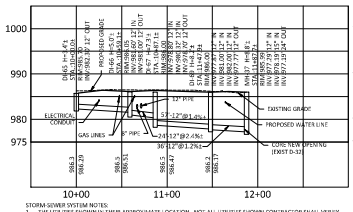
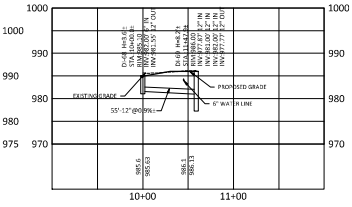
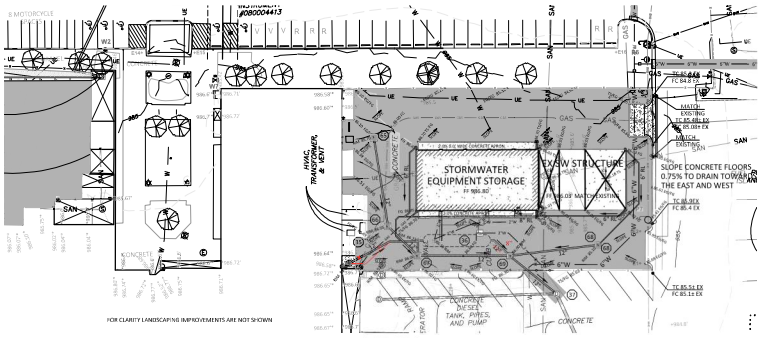
STORMWATER STORAGE NORTH



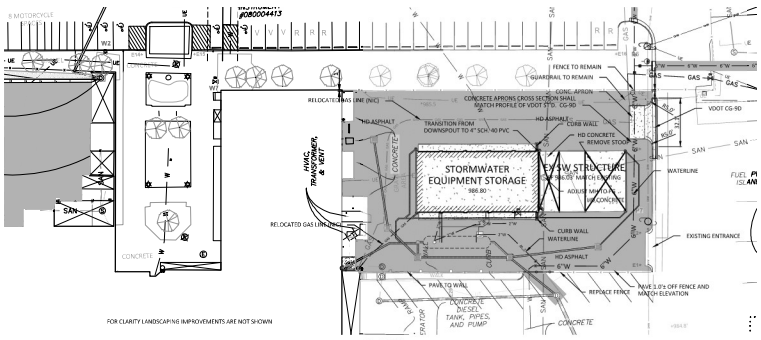
STORMWATER STORAGE WEST



STORM SEWER SYSTEM NOTES:
1. THE UTILITIES SHOWN IN THEIR APPROXIMATE LOCATION. NOT ALL UTILITIES SHOWN.CONTRACTOR SHALL VERIFY.
2. CORE NEW OPENING IN STRUCTURE MH-37 (EXIST. D-35)



GRADING PLAN
Scale 1" = 30'



LAYOUT PLAN
Scale 1" = 30'

0 15' 30' 60'

LEGEND

- HD ASPHALT
- CONCRETE / HD CONCRETE
- PROPOSED STRUCTURE
- WATER VALVE
- FIRE HYDRANT
- PROPERTY LINE
- INTERMEDIATE CONTOUR
- 80 INDEX CONTOUR
- DRAINAGE / STORM DRAIN PIPE
- UE UNDERGROUND ELECTRICAL
- SANITARY SEWER LINE
- 2"W WATER LINE
- DRAINAGE DITCH
- CHAIN LINK FENCE
- DOWNSPOUT W/ TURNOUT
- DOWNSPOUT W/ SPLASHBLOCK
- DOWNSPOUT WITH RAINLEADER TYPE A
- DOWNSPOUT WITH RAINLEADER TYPE B
- 80.43 TW TOP OF WALL ELEVATION
- 74.80 BW BOTTOM OF WALL ELEVATION
- x 77.98 FG , x 77.98 FINISHED GRADE ELEVATION
- x 72.49 TS TOP OF SLAB ELEVATION
- x 73.29 EX EXISTING GRADE ELEVATION

65	VDOT STD. D4-1 TOP ELEV. 985.80' INV. OUT 982.30'	H=3.5'± (12")
66	VDOT STD. D4-1 TOP ELEV. 986.05' INV. IN 981.00' INV. OUT 981.00'	H=5.0'± (12") (12")
65 - 66	55'± - 12" PIPE INV. IN 982.30' INV. OUT 981.60'	S=1.2%±
67	VDOT STD. D4-1 TOP ELEV. 986.00' INV. IN 978.80' INV. IN 980.32' INV. OUT 978.70'	H=7.3'± (12") (12") (12")
66 - 67	24'± - 12" PIPE INV. IN 981.00' INV. OUT 980.32'	S=2.4%±
68	VDOT STD. D4-1 TOP ELEV. 985.10' INV. IN 982.00' INV. OUT 981.95'	H=3.60'± (5") (12")
69	VDOT STD. D4-1 TOP ELEV. 986.00' INV. IN 977.87' INV. IN 981.00' INV. IN 982.00' INV. OUT 977.77'	H=8.2'± (12") (12") (12") (12")
67 - 69	57'± - 12" PIPE INV. IN 978.70' INV. OUT 977.87'	S=1.4%±
68 - 69	55'± - 12" PIPE INV. IN 981.55' INV. OUT 981.00'	S=0.9%±
37	EXISTING D-35 TOP ELEV. 985.99' INV. IN 977.29' (12") CORE NEW OPENING IN EX. STRUCTURE	
69 - 37	30'± - 12" PIPE INV. IN 977.77' INV. OUT 977.29'	S=1.2%±

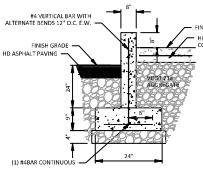
DRAINAGE DESCRIPTIONS (REVISED AND ADDITIONS)

DRAINAGE NOTES:
1. REFER TO SHEET B-1 FOR ADDITIONAL DESCRIPTIONS AND DETAILS.
2. ALL PIPES SHALL BE INSTALLED PER DETAIL TRENCH BACKFILL DETAIL SHOWN ON DETAIL SHEET C-2.4.
3. WHERE PIPE MATERIAL NOT INDICATED IN THE DESCRIPTIONS ABOVE, THEY MAY BE CONCRETE VDOT CLASS III RCP OR ADS HP DUAL WALL STORM PIPE OR APPROVED EQUAL.
4. ALL CONCRETE PIPE SHALL BE VDOT CLASS III RCP.
5. ALL PVC PIPES LISTED ABOVE SHALL BE SOLVENT WELDED SCHEDULE 80 OR SDR-35 PVC W/ PUSH ON CONNECTIONS
6. INCREASE THE INLET AND THE MANHOLE DIAMETERS TO ACCOMMODATE THE PROPOSED PIPES WHILE MAINTAINING H20 LOADING REQUIREMENTS.
7. PIPE LENGTHS ARE FROM STRUCTURE TO STRUCTURE AND BASED ON PLAN VIEW AND 4.0' DIAMETER STRUCTURES. ADJUST LENGTHS AND STRUCTURE DIAMETERS ACCORDINGLY.
8. REFER TO THE UTILITY PROFILES FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
9. VERIFY ALL ELEVATIONS PRIOR TO ORDERING MATERIALS AND ADJUST ELEVATIONS TO MATCH FIELD CONDITIONS, ALL STRUCTURE HEIGHTS AND PIPE LENGTHS ARE FOR CONTRACTOR'S CONVENIENCE, VERIFY
10. CONTACT THE ARCHITECT/ENGINEER IF ROCK IS ENCOUNTERED
11. ALL ELEVATIONS ARE TO THE TOP OF RIM AS SHOWN ON THE PLANS
12. ALL STRUCTURES 4.0' HIGH OR MORE SHALL HAVE STEPS, VDOT ST-1, SEE VDOT DETAIL 106.05 FOR DETAILS SHEET C-8.2
13. ALL STRUCTURES GREATER THAN 10.0' SHALL HAVE SAFETY SLABS, VDOT SL-1, SEE VDOT DETAIL 106.14 FOR DETAILS SHEET C-8.2
14. ALL INLET SHALL HAVE INLET SHAPING CONFORMING TO VDOT STANDARD IS-1, SEE VDOT DETAIL 106.08 FOR DETAILS SHEET C-8.2
15. RAINLEADER SHALL BE PVC SCH. 40 WITH SOLVENT WELDED FITTINGS OR SDR-35 WITH PUSH-ON FITTINGS
16. RAINLEADER DESCRIPTIONS DO NOT INCLUDE ALL OF THE REQUIRED FITTINGS. REFER TO PLAN SHEET FOR LAYOUTS
17. ALL RAINLEADERS SHALL HAVE A 6" MINIMUM CLEANOUT WITHIN 5.0' OF THE BUILDING EXTERIORS.

RAIN LEADER NOTES:
18. REFER TO THE ARCHITECTURAL DRAWING FOR RAINLEADER CONNECTION TYPE
19. ALL RAINLEADER PIPING SHALL BE PVC SCH 40 OR SDR-35.
20. ALL PROPOSED STRUCTURES (BUILDINGS) HAVE RAIN LEADERS AND OR UNDER DRAINS EXCEPT FOR THE DECANTING PAD
21. FOR CLARITY THE DESCRIPTIONS DO NOT INCLUDE ALL OF THE FITTING THAT ARE REQUIRED
22. VERIFY ALL ELEVATIONS PRIOR TO ORDERING MATERIALS
23. ALL RAIN LEADERS SHALL HAVE A MINIMUM SLOPE OF 1.0% AND HAVE 1.5' OF COVER.
24. CONNECT ALL DOWNSPOUTS TO THE RAINLEADERS WITH CAST IRON CONNECTIONS. SEE DETAIL "DOWNSPOUT CONNECTION" ON SHEET C-3.1
25. ALL RAIN LEADERS REQUIRE A 6" CLEANOUT WHERE SHOWN AND ADJACENT TO ALL CONNECTIONS. SEE DETAIL "COMBO. DOWNSPOUT / CLEANOUT" DETAIL ON SHEET C-5.

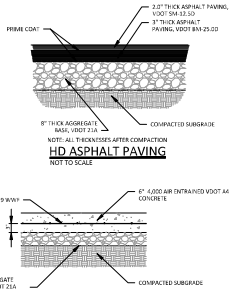
VERTICAL METAL SIDING NOTES:
26. TRIM SIDING TO PROVIDE 8 INCH CLEARANCE BETWEEN THE BOTTOM OF THE SIDING AND THE ADJOINING CONCRETE SLAB AND/ OR ASPHALT.
27. SET WITH FULL BED OF MASTIC OR SILICONE
28. MATCH EXISTING SIDING AND SILL.
29. COVER EXPOSED SHEETING WITH .030-INCH MINIMUM PVC COVERED COIL METAL SIDING TRIM. MATCH EXISTING COLOR.

RFP PRICING NOT FOR CONSTRUCTION DOCUMENT



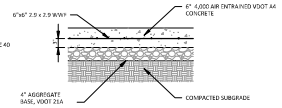
NOTES:
1. CONCRETE SHALL BE VDOT A4-4,000 PSI CONCRETE
2. REBAR SHALL BE DEFORMED STEEL BAR CONFORMING TO ASTM A-615 GRADE 40 OR GRADE 60
3. VERTICAL REBAR SHALL BE 12" ON CENTER

CURB WALL
NOT TO SCALE



NOTE: ALL THICKNESSES AFTER COMPACTION

HD ASPHALT PAVING
NOT TO SCALE



NOTES:
1. THICKNESS AFTER COMPACTION
2. GRADE SURROUNDING SOILS 0.5 INCHES BELOW THE TOP OF THE CONCRETE AND GRADE THE SURROUNDING SOIL TO DRAIN
3. THE CONCRETE SHALL BE VDOT A4 AIR ENTRAINED 4,000 PSI CONCRETE

HEAVY-DUTY (HD) CONCRETE
NOT TO SCALE

REVISIONS	
1	OCT. 13, 2021
2	MAR. 02, 2022
3	MAR. 23, 2022
4	APR. 22, 2022
5	MAY 04, 2022

DATE: NOV. 1, 2019

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ROANOKE

PUBLIC WORKS SERVICE CENTER IMPROVEMENTS
CITY OF ROANOKE
1802 Courtland Road
Roanoke, Virginia

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CHECKED BY: JRCH

FIELD REVISION #10 - SMW STORAGE BUILDING DRAINAGE AND GRADING REVISIONS

COMMONWEALTH OF VIRGINIA
04/22/2022
MARK JOHN AYLES
Lic. No. 034190

COMMISSION No. 19061

SHEET
FR-10