GENERAL NOTES

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

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 AUGUST, 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 FROSION CONTROL PLANS/NARRATIVE FOR ADDITIONAL INFORMATION

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.

1. 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 OR CONTIGUOUS TO THE SITE. REPAIRS ARE REQUIRED. THE CONTRACTOR WILL COORDINATE THESE REPAIRS WITH THE TOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO 8. ANY EXISTING C&G AND PAVEMENT TO REMAIN THAT IS DAMAGED DURING 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 REPRESENTATIVE, REVIEW TEST PIT DATA AND ANY OTHER OPERATIONS 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 11. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE OWNER OF 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 ACQR 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.

1. 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

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 AND ADJUSTMENTS MAY BE MADE DUE TO CLOSE PROXIMITY OF A NEARBY SCHOOL

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

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, SUMP PUMP ETC.) MUST DAYLIGHT AT A MINIMUM OF 10 FEET FROM A PROPERTY LINE.

. 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

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

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

CONSTRUCTION SHALL BE REPLACED/REPAIRED TO TOWN OF VIENNA SATISFACTION. C&G TO BE SAW CUT, OTHERWISE REMOVE TO THE NEAREST

9. THE CONTRACTOR SHALL CONTACT MISS UTILITY COMPANY 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.

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

TOWN OF VIENNA DEPARTMENT OF PUBLIC WORKS FAIRFAX COUNTY, VIRGINIA

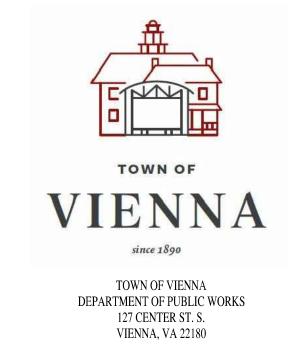
VALLEY DRIVE SE DRAINAGE IMPROVEMENT PLAN

95% DESIGN CONSTRUCTION DRAWINGS



VICINITY MAP SCALE : 1"= 200'

OWNER/DEVELOPER:



SURVEY NOTES

TOPOGRAPHICAL SURVEY PERFORMED BY FIELD RUN SURVEY BY URBAN, LTD PERFORMED IN OCTOBER, 2021.

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.

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.

SHEET INDEX

COVER SHEET

NOTES AND DETAILS

EXISTING CONDITIONS AND DEMOLITION PLAN

SITE PLAN

STORM DIVIDES

STORM PROFILES & COMPUTATIONS

PAVEMENT IMPROVEMENT PLAN

EROSION AND SEDIMENT CONTROL PLAN PH I & PH II

EROSION AND SEDIMENT CONTROL NARRATIVE AND DETAILS

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.

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

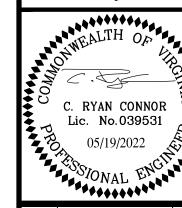
THESE UTILITIES

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

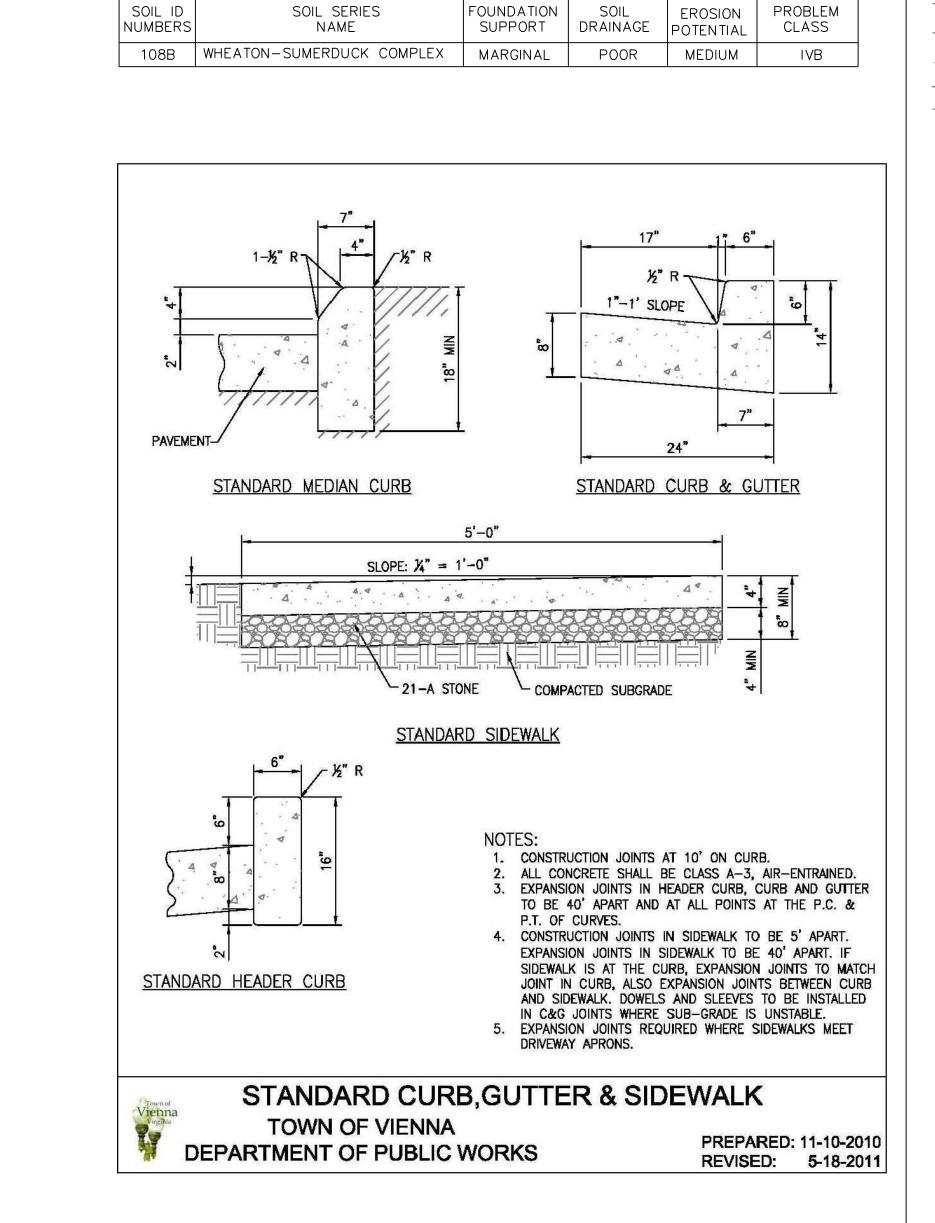




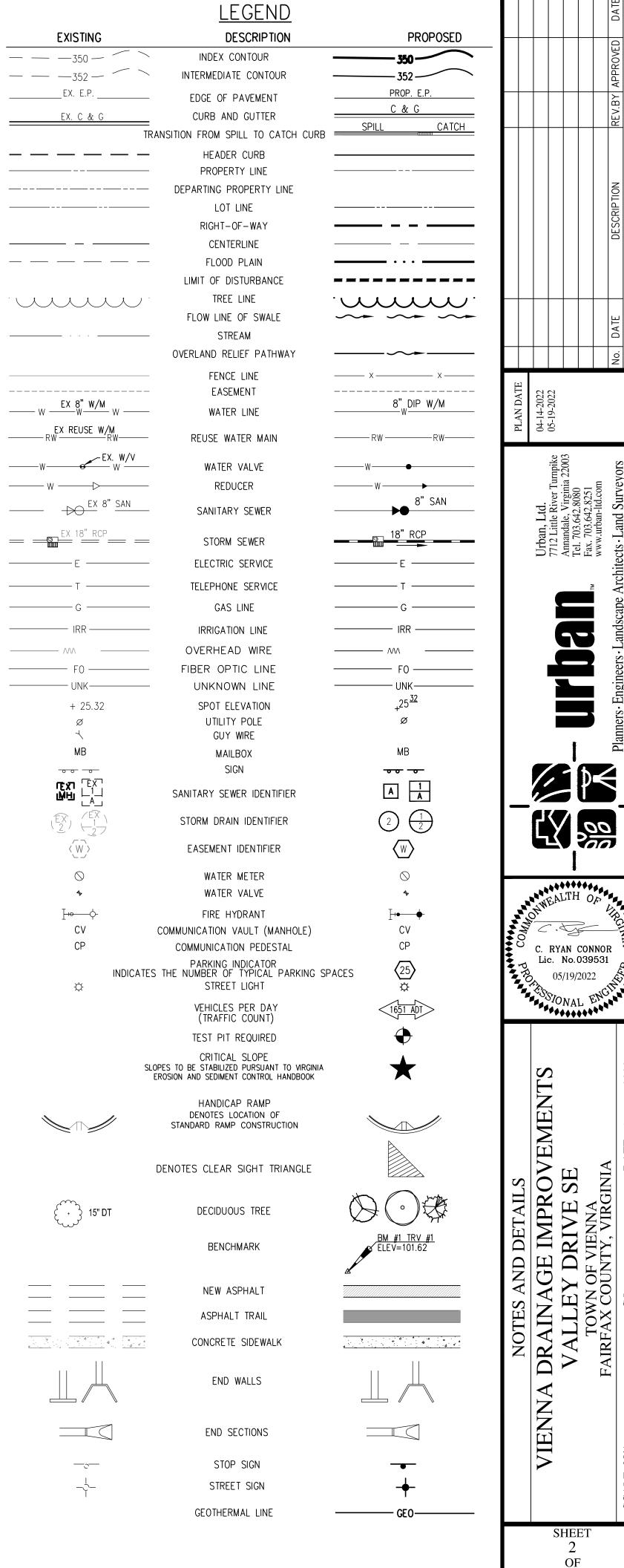


RAINAGE IMPROV
/ALLEY DRIVE SE
TOWN OF VIENNA
AIRFAX COUNTY, VIRGINIA

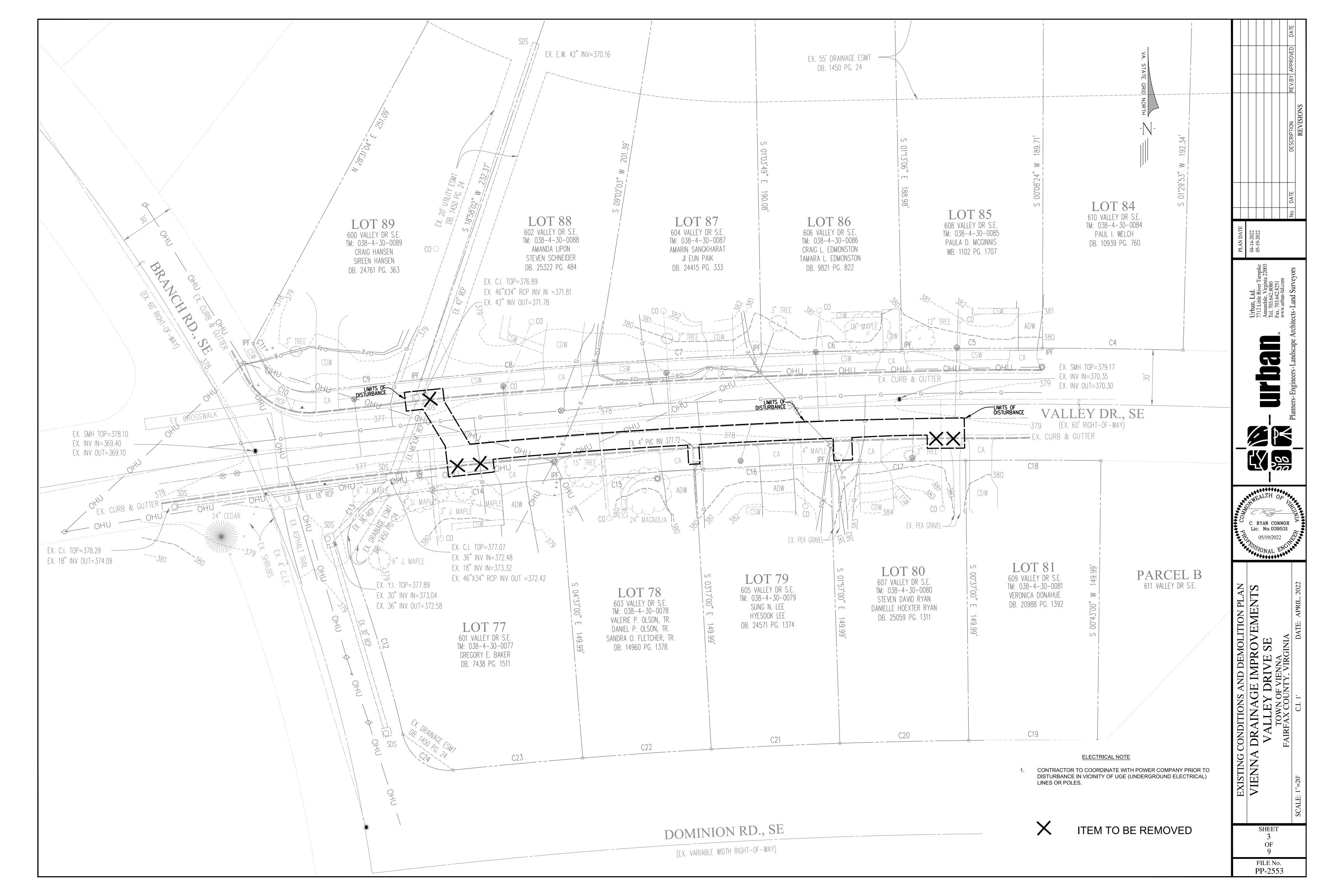
FILE No. PP-2553

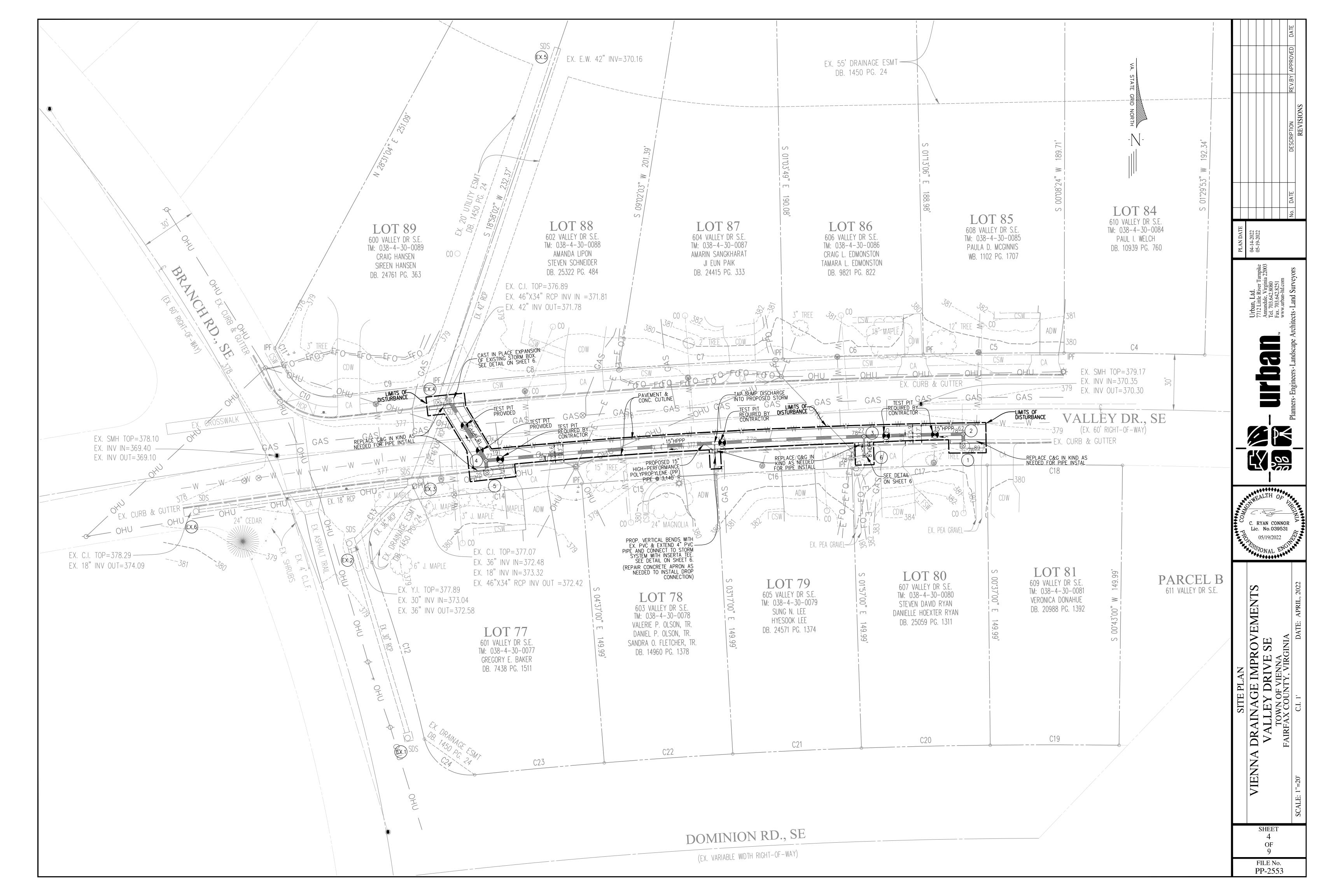


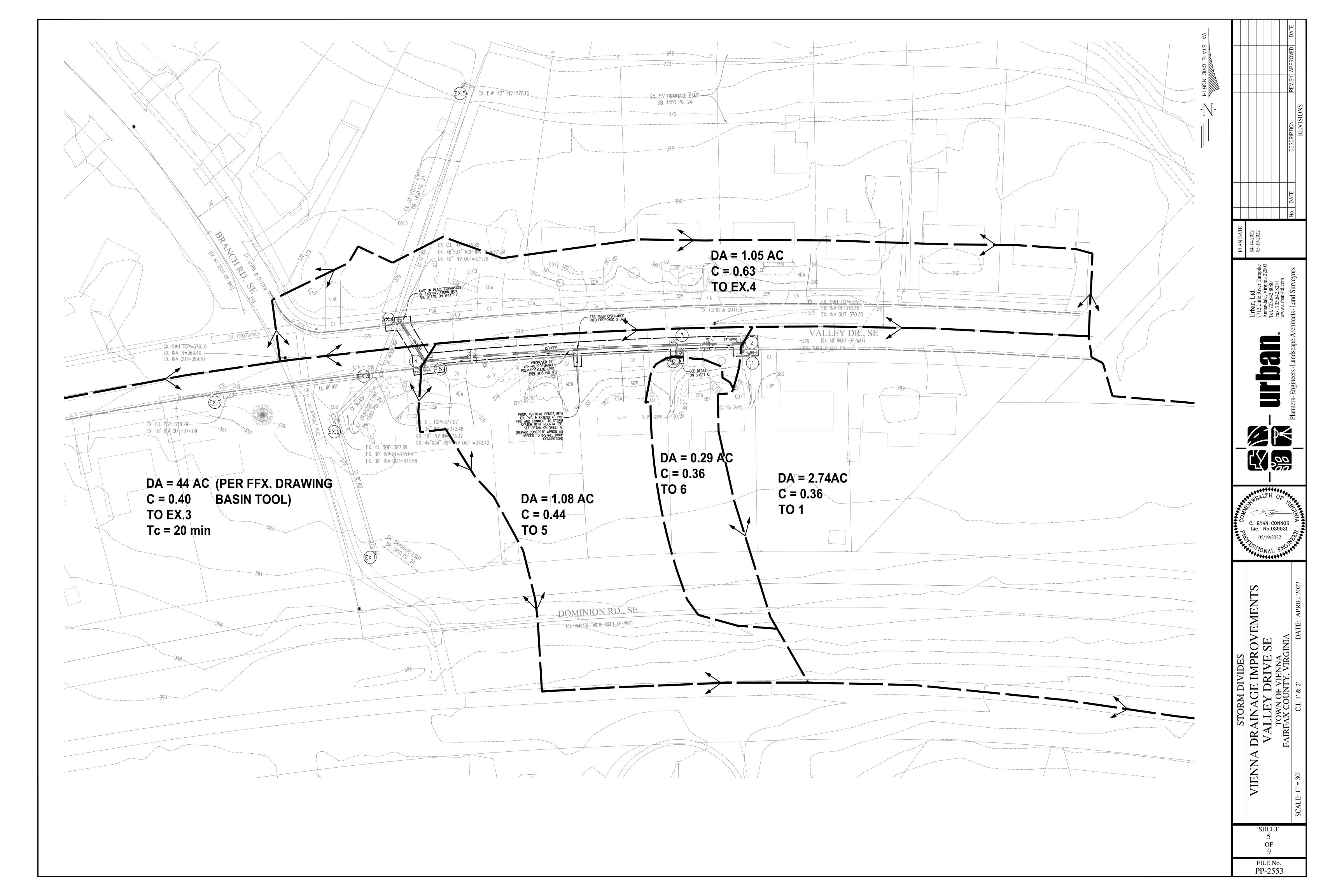
SOIL TYPE WITHIN LIMITS



FILE No. PP-2553







INLET COMPUTATIONS

Inlet ID	Inlet Type	Length	DrainageArea	С	CA	1	Q incr.	QCarryover	QCaptured	QBypass	GutterSlope	CrossSlope, Sx	T (Grade) Spread	T (Sump) Spread	w	Sw	d	E	h	Grate Area	10yr WSEL
		(ft)	(ac)	(C)		(in/hr)	(cfs)	(cfs)	(cfs)	(cfs)	(ft/ft)	(ft/ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft)	(%)	(in)	(sqft)	
EX.4	Curb	12	1.05	0.63	0.66	5.9	74.3	0	74.3	0	Sag	0.02		150.47	1.5	0.083	3.23	100	5.5		
4	MH-1		0	0	0	0	0		****				****								
3	MH-1		0	0	0	0	0														
2	MH-1		0	0	0	0	0		****	****			****		****			****	****		
1	DI-3B	12	2.74	0.36	0.99	5.67	5.59	0	4.56	1.03	0.01	0.02	12.48		1.5	0.083	0.47	82	5.5		
5	DI-3B	12	1.08	0.44	0.48	5.67	2.69	1.03	3.47	0.25	0.01	0.02	10.56		1.5	0.083	0.43	93	5.5		****
6	ACO CB		0.29	0.36	0.1	5.67	0.59	0	0.59	0	Sag	0.05	5.13		1.5	0.054	0.08	100		4	378.83

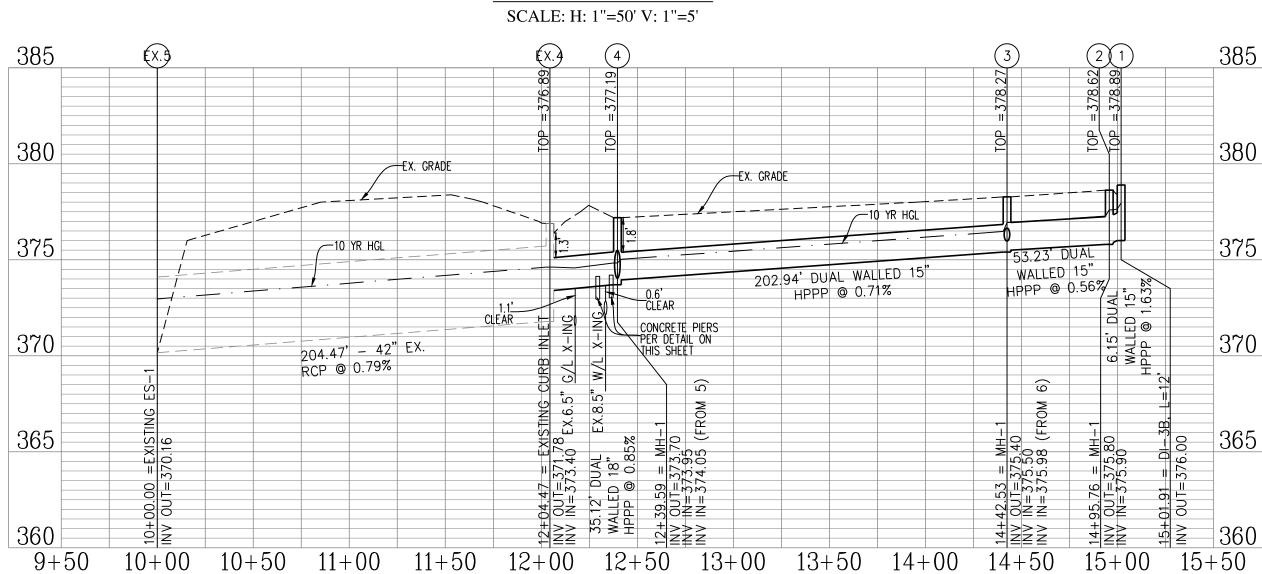
STORM PIPE COMPUTATIONS

LineID	D rainageArea	RunoffCoeff	IncrCxA	TotalCxA	Inlet Time	Тс	Rainfall Intensity	KnownQ	Runoff Q	InvertUp	InvertDn	Length	Slope	Diameter	Capacity	Actual Flow Velocity	Full Flow Vel
	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(%)	(in)	(cfs)	(ft/s)	(ft/s)
EX.4 - EX.5	1.05	0.63	0.66	2.23	8	10	5.45	70.4	82.53	371.78	370.16	204.47	0.79	42	89.55	9.95	9.31
4 - EX.4	0	0	0	1.57	0	9.9	5.47	0	8.57	373.7	373.4	35.12	0.85	18	10.51	5.79	5.95
3 - 4	0	0	0	1.09	0	9.2	5.62	0	6.13	375.4	373.95	202.94	0.71	15	5.91	5.48	4.82
2 - 3	0	0	0	0.99	0	9	5.66	0	5.58	375.8	375.5	53.23	0.56	15	5.25	4.55	4.28
1 - 2	2.74	0.36	0.99	0.99	9	9	5.67	0	5.59	376	375.9	6.15	1.63	15	8.92	4.55	7.27
5 - 4	1.08	0.44	0.48	0.48	9	9	5.67	0	2.69	374.1	374.05	6.346	0.8	15	6.24	3.72	5.08
6 - 3	0.29	0.36	0.1	0.1	9	9	5.67	0	0.59	376.1	375.98	10.28	1.14	8	1.39	1.69	3.98

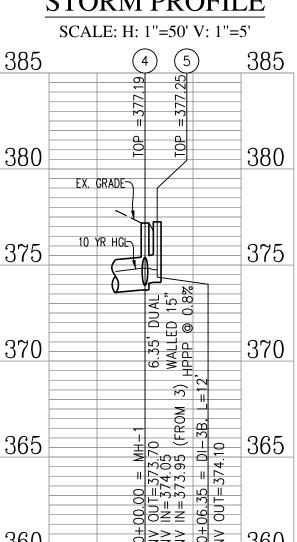
HGL COMPUTATIONS

InletID	Outlet WSE	Do	Qo	Lo	Sfo	Vo	Qi	Vi	Hi	Angle	MinorLoss	Final H	HGLJnct	Inlet WSE	Rim Elev
	(ft)	(in)	(cfs)	(ft)	(%)	(ft)	(cfs)	(ft/s)	(ft)	(Deg)	(ft)	(ft)	(ft)	(ft)	(ft)
EX.4	372.96	42.00	82.53	204.47	0.00	1.52	74.30	9.90	1.52	108.34	n/a	2.83	374.61	374.61	376.89
4	374.61	18.00	8.57	35.12	0.00	0.56	0.00	5.99	0.56	-49.64	n/a	1.13	374.83	374.83 j	377.19
3	375.02	15.00	6.13	202.94	0.71	0.47	0.00	5.48	0.47	-60.55	0.47	1.54	376.94	376.47	378.27
2	376.94	15.00	5.58	53.23	0.64	0.32	0.00	4.55	0.32	0.00	0.32	1.80	377.60	377.28	378.62
1	377.6	15.00	5.59	6.15	0.64	0.32	5.59	4.55	0.32	90.49	0.32	1.96	377.96	377.64	378.89
5	374.83	15.00	2.69	6.35	0.00	0.26	2.69	4.11	0.26	25.76	n/a	0.66	374.76	374.76	377.25
6	376.94	8.00	0.59	10.28	0.20	0.04	0.59	1.69	0.04	91.85	0.04	0.90	377.00	376.96	378.75

STORM PROFILE

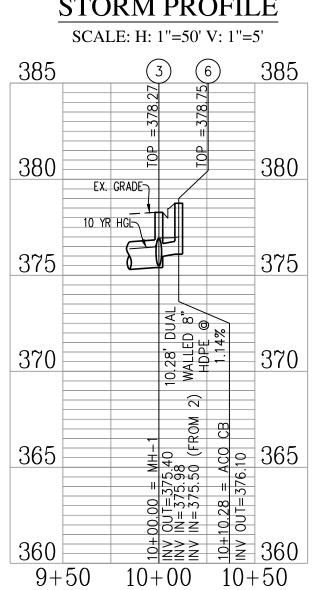


STORM PROFILE

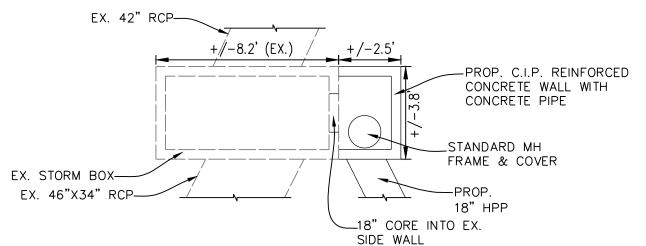


10+00

STORM PROFILE

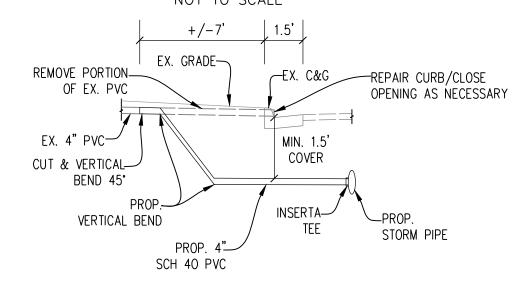


EXISTING STRUCTURE 4 EXPANSION DETAIL

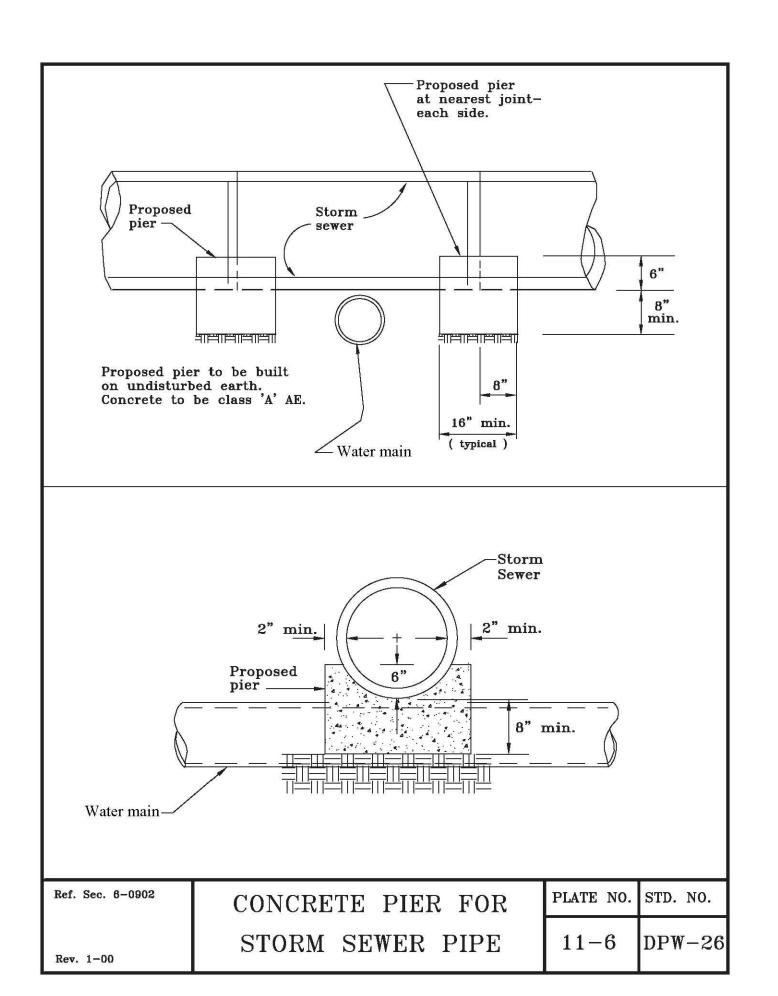


- 1. ALL DIMENSIONS APPROXIMATE TO BE FIELD VERIFIED
- & ADJUSTED TO ACTUAL CONDITIONS. 2. CONTRACTOR TO FURNISH SHOP DRAWINGS CERTIFIED BY STRUCTURAL ENGINEER OR USE VDOT STANDARDS.

TYPICAL CURB DRAIN DROP CONNECTION DETAIL NOT TO SCALE

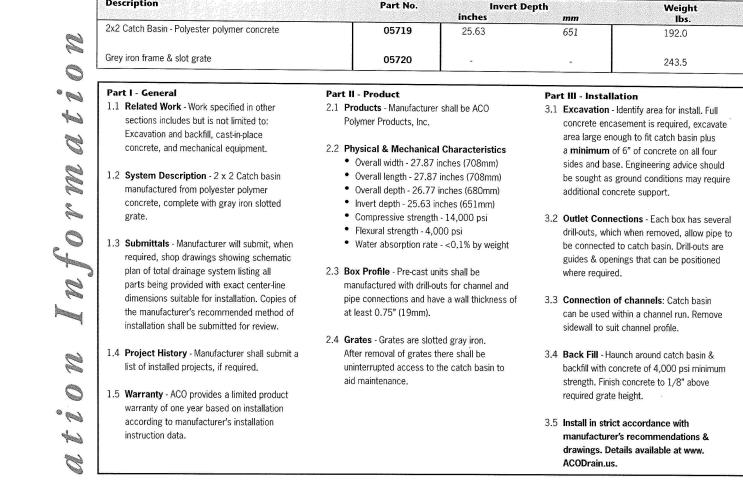


CONTRACTOR TO LOCATE TO AVOID ANY DRY UTILITIES.



ACO DRAIN

2x2 Polyester polymer concrete catch basin





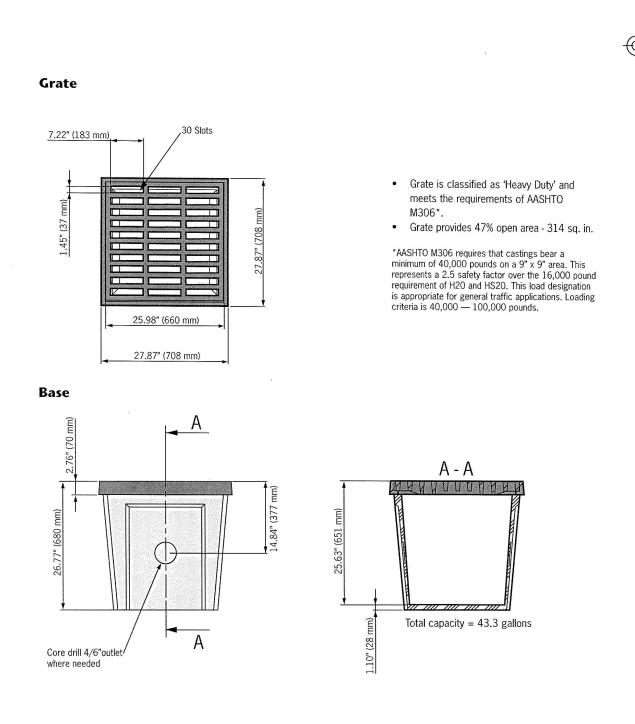
info@ACODrain.us Fax: (440) 285-7005 Fax: (520) 421-9899 © February 11, 2013 ACO Polymer Products, Inc. This information is believed to be accurate but it is not guaranteed to be so. We cannot assume liability for results that buyer obtains with our product since conditions of use are beyond the control of the company. It is the customer's responsibility to evaluate suitability and safety of product for his own use. ACO Polymer Products Inc. reserves the right to change the product and specifications without notice.

SPEC Z

Electronic Contact:

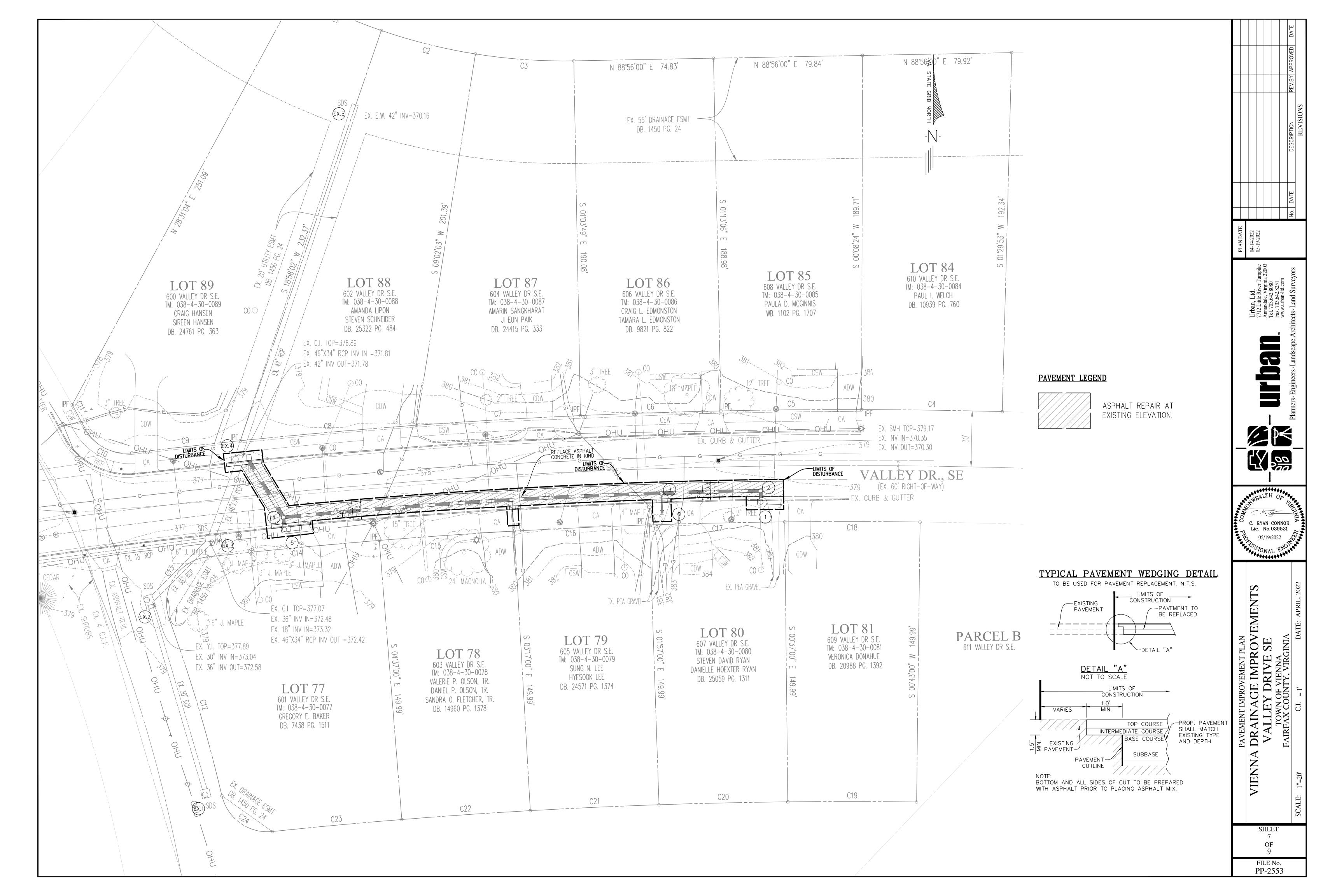
ACO DRAIN

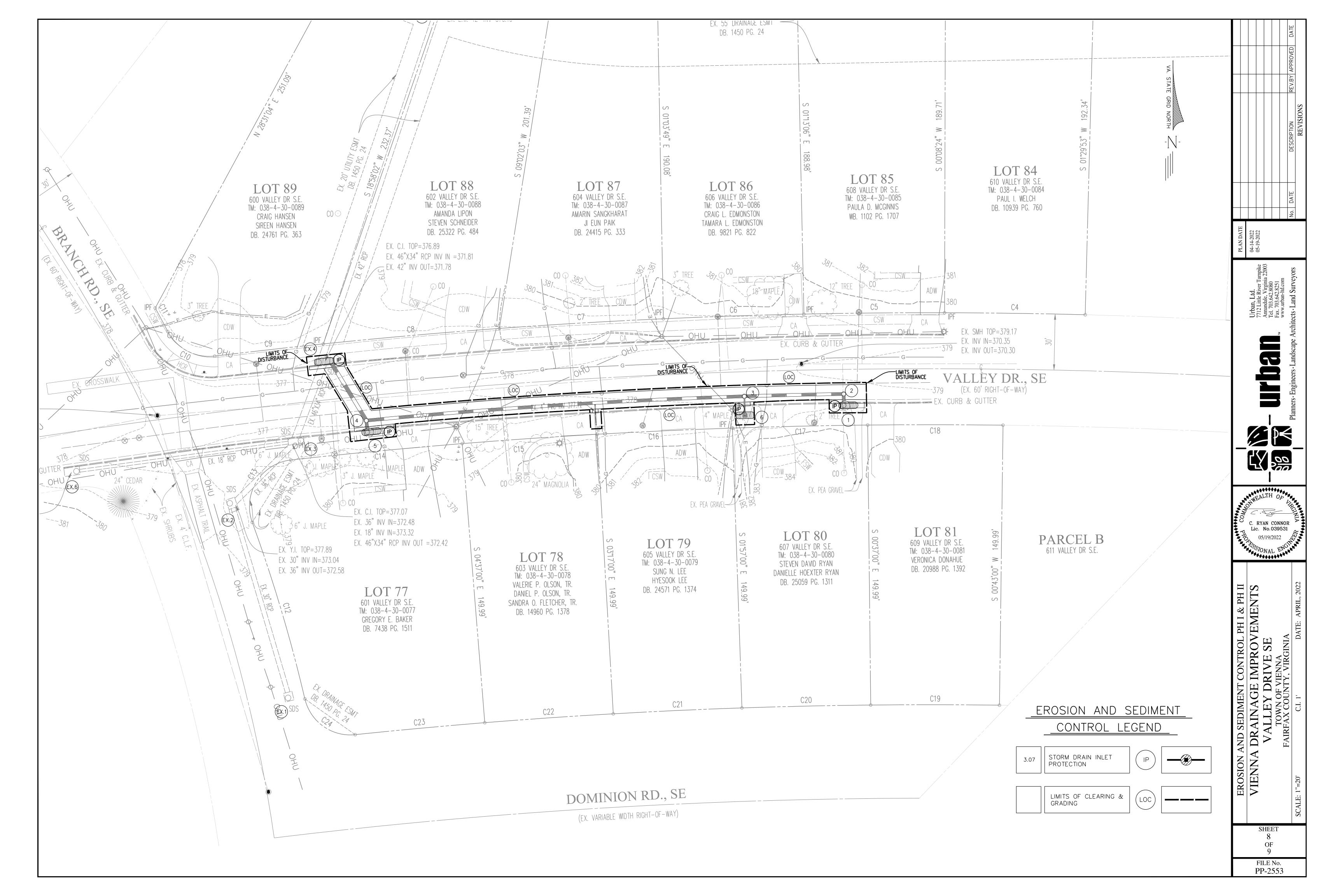
2x2 Polyester polymer concrete catch basin



0 · 60 5

C. RYAN CONNOR Lic. No.039531 05/19/2022 SIONAL M PROFILES & COMPUTATIONS
DRAINAGE IMPROVEMENT
VALLEY DRIVE SE FILE No. PP-2553





EROSION AND SEDIMENT CONTROL NARRATIVE
PROJECT DESCRIPTION THIS PROJECT CONSISTS OF A DRAINAGE IMPROVEMENT PLAN FOR THE EXISTING VALLEY DRIVE SE. IMPROVEMENTS INCLUDE THE NEW INLETS AND NEW STORM PIPE, AS WELL AS REPLACING EXISTING CURB & GUTTER AND PAVEMENT. THE TOTAL DISTURBED ACREAGE FOR THE PROJECT IS 0.082 ACRES.
EXISTING SITE CONDITIONS THE SITE IS EXISTING VALLEY DRIVE SE ROAD. THE LIMITS OF CLEARING ARE CONTAINED WITHIN THE TOWN OF VIENNA RIGHT OF WAY AND IMPACT EXISTING PAVEMENT AND SOME CURB & GUTTER.
ADJACENT PROPERTIES THE SITE IS SURROUNDED ON ALL SIDES BY SINGLE—FAMILY LOTS.
OFFSITE AREAS ALL CONSTRUCTION WILL TAKE PLACE WITHIN THE TOWN OF VIENNA RIGHT OF WAY.
SOILS INFORMATION THE ENTIRE SITE CONSISTS OF WHEATON-SUMERDUCK COMPLEX. SEE SOIL TYPE ON SHEET 2.
CRITICAL AREAS THE SITE CONSISTS MAINLY OF PAVED ROAD, AND THERE ARE NO STEEP SLOPES OR RESOURCE PROTECTION AREAS WITHIN THE PROJECT LIMITS.
<u>EROSION AND SEDIMENT CONTROL MEASURES</u> 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 INLET PROTECTION BEFORE IT ENTERS THE EXISTING STORM SEWER SYSTEM.
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:
1. 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.
2. 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.
3. CUT SLOPE, AS NECESSARY, SHALL BE PROTECTED FROM CONCENTRATED FLOW BY BERMS ABOVE THE SLOPE AND DIRECTED AROUND THE DISTURBED AREA TO STABILIZED OUTLETS.
4. IN NEW PAVEMENT AREAS, PLACE THE AGGREGATE BASE STONE ON THE FINISH SUBGRADE AT THE EARLIEST POSSIBLE TIME.
5. 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.
6. 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.
7. 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) 1. INSTALL PERIMETER CONTROLS AS SHOWN ON THE SITE PLAN (INLET PROTECTION). PERIMETER CONTROLS MUST BE APPROVED IN WRITING BY THE TOWN E&S INSPECTOR BEFORE CLEARING OF THE SITE CAN TAKE PLACE.
 COMMENCE PAVEMENT CUTS AND PAVEMENT REMOVAL. CONSTRUCT STORM SEWER IMPROVEMENTS.
SEDIMENT CONTROL PROGRAM (PHASE II) 1. COMMENCE CONSTRUCTION OF CURB & GUTTER AND PAVEMENT AS SHOWN ON THE CONSTRUCTION PLANS.
2. INLET PROTECTION (IP) SHALL BE PROVIDED AT STORM DRAIN INLETS AS THEY ARE CONSTRUCTED.
3. PERMANENTLY STABILIZE UNPAVED AREAS WITH SEED OR SOD (PER SEC. 3.32 AND SEC. 3.33 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK).
4. 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:
1. 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.
2. 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, EXCEPT IN THOSE UNPAVED AREAS WHERE THE TOWN DETERMINES SOD SHALL BE PLACED.
STORMWATER MANAGEMENT N/A
ADDITIONAL NOTES 1. THE TOWN INSPECTOR SHALL HAVE THE AUTHORITY TO DIRECT THE ADDITION OR DELETION OF EROSION AND SEDIMENT CONTROLS AS SITE CONDITIONS WARRANT.
2. EARTHEN STRUCTURES ARE TO BE STABILIZED IMMEDIATELY UPON COMPLETION. 3. CONTRACTOR SHALL CONTACT TOWN ARBORIST PRIOR TO BEGINNING EXCAVATION TO CLOSELY COMPLIANTE PROOF PRIMING WITHIN CRITICAL PROOF ZONES. CONTRACTOR SHALL EMPLOY.
COORDINATE ROOT PRUNING WITHIN CRITICAL ROOT ZONES. CONTRACTOR SHALL EMPLOY APPROPRIATE ROOT PROTECTION METHODS PER TOWN ARBORIST RECOMMENDATION IN ORDER TO MAXIMIZE THE POTENTIAL FOR TREE PRESERVATION.

EROSION & SEDIMENT CONTROL LEGEND STORM DRAIN INLET 3.07

PROTECTION

LOC

LIMITS OF CLEARING & GRADING

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:

1. <u>STORM DRAIN INLET PROTECTION - 3.07</u> A SEDIMENT FILTER OR AN EXCAVATED IMPOUNDING AREA AROUND A STORM DRAIN DROP INLET OR CURB INLET.

3. <u>TOPSOILING - 3.30</u>

PRESERVING AND REUSING THE SURFACE LAYER OF SOIL FROM AREAS TO BE GRADED. 4. TEMPORARY SEEDING - 3.31

THE ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS BY SEEDING WITH APPROPRIATE RAPIDLY GROWING ANNUAL PLANTS.

STABILIZING FINE-GRADED DISTURBED AREAS BY ESTABLISHING PERMANENT GRASS STANDS

6. <u>MULCHING - 3.35</u> APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIALS TO THE SOIL SURFACE.

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

1. ALL LAND CONSERVATION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

2. NO DISTURBED AREA WILL REMAIN DENUDED FOR MORE THAN 14 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE TOWN.

3. 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.

4. 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

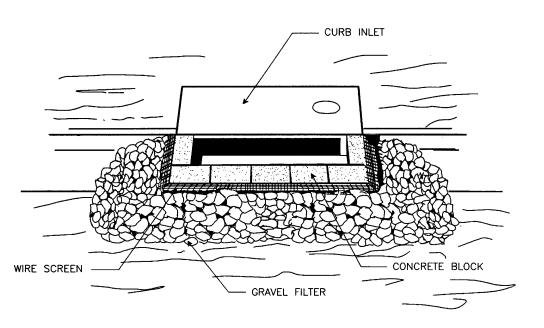
5. ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 5 DAYS AFTER BACKFILL. 6. ALL TEMPORARY EARTH BERMS, AND DIVERSIONS ARE TO BE MULCHED AND SEEDED

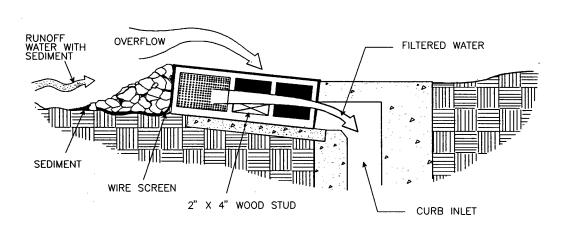
FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.

7. DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY INLET PROTECTION DEVICES, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION

8. AT THE COMPLETION OF CONSTRUCTION, ALL TEMPORARY SILTATION AND EROSION CONTROLS SHALL BE STABILIZED.

BLOCK & GRAVEL CURB INLET SEDIMENT FILTER





SPECIAL APPLICATION

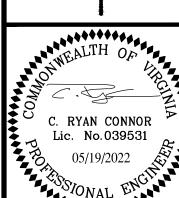
THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE

Source: Va. DSWC

Plate 3.07-8

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OUNAL

SHEET OF

FILE No. PP-2553