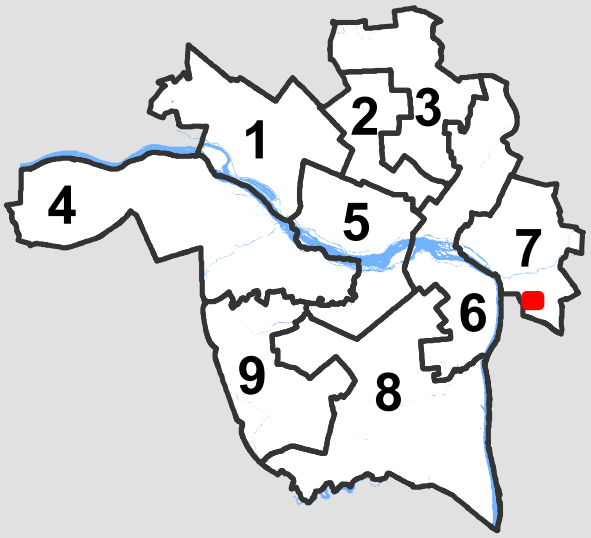
City of Richmond
Department of Planning & Development Review

Location, Character, and Extent

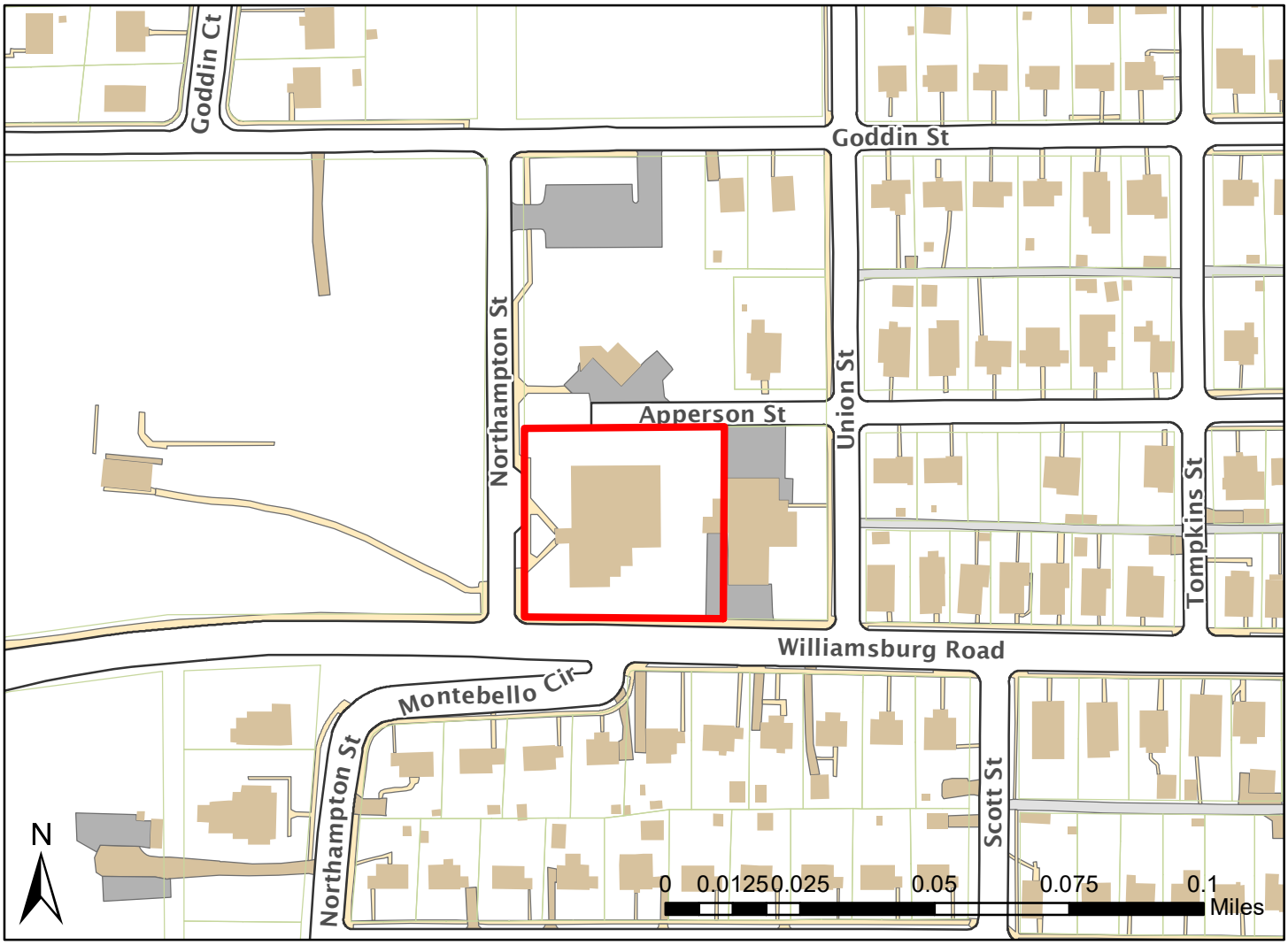
LOCATION: 5051 Northampton Street

COUNCIL DISTRICT: 7

PROPOSAL: Location, character, and extent review of updates to accessible routes to the entrance of the community center.



For questions, please contact Josh Son at 646-3741 or joshua.son@richmondgov.com



Application for URBAN DESIGN COMMITTEE Review

Department of Planning and Development Review
Planning & Preservation Division
900 E. Broad Street, Room 510
Richmond, Virginia 23219
(804) 646-6335
http://www.richmondgov.com/CommitteeUrbanDesign

Application Type

- ☑ Addition/Alteration to Existing Structure
- ☐ New Construction
- ☐ Streetscape
- ☐ Site Amenity
- ☐ Encroachment
- ☐ Master Plan
- ☐ Sign
- ☐ Other

Review Type

- ☐ Conceptual
- ☑ Final

Project Name: Powhatan Community Center ADA Improvements

Project Address: 5051 Northampton Street, Richmond VA, 23231

Brief Project Description (this is not a replacement for the required detailed narrative) :

The intent of the project is to reconfigure and update the existing street parking and sidewalks at Powhatan Community Center to provide accessible parking and an accessible route to the entrance of the community center as well as to Powhatan Hill Park.

Applicant Information

(on all applications other than encroachments, a City agency representative must be the applicant)

Name: Heywood Harrison Email: heywood.harrison@richmond.gov

City Agency: Dept. of Parks, Rec., Community Facilities Phone: (804) 646-5608

Address: 1209 Admiral St, Richmond VA 23220

Main Contact (if different from Applicant): Scott Wiley / Lauren Paul

Company: Timmons Group Phone: 200-6424 / 200-6505

Email: scott.wiley@timmons.com, lauren.paul@timmons.com

Submittal Deadlines

All applications and support materials must be filed no later than 21 days prior to the scheduled meeting of the Urban Design Committee (UDC). Please see the schedule on page 3 as actual deadlines are adjusted due to City holidays. **Late or incomplete submissions will be deferred to the next meeting.**

Filing

Applications can be mailed or delivered to the attention of "Urban Design Committee" at the address listed at the top of this page. **It is important that the applicant discuss the proposal with appropriate City agencies, Zoning Administration staff, and area civic associations and residents prior to filing the application with the UDC.**

UDC Background

The UDC is a ten member committee created by City Council in 1968 whose purpose is to advise the City Planning Commission on the design of projects on City property or right-of-way. The UDC provides advice of an aesthetic nature in connection with the performance of the duties of the Commission under Sections 17.05, 17.06 and 17.07 of the City Charter. The UDC also advises the Department of Public Works in regards to private encroachments in the public right-of-way.

Powhatan Community Center ADA Improvements – Project Narrative

Purpose and Description of the Project

The Department of Parks, Recreation, and Community Facilities (DPRCF) plans to reconfigure and update the existing street parking and sidewalks at Powhatan Community Center to provide accessible parking and an accessible route to the entrance of the community center as well as to Powhatan Hill Park. Existing conditions do not meet ADA Accessibility Guidelines. Access to Powhatan Hill Park is limited to a small staircase along Northampton Street. Access to the community center entrance is extremely steep and does not meet curb ramp, slope, or handrail requirements.

As currently designed, the layout provides sidewalk access along the west side of Northampton Street as well as accessible ramping to Powhatan Hill Park. Mill and overlay of existing street parking is proposed to meet accessibility requirements for slope. After restriping, the area will provide 2 parallel accessible parking spaces. In addition, the existing sidewalk to the community center entrance will be reconfigured to include a new curb ramp, sidewalk, and ramping to the front door.

Project Background

The Department of Parks, Recreation, and Community Facilities (DPRCF) engaged Timmons Group for technical services to design accessibility improvements at Powhatan Community Center. These services began with a design survey of the site and followed with a schematic design discussion with DPRCF staff. The final design included construction documents consisting of existing conditions and demolition, a layout plan, grading and drainage plan, erosion control plan, construction notes and details, and a stormwater summary.

The project is being submitted to UDC for review and approval by the Planning Commission.

Project Budget and Funding Sources

The project is being funded through the City of Richmond Neighborhood Park CIP.

Construction Program

This is a relatively small-scale and simple construction project and it is estimated that construction will take approximately 40 days to complete. The estimated construction start date is May 2019 and completion is expected mid-June 2019.

Landscape Plan and Maintenance Analysis

The landscaping consists of reseeding all disturbed areas. Landscape maintenance will belong to the City of Richmond Department of Parks, Recreation, & Community Facilities.

POWHATAN COMMUNITY CENTER
ADA IMPROVEMENTS

URBAN DESIGN COMMITTEE

FEBRUARY 2019

TIMMONS GROUP

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Angled parking along Northampton Street.


Curb ramp at community center entrance.


Sidewalk to community center entrance


View to covered entry of community center.


Detail view of community center covered entry.


View south along sidewalk to Williamsburg Road.


Secondary sidewalk at community center entance to remain.


Secondary sidewalk at community center entance to remain.


Secondary sidewalk at community center entance to remain.


Stairs to Powhatan Hill Park.

Stairs, wall, and fencing at non-accessibly entry to Powhatan Hill Park.


Hydrant along western side of Northampton Street at Powhatan Hill entry.

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS

EXISTING CONDITIONS – DECEMBER 2018

RICHMOND VIRGINIA

TIMMONS GROUP
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SITE DATA

1. OWNER
   CITY OF RICHMOND DEPARTMENT OF PARKS, RECREATION & COMMUNITY FACILITIES
   1209 ADMIRAL ST, RICHMOND, VA 23220
   CONTACT: HEYWOOD HARRISON
   PHONE: (804) 646-5608
   EMAIL: HEYWOOD.HARRISON@RICHMONDGOV.COM

2. LANDSCAPE ARCHITECT

   CONTACT: LAUREN PAUL
   PHONE: (804) 200-6505
   FAX: (804) 560-1016
   EMAIL: LAUREN.PAUL@TIMMONS.COM

3. SITE

PARCEL ID:	E0002031002
SITE AREA:	0.81 AC
ZONING:	R-5
EXISTING USE:	PARK
PROPOSED USE:	PARK
HISTORIC DISTRICT:	N/A
NEIGHBORHOOD:	FULTON
WATER:	CITY OF RICHMOND
SEWER:	CITY OF RICHMOND
DRAINAGE:	CITY OF RICHMOND

4. BUILDING
   STORIES: 1 STORY
   FLOOR AREA: 9,030 SF

5. PARKING CALCULATIONS

   EXISTING PARKING = 5 SPACES (2 ACCESSIBLE/NON-COMPLIANT)

   PROPOSED PARKING = 2 SPACES (2 ACCESSIBLE)

6. CBPA AREA
   NONE

7. STORM SEWER
   STORM SEWER SYSTEM IN SOUTHAMPTON STREET.

8. FLOODPLAIN
   THE SUBJECT PROPERTY IS NOT LOCATED IN A FLOOD ZONE.

9. WETLANDS AND PERENNIAL STREAM
   THE SUBJECT PROPERTY CONTAINS NO WETLANDS OR STREAMS.

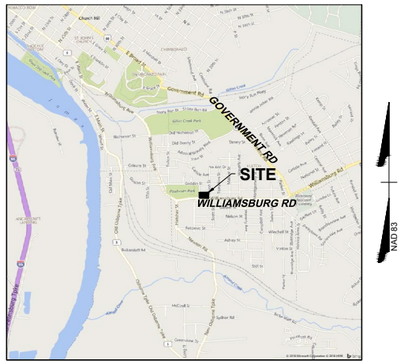
10. SURVEY NOTE
    EXISTING CONDITIONS INFORMATION IS A COMPILATION OF DATA OBTAINED FROM THE FOLLOWING: FIELD AND BOUNDARY SURVEY OF SUBJECT PROPERTY, CITY OF RICHMOND GAS, SEWER, AND WATER UTILITY MAPS, CITY OF RICHMOND GIS, AND FEMA FLOOD INSURANCE MAPS. DATA OUTSIDE THE LIMITS OF THE FIELD AND BOUNDARY SURVEY HAVE NOT BEEN FIELD VERIFIED BY TIMMONS GROUP.

Sheet List Table

Sheet Number	Sheet Title
C0.0	COVER SHEET
C1.0	EXISTING CONDITIONS & DEMOLITION PLAN
C2.0	LAYOUT PLAN
C3.0	GRADING & DRAINAGE & EROSION CONTROL PLAN
C4.0	NOTES & DETAILS
C4.1	NOTES & DETAILS
C4.2	NOTES & DETAILS
C5.0	STORMWATER SUMMARY

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS

5051 NORTHAMPTON ST
RICHMOND, VA 23231
EAST DISTRICT



VICINITY MAP
SCALE: 1" = 2,000'

JANUARY 16, 2019

OWNER:
CITY OF RICHMOND DEPARTMENT OF PARKS, RECREATION & COMMUNITY FACILITIES

ENGINEER:
TIMMONS GROUP

PERMITS REQUIRED:
WORK IN STREETS PERMIT

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TEL 804.200.6500 FAX 804.560.1016 www.timmons.com

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REVISION DESCRIPTION | DATE

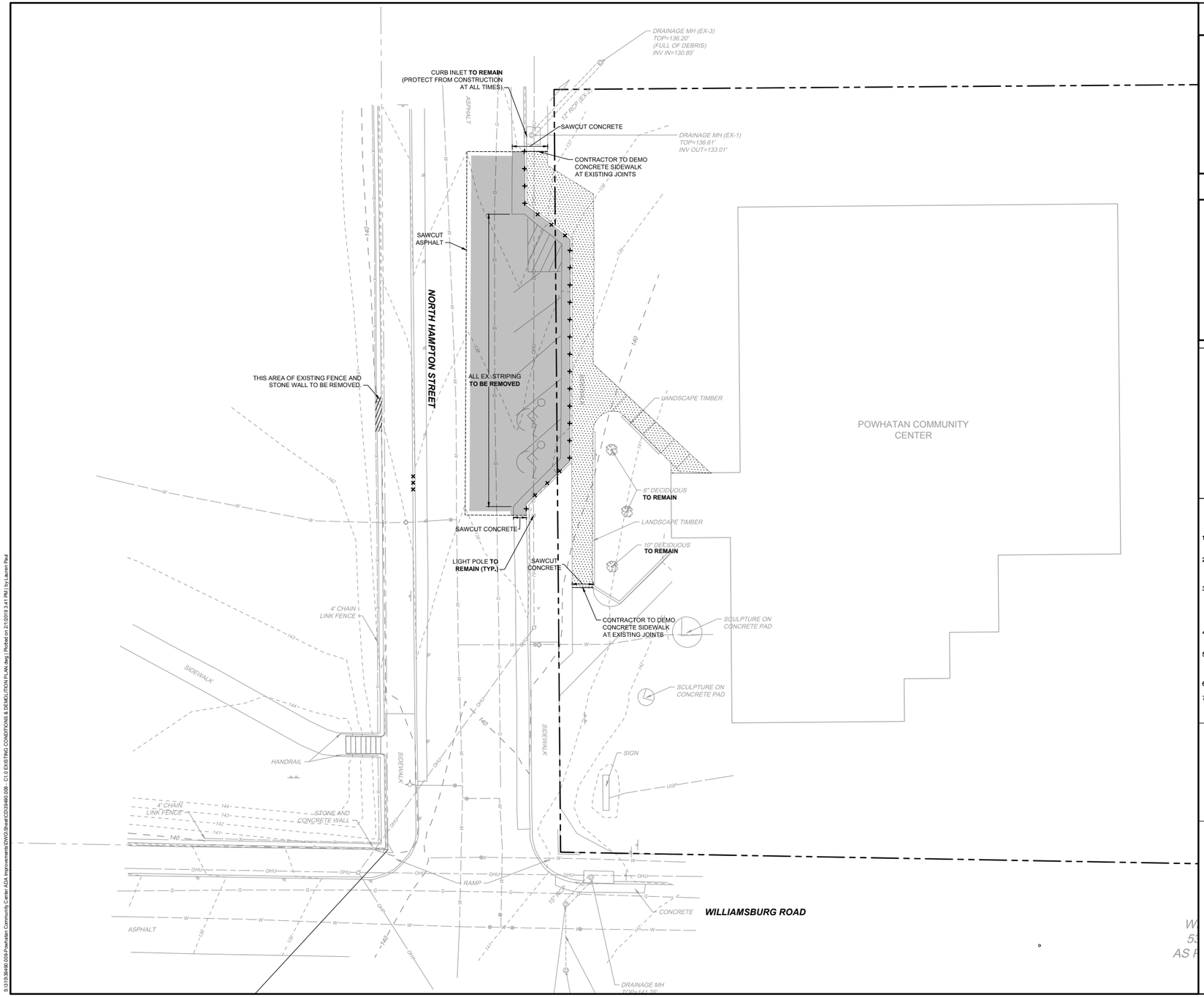
DATE: 01/16/2019
DRAWN BY: B. DAVIS
DESIGNED BY: L.P./B.D.
CHECKED BY: L.PAUL
SCALE:

TIMMONS GROUP

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS
CITY OF RICHMOND - VIRGINIA
COVER SHEET

JOB NO. 39490.009
SHEET NO. C0.0

FEBRUARY 7, 2019



SURVEY LEGEND:

LEGEND

- CONTROL
- SANITARY MANHOLE
- DRAINAGE MANHOLE
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- POWER POLE
- GUY
- SIGN

SURVEY NOTES:

THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF MARC C. SNIDER, LS FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THE ORIGINAL DATA WAS OBTAINED ON NOVEMBER 27, 2018. THIS PLAT, MAP AND DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

HORIZONTAL DATUM: NAD83
VERTICAL DATUM: NAVD88

DATUM ESTABLISHED BY RTK GPS
(CORRECTIONS FROM RTCM-REF 0592)

DEMOLITION LEGEND:

- ASPHALT PAVEMENT REMOVAL
- CONCRETE PAVEMENT REMOVAL
- CURB & GUTTER REMOVAL

DEMOLITION NOTES:

1. PERFORM ALL WORK IN ACCORDANCE WITH VDOT AND CITY OF RICHMOND SPECIFICATIONS AND REGULATIONS.
2. CONTRACTOR SHALL ENGAGE MISS UTILITY OR A PRIVATE UTILITY LOCATION SERVICE TO MARK ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
3. CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY UPON FINDING A DIFFERENCE IN FIELD CONDITIONS AND WHAT IS DEPICTED ON THE PLANS.
4. ALL EXISTING UTILITIES SHALL BE PROTECTED AND MINIMUM COVER WILL BE MAINTAINED DURING DEMOLITION AND CONSTRUCTION.
5. SAW-CUT EXISTING PAVEMENT AT LIMITS OF PAVEMENT REMOVAL TO FULL DEPTH USING CARE TO CUR NEAT, STRAIGHT LINES. CUT AT EXISTING JOINTS WHERE POSSIBLE.
6. LEGALLY DISPOSE OF ANY EXCESS MATERIALS OFF-SITE AT NO ADDITIONAL COST TO THE OWNER.
7. TRAFFIC CONTROL SHALL BE PROVIDED BY CONTRACTOR PER CITY OF RICHMOND AND VDOT STANDARDS.

UNDERGROUND UTILITIES MAY BE IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL CALL "MISS UTILITY" AT 1-800-552-7001 48 HOURS PRIOR TO THE START OF EXCAVATION. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES IN AREA OF CONSTRUCTION PRIOR TO STARTING WORK.

NAD 83

SCALE 1"=10'
0 10' 20'

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DATE: 01/16/2019
DRAWN BY: B. DAVIS
DESIGNED BY: L.P./B.D.
CHECKED BY: L.PAUL
SCALE:

TIMMONS GROUP

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS
CITY OF RICHMOND - VIRGINIA
EXISTING CONDITIONS & DEMOLITION PLAN

JOB NO. 39490.009
SHEET NO. C1.0

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS

CONSTRUCTION DOCUMENTS – EXISTING CONDITIONS & DEMOLITION PLAN

RICHMOND VIRGINIA

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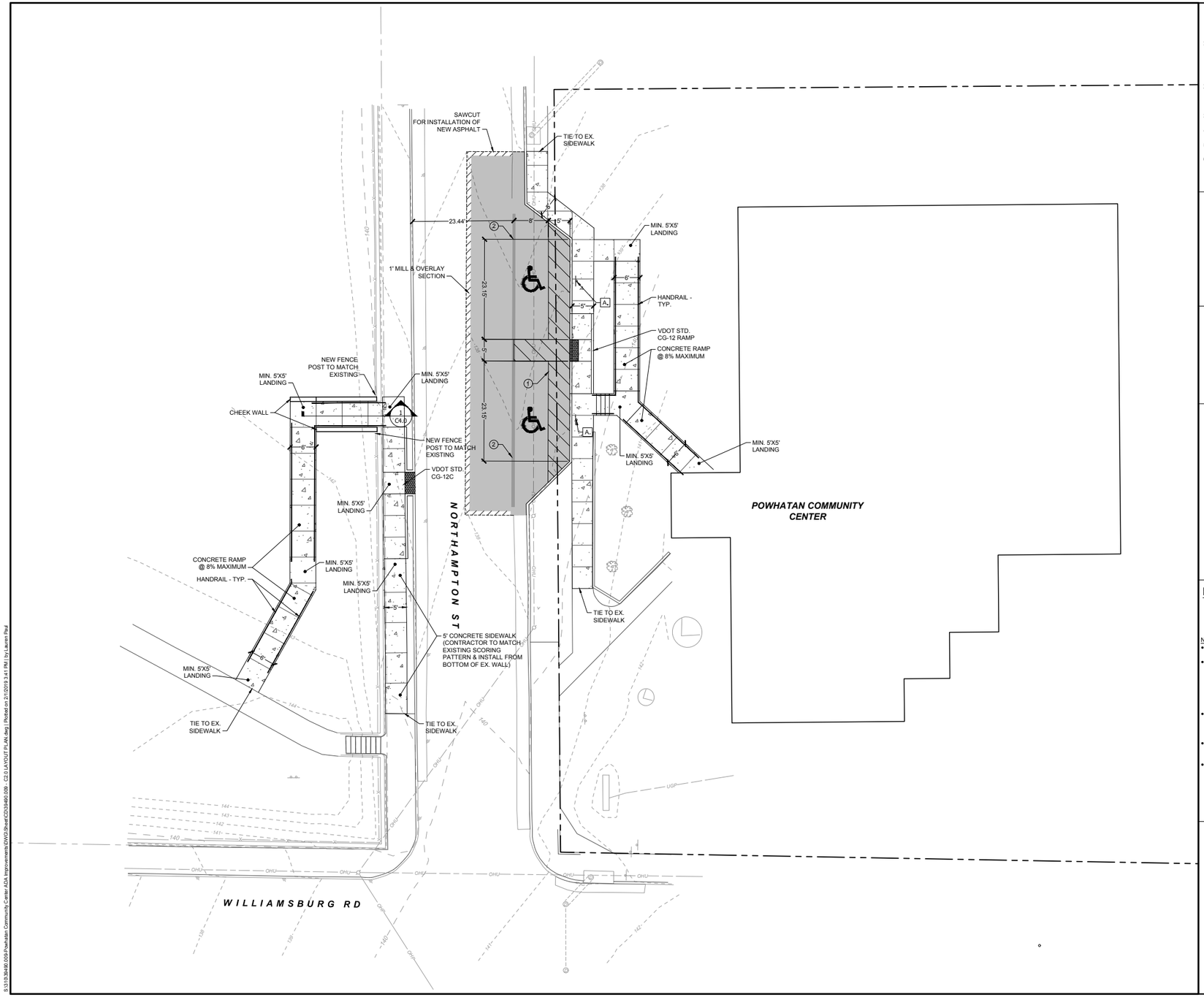

LAYOUT NOTES:

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS AND CITY OF RICHMOND SPECIFICATIONS AND STANDARDS WHERE APPLICABLE.
2. VDOT STANDARD DETAILS, AS REFERENCED, TO BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT VERSION OF VDOT "ROAD AND BRIDGE STANDARDS".
3. ALL DIMENSIONS ARE FROM THE FACE OF CURB, UNLESS NOTED OTHERWISE.
4. ALL CURB RADII ARE 5' UNLESS OTHERWISE NOTED ON THE PLAN.
5. ALL CURB AND GUTTER IS TO BE VDOT STANDARD CURB AND GUTTER.
6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL SIGNS, AND STRIPING SHOWN ON THE PLANS.

PAVEMENT LEGEND:

- DENOTES ASPHALT PAVEMENT REPLACEMENT. (DETAIL ON C4.0)
- DENOTES CONCRETE SIDEWALK REPLACEMENT. (DETAIL ON C4.0)
- DENOTES MILL & OVERLAY SECTION. (DETAIL ON C4.0)

SIGN LEGEND:

[A] ACCESSIBLE PARKING SIGN (MUTCD R7-8)

SITE LEGEND:

- SIGN
- PROPOSED CURB & GUTTER (CG-6)
- PROPOSED FLUSH CURB
- PROPOSED CURB (CG-2)
- EXISTING CURB
- EXISTING CURB & GUTTER
- DETECTABLE WARNING SURFACE
- YELLOW FIRE LANE STRIPING

PAVEMENT MARKING LEGEND:

1. 4" SINGLE (SOLID) WHITE LINE
2. 4" WIDE YELLOW STRIPE

NOTES:

- DO NOT PAINT INSIDE OF THE GUTTER PAN IN ANY AREA.
- PAINT SHALL BE TYPE A, WATER EMULSION BASE, TRAFFIC PAINT CONFORMING TO THE REQUIREMENTS OF SECTION 704 OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS AND FEDERAL SPECIFICATION TT-P-1952. COLOR SHALL BE WHITE UNLESS OTHERWISE INDICATED.
- ALL PERMANENT PAVEMENT MARKINGS DISTURBED BY CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR IN-KIND, UNLESS OTHERWISE CALLED FOR IN THESE PLANS.
- CONTRACTOR SHALL TIE ALL PROPOSED PAVEMENT MARKINGS TO EXISTING MARKINGS AT THE PROJECT LIMITS.
- TRAFFIC CONTROL SHALL BE PROVIDED BY CONTRACTOR PER CITY OF RICHMOND AND VDOT STANDARDS.

NAD 83

SCALE 1"=10'
0 10' 20'

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CHECKED BY: L.PAUL
SCALE:

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POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS
CITY OF RICHMOND - VIRGINIA
LAYOUT PLAN

JOB NO. 39490.009
SHEET NO. C2.0

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POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS

CONSTRUCTION DOCUMENTS – LAYOUT PLAN

RICHMOND VIRGINIA

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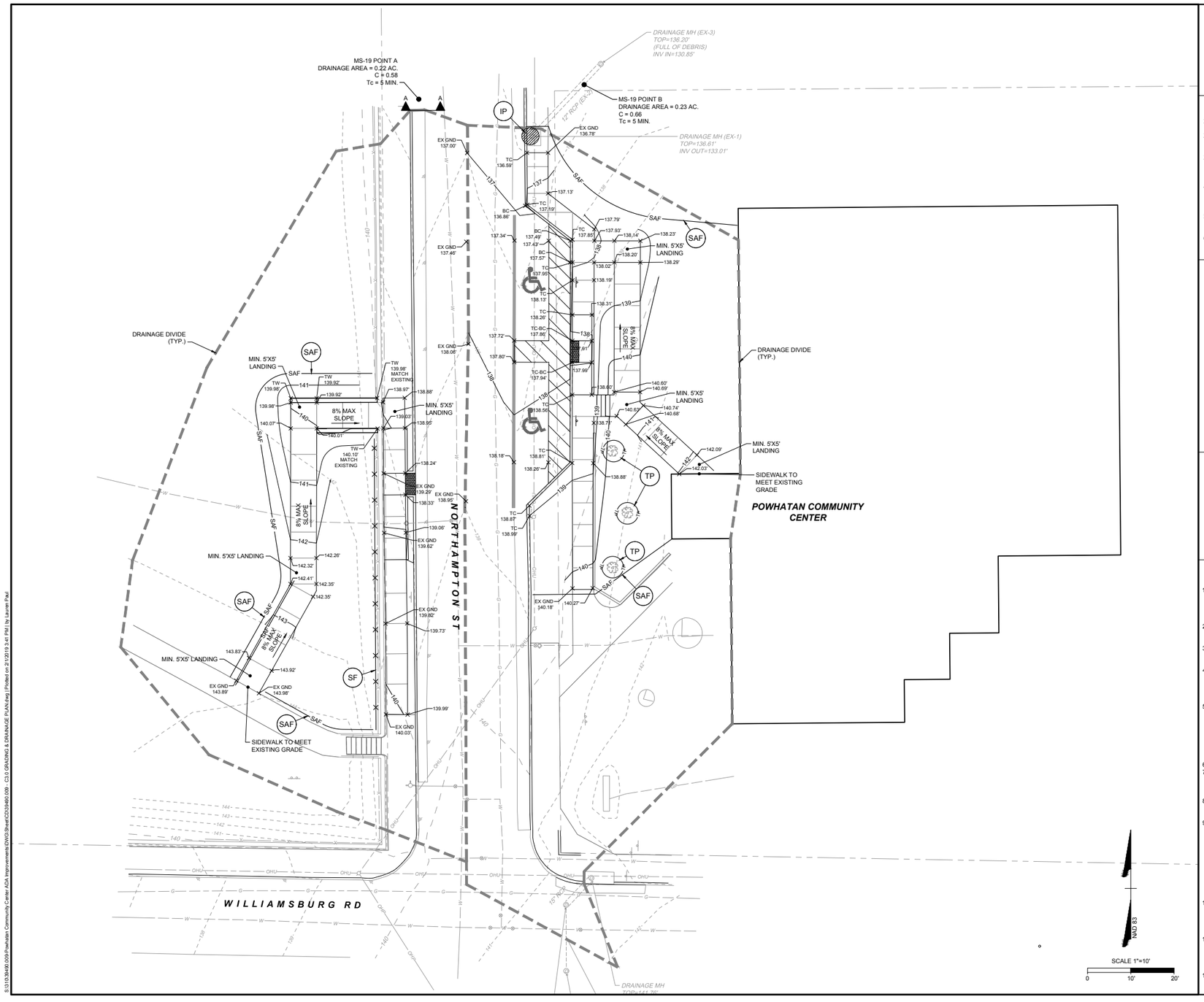

UNDERGROUND UTILITIES MAY BE IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL CALL "MISS UTILITY" AT 1-800-552-7001 48 HOURS PRIOR TO THE START OF EXCAVATION. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES IN AREA OF CONSTRUCTION PRIOR TO STARTING WORK.

GRADING NOTES:

1. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING FOUNDATION AT ALL TIMES.
2. ACCESSIBLE PARKING SPACES & RAMP LANDINGS MUST MEET ADA STANDARDS AND HAVE A MAXIMUM SLOPE OF 2.00% IN ANY DIRECTION.
3. ACCESSIBLE ROUTES AND SIDEWALKS MUST MEET ADA STANDARDS AND HAVE A MAXIMUM CROSS SLOPE OF 2.00% AND MAXIMUM LONGITUDINAL SLOPE OF 5.00%.
4. SEED DISTURBED GROUND ACCORDING TO THE SPECIFICATIONS LISTED ON TABLE 3.32-D IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
5. BOTTOM OF CURB ELEVATIONS SPECIFIED WHERE CURB IS LESS THAN SIX (6) INCHES IN HEIGHT.
6. TRAFFIC CONTROL SHALL BE PROVIDED BY CONTRACTOR PER CITY OF RICHMOND AND VDOT STANDARDS.

GRADING LEGEND:

- EXISTING STORM SEWER
- 199 — EXISTING CONTOUR
- 199 — PROPOSED CONTOUR
- DRAINAGE DIVIDE
- TC 199.00 — PROPOSED TOP OF CURB ELEVATION
- BC 199.00 — PROPOSED BOTTOM OF CURB ELEVATION
- TC-BC 199.00 — PROPOSED FLUSH CURB ELEVATION
- 199.00 — PROPOSED GRADE ELEVATION
- EX GND 199.00 — EXISTING GROUND ELEVATION

EROSION CONTROL LEGEND:

SAF	SAFETY FENCE	3.01*
SF	SILT FENCE	3.05*
IP	INLET PROTECTION	3.07*
TP	TREE PROTECTION	3.38*

* VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK" SPECIFICATION NUMBER

EROSION CONTROL SEQUENCE OF CONSTRUCTION

1. A PRE-CONSTRUCTION CONFERENCE IS MANDATORY BEFORE ANY WORK IS DONE AT THE SITE. ARRANGE A MEETING WITH OWNER, ENGINEER AND ESC INSPECTOR. 48 HOURS NOTICE IS REQUIRED.
2. THE CERTIFIED RESPONSIBLE LAND DISTURBER (CRLD) MUST ATTEND THE PRE-CONSTRUCTION MEETING.
3. INSTALL PERIMETER CONTROL MEASURES INCLUDING SAFETY FENCE, SILT FENCING, TREE PROTECTION AND INLET PROTECTION.
4. AFTER PERIMETER EROSION CONTROL MEASURES ARE BUILT AND WITH APPROVAL OF EROSION CONTROL INSPECTOR, CLEAR AND GRUB OTHER PORTIONS OF THE SITE AND DEMOLISH AREAS INDICATED ON PLANS.
5. ADJUST MEASURES IF NECESSARY TO INTERCEPT SEDIMENT AND PREVENT EROSION. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
6. BEGIN GRADING OPERATION.
7. ONCE SITE IS BROUGHT TO GRADE AND STABILIZED, COMPLETE SITE WORK CONSTRUCTION INCLUDING CURB AND GUTTER, CONCRETE PAVEMENT AND ASPHALT PAVEMENT.
8. IN ANY DISTURBED AREAS, ESTABLISH FINAL GRADES WITH THE PLACEMENT OF TOPSOIL, PERMANENTLY SEED ALL DISTURBED AREAS.
9. DO NOT REMOVE EROSION CONTROL MEASURES UNTIL ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN PERMANENTLY STABILIZED. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. NOTIFY THE EROSION CONTROL INSPECTOR BEFORE THE EROSION CONTROL MEASURES ARE REMOVED. THE REMOVAL OF THESE MEASURES SHALL BE DONE WITHIN 30 DAYS AFTER FINAL STABILIZATION.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE DEPARTMENT OF PUBLIC WORKS.
11. IF CONSTRUCTION DOES NOT COMMENCE FOR 180 DAYS FOLLOWING THE PRE-CON MEETING OR IF THE PROJECT IS DORMANT FOR 180 DAYS, A NEW PRE-CON IS REQUIRED BEFORE CONSTRUCTION CAN START.
12. NO EROSION AND SEDIMENT CONTROL MEASURES CAN BE REMOVED WITHOUT THE APPROVAL OF THE ESC INSPECTOR FOR THE PROJECT.

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CHECKED BY: L.PAUL
SCALE:

TIMMONS GROUP

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS
CITY OF RICHMOND - VIRGINIA
GRADING & DRAINAGE & EROSION CONTROL PLAN

JOB NO. 39490.009
SHEET NO. C3.0

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FEBRUARY 7, 2019

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS

CONSTRUCTION DOCUMENTS – GRADING & DRAINAGE PLAN & EROSION CONTROL PLAN

RICHMOND VIRGINIA

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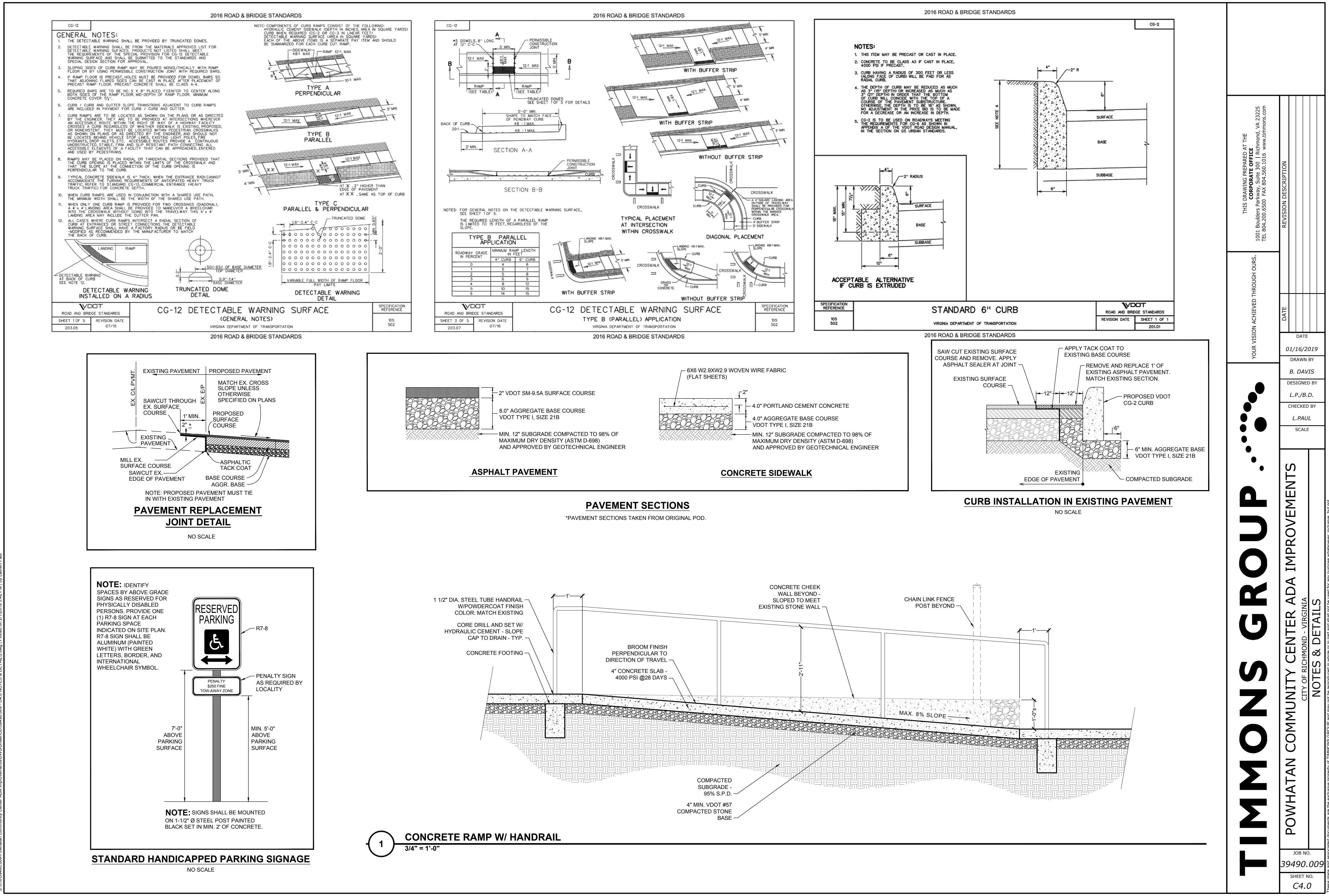

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS

CONSTRUCTION DOCUMENTS – NOTES & DETAILS

TIMMONS GROUP

YOUR VISION ACHIEVED THROUGH OURS.

9VAC25-840-40. MINIMUM STANDARDS

A VESCP MUST BE CONSISTENT WITH THE FOLLOWING CRITERIA, TECHNIQUES AND METHODS:

1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.
   6.a. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.
   6.b. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25-YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.
7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.
8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
10. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
11. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.
15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
   16.a. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
   16.b. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
   16.c. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
   16.d. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
   16.e. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THIS CHAPTER.
   16.f. APPLICABLE SAFETY REQUIREMENTS SHALL BE COMPLIED WITH.
17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE VESCP AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA. STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN-MADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS:
   19.a. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED TO A MAN-MADE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
   19.b. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
      19.b.1. THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR
      19.b.2. IN
         19.b.2.a. NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS.
         19.b.2.b. ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND
         19.b.2.c. PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.
   19.c. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
      19.c.1. IMPROVE THE CHANNELS TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL, THE BED, OR THE BANKS; OR
      19.c.2. IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES;
      19.c.3. DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL; OR
      19.c.4. PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE VESCP AUTHORITY TO PREVENT DOWNSTREAM EROSION.
   19.d. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
   19.e. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT PROJECT.
   19.f. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE VESCP OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
   19.g. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
   19.h. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
   19.i. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.
   19.j. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
   19.k. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.
   19.l. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (i) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24-HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 62.1-44.15:54 OR 62.1-44.15:65 OF THE ACT.
   19.m. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15:52 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 62.1-44.15:24 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES ARE IN ACCORDANCE WITH 9VAC25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS.
   19.n. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF SUBDIVISION 19 OF THIS SUBSECTION.

STATUTORY AUTHORITY

§ 62.1-44.15:52 OF THE CODE OF VIRGINIA.

HISTORICAL NOTES

FORMER 4VAC50-30-40, DERIVED FROM VR625-02-00 § 4; EFF SEPTEMBER 13, 1990; AMENDED, VIRGINIA REGISTER VOLUME 11, ISSUE 11, EFF. MARCH 22, 1995; VOLUME 29, ISSUE 4, EFF. NOVEMBER 21, 2012; AMENDED AND RENUMBERED, VIRGINIA REGISTER VOLUME 30, ISSUE 2, EFF. OCTOBER 23, 2013.

CITY OF RICHMOND EROSION AND SEDIMENT CONTROL GUIDELINES

THE SITE IS TO BE GRADED TO PROPOSED CONTOURS AS SHOWN. NO CRITICAL EROSION CONTROL PROBLEMS ARE ANTICIPATED AS MOST EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED PRIOR TO LAND DISTURBANCE. THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING MAINTENANCE AND PROCEDURES.

1. THE OWNER OF EACH PARCEL WITHIN MAP SECTION L SHALL (i) CAUSE ALL EROSION AND SEDIMENT CONTROL FACILITIES INSTALLED DURING CONSTRUCTION TO BE INSPECTED NOT LESS THAN THREE (3) TIMES EACH WEEK WHEN CONSTRUCTION ACTIVITIES ARE ONGOING AND AFTER EVERY SIGNIFICANT RAINFALL, (ii) CAUSE THE CORRECTION OF ANY DAMAGE TO OR DEFICIENCY IN THE INSTALLATION OR OPERATION OF THE EROSION AND SEDIMENT CONTROL DEVICES, AND (iii) MAINTAIN RECORDS OF SUCH INSPECTIONS AND CORRECTIONS. IF ANY INSPECTION DISCLOSES ANY DAMAGE OR DEFICIENCY, ANY CONSTRUCTION ACTIVITIES WHICH SHALL RESULT IN ADDITIONAL EROSION OR SEDIMENT WHICH THE CORRECTION OF THE DAMAGE OR DEFICIENCY WOULD PREVENT, SHALL BE HALTED PENDING CORRECTION OF THE DAMAGE OR DEFICIENCY.
2. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
3. EXCESS EXCAVATION DISPOSED OF OFF THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
4. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP OF THE LAND DISTURBING ACTIVITY.
5. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED SO THAT THE SEDIMENT CARRYING RUNOFF FROM THE SITE WILL NOT ENTER STORM DRAINAGE FACILITIES.
6. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED UNTIL THE DISTURBED AREA IS STABILIZED.
7. PROPERTIES ADJOINING THE SITE SHALL BE KEPT CLEAN OF MUD OR SILT CARRIED FROM THE SITE BY VEHICULAR TRAFFIC OR RUNOFF.
8. THE DISPOSAL OF WASTE MATERIALS REMOVED FROM EROSION AND SEDIMENT CONTROL FACILITIES AND THE DISPOSAL OF THESE FACILITIES SHALL BE IN ACCORDANCE WITH THE VIRGINIA EROSION SEDIMENT CONTROL HANDBOOK.
9. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
10. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
11. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED DAILY AND AFTER EACH RUN-OFF PRODUCING RAINFALL.

STANDARD E&S NOTES

1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN, DORMANT (UNDISTURBED) FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
2. EXCESS EXCAVATION DISPOSED OF OFF THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
3. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP OF THE LAND DISTURBING ACTIVITY.
4. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED SO THAT THE SEDIMENT CARRYING RUNOFF FROM THE SITE WILL NOT ENTER STORM DRAINAGE FACILITIES.
5. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED UNTIL THE DISTURBED AREA IS STABILIZED.
6. PROPERTIES ADJOINING THE SITE SHALL BE KEPT CLEAN OF MUD OR SILT CARRIED FROM THE SITE BY VEHICULAR TRAFFIC OR RUNOFF.
7. THE DISPOSAL OF WASTE MATERIALS REMOVED FROM EROSION AND SEDIMENT CONTROL FACILITIES AND THE DISPOSAL OF THESE FACILITIES SHALL BE IN ACCORDANCE WITH THE VIRGINIA EROSION SEDIMENT CONTROL HANDBOOK.
8. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
9. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

MAINTENANCE (SEE MINIMUM STANDARDS FOR ADDITIONAL INFORMATION)

ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED WEEKLY AND AFTER EACH RUN-OFF PRODUCING RAINFALL. THE FOLLOWING ITEMS SHALL BE CHECKED IN PARTICULAR:

1. CHECK THE GRAVEL INLET PROTECTION FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE, IF THE GRAVEL IS CLOGGED BY SEDIMENT; REMOVE AND CLEAN, OR REPLACE.
2. CHECK THE SILT FENCE BARRIER FOR UNDERMINING OR DETERIORATION OF THE FABRIC. REMOVE SEDIMENT WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.
3. CHECK THE SEEDING AREAS TO ENSURE THAT A STAND OF GRASS IS MAINTAINED. FERTILIZE AND RESEED AS NEEDED.
4. ESTABLISH TEMPORARY FILL DIVERSIONS AT THE TOP OF FILL SLOPES, AS REQUIRED, AT THE END OF EACH WORKING DAY.

EROSION CONTROL NARRATIVE:

PROJECT DESCRIPTION:
The purpose of this project is to re-grade and re-pave existing parking spaces and surrounding sidewalks to meet current ADA Standards. The project will involve a partial demolition of existing sidewalk concrete and asphalt pavement and the addition of accessible sidewalk ramps and routes. The project will disturb approximately 2,489 SF.

EXISTING SITE CONDITIONS:
The site is along Northampton Street near the intersection of Williamsburg Road. There are currently 5 angled parking spaces on the east side of Northampton Street with sidewalk paths connecting to the adjacent community center building.

ADJACENT AREAS:
The site is bordered by a playground to the west, Goddin Street to the north, the community center building and fire station to the east, and Williamburg Road to the south.

OFF-SITE AREAS:
None.

SOILS:
According to the Web Soil Survey, there are Turbeville-Urban Land Complex Soils (37B) and Appling-Wedowee Complex Soils (4D) located on the site. Erosion control measures should be maintained diligently throughout the construction process.

CRITICAL AREAS:
Critical areas include sidewalk work near an existing retaining wall and playground area with potential steep slopes.

EROSION AND SEDIMENT CONTROL MEASURES:
Safety Fence will be installed around the area of work to deter pedestrians from the construction activity. Silt fence will be installed along the top of the retaining wall to filter runoff from the sidewalk construction.on the perimeter of the site to filter runoff from the project area. Tree Protection will be installed on the trees noted on the plan to prevent damage. Inlet protection will be used to prevent sediment from entering into the existing storm sewer system.

PERMANENT STABILIZATION:
The site shall be permanently stabilized after construction activities are completed. Refer to seeding notes on this sheet for seeding specifications

STORMWATER RUNOFF CONSIDERATIONS:
This land disturbance area for the site is less than 2,500 SF.

CALCULATIONS:
Refer to Sheet C5.0 for all stormwater calculations.

MAINTENANCE:
All erosion control measures shall be maintained and inspected regularly in accordance with the Virginia Erosion and Sediment Control Handbook until the city inspector allows control measures to be removed.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

ES-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS 9VAC25-840.
ES-2: THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
ES-3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
ES-5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
ES-6: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
ES-7: ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
ES-8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

MANAGEMENT STRATEGIES

1. PROVIDE TEMPORARY SEEDING OR OTHER STABILIZATION IMMEDIATELY AFTER GRADING.
2. ISOLATE TRENCHING FOR UTILITIES AND DRAINAGE FROM DOWNSTREAM CONVEYANCES IN ORDER TO MINIMUM PERIMETER CONTROLS.
3. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MAINTAINED UNTIL THEY ARE NO LONGER REQUIRED TO COMPLY WITH THE CONTRACT DOCUMENTS OR STATE LAW.

PERMANENT STABILIZATION

SEEDING SHALL BE IN ACCORDANCE WITH STD. & SPEC. 3.32, PERMANENT SEEDING. SEED TYPE SHALL BE AS SPECIFIED FOR "MINIMUM CARE LAWNS" AND "GENERAL SLOPES" IN THE HANDBOOK.

1. ANY DISTURBED AREA NOT PAVED, SODDED, OR BUILT UPON, WILL HAVE A VEGETATIVE COVER PRIOR TO FINAL INSPECTION, AND IN THE OPINION OF THE DCR WILL BE MATURE ENOUGH TO CONTROL SOIL EROSION SATISFACTORILY AND SURVIVE SEVER WEATHER CONDITIONS.
2. WINTERIZATION-ANY DISTURBANCE AREA NOT PAVED, SODDED, OR BUILT UPON BY OCTOBER 15TH IS TO BE SEEDED AND MULCHED ON THAT DATE UNLESS WAIVED BY THE DCR.
3. TEMPORARY SEEDING WILL BE APPLIED WITHIN 7 DAYS TO DENUDED AREAS WHICH MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 14 DAYS. FOR TEMPORARY SEEDING USE 50% OF THE RECOMMENDED RATES OF FERTILIZER, LIME AND FULL AMOUNT OF SEED AND MULCH REQUIRED FOR REGULAR SEEDING.
4. ELECTRIC POWER, TELEPHONE, AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEED AND MULCHED WITHIN 7 DAYS AFTER BACKFILL.
5. ALL TEMPORARY EARTH BERMS, DIVERSIONS, AND SILT DAMS ARE TO BE MULCHED AND SEEDED FOR VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL STOCKPILES, ON SITE AS WELL AS SOIL TRANSPORTED FROM THE PROJECT SITE.

THIS DRAWING PREPARED AT THE CORPORATE OFFICE
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
TEL 804.200.6500 FAX 804.560.1016 www.timmons.com

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DATE: 01/16/2019
DRAWN BY: B. DAVIS
DESIGNED BY: L.P./B.D.
CHECKED BY: L.PAUL
SCALE:

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS
CITY OF RICHMOND - VIRGINIA
NOTES & DETAILS

JOB NO. 39490.009
SHEET NO. C4.1

S:\31\39490.009-Powhatan Community Center ADA Improvements\05WG\Sheets\C03-39490.009 - C4.0 NOTES & DETAILS.dwg | Plotted on 2/1/2019 3:42 PM | by Lauren Paul

FEBRUARY 7, 2019

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS

CONSTRUCTION DOCUMENTS - NOTES & DETAILS

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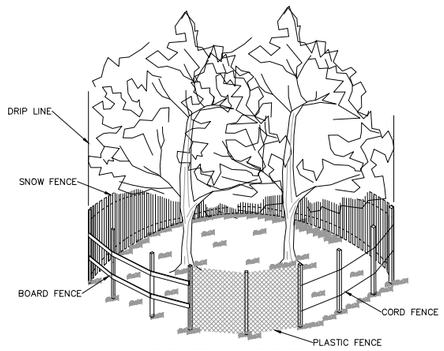
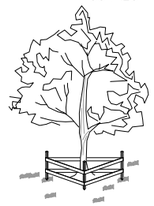
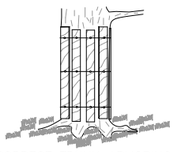


CORRECT METHODS OF TREE FENCING



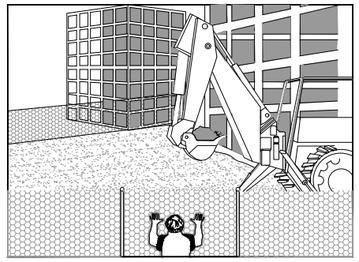
TRIANGULAR BOARD FENCE



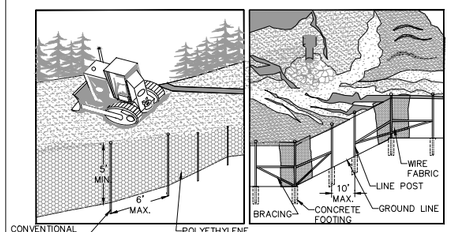
CORRECT TRUNK ARMORING

PLATE 3.38-2

TP TREE PROTECTION
No Scale



PERSPECTIVE VIEW



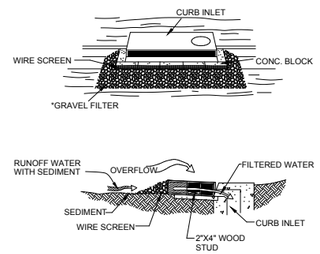
PERSPECTIVE VIEW PLASTIC FENCE

PERSPECTIVE VIEW METAL FENCE

SOURCE: CONWED PLASTICS
VDOT ROAD AND BRIDGE STANDARDS
VA. DSWC

PLATE 3.01-1

SAF SAFETY FENCE
No Scale

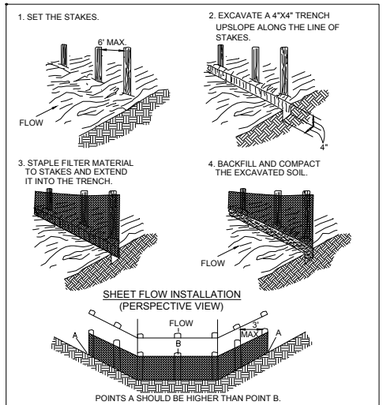


SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.
*GRAVEL SHALL BE VDOT #3, #357, OR #5 COARSE AGGREGATE.

PLATE 3.07-8

IP BLOCK AND GRAVEL CURB INLET SEDIMENT FILTER
No Scale



SHEET FLOW INSTALLATION
(PERSPECTIVE VIEW)

POINTS A SHOULD BE HIGHER THAN POINT B.

DRAINAGEWAY INSTALLATION
(FRONT ELEVATION)

PLATE 3.05-2

SF CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)
No Scale

TABLE 3.32-D
(Revised June 2003)
PERMANENT SEEDING SPECIFICATIONS FOR PIEDMONT AREA

SEED[1]		
LAND USE	SPECIES	APPLICATION PER ACRE
Minimum Care Lawn (Commercial or Residential)	Tall Fescue[1] Perennial Ryegrass Kentucky Bluegrass[1]	95 - 100% 0 - 5% 0 - 5% TOTAL: 175 - 200 lbs
High - Maintenance Lawn	Tall Fescue[1]	TOTAL: 200 - 250 lbs
General Slope (3:1 or less)	Tall Fescue[1] Red Top Grass or Creeping Fescue Seasonal Nurse Crop[2]	128 lbs 2 lbs 20 lbs TOTAL: 150 lbs
Low - Maintenance Slope (Steeper than 3:1)	Tall Fescue[1] Red Top Grass or Creeping Fescue Seasonal Nurse Crop[2] Crownvetch[3]	108 lbs 2 lbs 20 lbs 20 lbs TOTAL: 150 lbs

1 - When selecting varieties of turfgrass, use the Virginia Crop improvement Association (VCIA) recommended turfgrass variety list. Quality seed will bear a label indicating that they are approved by VCIA. A current turfgrass variety list is available at the local County Extension office or through VCIA at 804-746-4884 or at http://sudan.cses.vt.edu/html/Turf/turfpublications/publications2.html

2 - Use seasonal nurse crop in accordance with seeding dates as stated below

February 16th - April	Annual Rye
May 1th - August 15th	Foxtail Millet
August 16th - October	Annual Rye
November - February 15th	Winter Rye

3 - Substitute Service Lespedeza for Crownvetch east of Granville, VA (May through September use hulled seed, all other periods, use unhulled Sericea). If Flatpea is used, increase rate to 30 lbs/acre. If Weeping Lovegrass is used, include in any slope or low maintenance mixture during warmer seeding periods, increase to 30 - 40

FERTILIZER & LIME

- Apply 10-20-10 **fertilizer** at a rate of **500** lbs / acre (or 12 lbs / 1,000 sq ft)
- Apply **Pulverized Agricultural Limestone** at a rate of 2 tons/acre (or 90 lbs / 1.000 sq ft)

NOTE:
- A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.

- Incorporate the lime and fertilizer into the top 4 - 6 inches of the soil by disking or by other means.

- When applying Slowly Available Nitrogen, use rates available in Erosion & sediment Control Technical Bulletin #4, 2003 Nutrient Management for Development Sites at http://www.dcr.state.va.us/sw/e&s.htm#pubs

Summary of Fertilizer Specification Revisions for Establishment of Turf

Standards & Specifications		2003 Urban Nutrient Management Technical Bulletin
3.31 Emory Seeding		**10-10-10** fertilizer applied at a rate of **450** lbs. / acre or **10** lbs / 1,000 ft²
3.32 Permanent Seeding	Mixed Grasses & Legumes	**10-20-10** fertilizer applied at a rate of **500** lbs. / acre or **12** lbs / 1,000 ft²
	Legume stands only	Apply the equivalent of 100 lbs. of phosphate (P_2O_5) and 100 lbs. of Potash (K_2O) per acre. NO NITROGEN (N)
	Grass stands only	**10-20-10** fertilizer applied at a rate of **500** lbs. / acre or **12** lbs / 1,000 ft²
3.33 Sodding		**10-10-10** fertilizer applied at a rate of **450** lbs. / acre or **10** lbs / 1,000 ft². NOTE: For cool season grasses apply fertilizer in fall or spring. For warm season grasses apply the fertilizer in late spring or summer only.
3.34 Bermuda grass & aOYSIA GRASS Establishment		**10-10-10** fertilizer applied at a rate of **500** lbs. / acre or **12** lbs / 1,000 ft². Apply additional phosphorus and potassium 30 - 60 days later based on the soil test. Apply an additional equivalent of 1 lb./1,000 ft² of nitrogen when the P & K are applied.

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YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION	DATE

DATE 01/16/2019
DRAWN BY B. DAVIS
DESIGNED BY L.P./B.D.
CHECKED BY L.PAUL
SCALE

TIMMONS GROUP

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS
CITY OF RICHMOND - VIRGINIA
NOTES & DETAILS

JOB NO. 39490.009
SHEET NO. C4.2

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS

CONSTRUCTION DOCUMENTS - NOTES & DETAILS

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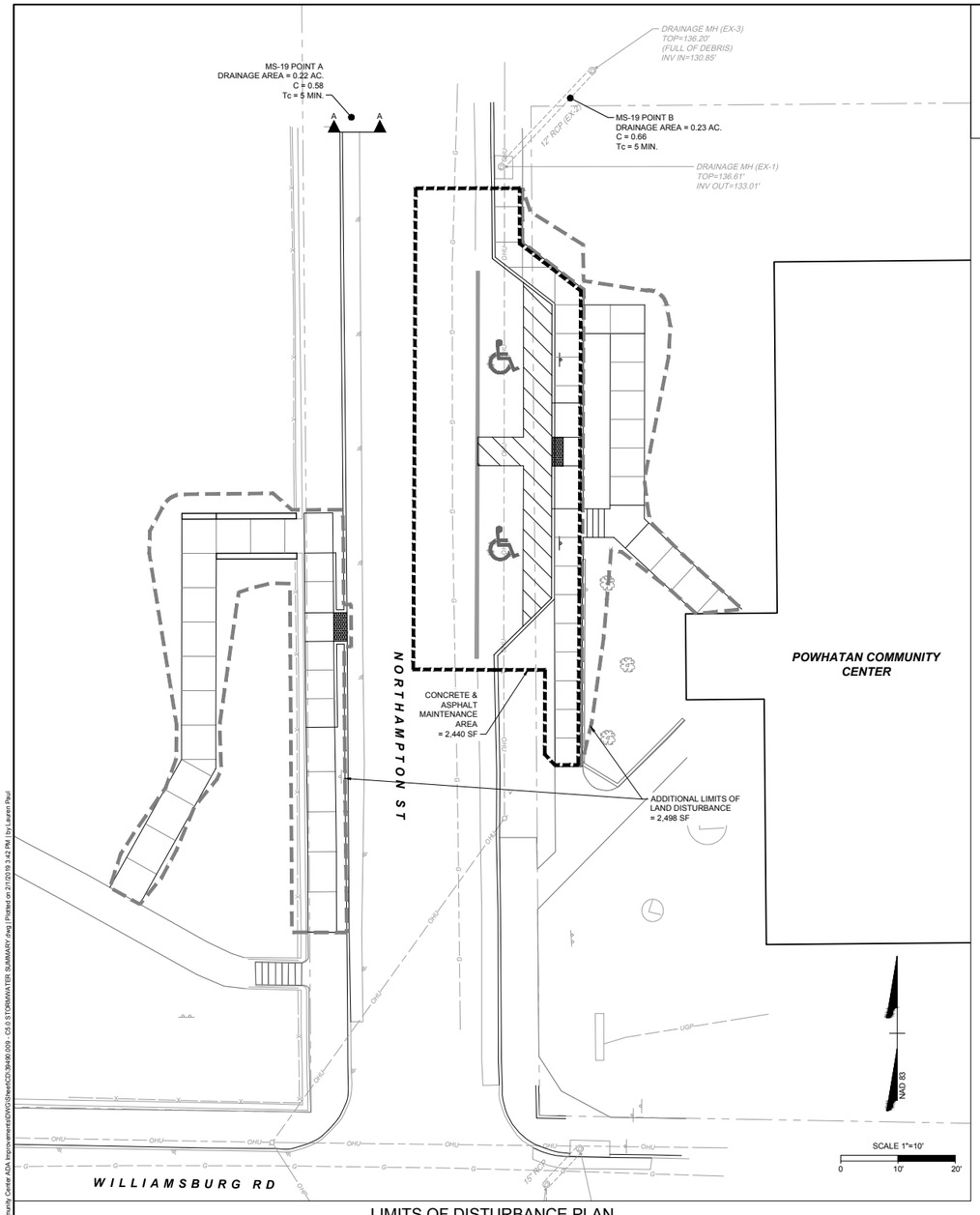


LIMITS OF DISTURBANCE PLAN

LEGEND:

- CONCRETE/ASPHALT MAINTENANCE AREA (2,440 SF)
- ADDITIONAL LIMITS OF DISTURBANCE (2,489 SF)

STORMWATER MANAGEMENT SUMMARY

THIS SITE MEETS THE CRITERIA SET FORTH IN THE VIRGINIA STORMWATER MANAGEMENT REGULATIONS BY HAVING LAND DISTURBUNG ACTIVITIES OF LESS THAN 2,500 SQUARE FEET. STORMWATER QUALITY AND QUANTITY REQUIREMENTS ARE MET. SUPPORTING CALCULATIONS ARE FOUND ON THIS SHEET.

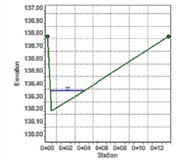
MS-19 POINT A CALCULATIONS

Cross Section for A-A

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data		
Channel Slope	0.01980	ft/ft
Normal Depth	0.16	ft
Discharge	0.90	ft³/s

Cross Section Image



Worksheet for A-A

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data		
Channel Slope	0.01980	ft/ft
Discharge	0.90	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+00	136.77
0+00	136.18
0+03	136.31
0+13	136.77

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 136.77)	(0+13, 136.77)	0.013

Options	
Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results		
Normal Depth	0.16	ft
Elevation Range	136.18 to 136.77	ft
Flow Area	0.30	ft²
Wetted Perimeter	3.83	ft
Hydraulic Radius	0.08	ft
Top Width	3.75	ft
Normal Depth	0.16	ft
Critical Depth	0.20	ft
Critical Slope	0.09539	ft/ft

Worksheet for A-A

Results		
Velocity	2.96	ft/s
Velocity Head	0.14	ft
Specific Energy	0.30	ft
Froude Number	1.83	
Flow Type	Supercritical	

GVF Input Data		
Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data		
Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.16	ft
Critical Depth	0.20	ft
Channel Slope	0.01980	ft/ft
Critical Slope	0.09539	ft/ft

MS-19 POINT B CALCULATIONS

EXISTING STORM PROJECT: POWHATAN COMMUNITY CENTER
STORM SEWER DESIGN COMPUTATIONS
LOCATION: CITY RICHMOND
STORM FREQUENCY 10 YEAR

PIPE NO	FROM POINT REFERENCE	TO POINT REFERENCE	DRAIN AREA "A" Acre	RUNOFF COEFF "C"	CA INCRE-MENT	CA ACCUM-ULATED	ADDTL CA	TOTAL INLET TIME Minutes	RAIN FALL In/Hr	RUNOFF Q CFS	INVERT ELEVATIONS UPPER END	INVERT ELEVATIONS LOWER END	LENGTH of Pipe Ft.	SLOPE Ft./Ft.	SIZE (Dia. Or Span/Rise) In.	SHAPE	Capacity CFS	Friction Slope Ft./Ft.	VEL Vs Ft/Sec	FLOW TIME Sec.	REMARKS
	(1)	(2)	(3)	(4)	(5)	(6)		(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)		(15)		(16)	(17)	(18)
EX-2	EX-1	EX-3	0.230	0.660	0.152	0.152	0.000	5.000	7.045	1.069	133.010	130.850	23.101	0.094	12.000	Circular	10.891	0.001	8.839	0.044	

EXISTING STORM PROJECT: POWHATAN COMMUNITY CENTER
HYDRAULIC GRADE LINE ANALYSIS
INCIDENCE PROBABILITY 10 Year

INLET OR JUNCTION	OUTLET WATER SURFACE ELEV.	DIA. PIPE Do (in)	DESIGN DISCH. Qo (CFS)	LENGTH PIPE Lo (Ft)	FRICTION SLOPE, Sfo (FT/FT)	FRICTION LOSS Hf (Ft)	JUNCTION LOSS Vo	Ho (Ft)	Qi	Vi	QiVi	V²/2/2g	Hi	Angle	Hδ	Ht	1.3 Ht	0.5 Ht	FINAL H (Ft)	Inlet Water Surface Elevation	Rim Elev	Comments
EX-1	131.65	12	1.07	23.1	0.09%	0.02	8.84	0.3	0	0	0	0	0	0	0	0.3	0.39	FALSE	0.42	132.07	136.61	OK -4.55

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TIMMONS GROUP

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS
CITY OF RICHMOND - VIRGINIA
STORMWATER SUMMARY

JOB NO. 39490.009
SHEET NO. C5.0

FEBRUARY 7, 2019

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS

CONSTRUCTION DOCUMENTS - STORMWATER SUMMARY

RICHMOND VIRGINIA

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FEBRUARY 7, 2019

SAWCUT FOR INSTALLATION OF NEW ASPHALT
TIE TO EX. SIDEWALK
23.44'
8'
5'
MIN. 5'X5' LANDING
1' MILL & OVERLAY SECTION
23.15'
6'
5'
HANDRAIL - TYP.
VDOT STD. CG-12 RAMP
CONCRETE RAMP @ 8% MAXIMUM
NEW FENCE POST TO MATCH EXISTING
MIN. 5'X5' LANDING
CHEEK WALL
C4.0
VDOT STD CG-12C
CONCRETE RAMP @ 8% MAXIMUM
HANDRAIL - TYP.
TIE TO EX. SIDEWALK
5' CONCRETE SIDEWALK (CONTRACTOR TO MATCH EXISTING SCORING PATTERN & INSTALL FROM BOTTOM OF EX. WALL)
NORTHAMPTON ST
POWHATAN COMMUNITY CENTER

POWHATAN COMMUNITY CENTER ADA IMPROVEMENTS

SITE PLAN RENDERING

RICHMOND VIRGINIA

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