

CITY OF PORTLAND PUBLIC WORKS DEPARTMENT

CONTRACT DRAWINGS



2025-2028 NEIGHBORHOOD DRAINAGE AND SEWER SYSTEM REPAIR CONTRACT

BID NO.: 26032

BID PLANS
JULY 2025

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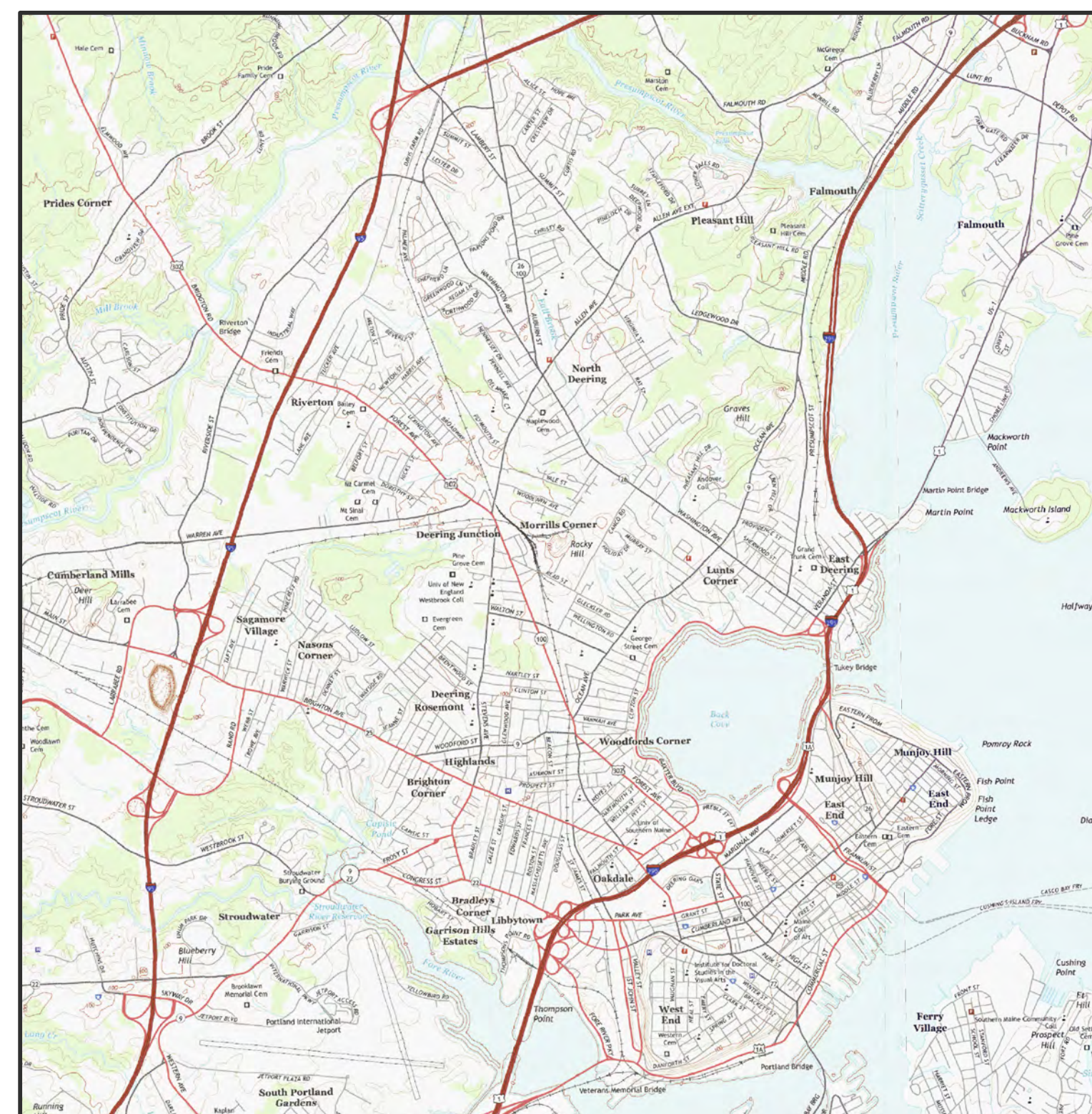
YEAR APPROVED
2024

10/2/2025

JUSTIN PELLERIN, P.E. DATE
SENIOR WATER RESOURCES ENGINEER

10/2/2025

WILLIAM BOORNAZIAN, P.E. DATE
WATER RESOURCES MANAGER



PROJECT LOCATION
PORTLAND, ME



VAULT #: 01051_003

GENERAL NOTES:

- 1. EXISTING CONDITIONS BASED ON RECORD DRAWINGS AND LIMITED FIELD SURVEY COMPLETED BY PORTLAND PUBLIC WORKS SURVEY CREW IN 2024. ALL INFRASTRUCTURE MATERIALS, SIZES, AND LOCATIONS SHALL BE FIELD VERIFIED.
2. VERTICAL DATUM IS REFERENCED TO CITY DATUM WITH ONE-FOOT CONTOUR INTERVALS. CITY DATUM IS +0.02 FEET OF NGVD 1929. HORIZONTAL DATUM IS REFERENCED TO STATE PLANE NAD 1983 (FEET), MAINE WEST ZONE.
3. PROTECT EXISTING FEATURES/STRUCTURES NOT CALLED OUT FOR REPLACEMENT/ALTERATION.
4. THE CITY OF PORTLAND SHALL HAVE THE RIGHT AND AUTHORITY TO DETERMINE THE ACCEPTABILITY OF WORK AND MATERIALS IN PROGRESS OR COMPLETED. THE CITY OF PORTLAND SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIALS WHICH DO NOT CONFORM, IN ITS SOLE OPINION, TO THE PLANS OR SPECIFICATIONS.
5. PRIOR TO THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL SECURE A STREET OPENING PERMIT FROM THE PORTLAND DEPARTMENT OF PUBLIC WORKS. NO FEE WILL BE CHARGED FOR THIS PERMIT
6. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
7. ELECTRICAL AND TELECOMMUNICATIONS SERVICE PROVIDED VIA OVERHEAD LINES, UNLESS OTHERWISE SHOWN. CONTRACTOR SHALL USE CAUTION WHEN WORKING NEAR EXISTING OVERHEAD LINES.
8. TEST PITS SHALL BE COMPLETED AT LEAST TWO WEEKS PRIOR TO THE START OF CONSTRUCTION OR ORDERING OF MATERIALS AT THE TEST PIT LOCATION. THE CONTRACTOR SHALL PROMPTLY PROVIDE TEST PIT INFORMATION TO THE ENGINEER FOR REVIEW, AND SHALL NOTIFY THE ENGINEER OF ANY POTENTIAL UTILITY CROSSING CONFLICTS.
9. RESIDENTIAL SANITARY SEWER SERVICE INFORMATION (LOCATION, SIZE, PIPE MATERIALS, ETC.) OBTAINED FROM HISTORIC SEWER CARDS AND SEWER VIDEOS. RECORD INFORMATION NOT FOUND FOR ALL RESIDENCES WITHIN THE PROJECT ZONE.
10. DISPOSITION OF SURPLUS MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SURPLUS MATERIAL SHALL NOT BE DISPOSED OF ON THE PROJECT SITE. DISPOSITION SHALL BE MADE ONLY AT WASTE AREAS WHICH ARE LICENSED TO ACCEPT SUCH MATERIALS, UNLESS THE MATERIALS CAN BE INCORPORATED IN FILLS IN OTHER PROJECTS OF THE CONTRACTOR.
11. IF CONTRACTOR PROPOSES TO TEMPORARILY STOCKPILE ANY SURPLUS SOIL AND ROCK IN THE CITY OF PORTLAND, THE CONTRACTOR SHALL OBTAIN APPROVAL FOR EACH STOCKPILE LOCATION FROM THE CITY. IF CONTRACTOR PROPOSES TO PERMANENTLY STOCKPILE ANY SURPLUS SOIL AND ROCK ON PROPERTY IN THE CITY OF PORTLAND, THE CONTRACTOR MUST OBTAIN ANY SITE PLAN AND FILL PERMITS REQUIRED FROM CITY PLANNING AUTHORITY OR ANY FILL PERMITS REQUIRED FROM MAINE DEP OR US ARMY CORP OF ENGINEERS. BOTH TEMPORARY AND PERMANENT STOCKPILE LOCATIONS SHALL MEET THE APPLICABLE SETBACK REQUIREMENTS IN THE CITY LAND USE CODE.
12. MAINTENANCE OF TRAFFIC SHALL BE PER THE MOST CURRENT EDITION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE MOST CURRENT MAINE DOT SPECIFICATIONS AND STANDARD PLANS.
13. PROPERTY LINE AND R.O.W. MONUMENTS SHALL NOT BE DISTURBED BY CONSTRUCTION UNLESS CALLED OUT ON THE PLANS. DISTURBED MONUMENTS SHALL BE RESET BY A MAINE LICENSED LAND SURVEYOR.
14. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE (888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. UNDERGROUND FACILITIES INDICATED ON THE CROSS SECTIONS HAVE BEEN CARRIED OVER FROM THE PLAN VIEW DATA AND MAY ALSO INCLUDE FURTHER APPROXIMATIONS OF THE ELEVATIONS (DEPTHS) BASED UPON STRAIGHT LINE INTERPOLATION FROM THE NEAREST MANHOLES, GATE VALVES, OR TEST PITS. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE ENGINEER HAS COORDINATED THE PROPOSED WORK WITH THE AFFECTED UTILITY COMPANIES TO ARRANGE FOR REQUIRED RELOCATION OF THEIR KNOWN FACILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE HIS WORK AND SCHEDULE WITH THE UTILITY RELOCATION WORK AND THE PROPER UTILITY COMPANY. THE FOLLOWING UTILITIES MAY HAVE FACILITIES WITHIN THE PROJECT LIMITS: CENTRAL MAINE POWER COMPANY - UTIL - PORTLAND FIRE DEPARTMENT - PORTLAND WATER DISTRICT - CITY OF PORTLAND - SPECTRUM - CONSOLIDATED COMMUNICATIONS - AT&T - ANY ADDITIONAL UTILITY WORK NOT SPECIFIED ON THE PLANS SHALL BE COMPLETED BY THE RESPECTIVE UTILITY COMPANY.
15. CONTRACTOR SHALL COORDINATE DISRUPTION OF PRIVATE UTILITY SERVICES WITH LAND OWNER AT LEAST 2 DAYS (48 HOURS) PRIOR TO SCHEDULED DISRUPTION.
16. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA REGULATIONS SUBPART P OF 29 CFR PART 1926.650-.652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).

- 17. LOCATIONS OF RIGHT-OF-WAY SHOWN ON PLANS ARE APPROXIMATE ONLY.
18. THE CONTRACTOR SHALL COMPLETE THE WORK WITHIN THE RIGHT-OF-WAY, AND SHALL BE RESPONSIBLE IF TRESPASSING ON PRIVATE PROPERTY OCCURS.
19. CONTRACTOR SHALL NOT PARK, IMPEDE ACCESS OR STORE EQUIPMENT/MATERIAL ON ADJACENT CITY OR PRIVATELY OWNED LAND WITHOUT WRITTEN CONSENT FROM THE CITY OR LAND OWNER.
20. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES, TO ORIGINAL FINISH SURFACE (LAWN, PAVEMENT, GRAVEL, ETC.) UNLESS NOTED OTHERWISE ON PLANS. RESTORATION OF PAVED SURFACES, GRAVEL SURFACES, DRIVEWAYS, WALKWAYS, LAWNS AND OTHER AREAS SHALL BE AT THE CONTRACTORS EXPENSE. ALL CURB DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED IN KIND, AT THE CONTRACTORS EXPENSE, AND SHALL CONFORM TO CITY OF PORTLAND STANDARDS.
21. ALL SIGNING, SIGNAL AND STRIPING MATERIALS AND PLACEMENT SHALL CONFORM TO THE MAINE DOT STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND STANDARD DETAILS AND WITH THE MOST CURRENT FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
22. BUTT JOINTS SHALL BE USED AT ALL LOCATIONS WHERE THE PROPOSED PAVEMENT MEETS EXISTING PAVEMENT. NO FEATHERING OF PAVEMENT WILL BE PERMITTED. COST OF BUTT JOINTS SHALL BE INCIDENTAL TO PAY ITEMS IN SECTION 403 - HOT BITUMINOUS PAVEMENT AND SECTION 600 - SIDEWALKS AND DRIVEWAYS.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY TRENCH PAVEMENT THAT HAS EXPERIENCED EXCESSIVE SETTLEMENT, CRACKING, OR OPENING OF JOINTS. REPAIRS MAY INCLUDE OVERLAY, REMOVAL OF UNACCEPTABLE MATERIALS, COMPLETE REPLACEMENT, JOINT SEALING, OR RECONSTRUCTING PAVEMENT JOINTS AS REQUIRED. THIS WORK MAY BE NECESSARY AFTER THE FINAL ACCEPTANCE OF WORK OR PRIOR TO THE ONE YEAR GUARANTEE. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.
24. ALL WORK COMPLETED UNDER THIS CONTRACT SHALL BE GOVERNED BY AND SHALL CONFORM WITH CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.
25. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.
26. EXISTING FACILITIES/STRUCTURES (I.E. TREES, POLES, LIGHT POLES) SHALL BE REMOVED AND PROTECTED DURING CONSTRUCTION. CITY RETAINS THE RIGHT TO KEEP ANY AND ALL REMOVED FACILITIES/STRUCTURES. CONTRACTOR SHALL DISPOSE OF UNWANTED/UNUSED FACILITIES/STRUCTURES OFF SITE IN CONFORMANCE WITH APPLICABLE FEDERAL, STATE, AND LOCATION REGULATIONS.
27. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM WITH APPLICABLE FEDERAL, STATE, AND CITY OF PORTLAND CODES AND SPECIFICATIONS.
28. COMPACTION REQUIREMENTS:
LOCATION MINIMUM COMPACTION: BELOW PAVED AREAS 95% BELOW SEEDED AREAS 90%
*ALL PERCENTAGES OF COMPACTION SHALL BE OF MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557.
29. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANING AND/OR FLUSH SEDIMENT AND DEBRIS FROM ALL MANHOLES, CATCH BASINS AND ASSOCIATED PIPING AFTER THE WORK HAS BEEN COMPLETED. ACCUMULATED SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED OF.
30. STATIONING, PIPE LENGTHS, PIPE SLOPES AND PIPE INVERT CALCULATIONS ARE MEASURED ALONG THE PIPE CENTERLINE TO THE INSIDE WALL OF MANHOLE AND CATCH BASIN STRUCTURES.
31. PROPOSED CATCH BASIN, SEWER MANHOLE (SMH), AND DRAIN MANHOLE (DMH) SYMBOLS REPRESENT LOCATION OF NEW STRUCTURES. REFER TO DETAILS AND SPECIFICATIONS FOR INFORMATION ON FRAMES AND GRATES, COVERS, SHAPE, STYLE AND DIMENSIONS.
32. ALL WORK WITHIN CITY STREET RIGHTS-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH REQUIREMENTS OF THE CITY TRAFFIC ENGINEER. THE CONTRACTOR SHALL SUBMIT A PROPOSED TRAFFIC CONTROL PLAN TO THE TRAFFIC ENGINEER AT LEAST 7 DAYS BEFORE STARTING CONSTRUCTION IN ANY STREET. THE TRAFFIC CONTROL PLAN SHALL BE SUBJECT TO APPROVAL BY THE TRAFFIC ENGINEER, WHO MAY ATTACH SPECIAL CONDITIONS TO, OR REQUIRE MODIFICATIONS OF, THE TRAFFIC CONTROL PLAN. CONSTRUCTION SHALL NOT BEGIN UNTIL THE PLAN IS APPROVED BY THE CITY TRAFFIC ENGINEER.
33. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN ALL NECESSARY BARRIERS, FENCES, LIGHTS, WARNING SIGNS AND OTHER DEVICES NECESSARY TO SAFEGUARD TRAFFIC AND THE PUBLIC DURING WORKING AND NON-WORKING HOURS FOR THE DURATION OF THE PROJECT. SITE SHALL BE LEFT WITH APPROPRIATE SAFETY MEASURES IN PLACE DURING NON-WORKING HOURS. NO TRENCH SHALL BE LEFT OPEN DURING NON-WORKING HOURS. SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR, DURING BOTH WORKING AND NON-WORKING HOURS.
34. IT IS THE CONTRACTORS RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS PRIOR TO BIDDING.

- 35. ON ALL "ALTER", "MODIFY" AND "REMOVE" STRUCTURES, THE CONTRACTOR SHALL REMOVE ABANDONED PIPES OR PLUG AND FILL WITH FLOWABLE FILL.
36. THE COST OF REMOVING EXISTING STRUCTURES AND/OR PIPES SHALL BE INCIDENTAL TO THE COST OF THE REPLACEMENT STRUCTURE AND/OR PIPE WHEN REPLACED IN THE SAME VICINITY. REFER TO SPECIFICATION SECTION 202.08.
37. RESTRICT ACCESS TO SITE THROUGH THE USE OF APPROPRIATE SIGNAGE, BARRIERS, FENCES, ETC. SITE SHALL BE LEFT WITH APPROPRIATE SAFETY MEASURES IN PLACE DURING NON-WORKING HOURS. NO TRENCH SHALL BE LEFT OPEN DURING NON-WORKING HOURS. SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR, DURING BOTH WORKING AND NON-WORKING HOURS.
38. CAPPED PIPE STUB LOCATIONS SHALL BE MARKED WITH EMBEDDED STAKE AND A MINIMUM OF THREE TIES SHOULD BE RECORDED. EMBEDDED STAKE SHALL BE 2X4 WITH PK NAIL DRIVEN IN TOP. LENGTH AS REQUIRED TO SPAN FROM TOP OF PIPE TO 6' BELOW GRADE. LOCATION AND ELEVATION OF PIPE STUB SHALL BE PROVIDED TO THE CITY OF PORTLAND ENGINEERING OFFICE. WARNING TAPE AND WIRE SHALL BE INSTALLED OVER PIPE STUBS IN ACCORDANCE WITH SPECIFICATIONS.
39. THE FOLLOWING SHALL BE INCIDENTAL TO THE 603 & 604 PAY ITEMS: - CUTTING OF PIPE AND/OR CONNECTIONS NECESSARY TO CONSTRUCT NEW STORM DRAIN & SEWER PIPE AND APPURTENANCES - WORK & MATERIALS NECESSARY TO CONNECT NEW OR EXISTING PIPES TO CATCH BASINS OR MANHOLES - CHANGES TO FLOW LINES/PROFILE GRADES/PIPE INVERTS.
40. AT LOCATIONS WHERE EXISTING CATCH BASINS ARE BEING REMOVED AND NEW CATCH BASINS ADDED IN A DIFFERENT LOCATION, CONTRACTOR SHALL REGRADE THE AREA WHERE THE OLD BASIN IS BEING REMOVED TO BLEND IN SMOOTHLY WITH ADJACENT STREET GRADES. AT THE LOCATION OF THE NEW CATCH BASIN, CONTRACTOR SHALL CONSTRUCT APPROPRIATE DEPRESSION PER THE CITY OF PORTLAND DETAILS AND STANDARDS.
41. ALL SIDEWALK CONSTRUCTION SHALL CONFORM TO THE APPROPRIATE ADA/PROWAG STANDARDS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
41.1. WALKWAYS SHALL HAVE A MAXIMUM CROSS SLOPE (PERPENDICULAR TO THE DIRECTION OF TRAVEL) OF 2% AND A MAXIMUM LONGITUDINAL SLOPE (ALONG THE DIRECTION OF TRAVEL) OF 5%, UNLESS LONGITUDINAL SLOPE OF ROADWAY IS STEEPER.
41.2. CURB RAMPS MAY HAVE A RUNNING SLOPE OF UP TO 8% (1" PER FOOT), BUT ARE NOT REQUIRED TO EXCEED 15' IN LENGTH. WHERE 8% RUNNING SLOPE IS NOTE POSSIBLE, CURB STONES ARE TO BE SET TO PROVIDE CONSTANT SLOPE OVER 15', ALONG TOP-OF-CURB. FROM FULL CURB REVEAL TO FLUSH CURB.
41.3. LANDING AREAS SHALL HAVE A MAXIMUM SLOPE OF 2% IN ALL DIRECTIONS.
41.4. IF THE CONTRACTOR DETERMINES THAT THE ABOVE STANDARDS ARE NOT COMPATIBLE WITH SITE CONDITIONS THEY SHALL CONTACT THE ENGINEER/RESIDENT INSPECTOR UPON DISCOVERY AND REQUEST GUIDANCE. INSTALLATION OF A RAMP OR SIDEWALK SEGMENT WITHOUT GUIDANCE FROM AND APPROVAL OF ENGINEER/RESIDENT, AND WHICH DOES NOT MEET ADA STANDARDS WILL NOT BE ACCEPTED.
41.5. CONTRACTOR TO FIELD VERIFY LIMITS OF WORK AND GRADING OF DRIVEWAYS WITH ENGINEER/RESIDENT INSPECTOR PRIOR TO BEGINNING WORK. SAW CUTS TO BE MARKED OUT AND VERIFIED WITH ENGINEERING PRIOR TO CUTTING.

TEMPORARY EROSION CONTROL MEASURES

- 1. MAINTENANCE OF EROSION CONTROL MEASURES IS OF PARAMOUNT IMPORTANCE TO THE CITY. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTIONS OF THE CITY OR THEIR REPRESENTATIVES AT NO ADDITIONAL COST TO THE CITY.
2. LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE THAT CAUSES THE LEAST PRACTICAL DISTURBANCE OF THE SITE.
3. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL INSTALL EROSION CONTROL BMPs FOR ALL STORM DRAIN INLETS IN THE VICINITY OF THE WORK ZONE AS SHOWN IN THE DETAILS.
4. SILTATION FENCE SHALL BE INSTALLED DOWN GRADIENT OF ANY DISTURBED AREAS TO TRAP RUNOFF-BORNE SEDIMENTS UNTIL GRASS AREAS ARE REVEGETATED. THE SILT FENCE SHALL BE INSTALLED PER THE DETAILS PROVIDED ON THIS PLAN AND INSPECTED BEFORE AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE LINE. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM.
5. FOR WORK WHICH IS CONDUCTED BETWEEN SEPTEMBER 15TH AND APRIL 15TH OF ANY CALENDAR YEAR, ALL DISTURBED AREAS, SHALL BE COVERED WITH HAY MULCH OR EROSION CONTROL MIX, APPLIED AT TWICE THE NORMAL APPLICATION RATE AND ANCHORED WITH A FABRIC NETTING. THE TIME PERIOD FOR APPLYING MULCH SHALL BE LIMITED TO 7 DAYS FOR ALL AREAS.
6. PUBLIC WAYS SHALL BE SWEEPED, AS NECESSARY, TO CONTROL MUD AND DUST.
7. SILT FENCING WITH A MINIMUM STAKE SPACING OF 6 FEET SHOULD BE USED, UNLESS THE FENCE IS SUPPORTED BY WIRE FENCE REINFORCEMENT OF MINIMUM 14 GAUGE AND WITH A MAXIMUM MESH SPACING OF 6 INCHES, IN WHICH CASE STAKES MAY BE SPACED A MAXIMUM OF 10 FEET APART. THE BOTTOM OF THE FENCE SHALL BE EMBEDDED IN A SOIL TRENCH.
8. WATER AND/OR CALCIUM CHLORIDE SHALL BE FURNISHED AND APPLIED IN ACCORDANCE WITH MAINE DOT SPECIFICATIONS - SECTION 637 - DUST CONTROL.
9. LOAM AND SEED IS INTENDED TO SERVE AS THE PRIMARY PERMANENT REVEGETATIVE MEASURE FOR ALL DISTURBED AREAS NOT PROVIDED WITH OTHER EROSION CONTROL MEASURES, SUCH AS RIPRAP.

WATER RESOURCES - ENGINEERING/SEWER-STORM INVESTIGATION/2025-2028 NEIGHBORHOOD SO & SEWER REPAIR CONTRACT/2025-2028 NEIGHBORHOOD DRAINAGE AND SEWER CONTRACT DWG G-01 7/22/2025



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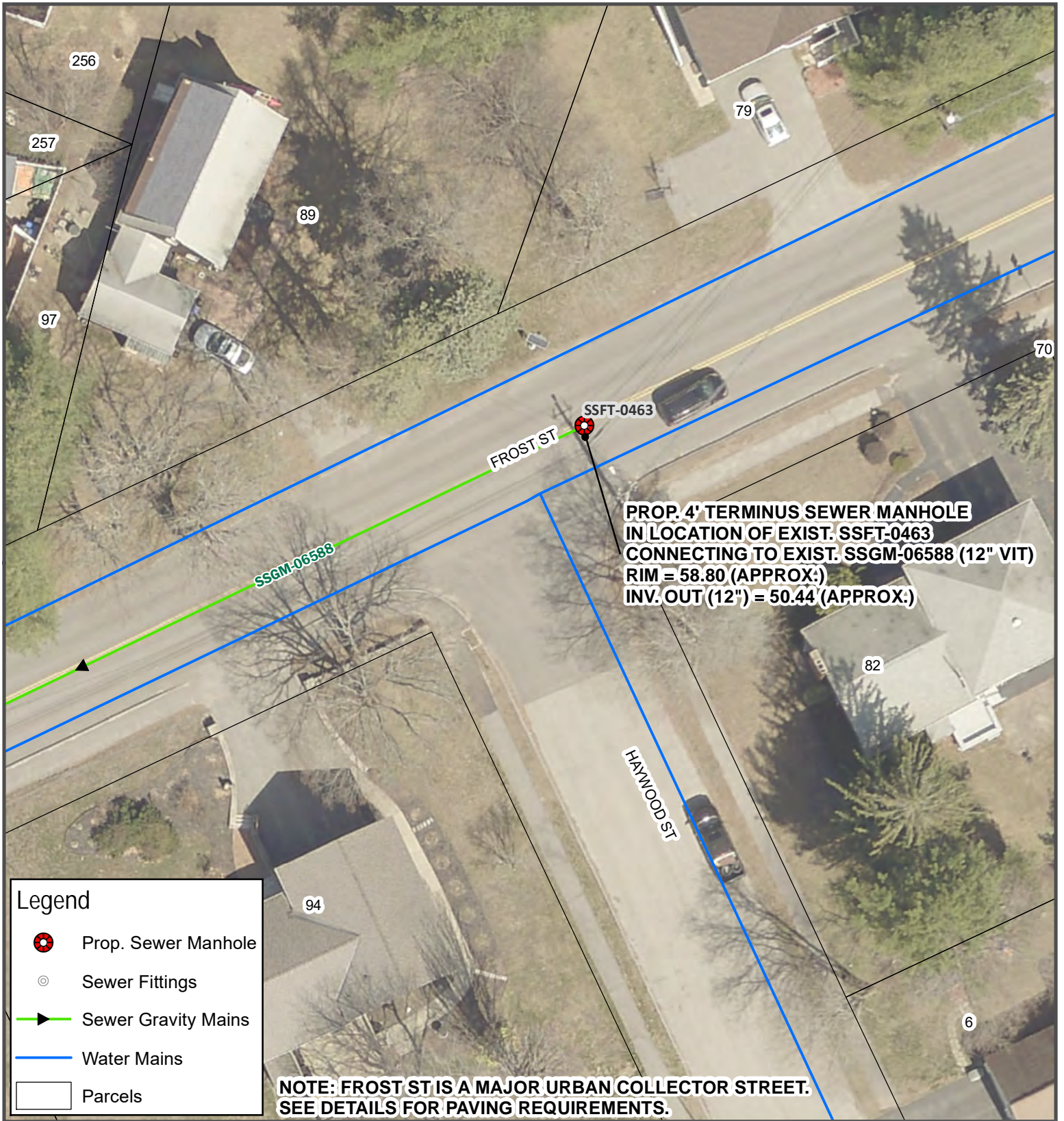
PROJECT NAME: 2025-2028 NEIGHBORHOOD DRAINAGE AND SEWER SYSTEM REPAIR CONTRACT
CITY OF PORTLAND, MAINE
DEPARTMENT OF PUBLIC WORKS
WATER RESOURCES DIVISION
212 CANCO ROAD, SUITE B, PORTLAND, MAINE 04103
PHONE (207) 874-8846








DESIGN BY: RHA
DRAWN BY: RHA
CHECKED BY: JRP
SHEET NAME:

GENERAL NOTES

DATE: 7/22/2025
PAGE 2 OF 21
SHEET NO.: G-01 REV:
VAULT # 01051_003



Legend

-  Prop. Sewer Manhole
-  Sewer Fittings
-  Sewer Gravity Mains
-  Water Mains
-  Parcels

NOTE: FROST ST IS A MAJOR URBAN COLLECTOR STREET. SEE DETAILS FOR PAVING REQUIREMENTS.



CITY OF PORTLAND, MAINE
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2025-2028 NEIGHBORHOOD
 DRAINAGE AND SEWER
 SYSTEM REPAIR CONTRACT

**FROST ST
 TERMINUS MANHOLE**

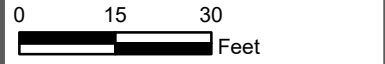
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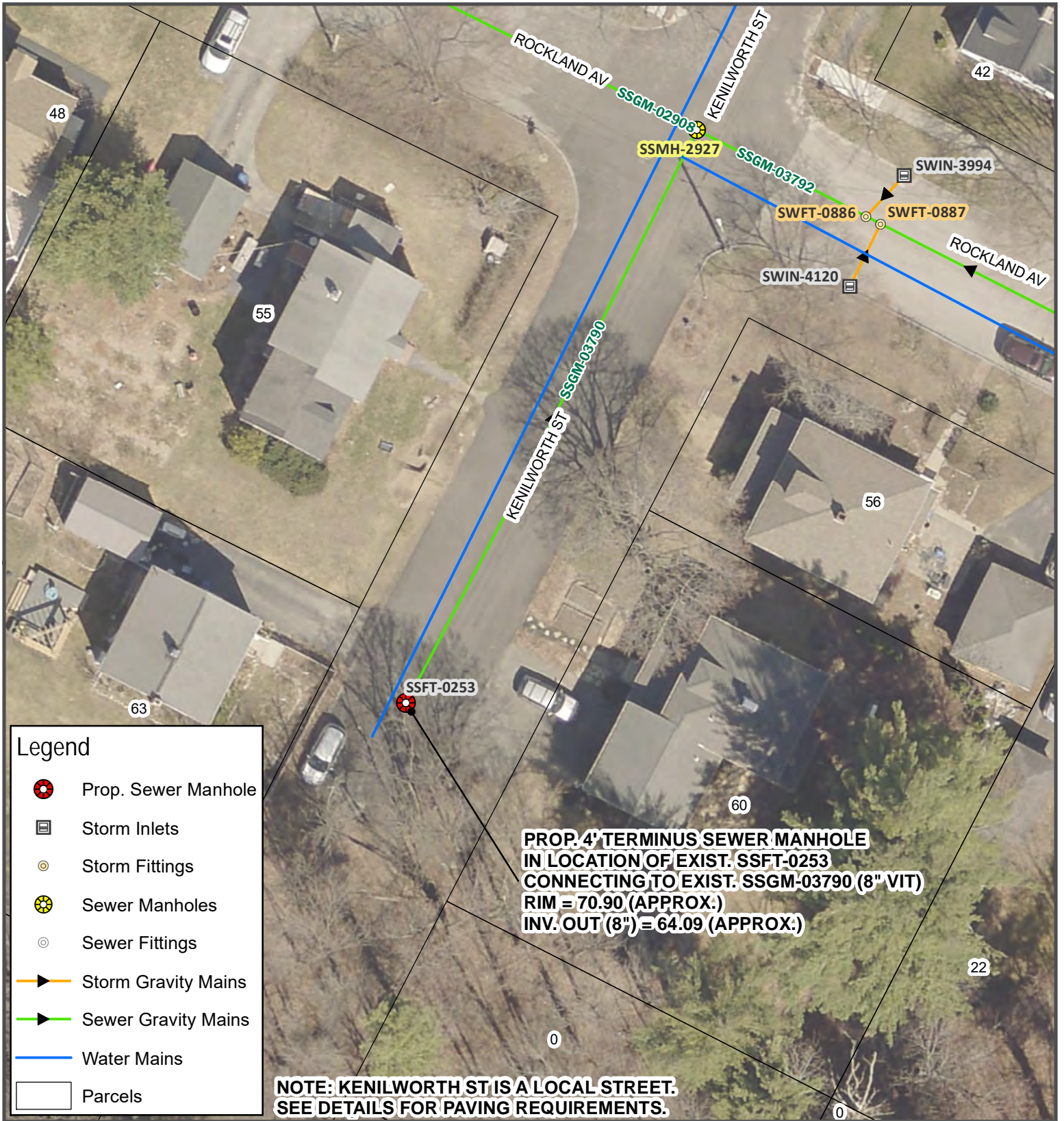


PROJECT ID
SS-01

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 JULY 2025

DESIGN BY: RHA | DRAWN BY: RHA | CHECK BY: JRP





Legend

- Prop. Sewer Manhole
- Storm Inlets
- Storm Fittings
- Sewer Manholes
- Sewer Fittings
- Storm Gravity Mains
- Sewer Gravity Mains
- Water Mains
- Parcels

**PROP. 4' TERMINUS SEWER MANHOLE
 IN LOCATION OF EXIST. SSFT-0253
 CONNECTING TO EXIST. SSGM-03790 (8" VIT)
 RIM = 70.90 (APPROX.)
 INV. OUT (8") = 64.09 (APPROX.)**

**NOTE: KENILWORTH ST IS A LOCAL STREET.
 SEE DETAILS FOR PAVING REQUIREMENTS.**



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2025-2028 NEIGHBORHOOD
 DRAINAGE AND SEWER
 SYSTEM REPAIR CONTRACT
**KENILWORTH ST
 TERMINUS MANHOLE**

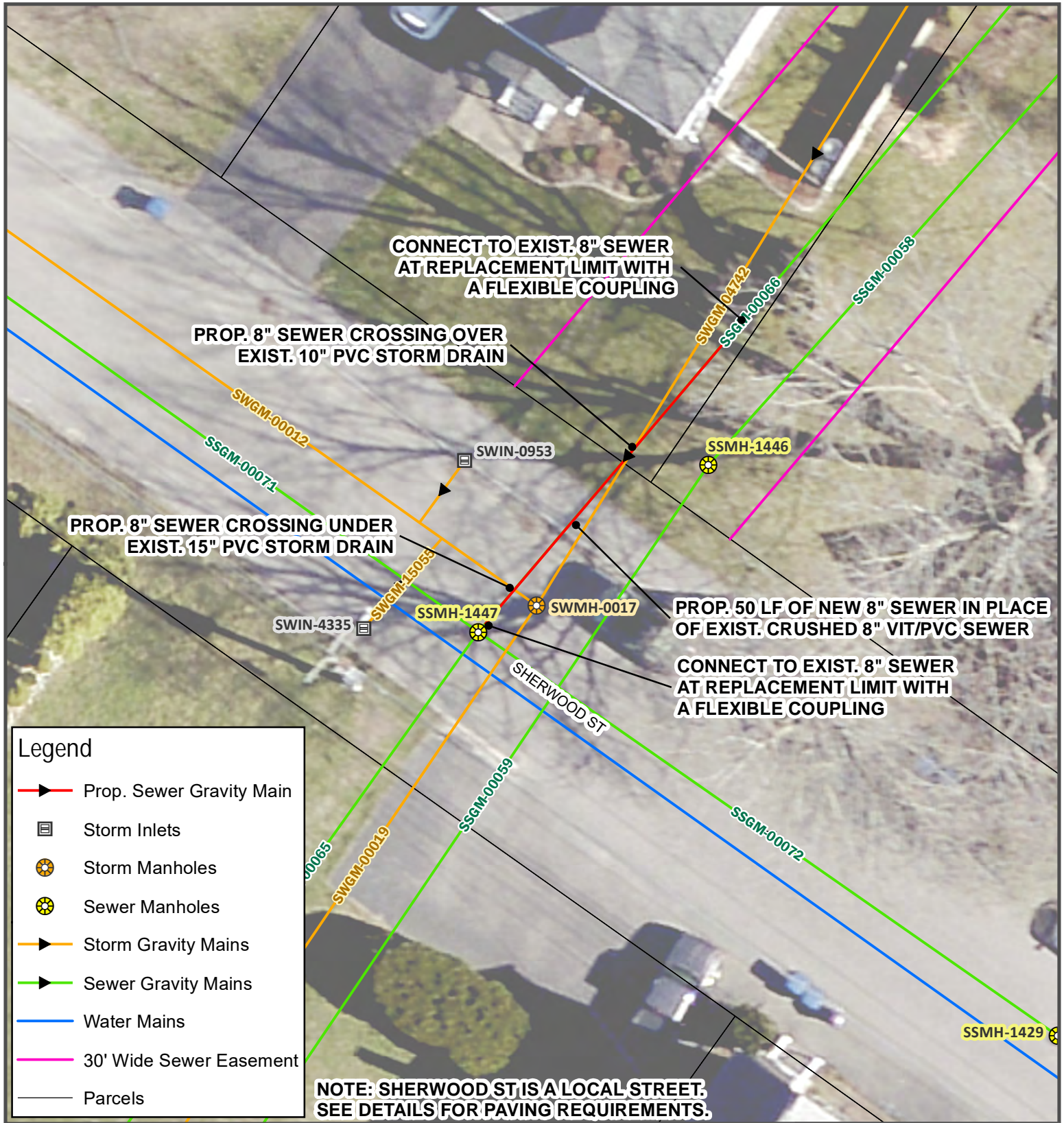
REV	SUBMISSION	DATE



**PROJECT ID
 SS-02**
 PAGE 4 OF 21
 JULY 2025

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0 15 30
 Feet



Legend

- ▶ Prop. Sewer Gravity Main
- Storm Inlets
- Storm Manholes
- Sewer Manholes
- ▶ Storm Gravity Mains
- ▶ Sewer Gravity Mains
- ▶ Water Mains
- 30' Wide Sewer Easement
- Parcels

NOTE: SHERWOOD ST IS A LOCAL STREET. SEE DETAILS FOR PAVING REQUIREMENTS.



2025-2028 NEIGHBORHOOD DRAINAGE AND SEWER SYSTEM REPAIR CONTRACT

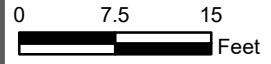
SHERWOOD ST SEWER REPLACEMENT

A	CONSTRUCTION DRAWING	5/12/2026
REV	SUBMISSION	DATE

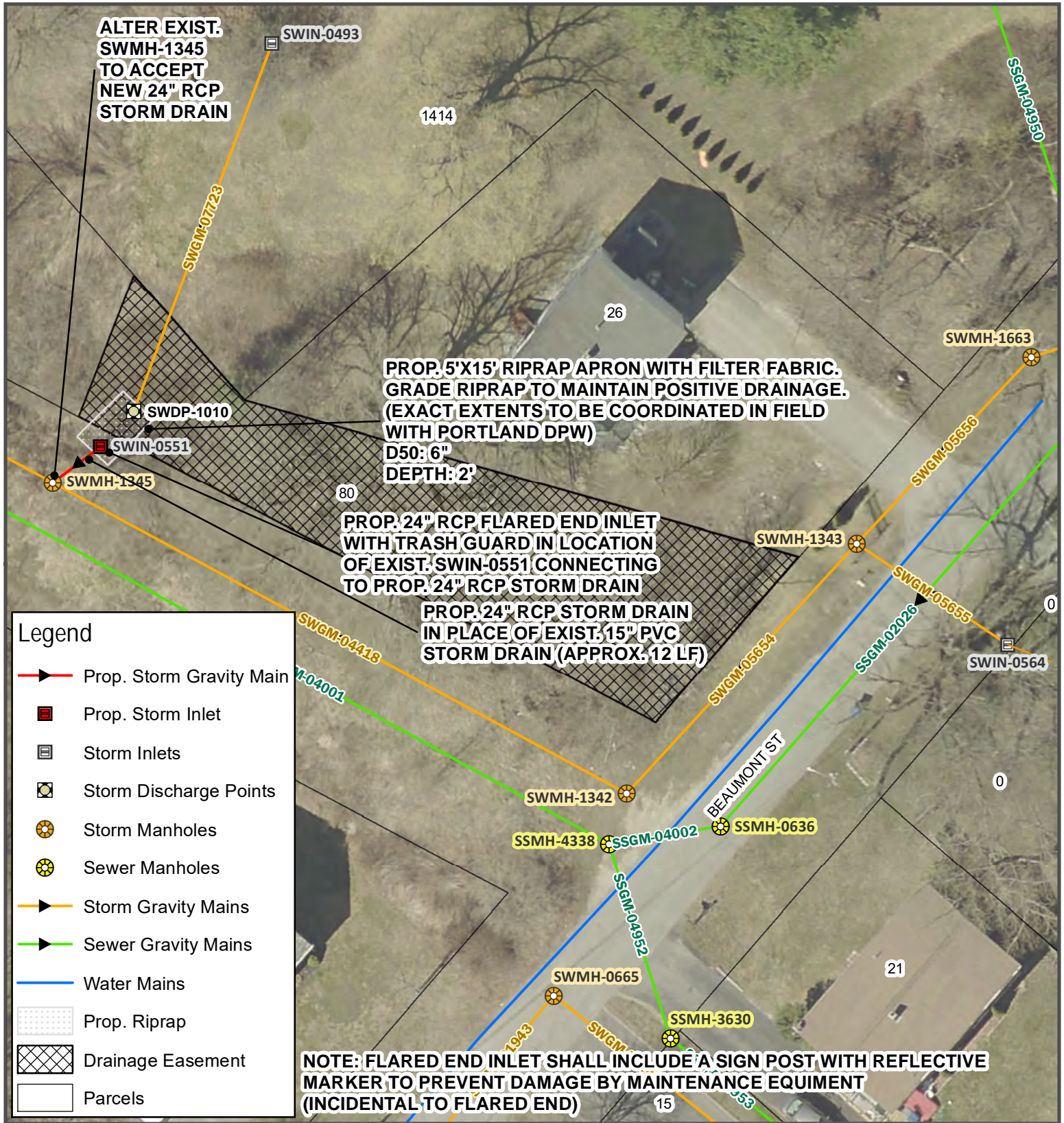


PROJECT ID
SS-03
 PAGE 5 OF 21
 JULY 2025

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Legend

- ▶ Prop. Storm Gravity Main
- Prop. Storm Inlet
- Storm Inlets
- Storm Discharge Points
- Storm Manholes
- Sewer Manholes
- ▶ Storm Gravity Mains
- ▶ Sewer Gravity Mains
- ▶ Water Mains
- Prop. Riprap
- Drainage Easement
- Parcels

NOTE: FLARED END INLET SHALL INCLUDE A SIGN POST WITH REFLECTIVE MARKER TO PREVENT DAMAGE BY MAINTENANCE EQUIPMENT (INCIDENTAL TO FLARED END)



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2025-2028 NEIGHBORHOOD
 DRAINAGE AND SEWER
 SYSTEM REPAIR CONTRACT
**BEAUMONT ST INLET
 IMPROVEMENTS**

REV	SUBMISSION	DATE

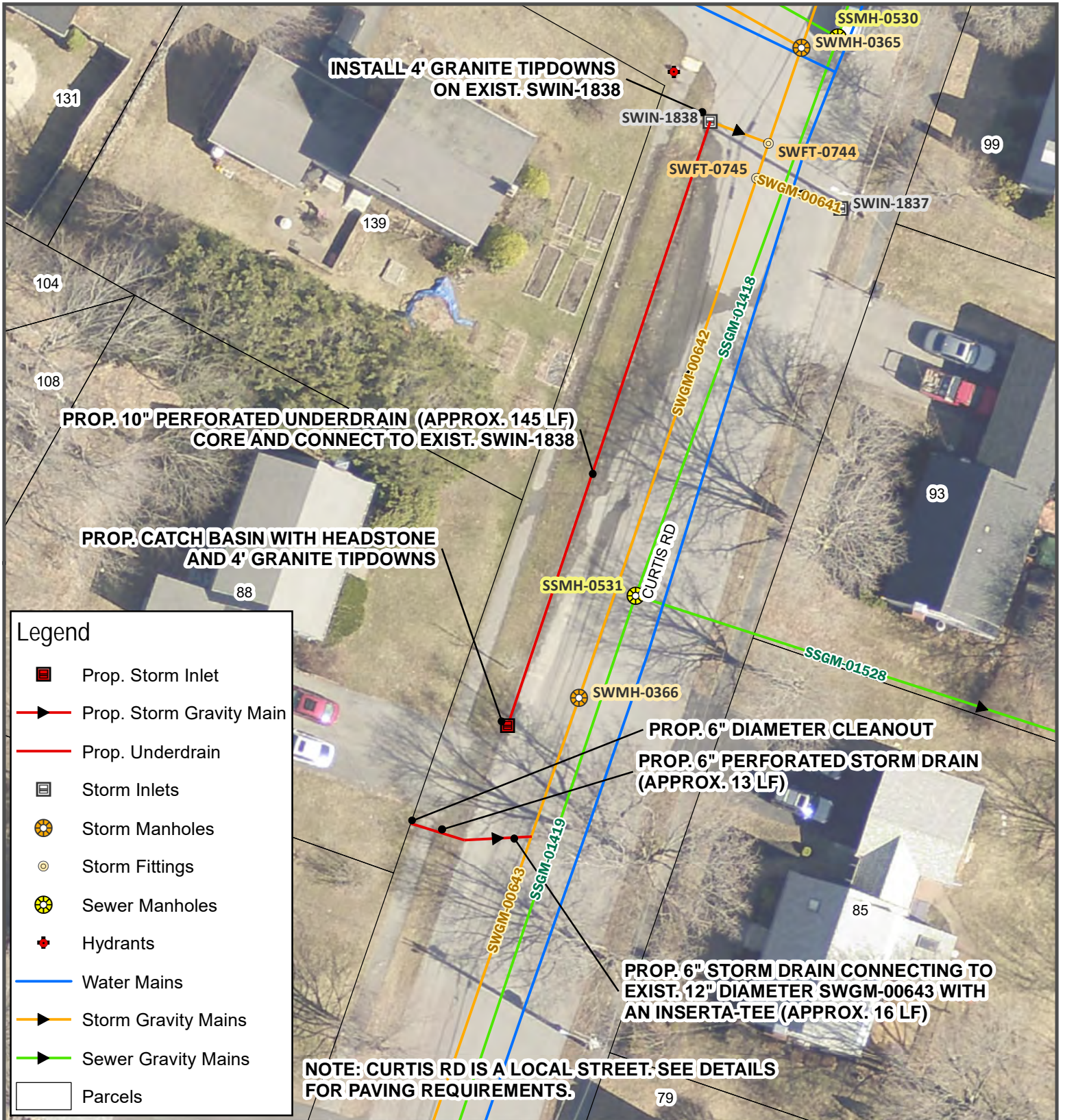


PROJECT ID
SW-01

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DESIGN BY: RHA | DRAWN BY: RHA | CHECK BY: JRP

0 15 30
 Feet



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2025-2028 NEIGHBORHOOD
 DRAINAGE AND SEWER
 SYSTEM REPAIR CONTRACT

**CURTIS RD
 UNDERDRAIN**

REV	SUBMISSION	DATE



PROJECT ID
SW-02

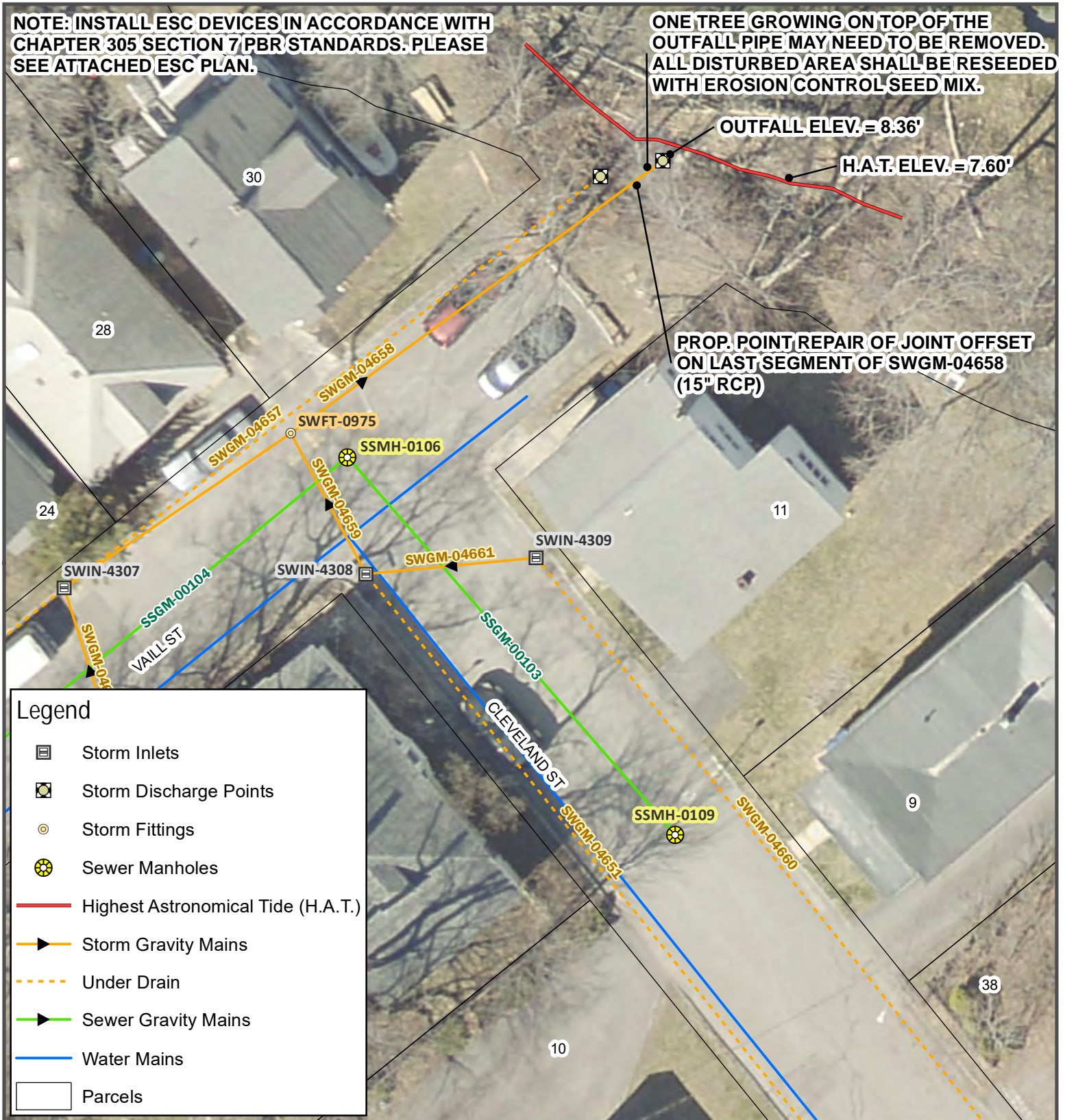
PAGE 7 OF 21
 JULY 2025

DESIGN BY: RHA | DRAWN BY: RHA | CHECK BY: JRP

0 15 30
 Feet

NOTE: INSTALL ESC DEVICES IN ACCORDANCE WITH CHAPTER 305 SECTION 7 PBR STANDARDS. PLEASE SEE ATTACHED ESC PLAN.

ONE TREE GROWING ON TOP OF THE OUTFALL PIPE MAY NEED TO BE REMOVED. ALL DISTURBED AREA SHALL BE RESEED WITH EROSION CONTROL SEED MIX.



Legend

- Storm Inlets
- Storm Discharge Points
- Storm Fittings
- Sewer Manholes
- Highest Astronomical Tide (H.A.T.)
- Storm Gravity Mains
- Under Drain
- Sewer Gravity Mains
- Water Mains
- Parcels



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DEPT. OF PUBLIC WORKS
212 CANCO ROAD, PORTLAND, MAINE 04103
PHONE (207) 874-8846 FAX (207) 874-8852

2025-2028 NEIGHBORHOOD
DRAINAGE AND SEWER
SYSTEM REPAIR CONTRACT

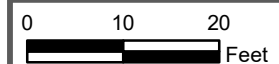
VAILL ST
POINT REPAIR

A	PERMITTING	3/16/2026
REV	SUBMISSION	DATE

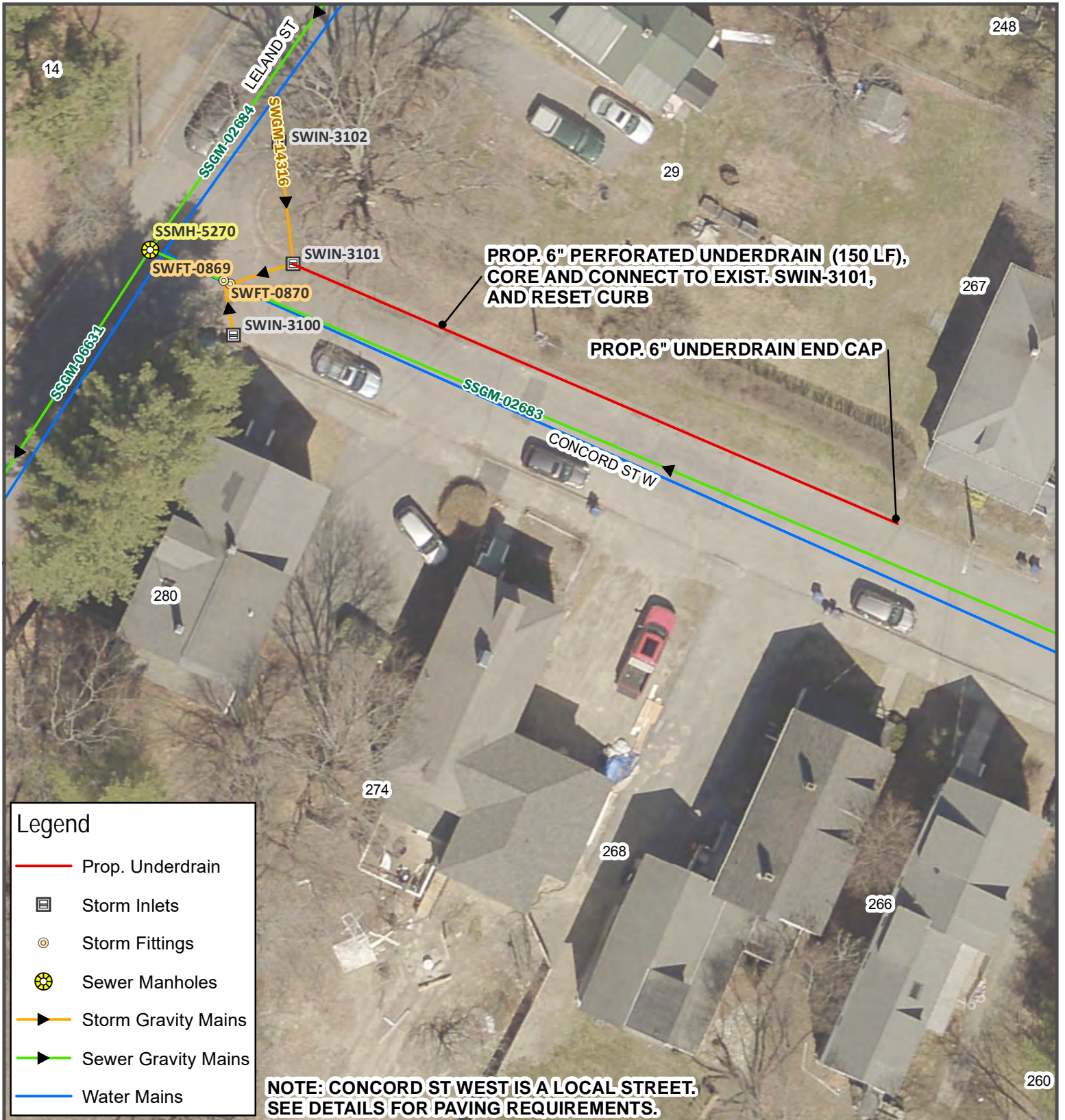


PROJECT ID
SW-03
PAGE 8 OF 21
MARCH 2026

DESIGN BY: RHA | DRAWN BY: RHA | CHECK BY: JRP



VAULT #: 01051_003



Legend

- Prop. Underdrain
- Storm Inlets
- Storm Fittings
- Sewer Manholes
- ▶ Storm Gravity Mains
- ▶ Sewer Gravity Mains
- ▶ Water Mains

NOTE: CONCORD ST WEST IS A LOCAL STREET. SEE DETAILS FOR PAVING REQUIREMENTS.



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2025-2028 NEIGHBORHOOD
 DRAINAGE AND SEWER
 SYSTEM REPAIR CONTRACT
**CONCORD ST WEST
 UNDERDRAIN**

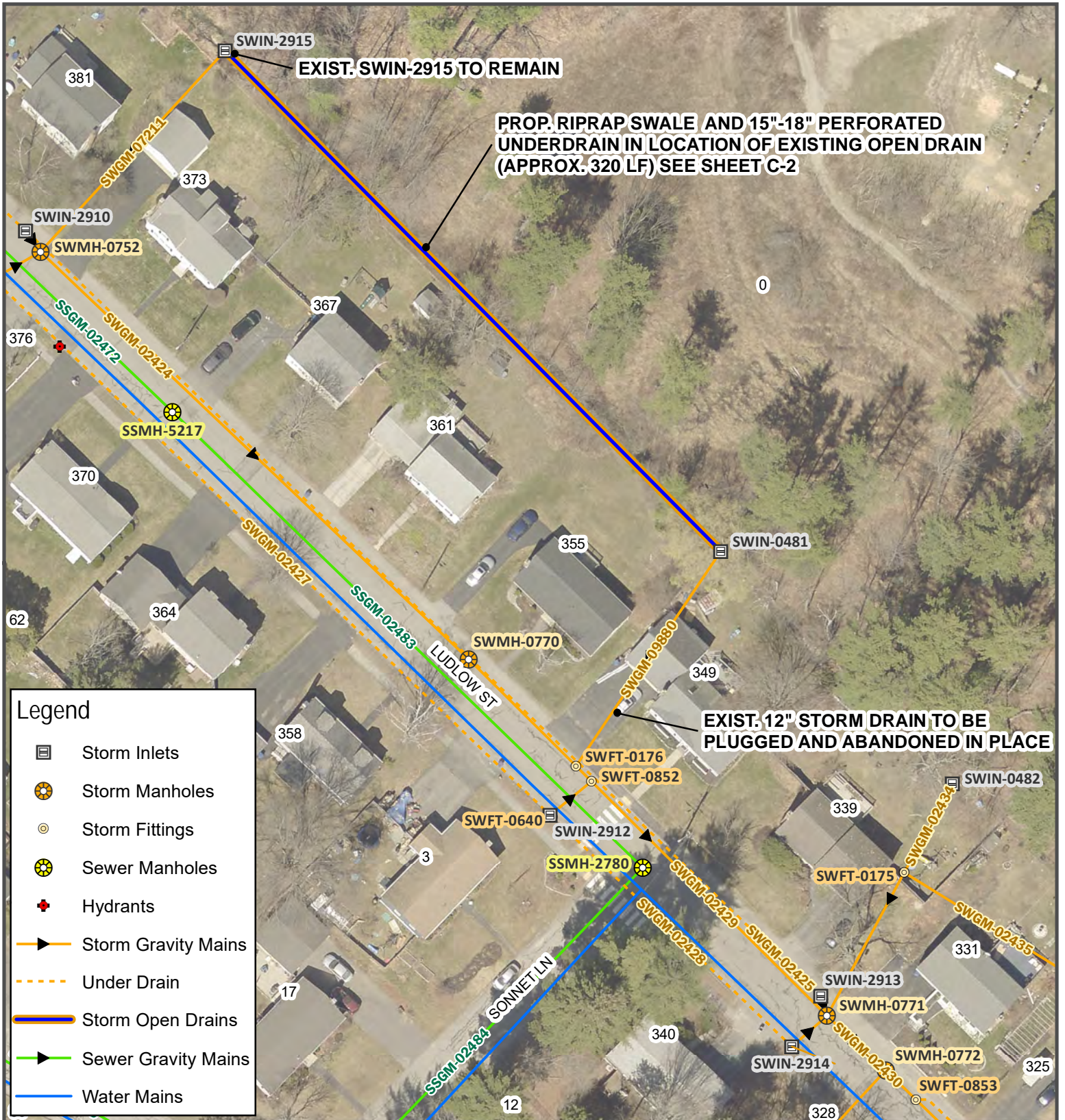
REV	SUBMISSION	DATE



PROJECT ID
SW-04
 PAGE 9 OF 21
 JULY 2025

DESIGN BY: RHA | DRAWN BY: RHA | CHECK BY: JRP

0 15 30
 Feet



Legend

- Storm Inlets
- Storm Manholes
- Storm Fittings
- Sewer Manholes
- Hydrants
- Storm Gravity Mains
- Under Drain
- Storm Open Drains
- Sewer Gravity Mains
- Water Mains



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2025-2028 NEIGHBORHOOD
 DRAINAGE AND SEWER
 SYSTEM REPAIR CONTRACT
**LUDLOW ST SWALE
 IMPROVEMENTS**

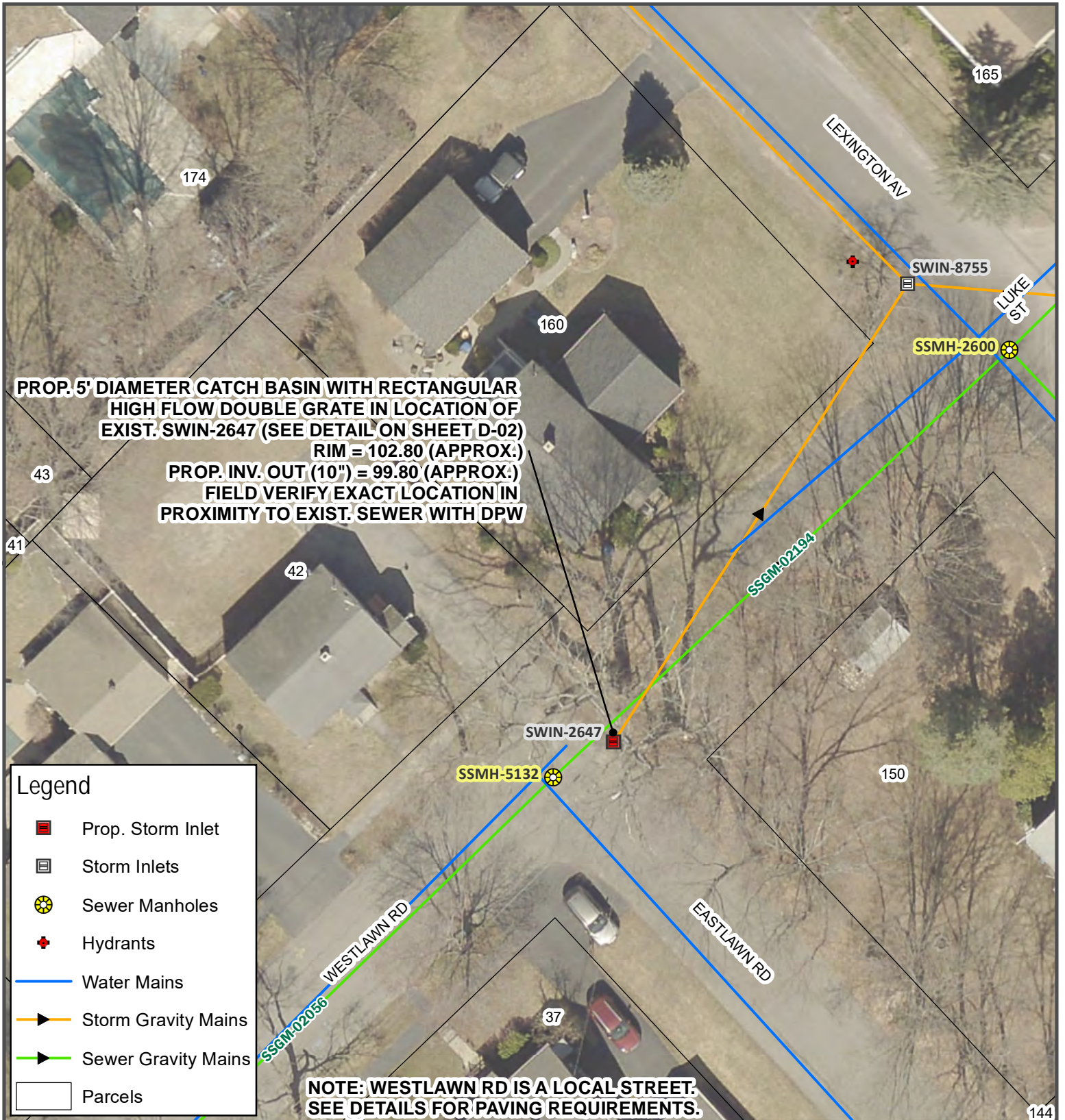
REV	SUBMISSION	DATE



PROJECT ID
SW-06
 PAGE 11 OF 21
 JULY 2025

DESIGN BY: RHA | DRAWN BY: RHA | CHECK BY: JRP

0 30 60
 Feet



PROP. 5' DIAMETER CATCH BASIN WITH RECTANGULAR HIGH FLOW DOUBLE GRATE IN LOCATION OF EXIST. SWIN-2647 (SEE DETAIL ON SHEET D-02)
RIM = 102.80 (APPROX.)
PROP. INV. OUT (10") = 99.80 (APPROX.)
FIELD VERIFY EXACT LOCATION IN PROXIMITY TO EXIST. SEWER WITH DPW

Legend

- Prop. Storm Inlet
- Storm Inlets
- Sewer Manholes
- Hydrants
- Water Mains
- Storm Gravity Mains
- Sewer Gravity Mains
- Parcels

NOTE: WESTLAWN RD IS A LOCAL STREET. SEE DETAILS FOR PAVING REQUIREMENTS.



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2025-2028 NEIGHBORHOOD DRAINAGE AND SEWER SYSTEM REPAIR CONTRACT
WESTLAWN RD INLET IMPROVEMENTS

REV	SUBMISSION	DATE



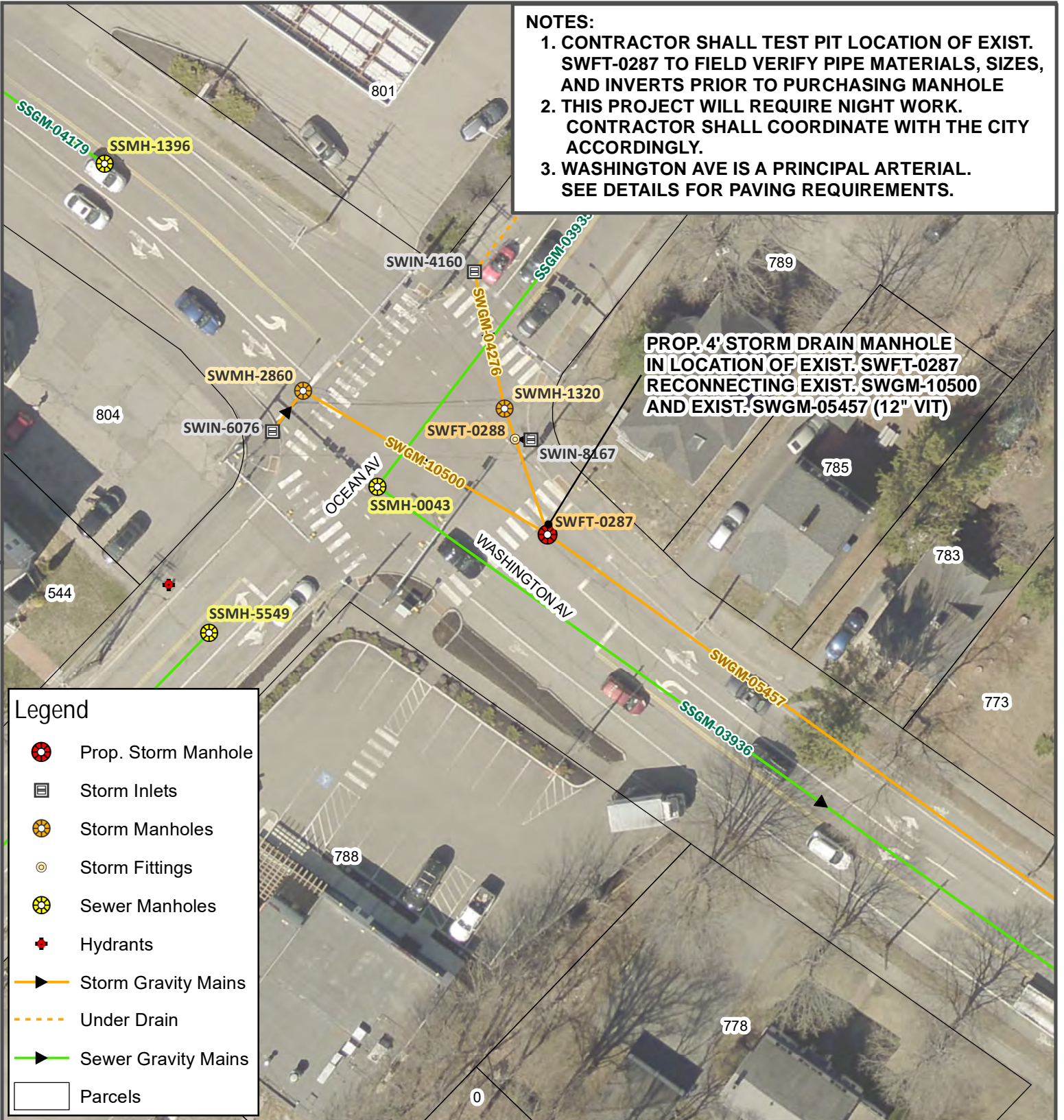
PROJECT ID
SW-07
 PAGE 12 OF 21
 JULY 2025

DESIGN BY: RHA | DRAWN BY: RHA | CHECK BY: JRP

0 15 30
 Feet

NOTES:

1. CONTRACTOR SHALL TEST PIT LOCATION OF EXIST. SWFT-0287 TO FIELD VERIFY PIPE MATERIALS, SIZES, AND INVERTS PRIOR TO PURCHASING MANHOLE
2. THIS PROJECT WILL REQUIRE NIGHT WORK. CONTRACTOR SHALL COORDINATE WITH THE CITY ACCORDINGLY.
3. WASHINGTON AVE IS A PRINCIPAL ARTERIAL. SEE DETAILS FOR PAVING REQUIREMENTS.



Legend

- Prop. Storm Manhole
- Storm Inlets
- Storm Manholes
- Storm Fittings
- Sewer Manholes
- Hydrants
- Storm Gravity Mains
- Under Drain
- Sewer Gravity Mains
- Parcels



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2025-2028 NEIGHBORHOOD
DRAINAGE AND SEWER
SYSTEM REPAIR CONTRACT

**WASHINGTON AVE
DRAIN MANHOLE**

REV	SUBMISSION	DATE



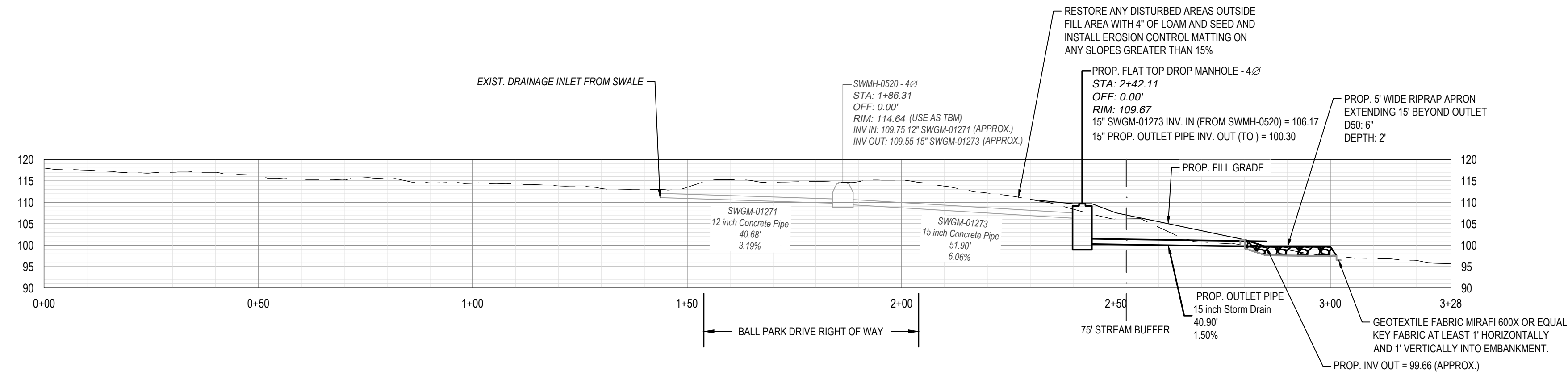
**PROJECT ID
SW-08**

PAGE 13 OF 21
JULY 2025

DESIGN BY: RHA | DRAWN BY: RHA | CHECK BY: JRP

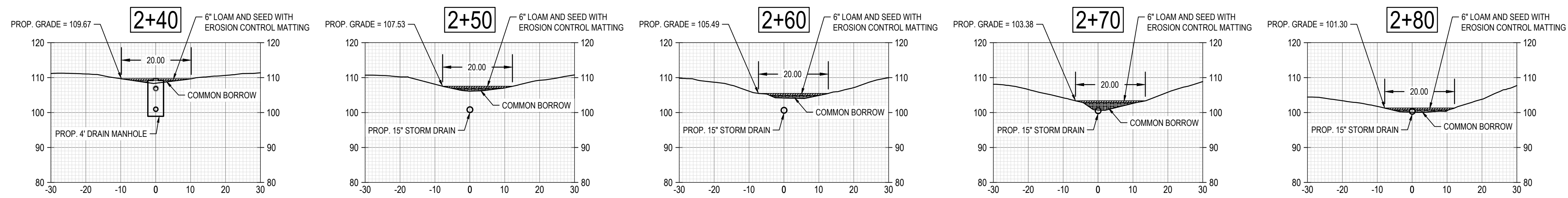


NOTES:
 1. ANY TREE LINE CLEARING OR GRUBBING REQUIRED TO INSTALL THE STORM DRAIN, RIPRAP APRON, AND REGRADE THE SITE SHALL BE INCIDENTAL TO WORK. ANY TREES GREATER THAN 12" DBH THAT ARE REQUIRED TO BE REMOVED SHALL BE PAID UNDER BID ITEM 201.24. REMOVAL OF TREES SHALL BE LIMITED TO THE EXTENT PRACTICABLE. ALL CLEARING WORK AND TREE REMOVAL SHALL BE COORDINATED WITH THE CITY ARBORIST.



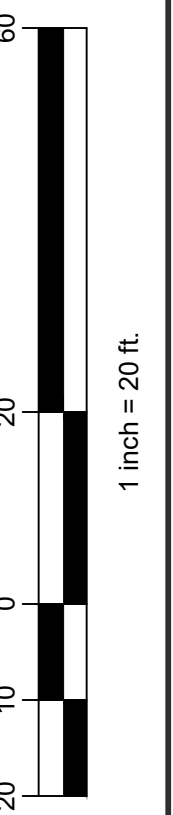
STORM DRAIN MANHOLE AND OUTLET PIPE PROFILE

HORIZONTAL SCALE: 1"=20'
 VERTICAL SCALE: 1"=20'



STORM DRAIN MANHOLE AND OUTLET PIPE FILL SECTIONS

HORIZONTAL SCALE: 1"=20'
 VERTICAL SCALE: 1"=20'



REV	SUBMISSION	DATE

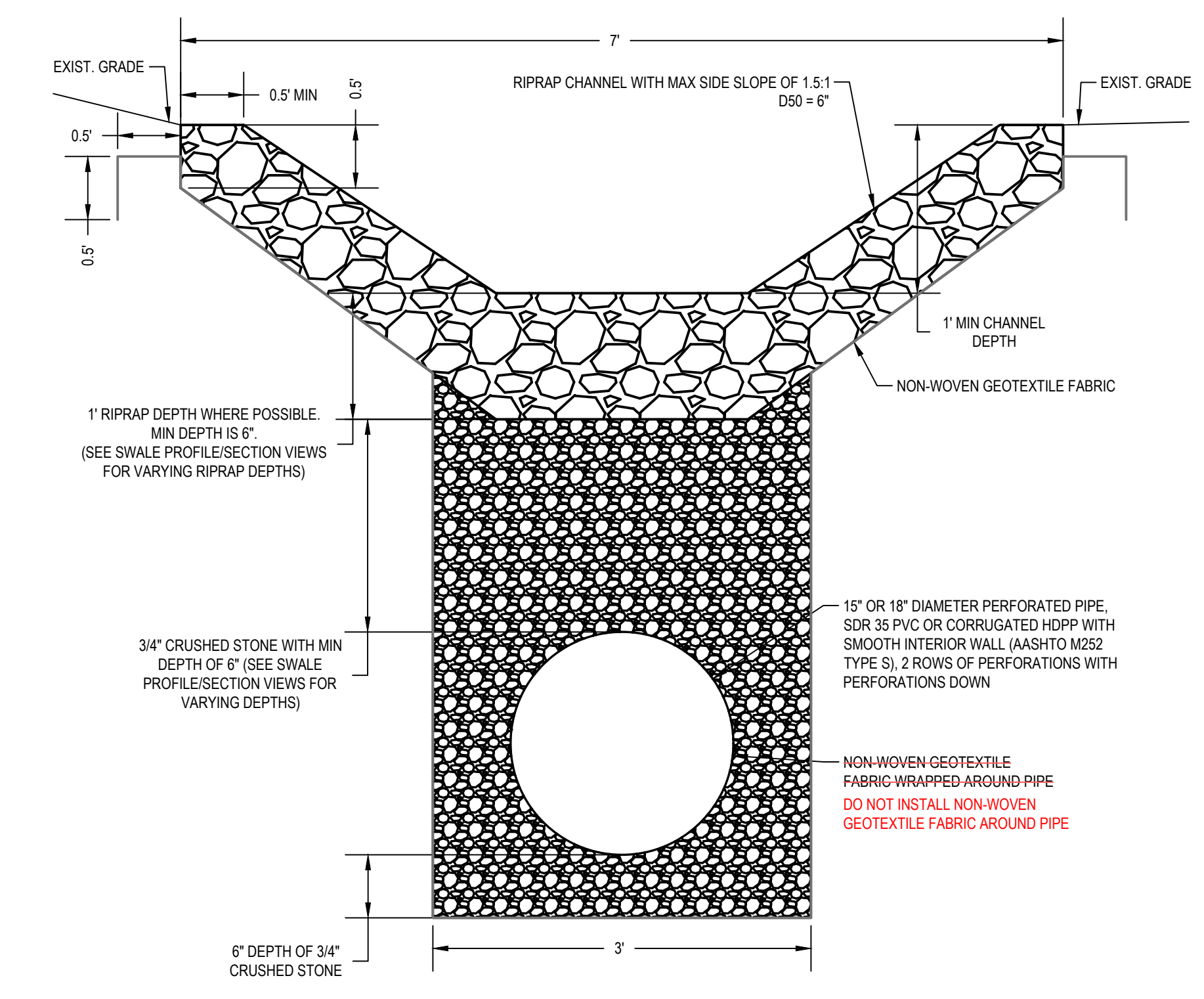
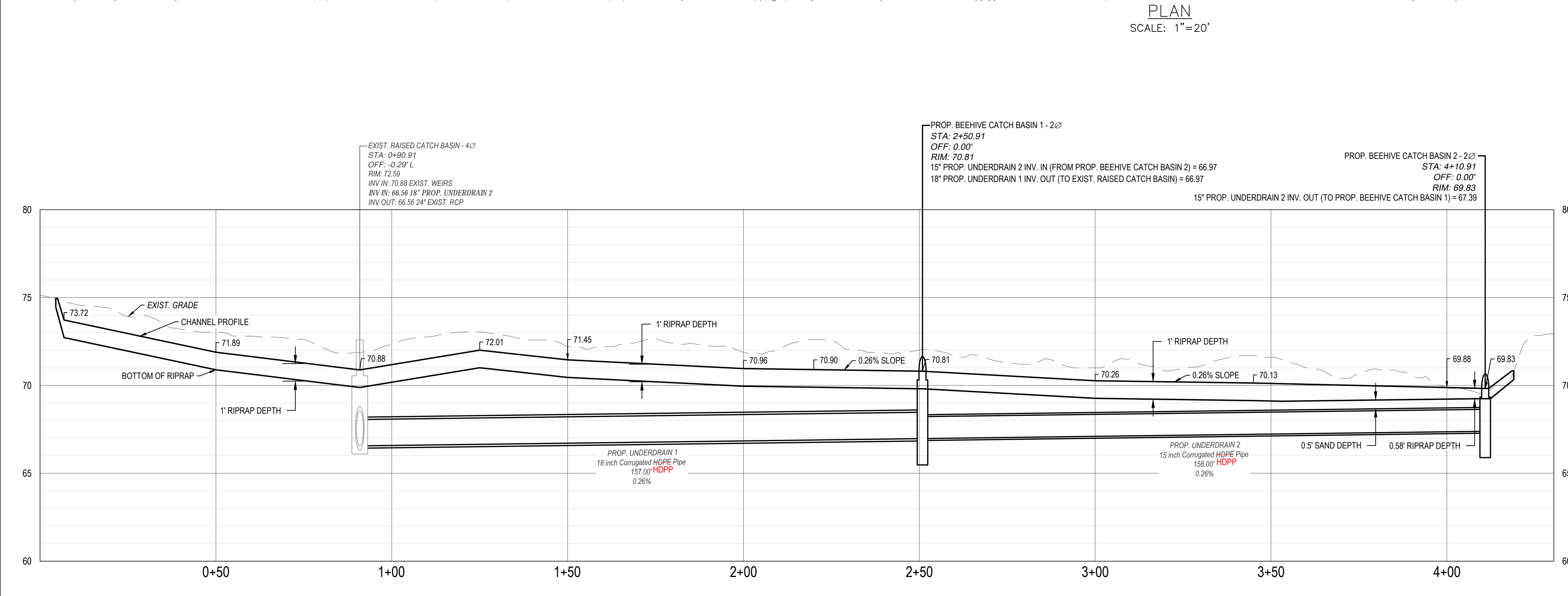
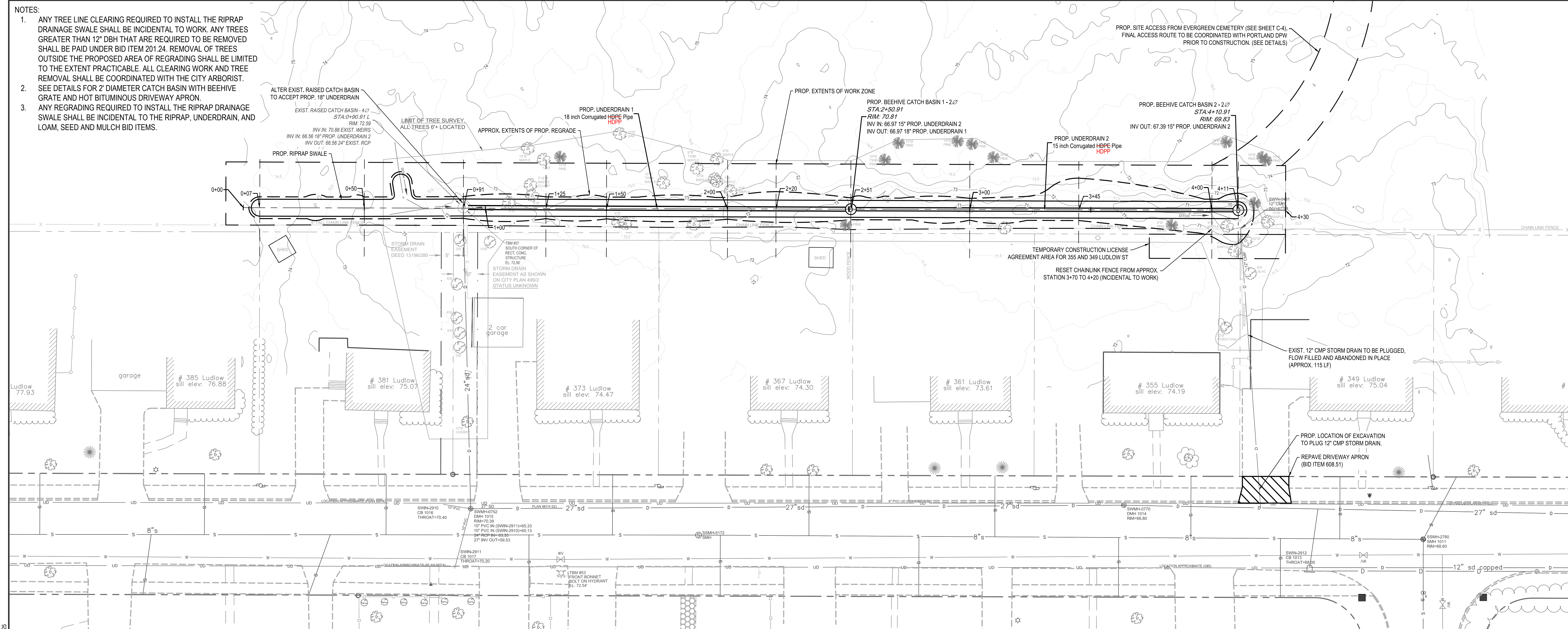
PROJECT NAME:
 2025-2028 NEIGHBORHOOD DRAINAGE AND SEWER SYSTEM REPAIR CONTRACT
 CITY OF PORTLAND, MAINE
 DEPARTMENT OF PUBLIC WORKS
 WATER RESOURCES DIVISION
 212 CANCO ROAD, SUITE B, PORTLAND, MAINE 04103
 PHONE (207) 874-8886



DESIGN BY:	RHA
DRAWN BY:	RHA
CHECKED BY:	JRP
SHEET NAME:	BALL PARK DR OUTFALL REPAIR (SW-05)
DATE:	7/22/2025
PAGE	14 OF 21
SHEET NO.:	C-01
VAULT #	01051_003

S:\WATER RESOURCES - ENGINEERING\SEWER\STORM INVESTIGATION\2025-2028 NEIGHBORHOOD SD & SEWER REPAIR CONTRACT\CAD\2024\10 BALL PARK DR DWG C-01 7/22/2025

- NOTES:
1. ANY TREE LINE CLEARING REQUIRED TO INSTALL THE RIPRAP DRAINAGE SWALE SHALL BE INCIDENTAL TO WORK. ANY TREES GREATER THAN 12" DBH THAT ARE REQUIRED TO BE REMOVED SHALL BE PAID UNDER BID ITEM 201.24. REMOVAL OF TREES OUTSIDE THE PROPOSED AREA OF REGRADING SHALL BE LIMITED TO THE EXTENT PRACTICABLE. ALL CLEARING WORK AND TREE REMOVAL SHALL BE COORDINATED WITH THE CITY ARBORIST.
 2. SEE DETAILS FOR 2" DIAMETER CATCH BASIN WITH BEEHIVE GRATE AND HOT BITUMINOUS DRIVEWAY APRON.
 3. ANY REGRADING REQUIRED TO INSTALL THE RIPRAP DRAINAGE SWALE SHALL BE INCIDENTAL TO THE RIPRAP, UNDERDRAIN, AND LOAM, SEED AND MULCH BID ITEMS.



60
20
0
20
20

1 inch = 20 ft.

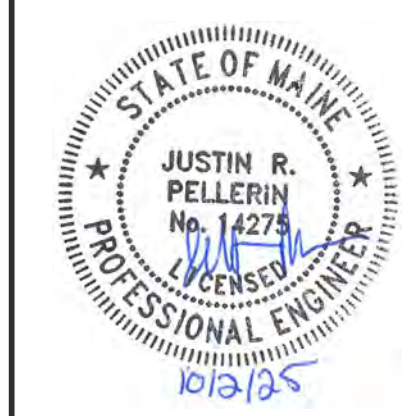
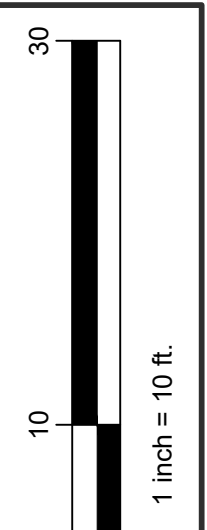
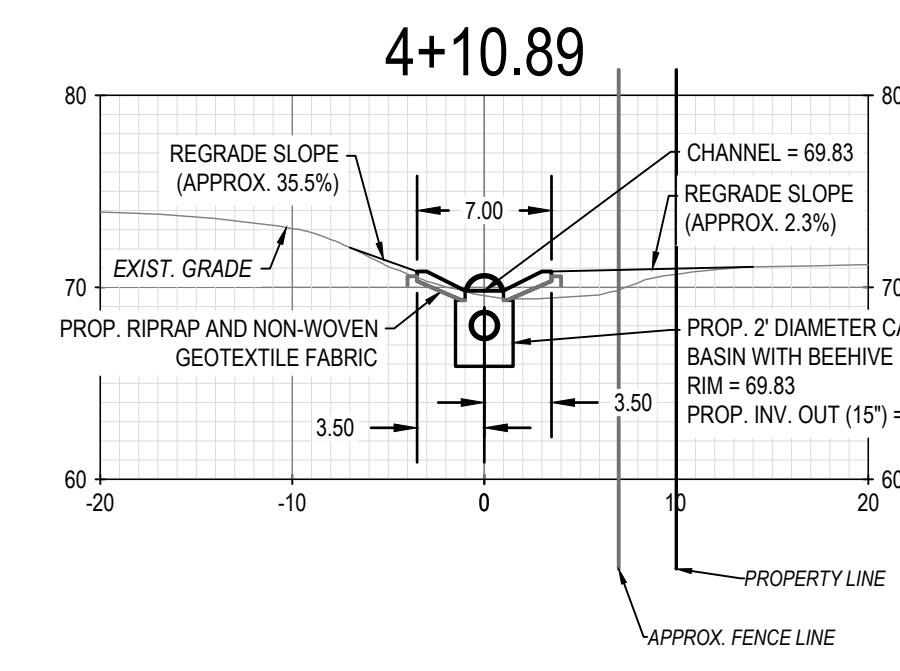
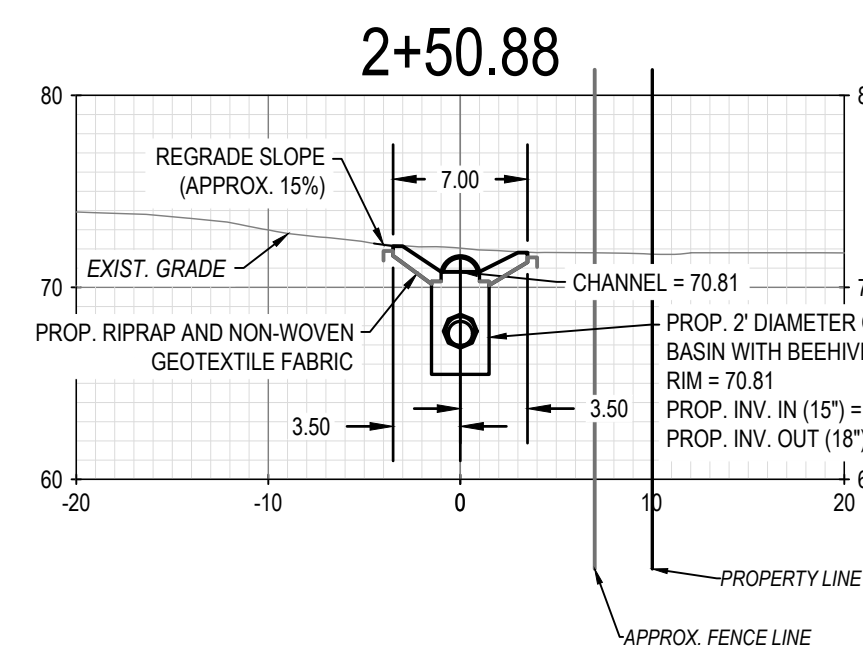
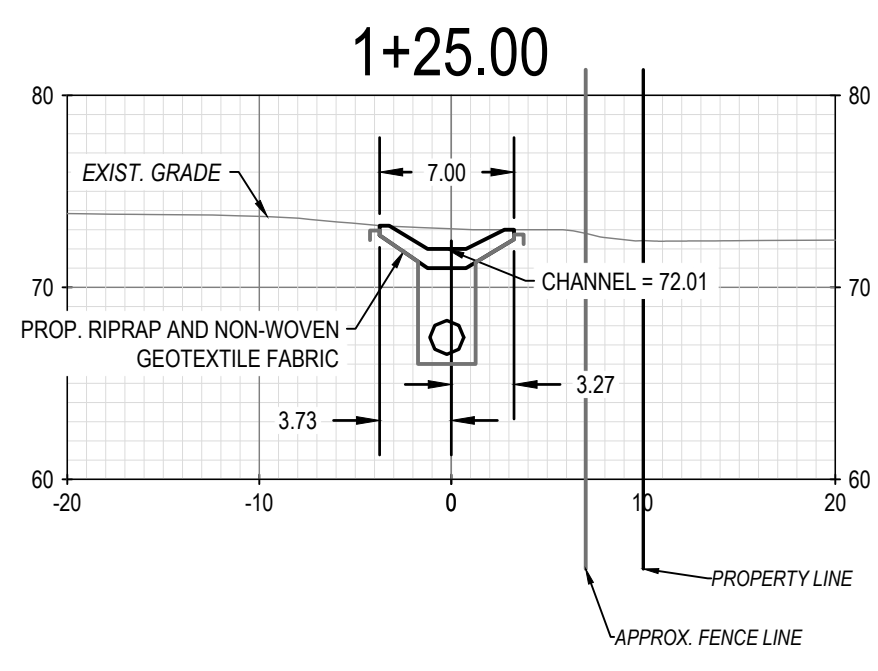
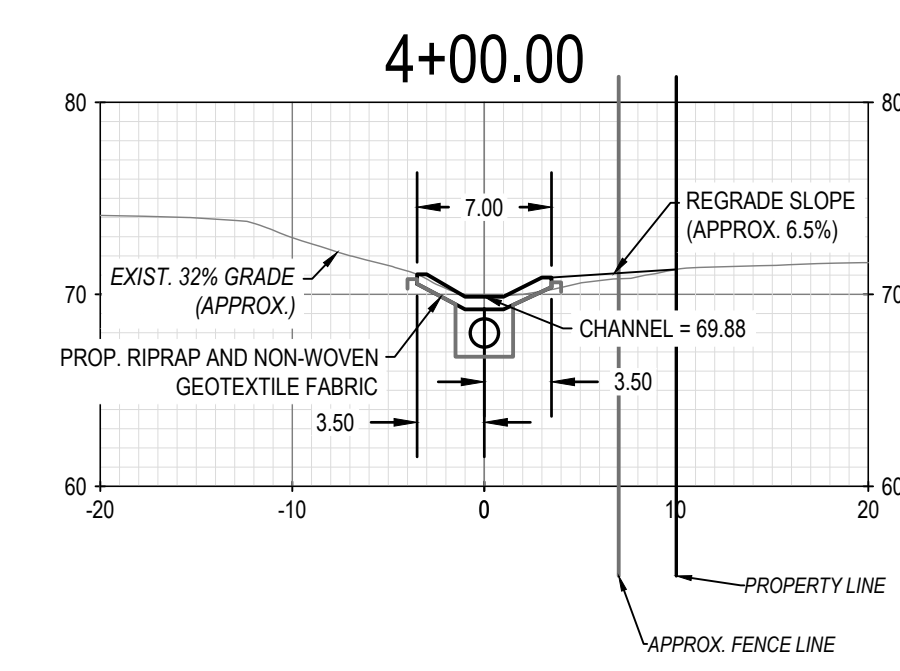
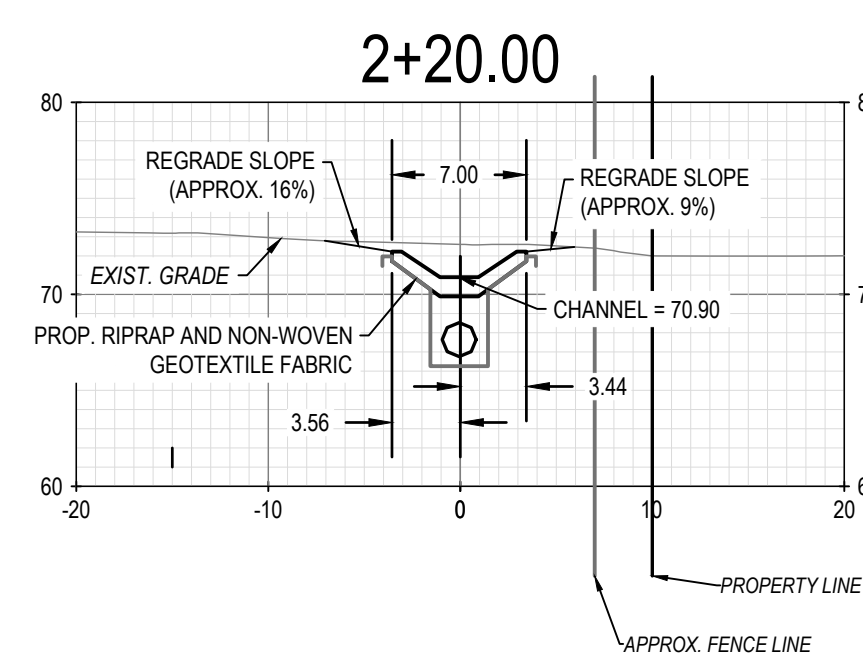
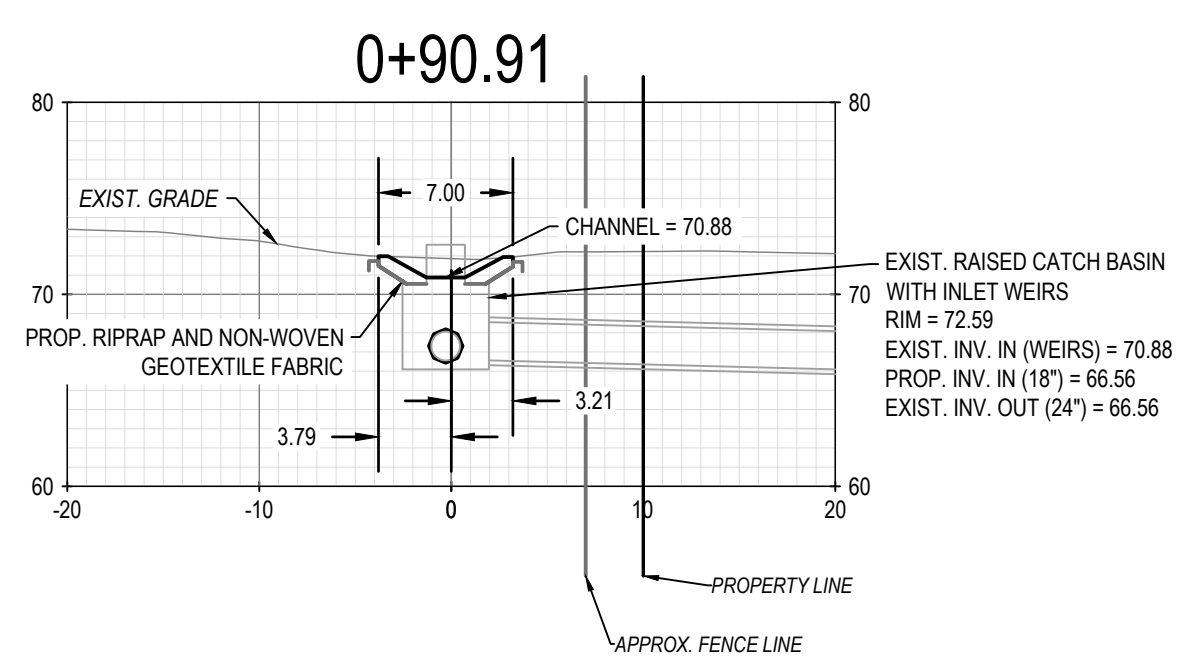
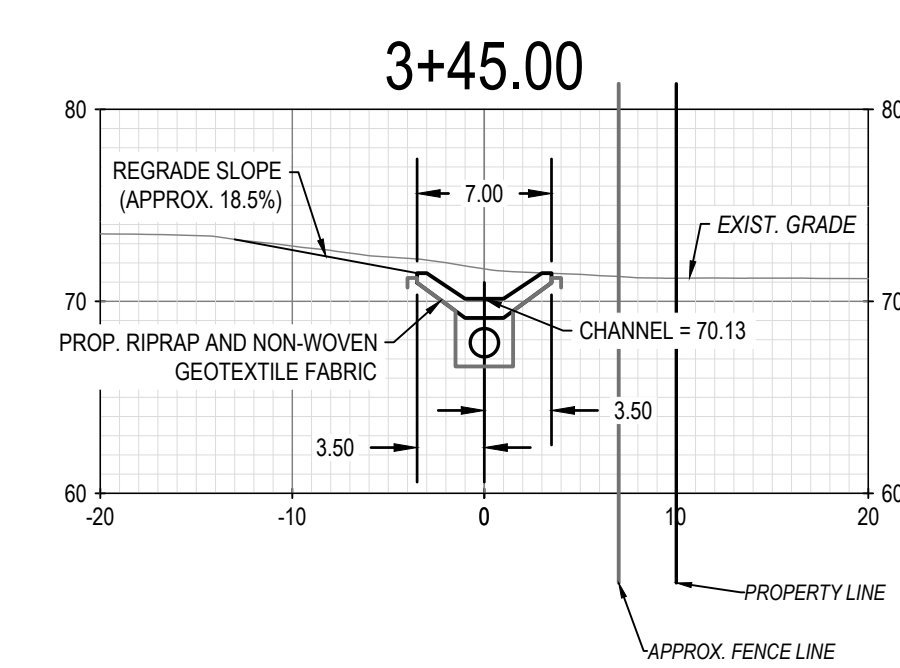
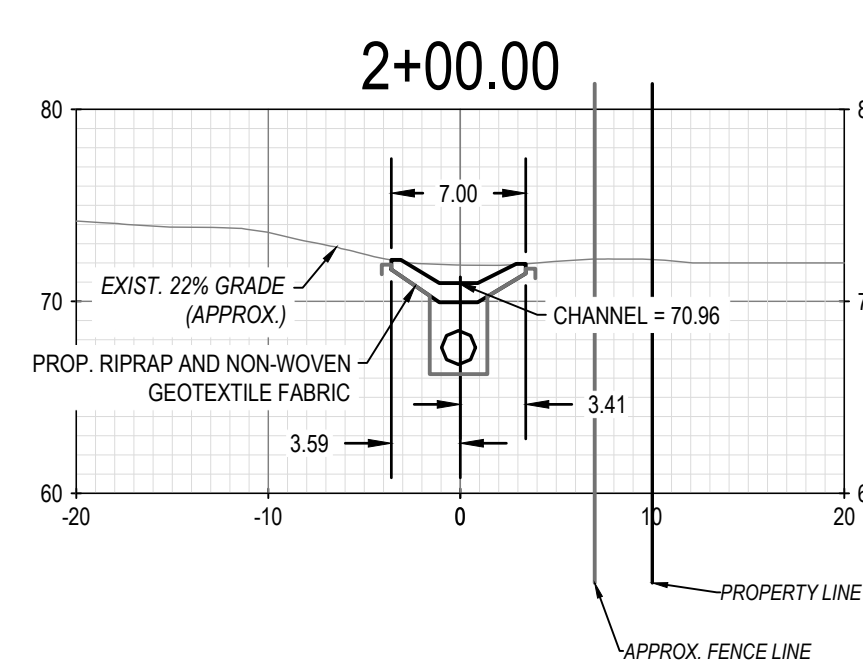
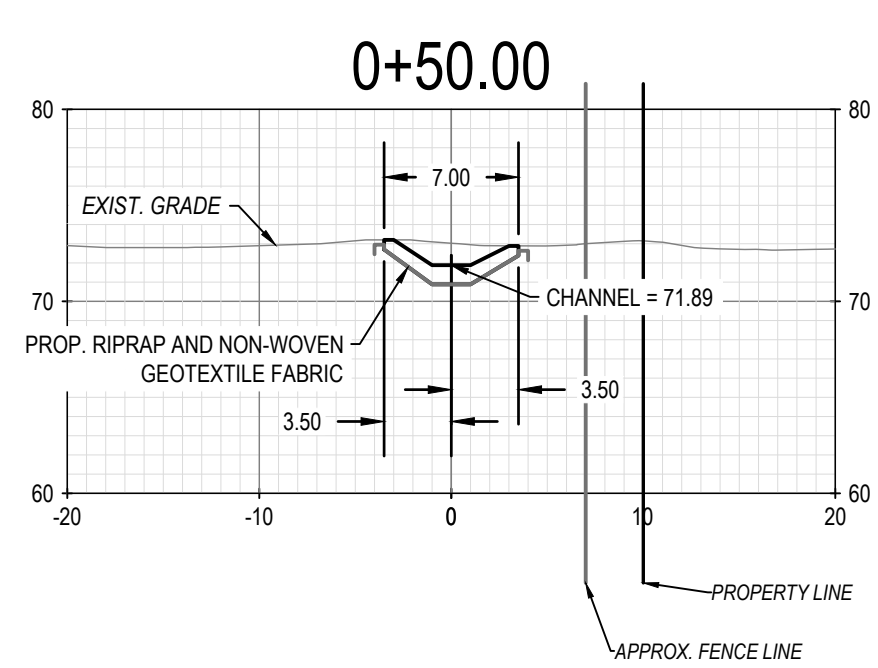
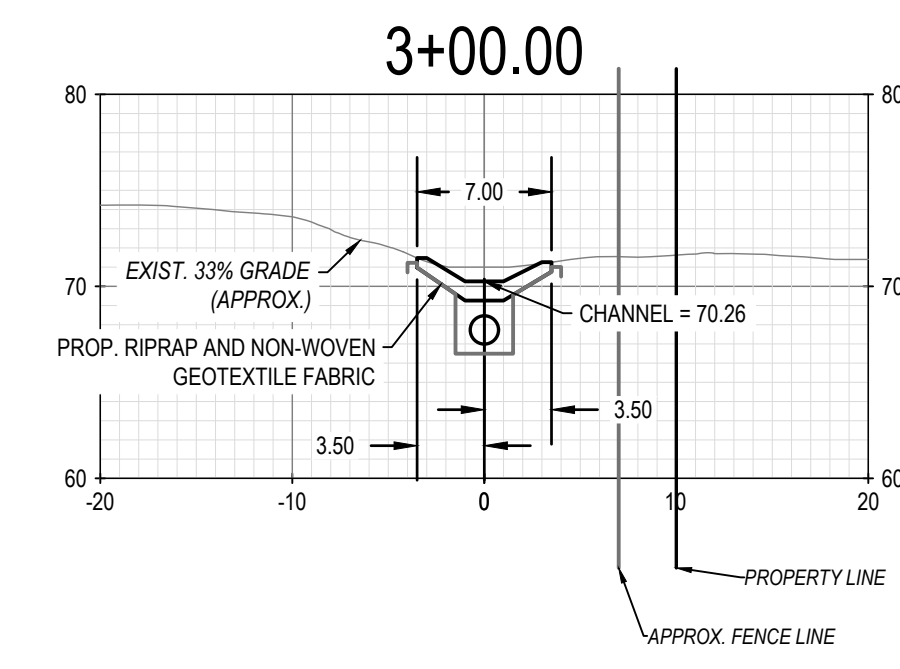
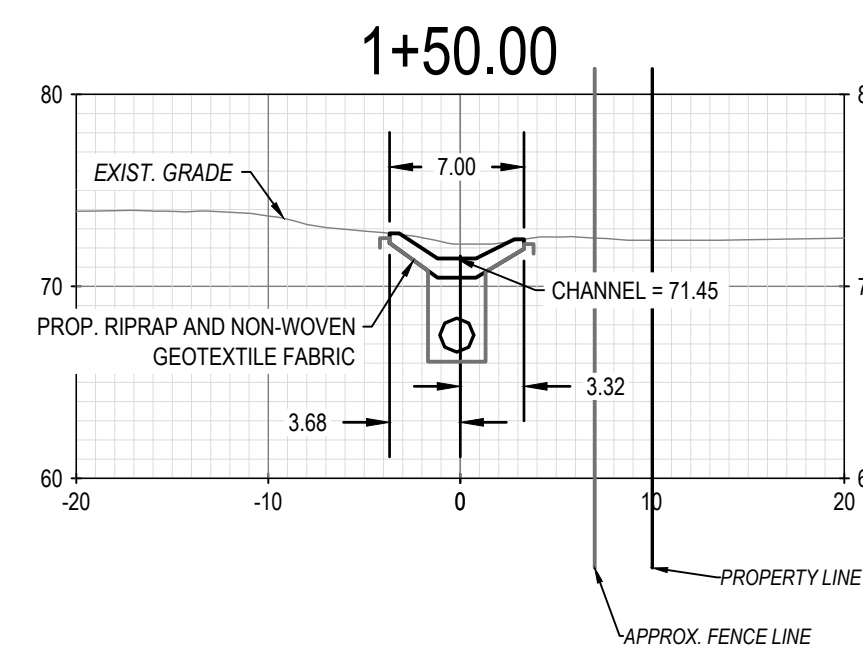
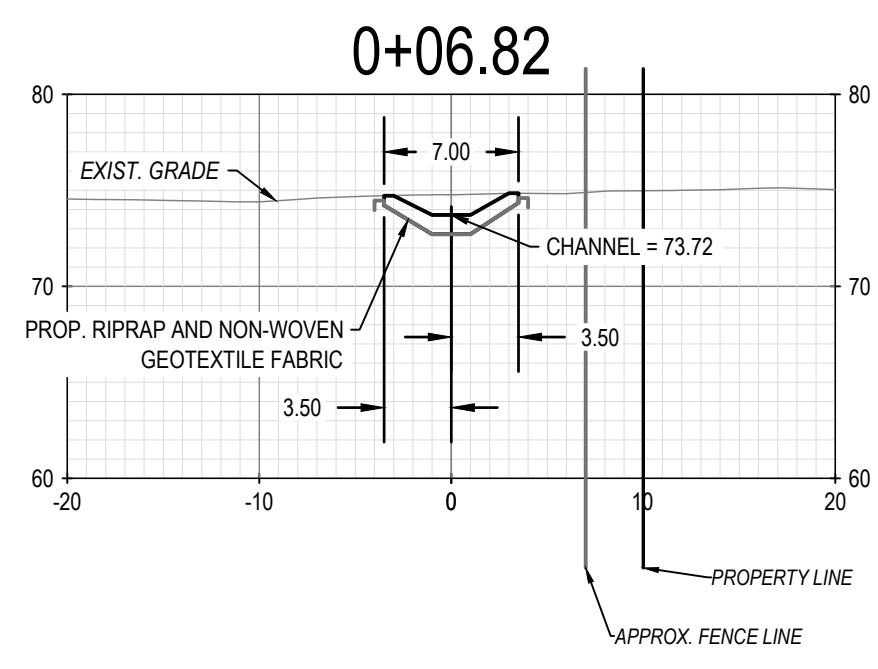
	DATE
	SUBMISSION
	REV
	CONSTRUCTION DRAWING
	12/19/25

PROJECT NAME: 2025-2028 NEIGHBORHOOD DRAINAGE AND SEWER SYSTEM REPAIR CONTRACT

CITY OF PORTLAND, MAINE
 DEPARTMENT OF PUBLIC WORKS
 WATER RESOURCES DIVISION
 212 CANCO ROAD, SUITE B, PORTLAND, MAINE 04103
 PHONE (207) 874-8866

DESIGN BY:	RHA
DRAWN BY:	RHA
CHECKED BY:	JRP
SHEET NAME:	LUDLOW ST SWALE IMPROVEMENTS (SW-06)
DATE:	7/22/2025
SHEET NO.:	C-02
Vault #:	01051_003

S:WATER RESOURCES - ENGINEERING/SEWERS STORM INVESTIGATION/2024-2026 NEIGHBORHOOD DRAINAGE AND SEWER SYSTEM REPAIR CONTRACT/CA020240701 LUDLOW ST.DWG C-03 7/22/2025



REV	DESCRIPTION	DATE

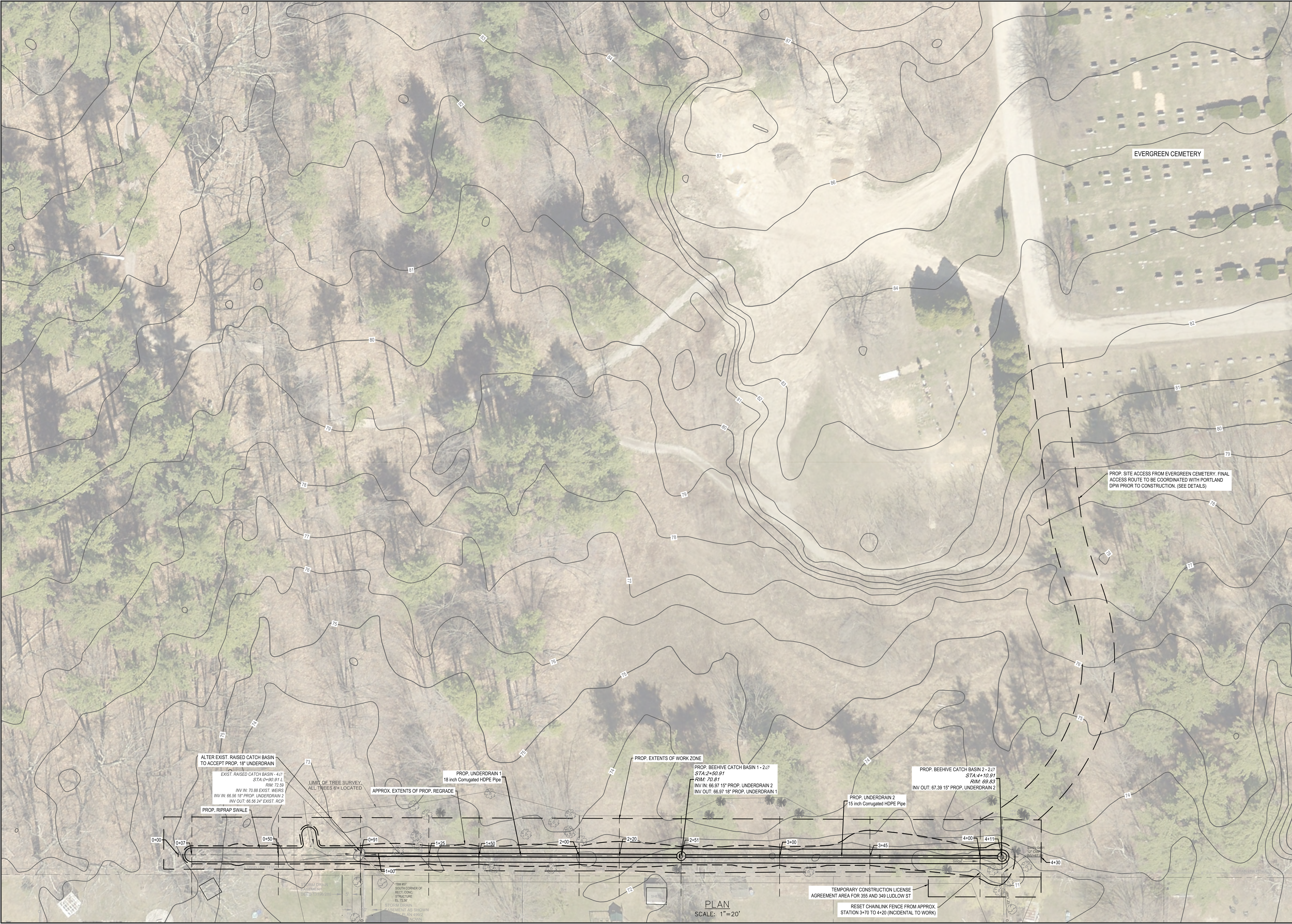
PROJECT NAME:
2025-2028 NEIGHBORHOOD DRAINAGE AND SEWER SYSTEM REPAIR CONTRACT
 CITY OF PORTLAND, MAINE
 DEPARTMENT OF PUBLIC WORKS
 WATER RESOURCES DIVISION
 212 CANCO ROAD, SUITE B, PORTLAND, MAINE 04103
 PHONE (207) 874-8846



DESIGN BY:	RHA
DRAWN BY:	RHA
CHECKED BY:	JRP
SHEET NAME:	LUDLOW ST SWALE IMPROVEMENTS (SW-06)
DATE:	7/22/2025
PAGE:	16 OF 21
SHEET NO.:	C-03
Vault #:	01051_003

LUDLOW ST RIPRAP SWALE SECTIONS
 HORIZONTAL SCALE: 1"=10'
 VERTICAL SCALE: 1"=10'

WATER RESOURCES - ENGINEERING/SEWER STORM INVESTIGATION 2024-2026 NEIGHBORHOOD DRAINAGE AND SEWER SYSTEM REPAIR CONTRACT CAD 20240701 LUDLOW ST DWG C-04 7/22/2025



ALTER EXIST. RAISED CATCH BASIN TO ACCEPT PROP. 18" UNDERDRAIN
EXIST. RAISED CATCH BASIN - 4'Ø
STA: 0+30.91 L
RIM: 72.85
INV IN: 70.88 EXIST. WEIRS
INV IN: 66.56 18" PROP. UNDERDRAIN 2
INV OUT: 66.56 24" EXIST. RCP

LIMIT OF TREE SURVEY
ALL TREES 6" LOCATED

APPROX. EXTENTS OF PROP. REGRADE

PROP. UNDERDRAIN 1
18 inch Corrugated HDPE Pipe

PROP. EXTENTS OF WORK ZONE

PROP. BEEHIVE CATCH BASIN 1 - 2'Ø
STA: 2+50.91
RIM: 70.81
INV IN: 66.97 15" PROP. UNDERDRAIN 2
INV OUT: 66.97 18" PROP. UNDERDRAIN 1

PROP. UNDERDRAIN 2
15 inch Corrugated HDPE Pipe

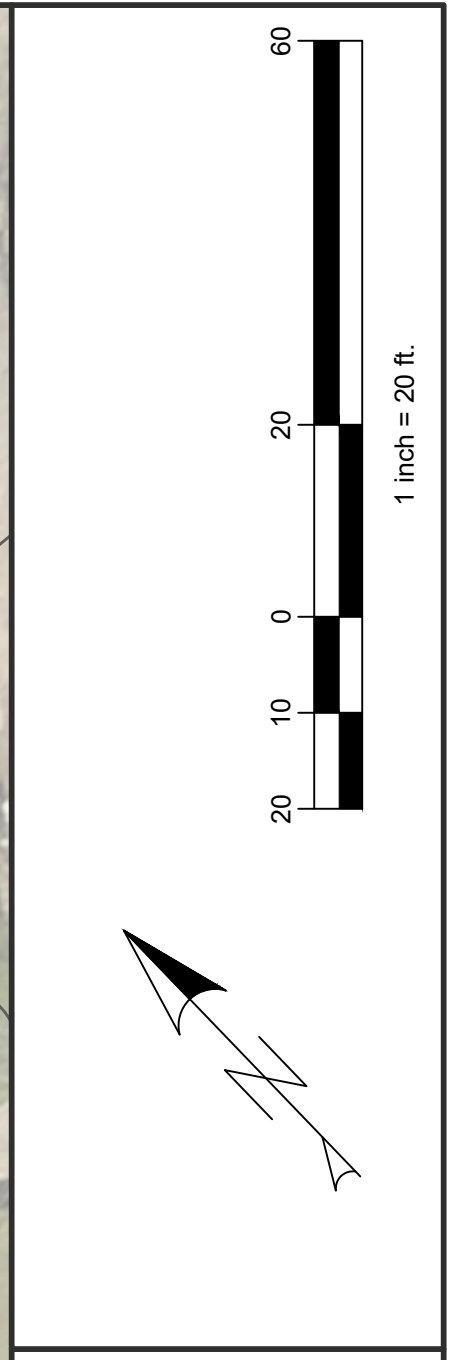
PROP. BEEHIVE CATCH BASIN 2 - 2'Ø
STA: 4+10.91
RIM: 69.83
INV OUT: 67.39 15" PROP. UNDERDRAIN 2

PROP. SITE ACCESS FROM EVERGREEN CEMETERY. FINAL ACCESS ROUTE TO BE COORDINATED WITH PORTLAND DPW PRIOR TO CONSTRUCTION. (SEE DETAILS)

PLAN
SCALE: 1"=20'

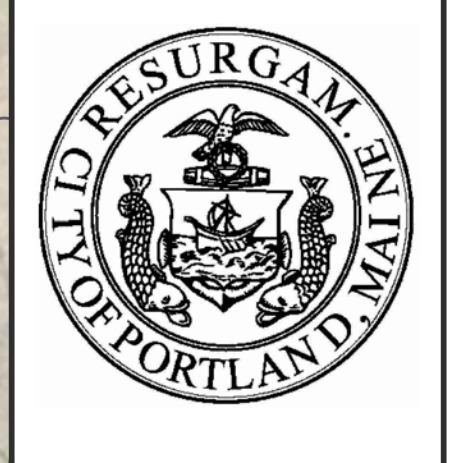
TEMPORARY CONSTRUCTION LICENSE
AGREEMENT AREA FOR 355 AND 349 LUDLOW ST

RESET CHAINLINK FENCE FROM APPROX. STATION 3+70 TO 4+20 (INCIDENTAL TO WORK)



REV	SUBMISSION	DATE

PROJECT NAME:
2025-2028 NEIGHBORHOOD DRAINAGE AND SEWER SYSTEM REPAIR CONTRACT
 CITY OF PORTLAND, MAINE
 DEPARTMENT OF PUBLIC WORKS
 WATER RESOURCES DIVISION
 212 CANO ROAD, SUITE B, PORTLAND, MAINE 04103
 PHONE (207) 874-8866

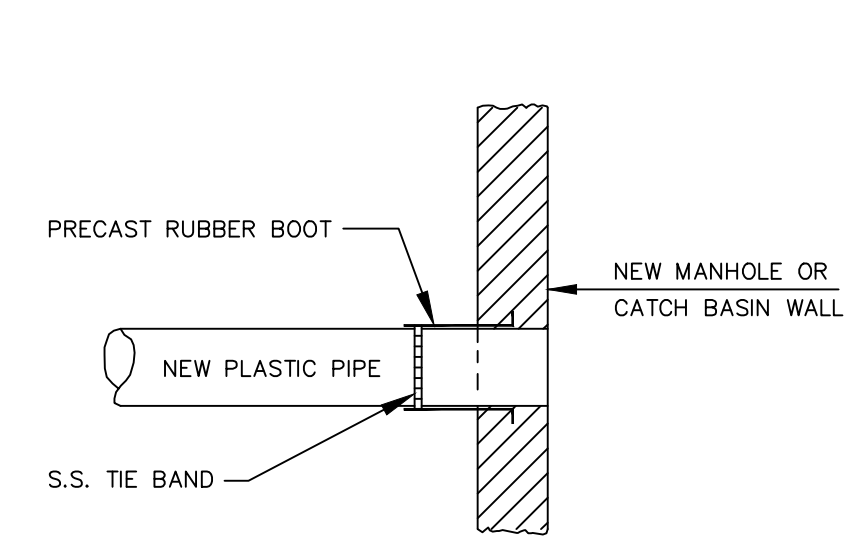


DESIGN BY: RHA
 DRAWN BY: RHA
 CHECKED BY: JRP
 SHEET NAME:

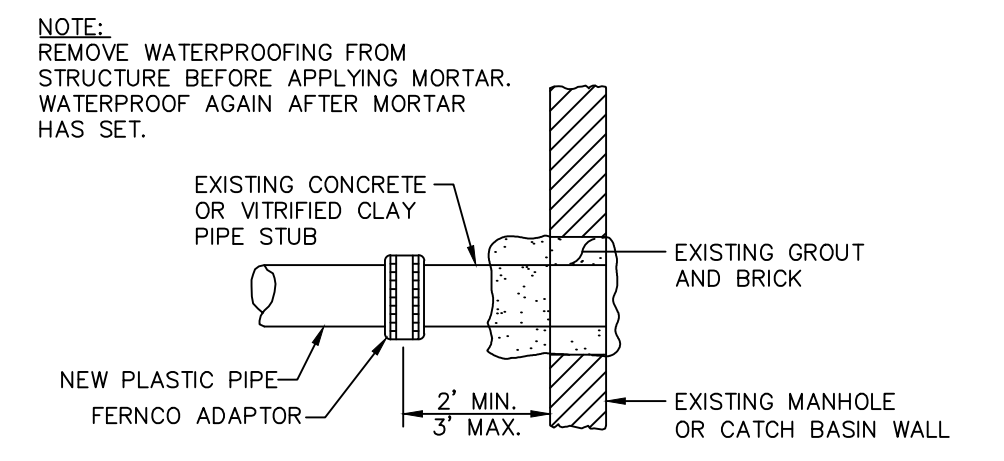
LUDLOW ST
 SWALE IMPROVEMENTS
 (SW-06)

DATE: 7/22/2025
 PAGE 17 OF 21
 SHEET NO.: C-04
 VAULT #: 01051_003

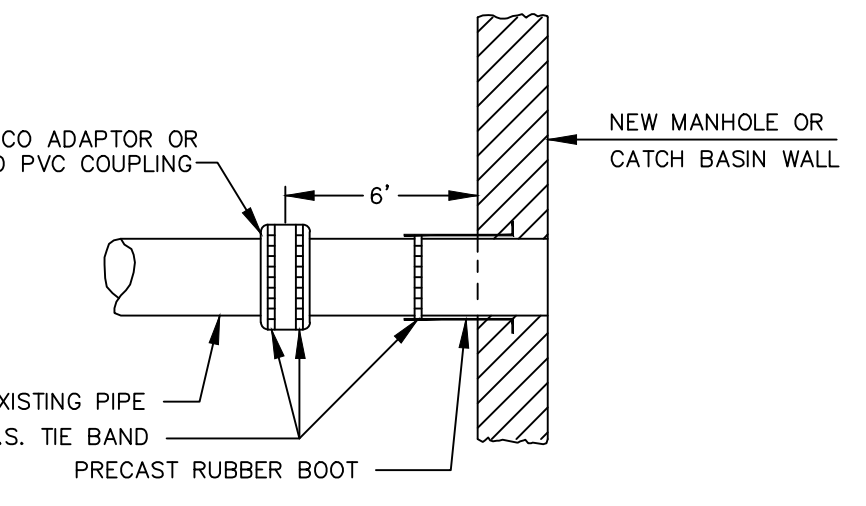
S:\WATER RESOURCES - ENGINEERING\SEWER-STORM INVESTIGATION\2025-2028 NEIGHBORHOOD DRAINAGE AND SEWER REPAIR CONTRACT\DWG.DWG.D-02 7/22/2025



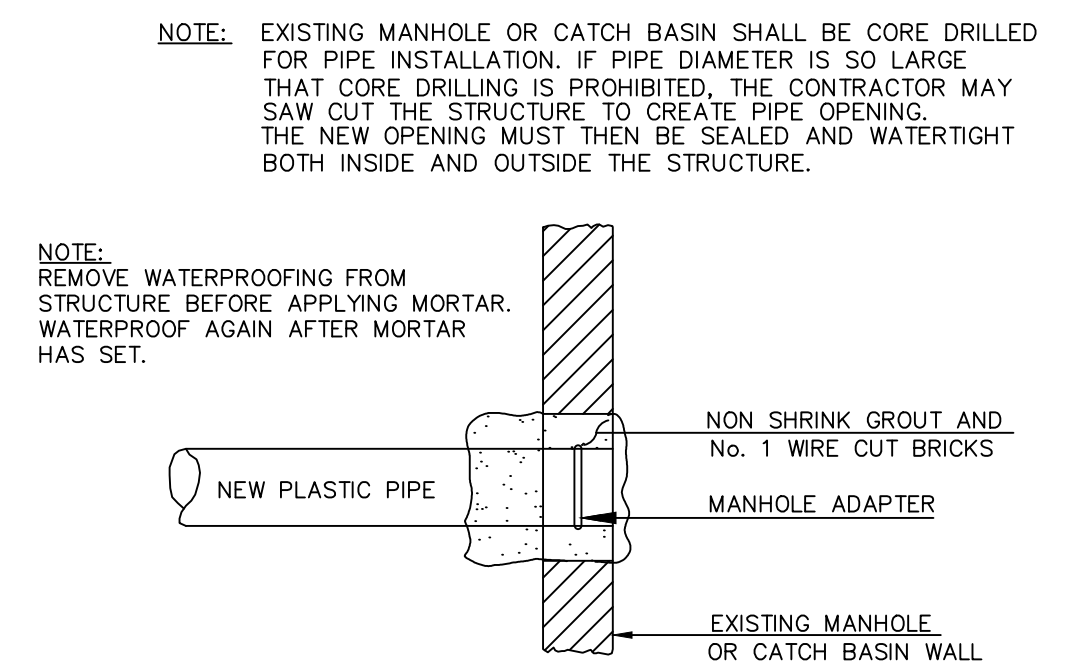
METHOD 2 - NEW CONSTRUCTION



METHOD 4 - NEW PIPE TO EXISTING STRUCTURE STUB

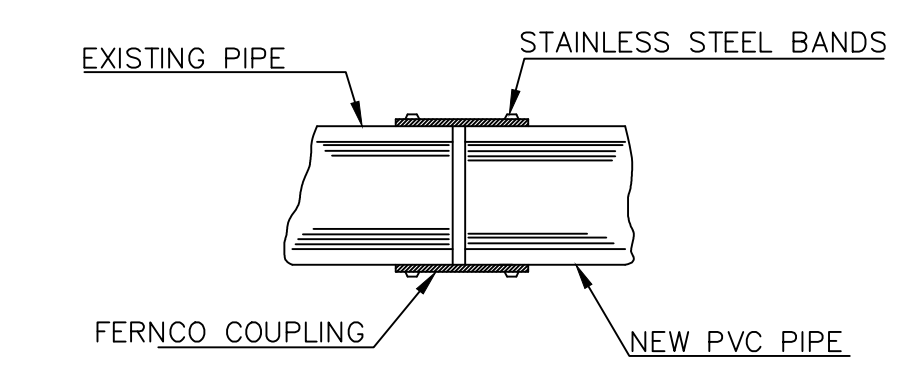


METHOD 1 - EXISTING PIPE INTO NEW STRUCTURE

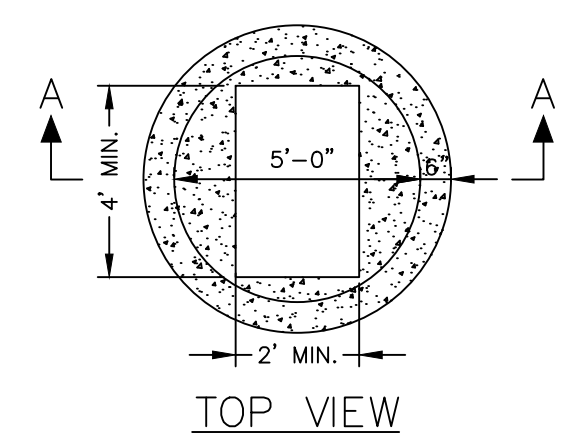


METHOD 3 - NEW PIPE INTO EXISTING STRUCTURE

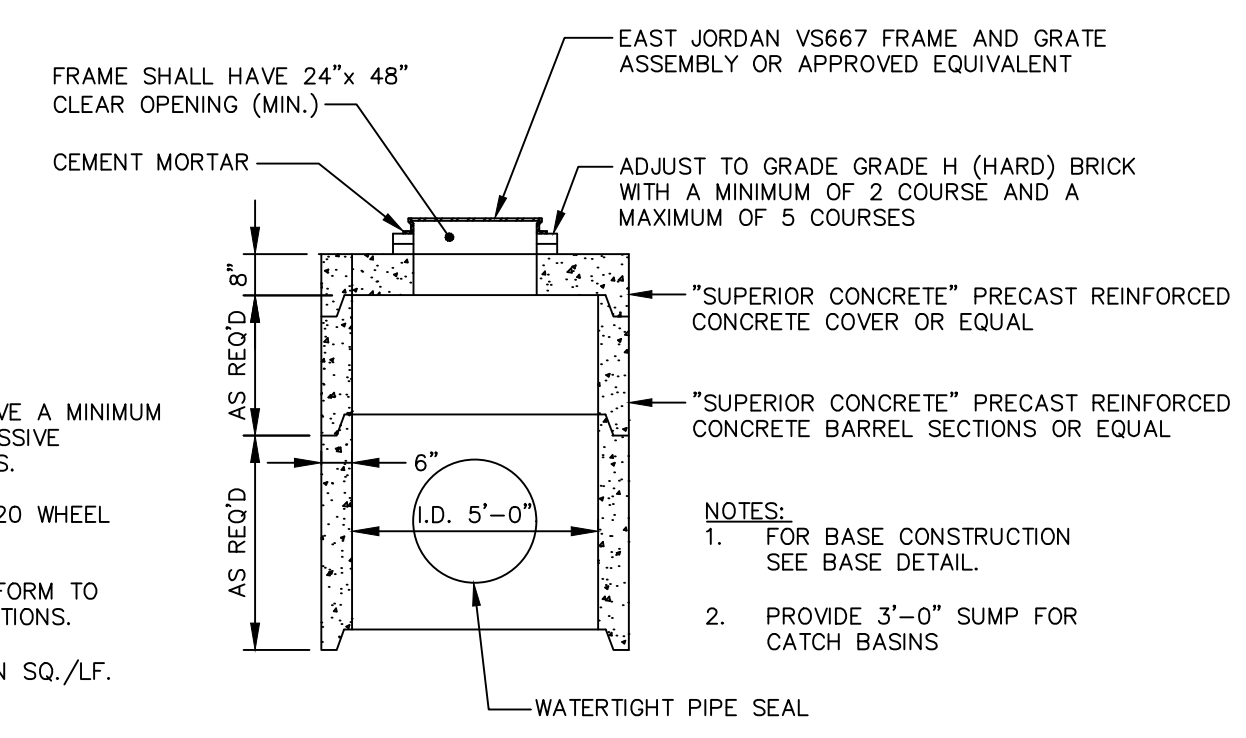
PLASTIC PIPE CONNECTIONS
NOT TO SCALE



FERNCO COUPLING FOR REPAIR OR REPLACEMENT
NOT TO SCALE



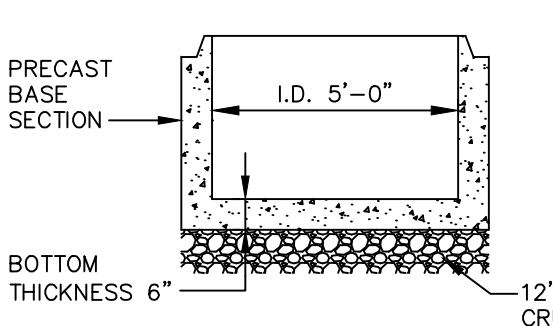
TOP VIEW



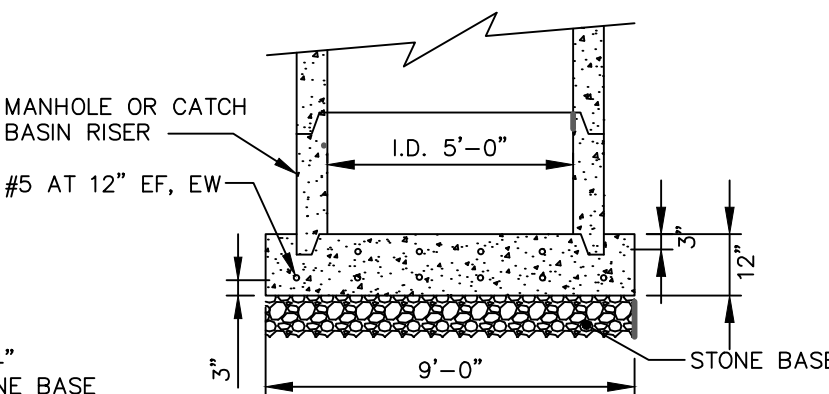
SECTION A-A

- DESIGN NOTES:**
- ALL CONCRETE TO HAVE A MINIMUM OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
 - DESIGN LOAD FOR H-20 WHEEL LOAD.
 - CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
 - REINFORCE TO 0.12 IN SQ./LF.

- NOTES:**
- FOR BASE CONSTRUCTION SEE BASE DETAIL.
 - PROVIDE 3'-0" SUMP FOR CATCH BASINS.

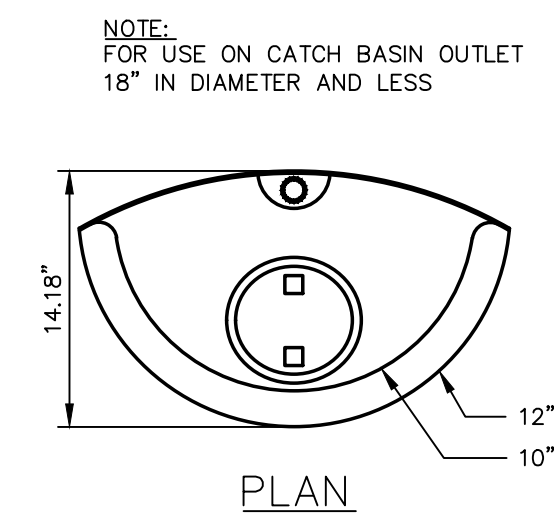


BASE DETAIL OPTION 1

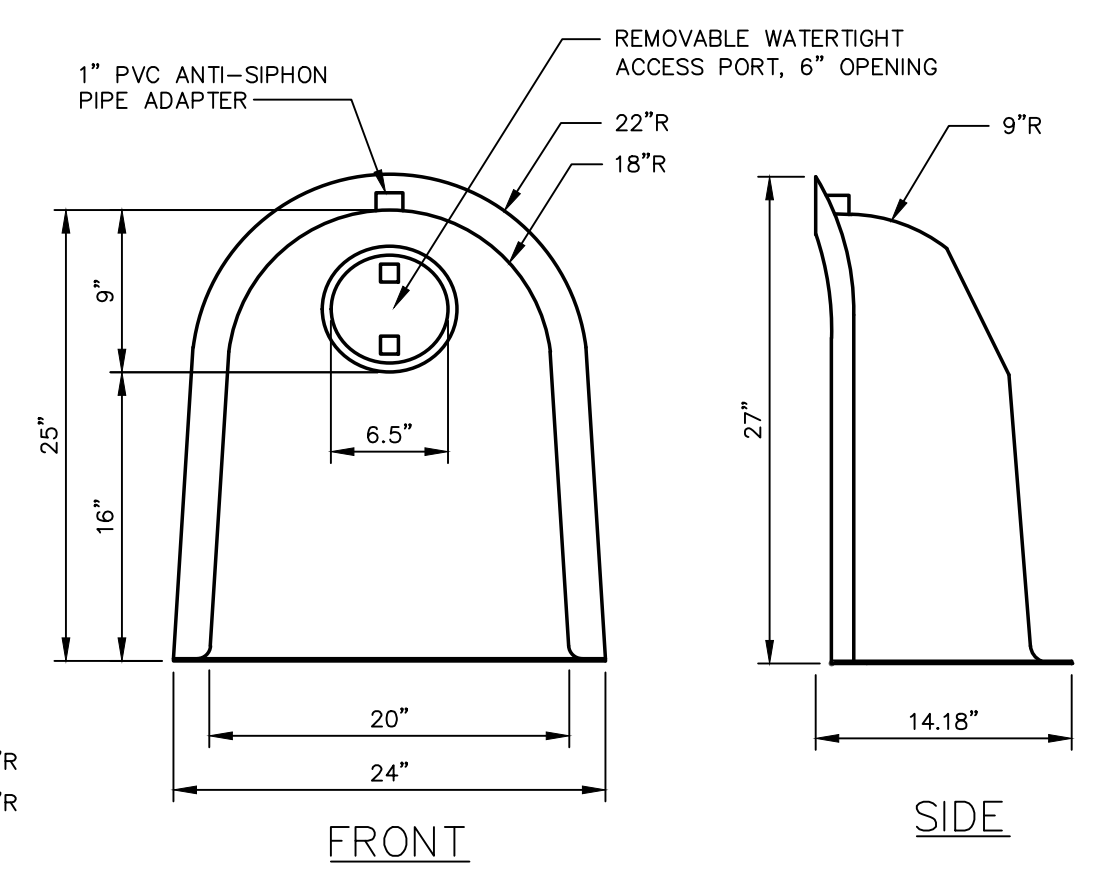


BASE DETAIL OPTION 2

5' DIAMETER CATCH BASIN WITH DOUBLE GRATE
NOT TO SCALE



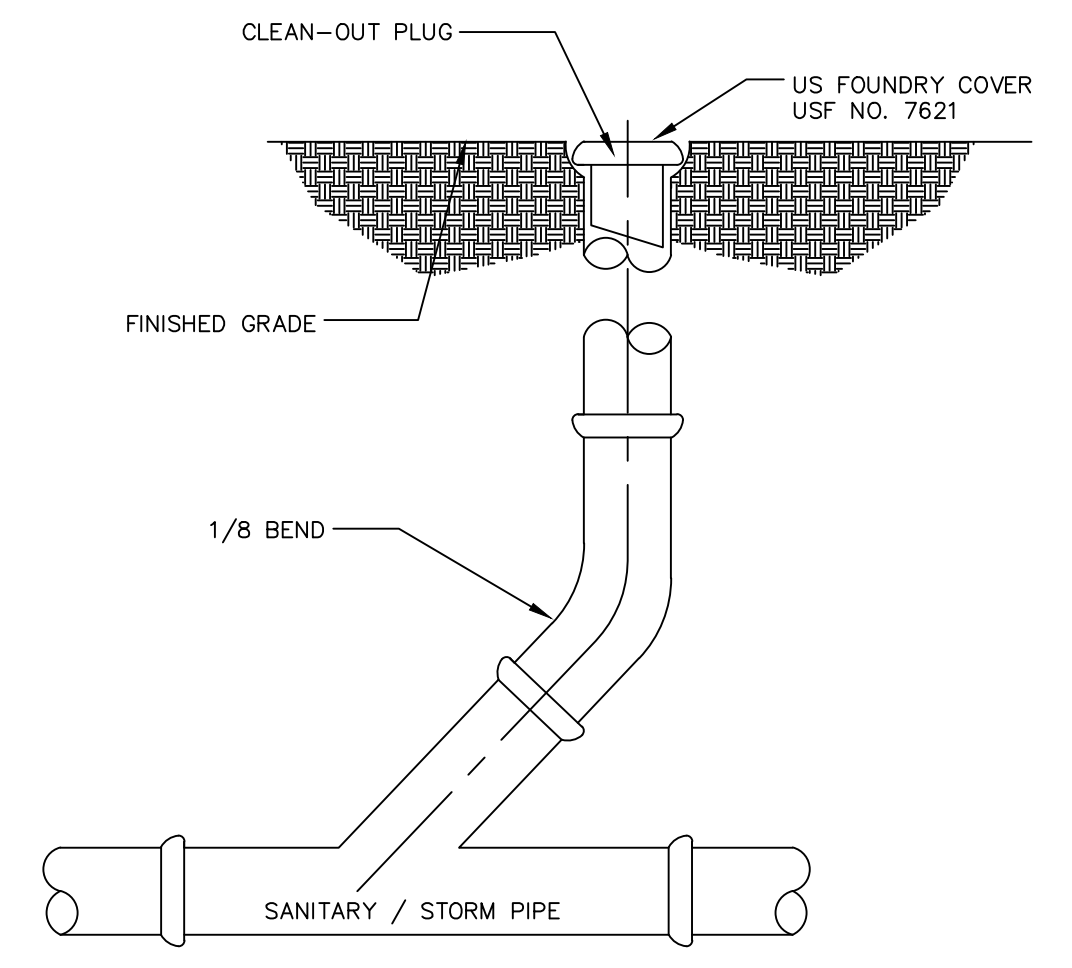
PLAN



FRONT

SIDE

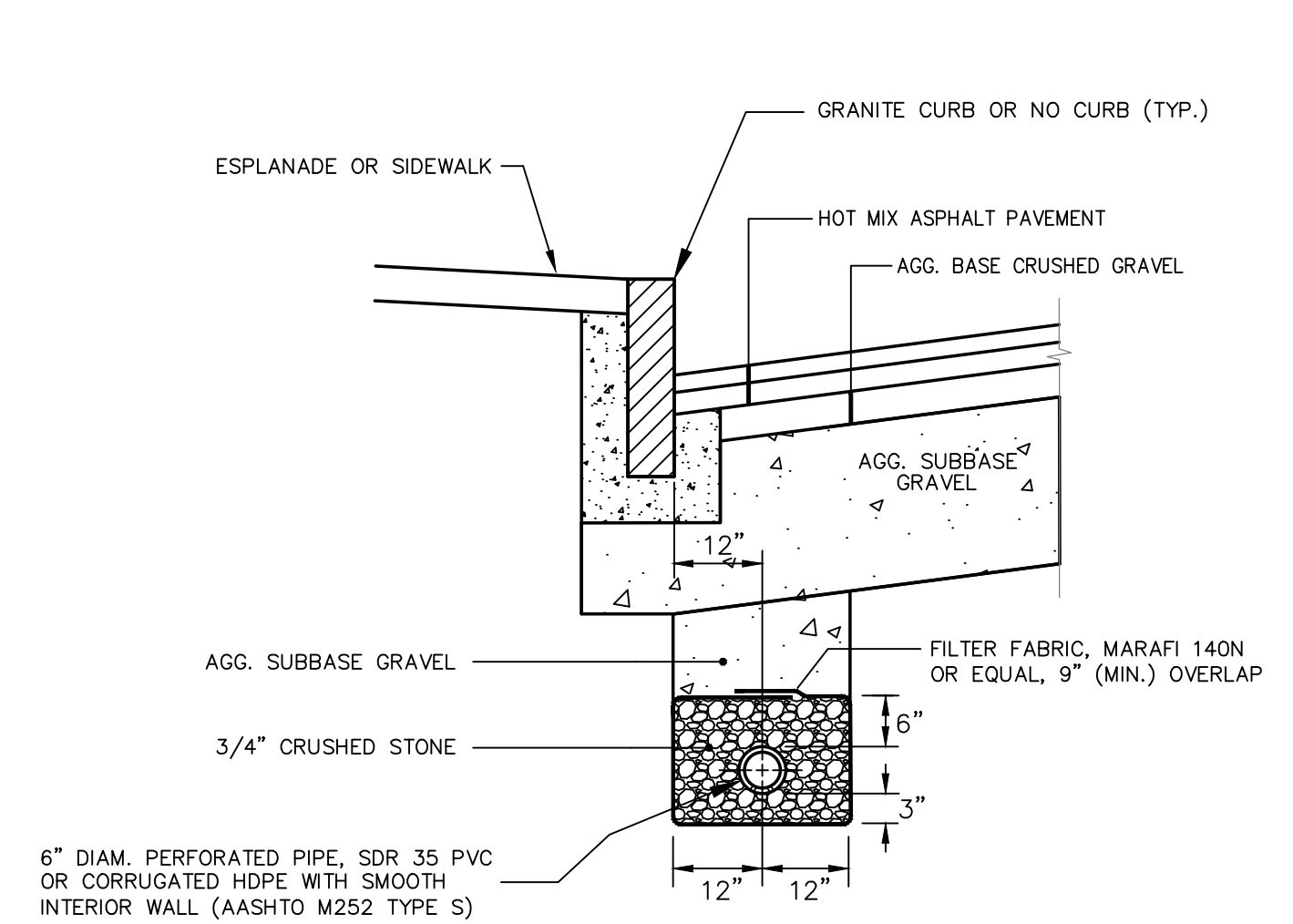
CATCH BASIN HOOD
NOT TO SCALE



CLEANOUT
NOT TO SCALE

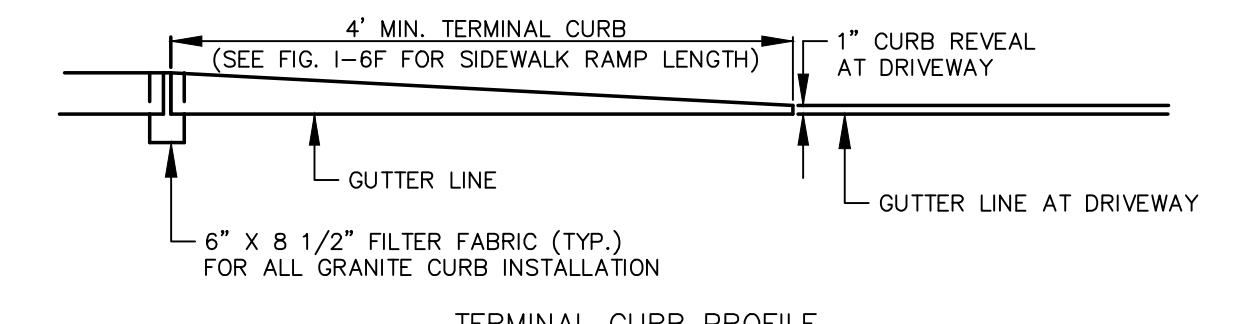
NOTES:

- ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE MANUFACTURED BY BEST MANAGEMENT PRODUCTS, INC. OR PRE-APPROVED EQUAL.
- ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
- ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT PIPE AND ELBOW.
- THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION (SNOUT SIZE ALWAYS LARGER THAN PIPE SIZE).
- THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A MINIMUM DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
- THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.
- THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND PIPE SHALL BE FINISHED FLUSH TO WALL.
- THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER.
- INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT. INSTALLATION KIT SHALL INCLUDE: INSTALLATION INSTRUCTIONS, PVC ANTI-SIPHON VENT PIPE AND ADAPTER, OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING, 3/8" STAINLESS STEEL BOLTS, AND ANCHOR SHIELDS.

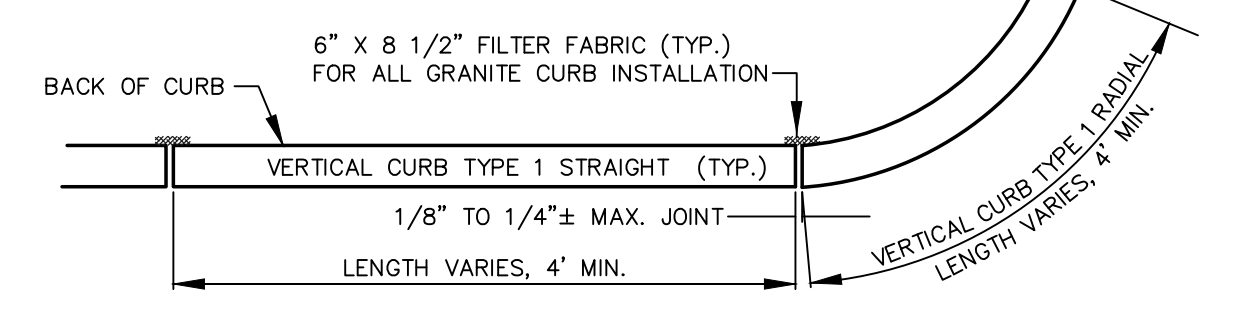


- NOTES:**
- UNDERDRAIN PIPE INVERT ELEVATIONS SHALL BE AT LEAST 42 INCHES BELOW GUTTER GRADES.
 - PERFORATIONS IN UNDERDRAIN PIPE SHALL BE ORIENTED DOWN.
 - ALTERNATIVE UNDERDRAIN METHODS SHALL BE APPROVED BY DPW WATER RESOURCES.

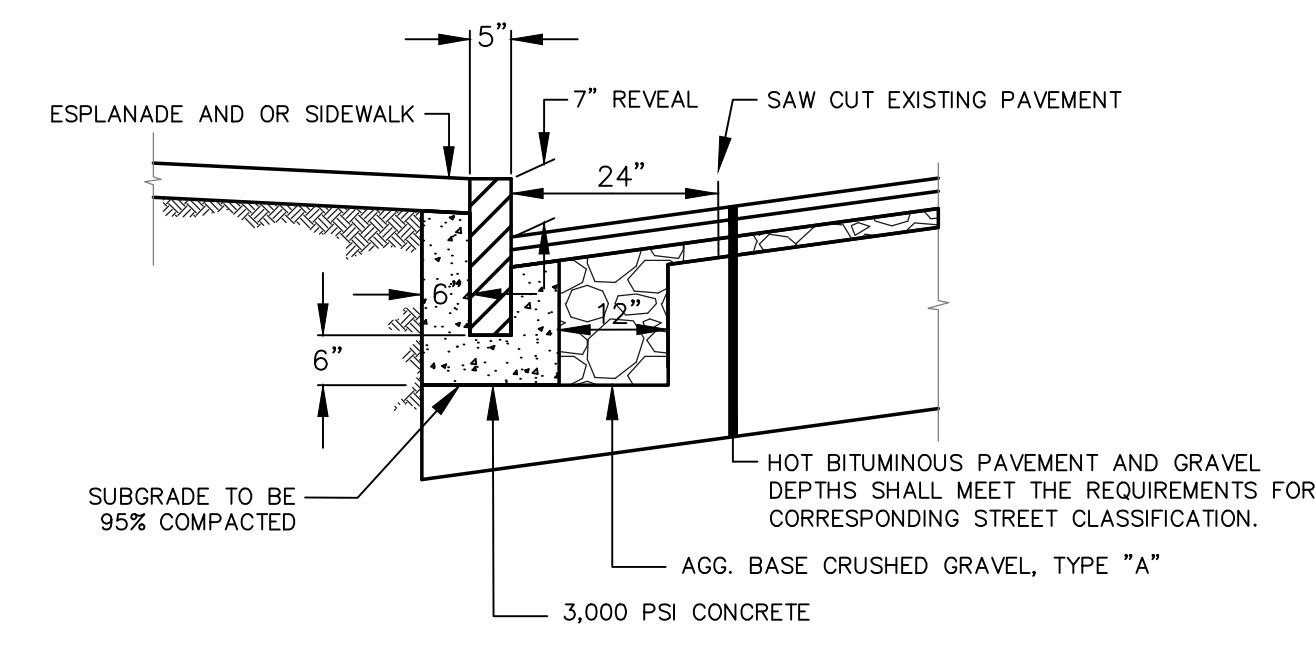
TYPE "B" UNDERDRAIN INSTALLATION
NOT TO SCALE



TERMINAL CURB PROFILE



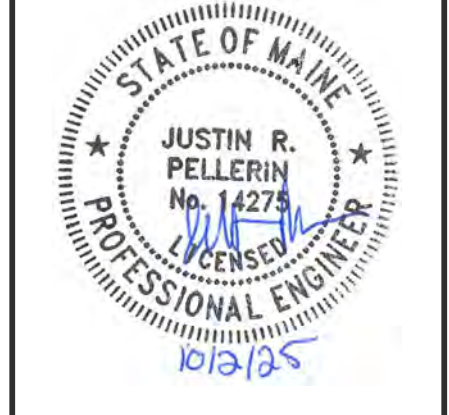
VERTICAL GRANITE CURB PLAN VIEW



VERTICAL GRANITE CURB CROSS SECTION

- NOTES:**
- INDIVIDUAL PIECES OF CURB SHORTER THAN 4 LF. ARE NOT ALLOWED, WITH THE EXCEPTION OF RADIAL CURB.
 - THE MINIMUM HEIGHT OF THE CONCRETE BACKING SHALL BE 10-INCHES OR TO THE BOTTOM OF THE HOT MIX ASPHALT PAVEMENT, WHICHEVER IS GREATER, MEASURED FROM THE BOTTOM OF CURB.
 - CURBING SHALL BE SET IN A 6-INCH BED OF POURED IN PLACE 3,000 PSI CONCRETE MIX.
 - WOODEN SHIMS MAY BE USED TO SET CURB.

VERTICAL GRANITE CURB
NOT TO SCALE



DATE	REVISION

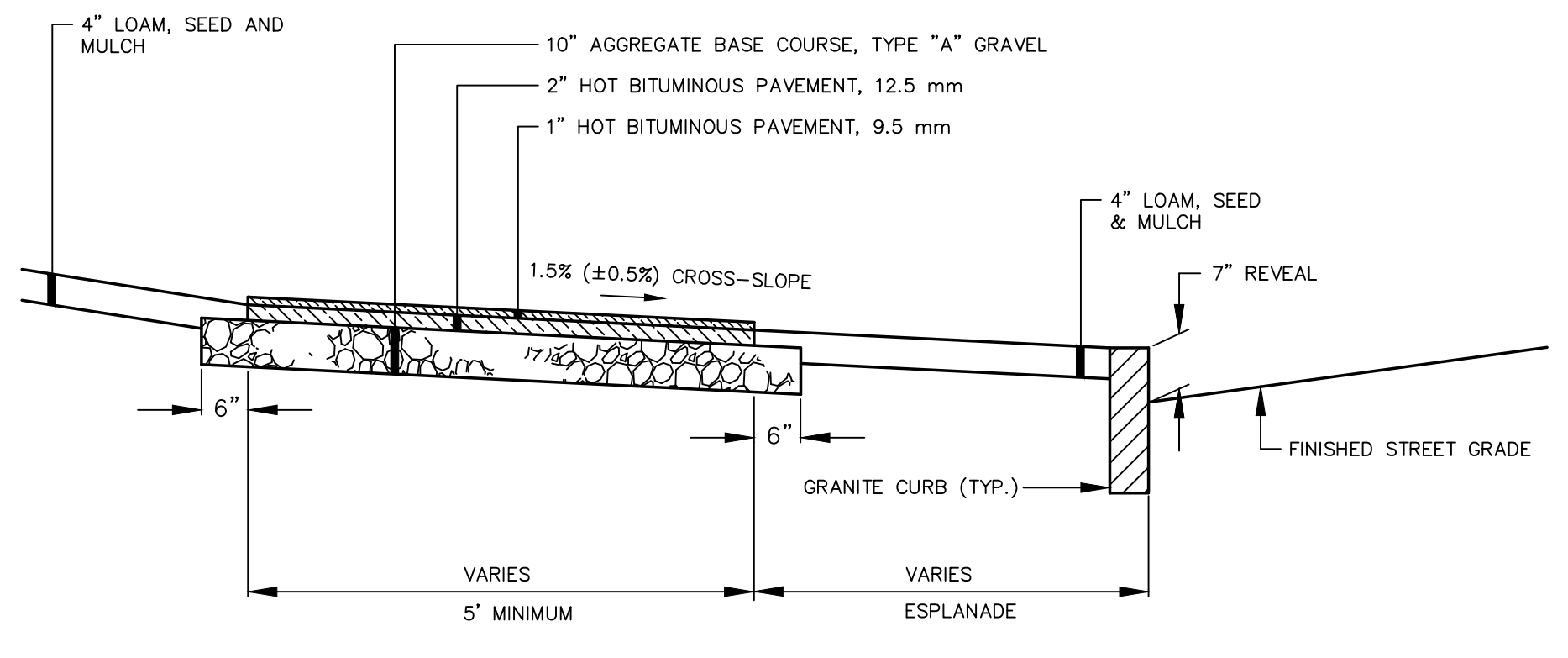
PROJECT NAME: 2025-2028 NEIGHBORHOOD DRAINAGE AND SEWER SYSTEM REPAIR CONTRACT
CITY OF PORTLAND, MAINE
DEPARTMENT OF PUBLIC WORKS
WATER RESOURCES DIVISION
212 CANCO ROAD, SUITE B, PORTLAND, MAINE 04103
PHONE (207) 874-8886



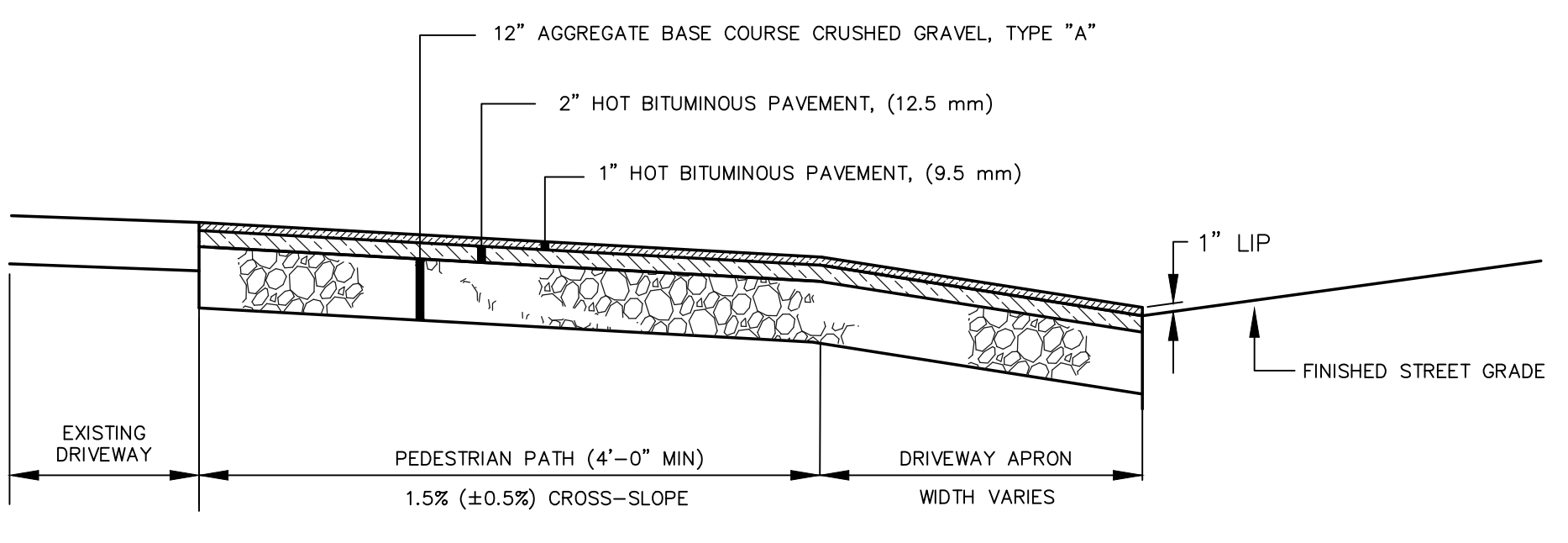
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DATE: 7/22/2025
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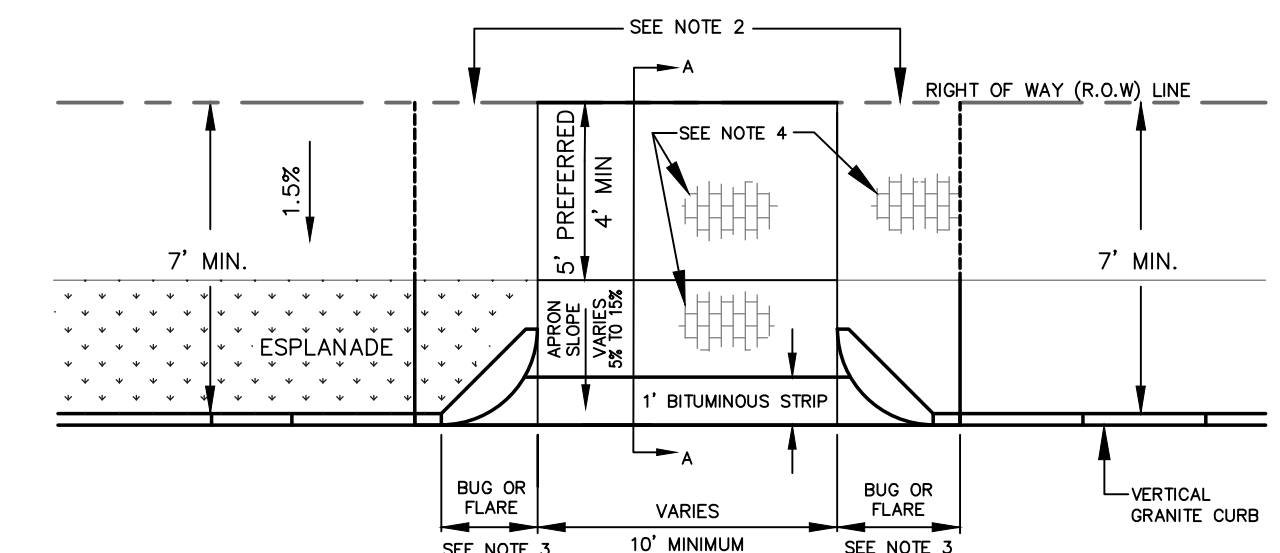
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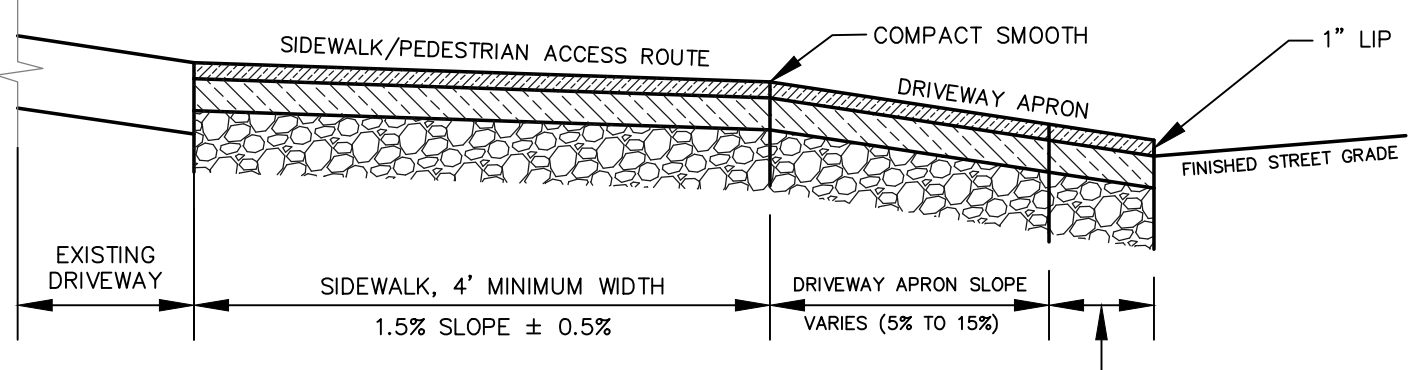
BITUMINOUS SIDEWALK
NOT TO SCALE



BITUMINOUS DRIVEWAY APRON
NOT TO SCALE



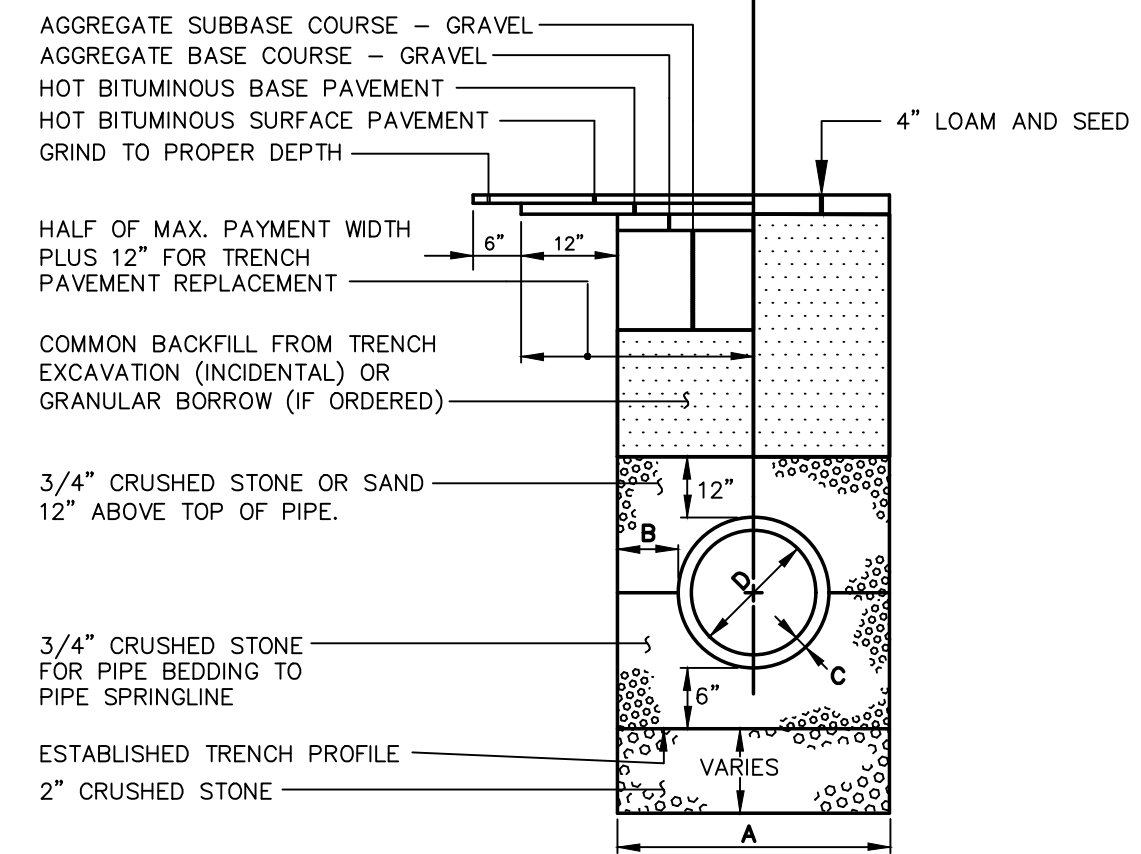
STANDARD RESIDENTIAL DRIVEWAY APRON LAYOUT
NOT TO SCALE



SECTION A-A
NOT TO SCALE

- NOTES:**
- MATCH EXISTING GRADE AT R.O.W. LINE, WHERE REQUIRED TO MEET A.D.A. AND DRIVEWAY APRON SLOPE REQUIREMENTS, A CONSTRUCTION EASEMENT MAY BE REQUIRED.
 - IF MATCHING THE EXISTING GRADE AT ROW CAUSES APRON SLOPE TO EXCEED RECOMMENDED % SIDEWALK TRANSITION AREAS MAY BE ADDED, BUT SHALL NOT EXCEED 5.33%.
 - TWO-FOOT RADIUS CORNER GRANITE PIECES ("BUGS") ARE REQUIRED AT LOW-VOLUME DRIVEWAYS UNLESS OTHERWISE DIRECTED BY DPW. AT OTHER DRIVEWAYS, STANDARD FLARE/TIPDOWN TREATMENTS SHALL BE USED.
 - ALL MATERIALS IN ROW TO COMPLY WITH CITY'S SIDEWALK & DRIVEWAY MATERIAL POLICY. BRICK IN DRIVEWAY APRONS, WHERE APPLICABLE, SHALL BE ORIENTED IN THE SAME WAY AS THE ADJACENT BRICK SIDEWALK.
 - THIS LAYOUT MAY BE REQUIRED AT MINOR DRIVEWAYS SERVING COMMERCIAL OR INDUSTRIAL USES.

NOTES:
DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.
ANY ALTERNATE TRENCHING OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES.

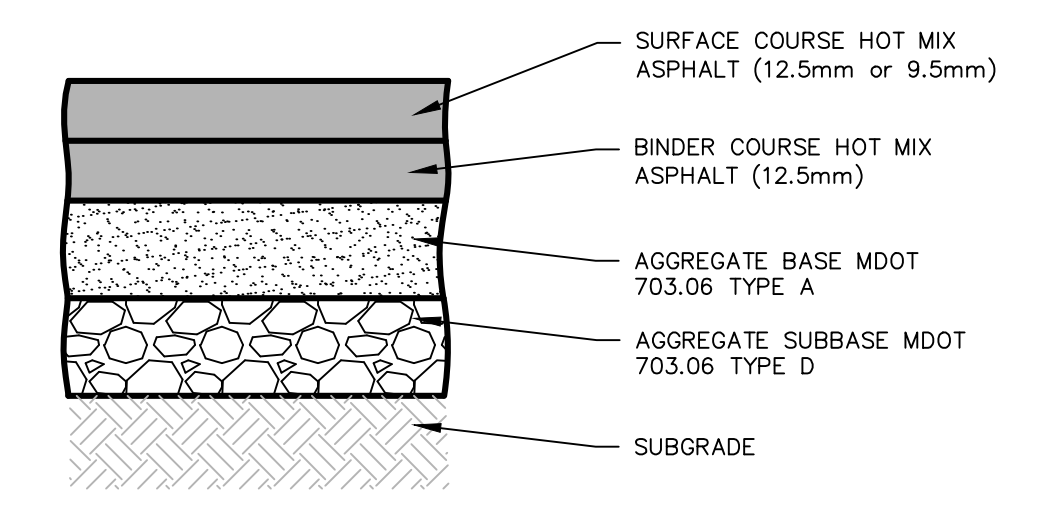


NOTES:

- ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
- IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
- DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".
- DIMENSION A IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE FOLLOWING TABLE.

PIPE DIAMETER, D (INCHES)	MAX. TRENCH WIDTH, A (FEET)
4	4.0
6	4.0
8	4.0
10	4.0
12	5.0
15	5.0
18	5.0
21	5.0
24	6.0
27	6.0
30	6.0
36	6.0
42	7.0
48	7.0

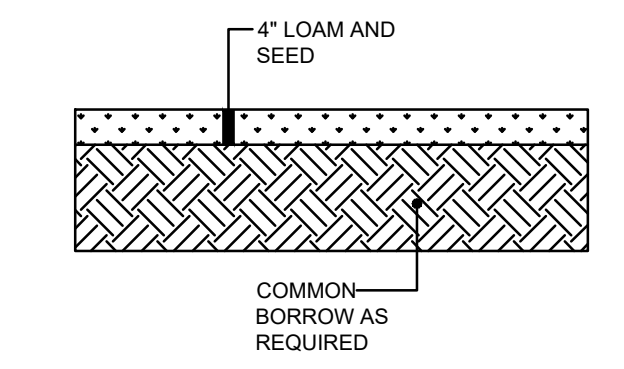
TYPICAL PIPE TRENCH INSTALLATION
NOT TO SCALE



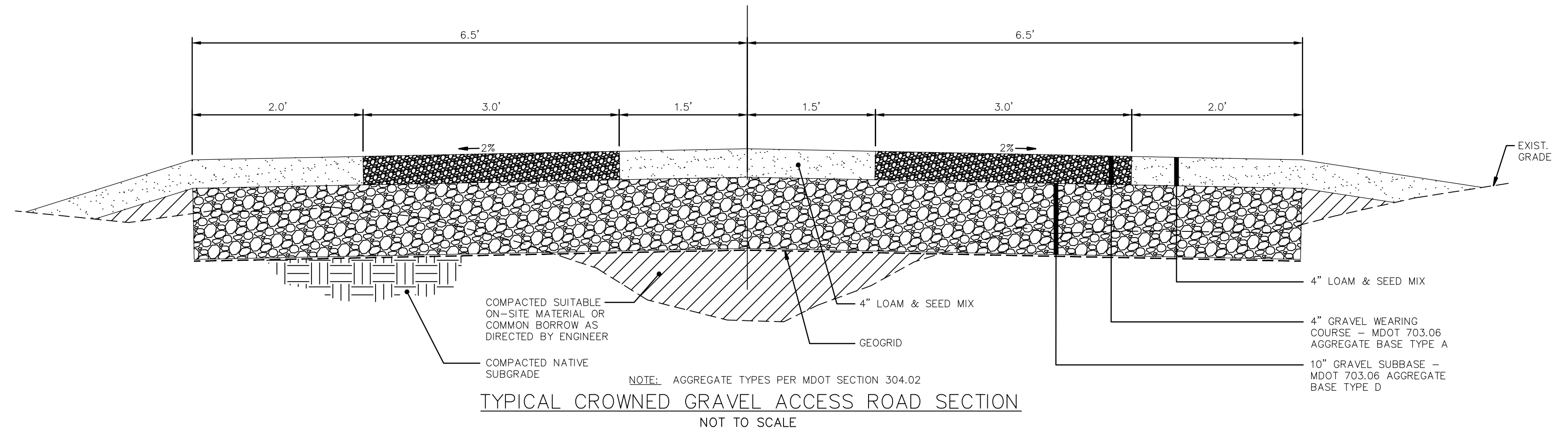
ARTERIAL STREET	COLLECTOR STREET	LOCAL STREET	LAYERS
-	-	1 1/2"	HOT MIX ASPHALT SURFACE (9.5mm)
2"	1 1/2"	-	HOT MIX ASPHALT SURFACE (12.5mm)
3"	2 1/2"	2"	HOT MIX ASPHALT BASE (12.5mm)
3"	3"	3"	AGGREGATE BASE GRAVEL MDOT 703.06 (g), TYPE A
18"	18"	15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 (c), TYPE D

- NOTES:**
- COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557.

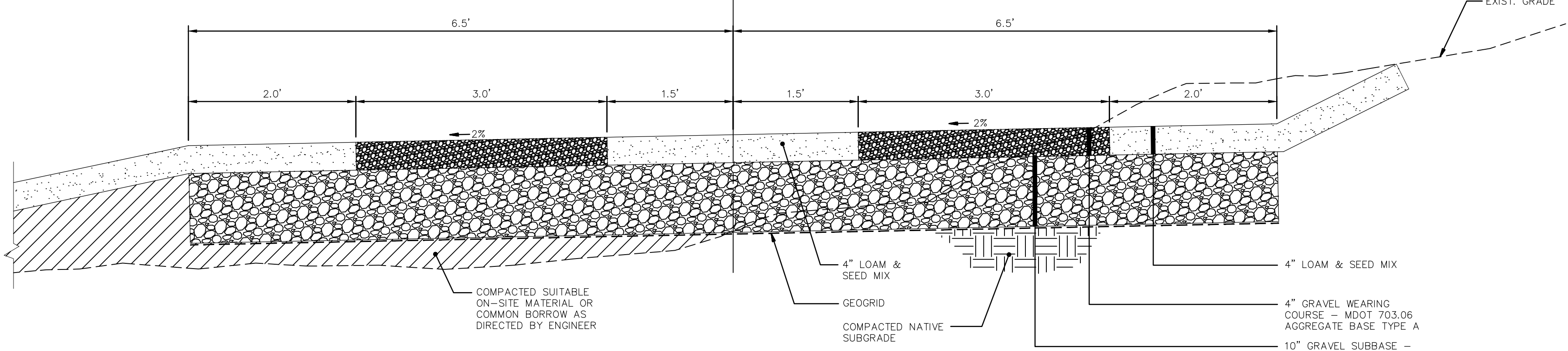
BITUMINOUS PAVEMENT SECTION
NOT TO SCALE



LOAM AND SEED DETAIL
NOT TO SCALE



TYPICAL CROWNED GRAVEL ACCESS ROAD SECTION
NOT TO SCALE



TYPICAL SUPERELEVATED GRAVEL ACCESS ROAD SECTION
NOT TO SCALE



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