RIVANNA WATER & SEWER AUTHORITY

AIRPORT ROAD PUMP STATION AND STORAGE TANK IMPROVEMENTS

ALBEMARLE COUNTY, VA

AMENDMENT TO APPROVED SITE PLAN SDP#202100056

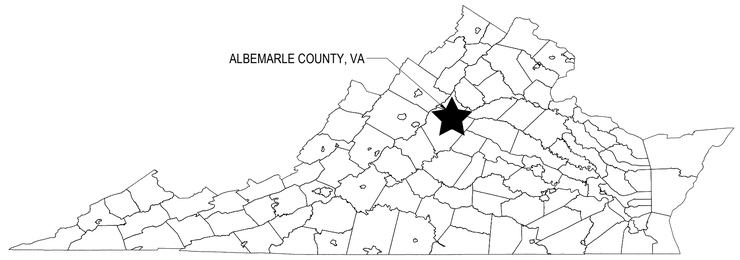
PROJECT LOCATION MAP

SHEET INDEX

G001	TITLE SHEET
C001	GENERAL NOTES & LEGENDS
C100	EXISTING CONDITIONS
C101	GRADING & EROSION & SEDIMENT CONTROL PLAN
C102	EROSION & SEDIMENT CONTROL DETAILS
C200	SITE PLAN
C202	STORMWATER - PLAN & PROFILE
C203	LANDSCAPING PLAN
C500	CIVIL DETAILS
P001	GENERAL PROCESS INFORMATION
P101	FLOW CONTROL VALVE VAULT - PLAN & SECTION
P102	WATER STORAGE TANK - PLAN, SECTION & ISOMETRIC
DP501	PROCESS DETAILS

TOTAL NUMBER OF SHEETS: 13

THIS PROJECT QUALIFIES AS REDEVELOPMENT UNDER ALBEMARLE COUNTY CODE CHAPTER 17. THE SITE INCLUDES EXISTING IMPERVIOUS AREA ASSOCIATED WITH THE EXISTING PUMP STATION FACILITIES.



VIRGINIA

OWNER INFORMATION:
RIVANNA WATER AND SEWER AUTHORITY
695 MOORES CREEK LANE
CHARLOTTESVILLE, VA 22902

PROJECT INFORMATION:

PROPERTY #:	TMP-32-41A2
ADDRESS:	4384 BERKMAR DRIVE
DISTURBED AREA:	33,536 SF (0.77 AC) (APPROX)
EXISTING IMPERVIOUS AREA:	7,840 SF (0.18 AC)
PROPOSED IMPERVIOUS AREA:	18,295.2 (0.42 AC)
PROPOSED TANKS NO. 1 & NO. 2:	10,306 SF (0.24 AC)
NET CHANGE:	(0.24 AC)
EXISTING/PROPOSED ZONING:	RURAL AREAS DISTRICT
MAGISTERIAL:	RIO DISTRICT
EXISTING/PROPOSED USE:	PUBLIC WATER STORAGE TANKS
WATERSHED:	POWELL CREEK
OVERLAY DISTRICTS:	ENTRANCE CORRIDOR/AIRPORT IMPACT DISTRICT
WATERSHED:	POWELL CREEK - THIS SITE IS NOT LOCATED WITHIN A WATER SUPPLY WATERSHED
ENGINEER:	SHORT ELLIOTT HENDRICKSON INC. 400 LOCUST AVE, SUITE 2 CHARLOTTESVILLE, VA 22902
SURVEYOR:	NIXON LAND SURVEYING LLC 1063 AIRPORT RD C LYNCHBURG, VA 24502
DATUM:	HORZ: NAD-83 VERT: NAD-88
SETBACKS: ROAD	250' MINIMUM FRONTAGE ALONG EXISTING PUBLIC 150' MINIMUM FRONTAGE ALONG INTERNAL PUBLIC ROAD OR PRIVATE ROAD 75' FRONT SETBACK 25' SIDE SETBACK 35' REAR SETBACK

FRONT SETBACK NOTE: FRONT SETBACK SHOWN IS 75' FROM EXISTING PROPERTY LINE RUNNING ROUGHLY PARALLEL TO EXISTING BERKMAR DR RIGHT-OF-WAY. PROPOSED WATER STORAGE TANKS IS ALSO SET BACK AT LEAST 75' FROM THE ANTICIPATED VDOT RIGHT-OF-WAY FOR BERKMAR DR,

THIS BAR IS INTENDED TO BE 1" PRINTED AT FULL SCALE 5/4/2026 3:50:51 PM

SEH

COMMONWEALTH OF VIRGINIA
NATHANIEL D. NICKERSON
Lic. No. 0402047945
05/01/2026
PROFESSIONAL ENGINEER

Project Owner
RIVANNA WATER & SEWER AUTHORITY
695 MOORES CREEK LANE
CHARLOTTESVILLE, VA 22902

RIVANNA WATER & SEWER AUTHORITY
AIRPORT ROAD PUMP STATION AND STORAGE TANK IMPROVEMENTS
4384 BERKMAR DRIVE
ALBEMARLE COUNTY, VA

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SEH Project	RIVAN 189740
Checked By	NDN
Drawn By	WSW

Project Status	**Issue Date**
ARB/SDP SUBMITTAL	05/01/2026

REVISION SCHEDULE

REV. #	DESCRIPTION	DATE

TITLE SHEET

G001

EXISTING

- RIGHT OF WAY
- PERMANENT EASEMENT
- PROPERTY LINE
- HORIZONTAL CONTROL POINT
- BENCHMARK
- SURVEY MARKER
- SOIL BORING
- SANITARY SEWER AND MANHOLE
- FORCE MAIN AND LIFT STATION
- SANITARY SEWER SERVICE & CLEANOUT
- WATER MAIN, HYDRANT, VALVE AND MANHOLE
- WATER SERVICE AND CURB STOP BOX
- STORM SEWER, MANHOLE AND CATCH BASIN
- CULVERT AND APRON ENDWALL
- GAS MAIN, VALVE, VENT AND METER
- HANDHOLE
- BURIED FIBER OPTIC CABLE AND MANHOLE
- BURIED PHONE CABLE, PEDESTAL AND MANHOLE
- BURIED TV CABLE, PEDESTAL AND MANHOLE
- BURIED ELECTRIC MANHOLE, CABLE, PEDESTAL, TRANSFORMER AND METER
- OVERHEAD WIRE, POLE AND GUY WIRE
- LIGHT POLE
- TRAFFIC SIGNAL
- STREET NAME SIGN
- SIGN (NON STREET NAME)
- RAILROAD TRACKS
- DECIDUOUS AND CONIFEROUS TREE
- BUSH / SHRUB AND STUMP
- EDGE OF WOODED AREA
- WETLAND
- BUILDING
- FENCE (UNIDENTIFIED)
- BARBED WIRE FENCE
- CHAIN LINK FENCE
- ELECTRIC WIRE FENCE
- WOOD FENCE
- WOVEN WIRE FENCE
- PLATE BEAM GUARDRAIL
- CABLE GUARDRAIL
- POST / BOLLARD
- RETAINING WALL

PROPOSED

- STREET CENTERLINE
- RIGHT-OF-WAY
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- CONSTRUCTION LIMITS
- SANITARY SEWER, BULKHEAD AND MANHOLE
- FORCE MAIN
- SANITARY SERVICE AND CLEANOUT
- WATER MAIN, TEE, HYDRANT, BULKHEAD AND VALVE
- WATER VALVE MANHOLE, REDUCER, BEND AND CROSS
- WATER SERVICE AND CURB STOP BOX
- STORM SEWER, MANHOLE AND CATCH BASIN
- CULVERT AND APRON ENDWALL
- DRAIN TILE
- DITCH / SWALE
- RIPRAP
- STREET NAME SIGN
- SIGN (NON STREET NAME)
- RETAINING WALL
- PARKING METER, E911 SIGN, AIRCRAFT TIE-DOWN

GENERAL NOTES

1. CONSTRUCTION LIMITS ARE THE RIGHT-OF-WAY & EASEMENT LINES AS SHOWN ON THE PLANS.
2. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
3. CONTRACTOR SHALL BID PROJECT ASSUMING THAT PRIVATE UTILITIES WILL NOT BE MOVED UNLESS SPECIFICALLY NOTED FOR RELOCATION ON PLANS.
4. CONTRACTOR SHALL VERIFY FIELD CONDITIONS BEFORE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES..
5. THE LOCATIONS OF EXISTING UTILITIES SHOWN ARE APPROXIMATE AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED IN THE FIELD BEFORE DIGGING. CONTRACTOR SHALL COORDINATE RELOCATION OF PRIVATE UTILITIES.
6. COORDINATE MATERIAL AND EQUIPMENT STAGING AREA WITH OWNER PRIOR TO CONSTRUCTION.
7. HORIZONTAL CONTROL IS REFERENCED TO NAD 83, VIRGINIA SOUTH ZONE, AND VERTICAL CONTROL IS REFERENCED TO NAVD88.
8. CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FROM THE APPROPRIATE DEPARTMENTS, AND/OR AGENCIES HAVING JURISDICTION PRIOR TO COMMENCING WORK.
9. CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE TO EXISTING PAVEMENT, TREES, VEGETATION, STRUCTURES AND UTILITIES THAT ARE NOT INDICATED TO BE DEMOLISHED OR REMOVED. ANY DAMAGE TO EXISTING PAVEMENT, TREES, VEGETATION, STRUCTURES AND UTILITIES NOT INDICATED TO BE DEMOLISHED OR REMOVED SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ANY FENCING DISTURBED DURING CONSTRUCTION SHALL BE REPLACED TO ORIGINAL CONDITION.
10. UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEY INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE TO THEM. THE CONTRACTOR SHALL CONTACT VIRGINIA 811 AT www.va811.com, PHONE NUMBER 811 OR 1-800-552-7001 TO REQUEST UNDERGROUND UTILITY LOCATION MARK-OUT AT LEAST THREE (3) WORKING DAYS BUT NO MORE THAN TEN (10) WORKING DAYS PRIOR TO BEGINNING EXCAVATION, INCLUDING SOIL DRILLING. THE CONTRACTOR SHALL ALSO CONTACT AND REQUEST UTILITY LOCATION MARK-OUT FROM BURIED UTILITY OWNERS WITH UTILITIES ON THE PROJECT SITE THAT ARE NOT PARTICIPANTS OF VIRGINIA 811.
11. WHERE PROPOSED WORK IS IN THE VICINITY OF UTILITY POLES, SUCH THAT SUPPORT OF THE POLE(S) WILL BE REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE UTILITY OF THE WORK. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE UTILITY FOR SUPPORT OF THE POLE.
12. WHERE OVERHEAD POWER LINES ARE PRESENT, CONTRACTOR MUST CONTACT THE UTILITY PRIOR TO CONSTRUCTION ACTIVITIES TO DETERMINE THE MINIMUM REQUIRED EQUIPMENT CLEARANCE (MEC) DISTANCE BASED UPON LINE STRENGTH.
13. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS GENERATED DURING THE PROJECT OFF-SITE AT A PROPERLY PERMITTED DISPOSAL FACILITY.
14. ELEVATIONS AND DIMENSIONS WHERE NEW WORK WILL MATCH EXISTING DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO THE COMMENCEMENT OF WORK.
15. RETAINING WALLS GREATER THAN 3 FEET IN HEIGHT REQUIRE A SEPARATE BUILDING PERMIT. WALLS EXCEEDING 4 FEET IN HEIGHT REQUIRE A STAMPED ENGINEERED DESIGN ALSO. SEGMENTAL WALLS REQUIRE RDP INSPECTIONS, OTHERS WILL REQUIRE INSPECTIONS AS OUTLINED IN THE USBC.
16. BUILDING OR STRUCTURES BUILT BEFORE JANUARY 1, 1985 MUST HAVE AN ASBESTOS SURVEY PERFORMED IN ORDER TO APPLY FOR A DEMOLITION PERMIT. ASBESTOS REMOVAL PERMITS ARE REQUIRED IF POSITIVE FOR SUCH FROM ALBEMARLE COUNTY AND VDOLI. CONTACT VDOLI FOR THEIR ADDITIONAL REQUIREMENTS AND PERMITS FOR DEMOLITION PROJECTS AT 540-562-3580X131.
17. ALL ROOF DRAINS SHALL DISCHARGE IN A MANNER NOT TO CAUSE A PUBLIC NUISANCE AND NOT OVER SIDEWALKS.
18. ALL HANDICAP ACCESSIBLE PARKING SPACES SHALL BE IDENTIFIED BY ABOVE GRADE SIGNS. A SIGN OR SYMBOL PAINTED OR OTHERWISE DISPLAYED ON THE PAVEMENT OF A PARKING SPACE SHALL NOT CONSTITUTE AN ABOVE GRADE SIGN. ALL ABOVE GRADE PARKING SPACE SIGNS SHALL HAVE THE BOTTOM EDGE OF THE SIGN NO LOWER THAN 4 FEET (1219 MM) NOR HIGHER THAN 7 FEET (2133 MM) ABOVE THE PARKING SURFACE. ALL DISABLED PARKING SIGNS SHALL INCLUDE THE FOLLOWING LANGUAGE: PENALTY, $100 TO 500 FINE, TOW-AWAY ZONE. SUCH LANGUAGE MAY BE PLACED ON A SEPARATE SIGN AND ATTACHED BELOW EXISTING ABOVE GRADE DISABLE PARKING SIGNS, PROVIDED THAT THE BOTTOM EDGE OF THE ATTACHED SIGN IS NO LOWER THAN 4 FEET (1219 MM) ABOVE THE PARKING SURFACE.
19. ACCESSIBLE PARKING SPACES, ACCESS ISLES AND ACCESSIBLE ROUTE SHALL BE INSTALLED IN ACCORDANCE WITH ICC ANSI A117.1-17 AND THE 2021 VIRGINIA CONSTRUCTION CODE.
20. GENERAL WATER AND SEWER CONDITIONS, AND APPLICABLE DETAILS SHALL COME FROM THE RIVANNA SERVICE AUTHORITY CONSTRUCTION SPECIFICATIONS (FOUND AT http://serviceauthority.org/new-construction-guidelines).

REMOVALS

1. CONTRACTOR SHALL GIVE THE ENGINEER AT LEAST 7 DAYS NOTICE PRIOR TO STARTING CONSTRUCTION.
2. ALL CONCRETE, EARTHWORK, BITUMINOUS AND STRUCTURES REMOVED FOR CONSTRUCTION SHALL NOT BE INCORPORATED BACK INTO THE PROJECT PER PLAN. ALL DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE THE PROJECT LIMITS FOLLOWING CITY AND STATE REGULATIONS AND ORDINANCES.
3. SAWCUT BITUMINOUS PAVEMENT AT ALL DRIVEWAY AND EXISTING STREETS MATCH POINTS AND AS DIRECTED BY THE ENGINEER IN THE FIELD.
4. THE CONTRACTOR SHALL SAWCUT PAVEMENT AS INDICATED ON THE PLANS TO SEPARATE THE EXISTING MATERIAL TO BE REMOVED BY MEANS OF AN APPROVED SAW. SUITABLE GUIDELINES OR DEVICES SHALL BE USED TO ASSURE CUTTING A NEAT, STRAIGHT LINE AS SHOWN ON THE PLANS. CARE SHALL BE TAKEN BY THE CONTRACTOR SO AS NOT TO DAMAGE THE REMAINING MATERIALS DIRECTLY ADJACENT TO THE MATERIALS TO BE REMOVED. ANY DAMAGE TO THE EXISTING MATERIAL RESULTING FROM THE MATERIAL REMOVAL OPERATIONS SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
5. ENGINEER WILL MARK LIMITS OF REMOVALS. ADDITIONAL REMOVALS NEEDED FOR CONSTRUCTION SHALL BE VERIFIED WITH THE ENGINEER PRIOR TO REMOVAL.
6. ALL KNOWN UTILITIES ARE SHOWN ON THE PLANS. ADDITIONAL UTILITIES MAY BE PRESENT WITHIN THE CONSTRUCTION LIMITS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT EXISTING UTILITIES.
7. NO TREES OR SHRUBS ARE TO BE REMOVED, UNLESS SPECIFICALLY MARKED FOR REMOVAL IN THE PLANS, WITHOUT PRIOR APPROVAL OF THE ENGINEER.
8. PROTECT ALL FACILITIES NOT SPECIFICALLY DESIGNATED FOR REMOVAL.
9. SEQUENCE REMOVALS AS NECESSARY TO MAINTAIN OPERATION AND MINIMIZE DISRUPTION TO UTILITY SERVICE.

STREET CONSTRUCTION

1. FINAL HEIGHT OF ADJUSTED CASTINGS, GATE VALVES AND CURB STOPS LOCATED IN PAVEMENT SHEALL BE CONSTRUCTED WITHIN A TOLERANCE OF ± 0.05 FOOT OF THE FINISHED GRADE.
2. CONSTRUCT ALL RADII AS PER PLANS. ALL RADII SHOWN ARE TO THE BITUMINOUS EDGE.
3. THE ELEVATIONS SHOWN ON THE PLANS ARE FINISHED GRADES OF PROPOSED PAVEMENT, UNLESS OTHERWISE INDICATED.

TRAFFIC CONTROL:

1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE CURRENT REVISION OF THE SUPPLEMENT TO THE VIRGINIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) INCLUDING THE VIRGINIA WORK AREA PROTECTION MANUAL (VWAPM). THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL TRAFFIC CONTROL DEVICE AND INSTALLATIONS NECESSARY TO PROVIDE SAFE AND EFFECTIVE WORK AREAS AND TO WARN, CONITROL, PROTECT, AND EXPEDITE VEHICULAR AND PEDESTRIAN TRAFFIC. WHEN WORK IS NOT IN PROGRESS OR THE HAZARD NO LONGER EXISTS, APPROPRIATE MEASURES SHALL BE TAKEN TO REMOVE, FOLD, OR COVER THE DEVICES. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE HIS WORK IN EACH PROJECT PHASE SUCH THAT EACH PROPERTY OWNER ABUTTING THE STREETS THAT ARE TO BE IMPROVED SHALL HAVE REASONABLE ACCESS OPEN TO THEIR PROPERTY AT ALL TIMES. PROPERTY OWNERS SHALL BE GIVEN 24 HOURS ADVANCE NOTICE OF LOSS OF ACCESS IN WRITING. LOSS OF ACCESS SHALL BE LIMITED TO 4 HOURS. ALL ROADWAYS SHALL BE MAINTAINED IN A PASSABLE CONDITION AT THE END OF EACH WORKING DAY. ALL BARRICADES, SIGNING, FLASHING WARNING LIGHTS, CHANNELIZING DEVICES OR FLAG MEN AS NECESSARY IN EACH PHASE SHALL BE INCLUDED IN THE LUMP SUM UNIT PRICE BID FOR TRAFFIC CONTROL.

TURF RESTORATION & EROSION CONTROL

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SOIL DISTURBING ACTIVITIES.
2. CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL EROSION CONTROL MEASURES AS SHOWN ON THESE PLANS AND SPECIFICATIONS AND IMPLEMENT ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY, OR AS DIRECTED BY ENGINEER, IN ORDER TO PROTECT ADJACENT PROPERTY.
3. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED WITH 6" OF TOPSOIL AND SEEDED AS SHOWN IN THE EROSION CONTROL PLANS.
4. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AN EROSION MANAGEMENT PLAN AND FOR THE IMPLEMENTATION AND MAINTENANCE OF THE PLAN. THE GENERAL CONTRACTOR SHALL CONTROL ON SITE EROSION SO AS NOT TO DISCHARGE ERODED MATERIAL ONTO ADJACENT PROPERTIES OR DOWN STREAM WITHOUT APPROVAL FROM THE OWNER AND THE ENGINEER. IF ANY EXCAVATION OR EMBANKMENT MATERIAL DOES FLOW ONTO EXISTING IMPROVEMENTS, THE CONTRACTOR SHALL IMMEDIATELY RECTIFY THE PROBLEM AND REPAIR DAMAGES.
5. ALL BMPS SHALL BE REMOVED ONCE TURF HAS REACHED SUBSTANTIAL GROWTH PER THE SPECIFICATIONS.
6. PROJECTS DISTURBING AN AREA GREATER THAN 2,500 SQUARE FEET OR MORE OF LAND OR A COMMON PLAN OF DEVELOPMENT OF SALE THAT DISTURBS GREATER THAN 1 ACRE WILL REQUIRE AN APPROVED EROSION AND SEDIMENT CONTROL (ESC) PLAN, A STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT AND A LAND DISTURBING PERMIT ISSUED BY THE LOCAL JURISDICTION OR VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (VDEQ). A RESPONSIBLE LAND DISTURBER MUST BE RECORDED FOR THE PROJECT.

SITE UTILITIES:

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING INVERTS, PIPE SIZES, MATERIALS, AND ELEVATIONS PRIOR TO CONSTRUCTION.
2. ALL SEWER INVERTS, ELEVATIONS, PIPE LENGTHS, AND GRADES ARE COMPUTED CENTER - TO - CENTER OF STRUCTURES AND TO OUTSIDE FACE OF BUILDINGS AND TANKS. SEE PROCESS OR MECHANICAL PLANS FOR EXACT LOCATION AND ELEVATION OF PIPES AT STRUCTURE FACE.
3. 3 FT MINIMUM COVER ON WATER MAIN INSTALLATIONS FROM FINISHED GRADE OR AS SHOWN ON PLAN.
4. WATER MAINS PASSING OVER OR UNDER SEWERS AND SERVICES SHALL HAVE A VERTICAL SEPARATION OF AT LEAST 18 INCHES BETWEEN THE OUTSIDE OF THE SEWER MAIN OR SERVICE AND OUTSIDE OF THE WATER MAIN. THE LENGTH OF PIPE SHALL BE CENTERED OVER THE CROSSING.
5. THE CONTRACTOR SHALL GIVE A 48 HOUR NOTICE AND SCHEDULE THE CONNECTION TO AN EXISTING WATER MAIN WITH THE RIVANNA WATER AND SEWER AUTHORITY..
6. SANITARY SEWER PIPE SHALL BE DUCTILE IRON PIPE.
7. ALL 4 INCH SANITARY SERVICE PIPE SHALL BE PRESSURE RATED ASTM D 1785.
8. ALL 6 INCH AND 8 INCH WATER MAIN SHALL BE CLASS 52.
9. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPE SIZES AND ELEVATIONS.
10. INSULATE ALL UTILITY CROSSINGS AND ALL UTILITIES WITH LESS THAN 3 FT BURY DEPTH USING XEPS INSULATION BOARD ACCORDING TO THE PIPE INSULATION DETAIL.
11. ALL WATER LINES, SEWER LINES AND FIRE LINES FROM THE MAIN TO THE STRUCTURE LOCATED ON PRIVATE PROPERTY MUST HAVE A VISUAL INSPECTION PERFORMED BY THE BUILDING DEPARTMENT.
12. WHEN THE FLOOD LEVEL RIMS OF PLUMBING FIXTURES ARE BELOW THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER, THE FIXTURES SHALL BE PROTECTED BY A BACKWATER VALVE INSTALLED IN THE BUILDING DRAIN, BRANCH OF THE BUILDING DRAIN OR HORIZONTAL BRANCH SERVING SUCH FIXTURES. PLUMBING FIXTURES HAVING FLOOD LEVEL RIMS ABOVE THE ELEVATION OF THE MANHOLE COVER OF THE NEXT UPSTREAM MANHOLE IN THE PUBLIC SEWER SHALL NOT DISCHARGE THROUGH A BACKWATER VALVE.

CONSTRUCTION RECORD DRAWINGS FOR VSMP

A. A SIGNED AND DATED PROFESSIONAL SEAL OF THE PREPARING ENGINEER OR SURVEYOR.
B. THE NAME AND ADDRESS OF THE FIRM AND INDIVIDUAL PREPARING THE DRAWINGS ON THE TITLE SHEET.
C. THE CONSTRUCTED LOCATION OF ALL ITEMS ASSOCIATED WITH EACH FACILITY, AND THE INSPECTION RECORDS TO VERIFY PROPER DIMENSIONS, MATERIALS AND INSTALLATION. THE ITEMS INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

1. INSPECTION RECORDS AND PHOTOGRAPHS FOR PIPE AND PERVIOUS PAVEMENT TRENCHES AND BEDDING, INCLUDING UNDERDRAINS.
2. VIDEO PIPE INSPECTION FOR ANY PIPES WHICH ARE NOT ACCESSIBLE OR VIEWABLE.
3. UPDATED LOCATION WITH GEO-COORDINATES OF ALL FACILITIES.
4. VERIFIED DRAINAGE AREA MAPS FOR THE DRAINAGE AREA TREATED, AND FOR DRAINAGE TO THE FACILITIES.
5. CURRENT PHYSICAL AND TOPOGRAPHIC SURVEY FOR ALL EARTHEN STRUCTURES. PERVIOUS PAVEMENT SECTIONS SHOULD INCLUDE A SURVEY OF THE CROSS-SECTION BOTTOM. SURVEYS SHOULD VERIFY STONE VOLUMES ARE PER DESIGN. CORRECTIONS MAY BE REQUIRED FOR ALTERATIONS FOR THE DESIGN.
6. PLANS AND PROFILES FOR ALL CULVERTS, PIPES, RISERS, WEIRS AND DRAINAGE STRUCTURES - DISPLAY THE INSTALLED TYPE OF DRAINAGE STRUCTURES,CULVERT/PIPE SIZE, WEIRS, MATERIALS, INLETS OR END TREATMENT (S), INLET AND OUTLET PROTECTION ALIGNMENT AND INVERT ELEVATIONS COMPARED TO DESIGN.
7. COMPUTATIONS: FOR SIGNIFICANT DEVIATIONS FROM DESIGN, PROVIDE SEALED COMPUTATIONS VERIFYING THAT THE AS-BUILT CONDITION IS EQUIVALENT OR BETTER THAN DESIGN.
8. EASEMENTS - SHOW ALL PLATTED EASEMENTS WITH DEED BOOK REFERENCES LABELED. FACILITIES AND DRAINAGE MUST BE WITHIN PLATTED EASEMENTS. PROVIDE COPIES OF RECORDED DOCUMENTS.
9. DITCH LINES - DISPLAY THE CONSTRUCTED LOCATION OF ALL DITCH LINES AND CHANNELS, INCLUDING TYPICAL SECTIONS AND LININGS.
10. GUARDRAIL, FENCES OR OTHER SAFETY PROVISIONS - DISPLAY THE CONSTRUCTED LOCATION OF ALL SAFETY PROVISIONS; FENCES, GUARDRAIL, INCLUDING THE TYPE, LENGTH AND APPLIED END TREATMENTS, COMPARED TO DESIGN.

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SEH

COMMONWEALTH OF VIRGINIA
NATHANIEL D. NICKERSON
Lic. No. 0402047945
PROFESSIONAL ENGINEER
05/01/2026

Project Owner
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AIRPORT ROAD PUMP STATION AND STORAGE TANK IMPROVEMENTS
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SEH Project	RIVAN 189740
Checked By	NDN
Drawn By	WSW

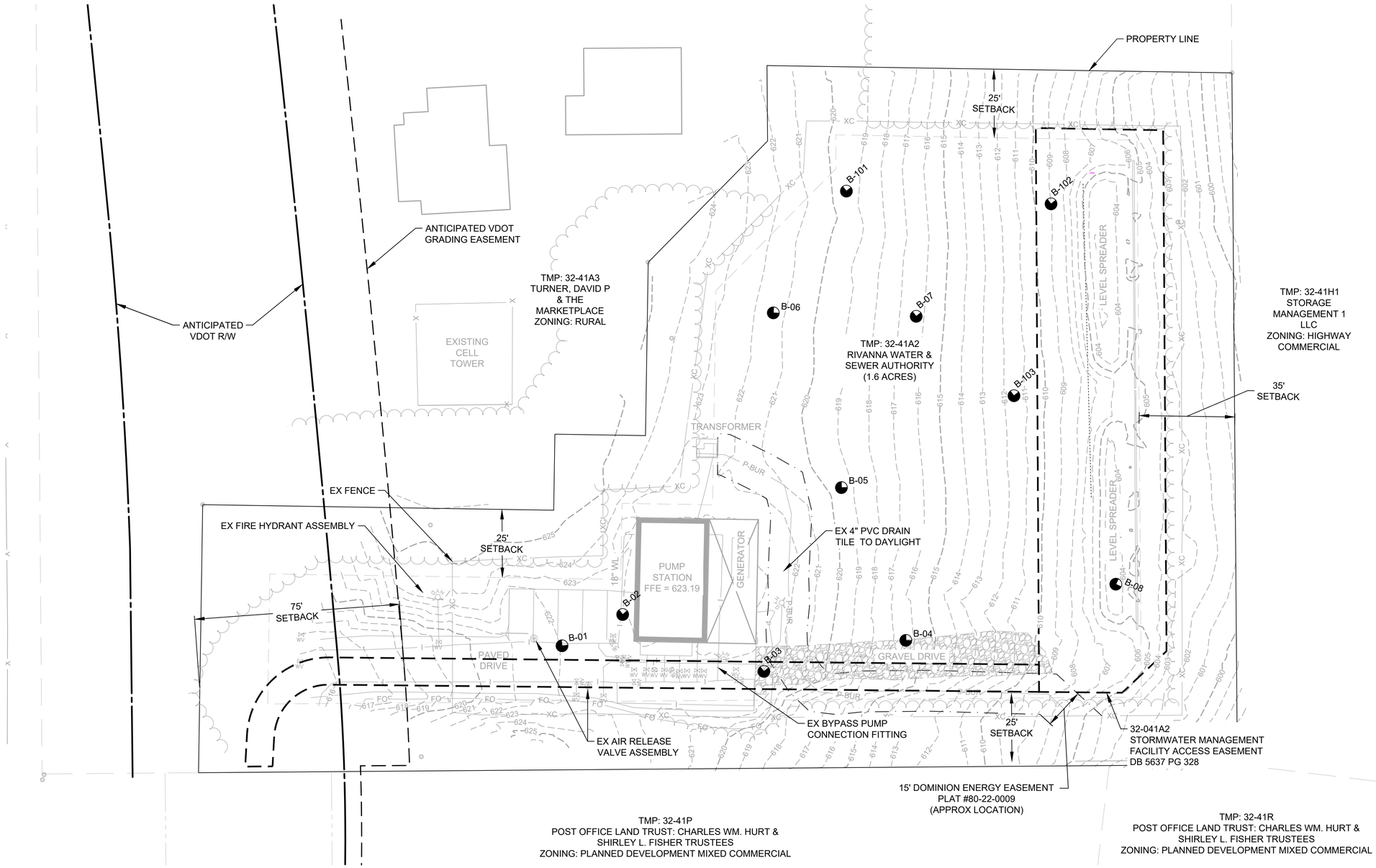
Project Status	Issue Date
ARB/SDP SUBMITTAL	05/01/2026

REVISION SCHEDULE

REV. #	DESCRIPTION	DATE

GENERAL NOTES & LEGENDS

C001



NOTES:

1. TOPOGRAPHIC INFORMATION, PHYSICAL FEATURES AND UNDERGROUND UTILITY LOCATIONS ARE BASED ON FIELD SURVEY PERFORMED BY NIXON SURVEYING IN MARCH OF 2026. HORIZONTAL POSITION IS BASED ON VIRGINIA STATE GRID, SOUTH ZONE, NAD83. VERTICAL ELEVATION IS BASED ON NAVD88 DATUM.
2. DOMINION ENERGY EASEMENT SHOWN IS A 15' WIDE EASEMENT CENTERED ON BURIED ELECTRICAL AND IS APPROXIMATE.

LEGEND

B-# BORE LOCATION

20 0 20 40
scale 10 feet

Save: 5/4/2026 10:00 AM kmarshall Plot: 5/4/2026 3:51 PM X:\PTR\RIVAN\189740\5-final-design\51-drawings\10-Civil\cad\dwg\sheet\RIVAN 189740_EX.dwg

SEH

COMMONWEALTH OF VIRGINIA
NATHANIEL D. NICKERSON
Lic. No. 0402047945
PROFESSIONAL ENGINEER
05/01/2026

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Drawn By	WSW

Project Status	Issue Date
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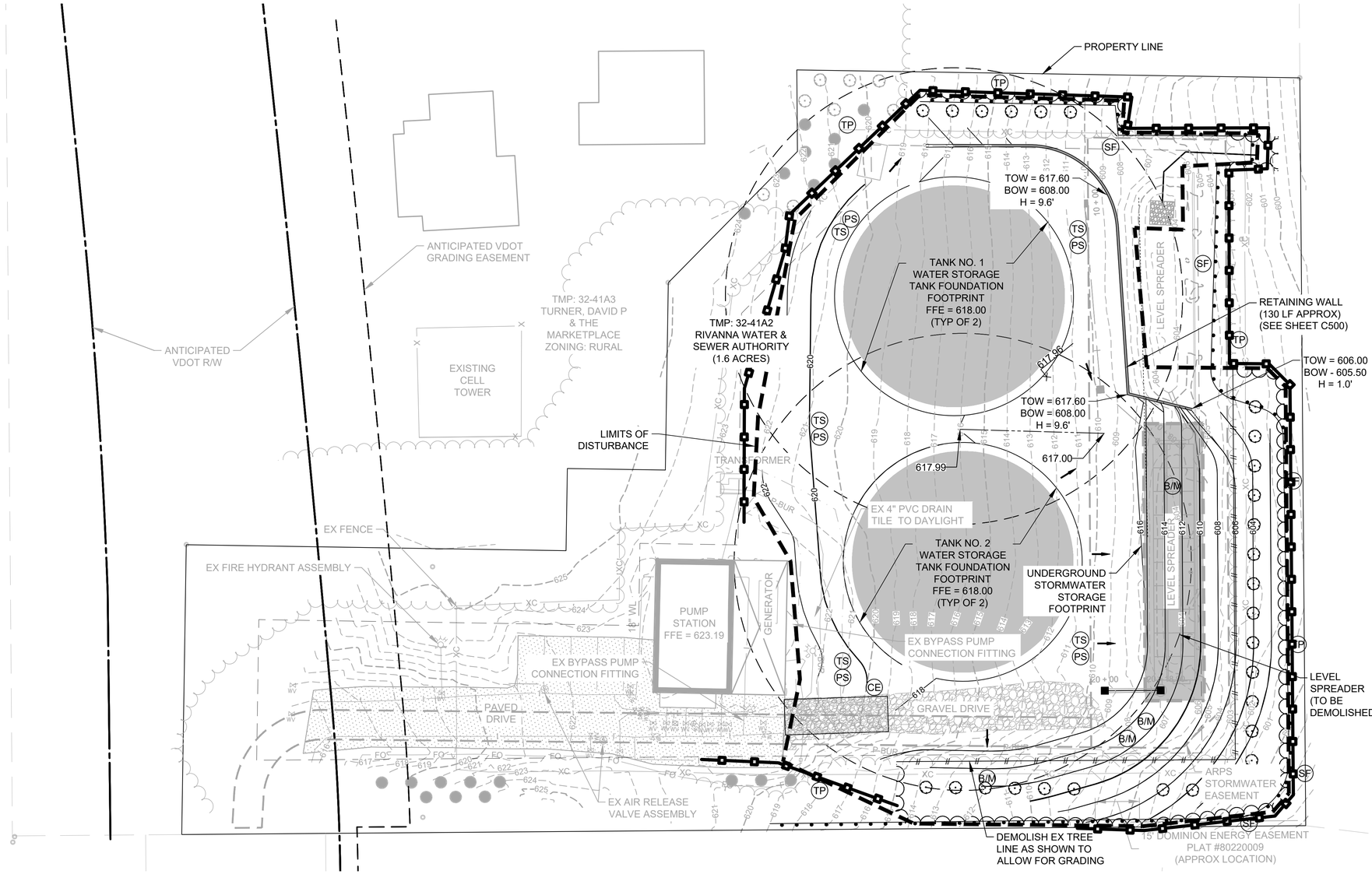
REVISION SCHEDULE

REV. #	DESCRIPTION	DATE

EXISTING CONDITIONS

C100



EROSION CONTROL LEGEND

- STORM DRAIN INLET PROTECTION
- (SF) SILT FENCE TYPE HI
- DRAINAGE DIRECTION
- SEDIMENT CONTROL LOG, TYPE ROCK
- (TS) TEMPORARY SEEDING
- (PS) PERMANENT SEEDING
- (B/M) BLANKETS/MATTING
- (CE) CONSTRUCTION ENTRANCE
- LIMITS OF DISTURBANCE
- (TP) TREE PROTECTION

N

20 0 20 40
scale 10 feet

CONSTRUCTION SEQUENCE:

1. INSTALL SILT FENCING, TRACKING PAD AND INLET PROTECTION PRIOR TO GRADING ACTIVITIES.
2. CONSTRUCT WATER TANK FOUNDATION PAD, ROUGH GRADE TANK AREA, RETAINING WALL, FLOW VALVE VAULT & INSTALL PROPOSED WATER MAIN.
3. BACKFILL AND RESTORE ALL TRENCHES IN-KIND.
4. GRADE SITE TO FINAL ELEVATION AND RESTORE. FINAL GRADING AND RESTORATION MAY BE COMPLETED CONCURRENTLY WITH ROUGH GRADING ACTIVITIES.
5. CONTRACTOR SHALL REMOVE ALL REMAINING TEMPORARY EROSION CONTROL MEASURES ONCE SEEDING AREAS HAVE ESTABLISHED 80% VEGETATIVE COVER. ANY DAMAGE CAUSED BY REMOVALS SHALL BE REPAIRED IN-KIND AND ARE CONSIDERED INCIDENTAL TO CONSTRUCTION.

EROSION CONTROL NOTES:

1. ALL LAND DISTURBING ACTIVITIES AND EROSION AND SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE REQUIREMENTS OF ALBEMARLE COUNTY CODE CHAPTER 17 (WATER PROTECTION ORDINANCE), ARTICLE II (EROSION & SEDIMENT CONTROL) AND THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS (9VAC25-840) AND THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK (VSMH), VERSION 1.2. MINIMUM STANDARDS MS-1 THROUGH MS-19 SHALL BE IMPLEMENTED AS APPLICABLE.
2. ALL EROSION AND SEDIMENT CONTROL PRACTICES TO BE CONSTRUCTED AND MAINTAINED IN CONFORMANCE WITH THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK.
3. UNSTABILIZED SLOPES SHALL BE TRACKED OTHERWISE ROUGHENED AT THE END OF EACH DAY TO REDUCE EROSION POTENTIAL AND PROMOTE STABILIZATION, IN ACCORDANCE WITH THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK (VSMH), VERSION 1.2, CHAPTER 7 (CONSTRUCTION EROSION AND SEDIMENT CONTROL BMPS - SURFACE ROUGHENING) AND MINIMUM STANDARD MS-1 (STABILIZATION OF DISTURBED AREAS).
4. TEMPORARY STABILIZATION SHALL BE PROVIDED BY TEMPORARY SEEDING AND MULCHING IN ACCORDANCE WITH VIRGINIA STORMWATER MANAGEMENT HANDBOOK (VSMH), VERSION 1.2, CHAPTER 7 (CONSTRUCTION EROSION AND SEDIMENT CONTROL BMPS - TEMPORARY SEEDING AND MULCHING) AND MINIMUM STANDARDS MS-1 (STABILIZATION OF DISTURBED AREAS). TEMPORARY SEEDING AND MULCHING SHALL BE APPLIED TO ANY DISTURBED AREAS THAT WILL NOT BE ACTIVELY WORKED FOR PERIOD EXCEEDING 14 DAYS.
5. PERMANENT STABILIZATION SHALL BE OBTAINED BY PERMANENT SEEDING AND SOIL STABILIZATION BLANKET OR EROSION CONTROL MATTING, AS APPLICABLE, IN ACCORDANCE WITH THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK (VSMH) VERSION 1.2, CHAPTER 7 (CONSTRUCTION EROSION AND SEDIMENT CONTROL BMPS - PERMANENT SEEDING AND EROSION CONTROL BLANKETS/MATTING) AND MINIMUM STANDARD MS-1 (STABILIZATION OF DISTURBED AREAS). INSTALLATION OF SOIL STABILIZATION BLANKETS SHALL BE PERFORMED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND VSMH INSTALLATION CRITERIA..
6. ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES SHALL BE INSPECTED BY THE CONTRACTOR OR DESIGNATED RESPONSIBLE LAND DISTURBER (RLD) AT LEAST ONCE EVERY (5) BUSINESS DAYS AND WITHIN 48 HOURS AFTER ANY MEASURABLE RAINFALL EVENT, IN ACCORDANCE WITH ALBEMARLE COUNTY CODE CHAPTER 17 AND 9VAC25-840-60.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, INSPECTION AND MAINTENANCE OF ALL ESC MEASURES UNTIL FINAL STABILIZATION IS ACHIEVED AND ACCEPTED BY ALBEMARLE COUNTY.

POLLUTION PREVENTION NOTES:

1. DEMOLITION - ALL MATERIALS TO BE REMOVED FROM SITE TO BE PLACED IN PROPER CONTAINER AS SOON AS POSSIBLE. AT END OF EACH WORKDAY ALL DEBRIS AND LITTER TO BE PICKED UP, AND PROPERLY DISPOSED OF.
2. DUST - A WATER TRUCK SHALL BE USED TO WET SLOPES AND ROADWAYS AS OFTEN AS NEEDED TO CONTROL DUST. LOCAL ORDINANCES SHALL BE FOLLOWED TO ENSURE COMPLIANCE WITH CURRENT WATER CONSERVATION MEASURES.
3. OILS/LUBRICANTS - ANY ROUTINE LUBRICATION OF CONSTRUCTION EQUIPMENT THAT WILL BE PERFORMED ON-SITE WILL BE DONE ONLY AS NEEDED AND PERFORMED ONLY BY COMPETENT, AND AUTHORIZED PERSONNEL. EQUIPMENT SHALL NOT BE PARKED OVER OR IN THE IMMEDIATE VICINITY OF ACTIVE STORM DRAINAGE STRUCTURES OR DRAINAGE WAYS WHILE PERFORMING THIS FUNCTION.
4. CLEARING, GRADING, EXCAVATING, AND UN-STABILIZED AREAS - FOLLOW EROSION AND SEDIMENT CONTROL PLAN.
5. PAVING OPERATIONS - COVER STORM DRAIN INLETS AND USE DRIP PANS AND ABSORBENT/OIL DRY FOR ALL PAVING MACHINES TO LIMIT LEAKS AND SPILLS.
6. CONCRETE WASHOUT AND CEMENT WASTE - DIRECT CONCRETE WASH WATER INTO A LEAK-PROOF CONTAINER OR LEAK-PROOF SETTLING BASIN THAT IS DESIGNED SO THAT NO OVERFLOWS CAN OCCUR. LOCATION SHALL BE OUTSIDE OF STORMWATER CONVEYANCE AND APPROVED BY ENGINEER.
7. MATERIAL DELIVERY AND STORAGE - DESIGNATED AREAS FOR MATERIAL DELIVERY AND STORAGE.
8. SOLID WASTE DISPOSAL - CONTRACTOR SHALL LOCATE WASTE COLLECTION AREA SUCH THAT IT WILL NOT RECEIVE A SUBSTANTIAL AMOUNT OF RUNOFF FROM UPLAND AREAS AND DOES NOT DRAIN DIRECTLY TO A WATERWAY. CONTAINERS HAVE LIDS COVERED BEFORE PERIODS OF RAIN, OR ARE IN A COVERED AREA. SCHEDULED COLLECTION TO PREVENT OVERFILLING. MATERIALS NOT TO BE BURIED ON-SITE. LOCATION TO BE APPROVED BY ENGINEER.
9. SANITARY WASTE - CONVENIENT AND WELL-MAINTAINED PORTABLE SANITARY FACILITIES WILL BE PROVIDED BY CONTRACTOR, AND LOCATED AWAY FROM WATERWAYS, INLETS, EXISTING BUILDINGS, AND/OR SIDEWALKS. SUCH FACILITIES SHALL BE REGULARLY MAINTAINED AND IN A DISCREET LOCATION.
10. LANDSCAPING OPERATIONS - APPLY FERTILIZERS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND NOT DURING RAINFALL EVENTS. SEE LANDSCAPING PLAN FOR LANDSCAPED LOCATIONS.
11. WASH WATERS - TO BE DIRECTED IN SUCH A MANNER NOT TO CAUSE ADDITIONAL EROSION. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING.

SEH

COMMONWEALTH OF VIRGINIA
NATHANIEL D. NICKERSON
Lic. No. 0402047945
PROFESSIONAL ENGINEER
05/01/2026

Project Owner
RIVANNA WATER & SEWER AUTHORITY
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RIVANNA WATER AND SEWER AUTHORITY
AIRPORT ROAD PUMP STATION AND STORAGE TANK IMPROVEMENTS
6384 BERKMAR DRIVE
CHARLOTTES/VILLE, VA 22902

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SEH Project	RIVAN 189740
Checked By	NDN
Drawn By	WSW

Project Status	Issue Date
ARB/SDP SUBMITTAL	05/01/2026

REVISION SCHEDULE

REV. #	DESCRIPTION	DATE

GRADING & EROSION & SEDIMENT CONTROL PLAN

C101

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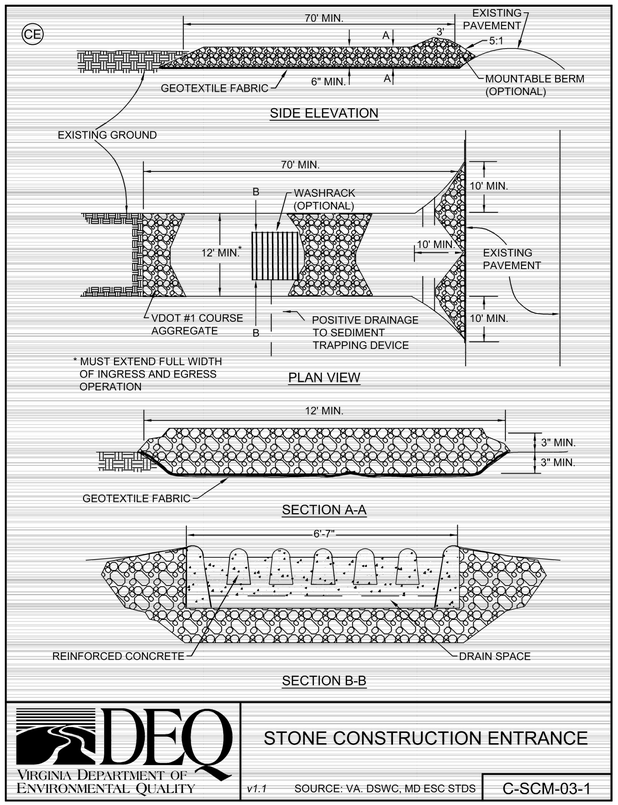
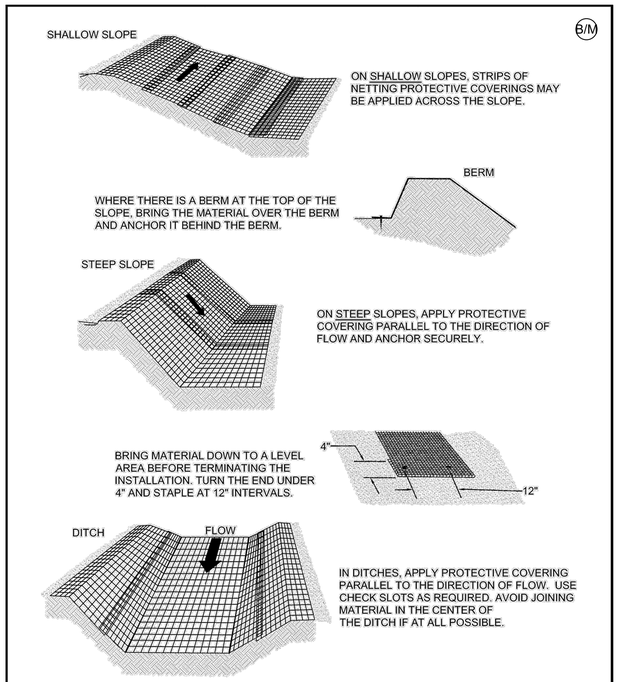


DEQ VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

STONE CONSTRUCTION ENTRANCE

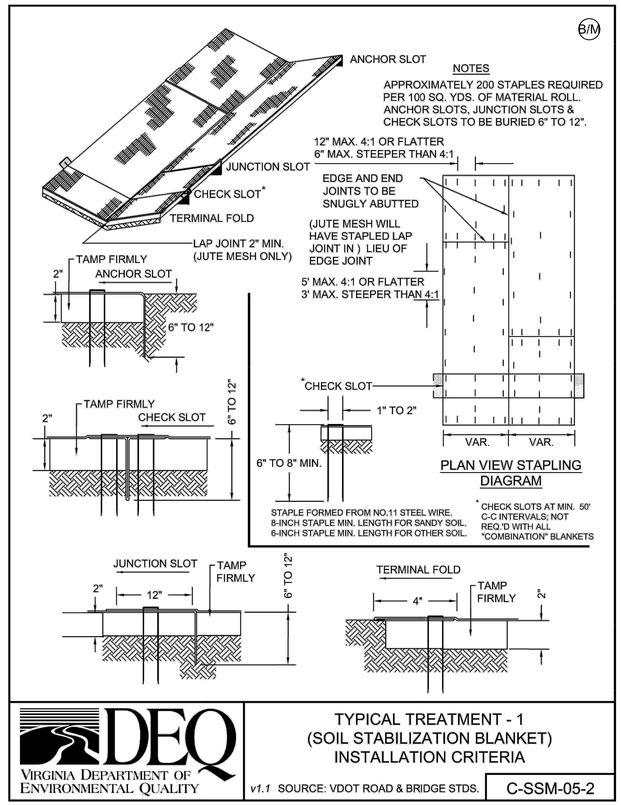
v1.1 SOURCE: VA. DSWC, MD ESC STDS | C-SCM-03-1



DEQ VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

TYPICAL ORIENTATION OF TREATMENT - 1 (SOIL STABILIZATION BLANKET)

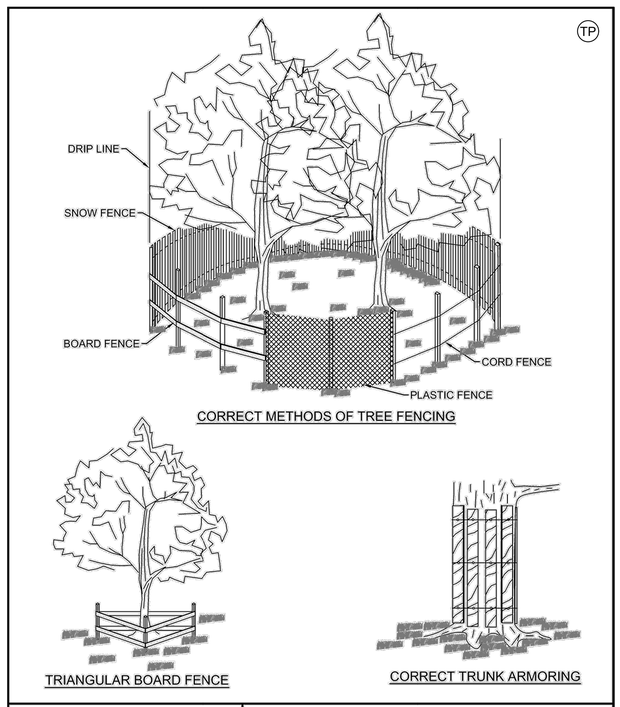
v1.1 SOURCE: ADAPTED FROM LUDLOW PRODUCTS BROCHURE | C-SSM-05-1



DEQ VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

TYPICAL TREATMENT - 1 (SOIL STABILIZATION BLANKET) INSTALLATION CRITERIA

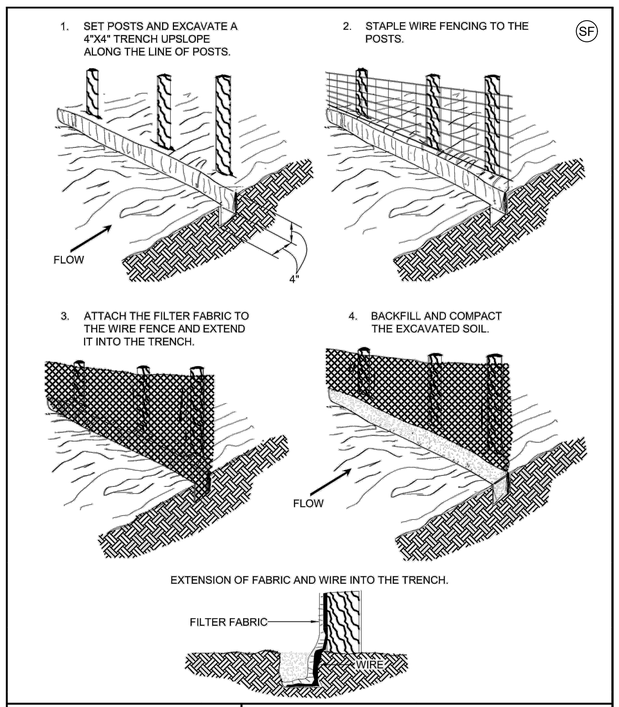
v1.1 SOURCE: VDOT ROAD & BRIDGE STDS. | C-SSM-05-2



DEQ VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

FENCING AND ARMORING

v1.1 SOURCE: VA. DSWC | C-SSM-01-2



DEQ VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

CONSTRUCTION OF SILT FENCE WITH WIRE SUPPORT INSTALLATION

v1.1 SOURCE: ADAPTED FROM STRAW & FAB. BARRIERS, SHERWOOD & WYANT | C-PCM-04-3

SEH

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RIVANNA WATER AND SEWER AUTHORITY
AIRPORT ROAD PUMP STATION AND STORAGE TANK
IMPROVEMENTS
6384 BERKMAR DRIVE
CHARLOTTESVILLE, VA 22902

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SEH Project	RIVAN 189740
Checked By	NDN
Drawn By	WSW

Project Status	**Issue Date**
ARB/SDP SUBMITTAL	05/01/2026

REVISION SCHEDULE

REV. #	DESCRIPTION	DATE

EROSION & SEDIMENT CONTROL DETAILS

C102

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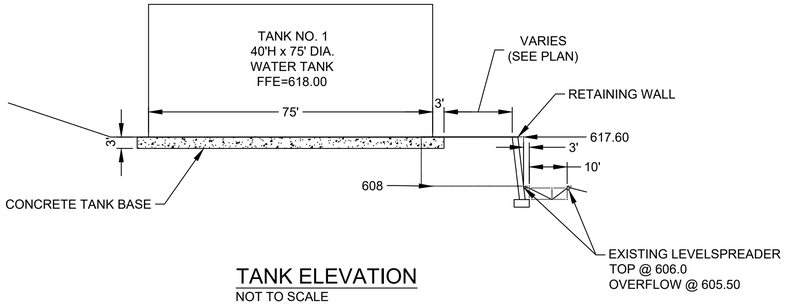
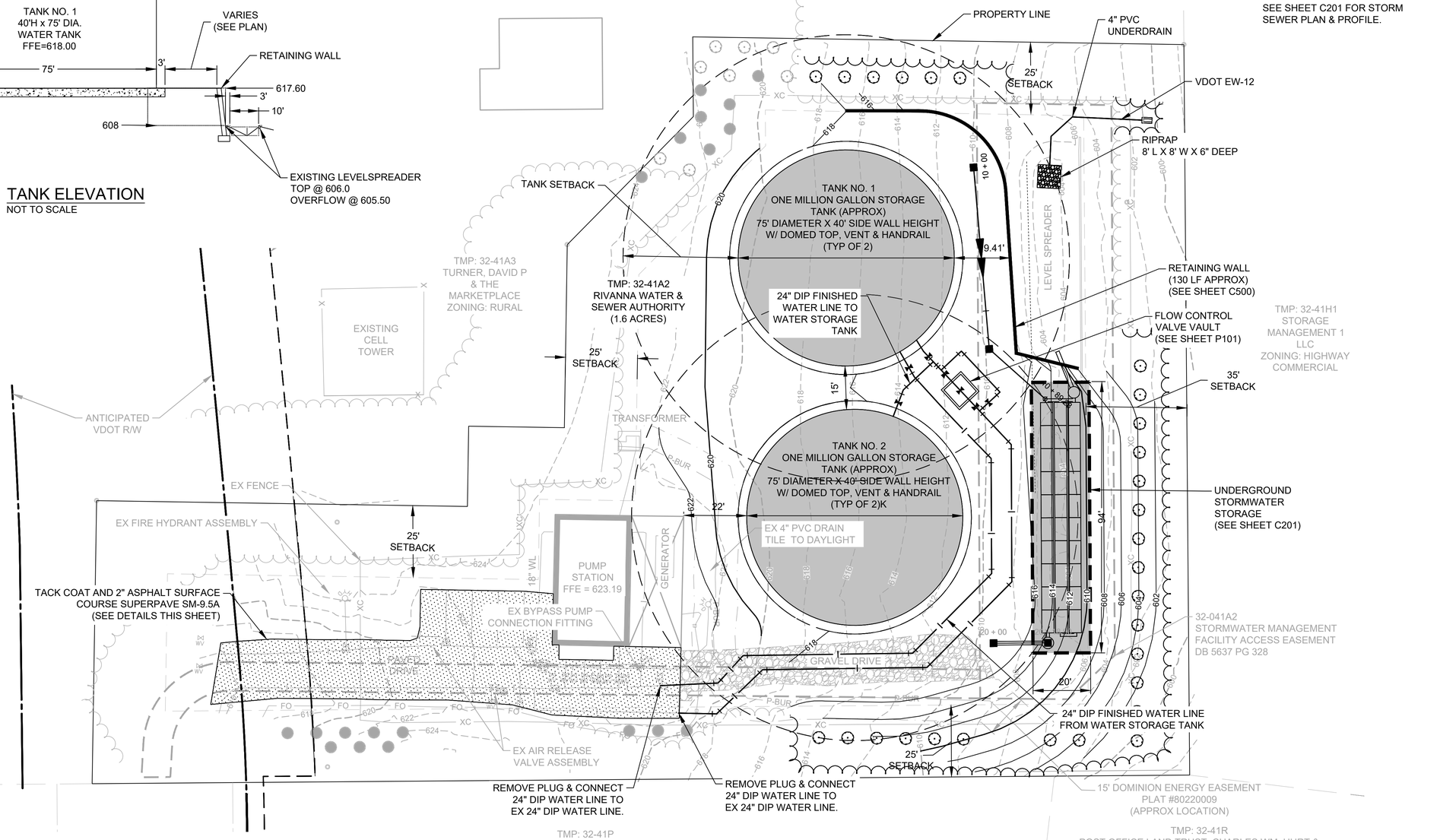


TANK ELEVATION
NOT TO SCALE

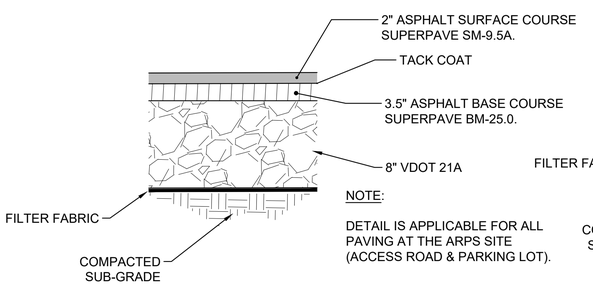
NOTE:

SEE SHEET C201 FOR STORM SEWER PLAN & PROFILE.

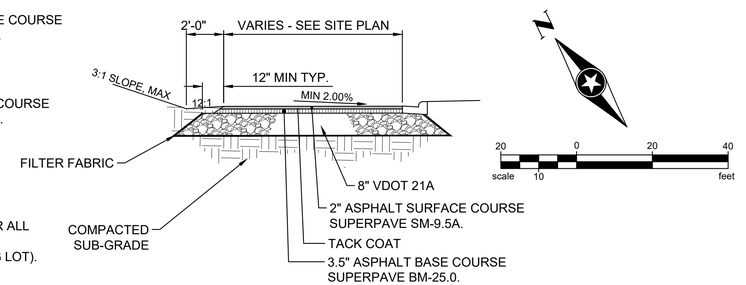


STORMWATER MANAGEMENT NOTES:

1. ALL STORMWATER MANAGEMENT FACILITIES AND PRACTICES SHALL BE DESIGNED, CONSTRUCTED, AND MAINTAINED IN ACCORDANCE WITH ALBEMARLE COUNTY CODE CHAPTER 17 (WATER PROTECTION ORDINANCE), ARTICLE III (STORMWATER MANAGEMENT & WATER QUALITY), AND THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS (9VAC25-870) AND THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK (VSMH), VERSION 1.2.
2. THIS PROJECT QUALIFIES AS REDEVELOPMENT UNDER ALBEMARLE COUNTY CODE CHAPTER 17. EXISTING IMPERVIOUS AREA ASSOCIATED WITH THE PUMP STATION IS BEING MODIFIED, AND UNDERGROUND STORMWATER STORAGE IS PROVIDED TO MITIGATE REDEVELOPMENT IMPACTS AND MAINTAIN OR IMPROVE WATER QUALITY PERFORMANCE.
3. BMP ACCESS AND MAINTENANCE WILL BE PRESERVED IN ACCORDANCE WITH ALBEMARLE COUNTY CODE CHAPTER 17 AND THE RECORDED STORMWATER MAINTENANCE EASEMENT.
4. A VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) CERTIFIED RESPONSIBLE LAND DISTURBER (RLD) SHALL BE DESIGNATED FOR THIS PROJECT PRIOR TO COMMENCEMENT OF LAND-DISTURBING ACTIVITIES. THE NAME AND CERTIFICATION NUMBER OF THE RLD SHALL BE PROVIDED TO ALBEMARLE COUNTY PRIOR TO ISSUANCE OF THE LAND-DISTURBING PERMIT AND SHALL BE POSTED ON-SITE AT ALL TIMES.
5. STORMWATER MANAGEMENT FACILITIES ARE SUBJECT TO THE RECORDED STORMWATER MAINTENANCE AGREEMENT FOR THIS PROPERTY. THE STORMWATER MAINTENANCE EASEMENT IS SHOWN ON THE PLANS AND REFERENCED IN DEED BOOK 5637, PAGE 328, ALBEMARLE COUNTY CIRCUIT COURT. COPIES OF THE RECORDED AGREEMENT AND EASEMENT ARE AVAILABLE UPON REQUEST.
6. ALL STORMWATER BMPS SHALL BE INSPECTED BY THE DESIGNATED RESPONSIBLE PARTY AT LEAST ONCE EVERY SIX (6) MONTHS AND AFTER EVERY SIGNIFICANT RAINFALL EVENT, IN ACCORDANCE WITH ALBEMARLE COUNTY CODE CHAPTER 17 AND THE RECORDED STORMWATER MAINTENANCE AGREEMENT."
7. THE RIVANNA WATER & SEWER AUTHORITY SHALL BE RESPONSIBLE FOR THE INSPECTION, MAINTENANCE, AND REPAIR OF ALL STORMWATER BMPS UNTIL FINAL STABILIZATION AND ACCEPTANCE BY ALBEMARLE COUNTY.
8. WATER QUALITY COMPLIANCE IS DEMONSTRATED BY PROVIDING TREATMENT FOR ALL DISTURBED IMPERVIOUS AREA, REPLACING THE EXISTING LEVEL SPREADER WITH UNDERGROUND STORMWATER STORAGE, AND PURCHASING NUTRIENT CREDITS AS REQUIRED BY ALBEMARLE COUNTY CODE CHAPTER 17 FOR REDEVELOPMENT PROJECTS.



TYPICAL PARKING LOT SECTION
NTS



TYPICAL ENTRANCE DRIVE SECTION
NTS

ASPHALT CONCRETE PAVEMENT DETAILS
SCALE: NOT TO SCALE

SEH

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NATHANIEL D. NICKERSON
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Drawn By	WSW

Project Status	Issue Date
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REVISION SCHEDULE

REV. #	DESCRIPTION	DATE

SITE PLAN

C200

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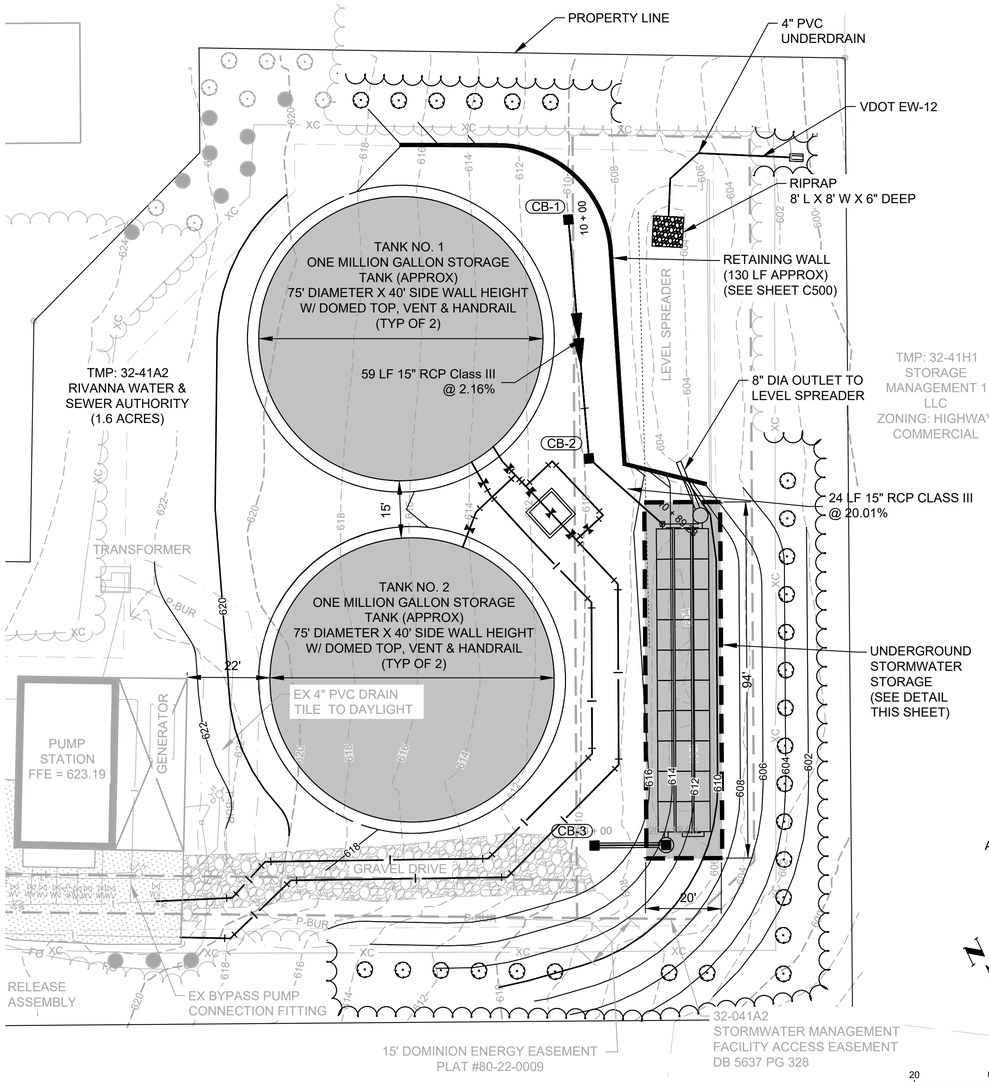
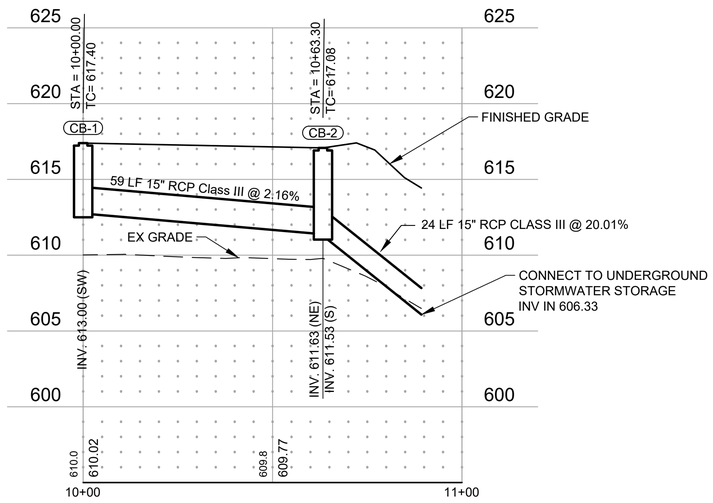


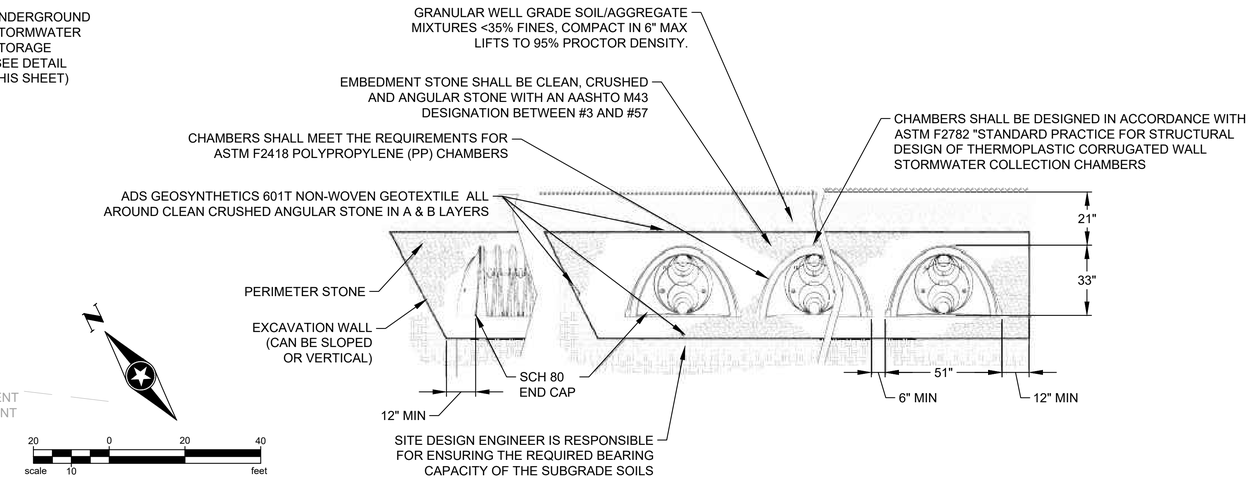
STORMWATER LAYOUT - PLAN

SCALE: 1" = 20'



STORMWATER LAYOUT - PROFILE

SCALE: H: 1" = 20'
V: 1" = 5'

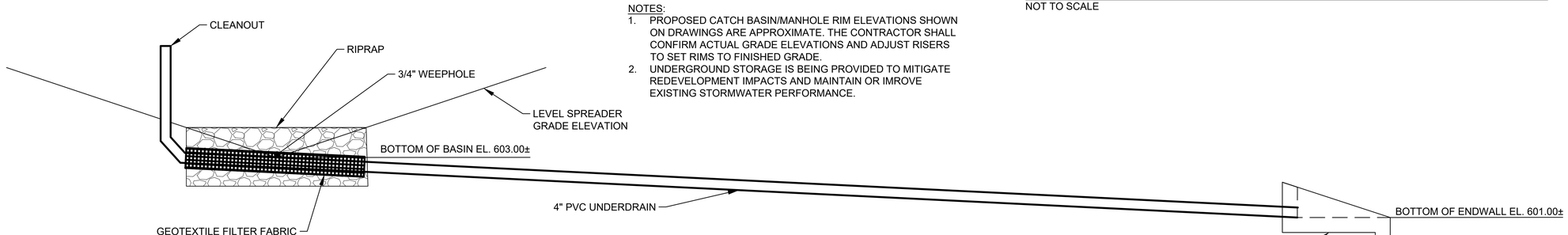


TYPICAL UNDERGROUND STORAGE LAYOUT FOR H20 LOADING

NOT TO SCALE

NOTES:

1. PROPOSED CATCH BASIN/MANHOLE RIM ELEVATIONS SHOWN ON DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL CONFIRM ACTUAL GRADE ELEVATIONS AND ADJUST RISERS TO SET RIMS TO FINISHED GRADE.
2. UNDERGROUND STORAGE IS BEING PROVIDED TO MITIGATE REDEVELOPMENT IMPACTS AND MAINTAIN OR IMROVE EXISTING STORMWATER PERFORMANCE.



EXISTING LEVEL SPREADER REVISIONS

NOT TO SCALE

SEH

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PROFESSIONAL ENGINEER
05/01/2026

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RIVANNA WATER AND SEWER AUTHORITY
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STORM SEWER - PLAN, PROFILE & DETAILS

C201

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County of Albemarle
Conservation Plan Checklist – To be placed on Landscape Plans
(Handbook, pp III-284-111-297 for complete specifications)

1. **The following items shall be shown on the plan:**
   - ❑ Trees to be saved;
   - ❑ Limits of clearing (outside dripline of trees to be saved);
   - ❑ Location and type of protective fencing;
   - ❑ Grade changes requiring tree wells or walls;
   - ❑ Proposed trenching or tunneling beyond the limits of clearing.

2. **Markings:**
   - ❑ All trees to be saved shall be marked with print or ribbon at a height clearly visible to equipment operators.
   - ❑ No grading shall begin until the tree marking has been inspected and approved by a County Inspector.

3. **Pre-Construction Conference:**
   - ❑ Tree preservation and protection measures shall be reviewed with the contractor on site.

4. **Equipment Operation and Storage:**
   - ❑ Heavy equipment, vehicular traffic and storage of construction materials including soil shall not be permitted within the driplines of trees to be saved.

5. **Soil Erosion and Stormwater Detention Devices:**
   - ❑ Such devices shall not adversely affect trees to be saved.

6. **Fires:**
   - ❑ Fires are not permitted within 100 feet of the dripline of trees to be saved.

7. **Toxic Materials:**
   - ❑ Toxic materials shall not be stored within 100 feet of the dripline of trees to be saved.

8. **Protective Fencing:**
   - ❑ Trees to be retained within 40 feet of a proposed building or grading activity shall be protected by fencing.
   - ❑ Fencing shall be in place and shall be inspected and approved by a County Inspector prior to grading or construction.

9. **Tree Wells:**
   - ❑ When the ground level must be raised within the dripline of a tree to be saved, a tree well shall be provided and a construction detail submitted for approval.

10. **Tree Walls:**
    - ❑ When the ground level must be lowered within the dripline a tree to be saved, a tree wall shall be provided; and a construction detail submitted for approval.

11. **Trenching and Tunneling:**
    - ❑ When trenching is required within the limits of clearing, it shall be done as far away from the trunks of trees as possible. Tunneling under a large tree shall be considered as an alternative when it is anticipated that necessary trenching will destroy feeder roots.

12. **Cleanup:**
    - ❑ Protective fencing shall be the last items removed during the final cleanup.

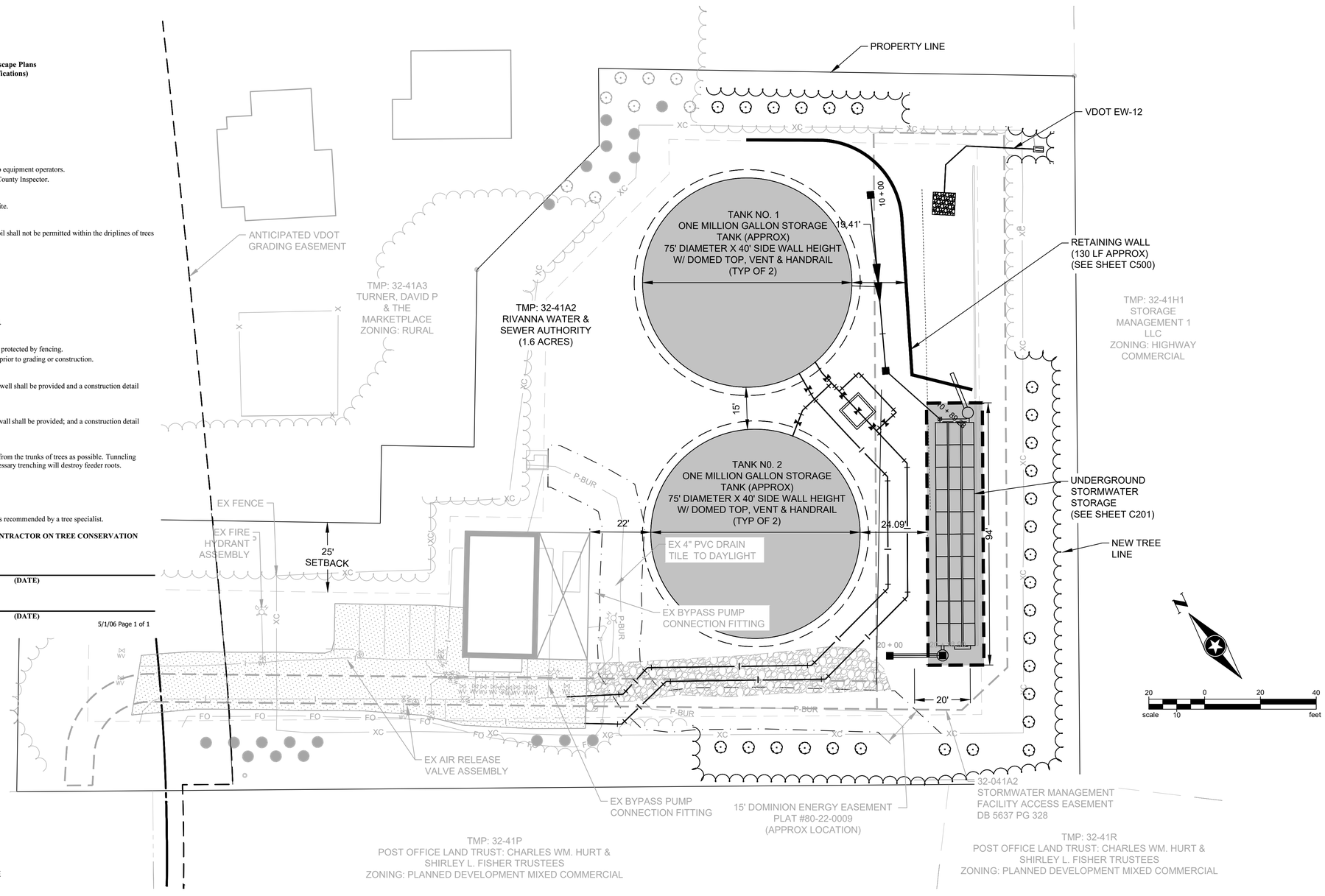
13. **Damaged Trees:**
    - ❑ Damaged trees shall be treated immediately by pruning, fertilization or other methods recommended by a tree specialist.

NOTE: IT IS THE DEVELOPER'S RESPONSIBILITY TO CONFER WITH THE CONTRACTOR ON TREE CONSERVATION REQUIREMENTS.

OWNER SIGNATURE **(DATE)**

CONTRACT PURCHASER SIGNATURE **(DATE)**

5/1/06 Page 1 of 1



GENERAL NOTES:
1. VISIBILITY OF ALL MECHANICAL EQUIPMENT FROM THE ENTRANCE CORRIDOR SHALL BE ELIMINATED UNLESS OTHERWISE NOTED IN THE ARCHITECTURAL REVIEW BOARD SUBMITTAL.
2. ALL SITE PLANTINGS OF TREES AND SHRUBS SHALL BE ALLOWED TO REACH, AND BE MAINTAINED AT, MATURE HEIGHT; THE TOPPING OF TRESS IS PROHIBITED. SHRUBS AND TRESS SHALL BE PRUNED MINIMALLY AND ONLY TO SUPPORT THE OVERALL HEALTH OF THE PLANT.

TREE CANOPY:

EXISTING TREE CANOPY	32% (1.54 AC)
PROPOSED TREE CANOPY	32% (0.51 AC)

PRE-CONSTRUCTION NOTES:
1. TREE PROTECTION ZONES SHALL BE ESTABLISHED TO MINIMIZE SOIL COMPACTION, AND ROOT STEM & BRANCH DAMAGE DURING CONSTRUCTION.
2. PLASTIC FENCING MEETING THE REQUIREMENTS OUTLINED IN CHAPTER 3.38 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK TO DEFINE THE TREE PROTECTION ZONE AND LIMIT ACCESS.
3. INSTALL TREE PROTECTION FENCING ALONG PROPOSED CHAIN LINK FENCE ALIGNMENT, FOLLOWING CLEARING & GRUBBING ACTIVITIES, AND ALONG INTERNAL CLEARING & GRUBBING LIMITS.
4. PRIOR TO GRADING, TREE FENCING SHALL BE INSPECTED AND APPROVED BY A COUNTY INSPECTOR.

CONSTRUCTION NOTES:
1. TREE PROTECTION ZONES SHALL BE INSPECTED AND MAINTAINED ON A DAILY BASIS.
2. NO CONSTRUCTION EQUIPMENT, SUPPLIES OR DEBRIS SHALL BE ALLOWED IN TREE PROTECTION ZONES.
3. GRADE CHANGES AROUND TREES SHALL BE AVOIDED. IF THE GROUND LEVEL MUST BE RAISED OR LOWERED WITHIN THE DRIPLINE OF A TREE, A CONSTRUCTION DETAIL FOR A TREE WELL OR TREE WALL MUST BE SUBMITTED TO THE COUNTY FOR APPROVAL.
4. DAMAGED TREES SHALL BE TREATED IMMEDIATELY BY PRUNING, FERTILIZATION OR OTHER METHODS RECOMMENDED BY A TREE SPECIALIST.

POST CONSTRUCTION NOTES:
1. REMAINING TREE PROTECTION FENCING SHALL BE REMOVED.

LANDSCAPE LEGEND

- EXISTING TREE LINE
- PROPOSED TREE LINE
- EXISTING VIRGINIA PINE
- EXISTING AMERICAN HOLLY TREE
- PROPOSED AMERICAN HOLLY TREE

PLANTING LEGEND

ABBREV	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NO. TO BE PLANTED	TREE CALIPER	ANTICIPATED HEIGHT (AFTER 10 YR)	SYMBOL
AH	ILEX OPACA 7 CVS.	AMERICAN HOLLY	6'-7"	B & B	28	1"-1.5"	15-20	⊙

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SEH

COMMONWEALTH OF VIRGINIA
NATHANIEL D. NICKERSON
Lic. No. 0402047945
PROFESSIONAL ENGINEER
05/01/2026

Project Owner
RIVANNA WATER & SEWER AUTHORITY
695 MOORES CREEK LANE
CHARLOTTESVILLE, VA 22902

RIVANNA WATER AND SEWER AUTHORITY
AIRPORT ROAD PUMP STATION AND STORAGE TANK IMPROVEMENTS
6384 BERKMAR DRIVE
CHARLOTTESVILLE, VA 22902

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SEH Project	RIVAN 189740
Checked By	NDN
Drawn By	WSW

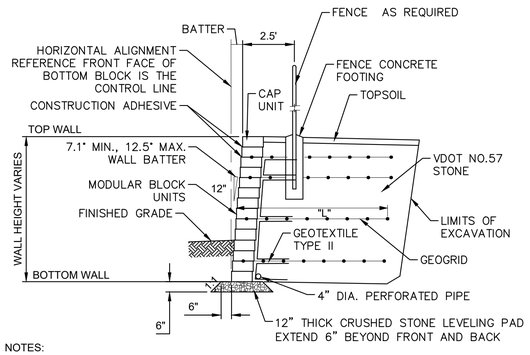
Project Status	Issue Date
ARB/SDP SUBMITTAL	05/01/2026

REVISION SCHEDULE

REV. #	DESCRIPTION	DATE

LANDSCAPE PLAN

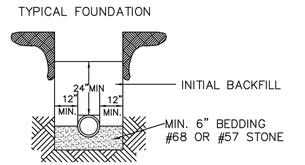
C202

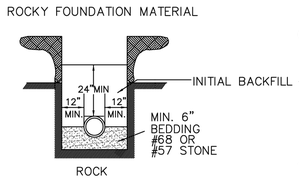


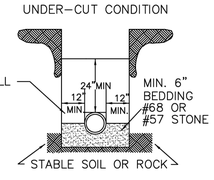
NOTES:

1. GEOGRID LENGTH, "L", SHALL BE MEASURED FROM THE FRONT OF WALL AND IS SHOWN ON WALL PLAN AND PROFILE SHEETS.
2. GEOGRID VERTICAL SPACING IS SHOWN ON WALL PLAN AND PROFILE SHEETS.
3. BLOCKS SHALL HAVE A NOMINAL DEPTH OF 12".
4. MODULAR BLOCK UNITS MUST HAVE INTERLOCKING OR LIP CONNECTIONS.
5. FILL ALL VOID AREAS IN MODULAR BLOCK UNITS WITH COARSE FILTER AGGREGATE (VDOT NO, 57 STONE) APPROVED BY ENGINEER.
6. RETAINING WALL LOCATION SHOWN ON PLANS.
7. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR PROPOSED MODULAR BLOCK UNITS, (FOR GEOMETRY ONLY).
8. FENCING POSTHOLES IN GEOGRID AREAS ARE TO BE AUGERED 12" MAX. CUT GEOGRID AS NEEDED TO INSTALL POSTS. DO NOT CUT PERPENDICULAR STRANDS.

MODULAR RETAINING WALL



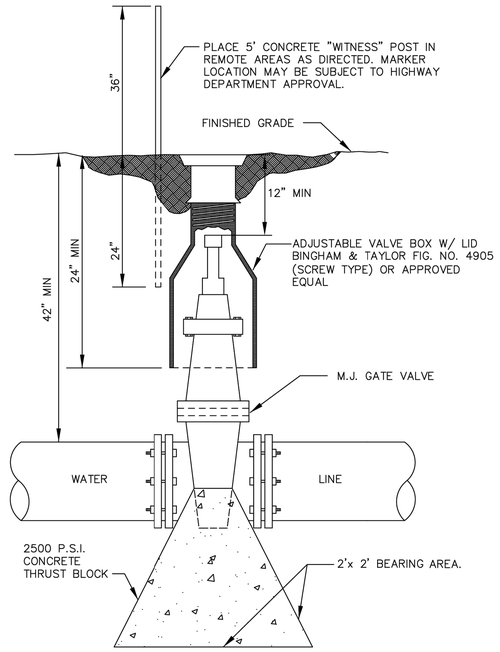




NOTES:

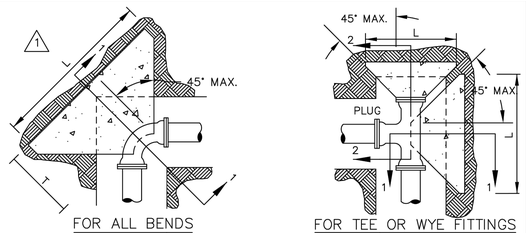
1. ROCK SHALL BE REMOVED TO A MINIMUM OF 6" BELOW THE PIPE AND 12" MINIMUM CLEARANCE TO THE SIDES OF THE PIPE.
2. #57 OR #68 STONE SHALL BE PLACED AGAINST UNDISTURBED SIDES AND BOTTOM OF TRENCH TO THE SPRINGLINE OF THE PIPE.
3. NO ROCKS LARGER THAN 6" IN ANY DIMENSION SHALL BE ALLOWED ABOVE THE INITIAL BACKFILL.
4. THE INITIAL BACKFILL SHALL BE PLACED AND COMPACTED IN 6" LIFTS.
5. NO ORGANIC OR FROZEN MATERIAL OR DEBRIS SHALL BE ALLOWED IN THE TRENCH.
6. BELL HOLES SHALL BE DUG OUT IN ALL CASES.

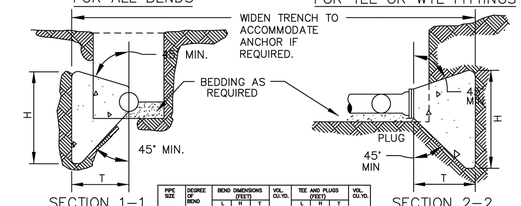
REVISION DATE:	SEPT 2015	DUCTILE IRON WATER PIPE INSTALLATION AND BEDDING	DRAWING NUMBER:
SCALE:	NOT TO SCALE	RIVANNA WATER AND SEWER AUTHORITY	WATER 1



NOTE : IN REMOTE AREAS, VALVE BOXES SHALL EXTEND SIX (6) INCHES ABOVE GRADE.

REVISION DATE:	May 2009	TYPICAL GATE VALVE	DRAWING NUMBER:
SCALE:	NOT TO SCALE	RIVANNA WATER AND SEWER AUTHORITY	WATER 6





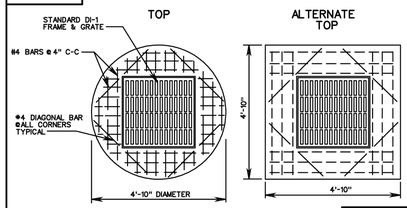
PIPE SIZE	DEGREE OF BEND	BEND DIMENSIONS (FEET) L	H	T	VOL. CU./YD.	TEE AND PLUGS (FEET) L	H	T	VOL. CU./YD.
4" & 6"	90	2.50	2.50	3.00	0.24	2.00	2.25	2.50	0.15
	45	2.00	2.25	2.60	0.15				
	22 1/2	1.50	2.00	2.52	0.13				
	11 1/4	1.50	2.00	2.50	0.10				
8"	90	3.66	3.16	3.71	0.46	3.16	2.91	2.66	0.32
	45	2.83	2.91	3.27	0.30				
	22 1/2	1.66	2.16	2.69	0.13				
	11 1/4	1.66	2.16	2.67	0.13				
10" & 12"	90	4.83	3.83	3.42	0.83	3.83	4.00	2.83	0.52
	45	3.33	3.58	2.95	0.43				
	22 1/2	2.33	2.58	2.88	0.24				
	11 1/4	1.83	2.33	2.84	0.18				
15"	90	6.39	4.89	4.53	1.83	4.74	4.82	4.18	1.27
	45	4.57	4.53	3.91	1.05				
	22 1/2	3.08	3.35	3.77	0.56				
	11 1/4	2.43	2.85	3.72	0.33				
18"	90	7.50	5.40	5.00	2.70	5.30	5.00	5.00	1.84
	45	5.30	5.00	4.30	1.51				
	22 1/2	3.54	3.66	4.33	0.74				
	11 1/4	2.78	3.33	4.33	0.53				
20"	90	8.08	5.90	5.44	3.40	6.57	5.53	4.70	2.37
	45	5.91	5.52	4.71	1.88				
	22 1/2	3.95	3.99	4.63	0.93				
	11 1/4	3.07	3.62	4.53	0.66				
24"	90	9.83	7.09	6.00	5.42	8.50	6.75	4.00	3.56
	45	6.75	6.55	5.10	2.97				
	22 1/2	4.75	4.95	5.68	1.47				
	11 1/4	3.73	4.30	5.60	1.05				
30"	90	14.5	9.50	8.00	10.85	12.0	8.25	4.75	6.53
	45	10.3	7.50	6.88	4.84				
	22 1/2	7.00	5.75	4.54	2.40				
	11 1/4	4.50	4.90	4.81	1.20				
36"	90	17.0	11.0	7.00	17.18	14.0	8.50	5.50	10.16
	45	12.5	8.75	5.20	7.47				
	22 1/2	8.50	6.25	5.04	3.80				
	11 1/4	5.50	5.25	5.05	1.90				

1. USE MINIMUM 2500 PSI CONCRETE
2. CONCRETE FOR THRUST BLOCKS SHALL NOT BE ALLOWED TO INTERFERE WITH JOINT OR RESTRAINT HARDWARE. PLASTIC SHEETING MAY BE PLACED OVER PIPE OR FITTINGS TO PREVENT CONCRETE FROM ADHERING TO SURFACES. CONCRETE FOR THRUST BLOCKS SHALL BE PLACED AGAINST UNDISTURBED SOIL.
3. THE DESIGN ENGINEER SHALL BE RESPONSIBLE TO VERIFY THE TYPE AND SIZE OF ALL THRUST BLOCKS.

REVISION DATE:	SEPT 2015	CONCRETE THRUST BLOCKS	DRAWING NUMBER:
SCALE:	NOT TO SCALE	RIVANNA WATER AND SEWER AUTHORITY	WATER 2

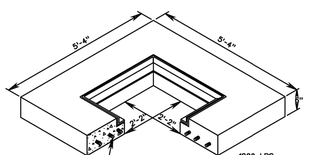
2016 ROAD & BRIDGE STANDARDS

T-DI-1



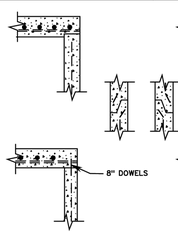
RECOMMENDED MINIMUM HEIGHT CHART		
PIPE SIZE	H DIMENSION CONCRETE	H DIMENSION CORR. METAL
12"	2'-6"	2'-5"
15"	2'-9¼"	2'-8"
18"	3'-0½"	2'-11"
21"	3'-3¾"	3'-2"
24"	3'-7"	3'-5"

DI-1, 1A PC



NOTES:

1. SEE GENERAL NOTES PRECAST FOR ADDITIONAL DETAILS.
2. CONCRETE TO BE 4000 PSI MINIMUM.
3. REINFORCING STEEL IN ACCORDANCE WITH ASTM C-478, ASTM A-497 (WIRE FABRIC) AND ASTM A-615 (REINFORCING BARS).
4. CONCRETE COVER AND GRATE ARE TO BE FURNISHED AS A SINGLE UNIT.
5. SEE STANDARD DI-1, 1A FOR DETAILS OF FRAME AND GRATE.
6. DIMENSIONS SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.



NOTES:

1. TONGUE AND GROOVE JOINT TO BE OF FABRICATOR'S DESIGN MEETING THE APPROVAL OF THE ENGINEER. JOINTS ARE TO BE SEALED WITH MORTAR, OR O-RING GASKETS OR BUTYL RUBBER.
2. ALTERNATE JOINT DETAILS APPLY TO ALL PRECAST UNITS.

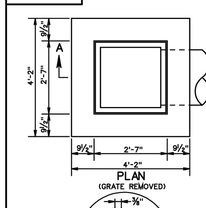
ALTERNATE JOINT DETAILS

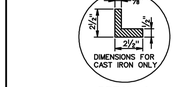
VDOT ROAD AND BRIDGE STANDARDS		STANDARD PRECAST TOP UNITS	SPECIFICATION REFERENCE
SHEET 1 OF 1	REVISION DATE	VIRGINIA DEPARTMENT OF TRANSPORTATION	105 233 302
103.03			

2016 ROAD & BRIDGE STANDARDS

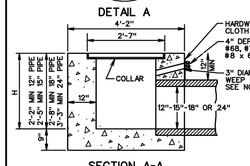
2016 ROAD & BRIDGE STANDARDS

DI-1





DETAIL A



SECTION A-A

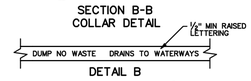
CONCRETE QUANTITIES FOR MIN. DEPTH

12" CONCRETE PIPE - 1.440 CU. YD. CONCRETE
15" CONCRETE PIPE - 1.526 CU. YD. CONCRETE
18" CONCRETE PIPE - 1.620 CU. YD. CONCRETE
24" CONCRETE PIPE - 1.817 CU. YD. CONCRETE

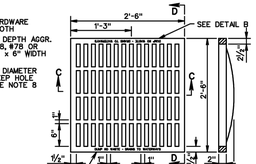
ADD 0.469 CU. YD. PER ADDITIONAL FOOT OF DEPTH.

½ SECTION CAST IRON — ½ SECTION STEEL

SECTION B-B
COLLAR DETAIL



DETAIL B



SECTION C-C SECTION D-D
GRATE DETAIL

NOTES

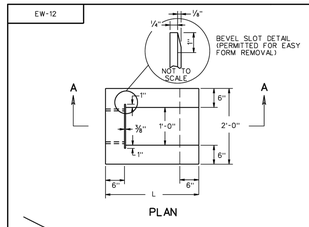
1. DEPTH OF INLET (H) TO BE SHOWN ON PLANS. FOR DEPTH GREATER THAN 10' USE STANDARD DI-1A
2. THE "H" DIMENSION SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF THE OUTFALL PIPE TO THE TOP OF THE STRUCTURE. PLAN "H" DIMENSIONS ARE APPROXIMATE ONLY FOR ESTIMATING PURPOSES AND THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.
3. WHEN SPECIFIED ON THE PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD IS-1, THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
4. IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE, THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR POOLING OF WATER IN THE STRUCTURE. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO INLET SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
5. STEPS ARE TO BE PROVIDED WHEN H IS 4'-0" OR GREATER. FOR DETAILS SEE STANDARD ST-1.
6. THIS ITEM MAY BE PRECAST OR CAST-IN-PLACE.
7. #4 X 8" SMOOTH DOWELS AT APPROXIMATELY 12" C-C TO BE PLACED IN ALL AREAS ADJACENT TO ABUTTING CONCRETE TO PREVENT SETTLEMENT. IN LIEU OF DOWELS, A 2"X4" NOTCH MAY BE PROVIDED. SEE STANDARD T-DI-3, 4 FOR ALTERNATE DESIGN.
8. 3" DIAMETER WEEP HOLE WITH 12"X12" PLASTIC HARDWARE CLOTH ¼" MESH OR GALVANIZED STEEL WIRE, MINIMUM WIRE DIAMETER 0.03", NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO THE OUTSIDE OF THE STRUCTURE.
9. CAST IN PLACE CONCRETE IS TO BE CLASS A3 (3000 PSI). PRECAST CONCRETE IS TO BE 4000 PSI.
10. ANY ALTERNATE METHODS OF ANCHORAGE MEETING THE APPROVAL OF THE ENGINEER MAY BE SUBSTITUTED FOR THE CAST IRON LUGS AS SHOWN HEREON.
11. DUMP NO WASTE DRAINS TO WATERWAY LETTERING IS REQUIRED ON ALL DI-1 GRATES. LOCATION OF LETTERING MAY VARY BY MANUFACTURER.

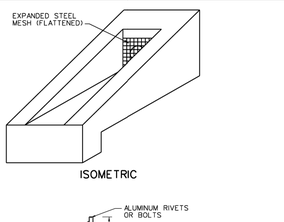
VDOT ROAD AND BRIDGE STANDARDS		STANDARD DROP INLET 12" - 24" PIPE: MAXIMUM DEPTH (H) = 10'	SPECIFICATION REFERENCE
SHEET 1 OF 1	REVISION DATE	VIRGINIA DEPARTMENT OF TRANSPORTATION	233 302
104.01			

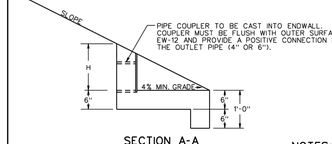
2016 ROAD & BRIDGE STANDARDS

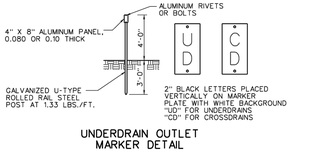
2016 ROAD & BRIDGE STANDARDS

EW-12









PIPE I.D.	SLOPE	DIMENSIONS H	CLASS A3 CONCRETE CUBIC YARDS
4"	2:1	2'-5½"	1'-2¾"	0.19
4"	3:1	3'-5½"	1'-1¾"	0.25
4"	4:1	4'-5"	1'-1½"	0.30
6"	2:1	2'-10½"	1'-5¾"	0.20
6"	3:1	4'-3½"	1'-4¼"	0.30
6"	4:1	5'-3"	1'-3¾"	0.38

NOTES:

1. TYPICAL ENDWALL TO BE PLACED AT THE ENDS OF ALL UNDERDRAIN OUTLETS, BARRING LOCATIONS WHERE UNDERDRAIN IS TIED INTO OTHER DRAINAGE STRUCTURES. ENDWALL TO BE INSTALLED PERPENDICULAR TO ROADWAY AND FLUSH WITH THE SLOPE.
2. OUTLET PIPES SHALL BE RIGID NONPERFORATED, SMOOTH-BORE PIPE, MEETING THE REQUIREMENTS OF 70 PSI TESTED ACCORDING TO ASTM 2412.
3. EXPANDED STEEL MESH (FLATTENED) SHALL HAVE OPENINGS OF APPROX. ½" X 1" AND WEIGH APPROX. 0.82 LBS. PER SQ. FT. MESH SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-123. THE MESH SHALL EXTEND A MINIMUM OF 1" ABOVE THE O.D. OF THE PIPE, AND IS A BARRIER FOR RODENTS, ETC. THE SLOT FOR THE STEEL MESH IS TO BE CONSTRUCTED SO THAT THE MESH CAN BE REMOVED FOR CLEANOUT PURPOSES.
4. THIS ITEM MAY BE PRECAST OR CAST IN PLACE. CAST IN PLACE CONCRETE IS TO BE CLASS A3 (3000 PSI MIN.). PRECAST CONCRETE IS TO BE CLASS A4 (4000 PSI MIN.).
5. STEEL POSTS SHALL BE GALVANIZED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS. ALUMINUM MARKER PLATES SHALL BE ASTM B209 ALLOY 6061-T6 OR 5052-H38F. SHEETING FOR WHITE BACKGROUND AND BLACK LETTERS SHALL CONFORM TO SECTION 701 OF THE ROAD AND BRIDGE SPECIFICATIONS.
6. MARKER SHALL BE PLACED AT ALL EW-12 INSTALLATIONS WITH 2 INCH LETTERS PLACED VERTICALLY DESIGNATING UNDERDRAINS WITH "UD" AND CROSSDRAINS WITH "CD".
7. MARKER WILL BE PAID FOR IN ACCORDANCE WITH SECTION 501 OF THE ROAD AND BRIDGE SPECIFICATIONS.

VDOT ROAD AND BRIDGE STANDARDS		A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. STANDARD ENDWALL FOR PIPE UNDERDRAIN	SPECIFICATION REFERENCE
SHEET 1 OF 1	REVISION DATE 04/20	VIRGINIA DEPARTMENT OF TRANSPORTATION	105 701 233 302 501
101.32			

2016 ROAD & BRIDGE STANDARDS

SEH

Project Owner
RIVANNA WATER & SEWER AUTHORITY
695 MOORES CREEK LANE
CHARLOTTESVILLE, VA 22902

RIVANNA WATER AND SEWER AUTHORITY
AIRPORT ROAD PUMP STATION AND STORAGE TANK IMPROVEMENTS
6384 BERKMAR DRIVE
CHARLOTTESVILLE, VA 22902

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SEH Project	RIVAN 189740
Checked By	NDN
Drawn By	WSW

Project Status	Issue Date
ARB/SDP SUBMITTAL	05/01/2026

REVISION SCHEDULE

REV. #	DESCRIPTION	DATE

CIVIL DETAILS

C500

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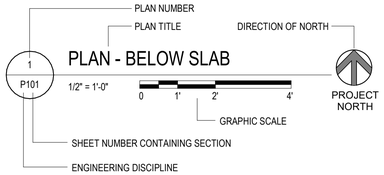
DRAWING SYMBOLS



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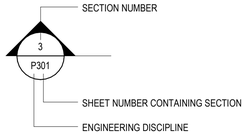
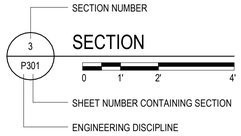


SECTION "CUT" SYMBOL



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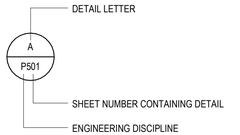
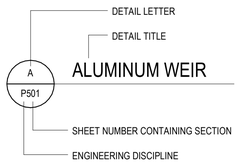
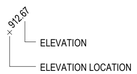


DETAIL INDICATOR



DETAIL TITLE

KEYNOTE INDICATOR

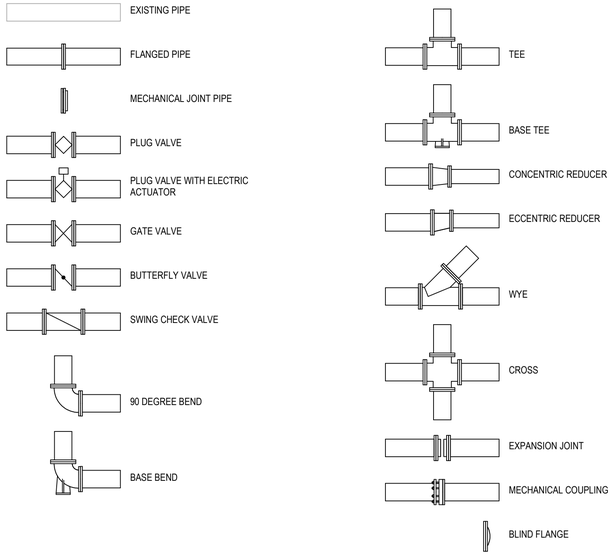


SPOT ELEVATION

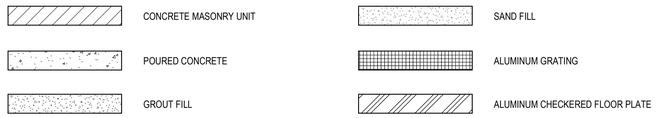
ABBREVIATION LIST

AF	ADAPTER FLANGE	MECH	MECHANICAL
AL/ALUM	ALUMINUM	MFRS	MANUFACTURERS
APPROX	APPROXIMATELY	MIN	MINIMUM
BF	BLIND FLANGE	MV	MUD VALVE
BFV	BUTTERFLY VALVE	N	NORTH
BLDG	BUILDING	N/A	NOT APPLICABLE
BLV	BALL VALVE	NOM	NOMINAL
BF	BLIND FLANGE	NO	NUMBER
BLK	BLOCK	NPW	NON-POTABLE WATER
BOT	BOTTOM	NTS	NOT TO SCALE
CHL	CHLORINE	OC	ON CENTER
CI	CAST IRON	OPNG	OPENING
CKD	CHECKERED	P	PLUG
CL	CENTERLINE	PC	PIPE COUPLING
CMU	CONCRETE MASONRY UNIT	PPC	PRESTRESSED PRECAST CONCRETE
CO	CLEAN-OUT	PR	PRESSURE REDUCER
CONC	CONCRETE	PRV	PRESSURE RELIEF VALVE
CONT	CONTINUOUS	PNT	PAINT
CTE	CONNECT TO EXISTING	PV	PLUG VALVE
CJ	CONTROL JOINT	PV & B	PLUG VALVE & BOX
CPE	CORRUGATED POLYETHYLENE	PVC	POLYVINYL CHLORINE
CV	CHECK VALVE	PW	PLANT WATER
DIP	DUCTILE IRON PIPE	R, RAD	RADIUS
E	EAST	RD	ROOF DRAIN
EL	ELEVATION	RAS	RETURN ACTIVATED SLUDGE
EQUIP	EQUIPMENT	RCP	REINFORCED CONCRETE PIPE
EX	EXISTING	RECIRC	RECIRCULATION
FD	FLOOR DRAIN	REINF	REINFORCE(D)
FFE	FINISHED FLOOR ELEVATION	SEC	SECTION
FM	FORCEMAIN	SHT	SHEET
FRP	FIBERGLASS REINFORCED	SF	SQUARE FOOT / SQUARE FEET
FTG	FITTING/FOOTING	SP	SLIDE PLATE
GV	GATE VALVE	SO	SIDE OUTLET
GV & B	GATE VALVE & BOX	SS	STAINLESS STEEL
H	HIGH	SQ	SQUARE
HWL	HIGH WATER LEVEL	TH	THICK
ID	INSIDE DIAMETER	TK	TANK
INS	INSIDE	TOW	TOP OF WEIR
INV	INVERT	TYP	TYPICAL
JT	JOINT	UON	UNLESS OTHERWISE NOTED
L	LONG	W	WIDE
LL	LIQUID LEVEL	WAS	WASTE ACTIVATED SLUDGE
LT	LEFT	WL	WATER LEVEL
M	METER	WSE	WATER SURFACE LEVEL
MAX	MAXIMUM		

PROCESS PIPE LEGEND



GENERAL CONSTRUCTION LEGEND



GENERAL NOTES

1. SEE STRUCTURAL PLANS FOR ROOF, SLAB, WALL, FOUNDATION, BEAM AND REINFORCING STEEL INFORMATION AND CONCRETE DIMENSIONS.
2. ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL RECEIVE 8-12 MIL DRY FILM THICKNESS OF BITUMASTIC.
3. ALL ANCHOR BOLTS, NUTS FASTENERS, ETC. SHALL BE 304 STAINLESS STEEL, UNLESS OTHERWISE NOTED.
4. ALTHOUGH NOT SPECIFICALLY NOTED ON THE PLANS, CONTRACTOR SHALL INSTALL PIPING USING SUPPORTS, PIPE COUPLINGS AND ANY OTHER PIPING APPURTENANCES REQUIRED FOR COMPLETE AND PROPER INSTALLATION. IN ADDITION, PROVIDE PIPE SUPPORTS IN LOCATIONS SPECIFICALLY IDENTIFIED ON PLANS.
5. TYPICAL DETAILS: ARE INTENDED TO SHOW GENERAL DESIGN CONCEPT. SPECIAL INFORMATION CONCERNING ELEVATIONS AND DIMENSIONS SHOWN ON THESE DETAILS PERTAIN TO A PARTICULAR BUILDING OR STRUCTURE.
6. INFORMATION REGARDING EXISTING CONSTRUCTION WAS COMPILED FROM THE ORIGINAL CONSTRUCTION DOCUMENTS AND PRELIMINARY FIELD INVESTIGATIONS. ALL CONDITIONS, DIMENSIONS AND SIZES ARE TO BE FIELD VERIFIED BY THE CONTRACTOR TO ENSURE FIT BETWEEN THE NEW AND EXISTING. NOTIFY THE ENGINEER OF DISCREPANCIES NOTED BEFORE AND DURING CONSTRUCTION.
7. DRAWINGS SHALL NOT TAKE PRECEDENCE OVER FIELD MEASUREMENTS.
8. DUE TO REPRODUCTIVE PROCESSES, DRAWINGS MAY NOT BE ACCURATE TO SCALE. ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN AND IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS, ELEVATIONS OR DETAILS.
9. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES. THE CONTRACTOR SHALL CONSULT ALL DRAWINGS AND VARIOUS CONSTRUCTION TRADES TO ACQUAINT SELF WITH THE PROJECT. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES NOTED BEFORE AND DURING CONSTRUCTION. THE ENGINEER RESERVES THE RIGHT TO MAKE REASONABLE MODIFICATIONS IN LAYOUT TO AVOID CONFLICT WITH THE WORK OF OTHER TRADES AND FOR THE PROPER EXECUTION OF THE WORK AT NO ADDITIONAL COST TO THE OWNER.
10. ALL WORK SHALL BE CONDUCTED WITHIN THE LIMITS OF CONSTRUCTION. CONTRACTOR SHALL REPAIR AND RESTORE ANY PAVEMENT, UTILITIES, OR OTHER FEATURES OUTSIDE THE LIMITS OF CONSTRUCTION THAT ARE DAMAGED DUE TO THE CONTRACTOR'S ACTS OR NEGLIGENCE AT THE CONTRACTOR'S OWN EXPENSE.
11. THE CONTRACTOR SHALL COMPLY WITH ALL CITY, COUNTY, AND STATE ROAD RESTRICTIONS FOR HAULING AND EQUIPMENT MOBILIZATION.
12. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY ADDITIONAL COSTS WHICH MAY RESULT FROM UNAUTHORIZED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
13. CONTRACTOR SHALL PROTECT ALL EXISTING AND INSTALLED PIPING, EQUIPMENT, AND STRUCTURES DURING CONSTRUCTION NOT NOTED TO BE REMOVED. ALL DAMAGED ITEMS SHALL BE REPAIRED OR REPLACED WITH NO ADDITIONAL COST TO THE OWNER.
14. ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES SHALL BE ADHERED TO THROUGHOUT THE CONSTRUCTION PROJECT.
15. SIZE OF FITTINGS AND VALVES SHALL CORRESPOND TO THE SIZE OF ADJACENT PIPING. JOINTS AND FITTING MATERIAL SHALL BE AS SHOWN FOR ADJACENT PIPING.
16. PROVIDE PROPER PLUGS, CAPS, AND RESTRAINTS WHEN ANY PIPING IS TERMINATED.
17. THE EXACT LOCATION OF UNDERGROUND UTILITIES SUCH AS NATURAL GAS, TELEPHONE, FIBEROPTIC, ELECTRIC, CABLE TV, AND PIPE LINES ARE UNKNOWN. CONTRACTOR SHALL CONTACT VIRGINIA 811, GO TO www.va811.com BEFORE COMMENCING ANY EXCAVATION.
18. SOME ITEMS HAVE BEEN ROTATED INTO THE PLANE OF PROJECTION ON TYPICAL SECTIONS FOR CLARITY.
19. 3.0 FOOT COVER MINIMUM UNLESS OTHERWISE NOTED. PIPE BURIED WITH LESS THAN 3.0 FOOT OF COVER SHALL BE INSULATED IN ACCORDANCE WITH SECTION 40 42 13 - PROCESS PIPING INSULATION.

SEH

COMMONWEALTH OF VIRGINIA
NATHANIEL D. NICKERSON
Lic. No. 0402047945
PROFESSIONAL ENGINEER
05/01/2026

Project Owner
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RIVANNA WATER & SEWER AUTHORITY
AIRPORT ROAD PUMP STATION AND STORAGE TANK IMPROVEMENTS
4384 BERKMAR DRIVE
ALBEMARLE COUNTY, VA

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SEH Project	RIVAN 189740
Checked By	NDN
Drawn By	WSW

Project Status	**Issue Date**
ARB/SDP SUBMITTAL	05/01/2026

REVISION SCHEDULE

REV. #	DESCRIPTION	DATE

GENERAL PROCESS INFORMATION

P001

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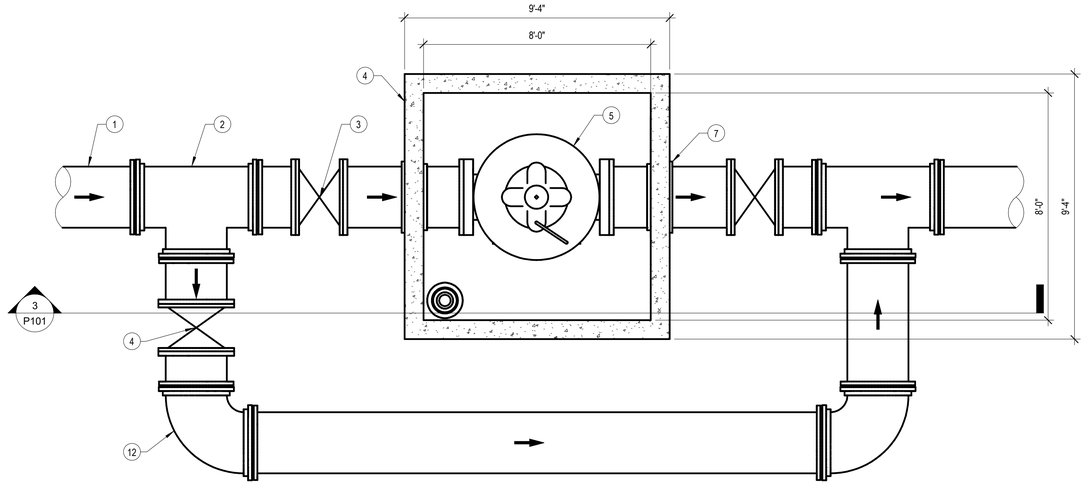
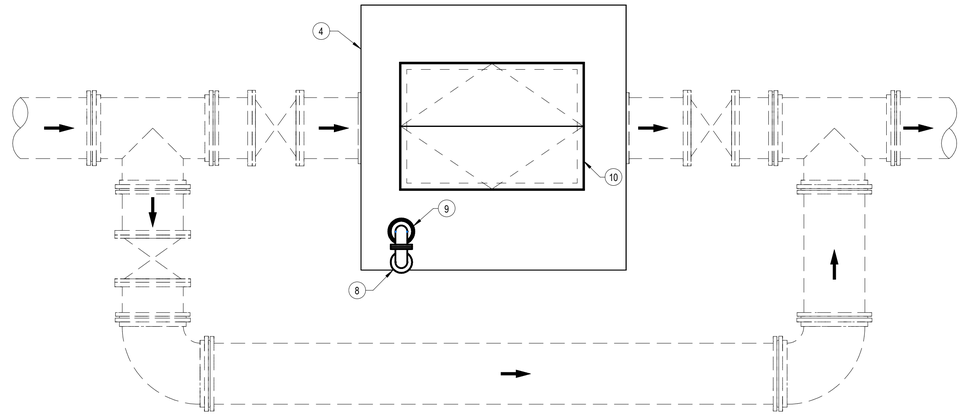
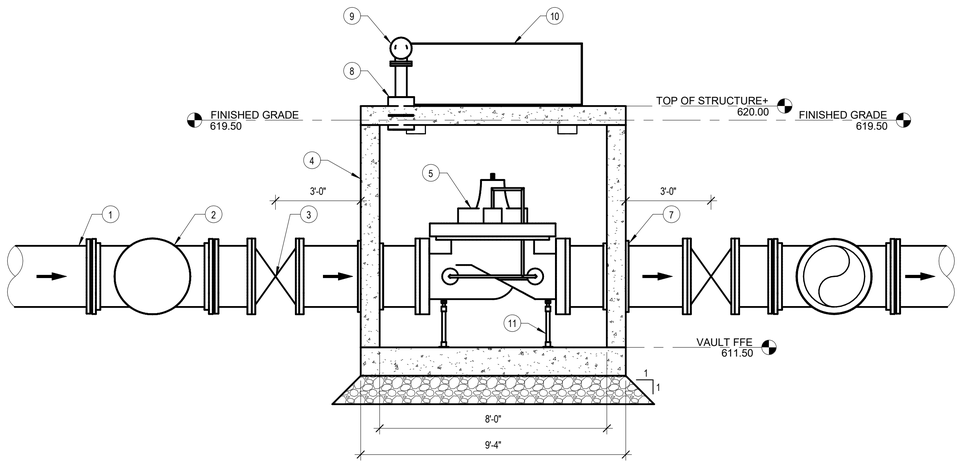


1 P101 VAVLE VAULT - LOWER LEVEL
3/8" = 1'-0"
0 2' 4' 6'



2 P101 VALVE VAULT - TOP OF STRUCTURE
3/8" = 1'-0"
0 2' 4' 6'



3 P101 VALVE/METER VAULT - SECTION
3/8" = 1'-0"
0 2' 4' 6'

KEYNOTES

1. 24" DIP WATER LINE.
2. 24" X 24" X 24" DIP MJ TEE. (TYP OF 2)
3. 24" DIP FLANGED GATE VALVE. (TYP OF 3)
4. 20' X 10' CONCRETE VALVE/METER VAULT.
5. 24" DIP FLANGED ALTITUDE VALVE.
6. NOT USED.
7. 24" WATERTIGHT BOOT SEAL. SEE DETAIL A/DP501. (TYP OF 2)
8. 4" DIP FLANGED VENT W/ (2) DIP FLANGED 90 DEGREE ELBOWS & INSECT SCREEN. SEE DETAIL D/DP501.
9. 4" SEALED FLOOR SLEEVE. SEE DETAIL B/DP501.
10. 48" X 60" DOUBLE ACCESS HATCH. MFR REQUIRED DIMENSIONS TO FACILITATE MAINTENANCE & REMOVAL OF EQUIPMENT. FURNISH & INSTALL HINGED SAFETY GRATE FALL PROTECTION, HALLIDAY PRODUCTS OR APPROVED EQUAL. PROVIDE A CONFINED SPACE WARNING NOTIFICATION ON HATCH COVER (SEE EXAMPLE OF SHEET P301. COORDINATE WARNING NOTIFICATION W/ OWNER.
11. PIPE STAND. SEE DETAILS DP501. (TYP)
12. 24" DIP MH 90 DEGREE ELBOW. (TYP OF 2)

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COMMONWEALTH OF VIRGINIA
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Project Status	**Issue Date**
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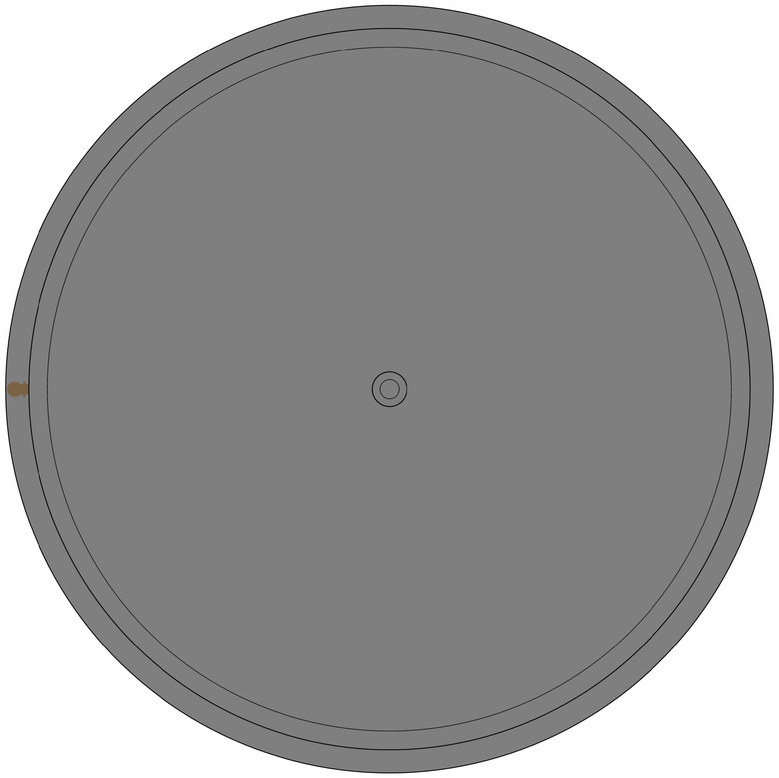
REVISION SCHEDULE

REV. #	DESCRIPTION	DATE

FLOW CONTROL VALVE VAULT - PLAN & SECTION

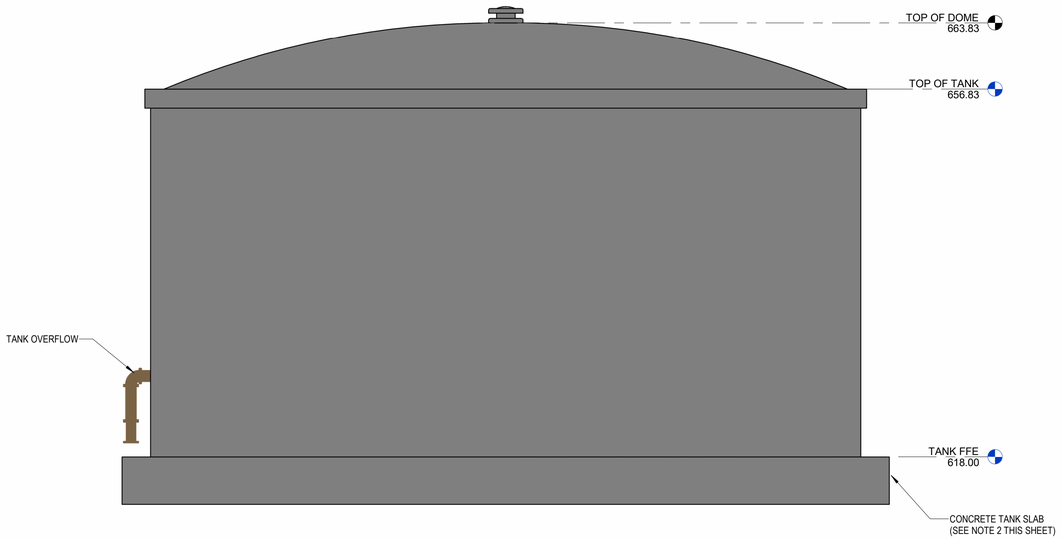
P101



1 P102 WATER STORAGE TANK - PLAN

1/8" = 1'-0"

0 4' 8' 16'



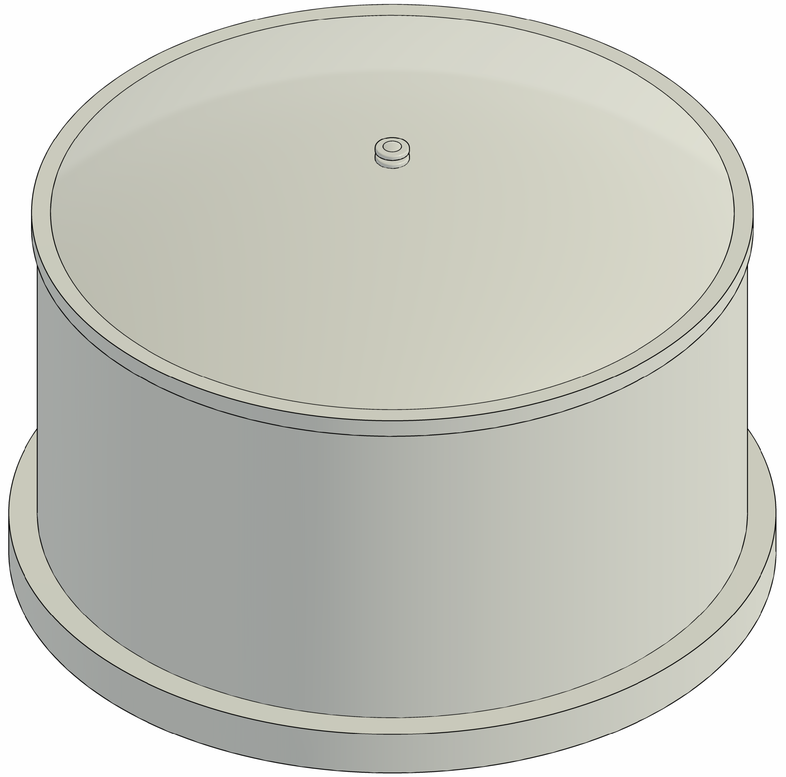
3 P102 WATER STORAGE TANK - SECTION

1/8" = 1'-0"

0 4' 8' 16'

GENERAL NOTES

1. TANK MANUFACTURER SHALL PROVIDE DETAILED SHOP DRAWINGS AND STAMPED ENGINEERING CALCULATIONS FOR REVIEW AND APPROVAL BY ENGINEER.
2. TANK MANUFACTURER SHALL PROVIDE DETAILED SLAB SHOP DRAWINGS AND STAMPED ENGINEERING CALCULATIONS FOR REVIEW AND APPROVAL BY ENGINEER.
3. TANK DIMENSIONS SHOWN MAY VARY SLIGHTLY BY MANUFACTURER BUT ARE ANTICIPATED TO BE APPROXIMATELY 75' DIAMETER WITH ELEVATIONS AS SHOWN ON DRAWING.
4. ALL TANK PENETRATIONS SHALL BE TANK MANUFACTURERS REPRESENTATIVE.



2 ISOMETRIC

NOT TO SCALE

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Drawn By	WSW

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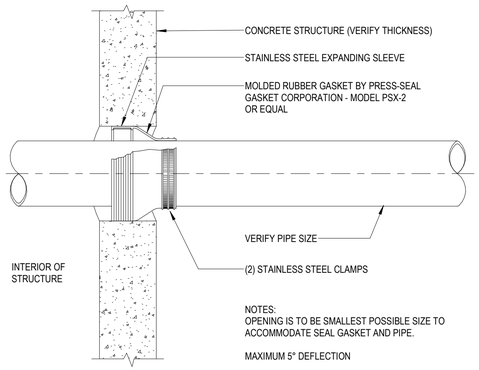
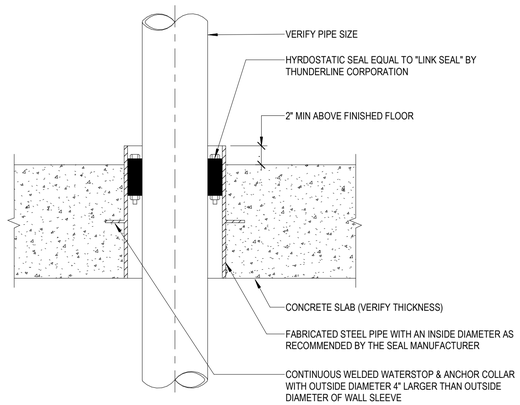
WATER STORAGE TANK - PLAN, SECTION & ISOMETRIC

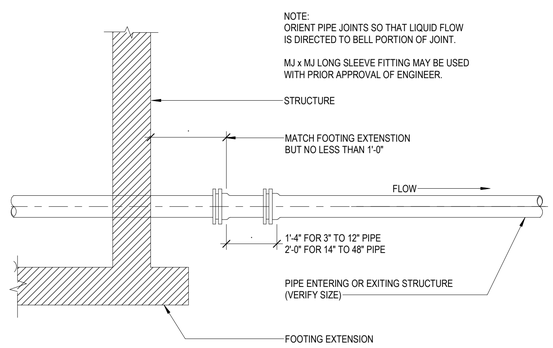
P102



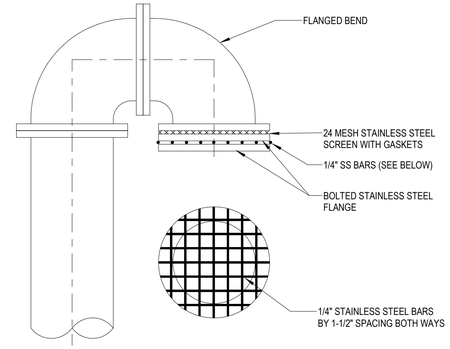
A DP501 PIPE SEAL GASKET



B DP501 SEALED FLOOR SLEEVE



C DP501 PIPE CONNECTION - TYPE 2



D DP501 VENT SCREEN

E DP501 PIPE SUPPORT FROM FLOOR - TYPE 1

F DP501 PIPE SUPPORT FROM FLOOR - TYPE 2

G DP501 PIPE SUPPORT FROM FLOOR - TYPE 3

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REVISION SCHEDULE

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PROCESS PIPING WALL PENETRATION DETAILS

DP501