Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Environmental
Right of Way Services
Office Locations
Main Office: 10361 Democracy Boulevard, Suite 300, Manassas, VA 20110, Phone: (540) 899-9800, Fax: (540) 899-9801
Fredericksburg Office: 615 Augusta Avenue, Suite 1, Fredericksburg, VA 22401, Phone: (540) 371-4440, Fax: (540) 371-4441

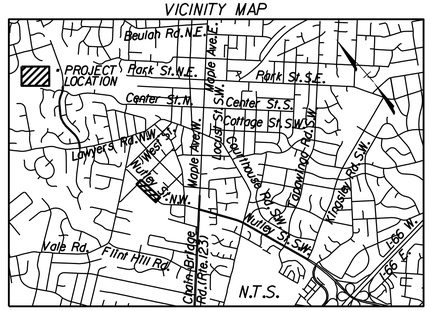
PROJECT MANAGER: Town of Vienna Public Works Dept.; Michael Gallagher P.E. (703) 255-6383
SURVEYED BY, DATE: Rinker Design Associates, P.C.; Sidney Thomas, L.S. (703) 368-7373, July 2014
DESIGN BY: Rinker Design Associates, P.C.; Adam Welscenbach, PE (703) 368-7373
SUBSURFACE UTILITY BY, DATE: Mid-Atlantic Utility Locating, LLC, August 2014

TOWN OF VIENNA

11/17/2018

INDEX OF SHEETS

VICINITY MAP



CONVENTIONAL SIGNS

STATE LINE	
COUNTY LINE	
CITY, TOWN OR VILLAGE	
RIGHT OF WAY LINE	
FENCE LINE	
UNFENCED PROPERTY LINE	
FENCED PROPERTY LINE	
WATER LINE	
SANITARY SEWER LINE	
GAS LINE	
ELECTRIC UNDERGROUND CABLE	
TRAVELED WAY	
GUARD RAIL	
RETAINING WALL	
RAILROADS	
BASE OR SURVEY LINE	
LEVEE OR EMBANKMENT	
BRIDGES	
CULVERTS	
DROP INLET	
POWER POLES	
TELEPHONE OR TELEGRAPH POLES	
TELEPHONE OR TELEGRAPH LINES	
HEDGE	
TREES	
HEAVY WOODS	
GROUND ELEVATION	
GRADE ELEVATION	

THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY AS AWARDED, HAS BEEN SEALED AND SIGNED USING DIGITAL SIGNATURES AND THE OFFICIAL PLAN ASSEMBLY IN ELECTRONIC FORMAT IS STORED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY, INLCUDING ALL SUBSEQUENT REVISIONS, WILL BE THE OFFICIAL CONSTRUCTION PLANS. FOR INFORMATION RELATIVE TO ELECTRONIC FILES AND LAYERED PLANS, SEE THE GENERAL NOTES.

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT.

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S 2016 ROAD AND BRIDGE SPECIFICATIONS, 2016 ROAD AND BRIDGE STANDARDS, 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC .PDF VERSION OF THE PLAN ASSEMBLY.

ALL CURVES ARE TO BE SUPERELEVATED, TRANSITIONED AND WIDENED IN ACCORDANCE WITH STANDARD TC-5.11U, EXCEPT WHERE OTHERWISE NOTED.

THE ORIGINAL APPROVED TITLE SHEET(S), INCLUDING ORIGINAL SIGNATURES, ARE FILED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY. ANY MISUSE OF ELECTRONIC FILES, INCLUDING SCANNED SIGNATURES, IS ILLEGAL AND ENFORCED TO THE FULL EXTENT OF THE LAW.

Town of Vienna - Department of Public Works

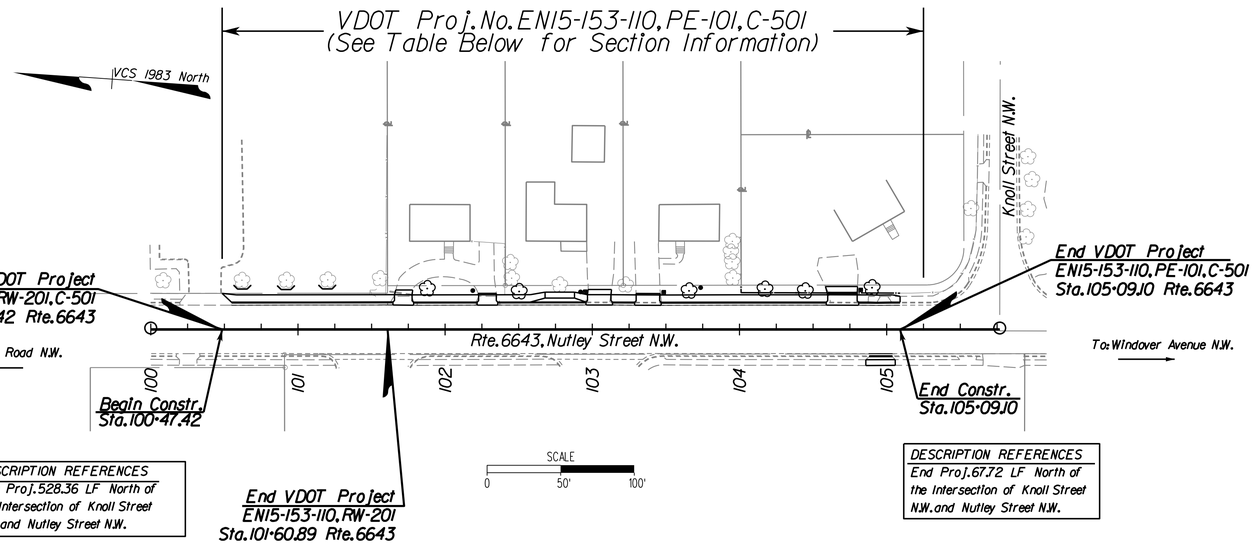
PLAN AND PROFILE OF PROPOSED PEDESTRIAN ACCESS IMPROVEMENTS

NUTLEY ST N.W. SIDEWALK

PEDESTRIAN ACCESS IMPROVEMENTS

From: Approx. 528 LF North of Knoll Street N.W.
to Knoll Street N.W.

VDOT Proj. No. EN15-153-110, PE-101, C-501
(See Table Below for Section Information)



TOWN OF VIENNA POPULATION 15,687 (2010 CENSUS)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	LENGTH INCLUDING BRIDGE(S) FEET	LENGTH INCLUDING BRIDGE(S) MILES	LENGTH EXCLUDING BRIDGE(S) FEET	LENGTH EXCLUDING BRIDGE(S) MILES	TYPE PROJECT	DESCRIPTION
EN15-153-110	PE-101	TEA-5A01(691)	PENG	107661	461.68	0.087	461.68	0.087	Prelim. Eng.	From Nutley Street NW and Orchard Street NW intersection to Nutley Street NW and Knoll Street NW intersection
	RW-201		ROWA	107661	113.47	0.021	113.47	0.021	Right of Way	
	C-501	TAP-5A01(890)	F000	107661	461.68	0.087	461.68	0.087	Construction	

NOTE: PROJECT LENGTH BASED ON NUTLEY STREET S.W. CONSTRUCTION BASELINE

FHWA 534 DATA 25028
UPC 107661

STATE	FEDERAL AID PROJECT	TOWN OF VIENNA ROUTE	TOWN OF VIENNA PROJECT	SHEET NO.
VA.	TEA-5A01( ) TAP-5A01( ) See Tabulation Below For Section Numbers	6643	EN15-153-110 See Tabulation Below For Section Numbers	1

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
NUTLEY STREET N.W. - URBAN COLLECTOR - ROLLING	
	Fr: Windover Avenue N.W. To: Malcom Road N.W.
AADT	4800 (2016)
AWDT	5,300 (2016)
DHV	571.2 (2016)
D (%)	52.3 (2016)
T (%)	2 (2016)
V (MPH)	25 MPH (Posted)

THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (GEOPAK).
GEOPAK Computer Identification No. 107661

FINAL PLAN
NOVEMBER 17, 2018

TIER 1 PROJECT

LOCALLY ADMINSTERED PROJECTS

TOWN OF VIENNA, VA
NAME OF LOCALITY

Michael Gallagher
MICHAEL GALLAGHER
RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY AQUISITION

8/23/18	DIRECTOR OF PUBLIC WORKS (TOWN OF VIENNA)
DATE	TITLE OF POSITION

N/A - Per VDOT Email 10-29-2018
MICHAEL GALLAGHER
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

	DIRECTOR OF PUBLIC WORKS (TOWN OF VIENNA)
DATE	TITLE OF POSITION

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY AQUISITION

	N/A - Per VDOT Email 10-29-2018
DATE	DISTRICT PLANNING AND INVESTMENT MANAGER
	N/A - Per VDOT Email 10-29-2018
DATE	DISTRICT PROJECT DEVELOPMENT ENGINEER

APPROVED FOR RIGHT OF WAY AQUISITION

	N/A - Per VDOT Email 10-29-2018
DATE	DISTRICT ADMINSTRATOR

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

DATE	DISTRICT PLANNING AND INVESTMENT MANAGER
DATE	DISTRICT PROJECT DEVELOPMENT ENGINEER

APPROVED FOR CONSTRUCTION

DATE	DISTRICT ADMINSTRATOR

REVISED

	PROJECT	SHEET NO.
	EN15-153-110	1

Office Locations
Gum Springs Office Park
2626 Gum Springs Road
Suite 600
Fredericksburg, VA 22401
Phone: (540) 548-0813
Fax: (540) 548-0815

4550 Daly Drive
Suite 100
Chantilly, VA 20151
Phone: (703) 263-0884
Fax: (703) 263-0887

4309 Monument Boulevard
Suite 100
Monument, VA 23968
Phone: (540) 227-0442

Design Associates, P.C.
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Transportation - Environmental
Right of Way Services

Rinker
www.rinkerdesign.com

TOWN OF VIENNA

PROJECT MANAGER Town of Vienna Public Works Dept.: Michael Gallagher, P.E., (703) 255-6383
SURVEYED BY, DATE Rinker Design Associates, P.C.: Sidney Thomas, L.S., (703) 368-7373, April 2015
DESIGN BY Rinker Design Associates, P.C.: Adam Welschenbach, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Mid-Atlantic Utility Locating, LLC, April 2015.

Right of Way Data Sheet

ROUTE: 6643	PROJECT: EN15-153-110
COUNTY/CITY: Vienna	PPMS NO. : 107661
COMPILED BY: Adam D. Welschenbach, P.E.	DATE: August 10, 2018
REVISED BY: -	DATE: -
REVISED BY: -	DATE: -
REVISED BY: -	DATE: -
REVISED BY: -	DATE: -
REVISED BY: -	DATE: -
REVISED BY: -	DATE: -

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	IE

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

City/County: Town of Vienna
UPC No.: 107661

RIGHT OF WAY	LANDOWNER, PROPERTY NO.	SHEET NO.	AREA TOTAL	AREA FEE TAKING	AREA PRESCRIPTIVE R/W	AREA FEE REMAINDER	EASEMENTS STORM DRAINAGE	EASEMENTS NOISE BARRIER	EASEMENTS SIGNAL	EASEMENTS SIGNAGE	EASEMENTS SIGHT DISTANCE	EASEMENTS SIDEWALK	EASEMENTS PUBLIC UTILITY	EASEMENTS TEMPORARY	EASEMENTS DOMINION VA. POWER	EASEMENTS COMCAST	VERIZON	PROFFERS	REMARKS
			ACRES OR SQUARE FEET	SQ. FEET	SQ. FEET	ACRES OR SQ. FEET	SQ. FEET	SQ. FEET	SQ. FEET	SQ. FEET	SQ. FEET	SQ. FEET	SQ. FEET	ACRES OR SQ. FEET	SQ. FEET	SQ. FEET	SQ. FEET	YES / NO	
001	TRUSTEES FOR THE VIENNA FIRST BAPTIST CHURCH	3RW	3.000 acres	-	-	3.000 acres	-	-	-	-	-	-	-	2087 sq.ft.	-	-	-	NO	Tax# 038-3-02-0039

PROJECT	SHEET NO.
EN15-153-110	IE

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SUBSURFACE UTILITY BY, DATE Mid-Atlantic Utility Locating, LLC, April 2015.

Survey Control and Horizontal Construction Alignment Data

ADAM D. WELSCHENBACH Lic. No. 044359 — COMMONWEALTH OF VIRGINIA — PROFESSIONAL ENGINEER

Adam Welschenbach
2018.11.17 15:28:42 -05'00'

Rinker Design Associates, P.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	IF

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Horizontal Construction Alignment Data

<* 1 Describe Chain NUTSOUTH

Chain NUTSOUTH contains:
001 002

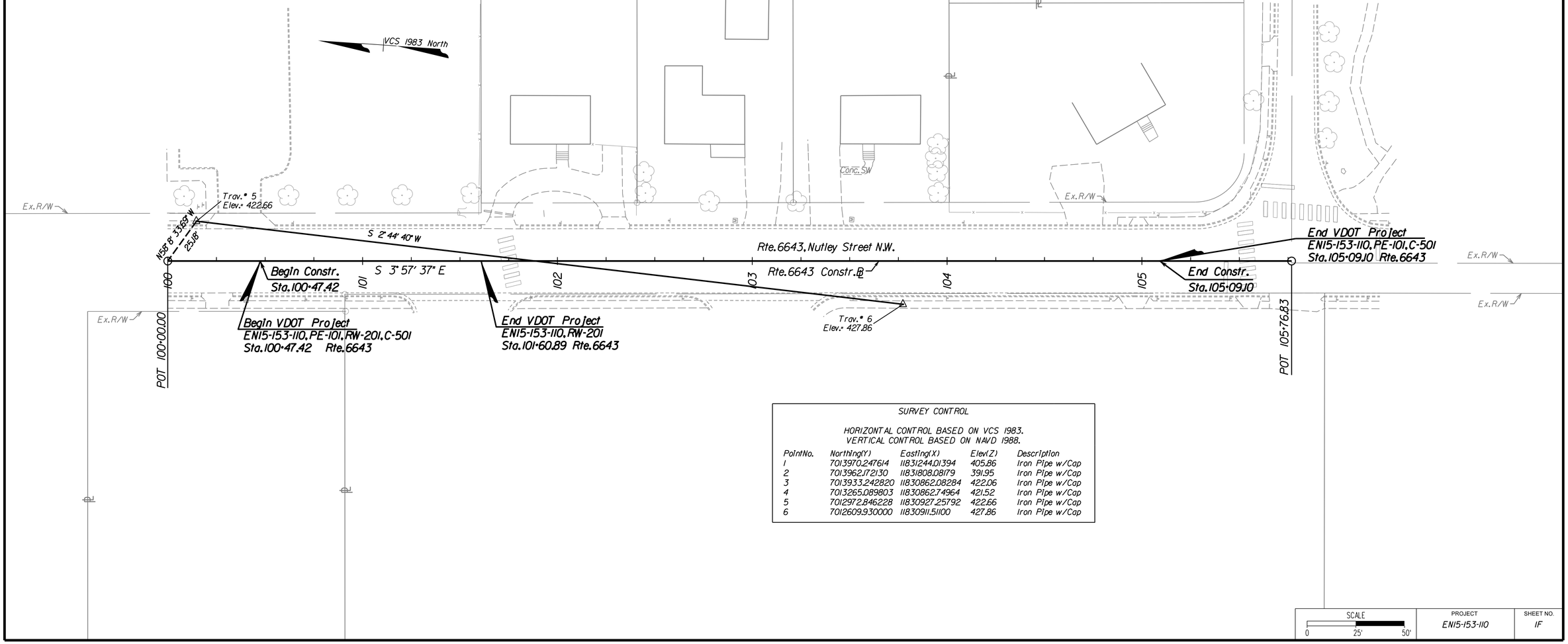
Beginning chain NUTSOUTH description

Point 001 N 7,012,986.14 E 11,830,905.87 Sta 100+00.00

Course from 001 to 002 S 3° 57' 37.27" E Dist 576.83

Point 002 N 7,012,410.69 E 11,830,945.71 Sta 105+76.83

Ending chain NUTSOUTH description



SURVEY CONTROL

HORIZONTAL CONTROL BASED ON VCS 1983.
VERTICAL CONTROL BASED ON NAVD 1988.

PointNo.	Northing(Y)	Easting(X)	Elev(Z)	Description
1	701,3970.247614	11831244.01394	405.86	Iron Pipe w/Cap
2	701,3962.172130	11831808.08179	391.95	Iron Pipe w/Cap
3	701,3933.242820	11830862.08284	422.06	Iron Pipe w/Cap
4	701,3265.089803	11830862.74964	421.52	Iron Pipe w/Cap
5	701,2972.846228	11830927.25792	422.66	Iron Pipe w/Cap
6	701,2609.930000	11830911.51100	427.86	Iron Pipe w/Cap

SCALE	PROJECT	SHEET NO.
0 25' 50'	EN15-153-110	IF

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TOWN OF VIENNA

11/12/2018

FINAL PLAN

PROJECT MANAGER Town of Vienna Public Works Dept.: Michael Gallagher, P.E., (703) 255-6383
SURVEYED BY, DATE Rinker Design Associates, P.C.: Sidney Thomas, L.S., (703) 368-7373, April 2015
DESIGN BY Rinker Design Associates, P.C.: Adam Welschenbach, PE, (703) 368-7373
SUBSURFACE UTILITY BY, DATE Mid-Atlantic Utility Locating, LLC, April 2015.

Geometric Data

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

Adam Welschenbach
2018.11.17 15:28:59 -05'00'
Rinker Design Associates, P.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	ENI5-153-110 C-501	IG

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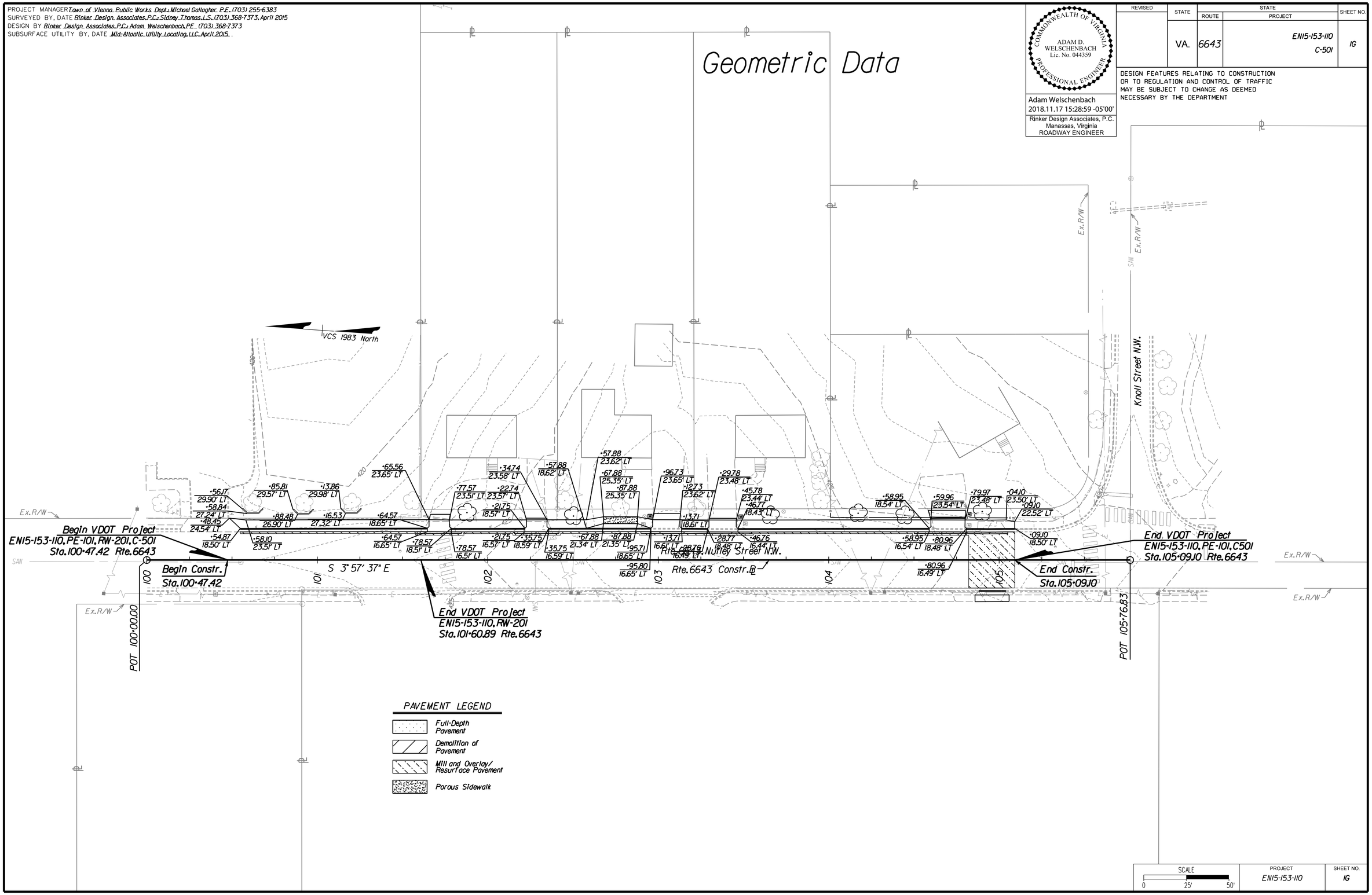

SCALE 0 25' 50' | PROJECT ENI5-153-110 | SHEET NO. IG

FINAL PLAN

Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Environmental
Right-of-Way Services

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8100 Tyler Boulevard, Mentor, OH 44060, Phone: (440) 255-9411, Fax: (440) 255-9444
8615 Westwood Center Drive, Suite 300, Vienna, VA 22182, Phone: (703) 255-6383, Fax: (703) 255-6441
601 Eagle Creek Drive, Suite 1, Chambersburg, PA 17201, Phone: (717) 267-4673, Fax: (717) 267-4675

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TMP/SOC

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Transportation · Environmental
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Satellite Office: 1241 Kings Road, Fredericksburg, VA 22401, Phone: (540) 371-4611, Fax: (540) 371-4611
www.RinkerDesign.com

TOWN OF VIENNA

FIRE DEPARTMENT NOTES:

1. ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES.
2. ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED.
3. IN THE EVENT THAT EXISTING FIRE DEPARTMENT CONNECTIONS OR FIRE APPARATUS ACCESS ROADS (FIRE LANES) MUST BE OBSTRUCTED TO FACILITATE CONSTRUCTION ACTIVITIES, CONTACT THE TOWN OF VIENNA FIRE AND RESCUE AT (703) 938-2242 TO COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION.

TRAFFIC CONTROL NOTES (TTC NOTES):

1. PARKING RESTRICTIONS MUST BE COORDINATED WITH AND APPROVED BY THE TOWN OF VIENNA, AT LEAST 72 BUSINESS HOURS PRIOR TO COMMENCEMENT OF WORK WITHIN THE PUBLIC RIGHT-OF-WAY. TEMPORARY NO PARKING SIGNS TO BE POSTED 72 HOURS IN ADVANCE OF WORK DATE.
2. SIGNS SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF WORK AND REMOVED AFTER COMPLETION OF ACTIVITIES. EXISTING SIGNS IN CONFLICT WITH TEMPORARY SIGNS SHALL BE COVERED TO PREVENT CONFUSION.
3. CONTRACTOR MUST MAINTAIN EXISTING LANE MARKINGS FOR ALL ROADS.
4. SIGNS TO BE MOUNTED ON POSTS AND INSTALLED FOR THE DURATION OF CONSTRUCTION.
5. CONTRACTOR SHALL FOLLOW ALL CURRENT VWAPM, MUTCD, TOWN OF VIENNA, AND TEMPORARY TRAFFIC CONTROL STANDARDS.
6. ALL TEMPORARY TRAFFIC CONTROL DEVICES MUST BE IN PLACE BEFORE CONSTRUCTION BEGINS.
7. CURB LANE CLOSURES WILL BE IN PLACE FOR THE DURATION OF CONSTRUCTION EXCLUDING NON-WORKING HOURS.
8. TEMPORARY TRAFFIC CONTROL SIGNS ARE NOT TO BE PLACED IN LOCATIONS THAT OBSTRUCT PEDESTRIAN PATHWAYS.

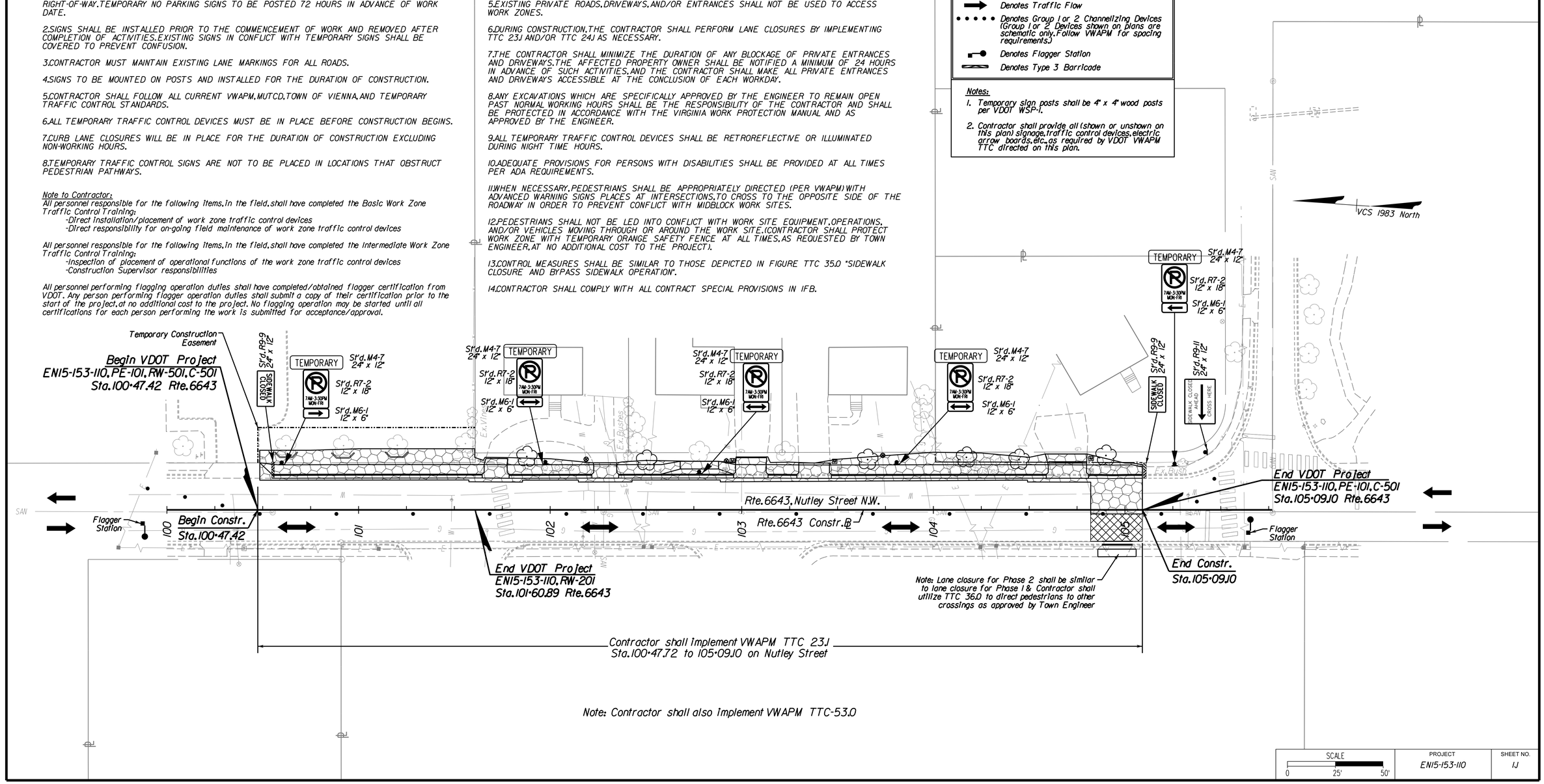
Note to Contractor:
All personnel responsible for the following items, in the field, shall have completed the Basic Work Zone Traffic Control Training:
- Direct installation/placement of work zone traffic control devices
- Direct responsibility for on-going field maintenance of work zone traffic control devices

All personnel responsible for the following items, in the field, shall have completed the Intermediate Work Zone Traffic Control Training:
- Inspection of placement of operational functions of the work zone traffic control devices
- Construction Supervisor responsibilities

All personnel performing flagging operation duties shall have completed/obtained flagger certification from VDOT. Any person performing flagger operation duties shall submit a copy of their certification prior to the start of the project, at no additional cost to the project. No flagging operation may be started until all certifications for each person performing the work is submitted for acceptance/approval.

MAINTENENCE OF TRAFFIC GENERAL NOTES:

1. TRAFFIC CONTROL SHALL COMPLY WITH THE LATEST EDITION OF THE VIRGINIA WORK AREA PROTECTION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, TOWN OF VIENNA STANDARDS, THE TRAFFIC CONTROL PLANS INCLUDED IN THE CONSTRUCTION DRAWINGS, THIS MAINTENANCE OF TRAFFIC PLAN, AND/OR AS DIRECTED BY TOWN OF VIENNA TRAFFIC ENGINEER.
2. CONSTRUCTION AREA SHALL BE CONSIDERED ACTIVE WHEN ANY IMPACT TO TRAFFIC OCCURS (IST CONE IN ROAD). CONSTRUCTION AREA HOURS HAVE THE FOLLWING LIMITATIONS:
   9:00 AM TO 3:00 PM MONDAY TO FRIDAY
   WEEKEND WORK: NOT PERMITTED UNLESS APPROVED BY TOWN ENGINEER IN WRITING
3. THE CONTRACTOR SHALL NOT USE THE ROADWAYS, SIDEWALKS, OR ANY OTHER PORTION OF THE RIGHT-OF-WAY, PRIVATE PARKING LOTS WITHIN PROJECT LIMITS TO UNLOAD AND/OR STORE MATERIALS AN EQUIPMENT WITHOUT WRITTEN PRIOR APPROVAL FROM THE TOWN OF VIENNA.
4. THE CONTRACTOR MUST ABIDE BY TOWN OF VIENNA NOISE ORDINANCES. (CONTRACTOR SHALL APPLY FOR NOISE VARIANCE PERMIT SEPARATELY IF NEEDED).
5. EXISTING PRIVATE ROADS, DRIVEWAYS, AND/OR ENTRANCES SHALL NOT BE USED TO ACCESS WORK ZONES.
6. DURING CONSTRUCTION, THE CONTRACTOR SHALL PERFORM LANE CLOSURES BY IMPLEMENTING TTC 23J AND/OR TTC 24J AS NECESSARY.
7. THE CONTRACTOR SHALL MINIMIZE THE DURATION OF ANY BLOCKAGE OF PRIVATE ENTRANCES AND DRIVEWAYS. THE AFFECTED PROPERTY OWNER SHALL BE NOTIFIED A MINIMUM OF 24 HOURS IN ADVANCE OF SUCH ACTIVITIES, AND THE CONTRACTOR SHALL MAKE ALL PRIVATE ENTRANCES AND DRIVEWAYS ACCESSIBLE AT THE CONCLUSION OF EACH WORKDAY.
8. ANY EXCAVATIONS WHICH ARE SPECIFICALLY APPROVED BY THE ENGINEER TO REMAIN OPEN PAST NORMAL WORKING HOURS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PROTECTED IN ACCORDANCE WITH THE VIRGINIA WORK PROTECTION MANUAL AND AS APPROVED BY THE ENGINEER.
9. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE RETROREFLECTIVE OR ILLUMINATED DURING NIGHT TIME HOURS.
10. ADEQUATE PROVISIONS FOR PERSONS WITH DISABILITIES SHALL BE PROVIDED AT ALL TIMES PER ADA REQUIREMENTS.
11. WHEN NECESSARY, PEDESTRIANS SHALL BE APPROPRIATELY DIRECTED (PER VWAPM) WITH ADVANCED WARNING SIGNS PLACES AT INTERSECTIONS, TO CROSS TO THE OPPOSITE SIDE OF THE ROADWAY IN ORDER TO PREVENT CONFLICT WITH MIDBLOCK WORK SITES.
12. PEDESTRIANS SHALL NOT BE LED INTO CONFLICT WITH WORK SITE EQUIPMENT, OPERATIONS, AND/OR VEHICLES MOVING THROUGH OR AROUND THE WORK SITE. (CONTRACTOR SHALL PROTECT WORK ZONE WITH TEMPORARY ORANGE SAFETY FENCE AT ALL TIMES, AS REQUESTED BY TOWN ENGINEER, AT NO ADDITIONAL COST TO THE PROJECT).
13. CONTROL MEASURES SHALL BE SIMILAR TO THOSE DEPICTED IN FIGURE TTC 35.0 "SIDEWALK CLOSURE AND BYPASS SIDEWALK OPERATION".
14. CONTRACTOR SHALL COMPLY WITH ALL CONTRACT SPECIAL PROVISIONS IN IFB.



ADAM D. WELSCHENBACH
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COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER
Adam Welschenbach
2018.11.17 15:29:52 -05'00'
Rinker Design Associates, P.C.
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ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	IJ

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SCALE	PROJECT	SHEET NO.
0 25' 50'	EN15-153-110	IJ

11/12/2018

FINAL PLAN

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Shenandoah Valley Office: 401 Wythe Creek Road, Suite 1, Poquoson, VA 23662, Phone: (757) 868-6511, Fax: (757) 868-6511

TOWN OF VIENNA

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Erosion & Sediment Control Notes & Details

Erosion and Sediment Control Narrative

Project Description: The project proposes approximately 477 linear feet of pedestrian access improvements from Orchard Street NW to Knoll Street NW in the Town of Vienna. The proposed pedestrian improvements will be a 5' wide concrete sidewalk and entrance improvements. The site improvements are designed to minimize the amount of disturbance and additional impervious area on the site. The project is located in the Potomac River-Difficult Run and Pohick Creek watershed management areas which are within the greater Difficult Run and Accotink Creek Watershed respectively.

Existing Site Conditions: The project site is along the east side of Nutley Street NW between Orchard Street NW and Knoll Street NW. Vegetation within the project site consists of landscaped lawns and some large trees. Storm runoff is collected by drop inlets and conveyed to the southeast via an existing closed storm sewer system.

Adjacent Areas: Areas adjacent to the project are mostly residential in nature though there is a church and an elementary school.

Off-site Areas: There will be impacts to adjacent parcels associated with the construction of this project. All necessary right-of-way, easements, and provisions will be acquired prior to the start of construction. The Contractor shall be responsible for the locations of acceptable borrow and/or disposal sites, and these shall be in accordance with Town of Vienna or as directed by the Town.

Soils: See soils map located on this sheet.

Critical Areas: There are no critical areas within the project site.

Erosion and Sediment Control Measures: Water quality and sediment/erosion control are of extreme importance. Care must be taken to avoid discharge of sediment into the existing storm water system. In order to best control impacts on this watershed, all vegetative and structural sediment control practices shall be constructed and maintained according to minimum standards and specifications of the Virginia Erosion and Sediment Control Handbook. Strict compliance with this program and standards is required. We are therefore specifying a plan to minimize impacts on the adjacent properties.

At the time of land disturbing activities within the Town right-of-way, the Contractor shall have a representative with Erosion and Sediment Control Contractor Certification (ESCCC) at the project site. The Town and Contractor is responsible for complying with applicable Local, State, and Federal Environmental Laws and Regulations, including acquiring clearances/authorizations from appropriate regulatory agencies.

Land Disturbing/Construction Sequence - Phase I
1. The Contractor shall install the silt fence, inlet protection, and tree protection as shown on the Phase I Erosion & Sediment Control plan.
2. After the silt fence, inlet protection, and tree protection have been installed, the Contractor shall obtain the site inspector's approval of these controls.
3. After the site inspector's approval of the initial controls, clear and grub the site as necessary.

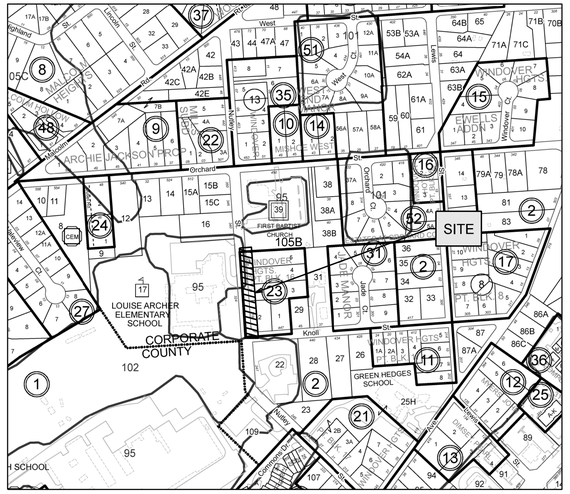
Land Disturbing/Construction Sequence - Phase 2
1. Fine grade the site.
2. Install curb & gutter, sidewalk, and entrance base course and concrete pavement.
3. Install all permanent seeding and fertilize all grassed areas.
4. Clean site of all trash and debris.
5. Have the inspector inspect all areas to determine if they are adequately stabilized.

Maintenance Program: The Contractor shall make a visual inspection of all mechanical controls and newly stabilized areas (i.e. seeded, mulched, or sodded areas) on a daily basis and after each rainfall event to ensure that all controls are functioning properly. The following items will be checked in particular: inlet protection will be checked regularly for sediment buildup which will prevent drainage, and if the gravel is clogged by sediment, it shall be removed and cleaned or replaced; the silt fence barrier will be checked regularly for undermining or deterioration of the fabric, and sediment shall be removed when the level of sediment deposition reaches halfway to the top of the barrier; and the seeded areas will be checked regularly to ensure that a good stand is maintained, and areas shall be fertilized and reseeded as needed. Any damaged controls shall be repaired by the end of the work day, including reseeding and mulching if necessary. The Contractor may install additional measures should he or she deem it necessary at the Inspector's approval. All erosion & sediment controls shall be removed within seven (7) days after the project is stabilized.

Structural Practices:
1. Silt Fence Barrier (3.05) - Silt fence barriers will be installed downslope of areas with minimal grades to filter sediment-laden runoff from sheet flow as indicated in the Erosion and Sediment control plans.
2. Storm Drain Inlet Protection (3.07) - All storm sewer inlets shall be protected during construction. Sediment-laden water shall be filtered before entering the storm sewer inlets.
3. Temporary Seeding (3.31) - All denuded areas which will be left dormant for extended periods of time shall be seeded with fast germinating temporary vegetation immediately following grading. Selection of the seed mixture will depend on the time of year it is applied.
4. Permanent Seeding (3.32) - Perennial vegetative cover shall be established on disturbed areas by planting seed to reduce erosion and decrease sediment yield and to permanently stabilize disturbed areas. Selection of the seed mixture will depend on the time of year it is applied.
5. Permanent Stabilization - Permanent stabilization shall be done in accordance with the VESCH and all Town of Vienna seeding standards.
6. Sodding (3.33) - Stabilization of fine-graded disturbed areas shall be done by establishing permanent grass stands with sod.
7. Tree Preservation and Protection (3.38) - Desirable trees shall be protected from mechanical and other injury during land disturbance and construction activity.

Stormwater Runoff Considerations: The Town of Vienna maintains all roadways in the Town. The Town has reviewed these plans and has determined that the SWM strategy and outfall is adequate. Approval is shown on Sheet 2.

SOILS MAP DATA SCALE: N.T.S

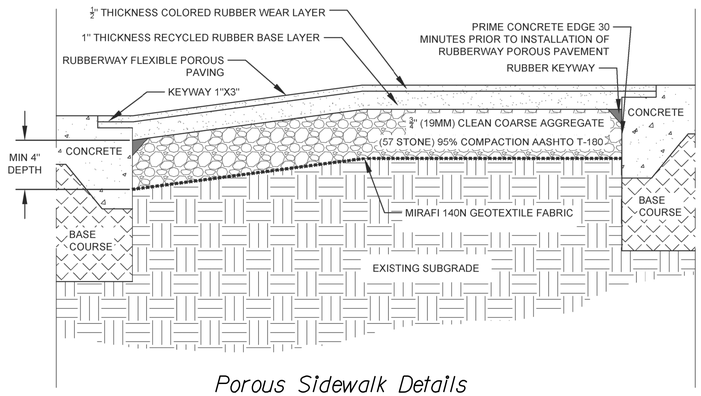


SOILS MAP SOURCE: ☒COUNTY MAP: ☐PRIVATE SOILS SCIENTIST (FOR UNMAPPED SITES)					
SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
105B	WHEATON GLENELG COMPLEX	GOOD	GOOD	HIGH	IVB
95	URBAN LAND	N/A	N/A	N/A	N/A

IS THE SITE LOCATED WITHIN NATURALLY OCCURING ASBESTOS SOILS?
YES ☐ NO ☒

AREAS THAT MAY CONTAIN NATURALLY OCCURING ASBESTOS SOILS ARE LOCATED ON THE ORANGE SOILS TAX MAP GRIDS ON THE COUNTY WEBSITE. SPECIAL PRECAUTIONS REGARDIND THESE SOILS OR FILL ORIGINATING FROM THESE SOILS ARE REQUIRED BY OCCUPATIONAL SAFETY AND HEALTH REGULATIONS ENFORCED BY THE VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY AND SPECIAL GUIDANCE HAS BEEN ISSUED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

SOILS MAPPED OVER NATUALLY OCCURING BEDROCK. THESE SOILS OCCUR WITHIN A GEOLOGIC FORMATION KNOWN AS THE PINEY BRANCH COMPLEX, LOCALLY KNOWN AS GREENSTONE. NATURALLY-OCCURRING ASBESTOS MINERALS, PREDOMINANTLY ACTINOLITE AND TREMOLITE, ARE KNOWN TO OCCUR IN THIS FORMATION. EXCAVATIONS IN BEDROCK OR EARTH MOVING ACTIVITIES WITHIN THIS FORMATION MAY EXPOSE THESE MINERALS TO THE ATMOSPHERE, ALLOWING THE FIBERS TO BECOME AIRBORNE.



Porous Sidewalk Details

Note: The use of porous sidewalks has been reviewed and approved by the Town of Vienna.

Notes:
1. Cost per Square Yard of Porous Sidewalk shall include all labor, materials (as per this typical section), and equipment needed to install porous sidewalk per this typical section. No root cutting shall occur past a depth of 4" without the presence of Town Arborist. Porous Sidewalk shall be of a color near match to adjacent newly installed sidewalk. Porous Sidewalk rubber material shall be of a continous pour material, not segments or sheets (no exceptions).

2. Contractor shall provide all specifications to Town for approval prior to ordering of any materials related to porous sidewalk installation.

ADAM D. WELSCHENBACH Lic. No. 044359 COMMONWEALTH OF VIRGINIA PROFESSIONAL ENGINEER
Adam Welschenbach
2018.11.17 15:30:13 -05'00'
Rinker Design Associates, P.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	IL

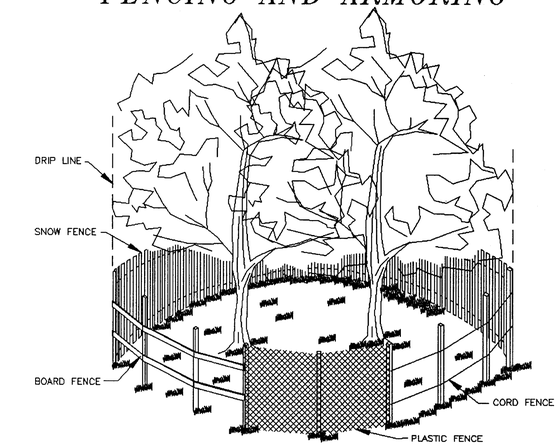
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

TP

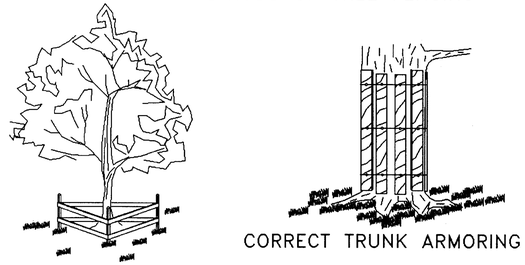
TREE PROTECTION

1992 3.38

FENCING AND ARMORING



CORRECT METHODS OF TREE FENCING



TRIANGULAR BOARD FENCE

Source: Va. DSWC Plate 3.38-2

III - 401

PROJECT	SHEET NO.
EN15-153-110	IL

FINAL PLAN

Office Locations
Design Associates, P.C.
Civil Engineering · Surveying · Land Planning
Transportation · Environmental
Right of Way Services
Rinker
www.RINKERDESIGN.com
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Phone: (703) 289-2500
Fax: (703) 289-2501
Fredericksburg Office
608 Thornton Avenue
Fredericksburg, VA 22401
Phone: (540) 371-7030
Fax: (540) 371-7031
Culpeper Office
450 Sunset Park Drive
Culpeper, VA 22701
Phone: (540) 825-8080
Fax: (540) 825-8081

TOWN OF VIENNA

PROJECT MANAGER Town of Vienna Public Works Dept.: Michael Gallagher, P.E., (703) 255-6383
SURVEYED BY, DATE Rinker Design Associates, P.C.: Sidney Thomas, L.S., (703) 368-7373, April 2015
DESIGN BY Rinker Design Associates, P.C.: Adam Welschenbach, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Mid-Atlantic Utility Locating, LLC, April 2015.

Erosion & Sediment Control Notes & Details

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

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Rinker Design Associates, P.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	IL(1)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

4VAC50-30-40. Minimum Standards. (MS-19)

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.
   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.
   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. Non-erodible material shall be used for the construction of causeways and cofferdams. Earthen fill may be used for these structures if armored by non-erodible 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 non-erodible material shall be provided.
14. All applicable federal, state and local chapters 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:
   a. No more than 500 linear feet of trench may be opened at one time.
   b. Excavated material shall be placed on the uphill side of trenches.
   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.
   d. Material used for backfilling trenches shall be properly compacted in order to minimize erosion and promote stabilization.
   e. Restabilization shall be accomplished in accordance with this chapter.
   f. Applicable safety chapters 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:
   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 into a pipe or pipe system, downstream stability analyses at the outfall of the pipe or pipe system shall be performed.
   b. Adequacy of all channels and pipes shall be verified in the following manner:
      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
      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.
         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
         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.
   c. If existing natural receiving channels or previously constructed man-made channels or pipes are not adequate, the applicant shall:
      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 channel the bed or banks; or
      2) Improve the pipe or pipe system to a condition where the ten-year storm is contained within the appurtenances;
      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
      4) Provide a combination of channel improvement, stormwater detention or other measures which is satisfactory to the VESCP authority to prevent downstream erosion.
   d. The applicant shall provide evidence of permission to make the improvements.
   e. All hydrologic analyses shall be based on the existing watershed characteristics and the ultimate development condition of the subject project.
   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.
   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.
   h. All on-site channels must be verified to be adequate.
   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.
   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.
   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.
   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 10J-562 or 10J-570 of the Act.
   m. For plans approved on and after July 1, 2014, the flow rate capacity and velocity requirements of 10J-561 A of the Act and this subsection shall be satisfied by compliance with water quantity requirements in the Stormwater Management Act (10J-603.2 et seq. of the Code of Virginia) and attendant regulations, unless such land-disturbing activities are in accordance with 4VAC50-60-48 of the Virginia Stormwater Management Program (VSMP) Permit Regulations.
   n. Compliance with the water quantity minimum standards set out in 4VAC50-60-66 of the Virginia Stormwater Management Program (VSMP) Permit Regulations shall be deemed to satisfy the requirements of Minimum Standard 19.

	PROJECT	SHEET NO.
	EN15-153-110	IL(1)

11/12/2018

FINAL PLAN

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Civil Engineering - Surveying - Land Planning
Transportation - Environmental
Right of Way Services
Rinker

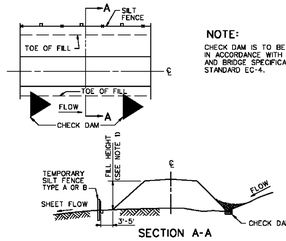
PROJECT MANAGER: Town of Vienna Public Works Dept.; Michael Gallagher, P.E., (703) 255-6383
SURVEYED BY, DATE: Rinker Design Associates, P.C.; Sidney Thomas, L.S., (703) 368-7373, April 2015
DESIGN BY: Rinker Design Associates, P.C.; Adam Welschenbach, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE: Mid-Atlantic Utility Locating, LLC, April 2015.

Erosion & Sediment Control Notes & Details

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	IL(2)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

TYPICAL DETAIL FOR TEMPORARY SILT FENCE/CHECK DAM AT TOE OF FILL

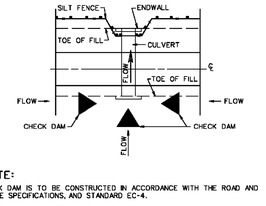


SECTION A-A

NOTE:
CHECK DAM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-4.

EC-5

TYPICAL DETAIL FOR TEMPORARY SILT FENCE/CHECK DAM AT CULVERT



NOTE:
CHECK DAM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-4.

NOTES FOR SILT FENCE TYPE A & B:

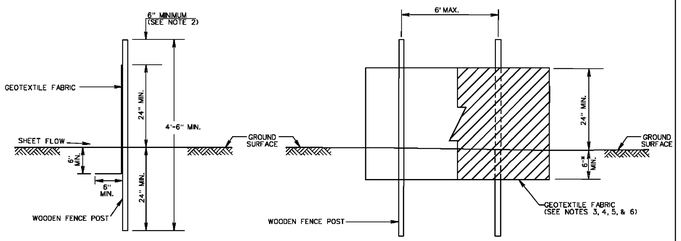
1. USE OF TYPE A SILT FENCE IS LIMITED TO A FILL HEIGHT OF 20 FEET OR LESS. TYPE B SILT FENCE MUST BE USED WHERE THE FILL HEIGHT EXCEEDS 20 FEET.
2. ALL POSTS SHALL BE DRIVEN 24" MIN. INTO THE GROUND AND SHALL EXTEND 6" ABOVE THE FILTER FABRIC (TYPE A) OR WIRE FENCE (TYPE B). WOODEN POSTS SHALL BE OAK AND HAVE NOMINAL DIMENSIONS OF 2" BY 2". STEEL POSTS SHALL HAVE A MINIMUM WEIGHT OF 1.25 POUNDS PER LINEAR FOOT.
3. GEOTEXTILE FABRIC SHALL BE EMBEDDED 12" INTO THE GROUND (6" VERTICALLY AND 6" HORIZONTALLY ALONG THE BOTTOM OF TRENCH) AS SHOWN IN DETAILS A(2) & B(2) ON SHEETS 2 AND 3.
4. SLICING IS AN APPROVED ALTERNATIVE TO TRENCHING FOR ANCHORING THE GEOTEXTILE FABRIC INTO THE GROUND SHOWN IN DETAILS A(2) & B(2) ON SHEETS 2 AND 3. SLICING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SECTION 303 OF THE ROAD AND BRIDGE SPECIFICATIONS.
5. WHEN TWO SEPARATE SECTIONS OF GEOTEXTILE FABRIC ADJOIN EACH OTHER, THEY SHALL OVERLAP BY 6" AND BE DOUBLE FOLDED.
6. GEOTEXTILE FABRIC SHALL BE FASTENED SECURELY TO THE POSTS (TYPE A & B) AND WIRE FENCE (TYPE B ONLY). THE ATTACHMENTS TO THE WIRE FENCE SHALL BE MADE WITH TIES SPACED EVERY 24" HORIZONTALLY AT BOTH THE TOP AND VERTICAL MIDPOINT OF THE GEOTEXTILE FABRIC.
7. WIRE FENCE (TYPE B ONLY) SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES AND EMBEDDED A MINIMUM OF 2" IN THE GROUND.
8. WIRE FENCE (TYPE B ONLY) SHALL BE A MINIMUM OF 14 GAUGE WELDED WIRE WITH A MESH SPACING OF 2" BY 4". ALTERNATIVE MESH SPACING MAY BE APPROVED BY THE ENGINEER, BUT MUST BE NO MORE THAN 6" BY 6".
9. FOR AREAS REQUIRING TYPE B SILT FENCE, A MINIMUM LENGTH OF 100 LINEAR FEET SHALL BE INSTALLED.
10. AS AN ALTERNATIVE TO UTILIZING TYPE B SILT FENCE, TWO ROWS OF TYPE A SILT FENCE MAY BE PLACED PARALLEL TO EACH OTHER WITH 3' TO 5' BETWEEN THE TWO ROWS. THIS OPTION MAY BE USED AT ALL LOCATIONS SPECIFYING TYPE B SILT FENCE UNLESS OTHERWISE PROHIBITED BY THE PLANS. SEE DETAIL ON SHEET 3 (BOTTOM RIGHT).
11. MATERIALS FOR ALL SILT FENCE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 242 OF THE VDOT ROAD & BRIDGE SPECIFICATIONS.

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.	VDOT ROAD AND BRIDGE STANDARDS
107, 242, 243, 303	TEMPORARY SILT BARRIERS SILT FENCE (TYPE A & B) AND BRUSH BARRIER VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: 01/17 — SHEET 1 OF 4 — 113.07

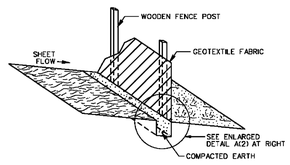
EC-5

SILT FENCE TYPE A

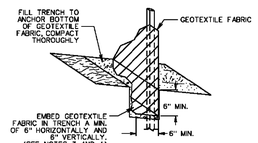
SEE SHEET 1 FOR NOTES



SECTION VIEW — PROFILE VIEW



DETAIL A(1)



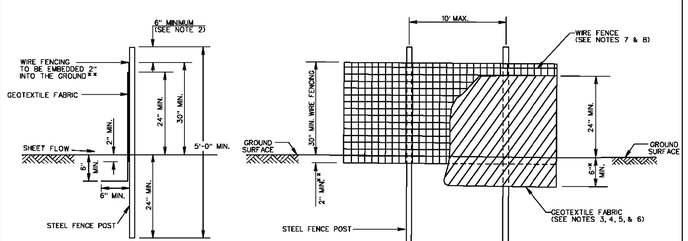
DETAIL A(2)

VDOT ROAD AND BRIDGE STANDARDS	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.	SPECIFICATION REFERENCE
SHEET 2 OF 4 — REVISION DATE: 01/17 — 113.07A	TEMPORARY SILT BARRIERS SILT FENCE (TYPE A & B) AND BRUSH BARRIER VIRGINIA DEPARTMENT OF TRANSPORTATION	107, 242, 243, 303

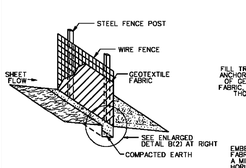
EC-5

SILT FENCE TYPE B

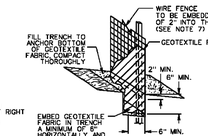
SEE SHEET 1 FOR NOTES



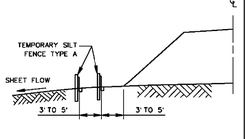
SECTION VIEW — PROFILE VIEW



DETAIL B(1)



DETAIL B(2)

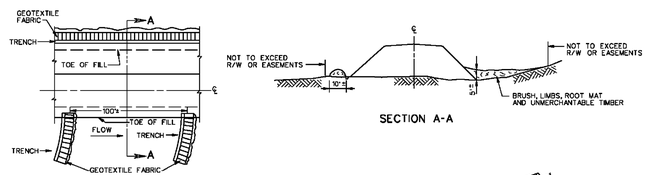


ALTERNATIVE SILT FENCE TYPE B (SEE NOTE 10)

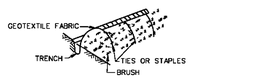
SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.	VDOT ROAD AND BRIDGE STANDARDS
107, 242, 243, 303	TEMPORARY SILT BARRIERS SILT FENCE (TYPE A & B) AND BRUSH BARRIER VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: 01/17 — SHEET 3 OF 4 — 113.07B

EC-5

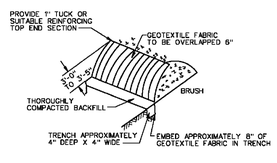
SILT BARRIERS
TYPICAL DETAIL FOR BRUSH BARRIER
(TO BE USED AT ALL APPLICABLE LOCATIONS)



SECTION A-A



BACK ISOMETRIC



FRONT ISOMETRIC

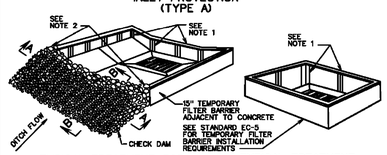
NOTES:

1. BRUSH BARRIERS SHALL BE CONSTRUCTED AT LOCATION SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. BRUSH SHALL BE PILED AGAINST EXISTING TREES TO PREVENT MOVEMENT OF BARRIER. BRUSH SHALL BE PILED AS TIGHTLY AS POSSIBLE AND WEIGHTED DOWN BY UNMERCHANTANTABLE LOGS.
2. GEOTEXTILE FABRIC CONFORMING TO THE ROAD AND BRIDGE SPECIFICATIONS SHALL BE INSTALLED AS DETAILED ABOVE. GEOTEXTILE FABRIC MAY ALSO BE ATTACHED TO EXISTING FENCES WHEN SPECIFIED ON THE PLANS OR DIRECTED BY THE ENGINEER.
3. NO BRUSH WILL BE DESTROYED OR REMOVED FROM THE PROJECT UNTIL ALL BRUSH SILT BARRIERS ARE IN PLACE AND HAVE BEEN INSPECTED AND APPROVED BY THE ENGINEER.
4. DIMENSIONS SHOWN ARE APPROXIMATE ONLY.

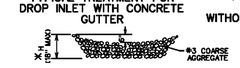
VDOT ROAD AND BRIDGE STANDARDS	TEMPORARY SILT BARRIERS SILT FENCE (TYPE A & B), AND BRUSH BARRIER VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 4 OF 4 — REVISION DATE: 08/14 — 113.08		107, 303

EC-6

INLET PROTECTION
(TYPE A)



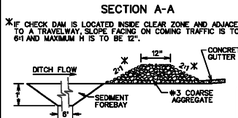
TYPICAL TREATMENT FOR DROP INLET WITH CONCRETE GUTTER



SECTION A-A

*IF CHECK DAM IS LOCATED INSIDE CLEAR ZONE AND ADJACENT TO A TRAVELWAY, SLOPE FACING ON COMING TRAFFIC IS TO BE 6H AND MAXIMUM H IS TO BE 12".

TYPICAL TREATMENT FOR DROP INLET WITHOUT CONCRETE GUTTER



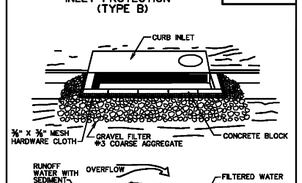
SECTION B-B

NOTES

1. POSTS AND TOP RAIL SHALL BE A NOMINAL 2½" X 2½" OR A 3" DIA. NO. 2 SOUTHERN PINE, A NOMINAL 2" X 2" OAK, OR STEEL HAVING A MIN. WEIGHT OF 1.25 LBS. PER LINEAR FOOT AND A MIN. LENGTH OF 5' FOR TEMPORARY SILT FENCES.
2. END OF FILTER BARRIER TO BE EMBEDDED INTO AGGREGATE.
3. IF A DROP INLET IS LOCATED IN A SAG IN THE DITCH GRADE, A CHECK DAM IS REQUIRED FOR EACH SIDE OF THE INLET THAT RECEIVES DITCH FLOW.
4. WHERE DRAINAGE AREAS EXCEED ONE ACRE OR DITCH GRADE EXCEEDS 3%, A TEMPORARY SEDIMENT FOREBAY SHALL BE INSTALLED WITH MINIMUM DIMENSIONS OF 12" DEPTH, 2' WIDTH AND 8' LENGTH.

EC-6

INLET PROTECTION
(TYPE B)



SECTION VIEW

SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

NOTE:
GEOTEXTILE PRODUCTS DESIGNED TO BE INSERTED INTO GRATED DROP INLETS OR DESIGNED TO COVER THE SLOTS OF SLOT DROP INLETS, THAT HAVE BEEN APPROVED FOR USE ON VDOT PROJECTS AND ARE FOUND ON VDOT'S SPEL LIST, MAY BE SUBSTITUTED FOR THE DROP INLET PROTECTION DEVICES DETAILED HEREON.

SPECIFICATION REFERENCE	INLET PROTECTION (TYPE A AND B) VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS
107, 242, 303		REVISION DATE — SHEET 1 OF 2 — 113.09

	PROJECT	SHEET NO.
	EN15-153-110	IL(2)

TOWN OF VIENNA

11/12/2018

FINAL PLAN

Rinker Design Associates, P.C.
Civil Engineering · Surveying · Land Planning
Transportation · Environmental
Right-of-Way Services

Office Locations
Main Office: 4101 Dominion Boulevard, Suite 100, Glen Allen, VA 23060, Phone: (804) 377-0650, Fax: (804) 377-0651
Manassas, VA 20110, Phone: (540) 899-9310, Fax: (540) 899-9364
Fredericksburg, VA 22407, Phone: (540) 786-8971, Fax: (540) 786-8973

TOWN OF VIENNA

PROJECT MANAGER: Town of Vienna Public Works Dept.: Michael Gallagher, P.E., (703) 255-6383
SURVEYED BY, DATE: Rinker Design Associates, P.C.: Sidney Thomas, L.S., (703) 368-7373, April 2015
DESIGN BY: Rinker Design Associates, P.C.: Adam Welschenbach, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE: Mid-Atlantic Utility Locating, LLC, April 2015.

Erosion & Sediment Control Phase I

ADAM D. WELSCHENBACH
Lic. No. 044359
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

Adam Welschenbach
2018.11.17 15:33:07 -05'00'
Rinker Design Associates, P.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	IP

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

VCS 1983 North

Tax Map 038-3-23-0005
Nabil LATRECHE
D.B.19489, PG.1980
*328 Nutley Street NW
Lot 5 Parcel B
WINDOVER HEIGHTS

Tax Map 038-3-23-0004
Arthur H. Bishop, IV
Christine E. Bishop
D.B. 22418, PG. 2118
*323 Nutley Street NW
Lot 4 Parcel B
WINDOVER HEIGHTS

Tax Map 038-3-23-0003
Edwin ADAIR
Raissa NOURIEVA
D.B. 21058, PG.1159
*321 Nutley Street NW
Lot 3 Parcel B
WINDOVER HEIGHTS

Tax Map 038-3-23-0001
Gregory A.BAUER
D.B. 23107, PG.1570
*447 Knoll Street NW
Lot 1 Parcel B
WINDOVER HEIGHTS

Tax Map 038-3-23-0002
Nicholas A.Ackerman
Sonia G.Ackerman
D.B. 9962, PG.762
*319 Nutley Street NW
Lot 2 Parcel B
WINDOVER HEIGHTS

Tax Map 038-3-02-0039
Trustees for the Vienna
First Baptist Church
D.B.484 PG.449
*450 Orchard Street NW
3.000 Acres

Tax Map 038-3-02-0022
THE TOWN OF VIENNA
*247 Nutley Street NW

Tax Map 038-3-02-0016
Trustees of First
Baptist Church of Vienna
D.B.17089, PG.643
*340 Nutley Street NW

Tax Map 038-3-02-0017
FAIRFAX COUNTY SCHOOL BOARD
*324 Nutley Street NW

Tax Map 038-3-01-0052
FAIRFAX COUNTY SCHOOL BOARD
*2500 James Madison Drive

Temporary Construction Easement

Denotes Tree to Be Removed

Begin VDOT Project
EN15-153-110, PE-101, RW-201, C-501
Sta.100+47.42 Rte.6643

Begin Constr.
Sta.100+47.72

End VDOT Project
EN15-153-110, RW-201
Sta.101+60.89 Rte.6643

Rte.6643, Nutley Street N.W.
Rte.6643 Constr.℄

End VDOT Project
EN15-153-110, PE-101, C-501
Sta.105+09.10 Rte.6643

End Constr.
Sta.105+09.10

E&S LEGEND

- TSF — Denotes Temporary Silt Fence, Std EC-5
- IP — Denotes Drop Inlet Protection, Std.EC-6 Type A or B
- Denotes Tree to Be Saved based on final determination by Town arborist during construction (Tree Preservation (TP) shall be installed per PFM Plate No.6-12 on Sheet IL)
- Denotes Vegetation to Be Removed
- — LOD — Limit of Disturbance
- M — Denotes Provide Mulch Per Contract Special Provisions

C___ Denotes Construction Limits In Cuts
F__ Denotes Construction Limits In Fills

SCALE	PROJECT	SHEET NO.
0 25' 50'	EN15-153-110	IP

11/12/2018

FINAL PLAN

PROJECT MANAGER: Town of Vienna Public Works Dept.: Michael Gallagher, P.E., (703) 255-6383
SURVEYED BY, DATE: Rinker Design Associates, P.C.: Sidney Thomas, L.S., (703) 368-7373, April 2015
DESIGN BY: Rinker Design Associates, P.C.: Adam Welschenbach, PE (703) 368-7373
SUBSURFACE UTILITY BY, DATE: Mid-Atlantic Utility Locating, LLC, April 2015.

Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Environmental
Right-of-Way Services
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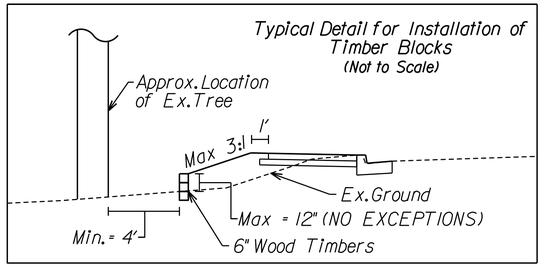
43575 Mercure Boulevard, Suite 300, Leesburg, VA 20176, Phone: (703) 737-3441, Fax: (703) 737-3442
4501 Daly Drive, Suite 101, Chantilly, VA 20151, Phone: (703) 263-0884, Fax: (703) 263-0885
421 Eagle Green Drive, Suite 1, Fredericksburg, VA 22407, Phone: (540) 548-0123, Fax: (540) 548-0124

TOWN OF VIENNA

Erosion & Sediment Control Phase 2



C ___ Denotes Construction Limits In Cuts
F __ Denotes Construction Limits In Fills

PAVEMENT LEGEND

- Full-Depth Pavement
- Demolition of Pavement
- Mill and Overlay/ Resurface Pavement
- Porous Sidewalk

E&S LEGEND

- Denotes Tree to Be Saved based on final determination by Town arborist during construction. (Tree Preservation (TP) shall be Installed per PFM Plate No. 6-12 on Sheet 11)
- Denotes Vegetation to Be Removed
- LOD — Limit of Disturbance
- TSF — Denotes Temporary Silt Fence, Std EC-5
- IP — Denotes Drop Inlet Protection, Std. EC-6 Type A or B
- PS — Permanent Seeding
- M — Denotes Provide Mulch Per Contract Special Provisions

ADAM D. WELSCHENBACH
Lic. No. 044359
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

Adam Welschenbach
2018.11.17 15:31:15 -05'00'
Rinker Design Associates, P.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	10

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

SCALE	PROJECT	SHEET NO.
0 25' 50'	EN15-153-110	10

FINAL PLAN

PROJECT MANAGER Town of Vienna Public Works Dept.: Michael Gallagher, P.E., (703) 255-6383
SURVEYED BY, DATE Rinker Design Associates, P.C.: Sidney Thomas, L.S., (703) 368-7373, April 2015
DESIGN BY Rinker Design Associates, P.C.: Adam Welschenbach, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Mid-Atlantic Utility Locating, LLC, April 2015.

General Notes

GRADING GENERAL NOTES

1 The cost of removal of all existing concrete items located in the area to be graded, including, but not limited to the following, shall be included in the price bid for regular excavation: Small Footings, Light Pole Foundations, End Walls, Drop Inlets, Manholes, Pipes, Concrete Slabs, Curb and Gutter, Concrete or Asphalt Sidewalk, Paved Ditches, Foundation Slabs, and Base or Brick Items.

2 If, during construction, it is deemed necessary to change the depth more than 1 foot (0.3 m) or the limits of such excavation, such change shall be made at the direction of the Engineer and and measurement and payment shall be made in accordance with Section 303 of the applicable VDOT Road and Bridge Specifications.

3 The borrow or embankment material for this project shall be a minimum CBR 6 or as approved by the Town Engineer. Material classified as CH or MH in its natural state according to ASTM D 2487 or ASTM D 2488 shall not be hauled on-site as borrow material.

DRAINAGE GENERAL NOTES

1 The horizontal location of all drainage structures shown on these plans is approximate only, with the exception of structures showing specific stations, special design bridges and storm sewer systems.

2 The horizontal location and invert elevations shown for proposed culverts and storm sewer outfall pipes are based on existing survey data and required design criteria. If, during construction, it is found that the horizontal location or invert elevations shown on the plans differ significantly from the horizontal location or elevations of the stream or swale in which the culvert or storm sewer outfall pipe is to be placed, the Engineer shall confer with, and get approval from, the applicable Town Engineer before installing the culvert or storm sewer outfall pipe.

3 The "H" dimensions shown on the plans for drop inlets and junction boxes and the "L.F. (m)" dimensions shown for manholes are for estimating purposes and are based on the proposed invert elevations shown for the structure and the anticipated top (rim) elevation based on existing or proposed finished grade. The actual "H" or "L.F. (m)" dimensions are to be determined by the contractor from field conditions.

4 Existing drainage facilities being utilized as a part of the drainage system, including 3 structures downstream of the project area, shall be cleaned out as directed by the Engineer. The cost to perform this work shall be not be covered as a separate pay item, and shall be considered incidental to the project.

5 Proposed drop inlet tops with a height (H) less than the standard minimum shown in the VDOT Road and Bridge Standards shall be considered and paid for as Standard Drop Inlets for the type specified.

6 When Standard CG-6 or Mod. CG-6 (see Sheet 2A for Town's detail) is specified on a radius (such as at a street intersection), the Engineer may approve a decrease in the cross slope of the gutter to facilitate proper drainage.

7 Std SL-1 Safety slab locations are based on the assumed use of precast structures. If cast-in-place structures are utilized, and the interior chamber dimensions (length and width, or diameter) are less than 4 feet, the safety slabs shall not be installed.

8 All excavated areas shall be restored and/or patched the same day. Prior to beginning the work, the Contractor shall submit an acceptable contingency plan to the Town outlining temporary protective measures to be utilized should the Contractor be unable to complete the restoration prior to the end of the work day.

PAVEMENT GENERAL NOTES

1 For bidding purposes, the Contractor shall utilize the typical section on Sheet 2A. Prior to the start of construction, the Contractor shall obtain pavement cores (as directed by the Town) and submit a pavement design for approval by the Town. Proposed pavement is required in all locations adjacent to proposed curb (1' width) in accordance with VDOT's WP-2 standard. (Note: Proposed pavement area adjacent to proposed curb is not graphically shown on plans.)

INCIDENTAL GENERAL NOTES

1 Certain trees shall be preserved as noted on plans or as directed by the Engineer.

2 When Standard slope roundoffs would damage trees, bushes or other desirable vegetation, they shall be omitted when so ordered by the Town.

3 Clearing and grubbing shall be confined to those areas needed for construction. No trees or shrubs in ungraded areas shall be cut without the permission of the Town.

4 When no centerline alignment is shown for a proposed entrance, the entrance shall be constructed in the same location as the existing entrance.

5 Std. RM-1 Right of Way Monuments shall be set by the Contractor. Any disturbed by the Contractor shall be restored at the Contractor's cost.

6 The "Underground Utilities" survey data on this project has been provided by "Miss Utility". (Locations shown are not guaranteed.)

7 All pavement markings and traffic flow arrows shown on the roadway construction plans are schematic only. The actual location and application of pavement markings shall be in accordance with Section 704 of the applicable VDOT Road and Bridge Specifications, MUTCD, and as directed by the Town. All proposed pavement marking work shall be incidental to the project and not paid for as a separate pay item.

8 The following outside sources, under contract with VDOT, have provided information on this project.
Hydraulic Design Rinker Design Associates, P.C.
Sidewalk Design Rinker Design Associates, P.C.
Utility Designation "Insight, LLC"
Utility Location "Insight, LLC"
Survey Rinker Design Associates, P.C.
If questions or problems arise during construction, please contact the Project Designer. DO NOT CONTACT THE OUTSIDE SOURCES.

9 All electronic plan assemblies will include the construction plans in one format: .pdf files. Only the .pdf files will be considered as part of the official plan assembly.

EROSION AND SEDIMENT CONTROL (ESC) GENERAL NOTES

1 See IL series for details.

GENERAL NOTES

1 The Contractor shall conduct a post installation visual/video camera inspection of all storm sewer pipes and a selected number of pipe culverts in accordance with the requirements of Section 302.03(d) of the VDOT 2016 Supplemental Road & Bridge Specifications and VTM 123.

2 The Contractor shall present a TMP/SOC plan to the Town for approval prior to the start of construction.
-All entrances shall remain open during non-working hours or as directed by the Town.

3 All work shall be in accordance with the current edition of the Manual of Uniform Traffic Control Devices (MUTCD), the current edition of the VDOT Road and Bridge Specifications, the current edition of the VDOT Road and Bridge Standards, current VDOT Insertable sheets to the Road and Bridge Standards, and all special provisions in effect at the time the plan is approved. The Contractor is to also perform all work in accordance with all current revisions to the Road and Bridge Standards, as applicable.

4 Contractor shall replace all structure tops within the project limits as noted on the plans. Only structure tops are to be replaced. All related incidental work and adjacent curb/pavement replacement/repair shall be incidental to the cost of structure top replacement.

5 The Contractor shall follow all Town of Vienna requirements for planting trees (including installing any tree root barrier when trees are to be installed adjacent to proposed curb) at no additional cost to the project.

6 The Town of Vienna shall determine what species of tree(s) to plant. Unless otherwise directed by the Town the following tree types shall be used:
a) Tree Type 1 - Red Maple
b) Tree Type 2 - Willow Oak
c) Tree Type 3 - Northern Red Oak

7 a) The Contractor is responsible for locating all utilities. Utilities shown on plans are not guaranteed. Any disruption/impact in utility service is the sole responsibility of the Contractor. The Contractor is responsible for all utility relocation efforts/coordination to ensure utilities are relocated and/or reset (as needed for utility boxes, pole guys etc.) and/or sidewalk guys are installed. The Contractor is responsible for all costs not covered by the Town of Vienna's utility franchise agreement(s). Coordination with Town of Vienna is required.

b) The Town of Vienna's forces will relocate as needed (due to construction conflicts) any waterline conflicts, fire-hydrant, and water meters. The Contractor shall coordinate with the Town of Vienna for construction scheduling to ensure continued service. Based on survey conducted for this project, these locations have been identified in the plans, however see Note 7a, regarding existing utilities locations.

8 The Contractor shall plant trees in accordance with VDOT's 2016 Road and Bridge Specifications. Section 605.05, (b) of VDOT's 2007 Road and Bridge Specifications is amended to establish the "Establishment Period" for trees planting to be one full year. Additionally, Section 605.05, "1, b) is amended to add, that the Contractor is required to water the trees once a week June 01 through September 31. Lastly, Section 605.05 "4 is amended to replace the last sentence as follows: Any future trees to be replaced shall be at the Contractor's expense, through the end of the "Establishment Period."

9 The Contractor shall provide Construction Surveying in accordance with VDOT's 2016 Road and Bridge Specifications, under the direction of a Virginia Licensed Land Surveyor. Additionally the Contractor shall provide Construction Engineering Inspection (CEI) services as directed the Town (if required) at no additional cost to the project.

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

Adam Welschenbach
2018.11.17 15:33:36 -05'00'
Rinker Design Associates, P.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	2

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Town of Vienna Locality Approval of Storm Water Management Strategy
(Note: Town maintains all roadways and has own MS-4)

Town of Vienna Virginia

Department of Public Works

Michael J. Gallagher, P.E.
Director

April 27, 2017

Virginia Department of Transportation
NoVA Local Assistance Program
4975 Alliance Drive
Fairfax, Virginia 22030

RE: Locality Approval/Acceptance of SWM Strategy (VDOT Proj. No. EN15-153-110, UPC 107661)

The Town of Vienna maintains all roadways within the Town's limits and the Town's stormwater system is operated under a separate permit from the State of Virginia per requirements of 4VAC50-60, "General Virginia Stormwater Management Program (VSMP) Permit for Discharges of Stormwater from Small Municipal Separate Systems."

The project (VDOT UPC 107661) proposes approximately 460 linear feet of pedestrian access improvements from Orchard Street NW to Knoll Street NW. As part of the project's improvements a five (5) foot concrete sidewalk and residential driveway entrance improvements will be constructed. The proposed improvements have been designed to minimize the amount of disturbance on residential properties and minimizing additional impervious areas on site.

The runoff from the project flows towards an existing Town of Vienna maintained BMP facility located south of the intersection of Nutley Street NW and Knoll Street NW. The Town confirms existing facility is adequate to handle the additional impervious area generated by this project.

In summary and as typically requested by VDOT's Location & Design Hydraulic section, this letter serves as concurrence that the project (UPC 107661), as designed, meets the Town of Vienna's Stormwater Management Requirements.

Please let me know if there are further questions at 703-255-6389 or Michael.Gallagher@viennava.gov.

Sincerely,

Michael J. Gallagher, P.E.
Director of Public Works

	PROJECT	SHEET NO.
	EN15-153-110	2

Rinker Design Associates, P.C. — Civil Engineering · Surveying · Land Planning · Transportation · Environmental · Right-of-Way Services
Office Locations: 4101 Dominion Boulevard, Suite 100, Glen Allen, VA 23060, Phone: (804) 377-0650, Fax: (804) 377-0651; 4101 Dominion Boulevard, Suite 100, Glen Allen, VA 23060, Phone: (804) 377-0650, Fax: (804) 377-0651; 4501 Daly Drive, Suite 400, Chantilly, VA 20151, Phone: (703) 263-0101, Fax: (703) 263-0201; 401 Wythe Creek Drive, Suite 100, Poquoson, VA 23662, Phone: (757) 868-6511, Fax: (757) 868-6511

TOWN OF VIENNA

11/12/2018

FINAL PLAN

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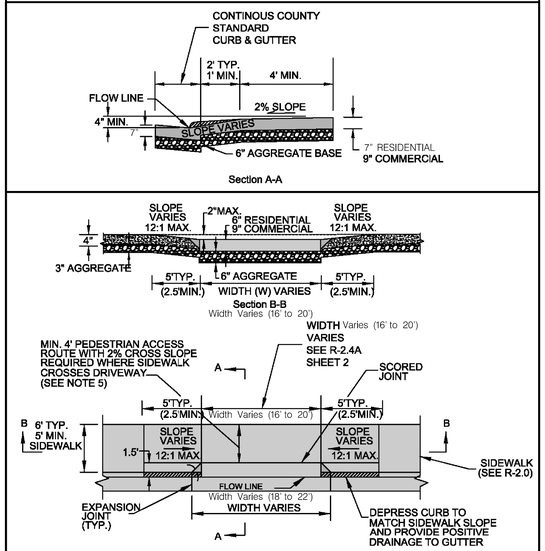
Northern Virginia Office: 4309 Howard Avenue, Suite 201, Manassas, VA 20110, Phone: (540) 207-0160
Rinker Design Associates, P.C. — Civil Engineering · Surveying · Land Planning · Transportation · Environmental · Right-of-Way Services
RDA Rinker
Design Associates, P.C.
10807 PARKRIDGE BLVD.
Reston, VA 20191
Office: 703.860.9366
Fax: 703.860.9367
www.rinkerdesign.com

PROJECT MANAGER: Town of Vienna Public Works Dept.; Michael Gallagher, P.E., (703) 255-6383
SURVEYED BY, DATE: Rinker Design Associates, P.C.; Sidney Thomas, L.S., (703) 368-7373, April 2015
DESIGN BY: Rinker Design Associates, P.C.; Adam Welschenbach, PE (703) 368-7373
SUBSURFACE UTILITY BY, DATE: Mid-Atlantic Utility Locating, LLC, April 2015.

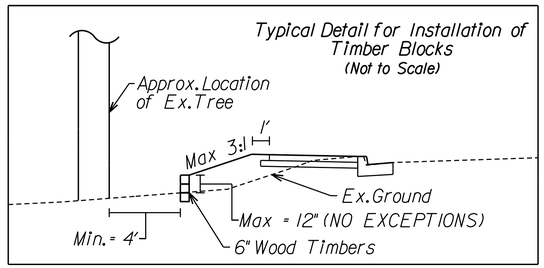
Typical Sections & Details

Standard R-2.4C



CONCRETE DRIVEWAY ENTRANCE (MOUNTABLE CURB)	07-08 04-10 9/26/13 Naming REVISION & DATE
	DRAWING NO. **R-2.4C** Sheet 1 of 2

Typical Detail for Installation of Timber Blocks (Not to Scale)



PRIVATE ENTRANCES

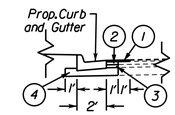
Concrete Entrance Pavement
7" HES
6" Aggr. Base Mat'l. Ty. I
No. 21A or 21B

Asphalt Conc. Type SM-9.5A or SM-9.5D @ 220 Lbs. per S.Y.
4" Aggr. Base Mat'l. Ty. I
No. 21A or 21B

NOT TO SCALE

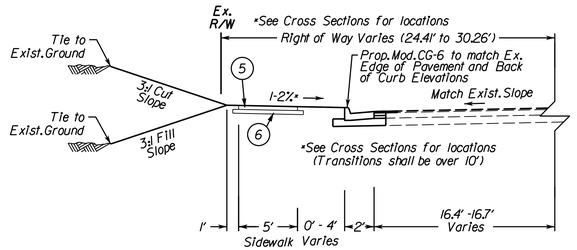
Notes:
1. The type of entrance (II or III) to be constructed will be determined by the existing condition at the time of construction or as directed by the Town Engineer.
2. Contractor shall ensure all driveway grading activities provide for positive drainage during and post-construction of the project. Any ponding/drainage issues arising due to construction activities are the sole responsibility (including costs) of the Contractor. The Contractor shall coordinate with the Town and property owners/residents prior to the start of construction.
3. The Contractor's price for Asphalt Conc., Type SM-9.5D shall include (at no additional cost to the project) the tie to existing driveways, 5' beyond what is shown in the plans, to provide a better (smoother) tie, at the discretion of the Town Engineer.

Recommended Pavement Typical (For "Full Depth Pavement")



1. Surface Course - (1.5") Asph. Conc., Type SM-9.5A
2. Intermediate Course - (3") Asph. Conc., Type IM-19.0A
3. Base Course - (3") Asph. Conc., Type BM-25.0A or match existing, whichever is greater
4. Sub-base Course - (8") Aggregate Base Material, Type I, Size No. 21B or match existing, whichever is greater

Nutley Street (Rte. 6643) Curb and Gutter Section (Not to Scale)



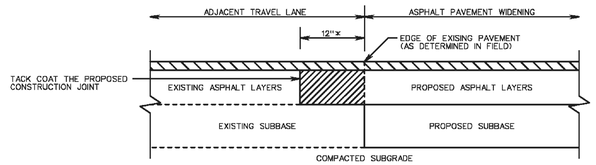
STATION	TO	STATION
100+48.46		105+9.10

5. Concrete Sidewalk - (4") Class A4 Hydraulic Cement Concrete
6. Concrete Sidewalk Base - (4") Aggr. Base Material, Type I, Size No. 21A extended (6") either side of the Sidewalk

TYPICAL SECTION GENERAL NOTES

1. Pavement widening to be performed in accordance with VDOT Std WP-2.
2. Milling of the existing pavement should consist of 2" minimum mill prior to any resurfacing/build-up.

WP-2



CONSTRUCTION JOINT DETAIL

REMOVE EXISTING ASPHALT LAYERS TO EXISTING SUBBASE AND REPLACE WITH PROPOSED ASPHALT WIDENING LAYERS

PROPOSED MINIMUM 1½ INCH THICK ASPHALT SURFACE COURSE (SEE NOTE 5)

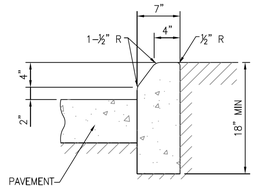
* MINIMUM 12 INCHES, OR GREATER AS NECESSARY TO ABUT THE FULL THICKNESS OF EXISTING ASPHALT LAYERS AS DETERMINED BY CORES (SEE NOTE 3)

NOTES:
1. ASPHALT PAVEMENT WIDENING SHALL HAVE A PAVEMENT DESIGN IN ACCORDANCE WITH CURRENT VDOT PROCEDURES AND BE APPROVED BY THE ENGINEER.
2. THE PAVEMENT DESIGN FOR ASPHALT PAVEMENT WIDENING SHALL MEET OR EXCEED THE DEPTHS AND TYPES OF THE LAYERS OF EXISTING PAVEMENT. SUBSURFACE DRAINAGE OF THE EXISTING AND PROPOSED PAVEMENT SHALL BE ADDRESSED IN THE PAVEMENT DESIGN.
3. A MINIMUM OF THREE CORES SHALL BE TAKEN ALONG THE CENTER OF THE ADJACENT TRAVEL LANE TO DETERMINE THE TYPE AND THICKNESS OF EXISTING PAVEMENT LAYERS. THESE CORES SHALL BE SPACED NO MORE THAN 500 FEET APART.
4. THE ADJACENT TRAVEL LANE SHALL BE MILLED A MINIMUM DEPTH OF 1½ INCHES AND REPLACED WITH AN ASPHALT SURFACE COURSE TO MATCH THE PROPOSED PAVEMENT WIDENING SURFACE COURSE, UNLESS WAIVED BY THE ENGINEER.
5. THE ENGINEER MAY REQUIRE THE MILLING DEPTH OF THE EXISTING PAVEMENT TO BE ADJUSTED TO ACHIEVE AN ACCEPTABLE PAVEMENT CROSS-SLOPE AND EFFECTIVE SURFACE DRAINAGE.
6. EXISTING PAVEMENT MARKINGS AND MARKERS WITHIN THE PROJECT LIMITS SHALL BE RESTORED SUBJECT TO THE APPROVAL OF THE ENGINEER.
7. FINAL TRANSVERSE PAVEMENT TIE-IN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 315.05(c) OF THE SPECIFICATIONS EXCEPT THAT ALL JOINTS AT TIE-IN LOCATIONS SHALL BE TESTED USING A 10 FOOT STRAIGHTEDGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 315.07(a) OF THE SPECIFICATIONS.

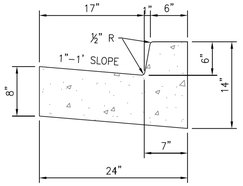
* The Contractor shall obtain two pavement cores to verify existing pavement structure.

VDOT ROAD AND BRIDGE STANDARDS	ASPHALT PAVEMENT WIDENING FOR WIDENING SUBJECT TO TRAFFIC VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 1 | REVISION DATE		315
303.02		

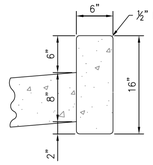
MODIFIED CG-6



STANDARD MEDIAN CURB



STANDARD CURB & GUTTER



STANDARD HEADER CURB

NOTES:
1. CONSTRUCTION JOINTS AT 10' ON CURB.
2. ALL CONCRETE SHALL BE CLASS A-4, AIR-ENTRAINED.
3. EXPANSION JOINTS IN HEADER CURB, CURB AND GUTTER TO BE 40' APART AND AT ALL POINTS AT THE P.C. & P.T. OF CURVES.
4. CONSTRUCTION JOINTS IN SIDEWALK TO BE 5' APART. EXPANSION JOINTS IN SIDEWALK TO BE 40' APART. IF SIDEWALK IS AT THE CURB, EXPANSION JOINTS TO MATCH JOINT IN CURB, ALSO EXPANSION JOINTS BETWEEN CURB AND SIDEWALK. DOWELS AND SLEEVES TO BE INSTALLED IN C&G JOINTS WHERE SUB-GRADE IS UNSTABLE.
5. EXPANSION JOINTS REQUIRED WHERE SIDEWALKS MEET DRIVEWAY APRONS.

Town of Vienna	STANDARD CURB, GUTTER & SIDEWALK TOWN OF VIENNA DEPARTMENT OF PUBLIC WORKS	PREPARED: 11-10-2010 REVISED: 5-18-2011

ADAM D. WELSCHENBACH Lic. No. 044359 — COMMONWEALTH OF VIRGINIA — PROFESSIONAL ENGINEER

Adam Welschenbach
2018.11.17 15:28:13 -05'00'

Rinker Design Associates, P.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	2A

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

	PROJECT	SHEET NO.
	EN15-153-110	2A

TOWN OF VIENNA

11/12/2018

FINAL PLAN

PROJECT MANAGER Town of Vienna Public Works Dept: Michael Gallagher P.E. (703) 255-6383
SURVEYED BY, DATE Rinker Design Associates, P.C.: Sidney Thomas, L.S. (703) 368-7373, April 2015
DESIGN BY Rinker Design Associates, P.C.: Adam Welschenbach, PE (703) 368-7373
SUBSURFACE UTILITY BY, DATE Mid-Atlantic Utility Locating, LLC, April 2015

Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Environmental
Right of Way Services
www.RDAcivil.com
Office Locations
9385 Discovery Boulevard, Suite 200, Manassas, VA 20109, Phone: (703) 368-7373, Fax: (703) 257-5443
4301 Dominion Boulevard, Suite 100, Glen Allen, VA 23060, Phone: (804) 612-0665, Fax: (804) 612-0668
927 Maple Grove Drive, Suite 105, Fredericksburg, VA 22407, Phone: (540) 548-4470, Fax: (540) 548-4471

COMMONWEALTH OF VIRGINIA
ADAM D. WELSCHENBACH
Lic. No. 044359
PROFESSIONAL ENGINEER

Adam Welschenbach
2018.11.17 15:27:57 -05'00'

Rinker Design Associates, P.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	3

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

Utility Owners

Cox Comunications
Dominion Energy
Washington Gas
Verizon
T.O.V. Water
T.O.V. Sanitary

Roadway Design Legend

1 — Denotes Mod. CG-6 Req'd.
2 — Denotes Prop. 5' Concrete Sidewalk
3 — Denotes Tie to Existing Curb & Gutter
5 — Denotes Tie to Existing Concrete Walk
6 — Denotes Prop. Tree
7 — Denotes Prop. Timber Blocks (to save trees)
8 — Denotes Remove Existing Pipe
9 — Denotes Reset Fence to Existing Town R/W
10 — Denotes Replace Existing Fence in Place
11 — Denotes Reset Existing Water Meter
12 — Denotes Relocate Existing Water Meter
13 — Denotes Replace Existing Gate

C — Denotes Construction Limits in Cuts
F — Denotes Construction Limits in Fills

PAVEMENT LEGEND

- Full-Depth Pavement
- Demolition of Pavement
- Mill and Overlay/ Resurface Pavement
- Porous Sidewalk

Notes:
1. All mailboxes to be relocated through coordination with Town Engineer and Property Owner.
2. Existing fence shall be reset or relocated in kind to logical joint in fence; as directed by Town Engineer.
3. See Contract Special Provisions for details/requirements concerning full depth pavement replacement.

TOWN OF VIENNA

11/12/2018

SCALE	PROJECT	SHEET NO.
0 25' 50'	EN15-153-110	3

FINAL PLAN

Office Locations
4031 University Drive, Suite 200, Fairfax, VA 22030, Phone: (703) 267-6969
4301 Dominion Boulevard, Suite 100, Glen Allen, VA 23060, Phone: (804) 377-0650
4241 Dominion Boulevard, Suite 200, Glen Allen, VA 23060, Phone: (804) 377-0650
401 Theodore Fremd Avenue, Suite 200, Rye, NY 10580, Phone: (914) 921-1020
Rinker Design Associates, P.C. Civil Engineering - Surveying - Land Planning Transportation - Environmental Right-of-Way Services

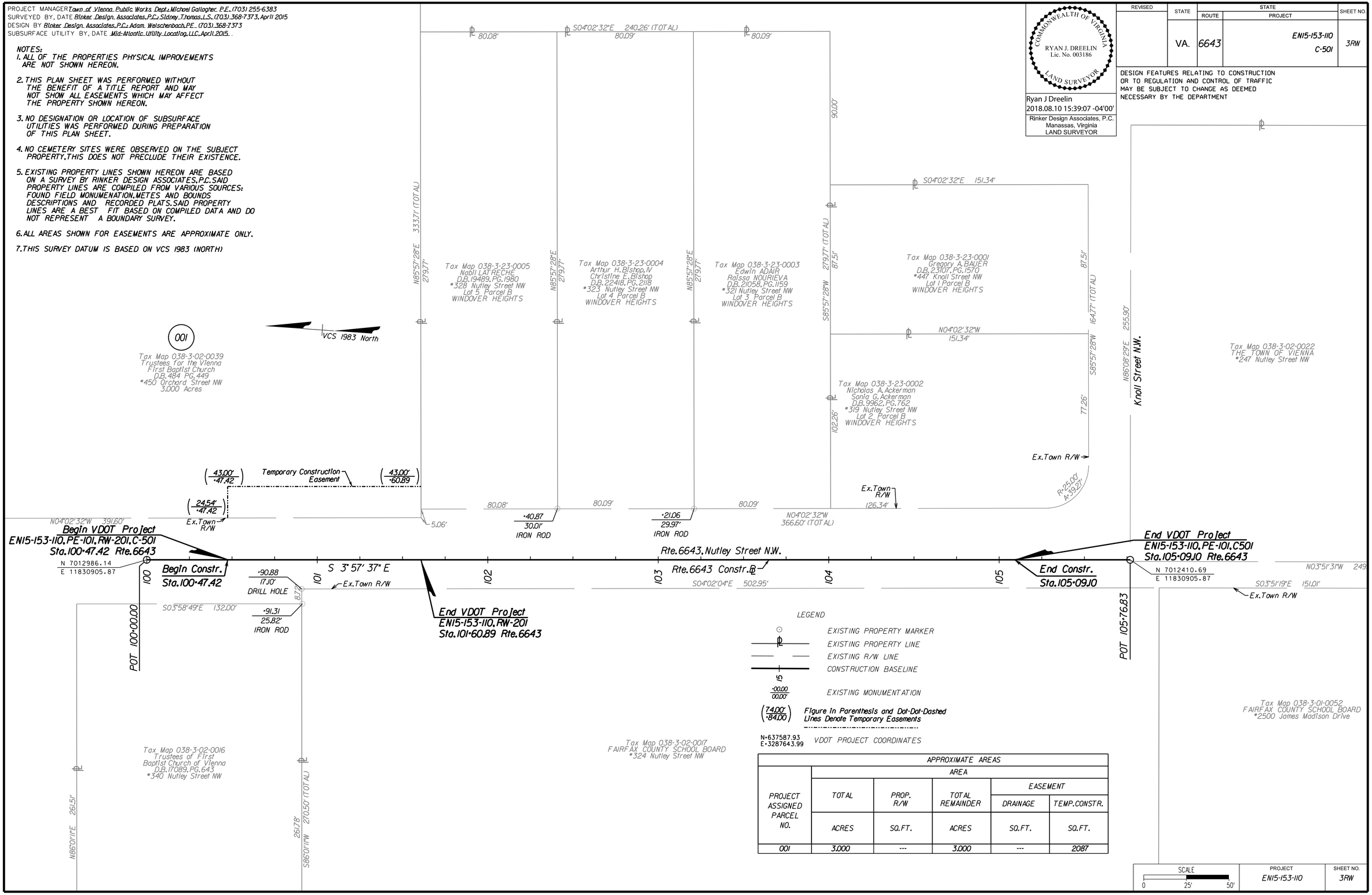
PROJECT MANAGER: Town of Vienna Public Works Dept.: Michael Gallagher, P.E., (703) 255-6383
SURVEYED BY, DATE: Rinker Design Associates, P.C.: Sidney Thomas, L.S., (703) 368-7373, April 2015
DESIGN BY: Rinker Design Associates, P.C.: Adam Welschenbach, PE (703) 368-7373
SUBSURFACE UTILITY BY, DATE: Mid-Atlantic Utility Locating, LLC, April 2015.

NOTES:
1. ALL OF THE PROPERTIES PHYSICAL IMPROVEMENTS ARE NOT SHOWN HEREON.
2. THIS PLAN SHEET WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL EASEMENTS WHICH MAY AFFECT THE PROPERTY SHOWN HEREON.
3. NO DESIGNATION OR LOCATION OF SUBSURFACE UTILITIES WAS PERFORMED DURING PREPARATION OF THIS PLAN SHEET.
4. NO CEMETERY SITES WERE OBSERVED ON THE SUBJECT PROPERTY. THIS DOES NOT PRECLUDE THEIR EXISTENCE.
5. EXISTING PROPERTY LINES SHOWN HEREON ARE BASED ON A SURVEY BY RINKER DESIGN ASSOCIATES, P.C. SAID PROPERTY LINES ARE COMPILED FROM VARIOUS SOURCES: FOUND FIELD MONUMENATION, METES AND BOUNDS DESCRIPTIONS AND RECORDED PLATS. SAID PROPERTY LINES ARE A BEST FIT BASED ON COMPILED DATA AND DO NOT REPRESENT A BOUNDARY SURVEY.
6. ALL AREAS SHOWN FOR EASEMENTS ARE APPROXIMATE ONLY.
7. THIS SURVEY DATUM IS BASED ON VCS 1983 (NORTH)

COMMONWEALTH OF VIRGINIA
RYAN J. DREELIN
Lic. No. 003186
LAND SURVEYOR
Ryan J Dreelin
2018.08.10 15:39:07 -04'00'
Rinker Design Associates, P.C.
Manassas, Virginia
LAND SURVEYOR

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	3RW

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



LEGEND

- EXISTING PROPERTY MARKER
- EXISTING PROPERTY LINE
- EXISTING R/W LINE
- CONSTRUCTION BASELINE
- 15 / -00.00 / 00.00 — EXISTING MONUMENTATION
- (74.00' / -84.00') Figure in Parenthesis and Dot-Dot-Dashed Lines Denote Temporary Easements

N-637587.93
E-3287643.99 VDOT PROJECT COORDINATES

PROJECT ASSIGNED PARCEL NO.	APPROXIMATE AREAS: AREA TOTAL (ACRES)	PROP. R/W (SQ.FT.)	TOTAL REMAINDER (ACRES)	EASEMENT: DRAINAGE (SQ.FT.)	EASEMENT: TEMP.CONSTR. (SQ.FT.)
001	3.000	---	3.000	---	2087

SCALE 0 25' 50' | PROJECT EN15-153-110 | SHEET NO. 3RW

TOWN OF VIENNA

8/10/2018

R/W PLAN

Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Environmental
Right of Way Services
Office Locations
Main Office: 4101 Dominion Boulevard, Suite 100, Glen Allen, VA 23060, Phone: (804) 377-0650, Fax: (804) 377-0651
Northern Virginia Office: 10529 Battleview Parkway, Manassas, VA 20109, Phone: (540) 347-4488, Fax: (540) 347-4515
Shenandoah Valley Office: 401 Wythe Creek Drive, Suite 100, Poquoson, VA 23662, Phone: (757) 868-6511, Fax: (757) 868-6511

PROJECT MANAGER Town of Vienna Public Works Dept.: Michael Gallagher, P.E., (703) 255-6383
SURVEYED BY, DATE Rinker Design Associates, P.C.: Sidney Thomas, L.S., (703) 368-7373, April 2015
DESIGN BY Rinker Design Associates, P.C.: Adam Welschenbach, P.E., (703) 368-7373
SUBSURFACE UTILITY BY, DATE Mid-Atlantic Utility Locating, LLC, April 2015.

Signage and Pavement Marking Plan

**** Pavement Marking Legend ****

- (A) Type B, Class I, Yellow, 4" Width, Double Line, 4" Space
- (TE) Denotes Tie to Existing Pavement Marking
- Shading Denotes Areas of New Surface Pavement

Legend for Signage Plans	
SIGNAGE	Remove Sign(s) and Post(s)
	Proposed Ground Mounted Sign
	Existing Ground Mounted Sign
SIGNAGE	Proposed Sign Panel
SIGNAGE	Existing Sign Panel
SIGNAGE	Existing Sign Panel (Future Construction)

Note: All proposed sign structures shall use ST.P-1, 2" 14 GA. Posts with Type A Foundations.

Tax Map 038-3-23-0005
Nabil LATRECHE
D.B. 19489, PG. 1980
*328 Nutley Street NW
Lot 5 Parcel B
WINDOVER HEIGHTS

Tax Map 038-3-23-0004
Arthur H. Bishop, IV
Christine E. Bishop
D.B. 22418, PG. 2118
*323 Nutley Street NW
Lot 4 Parcel B
WINDOVER HEIGHTS

Tax Map 038-3-23-0003
Edwin ADAIR
Raissa NOURIEVA
D.B. 21058, PG. 1159
*321 Nutley Street NW
Lot 3 Parcel B
WINDOVER HEIGHTS

Tax Map 038-3-23-0001
Gregory A. BAUER
D.B. 23107, PG. 1570
*447 Knoll Street NW
Lot 1 Parcel B
WINDOVER HEIGHTS

Tax Map 038-3-23-0002
Nicholas A. Ackerman
Sonia G. Ackerman
D.B. 9962, PG. 762
*319 Nutley Street NW
Lot 2 Parcel B
WINDOVER HEIGHTS

Tax Map 038-3-02-0022
THE TOWN OF VIENNA
*247 Nutley Street NW

Tax Map 038-3-02-0039
Trustees for the Vienna
First Baptist Church
D.B. 484 PG. 449
*450 Orchard Street NW
3.000 Acres

Tax Map 038-3-02-0016
Trustees of First
Baptist Church of Vienna
D.B. 17089, PG. 643
*340 Nutley Street NW

Tax Map 038-3-02-0017
FAIRFAX COUNTY SCHOOL BOARD
*324 Nutley Street NW

Tax Map 038-3-01-0052
FAIRFAX COUNTY SCHOOL BOARD
*2500 James Madison Drive

St'd. SI-1 30" x 30"
St'd. W16-7P 24" x 12"
Temporary Construction Easement
Mod. R7-2 12" x 18"
St'd. R7-2 12" x 18"
Mod. W1-7 12" x 8"
Ex. Town R/W
Ex. Vines
Ex. Bushes
Conc. SW
Begin VDOT Project EN15-153-110, PE-101, RW-201, C-501 Sta. 100+47.42 Rte. 6643
Begin Constr. Sta. 100+47.42
Note: Ex. Crosswalk is primarily for day-care across from elementary school. Town maintains crosswalk.
Rte. 6643, Nutley Street N.W.
Rte. 6643 Constr. ℄
End VDOT Project EN15-153-110, RW-201 Sta. 101+60.89 Rte. 6643
End VDOT Project EN15-153-110, PE-101, C-501 Sta. 105+09.10 Rte. 6643
End Constr. Sta. 105+09.10
St'd. W16-2AP 24" x 12"
200 FT
St'd. W16-2A 24" x 12"
Mod. R7-23 12" x 18"
Only remove panel.
Ex. Town R/W
SAN
Conc.
100 101 102 103 104 105

ADAM D. WELSCHENBACH
Lic. No. 044359
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER
Adam Welschenbach
2018.11.17 15:27:34 -05'00'
Rinker Design Associates, P.C.
Manassas, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	5

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

SCALE	PROJECT	SHEET NO.
0 25' 50'	EN15-153-110	5

TOWN OF VIENNA

11/12/2018

FINAL PLAN

11/12/2018
10:11:44 AM

PROJECT MANAGER Town of Vienna, Public Works Dept.; Michael Gallagher, (703) 255-6383
SURVEYED BY, DATE Rinker Design Associates, P.C.; Sidney Thomas, L.S. (703) 368-7373, July 2014
DESIGN BY Rinker Design Associates, P.C.; Adam Weisenbach, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Mid-Atlantic Utility Locating, LLC. August 2014

CROSS SECTIONS

SCALE 1 IN. = 10 FT

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	XI

Nutley Street (Rte. 6643)

100+55.89
Approx. Location of Ex.19" Tree
422.34 26.66' LT
422.97 24.75' LT
422.54 23.75' LT
422.95 18.51' LT
422.39 16.51' LT
43.00' LT
Temp. Constr. Ease.
R/W EXIST
3:1
2.00%

100+50.00
43.00' LT
24.53' LT
EXIST R/W
Temp. Constr. Ease.

100+25.00
24.50' LT
EXIST R/W

100+00.00

101+50.00
42.52 30.94' LT
43.00' LT
Temp. Constr. Ease.
3:1
2.00%
423.62 24.64' LT
423.60 23.64' LT
423.50 18.64' LT
423.15 16.64' LT
17.02' RT
EXIST R/W
24.67' LT

101+25.00
Approx. Location of Ex.24" Tree
420.97 31.93' LT
43.00' LT
Temp. Constr. Ease.
3:1
2.00%
24.64' LT
423.40 24.62' LT
423.38 23.62' LT
423.28 18.62' LT
422.94 16.62' LT
R/W EXIST
17.05' RT
EXIST R/W

101+00.00
Approx. Location of Ex.21" Tree
420.76 31.91' LT
43.00' LT
Temp. Constr. Ease.
3:1
2.00%
24.60' LT
423.19 24.60' LT
423.17 23.60' LT
423.07 18.60' LT
422.73 16.60' LT
R/W EXIST
17.08' RT
EXIST R/W

100+75.00
420.87 31.13' LT
43.00' LT
Temp. Constr. Ease.
3:1
2.00%
24.57' LT
423.07 24.55' LT
423.05 23.55' LT
422.95 18.55' LT
422.54 16.55' LT
R/W EXIST

Station 100+00.00 To Station 101+50.00

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

PROJECT	SHEET NO.
EN15-153-110	XI

11/12/2018

11/12/2018

10:11:44 AM

PROJECT MANAGER Town of Vienna, Public Works, Dept.; Michael Gallagher, (703) 255-6383
SURVEYED BY, DATE Rinker Design Associates, P.C.; Sidney Thomas, L.S. (703) 368-7373, July 2014
DESIGN BY Rinker Design Associates, P.C.; Adam Weisctenbach, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Mid-Atlantic Utility Locating, LLC. August 2014

CROSS SECTIONS

SCALE 1 IN. = 10 FT

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	X2

Nutley Street (Rte. 6643)

102+25.00

EXIST R/W 29.84' LT; 425.54 24.28 LT; 425.47 21.07 LT; 425.26 18.57 LT; 425.42 16.57 LT; EXIST R/W 16.92' RT

2.00% 8.59%

St'd. R-2.4C Req'd.

103+00.00

EXIST R/W 29.94' LT; 427.91 27.22 LT; 427.61 23.64 LT; 427.56 21.14 LT; 427.26 18.64 LT; 427.43 16.64 LT; EXIST R/W 16.83' RT

10.00% 2.00% 12.00%

St'd. R-2.4C Req'd.

102+00.00

424.08 35.82 LT; EXIST R/W 29.80' LT; 424.31 26.60 LT; 424.00 23.54 LT; 424.08 18.54 LT; 424.46 16.54 LT; EXIST R/W 16.96' RT

8.17% 2.00%

102+75.00

Approx. Location of Ex. 37" Tree. Contractor shall take extra caution to not disturb tree. Coordination with Town Arborist required prior to start of work.

EXIST R/W 29.91' LT; 427.68 25.35 LT; 427.60 21.35 LT; 427.60 21.13 LT; 427.40 18.64 LT; 426.98 16.64 LT; EXIST R/W 16.86' RT

2.00%

101+75.00

EXIST R/W 29.77' LT; 423.31 26.60 LT; 423.58 23.53 LT; 423.41 18.55 LT; 423.58 16.55 LT; EXIST R/W 16.99' RT

9.00% 1.00%

St'd R-2.4C Req'd

102+50.00

Approx. Location of Ex. 28" Tree

EXIST R/W 29.87' LT; 426.44 25.83 LT; 426.85 24.61 LT; 426.83 23.61 LT; 425.73 18.61 LT; 426.26 16.61 LT; EXIST R/W 16.89' RT

2.00% 3:1

101+71.68

Entrance Profile for #328 Nutley St. NW

EXIST R/W 29.76' LT; 423.21 26.83 LT; 423.50 23.57 LT; 423.34 18.58 LT; 423.50 16.58 LT; EXIST R/W 16.99' RT

9.00% 1.00%

St'd R-2.4C Req'd

102+28.13

Entrance Profile for #328 Nutley St. NW

EXIST R/W 29.84' LT; 425.65 24.58 LT; 425.58 21.08 LT; 425.37 18.58 LT; 425.54 16.58 LT; EXIST R/W 16.92' RT

2.00% 8.59%

St'd R-2.4C Req'd

Station 101+71.68 To Station 103+00.00

PROJECT	SHEET NO.
EN15-153-110	X2

11/12/2018

11/12/2018

10:11:44 AM

PROJECT MANAGER Town of Vienna, Public Works, Dept.; Michael Gallagher, (703) 255-6383
SURVEYED BY, DATE Rinker Design Associates, P.C.; Sidney Thomas, L.S. (703) 368-7373, July 2014
DESIGN BY Rinker Design Associates, P.C.; Adam Weisctenbach, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Mid-Atlantic Utility Locating, LLC. August 2014

CROSS SECTIONS

SCALE 1 IN. = 10 FT

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	ENI5-153-110 C-501	X3

Nutley Street (Rte. 6643)

103+50.00

EXIST R/W: 30.02' LT; 26.44 LT; 24.43 LT; 23.43 LT; 16.43 LT
427.48; 428.15; 428.13; 428.03; 427.80
3:1 2.00%
EXIST R/W: 16.76' RT

104+50.00

EXIST R/W: 30.16' LT; 27.20' LT; 24.04' LT; 23.54' LT; 16.54 LT
424.82; 425.87; 425.86; 425.81; 425.40
3:1 1.00%
EXIST R/W: 16.63' RT

Entrance Profile for #321 Nutley St. NW

EXIST R/W: 30.00' LT; 23.47' LT; 20.97' LT; 18.47' LT; 16.47' LT
427.80; 427.75; 427.49; 427.65
2.00% 10.11%
St'd. R-2.4C Req'd.
EXIST R/W: 16.78' RT

103+37.79

EXIST R/W: 30.12' LT; 28.11' LT; 24.03' LT; 23.53' LT; 18.53 LT; 16.53' LT
425.04; 426.66; 426.66; 426.61; 426.18
2.5:1 1.00%
EXIST R/W: 16.66' RT

104+25.00

103+25.00

EXIST R/W: 29.98' LT; 24.92 LT; 24.49 LT; 23.49 LT; 18.49 LT; 16.49 LT
428.06; 428.20; 428.18; 428.08; 427.68
Approx. Location of Ex. 4" Tree
2.00%
3:1
EXIST R/W: 16.79' RT

104+00.00

EXIST R/W: 30.08' LT; 25.82 LT; 24.04 LT; 23.54 LT; 18.54 LT; 16.54 LT
425.52; 427.43; 427.43; 427.38; 426.94
Approx. Location of Ex. 6" Tree
2.5:1 1.00%
EXIST R/W: 16.70' RT

Entrance Profile for #323 Nutley St. NW

EXIST R/W: 29.95' LT; 25.88 LT; 23.63' LT; 21.13 LT; 18.63 LT; 16.63 LT
427.86; 427.58; 427.63; 427.53; 427.49
8.00% 2.00% 12.00%
St'd. R-2.4C Req'd.
EXIST R/W: 16.82' RT

103+04.82

EXIST R/W: 30.05' LT; 27.44 LT; 24.49 LT; 23.49 LT; 18.49 LT; 16.49 LT
426.58; 427.26; 427.15; 427.70; 427.27
2.5:1 1.00%
EXIST R/W: 16.73' RT

103+75.00

Station 103+04.82 To Station 104+50.00

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

PROJECT	SHEET NO.
ENI5-153-110	X3

11/12/2018

11/12/2018
10:11:45 AM

PROJECT MANAGER Town of Vienna, Public Works, Dept.; Michael Gallagher, (703) 255-6383
SURVEYED BY, DATE Rinker Design Associates, P.C.; Sidney Thomas, L.S. (703) 368-7373, July 2014
DESIGN BY Rinker Design Associates, P.C.; Adam Weisenbach, P.E. (703) 368-7373
SUBSURFACE UTILITY BY, DATE Mid-Atlantic Utility Locating, LLC, August 2014

CROSS SECTIONS

SCALE 1 IN. = 10 FT

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	6643	EN15-153-110 C-501	X4

Nutley Street (Rte. 6643)

105+25.00

30.27' LT — EXIST R/W
16.54' RT — EXIST R/W

105+00.00

30.23' LT — EXIST R/W
423.64 24.39' LT
423.79 23.95' LT
423.78 23.45' LT
2.00%
3:1
423.68 18.45' LT
423.50 16.45' LT
16.57' RT — EXIST R/W

104+75.00

30.09' LT — EXIST R/W
673.72 29.73' LT
674.34 23.51' LT
10.00% 0.50% 4.58%
674.32 18.51' LT
674.48 16.49' LT
St'd. R-2.4C Req'd.
16.60' RT — EXIST R/W

*329 Nutley St. NW

104+69.16

30.09' LT — EXIST R/W
424.01 29.19' LT
424.57 23.51' LT
10.00% 0.50% 4.58%
424.55 18.51' LT
424.72 16.51' LT
St'd. R-2.4C Req'd.
16.61' RT — EXIST R/W

105+75.00

16.47' RT — EXIST R/W

105+50.00

44.47' LT — EXIST R/W
16.50' RT — EXIST R/W

Station 104+69.16 To Station 105+75.00

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

PROJECT	SHEET NO.
EN15-153-110	X4

11/12/2018