIOR TO DEMOLITION.
2. ONCE SPACE IS NEEDED BY THE CONTRACTOR TO CONSTRUCT PROPOSED IMPROVEMENTS, THE CONTRACTOR SHALL PROVIDE, MAINTAIN, AND RE-SUPPLY A TEMPORARY CHEMICAL STORAGE AND FEED SYSTEM TO PROVIDE METERED FEED OF FERROUS SULFATE FROM THE CITY'S PREFERRED VENDOR. THE SYSTEM WILL BE LOCATED ON SITE IN AN AREA OUT OF THE WAY OF CONSTRUCTION.
3. PRIOR TO DEMOLITION, ALL LIQUID CHEMICAL SHALL BE DRAINED FROM THE TANK AND ALL PIPING AND DISPOSED OF PER SPECIFICATION.
4. ONCE THE TEMPORARY CHEMICAL FEED SYSTEM IS CONSTRUCTED AND CHEMICAL FEED ESTABLISHED; THE EXISTING SYSTEM MAY BEGIN TO BE DEMOLISHED.
5. ALL EXISTING ODOR CONTROL ELEMENTS FROM BULK TANK, CHEMICAL PIPING, VALVES, FEED BUILDING, METERING PUMPS, ELECTRICAL, CONTAINMENT STRUCTURE, ETC. SHALL BE DEMOLISHED. THIS IS INCLUSIVE OF UNDERGROUND PIPING, UTILITIES, AND ELECTRICAL.

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APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ODOR CONTROL AND CHEMICAL FEED DEMOLITION PLAN AND SECTIONS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
D-4

FILE PATH: C:\Users\JGibson\DC\ACCDocs\ardurra, Inc\2024-1427\project Files\03-Prod\03-Dwgs\D-DEMO-EDD.dwg

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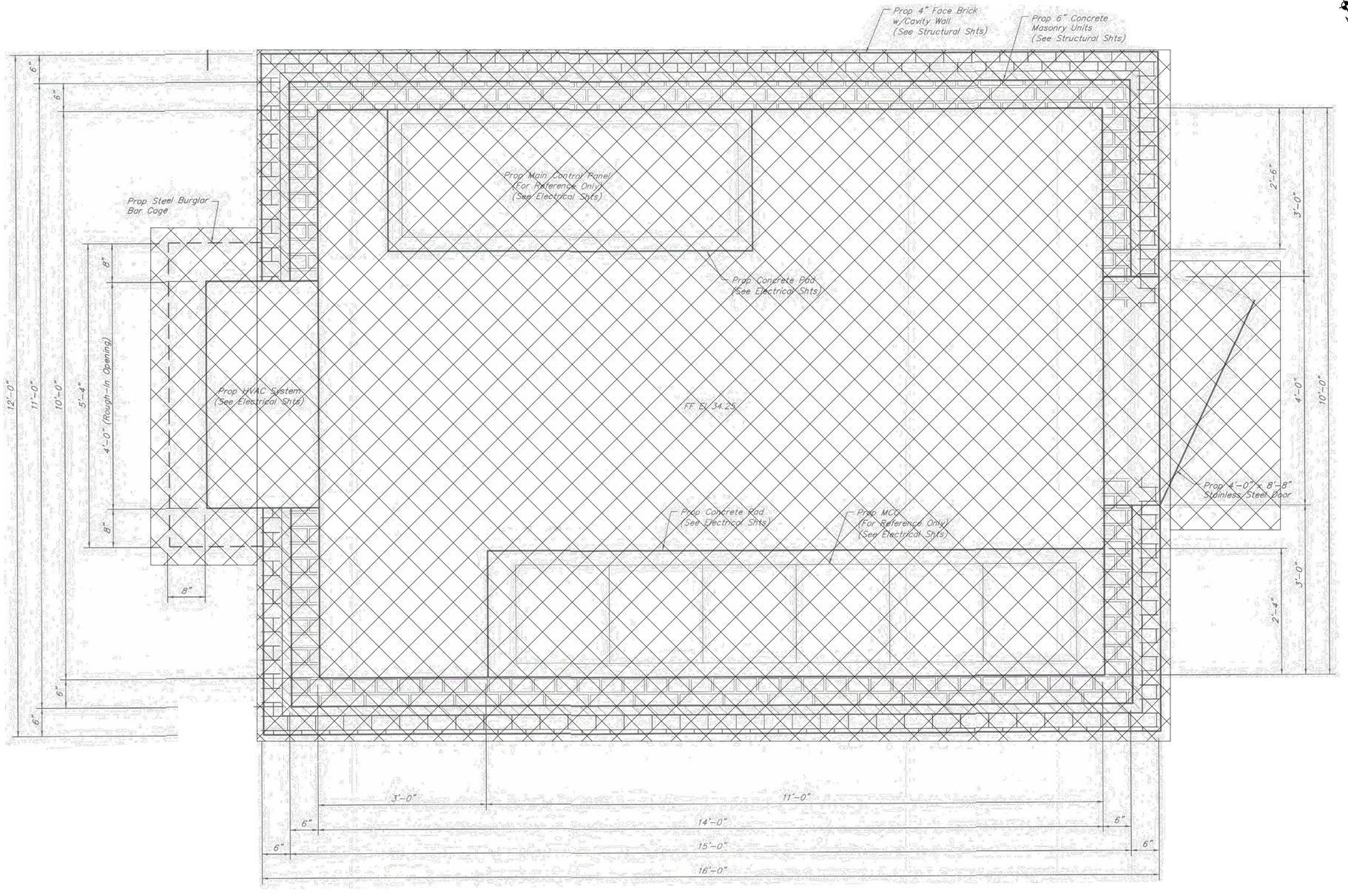

CONTROL BUILDING PLAN

SCALE: 1"=1'-0"

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Houston, Texas 77019
TBPE Firm Registration No. F-10053

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CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL CONTROL BUILDING DEMOLTION PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
D-5

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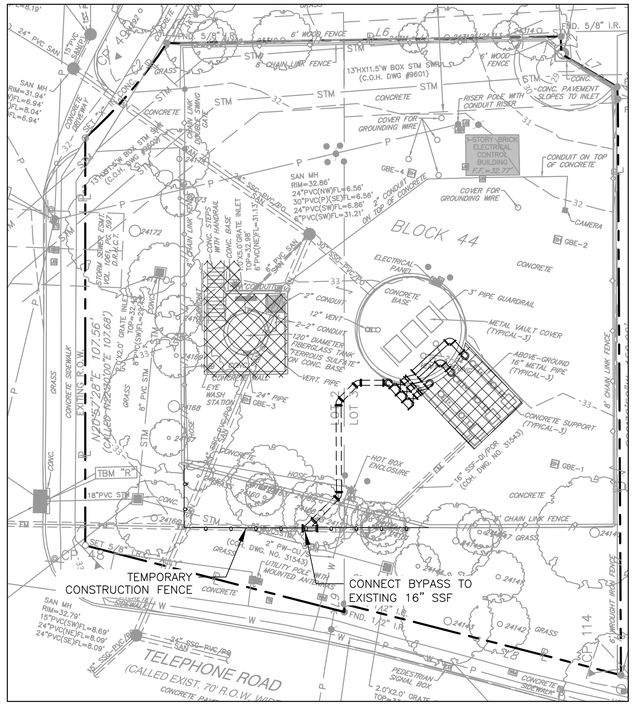
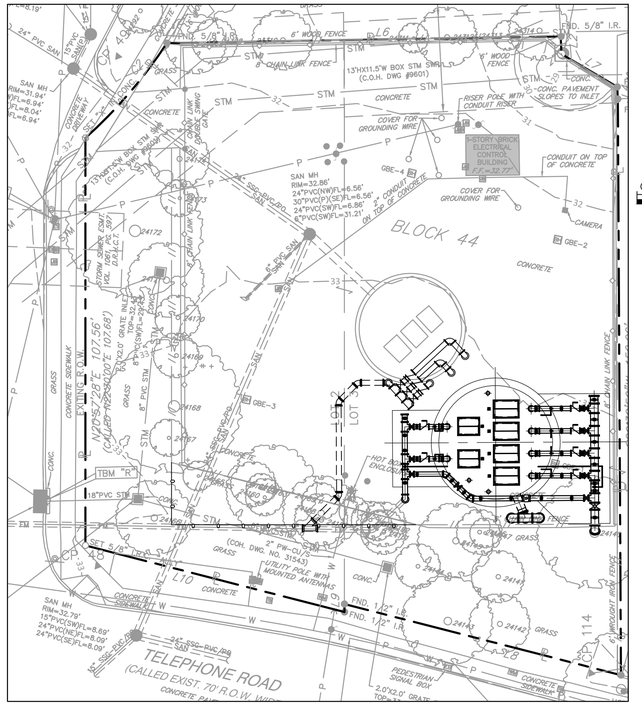


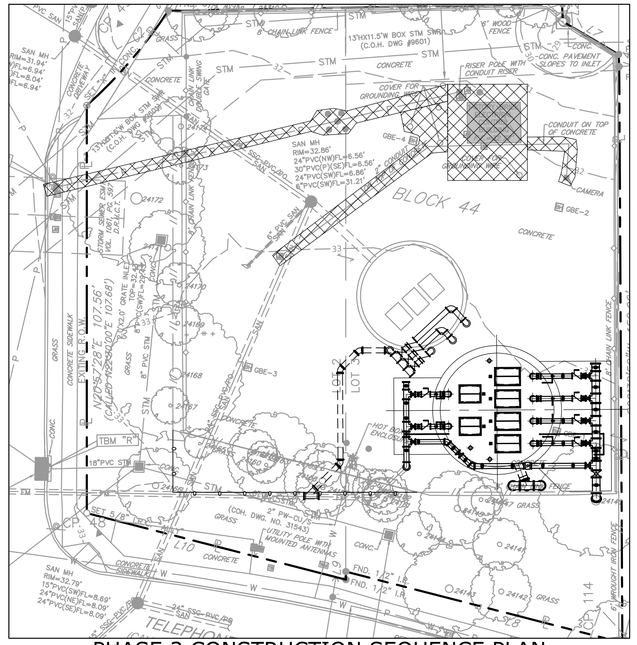
PHASE 1 CONSTRUCTION SEQUENCE PLAN

SCALE: 1" = 20'-0"



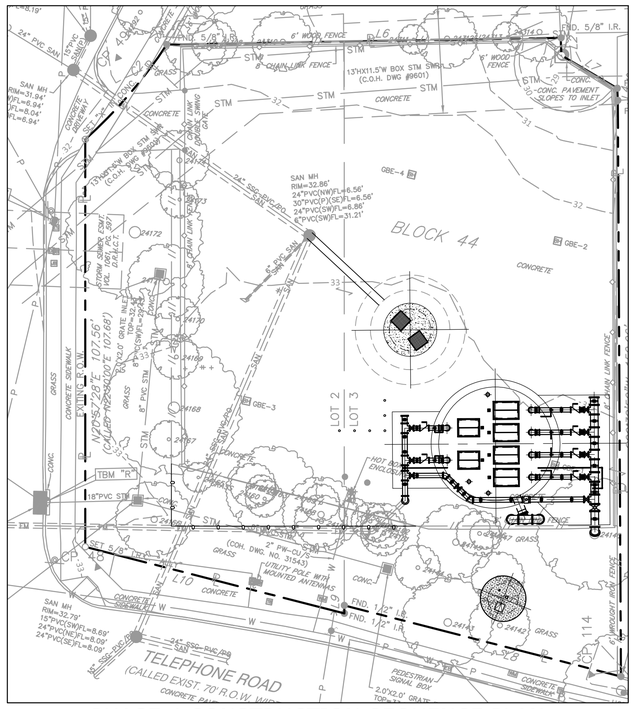
PHASE 2 CONSTRUCTION SEQUENCE PLAN

SCALE: 1" = 20'-0"



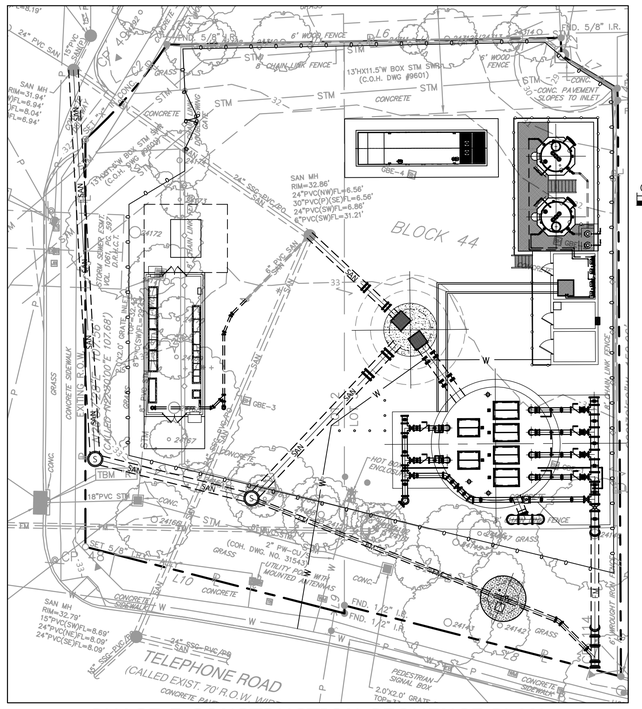
PHASE 3 CONSTRUCTION SEQUENCE PLAN

SCALE: 1" = 20'-0"



PHASE 4 CONSTRUCTION SEQUENCE PLAN

SCALE: 1" = 20'-0"



PHASE 5 CONSTRUCTION SEQUENCE PLAN

SCALE: 1" = 20'-0"

NOTE:

1. PHASE 1: INSTALLATION OF TEMPORARY BYPASS PIPING ON THE EXISTING LIFT STATION TO MAINTAIN IT IN SERVICE AS LONG AS POSSIBLE PRIOR TO HAVING TO PERFORM A FULL BYPASS TEMPORARY PUMPING PLAN. CONTRACTOR SHALL PROVIDE TEMPORARY CHEMICAL FEED SYSTEM FOR ODOR CONTROL.
2. PHASE 2: WHILE MAINTAINING OPERATION OF THE EXISTING EDDINGTON LIFT STATION; BEGIN CONSTRUCTION OF PROPOSED LIFT STATION AND OTHER FACILITY FEATURES AS SPACE WILL ALLOW.
3. PHASE 3: ESTABLISH TEMPORARY PUMP AND DEMOLISH EXISTING ELECTRICAL FACILITIES.
4. PHASE 4: MAINTAIN FULL TEMPORARY BYPASS PUMPING PROVISIONS. DEMOLISH AND CLEAN EXISTING EDDINGTON LIFT STATION WET WELL FOR CONVERSION TO A NEW JUNCTION BOX. EXISTING WALLS SHALL BE USED FOR THE FUNCTION OF ALLOWING EXCAVATION TRENCH SAFETY. CONTRACTOR SHALL DEVELOP HIS OWN PLAN FOR THIS PURPOSE.
5. PHASE 5: COMPLETE CONSTRUCTION OF ALL NEW FACILITY ELEMENTS AND PLACE ON-LINE. REMOVE ALL TEMPORARY BYPASS PUMPING PROVISIONS.
6. REFER TO SECTION 01114 CONSTRUCTION SEQUENCING AND 11500 TEMPORARY BYPASS PUMPING FOR ADDITIONAL INFORMATION AND DETAILS.

NO.	DATE	REVISION	APP.

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CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

CONSTRUCTION SEQUENCING AND TEMPORARY PIPING MODIFICATIONS

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

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R-001000-0035-4	
DRAWING SCALE	
1" = 20'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
D-6

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 3:12 PM
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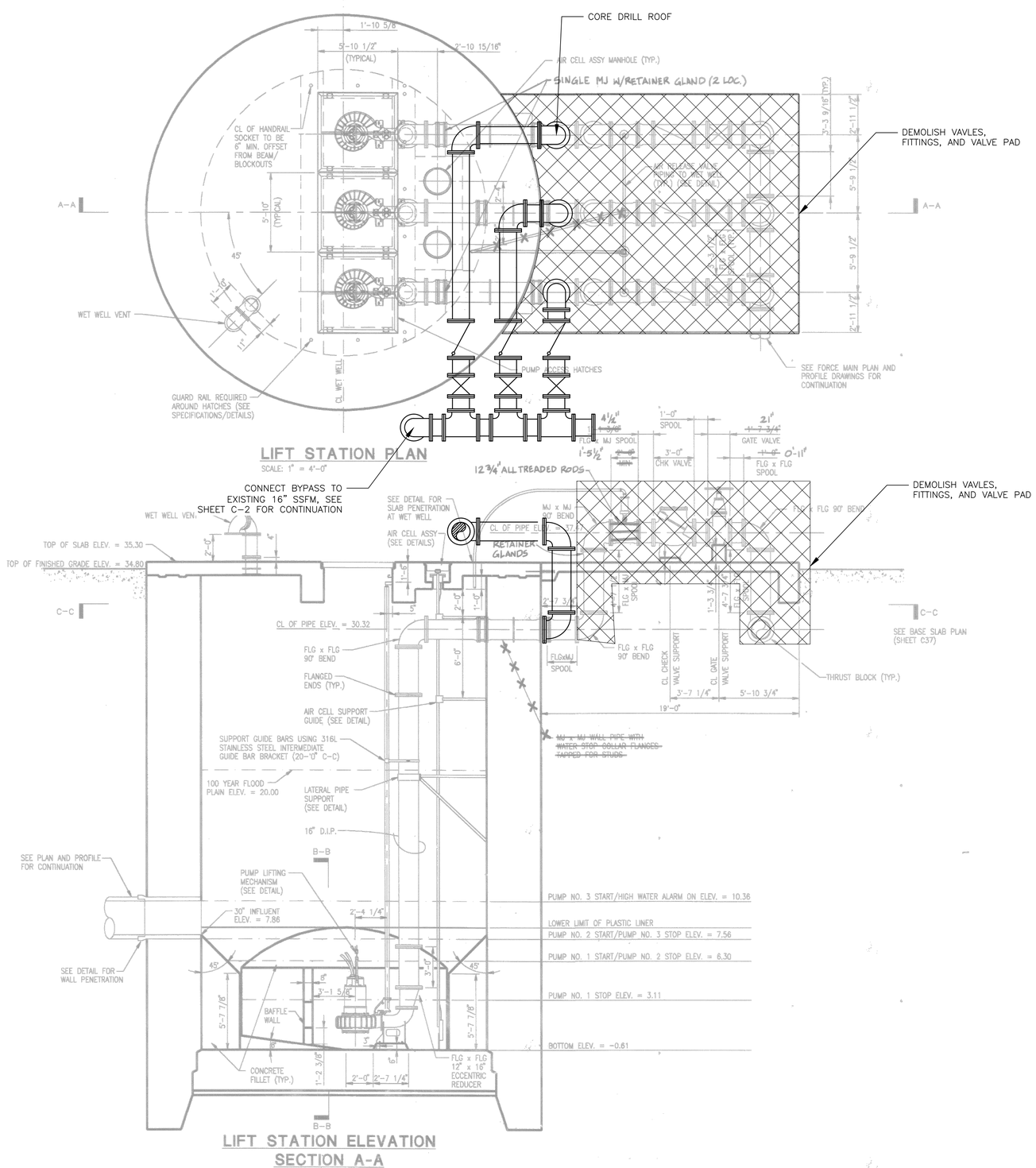

NOTE:

1. THE PURPOSE OF THE TEMPORARY PIPING WORK ILLUSTRATED ON THIS DRAWING AS PART OF CONSTRUCTION PHASE I IS TO MINIMIZE THE AMOUNT OF TIME THAT A TEMPORARY BYPASS PUMPING SYSTEM WOULD BE REQUIRED. IT IS DESIRED TO UTILIZE THE EXISTING LIFT STATION AS LONG AS POSSIBLE WHILE CONSTRUCTING THE NEW LIFT STATION. IT WILL BE UP TO THE CONTRACTOR TO DETERMINE THE EXACT SPECIFIC OF THIS PLAN AND COORDINATING WITH OTHER PHASES OF THE CONSTRUCTION.
2. REFER TO SECTION 01114 CONSTRUCTION SEQUENCING AND 11500 TEMPORARY BYPASS PUMPING FOR ADDITIONAL INFORMATION AND DETAILS.
3. ENGINEER'S SUGGESTED MAINTENANCE OF PROCESS OPERATIONS (MOPO) PLAN IS AS SHOWN. CONTRACTOR MAY ELECT TO ALTER PROPOSED TEMPORARY PIPING PLAN PER THE APPROVAL OF THE ENGINEER THROUGH THE SHOP DRAWING SUBMITTAL PROCESS.
4. TEMPORARY PUMP RISER PIPING SHALL BE FLANGED DUCTILE IRON PIPE OR LINED AND COATED WELDED CARBON STEEL. ISOLATION GATE VALVES AND SWING CHECK VALVES SHALL CONFORM TO AWWA AND TCEQ REQUIREMENTS AND BE COMPATIBLE FOR RAW SEWAGE SERVICE.
5. PROVIDE NEW STAINLESS STEEL AIR AND VACUUM RELIEF VALVES ON EACH PUMP RISER; SIZED FOR THE EXISTING PUMP RATED FLOW.
6. ALL ABOVE AND BELOWGROUND PIPING JOINTS SHALL BE OF RESTRAINED JOINT CONSTRUCTION.
7. THE CONTRACTOR SHALL DESIGN AND FABRICATE TEMPORARY CRADLED WOOD PIPE SUPPORT DUNNAGE AS REQUIRED TO TEMPORARILY SUPPORT ABOVEGROUND PIPING.

NO.	DATE	REVISION	APP.

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HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

PHASE 1 CONSTRUCTION SEQUENCE BYPASS PUMPING AND PIPING PLAN

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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0 1
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DWG NO
D-7

FILE PATH: C:\Users\jgibson\DC\ACCDocs\ardurra, inc\2024-1427\project Files\03-Prod\03-Dwgs\D-DEMO-EDD.dwg

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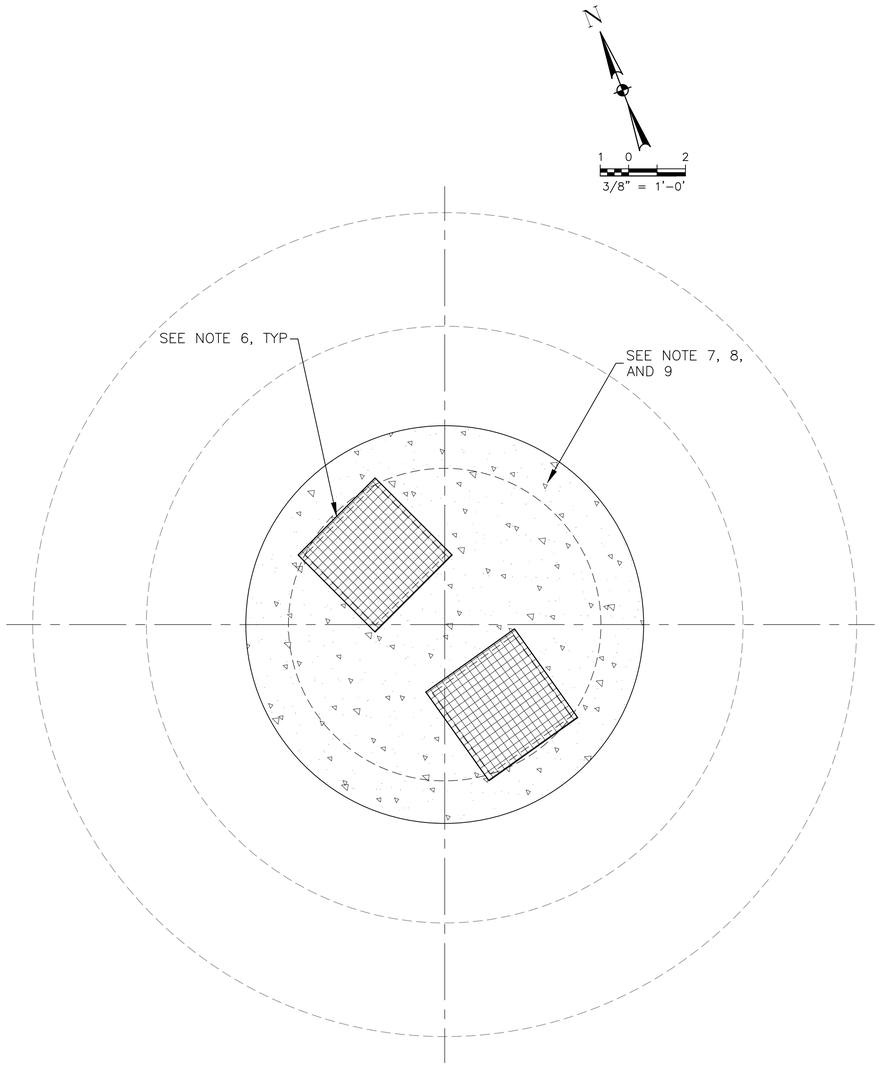
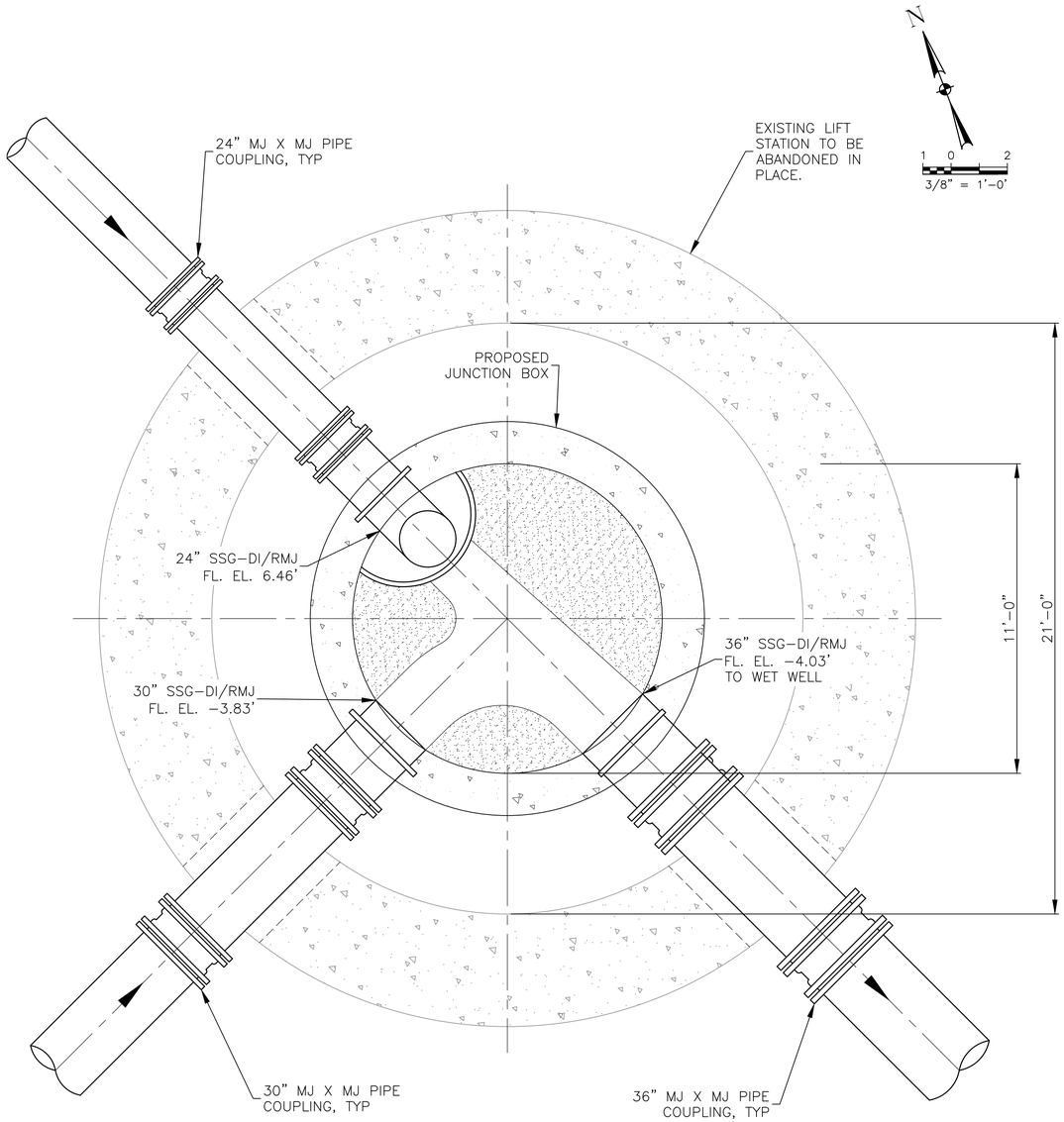


JUNCTION BOX UPPER PLAN

PLAN

3/8" = 1'-0"



JUNCTION BOX LOWER PLAN

PLAN

3/8" = 1'-0"

NOTES

1. PROPOSED JUNCTION BOX WILL BE CONSTRUCTED WITHIN EXISTING LIFT STATION STRUCTURE. SEE SECTION 01110 SUMMARY OF WORK AND STRUCTURAL DRAWINGS FOR ADDITIONAL DETAILS.
2. EXISTING LIFT STATION WALLS SHALL BE CORE DRILLED AS REQUIRED FOR ROUTING NEW PROPOSED SANITARY SEWER GRAVITY PIPING.
3. MJ X MJ COUPLING PAIRS ARE TO PROVIDE FOR DIFFERENTIAL SETTLEMENT BETWEEN NEW PIPING AND PROPOSED JUNCTION BOX.
4. ALL PIPING SHALL BE OF RESTRAINED JOINT CONSTRUCTION.
5. DROP STRUCTURE IS A UNIT AS MANUFACTURERED BY DURAN, INC. – RELINER DROP BOWL AND PIPE SYSTEM.
6. 3.5 FT X 3.5 FT H–20 RATED FLOOD RATED ACCESS HATCH WITH HATCH GRATING.
7. CONTRACTOR SHALL MOUNT A CONFINED SPACE WARNING SIGN ON TOP OF ACCESS HATCH AS PER SPECIFICATION 10400 SIGNAGE.
8. TOP OF CONCRETE JUNCTION BOX ROOF SHALL BE PAINTED WITH AN ALTERNATING YELLOW AND BLACK CHEVRON PAINTING SCHEME TO WARN FUTURE FACILITY OPERATIONS OF MAXIMUM ALLOWABLE STRUCTURE LOAD ON ROOF.
9. CONTRACTOR SHALL MOUNT A CAUTION ANSI MAXIMUM LOAD SIGN OF XX,XXX LBS. CONCENTRATED LOAD OR XXX LBS/SF UNIFORM LOAD.

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER	SURVEYED BY:
DRAWN BY: J. GIBSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

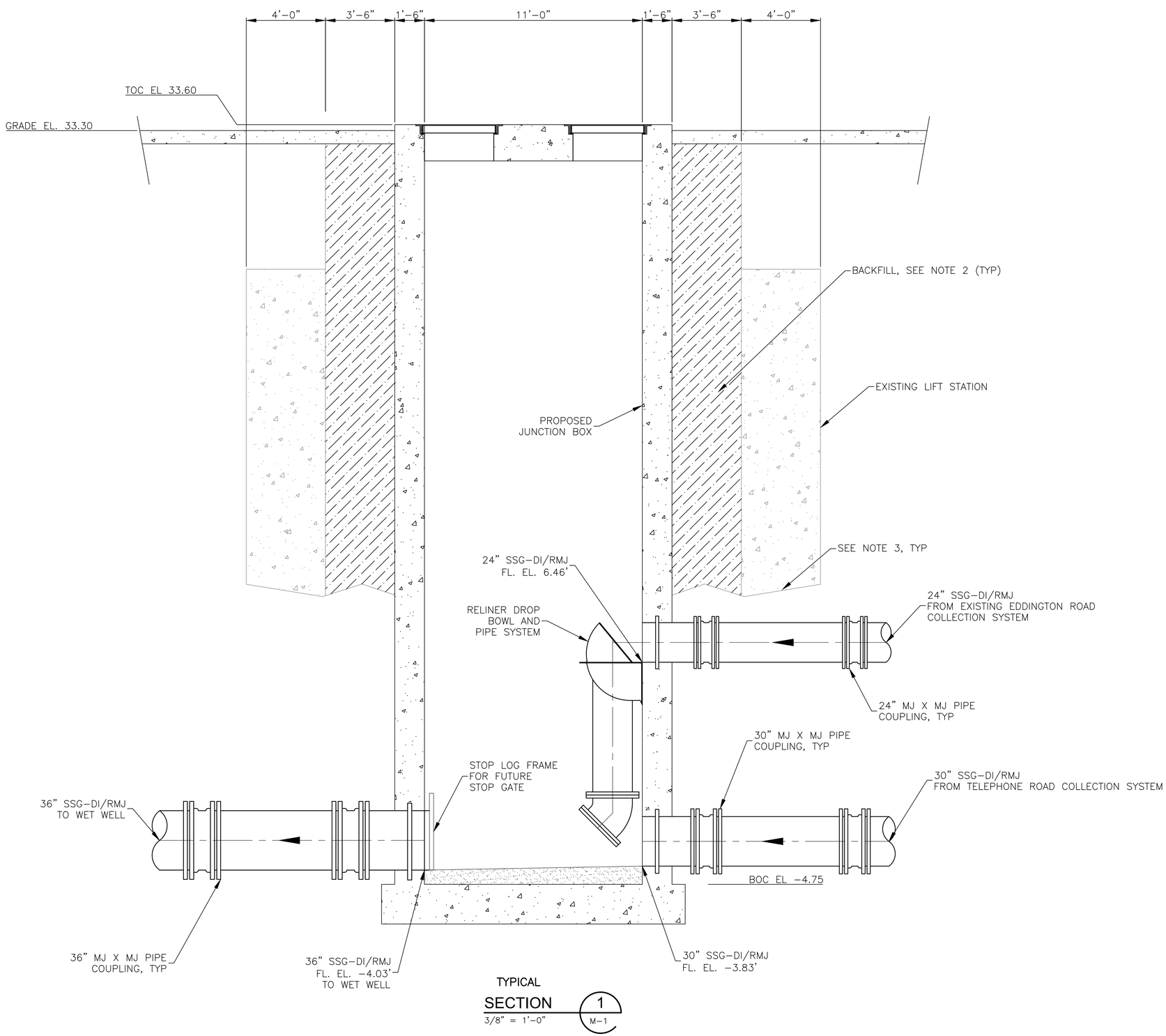
CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

JUNCTION BOX UPPER AND LOWER PLANS

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
M–1

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
3/8" = 1'-0"	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	



TYPICAL SECTION 1 M–1
3/8" = 1'–0"

NOTES:

1. PROPOSED JUNCTION BOX WILL BE CONSTRUCTED WITHIN THE EXISTING LIFT STATION STRUCTURE. SEE SECTION 01110 SUMMARY OF WORK AND STRUCTURAL DRAWINGS FOR ADDITIONAL DETAILS.
2. BACKFILL TO 95% STANDARD PROCTOR. REFER TO SPECIFICATION SECTION 02316 EXCAVATION AND BACKFILL FOR STRUCTURES.
3. EXISTING LIFT STATION WALLS SHALL BE CORE DRILLED AS REQUIRED FOR ROUTING NEW PROPOSED SANITARY SEWER GRAVITY PIPING.
4. MJ X MJ COUPLING PAIRS ARE TO PROVIDE FOR DIFFERENTIAL SETTLEMENT BETWEEN NEW PIPING AND PROPOSED JUNCTION BOX.
5. DROP STRUCTURE IS A UNIT AS MANUFACTURERED BY DURAN, INC. – RELINER DROP BOWL AND PIPE SYSTEM.
6. 3.5 FT X 3.5 FT H–20 RATED FLOOD RATED ACCESS HATCH WITH HATCH GRATING.
7. CONTRACTOR SHALL PROVIDE A TYPE 316L STAINLESS STEEL STOP LOG FRAME FOR FUTURE LIFT STATION ISOLATION. SEE SECTION 11281 – SLIDE GATES FOR ADDITIONAL INFORMATION.
8. ALL INTERIOR SURFACES OF THE NEW JUNCTION BOX SHALL BE COATED WITH A SPECIALTY PROTECTIVE COATING SYSTEM AS SPECIFIED IN SECTION 09805 INTERIOR CONCRETE CORROSION BARRIER.
9. NOT ALL DETAILS ARE INDICATED AND PROPOSED PIPING IS NOT ALWAYS SHOWN IN ITS ENTIRETY FOR CLARITY PURPOSES. CONTRACTOR SHALL COORDINATE PIPING FABRICATION IN CONJUNCTION WITH PLAN, SECTIONS, P&ID DRAWINGS, EXISTING SHOP DRAWINGS, AND CONTRACTOR FILED MEASUREMENTS. SIZES OF PIPE AND GENERAL METHOD OF ROUTING IS ILLUSTRATED, BUT NOT INTENDED TO SHOW EVERY OFFSET AND FITTING FOR EVERY STRUCTURAL DIFFICULTY THAT MAY BE ENCOUNTERED, ITEMS AS INDICATED ON THE P&ID, OR AS REQUIRED FOR TESTING AND DISINFECTION CONNECTIONS.

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DRAWN BY: J. GIBSON	FB NO. 340S1
CHECKED BY: T. REESER	
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

JUNCTION BOX TYPICAL SECTION

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
M–2

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
3/8" = 1'–0"	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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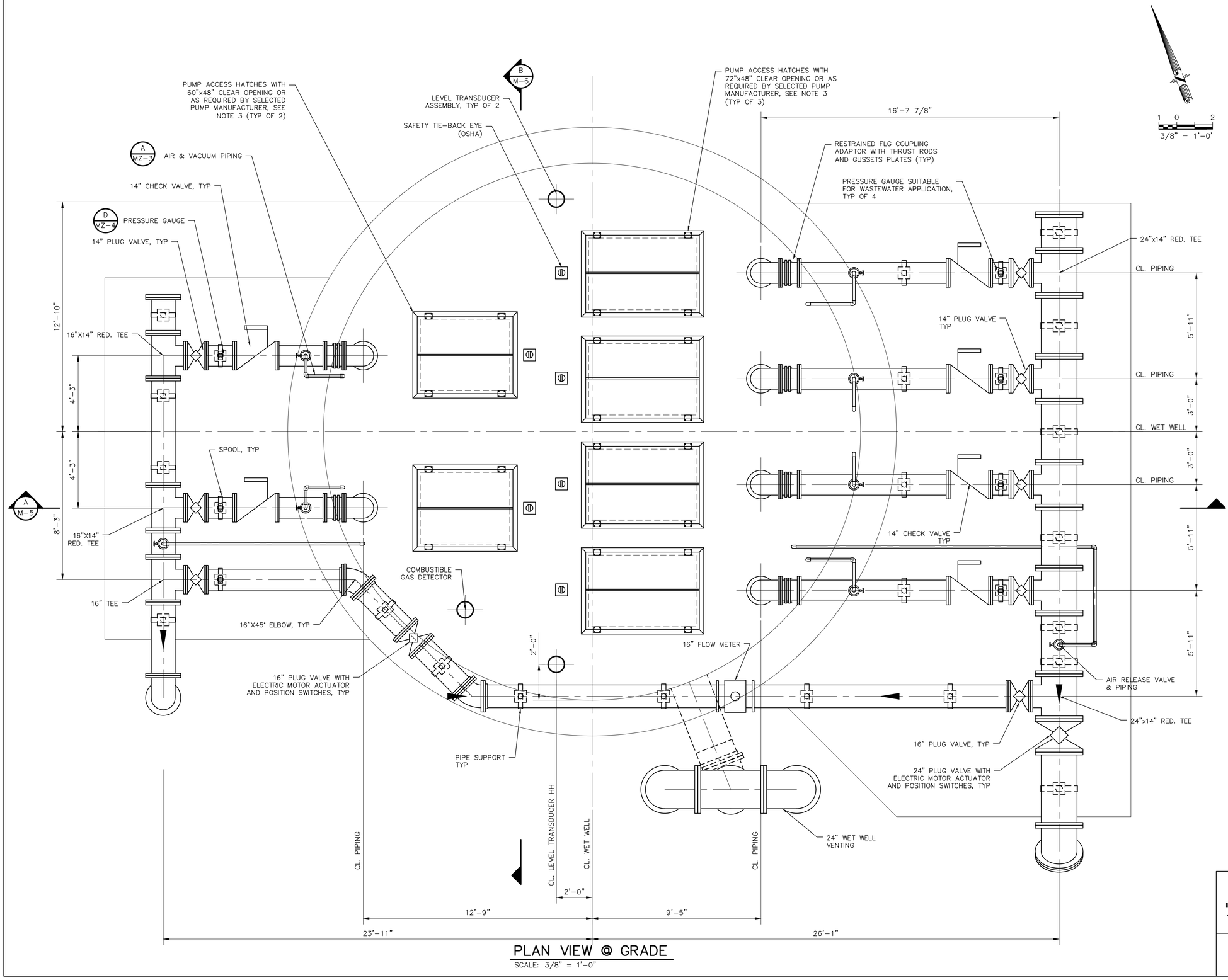

PLAN VIEW @ GRADE

SCALE: 3/8" = 1'-0"

1 0 2

3/8" = 1'-0"

NOTES:

1. SEE SECTION 01110 SUMMARY OF WORK AND STRUCTURAL DRAWINGS FOR ADDITIONAL DETAILS.
2. CONTRACTOR SHALL MOUNT A CONFINED SPACE WARNING SIGN ON TOP OF ACCESS HATCH AS PER SPECIFICATION 10400 SIGNAGE.
3. CONTRACTOR SHALL MOUNT A CAUTION ANSI MAXIMUM LOAD SIGN OF XX,XXX LBS. CONCENTRATED LOAD OR XXX LBS/SF UNIFORM LOAD.
4. ALL ALUMINUM ACCESS HATCHES SHALL BE 300 PSF MINIMUM LOAD RATED WITH ALUMINUM HATCH SAFETY GRATING WITH A 3-INCH CLERANCE ON THE OPENING EDGE. SAFETY GRATING SHALL OPEN THE SAME DIRECTION AS THE ACCESS HATCH DOORS. PUMP MANUFACTURER TO SIZE AND PROVIDE TO CLEAR ALL PUMP INSTALLATION AND REMOVAL OPERATIONS, TYP.
5. ALL INTERIOR SURFACES OF THE PROPOSED LIFT STATION SHALL BE COATED WITH A SPECIALTY PROTECTIVE COATING SYSTEM AS SPECIFIED IN SECTION 09805 INTERIOR CONCRETE CORROSION BARRIER.
6. DRY WEATHER CHECK VALVES ARE CONVENTIONAL AWWA SWING CHECK VALVES WITH OUTSIDE LEVER AND WEIGHT.
7. WET WEATHER CHECK VALVES ARE CONVENTIONAL AWWA SWING CHECK VALVES WITH OUTSIDE LEVER AND WEIGHT AND ADJUSTABLE OIL SUSHION CLOSURE MECHANISM.
8. ALL VALVES ON THE FORCE MAIN INTERTIE WHETHER MANUALLY ACTUATED OR ELECTRIC MOTOR ACTUATED SHALL BE EQUIPPED WITH POSITION SWITCHES FOR OPEN / CLOSE INDICATION IN THE CONTROL SYSTEM.
9. DRY WEATHER AIR RELEASE VALVES SHALL BE OF THE STAINLESS STEEL TYPE; PROVIDE AIR RELEASE VALVE OR COMBINATION AIR RELEASE – AIR VACUUM RELEASE VALVE AS SHOWN. SEE SPECIFICATION SECTION 15100 VALVES FOR ADDITIONAL DETAIL.
10. WET WEATHER AIR RELEASE VALVES SHALL BE OF THE STAINLESS STEEL TYPE; PROVIDE AIR RELEASE VALVE OR COMBINATION AIR RELEASE – AIR VACUUM RELEASE VALVE AS SHOWN. SEE SPECIFICATION SECTION 15100 VALVES FOR ADDITIONAL DETAIL.

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REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

LIFT STATION UPPER PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
3/8" = 1'-0"	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. OF XX	

DWG NO
M-3

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:13 PM
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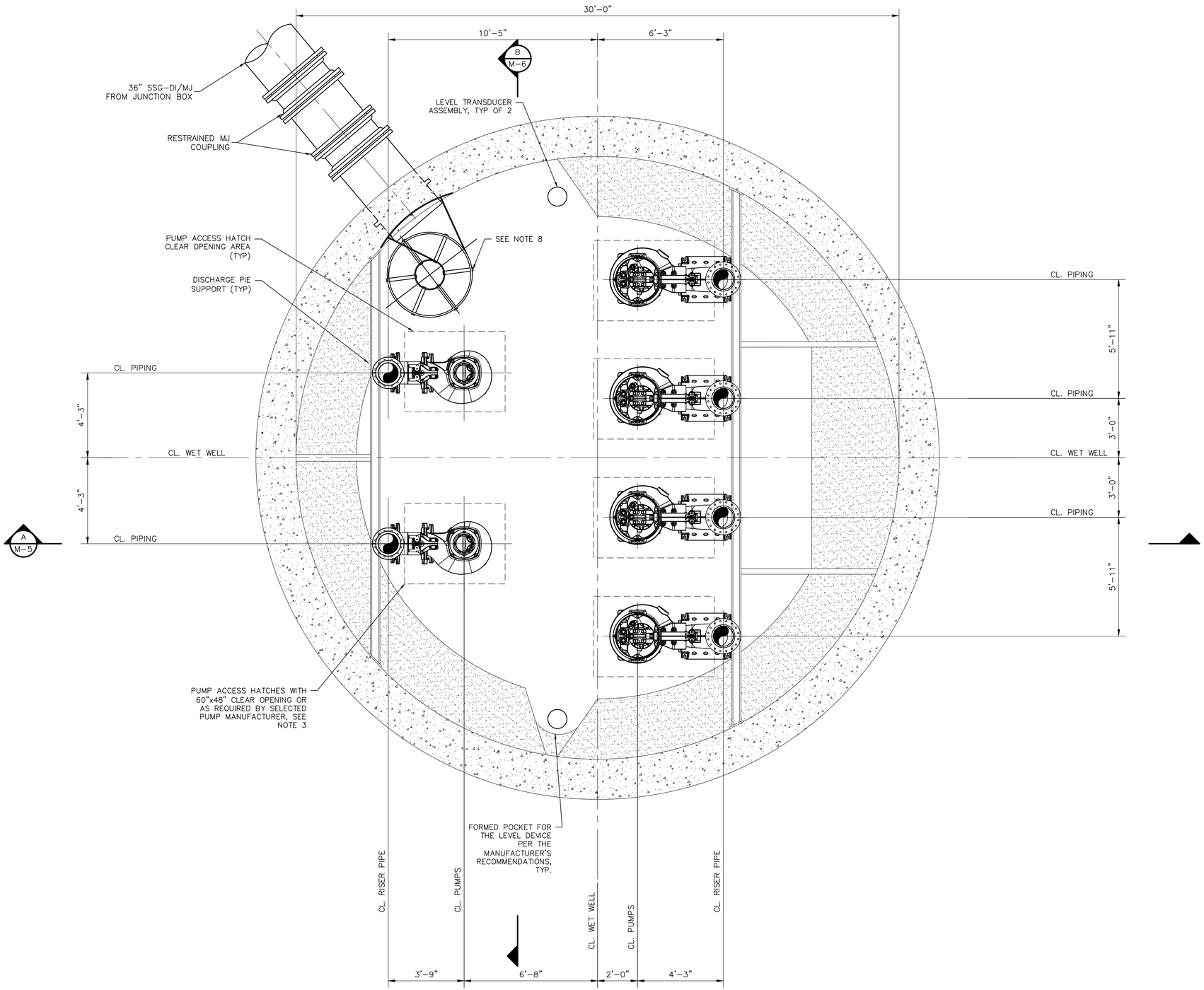

LOWER LIFT STATION PLAN VIEW

SCALE: 3/8" = 1'-0"

1 0 2

3/8" = 1'-0"

NOTES:

1. SEE NOTES ON M-3.
2. PUMP MANUFACTURER SHALL DESIGN, SIZE, AND PROVIDE ALUMINUM ACCESS HATCHES WITH ALUMINUM SAFETY GRATING TO CLEAR ALL PUMP INSTALLATION AND REMOVAL OPERATIONS, TYP.
3. ALL INTERIOR SURFACES OF THE PROPOSED LIFT STATION SHALL BE COATED WITH A SPECIALTY PROTECTIVE COATING SYSTEM AS SPECIFIED IN SECTION 09805 INTERIOR CONCRETE CORROSION BARRIER.
4. DRY WEATHER PUMPS ARE BASED ON UNITS AS MANUFACTURERED BY XYLEM FLYGT MODEL NUMBER XXXXX. SHOULD OTHER NAMED MANUFACTURER BE SUBMITTED AND APPROVED THE CONTRACTOR SHALL PAY FOR ANY ADDITIONAL COSTS INCURED TO MODIFY DESIGN TO SUIT INSTALLATION OF THE APPROVED PUMP.
5. WET WEATHER PUMPS ARE BASED ON UNITS AS MANUFACTURERED BY XYLEM FLYGT MODEL NUMBER XXXXX. SHOULD OTHER NAMED MANUFACTURER BE SUBMITTED AND APPROVED THE CONTRACTOR SHALL PAY FOR ANY ADDITIONAL COSTS INCURED TO MODIFY DESIGN TO SUIT INSTALLATION OF THE APPROVED PUMP.
6. NOT ALL DETAILS ARE INDICATED AND PROPOSED PIPING IS NOT ALWAYS SHOWN IN ITS ENTIRETY FOR CLARITY PURPOSES. CONTRACTOR SHALL COORDINATE PIPING FABRICATION IN CONJUNCTION WITH PLAN, SECTIONS, P&ID DRAWINGS, EXISTING SHOP DRAWINGS, AND CONTRACTOR FILED MEASUREMENTS. SIZES OF PIPE AND GENERAL METHOD OF ROUTING IS ILLUSTRATED, BUT NOT INTENDED TO SHOW EVERY OFFSET AND FITTING FOR EVERY STRUCTURAL DIFFICULTY THAT MAY BE ENCOUNTERED, ITEMS AS INDICATED ON THE P&ID, OR AS REQUIRED FOR TESTING AND DISINFECTION CONNECTIONS.
7. CONTRACTOR SHALL COORDINATE ROUTING OF ALL STAINLESS STEEL PLANT AIR LINES TO WET WELL BUBBLE FORMING PLATES AS PER SPECIFICATION SECTION 11XXX PULSED AIR HYDRAULIC MIXING.
8. FOR FURTHER DETAILS ON THE VORTEX STYLE MANHOLE DROP STRUCTURE PLEASE REFER TO SPECIFICATION SECTION 11354 MANHOLE DROP STRUCTURE DEVICES AND DETAILS FOUND IN THE MZ DRAWINGS.

NO.	DATE	REVISION	APP.

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CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

LIFT STATION LOWER PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
3/8" = 1'-0'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. OF XX	

DWG NO
M-4

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:13 PM
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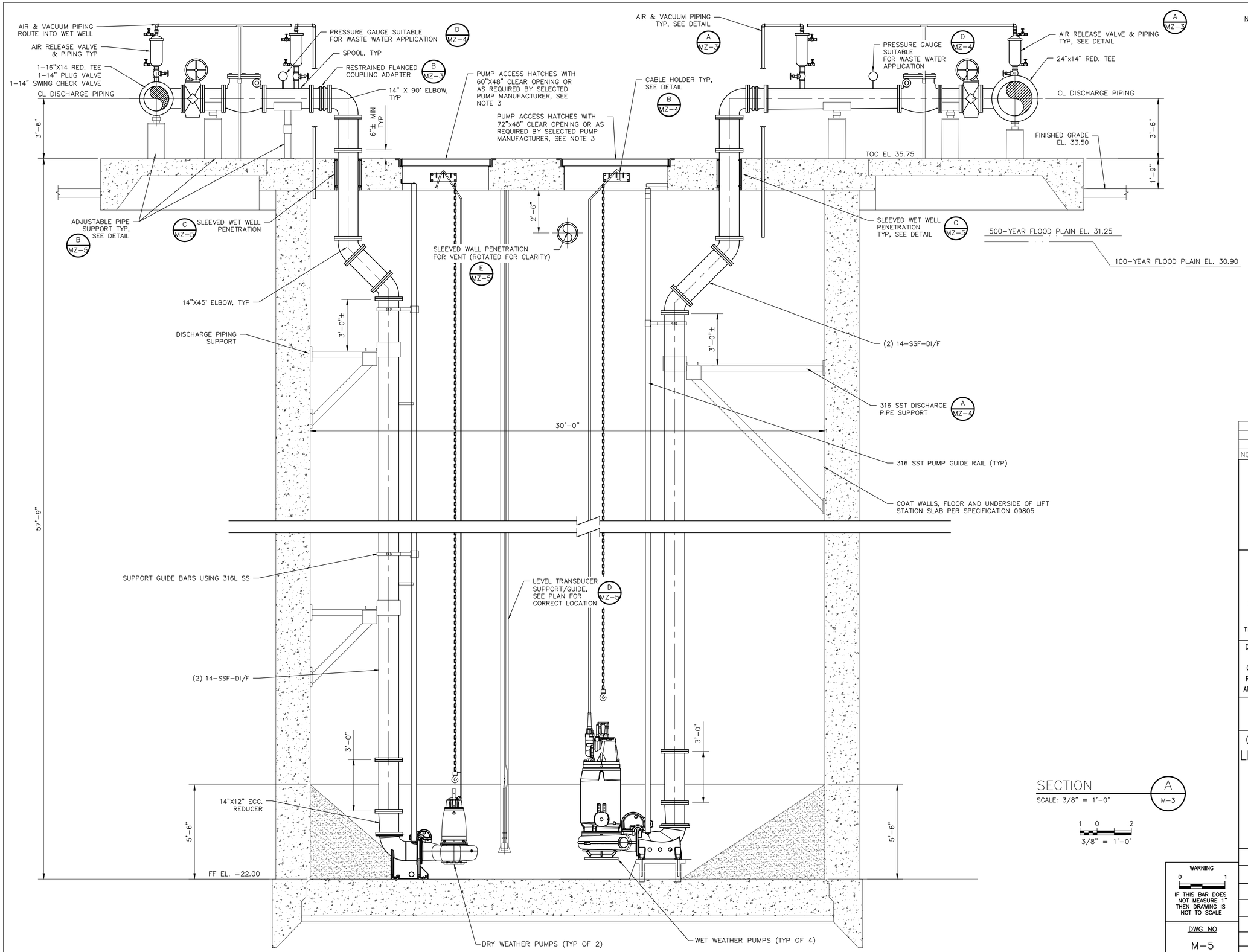

SECTION A M–3

SCALE: 3/8" = 1'–0"

1 0 2

3/8" = 1'–0'

NOTES:

1. DIMENSION NOTED ARE RELATIVE TO THE PUMP SIZE AND MANUFACTURER SELECTED. CONTRACTOR SHALL CONFIRM
2. CONTRACTOR SHALL VERIFY THE MINIMUM REQUIRED PUMP ACCESS HATCH SIZE AND MOUNTING REQUIREMENTS FOR THE HATCH WITH THE PUMP AND HATCH MANUFACTURERS.
3. PUMP ANCHOR BOLTS ARE TO BE ADHESIVE TYPE, AND EMBEDDED IN CONCRETE SLAB. CONTRACTOR TO SUBMIT DESIGN OF PUMP ANCHOR BOLTS AND PATTERN, INCLUDING CALCULATIONS, DURING SHOP DRAWING SUBMISSION.
4. CONTRACTOR TO PROVIDE ADHESIVE ANCHORS IN LIEU OF WEDGE ANCHORS FOR ALL SUBMERGED CONDITIONS. AND SUBMIT DESIGN OF ANCHOR BOLTS DURING SHOP DRAWING SUBMISSION.
5. ALL PIPING IN THE WET WELL SHALL BE FLANGED. NO FLANGED COUPLING ADAPTORS, OR VICTAULIC STYLE COUPLINGS SHALL BE PERMITTED INSIDE THE WET WELL.
6. MINIMUM WSE IN THE WET WELL SHALL REMAIN ABOVE THE TOP OF THE PUMP MOTOR. WSE AND PUMP SET POINTS ARE BASED ON FLYGT PUMP MODEL _____. CONFIRM PUMP HEIGHT WITH SELECTED PUMP MANUFACTURERS.
7. CONTRACTOR SHALL CONFIRM THAT THE WET WELL FLOOR GROUT FILLET DOES NOT INTERFERE WITH SELECTED PUMP INSTALLATION AND PUMP OPERATIONS AND IS OUTSIDE OF THE REQUIRED SUCTION CLEARANCE AREA.
8. PUMP ACCESS HATCHES SHALL HAVE AN ALUMINUM FALL PROTECTION GRATE. SEE SPECIFICATION 11311 FOR DETAILS.

NO.	DATE	REVISION	APP.

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APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

LIFT STATION SECTION SHEET 1

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
3/8" = 1'–0'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. OF XX	

WARNING
0 1
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DWG NO
M–5

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:14 PM
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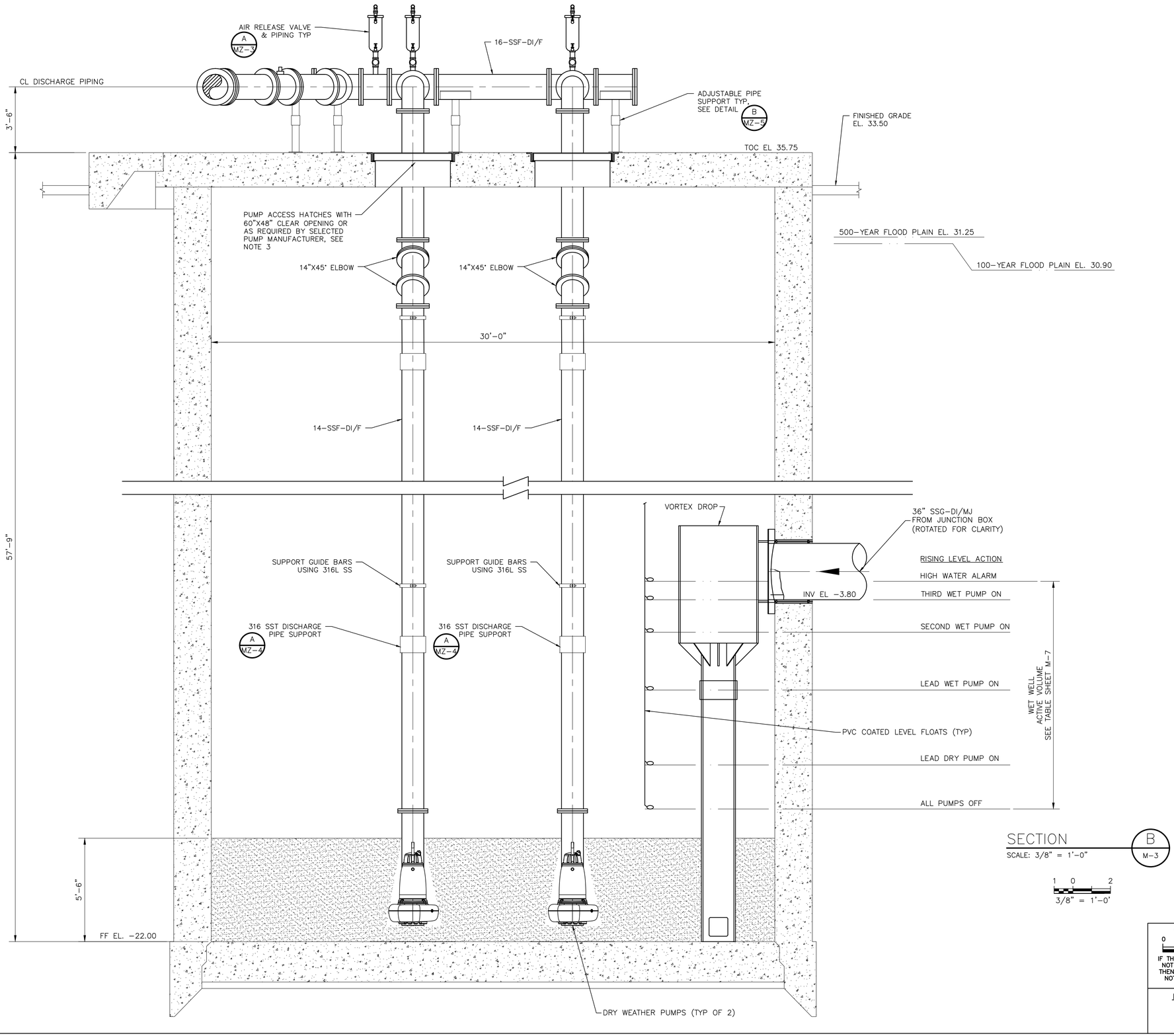

SECTION B M-3

SCALE: 3/8" = 1'-0"

1 0 2

3/8" = 1'-0'

NOTES:

1. DIMENSION NOTED ARE RELATIVE TO THE PUMP SIZE AND MANUFACTURER SELECTED. CONTRACTOR SHALL CONFIRM
2. CONTRACTOR SHALL VERIFY THE MINIMUM REQUIRED PUMP ACCESS HATCH SIZE AND MOUNTING REQUIREMENTS FOR THE HATCH WITH THE PUMP AND HATCH MANUFACTURERS.
3. PUMP ANCHOR BOLTS ARE TO BE ADHESIVE TYPE, AND EMBEDDED IN CONCRETE SLAB. CONTRACTOR TO SUBMIT DESIGN OF PUMP ANCHOR BOLTS AND PATTERN, INCLUDING CALCULATIONS, DURING SHOP DRAWING SUBMISSION.
4. CONTRACTOR TO PROVIDE ADHESIVE ANCHORS IN LIEU OF WEDGE ANCHORS FOR ALL SUBMERGED CONDITIONS. AND SUBMIT DESIGN OF ANCHOR BOLTS DURING SHOP DRAWING SUBMISSION.
5. ALL PIPING IN THE WET WELL SHALL BE FLANGED. NO FLANGED COUPLING ADAPTORS, OR VICTAULIC STYLE COUPLINGS SHALL BE PERMITTED INSIDE THE WET WELL.
6. MINIMUM WSE IN THE WET WELL SHALL REMAIN ABOVE THE TOP OF THE PUMP MOTOR. WSE AND PUMP SET POINTS ARE BASED ON FLYGT PUMP MODEL _____. CONFIRM PUMP HEIGHT WITH SELECTED PUMP MANUFACTURERS.
7. CONTRACTOR SHALL CONFIRM THAT THE WET WELL FLOOR GROUT FILLET DOES NOT INTERFERE WITH SELECTED PUMP INSTALLATION AND PUMP OPERATIONS AND IS OUTSIDE OF THE REQUIRED SUCTION CLEARANCE AREA.
8. PUMP ACCESS HATCHES SHALL HAVE AN ALUMINUM FALL PROTECTION GRATE. SEE SPECIFICATION 11311 FOR DETAILS.

NO.	DATE	REVISION	APP.

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SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

LIFT STATION SECTION SHEET 2

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
M-6

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
3/8" = 1'-0'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. OF XX	

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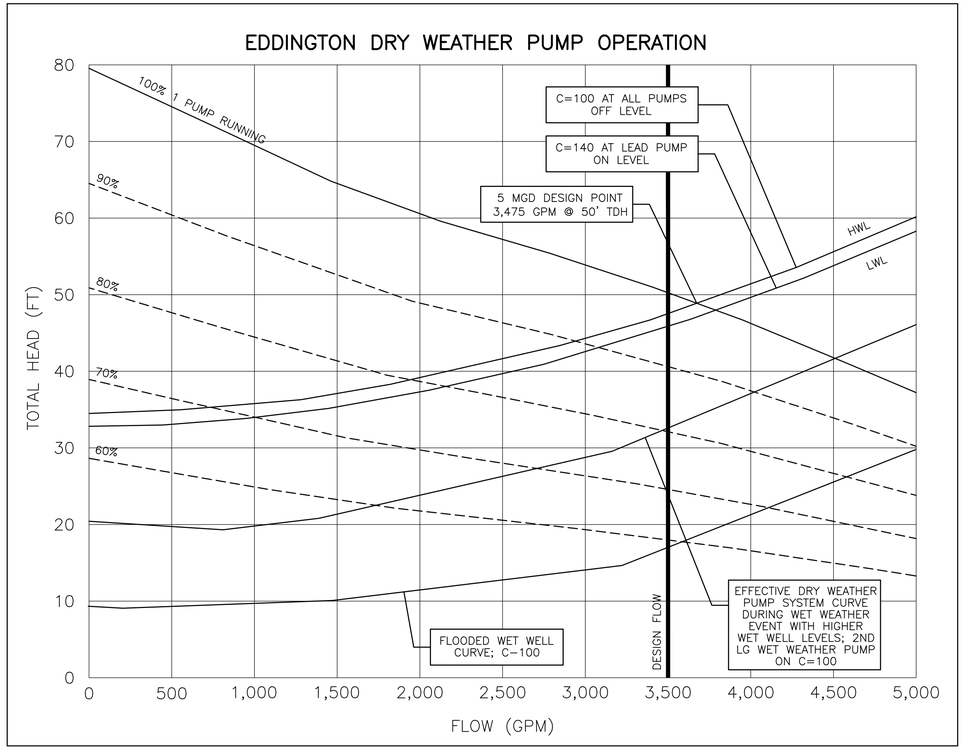

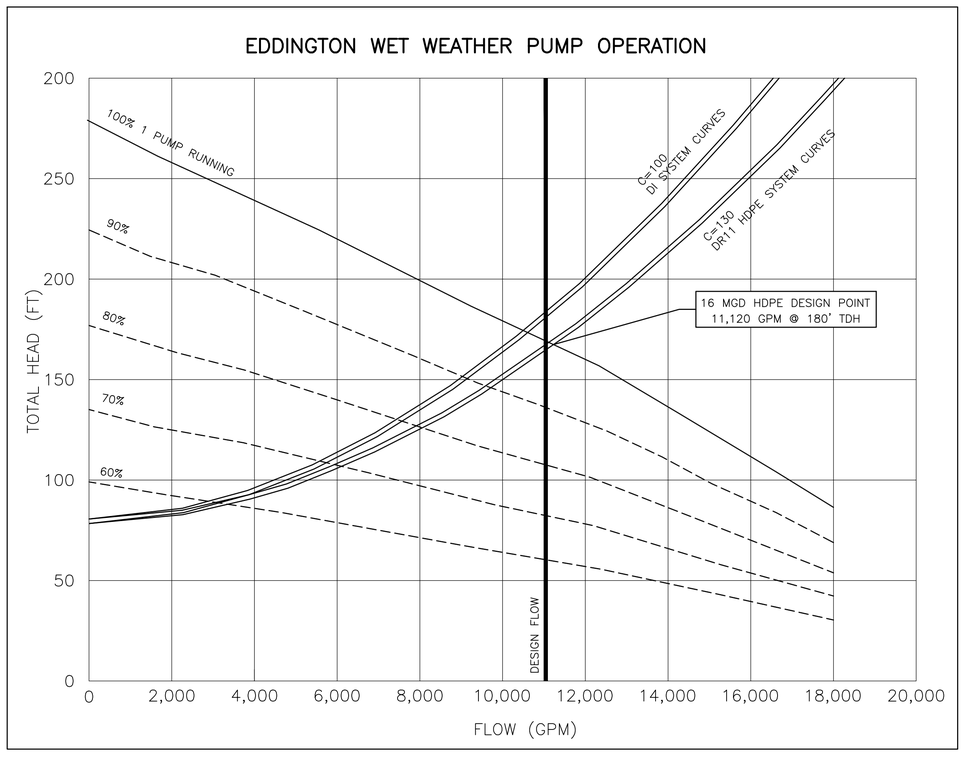

PUMP DATA TABLE

DRY WEATHER PUMPS		
PUMP CHARACTERISTICS	PUMP NO. 1	PUMP NO. 2
MOTOR DATA NOMINAL SIZE (HP) MAX SPEED (RPM)	 60 1170	 60 1170
SOLIDS PASSAGE MIN SPHERE (IN)		
CAPACITY (GPM) DESIGN RUNOUT	 3,485 8,200	 3,485 8,200
DISCHARGE HEAD (FT) DESIGN RUNOUT SHUT-OFF	 50 8 79	 50 8 79
EFFICIENCY (%) DESIGN	 80.0%	 80.0%
DISCHARGE HEAD (FT) DESIGN RUNOUT	 21 57	 21 57

STATION OPERATION TABLES

RISING LEVEL CYCLE – WWFM DRAIN PUMPS		
WATER LEVEL ELEVATION	ACTION	PUMP(S) IN OPERATION
-0.30	PUMPS OFF LEVEL – NO ACTION	ALL PUMPS ARE OFF
0.70	DRY PUMP TURNS ON	DRY PUMP ON
WATER LEVEL 1.20	LEAD WET PUMP TURNS ON DRY PUMPS TURN OFF	LEAD WET PUMP ON

FALLING LEVEL CYCLE – WWFM DRAIN PUMPS		
WATER LEVEL ELEVATION	ACTION	PUMP(S) IN OPERATION
-0.30	DRY PUMP TURNS OFF	LEAD DRY PUMP ON

PUMP DATA TABLE
WET WEATHER PUMPS

PUMP DATA TABLE – WWFM DRAIN PUMPS				
PUMP CHARACTERISTICS	PUMP NO. 1	PUMP NO. 2	PUMP NO. 3	PUMP NO. 4
MOTOR DATA NOMINAL SIZE (HP) MAX SPEED (RPM)	 250 1780	 250 1780	 250 1780	 250 1780
SOLIDS PASSAGE MIN SPHERE (IN)	2-1/2"	2-1/2"	2-1/2"	2-1/2"
CAPACITY (GPM) DESIGN RUNOUT	 3,700 6,150	 3,700 6,150	 3,700 6,150	 3,700 6,150
DISCHARGE HEAD (FT) DESIGN RUNOUT SHUT-OFF	 165 79 272	 165 79 272	 165 79 272	 165 79 272
EFFICIENCY (%) DESIGN	 75.8	 75.8	 75.8	 75.8
DISCHARGE HEAD (FT) DESIGN RUNOUT	 24.3 70	 24.3 70	 24.3 70	 24.3 70

STATION OPERATION TABLES

RISING LEVEL CYCLE – WWFM DRAIN PUMPS		
WATER LEVEL ELEVATION	ACTION	PUMP(S) IN OPERATION
1.20	LEAD WET PUMP TURNS ON DRY PUMPS TURN OFF	LEAD WET PUMP ON
2.20	SECOND WET PUMP TURNS ON	LEAD & SECOND WET PUMPS ON
3.30	THIRD WET PUMP TURNS ON	LEAD, SECOND & THIRD WET PUMPS ON
3.80	HIGH WATER ALARM ON	HIGH WATER ALARM SOUND

FALLING LEVEL CYCLE – WWFM DRAIN PUMPS		
WATER LEVEL ELEVATION	ACTION	PUMP(S) IN OPERATION
3.30	HIHG WATER LEVEL ALARM OFF	LEAD DRY PUMP ON
3.30	LEAD WET PUMP TURNS OFF	LEAD DRY PUMP ON
2.20	SECOND PUMP (W2) TURNS OFF	LEAD DRY PUMP ON
1.20	THIRD WET PUMP TURNS OFF	ALL PUMPS STOPPED – STANDBY PUMP SWITCHES TO LEAD PUMP

PUMP CURVE NOTES:

1. LOW NORMAL OPERATING LEVEL C=130 – DESIGN.
2. HIGH NORMAL OPERATING LEVEL C=100 – INFORMATION ONLY (TCEQ)
3. HIGH NORMAL OPERATING LEVEL C=130 = DESIGN
4. NET POSITIVE SUCTION HEAD REQUIRED (NPSHR) BASED ON NORMAL OPERATING WATER LEVELS.
5. PUMP CURVES ARE MODIFIED FOR STATION LOSSES.

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER
DRAWN BY: J. GIBSON
CHECKED BY: T. REESER
REVIEWED BY: B. NICHOLAS
APPROVED BY: B. NICHOLAS

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

LIFT STATION PUMP CURVES AND OPERATION TABLES

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. OF XX	

DWG NO
M-7

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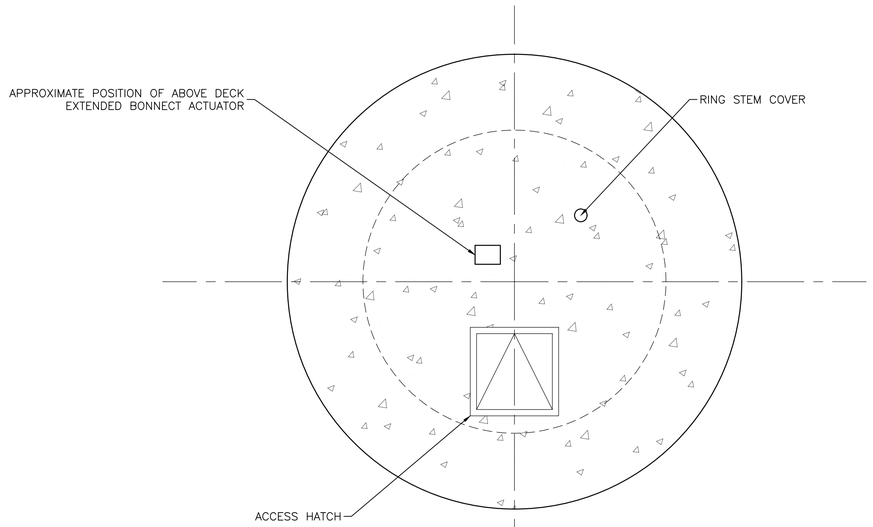
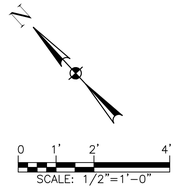
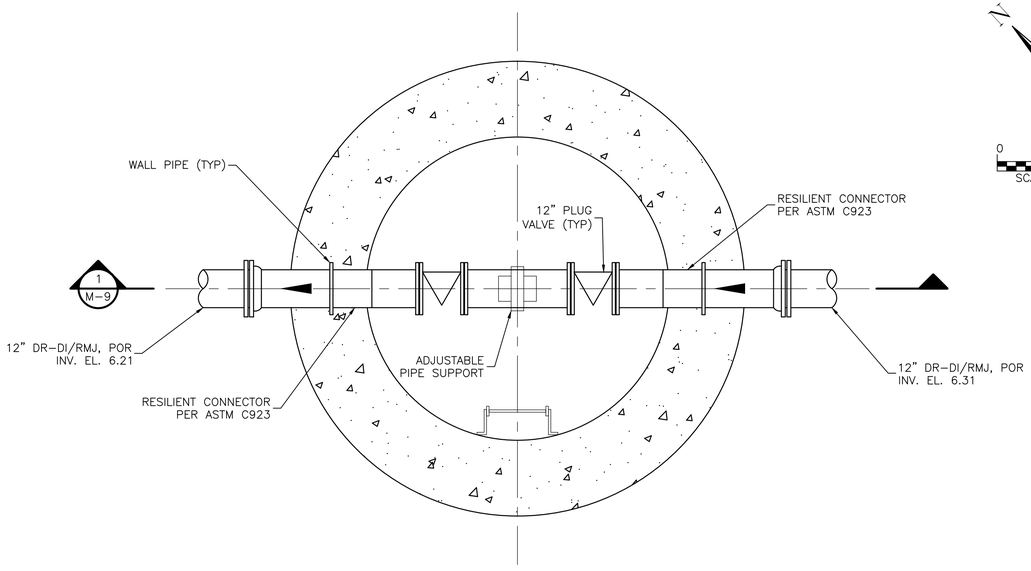


UPPER PLAN

PLAN

1/2" = 1'-0"

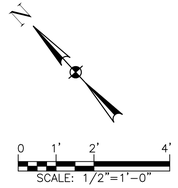




LOWER PLAN

PLAN

1/2" = 1'-0"



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CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

WWFM DRAIN VALVE MANHOLE PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
M-8

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1/2" = 1'-0"	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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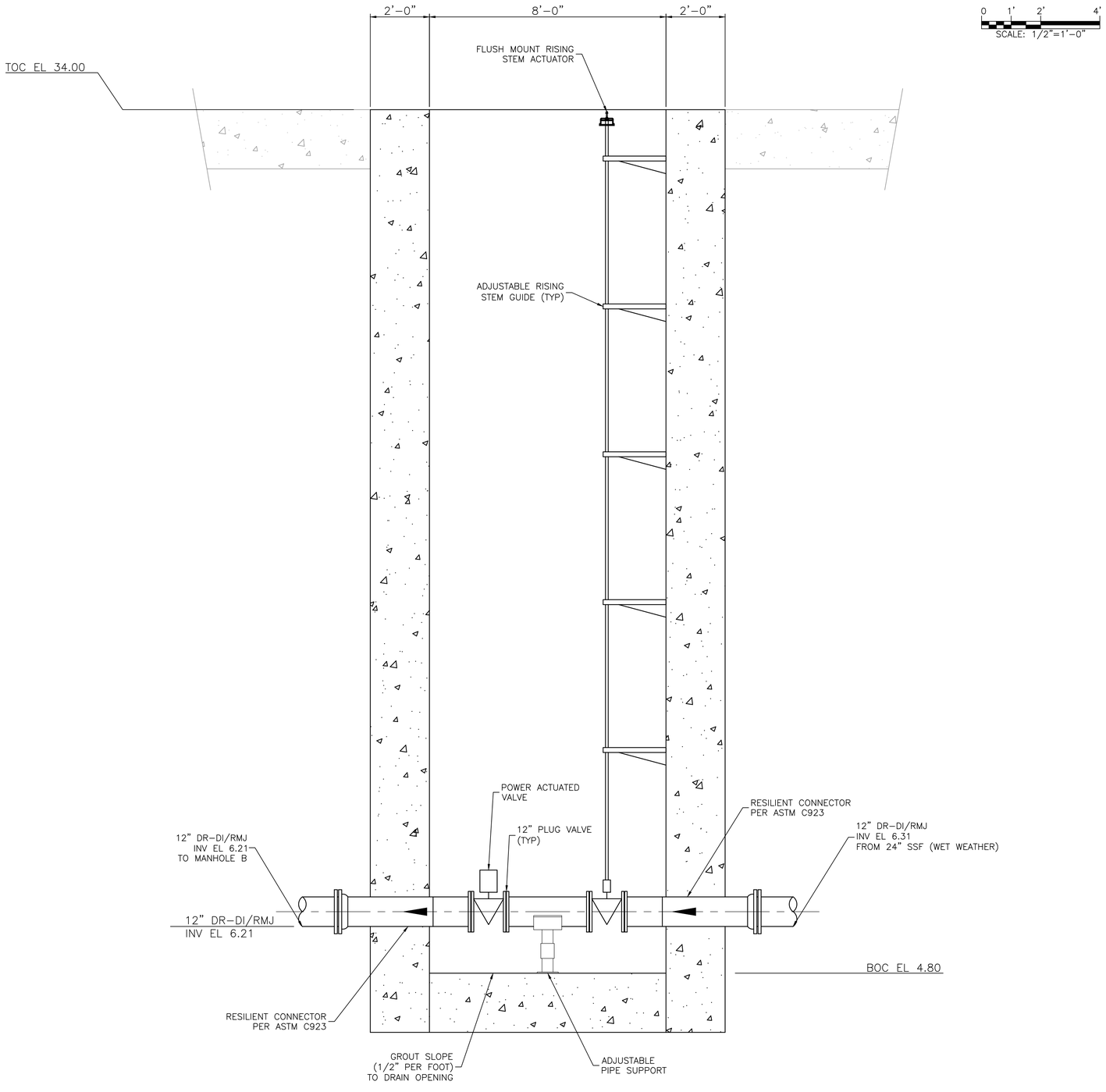

SECTION 1 (M-8)
1/2" = 1'-0"

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

WWFM DRAIN VALVE MANHOLE SECTION

WARNING
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R-001000-0035-4	
DRAWING SCALE	
1/2" = 1'-0"	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
M-9

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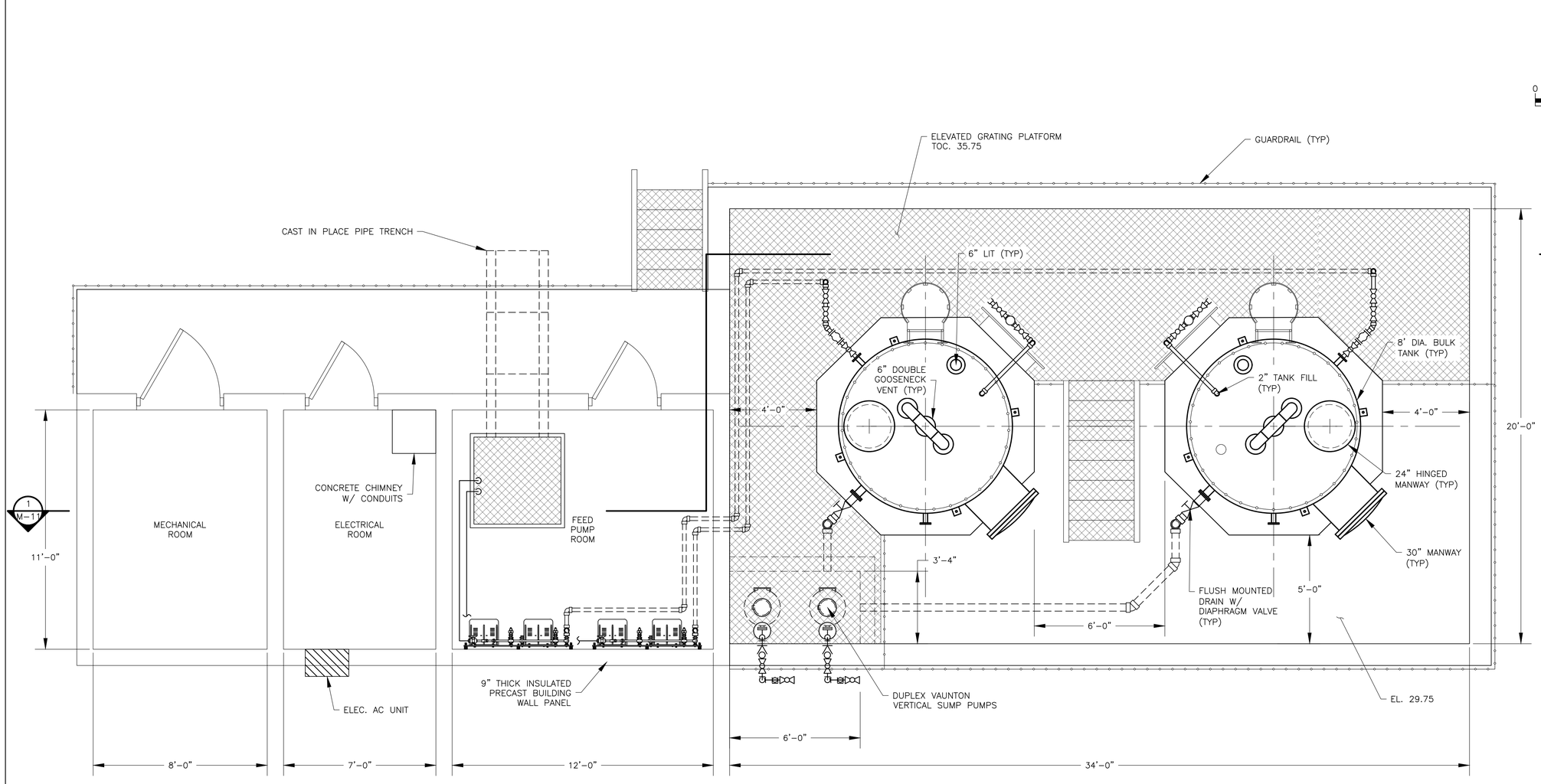

PLAN
3/8" = 1'-0"

N

0 1.25' 2.5' 5'
SCALE: 3/8"=1'-0"

NO.	DATE	REVISION	APP.

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REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ODOR CONTROL CHEMICAL STORAGE AND FEED BUILDING PLAN

WARNING
0 1
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WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
3/8" = 1'-0"	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
M-10

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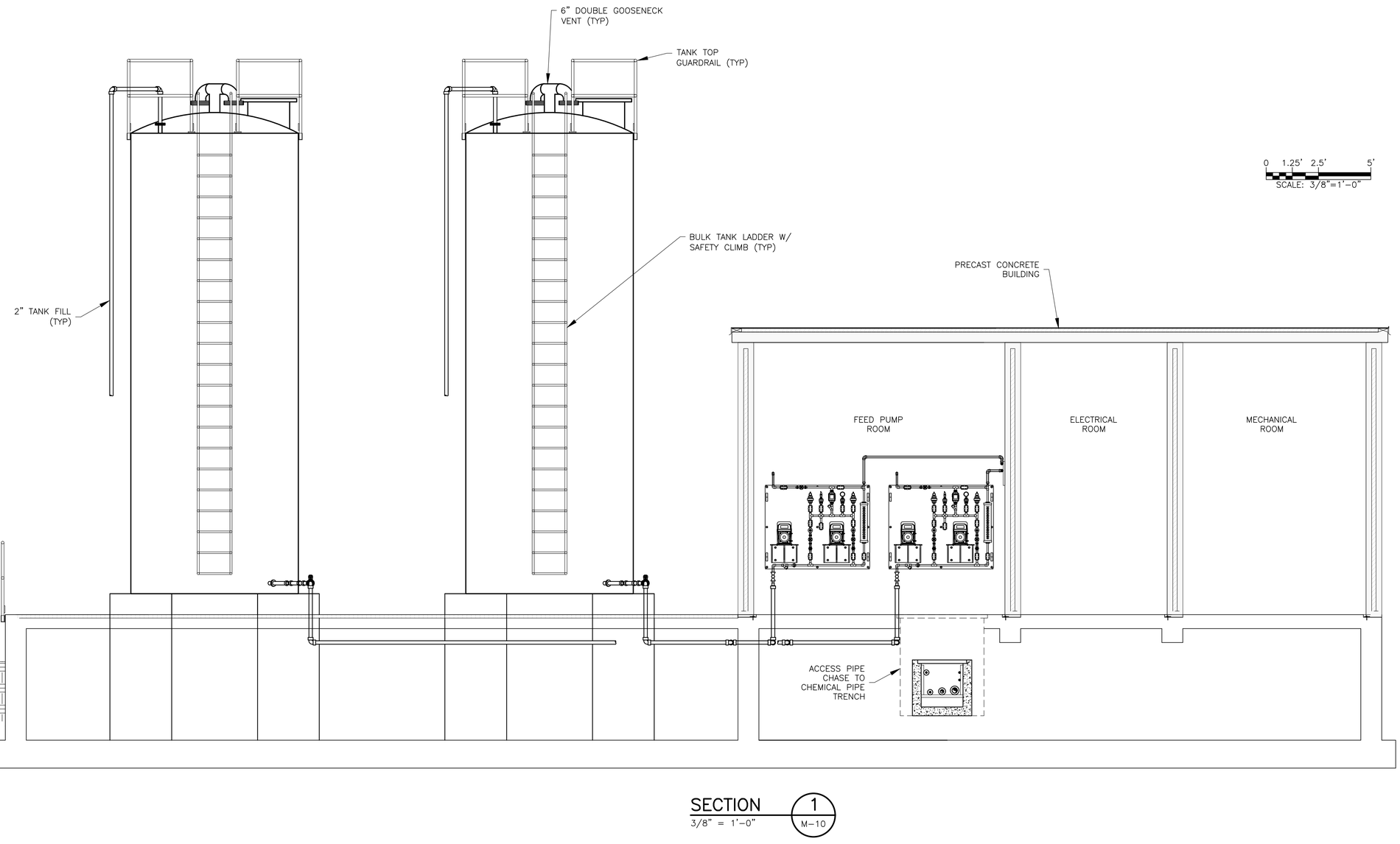

SECTION 1 / M-10
3/8" = 1'-0"

0 1.25' 2.5' 5'
SCALE: 3/8"=1'-0"

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ODOR CONTROL CHEMICAL STORAGE AND FEED BUILDING SECTION SHEET 1

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
M-11

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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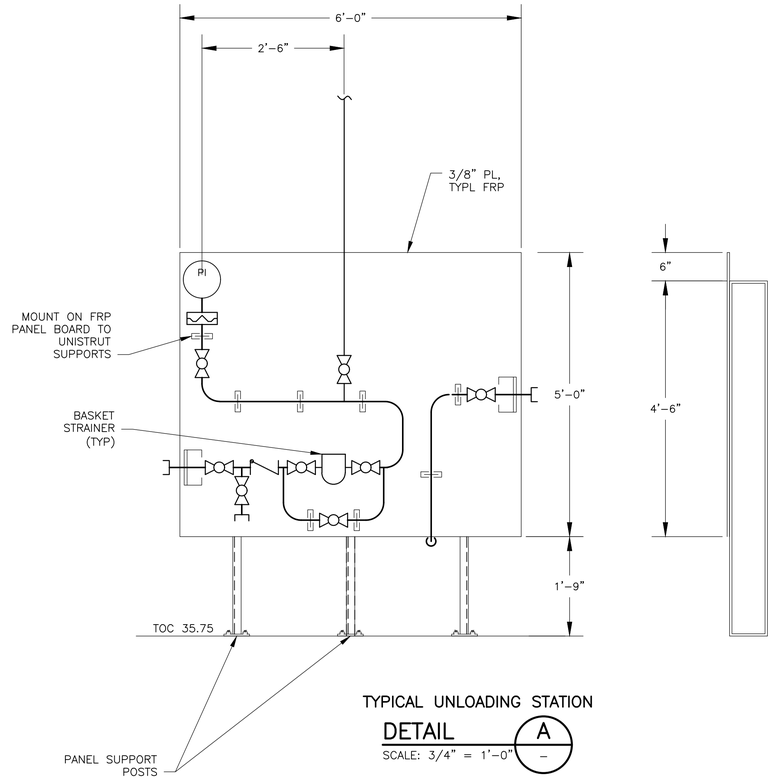
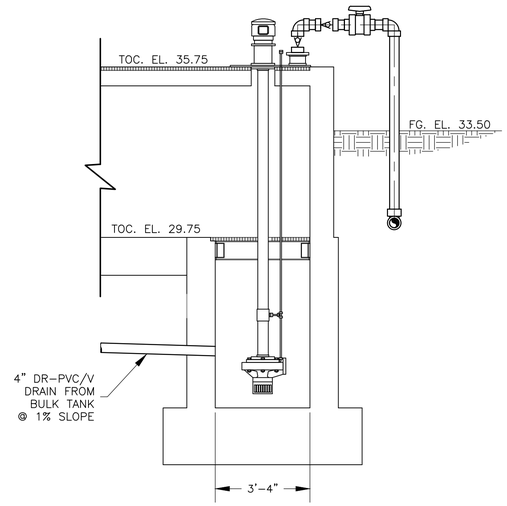


TYPICAL UNLOADING STATION

DETAIL A

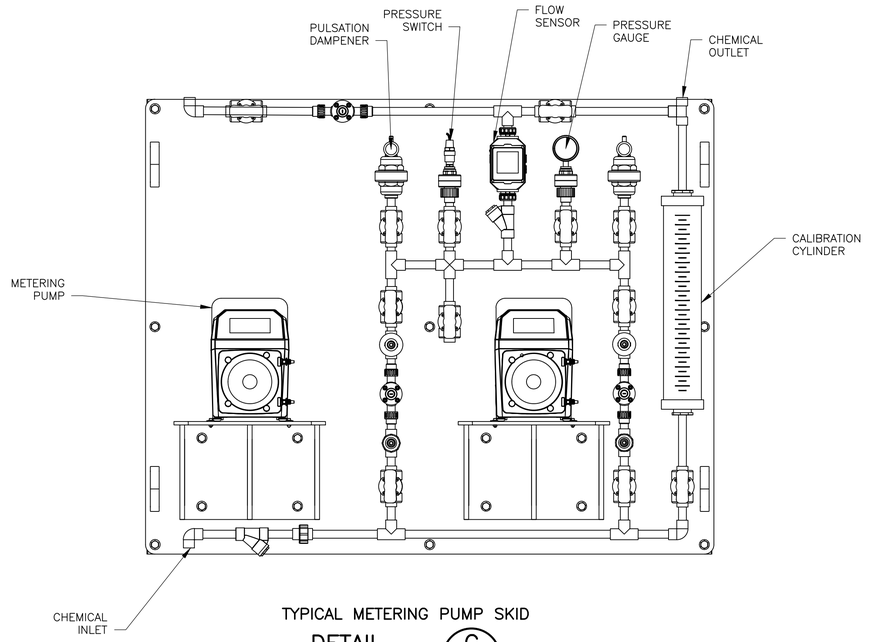
SCALE: 3/4" = 1'-0"



SUMP PUMP DETAIL

DETAIL B

SCALE: 3/8" = 1'-0"



TYPICAL METERING PUMP SKID

DETAIL C

SCALE: NTS

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ODOR CONTROL CHEMICAL STORAGE AND FEED BUILDING DETAILS

WARNING
0 1
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R-001000-0035-4	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
M-12

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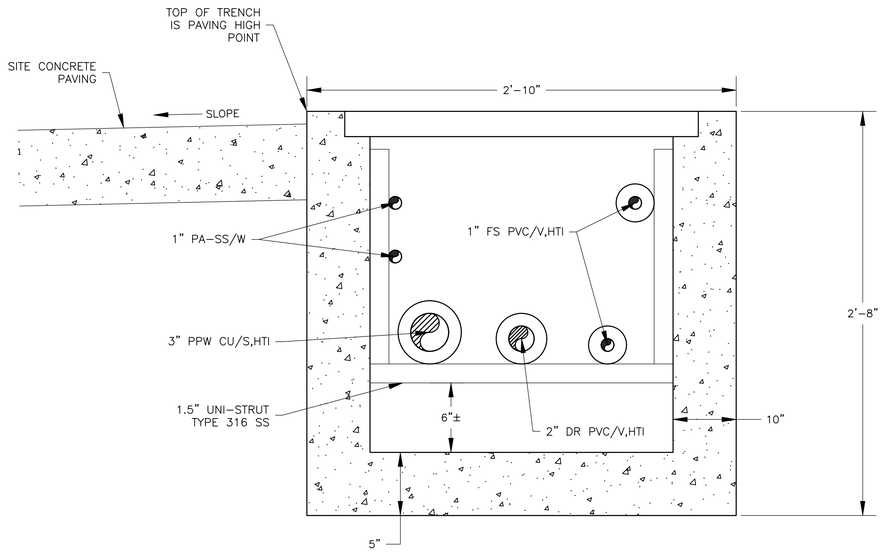

PIPE TRENCH

DETAIL A

2" = 1'-0"

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PIPE TRENCH DETAILS SHEET 1

WARNING
0 1
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DWG NO
M-13

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R-001000-0035-4	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:15 PM
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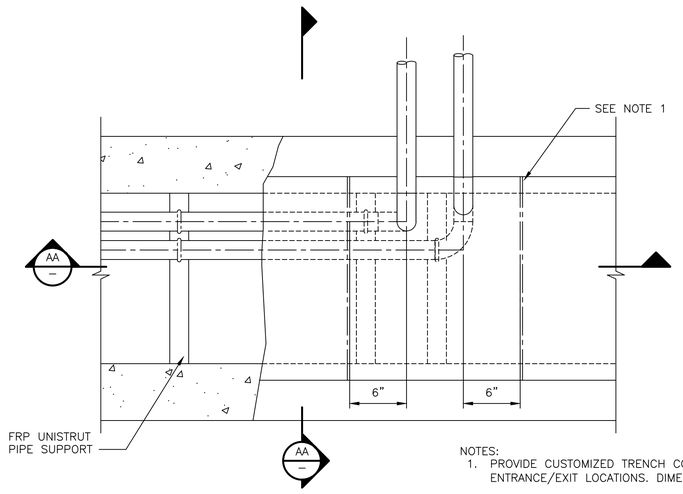
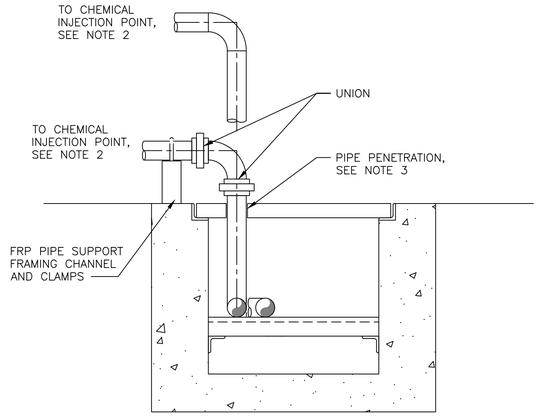
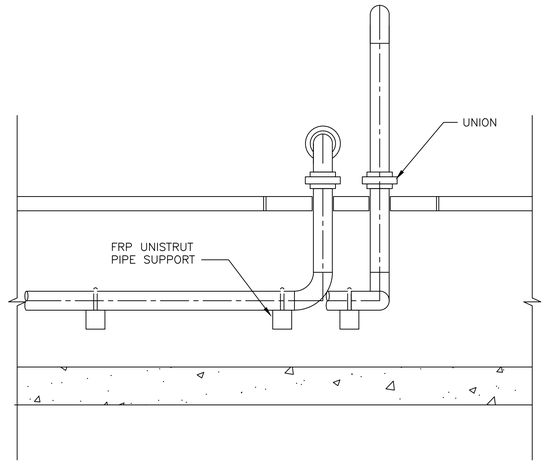


PLAN
NTS

NOTES:
1. PROVIDE CUSTOMIZED TRENCH COVER AT PIPE ENTRANCE/EXIT LOCATIONS. DIMENSIONS AS SHOWN.
2. SEE YARD PIPING PLANS AND MECHANICAL DRAWINGS FOR CHEMICAL FEED PIPE ELEVATIONS AND ADJUST TO SUIT INSTALLATION.
3. CONTRACTOR TO FIELD DRILL OPENINGS WHERE PIPE EXITS THE COVER AND PROVIDE RUBBERIZED FLASHING BOOTS AT PIPE PENETRATION.

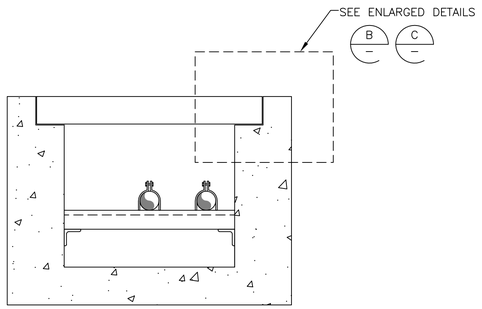


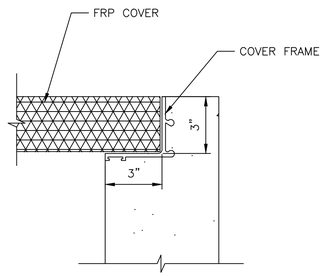
SECTION AA
NTS



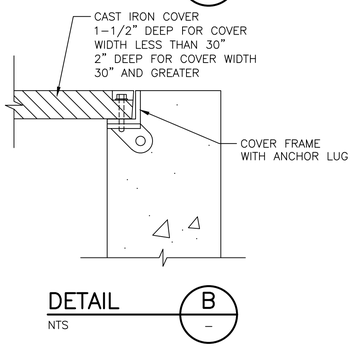
SECTION BB
NTS

TRENCH PIPE PENETRATION
DETAIL A
NTS





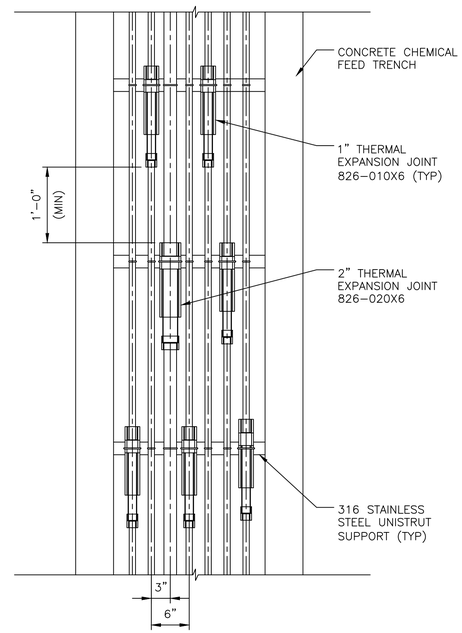
DETAIL A
NTS



DETAIL B
NTS

NOTES:
1. SEE STRUCTURAL DRAWINGS FO TRENCH DETAILS.
2. NEW CHEMICAL TRENCHES SHALL BE INSTALLED WITH COVER FRAMES PROVIDED BY TRENCH COVER MANUFACTURER. INSTALL PER MANUFACTURERS INSTRUCTION.
3. PROVIDE COVER LIFTING HANDLE. SEE SPECIFICATION 11501.

NEW CONCRETE TRENCH COVER
DETAIL B
NTS



NOTES:
1. SEE YARD PIPING PLANS FOR EXPANSION JOINT LOCATIONS. STAGGER THERMAL EXPANSION JOINTS A MINIMUM OF 12" OF FULL EXTENSION.
2. THERMAL EXPANSION JOINTS SHALL BE TRIPLE O-RING SEALED TELESCOPING DESIGN WITH 6" TRAVEL, BY SPEARS MANUFACTURER OR ENGINEER APPROVED EQUAL. SEE SPECIFICATION 15120. O-RING MATERIALS SHALL BE COMPATIBLE WITH CHEMICAL SERVICE, OR PROVIDE VITON O-RING FOR FLUORIDE CHEMICAL SERVICES AND EPDM O-RING FOR ALL REMAINING CHEMICAL SERVICES.
3. THERMAL EXPANSION JOINTS SHALL BE INSTALLED TO ENSURE THAT THE FULL EXPANSION AND CONTRACTION IS ALLOWED.
4. CONTRACTOR TO RIGIDLY SUPPORT ONE END OF THE THERMAL EXPANSION JOINT AND SUPPORT THE OTHER END TO PREVENT AXIAL MOVEMENT AND ALLOW LINEAR EXPANSION PER MANUFACTURERS RECOMMENDATION.

CHEMICAL FEED TRENCH EXPANSION JOINT
DETAIL C
NTS

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CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

PIPE TRENCH DETAILS SHEET 2

WARNING
0 1
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R-001000-0035-4	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
M-14

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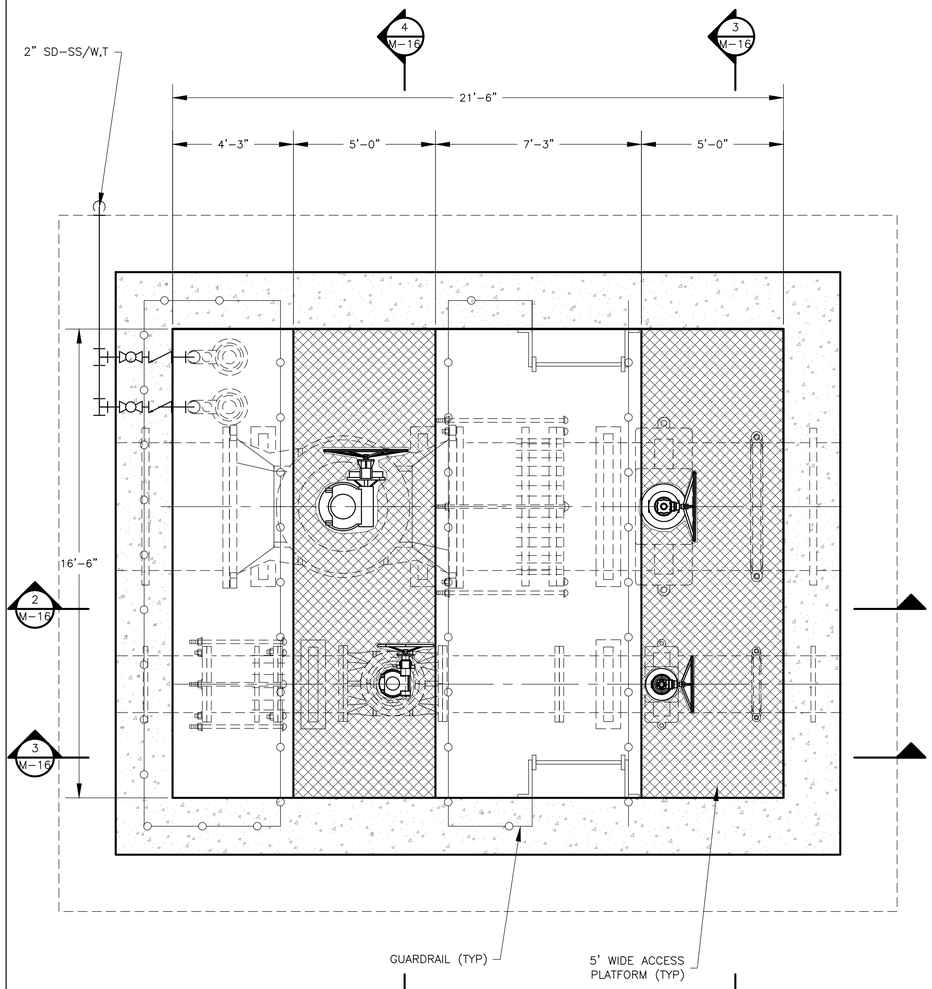
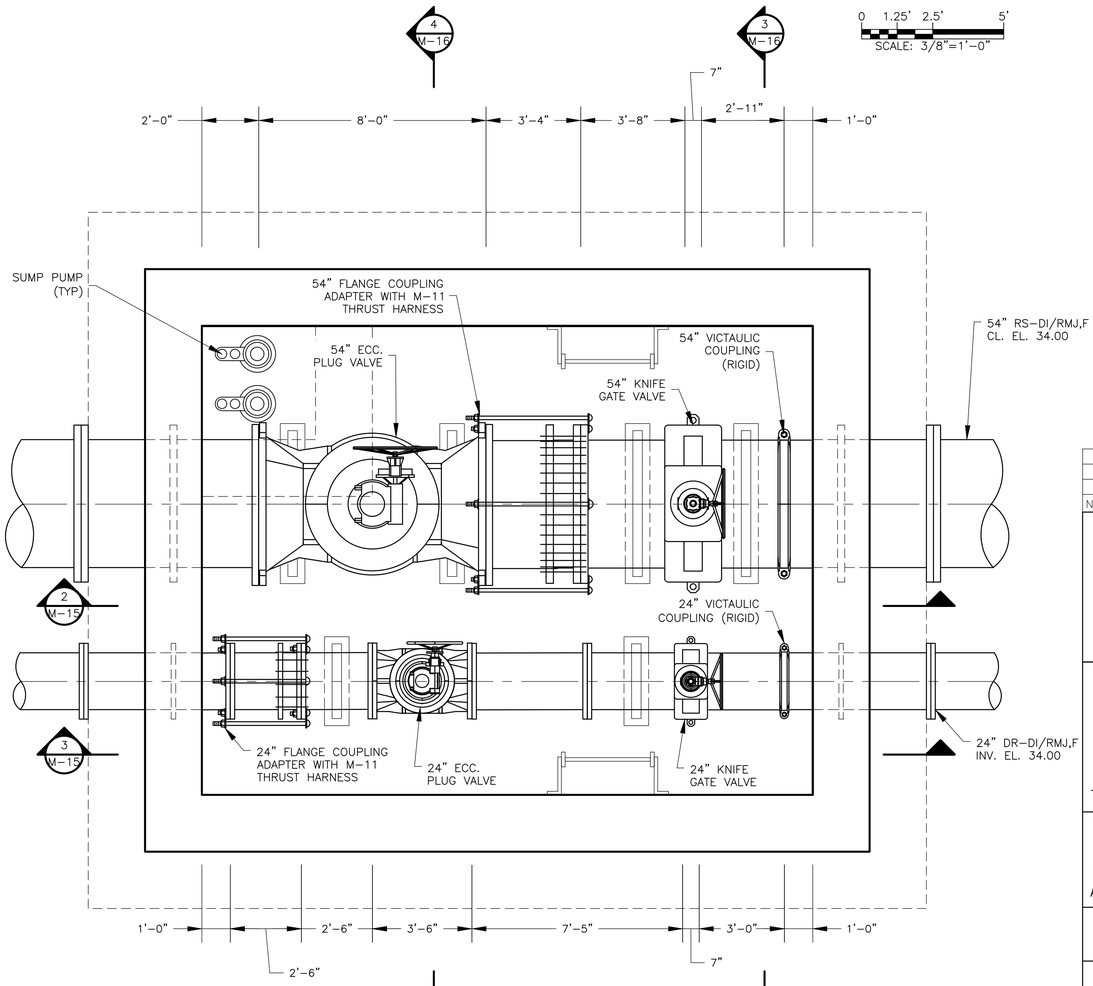


UPPER PLAN

PLAN

3/8" = 1'-0"



LOWER PLAN

PLAN

3/8" = 1'-0"

NO.	DATE	REVISION	APP.

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Houston, Texas 77019
TBPE Firm Registration No. F-10053

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
B.W. NICHOLAS
TEXAS P.E. NO. 83349
DATE: XX/XX/2025

DESIGNED BY: B. NICHOLAS	SURVEYED BY:
DRAWN BY: J. GIBSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

STORAGE TANK VALVE VAULT UPPER AND LOWER PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
3/8" = 1'-0"	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
M-15

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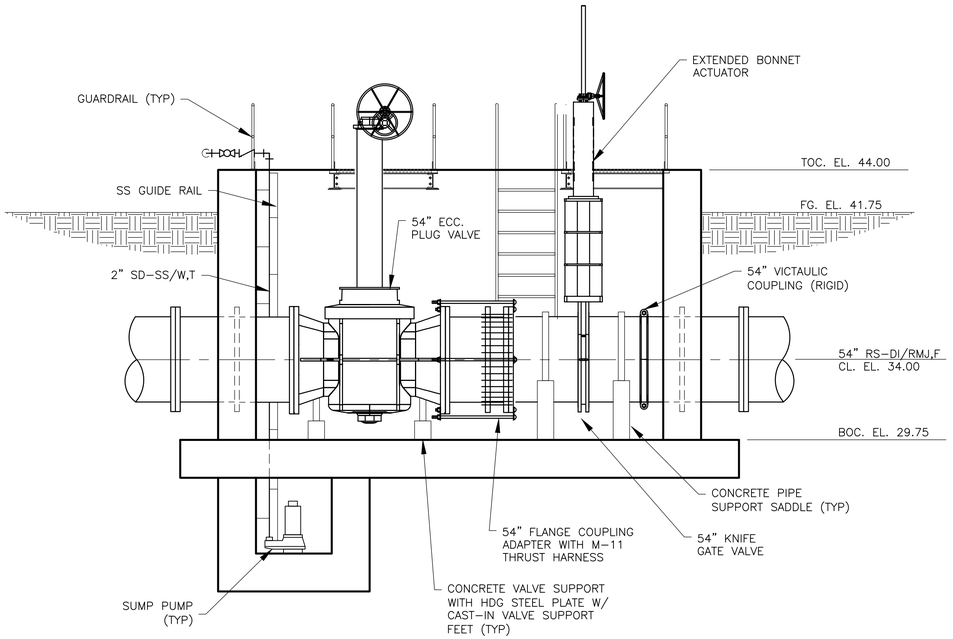
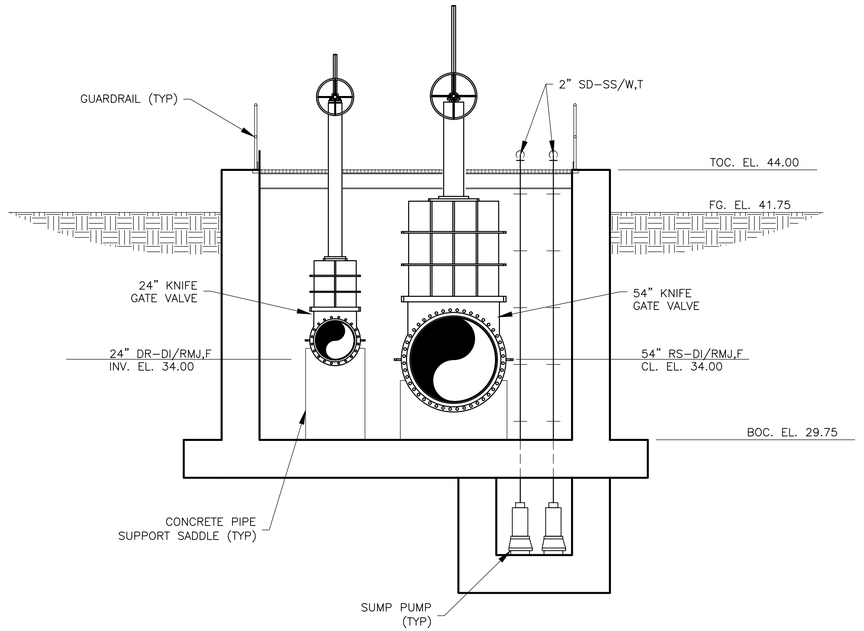
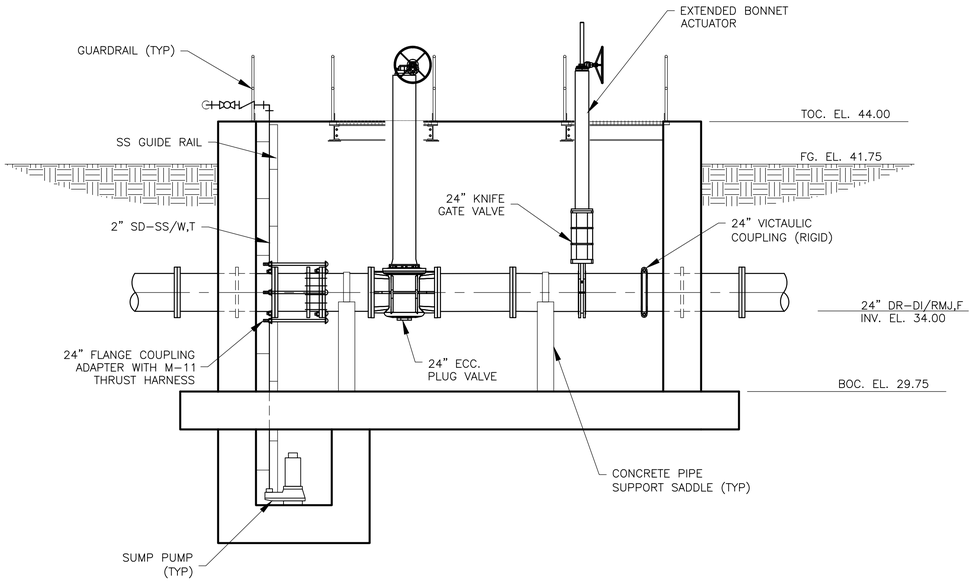


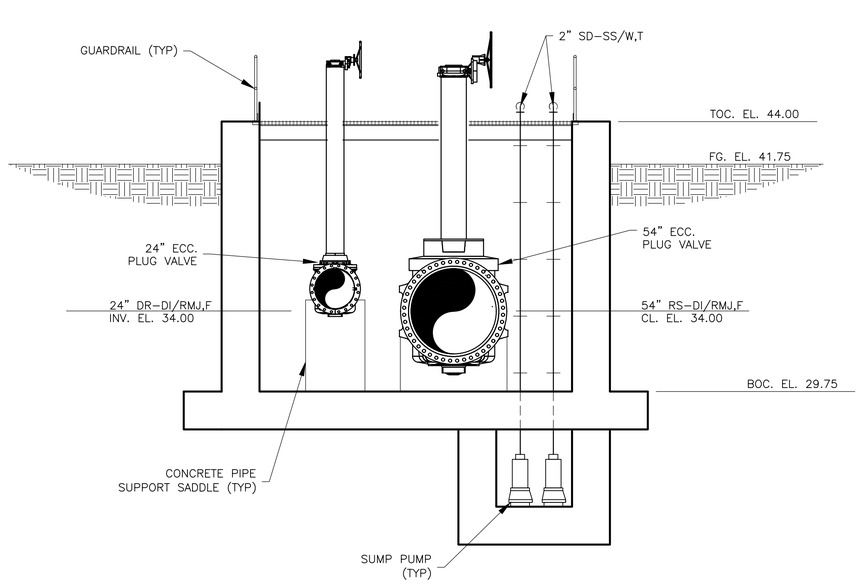
SECTION 1
1/4" = 1'-0"
M-15



SECTION 3
1/4" = 1'-0"
M-15



SECTION 2
1/4" = 1'-0"
M-15



SECTION 4
1/4" = 1'-0"
M-15

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ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

STORAGE TANK VALVE VAULT SECTIONS

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1/4" = 1'-0"	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
M-16

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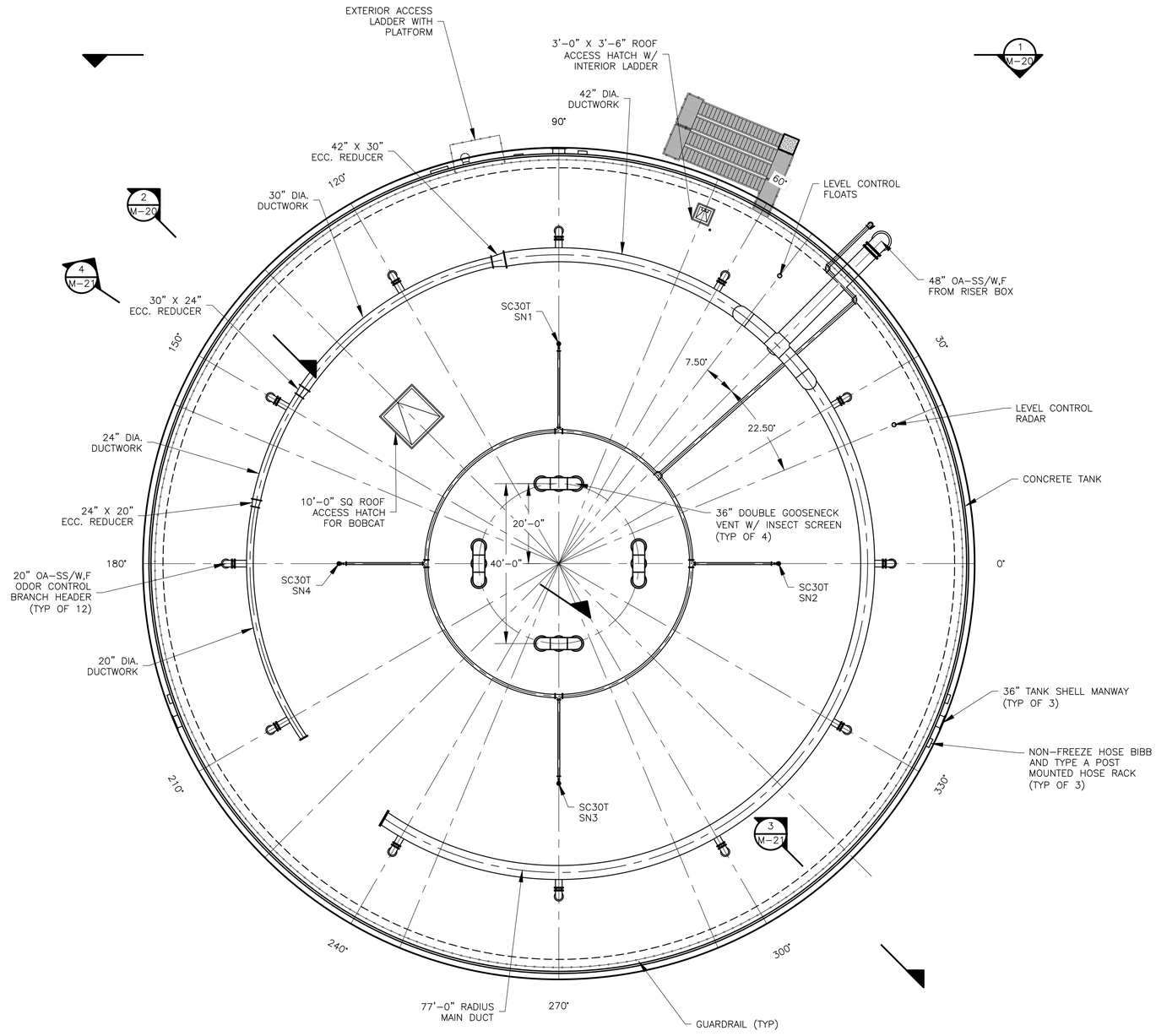

PLAN
1/16" = 1'-0"

N

0 5' 10' 20'
SCALE: 1/16"=1'-0"

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

12.50 MG STORAGE TANK NO. 1 UPPER PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
M-17

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1/16" = 1'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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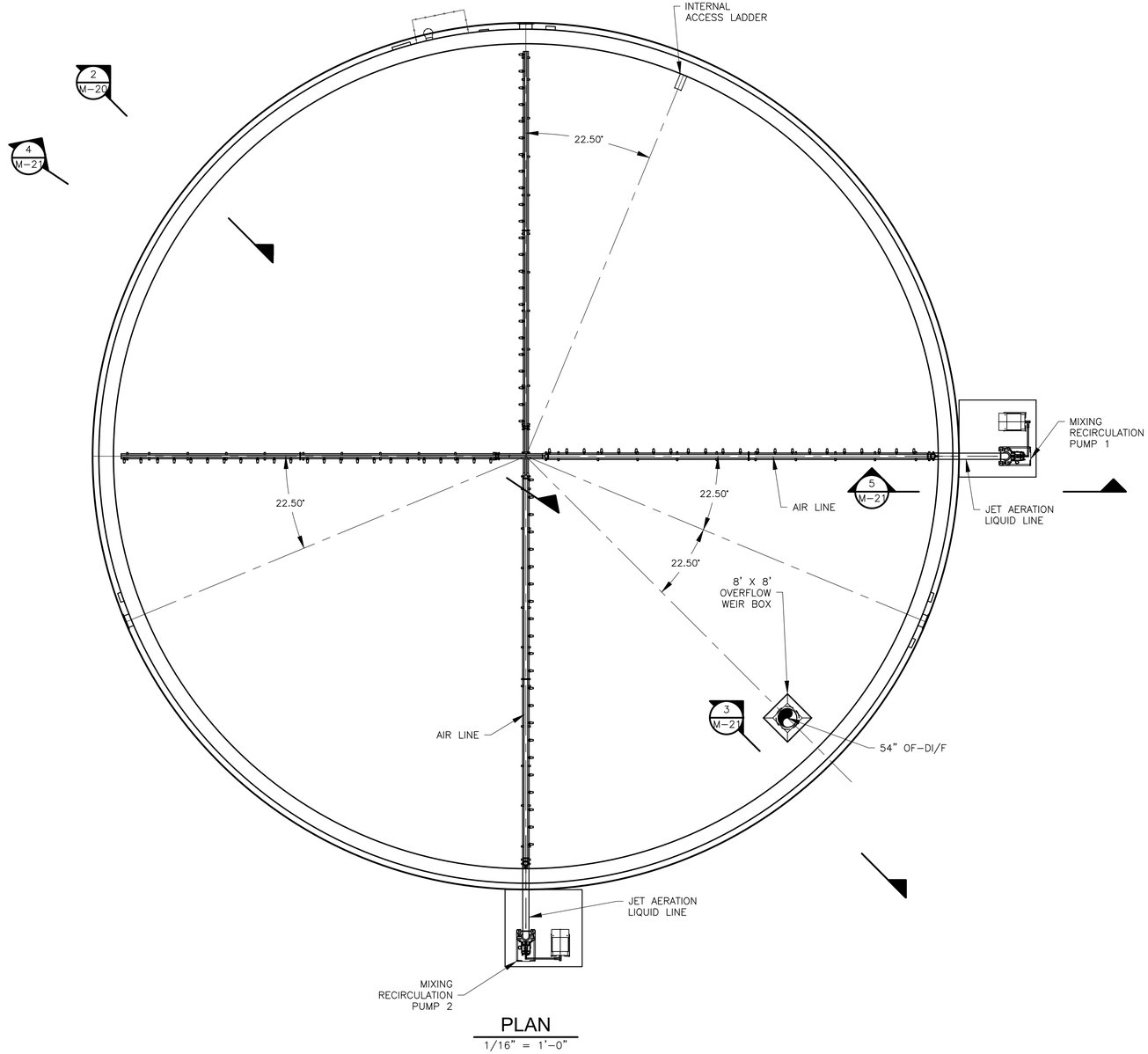
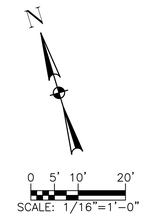


PLAN
1/16" = 1'-0"



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SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

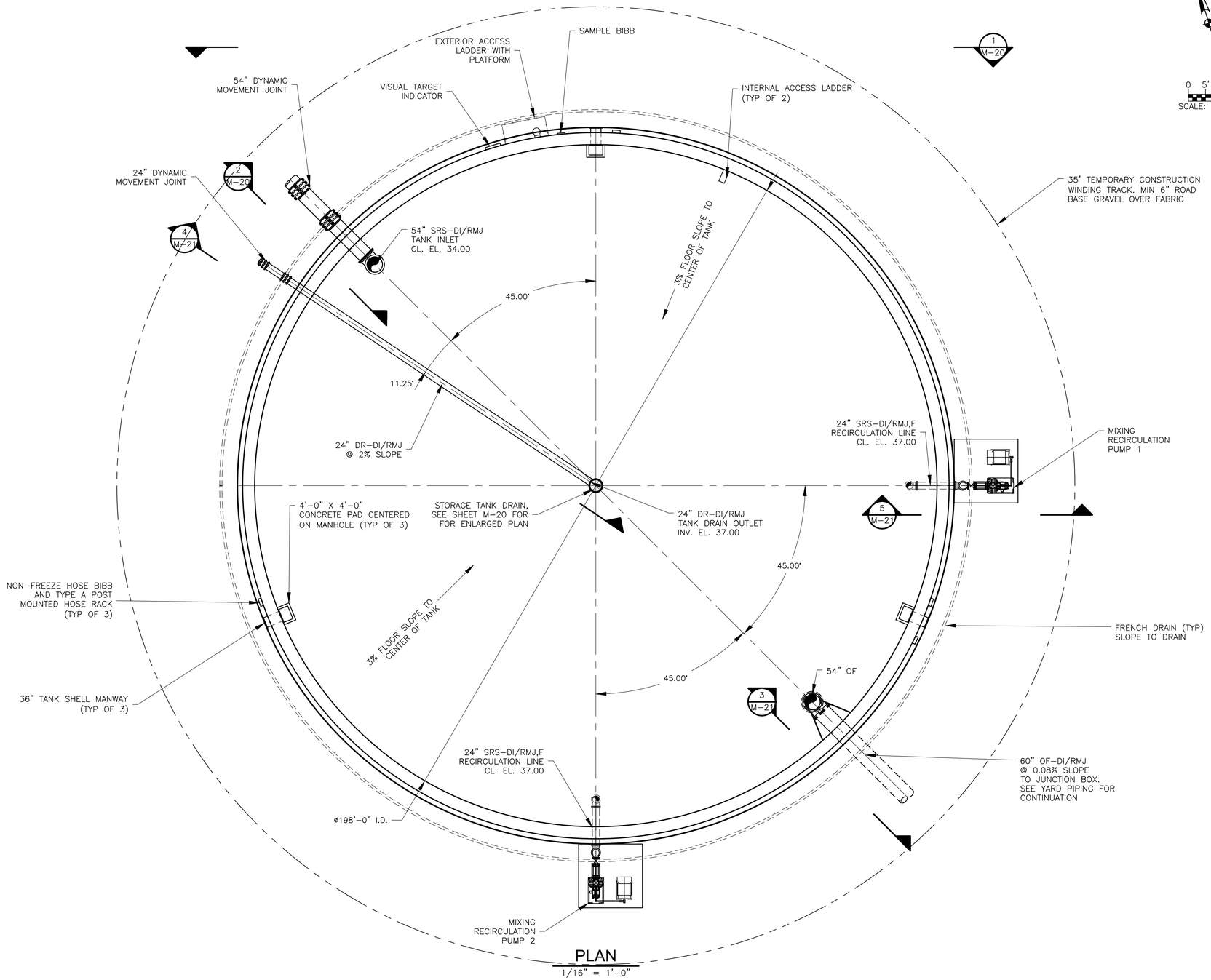
CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

12.50 MG STORAGE TANK NO. 1 INTERMEDIATE PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1/16" = 1'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
M-18



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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

12.50 MG STORAGE TANK NO. 1 LOWER PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
M-19

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1/16" = 1'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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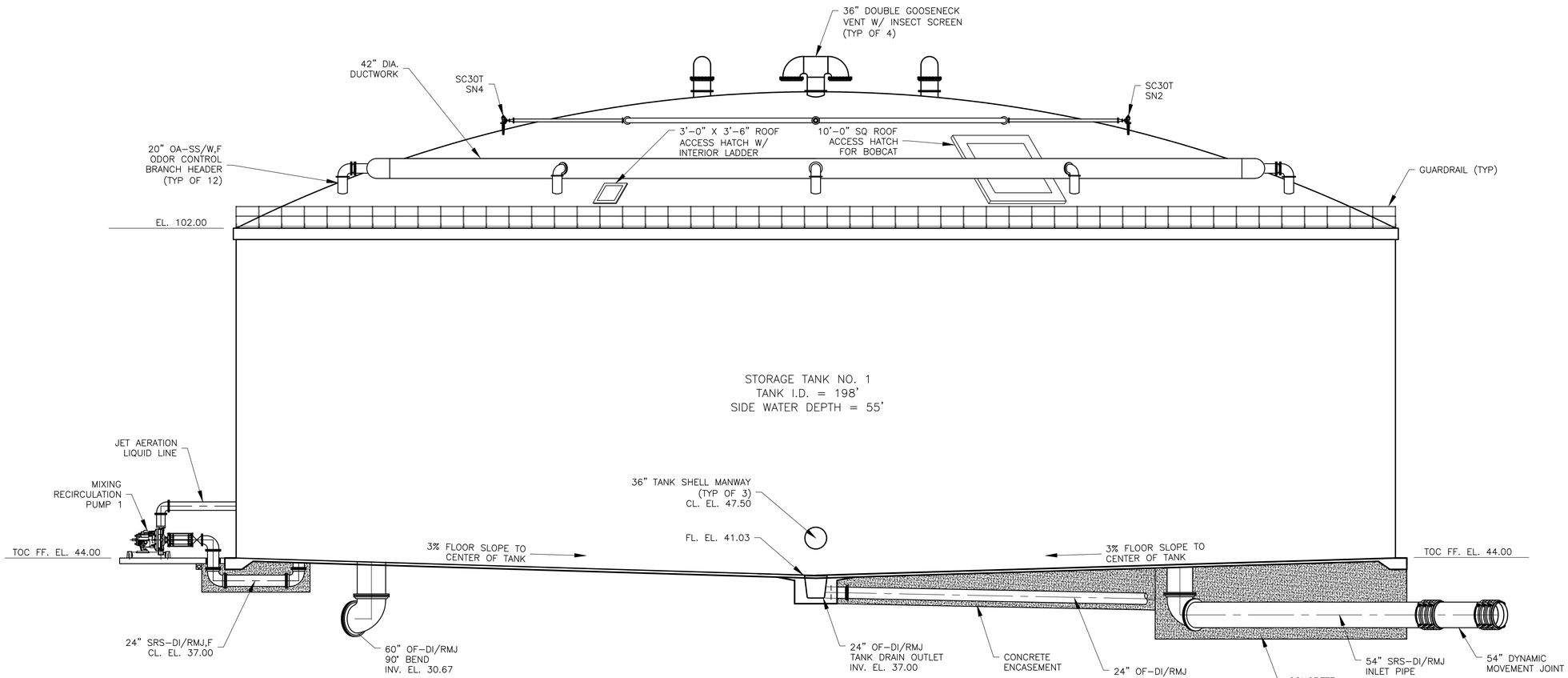
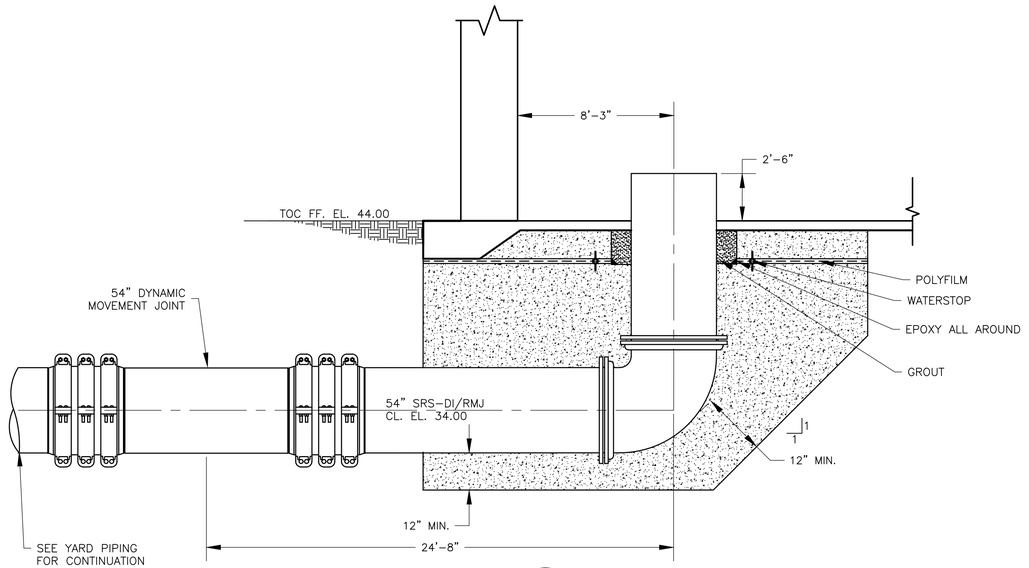


SECTION 1 (M-17)
3/32" = 1'-0"



SECTION 2 (M-17)
1/4" = 1'-0"

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

12.50 MG STORAGE TANK NO. 1 SECTIONS SHEET 1

WARNING
0 1
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WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
M-20

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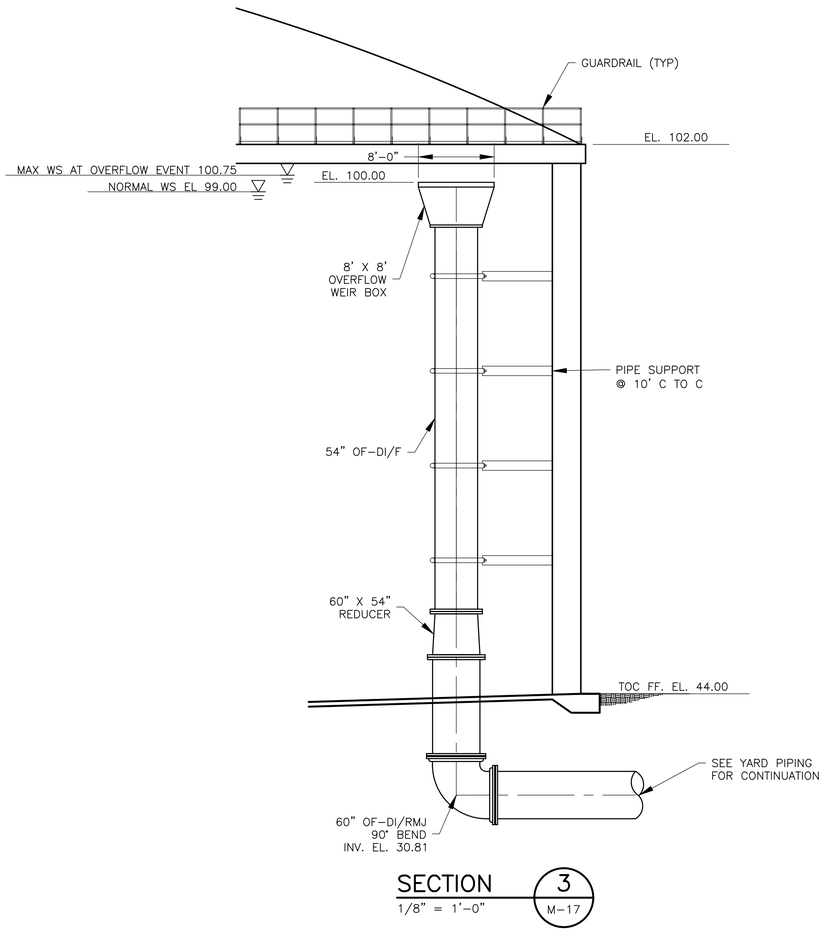
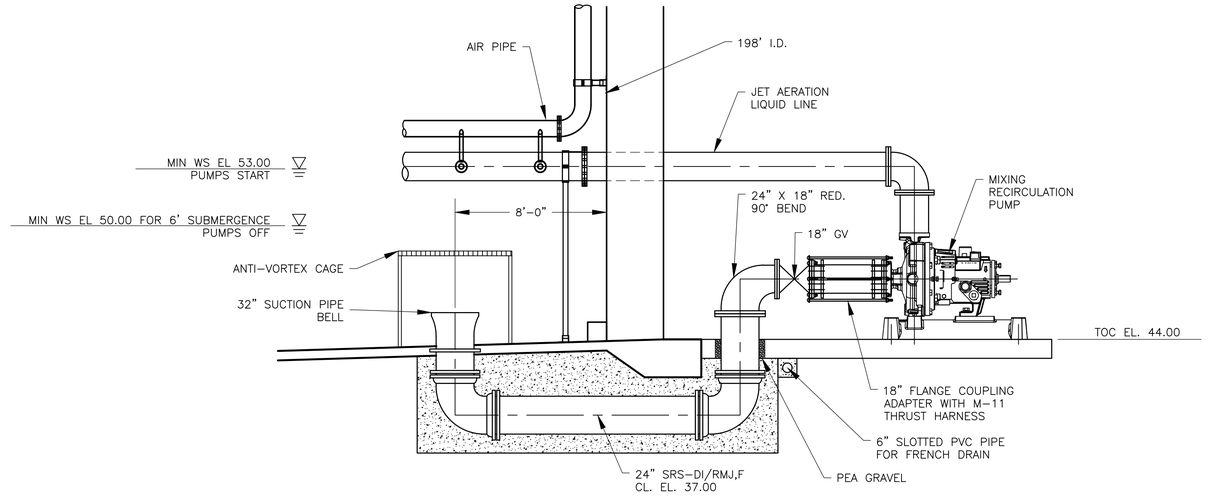
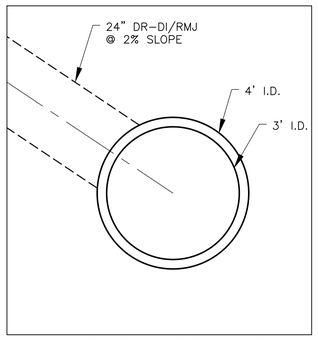


SECTION 3
1/8" = 1'-0"



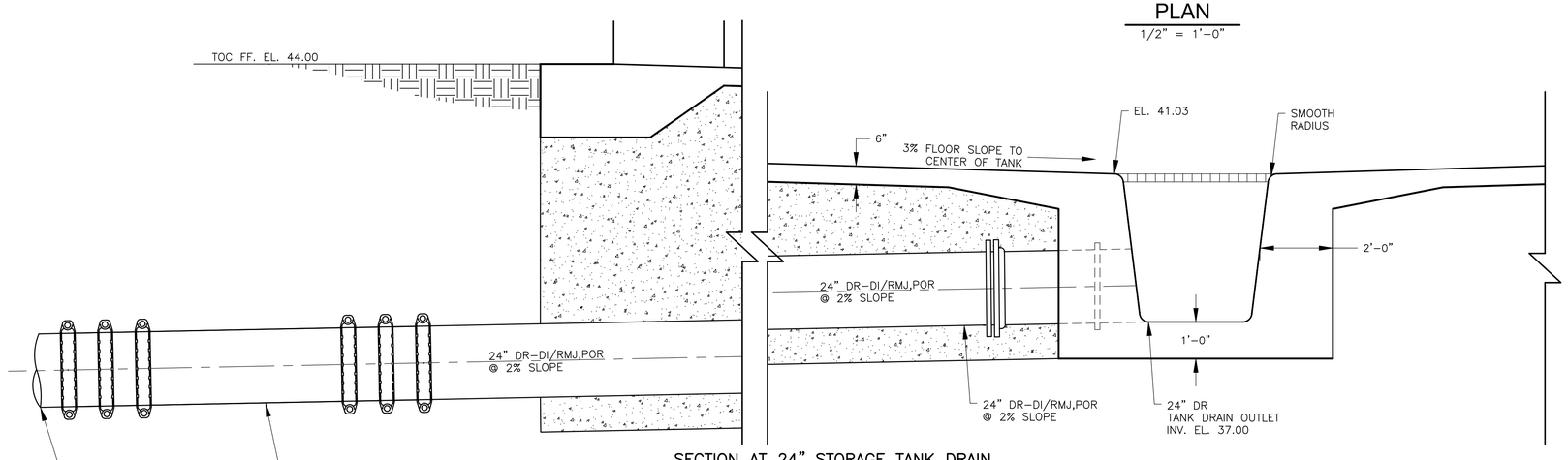
MIXING RECIRCULATION PUMP TYPICAL SECTION

SECTION 5
1/4" = 1'-0"
M-17



PLAN AT STORAGE TANK DRAIN

PLAN
1/2" = 1'-0"



SECTION AT 24" STORAGE TANK DRAIN

SECTION 4
1/2" = 1'-0"
M-17

NO.	DATE	REVISION	APP.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

12.50 MG STORAGE TANK NO. 1 SECTIONS SHEET 2

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
M-21

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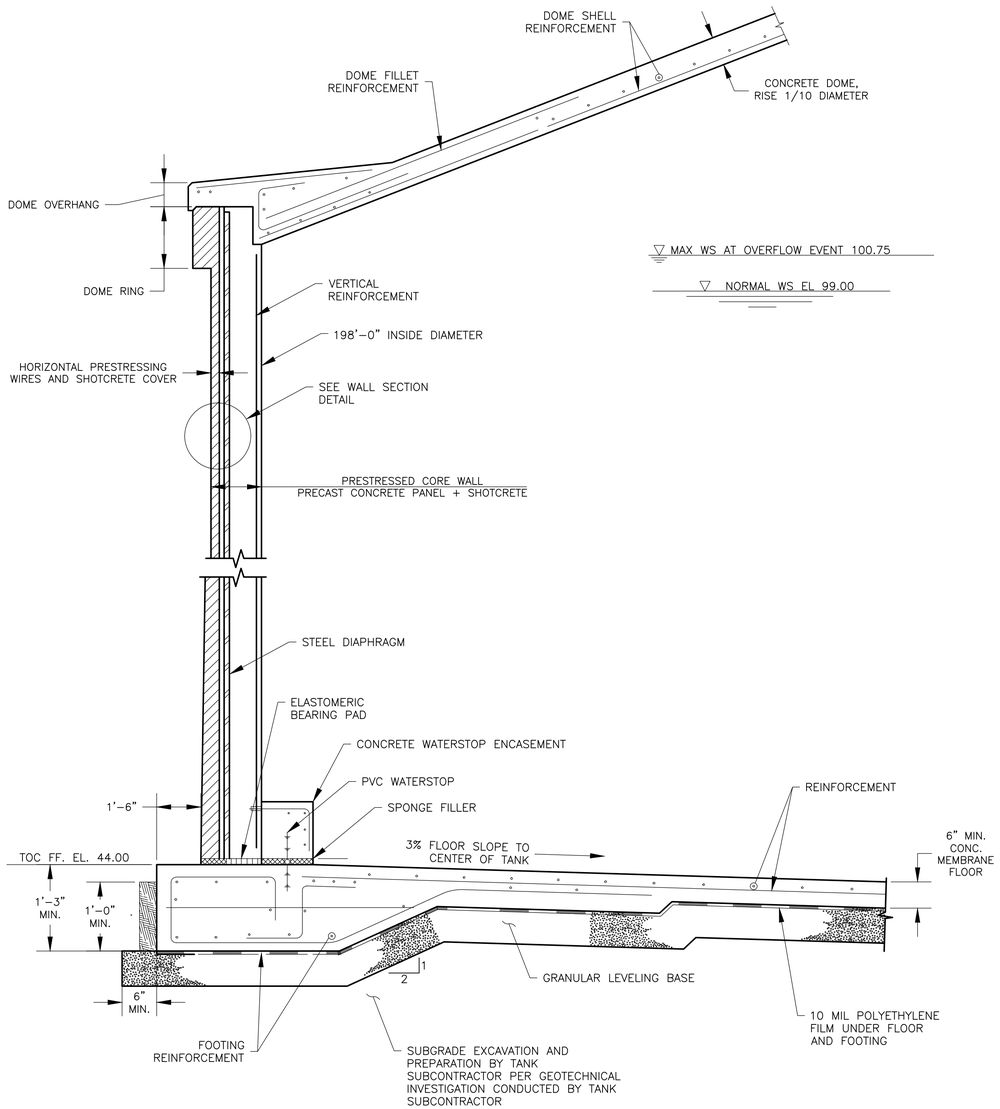
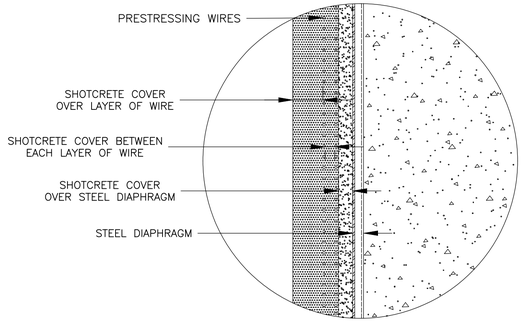


TYPICAL TANK SECTION

DETAIL A

NTS



WALL SECTION

DETAIL B

NTS

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CITY OF HOUSTON
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CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

12.50 MG STORAGE TANK NO. 1 WALL SECTIONS SHEET 3

WARNING
0 1
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R-001000-0035-4	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
M-22

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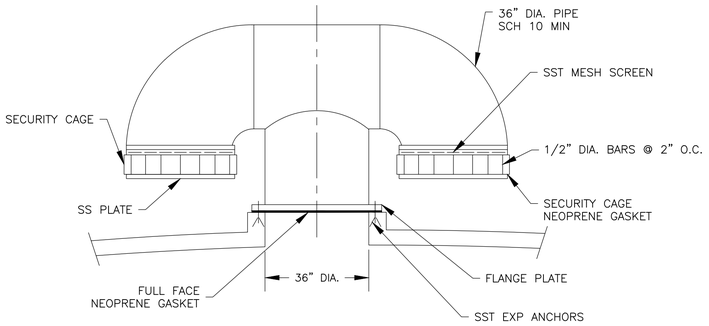
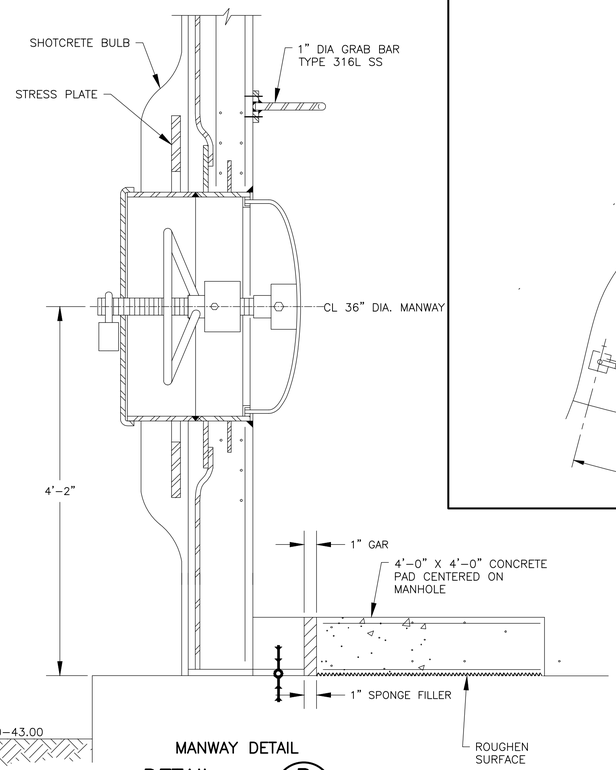


ROOF VENT NOTES:

1. VENT TO BE FABRICATED FROM THIN WALL SCH 10 STAINLESS STEEL PIPE.
2. VENT TO BE POSITIONED PLUMB.
3. SECURE VENT FLANGES WITH SS 316 BOLTING HARDWARE.
4. PROVIDE 3/8" DIA. SS CABLE SECURED AT VENT AND CENTER BOLLARD; 1000 LB CAPACITY. SEE SPECIFICATION FOR ADDITIONAL DETAIL.
5. MINIMUM VENT SIZE REQUIRED, TANK MANUFACTURER SHALL INCREASE VENT SIZE IF REQUIRED DUE TO INTERIOR PRESSURIZATION / VACUUM EXCEEDING MANUFACTURER'S TANK LIMITS BASED IN DESIGN INFORMATION / OUTFLOW RATES.

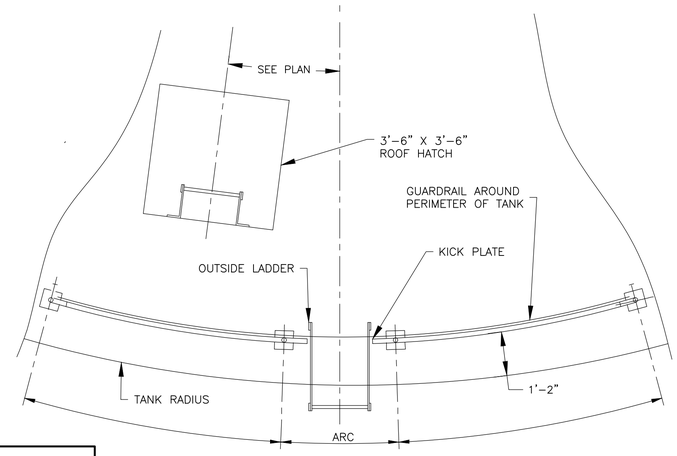
DOUBLE GOOSENECK VENT DETAIL

DETAIL A
NTS –



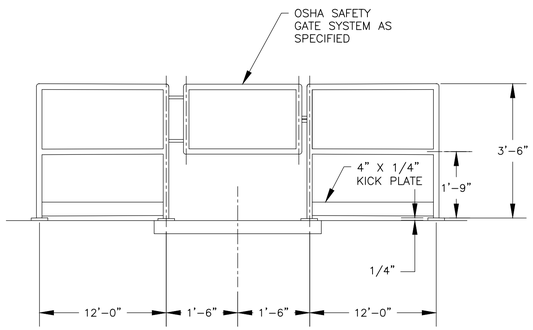
MANWAY DETAIL

DETAIL B
NTS –



PLAN AT HATCH SAFETY RAILING

DETAIL C
NTS –



SAFETY GATE

DETAIL D
NTS –

NO.	DATE	REVISION	APP.

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HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

12.50 MG STORAGE TANK NO. 1 DETAILS SHEET 1

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
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DWG NO
M-23

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:16 PM
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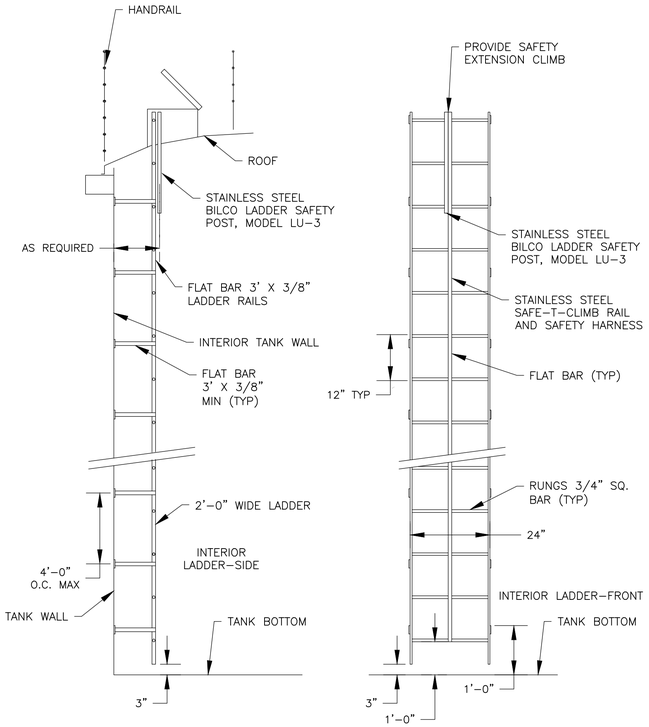


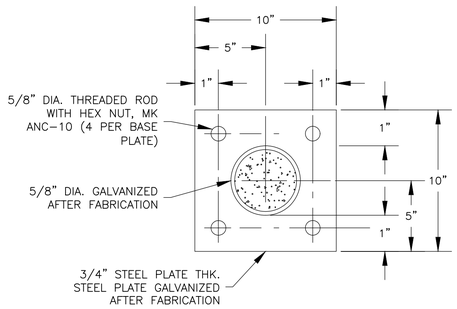
NOTE:

1. LADDER SHALL BE 316L STAINLESS STEEL.
2. ALL ALUMINUM SURFACE IN CONTACT WITH CONCRETE SHALL RECEIVE A PVC SHIM.
3. LADDER SHALL BE CONNECTED TO TANK USING TYPE 316 STAINLESS STEEL WEDGE ANCHOR

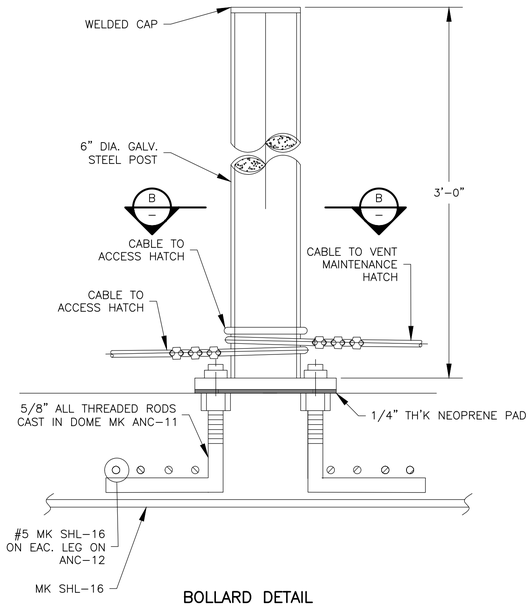
INTERIOR LADDER DETAIL

DETAIL A

NTS



SECTION B-B



BOLLARD DETAIL

DETAIL B

NTS

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
B.W. NICHOLAS
TEXAS P.E. NO. 83349
DATE: 1/21/2026

DESIGNED BY: B. NICHOLAS
DRAWN BY: J. GIBSON
CHECKED BY: T. REESER
REVIEWED BY: B. NICHOLAS
APPROVED BY: B. NICHOLAS

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

12.50 MG STORAGE TANK NO. 1 DETAILS SHEET 2

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
M-24

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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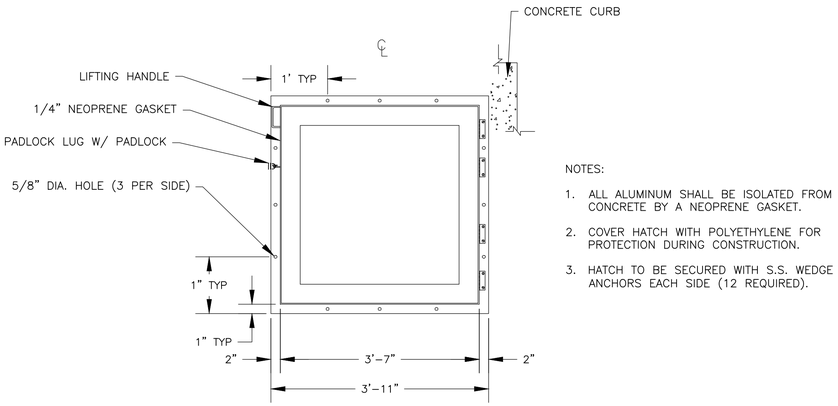
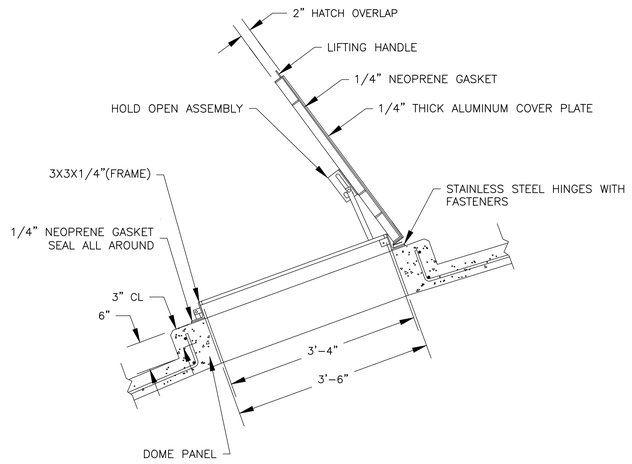


NOTES:

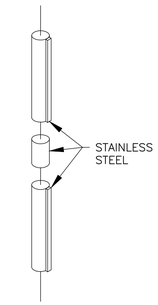
1. ALL ALUMINUM SHALL BE ISOLATED FROM CONCRETE BY A NEOPRENE GASKET.
2. COVER HATCH WITH POLYETHYLENE FOR PROTECTION DURING CONSTRUCTION.
3. HATCH TO BE SECURED WITH S.S. WEDGE ANCHORS EACH SIDE (12 REQUIRED).



DOME HATCH

DETAIL A

NTS



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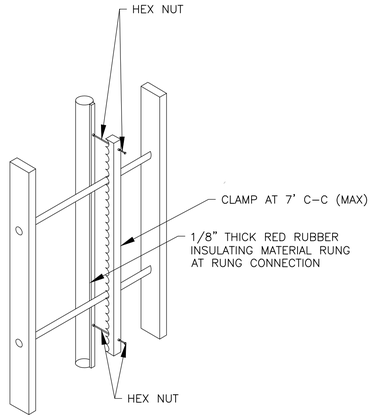

LADDER RUNG CLAMP

DETAIL

DETAIL B

NTS

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

12.50 MG STORAGE TANK NO. 1 DETAILS SHEET 3

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
M-25

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:16 PM
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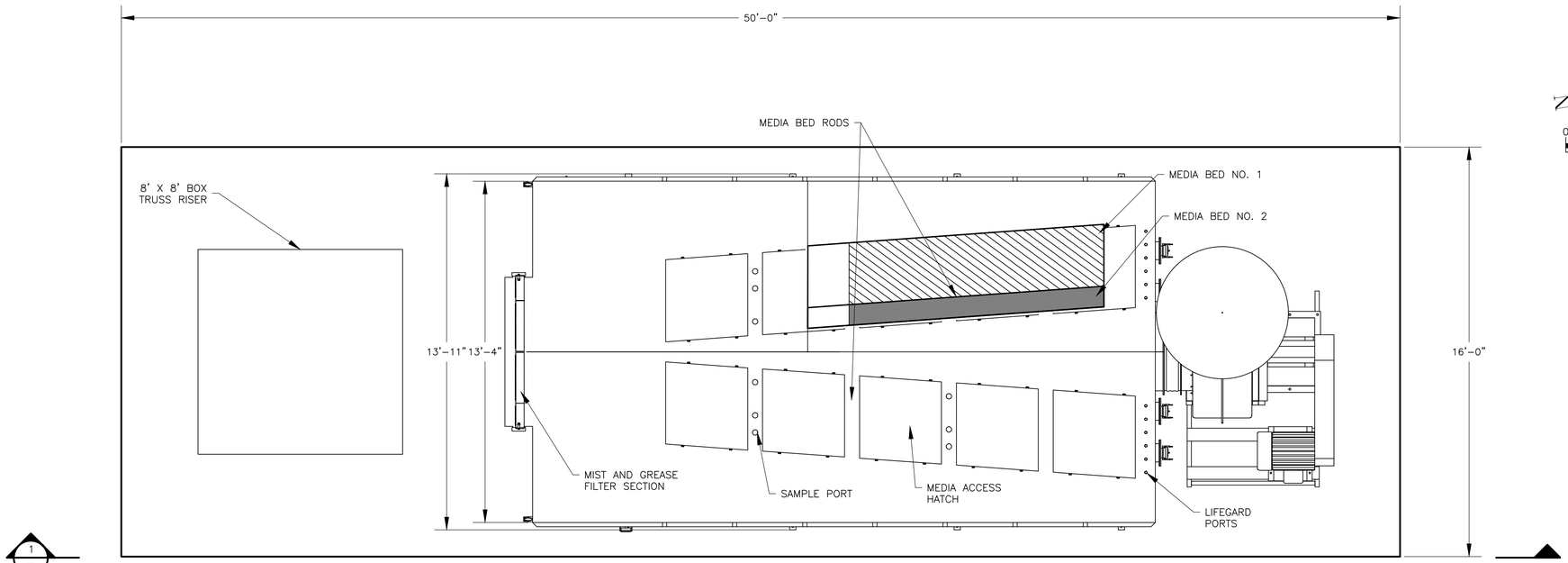

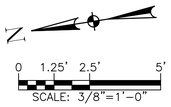

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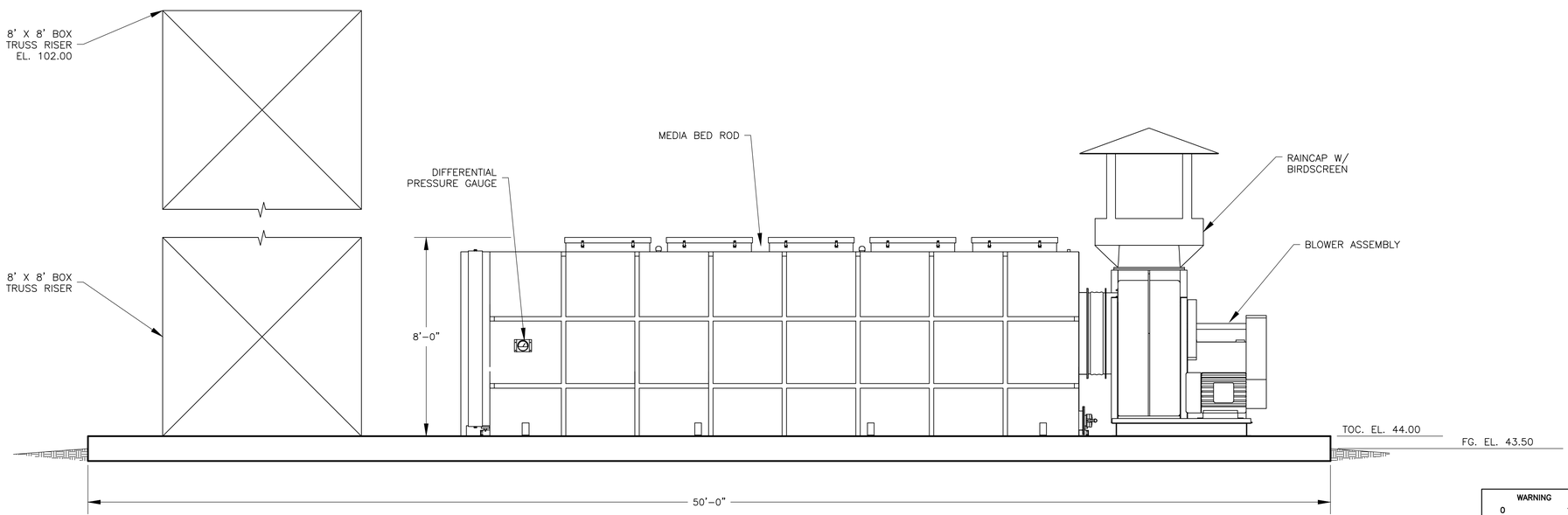
STORAGE TANK NO. 1– ACTIVATED CARBON SYSTEM ODOR CONTROL PLAN

PLAN

3/8" = 1'-0"



STORAGE TANK NO. 1– ACTIVATED CARBON SYSTEM ODOR CONTROL SECTION

SECTION 1

3/8" = 1'-0"

NO.	DATE	REVISION	APP.

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Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: B. NICHOLAS
DRAWN BY: J. GIBSON
CHECKED BY: T. REESER
REVIEWED BY: B. NICHOLAS
APPROVED BY: B. NICHOLAS

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

STORAGE TANK ODOR CONTROL PLAN AND SECTION

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	R-001000-0035-4
DRAWING SCALE	3/8" = 1'-0"
CITY OF HOUSTON PM	NEIL BARNSDALE, P.E.
SHEET NO.	XX OF XX

FOR CITY OF HOUSTON USE ONLY

DWG NO
M-27

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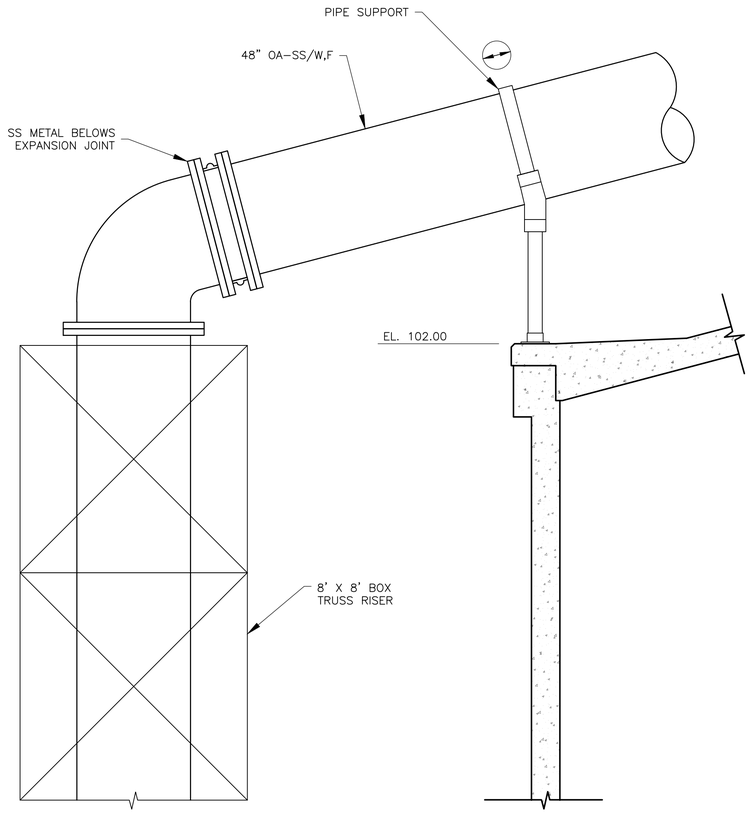
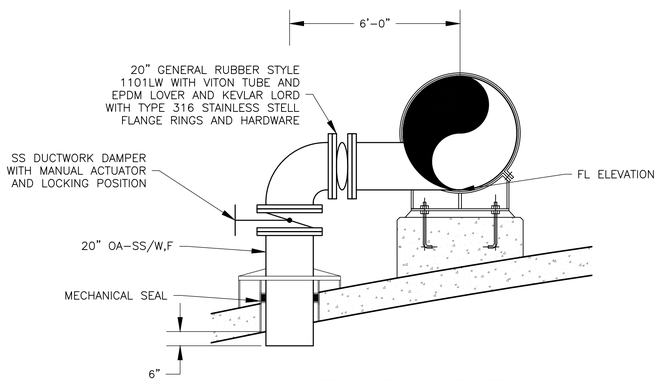


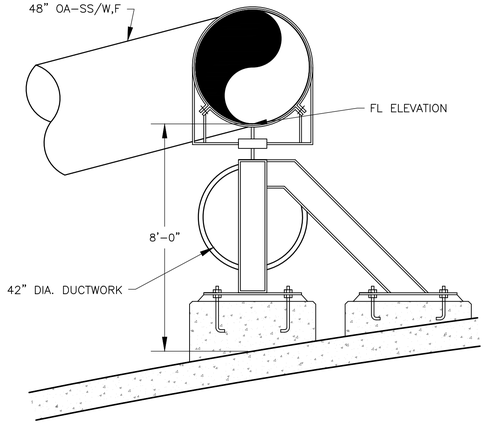
48" DIA. ODOR CONTROL DUCTWORK TRANSITION TO TANK ROOF

DETAIL A
3/8" = 1'–0"



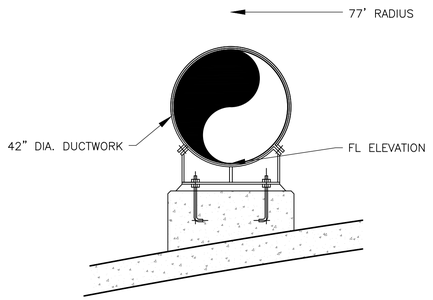
ODOR CONTROL BRANCH HEADER

DETAIL B
3/8" = 1'–0"



ODOR CONTROL DUCTWORK MAIN AIR HEADER TO MAIN BRANCH

DETAIL C
3/8" = 1'–0"



ODOR CONTROL DUCTWORK SUPPORT

DETAIL D
3/8" = 1'–0"

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TEXAS P.E. NO. 126466
DATE: 1/21/2026

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DRAWN BY: J. GIBSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

STORAGE TANK ODOR CONTROL DETAILS

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
M–28

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
AS SHOWN	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:17 PM
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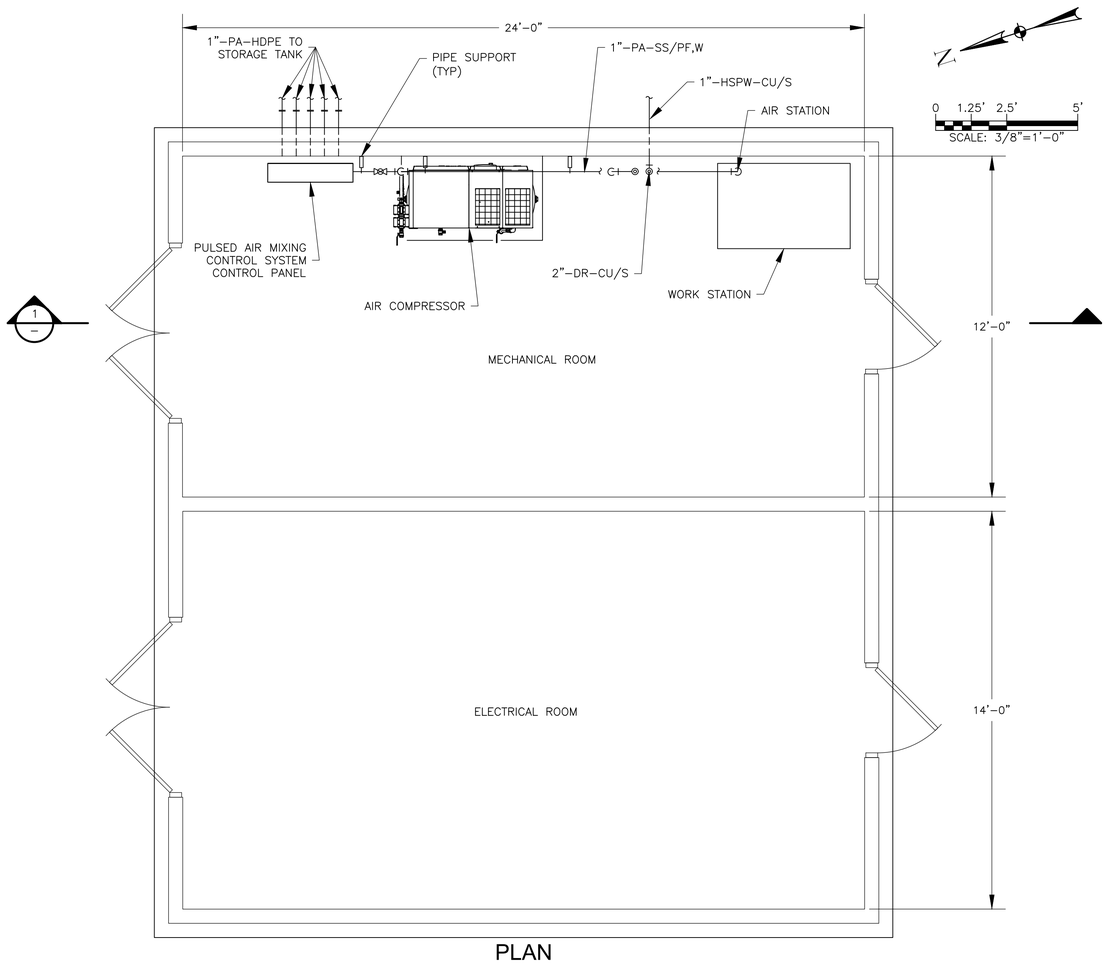
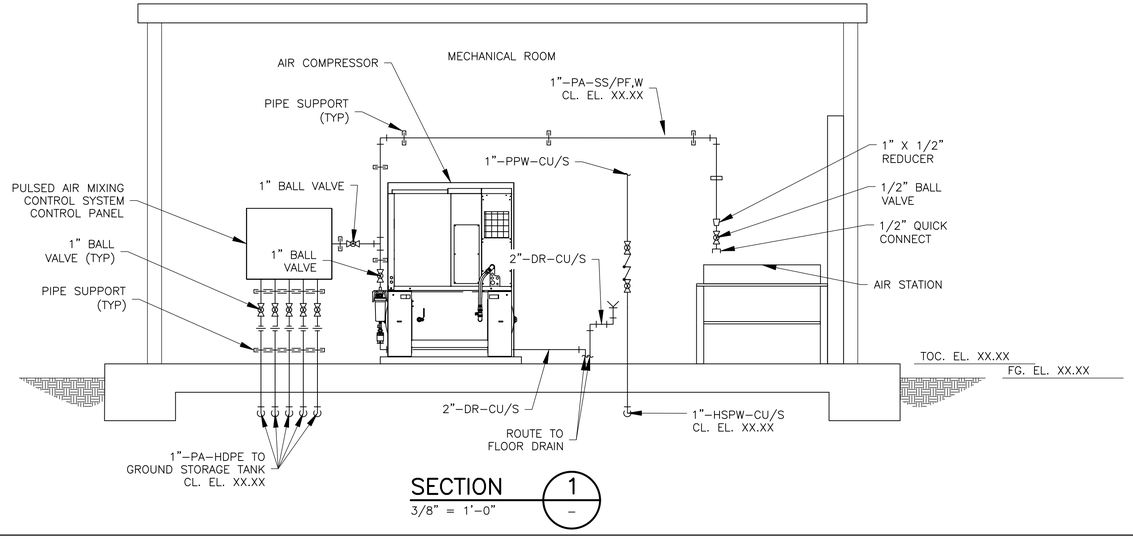


PLAN
3/8" = 1'-0"



SECTION 1 –
3/8" = 1'-0"

NOTES:

1. CONTRACTOR TO COORDINATE WITH EQUIPMENT MANUFACTURER ON THE INSTALLATION OF THE AIR COMPRESSOR PACKAGE AND PULSED AIR MIXING SYSTEM CONTROL PANEL.
2. PROPOSED STAINLESS STEEL AIR PIPING SHALL BE TYPE 304 STAINLESS STEEL.
3. EACH STAINLESS STEEL AIR PIPELINE PENETRATING BOTH THE FLOOR SLAB AND GRADE BEAM SHALL BE ONE SINGLE WELDED PIECE TO PREVENT FUTURE LEAKS.
4. HDPE FOR UNDERGROUND USE ONLY. USE ASAHI-AMERICA AIR PRO COMPRESSED AIR PIPING SYSTEM. CONTRACTOR HAS OPTION TO SUE TYPE 316L STAINLESS STEEL STD. PIPE WALL THICKNESS.

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: B. NICHOLAS	SURVEYED BY:
DRAWN BY: J. GIBSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

STORAGE TANK NO.1 ELEC. BLDG PLAN–MECH ROOM PLAN, SECTION

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
3/8" = 1'-0"	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
M-32

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:17 PM
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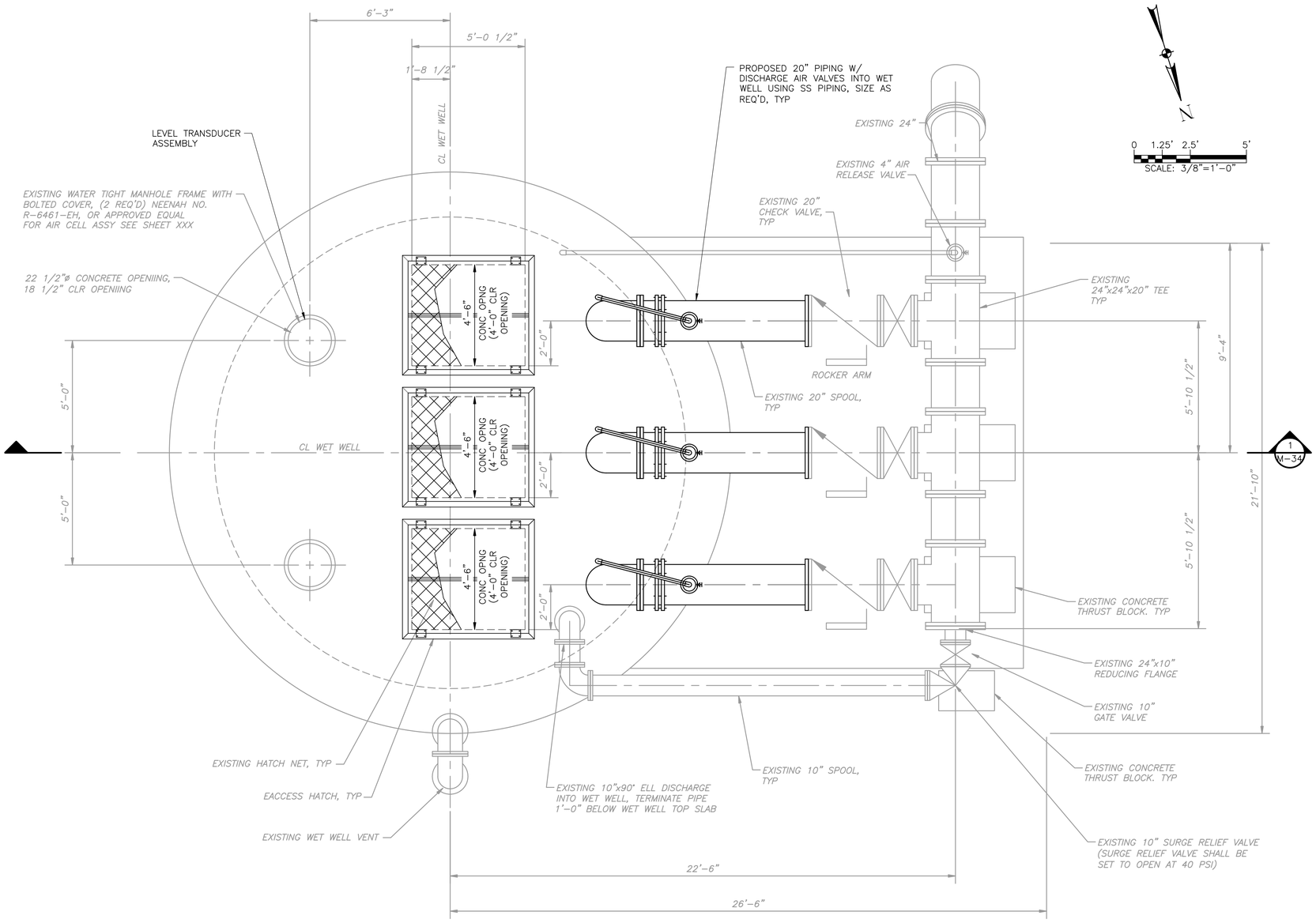

PLAN

3/8" = 1'-0"

NO.	DATE	REVISION	APP.

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER	SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
DRAWN BY: J. GIBSON	FB NO. 340S1
CHECKED BY: T. REESER	
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRIM PACKAGE – NEDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

EXISTING DRAIN LIFT STATION IMPROVEMENTS PLAN

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
3/8" = 1'-0"	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
M-33

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:17 PM

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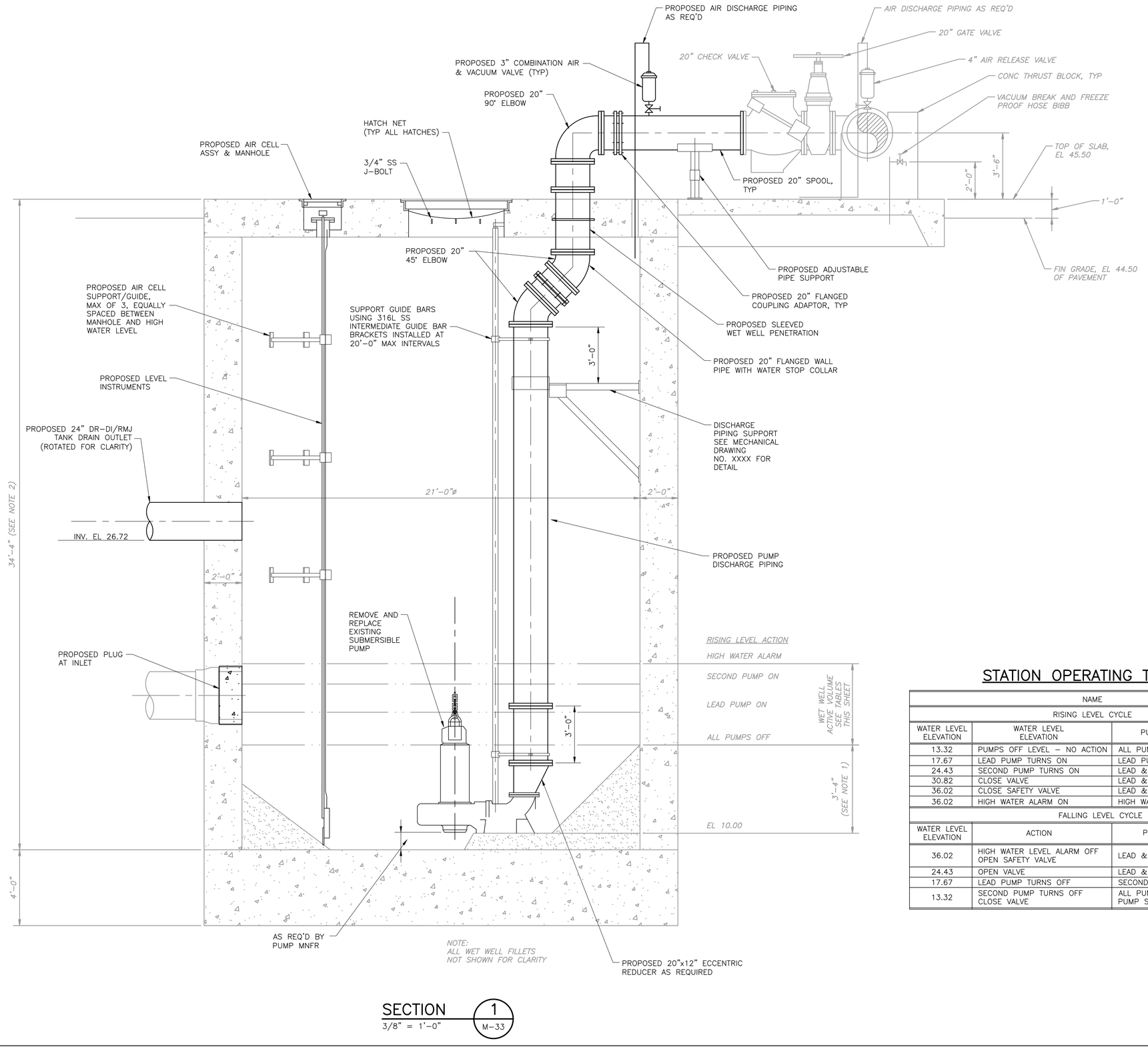

SECTION 1 M-33
3/8" = 1'-0"

GENERAL NOTES:

1. NOMINAL DIMENSIONS NOTES ARE RELATIVE TO THE PUMP SIZE AND MANUFACTURER SELECTED. CONTRACTOR SHALL VERIFY AND ADJUST STATION OPERATING LEVELS ACCORDINGLY.
2. SEE DETAILS AND STRUCTURAL DRAWINGS FOR DIMENSIONS AND INFORMATION NOT SHOWN.
3. CONTRACTOR TO PROVIDE DETAIL FOR PIPE TO WET WELL CONNECTION AS SHOP DRAWING SUBMITTAL.

STATION OPERATING TABLES

NAME		
RISING LEVEL CYCLE		
WATER LEVEL ELEVATION	WATER LEVEL ELEVATION	PUMP(S) IN OPERATION
13.32	PUMPS OFF LEVEL – NO ACTION	ALL PUMPS ARE OFF
17.67	LEAD PUMP TURNS ON	LEAD PUMP ON
24.43	SECOND PUMP TURNS ON	LEAD & SECOND PUMP ON
30.82	CLOSE VALVE	LEAD & SECOND PUMP ON
36.02	CLOSE SAFETY VALVE	LEAD & SECOND PUMP ON
36.02	HIGH WATER ALARM ON	HIGH WATER ALARM SOUND
FALLING LEVEL CYCLE		
WATER LEVEL ELEVATION	ACTION	PUMP(S) IN OPERTION
36.02	HIGH WATER LEVEL ALARM OFF OPEN SAFETY VALVE	LEAD & SECOND PUMP ON
24.43	OPEN VALVE	LEAD & SECOND PUMP ON
17.67	LEAD PUMP TURNS OFF	SECOND PUMP ON
13.32	SECOND PUMP TURNS OFF CLOSE VALVE	ALL PUMPS STOPPED – STAND PUMP SWITCHES TO LEAD PUMP

NO.	DATE	REVISION	APP.

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TEXAS P.E. NO. 126466
DATE: 1/21/2026

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DRAWN BY: J. GIBSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CONSTRUCTION PACKAGE 2 – NEDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

EXISTING DRAIN LIFT STATION IMPROVEMENTS SECTION

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
3/8" = 1'-0"	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
M-34

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:17 PM
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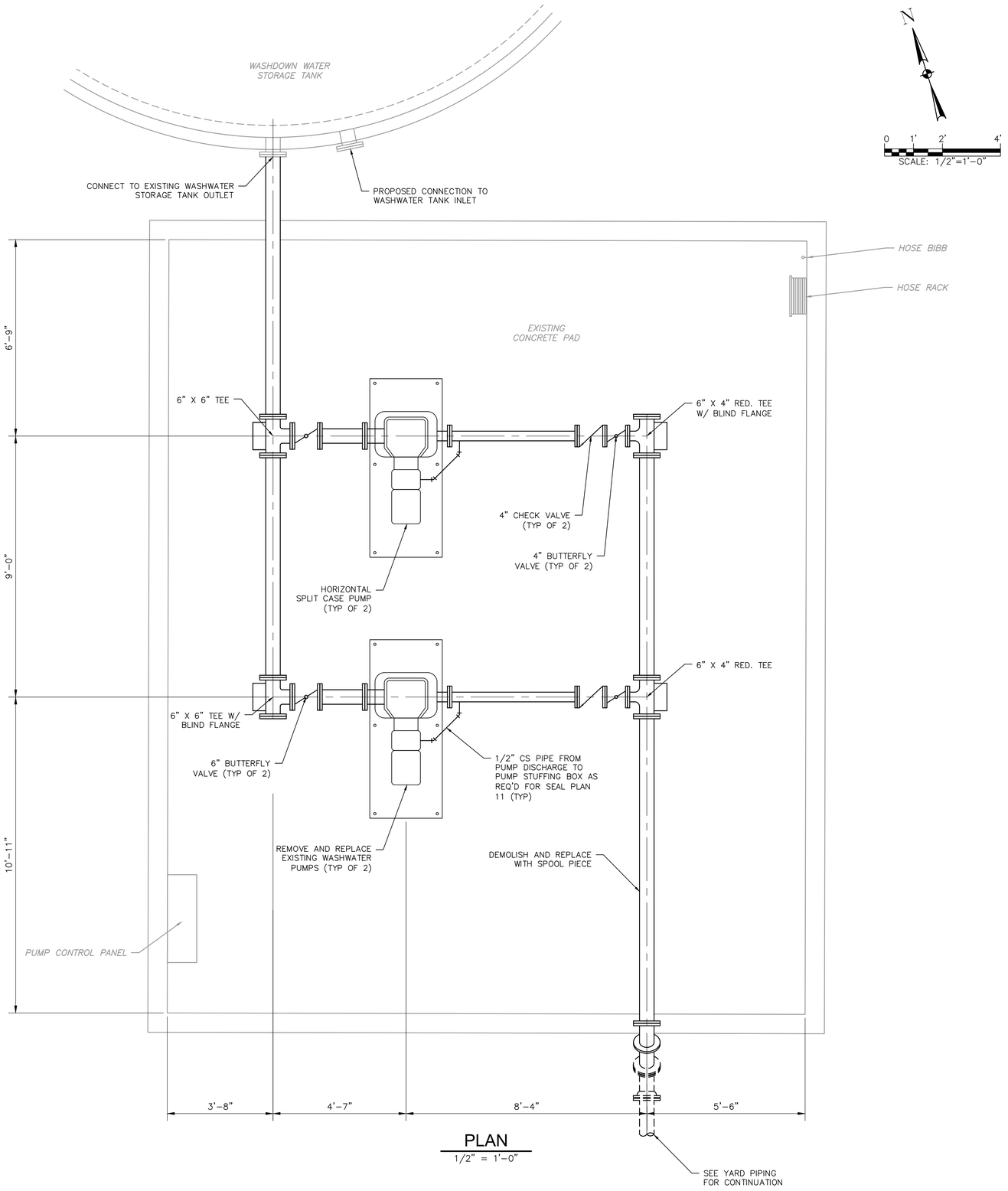

PLAN
1/2" = 1'-0"

NOTES:

1. * INDICATES LOCATION OF PIPE SUPPORT.
2. PUMPS SHALL BE SUPPORTED BY A RIGID BASE PLATE, SUPPLIED BY THE PUMP MANUFACTURER.
3. GROUT BASE PLATE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4. EXACT LOCATION OF PIPE CL MAY VARY DEPENDING UPON SIZE OF PUMP AND VALVES PURCHASED. CONTRACTOR SHALL VERIFY PIPING LAYOUT AND EXACT LOCATION OF THRUST BLOCKS.
5. PUMP MANUFACTURER SHALL SUBMIT MAXIMUM FLANGE LOAD CAPACITIES AND VERIFY ADEQUACY OF RESTRAIN FLEXIBLE COUPLING.
6. APPLY PROTECTIVE COATINGS PER SPECIFICATION 09915.
7. PUMP MANUFACTURER SHALL SUBMIT AN INSTALLATION SPECIFICATION TO ENGINEER FOR APPROVAL.
8. PAIN ALL EXPOSED WASHDOWN PIPING PER SPECIFICATIONS.

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DRAWN BY: J. GIBSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

EXISTING WASHWATER PUMP STATION IMPROVEMENT PLAN

WARNING
0 1
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WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1/2" = 1'-0"	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
M-36

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 12:17 PM
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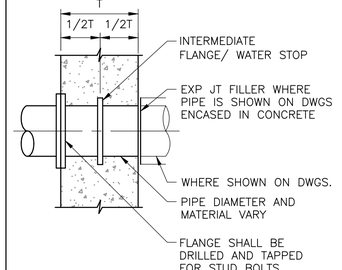
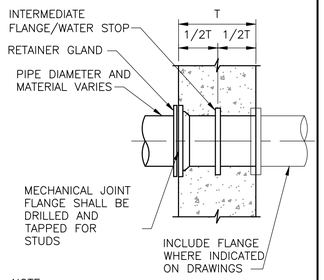


DI FLANGE x PE WALL PIPE

DETAIL A — NOT TO SCALE

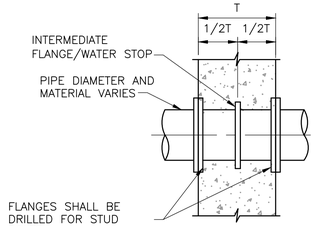


NOTE:

1. FURNISH RESTRAINED MECHANICAL JOINT WHERE INDICATED ON THE DRAWINGS OR SPECIFIED.

MJ x PE (OR FLANGE) WALL PIPE

DETAIL B — NOT TO SCALE

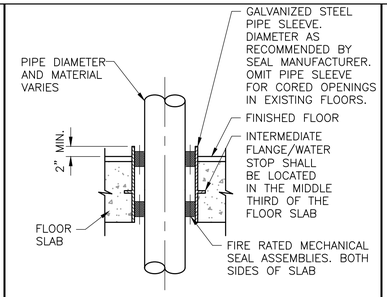


NOTE:

1. FURNISH RESTRAINED MECHANICAL JOINT WHERE INDICATED ON THE DRAWINGS OR SPECIFIED.

FLANGE x FLANGE WALL PIPE

DETAIL C — NOT TO SCALE

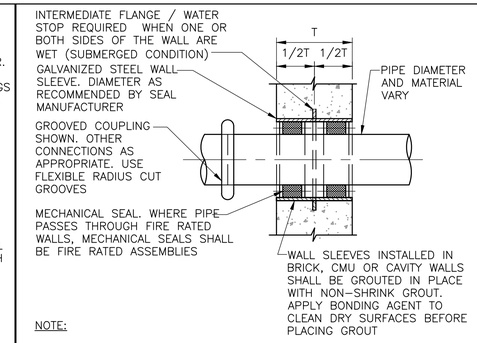


NOTES:

1. FLOOR SLEEVE WITH FIRE RATED MECHANICAL SEALS SHALL BE USED FOR ALL PIPING PENETRATIONS OF FIRE RATED FLOORS.
2. FOR INSULATED PIPING; INTERRUPT INSULATION ON BOTH SIDES OF SLEEVE, SEAL VAPOR BARRIER TO SLEEVE.

PIPE PENETRATION OF RATED FLOOR

DETAIL D — NOT TO SCALE



NOTE:

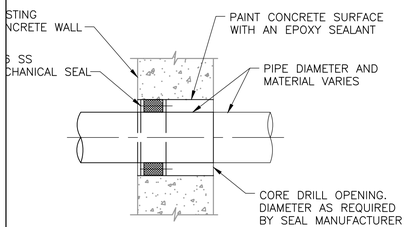
1. INSULATED PIPING: INTERRUPT INSULATION AT BOTH SIDES OF WALL. INSTALL INSULATION FLUSH WITH WALL AFTER WATER TIGHT INSTALLATION OF MECHANICAL SEAL.

WALL SLEEVE WITH MECHANICAL SLEEVE FOR CONCRETE, BRICK OR CMU CAVITY WALL

DETAIL E — NOT TO SCALE

NOTES:

1. THE DETAILS ILLUSTRATED ARE PART OF THE DESIGN PACKAGE – PROJECT STANDARD DETAILS.
2. THESE DETAILS ARE TO BE USED WHEN REFERRED TO OR WHEN NO OTHER MORE RESTRICTIVE OR DIFFERENT DETAILS ARE SHOWN ON THE DRAWINGS.
3. DETAILS NOT PERTAINING TO THE PROJECT ARE MARKED THUS N.I.C. (NOT IN CONTRACT). NOT ALL N.I.C. DETAILS MAY BE MARKED.
4. DETAILS SHOWN ARE INTENDED TO COVER A WIDE RANGE OF PROJECT SITUATIONS. ALL DETAILS MAY NOT APPLY TO THIS PROJECT.
5. STAINLESS STEEL ADHESIVE CAPSULE ANCHORS SHALL BE A TWO–PART STUD AND CAPSULE RESIN ANCHORING SYSTEM. CAPSULES SHALL BE SELF–CONTAINED, SEALED GLASS UNITS CONTAINING PRE–MEASURED AMOUNTS OF RESIN, AGGREGATES AND HARDENER, STUD ASSEMBLIES SHALL BE ALL–THREAD ANCHOR ROD WITH NUT AND WASHER. INSTALL WASHER IN FULL COMPLIANCE WITH THE MRF's RECOMMENDATIONS. ANCHORS SHALL BE HILTI "HVA ADHESIVE ANCHOR", MOLLY "PARABOUND CAPSULE ANCHOR" OR EQUAL. PROVIDE MINIMUM EMBEDMENT OF 10 BOLT DIAMETERS IN CONCRETE.
6. PIPE TO WALL PENETRATION CLOSURES SHALL BE OF THE MODULAR MECHANICAL TYPE CONSISTING OF INTERLOCKING SYNTHETIC RUBBER LINKS SHAPED TO FILL THE ANNULAR SPACE BETWEEN THE PIPE AND WALL OPENING. A PRESSURE PLATE SHALL BE PROVIDED UNDER EACH BOLT HEAD AND NUT WITH THE SEAL CONSTRUCTED TO PROVIDE ELECTRICAL INSULATION BETWEEN WALL AND PIPE. WALL SEAL ASSEMBLY SHALL BE LINK SEAL AS MFR. BY THUNDERLINE CORP., WAYNE MICHIGAN OR EQUAL. PROVIDE ESCUTCHEONS IN FINISHED SPACES.
7. STANDARD MECHANICAL DETAILS SHALL BE USED AT ALL APPLICABLE LOCATIONS, UNLESS NOTED OTHERWISE ON DRAWINGS. ALL DETAILS AND NOTES MARKED "TYPICAL" APPLY TO SIMILAR CONDITIONS THROUGH OUT THE PROJECT WHETHER SPECIFICALLY NOTED OR NOT.
8. PIPE PENETRATIONS ARE SHOWN AND CALLED OUT AS GOING THROUGH WALLS. THE SAME DETAIL MAY APPLY TO A PIPE PENETRATION GOING THROUGH A FLOOR.

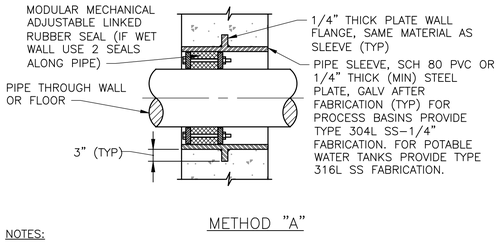


NOTE:

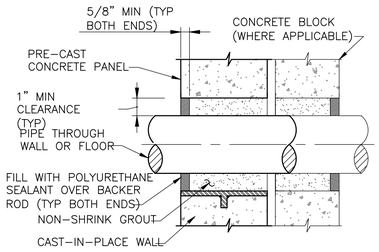
1. INSIDE DIA. OF EACH WALL OPENING SHALL BE OF THE SIZE RECOMMENDED BY MANUFACTURER TO FIT THE PIPE OR CONDUIT AND THE WALL SEAL ASSEMBLY TO ENSURE A WATER–TIGHT JOINT.

WALL PENETRATION THROUGH EXISTING CONCRETE

DETAIL F — NOT TO SCALE



METHOD "A"



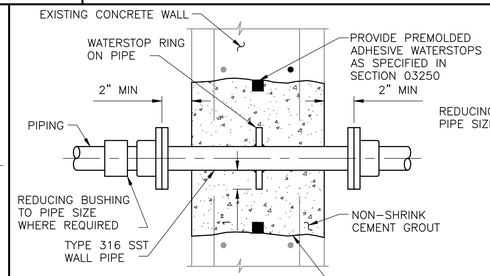
METHOD "B"

NOTES:

1. THESE SLEEVED PIPE DETAILS ARE TO BE USED IN DRY WALLS ONLY, EXCEPT AS NOTED.
2. PROVIDE SEALANT ON EXTERNAL FACES ONLY IN TWO WALL CONSTRUCTION.
3. CORE THE PRE–CAST CONCRETE WALL.

WALL PENETRATION IN NEW WALL

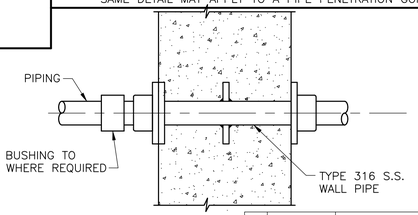
DETAIL G — NOT TO SCALE



NOTES:

1. CORE HOLE THROUGH WALL APPROX. SAME DIAMETER AS O.D. OF WATERSTOP RING. CHIP CONCRETE BACK ADDITIONAL 2" ALL AROUND LEAVING EXISTING REINF. EXPOSED.
2. ALL PIPE WALL PENETRATIONS SHALL BE 2" MINIMUM DIAMETER IF PIPE IS LARGER THAN 2", THE WALL PIPE SHALL BE THE SAME SIZE AS THE PIPE.

EXISTING WALL OR FLOOR



NOTES:

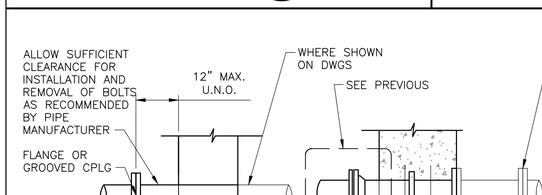
1. ALL PIPE WALL PENETRATIONS SHALL BE 2" MINIMUM DIAMETER. (UND) IF PIPE IS LARGER THAN 2", THE WALL PIPE SHALL BE THE SAME SIZE AS THE PIPE
2. FLANGES OF CAST–IN SS PIPE MAY BE FLUSH WITH FACE OF WALL. DRILL AND TAP FLANGE FOR STUD BOLTS.

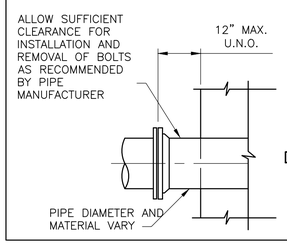
NEW WALL OR FLOOR

PIPE PENETRATION

DETAIL H — NOT TO SCALE

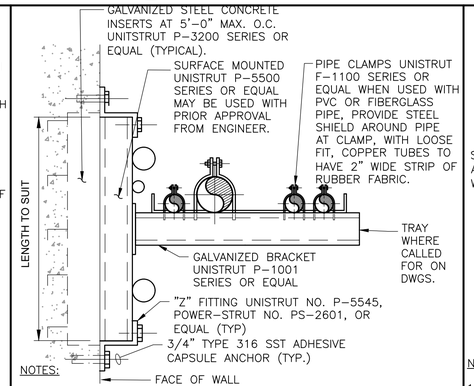
NO.	DATE	REVISION	APP.





DI CASTING WITH NON–FLUSH JOINTS

DETAIL I — NOT TO SCALE

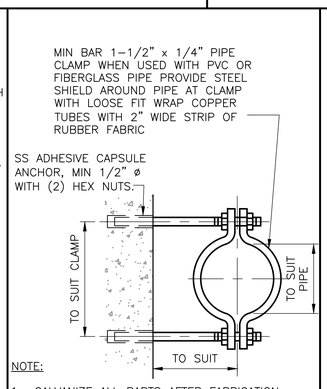


NOTES:

1. WHERE SUBMERGED OR LOCATED ON OR ABOVE TOP OF WALL OF HYDRAULIC STRUCTURE, FRAMING SUPPORT, Z FITTINGS, INTERMEDIATE SUPPORTS, BOLTS, WASHERS AND SHIELD SHALL BE TYPE 316 STAINLESS STEEL.
2. MAY BE COMBINED WITH RACKING PIPE IN VERTICAL AND WITH RUBBER HOSE IN TRAY.

CANTALIVERED PIPE SUPPORT

DETAIL J — NO SCALE

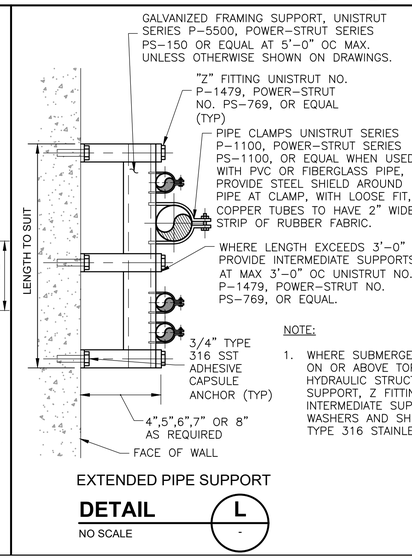


NOTE:

1. GALVANIZE ALL PARTS AFTER FABRICATION. WHERE SUBMERGED OR LOCATED ON OR ABOVE TOP OF WALL OF HYDRAULIC STRUCTURE, PIPE CLAMP, WASHER, AND SHIELD SHALL BE TYPE 316 STAINLESS STEEL.

PIPE CLAMP

DETAIL K — NOT TO SCALE



NOTE:

1. WHERE SUBMERGED OR LOCATED ON OR ABOVE TOP OF WALL OF HYDRAULIC STRUCTURE, FRAMING SUPPORT, Z FITTINGS, INTERMEDIATE SUPPORTS, BOLTS, WASHERS AND SHIELD SHALL BE TYPE 316 STAINLESS STEEL.

EXTENDED PIPE SUPPORT

DETAIL L — NO SCALE

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
MZ–1

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER	SURVEYED BY:
DRAWN BY: J. GIBSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

PROCESS MECHANICAL STANDARD DETAILS I

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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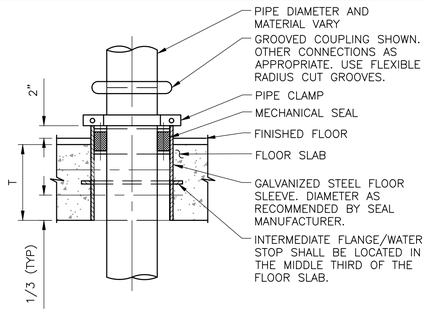


NOTE:

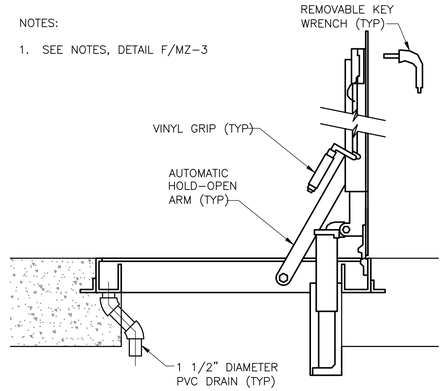
1. INSULATED PIPING: INTERRUPT INSULATION AT BOTH SIDES OF SLAB. INSTALL INSULATION FLUSH WITH SLAB AFTER WATER TIGHT INSTALLATION OF MECHANICAL SEAL.

FLOOR SLEEVE WITH MECHANICAL SEAL

DETAIL A — NOT TO SCALE

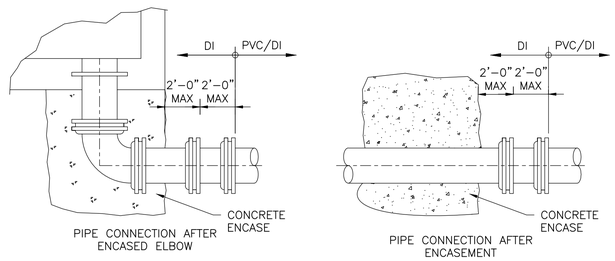
NOTES:

1. SEE NOTES, DETAIL F/MZ-3



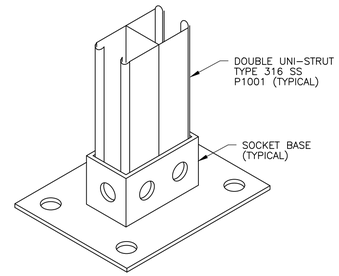
TYPICAL SINGLE LEAF HATCH FLUSH WITH CONCRETE

DETAIL B — NOT TO SCALE



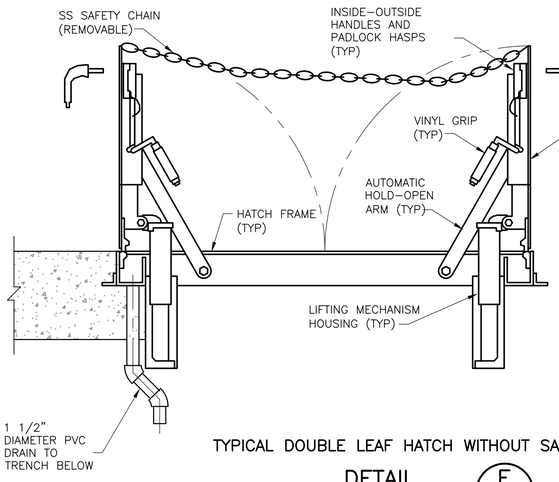
PIPE CONNECTION AFTER ENCASEMENT

DETAIL C — NTS



DOUBLE UNI-STRUT PIPE SUPPORT

DETAIL D — NTS

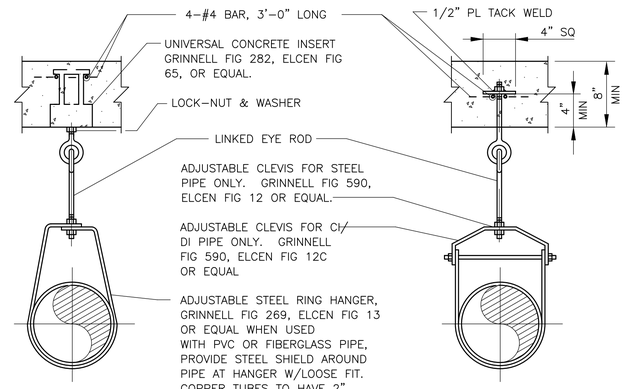


NOTES:

1. ALL ACCESS HATCH HARDWARE SHALL BE TYPE 316 STAINLESS STEEL.
2. ALL ACCESS HATCHES SHALL BE EQUIPPED WITH REMOVABLE SAFETY NETS OR SAFETY GRATING (NOT SHOWN).
3. CONTRACTOR SHALL COORDINATE ALL INSTALLATION DETAILS REQUIRED TO SUIT INSTALLATION. REFER TO DRAWINGS FOR LOCATION SIZE, AND QUANTITY OF PROPOSED ACCESS HATCHES.
4. FOR ACCESS HATCH INSTALLATIONS WHERE HATCH IS FLUSH WITH TOP OF CONCRETE. PIPE DRAINAGE CHANNEL TO INSIDE FACE OF CONCRETE OPENING.
5. ALL DOUBLE LEAF HATCHES 4' X 4' AND LARGER SHALL ALSO BE EQUIPPED WITH TYPE 316 STAINLESS SAFETY CHAINS.

TYPICAL DOUBLE LEAF HATCH WITHOUT SANITARY CURB

DETAIL E — NOT TO SCALE



TYPE 'A' FOR HANGER RODS 3/4" DIA AND SMALLER

TYPE 'B' FOR HANGER RODS 7/8" DIA AND LARGER AND MIN 8" THICK CONCRETE

PIPE HANGER RODS & SUPPORT SPACING

PIPE DIA (INCHES)	ROD DIA (INCHES)	MAX SUPPORT SPACING (FEET)		WEIGHT LIMIT (LBS)	
		STL PIPE	CI/DI/FRP PIPE	TYPE 'A'	TYPE 'B'
1 & SMALLER	3/8	5	SEE SPECIFICATION SECTION 15140	610	---
1 1/4 TO 2	3/8	5		610	---
2-1/2 TO 3-1/2	1/2	10		1130	---
4 TO 5	5/8	10		1430	---
6	3/4	10		1430	3800
8,10,12	7/8	10		---	3800
14,16,18	1	10		---	3800
24	1 1/4	10		---	4800

NOTES:

1. PIPE CLAMP, WASHER AND SHIELD SHALL BE TYPE 316 STAINLESS STEEL OR AS NOTED IN SECTION 15140.
2. WHEN USED WITH PVC OR FIBERGLASS PIPE PROVIDE 316 SS SHIELD AROUND PIPE AT CLAMP, WITH LOOSE FIT. WRAP COPPER TUBES WITH 2" STRIP OF RUBBER FABRIC.
3. FOR FLANGED PIPING INCREASE 'B' DIMENSION AS REQUIRED.
4. FOR EXISTING CONCRETE CEILING LOCATIONS, INSTALL TO CONCRETE CEILING WITH FIG 32 CONCRETE ROD ATTACHMENT PLATE.

PIPE HANGER IN NEW CEILING

DETAIL F — NOT TO SCALE

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER
DRAWN BY: J. GIBSON
CHECKED BY: T. REESER
REVIEWED BY: B. NICHOLAS
APPROVED BY: B. NICHOLAS

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

PROCESS MECHANICAL STANDARD DETAILS II

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
MZ-2

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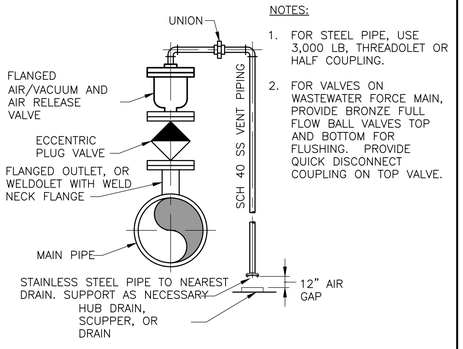
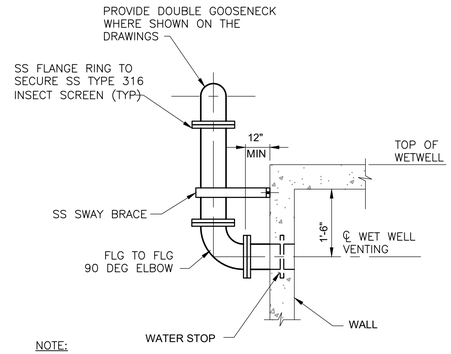


NOTES:

1. FOR STEEL PIPE, USE 3,000 LB, THREADOLET OR HALF COUPLING.
2. FOR VALVES ON WASTEWATER FORCE MAIN, PROVIDE BRONZE FULL FLOW BALL VALVES TOP AND BOTTOM FOR FLUSHING. PROVIDE QUICK DISCONNECT COUPLING ON TOP VALVE.

AIR AND AIR–VACUUM RELEASE (TYPE 2)

DETAIL A — NOT TO SCALE

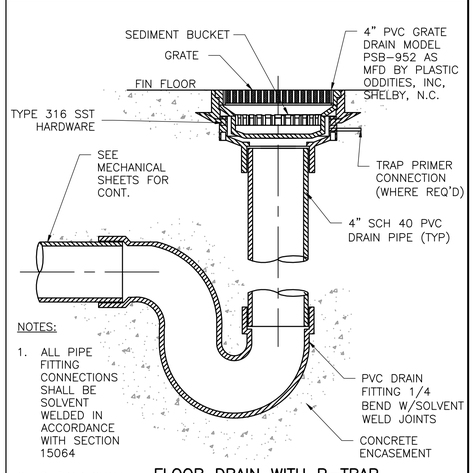


NOTE:

INSECT SCREEN SHALL BE 16 MESH USING WIRE 0.020 INCHES IN DIAMETER (46.2% OPEN AREA) BY CLEVELAND WIRE CLOTH COMPANY.

DOUBLE GOOSENECK VENT

DETAIL D — NOT TO SCALE

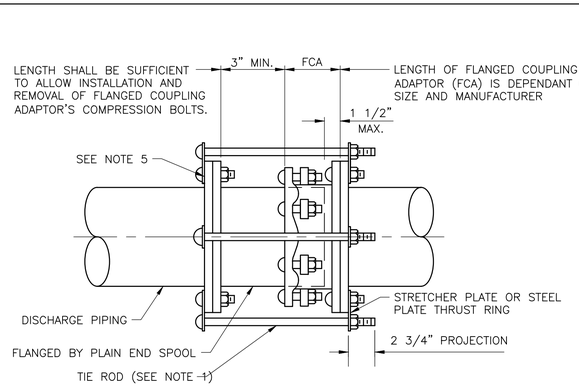


NOTES:

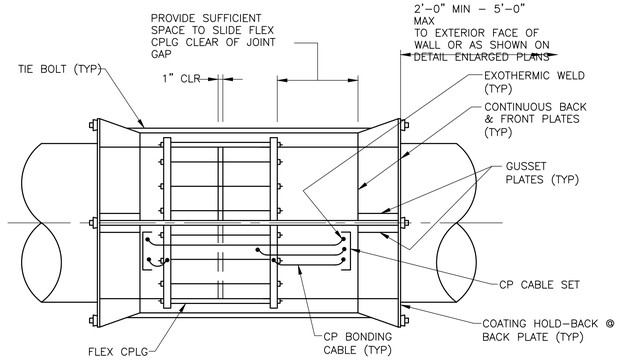
1. ALL PIPE FITTING CONNECTIONS SHALL BE SOLVENT WELDED IN ACCORDANCE WITH SECTION 15064
2. P–TRAP SHALL BE MODEL ZURN Z742V OR EQUAL.

FLOOR DRAIN WITH P–TRAP

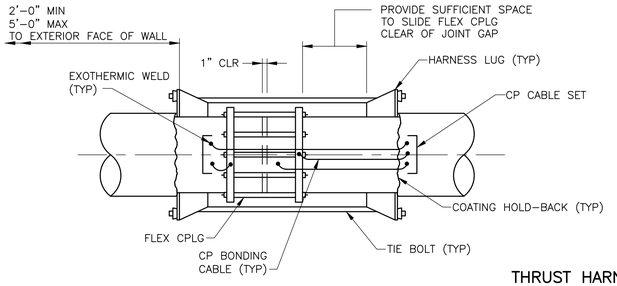
DETAIL G — NOT TO SCALE



FOR FLANGED COUPLING ADAPTER



TYPICAL HARNESS FLEX/SLEEVE CPLG – 14" AND LARGER



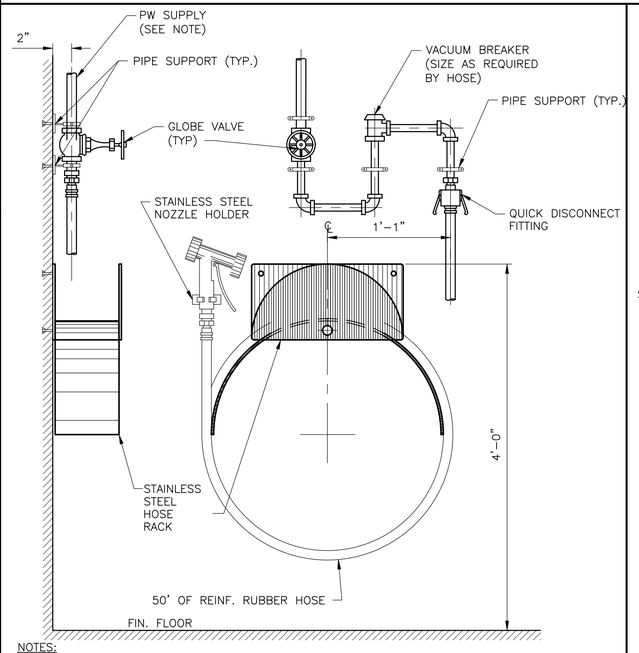
TYPICAL HARNESS FLEX/SLEEVE CPLG – 6" TO 12"

NOTES:

1. PROVIDE NUMBER (LATEST EDITION) AND DIAMETER OF TIE RODS PER AWWA MANUAL M–11 REQUIREMENTS. EVENLY SPACE INSTALLATION OF THE TIE RODS. LENGTH OF TIE RODS TO BE DETERMINED BY CONTRACTOR BASED ON SIZE AND FLANGED COUPLING ADAPTOR AND FINAL LENGTH OF SPOOL PIECE.
2. PROVIDE STRETCHER PLATE FOR ATTACHMENT OF TIE RODS. FOR SIZE SEE AWWA M–11 MANUAL.
3. MATERIALS – BOLTS: ASTM A–307 HOT DIP GALVANIZED, STRETCHER PLATE: ASTM A36 STEEL, HOT DIPPED GALVANIZED, FLEXIBLE COUPLING: SEE SPECIFICATION 15120 FOR BOLTING MATERIALS, TREATMENTS, AND COATING REQUIREMENTS FOR BURIED, ABOVE WATER SURFACE IN TREATMENT TANKS, AND SUBMERGED SERVICE.
4. HARNESS LUG DESIGN CRITERIA PER AWWA MANUAL M11 (LATEST EDITION) AND TEST PRESSURE SPECIFIED ON DRAWINGS AND/OR SPECIFICATIONS.
5. EXCEPT FOR INSULATING CPLG'S, EACH FLEX CPLG SLEEVE & FOLLOWER RINGS SHALL BE ELECTRICALLY BONDED TO THE PIPE WITH TYPE CP COPPER CATHODIC PROTECTION CABLES.
6. SEE ALSO CP DRAWINGS AND RELATED SPECIFICATIONS.

THRUST HARNESS OR FLEXIBLE CONNECTION

DETAIL B — NOT TO SCALE

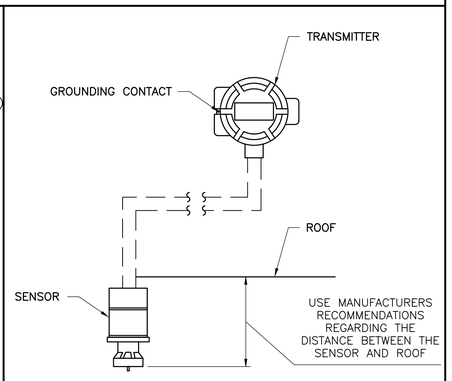


NOTES:

1. FOR PW SUPPLY SIZE AND LOCATION, SEE DRAWINGS.
2. PROVIDE REDUCER WHERE REQUIRED.
3. IN SOME CASES PW MAY COME UP THROUGH FLOOR. IN SUCH CASES USE FLOOR PENETRATION DETAIL E/MZ–3.

WASH HOSE STATION (TYPE A)

DETAIL E — NOT TO SCALE

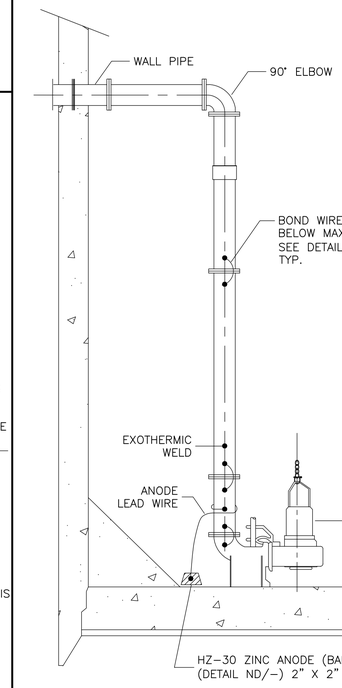


NOTES:

1. CONTRACTOR TO CONSULT THE ENGINEER AND FINALIZE THE LOCATION FOR INSTALLATION.
2. SENSOR IS LOCATED IN CLASS 1 AREA AND THE TRANSMITTER IS LOCATED IN UNCLASSIFIED AREA.
3. CONTACTOR TO PROVIDE ACCESS TO THE SENSOR SO THAT CALIBRATION GAS BULB CAN BE CONNECTED WHILE DOING CALIBRATION.

COMBUSTIBLE GAS DETECTOR INSTALLATION (GCD) (REMOTE SENSOR SUITABLE FOR WETWELL AND CLOSED ROOMS)

DETAIL F — NOT TO SCALE



WET WELL DIRECT CONNECT ANODE INSTALLATION

DETAIL H — NOT TO SCALE

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER
DRAWN BY: J. GIBSON
CHECKED BY: T. REESER
REVIEWED BY: B. NICHOLAS
APPROVED BY: B. NICHOLAS

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

PROCESS MECHANICAL STANDARD DETAILS III

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
MZ–3

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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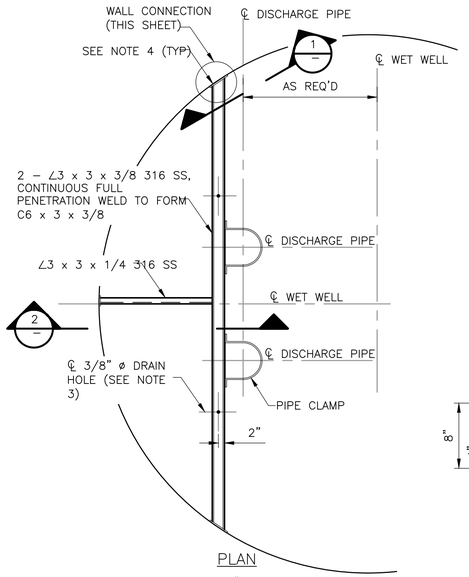

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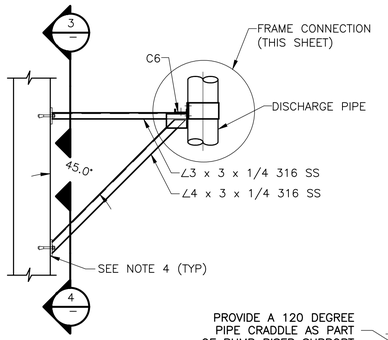

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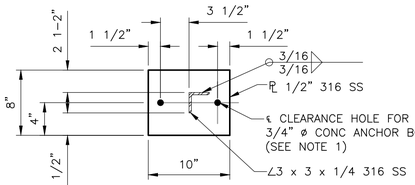

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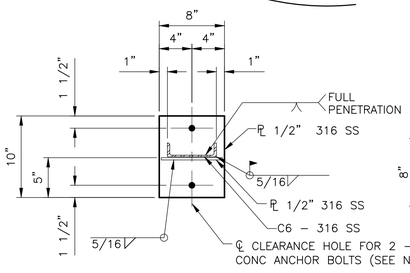

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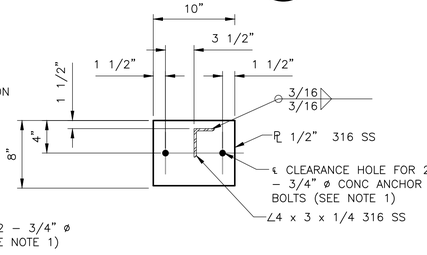

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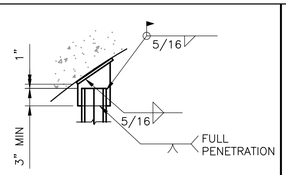
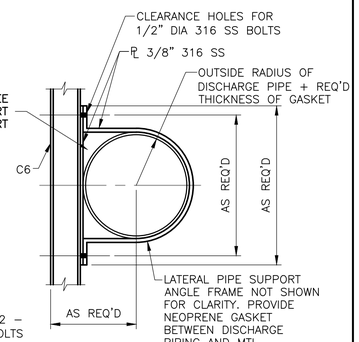


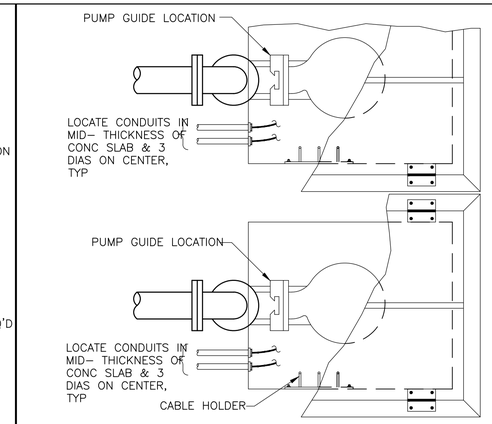
WALL CONNECTION



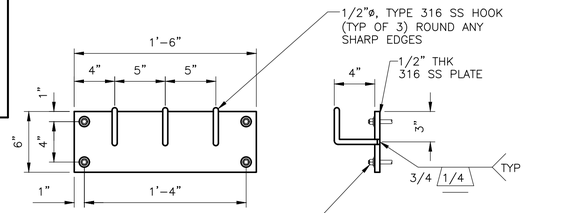
PIPE CLAMP

NOTES:

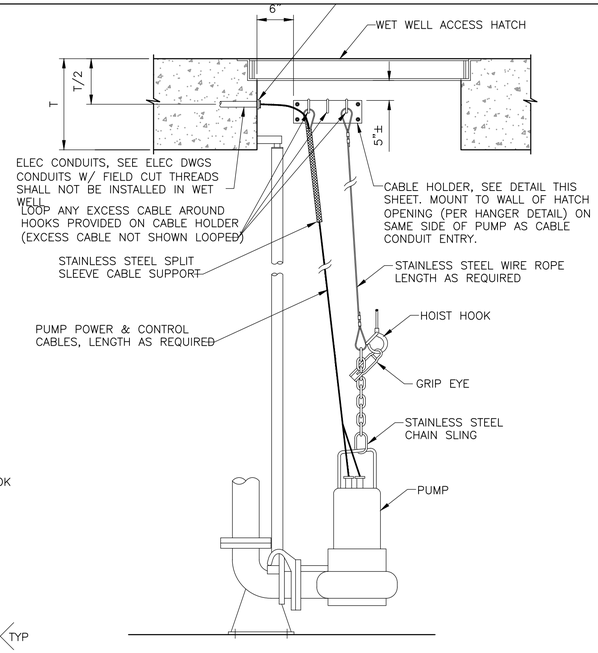
1. CONCRETE ANCHOR BOLTS SHALL HAVE 6" MINIMUM EMBEDMENT AND SHALL BE TYPE 316 STAINLESS STEEL, PER SPECIFICATIONS.
2. SEE STATION AND STRUCTURAL DRAWINGS FOR DIMENSIONS AND INFORMATION NOT SHOWN.
3. DRILL 3/8" DIA HOLES, 1" OFF CL OF C5 AT MIDSPAN 3. BETWEEN LATERAL PIPE SUPPORTS TO ALLOW FOR DRAINAGE. 3 HOLES PER CHANNEL WHERE 2 LATERAL SUPPORTS REQUIRED; 2 HOLES PER CHANNEL WHERE 1 LATERAL SUPPORT REQUIRED.
4. SET 1/4" NEOPRENE GASKET ON WALL SURFACE IN SIKA 1A (OR EQUAL) SEALANT.
5. DETAILS APPLICABLE TO SANITARY LIFT STATION. CABLE HOLDER DETAIL AND TYP. PUMP LIFTING AND CABLING DETAIL APPLICABLE TO SUBMERSIBLE PROCESS PUMPS.
6. PIPE SHALL BE FINISHED PAINTED ON ALL SURFACE PRIOR TO PLACEMENT IN PIPE SUPPORT, TYP



PLAN



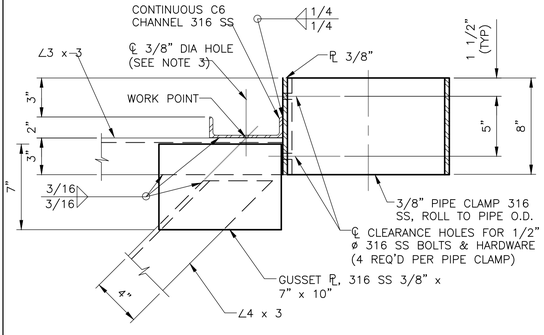
TYPICAL CABLE HOLDER ASSEMBLY



ELEVATION

TYPICAL PUMP LIFTING AND CABLEING

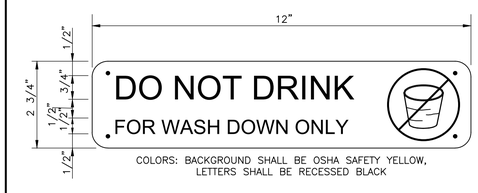
DETAIL B
NOT TO SCALE



FRAME CONNECTION

TYPICAL DISCHARGE PIPING SUPPORT FOR 2 PUMPS

DETAIL A
NOT TO SCALE



NOTES

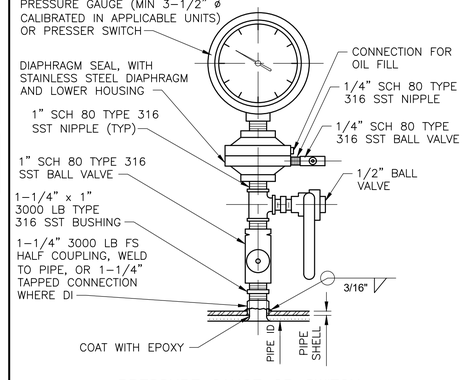
1 FURNISH & INSTALL THE ABOVE SIGN ON ALL PROCESS WATER (PW) LINE HOSE STATIONS. ATTACH THE SIGN TO THE STRUCTURE, GUARDRAIL OR POST WITH STAINLESS STEEL HARDWARE & MOUNTING BRACKET.

2 FURNISH ONE SIGN & RECEIVE APPROVAL FROM OWNER PRIOR TO ORDERING REMAINDER OF SIGNS.

3 SIGN SHALL BE ALUMINUM BACKED AND SHALL BE AS MANUFACTURED BY EMED CO, INC OR EQUAL.

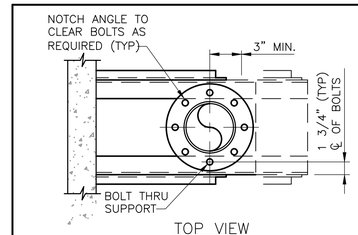
WATER SIGN

DETAIL C

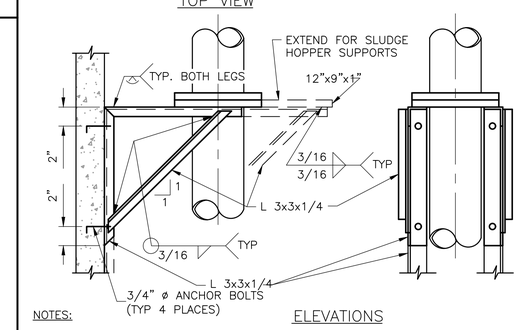


PRESSURE GAUGE OR SWITCH WITH DIAPHRAGM SEAL

DETAIL D
NOT TO SCALE



TOP VIEW



ELEVATIONS

NOTES:

1. FOR 4" AND LARGER PIPE.
2. SUPPORT SHALL BE HOT DIP GALVANIZED.
3. MAXIMUM VERTICAL LOAD EQUALS 900 POUNDS.
4. FOR PIPE WITH JOINT TYPE OTHER THAN FLANGED, WELD SINGLE SLIP–ON TYPE FLANGE TO PIPE AT LOCATION OF EACH SUPPORT.

VERITICAL PIPE SUPPORT

DETAIL E
NOT TO SCALE

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TEXAS P.E. NO. 126466
DATE: 1/21/2026

DESIGNED BY: T. REESER	SURVEYED BY:
DRAWN BY: J. GIBSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: T. REESER	FB NO. 340S1
REVIEWED BY: B. NICHOLAS	
APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

PROCESS MECHANICAL STANDARD DETAILS IV

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
MZ–4

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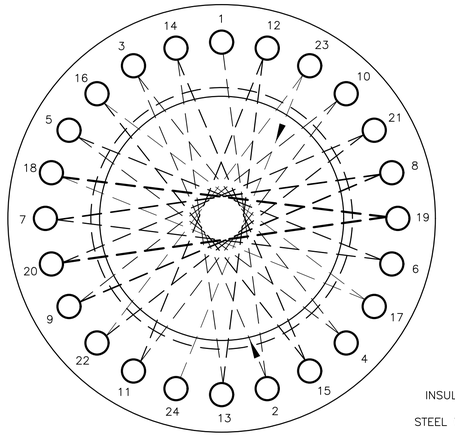
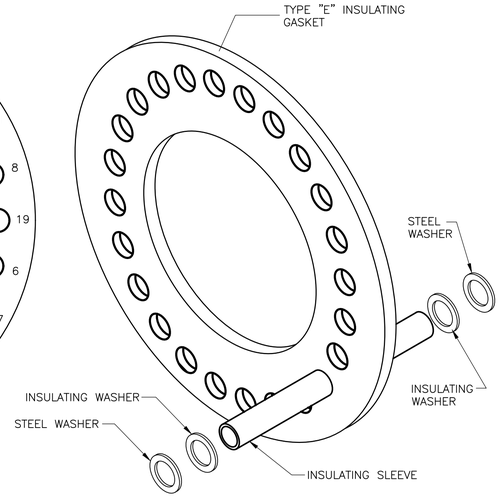


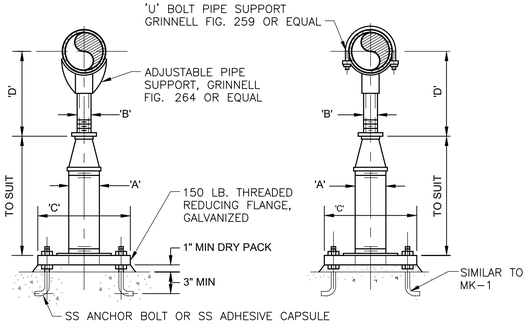
FLANGE BOLT TIGHTENING SEQUENCE



INSULATING SLEEVE AND ACCESSORIES

ISOLATION FLANGE ASSEMBLY

DETAIL A
NOT TO SCALE



MK-1 MK-2

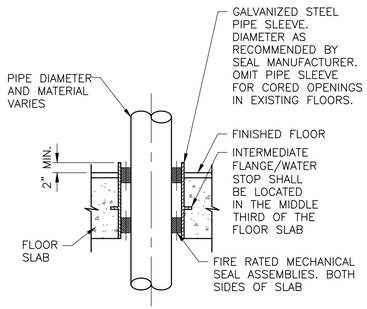
ADJUSTABLE PIPE SUPPORT APPROX DIMENSIONS IN INCHES					
PIPE SIZE	A	B	C	D MIN	D MAX
2 1/2	2 1/2	1 1/2	9	8	11 1/2
3	2 1/2	1 1/2	9	8 1/4	11 3/4
3 1/2	2 1/2	1 1/2	9	8 1/2	12
4	3	2 1/2	9	10 1/4	14
6	3	2 1/2	9	11 5/8	15 1/4
8	3	2 1/2	9	13 5/8	16 1/2
10	3	2 1/2	9	14 5/8	18 1/4
12	3	2 1/2	9	15 5/8	19 3/4
14	4	3	11	18 5/8	20 3/4
16	4	3	11	19 7/8	22 1/4
18	6	3 1/2	13 1/2	21 1/4	24
20	6	3 1/2	13 1/2	23 1/4	25 1/2
24	6	4	13 1/2	26 1/2	28 1/4
30	6	4	13 1/2	29 5/8	31 1/2
32	6	4	13 1/2	30 5/8	32 3/4
36	6	4	13 1/2	32 5/8	34 3/4

NOTE:

1. UNDER VALVES, METERS, OR OTHER SPECIAL APPURTENANCES A FABRICATED SUPPORT PIECE MAY BE UTILIZED AS ACCEPTABLE TO ENGINEER.
2. WHERE SHOWN UNDER PIPE OR VALVE FLANGE, PROVIDE FLANGE CRADLE SUPPORT BY MATERIAL RESOURCES OR ENGINEER APPROVED EQUAL.
3. HOT DIP GALVANIZE AFTER FABRICATION AND TOUCH-UP WITH COLD GALVANIZING COMPOUND AFTER INSTALLATION.
4. PROVIDE STAINLESS STEEL UNITS AS INDICATED BY NOTE ON SPECIFIC DRAWING.

ADJUSTABLE PIPE SUPPORT

DETAIL B
NOT TO SCALE

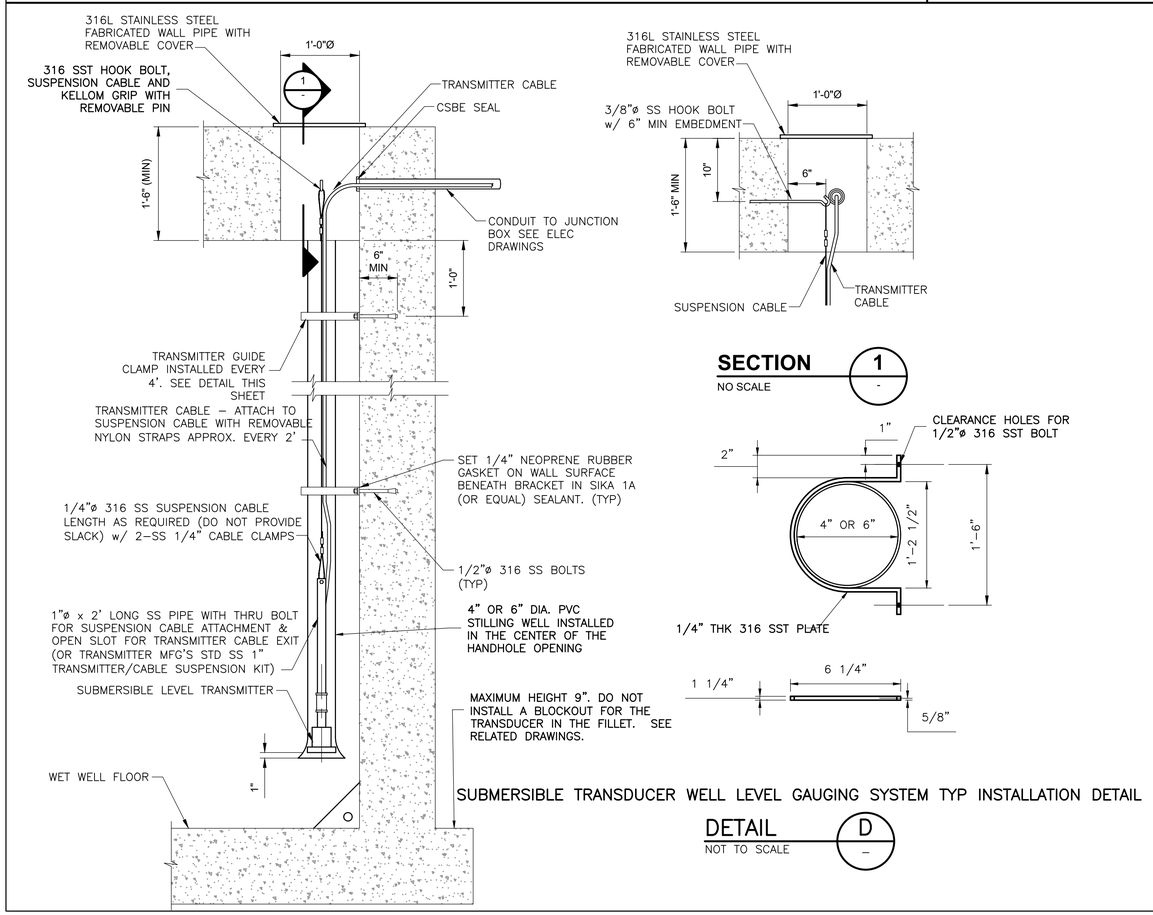


NOTES:

1. FLOOR SLEEVE WITH FIRE RATED MECHANICAL SEALS SHALL BE USED FOR ALL PIPING PENETRATIONS OF FIRE RATED FLOORS.
2. FOR INSULATED PIPING; INTERRUPT INSULATION ON BOTH SIDES OF SLEEVE, SEAL VAPOR BARRIER TO SLEEVE.

PIPE PENETRATION OF RATED FLOOR

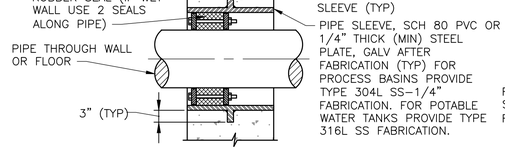
DETAIL C
NOT TO SCALE



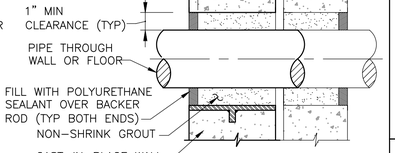
SECTION 1
NO SCALE

SUBMERSIBLE TRANSDUCER WELL LEVEL GAUGING SYSTEM TYP INSTALLATION DETAIL

DETAIL D
NOT TO SCALE



METHOD "A"



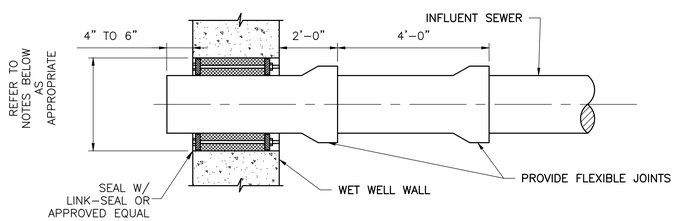
METHOD "B"

NOTES:

1. THESE SLEEVED PIPE DETAILS ARE TO BE USED IN DRY WALLS ONLY, EXCEPT AS NOTED.
2. PROVIDE SEALANT ON EXTERNAL FACES ONLY IN TWO WALL CONSTRUCTION.
3. CORE THE PRE-CAST CONCRETE WALL.

WALL PENETRATION IN NEW WALL

DETAIL E
NOT TO SCALE



FOR OPENINGS TO BE CORED (CAISSON CONSTRUCTION):

1. IDENTIFY PIPE PENETRATION LOCATION WITH 1" DIAMETER PLASTIC SLEEVE.
2. DIAMETER OF PENETRATION OPENING SHALL BE EQUAL TO PIPE OUTER DIAMETER PLUS 2 TIMES LINK SEAL THICKNESS.
3. PROVIDE ADDITIONAL REINFORCEMENT AROUND PENETRATION OPENING AS PER DETAIL ON STRUCTURAL SHEETS BEFORE CASTING WALL.

TYPICAL INFLUENT SEWER ENTRY DETAIL

DETAIL F
NOT TO SCALE

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
MZ-5

NO.	DATE	REVISION	APP.

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APPROVED BY: B. NICHOLAS	

CITY OF HOUSTON
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CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

PROCESS MECHANICAL STANDARD DETAILS V

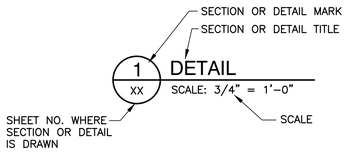
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NONE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

FILE PATH: C:\Users\jgibson\DC\ACCDocs\ardurra, Inc\2024-1427\project Files\03-Prod\03-Dwgs\MZ-SHEETS.dwg

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/19/2026 2:58 PM

NOTATION

DETAIL IDENTIFICATION SYSTEM



ABBREVIATIONS

	ELEVATION TARGET	MAX.	MAXIMUM
	REVISIONS	MECH.	MECHANICAL
	COLUMN GRID	MFG.	MANUFACTURER
ADD'L	ADDITIONAL	MIN.	MINIMUM
ALUM.	ALUMINUM	N.T.S.	NOT TO SCALE
ARCH.	ARCHITECTURAL	O.C.	ON CENTER
B.O.P.	BOTTOM OF PLATE	O.C.E.F.	ON CENTER EACH FACE
BOTT.	BOTTOM	O.C.E.W.	ON CENTER EACH WAY
℄	CENTER LINE	O.D.	OUTSIDE DIAMETER
CLR.	CLEAR	ℙ	PLATE
CMU	CONCRETE MASONRY UNIT	PROJ.	PROJECTION
COL.	COLUMN	REINF.	REINFORCEMENT
CONC.	CONCRETE	REQ'D.	REQUIRED
CONN.	CONNECTION	R.O.	ROUGH OPENING
CONT.	CONTINUOUS	SIM.	SIMILAR
DIA.	DIAMETER	STD.	STANDARD
EA.	EACH	SQ.	SQUARE
EL.	ELEVATION	S.S.	STAINLESS STEEL
ETC.	ETCETERA	THK.	THICK
EQUIP.	EQUIPMENT	THRD.	THREAD
EQ.	EQUAL	T&B	TOP & BOTTOM
EXP.	EXPANSION	T.O.C.	TOP OF CONCRETE
FD.	FLOOR DRAIN	T.O.S.	TOP OF STEEL
F.O.C.	FACE OF CONCRETE	T.O.W.	TOP OF WALL
F.F.	FINISH FLOOR	TYP.	TYPICAL
GALV.	GALVANIZED	U.N.O.	UNLESS NOTED OTHERWISE
HORIZ.	HORIZONTAL	VERT.	VERTICAL
LG.	LONG	W/	WITH

MATERIALS

CONCRETE:

ITEM	28 DAY COMPRESSIVE CYLINDER STRENGTH			REMARKS
	3000 PSI	4000 PSI	4500 PSI	
CONCRETE FOR WATER CONTAINING STRUCTURES			●	1" MAX AGGREGATE SLUMP = 4" ± 1" (FOUNDATIONS AND TOP SLABS) SLUMP = 6"±1" (WALLS)
CMU GROUT	●			⅜" MAX. PEA GRAVEL AGGREGATE 8"±1" SLUMP USE SUPERPLASTICIZER
ALL OTHER CONCRETE, U.N.O.		●		1" MAX AGGREGATE SLUMP = 4" ± 1"

REINFORCING STEEL:

ASTM–A615, GRADE 60, U.N.O.
ASTM–A185 – WELDED WIRE FABRIC

STEEL:

ITEM	ASTM DESIGNATION MINIMUM YIELD STRESS				REMARKS
	A992 / 50 KSI	A36 / 36 KSI	A572 / 50 KSI	A500 / 46 KSI	
BEAMS					
MISC. PL'S & SHAPES		●			
COLUMNS	●				
STRUCT. BOLTS U.N.O.					A325
ANCHOR BOLTS					F1554 36 KSI/ F1554 55 KSI U.N.O.
THREADED ROD		●			F1554 36 KSI/ F1554 55 KSI U.N.O.

DESIGN STD'S. & CODES OF PRACTICE

INTERNATIONAL BUILDING CODE 2021 (TDI)

BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318–19) AND COMMENTARY (ACI 318R–04) (D)

ACI MANUAL OF CONCRETE PRACTICE, 2008 (R)

CONTROLLED LOW–STRENGTH MATERIALS (CLSM), ACI 229, (R)

AMERICAN SOCIETY OF CIVIL ENGINEERS ASCE 7–22 (D)

CRSI DESIGN HANDBOOK, 2008 (R)

ACI 350–20 CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES AND COMMENTARY (D)

ACI 350.1R TIGHTNESS TESTING OF ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES AND COMMENTARY (R)

AMERICAN INSTITUTE OF STEEL CONSTRUCTION, 16TH EDITION (D)

THE ALUMINUM ASSOCIATION, ALUMINUM DESIGN MANUAL, 2020 EDITION (D)

(D) USED FOR DESIGN & CONSTRUCTION
(R) USED FOR REFERENCE

GEOTECHNICAL

IN ACCORDANCE WITH A GEOTECHNICAL REPORT BY GEOTEST ENGINEERING, INC. ENTITLED "GEOTECHNICAL INVESTIGATION REPORT CRMP CIP PACKAGE NO. 4 – REPLACEMENT OF EDDINGTON LIFT STATION, FORCE MAIN INSTALLATION, AND CONSTRUCTION OF STORAGE TANK, AND LIFT STATION AT WET WATER FACILITY", HOUSTON, TEXAS, WBS NO. R–000020–0073–3/REPORT NO. 1140293001, DATED. NOVEMBER 12, 2025.

WIND DESIGN

BASIC WIND SPEED

WIND SPEED = 146 MPH, 3–SEC. GUST

RISK CATEGORY: III
EXPOSURE: C
TOPOGRAPHIC FACTOR (KZT): 1.0

DIRECTIONALITY FACTOR (KD) AS FOLLOWS:
- BUILDINGS = 0.85
- ROUND TANKS = 1.0
- TRUSSED STRUCTURES = 0.85

GUST EFFECT FACTOR (RIGID STRUCTURES) = 0.85

DESIGN LOADS

1. DEAD LOADS INCLUDE THE SELF WEIGHT OF THE STRUCTURAL ELEMENTS AND THE FOLLOWING SUPERIMPOSED LOADS:
   10 PSF AT CEILING AND MECHANICAL AT ROOF
   15 PSF AT CEILING AND MECHANICAL AT FLOOR
   10 PSF FOR ROOFING AND REGID INSULATIONS

2. LIVE LOADS:

OCCUPANCY OR USE	UNIFORM (PSF)	UNIFORM (PSF)
1. TYPICAL FLOOR, U.N.O.	100	N/A
2. STAIRS & EXITS	100	300
3. JUNCTION BOX UPPER SLAB	250	H20
4. LIFT STATION	250	N/A
5. CHEMICAL STORAGE CONTAINMENT BUILDING		
a. TANK	N/A	XX,XXX
b. FOUNDATION SLAB	250	N/A
c. BUILDING FLOOR SLAB	250	N/A
d. BUILDING ROOF	20	N/A
e. WALKWAY & GRATING	100	N/A
6. ELECTRICAL BUILDING	250	N/A
7. GENERATOR	N/A	30,500
8. TRANSFORMER	N/A	43,000
9. ELECTRICAL & AIR COMPRESSOR BUILDING	250	N/A
10. ODOR CONTROL UNIT	350	47,500

SEISMIC DESIGN

S_S = 0.081g S_{MS}= 0.11g S_{DS}= 0.074g
S_1 = 0.044g S_{M1}= 0.098g S_{D1}= 0.065g

SEISMIC RISK CATEGORY: III
SEISMIC DESIGN CATEGORY: A
SEISMIC SITE CLASS: D

FOUNDATION AND EARTHWORK

1. THE EXISTING AREA SHALL BE CLEARED OF ALL SURFACE VEGETATION AND THE REMAINING SURFACE SOILS BE SCARIFIED AND RE–COMPACTED TO THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEERING REPORT FOR THIS SITE.
2. FOUNDATION EXCAVATIONS SHALL BE CUT A MINIMUM DISTANCE OF 5'–0" BEYOND THE FOUNDATION LIMITS. SCARIFY THE TOP 6" AND RE–COMPACT TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY DETERMINED BY ASTM D–698 STD. PROCTOR +/– 2% OF OPTIMUM MOISTURE CONTENT.
3. PLACE NON–EXPANSIVE SELECT FILL MATERIAL AS REQUIRED & 6" OF SAND TO GRADE. THIS SELECT FILL MATERIAL SHALL BE PLACED IN SUCH A MANNER THAT THE UN–COMPACTED LIFT HEIGHT DOES NOT EXCEED 8" INCHES. EACH LIFT SHALL BE TESTED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERING REPORT.
4. SELECT FILL MATERIAL SHALL BE PER THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEERING REPORT FOR THIS SITE.
5. FOUNDATION SYSTEM: CAST–IN–PLACE, SLAB–ON–GRADE SYSTEM.
6. DRAINAGE: PROVIDE POSITIVE SLOPES, BOTH DURING AND AFTER CONSTRUCTION, FOR SURFACE & ROOF RUNOFF, MINIMUM OF 5'–0" FROM BUILDING FOUNDATION. REFER TO GRADING & DRAINING PLAN.
7. ALL SITE PREPARATION SHALL BE IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL ENGINEERING REPORT. THE SOIL SHALL BE COMPACTED AS REQUIRED FOR PROPER PLACEMENT OF CONCRETE.
8. ALL BACKFILL SHALL BE PLACED IN MAXIMUM 8" LOOSE LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY. BACKFILL MATERIAL SHALL BE AS REQUIRED BY THE GEOTECHNICAL ENGINEERING REPORT FOR THIS SITE.

SHOP DRAWING AND SUBMITTAL

1. SHOP DRAWINGS SHALL USE DRAFTING LINE WORK AND LETTERING THAT IS CLEARLY LEGIBLE. SHOP DRAWINGS SHALL NOT CONTAIN REPRODUCTIONS OF THE CONTRACT DRAWINGS PLANS OR DETAILS.
2. AN ELECTRONIC FILE OF FABRICATION AND ERECTION DRAWINGS OR A MINIMUM OF TWO HARD COPY SETS SHALL BE FURNISHED BY FABRICATOR TO THE STRUCTURAL ENGINEER FOR APPROVAL.
3. SHOP DRAWINGS SHALL NOT SHOW MATERIALS FOR MORE THAN ONE LEVEL OF THE SAME PLAN.
4. SHOP DRAWINGS SHALL SHOW CLEAR AND COMPLETE INFORMATION FOR THE FABRICATION (DETAIL SHEETS AND/OR MATERIAL LISTS) AND INSTALLATION.
5. ALLOW (2) WKS. FOR THE REVIEW OF SHOP DRAWINGS BY THE STRUCTURAL ENGINEER OF RECORD.
6. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER A PROPOSED CONSTRUCTION JOINT LOCATION PLAN FOR APPROVAL.

GENERAL NOTES

1. COORDINATE DIMENSIONS, OPENINGS, EMBEDDED ITEMS AND CONDITIONS WITH ALL MECHANICAL, ELECTRICAL, PLUMBING & ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. NOT ALL ITEMS INDICATED ARE SHOWN ON STRUCTURAL DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES.
2. ALL DETAILS ARE TYPICAL, INCORPORATED INTO PROJECT AT APPROPRIATE LOCATIONS, WHETHER SPECIFICALLY INDICATED OR NOT.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE STRUCTURAL ENGINEER SHALL IMMEDIATELY BE NOTIFIED IN WRITING, OF ANY DISCREPANCIES.
4. ALL OMISSIONS AND/OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER. WORK SHOULD NOT PROCEED UNTIL A SOLUTION IS GIVEN BY THE STRUCTURAL ENGINEER.
5. IN CASE OF CONFLICT, NOTES AND DETAILS OF THESE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE "GENERAL NOTES". TYPICAL DETAILS SHALL BE USED WHENEVER APPLICABLE. REFER TO SPECIFICATIONS FOR INFORMATION NOT COVERED BY THESE DRAWING NOTES.
6. IF A SPECIFIC DETAIL IS NOT SHOWN FOR ANY PART OF THE WORK, THE CONSTRUCTION SHALL BE THE SAME AS FOR SIMILAR WORK.
7. WORKING DIMENSIONS SHALL NOT BE SCALED FROM PLANS, SECTIONS OR DETAILS ON THESE STRUCTURAL DRAWINGS.
8. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE ERECTION SHORING AND BRACING AS REQUIRED FOR STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION.
9. PIPES, DUCTS, SLEEVES, OPENINGS, POCKETS, CHASES, BLACKOUTS, ETC. SHALL NOT BE PLACED IN SLABS, BEAMS, GIRDERS, COLUMNS, WALLS, FOUNDATION, ETC. NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR SUCH ITEMS, UNLESS SPECIFICALLY DETAILED ON THESE STRUCTURAL DRAWINGS. (IF ANY PIPES, DUCTS, ETC. DO OCCUR, THAT ARE NOT SHOWN ON THESE STRUCTURAL DRAWINGS, THE STRUCTURAL ENGINEER SHALL BE NOTIFIED).
10. ANCHOR BOLTS OR INSERTS FOR EQUIPMENT ANCHORAGE OR INSTALLATION SHALL BE DESIGNED BY A CIVIL ENGINEER OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF TEXAS AND SHALL BE SHOWN ON THE MECHANICAL OR ELECTRICAL SHOP DRAWINGS.
11. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE STRUCTURAL ENGINEER FREE AND HARMLESS FROM ALL CLAIMS, DEMANDS AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE STRUCTURAL ENGINEER.
12. IF ANY SUBSTITUTION IS PROPOSED BY THE CONTRACTOR, NEW CALCULATIONS MAY HAVE TO BE PREPARED, THE DETAILS MAY HAVE TO BE ALTERED, AND NEW DRAWINGS MAY HAVE TO BE SUBMITTED TO THE BUILDING DEPARTMENT. THE CONTRACTOR SHALL PAY THE STRUCTURAL ENGINEERS FEES TO ALTER THE APPROVED PLANS. THE CONTRACTOR SHALL ALSO PROCESS THE REVISED PLANS, REFLECTING ALL SUBSTITUTIONS THROUGH THE BUILDING DEPARTMENT.

CONCRETE NOTES

SEE DRAWING NO. S2, "GENERAL NOTES & DESIGN CRITERIA – 2"

STRUCTURAL STEEL

SEE DRAWING NO. S2, "GENERAL NOTES & DESIGN CRITERIA – 2"

CONCRETE MASONRY NOTES

SEE DRAWING NO. S2, "GENERAL NOTES & DESIGN CRITERIA – 2"

REINFORCEMENT TENSION LAPS & EMBEDMENT

SEE DRAWING NO. S2, "GENERAL NOTES & DESIGN CRITERIA – 2"

PRESTRESSED HOLLOW-CORE SLAB NOTES

SEE DRAWING NO. S2, "GENERAL NOTES & DESIGN CRITERIA – 2"

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PARTICIPANTS REQUEST 48 HOURS NOTICE BEFORE YOU DIG, DRILL, OR BLAST – STOP AND CALL
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TBPE Firm Registration No. F-10053

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
NICLAS S. GREEN
TEXAS P.E. NO. 126232
DATE: 2/27/2025

DESIGNED BY:
DRAWN BY:
CHECKED BY:
REVIEWED BY:
APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Match project title on other sheets

Eddington Lift Station, 24–inch FM Installation, and Scott Street Storage Tank No. 1

GENERAL NOTES & DESIGN CRITERIA – 1

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S1

WBS NUMBER
S–001000–0035–4

DRAWING SCALE

CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

SHEET NO. OF

FOR CITY OF HOUSTON USE ONLY

FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\GENERAL NOTES & DESIGN CRITERIA – 1.dwg

PLOT STYLE: LNV-FS-2015-STRUCT.ctb PLOTTED: 1/19/2026 2:58 PM

CONCRETE NOTES

1. ALL CONCRETE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI 318 AND ACI 350 BUILDING CODE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS UNLESS OTHERWISE NOTED.
   ALL CONCRETE – SEE SCHEDULE
3. REINFORCING STEEL TO HAVE 3" MINIMUM COVER WHERE CONCRETE IS CAST AGAINST EARTH. ALL OTHER REINFORCING SHALL HAVE 2" MINIMUM CONCRETE COVER, TYPICAL.
4. REINFORCING STEEL MATERIAL TO BE A615–GRADE 60 UNLESS NOTED OTHERWISE.
5. ALL REINFORCING STEEL SPLICES SHALL BE IN ACCORDANCE WITH ACI 318 LATEST REVISION. (MINIMUM 40 BAR DIAMETERS)
6. REINFORCING STEEL BENT BARS ARE DIMENSIONED OUT TO OUT OF STEEL.
7. ALL BARS ARE TO BE SUPPORTED IN FORMS AND SLABS WITH CHAIRS AND TIED AT EVERY OTHER INTERSECTION.
8. ALL BACKFILL SHALL BE PLACED IN MAXIMUM 8" LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY. BACKFILL MATERIAL SHALL BE GRANULAR HAVING A P.I. OF BETWEEN 7 AND 17.
9. ALL CONDUIT, GROUND WIRES, DRAINS, ANCHOR BOLTS ETC., SHALL BE IN PLACE BEFORE CONCRETE IS PLACED.
10. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING SERIES DRAWINGS FOR FLOOR ELEVATIONS, SLOPES, DRAINS, BLOCK OUT AND EMBEDDED ITEMS, ETC.. STRUCTURAL SERIES DRAWINGS SHALL BE COMPARED WITH DRAWINGS FOR OTHER SERIES. DIFFERENCES SHALL BE REFERRED TO THE ARCHITECT FOR INSTRUCTIONS.
11. ENTIRE AREA AROUND FOUNDATION MUST BE THOROUGHLY PROBED FOR UNDERGROUND PIPE, CONDUIT, HIGH PRESSURE LINES, ETC., BEFORE ANY EXCAVATIONS ARE BEGUN.
12. WELDED STEEL WIRE FABRIC SHALL CONFORM TO ASTM A–185. ALL WELDED STEEL WIRE FABRIC SHALL BE SUPPLIED IN FLAT SHEETS, NOT IN ROLLS.
13. MILD STEEL REINFORCEMENT AND ACCESSORIES SHALL BE DETAILED AND FABRICATED IN ACCORDANCE WITH ACI SP–66.
14. PORTLAND CEMENT SHALL BE A SINGLE BRAND CONFORMING TO ASTM C–150, TYPE I/II OR TYPE II UNLESS OTHERWISE APPROVED BY THE ENGINEER.
15. NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C–33. EACH TYPE SHALL BE FROM A SINGLE SOURCE FOR EXPOSED CONCRETE.
16. ALL ADDITIVES FOR AIR ENTRAINMENT, WATER REDUCTION, AND SET CONTROL SHALL BE USED IN ACCORDANCE WITH THE SPECIFICATIONS AND THE MANUFACTURER'S DIRECTIONS. THE USE OF CALCIUM CHLORIDE IS PROHIBITED UNLESS APPROVED IN WRITING BY THE ENGINEER.
17. THE MAXIMUM NOMINAL SIZES OF COARSE AGGREGATE SHALL BE AS FOLLOWS:
    a. ALL CONCRETE ..... 1"
    b. CMU GROUT..... 3/8"
18. CONCRETE SLUMPS SHALL BE AS INDICATED IN SPECIFICATION 03 30 00.
19. CONCRETE EXPOSED TO WEATHER OR IN LIQUID CONTAINING STRUCTURES SHALL BE AIR ENTRAINED AS INDICATED IN SPECIFICATION 03 30 00.
20. MILD STEEL REINFORCEMENT SHALL BE PLACED AND SECURED IN ACCORDANCE WITH CRSI "RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS".
21. ALL ANCHOR BOLTS SHALL BE GALVANIZED AND CONFORM TO ASTM F1554 SPECIFICATION FOR 55 KSI STEEL.
22. THE 15 MIL STEGO VAPOR BARRIER SHALL BE INSTALLED UNDER ALL CONCRETE FLOOR SLABS AND BEAMS. ALL PENETRATIONS THROUGH THE VAPOR BARRIER SHALL BE SEALED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO INSURE ITS INTEGRITY.
23. NOTIFY ENGINEER MINIMUM OF 24 HOURS PRIOR TO PLACING CONCRETE.
24. SECURE REINFORCING BARS, ANCHOR BOLTS AND EMBEDDED ITEMS PRIOR TO PLACING CONCRETE.
25. MINIMUM COVER UNLESS NOTED:
    a. CONCRETE CAST AGAINST & EXPOSED TO EARTH . . . . . 3"
    b. CONCRETE EXPOSED TO EARTH OR WEATHER:
    #6 THRU #18 BARS. . . . . 2"
    #5 BAR AND SMALLER. . . . . 2"
    c. CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND:
    SLABS, WALLS AND JOISTS:
    #11 BAR AND SMALLER . . . . . 3/4"
    BEAMS & COLUMNS:
    PRIMARY REINFORCEMENT, TIES, STIRRUPS AND SPIRALS. . . . . 1 1/2"
26. DETAILING: PER ACI DETAILING MANUAL, LATEST EDITION U.N.O.
27. MAXIMUM WATER/CEMENT RATIO SHALL BE AS INDICATED IN SPECIFICATION 03 30 00.
28. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER A PROPOSED CONSTRUCTION JOINT LOCATION PLAN FOR APPROVAL PRIOR TO PLACEMENT OF ANY CONCRETE.

STRUCTURAL STEEL

1. ALL FABRICATION AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE A.I.S.C. "MANUAL OF STEEL CONSTRUCTION", LATEST EDITION.
2. ALL STRUCTURAL STEEL DETAILS AND CONNECTIONS SHALL CONFORM TO THE A.I.S.C. "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
3. ALL WIDE FLANGE "W" SHAPES SHALL CONFORM TO ASTM A992 (50 KSI) AND ALL OTHER STEEL AND PLATES SHALL CONFORM TO ASTM A36 SPECIFICATIONS.
4. ALL MAJOR CONNECTIONS SUCH AS BEAM TO BEAM, BEAM TO COLUMN, BRACING ETC. SHALL BE DONE WITH 3/4" DIA. A325 HIGH STRENGTH BOLTS UNLESS NOTED OTHERWISE. ALL HOLES SHALL BE 13/16" DIAMETER FOR 3/4" BOLTS UNLESS NOTED OTHERWISE. ALL STRUCTURAL BOLTS 3/4" DIAMETER AND LARGER SHALL CONFORM TO ASTM A–325 TYPE N. BOLTS LESS THAN 3/4" DIAMETER SHALL CONFORM TO ASTM A–307.
5. EACH CONNECTION SHALL HAVE A MINIMUM OF TWO BOLTS.
6. BOLT SPACING SHALL BE 3 INCHES, UNLESS NOTED OTHERWISE.
7. MINIMUM EDGE DISTANCE (DISTANCE FROM CENTER OF BOLT TO NEAREST EDGE OF PLATE OR STRUCTURAL ELEMENT) SHALL BE 1 1/2 INCHES FOR 3/4 INCH DIAMETER BOLTS UNLESS NOTED OTHERWISE.
8. FABRICATOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.
9. CONTRACTOR SHALL PROVIDE NECESSARY BRACING DURING STEEL ERECTION.
10. GALVANIZED BOLTS SHALL CONFORM TO ASTM A–307, GRADE A BOLTS AND NUTS WITH HEXAGONAL HEADS AND SHALL BE USED ONLY FOR BOLTED CONNECTIONS OF SECONDARY FRAMING MEMBERS TO PRIMARY MEMBERS, FOR TEMPORARY BRACING TO FACILITATE ERECTION, AND FOR ANCHORAGE TO CONCRETE OR MASONRY CONSTRUCTION. U.N.O.
11. WELDED CONSTRUCTION SHALL CONFORM TO AWS D–1.1, "STRUCTURAL WELDING CODE" LATEST EDITION. WELDING PROCESSES AND OPERATORS SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATIONS PROCEDURES".
12. ALL WELDING SHALL BE DONE WITH E70XX ELECTRODES PER A.W.S. AND A.I.S.C.
13. ALL WELDED CONNECTIONS SHALL DEVELOP THE FULL STRENGTH OF MEMBER UNLESS NOTED OTHERWISE.
14. ALL CONNECTIONS SHALL BE SHOP WELDED AND FIELD BOLTED UNLESS NOTED OTHERWISE.
15. ALL SHOP JOINTS AND NOTED FIELD WELDS SHALL BE SEAL WELDED IN ADDITION TO STRENGTH WELDS SHOWN.
16. STRUCTURAL STEEL SHALL BE NEW DOMESTIC STEEL AND SHALL CONFORM TO THE A.I.S.C. "SPECIFICATION FOR THE DESIGN FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
17. ALL GUSSET PLATES SHALL BE 3/8" MINIMUM THICKNESS, U.N.O.
18. ANY HOLES REQUIRED FOR FIELD ERECTION SHALL BE DRILLED OR PUNCHED. NO BURNING SHALL BE PERMITTED UNLESS APPROVED BY OWNER.
19. ALL BEAM CONNECTIONS SHALL BE DESIGNED TO 60% OF THE SHEAR CAPACITY OF THE BEAMS. FOR MOMENT CONNECTIONS, ASSUME THE BEAM TO BE BRACED AS AS TO DEVELOP 60% OF THE PLASTIC MOMENT CAPACITY OF THE BEAM.
20. ALL CLIP ANGLES ARE TO BE MINIMUM 5/16" THICKNESS, U.N.O.
21. STEEL MEMBERS SHALL NOT BE SPLICED EXCEPT WHERE SHOWN ON THE DRAWINGS.
22. ALL STEEL BEAMS SHALL BE ERECTED WITH NATURAL CAMBER UP.
23. ALL STRUCTURAL STEEL, PLATES, BOLTS AND MISC. PIECES SHALL BE HOT DIP GALVANIZED.
24. ALL STRUCTURAL STEEL WHERE GALVANIZING HAS BEEN BURNED OFF OR OTHERWISE DAMAGED DURING TRANSPORTATION OR ERECTION SHALL BE REPAIRED BY COATING WITH "GALVACON" IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

CONCRETE MASONRY NOTES

1. ALL DOWELS FOR ANCHORING CMU WALL SHALL BE PLACED AS SHOWN AND COORDINATE WITH WALL REINFORCING.
2. ADDITIONAL CMU ANCHOR DOWELS AND CMU WALL REINFORCING SHALL BE PLACED ON BOTH SIDES OF ALL WALL OPENINGS, CORNERS AND CONSTRUCTION JOINTS (EXTERIOR & INTERIOR) IN ADDITION TO THE WALL REINFORCING SHOWN.
3. ALL CELLS IN CMU BLOCK PILASTERS SHALL BE REINFORCED, ANCHORED TO THE FOUNDATION SYSTEM AND FULLY GROUTED FOR ITS ENTIRE LENGTH.
4. PROVIDE GALVANIZED NO. 9 HORIZONTAL JOINT REINFORCING, TRUSS TYPE, H&B OR EQUAL, @ 16 INCHES O.C. REFER TO DETAIL 1 ON SHEET S–70–04.
5. ALL MASONRY GROUT FOR CMU WALLS AND PILASTERS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI W/ MAXIMUM 3/8" PEA GRAVEL. SLUMP SHALL BE 7" PLUS/MINUS 1" AND ACHIEVED USING SUPERPLASTICIZER.
6. CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO THE REQUIREMENTS OF THE ASTM C90. ALL CMU CONSTRUCTION SHALL CONFORM TO ACI 530. ALL WORK SHALL ALSO COMPLY WITH APPLICABLE PROJECT SPECIFICATIONS.
7. JOINT MORTAR SHALL BE IN CONFORMANCE WITH ASTM C270, TYPE S.
8. VERTICAL CELL REINFORCING SIZE AND SPACING SHALL BE AS SHOWN.
   - AT ALL EXTERIOR WALL CORNERS, OPENINGS, JAMBS AND INTERSECTIONS WITH THE INTERIOR WALLS THE CELLS SHALL BE REINFORCED AS SHOWN ON DRAWINGS.
   - AT INTERIOR WALL CORNERS, OPENINGS, AND JAMBS THE CELLS SHALL BE REINFORCED AS SHOWN ON DRAWINGS.
   - REINFORCED ADDITIONAL VERTICAL CELLS WHERE CALLED ON PLANS.
   - AT ALL EXTERIOR WALLS, VERTICAL REINFORCING SHALL BE DOWELED INTO FLOOR CONCRETE BY A MINIMUM OF 24" EMBEDMENT DURING CONCRETE PLACEMENT.
   - AT ALL INTERIOR WALLS, VERTICAL REINFORCING SHALL BE DRILLED AND EPOXY GROUTED 10" INTO FLOOR SLAB UNLESS NOTED OTHERWISE.
9. PROVIDE TEMPORARY BRACING DURING INSTALLATION OF MASONRY WORK.
10. CONTINUE ALL HORIZONTAL REINFORCING AT CONTROL JOINTS, BUT DISCONTINUE AT EXPANSION JOINTS. PROVIDE 24"x24" – (2) #7 CORNER BARS TO MATCH HORIZONTAL BOND BEAM REINFORCING AT ALL CORNERS.
11. UNLESS OTHERWISE INDICATED ON THE DRAWINGS. ALL WALLS SHALL BE REINFORCED WITH A MINIMUM OF NUMBER 5 VERTICAL REINFORCING BARS AT 2'–8" AND NUMBER 5 HORIZONTAL REINFORCING BARS AT 4'–0". SEE NOTE 12 FOR ADDITIONAL REINFORCING BARS ADJACENT TO WALL OPENINGS.
12. A VERTICAL BAR SHALL BE PLACED AT ALL WALL CORNERS AND WALL INTERSECTIONS, AND A VERTICAL BAR SHALL BE PLACED IN EACH OF THE FIRST TWO CELLS AT EACH JAMB OF ALL WALL OPENINGS. THE BAR SIZE SHALL BE NUMBER 5 MINIMUM, BUT NOT SMALLER THAN THE TYPICAL VERTICAL WALL REINFORCING BARS.

PRESTRESSED HOLLOW-CORE SLAB NOTES

1. GENERAL:
   A. THIS SECTION INCLUDES THE DESIGN, THE FURNISHING AND INSTALLATION OF PRE–STRESSED HOLLOW–CORE PANELS AS SHOWN ON FRAMING PLANS. THE MANUFACTURER SHALL HAVE AT LEAST 5 YEARS EXPERIENCE IN MANUFACTURING, TRANSPORTING AND ERECTING PRE–STRESSED HOLLOW–CORE PANELS.
   B. DESIGN
      i. ALL PRECAST SLABS SHALL BE DESIGNED BY THE SUPPLIER TO MEET OR EXCEED THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE AND THE PRE–STRESSED CONCRETE INSTITUTE.
      ii. PRECAST SLABS SHALL BE DESIGNED FOR THE SUPERIMPOSED DEAD LOADS (NOTED BELOW) AND LIVE LOADS (DESIGN CRITERIA). TOTAL DEFLECTION TO BE LESS THAN 1/360.
         a. ROOFS:
            DEAD LOAD: 10 PSF + SELF WEIGHT OF THE SYSTEM (INCLUDE 2" CONC. TOPPING)
            LIVE LOAD: 20 PSF
      iii. DESIGN SHALL BE IN ACCORDANCE WITH THE CURRENT ACI–318.
2. MATERIALS:
   A. CONCRETE MATERIALS SHALL BE CLEANED WITH CONTROLLED AGGREGATE GRADATION, FREE OF ALL FOREIGN MATTER, AND ELECTRONICALLY PROPORTIONED.
   B. PRESTRESSING STRANDS SHALL BE EQUIVALENT TO ASTM–A 416 & ASTM A 421.
   C. TEMPERED HARDBOARD BEARING PADS (1/8" x 3") SHALL BE PROVIDED.
3. CONSTRUCTION METHODS (BY GENERAL CONTRACTOR):
   A. PRESTRESSED CONCRETE UNITS SHALL BE ERECTED INTO FINAL POSITION UNDER THE SUPERVISION OF AN EMPLOYEE OF THE MANUFACTURER.
   B. ALL KEY WAY JOINTS SHALL BE FULLY GROUTED WITH A SIX (6") INCH SLUMP 3:1 MIXTURE OF SAND AND CEMENT PRIOR TO PLACEMENT OF TOPPING. PLANK UNITS SHALL BE ALIGNED AND LEVELED PRIOR TO GROUTING KEY WAY JOINTS.
   C. ANCHOR DOWELS AND SPECIAL REINFORCING SHALL BE PLACED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH THE PLANS.

REINFORCEMENT TENSION LAPS & EMBEDMENT

fy = 60000 PSI, f'c = 3000 PSI

BAR SIZE	BAR DIA. (IN.)	EMBEDMENT AND CLASS A LAP (IN.)				CLASS B LAP (IN.)			
		TOP BAR		OTHER BARS		TOP BAR		OTHER BARS	
		CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2
3	3/8	22	32	17	25	28	42	22	32
4	1/2	29	43	22	33	37	56	29	43
5	5/8	36	54	28	41	47	74	36	54
6	3/4	43	64	33	50	56	84	43	64
7	7/8	63	94	48	72	81	122	63	94
8	1	72	107	55	82	93	139	72	107
9	1 1/8	81	121	62	93	105	157	81	121
10	1 1/4	91	136	70	105	118	177	91	136
11	1 3/8	101	151	78	116	131	196	101	151

1. TABLE A PRESENTS LENGTHS OF TENSION DEVELOPMENT LENGTHS AND TENSION LAP SPLICE LENGTHS BASED ON ACI 318–22, SECTION 25.4.2.
2. CLASS A LAP LENGTHS APPLY WHEN BAR LAPS ARE STAGGERED TO LAP HALF THE BARS AT THE SAME LOCATION OR WHEN BARS ARE LAPPED AT A LOCATION WHERE THE REINFORCEMENT AREA PROVIDED IS AT LEAST TWICE THAT REQUIRED.
3. CLASS B LAP LENGTHS APPLY WHEN ALL BARS ARE SPLICED AT A LOCATION OF MAXIMUM STRESS IN THE BARS.
4. CASE 1 LENGTHS APPLY TO BEAMS AND COLUMNS WITH CONCRETE COVER EQUAL OR GREATER THAN THE BAR DIAMETER, CLEAR BAR SPACING EQUAL OR GREATER THAN THE BAR DIAMETER AND WITH STIRRUPS OR TIES NOT LESS THAN THE CODE MINIMUM THROUGHOUT THE LENGTH IN THE TABLE; AND FOR OTHER ELEMENTS WITH CONCRETE COVER EQUAL OR GREATER THAN THE BAR DIAMETER AND CLEAR SPACING EQUAL OR GREATER THAN TWO TIMES THE BAR DIAMETER.
5. CASE 2 LENGTHS APPLY TO BEAMS AND COLUMNS WITH CONCRETE COVER LESS THAN THE BAR DIAMETER, AND CLEAR BAR SPACING LESS THAN THE BAR DIAMETER; AND FOR OTHER ELEMENT WITH CONCRETE COVER LESS THAN THE BAR DIAMETER AND CLEAR BAR SPACING LESS THAN TWO TIMES THE BAR DIAMETER.
6. TOP BARS ARE HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN 11 3/4" OF CONCRETE IS CAST BELOW THE REINFORCEMENT.
7. MULTIPLY LENGTHS SHOWN BY 0.87 FOR 28 MPa (4000 PSI) CONCRETE.
8. MULTIPLY LENGTHS SHOWN BY 0.82 FOR 31 MPa (4500 PSI) CONCRETE
9. MULTIPLY LENGTHS SHOWN BY 1.3 FOR LIGHTWEIGHT AGGREGATE CONCRETE.
10. MULTIPLY LENGTHS SHOWN BY 1.3 FOR EPOXY–COATED BARS.

NO.	DATE	REVISION	APP.

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NICLAS S. GREEN
TEXAS P.E. NO. 126232
DATE: 2/27/2025

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DRAWN BY: _____
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24–inch FM Installation, and Scott Street Storage Tank No. 1

GENERAL NOTES & DESIGN CRITERIA – 2

WBS NUMBER: S–001000–0035–4
DRAWING SCALE:
CITY OF HOUSTON PM: MEGAN R. JORDAN, P.E.
SHEET NO. OF
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WARNING
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DWG NO
S2

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STATEMENT OF SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATIONS:

1. THE OWNER SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PROVIDE SPECIAL INSPECTIONS AND TESTS DURING CONSTRUCTION ON THE TYPES OF WORK IN SECTION 1705 THE BUILDING CODE AND IDENTIFY THE APPROVED AGENCIES TO THE BUILDING OFFICIAL. THESE INSPECTIONS, AND TEST ARE IN ADDITION TO INSPECTIONS BY THE OFFICIAL THAT ARE IDENTIFIED IN SECTION 110 OF THE BUILDING CODE AND/OR TDI INSPECTIONS IF REQUIRED.
2. PRIOR TO CONSTRUCTION THE APPROVED AGENCIES SHALL PROVIDE WRITTEN DOCUMENTATION TO THE BUILDING OFFICIAL DEMONSTRATING THE COMPETENCE AND THE RELEVANT EXPERIENCE OR TRAINING OF THE SPECIAL INSPECTORS WHO WILL PERFORM THE SPECIAL INSPECTION AND TEST DURING CONSTRUCTION.
3. GENERAL CONTRACTOR AND HIS SUB-CONTRACTORS SHALL ATTEND A PRE-CONSTRUCTION MEETING ARRANGED BY THE CITY OF HOUSTON.
4. THE CONSTRUCTION OR WORK FOR WHICH SPECIAL INSPECTIONS OR TESTING IS REQUIRED SHALL REMAIN ACCESSIBLE AND EXPOSED FOR SPECIAL INSPECTION OR TESTING PURPOSES UNTIL COMPLETION OF THE REQUIRED SPECIAL INSPECTION OR TEST.
5. APPROVED AGENCIES SHALL KEEP RECORDS OF SPECIAL INSPECTIONS AND TEST. THE APPROVED AGENCY SHALL SUBMIT REPORTS OF SPECIAL INSPECTIONS AND TEST TO THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT THE WORK INSPECTED OR TEST WAS, OR WAS NOT, COMPLETED IN CONFORMANCE WITH APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT T TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE EOR PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK. A FINAL REPORT DOCUMENTING THE REQUIRED SPECIAL INSPECTION AND TEST, AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS, SHALL BE SUBMITTED AT A POINT IN TIME AGREED UPON PRIOR TO THE START OF THE WORK BY THE OWNER TO THE BUILDING OFFICIAL.
6. WHERE FABRICATION OF STRUCTURAL, LOAD-BEARING OR LATERAL LOAD-RESISTING MEMBER OR ASSEMBLIES IS BEING CONDUCTED ON THE PREMISES OF A FABRICATOR'S SHOP, THE FABRICATOR SHALL BE APPROVED TO PERFORM WORK WITHOUT SPECIAL INSPECTIONS BY THE BUILDING OFFICIAL IN ACCORDANCE WITH SECTION 1704.2.5 OF THE BUILDING CODE.
7. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND-OR SEISMIC FORCE-RESISTING SYSTEM, OR COMPONENT THEREOF, LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO COMMENCEMENT OF WORK ACKNOWLEDGING AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS.
8. IN ADDITION TO THE SUBMITTAL OF REPORTS OF SPECIAL INSPECTIONS AND TEST, REPORTS AND CERTIFICATES SHALL BE SUBMITTED BY THE OWNER TO THE BUILDING OFFICIAL FOR EACH ITEM LISTED IN 1704.5 OF THE BUILDING CODE.

REQUIRED SPECIAL INSPECTIONS AND TEST OF CONCRETE CONSTRUCTION

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD[a]	IBC REFERENCE
INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	–	X	ACI 318: CH. 20, 25.2, 25.3, 26.6.1-26.6.3	–
REINFORCING BAR WELDING:				
a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	–	X	AWS D1.4 ACI 318: 26.6.4	–
b. INSPECT SINGLE-PASS FILLET WELDS, MAX. 5/16"	–	X		
c. INSPECT ALL OTHER WELDS.	X	–		
INSPECT ANCHORS CAST IN CONCRETE	–	X	ACI 318: 17.8.2	–
INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.[b]				
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARD INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	–	ACI 318: 17.8.2.4	–
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINES IN 4.a.	–	X	ACI 318: 17.8.2	
VERIFY USE OF REQUIRED DESIGN MIX.	–	X	ACI 318: CH. 19 26.4.3, 26.4.4	1904.1 1904.2
PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TEST, PERFORM SLUMP AND AIR CONTENT TEST, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	–	ASTM C31 ASTM C172 ACI 318: 26.5, 26.12	–
INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	–	ACI 318: 26.5	–
VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	–	X	ACI 318: 26.5.3-26.5.5	–
INSPECT PRESTRESSED CONCRETE FOR:				
a. APPLICATION OF PRESTRESSING FORCES; AND	X	–	ACI 318: 26.10	–
b. GROUTING OF BONDED PRESTRESSING TENDONS.	X	–		
INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	–	X	ACI 318: 26.9	–
FOR PRECAST CONCRETE DIAPHRAGM CONNECTIONS OR REINFORCEMENT AS JOINTS CLASSIFIED AS MODERATE OR HIGH DEFORMABILITY ELEMENTS (MDE OR HDE) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E, OR F, INSPECT SUCH CONNECTIONS AND REINFORCEMENT IN THE FIELD FOR:			ACI 318: 26.13.13	–
a. INSTALLATION OF THE EMBEDDED PARTS.	X	–	ACI 550.5	
b. COMPLETION OF THE CONTINUITY OF REINFORCEMENT ACROSS JOINTS.	X	–		
c. COMPLETION OF CONNECTIONS IN THE FIELD.	X	–		
INSPECT INSTALLATION TOLERANCE OF THE PRECAST CONCRETE DIAPHRAGM CONNECTIONS FOR COMPLIANCE WITH ACI 550.5	–	X	ACI 318: 26.13.13	–
VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	–	X	ACI 318: 26.11.2	–
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	–	X	ACI 318: 26.11.1.2(b)	–

a. WHERE APPLICABLE, SEE SECTION 1705.13.
b. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IS THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF THE WORK.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF CAST-IN-PLACE DEEP FOUNDATION ELEMENTS

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
INSPECT DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT.	X	–
VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM ELEMENT DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END-BEARING STRATA CAPACITY. RECORD CONCRETE OR GROUT VOLUMES.	X	–
FOR CONCRETE ELEMENTS, PERFORM TESTS AND ADDITIONAL SPECIAL INSPECTIONS IN ACCORDANCE WITH SECTION 1705.3.	IN ACCORDANCE WITH SECTION 1705.3	

REQUIRED SPECIAL INSPECTIONS AND TEST OF SOILS

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	–	X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	–	X
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	–	X
DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	–
PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	–	X

TABLE N5.4-1
INSPECTION TASKS PRIOR TO WELDING

INSPECTION TASK PRIOR TO WELDING	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS	–	X
WPS AVAILABLE	X	–
MANUFACTURER CERTIFICATION FOR WELDING CONSUMABLES AVAILABLE	X	
MATERIAL IDENTIFICATION (TYPE/GRADE)	–	X
WELDER IDENTIFICATION SYSTEM[a]	–	X
FIT-UP GROOVE WELDS (INCLUDING JOINT GEOMETRY) • JOINT PREPARATIONS • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	–	X
FIT-UP CJP GROOVE WELDS OF HSS T-, Y- AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY) • JOINT PREPARATIONS • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	–	X
CONFIGURATION AND FINISH OF ACCESS HOLES	–	X
FIT-UP FILLET WELDS (INCLUDING JOINT GEOMETRY) • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	–	X
CHECK WELDER EQUIPMENT	–	X

a. THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED SHALL BE LOW-STRESS TYPE.

TABLE N5.4-2
INSPECTION TASKS DURING WELDING

INSPECTION TASK DURING WELDING	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
CONTROL AND HANDLING OF WELDING CONSUMABLES • PACKAGING • EXPOSURE CONTROL	–	X
NO WELDING OVER CRACKED TACK WELDS	–	X
ENVIRONMENTAL CONDITIONS • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE	–	X
WPS FOLLOWED • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) • PROPER POSITION (F, V, H, OH)	–	X
WELDING TECHNIQUES • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS	–	X
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	X	–

TABLE N5.4-3
INSPECTION TASKS AFTER WELDING

INSPECTION TASK AFTER WELDING	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
WELDS CLEANED	–	X
SIZE LENGTH AND LOCATION OF WELDS	X	
WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD/BASE=METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY	X	–
ARC STRIKES	X	–
K-AREA[a]	X	–
WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES[b]	X	–
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	X	–
REPAIR ACTIVITIES	X	–
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	X	–
NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR	–	X

a. WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT WEB K-AREA FOR CRACKS WITHIN 3 IN. (75MM) OF THE WELD.
b. AFTER ROLLED HEAVY SHAPES (SEE SECTION A3.1c) AND BUILT-UP HEAVY SHAPES (SEE SECTION A3.1d) ARE WELDED VISUALLY INSPECT THE WELD ACCESS HOLES FOR CRACKS

TABLE N5.6-1
INSPECTION TASKS PRIOR TO BOLTING

INSPECTION TASK PRIOR TO BOLTING	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
MANUFACTURER'S CERTIFICATE AVAILABLE FOR FASTENER MATERIALS	X	–
FASTENER MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	–	X
CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	–	X
CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	–	X
CONNECTION ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	–	X
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	–	X
PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	–	X

TABLE N5.6-2
INSPECTION TASKS DURING BOLTING

INSPECTION TASK DURING BOLTING	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
FASTENER ASSEMBLIES PLACED IS ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED	–	X
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	–	X
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	–	X
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	–	X

TABLE N5.6-3
INSPECTION TASKS AFTER BOLTING

INSPECTION TASK AFTER BOLTING	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	X	–

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NICLAS S. GREEN
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REVIEWED BY:
APPROVED BY:

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

SCHEDULE OF SPECIAL INSPECTIONS

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S3

WBS NUMBER
S-001000-0035-4

DRAWING SCALE

CITY OF HOUSTON PM
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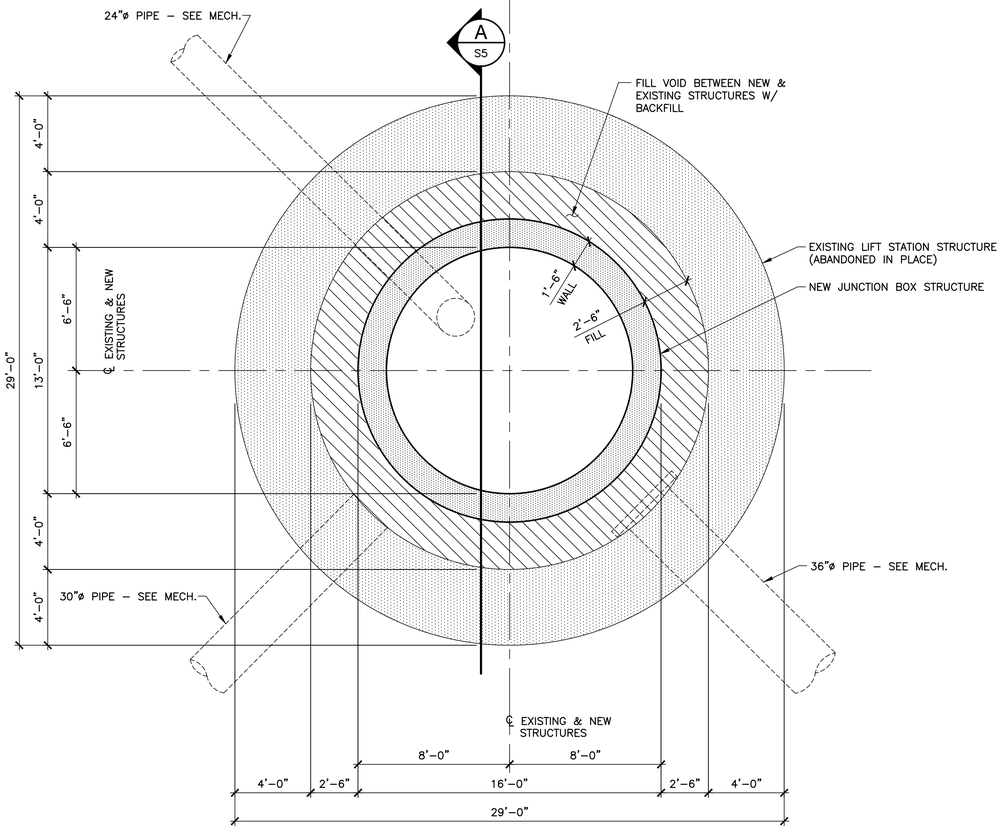
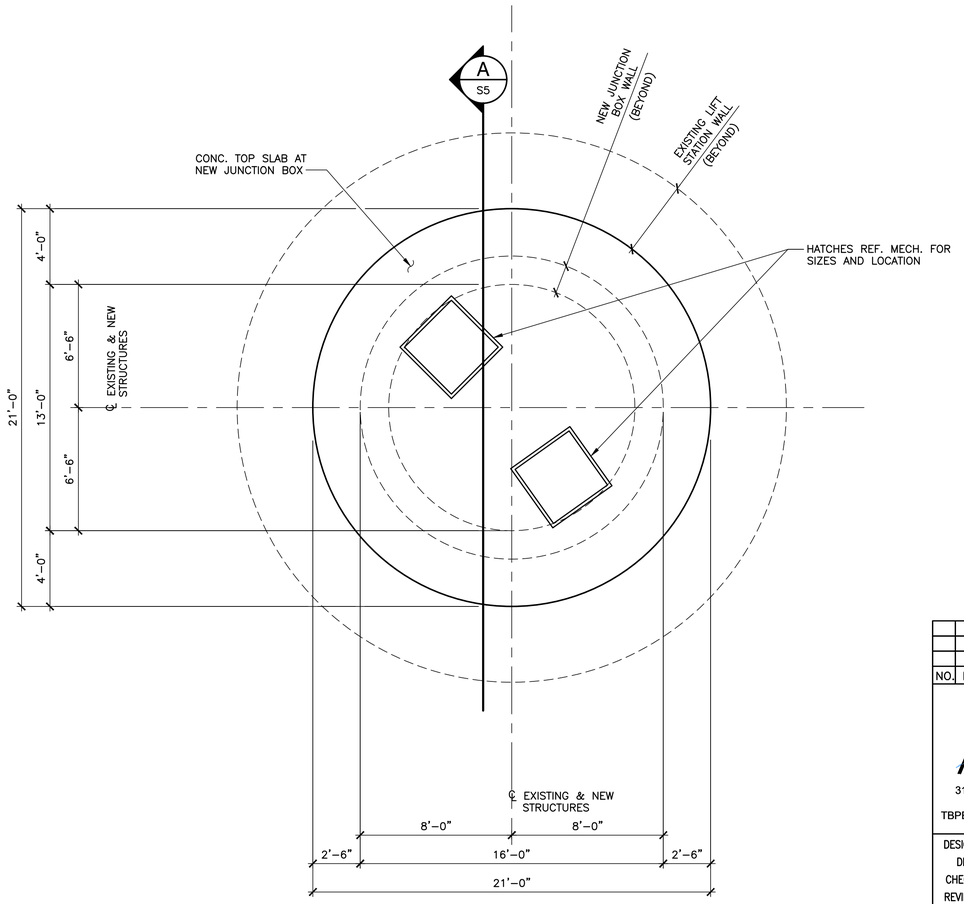


1 S4 JUNCTION BOX LOWER PLAN
SCALE: 1/4" = 1'-0"



1 S4 JUNCTION BOX UPPER PLAN
SCALE: 1/4" = 1'-0"

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Eddington Lift Station, 24–inch FM Installation, and Scott Street Storage Tank No. 1

JUNCTION BOX LOWER AND UPPER PLAN

WARNING
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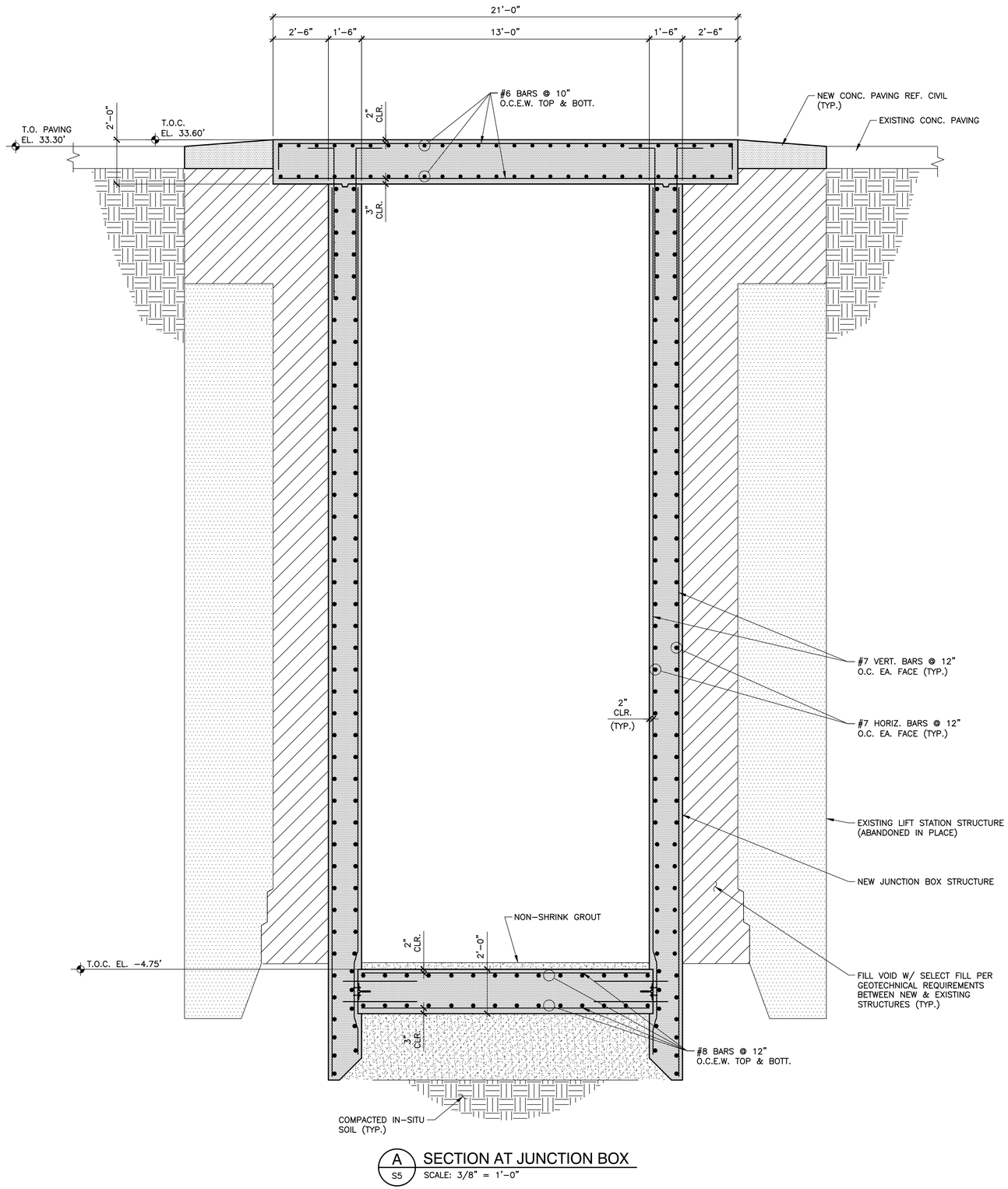

A / S5 SECTION AT JUNCTION BOX
SCALE: 3/8" = 1'-0"

NOTE:
DETAILS SHOWN ON JUNCTION BOX ARE FINAL IN PLACE CONDITION. CONTRACTOR TO PROVIDE CONSTRUCTION PLAN AND CONSTRUCTION SEQUENCE TO STRUCTURAL ENGINEER FOR FINAL APPROVAL

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JUNCTION BOX SECTION

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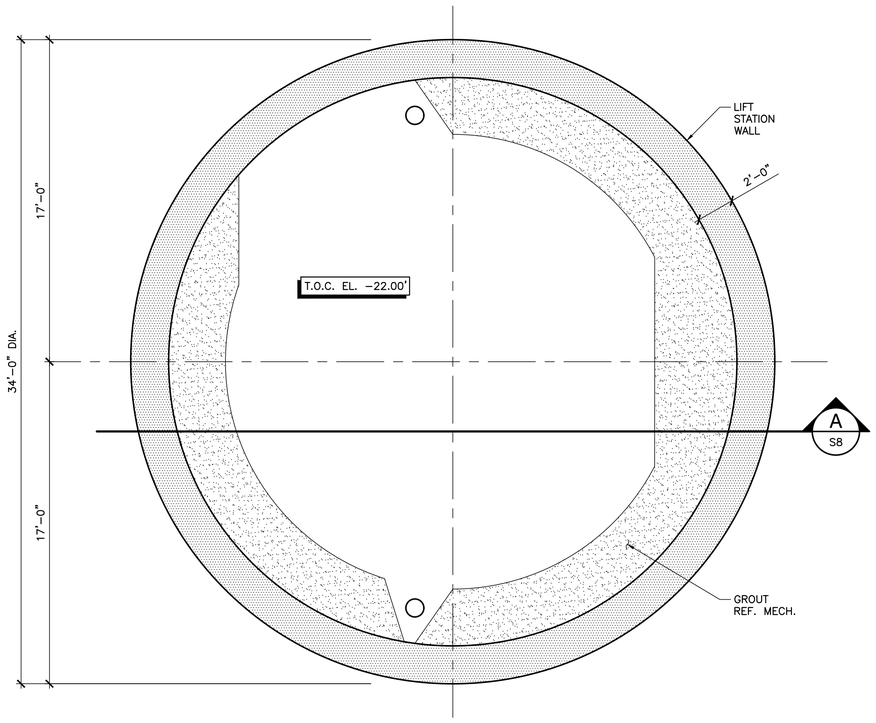

1 / S6 LIFT STATION LOWER LEVEL PLAN
SCALE: 1/4" = 1'-0"

LEGEND:

LIFT STATION CONCRETE WALL

GROUT REF. MECH.

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LIFT STATION LOWER LEVEL PLAN

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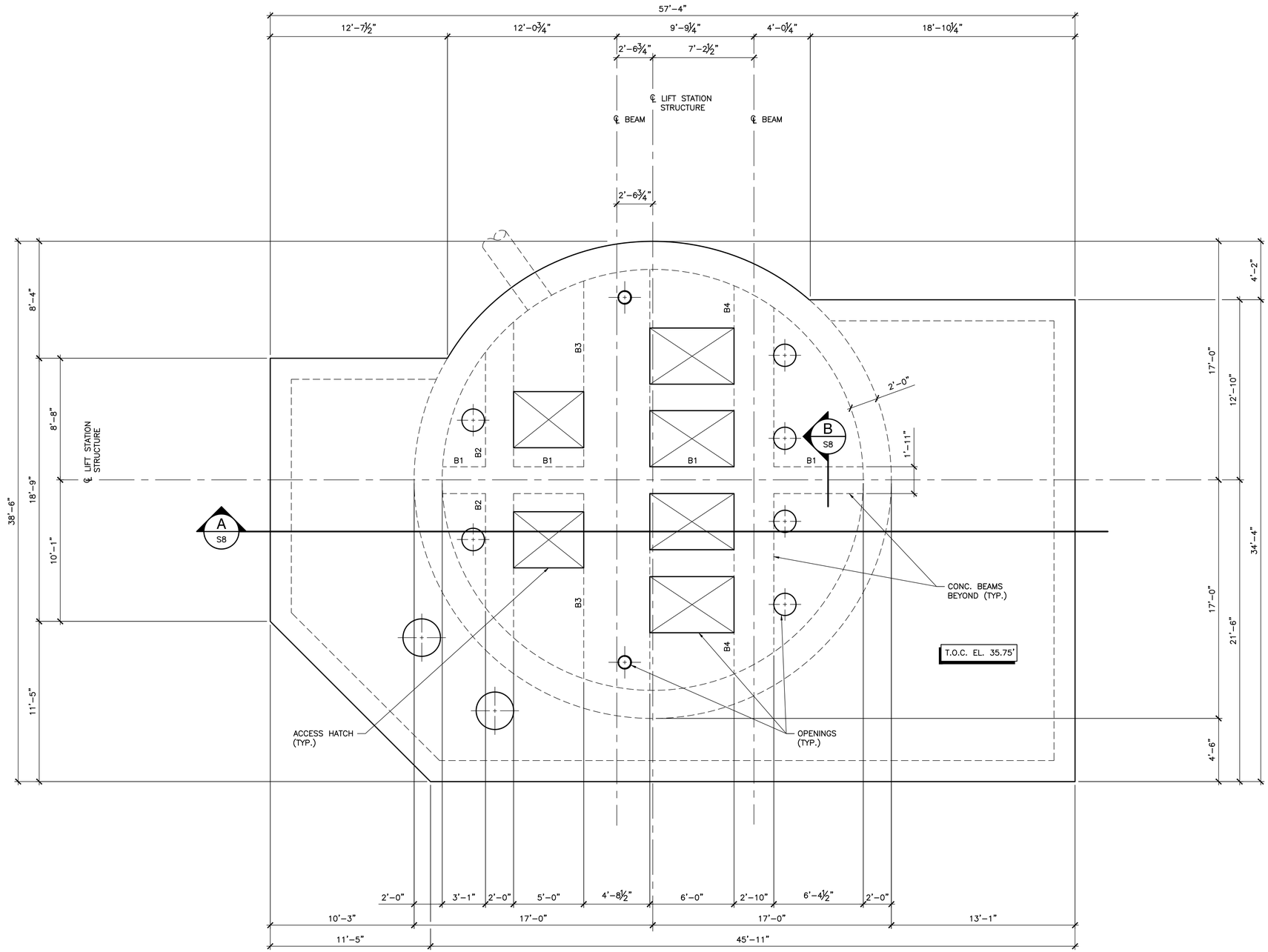

LEGEND:

B# BEAM SIZE & REINFORCING SEE SECTION B ON SHEET S8

1 / S7 LIFT STATION UPPER LEVEL PLAN
SCALE: 1/4" = 1'-0"

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S-001000-0035-4	
DRAWING SCALE	
CITY OF HOUSTON PM	
MEGAN R. JORDAN, P.E.	
SHEET NO. OF	

DWG NO
S7

PLOT STYLE: LNV-FS-2015-STRUCT.ctb PLOTTED: 1/19/2026 2:58 PM
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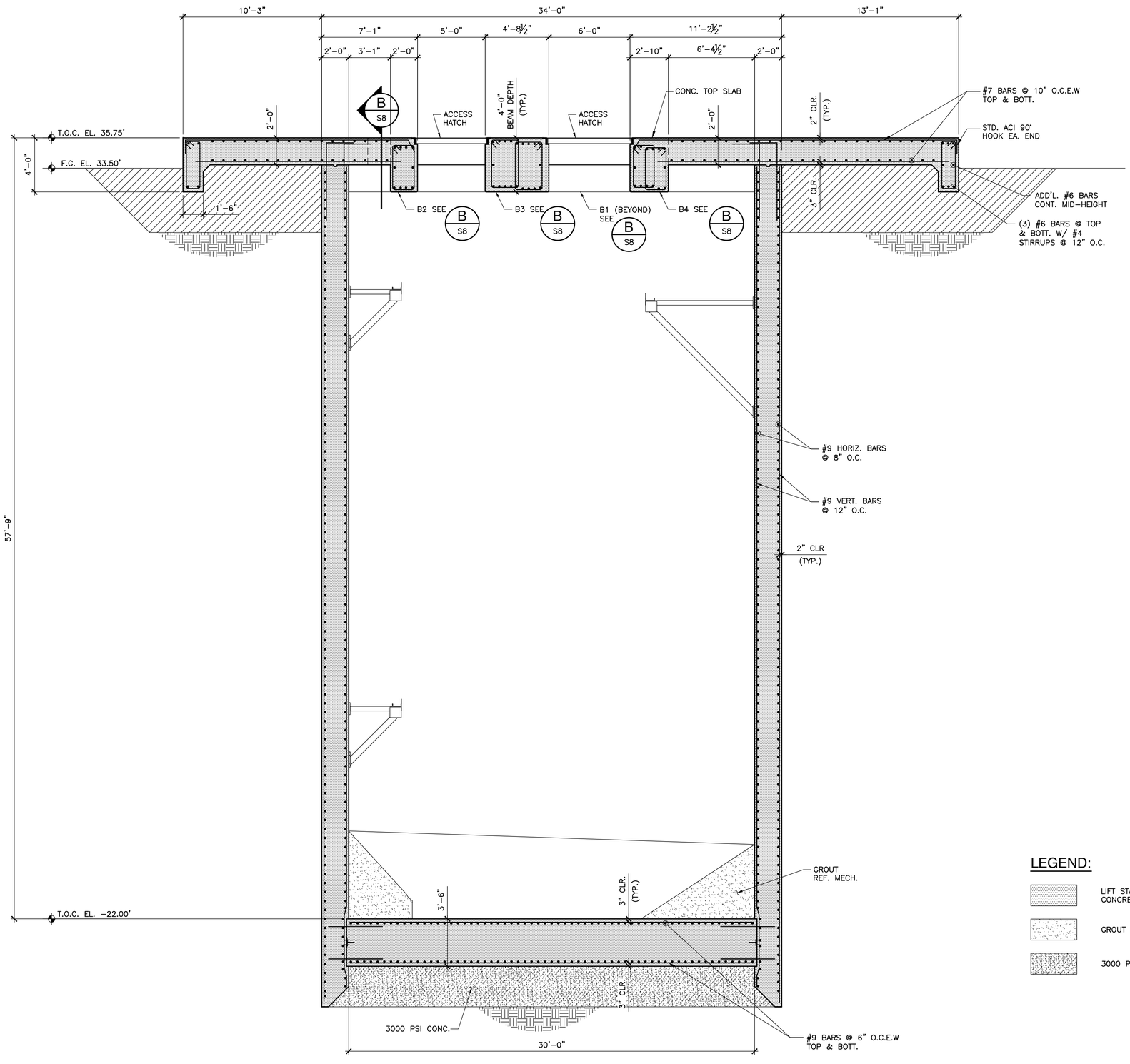
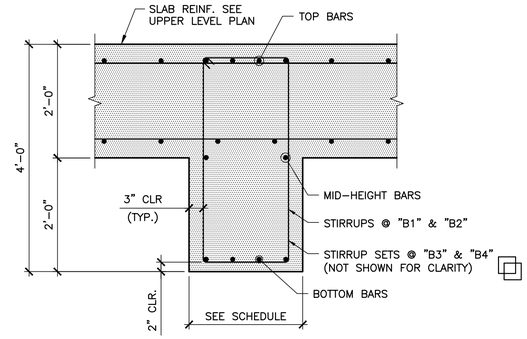
PLOT STYLE: LNV-FS-2015-STRUCT.PLOTTED: 1/19/2026 2:59 PM



A S8 SECTION AT LIFT STATION
SCALE: 1/4" = 1'-0"



PLAN

BEAM SCHEDULE

MARK	SIZE		TOP & BOTTOM	CONT. MID-HEIGHT	STIRRUPS		REMARKS
	W	D			SIZE	SPACING	
B1	23"	48"	(4) #9	(2) #6	#4	12" O.C. MAX.	
B2	24"	48"	(4) #9	(2) #6	#4	12" O.C. MAX.	
B3	56.5"	48"	(9) #9	(2) #6	#4	12" O.C. MAX.	PROVIDE STIRRUP SETS
B4	34"	48"	(6) #9	(2) #6	#4	12" O.C. MAX.	PROVIDE STIRRUP SETS

B S8 SECTION
SCALE: 3/4" = 1'-0"

LEGEND:

- LIFT STATION CONCRETE WALL
- GROUT REF. MECH.
- 3000 PSI CONCRETE

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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NICLAS S. GREEN
TEXAS P.E. NO. 126232
DATE: 2/27/2025

DESIGNED BY:
DRAWN BY:
CHECKED BY:
REVIEWED BY:
APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

LIFT STATION SECTION

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S8

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FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\LIFT STATION SECTION.dwg

PLOT STYLE: LNV-FS-2015-STRUCT.ctb PLOTTED: 1/19/2026 2:59 PM

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station,
24-inch FM Installation,
and Scott Street Storage
Tank No. 1

LIFT STATION STEEL FRAMING PLAN AND SECTIONS

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S9

WBS NUMBER
S-001000-0035-4

DRAWING SCALE

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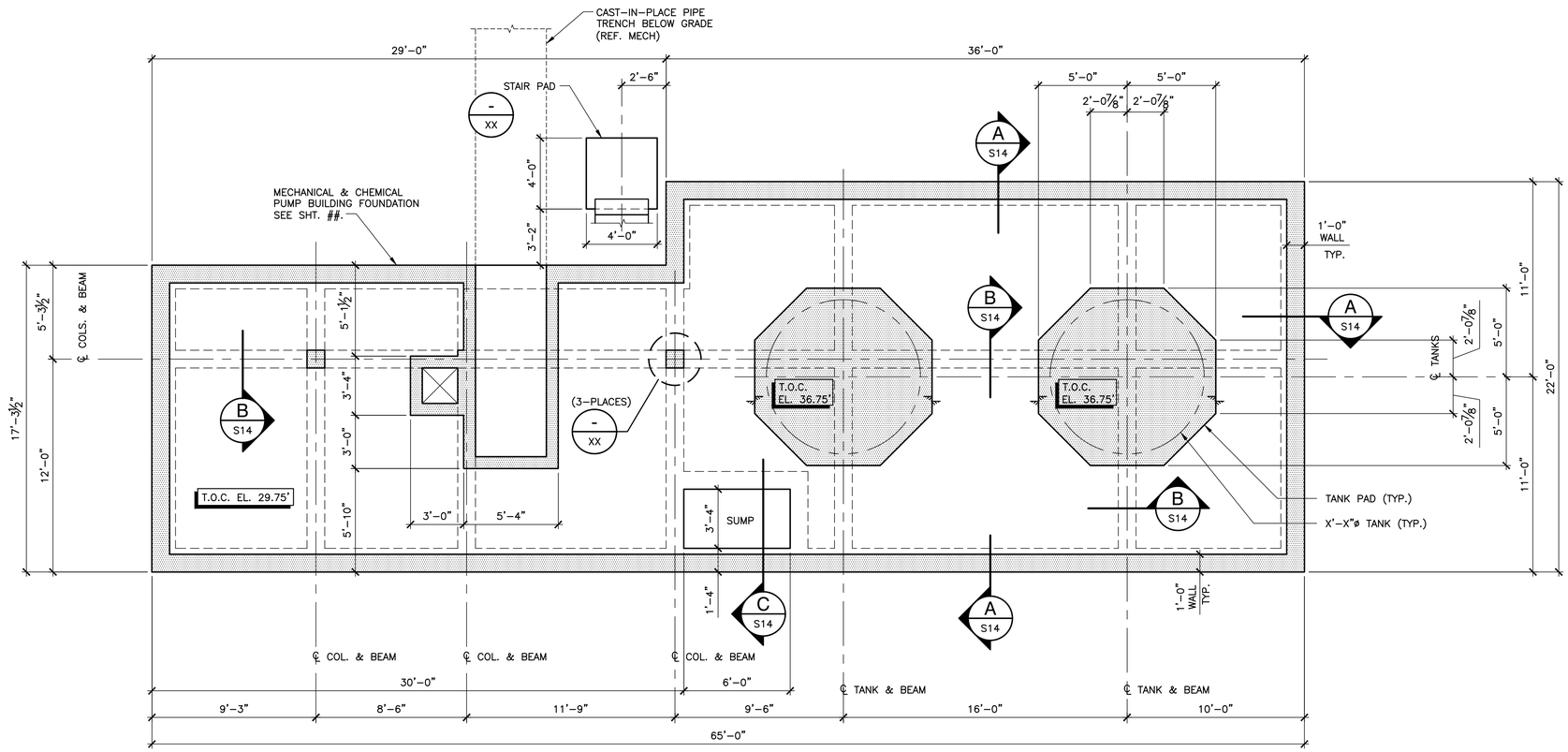
FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\LIFT STATION STEEL FRAMING PLAN AND SECTIONS.dwg



1 S10 CHEMICAL STORAGE AND FEED BUILDING FOUNDATION (LOWER) PLAN

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

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

CHEMICAL STORAGE AND FEED BUILDING LOWER PLAN

WBS NUMBER
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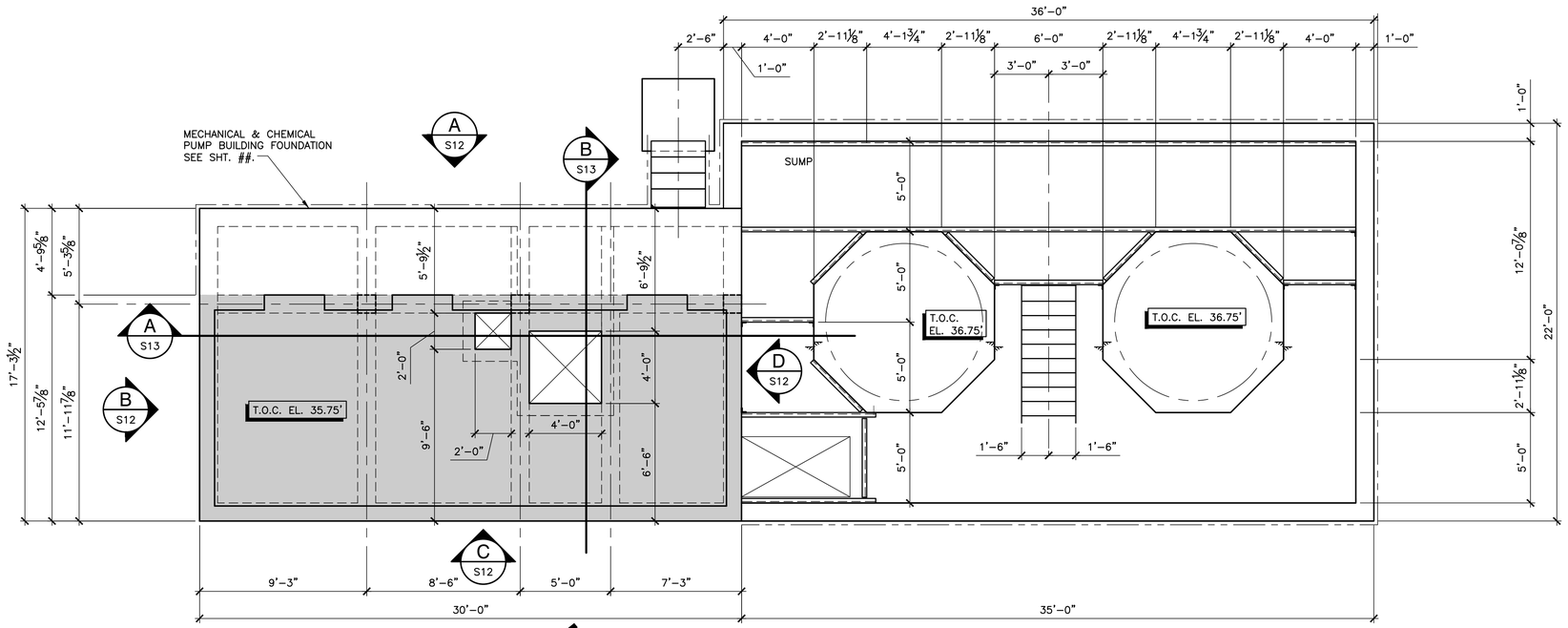
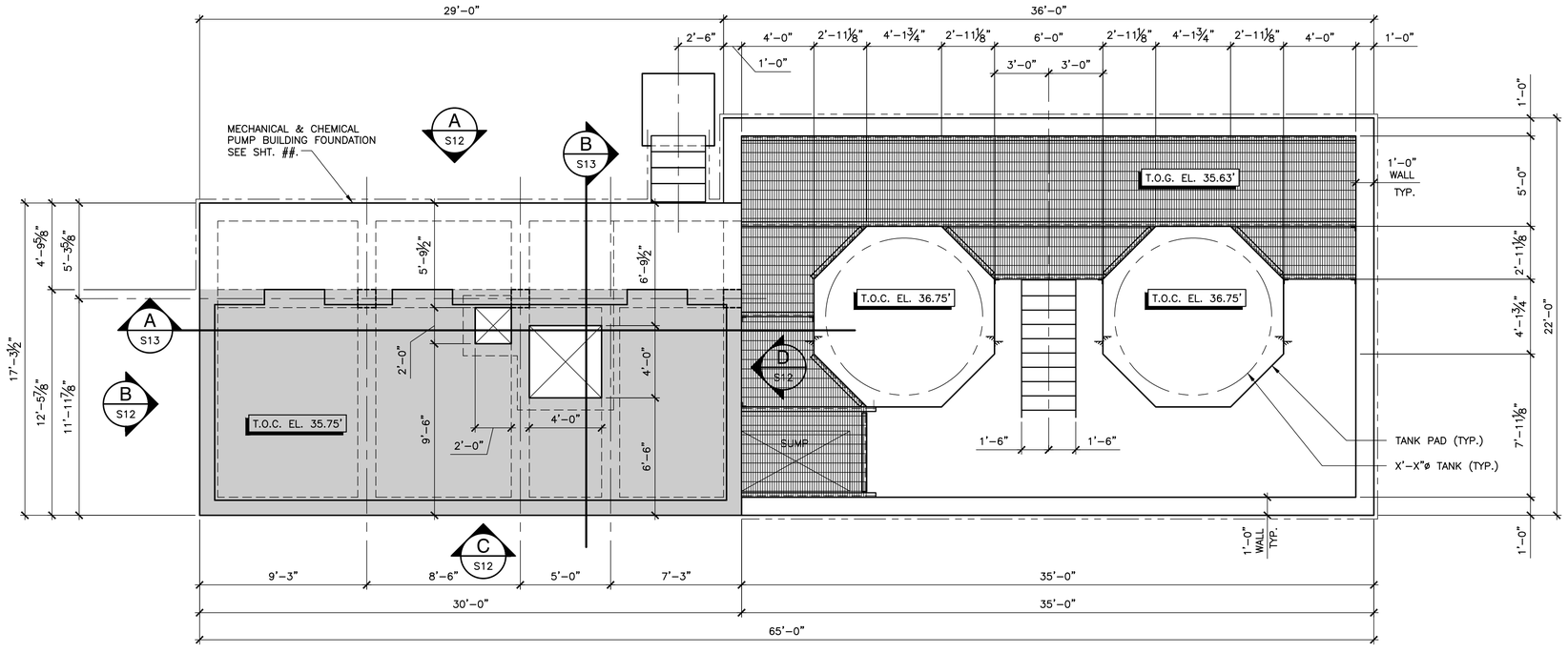
S10

PLOT STYLE: LNV-FS-2015-STRUCT.STB PLOTTED: 1/19/2026 2:59 PM

FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\CHEMICAL STORAGE AND FEED BUILDING LOWER PLAN.dwg



1 S11 CHEMICAL STORAGE AND FEED BUIDLING UPPER PLAN
SCALE: 1/4" = 1'-0"



2 S11 CHEMICAL STORAGE AND FEED BUILDING GRATING PLAN
SCALE: 1/4" = 1'-0"

NOTES:

1. CONTRACTOR SHALL CONSTRUCT THE FOUNDATION SO THAT THE FLOOR SHALL BE TRUE AND LEVEL TO A MAXIMUM TOLERANCE OF 1/8" IN 10 FEET.
2. OMIT LEDGE AT DOOR OPENINGS. REFER TO BUILDING DRAWINGS.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

CHEMICAL STORAGE AND FEED BUILDING UPPER AND STEEL FRAMING PLAN

WARNING
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DWG NO
S11

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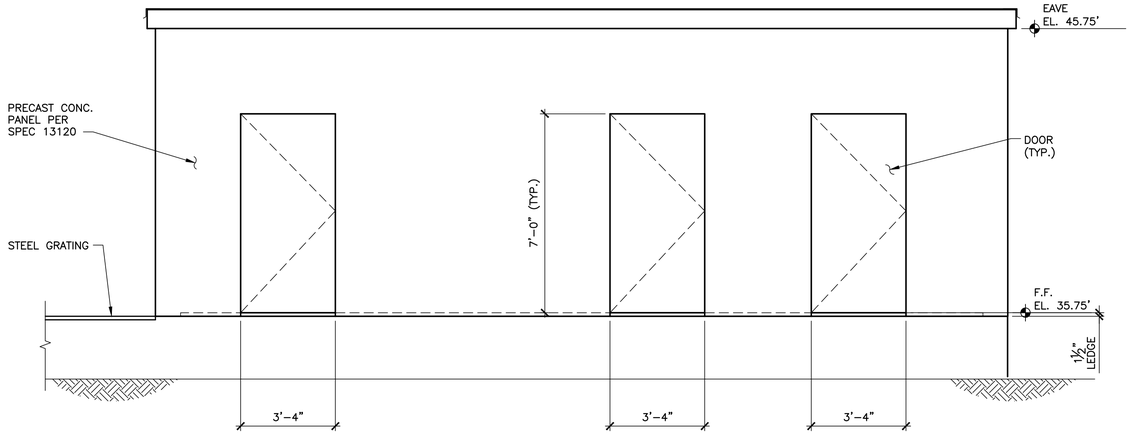
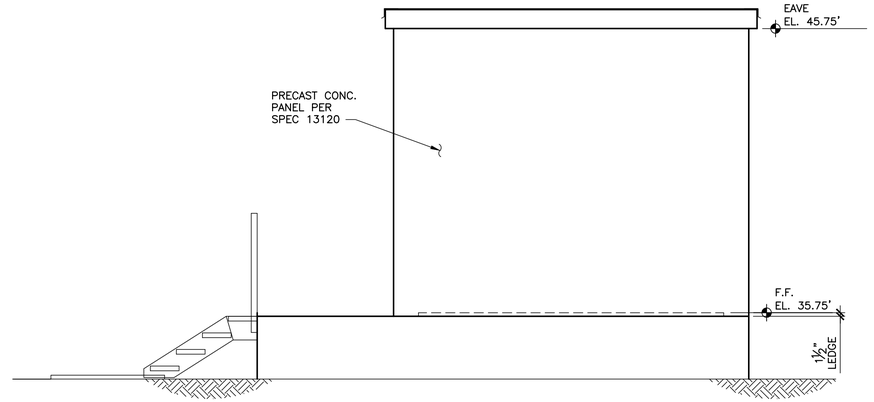
FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\CHEMICAL STORAGE AND FEED BUILDING UPPER AND STEEL FRAMING PLAN.dwg

PLOT STYLE: LNV-FS-2015-STRUCT.ctb PLOTTED: 1/19/2026 2:59 PM

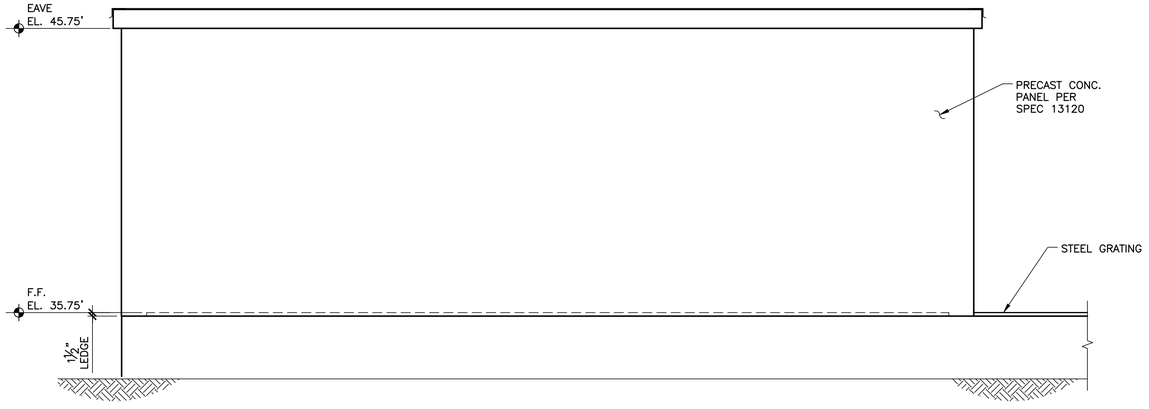
NOTE:
REFER TO MECHANICAL FOR SIGNAGE WITHIN MECHANICAL, ELECTRICAL AND FEED PUMP ROOMS.



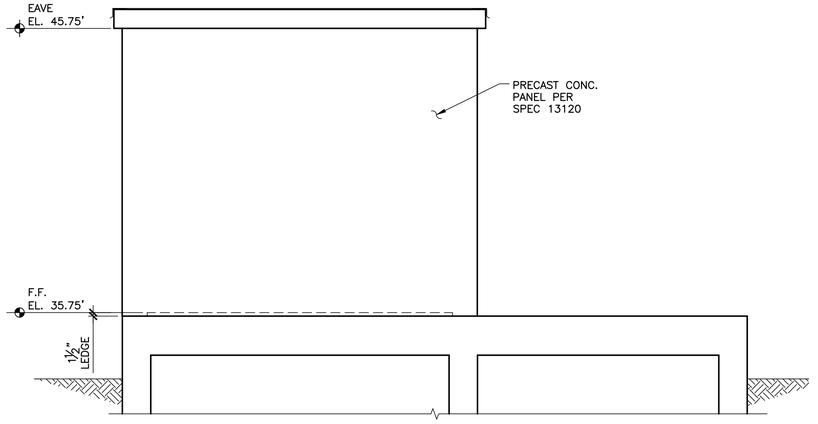
A S12 NORTH WEST EXTERIOR ELEVATION AT CHEMICAL STORAGE AND FEED BUILDING
SCALE: 3/8" = 1'-0"



B S12 SOUTHWEST EXTERIOR ELEVATION AT CHEMICAL STORAGE AND FEED BUILDING
SCALE: 3/8" = 1'-0"



C S12 SOUTH EAST EXTERIOR ELEVATION AT CHEMICAL STORAGE AND FEED BUILDING
SCALE: 3/8" = 1'-0"



D S12 NORTH EAST EXTERIOR ELEVATION AT CHEMICAL STORAGE AND FEED BUILDING
SCALE: 3/8" = 1'-0"

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APPROVED BY:

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station,
24-inch FM Installation,
and Scott Street Storage
Tank No. 1

CHEMICAL STORAGE AND FEED BUILDING EXTERIOR ELEVATIONS

WARNING
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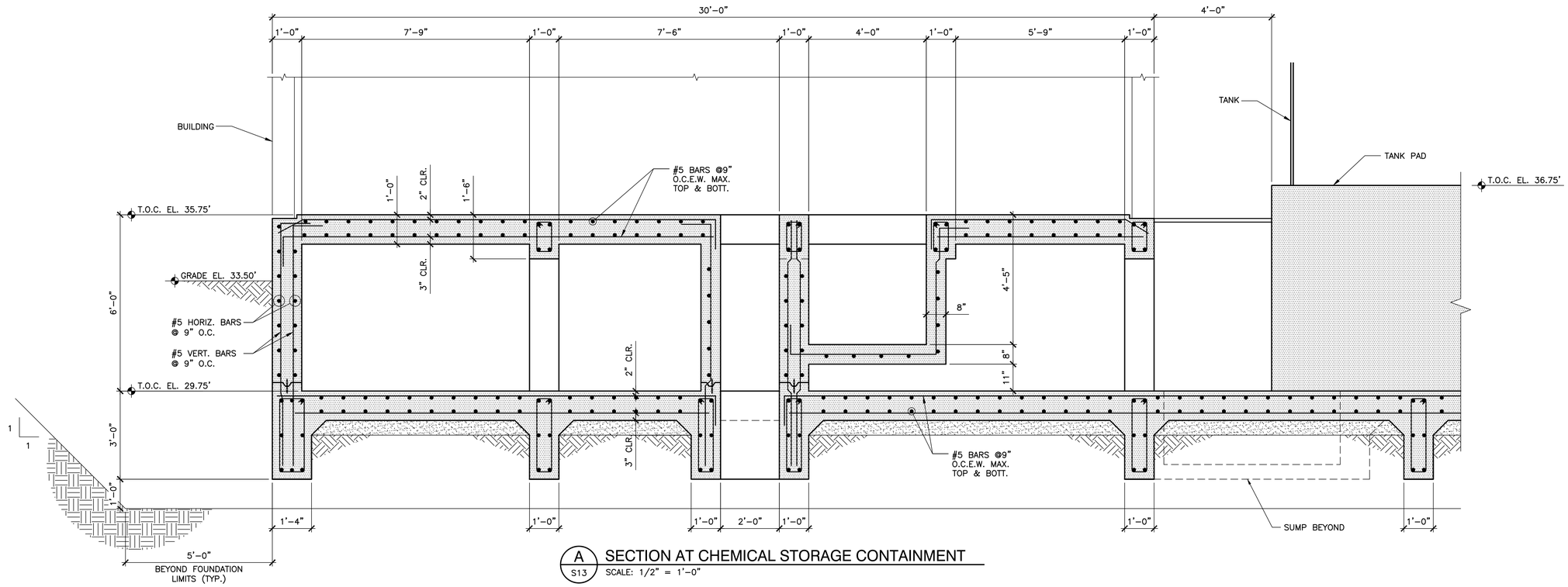
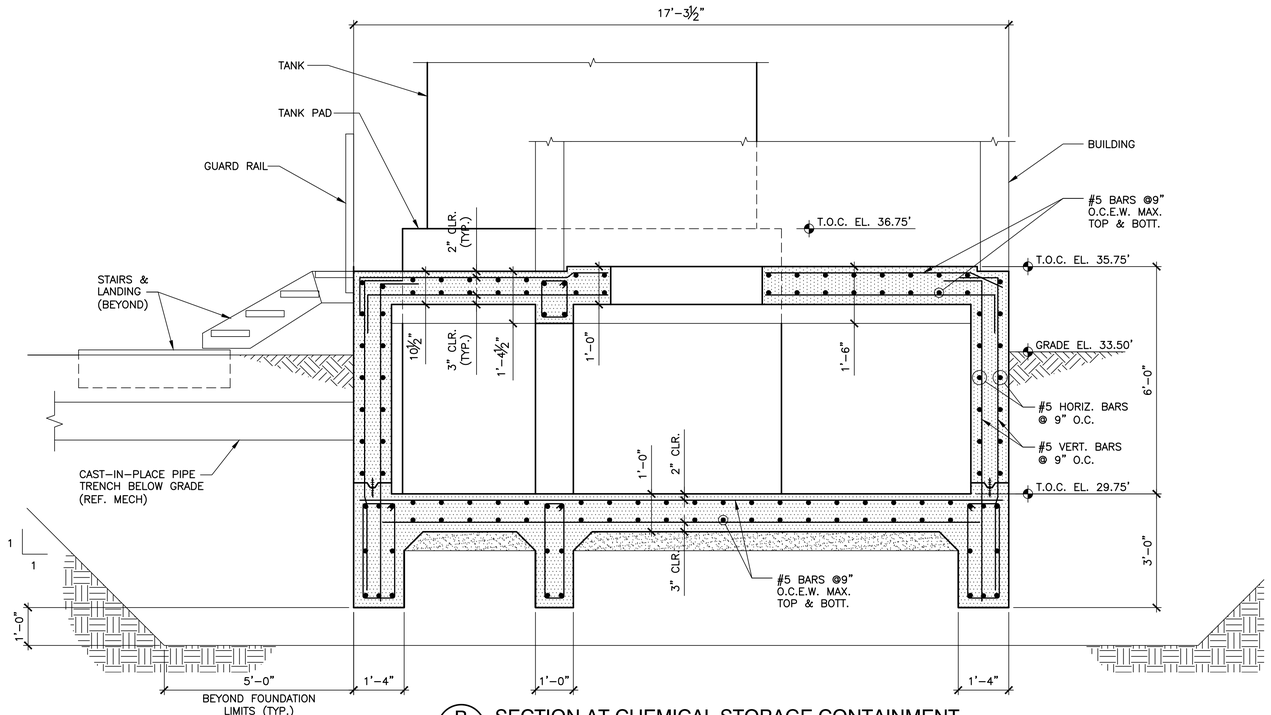
FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\CHEMICAL STORAGE AND FEED BUILDING EXTERIOR ELEVATIONS.dwg



A S13 SECTION AT CHEMICAL STORAGE CONTAINMENT
SCALE: 1/2" = 1'-0"



B S13 SECTION AT CHEMICAL STORAGE CONTAINMENT
SCALE: 1/2" = 1'-0"

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

CHEMICAL STORAGE AND FEED BUILDING SECTIONS

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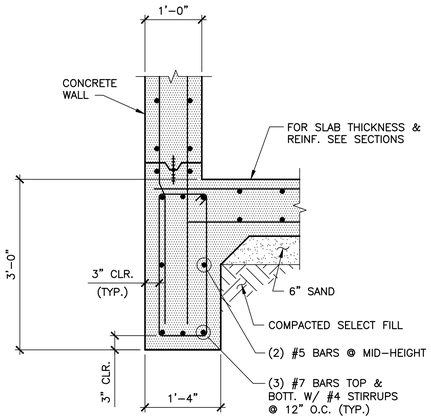
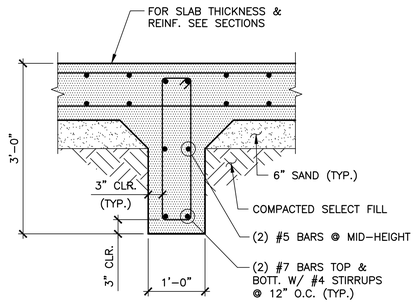
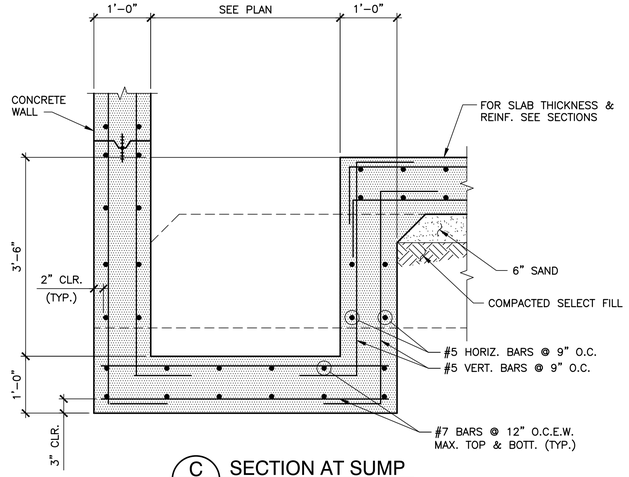


A S14 SECTION AT PERIMETER BEAM
SCALE: 3/4" = 1'-0"



B S14 SECTION AT INTERIOR BEAM
SCALE: 3/4" = 1'-0"



C S14 SECTION AT SUMP
SCALE: 3/4" = 1'-0"

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APPROVED BY:

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

CHEMICAL STORAGE AND FEED BUILDING SECTIONS & DETAILS

WBS NUMBER
S-001000-0035-4

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CITY OF HOUSTON PM
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WARNING
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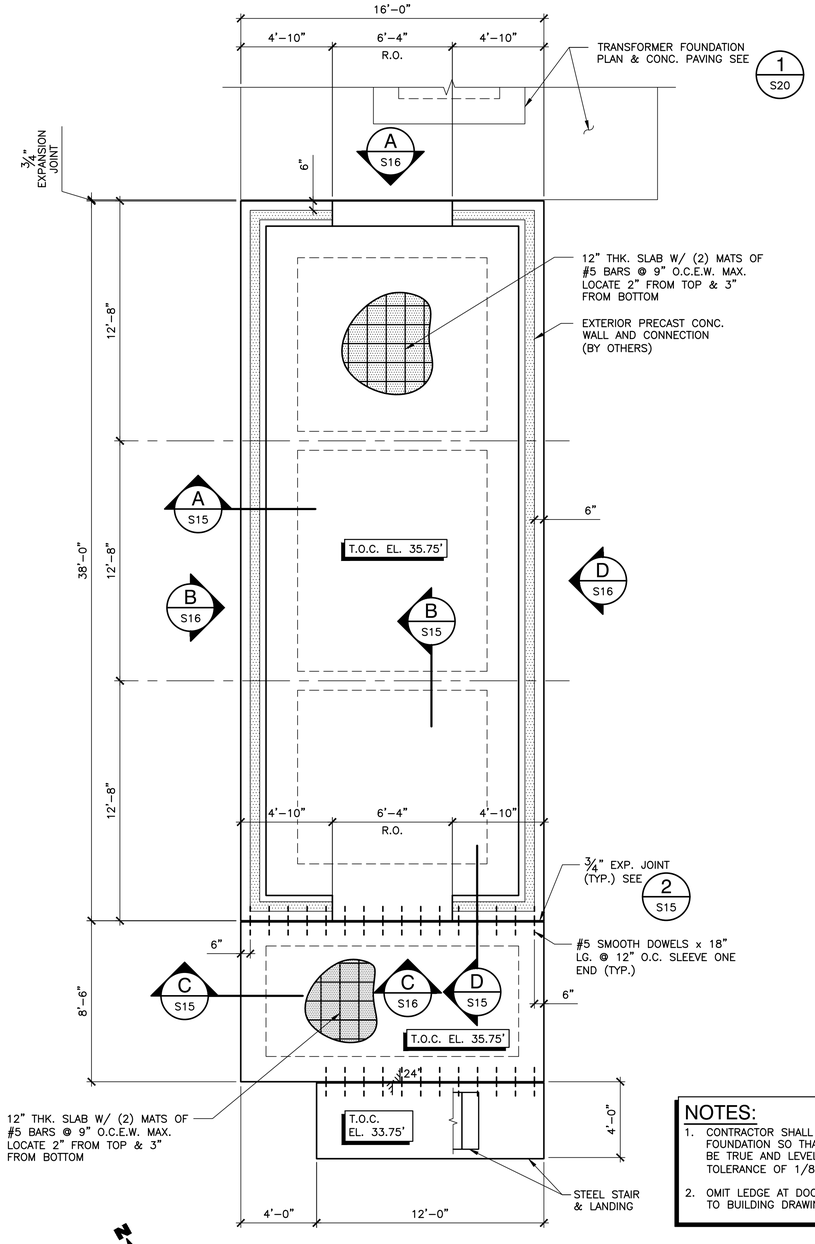
S14

FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\CHEMICAL STORAGE AND FEED BUILDING SECTIONS & DETAILS.dwg

PLOT STYLE: LNV-FS-2015-STRUCT.CTB PLOTTED: 1/19/2026 2:59 PM

FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\ELECTRICAL BUILDING FOUNDATION PLAN, SECTIONS & DETAILS.dwg



NOTES:

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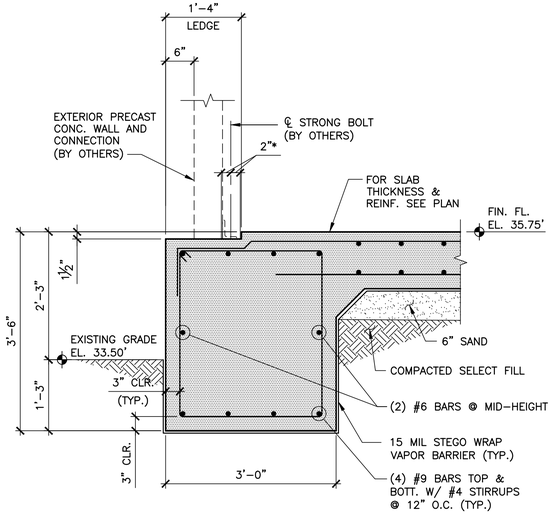
2. OMIT LEDGE AT DOOR OPENINGS. REFER TO BUILDING DRAWINGS.

1 S15 ELECTRICAL BUILDING FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



A S15 SECTION AT PERIMETER BEAM
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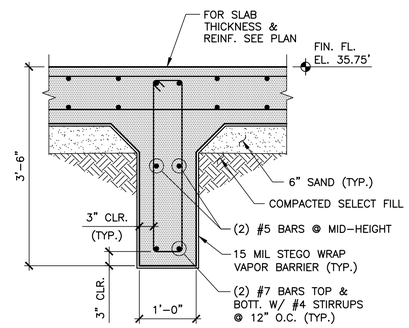
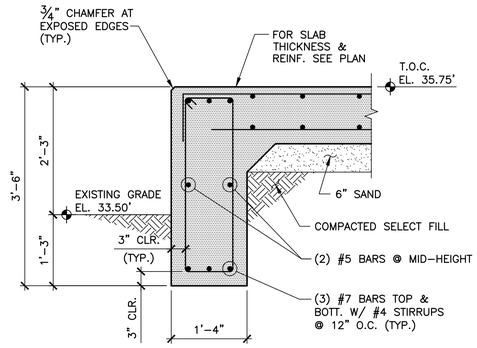
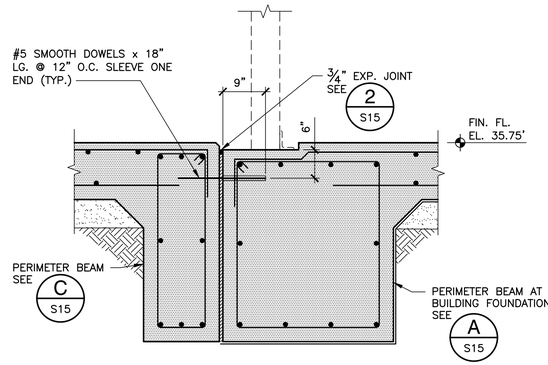


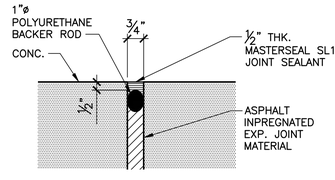
B S15 SECTION AT INTERIOR BEAM
SCALE: 3/4" = 1'-0"



C S15 SECTION AT PERIMETER BEAM
SCALE: 3/4" = 1'-0"



D S15 SECTION
SCALE: 3/4" = 1'-0"



2 S15 TYP. EXPANSION JOINT DETAIL
N.T.S.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

ELECTRICAL BUILDING FOUNDATION PLAN, SECTIONS & DETAILS

WARNING
0 1
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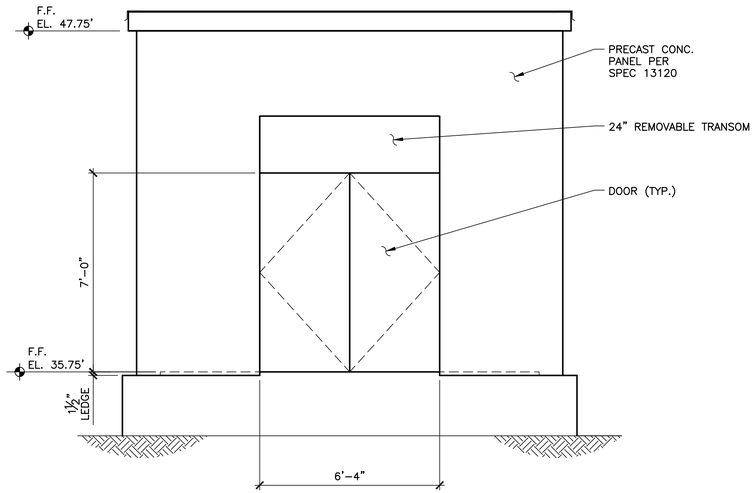
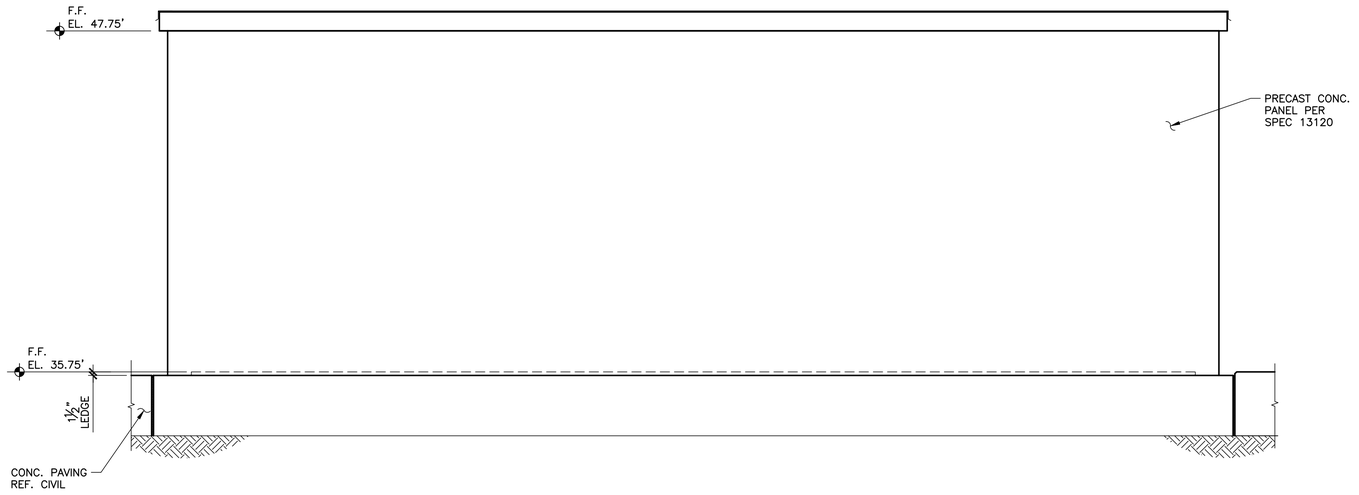


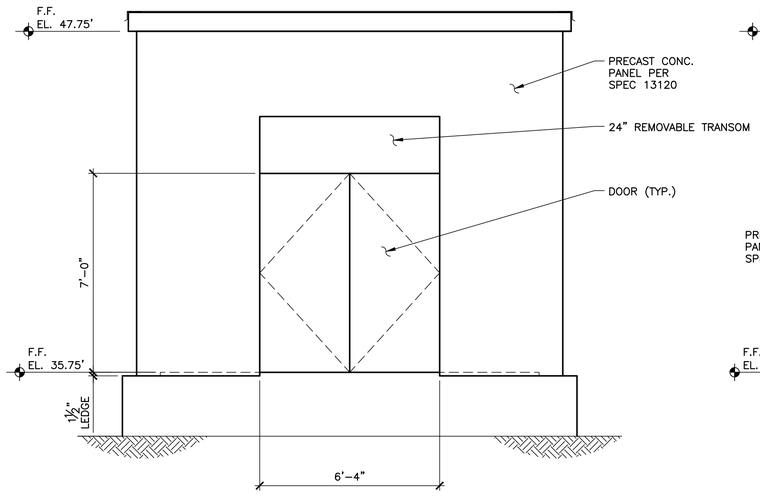
A S16 NORTH EAST EXTERIOR ELEVATION AT ELECTRICAL BUILDING

SCALE: 3/8" = 1'-0"



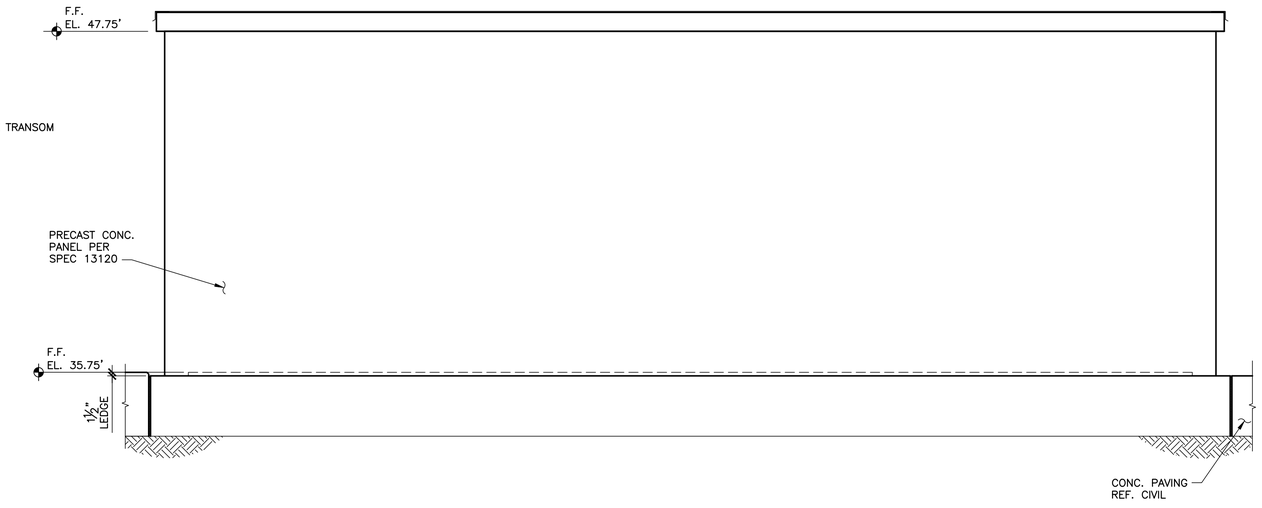
B S16 SOUTH EAST EXTERIOR ELEVATION AT ELECTRICAL BUILDING

SCALE: 3/8" = 1'-0"



C S16 SOUTH WEST EXTERIOR ELEVATION AT ELECTRICAL BUILDING

SCALE: 3/8" = 1'-0"



D S16 NORTH WEST EXTERIOR ELEVATION AT ELECTRICAL BUILDING

SCALE: 3/8" = 1'-0"

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

ELECTRICAL BUILDING FOUNDATION PLAN EXTERIOR ELEVATIONS

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S16

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-001000-0035-4	
DRAWING SCALE	
CITY OF HOUSTON PM	
MEGAN R. JORDAN, P.E.	
SHEET NO. OF	

PLOT STYLE: LNV-FS-2015-STRUCT.ctb PLOTTED: 1/19/2026 2:59 PM

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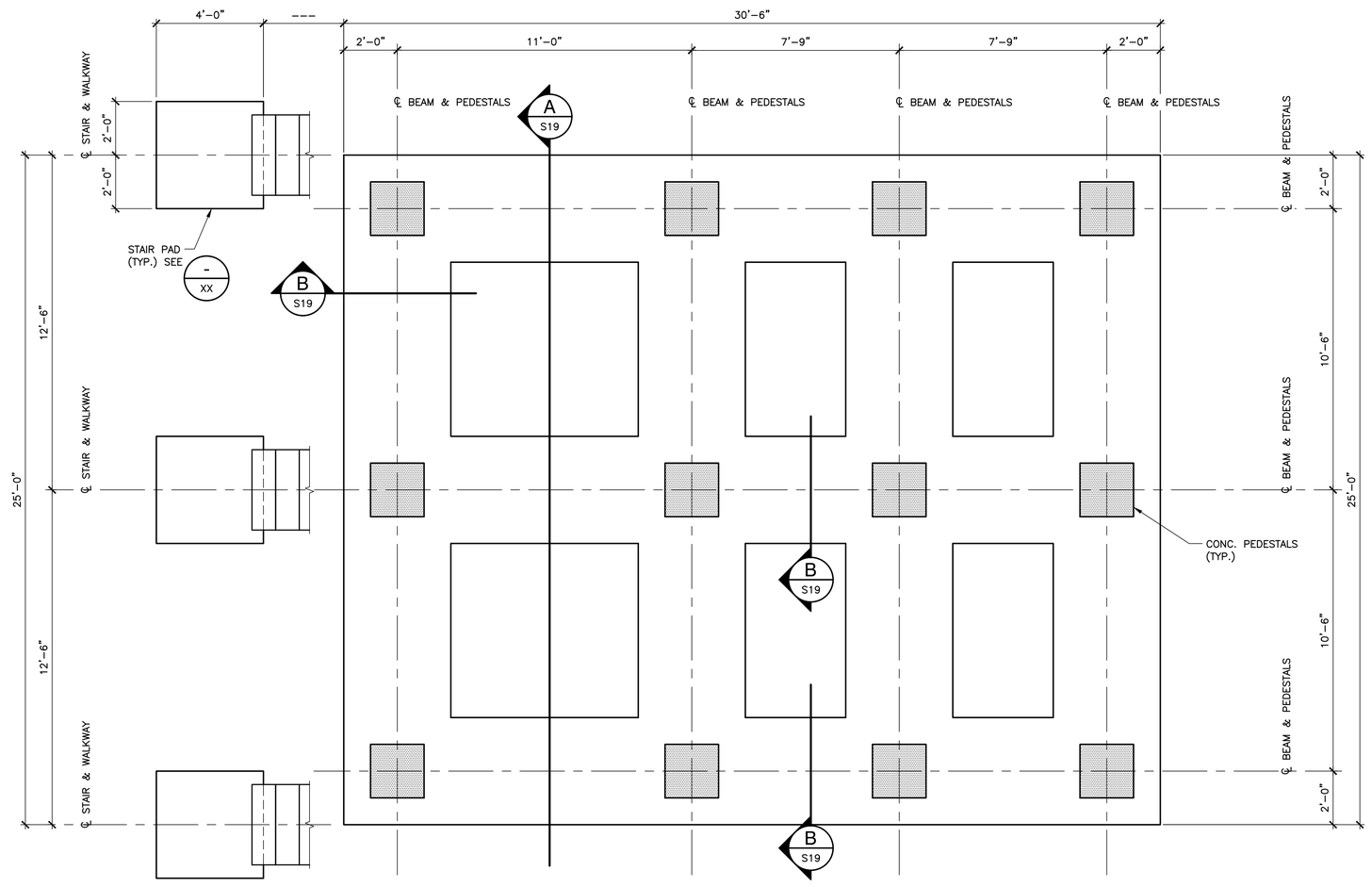

1 S17 GENERATOR & MAINTENANCE FOUNDATION PLAN

SCALE: 3/8" = 1'-0"

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
NICLAS S. GREEN
TEXAS P.E. NO. 126232
DATE: 2/27/2025

DESIGNED BY:
DRAWN BY:
CHECKED BY:
REVIEWED BY:
APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

GENERATOR AND MAINTENANCE PAD PLAN

WARNING
0 1
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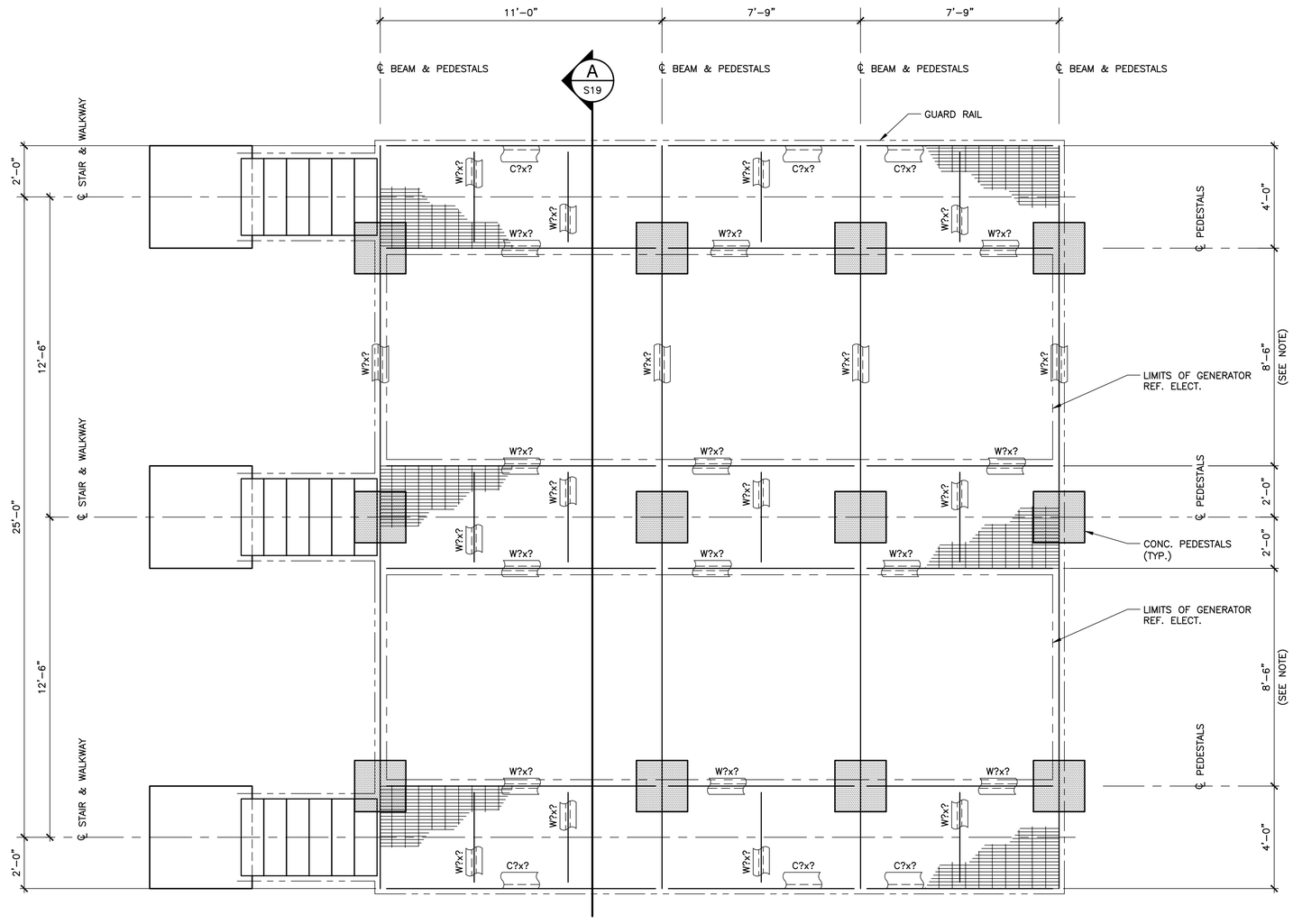
DWG NO
S17

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-001000-0035-4	
DRAWING SCALE	
CITY OF HOUSTON PM	
MEGAN R. JORDAN, P.E.	
SHEET NO. OF	

PLOT STYLE: LNV-FS-2015-STRUCT.CTB PLOTTED: 1/19/2026 2:59 PM

FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\GENERATOR AND MAINTENANCE PAD PLAN.dwg

PLOT STYLE: LNV-FS-2015-STRUCT.CTB PLOTTED: 1/19/2026 3:00 PM



N

1 S18 GENERATOR & MAINTENANCE PAD FRAMING PLAN
SCALE: 3/8" = 1'-0"

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HOUSTON PUBLIC WORKS

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GENERATOR AND MAINTENANCE PAD FRAMING PLAN

WBS NUMBER
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DRAWING SCALE
CITY OF HOUSTON PM
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SHEET NO. OF

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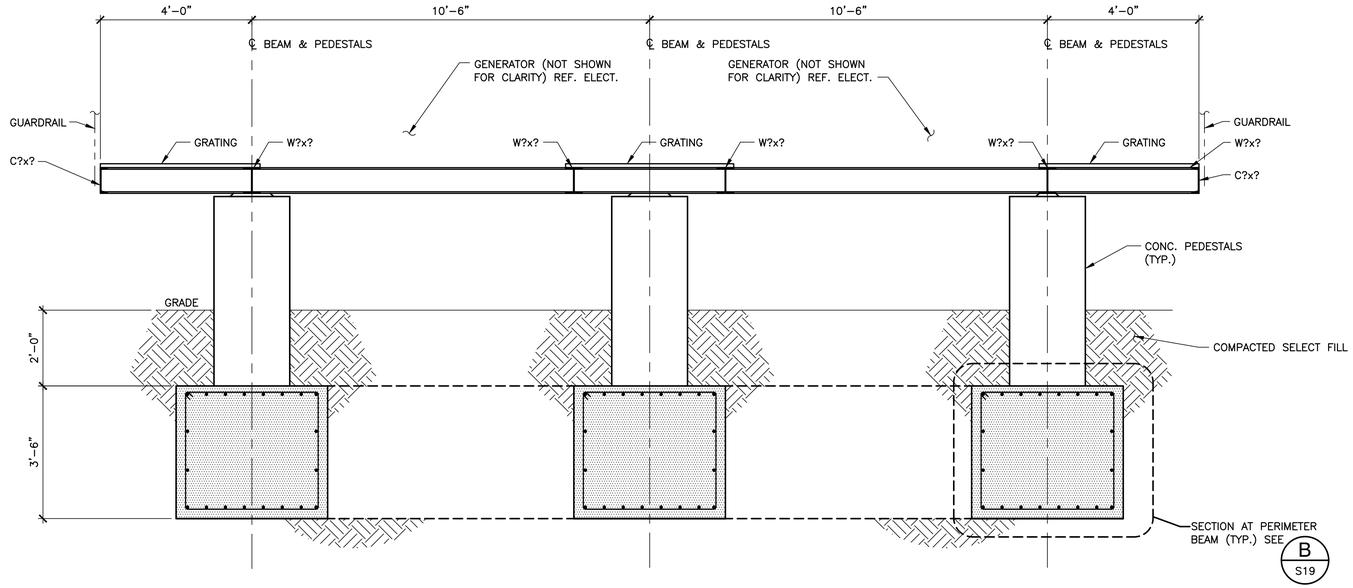
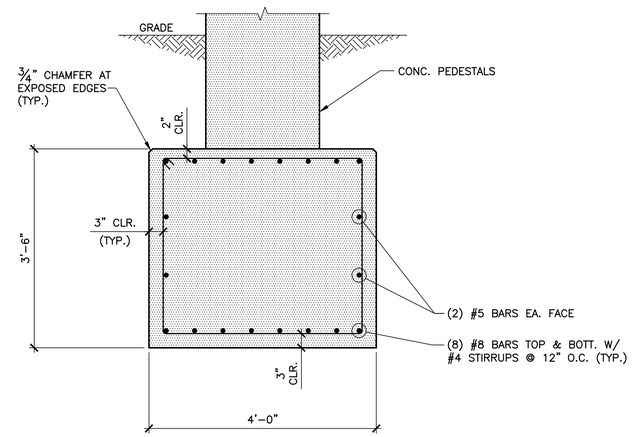
DWG NO
S18

FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\GENERATOR AND MAINTENANCE PAD FRAMING PLAN.dwg



A S19 SECTION THROUGH STRUCTURE

SCALE: 1/2" = 1'–0"



B S19 SECTION AT PERIMETER BEAM

SCALE: 3/4" = 1'–0"

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24–inch FM Installation, and Scott Street Storage Tank No. 1

GENERATOR AND MAINTENANCE PAD SECTIONS & DETAIL

WARNING
0 1
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DWG NO
S19

WBS NUMBER
S–001000–0035–4

DRAWING SCALE

CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

SHEET NO. OF

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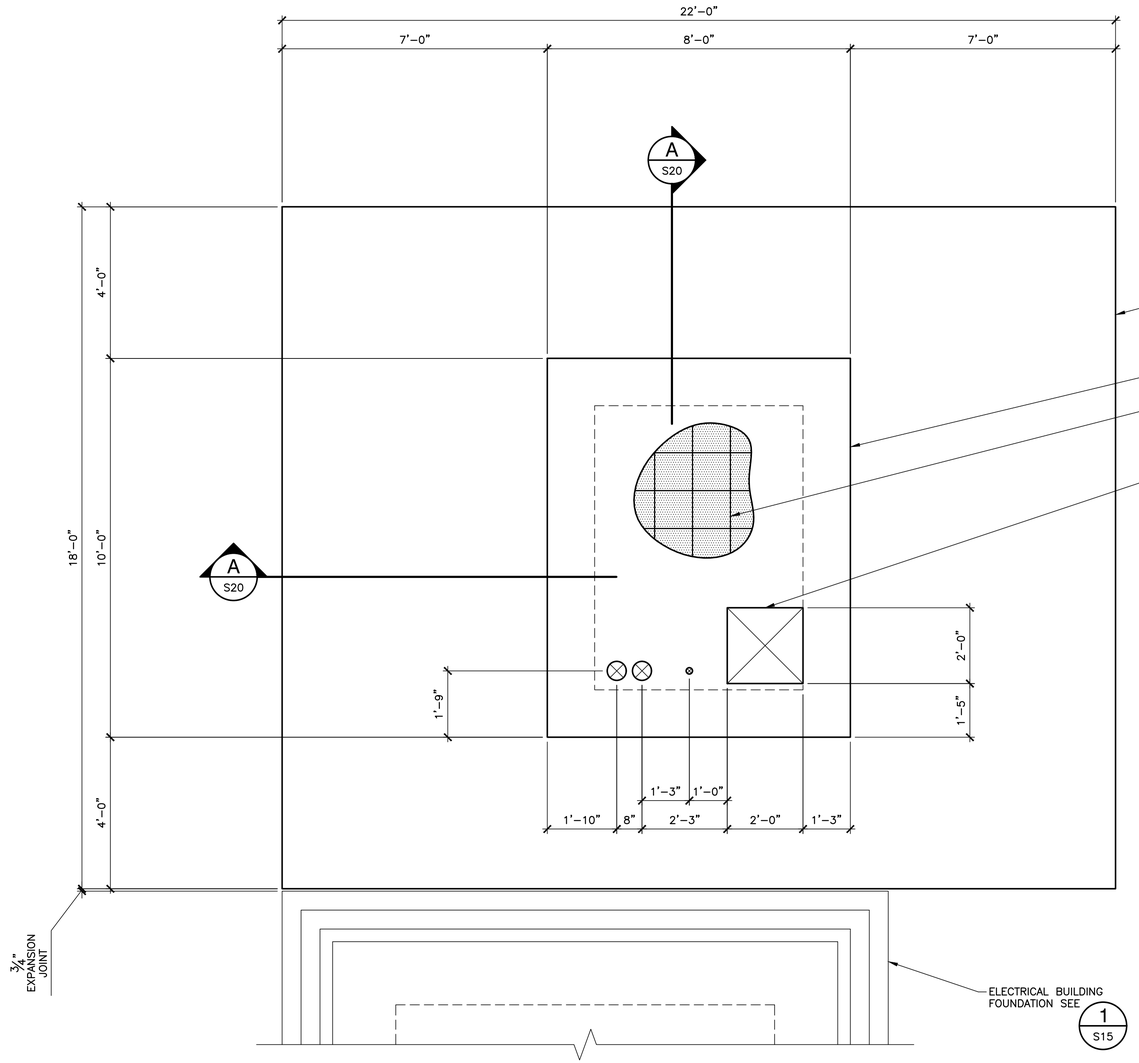
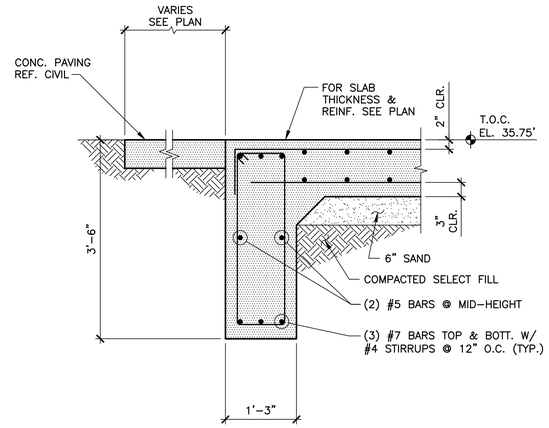


1 S20 TRANSFORMER FOUNDATION PLAN
SCALE: 1/2" = 1'-0"



A S20 SECTION AT PERIMETER BEAM
SCALE: 3/4" = 1'-0"

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FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

TRANSFORMER FOUNDATION PLAN

WARNING
0 1
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DWG NO
S20

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-001000-0035-4	
DRAWING SCALE	
CITY OF HOUSTON PM	
MEGAN R. JORDAN, P.E.	
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PLOT STYLE: LNV-FS-2015-STRUCT.ctb PLOTTED: 1/19/2026 3:00 PM
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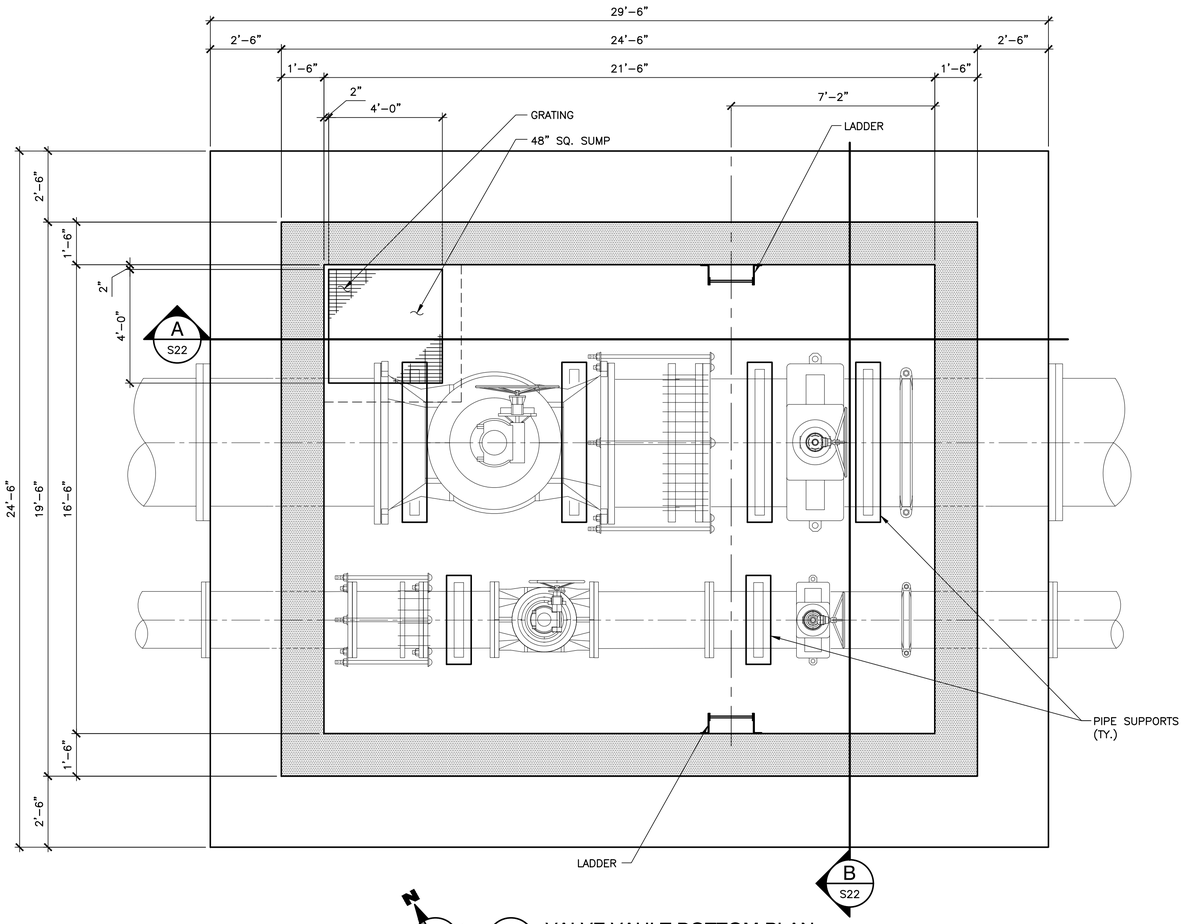
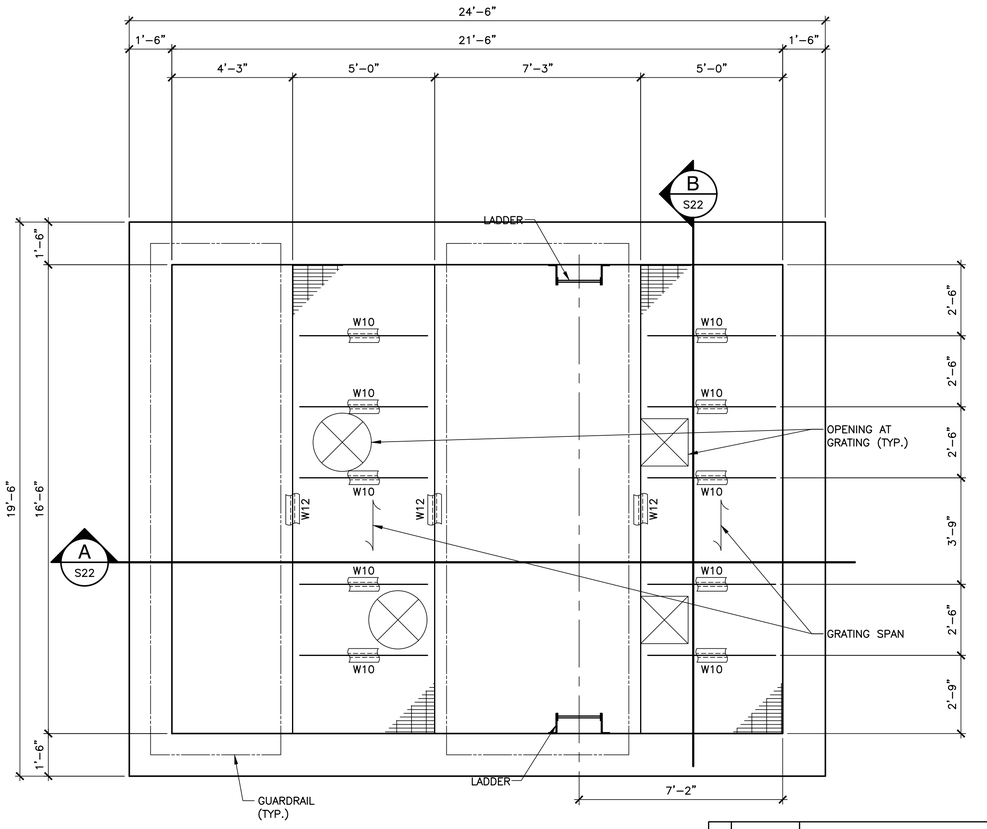


1 S21 VALVE VAULT BOTTOM PLAN

SCALE: 3/8" = 1'-0"



2 S21 VALVE VAULT TOP PLAN

SCALE: 3/8" = 1'-0"

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

VALVE VAULT PLANS

WBS NUMBER
S-001000-0035-4

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE

CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

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S21

PLOT STYLE: LNV-FS-2015-STRUCT.CTB PLOTTED: 1/19/2026 3:00 PM

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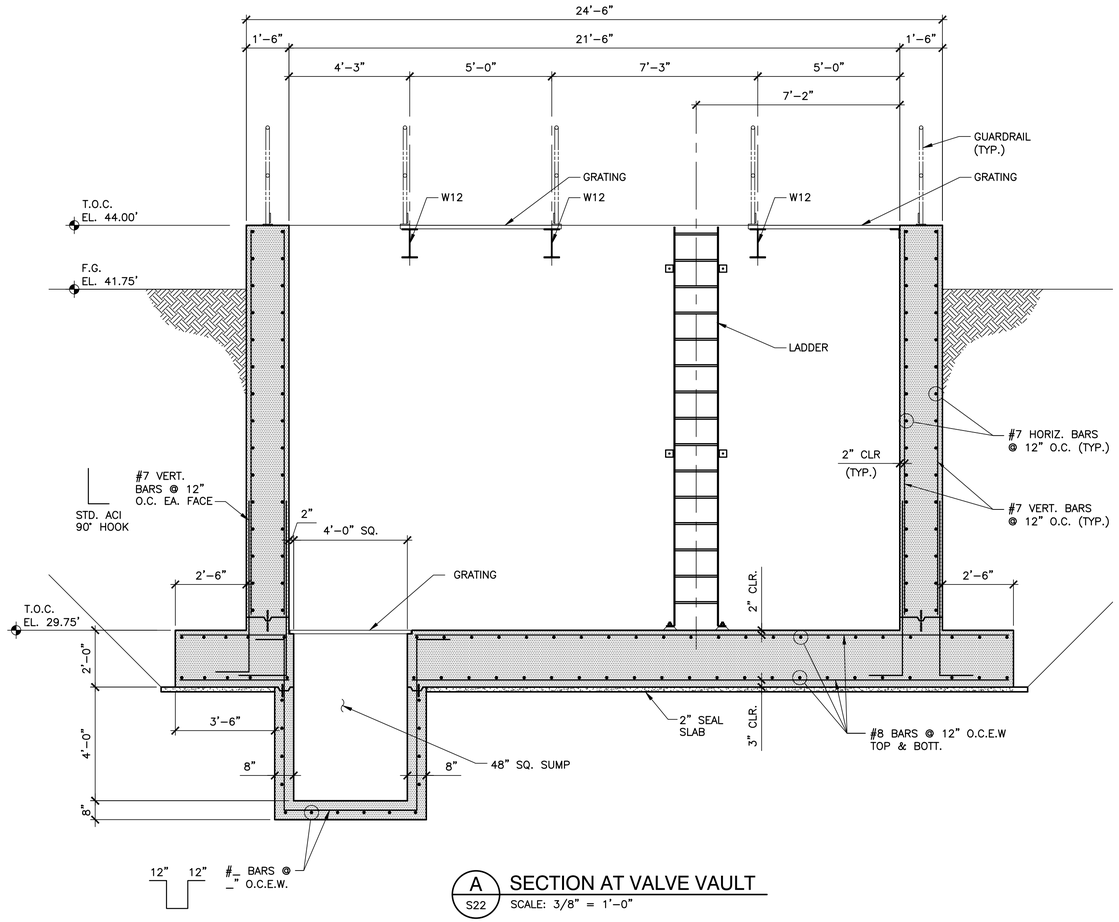
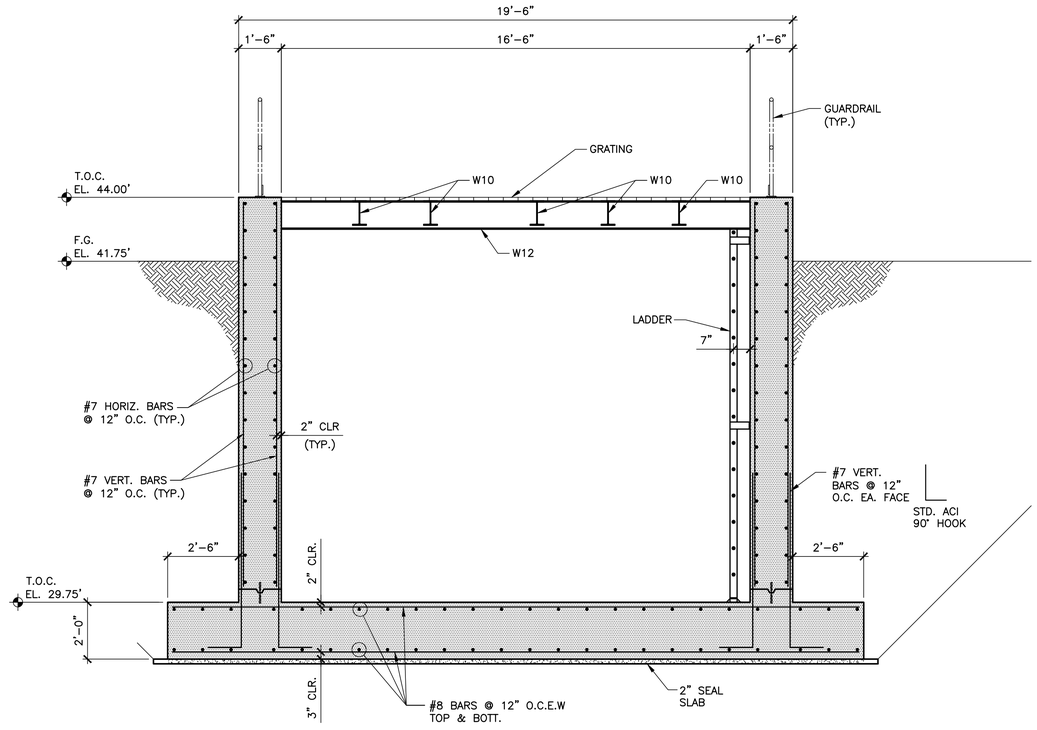


A S22 SECTION AT VALVE VAULT

SCALE: 3/8" = 1'-0"



B S22 SECTION AT VALVE VAULT

SCALE: 3/8" = 1'-0"

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CITY OF HOUSTON

HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

VALVE VAULT SECTIONS

WBS NUMBER
S-001000-0035-4

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE

CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

SHEET NO. OF

WARNING
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DWG NO
S22

PLOT STYLE: LNV-FS-2015-STRUCT.ctb PLOTTED: 1/19/2026 3:00 PM
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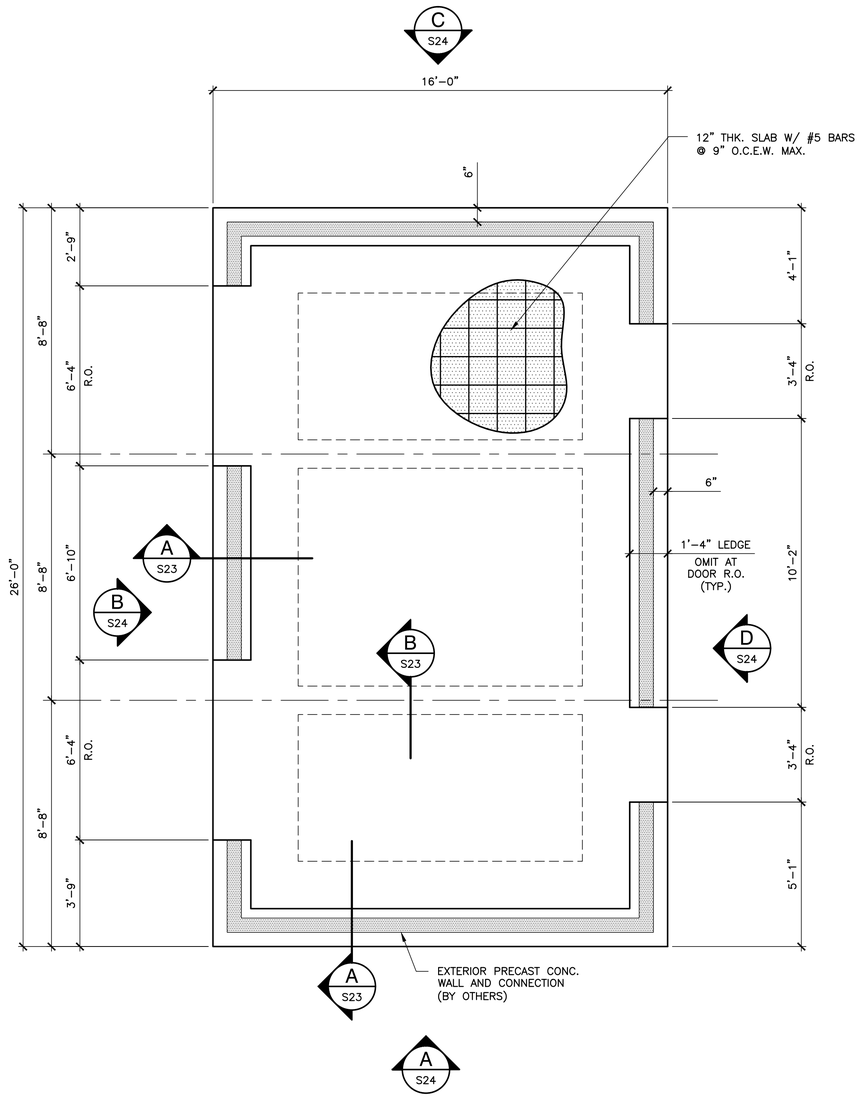
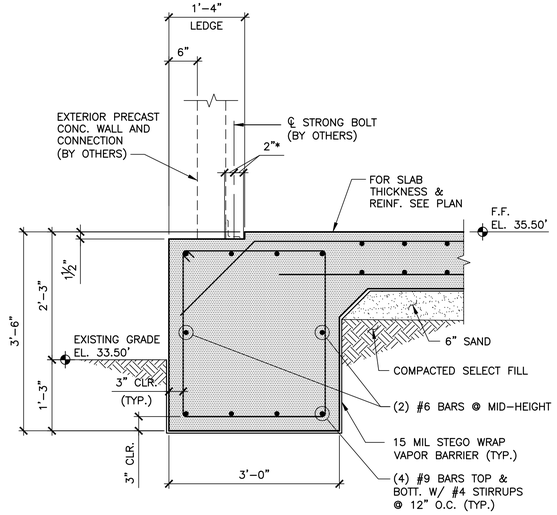
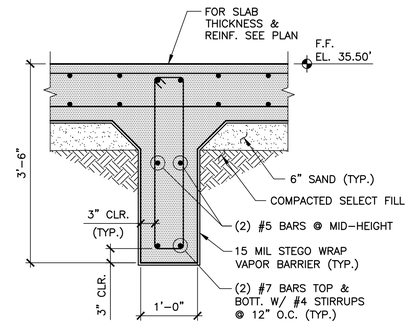


N

1 / S23 STORAGE TANK NO. 1 ELECTRICAL BUILDING FOUNDATION PLAN
SCALE: 3/8" = 1'-0"



A / S23 SECTION AT PERIMETER BEAM
SCALE: 3/4" = 1'-0"



B / S23 SECTION AT INTERIOR BEAM
SCALE: 3/4" = 1'-0"

NOTES:

1. CONTRACTOR SHALL CONSTRUCT THE FOUNDATION SO THAT THE FLOOR SHALL BE TRUE AND LEVEL TO A MAXIMUM TOLERANCE OF 1/8" IN 10 FEET.
2. OMIT LEDGE AT DOOR OPENINGS. REFER TO BUILDING DRAWINGS.

NO.	DATE	REVISION	APP.

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APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

STORAGE TANK NO. 1 ELECTRICAL BUILDING FOUNDATION

WBS NUMBER
S-001000-0035-4

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE

WARNING
0 1
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CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

DWG NO
S23

SHEET NO. OF

PLOT STYLE: LNV-FS-2015-STRUCT.ctb PLOTTED: 1/19/2026 3:00 PM
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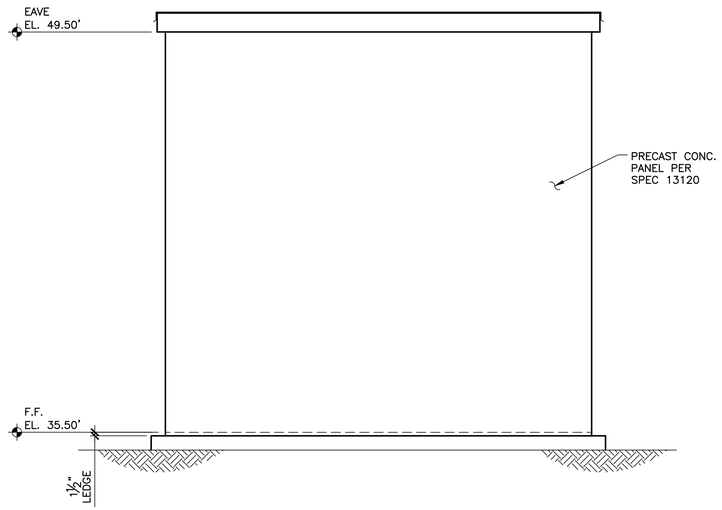
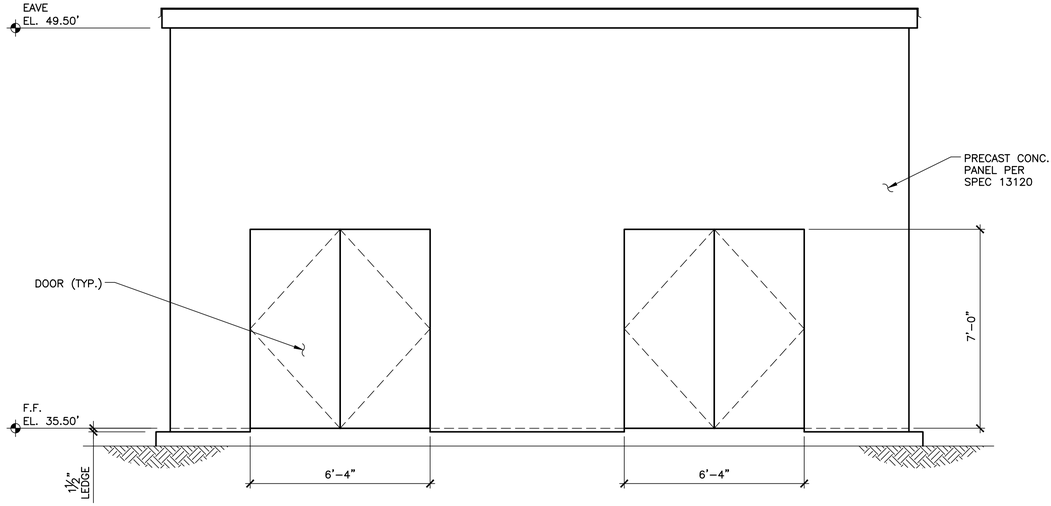


(LOOKING NORTH)

A S24 SOUTH EXTERIOR ELEVATION AT STORAGE TANK NO. 1 ELECTRICAL BUILDING

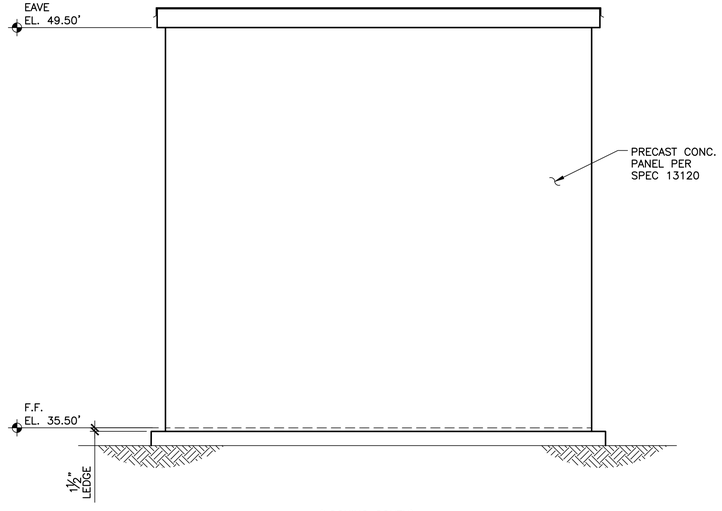
SCALE: 3/8" = 1'-0"



(LOOKING EAST)

B S24 WEST EXTERIOR ELEVATION AT STORAGE TANK NO. 1 ELECTRICAL BUILDING

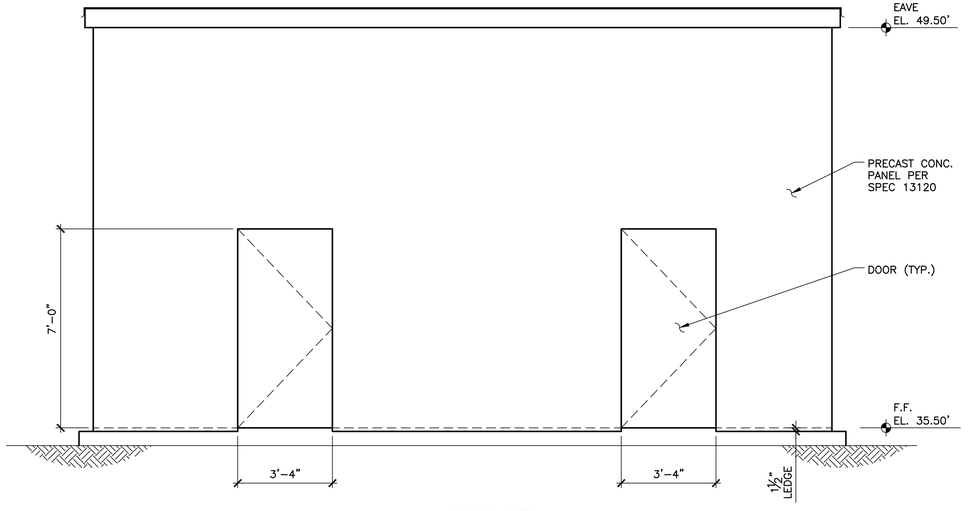
SCALE: 3/8" = 1'-0"



(LOOKING SOUTH)

C S24 NORTH EXTERIOR ELEVATION AT STORAGE TANK NO. 1 ELECTRICAL BUILDING

SCALE: 3/8" = 1'-0"



(LOOKING WEST)

D S24 EAST EXTERIOR ELEVATION AT STORAGE TANK NO. 1 ELECTRICAL BUILDING

SCALE: 3/8" = 1'-0"

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DATE: 2/27/2025

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APPROVED BY:

SURVEYED BY:
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

STORAGE TANK NO. 1 ELECTRICAL BUILDING EXTERIOR ELEVATIONS

WARNING
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DWG NO
S24

WBS NUMBER
S-001000-0035-4

DRAWING SCALE

CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

SHEET NO. OF

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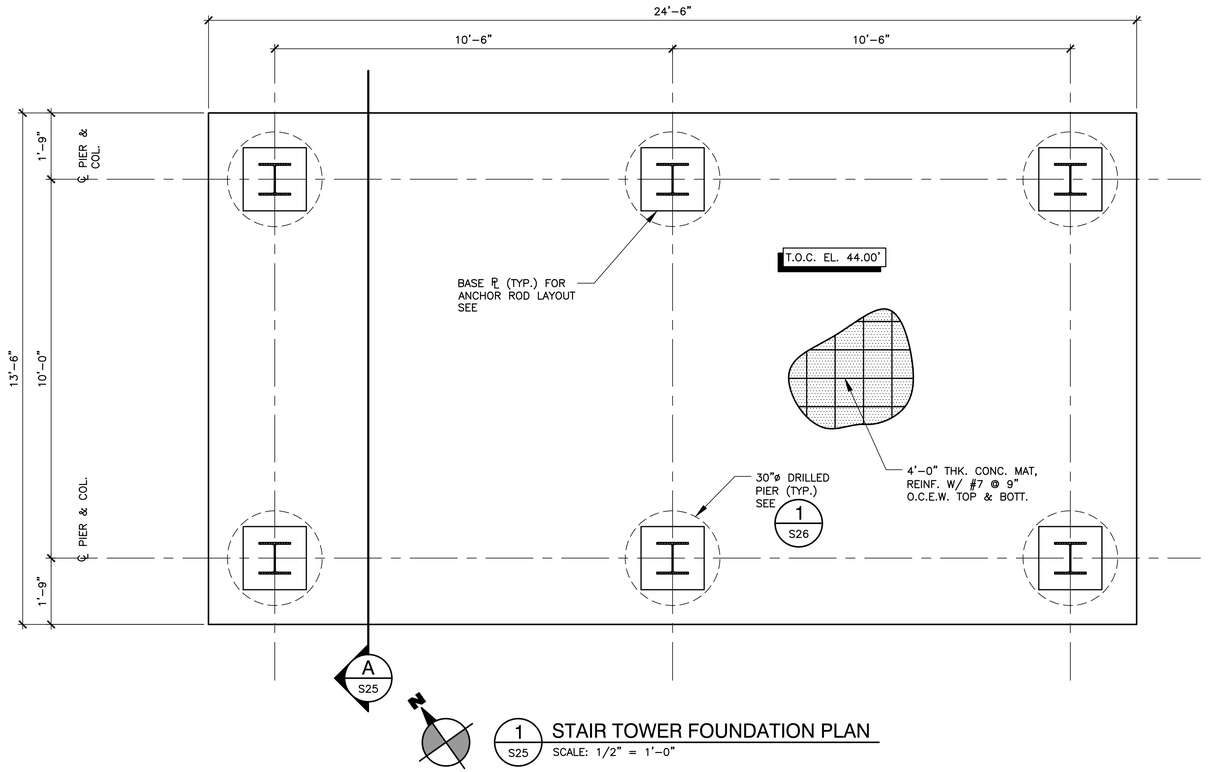
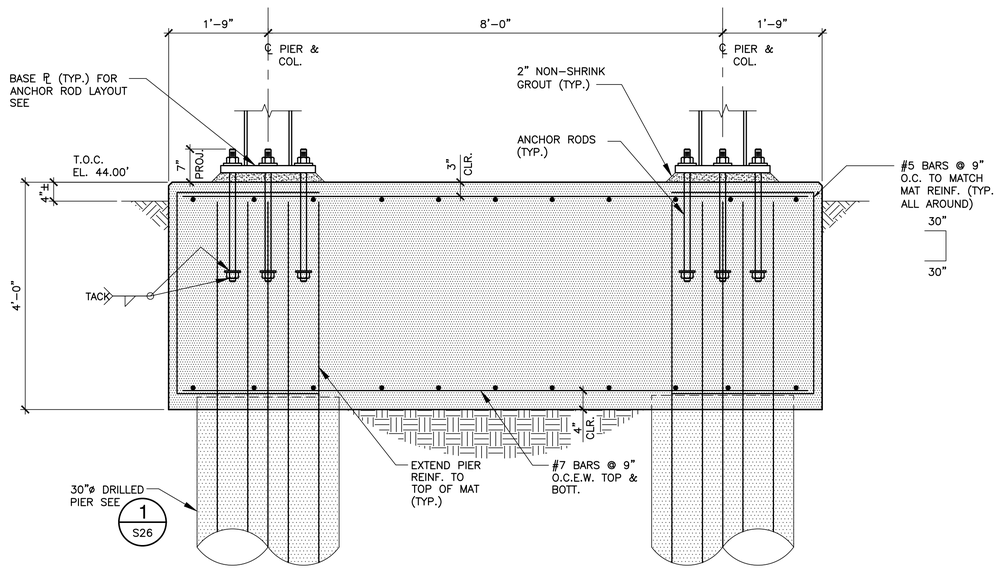


1/S25 STAIR TOWER FOUNDATION PLAN
SCALE: 1/2" = 1'-0"



A/S25 FOUNDATION SECTION
SCALE: 3/4" = 1'-0"

NO.	DATE	REVISION	APP.

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APPROVED BY:

SURVEYED BY:
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

STAIR TOWER FOUNDATION PLAN & SECTION

WARNING
0 1
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DWG NO
S25

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S-001000-0035-4	
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CITY OF HOUSTON PM	
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SHEET NO. OF	

PLOT STYLE: LNV-FS-2015-STRUCT.ctb PLOTTED: 1/19/2026 3:00 PM

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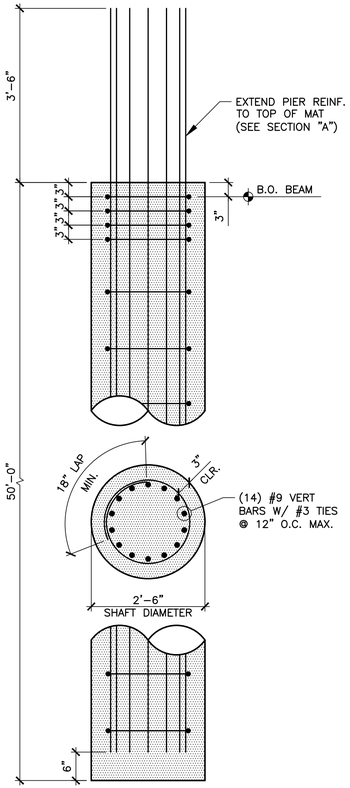

1 / S26 DRILLED PIER DETAIL

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

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24–inch FM Installation, and Scott Street Storage Tank No. 1

STAIR TOWER FOUNDATION DETAILS

WARNING
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DWG NO
S26

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S–001000–0035–4	
DRAWING SCALE	
CITY OF HOUSTON PM	
MEGAN R. JORDAN, P.E.	
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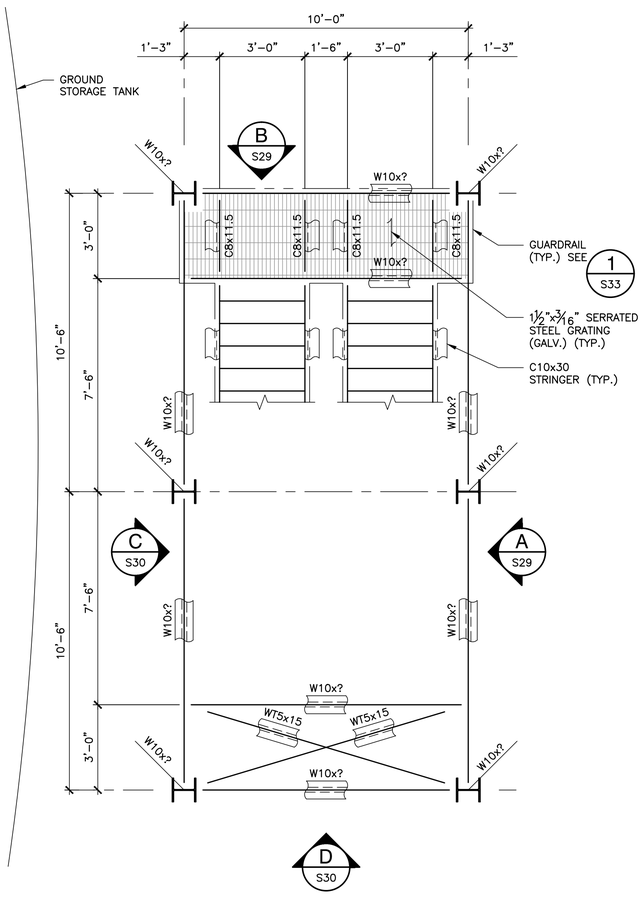
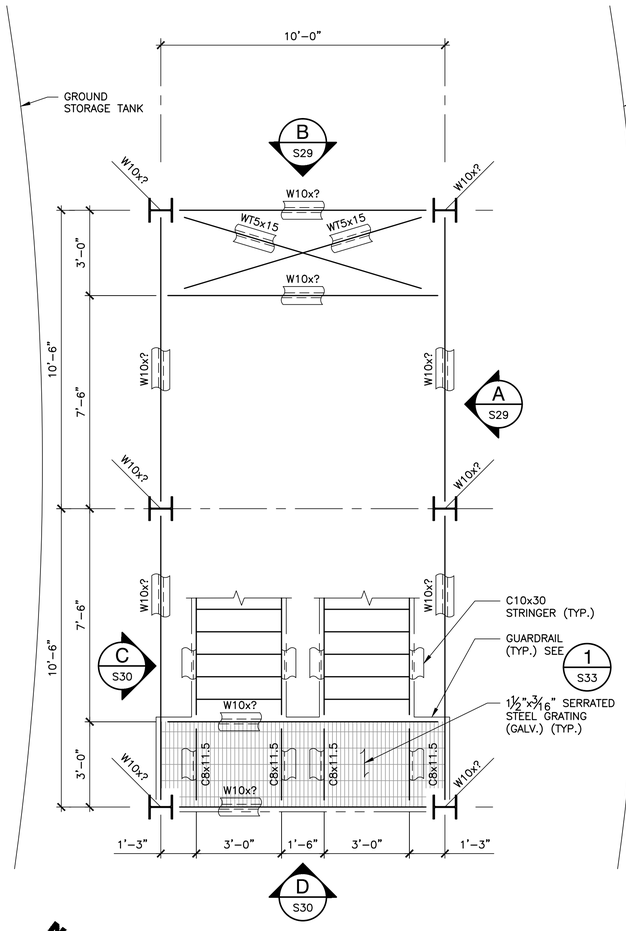
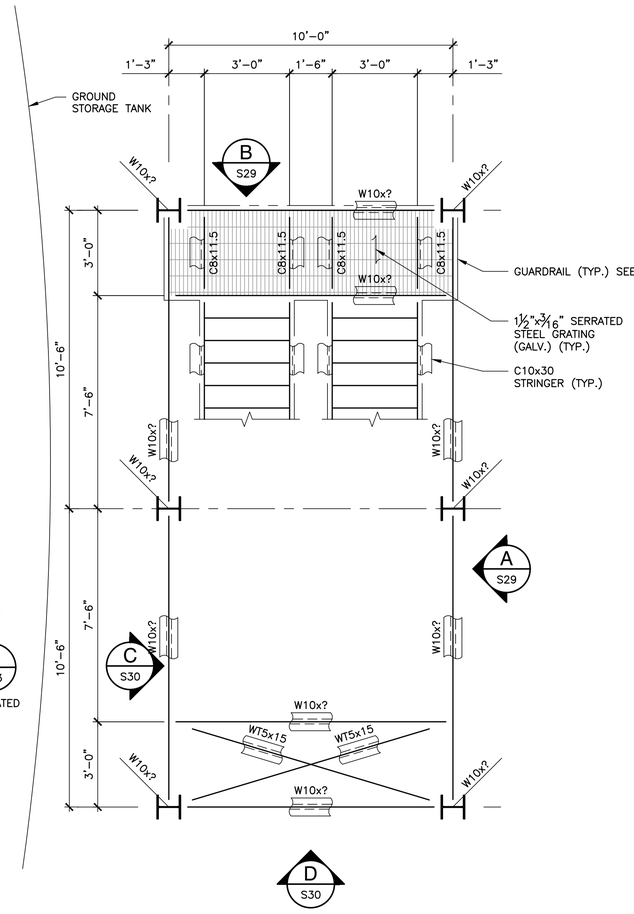


1 S27 STEEL FRAMING PLAN AT ELEV. 56.0'
SCALE: 3/8" = 1'-0"



2 S27 STEEL FRAMING PLAN AT ELEV. 68.0'
SCALE: 3/8" = 1'-0"



3 S27 STEEL FRAMING PLAN AT ELEV. 80.0'
SCALE: 3/8" = 1'-0"

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3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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NICLAS S. GREEN
TEXAS P.E. NO. 126232
DATE: 2/27/2025

DESIGNED BY:	SURVEYED BY:
DRAWN BY:	FB NO. N/A
CHECKED BY:	
REVIEWED BY:	
APPROVED BY:	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

STAIR TOWER STEEL FRAMING PLANS I

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-001000-0035-4	
DRAWING SCALE	
CITY OF HOUSTON PM	
MEGAN R. JORDAN, P.E.	
SHEET NO. OF	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S27

PLOT STYLE: LNV-FS-2015-STRUCT.ctb PLOTTED: 1/19/2026 3:00 PM
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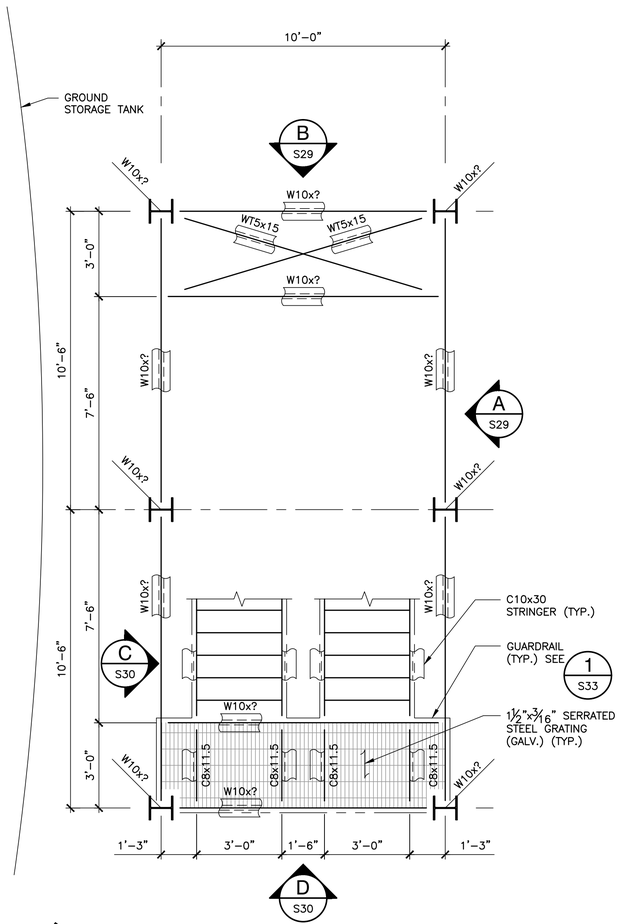
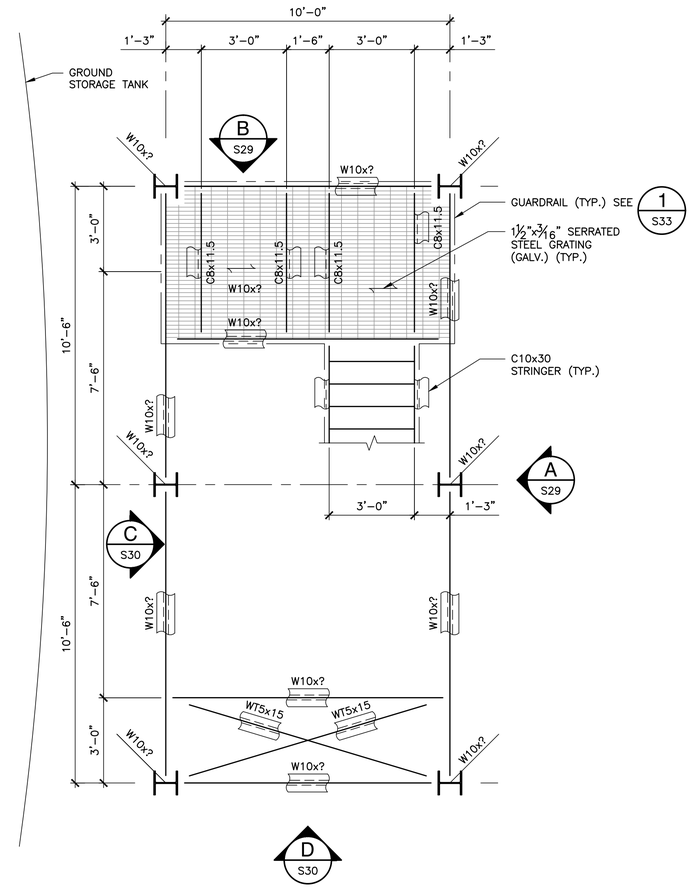


1 S28 STEEL FRAMING PLAN AT ELEV. 92.0'
SCALE: 3/8" = 1'–0"



2 S28 STEEL FRAMING PLAN AT ELEV. 102.0'
SCALE: 3/8" = 1'–0"

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REVIEWED BY:
APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24–inch FM Installation, and Scott Street Storage Tank No. 1

STAIR TOWER STEEL FRAMING PLANS II

WARNING
0 1
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DWG NO
S28

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
CITY OF HOUSTON PM	
MEGAN R. JORDAN, P.E.	
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PLOT STYLE: LNV–FS–2015–STRUCT.ctb PLOTTED: 1/19/2026 3:00 PM
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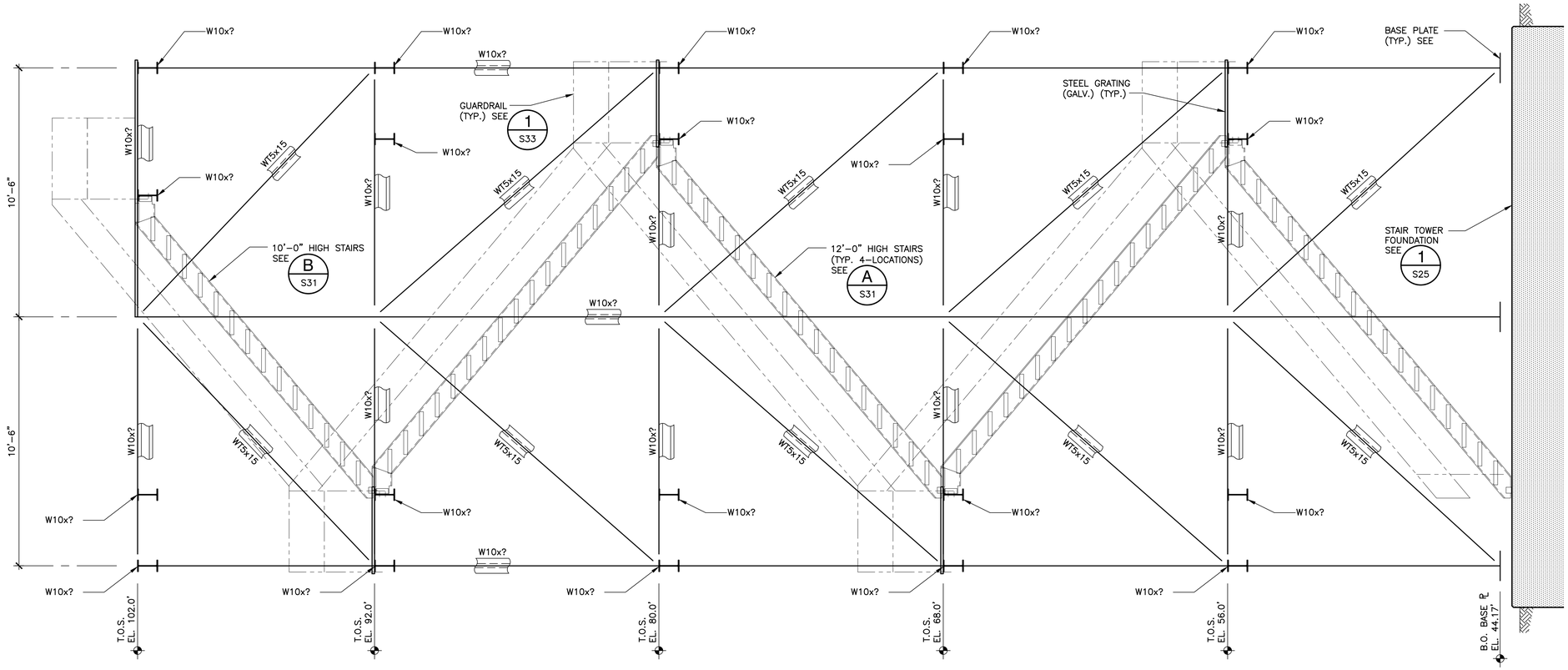
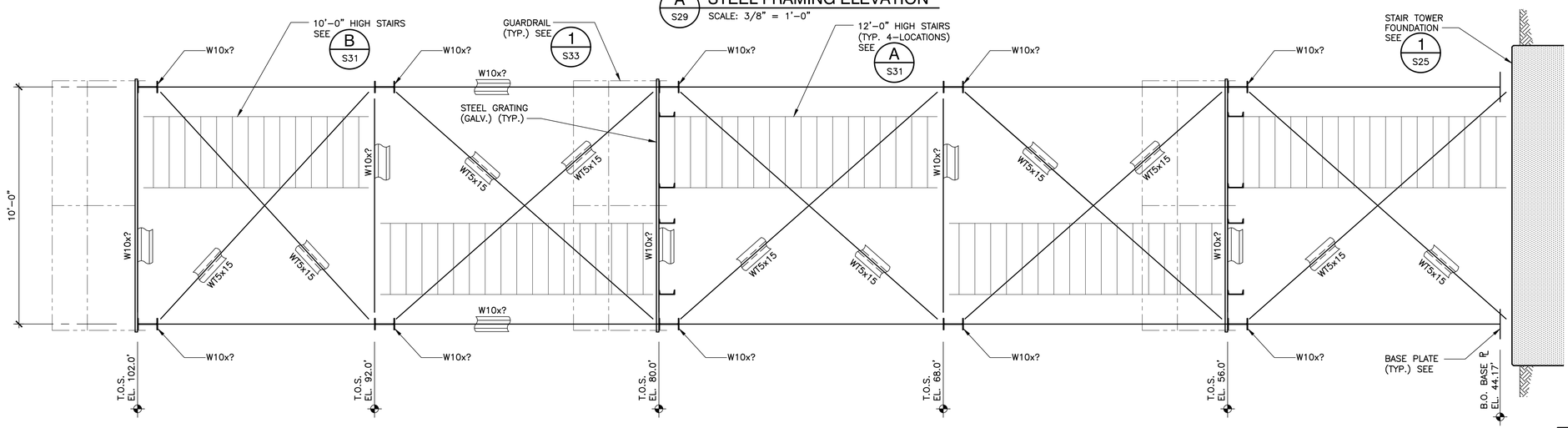


A STEEL FRAMING ELEVATION
S29 SCALE: 3/8" = 1'-0"



B STEEL FRAMING ELEVATION
S29 SCALE: 3/8" = 1'-0"

NOTE:
STRUCTURE SHOWN ROTATED ON SHEET FOR CLARITY

WARNING
0 1
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S29

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TEXAS P.E. NO. 126232
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DRAWN BY:
CHECKED BY:
REVIEWED BY:
APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

STAIR TOWER STEEL FRAMING ELEVATIONS I

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-001000-0035-4	
DRAWING SCALE	
CITY OF HOUSTON PM	
MEGAN R. JORDAN, P.E.	
SHEET NO. OF	

PLOT STYLE: LNV-FS-2015-STRUCT.ctb PLOTTED: 1/19/2026 3:01 PM
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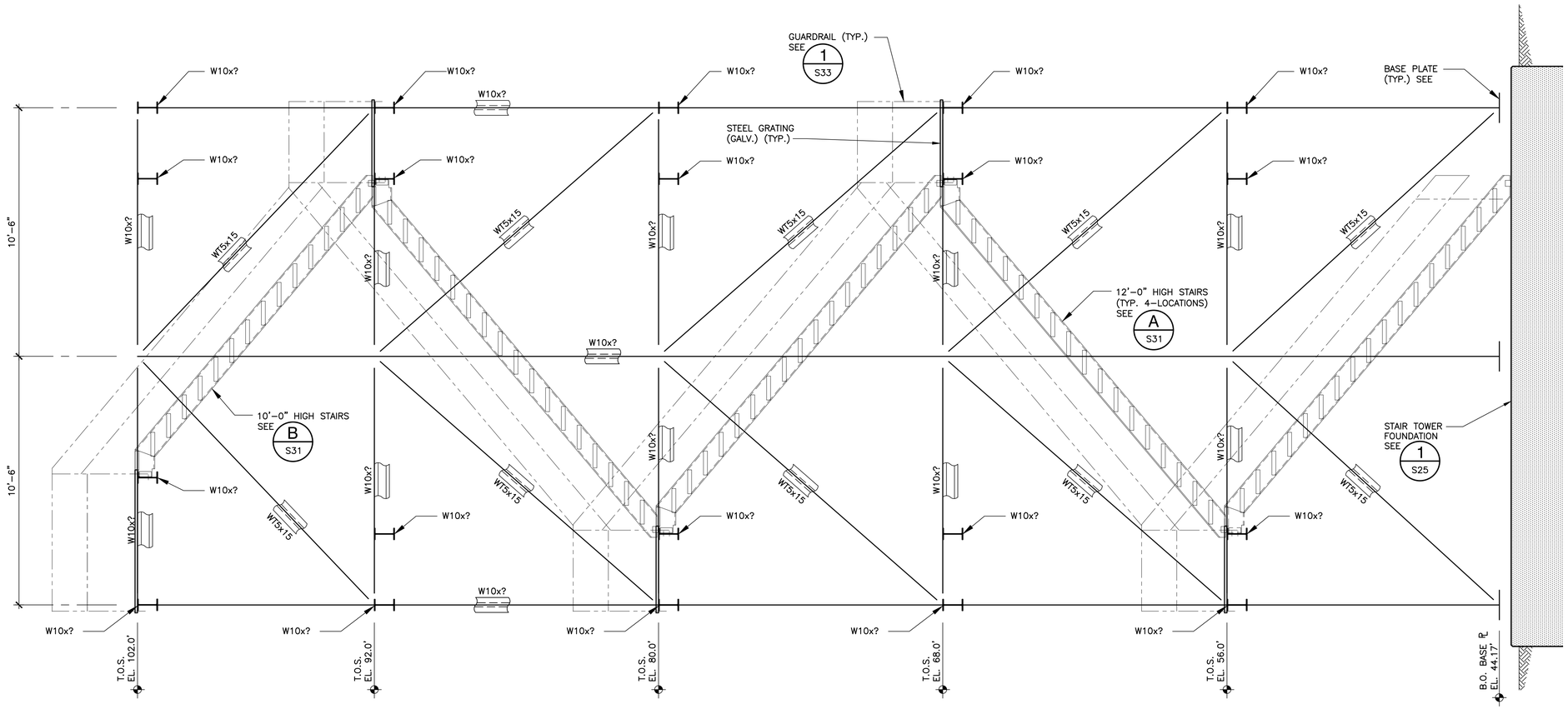
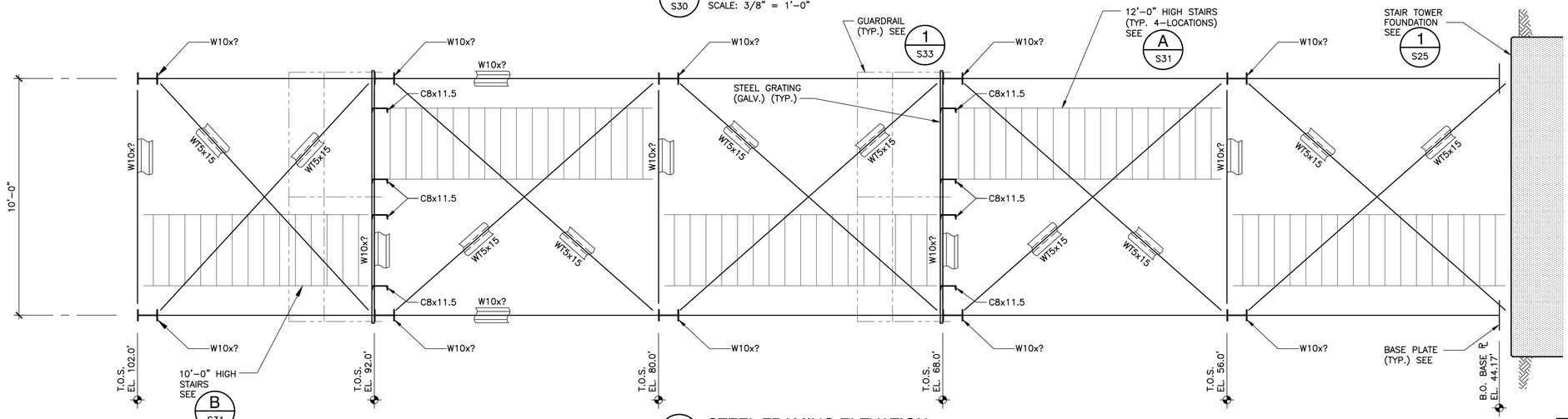


C S30 STEEL FRAMING ELEVATION
SCALE: 3/8" = 1'-0"



D S30 STEEL FRAMING ELEVATION
SCALE: 3/8" = 1'-0"

NOTE:
STRUCTURE SHOWN ROTATED ON SHEET FOR CLARITY

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S30

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DATE: 2/27/2025

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REVIEWED BY: _____
APPROVED BY: _____

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

STAIR TOWER STEEL FRAMING ELEVATIONS II

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DRAWING SCALE	
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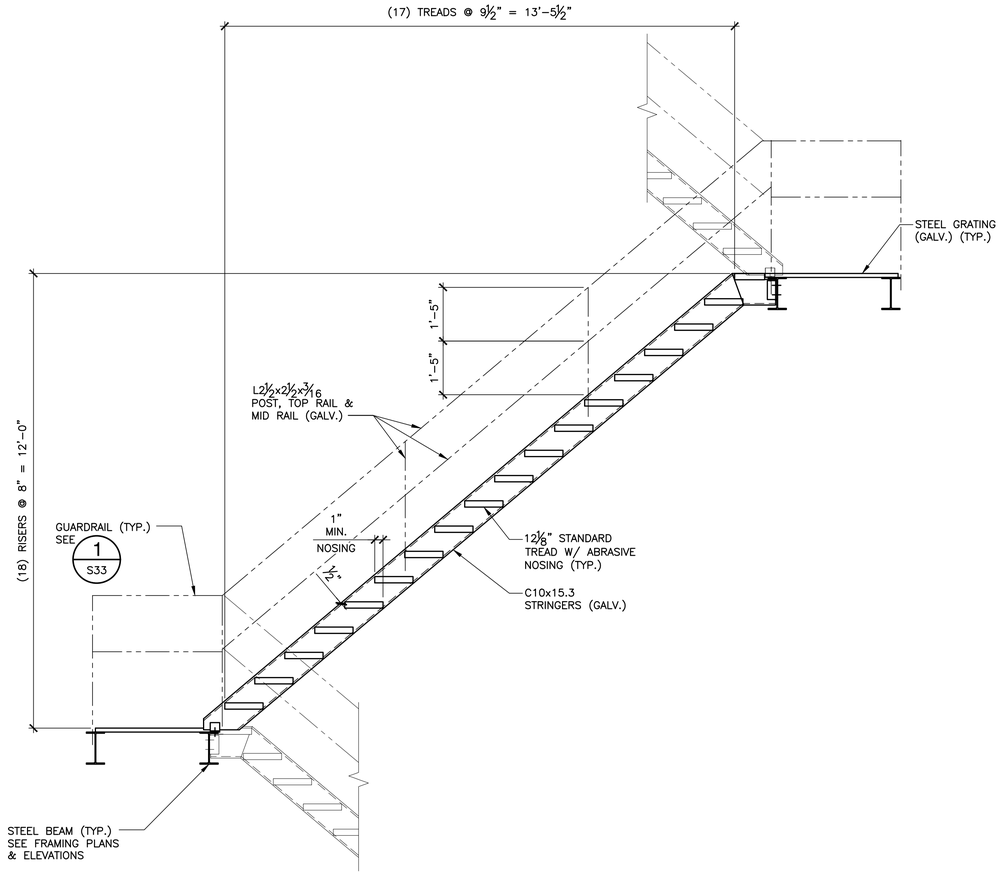
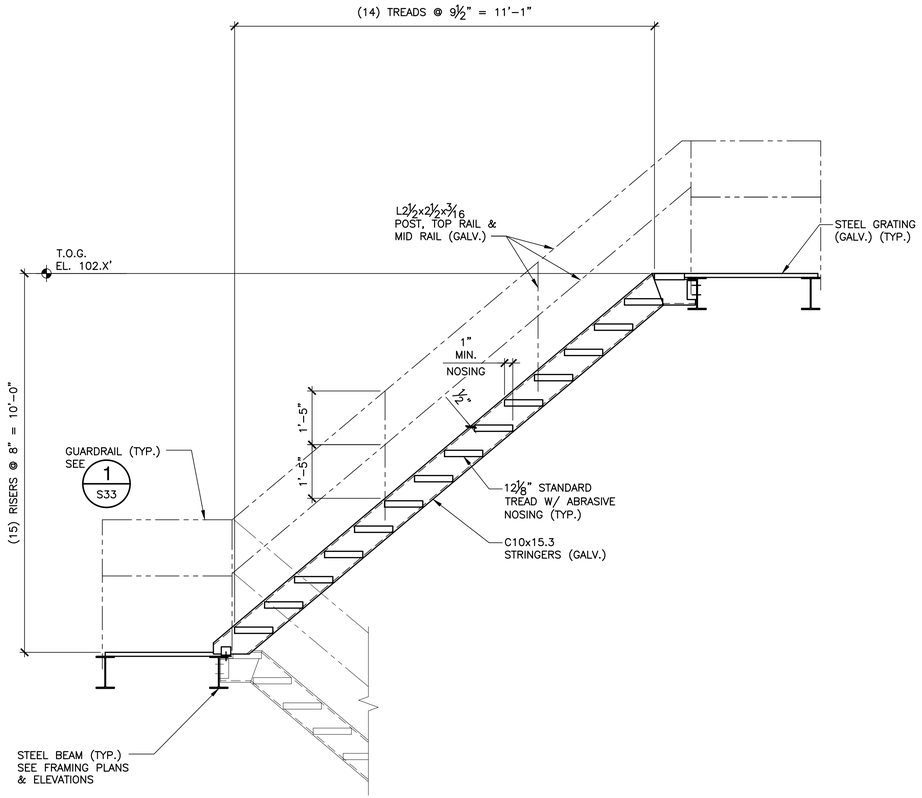


A S31 STAIR FRAMING SECTION (12'-0" HIGH)
SCALE: 1/2" = 1'-0"



B S31 STAIR FRAMING SECTION (10'-0" HIGH)
SCALE: 1/2" = 1'-0"

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

STAIR TOWER STAIR SECTIONS

WARNING
0 1
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DWG NO
S31

WBS NUMBER
S-001000-0035-4

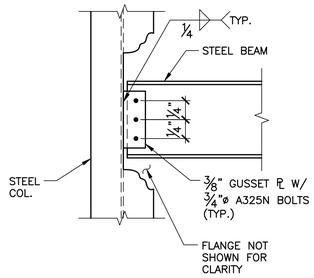
DRAWING SCALE

CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

SHEET NO. OF

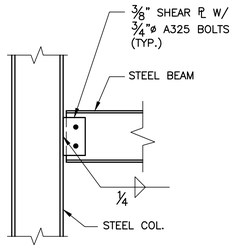
FOR CITY OF HOUSTON USE ONLY

FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\STAIR TOWER STAIR SECTIONS.dwg



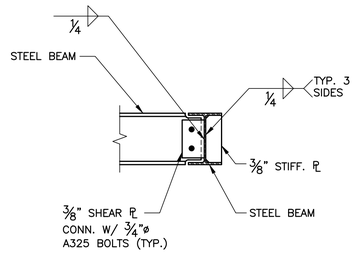
1 S32 SHEAR CONNECTION AT COLUMN WEB

N.T.S.



2 S32 SHEAR CONNECTION TO COLUMN FLANGE DETAIL

N.T.S.



3 S32 BEAM TO BEAM SHEAR CONNECTION DETAIL

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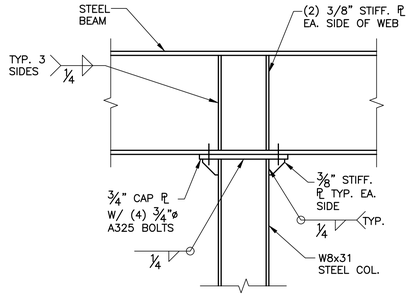

4 S32 BEAM TO COLUMN DETAIL

N.T.S.

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TEXAS P.E. NO. 126232
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APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24–inch FM Installation, and Scott Street Storage Tank No. 1

STAIR TOWER
STEEL DETAILS I

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S32

WBS NUMBER
S–001000–0035–4

DRAWING SCALE

CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

SHEET NO. OF

FOR CITY OF HOUSTON USE ONLY

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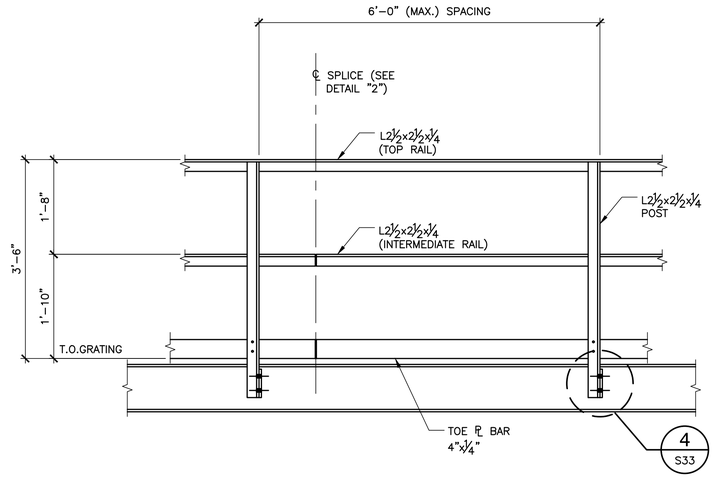
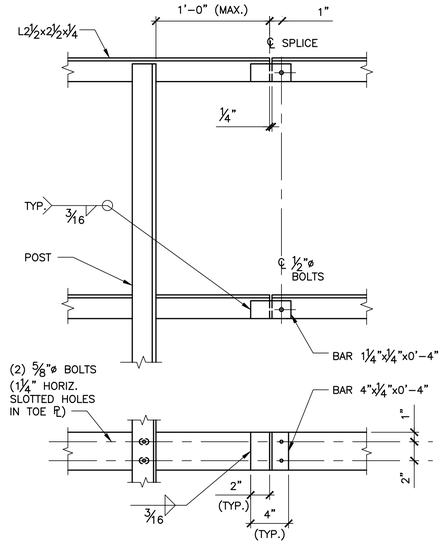
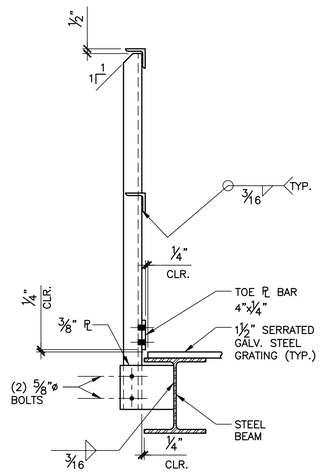


ELEVATION

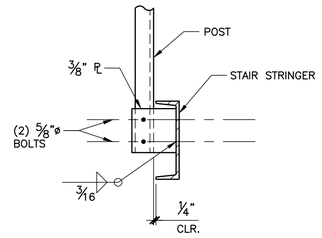
1 S33 **FIXED GUARDRAIL ELEVATION**
N.T.S.



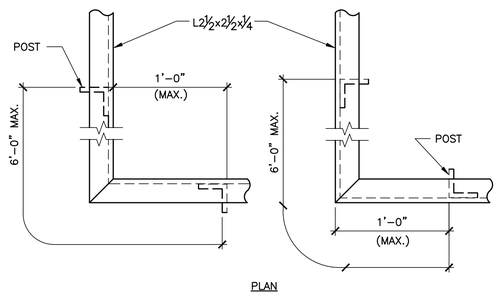
2 S33 **GUARDRAIL SPLICE**
N.T.S.



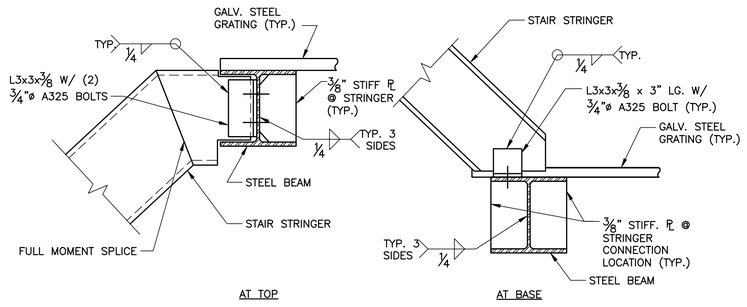
3 S33 **FIXED GUARDRAIL DETAIL**
N.T.S.



4 S33 **STAIR HANDRAIL DETAIL**
N.T.S.



5 S33 **CORNER DETAILS**
N.T.S.



6 S33 **STRINGER CONNECTIONS**
N.T.S.

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REVIEWED BY:
APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

STAIR TOWER STEEL DETAILS II

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S33

WBS NUMBER
S-001000-0035-4

DRAWING SCALE

CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

SHEET NO. OF

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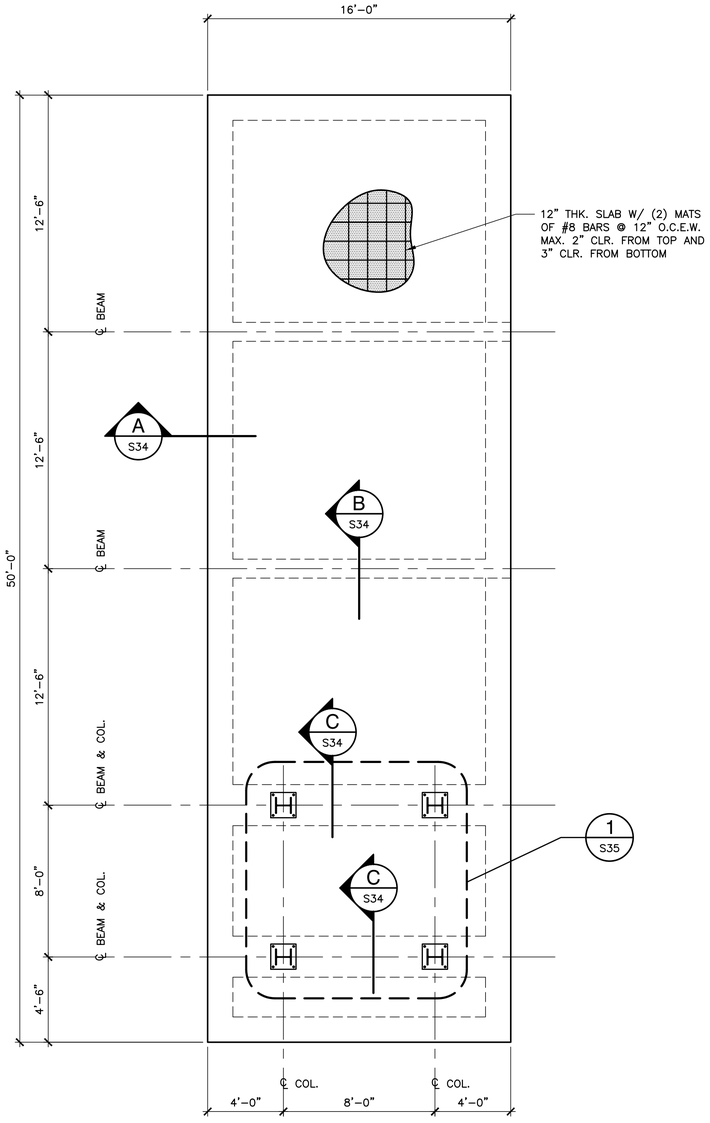
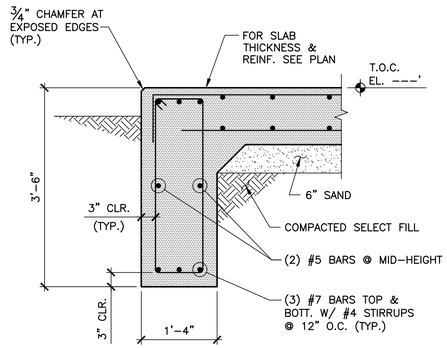
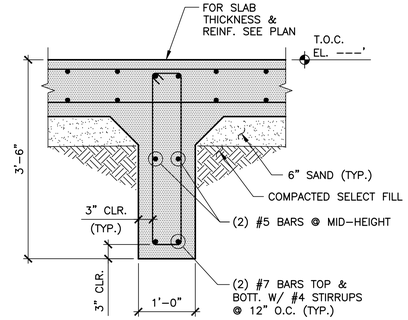


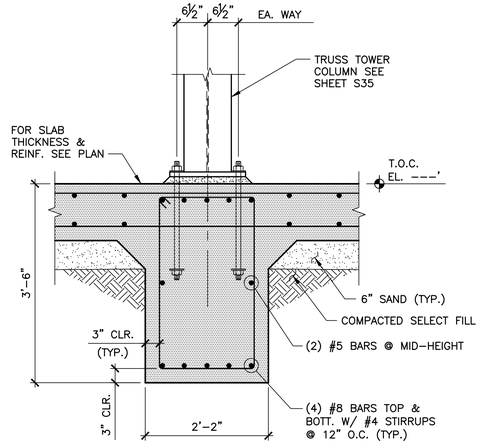
1 S34 ODOR CONTROL UNIT FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



A S34 SECTION AT PERIMETER BEAM
SCALE: 3/4" = 1'-0"



B S34 SECTION AT INTERIOR BEAM
SCALE: 3/4" = 1'-0"



C S34 SECTION AT INTERIOR BEAM W/ COLUMN
SCALE: 3/4" = 1'-0"

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DATE: 2/27/2025

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DRAWN BY:
CHECKED BY:
REVIEWED BY:
APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

ODOR CONTROL UNIT AND UTILITY TRUSS FOUNDATION PLAN

WBS NUMBER
S-001000-0035-4

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE

CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

SHEET NO. OF

WARNING
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S34

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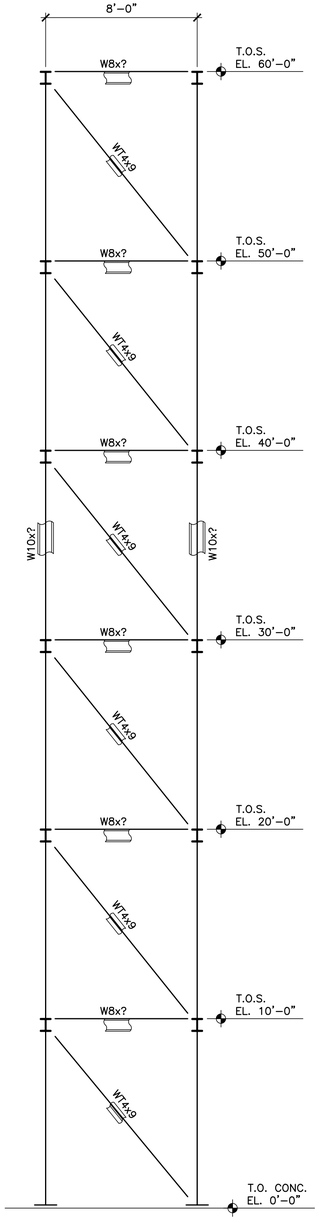
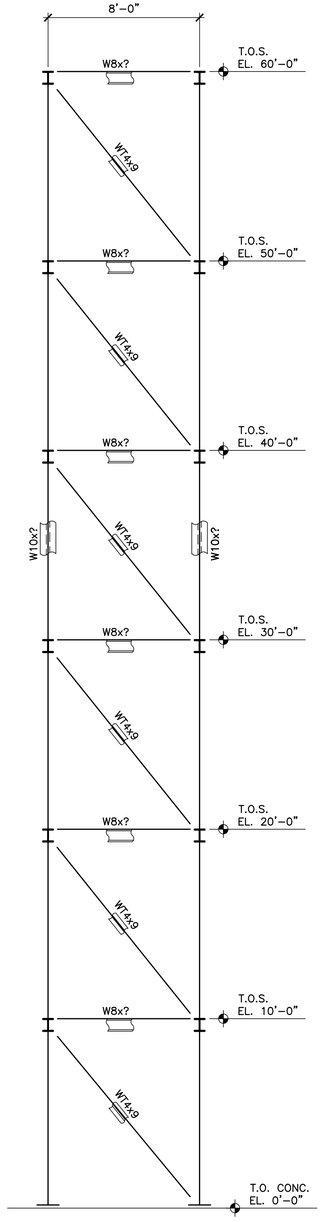
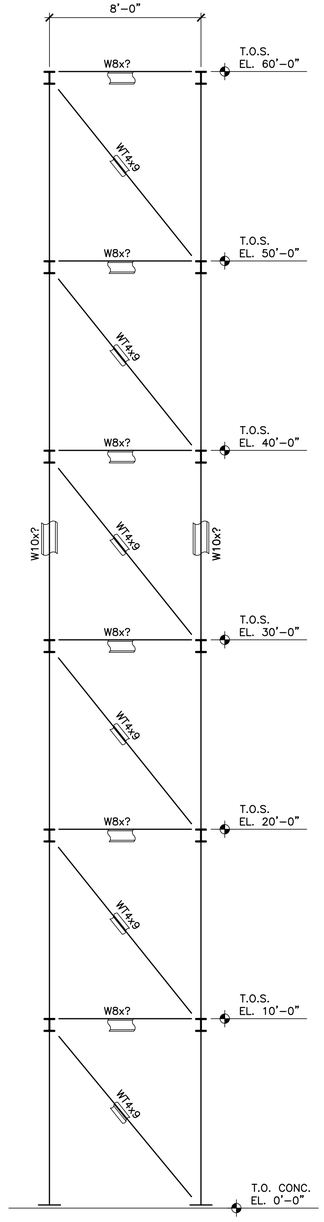


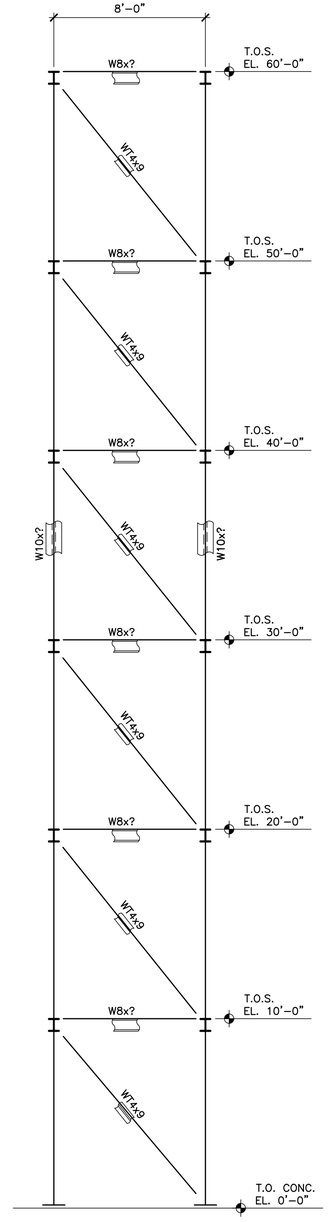
A S35 NORTH ELEVATION
SCALE: 1/4" = 1'-0"



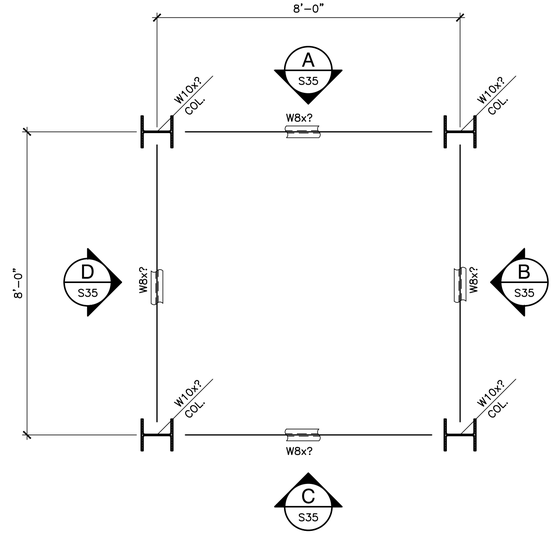
B S35 EAST ELEVATION
SCALE: 1/4" = 1'-0"



C S35 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



D S35 WEST ELEVATION
SCALE: 1/4" = 1'-0"



N

1 S35 UTILITY TRUSS FRAMING PLAN
SCALE: 1/2" = 1'-0"

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REVIEWED BY:
APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

UTILITY TRUSS STEEL FRAMING PLAN, SECTIONS & DETAILS

WARNING
0 1
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DWG NO
S35

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-001000-0035-4	
DRAWING SCALE	
CITY OF HOUSTON PM	
MEGAN R. JORDAN, P.E.	
SHEET NO. OF	

PLOT STYLE: LNV-FS-2015-STRUCT.CTB PLOTTED: 1/19/2026 3:01 PM
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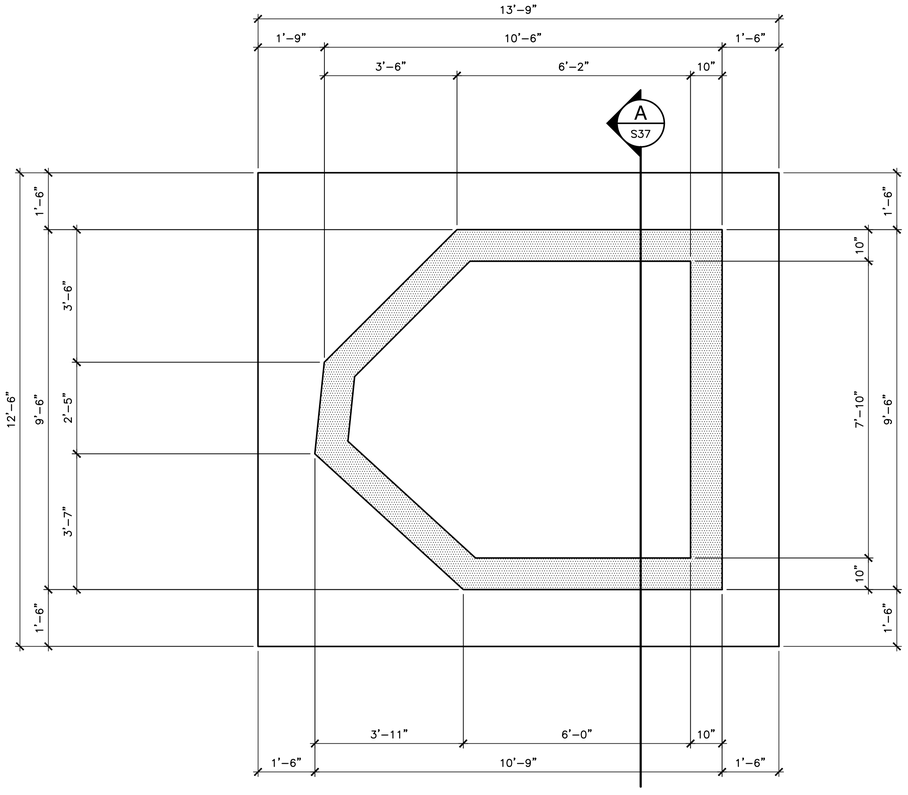
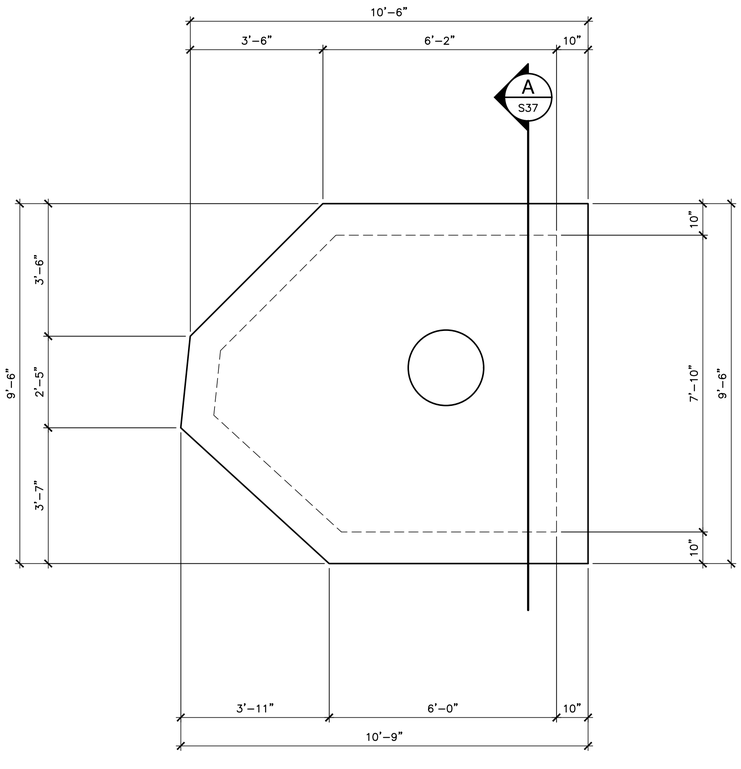


1 S36 INTERCEPTOR BOX BOTTOM PLAN
SCALE: 1/4" = 1'–0"



2 S36 INTERCEPTOR BOX TOP PLAN
SCALE: 1/4" = 1'–0"

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
NICLAS S. GREEN
TEXAS P.E. NO. 126232
DATE: 2/27/2025

DESIGNED BY:
DRAWN BY:
CHECKED BY:
REVIEWED BY:
APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24–inch FM Installation, and Scott Street Storage Tank No. 1

INTERCEPTOR BOX PLANS

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S36

WBS NUMBER
S–001000–0035–4

DRAWING SCALE

CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

SHEET NO. OF

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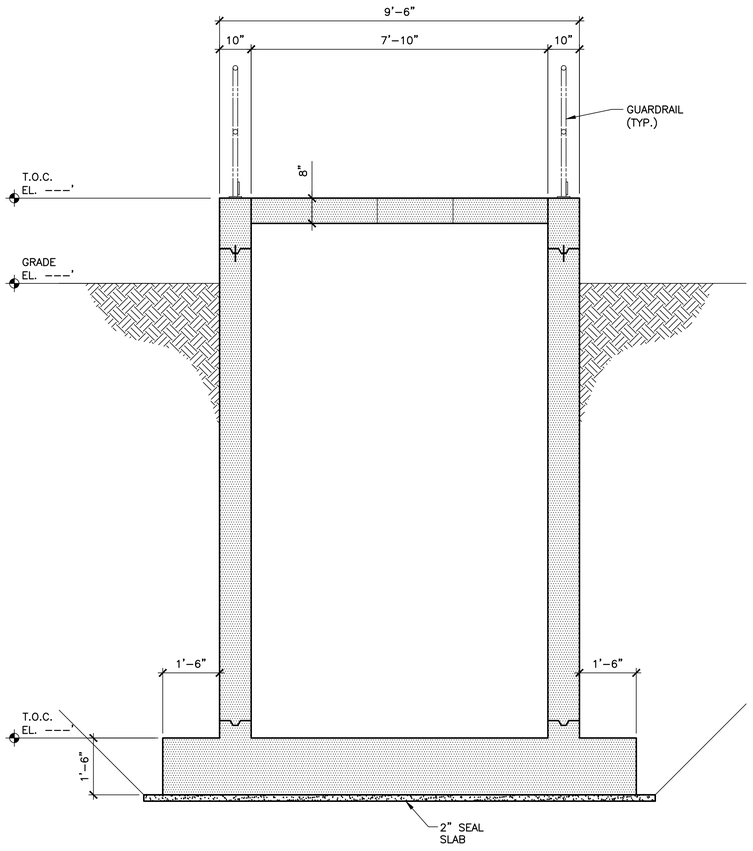
FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\INTERCEPTOR BOX PLANS.dwg



A / S37 SECTION AT INTERCEPTOR

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

NO.	DATE	REVISION	APP.

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3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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APPROVED BY: _____

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

INTERCEPTOR BOX SECTION

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S37

WBS NUMBER
S-001000-0035-4

DRAWING SCALE

CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

SHEET NO. OF

FOR CITY OF HOUSTON USE ONLY

PLOT STYLE: LNV-FS-2015-STRUCT.ctb PLOTTED: 1/19/2026 3:01 PM

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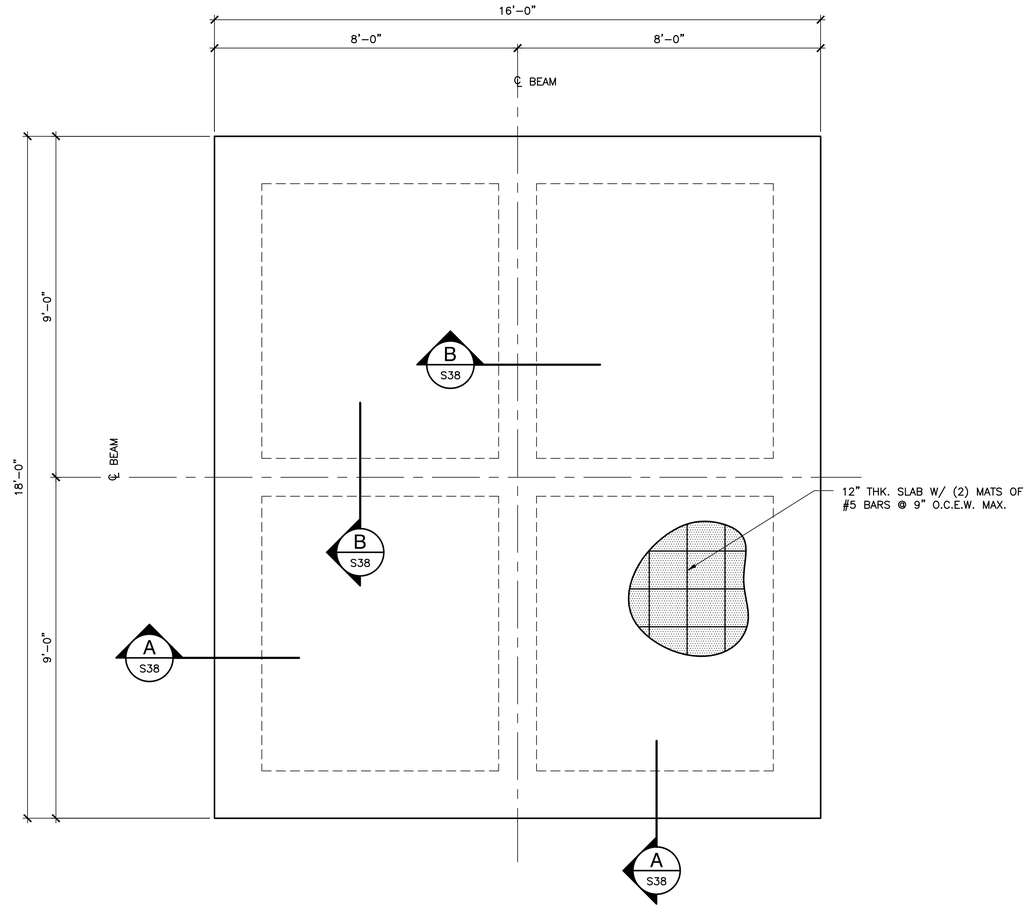
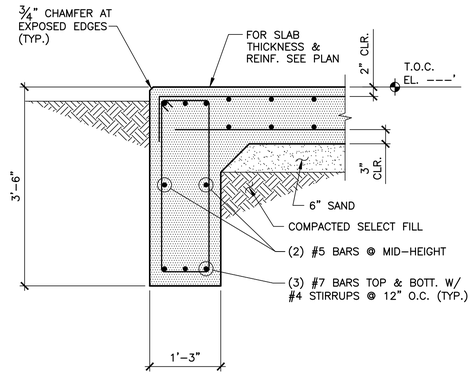
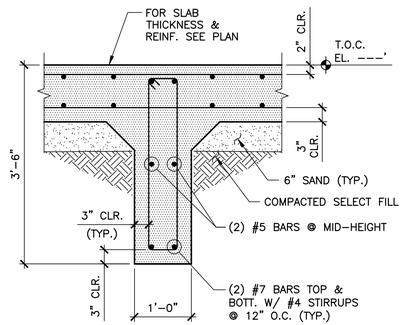


1 S38 MIXING RECIRCULATION PUMPS 1 & 2 FOUNDATION PLAN
SCALE: 1/2" = 1'-0"



A S38 SECTION AT PERIMETER BEAM
SCALE: 3/4" = 1'-0"



B S38 SECTION AT INTERIOR BEAM
SCALE: 3/4" = 1'-0"

NO.	DATE	REVISION	APP.

ARDURRA
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NICLAS S. GREEN
TEXAS P.E. NO. 126232
DATE: 2/27/2025

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DRAWN BY:
CHECKED BY:
REVIEWED BY:
APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station,
24-inch FM Installation,
and Scott Street Storage
Tank No. 1

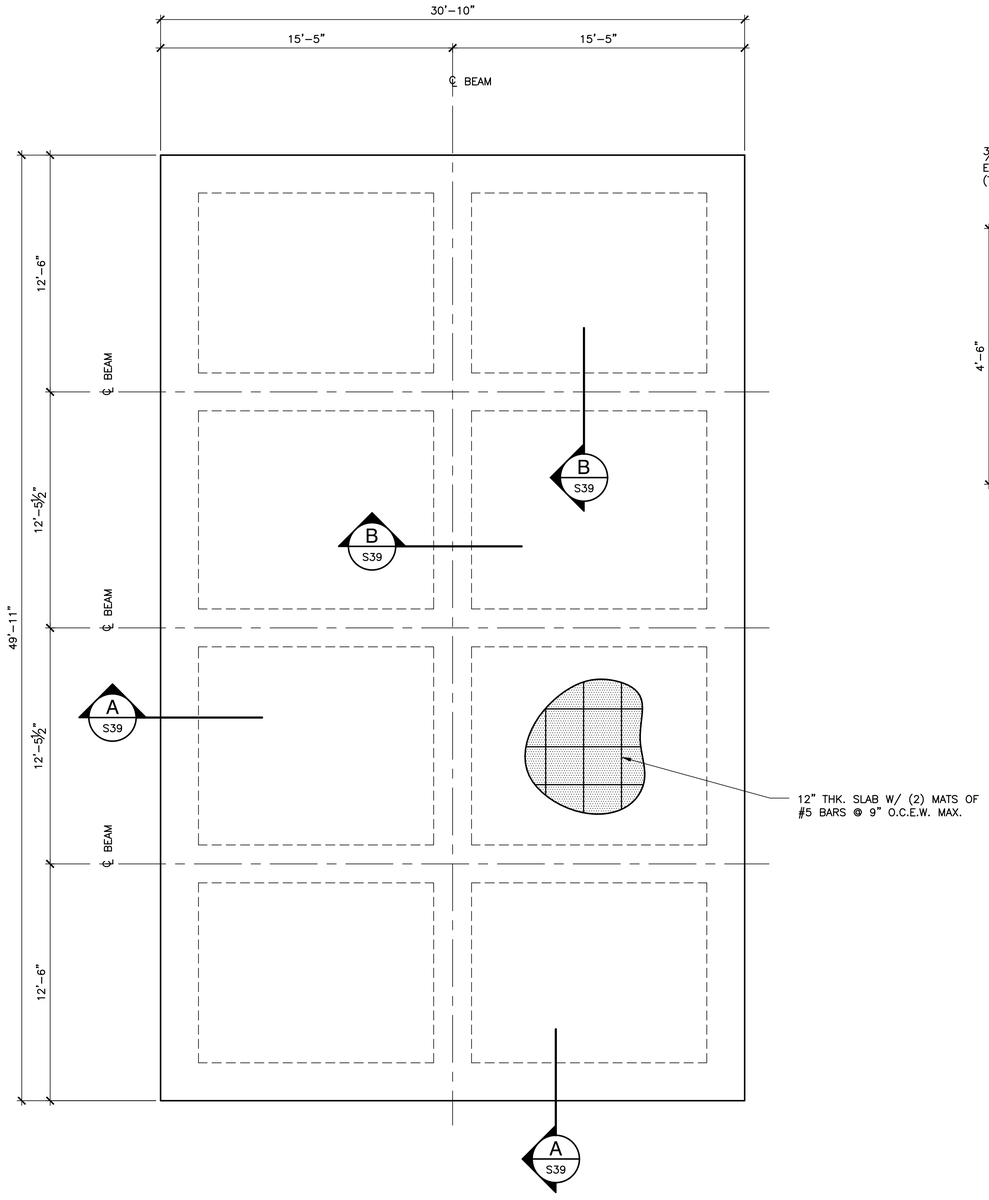
MIXING RECIRCULATION
PUMPS 1 & 2

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

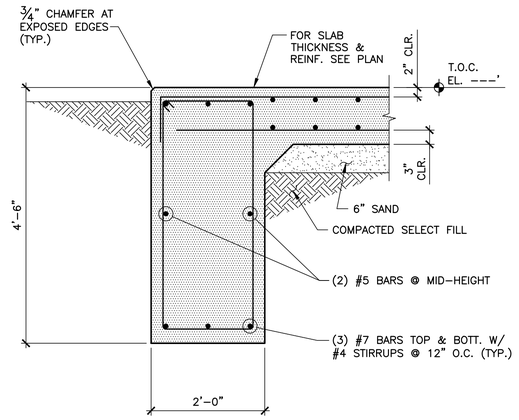
DWG NO
S38

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-001000-0035-4	
DRAWING SCALE	
CITY OF HOUSTON PM	
MEGAN R. JORDAN, P.E.	
SHEET NO. OF	

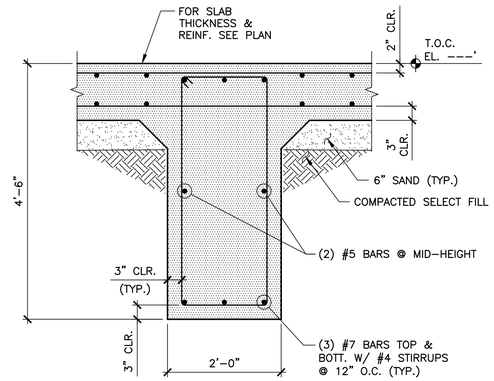
PLOT STYLE: LNV-FS-2015-STRUCT.CTB PLOTTED: 1/19/2026 3:01 PM
FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\MIXING RECIRCULATION PUMPS 1 & 2.dwg



1 S39 GENERATOR PAD PLAN
SCALE: 1/2" = 1'–0"



A S39 SECTION AT PERIMETER BEAM
SCALE: 3/4" = 1'–0"



B S39 SECTION AT INTERIOR BEAM
SCALE: 3/4" = 1'–0"

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TEXAS P.E. NO. 126232
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DRAWN BY:
CHECKED BY:
REVIEWED BY:
APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24–inch FM Installation, and Scott Street Storage Tank No. 1

GENERATOR PAD PLAN & SECTIONS

WBS NUMBER
S–001000–0035–4

DRAWING SCALE

CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

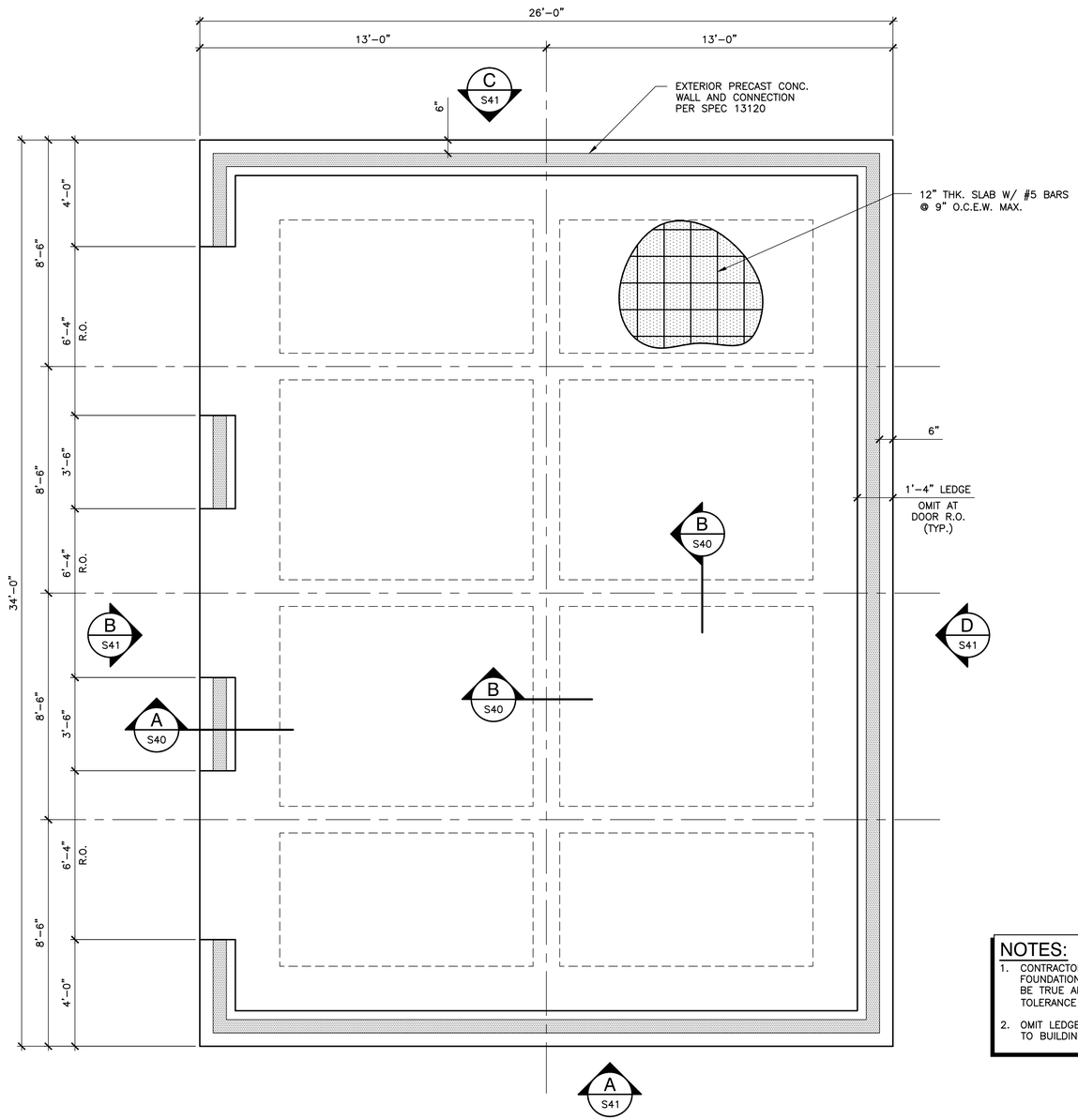
SHEET NO. OF

FOR CITY OF HOUSTON USE ONLY

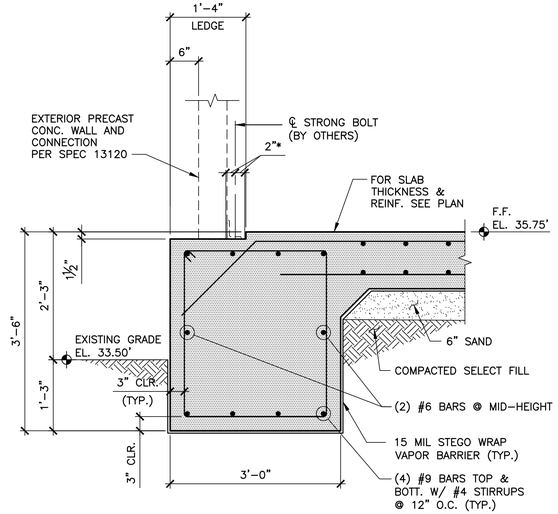
WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S39

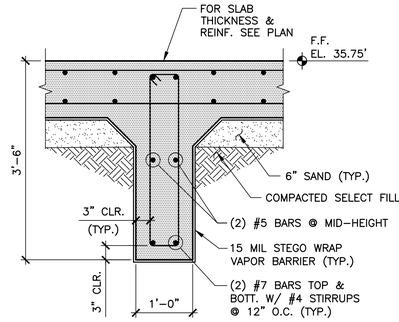
PLOT STYLE: LNV–FS–2015–STRUCT.ctb PLOTTED: 1/19/2026 3:02 PM
FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\GENERATOR PAD PLAN & SECTIONS.dwg



1 S40 WASHWATER PUMP STATION BUILDING FOUNDATION PLAN
SCALE: 3/8" = 1'-0"



A S40 SECTION AT PERIMETER BEAM
SCALE: 3/4" = 1'-0"



B S40 SECTION AT INTERIOR BEAM
SCALE: 3/4" = 1'-0"

NOTES:

1. CONTRACTOR SHALL CONSTRUCT THE FOUNDATION SO THAT THE FLOOR SHALL BE TRUE AND LEVEL TO A MAXIMUM TOLERANCE OF 1/8" IN 10 FEET.
2. OMIT LEDGE AT DOOR OPENINGS. REFER TO BUILDING DRAWINGS.

NO.	DATE	REVISION	APP.

ARDURRA
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Houston, Texas 77019
TBPE Firm Registration No. F-10053

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NICLAS S. GREEN
TEXAS P.E. NO. 126232
DATE: 2/27/2025

DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: _____
REVIEWED BY: _____
APPROVED BY: _____

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

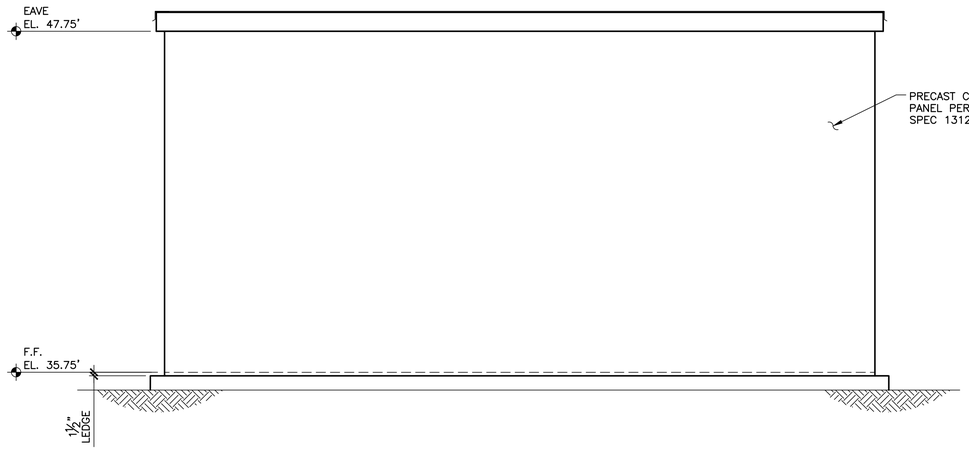
WASHWATER PUMP STATION BUILDING FOUNDATION

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S40

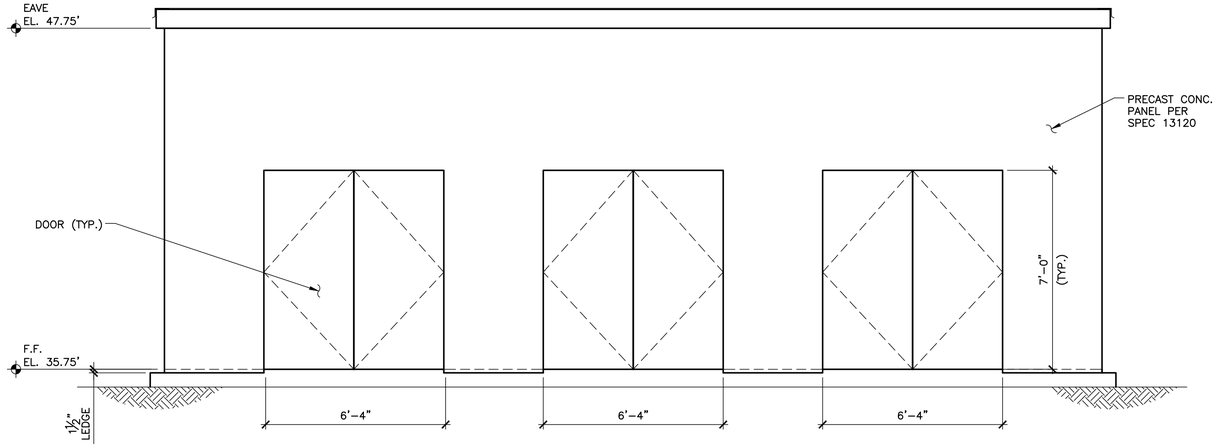
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-001000-0035-4	
DRAWING SCALE	
CITY OF HOUSTON PM	
MEGAN R. JORDAN, P.E.	
SHEET NO. OF	

PLOT STYLE: LNV-FS-2015-STRUCT.ctb PLOTTED: 1/19/2026 3:02 PM
FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\WASHWATER PUMP STATION BUILDING FOUNDATION.dwg



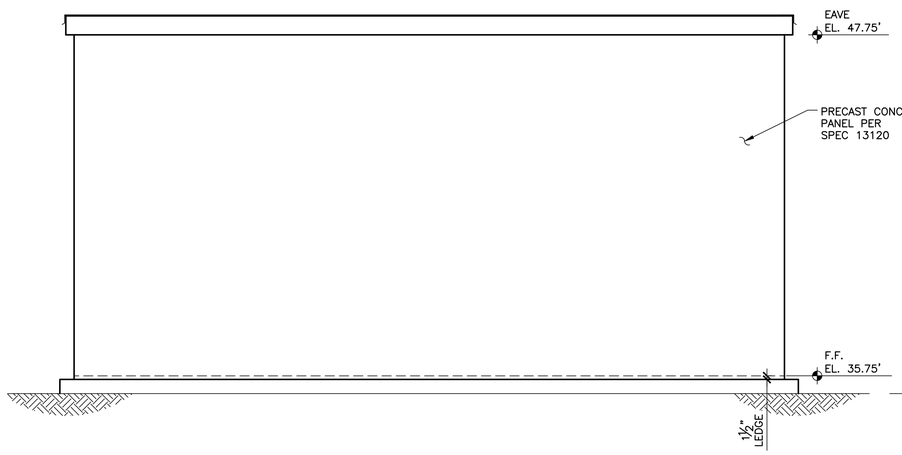
A S41 SOUTH EXTERIOR ELEVATION AT WASHWATER PUMP STATION BUILDING

SCALE: 3/8" = 1'-0"



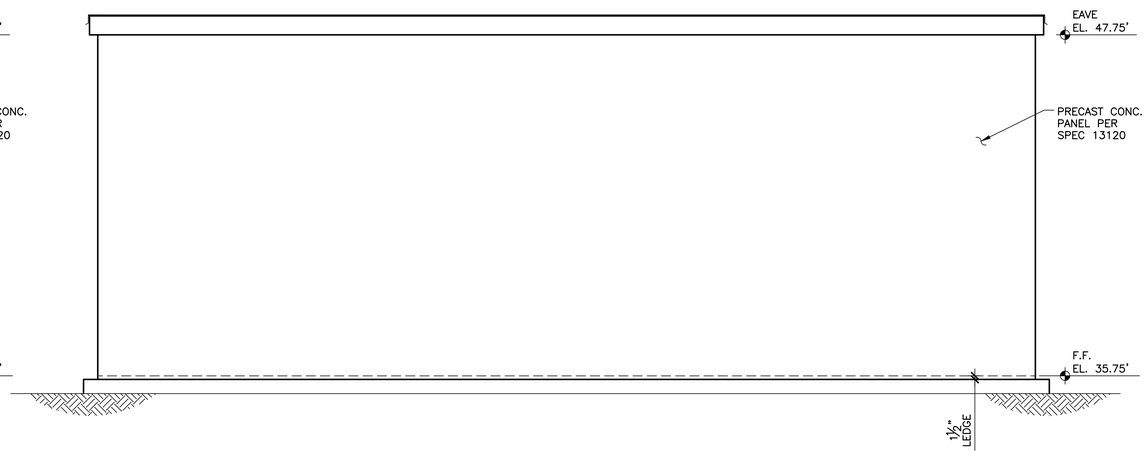
B S41 WEST EXTERIOR ELEVATION AT WASHWATER PUMP STATION BUILDING

SCALE: 3/8" = 1'-0"



C S41 NORTH EXTERIOR ELEVATION AT WASHWATER PUMP STATION BUILDING

SCALE: 3/8" = 1'-0"



D S41 EAST EXTERIOR ELEVATION AT WASHWATER PUMP STATION BUILDING

SCALE: 3/8" = 1'-0"

NO.	DATE	REVISION	APP.

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Houston, Texas 77019
TBPE Firm Registration No. F-10053

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NICLAS S. GREEN
TEXAS P.E. NO. 126232
DATE: 2/27/2025

DESIGNED BY:
DRAWN BY:
CHECKED BY:
REVIEWED BY:
APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24-inch FM Installation, and Scott Street Storage Tank No. 1

WASHWATER PUMP STATION BUILDING EXERIOR ELEVATIONS

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

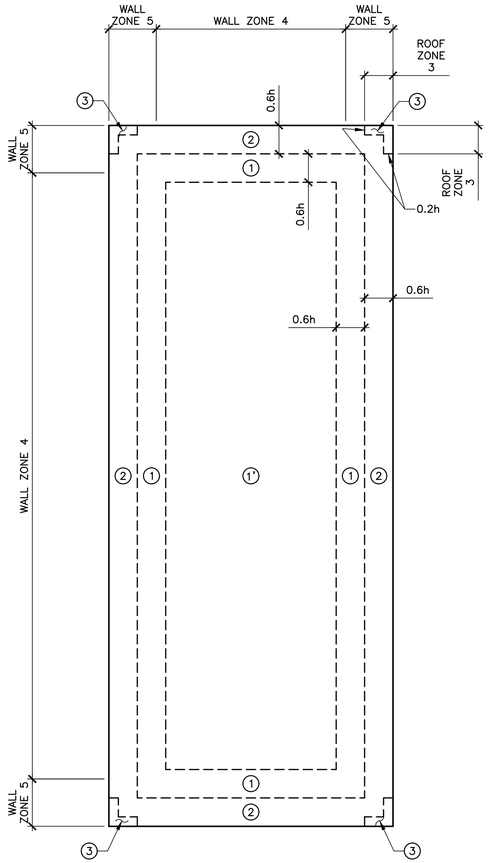
DWG NO
S41

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
S-001000-0035-4	
DRAWING SCALE	
CITY OF HOUSTON PM	
MEGAN R. JORDAN, P.E.	
SHEET NO. OF	

PLOT STYLE: LNV-FS-2015-STRUCT.ctb PLOTTED: 1/19/2026 3:02 PM

FILE PATH: U:\STRUCTURAL\Eddington LS\Drawings\WASHWATER PUMP STATION BUILDING EXERIOR ELEVATIONS.dwg

PLOT STYLE: LNV-FS-2015-STRUCT.PLOTTED: 1/19/2026 3:02 PM



ELECTRICAL BUILDING
UPLIFT PRESSURES FOR
ROOF & WIND WALL ZONES

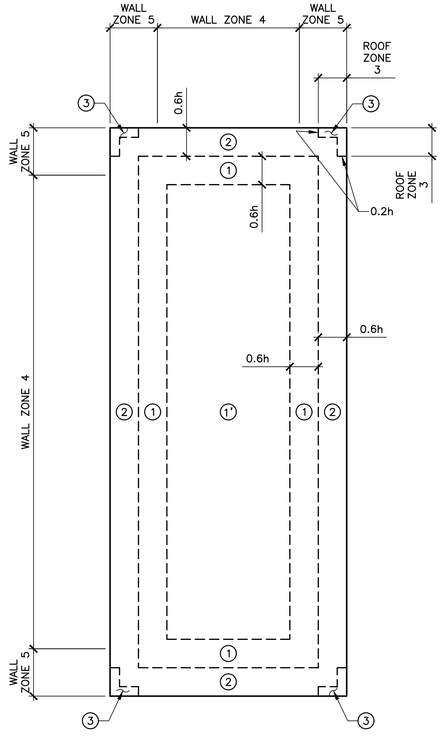
1 / S42 N.T.S.

ELECTRICAL BUILDING WIND PRESSURES FOR "COMPONENTS & CLADDING"			
ROOF ZONES			
ZONE	EFFECTIVE WIND AREA (SQ.FT.)	WIND PRESSURE (PSF)	
1'	10	11.8	−35.4
1'	100	7.87	−35.4
1'	500	7.87	−15.7
1	10	11.8	−66.9
1	100	7.87	−50.7
1	500	7.87	−39.4
2	10	11.8	−90.5
2	100	7.87	−69.7
2	500	7.87	−55.1
3	10	11.8	−126.0
3	100	7.87	−54.2
3	500	7.87	−55.1

ROOF ZONE 3 DIMENSION = 7'−2"

ELECTRICAL BUILDING WIND PRESSURES FOR "COMPONENTS & CLADDING"			
WALL ZONES			
ZONE	EFFECTIVE WIND AREA (SQ.FT.)	WIND PRESSURE (PSF)	
4	10	35.4	−39.0
	500	24.8	−28.3
5	10	35.4	−49.6
	500	24.8	−28.3

CORNER WALL ZONE 5 DIMENSION = 3'−0"



CHEMICAL STORAGE BUILDING
UPLIFT PRESSURES FOR ROOF
& WIND WALL ZONES

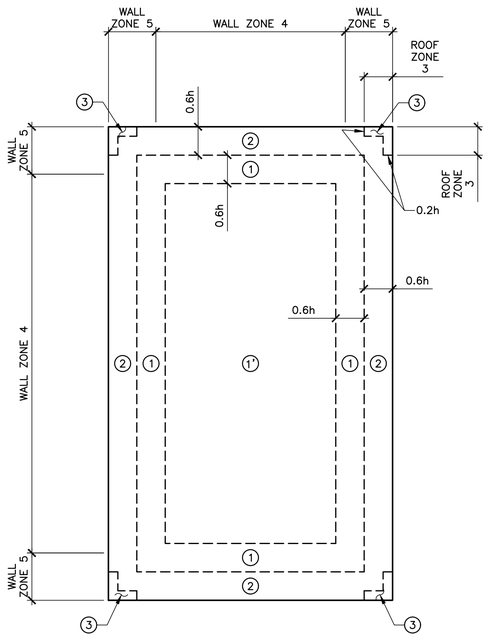
2 / S42 N.T.S.

CHEMICAL STORAGE BUILDING WIND PRESSURES FOR "COMPONENTS & CLADDING"			
ROOF ZONES			
ZONE	EFFECTIVE WIND AREA (SQ.FT.)	WIND PRESSURE (PSF)	
1'	10	11.8	−35.4
1'	100	7.87	−35.4
1'	500	7.87	−15.7
1	10	11.8	−66.9
1	100	7.87	−50.7
1	500	7.87	−39.4
2	10	11.8	−90.5
2	100	7.87	−69.7
2	500	7.87	−55.1
3	10	11.8	−126.0
3	100	7.87	−54.2
3	500	7.87	−55.1

ROOF ZONE 3 DIMENSION = 6'−0"

CHEMICAL STORAGE BUILDING WIND PRESSURES FOR "COMPONENTS & CLADDING"			
WALL ZONES			
ZONE	EFFECTIVE WIND AREA (SQ.FT.)	WIND PRESSURE (PSF)	
4	10	35.4	−39.0
	500	24.8	−28.3
5	10	35.4	−49.6
	500	24.8	−28.3

CORNER WALL ZONE 5 DIMENSION = 3'−0"



STORAGE TANK NO. 1 ELECTRICAL
BUILDING UPLIFT PRESSURES FOR
ROOF & WIND WALL ZONES

3 / S42 N.T.S.

STORAGE TANK NO. 1 ELECTRICAL BUILDING WIND PRESSURES FOR "COMPONENTS & CLADDING"			
ROOF ZONES			
ZONE	EFFECTIVE WIND AREA (SQ.FT.)	WIND PRESSURE (PSF)	
1'	10	11.8	−35.4
1'	100	7.87	−35.4
1'	500	7.87	−15.7
1	10	11.8	−66.9
1	100	7.87	−50.7
1	500	7.87	−39.4
2	10	11.8	−90.5
2	100	7.87	−69.7
2	500	7.87	−55.1
3	10	11.8	−126.0
3	100	7.87	−54.2
3	500	7.87	−55.1

ROOF ZONE 3 DIMENSION = 7'−2"

STORAGE TANK NO. 1 ELECTRICAL BUILDING WIND PRESSURES FOR "COMPONENTS & CLADDING"			
WALL ZONES			
ZONE	EFFECTIVE WIND AREA (SQ.FT.)	WIND PRESSURE (PSF)	
4	10	35.4	−39.0
	500	24.8	−28.3
5	10	35.4	−49.6
	500	24.8	−28.3

CORNER WALL ZONE 5 DIMENSION = 3'−0"

NOTES:

1. (+) PLUS SIGN SIGNIFIES PRESSURE ACTING TOWARDS THE SURFACE.
2. (−) NEGATIVE SIGN SIGNIFIES PRESSURES ACTING AWAY FROM THE SURFACE.
3. PRESSURES FOR EFFECTIVE WIND AREA BETWEEN THE LISTED VALUES MAY BE LINEARLY INTERPOLATED.
4. PRESSURES SHOWN ARE FOR GROSS UPLIFT CONDITIONS.
5. NET DESIGN WIND PRESSURES SHALL NOT BE LESS THAN 16 PSF IN EITHER DIRECTION NORMAL TO THE SURFACE.

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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NICLAS S. GREEN
TEXAS P.E. NO. 126232
DATE: 2/27/2025

DESIGNED BY: _____
DRAWN BY: _____
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REVIEWED BY: _____
APPROVED BY: _____

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24−inch FM Installation, and Scott Street Storage Tank No. 1

WIND PRESSURE FOR COMPONENTS AND CLADDING I

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S42

WBS NUMBER
S−001000−0035−4

DRAWING SCALE

CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

SHEET NO. OF

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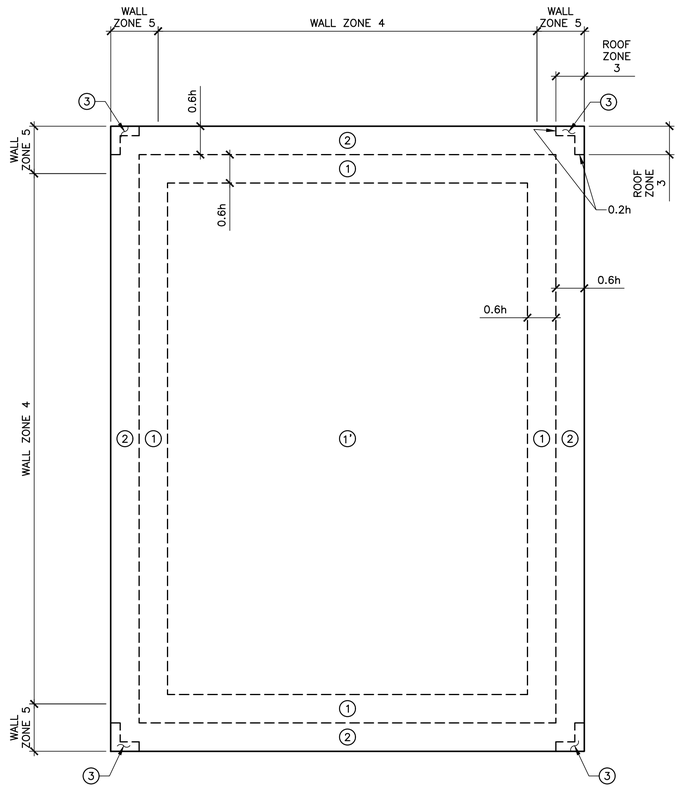

WASHWATER PUMP STATION BUILDING UPLIFT PRESSURES FOR ROOF & WIND WALL ZONES

1 / S43 N.T.S.

NOTES:

1. (+) PLUS SIGN SIGNIFIES PRESSURE ACTING TOWARDS THE SURFACE.
2. (−) NEGATIVE SIGN SIGNIFIES PRESSURES ACTING AWAY FROM THE SURFACE.
3. PRESSURES FOR EFFECTIVE WIND AREA BETWEEN THE LISTED VALUES MAY BE LINEARLY INTERPOLATED.
4. PRESSURES SHOWN ARE FOR GROSS UPLIFT CONDITIONS.
5. NET DESIGN WIND PRESSURES SHALL NOT BE LESS THAN 16 PSF IN EITHER DIRECTION NORMAL TO THE SURFACE.

WASHWATER PUMP STATION BUILDING WIND PRESSURES FOR "COMPONENTS & CLADDING"

ROOF ZONES

ZONE	EFFECTIVE WIND AREA (SQ.FT.)	WIND PRESSURE (PSF)	
1'	10	11.8	−35.4
1'	100	7.87	−35.4
1'	500	7.87	−15.7
1	10	11.8	−66.9
1	100	7.87	−50.7
1	500	7.87	−39.4
2	10	11.8	−90.5
2	100	7.87	−69.7
2	500	7.87	−55.1
3	10	11.8	−126.0
3	100	7.87	−54.2
3	500	7.87	−55.1

ROOF ZONE 3 DIMENSION = 7'−2"

WASHWATER PUMP STATION BUILDING WIND PRESSURES FOR "COMPONENTS & CLADDING"

WALL ZONES

ZONE	EFFECTIVE WIND AREA (SQ.FT.)	WIND PRESSURE (PSF)	
4	10	35.4	−39.0
	500	24.8	−28.3
5	10	35.4	−49.6
	500	24.8	−28.3

CORNER WALL ZONE 5 DIMENSION = 3'−0"

NO.	DATE	REVISION	APP.

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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NICLAS S. GREEN
TEXAS P.E. NO. 126232
DATE: 2/27/2025

DESIGNED BY:
DRAWN BY:
CHECKED BY:
REVIEWED BY:
APPROVED BY:

SURVEYED BY:
FB NO. N/A

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

Eddington Lift Station, 24−inch FM Installation, and Scott Street Storage Tank No. 1

WIND PRESSURE FOR COMPONENTS AND CLADDING II

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
S43

WBS NUMBER
S−001000−0035−4

DRAWING SCALE

CITY OF HOUSTON PM
MEGAN R. JORDAN, P.E.

SHEET NO. OF

FOR CITY OF HOUSTON USE ONLY

PLOT STYLE: LNV−FS−2015−STRUCT.CTB PLOTTED: 1/19/2026 3:02 PM
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DUCTWORK SYMBOLS

- SUPPLY DIFFUSER/GRILLE
- RETURN GRILLE
- EXHAUST GRILLE
- 12" DIA. — ROUND DUCT. SIZE IN INCHES. SIZE INDICATED IS DUCT DIAMETER.
- 24x12 — RECTANGULAR DUCT. SIZE IN INCHES. FIRST NUMBER IS SIDE SHOWN.
- 20x12 — SUPPLY OR OUTSIDE AIR DUCT UP
- 20x12 — SUPPLY OR OUTSIDE AIR DUCT DOWN
- 20x12 — RETURN DUCT UP
- 20x12 — RETURN DUCT DOWN
- 20x12 — EXHAUST DUCT UP
- 20x12 — EXHAUST DUCT DOWN
- ROUND DUCT UP
- ROUND DUCT DOWN
- RECTANGULAR ELBOW WITH TURNING VANES
- 20x12 / 16x8 — TRANSITION - RECTANGULAR TO RECTANGULAR
- 20x12 / 10" — TRANSITION - RECTANGULAR TO ROUND
- UP — ELEVATION CHANGE (UP) RISE, (DN) DROP
- FLEXIBLE CONNECTION
- FLEXIBLE DUCT - SINGLE LINE
- DIFFUSER TAKEOFF WITH FLARED SPIN-IN TAP, MANUAL DAMPER AND FLEX DUCT
- RECTANGULAR DUCT BRANCH TAKEOFF WITH 45 DEG TAP
- ROUND DUCT BRANCH TAKEOFF WITH CONICAL TAP FROM RECT. OR ROUND MAIN

HVAC SYMBOLS

- DPT — DIFFERENTIAL PRESSURE TRANSMITTER
- DX — DIRECT EXPANSION (REFRIGERANT)
- ES — END SWITCH (DAMPER MOTOR)
- FS — FLOW SENSOR
- FS — FLOW SWITCH
- GUI — GRAPHICAL USER INTERFACE
- H — HUMIDISTAT
- H — HUMIDITY SENSOR
- HOA — HAND-OFF-AUTO SWITCH
- M — MOTORIZED OPPOSED BLADE DAMPER
- MCP — MANUFACTURER'S CONTROL PANEL
- PT — PRESSURE TRANSMITTER
- PRESSURE TEMPERATURE PORT
- SD — DUCT MOUNTED SMOKE DETECTOR
- S/D — COMBINATION STARTER/DISCONNECT
- SP — DUCT STATIC PRESSURE SENSOR
- T — TEMPERATURE SENSOR/TRANSMITTER
- TC — TEMPERATURE CONTROLLER
- TS — TEMPERATURE SENSOR/TRANSMITTER
- T — THERMOSTAT
- C — CURRENT SWITCH
- VFD — VARIABLE FREQUENCY DRIVE
- CONNECTION POINT NEW TO EXISTING
- FORCED AIR TO SPACE
- INDIRECT AIR FROM SPACE

GENERAL ABBREVIATIONS

A	@	AT
	AD	AIR DROP
	AFF	ABOVE FINISHED FLOOR
	ALT	ALTITUDE
	AP	ACCESS PANEL
	ASD	ADJUSTABLE SPEED DRIVE
	AUTO	AUTOMATIC
	AUX	AUXILIARY
	AVG	AVERAGE
B	BDD	BACKDRAFT DAMPER
	BHP	BRAKE HORSEPOWER
	BLDG	BUILDING
	BOD	BOTTOM OF DUCT
	BOP	BOTTOM OF PIPE
	BTM	BOTTOM
	BTU	BRITISH THERMAL UNIT
C	℄	CENTER LINE
	CCW	COUNTER CLOCKWISE
	CENT	CENTRIFUGAL
	CFM	CUBIC FEET PER MINUTE
	CLASS/DIV	NEC AREA CLASSIFICATION
	CLG	CEILING
	CLR	CLEAR
	COL	COLUMN
	CONT	CONTINUE, CONTINUOUS
	CTR	CENTER
	CU FT	CUBIC FEET
	CW	CLOCKWISE
D	DACS	DATA ACQUISITION AND CONTROL SYSTEM
I	DB	DRY BULB
	DCVBP	DOUBLE CHECK VALVE BACKFLOW PREVENTER
K	DEG	DEGREE
	DIA, Ø	DIAMETER
L	DN	DOWN
	DWG	DRAWING
E	EA	EACH
M	EL	ELEVATION
	EMERG	EMERGENCY
	ENT	ENTERING
	EQUIP	EQUIPMENT
	EWT	ENTERING WATER TEMPERATURE
F	F	FAHRENHEIT
	FLR	FLOOR
	FLG	FLANGE
	FL	FLOW LINE
	FOB	FLAT ON BOTTOM
	FPC	FIRE PROTECTION CONTRACTOR
	FPS	FEET PER SECOND
	FT	FEET
	FWE	FURNISHED WITH EQUIPMENT
G	GPM	GALLONS PER MINUTE
H	H-O-A	HAND-OFF-AUTO
	HP	HORSEPOWER
	HVAC	HEATING, VENTILATION AND AIR CONDITIONING
	HZ	HERTZ
	ID	INSIDE DIAMETER
	IE	INVERT ELEVATION
	INV	INVERT
	IOS	INSTALLED BY OTHER SECTION
	IPS	IRON PIPE SIZE
	KS	KITCHEN SINK
	KW	KILOWATT
	LAB	LABORATORY
	LVG	LEAVING
	LWT	LEAVING WATER TEMPERATURE
	M	MOTOR
	MATL	MATERIAL
	MAX	MAXIMUM
	MBH	THOUSAND BTU PER HOUR
	MCC	MOTOR CONTROL CENTER
	MECH	MECHANICAL
	MFR	MANUFACTURER
	MIN	MINIMUM
	MISC	MISCELLANEOUS
	MTD	MOUNTED
N	NA	NOT APPLICABLE
	NC	NORMALLY CLOSED
	NO	NORMALLY OPEN OR NUMBER
	NOM	NOMINAL
	NTS	NOT TO SCALE

ABBREVIATIONS - CONTINUED

O	OD	OUTSIDE DIAMETER
P	PD	PRESSURE DROP
	PG	PRESSURE GAUGE
	PLC	PROGRAMMABLE LOGIC CONTROLLER
	PNL	PANEL
	PSI	POUNDS PER SQUARE INCH
	PSIA	PSI ABSOLUTE
	PSIG	PSI GAUGE
	P&T	PRESSURE AND TEMPERATURE
R	RM	ROOM
	RPM	REVOLUTIONS PER MINUTE
S	SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
	SF	SQUARE FOOT (FEET)
	SHT	SHEET
	SPEC	SPECIFICATIONS
	SSTL	STAINLESS STEEL
	SQ	SQUARE
T	T&P	TEMPERATURE & PRESSURE RELIEF
	TEMP	TEMPERATURE
	THK	THICK(NESS)
	TOC	TOP OF CONCRETE
	TOP	TOP OF PIPE
	TOS	TOP OF STEEL
	TYP	TYPICAL
U	UL	UNDERWRITERS LABORATORY
	UNO	UNLESS NOTED OTHERWISE
W	W/	WITH
	W/O	WITHOUT
	WxH	WIDTH BY HEIGHT
	W&T	WASTE AND TRAP
	W&V	WASTE AND VENT

HVAC ABBREVIATIONS

AC	AIR CONDITIONER
AHU	AIR HANDLING UNIT
CU	CONDENSING UNIT
EA	EXHAUST AIR
EF	EXHAUST FAN
MAU	MAKE-UP AIR UNIT
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR

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RICARDO AZCARATE
TEXAS P.E. NO. 81863
DATE: 12/19/2025

DESIGNED BY:	M. ANDERSON
DRAWN BY:	M. ANDERSON
CHECKED BY:	R. AZCARATE
REVIEWED BY:	T. GALLIA
APPROVED BY:	R. AZCARATE

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

HVAC SYMBOLS, LEGENDS, AND ABBREVIATIONS

WARNING
0 1
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DWG NO
H–1

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. OF XX	

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HVAC NOTES:

GENERAL:

1. CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS AND PROVIDE EQUIPMENT, DUCTWORK, PIPING, AND ASSOCIATED INSULATION, COATINGS, SUPPORTS, CONTROLS AND DEVICES, REGARDLESS OF WHETHER IT'S SHOWN ON ONE DRAWING AND NOT ANOTHER. FOR EXAMPLE, A DAMPER SHOWN ON A PLAN BUT NOT THE SCHEMATIC, OR VICE VERSA SHALL BE PROVIDED.

2. THIS IS A WASTEWATER TREATMENT PLANT WITH CORROSIVE AND CLASSIFIED AREAS. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS PER NFPA 820.

3. REFER TO INDIVIDUAL DRAWINGS FOR ADDITIONAL NOTES SPECIFIC TO THOSE SHEETS.

MATERIALS:

4. DUE TO THE PLANT'S CORROSIVE ENVIRONMENT, ALL HVAC MATERIALS SHALL BE ALUMINUM, 316 STAINLESS STEEL, OR FIBERGLASS REINFORCED PLASTIC (FRP), UNLESS NOTED OTHERWISE.

5. OUTDOOR EQUIPMENT THAT IS SCHEDULED TO BE MANUFACTURER'S STANDARD MATERIALS (E.G. PACKAGED DX AIR HANDLING UNITS, AC/CU EQUIPMENT) SHALL HAVE COATINGS FOR EXPOSURE TO HYDROGEN SULFIDE (H2S) AND SUITEABLE FOR SEACOAST ENVIRONMENT PER SPECIFICATION 15500.

6. EQUIPMENT THAT IS SCHEDULED TO BE ALUMINUM OR STAINLESS STEEL CONSTRUCTION AND HAS ANY COMPONENT THAT IS NOT OF THOSE MATERIALS, SHALL HAVE COATINGS SUITABLE FOR EXPOSURE TO HYDROGEN SULFIDE (H2S).

7. WHERE COATINGS ARE REQUIRED, ALL COMPONENTS INSIDE AND OUTSIDE OF THE EQUIPMENT EXPOSED TO THE ENVIRONMENT (I.E. NOT CHEMICALLY SCRUBBED OR TREATED) ARE TO BE COATED.

8. ALL SUPPORTS AND FASTENERS SHALL BE 316 STAINLESS STEEL, UNLESS NOTED OTHERWISE.

9. SODIUM HYPOCHLORITE AND SODIUM BISULFITE FEED ROOMS EXHAUST, AND THEIR ASSOCIATED DAMPERS SHALL BE FIBERGLASS REINFORCED PLASTIC (FRP). FRP SHALL BE PROTECTED WITH UV INHIBITORS WITH WHITE GEL COAT PAINT.

10. ALL EQUIPMENT SHALL HAVE EQUIPMENT TAGS WITH THEIR RESPECTIVE FACILITY CODE AND NUMBER.

EQUIPMENT:

11. EQUIPMENT CLEARANCES SHALL BE PROVIDED PER THE NATIONAL ELECTRIC CODE (NEC) AND ACCESS REQUIREMENTS PER EQUIPMENT MANUFACTURER FOR MAINTENANCE AND REMOVAL OF PARTS.

12. FIELD MODIFICATION (E.G. CUTTING, REPAIR OF DAMAGED EQUIPMENT, ETC) WILL NOT BE ACCEPTED.

13. ELECTRIC UNIT HEATERS AND RECIRCULATION FANS SHALL BE MOUNTED WITH BOTTOM OF EQUIPMENT AT 8'-0" AFF, UNLESS NOTED OTHERWISE. UNIT HEATERS ARE ALLOWED TO BE RAISED OR LOWERED BY CONTRACTOR DUE TO CONFLICT, BUT SHALL SUBMIT TO ENGINEER FOR APPROVAL IF THIS EXCEEDS MORE THAN 12-INCHES.

14. ALL EQUIPMENT SHALL BE SECURELY ANCHORED TO STRUCTURE AND/OR ITS CONCRETE PAD.

DAMPERS:

15. ALL MOTORIZED DAMPERS ARE LOW LEAKAGE CLASS 1A @ 1 IN.W.G., UNLESS NOTED OTHERWISE.

16. ACTUATORS SHALL BE TWO POSITION WITH MANUAL OVERRIDE, RATED FOR OUTDOORS WITH INTEGRAL NEMA 4X ENCLOSURE AS MANUFACTURED BY BELIMO (E.G. MODELS WITH N4 SUFFIX). NO SEPARATE ENCLOSURES SURROUNDING THE ACTUATOR SHALL BE ACCEPTED.

17. ACTUATORS SHALL BE SIZED FOR TWICE THE REQUIRED OPERATING TORQUE OF THE ASSOCIATED DAMPER OR DAMPER SECTION.

18. MANUAL BALANCING DAMPERS SHALL BE PROVIDED FOR EACH AIR INLET OR OUTLET TO ACHIEVE THE AIRFLOW INDICATED.

WALL LOUVERS & INTAKES:

26. WALL LOUVERS ARE FURNISHED AND INSTALLED UNDER DIVISION 10, REFER TO ARCHITECTURAL DRAWINGS FOR MORE INFORMATION. HVAC CONTRACTOR SHALL COORDINATE ASSOCIATED DAMPER SIZES WITH LOUVERS AND REVIEW LOUVER SUBMITTALS.

27. PROVIDE HEAVY DUTY ALUMINUM WALL SLEEVES TO FINISH-OUT THE WALL OPENING AND CONNECT TO INTERIOR DAMPERS AND/OR FILTER HOUSINGS.

DUCTWORK INLET & OULETS (GRILLES, REGISTERS, DIFFUSERS, SCREENS):

28. ALL INLETS AND OUTLETS SHALL HAVE A TERMINATING DEVICE (E.G. GRILLE OR SCREEN). ALL BOTTOM INLETS AT FLOOR LEVEL (E.G. 12"AFF) SHALL BE TERMINATED WITH 1/2"x1/2" WIRE MESH IN A REMOVABLE FLANGED FRAME, UNLESS NOTED OTHERWISE. FRP DUCTWORK SHALL HAVE 316 STAINLESS STEEL DEVICE MATERIALS. ALUMINUM DUCTWORK SHALL HAVE ALUMINUM AND/OR 316 STAINLESS STEEL DEVICE MATERIALS.

PIPING:

29. PIPE SUPPORTS SHALL BE PROVIDED EVERY 5-FT MAXIMUM, UNLESS OTHERWISE NOTED.

30. WHERE INSULATION IS TO BE PROVIDED ON PIPING, THE PIPE CLAMPS SHALL BE ON THE OUTSIDE OF THE INSULATION. SUPPORTS SHALL NOT PENETRATE INSULATION OR JACKETING.

31. PROVIDE PRE-INSULATED PIPE SUPPORTS FOR INSTALLATION WITH PIPING. ASSEMBLY SHALL BE INSTALLED AT THE SAME TIME AS THE PIPING. REFER TO PIPING SYSTEMS SPECIFICATION FOR ADDITIONAL INFORMATION.

32. REFRIGERANT BASED AIR-CONDITIONING EQUIPMENT (AHU, AC) CONDENSATE DRAIN AND VENT PIPING SHALL BE SOLVENT WELDED PVC WITH DWV FITTINGS AND SLOPED AT 1/8" PER FOOT MINIMUM. BELOW GRADE PIPING SHALL BE SCHEDULE 80 PVC AND ABOVE-GRADE SHALL BE SCHEDULE 40 PVC.

33. PVC PIPING OUTDOORS SHALL BE PAINTED FOR UV PROTECTION.

34. PROVIDE PIPE SUPPORTS PER PLUMBING DETAILS.

35. REFER TO PLUMBING DIVISION15 SPECIFICATIONS FOR ADDITIONAL PIPING REQUIREMENTS.

36. COORDINATE WITH PLUMBING FOR CONDENSATE REQUIREMENTS.

CONTROLS:

37. THE HVAC CONTRACTOR SHALL EMPLOY A CONTROLS APPLICATION ENGINEER TO REVIEW AND SUBMIT A COMPLETE CONTROLS PACKAGE FOR A FULLY FUNCTIONAL SYSTEM. THESE DRAWINGS PROVIDE THE OVERALL PERFORMANCE AND INTENT, AND DO NOT SHOW ALL REQUIRED DEVICES OR DETAILED INFORMATION. THIS INCLUDES COORDINATING AND SHOWING ALL DEVICES AND INTERCONNECTS WITH ELECTRICAL AND I&C. THE CONTROLS APPLICATION ENGINEER SHALL SUBMIT A WRITTEN STATEMENT CONFIRMING THE SUBMITTAL HAS BEEN REVIEWED AND PROVIDES A COMPLETE, FULLY FUNCTIONAL SYSTEM PER THE DRAWINGS. ANY DEVIATIONS FROM THE DRAWINGS SHALL BE CLEARLY IDENTIFIED IN THE SUBMITTAL.

38. SUBMIT PANEL LAYOUTS, DIAGRAMS, SEQUENCES OF OPERATION, EQUIPMENT AND DEVICE CUTSHEETS WITH THE SHOP DRAWINGS FOR REVIEW AND APPROVAL.

39. CONDUIT/WIRING BETWEEN HVAC EQUIPMENT AND ELECTRICAL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL.

40. CONDUIT/WIRING BETWEEN HVAC EQUIPMENT AND HVAC DEVICES SHALL BE FURNISHED AND INSTALLED BY HVAC PER DIVISION 16 SPECIFICATIONS.

41. CONTRACTOR SHALL VERIFY ALL EQUIPMENT AND DEVICE TAGS WITH DIVISION 17.

COORDINATION:

42. REFER TO MECHANICAL SHEETS FOR COORDINATION OF PROCESS EQUIPMENT, PIPING, AND ACCESSORIES. VERIFY SPACE REQUIREMENTS FOR HVAC EQUIPMENT, DUCTWORK, SUPPORTS, DEVICES, AND ALL CLEARANCES.

43. REFER TO ARCHITECTURAL AND STRUCTURAL SHEETS FOR COORDINATION OF ROOF, FLOOR, AND WALL OPENINGS.

44. REFER TO STRUCTURAL DETAILS FOR ADDITIONAL INFORMATION ON CONCRETE CURBS AND PADS.

45. HVAC CONTRACTOR SHALL COORDINATE PURCHASED EQUIPMENT WITH ROOF OPENINGS AND CONCRETE ROOF CURB/PAD SIZES.

46. REFER TO STRUCTURAL NOTES FOR ANCHORS IN PRECAST PANELS AND COORDINATION WITH REBAR. DO NOT DAMAGE REBAR.

47. ALL POWER WIRING/CONDUIT, STARTERS, AND DISCONNECTS ARE FURNISHED AND INSTALLED BY DIVISION 16, UNLESS OTHERWISE NOTED. NOTE, THE FOLLOWING EQUIPMENT HAVE STARTERS PROVIDED BY THE EQUIPMENT MANUFACTURER:
   - PACKAGED MAKE-UP AIR UNITS (MAU)
   - AIR FILTRATION UNITS (AFU).

49. ANY DEVIATION FROM SCHEDULED VOLTS/PHASE, HORSEPOWER, OR MAX OVER CURRENT PROTECTION (MOCP) IS TO BE COORDINATED WITH ELECTRICAL AND NOTED ON THE SUBMITTAL FOR APPROVAL.

OUTDOOR CONCRETE PADS:

50. PADS SHALL BE CLASS A2 NORMAL WEIGHT CONCRETE (4,000 PSI), 4" MINIMUM THICKNESS, WITH BAR REINFORCEMENT OR WELDED WIRE PER ASTM STANDARDS, AND 3/4" CHAMFERED EXPOSED CORNERS, UNLESS NOTED OTHERWISE .

51. REFER TO STRUCTURAL GENERAL NOTES SHEET AND SPECIFICATION FOR ADDITIONAL INFORMATION ON CAST-IN-PLACE CONCRETE.

52. WHERE OUTDOOR EQUIPMENT IS MOUNTED TO THE CONCRETE PAD, THE PAD SHALL EXTEND A MINIMUM OF 4" BEYOND THE EQUIPMENT AND ITS ANCHOR POINTS.

NO.	DATE	REVISION	APP.

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RICARDO AZCARATE
TEXAS P.E. NO. 81863
DATE: 12/19/2025

DESIGNED BY: M. ANDERSON	SURVEYED BY:
DRAWN BY: M. ANDERSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: R. AZCARATE	FB NO. 340S1
REVIEWED BY: T. GALLIA	
APPROVED BY: R. AZCARATE	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

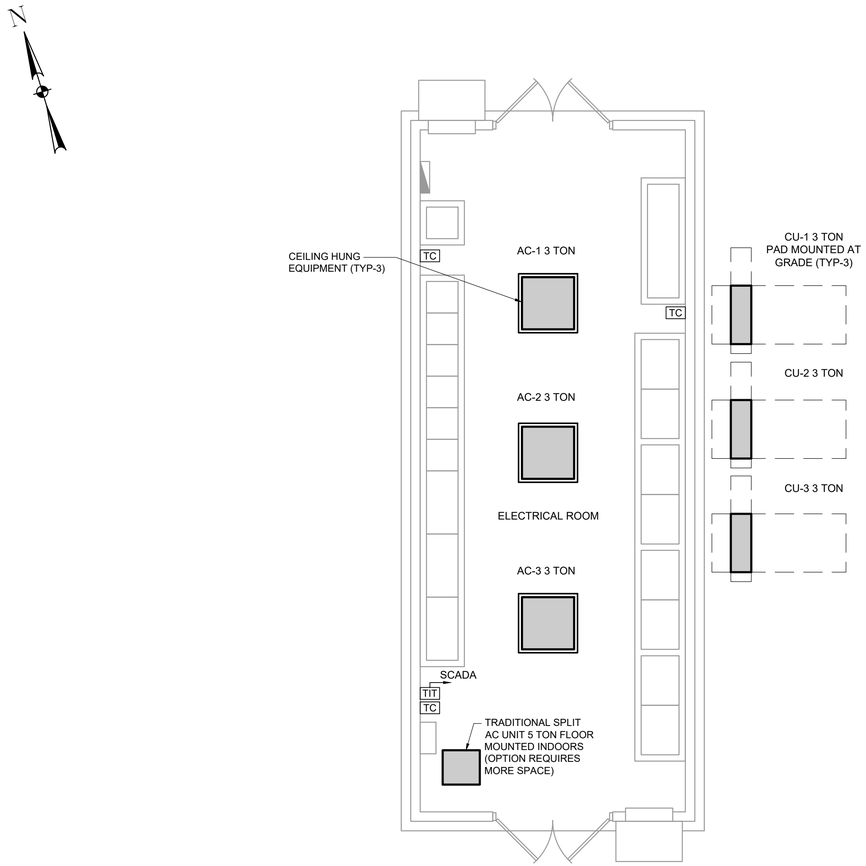
CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

HVAC GENERAL NOTES

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
H-2

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. OF XX	



PLAN

1/4" = 1'-0"

GENERAL NOTES:

1. REFER TO HVAC GENERAL NOTES SHEET FOR ADDITIONAL INFORMATION.

SEQUENCE OF OPERATION (ELECTRICAL ROOM)

GENERAL:
1. THE ELECTRICAL ROOM IS AIR-CONDITIONED BY DUCTLESS DX REFRIGERANT SPLIT SYSTEM, EACH WITH THEIR OWN ROOM-MOUNTED DEDICATED TEMPERATURE CONTROLLER.
2. ONE SYSTEM SHALL BE BACKUP FOR N+1 REDUNDANCY.
3. ALL SETPOINTS ARE ADJUSTABLE
4. DISCONNECTS AND CONDUIT/WIRING SHALL BE BY DIVISION 16 (ELECTRICAL).

SCADA:
1. THE DEDICATED ROOM TEMPERATURE SENSOR SHALL BE MONITORED BY SCADA. SCADA ALARM SETPOINTS TO BE PROGRAMMED BY DIVISION 13 (I&C)

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TEXAS P.E. NO. 81863
DATE: 12/19/2025

DESIGNED BY:	M. ANDERSON
DRAWN BY:	M. ANDERSON
CHECKED BY:	R. AZCARATE
REVIEWED BY:	T. GALLIA
APPROVED BY:	R. AZCARATE

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

EDDINGTON ELECTRICAL BUILDING HVAC PLAN

WARNING
0 1
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DWG NO
H-3

WBS NUMBER	R-001000-0035-4
DRAWING SCALE	
CITY OF HOUSTON PM	NEIL BARNSDALE, P.E.
SHEET NO.	OF XX

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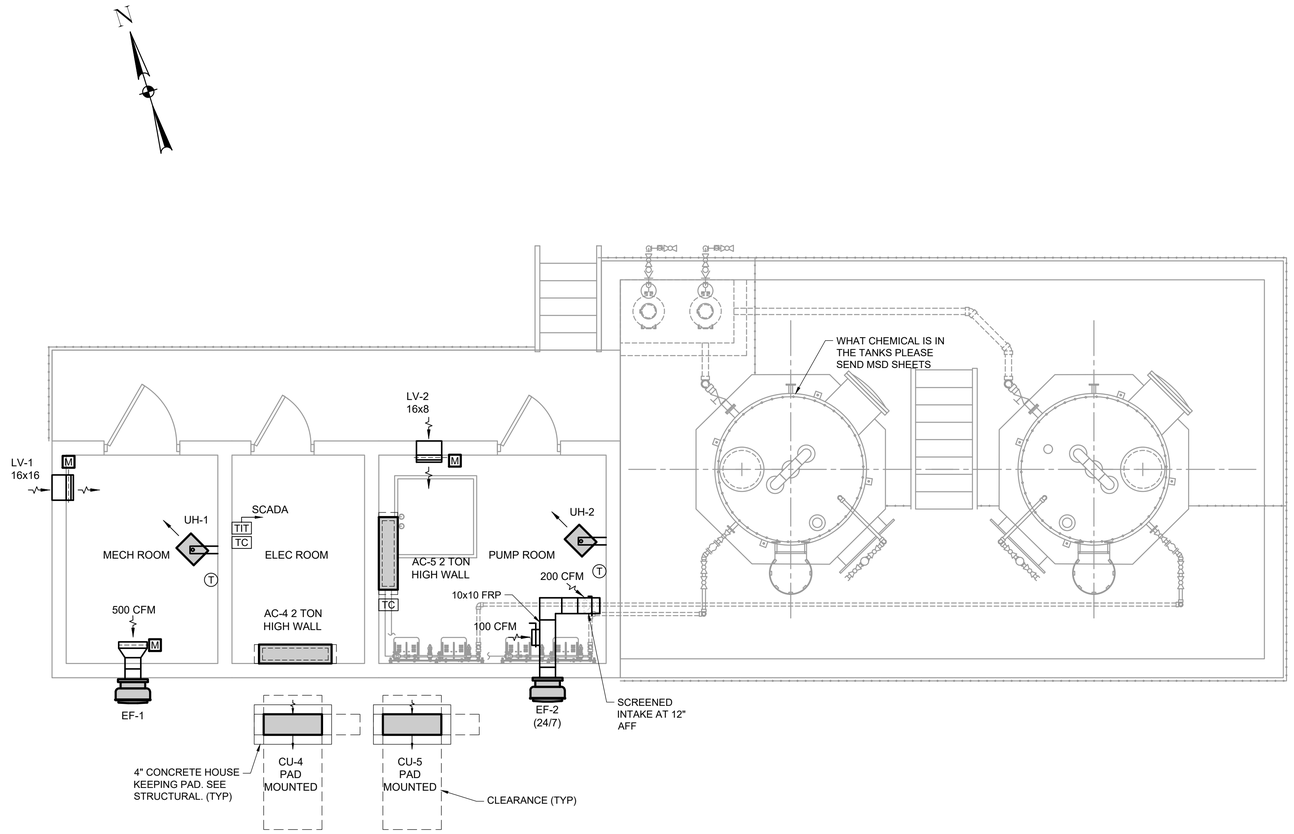

PLAN

1/4" = 1'-0"

4' 0 4' 8'

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

GENERAL NOTES:

1. REFER TO AIRFLOW SCHEMATICS FOR ADDITIONAL NOTES, CFM'S, DUCT SIZES, AND CONTROLS.
2. MOUNT UNIT HEATERS MINIMUM 8'-0" AFF TO BOTTOM CLEAR AND SECURE TO ADJACENT WALL.
3. COORDINATE UNIT HEATERS TO SUPPORT FROM GROUT FILLED CMU BLOCKS. NOT ALL CMU BLOCKS WILL BE GROUT FILLED.
4. ALL HANGER MATERIAL AND HARDWARE SHALL BE 316 STAINLESS STEEL.
5. ALL CHEMICAL ROOM EXHAUST, DUCTWORK, DAMPERS, AND ASSOCIATED FITTINGS SHALL BE FRP CONSTRUCTION UNLESS NOTED OTHERWISE.
6. ALL EXTERIOR FRP DUCT, DAMPERS, AND FITTINGS SHALL BE PROTECTED WITH UV LIGHT INHIBITORS AND WHITE GEL COAT PAINT.
7. SLEEVES AND MOTORIZED DAMPERS AT INTAKE LOUVERS SHALL BE ALUMINUM CONSTRUCTION IN NON-CHEMICAL ROOMS AND FRP IN CHEMICAL ROOMS. ALL FASTENERS AND HARDWARE SHALL BE 316 STAINLESS STEEL.
8. ALL DAMPER MOTORS SHALL BE NEMA 4X EQUAL TO BELIMO SERIES WITH SUFFIX N4. SIZE DAMPER MOTORS FOR TWICE THE REQUIRED OPERATING TORQUE OF THE ASSOCIATED DAMPER OR DAMPER SECTION.
9. COORDINATE DISTANCE FROM WALL FOR ALL DUCT DROPS TO ALLOW WALL MOUNTED PIPING TO PASS BEHIND.
10. PROVIDE MANUFACTURER REQUIRED MAINTENANCE ACCESS FOR ACTUAL EQUIPMENT PURCHASED.
11. CONDUIT AND WIRING BETWEEN HVAC PROVIDED DEVICES SHALL BE BY HVAC PER DIV 16. CONDUIT AND WIRING BETWEEN HVAC DEVICES AND ELECTRICAL PROVIDED EQUIPMENT SHALL BE BY ELECTRICAL. ALL TERMINATIONS AT HVAC DEVICES SHALL BE BY HVAC.
12. ALL ACTUATORS AT EQUIPMENT AND LOUVERS INDICATED TO BE CONTROLLED/INTERLOCKED W/FANS BY ELECTRICAL SHALL BE 120V.

NO.	DATE	REVISION	APP.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

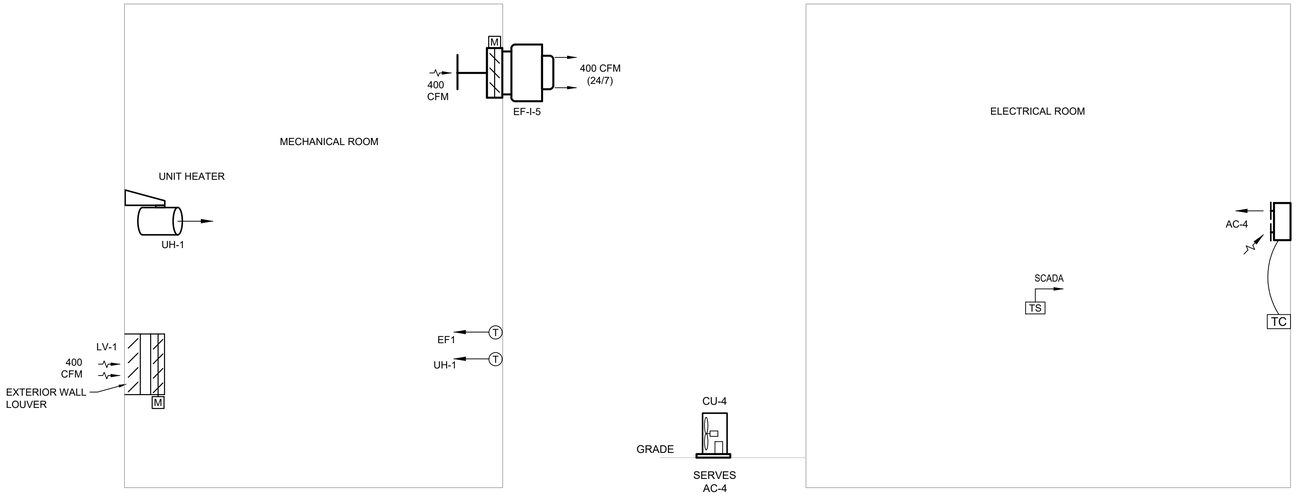
CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

EDDINGTON CHEMICAL BUILDING HVAC PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. OF XX	

DWG NO
H-4



SEQUENCE OF OPERATION (MECHANICAL ROOM)

GENERAL:
1. THE MECHANICAL ROOM IS VENTILATED ONLY. NO COOLING, AND MINIMAL HEAT.
2. VENTILATION SYSTEM DAMPER ACTUATORS SHALL BE FAIL CLOSED.
3. DAMPERS ARE POWERED AND INTERLOCKED WITH FANS BY DIVISION 16 (ELECTRICAL).
4. DISCONNECTS AND CONDUIT/WIRING SHALL BE BY DIVISION 16 (ELECTRICAL).

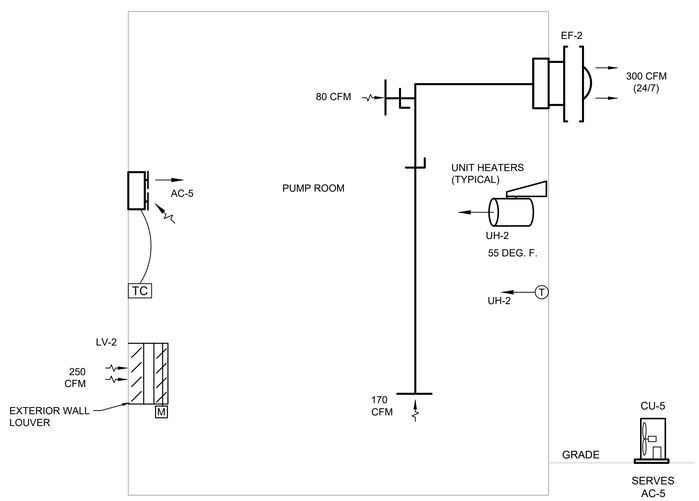
EXHAUST FANS (SUMMER):
1. THE SUMMER VENTILATION FAN EF-I-5 SHALL RUN WHEN THE ASSOCIATED ROOM TEMPERATURE RISES ABOVE SETPOINT AND DAMPER SHALL BE INTERLOCKED TO OPEN WHEN SUMMER FAN IS ENERGIZED.

UNIT HEATERS:
1. CYCLE ON/OFF BASED ON THEIR RESPECTIVE REMOTE ROOM-MOUNTED NEMA 4X THERMOSTATS.

SEQUENCE OF OPERATION (ELECTRICAL ROOM)

GENERAL:
1. THE ELECTRICAL ROOM IS AIR-CONDITIONED BY DUCTLESS DX REFRIGERANT SPLIT SYSTEM, EACH WITH THEIR OWN ROOM-MOUNTED DEDICATED TEMPERATURE CONTROLLER.
2. ONE SYSTEM SHALL BE BACKUP FOR N+1 REDUNDANCY.
3. ALL SETPOINTS ARE ADJUSTABLE
4. DISCONNECTS AND CONDUIT/WIRING SHALL BE BY DIVISION 16 (ELECTRICAL).

SCADA:
1. THE DEDICATED ROOM TEMPERATURE SENSOR SHALL BE MONITORED BY SCADA. SCADA ALARM SETPOINTS TO BE PROGRAMMED BY DIVISION 13 (I&C)



SEQUENCE OF OPERATION (PUMP ROOM)

GENERAL:
1. THE PUMP ROOM IS VENTILATED AND AIR CONDITIONED.
2. ALL NORMAL VENTILATION SYSTEM DAMPER ACTUATORS SHALL BE FAIL CLOSED.
3. DAMPERS ARE POWERED AND INTERLOCKED WITH FANS BY DIVISION 16 (ELECTRICAL).
4. DISCONNECTS AND CONDUIT/WIRING SHALL BE BY DIVISION 16 (ELECTRICAL).

EXHAUST FANS (24/7):
1. THE 24/7 VENTILATION FAN EF-I-1 SHALL RUN AT ALL TIMES TO PROVIDE CONTINUOUS VENTILATION. ASSOCIATED INTAKE DAMPER WILL HAVE MINIMUM OPENING TO ALLOW 24/7 VENTILATION AT 500FPM THRU THE LOUVER.

HIGH WALL SPLIT SYSTEM:
1. THE PUMP ROOM IS AIR-CONDITIONED BY DUCTLESS DX REFRIGERANT SPLIT SYSTEM, WITH ITS OWN ROOM-MOUNTED DEDICATED TEMPERATURE CONTROLLER.
2. ALL SETPOINTS ARE ADJUSTABLE

UNIT HEATERS:
1. CYCLE ON/OFF BASED ON THEIR RESPECTIVE REMOTE ROOM-MOUNTED NEMA 4X THERMOSTATS.

NO.	DATE	REVISION	APP.

AACE
TBPE Firm Registration No. F-10804

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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RICARDO AZCARATE
TEXAS P.E. NO. 81863
DATE: 12/19/2025

DESIGNED BY: M. ANDERSON	SURVEYED BY:
DRAWN BY: M. ANDERSON	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: R. AZCARATE	FB NO. 340S1
REVIEWED BY: T. GALLIA	
APPROVED BY: R. AZCARATE	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

EDDINGTON CHEMICAL BUILDING HVAC SCHEMATIC

WARNING
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DWG NO
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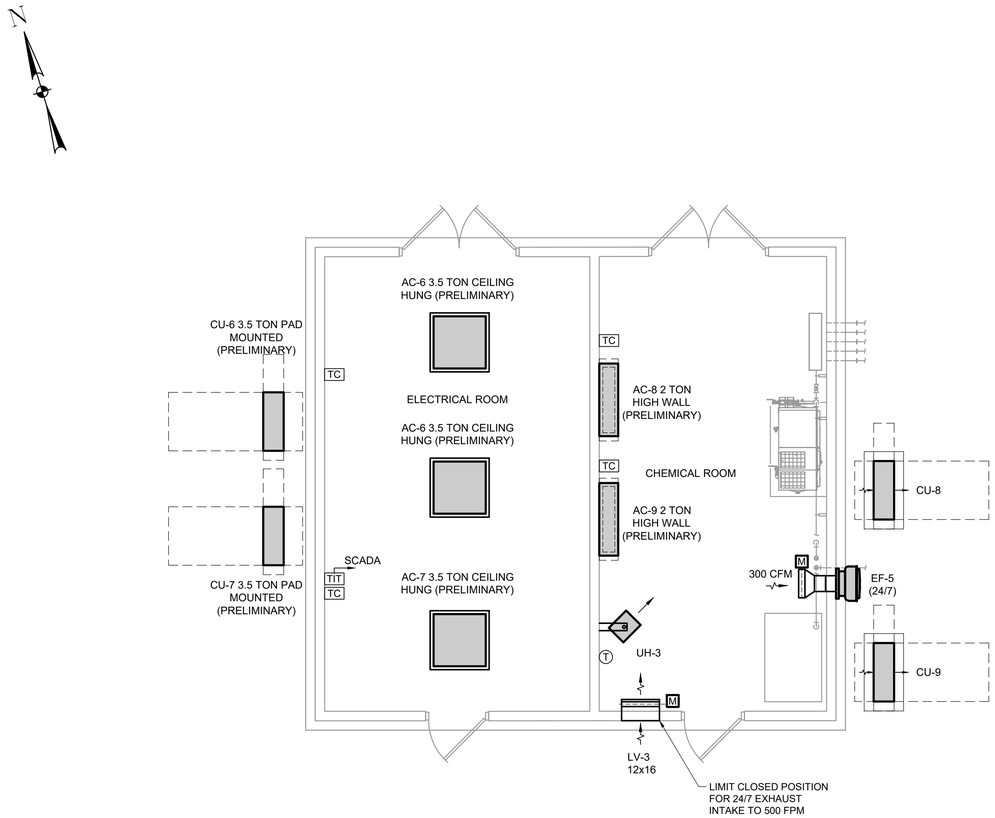

PLAN

1/4" = 1'-0"

GENERAL NOTES:

1. REFER TO AIRFLOW SCHEMATICS FOR ADDITIONAL NOTES, CFM'S, DUCT SIZES, AND CONTROLS.
2. MOUNT UNIT HEATERS MINIMUM 8'-0" AFF TO BOTTOM CLEAR AND SECURE TO ADJACENT WALL.
3. COORDINATE UNIT HEATERS TO SUPPORT FROM GROUT FILLED CMU BLOCKS. NOT ALL CMU BLOCKS WILL BE GROUT FILLED.
4. ALL HANGER MATERIAL AND HARDWARE SHALL BE 316 STAINLESS STEEL.
5. ALL CHEMICAL ROOM EXHAUST, DUCTWORK, DAMPERS, AND ASSOCIATED FITTINGS SHALL BE FRP CONSTRUCTION UNLESS NOTED OTHERWISE.
6. ALL EXTERIOR FRP DUCT, DAMPERS, AND FITTINGS SHALL BE PROTECTED WITH UV LIGHT INHIBITORS AND WHITE GEL COAT PAINT.
7. SLEEVES AND MOTORIZED DAMPERS AT INTAKE LOUVERS SHALL BE ALUMINUM CONSTRUCTION IN NON-CHEMICAL ROOMS AND FRP IN CHEMICAL ROOMS. ALL FASTENERS AND HARDWARE SHALL BE 316 STAINLESS STEEL.
8. ALL DAMPER MOTORS SHALL BE NEMA 4X EQUAL TO BELIMO SERIES WITH SUFFIX N4. SIZE DAMPER MOTORS FOR TWICE THE REQUIRED OPERATING TORQUE OF THE ASSOCIATED DAMPER OR DAMPER SECTION.
9. COORDINATE DISTANCE FROM WALL FOR ALL DUCT DROPS TO ALLOW WALL MOUNTED PIPING TO PASS BEHIND.
10. PROVIDE MANUFACTURER REQUIRED MAINTENANCE ACCESS FOR ACTUAL EQUIPMENT PURCHASED.
11. CONDUIT AND WIRING BETWEEN HVAC PROVIDED DEVICES SHALL BE BY HVAC PER DIV 16. CONDUIT AND WIRING BETWEEN HVAC DEVICES AND ELECTRICAL PROVIDED EQUIPMENT SHALL BE BY ELECTRICAL. ALL TERMINATIONS AT HVAC DEVICES SHALL BE BY HVAC.
12. ALL ACTUATORS AT EQUIPMENT AND LOUVERS INDICATED TO BE CONTROLLED/INTERLOCKED W/FANS BY ELECTRICAL SHALL BE 120V.

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CHECKED BY:	R. AZCARATE
REVIEWED BY:	T. GALLIA
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SURVEYED BY:
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

SCOTT STREET CHEMICAL BUILDING HVAC PLAN

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DWG NO
H-6

AIR CONDITIONING UNIT SCHEDULE (DUCTLESS SPLIT SYSTEMS)

AIR CONDITIONER TAG NUMBER	AC-1 THRU 3 (BACKUP)	AC-4 THRU 5	
BUILDING	EDDINGTON ELECTRICAL BUILDING	EDDINGTON CHEMICAL BUILDING	
AREA SERVED	ELECTRICAL BUILDING	ELECTRICAL ROOM	
UNIT TYPE	SPLIT DX	SPLIT DX	
UNIT CONFIGURATION	4-WAY	1-WAY	
MOUNTING	CEILING-CASSETTE	HIGH WALL	
FAN CONFIGURATION	MFR. STD.	MFR. STD.	
ALTITUDE, FT. ABOVE SEA LEVEL	705	705	
NOMINAL TONS	3	2	
SUPPLY FAN:			
FAN TYPE	CENTRIFUGAL	CENTRIFUGAL	
TOTAL AIRFLOW, CFM (H/M/L)	570-670-780-880	265-310-375-450	
MIN. OUTSIDE AIR, CFM	NONE	NONE	
FAN CONTROL	4-SPEED	4-SPEED	
DRIVE TYPE	DIRECT	DIRECT	
COOLING COIL:			
ENT. AIR TEMP. DB/WB, DEG F	80/67	80/67	
APPROX. LVG. AIR TEMP. DB/WB, DEG F	55/54	55/54	
TOTAL COOLING CAPACITY, MBH	36.0	15.3	
SENSIBLE CAPACITY, MBH	30.9	10.1	
CALCULATED SENSIBLE LOAD, MBH	20.0	12.9	
HEATING:			
TYPE	HEAT PUMP	HEAT PUMP	
ACTUAL LOAD, BTUH	-	-	
RATED CAPACITY, MBH	19.3	13.3	
FILTERS	MFR STD	MFR STD	
REFRIGERANT LIQUID PIPE SIZE, IN	3/8	1/4	
REFRIGERANT GAS PIPE SIZE, IN	5/8	1/2	
DRAIN PIPE SIZE	1-1/4	1-1/4	
ELECTRICAL:			
VOLTS/PHASE/HERTZ	230/1/60	230/1/60	
MINIMUM CIRCUIT AMPACITY, MCA	1	1	
OPERATING WEIGHT, LBS	60	50	
MANUFACTURER	TRANE/MITSUBISHI	TRANE/MITSUBISHI	
MODEL NUMBER	PLA-A36EA8	PKA-AL24NL	
ASSOCIATED CONDENSING UNITS	CU-1 THRU 3	CU-4 THRU 5	

REMARKS: (APPLICABLE TO ALL UNITS)

1. SCHEDULE IS INCOMPLETE WITHOUT SPECIFICATION SECTION 23 81 26.
2. PROVIDE WIRED WALL MOUNTED CONTROLLER.
3. PROVIDE MANUFACTURER STANDARD CONDENSATE PUMP AND HIGH WATER CUTOFF.
4. PROVIDE WITH EEV KITS PER MANUFACTURER.
5. INDOOR UNIT IS POWERED BY OUTDOOR CONDENSING UNIT. FIELD WIRING/CONDUIT BY DIV.26.

ELECTRIC UNIT HEATER SCHEDULE

EQUIPMENT TAG NUMBER	UH-1	UH-2 THRU 3	
BUILDING	EDDINGTON CHEMICAL BUILDING	EDDINGTON CHEMICAL BUILDING	
ROOM SERVED	MECHANICAL ROOM	PUMP ROOM	
TOTAL CAPACITY, KW PER HEATER	3.75	5.0	
AIRFLOW, CFM	300	700	
AIR THROW, FT	N/A	26	
AIR TEMP RISE, DEG F	40	24	
FAN TYPE	PROPELLER	PROPELLER	
MOTOR ENCLOSURE	MFGR STD	TEFC	
TERMINAL ENCLOSURE		NEMA 4X	
RATING	N/A	WASHDOWN CORROSION RESISTANT	
VOLTS/PHASE/HERTZ PER HEATER	208/1/60	460/3/60	
TOTAL CURRENT DRAW, AMPS	18.4	12	
EMERGENCY POWER	NO	NO	
OPERATING WEIGHT, LBS	27	60	
MANUFACTURER	INDEECO ULI	TRIAD	
MODEL NUMBER	924U05000VA	234-U11N-005U-L	
CONTROLS NOTES	C1	C1	

REMARKS: (APPLICABLE TO ALL UNITS)

A. SCHEDULE IS INCOMPLETE WITHOUT SPECIFICATION SECTION 15550.
B. PROVIDE CLEARANCES PER MANUFACTURER.
C. UNIT SHALL BE MOUNTED AT 8'-0" UNLESS NOTED OTHERWISE.

NOTES:

1. UNIT SHALL BE SINGLE POINT ELECTRICAL CONNECTION WITH INTEGRAL TRANSFORMER FOR UNIT CONTROLS. DISCONNECT BY ELECTRICAL.
2. PROVIDE WITH SWIVEL BRACKET FOR WALL OR CEILING MOUNTING AS INDICATED ON PLANS.
3. HEATING ELEMENTS SHALL BE 316 STAINLESS STEEL.
4. PROVIDE WITH REMOTE MOUNTED NEMA4X THERMOSTAT AND AUTO RESET THERMAL CUTOUT.

CONTROLS NOTES:

C1. UNIT SHALL RUN INTERMITTENTLY, TURNING ON/OFF BASED ON ROOM THERMOSTAT SETPOINT.

CONDENSING UNIT SCHEDULE (DUCTLESS SPLIT SYSTEMS)

CONDENSING UNIT TAG NUMBER	CU-1 THRU 3	CU-4 THRU 5	
BUILDING	EDDINGTON ELECTRICAL BUILDING	GAC CONTACTOR FACILITY	
AREA SERVED	ELECTRICAL	CONTROL ROOM	
UNIT TYPE	AIR-COOLED	AIR-COOLED	
UNIT CONFIGURATION	HORIZONTAL	HORIZONTAL	
MOUNTING	CONC PAD ON GRADE	CONC PAD ON ROOF	
AMBIENT TEMP. RATING DEG F. MAX.	115	115	
AMBIENT TEMP. RATING DEG F. MIN.	0	0	
NOMINAL TONS	3.0	1.5	
GROSS COOLING CAPACITY, MBH	36.0	18.0	
GROSS HEATING CAPACITY, MBH	MFR. STD.	23.0	
VOLTS/PHASE/HERTZ	230/1/60	230/1/60	
ELECTRICAL MCA, AMPS	25	22	
ELECTRICAL MOCP, AMPS	30	37	
MANUFACTURER	TRANE/MITSUBISHI	TRANE/MITSUBISHI	
MODEL NUMBER	PUZ-AK36NL	PUZ-AK24NL	
COMPRESSOR TYPE	SCROLL	SCROLL	
REFRIGERANT TYPE/CHARGE	R454B/7.72LBS	R454B/4.41LBS	
COOLING SEER2	23.3	24.7	
COOLING EER @ 95 DEG.F.	13.7	13.7	
MOTOR HP	MFR. STD.	MFR. STD.	
OPERATING WEIGHT, LBS	160	100	

REMARKS: (APPLICABLE TO ALL UNITS)

1. SCHEDULE IS INCOMPLETE WITHOUT SPECIFICATION SECTION 23 81 26.
2. PROVIDE LOW AMBIENT CONTROL WIND BAFFLE FOR OPERATION DOWN TO 0 DEG.F..
3. CAPACITY SHALL BE AT 115 DEG.F. AMBIENT CONDITIONS.
4. UNIT SHALL HAVE SPECIAL COATINGS PER SPECIFICATION 23 00 00.
5. INDOOR UNIT IS POWERED BY OUTDOOR CONDENSING UNIT, FIELD WIRING/CONDUIT BY DIV. 26.

EXHAUST FAN SCHEDULE

EQUIPMENT TAG NUMBER	EF-1	EF-2	EF-3
BUILDING	MECHANICAL ROOM	EDDINGTON CHEMICAL BUILDING	SCOTT CHEMICAL BUILDING
SERVICE	EXHAUST (SUMMER)	EXHAUST (24/7)	EXHAUST (SUMMER)
UNIT CONFIGURATION	UPBLAST	UPBLAST	UPBLAST
LOCATION	WALL	WALL	WALL
DISCHARGE	HORIZONTAL	HORIZONTAL	HORIZONTAL
ALTITUDE, FT. ABOVE SEA LEVEL	20	20	20
FAN MATERIAL OF CONSTRUCTION	ALUMINUM	FIBERGLASS	FIBERGLASS
FAN TYPE	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
AIRFLOW, CFM	500	300	300
TOTAL STATIC PRESSURE, IN. WG	0.3	0.3	0.3
AIR STREAM TEMP RANGE, DEG F	70-110	70-110	70-110
FAN RPM	1,021	835	835
DRIVE TYPE	BELT	BELT	BELT
MOTOR HP	0.25	0.25	0.25
MOTOR RPM	1,725	1,725	1,725
MOTOR ENCLOSURE	TEFC	TEFC	TEFC
FAN SPEED CONTROL	ONLY FOR BALANCING	NO	NO
VOLTS/PHASE/HERTZ	120/1/60	460/3/60	460/3/60
EMERGENCY POWER	NO	NO	NO
SPARK PROOF	NO	NO	NO
SOUND DATA (DBA @ 5 FT. RADIUS)	64	64	64
VIBRATION ISOLATORS	MFR STD	MFR STD	MFR STD
STANDARD CURB CAP SIZE, IN x IN	19x19	19.63x19.63	19.63x19.63
CURB EXTENSION HEIGHT, IN	NONE	NONE	NONE
CURB ADAPTER SIZE, IN x IN	NONE	NONE	NONE
ROOF/WALL OPENING SIZE, IN x IN	15.5x15.5	19x19	19x19
OPERATING WEIGHT, LBS	111	111	111
MANUFACTURER	GREENHECK	MK PLASTICS	MK PLASTICS
MODEL NUMBER	CUE-099-VG	RBK-12	RBK-12
DAMPER	SEE PLANS	SEE PLANS	SEE PLANS
NOTES	1		
CONTROLS	SEE SCHEMATICS	SEE SCHEMATICS	SEE SCHEMATICS

GENERAL NOTES: (APPLICABLE TO ALL UNITS)

1. SCHEDULE IS INCOMPLETE WITHOUT SPECIFICATION SECTION 15860 & 15861.
2. PROVIDE ALL BELT DRIVEN EQUIPMENT WITH ONE SET OF SPARE BELT(S).

NOTES:

1. PROVIDE WITH ALUMINUM CONSTRUCTION, STAINLESS STEEL SHAFT AND FASTENERS, AND COATINGS ON FAN AND ACCESSORIES.

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REVIEWED BY: T. GALLIA
APPROVED BY: R. AZCARATE

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

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HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

HVAC SCHEDULES

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DWG NO
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WBS NUMBER
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DRAWING SCALE

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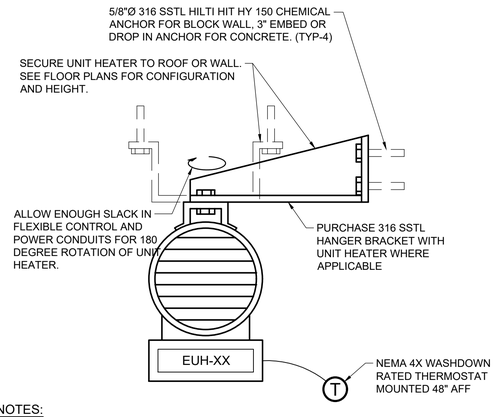
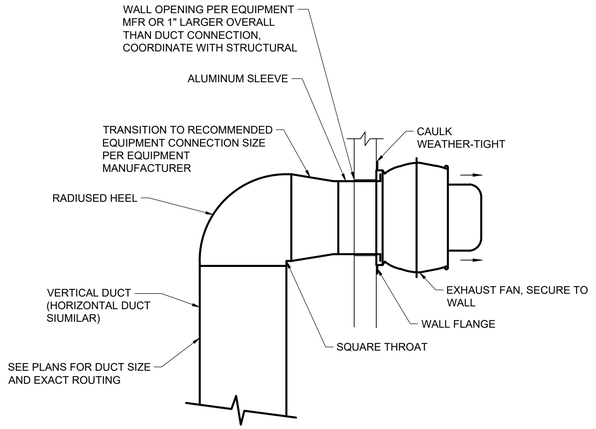


NOTES:

1. UNIT HEATER SHALL BE MOUNTED WITH BOTTOM AT 8'-0". THIS DIMENSION MAY BE ADJUSTED FROM 7'-0" MINIMUM TO 9'-0" MAXIMUM IF NEEDED DUE TO A CONFLICT IN THE FIELD. NOTIFY ENGINEER IF MORE ADJUSTMENT IS NEEDED.

A - NTS
ELECTRIC UNIT HEATER

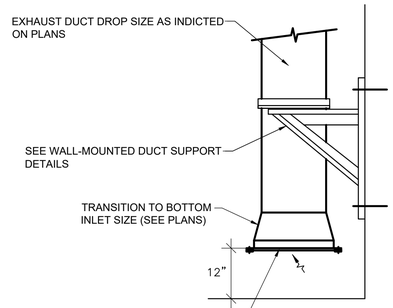


NOTES:

1. PROVIDE LONG RADIUSED ELBOWS WHERE POSSIBLE. SHORT RADIUS AND SQUARE THROAT ELBOWS MAY BE USED WHEN NECESSARY.

SINGLE DUCT

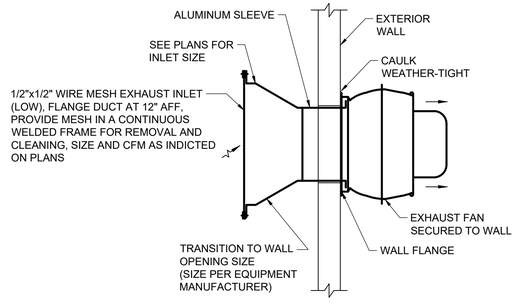
B - NTS
WALL-MOUNTED EXHAUST FAN W/DUCTED INLET



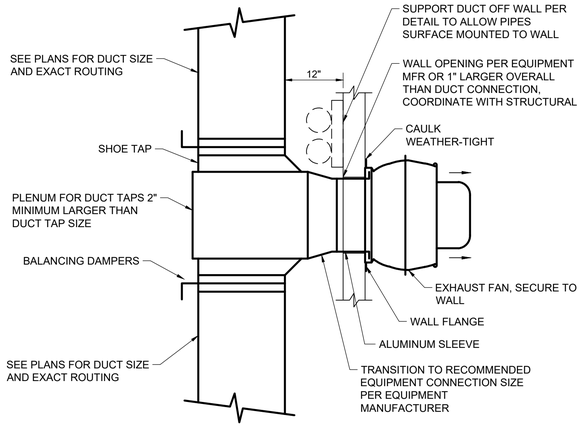
NOTES:

1. MATERIALS SHALL BE ALUMINUM OR 316 STAINLESS STEEL.

C - NTS
LOW POINT EXHAUST INLET



D - NTS
WALL-MOUNTED EXHAUST FAN WITH HIGH INTAKE



HIGH & LOW DUCT SPLIT

E - NTS
WALL-MOUNTED EXHAUST FAN W/DUCTED INLET

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HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

HVAC DETAILS

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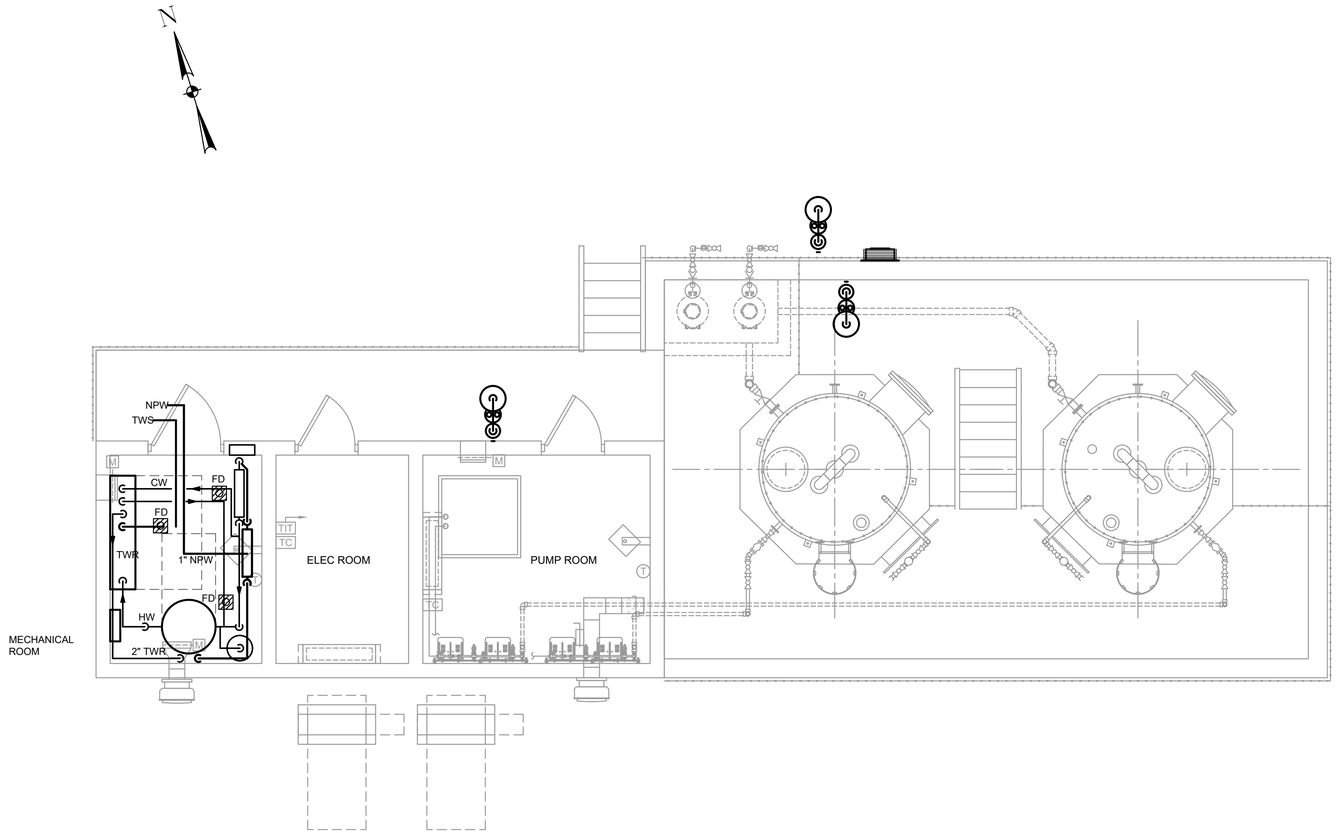

PLAN

1/4" = 1'-0"

4' 0 4' 8'

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

GENERAL NOTES:

1. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
2. REFER TO STRUCTURAL SHEETS FOR COORDINATION OF ROOF, FLOOR, AND WALL OPENINGS. REFER TO STRUCTURAL DETAILS FOR ADDITIONAL INFORMATION ON CONCRETE CURBS AND PADS.
3. REFER TO MECHANICAL SHEETS FOR COORDINATION OF PROCESS EQUIPMENT, PIPING, AND ACCESSORIES. VERIFY SPACE REQUIREMENTS FOR PLUMBING EQUIPMENT, PIPING, AND ALL CLEARANCES.
4. REFER TO ARCHITECTURAL SHEETS FOR COORDINATION OF EXTERIOR WALL PENETRATIONS (E.G. VENTS, ETC). REFER TO ARCHITECTURAL DETAILS FOR WEATHERPROOFING.
5. EQUIPMENT CLEARANCES SHALL BE PROVIDED PER THE NATIONAL ELECTRIC CODE, ACCESS REQUIREMENTS PER EQUIPMENT MANUFACTURER, AND SPACE ALLOWANCE FOR MAINTENANCE PERSONNEL AND REMOVAL OF PARTS.
6. SANITARY SEWER AND SANITARY VENT PIPING SHALL BE SCH40 PVC WITH DWV FITTINGS.
7. POTABLE WATER (PW) COLD WATER (CW) AND TEPID WATER (TW) PIPING SHALL BE COPPER WITH INSULATION AND JACKETING. ALL JACKETING SHALL BE ALUMINUM, WITH THE EXCEPTION OF PIPING EXPOSED INDOORS ABOVE 8FT CAN BE PVC.
8. PIPING SUPPORTS SHALL BE ALUMINUM OR 316 STAINLESS STEEL UNISTRUT WITH 316 STAINLESS STEEL ACCESSORIES. PIPE CLAMPS SHALL BE ON THE OUTSIDE OF THE INSULATION. PROVIDE RIGID INSERTS WITH ALUMINUM SHELL SIMILAR TO ARMAFIX PIPE SUPPORTS OR APPROVED EQUAL.

NO.	DATE	REVISION	APP.

AACE

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THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
RICARDO AZCARATE
TEXAS P.E. NO. 81863
DATE: 12/19/2025

DESIGNED BY: M. ANDERSON	SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
DRAWN BY: M. ANDERSON	FB NO. 340S1
CHECKED BY: R. AZCARATE	
REVIEWED BY: T. GALLIA	
APPROVED BY: R. AZCARATE	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

EDDINGTON CHEMICAL BUILDING PLUMBING PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
P-2

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. OF XX	

ELECTRIC WATER HEATER SCHEDULE

EQUIPMENT TAG NUMBER	WH-1	
BUILDING	CHEMICAL BUIDLING	
SERVES	ESEW	
LOCATION	MECHANICAL RM	
TOTAL CAPACITY, GAL	150	
INPUT, KILOWATTS	36	
VOLTS/PHASE/HERTZ	480/3/60	
FULL LOAD AMPS	44	
RECOVERY RATE, GPH	180	
TEMPERATURE RISE, DEG F	80	
LEAVING WATER TEMP, DEG F	120	
MANUFACTURER	DURAWATT	
MODEL NUMBER	180 L 150A-E	
NOTES	1, 2	

GENERAL NOTES: (APPLICABLE TO ALL UNITS)

1. SCHEDULE IS INCOMPLETE WITHOUT SPECIFICATION SECTION 15450.

NOTES:

1. PROVIDE STORAGE TYPE HEATERS WITH HEAT TRAPS AT EACH WATER INLET AND OUTLET.
2. PROVIDE WATTS MODEL DETA-30 EXPANSION TANK (10 GAL ACCEPTANCE, 15 GAL VOLUME MIN).

TEPID WATER SKID SCHEDULE

EQUIPMENT TAG NUMBER	TWS-1	
AREA SERVED	CHEMICAL BUILDING	
LOCATION	MECHANICAL RM	
TEPID WATER SKID:		
RECIRC PUMP HORSEPOWER	1/2	
VOLTS/PHASE/HERTZ	460/3/60	
AMPS	15	
MANUFACTURER	HAWS	
MODEL NUMBER	8780-WALL	
NOTES	1, 2	

NOTES:

1. PROVIDE WALL MOUNTED CONFIGURATION (60"x18"x48") WITH ALL FRONT ACCESS.
2. PROVIDE WITH 316 SSTL SUPPORTS, NEMA 4X ENCLOSURE, INSULATED AND JACKETED PIPING.

EMERGENCY SHOWER/EYE WASH UNIT SCHEDULE

EQUIPMENT TAG NUMBER	ESEW-A	ESEW-B	
LOCATION	INDOOR	OUTDOOR	
CONFIGURATION	STANDARD	FLOW-THRU	
INSULATION & JACKET	NONE	YES	
MANUFACTURER	HAWS	HAWS	
MODEL NUMBER	8330CRP	8317CTFP CF N4-RECIRC	
HEAT TRACE	NONE	YES	
VOLTS/PHASE/HERTZ	N/A	120/1/60	
WATTS	N/A	80	
MAXIMUM CIRCUIT AMPACITY	N/A	15	

GENERAL NOTES: (APPLICABLE TO ALL UNITS)

1. SCHEDULE IS INCOMPLETE WITHOUT SPECIFICATION SECTION 15450.
2. CUSTOM ORDERED, SIMILAR TO HAWS MODEL INDICATED.
3. UNITS TO HAVE "CORROSION RESISTANT PACKAGE".

NO.	DATE	REVISION	APP.

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RICARDO AZCARATE
TEXAS P.E. NO. 81863
DATE: 12/19/2025

DESIGNED BY: M. ANDERSON
DRAWN BY: M. ANDERSON
CHECKED BY: R. AZCARATE
REVIEWED BY: T. GALLIA
APPROVED BY: R. AZCARATE

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ALLY GENERAL SOLUTIONS, LLC
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

PLUMBING SCHEDULES

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
P–3

WBS NUMBER
R–001000–0035–4

DRAWING SCALE

CITY OF HOUSTON PM
NEIL BARNSDALE, P.E.

SHEET NO. OF XX

FOR CITY OF HOUSTON USE ONLY

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/16/2026 3:28 PM
FILE PATH: P:\083014 – Ardurra Houston – Coh Eddington Lift Station Improvements\200 Design Phase\206 CAD\Plumbing\P–3.dwg

SYMBOLS	DESCRIPTION
52 CS	MEDIUM VOLTAGE DRAWOUT TYPE POWER CIRCUIT BREAKER CS-CONTROL SWITCH
(E.O.) FRAME TRIP	LOW VOLTAGE CIRCUIT BREAKER, 3 POLE UNLESS OTHERWISE NOTED. LSIG IF NOTED MCP IF NOTED ERMS IF NOTED
✳ OR	COMBINATION MOTOR CIRCUIT PROTECTOR AND MAGNETIC MOTOR STARTER, FULL VOLTAGE NON-REVERSING UNLESS OTHERWISE NOTED: ✳ FVR-FULL VOLTAGE REVERSING RVNR-REDUCED VOLTAGE NON-REVERSING 2S1W-TWO SPEED, ONE WINDING 2S2W-TWO SPEED, TWO WINDING
✳ OR	NON-FUSIBLE DISCONNECT SWITCH, 600 VOLT, 3 POLE ✳ AMPERE RATING NOTED IF OTHER THAN 30A
✳ ✱ OR F	FUSIBLE DISCONNECT SWITCH, 600 VOLT, 3 POLE, AMPERE RATING AND FUSE SIZE AS NOTED: ✳ AMPERE RATING NOTED IF OTHER THAN 30A ✱ FUSE RATING
MIS OR I	MOTOR ISOLATION SWITCH, HORSEPOWER RATED
	DRAWOUT TYPE EQUIPMENT OR DEVICE
	MEDIUM VOLTAGE CABLE TERMINATION
	MEDIUM VOLTAGE AIR INTERRUPTER SWITCH
	MEDIUM VOLTAGE FUSED AIR INTERRUPTER SWITCH
	MEDIUM VOLTAGE FUSED MOTOR CONTROLLER
30KVA 480V- 120/208Y K-*	TRANSFORMER, RATINGS AND CONNECTIONS AS NOTED. UNLESS OTHERWISE NOTED ON THE SINGLE LINE DIAGRAMS ALL DRY TYPE TRANSFORMERS SERVICING ADMINISTRATIVE AND LABORATORY SPACES SHALL HAVE A K FACTOR OF 13. ALL OTHER DRY TYPE TRANSFORMERS SHALL HAVE A K-4 RATING. ISOLATION TRANSFORMERS SHALL HAVE A K-20 RATING
✳ A:5	CURRENT TRANSFORMER: ✳ QUANTITY A= PRIMARY AMPERES
✳ PV-SV	POTENTIAL TRANSFORMER: ✳ QUANTITY PV= PRIMARY VOLTAGE SV= SECONDARY VOLTAGE
	GENERATOR, RATINGS AND CONNECTIONS AS NOTED
100A ATS-1 N S	TRANSFER SWITCH AUTOMATIC TRANSFER SWITCH (EG ATS-1) MANUAL TRANSFER SWITCH (EG MTS-1) "N" INDICATES NORMAL SOURCE "S" INDICATES STANDBY SOURCE 100A INDICATES CONTINUOUS CURRENT RATING
✳	VARIABLE SPEED DRIVE CONTROLLER ✳ D.C.= D.C. DRIVE CONTROLLER SCR= SILICON CONTROLLED RECTIFIER VFD= VARIABLE FREQUENCY DRIVE AFD= ADJUSTABLE FREQUENCY DRIVE
	VACUUM CONTACTOR
5KW OR E	UNIT HEATER - ELECTRIC HEATING COIL AND FAN
5KW OR U	UNIT HEATER - STEAM OR WATER HEATING COIL AND FAN
M	MOTOR, NUMERAL INDICATES HORSEPOWER
SPD	SURGE PROTECTION DEVICE
VFD	VARIABLE FREQUENCY DRIVE

SYMBOLS	DESCRIPTION
VM ✳	VOLTMETER (WITH SWITCH IF 3-PHASE)
AM ✳	AMMETER (WITH SWITCH IF 3-PHASE)
*	METER ✳ WM- WATTMETER WHM- WATTHOUR METER WHDM- WATTHOUR DEMAND METER WHDR- WATTHOUR DEMAND RECORDER PF- POWER FACTOR METER RT- RUNNING TIME METER TRANSDUCER AX- CURRENT TRANSDUCER WX- WATT TRANSDUCER
#	RELAY, NO. AS INDICATED 25- SYNCHRONISM CHECK RELAY 27- UNDER VOLTAGE RELAY 38- BEARING PROTECTIVE DEVICE 40- LOSS OF EXCITATION RELAY 42- RUNNING CONTACTOR/PILOT RELAY 46- REVERSE PHASE/PHASE BALANCE/CURRENT RELAY 47- PHASE SEQUENCE VOLTAGE RELAY 49- MACHINE OR TRANSFORMER THERMAL RELAY 50- INSTANTANEOUS OVERCURRENT RELAY 50G- INSTANTANEOUS GROUND 51- TIME OVER CURRENT RELAY 51G- TIME OVERCURRENT RELAY, GROUNDING RESISTOR TYPE 51N- TIME OVERCURRENT RELAY, RESIDUAL TYPE 51V- TIME OVERCURRENT RELAY WITH VOLTAGE RESTRAINT 60- NEGATIVE SEQUENCE VOLTAGE RELAY 62- TIME DELAY RELAY 63- OVER PRESSURE RELAY 67- AC DIRECTIONAL OVERCURRENT RELAY 83- AUTOMATIC SELECTIVE CONTROL OR TRANSFER RELAY 86- LOCKING-OUT RELAY 87- DIFFERENTIAL PROTECTIVE RELAY B- SUFFIX INDICATES "BUS" G- SUFFIX INDICATES "GENERATOR" GF- GROUND FAULT ST- SHUNT TRIP T- SUFFIX INDICATES "TRANSFORMER" X- SUFFIX INDICATES "AUXILIARY"
*	SPECIAL CAPACITOR ✳ SC- SURGE CAPACITOR PF- POWER FACTOR CORRECTION CAPACITOR INCLUDING INDUCTIVE LINK AS NEEDED
	PUSH BUTTON, MOMENTARY CONTACT, SPRING RETURN, NORMALLY CLOSED
	PUSH BUTTON, MOMENTARY CONTACT, SPRING RETURN, NORMALLY OPEN
E-STOP	EMERGENCY STOP PUSH BUTTON WITH RED MUSHROOM HEAD OPERATOR (MAINTAINED CONTACT)
✳ N	STOP PUSH BUTTON WITH RED HEAD OPERATOR (MAINTAINED CONTACT) WITH LOCKABLE OPTION ✳: E-STOP ✳: STOP
STOP START	START-STOP PUSH BUTTON CONTROL STATION (MOMENTARY CONTACT) "L" DENOTES LOCKOUT TYPE
STOP START	START-STOP PUSH BUTTON CONTROL STATION, MAINTAINED CONTACT WITH LOCKOUT DEVICE ON STOP
OFF ON	OFF/ON SELECTOR SWITCH
A B C ✳ (XOO) (OOX)	3 POSITION SELECTOR SWITCH, MAINTAINED CONTACT O-OPEN X-CLOSED

POSITION	TOP CONTACT	MIDDLE CONTACT	BOTTOM CONTACT
A	X	O	O
B	0	0	O
C	0	O	X

✳ NAMEPLATE (A/B/C)
HOA- HAND/OFF/AUTO
HOR- HAND/OFF/REMOTE
LOR- LOCAL/OFF/REMOTE
RSL- RAISE/STOP/LOWER
TOA- TEST/OFF/AUTO

NOTE: 2 POSITION MULTI-CONTACT SWITCH FOLLOWS SAME CONVENTION

M #	MOTOR STARTER COIL, NUMBER AS INDICATED
CR #	CONTROL RELAY COIL, NUMBER AS INDICATED
	RVSS: REDUCED VOLTAGE STATIC SOLID SOFT STARTER

SYMBOLS	DESCRIPTION
*	PILOT LIGHT, COLOR AS NOTED ✳ R- RED G- GREEN B- BLUE W- WHITE A- AMBER
* PTT	PILOT LIGHT, PUSH-TO-TEST TYPE, COLOR AS NOTED ABOVE.
TD	TIME DELAY RELAY RANGE AS NOTED SET POINT AS NOTED TDD-TIME DELAY AFTER DE-ENERGIZATION-OFF DELAY TDE-TIME DELAY AFTER ENERGIZATION-ON DELAY
	NOTC-NORMALLY OPEN, TIMED CLOSING WHEN ENERGIZED
	NCTO-NORMALLY CLOSED, TIMED OPENING WHEN ENERGIZED
	NOTO-NORMALLY OPEN, TIMED OPENING WHEN DE-ENERGIZED
	NCTC-NORMALLY CLOSED, TIMED CLOSING WHEN DE-ENERGIZED
⊗	FIELD INSTRUMENT, TAG NO. OR LOOP # AS INDICATED ✳INDICATES INSTRUMENT TYPE DEFINED ON LOOP SHEETS ## - INDICATES LOOP NO.
OR ⊗	LIQUID LEVEL (FLOAT) SWITCH NORMALLY OPEN, CLOSES ON RISING LEVEL NORMALLY CLOSED, OPENS ON RISING LEVEL NORMALLY OPEN, CLOSES ON DROPPING LEVEL NORMALLY CLOSED, OPENS ON DROPPING LEVEL
OR ⊗	PRESSURE OR VACUUM SWITCH NORMALLY OPEN, CLOSES ON RISING PRESSURE NORMALLY CLOSED, OPENS ON RISING PRESSURE NORMALLY OPEN, CLOSES ON DROPPING PRESSURE NORMALLY CLOSED, OPENS ON DROPPING PRESSURE
OR ⊗	TEMPERATURE SWITCH OR THERMOSTAT NORMALLY OPEN, CLOSES ON RISING TEMPERATURE NORMALLY CLOSED, OPENS ON RISING TEMPERATURE NORMALLY OPEN, CLOSES ON DROPPING TEMPERATURE NORMALLY CLOSED, OPENS ON DROPPING TEMPERATURE
OR ⊗	FLOW SWITCH (AIR, WATER, ETC.) NORMALLY OPEN, CLOSES ON INCREASED FLOW NORMALLY OPEN, CLOSES ON DROPPING FLOW NORMALLY CLOSED, OPENS ON INCREASED FLOW NORMALLY CLOSED, OPENS ON DROPPING FLOW
OR ⊗	POSITION (LIMIT) SWITCH NORMALLY OPEN NORMALLY OPEN - HELD CLOSED NORMALLY CLOSED NORMALLY CLOSED - HELD OPEN
OR ⊗	TORQUE SWITCH NORMALLY CLOSED, OPENS ON HIGH TORQUE
	CONDUCTORS OR CONDUITS CROSSING PATHS BUT NOT CONNECTED
	CONDUCTORS ELECTRICALLY CONNECTED
FAN	SUPPLY/EXHAUST FAN

SYMBOLS	DESCRIPTION
LA SC	LIGHTNING ARRESTER/SURGE CAPACITOR
OR	GROUND ROD GROUND ROD WELL
30A	FUSE, AMPERE RATING AS NOTED
OR HTR	HEATER
	INDUCTOR
TG	TACHOMETER GENERATOR
	CONTACT, NORMALLY OPEN (NO)
	CONTACT, NORMALLY CLOSED (NC)
	OVERLOAD RELAY HEATER
K	KEY INTERLOCK
TB	TERMINAL OR TEST BLOCK
RTD	RESISTANCE TEMPERATURE DETECTOR
VE	VIBRATION DETECTOR
DM	DAMPER MOTOR
ETM OR	ELAPSED TIME METER
MOV	MOTOR OPERATED VALVE
	PUSH BUTTON STATION, REFER TO ELECTRICAL SCHEMATIC FOR NUMBER OF DEVICES.
J	JUNCTION BOX
JP	POWER JUNCTION BOX
JI	4-20mA SIGNAL JUNCTION BOX
JC	CONTROL JUNCTION BOX
PB	PULL BOX
TC	TERMINATION CABINET
	REMOTE DEVICES
5	MOV WITHOUT INTEGRATED DISCONNECT
5	MOV WITH INTEGRATED DISCONNECT
	INDICATES LIMITS OF EQUIPMENT OR WIRING ENCLOSURE
MPR	(MPR) MOTOR PROTECTION RELAY

GENERAL NOTE

THIS IS A STANDARD LEGEND. SOME SYMBOLS MAY NOT APPEAR ON THE DRAWINGS.

NO.	DATE	REVISION	APP.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
ELECTRICAL LEGENDS & SYMBOLS – I

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	R-001000-0035-4
DRAWING SCALE	NTS
CITY OF HOUSTON PM	NEIL BARNSDALE, P.E.
SHEET NO.	XX OF XX

DWG NO
GE-1

FOR CITY OF HOUSTON USE ONLY

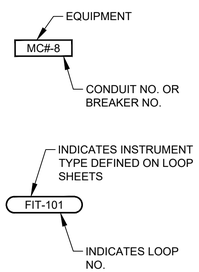
PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 6:28 PM
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Electrical\Working\H8111_GE-01.dwg

SYMBOLS	DESCRIPTION
A LA-3 b	REFER TO LIGHT FIXTURE SCHEDULE FOR TYPE FIXTURE: "A"- FIXTURE TYPE "b"- CONTROLLED BY SWITCH "b" "LA-3"- CIRCUIT 3 FROM PANEL LA
b A LA-3	REFER TO LIGHT FIXTURE SCHEDULE FOR TYPE FIXTURE, NOTATIONS SAME AS ABOVE
A LA-3 OR A LA-3 NS	INDICATES LIGHT FIXTURES WHICH ARE NONSWITCHED, NOTATIONS SAME AS ABOVE "NS" - NONSWITCHED
A LA-3 b	WALL MOUNTED LIGHTING FIXTURE, NOTATIONS SAME AS ABOVE
A LA-3 b	POLE MOUNTED LIGHTING FIXTURE, NOTATIONS SAME AS ABOVE
A LA-3	EMERGENCY LIGHTING BATTERY UNIT WITH TWO LAMP HEADS, NOTATIONS SAME AS ABOVE
A	REMOTE EMERGENCY ADJUSTABLE WALL LIGHTING FIXTURE WITH TWO LAMP HEADS, NOTATIONS SAME AS ABOVE
A LA-3	CEILING MOUNTED EXIT SIGN, NOTATIONS SAME AS ABOVE
A LA-3	WALL OUTLET EXIT SIGN. ARROW INDICATES DIRECTION OF EGRESS, NOTATIONS SAME AS ABOVE
	CONDUIT, EXPOSED/SURFACE MOUNTED
	CONDUIT OR DUCTBANK, CONCEALED
	CONDUIT, EXPOSED/SURFACE MOUNTED, TURNING UP
	CONDUIT, EXPOSED/SURFACE MOUNTED, TURNING DOWN
	CONDUIT STUBBED OUT AND CAPPED
2(3#3/0+1#2G, 3"C)	DENOTES A QUANTITY OF 2 SETS OF THREE (3) NO.3/0 AWG CONDUCTORS AND 1 NO.AWG GROUND CONDUCTOR EACH INSTALLED IN 3" CONDUIT.
2(2/C#16TS)	DENOTES A QUANTITY OF TWO INSTRUMENT CABLES. EACH CONSISTS OF TWO NO.16 AWG CONDUCTORS TWISTED TOGETHER AND COVERED WITH A METALLIC SHIELD AND AN OVERALL PROTECTIVE JACKET. REFER TO THE SPECIFICATIONS FOR THE EXACT CABLE TO BE PROVIDED.
3(4"C)	DENOTES A QUANTITY OF THREE 4-INCH CONDUITS.
	FLEXIBLE METAL CONDUIT "WHIP" (2#12, #12G, 3/4"C UNLESS OTHERWISE NOTED) FOR RECESSED LIGHTING FIXTURES AND LIQUID TIGHT MOTOR CONNECTIONS
LP#-1,3	HOMERUN, CIRCUITS 1 AND 3 RUN TO PANEL LP-1
$b	SINGLE POLE SWITCH "b"- INDICATES SWITCH LEG SHALL CONTROL LIGHT FIXTURES WITH "b" DESIGNATION
$b^x	MULTI POLE SWITCH "x"- INDICATES NUMBER OF POLE "b"- NOTATIONS SAME AS ABOVE
$b^P	SINGLE POLE SWITCH AND PILOT LIGHT, "b"- NOTATIONS SAME AS ABOVE
$b^D	DIMMER LIGHTING CONTROL SWITCH, "b"- NOTATIONS SAME AS ABOVE
$b^TM	TIME SWITCH, "b"-NOTATIONS SAME AS ABOVE
$^M	MANUAL MOTOR STARTER /DISCONNECT
$^OS	SINGLE POLE SWITCH WITH OCCUPANCY SENSOR
$^DM	SINGLE POLE DIMMER SWITCH
$b^x xx	SWITCH ENCLOSURE "x"- NOTATIONS SAME AS ABOVE "b"- NOTATIONS SAME AS ABOVE "xx"- INDICATES ENCLOSURE TYPE
LC-1	LIGHTING CONTACTOR WITH NUMBER OF POLES AS INDICATED

SYMBOLS	DESCRIPTION
L*-## OR L*-##	LIGHTING PANELBOARD (TYPICAL 120V/240V OR 120V/208V)
H*-## OR H*-##	DISTRIBUTION PANELBOARD (TYPICAL 277V/480V)
LA-3	DUPLEX RECEPTACLE, 20A, 120V, 2P, 3W GFI- GROUND FAULT INTERRUPTER TYPE WP- WEATHERPROOF "LA-3"- CIRCUIT 3 FROM PANEL LA
	WELDING RECEPTACLE
	20A, 240V, 2P, 3W, RECEPTACLE
	CLASS 1, DIVISION 1, RATED TWIST LOCK RECEPTACLE, VOLTAGE AND AMPERAGE RATING AS NOTED
	SINGLE FACE, SINGLE GANG PEDESTAL WITH 20A, 120V, 2P, 3W DUPLEX RECEPTACLE, FURNISHED AND INSTALLED UNDER DIVISION 16 UNLESS OTHERWISE NOTED. * DENOTES FURNISHED UNDER OTHER DIVISIONS OF THE SPECIFICATIONS BUT INSTALLED UNDER DIVISION 16
D	DOUBLE FACE, SINGLE GANG PEDESTAL WITH 20A, 120V, 2P, 3W DUPLEX RECEPTACLE AND 20A, 240V, 2P, 3W SINGLE RECEPTACLE, FURNISHED AND INSTALLED UNDER DIVISION 16 UNLESS OTHERWISE NOTED. * DENOTES FURNISHED UNDER OTHER DIVISIONS OF THE SPECIFICATIONS BUT INSTALLED UNDER DIVISION 16
	DOUBLE RECEPTACLE, 20A, 120V, 2P, 3W MOUNTED IN BOX CURB FURNISHED UNDER OTHER DIVISIONS OF THE SPECIFICATIONS BUT INSTALLED UNDER DIVISION 16
	SINGLE GANG 20A, 120V, 3P, 3W RECEPTACLE
	QUAD RECEPTACLE
OS	OCCUPANCY SENSOR CAPABLE OF VACANCY
PC	PHOTOCELL
	QUICK CONNECT TERMINALS

TAGGING		
EQUIPMENT	EQUIPMENT TAG	CONDUIT TAG
MOTOR CONTROL CENTER	MCC-1	MC1-XX
SWITCHBOARD	SWBD-1	SB1-XX
SWITCHGEAR	SWGR-1	SG1-XX
PROGRAMMABLE LOGIC CABINET	PLC-1	PL1-XX
VARIABLE FREQUENCY DRIVE	VFD-1	VF1-P
LOW VOLTAGE TRANSFORMER	TX-LX OR TX-HX	TXLX-P OR TXHX-P
SERVICE TRANSFORMER	TX-1	TX1-P
GENERATOR	GEN-1	GN1-X
LIGHTING/POWER PANELBOARD	LP/PP-XX	XX-XX
AUTOMATIC TRANSFER SWITCH	ATS-1	AT1-XX
TYPICAL TAG FOR CONDUIT FROM THIS EQUIPMENT TO DOWN STREAM LOAD FOR EXAMPLE.		

EXAMPLE LEGEND:



SYMBOLS	DESCRIPTION
COMMUNICATIONS SYSTEMS	
	TELEPHONE OUTLET
	DATA OUTLET
P	DATA INPUT/OUTPUT CABLE OUTLET. "P" DENOTES PROCESS COMPUTER SYSTEM
	VOICE/DATA OUTLET
S	PAGING SPEAKER HORN
S	PAGING SPEAKER BI-DIRECTIONAL
S	PAGING SPEAKER, CEILING MOUNTED TYPE
S	PAGING SPEAKER, WALL MOUNTED TYPE
SECURITY SYSTEMS	
SAP	SECURITY ALARM PANEL
DS	SECURITY ALARM DOOR SWITCH
KP	SECURITY ALARM KEY PAD
CR	SECURITY SYSTEM CARD ACCESS READER
WS	SECURITY ALARM WINDOW SWITCH
MD	SECURITY ALARM MOTION DETECTOR
	SECURITY CAMERA CCTV- CLOSED CIRCUIT TV CAMERA PTZ- PAN, TILT, ZOOM CAMERA LENS CONTROLS
GB	GLASS BREAK DETECTOR
ACP	ACCESS CONTROL PANEL
FIRE ALARM SYSTEMS	
FACP	FIRE ALARM CONTROL PANEL
SD	SMOKE DETECTOR : D- DENOTES DUCT SMOKE DETECTOR R- DENOTES FIXED TEMPERATURE RATE-OF-RISE TYPE.
F	FIRE ALARM MANUAL PULL STATION, MOUNT AT 4'-0"
	ALARM HORN, MOUNT AT 7'-6" : F- DENOTES FIRE ALARM
	ALARM STROBE, MOUNT AT 6'-8" : F- DENOTES FIRE ALARM
	ALARM HORN AND STROBE LIGHT COMBINATION, MOUNT AT 6'-8" : F- DENOTES FIRE ALARM

ABBREVIATIONS

AC	ALTERNATING CURRENT
AFD	ADJUSTABLE FREQUENCY DRIVE
AFF	ABOVE FINISHED FLOOR
AG	ABOVE GRADE
ALUM	ALUMINUM
AMP/A	AMPERE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CLF	CURRENT LIMITING FUSE
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CS	CONTROL SWITCH
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DI	DOOR INTERLOCK
DN	DOWN
DWG	DRAWING
EHH	ELECTRICAL HANDHOLE
EC	EMPTY CONDUIT
ELEC	ELECTRICAL
ELEV	ELEVATION
EM	EMERGENCY
EMH	ELECTRICAL MANHOLE
EO	ELECTRICALLY OPERATED
ERMS	ENERGY-REDUCING MAINTENANCE SWITCH
FBO	FURNISHED BY OTHERS
FO	FIBER OPTIC
FRP	FIBERGLASS REINFORCED POLYESTER
FU	FUSE
GCP	GENERATOR CONTROL PANEL
GEN	GENERATOR
G, GRD	GROUND
GFI	GROUND FAULT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GO	GATE OPERATOR
GRS	GALVANIZED RIGID STEEL
HH	HANDHOLE
HT	HEIGHT
HTP	HEAT TRACE PANEL
HZ	HERTZ
IMH	INSTRUMENT MAN HOLE
INST	INSTRUMENT
LA	LIGHTNING ARRESTER
LC	LIGHTNING CONTACTOR
LCP	LOCAL CONTROL PANEL
LGTS	LIGHTS
LP	LIGHTING PANEL
	CONTINUED ABOVE RIGHT

	CONTINUED BELOW LEFT
LSIG	LONG TIME/SHORT TIME/ INSTANTANEOUS/GROUND FAULT FEATURE INCLUDED
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MFR	MANUFACTURER
MH	MANHOLE
MLO	MAIN LUGS ONLY
MTG	MOUNTING
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NO	NORMALLY OPEN OR NUMBER
NTS	NOT TO SCALE
OL	OVERLOAD
OLX	OVERLOAD CONTROL RELAY
PB	PUSH BUTTON OR PULL BOX
PCC	PUMP CONTROL CONSOLE
PPR	PHASE PROTECTIVE RELAY
PPU	PERPETUAL POWER UNIT
PFR	PHASE FAILURE RELAY
PH	PHASE
PNLBD	PANELBOARD
PR	PAIR
PT	POTENTIAL TRANSFORMER
PTT	PUSH TO TEST TYPE
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
RCP	RELAY CONTROL PANEL
RECP	RECEPTACLES
RVSS	REDUCED VOLTAGE SOFT STARTER
SC	SURGE CAPACITOR
SCH	SCHEMATIC
SCCR	SHORT CIRCUIT CURRENT RATING
SEC	SECONDS OR SECONDARY
SH	SHIELDED OR SHEET
SHT	SHEET
SM	MOTOR RATED SWITCH
SN	SOLID NEUTRAL
SS	STAINLESS STEEL
ST	STARTER
SV	SOLENOID VALVE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TERMINATION CABINET
TEL	TELEPHONE
TO	TIME DELAY ON OPENING
TS	TEMPERATURE SWITCH
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TSW	TWISTED SHIELDED WIRE
TYP	TYPICAL
UG	UNDERGROUND
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
VO	VALVE OPERATOR
W	WIRE
WP	WEATHERPROOF
XP	EXPLOSION PROOF
XFMR	TRANSFORMER

GENERAL NOTE

THIS IS A STANDARD LEGEND. SOME SYMBOLS MAY NOT APPEAR ON THE DRAWINGS.

NO.	DATE	REVISION	APP.

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TEXAS P.E. NO. 126466
DATE: XX/XX/2025

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
ELECTRICAL LEGENDS & SYMBOLS – II

WARNING
0 1
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DRAWING SCALE	
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SHEET NO. XX OF XX	

DWG NO
GE-2

PLOT STYLE: ARD_FULL_MONO H8111 DATED: 1/8/2026 6:28 PM
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Electrical\Working\H8111_GE-02.dwg

LUMINAIRE SCHEDULE

FIXTURE TYPE	VOLTAGE	LAMP TYPE	TOTAL INPUT WATTS	TOTAL OUTPUT LUMENS	MOUNT	DESCRIPTION	MAKE/MODEL
A	120/277V UNIVERSAL DRIVER	LED	42	4000	SUSPENDED	LINEAR LED LUMINAIRE, UV-STABILIZED, INJECTION-MOLDED, IMPACT-RESISTANT, FROSTED POLYCARBONATE HOUSING, -29°C TO 40°C OPERATING TEMPERATURE, 4000K COLOR TEMPERATURE, 80CRI, UV-STABILIZED, INJECTION-MOLDED, IMPACT-RESISTANT CLEAR POLYCARBONATE LENS, UL 1598 WET LOCATION LISTED.	LITHONIA ARCHWAY VAP LED SERIES VAP-4000L-PCL-WD-MVOLT-40K-80CRI-VAPCMB DAY-BRITE CFI VAPORLUME LED V2 V2WPB70L840-4-UNV TBK OR WBK ACESSORY & FKR-126
B	120/277V UNIVERSAL DRIVER	LED	13	---	STEM MOUNT	RED POLYCARBONATE LENS SUITABLE FOR WET LOCATIONS - 120V, SERIES 105 XBR	---
C	120/277V UNIVERSAL DRIVER WITH EMERGENCY BATTERY PACK WITH PHOTO CELL	LED	12	1500	WALL	POWDER COATED DIE-CAST ALUMINUM HOUSING, NATURAL ALUMINUM FINISH, -30°C TO 40°C OPERATING TEMPERATURE, 4000K COLOR TEMPERATURE, 70CRI, GASKETED LENS, IESNA TYPE III DISTRIBUTION, NEMA 4X RATED, WET LOCATION RATED, WITH EMERGENCY BATTERY PACK.	LITHONIA LIGHTING WST LED SERIES WST LED P1 40K VF MVOLT E20WC GARDCO LED WALL SCONCE 101L SERIES 101L-16L-530-NW-G1-3-EBPC-UNV-MGY
D	120/277V UNIVERSAL DRIVER WITH EMERGENCY BATTERY PACK	LED	70	-	POLE MOUNT	HIGH EFFICIENCY LED UNIT; UL LISTED FOR WET LOCATION	LIHONIA LIGHTING D-SERIES SIZE 1 DSX1 LED P2 50K T3S MVOLT RPA DDBXD OR EQUAL
E	120/277V UNIVERSAL DRIVER WITH EMERGENCY BATTERY PACK	LED	1.2	536	WALL 8-FT ABOVE FLOOR	LED STANDBY EMERGENCY LUMINAIRE, WHITE ENGINEERING GRADE THERMOPLASTIC HOUSING, 16°C TO 32°C OPERATING TEMPERATURE, IMPACT RESISTANT, CORROSION-PROOF, DAMP LOCATION RATED, EMERGENCY BATTERY PACK INCLUDED.	LITHONIA ELM6 LED SERIES LV-S-W1R-120/277-EL-N-UM-DL
F	MVOLT (120/277 UNIVERSAL DRIVER)	LED	30	-	STANCHION MOUNT	BODY MOUNTING MODULES AND GUARD-COPPER-FREE AL WITH CORRO-FREE EPOXY POWDER COAT. SUITABLE FOR CLASS I, DIVISION I HAZARDOUS LOCATIONS.	CROUSE-HINDS EV LED J4C701
X	120/277V UNIVERSAL DRIVER WITH EMERGENCY BATTERY PACK	LED	18.2	N/A	UNIVERSAL	EMERGENCY EXIT SIGN, CAST-ALUMINUM, NEMA-4X, CLEAR UV-STABLE POLYCARBONATE COVER, SINGLE WHITE POLYCARBONATE, FACEPLATE WITH DIRECTIONAL CHEVRON KNOCKOUTS. WHITE HOUSING, UNIVERSAL MOUNT, SEALED MAINTENANCE-FREE NICKEL CADMIUM BATTERY WITH 90 MINUTE CAPACITY.	LITHONIA LIGHTING LV EL N LED SERIES LV-S-W-2-R-120/277-EL N-UM-4X
TPA	N/A	N/A	N/A	N/A	BASE MOUNTED POLE	ROUND STRAIGHT ALUMINUM POLE, 4" DIAMETER WITH 2-3/8" TENON, 8' POLE WITH LOW PROFILE BASE COVER, HANDHOLE WITH RECESSED COVER. RATED FOR 150 MPH. MATCH TENON TO LUMINAIRE TYPE.	LITHONIA LIGHTING FLORIDA RATED POLE RSALP 8 4C T20 VD DNA
TPB	N/A	N/A	N/A	N/A	BASE MOUNTED POLE	ROUND STRAIGHT ALUMINUM POLE, 5" DIAMETER WITH 2-3/8" TENON, 16' POLE WITH LOW PROFILE BASE COVER, HANDHOLE WITH RECESSED COVER. RATED FOR 150 MPH. MATCH TENON TO LUMINAIRE TYPE.	LITHONIA LIGHTING FLORIDA RATED POLE RSALP 16 5C T20 VD DNA

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
ELECTRICAL LIGHTING
FIXTURE SCHEDULE

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DWG NO
GE-3

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
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DRAWING SCALE	
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NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO_H8111.ctb PLOTTED: 1/8/2026 6:28 PM
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Electrical\Working\H8111_GE-03.dwg

ELECTRICAL GENERAL NOTES

1. THE NOTES CONTAINED ON THIS SHEET ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR WHEN WORKING IN THE FIELD, AND CONTAIN EXCERPTS FROM THE SPECIFICATION SECTIONS. HOWEVER THE CONTRACTOR IS HEREBY ADVISED THAT THE CONTRACT DOCUMENTS CONSIST OF BOTH THE DRAWINGS AND THE SPECIFICATIONS, AND THAT THE CONTRACTOR MUST COMPLY FULLY WITH BOTH THE BOUND DRAWINGS AND THE BOUND SPECIFICATIONS.

2. ALL EQUIPMENT WIRING, RACEWAYS, ETC. SHALL BE INSTALLED AND GROUNDED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, LOCAL CODES, AND INDUSTRY STANDARDS (IE. UL, NEMA, IEEE, ANSI, ETC.) THE DRAWING NOTES AND DETAILS SHALL BE COMPLIED WITH IN ADDITION TO THE REQUIREMENTS IN THE SPECIFICATIONS. REFER TO EACH SPECIFICATION SECTION FOR SPECIFIC REQUIREMENTS.

3. ALL RACEWAY INSTALLATIONS SHALL BE INSTALLED IN A MANNER TO PREVENT CONFLICTS WITH EQUIPMENT AND STRUCTURAL CONDITIONS. ALL EXPOSED RACEWAY SHALL BE INSTALLED PARALLEL TO BEAMS, CEILINGS, FLOORS AND WALLS. SEE SPECIFICATION ON RACEWAYS FOR ADDITIONAL REQUIREMENTS.

4. CONDUITS SHALL BE TERMINATED IN A NEAT MANNER AND STRICTLY IN ACCORDANCE WITH THE SPECIFICATIONS AND DRAWING DETAILS.

5. CONDUITS TERMINATED INTO ENCLOSURES SHALL BE PERPENDICULAR TO THE WALLS OF THE ENCLOSURE. THE USE OF SHORT SEALTIGHT ELBOW FITTINGS FOR SUCH TERMINATIONS IS NOT PERMITTED.

6. ALL RACEWAY INSTALLATIONS, CROSSING EXPANSION JOINTS OR TRANSITIONS FROM BELOW GRADE TO EXPOSED ABOVE GRADE, SHALL HAVE EXPANSION OR EXPANSION/DEFLECTION TYPE FITTINGS AS SPECIFIED FOR THE APPLICATION. SEE THE DRAWINGS AND THE SPECIFICATION ON RACEWAYS FOR THE EXACT TYPE OF FITTING TO BE USED.

7. NO CONDUIT SMALLER THAN 3/4", NOR WIRE SMALLER THAN NO. 12 AWG, SHALL BE USED UNLESS SPECIFICALLY NOTED.

8. ALL UNDERGROUND SINGLE CONDUITS AND DUCTBANKS OF MULTIPLE CONDUITS SHALL BE RIGID PVC CONDUIT ENCASED IN REINFORCED RED CONCRETE. CONCRETE DYED RED BEFORE PLACEMENT. MINIMUM SIZE IS 2 INCH. FIELD VERIFY THE ROUTING OF ALL EXISTING UNDERGROUND CONDUIT AND DUCTBANKS. COORDINATE ROUTING OF NEW CONDUIT AND DUCTBANKS TO AVOID INTERFERENCE WITH EXISTING CONDUIT, DUCTBANKS, AND OTHER UNDERGROUND UTILITIES.

9. ALL CHANGES OF DIRECTION GREATER THAN 20 DEGREES IN UNDERGROUND SINGLE, OR DUCTBANKS OF MULTIPLE CONDUITS, SHALL BE ACCOMPLISHED USING PVC COATED RIGID ALUMINUM LONG RADIUS BENDS. BENDS OF PVC CONDUIT GREATER THAN 20 DEGREES, OR THE USE OF FLEXIBLE CONDUIT OF ANY TYPE, WILL NOT BE PERMITTED. SEE THE SPECIFICATIONS FOR MORE REQUIREMENTS.

10. LIQUID TIGHT FLEXIBLE ALUMINUM CONDUIT SHALL BE USED FOR THE PRIMARY AND SECONDARY OF TRANSFORMERS, GENERATOR TERMINATIONS AND OTHER EQUIPMENT WHERE VIBRATION IS PRESENT. USE IN OTHER LOCATIONS IS NOT PERMITTED, EXCEPT FOR CONNECTIONS TO INSTRUMENTATION TRANSMITTERS, WHERE MULTIPLE PENETRATIONS ARE REQUIRED. LIQUID TIGHT FLEXIBLE ALUMINUM CONDUIT SHALL HAVE A MAXIMUM LENGTH NOT GREATER THAN THAT OF A FACTORY MANUFACTURED LONG RADIUS ELBOW OF THE CONDUIT SIZE BEING USED. THE MAXIMUM BENDING RADIUS SHALL NOT BE LESS THAN THAT SHOWN IN THE NEC CHAPTER 9, TABLE 2, "OTHER BENDS". BX OR AC TYPE PREFABRICATED CABLES WILL NOT BE PERMITTED.

11. THE WIRING DIAGRAMS, BLOCK DIAGRAMS, QUANTITY/SIZES OF WIRES/CONDUITS REPRESENT A SUGGESTED ARRANGEMENT BASED UPON SELECTED STANDARD COMPONENTS OF ELECTRICAL EQUIPMENT. MODIFICATIONS ACCEPTABLE TO THE ENGINEER MAY BE MADE BY THE CONTRACTOR TO ACCOMMODATE EQUIPMENT ACTUALLY APPROVED. ALL MODIFICATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE BASIC SEQUENCE AND METHOD OF CONTROL MUST BE MAINTAINED AS INDICATED ON THE DRAWINGS AND/OR SPECIFIED.

12. ALL JUNCTION BOXES, PULL BOXES AND TERMINATION BOXES IN NEMA 12 AREAS SHALL BE ALUMINUM. FOR NEMA 4X AREAS SEE SPECIFICATIONS FOR BOX DETAILS AND SPECIFICATIONS.

13. SEAL ALL RACEWAYS ENTERING JUNCTION BOXES OR CONTROL PANELS CONTAINING ELECTRICAL OR INSTRUMENTATION EQUIPMENT WITH WATERTIGHT SEALANT. REFER TO THE SPECIFICATIONS FOR DETAILS.

14. ALL EQUIPMENT AND ELECTRICAL EQUIPMENT ENCLOSURE LOCATIONS, OR TERMINAL BOX LOCATIONS, ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE COORDINATED WITH AND APPROVED BY THE OWNER/ENGINEER, DURING CONSTRUCTION, AT NO ADDITIONAL COST TO THE OWNER.

15. ALL EQUIPMENT AND ELECTRICAL EQUIPMENT ENCLOSURES DIMENSIONS ARE APPROXIMATE. ALL EQUIPMENT AND ELECTRICAL EQUIPMENT ENCLOSURES OR TERMINAL BOX DIMENSIONS SHALL BE VERIFIED WITH THE EQUIPMENT SUPPLIER. ALLOW FOR LOCATION CHANGES AND INCLUDE IN THE CONTRACT PRICE. THE EXACT LOCATIONS OF ALL ELECTRICAL EQUIPMENT AND ROUTING OF ALL CABLES AND CONDUITS SHALL BE COORDINATED WITH AND APPROVED BY THE OWNER/ENGINEER DURING CONSTRUCTION.

16. CORING OF AN EXISTING STRUCTURE SHALL BE COORDINATED WITH AND APPROVED BY THE OWNER/ENGINEER. CORING THROUGH STRUCTURAL BEAMS IS STRICTLY PROHIBITED WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER/ENGINEER.

17. THE LOCATION OF ALL ELECTRICAL EQUIPMENT AND ROUTING OF CABLES AND CONDUITS SHALL BE COORDINATED AND APPROVED BY THE OWNER.

18. THE DUCTBANK ROUTING AS SHOWN ON THE DRAWING IS APPROXIMATE. FIELD VERIFY THE EXACT DUCTBANK ROUTING, CABLE LENGTH AND CONDUIT LENGTH.

19. PROVIDE CONDUIT SEALS FOR CONDUIT PENETRATIONS AS PER NEC AND NFPA820.

20. COORDINATE ALL WORK WITH THE OWNER.

21. LOCATE ALL UNDERGROUND UTILITIES BEFORE DIGGING. COORDINATE THE EFFORT WITH THE OWNER.

22. ALL SLOTTED CHANNEL, SLOTTED CHANNEL SUPPORT MATERIAL, WASHERS, SCREWS, NUTS, CONDUIT CLAMPS, ALL THREAD SPRING NUTS AND MISC. MOUNTING HARDWARE SHALL BE 316 STAINLESS STEEL.

23. LIGHTING FIXTURES SHALL BE MOUNTED ACCORDING TO THE MOUNTING HEIGHT GIVEN ON THE DRAWINGS. THE MOUNTING HEIGHT SHALL BE MEASURED FROM THE BOTTOM OF THE LIGHTING FIXTURE TO THE FINISHED FLOOR.

24. CONDUIT AND WIRE FOR THE HVAC EQUIPMENT AND MISCELLANEOUS DEVICES SHALL BE:

    A. 3/4" (MIN) RIGID ALUMINUM.

    B. NO.14 XHHW CU. WIRE XHHW (MIN.).

    C. IN ACCORDANCE WITH ALL ELECTRICAL AND HVAC SPECIFICATIONS REQUIREMENTS.

25. CONDUITS AND WIRES SHOWN ON THE INTERFACE DIAGRAM SHALL BE INSTALLED BY THE CONTRACTOR. GROUPING OF CONDUIT AND WIRE MAY BE CHANGED, IF APPROVED BY THE ENGINEER AND OWNER.

26. ALL CONDULETS SHALL BE FORM 7 AND SHALL HAVE 316 SS CLAMP COVERS WITH 316 SS CLAMPS AND SCREWS. SCREW DOWN COVERS ARE UNACCEPTABLE. REFER TO THE SPECIFICATIONS FOR MORE INFORMATION.

27. ALL UNDERGROUND GROUNDING CONDUCTORS SHALL BE BARE TIN-PLATED COPPER, ALL GROUND RODS SHALL BE 3/4" BY 10' LONG. ALL EXPOSED COPPER GROUND CABLES SHALL BE GREEN INSULATED CONDUCTORS. PROVIDE XHHW INSULATION.

28. WHERE NOTES ON THE DRAWING INDICATE THAT THE CONTRACTOR SHALL FIELD-VERIFY, THE INTENT IS FOR THE CONTRACTOR TO INVESTIGATE TO THE EXTENT NECESSARY TO PROVIDE THE WORK AND MATERIALS PRIOR TO BIDDING AND INCLUDE ALL COSTS IN THE BID PRICE. THE CONTRACT PRICE SHALL NOT BE INCREASED WHEN THE CONTRACTOR HAS NOT INVESTIGATED PER THE NOTES DIRECTING THAT BE DONE.

29. REFER TO SPECIFICATION SECTION 16110 RACEWAYS BOXES ENCLOSURES AND FITTINGS FOR INSTALLATION REQUIREMENTS.

TYPICAL ENCLOSURE TYPES BY AREA

NON-HAZARDOUS AREAS	BOXES & ENCLOSURES 1	3R	4X	4X*	12	
OUTDOOR; GENERAL AREAS		X	X			
OUTDOOR; CHEMICAL AREAS				X		
INDOOR; CHEMICAL ROOM				X		
INDOOR; CONDITIONED SPACE					X	
INDOOR; NON-CONDITIONED SHOP SPACE					X	
INDOOR; NON-CONDITIONED PROCESS AREA			X			
INDOOR, ADMIN BUILDING	X					
CLASS I, DIVISION 1	REFER TO NEC, NFPA-820, AND CONTRACT CONSTRUCTION SPECIFICATIONS					
CLASS I, DIVISION 2	REFER TO NEC, NFPA-820, AND CONTRACT CONSTRUCTION SPECIFICATIONS					

GENERAL NOTES:

- EQUIPMENT SUCH AS MOTOR CONTROL CENTER, SWITCHGEAR, VFDS, AND OTHER STAND-ALONE MOTOR STARTERS ARE TO BE SPECIFIED UNIQUELY.
- NEMA 1 ENCLOSURES ARE TO BE NEMA 1 GASKETED.
- NEMA 4X* ENCLOSURES ARE TO BE NON-METALLIC (ie PVC) NEMA 4X
- OUTDOOR GENERAL AREAS COULD BE 3R OR 4X DEPENDING ON OWNER PREFERENCE AND WHETHER WTP OR WWTP - REFER TO DRAWINGS.

CONDUIT TYPE	LOCATION
RIGID GALVANIZED CONDUIT	NOT ACCEPTABLE FOR USE ON THIS PROJECT EXCEPT FOR THE UTILITY COMPANY'S CONDUCTORS. ALL UTILITY COMPANY'S DUCTS SHALL BE AS SPECIFIED BY UTILITY COMPANY.
PVC COATED ALUMINUM CONDUIT	ALL EMBEDDED CONDUIT BENDS, UNDERGROUND DUCTBANK OF MORE THAN 20 DEGREES, AND ALL CONDUIT STUB-UPS TO A MINIMUM OF 6" ABOVE FINISHED FLOOR OR GRADE AND IN CHLORINE AND CAUSTIC ROOMS.
LIQUID TIGHT FLEXIBLE ALUMINUM CONDUIT	RACEWAY CONNECTION TO VIBRATING EQUIPMENT ONLY, IN ALL AREAS.
RIGID NON-METALLIC, SCHEDULE 40 PVC CONDUIT	UNDERGROUND ENCASED IN RED DYE REINFORCED CONCRETE. (AS WHERE SPECIFIED)
RIGID NON-METALLIC, SCHEDULE 80 PVC CONDUIT	FOR USE IN CHLORINE AND CAUSTIC ROOMS, AND UNDERGROUND. ENCASED IN RED DYED REINFORCED CONCRETE. (AS WHERE SPECIFIED)
FLEXIBLE ALUMINUM CONDUIT	FIXTURE WHIP CONNECTION TO LIGHTING FIXTURES IN NEMA 12 AREAS (MAXIMUM 3-FT). BX OR AC TYPE PREFABRICATED CABLES ARE NOT PERMITTED.
ALUMINUM RIGID METAL CONDUIT	ALL ABOVE GRADE AREAS, EXCEPT FOR CONCRETE EMBEDDED AND THOSE AREAS ALREADY DESCRIBED IN THIS TABLE
ELECTRIC METALLIC TUBING (EMT) CONDUIT	FOR USE ONLY ON CONCEALED, ABOVE GROUND, INTERIOR ELECTRICAL WIRING IN AIR-CONDITIONED BUILDINGS.

*REFER TO DESIGN GUIDE LINE SPECIFICATIONS.

DEMOLITION NOTES

1. COORDINATE THE DEMOLITION OF ELECTRICAL CONDUIT, WIRE, EQUIPMENT AND DEVICES WITH THE GENERAL DEMOLITION AND SCHEDULE. THE DRAWINGS ARE INTENDED TO CONVEY THE GENERAL NATURE AND SCOPE OF THE DEMOLITION WORK. EVERY ITEM TO BE DEMOLISHED MAY NOT BE SHOWN. FIELD VERIFY, AND INCLUDE ALL DEMOLITION WORK IN THE CONTRACT PRICE.

2. PROVIDE TEMPORARY WIRE AND CONDUIT FOR THE EQUIPMENT WHICH MAY BE AFFECTED BY THE DEMOLITION BUT TO REMAIN IN SERVICE.

3. RELOCATE AND RECONNECT POWER AND CONTROL RACEWAYS AND CONDUCTORS TO EQUIPMENT AFFECTED BY DEMOLITION WORK.

4. ALL CONDUCTORS BEING DEMOLISHED SHALL BE DISCONNECTED AND REMOVED FROM THE LOAD TO THE SOURCE. SURFACE MOUNTED CONDUITS AND MOUNTING HARDWARE SHALL BE REMOVED. UNDERGROUND CONDUITS WHICH ARE NOT BEING REMOVED OR OTHERWISE NOT BEING MADE UNUSABLE SHALL BE CAPPED AND TAGGED AS SPARE, WITH INFORMATION CLEARLY INDICATING THE LOCATION OF THE OTHER END.

5. ALL SURFACES WHERE DEMOLISHED EQUIPMENT OR CONDUIT IS REMOVED SHALL BE CLEANED, PATCHED AND PAINTED TO MATCH THE SURROUNDING SURFACE.

6. CHECK THE FUNCTION OF EACH CONDUCTOR BEFORE REMOVING OR DISCONNECTING.

7. IF A CONDUCTOR WHICH HAS TO STAY IN SERVICE (NOT BEING DEMOLISHED) IS INSTALLED IN A COMMON CONDUIT WITH CONDUCTORS WHICH ARE BEING DEMOLISHED, THE CONTRACTOR SHALL REMOVE ALL CONDUCTORS FROM THE CONDUIT, PROVIDE NEW CONDUCTORS WHICH ARE REPLACEMENTS FOR THE CONDUCTORS THAT ARE TO REMAIN IN SERVICE AND RE-INSTALL THE NEW CONDUCTORS. AFTER THE CONDUCTORS ARE PULLED, MEGGER OR VFL TEST EACH CONDUCTOR. CONNECT BOTH ENDS OF THE NEW CONDUCTORS AND TEST THE SYSTEM FOR PROPER FUNCTION. DO NOT RE-PULL USED CONDUCTORS UNLESS SPECIFIED.

8. WHERE EQUIPMENT IS BEING RE-FED FROM A NEW SOURCE, EXISTING CONDUIT MAY BE REUSED ONLY IF THE CONDUIT AND FITTINGS ARE OF THE TYPE SPECIFIED FOR NEW WORK ON THIS CONTRACT. IF NOT, THE CONDUIT AND CONDUCTORS SHALL BE REPLACED WITH NEW MATERIAL MEETING THE SPECIFICATIONS, AT NO ADDITIONAL COST TO THE OWNER.

9. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER/ENGINEER TO FLAG EXISTING UNDERGROUND CONDUITS BEFORE DIGGING.

10. THE OWNER HAS THE RIGHT OF FIRST REFUSAL TO THE EQUIPMENT BEING REMOVED. THE CONTRACTOR SHALL DELIVER THE EQUIPMENT WHICH THE OWNER WISHES TO KEEP AT A LOCATION DESIGNATED BY THE OWNER. SEE SPECIFICATIONS.

11. DO NOT MAKE ANY MODIFICATIONS TO THE EXISTING ELECTRICAL EQUIPMENT UNTIL THE FOLLOWING HAS BEEN DONE:

    A. THE OWNER/CONTRACTOR SHALL WITNESS AND RECORD THE CONDITION OF THE EXISTING EQUIPMENT, THE CONTRACTOR SHALL NOTE DOWN ANY DEFECTS OR DEFICIENCIES.

    B. THE OWNER SHALL OPERATE THE EQUIPMENT TO DEMONSTRATE THE CURRENT CONDITIONS. THE CONTRACTOR SHALL NOTE DOWN ANY DEFECTS OR DEFICIENCIES.

    C. A WRITTEN AND PHOTOGRAPHIC RECORD OF THE OPERATION AND EXISTING CONDITION SHALL BE KEPT IN A THREE RING BINDER AT THE OWNER/CONTRACTOR TRAILER, IN FORM OF PICTURES AND INFORMATION.

    D. A FORM SHALL BE GENERATED BY THE CONTRACTOR TO RECORD THE OBSERVATIONS. BOTH PARTIES SHALL SIGN ON THE FORM.

    E. REPLACE ALL MATERIAL OR EQUIPMENT DAMAGED DURING THE COURSE OF WORK.

    F. AFTER THE CHANGES ARE MADE, THE EQUIPMENT SHALL BE INSPECTED AND RE-TESTED TO DEMONSTRATE THAT IT FUNCTIONS CORRECTLY.

    G. NO PORTION OF EXISTING CONDUCTORS SHALL BE SPLICED TO NEW CONDUCTORS FOR RE-USE WITHOUT SPECIFIC APPROVAL FROM THE OWNER/ENGINEER ON A CASE-BY-CASE BASIS.

MCC, CONTROL PANELS, PANELBOARDS

THESE NOTES APPLY TO CONTROL PANELS, MCC ETC WHICH HAS TO BE REFURBISHED, MODIFIED, DISCONNECTED & RECONNECTED OR REWORKED. SEE SPECIFICATION SECTION 16060 ELECTRICAL DEMOLITION:

THE CONTRACTOR SHALL NOT MAKE ANY MODIFICATION UNTIL THE FOLLOWING HAS BEEN DONE:

A. THE OWNER/CONTRACTOR SHALL WITNESS THE CONDITION OF THE EXISTING EQUIPMENT, THE CONTRACTOR SHALL NOTE DOWN ANY DEFECTS OR DEFICIENCY.

B. THE OWNER SHALL OPERATE THE EQUIPMENT TO DEMONSTRATE THE CURRENT CONDITIONS. THE CONTRACTOR SHALL NOTE DOWN ANY DEFECTS OR DEFICIENCIES.

C. A RECORD OF THE OPERATION AND EXISTING CONDITION SHALL BE KEPT IN A THREE RING BINDER AT THE OWNER/CONTRACTOR TRAILER, IN FORM OF PICTURES AND INFORMATION.

D. A FORM SHALL BE GENERATED BY THE CONTRACTOR TO RECORD THE OBSERVATIONS. BOTH PARTIES SHALL SIGN ON THE FORM.

E. REPLACE ALL MATERIAL OR EQUIPMENT DAMAGED DURING THE COURSE OF WORK.

F. AFTER THE CHANGES ARE MADE, THE EQUIPMENT SHALL BE INSPECTED AND RE-TESTED TO DEMONSTRATE THAT IT FUNCTIONS CORRECTLY.

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
GE-4

NO.	DATE	REVISION	APP.

GAI
Gupta & Associates, Inc.
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email: hforouzan@gaiconsulting.com

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HOSS FOROUZAN
TEXAS P.E. NO. 77748
DATE: 01/09/2026

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: XX/XX/2025

DESIGNED BY: W. ZHENG
DRAWN BY: C. VALDEZ
CHECKED BY: H. FOROUZAN
REVIEWED BY: H. FOROUZAN
APPROVED BY: H. FOROUZAN

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
ELECTRICAL GENERAL NOTES

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO H8111.ctb | PLOTTED: 1/8/2026 6:28 PM
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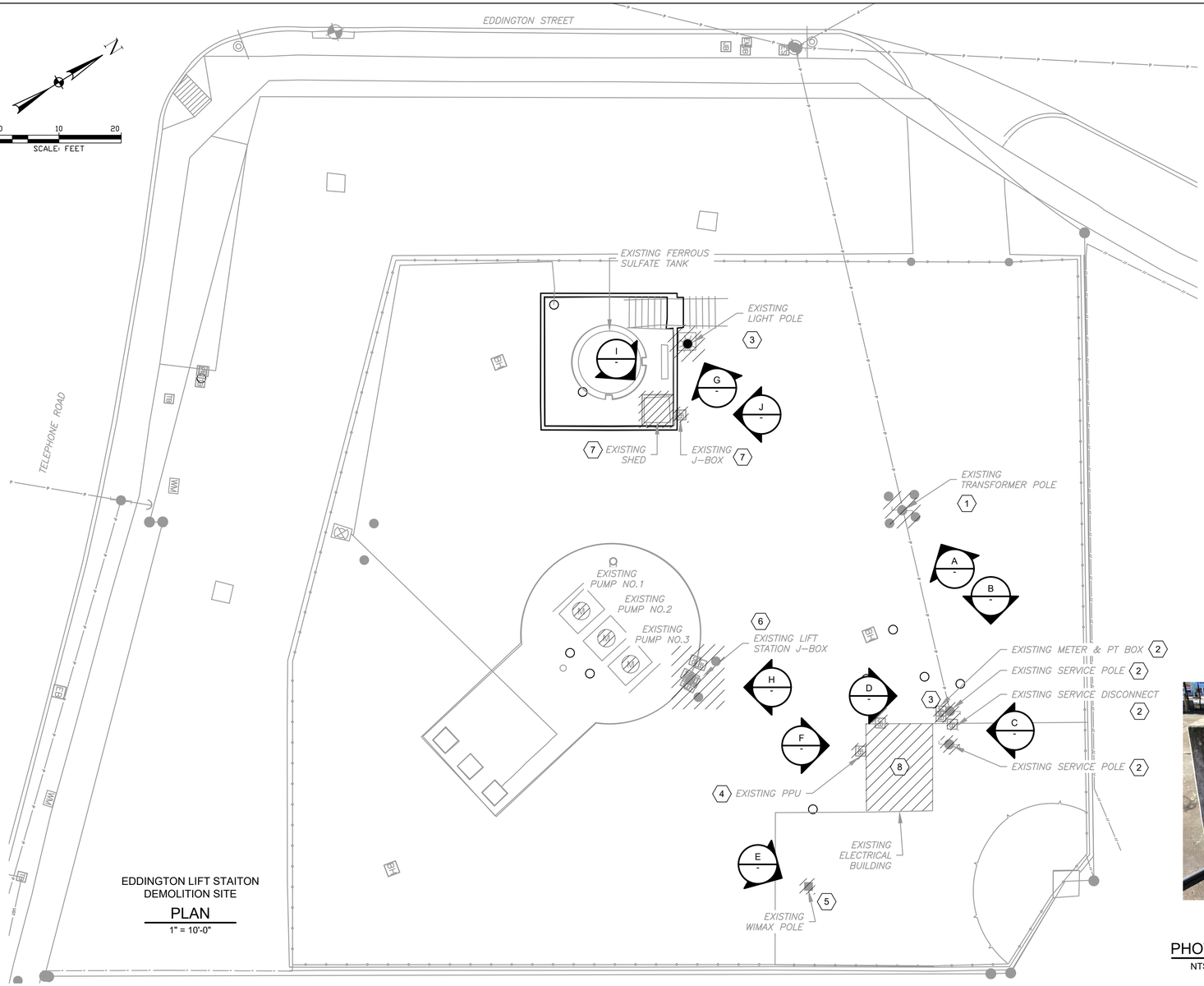


EDDINGTON LIFT STAITON
DEMOLITION SITE

PLAN

1" = 10'-0"

NOTES BY SYMBOL "⟨#⟩":

1. CONTRACTOR TO COORDINATE WITH CENTER POINT ENERGY FOR THE REMOVAL AND DEMOLITION OF THE EXISTING TRANSFORMER POWER POLE.
2. EXISTING SERVICE POLE, METER, PT BOX, SERVICE DISCONNECT AND ASSOCIATED CONDUITS AND WIRES TO BE DEMOLISHED AND REMOVED.
3. EXISTING YARD LIGHT ON TOP OF SERVICE POLE, LIGHT POLE NEXT TO BISULFATE TANK AND ASSOCIATED CONDUITS AND WIRES TO BE DEMOLISHED AND REMOVED.
4. EXISTING PPU AND ASSOCIATED CONDUITS AND WIRES TO BE DEMOLISHED AND REMOVED AND RETURNED TO THE WASTEWATER FACILITY MAINTENANCE DEPARTMENT OF THE CITY.
5. EXISTING WIMAX POLE AND ASSOCIATED CONDUITS AND WIRES TO BE DEMOLISHED AND REMOVED.
6. EXISTING LIFT STATION PUMP J-BOX AND ASSOCIATED CONDUITS AND WIRES TO BE DEMOLISHED AND REMOVED.
7. EXISTING J-BOX, AND ALL ELECTRICAL EQUIPMENT AND COMPONENTS INSIDE THE SHED IN BISULFATE TANK AREA AND ASSOCIATED CONDUITS AND WIRES TO BE DEMOLISHED AND REMOVED.
8. EXISTING LIGHT FIXTURES, LIGHT SWITCHES, RECEPTACLES, MCC, CONTROL PANEL, ELECTRICAL COMPONENTS AND ASSOCIATED CONDUITS AND WIRES IN THE EXISTING ELECTRICAL BUILDING TO BE DEMOLISHED AND REMOVED.

LEGEND:

ITEMS TO BE DEMOLISHED.

EXISTING LIGHT POLE

PHOTOGRAPH J - 7

NTS

EXISTING LIFT STATION J-BOX

PHOTOGRAPH I - 7

NTS

EXISTING TRANSFORMER POLE

PHOTOGRAPH A - 1

NTS

EXISTING SERIVCE POLE

PHOTOGRAPH B - 2

NTS

EXISTING SERIVCE DISCONNECT

PHOTOGRAPH C - 2

NTS

EXISTING METER & PT BOX

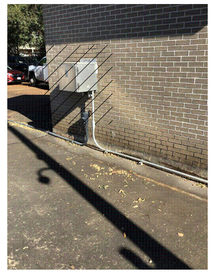
PHOTOGRAPH D - 2

NTS

EXISTING WIMAX POLE

PHOTOGRAPH E - 5

NTS



EXISTING PPU BOX

PHOTOGRAPH F - 4

NTS

EXISTING LIGHT POLE

PHOTOGRAPH G - 3

NTS

EXISTING LIFT STATION J-BOX

PHOTOGRAPH H - 6

NTS

WARNING

0 1

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DWG NO

DE-1

NO.	DATE	REVISION	APP.

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ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
EDDINGTON LIFT STATION
DEMOLITION SITE PLAN

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1"=10'-0'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 6:31 PM
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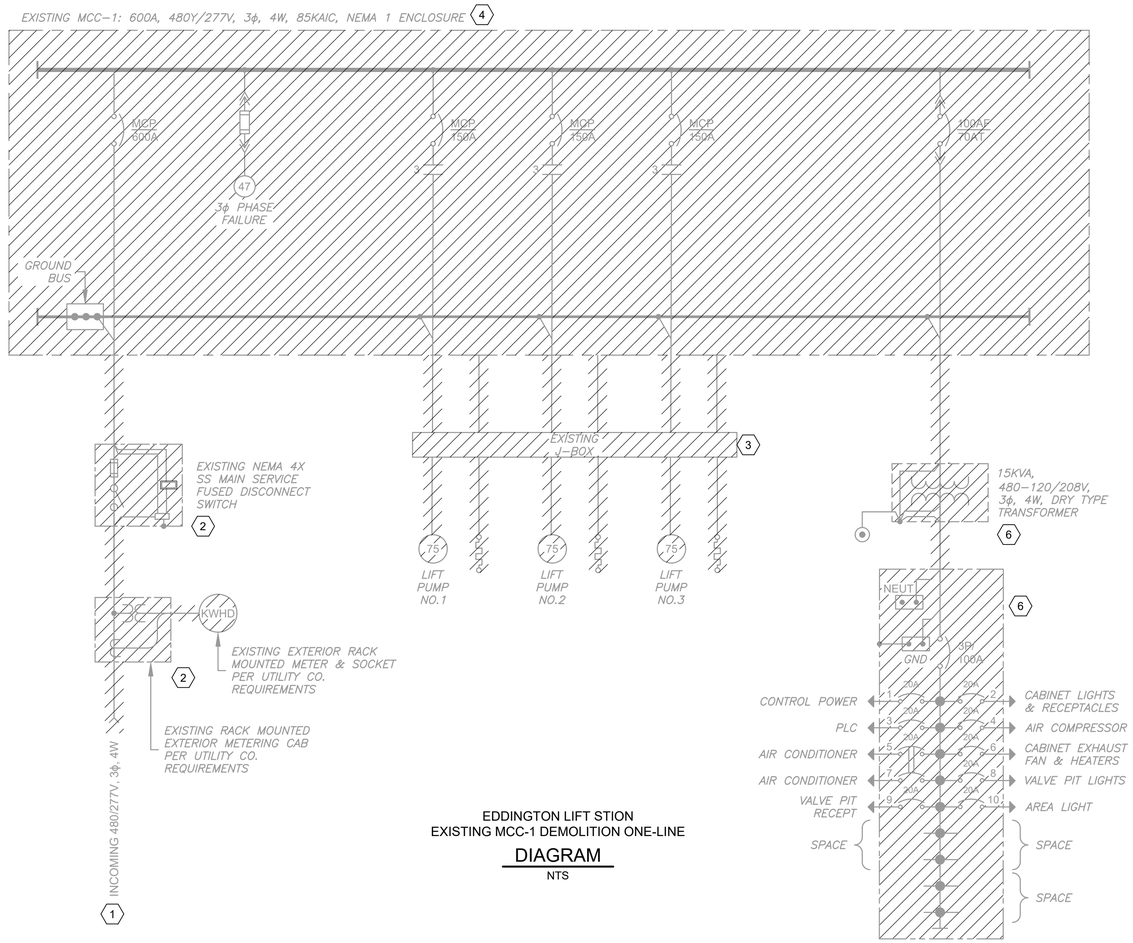
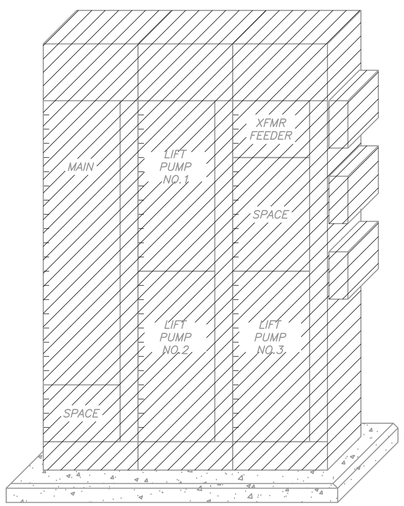


EDDINGTON LIFT STION
EXISTING MCC-1 DEMOLITION ONE-LINE

DIAGRAM

NTS



EDDINGTON LIFT STION
EXISTING MCC-1 DEMOLITION

ELEVATION 4

NTS

EXISTING MCC-1

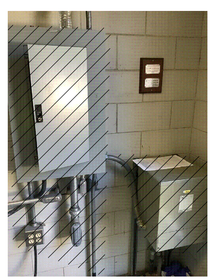
PHOTOGRAPH A - 4

NTS

EXISTING CONTROL PANEL

PHOTOGRAPH B - 5

NTS



EXISTING XFMR & LIGHTING PANEL

PHOTOGRAPH C - 6

NTS

EXISTING BUILDING LIGHTS

PHOTOGRAPH D - 7

NTS

NOTES BY SYMBOL "#":

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2. EXISTING SERVICE POLE, METER, PT BOX, SERVICE DISCONNECT AND ASSOCIATED CONDUITS AND WIRES TO BE DEMOLISHED AND REMOVED.
3. EXISTING LIFT STATION PUMP J-BOX AND ASSOCIATED CONDUITS AND WIRES TO BE DEMOLISHED AND REMOVED.
4. EXISTING MCC-1 AND ASSOCIATED CONDUITS AND WIRES IN THE EXISTING ELECTRICAL BUILDING TO BE DEMOLISHED AND REMOVED.
5. EXISTING CONTROL PANEL AND ASSOCIATED CONDUITS AND WIRES IN THE EXISTING ELECTRICAL BUILDING TO BE DEMOLISHED AND REMOVED.
6. EXISTING LIGHTING TRANSFORMER, LIGHTING PANEL AND ASSOCIATED CONDUITS AND WIRES IN THE EXISTING ELECTRICAL BUILDING TO BE DEMOLISHED AND REMOVED.
7. EXISTING LIGHT FIXTURES, LIGHT SWITCHES, RECEPTACLES, ELECTRICAL COMPONENTS AND ASSOCIATED CONDUITS AND WIRES IN THE EXISTING ELECTRICAL BUILDING TO BE DEMOLISHED AND REMOVED.

LEGEND:

ITEMS TO BE DEMOLISHED.

NO.	DATE	REVISION	APP.

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TEXAS P.E. NO. 77748
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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: XX/XX/2025

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DRAWN BY: C. VALDEZ
CHECKED BY: H. FOROUZAN
REVIEWED BY: H. FOROUZAN
APPROVED BY: H. FOROUZAN

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
EDDINGTON LIFT STATION
EXIST. MCC ONE–LINE DIAGRAM

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
DE–2

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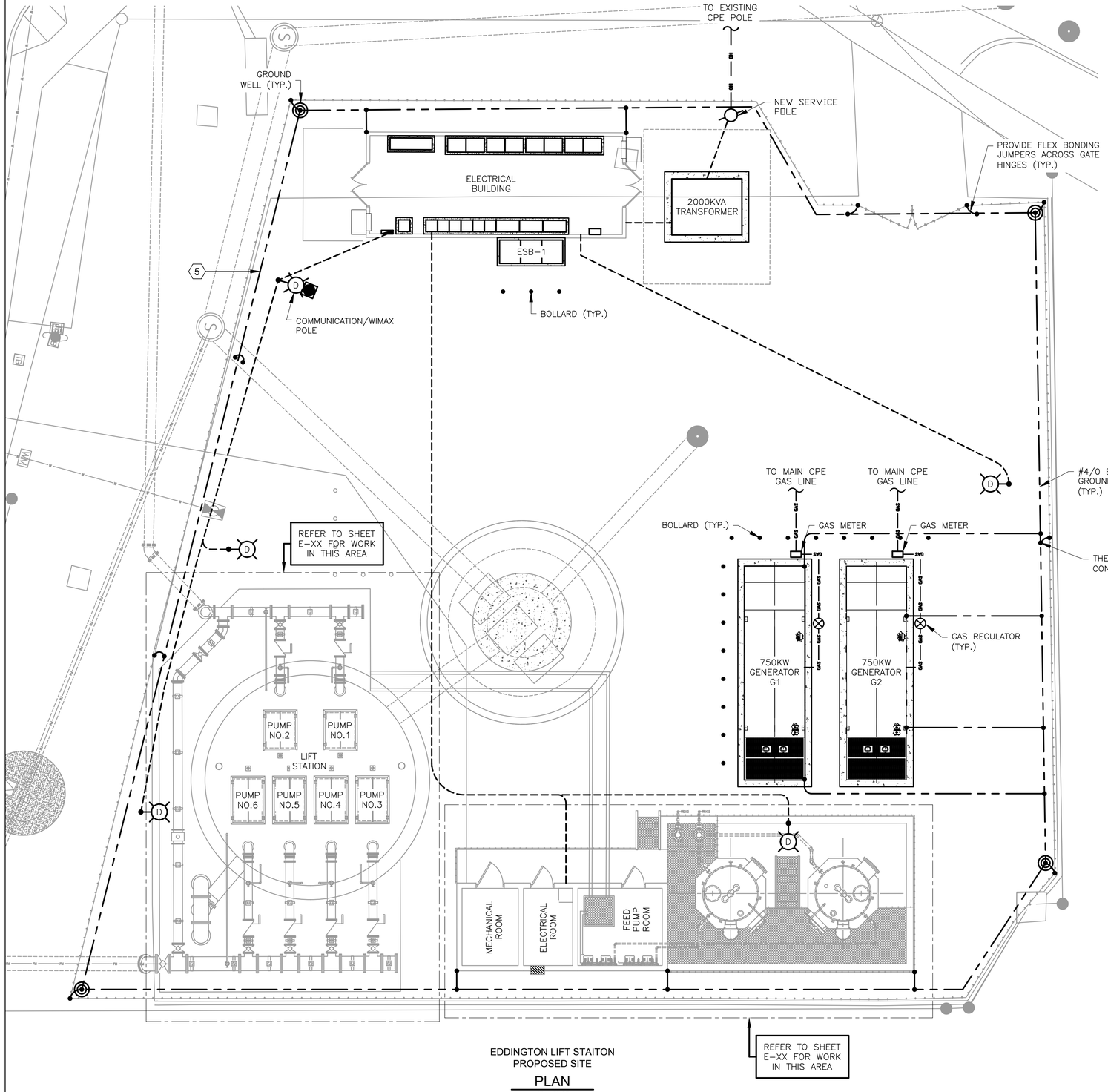
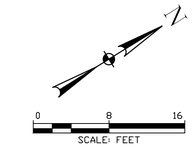


EDDINGTON LIFT STAITON
PROPOSED SITE

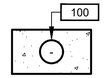
PLAN

1" = 8'-0"



NOTES BY SYMBOL "⟨#⟩":

1. THE ELECTRICAL INSTALLATION IN THE WET WELL SHALL BE EXPLOSION PROOF, IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE FOR CLASS I, DIVISION 1 LOCATIONS.
2. YARD LIGHT CONTROLLED BY LIGHTING SWITCH.
3. DUSK TO DAWN PHOTOCELL CONTROL.
4. INSIDE WETWELL RATED NEMA CLASS 1, DIV. 1. OUTSIDE ABOVE GROUND, AROUND WETWELL RATED CLASS 1, DIV. 2 ACCORDING TO NFPA 820.
5. GROUNDING LOOP SHALL BE BURIED 30" BELOW FINISHED GRADE.



DUCTBANK

SECTION A
NTS

NO.	DATE	REVISION	APP.

GAI
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TEXAS P.E. NO. 126466
DATE: XX/XX/2025

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DRAWN BY: C. VALDEZ	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: H. FOROUZAN	FB NO. 340S1
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

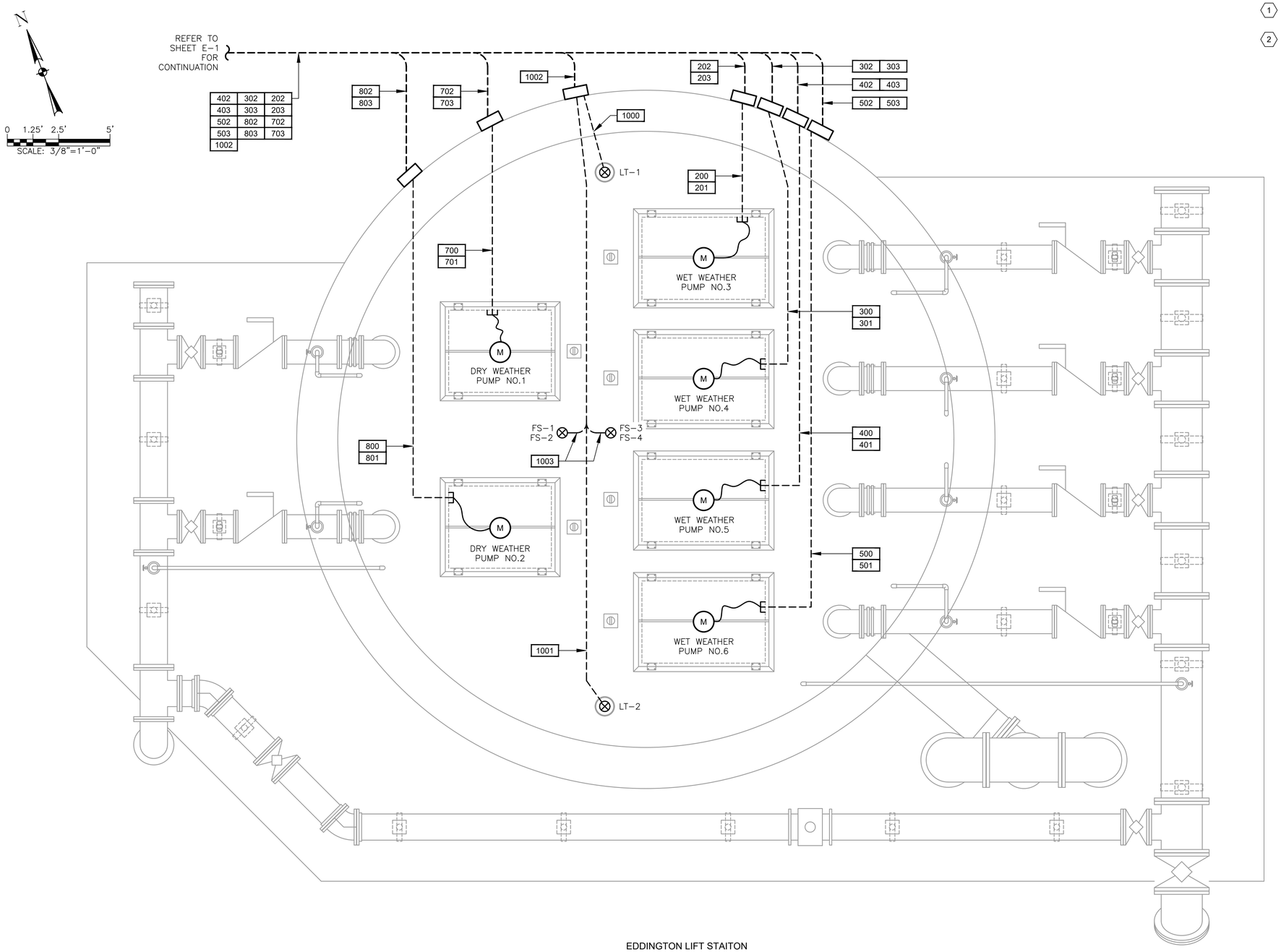
CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
EDDINGTON LIFT STATION
PROPOSED SITE PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
1"=10'-0'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
E-1



EDDINGTON LIFT STAITON
ENLARGED SITE

PLAN (1) (2)

3/8" = 1'-0"

NOTES BY SYMBOL "(#)":

(1) THE ELECTRICAL INSTALLATION IN THE WET WELL SHALL BE EXPLOSION PROOF, IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE FOR CLASS I, DIVISION 1 LOCATIONS.

(2) INSIDE WETWELL RATED NEMA CLASS 1, DIV. 1. OUTSIDE ABOVE GROUND, AROUND WETWELL RATED CLASS 1, DIV. 2 ACCORDING TO NFPA 820.

NO.	DATE	REVISION	APP.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
EDDINGTON LIFT STATION ENLARGED SITE PLAN

WARNING
0 1
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WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
3/8"=1'-0'	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
E-2

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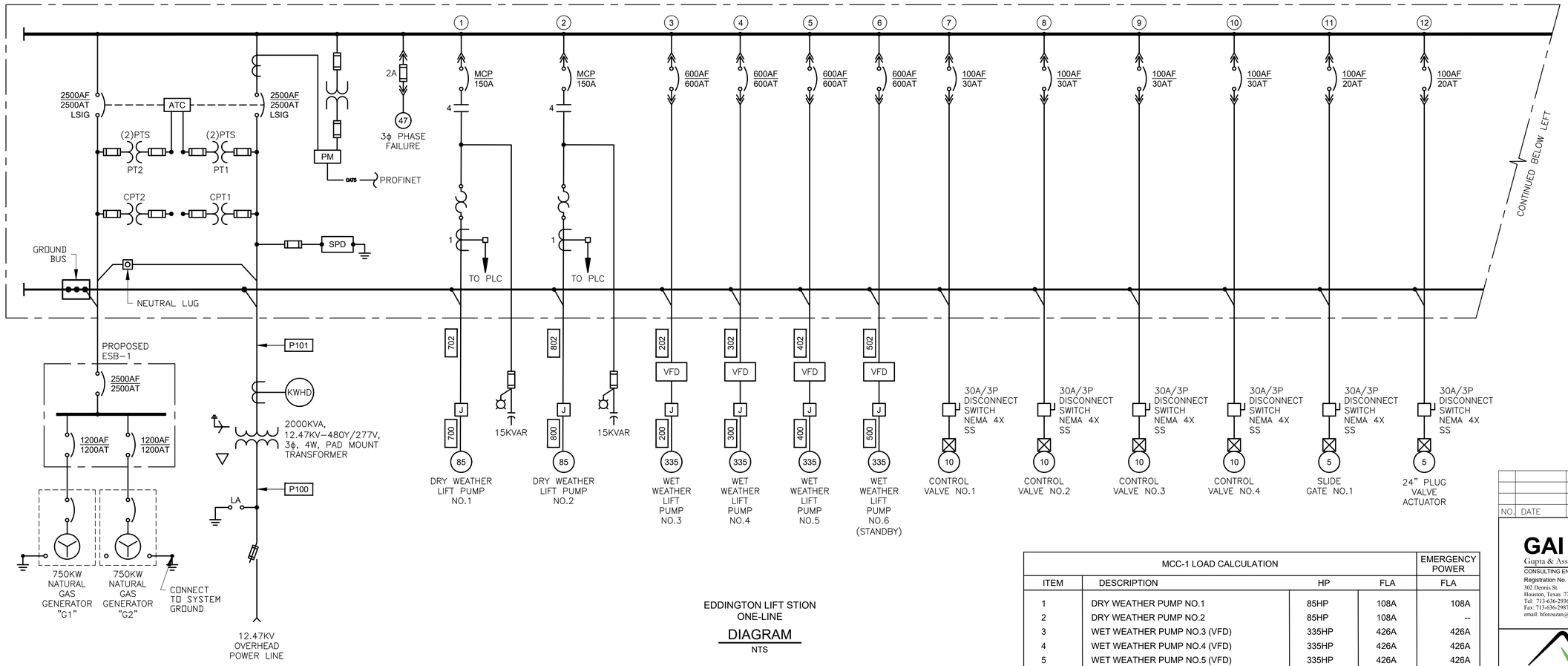
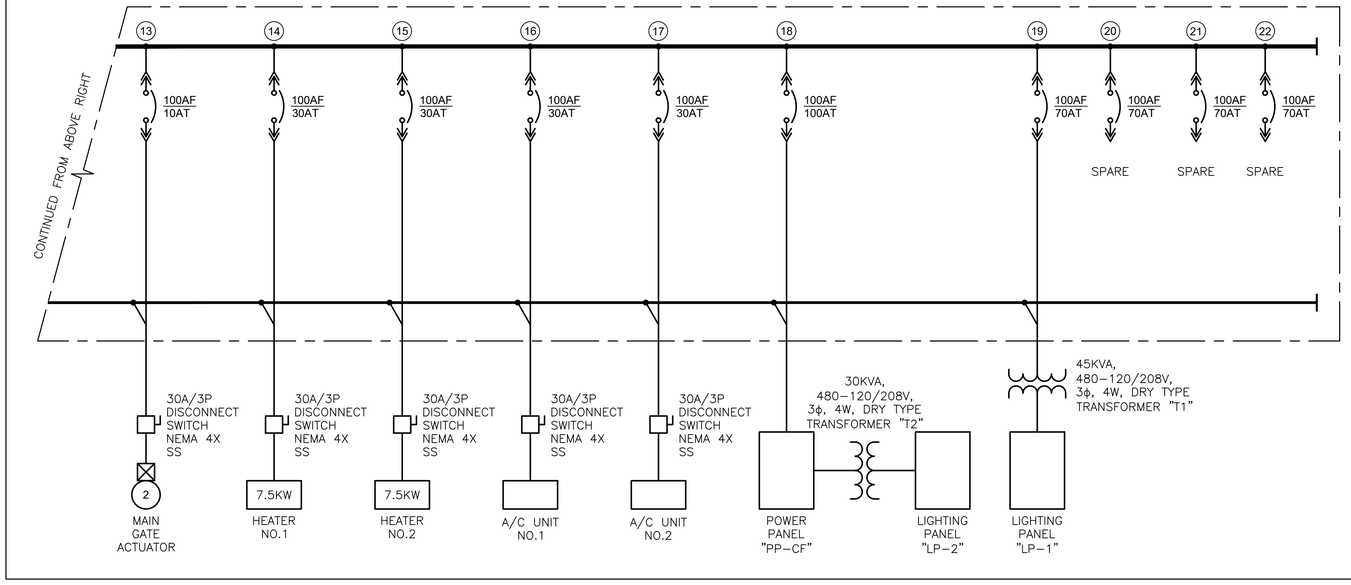
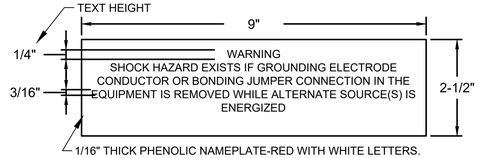


EDDINGTON LIFT STION
ONE-LINE
DIAGRAM
NTS



MCC-1 LOAD CALCULATION				EMERGENCY POWER
ITEM	DESCRIPTION	HP	FLA	FLA
1	DRY WEATHER PUMP NO.1	85HP	108A	108A
2	DRY WEATHER PUMP NO.2	85HP	108A	--
3	WET WEATHER PUMP NO.3 (VFD)	335HP	426A	426A
4	WET WEATHER PUMP NO.4 (VFD)	335HP	426A	426A
5	WET WEATHER PUMP NO.5 (VFD)	335HP	426A	426A
6	WET WEATHER PUMP NO.6 (VFD) (STANDBY)	335HP	--	--
7	CONTROL VALVE NO.1	10HP	14A	14A
8	CONTROL VALVE NO.2	10HP	14A	14A
9	CONTROL VALVE NO.3	10HP	14A	14A
10	CONTROL VALVE NO.4	10HP	14A	14A
11	SLIDE GATE NO.1	5HP	6A	6A
12	24" PLUG VALVE ACTUATOR	5HP	6A	6A
13	MAIN GATE ACTUATOR NO.1	2HP	3.4A	3.4A
14	UNIT HEATER NO.1	---	10A	10A
15	UNIT HEATER NO.2	---	10A	10A
16	A/C UNIT NO.1	---	10A	10A
17	A/C UNIT NO.2	---	10A	10A
18	POWER PANEL "PP-CF"	---	100A	100A
19	45 KVA TRANSFORMER "T1"	---	54A	54A
SUBTOTAL			1,759.4A	1,597.4A
25% OF LARGEST MOTOR LOAD			106.5A	106.5A
MINIMUM AMPACITY @480V/3ϕ			1,865.9A	1,703.9A

* BASED ON SELECTED PUMP MFG DATA



ELECTRICAL WARNING NAMEPLATE N-EW ENGRAVING

WARNING
0 1
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DWG NO
E-3

NO.	DATE	REVISION	APP.

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HOUSTON PUBLIC WORKS

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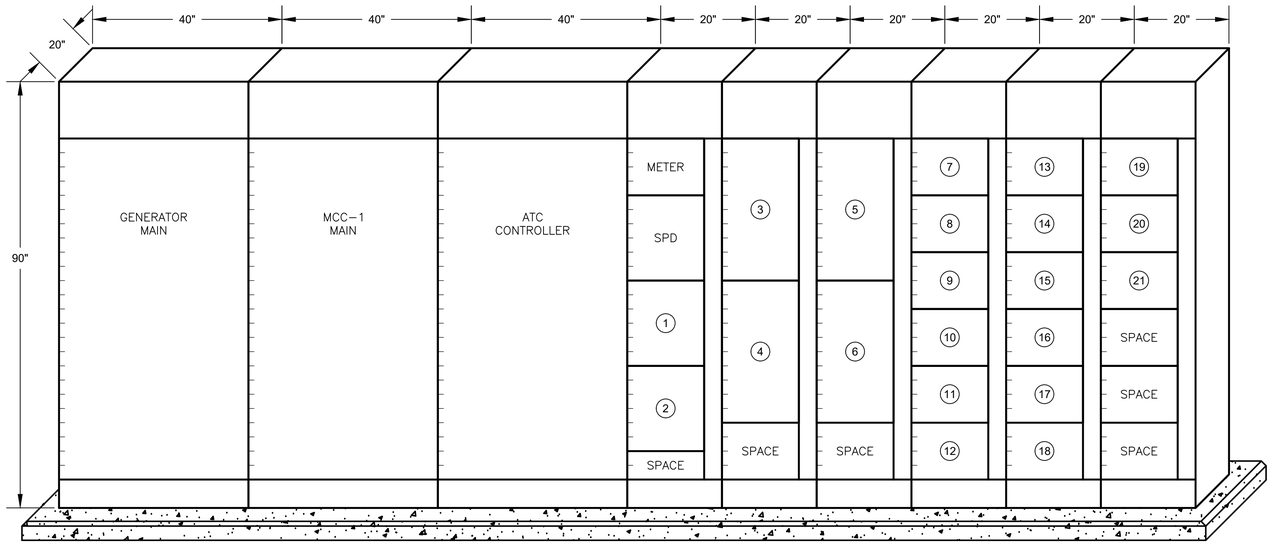
ELECTRICAL
EDDINGTON LIFT STATION
MCC-1 ONE-LINE DIAGRAM

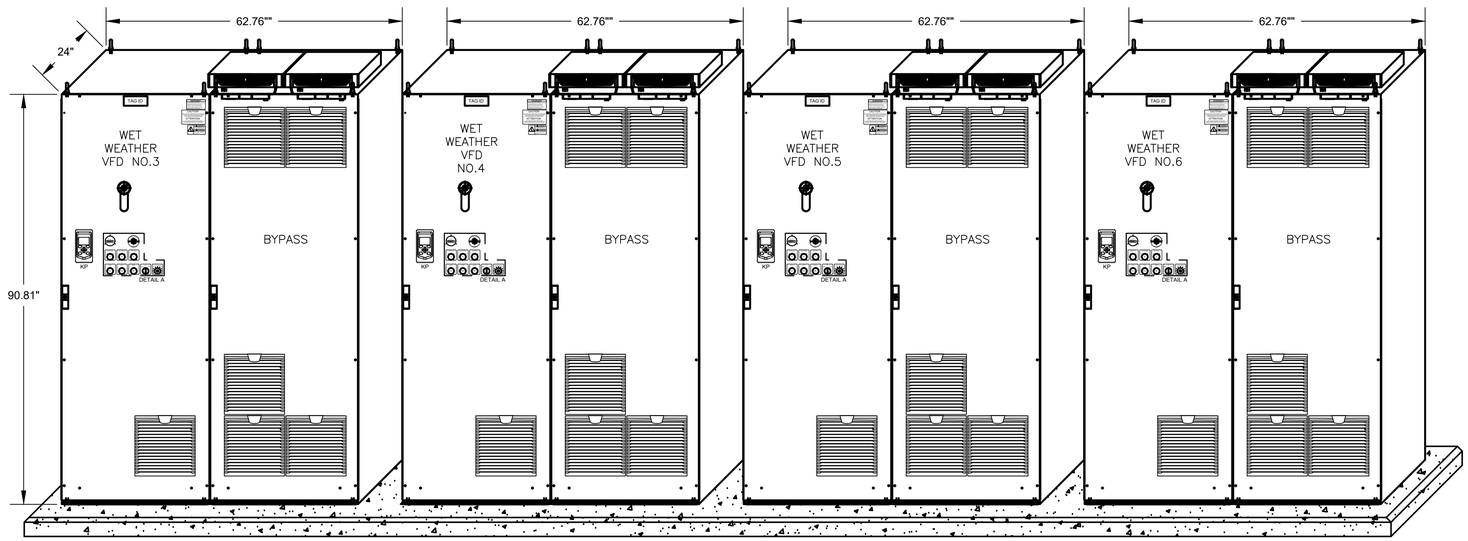
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	



EDDINGTON LIFT STION
MCC-1

ELEVATION

NTS



EDDINGTON LIFT STION
VFD

ELEVATION

NTS

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
E–4

NO.	DATE	REVISION	APP.

GAI
Gupta & Associates, Inc.
CONSULTING ENGINEERING
Registration No. F-2593
302 Dennis St.
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email: hforouzan@gaiconsulting.com

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
HOSS FOROUZAN
TEXAS P.E. NO. 77748
DATE: 01/09/2026

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: XX/XX/2025

DESIGNED BY: W. ZHENG
DRAWN BY: C. VALDEZ
CHECKED BY: H. FOROUZAN
REVIEWED BY: H. FOROUZAN
APPROVED BY: H. FOROUZAN

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
EDDINGTON LIFT STATION
MCC–1 ELEVATION DETAIL

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO H8111 PLOTTED: 1/8/2026 6:31 PM
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP–Ardurra)\6 Drawings\Electrical\Working\Eddington Lift Station\H8111_E–04.dwg

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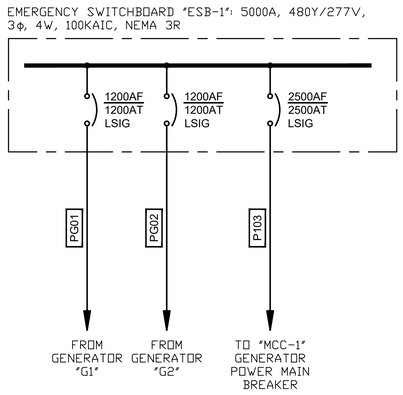
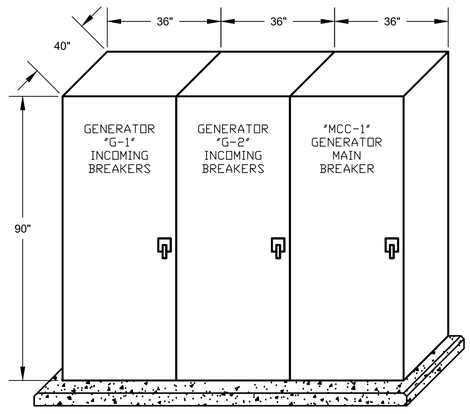


EDDINGTON LIFT STION
ESB-1 ONE-LINE
DIAGRAM
NTS



EDDINGTON LIFT STION
ESB-1
ELEVATION
NTS

NO.	DATE	REVISION	APP.

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ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

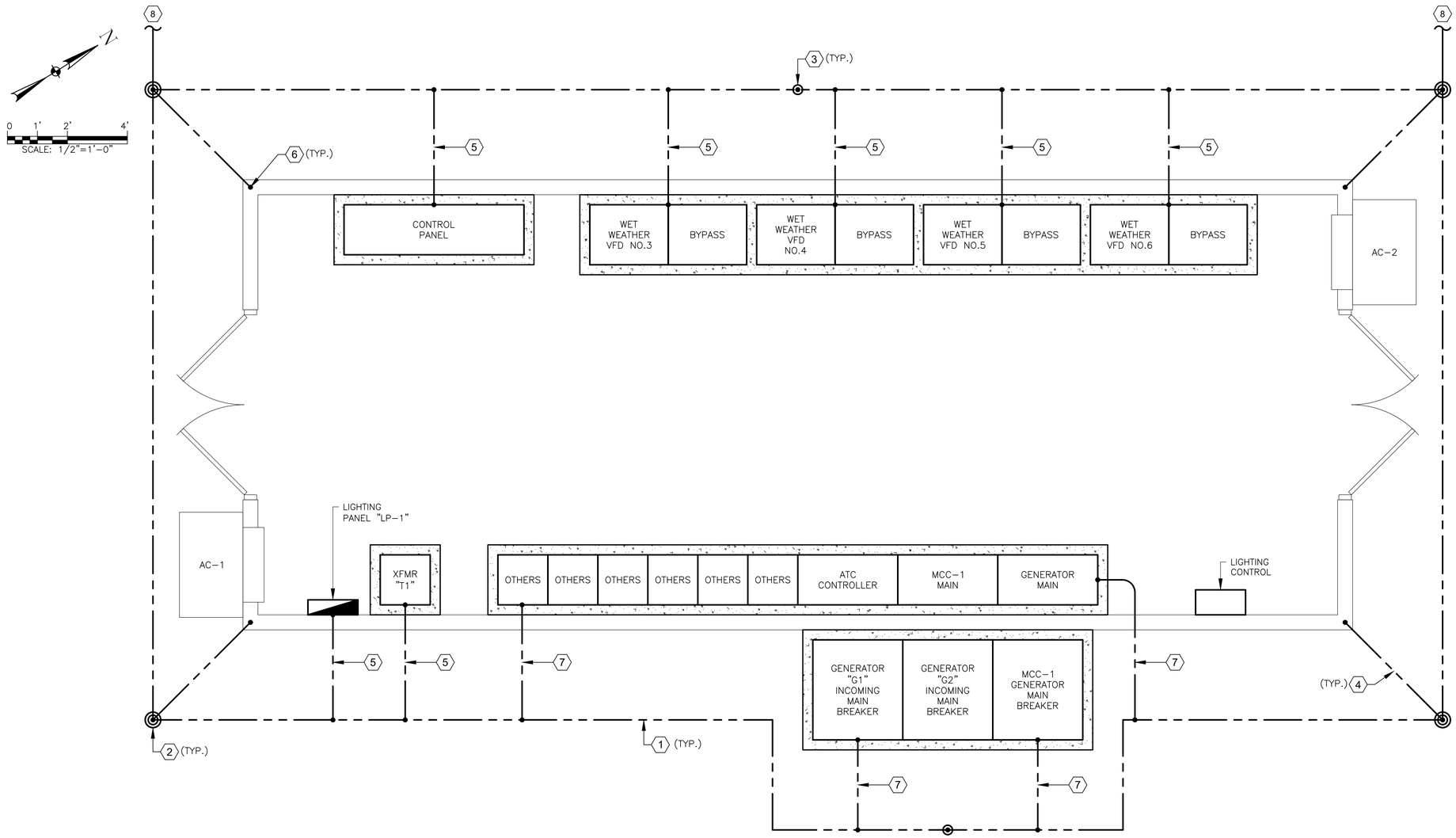
CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
EDDINGTON LIFT STATION
ESB–1 ONE–LINE DIAGRAM

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
E–5



EDDINGTON LIFT STAITON
GROUNDING BUILDING

PLAN

1/2" = 1'-0"

NOTES BY SYMBOL "⟨#⟩":

1. MAIN BURIED GROUND LOOP, #4/0 BARE COPPER CONDUCTOR.
2. GROUND TEST WELL.
3. GROUND ROD.
4. #4/0 BARE COPPER BONDING CONDUCTOR.
5. #2/0 BARE COPPER BONDING CONDUCTOR.
6. BOND REBAR IN CONCRETE FOOTER OR SLAB TO MAIN BURIED GROUND LOOP.
7. #350 BARE COPPER BONDING CONDUCTOR.
8. REFER TO OVERALL ELECTRICAL SITE PLAN FOR CONTINUATION.

NO.	DATE	REVISION	APP.

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TEXAS P.E. NO. 126466
DATE: XX/XX/2025

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DRAWN BY: C. VALDEZ	FB NO. 340S1
CHECKED BY: H. FOROUZAN	
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
EDDINGTON LIFT STATION GROUNDING BUILDING PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
E-6

PLOT STYLE: ARD_FULL_MONO H8111.ctb PLOTTED: 1/8/2026 6:32 PM
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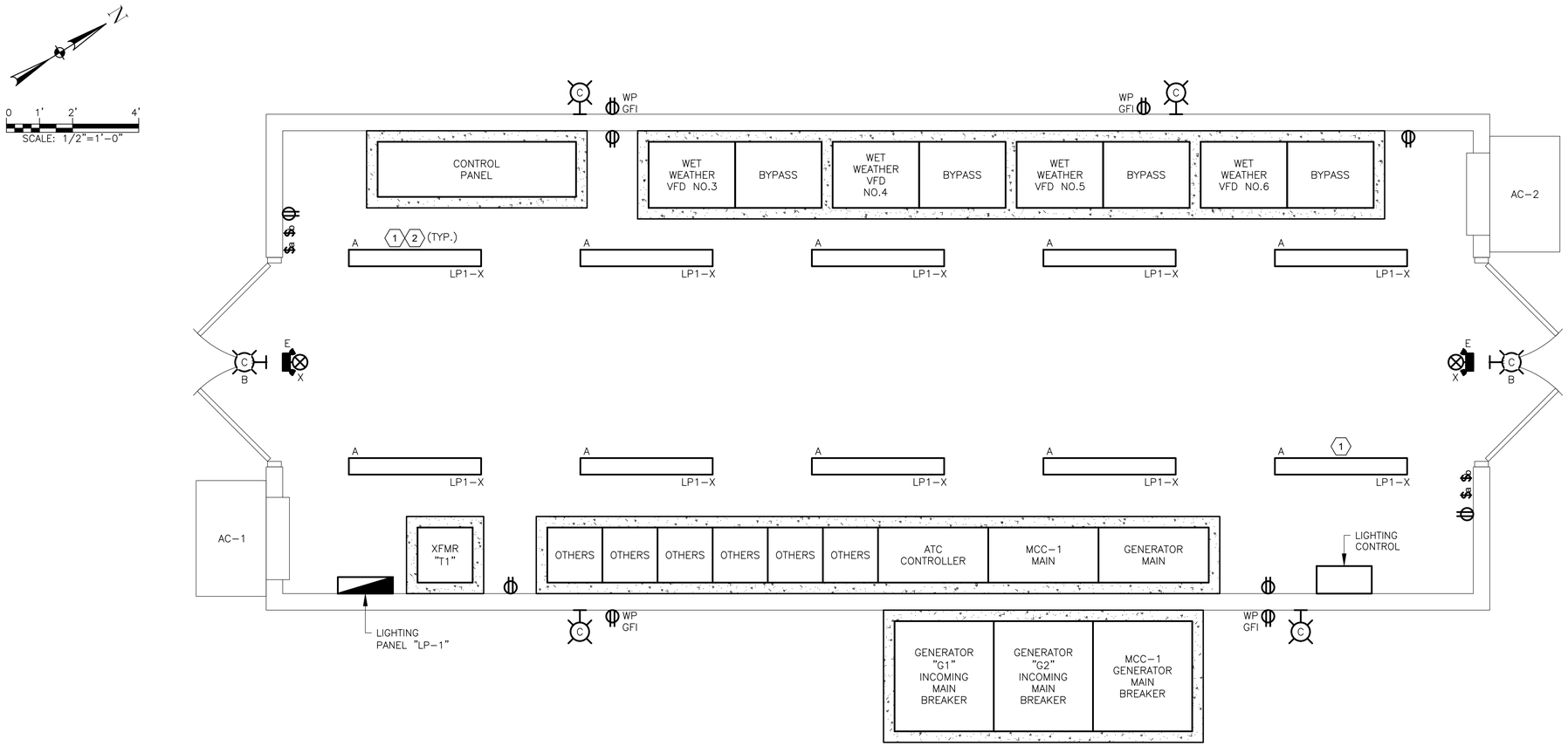

EDDINGTON LIFT STAITON
LIGHTING BUILDING

PLAN

1/2" = 1'-0"

NOTES BY SYMBOL "⟨#⟩":

1. PROVIDE WITH BATTERY BACKUP FOR THE FIXTURE.
2. LIGHTING FIXTURE "A" MOUNTING HEIGHT SHALL BE 10'-0" AFF.

NO.	DATE	REVISION	APP.

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TEXAS P.E. NO. 126466
DATE: XX/XX/2025

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DRAWN BY: C. VALDEZ	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: H. FOROUZAN	FB NO. 340S1
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
EDDINGTON LIFT STATION LIGHTING BUILDING PLAN

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
E-7

PLOT STYLE: ARD_FULL_MONO H8111.ctb PLOTTED: 1/8/2026 6:32 PM
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Electrical\Working\Eddington Lift Station\H8111_E-07.dwg

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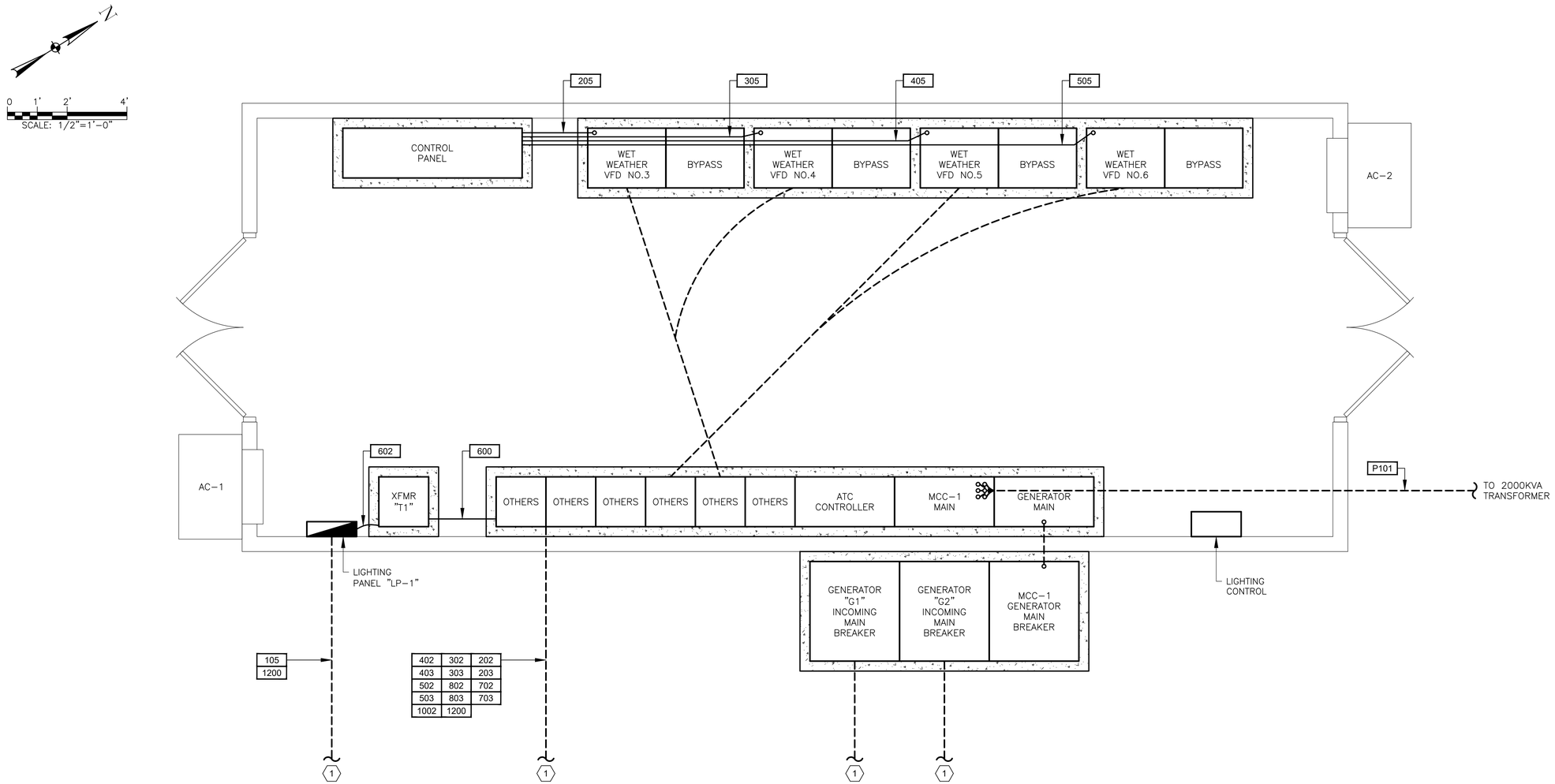
NOTES BY SYMBOL "⟨#⟩":

⟨1⟩ REFER TO OVERALL ELECTRICAL SITE PLAN FOR CONTINUATION.



EDDINGTON LIFT STAITON
POWER BUILDING

PLAN

1/2" = 1'-0"

NO.	DATE	REVISION	APP.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
EDDINGTON LIFT STATION POWER BUILDING PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
E-8

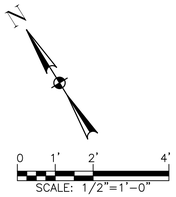
WBS NUMBER
R-001000-0035-4

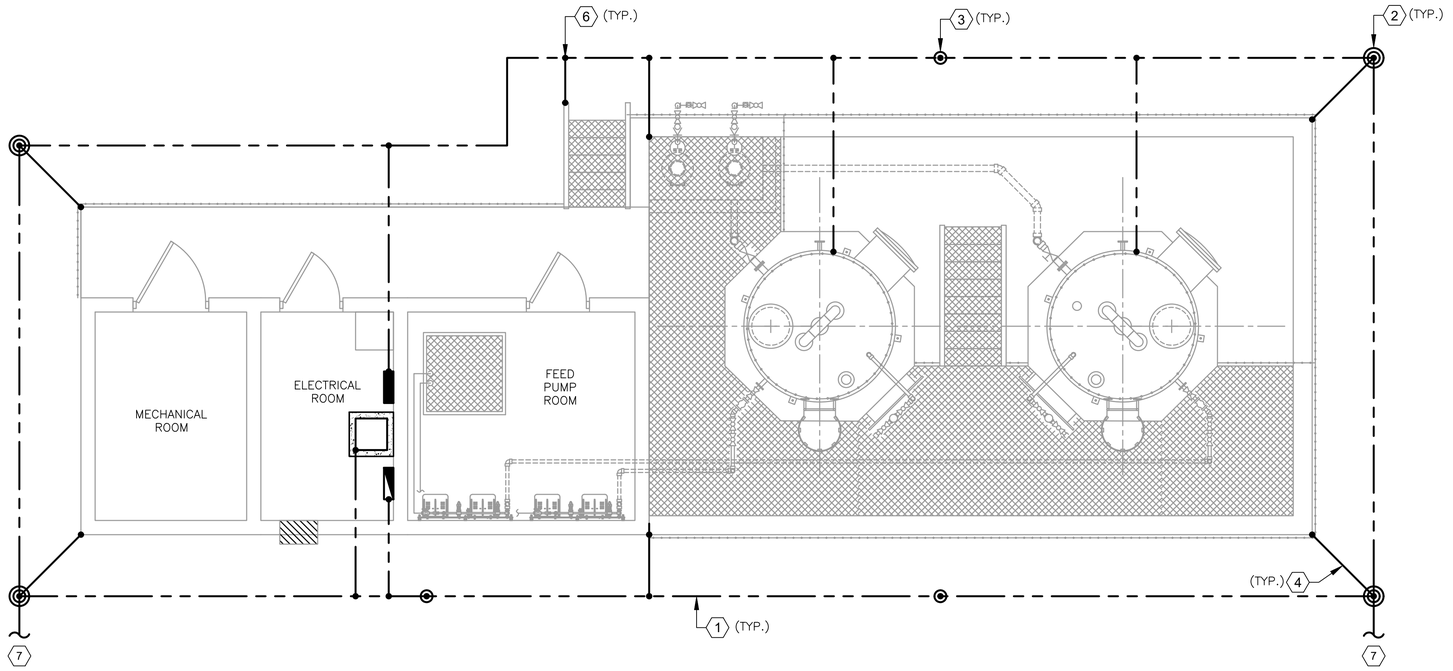
DRAWING SCALE
NTS

CITY OF HOUSTON PM
NEIL BARNSDALE, P.E.

SHEET NO. XX OF XX

FOR CITY OF HOUSTON USE ONLY





EDDINGTON LIFT STAITON CHEMICAL BUILDING
AND STORAGE TANK GROUNDING BUILDING

PLAN

1/4" = 1'-0"

NOTES BY SYMBOL "⟨#⟩":

1. MAIN BURIED GROUND LOOP, #4/0 BARE COPPER CONDUCTOR.
2. GROUND TEST WELL.
3. GROUND ROD.
4. #4/0 BARE COPPER BONDING CONDUCTOR.
5. #2/0 BARE COPPER BONDING CONDUCTOR.
6. BOND REBAR IN CONCRETE FOOTER OR SLAB TO MAIN BURIED GROUND LOOP.
7. REFER TO OVERALL ELECTRICAL SITE PLAN FOR CONTINUATION.

NO.	DATE	REVISION	APP.

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APPROVED BY: H. FOROUZAN

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ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
EDDINGTON LIFT STATION
CHEMICAL BUILDING
GROUNDING PLAN

WBS NUMBER
R-001000-0035-4

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE
NTS

CITY OF HOUSTON PM
NEIL BARNSDALE, P.E.

SHEET NO. XX OF XX

WARNING
0 1
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DWG NO
E-9

PLOT STYLE: ARD_FULL_MONO H8111.ctb PLOTTED: 1/8/2026 6:32 PM
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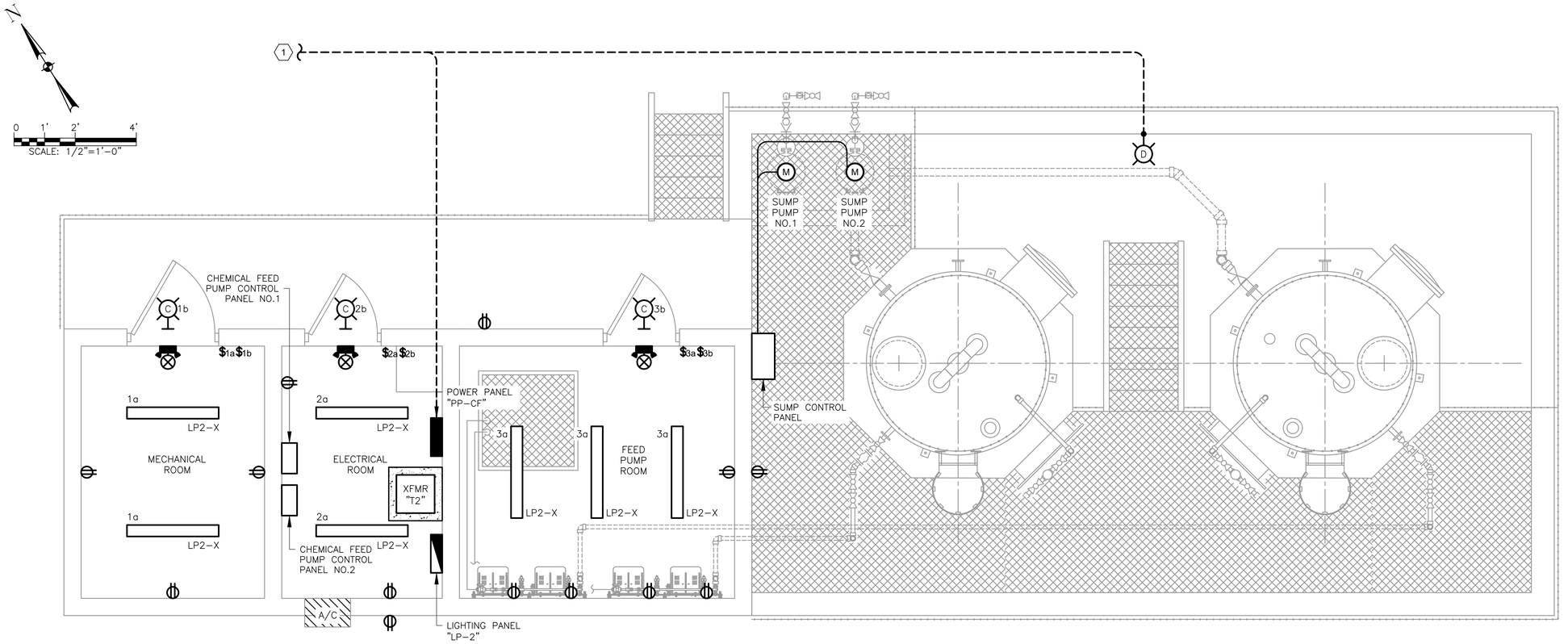

EDDINGTON LIFT STAITON CHEMICAL BUILDING
LIGHTING AND POWER

PLAN

3/8" = 1'-0"

NOTES BY SYMBOL "⟨#⟩":

⟨1⟩ REFER TO OVERALL ELECTRICAL SITE PLAN FOR CONTINUATION.

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HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
EDDINGTON LIFT STATION
CHEMICAL BUILDING LIGHTING & POWER PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
E-10

WBS NUMBER
R-001000-0035-4

DRAWING SCALE
NTS

CITY OF HOUSTON PM
NEIL BARNSDALE, P.E.

SHEET NO. XX OF XX

FOR CITY OF HOUSTON USE ONLY

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FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Electrical\Working\Eddington Lift Station\H8111_E-10.dwg

	DESCRIPTION	SERVICE		ROUTING			CONDUIT & WIRE SIZE
		VOLTAGE	AMPS OR HP	FROM	TO	VIA	
P100	SERVICE ENTRANCE	12.47KV	--	12.47KV SERVICE POLE	PAD MOUNT TRANSFORMER	--	3-2/0 AWG, 15KV SHIELDED, 3"C.
P101	TRANSFORMER SECONDARY FEEDER	12.47KV	2400A	2000KVA PAD MOUNT TRANSFORMER	MCC-1 NORMAL POWER	--	6 SETS, 4#600 MCM, #1/0 NEUT., #1/0 GND, 4"C. EACH
P103	MCC-1 GENERATOR POWER	480V	2400A	ESB-1	MCC-1 GENERATOR POWER	--	6 SETS, 4#600 MCM, #1/0 NEUT., #1/0 GND, 4"C. EACH
PG01	ENERGY POWER GEN 1	480V	1200A	GENERATOR G1	ESB-1 G1	--	3 SETS, 3#600 MCM, #1/0 NEUT., #1/0 GND, 4"C. EACH
PG02	ENERGY POWER GEN 2	480V	1200A	GENERATOR G2	ESB-1 G2	--	3 SETS, 3#600 MCM, #1/0 NEUT., #1/0 GND, 4"C. EACH
105	COMMUNICATION	--	--	PPU-AC	COMMUNICATION POLE	--	COMM. POLE, CAT 5E, 1"C.
200	WET PUMP NO. W3 POWER	480V	335HP	WET PUMP NO. W3	WET PUMP NO. W3 JUNCTION BOX	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
201	WET PUMP NO. W3 CONTROLS	120V	--	WET PUMP NO. W3	WET PUMP NO. W3 JUNCTION BOX	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
202	WET PUMP NO. W3 POWER	480V	335HP	WET PUMP NO. W3 JUNCTION BOX	VFD NO.3	--	2 SETS, 3#500 MCM, #1/0 GND, 4"C. EACH
203	WET PUMP NO. W3 CONTROLS	120V	--	WET PUMP NO. W3 JUNCTION BOX	VFD NO.3	--	3#3 AWG, 4#14, #8 GND. 2"C.
205	WET PUMP NO. W3 CONTROLS	120V	--	VFD NO.3	CONTROL PANEL	--	12#14 AWG, 1"C.
300	WET PUMP NO. W4 POWER	480V	335HP	WET PUMP NO. W4	WET PUMP NO. W4 JUNCTION BOX	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
301	WET PUMP NO. W4 CONTROLS	120V	--	WET PUMP NO. W4	WET PUMP NO. W4 JUNCTION BOX	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
302	WET PUMP NO. W4 POWER	480V	335HP	WET PUMP NO. W4 JUNCTION BOX	VFD NO.4	--	2 SETS, 3#500 MCM, #1/0 GND, 4"C. EACH
303	WET PUMP NO. W4 CONTROLS	120V	--	WET PUMP NO. W4 JUNCTION BOX	VFD NO.4	--	3#3 AWG, 4#14, #8 GND. 2"C.
305	WET PUMP NO. W4 CONTROLS	120V	--	VFD NO.4	CONTROL PANEL	--	12#14 AWG, 1"C.
400	WET PUMP NO. W5 POWER	480V	335HP	WET PUMP NO. W5	WET PUMP NO. W5 JUNCTION BOX	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
401	WET PUMP NO. W5 CONTROLS	120V	--	WET PUMP NO. W5	WET PUMP NO. W5 JUNCTION BOX	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
402	WET PUMP NO. W5 POWER	480V	335HP	WET PUMP NO. W5 JUNCTION BOX	VFD NO.5	--	2 SETS, 3#500 MCM, #1/0 GND, 4"C. EACH
403	WET PUMP NO. W5 CONTROLS	120V	--	WET PUMP NO. W5 JUNCTION BOX	VFD NO.5	--	3#3 AWG, 4#14, #8 GND. 2"C.
405	WET PUMP NO. W5 CONTROLS	120V	--	VFD NO.5	CONTROL PANEL	--	12#14 AWG, 1"C.
500	WET PUMP NO. W6 POWER	480V	335HP	WET PUMP NO. W6	WET PUMP NO. W6 JUNCTION BOX	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
501	WET PUMP NO. W6 CONTROLS	120V	--	WET PUMP NO. W6	WET PUMP NO. W6 JUNCTION BOX	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
502	WET PUMP NO. W6 POWER	480V	335HP	WET PUMP NO. W6 JUNCTION BOX	VFD NO.6	--	2 SETS, 3#500 MCM, #1/0 GND, 4"C. EACH
503	WET PUMP NO. W6 CONTROLS	120V	--	WET PUMP NO. W6 JUNCTION BOX	VFD NO.6	--	3#3 AWG, 4#14, #8 GND. 2"C.
505	WET PUMP NO. W6 CONTROLS	120V	--	VFD NO.6	CONTROL PANEL	--	12#14 AWG, 1"C.
600	LIGHTING PANEL FEEDER	480V	--	MOTOR CONTROL CENTER	LIGHTING TRANSFORMER "T1"	--	3#4 AWG, #8 GND, 1-1/2"C.
601	LIGHTING PANEL GROUND	--	--	LIGHTING PANEL	GROUND FIELD	--	--
602	LIGHTING PANEL FEEDER	120/240V	--	LIGHTING TRANSFORMER "T1"	LIGHTING PANEL	--	4#2/0 AWG, #6 GND, 3"C.
700	DRY PUMP NO. D1 POWER	480V	85HP	DRY PUMP NO. D1	DRY PUMP NO. D1 JUNCTION BOX	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
701	DRY PUMP NO. D1 CONTROLS	120V	--	DRY PUMP NO. D1	DRY PUMP NO. D1 JUNCTION BOX	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
702	DRY PUMP NO. D1 POWER	480V	85HP	DRY PUMP NO. D1 JUNCTION BOX	MCC-1 PUMP STARTER	--	3#1/0 AWG, #4 GND, 2"C.
703	DRY PUMP NO. D1 CONTROLS	120V	--	DRY PUMP NO. D1 JUNCTION BOX	MCC-1 PUMP STARTER	--	10#14 AWG, 1"C.
705	DRY PUMP NO. D1 CONTROLS	120V	--	MCC-1 PUMP STARTER	CONTROL PANEL	--	12#14 AWG, 1"C.
706	DRY PUMP NO. D1 CAPACITOR	480V	--	DRY PUMP NO. D1 MOTOR STARTER	POWER FACTOR CORRECTION CAPACITOR	--	--
800	DRY PUMP NO. D2 POWER	480V	85HP	DRY PUMP NO. D2	DRY PUMP NO. D2 JUNCTION BOX	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
801	DRY PUMP NO. D2 CONTROLS	120V	--	DRY PUMP NO. D2	DRY PUMP NO. D2 JUNCTION BOX	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
802	DRY PUMP NO. D2 POWER	480V	85HP	DRY PUMP NO. D2 JUNCTION BOX	MCC-1 PUMP STARTER	--	3#1/0 AWG, #4 GND, 2"C.
803	DRY PUMP NO. D2 CONTROLS	120V	--	DRY PUMP NO. D2 JUNCTION BOX	MCC-1 PUMP STARTER	--	10#14 AWG, 1"C.
805	DRY PUMP NO. D2 CONTROLS	120V	--	MCC-1 PUMP STARTER	CONTROL PANEL	--	12#14 AWG, 1"C.
806	DRY PUMP NO. D2 CAPACITOR	480V	--	DRY PUMP NO. D2 MOTOR STARTER	POWER FACTOR CORRECTION CAPACITOR	--	--
1000	LEVEL TRANSMITTER	24VDC	--	LEVEL TRANSMITTER LT-1	TRANSMITTER JUNCTION BOX	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
1001	LEVEL TRANSMITTER	24VDC	--	LEVEL TRANSMITTER LT-2	TRANSMITTER JUNCTION BOX	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
1002	COMBINED LEVEL TRANSMITTERS & FLOAT SWITCH	24VDC	--	CONTROL PANEL	TRANSMITTER JUNCTION BOX	--	2 TRIAD #16, 4#14 AWG, 1"C.
1003	WELL FLOAT SWITCHES	120V	--	TRANSMITTER JUNCTION BOX	FLOAT SWITCH NO.1 THROUGH NO.4	--	MANUFACTURER'S CABLE IN 2-1/2" CONDUIT
1200	SITE LIGHTING	120V	--	LIGHTING PANEL	SITE LIGHTING	--	2#12 AWG, #12 GND. 1"C.

NOTES BY SYMBOL "⟨#⟩":

⟨1⟩ REFER TO SPEC SECTION 16120 FOR CONDUCTOR COLOR CODE.

NO.	DATE	REVISION	APP.

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TRAVIS REESER
TEXAS P.E. NO. 126466
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CHECKED BY: H. FOROUZAN
REVIEWED BY: H. FOROUZAN
APPROVED BY: H. FOROUZAN

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
EDDINGTON LIFT STATION
CONDUIT SCHEDULE

WBS NUMBER: R-001000-0035-4

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE: NTS

CITY OF HOUSTON PM: NEIL BARNSDALE, P.E.

SHEET NO. XX OF XX

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
E-11

PLOTTED: 1/8/2026 6:32 PM
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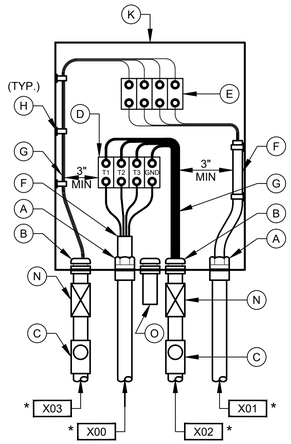
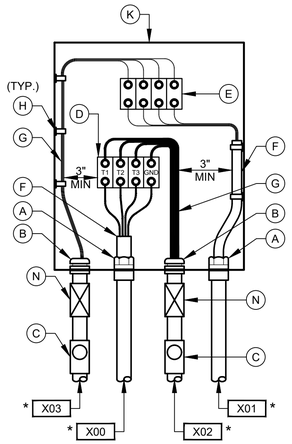


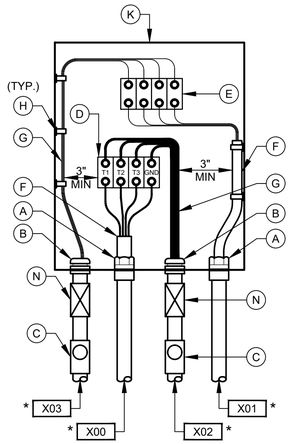
BEGINNING JUNCTION BOX

DETAIL 1 NTS (SEE NOTE 7)



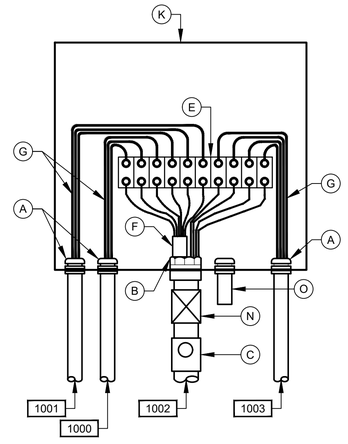
INTERMEDIATE JUNCTION BOX

DETAIL 2 NTS (SEE NOTE 7)



END JUNCTION BOX

DETAIL 3 NTS (SEE NOTE 7)



LEVEL TRANSMITTER JUNCTION BOX

DETAIL 4 NTS (SEE NOTE 7)

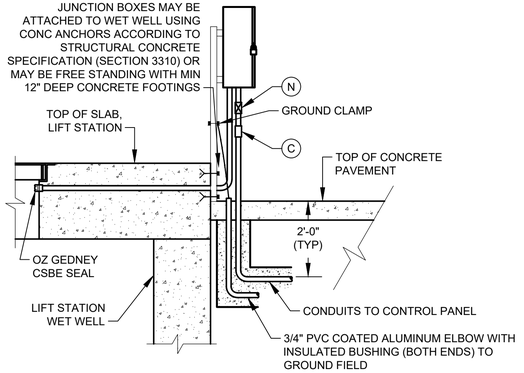
* REPLACE `X' PER NOTATION SCHEDULE

NOTATION SCHEDULE

`X'	PUMP NO.
2	3
3	4
4	5
5	6
7	1
8	2

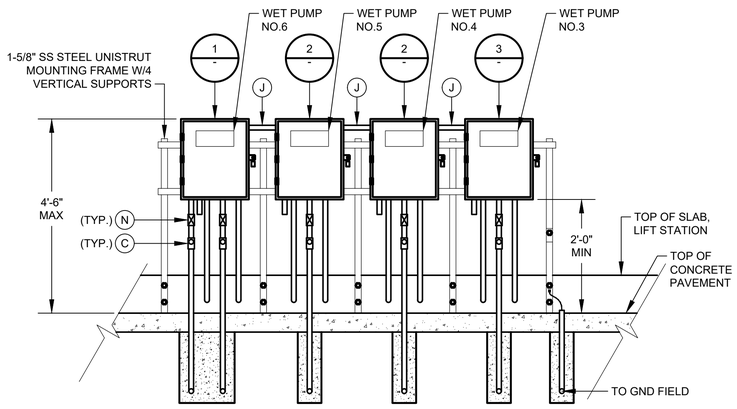
NOTES:

1. NAMEPLATES SHALL BE MOUNTED TO JUNCTION BOXES USING 316 STAINLESS STEEL HARDWARE.
2. MAINTAIN MINIMUM SEPARATION REQUIRED UNDER NEC ARTICLE 504, BETWEEN INTRINSICALLY SAFE CONTROL WIRING AND NON INTRINSICALLY SAFE MOTOR FEEDER WIRING.
3. UNLESS OTHERWISE NOTED, ALL EXTERIOR EXPOSED CONDUITS SHALL BE PVC COATED ALUMINUM.
4. UNLESS OTHERWISE NOTED, ALL NUTS, BOLTS, SCREWS WASHERS, ETC SHALL BE TYPE 316 STAINLESS STEEL.
5. ALL UNDERGROUND CONDUITS TO BE ENCASED IN REINFORCED CONCRETE DUCTBANK.
6. PROVIDE ANTI-CORROSIVE SPRAY ON ANY BARE METAL PARTS OR EXPOSED WIRE.
7. SEE WIRING SCHEMATICS FOR TERMINALS AND WIRE NUMBERS.
8. ANY CONDUIT REQUIRING A CSBE SEAL, SHALL BE A MINIMUM SIZE OF 2 1/2" PER CABLE.
9. DETAIL SHOWN MAY BE MODIFIED PER SITE SITUATION.
10. COORDINATE WITH WASTE WATER OPERATIONS ELECTRICAL ORGANIZATION FOR THE OPENING OF JUNCTION BOXES TO THE SIDE OF WET WELL IF REQUIRED DURING CONSTRUCTION.
11. THE ENCLOSURES WITH ELECTRICAL CIRCUITS SHALL BE A MINIMUM OF 5 FEET FROM ANY CLASSIFIED AREA, OTHERWISE EXPLOSION PROOF TYPE ENCLOSURES SHALL BE USED.
12. THE RECEPTACLES SHALL BE EXPLOSION PROOF TYPE IF INSTALLED WITHIN 5 FEET OF CLASSIFIED AREA.

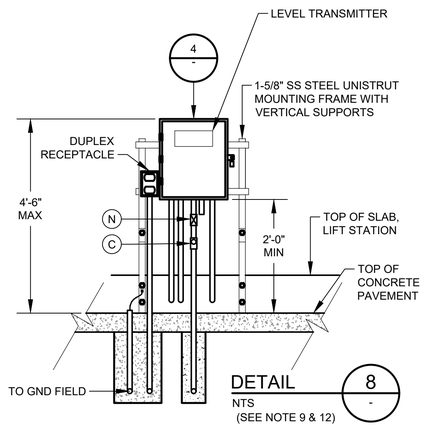


TYP SIDE VIEW FOR DETAIL 5, 6, 7, 8

(SEE NOTE 10)



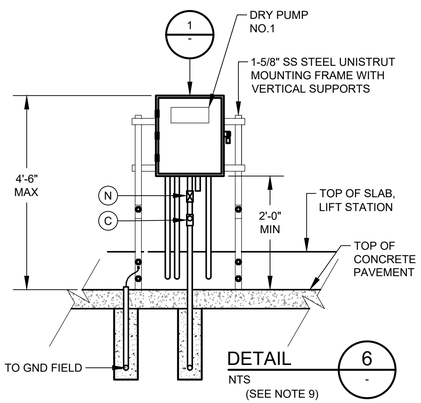
DETAIL 5 NTS (SEE NOTE 9)



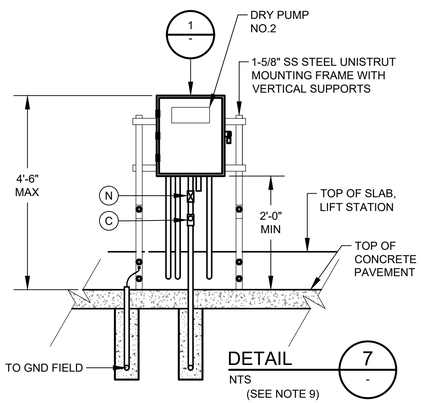
DETAIL 8 NTS (SEE NOTE 9 & 12)

JUNCTION BOX EQUIPMENT SCHEDULE

- A - OZ GEDNEY CSBE SEAL
- B - WATERTIGHT CONDUIT HUB WITH INSULATED BUSHING
- C - CLASS I, DIV 1, EXPLOSION PROOF SEAL INSTALLED PER NEC DIV 501
- D - POWER TERMINAL BLOCK W/SCREW DOWN BOX LUGS
- E - CONTROL TERM BLOCK W/SCREW DOWN BOX LUGS
- F - MULTI-CONDUCTOR CABLE, REMOVE OUTER JACKET AS SHOWN
- G - WIRING AS SCHEDULED
- H - WIRING HARNESS PERMANENTLY AFFIXED
- I - PUMP CONTROL WIRING FROM PUMPS 2; 2 & 3; 4; OR D2, AS APPLICABLE
- J - 1 1/2" PVC COATED CONDUIT NIPPLE
- K - NEMA 4X STAINLESS STEEL JUNCTION BOX WITH GASKETED FRONT COVER, SINGLE QUARTER TURN, OIL-TIGHT LATCH AND PADLOCKING PROVISIONS, HOFFMAN D-3L16H1206 SS LF OR EQUAL. MINIMUM SIZE: 12"W X 16"H X 6"D
- L - NAMEPLATE, SEE SPECIFICATIONES (SEE NAMEPLATE SCHEDULE)
- M - MOTOR RATED SWITCH
- N - EXPANSION FITTING
- O - DRAIN VENT



DETAIL 6 NTS (SEE NOTE 9)



DETAIL 7 NTS (SEE NOTE 9)

WARNING

0 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO

E-12

NO.	DATE	REVISION	APP.

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HOSS FOROUZAN
TEXAS P.E. NO. 77748
DATE: 01/09/2026

ARDURRA
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TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: XX/XX/2025

DESIGNED BY: W. ZHENG	SURVEYED BY:
DRAWN BY: C. VALDEZ	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: H. FOROUZAN	FB NO. 340S1
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
EDDINGTON LIFT STATION
TYPICAL JUNCTION BOX DETAILS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO H8111 PLOTTED: 1/8/2026 6:32 PM
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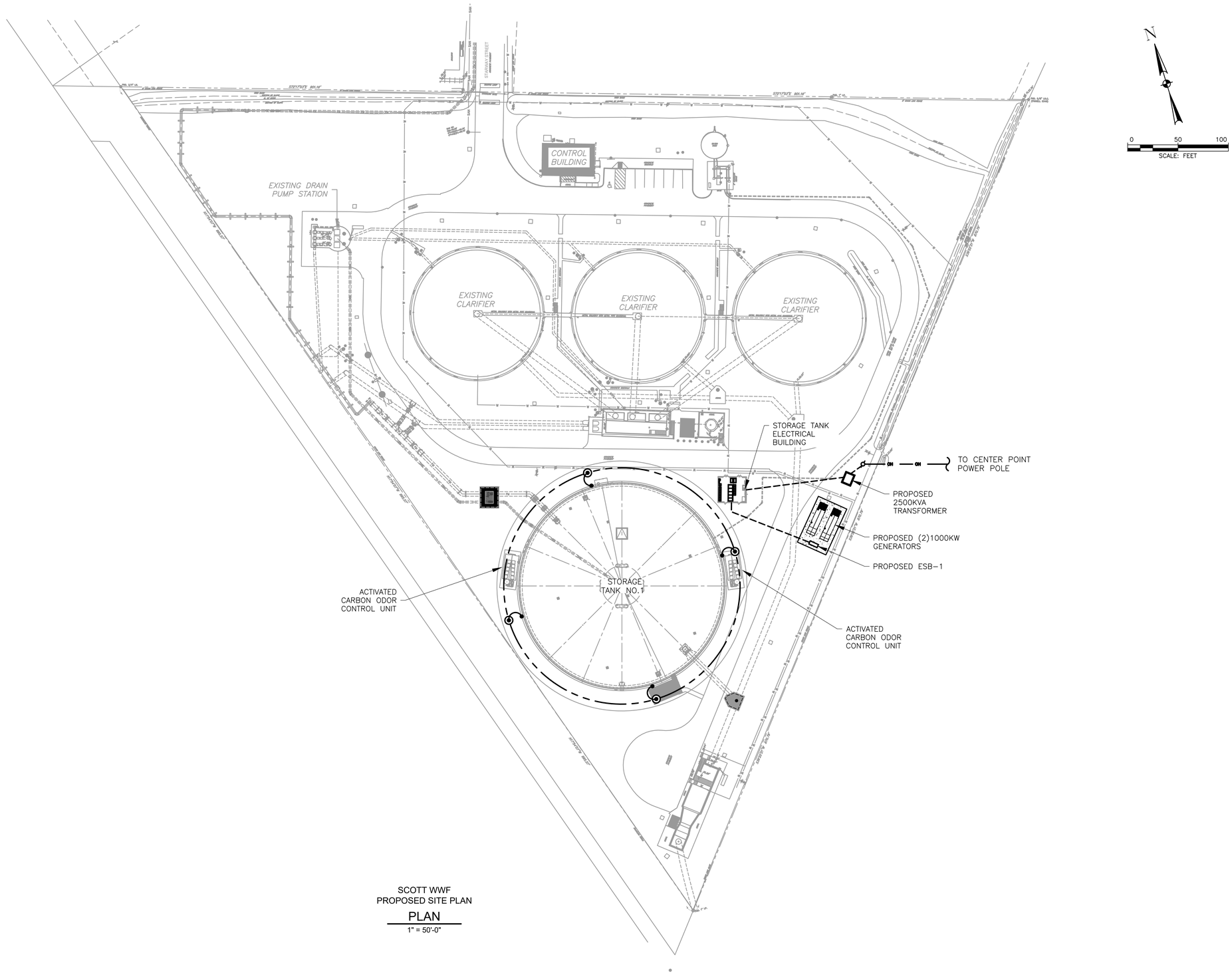

SCOTT WWF
PROPOSED SITE PLAN

PLAN

1" = 50'-0"

NO.	DATE	REVISION	APP.

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DATE: XX/XX/2025

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SURVEYED BY:
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FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
SCOTT WWF PROPOSED ELECTRICAL SITE PLAN

WARNING
0 1
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DWG NO
E-13

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO (H8111).ctb PLOTTED: 1/8/2026 6:32 PM
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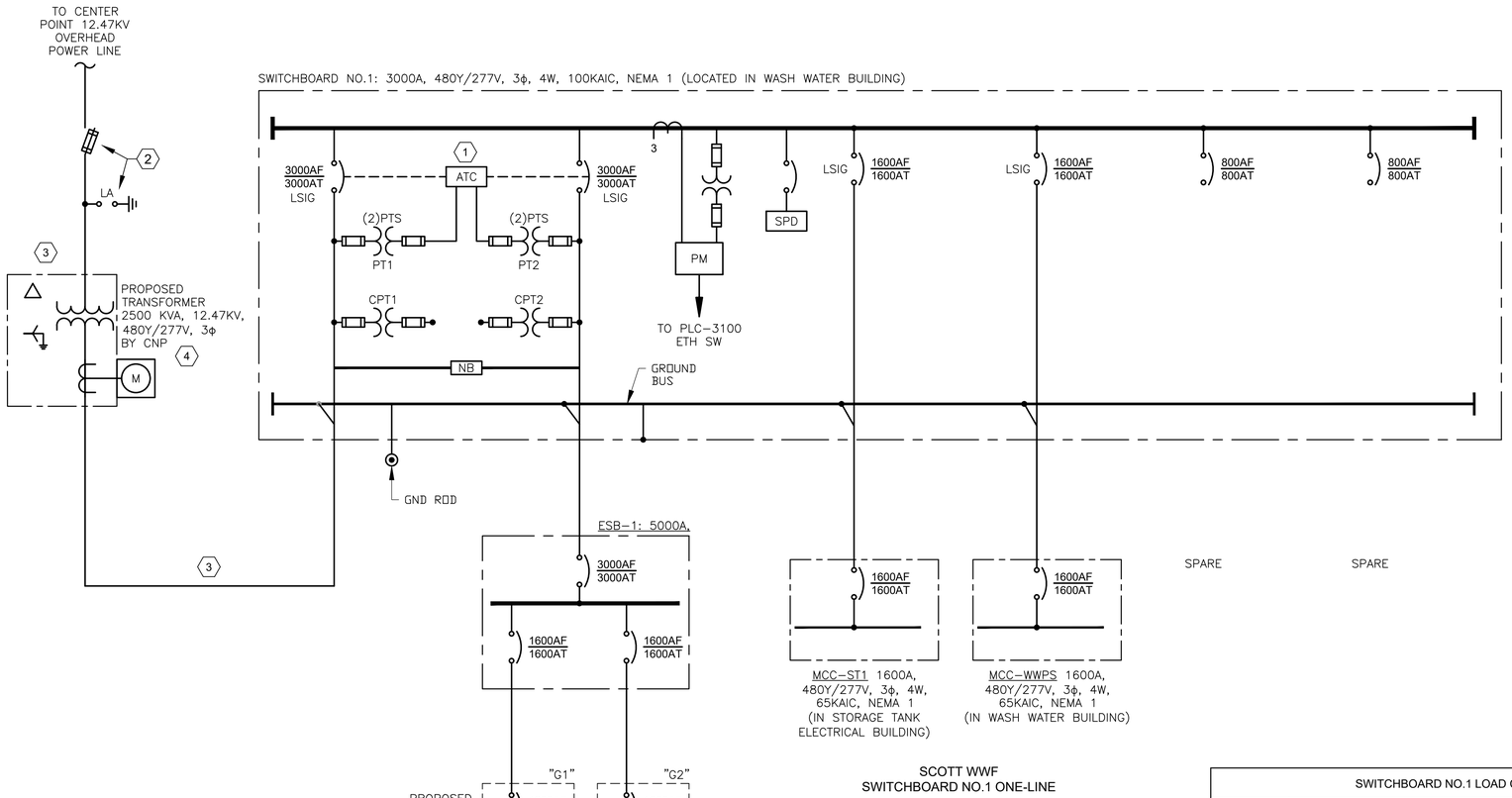
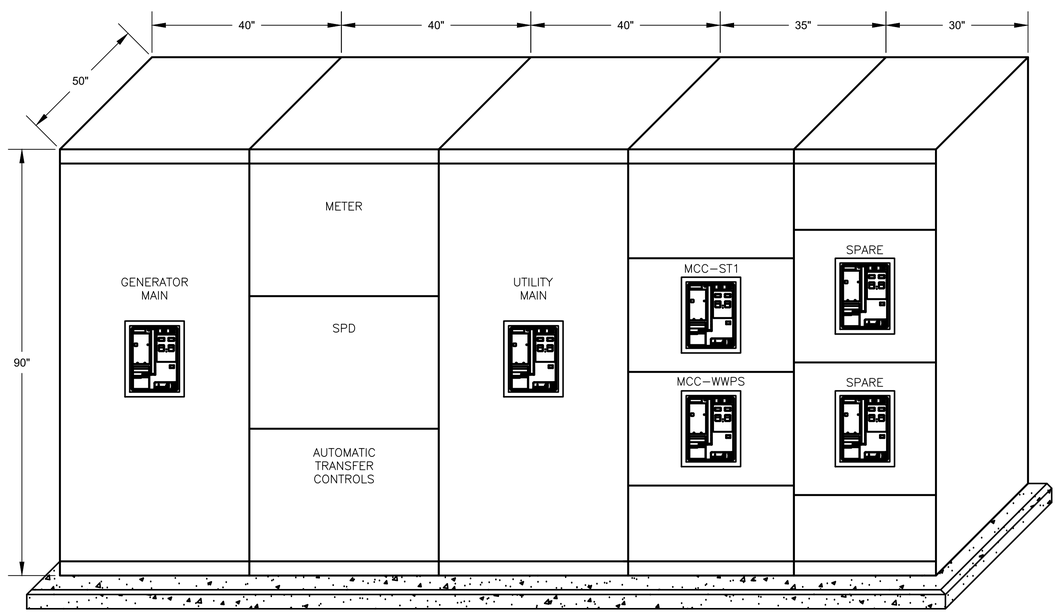


SCOTT WWF
SWITCHBOARD NO.1 ONE-LINE
DIAGRAM (5)
NTS



SCOTT WWF
SWITCHBOARD NO.1
ELEVATION
NTS

NOTES:

1. AUTOMATIC TRANSFER CONTROLLER.
2. PROVIDE AND INSTALLED BY CENTERPOINT ENERGY (CNP).
3. CONTRACTOR TO COORDINATE THE INSTALLATION OF THE FEEDER WITH CNP.
4. CONTRACTOR TO COORDINATE THE INSTALLATION OF THE PAD MOUNT POWER TRANSFORMER WITH CNP.
5. THE FINAL SETTINGS FOR ALL THE OVER CURRENT PROTECTION DEVICES SHALL BE PROVIDED BY THE POWER STUDY ENGINEER BASED ON THE COORDINATION STUDY.

SWITCHBOARD NO.1 LOAD CALCULATION

ITEM	DESCRIPTION	HP	FLA
1	MCC-ST1	---	1,152.8A
2	MCC-WWPS	---	1,371A
SUBTOTAL			2,523.8A
25% OF LARGEST MOTOR LOAD			98A
MINIMUM AMPACITY @480V/3ϕ			2,621.8A

* BASED ON SELECTED PUMP MFG DATA

NO.	DATE	REVISION	APP.

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HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
SCOTT WWF SWITCHBOARD NO.1 ONE-LINE DIAGRAM

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R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
E-14

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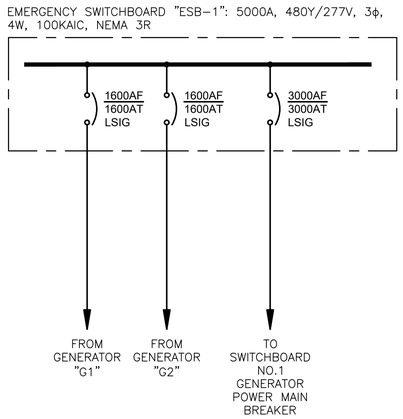
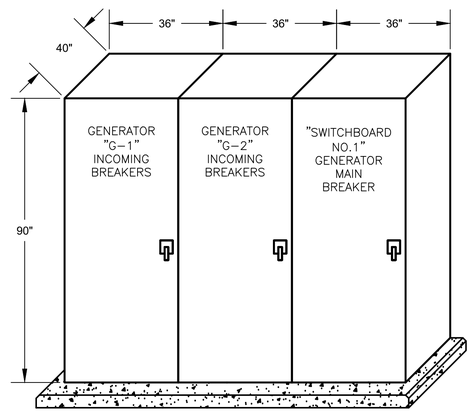


SCOTT WWF
ESB-1 ONE-LINE
DIAGRAM
NTS



SCOTT WWF
ESB-1
ELEVATION
NTS

NO.	DATE	REVISION	APP.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
SCOTT WWF ESB-1
ONE-LINE DIAGRAM

WARNING
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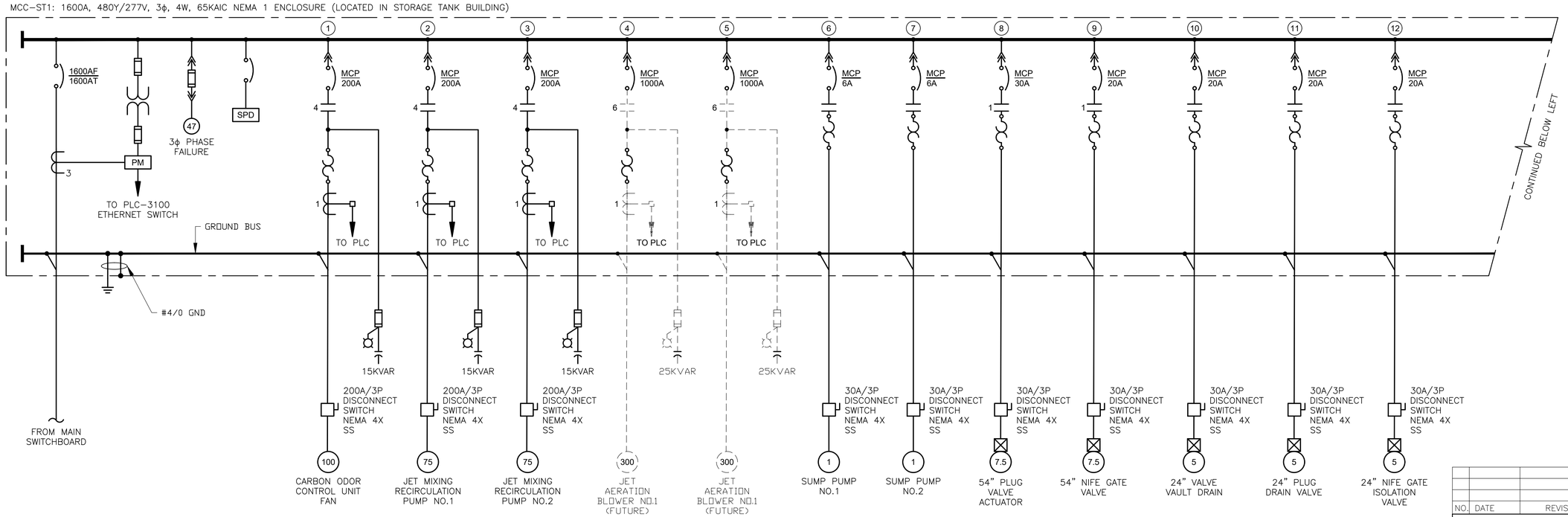
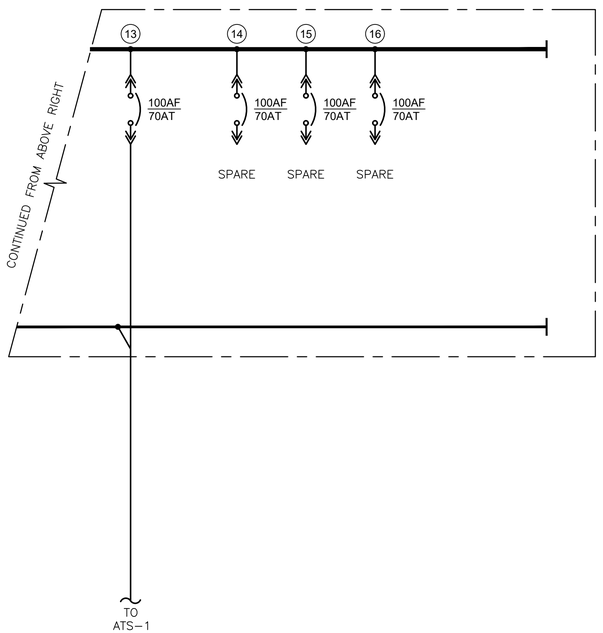
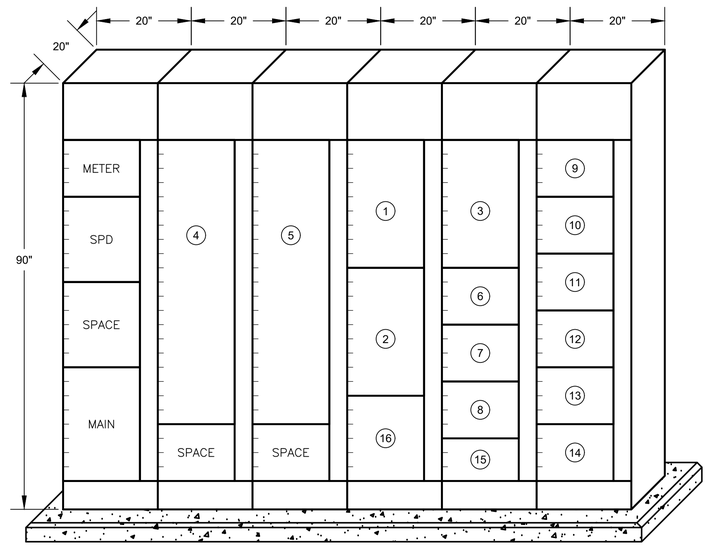
WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
E-15



SCOTT WWF
MCC-ST1 ONE-LINE
DIAGRAM
NTS





SCOTT WWF
MCC-ST1
ELEVATION
NTS

MCC-ST1 LOAD CALCULATION			
ITEM	DESCRIPTION	HP	FLA
1	ODOR CONTROL UNIT FAN	100HP	130A
2	JET MIXING RECIRCULATION PUMP NO.1	75HP	98A
3	JET MIXING RECIRCULATION PUMP NO.2	75HP	98A
4	JET AERATION BLOWER NO.1 (FUTURE)	300HP	391A
5	JET AERATION BLOWER NO.1 (FUTURE)	300HP	391A
6	SUMP PUMP NO.1	1HP	1A
7	SUMP PUMP NO.2	1HP	1A
8	54" PLUG VALVE ACTUATOR	7.5HP	10A
9	54" NIFE GATE VALVE	7.5HP	10A
10	24" VALVE VAULT DRAIN	5HP	7.6A
11	24" PLUG DRAIN VALVE	5HP	7.6A
12	24" NIFE GATE ISOLATION VALVE	5HP	7.6A
SUBTOTAL			1152.8A
25% OF LARGEST MOTOR LOAD			98A
MINIMUM AMPACITY @480V/3ϕ			1,250.8A

* BASED ON SELECTED PUMP MFG DATA

NO.	DATE	REVISION	APP.

GAI
Gupta & Associates, Inc.
CONSULTING ENGINEERING
Registration No. F-2593
302 Dennis St.
Houston, Texas 77006
Tel: 713-636-2936
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email: hforouzan@gaiconsulting.com

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HOSS FOROUZAN
TEXAS P.E. NO. 77748
DATE: 01/09/2026

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: XX/XX/2025

DESIGNED BY:	W. ZHENG
DRAWN BY:	C. VALDEZ
CHECKED BY:	H. FOROUZAN
REVIEWED BY:	H. FOROUZAN
APPROVED BY:	H. FOROUZAN

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

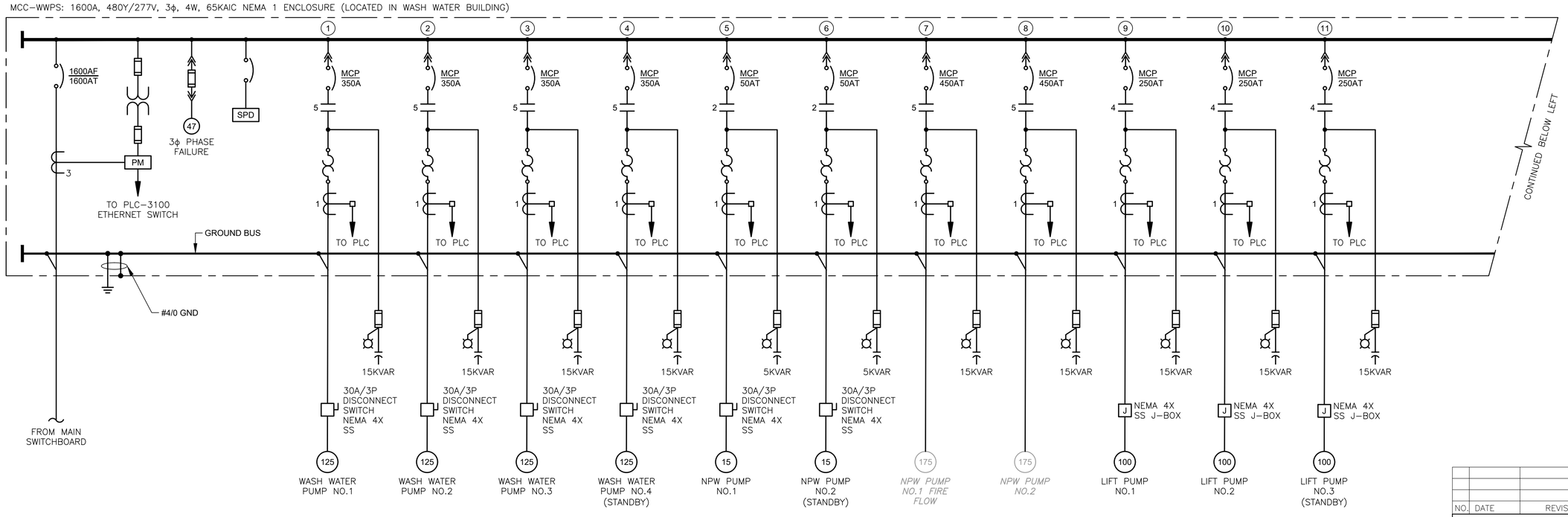
ELECTRICAL
SCOTT WWF MCC–ST1 ONE–LINE DIAGRAM

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

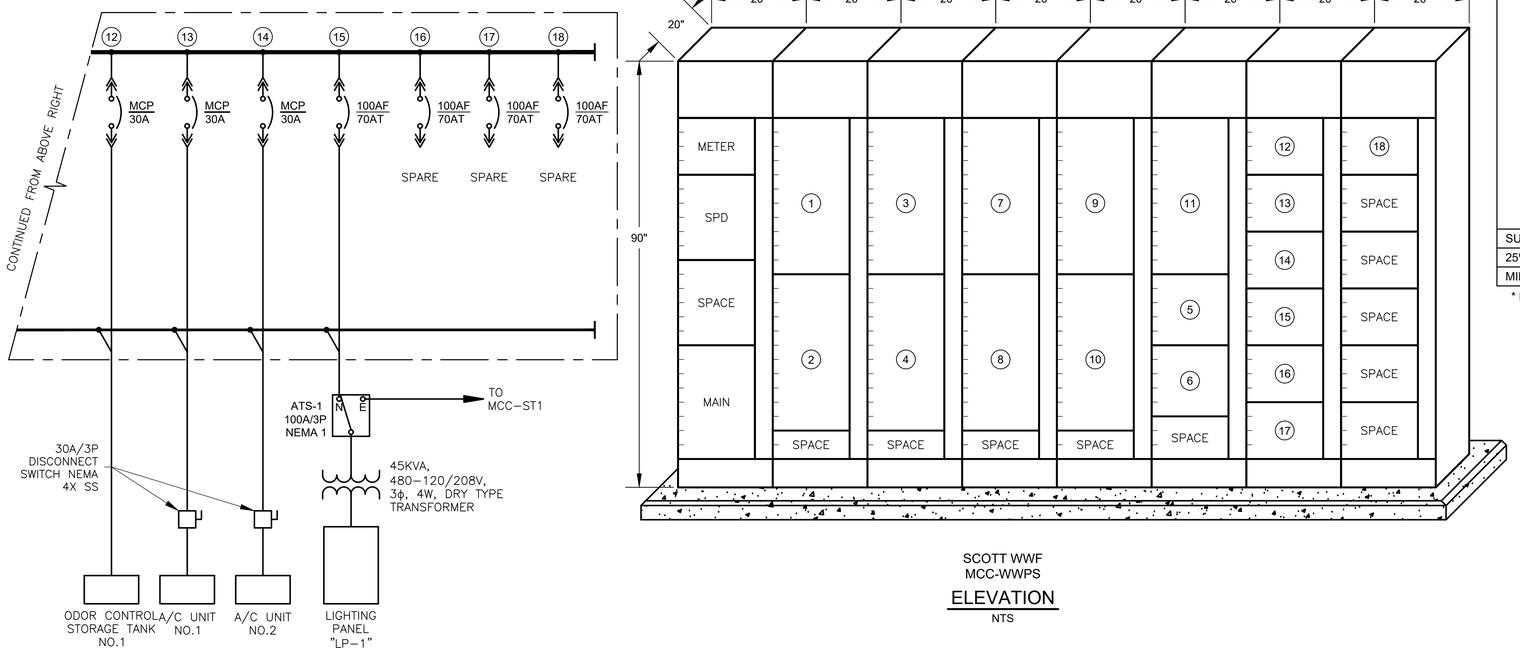
WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
E–16

PLOT STYLE: ARD_FULL_MONO H8111.ctb PLOTTED: 1/8/2026 6:32 PM
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Electrical\Working\Scott WW\H8111_E-16.dwg



SCOTT WWF
MCC-WWPS ONE-LINE
DIAGRAM
NTS



SCOTT WWF
MCC-WWPS
ELEVATION
NTS

MCC-WWPS LOAD CALCULATION			
ITEM	DESCRIPTION	HP	FLA
1	WASH WATER PUMP NO.1	125HP	163A
2	WASH WATER PUMP NO.2	125HP	163A
3	WASH WATER PUMP NO.3	125HP	163A
4	WASH WATER PUMP NO.4 (STANDBY)	125HP	---A
5	NPW PUMP NO.1	15HP	20A
6	NPW PUMP NO.2 (STANDBY)	15HP	---A
7	EXISTING NPW PUMP FIRE FLOW NO.1	175HP	228A
8	EXISTING NPW PUMP NO.2	175HP	---A
9	LIFT PUMP NO.1	100HP	130A
10	LIFT PUMP NO.2	100HP	130A
11	LIFT PUMP NO.3 (STANDBY)	100HP	---A
12	ODOR CONTROL STORAGE TANK NO.1	---	200A
13	A/C UNIT NO.1	---	60A
14	A/C UNIT NO.2	---	60A
15	45 KVA TRANSFORMER		54A
SUBTOTAL			1,371A
25% OF LARGEST MOTOR LOAD			41A
MINIMUM AMPACITY @480V/3ϕ			1,412A

* BASED ON SELECTED PUMP MFG DATA

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TEXAS P.E. NO. 126466
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DRAWN BY: C. VALDEZ
CHECKED BY: H. FOROUZAN
REVIEWED BY: H. FOROUZAN
APPROVED BY: H. FOROUZAN

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

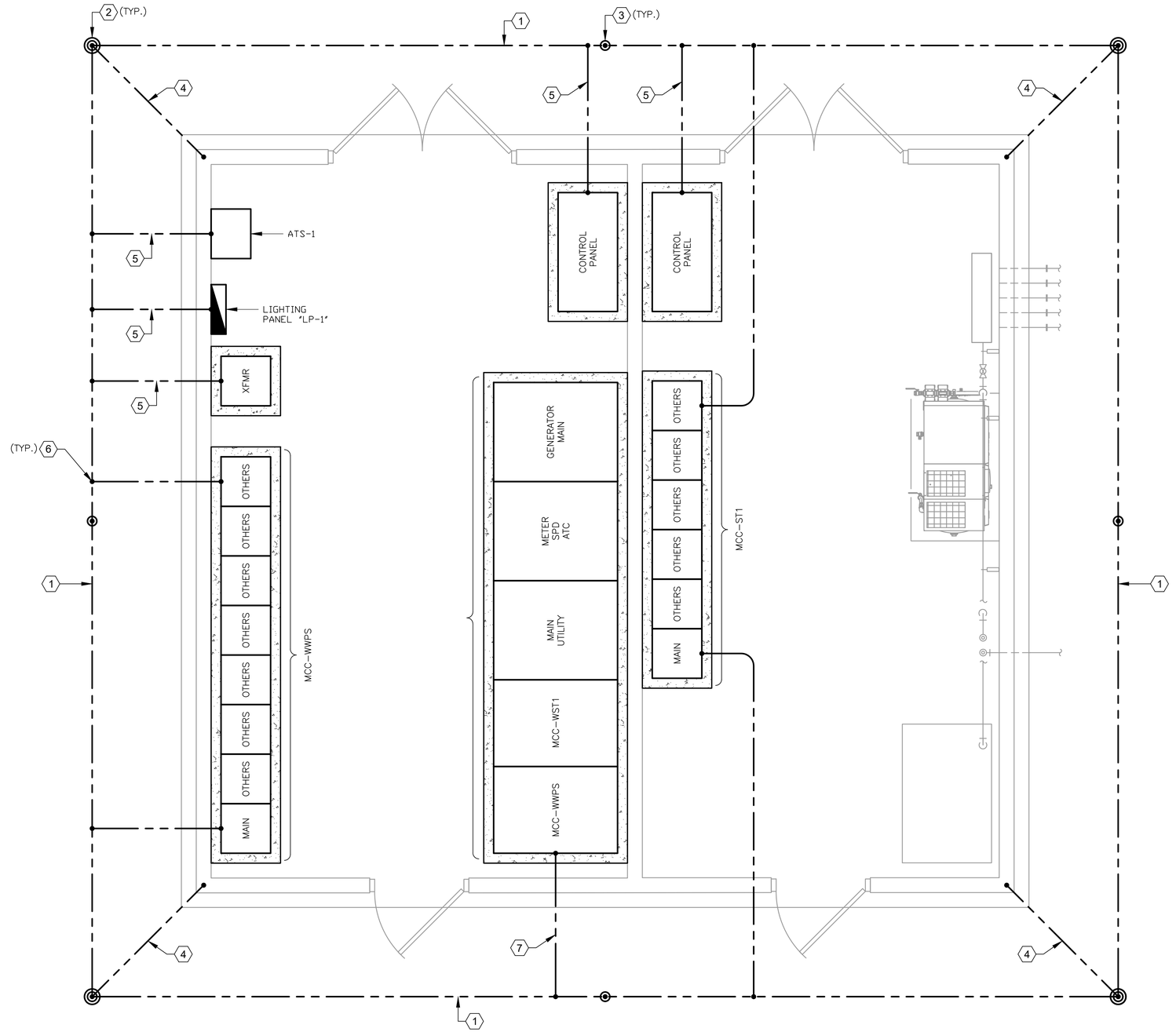
ELECTRICAL
SCOTT WWF MCC–WWPS ONE–LINE DIAGRAM

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
E–17

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO H8111.ctb PLOTTED: 1/8/2026 6:33 PM
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP–Ardurra)\6 Drawings\Electrical\Working\Scott WW\H8111_E–17.dwg



SCOTT WWF
WASHWATER ELECTRICAL GROUNDING BUILDING

PLAN

1/2" = 1'-0"

SCOTT WWF
STORAGE TANK ELECTRICAL GROUNDING BUILDING

PLAN

1/2" = 1'-0"

NOTES BY SYMBOL "(#)":

1. MAIN BURIED GROUND LOOP, #4/0 BARE COPPER CONDUCTOR.
2. GROUND TEST WELL.
3. GROUND ROD.
4. #4/0 BARE COPPER BONDING CONDUCTOR.
5. #2/0 BARE COPPER BONDING CONDUCTOR.
6. BOND REBAR IN CONCRETE FOOTER OR SLAB TO MAIN BURIED GROUND LOOP.
7. #350 BARE COPPER BONDING CONDUCTOR.

NO.	DATE	REVISION	APP.

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DATE: XX/XX/2025

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DRAWN BY: C. VALDEZ	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: H. FOROUZAN	FB NO. 340S1
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
SCOTT WWF STORAGE TANK BUILDING GROUNDING PLAN

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
E-18

PLOT STYLE: ARD_FULL_MONO H8111.ctb PLOTTED: 1/8/2026 6:33 PM
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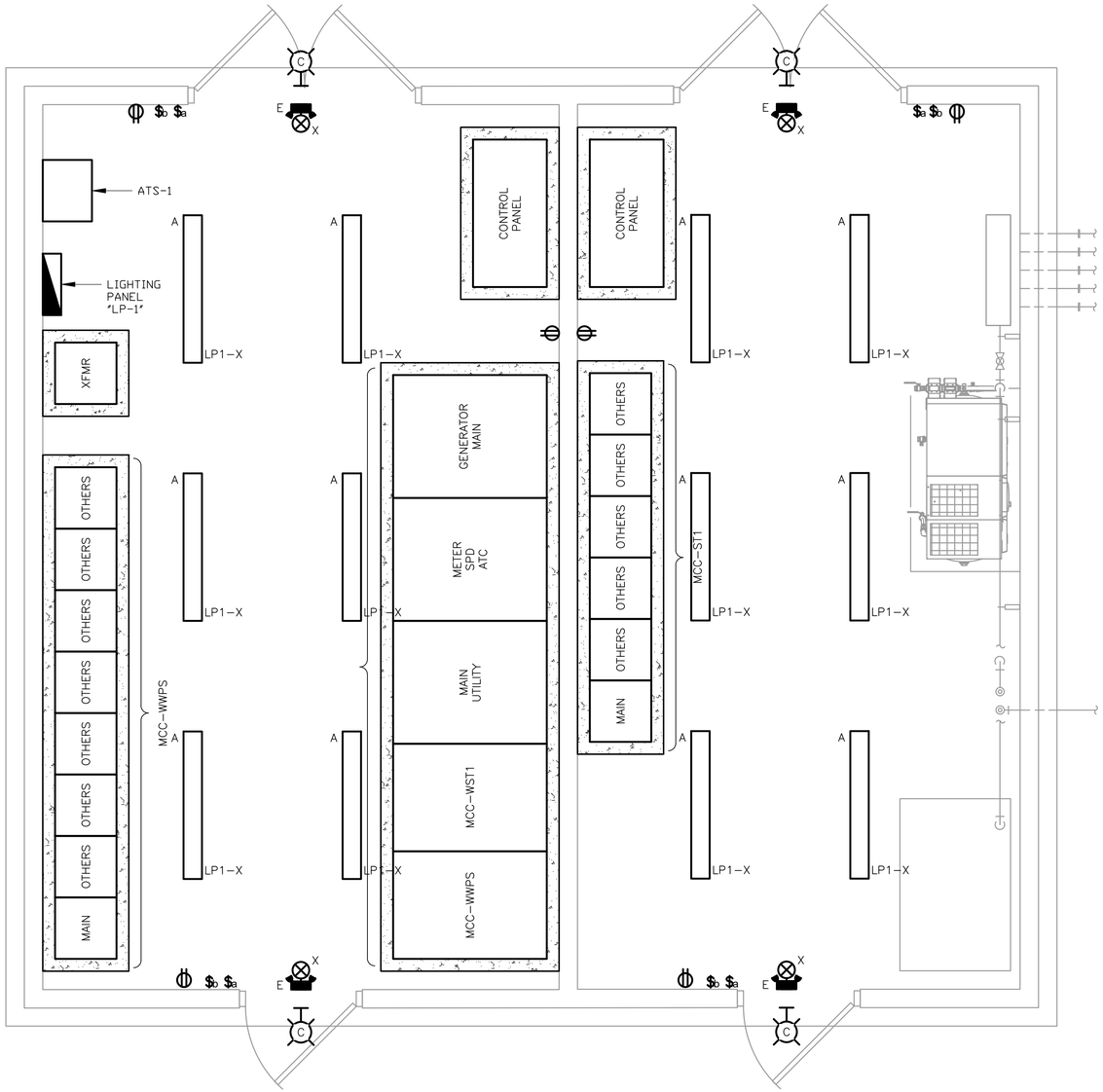

SCOTT WWF
WASHWATER LIGHTING BUILDING

PLAN

1/2" = 1'-0"

SCOTT WWF
STORAGE TANK LIGHTING BUILDING

PLAN

1/2" = 1'-0"

NO.	DATE	REVISION	APP.

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: XX/XX/2025

DESIGNED BY: W. ZHENG	SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
DRAWN BY: C. VALDEZ	FB NO. 340S1
CHECKED BY: H. FOROUZAN	
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
SCOTT WWF STORAGE TANK BUILDING LIGHTING PLAN

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
E-19

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO H8111.stb PLOTTED: 1/8/2026 6:33 PM
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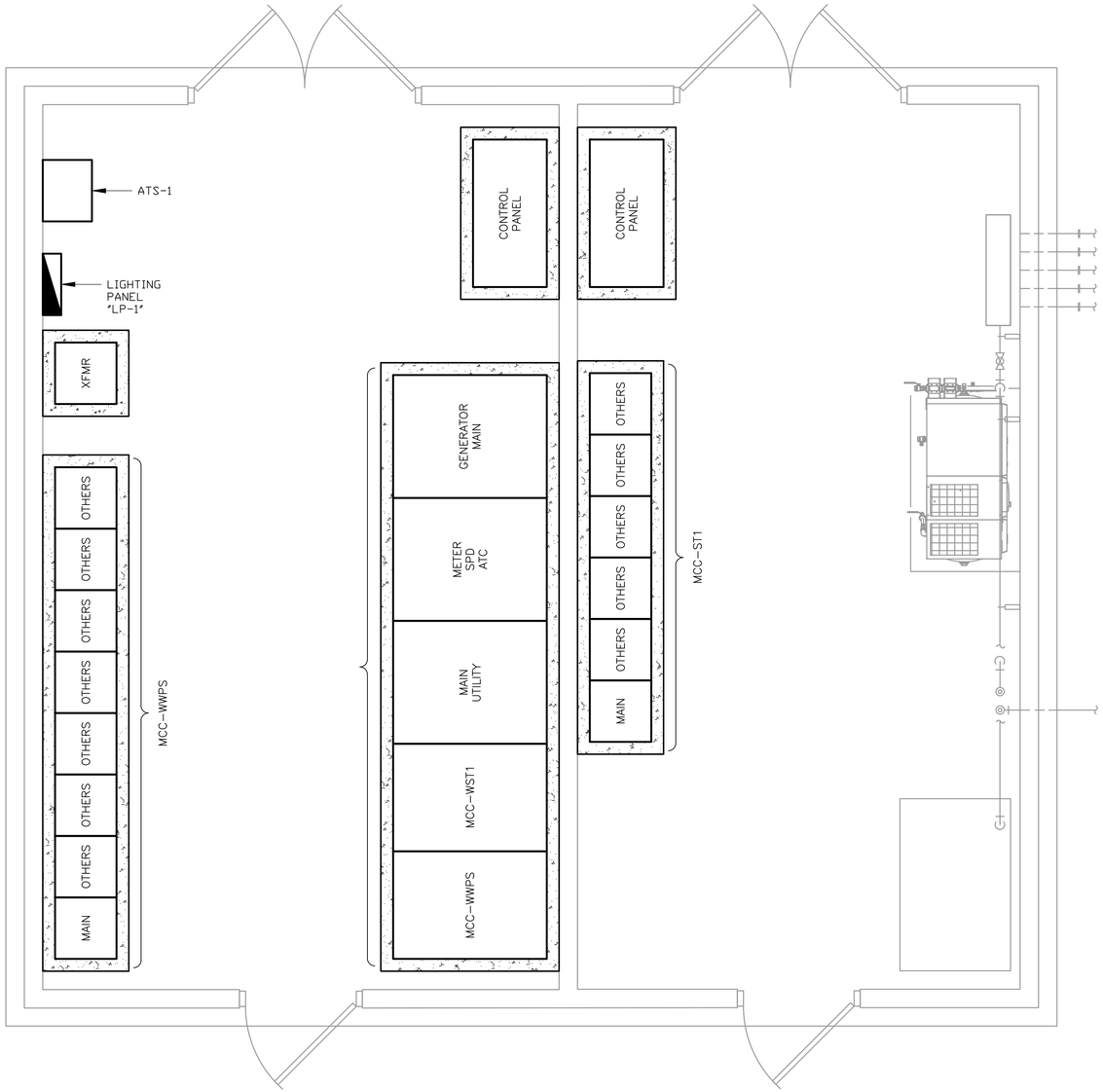

SCOTT WWF
WASHWATER POWER BUILDING

PLAN

1/2" = 1'-0"

SCOTT WWF
STORAGE TANK POWER BUILDING

PLAN

1/2" = 1'-0"

NO.	DATE	REVISION	APP.

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DRAWN BY: C. VALDEZ	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: H. FOROUZAN	FB NO. 340S1
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
SCOTT WWF STORAGE TANK BUILDING POWER PLAN

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
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DWG NO
E-20

PLOT STYLE: ARD_FULL_MONO H8111#.CTB PLOTTED: 1/8/2026 6:33 PM
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Electrical\Working\Scott WW\H8111_E-20.dwg

	DESCRIPTION	SERVICE		ROUTING			CONDUIT & WIRE SIZE
		VOLTAGE	AMPS OR HP	FROM	TO	VIA	
P100	SERVICE ENTRANCE	12.47KV	--	12.47KV SERVICE POLE	2500KVA PAD MOUNT TRANSFORMER	--	3-1/0 AWG, 15KV SHIELDED W/ 1#4 GND., 4"C.
P101	TRANSFORMER SECONDARY FEEDER	480V	--	2500KVA PAD MOUNT TRANSFORMER	SWITCHBOARD NO.1 NORMAL POWER	--	6 SETS, 3#600 MCM, #1/0 NEUT., #1/0 GND, 4"C. EACH
P102	MCC-ST1 FEEDER	480V	--	ESB-1	MCC-ST1 POWER	--	4 SETS, 3#600 MCM, #1/0 NEUT., #1/0 GND, 4"C. EACH
P103	MCC-WWPS FEEDER	480V	--	ESB-1	MCC-WWPS POWER	--	4 SETS, 3#600 MCM, #1/0 NEUT., #1/0 GND, 4"C. EACH
PG01	ENERGY POWER GEN 1	480V	--	GENERATOR G1	ESB-1 G1	--	4 SETS, 3#600 MCM, #1/0 NEUT., #1/0 GND, 4"C. EACH
PG02	ENERGY POWER GEN 2	480V	--	GENERATOR G2	ESB-1 G2	--	4 SETS, 3#600 MCM, #1/0 NEUT., #1/0 GND, 4"C. EACH
201	CARBON ODOR CONTROL FAN	480V	--	MCC-ST1	CARBON ODOR CONTROL FAN	--	--
202	JET MIXING PUMP NO.1	480V	--	MCC-ST1	JET MIXING PUMP NO.1	--	--
203	JET MIXING PUMP NO.2	480V	--	MCC-ST1	JET MIXING PUMP NO.2	--	--
204	SUMP PUMP NO.1	480V	--	MCC-ST1	SUMP PUMP NO.1	--	--
205	SUMP PUMP NO.2	480V	--	MCC-ST1	SUMP PUMP NO.2	--	--
206	54" PLUG VALVE	480V	--	MCC-ST1	54" PLUG VALVE	--	--
207	54" KNIFE VALVE	480V	--	MCC-ST1	54" KNIFE VALVE	--	--
208	24" VALVE VAULT DRAIN	480V	--	MCC-ST1	24" VALVE VAULT DRAIN	--	--
209	24" PLUG DRAIN VALVE	480V	--	MCC-ST1	24" PLUG DRAIN VALVE	--	--
210	24" KNIFE GATE ISOLATION VALVE	480V	--	MCC-ST1	24" KNIFE GATE ISOLATION VALVE	--	--
301	WASH WATER PUMP NO.1	480V	--	MCC-WWPS	WASH WATER PUMP NO.1	--	--
302	WASH WATER PUMP NO.2	480V	--	MCC-WWPS	WASH WATER PUMP NO.2	--	--
303	WASH WATER PUMP NO.3	480V	--	MCC-WWPS	WASH WATER PUMP NO.3	--	--
304	WASH WATER PUMP NO.4	480V	--	MCC-WWPS	WASH WATER PUMP NO.4	--	--
305	NPW PUMP NO.1	480V	--	MCC-WWPS	NPW PUMP NO.1	--	--
306	NPW PUMP NO.2	480V	--	MCC-WWPS	NPW PUMP NO.2	--	--
307	LIFT PUMP NO.1	480V	--	MCC-WWPS	LIFT PUMP NO.1	--	--
308	LIFT PUMP NO.2	480V	--	MCC-WWPS	LIFT PUMP NO.2	--	--
309	LIFT PUMP NO.3	480V	--	MCC-WWPS	LIFT PUMP NO.3	--	--
310	ODOR CONTROL STORAGE TANK NO.1	480V	--	MCC-WWPS	ODOR CONTROL STORAGE TANK NO.1	--	--
311	A/C UNIT NO.1	480V	--	MCC-WWPS	A/C UNIT NO.1	--	--
312	A/C UNIT NO.2	480V	--	MCC-WWPS	A/C UNIT NO.2	--	--
313	45 KVA TRANSFORMER T1	480V	--	MCC-WWPS	45 KVA TRANSFORMER T1	--	--

NOTES BY SYMBOL "⟨#⟩":

⟨1⟩ REFER TO SPEC SECTION 16120 FOR CONDUCTOR COLOR CODE.

NO.	DATE	REVISION	APP.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
SCOTT WWF
CONDUIT SCHEDULE

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
E-21

WBS NUMBER
R-001000-0035-4

DRAWING SCALE
NTS

CITY OF HOUSTON PM
NEIL BARNSDALE, P.E.

SHEET NO. XX OF XX

FOR CITY OF HOUSTON USE ONLY

PLOT STYLE: ARD_FULL_MONO H811 PLOTTED: 1/8/2026 6:33 PM
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Electrical\Working\Scott WW\H8111_E-21.dwg

FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Instrumentation And Control\Working\Eddington\H8111_I-01.dwg PLOT STYLE: ARD_FULL_MONO.ctb PLOTTED: 1/8/2026 5:20 PM

PRIMARY FLOW ELEMENTS

	MAGNETIC FLOW METER
	ULTRASONIC DOPPLER FLOW METER
	ULTRASONIC TIME TRANSIT FLOW METER
	VORTEX FLOW METER
	VENTURI TUBE
	TURBINE OR PROPELLER TYPE METER
	ROTAMETER
	PITOT TUBE
	WEIR FLOW METER
	PARSHALL FLUME OR TRAPEZOIDAL FLUME
	ORIFICE PLATE
	THERMAL MASS FLOWMETER

PRIMARY LEVEL ELEMENTS

	ULTRASONIC LEVEL TRANSDUCER
	RADAR LEVEL TRANSDUCER
	PRIMARY ELEMENT PRESSURE PROBE LEVEL TRANSMITTER
	BUBBLER LEVEL TUBE ELEMENT
	CONDUCTIVE LEVEL PROBE
	FLOAT SWITCH

VALVES

	VALVE - OTHER IN-LINE TYPE NOT OTHERWISE IDENTIFIED
	THREE-WAY VALVE
	BALL VALVE
	GLOBE VALVE
	PINCH VALVE
	GATE VALVE
	NEEDLE VALVE
	DIAPHRAGM VALVE
	BUTTERFLY VALVE
	CHECK VALVE WITH FLOW DIRECTION
	PLUG VALVE
	PRESSURE-REDUCING REGULATOR INTERNAL PRESSURE TAP
	BACK PRESSURE REGULATOR INTERNAL PRESSURE TAP
	PRESSURE-REDUCING REGULATOR EXTERNAL PRESSURE TAP
	BACK PRESSURE REGULATOR EXTERNAL PRESSURE TAP

VALVES

S	SOLENOID ACTUATED VALVE
X	"X" = P: AIR CYLINDER; O: OIL CYLINDER; H: HYDRAULIC CYLINDER; E: ELECTRIC MOTOR; S: SOLENOID VALVE
OR NO SYMBOL	MANUAL VALVE

MISC PROCESS SYMBOLS

	ANNULAR TYPE SEAL
	CHEMICAL INJECTION POINT
	STRAINER
	DRAIN
	NORMAL OPERATING LEVEL
UV	UV CHAMBER
	FLOW STRAIGHTENER
	LOAD CELL
	SPRAY NOZZLE
	BLIND FLANGE
	FLANGE
	DIAPHRAGM SEAL
	PRESSURE RELIEF (OUT)
	VACUUM RELIEF (IN)

GATES

	SLUICE/SLIDE GATE
	FLOW CONTROL GATE

MOTORS

M	VARIABLE SPEED MOTOR
M	CONSTANT SPEED MOTOR

PUMPS, BLOWERS AND MISC EQUIPMENT

	CENTRIFUGAL BLOWER
	CENTRIFUGAL PUMP
	DIAPHRAGM PUMP AND MOTOR
	PROGRESSIVE CAVITY PUMP
	SUBMERSIBLE PUMP
	POSITIVE DISPLACEMENT BLOWER

PUMPS, BLOWERS AND MISC EQUIPMENT

	MIXER/FLOCCULATOR/AERATOR
	VERTICAL PUMP-1 USED WHEN DISCHARGE LINE IS IN WETWELL
	VERTICAL PUMP-2 USED WHEN DISCHARGE LINE IS EXPOSED.
	VERTICAL PUMP SHAFT USED WHEN INTAKE OF PUMP IS ENCASED.
	SUBMERSIBLE MIXER
	COMPRESSOR
	HEAT EXCHANGER
	FEED PUMP
	GRINDER/MACERATOR
	METERING PUMP
	PLUNGER PUMP
	PERISTALTIC METERING PUMP
	CENTRIFUGE
	PULSATION DAMPENER
	TURBO BLOWER

PUMPS, BLOWERS AND MISC EQUIPMENT

	ROTARY SCREEN

CONTROL ENCLOSURE, INSTRUMENTS AND SCADA

XXX / P AAA YY / BBB CCC D / ZZZ	DIGITAL/ANALOG INSTRUMENT AAA: ISA TAG (REFER TO TABLE) BBB: LOOP NUMBER CCC: LOOP NUMBER SUB D: DIVISION NUMBER P: POWER REQUIREMENT XXX: DESCRIPTION (USED ON PANEL INSTRUMENTS) YY: CHEMICAL ZZZ: LOCATION DIGITAL/ANALOG INSTRUMENT -LOCATED IN THE FIELD -NOT INSIDE OF PANEL -VISIBLE AT FIELD LOCATION -NORMALLY OPERATOR ACCESSIBLE
XXX / P AAA YY / BBB CCC D / ZZZ	DIGITAL/ANALOG INSTRUMENT -LOCATED ON PANEL -VISIBLE TO OPERATOR -NORMALLY OPERATOR ACCESSIBLE
XXX / P AAA YY / BBB CCC D / ZZZ	DIGITAL/ANALOG INSTRUMENT -LOCATED INSIDE PANEL -NOT VISIBLE TO OPERATOR -NORMALLY NOT ACCESSIBLE
XXX / AAA / BBB CCC	DISPLAY (INDICATION/CONTROLLER) AAA: ISA TAG (REFER TO TABLE) BBB: LOOP NUMBER CCC: LOOP NUMBER SUB XXX: DESCRIPTION DISPLAY (INDICATION/CONTROLLER) -LOCATED IN THE FIELD -NOT INSIDE OF PANEL -VISIBLE AT FIELD LOCATION -NORMALLY OPERATOR ACCESSIBLE
XXX / AAA / BBB CCC	DISPLAY (INDICATION/CONTROLLER) -LOCATED ON PANEL -VISIBLE TO OPERATOR -NORMALLY OPERATOR ACCESSIBLE
XXX / AAA / BBB CCC	DISPLAY (INDICATION/CONTROLLER) -LOCATED INSIDE PANEL -NOT VISIBLE TO OPERATOR -NORMALLY NOT ACCESSIBLE
-	INTERLOCKING RELAY

CONTROL ENCLOSURE AND SCADA

	DIGITAL INPUT
	DIGITAL OUTPUT
	ANALOG INPUT
	ANALOG OUTPUT
	SURGE SUPPRESSOR
	OPTO ISOLATOR
/	SIGNAL CONVERTER/ ISOLATOR */* - (INPUT/OUTPUT) * DEFINED AS FOLLOWS: E - VOLTAGE I - CURRENT P - PNEUMATIC PD - PULSE DURATION H - HYDRAULIC O - ELECTROMAGNETIC, SONIC R - RESISTANCE (ELECTRIC)

CONTROL ENCLOSURE, INSTRUMENTS AND SCADA

F(X)	PLC/RTU LOGIC FUNCTION SYMBOLS AND ABBREVIATIONS K PROPORTIONAL GAIN OR ATTENUATE (INPUT:OUTPUT) - K REVERSE PROPORTIONAL GAIN OR ATTENUATE (INPUT:OUTPUT) Σ SUMMING Σ/n AVERAGING Δ SUBTRACTING √ EXTRACT SQUARE ROOT ÷ DIVIDE X MULTIPLY S INTEGRATE + BIAS POSITIVE - BIAS NEGATIVE F (X) NONLINEAR OR UNSPECIFIED FUNCTION > HIGH SELECT < LOW SELECT ⊦ HIGH LIMIT ⊣ LOW LIMIT

INSTRUMENT (COMMON HOUSING)	INSTRUMENT (SEPERATOR HOUSING)	INSTRUMENT (PART OF MAJOR EQUIPMENT)

GENERAL NOTES:

1. THIS IS A GENERAL LEGEND SHEET, SOME SYMBOLS AND ABBREVIATIONS MAY NOT APPLY TO THIS SPECIFIC PROJECT.
2. THIS LEGEND APPLIES TO INSTRUMENTATION DIAGRAMS ONLY AND MAY DIFFER FROM LEGENDS FOR OTHER SHEETS.
3. IN GENERAL THIS LEGEND SHEET AND THE INSTRUMENTATION DIAGRAMS ARE BASED ON INTERNATIONAL SOCIETY OF AUTOMATION, STANDARDS FOR PRACTICES FOR INSTRUMENTATION, STANDARD S5.1 SOME MODIFICATIONS, ADDITIONS AND ALTERATIONS HAVE BEEN MADE AS REQUIRED TO ACCOMMODATE THE PROJECT REQUIREMENTS.
4. SOME PROCESS ITEMS, SUCH AS EQUIPMENT ISOLATION VALVES, BYPASS LINES, ETC., WHICH ARE NOT CRITICAL FOR AN UNDERSTANDING OF THE INSTRUMENTATION AND CONTROL FUNCTIONS ARE NOT SHOWN ON THE INSTRUMENTATION SHEETS.
5. SEE ELECTRICAL SHEETS AND SPECIFICATIONS FOR ADDITIONAL CONTROL AND INTERLOCK REQUIREMENTS FOR EQUIPMENT NOT SHOWN OR NOT PROVIDED BY THE INSTRUMENTATION SUPPLIER.
6. IN THE EVENT OF DISCREPANCY BETWEEN THE PROCESS & INSTRUMENTATION DIAGRAMS AND THE LOOP DIAGRAMS, THE INFORMATION FROM THE LOOP DIAGRAMS SHALL BE USED.

HAND SWITCH ABBREVIATIONS:

HOA	HAND/OFF/AUTO
HOR	HAND/OFF/REMOTE
LOC	LOCAL/OFF/COMPUTER
LOR	LOCAL/OFF/REMOTE
LOS	LOCKOUT STOP
OSC	OPEN/STOP/CLOSE
RSL	RAISE/STOP/LOWER
L/C	LOCAL/COMPUTER
L/R	LOCAL/REMOTE
O/C	OPEN/CLOSE
S/S	START/STOP
A/M	AUTO/MANUAL
H/C	HAND/COMPUTER
PB	PUSHBUTTON

GENERAL NOTE

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WARNING

0 — 1

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DWG NO

I-1

NO.	DATE	REVISION	APP.

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REVIEWED BY:	H. FOROUZAN
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ALLY GENERAL SOLUTIONS, LLC
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION INSTRUMENTATION LEGENDS AND SYMBOLS–I

WBS NUMBER	R-001000-0035-4
DRAWING SCALE	NTS
CITY OF HOUSTON PM	NEIL BARNSDALE, P.E.
SHEET NO.	XX OF XX

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PLOT STYLE: GAI.ctb
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LINE SYMBOLS

	MAJOR PROCESS LINE
	MINOR PROCESS LINE
	FUTURE PROCESS LINE
	EXISTING PROCESS LINE
	HARDWIRED SIGNAL
	SOFT LINK
	HYDRAULIC LINK
	PNEUMATIC LINK
	CAPILLARY TUBE OR FILLED SYSTEM SIGNAL
	ELECTROMAGNET OR SONIC SIGNAL (GUIDED)
DESCRIPTION X SHEET# Y	(USED WHEN REFERRING TO A SHEET IN THE DESIGN SET) DESCRIPTION - WHERE FLOW IS GOING SHEET# - WHAT SHEET PROCESS CONTINUES ON X - USED WHEN TWO OR MORE ARROWS ARE REFERING TO THE SAME SHEET. Y - USED WHEN TWO OR MORE ARROWS ARE REFERRING TO THE SAME SHEET.
DESCRIPTION	(USED WHEN REFERRING TO A SHEET NOT IN THE DESIGN SET) DESCRIPTION - WHERE FLOW IS GOING
CAT5e CAT5e	CAT-5e ETHERNET CABLE
CAT6 CAT6	CAT-6 ETHERNET CABLE
	MODBUS PLUS CABLE
	RS-485 CABLE
RS-232 RS-232	RS-232 CABLE
POE POE	POWER OVER ETHERNET CABLE
T1 T1	T1 FIBER CONNECTION
FO FO	NON-SPECIFIC FIBER OPTIC CABLE
100 100	FIBER 100BASE-FX
1000 1000	FIBER 1000BASE-FX
	SIGNAL CROSSING
	PROCESS LINE CROSSING
	PROCESS LINE/ HARDWIRE SIGNAL CROSSING

EQUIPMENT/LOOP TAGGING

X	EQUIPMENT TAG USED TO IDENTIFY NON-INSTRUMENT EQUIPMENT
X	LOOP TAG USED TO TIE THE PROCESS FLOW DIAGRAM TO A LOOP DIAGRAM

STANDARD VALVE AND PIPING USAGE

PDIT 1	BLOCK/BLEED VALVE ARRANGEMENT
PI 1	INSTRUMENTS WITH VALVE ONLY
PI 1	INSTRUMENTS WITH DIAPHRAGM SEAL
PI 1	INSTRUMENTS WITH ANNULAR SEAL

PANEL DETAIL SYMBOLS

RUN	INDICATING LIGHT -R RED (ACTIVE EQUIPMENT) -G GREEN (EQUIPMENT OFF) -W WHITE (POWER) -B BLUE (CONDITION IE BACKWASH IN PROGRESS) -A AMBER (ALARM CONDITION)
H/O/A	SWITCH -L/R (LOCAL - REMOTE) -L/O/A (LOCAL - OFF - AUTO) -L/O/R (LOCAL - OFF - REMOTE) -H/O/A (HAND - OFF - AUTO) -H/O/R (HAND - OFF - REMOTE)
START	PUSHBUTTON
START	PUSHBUTTON
	HORN
	BEACON
OIT	OPERATOR INTERFACE TERMINAL

SECURITY SYSTEM SYMBOLS

CCTV	CLOSED CIRCUIT TELEVISION CAMERA
PTZ	PAN, TILT, ZOOM CAMERA

GENERAL ABBREVIATIONS

AI	ANALOG INPUT
AL	ALARM PILOT LIGHT
AO	ANALOG OUTPUT
AS	AIR SUPPLY
ASP	APPLICATION SERVICE PROVIDER
BFV	BUTTERFLY VALVE
CCTV	CLOSED CIRCUIT TELEVISION
CH4	METHANE
CL2	CHLORINE
COND	CONDUCTIVITY
COMP	COMPUTER
CP	CONTROL PANEL
CPU	CENTRAL PROCESSING UNIT
CRC	CONTROL ROOM CONSOLE
CTU	CENTRAL TELEMETRY UNIT
DCU	DISTRIBUTED CONTROL UNIT
DI	DIGITAL OR DISCRETE INPUT
DO	DISSOLVED OXYGEN OR DIGITAL OUTPUT
DPU	DISTRIBUTED PROCESSING UNIT
EPP	ETHERNET PATCH PANEL
ES	EMERGENCY STOP
ESW	ETHERNET SWITCH
ETM	ELAPSED TIME METER
FC	FAIL CLOSED
FCP	FIELD CONTROL PANEL
FCS	FILTER CONTROL STATION
FCV	FLOW CONTROL VALVE
FLP	FAIL LAST POSITION
FO	FAIL OPEN
FOPP	FIBER OPTIC PATCH PANEL
FPR	FEEDER PROTECTION RELAY
H2S	HYDROGEN SULFIDE
HMI	HUMAN MACHINE INTERFACE
JB	JUNCTION BOX
IO	INPUT/OUTPUT
IR	INFARED
LAS	LIQUID AMMONIA SULFATE
LCP	LOCAL CONTROL PANEL
LCS	LOCAL CONTROL STATION
LT	LEVEL TRANSMITTER
LPU	LOCAL PROCESSING UNIT
LTS	LOCAL TERMINAL SYSTEM
MC	MOTOR CONTROLLER
NAOCL	SODIUM HYPOCHLORIDE
NC	NORMALLY CLOSED
NH3	AMMONIA
NIM	NETWORK INTERFACE MODULE
NO	NORMALLY OPEN
MCC	MOTOR CONTROL CENTER
MM	MULTI MODE FIBER OPTIC CABLE
MPR	MOTOR PROTECTION RELAY
OIT	OPERATIONS INTERFACE TERMINAL
OL	OVERLOAD
OWS	OPERATOR WORKSTATION
PB	PUSH BUTTON
PCSI	PROCESS CONTROL SYSTEM INTEGRATOR
pH	HYDROGEN ION
PLC	PROGRAMMABLE LOGIC CONTROLLER
PMCS	PROCESS MONITORING CONTROL SYSTEM
POLY	POLYMER
PQM	POWER QUALITY METER
PS	POWER SUPPLY
PSU	POWER SUPPLY UNIT
PV	PINCH VALVE
RBC	REMOTE BASE CONTROLLER
RIO	REMOTE INPUT OUTPUT
RTU	REMOTE TERMINAL UNIT
SCADA	SUPERVISORY CONTROL AND DATA AQUISITION
SM	SINGLE MODE FIBER OPTIC CABLE
SO2	SULFUR DIOXIDE
SOL	SOLENOID
SPD	SURGE PROTECTION DEVICE
UPS	UNINTERRUPTIBLE POWER SUPPLY
TC	TERMINATION CABINET
TURB	TURBIDITY
VIB	VIBRATION
VFD	VARIABLE FREQUENCY DRIVE
VLV	VALVE

MEANINGS OF IDENTIFICATION LETTERS

THIS TABLE APPLIES ONLY TO THE FUNCTIONAL IDENTIFICATION OF INSTRUMENTS.

	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS/ANALYTICAL		ALARM		
B	BURNER, COMBUSTION			CLOSE, STOP, DECREASE (1)	
C	CONDUCTIVITY			CONTROL	
D	DENSITY (MASS) OR SPECIFIC GRAVITY	DIFFERENTIAL		OPEN START, INCREASE (1)	
E	VOLTAGE (EMF)		SENSOR (PRIMARY ELEMENT)		
F	FLOW RATE	RATIO (FRACTION)			FAIL (1)
G	GAUGING (DIMENSIONAL)		GLASS VIEWING DEVICE		
H	HAND				HIGH OR OPEN
I	CURRENT (ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME OR TIME SCHEDULE	TIME RATE OR CHANGE		CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW OR CLOSED
M	MOISTURE, HUMIDITY, MOTOR, MOTION	MOMENTARY		MOTOR (1)	MIDDLE OR INTERMEDIATE
N	USERS CHOICE		USER'S CHOICE		ON OR OPERATE (1)
O	USER'S CHOICE		ORIFICE (RESTRICTION)		OVERLOAD (1)
P	PRESSURE OR VACUUM		POINT (TEST CONNECTION)	PUMP (1)	
Q	QUANTITY (2)	INTEGRATE OR TOTALIZE			
R	RADIATION		RECORD		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE (2)		MULTIFUNCTION (2)	MULTIFUNCTION (2)	MULTIFUNCTION (2)
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER OR LOUVER	
W	WEIGHT OR FORCE		WELL		UNCLASSIFIED (2)
X	UNCLASSIFIED (2)	X AXIS	UNCLASSIFIED (2)	UNCLASSIFIED (2)	UNCLASSIFIED (2)
Y	EVENT, STATE, PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT	
Z	POSITION, DIMENSION	Z AXIS		DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	

COMMON HMI/INSTRUMENT ISA TAGGING

ABBREVIATION	MEANING
AIT	ANALYTICAL INDICATING TRANSMITTER
AE	ANALYTICAL ELEMENT
AI	CHEMICAL RESIDUAL/INDICATION
CT	CYCLE TIMER
FIT	FLOW INDICATING TRANSMITTER
FE	FLOW ELEMENT
FI	FLOW INDICATION
FS	FLOW SWITCH
HS	HAND SWITCH
JAL	POWER ALARM LOW
II	CURRENT INDICATION
LIT	LEVEL INDICATING TRANSMITTER
LE	LEVEL ELEMENT
LI	LEVEL INDICATION
LSH	LEVEL SWITCH HIGH
LSL	LEVEL SWITCH LOW
LAL	LEVEL ALARM LOW
LAH	LEVEL ALARM HIGH
PIT	PRESSURE INDICATING TRANSMITTER
PE	PRESSURE ELEMENT
PI	PRESSURE INDICATION
PPU	PERPETUAL POWER UNIT
PSH	PRESSURE SWITCH HIGH
PSL	PRESSURE SWITCH LOW
SI	SPEED INDICATION
SIC	SPEED INDICATING CONTROLLER
TIT	TEMPERATURE INDICATING TRANSMITTER
TE	TEMPERATURE ELEMENT
TI	TEMPERATURE INDICATION
TSH	TEMPERATURE SWITCH HIGH
WIT	WEIGHT INDICATING TRANSMITTER
WE	WEIGHT ELEMENT
WI	WEIGHT INDICATION
XA	FAULT ANNUNCIATION
YL	MISC. EVENT LIGHT (IN REMOTE)

COMMON HMI/INSTRUMENT ISA TAGGING

ABBREVIATION	MEANING
ZCH	OPEN GATE/VALVE
ZCL	CLOSE GATE/VALVE
ZSH	POSITION SWITCH HIGH
ZSL	POSITION SWITCH LOW
ZLH	VALVE/GATE OPEN
ZLL	VALVE/GATE CLOSED
ZIT	POSITION INDICATING TRANSMITTER

GENERAL NOTE

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WARNING
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DWG NO
I-2

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TEXAS P.E. NO. 126466
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION INSTRUMENTATION LEGENDS & SYMBOLS – II

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CITY OF HOUSTON PM	
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SHEET NO. XX OF XX	

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FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Instrumentation And Control\Working\Eddington\H8111_I-03.dwg

HMI

INFLUENT PUMP NO. 1									INFLUENT PUMP NO. 2									INFLUENT PUMP NO. 3									INFLUENT PUMP NO. 4									INFLUENT PUMP NO. 5								
																		SPEED CTRL. SC 3	SPEED IND. SI 3	IN VFD IS 3							SPEED CTRL. SC 4	SPEED IND. SI 4	IN VFD IS 4							SPEED CTRL. SC 5	SPEED IND. SI 5	IN VFD IS 5						
SEAL FAIL ALARM MA 1	MOTOR OVERLOAD ALARM MO 1	MOTOR CURRENT II 1	HIGH TEMP ALARM TH 1	IN HAND HI 1	IN AUTO IA 1	ON/OFF YFS 1	START/ STOP YCS 1	SEAL FAIL ALARM MA 2	MOTOR OVERLOAD ALARM MO 2	MOTOR CURRENT II 2	HIGH TEMP ALARM TH 2	IN HAND HI 2	IN AUTO IA 2	ON/OFF YFS 2	START/ STOP YCS 2	SEAL FAIL ALARM MA 3	MOTOR OVERLOAD ALARM MO 3	MOTOR CURRENT II 3	HIGH TEMP ALARM TH 3	IN HAND HI 3	IN AUTO IA 3	ON/OFF YFS 3	START/ STOP YCS 3	SEAL FAIL ALARM MA 4	MOTOR OVERLOAD ALARM MO 4	MOTOR CURRENT II 4	HIGH TEMP ALARM TH 4	IN HAND HI 4	IN AUTO IA 4	ON/OFF YFS 4	START/ STOP YCS 4	SEAL FAIL ALARM MA 5	MOTOR OVERLOAD ALARM MO 5	MOTOR CURRENT II 5	HIGH TEMP ALARM TH 5	IN HAND HI 5	IN AUTO IA 5	ON/OFF YFS 5	START/ STOP YCS 5

SCADA

CONTROL PANEL PLC

CONTROL BUILDING

480V → INFLUENT PUMPS MCC

INFLUENT PUMP NO. 1	INFLUENT PUMP NO. 2	INFLUENT PUMP NO. 3	INFLUENT PUMP NO. 4	INFLUENT PUMP NO. 5	INFLUENT PUMP NO. 6
H/O/A	H/O/A	H/O/A	H/O/A	H/O/A	H/O/A
RUN	RUN	RUN	RUN	RUN	RUN

PRIMARY PLC (G) BACKUP PLC (G)

INFLUENT PUMP CONTROL PANEL

ALARMS RESET

OIT

TO SHEET I-6

I-6

I-6

WET WELL

LT 1

LT 2

1

FS2 HIGH-HIGH LEVEL FLOAT SWITCH

FS4 HIGH-HIGH LEVEL FLOAT SWITCH

FS1 HIGH LEVEL FLOAT SWITCH

FS3 HIGH LEVEL FLOAT SWITCH

LSH 3A / TSH 3A — M

LSH 4A / TSH 4A — M

LSH 2A / TSH 2A — M

LSH 5A / TSH 5A — M

LSH 1A / TSH 1A — M

LSH 6A / TSH 6A — M

FIT 1

INFLUENT DISCHARGE

NOTES:

1. REFER TO MECHANICAL SHEETS FOR MORE DETAIL.

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION
EDDINGTON LIFT STATION
PROCESS & INSTRUMENTATION DIAGRAM–I

WARNING
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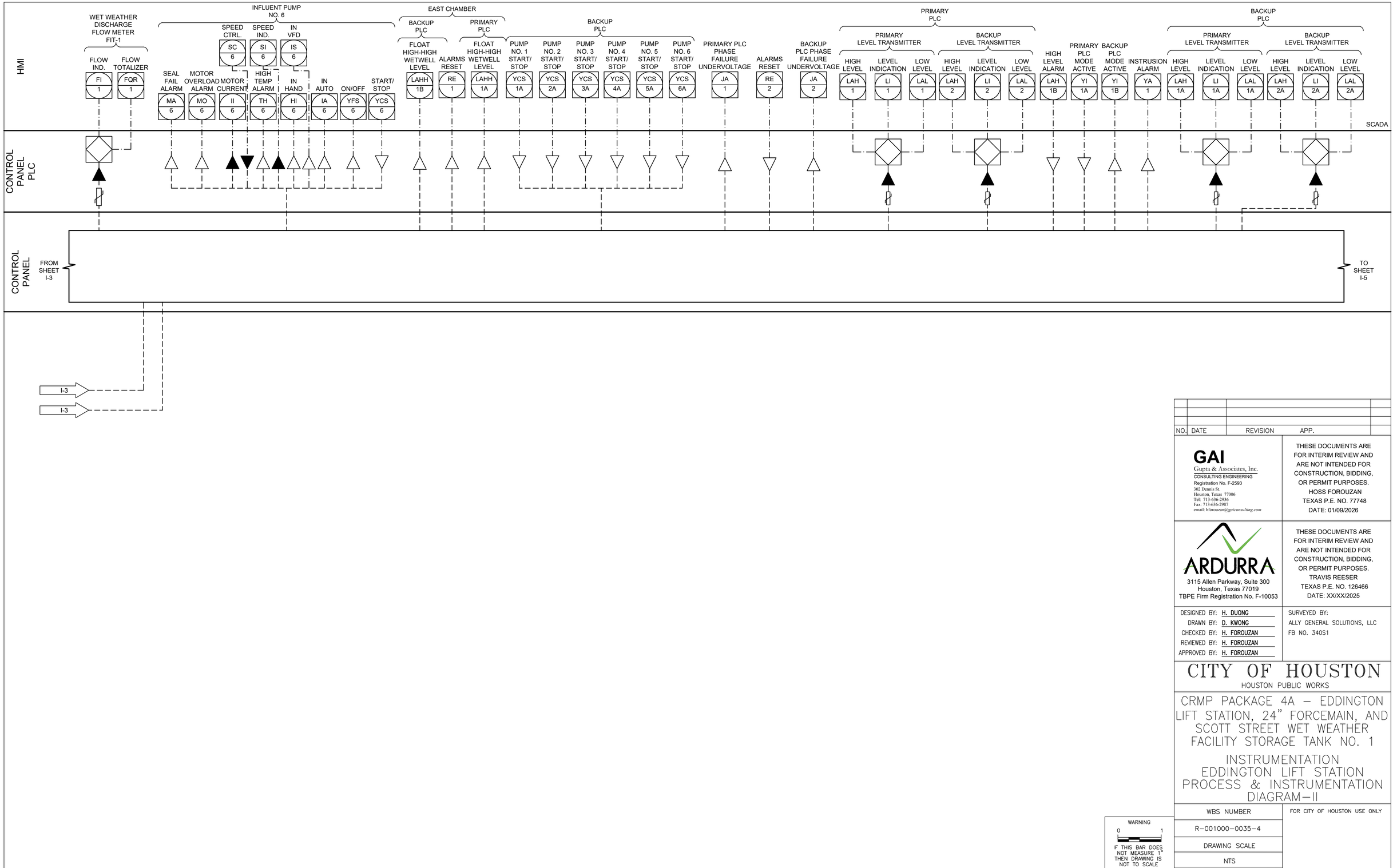
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
I-3



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CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION
EDDINGTON LIFT STATION
PROCESS & INSTRUMENTATION DIAGRAM–II

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CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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I–4

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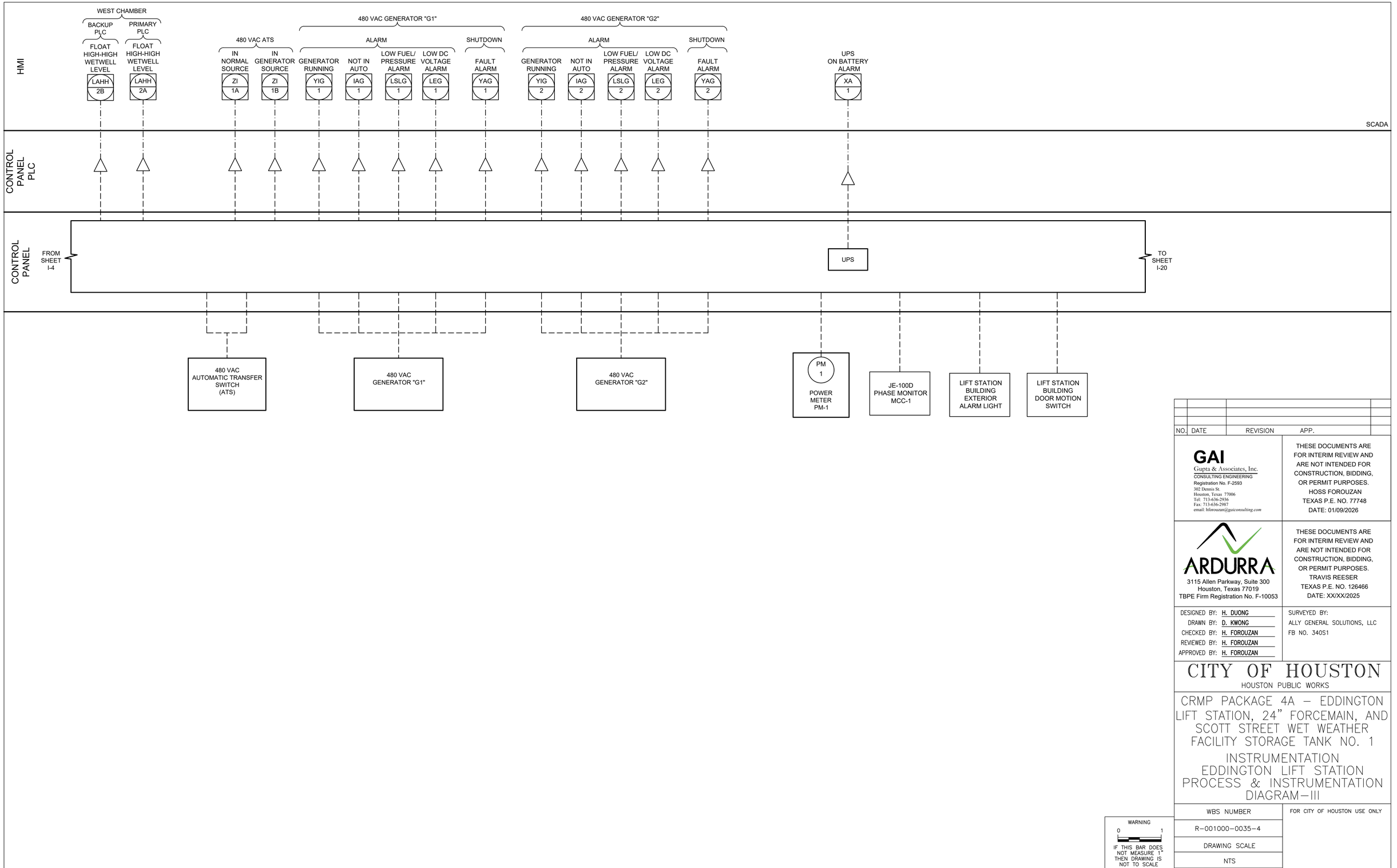

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INSTRUMENTATION
EDDINGTON LIFT STATION
PROCESS & INSTRUMENTATION DIAGRAM–III

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R–001000–0035–4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
I–5

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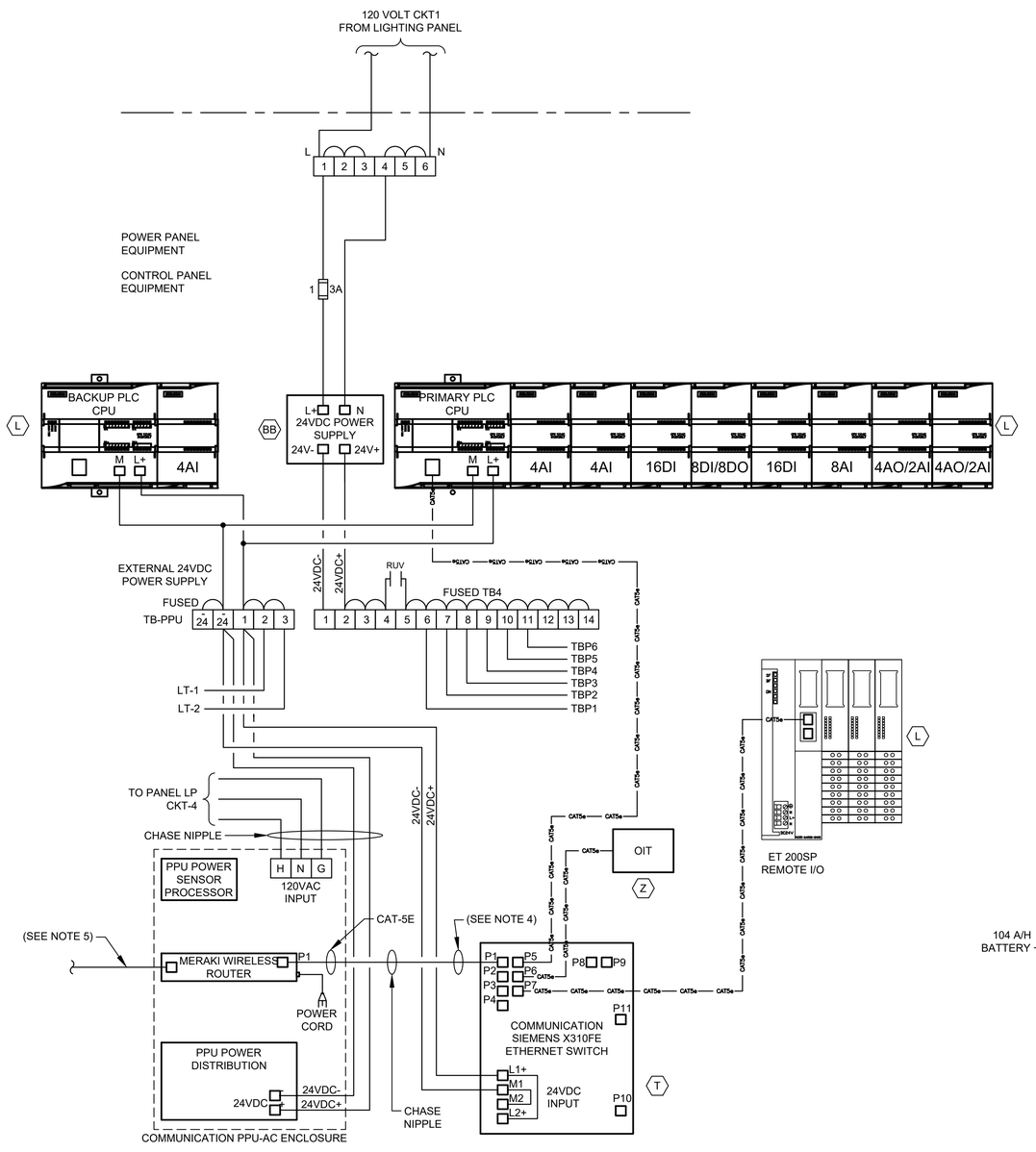
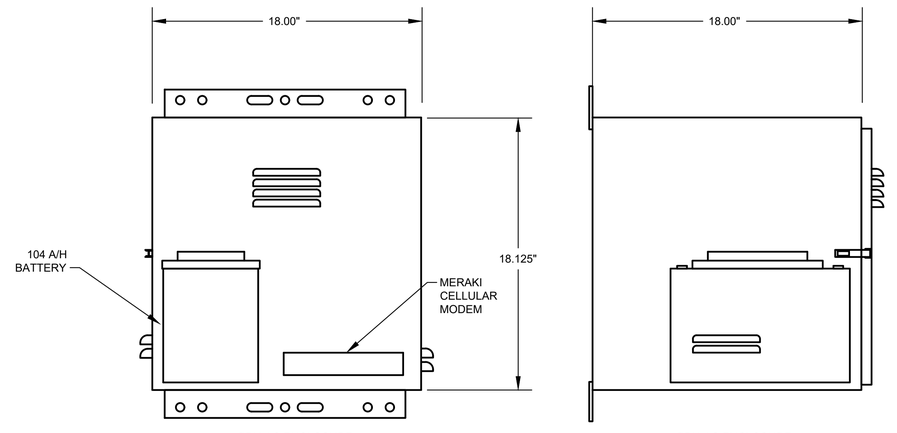


CONTROL POWER &
COMMUNICATIONS WIRING

DIAGRAM

NTS

(SEE NOTE 2 & 6)



PPU-AC
CONTROL ENCLOSURE

ELEVATION

NTS

(SEE NOTE 6 & 7)

NOTES:

1. FOR DESCRIPTION AND RATINGS OF ITEMS INDICATED WITH ITEM TAG, SEE DEVICE RATINGS SCHEDULE.
2. REFER TO SPEC SECTION 16120 FOR CONDUCTOR COLOR CODE.
3. THE PLC POWER SUPPLY SHALL FEED THE 24VDC I/O.
4. ETHERNET CABLE FOR MERAKI CELLULAR ROUTER (P1)
5. POE CABLE TO RADIO.
6. COMMUNICATION PPU-AC & SCADA SHALL BE PROVIDED BY CONTRACTOR INCLUDING TO RUN CONDUITS & WIRES.
7. COORDINATE WITH VENDOR TO PROVIDE PROPER VENTILATION WHERE APPLICABLE.

GENERAL NOTES:

1. NO ELECTRICAL MATERIAL, APPARATUS, DEVICES, APPLIANCES, FIXTURES, OR EQUIPMENT SHALL BE SOLD OR INSTALLED IN THE CITY UNLESS THEY ARE IN CONFORMANCE WITH THE PROVISIONS OF SECTION 508 CITY OF HOUSTON ELECTRICAL CODE, THE LAWS OF THE STATE OF TEXAS AND ANY APPLICABLE RULES AND REGULATIONS ISSUED UNDER THE AUTHORITY OF THE STATE STATUES. THE MAKER'S NAME, TRADEMARK, OR OTHER IDENTIFICATION SYMBOL SHALL BE PLACED ON ALL ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, AND EQUIPMENT USED OR INSTALLED UNDER THE PROVISIONS OF THIS CODE. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED AND LABELED FOR THE INTENDED USE AND SHALL BE INCLUDED IN A LIST PUBLISHED BY AN APPROVAL AGENCY.

NO.	DATE	REVISION	APP.

GAI
Gupta & Associates, Inc.
CONSULTING ENGINEERING
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THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
HOSS FOROUZAN
TEXAS P.E. NO. 77748
DATE: 01/09/2026

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: XX/XX/2025

DESIGNED BY: H. DUONG	SURVEYED BY:
DRAWN BY: D. KWONG	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: H. FOROUZAN	FB NO. 340S1
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION
EDDINGTON LIFT STATION
COMMUNICATIONS DIAGRAM

WARNING
0 1
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DWG NO
I-6

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DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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EQUIPMENT AND DEVICE SCHEDULE

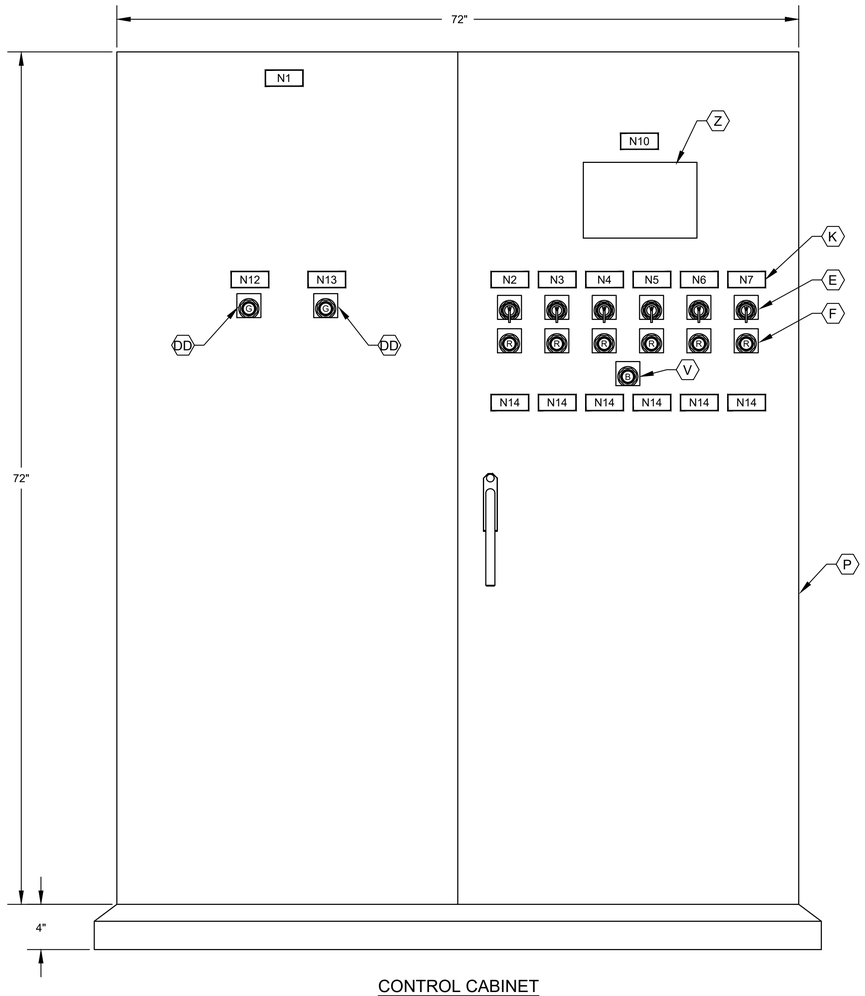
ITEM	QUANTITY	DESCRIPTION
A	1	SINGLE CHANNEL INTRINSICALLY SAFE RELAY
B	2	ANALOG SIGNAL ISOLATOR
C	6	PUMP PROTECTION MODULE
D	*	NOT USED
E	6	HAND-OFF-AUTO SWITCH, 3 POSITION, HEAVY-DUTY OIL TIGHT WITH 2 SETS OF CONTACT BLOCKS (PUMP CONTROL)
F	6	INDICATING LIGHT, HEAVY DUTY, OILTIGHT, RED, 24 VDC, LED, WITH "RUN" LEGEND
G	-	NOT USED
H	1	SWITCH FOR CABINET LIGHT, 120V, 20A, SPST
I	2	DUPLEX RECEPTACLE, 120V, 20A, 2 WIRE, GROUNDED, GFCI TYPE
J	1	24" LED STRIP LIGHT 120V SUITABLE FOR ZERO DEGREE OPERATION.
K	*	NAMEPLATES, SEE SPECIFICATIONS (SEE NAMEPLATE SCHEDULE)
L	2	PROGRAMMABLE LOGIC CONTROLLER WITH EXPANSION UNIT
M	*	CONTROL RELAY 24VDC RELAY WITH THREE FORM C CONTACTS AND 11 PIN SOCKET BASE
N	-	NOT USED
O	-	NOT USED
P	1	NEMA 12 GASKETED STEEL ENCLOSURES WITHOUT VENTS 72" H X 20" D X WIDTH AS REQUIRED
Q	*	TERMINAL BLOCK
R	1	WIRE DUCT 2" WIDE X 2" DEEP MINIMUM
S	1	GROUND BUS
T	1	COMMUNICATION ETHERNET SWITCH
U	9	CARTRIDGE
V	1	PUSHBUTTON, BLACK WITH RESET LEGEND
W	1	ET 200SP IM155 REMOTE I/O WITH EXPANSION UNIT
X	*	FUSED TERMINAL BLOCKS
Y	1	POWER SURGE PROTECTOR - CONTROL POWER
Z	1	PROGRAMMING SCREEN (OIT)
AA	*	120VAC SYSTEM FUSES
BB	1	120VAC - 24VDC POWER SUPPLY, 5A
CC	*	NOT USED
DD	2	INDICATING LIGHT, HEAVY DUTY, OILTIGHT, GREEN, 24VDC, LED WITH "BACKUP PLC" & "PRIMARY PLC" LEGEND
EE	2	ANALOG I/O SURGE SUPPRESSOR
FF	-	NOT USED

* - AS SCHEDULED

NAMEPLATE SCHEDULE

DESIGNATION	ENGRAVED
N1	PUMP STATION DESIGNATION
N2	PUMP NO. 1
N3	PUMP NO. 2
N4	PUMP NO. 3
N5	PUMP NO. 4
N6	PUMP NO. 5
N7	PUMP NO. 6
N8	NOT USED.
N9	NOT USED.
N10	PROGRAMMING SCREEN
N11	NOT USED.
N12	PRIMARY PLC
N13	BACKUP PLC
N14	MOTOR DATA

HORSEPOWER (OUTPUT) ----------
RPM AT FULL LOAD ----------
TIME RATING ----------
FREQUENCY ----------
NUMBER OF PHASES ----------
MODEL NUMBER ----------
RATED VOLTAGE ----------
SERVICE FACTOR ----------
FULL LOAD AMPS ----------
INSULATION CLAS ----------
NEMA DESIGN LETTER ----------
TEMPERATURE RISE ----------
NEMA FRAME SIZE ----------
DATE OF MANUFACTURE ----------
THERMO PROTECTION (IF REQUIRED) --
MOISTURE PROTECTION (IF REQUIRED)-



CONTROL CABINET
FRONT DOOR ELEVATION

NOTES:

1. NAMEPLATES SHALL BE MOUNTED TO PANELS USING STAINLESS STEEL HARDWARE.
2. REFER SPECIFICATIONS FOR ALL PANEL COMPONENTS.

NO.	DATE	REVISION	APP.

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SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION
EDDINGTON LIFT STATION
CONTROL CABINET EQUIPMENT LAYOUT & SCHEDULE

WARNING
0 1
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DWG NO
I–7

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CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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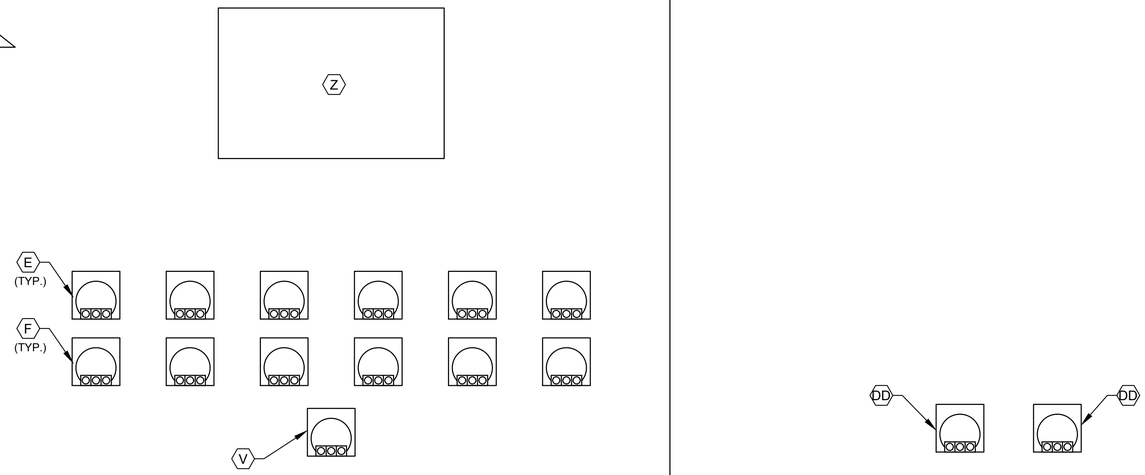

CONTROL CABINET
BACK DOOR ELEVATION

NOTES:

1. SEE SHEET I-7 FOR EQUIPMENT SCHEDULE.

NO.	DATE	REVISION	APP.

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INSTRUMENTATION
EDDINGTON LIFT STATION
CONTROL CABINET
BACK DOOR ELEVATION

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DWG NO
I-8

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NTS	
CITY OF HOUSTON PM	
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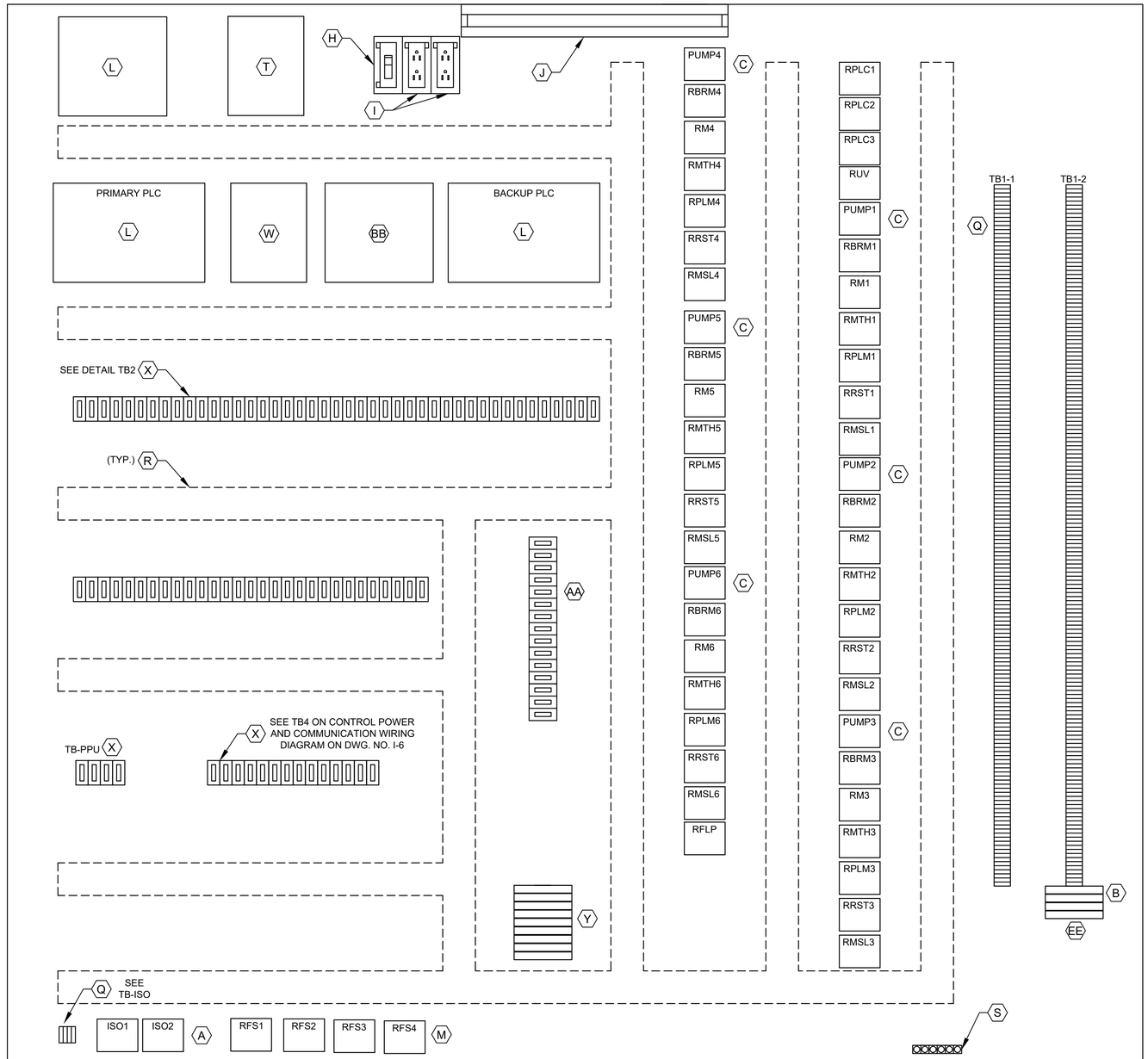
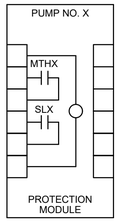


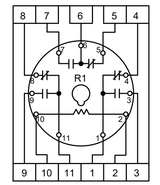
CONTROL PANEL ELEVATION

LEGEND	
TAG	DESCRIPTION
RMTH	MOTOR HIGH TEMPERATURE ALARM RELAY
RPLMP	PLC PUMP RUN RELAY
RRST	PUMP RESET AUX RELAY
RPLC	PLC MODE AUX RELAY
RM	PUMP RUN AUX RELAY
RUV	UNDER VOLTAGE RELAY
RBRM	BACKUP SYSTEM RUN RELAY
ISO	INTRINSICALLY SAFE RELAY
RFS	PUMP RUN FLOAT SWITCH RELAY
RMSL	MOTOR SEAL LEAK ALARM RELAY
RFLP	FLOAT LOCKOUT PUMP RELAY



PUMP PROTECTION MODULE DETAIL, ITEM C

NOTE: REPLACE "X" WITH APPROPRIATE PUMP NO.



RELAY DETAIL ITEM M

NOTES:

1. SEE SHEET I-7 FOR EQUIPMENT SCHEDULE.

DETAIL TB-ISO
1500
1501
1503
1504

DETAIL TB1-1
L1A
L1N
SPARE
3
3N
SPARE
49
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51
52
53
54
1004
1
24V-
24V-
SPARE
1002
2
11
1001
1001A
12
1003
1003A
34
3N
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103
3P1
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SPARE
SPARE
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DETAIL TB1-1
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DETAIL TB1-2
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DETAIL TB2
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54A
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41B
44B
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47B
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53B
13B
13AB
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L+
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18B
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DETAIL TB2
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SPARE

WARNING

0 1

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DWG NO

I-9

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CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION EDDINGTON LIFT STATION CONTROL CABINET EQUIPMENT LAYOUT

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R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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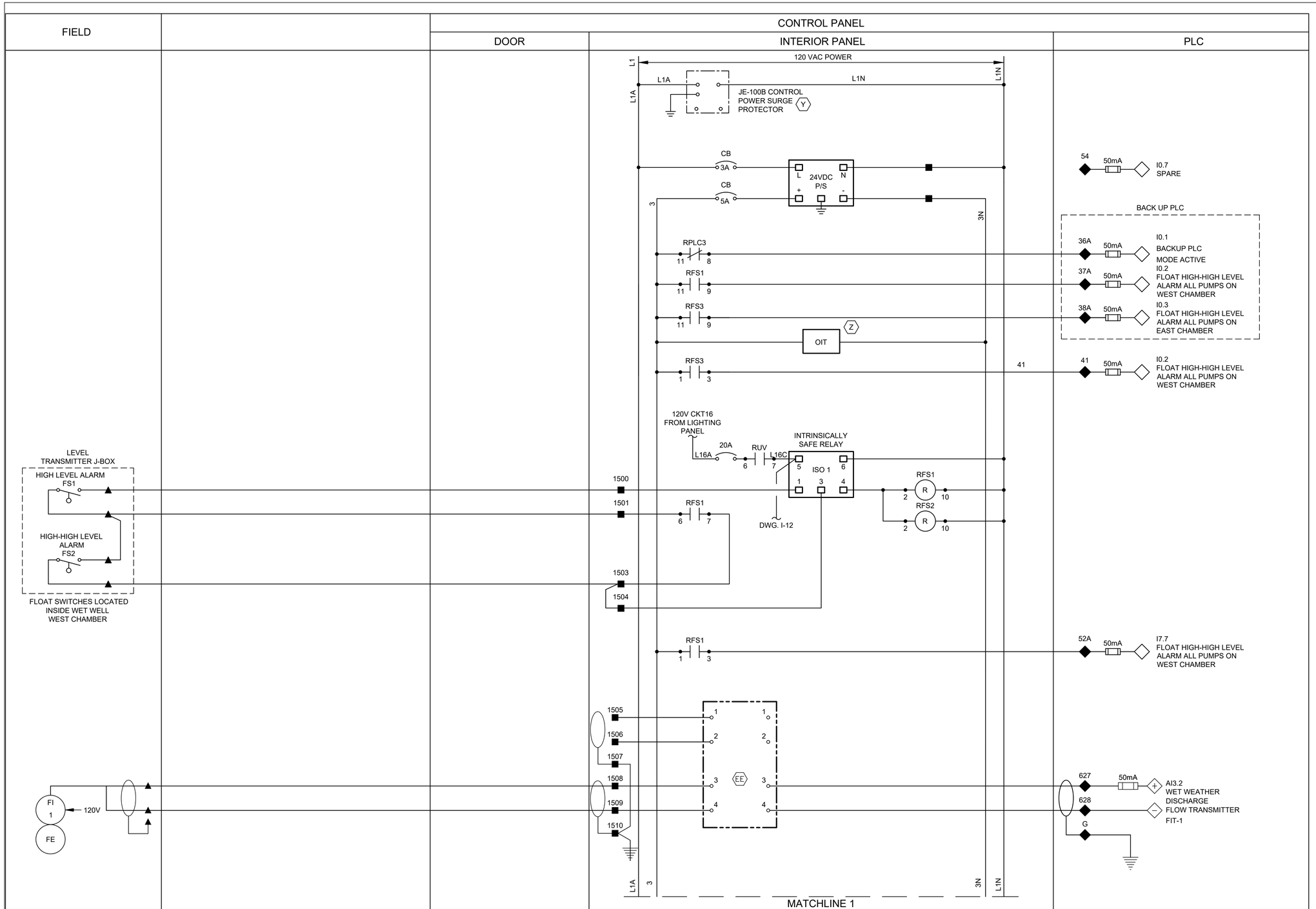

NOTES:

1. ALL FLOAT CONTROL CIRCUIT WIRES COLOR SHALL BE YELLOW.

LEGEND

- △ DEVICE OR FIELD TERMINAL LOCATED AT MOTOR
- ✳ DEVICE OR FIELD TERMINAL LOCATED REMOTE
- □ DEVICE OR FIELD TERMINAL LOCATED AT MCC/POWER PANEL
- ■ FIELD TERMINAL LOCATED AT CONTROL PANEL
- ▲ REMOTE TERMINAL
- ● DEVICE TERMINAL NO.
- ◆ PLC INTERFACE TERMINAL

WARNING
0 1
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DWG NO
I-10

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION EDDINGTON LIFT STATION CONTROL PANEL CONTROL WIRING DIAGRAM–I

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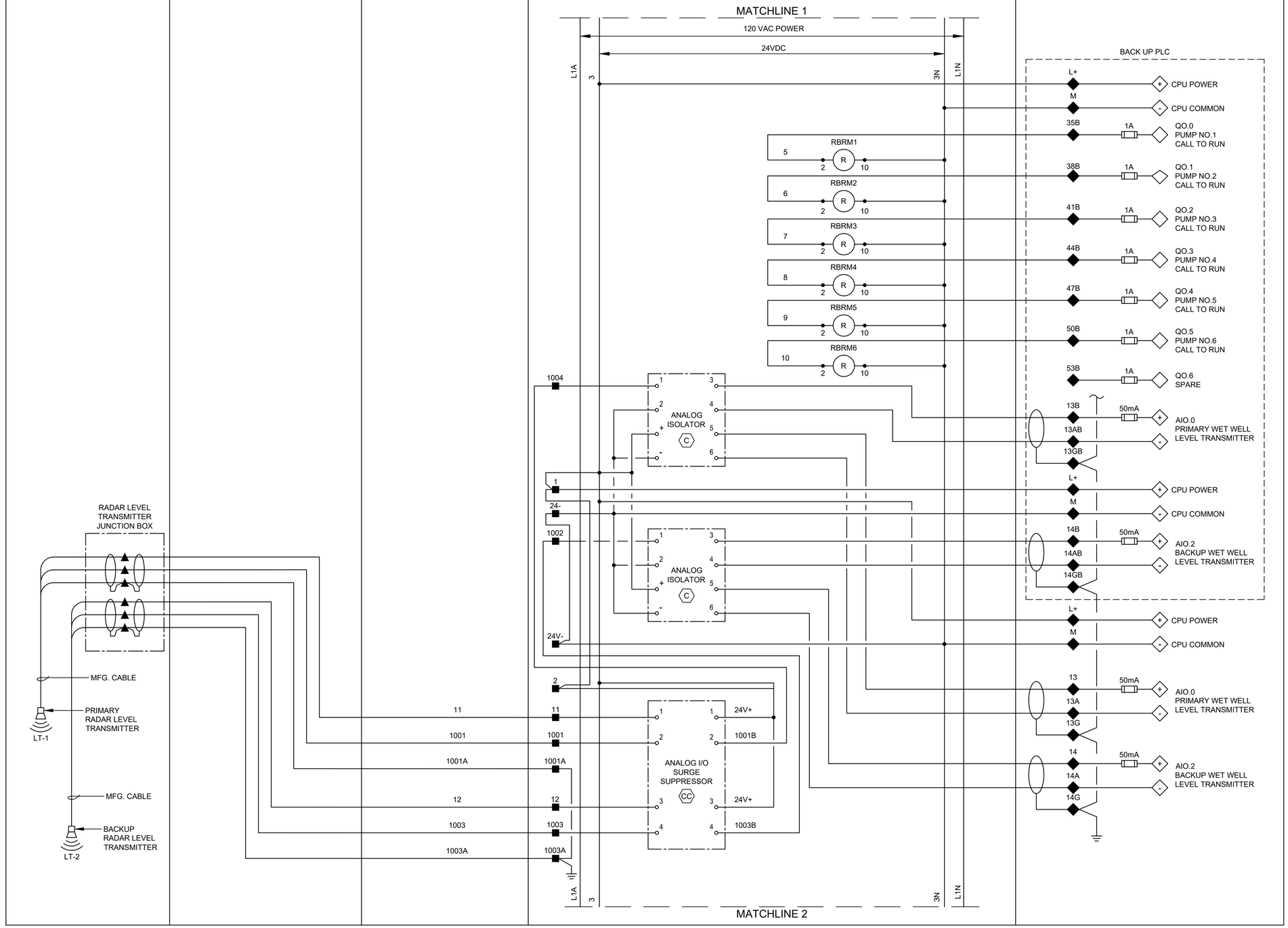
SHEET NO. XX OF XX	

FIELD	MOTOR CONTROL CENTER (INDOOR)	CONTROL PANEL		
		DOOR	INTERIOR PANEL	PLC



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- ✳ DEVICE OR FIELD TERMINAL LOCATED REMOTE
- □ DEVICE OR FIELD TERMINAL LOCATED AT MCC/POWER PANEL
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- ▲ REMOTE TERMINAL
- ● DEVICE TERMINAL NO.
- ◆ PLC INTERFACE TERMINAL

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TEXAS P.E. NO. 126466
DATE: XX/XX/2025

DESIGNED BY:	H. DUONG
DRAWN BY:	D. KWONG
CHECKED BY:	H. FOROUZAN
REVIEWED BY:	H. FOROUZAN
APPROVED BY:	H. FOROUZAN

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION
EDDINGTON LIFT STATION
CONTROL PANEL
CONTROL WIRING DIAGRAM–II

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOTTED: 1/8/2026 5:20 PM
PLOT STYLE: GAI.ctb
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Instrumentation And Control\Working\Eddington\H8111_I-11.dwg

FIELD | MOTOR CONTROL CENTER | CONTROL PANEL: DOOR | INTERIOR PANEL | PLC

MATCHLINE 2

120 VAC POWER

24VDC

L1A | 24+ | 24- | L1N

LEVEL TRANSMITTER J-BOX
HIGH LEVEL ALARM FS3
HIGH-HIGH LEVEL ALARM FS4
FLOAT SWITCHES LOCATED INSIDE WET WELL EAST CHAMBER

1505
1506
1507
1508

DWG. I-10
L16C
INTRINSICALLY SAFE RELAY
ISO 2
5 6 1 3 4

RFS3 R 2 10
RFS4 R 2 10
RFS3 6 7

M4 M5 9
10
19
20

RFLP R 2 10

L1
N
MS

1L DO POWER
3 DO POWER

30 1A Q0.0 SPARE
32 50mA I0.0 PLC INTRUSION ALARM
34 50mA I0.1 PHASE FAILURE UNDER VOLTAGE
38 50mA Q0.1 PLC MODE ACTIVE
1M DI COMMON
2M AI COMMON

34
34

RUV R 2 10
RPLC1 R 2 10
RPLC2 R 2 10
RPLC3 R 2 10

YI-1 G PRIMARY PLC
YI-2 G BACKUP PLC

RPLC3 6 5

ØA ØB ØC
JE-100D PHASE MONITOR
7 8 9 10 11 12
N/C

YI-2 BUILDING EXTERIOR ALARM LIGHT R

BACK UP PLC
33B 50mA Q0.6 SPARE

45 50mA Q0.2 HIGH LEVEL ALARM

BACK UP PLC
18B 50mA I0.0 PHASE FAILURE UNDER VOLTAGE

RUV 11 9

L1A | 24+ | 24- | L1N

MATCHLINE 3

LEGEND

- △ DEVICE OR FIELD TERMINAL LOCATED AT MOTOR
- ✳ DEVICE OR FIELD TERMINAL LOCATED REMOTE
- □ DEVICE OR FIELD TERMINAL LOCATED AT MCC/POWER PANEL
- ■ FIELD TERMINAL LOCATED AT CONTROL PANEL
- ▲ REMOTE TERMINAL
- ● DEVICE TERMINAL NO.
- ◆ PLC INTERFACE TERMINAL

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
I-12

NO.	DATE	REVISION	APP.

GAI
Gupta & Associates, Inc.
CONSULTING ENGINEERING
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HOSS FOROUZAN
TEXAS P.E. NO. 77748
DATE: 01/09/2026

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TBPE Firm Registration No. F-10053

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION
EDDINGTON LIFT STATION
CONTROL PANEL
CONTROL WIRING DIAGRAM–III

WBS NUMBER	R-001000-0035-4
DRAWING SCALE	NTS
CITY OF HOUSTON PM	NEIL BARNSDALE, P.E.
SHEET NO.	XX OF XX

FOR CITY OF HOUSTON USE ONLY

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FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Instrumentation And Control\Working\Eddington\H8111_I-12.dwg

PLOTTED: 1/8/2026 5:20 PM
PLOT STYLE: GAI.ctb
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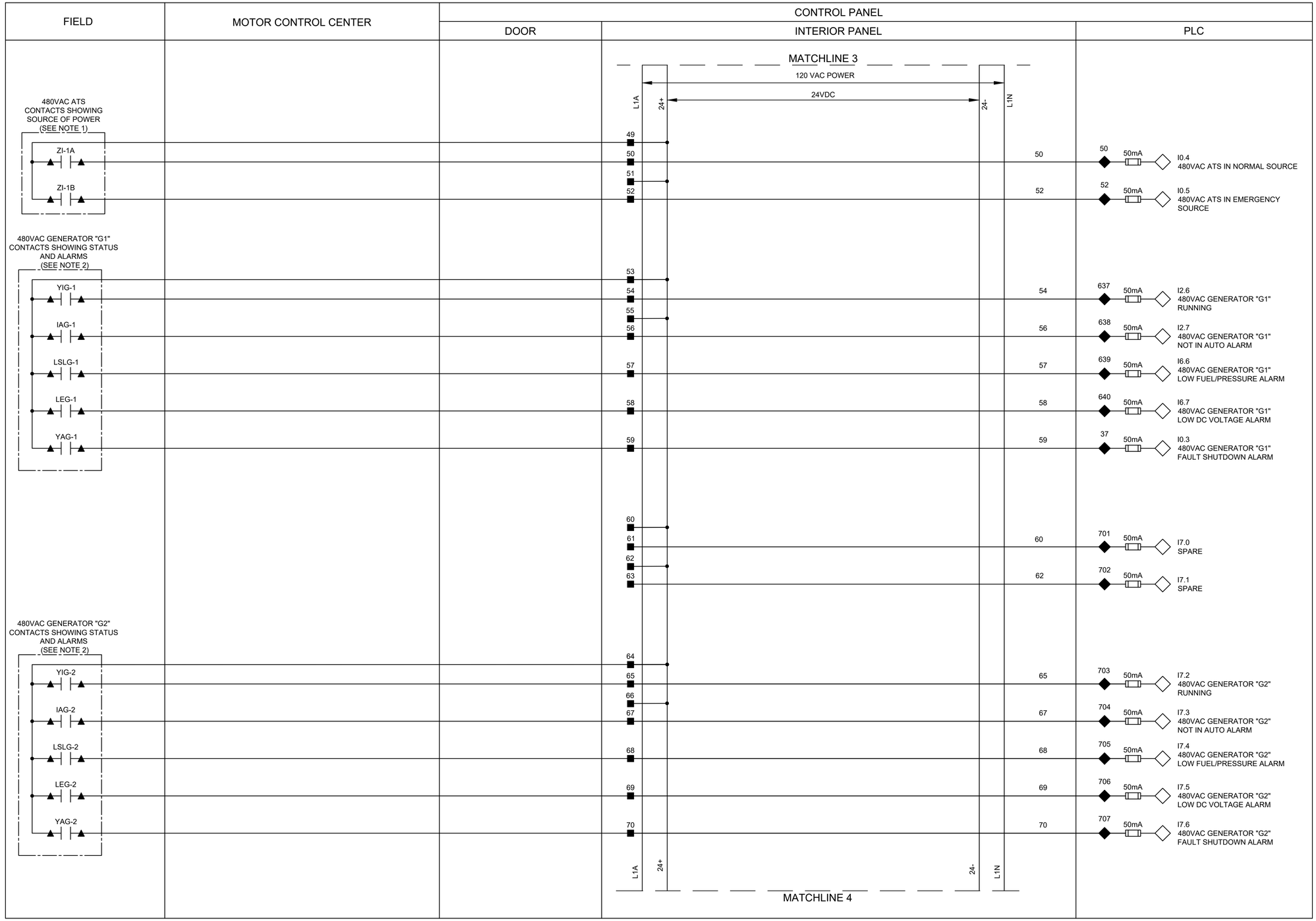

NOTES:

1. PROVIDE AUTOMATIC TRANSFER SWITCH DRY CONTACT.
2. PROVIDE GENERATOR DRY CONTACT.

LEGEND

- △ DEVICE OR FIELD TERMINAL LOCATED AT MOTOR
- ✳ DEVICE OR FIELD TERMINAL LOCATED REMOTE
- □ DEVICE OR FIELD TERMINAL LOCATED AT MCC/POWER PANEL
- ■ FIELD TERMINAL LOCATED AT CONTROL PANEL
- ▲ REMOTE TERMINAL
- ● DEVICE TERMINAL NO.
- ◆ PLC INTERFACE TERMINAL

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
I-13

NO.	DATE	REVISION	APP.

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TEXAS P.E. NO. 77748
DATE: 01/09/2026

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DATE: XX/XX/2025

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REVIEWED BY: H. FOROUZAN
APPROVED BY: H. FOROUZAN

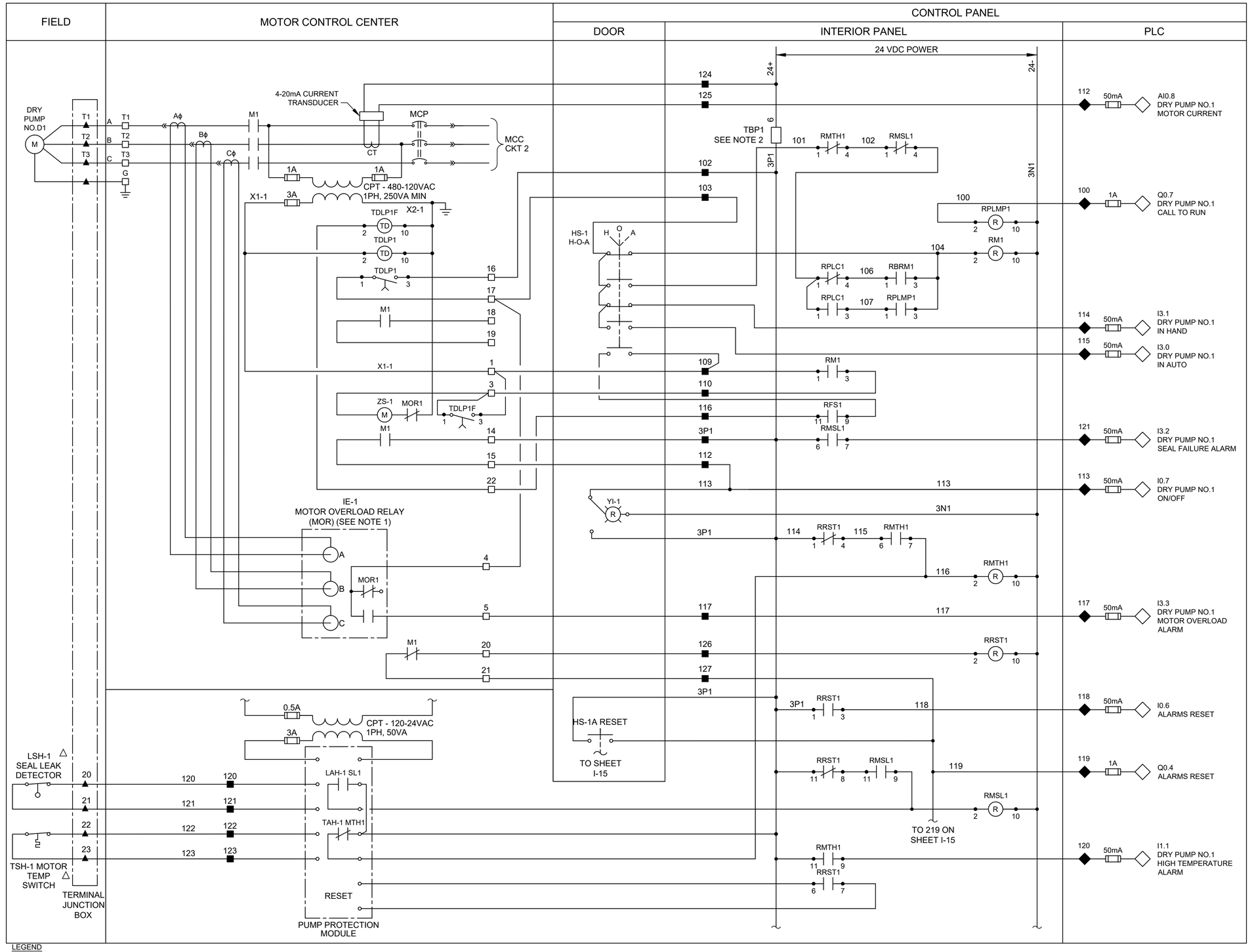
SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION
EDDINGTON LIFT STATION
CONTROL PANEL
CONTROL WIRING DIAGRAM – IV

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	



NOTES:

1. MOTOR OVERLOAD RELAY OUTPUT CONTACT SHOWN IS NORMALLY CLOSED WHEN RELAY IS DE-ENERGIZED, OPEN WHEN ENERGIZED, AND CLOSED WHEN IN ALARM. VERIFY OPERATION OF RELAY PROVIDED AND ADJUST CONNECTION OF RMOR AUXILIARY RELAYS.
2. FUSED TERMINAL ON TERMINAL BLOCK TB4 SEE CONTROL POWER AND COMMUNICATION WIRING DIAGRAM DRAWING NO. I-6.
3. ALL FLOAT CONTROL CIRCUIT WIRES COLOR SHALL BE YELLOW.

NO.	DATE	REVISION	APP.

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TEXAS P.E. NO. 126466
DATE: XX/XX/2025

DESIGNED BY: H. DUONG	SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
DRAWN BY: D. KWONG	FB NO. 340S1
CHECKED BY: H. FOROUZAN	
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION EDDINGTON LIFT STATION DRY PUMP NO.D1 CONTROL WIRING DIAGRAM

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
I-14

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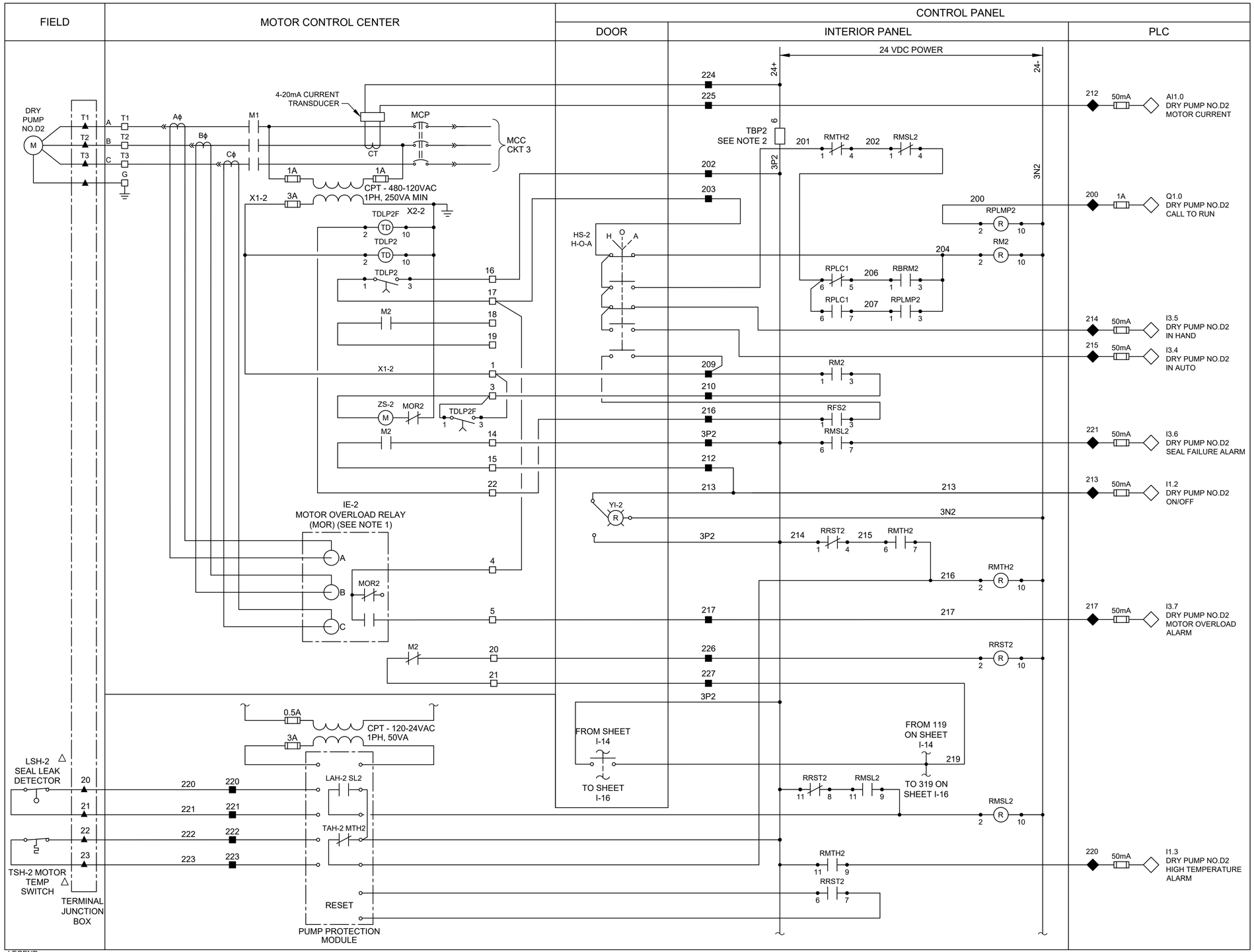
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Instrumentation And Control\Working\Eddington\H8111_I-14.dwg



LEGEND

- △ DEVICE OR FIELD TERMINAL LOCATED AT MOTOR
- ✳ DEVICE OR FIELD TERMINAL LOCATED REMOTE
- □ DEVICE OR FIELD TERMINAL LOCATED AT MCC/POWER PANEL
- ■ FIELD TERMINAL LOCATED AT CONTROL PANEL
- ▲ REMOTE TERMINAL
- ● DEVICE TERMINAL NO.
- ◆ PLC INTERFACE TERMINAL

NOTES:

1. MOTOR OVERLOAD RELAY OUTPUT CONTACT SHOWN IS NORMALLY CLOSED WHEN RELAY IS DE-ENERGIZED, OPEN WHEN ENERGIZED, AND CLOSED WHEN IN ALARM. VERIFY OPERATION OF RELAY PROVIDED AND ADJUST CONNECTION OF RMOR AUXILIARY RELAYS.
2. FUSED TERMINAL ON TERMINAL BLOCK TB4 SEE CONTROL POWER AND COMMUNICATION WIRING DIAGRAM DRAWING NO. I-6.
3. ALL FLOAT CONTROL CIRCUIT WIRES COLOR SHALL BE YELLOW.

NO.	DATE	REVISION	APP.

GAI
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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: XX/XX/2025

DESIGNED BY: H. DUONG	SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
DRAWN BY: D. KWONG	FB NO. 340S1
CHECKED BY: H. FOROUZAN	
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION EDDINGTON LIFT STATION DRY PUMP NO.D2 CONTROL WIRING DIAGRAM

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
I-15

PLOTTED: 1/8/2026 5:20 PM
PLOT STYLE: GAI.ctb
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Instrumentation And Control\Working\Eddington\H8111_I-15.dwg

FIELD | MOTOR CONTROL CENTER | CONTROL PANEL (DOOR | INTERIOR PANEL | PLC)

WET PUMP NO.1 (M) T1 T2 T3 G — A B C

4-20mA CURRENT TRANSDUCER — Aϕ Bϕ Cϕ CT

M3 M2 M1 MCP — MCC CKT 4

VFD NO. 3 POWER MODULE — INPUT REACTOR

1A 1A — CPT - 480-120VAC 1PH, 250VA MIN — X1-3 3A X2-3

TDLP3 16 17 — TDLP3 TD 2 10

SSCR3 — HS-3B VFD BYP. — M3 X0 — M2 0X — MOR3 — M3 X0 — M2 X0 — M1

M3 18 19 — 22 23

TDLP3F TD 2 10 — TDLP3F 1 3 — SSCR3 R 2 10

VFDR3 R 2 10

VFD RUN — SPEED SETPOINT — SPEED FEEDBACK — M2 START/STOP — VFD FAULT

VFD NO. 3 CONTROLLER BOARD

24 25 26 27 28 29

IE-3 MOTOR OVERLOAD RELAY (MOR) (SEE NOTE 1) — A B C — MOR3

M3 VFDR3 14 15 — VFDR3 30 31 32 — M3 VFDR3 33 20 21

0.5A 3A — CPT - 120-24VAC 1PH, 50VA

LSH-3 SEAL LEAK DETECTOR △ — 20 21 — 320 321

TSH-3 MOTOR TEMP SWITCH △ — 22 23 — 322 323

TERMINAL JUNCTION BOX

LAH-3 SL3 — TAH-3 MTH3 — RESET

PUMP PROTECTION MODULE

FROM SHEET I-15 — TO SHEET I-17

FROM 219 ON SHEET I-15 — TO 419 ON SHEET I-17

HS-3 H-O-A (H O A)

24 VDC POWER (24+ / 24-)

TBP3 SEE NOTE 2 — 8

3P3 — 3N3

RPLMP3 R 2 10 — RMTH3 R 2 10 — RM3 R 2 10 — RRST3 R 2 10 — RMSL3 R 2 10

RMTH3 1 4 — RMSL3 1 4 — RPLC1 11 8 — RBRM3 1 3 — RPLC1 11 9 — RPLMP3 1 3

RFS2 11 9 — RM3 1 3 — RMSL3 6 7 — YI-3 R — RRST3 1 4 — 316A — RMTH3 6 7 — 316B

RRST3 11 8 — RMSL3 11 9 — RMTH3 11 9 — RRST3 6 7

312	50mA	AI1.2 WET PUMP NO.1 MOTOR CURRENT
300	1A	Q1.1 WET PUMP NO.1 CALL TO RUN
314	50mA	I4.0 WET PUMP NO.1 IN HAND
315	50mA	I4.1 WET PUMP NO.1 IN AUTO
322	50mA	I6.2 WET PUMP NO.1 IN VFD MODE
323	50mA	AO0.4 WET PUMP NO.1 SPEED CONTROL
324	50mA	AI2.4 WET PUMP NO.1 SPEED INDICATION
321	50mA	I4.2 WET PUMP NO.1 SEAL FAILURE ALARM
313	50mA	I1.4 WET PUMP NO.1 ON/OFF
317	50mA	I4.3 WET PUMP NO.1 MOTOR OVERLOAD ALARM
320	50mA	I1.5 WET PUMP NO.1 HIGH TEMPERATURE ALARM

LEGEND

- △ DEVICE OR FIELD TERMINAL LOCATED AT MOTOR
- ✳ DEVICE OR FIELD TERMINAL LOCATED REMOTE
- □ DEVICE OR FIELD TERMINAL LOCATED AT MCC/POWER PANEL
- ■ FIELD TERMINAL LOCATED AT CONTROL PANEL
- ▲ REMOTE TERMINAL
- ● DEVICE TERMINAL NO.
- ◆ PLC INTERFACE TERMINAL

NOTES:

1. MOTOR OVERLOAD RELAY OUTPUT CONTACT SHOWN NORMALLY CLOSED WHEN RELAY IS DE-ENERGIZED, OPEN WHEN ENERGIZED, AND CLOSED WHEN IN ALARM. VERIFY OPERATION OF RELAY PROVIDED AND ADJUST CONNECTION OF RMOR AUXILIARY RELAYS.
2. FUSED TERMINAL ON TERMINAL BLOCK TB4 SEE CONTROL POWER AND COMMUNICATION WIRING DIAGRAM DRAWING NO. I-06.
3. ALL FLOAT CONTROL CIRCUIT WIRES COLOR SHALL BE YELLOW.

NO.	DATE	REVISION	APP.

GAI
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DRAWN BY: D. KWONG	FB NO. 340S1
CHECKED BY: H. FOROUZAN	
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION EDDINGTON LIFT STATION WET PUMP NO.1 CONTROL WIRING DIAGRAM

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
I-16

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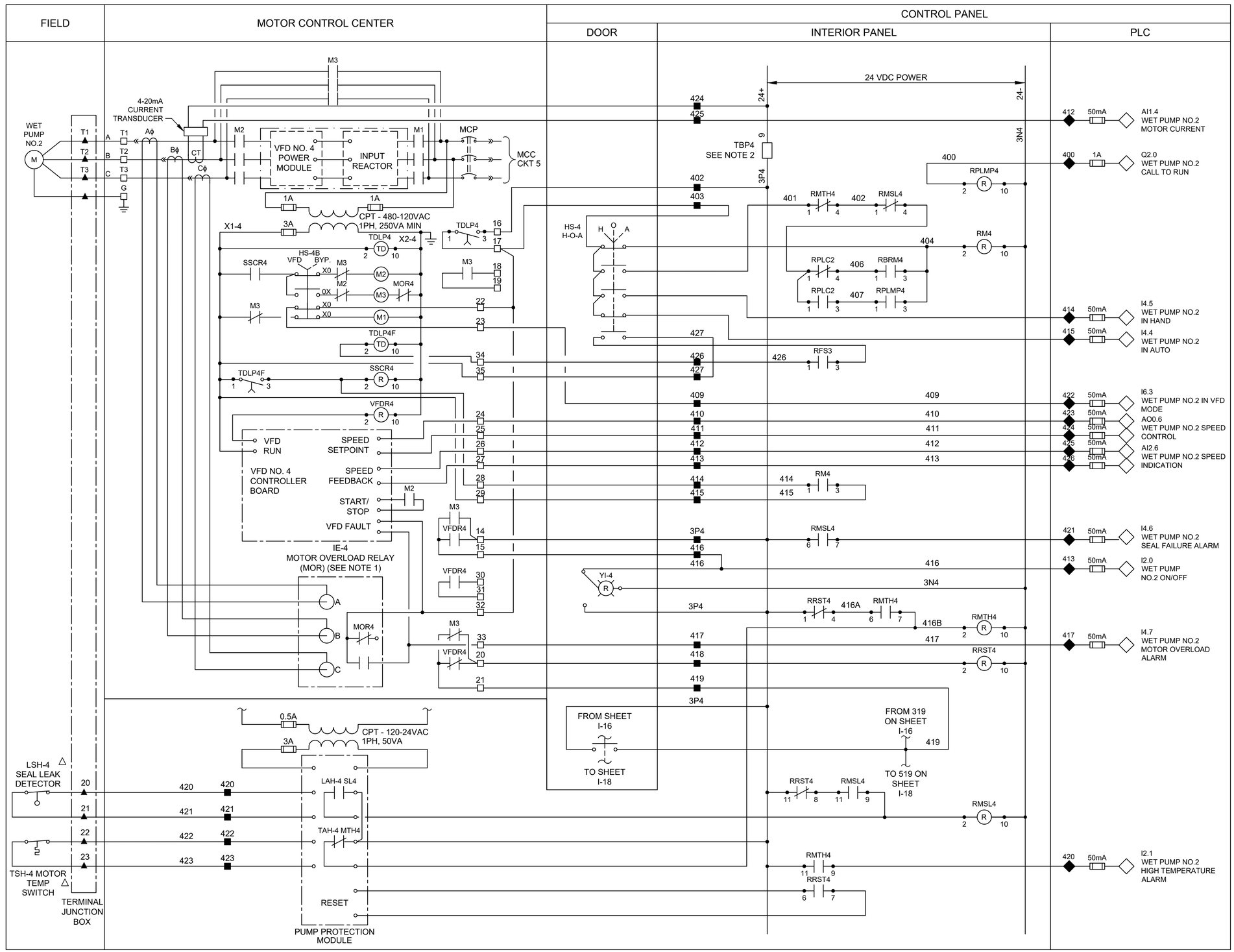

NOTES:

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2. FUSED TERMINAL ON TERMINAL BLOCK TB4 SEE CONTROL POWER AND COMMUNICATION WIRING DIAGRAM DRAWING NO. I-06.
3. ALL FLOAT CONTROL CIRCUIT WIRES COLOR SHALL BE YELLOW.

LEGEND

- △ DEVICE OR FIELD TERMINAL LOCATED AT MOTOR
- ✳ DEVICE OR FIELD TERMINAL LOCATED REMOTE
- □ DEVICE OR FIELD TERMINAL LOCATED AT MCC/POWER PANEL
- ■ FIELD TERMINAL LOCATED AT CONTROL PANEL
- ▲ REMOTE TERMINAL
- ● DEVICE TERMINAL NO.
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HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION EDDINGTON LIFT STATION WET PUMP NO.2 CONTROL WIRING DIAGRAM

WBS NUMBER	R-001000-0035-4
DRAWING SCALE	NTS
	CITY OF HOUSTON PM
	NEIL BARNSDALE, P.E.
SHEET NO.	XX OF XX

FOR CITY OF HOUSTON USE ONLY

WARNING
0 1
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DWG NO
I-17

PLOTTED: 1/8/2026 5:20 PM
PLOT STYLE: GAI.ctb
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra)\6 Drawings\Instrumentation And Control\Working\Eddington\H8111_I-17.dwg

FIELD | MOTOR CONTROL CENTER | CONTROL PANEL: DOOR | INTERIOR PANEL | PLC

WET PUMP NO.3
M
T1 T2 T3 G
A B C
4-20mA CURRENT TRANSDUCER
Aϕ Bϕ Cϕ CT
M1 M2 M3
MCP
VFD NO. 5 POWER MODULE
INPUT REACTOR
MCC CKT 7
1A 1A
CPT - 480-120VAC 1PH, 250VA MIN
X1-5 X2-5
3A
TDLP5 TDLP5F VFDR5 SSCR5 MOR5
HS-5B VFD BYP. X0
VFD RUN
SPEED SETPOINT
SPEED FEEDBACK
START/ STOP
VFD FAULT
VFD NO. 5 CONTROLLER BOARD
IE-5 MOTOR OVERLOAD RELAY (MOR) (SEE NOTE 1)
TBP5 SEE NOTE 2
HS-5 H-O-A
24 VDC POWER 24+ 24-
3N5 3P5
RPLMP5 RMTH5 RMSL5 RM5 RPLC2 RBRM5 RFS3
YI-5
RRST5 RMTH5 RMSL5
FROM SHEET I-17
TO SHEET I-19
FROM 419 ON SHEET I-17
TO 619 ON SHEET I-19
0.5A 3A
CPT - 120-24VAC 1PH, 50VA
LSH-5 SEAL LEAK DETECTOR
TSH-5 MOTOR TEMP SWITCH
TERMINAL JUNCTION BOX
LAH-5 SL5
TAH-5 MTH5
RESET
PUMP PROTECTION MODULE

AI1.6	WET PUMP NO.3 MOTOR CURRENT	512 50mA
Q2.1	WET PUMP NO.3 CALL TO RUN	500 1A
I5.1	WET PUMP NO.3 IN HAND	514 50mA
I5.0	WET PUMP NO.3 IN AUTO	515 50mA
I6.4	WET PUMP NO.3 IN VFD MODE	522 50mA
AO0.8	WET PUMP NO.3 SPEED CONTROL	524 50mA
AI2.8	WET PUMP NO.3 SPEED INDICATION	525 50mA / 526 50mA
I5.2	WET PUMP NO.3 SEAL FAILURE ALARM	521 50mA
I2.2	WET PUMP NO.3 ON/OFF	513 50mA
I5.3	WET PUMP NO.3 MOTOR OVERLOAD ALARM	517 50mA
I2.3	WET PUMP NO.3 HIGH TEMPERATURE ALARM	520 50mA

LEGEND

- △ DEVICE OR FIELD TERMINAL LOCATED AT MOTOR
- ✳ DEVICE OR FIELD TERMINAL LOCATED REMOTE
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- ■ FIELD TERMINAL LOCATED AT CONTROL PANEL
- ▲ REMOTE TERMINAL
- ● DEVICE TERMINAL NO.
- ◆ PLC INTERFACE TERMINAL

NOTES:

1. MOTOR OVERLOAD RELAY OUTPUT CONTACT SHOWN NORMALLY CLOSED WHEN RELAY IS DE-ENERGIZED, OPEN WHEN ENERGIZED, AND CLOSED WHEN IN ALARM. VERIFY OPERATION OF RELAY PROVIDED AND ADJUST CONNECTION OF RMOR AUXILIARY RELAYS.
2. FUSED TERMINAL ON TERMINAL BLOCK TB4 SEE CONTROL POWER AND COMMUNICATION WIRING DIAGRAM DRAWING NO. I-06.
3. ALL FLOAT CONTROL CIRCUIT WIRES COLOR SHALL BE YELLOW.

NO.	DATE	REVISION	APP.

GAI
Gupta & Associates, Inc.
CONSULTING ENGINEERING
Registration No. F-2593
302 Dennis St.
Houston, Texas 77006
Tel: 713-636-2936
Fax: 713-636-2987
email: hforouzan@gaiconsulting.com

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.
HOSS FOROUZAN
TEXAS P.E. NO. 77748
DATE: 01/09/2026

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: XX/XX/2025

DESIGNED BY:	H. DUONG
DRAWN BY:	D. KWONG
CHECKED BY:	H. FOROUZAN
REVIEWED BY:	H. FOROUZAN
APPROVED BY:	H. FOROUZAN

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION EDDINGTON LIFT STATION WET PUMP NO.W3 CONTROL WIRING DIAGRAM

WBS NUMBER	R-001000-0035-4
DRAWING SCALE	NTS
CITY OF HOUSTON PM	NEIL BARNSDALE, P.E.
SHEET NO.	XX OF XX

FOR CITY OF HOUSTON USE ONLY

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
I-18

PLOTTED: 1/8/2026 5:20 PM
PLOT STYLE: GAI.ctb
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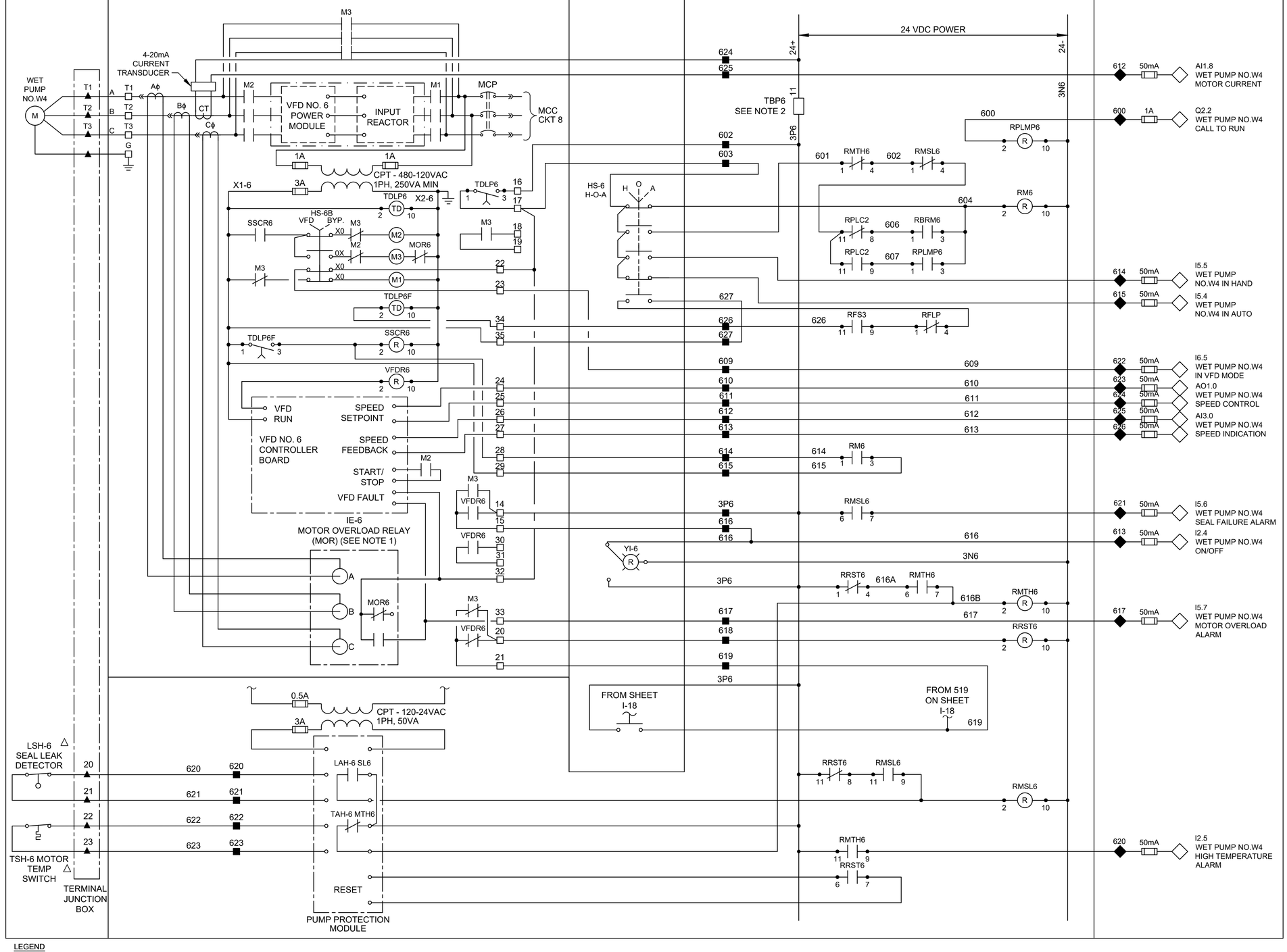
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP-Ardurra))\6 Drawings\Instrumentation And Control\Working\Eddington\H8111_I-19.dwg
PLOT STYLE: GAI.ctb
PLOTTED: 1/8/2026 5:20 PM

FIELD | MOTOR CONTROL CENTER | CONTROL PANEL (DOOR | INTERIOR PANEL | PLC)



LEGEND

- △ DEVICE OR FIELD TERMINAL LOCATED AT MOTOR
- ✳ DEVICE OR FIELD TERMINAL LOCATED REMOTE
- □ DEVICE OR FIELD TERMINAL LOCATED AT MCC/POWER PANEL
- ■ FIELD TERMINAL LOCATED AT CONTROL PANEL
- ▲ REMOTE TERMINAL
- ● DEVICE TERMINAL NO.
- ◆ PLC INTERFACE TERMINAL

NOTES:

1. MOTOR OVERLOAD RELAY OUTPUT CONTACT SHOWN NORMALLY CLOSED WHEN RELAY IS DE-ENERGIZED, OPEN WHEN ENERGIZED, AND CLOSED WHEN IN ALARM. VERIFY OPERATION OF RELAY PROVIDED AND ADJUST CONNECTION OF RMOR AUXILIARY RELAYS.
2. FUSED TERMINAL ON TERMINAL BLOCK TB4 SEE CONTROL POWER AND COMMUNICATION WIRING DIAGRAM DRAWING NO. I-06.
3. ALL FLOAT CONTROL CIRCUIT WIRES COLOR SHALL BE YELLOW.

NO.	DATE	REVISION	APP.

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DRAWN BY: D. KWONG	FB NO. 340S1
CHECKED BY: H. FOROUZAN	
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

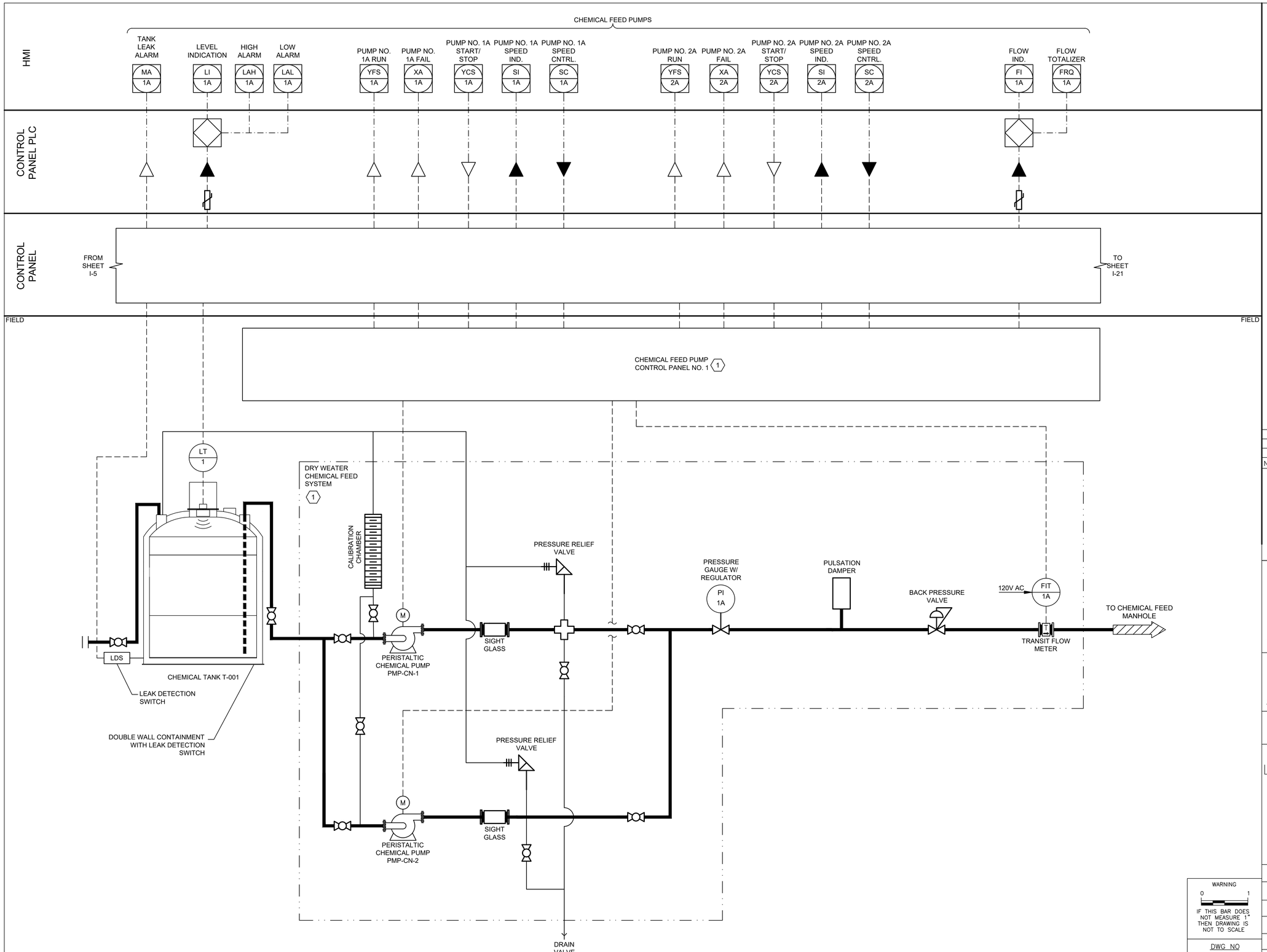
CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION EDDINGTON LIFT STATION WET PUMP NO.W4 CONTROL WIRING DIAGRAM

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
I-19



NOTES:

1. TO BE PROVIDED BY CHEMICAL FEED SYSTEM MANUFACTURER.

GENERAL NOTES:

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APPROVED BY:	H. FOROUZAN

SURVEYED BY:
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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION EDDINGTON LIFT STATION DRY WEATHER CHEMICAL FEED PUMPS P&ID DIAGRAM

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
I-20

WBS NUMBER	R-001000-0035-4
DRAWING SCALE	NTS
CITY OF HOUSTON PM	NEIL BARNSDALE, P.E.
SHEET NO.	XX OF XX

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PLOTTED: 1/8/2026 5:21 PM
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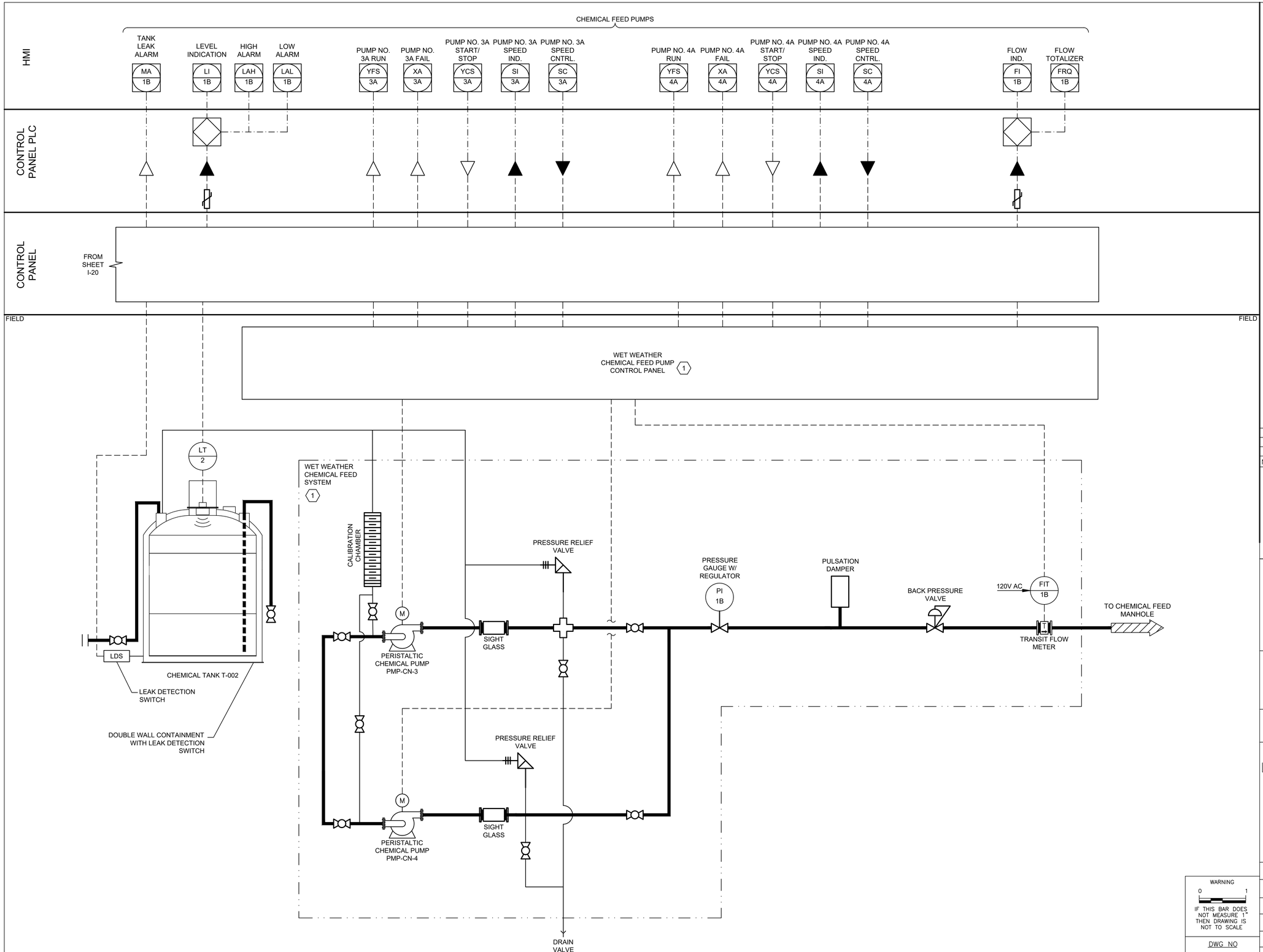

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION
EDDINGTON LIFT STATION
WET WEATHER CHEMICAL FEED PUMPS P&ID DIAGRAM

WARNING
0 1
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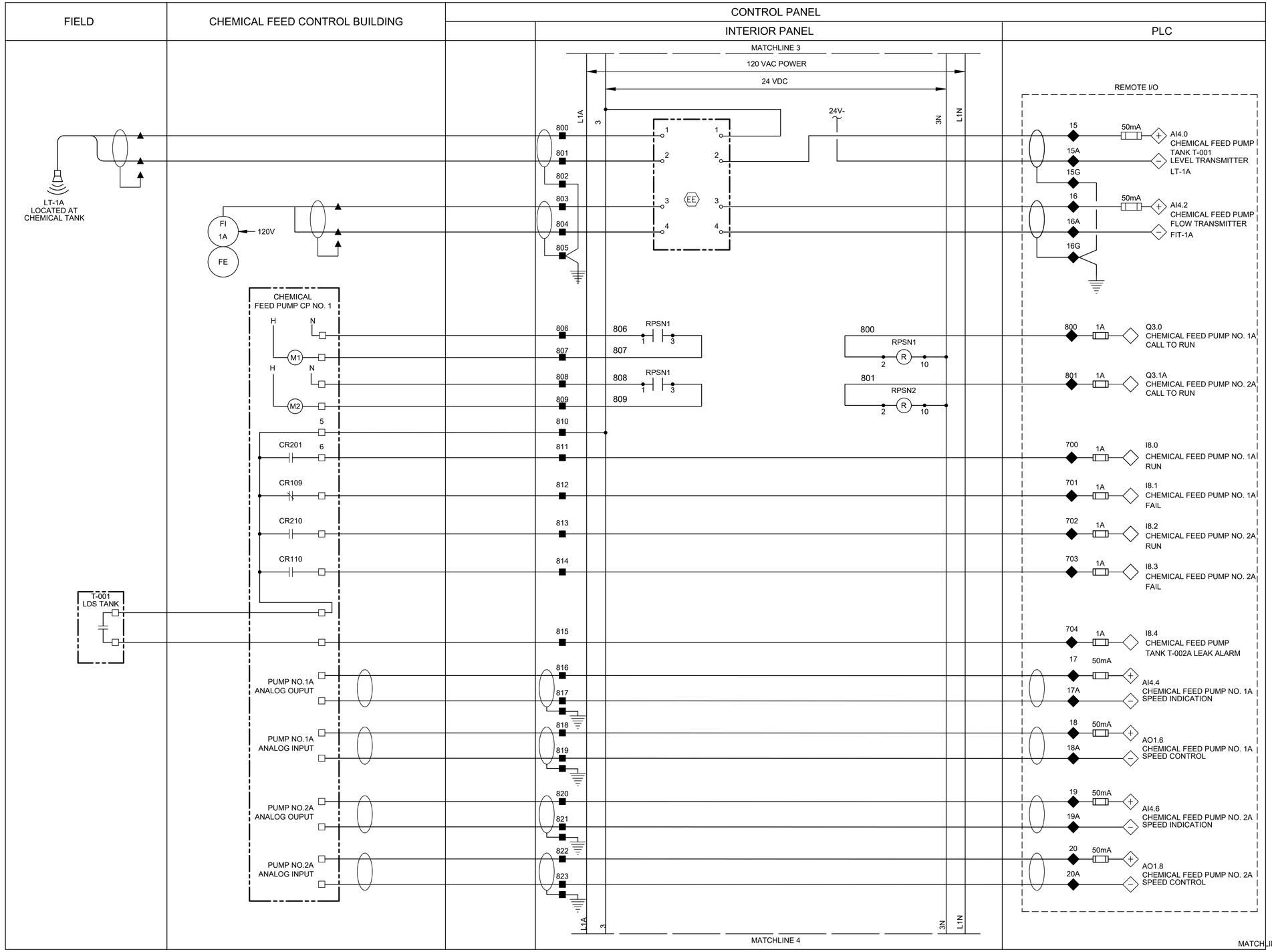
DWG NO
I-21

WBS NUMBER	R-001000-0035-4
DRAWING SCALE	NTS
CITY OF HOUSTON PM	NEIL BARNSDALE, P.E.
SHEET NO.	XX OF XX

FOR CITY OF HOUSTON USE ONLY



LEGEND

- △ DEVICE OR FIELD TERMINAL LOCATED AT EQUIPMENT
- ✳ DEVICE OR FIELD TERMINAL LOCATED REMOTE
- □ DEVICE OR FIELD TERMINAL LOCATED AT CHEMICAL CONTROL PANEL
- ■ FIELD TERMINAL LOCATED AT CONTROL PANEL
- ▲ REMOTE TERMINAL
- ● DEVICE TERMINAL NO.
- ◆ PLC INTERFACE TERMINAL

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TEXAS P.E. NO. 126466
DATE: XX/XX/2025

DESIGNED BY: H. DUONG	SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
DRAWN BY: D. KWONG	FB NO. 340S1
CHECKED BY: H. FOROUZAN	
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION EDDINGTON LIFT STATION CHEMICAL FEED PUMPS NO. 1 & NO. 2 WIRING DIAGRAM

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
I-22

PLOTTED: 1/8/2026 5:21 PM
PLOT STYLE: GAI.ctb
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PLOTTED: 1/8/2026 5:21 PM
PLOT STYLE: GAI.ctb
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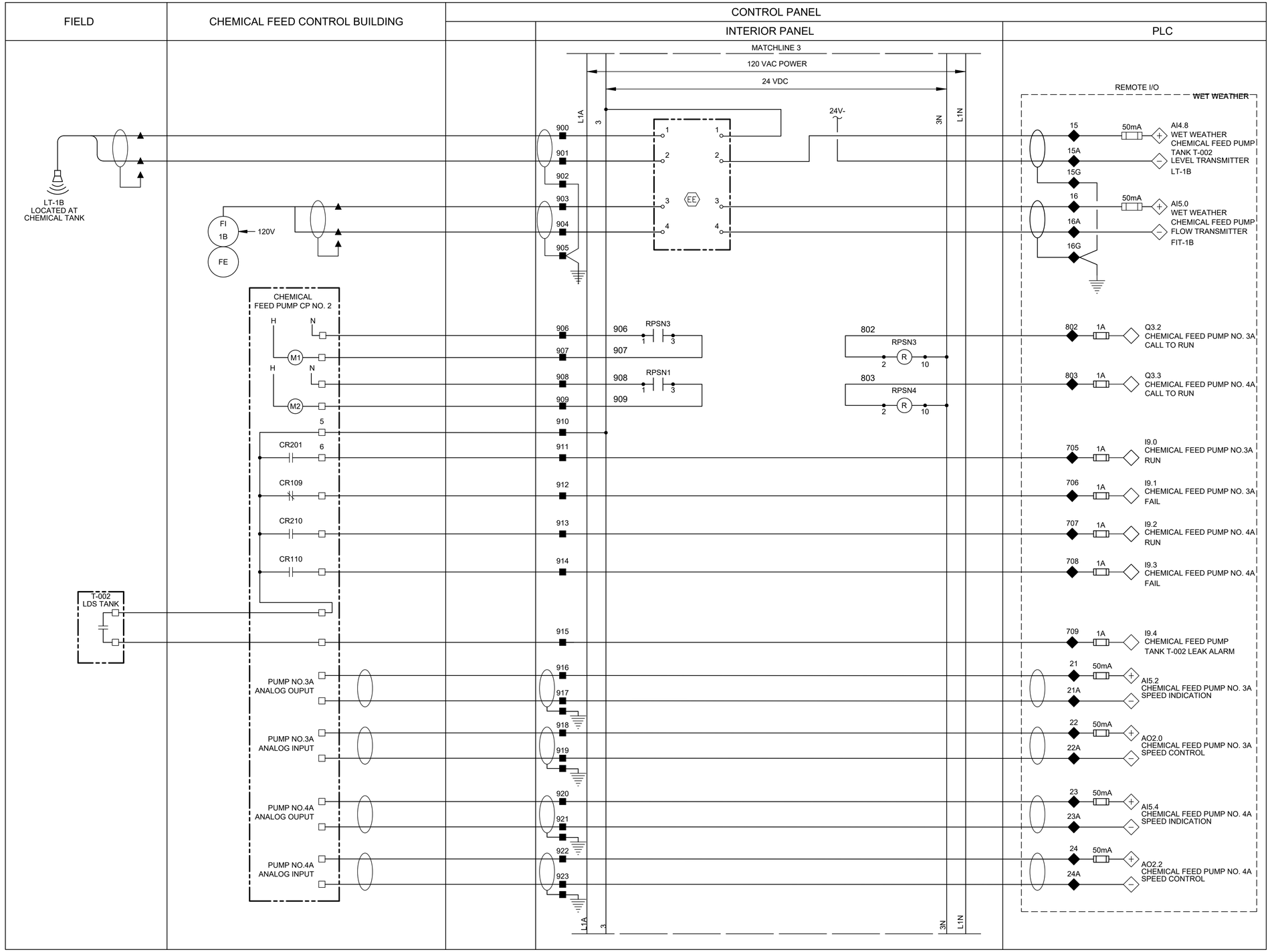

LEGEND

- △ DEVICE OR FIELD TERMINAL LOCATED AT EQUIPMENT
- ✳ DEVICE OR FIELD TERMINAL LOCATED REMOTE
- □ DEVICE OR FIELD TERMINAL LOCATED AT CHEMICAL CONTROL PANEL
- ■ FIELD TERMINAL LOCATED AT CONTROL PANEL
- ▲ REMOTE TERMINAL
- ● DEVICE TERMINAL NO.
- ◆ PLC INTERFACE TERMINAL

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CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION EDDINGTON LIFT STATION WET WEATHER CHEMICAL FEED PUMPS WIRING DIAGRAM

WARNING
0 1
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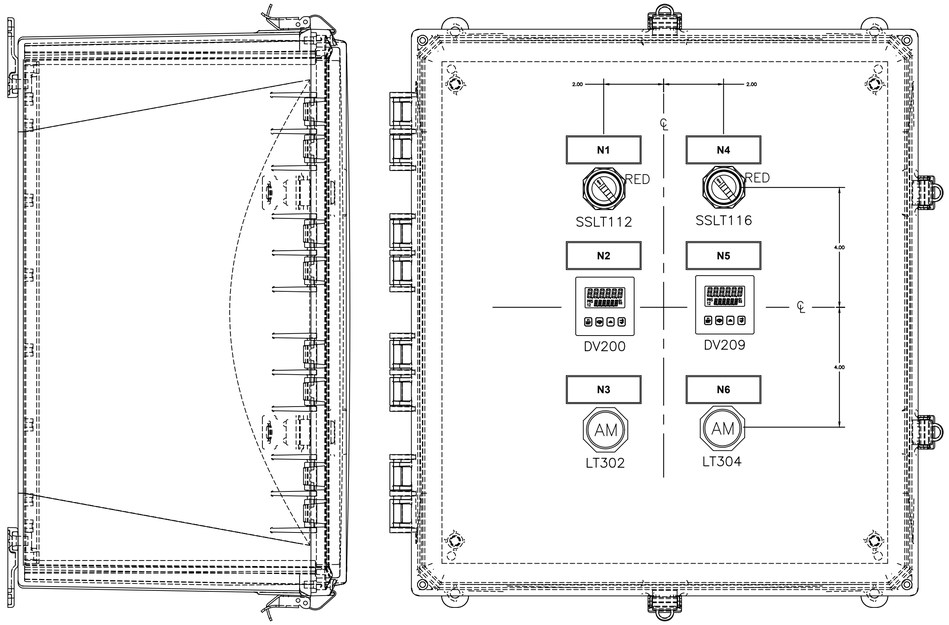
DWG NO
I-23

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	



TYPE 4X ENCLOSURE

CHEMICAL FEED PUMP CONTROL PANEL NO. 1

DETAIL 1
NTS

CHEMICAL FEED PUMP CONTROL PANEL NO. 1

DESIGNATION	ENGRAVED
N1	PUMP 1 HAND-OFF-REMOTE
N2	PUMP 1 SPEED
N3	PUMP 1 ALARM
N4	PUMP 2 HAND-OFF-REMOTE
N5	PUMP 2 SPEED
N6	PUMP 2 ALARM

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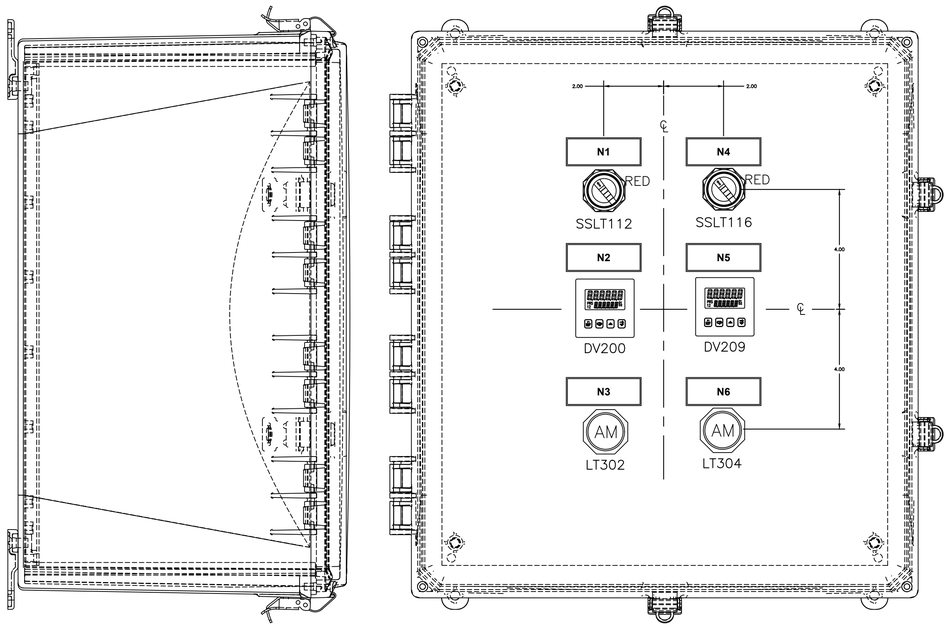

TYPE 4X ENCLOSURE

CHEMICAL FEED PUMP CONTROL PANEL NO. 2

DETAIL 2
NTS

WCHEMICAL FEED PUMP CONTROL PANEL NO. 2

DESIGNATION	ENGRAVED
N1	PUMP 3 HAND-OFF-REMOTE
N2	PUMP 3 SPEED
N3	PUMP 3 ALARM
N4	PUMP 4 HAND-OFF-REMOTE
N5	PUMP 4 SPEED
N6	PUMP 4 ALARM

NO.	DATE	REVISION	APP.

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HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

INSTRUMENTATION
EDDINGTON LIFT STATION
CHEMICAL FEED PUMPS
CONTROL PANEL

WARNING
0 1
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R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
I-24

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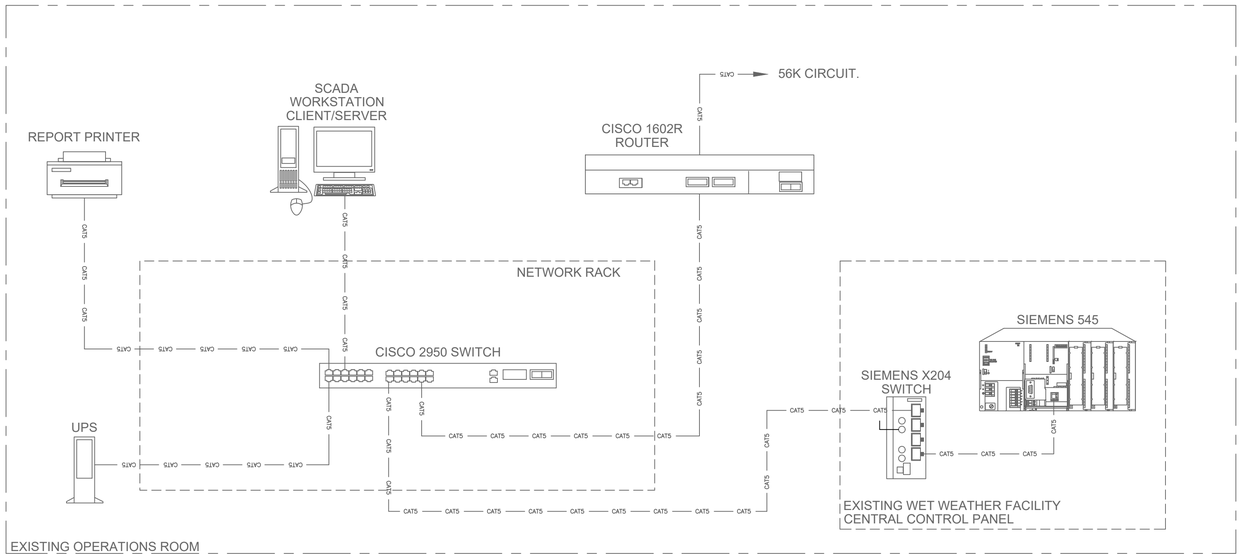

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REVIEWED BY: H. FOROUZAN
APPROVED BY: H. FOROUZAN

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1 INSTRUMENTATION
SCOTT WWF
EXISTING OVERALL NETWORK DIAGRAM

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
I–25

WBS NUMBER
R–001000–0035–4

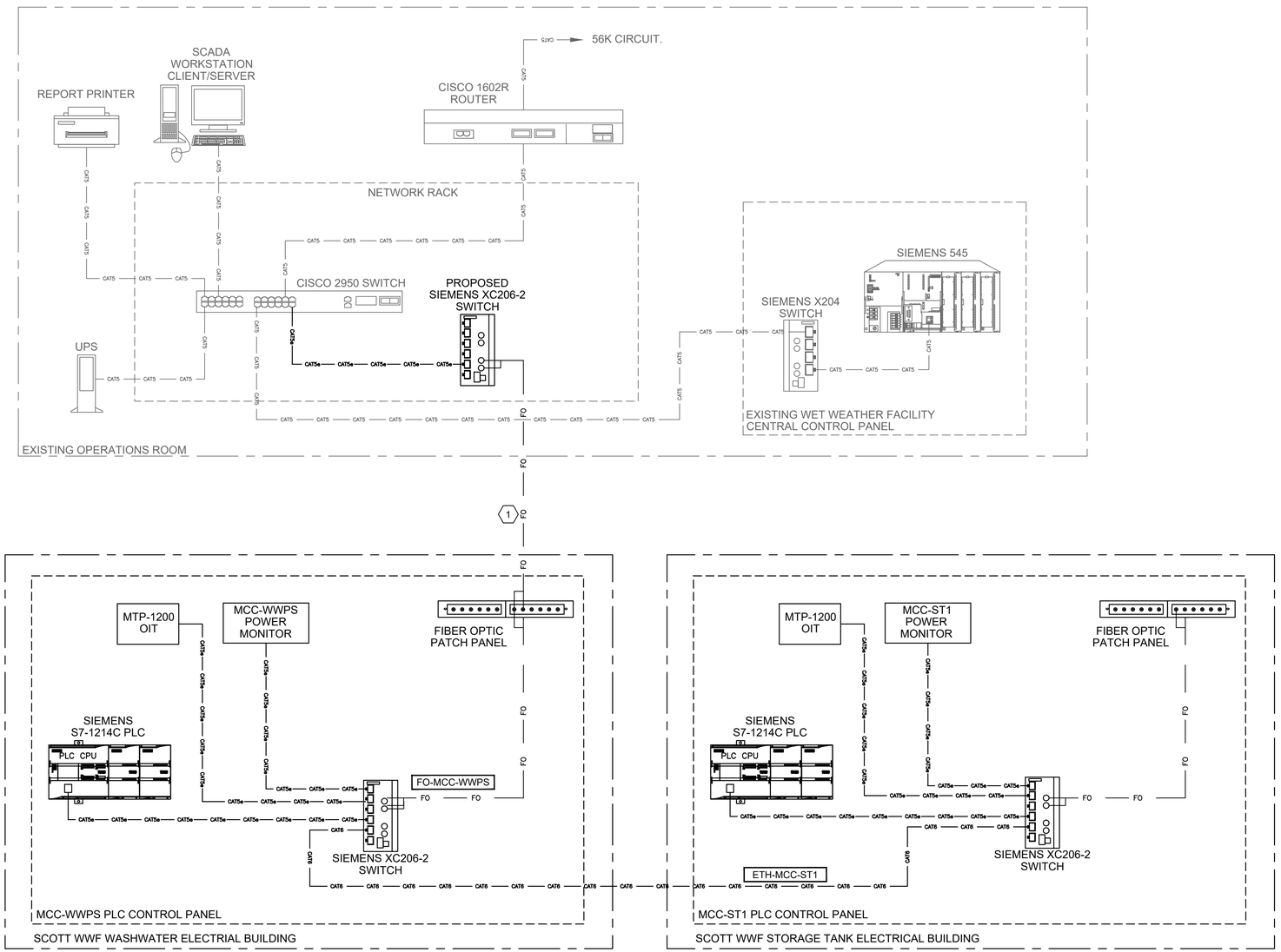
DRAWING SCALE
NTS

CITY OF HOUSTON PM
NEIL BARNSDALE, P.E.

SHEET NO. XX OF XX

FOR CITY OF HOUSTON USE ONLY

FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP–Ardurra))\6 Drawings\Instrumentation And Control\Working\Scott Area WWF\H8111_I–25.dwg PLOT STYLE: GAI.ctb PLOTTED: 1/8/2026 5:21 PM



NOTES BY SYMBOL "⟨#⟩":

⟨1⟩ 12 STRANDS SINGLE MODE FIBER OPTIC CABLE.

NO.	DATE	REVISION	APP.

GAI
Gupta & Associates, Inc.
CONSULTING ENGINEERING
Registration No. F-2593
302 Dennis St.
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Tel: 713-636-2936
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HOSS FOROUZAN
TEXAS P.E. NO. 77748
DATE: 01/09/2026

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: XX/XX/2025

DESIGNED BY: H. DUONG	SURVEYED BY:
DRAWN BY: D. KWONG	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: H. FOROUZAN	FB NO. 340S1
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

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HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1 INSTRUMENTATION
SCOTT WWF
PROPOSED OVERALL NETWORK DIAGRAM

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NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
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DWG NO
I-26

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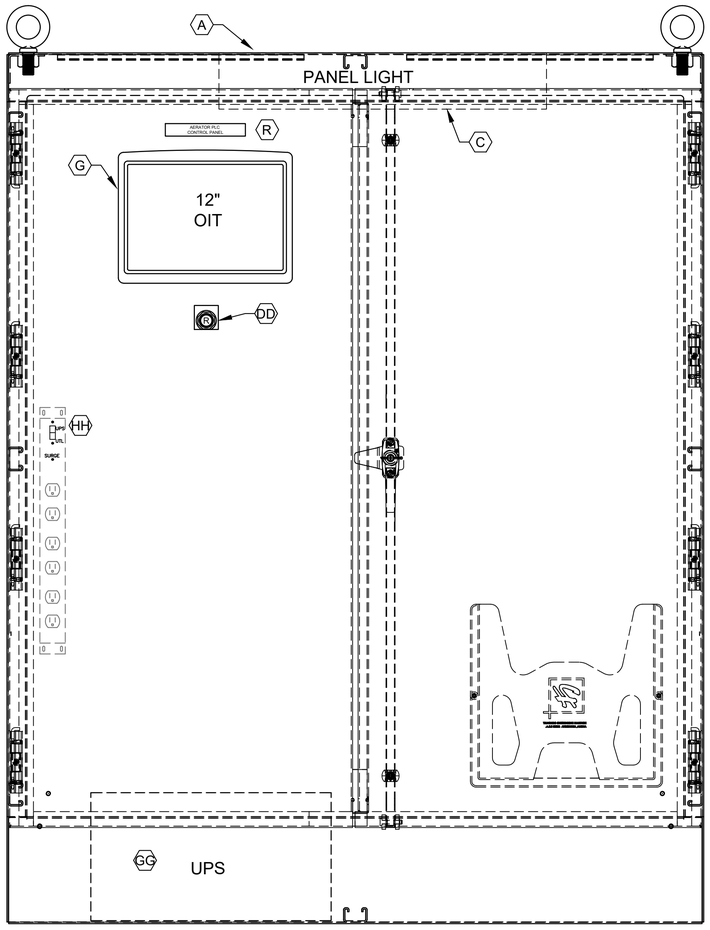
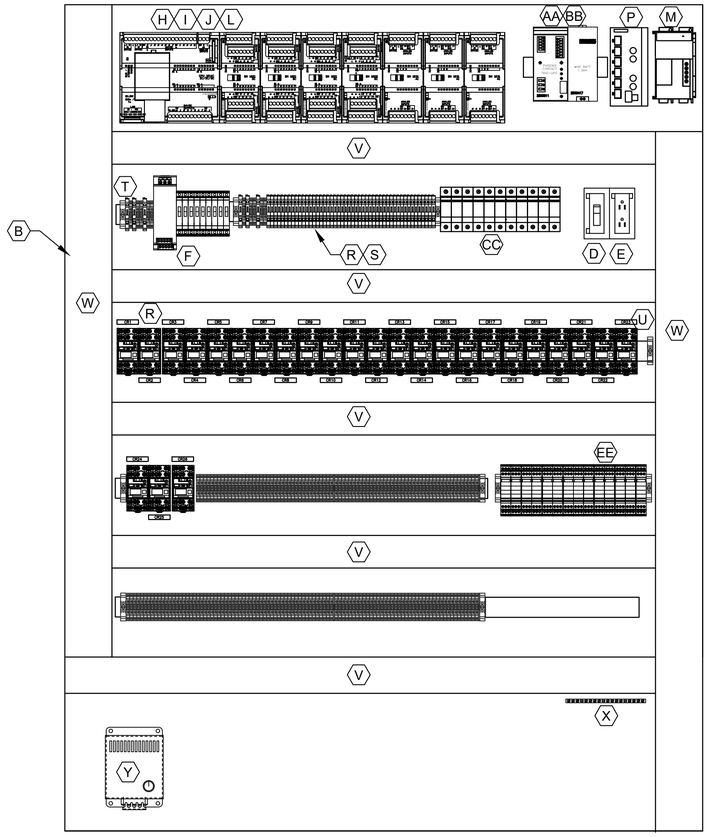


PLC CONTROL PANEL
FRONT VIEW
ELEVATION



PLC CONTROL PANEL
INTERIOR VIEW
ELEVATION

MCC-WWPS PLC CONTROL PANEL
EQUIPMENT & DEVICE SCHEDULE

ITEM	QUANTITY	DESCRIPTION
A	1	NEMA 12 3-POINT LATCH ENCLOSURE WITHOUT VENTS, 72"H x 48"W x 18"D, HOFFMAN A724818FSD
B	1	BACK PANEL 60"H x 44"W, PAINTED WHITE, HOFFMAN A72P48
C	1	6500K COOL WHITE, 400 LUMENS, 20" IN LENGTH LED LIGHT
D	1	SWITCH FOR CABINET LIGHT, 120V, 20A, SPST
E	1	DUPLEX RECEPTACLE, 120V, 20A, 2 WIRE, GROUNDED
F	1	SURGE PROTECTOR - 120VAC CONTROL POWER
G	1	12" TOUCH PANEL (OIT) SIEMENS MTP-1200
H	1	SIMATIC 1200, CPU-1214C, 14DI, 10DO RELAY, 2AI 24VDC POWER-6ES7214-1HG40-0XB0
I	1	MICRO MEMORY CARD, 4MB-SIEMENS 6ES7954-8LC02-0AA0
J	3	8-POINT ANALOG INPUT MODULE-SIEMENS 6ES7231-4HF32-0XB0
K	-	NOT USED
L	3	SIEMENS 16-POINT DIGITAL INPUT MODULE, 24VDC. SIEMENS 6ES7221-1BH32-0XB0
M	1	SIEMENS 16-POINT DIGITAL OUTPUT MODULE, 24VDC SIEMENS 6ES7222-1BH32-0XB0
N	1	5 AMP, 24VDC POWER SUPPLY PHOENIX CONTACT P/N 2866750
P	1	6 PORTS COPPER / 2 PORTS F/O ETHERNET SWITCH RJ45 SIEMENS XC206-2
Q	*	TERMINAL BLOCK
R	*	FUSED TERMINAL BLOCKS
S	*	FUSE (SIZE AS SCHEDULED)
T	*	END STOP
U	16	3 POLE CONTROL RELAY, 24 VDC WITH THREE FORM C CONTACTS AND 11 PIN SOCKET BASE
V	*	WIRE DUCT 2" WIDE X 3" DEEP MINIMUM, WITH COVER
W	*	WIRE DUCT 3" WIDE X 3" DEEP MINIMUM, WITH COVER
X	1	GROUND BUS
Y	1	120VAC PANEL HEATER W/BUILT IN T-STAT HOFFMAN MODEL DAH2001A
Z	1	NOT USED
AA	1	TRIO-UPS/1AC/24DC/5 (5 AMP 24 VDC POWER SUPPLY WITH UPS) PHOENIX CONTACT P/N 2866611
BB	1	MINI-BAT/24DC/1.3AH (BATTERY FOR TRIO UPS) PHOENIX CONTACT P/N 32381110
CC	12	SINGLE POLE DIN MOUNTED CIRCUIT BREAKER (2) 15A, (3) 10A, (4) 6A, (2) 2A
DD	1	ALARM RESET PUSHBUTTON
EE	*	ANALOG SIGNAL SURGE ARRESTER, PHOENIX CONTACT
FF	*	DIGITAL SIGNAL SURGE ARRESTER, PHOENIX CONTACT
GG	1	1.5KVA TOWER UPS W/ RELAY OUTPUT CARD, EATON OR APPROVED EQUAL
HH	1	MAINTENANCE BYPASS SWITCH FOR UPS, LOWELL POWER P/N UPS-XBDM-20RCD

* - AS SCHEDULED

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CHECKED BY: H. FOROUZAN
REVIEWED BY: H. FOROUZAN
APPROVED BY: H. FOROUZAN

SURVEYED BY:
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FB NO. 340S1

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HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1 INSTRUMENTATION
SCOTT WWF
MCC–WWPS PLC CONTROL PANEL LAYOUT AND ELEVATION

WARNING
0 1
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DWG NO
I–27

WBS NUMBER
R–001000–0035–4

DRAWING SCALE
NTS

CITY OF HOUSTON PM
NEIL BARNSDALE, P.E.

SHEET NO. XX OF XX

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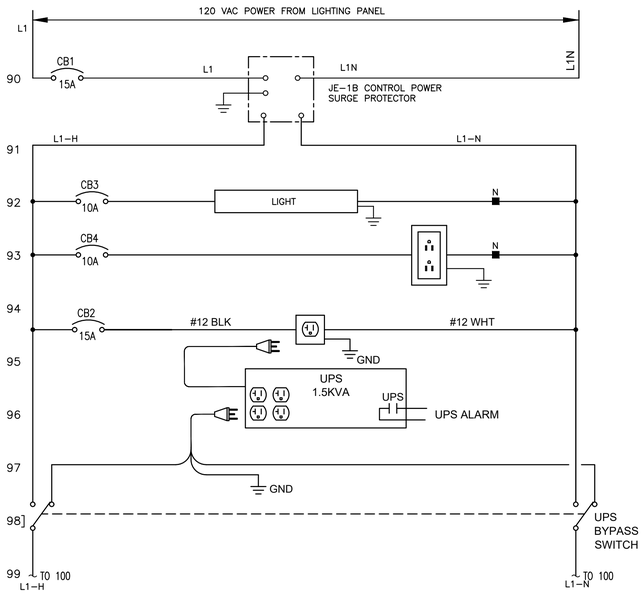

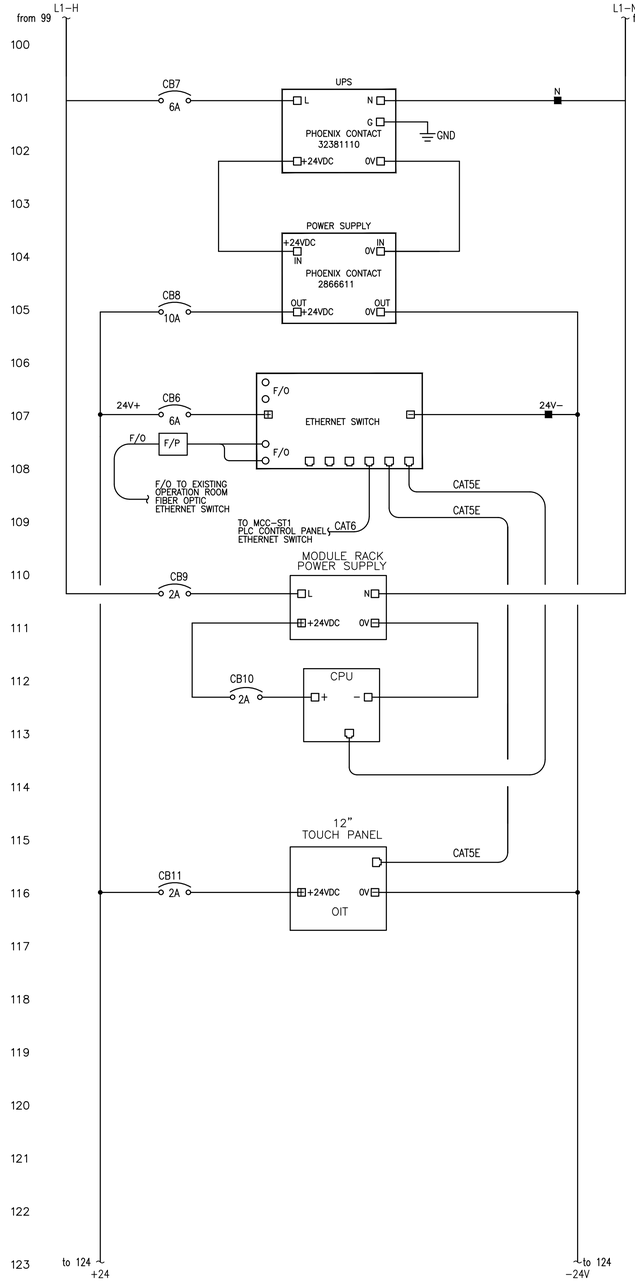

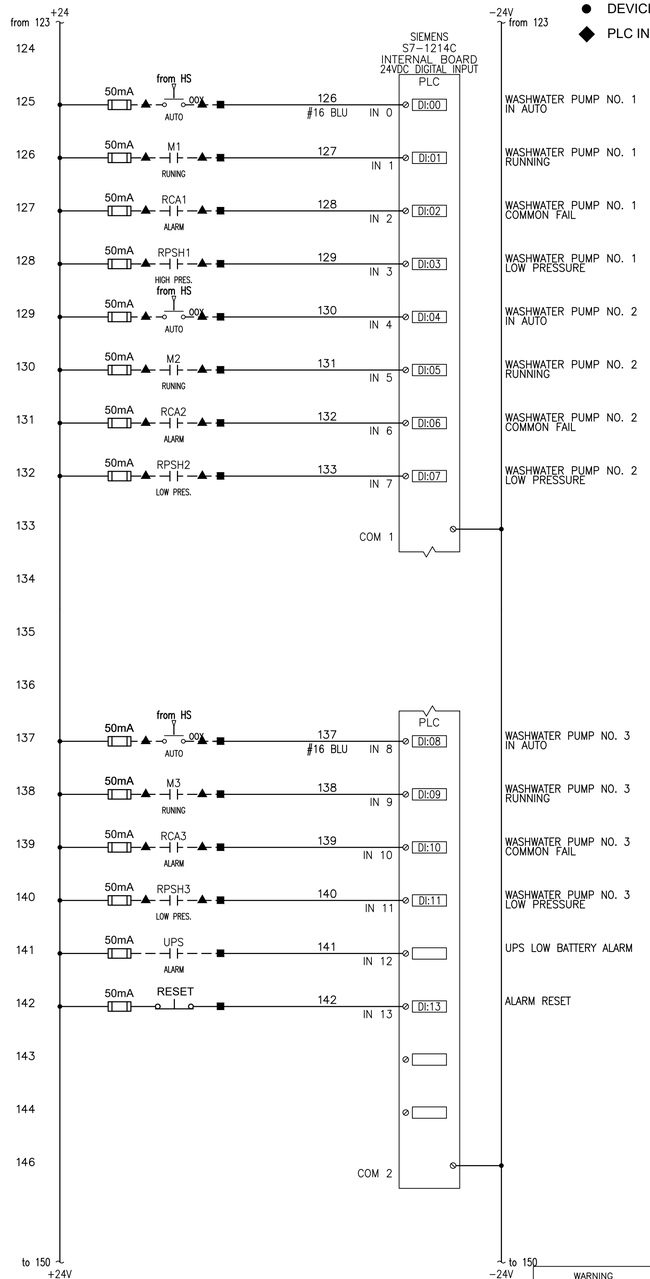

LEGEND

△ DEVICE OR FIELD TERMINAL LOCATED AT MOTOR
✳ DEVICE OR FIELD TERMINAL LOCATED REMOTE
□ DEVICE OR FIELD TERMINAL LOCATED AT MCC/POWER PANEL
■ FIELD TERMINAL LOCATED AT CONTROL PANEL
▲ REMOTE TERMINAL
● DEVICE TERMINAL NO.
◆ PLC INTERFACE TERMINAL

NO.	DATE	REVISION	APP.

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DRAWN BY: D. KWONG	FB NO. 340S1
CHECKED BY: H. FOROUZAN	
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1 INSTRUMENTATION
SCOTT WWF
MCC-WWPS PLC CONTROL PANEL CONTROL WIRING DIA.-I

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

WARNING
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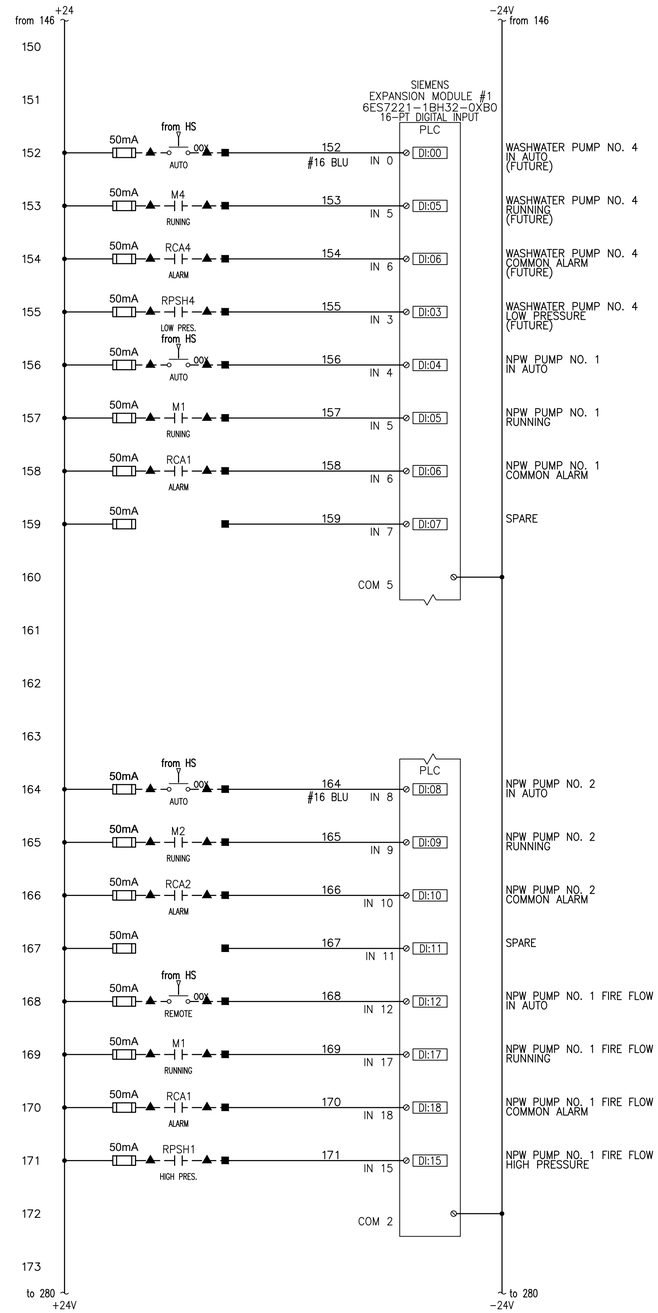
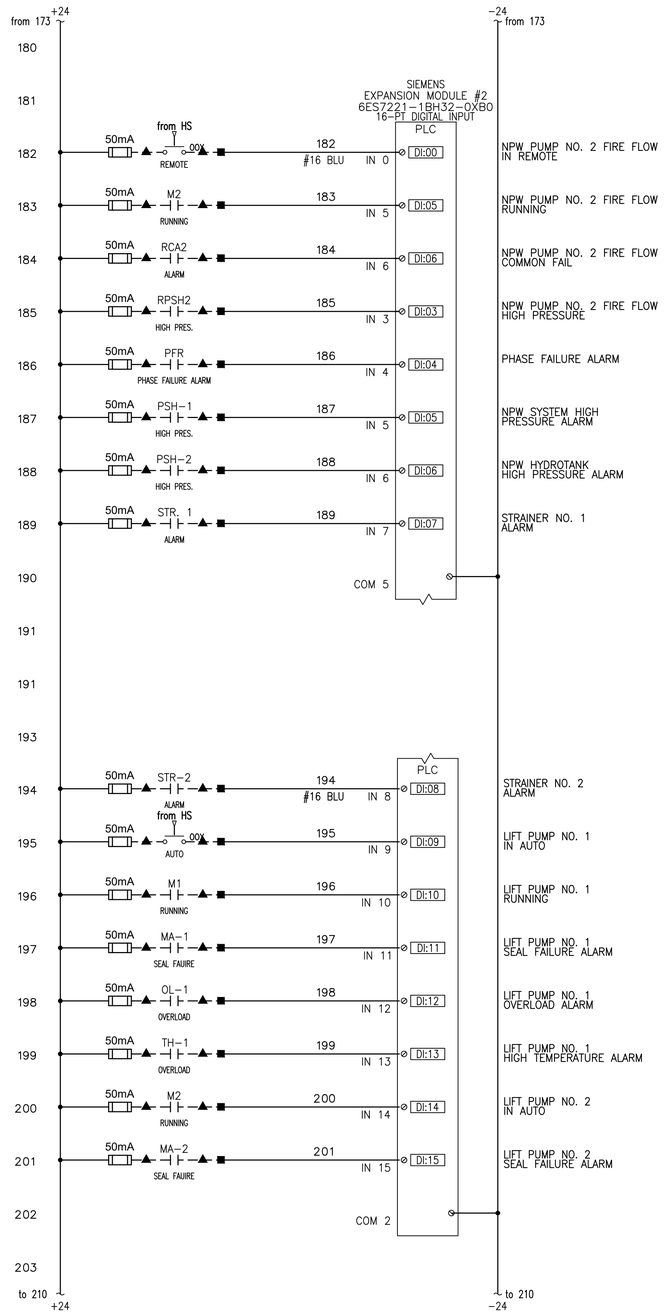
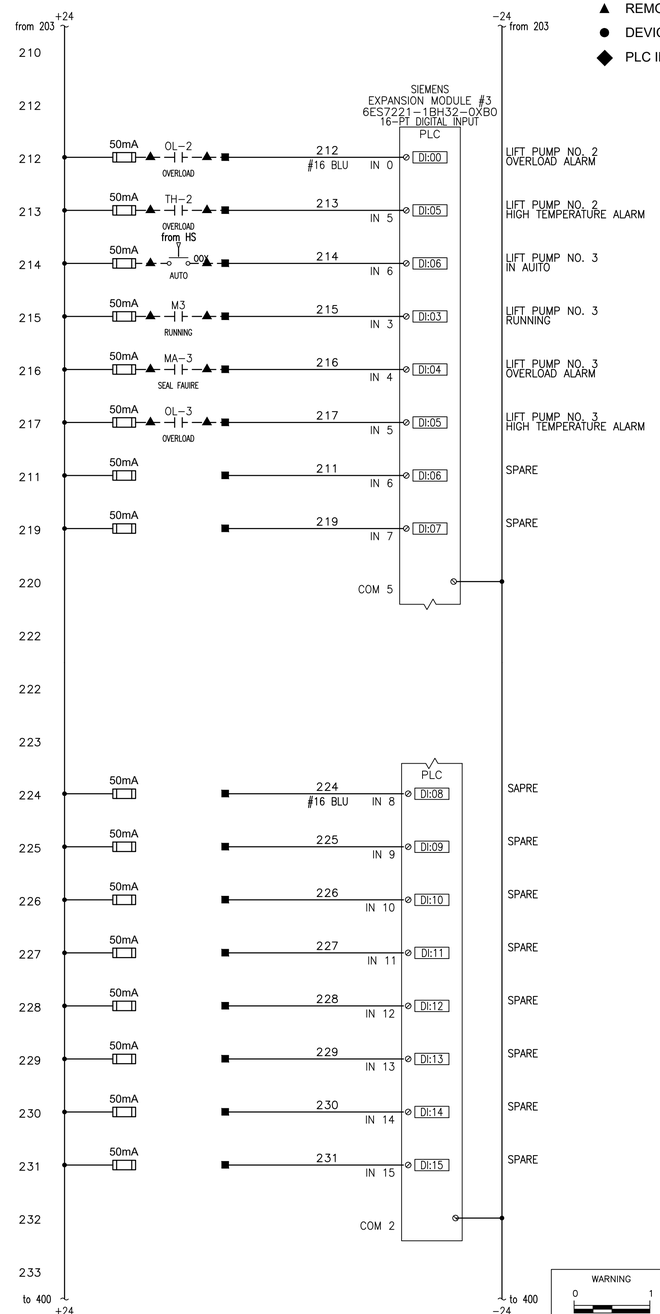
DWG NO
I-28







LEGEND

- △ DEVICE OR FIELD TERMINAL LOCATED AT MOTOR
- ✳ DEVICE OR FIELD TERMINAL LOCATED REMOTE
- □ DEVICE OR FIELD TERMINAL LOCATED AT MCC/POWER PANEL
- ■ FIELD TERMINAL LOCATED AT CONTROL PANEL
- ▲ REMOTE TERMINAL
- ● DEVICE TERMINAL NO.
- ◆ PLC INTERFACE TERMINAL

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HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1 INSTRUMENTATION
SCOTT WWF
MCC–WWPS PLC CONTROL PANEL CONTROL WIRING DIA.–II

WBS NUMBER	R-001000-0035-4
DRAWING SCALE	NTS
CITY OF HOUSTON PM	NEIL BARNSDALE, P.E.
SHEET NO.	XX OF XX

FOR CITY OF HOUSTON USE ONLY

WARNING
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DWG NO
I-29

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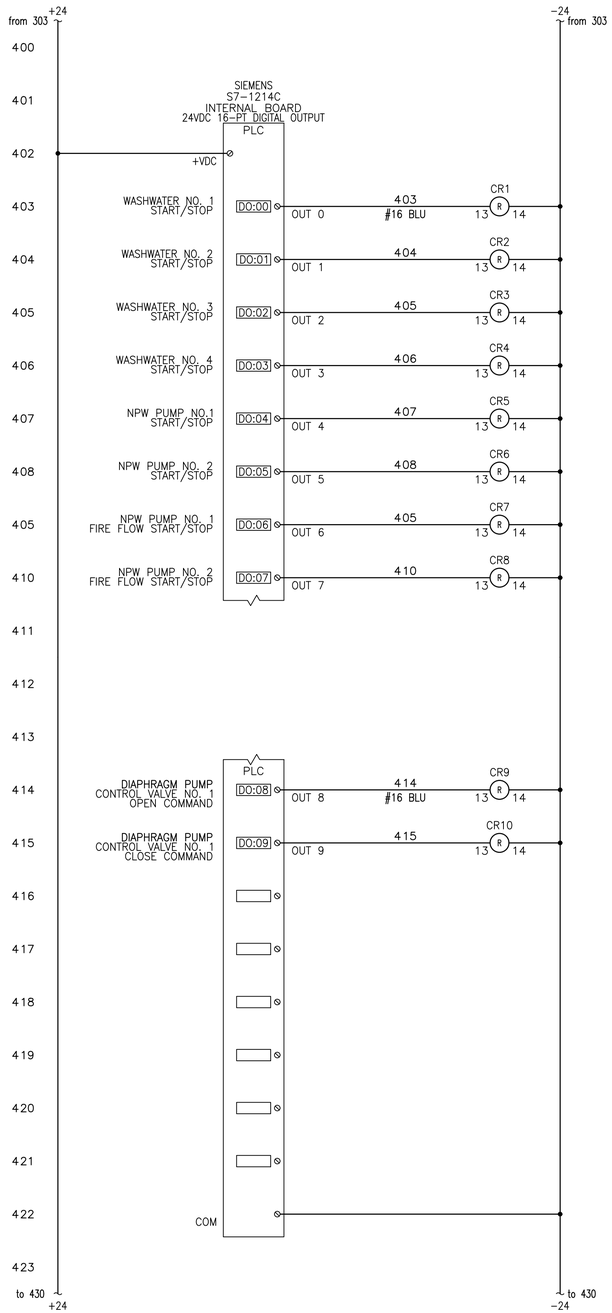

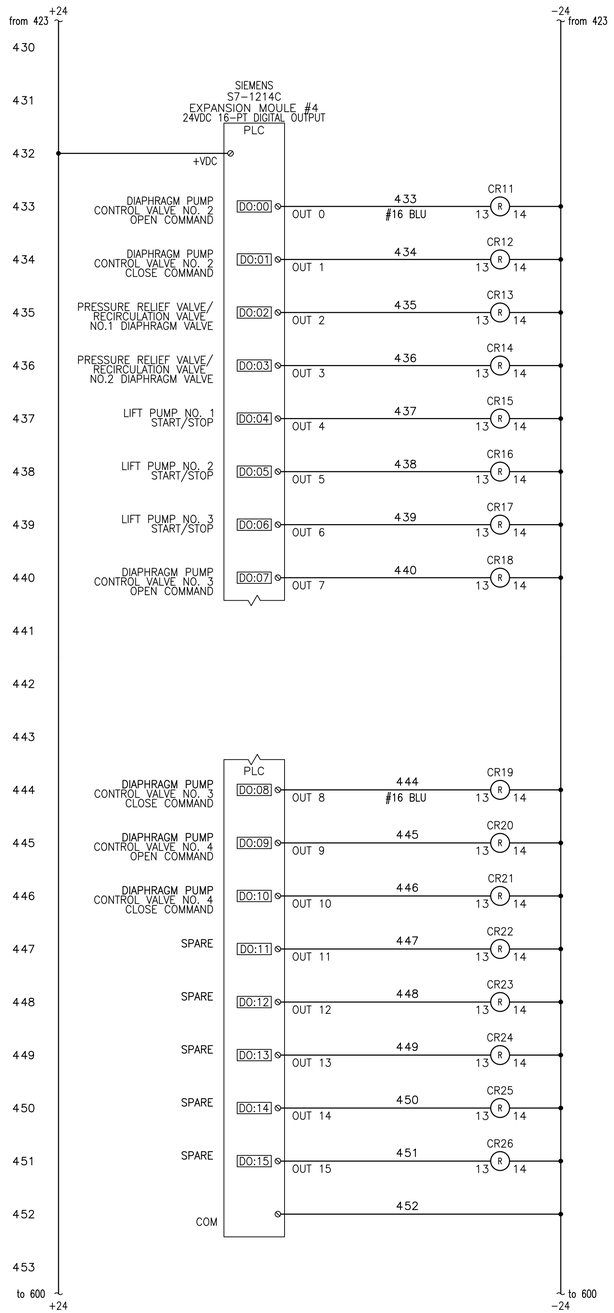

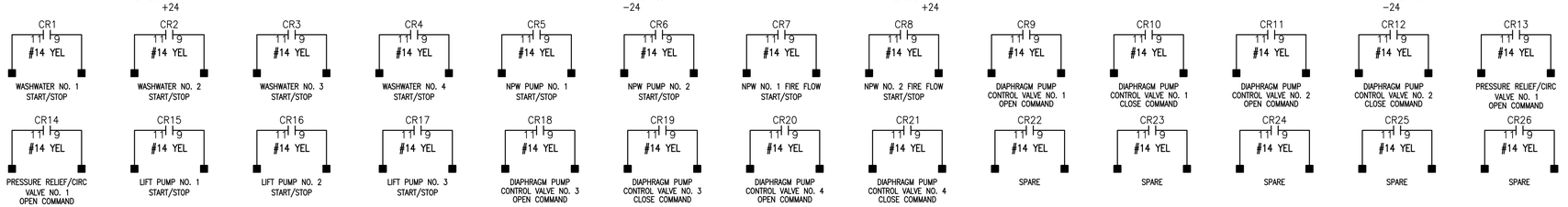

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HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1 INSTRUMENTATION
SCOTT WWF
MCC–WWPS PLC CNTL. PNL. CNTL. WIRING DIA.–III

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DWG NO
I–30

WBS NUMBER	R-001000-0035-4
DRAWING SCALE	NTS
CITY OF HOUSTON PM	NEIL BARNSDALE, P.E.
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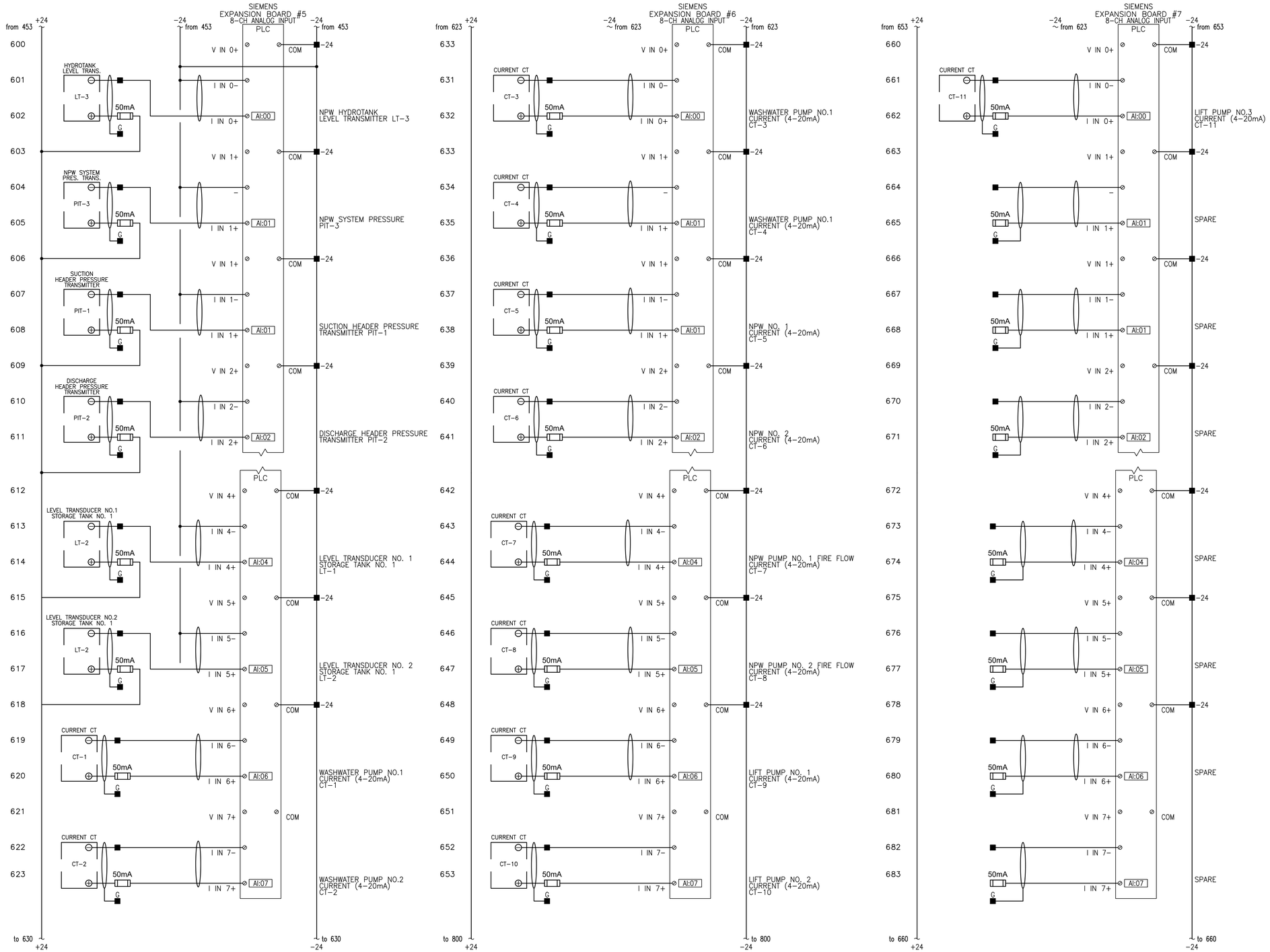

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SCOTT WWF
MCC–WWPS PLC CNTL. PNL. CNTL. WIR. DIA.–IV

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DWG NO
I–31

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DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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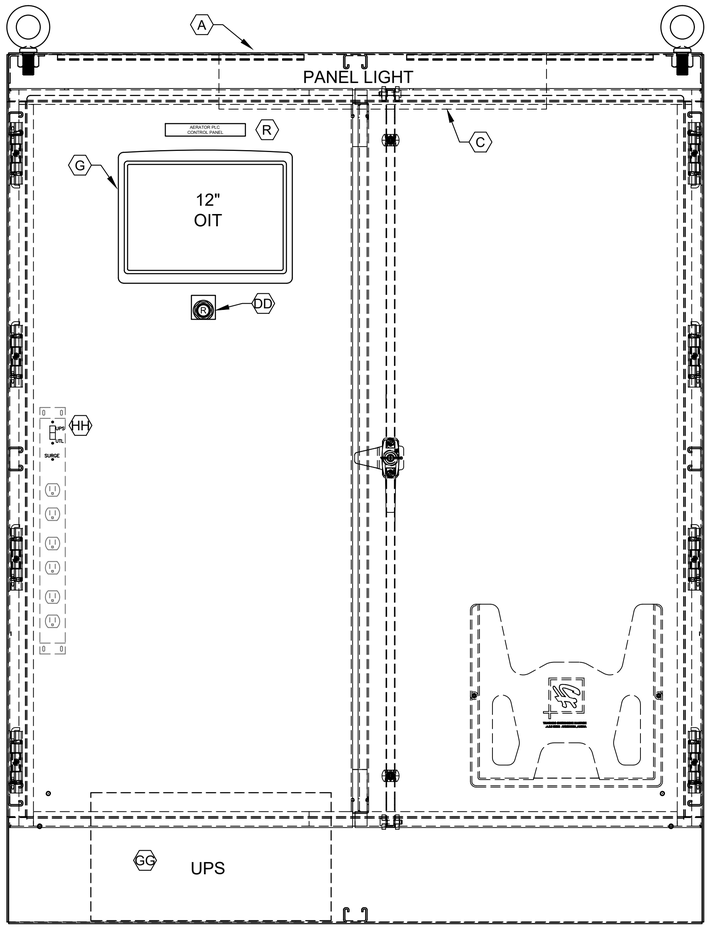
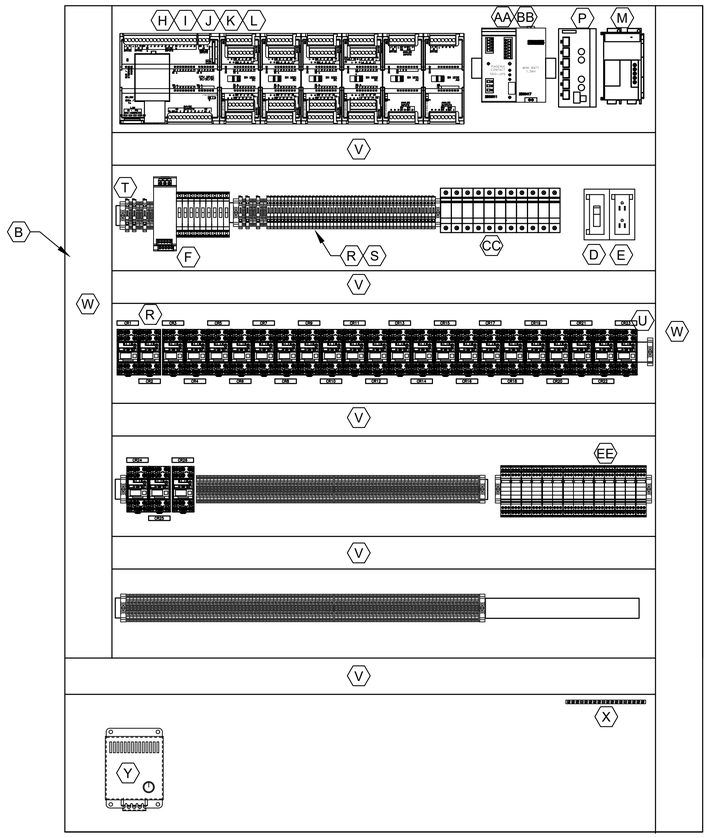


PLC CONTROL PANEL
FRONT VIEW
ELEVATION



PLC CONTROL PANEL
INTERIOR VIEW
ELEVATION

MCC-WWPS PLC CONTROL PANEL
EQUIPMENT & DEVICE SCHEDULE

ITEM	QUANTITY	DESCRIPTION
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B	1	BACK PANEL 60"H x 44"W, PAINTED WHITE, HOFFMAN A72P48
C	1	6500K COOL WHITE, 400 LUMENS, 20" IN LENGTH LED LIGHT
D	1	SWITCH FOR CABINET LIGHT, 120V, 20A, SPST
E	1	DUPLEX RECEPTACLE, 120V, 20A, 2 WIRE, GROUNDED
F	1	SURGE PROTECTOR - 120VAC CONTROL POWER
G	1	12" TOUCH PANEL (OIT) SIEMENS MTP-1200
H	1	SIMATIC 1200, CPU-1214C, 14DI, 10DO RELAY, 2AI 24VDC POWER-6ES7214-1HG40-0XB0
I	1	MICRO MEMORY CARD, 4MB-SIEMENS 6ES7954-8LC02-0AA0
J	1	8-POINT ANALOG INPUT MODULE-SIEMENS 6ES7231-4HF32-0XB0
K	1	4-POINT ANALOG OUTPUT MODULE-SIEMENS 6ES7232-4HD32-0XB0
L	3	SIEMENS 16-POINT DIGITAL INPUT MODULE, 24VDC. SIEMENS 6ES7221-1BH32-0XB0
M	1	SIEMENS 16-POINT DIGITAL OUTPUT MODULE, 24VDC SIEMENS 6ES7222-1BH32-0XB0
N	1	5 AMP, 24VDC POWER SUPPLY PHOENIX CONTACT P/N 2866750
P	1	6 PORTS COPPER / 2 PORTS F/O ETHERNET SWITCH RJ45 SIEMENS XC206-2
Q	*	TERMINAL BLOCK
R	*	FUSED TERMINAL BLOCKS
S	*	FUSE (SIZE AS SCHEDULED)
T	*	END STOP
U	16	3 POLE CONTROL RELAY, 24 VDC WITH THREE FORM C CONTACTS AND 11 PIN SOCKET BASE
V	*	WIRE DUCT 2" WIDE X 3" DEEP MINIMUM, WITH COVER
W	*	WIRE DUCT 3" WIDE X 3" DEEP MINIMUM, WITH COVER
X	1	GROUND BUS
Y	1	120VAC PANEL HEATER W/BUILT IN T-STAT HOFFMAN MODEL DAH2001A
Z	1	NOT USED
AA	1	TRIO-UPS/1AC/24DC/5 (5 AMP 24 VDC POWER SUPPLY WITH UPS) PHOENIX CONTACT P/N 2866611
BB	1	MINI-BAT/24DC/1.3AH (BATTERY FOR TRIO UPS) PHOENIX CONTACT P/N 32381110
CC	12	SINGLE POLE DIN MOUNTED CIRCUIT BREAKER (2) 15A, (3) 10A, (4) 6A, (2) 2A
DD	1	ALARM RESET PUSHBUTTON
EE	*	ANALOG SIGNAL SURGE ARRESTER, PHOENIX CONTACT
FF	*	DIGITAL SIGNAL SURGE ARRESTER, PHOENIX CONTACT
GG	1	1.5KVA TOWER UPS W/ RELAY OUTPUT CARD, EATON OR APPROVED EQUAL
HH	1	MAINTENANCE BYPASS SWITCH FOR UPS, LOWELL POWER P/N UPS-XBDM-20RCD

* - AS SCHEDULED

NO.	DATE	REVISION	APP.

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HOSS FOROUZAN
TEXAS P.E. NO. 77748
DATE: 01/09/2026

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DRAWN BY: D. KWONG
CHECKED BY: H. FOROUZAN
REVIEWED BY: H. FOROUZAN
APPROVED BY: H. FOROUZAN

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1 INSTRUMENTATION
SCOTT WWF
MCC–ST1 PLC CNTL.
PNL. LYT. AND ELEV.

WBS NUMBER
R–001000–0035–4

FOR CITY OF HOUSTON USE ONLY

DRAWING SCALE
NTS

CITY OF HOUSTON PM
NEIL BARNSDALE, P.E.

SHEET NO. XX OF XX

WARNING
0 1
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DWG NO
I–32

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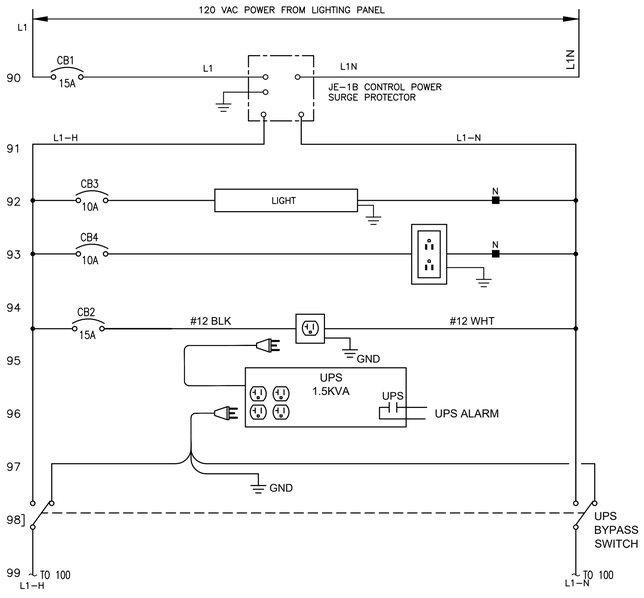

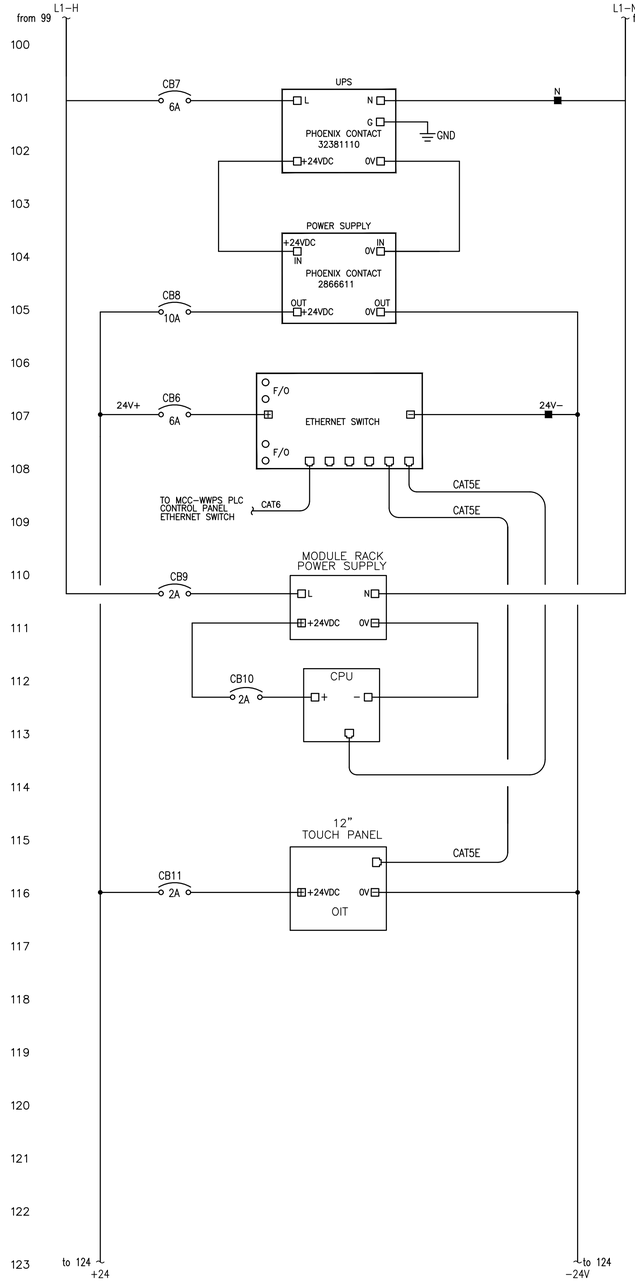

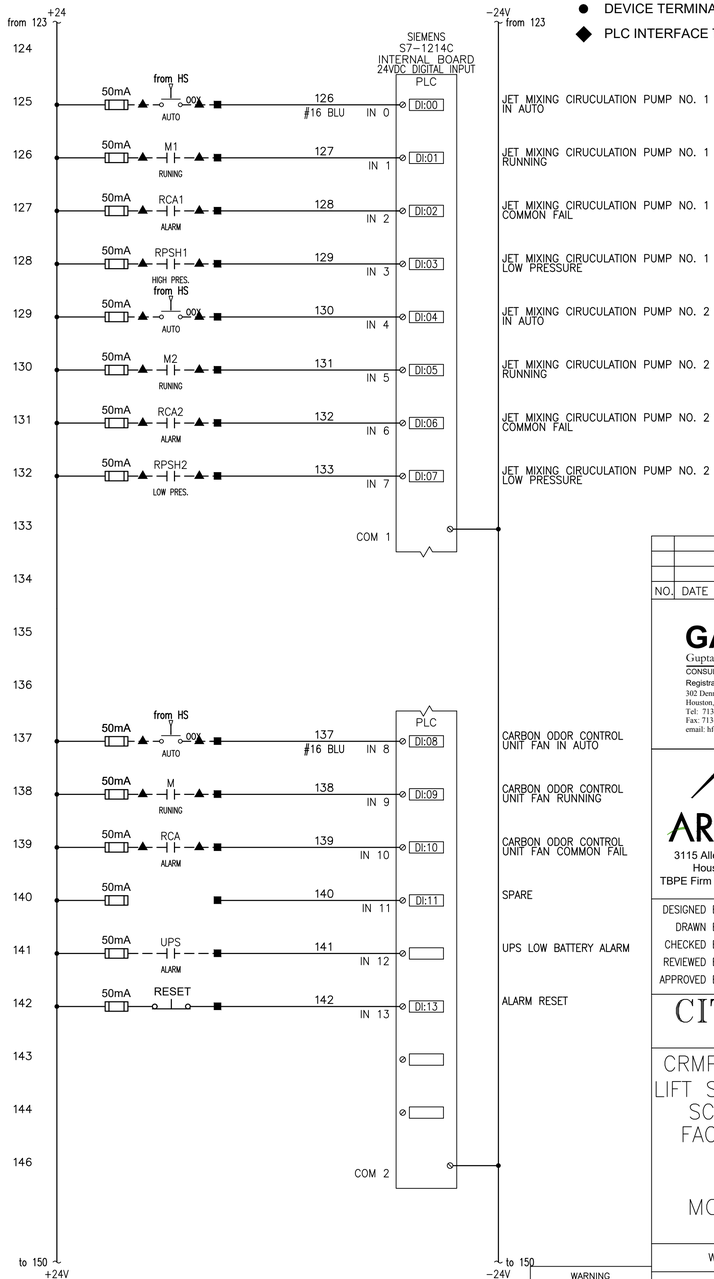

LEGEND

- △ DEVICE OR FIELD TERMINAL LOCATED AT MOTOR
- ✳ DEVICE OR FIELD TERMINAL LOCATED REMOTE
- □ DEVICE OR FIELD TERMINAL LOCATED AT MCC/POWER PANEL
- ■ FIELD TERMINAL LOCATED AT CONTROL PANEL
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- ● DEVICE TERMINAL NO.
- ◆ PLC INTERFACE TERMINAL

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APPROVED BY:	H. FOROUZAN

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HOUSTON PUBLIC WORKS

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SCOTT WWF
MCC–ST1 PLC CNTL. PNL. CNTL. WIR. DIA.–I

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
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NTS	
CITY OF HOUSTON PM	
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SHEET NO. XX OF XX	

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DWG NO
I-33

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PLOTTED: 1/8/2026 5:21 PM

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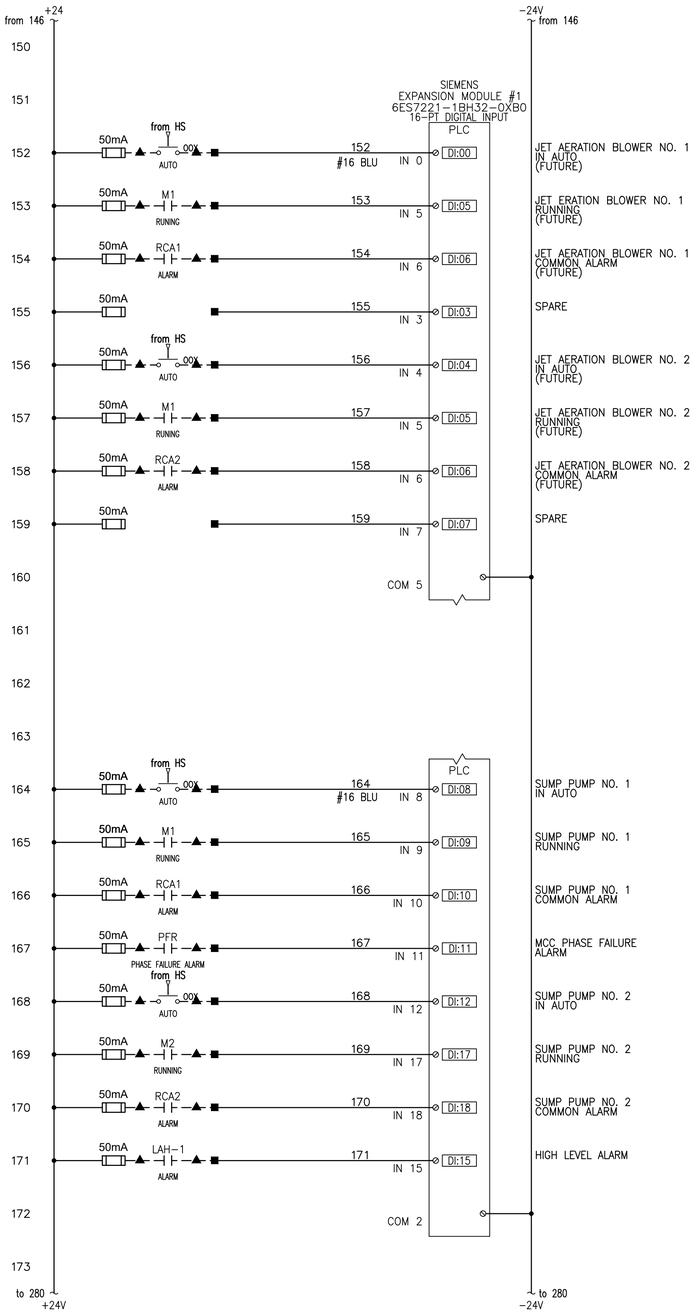

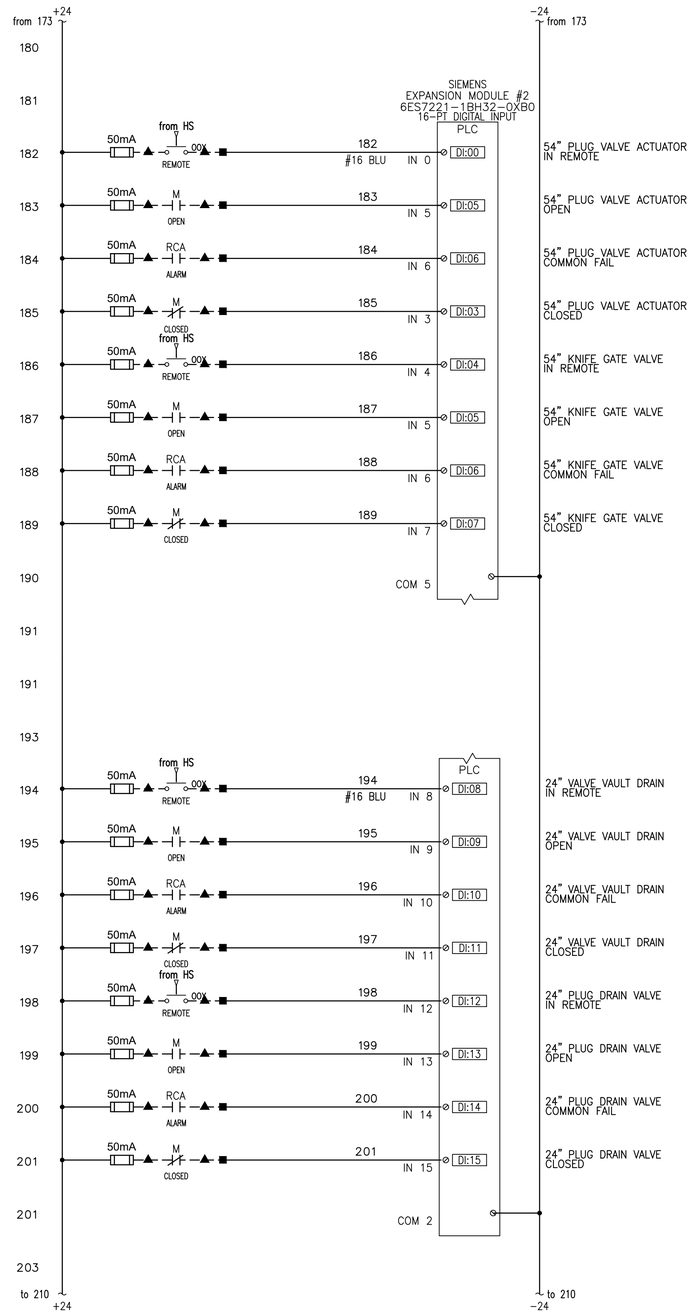

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DRAWN BY: D. KWONG	ALLY GENERAL SOLUTIONS, LLC
CHECKED BY: H. FOROUZAN	FB NO. 340S1
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

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SCOTT WWF
MCC–ST1 PLC CNTL. PNL. CNTL. WIR. DIA.–II

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R-001000-0035-4	
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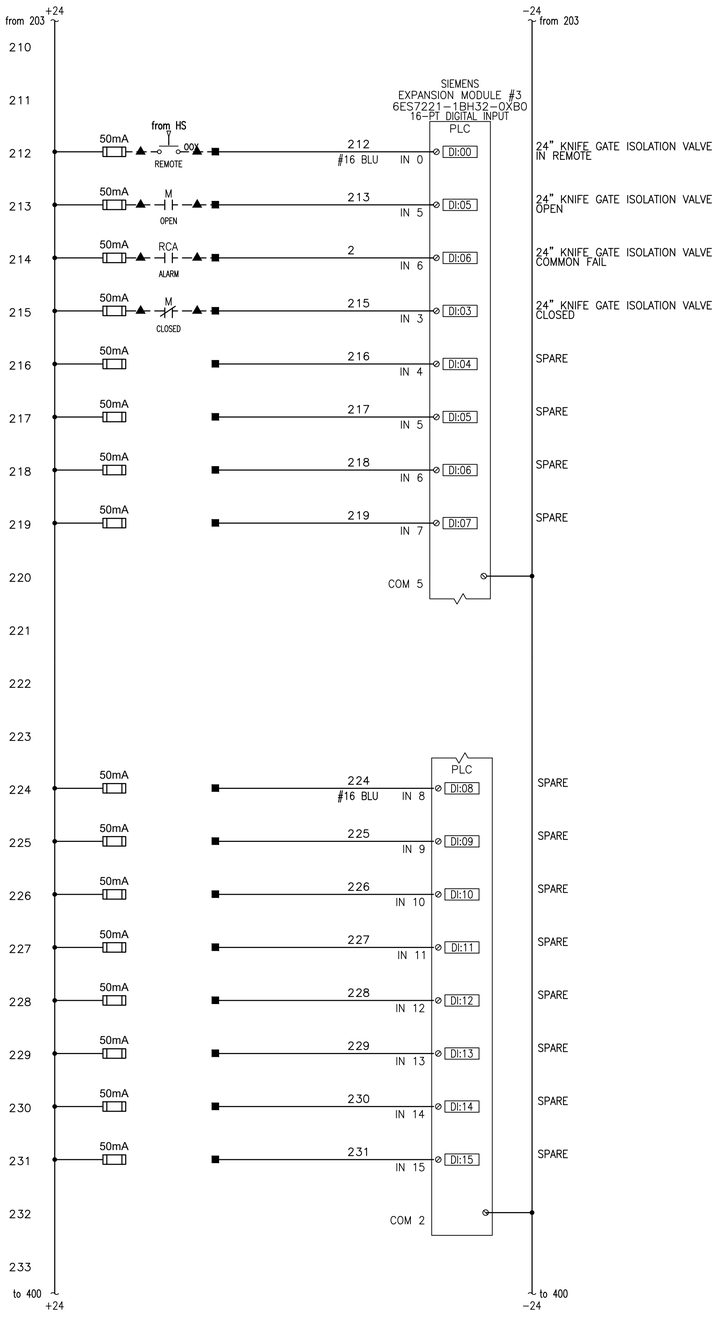
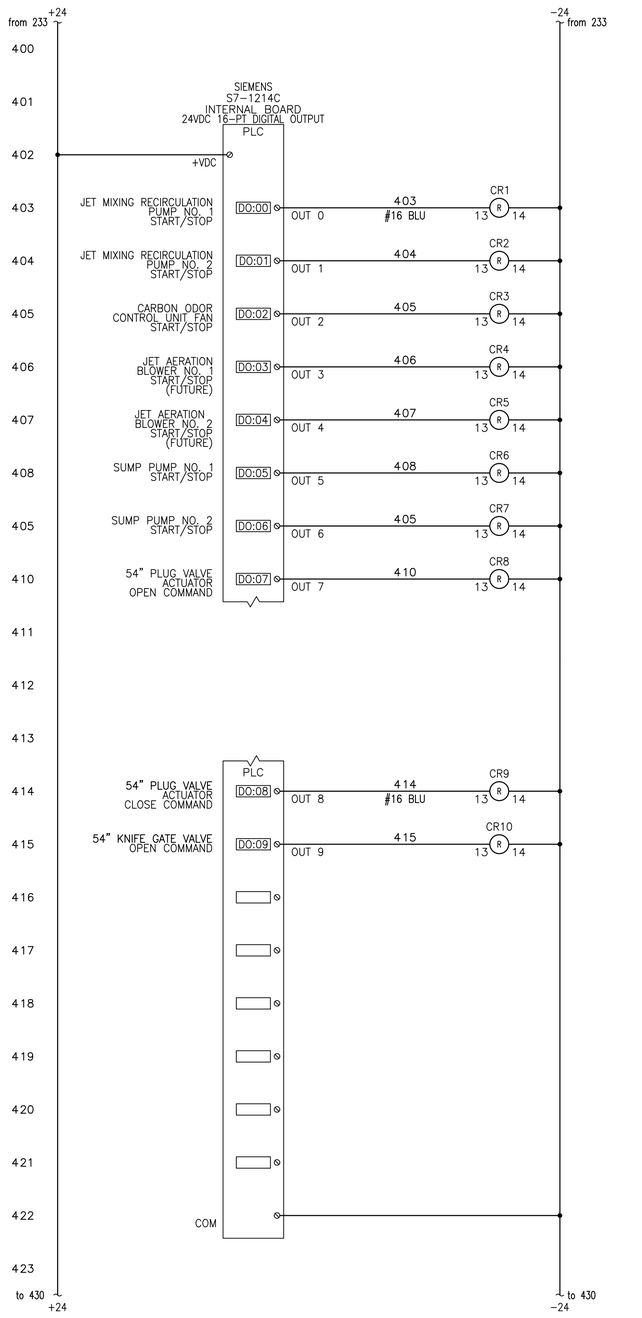
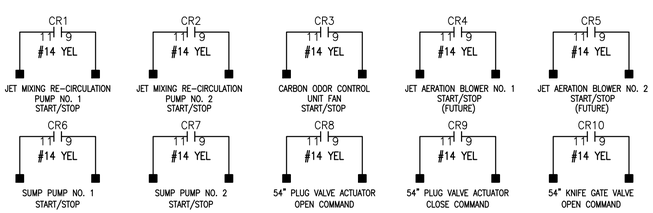
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
I–34







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HOUSTON PUBLIC WORKS

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SCOTT WWF MCC–ST1 PLC CNTL. PNL. CNTL. WIR. DIA.–II

WBS NUMBER: R-001000-0035-4

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DRAWING SCALE: NTS

CITY OF HOUSTON PM: NEIL BARNSDALE, P.E.

DWG NO: I-35

SHEET NO. XX OF XX

PLOTTED: 1/8/2026 5:21 PM
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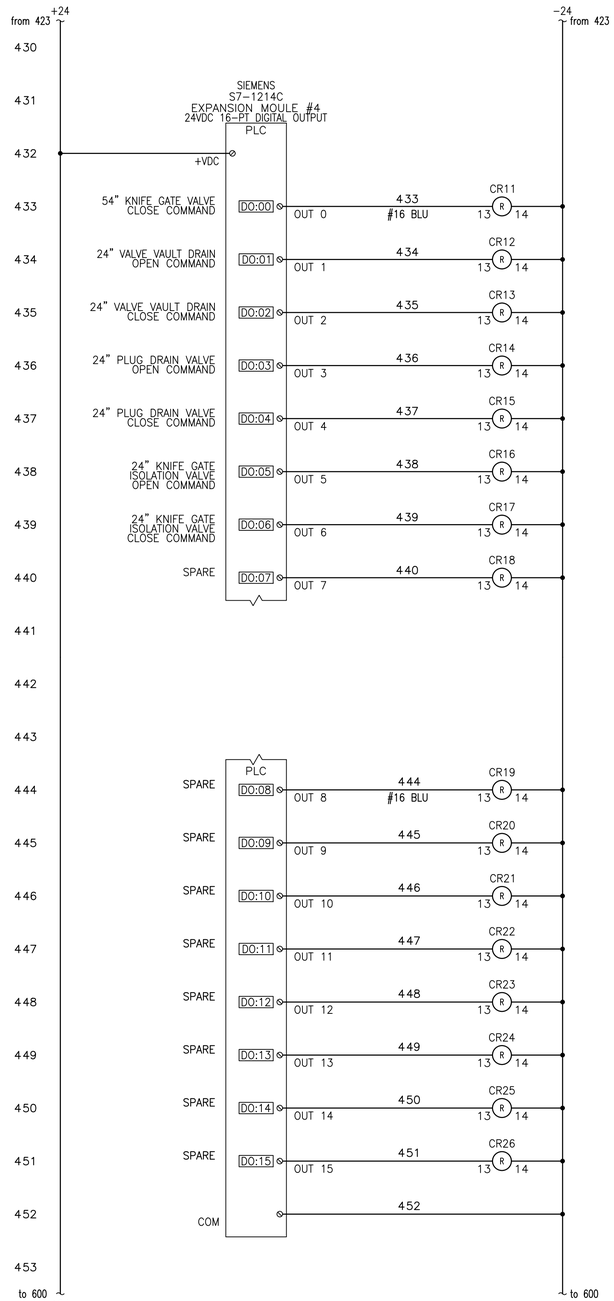

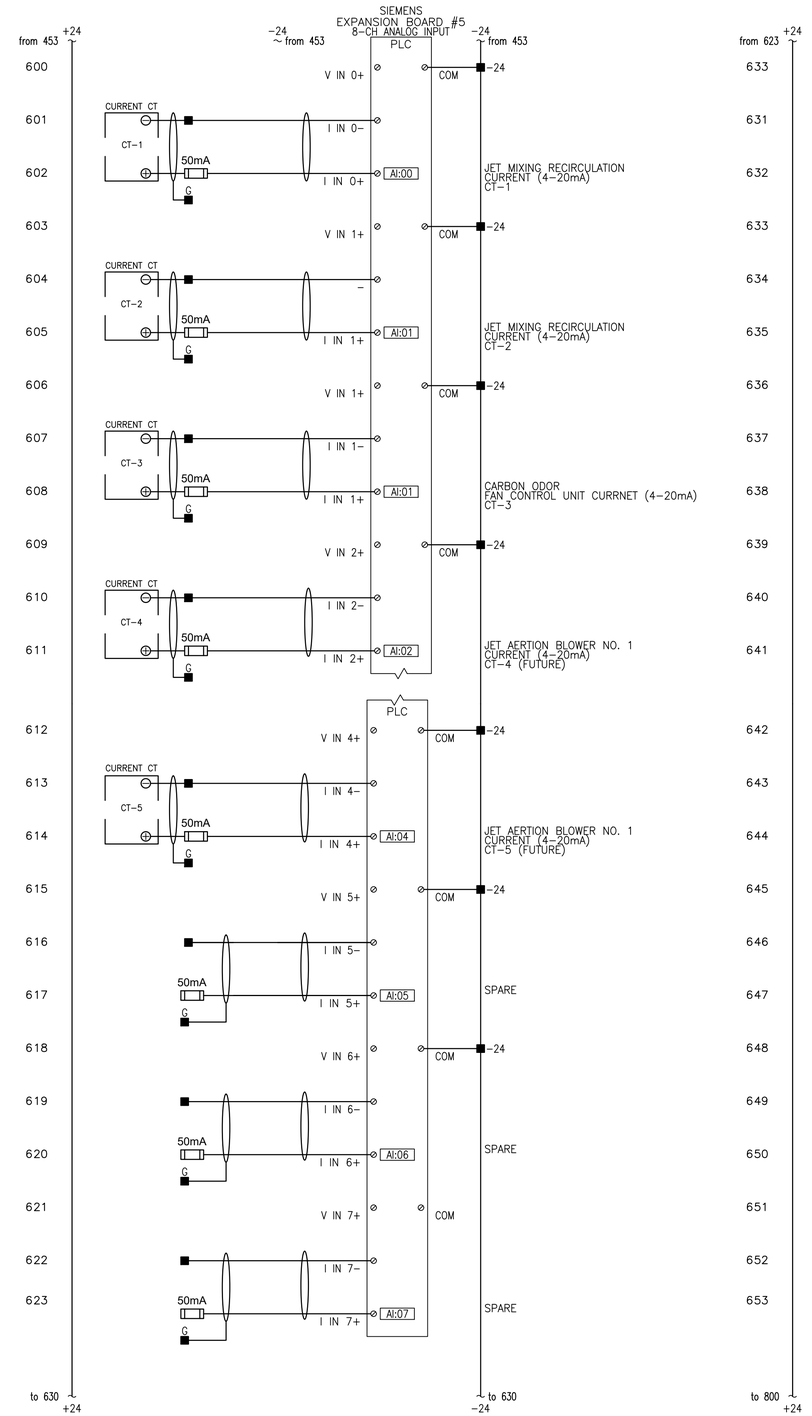

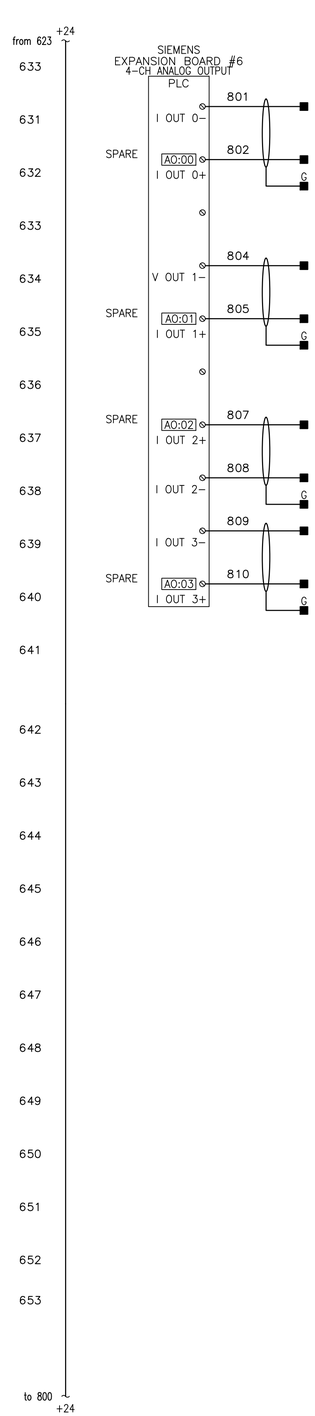

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WBS NUMBER	R-001000-0035-4
DRAWING SCALE	NTS
CITY OF HOUSTON PM	NEIL BARNSDALE, P.E.
SHEET NO.	XX OF XX
DWG NO	I-36

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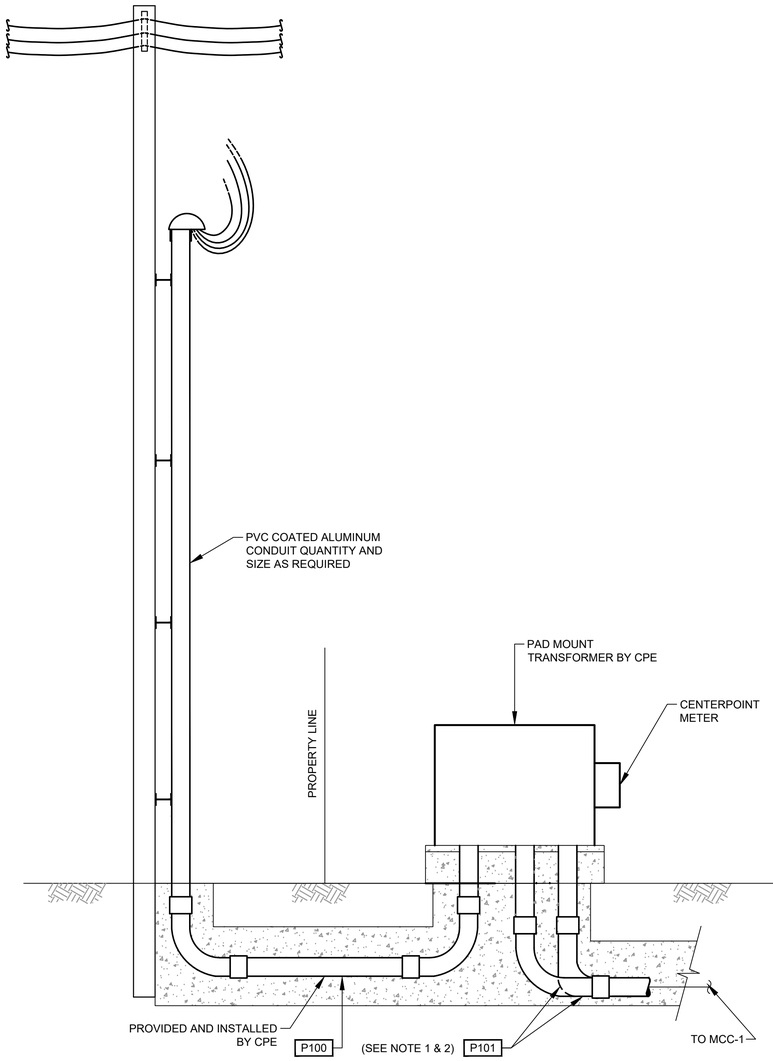

TYPICAL ELECTRICAL SERVICE ENTRANCE
FOR POWER SUPPLY 500KVA AND GREATER

DETAIL 1 / -
NTS.
(SEE NOTE 3 & 4)

NOTES:

1. WOODEN POLE 20' LONG. TOP DIAMETER 6", BOTTOM DIAMETER 8" PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.
2. ELECTRICAL SERVICE FEEDER PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE WITH CPE FOR THE REQUIREMENTS OF THE INSTALLATION.
3. THE METERING CT TO BE MOUNTED INSIDE THE TRANSFORMER BY CENTERPOINT.
4. THE CONTRACTOR SHALL COORDINATE WITH CENTERPOINT FOR TRANSFORMER PAD REQUIREMENTS.

NO.	DATE	REVISION	APP.

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REVIEWED BY: H. FOROUZAN
APPROVED BY: H. FOROUZAN

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

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HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL SERVICE DETAILS

WARNING
0 1
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R-001000-0035-4	
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NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

DWG NO
ZE-1

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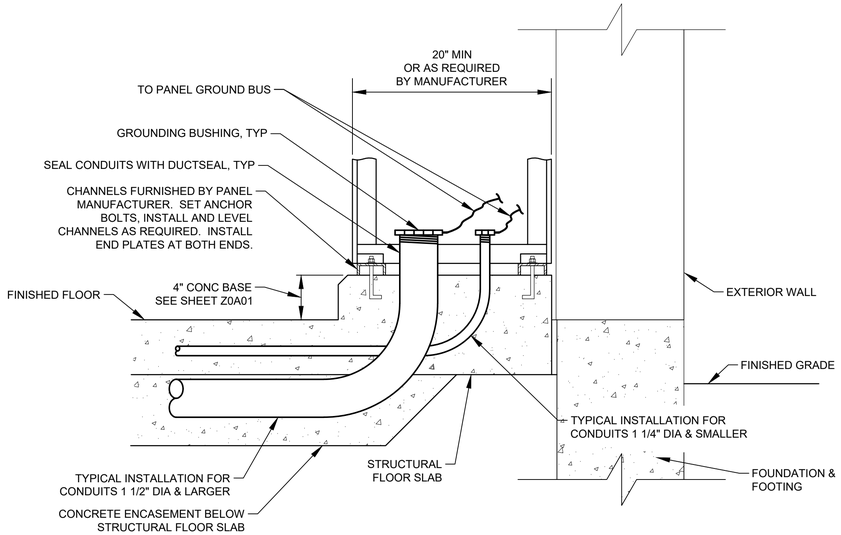
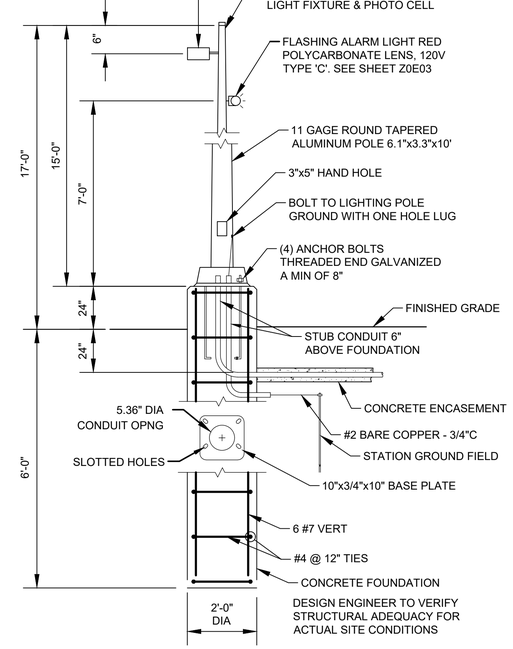


TYPICAL MCC & CONTROL PANEL INSTALLATION & CONDUIT ENTRY

DETAIL 1 / NTS -

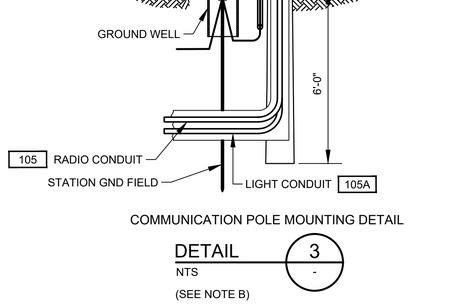
NOTES:

1. ON GROUND WIRE TERMINATION'S, ALL PAINTED OR COATED METAL SURFACES SHALL BE REMOVED AND CLEANED TO BARE METAL. TO OBTAIN A SOUND GROUND CONNECTION. ONCE INSTALLED APPLY PROTECTIVE COATING ON BARE METAL AREAS PER MANUFACTURER REQUIREMENTS.
2. PRECAST CONCRETE POLE TO MOUNT THE RADIO RECEIVER.
3. 1" CONDUIT TO EXTEND TO THE TOP OF POLE FOR ETHERNET CABLE FOR RADIO.



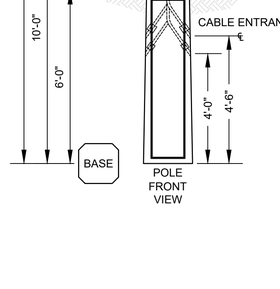
TYPICAL YARD LIGHT

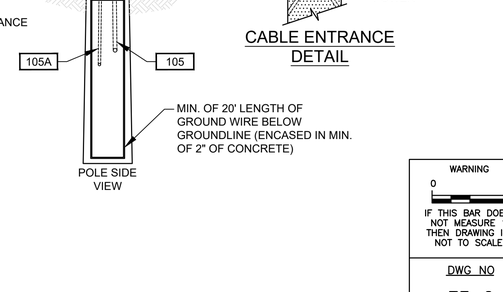
DETAIL 1 / NTS -

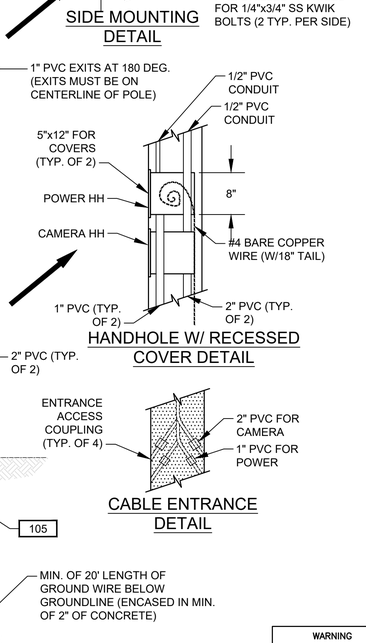


COMMUNICATION POLE MOUNTING DETAIL

DETAIL 3 / NTS - (SEE NOTE B)







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ZE-2

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DESIGNED BY: W. ZHENG	SURVEYED BY: ALLY GENERAL SOLUTIONS, LLC
DRAWN BY: C. VALDEZ	FB NO. 340S1
CHECKED BY: H. FOROUZAN	
REVIEWED BY: H. FOROUZAN	
APPROVED BY: H. FOROUZAN	

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL
YARD LIGHT/COMMUNICATION POLE DETAILS

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

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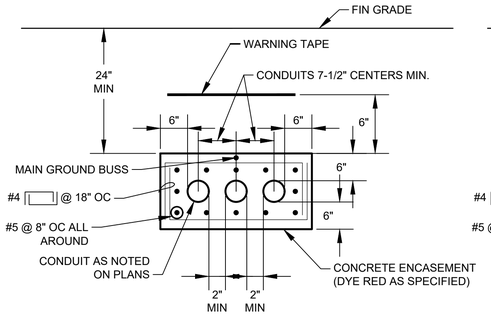
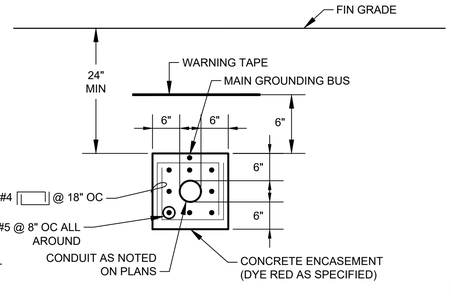


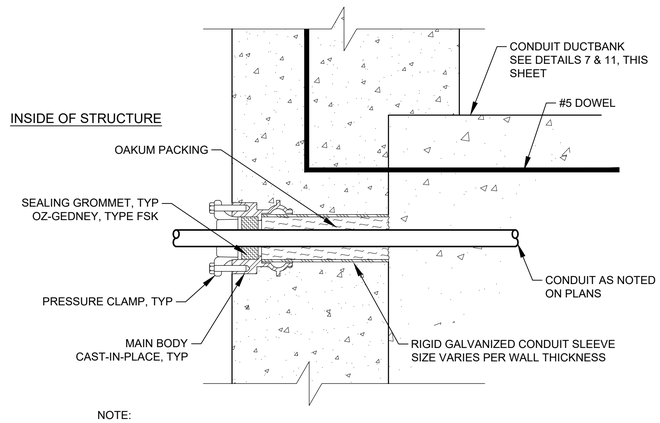
TYP MULTI-CONDUIT DUCTBANK SECTION

NOTE: TIE MAIN GROUNDING BUS TO REBAR AT A MAXIMUM INTERVAL OF EVERY 20 FEET.

DETAIL 1 / NTS



TYP SINGLE-CONDUIT DUCTBANK SECTION

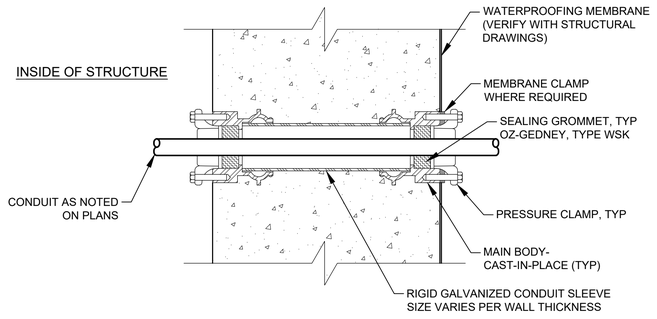


NOTE:

WALL SEAL SHOWN IS TYPICAL FOR EACH CONDUIT IN DUCTBANK.

SINGLE ENDED TYPE

FOR USE WHERE CONDUIT OUTSIDE THE STRUCTURE IS ENCASED IN CONCRETE

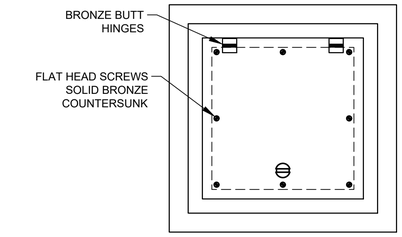


DOUBLE ENDED TYPE WITH MEMBRANE

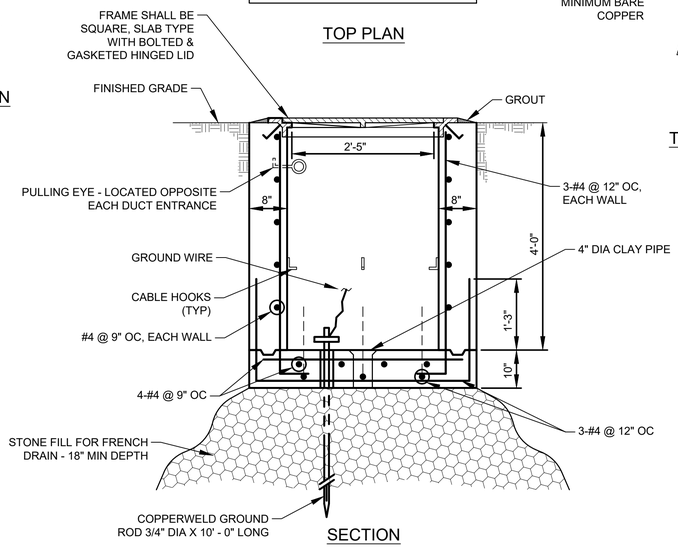
FOR USE WHERE CONDUIT OUTSIDE THE STRUCTURE IS ENCASED IN CONCRETE

TYPICAL CONDUIT SEALS

DETAIL 4 / NTS



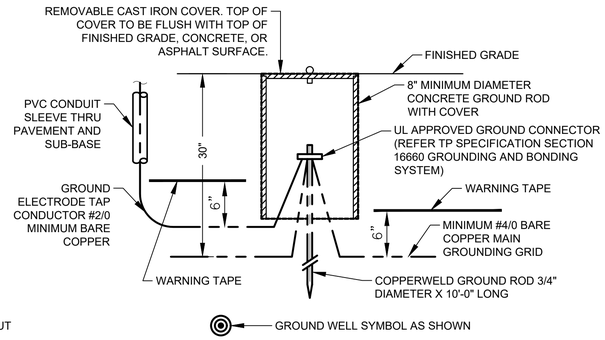
TOP PLAN



SECTION

TYPICAL ELECTRICAL HANDHOLE CONSTRUCTION

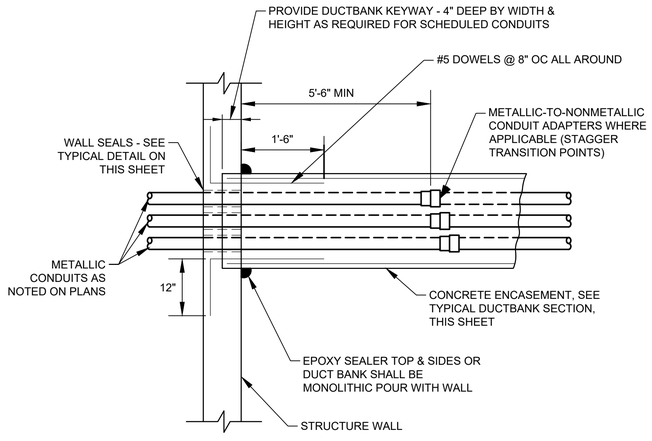
DETAIL 2 / NTS



TYPICAL GROUND ROD AND WELL INSTALLATION

DETAIL 3 / NTS

GROUND CONNECTOR SCHEDULE	
WIRE SIZE	BURNDY
#2 AWG	GAR 6426
#2/0 AWG	GAR 6426
#4/0 AWG	GAR 6429
500 kcmil	GAR 6434



PLAN

TYPICAL DUCTBANK ENTRANCE AT STRUCTURE WALL

DETAIL 5 / NTS

NO.	DATE	REVISION	APP.

GAI
Gupta & Associates, Inc.
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email. hforouzan@gaiconsulting.com

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HOSS FOROUZAN
TEXAS P.E. NO. 77748
DATE: 01/09/2026

ARDURRA
3115 Allen Parkway, Suite 300
Houston, Texas 77019
TBPE Firm Registration No. F-10053

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TRAVIS REESER
TEXAS P.E. NO. 126466
DATE: XX/XX/2025

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DRAWN BY: C. VALDEZ
CHECKED BY: H. FOROUZAN
REVIEWED BY: H. FOROUZAN
APPROVED BY: H. FOROUZAN

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON

HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

ELECTRICAL DETAILS

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
ZE-3

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R-001000-0035-4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO H8111.CTB | PLOTTED: 1/8/2026 6:29 PM

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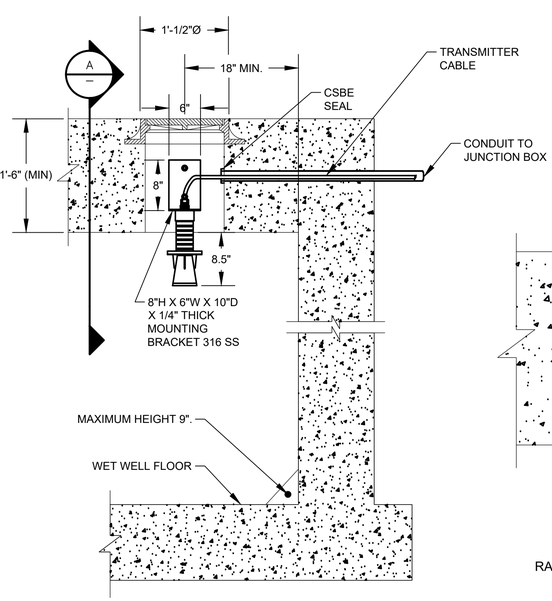
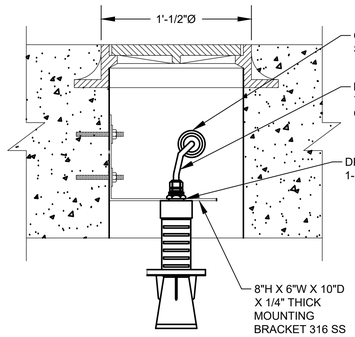


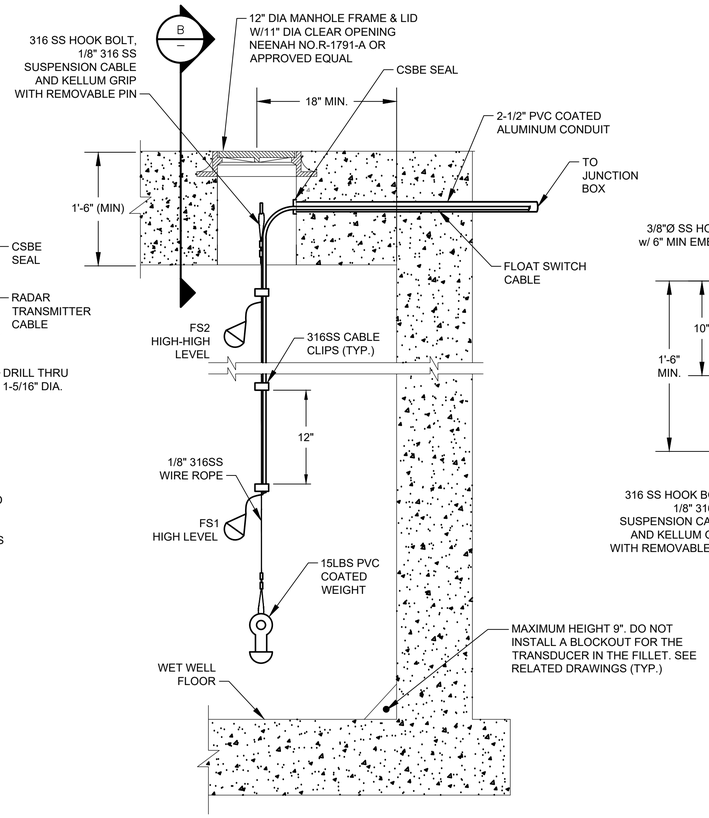
RADAR LEVEL TRANSMITTER MOUNTING
(TYP. LT-1, LT-2)

DETAIL 1
NTS
(SEE NOTE 1, 2, 4 & 5)



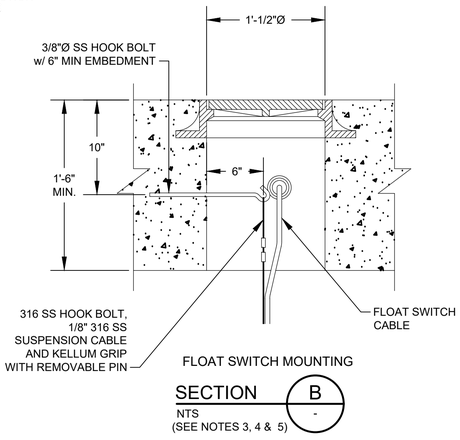
RADAR LEVEL TRANSMITTER MOUNTING
TYP. LT-1 & LT-2

SECTION A
NTS
(SEE NOTE 1, 2, 4 & 5)



FLOAT SWITCH MOUNTING

DETAIL 2
NTS
(SEE NOTES 3, 4 & 5)



FLOAT SWITCH MOUNTING

SECTION B
NTS
(SEE NOTES 3, 4 & 5)

NOTES:

1. NEW RADAR LEVEL TRANSMITTERS FOR LT-1, LT-2.
2. NEW MANHOLES FOR RADAR LEVEL TRANSMITTERS LT-1, LT-2.
3. NEW MANHOLE FOR FLOAT SWITCHES.
4. PAINT MANHOLE LIDS AND HATCHES HUNTER GREEN.
5. NEW MANHOLE INSTALLATION.
6. INSIDE WET WELL IS CLASSIFIED AS CLASS I, DIVISION 1. OUTSIDE WET WELL WITHIN 5 FEET OF WET WELL OPENINGS ARE CLASSIFIED AS CLASS I, DIVISION 2.

NO.	DATE	REVISION	APP.

GAI
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DRAWN BY: C. VALDEZ
CHECKED BY: H. FOROUZAN
REVIEWED BY: H. FOROUZAN
APPROVED BY: H. FOROUZAN

SURVEYED BY:
ALLY GENERAL SOLUTIONS, LLC
FB NO. 340S1

CITY OF HOUSTON
HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

RADAR LEVEL TRANSMITTER GAUGING SYSTEM INSTALLATION & DETAILS–I

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

DWG NO
ZE–4

WBS NUMBER
R–001000–0035–4

DRAWING SCALE
NTS

CITY OF HOUSTON PM
NEIL BARNSDALE, P.E.

SHEET NO. XX OF XX

FOR CITY OF HOUSTON USE ONLY

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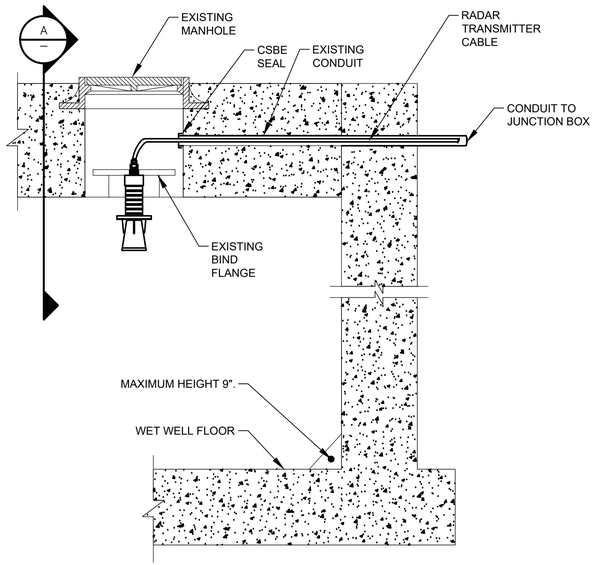
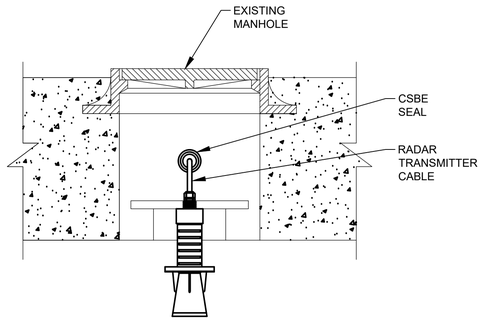


RADAR LEVEL TRANSMITTER MOUNTING
(TYP. LT-1, LT-2)

DETAIL 1
NTS -

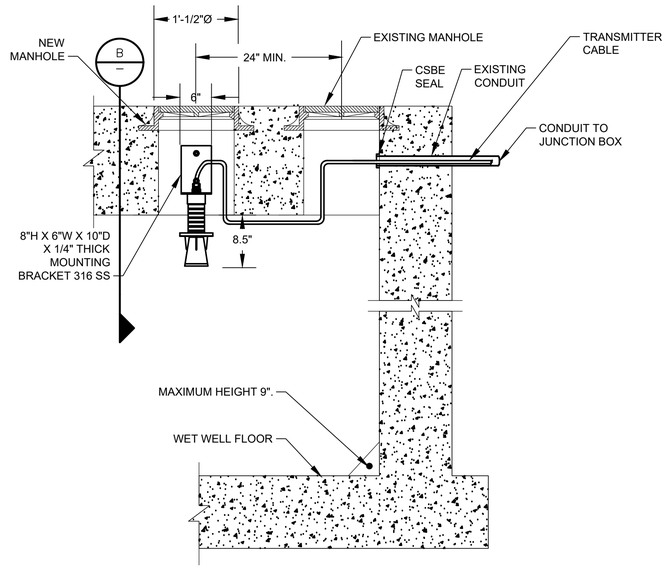
(SEE NOTES 1, 2, 4,)



RADAR LEVEL TRANSMITTER MOUNTING
TYP. LT-1 & LT-2

SECTION A
NTS -

(SEE NOTES 1, 2, 4,)



RADAR LEVEL TRANSMITTER MOUNTING
(TYP. LT-1, LT-2)

DETAIL 2
NTS -

(SEE NOTES 1, 3, 4, 5,)

NOTES:

1. NEW RADAR LEVEL TRANSMITTERS FOR LT-1, LT-2.
2. NEW MANHOLES FOR RADAR LEVEL TRANSMITTERS LT-1, LT-2.
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HOUSTON PUBLIC WORKS

CRMP PACKAGE 4A – EDDINGTON LIFT STATION, 24" FORCEMAIN, AND SCOTT STREET WET WEATHER FACILITY STORAGE TANK NO. 1

RADAR LEVEL TRANSMITTER GAUGING SYSTEM INSTALLATION & DETAILS–II

WARNING
0 1
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DWG NO
ZE–5

WBS NUMBER	FOR CITY OF HOUSTON USE ONLY
R–001000–0035–4	
DRAWING SCALE	
NTS	
CITY OF HOUSTON PM	
NEIL BARNSDALE, P.E.	
SHEET NO. XX OF XX	

PLOT STYLE: ARD_FULL_MONO H8111.CTB
PLOTTED: 1/8/2026 6:29 PM
FILE PATH: O:\H8111_Capacity Remedial Measures Plan (CRMP–Ardurra))\6 Drawings\Electrical\Working\H8111_ZE–05.dwg