

BMP SCHEDULE:

WATER QUALITY MEASURES (BMP'S) ARE PROVIDED AT THE LOCATIONS SHOWN ON THE PLAN. BELOW IS A TABULATION OF EACH BMP AND A SUMMARY OF THE POLLUTANT REMOVAL PROVIDED BY THE PROPOSED BMP'S. REFER TO DETAILS AND TYPICAL SECTIONS ON SHEET C4.03 FOR ADDITIONAL INFORMATION.

SITE AREA = 2.66 ACRES

EXISTING CONDITIONS:
 MANAGED TURF = 2.25 ACRES
 IMPERVIOUS = 0.41 ACRES

PROPOSED CONDITIONS:
 FOREST / OPEN SPACE = 0.04 ACRES (BIO-RETENTION AREAS)
 MANAGED TURF = 1.75 ACRES
 IMPERVIOUS = 0.87 ACRES

SOIL HYDRAULIC GROUP = 'C'

TOTAL LOAD REDUCTION REQUIRED (VRMM) = 1.15 LBS/YEAR
 TOTAL LOAD REDUCTION PROVIDED (VRMM) = 1.19 LBS/YEAR

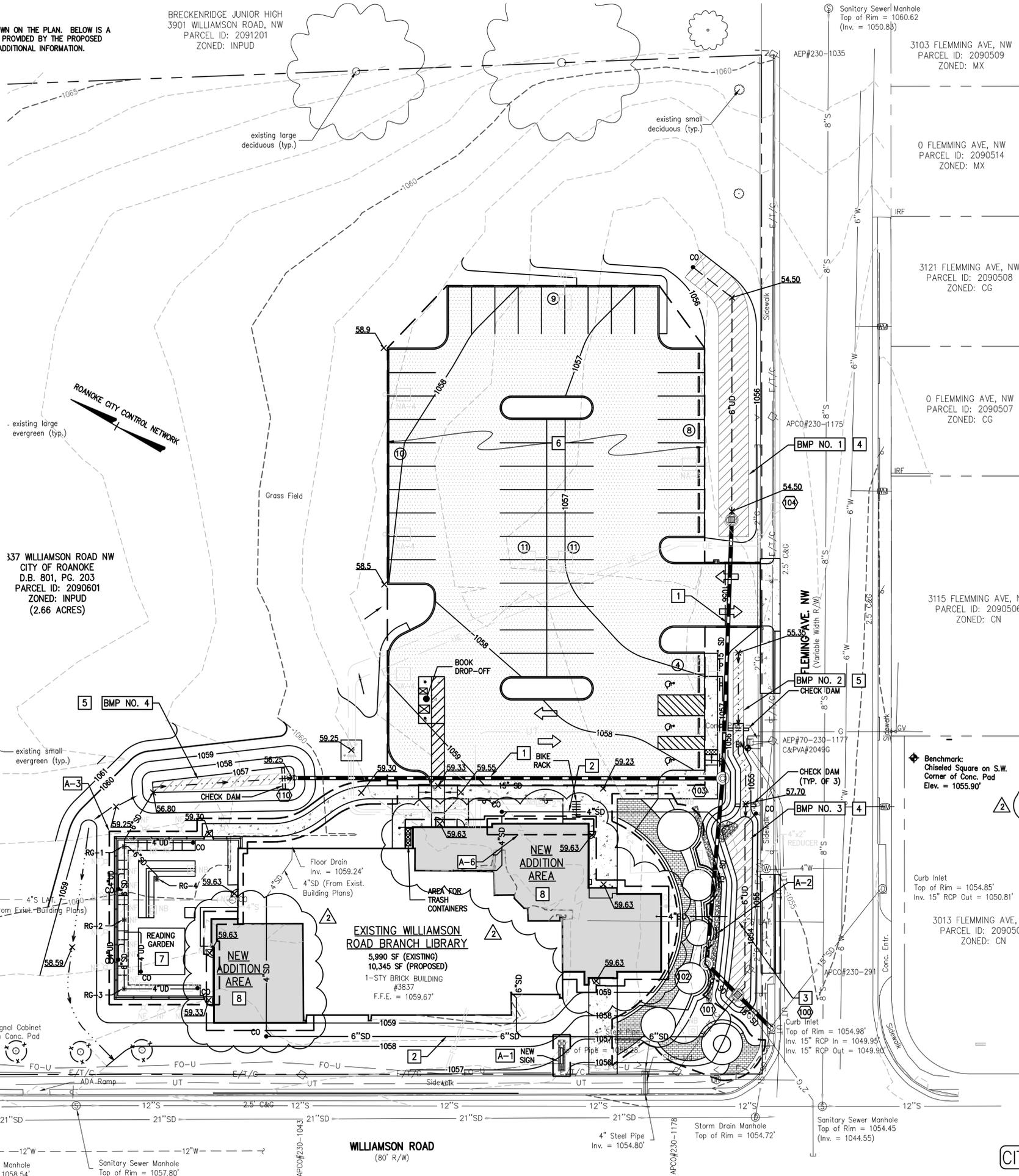
BMP NO. 1:
 BIO-RETENTION - LEVEL 1
 DEQ STORMWATER / DESIGN SPECIFICATION No. 9 - BIO-RETENTION
 DRAINAGE AREA = 1.57 ACRES
 FOREST / OPEN SPACE = 0.03 ACRES
 MANAGED TURF = 1.14 ACRES
 IMPERVIOUS = 0.40 ACRES
 TOTAL LOAD REDUCTION PROVIDED (VRMM) = 0.79 LBS/YEAR

BMP NO. 2:
 GRASS CHANNEL (WITH CHECK DAMS)
 VIRGINIA DEQ STORMWATER DESIGN SPECIFICATION No. 3
 DRAINAGE AREA = 0.17 ACRES
 MANAGED TURF = 0.05 ACRES
 IMPERVIOUS = 0.13 ACRES
 TOTAL LOAD REDUCTION PROVIDED (VRMM) = 0.08 LBS/YEAR

BMP NO. 3:
 BIO-RETENTION - LEVEL 1
 DEQ STORMWATER DESIGN SPECIFICATION No. 9 - BIO-RETENTION
 DRAINAGE AREA = 0.35 ACRES
 FOREST / OPEN SPACE = 0.01 ACRES
 MANAGED TURF = 0.10 ACRES (1)
 IMPERVIOUS = 0.24 ACRES (1)
 (1) INCLUDES AREA FROM BMP NO. 2
 TOTAL LOAD REDUCTION PROVIDED (VRMM) = 0.27 LBS/YEAR

BMP NO. 4:
 GRASS CHANNEL (WITH CHECK DAMS)
 VIRGINIA DEQ STORMWATER DESIGN SPECIFICATION No. 3
 DRAINAGE AREA = 0.29 ACRES
 MANAGED TURF = 0.24 ACRES
 IMPERVIOUS = 0.05 ACRES
 TOTAL LOAD REDUCTION PROVIDED (VRMM) = 0.05 LBS/YEAR

BRECKENRIDGE JUNIOR HIGH
 3901 WILLIAMSON ROAD, NW
 PARCEL ID: 2091201
 ZONED: INPUD



GRADING & STORM DRAINAGE GENERAL NOTES:

- HORIZONTAL (NAD 83/93) AND VERTICAL (NAVD88) CONTROL WAS ESTABLISHED BY STATIC GPS SURVEY COMPLETED ON JULY 21, 2015 BY MATTERN AND CRAIG, INC. (TIMOTHY W. CALDWELL, L.S.) USING ROANOKE CITY CONTROL NETWORK MONUMENT "PRESTON". BENCHMARK AND CONTROL POINTS SHOWN ON PLANS.
- TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD SURVEY PERFORMED BY MATTERN & CRAIG, P.C. - DATED JULY 21, 2015. CONTOUR INTERVAL SHOWN IS ONE (1) FOOT.
- THE PROJECT PROPERTY IS LOCATED IN FEMA DEFINED ZONE "UNSHADED X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON FLOOD INSURANCE RATE MAP PANEL 51161C0162G, EFFECTIVE DATE SEPTEMBER 28, 2007. THIS DETERMINATION IS BASED ON SAID MAP AND HAS NOT BEEN VERIFIED BY ACTUAL FIELD ELEVATIONS. THE PROJECT PROPERTY DOES NOT LIE WITHIN THE LIMITS OF A SPECIAL FLOOD HAZARD AREA AS DESIGNATED BY FEMA.
- UNLESS DIRECTED OTHERWISE OR NOTED ON THE PLANS, THE BUILDING PAD SUBGRADE SHALL BE GRADED TO AN ELEVATION 6-10" BELOW THE PUBLISHED FINISHED FLOOR OR BASEMENT FLOOR ELEVATION. REFER TO ARCHITECTURAL AND STRUCTURAL FOUNDATION PLANS FOR ADDITIONAL INFORMATION REGARDING SLAB THICKNESS, STONE SUB-BASE, AND OTHER FOOTING EXCAVATIONS.
- WHERE SHOWN CLEAN-OUTS FOR ROOF DRAIN SYSTEM SHALL BE SET IN 6" DIAMETER CAST IRON VALVE BOX (ITEM #NPN-CW-18 BY CAPITOL FOUNDRY OF VA, INC., OR APPROVED EQUAL) WITH TOP SET FLUSH WITH FINISHED PAVED GRADE OR GRASS SURFACE ELEVATION.
- UPON COMPLETION OF THE STORM DRAINAGE SYSTEM, THE CONTRACTOR SHALL FURNISH TO THE OWNER WITH A FIELD SURVEYED FINAL CORRECT SET OF AS-BUILT PLANS OF THE NEWLY CONSTRUCTED STORM DRAIN AND/OR STORMWATER MANAGEMENT FACILITIES. AS-BUILT PLANS SHALL BE PROVIDED IN THE STATE PLANS VIRGINIA SOUTH COORDINATE SYSTEM, NAD 1983, TIPS 4502 FEET, US SURVEY FEET, DATUM NA 83, IN THE FORM OF 1 PAPER COPY AND 1 DIGITAL AUTOCAD FILE.
- UNLESS OTHERWISE NOTED, NEW AND EXISTING STORM DRAINAGE PIPES AND OPEN CHANNELS ON THE PROJECT SITE ARE PRIVATELY OWNED, OPERATED, AND MAINTAINED.
- CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE "UNDERGROUND UTILITY DAMAGE PREVENTION ACT" AND SHALL CONTACT THE VIRGINIA UTILITY PROTECTION SERVICE (MISS UTILITY OF VIRGINIA) BY CALLING 811 OR 1-800-552-7001 AT LEAST 72 HOURS PRIOR TO PERFORMING EXCAVATIONS.
- THE WORK OF THE PROJECT INVOLVES LAND DISTURBANCES OF MORE THAN ONE (1) ACRE. THE CITY OF ROANOKE AND VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) SHALL REQUIRE THE WORK TO BE PERMITTED IN ACCORDANCE WITH THE PROVISIONS OF THE "GENERAL PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES - AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP)" AND THE VIRGINIA STORMWATER MANAGEMENT ACT. THE OWNER/DEVELOPER HAS APPLIED FOR COVERAGE UNDER THE "VSMP GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES (VAR10)." EVIDENCE OF COVERAGE UNDER THE "VSMP GENERAL PERMIT" MUST BE PROVIDED PRIOR TO BEGINNING ANY LAND DISTURBANCE ON THE PROPERTY. A COPY OF THE "VSMP GENERAL PERMIT" AND THE "STORMWATER POLLUTION PREVENTION PLAN (SWPPP)" MUST BE KEPT ON THE JOB SITE AT ALL TIMES AND THE "VSMP GENERAL PERMIT COVERAGE LETTER" MUST BE POSTED AT THE PROJECT SITE.

GRADING / STORM DRAINAGE KEYNOTES:

- NEW STORM DRAIN SYSTEM. REFER TO STORM DRAINAGE PROFILES SHOWN ON SHEET C4.02 FOR STRUCTURE AND STORM DRAINAGE LINE INFORMATION AND STORM DRAINAGE DETAILS.
- STORM DRAIN ROOF LEADER (RD) AND COLLECTION LINE SHALL BE PVC SDR-35. SITE CONTRACTOR TO INSTALL ROOF LEADER COLLECTION LINES FROM STORM DRAIN MAIN/MANHOLE TO POINT SHOWN OR TO WITHIN 5-FEET OF BUILDING. BUILDING CONTRACTOR SHALL CONNECT DOWN SPOUT TO STORM DRAIN ROOF LEADER. REFER TO ARCHITECTURAL PLAN FOR LOCATION OF DOWNSPOUTS.
- NEW SANITARY SEWER LINE AND WATER LINE SHOWN FOR INFORMATION AND COORDINATION PURPOSES ONLY. CONTRACTOR SHALL CONFIRM LOCATION & INVERT OF EXISTING AND NEW UTILITY LINES PRIOR TO INSTALLATION OF STORM DRAINAGE. REFER TO SHEET C2.01 FOR ADDITIONAL INFORMATION.
- NEW BIORETENTION BASIN AND FILTER. REFER TO SHEET C4.03 FOR ENLARGED PLAN AND DETAILS AND SECTIONS.
- GRASS-LINED SWALE / CHANNEL WITH CHECK DAM. REFER TO CROSS SECTION AND SCHEDULE ON SHEET C4.04.
- AREA OF PARKING LOT TO BE PARTIALLY UNDER-CUT AND BACKFILLED IN ACCORDANCE WITH DETAIL SHOWN ON SHEET C4.04. LIMITS SHOW ON THIS PLAN AND SHEET C1.01.
- REFER TO ARCHITECTURAL PLAN SHEET A11.02 FOR ENLARGED PLAN SHOWING GRADES AND STORM DRAINAGE WITHIN READING GARDEN.
- NEW BUILDING FOUNDATION AREA TO BE UNDERCUT TO 3-FEET BELOW NEW SUBGRADE ELEVATION AND BACKFILLED WITH SELECT MATERIAL AND COMPACTED IN ACCORDANCE WITH SPECIFICATIONS.

BID ALTERNATE SCHEDULE / GRADING & STORM DRAINAGE PLAN:

- A-1 BID ALTERNATE NO. 1 - DELETE MAIN BUILDING SIGN. REFER TO SHEET A11.03 FOR DIMENSIONS AND LAYOUT OF "BUILDING SIGN." IF THIS DEDUCTIVE BID ALTERNATE IS ACCEPTED AND THE SIGN IS DELETED THERE WILL BE NO CHANGE TO THE GRADING AND STORM DRAINAGE IN THE VICINITY OF THE SIGN.
- A-2 BID ALTERNATE NO. 2 - DELETE ART WALK. REFER TO SHEET A11.03 FOR DIMENSIONS AND LAYOUT OF "ART WALK." IF THIS DEDUCTIVE BID ALTERNATE IS ACCEPTED AND THE ART WALK IS DELETED CONTRACTOR SHALL GRADE THE AREA WITH A UNIFORM CROSS SLOPE FROM THE SHOWN 1059 TO THE 1058 CONTOUR. NO CHANGES ARE REQUIRED WITH THE STORM DRAINAGE SYSTEM.
- A-3 BID ALTERNATE NO. 3 - DELETE READING GARDEN. REFER TO SHEET A11.02 FOR DIMENSIONS AND LAYOUT OF READING GARDEN WHICH SHOWS THE SPECIFIC COMPONENTS TO BE REMOVED WITH THIS BID ALTERNATE. IF THIS DEDUCTIVE BID ALTERNATE IS ACCEPTED AND THE READING GARDEN IS DELETED THE AREA SHALL BE GRADED TO UNIFORMLY SLOPE FROM THE NORTHERN FACE OF THE LIBRARY AT ELEVATION 1059.63 TO THE SHOWN CONTOUR 1059 TO THE NORTH, EAST, AND WEST OF THE BUILDING PERIMETER AND THE SURFACE AND SUB-SURFACE DRAINAGE SYSTEM SHOWN WITH READING GARDEN AS CONNECTING IN TO SD# 110 SHALL BE DELETED.
- A-6 BID ALTERNATE NO. 6 - REDUCE SIZE OF MEETING ROOM IN ACCORDANCE WITH THE PLAN, DETAILS, AND SECTIONS SHOWN ON SHEET A11.01. IF THIS DEDUCTIVE BID ALTERNATE IS ACCEPTED AND THE SIZE OF THE MEETING ROOM IS REDUCED CONTRACTOR SHALL GRADE THE AREA WITH A UNIFORM CROSS SLOPE FROM THE PERIMETER OF THE BUILDING AT ELEVATION 1059.63 TO THE ELEVATIONS SHOWN ALONG THE SIDEWALK. NO CHANGES ARE REQUIRED WITH THE STORM DRAINAGE SYSTEM.

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 PETERSBURG, VA 23804

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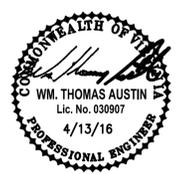
WILLIAMSON ROAD LIBRARY
 3837 Williamson Road, Roanoke, VA 24012

CONSTRUCTION DOCUMENTS

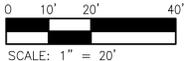
NO.	DATE	DESC.
Δ	05.04.16	ADDENDUM NO.2

GRADING & STORM DRAINAGE PLAN

PROJ. NO.: 156003 DRAWN BY: ARB
 04.13.16



CITY PLAN NO.: CP160008



C3.01