

**GENERAL NOTES**

OWNER/ DEVELOPER:  
TOWN OF VIENNA  
DEPARTMENT OF PUBLIC WORKS  
127 CENTER STREET, SOUTH  
VIENNA, VA 22180

1. THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. IF DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS, THEY SHOULD IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE UTILITY AND ASSURE THE CONTINUANCE OF SERVICE. THE ENGINEER DOES NOT CERTIFY TO THE LOCATION OR EXISTENCE OF ANY UNDERGROUND UTILITY SHOWN ON THIS PLAN. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 PRIOR TO COMMENCEMENT OF ANY EXCAVATION.

2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON THE FIELD RUN SURVEY PERFORMED BY URBAN, LTD IN OCT, 2021. HORIZONTAL DATUM IS NAD1983 AND VERTICAL DATUM IS NAVD1988.

3. SUBSURFACE UTILITIES SHOWN PER MISS UTILITY MARK OUT FIELD LOCATION.

4. NO TITLE REPORT FURNISHED.

5. CLEARING AND GRADING SHALL BE IN ACCORDANCE WITH THE GRADING AND EROSION CONTROL PLANS AND STANDARDS SET FORTH BY THE VIRGINIA EROSION AND SEDIMENTATION CONTROL HANDBOOK. ALL LAND ON OR OFF-SITE WHICH IS DISTURBED BY THIS IMPROVEMENT AND WHICH IS NOT BEING BUILT UPON OR SURFACED SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION.

6. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING TRUCKS AND/OR OTHER EQUIPMENT PRIOR TO ENTERING THE TOWN STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS, ALLAY DUST AND TO TAKE WHATEVER MEASURES NECESSARY TO INSURE THAT THE ROAD IS MAINTAINED IN A CLEAN, MUD AND DUST FREE CONDITION AT ALL TIMES. SEE SILTATION AND EROSION CONTROL PLANS/NARRATIVE FOR ADDITIONAL INFORMATION.

7. THE CONTRACTOR SHALL PROTECT AND ADJUST, AS REQUIRED, ALL EXISTING MANHOLES AND VALVES WITHIN THE LIMITS OF DISTURBANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE THAT MAY OCCUR BY HIS FAILURE TO PROPERLY PROTECT THE EXISTING MANHOLES AND VALVES.

8. IF APPLICABLE, ANY UTILITIES AND UTILITY POLES TO BE BRACED DUE TO THIS IMPROVEMENT SHALL BE DONE AT THE EXPENSE OF THE CONTRACTOR PURSUANT TO THE TOWN'S PAY ITEM SCHEDULE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND SCHEDULING ALL UTILITY WORK REQUIRED. THE TOWN WILL COORDINATE WITH DOMINION VIRGINIA POWER IN REGARDS TO RELOCATING ANY POLES DUE TO THIS IMPROVEMENT.

9. ALL STORM SEWER STRUCTURES AND PIPING WITHIN THE AREA OF CONSTRUCTION SHALL BE CLEANED OUT FOLLOWING THE COMPLETION OF CONSTRUCTION.

10. ANY DAMAGE TO EXISTING STREETS, PUBLIC UTILITIES OR PRIVATE UTILITIES, INCLUDING BUT NOT LIMITED TO, VALVE BOXES, WATER METER LIDS, FRAMES OR CROCKS AND WATER LATERALS, DUE TO THIS IMPROVEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

11. ALL CONSTRUCTION DUE TO THIS IMPROVEMENT IS TO BE PERFORMED IN ACCORDANCE WITH THE STANDARDS SET FORTH BY THE STATE OF VIRGINIA AND THE TOWN OF VIENNA.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE TOWN AND THE ENGINEER/SURVEYOR OF ANY CHANGES OR CONDITIONS ATTACHED TO PERMITS OBTAINED FROM TOWN OF VIENNA, OR ANY OTHER AUTHORITY ISSUING PERMITS.

13. A SMOOTH GRADE SHALL BE MAINTAINED FROM CENTERLINE TO THE CURB AND GUTTER TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR PONDING OF WATER ON ANY ROAD OR PARKING AREA.

14. PLANS MAY NOT INCLUDE MINOR SITE FEATURES SUCH AS MAILBOXES, PRIVATE LIGHTING FIXTURES, SIGNS, ETC. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM A PRE-CONSTRUCTION SURVEY OF THE PROPOSED STREETS TO LOCATE THESE PRIVATE FEATURES AND RELOCATE THEM AS NECESSARY.

15. THE CONTRACTOR SHALL INSPECT ALL EXISTING UTILITIES FOR NECESSARY REPAIRS PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES. IF ANY SUCH UTILITY REPAIRS ARE REQUIRED, THE CONTRACTOR WILL COORDINATE THESE REPAIRS WITH THE TOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING OR PROPOSED UTILITIES THAT OCCURS DURING CONSTRUCTION ACTIVITIES. DAMAGED UTILITIES SHALL BE REPAIRED IN A TIMELY FASHION TO LIMIT THE INTERRUPTION OF SERVICE TO THE AFFECTED RESIDENTS.

16. THE CONTRACTOR SHALL NOTIFY THE TOWN AND ENGINEER OF ANY DISCREPANCIES BETWEEN EXISTING FIELD CONDITIONS AND THOSE SHOWN ON THE CONTRACT DOCUMENTS THAT IMPACT PROPOSED CONSTRUCTION ACTIVITIES.

17. ALL CONCRETE AND PAVEMENT DEMOLITION/REMOVAL SHALL EMPLOY SAW CUT JOINTS.

18. ROOT PRUNING SHALL BE TO THE DEPTH OF EXCAVATION, OR 24 INCHES, WHICHEVER IS LESS. A TRENCHER OR VIBRATORY PLOW SHALL BE USED TO PRUNE ALL ROOTS. ROOTS OVER ONE AND ONE-HALF INCHES (1.5") IN DIAMETER SHALL BE CLEANLY CUT BY HAND.

19. A ROOT BIOSTIMULANT SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS TO ALL TREES THAT ARE ROOT PRUNED.

20. CONCRETE PIPE TO BE CLASS III UNLESS OTHERWISE SPECIFIED.

21. SIGHT DISTANCE TO BE MAINTAINED BY CONTRACTOR DURING CONSTRUCTION.

22. THE CONTRACTOR SHALL PROVIDE A SMOOTH GRADE FROM THE LIMITS OF DISTURBANCE TO THE BACK OF SIDEWALK.

23. VDOT STD. IS-1, INLET SHAPING, TO BE UTILIZED ON ALL PROPOSED OR MODIFIED EXISTING STORM STRUCTURES.

24. AIR QUALITY PERMIT NOT REQUIRED PER STATE AIR POLLUTION CONTROL BOARD REGULATION ACOR VII, SECTION 2.706 (G)(2)(1).

25. ALL FINISHED GRADING, SEEDING, SODDING OR PAVING SHALL BE DONE IN SUCH A MANNER TO PRECLUDE THE PONDING OF WATER ON THE SITE.

26. THE CONTRACTOR SHALL INSURE THAT ALL CONSTRUCTION CONFORMS WITH CURRENT FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS, INCLUDING FEDERAL REGULATIONS CONTAINED WITHIN "THE AMERICANS WITH DISABILITIES ACT," ENACTED ON JULY 26, 1990 (AKA "ADA").

27. ALL EARTHWORK OPERATIONS SHALL CONFORM TO THE GEOTECHNICAL NOTES AND DETAILS IF PROVIDED.

28. PRIOR TO ANY LAND DISTURBANCE ACTIVITY WITHIN THE AREA OF WASHINGTON GAS, AND F.C.W.A. MAJOR TRANSMISSION LINES, THE CONTRACTOR MUST NOTIFY THESE UTILITY COMPANIES IN ADVANCE TO ASSURE THEY CAN INSPECT AND APPROVE THE CONSTRUCTION ACTIVITY.

29. NO VISIBLE EVIDENCE OF ANY PLACE OF BURIAL OR HISTORIC SITE WAS ENCOUNTERED ON THE PROPERTY BY THIS FIRM. IF ANY GRAVE YARD OR HISTORIC SITE IS ENCOUNTERED DURING CONSTRUCTION THE CONTRACTOR SHALL CEASE WORK IN THE AREA IMMEDIATELY AND NOTIFY THE OWNER AND ENGINEER.

30. ALL CONSTRUCTION INVOLVING PROBLEM SOIL MUST BE PERFORMED UNDER THE FULL-TIME INSPECTION OF THE GEOTECHNICAL ENGINEER.

31. THE GEOTECHNICAL ENGINEER SHALL FURNISH A WRITTEN OPINION TO THE TOWN AS TO WHETHER OR NOT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS PRIOR TO THE ISSUANCE OF ANY OCCUPANCY OR USE PERMIT.

32. ALL CLEARING, GRADING AND ACTUAL CONSTRUCTION ACTIVITY SHALL BE LIMITED TO BETWEEN THE HOURS OF 7:00 A.M. AND 6:00 P.M., MONDAY THROUGH FRIDAY, AND BETWEEN 8:00 A.M. AND 6:00 P.M. SATURDAY. CONSTRUCTION ACTIVITY ON SUNDAY SHALL BE PROHIBITED. CONTRACTOR SHALL CONFIRM HOURS WITH TOWN OF VIENNA PRIOR TO CONSTRUCTION.

**TOWN OF VIENNA NOTES**

1. NOTIFY THE TOWN OF VIENNA DEPARTMENT OF PUBLIC WORKS AT 703-255-6380 WHEN WORK IS TO BE STARTED.

2. ALL CONTRACTOR GENERATED DEBRIS MUST BE HAULED AWAY BY THE CONTRACTOR OR OWNER.

3. ALL RUNOFF MUST SHEET FLOW ACROSS PROPERTY LINES UNLESS APPROVED OTHERWISE BY THE DIRECTOR OF PUBLIC WORKS.

4. ALL PRIVATE STORM DRAINS (I.E. ROOF DRAINS, SLUMP PUMP ETC.) MUST DAYLIGHT AT A MINIMUM OF 10 FEET FROM A PROPERTY LINE.

5. PRIOR TO THE REMOVAL OF ANY TREES, THE APPLICANT OR THEIR REPRESENTATIVE SHALL CONTACT THE TOWN OF VIENNA ARBORIST AT 703-255-6360 TO COORDINATE HAVING THE TOWN ARBORIST ONSITE DURING ALL TREE REMOVAL.

6. TREE PROTECTION FOR ANY TREE, AS SHOWN ON PLAN, MUST BE INSTALLED PRIOR TO ANY SITE WORK.

**ROAD CONSTRUCTION NOTES**

1. ALL CONSTRUCTION SHALL CONFORM TO CURRENT TOWN OF VIENNA AND VDOT STANDARDS AND SPECIFICATIONS.

2. THE LOCATIONS OF EXISTING UTILITIES ON THESE DRAWINGS ARE GENERALLY APPROXIMATE. IT IS THE CONTRACTOR WHO IS RESPONSIBLE TO ENSURE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES IN THE AREA OF CONSTRUCTION PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL NOTIFY THE OWNER AND URBAN ENGINEERING & ASSOC. OF ANY POTENTIAL CONFLICTS PRIOR TO COMMENCING CONSTRUCTION.

3. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE AND MAKE ALL INSPECTIONS NECESSARY IN ORDER TO DETERMINE THE FULL EXTENT OF WORK REQUIRED TO MAKE THE COMPLETED WORK CONFORM TO THE DRAWINGS AND SPECIFICATIONS.

4. WHERE CONFLICTS REQUIRE RELOCATION OF EXISTING UTILITIES (E.G. AT&T, MCI, C&P, VEPCO, MEDIA GENERAL) UTILITY COMPANIES SHALL BE NOTIFIED.

5. ALL EXISTING SIGNS, FENCES, ETC. DISTURBED BY THIS CONSTRUCTION SHALL BE RELOCATED BY THE CONTRACTOR AS NECESSARY PER TOWN OF VIENNA REQUIREMENTS.

6. ALL EXISTING TOWN OF VIENNA TRAFFIC CONTROL EQUIPMENT WILL BE RELOCATED BY THE CONTRACTOR AS NECESSARY PER VDOT REQUIREMENTS.

7. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROADS AND UTILITIES WHICH OCCUR AS A RESULT OF PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO THE SITE.

8. ANY EXISTING C&G AND PAVEMENT TO REMAIN THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED/REPAIRED TO TOWN OF VIENNA SATISFACTION. C&G TO BE SAW CUT, OTHERWISE REMOVE TO THE NEAREST JOINT.

9. THE CONTRACTOR SHALL CONTACT MISS UTILITY COMPANY REPRESENTATIVE, REVIEW TEST PIT DATA AND ANY OTHER OPERATIONS AVAILABLE TO ENSURE ALL EXISTING UTILITIES IN THE AREA OF CONSTRUCTION ARE SHOWN ON THE PLANS PRIOR TO CONSTRUCTION.

10. WHERE MANHOLES ARE TO BE PLACED IN THE ROAD R/W, THE TOPS SHALL BE OFFSET TO ASSURE THAT THEY AREA POSITIONED TO MINIMIZE IMPACT TO VEHICULAR WHEEL PATHS.

11. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE OWNER OF COMPLYING WITH OTHER APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.

12. ALL FILL MATERIAL REQUIRED TO RAISE GRADES AND UNDER SLABS, WHICH MAY CONSIST OF APPROVED ONSITE SOILS AND/OR OFFSITE BORROW MATERIAL, SHALL BE FREE OF ALL DEBRIS, ORGANIC MATERIAL, AND CLUMPS AND SHALL BE ADJUSTED TO THE PROPER MOISTURE CONTENT BEFORE BEING COMPACTED IN 8" MAXIMUM LAYERS. EACH LAYER TO BE COMPACTED TO 95% DENSITY MODIFIED PROCTOR PER ASTM D1557. BASE AND SUBBASE MATERIAL SHALL BE COMPACTED TO THE REQUIREMENTS OF SECTIONS 308.03, 309.04, AND 309.05 OF VDOT SPECIFICATIONS. SUBGRADE COMPACTION SHALL BE IN ACCORDANCE WITH SECTION 305.03.

13. STANDARD UD-2, UD-3, & UD-4 TO BE UTILIZED IN CONSTRUCTION WITH STANDARD PIPE UNDER DRAIN. UD-2, UD-3, & UD-4 TO BE INSTALLED IN ACCORDANCE WITH VDOT SECTION 108.02, 108.03, AND 108.05.

14. STANDARD GUARDRAILS AND/OR HANDRAILS SHALL BE INSTALLED AT HAZARDOUS LOCATIONS AS DESIGNATED DURING FIELD REVIEW BY THE TOWN OF VIENNA INSPECTOR.

15. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. IF REQUIRED, THE DEVELOPER SHALL SUBMIT A SIGNING, STRIPING AND/OR SIGNALIZATION PLAN TO THE VDOT LAND DEVELOPMENT SECTION A MINIMUM OF 30 DAYS PRIOR TO PERMIT APPLICATION. THE DEVELOPER SHALL NOT COMMENCE CONSTRUCTION OF ANY PAVEMENT COURSE WITHOUT AN APPROVED STRIPING PLAN.

16. A 4" (MIN.) LAYER OF STONE IS REQUIRED BENEATH CURB AND GUTTER.

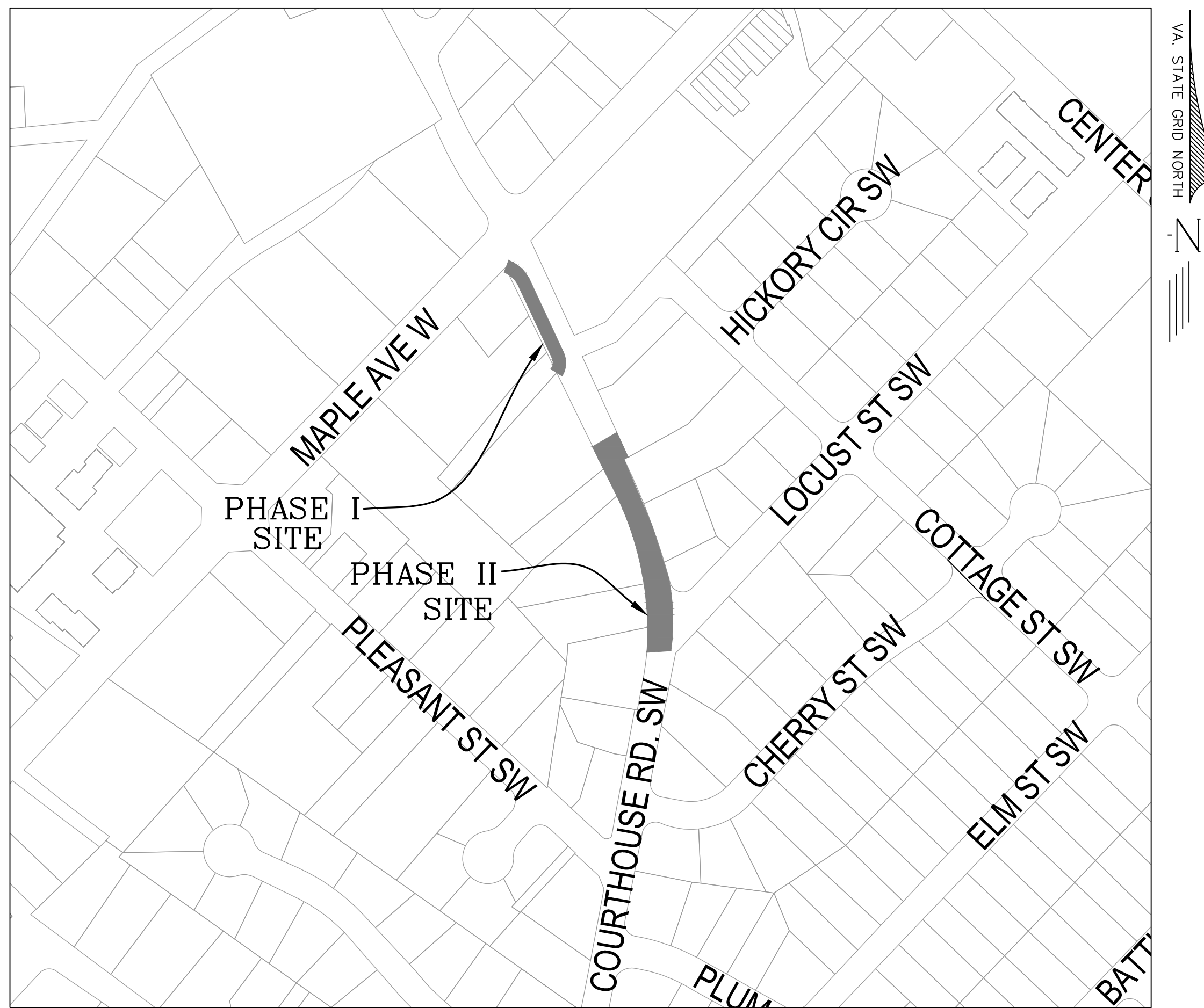
17. ADDITIONAL DITCH LININGS OR SILTATION AND EROSION CONTROL MEASURES SHALL BE PROVIDED, AS DETERMINED NECESSARY BY THE TOWN DURING FIELD REVIEW. ALL COSTS SHALL BE ASSUMED BY THE CONTRACTOR.

18. OVERLAY OF EXISTING PAVEMENT SHALL BE MINIMUM OF 1.25" DEPTH. ANY COSTS ASSOCIATED WITH PAVEMENT OVERLAY, OR THE MILLING OF EXISTING PAVEMENT TO OBTAIN REQUIRED DEPTH, SHALL BE ASSUMED BY THE CONTRACTOR.

# TOWN OF VIENNA DEPARTMENT OF PUBLIC WORKS FAIRFAX COUNTY, VIRGINIA

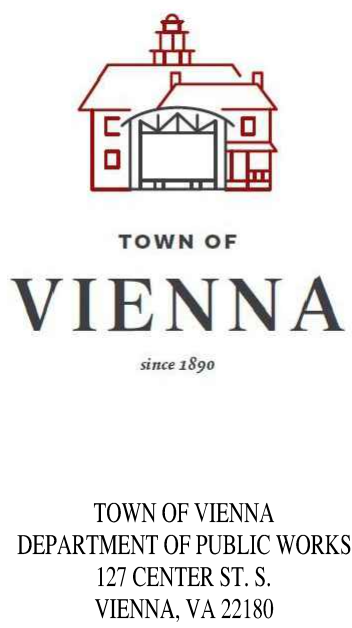
## COURTHOUSE RD SW SIDEWALK IMPROVEMENT PLAN

### 100% DESIGN CONSTRUCTION DRAWINGS



VICINITY MAP  
SCALE : 1" = 200'

**OWNER/DEVELOPER:**



**SURVEY NOTES**

TOPOGRAPHICAL SURVEY PERFORMED BY FIELD RUN BY URBAN, LTD.

VERTICAL  
NOTE: ELEVATIONS SHOWN HEREON ARE BASED ON STATIC GPS OBSERVATIONS AS PROCESSED BY THE NATIONAL GEODETIC SURVEY, ONLINE POSITIONING USER SERVICE (OPUS), AND ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.

HORIZONTAL  
NOTE: BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON STATIC GPS OBSERVATIONS AS PROCESSED BY THE NATIONAL GEODETIC SURVEY, ONLINE POSITIONING USER SERVICE (OPUS), AND ARE REFERENCED TO VIRGINIA STATE GRID NORTH ZONE NAD 83 - US SURVEY FOOT.

UTILITIES  
UNDERGROUND UTILITIES WERE PAINTED BY UTILITIES SEARCH, INC. AND MAPPED INTO THE BASE BY URBAN, LTD.

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15. EROSION AND SEDIMENT CONTROL NARRATIVE AND DETAILS
- S-1 ATTACHMENT RETAINING WALL DESIGN
- S-2 ATTACHMENT RETAINING WALL DESIGN

**NOTICE REQUIRED**

CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION OR BLASTING AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION.

**CONTACT "MISS UTILITY" AT  
1-800-552-7001  
FOR THESE UTILITIES**

VIRGINIA ELECTRIC & POWER CO. COLONIAL PIPELINE CO.  
A.T. & T. CO. FAIRFAX CO. WATER AUTHORITY  
COLUMBIA GAS TRANSMISSION CO. WASHINGTON GAS LIGHT CO.  
FAIRFAX CO. SAN. SEWER DIV. PRINCE WILLIAM ELEC. CO-OP.  
TRANSCO GAS PIPELINE CO. PLANTATION PIPELINE CO.  
COLUMBIA GAS OF VIRGINIA C & P TELEPHONE CO.  
CONTINENTAL TELEPHONE OF VIRGINIA

**CONTACT THESE UTILITIES**

TRI-COUNTY ELEC. CO-OP 1-777-2151 LOUDOUN WATER 571-291-7880  
FALLS CHURCH WATER SER. 1-241-5078 FAIRFAX CITY WATER SER. 385-7916

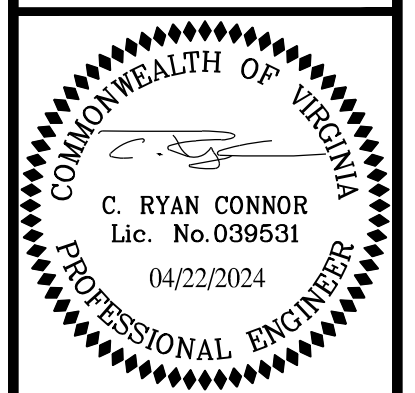
**EMERGENCY DIAL 911  
POLICE - FIRE - RESCUE**

777-1021 777-2222

PLAN DATE	DESCRIPTION	REVIEWED	DATE
12-07-2023	30% PLAN		
03-11-2024	100% PLAN UPDATE		
04-10-2024	100% PLAN		
04-22-2024	95% PLAN		

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04-22-2024	95% PLAN		

Urban Ltd  
7110 Littleton  
Annandale, Virginia 22003  
Tel. 703.642.8080  
Fax. 703.642.8251  
www.urban-ld.com

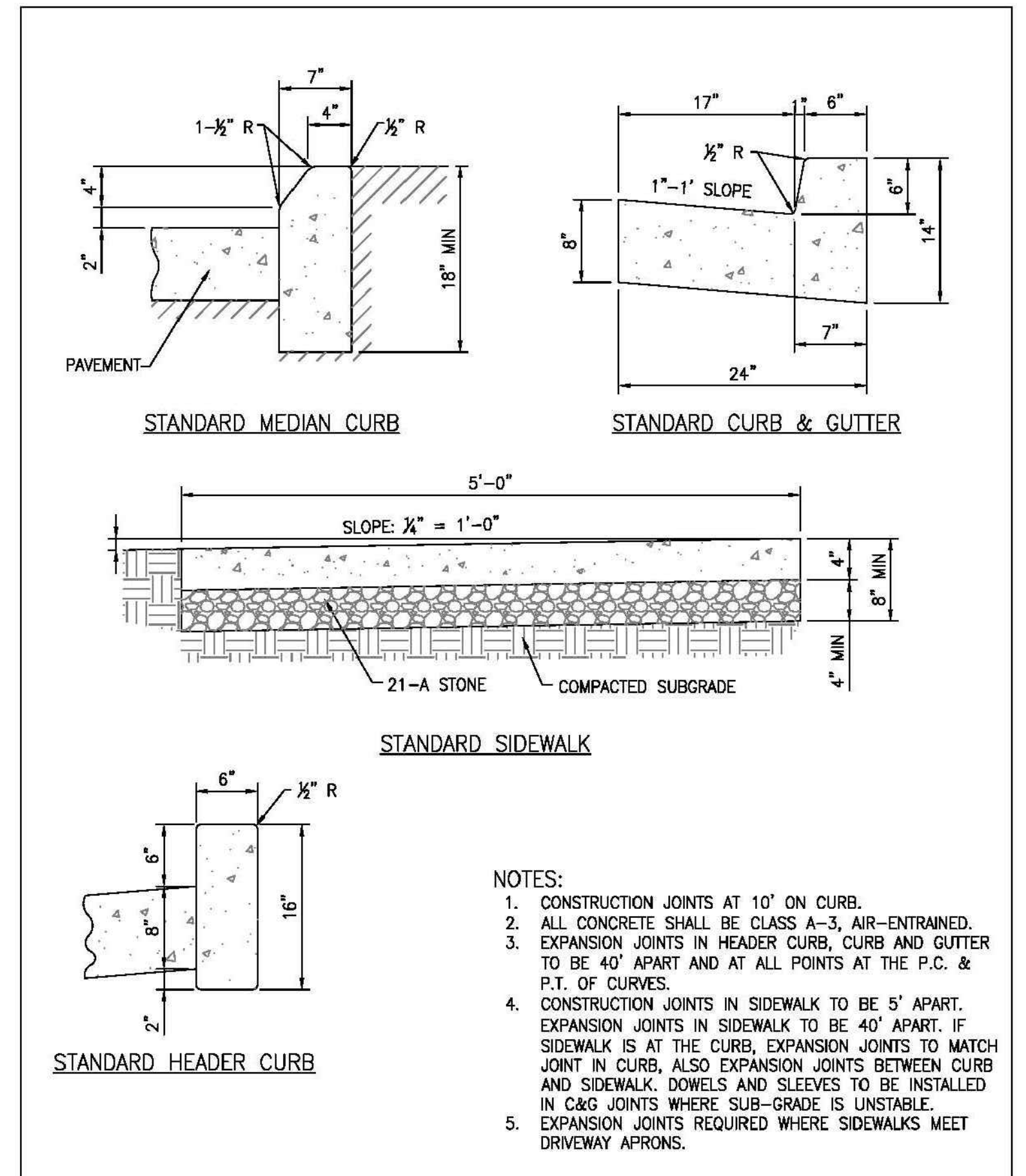
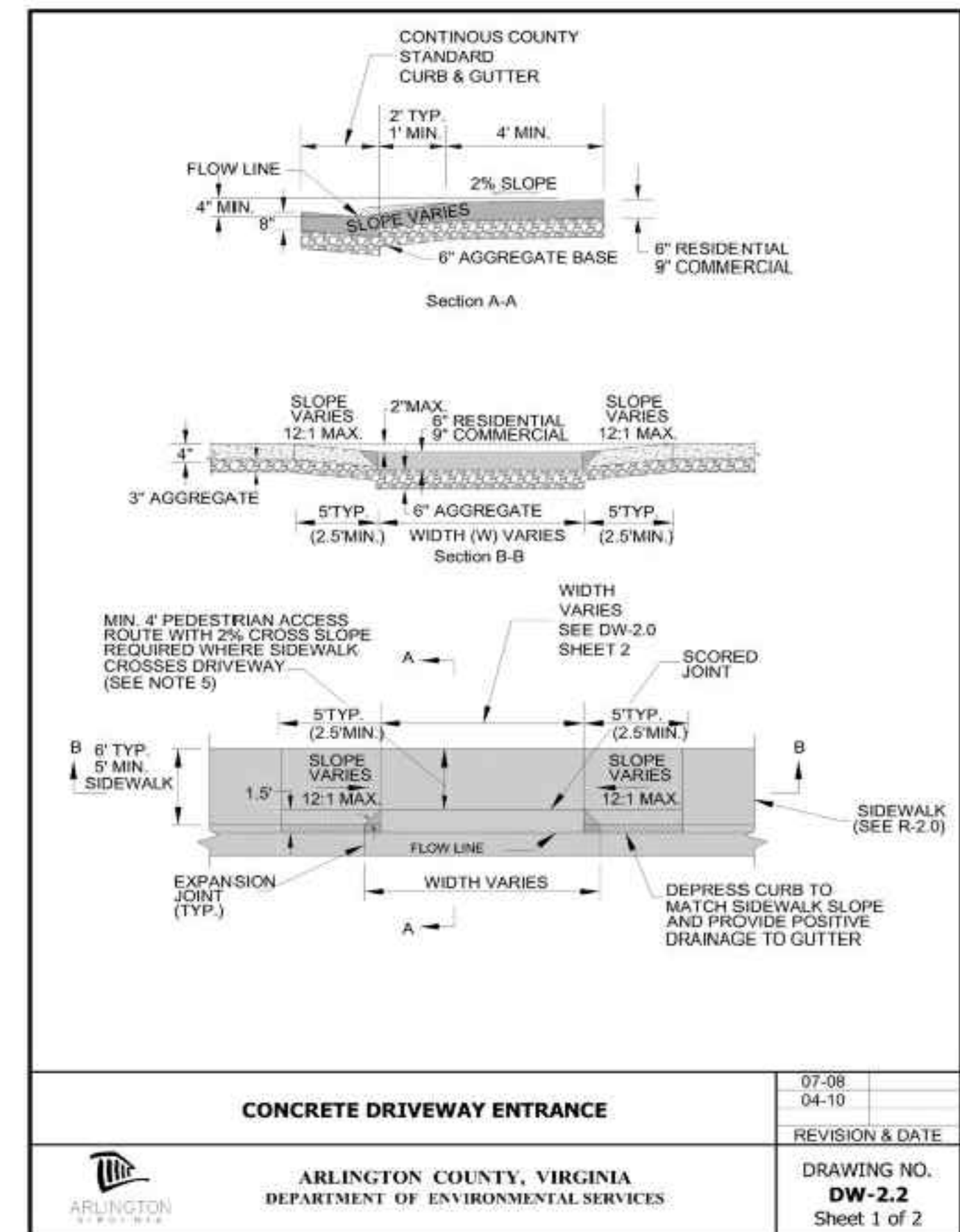
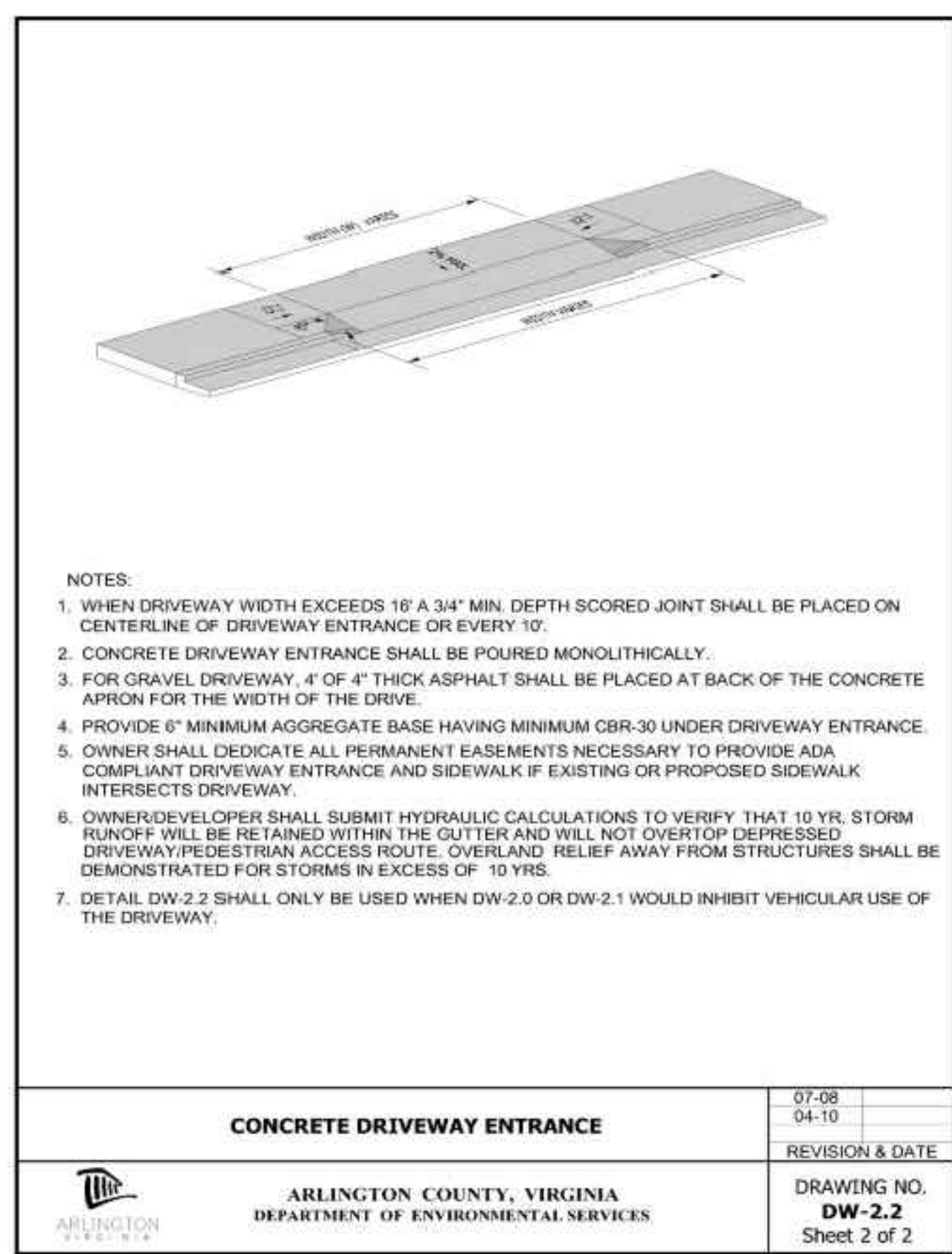


COVER SHEET  
COURTHOUSE RD SW  
SIDEWALK IMPROVEMENT PLAN PHASE I & II  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA  
C.I. N/A

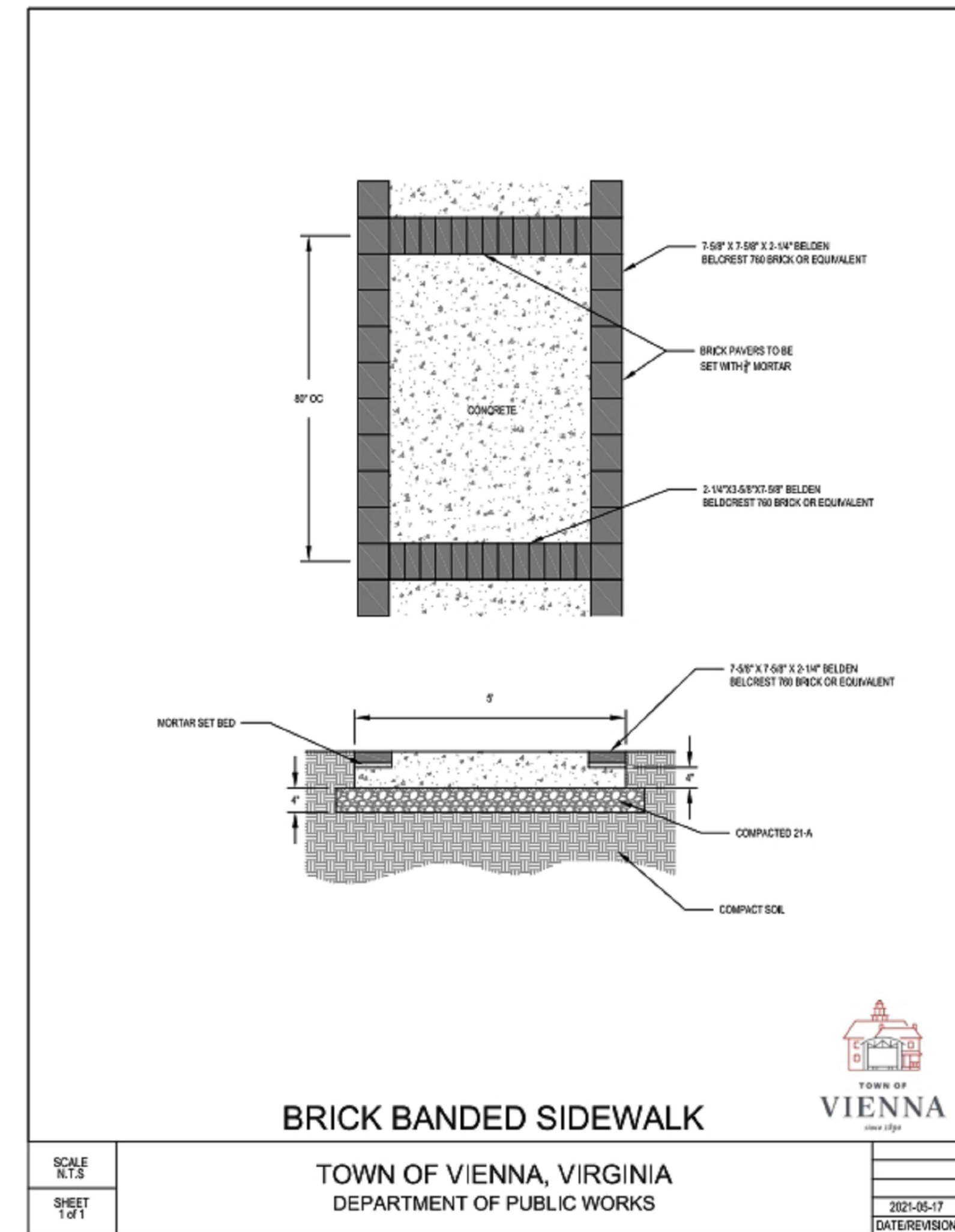
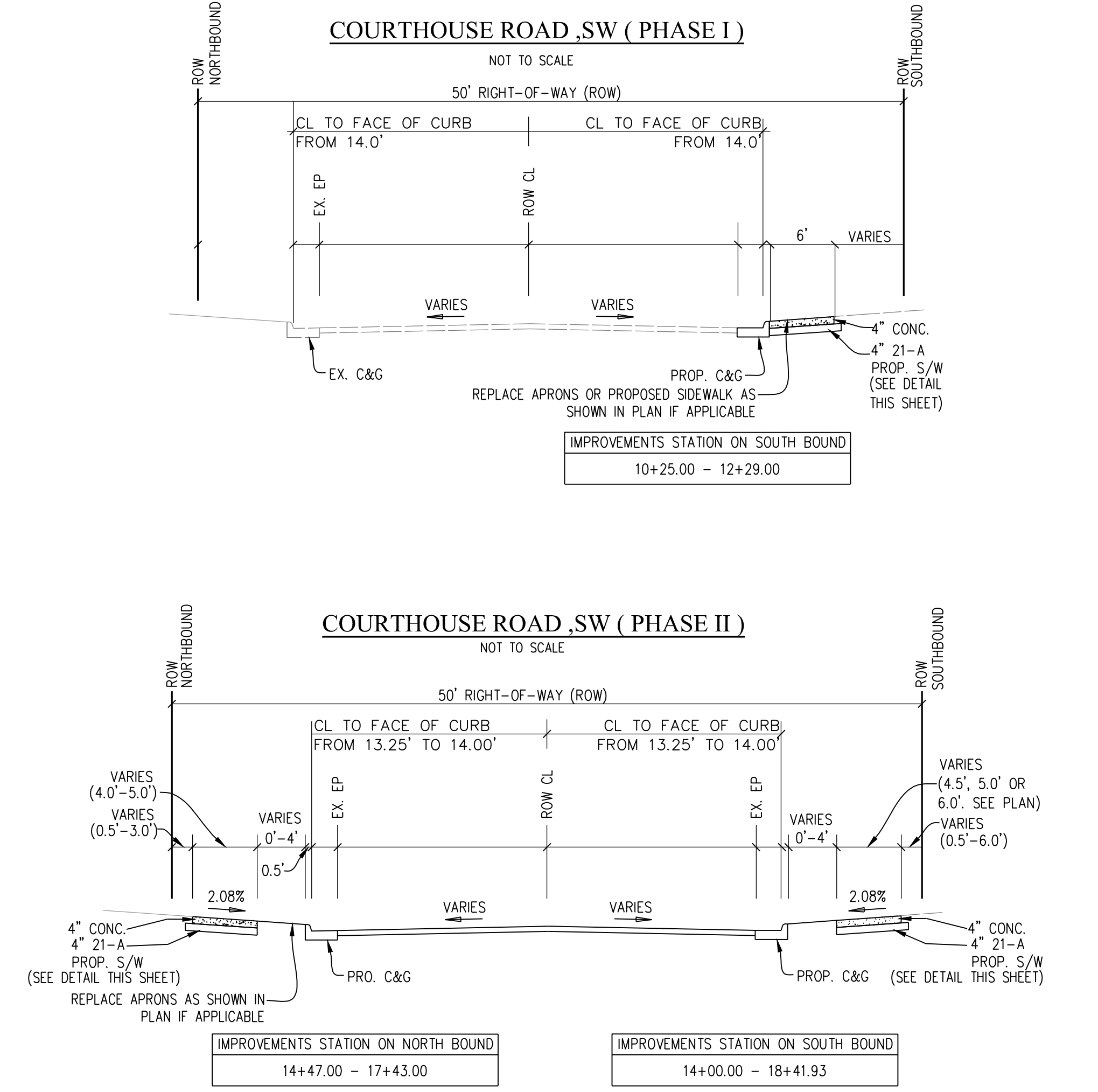
DATE: JULY, 2022  
SCALE: AS NOTED

SHEET  
1  
OF  
16

FILE No.  
2572



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



EXISTING		DESCRIPTION	PROPOSED
---	350	INDEX CONTOUR	---
---	352	INTERMEDIATE CONTOUR	---
---	EX. E.P.	EDGE OF PAVEMENT	---
---	EX. C & G	CURB AND GUTTER	---
---		TRANSITION FROM SPILL TO CATCH CURB	---
---		HEADER CURB	---
---		PROPERTY LINE	---
---		DEPARTING PROPERTY LINE	---
---		LOT LINE	---
---		RIGHT-OF-WAY	---
---		CENTERLINE	---
---		FLOOD PLAIN	---
---		LIMIT OF DISTURBANCE	---
---		TREE LINE	---
---		FLOW LINE OF SWALE	---
---		STREAM	---
---		OVERLAND RELIEF PATHWAY	---
---		FENCE LINE	---
---		EASEMENT	---
---		WATER LINE	---
---		REUSE WATER MAIN	---
---		WATER VALVE	---
---		REDUCER	---
---		SANITARY SEWER	---
---		STORM SEWER	---
---		ELECTRIC SERVICE	---
---		TELEPHONE SERVICE	---
---		GAS LINE	---
---		IRRIGATION LINE	---
---		OVERHEAD WIRE	---
---		FIBER OPTIC LINE	---
---		UNKNOWN LINE	---
---		SPOT ELEVATION	---
---		UTILITY POLE	---
---		GUY WIRE	---
---		MAILBOX	---
---		SIGN	---
---		SANITARY SEWER IDENTIFIER	---
---		STORM DRAIN IDENTIFIER	---
---		EASEMENT IDENTIFIER	---
---		WATER METER	---
---		WATER VALVE	---
---		FIRE HYDRANT	---
---		COMMUNICATION VAULT (MANHOLE)	---
---		COMMUNICATION PEDESTAL	---
---		PARKING INDICATOR	---
---		INDICATES THE NUMBER OF TYPICAL PARKING SPACES	---
---		STREET LIGHT	---
---		VEHICLES PER DAY (TRAFFIC COUNT)	---
---		TEST PIT REQUIRED	---
---		CRITICAL SLOPE	---
---		SLOPES TO BE STABILIZED PURSUANT TO VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK	---
---		HANDICAP RAMP	---
---		DENOTES LOCATION OF STANDARD RAMP CONSTRUCTION	---
---		DENOTES CLEAR SIGHT TRIANGLE	---
---		DECIDUOUS TREE	---
---		BENCHMARK	---
---		NEW ASPHALT	---
---		ASPHALT TRAIL	---
---		CONCRETE SIDEWALK	---
---		END WALLS	---
---		END SECTIONS	---
---		STOP SIGN	---
---		STREET SIGN	---
---		GEOTHERMAL LINE	---

PLAN DATE: 12-07-2023  
NO. 1

REVISIONS:

NO.	DATE	DESCRIPTION	REVIEWED	DATE
4	04-22-2024	100% PLAN UPDATE		
3	04-10-2024	100% PLAN		
2	03-11-2024	95% PLAN		
1	12-07-2023	30% PLAN		

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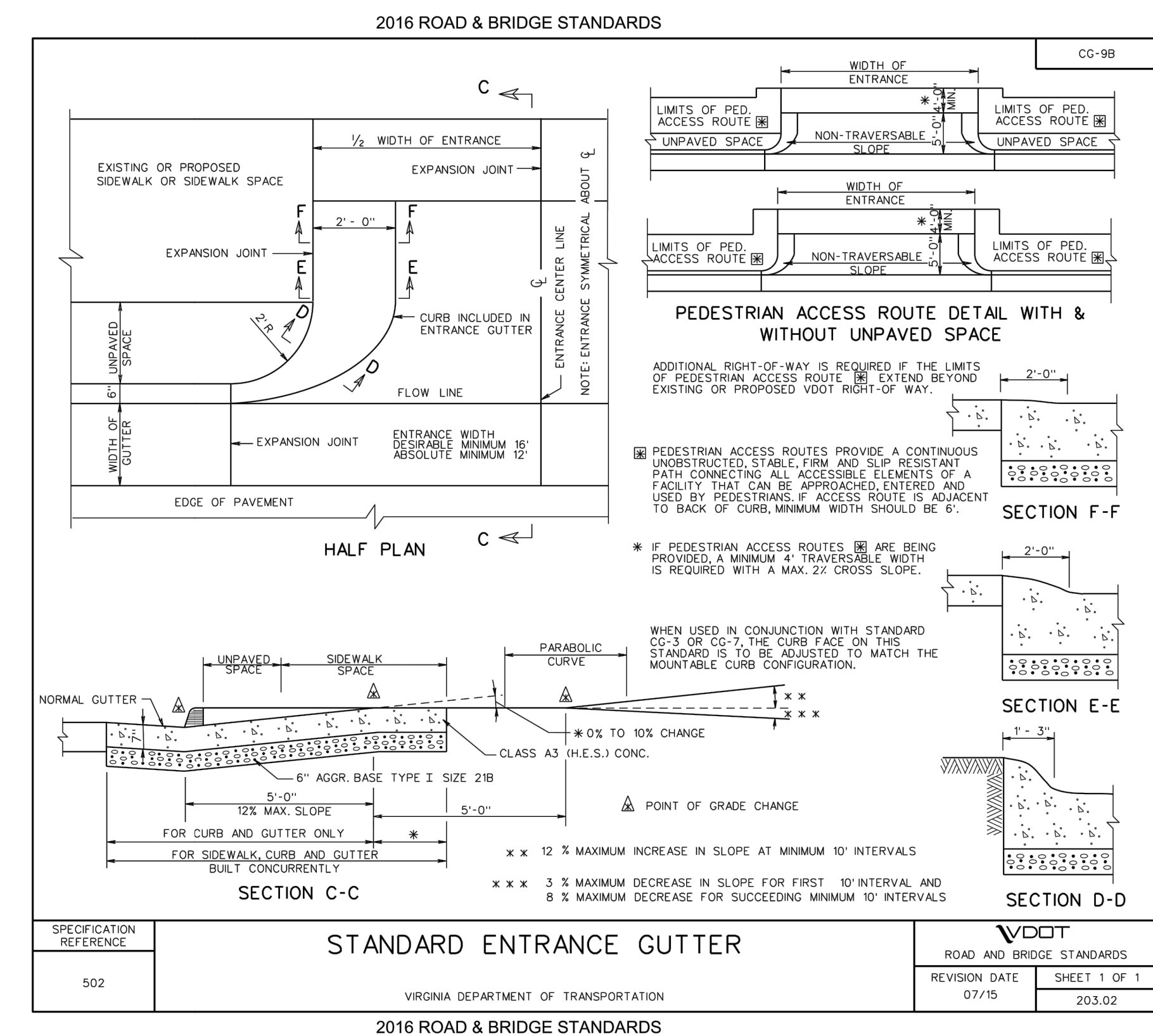
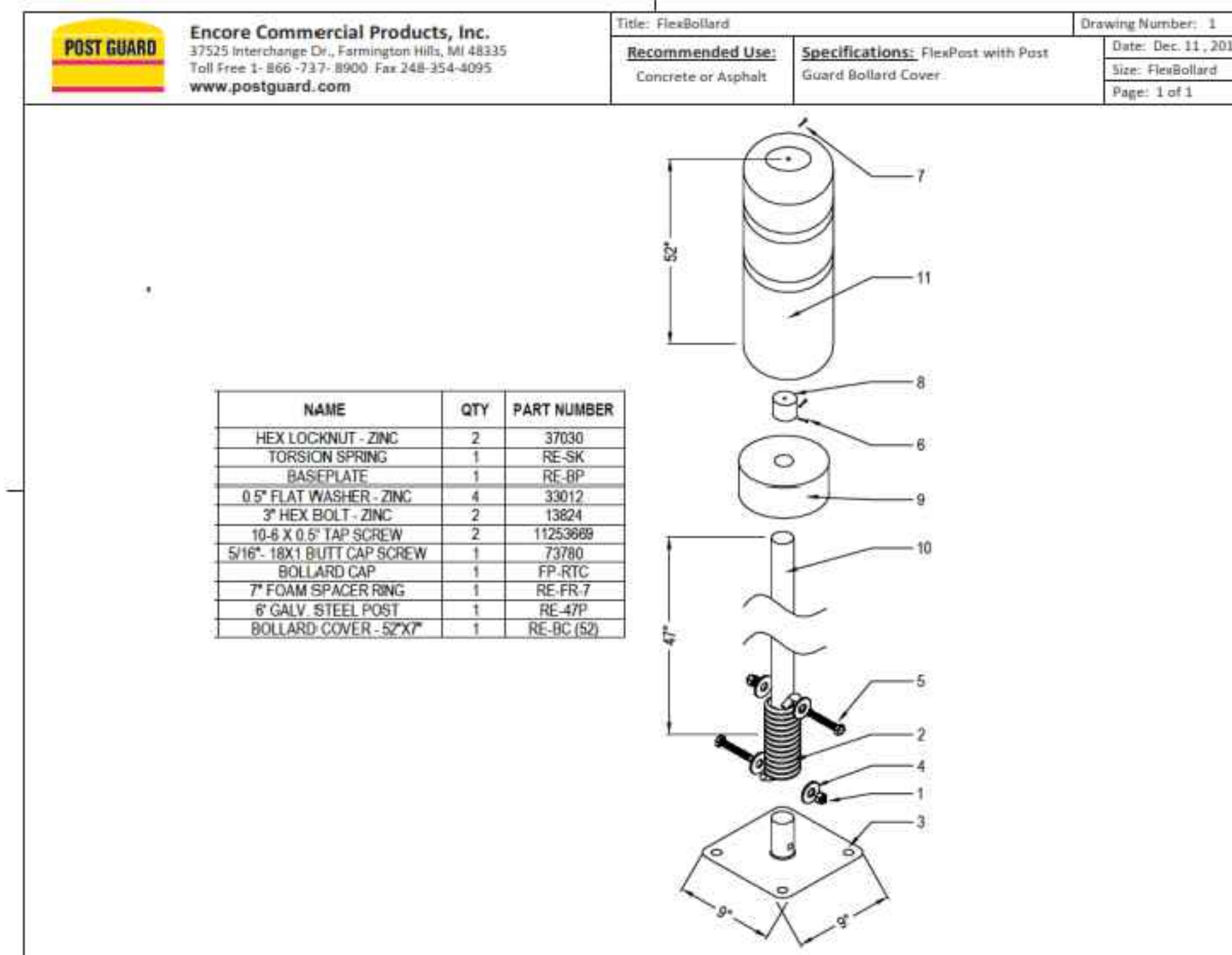
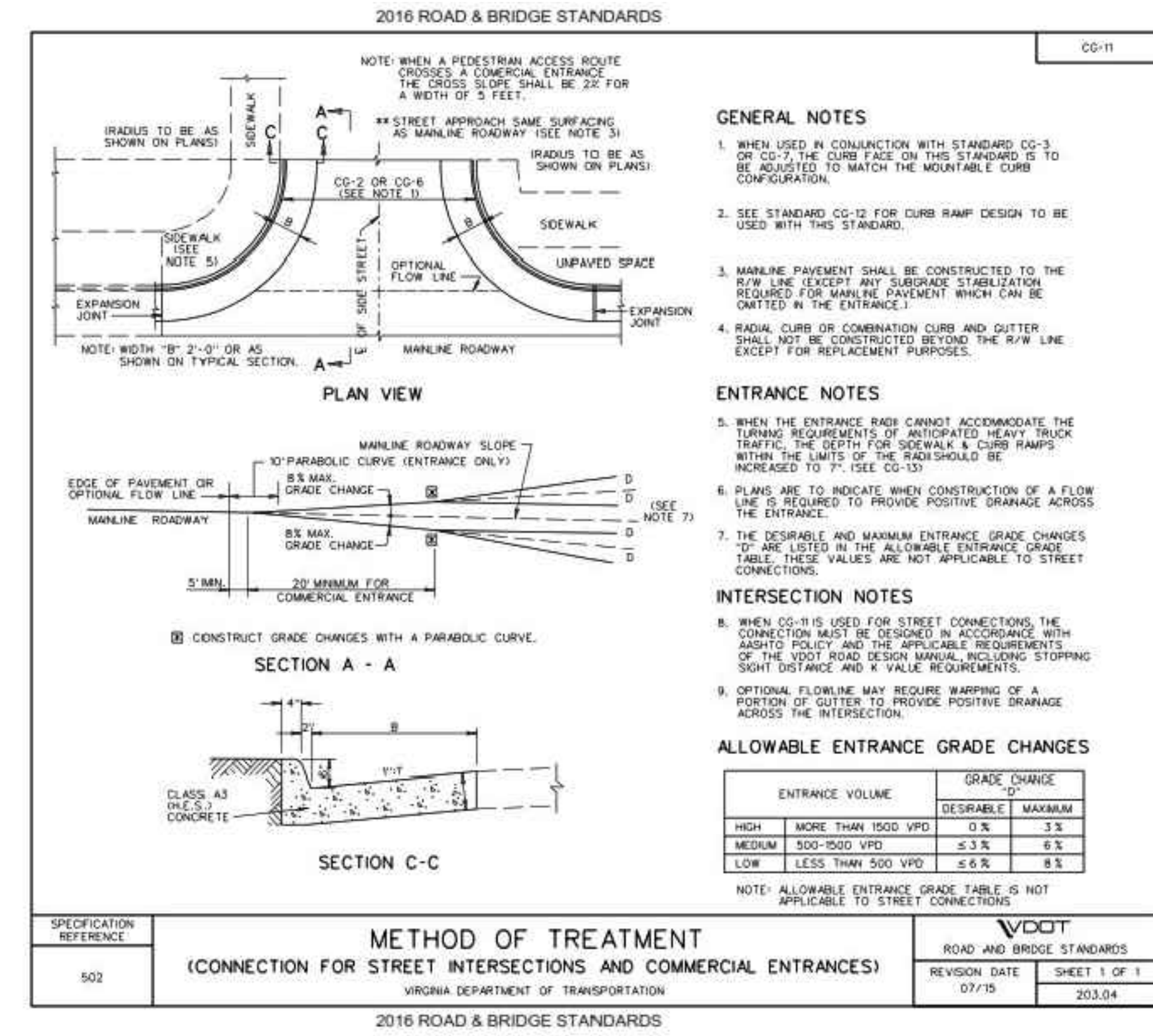
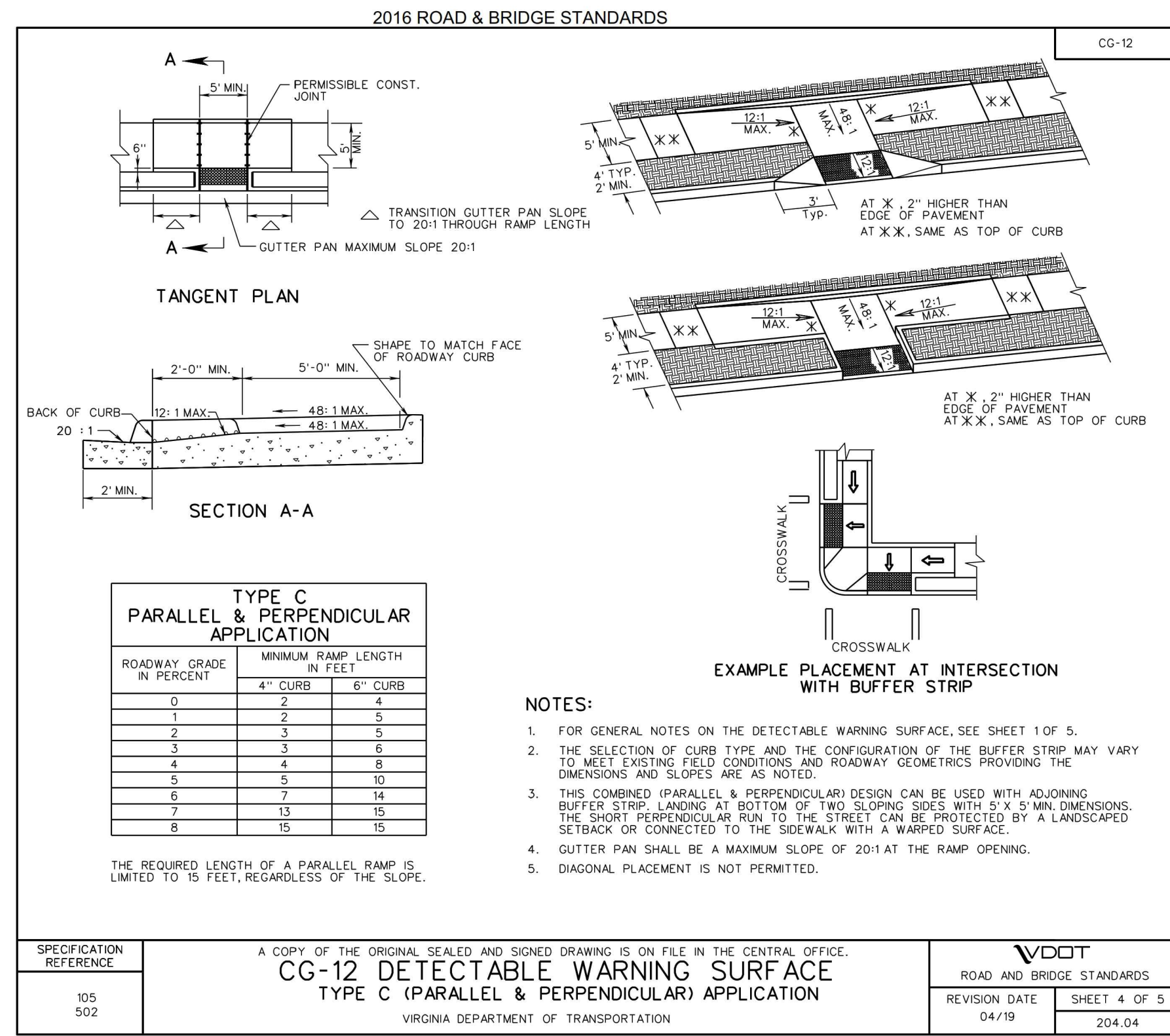
**urban**  
Planners - Engineers - Landscape Architects - Land Surveyors

COMMONWEALTH OF VIRGINIA  
C. RYAN CONNOR  
Lic. No. 039531  
04/22/2024  
PROFESSIONAL ENGINEER

NOTES AND DETAILS  
**COURTHOUSE RD SW  
SIDEWALK IMPROVEMENT PLAN PHASE I & II**  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA  
SCALE: N/A

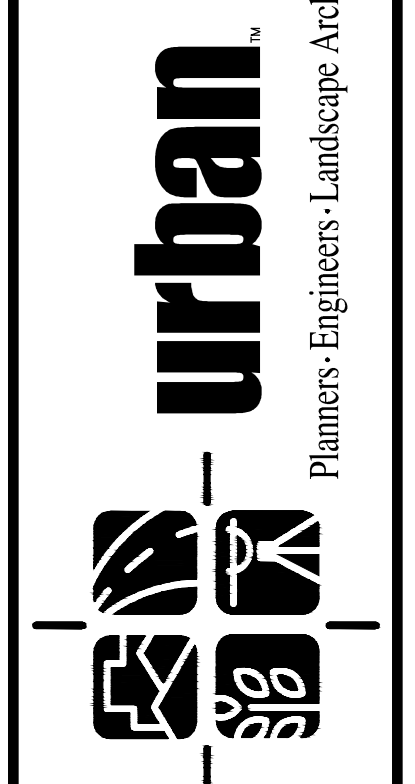
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SHEET 2 OF 16  
FILE No. 2572



PLAN DATE	DATE	DESCRIPTION	REVIEWED	DATE
12-07-2013	04-22-2024	100% PLAN UPDATE		
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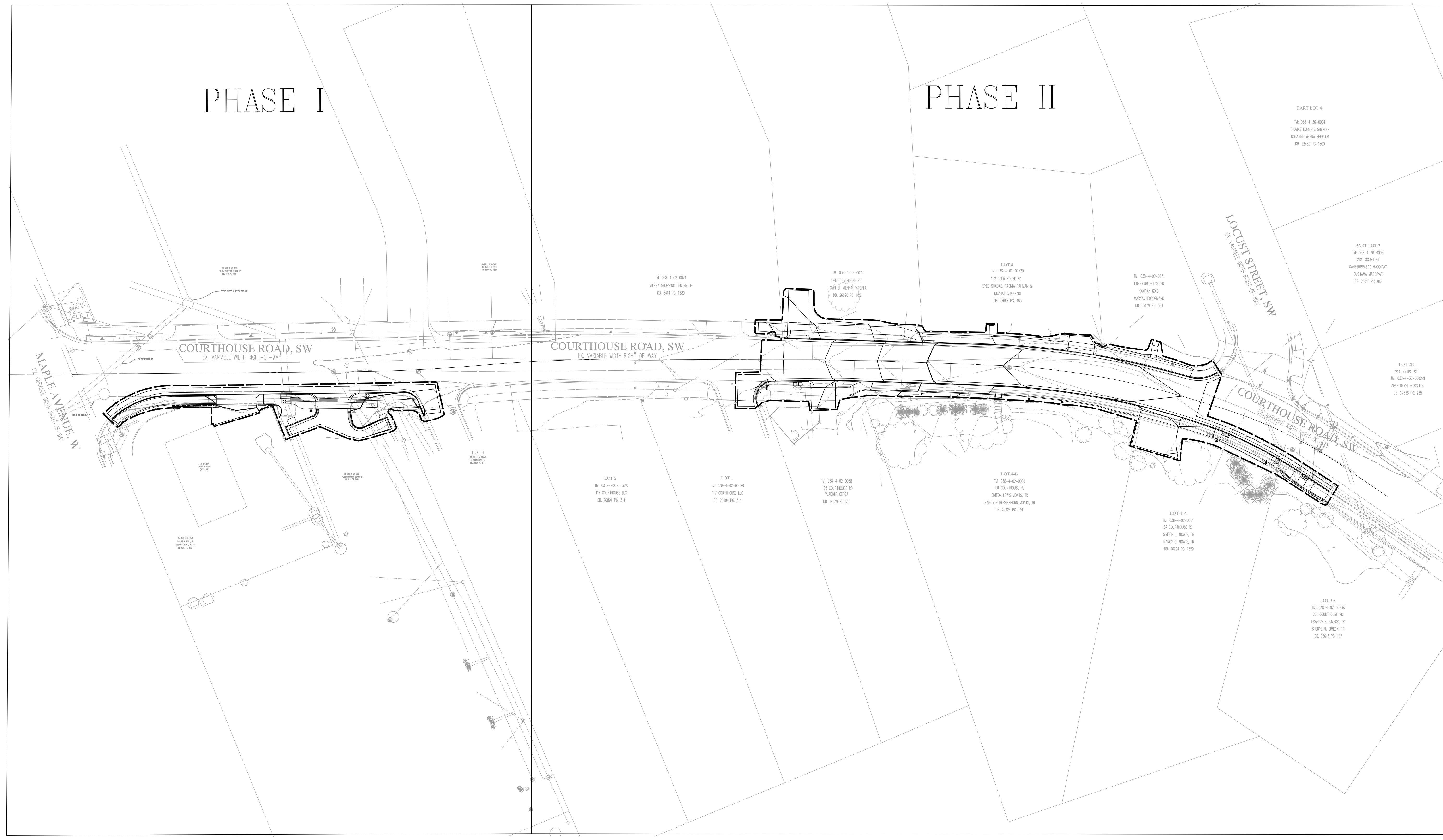
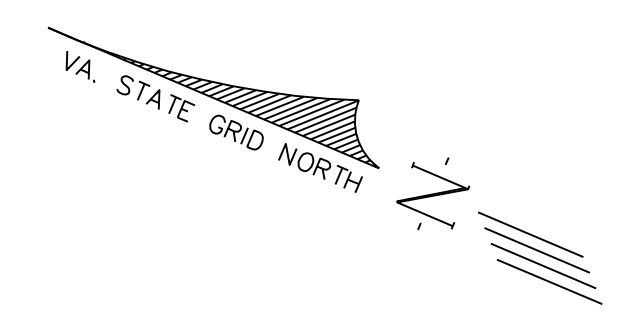


NOTES AND DETAILS  
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SCALE: N/A

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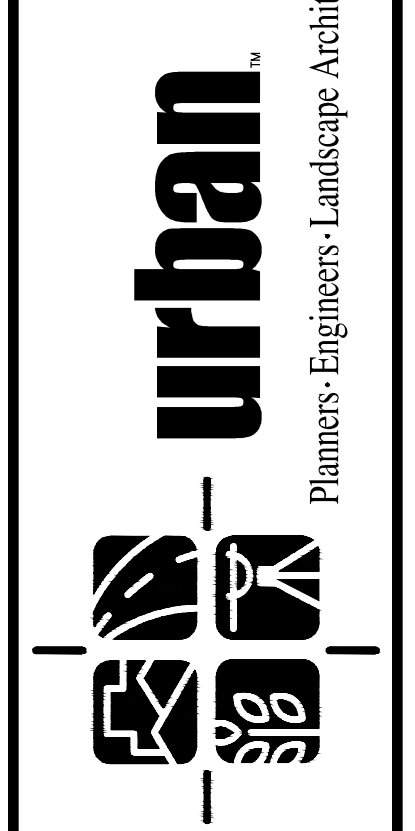
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1	12-07-2023	30% PLAN		

PLAN DATE
12-07-2023
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04-22-2024

Urban Ltd  
 7110 Little River Turnpike  
 Annandale, Virginia 22003  
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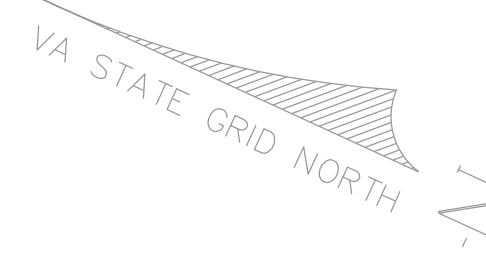
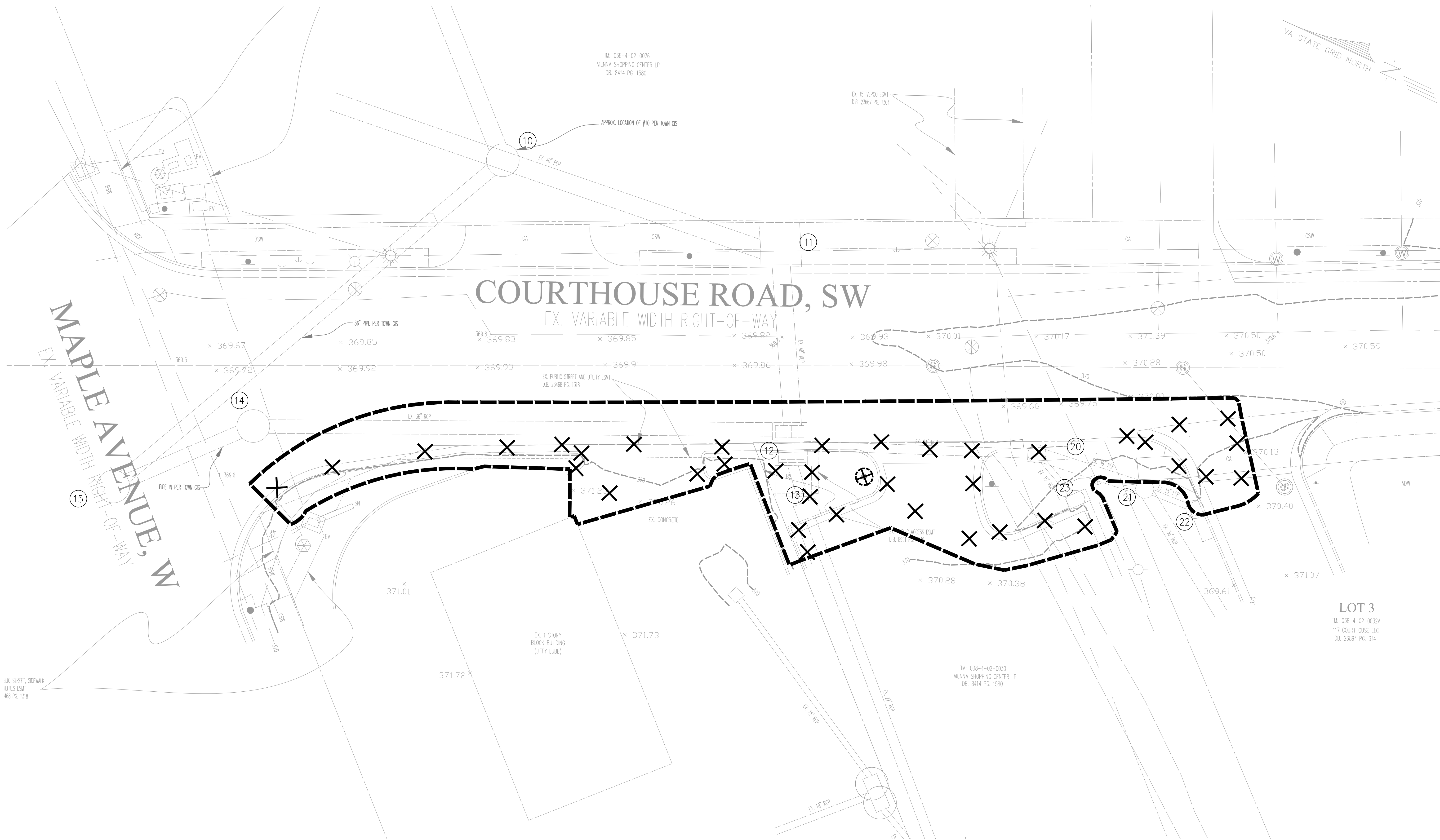
OVERALL  
 COURTHOUSE RD SW  
 SIDEWALK IMPROVEMENT PLAN PHASE I & II  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=30'  
 DATE: JULY, 2022  
 C.I. 1'

SHEET  
 4  
 OF  
 16

FILE No.  
 2572

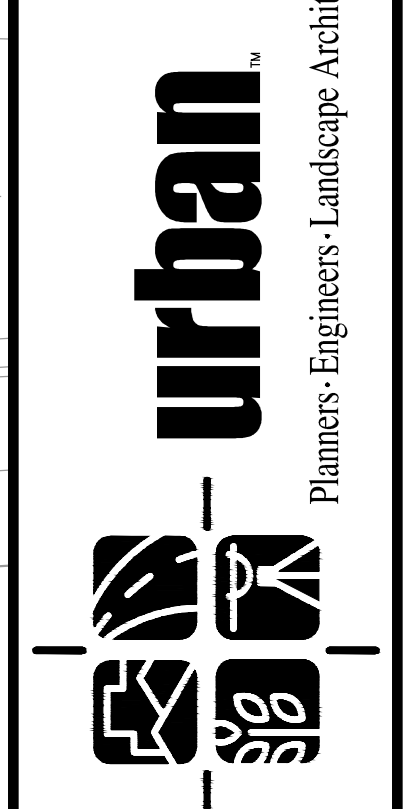
COURTHOUSE ROAD, SW PHASE I  
SCALE 1" = 10'



NO.	DATE	DESCRIPTION	REVIEWER	DATE
4	04-22-2024	100% PLAN UPDATE		
3	04-10-2024	100% PLAN		
2	03-11-2024	95% PLAN		
1	12-07-2023	30% PLAN		

PLAN DATE
12-07-2023
03-11-2024
04-10-2024
04-22-2024

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7110 Little River Turnpike  
Annandale, Virginia 22003  
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COMMONWEALTH OF VIRGINIA  
C. RYAN CONNOR  
Lic. No. 039631  
04/22/2024  
PROFESSIONAL ENGINEER

EXISTING CONDITIONS AND DEMOLITION PLAN  
COURTHOUSE RD SW  
SIDEWALK IMPROVEMENT PLAN PHASE I & II  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA  
DATE: JULY, 2022  
SCALE: 1"=10'

SHEET  
5  
OF  
16  
FILE No.  
2572

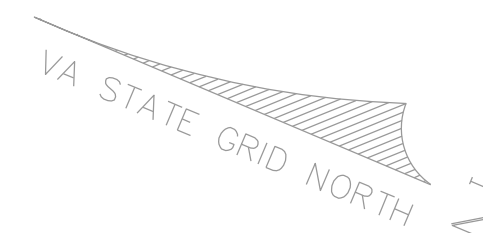
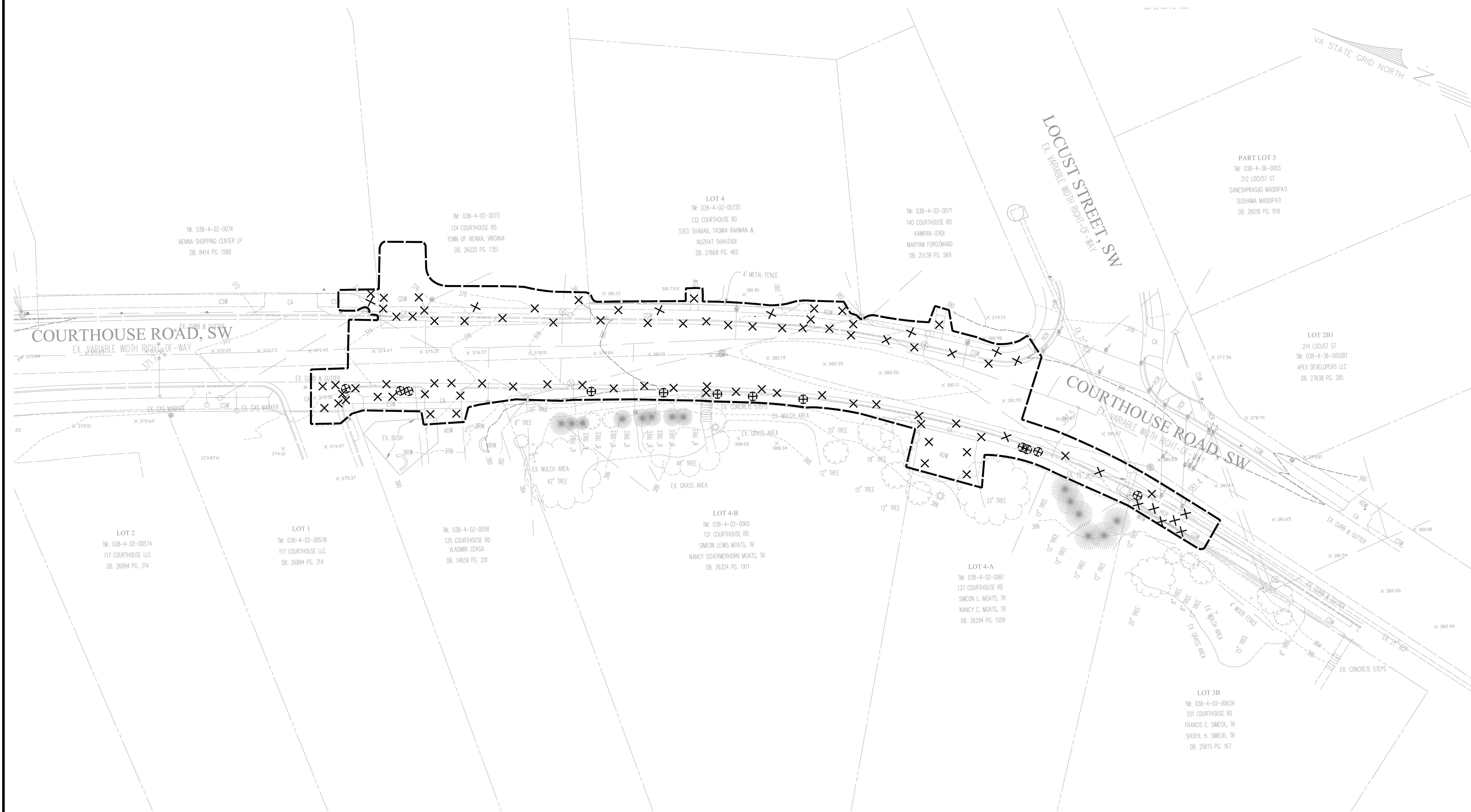
ELECTRICAL NOTE

- CONTRACTOR TO COORDINATE WITH POWER COMPANY PRIOR TO DISTURBANCE IN VICINITY OF UGE (UNDERGROUND ELECTRICAL) LINES OR POLE.

✕ ITEM TO BE REMOVED

✕ ITEM TO BE RELOCATED  
SEE SITE PLAN FOR  
NEW LOCATION

COURTHOUSE ROAD, SW PHASE II  
SCALE 1" = 20'



PART LOT 3  
TM: 038-4-36-0003  
212 LOCUST ST  
GANESHPRASAD MADDPATI  
SUSHAMA MADDPATI  
DB: 26016 PG. 918

LOT 2B1  
214 LOCUST ST  
TM: 038-4-36-0002B1  
APEX DEVELOPERS LLC  
DB: 27638 PG. 285

LOT 4  
TM: 038-4-02-00720  
132 COURTHOUSE RD  
SYED SHABAB, TASMA RAHMAN &  
NUZHAT SHAHZADI  
DB: 27668 PG. 465

TM: 038-4-02-0071  
140 COURTHOUSE RD  
KAMRAN IZADI  
MARYAM FOROZMAND  
DB: 25139 PG. 569

TM: 038-4-02-0074  
VIENNA SHOPPING CENTER LP  
DB: 8414 PG. 1580

TM: 038-4-02-0073  
124 COURTHOUSE RD  
TOWN OF VIENNA, VIRGINIA  
DB: 28020 PG. 1351

LOT 2  
TM: 038-4-02-0057A  
117 COURTHOUSE LLC  
DB: 26894 PG. 314

LOT 1  
TM: 038-4-02-0057B  
117 COURTHOUSE LLC  
DB: 26894 PG. 314

TM: 038-4-02-0058  
125 COURTHOUSE RD  
VLADIMIR CERGA  
DB: 14839 PG. 201

LOT 4-B  
TM: 038-4-02-0060  
131 COURTHOUSE RD  
SIMON LEWIS MOATS, TR  
NANCY SCHERMERHORN MOATS, TR  
DB: 26324 PG. 1911

LOT 4-A  
TM: 038-4-02-0061  
137 COURTHOUSE RD  
SIMON L. MOATS, TR  
NANCY C. MOATS, TR  
DB: 26294 PG. 1559

LOT 3B  
TM: 038-4-02-0063A  
201 COURTHOUSE RD  
FRANCIS E. SIMECK, TR  
SHERYL H. SIMECK, TR  
DB: 25615 PG. 167

ELECTRICAL NOTE

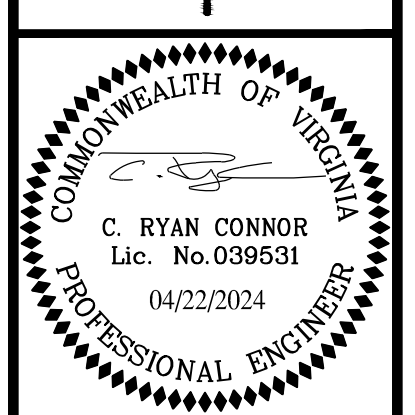
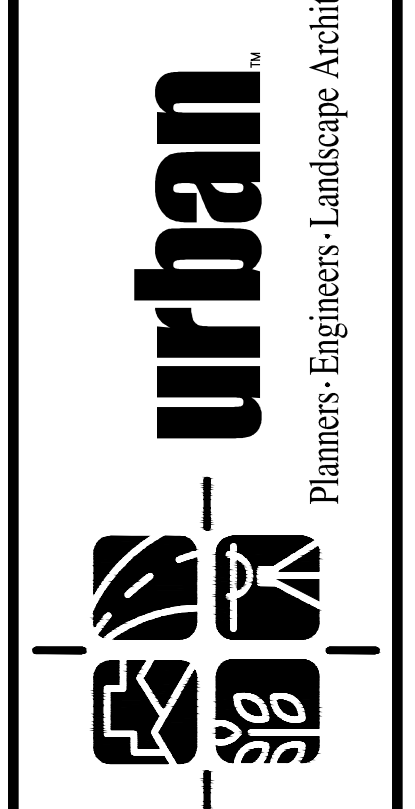
- CONTRACTOR TO COORDINATE WITH POWER COMPANY PRIOR TO DISTURBANCE IN VICINITY OF UGE (UNDERGROUND ELECTRICAL) LINES OR POLE.

- ITEM TO BE REMOVED
- ITEM TO BE RELOCATED  
SEE SITE PLAN FOR  
NEW LOCATION

NO.	DATE	DESCRIPTION	REV BY	APPROVED	DATE
4	04-22-2024	100% PLAN UPDATE			
3	04-10-2024	100% PLAN			
2	03-11-2024	95% PLAN			
1	12-07-2023	30% PLAN			

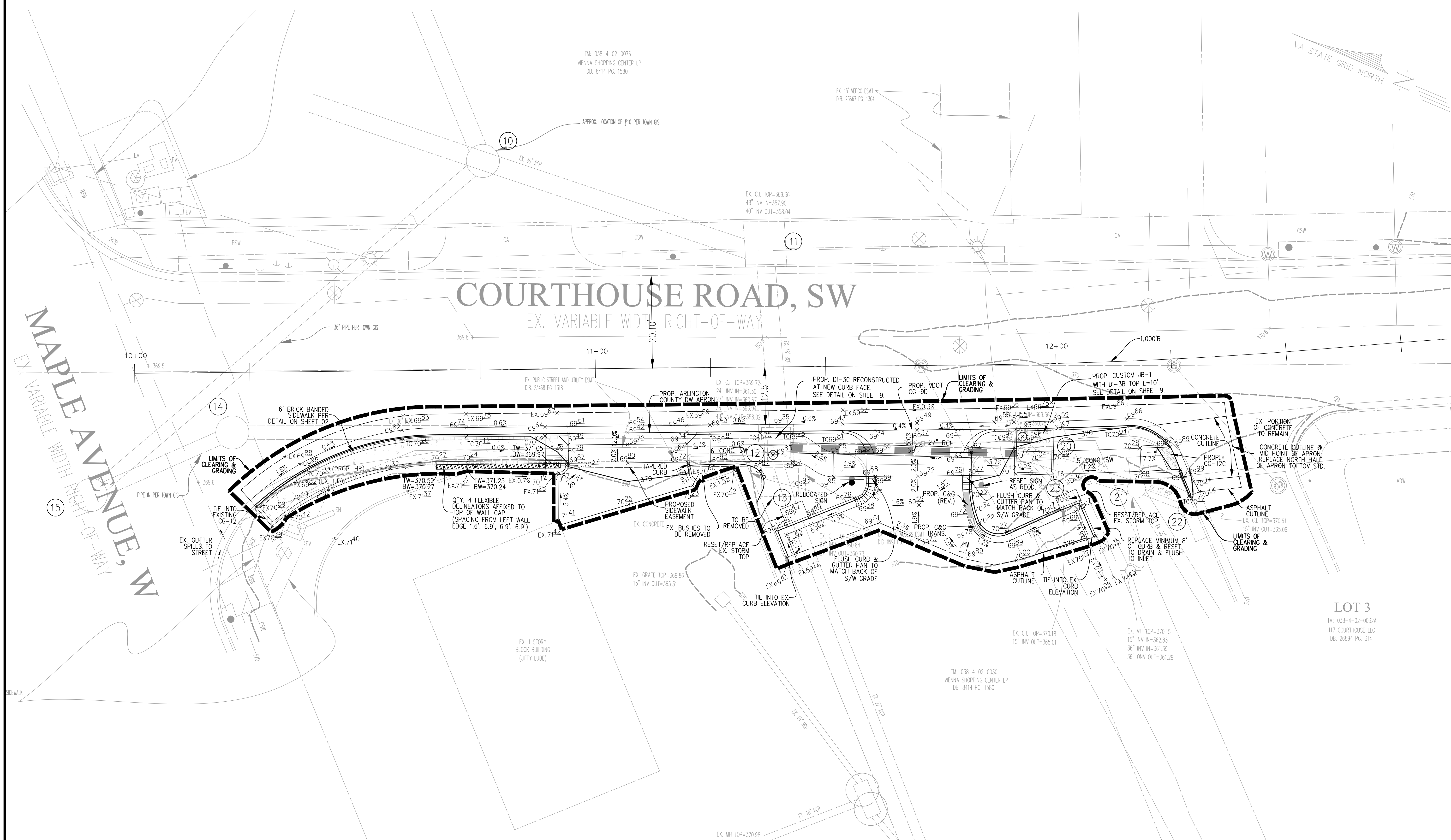
PLAN DATE
12-07-2023
03-11-2024
04-10-2024
04-22-2024

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EXISTING CONDITIONS AND DEMOLITION PLAN  
COURTHOUSE RD SW  
SIDEWALK IMPROVEMENT PLAN PHASE I & II  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA  
SCALE: 1"=20' DATE: JULY, 2022  
C.I. 1'

COURTHOUSE ROAD, SW PHASE I  
SCALE 1" = 10'



MAPLE AVENUE, W  
EX. VARIABLE WIDTH RIGHT-OF-WAY

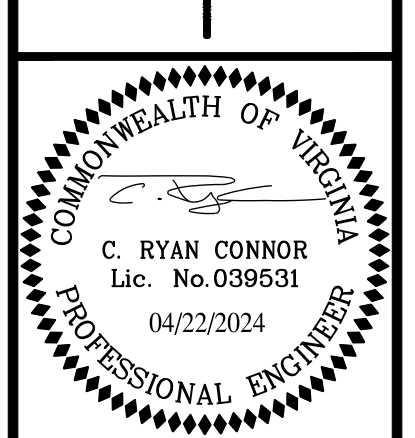
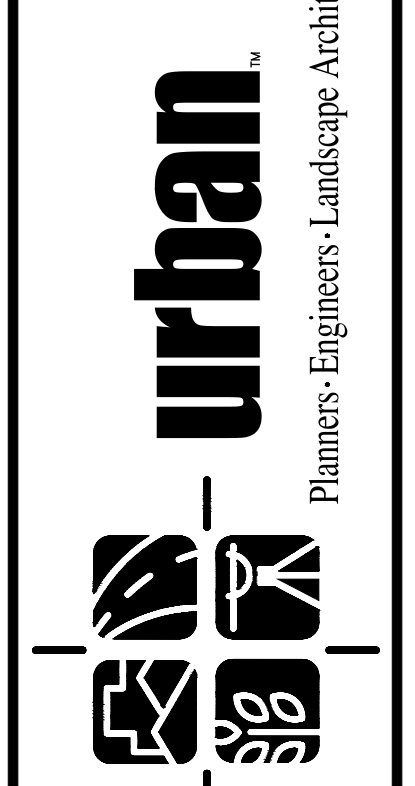
COURTHOUSE ROAD, SW  
EX. VARIABLE WIDTH RIGHT-OF-WAY

LOT 3  
TM: 038-4-02-0032A  
117 COURTHOUSE LLC  
DB: 26894 PG. 314

NO.	DATE	DESCRIPTION	REVIEWED	DATE
4	04-22-2024	100% PLAN UPDATE		
3	04-10-2024	100% PLAN		
2	03-11-2024	95% PLAN		
1	12-07-2023	30% PLAN		

PLAN DATE
12/07/2023
03/11/2024
04/10/2024
04/22/2024

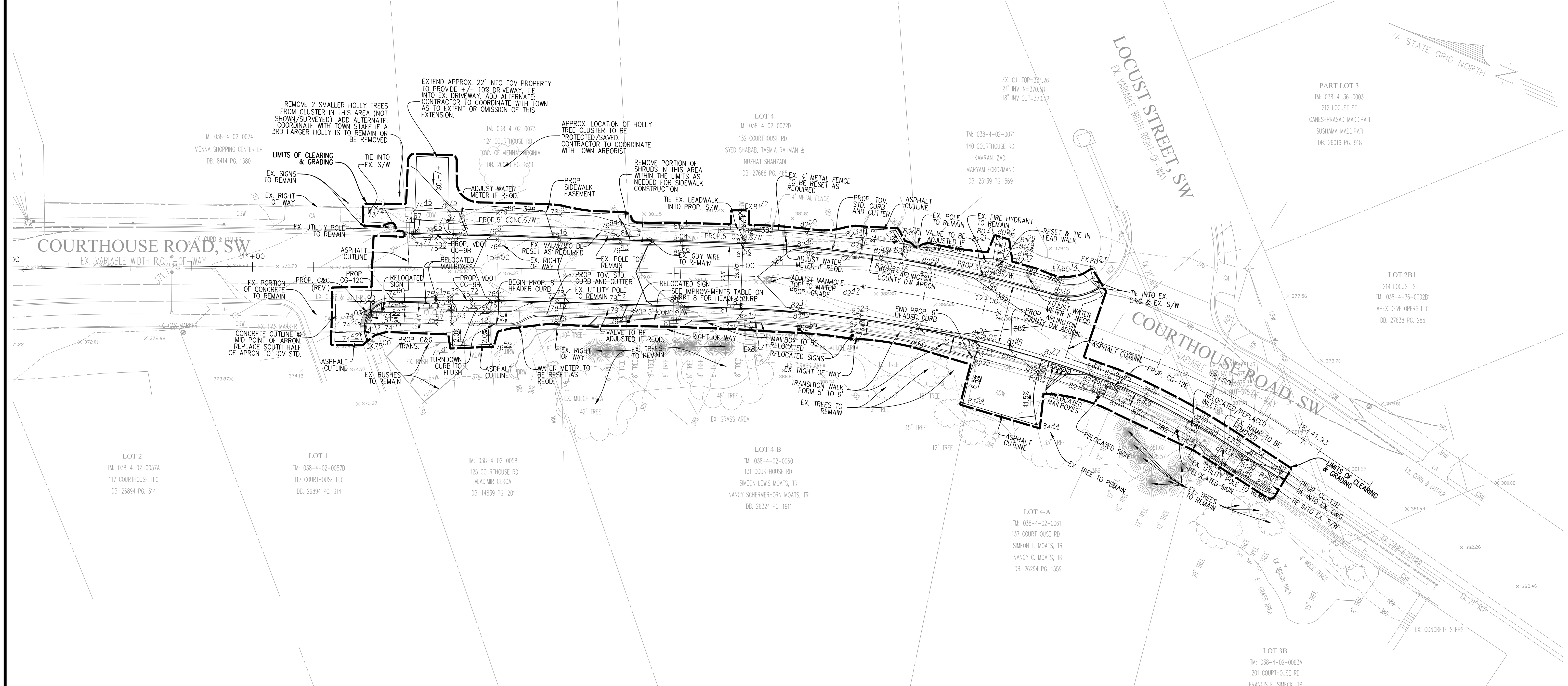
Urban Ltd  
7110 Lakeshore Turnpike  
Annandale, Virginia 22003  
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Fax: 703.642.8251  
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SITE PLAN PHASE I  
COURTHOUSE RD SW  
SIDEWALK IMPROVEMENT PLAN PHASE I & II  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA  
SCALE: 1"=10' DATE: JULY, 2022

SHEET  
7  
OF  
16  
FILE No.  
2572

COURTHOUSE ROAD, SW PHASE II  
SCALE 1" = 20'



LEFT / SOUTH BOUND LANE

Sta	Existing Crown Elevation	Existing Right EP Width from Existing Crown	Existing Right EP Elevation	Existing Right Xslope from Existing Crown	Existing Longitude Slope	Proposed Right EP Width from Existing Crown	Proposed Crown Raise	Proposed Crown Amount	New Slope Crown to EP	Proposed Right Xslope	Prop Right EP Elevation	Prop. Right EP Longitude Slope	Prop. TC Elevation	TC to Back S/W Dist	Prop Back of S/W Elevation	Proposed S/W Xslope from TC	Additional Header Curb Height	Top of header curb elevation	Existing Grade @ Back of Prop S/W/Curb	
1375	371.81	13.47	371.31	-3.71%	2.47%	N/A	no		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	372.00
1400	372.45	13.47	371.91	-4.01%	2.56%	N/A	no		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	372.72
1425	373.21	13.50	372.70	-3.78%	3.04%	12.76	no		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1450	374.11	14.10	373.60	-3.62%	3.60%	12.56	no		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1475	375.19	14.87	374.96	-1.55%	4.32%	12.10	yes	0.06	375.25	-2.00%	-2.00%	375.01	5.41%	375.39	8.85	375.57	2.08%	0.00	375.57	375.36
1500	376.37	15.59	375.54	-5.32%	4.72%	11.75	yes	0.10	376.47	-2.08%	-2.08%	376.23	4.87%	376.61	9.00	376.79	2.08%	0.67	377.46	376.09
1525	377.86	15.73	376.84	-6.48%	5.96%	11.75	yes	0.16	378.02	-2.08%	-2.08%	377.78	6.20%	378.16	5.00	378.26	2.08%	0.67	378.93	377.65
1550	379.45	15.78	378.35	-6.97%	6.36%	11.75	yes	0.22	379.67	-2.08%	-2.08%	379.43	6.60%	379.81	5.00	379.91	2.08%	0.67	380.58	379.07
1575	380.65	15.30	379.68	-6.34%	4.80%	11.75	yes	0.25	380.90	-2.08%	-2.08%	380.66	4.92%	381.04	5.00	381.14	2.08%	0.67	381.81	380.61
1600	381.63	14.72	380.76	-5.91%	3.92%	11.75	yes	0.20	381.83	-2.08%	-2.08%	381.59	3.72%	381.97	5.00	382.07	2.08%	0.67	382.74	381.55
1602.54	381.73	14.69	380.83	-6.13%	3.94%	11.75	yes	0.17	381.90	-2.08%	-2.08%	381.65	2.66%	382.03	5.00	382.14	2.08%	0.00	382.14	382.22
1604.49	381.80	14.67	380.83	-6.61%	3.59%	11.75	yes	0.15	381.95	-2.08%	-2.08%	381.71	2.69%	382.09	5.00	382.19	2.08%	0.00	382.19	382.24
1606.44	381.88	14.65	380.83	-7.17%	3.88%	11.75	yes	0.12	382.00	-2.08%	-2.08%	381.76	2.63%	382.14	5.00	382.24	2.08%	0.00	382.24	382.26
1625	382.15	13.81	381.30	-6.15%	1.45%	11.75	yes	0.20	382.35	-2.08%	-2.08%	382.11	1.89%	382.49	5.00	382.59	2.08%	0.67	383.26	382.00
1650	382.31	13.45	381.64	-4.98%	0.64%	11.75	yes	0.16	382.47	-2.08%	-2.08%	382.23	0.48%	382.61	5.00	382.71	2.08%	0.50	383.21	382.34
1675	382.27	13.35	381.77	-3.75%	-0.16%	11.75	yes	0.08	382.35	-2.08%	-2.08%	382.11	-0.48%	382.49	5.26	382.60	2.08%	0.50	383.10	382.40
1700	382.15	13.37	381.81	-2.54%	-0.48%	11.75	yes	0.05	382.20	-2.08%	-2.08%	381.96	-0.60%	382.34	6.00	382.46	2.08%	0.50	382.96	382.15
1725	381.99	13.34	381.75	-1.80%	-0.64%	11.75	yes	0.03	382.02	-2.00%	-2.00%	381.79	-0.68%	N/A	N/A	N/A	N/A	N/A	N/A	382.18
1750	381.89	13.32	381.57	-2.40%	-0.40%	9.58	no		N/A	no	-2.40%	381.66	-0.50%	382.04	5.64	382.16	2.08%	N/A	N/A	382.20
1775	381.72	14.29	381.14	-4.06%	-0.88%	10.82	no		N/A	no	-4.06%	381.28	-1.52%	381.66	5.00	381.77	2.08%	N/A	N/A	382.00
1800	381.57	14.64	381.08	-3.35%	-0.60%	12.24	no		N/A	no	-3.35%	381.16	-0.48%	381.54	5.00	381.65	2.08%	N/A	N/A	381.62
1825	381.46	15.46	381.34	-0.78%	-0.44%	14.85	no		N/A	no	-0.78%	381.34	0.74%	381.73	N/A	N/A	N/A	N/A	N/A	381.85
1841.93	381.48	16.26	381.42	-0.37%	0.12%	16.26	no		N/A	no	-0.37%	381.42	0.44%	381.80	5.93	381.93	2.08%	N/A	N/A	381.97
1850	381.54	16.36	381.46	-0.49%	0.74%	16.36	no		N/A	no	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	382.05

RIGHT / NORTH BOUND LANE

Sta	Existing Left EP Width from Existing Crown	Existing Left EP Elevation	Existing Left Xslope from Existing Crown	Proposed Left EP Width from Existing Crown	New Slope Crown to EP	Proposed Left Xslope	New Crown Elevation	Proposed Left EP Elevation	Proposed Left EP Longitude Slope	Prop. TC Elevation	TC to Back S/W Dist	Prop. Back of S/W Elevation	Existing Back of S/W Elevation
1375	13.79	370.77	-7.54%										
1400	13.70	371.38	-7.81%										
1425	13.66	372.21	-7.32%										
1450	13.62	373.23	-6.46%	13.62	N/A	N/A	N/A	N/A	N/A	N/A	9.80	373.74	373.74
1475	12.08	374.29	-7.45%	12.18	-2.08%	-2.08%	375.25	375.00	13.05%	N/A	N/A	N/A	375.45
1500	11.38	375.46	-8.00%	11.55	-2.08%	-2.08%	376.47	376.23	4.93%	376.61	9.00	376.80	377.90
1525	11.25	377.03	-7.38%	11.50	-2.08%	-2.08%	378.02	377.78	6.20%	378.16	9.00	378.35	378.72
1550	11.12	379.14	-2.79%	11.51	-2.08%	-2.08%	379.67	379.43	6.60%	379.81	6.30	379.94	380.00
1575	11.38	380.48	-1.49%	11.58	-2.08%	-2.08%	380.90	380.66	4.91%	381.04	5.00	381.14	381.33
1600	11.78	381.21	-3.57%	11.75	-2.08%	-2.08%	381.83	381.59	3.71%	381.97	5.00	382.07	381.65
1602.54	12.87	381.27	-3.57%	11.75	-2.08%	-2.08%	381.90	381.65	2.66%	382.03	5.00	382.14	381.67
1604.49	12.90	381.31	-3.80%	11.75	-2.08%	-2.08%	381.95	381.71	2.69%	382.09	5.00	382.19	381.68
1606.44	12.92	381.35	-4.10%	11.75	-2.08%	-2.08%	382.00	381.76	2.56%	382.14	5.00	382.24	381.70
1625	13.10	381.70	-3.44%	11.75	-2.08%	-2.08%	382.35	382.11	1.89%	382.49	5.00	382.59	381.87
1650	13.76	381.75	-4.07%	11.75	-2.08%	-2.08%	382.47	382.23	0.48%	N/A	N/A	N/A	382.10
1675	13.84	381.69	-4.19%	11.75	-2.08%	-2.08%	382.35	382.11	-0.48%	382.49	5.00	382.59	382.17
1700	13.54	381.34	-5.98%	11.75	-2.08%	-2.08%	382.20	381.96	-0.60%	382.34	5.00	382.44	381.68
1725	13.91	381.60	-2.80%	11.77	-2.08%	-2.08%	382.02	381.78	-0.72%	382.16	5.00	382.26	381.97
1750													
1800													
1825													
1841.93													
1850													

SITE PLAN PHASE II & PROFILE  
 COURTHOUSE RD SW  
 SIDEWALK IMPROVEMENT PLAN PHASE I & II  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA  
 SCALE: AS SHOWN  
 DATE: JULY, 2022  
 C.I. 1'

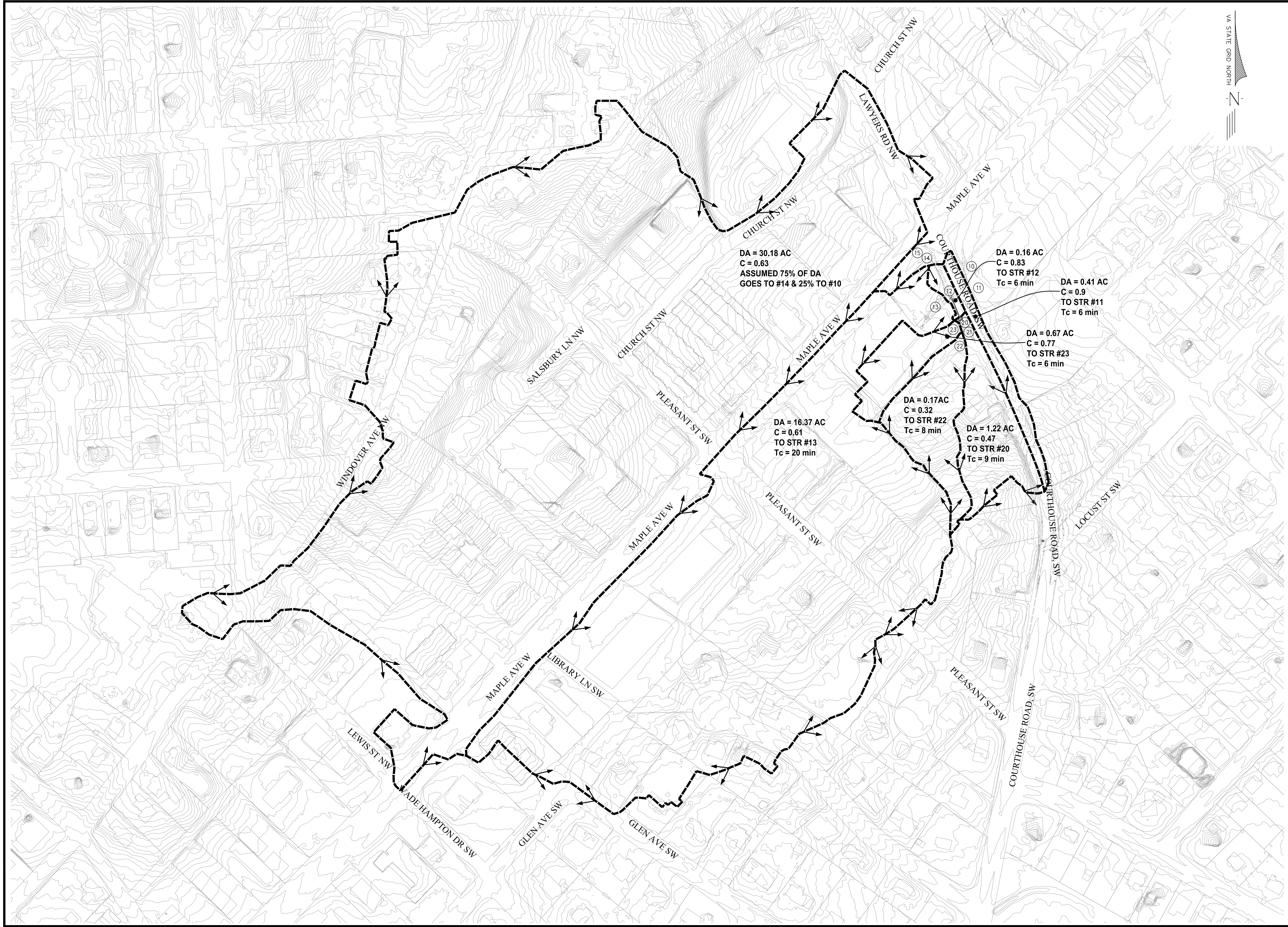
NO.	DATE	DESCRIPTION	REVIEWED	DATE
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3	04-10-2024	100% PLAN		
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1	12-07-2023	30% PLAN		

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**urban**  
 Planners - Engineers - Landscape Architects - Land Surveyors

COMMONWEALTH OF VIRGINIA  
 C. RYAN CONNOR  
 Lic. No. 0396531  
 04/22/2024  
 PROFESSIONAL ENGINEER





DA = 30.18 AC  
 C = 0.63  
 ASSUMED 75% OF DA  
 GOES TO #14 & 25% TO #10

DA = 0.16 AC  
 C = 0.83  
 TO STR #12  
 Tc = 6 min

DA = 0.41 AC  
 C = 0.9  
 TO STR #11  
 Tc = 6 min

DA = 0.67 AC  
 C = 0.77  
 TO STR #23  
 Tc = 6 min

DA = 16.37 AC  
 C = 0.61  
 TO STR #13  
 Tc = 20 min

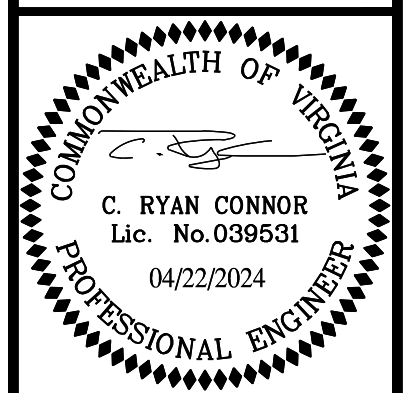
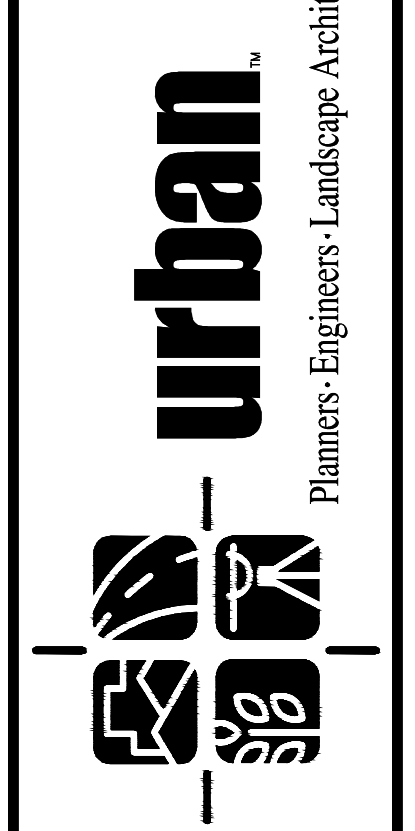
DA = 0.17 AC  
 C = 0.32  
 TO STR #22  
 Tc = 8 min

DA = 1.22 AC  
 C = 0.47  
 TO STR #20  
 Tc = 9 min



PLAN DATE	DESCRIPTION	REV/BY	APPROVED	DATE
12-07-2023				
03-11-2024				
04-10-2024	100% PLAN UPDATE			
04-22-2024	100% PLAN UPDATE			
04-22-2024	100% PLAN UPDATE			
04-22-2024	100% PLAN UPDATE			

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STORM DIVIDES  
 COURTHOUSE RD SW  
 SIDEWALK IMPROVEMENT PLAN PHASE I & II  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA  
 SCALE: 40' = 1" DATE: JULY, 2022

SHEET  
 9  
 OF  
 16  
 FILE No.  
 2572

INLET COMPUTATIONS

Inlet ID	Inlet Type	Length (ft)	Drainage Area (ac)	C (C)	CA	I (in/hr)	Q incr. (cfs)	QCarryover (cfs)	QCaptured (cfs)	QBypass (cfs)	Gutter Slope (ft/ft)	Cross Slope, Sx (ft/ft)	T (Grade) Spread (ft)	T (Sump) Spread (ft)	W (ft)	Sw (ft/ft)	d (ft)	E (%)	h (in)	Grate Area (sqft)	10yr WSEL
11	Ex. Curb Inlet	6.63	0.41	0.90	0.37	6.44	2.38	0.00	2.38	0.00	Sag	0.02	11.09	1.42	0.083	0.45	100	5.50	.....	.....	
12	Prop. DI-3C	6.00	0.16	0.83	0.13	6.44	0.86	0.00	0.86	0.00	Sag	0.04	3.09	1.42	0.083	0.31	100	5.50	.....	.....	
20	Prop. DI-3B	12.00	1.22	0.47	0.57	5.67	3.25	0.00	3.25	0.00	0.01	0.04	7.42	1.42	0.083	0.48	100	5.50	.....	.....	
21	Ex. MH-1	.....	0.00	0.00	0.00	0.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Ex. Curb Inlet	5.83	0.17	0.32	0.05	5.90	0.32	0.00	0.32	0.00	0.04	0.02	1.37	1.42	0.083	0.24	100	5.50	.....	.....	

STORM PIPE COMPUTATIONS

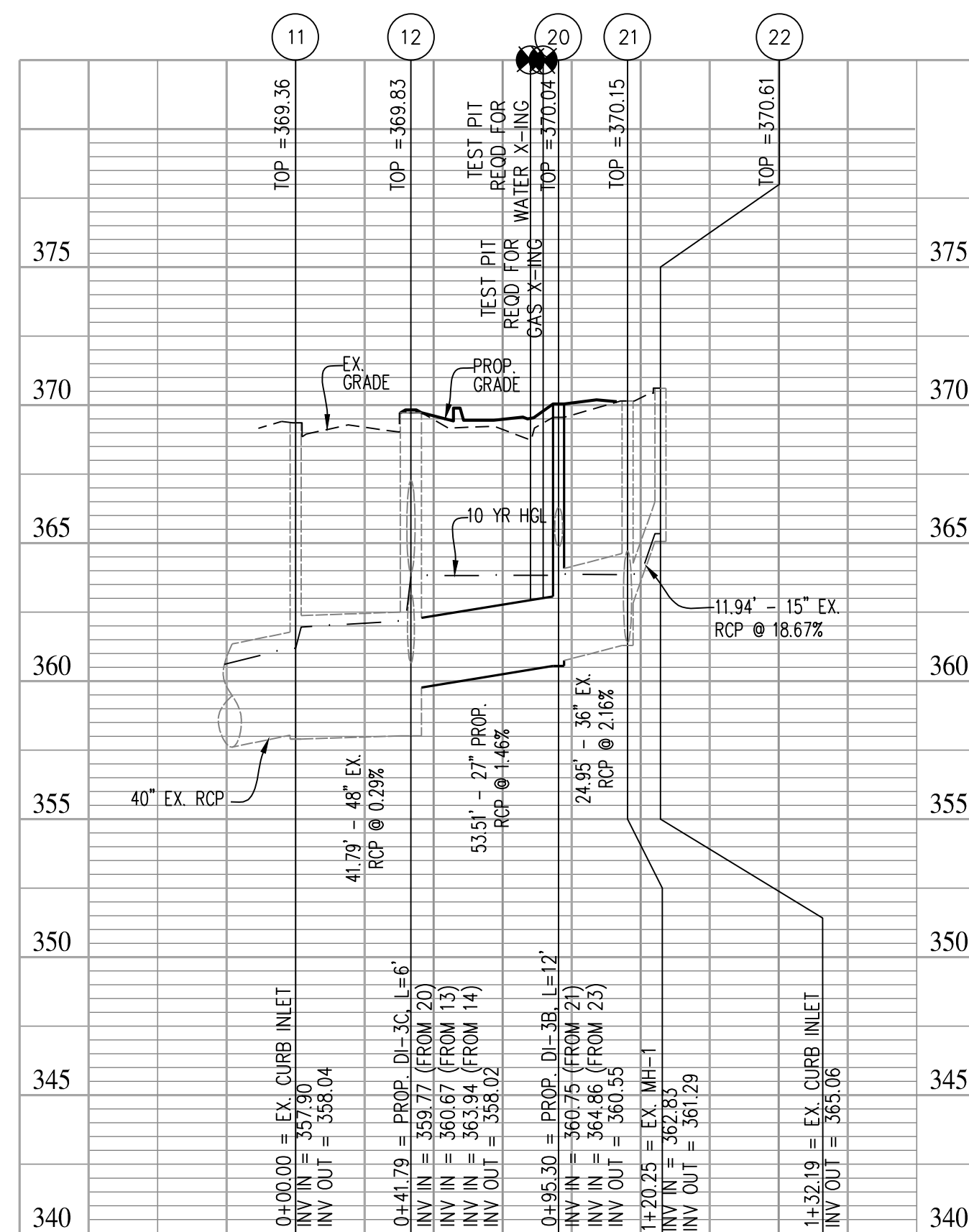
LineID	Drainage Area (ac)	Runoff Coeff (C)	Incr CxA	Total CxA	Inlet Time (min)	Tc (min)	Rainfall Intensity (in/hr)	Known Q (cfs)	Runoff Q (cfs)	Invert Up (ft)	Invert Dn (ft)	Length (ft)	Slope (%)	Diameter (in)	Capacity (cfs)	Actual Flow Velocity (ft/s)	Full Flow Vel (ft/s)
11-10	0.41	0.90	0.37	1.65	6.00	18.60	4.18	0.00	106.88	358.04	355.96	104.11	2.00	40.00	124.86	13.45	14.31
12-11	0.16	0.83	0.13	1.28	6.00	18.50	4.19	0.00	105.35	358.02	357.90	41.79	0.29	48.00	76.97	8.38	6.13
20-12	1.22	0.47	0.57	1.14	9.00	17.90	4.25	0.00	4.86	360.55	359.77	53.51	1.46	27.00	37.38	1.22	9.40
21-20	0.00	0.00	0.00	0.05	0.00	8.80	5.72	0.00	0.31	361.29	360.75	24.95	2.16	36.00	98.12	0.05	13.88
22-21	0.17	0.32	0.05	0.05	8.00	8.00	5.90	0.00	0.32	365.06	362.83	11.94	18.67	15.00	27.90	1.26	22.73

HGL COMPUTATIONS

Inlet ID	Outlet WSE (ft)	Do (in)	Qo (cfs)	Lo (ft)	Sfo (%)	Vo (ft)	Qi (cfs)	Vi (ft/s)	Hi (ft)	Angle (Deg)	Minor Loss (ft)	Final H (ft)	HGL Jct (ft)	Inlet WSE (ft)	Rim Elev (ft)
11	358.83	40.00	106.88	104.11	0.00	2.48	2.38	12.64	2.48	84.38	n/a	3.10	361.14	361.14	369.36
12	361.90	48.00	105.35	41.79	0.54	1.09	0.86	8.38	1.09	66.94	1.64	5.74	363.76	362.13	369.83
20	363.76	27.00	4.86	53.51	0.03	0.02	3.25	1.22	0.02	-84.00	0.03	3.25	363.80	363.78	370.04
21	363.80	36.00	0.31	24.95	0.00	0.00	0.00	0.05	0.00	16.20	0.00	2.51	363.80	363.80	370.15
22	363.80	15.00	0.32	11.94	0.00	0.08	0.32	2.22	0.08	3.79	n/a	0.22	365.28	365.28	370.61

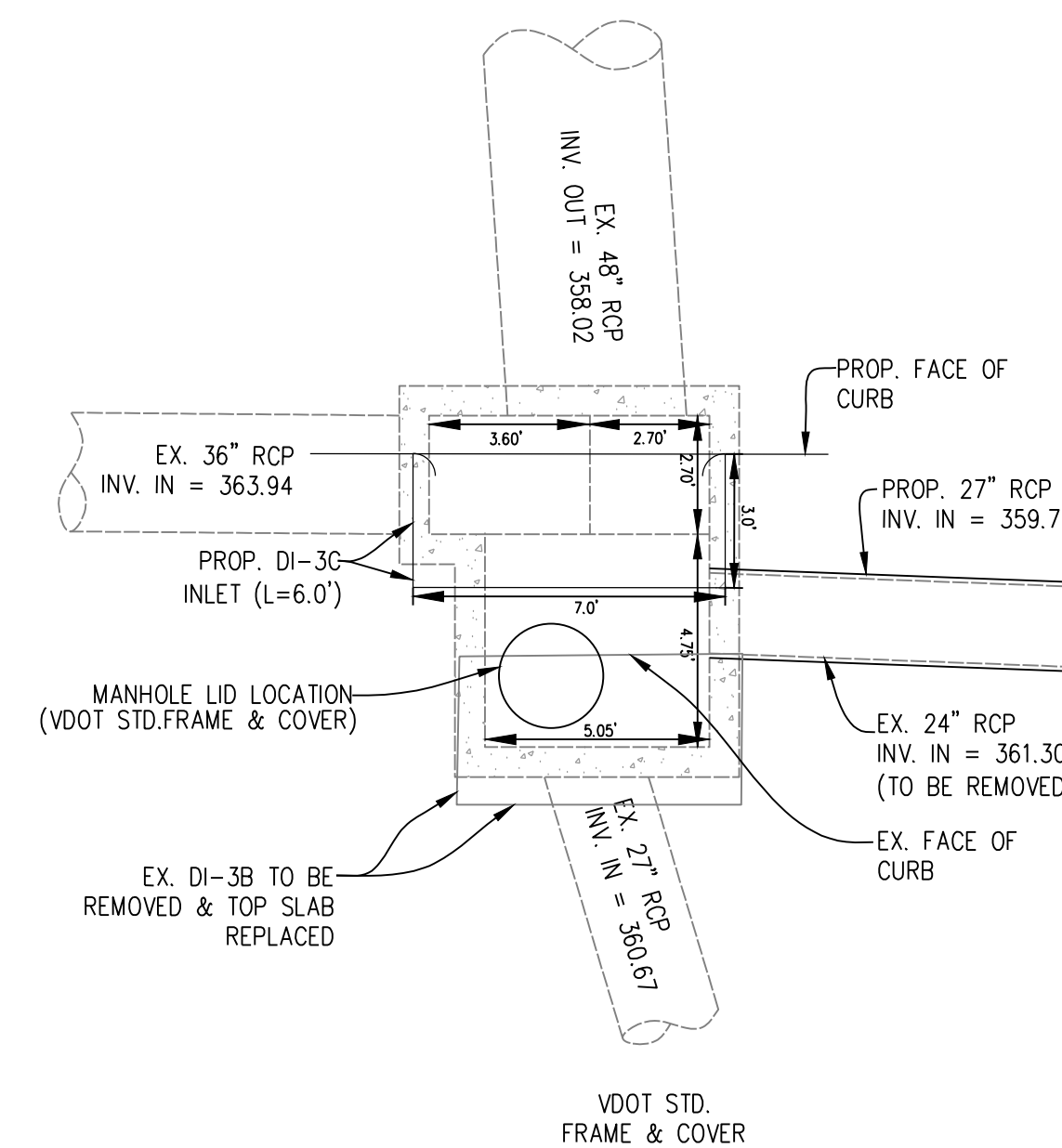
STORM PROFILE

SCALE: H: 1"=50' V: 1"=5'



DETAIL FOR STORM STRUCTURE #12

(NTS)

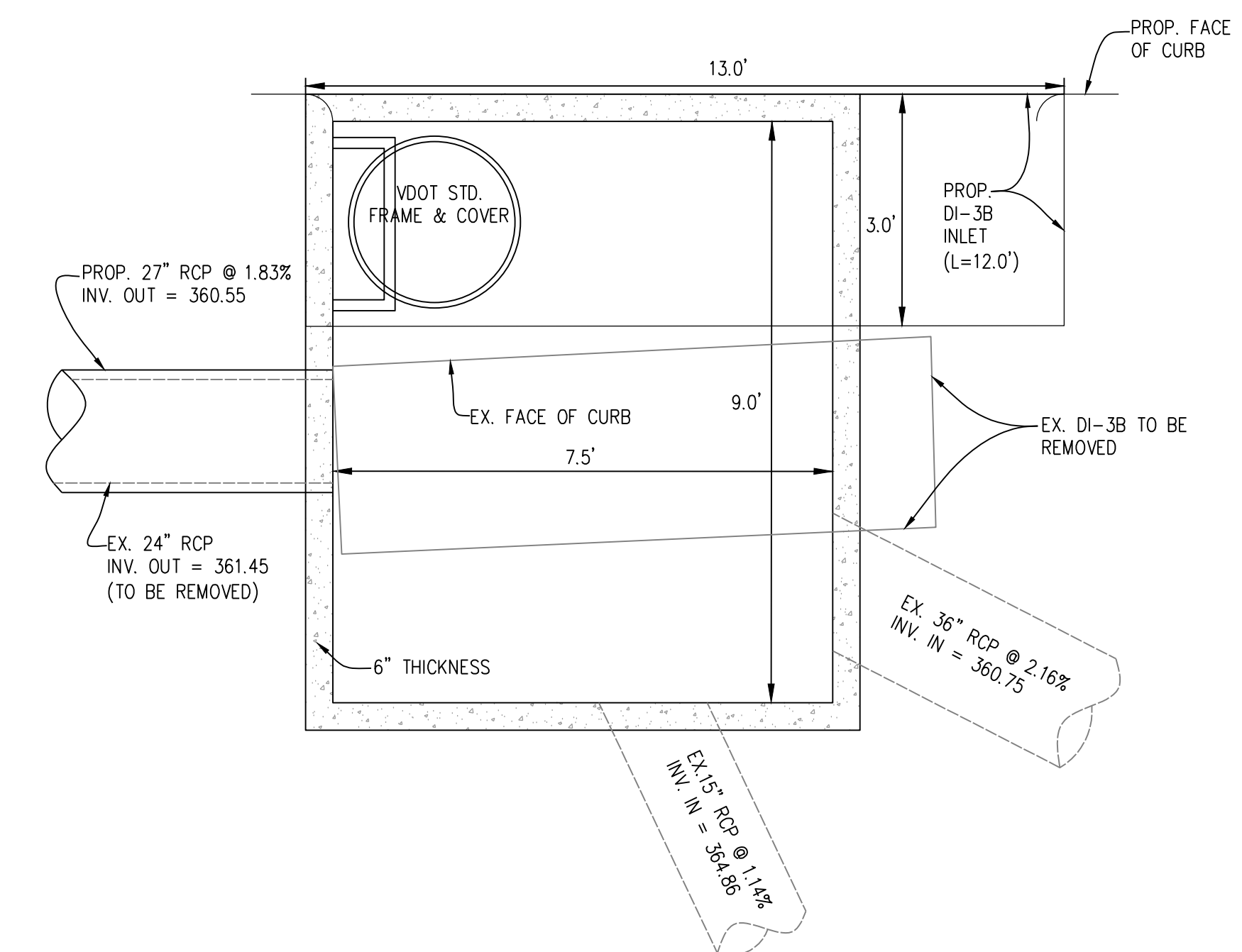


STORM STRUCTURE #12 NOTE:

PROPOSED INLET DI-3C SHALL BE CONSTRUCTED AT THE FACE OF NEW CURB AND PLACED ON THE TOP OF EXISTING JUNCTION BOX. CONTRACTOR SHALL FURNISH DETAILED SHOP DRAWINGS FOR THE STRUCTURAL DESIGN OF THE MODIFICATION TO THE EXISTING TOP STRUCTURE. SHOP DRAWINGS SHALL INCLUDE ALL STRUCTURAL INFORMATION, CONCRETE DESIGN, AND ADHERE TO THE CRITICAL DESIGN DIMENSIONS. DRAWINGS SHALL BE CERTIFIED BY A STRUCTURAL ENGINEER. SHOP DRAWINGS SHALL BE REVIEWED AND APPROVED PRIOR TO FABRICATION AND INSTALLATION.

DETAIL FOR STORM STRUCTURE #20

(NTS)



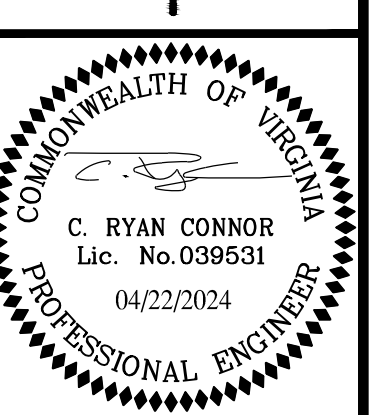
STORM STRUCTURE #20 NOTE:

CONTRACTOR SHALL FURNISH DETAILED SHOP DRAWINGS FOR THE FINAL STRUCTURAL DESIGN OF THE STRUCTURE IN ITS ENTIRETY. SHOP DRAWINGS SHALL INCLUDE ALL STRUCTURAL INFORMATION, CONCRETE DESIGN, AND ADHERE TO THE CRITICAL DESIGN DIMENSIONS. DRAWINGS SHALL BE CERTIFIED BY A STRUCTURAL ENGINEER. SHOP DRAWINGS SHALL BE REVIEWED AND APPROVED PRIOR TO FABRICATION AND INSTALLATION.

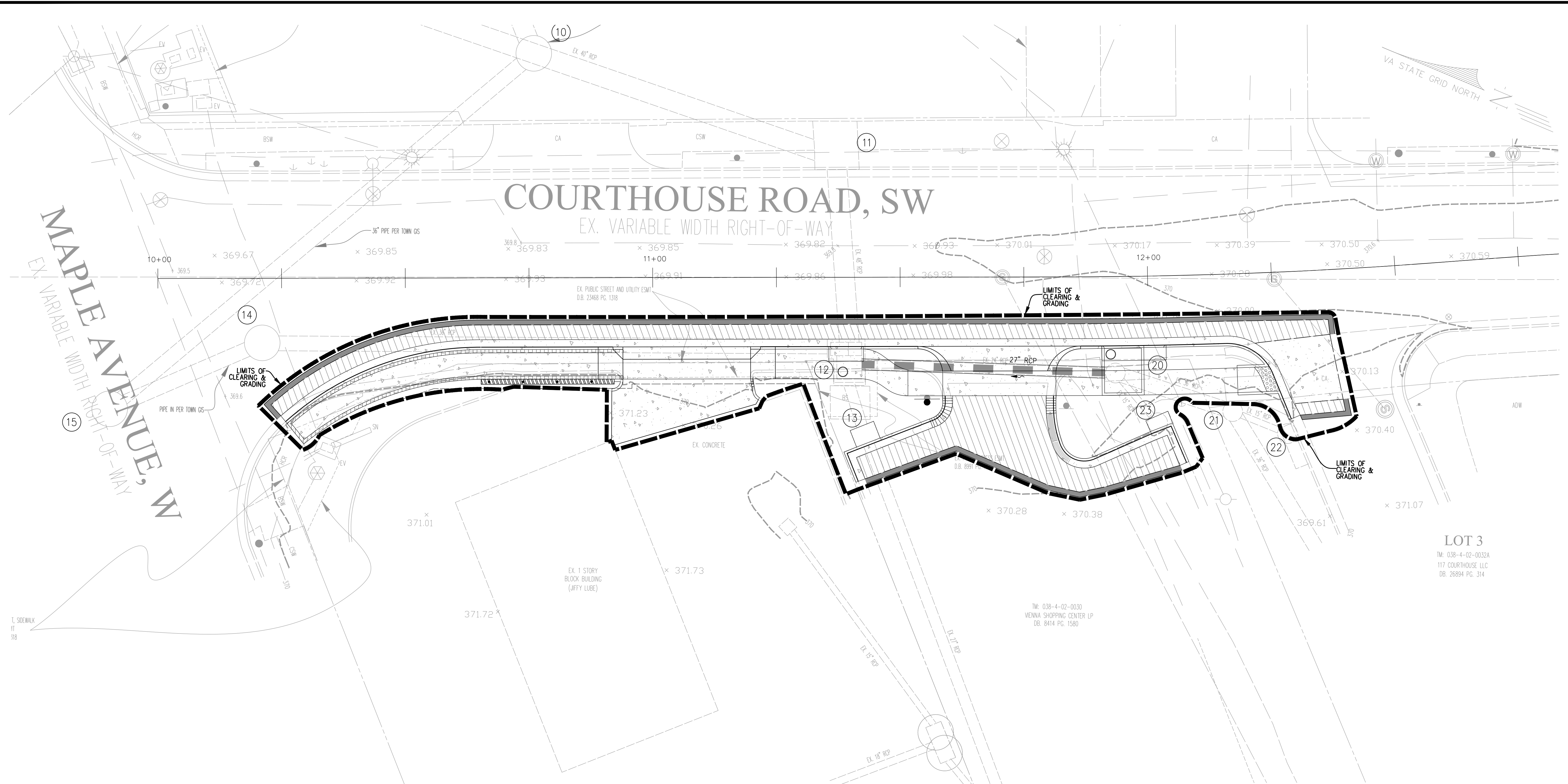
NO.	DATE	DESCRIPTION	REV. BY	APPROVED	DATE
4	04-22-2024	100% PLAN UPDATE			
3	04-10-2024	100% PLAN			
2	03-11-2024	95% PLAN			
1	12-07-2023	30% PLAN			

PLAN DATE  
 12-07-2023  
 03-11-2024  
 04-10-2024  
 04-22-2024

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STORM PROFILES & DETAILS  
 COURTHOUSE RD SW  
 SIDEWALK IMPROVEMENT PLAN PHASE I & II  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA  
 SCALE: AS SHOWN  
 DATE: JULY, 2022  
 C.I. N/A

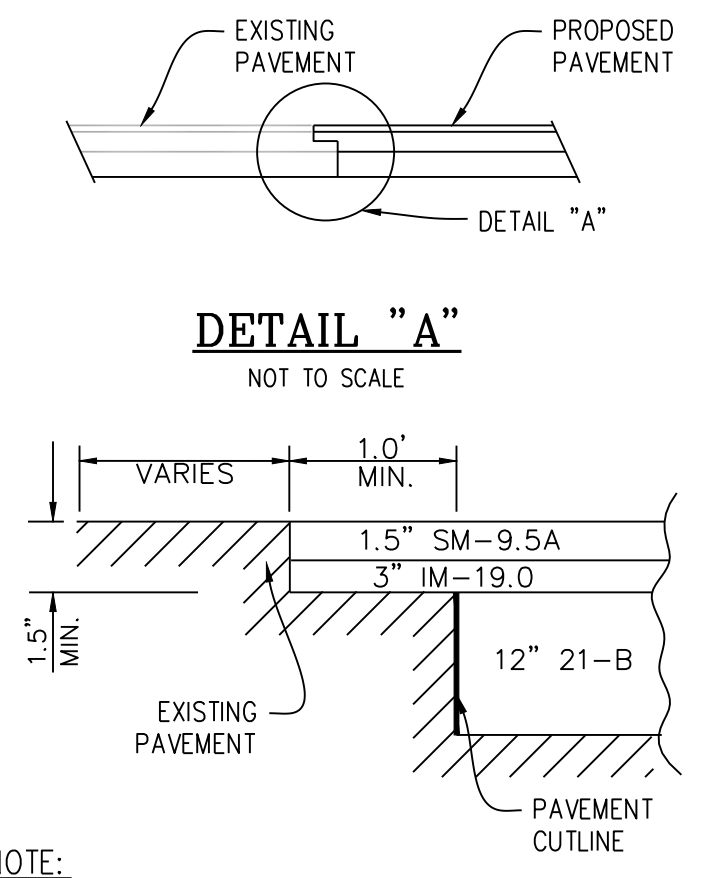


COURTHOUSE ROAD, SW PHASE I  
SCALE 1" = 10'

**PAVEMENT LEGEND**

	ASPHALT REPAIR AT EXISTING ELEVATION.
	MINIMUM PAVEMENT WEDGING AREA.
	PROPOSED CONCRETE (CURB & GUTTER, CG-12, SIDEWALK ETC)

**TYPICAL PAVEMENT WEDGING DETAIL**  
TO BE USED FOR PAVEMENT ADDITIONS

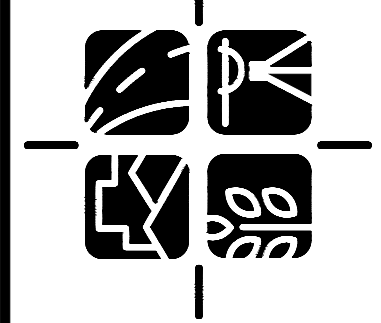


NOTE:  
BOTTOM AND ALL SIDES OF CUT TO BE PREPARED WITH ASPHALT PRIOR TO PLACING ASPHALT MIX.  
PAVEMENT WEDGING REQUIRED AT ALL CUTLINES.

NO.	DATE	DESCRIPTION	REV'BY	APPROVED	DATE
1	12-07-2023	SITE PLAN			
2	03-11-2024	95% PLAN			
3	04-10-2024	100% PLAN			
4	04-22-2024	100% PLAN UPDATE			

PLAN DATE
12-07-2023
03-11-2024
04-10-2024
04-22-2024

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www.urbanllc.com



COMMONWEALTH OF VIRGINIA  
C. RYAN CONNOR  
Lic. No. 039531  
04/22/2024  
PROFESSIONAL ENGINEER

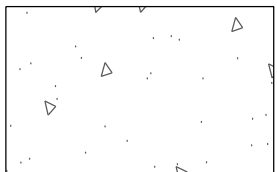
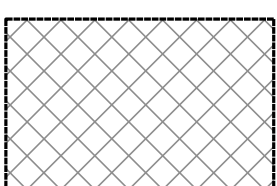

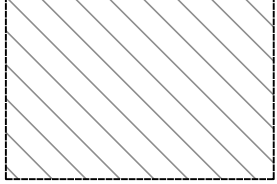
PAVEMENT IMPROVEMENT PLAN  
**COURTHOUSE RD SW**  
**SIDEWALK IMPROVEMENT PLAN PHASE I & II**  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA  
DATE: JULY, 2022  
SCALE: 1"=10'  
C.I. = 2

SHEET  
11  
OF  
16  
FILE No.  
2572

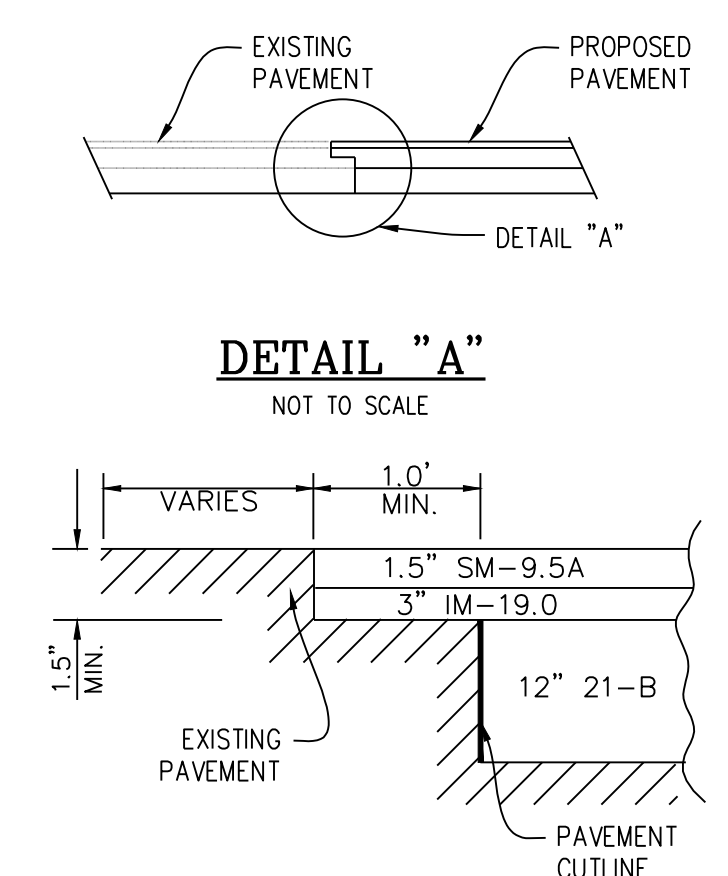


**COURTHOUSE ROAD, SW PHASE II**  
SCALE 1" = 20'

**PAVEMENT LEGEND**

-  PROPOSED CONCRETE (CURB & GUTTER, CG-12, SIDEWALK ETC)
-  PROPOSED ASPHALT DRIVEWAY
-  BUILD UP ON EXISTING GRADE
-  SCRATCH/TACK & MINOR OVERLAY OR MILL & OVERLAY OF EXISTING

**TYPICAL PAVEMENT WEDGING DETAIL**  
TO BE USED FOR PAVEMENT ADDITIONS

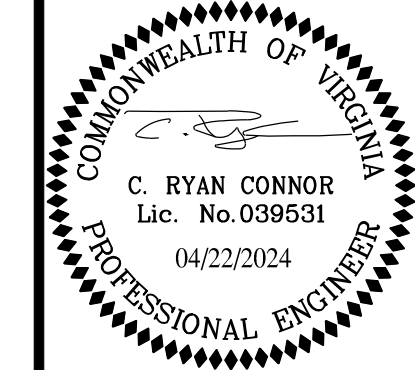
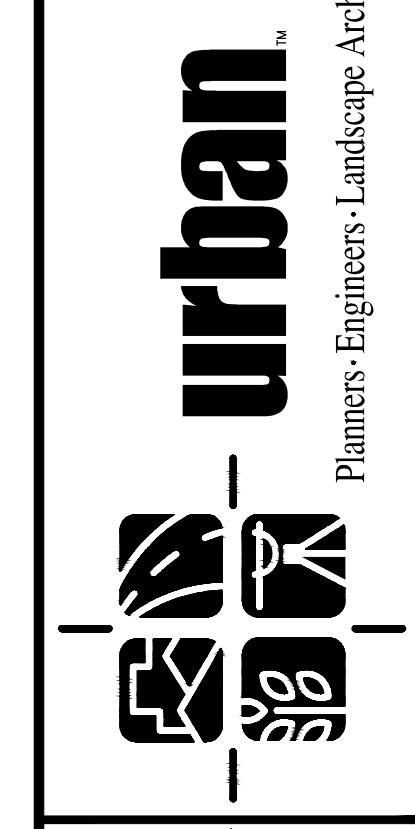


NOTE:  
BOTTOM AND ALL SIDES OF CUT TO BE PREPARED WITH ASPHALT PRIOR TO PLACING ASPHALT MIX.  
PAVEMENT WEDGING REQUIRED AT ALL CUTLINES.

NO.	DATE	DESCRIPTION	REVISIONS
1	12-07-2023	50% PLAN	
2	03-11-2024	100% PLAN	
3	04-10-2024	100% PLAN UPDATE	
4	04-22-2024	100% PLAN UPDATE	

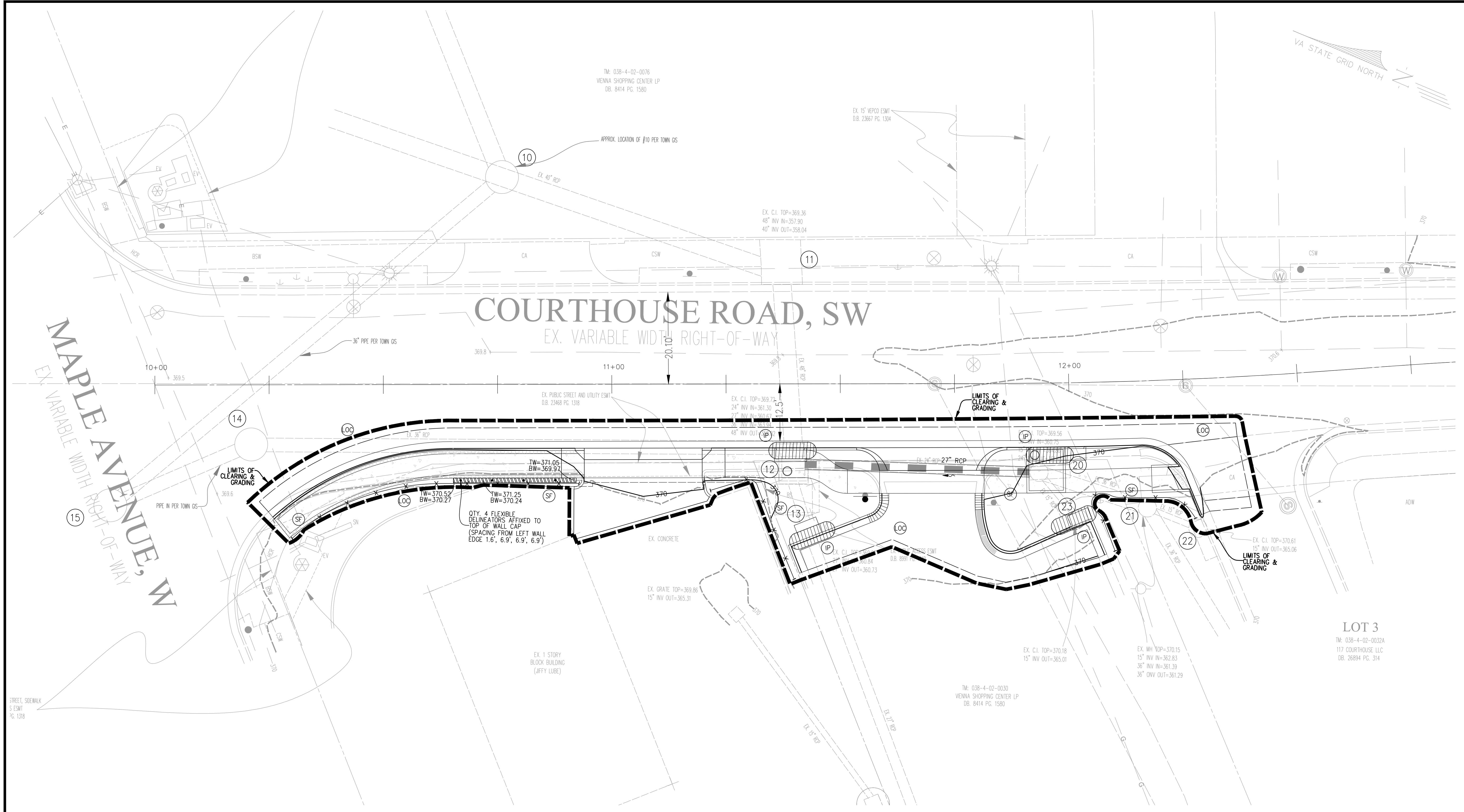
PLAN DATE	DATE	DESCRIPTION	DATE
12-07-2023	03-11-2024	50% PLAN	
03-11-2024	04-10-2024	100% PLAN	
04-10-2024	04-22-2024	100% PLAN UPDATE	

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PAVEMENT IMPROVEMENT PLAN  
**COURTHOUSE RD SW**  
**SIDEWALK IMPROVEMENT PLAN PHASE I & II**  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA

DATE: JULY, 2022  
SCALE: 1"=20'  
C.I. = 2



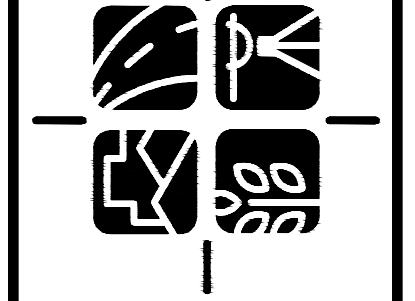
COURTHOUSE ROAD, SW PHASE I  
SCALE 1" = 10'

EROSION AND SEDIMENT CONTROL LEGEND

3.05	SILT FENCE	SF	XXXXX
3.07	STORM DRAIN INLET PROTECTION	IP	
3.38	TREE PROTECTION	TP	
	LIMITS OF CLEARING & GRADING	LOC	

PLAN DATE	DESCRIPTION	REVISIONS	DATE
04-07-2024			
03-11-2024			
04-10-2024	100% PLAN UPDATE		
04-10-2024	100% PLAN		
03-11-2024	95% PLAN		
12-07-2023	30% PLAN		

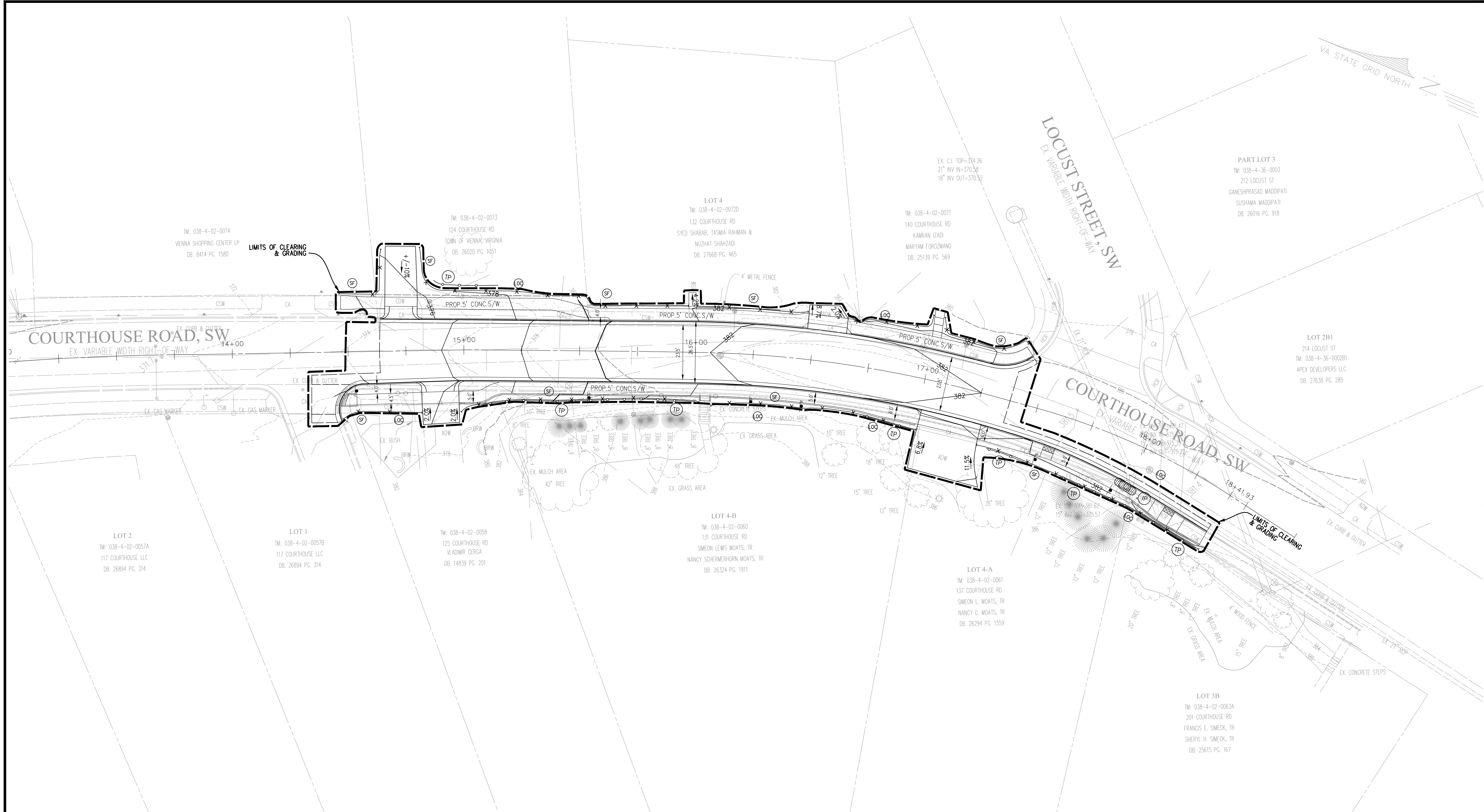
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LOT 3  
TM: 038-4-02-0032A  
117 COURTHOUSE LLC  
DB: 26894 PG. 314

EROSION AND SEDIMENT CONTROL PH I & PH II  
COURTHOUSE RD SW  
SIDEWALK IMPROVEMENT PLAN PHASE I & II  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA  
DATE: JULY, 2022  
SCALE: 1"=10'

SHEET  
13  
OF  
16  
FILE No.  
2572



COURTHOUSE ROAD, SW PHASE II  
SCALE 1" = 20'

**EROSION AND SEDIMENT CONTROL LEGEND**

3.05	SILT FENCE	SF	X X X X
3.07	STORM DRAIN INLET PROTECTION	IP	⊗
3.38	TREE PROTECTION	TP	○
	LIMITS OF CLEARING & GRADING	LOC	---

PLAN DATE	DESCRIPTION	REVIEWER	DATE
12-07-2023	30% PLAN		
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EROSION AND SEDIMENT CONTROL PH I & PH II  
 COURTHOUSE RD SW  
 SIDEWALK IMPROVEMENT PLAN PHASE I & II  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=20' DATE: JULY, 2022

# EROSION AND SEDIMENT CONTROL NARRATIVE

## PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF A SIDEWALK IMPROVEMENT PLAN FOR THE EXISTING COURTHOUSE RD SW. IMPROVEMENTS INCLUDE CURB AND GUTTER, SIDEWALK, DRIVEWAY ENTRANCES AND CG-12 DETECTABLE WARNING SURFACES. THE TOTAL DISTURBED ACREAGE FOR THE PROJECT IS 0.50 ACRES.

## EXISTING SITE CONDITIONS

THE SITE IS AN EXISTING ROAD, CCOURTHOUSE ROAD SW WITH CURB & GUTTER, DRIVEWAY ENTRANCES, AND FRONT YARDS CONTAINING MAILBOXES, WATER METERS, TREES ETC.

## ADJACENT PROPERTIES

THE SITE IS MOSTLY SURROUNDED ON ALL SIDES BY SINGLE-FAMILY LOTS. THE NW END OF THE SITE IS ADJACENT TO A COMMERCIAL LOT TO THE WEST.

## OFF-SITE AREAS

THERE IS CONSTRUCTION ON OFFSITE AREAS ADJACENT TO ROADWAY. EROSION AND SEDIMENT CONTROL DEVICES WILL BE PLACED OFFSITE AS SHOWN ON PLAN.

## SOILS INFORMATION

SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
95	URBAN LAND	N/A	N/A	N/A	IVB
105B	WHEATON-GLENELG COMPLEX*	GOOD	GOOD	HIGH	IVB

## CRITICAL EROSION AREAS

THERE ARE NO CRITICAL AREAS ASSOCIATED WITH THIS PROJECT. NO SLOPES ARE GREATER THAN 20%, AND THERE ARE NO RESOURCE PROTECTION AREAS WITHIN THE PROJECT LIMITS.

## EROSION AND SEDIMENT CONTROL MEASURES

THE EROSION AND SEDIMENT CONTROL MEASURES FOR THIS PROJECT AREA ARE DESCRIBED IN DETAIL IN THE EROSION AND SEDIMENT CONTROL PROGRAM ON THIS SHEET.

## OVERALL MANAGEMENT STRATEGY

THE OVERALL STRATEGY FOR THIS SITE IS TO TREAT THE ONSITE RUNOFF WITH PERIMETER SILT FENCE AND INLET PROTECTION.

## EROSION CONTROL PROGRAM (GENERAL GUIDELINES)

NOT MORE THAN 75% OF THE SITE IS TO BE DENUDED AT ONE TIME. TEMPORARY SEEDING AND MULCHING ARE TO BE APPLIED TO ANY AREA WITHIN THE SITE NOT CONTINUOUSLY WORKED FOR 5 DAYS AFTER CLEARING AND ROUGH GRADING. IN ADDITION, THE CONTRACTOR SHALL TAKE THE FOLLOWING STEPS TO MINIMIZE THE VOLUME OF SILT:

- CONTRACTOR SHALL EVALUATE THE SITE TO DETERMINE EXTENSIVE CUT AND FILL AREAS AND SHALL WORK THOSE AREAS TO MINIMIZE THE EXTENT OF HEAVY EQUIPMENT WORK. CONTRACTOR SHALL STRIVE TO BRING AREAS TO GRADE (ROUGH OR FINISH) AND TO STABILIZE, BY TEMPORARY OR PERMANENT VEGETATION, THESE DISTURBED AREAS PRIOR TO BEGINNING WORK IN OTHER AREAS.
- FILL AREAS SHALL BE COMPACTED COMPLETELY PRIOR TO THE END OF EACH WORK DAY. FILL SLOPE SURFACES SHALL BE LEFT ROUGHENED TO REDUCE SHEET EROSION OF THE SLOPES. CONTRACTOR SHALL REDIRECT CONCENTRATED RUNOFF, BY EARTH BERMS OR OTHER DEVICES, AROUND ACTIVELY DISTURBED AREAS TO STABILIZE OUTLETS.
- CUT SLOPE, AS NECESSARY, SHALL BE PROTECTED FROM CONCENTRATED FLOW BY BERMS ABOVE THE SLOPE AND DIRECTED AROUND THE DISTURBED AREA TO STABILIZED OUTLETS.
- IN NEW PAVEMENT AREAS, PLACE THE AGGREGATE BASE STONE ON THE FINISH SUBGRADE AT THE EARLIEST POSSIBLE TIME.
- MATERIALS AND METHODS USED IN CONSTRUCTION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES REQUIRED SHALL CONFORM TO THE CONSTRUCTION STANDARDS AND SPECIFICATIONS IN CHAPTER 3 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH), THIRD EDITION, 1992, AS WELL AS ANY OTHER APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
- WHERE APPROPRIATE AND FEASIBLE, AREAS IN WHICH NATURAL GRADES ARE NOT IMPACTED BY PROPOSED GRADING OR STOCKPILE AREAS, SHALL BE LEFT WITH THEIR EXISTING VEGETATION IN PLACE. ALL AREAS SUBJECT TO GRADING SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL.
- PERMANENT OR 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 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN 1 YEAR.

## SEDIMENT CONTROL PROGRAM (PHASE I)

- INSTALL PERIMETER CONTROLS AS SHOWN ON THE PHASE I PLAN (SILT FENCE, ETC.)  
PERIMETER CONTROLS MUST BE APPROVED IN WRITING BY THE TOWN E & S INSPECTOR BEFORE CLEARING OF THE SITE CAN TAKE PLACE
- COMMENCE CONSTRUCTION OF ALL UTILITIES AND GRADING OF THE SITE.

## SEDIMENT CONTROL PROGRAM (PHASE II)

- COMMENCE CONSTRUCTION OF CURB AND GUTTER, DRIVEWAY ENTRANCE, PAVEMENT AND SIDEWALK AS SHOWN ON THE CONSTRUCTION PLANS.
- INLET PROTECTION (IP) SHALL BE PROVIDED AT STORM DRAIN INLETS AS THEY ARE CONSTRUCTED.
- PERMANENTLY STABILIZE UNPAVED AREAS WITH SOD (PER SEC. 3.33 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK).
- THE CONTROL MEASURES MAY NOT BE REMOVED UNTIL ALL OF THE DISTURBED AREAS HAVE BEEN STABILIZED AND ONLY AS APPROVED AND DIRECTED BY THE INSPECTOR.

## MAINTENANCE

THE FOLLOWING IS A PROGRAM OF MAINTENANCE FOR THE MECHANICAL AND PERMANENT CONTROLS SPECIFIED IN THIS NARRATIVE AND ON THE PLAN:

- THE SITE SUPERINTENDENT, OR HIS REPRESENTATIVE, SHALL MAKE A VISUAL INSPECTION OF ALL MECHANICAL CONTROLS AND NEWLY STABILIZED AREAS (I.E., SEEDED OR SODDEN AREAS) ON A DAILY BASIS (ESPECIALLY AFTER A HEAVY RAINFALL) TO INSURE THAT ALL CONTROLS ARE IN PLACE AND THAT NONE HAVE BEEN DAMAGED. ANY DAMAGED CONTROL SHALL BE REPAIRED PRIOR TO END OF THE WORK DAY TO INCLUDE RESEEDING OR RESETTING, IF NECESSARY. WHEN IT IS CLEAR THAT PLANTS HAVE NOT GERMINATED ON AN AREA OR HAVE DIED, THESE AREAS MUST BE RE-SEEDED IMMEDIATELY TO PREVENT EROSION DAMAGE.
- AFTER ALL CONSTRUCTION OPERATIONS HAVE ENDED AND ALL DISTURBED AREAS ARE STABILIZED, MECHANICAL SEDIMENT CONTROLS SHALL BE REMOVED AND GROUND SHALL BE RESTORED ESTABLISHMENT OF VEGETATION, TO ITS NATURAL OR PROPOSED CONDITION. REMOVAL OF ANY CONTROL IS CONTINGENT UPON APPROVAL BY THE TOWN INSPECTOR.

## PERMANENT STABILIZATION

AFTER CONSTRUCTION IS COMPLETE ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH SEC. 3.32 AND 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

## STORMWATER MANAGEMENT

N/A

## ADDITIONAL NOTES

- THE TOWN INSPECTOR SHALL HAVE THE AUTHORITY TO DIRECT THE ADDITION OR DELETION OF EROSION AND SEDIMENT CONTROLS AS SITE CONDITIONS WARRANT.
- EARTHEN STRUCTURES ARE TO BE STABILIZED IMMEDIATELY UPON COMPLETION.

## EROSION AND SEDIMENT CONTROL MEASURES:

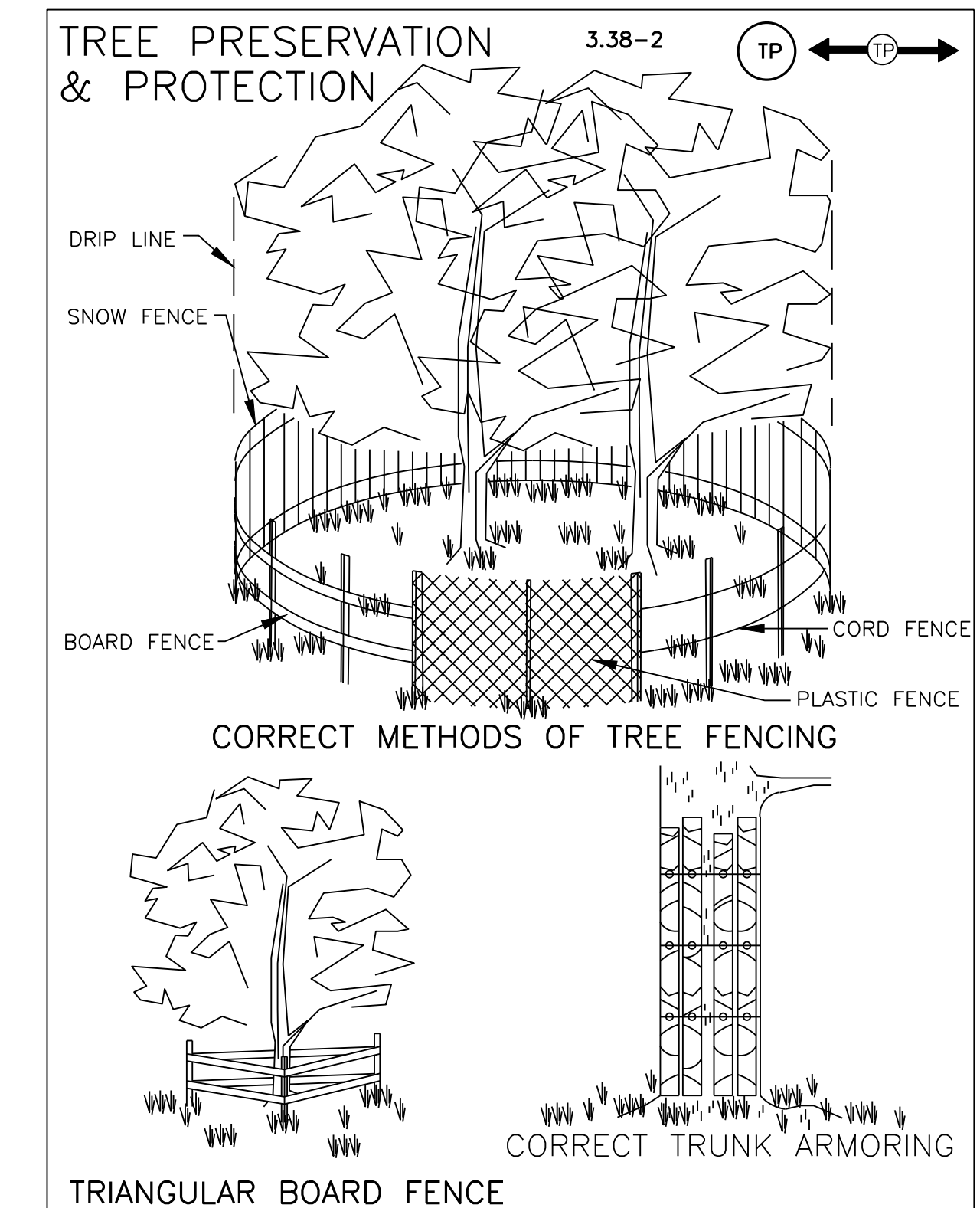
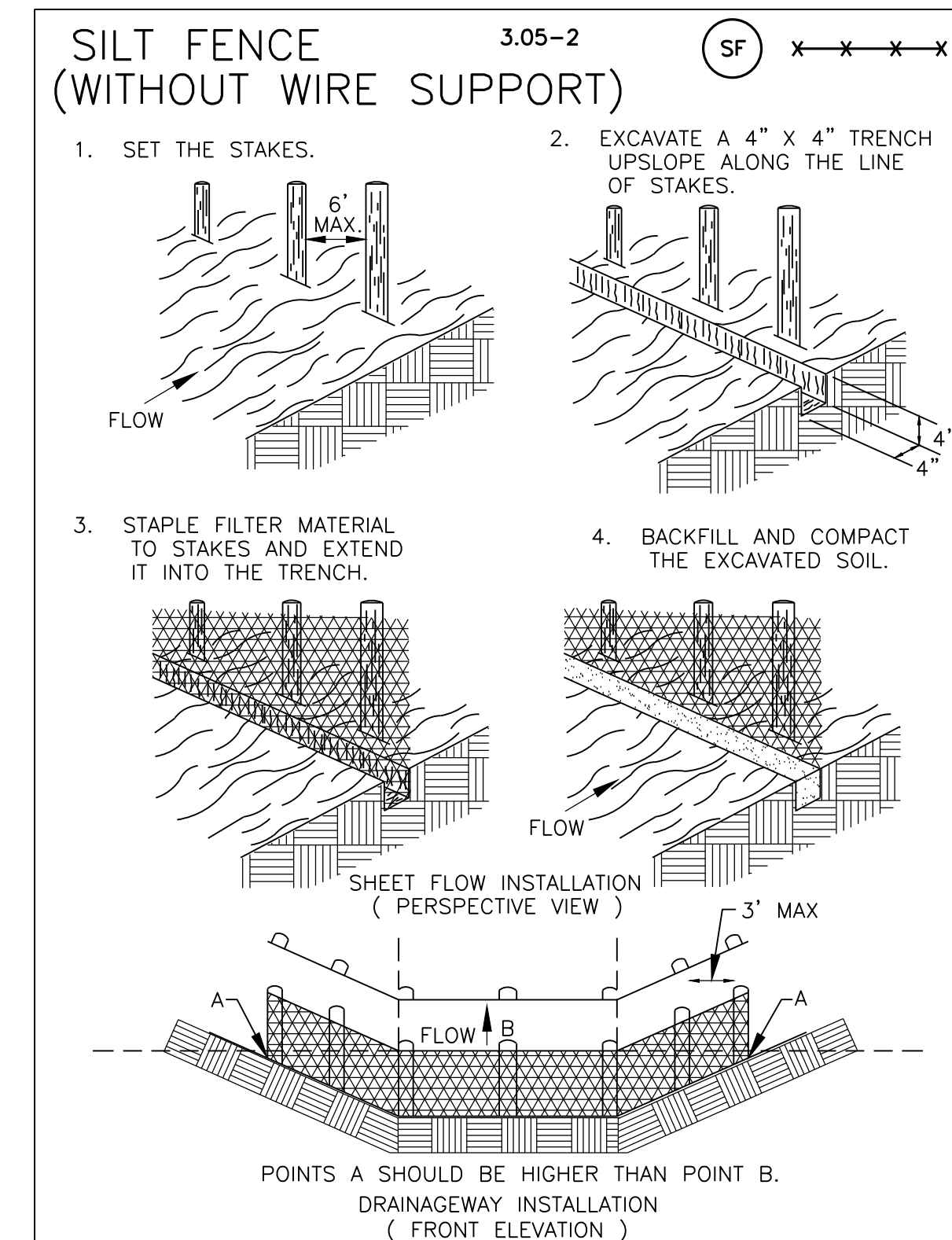
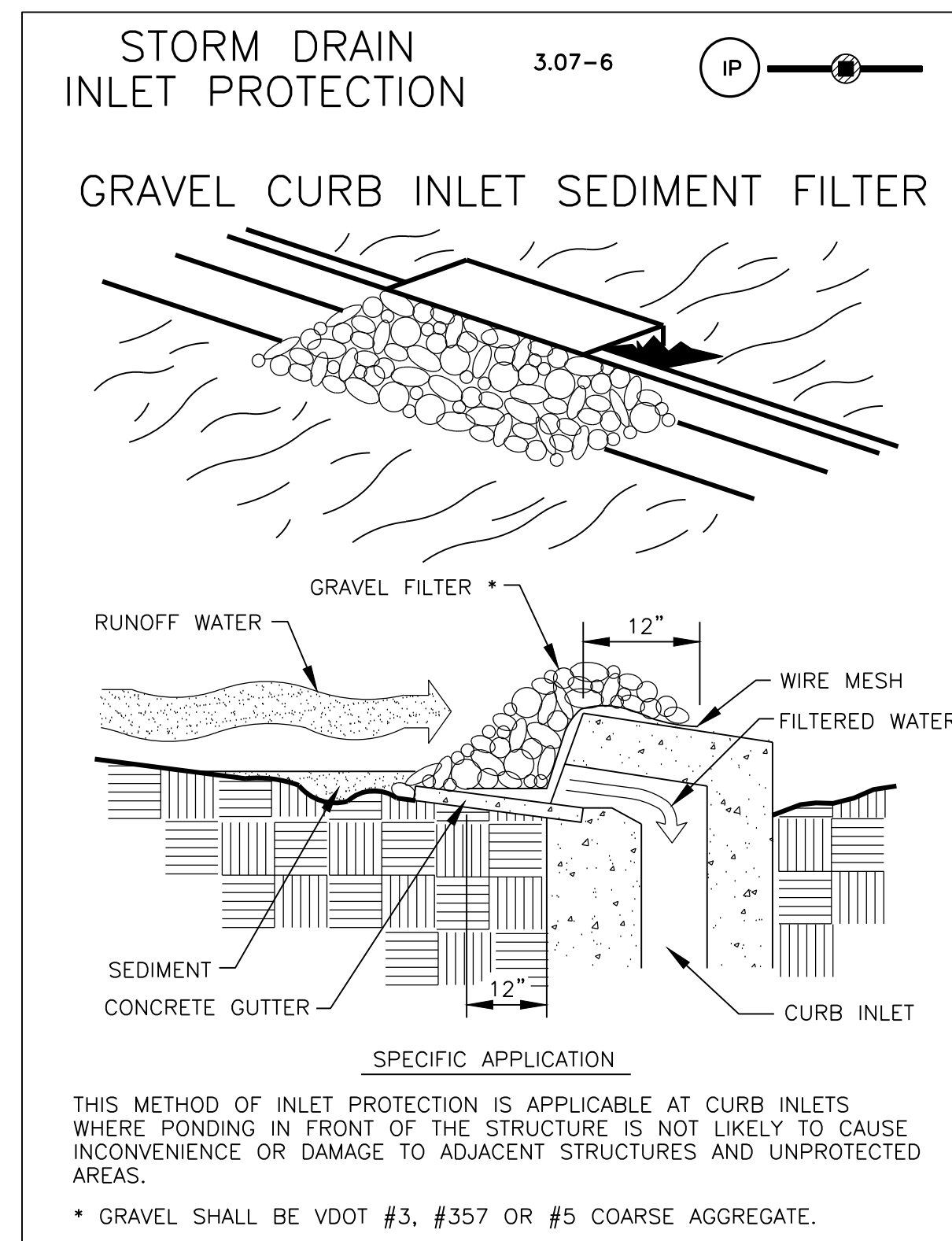
UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VESCH.

THE STRUCTURAL PRACTICES PROPOSED WITH THIS PLAN ARE AS FOLLOWS:

- SILT FENCE - 3.05**  
A TEMPORARY SEDIMENT BARRIER CONSISTING OF A SYNTHETIC FILTER FABRIC STRETCHED ACROSS AND ATTACHED TO SUPPORTING POSTS AND ENTRENCHED.
- STORM DRAIN INLET PROTECTION - 3.07**  
A SEDIMENT FILTER OR AN EXCAVATED IMPOUNDING AREA AROUND A STORM DRAIN DROP INLET OR CURB INLET.
- TOPSOILING - 3.30**  
PRESERVING AND REUSING THE SURFACE LAYER OF SOIL FROM AREAS TO BE GRADED.
- TEMPORARY SEEDING - 3.31**  
THE ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS BY SEEDING WITH APPROPRIATE RAPIDLY GROWING ANNUAL PLANTS.
- SODDING - 3.33**  
STABILIZING FINE-GRADED DISTURBED AREAS BY ESTABLISHING PERMANENT GRASS STANDS WITH SOD
- MULCHING - 3.35**  
APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIALS TO THE SOIL SURFACE.
- TREE PROTECTION - 3.38**  
PROTECTION OF DESIRABLE TREES FROM MECHANICAL AND OTHER INJURY DURING LAND DISTURBING AND CONSTRUCTION ACTIVITY.
- DUST CONTROL - 3.39**  
REDUCING SURFACE AND AIR MOVEMENT OF DUST DURING LAND DISTURBING, DEMOLITION, AND CONSTRUCTION ACTIVITIES, BY SPRAYING FROM A WATER TRUCK OR OTHER APPROVED METHOD.

## GENERAL LAND CONSERVATION NOTES

- ALL LAND CONSERVATION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- NO DISTURBED AREA WILL REMAIN DENUDED FOR MORE THAN 14 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE TOWN.
- ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING. FIRST AREAS TO BE CLEARED ARE TO BE THOSE REQUIRED FOR THE PERIMETER CONTROLS.
- ALL STORM SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL. NO MORE THAN 500 FEET ARE TO BE OPEN AT ONE TIME.
- ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 5 DAYS AFTER BACKFILL.
- ALL TEMPORARY EARTH BERMS, AND DIVERSIONS ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.
- DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY INLET PROTECTION DEVICES, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.
- AT THE COMPLETION OF CONSTRUCTION, ALL TEMPORARY SILTATION AND EROSION CONTROLS SHALL BE REMOVED AND ALL DISTURBED AREAS SHALL BE STABILIZED.



PLAN DATE	DESCRIPTION	REVIEWED	DATE
12-07-2023	12-07-2023 305F PLAN		
03-11-2024	03-11-2024 1008 PLAN		
04-10-2024	04-10-2024 1008 PLAN UPDATE		
04-22-2024	04-22-2024 1008 PLAN		

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Planners-Engineers-Landscape Architects-Land Surveyors

COMMONWEALTH OF VIRGINIA  
C. RYAN CONNOR  
Lic. No. 039531  
04/22/2024  
PROFESSIONAL ENGINEER

EROSION AND SEDIMENT CONTROL NARRATIVE & DETAILS  
COURTHOUSE RD SW  
SIDEWALK IMPROVEMENT PLAN PHASE I & II  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA  
SCALE: N/A  
DATE: JULY, 2022  
C.I. 1'

SHEET 15 OF 16  
FILE No. 2572

**BMP SITE REQUIREMENT COMPUTATIONS**

Project Name: **Town of Vienna Courthouse Road, SW Phase 1 & 2**  
 Date: **4/10/2024**  
 Linear Development Project? **No**

**CLEAR ALL**  
 (Ctrl+Shift+R)

**data input cells**  
**constant values**  
**calculation cells**  
**final results**

**Site Information**

**Post-Development Project (Treatment Volume and Loads)**

Enter Total Disturbed Area (acres) → **0.50**

Maximum reduction required:	<b>10%</b>
The site's net increase in impervious cover (acres) is:	<b>0.01</b>
Post-Development TP Load Reduction for Site (lb/yr):	<b>0.11</b>

Check:  
 BMP Design Specifications List: 2013 Draft Stds & Specs  
 Linear project? **No**  
 Land cover areas entered correctly? **✓**  
 Total disturbed area entered? **✓**

**Pre-ReDevelopment Land Cover (acres)**

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be	0.00	0.00	0.00	0.08	0.08
Impervious Cover (acres)	0.00	0.00	0.00	0.42	0.42
<b>Totals</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.42</b>	<b>0.50</b>

**Post-Development Land Cover (acres)**

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be	0.00	0.00	0.00	0.07	0.07
Impervious Cover (acres)	0.00	0.00	0.00	0.43	0.43
<b>Totals</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.43</b>	<b>0.50</b>
<b>Area Check</b>	<b>OK</b>	<b>OK</b>	<b>OK</b>	<b>OK</b>	<b>OK</b>

**Constants**

Annual Rainfall (inches)	<b>43</b>
Target Rainfall Event (inches)	<b>1.00</b>
Total Phosphorus (TP) EMC (mg/L)	<b>0.26</b>
Total Nitrogen (TN) EMC (mg/L)	<b>1.86</b>
Target TP Load (lb/acre/yr)	<b>0.41</b>
Pj (unitless correction factor)	<b>0.90</b>

**Runoff Coefficients (Rv)**

	A Soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.04	0.05	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

**LAND COVER SUMMARY -- PRE-REDEVELOPMENT**

Land Cover Summary-Pre	Listed	Adjusted <sup>1</sup>
Forest/Open Space Cover (acres)	0.00	0.00
Weighted Rv(forest)	0.00	0.00
% Forest	0%	0%
Managed Turf Cover (acres)	0.08	0.07
Weighted Rv(turf)	0.25	0.25
% Managed Turf	16%	14%
Impervious Cover (acres)	0.42	0.42
Rv(impervious)	0.95	0.95
% Impervious	84%	86%
<b>Total Site Area (acres)</b>	<b>0.50</b>	<b>0.49</b>
Site Rv	<b>0.84</b>	<b>0.85</b>

**LAND COVER SUMMARY -- POST DEVELOPMENT**

Land Cover Summary-Post (Final)	Post-Development	Post-Development New Impervious
Forest/Open Space Cover (acres)	0.00	0.00
Weighted Rv(forest)	0.00	0.00
% Forest	0%	0%
Managed Turf Cover (acres)	0.07	0.07
Weighted Rv (turf)	0.25	0.25
% Managed Turf	14%	14%
Impervious Cover (acres)	0.43	0.42
Rv(impervious)	0.95	0.95
% Impervious	86%	86%
<b>Final Site Area (acres)</b>	<b>0.50</b>	<b>0.49</b>
Final Post Dev Site Rv	<b>0.85</b>	<b>0.85</b>

**Treatment Volume and Nutrient Load**

Pre-ReDevelopment Treatment Volume (acre-ft)	0.0349	0.0347
Pre-ReDevelopment Treatment Volume (cubic feet)	1,521	1,512
Pre-ReDevelopment TP Load (lb/yr)	0.96	0.95
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	1.91	1.94
Baseline TP Load (lb/yr) (0.41 lb/acre/yr applied to pre-redevelopment area excluding previous land proposed for new impervious cover)	0.20	

**Treatment Volume and Nutrient Load**

Final Post-Development Treatment Volume (acre-ft)	0.0355	0.0347
Final Post-Development Treatment Volume (cubic feet)	1,546	1,512
Final Post-Development TP Load (lb/yr)	0.97	0.95
Final Post-Development TP Load per acre (lb/acre/yr)	1.94	1.94
Max. Reduction Required (Below Pre-ReDevelopment Load)	10%	
TP Load Reduction Required for Redeveloped Area (lb/yr)	0.09	
TP Load Reduction Required for New Impervious Area (lb/yr)	0.02	

<sup>1</sup>Adjusted Land Cover Summary:  
 Pre-Development land cover minus previous land cover (forest/open space or managed turf) acreage proposed for new impervious cover.

Adjusted total acreage is consistent with Post-Development acreage (minus acreage of new impervious cover).

Column I shows load reduction requirement for new impervious cover (based on new development load limit, 0.41 lb/acre/yr).

**Post-Development Requirement for Site Area**

TP Load Reduction Required (lb/yr)	<b>0.11</b>
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**Nitrogen Loads (Informational Purposes Only)**

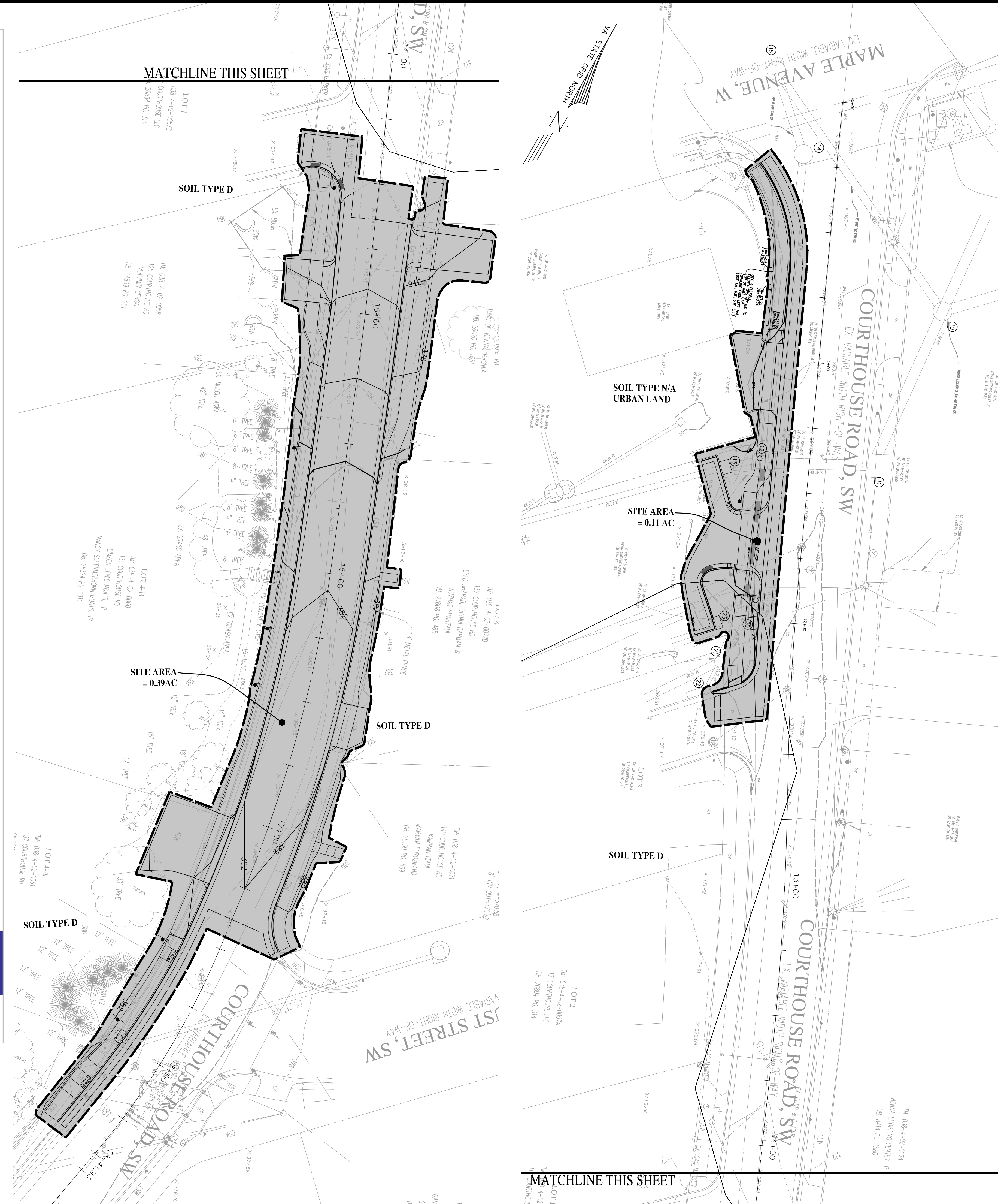
Pre-ReDevelopment TN Load (lb/yr)	6.84	Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	6.95
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NOTE: THE COMPUTATIONS SHOWN ON THIS SHEET WERE DETERMINED USING VERSION 3.0 OF THE VIRGINIA RUNOFF REDUCTION METHOD (VRRM) RE-DEVELOPMENT COMPLIANCE SPREADSHEET RELEASED AUGUST, 2017.

**BMP NARRATIVE**

THE DRAINAGE AREA UTILIZED IN THE WATER QUALITY COMPUTATIONS CONSISTS OF SITE DISTURBANCE AREA. THE MAJORITY OF THIS SITE DRAINS TO THE EXISTING INLETS AND INTO THE EXISTING STORM SYSTEM WITHIN THE PUBLIC ROW.

PER THE BMP CALCULATIONS ON THIS SHEET AND IN COMPLIANCE WITH VSM (VRRM) WATER QUALITY CONTROL REQUIREMENTS, THE PHOSPHORUS REMOVAL REQUIREMENT OF 0.11 POUNDS/YEAR IS TO BE OFFSET BY EITHER THE PURCHASE OF NUTRIENT CREDITS OR THE USE OF EXCESS IN OTHER TOWN PROJECTS, AT THE DISCRETION OF THE TOWN ENGINEER.



PLAN DATE	12-07-2023	DESCRIPTION	REVISION	DATE
1	04-22-2024	100% PLAN UPDATE		
2	04-10-2024	100% PLAN UPDATE		
3	04-10-2024	100% PLAN UPDATE		
4	04-22-2024	100% PLAN UPDATE		

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