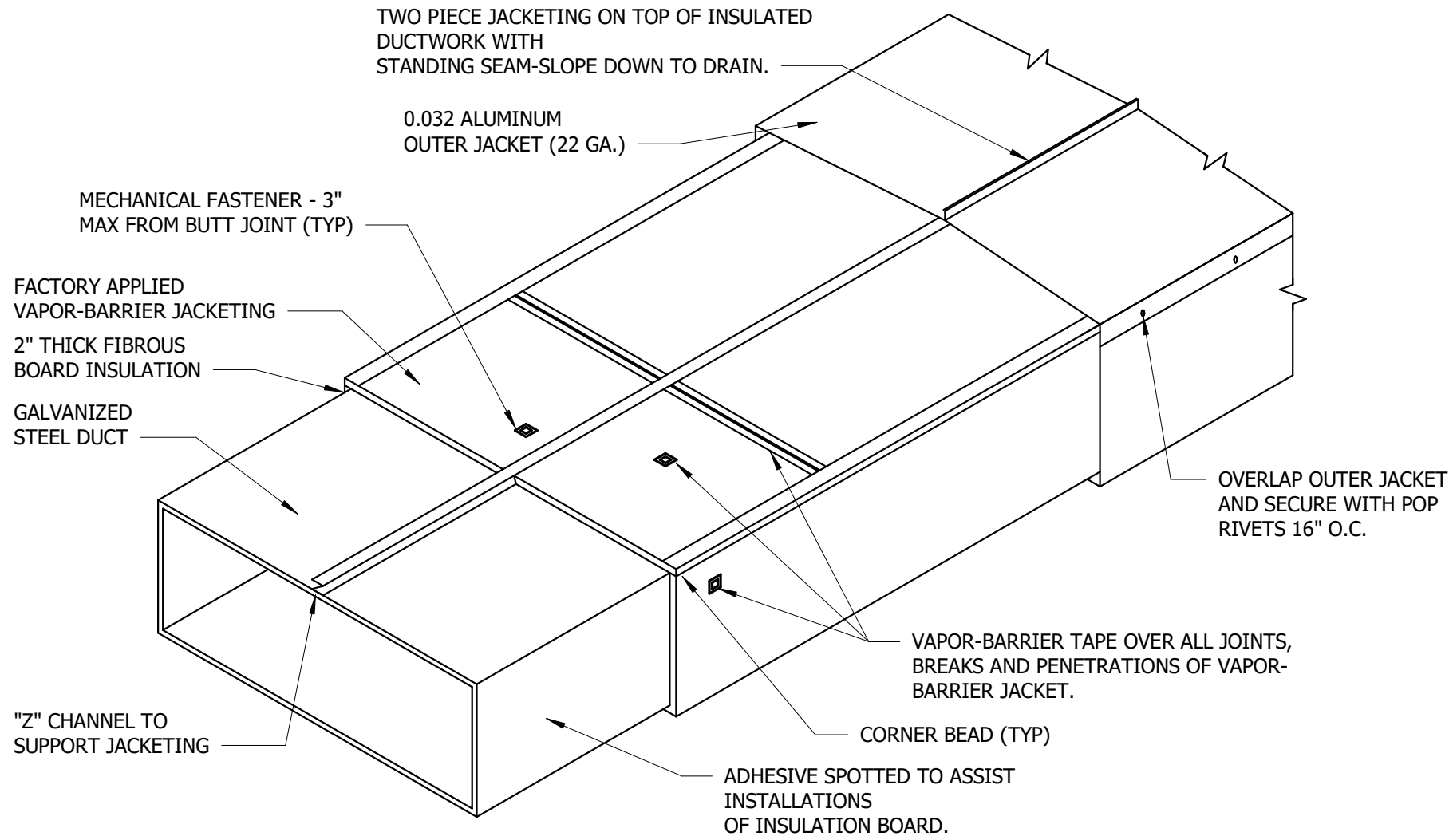
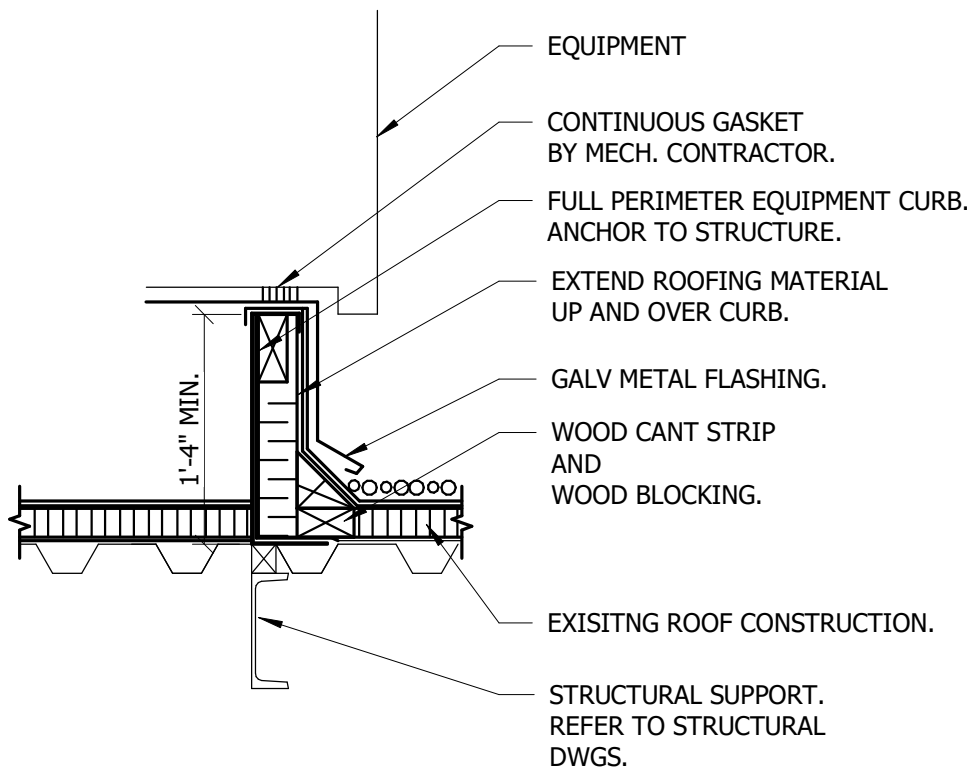


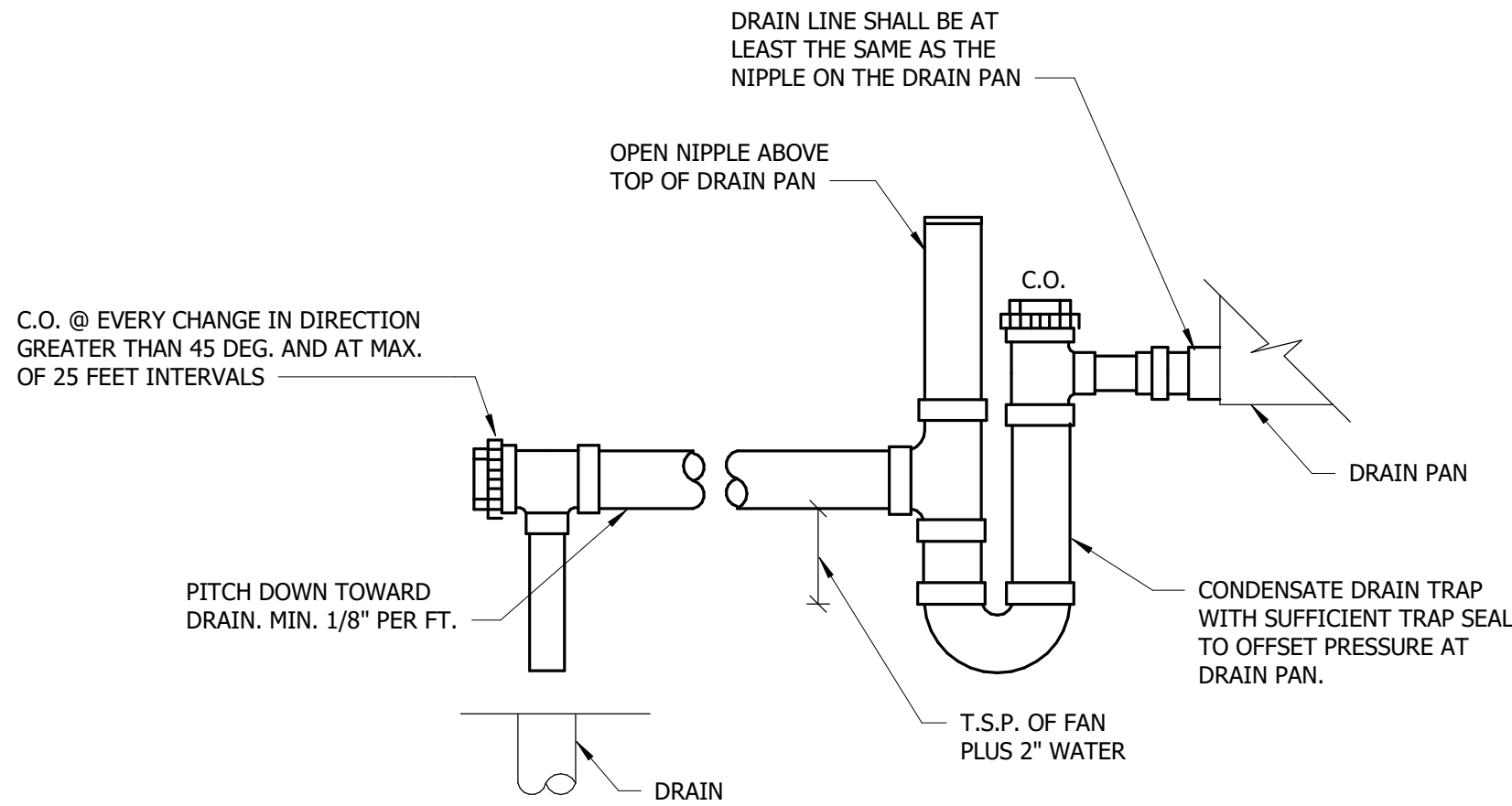
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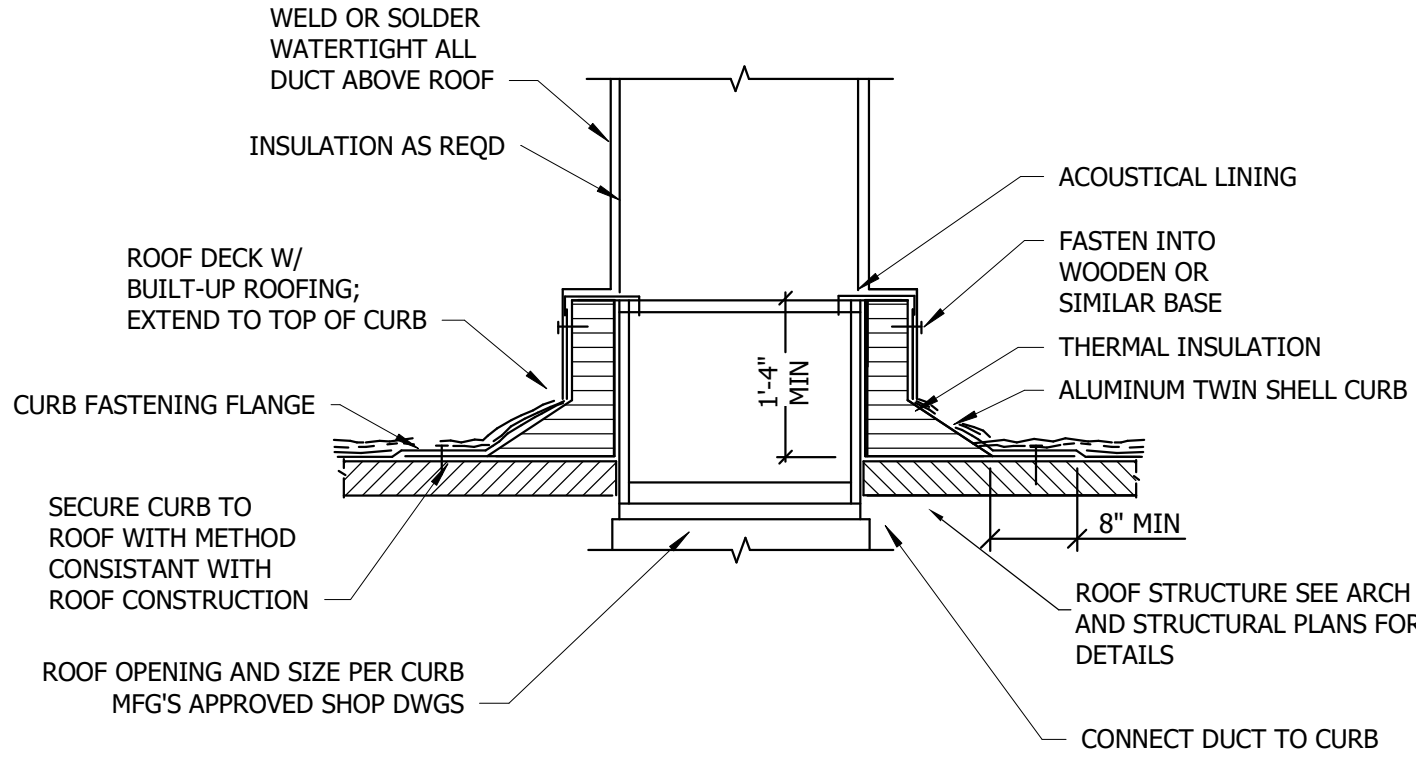
3 EXTERIOR DUCT INSULATION DETAIL
NOT TO SCALE



2 EQUIPMENT ROOF CURB DETAIL
NOT TO SCALE



1 CONDENSATE DRAIN TRAP DETAIL
NOT TO SCALE

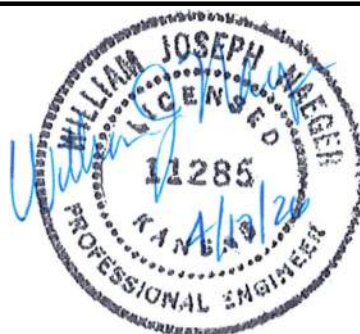


4 ROOF DUCT PENETRATION DETAIL
NOT TO SCALE

- NOTES:
1. SPUD BACK GRAVEL A MIN OF 30" IN ALL DIRECTIONS. FLASH WITH 90# MINERAL FACED BASE FLASHING. STRIP WITH 3 LAYERS OF ROOFING FELT EMBEDDED ASPHALT. GRAVEL TO MATCH
 2. INSTALL LOUVER DAMPERS WHEN REQD W/OUT DEFORMATION TO LOUVER FRAME; INSURE LOUVER'S MOVEMENT IS FREE AND UNRESTRICTED AFTER FAN IS INSTALLED

ODOR CONTROL IMPROVEMENT
MECHANICAL DETAILS

ODOR CONTROL IMPROVEMENTS
TOPEKA, KANSAS



DESIGNED BY:	BJN
DRAWN BY:	ART
APPROVED BY:	WJN
DESIGN PROJ:	19637.011
CONST:	XXXXXX.XXX
SCALE:	AS NOTED
DATE:	SEPTEMBER 2025
DRAWING NO:	M-501
SHEET NO:	41 of 52

Bartlett & West

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ENERGY RECOVERY UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	SUPPLY FAN			EXHAUST FAN		ELECTRIC HEATING COIL		ENERGY RECOVERY - WINTER		ELECTRICAL			FILTER			NOTES
			SUPPLY AIRFLOW (CFM)	ESP (IN WC)	SUPPLY FAN (HP)	AIRFLOW (CFM)	MOTOR (HP)	MIN. TOTAL CAP (KW)	EAT DB (F)	OUTSIDE EAT DB (F)	PLATE LAT DB (F)	VOLTS / PHASE	MCA (AMPS)	MOCp (AMPS)	MIN EFF. (MERV)	MAX ADP (IN WC)	THICKNESS (IN)	
ERV-1	Aeon, Inc.	RQA-H-AC-ERC-GAS	1800	0.5	2	CNTR	1	20	35.6	35.6	71.6	480/3	38	40	MERV-13		1-8	

NOTES:

1. PROVIDE SA AND EA FANS WITH VFD'S. FACTORY MOUNTED VFD'S SHALL HAVE 65 KAIC RATING.
2. PROVIDE GROUNDING RINGS.
3. PROVIDE SINGLE POINT ELECTRICAL CONNECTION.
4. PROVIDE WALL MOUNTED THERMOSTAT.
5. PROVIDE AIR FILTER IN RETURN AIR, OUTSIDE AIR, AND SUPPLY AIR PATHS WITHIN THE UNIT
6. HEATING AND VENTILATION UNIT ONLY.
7. ROOF CURB (16"H).
8. PROVIDE INTEGRAL DISCONNECT FOR UNIT.

DUCTLESS SPLIT SYSTEM SCHEDULE

[illegible]

NOTES:

1. PROVIDE UNIT WITH SINGLE POINT ELECTRICAL CONNECTION. INDOOR UNITS TO BE FED THROUGH OUTDOOR UNIT.
2. WALL MOUNTED T-STAT
3. CONDENSER WIND BAFFLE & HAIL GUARD
4. R410A, SIZE REFRIGERANT LINES PER MANUFACTURER RECOMMENDATIONS.

ELECTRIC UNIT HEATER SCHEDULE

MARK	MANUFACTURER	MODEL	FAN	HEATING CAPACITY		ELECTRICAL			NOTES
			AIRFLOW (CFM)	ELECTRIC (KW)	MIN. OUTPUT (MBH)	VOLTS / PHASE	MCA (AMPS)	MOCp (AMPS)	
UH1	BERKO	HUH-548SA	350	3	10000	480/3	4.51	15	1,2,3,4
UH2	BERKO	HUH-548SA	350	3	10000	480/3	4.51	15	1,2,3,4
UH3	BERKO	HUH-548SA	350	3	10000	480/3	4.51	15	1,2,3,4
UH4	BERKO	HUH-548SA	270	1.874	6400	208/1	11.25	15	1,2,3,4
UH5	BERKO	HUH-548SA	270	1.874	1500	208/1	11.25	15	1,2,3,5

NOTES:

1. PROVIDE WALL MOUNTED THERMOSTAT.
2. SINGLE POINT ELECTRICAL CONNECTION.
3. CEILING MOUNTING KIT.
4. SET EUH THERMOSTAT TO 60° F.
5. SET EUH T-STAT TO 65° F.

GRILLES, REGISTERS, & DIFFUSERS SCHEDULE

MARK	MANUFACTURER	MODEL	SERVICE	FACE SIZE	FRAME TYPE	FINISH	VOLUME CONTROL	NOTE
A	PRICE	DLSS	SUPPLY	SEE PLANS	E	STAINLESS STEEL	YES	-

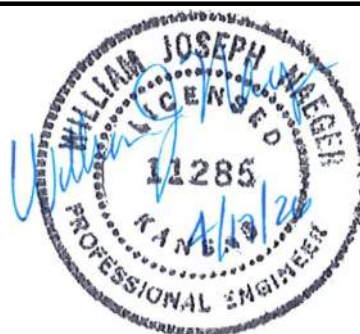
ABBREVIATIONS:
S - SURFACE MOUNT
E - EXPOSED DUCT

E - EXPOSED DUCT

ODOR CONTROL IMPROVEMENT CENTRAL PARK PUMP STATION MECHANICAL SCHEDULES

MECHANICAL SCHEDULES

**ODOR CONTROL IMPROVEMENTS
TOPEKA, KANSAS**



DESIGNED BY:	BJNJ		
DRAWN BY:	ART		
APPROVED BY:	WJNJ		
DESIGN PROJ:	19637.011		
CONST:	XXXXX.XXX		
SCALE:	AS NOTED		
DATE:	SEPTEMBER 2023		
DRAWING NO:	M-601		
SHEET NO:	42	of	52

APPROVED BY: WJN

DESIGN PROJ: 19637.011

CONST:	XXXXX.XXX
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SCALE: AS NOTED

DATE: SEPTEMBER 2025

DRAWING NO: **M-601**

SHEET NO: 42 of 52



THE HEATING AND VENTILATION SYSTEM IS AN ENERGY RECOVERY UNIT "ERV-1" CONSISTING OF A FIXED PLATE HEAT EXCHANGER FOR ENERGY RECOVERY WITH A SUPPLY AND AN EXHAUST FAN. "ERV-1" SHALL CONDITION OUTSIDE AIR SERVING THE PROCESS ROOM. "ERV-1" UTILIZES AN ELECTRIC HEATING COIL FOR CONDITIONING OF THE SUPPLY AIR.

"ERV-1" SHALL RUN CONTINUOUSLY. HEATING SEQUENCE OF OPERATION WILL BE CONTROLLED BY THE SPACE THERMOSTAT (ADJUSTABLE).

UPON CALL FOR HEATING BY THERMOSTAT, THE ELECTRIC HEATING COIL SHALL BE ENERGIZED AND MODULATED TO MAINTAIN SPACE HEATING SETPOINT (60°F ADJUSTABLE). WHEN THE SPACE TEMPERATURE IS ABOVE 60°F (ADJUSTABLE), THE ELECTRIC HEATING SHALL BE DE-ENERGIZED.

WHEN THE SPACE TEMPERATURE READING IS BELOW 60° F (ADJUSTABLE),
THE SYSTEM SHALL OPERATE IN HEATING MODE.

SUPPLY AND EXHAUST FANS SHALL RUN CONTINUOUSLY. FAN VFDS SHALL BE USED TO BALANCE THE AIRFLOW TO THE CONSTANT VOLUME. REFER TO "ERV-1" SCHEDULE FOR CONSTANT VOLUME CFM REQUIRED.

IF SPACE TEMPERATURE DROPS BELOW 50°F (ADJUSTABLE), AN ALARM SHALL BE GENERATED AND SENT TO "PLC" PANEL. FIELD COORDINATE EXACT CONNECTION REQUIREMENTS WITH SCADA PROVIDER.

ALL HVAC CONTROLS FOR "ERV-1" ARE TO BE STANDALONE.

[illegible]

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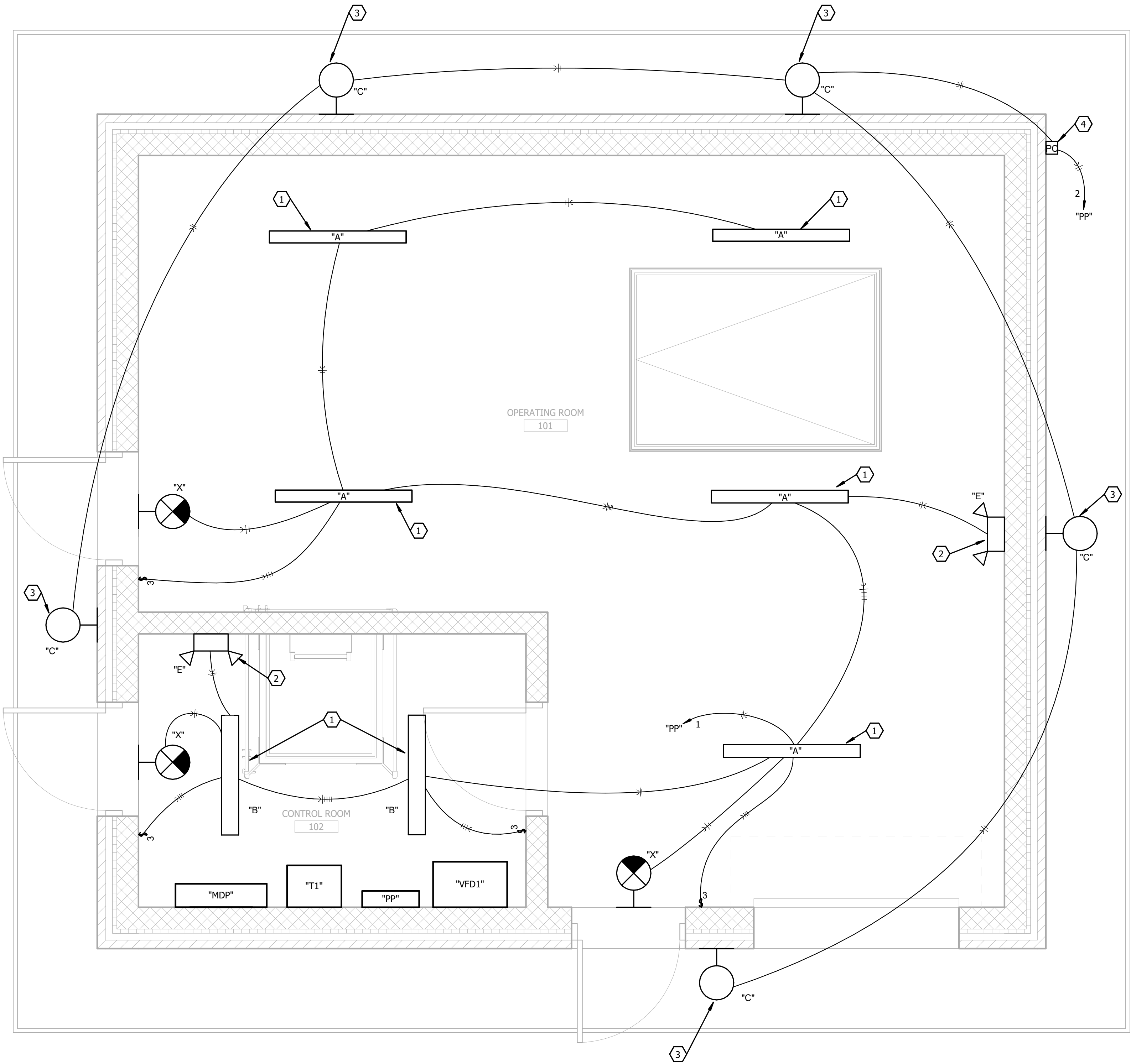
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ODOR CONTROL IMPROVEMENT CENTRAL PARK PUMP STATION MECHANICAL CONTROLS

**ODOR CONTROL IMPROVEMENTS
TOPEKA, KANSAS**



DESIGNED BY:	BJNJ		
DRAWN BY:	ART		
APPROVED BY:	WJNJ		
DESIGN PROJ:	19637.011		
CONST:	XXXXX.XXX		
SCALE:	AS NOTED		
DATE:	SEPTEMBER 2023		
DRAWING NO:	M-701		
SHEET NO:	43	of	52



FIRST FLOOR LIGHTING PLAN
SCALE: 1/2" = 1'-0"

REFERENCE NOTES:

- 1 HANG FIXTURE FROM STRUCTURE, BOTTOM OF FIXTURE TO BE 10'-0" ABOVE FLOOR.
- 2 MOUNT EMERGENCY LIGHT FIXTURE 10" TO TOP OF FIXTURE.
- 3 MOUNT LIGHT FIXTURE 9'-0" TO BOTTOM OF FIXTURE.
- 4 MOUNT PHOTOCELL 8'-0" ABOVE FINISHED GRADE.

GENERAL NOTES:

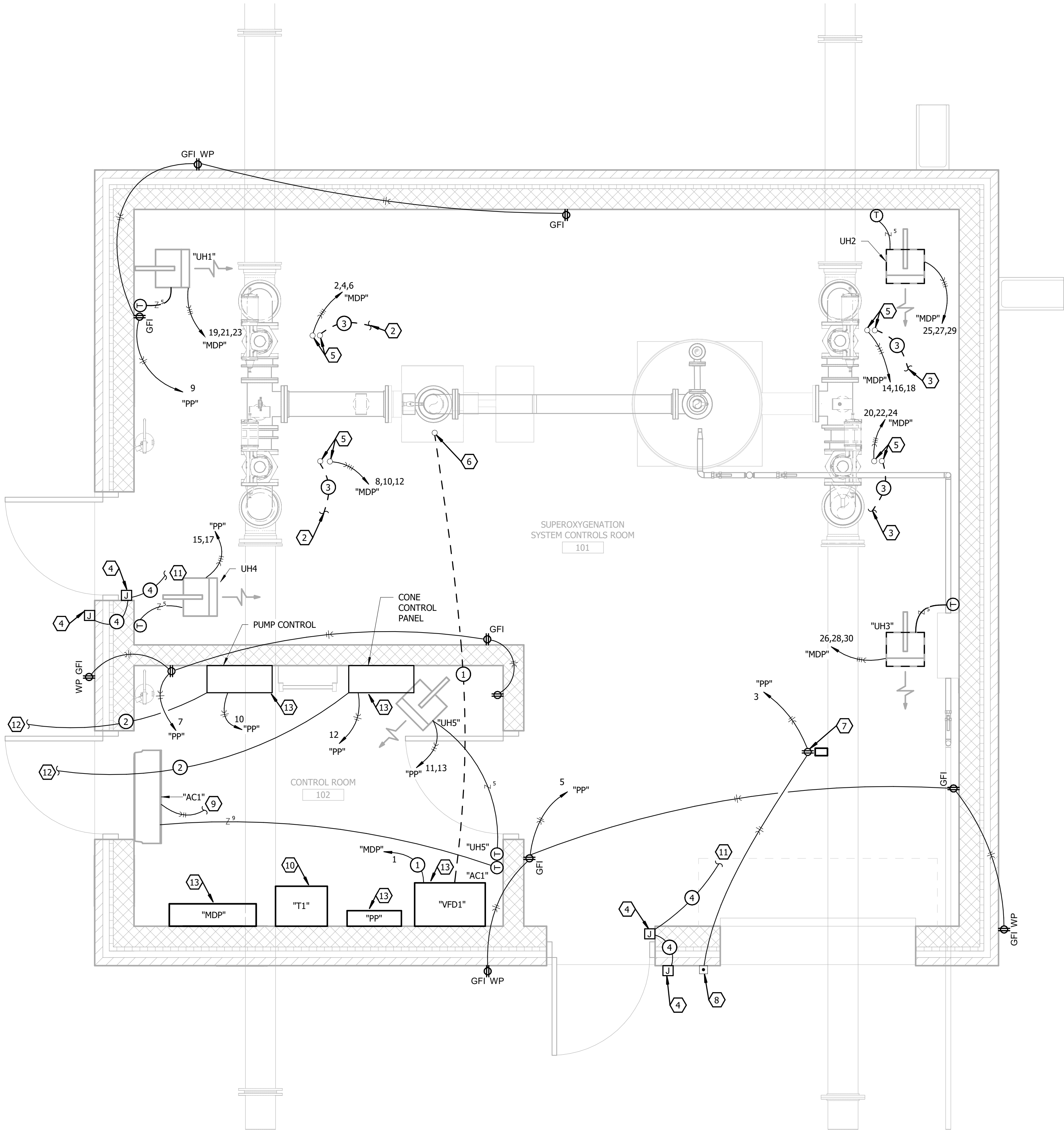
- 1. COORDINATE INTERIOR LIGHTING FIXTURES WITH ALL PIPING AND EQUIPMENT.
- 2. ALL CONDUIT IN OPERATION ROOM 101 TO BE RIGID METAL CONDUIT.
- 3. ALL ELECTRICAL BOXES SHALL BE CAST BOXES. SHEET METAL AND SECTIONAL BOXES ARE NOT ACCEPTABLE.

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**ODOR CONTROL IMPROVEMENT
CENTRAL PARK PUMP STATION
FIRST FLOOR LIGHTING PLAN**
ODOR CONTROL IMPROVEMENTS
TOPEKA, KANSAS



DESIGNED BY:	JLM
DRAWN BY:	ART
APPROVED BY:	WJN
DESIGN PROJ:	19637.011
CONST:	XXXXXX.XXX
SCALE:	AS NOTED
DATE:	SEPTEMBER 2025
DRAWING NO:	E-101
SHEET NO:	44 of 52



FIRST FLOOR POWER PLAN
SCALE: 1/2" = 1'-0"

REFERENCE NOTES:

- 1 NOT USED.
- 2 ROUTE CONDUIT/WIRE TO PUMP CONTROL PANEL.
- 3 ROUTE CONDUIT/WIRE TO CONE CONTROL PANEL.
- 4 PROVIDE J-BOX FOR DOOR ACCESS CONTROL. COORDINATE WITH DOOR ACCESS CONTROL SUPPLIER FOR LOCATION TO MOUNT J-BOXES.
- 5 ROUTE CONDUIT UP TO 12" AFF. THEN CONNECT TO VALVE WITH LIQUID TIGHT FLEX.
- 6 ROUTE CONDUIT UP NEXT TO PUMP BASE. CONNECT TO PUMP WITH LIQUID TIGHT FLEX.
- 7 MOUNT RECEPTACLE TO STRUCTURE FOR DOOR OPENER. COORDINATE WITH EQUIPMENT SUPPLIER.
- 8 DOOR OPERATOR CONTROLS COORDINATE WITH DOOR OPERATOR SUPPLIER.
- 9 ROUTE TO CU1 ON ROOF.
- 10 PROVIDE RACK FOR MOUNTING TRANSFORMER TO WALL. BOTTOM OF TRANSFORMER TO BE 3'-6" AFF. COORDINATE WITH MANUFACTURER FOR MOUNTING REQUIREMENTS.
- 11 ROUTE TO SCADA PANEL. FIELD VERIFY LOCATION.
- 12 ROUTE TO EXISTING SCADA PANEL IN EXISTING PUMP STATION. VERIFY LOCATION OF EXISTING PUMP STATION PRIOR TO SUBMITTING BID.
- 13 MOUNTED TO WALL SUCH THAT BOTTOM OF ENCLOSURE IS 3'-0" AFF. HIGHEST CIRCUIT BREAKER OR OPERATING DEVICE SHALL NOT BE HIGHER THAN 6'-7" AFF.

GENERAL NOTES:

- 1. COORDINATE DOOR SECURITY CONNECTIONS WITH DOOR FRAME AND SECURITY EQUIPMENT.

FEEDER SCHEDULE:

- 1 3 - 8 & 1 - 10 G IN 3/4" C.
- 2 2 - 2" C. WITH PULL STRINGS.
- 3 2" C. WITH PULL STRING.
- 4 3/4" C. WITH REQUIRED NUMBER OF CONTROL WIRES. COORDINATE WITH ACCESS CONTROL SUPPLIER.

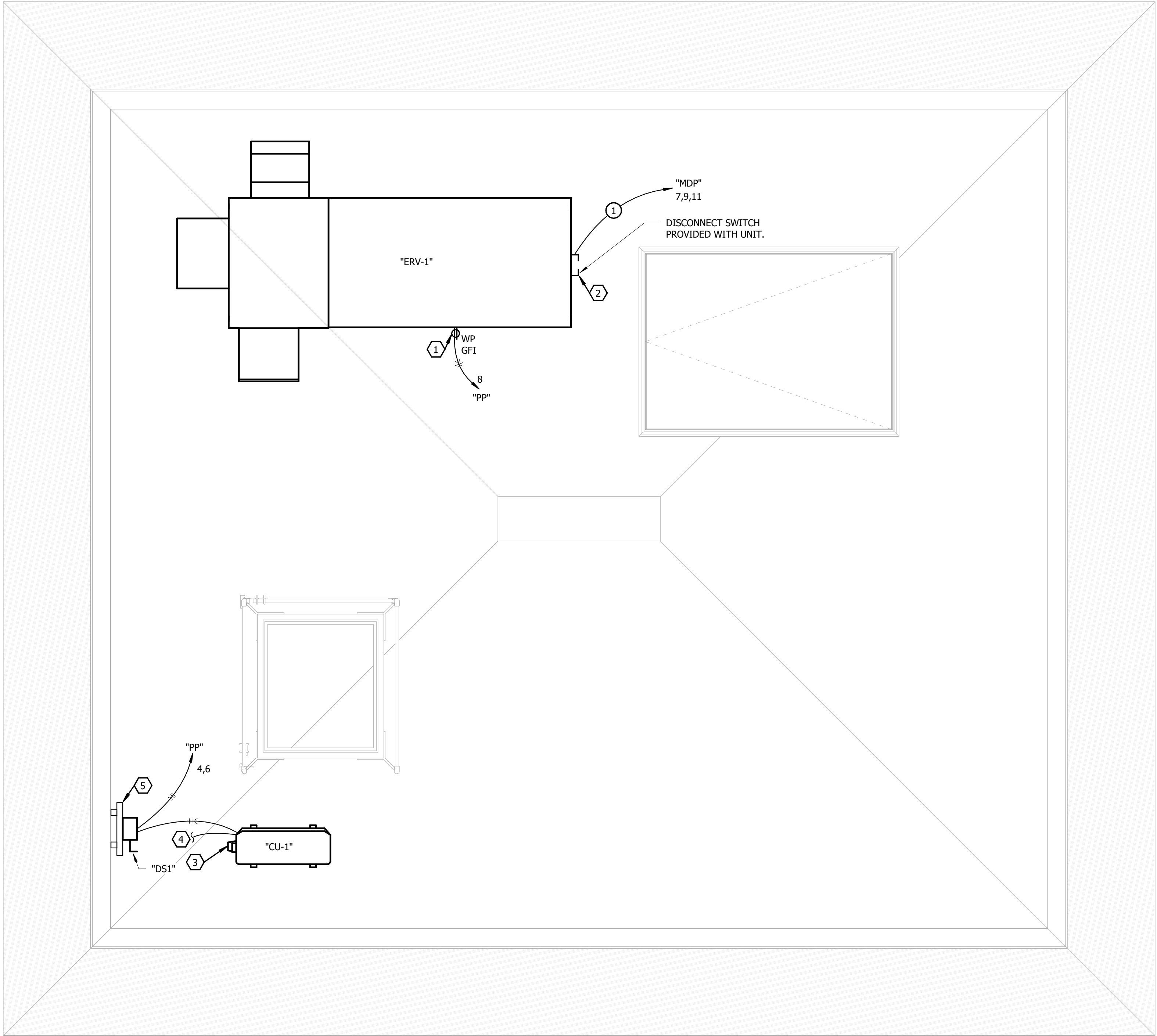
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**ODOR CONTROL IMPROVEMENT
CENTRAL PARK PUMP STATION
FIRST FLOOR POWER PLAN**
**ODOR CONTROL IMPROVEMENTS
TOPEKA, KANSAS**



DESIGNED BY:	JLM
DRAWN BY:	ART
APPROVED BY:	WJN
DESIGN PROJ:	19637.011
CONST:	XXXXXX.XXX
SCALE:	AS NOTED
DATE:	SEPTEMBER 2025
DRAWING NO:	E-102
SHEET NO:	45 of 52



 **ROOF ELECTRICAL PLAN**
SCALE: 1/2" = 1'-0"

REFERENCE NOTES:

- 1 ROUTE CONDUIT UP INSIDE ROOF CURB. MOUNT RECEPTACLE ON SIDE OF UNIT. COORDINATE WITH UNIT SUPPLIER FOR ALLOWABLE CONDUIT ROUTING AND RECEPTACLE MOUNTING. SEAL ALL PENETRATIONS WATER TIGHT.
- 2 MAKE CONNECTION TO MAU. COORDINATE WITH MECHANICAL FOR CONNECTION LOCATION.
- 3 COORDINATE WITH MECHANICAL FOR CONNECTION LOCATION.
- 4 ROUTE FEEDER TO INDOOR UNIT. "AC1". REFER SHEET E-102 FOR CONTINUATION.
- 5 PROVIDE STAINLESS STEEL UNISTRUT SUPPORT MOUNTED TO WALL. TOP OF DISC TO BE 48" ABOVE ROOF.

GENERAL NOTES:

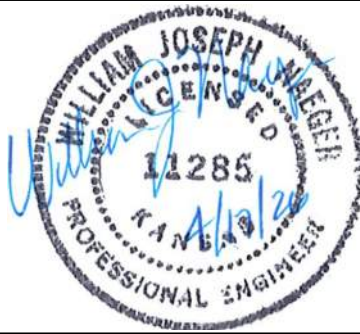
1. COORDINATE ALL PIPING & CONDUIT PENETRATIONS WITH ROOFING SUPPLIER & INSTALLER.

FEEDER SCHEDULE:

- 1 3 - 8 & 1 - 10 G IN 3/4" C

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**ODOR CONTROL IMPROVEMENT
CENTAL PARK PUMP STATION
ROOFTOP ELECTRICAL PLAN**
ODOR CONTROL IMPROVEMENTS
TOPEKA, KANSAS



DESIGNED BY: JLM
DRAWN BY: ART
APPROVED BY: WJN
DESIGN PROJ: 19637.011
CONST: XXXXX.XXX
SCALE: AS NOTED
DATE: SEPTEMBER 2025
DRAWING NO: **E-103**
SHEET NO: 46 of 52

CIRCUIT BREAKER PANELBOARD SCHEDULE											
MARK: "MDP"						MOUNTING: SURFACE		AIC RATING (MINIMUM)			
VOLTAGE: 277		480	PHASE: 3	WIRE: 4	POLES: 42	MAIN LUGS: 200 AMP		MAIN C/B: 200 AMP			
CI... NO.	LOAD DESCRIPTION	CIRC. BRKR	LOAD (VA)	PHASE LOAD IN VA			LOAD (VA)	CIRC. BRKR.	LOAD DESCRIPTION	CIRC. NO.	
				A	B	C					
1	PUMP SP201 (12HP)	40A3P	5820	6700			33	15A3P	PEV 201	2	
3	----	----	5820		5853		33	----	----	4	
5	----	----	5820			5853	33	----	----	6	
7	ERV-1	40A3P	10530	12000			33	15A3P	PEV 202	8	
9	----	----	10530		10563		33	----	----	10	
11	----	----	10530			10563	33	----	----	12	
13	T1 (45 KVA)	70A3P	14965	14998			33	15A3P	PEV203	14	
15	----	----	14965		14998		33	----	----	16	
17	----	----	14965			14998	33	----	----	18	
19	UH1 (3KW)	15A3P	1000	1033			33	15A3P	PEV 204	20	
21	----	----	1000		1033		33	----	----	22	
23	----	----	1000			1033	33	----	----	24	
25	UH2 (3KW)	15A3P	1000	2000			1000	15A3P	UH3 (3KW)	26	
27	----	----	1000		2000		1000	----	----	28	
29	----	----	1000			2000	1000	----	----	30	
31	SPARE	20A3P		0				20A3P	SPARE	32	
33	----	----			0				----	34	
35	----	----				0			----	36	
37	SPARE	20A3P		0					----	38	
39	----	----			0				----	40	
41	----	----				0			----	42	
TOTALS:					36731	34447	34447				
MAX. PHASE VA:		36731	MAX. PHASE AMPS:		133	MAX. PHASE DIVERSIFIED VA:		36731	MAX. PHASE DIVERSIFIED AMPS:		133

CIRCUIT BREAKER PANELBOARD SCHEDULE												
MARK: "PP"						MOUNTING: SURFACE		AIC RATING (MINIMUM)				
VOLTAGE: 120 208		PHASE: 3	WIRE: 4	POLES: 30		MAIN LUGS: 200 AMP		MAIN C/B: 150 AMP				
CI...	LOAD DESCRIPTION		CIRC. BRKR	LOAD (VA)	PHASE LOAD IN VA			LOAD (VA)	CIRC. BRKR.	LOAD DESCRIPTION		CIRC. NO.
NO.					A	B	C					
1	INTERIOR LTS		20A1P	400	700			300	20A1P	EXTERIOR & EMERG LTS		2
3	OVERHEAD DOOR OPENER		20A1P	1200		2500		1300	20A2P	AC1/CU		4
5	RECEPTS		20A1P	800			2100	1300	-	-		6
7	RECEPTS		20A1P	800	1400			600	20A1P	ROOF RECEPTACLE		8
9	RECEPTS		20A1P	800		2000		1200	20A1P	PUMP CONTROL PANEL		10
11	UH5		15A2P	950			2150	1200	20A1P	CONE CONTROL PANEL		12
13	-		-	950	950				20A1P	SPARE		14
15	UH4		15A2P	937		937			20A1P	SPARE		16
17	-		-	937			937		20A1P	SPARE		18
19	SPARE		20A1P		0				20A1P	SPARE		20
21	SPARE		20A1P			0			20A1P	SPARE		22
23	SPARE		20A1P				0		20A1P	SPARE		24
25	SPARE		20A1P		0				20A1P	SPARE		26
27	SPARE		20A1P			0			20A1P	SPARE		28
29	SPARE		20A1P				0		20A1P	SPACE		30
TOTALS:					3050	5437	5187					
MAX. PHASE VA:		5437	MAX. PHASE AMPS:		45	MAX. PHASE DIVERSIFIED VA:		5437	MAX. PHASE DIVERSIFIED AMPS:		45	

TRANSFORMER SCHEDULE

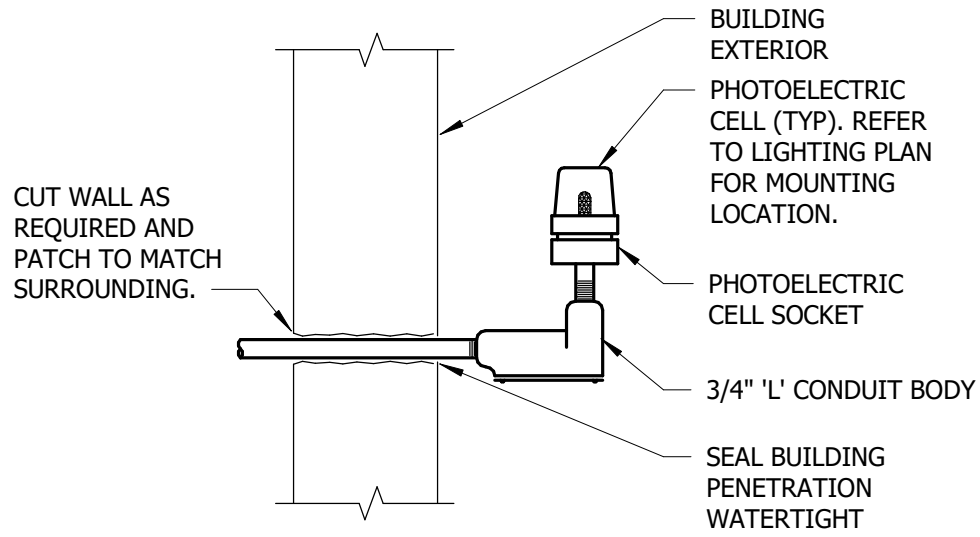
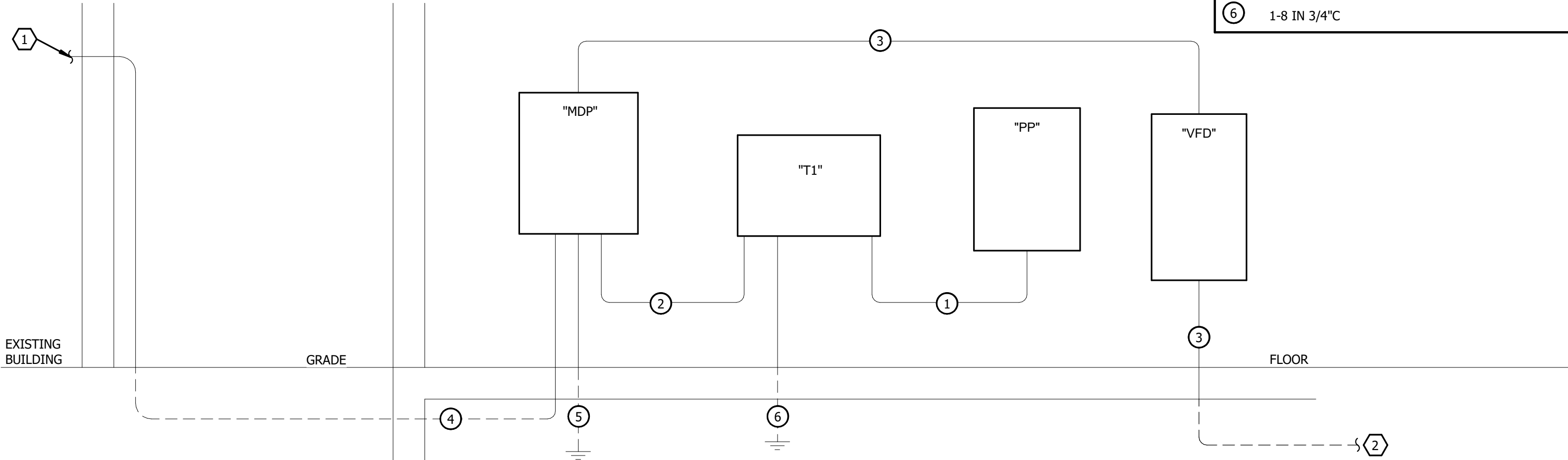
MARK	RATING	TYPE MOUNTING			TEMP. RISE (°C)	PRIMARY	SECONDARY	
	KVA	PHASE	FLOOR	WALL	PAD	VOLTAGE	CONNECTION	VOLTAGE CONNECTION
T1	45	3	X		X	150	480	120/208
NOTES:								

VARIABLE FREQUENCY DRIVE SCHEDULE

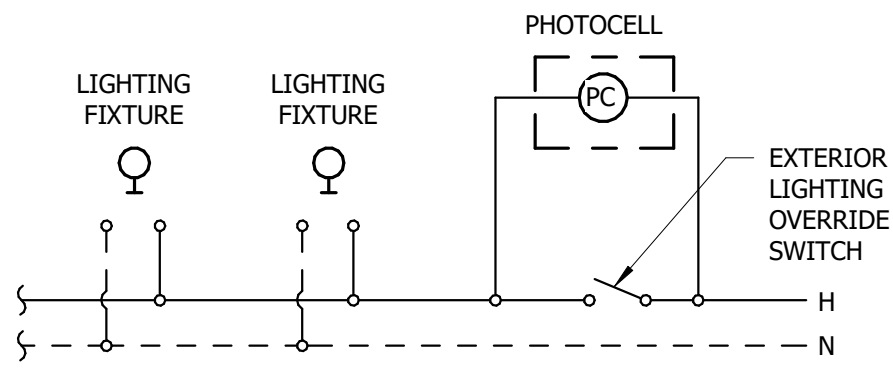
MARK	EQUIPMENT SERVED	HP	LOAD	PHASE	FLA*	DRIVE TYPE	MOUNTING TYPE		MCC	NOTES
VFD1	PUMP	12	480	3.00	19	PWM	FLOOR	WALL	X	1,2,3
NOTES:										
1. NEMA 12 ENCLOSURE										
2. DELUXE KEYPAD (NO CODE NUMBERING)										
3. *VERIFY FLA WITH PUMP MANUFACTURER (MOTORS MAY BE SUBMERSIBLE OR HAVE VARYING FLA)										

DISCONNECT SWITCH SCHEDULE

MARK	EQUIPMENT SERVED	SWITCH VOLTAGE	AMP	POLE	FUSE AMP	TYPE	ENCLOSURE NEMA TYPE	NOTES
DS1	AC1/CU1	208/1	30	2	-	-	NEMA 3R	
NOTES:								



2 PHOTOELECTRIC CELL MOUNTING DETAIL NOT TO SCALE



3 PHOTOCCELL WIRING DETAIL NOT TO SCALE

LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG NUMBER	MOUNTING REC	SURF	WALL	FINISH	LAMP TYPE	WATTS	NOTES
A	WILLIAMS	97-4-L79-8-35-A		X		WHITE	LED	48	
B	WILLIAMS	96-4-L62-8-35-PCFR		X		WHITE	LED	48	
C	COOPER	XTOR48			X	BRONZE	LED	38	
E	WILLIAMS	EMER/LED-WHT-D			X	WHITE	LED	2	
X	WILLIAMS	EXIT-R-EM-WHT-D			X	WHITE	LED	4	

NOTES:

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ODOR CONTROL IMPROVEMENT
CENTAL PARK PUMP STATION
ELECTRICAL DETAILS & SCHEDULE
ODOR CONTROL IMPROVEMENTS
TOPEKA, KANSAS



DESIGNED BY:	JLM
DRAWN BY:	ART
APPROVED BY:	WJN
DESIGN PROJ:	19637.011
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SHEET NO:	47 of 52



1. CONTRACTOR RESPONSIBLE FOR KEEPING SYSTEM IN SERVICE DURING WET WELL MODIFICATIONS. VAC TRUCK OR BYPASS PUMPING MAY BE USED TO HANDLE FLOWS UPSTREAM OF STATION. BYPASS PUMPING PIPING MAY BE CONNECTED TO AIR RELEASE VALVE PIPING IF REQUIRED. REFERENCE SECTION 15110 FOR BYPASS PUMPING REQUIREMENTS.

[illegible]

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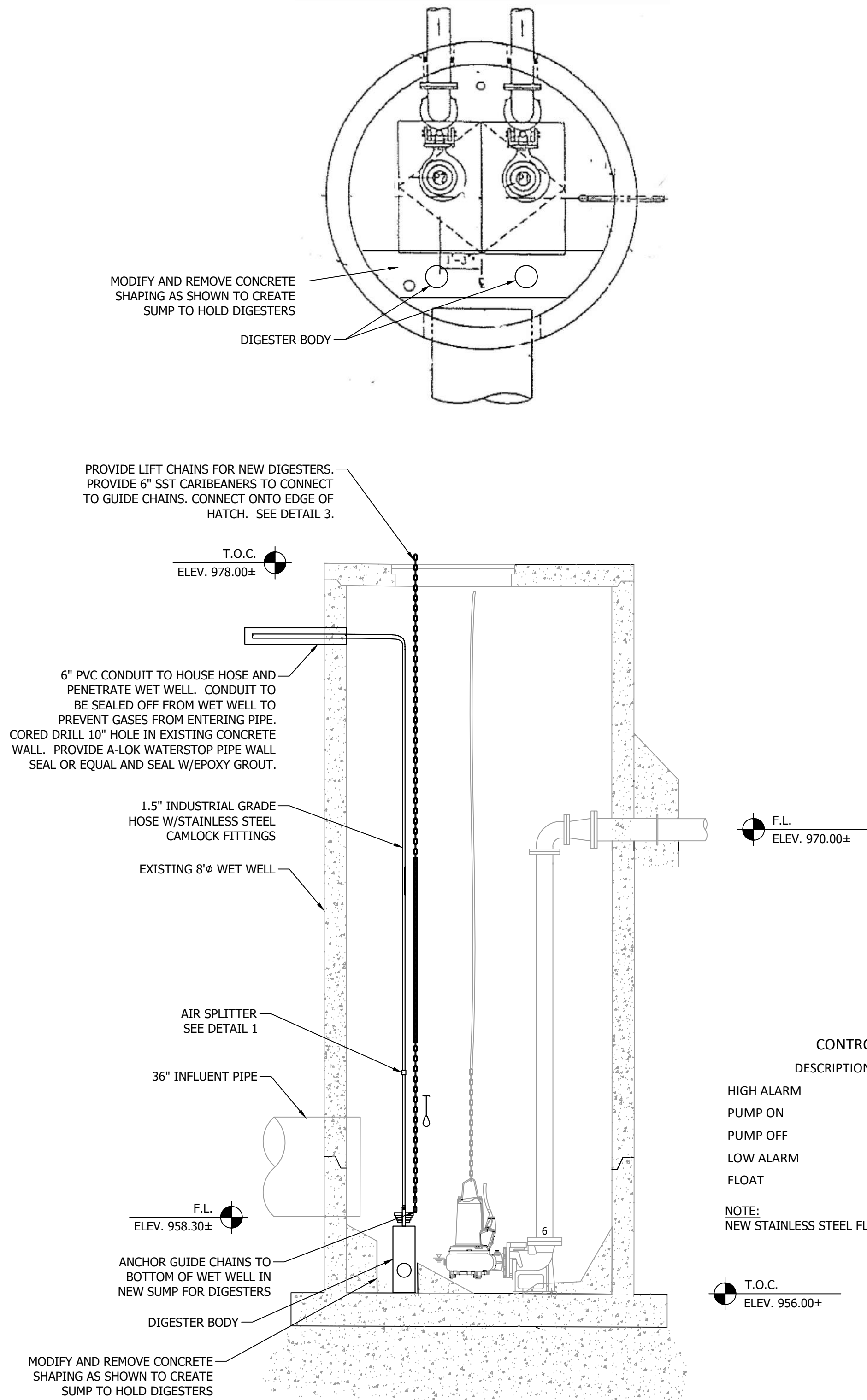
ODOR CONTROL IMPROVEMENTS TOPEKA, KANSAS



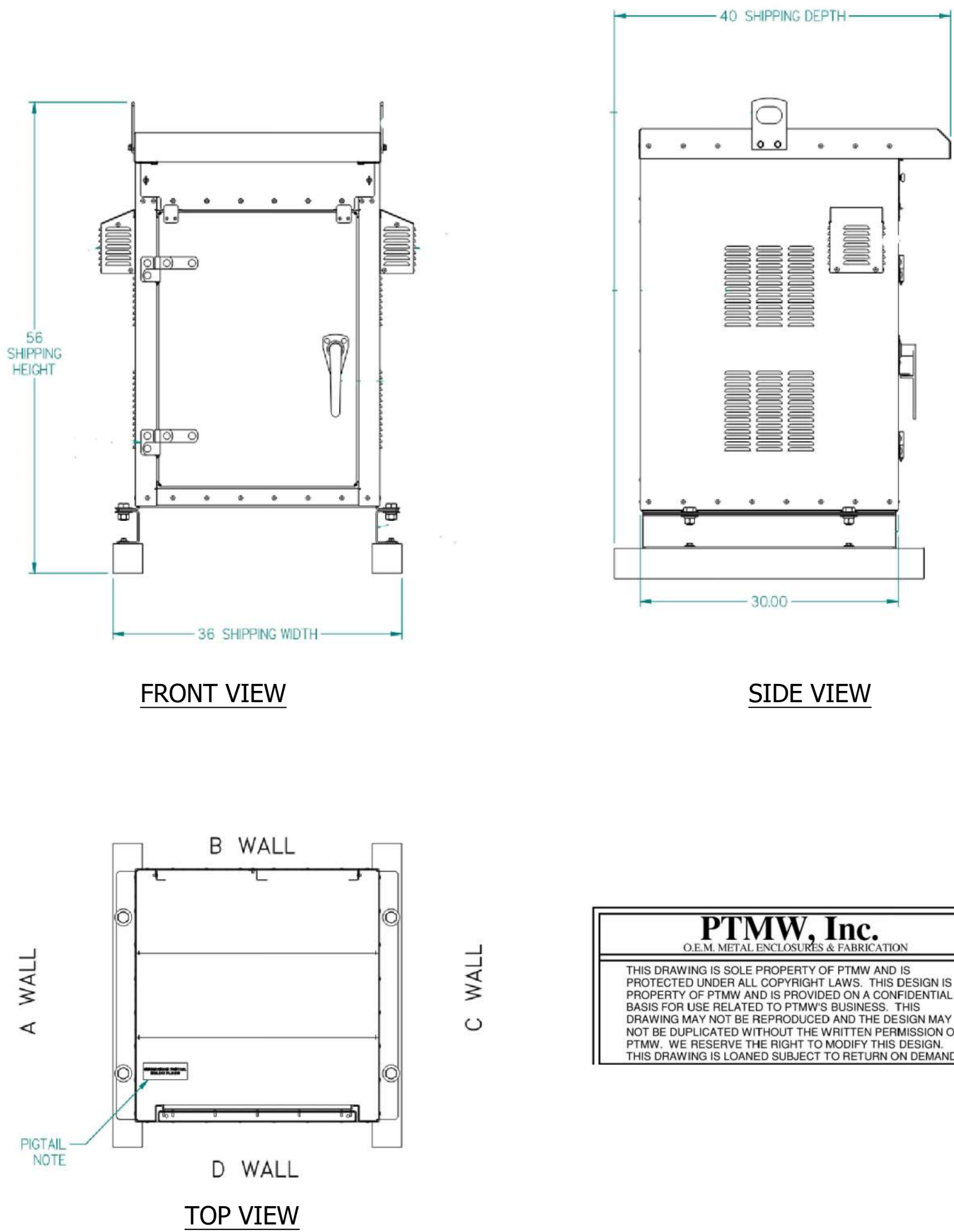
DESIGNED BY:	----
DRAWN BY:	JRH
APPROVED BY:	ADW
DESIGN PROJ:	19637.011
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	SEPTEMBER 2025
DRAWING NO:	C-111
SHEET NO:	



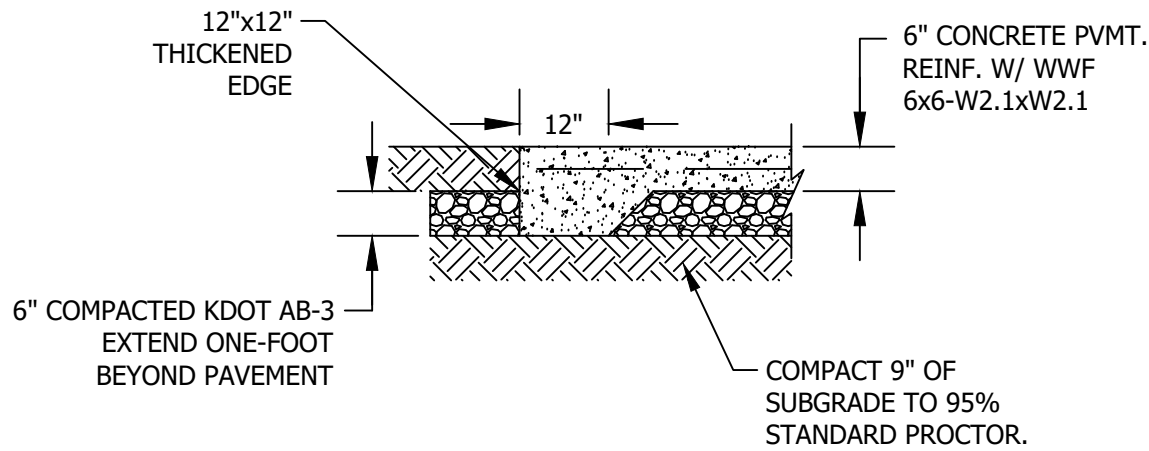
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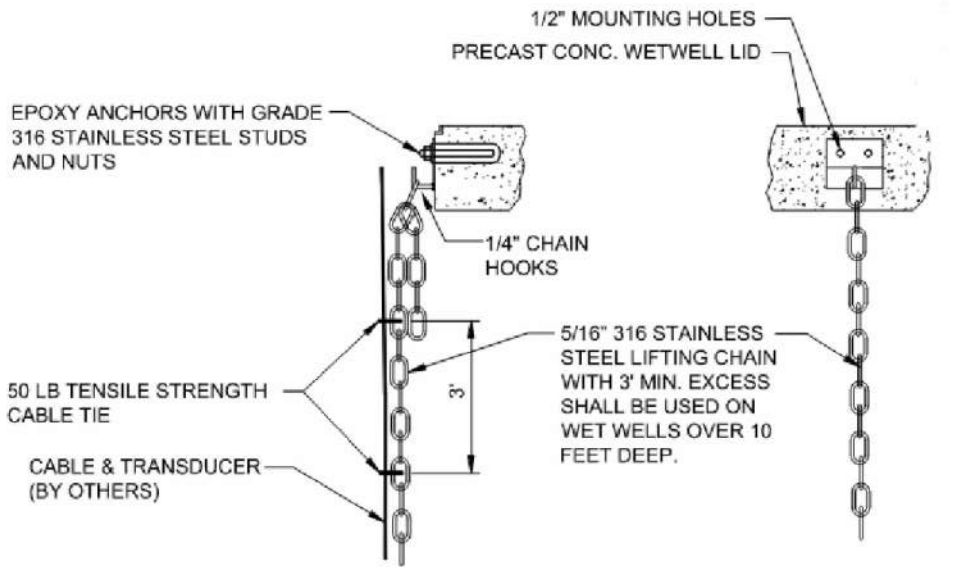
A WET WELL SECTION
D-311 NOT TO SCALE



1 BLOWER AND DIGESTER DETAILS
NOT TO SCALE



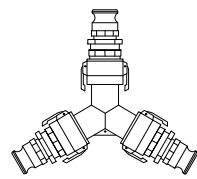
2 TYPICAL PUMP STATION PAD SECTION
NOT TO SCALE



3 LIFTING CHAIN DETAIL
NOT TO SCALE

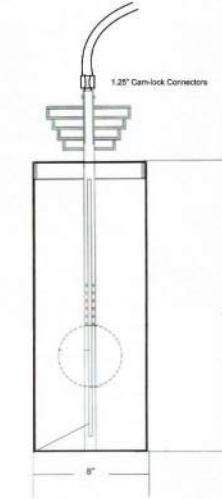
GENERAL NOTES

1. A VAC TRUCK WILL BE USED FOR THE DURATION OF CONCRETE WORK IN WET WELL TO TEMPORARILY DIVERT INFLUENT FLOW TO THE WET WELL.



SPLITTER

Custom Digester for 2Hp Blower



DIGESTER BODY

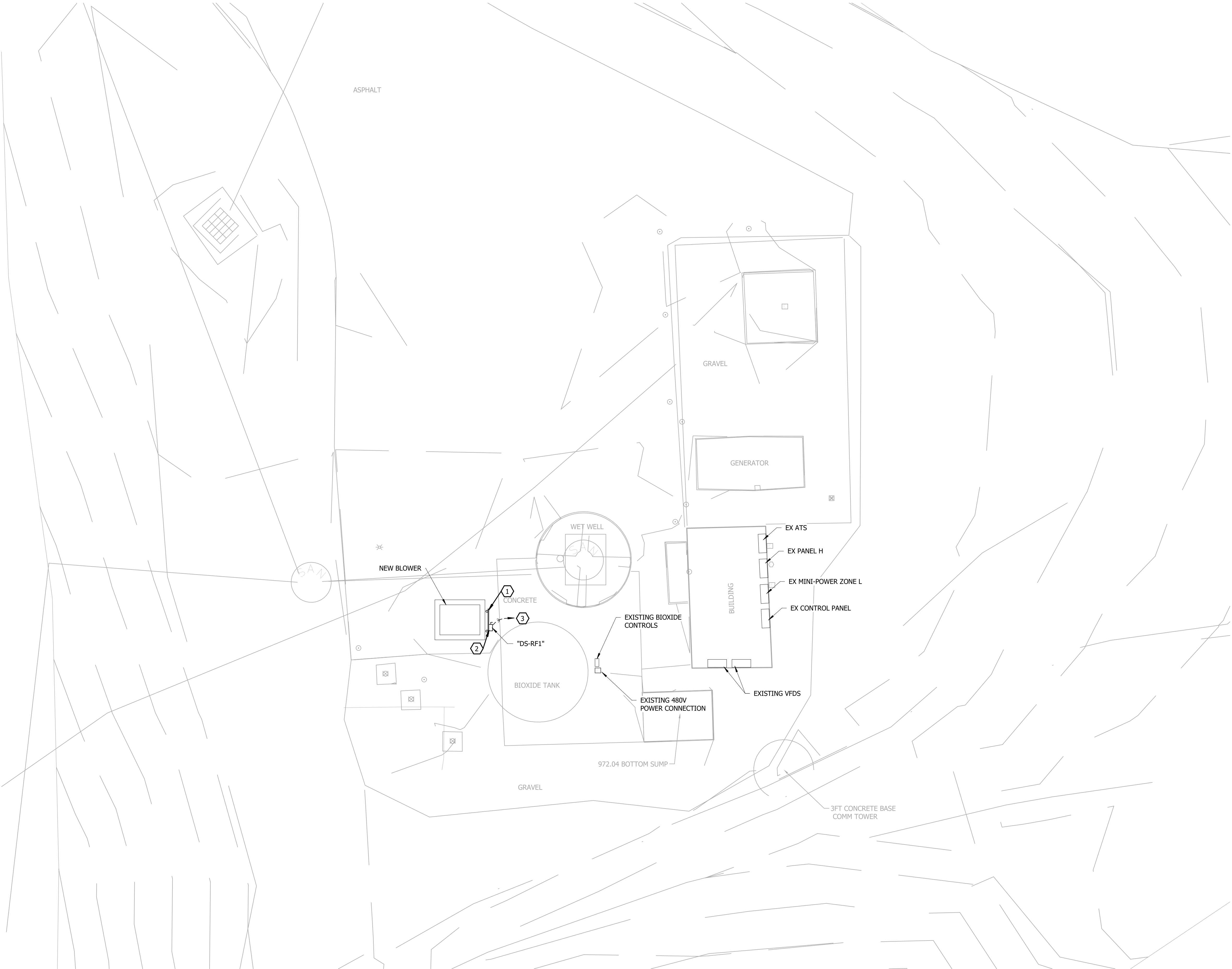
Bartlett & West

1200 SW EXECUTIVE DRIVE - TOPEKA, KS 66615-3850
PHONE 785.272.2252 - FAX 785.272.3735
WWW.BARTLETTWEST.COM

**ODOR CONTROL IMPROVEMENTS
ROCKFIRE NORTH PUMP STATION
WET WELL SECTION AND DETAILS**
TOPEKA, KANSAS



DESIGNED BY:	----
DRAWN BY:	JRH
APPROVED BY:	ADW
DESIGN PROJ:	19637.011
CONST PROJ:	----
SCALE:	AS NOTED
DATE:	SEPTEMBER 2025
DRAWING NO:	D-311
SHEET NO:	49 of 52



 **ELECTRICAL SITE PLAN**
SCALE: 1" = 5'-0"

REFERENCE NOTES:

- 1 PROVIDE UNI-STRUT MOUNTING RACK. REFER TO DETAIL 3/E-502.
- 2 MOUNT "DS-RF1" TO UNISTUT RACK.
- 3 EXTEND AND CONNECT TO NEW 20A2P CIRCUIT BREAKER IN EXISTING MINI POWER ZONE L IN BUILDING. REFER TO DETAILS 1 & 2 ON SHEET E-502. NEW CIRCUIT BREAKER SHALL MATCH EXISTING PANEL MANUFACTURER AND AIC RATING.

GENERAL NOTES:

1. VERIFY LOCATION OF EXISTING SANITARY SEWER LINE ON SITE.
2. VERIFY LOCATION OF EXISTING WATER LINE ON SITE
3. VERIFY LOCATION OF EXISTING UNDERGROUND ELECTRICAL LINE.
4. ALL EXISTING ELECTRICAL EQUIPMENT, DEVICES, ETC. SHALL REMAIN UNLESS NOTED OTHERWISE.

**ODOR CONTROL IMPROVEMENT
ROCKFIRE PUMP STATION
ELECTRICAL SITE PLAN**
**ODOR CONTROL IMPROVEMENTS
TOPEKA, KANSAS**



DESIGNED BY:	JLM
DRAWN BY:	ART
APPROVED BY:	WJN
DESIGN PROJ:	19637.011
CONST:	XXXXXX.XXX
SCALE:	AS NOTED
DATE:	SEPTEMBER 2025
DRAWING NO:	E-111
SHEET NO:	50 of 52

Bartlett & West

1200 SW EXECUTIVE DRIVE - TOPEKA, KS 66615-3850
PHONE: 785.272.2252 - FAX: 785.273.8735
www.bartlettwest.com

REFERENCE NOTES:

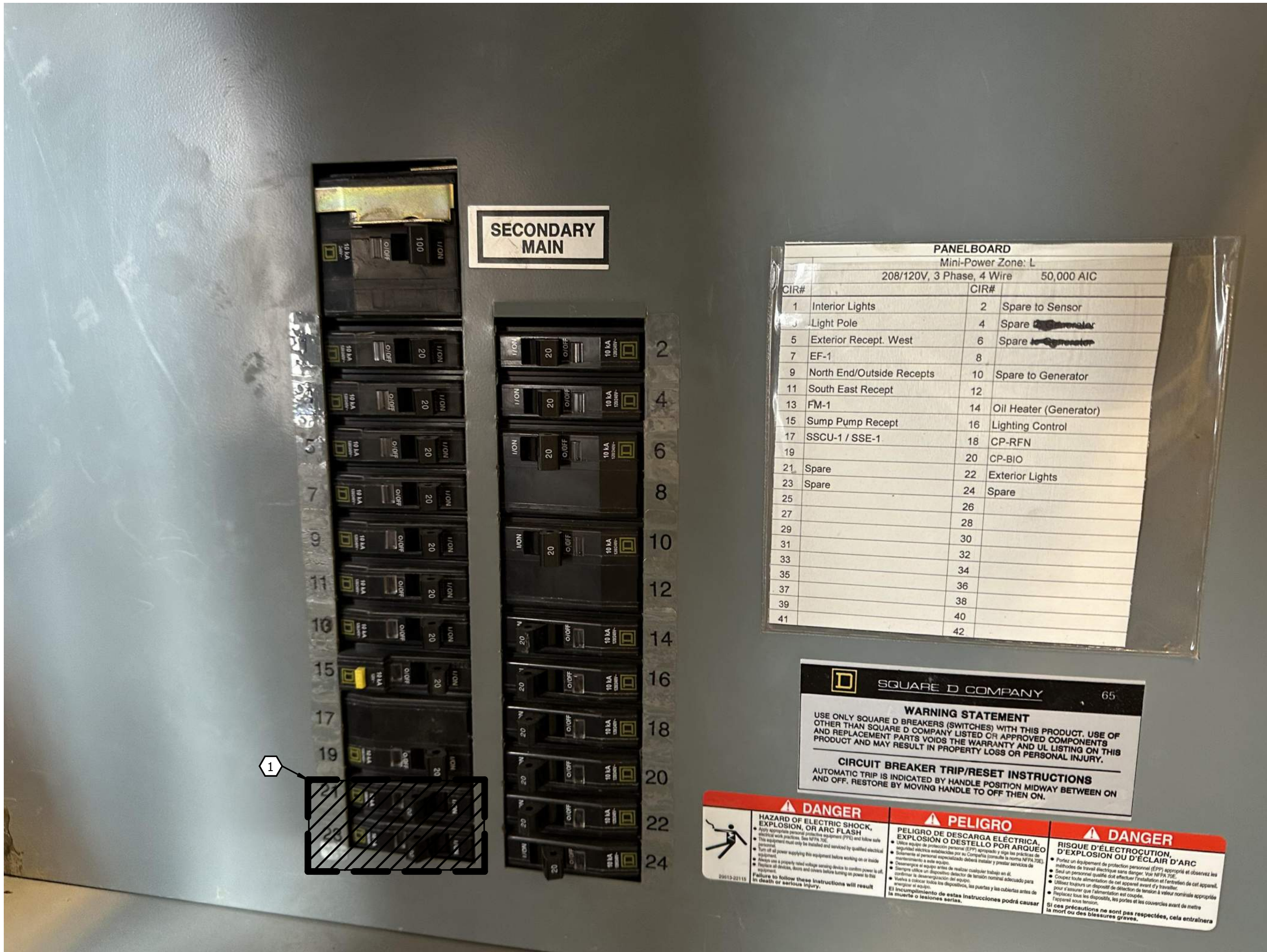
- 1 PROVIDE NEW 20A2P CIRCUIT BREAKER IN MINI POWER ZONE L TO SPOTS 21 & 23. MAKE ALL FINAL CONNECTIONS.



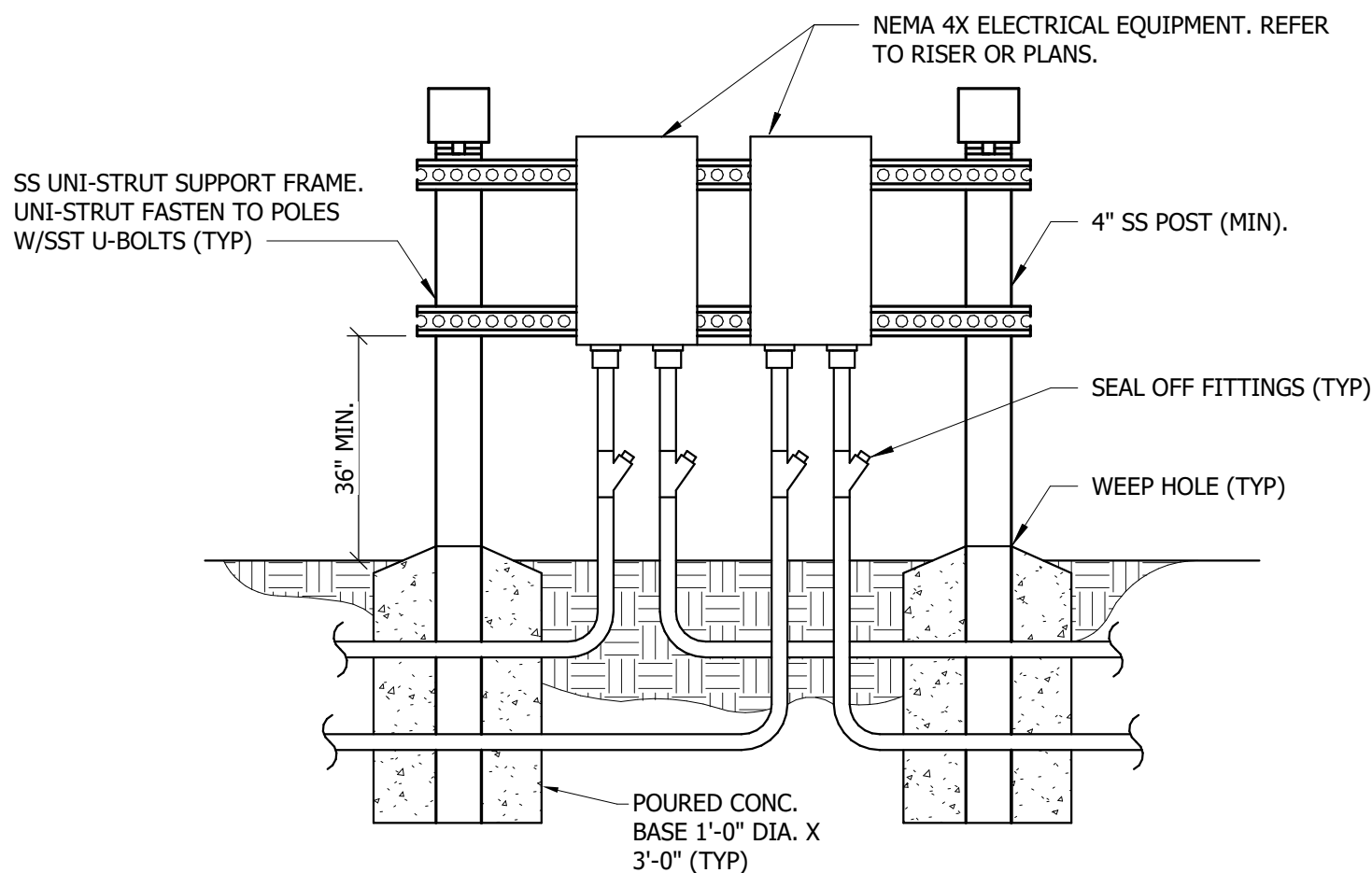
2 MINI POWER ZONE L IMPROVEMENT PHOTO
NOT TO SCALE

REFERENCE NOTES:

- 1 REMOVE EXISTING 201AP SPARE BREAKERS IN SPOTS 21 & 23. REFER TO MINI POWER ZONE L IMPROVEMENT PHOTO 2/E-502.



1 MINI POWER ZONE L DEMOLITION PHOTO
NOT TO SCALE



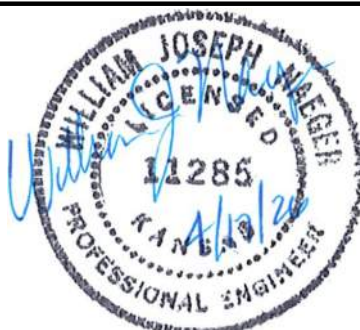
3 ELECTRICAL MOUNTING RACK - NEMA 4X FINISH GRADE
NOT TO SCALE

DISCONNECT SWITCH SCHEDULE

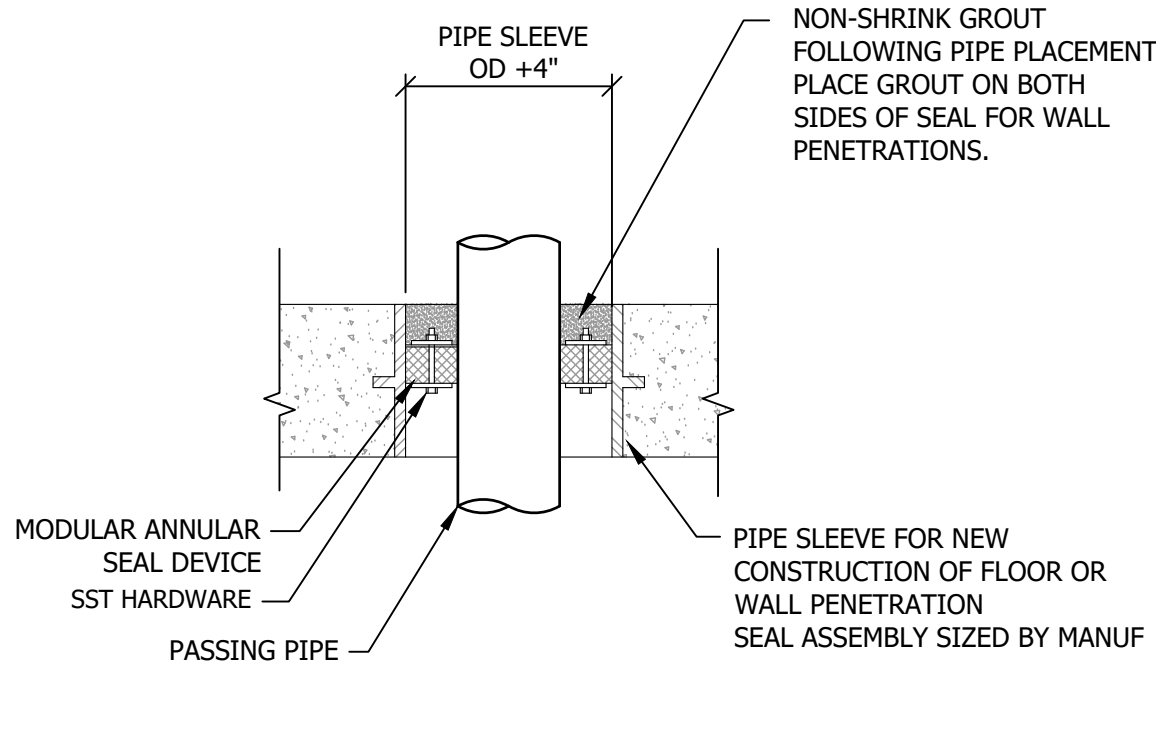
MARK	EQUIPMENT SERVED	SWITCH			FUSE		ENCLOSURE NEMA TYPE	NOTES
		VOLTAGE	AMP	POLE	AMP	TYPE		
DS-RF1	NEW BLOWER	208	30	2	-	-	NEMA 4X	

NOTES:

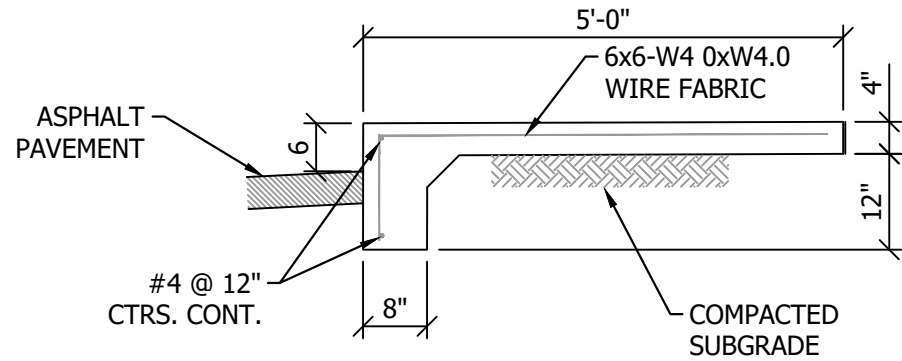
ODOR CONTROL IMPROVEMENT
ROCKFIRE PUMP STATION
ELECTRICAL DETAILS
ODOR CONTROL IMPROVEMENTS
TOPEKA, KANSAS



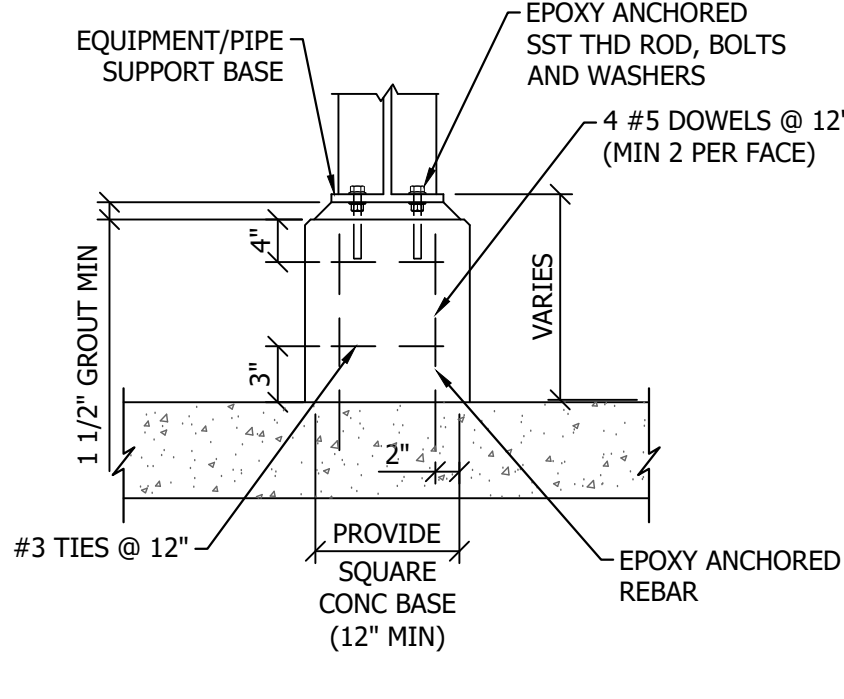
DESIGNED BY: JLM
DRAWN BY: ART
APPROVED BY: WJN
DESIGN PROJ: 19637.011
CONST: XXXXX.XXX
SCALE: AS NOTED
DATE: SEPTEMBER 2025
DRAWING NO: E-502
SHEET NO: 51 of 52



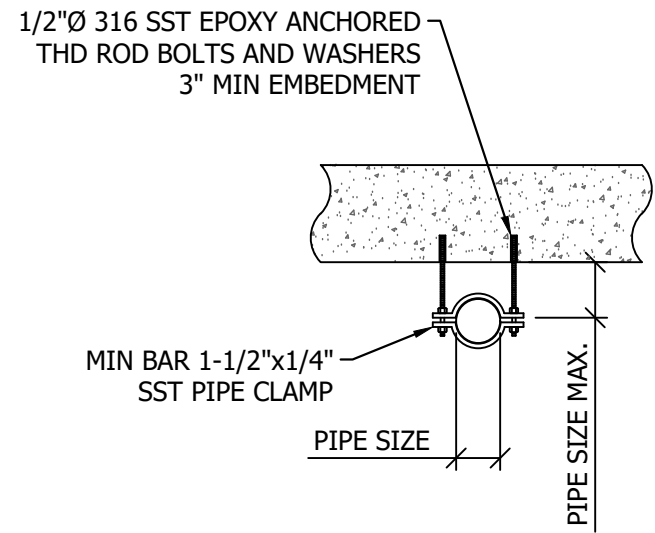
1 COVER/WALL PENETRATION DETAIL
NOT TO SCALE



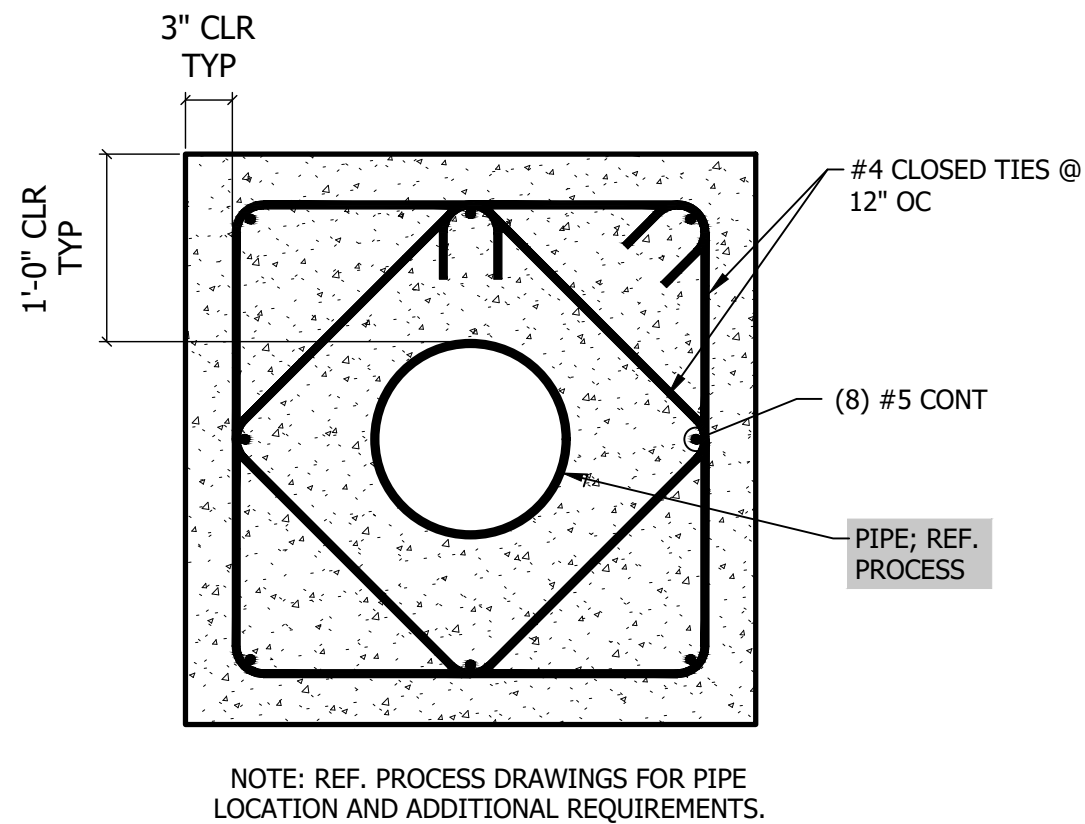
2 CONCRETE SIDEWALK DETAIL
NOT TO SCALE



3 MISC. CONCRETE SUPPORT
NOT TO SCALE

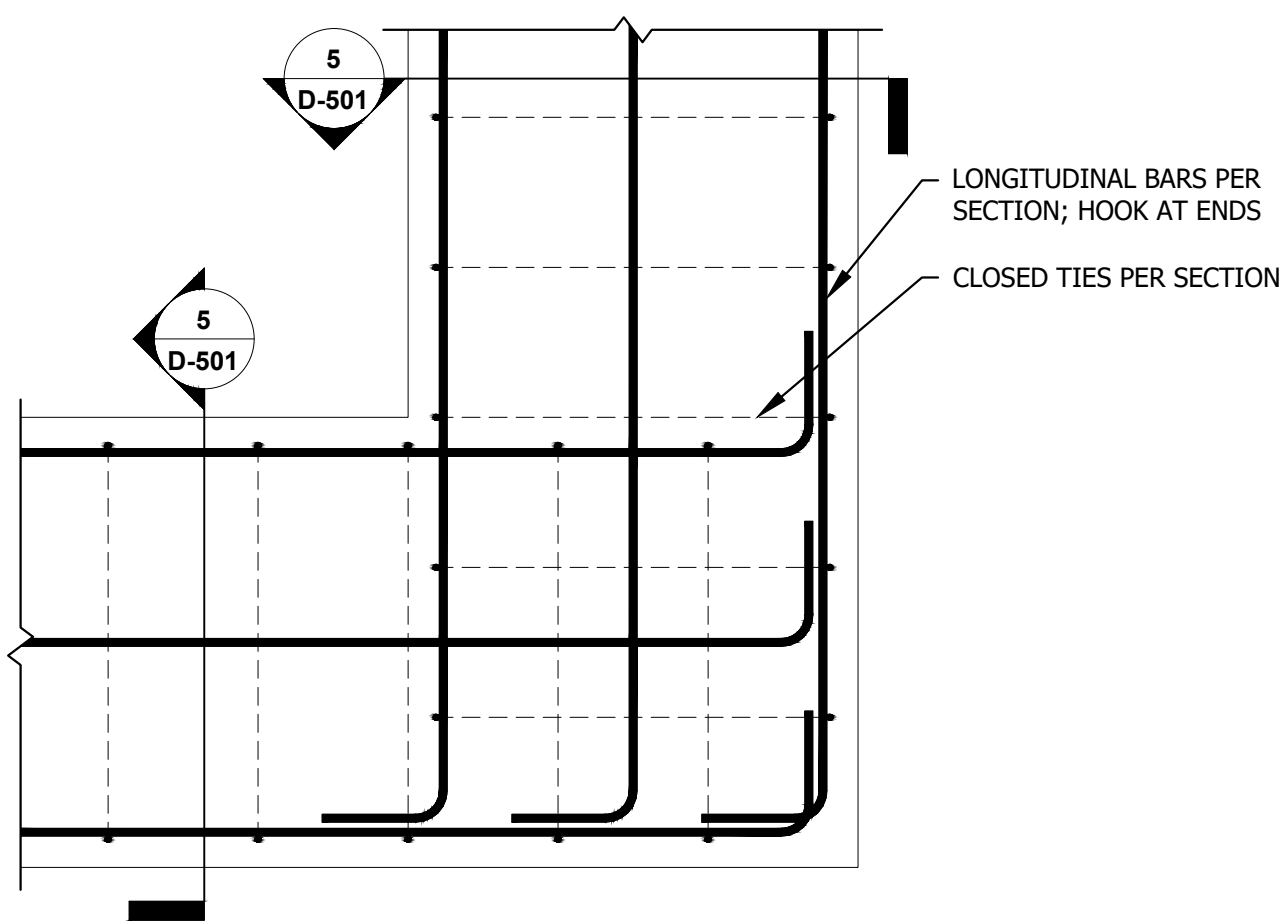


4 TYP. CEILING SUPPORT
NOT TO SCALE

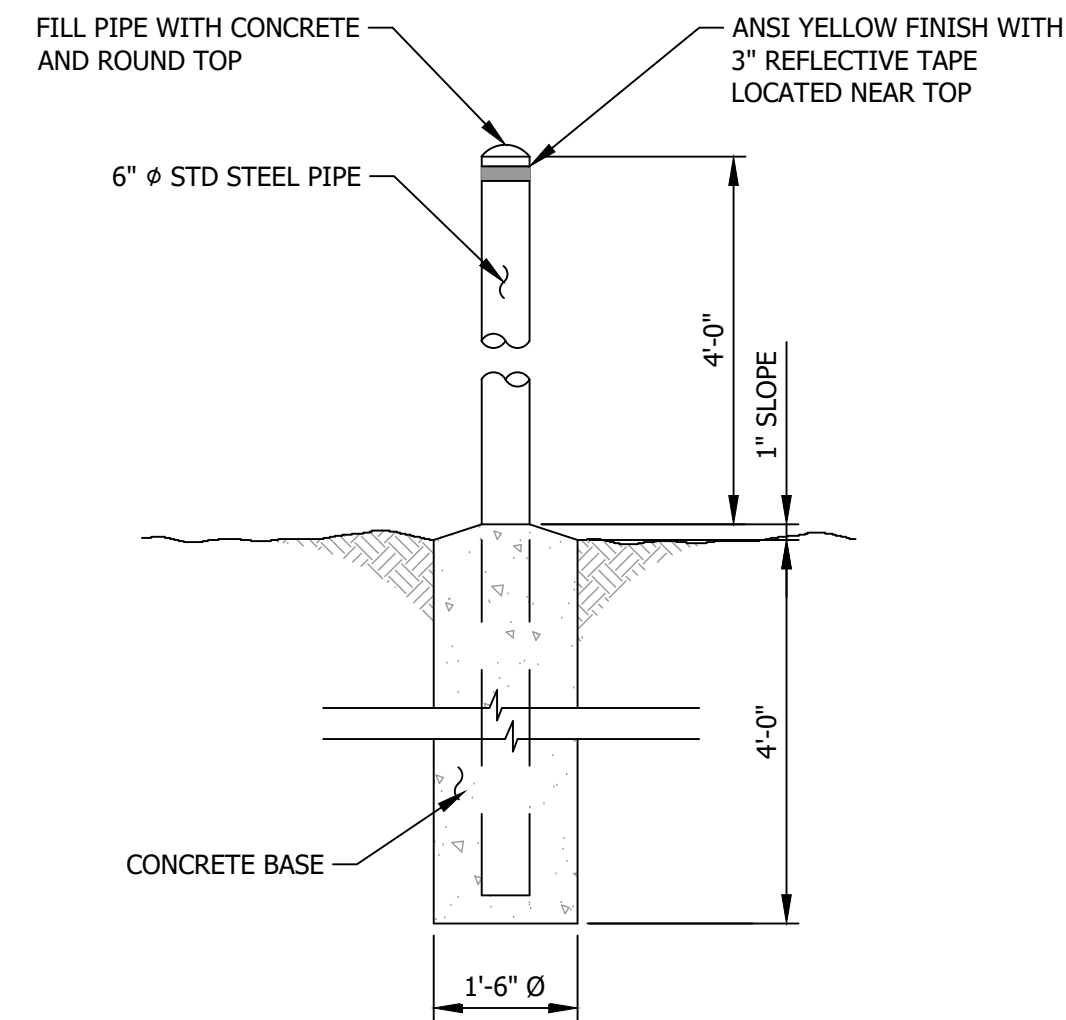


5 CONCRETE PIPE ENCASEMENT DETAIL
NOT TO SCALE

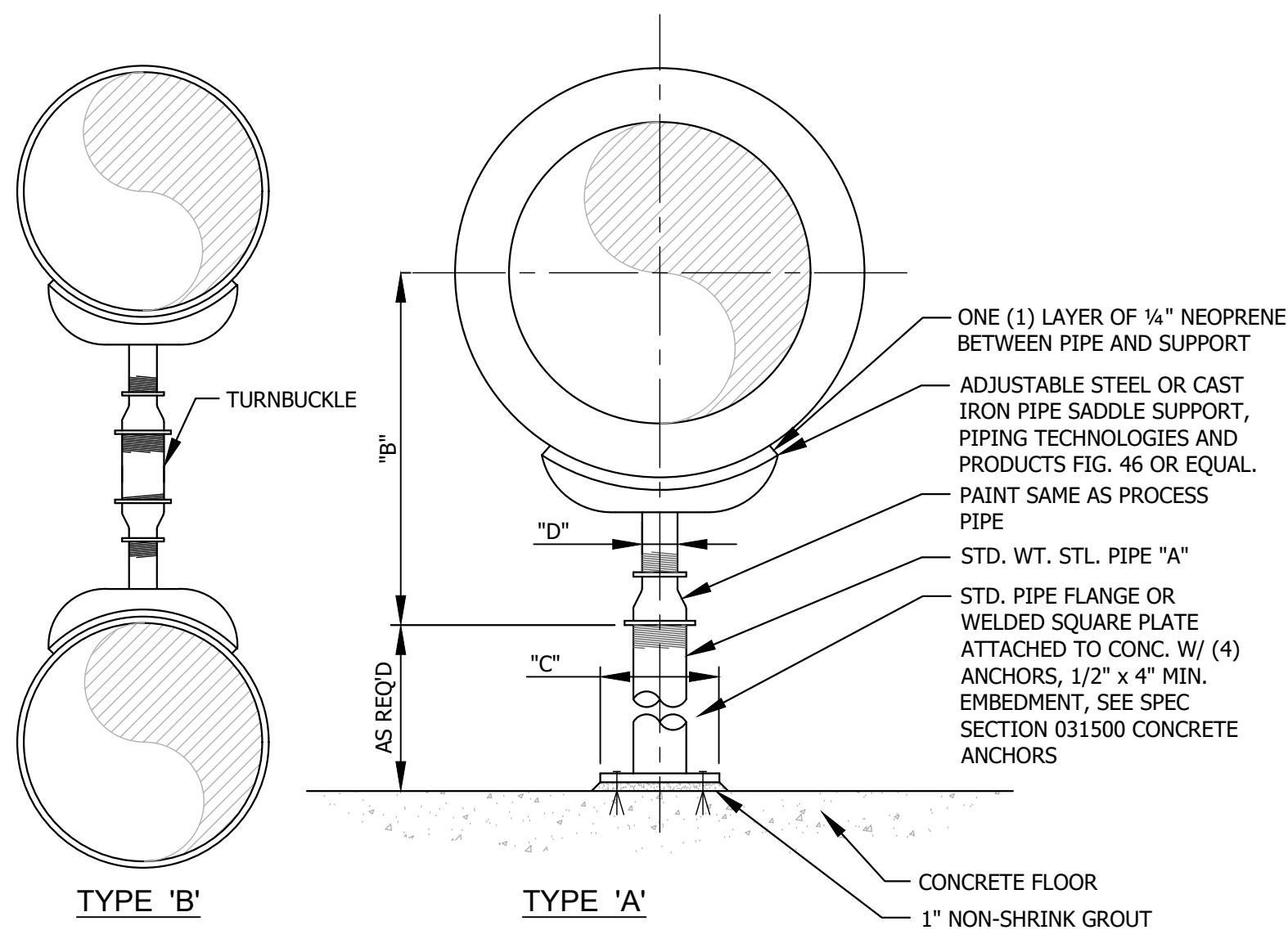
NOTE: REF. PROCESS DRAWINGS FOR PIPE LOCATION AND ADDITIONAL REQUIREMENTS.



6 TYPICAL PIPE ENCASEMENT ELBOW
NOT TO SCALE



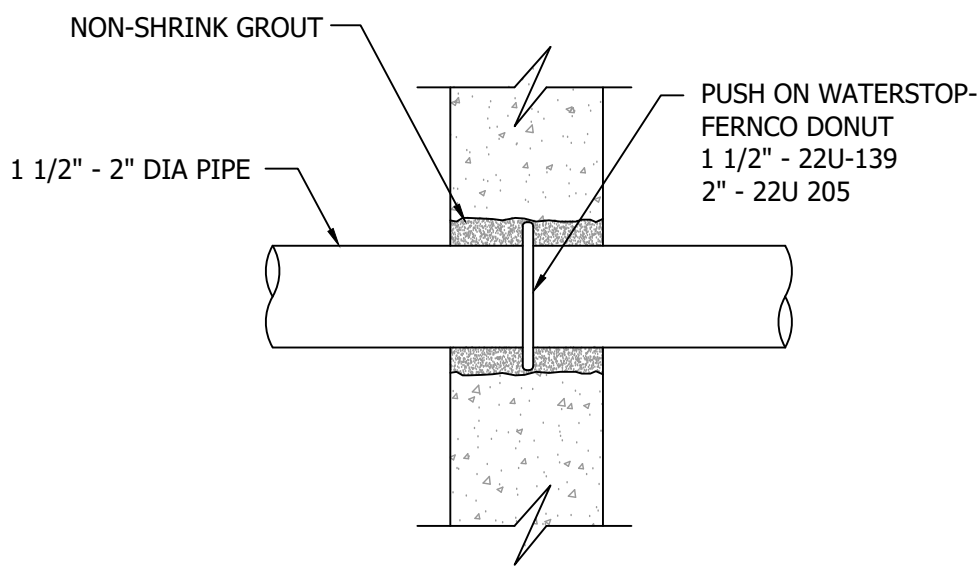
7 BOLLARD DETAIL
NOT TO SCALE



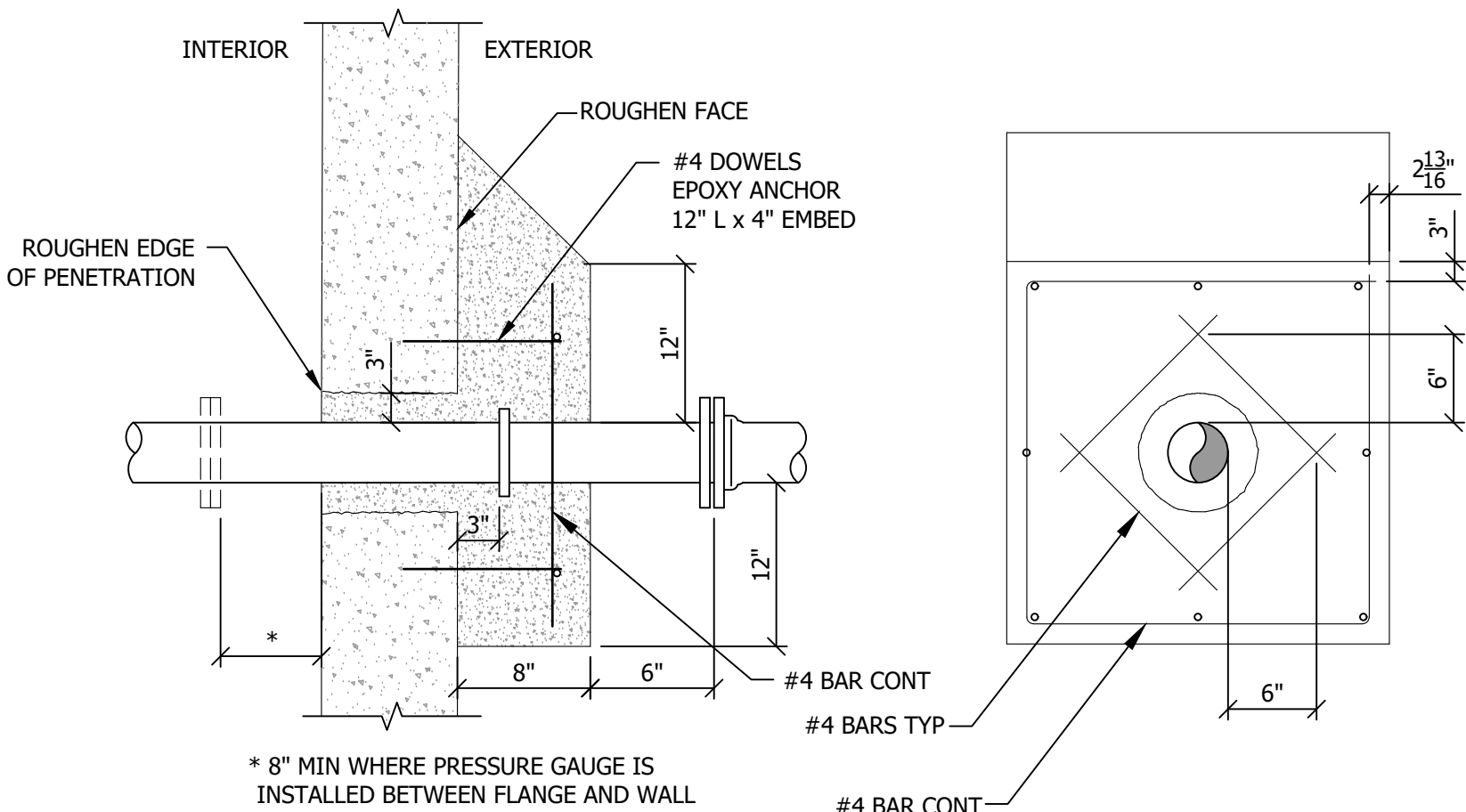
8 ADJUSTABLE PIPE SUPPORT DETAIL
NOT TO SCALE

STEEL PIPE SUPPORT TABLE						
PIPE SIZE	A (IN.)	B (IN.)		C (IN.)	D (IN.)	MAX. SUPPORT SPACING (DIP) (FT.)
		MIN.	MAX.			
4	3	9 1/4	14	9	2 1/2	10
6	3	10 1/2	15 1/4	9	2 1/2	10
8	3	11 3/4	16 1/2	9	2 1/2	10
10	3	13 1/2	18 1/4	9	2 1/2	12
12	3	15	19 3/4	9	2 1/2	12
14	4	16 1/4	20 3/4	11	3	14
16	4	17 3/4	22 1/4	11	3	14
18	6	19 1/2	24	13 1/2	3 1/2	14
20	6	21	25 1/2	13 1/2	3 1/2	16
24	6	23 3/4	28 1/4	13 1/2	4	16
30	6	27	31 1/2	13 1/2	4	16
36	6	30 1/4	34 1/4	13 1/2	4	16

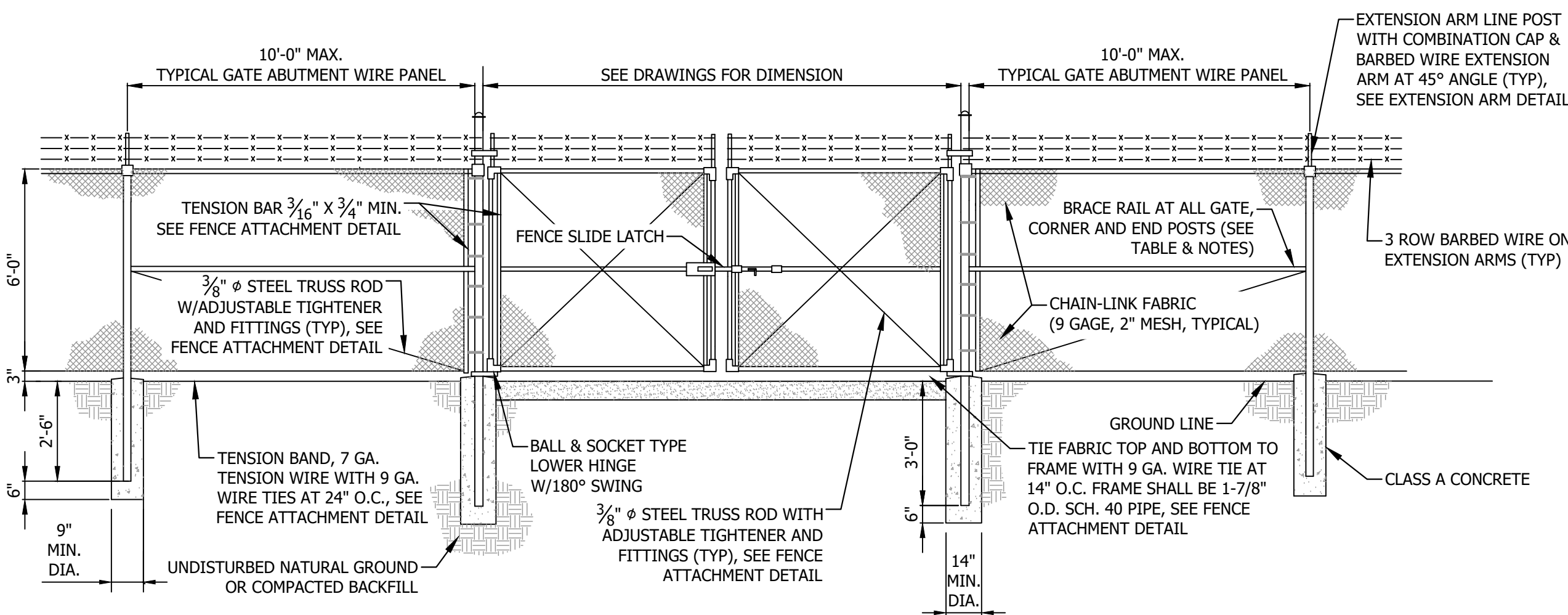
NOTE: SUPPORTS TO BE LOCATED AS SHOWN ON PLANS. IF PRECISE LOCATION IS NOT SHOWN, DO NOT EXCEED MAX. SPACING SHOWN IN TABLE.



9 2" AND UNDER WALL PENETRATIONS
NOT TO SCALE



10 TYP PRESSURE PIPE PENETRATION DETAIL
NOT TO SCALE



11 CHAIN-LINK SECURITY FENCE & GATE DETAIL
NOT TO SCALE

Bartlett & West

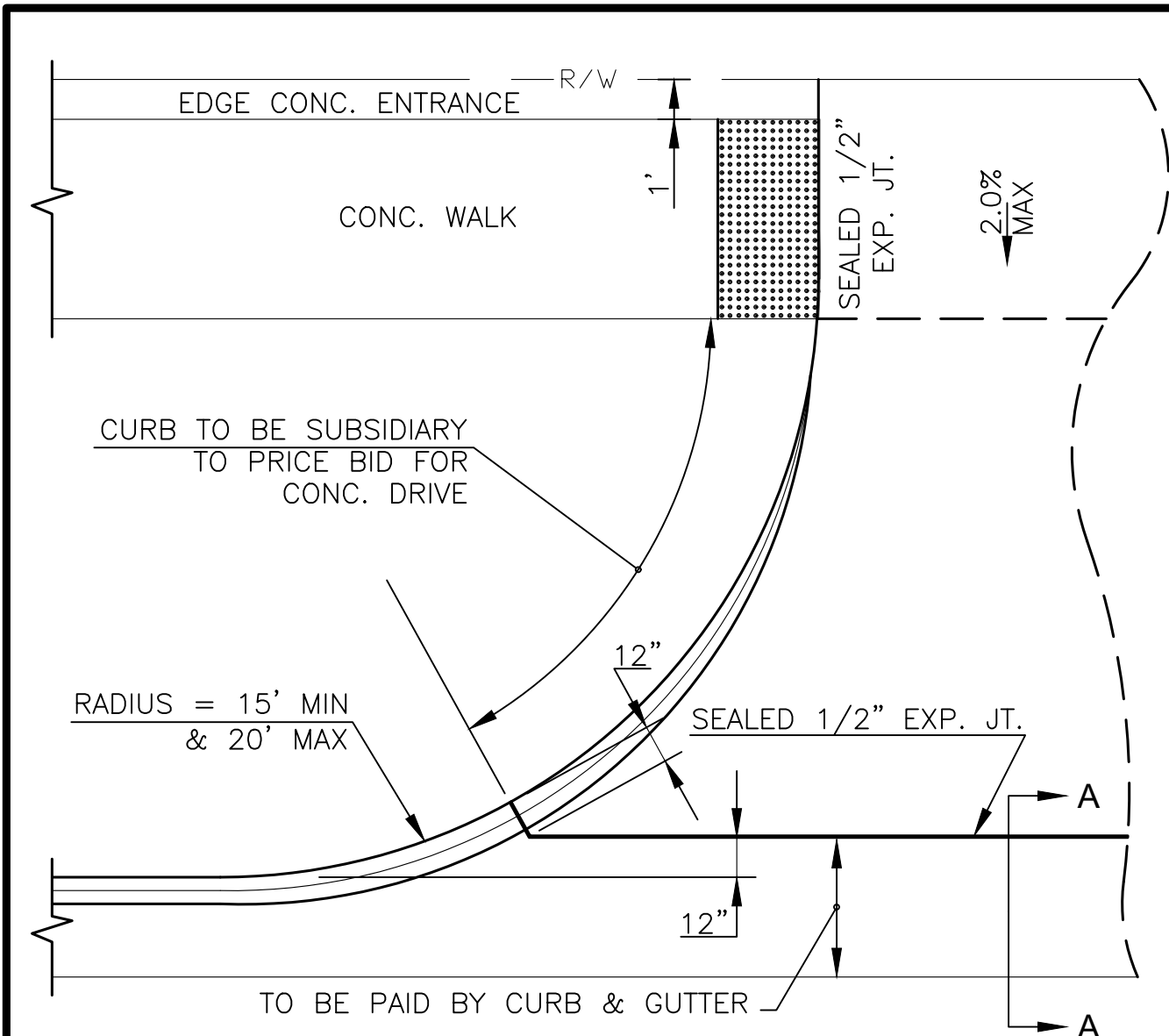
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PHONE 785.272.2252 - FAX 785.273.8735
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ODOR CONTROL IMPROVEMENTS
MISC DETAILS

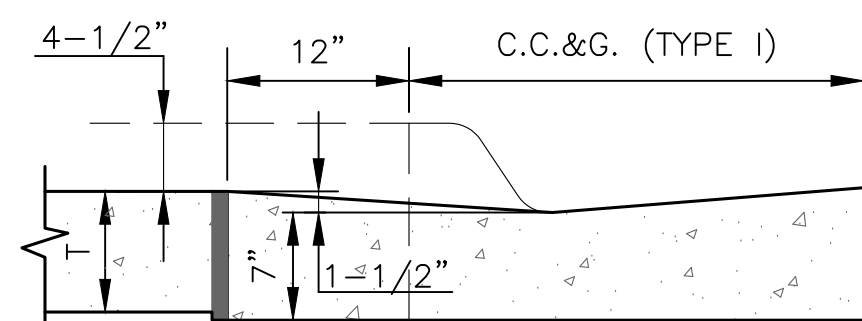
ODOR CONTROL IMPROVEMENTS
TOPEKA, KANSAS



DESIGNED BY: ----
DRAWN BY: ----
APPROVED BY: ADW
DESIGN PROJ: 19637.011
CONST PROJ: ----
SCALE: AS NOTED
DATE: SEPTEMBER 2025
DRAWING NO: D-501
SHEET NO: 52 of 52

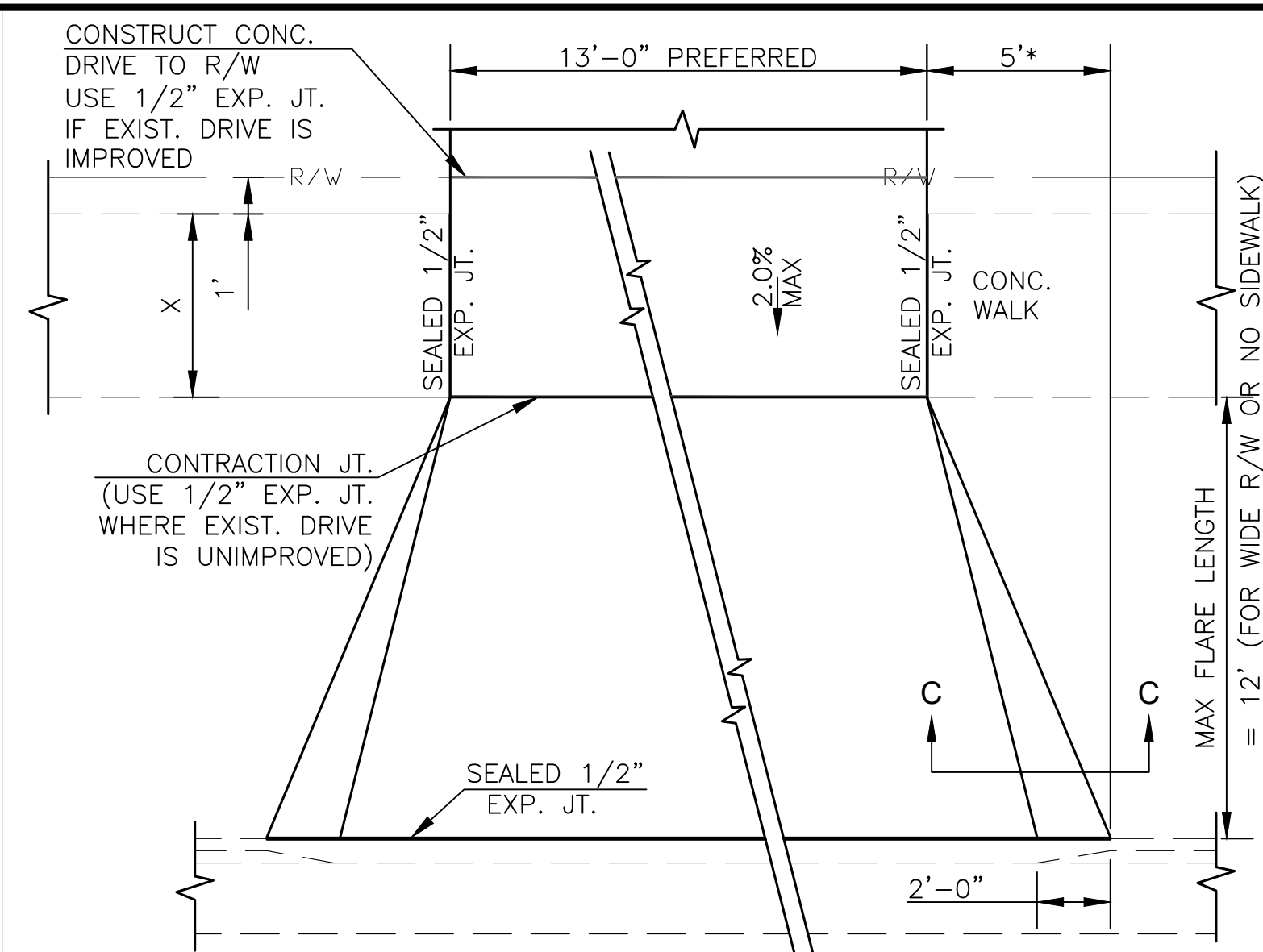


COMMERCIAL DRIVE APPROACH



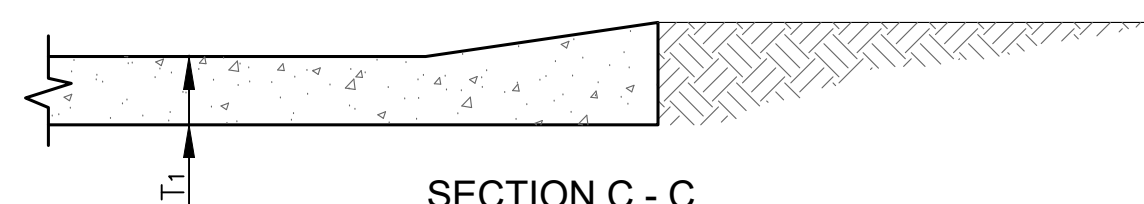
SECTION A - A

T=8" NON-REINFORCED FOR COMMERCIAL DRIVE, ALLEY APPROACH, AND SIDEWALK IN DRIVE ENTRANCE.



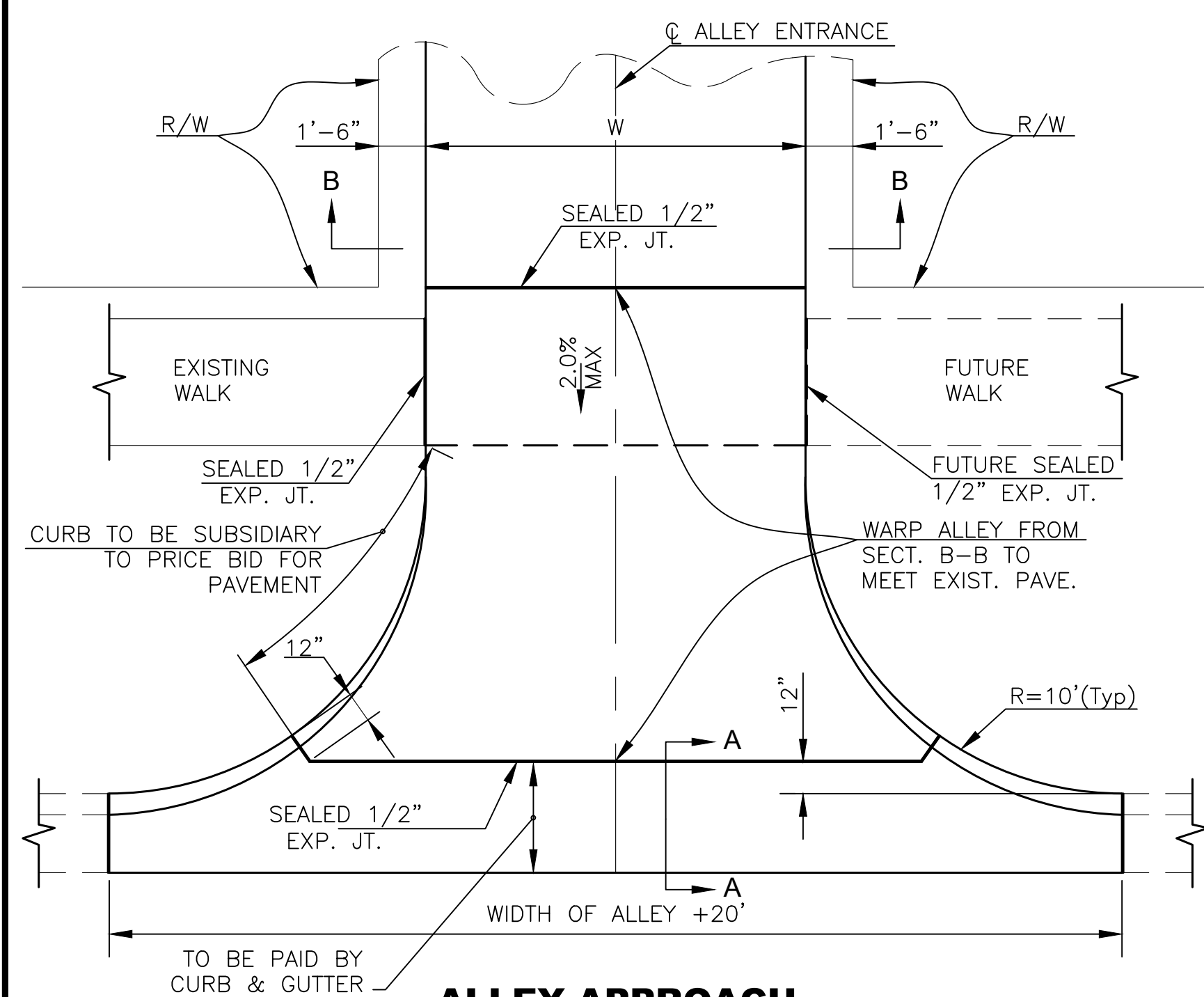
TYPICAL PRIVATE DRIVE APPROACH

- NOTES:
1. A SPECIAL DETAIL WILL BE PROVIDED WHEN SIDEWALK IS CLOSER THAN 6'-0" FROM BACK OF CURB.
 2. THEORETICAL CURB HEIGHT OF 6" ABOVE $\bar{C}$ SHALL BE OBTAINED IN ENTRANCE PAVEMENT.
- * FLARE SHALL BE 5 FEET WIDE IN NEW CONSTRUCTION. VARIANCES MAY BE MADE WITH APPROVAL OF THE CITY ENGINEER IN SPECIAL CIRCUMSTANCES FOR THE REPLACEMENT OF EXISTING DRIVEWAYS.

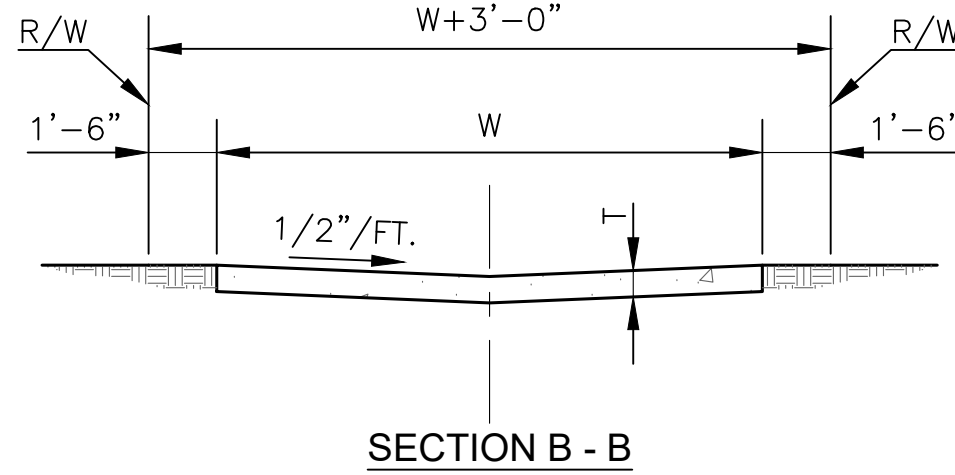


SECTION C - C

T₁=6" FOR RESIDENTIAL DRIVE APPROACH AND SIDEWALK IN DRIVE ENTRANCE

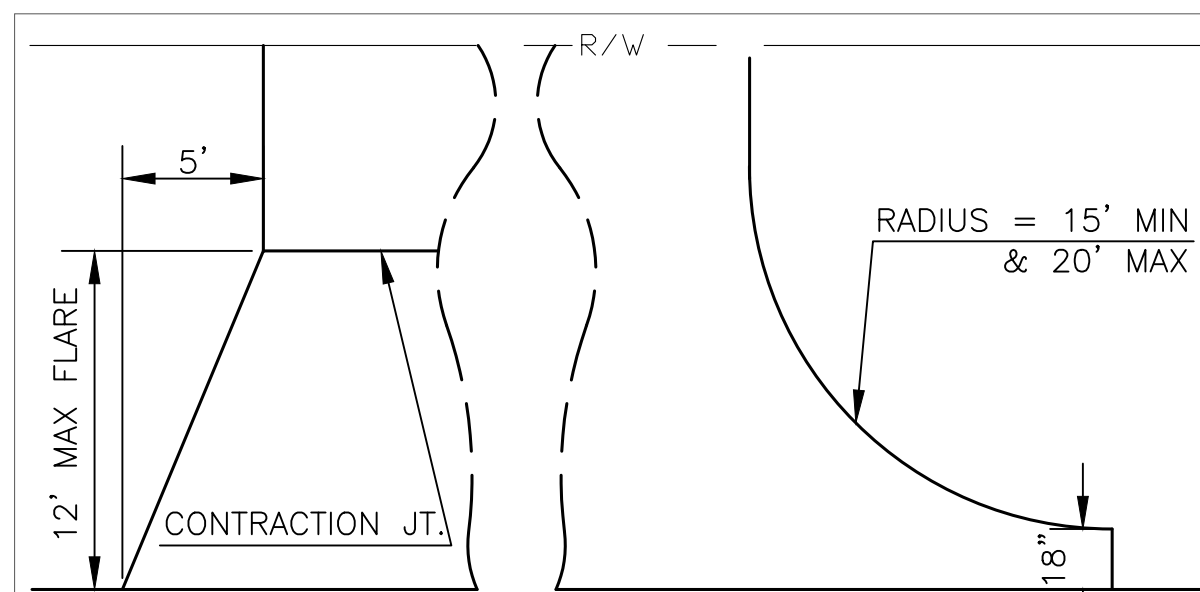


ALLEY APPROACH

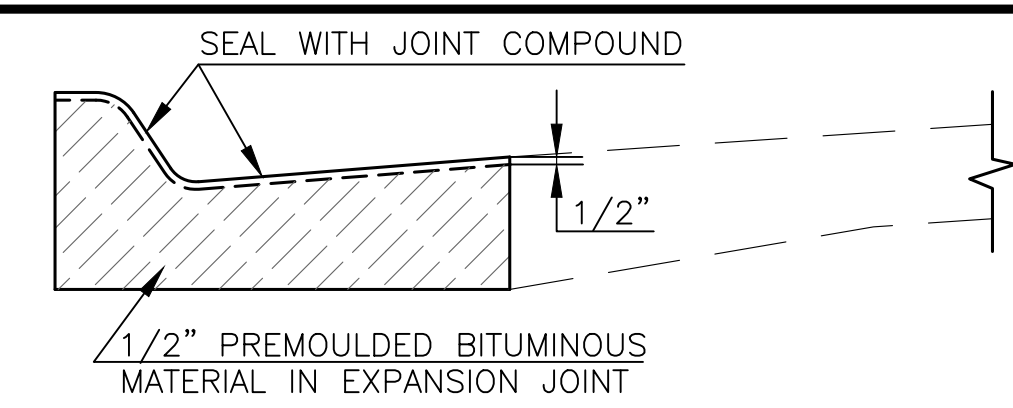


SECTION B - B

- NOTES:
1. T=7" REINFORCED CONCRETE
 2. WIDTH OF W WILL BE USED THROUGHOUT ON ALL ALLEY PAVING PROJECTS.
 3. ALLEY RETURNS SHALL BE THE SAME THICKNESS AS THE ADJACENT STREET THICKNESS.
 4. 1/2" EXP. JOINT AT EACH END OF ALLEY RETURN.

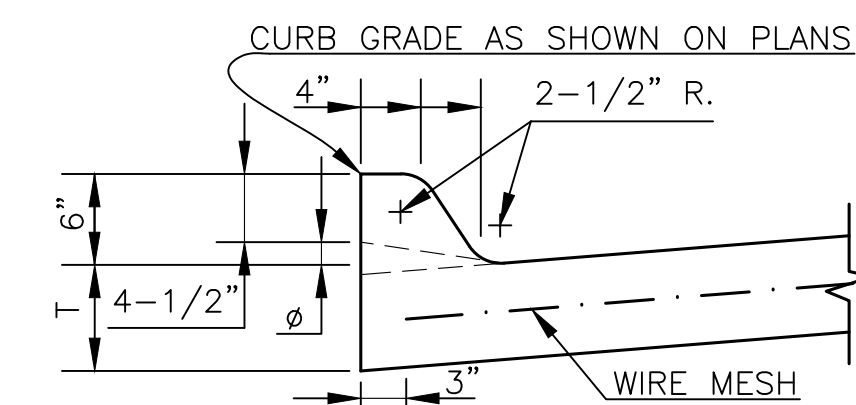


DRIVE APPROACHES ON AN UNIMPROVED ROADWAY

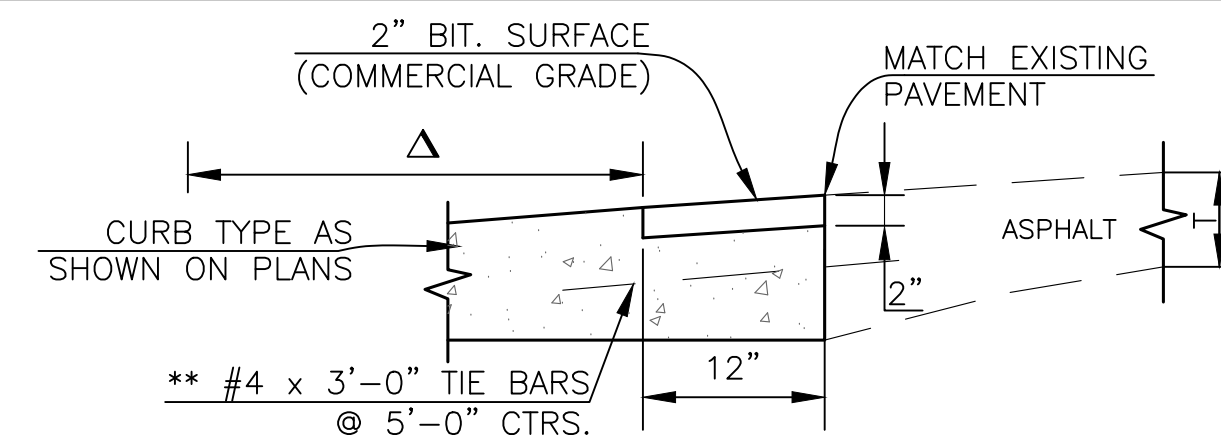


CURB AND GUTTER EXPANSION JOINT DETAILS

- NOTES:
1. 1/2" EXPANSION JOINTS TO BE PLACED AT THE END OF ALL INTERSECTION RETURNS.
 2. SAND IS NOT AN APPROVED FILL OR SUBGRADE MATERIAL.
 3. ALL EXPANSION JOINTS SHALL BE SEALED WITH APPROVED MATERIAL.



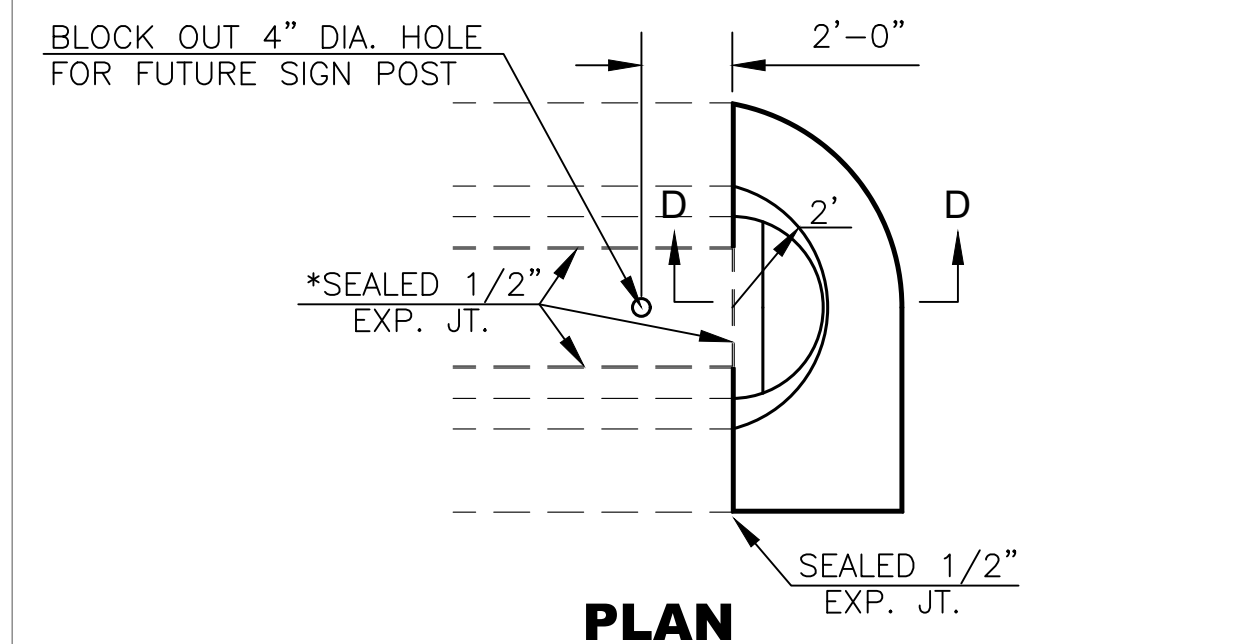
6" INTEGRAL CURB



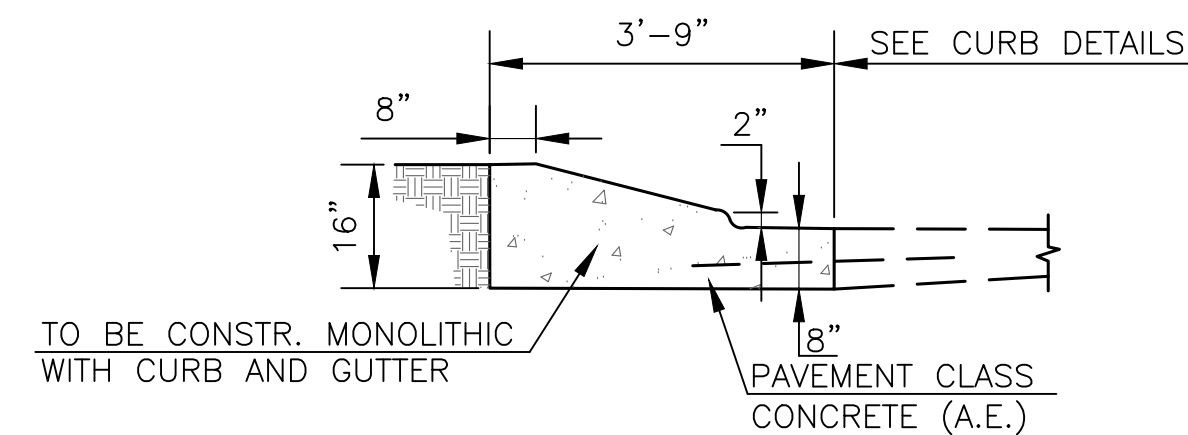
CC&G (MODIFIED)

NOTE:
CURB AND GUTTER ABUTTING EXISTING ASPHALT

Δ DIMENSION IS FROM BACK OF CURB TO TOE, SEE APPROPRIATE DETAIL FOR CURB TYPE AS SHOWN ON PLANS



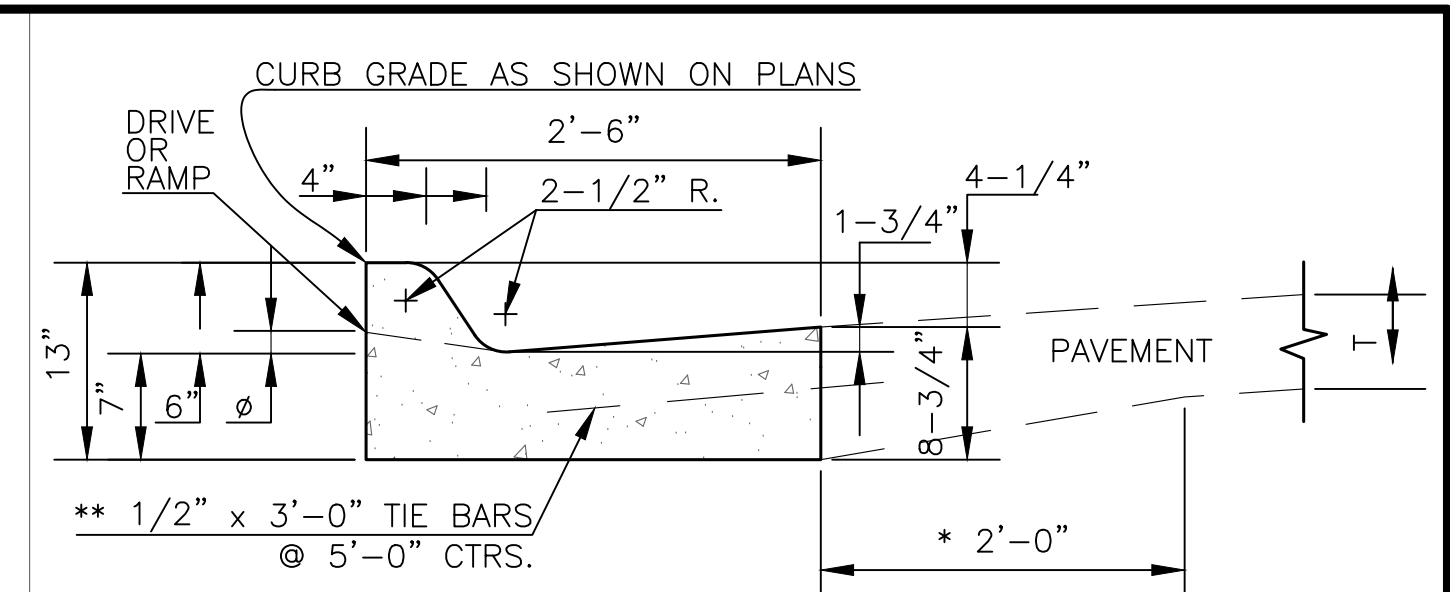
PLAN



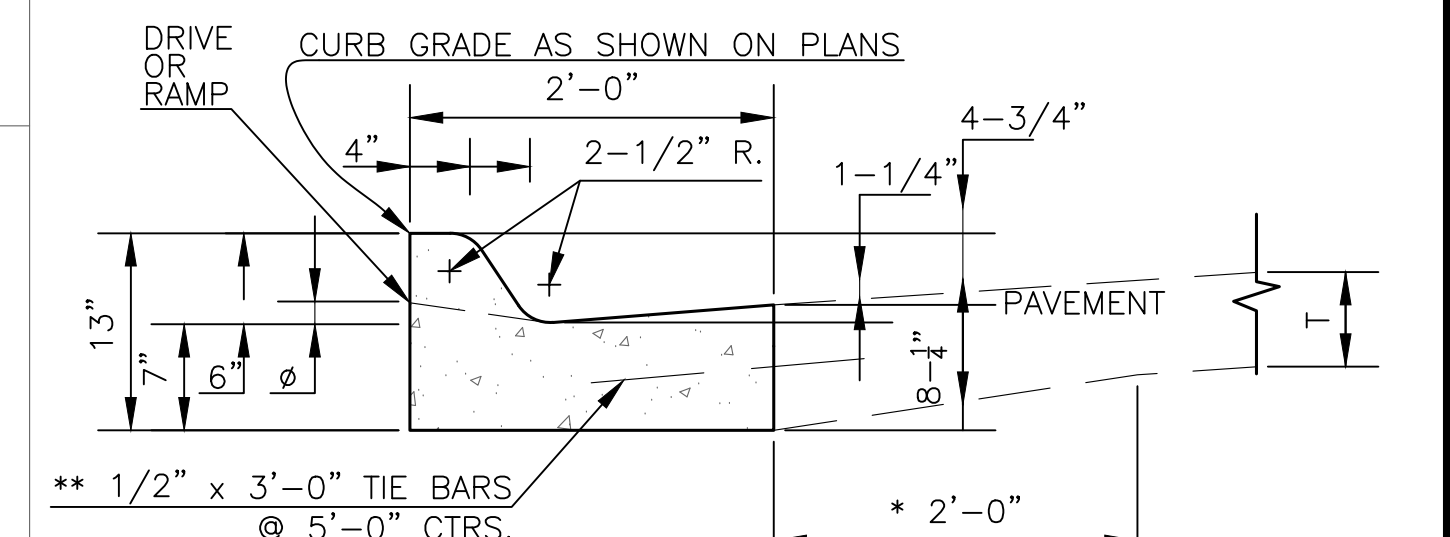
SOLID NOSE DETAILS

NOTE:
PAVEMENT CLASS CONCRETE (AE) NEEDED TO COMPLETE THE MEDIAN NOSE SHALL BE SUBSIDIARY TO THE BID ITEM FOR COMBINED CURB AND GUTTER TYPE III.

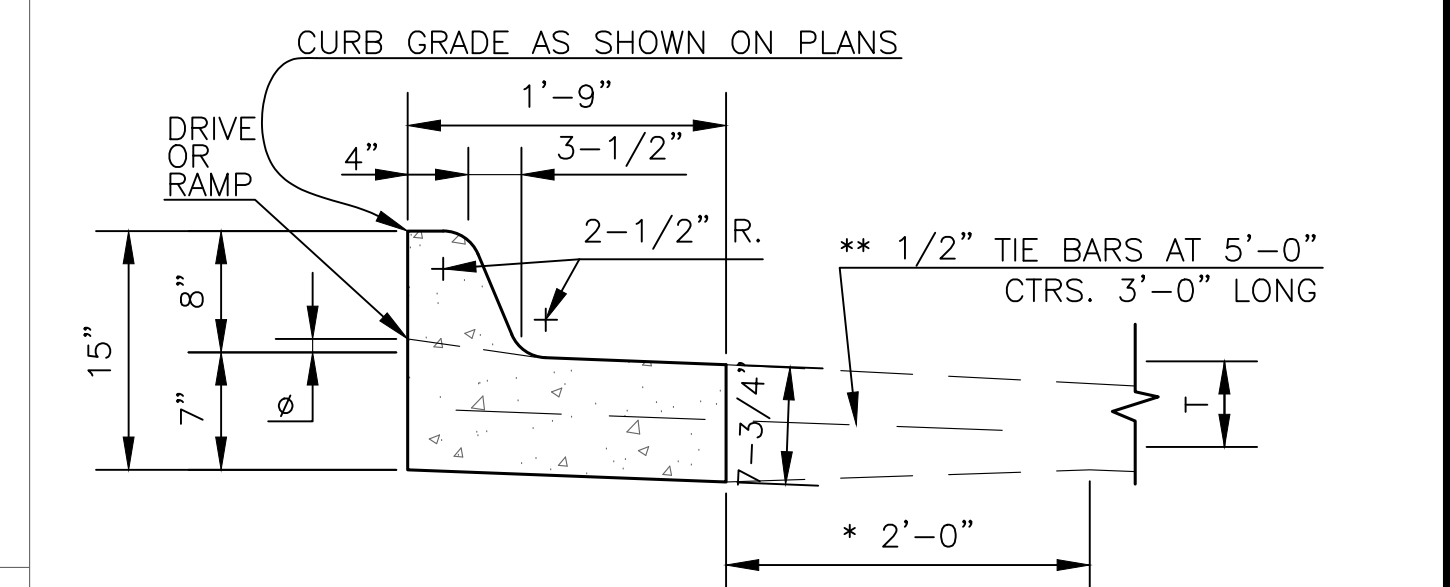
* OMIT SEALED 1/2" EXPANSION JOINT WHEN SURFACE MATERIAL USED IN MEDIAN IS OTHER THAN CONCRETE.



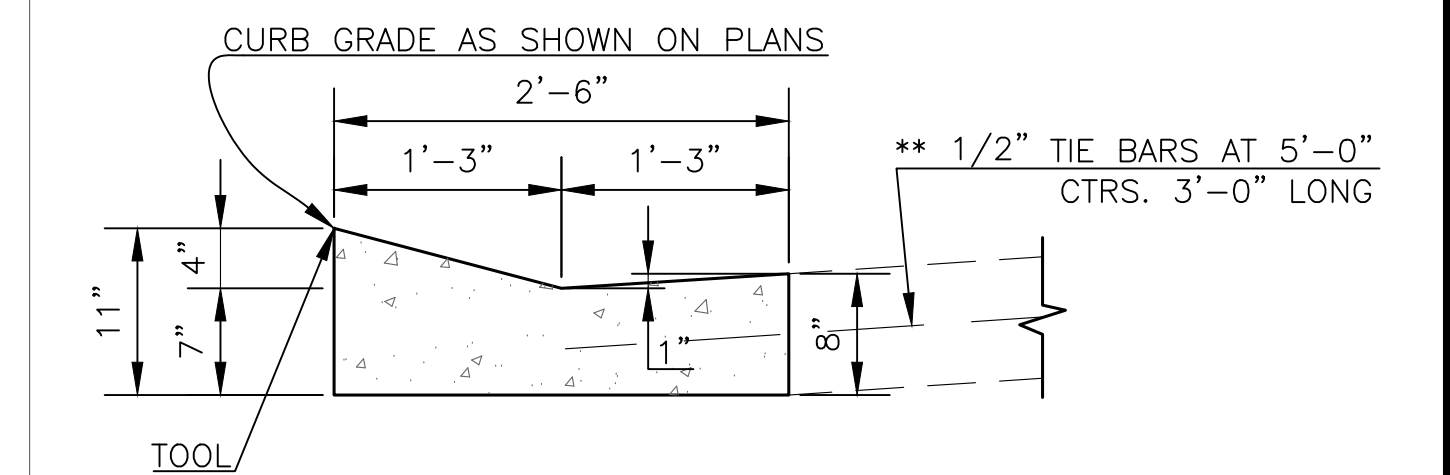
COMBINED CURB & GUTTER-TYPE I



COMBINED CURB & GUTTER-TYPE II



COMBINED CURB & GUTTER-TYPE III



LAYBACK CURB & GUTTER-TYPE IV

- NOTES:
1. USE OF LAYBACK CURB AND GUTTER IS RESTRICTED TO STREET CLASSIFICATION OF SUB-COLLECTOR AND LOCAL. LAYBACK CURB AND GUTTER SHALL NOT BE USED IN INTERSECTION CURB RETURNS.
 2. FOR CURB AND GUTTER ABUTTING EXISTING ASPHALT, REFER TO CC&G MODIFIED DETAIL

* THE CONTRACTOR HAS THE OPTION OF MAINTAINING OR TRANSITIONING AS SHOWN AT NO ADDITIONAL COST.

**THE TIE BARS MAY BE ELIMINATED WITH ASPHALTIC CONCRETE PAVEMENT CONSTRUCTION.

ϕ 1-1/2" FOR DRIVE ENTRANCES AND 3/4" FOR SIDEWALK RAMP

5	March 2013	C&G payment @ alley appr. & bars to "	DHS	SB
4	Dec. 2012	Changed to tie bar from rebar	DHS	SB
3	March 2010	Eliminated keyed jt. at Com. Drive Appr.	DHS	SB
2	Dec. 2009	Added Dr. Appr. on Unimpr. Rdwy., added flare verbage, mod. S/W x-slope & remv. keyed joints from C & G.	DHS	SB
1	Feb. 2008	Mod. Com. Dr. & Alley Appr.	DHS	SB
NO.	DATE:	REVISION	BY:	APP'D

DRAWN BY: *rm/mc*

APP'D BY: *R. Clumathy*



**SHAWNEE COUNTY, KANSAS
PUBLIC WORKS DEPARTMENT**
1515 NW SALINE
TOPEKA, KS 66618
(785) 233-7702

TOPEKA
Public Works
ENGINEERING
620 SE MADISON St. • 2nd Floor • TOPEKA, KS 66607
Phone: (785) 368-3842 • Fax: (785) 368-3881

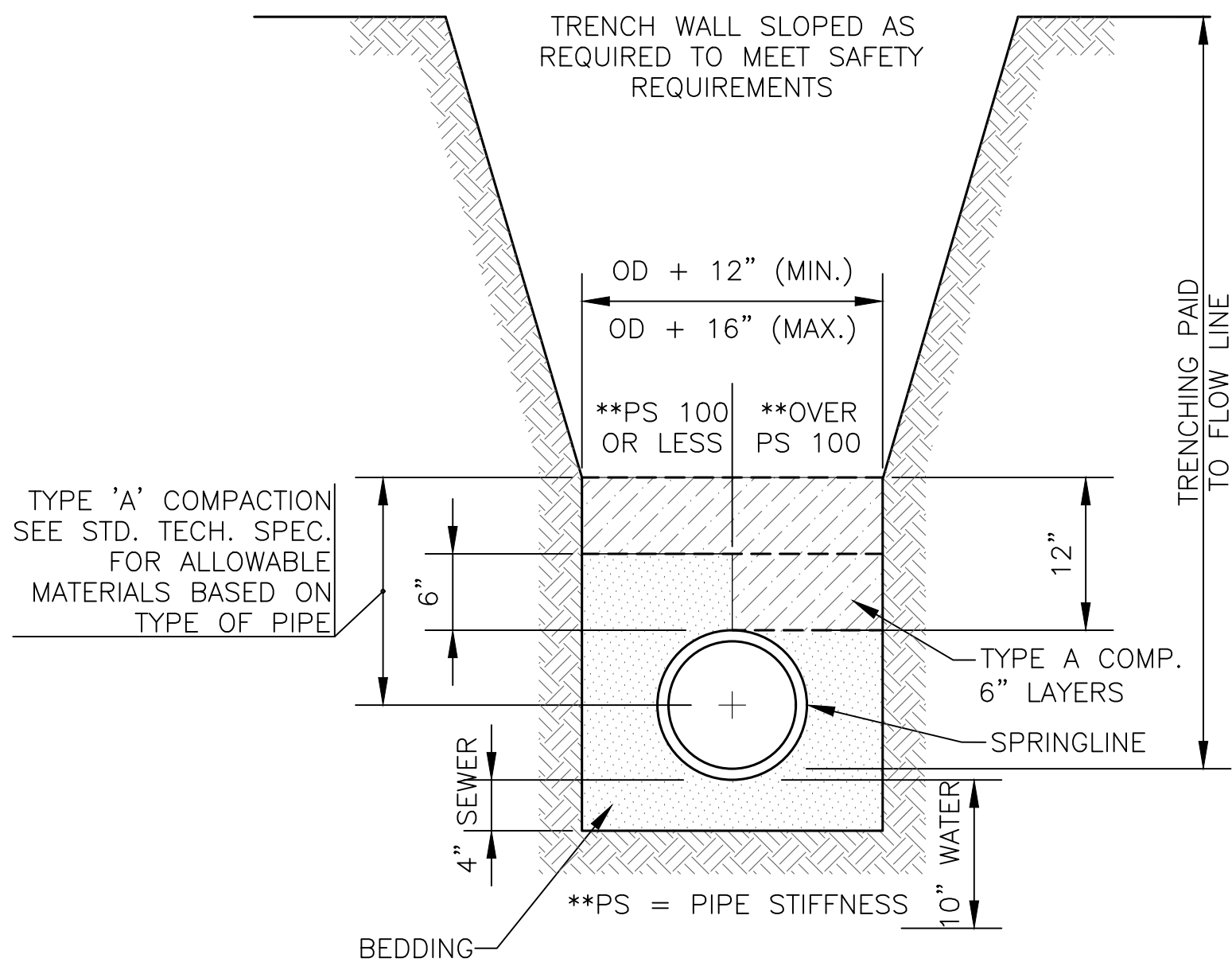
STANDARD DETAILS

**CURB & GUTTER
AND
APPROACH DETAILS**
(DT-003)

DATE: _____

SHEET: _____

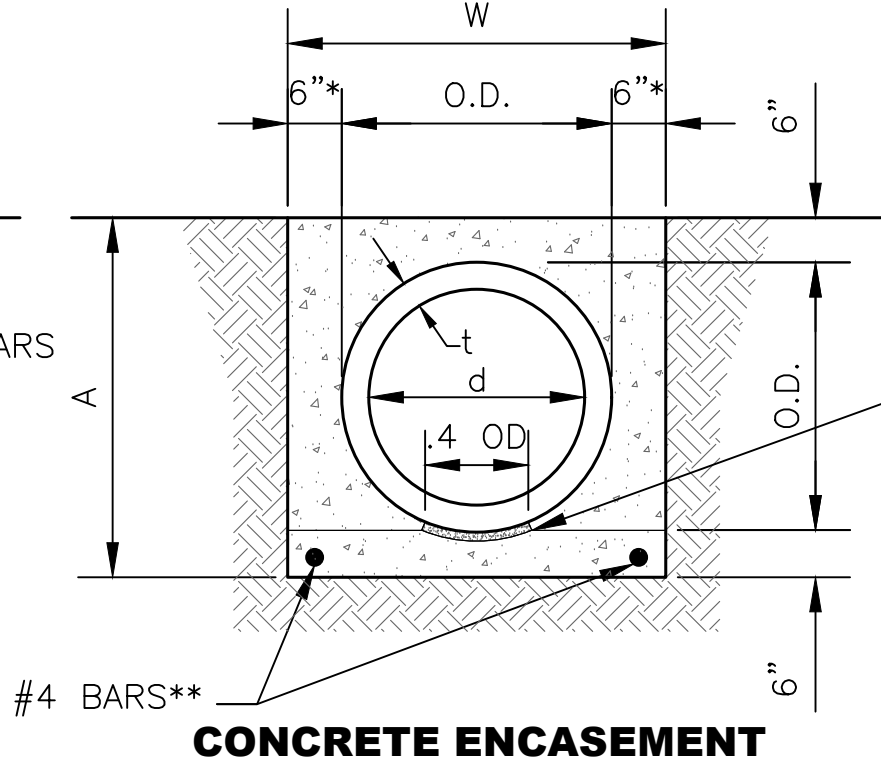
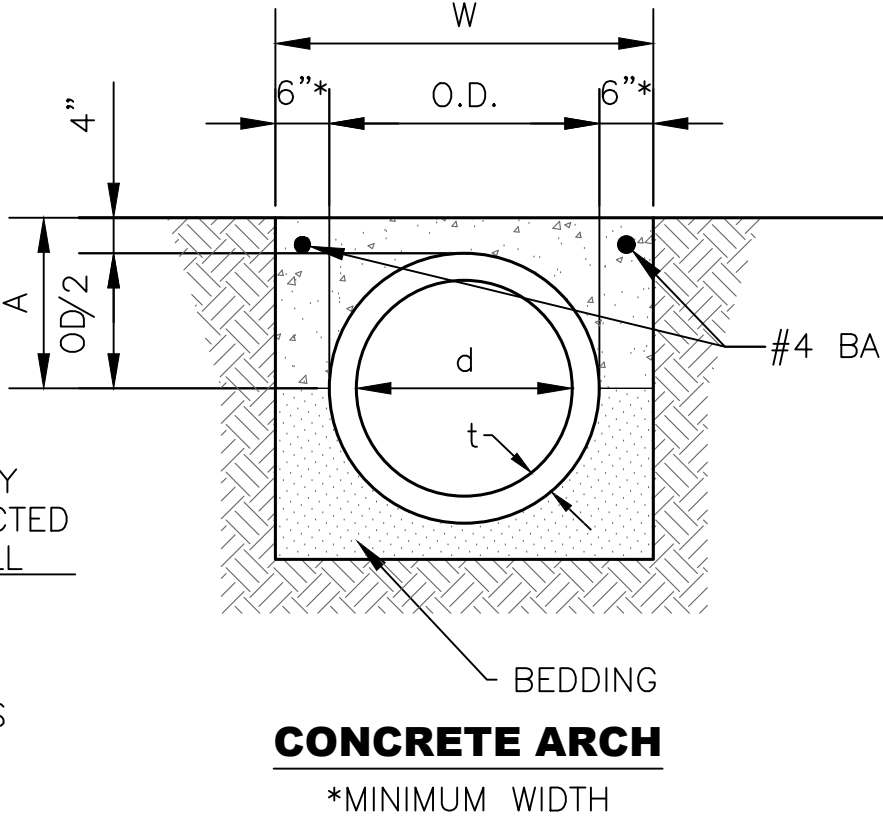
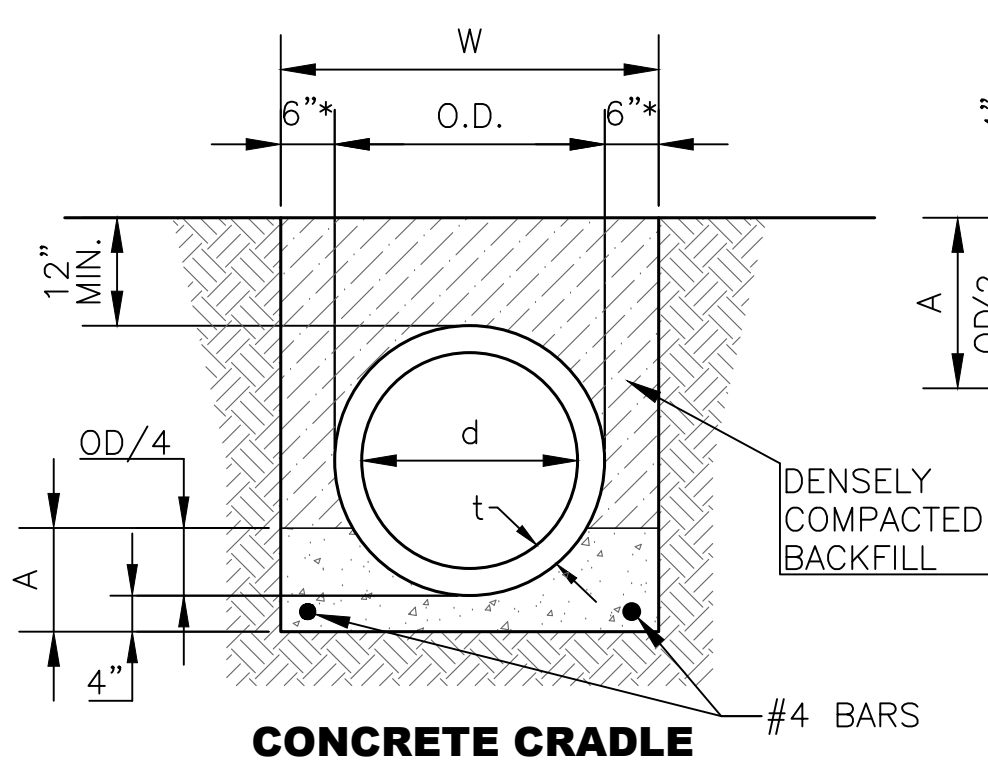
PROJ.: _____



TRENCHING DETAILS

STANDARDS FOR SETTING LINE AND GRADE FOR SEWER & WATER CONSTRUCTION:

1. STAKES, SPIKES, SHINERS, OR CROSSES SET BY TRANSIT AT THE SURFACE ON AN OFFSET FROM THE SEWER CENTER LINE.
2. STAKES ARE TO BE SET IN THE TRENCH BOTTOM ON THE SEWER LINE AS THE ROUGH GRADE FOR SEWER IS COMPLETED.
3. ELEVATIONS GIVEN FOR THE FINISHED TRENCH GRADE AND SEWER INVERT, WHILE SEWER LAYING PROGRESSES.

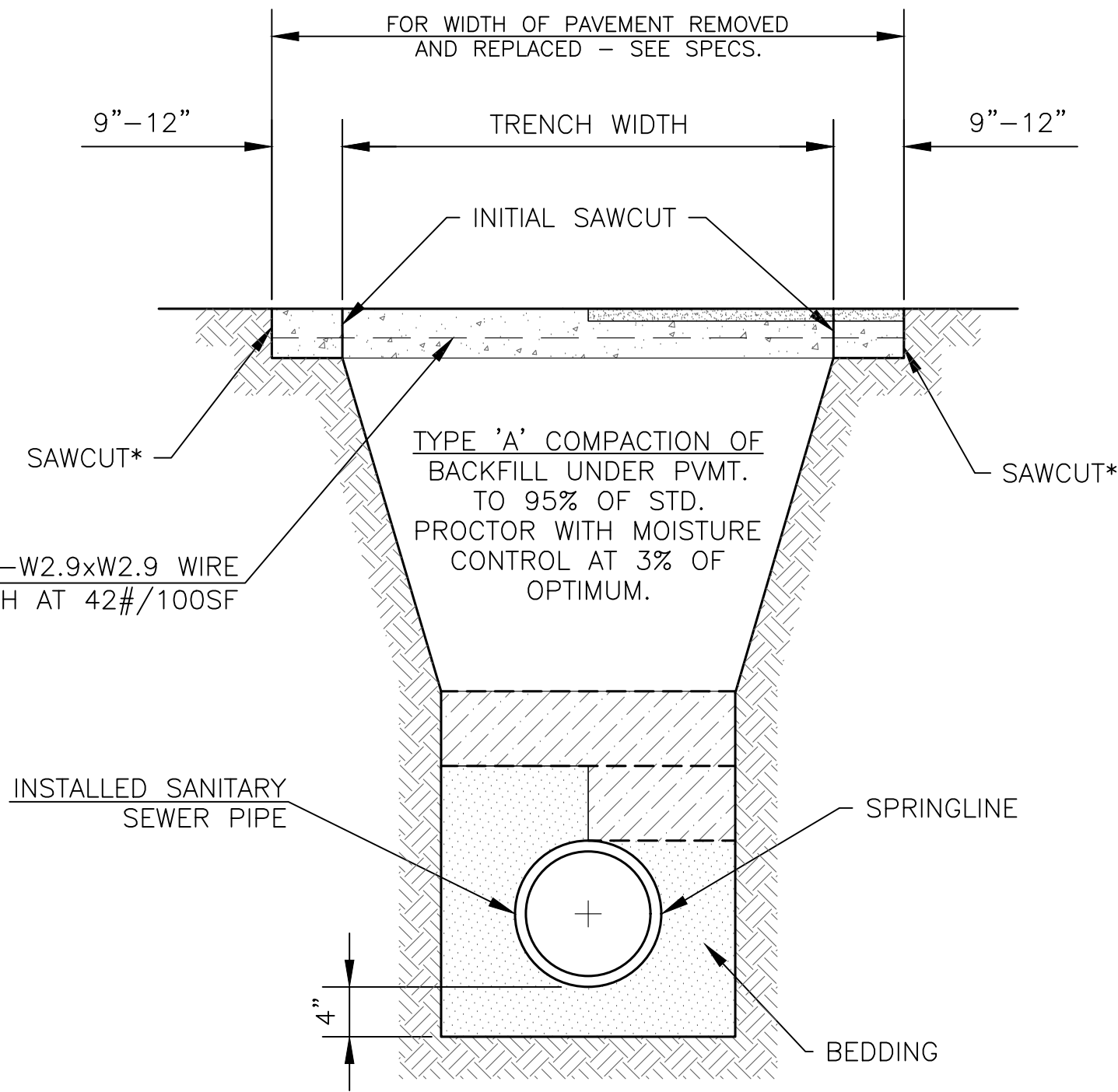


**REINFORCING SHALL BE TWO #4 BARS FOR PIPE UP TO 8" DIA; FOUR #4 BARS FOR 10" THROUGH 24" DIA; AND AS APPROVED BY THE ENGINEER FOR LARGER THAN 24" DIA.

NOTE: MAXIMUM PIPE INTRUSION INTO STRUCTURE IS 4".
UNIQUE STRUCTURES MIGHT REQUIRE ADDITIONAL ANALYSIS.
ENGINEER APPROVAL REQUIRED.

INSTALL APPROVED
PLUGGING DEVICE
AT PROPERTY LINE

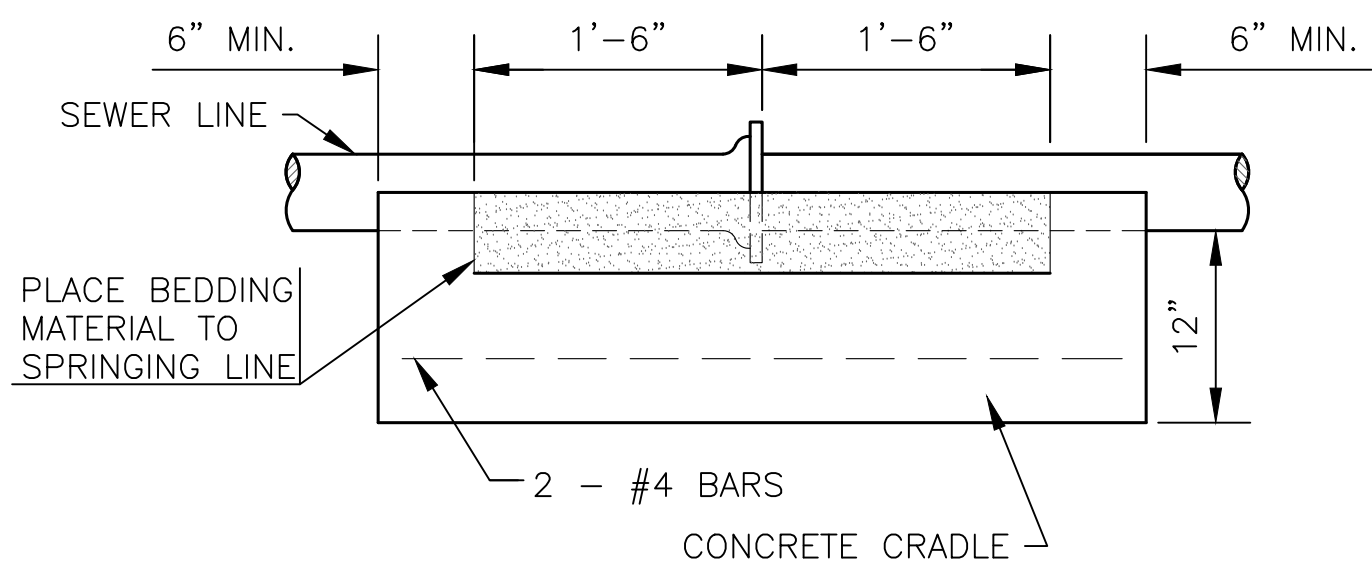
MAXIMUM DEPTH AT PLUG LOCATION SHALL BE 14' BELOW TOP OF HOUSE FOUNDATION. LENGTH AND ELEVATION SHALL BE AS SHOWN ON PLANS. LINES SHALL BE PLACED AT RIGHT ANGLES FROM MAIN. ALIGNMENT CHANGES MUST BE MADE BY THE USE OF 1/8 BENDS CONNECTED AT THE WYE. UNIT PRICE BID PER LINEAL FOOT FOR SERVICE STUBS SHALL INCLUDE - TRENCHING, LAYING, BACKFILLING, PIPE, FITTINGS AND BEDDING MATERIAL. AT POINTS WHERE SEWERS CROSS WATER MAINS, THE SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON, PLASTIC PIPE WITH SOLVENT WELDED JOINTS, OR PIPE ENCASED IN CONCRETE FOR A DISTANCE OF 10 FEET IN EACH DIRECTION FROM THE CROSSING UNLESS THE WATER MAIN IS AT LEAST 2 FEET ABOVE THE SEWER. FOR SIZING DATA SEE NOTE ELSEWHERE, THIS SHEET. ALSO SEE "SANITARY SEWER CAP" DETAIL ON MISCELLANEOUS DETAILS II (DT-018).



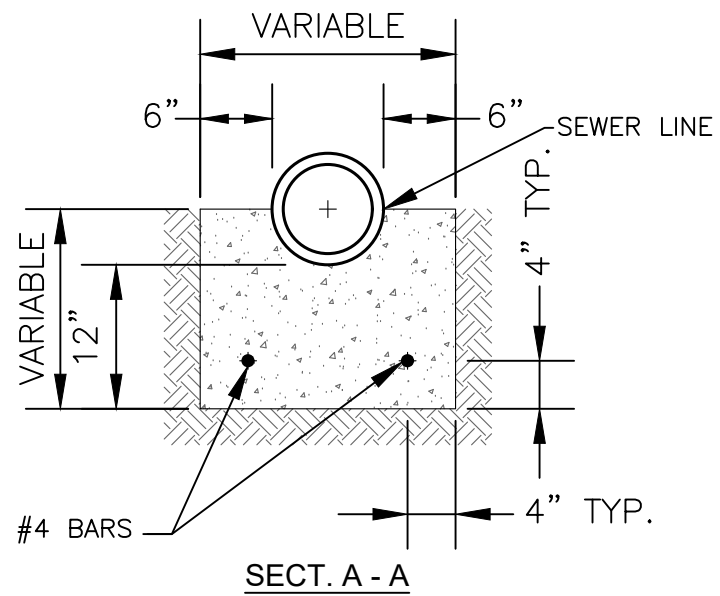
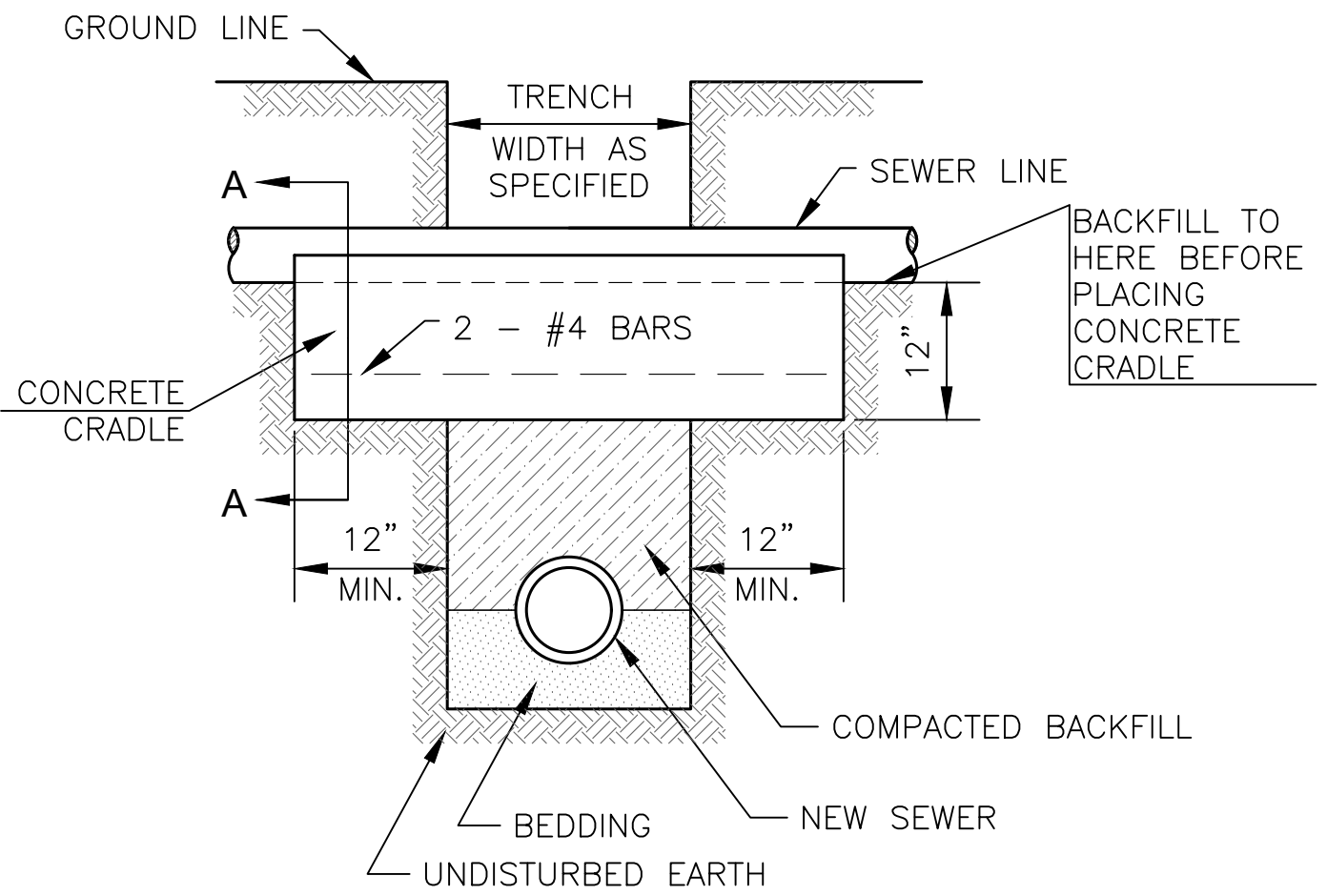
INSTALLATION OF SEWER UNDER EXISTING PAVEMENT

STANDARD METHODS FOR TRANSFERRING LINE AND GRADE TO SEWER TRENCH BOTTOM:

1. ELECTRONIC LASER EQUIPMENT-STAKING SHALL BE AT 25' INTERVALS FOR THE FIRST 100' AND EVERY 100' THEREAFTER UNTIL THE NEXT MANHOLE IS REACHED.
2. BATTER BOARDS AND BATTER BOARD SUPPORTS-STAKING SHALL BE EVERY 25'.



JOINT CRADLE DETAIL



CRADLE DETAILS

PAVEMENT PLACEMENT SCHEDULE SCHEDULE TO BE USED UNLESS OTHERWISE NOTED ON PLANS.

ORIGINAL SURFACE

NEW PAVEMENT

CONCRETE	8" REINFORCED CONCRETE 4,000psi
BRICK OVER CONCRETE	7" REINFORCED CONC.BASE 4,000psi PLUS ONE-COURSE RELAID BRICK.
ASPHALT	MATCH EXISTING PAVEMENT THICKNESS WITH A MINIMUM OF 6" HOT-MIX ASPHALTIC CONCRETE.
ASPHALT OVER CONCRETE	7" REINFORCED CONCRETE BASE 4000 psi PLUS 2" HOT MIX ASPHALTIC CONCRETE. 7" REINFORCED CONCRETE BASE SHALL BE JOINED TO ADJACENT PAVEMENT. SEE "FULL PANEL REPAIR & UTILITY CUTS FOR CONCRETE PAVEMENT" DETAIL AS SHOWN ON MISCELLANEOUS DETAILS I (DT-017). THE WEARING SURFACE WILL CONFORM TO CITY/COUNTY STANDARD SPECIFICATIONS.
BRICK OVER BRICK/SUBGRADE	7" HOT-MIX ASPHALTIC CONCRETE PLUS ONE-COURSE RE-LAID BRICK.
PAVEMENT SHALL BE SAWED AND REMOVED WITHOUT DAMAGE TO ADJACENT PAVEMENT.	

* SECOND PAVEMENT CUT TO BE MADE AND PAVEMENT REMOVED AFTER TRENCH IS PROPERLY BACKFILLED.

** CONCRETE PAVEMENT SHALL BE JOINED TO ADJACENT CONCRETE PAVEMENT AS PER "FULL PANEL REPAIR AND UTILITY CUTS FOR CONCRETE PAVEMENT" AS SHOWN ON MISCELLANEOUS DETAILS I (DT-017).

NOTES:

1. THE TRENCH SHALL BE EXCAVATED TO 4" BELOW BOTTOM OF THE PIPE BARREL & BACKFILLED AS SHOWN ABOVE WITH AN APPROVED BEDDING MATERIAL.
2. WHEN THE SEWER IS TO BE INSTALLED IN ROCK, THE TRENCH IS TO BE EXCAVATED TO A MINIMUM DEPTH OF 4" BELOW THE BOTTOM OF THE PIPE AND BACKFILLED IN 6" COMPACTED LAYERS WITH AN APPROVED BEDDING MATERIAL AS SHOWN. THE ROCK EXCAVATED TO BE PAID AS A SEPARATE BID ITEM. THE EMBEDMENT, IN ALL CASES, TO BE INCLUDED IN THE PRICE BID PER TRENCH, EXCAVATION, AND BACKFILL.

d	O.D.	t	W	CRADLE		ARCH		ENCASE.	
IN.	IN.	IN.	IN.	A	IN. CY/FT	A	IN. CY/FT	A	IN. CY/FT
8	9.50	.750	24	6.4	.036	8.8	.039	21.5	.102
10	11.75	.875	24	6.9	.038	9.9	.047	23.8	.117
12	14	1.00	26	7.5	.043	11.0	.054	26.0	.134
15	17.5	1.25	29.5	8.4	.051	12.8	.066	29.5	.162
18	21	1.50	33	9.3	.061	14.5	.078	33.0	.191
21	24.5	1.75	36.5	10.1	.071	16.3	.093	36.5	.222
24	28	2.00	40	11.0	.085	18.0	.106	40.0	.256
27	31.5	2.25	43.5	11.9	.095	19.8	.121	43.5	.286
30	35	2.50	47	12.8	.106	21.5	.136	47.0	.321
36	41.5	2.75	53.5	14.4	.129	24.8	.167	53.5	.388

SCHEDULE FOR CONCRETE CRADLE, CONCRETE ARCH AND CONCRETE ENCASEMENT FOR SANITARY SEWERS

NOTE: MIN. 2500 PSI CONCRETE USED FOR CRADLING.

NO.	DATE:	REVISION	BY:	APP'D
4	June 2018	Added maximum pipe intrusion note	DHS	JVH
3	March 2013	Mod. Pvmnt. Place. Sch. & Bedding Amt.	DHS	SB
2	Feb. 2008	Mod. Cradle & Arch and Pvmnt. Place Sch.	DHS	SB
1	Dec. 2004	Mod. Serv. Note	DHS	JH

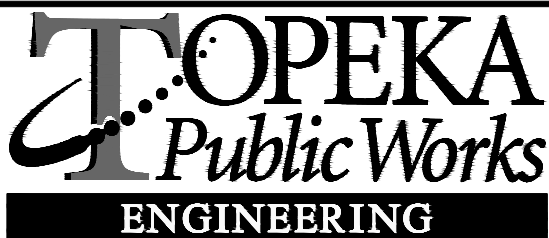
DRAWN BY: *rm/mc*

APP'D BY: *R. Timothy Kuy*



SHAWNEE COUNTY, KANSAS PUBLIC WORKS DEPARTMENT

1515 NW SALINE
TOPEKA, KS 66618
(785) 233-7702



620 SE MADISON St. • 2nd Floor • TOPEKA, KS 66607
Phone: (785) 368-3842 • Fax: (785) 368-3881

STANDARD DETAILS

SANITARY SEWER DETAILS (DT-007)

DATE: _____

SHEET: _____

PROJ.: _____

REINFORCED CONCRETE PIPE (RCP)

CORRUGATED STEEL PIPE (CSP), ALUMINIZED STEEL TYPE

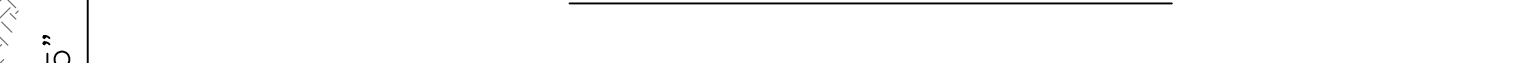
HEIGHT OF COVER ABOVE TOP OF PIPE (FEET) (H-20)

ENGINEER APPROVAL REQUIRED.

W



FOR CONCRETE CRADLE. CONCRETE



YES SPIKES SHINERS OR CROSSES SET BY TRAIN

LASER EQUIPMENT-STAKING SHALL BE AT 25' INTERVALS



SAWED AND REMOVED WITHOUT DAMAGE TO ADJACENT JOINTS.

TO BE USED UNLESS OTHERWISE NOTED ON

PAVEMENT SHALL BE SAWED AND REMOVED WITHOUT DAMAGE

** CONCRETE PAVEMENT SHALL BE JOINED TO ADJACENT CONCRETE PAV

2 WHEN THE SEWER IS TO BE INSTALLED IN ROCK THE TRENCH IS TO BE EXCAVATED

APP'D BY: R. Timothy Lamy

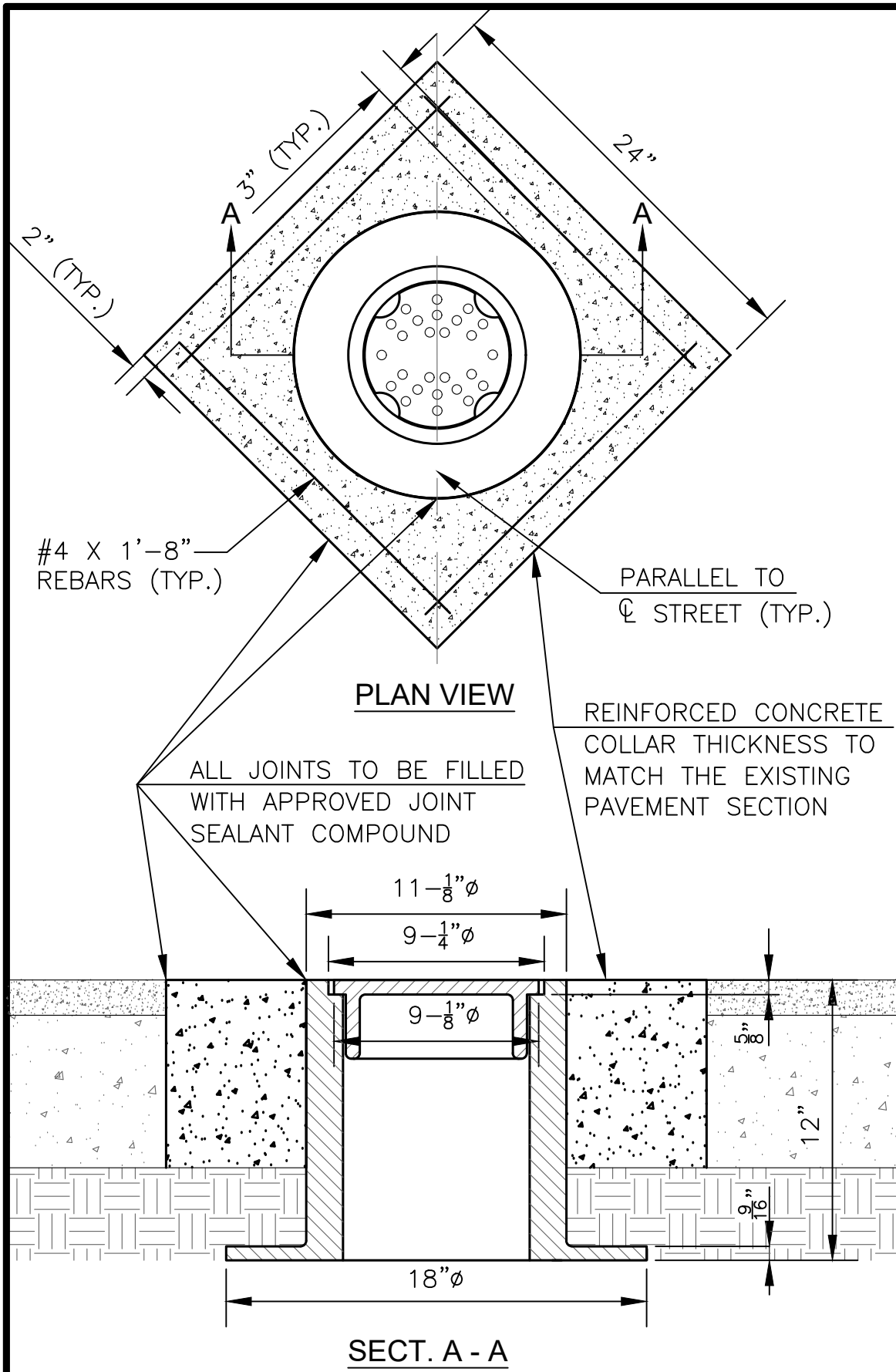


**1515 NW SALINE
TOPEKA, KS 66618**



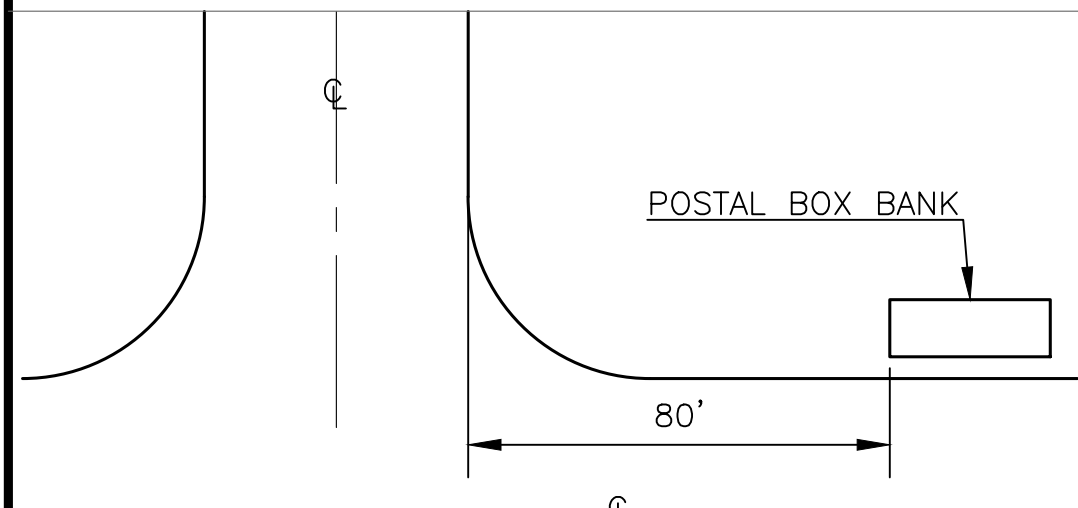
SHEET: _____

PROJ.:_____



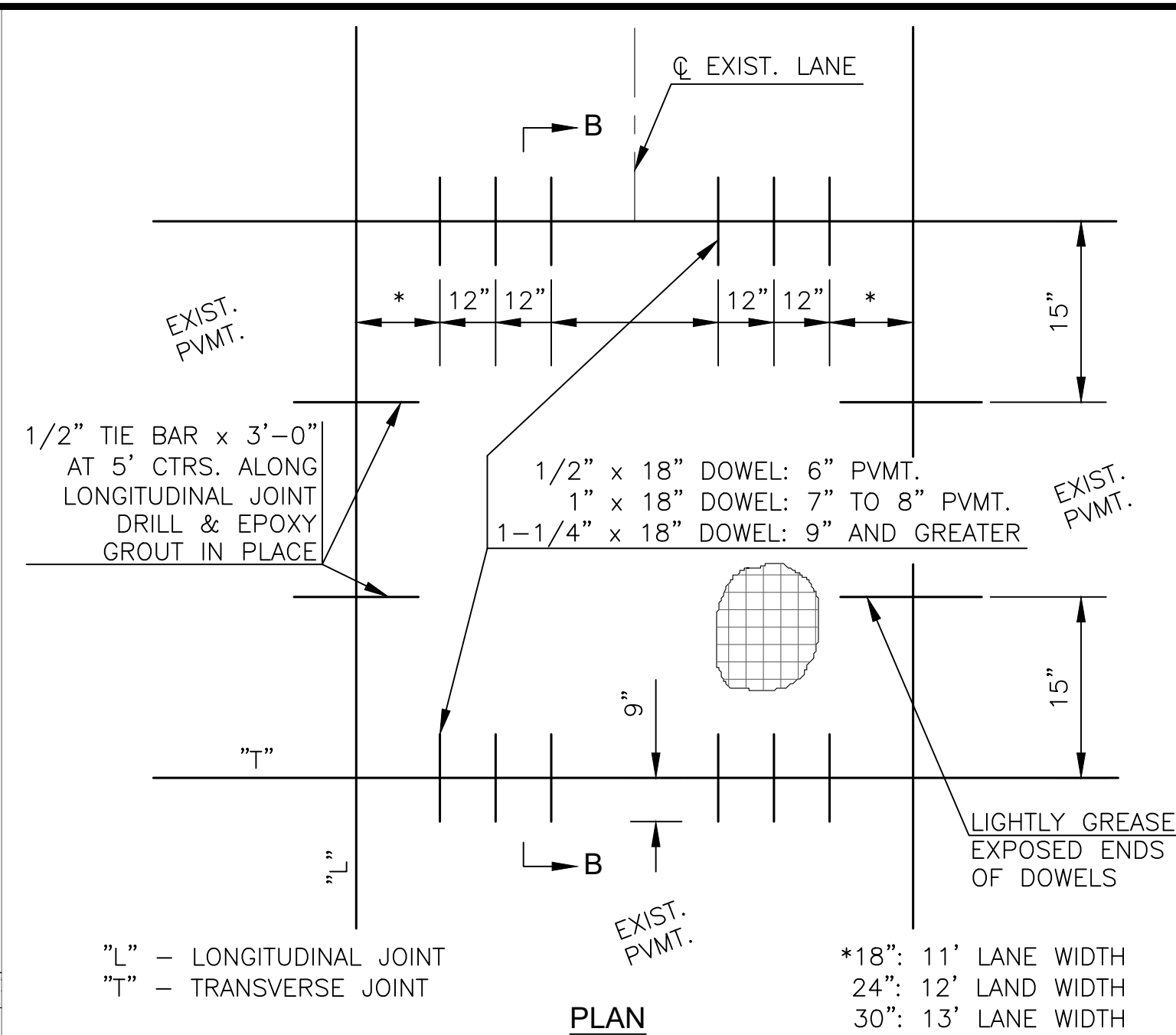
- NOTES:
1. THE TOP OF THE MONUMENTATION WITHIN THE MONUMENT BOX WILL BE BELOW THE BOTTOM OF THE MONUMENT BOX AND PAVEMENT ELEVATION TO ACCOMMODATE FREE PAVEMENT MOVEMENT WITHOUT DISPLACEMENT OF THE MONUMENT. ALL MONUMENTS IN CONCRETE WILL BE PLACED IN SUCH A WAY THAT THE TOP OF CONCRETE IS A MINIMUM OF 3" CLEAR OF THE BOTTOM OF THE MONUMENT BOX AND PAVEMENT, TO ALLOW DRAINAGE PERCOLATION OF SURFACE SEEPAGE AWAY FROM THE BOX.
 2. ALTERNATE INSTALLATION: 24" DIAMETER CORE DRILL CENTERED AROUND THE MONUMENT WITH #4 REBAR HOOPS MAINTAINING A 3" CLEARANCE FROM MONUMENT AND EDGE OF CONCRETE COLLAR.
 3. CLAY AND BAILEY MFG. CO.
COVER NO. 02193-01-1052
RING NO. 02193-01-2050
COMBINED WEIGHT 95 LBS.

CAST IRON MONUMENT BOX

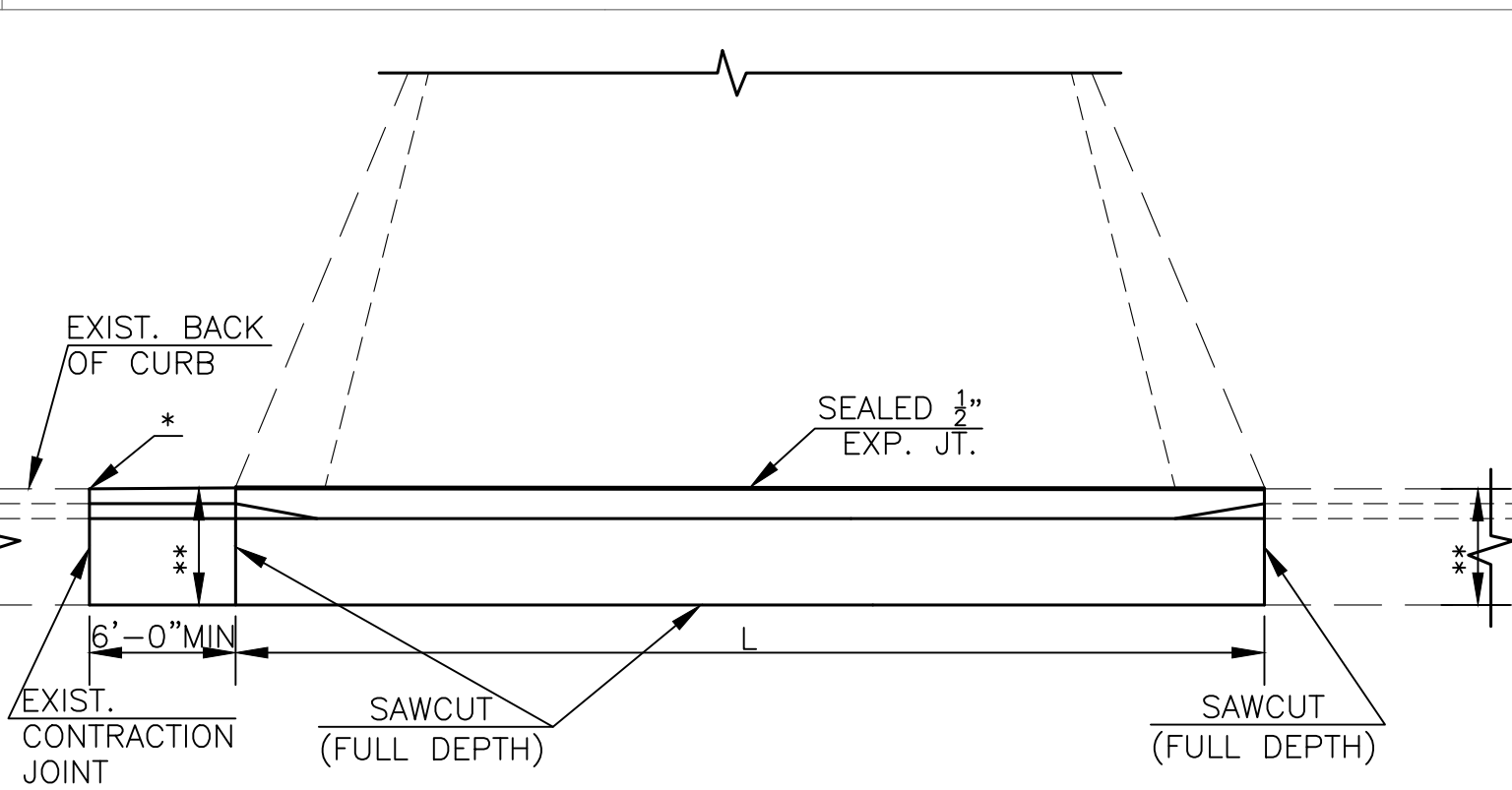


NOTE:
WHERE BANKS OR GROUPS OF
POSTAL BANKS ARE TO BE
INSTALLED, THEY SHALL BE A
MINIMUM OF EIGHTY (80) FEET
FROM THE INTERSECTION BACK
OF CURB.

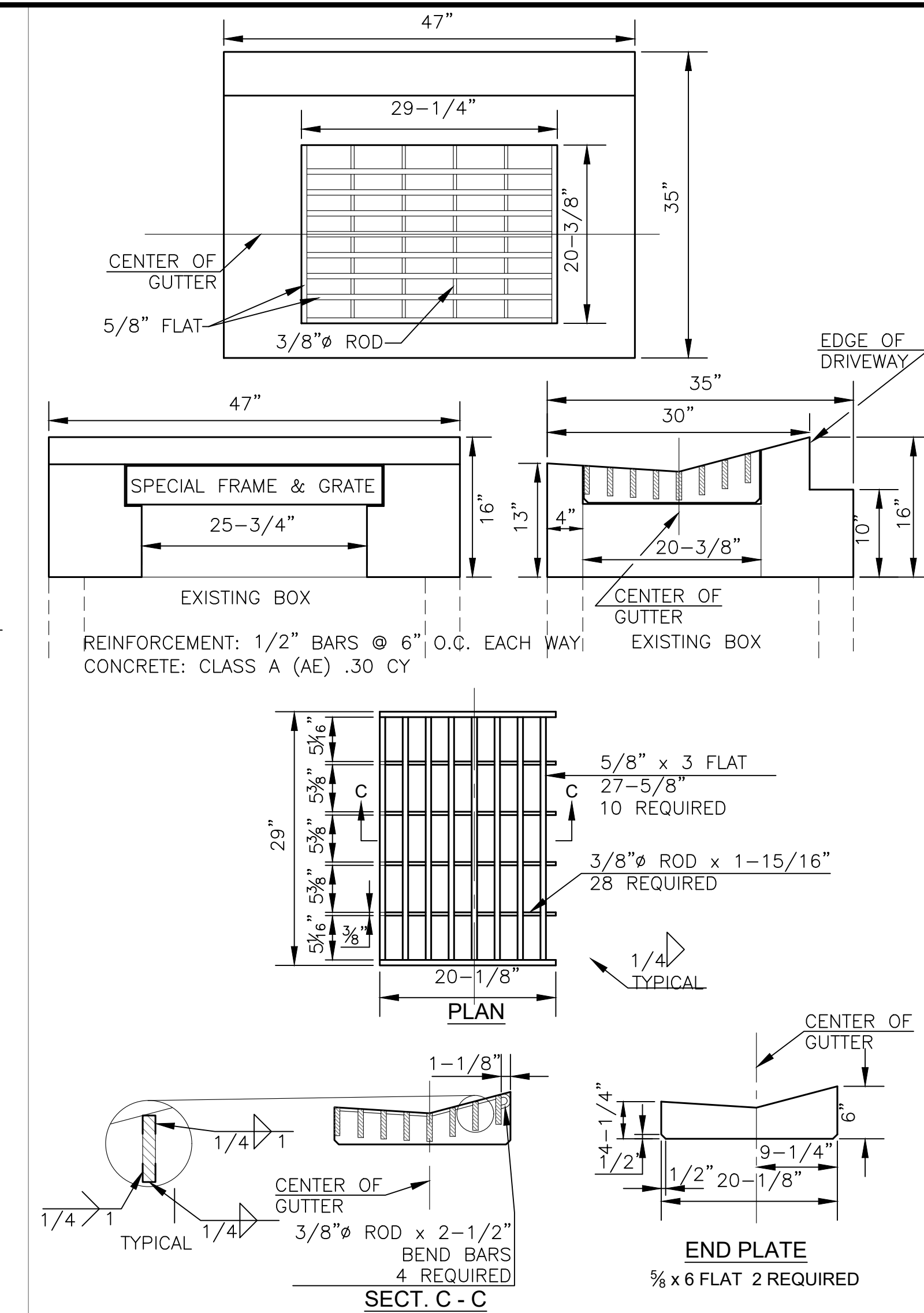
POSTAL BOX BANKS



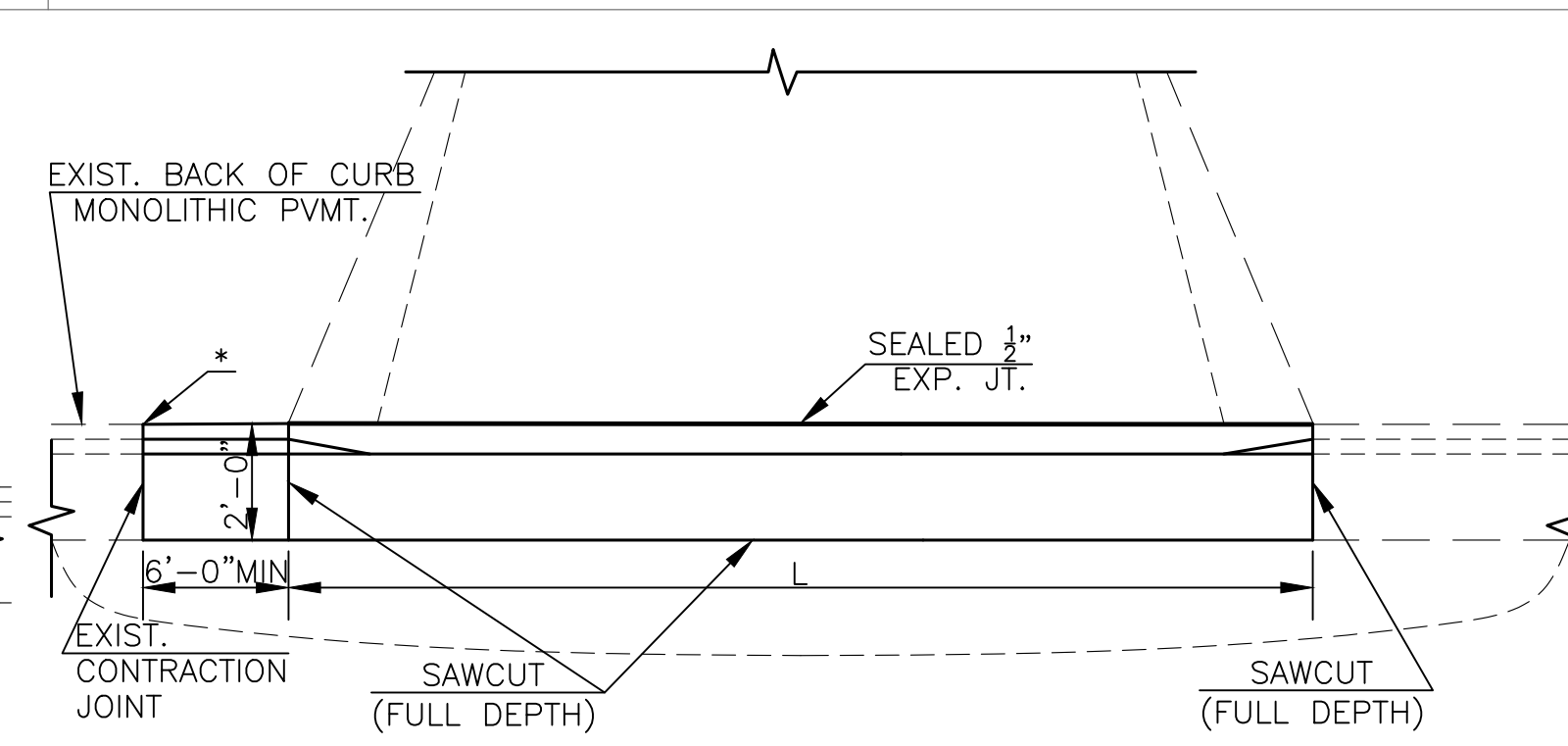
FULL PANEL REPAIR & UTILITY CUTS FOR CONCRETE PAVEMENT



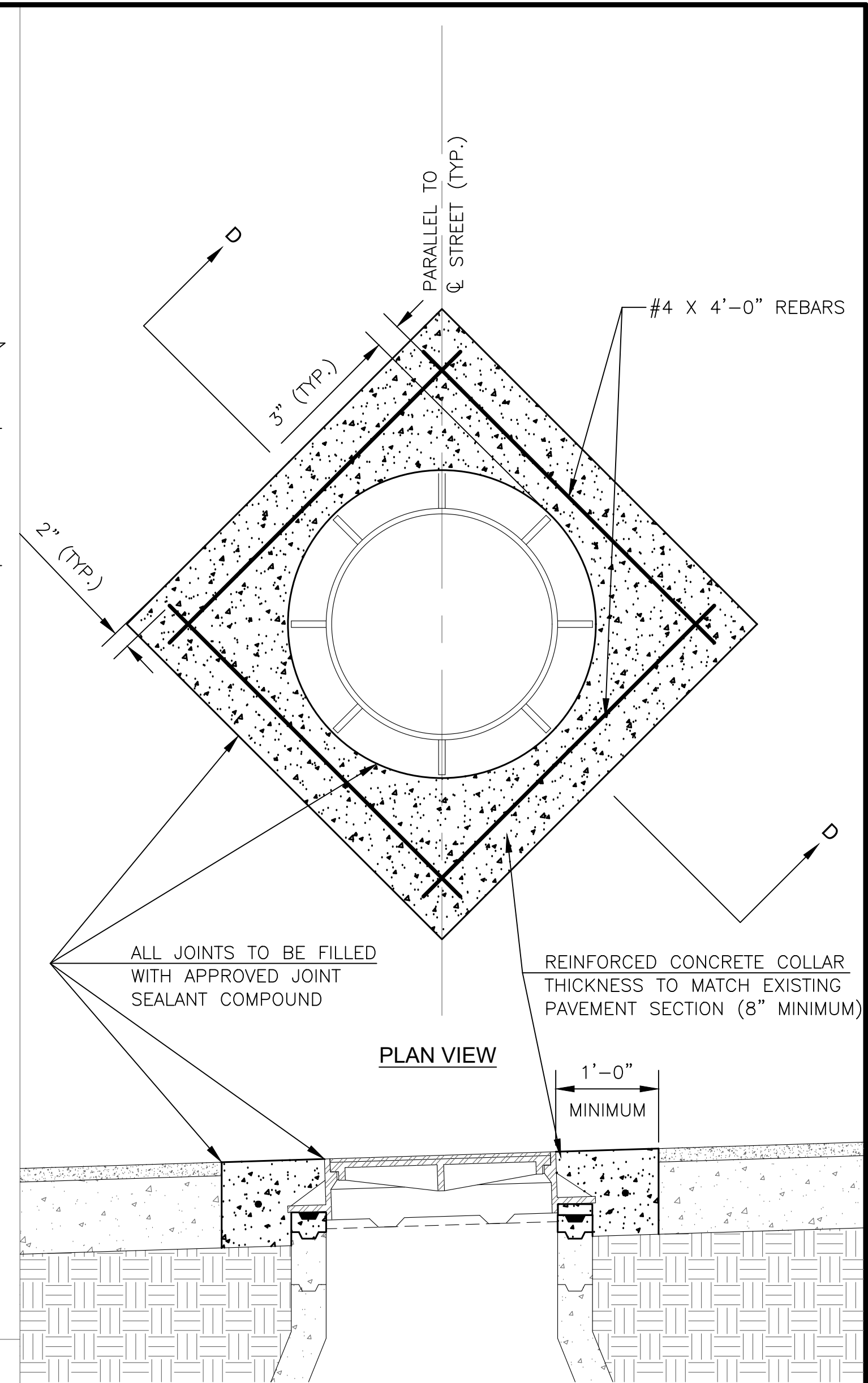
PAVEMENT WITH CURB & GUTTER



SPECIAL II-P GRATE TOP



MONOLITHIC CONCRETE PAVEMENT WITH INTEGRAL CURB



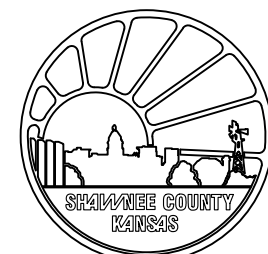
- NOTES:
1. PAVEMENT SHALL BE REMOVED BY FULL DEPTH SAW CUTTING WHILE PROTECTING NEW PAVEMENT.
 2. THE ORIENTATION OF THE REINFORCED CONCRETE COLLAR SHALL BE AS SHOWN OR FIELD DETERMINED BY ENGINEER.
 3. ADJUST MANHOLE RING TO MATCH PAVEMENT CROSS SLOPE USING APPROVED CONCRETE MANHOLE GRADE ADJUSTMENT RINGS AND CONCRETE BLOCKS OR APPROVED HIGH-DENSITY POLYETHYLENE MANHOLE ADJUSTMENT RINGS.
 4. SET MANHOLE RING WITH 2 RINGS OF 3/4" PREFORMED MASTIC SEALANT.
 5. ALL TIME AND MATERIAL NECESSARY TO PERFORM THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE BID ITEM "MANHOLE ADJUSTMENT".

MANHOLE ADJUSTMENT

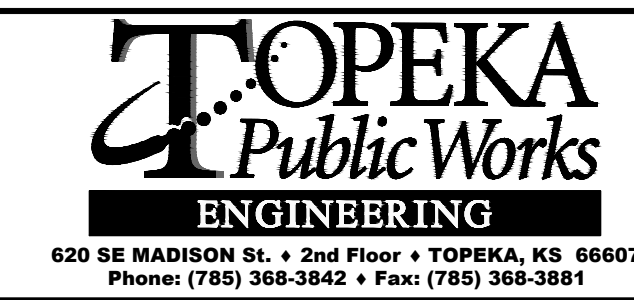
8	Oct. 2020	Updated cast iron monument box	JOT	BDF
7	Oct. 2017	Updated cast iron monument box	DHS	JPS
6	March 2013	Added grease to dowels & bar size to "	DHS	SB
5	Jan. 2013	Added Manhole Adjustment detail	DHS	SB
4	Jan. 2013	Removed Brick S/W & Stone Curb details	DHS	SB
3	Dec. 2012	Changed to tie bar from dowel	DHS	SB
2	Dec. 2009	Dowel size & # pvm range and curb det	DHS	SB
NO.	DATE:	REVISION	BY:	APP'D

DRAWN BY: jt/rm

APP'D BY: _____



**SHAWNEE COUNTY, KANSAS
PUBLIC WORKS DEPARTMENT**
1515 NW SALINE
TOPEKA, KS 66618
(785) 233-7702



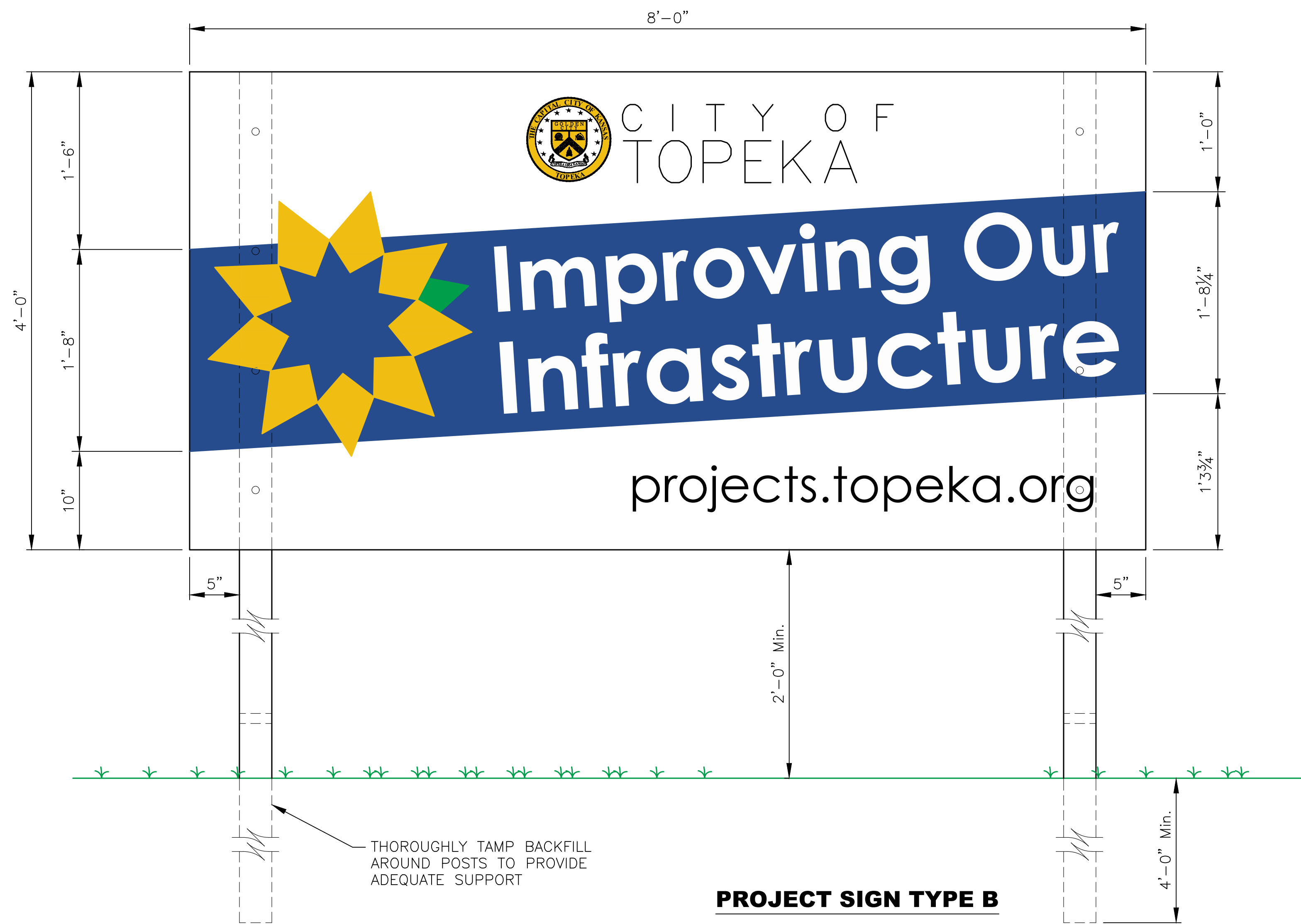
STANDARD DETAILS

**MISCELLANEOUS
DETAILS I**
(DT-017)

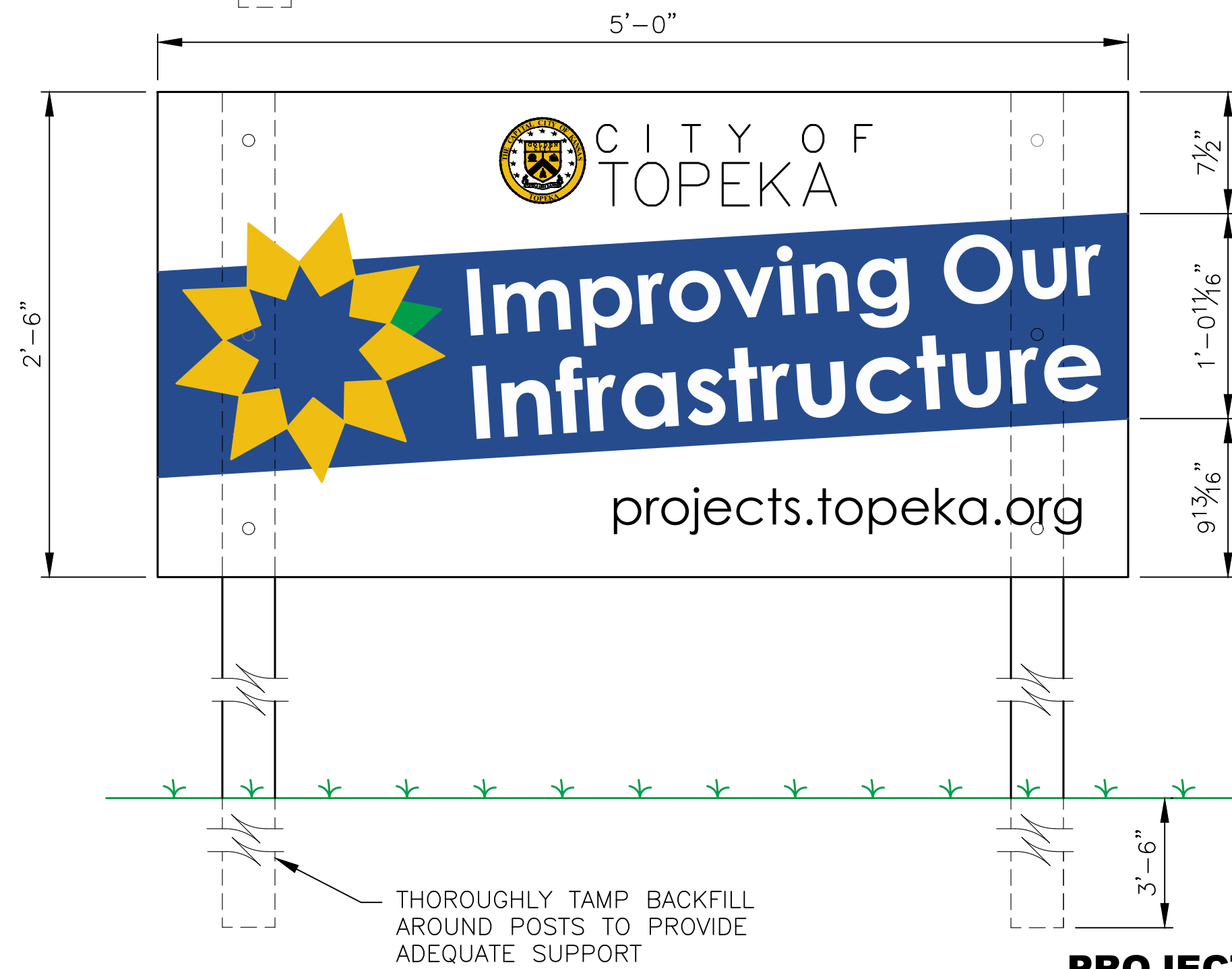
DATE: Month Year

SHEET: X of X

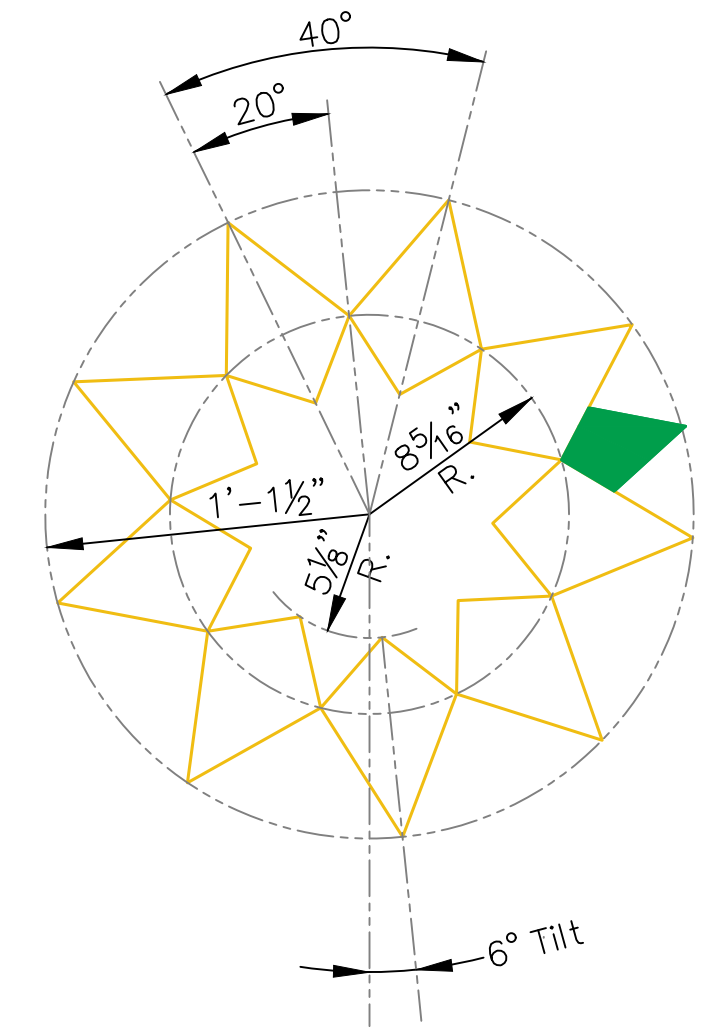
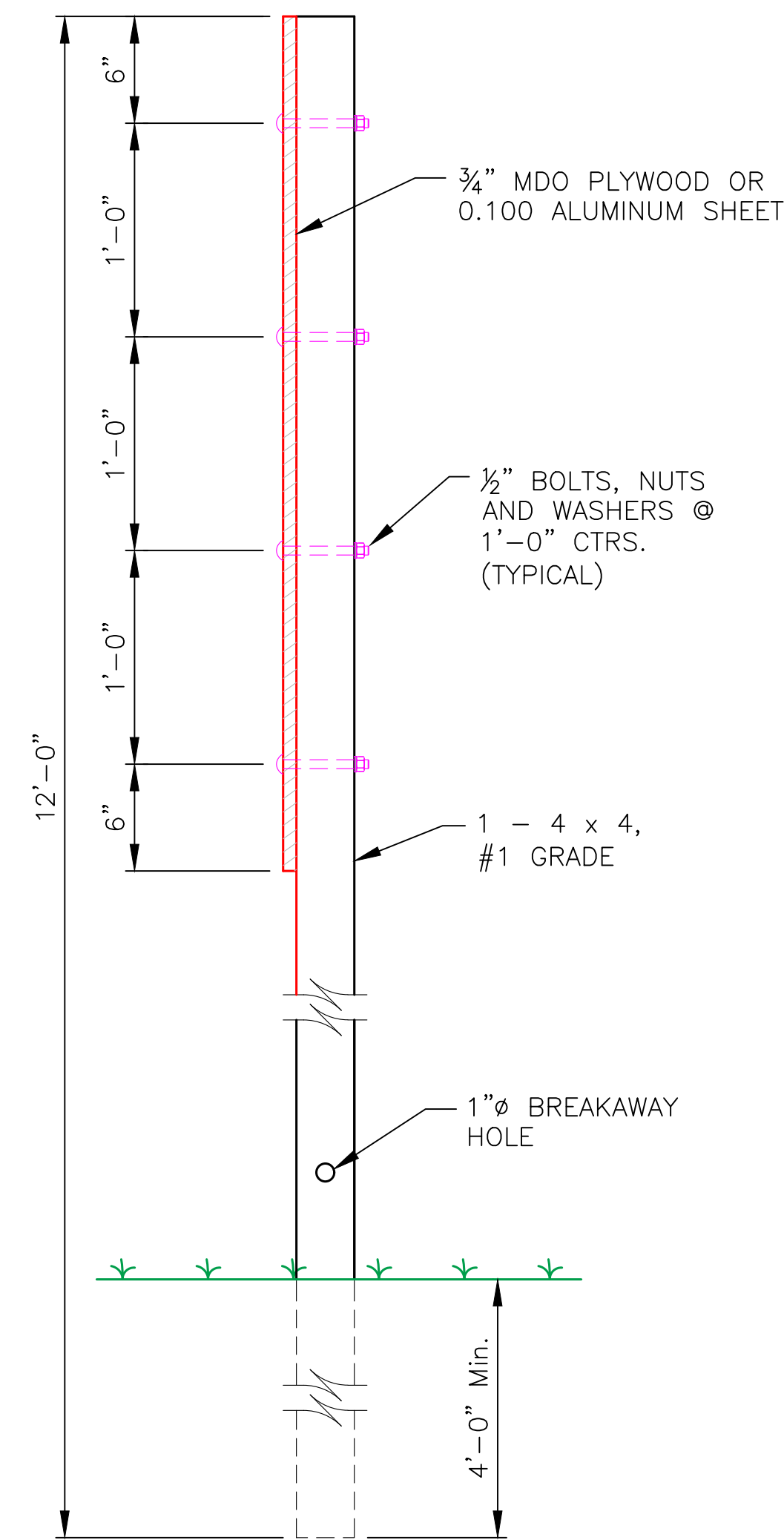
PROJ.: X-XXXXXX.XX



PROJECT SIGN TYPE B



PROJECT SIGN TYPE A



CITY FLAG ROSETTE
(SHOWN FOR 8'-0" SIGN)

NOTES:

- LETTERING FOR 8'-0" WIDE SIGN SHALL USE THE FOLLOWING FONTS:
CITY OF - BASIC SANS SF - BLACK (2 5/8")
TOPEKA - BASIC SANS HEAVY SF - BLACK (4 3/16")
Improving Our - CENTURY GOTHIC BOLD - WHITE (6 9/16")
Infrastructure - CENTURY GOTHIC BOLD - WHITE (7 3/16")
projects.topeka.org - CENTURY GOTHIC - BLACK (3 1/2")

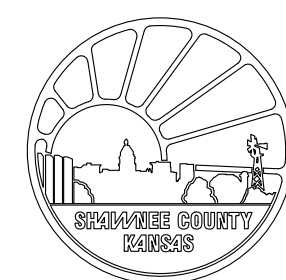
- LETTERING FOR 5'-0" WIDE SIGN SHALL USE THE FOLLOWING FONTS:
CITY OF - BASIC SANS SF - BLACK (1 5/8")
TOPEKA - BASIC SANS HEAVY SF - BLACK (2 5/8")
Improving Our - CENTURY GOTHIC BOLD - WHITE (4 1/8")
Infrastructure - CENTURY GOTHIC BOLD - WHITE (4 1/2")
projects.topeka.org - CENTURY GOTHIC - BLACK (2 3/16")

LETTERING SHALL BE VINYL COMPUTER CUT SCOTCHCAL OR APPROVED EQUAL IN THE COLORS LISTED ABOVE. CITY LOGO SYMBOL SHALL BE BLACK ON GOLD (RGB 240,189,18). BACKGROUND STRIPE SHALL BE NAVY BLUE (RGB 38,76,142). CITY FLAG ROSETTE SHALL BE GOLD (RGB 240,189,18) MATCHING THE GOLD USED IN THE CITY OF TOPEKA LOGO, AND GREEN (RGB 0,158,75)

- RGB VALUES ARE APPROXIMATE. VARIATIONS FROM THE LISTED RGB VALUES MUST BE REQUESTED FOR APPROVAL.
- ONE SIDE OF SIGN ONLY.
- WOOD SIGN AND POSTS SHALL BE PAINTED WITH TWO (2) COAT EXTERIOR WHITE PRIMER AND ONE (1) COAT EXTERIOR WHITE SEMI-GLOSS FINISH.
- LOCATION OF PROJECT SIGN TO BE DETERMINED BY THE CITY ENGINEER.
- SIGN SHALL BE ERECTED PRIOR TO ANY CONSTRUCTION ACTIVITY, AND MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. SIGN SHALL BE REMOVED UPON PROJECT COMPLETION.
- PROJECT SIGNAGE NOT REQUIRED ON PROJECTS TO BE CONSTRUCTED OUTSIDE THE CITY LIMITS UNLESS SPECIFIED BY THE COUNTY ENGINEER.
- IF METAL POSTS ARE USED INSTEAD OF WOOD POSTS, THEY MUST BE BREAKAWAY POSTS AS SHOWN ON COT TRAFFIC ENGINEERING'S DT-112.
- NOTE FOR AUTOCAD: SET MERGE CONTROL TO "LINES OVERWRITE", PLOT IN TRUE COLOR PEN TABLES.
- PDF and AUTOCAD files can be found at:
<https://www.topeka.org/engineering/design-right-of-way/>

NO.	DATE:	REVISION	BY:	APP'D
4	March 2022	ALL NEW SIGN TEXT - 2022	MJM	LH
3	March 2013	Added breakaway metal post, sign & ht.	DHS	SB
2	Dec. 2009	All new sign text	DHS	SB
1	Jan. 2007	Changed Logo	DHS	SB

DRAWN BY: rm/mc
APP'D BY: R. Timothy K...



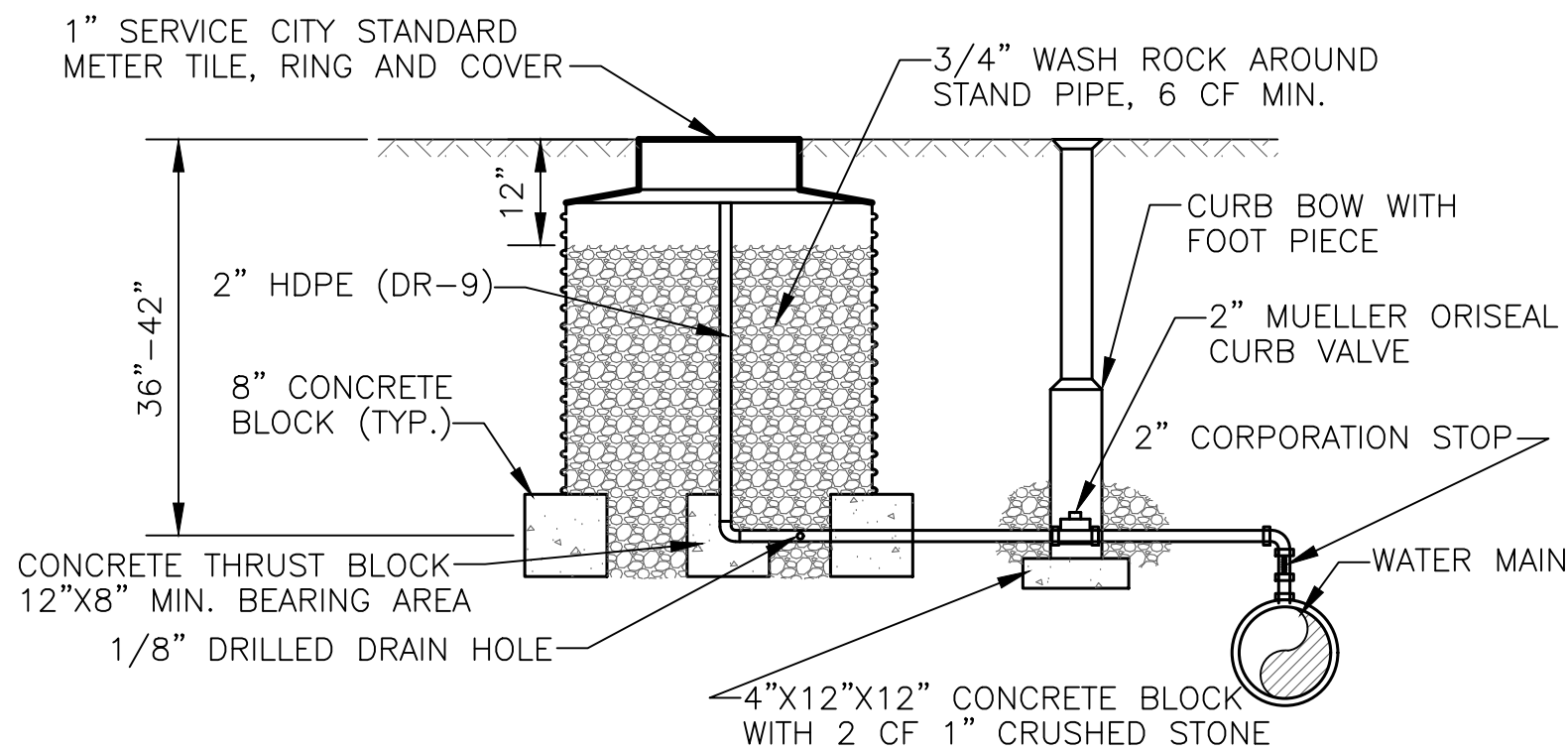
SHAWNEE COUNTY, KANSAS
PUBLIC WORKS DEPARTMENT
COUNTY ENGINEER
1515 NW SALINE
TOPEKA, KS 66618
(785) 233-7702



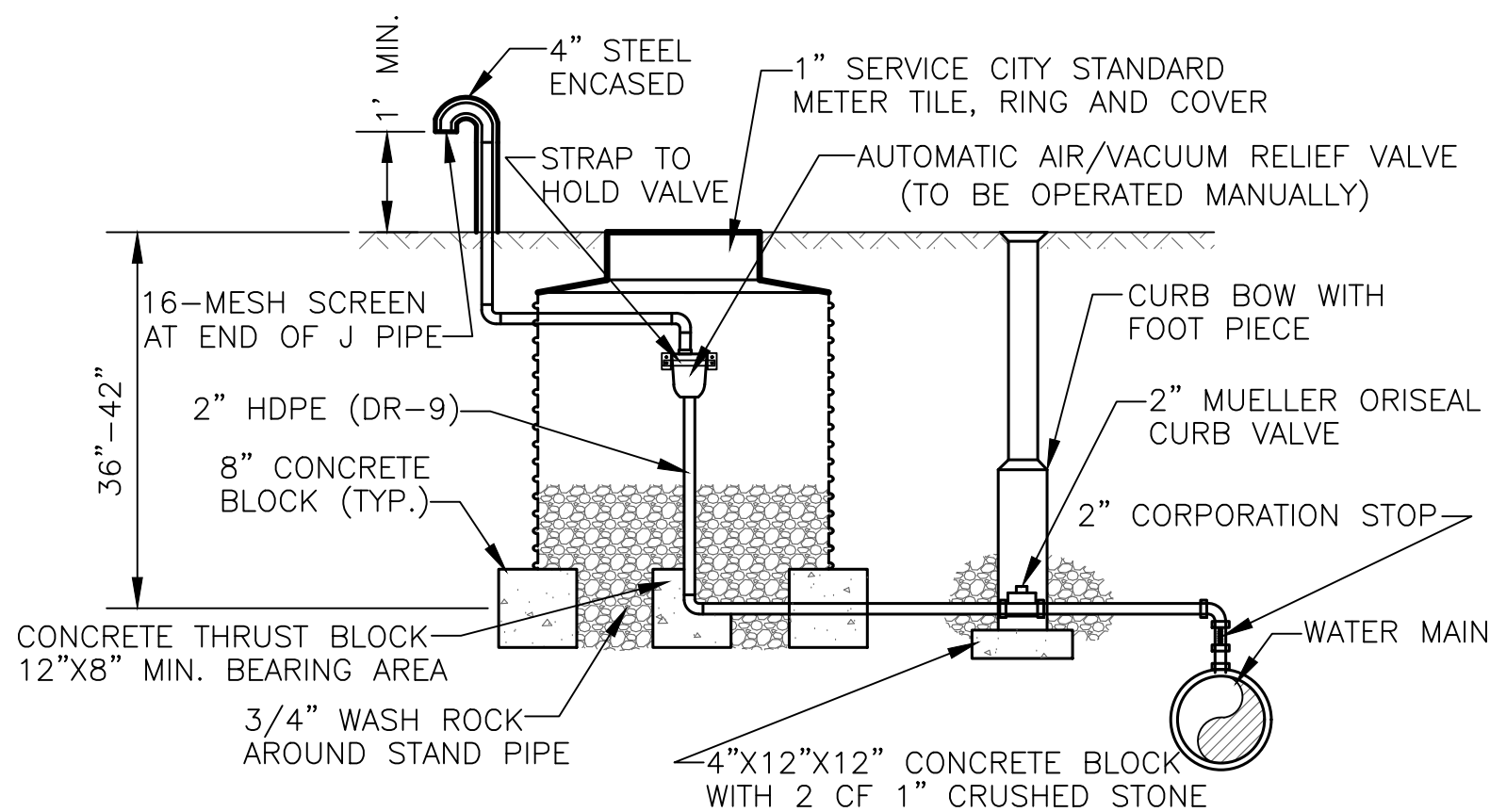
STANDARD DETAILS

TYPICAL
PROJECT SIGNING
THROUGH CONSTRUCTION AREAS
(DT-019)

DATE: _____
SHEET: _____
PROJ.: _____



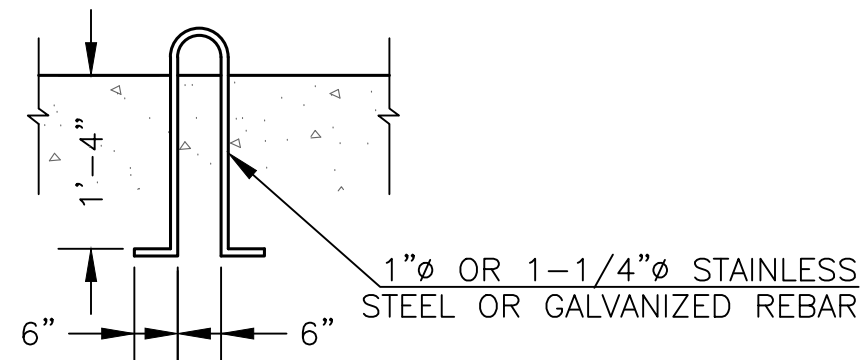
AIR RELEASE BLOW-OFF



**AUTOMATIC AIR/VACUUM RELEASE
(OPERATED MANUALLY)**

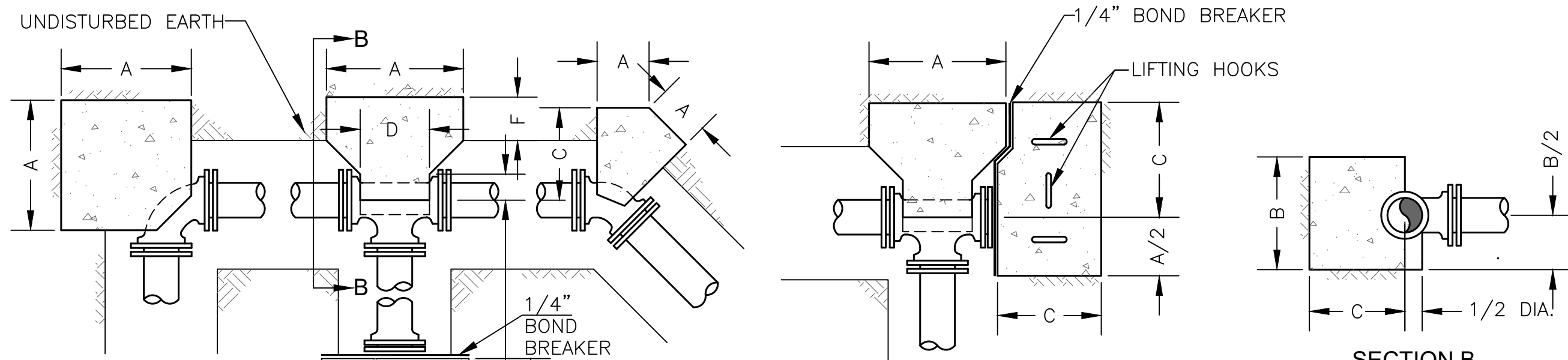
PIPE DIA.	45° VERTICAL BEND						22.5° VERTICAL BEND						11.25° VERTICAL BEND					
	A	D	C	D	E	F	A	D	C	D	E	F	A	B	C	D	E	F
4"	30	30	30	18	12	12	21	12	12	12	12	12	18	18	24	12	12	12
6"	36	36	36	21	24	12	21	15	18	15	18	12	21	21	27	15	18	12
8"	42	42	42	27	36	18	36	18	42	18	24	18	24	24	30	18	24	18
10"	48	48	48	36	39	27	42	42	48	24	30	27	30	30	36	24	30	27
12"	54	54	54	42	48	33	48	48	54	27	36	30	33	33	39	27	36	30

ALL DIMENSIONS ARE IN INCHES.



ONE (1) 1"Ø HOOK FOR 16" AND SMALLER PIPING
TWO (2) 1-1/4"Ø HOOKS FOR 18" AND 24" PIPING
FOUR (4) 1-1/4"Ø HOOKS FOR 30" AND LARGER PIPING

LIFTING HOOK DETAIL

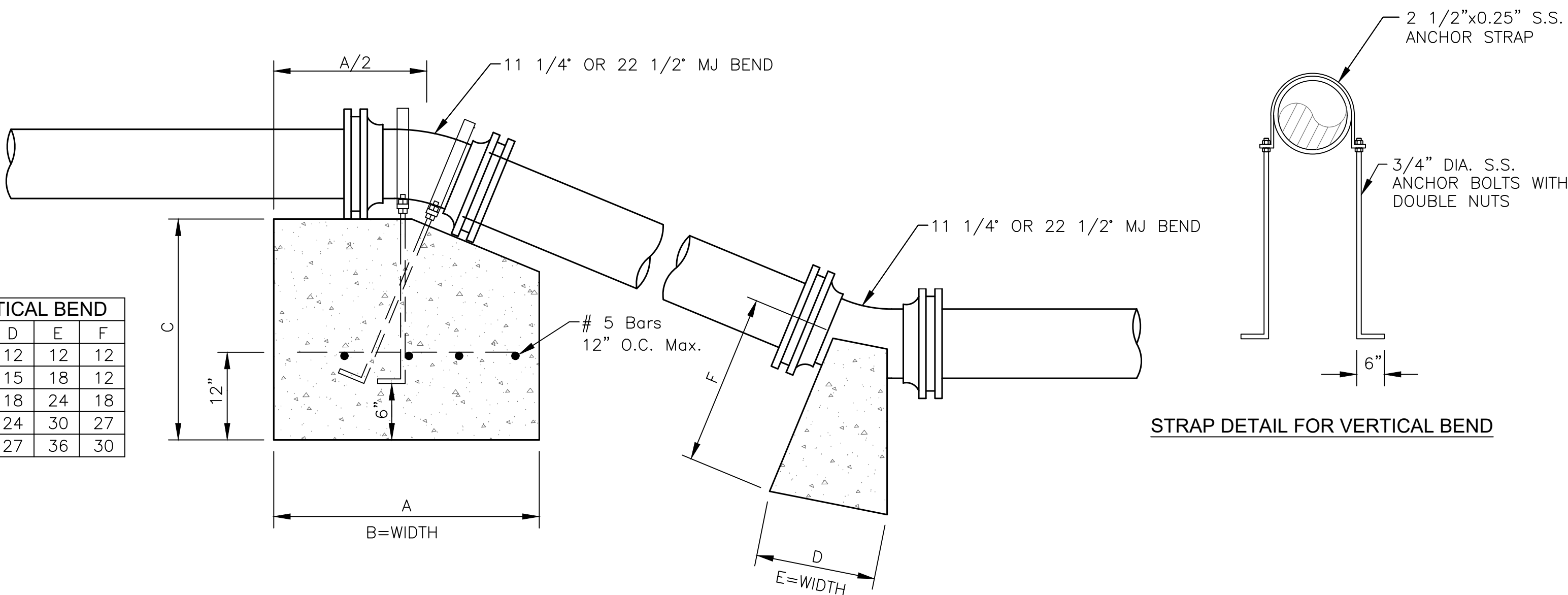


PLAN

PIPE DIA.	TEES						PLUGS			90° BEND			45° BEND			22.5° BEND			11.25° BEND		
	A	B	C	D	E	F	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
4"	13	22	9	13	—	—	13	22	9	18	12	9	12	12	6	12	12	—	—	—	—
6"	24	30	16	16	6	6	24	30	12	24	18	16	10	24	12	7	18	12	—	—	—
8"	34	32	21	18	7	6	34	32	18	30	26	21	13	36	18	9	24	18	9	24	18
10"	40	42	23	22	8	6	40	42	24	35	34	24	18	38	27	12	30	27	12	30	27
12"	48	52	27	24	9	6	48	52	24	42	42	30	21	48	33	14	36	30	10	42	24
16"	54	54	32	30	12	6	54	54	24	50	42	36	24	48	40	15	42	34	10	42	24
18"	60	60	34	32	12	6	60	60	24	54	48	38	27	54	44	17	46	37	10	42	24
20"	72	66	36	36	24	10	72	66	24	72	66	54	36	66	48	18	66	42	15	48	30
24"	96	72	36	44	19	8	96	72	24	82	60	60	44	60	72	22	60	54	15	48	36
30"	108	96	60	50	20	12	108	96	24	108	72	84	54	72	84	28	72	64	17	60	36
36"	108	108	60	56	23	12	108	108	24	108	108	80	68	84	96	34	84	69	20	72	36

ALL DIMENSIONS ARE IN INCHES.
BLOCKING DESIGNED FOR 150 PSI WORKING PRESSURE AND 1500 PSF SOIL BEARING.
BLOCKING FOR REDUCED BRANCH TEES SHALL BE BASED ON BRANCH DIAMETER.
MAINTAIN MINIMUM "F" DIMENSION.

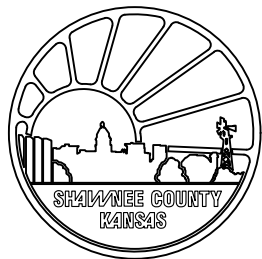
CONCRETE BLOCKING DETAILS



11 1/4°, 22 1/2°, OR 45° VERTICAL BEND BLOCKING DETAIL

1	6/9/17	Updated Standard	DHS	PB
NO.	DATE:	REVISION	BY:	APP'D

EDITED BY: DHS
APP'D BY: PB



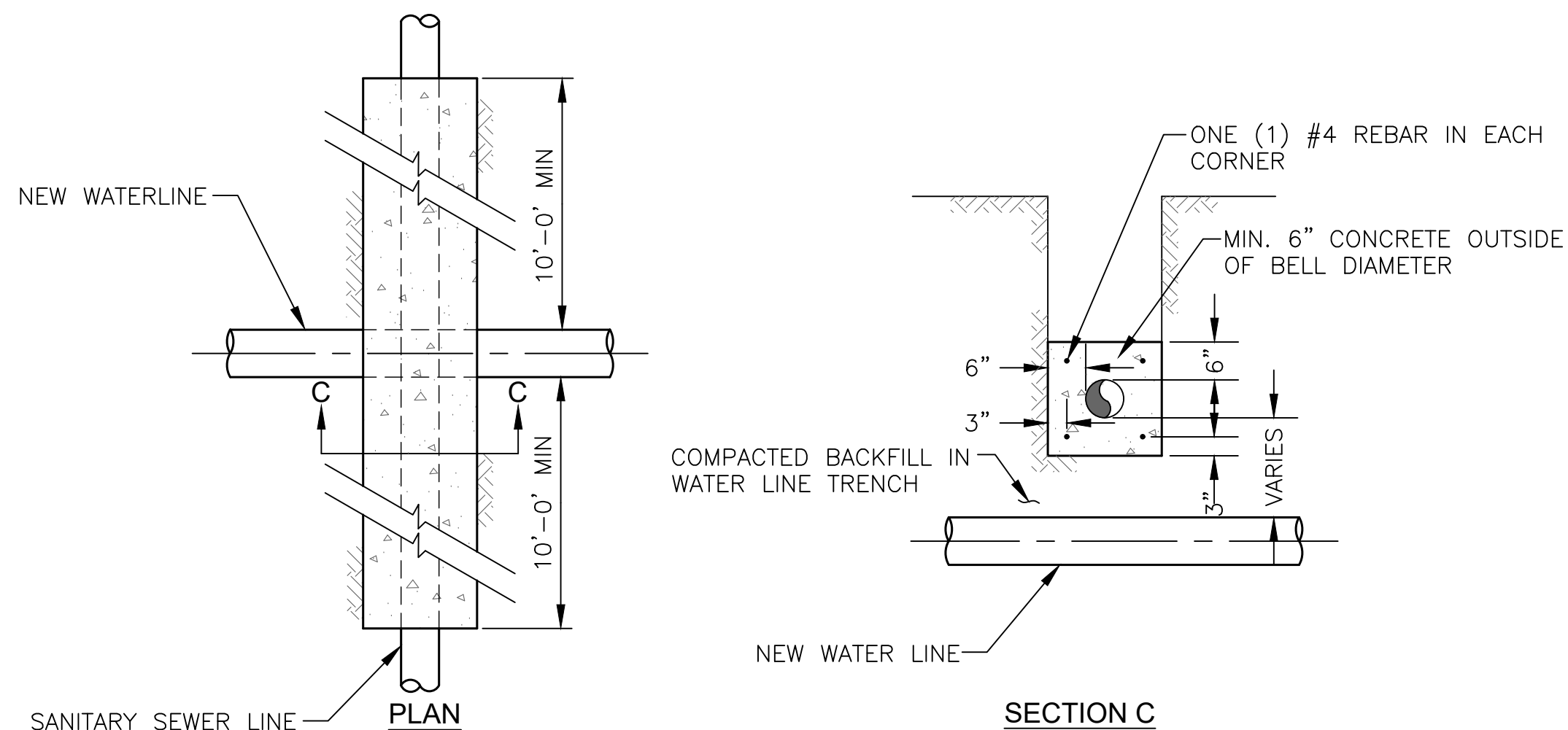
**SHAWNEE COUNTY, KANSAS
PUBLIC WORKS DEPARTMENT**
1515 NW SALINE
TOPEKA, KS 66618
(785) 233-7702



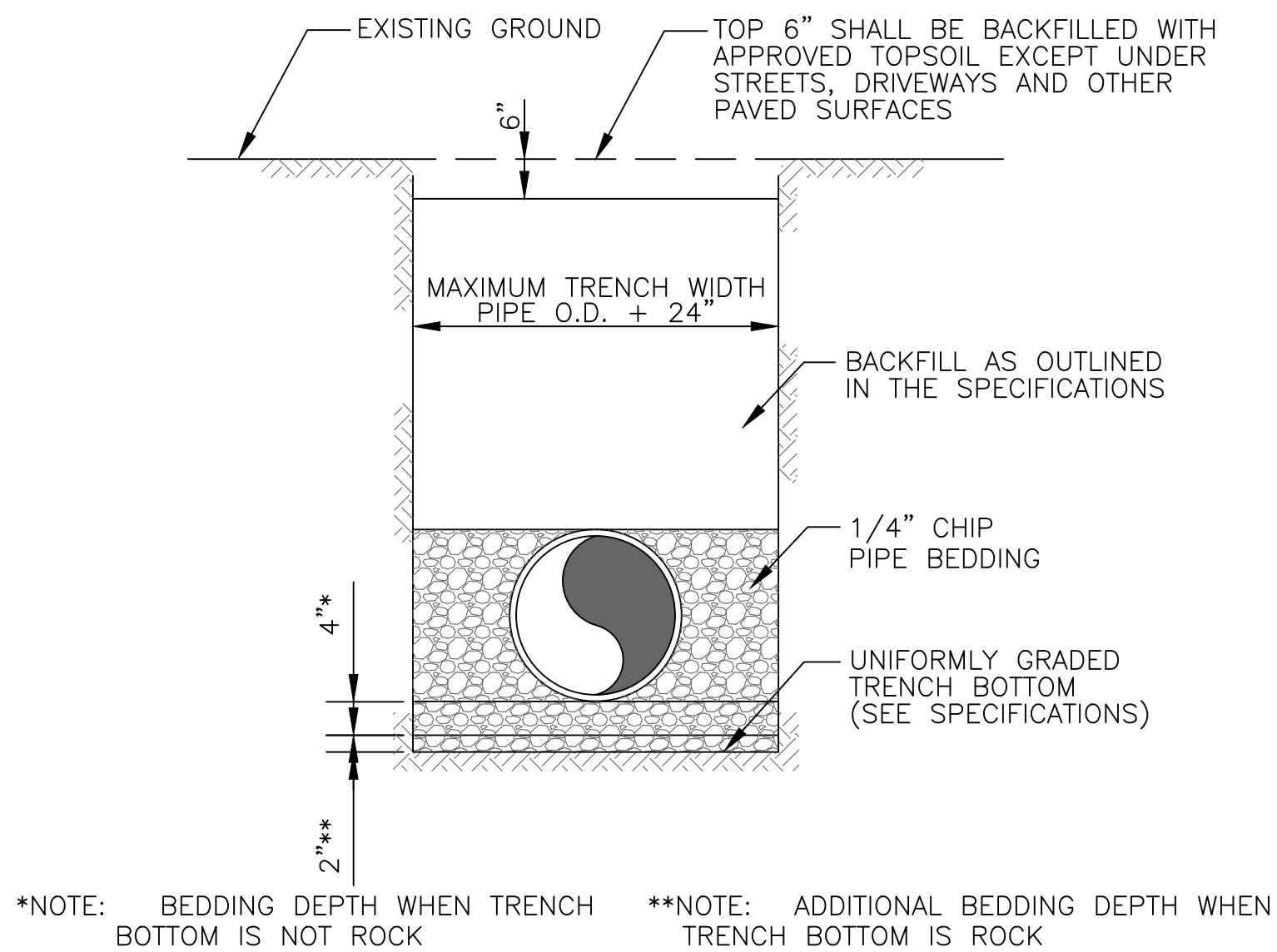
STANDARD DETAILS

WATER DETAILS I
(DT-23)

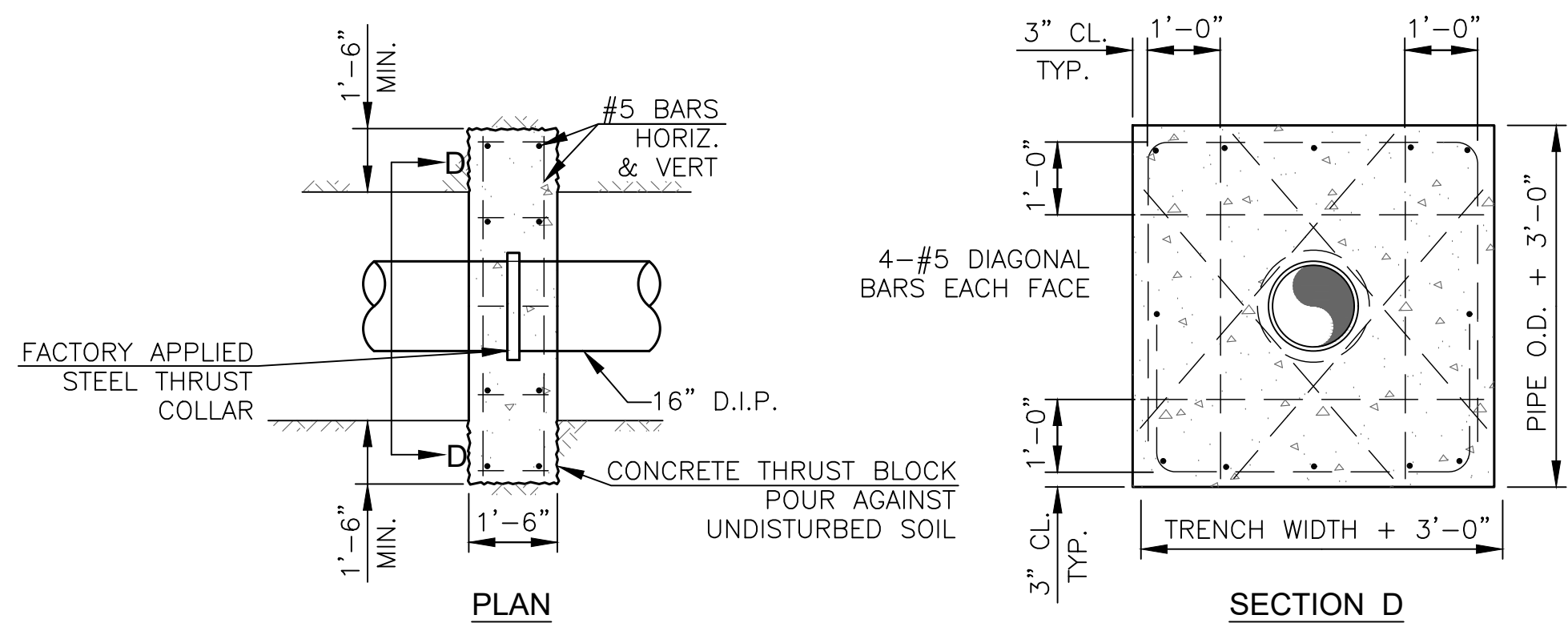
DATE: _____
SHEET: _____
PROJ.: _____



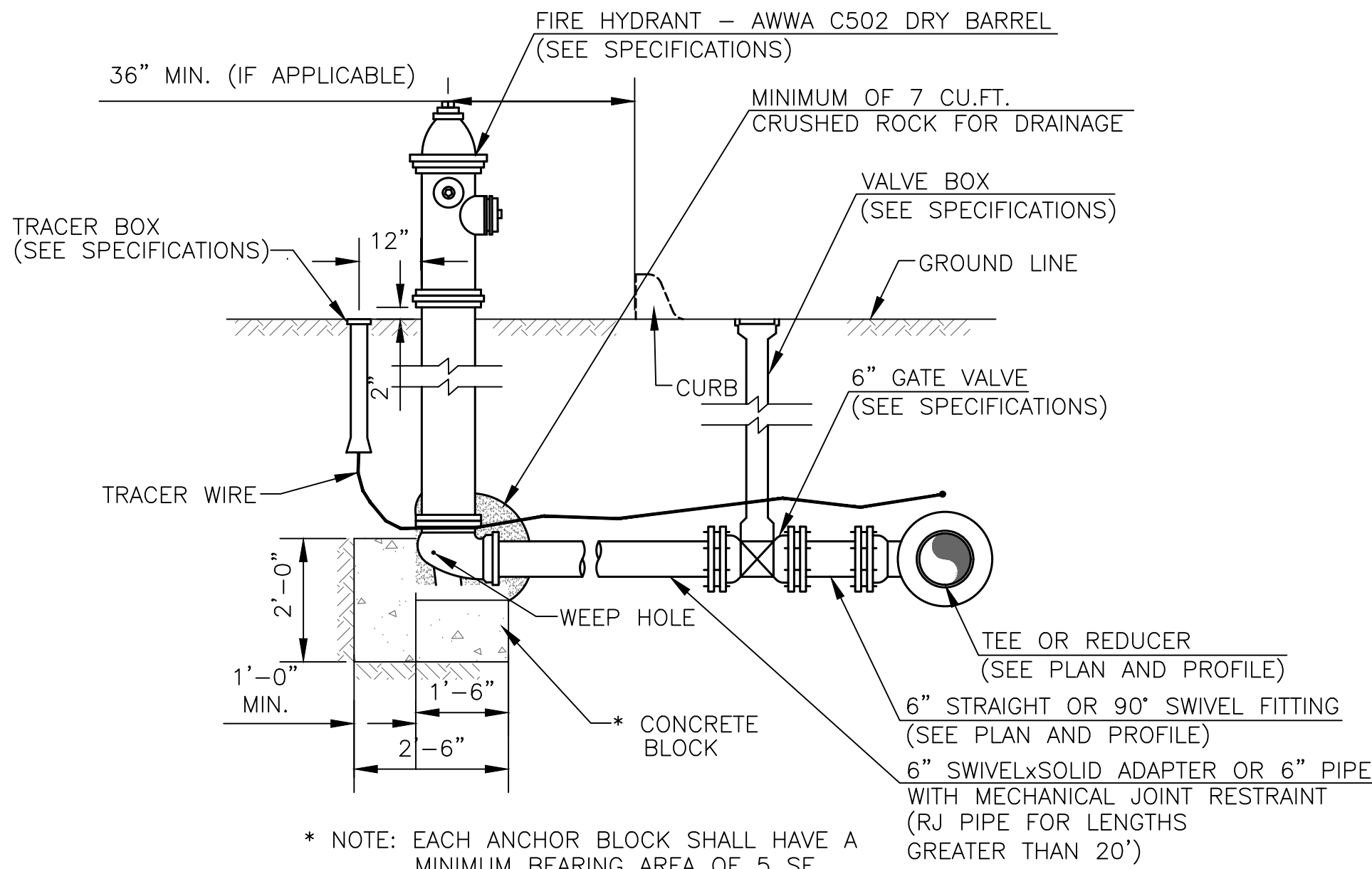
**CONCRETE ENCASEMENT
SANITARY SEWER LINE CROSSING DETAIL**



TYPICAL TRENCH & PIPE BEDDING DETAIL



16\"/>



FIRE HYDRANT SETTING

2	6/6/22	Updated Standard		MDB	MBS
1	6/9/17	Updated Standard		DHS	PB
NO.	DATE:	REVISION	BY:	APP'D	

EDITED BY: MDB
APP'D BY: MBS



**SHAWNEE COUNTY, KANSAS
PUBLIC WORKS DEPARTMENT**
1515 NW SALINE
TOPEKA, KS 66618
(785) 233-7702



STANDARD DETAILS

**WATER DETAILS 2
(DT-024)**

DATE: _____
SHEET: _____
PROJ.: _____