CITY OF FALL RIVER, MASSACHUSETTS

DCM FACILITY IMPROVEMENTS PROJECT PHASE I

FEBRUARY, 2025

LIST OF DRAWINGS		
SHEET NO.	DRAWING NO.	DRAWING TITLE
GENERAL		
1	G-001	COVER SHEET
2	G-002	PHOTOGRAPHS
CIVIL		
3	C-001	LEGEND & ABBREVIATIONS
4	C-002	GENERAL NOTES - 1
5	C-003	GENERAL NOTES - 2
6	C-101	EXISTING CONDITIONS PLAN
7	C-102	SITE DEMOLITION AND EROSION CONTROL PLAN
8	C-201	SITE LAYOUT AND MATERIALS PLAN
9	C-202	UTILITIES PLAN
10	C-203	GRADING AND DRAINAGE PLAN
11	C-204	LANDSCAPE AND RESTORATION PLAN
12	C-205	PUBLIC ACCESS DRIVE SECTIONS
13	C-501	DETAILS-1
14	C-502	DETAILS-2
15	C-503	DETAILS-3
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17	C-505	DETAILS-5
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ELECTRICAL		
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29	E-502	ELECTRICAL DETAILS-2
30	E-601	ELECTRICAL ONE-LINE DIAGRAM AND SCHEDULES

LOCATION MAP
SCALE: 1" = 1000'

PREPARED BY:

Tighe&Bond

JOSEPH P. VIAMARI, JR., PE

MATTHEW P. WZOREK, PE

PREPARED FOR:
CITY OF FALL RIVER
AL OLIVEIRA
DIRECTOR OF CITY OPERATIONS

OWNER'S PROJECT MANAGER:
ARCHITECTURAL CONSULTING GROUP, INC.
226 ACUSHNET AVENUE
NEW BEDFORD, MA 02745

ISSUED FOR BIDDING
COMPLETE SET 30 SHEETS

Last Saved: 2/6/2025
Plotted: Feb 06, 2025 - 11:17am By: NDW
Tighe & Bond: J:\F\F5033 Fall River\011 - DPW Improvement Project\Drawings\AutoCAD\Sheet\F5033-011-C-Cover - Phase 1.dwg

ATTENDANT BOOTH — A
NO SCALE

DEBRIS TO REMOVE — B
NO SCALE

GARAGE ENTRANCE — C
NO SCALE

GAS METER — D
NO SCALE

OFFICE ENTRANCE — E
NO SCALE

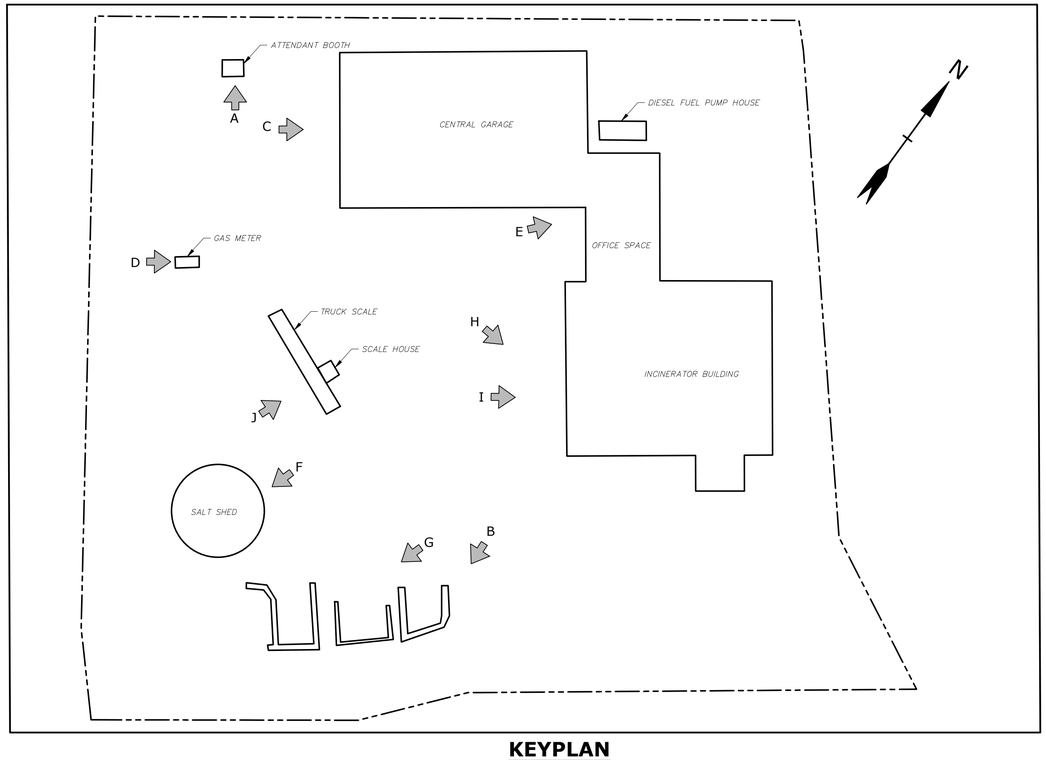
SALT SHED — F
NO SCALE

STOCKPILES — G
NO SCALE

TIP FLOOR ENTRANCE — H
NO SCALE

TIP FLOOR ENTRANCE 2 — I
NO SCALE

TRUCK SCALE AND SCALEHOUSE — J
NO SCALE



KEYPLAN
NO SCALE

LEGEND:

A PHOTOGRAPH LOCATION

Tighe&Bond

ISSUED FOR BIDDING

Fall River DCM Facility Improvements Phase I

City of Fall River

Fall River, Massachusetts

MARK	DATE	DESCRIPTION
0	2/12/2025	ISSUED FOR BIDDING

PROJECT NO:	F5033-011
DATE:	FEBRUARY 2025
FILE:	F5033-011-C-001.dwg
DRAWN BY:	TCW/ND
DESIGNED/CHECKED BY:	MPW
APPROVED BY:	JPV

PHOTOGRAPHS

SCALE: NO SCALE

G-002

LEGEND

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
PROPERTY LINE ADJACENT		
RIGHT-OF-WAY LINE		
EASEMENT LINE		
LIMITS OF WORK		
INTERMEDIATE CONTOURS		
INDEX CONTOURS	25	25
SPOT GRADE	X 141.2	+ 32.0
MAGNITUDE & DIRECTION OF SLOPE		0.0%
STORM DRAIN	SD — SD	SD
STORM UNDERDRAIN		UD
GRAVITY SANITARY SEWER	SS — SS	SS — SS
SANITARY SEWER FORCE MAIN	SFM	SFM
SANITARY SEWER LOW PRESSURE	SSLP — SSLP	SSLP
SANITARY SEWER COMBINED	COMB	COMB
WATER SERVICE	W — W	W — W
POTABLE WATER	PW	PW — PW
FIRE SERVICE		F — F
HIGH PRESSURE FIRE SERVICE		F-HP — F-HP
UNDERGROUND ELECTRIC	E — E	E — E
PRIMARY ELECTRIC SERVICE	PE	PE — PE
SECONDARY ELECTRIC	SE	SE — SE
OVERHEAD ELECTRIC	OE — OE	OE — OE
TELEPHONE SERVICE	T — T	T — T
TEL-DATA SERVICE	T–D — T–D	T-D — T-D
COMMUNICATIONS SERVICE	T–C — T–C	T-C — T-C
CABLE TV SERVICE	CTV — CTV	CTV — CTV
GAS SERVICE	G — G	G — G
OVERHEAD UTILITY (UNSPECIFIED)	OHW — OHW	
CURB		
EDGE OF PAVEMENT		
DIRT ROAD		
SIDEWALK		
RETAINING WALL		
STONE WALL		
FENCE - UNSPECIFIED	X — X — X	X — X — X
FENCE - CHAIN LINK		
FENCE - WOOD POST		
GUARDRAIL		
METAL BEAM RAIL		
TRAIN TRACKS		
STORM DRAIN STRUCTURES	MANHOLE (D) CATCH BASIN	MANHOLE AREA DRAIN CATCH BASIN
SANITARY SEWER STRUCTURES	MANHOLE (S) TANK	MANHOLE TANK
WATER SERVICE STRUCTURES	HYDRANT MANHOLE (W) VALVE	HYDRANT MANHOLE (W) VALVE
GAS SERVICE STRUCTURES	MANHOLE (G) VALVE GG	MANHOLE (G) VALVE
ELECTRIC SERVICE STRUCTURES	UTILITY CO. POLE # MANHOLE (E) LIGHT	UTILITY CO. POLE # MANHOLE (E) LIGHT
TELECOMMUNICATIONS MANHOLE	(T)	(T)
TREELINE		
TREE	EVERGREEN DECIDUOUS STUMP	EVERGREEN DECIDUOUS

LEGEND

DEMOLITION / GEOTECHNICAL	
EROSION & SEDIMENT CONTROL	
UTILITY TO BE ABANDONED	
UTILITY TO BE DEMOLISHED	
ITEM TO BE DEMOLISHED	
TEST PIT	
MONITORING WELL	
BORING	

ABBREVIATIONS

ABDN('D)	ABANDON(ED)
AC	ASBESTOS CEMENT PIPE
BC	BITUMINOUS CURB
BFP	BACK FLOW PREVENTOR
BIT	BITUMINOUS
BL	BASELINE
BLDG	BUILDING
BND	BOUND
BOC	BOTTOM OF CURB
BOT	BOTTOM
BS	BOTTOM OF STEP
BW	BOTTOM OF WALL
CATV	CABLE TELEVISION
CB	CATCH BASIN
CCW	CEMENT CONCRETE WALK
CEM	CEMENT
CI	CAST IRON PIPE
CL	CENTERLINE
CLF	CHAIN LINK FENCE
CO	CLEAN OUT
CONC	CONCRETE
CPP	CORRUGATED POLYETHYLENE PIPE
CY	CUBIC YARD
DH	DRILL HOLE
DI	DUCTILE IRON PIPE
DIA	DIAMETER
DMH	DRAIN MANHOLE
E	EAST
EF	EACH FACE
EG	EXISTING GRADE
EL/ELEV	ELEVATION
ELEC	ELECTRIC
EMH	ELECTRIC MANHOLE
EOP	EDGE OF PAVEMENT
EW	EACH WAY
EXIST	EXISTING
FES	FLARED END SECTION
FF	FINISH FLOOR
FM	FORCE MAIN
G	GAS
GG	GAS GATE
GRAN	GRANITE
HC	HANDICAP
HDPE	HIGH DENSITY POLYETHYLENE
HMA	HOT MIX ASPHALT
HYD	HYDRANT
IN	INCHES
INV	INVERT
IP	IRON PIN
L	LENGTH OF CURB
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MON	MONUMENT
MJ	MECHANICAL JOINT

ABBREVIATIONS CONT'D

N	NORTH
NITC	NOT IN THIS CONTRACT
NTS	NOT TO SCALE
N/A	NOT APPLICABLE
N/F	NOW OR FORMERLY
OC	ON CENTER
OCS	OUTLET CONTROL STRUCTURE
OH	OVERHEAD
PB	PLANT BED
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCPP	PERFORATED CORRUGATED POLYETHYLENE PIPE
PERF	PERFORATED
PI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVATURE
PROT	PROTECT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYLCHLORIDE
PVMT	PAVEMENT
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REV	REVISION
ROW	RIGHT OF WAY
RT	RIGHT
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
S	SOUTH
SAN	SANITARY
SCH	SCHEDULE
SF	SQUARE FOOT
SMH	SEWER MANHOLE
SS	STAINLESS STEEL
STA	STATION
STL	STEEL
STRM	STORM
T	TANGENT LENGTH
TC	TOP OF CURB
TEL	TEL-DATA
TOW	TOP OF WALL
TP	TEST PIT
TS	TOP OF STEP
TW	TOP OF WALL
TYP	TYPICAL
UP	UTILITY POLE
W	WATER
WG	WATER GATE
WV	WATER VALVE
XFMR	TRANSFORMER

Tighe&Bond

ISSUED FOR BIDDING

Fall River DCM Facility Improvements Phase I

City of Fall River

Fall River, Massachusetts

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DATE:	FEBRUARY 2025
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DRAWN BY:	TCW/ND
DESIGNED/CHECKED BY:	MPW
APPROVED BY:	JPV

LEGEND & ABBREVIATIONS

SCALE: NO SCALE

C-001

BASE PLAN NOTES

1. THE EXISTING CONDITIONS INFORMATION SHOWN ON THE DRAWINGS IS BASED ON THE FOLLOWING:
   - SURVEY DRAWINGS PROVIDED BY WSP USA, INC TITLED TOPOGRAPHIC SURVEY, 10 LEWISTON STREET AND DATED MARCH 18, 2024
   - DRAWINGS TITLED PUBLIC WORKS OPERATIONAL CENTER, PREPARED BY ANDERSON-NICHOLS COMPANY, INC AND DATED MAY 1965
   - DRAWINGS PROVIDED BY LOCAL UTILITY COMPANIES
   - FIELD INVESTIGATIONS PERFORMED BY TIGHE & BOND IN MAY 2024
2. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION (E.G., EXISTING UTILITIES) SHOWN ON THESE DRAWINGS IS NOT GUARANTEED AND SOME SUBSURFACE INFORMATION MAY NOT BE SHOWN. DETERMINE THE LOCATIONS AND ELEVATIONS OF ALL SUBSURFACE FEATURES WHICH MAY AFFECT CONSTRUCTION OPERATIONS BY TEST PIT OR OTHER METHODS, AS NECESSARY TO PREVENT DAMAGE TO UTILITIES AND OTHER SUBSURFACE FEATURES, AND/OR INTERRUPTIONS IN UTILITY SERVICE. PROVIDE DATA COLLECTED THROUGH THESE INVESTIGATIONS TO THE ENGINEER PRIOR TO CONSTRUCTING THE PROPOSED IMPROVEMENTS.
3. SUB-SURFACE EXPLORATIONS WERE PERFORMED BY NEW ENGLAND BORING ON MARCH 21, 2024. TEST PITS WERE EXCAVATED BY THE CITY OF FALL RIVER AND OBSERVED BY TIGHE AND BOND ON JULY 25, 2024. BORING AND TEST PIT LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND BORING INFORMATION IS NOT GUARANTEED IN ANY WAY TO REPRESENT EXISTING CONDITIONS. BORING LOGS ARE INCLUDED IN THE PROJECT MANUAL FOR THE CONTRACTORS INFORMATION ONLY.
4. THE DRAWINGS ARE BASED ON THE FOLLOWING DATUMS: HORIZONTAL-NAD83 ; VERTICAL-NAVD88
5. THE EXISTING CONDITIONS SHOWN ARE APPROXIMATE. FIELD VERIFY EXISTING CONDITIONS.
6. THE PROPERTY LINES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND ARE NOT BASED ON DEED OR PLAN RESEARCH.

GENERAL NOTES

1. NOTIFY DIGSAFE AT 1-888-344-7233 AND OTHER UTILITY OWNERS IN THE AREA NOT ON THE DIGSAFE LIST AT LEAST 72 HOURS PRIOR TO ANY DIGGING, TRENCHING, ROCK REMOVAL, DEMOLITION, BORING, BACKFILLING, GRADING, LANDSCAPING, OR ANY OTHER EARTH MOVING OPERATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR SUPPORT OF EXISTING UTILITIES AND REPAIR OR REPLACEMENT COSTS OF UTILITIES DAMAGED DURING CONSTRUCTION, WHETHER ABOVE OR BELOW GRADE. REPLACE DAMAGED UTILITIES IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER AND AT NO COST TO THE PROPERTY OWNER
3. NOT ALL OF THE UTILITY SERVICES TO BUILDINGS ARE SHOWN. THE CONTRACTOR SHALL ANTICIPATE THAT EACH PROPERTY HAS SERVICE CONNECTIONS FOR THE VARIOUS UTILITIES.
4. BOLD TEXT AND LINES INDICATE PROPOSED WORK. LIGHT TEXT AND LINES INDICATE APPROXIMATE EXISTING CONDITIONS.
5. TIGHE & BOND ASSUMES NO RESPONSIBILITY FOR ANY ISSUES, LEGAL OR OTHERWISE, RESULTING FROM CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION FROM TIGHE & BOND.
6. EXCAVATE ADDITIONAL TEST PITS TO LOCATE EXISTING UTILITIES AS DIRECTED OR APPROVED BY THE ENGINEER.
7. NOTIFY THE ENGINEER OF ANY UTILITIES IDENTIFIED DURING CONSTRUCTION THAT ARE NOT SHOWN ON THE DRAWINGS OR THAT DIFFER IN SIZE OR MATERIAL.
8. THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY; COORDINATION WITH THE OWNER, ALL SUBCONTRACTORS, AND WITH OTHER CONTRACTORS WORKING WITHIN THE LIMITS OF WORK, THE MEANS AND METHODS OF CONSTRUCTING THE PROPOSED WORK.
9. OBTAIN, PAY FOR AND COMPLY WITH PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK. ARRANGE AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE JURISDICTIONAL AUTHORITIES.
10. SHORE UTILITY TRENCHES WHERE FIELD CONDITIONS DICTATE AND/OR WHERE REQUIRED BY LOCAL, STATE AND FEDERAL HEALTH AND SAFETY CODES.
11. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF FIELD CONDITIONS ARE OBSERVED THAT VARY SIGNIFICANTLY FROM THOSE SHOWN ON THE DRAWINGS, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING FOR RESOLUTION OF THE CONFLICTING INFORMATION.
12. PROTECT AND MAINTAIN ALL UTILITIES IN THE AREAS UNDER CONSTRUCTION DURING THE WORK. LEAVE ALL PIPES AND STRUCTURES WITHIN THE LIMITS OF THE CONTRACT IN A CLEAN AND OPERABLE CONDITION AT THE COMPLETION OF THE WORK. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SAND AND SILT FROM DISTURBED AREAS FROM ENTERING THE DRAINAGE SYSTEM.
13. NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICT, ERROR, AMBIGUITY, OR DISCREPANCY WITH THE PLANS OR BETWEEN THE PLANS AND ANY APPLICABLE LAW, REGULATION, CODE, STANDARD SPECIFICATION, OR MANUFACTURER'S INSTRUCTIONS.
14. EXCAVATE WITH EQUIPMENT SELECTED TO MINIMIZE DAMAGE TO EXISTING UTILITIES OR OTHER FACILITIES. HAND EXCAVATE AS NECESSARY TO LOCATE UTILITIES AND AVOID DAMAGE.
15. TAKE NECESSARY MEASURES AND PROVIDE CONTINUOUS BARRIERS OF SUFFICIENT TYPE, SIZE, AND STRENGTH TO PREVENT ACCESS TO ALL WORK AND STAGING AREAS AT THE COMPLETION OF EACH DAYS WORK.
16. NO OPEN TRENCHES WILL BE ALLOWED OVER NIGHT. THE USE OF ROAD PLATES TO PROTECT THE EXCAVATION WILL BE CONSIDERED UPON REQUEST, BUT BACKFILLING IS PREFERRED.
17. THE CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY TRAFFIC CONTROL/SAFETY DEVICES TO ENSURE SAFE VEHICULAR AND PEDESTRIAN ACCESS THROUGH THE WORK AREA, OR FOR SAFELY IMPLEMENTING DETOURS AROUND THE WORK AREA. PERFORM TRAFFIC CONTROL IN ACCORDANCE WITH THE CONTRACTOR'S APPROVED TRAFFIC CONTROL PLAN.
18. MAINTAIN EMERGENCY ACCESS TO ALL PROPERTIES WITHIN THE PROJECT AREA AT ALL TIMES DURING CONSTRUCTION.
19. WHEN WORKING IN THE ROAD, PROVIDE THE OWNER AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES A DETAILED PLAN OF APPROACH INDICATING METHODS OF PROPOSED TRAFFIC ROUTING ON A DAILY BASIS. PROVIDE COORDINATION TO ENSURE COMMUNICATION AND COORDINATION BETWEEN THE OWNER, CONTRACTOR AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES THROUGHOUT THE CONSTRUCTION PERIOD.
20. REMOVE AND DISPOSE OF ALL CONSTRUCTION-RELATED WASTE MATERIALS AND DEBRIS IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS.
21. THE TERM "DEMOLISH" USED ON THE DRAWINGS MEANS TO REMOVE AND DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
22. THE TERM "ABANDON" USED ON THE DRAWINGS MEANS TO LEAVE IN PLACE AND TAKE APPROPRIATE MEASURES TO DECOMMISSION AS SPECIFIED OR NOTED ON THE DRAWINGS.
23. ALL PROPOSED WORK MAY BE ADJUSTED IN THE FIELD BY THE OWNER'S PROJECT REPRESENTATIVE TO MEET EXISTING CONDITIONS.
24. REFER TO SPECIFICATION SECTION 02 87 13 HAZARDOUS MATERIALS / UNIVERSAL WASTE MANAGEMENT FOR SPECIFIC REQUIREMENTS AND DETAILS REGARDING REMOVAL AND LAWFUL DISPOSAL OR RECYCLING OF HAZARDOUS MATERIALS AND UNIVERSAL WASTES FROM THE ATTENDANT BOOTH, TRUCK SCALE AND SCALEHOUSE, AND SALT SHED PRIOR TO DEMOLITION.

EROSION CONTROL AND RESOURCE AREA PROTECTION NOTES

1. PROVIDE ALL EROSION CONTROL MEASURES SHOWN, SPECIFIED, REQUIRED BY PERMIT, AND/OR REQUIRED BY THE ENGINEER PRIOR TO ANY CONSTRUCTION OR IMMEDIATELY UPON REQUEST. MAINTAIN SUCH CONTROL MEASURES UNTIL FINAL SURFACE TREATMENTS ARE IN PLACE AND/OR UNTIL PERMANENT VEGETATION IS ESTABLISHED. INSPECT AFTER EACH RAINSTORM AND DURING MAJOR STORM EVENTS TO CONFIRM THAT ALL SEDIMENTATION AND EROSION CONTROL MEASURES REQUIRED ARE IN PLACE AND EFFECTIVE.
2. PRIOR TO STARTING WORK, CLEARLY STAKE WORK LIMITS. DO NOT DISTURB VEGETATION AND TOPSOIL BEYOND THE PROPOSED LIMITS. COORDINATE WITH THE ENGINEER FOR LOCATIONS OF TEMPORARY STOCKPILING OF TOPSOIL DURING CONSTRUCTION.
3. INSTALL SILT SACKS OR OTHER APPROVED SEDIMENTATION BARRIERS IN/AT ALL CATCH BASINS IN THE PROJECT AREA.
4. COMPACT, STABILIZE, AND LOAM AND SEED SIDE SLOPES, SHOULDER AREAS AND DISTURBED VEGETATED AREAS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND AS REQUIRED BY PERMITS. GRADE SIDE SLOPES, SHOULDER AREAS AND DISTURBED VEGETATED AREAS TO A MAXIMUM SLOPE OF 3 HORIZONTAL TO 1 VERTICAL (3H:1V), WHERE POSSIBLE. PROVIDE BIODEGRADABLE EROSION CONTROL BLANKETS TO PREVENT EROSION WHERE SLOPES ARE STEEPER THAN 3H:1V.
5. SETTLE OR FILTER ALL SILT-LADEN WATER FROM DEWATERING ACTIVITIES IN A SEDIMENTATION OR FILTER BAG TO REMOVE SEDIMENTS PRIOR TO RELEASE USING A SEDIMENTATION OR FILTER BAG LOCATED DOWN-GRADIENT OF THE DEWATERED AREA.
6. REMOVE AND PROPERLY DISPOSE OF SILT TRAPPED AT BARRIERS IN UPLAND AREAS OUTSIDE BUFFER ZONES. REMOVE MATERIALS DEPOSITED IN ANY TEMPORARY SETTLING BASINS AT THE COMPLETION OF THE PROJECT. RESTORE ALL DISTURBED AREAS TO THEIR PRECONSTRUCTION CONDITION.
7. SWEEP, COLLECT, REMOVE AND DISPOSE OF ANY SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS AT THE END OF EACH DAY.
8. LOAM AND SEED ALL DISTURBED VEGETATED AREAS TO ESTABLISH COVER AND STABILIZATION AS SOON AS POSSIBLE FOLLOWING DISTURBANCE.
9. MAINTAIN AN ADDITIONAL SUPPLY OF EROSION CONTROL MEASURES ON-SITE FOR EMERGENCY REPAIRS.
10. STORE FUEL, OIL, PAINT, OR OTHER HAZARDOUS MATERIALS IN A SECONDARY CONTAINER AND REMOVE TO A SECURE LOCKED AND COVERED AREA DURING NON-WORK HOURS.
11. PROVIDE A SUPPLY OF ABSORBENT SPILL RESPONSE MATERIALS SUCH AS BOOMS, BLANKETS, AND OIL ABSORBENT MATERIALS AT THE CONSTRUCTION SITE AT ALL TIMES TO CLEAN UP POTENTIAL SPILLS OF HAZARDOUS MATERIALS. IMMEDIATELY REPORT SPILLS OF HAZARDOUS MATERIALS TO THE STATE ENVIRONMENTAL AGENCY AND THE MUNICIPALITY WHERE THE WORK IS OCCURRING.

SURFACE RESTORATION NOTES

1. ALL PAVEMENT DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. PROVIDE SITE GRADING AT ACCESSIBLE SIDEWALK RAMPS, SIDEWALKS, AND BUILDING ENTRANCES THAT IS CONSISTENT WITH THE RELEVANT ACCESS REQUIREMENTS OF THE ARCHITECTURAL BARRIERS ACT (ABA), THE AMERICANS WITH DISABILITIES ACT (ADA), AND MA ARCHITECTURAL ACCESS BOARD REQUIREMENTS (AAB). SMALL CHANGES IN GRADE OVER RELATIVELY SHORT DISTANCES (E.G. AT PARKING SPACES, ACCESSIBLE ROUTES, AND RAMPS) MIGHT NOT BE CLEARLY DEPICTED WITHIN THE CONTOUR INTERVAL SHOWN. COMPLY WITH THE CRITERIA IN THESE STANDARDS. SELECT MAXIMUM SLOPE CRITERIA ARE REPRODUCED BELOW:
   - ACCESSIBLE PARKING STALL AND PASSENGER LOADING ZONE (ANY DIRECTION) SLOPE < 2.0%
   - LONGITUDINAL SLOPE ALONG ACCESSIBLE ROUTES < 5.0%
   - CROSS SLOPE ALONG ACCESSIBLE ROUTES < 2.0%
3. PROTECT PROJECT FEATURES (E.G., WALLS, FENCES, MAIL BOXES, SIGNS, SIDEWALKS, CURBING, STAIRS, WALKWAYS, TREES, ETC.) FROM DAMAGE DURING CONSTRUCTION, INCLUDING PROVIDING TEMPORARY SUPPORTS, WHEN APPROPRIATE.
4. IF REMOVAL OF PROJECT FEATURES IS REQUIRED IN ORDER TO PERFORM THE PROPOSED WORK, REMOVE THOSE SITE FEATURES ONLY UPON APPROVAL OF ENGINEER. REPLACE ALL REMOVED PROJECT FEATURES; NEW ITEMS SHALL BE EQUAL OR BETTER IN QUALITY AND CONDITION TO THE ITEMS REMOVED.
5. EXISTING SURVEY MONUMENTS DISTURBED BY THE CONTRACTOR SHALL BE REPLACED BY A LAND SURVEYOR LICENSED IN THE STATE IN WHICH THE WORK IS PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
6. COORDINATE THE ADJUSTMENT OF EXISTING UTILITY STRUCTURES WITH EACH RESPONSIBLE UTILITY OWNER PRIOR TO RECONSTRUCTION AND/OR PAVING OPERATIONS. RAISE ALL STRUCTURES TO FINISHED GRADES PRIOR TO THE END OF THE CONSTRUCTION SEASON AND PRIOR TO FINISHED PAVING.
7. REPAIR DISTURBED PAVED SURFACES AT THE END OF EACH WORK WEEK, UNLESS OTHERWISE APPROVED/REQUIRED BY THE OWNER.
8. PLACE TEMPORARY BITUMINOUS CONCRETE PAVEMENT AT DISTURBED PORTLAND CEMENT CONCRETE SIDEWALKS AND DRIVEWAYS AT THE END OF EACH WORK WEEK, UNLESS OTHERWISE APPROVED/REQUIRED BY THE OWNER.
9. TRANSFER ALL TEMPORARY BENCHMARKS, AS NECESSARY.
10. ACCOMMODATE PEDESTRIAN TRAFFIC WHERE A SIDEWALK IS TO BE CLOSED FOR SAFETY. "SIDEWALK CLOSED HERE" SIGNS SHALL BE USED AT THE NEAREST SAFE INTERSECTION. SEE TRAFFIC CONTROL DETAILS FOR SIGN INFORMATION.
11. RESTORE ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE PAYLINE LIMITS TO ORIGINAL CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
12. REGRADE ALL UNPAVED AREAS DISTURBED BY THE WORK AS REQUIRED. REPAIR/REPLACE PAVED SURFACES DISTURBED BY THE WORK IN-KIND, UNLESS OTHERWISE NOTED. RESTORE SURFACES TO EXISTING OR PROPOSED CONDITIONS AS INDICATED ON THE DRAWINGS.
13. PROVIDE A SMOOTH, FLUSH TRANSITION BETWEEN ALL NEW AND EXISTING PAVEMENTS AND WALKING SURFACES.

Tighe&Bond

ISSUED FOR BIDDING

Fall River DCM Facility Improvements Phase I

City of Fall River

Fall River, Massachusetts

MARK	DATE	DESCRIPTION
0	2/12/2025	ISSUED FOR BIDDING

PROJECT NO:	F5033-011
DATE:	FEBRUARY 2025
FILE:	F5033-011-C-001.dwg
DRAWN BY:	TCW/ND
DESIGNED/CHECKED BY:	MPW
APPROVED BY:	JPV

GENERAL NOTES-1

SCALE: NO SCALE

C-002

Last Saved: 2/10/2025
Plotted On:Feb 11, 2025-11:18am By: NDay
Tighe & Bond:J:\F\F5033 Fall River\011 - DPW Improvement Project\Drawings\AutoCAD\Sheet\F5033-011-C-001.dwg

WATER SYSTEM IMPROVEMENTS NOTES

1. PROPOSED WATER MAINS SHALL BE PROVIDED IN ACCORDANCE WITH THE OWNER'S STANDARDS, AS SPECIFIED, AND AS SHOWN ON THE DRAWINGS. WHERE THERE IS A CONFLICT BETWEEN THE OWNER'S STANDARDS AND THE DRAWINGS AND SPECIFICATIONS, THE OWNER'S STANDARDS SHALL GOVERN.
2. HORIZONTAL AND VERTICAL LOCATION OF WATER MAINS MAY BE MODIFIED TO FIT EXISTING FIELD CONDITIONS, UPON APPROVAL OF THE ENGINEER.
3. WORKING PRESSURE OF WATER MAIN IN PROJECT AREA IS 70 PSI.
4. MINIMUM DEPTH OF COVER OVER PROPOSED WATER MAIN SHALL BE 5 FEET, UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER.
5. ALL BELOW GRADE VALVES AND FITTINGS SHALL HAVE MECHANICAL JOINT (MJ) ENDS. RESTRAIN ALL VALVE AND FITTING JOINTS WITH RETAINER GLANDS.
6. WHERE A COUPLING IS CALLED FOR ON THE DRAWINGS TO CONNECT A PROPOSED WATER MAIN TO AN EXISTING WATER MAIN PROVIDE A SOLID SLEEVE, IF POSSIBLE. RESTRAIN SOLID SLEEVE TO PIPES WITH RETAINER GLANDS. IF OUTSIDE DIAMETER OF EXISTING WATER MAIN DOES NOT ALLOW INSTALLATION OF SOLID SLEEVE, PROVIDE RESTRAINING TYPE TRANSITION COUPLING.
7. SLEEVES, NIPPLES, AND ACCESSORIES NECESSARY FOR CONNECTION BETWEEN EXISTING AND PROPOSED PIPES MAY NOT BE SHOWN ON THE DRAWINGS. PROVIDE ITEMS NECESSARY FOR CONNECTING TO EXISTING MAINS AND MAKE CONNECTIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
8. RESTRAIN PIPE JOINTS IN ACCORDANCE WITH "MINIMUM RESTRAINED LENGTHS FOR DI PIPE" TABLE ON THE DRAWINGS.
9. MAINTAIN A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN THE PROPOSED WATER MAIN AND ANY EXISTING OR PROPOSED SANITARY SEWER OR STORM DRAIN. WHEN CONDITIONS PREVENT THIS, A LESSER DISTANCE WILL BE ALLOWED IF: A.) THE WATER MAIN IS IN A SEPARATE TRENCH OR B.) THE PROPOSED WATER MAIN IS LOCATED IN THE SAME TRENCH TO ONE SIDE ON A BENCH OF UNDISTURBED EARTH WITH AT LEAST 12 INCHES, AND PREFERABLY 18 INCHES, HORIZONTAL SEPARATION BETWEEN THE EDGES OF THE SEWER/DRAIN PIPE AND THE WATER MAIN. IN EITHER CASE, THE BOTTOM OF THE WATER MAIN SHALL BE 18 INCHES ABOVE THE CROWN OF THE SEWER/DRAIN PIPE.
10. WATER MAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. IT IS PREFERRED THAT THE WATER MAIN CROSS ABOVE THE SEWER. AT CROSSINGS, ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE.
11. WHERE THE PROPOSED WATER MAIN IS TO BE INSTALLED BELOW A DRAIN PIPE, MAINTAIN A MINIMUM OF 18 INCHES BETWEEN THE BOTTOM OF THE STORM DRAIN AND THE CROWN OF THE WATER MAIN.
12. OPERATION OF EXISTING VALVES SHALL BE BY THE WATER DISTRIBUTION SYSTEM OWNER, UNLESS OTHERWISE AUTHORIZED. COORDINATE OPERATION OF VALVES WITH THE WATER DISTRIBUTION SYSTEM OWNER.
13. THE WATER DISTRIBUTION SYSTEM OWNER DOES NOT GUARANTEE A TIGHT SHUTDOWN OF ITS EXISTING VALVES. THE CONTRACTOR IS RESPONSIBLE FOR CONTROL OF LEAKAGE AND DISPOSAL OF WATER UP TO 100 GALLONS PER MINUTE.
14. COORDINATE THE ACTIVATION AND DEACTIVATION OF WATER MAINS WITH THE WATER DISTRIBUTION SYSTEM OWNER.
15. WHERE WATER MAINS ARE BEING REPLACED, RECONNECT ALL EXISTING WATER SERVICES TO THE PROPOSED WATER MAINS, UNLESS NOTED OTHERWISE IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING UNINTERRUPTED WATER SERVICE TO ALL CUSTOMERS IN THE PROJECT AREA DURING CONSTRUCTION, UNLESS OTHERWISE NOTED OR APPROVED BY THE OWNER.
16. THE SIZE OF THE PROPOSED WATER SERVICE TO A PROPERTY FROM THE PROPOSED WATER MAIN SHALL MATCH THE SIZE OF THE EXISTING WATER SERVICE FROM THE BUILDING ON THAT PROPERTY, UNLESS NOTED OTHERWISE.
17. WHERE A PROPOSED UTILITY CROSSES BELOW AN EXISTING ASBESTOS CEMENT (AC) WATER MAIN, REPLACE THE AC WATER MAIN ABOVE THE CROSSING AND 10 FEET ON EACH SIDE OF THE CROSSING WITH NEW DI PIPE. HANDLE, REMOVE, TRANSPORT AND DISPOSE OF AC PIPE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
18. REMOVE AND DISPOSE OF VALVE BOXES ON WATER MAIN TO BE ABANDONED, UNLESS DIRECTED OTHERWISE.
19. COVER EACH FIRE HYDRANT TAKEN OUT OF SERVICE WITH A NON-DEGRADABLE BAG SECURELY TIED. IMMEDIATELY NOTIFY FIRE DEPARTMENT WHEN HYDRANTS ARE TAKEN OUT OF SERVICE.

SEWER / DRAINAGE SYSTEM IMPROVEMENTS NOTES

1. LOCATIONS OF PROPOSED SANITARY SEWER MAINS, SANITARY SEWER SERVICES, STORM DRAINS, AND STRUCTURES ARE APPROXIMATE AND MAY BE ADJUSTED DURING CONSTRUCTION AFTER INVESTIGATIVE WORK. FINAL SANITARY SEWER MAIN/STORM DRAIN LOCATIONS, AND ASSOCIATED STRUCTURES, WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. ADJUSTMENTS TO THE PROPOSED SANITARY SEWER/STORM DRAIN LAYOUTS AND ELEVATIONS SHALL NOT BE CONSIDERED CAUSE FOR ADDITIONAL PAYMENTS. THE CONTRACTOR SHALL NOT MAKE PROPOSED SANITARY SEWER/ STORM DRAIN LAYOUT AND ELEVATION ADJUSTMENTS WITHOUT APPROVAL FROM THE ENGINEER.
3. MANHOLES SHALL BE 48-INCH DIAMETER, UNLESS NOTED OTHERWISE.
4. PROPOSED SANITARY SEWER SERVICE LATERALS SHALL BE 6-INCH DIAMETER PVC, UNLESS NOTED OTHERWISE, AND INSTALLED FROM THE PROPOSED SANITARY SEWER MAIN TO THE PROPERTY LINE FOR EACH PROPERTY IDENTIFIED AS REQUIRING A SANITARY SEWER SERVICE ON THE DRAWINGS.
5. MINIMUM PITCH FOR BUILDING SERVICE PIPES SHALL BE ¼ INCH PER FOOT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. WHERE SANITARY SEWER SERVICE IS PROPOSED FOR A PROPERTY THAT DOES NOT CURRENTLY HAVE SANITARY SEWER SERVICE, CAP SANITARY SEWER SERVICE AT PROPERTY LINE, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
7. DISTANCES AND SLOPES OF PROPOSED SANITARY SEWERS/STORM DRAINS ARE BASED ON DISTANCES FROM CENTERLINE TO CENTERLINE OF STRUCTURES.
8. DELIVER EXISTING FRAMES, COVERS AND GRATES OF STRUCTURES TO BE REMOVED TO THE DEPARTMENT OF PUBLIC WORKS YARD OR OTHER LOCATION DESIGNATED BY THE OWNER.
9. UNLESS OTHERWISE NOTED, PROPOSED CATCH BASIN LATERALS SHALL BE 12-INCH DIAMETER. WHERE THE MAINLINE STORM DRAIN IS SMALLER THAN 12-INCHES IN DIAMETER, THE CATCH BASIN LATERAL SHALL MATCH THE SIZE OF THE MAINLINE STORM DRAIN. MINIMUM COVER OVER CATCH BASIN LATERALS SHALL BE 4 FEET, UNLESS SHOWN OR APPROVED OTHERWISE.
10. ACTUAL LOCATION OF PROPOSED SANITARY SEWER/STORM DRAIN TERMINAL MANHOLES MAY BE ADJUSTED IN THE FIELD BASED ON THE LOCATION OF SANITARY SEWER OR STORM DRAIN SERVICE CONNECTIONS.
11. THE LOCATION OF SANITARY SEWER SERVICE TAP SHOWN IS APPROXIMATE, THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:
    - WHERE THE SANITARY SEWER SERVICE LATERAL(S) FOR A PROPERTY WILL BE CROSSED/EXPOSED DURING THE INSTALLATION OF THE PROPOSED SANITARY SEWER MAIN, LOCATE/INVESTIGATE THE LATERAL(S) DURING CONSTRUCTION OF THE PROPOSED SANITARY SEWER MAIN. THIS WORK SHALL BE INCIDENTAL TO THE PIPELINE EXCAVATION.
    - WHERE THE SANITARY SEWER SERVICE LATERAL(S) TO A PROPERTY WILL NOT BE CROSSED DURING EXCAVATION FOR THE PROPOSED SANITARY SEWER MAIN, CONDUCT A SERVICE INVESTIGATION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS PRIOR TO CONSTRUCTION OF THE PROPOSED SANITARY SEWER MAIN AT THIS LOCATION.
12. MAINTAIN UNINTERRUPTED SANITARY SEWER SERVICE DURING CONSTRUCTION. PROVIDE BYPASS PUMPING OF SEWAGE FLOWS AND/OR TEMPORARY CONNECTIONS, AS NECESSARY.
13. MAINTAIN OPERATION OF DRAINAGE SYSTEM DURING CONSTRUCTION. PROVIDE BYPASS PUMPING OF DRAINAGE FLOWS AND/OR TEMPORARY CONNECTIONS, AS NECESSARY.
14. MAINTAIN A MINIMUM HORIZONTAL DISTANCE OF AT LEAST 10 FEET FROM ANY EXISTING OR PROPOSED WATER MAIN. IF SITE CONDITIONS PREVENT A HORIZONTAL SEPARATION OF 10 FEET, A LESSER DISTANCE WILL BE ALLOWED IF THE SANITARY SEWER/STORM DRAIN IS CONSTRUCTED IN A SEPARATE TRENCH WITH THE TOP OF THE SANITARY SEWER/ STORM DRAIN AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN.
15. WHENEVER A PROPOSED SANITARY SEWER/STORM DRAIN MUST CROSS A WATER MAIN, CONSTRUCT THE SANITARY SEWER/STORM DRAIN SO THE TOP OF THE SANITARY SEWER/STORM DRAIN IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. THE SANITARY SEWER/STORM DRAIN JOINTS SHALL BE EQUIDISTANT AND LOCATED AS FAR AWAY AS POSSIBLE FROM THE WATER MAIN JOINTS. WHEN THE PROPOSED SANITARY SEWER/STORM DRAIN CANNOT MEET THE ABOVE REQUIREMENTS, ENCASE THE PROPOSED SANITARY SEWER/STORM DRAIN IN CONCRETE.

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Fall River DCM Facility Improvements

Phase I

City of Fall River

Fall River, Massachusetts

MARK	DATE	DESCRIPTION
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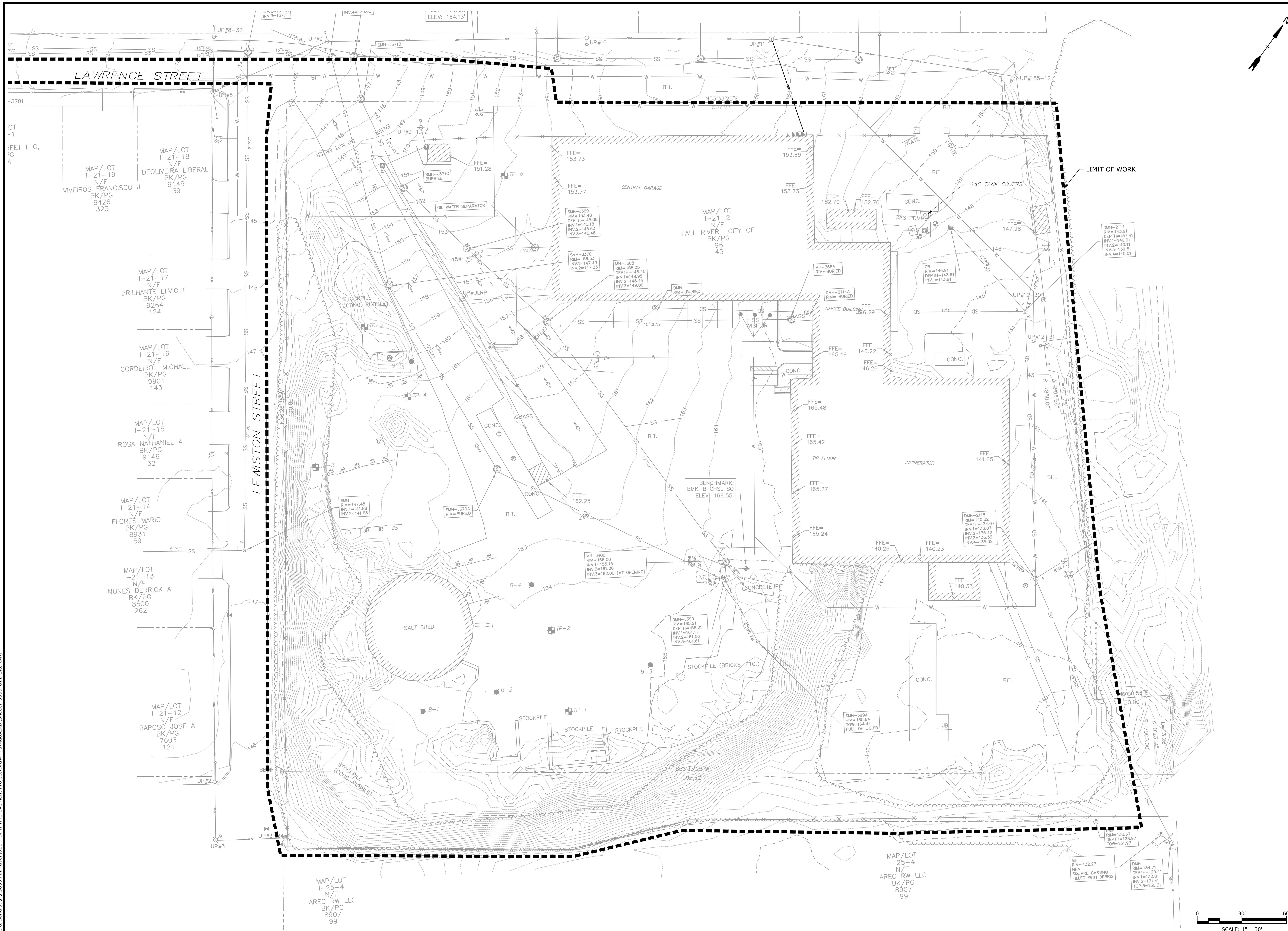
PROJECT NO:	F5033-011
DATE:	FEBRUARY 2025
FILE:	F5033-011-C-001.dwg
DRAWN BY:	TCW/ND
DESIGNED/CHECKED BY:	MPW
APPROVED BY:	JPV

GENERAL NOTES-2

SCALE: NO SCALE

C-003



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City of Fall River

Fall River, Massachusetts

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EXISTING CONDITIONS PLAN

SCALE: 1" = 30'

C-101

Last Saved: 2/12/2025
Plotted On:Feb 12, 2025-1:25pm By: NDay
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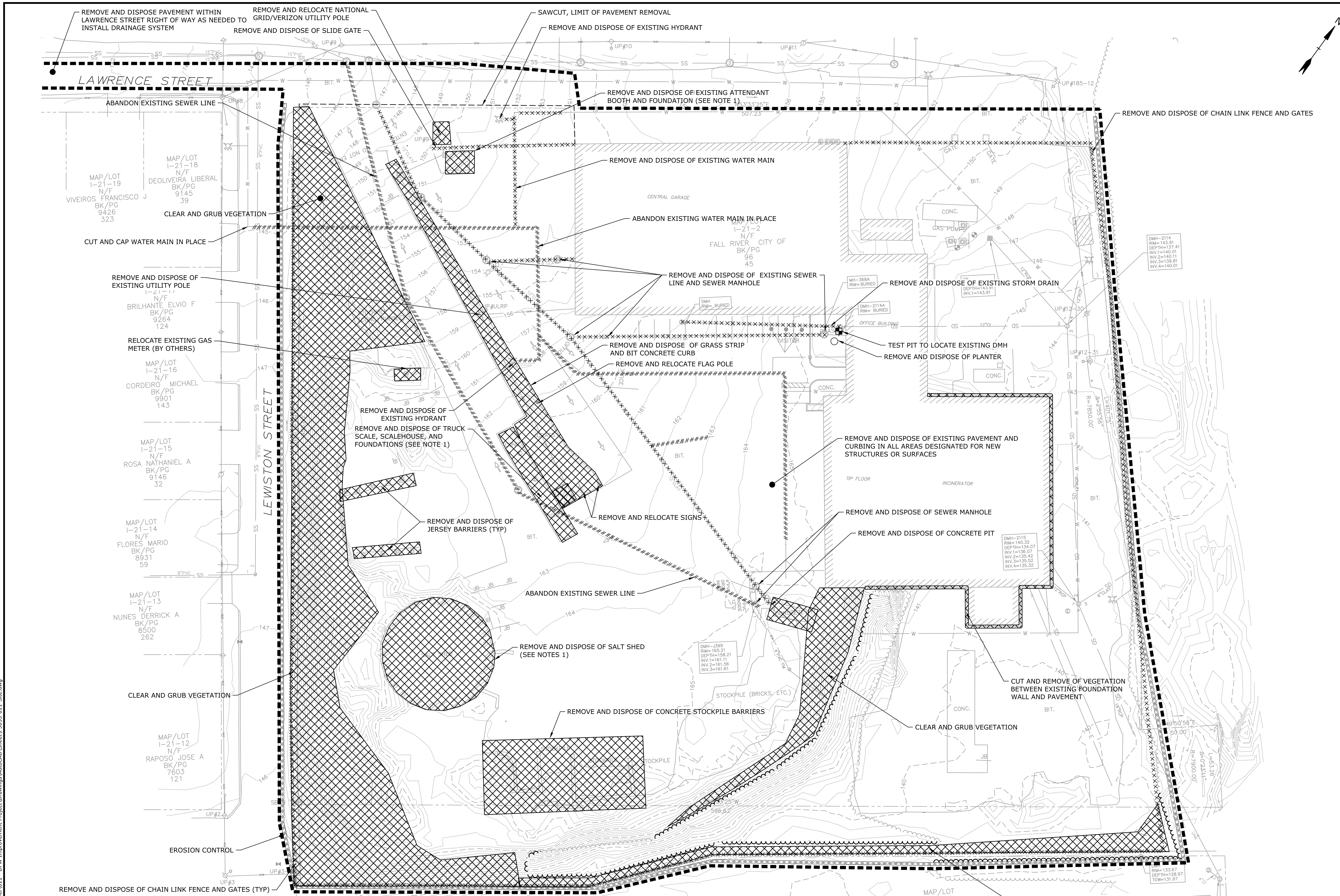

NOTE

1. REFER TO SPECIFICATION SECTION 02 87 13 HAZARDOUS MATERIALS / UNIVERSAL WASTE MANAGEMENT FOR SPECIFIC REQUIREMENTS AND DETAILS REGARDING REMOVAL AND LAWFUL DISPOSAL OR RECYCLING OF HAZARDOUS MATERIALS AND UNIVERSAL WASTES FROM THE ATTENDANT BOOTH, TRUCK SCALE AND SCALEHOUSE, AND SALT SHED PRIOR TO DEMOLITION.

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City of Fall River

Fall River, Massachusetts

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APPROVED BY:	JPV

SITE DEMOLITION AND EROSION CONTROL PLAN

SCALE: 1" = 30'

C-102

Last Saved: 2/12/2025
Plotted On:Feb 12, 2025-1:26pm By: NDay
Tighe & Bond:J:\F\F5033 Fall River\011 - DPW Improvement Project\Drawings\AutoCAD\Sheet\F5033-011-Site.dwg

PERMANENT PATCH AS NEEDED
NEW HYDRANT
RELOCATED FLAGPOLE
BITUMINOUS CONCRETE BERM - TYPE 2
20' WIDE AUTOMATIC SLIDE GATE
6' CHAIN LINK FENCE
LAWRENCE STREET
WHITE DIRECTIONAL ARROW
INFORMATIONAL SIGN
30' AUTOMATIC SLIDE GATE
30' AUTOMATIC SLIDE GATE
4' WIDE CHAIN LINK PASS GATE
6" DIA. BOLLARDS (TYP OF 4)
SUBSURFACE STORMWATER DETENTION SYSTEM
R1-1
R1-1
6" DIA. BOLLARDS (TYP OF 2)
DOUBLE SIDED STEEL-BACKED TIMBER FRAME GUARD RAIL
SEGMENTAL BLOCK RETAINING WALL WITH STEEL-BACKED TIMBER FRAMED GUARDRAIL (TYP.)
SEGMENTAL BLOCK RETAINING WALL
CAST IN PLACE CONCRETE WALL
SEGMENTAL BLOCK RETAINING WALL
4" WIDE WHITE STRIP
GRANITE CURB
CONCRETE SIDEWALK
6" DIA. BOLLARDS (TYP OF 6)
R4-7
TEXTILE BIN (BY OTHERS)
6" DIA. BOLLARD (TYP OF 5)
NEW GAS METER LOCATION
R4-7
30' X 9' CONCRETE PAD FOR BULKY WASTE
SEGMENTAL BLOCK RETAINING WALL
R7-8
R7-8P
GRANITE CURB
30' X 9" CONCRETE PAD FOR RECYCLING
6' CHAIN LINK FENCE
NEW FULL DEPTH PAVEMENT
30' X 9' CONCRETE PAD FOR METALS
6" DIA. BOLLARDS (TYP OF 28)
30' X 9' CONCRETE PAD FOR TIRES
8' X 12' CONCRETE PAD FOR WASTE OIL
35' X 9' CONCRETE PAD FOR CARDBOARD COMPACTOR
CAST IN PLACE CONCRETE WALL
22' X 9' CONCRETE PAD FOR PAINT AND LIGHT CONTAINER
6" DIA. BOLLARDS (TYP OF 4) (BY OTHERS)
60' X 22' HEAVY DUTY PAVEMENT (BY OTHERS)
6" SOLID WHITE LINE
STEEL-BACKED TIMBER FRAME GUARD RAIL
EDGE OF DRIVE LANE
EDGE OF PAVEMENT
NEW FULL DEPTH PAVEMENT
(2) 4' WIDE CHAIN LINK PASS GATES
PEDESTRIAN GUARD RAIL MOUNTED TO TOP OF WALL
SALT SHED 60'x72' FF = 160.25 (BY OTHERS)
MODULAR CONCRETE BARRIER WALLS (TYP 6' HIGH) FOR STOCKPILE OF MATERIALS
STEEL-BACKED TIMBER FRAME GUARD RAIL
YARD WASTE AREA (HEAVY DUTY PAVEMENT)
PHASE I CONTRACTOR TO EXCAVATE AND ROUGH GRADE SUBGRADE FOR FOOTINGS, APRON, AND INTERIOR FLOOR FOR PHASE II SALT SHED
6' CHAIN LINK FENCE
6' CHAIN LINK FENCE
TRAILER FOR CRTS (BY OTHERS)
TRAILER FOR MATTRESSES (BY OTHERS)

MAP/LOT I-21-19 N/F VIVEIROS FRANCISCO J BK/PG 9426 323
MAP/LOT I-21-18 N/F DEOLIVEIRA LIBERAL BK/PG 9145 39
MAP/LOT I-21-2 N/F FALL RIVER CITY OF BK/PG 96 45
MAP/LOT I-21-17 N/F BRILHANTE ELVIO F BK/PG 9264 124
MAP/LOT I-21-16 N/F CORDEIRO MICHAEL BK/PG 9901 143
MAP/LOT I-21-15 N/F ROSA NATHANIEL A BK/PG 9146 32
MAP/LOT I-21-14 N/F FLORES MARIO BK/PG 8931 59
MAP/LOT I-21-13 N/F NUNES DERRICK A BK/PG 8500 262
MAP/LOT I-21-12 N/F RAPOSO JOSE A BK/PG 7603 121
MAP/LOT I-25-4 N/F AREC RW LLC BK/PG 8907 99
MAP/LOT I-25-4 N/F AREC RW LLC BK/PG 8907 99

LEWISTON STREET
CENTRAL GARAGE
OFFICE BUILDING
TIP FLOOR
INCINERATOR
GAS PUMPS

NOTE
1. TRAILERS, COMPACTORS, BINS, SALT SHED, AND DUMPSTER BY OTHERS.

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

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Fall River DCM Facility Improvements
Phase I

City of Fall River

Fall River, Massachusetts

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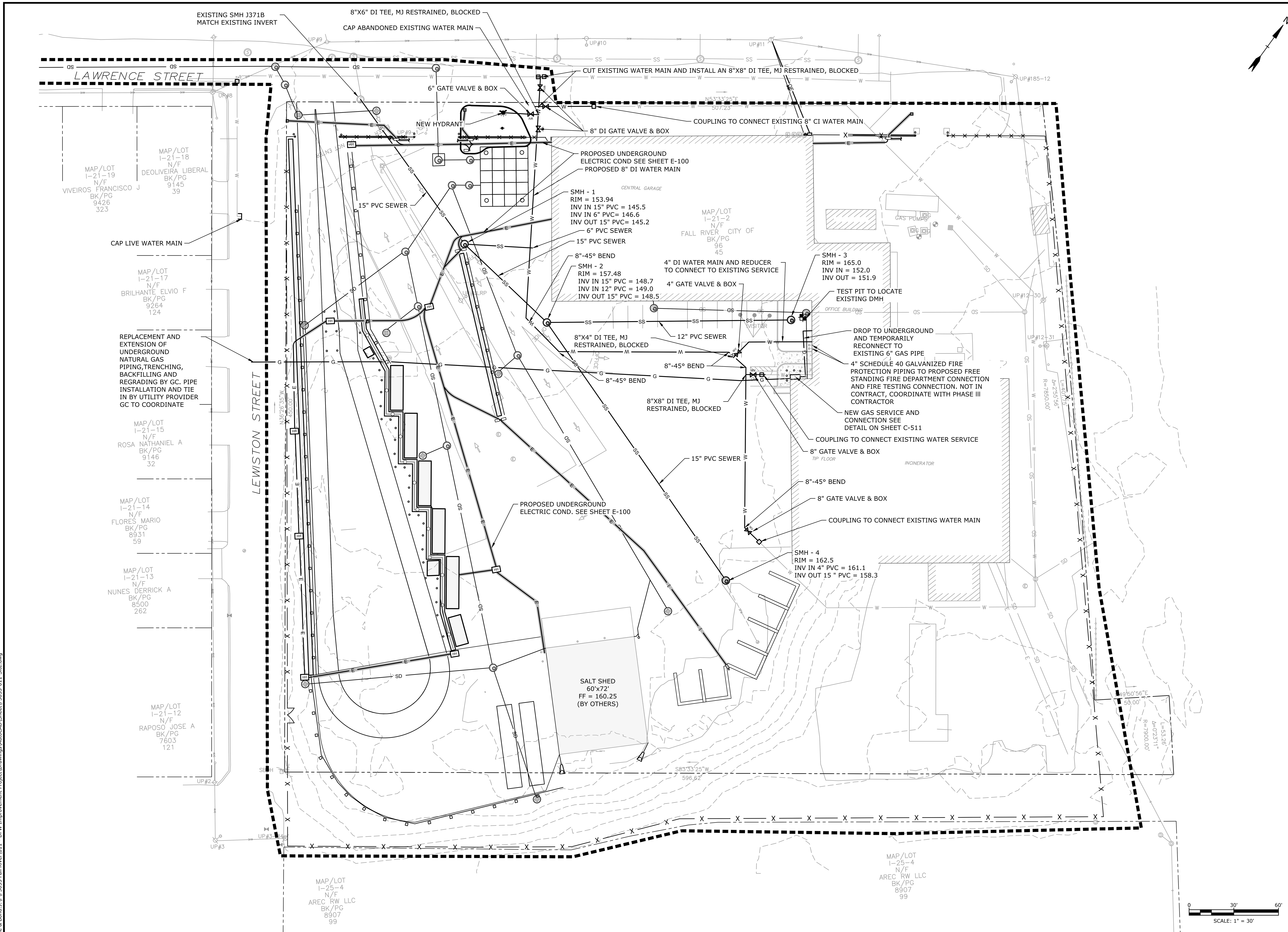
DESIGNED/CHECKED BY:	MPW
APPROVED BY:	JPV

SITE LAYOUT AND MATERIALS PLAN

SCALE: 1" = 30'

C-201


EXISTING SMH J371B
MATCH EXISTING INVERT
8"X6" DI TEE, MJ RESTRAINED, BLOCKED
CAP ABANDONED EXISTING WATER MAIN
CUT EXISTING WATER MAIN AND INSTALL AN 8"X8" DI TEE, MJ RESTRAINED, BLOCKED
6" GATE VALVE & BOX
COUPLING TO CONNECT EXISTING 8" CI WATER MAIN
NEW HYDRANT
8" DI GATE VALVE & BOX
LAWRENCE STREET
LEWISTON STREET
PROPOSED UNDERGROUND
ELECTRIC COND SEE SHEET E-100
PROPOSED 8" DI WATER MAIN
SMH - 1
RIM = 153.94
INV IN 15" PVC = 145.5
INV IN 6" PVC= 146.6
INV OUT 15" PVC= 145.2
6" PVC SEWER
15" PVC SEWER
15" PVC SEWER
CAP LIVE WATER MAIN
8"-45° BEND
SMH - 2
RIM = 157.48
INV IN 15" PVC = 148.7
INV IN 12" PVC = 149.0
INV OUT 15" PVC = 148.5
4" DI WATER MAIN AND REDUCER
TO CONNECT TO EXISTING SERVICE
4" GATE VALVE & BOX
SMH - 3
RIM = 165.0
INV IN = 152.0
INV OUT = 151.9
TEST PIT TO LOCATE
EXISTING DMH
12" PVC SEWER
8"X4" DI TEE, MJ
RESTRAINED, BLOCKED
DROP TO UNDERGROUND
AND TEMPORARILY
RECONNECT TO
EXISTING 6" GAS PIPE
8"-45° BEND
8"-45° BEND
4" SCHEDULE 40 GALVANIZED FIRE
PROTECTION PIPING TO PROPOSED FREE
STANDING FIRE DEPARTMENT CONNECTION
AND FIRE TESTING CONNECTION. NOT IN
CONTRACT, COORDINATE WITH PHASE III
CONTRACTOR
REPLACEMENT AND
EXTENSION OF
UNDERGROUND
NATURAL GAS
PIPING,TRENCHING,
BACKFILLING AND
REGRADING BY GC. PIPE
INSTALLATION AND TIE
IN BY UTILITY PROVIDER
GC TO COORDINATE
8"X8" DI TEE, MJ
RESTRAINED, BLOCKED
NEW GAS SERVICE AND
CONNECTION SEE
DETAIL ON SHEET C-511
COUPLING TO CONNECT EXISTING WATER SERVICE
8" GATE VALVE & BOX
15" PVC SEWER
8"-45° BEND
8" GATE VALVE & BOX
COUPLING TO CONNECT EXISTING WATER MAIN
PROPOSED UNDERGROUND
ELECTRIC COND. SEE SHEET E-100
SMH - 4
RIM = 162.5
INV IN 4" PVC = 161.1
INV OUT 15 " PVC = 158.3
SALT SHED
60'x72'
FF = 160.25
(BY OTHERS)
CENTRAL GARAGE
MAP/LOT
I-21-2
N/F
FALL RIVER CITY OF
BK/PG
96
45
GAS PUMPS
OFFICE BUILDING
TIP FLOOR
INCINERATOR
MAP/LOT
I-21-19
N/F
VIVEIROS FRANCISCO J
BK/PG
9426
323
MAP/LOT
I-21-18
N/F
DEOLIVEIRA LIBERAL
BK/PG
9145
39
MAP/LOT
I-21-17
N/F
BRILHANTE ELVIO F
BK/PG
9264
124
MAP/LOT
I-21-15
N/F
ROSA NATHANIEL A
BK/PG
9146
32
MAP/LOT
I-21-14
N/F
FLORES MARIO
BK/PG
8931
59
MAP/LOT
I-21-13
N/F
NUNES DERRICK A
BK/PG
8500
262
MAP/LOT
I-21-12
N/F
RAPOSO JOSE A
BK/PG
7603
121
MAP/LOT
I-25-4
N/F
AREC RW LLC
BK/PG
8907
99
MAP/LOT
I-25-4
N/F
AREC RW LLC
BK/PG
8907
99
N53°33'25"E
507.23
S83°33'25"W
596.62
SCALE: 1" = 30'

Last Saved: 2/12/2025
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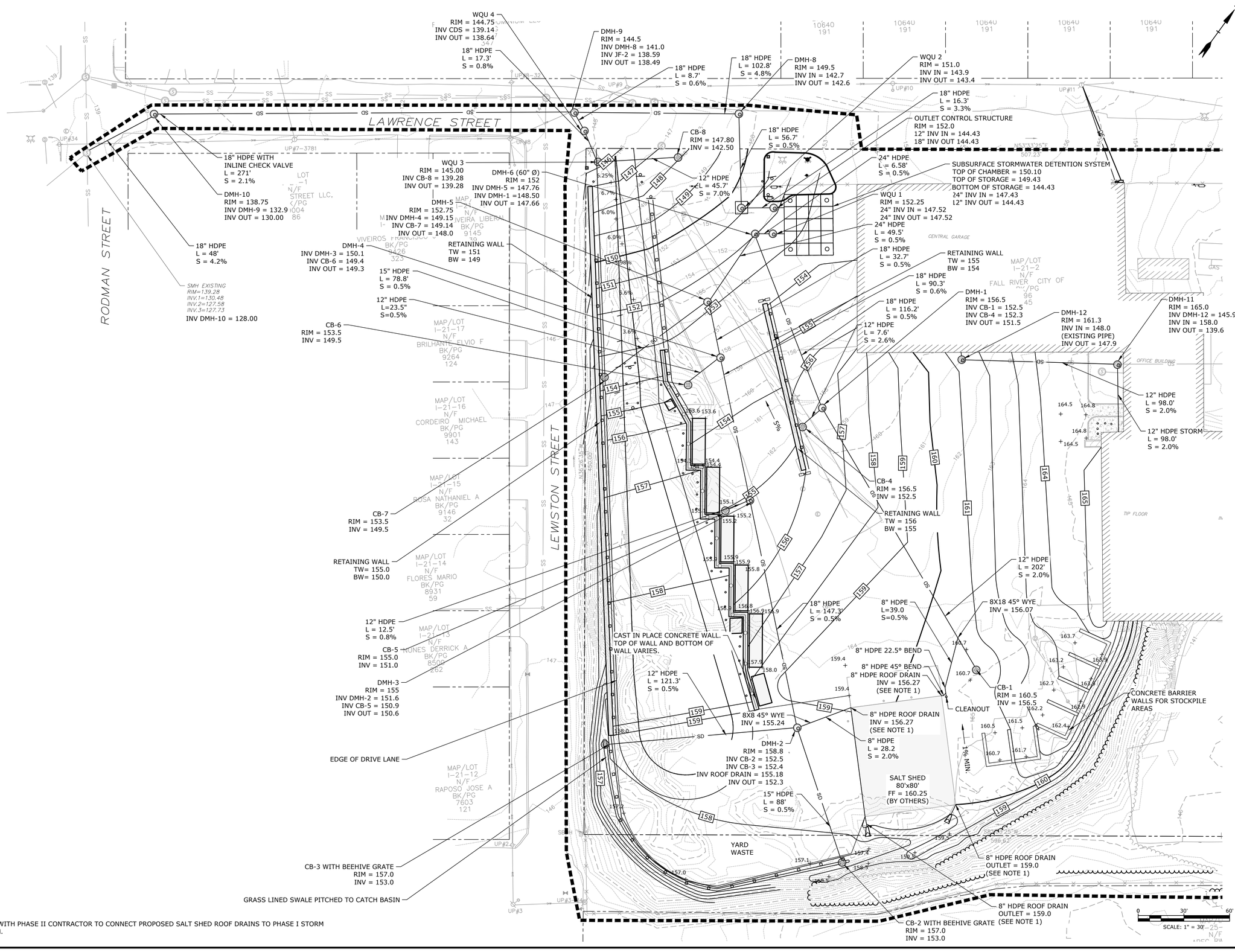
APPROVED BY:	JPV

UTILITIES PLAN

SCALE: 1" = 30'

C-202



NOTE

1. COORDINATE WITH PHASE II CONTRACTOR TO CONNECT PROPOSED SALT SHED ROOF DRAINS TO PHASE I STORM DRAIN SYSTEM.

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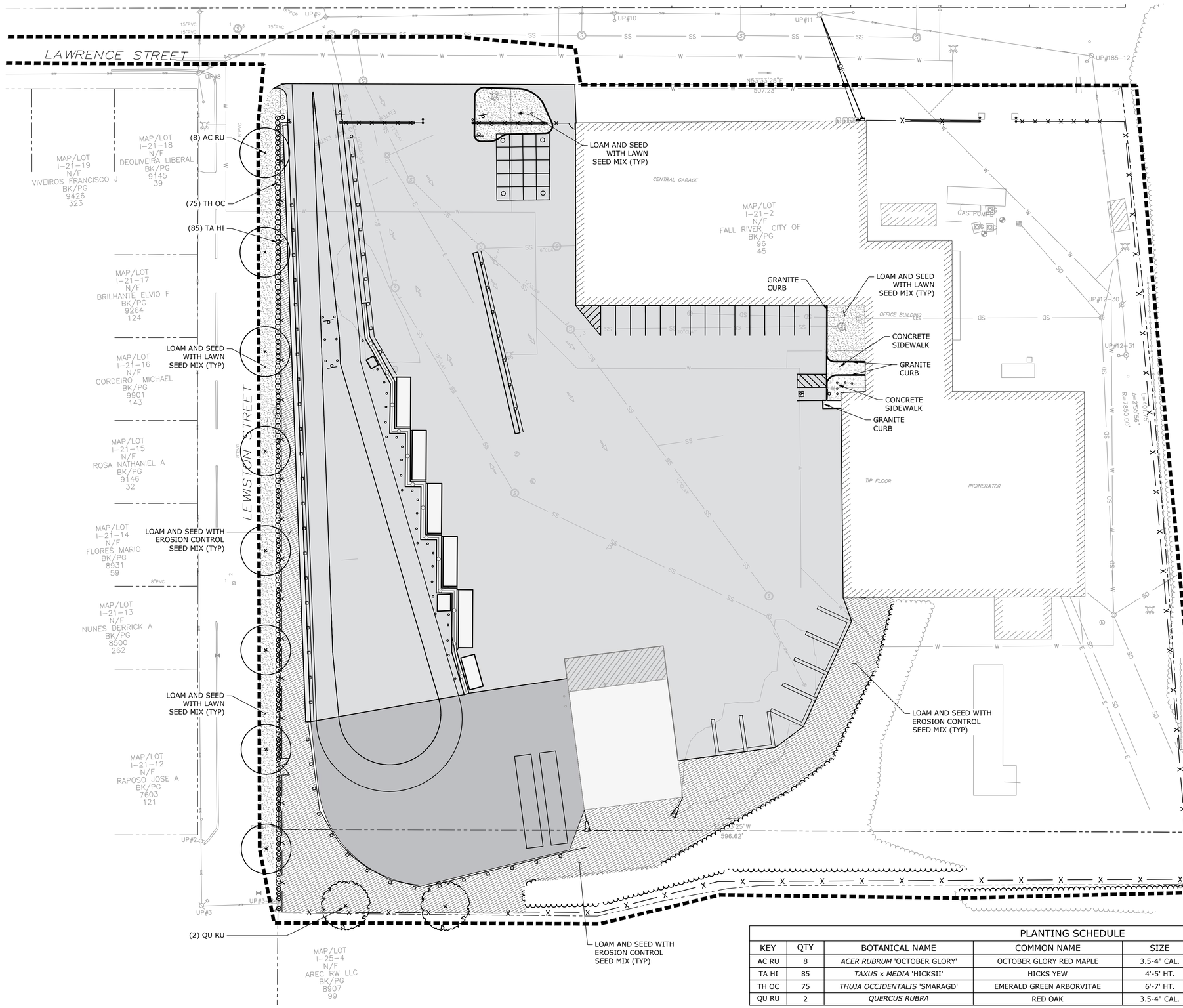
GRADING AND DRAINAGE PLAN

SCALE: 1" = 30'

C-203



PLANTING NOTES

1. LAWN SEED MIX SHALL BE:
   - 70% TALL FESCUE
   - 10% KENTUCKY BLUEGRASS
   - 20% PERENNIAL RYEGRASS
2. EROSION CONTROL SEED MIX SHALL BE 'NEW ENGLAND EROSION CONTROL/ RESTORATION MIX FOR DRY SITES' BY NEW ENGLAND WETLAND PLANTS, INC. OR APPROVED EQUAL.

PLANTING SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	NOTES
AC RU	8	*ACER RUBRUM* 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3.5-4" CAL.	60' O.C.	B&B, MATCHED SPECIMEN
TA HI	85	*TAXUS x MEDIA* 'HICKSII'	HICKS YEW	4'-5' HT.	6' O.C.	#5 CONTAINER (MIN)
TH OC	75	*THUJA OCCIDENTALIS* 'SMARAGD'	EMERALD GREEN ARBORVITAE	6'-7' HT.	6' O.C.	B&B, MATCHED SPECIMEN
QU RU	2	*QUERCUS RUBRA*	RED OAK	3.5-4" CAL.	60' O.C.	B&B, MATCH ED SPECIMEN

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LANDSCAPE AND RESTORATION PLAN

SCALE: 1" = 30'

C-204

Last Saved: 2/12/2025
Plotted: Feb 13, 2025 - 1:28pm By: NDay
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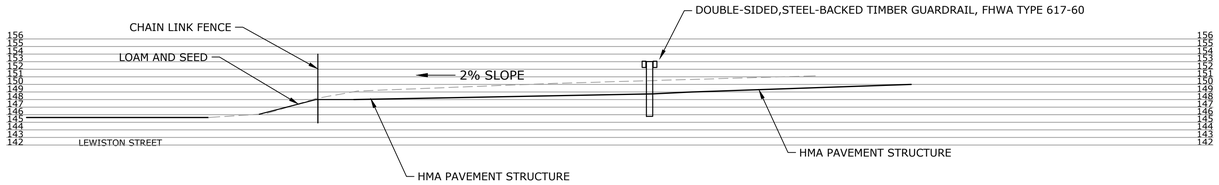
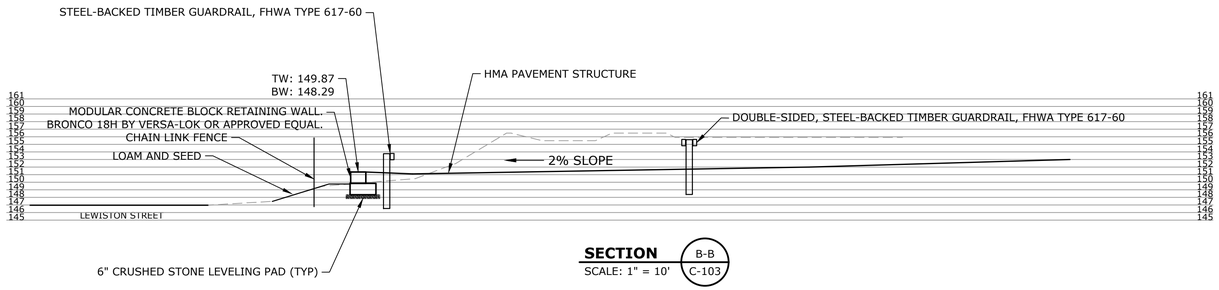
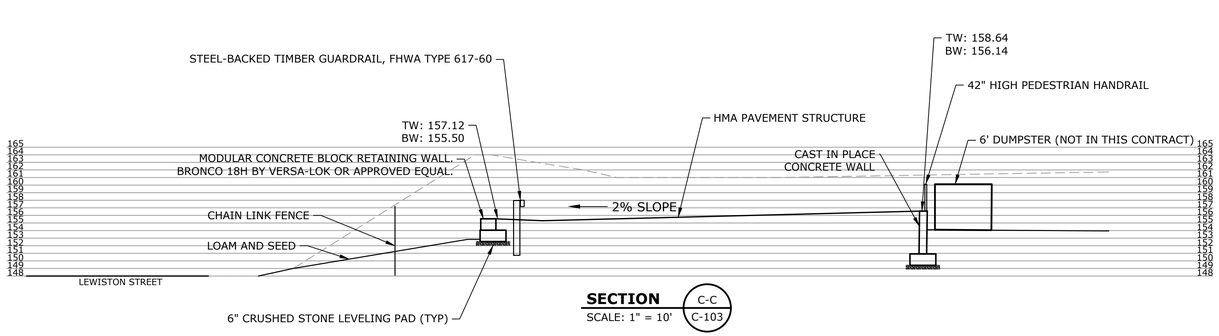


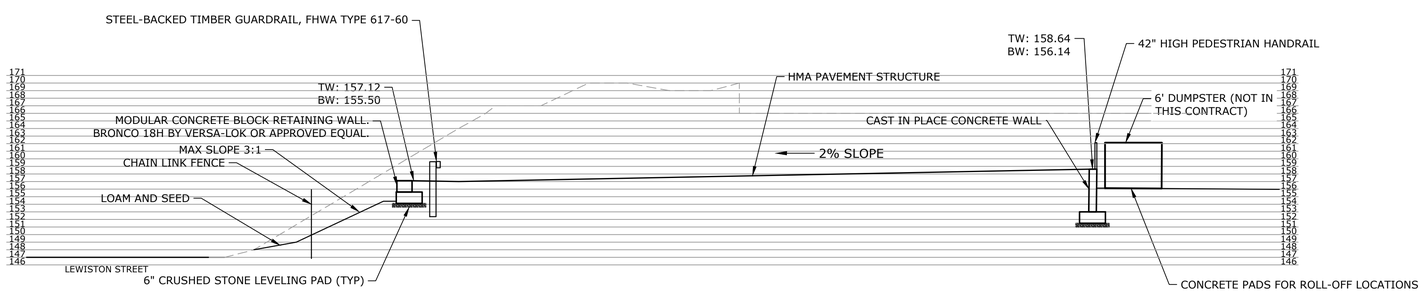
SECTION A-A
SCALE: 1" = 10' C-103



SECTION B-B
SCALE: 1" = 10' C-103



SECTION C-C
SCALE: 1" = 10' C-103



SECTION D-D
SCALE:1" = 10' C-103

SCALE IN FEET
0 10' 20'
GRAPHIC SCALE

Last Saved: 2/11/2025
Plotted: Feb 11, 2025 - 11:19am By: NDay
Tighe & Bond:\\FS033 Fall River\011 - DPW Improvement Project\Drawings\AutoCAD\Sheet\F5033-011-Site.dwg

Tighe&Bond

ISSUED FOR BIDDING

Fall River DCM Facility Improvements Phase I

City of Fall River

Fall River, Massachusetts

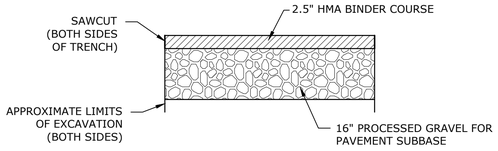
MARK	DATE	DESCRIPTION
0	2/12/2025	ISSUED FOR BIDDING

PROJECT NO:	F5033-011
DATE:	FEBRUARY 2025
FILE:	F5033-011-Site.dwg
DRAWN BY:	TCW/ND
DESIGNED/CHECKED BY:	MPW
APPROVED BY:	JPV

PUBLIC ACCESS DRIVE SECTIONS

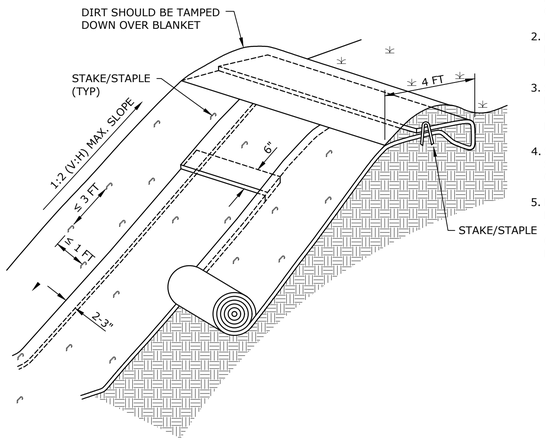
SCALE: AS SHOWN

C-205



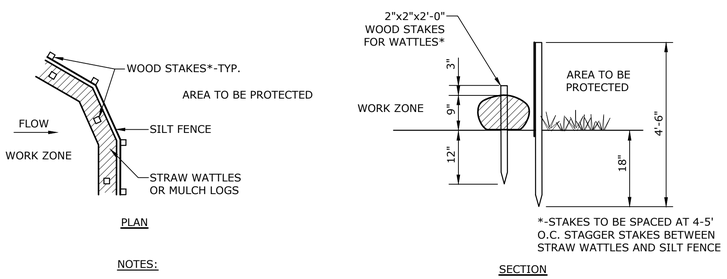
NOTES:
1. PLACED WEEKLY ON FRIDAYS (OR LAST DAY OF THE WORK WEEK) ON TOWN ROADS.
2. ANY ROUGH OR DAMAGED TRENCH EDGES SHALL BE SAWCUT CLEAN AND REPAVED.

TEMPORARY TRENCH REPAIR
NO SCALE



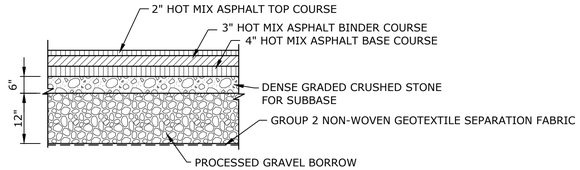
NOTES:
1. EROSION CONTROL BLANKET TO BE INSTALLED ON ALL SLOPES GREATER THAN 4 TO 1.
2. EROSION CONTROL BLANKET TO BE INSTALLED VERTICALLY DOWNSLOPE.
3. STAKES/STAPLES TO BE PLACED NO MORE THAN 3 FT APART VERTICALLY, AND 1 FT APART HORIZONTALLY.
4. SLOPE SURFACE TO BE FREE OF STICKS, ROCKS, AND OTHER OBSTRUCTIONS.
5. BLANKETS TO BE ROLLED OUT LOOSELY AND STAKED/STAPLED TO MAINTAIN DIRECT SOIL CONTACT. DO NOT STRETCH THE BLANKETS.

EROSION CONTROL BLANKET
NO SCALE



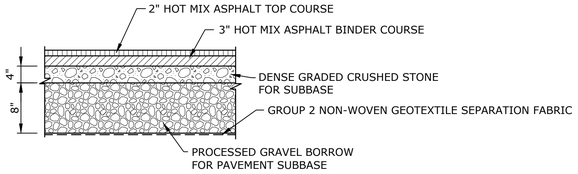
NOTES:
1. WHERE TWO STRAW WATTLES OR MULCH LOGS ARE JOINED, A MINIMUM OF 2 FEET OF OVERLAP SHALL BE MAINTAINED.
2. STAKES SHALL NOT BE USED ON CAPPED AREAS.

EROSION CONTROL BARRIER
NO SCALE



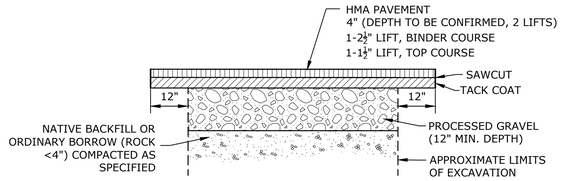
HEAVY DUTY PAVEMENT
NO SCALE

PAVING NOTES:
1. ALL PAVEMENT AND SUBBASE MATERIAL SHALL COMPLY WITH THE MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES AND DIVISION 2 OF THE PROJECT SPECIFICATIONS.
2. WHEN BINDER COURSE AND TOP COURSE PAVING ARE CONDUCTED ON SEPARATE DAYS, THE BINDER COURSE SHALL BE CLEAN SWEPT AND TACK COAT IS TO BE APPLIED TO THE SURFACE AT A RATE OF 0.05 GAL/SY PRIOR TO TOP COURSE PAVING.
3. CONTRACTOR SHALL CLEANLY SAWCUT EXSTING PAVEMENTS AT THE LIMITS OF WORK AND PROPOSED PAVEMENT SHALL BE FLUSH WITH ADJACENT SURFACES AT ALL LIMITS OF WORK.



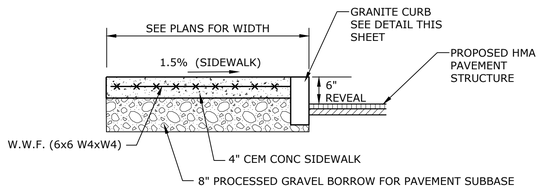
HMA PAVEMENT STRUCTURE FOR DCM FACILITY
NO SCALE

PAVING NOTES:
1. ALL PAVEMENT AND SUBBASE MATERIAL SHALL COMPLY WITH THE MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES AND DIVISION 2 OF THE PROJECT SPECIFICATIONS.
2. WHEN BINDER COURSE AND TOP COURSE PAVING ARE CONDUCTED ON SEPARATE DAYS, THE BINDER COURSE SHALL BE CLEAN SWEPT AND TACK COAT IS TO BE APPLIED TO THE SURFACE AT A RATE OF 0.05 GAL/SY PRIOR TO TOP COURSE PAVING.
3. CONTRACTOR SHALL CLEANLY SAWCUT EXSTING PAVEMENTS AT THE LIMITS OF WORK AND PROPOSED PAVEMENT SHALL BE FLUSH WITH ADJACENT SURFACES AT ALL LIMITS OF WORK.



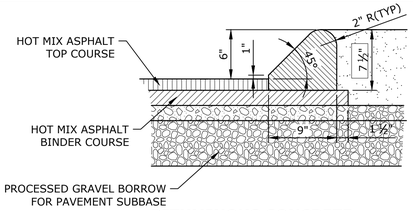
NOTES:
1. ANY ROUGH OR DAMAGED TRENCH EDGES SHALL BE SAWCUT CLEAN AND REPAVED.

HMA PAVEMENT STRUCTURE FOR PUBLIC RIGHT OF WAY
NO SCALE

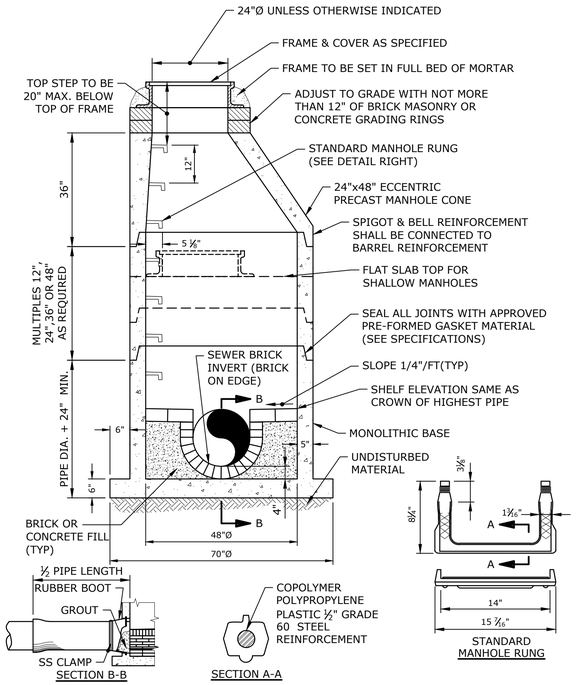


* TOLERANCE FOR CONSTRUCTION ±0.5%

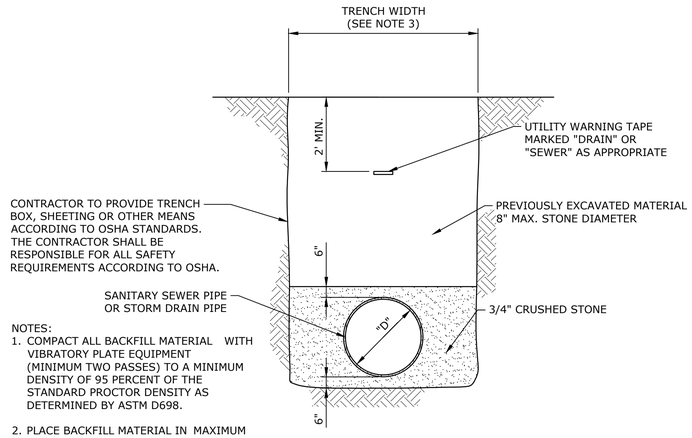
CONCRETE SIDEWALK SECTION
NO SCALE



BITUMINOUS CONCRETE
BERM - TYPE 2
NO SCALE



48" PRECAST SANITARY SEWER MANHOLE
NO SCALE



NOTES:
1. COMPACT ALL BACKFILL MATERIAL WITH VIBRATORY PLATE EQUIPMENT (MINIMUM TWO PASSES) TO A MINIMUM DENSITY OF 95 PERCENT OF THE STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D698.
2. PLACE BACKFILL MATERIAL IN MAXIMUM ONE FOOT LIFTS.
3. FOR PIPES LESS THAN 24" IN DIAMETER THE TRENCH WIDTH SHALL BE 5.0'. FOR PIPES 24" IN DIAMETER AND GREATER, TRENCH WIDTH SHALL BE THE PIPE DIAMETER + 3.0'.

TYPICAL SEWER TRENCH SECTION
NO SCALE

Tighe&Bond

ISSUED FOR BIDDING

Fall River DCM Facility Improvements Phase I

City of Fall River

Fall River, Massachusetts

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DRAWN BY:	TCW/ND
DESIGNED/CHECKED BY:	MPW
APPROVED BY:	JPV

DETAILS - 1

SCALE: AS SHOWN

C-501

Last Saved: 2/11/2025
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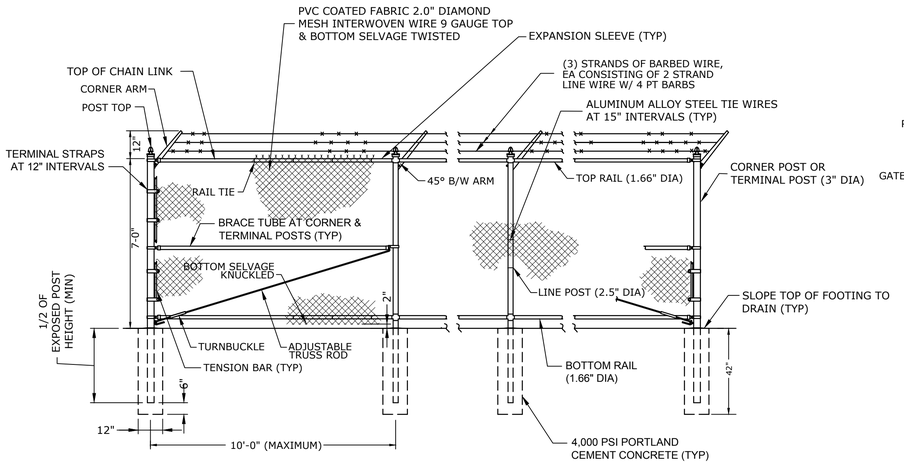
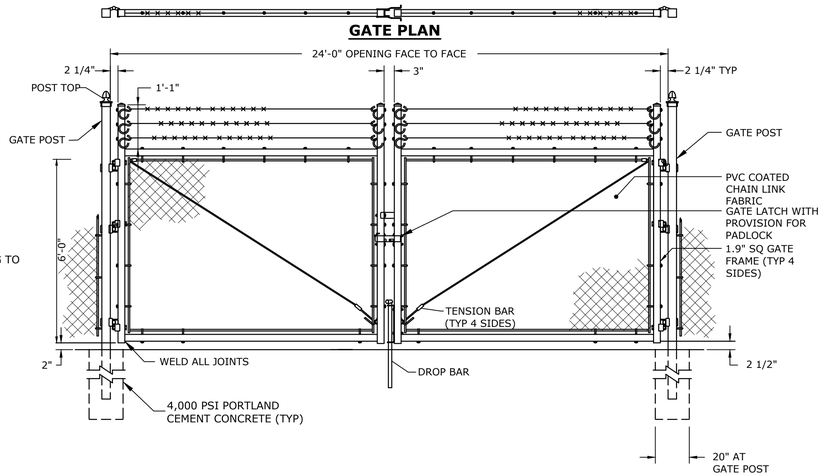
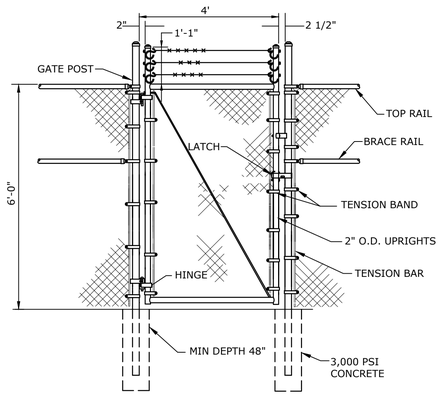


NOTES:
1. FOOTING WIDTH TO BE (4)X POST WIDTH.

CHAIN LINK FENCE
NO SCALE

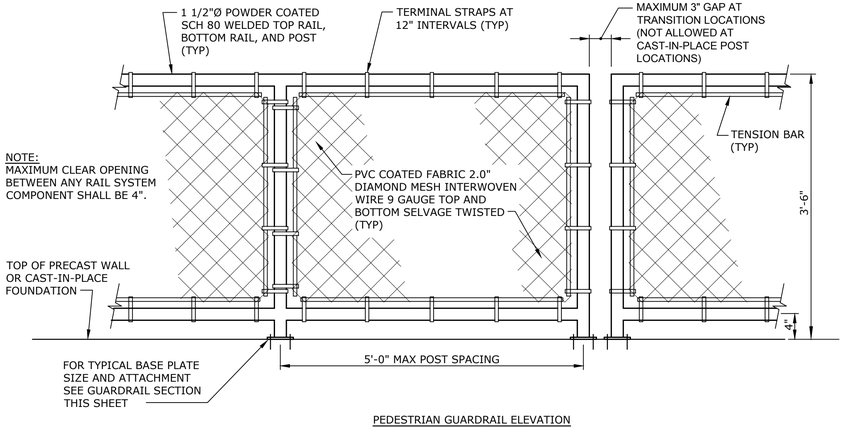


CHAIN LINK DOUBLE SWING GATE
NO SCALE

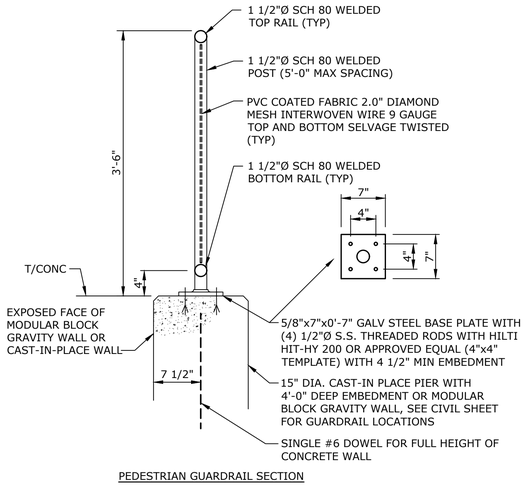


NOTES:
1. FOOTING WIDTH TO BE 4X POST WIDTH.
2. GATES SHALL BE MANUALLY OPERATED.

CHAIN LINK PASS GATE
NO SCALE

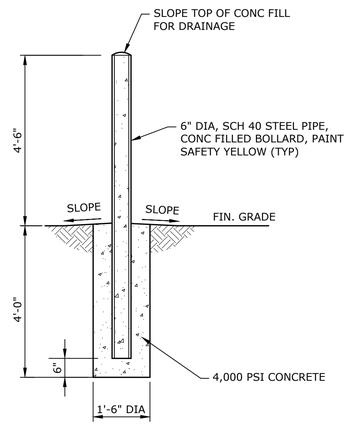


PEDESTRIAN GUARDRAIL ELEVATION



PEDESTRIAN GUARDRAIL SECTION

TYPICAL PEDESTRIAN GUARDRAIL DETAILS
NO SCALE



CONCRETE FILLED STEEL BOLLARD DETAIL
NO SCALE

Tighe&Bond

ISSUED FOR BIDDING

Fall River DCM Facility Improvements Phase I

City of Fall River

Fall River, Massachusetts

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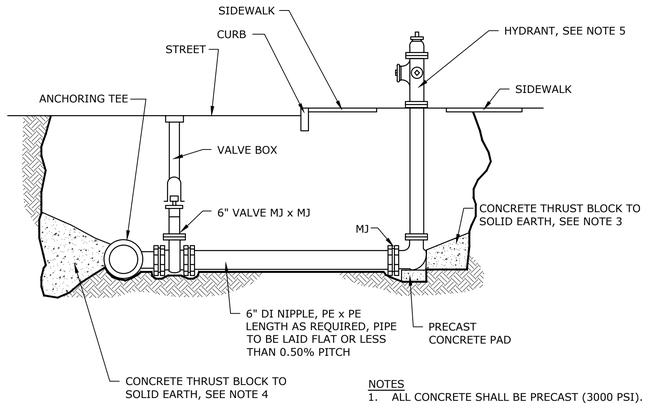
APPROVED BY:	JPV

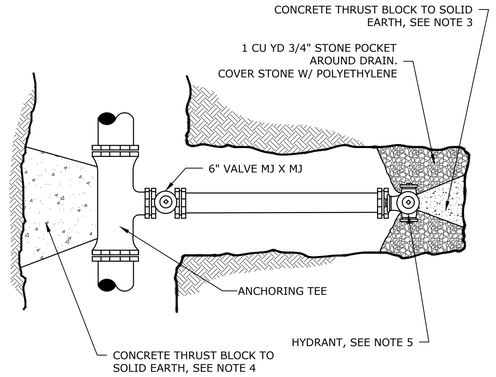
DETAILS - 2

SCALE: AS SHOWN

C-502



ELEVATION



PLAN

NOTES

1. ALL CONCRETE SHALL BE PRECAST (3000 PSI).
2. ALL MJ JOINTS SHALL HAVE RETAINER GLANDS.
3. CARE SHALL BE TAKEN TO AVOID BLOCKING HYDRANT BASE DRAIN HOLES DURING PLACEMENT OF THE CONCRETE THRUST BLOCK. DRAIN HOLES SHALL BE VERIFIED AS OPEN AND FREE OF OBSTRUCTIONS PRIOR TO BACKFILLING.
4. CARE SHALL BE TAKEN TO PLACE CONCRETE THRUST BLOCK TO ALLOW ACCESS TO ALL MECHANICAL JOINT GLANDS AND BOLTS. ALL BOLTS AND GLANDS SHALL BE FREE AND UNOBSTRUCTED BEFORE BACKFILLING.
5. HYDRANT SHALL BE SET PLUMB. VERTICAL HYDRANT EXTENSIONS SHALL BE USED AS NECESSARY TO PROPERLY LOCATE THE BREAKAWAY FLANGE PER MANUFACTURER'S RECOMMENDATIONS AND HOLYOKE WATER WORKS REQUIREMENTS.
6. SET/LOCATE HYDRANT AS SPECIFIED IN SECTION 02518.

HYDRANT INSTALLATION

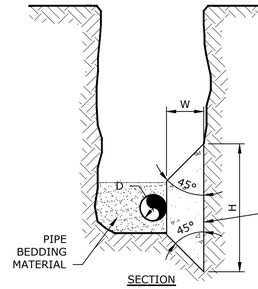
NO SCALE

SIZE (IN.)	FITTING	MINIMUM RESTRAINED LENGTH, FT. (1)
4"	90° BEND	12
4"	45° BEND	5
4"	22 1/2° BEND	3
4"	11 1/4° BEND	3
4"	DEAD END/VALVE	32
4"	45° VERTICAL UP BEND	5
4"	45° VERTICAL DOWN BEND	13
4"	4"x4" TEE	32
4"	4"x6" TEE	32
6"	90° BEND	16
6"	45° BEND	7
6"	22 1/2° BEND	4
6"	11 1/4° BEND	2
6"	DEAD END/VALVE	44
6"	45° VERTICAL UP BEND	7
6"	45° VERTICAL DOWN BEND	19
6"	6"x6" TEE	44
6"	6"x8" TEE	44
6"	6"x12" TEE	44
8"	90° BEND	23
8"	45° BEND	10
8"	22 1/2° BEND	5
8"	11 1/4° BEND	3
8"	DEAD END/VALVE	58
8"	45° VERTICAL UP BEND	10
8"	45° VERTICAL DOWN BEND	25
8"	8"x8" TEE	58
8"	8"x12" TEE	58
	6"x4" REDUCER	23
	8"x6" REDUCER	25

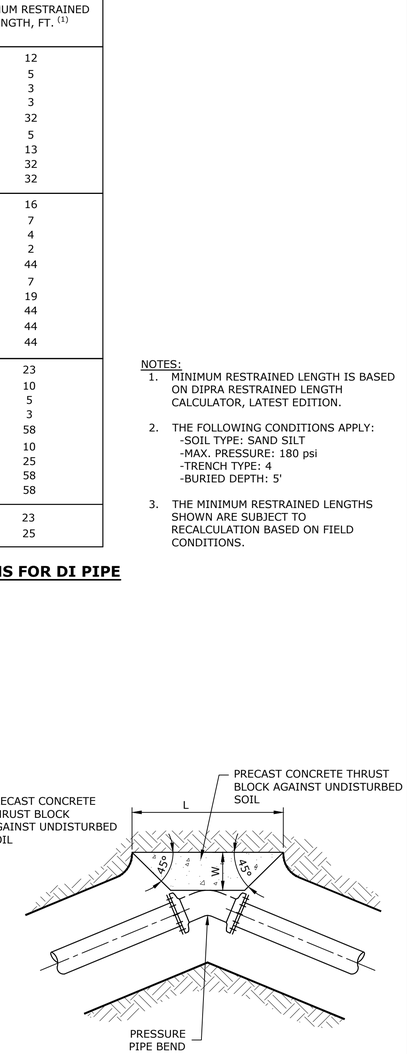
NOTES:

1. MINIMUM RESTRAINED LENGTH IS BASED ON DIPRA RESTRAINED LENGTH CALCULATOR, LATEST EDITION.
2. THE FOLLOWING CONDITIONS APPLY:
   -SOIL TYPE: SAND SILT
   -MAX. PRESSURE: 180 psi
   -TRENCH TYPE: 4
   -BURIED DEPTH: 5'
3. THE MINIMUM RESTRAINED LENGTHS SHOWN ARE SUBJECT TO RECALCULATION BASED ON FIELD CONDITIONS.

MINIMUM RESTRAINED LENGTHS FOR DI PIPE



SECTION

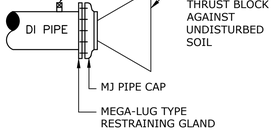


PLAN AT BEND

	CONCRETE THRUST BLOCK											
	45° BEND				11 ¼° OR 22½° BEND				TEE/END			
D	BEARING AREA (S.F.)	"L"	"H"	"W"	BEARING AREA (S.F.)	"L"	"H"	"W"	BEARING AREA (S.F.)	"L"	"H"	"W"
4	1.3	1.4	0.9	0.5	0.7	0.9	0.7	0.4	1.6	1.6	1.0	0.5
6	2.6	2.0	1.3	0.7	1.3	1.5	0.9	0.5	3.4	2.2	1.5	0.8
8	4.4	2.6	1.7	0.9	2.3	1.9	1.2	0.6	5.8	2.9	2.0	1.0
10	6.7	3.2	2.1	1.1	3.4	2.3	1.5	0.8	8.7	3.6	2.4	1.2

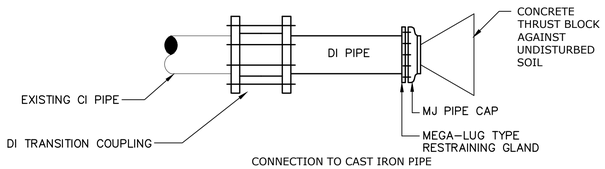
NOTES:

1. DIMENSIONS SHOWN WERE CALCULATED BASED ON A 180 PSI INTERNAL PIPE PRESSURE AND SOIL BEARING LOADS OF 3000 PSF.
2. CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED OF CONCRETE PLACED AGAINST UNDISTURBED SOIL.
3. DIMENSIONS L, W, & H MAY BE ADJUSTED TO MEET FIELD CONDITIONS PROVIDED THE BEARING AREA REMAINS UNCHANGED.
4. THE HEIGHT OF THE BLOCK (H) SHALL BE LESS THAN OR EQUAL TO HALF THE TRENCH DEPTH.



DI WATER MAIN CAPPING DETAIL

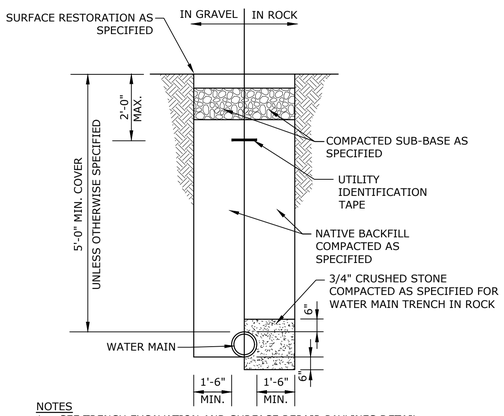
NO SCALE



CONNECTION TO CAST IRON PIPE

WATER MAIN CAPPING DETAIL

NO SCALE

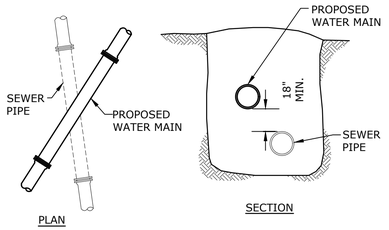


NOTES

1. SEE TRENCH EXCAVATION AND SURFACE REPAIR PAYLINES DETAIL.

TYPICAL WATER MAIN TRENCH

NO SCALE



NOTES:

1. IN SITUATIONS WHERE WATER AND SEWER LINES CROSS, WATER LINES SHALL BE LAID ABOVE SEWER MAINS WITH AT LEAST 18" OF VERTICAL CLEARANCE BETWEEN THE OUTSIDE OF THE SEWER AND OUTSIDE OF THE WATER MAIN. IF IT IS NOT POSSIBLE TO PROVIDE THIS VERTICAL CLEARANCE; 1) ONE FULL LENGTH OF WATER PIPE SHALL BE CENTERED ABOVE OR BELOW THE SEWER LINE SO THE SEWER JOINTS ARE AS FAR FROM THE WATER LINE AS POSSIBLE; 2) IN SITUATIONS WHEN A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.
2. WHEN THE CROSSING AS SHOWN IS LESS THAN 18" VERTICAL CLEARANCE THE SEWER MAIN OR SERVICE MUST BE ENCASED 10' ON BOTH SIDES OF CROSSING WITH 6" OF 3000 PSI CONCRETE. IF THE SEWER MAIN OR SERVICE CROSSES ABOVE THE WATER MAIN OR SERVICE TOTAL ENCASEMENT, BOTH SIDES OF THE CROSSING IS REQUIRED, REGARDLESS OF SEPARATION.

SEWER PIPE AND WATER MAIN CROSSING

NO SCALE

Tighe&Bond

ISSUED FOR BIDDING

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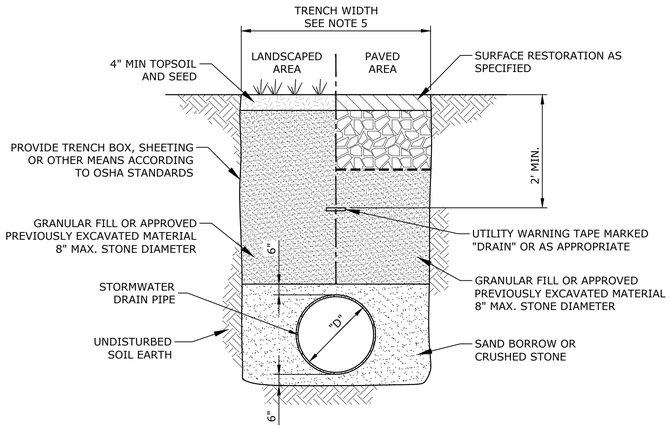
DRAWN BY:	TCW/ND
DESIGNED/CHECKED BY:	MPW
APPROVED BY:	JPV

DETAILS - 3

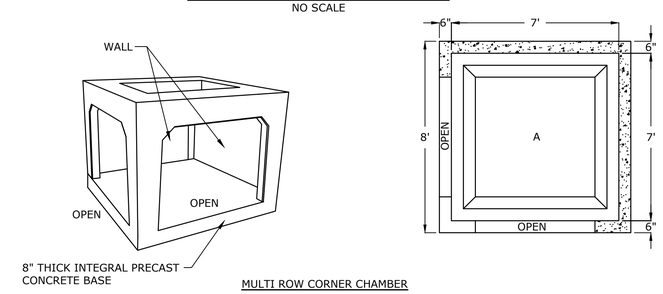
SCALE: AS SHOWN

C-503

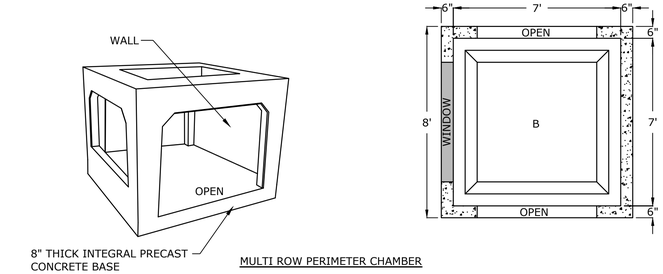


NOTES:
1. SEE SHEET C-203 FOR PIPE SIZE AND TYPE.
2. PROVIDE 1' MINIMUM COVER FOR STORMWATER PIPES.
3. COMPACT ALL BACKFILL MATERIAL WITH VIBRATORY PLATE EQUIPMENT TO A MINIMUM DENSITY OF 95 PERCENT OF THE STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D698.
4. PLACE BACKFILL MATERIAL IN MAXIMUM ONE FOOT LIFTS.
5. FOR PIPES LESS THAN 24" IN DIAMETER THE TRENCH WIDTH SHALL BE 3.0'. FOR PIPES 24" IN DIAMETER AND GREATER, TRENCH WIDTH SHALL BE THE PIPE DIAMETER + 2.0'.

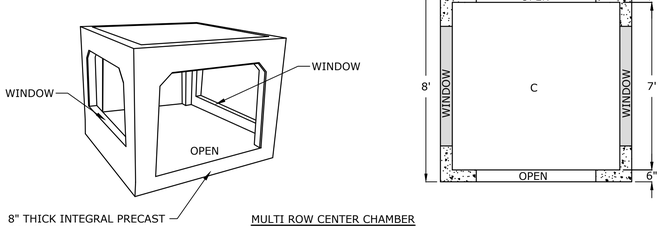
STORMWATER UTILITY TRENCH
NO SCALE



MULTI ROW CORNER CHAMBER

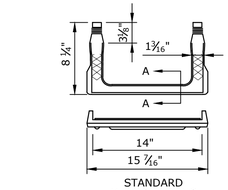


MULTI ROW PERIMETER CHAMBER

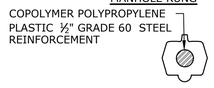


MULTI ROW CENTER CHAMBER

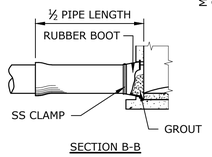
PRECAST CONCRETE STORMWATER DETENTION CHAMBERS
NO SCALE



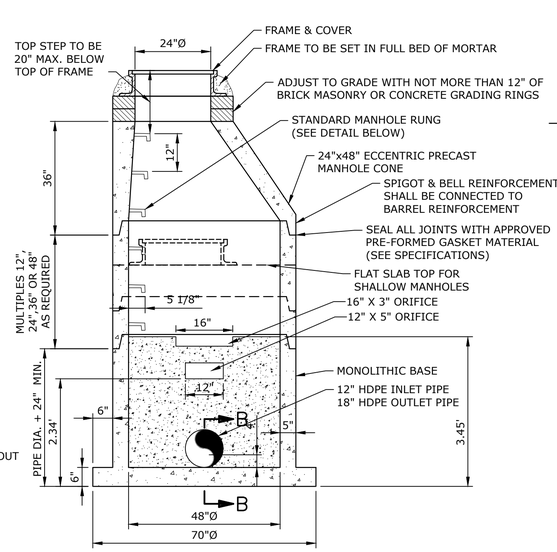
STANDARD MANHOLE RUNG



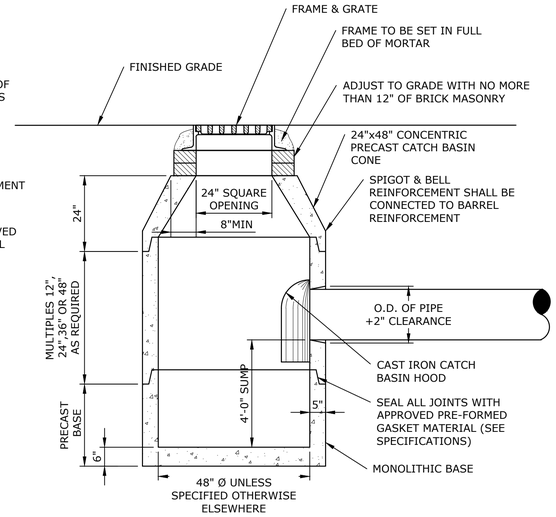
SECTION A



SECTION B-B

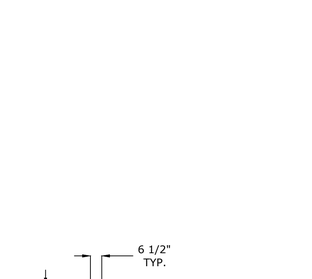


48" PRECAST OUTLET CONTROL STRUCTURE
NO SCALE



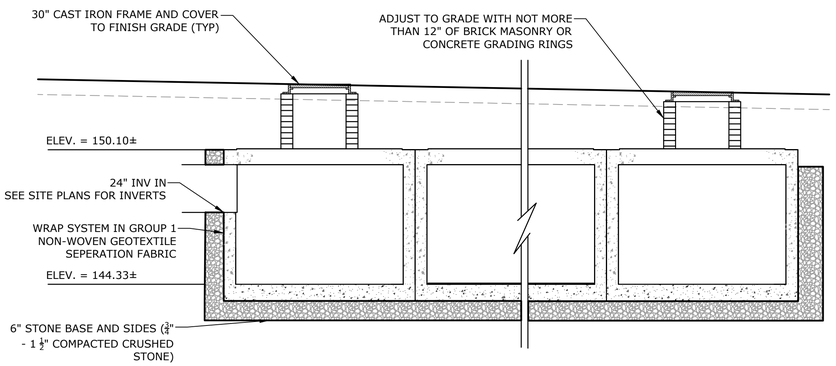
NOTES:
1. FOR USE WITH PVC PIPE, PROVIDE RUBBER BOOT.
2. FOR USE WITH OTHER TYPES OF PIPE, SEAL JOINT BETWEEN PIPE AND CATCH BASIN WITH GROUT.

CATCH BASIN
NO SCALE

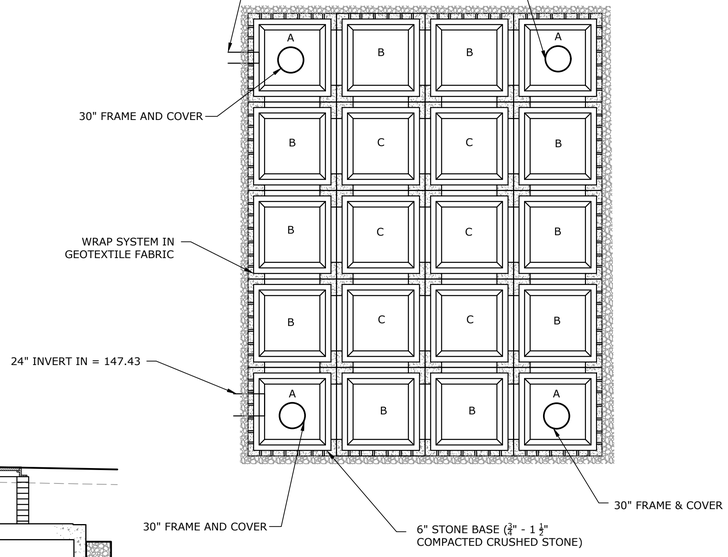


TYPICAL CHAMBER ELEVATION

ASTM SPECIFICATIONS:
1. CONCRETE - 5,000 PSI, 28 DAYS
2. REINFORCING STEEL CONFORMS TO LATEST ASTM A615
3. H-20 DESIGN LOADING PER AASHTO HS-20-44
4. ALL EMBEDMENTS SHALL BE GALVANIZED



STORMWATER DETENTION SYSTEM - ELEVATION
NO SCALE



STORMWATER DETENTION SYSTEM - PLAN VIEW
NO SCALE

NOTES:
1. STORM WATER DETENTION UNITS TO BE LINED WITH A WATER PROOFING MEMBRANE.
2. CONNECT AND WATER PROOF JOINTS BETWEEN PRECAST PIECES IN COMPLIANCE WITH MANUFACTURES SPECIFICATIONS FOR DETENTION SYSTEMS.

Tighe&Bond

ISSUED FOR BIDDING

Fall River DCM Facility Improvements Phase I

City of Fall River

Fall River, Massachusetts

MARK	DATE	DESCRIPTION
0	2/12/2025	ISSUED FOR BIDDING

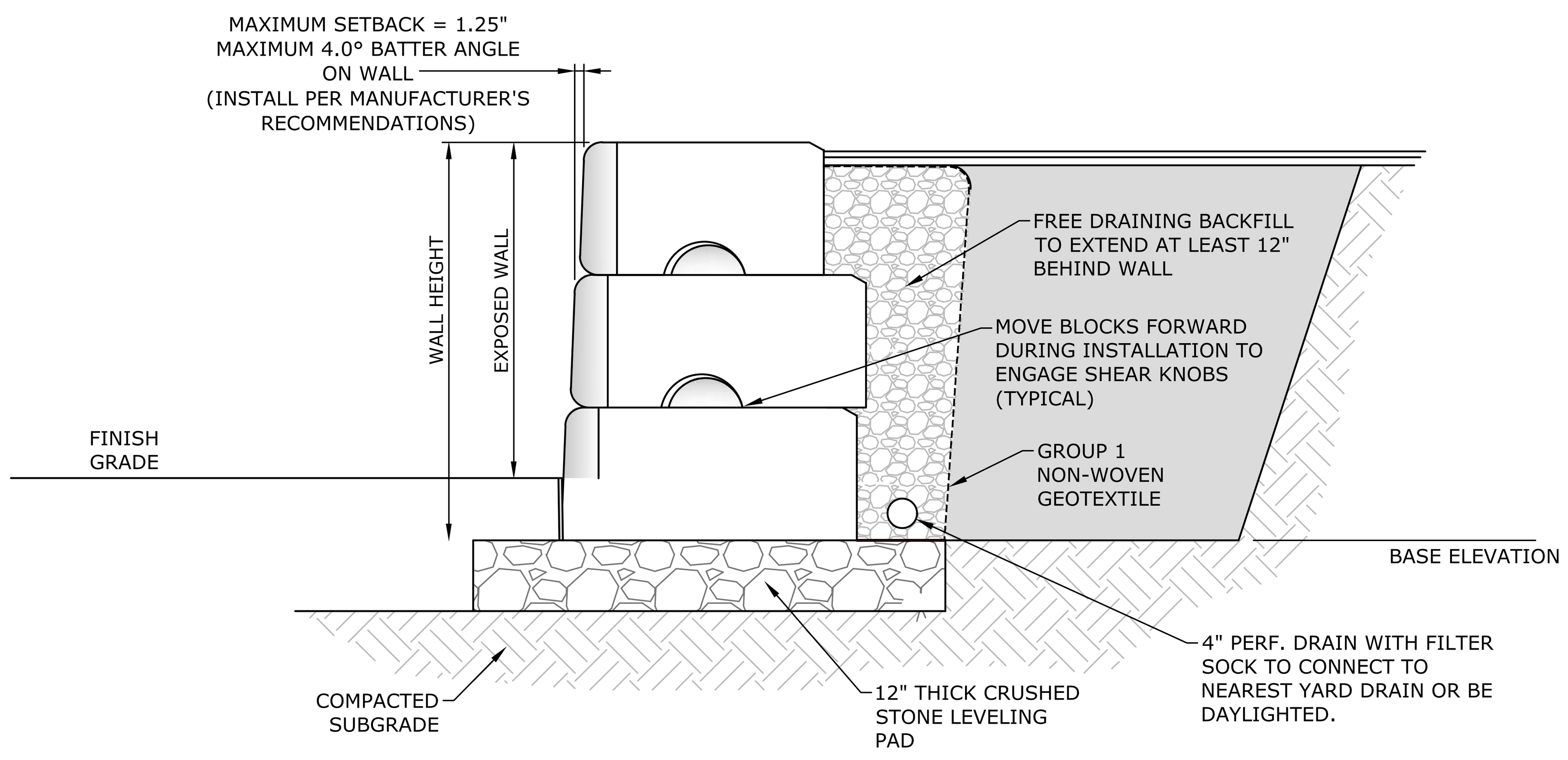
PROJECT NO:	F5033-011
DATE:	FEBRUARY 2025
FILE:	F5033-011-C-Details.dwg
DRAWN BY:	TCW/ND
DESIGNED/CHECKED BY:	MPW
APPROVED BY:	JPV

DETAILS - 4

SCALE: AS SHOWN

C-504

Last Saved: 2/11/2025
Plotted: Feb 11, 2025 - 11:19am By: NDarr
Tighe & Bond:\\F\F5033 Fall River\011 - DPW Improvement Project\Drawings\AutoCAD\Sheet\F5033-011-C-Details.dwg

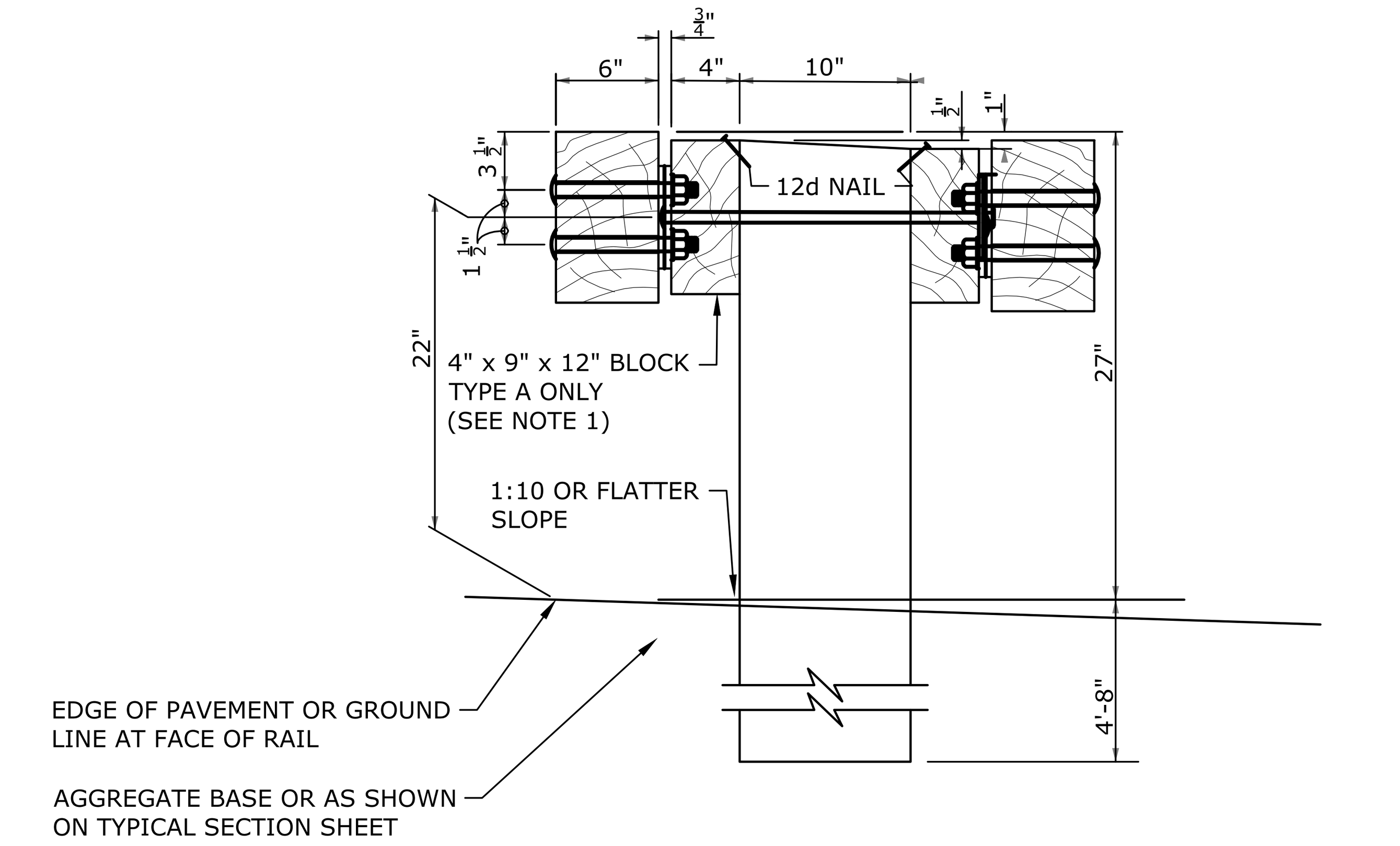


MODULAR BLOCK GRAVITY WALL

NO SCALE

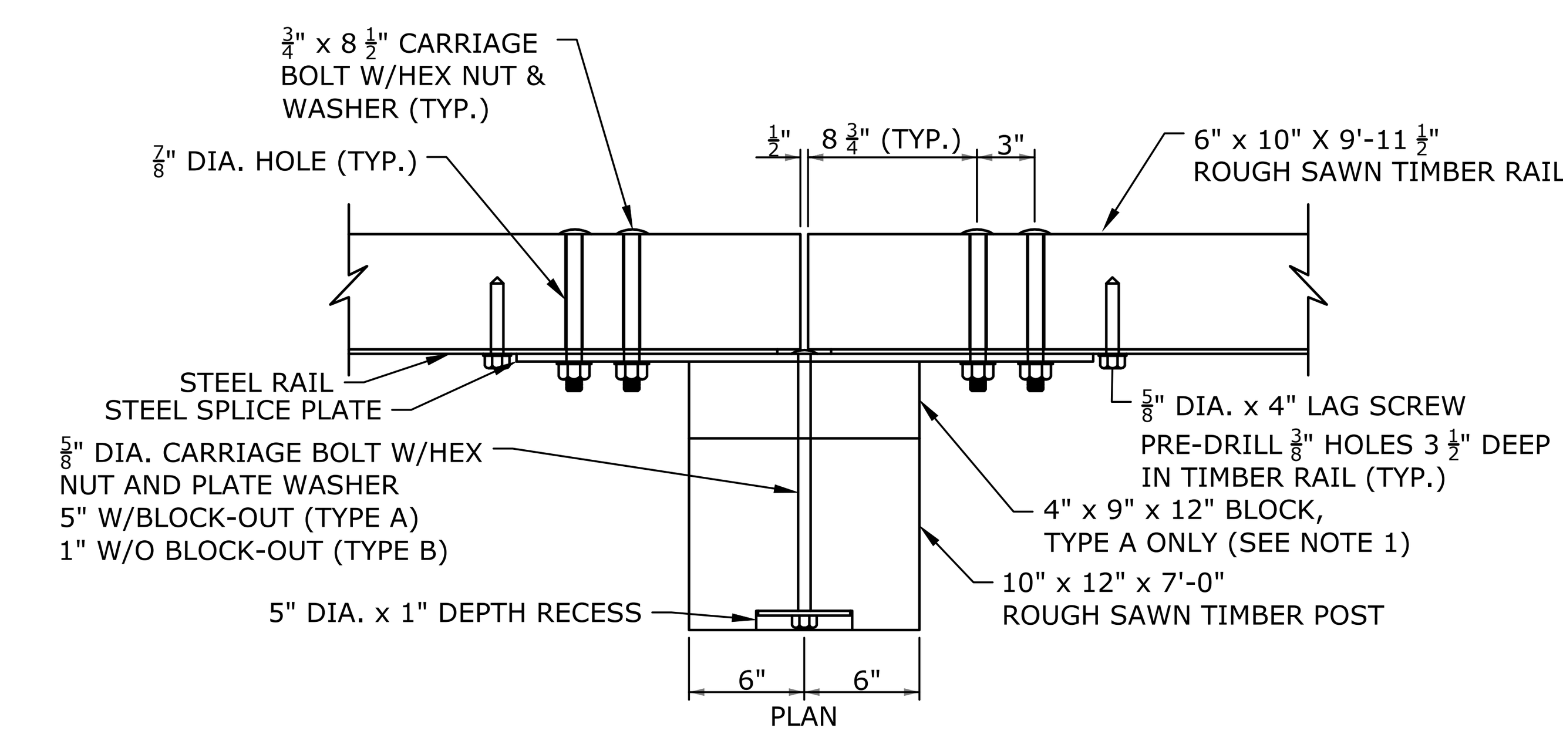
NOTES:

1. RETAINING WALL SHALL BE CONCRETE MODULAR BLOCK GRAVITY WALL VERSA-LOK BRONCO 18H OR APPROVED EQUAL.
2. THE CONTRACTOR SHALL SUBMIT DESIGN PLAN AND CALCULATIONS FOR THE RETAINING WALL STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MASSACHUSETTS. CALCULATIONS SHALL INCLUDE A GLOBAL STABILITY ANALYSIS.
3. MINIMUM DESIGN PARAMETERS:
   - GLOBAL STABILITY FACTOR OF SAFETY = 1.5
   - OVERTURNING FACTOR OF SAFETY = 1.5
   - SLIDING FACTOR OF SAFETY = 1.5
   - SEISMIC FACTOR OF SAFETY = 1.1
4. WALL DESIGNS SHALL CONSIDER EFFECTS OF LATERAL EARTH PRESSURE, SLOPE, TRAFFIC LOADS, CONSTRUCTION LIVE LOAD SURCHARGE, BUILDING LOADS, GUARDRAIL AS REQUIRED.
5. ALL INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION MANUAL AND THE WALL DESIGN ENGINEER'S DESIGN PLANS AND SPECIFICATIONS.
6. SEE SPECIFICATION SECTION 32 32 23 FOR ADDITIONAL DESIGN AND INSTALLATION REQUIREMENTS
7. THE WALL DESIGN ENGINEER SHALL COMPLETE SUFFICIENT INSPECTIONS DURING CONSTRUCTION TO CERTIFY WORK IS COMPLETED IN ACCORDANCE WITH DESIGN.
8. CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS OF WALL WITH WALL DESIGNER'S CERTIFICATION TO OWNER.
9. CONTRACTOR SHALL DIRECT SURFACE RUNOFF AWAY FROM THE WALL DURING CONSTRUCTION.
10. ANY SURFACE DRAINAGE FEATURES, FINISH GRADING, PAVEMENT OR OTHER SURFACE TREATMENT SHALL BE INSTALLED IN THE AREA OF THE WALL IMMEDIATELY AFTER THE WALL IS COMPLETE OR OTHER MEASURES SHALL BE TAKEN TO PROTECT THE WALL FROM RUNOFF.
11. CONTRACTOR SHALL SUPPLY BLOCK SAMPLE TO THE OWNER FOR APPROVAL PRIOR TO WALL CONSTRUCTION.



DOUBLE SIDED GUARDRAIL CROSS SECTION

NO SCALE



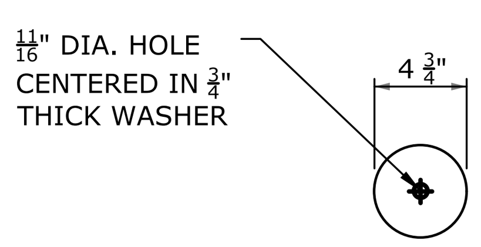
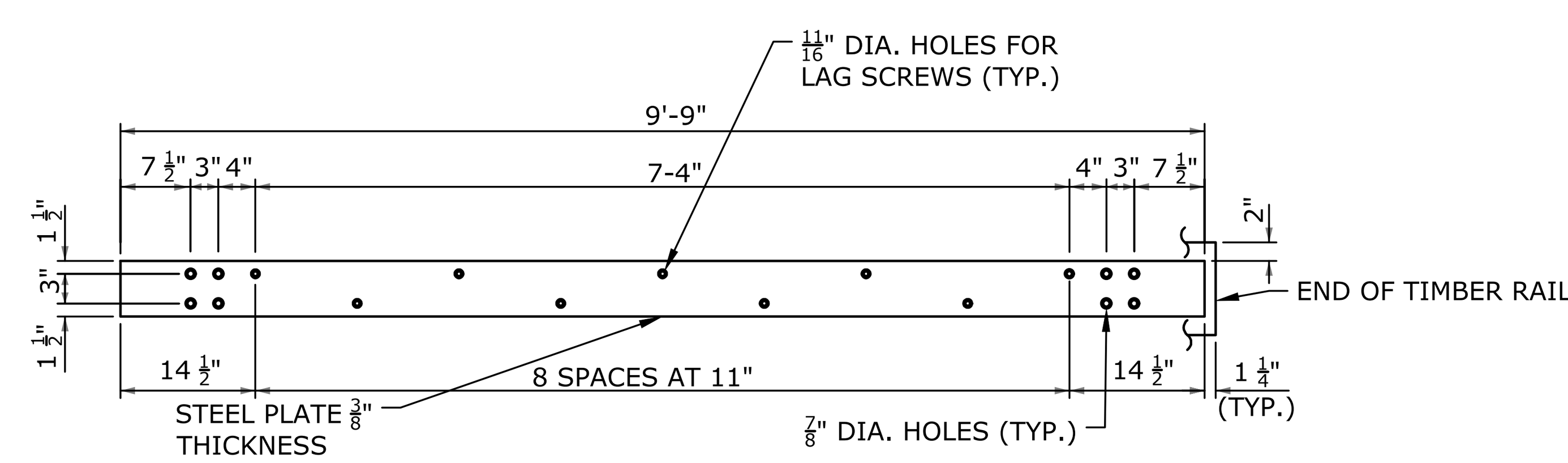


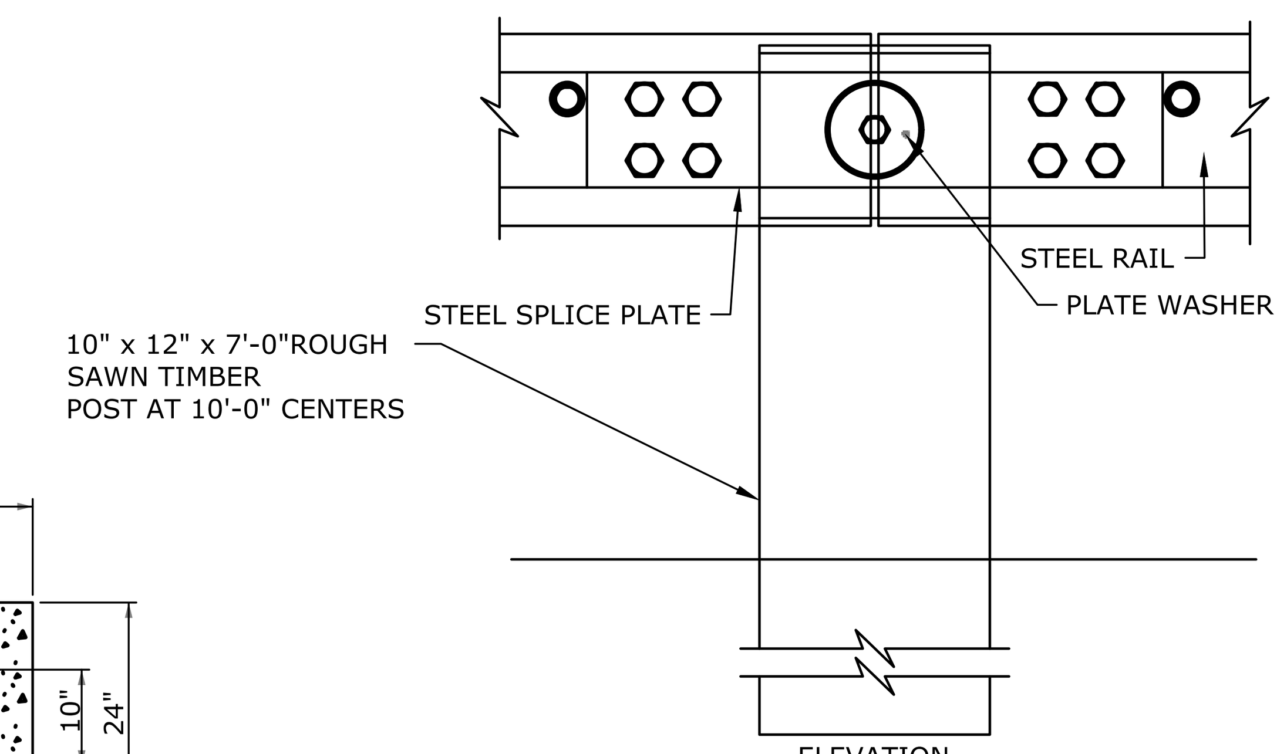
PLATE WASHER

NO SCALE



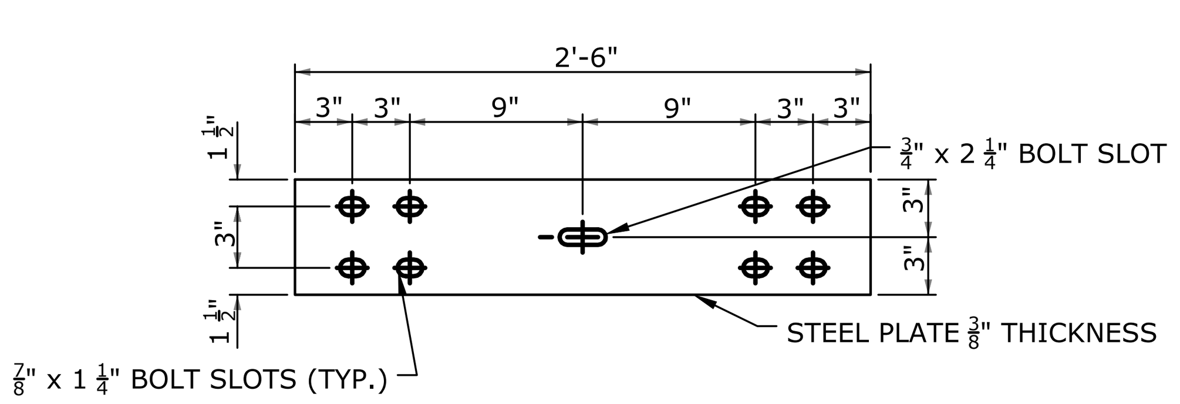
STEEL RAIL

NO SCALE



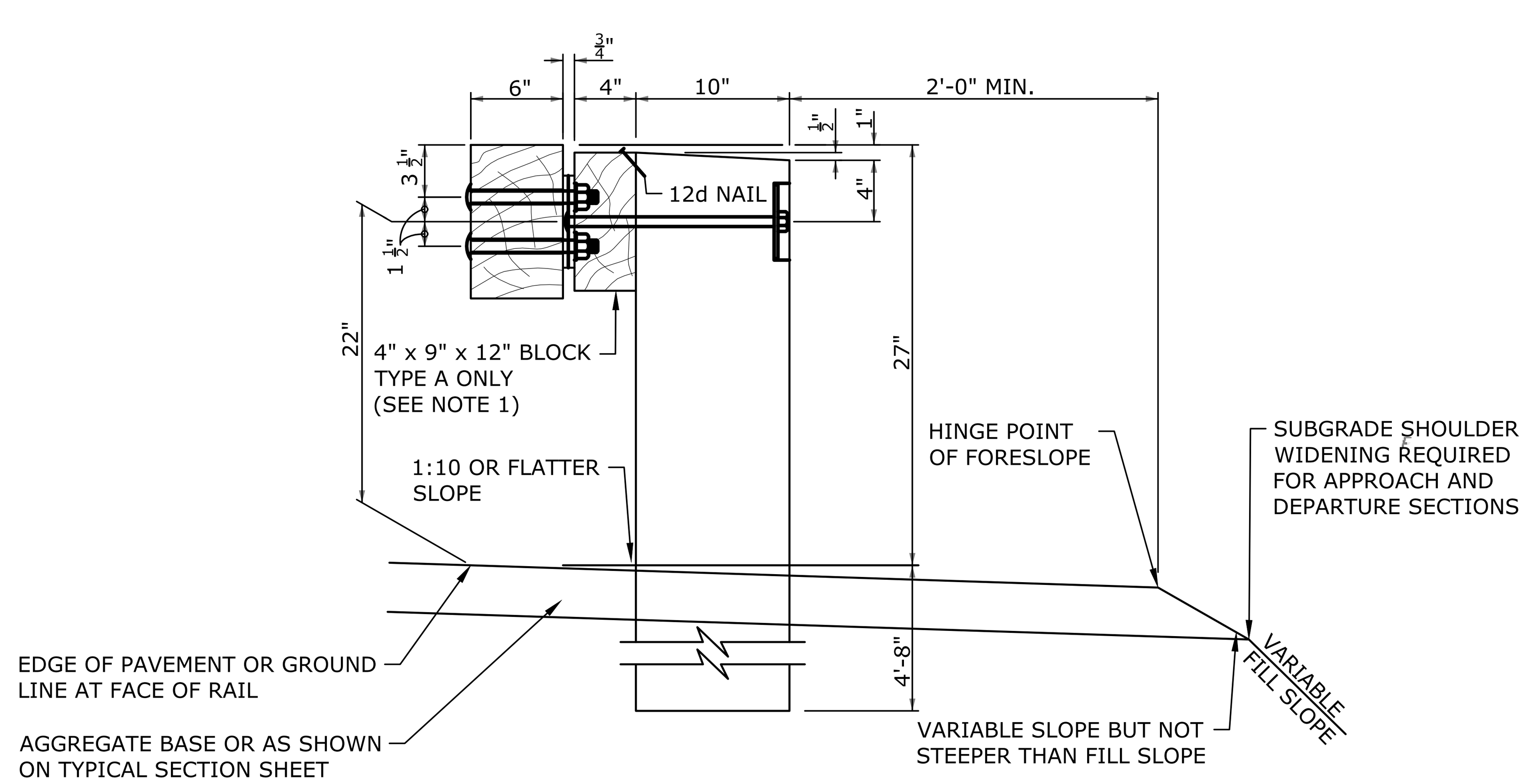
POST CONNECTION

NO SCALE



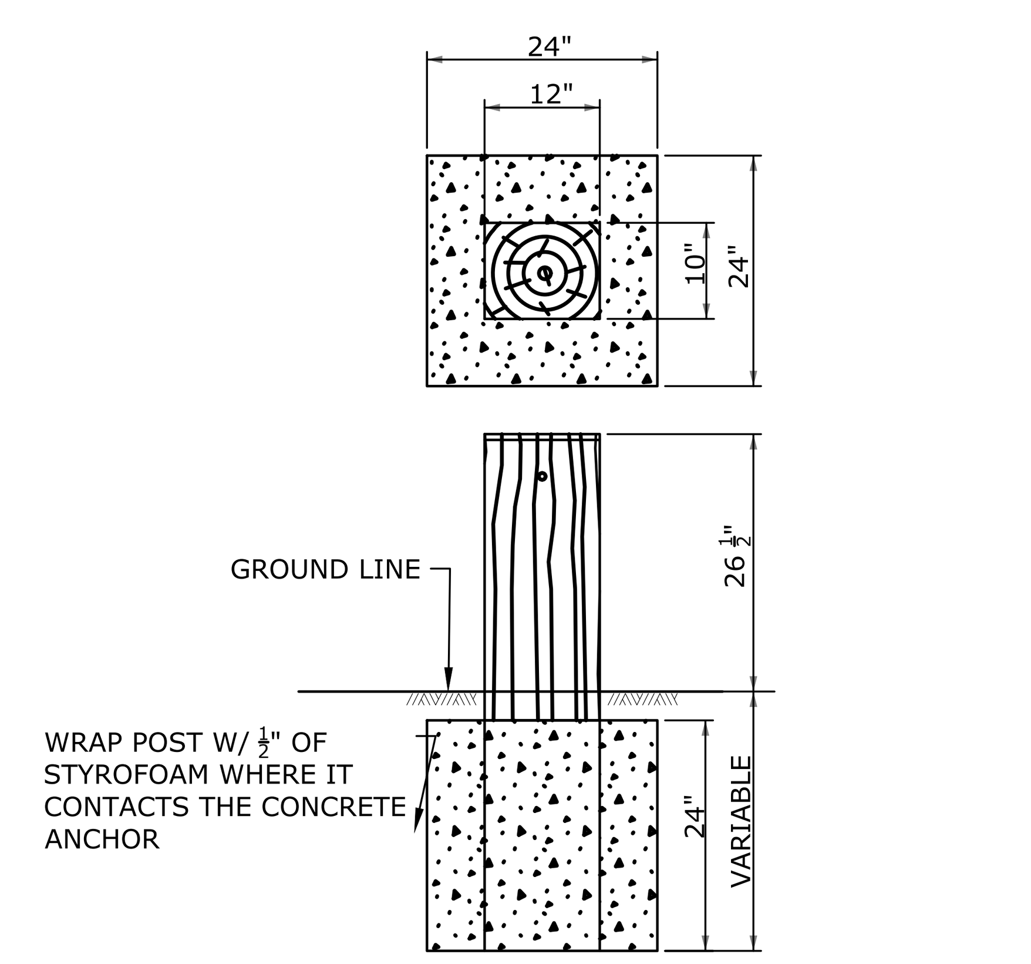
STEEL SPLICE PLATE

NO SCALE



TYPICAL GUARDRAIL CROSS SECTION

NO SCALE



24" DIA. ROUND ANCHOR IS AN ACCEPTABLE ALTERNATIVE. REDUCED SIZE ACCEPTABLE IN SOLID ROCK

CONCRETE ANCHOR FOR SHORT GUARDRAIL POST

NO SCALE

NOTES:

1. USE WEATHERING STEEL FOR ALL STRUCTURAL STEEL AND FASTENER HARDWARE AS SPECIFIED.
2. PLACE A TERMINAL SECTION (SEE STANDARDS 617-61 AND 617-62) ON BOTH APPROACH AND TRAILING ENDS OF BARRIER INSTALLATIONS.

Tighe&Bond

ISSUED FOR BIDDING

Fall River DCM Facility Improvements Phase I

City of Fall River

Fall River, Massachusetts

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DRAWN BY:	TCW/ND
DESIGNED/CHECKED BY:	MPW
APPROVED BY:	JPV

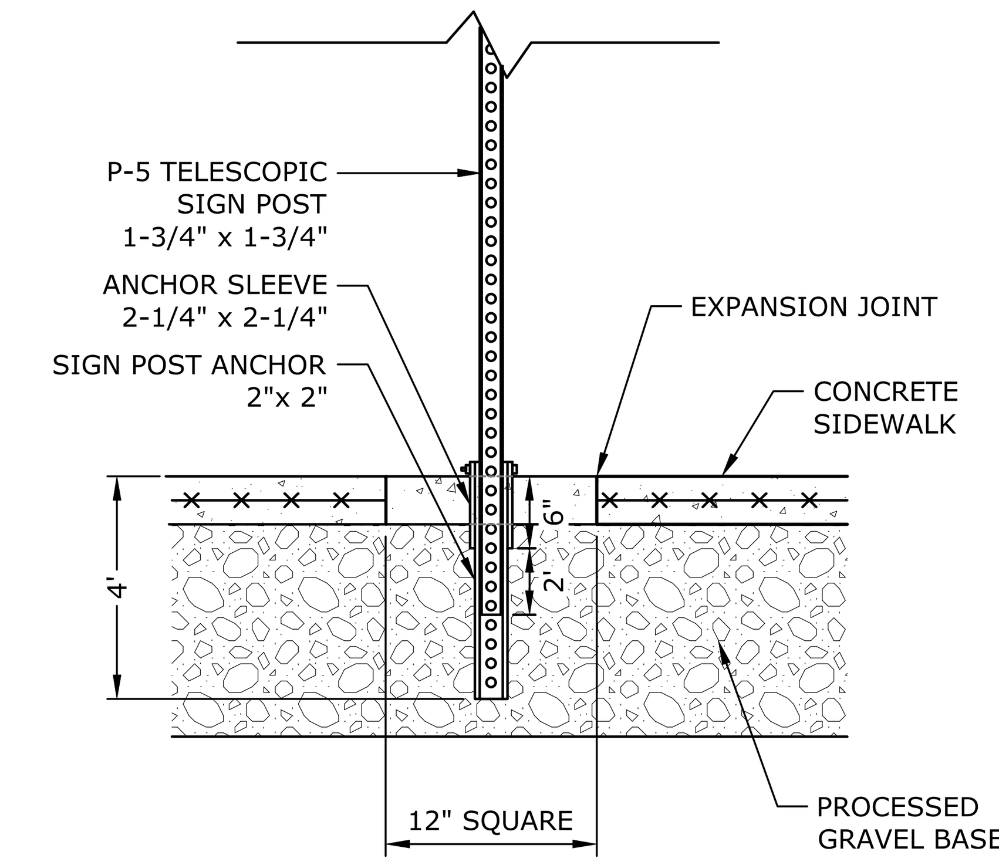
DETAILS - 5

SCALE: AS SHOWN

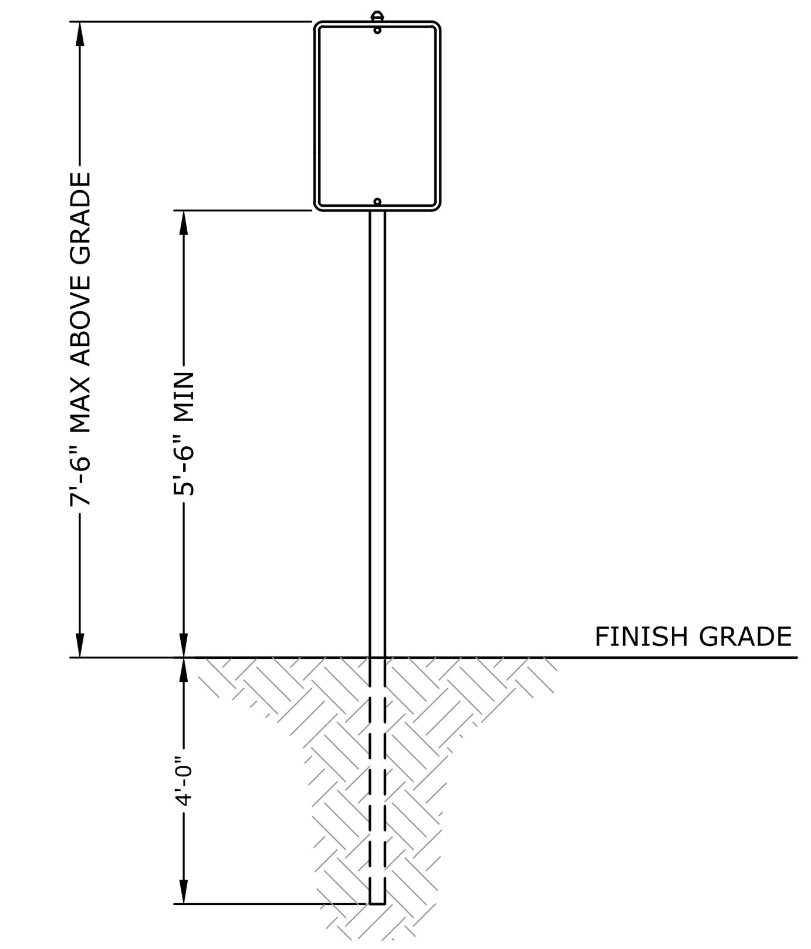
C-505

TRAFFIC SIGN SUMMARY

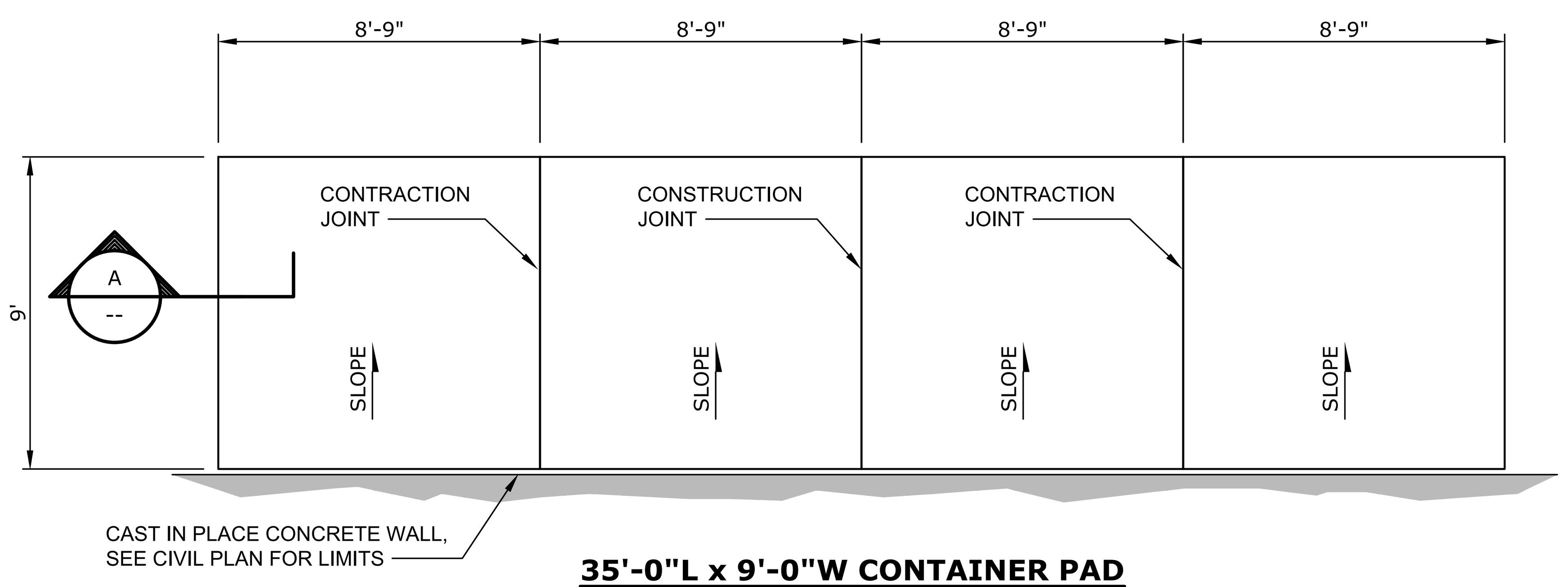
IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH (inches)	SIZE OF SIGN HEIGHT (inches)	TEXT	NUMBER OF SIGNS REQ'D	TEXT DIMENSIONS (inches) LETTER HEIGHT	TEXT DIMENSIONS (inches) VERTICAL SPACING	TEXT DIMENSIONS (inches) ARROW RTE MKR	COLOR BACK-GROUND	COLOR LEGEND	COLOR BORDER	POST SIZE AND NUMBER REQUIRED	AREA IN SQUARE FEET	NOTES
					SEE MUTCD STANDARDS			SEE MUTCD STANDARDS					
R7–8	12	18	RESERVED PARKING	1							P5 1	7.5	–
R1-1	30	30	STOP	2							P5 2	12.5	–
R7-8P	12	6	VAN ACCESSIBLE	1							MTD W/R7-8	2.5	–
R4–7	24	30		2							P5 2	10	–
										TOTALS	5	32.5	–



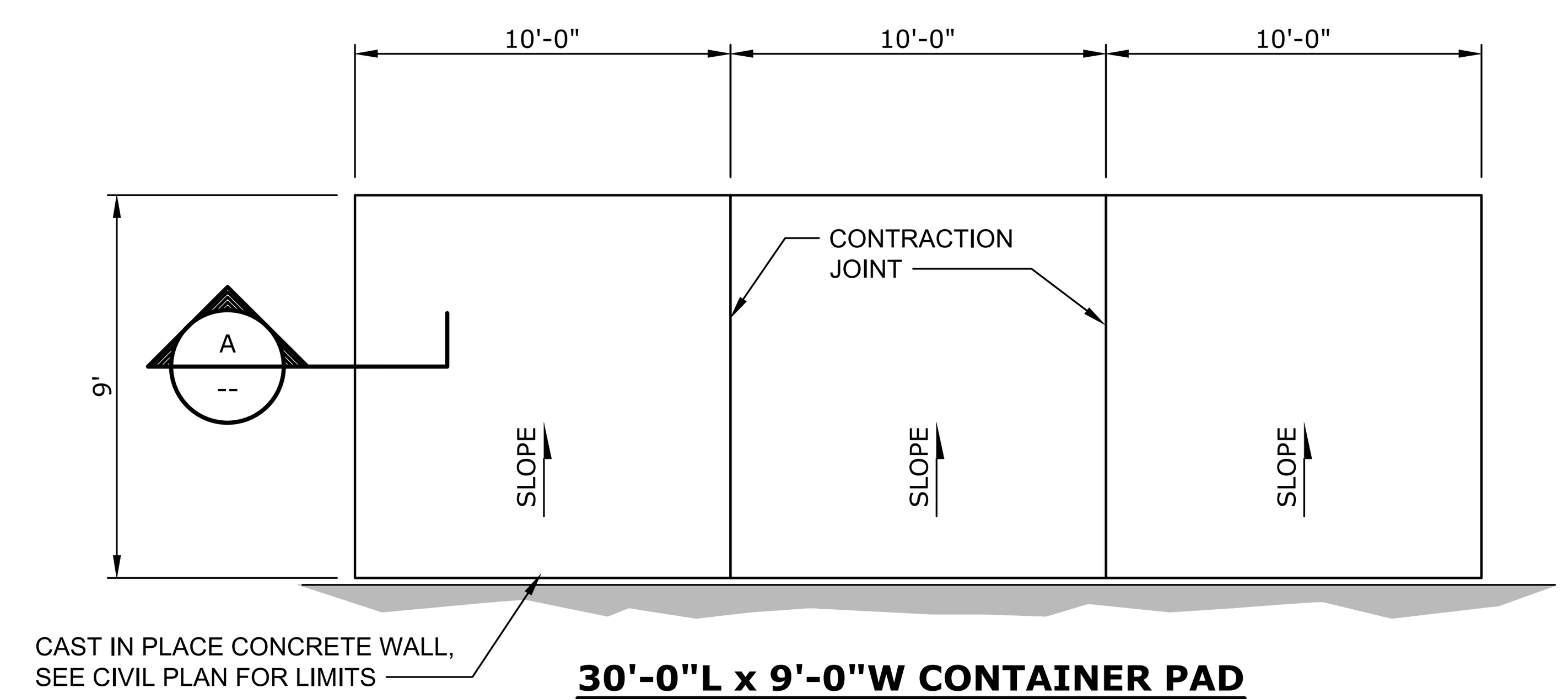
SIGN POST FOUNDATION IN SIDEWALK
NO SCALE



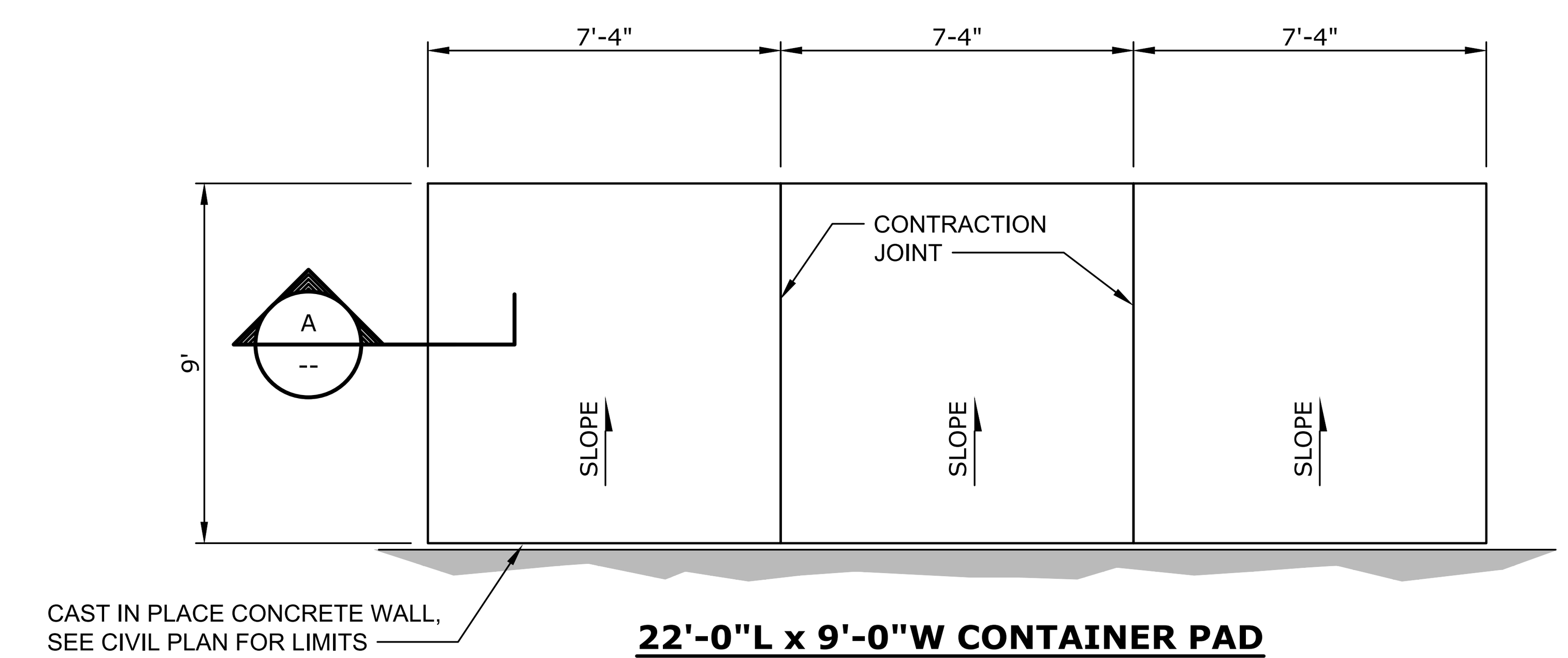
TYPICAL SIGN
NO SCALE



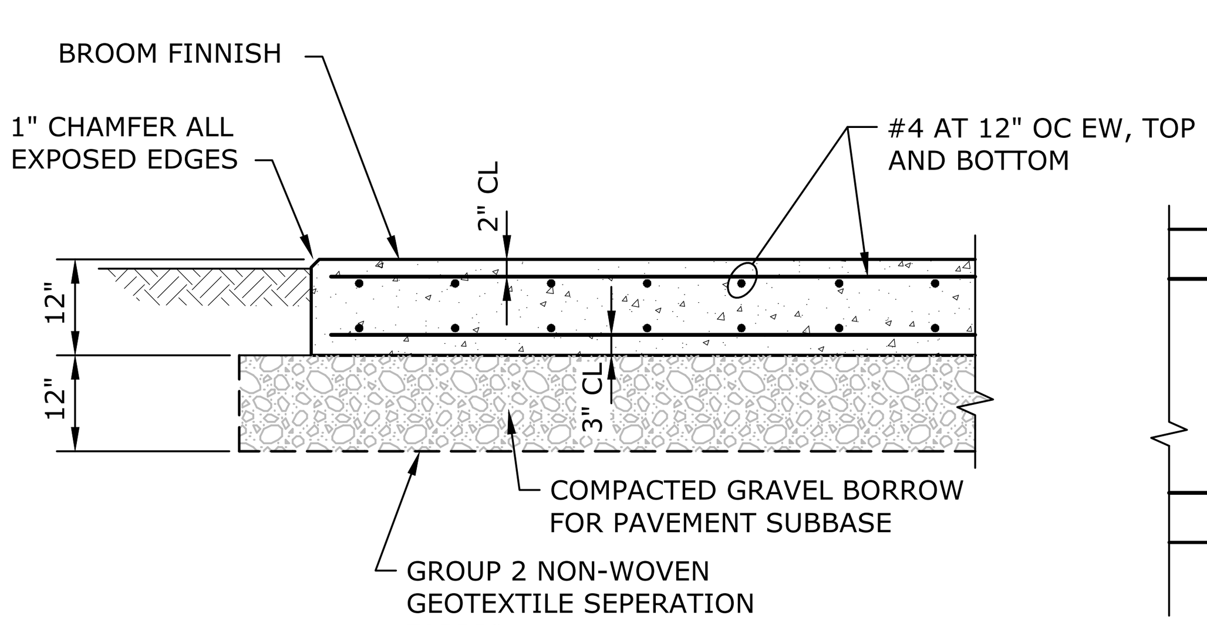
35'-0"L x 9'-0"W CONTAINER PAD
NO SCALE



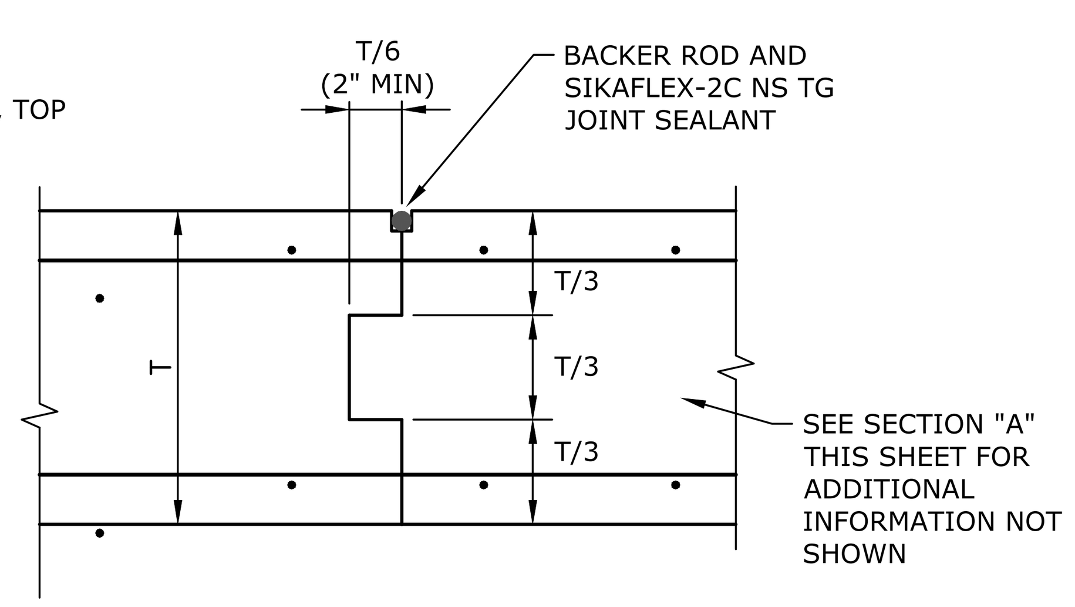
30'-0"L x 9'-0"W CONTAINER PAD
NO SCALE



22'-0"L x 9'-0"W CONTAINER PAD
NO SCALE



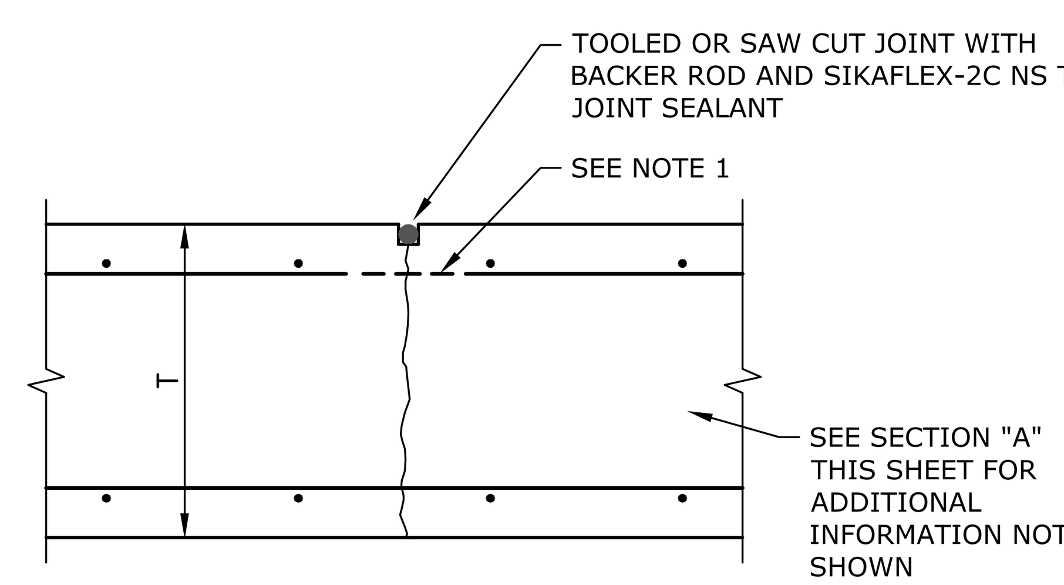
SECTION A / --
NO SCALE



CONSTRUCTION JOINT DETAIL
NO SCALE

NOTES:

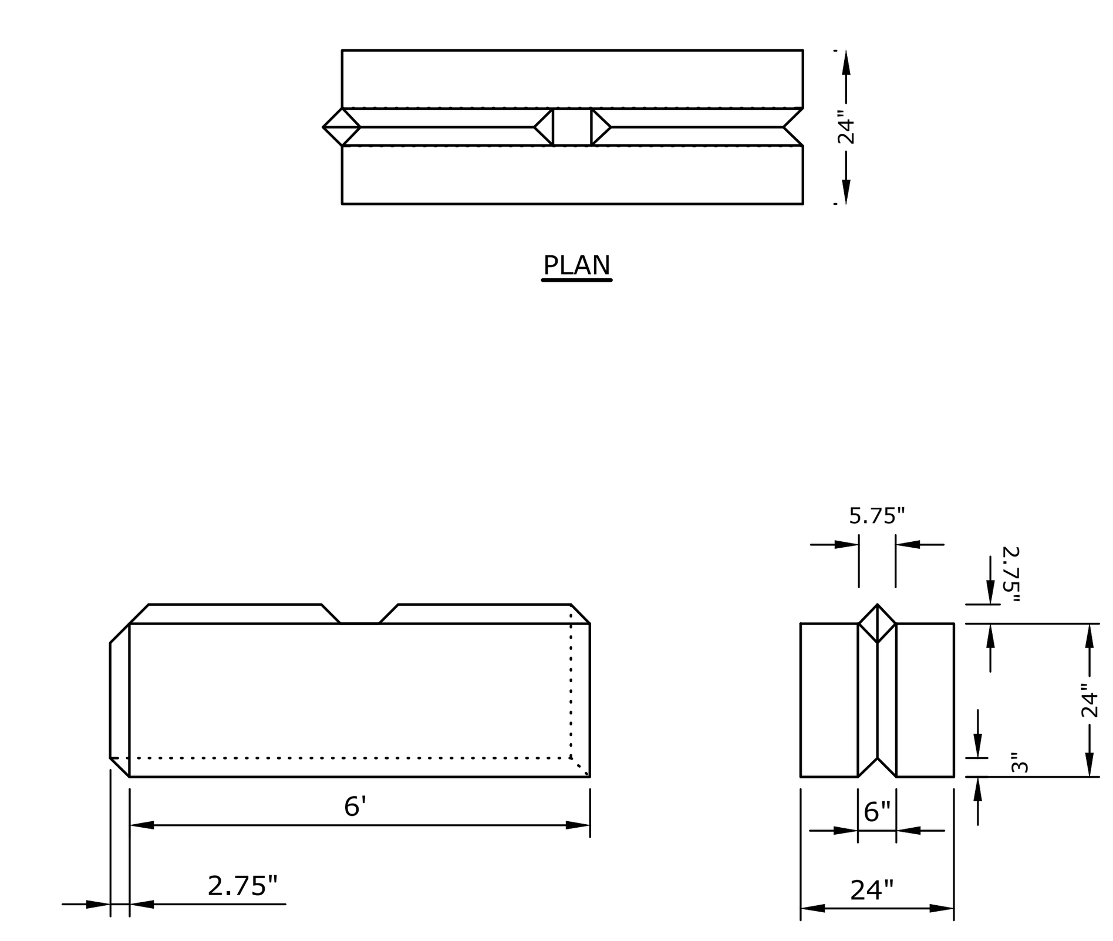
1. ALL REINFORCING SHALL BE #4@12" UNLESS NOTED OTHERWISE.



CONTRACTION JOINT DETAIL
NO SCALE

NOTES:

1. DISCONTINUE 50% OF TOP LONGITUDINAL REINFORCING AT CONTRACTION JOINT LOCATIONS.
2. ALL REINFORCING SHALL BE #4@12" UNLESS NOTED OTHERWISE.



MODULAR CONCRETE BARRIER WALLS
NO SCALE

NOTES

1. CONCRETE BARRIERS SHALL BE PLACED AS SHOWN ON THE PLAN THREE BLOCKS HIGH MAKING THE WALL 6' TALL.

Tighe&Bond

ISSUED FOR BIDDING

Fall River DCM Facility Improvements Phase I

City of Fall River

Fall River, Massachusetts

MARK	DATE	DESCRIPTION
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DATE:	FEBRUARY 2025
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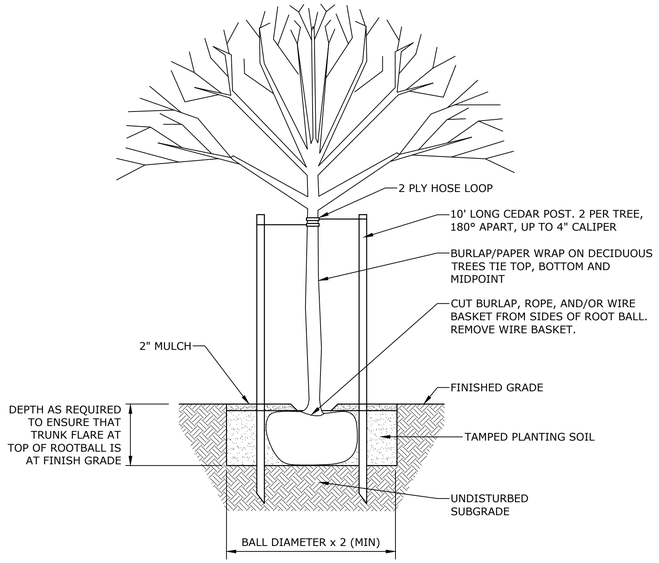
DRAWN BY:	TCW/ND
DESIGNED/CHECKED BY:	MPW
APPROVED BY:	JPV

DETAILS - 6

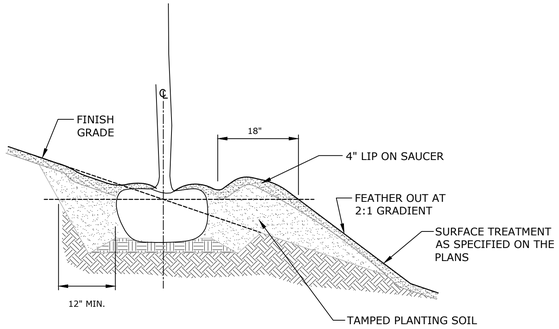
SCALE: AS SHOWN

C-506

Last Saved: 2/11/2025
Plotted On:Feb 11, 2025-11:19am By: NDay
Tighe & Bond:J:\F\F5033 Fall River\011 - DPW Improvement Project\Drawings\AutoCAD\Sheet\F5033-011-C-Details.dwg

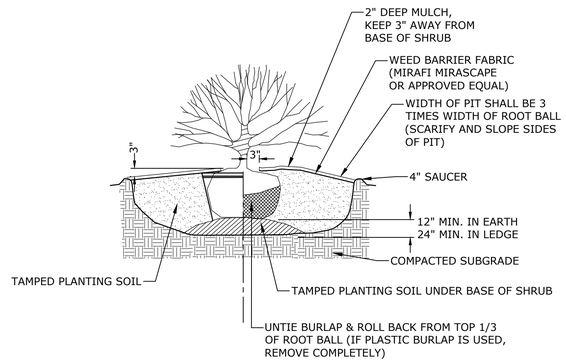


TYPICAL TREE PLANTING

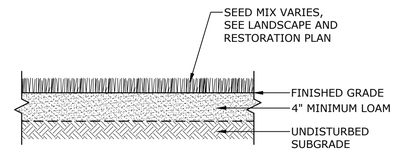


TREE PLANTING AT SLOPED AREAS

TREE PLANTING
NO SCALE



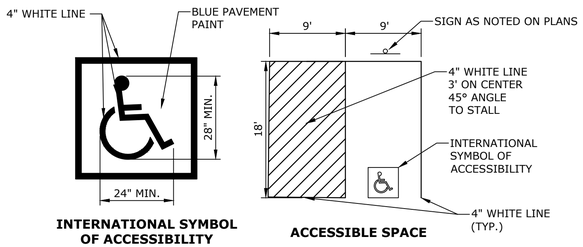
SHRUB PLANTING
NO SCALE



NOTES

1. APPLY SEED MIX PER MANUFACTURER'S RECOMMENDATIONS.

SEEDED AREA
NO SCALE

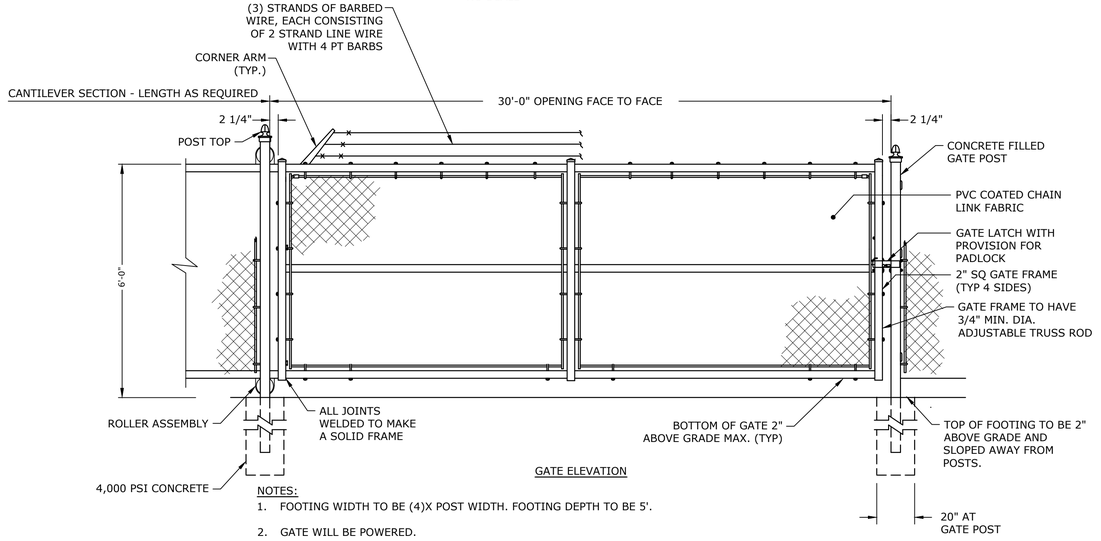


INTERNATIONAL SYMBOL OF ACCESSIBILITY

ACCESSIBLE SPACE

NOTES:
1. SIGN BACKGROUND - BLUE REFLECTIVE
2. LETTERS, GRAPHICS & BORDER - WHITE REFLECTIVE

ACCESSIBLE SPACES STRIPING DETAIL
NO SCALE



GATE ELEVATION

NOTES:

1. FOOTING WIDTH TO BE (4)X POST WIDTH. FOOTING DEPTH TO BE 5'.
2. GATE WILL BE POWERED.
3. FABRIC AND POSTS SHALL BE BLACK PVC COATED PER ASTM F 668 2B.

MOTORIZED SLIDE GATE
NO SCALE

Tighe&Bond

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City of Fall River

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DETAILS - 7

SCALE: AS SHOWN

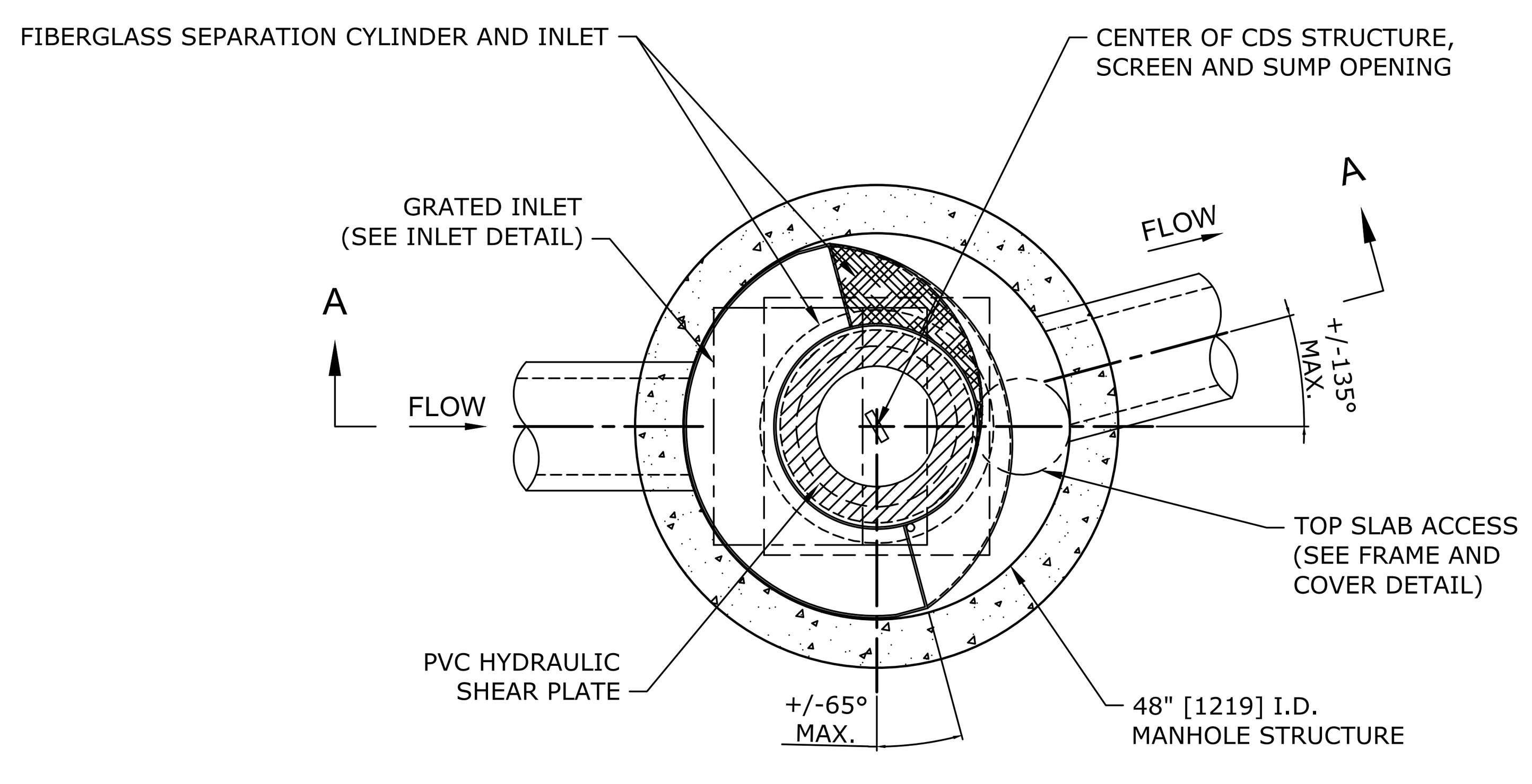
C-507

CDS2015-4-C DESIGN NOTES
CDS2015-4-C RATED TREATMENT CAPACITY IS 1.4 CFS [19.8 L/s], OR PER LOCAL REGULATIONS. THE GRATE INLET CDS2015-4-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.
CONFIGURATION DESCRIPTION
GRATED INLET WITH INLET PIPE OR PIPES

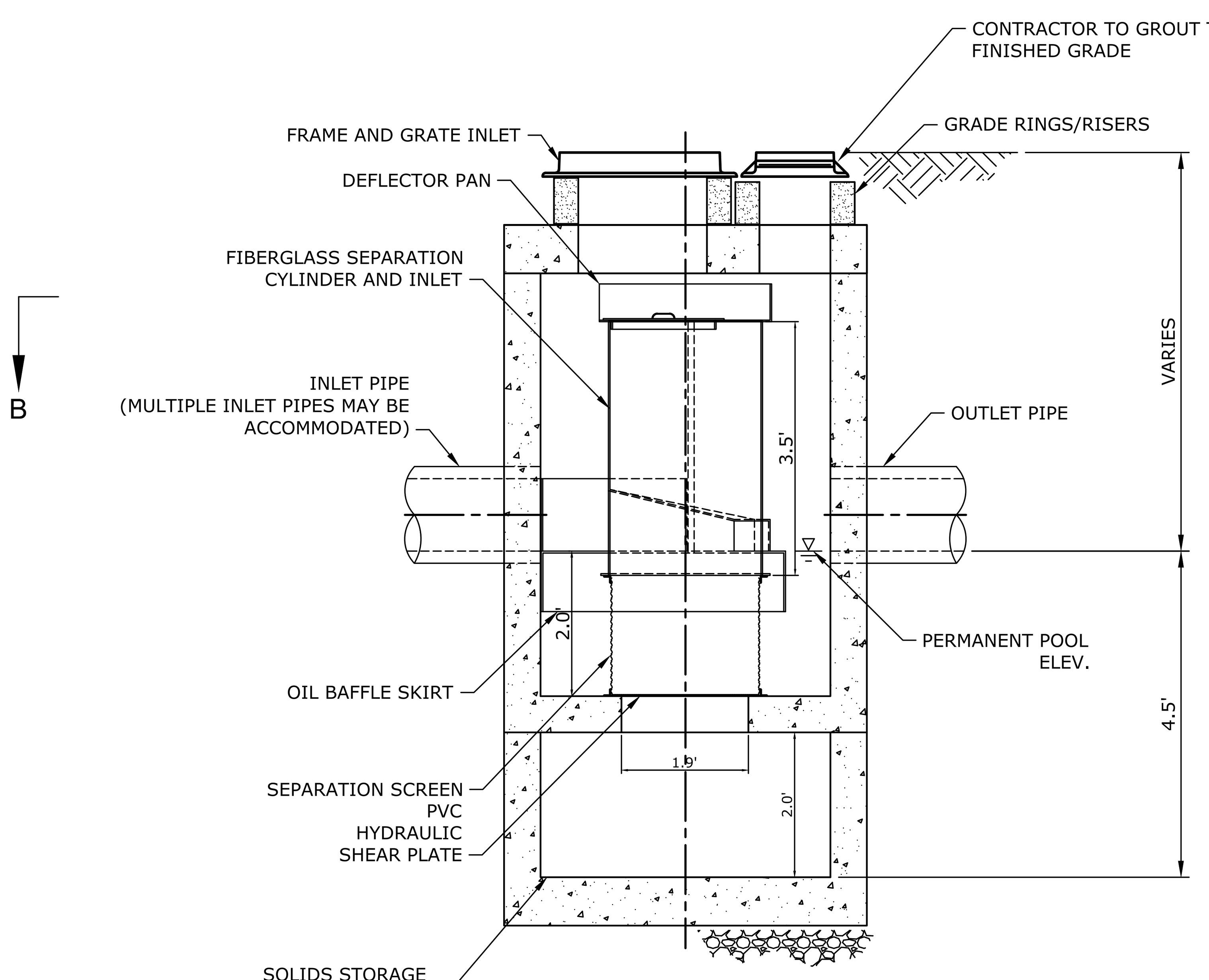
CASCADE SEPARATOR DESIGN NOTES
CS-5 RATED TREATMENT CAPACITY IS 3.5 CFS, OR PER LOCAL REGULATIONS. THE STANDARD CS-4 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.
CONFIGURATION DESCRIPTION
INLET PIPE ONLY

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

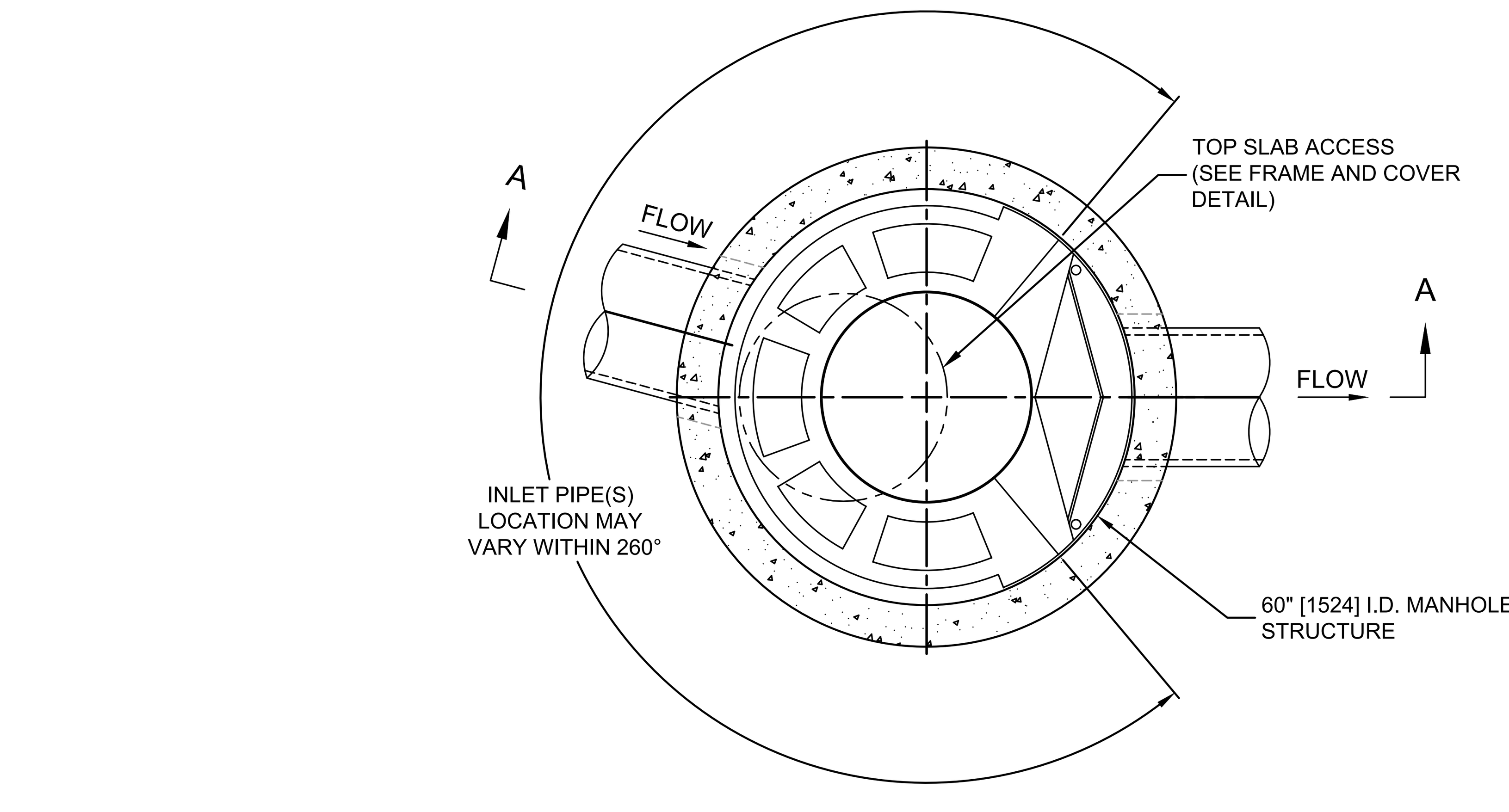


PLAN VIEW B-B
NO SCALE

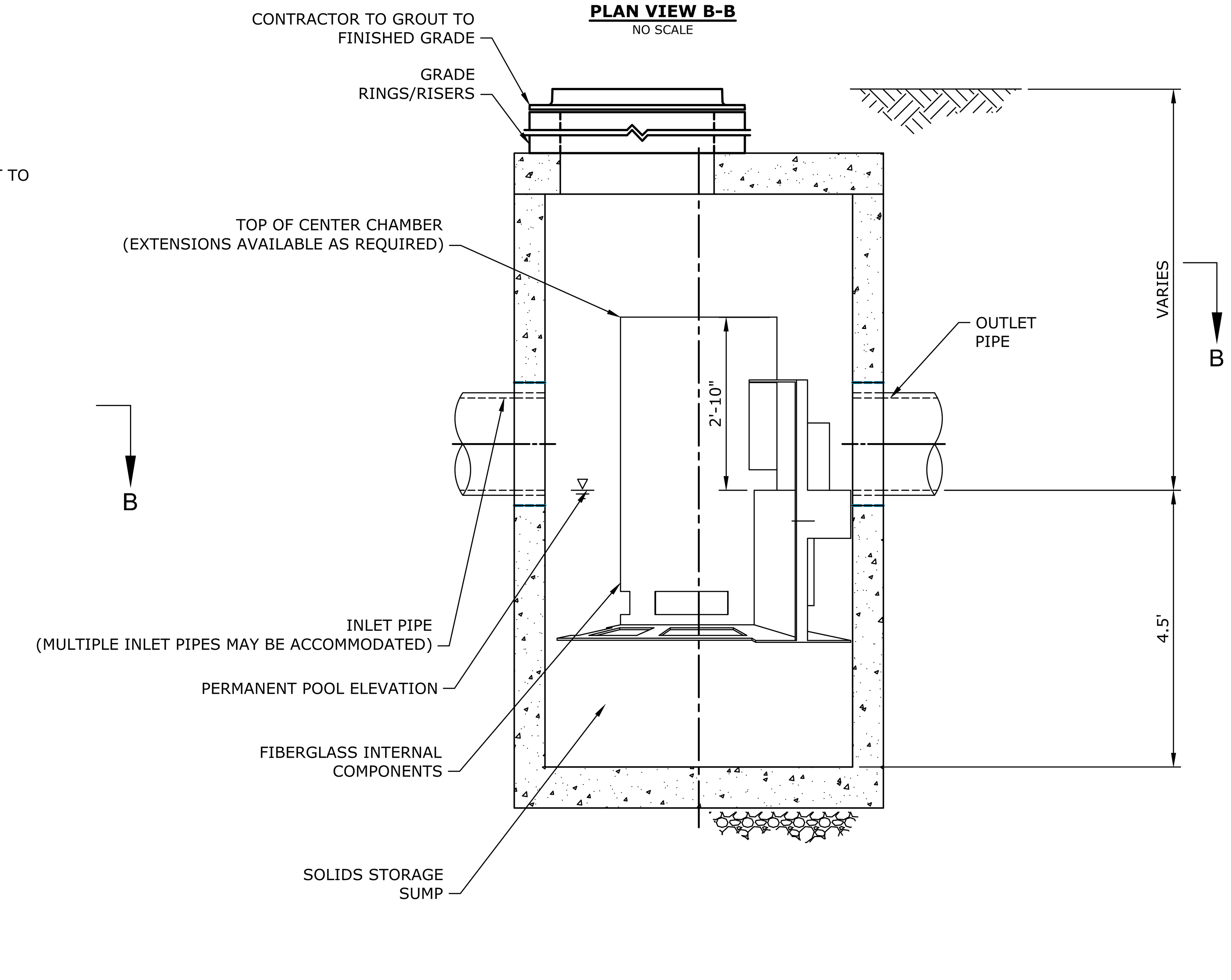


ELEVATION A-A
NO SCALE

WQU 3: CDS2015-4-C WITH GRATED INLET INLINE CDS
NO SCALE

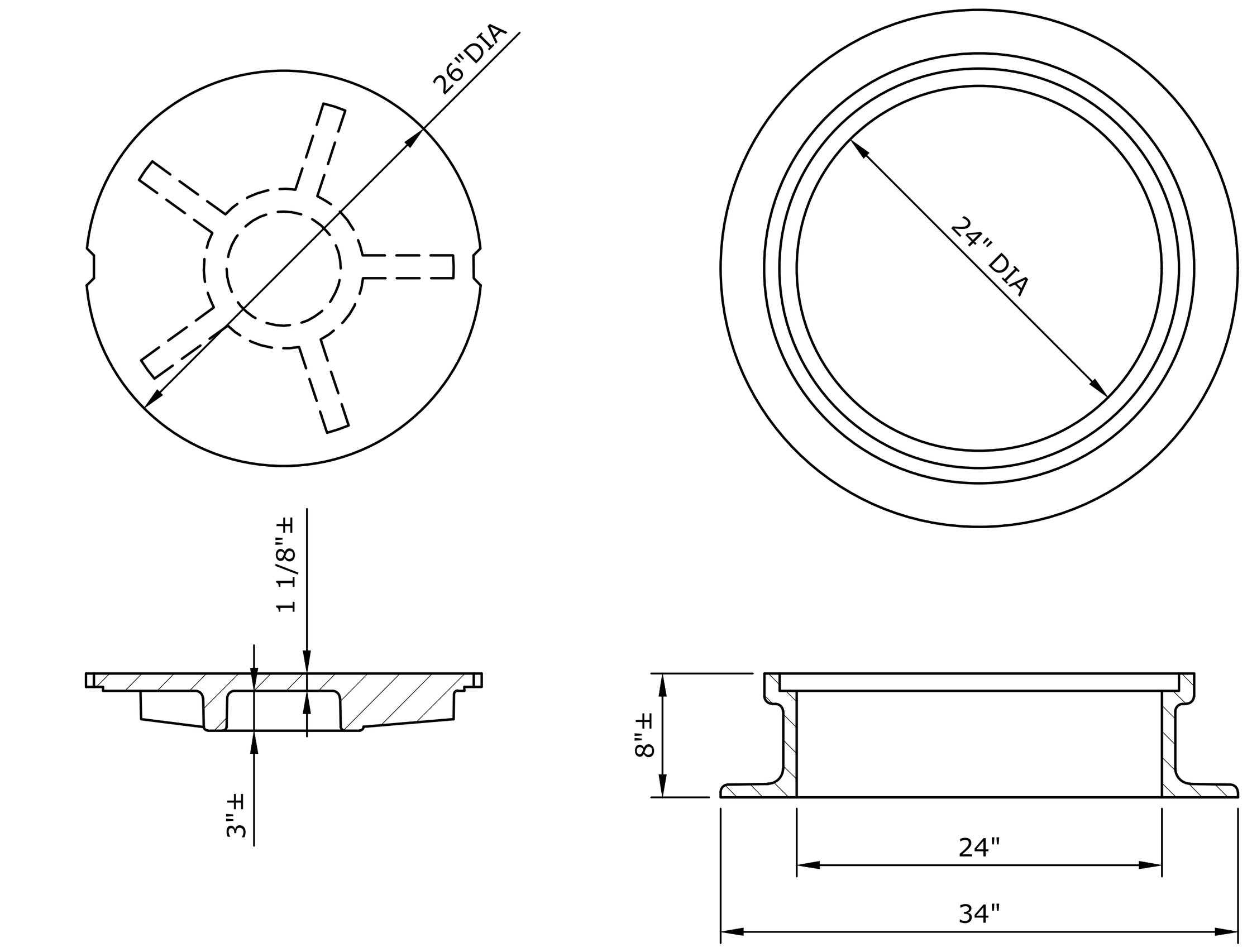


PLAN VIEW B-B
NO SCALE



ELEVATION A-A
NO SCALE

WQU 1: CS-5 CASCADE SEPARATOR
NO SCALE

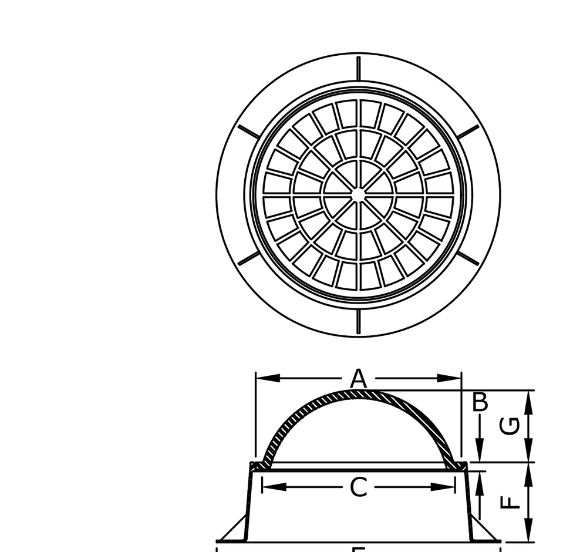


STANDARD MANHOLE COVER
MINIMUM WEIGHT: 200 LBS.

STANDARD MANHOLE FRAME
MINIMUM WEIGHT: 240 LBS.

NOTES:
1. FRAME AND COVER SHALL BE PROVIDED FROM THE SAME MANUFACTURER.
2. LETTERING SHALL BE CAST INTO COVERS AS SPECIFIED.

MANHOLE FRAME & COVER
NO SCALE

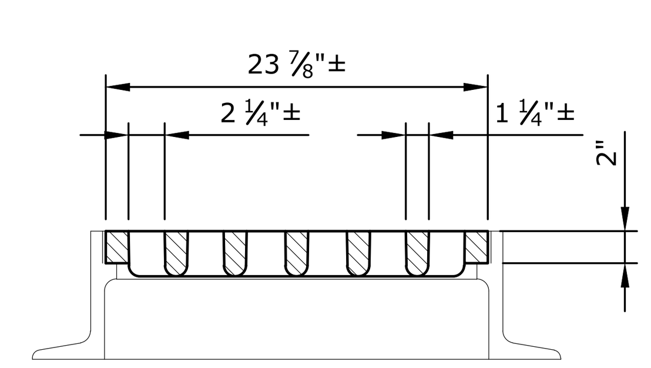


MODEL R-2560-D6

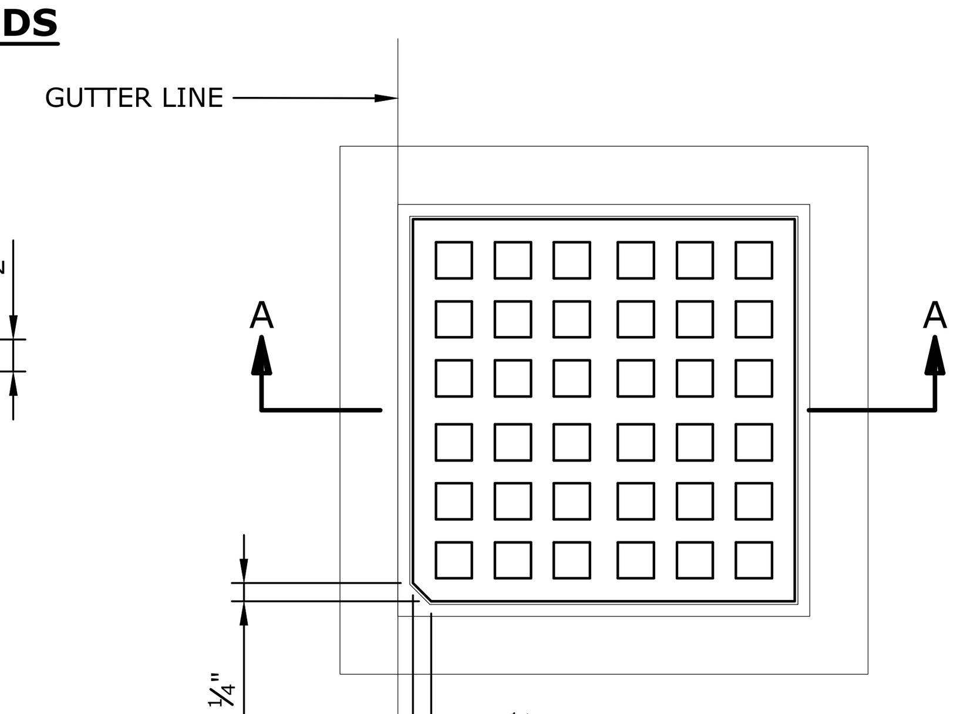
A	22-3/4"
B	1-1/2"
C	21"
E	34"
F	9"
G	4-1/2"

NOTE:
1. FRAME AND GRATE FOR DROP INLET SHALL BE NEENAH FOUNDRIES MODEL R-2560-D6 OR EQUAL.

BEEHIVE FRAME AND GRATE
NO SCALE



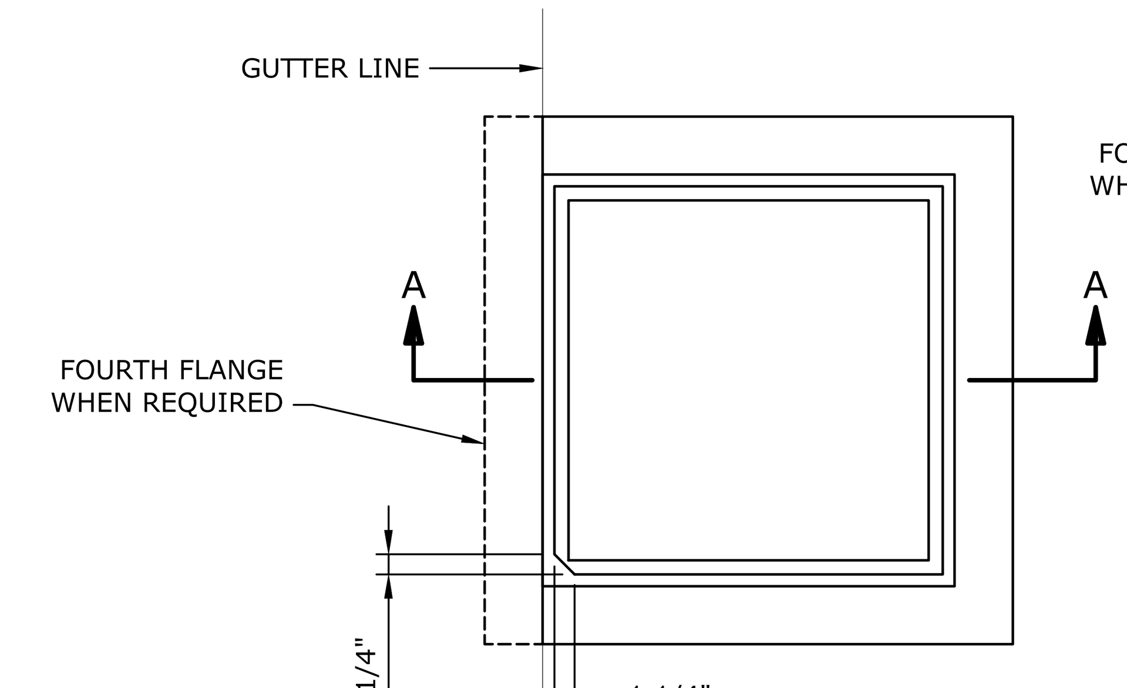
SECTION A-A



PLAN

NOTES:
1. MINIMUM WEIGHT OF GRATE - 190 LBS.
2. MATERIAL - CAST IRON, SEE SPECIFICATIONS.

CATCH BASIN GRATE
NO SCALE



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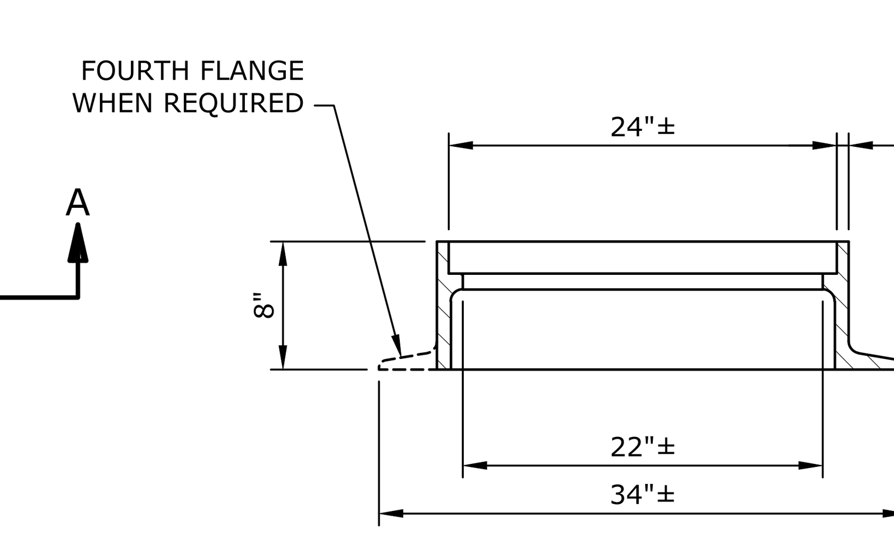


SECTION A-A

NOTES:
1. MINIMUM FRAME WEIGHT:
   4 FLANGE - 295± LBS
   3 FLANGE - 265± LBS
2. MATERIAL - CAST IRON, SEE SPECIFICATIONS.
3. FOR ADDITIONAL INFORMATION SEE MHD 201.6.0

CATCH BASIN FRAME
NO SCALE

Tighe&Bond

ISSUED FOR BIDDING

Fall River DCM Facility Improvements Phase I

City of Fall River

Fall River, Massachusetts

MARK	DATE	DESCRIPTION
0	2/12/2025	ISSUED FOR BIDDING

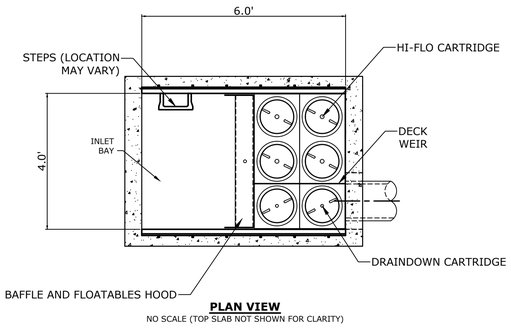
PROJECT NO:	F5033-011
DATE:	FEBRUARY 2025
FILE:	F5033-011-C-Details.dwg
DRAWN BY:	TCW/ND
DESIGNED/CHECKED BY:	MPW
APPROVED BY:	JPV

DETAILS - 8

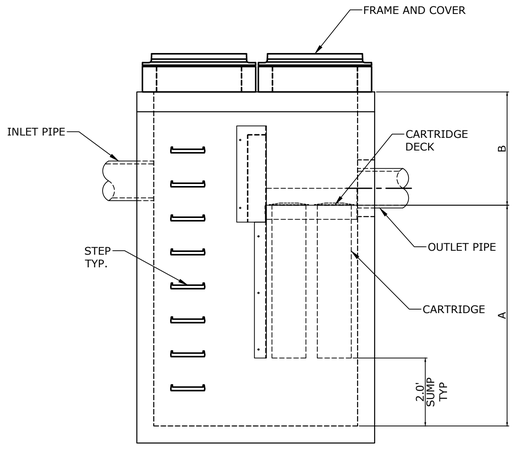
SCALE: AS SHOWN

C-508

Last Saved: 2/11/2025
Plotted On:Feb 11, 2025-11:19am By: NDay
Tighe & Bond:J:\F\F5033 Fall River\011 - DPW Improvement Project\Drawings\AutoCAD\Sheet\F5033-011-C-Details.dwg

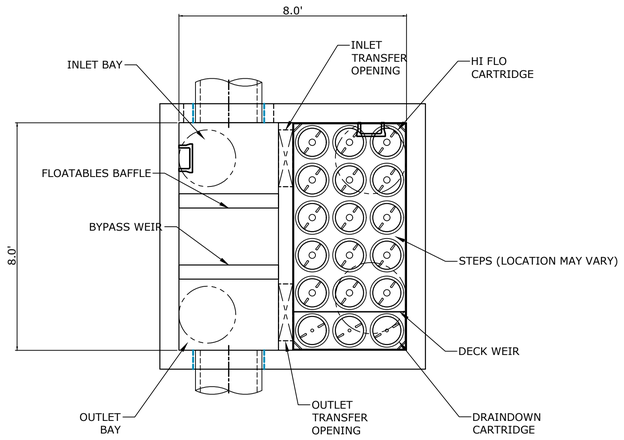


PLAN VIEW
NO SCALE (TOP SLAB NOT SHOWN FOR CLARITY)

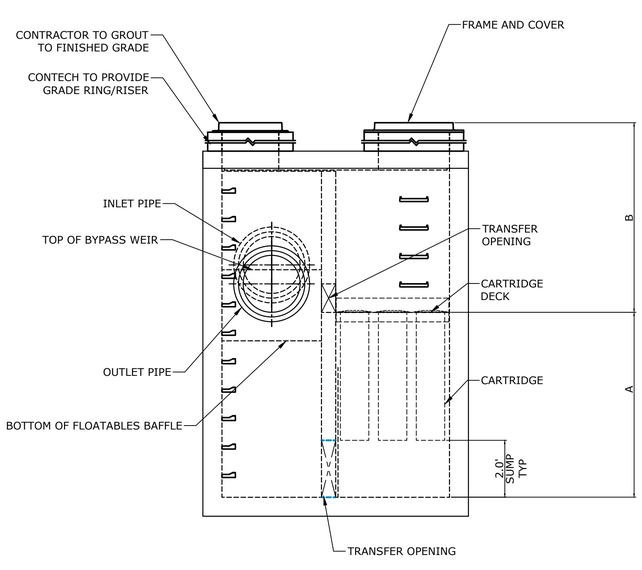


ELEVATION VIEW
NO SCALE

WQU 4: JELLYFISH JFSI0406 SURFACE INLET CONFIGURATION
NO SCALE



PLAN VIEW
NO SCALE (TOP SLAB NOT SHOWN FOR CLARITY)



ELEVATION VIEW
NO SCALE

WQU 2: JELLYFISH JFPD0808 PEAK DIVERSION CONFIGURATION
NO SCALE

JELLYFISH JFSI0406 DESIGN NOTES

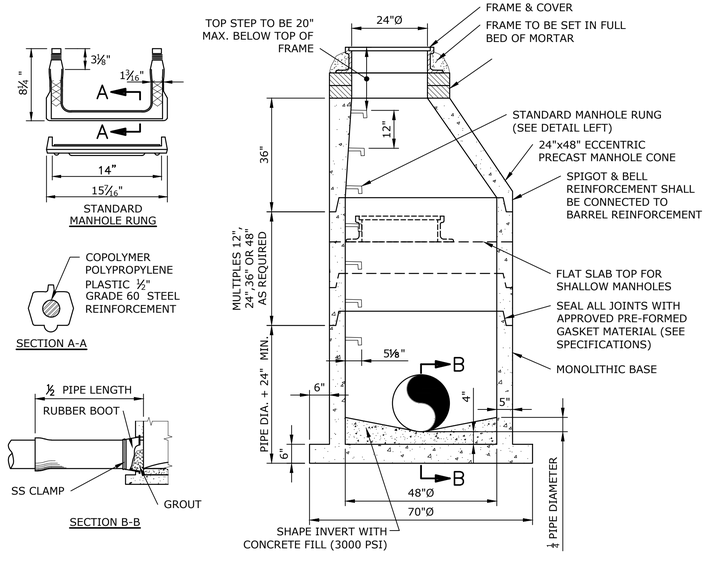
CARTRIDGE SELECTION		
CARTRIDGE LENGTH	54"	
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	
FLOW RATE HIGH-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	
MAX. TREATMENT (CFS)	0.89	
OUTLET INVERT TO RIM (MIN) (B)	3'-4"	

JELLYFISH JFPD0808 DESIGN NOTES

CARTRIDGE SELECTION		
CARTRIDGE LENGTH	54"	
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	
FLOW RATE HIGH-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	
MAX. TREATMENT (CFS)	2.94	
OUTLET INVERT TO RIM (MIN) (B)	5.67'	

GENERAL NOTES:
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.ContechES.com
3. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, ASTM C-918, AND AASHTO LOAD FACTOR DESIGN METHOD.
6. OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
7. THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDEDTO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE (WHERE APPLICABLE) AT EQUAL OR GREATER SLOPE.
8. NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).
D. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.



48" PRECAST DRAIN MANHOLE
NO SCALE

Tighe&Bond

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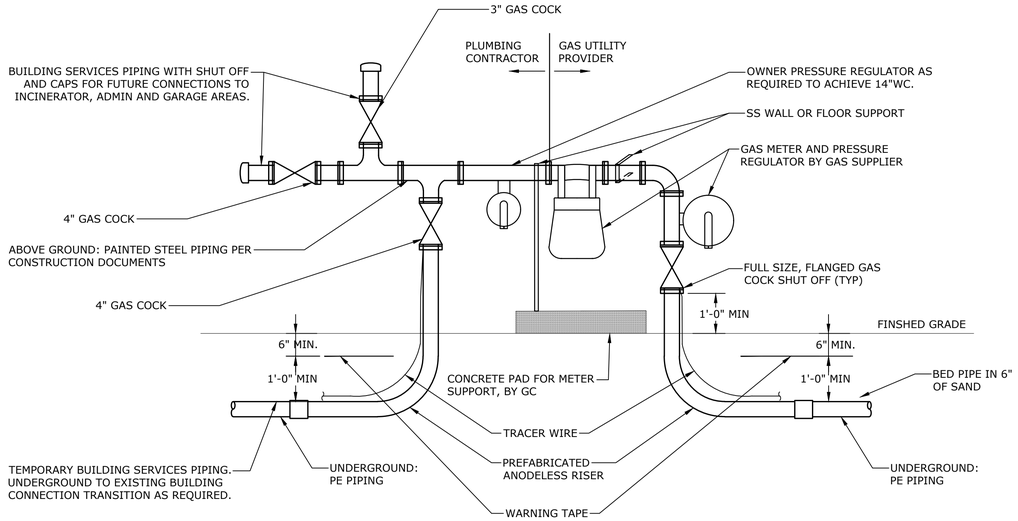
DESIGNED/CHECKED BY:	MPW
APPROVED BY:	JPV

DETAILS - 9

SCALE: AS SHOWN

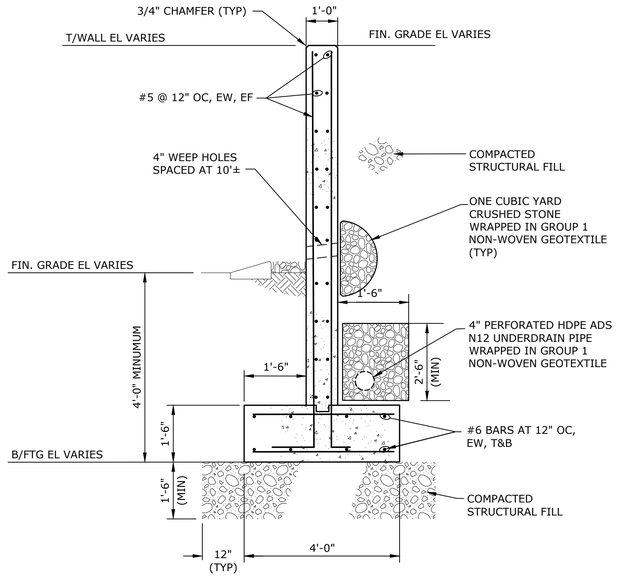
C-509



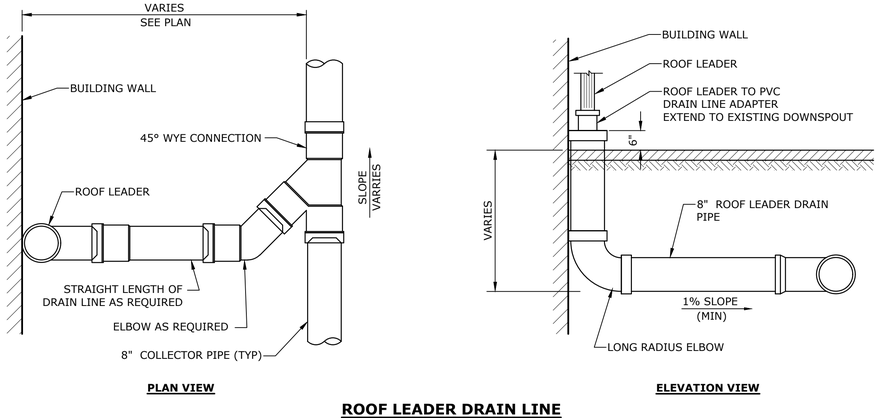
NOTES:

1. SHOWN DIMENSIONS ARE MINIMUM. CONFIRM AND ADJUST AS RECOMMENDED BY LOCAL GAS SUPPLIER.
2. VERTICAL PRESSURE REGULATOR ARRANGEMENT SHOWN FOR CLARITY ONLY.

BURIED GAS PIPING TRANSITION TO ABOVEGROUND, GAS SERVICE ARRANGEMENT
NO SCALE

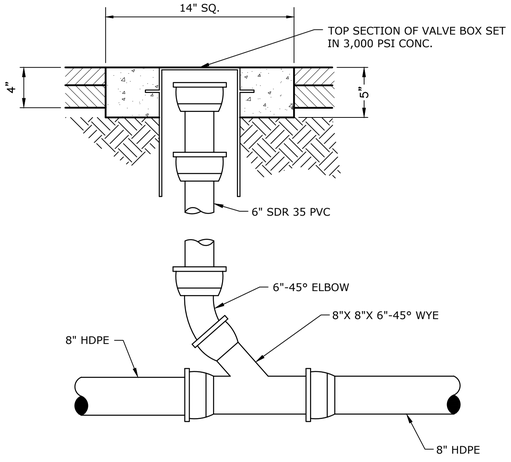


CAST IN PLACE CONCRETE WALL
NO SCALE



PLAN VIEW **ELEVATION VIEW**

ROOF LEADER DRAIN LINE
NO SCALE



ROOF LEADER CLEANOUT
NO SCALE

Tighe&Bond

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DESIGNED/CHECKED BY:	MPW
APPROVED BY:	JPV

DETAILS - 10

SCALE: AS SHOWN

C-510

GENERAL SYMBOLS

BOLD LINES AND TEXT INDICATE PROPOSED WORK

LIGHT LINES AND ITALIZED TEXT INDICATE APPROXIMATE EXISTING CONDITIONS

A A — DUCT BANK SECTION

1 — PHOTOGRAPH LOCATION

EQUIPMENT, STRUCTURES, PIPING AND/OR CONDUIT TO BE DEMOLISHED.

RACEWAYS AND WIRING

L4A1-1,3 — HOMERUN TO EQUIPMENT. "L4A1" INDICATES EQUIPMENT ID, "1,3" INDICATES PANELBOARD CIRCUIT NUMBERS, (20A, 1P, UNLESS INDICATED OTHERWISE) SEE DRAWINGS FOR QUANTITY AND SIZE OF WIRE AND CONDUIT. MINIMUM 2#12,#12G, IN ¾"C IF NOT INDICATED OR SCHEDULED OTHERWISE. DASHED LINES INDICATE IN OR UNDER SLAB.

L4A1-1,3
2#10,#10G,¾"C

CONDUIT
(CONCEALED IN CONSTRUCTION IN FINISHED AREAS, EXPOSED IN UNFINISHED AREAS)

E — UNDERGROUND CONDUIT (SHADING INDICATES CONCRETE ENCASEMENT BY GC)

OE — OVERHEAD ELECTRICAL WIRE

CONDUIT IN OR UNDER SLAB

NOTES:

1. GREEN GROUND CONDUCTOR NOT INDICATED BUT SHALL BE INCLUDED IN EACH RACEWAY. SIZE SHALL BE #12AWG UNLESS INDICATED OTHERWISE.
2. HOMERUNS TO PANELBOARDS SHALL HAVE A MAXIMUM OF THREE (3) PHASE CONDUCTORS (ONE PER PHASE), (3) NEUTRALS AND (3) GROUND CONDUCTORS IN EACH CONDUIT. DERATE CONDUCTORS AS REQUIRED PER CODE.

16 — FEEDER TAG - REFER TO LEGEND OR TABLE OF FEEDER SIZES

BRANCH CIRCUIT WIRING NOTES

1. WIRING IS SHOWN ON DRAWINGS ONLY FOR SPECIFIC ROUTES OR SPECIAL CONDITIONS.
2. WIRING AND CONDUIT SHALL BE REQUIRED BETWEEN ALL OUTLETS INDICATED WITH CIRCUIT NUMBERS AND PANEL DESIGNATIONS.
3. ALL SWITCH CONTROLS SHALL BE FURNISHED WITH WIRING AND CONDUIT AS REQUIRED.
4. ALTHOUGH ALL BRANCH CIRCUIT WIRING AND CONDUIT IS NOT SHOWN, IT IS THE INTENT OF THESE DOCUMENTS THAT A COMPLETE BRANCH CIRCUIT WIRING SYSTEM BE INSTALLED.
5. A GREEN GROUNDING CONDUCTOR SHALL BE RUN WITH ALL CIRCUITS. VERIFY CONDUIT SIZE TO ENSURE IT CAN ACCOMMODATE ALL PHASE, NEUTRAL AND GROUND CONDUCTORS.
6. ALL BRANCH CIRCUITS SHALL HAVE INDIVIDUAL NEUTRALS AND GROUNDS. BRANCH CIRCUITS SHALL NOT SHARE NEUTRALS OR GROUNDS.

LIGHTING FIXTURES

NUMBERS/LETTERS SHOWN BESIDE LIGHT FIXTURES SHALL INDICATE THE FOLLOWING:
"P1" (CAPITAL LETTER(S) OR COMBINATION OF CAPITAL LETTER(S) AND NUMBERS) INDICATES FIXTURE TYPE.

POLE MOUNTED SITE LIGHTING SINGLE FIXTURE

POLE MOUNTED SITE LIGHTING TWIN FIXTURE

RECEPTACLES

MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED.

NUMBERS/LETTERS SHOWN BESIDE RECEPTACLES SHALL INDICATED THE FOLLOWING:
"GFI" INDICATES INTEGRAL GROUND FAULT INTERRUPTER.
"2" (NUMBER OR PANELBOARD NAME AND NUMBER) INDICATES POWER CIRCUIT NUMBER.

2 GFI — SIMPLEX RECEPTACLE

DUPLEX RECEPTACLE

TOGGLE SWITCHES

MOUNTED AT 48" AFF UNLESS OTHERWISE NOTED.

S_a — SINGLE POLE TOGGLE SWITCH. "a" INDICATES FIXTURE CONTROL

S_M — MOTOR RATED TOGGLE SWITCH (LOCKABLE)

POWER DISTRIBUTION EQUIPMENT

PANELBOARD, SURFACE MOUNTED

M 2 — MOTOR, "2" INDICATES HORSEPOWER

6P — NON-FUSED DISCONNECT SWITCH, SIZE AS REQUIRED. "6P" INDICATES 6 POLE.

T — DRY-TYPE DISTRIBUTION TRANSFORMER

UTILITY POLE

MISCELLANEOUS

J — JUNCTION BOX, SIZED PER NEC

PB — PULLBOX

HH — HANDHOLE

PUSH BUTTON OPERATOR

AREA CLASSIFICATIONS

WET LOCATION — INDICATES THAT ALL ELECTRICAL MATERIALS AND EQUIPMENT INSTALLED IN THE ROOM OR DEMARCATED AREA SHALL BE OF WATERTIGHT OR NEMA 4 CONSTRUCTION SUITABLE FOR USE IN A WET LOCATION.

ABBREVIATIONS

#	WIRE SIZE OR IDENTIFICATION NUMBER
A	AMPERES
AF	AMPERE FRAME (CIRCUIT BREAKER RATING)
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
ARCH	ARCHITECT
AS	AMPERE SENSOR (CIRCUIT BREAKER RATING)
AT	AMPERE TRIP (CIRCUIT BREAKER RATING)
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CT	CURRENT TRANSFORMER
CAT	CATALOG
CIR, CKT	CIRCUIT
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER 480 VOLTS - 120/240 VOLTS, UNLESS OTHERWISE INDICATED
COL	COLUMN
△	DELTA
CU	COPPER
DISC SW, DS	DISCONNECT SWITCH
DWG	DRAWING
E	WIRED ON EMERGENCY CIRCUIT
EC	ELECTRICAL CONTRACTOR
EM	EMERGENCY
EXP	EXPLOSION PROOF
F	FLUSH
FCV-A	FLOOR CONTROL VALVE ASSEMBLY - ASH LEVEL
FCV-S	FLOOR CONTROL VALVE ASSEMBLY - STOKER LEVEL
FU	FUSE
FT	FEET
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
G	GROUND
GC	GENERAL CONTRACTOR
GFI, GFCI	GROUND FAULT CIRCUIT INTERRUPTER
ID	IDENTIFICATION
KCMIL, MCM	ONE THOUSAND CIRCULAR MILS
KVA	KILOVOLT-AMPERES
KVAR	KILOVOLT-AMPERES REACTIVE
KW	KILOWATTS
LSIG	LONG/SHORT TIME, INSTANTANEOUS AND GROUND FAULT SETTINGS (FOR CIRCUIT BREAKER)
MC	MECHANICAL CONTRACTOR
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MISC	MISCELLANEOUS
MFR	MANUFACTURER
MLO	MAIN LUGS ONLY
NC, NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OL	OVERLOAD
P	POLE
PH, Ø	PHASE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PVC	POLYVINYL CHLORIDE
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
R	RECESSED
RGS	RIGID GALVANIZED STEEL CONDUIT
RVNR	REDUCED-VOLTAGE NON-REVERSING
S	SURFACE
SCCR, SCR	SHORT CIRCUIT CURRENT INTERRUPTING RATING
SCH 40	SCHEDULE 40 PVC CONDUIT
SP	SPARE
SPD	SURGE PROTECTION DEVICE
SS	STAINLESS STEEL
SW	SWITCH
TEL	TELEPHONE
TSP	TWISTED SHIELDED PAIR CABLE
TYP	TYPICAL
UG	UNDERGROUND
UPS	UNINTERRUPTABLE POWER SUPPLY
V	VOLT
VFD	VARIABLE FREQUENCY DRIVE (ALSO REFERED TO AS ADJUSTABLE FREQUENCY DRIVE)
Y	WYE
W	WATT, WIRE
WP	WEATHERPROOF
XFMR	TRANSFORMER

Tighe&Bond

ISSUED FOR BIDDING

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City of Fall River

Fall River, Massachusetts

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PROJECT NO:	F5033-011
DATE:	JANUARY 2025
FILE:	F5033-011-E-001-PHASE 1.dwg
DRAWN BY:	RAK, AJP
DESIGNED/CHECKED BY:	AJP, MJR
APPROVED BY:	JPV

ELECTRICAL LEGEND

SCALE: NO SCALE

E-001

GENERAL DEMOLITION NOTES

1. DISCONNECT AND REMOVE EXISTING ELECTRICAL PANELBOARDS, JUNCTION BOXES, BRANCH CIRCUITS, FEEDERS, RACEWAYS, DEVICES, ETC., AS REQUIRED TO ACCOMPLISH THE NEW WORK AS SHOWN OR REASONABLY IMPLIED. REFER TO THE ARCHITECTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL WORK SHOWN ON THE OTHER DRAWINGS OF THIS SET TO DETERMINE THE EXTENT OF THE DEMOLITION WORK REQUIRED.
2. EXISTING BRANCH CIRCUITS NO LONGER SERVING ANY EQUIPMENT OR DEVICES SHALL BE PULLED BACK TO AND DISCONNECTED FROM THE PANEL OF ORIGIN. RE-LABEL EXISTING CIRCUIT BREAKERS AS SPARE AND PROVIDE A NEW LABEL/NAMEPLATE OR TYPE-WRITTEN PANEL DIRECTORY.
3. BRANCH CIRCUITS SERVING EXISTING DEVICES TO REMAIN AND EXISTING DEVICES TO BE REMOVED SHALL BE MAINTAINED AND RECONNECTED AS REQUIRED AFTER REMOVAL OF THE EXISTING DEVICES, AS NECESSARY TO ACCOMMODATE THE ALTERATIONS.
4. COORDINATE WITH THE OWNER'S RESPECTIVE DEPARTMENTS FOR THE DISCONNECTION AND REMOVAL OF TELECOMMUNICATIONS, PROCESS, PAGING, FIRE ALARM, AND SECURITY SYSTEM DEVICES, EQUIPMENT, AND CABLING.
5. COORDINATE WITH THE ENGINEER, GENERAL, MECHANICAL, AND PLUMBING CONTRACTORS FOR EXISTING EQUIPMENT TO BE DISCONNECTED AND REMOVED. DISCONNECT AND REMOVE THE ELECTRIC CONDUIT AND WIRING BACK TO THE POINT OF ORIGIN FOR EACH PIECE OF EQUIPMENT TO BE REMOVED.
6. DISCONNECT AND REMOVE EXISTING FIRE ALARM DEVICES TO ACCOMMODATE ALTERATIONS. MAINTAIN CONTINUITY OF ALL FIRE ALARM INITIATION AND INDICATING CIRCUITS SERVING OTHER AREAS. PROVIDE ADDITIONAL CONDUIT AND WIRING AS REQUIRED.
7. PROVIDE BLANK STAINLESS STEEL COVER PLATES FOR ALL JUNCTION/DEVICE BOXES NO LONGER IN USE THAT ARE EMBEDDED IN FLOOR SLABS OR MASONRY WALLS. ALL COVER PLATES SHALL BE PAINTED TO MATCH EXISTING CONDITIONS.
8. REFER TO SPECIFICATIONS FOR ADDITIONAL DEMOLITION CRITERIA.
9. THE EXISTENCE OF UTILITIES AND APPURTENANCES AS SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY. THOROUGHLY INVESTIGATE THE EXACT SIZE, TYPE, LOCATION AND ELEVATION PRIOR TO THE START OF CONSTRUCTION. FIELD MEASURE TO VERIFY EXISTING AND CONTRACT INTERFACE DIMENSIONS, LOCATIONS, AND OTHER CONDITIONS. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.
10. ASSUME MATERIALS TO BE DEMOLISHED ARE POSITIVE FOR HAZARDOUS MATERIALS AND DISPOSE OF AS NECESSARY IN ACCORDANCE WITH APPLICABLE REGULATIONS. REFER TO SPECIFICATIONS FOR MORE DETAILS.
11. OWNER RETAINS RIGHT OF FIRST REFUSAL FOR ALL ITEMS TO BE REMOVED OR DEMOLISHED. TAKE REASONABLE CARE TO AVOID DAMAGE TO ITEMS TO BE RETAINED BY OWNER. NO ADDITIONAL CHARGE WILL BE ALLOWED FOR REMOVAL OF SALVAGEABLE ITEMS.
12. FOR ITEMS BEING DEMOLISHED, REMOVE EXISTING SUPPORTS AND MOUNTING HARDWARE. FILL OPENINGS FROM ANCHOR HOLES AND CONDUIT/PIPE PENETRATIONS (UNLESS CONDUIT IS TO BE REUSED) WITH NON-SHRINK GROUT AND PAINT TO MATCH WALL OR FLOOR.
13. PATCH HOLES IN CONCRETE FROM OLD EQUIPMENT SUPPORTS, CONDUITS, PENETRATIONS, ETC. WITH NON-SHRINK GROUT. PAINT TO MATCH SURROUNDING SURFACE.
14. VOIDS CREATED BY THE REMOVAL OF CONDUIT/WIRE IN FLOORS OR WALLS ABOVE OR BELOW CEILINGS SHALL BE PATCHED AND SEALED WITH MATERIALS MATCHING THE EXISTING CONSTRUCTION.
15. PROPERLY DISPOSE OF DEMOLISHED EQUIPMENT IN COMPLIANCE WITH CODES, REGULATIONS, AND STATE STANDARDS.

GENERAL NOTES

1. FOR SYMBOLS AND ABBREVIATIONS, REFER TO DRAWING E-001.
2. BOLD TEXT AND LINES INDICATE PROPOSED WORK, LIGHT TEXT AND LINES INDICATE APPROXIMATE EXISTING CONDITIONS.
3. FOR ELECTRICAL DETAILS, REFER TO DETAIL DRAWINGS
4. REFER TO PROCESS MECHANICAL DRAWINGS AND VENDOR DRAWINGS FOR COORDINATION OF EQUIPMENT LOCATIONS AND POWER REQUIREMENTS.
5. REFER TO ARCHITECTURAL FLOOR PLANS FOR EQUIPMENT LOCATIONS.
6. REFER TO ARCHITECTURAL ELEVATIONS AND ELECTRICAL DETAIL DRAWINGS FOR COORDINATION OF WALL MOUNTED DEVICES AND MOUNTING HEIGHTS.
7. ALL CONDUIT SHALL BE INSTALLED ATTACHED TO THE TOP OF STEEL (TOP CHORD OF JOIST/GIRDER).
8. COORDINATE ALL DEVICE LOCATIONS WITH GC AND/OR OWNER PRIOR TO ROUGH-IN.
9. COORDINATE ALL REQUIRED OPENINGS/PENETRATIONS THROUGH WALLS, FLOORS, AND CEILING WITH OTHER TRADES AND APPROVED EQUIPMENT SUBMITTALS.
10. ALL PIPES OR OTHER UTILITIES DAMAGED DURING THE CONTRACTOR'S OPERATIONS SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR OR REPLACE AT NO COST TO THE OWNER.
11. SUPPORT ALL UTILITIES AND STRUCTURES DURING CONSTRUCTION AND MAKE REPAIRS IF DAMAGED.
12. THE LOCATIONS OF EXISTING UTILITIES AND EQUIPMENT ARE APPROXIMATE. DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES AND STRUCTURES BEFORE COMMENCING WORK. BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH MIGHT BE OCCASIONED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES AND STRUCTURES.
13. PREVENT DUST FROM BECOMING A NUISANCE OR HAZARD. CONTROL DUST DURING AND AFTER CONSTRUCTION.
14. DO NOT COMBINE POWER AND SIGNAL WIRING IN ANY CONDUIT, BOX, WIREWAY, CABLE TRAY, ETC. WITHOUT WRITTEN PERMISSION FROM THE ENGINEER, UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS.

GENERAL SITE NOTES

1. ALL EXCAVATION, TRENCHING, BACK FILL AND COMPACTION OF DUCT BANKS, BY THE GC.
2. WHERE ROUTING IS SPECIFICALLY INDICATED, CONDUITS SHALL BE ROUTED AS INDICATED ON THE DRAWING. NO EXCEPTION WITHOUT PRIOR WRITTEN PERMISSION FROM THE PROJECT ELECTRICAL ENGINEER.
3. ALL CONCRETE WORK SHALL BE BY THE GC.

GENERAL POWER NOTES

1. ALL RECEPTACLES IN MECHANICAL ROOMS, ELECTRICAL ROOMS, AND MECHANICAL & ELECTRICAL CLOSETS SHALL BE GFI TYPE.
2. ALL RECEPTACLES IN PROCESS AREAS, HOSE-DOWN LOCATIONS, BELOW GRADE LOCATIONS, ON THE ROOF AND EXTERIOR TO THE BUILDING SHALL HAVE WEATHER-PROOF WHILE-IN-USE COVERS AND SHALL BE GFI TYPE.
3. ALL RECEPTACLES ON ROOF AND EXTERIOR OF THE BUILDING SHALL BE WEATHER RESISTANT GFCI AND SHALL HAVE "IN-USE COVERS".
4. DEVICE TYPES SHALL BE SUITABLE FOR THE SPECIFIC AREA CLASSIFICATION SHOWN.
5. PLUMBING FIXTURES: REFER TO PLUMBING DRAWINGS FOR ALL FIXTURES WITH AUTOMATIC SENSORS. SHALL PROVIDE ELECTRICAL CONNECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. COORDINATE LOCATION AND QUANTITY WITH GC AND ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
6. FIRE PROTECTION: REFER TO FIRE PROTECTION DRAWINGS FOR ALL FLOW AND TAMPER SWITCHES. SHALL PROVIDE ELECTRICAL CONNECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. COORDINATE LOCATION AND QUANTITY WITH GC AND ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
7. ALL WIRE SHALL UTILIZE THE POWER CABLE TRAY SYSTEM (WHERE SHOWN) AND CONDUITS TO SERVE ALL BUILDING AND PROCESS LOADS.

ELECTRICAL FASTENING NOTES:

1. EQUIPMENT SHALL BE FASTENED USING THE FOLLOWING MEANS BASED ON THE TYPE OF WALL OR SURFACE:
   a. FOR MOUNTING TO CONCRETE (CMU OR PRECAST), USE CRACKED-CONCRETE RATED EXPANDING SHEATH CONCRETE ANCHORS.
   b. FOR MOUNTING TO METAL COLUMNS, METAL EQUIPMENT FRAME, OR METAL MOUNTING PLATES, USE STAINLESS STEEL STUD WELD WITH STAINLESS STEEL ACORN NUT.
   c. FOR MOUNTING TO INSULATED METAL PANELS (IMP), USE POPNUT OR PLASTISOL COATED JACKNUT THREADED INSERT MANUFACTURED BY EMHART TECHNOLOGIES OR AU-VE-CO PRODUCTS WITH STAINLESS STEEL SCREWS.
2. REFER TO DIVISION 16 SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. FASTENERS AND MATERIALS SHALL BE OF THE MATERIAL TYPE SPECIFIED FOR THE AREA, UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS OR DETAILS.
4. WHEN MOUNTING TO IMP AND EQUIPMENT WEIGHT IS > 50 LBS, THRU BOLT AS SHOWN IN DETAIL.

Tighe&Bond

ISSUED FOR BIDDING

Fall River DCM Facility Improvements Phase I

City of Fall River

Fall River, Massachusetts

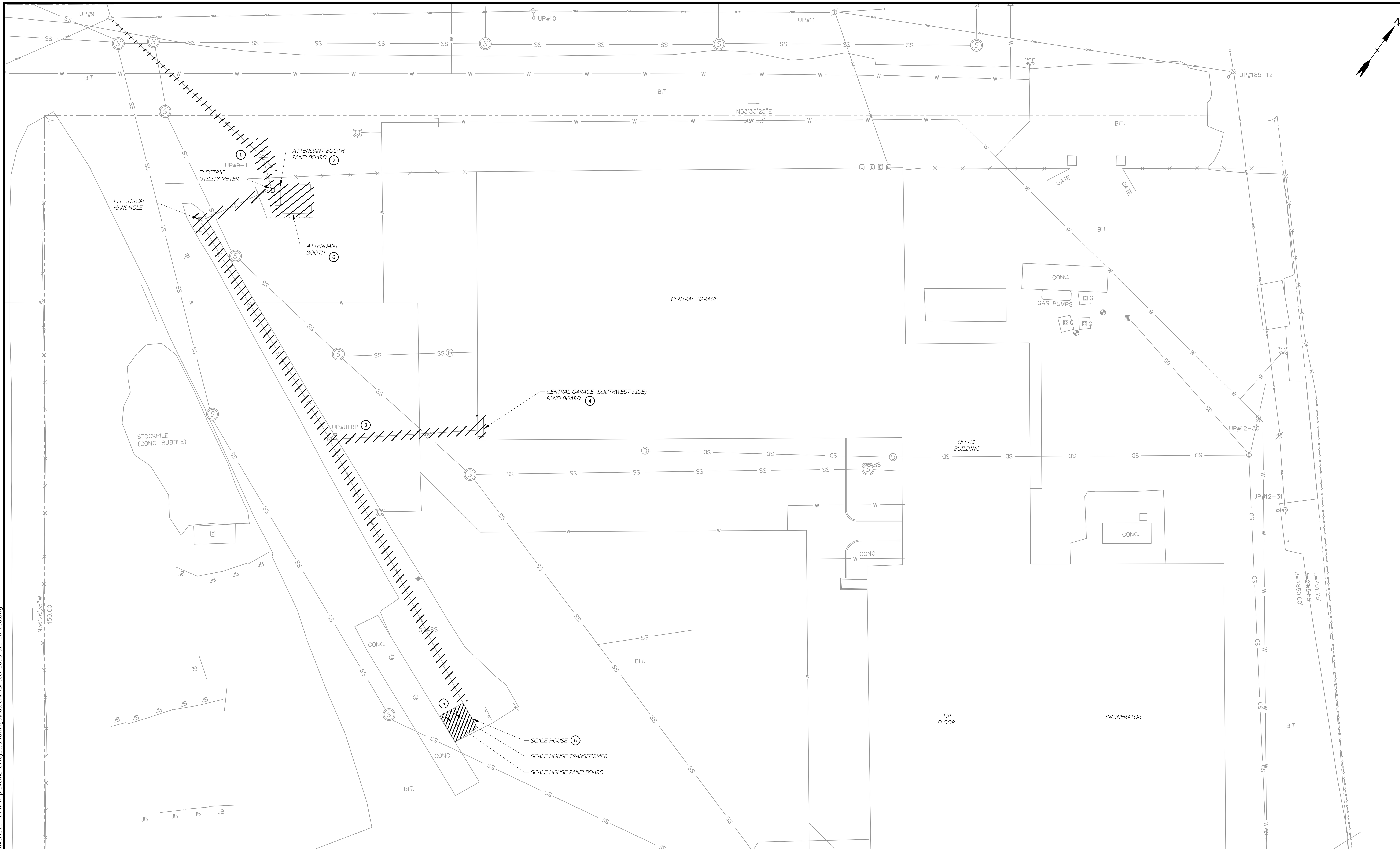
MARK	DATE	DESCRIPTION
0	2/12/2025	ISSUED FOR BIDDING

PROJECT NO:	F5033-011
DATE:	JANUARY 2025
FILE:	F5033-011-E-002-PHASE 1.dwg
DRAWN BY:	RAK, AJP
DESIGNED/CHECKED BY:	AJP, MJR
APPROVED BY:	JPV

ELECTRICAL GENERAL NOTES

SCALE: NO SCALE

E-002



KEY NOTES:

1. COORDINATE WITH THE UTILITY COMPANY THE DEMOLITION OF POLE UP-9-1, POLE-MOUNTED LIGHTING FIXTURES, METER SOCKET AND SERVICE ENTRANCE FEEDERS.
2. DEMOLISH ATTENDANT BOOTH PANELBOARD.
3. DEMOLISH POLE UP#ULRP INCLUDING POLE-MOUNTED LIGHTING FIXTURES.
4. DEMOLISH PANELBOARD LOCATED IN THE SOUTHWEST CORNER OF THE CENTRAL GARAGE. EXISTING BRANCH CIRCUITS TO REMAIN; EXTEND AND RECONNECT TO NEW PANELBOARD P2-1 IN NORTHWEST CORNER. REFER TO P2-1 PANELBOARD SCHEDULE FOR RECONNECTION OF EXISTING CIRCUITS INFORMATION.
5. DEMOLISH TRANSFORMER AND PANELBOARD IN THE SCALE HOUSE.
6. FOR THE ATTENDANT BOOTH, SCALE HOUSE, AND SALT SHED, DISCONNECT POWER TO BUILDING AND MAKE SAFE FOR DEMOLITION OF ALL ELECTRICAL EQUIPMENT AND CONTROLS INCLUDING LIGHTING FIXTURES, TOGGLE SWITCHES, AND ALL ASSOCIATED CONDUIT AND WIRING BACK TO THE SOURCE.

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Fall River DCM Facility Improvements Phase I

City of Fall River

Fall River, Massachusetts

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0	2/12/2025	ISSUED FOR BIDDING

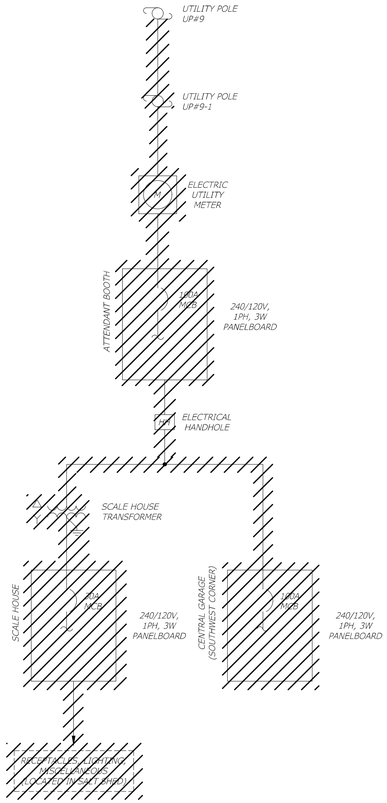
PROJECT NO:	F5033-011
DATE:	JANUARY 2025
FILE:	F5033-011-ED-100.dwg
DRAWN BY:	RAK, AJP
DESIGNED/CHECKED BY:	AJP, MJR
APPROVED BY:	JPV

ELECTRICAL DEMOLITION SITE PLAN

SCALE: AS SHOWN

ED-100

Last Saved: 1/14/2025
Plotted On:Feb 03, 2025-2:19am By: APardave
Tighe & Bond:\\tighebond.com\data\Data\Projects\F\F5033 Fall River\011 - DPW Improvement Project\Drawings\AutoCAD\Sheet\F5033-011-ED-100.dwg



NOTES:

1. REFER TO ED-100 AND E-002 FOR ELECTRICAL SITE DEMOLITION AND GENERAL DEMOLITION NOTES.

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ISSUED FOR BIDDING

Fall River DCM Facility Improvements

Phase I

City of Fall River

Fall River, Massachusetts

MARK	DATE	DESCRIPTION
0	2/12/2025	ISSUED FOR BIDDING

PROJECT NO:	F5033-011
DATE:	JANUARY 2025
FILE:	F5033-011-ED-601-PHASE 1.dwg
DRAWN BY:	RAK, AJP
DESIGNED/CHECKED BY:	AJP, MJR
APPROVED BY:	JPV

ELECTRICAL DEMOLITION ONE-LINE DIAGRAM

SCALE: NO SCALE

ED-601

SLIDE-GATE CP 2
SLIDE-GATE CP 1
GROUND ROD (TYP)
P2-1 PANELBOARD
XF-1 TRANSFORMER
SLIDE-GATE OPERATOR CONTROL STATION ON CONCRETE PAD. COORDINATE EXACT LOCATION IN THE FIELD. (TYP OF 3)
SLIDE-GATE CP 3
1"C WITH MFR SLIDE GATE WIRING TO SENSOR. COORDINATE WITH EQUIPMENT SUPPLIER (TYP OF 3)
P1
P2-1-6
POLE MOUNTED SITE LIGHTING WITH SINGLE FIXTURE (TYP)
480V PANELBOARD
WET LOCATION
CENTRAL GARAGE
CONCRETE ENCASED DUCTBANK (TYP)
ETHERNET CABLE JB
CCTV SECURITY CAMERAS JB
480V POWER JBOX
120/240V POWER JBOX
P2-1-18
P2
DUCTBANK E-E
ELECTRICAL HANDHOLE (TYP)
OFFICE BUILDING
GAS PUMPS
P2-1-18
P2
POLE MOUNTED SITE LIGHTING WITH TWIN FIXTURE (TYP)
TIP FLOOR
INCINERATOR
CARDBOARD COMPACTOR
NOT IN CONTRACT (PART OF PHASE 2 PROJECT)
CARDBOARD COMPACTOR CONTROL PANEL (CP)
P2-1-18
P1
SALT SHED
YARD WASTE (CONCRETE PAD)
STOCKPILE (CONC. RUBBLE)
LEWISTON STREET
UP#8-32
UP#9
UP#10
UP#11
UP#185-12
UP#8
UP#12-30
UP#12-31
UP#2
UP#3

APPROXIMATE LOCATION OF NEW PANELBOARD P2-1 AND TRANSFORMER XF-1

PHOTO 1 - NORTHWEST CORNER (CENTRAL GARAGE)
NO SCALE

KEY NOTES:

(1) HANDHOLE FOR FUTURE SITE LIGHTING.

NOTES:

1. REFER TO ELECTRICAL DETAILS DRAWING FOR ADDITIONAL DUCTBANK DETAILS.
2. REFER TO ELECTRICAL ONE-LINE DIAGRAM AND SCHEDULES DRAWING FOR ADDITIONAL SITE LIGHTING AND PANELBOARD INFORMATION.

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

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Fall River, Massachusetts

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0	2/12/2025	ISSUED FOR BIDDING

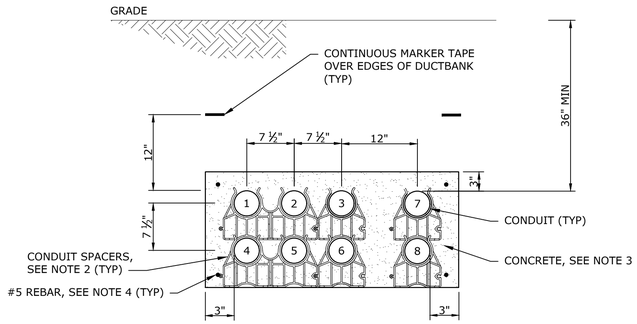
PROJECT NO:	F5033-011
DATE:	FEBRUARY 2025
FILE:	F5033-011-E-100.dwg
DRAWN BY:	RAK, AJP
DESIGNED/CHECKED BY:	AJP, MJR
APPROVED BY:	JPV

ELECTRICAL SITE PLAN

SCALE: AS SHOWN

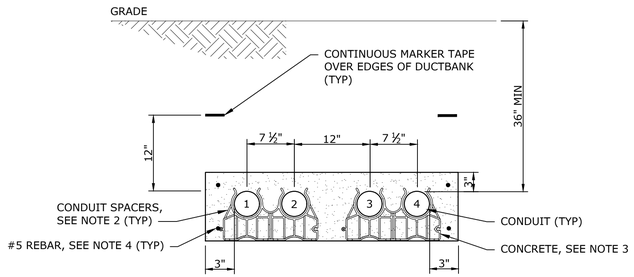
E-100

Last Saved: 2/5/2025
Plotted: Feb 05, 2025-10:59pm By: APardave
Tighe & Bond:\\tighebond.com\data\Data\Projects\F\F5033 Fall River\011 - DPW Improvement Project\Drawings\AutoCAD\Sheet\F5033-011-E-100.dwg



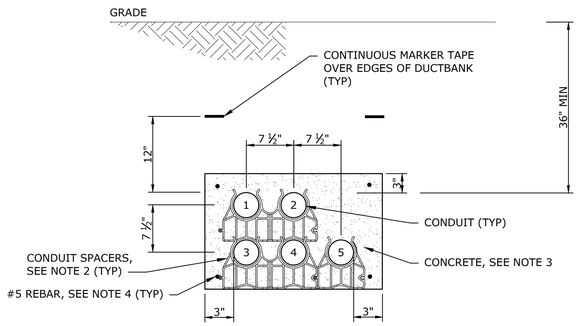
1. 2"C FOR 480V POWER TO CARDBOARD COMPACTOR
2. 2"C FOR SALTSHED POWER
3. 2"C FOR POLE MOUNTED SITE LIGHTING
4. 2"C SPARE W/ PULLCORD FOR FUTURE SCALE HOUSE POWER
5. 2"C SPARE W/ PULLCORD FOR FUTURE SCALE HOUSE (BACKUP) POWER
6. 2"C SPARE W/ PULLCORD FOR 480V POWER
7. 2"C SPARE W/ PULLCORD TO SCALE HOUSE FOR FUTURE ETHERNET CABLE
8. 2"C SPARE W/ PULLCORD FOR FUTURE CCTV SECURITY CAMERAS

UNDERGROUND DUCT BANK CONDUIT A-A
NO SCALE



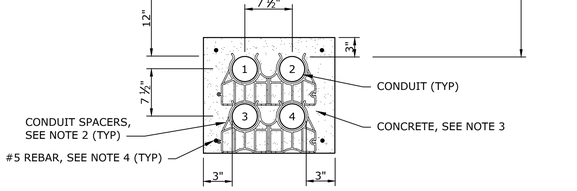
1. 2"C SPARE W/ PULLCORD FOR FUTURE ATTENDANT BOOTH POWER
2. 2"C SPARE W/ PULLCORD FOR FUTURE ATTENDANT BOOTH (BACKUP) POWER
3. 2"C SPARE W/ PULLCORD FOR FUTURE ATTENDANT BOOTH ETHERNET CABLE
4. 2"C SPARE W/ PULLCORD FOR FUTURE ATTENDANT BOOTH CCTV SECURITY CAMERAS

UNDERGROUND DUCT BANK CONDUIT B-B
NO SCALE



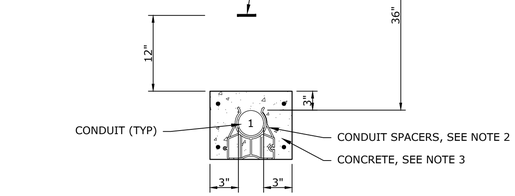
1. 2"C FOR 480V POWER TO CARDBOARD COMPACTOR
2. 2"C TO FOR SALTSHED POWER (SEE HANDHOLE KEYNOTE IN ONE-LINE DIAGRAM)
3. 2" SPARE W/ PULLCORD TO HANDHOLE FOR 120/240V POWER
4. 2" SPARE W/ PULLCORD TO HANDHOLE FOR 480V POWER
5. 2"C FOR POLE MOUNTED SITE LIGHTING

UNDERGROUND DUCT BANK CONDUIT C-C
NO SCALE



1. 2"C FOR 480V POWER TO CARDBOARD COMPACTOR
2. 2"C TO FOR SALTSHED POWER (SEE HANDHOLE KEYNOTE IN ONE-LINE DIAGRAM)
3. 2" SPARE W/ PULLCORD TO HANDHOLE FOR 120/240V POWER
4. 2" SPARE W/ PULLCORD TO HANDHOLE FOR 480V POWER

UNDERGROUND DUCT BANK CONDUIT D-D
NO SCALE

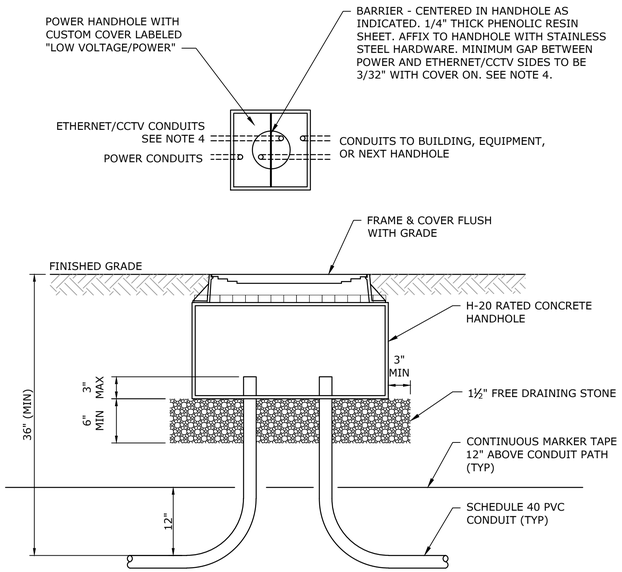


1. 2"C FOR POLE MOUNTED SITE LIGHTING OR HANDHOLE FOR FUTURE SITE LIGHTING.

UNDERGROUND DUCT BANK CONDUIT E-E
NO SCALE

DUCT BANK NOTES:

1. UNLESS OTHERWISE INDICATED ON DRAWINGS, ELECTRICAL DUCTBANK CONCRETE ENCASING SHALL BE CONTINUOUS ALONG THE ENTIRE LENGTH OF THE DUCTBANK.
2. E.C. SHALL PROVIDE CONDUIT SPACERS 5'-0" ON CENTER, AS MANUFACTURED BY UNDERGROUND DEVICES, INC. OR EQUAL.
3. CONCRETE SHALL BE PRE-MIX 2,500 P.S.I. 6" SLUMP LEAN CONCRETE, WITH RED DYE ADDED TO MIXTURE, CONCRETE BY E.C.
4. #5 REBAR SHALL BE PLACED CONTINUOUS ALONG DUCTBANK, WITH A MINIMUM 3" COVER ALONG BOTTOM SIDE, AND 3" COVER ALONG REMAINING THREE SIDES. REBAR SHALL BE SECURED IN PLACE USING WIRE TIES OR SIMILAR AS REQUIRED.
5. 7 ½" SEPARATION IS ACCEPTABLE FOR LIKE SYSTEMS (POWER - POWER, COMMUNICATIONS - COMMUNICATIONS). PROVIDE A MINIMUM OF 12" SEPARATION BETWEEN POWER AND COMMUNICATIONS CONDUITS, AND MAINTAIN A MINIMUM OF 12" SEPARATION BETWEEN POWER/COMMUNICATIONS AND OTHER UNDERGROUND SYSTEMS.
6. WHERE CONCRETE ENCASING IS NOT SHOWN FOR DUCTBANKS, PROVIDE STONE BORROW PER SPECIFICATION SECTION 312300.



HANDHOLE NOTES:

1. COORDINATE WITH SITE ELECTRICAL PLANS. CONDUIT TYPES SHOWN ARE TYPICAL. PROVIDE CONDUIT ENTRIES AND QUANTITIES AS SHOWN ON SITE PLANS.
2. SIZE HAND HOLE PER NEC REQUIREMENTS, MINIMUM SIZE 24"x24"x24".
3. SPLICE CONDUCTORS (INCLUDING GROUNDING CONDUCTORS) IN HANDHOLE WITH SILICONE FILLED CONNECTORS RATED FOR UNDERGROUND. USE IDEAL #30-066 OR EQUAL FOR #6 OR SMALLER SPLICES. USE ILSCO PDSS OR EQUAL UNDERGROUND RATED LUGS FOR LARGER SPLICES.
4. NOT APPLICABLE FOR HANDHOLES USED FOR FUTURE SITE LIGHTING.

POWER & COMMUNICATIONS HANDHOLE (IN ROADWAY)
NO SCALE

Tighe&Bond

ISSUED FOR BIDDING

Fall River DCM Facility Improvements Phase I

City of Fall River

Fall River, Massachusetts

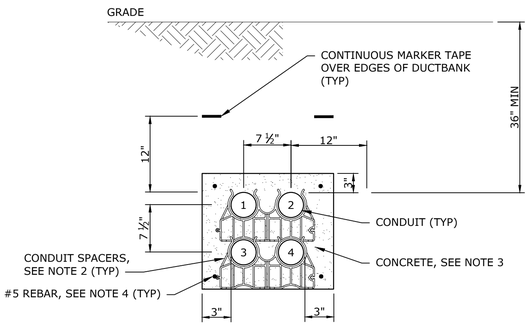
MARK	DATE	DESCRIPTION
0	2/12/2025	ISSUED FOR BIDDING

PROJECT NO:	F5033-011
DATE:	JANUARY 2025
FILE:	F5033-011-E-501-PHASE 1.dwg
DRAWN BY:	RAK, AJP
DESIGNED/CHECKED BY:	AJP, MJR
APPROVED BY:	JPV

ELECTRICAL DETAILS - 1

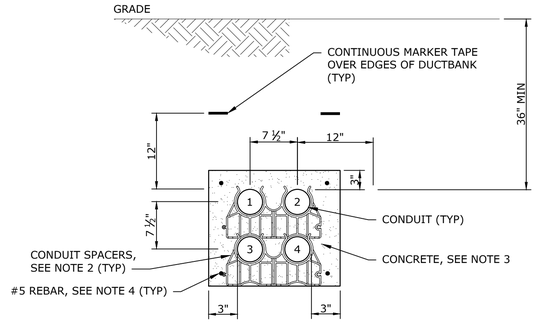
SCALE: NO SCALE

E-501



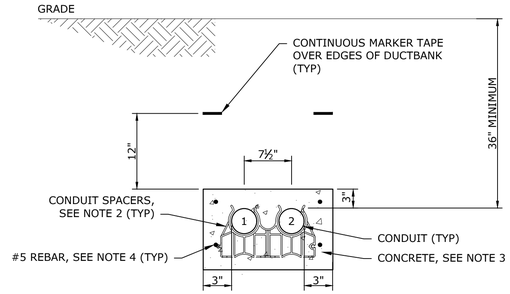
1. 2"C FOR POLE MOUNTED SITE LIGHTING
2. 2"C TO SLIDE-GATE CP 1 FOR CONTROLS
3. 2"C FOR SLIDE-GATE CP 1 POWER
4. 2"C FOR SLIDE-GATE CP 2 POWER

UNDERGROUND DUCT BANK CONDUIT F-F
NO SCALE



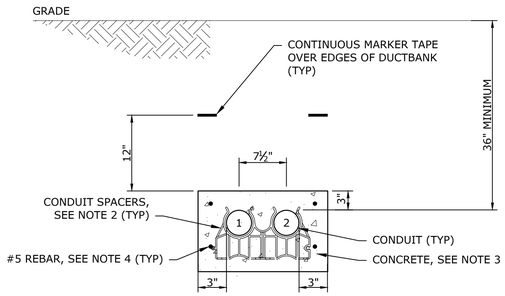
1. 2"C SPARE W/ PULLCORD FOR FUTURE POLE MOUNTED SITE LIGHTING
2. 1"C FROM SLIDE-GATE CP 1 TO SLIDE-GATE CP 2 FOR CONTROLS
3. 2"C FOR SLIDE-GATE CP 2 POWER
4. 1"C SPARE W/ PULLCORD FROM SLIDE-GATE CP 1 TO SLIDE-GATE CP 2

UNDERGROUND DUCT BANK CONDUIT G-G
NO SCALE



1. 2"C FOR SLIDE-GATE CP 3 POWER
2. 1"C SPARE W/ PULLCORD

UNDERGROUND DUCT BANK CONDUIT I-I
NO SCALE

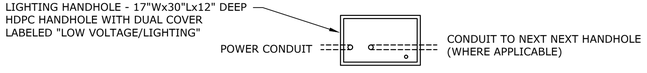


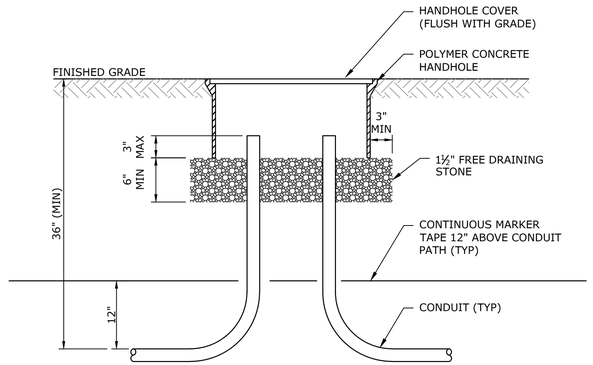
1. 1"C FOR SLIDE-GATE CONTROLS
2. 1"C SPARE W/ PULLCORD

UNDERGROUND DUCT BANK CONDUIT H-H
NO SCALE

DUCT BANK NOTES:

1. UNLESS OTHERWISE INDICATED ON DRAWINGS, ELECTRICAL DUCTBANK CONCRETE ENCASING SHALL BE CONTINUOUS ALONG THE ENTIRE LENGTH OF THE DUCTBANK.
2. E.C. SHALL PROVIDE CONDUIT SPACERS 5'-0" ON CENTER, AS MANUFACTURED BY UNDERGROUND DEVICES, INC. OR EQUAL.
3. CONCRETE SHALL BE PRE-MIX 2,500 P.S.I. 6" SLUMP LEAN CONCRETE, WITH RED DYE ADDED TO MIXTURE, CONCRETE BY E.C.
4. #5 REBAR SHALL BE PLACED CONTINUOUS ALONG DUCTBANK, WITH A MINIMUM 3" COVER ALONG BOTTOM SIDE, AND 3" COVER ALONG REMAINING THREE SIDES. REBAR SHALL BE SECURED IN PLACE USING WIRE TIES OR SIMILAR AS REQUIRED.
5. 7 ¼" SEPARATION IS ACCEPTABLE FOR LIKE SYSTEMS (POWER - POWER, COMMUNICATIONS - COMMUNICATIONS). PROVIDE A MINIMUM OF 12" SEPARATION BETWEEN POWER AND COMMUNICATIONS CONDUITS, AND MAINTAIN A MINIMUM OF 12" SEPARATION BETWEEN POWER/COMMUNICATIONS AND OTHER UNDERGROUND SYSTEMS.
6. WHERE CONCRETE ENCASING IS NOT SHOWN FOR DUCTBANKS, PROVIDE STONE BORROW PER SPECIFICATION SECTION 312300.



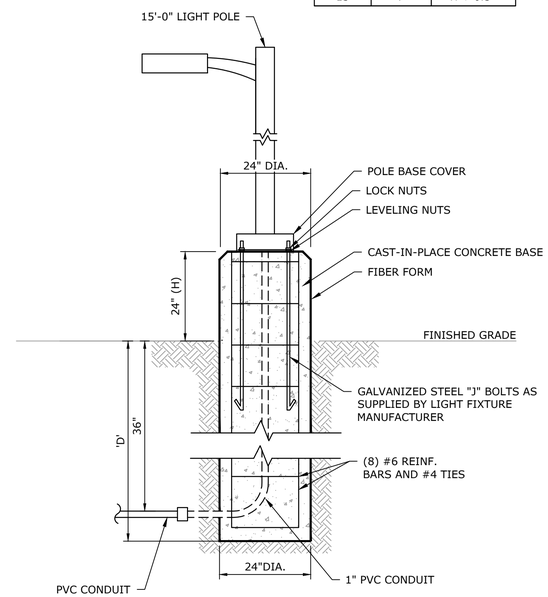


NOTES:

1. COORDINATE WITH SITE ELECTRICAL PLANS. CONDUIT TYPES SHOWN ARE TYPICAL. PROVIDE CONDUIT ENTRIES AND QUANTITIES AS SHOWN ON SITE PLANS.
2. CONTRACTOR SHALL SIZE HAND HOLE PER NEC REQUIREMENTS.

LIGHTING HANDHOLE (IN GRASSY AREA)
NO SCALE

POLE LENGTH (ft.)	BASE BURIAL DEPTH 'D' (ft.)	REINFORCING BAR LENGTH (ft.)
15	7	H + 6.5



NOTES:

1. ALL DIMENSIONS ARE IN NOMINAL FEET OR INCHES.
2. TOP OF FOUNDATION SHALL BE TROWELLED SMOOTH AND LEVEL.
3. CLASS OF CONCRETE SHALL BE 3000 P.S.I. CONCRETE SHALL BE VIBRATED.
4. CONTRACTOR TO VERIFY OPENING SIZE IN POLE BASE PLATE PRIOR TO SETTING CONDUIT SLEEVES.
5. SUBJECT TO SOIL CONDITIONS, REFER TO GEOTECH REPORT.
6. LOCATE EDGE OF POLE BASE 3'-0" TO EDGE OF PAVEMENT/WALKWAY.

SITE LIGHTING POLE BASE
NO SCALE

Tighe&Bond

ISSUED FOR BIDDING

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City of Fall River

Fall River, Massachusetts

MARK	DATE	DESCRIPTION
0	2/12/2025	ISSUED FOR BIDDING

PROJECT NO:	F5033-011
DATE:	JANUARY 2025
FILE:	F5033-011-E-502-PHASE 1.dwg
DRAWN BY:	RAK, AJP
DESIGNED/CHECKED BY:	AJP, MJR
APPROVED BY:	JPV

ELECTRICAL DETAILS - 2

SCALE: NO SCALE

E-502

TYPE	FIXTURE DESCRIPTION	MANUFACTURER				LAMP DATA					KEY
		MANUFACTURER	CATALOG NUMBER (LED FIXTURES)	EQUAL MFR #1	EQUAL MFR #2	WATTS	LUMEN	TYPE	K	VOLT	NOTES
P1	POLE MOUNTED SINGLE FIXTURE TYPE 4L DISTRIBUTION WITH STRAIGHT NON TAPERED STEEL POLE	VISIONAIRE	VSX-II-T4L-10L-4K-UNV-ARM-BZ-DTO-Z10 / STNS-4S-7-15'-9BC-343-S1-BZ	DURAGUARD	LUMCA	70	8,888	LED	4000	120-277	2, 3, 4
P2	POLE MOUNTED TWIN FIXTURES TYPE 4L DISTRIBUTION WITH STRAIGHT NON TAPERED STEEL POLE	VISIONAIRE	(2) VSX-II-T4L-10L-4K-UNV-ARM-BZ-DTO-Z10 / (1) STNS-4S-7-15'-9BC-343-S1-BZ	DURAGUARD	LUMCA	140	17,776	LED	4000	120-277	2, 3, 4

LIGHTING FIXTURE SCHEDULE

LIGHTING FIXTURE KEY NOTES:

1. NOT USED.
2. FACTORY PROVIDED FIELD INSTALLED MOTION SENSOR WITH LENS OPTIMIZED FOR MOUNTING HEIGHT.
3. PROVIDE FACTORY TECHNICIAN FOR BLUETOOTH SYSTEM FIELD STARTUP, PROGRAMMING AND COMMISSIONING.
4. PROVIDE LIGHT FIXTURE WITH BLUETOOTH WIRELESS LIGHTING CONTROL. FIXTURE SENSOR SHALL BE CAPABLE OF OCCUPANCY SENSING, AND PHOTOCELL CONTROL.

VOLTAGE (L-L): 240 PHASE: 1 WIRE: 3	VA, L1: 6,260	PANEL NO. P2-1
VOLTAGE (L-N): 120	VA, L2: 5,950	
MAIN BUS: 225 AMPS		LOCATION: CENTRAL GARAGE (NORTHWEST)
MAIN BREAKER: 200 A FRAME 200 A TRIP		NOTES: NEMA 3R ENCLOSURE
MOUNTING: SURFACE kAIC: 22	TOTAL VA: 12,210	
INCOMING FEEDER SIZE: REFER TO ONE-LINE DIAGRAM		

WIRE SIZE	CONDUIT SIZE	DIRECTORY	VA LOAD L1	VA LOAD L2		CKT.	AMPS	AMPS	CKT.	VA LOAD L2	VA LOAD L1		DIRECTORY	CONDUIT SIZE	WIRE SIZE
3#2 & 1#8G	2"	(FUTURE) SALTSHED PANELBOARD				1	60	20	2				SPARE	-	-
-	-	|				3	|	20	4				SPARE	-	-
2#12 & 1#12G	3/4"	*BATHROOM RECEPT	360			5	20	20	6	88			(GATE) SITE LIGHTING	2"	2#10 & 1#10G
2#12 & 1#12G	3/4"	*BATHROOM LIGHTING		25		7	20	20	8		500		*SOUTH WEST RECEP	3/4"	2#12 & 1#12G
2#10 & 1#10G	3/4"	*BRINE SYSTEM	2,160			9	30	15	10	360			*SOUTH WEST HEATER	3/4"	2#12 & 1#12G
-	-	|		2,160		11	|	|	12		360		|	-	-
2#10 & 1#10G	2"	SLIDE GATE CP 1	1,440			13	20	20	14	1,440			SLIDE GATE CP 2	2"	2#10 & 1#10G
-	-	|		1,440		15	|	20	16		1,440		|	-	-
-	-	SPARE				17	20	20	18	438			(TRUCKWAY) SITE LIGHTING	2"	2#8 & 1#10G
-	-	SPARE				19	20	20	20				SPARE	-	-
-	-	SPARE				21	20	20	22				SPARE	-	-
-	-	SPARE				23	20	20	24				SPARE	-	-
-	-	SPARE				25	20	20	26				SPARE	-	-
-	-	SPARE				27	20	20	28				SPARE	-	-
-	-	SPARE				29	20	20	30				SPARE	-	-
		SUBTOTAL	3,960	3,625	0					2,325	2,300	0	SUBTOTAL		

P2-1 PANELBOARD SCHEDULE

PANELBOARD NOTES:

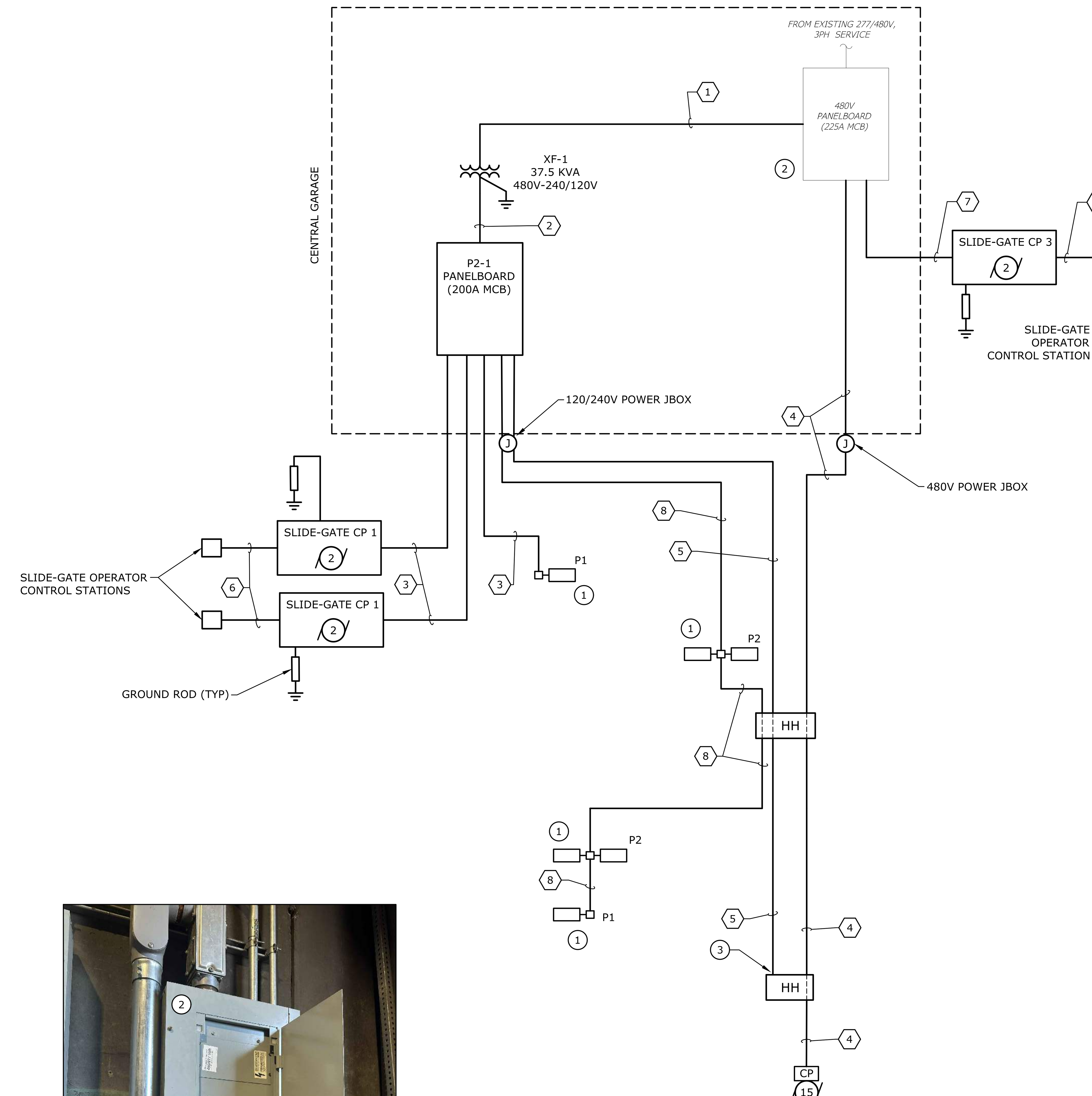
1. *EXISTING CIRCUITS FROM DEMOLISHED SOUTH WEST CORNER PANELBOARD IN CENTRAL GARAGE.

WIRE AND CONDUIT IDENTIFICATION:

1. 2#1, 1#6G, 2"C.
2. 3#4/0, 1#4G, 3"C.
3. 2#10, 1#10G, 2"C.
4. 3#6, 1#10G, 2"C.
5. 3#2, 1#8G, 2"C.
6. 4#14, 1#14G, 2#14 SPARE, 1"C.
7. 3#12, 1#12G, 2"C
8. 2#8, 1#10G, 2"C.

KEY NOTES:

1. REFER TO LIGHTING FIXTURE SCHEDULE AND KEY NOTES FOR FURTHER SITE LIGHTING INFORMATION.
2. IN EXISTING 480V PANELBOARD, PROVIDE A NEW 100A, 480V, 2P CIRCUIT BREAKER FOR P2-1 PANELBOARD (VIA XF-1 TRANSFORMER), PROVIDE A NEW 40A, 480V, 3P CIRCUIT BREAKER FOR CARDBOARD COMPACTOR, AND PROVIDE A NEW 20A, 480V, 3P CIRCUIT BREAKER FOR SLIDE-GATE 3; EXISTING PANELBOARD IS A GE A-SERIES II TYPE AE.
3. WIRING SHALL BE TERMINATED IN THE HANDHOLE (FOR FUTURE CONNECTION TO PANELBOARD AT THE SALT SHED).



PROPOSED ONE-LINE DIAGRAM

480V PANELBOARD

NO SCALE

Tighe&Bond

ISSUED FOR BIDDING

Fall River DCM Facility Improvements Phase I

City of Fall River

Fall River, Massachusetts

MARK	DATE	DESCRIPTION
0	2/12/2025	ISSUED FOR BIDDING

PROJECT NO: F5033-011
DATE: FEBRUARY 2025
FILE: F5033-011-E-601-PHASE 1.dwg
DRAWN BY: RAK, AJP
DESIGNED/CHECKED BY: AJP, MJR
APPROVED BY: JPV

ELECTRICAL ONE-LINE DIAGRAM AND SCHEDULES

SCALE: NO SCALE

E-601