COUNTY OF ROANOKE, VA

GENERAL NOTES

PRE-CONSTRUCTION MEETING AND CONSTRUCTION COMMENCEMENT:

1. All construction methods and materials shall conform to the Construction Standards and Specifications of Roanoke County, the Western Virginia Water Authority, and the Virginia Department of Transportation.
2. Stormwater Management Agreements with an attached 8 1/2" x 11" or 8 1/2" x 14" plat must be approved and recorded prior to the pre-construction meeting.
3. Once all required items are submitted to the County of Roanoke, the developer must contact the Development Review Coordinator to indicate that a pre-construction meeting needs to be scheduled. The pre-construction meeting will be scheduled with the owner/developer ten (3) working days later.
4. All land disturbing projects that require approval of an erosion and sediment control plan, grading or clearing permit shall require that the applicant provide the name of an individual who will be responsible for land disturbing activities and that this individual hold a Responsible Land Disturber (RLD) Certificate from the Department of Environmental Quality. The Responsible Land Disturber can be anyone from the Project team that is certified by the Commonwealth of Virginia to be in charge of carrying out the land disturbing activity for the project.
5. It is the responsibility of the owner/developer to notify the certified Responsible Land Disturber and the Utility Contractor to attend the pre-construction meeting.
6. The Development Review Coordinator will schedule the pre-construction meeting with the County Review Engineer, the County Inspector, and the Western Virginia Water Authority.
7. An approved set of plans, Storm Water Pollution Prevention Plan (SWPPP), VSMP coverage letter, and all permits must be available at the construction site at all times.
8. The developer and/or contractor shall supply all utility companies with copies of approved plans, advising them that all grading and installation shall conform to approved plans.
9. The project engineer will inform the owner/developer verbally and in writing of the County's obligation to perform inspections on site. Everyone in the meeting will be required to sign a pre-construction checklist indicating their knowledge of Roanoke County's obligation to perform inspections on site.
10. The Erosion Control Permit or Combined Erosion Control & VSMP Permit is given to the developer at this pre-construction meeting.
11. Notify the County of Roanoke prior to beginning installation of ESC measures. The County will inspect initial installations to ensure compliance with approved plan prior to start of grading. The developer SHALL contact the project inspector 24 hours before beginning any grading or construction on the property.
12. County inspectors must inspect storm drain / stormwater management / BMP installations during the process of installation. Please contact the site inspector 24 hours in advance.
13. All work shall be subject to inspection by Roanoke County, the Western Virginia Water Authority and the Virginia Department of Transportation inspectors.
14. Contractors shall notify utilities of proposed construction at least two (2), but not more than ten (10) working days in advance. Area public utilities may be notified thru "Miss Utility": 1-800-552-7001 or VA 811.
15. The 100 year Floodway shall be staked prior to any construction.
16. Grade stakes shall be set for all curb and gutter, culvert, sanitary sewer and storm sewer at all times of construction.
17. The Department of Community Development shall be notified when a spring is encountered during construction.
18. Construction debris shall be containerized in accordance with the Virginia Litter Control Act. No less than one litter receptacle shall be provided on site.
19. The contractor shall provide adequate means of cleaning mud from trucks and/or other equipment prior to entering public streets or rights of ways. It is the contractors responsibility to insure that the streets are in a clean, mud and dust free condition at all times.
20. Plan approval in no way relieves the developer or contractors of the responsibilities contained within the erosion and sediment control or stormwater management policies.
21. Field construction shall honor proposed drainage divides as shown on plans.
22. Field corrections shall be approved by the Roanoke County Engineering Division and/or the Western Virginia Water Authority and the Professional of Record, prior to such construction.
23. The developer or contractor shall supply the County and the Western Virginia Water Authority with correct As-Built plans before final acceptance.

VIRGINIA DEPARTMENT OF TRANSPORTATION:

24. Plan approval by Roanoke County does not guarantee issuance of any permits by the Virginia Department of Transportation.
25. A permit must be obtained from the Virginia Department of Transportation, Salem Residency Office prior to construction in the highway right-of-way.
26. The preliminary pavement designs should be based on a predicted sub-grade CBR value of 7.0 and with a Resiliency Factor (RF) of 2.0 as shown in Appendix I of the 2014 Virginia Department of Transportation Pavement Design Guide for Subdivision and Secondary Roads. The sub-grade soil is to be tested by an independent laboratory and the results submitted to the Virginia Department of Transportation prior to base construction. Should the sub-grade CBR value and/or the RF value be less than the predicted values, additional base material will be required in accordance with Departmental specifications. Refer to the same manual as the number and locations of the required soil samples to be tested. All pavement designs shall be submitted to the Department for review and approval. The sub-grade shall be approved by the Virginia Department of Transportation prior to placement of the base. Base shall be approved by the Virginia Department of Transportation for depth, template, and compaction before the surface is applied.
27. Standard guardrail with safety end sections may be required on fills or in areas where hazards exist as deemed necessary. After completion of rough grading operations, the County Engineer and Virginia Department of Transportation shall be contacted to schedule a field review. Where guard rail is warranted, the standard shoulder width shall be provided and the guard rail shall be installed in accordance with the 2001 VDOT Road and Bridge Standards as part of this development.
28. Standard street and traffic control signs shall be erected at each intersection by the developer prior to final street acceptance.
29. All traffic devices shall be in accordance with current edition of the "Manual on Uniform Traffic Control Devices" (MUTCD).
30. All unsuitable material shall be removed from the construction limits of the roadway before placing embankment.

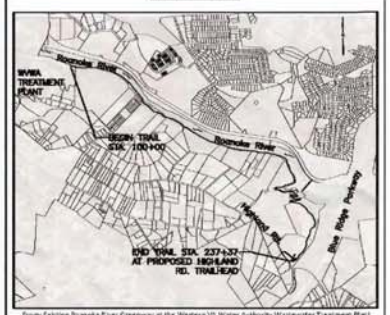
See Sheet N/A for Stormwater Site Statistics Table.
See Sheet N/A for New BMP Information Table.

The Project Engineer shall provide electronic copies of the approved plans to the Development Review Coordinator within 5 working days of the pre-construction meeting.

The notes on this sheet shall not be modified.

NAME OF DEVOLVEMENT: EASTERN ROANOKE RIVER GREENWAY	I, Doug Blount, OWNER/DEVELOPER, AM AWARE OF THE SITE DESIGN REQUIREMENTS IMPOSED BY THIS SITE DEVELOPMENT PLAN AND OTHER APPLICABLE ROANOKE COUNTY CODES. I HEREBY CERTIFY THAT I AGREE TO COMPLY WITH THESE REQUIREMENTS AND THE THIRTY (30) POINTS SHOWN ON THIS COVER SHEET UNLESS MODIFIED IN ACCORDANCE WITH LOCAL LAW.
MAGISTERIAL DISTRICT(S): VINTON	
OWNER: ROANOKE COUNTY DEPARTMENT OF PARKS, RECREATION & TOURISM, 1206 KESSLER MILL ROAD, SALEM, VA 24153 (540)777-6324	
DEVELOPER: ROANOKE COUNTY DEPARTMENT OF PARKS, RECREATION & TOURISM, 1206 KESSLER MILL ROAD, SALEM, VA 24153 (540)777-6324	
ENGINEER, ARCHITECT OR SURVEYOR: HURT & PROFFITT, 1861 PRATT DR. SUITE 1100, BLACKSBURG, VA 24060 (540)562-5692	
TAX MAP NO(S): #70.11-01-08, #70.12-01-07, #70.12-01-26, #70.12-01-46, #70.12-01-48, #70.12-01-49, #71.03-01-01.01, #71.03-01-02, #71.03-01-03, #71.03-01-05, #71.03-01-06, #71.03-01-07, #71.03-01-16, #71.03-01-13.01, #71.14-01-01, #71.03-03-01-09.01, #71.03-01-10.01, #71.03-01-10, and #71.03-01-11	

VICINITY MAP



From Existing Roanoke River Greenway at the Western VA Water Authority Wastewater Treatment Plant to Proposed trailhead located on the VWA property near Highland Road, adjacent to the west side of the Blue Ridge Parkway right of way.

SHEET INDEX

1.	TITLE SHEET
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2F.	ALIGNMENT DATA SHEET (STA. 142+50 TO 198+50)
2G.	ALIGNMENT DATA SHEET (STA. 198+50 TO 237+37)
2H.	PLAN SHEET LAYOUT
3.	CONSTRUCTION ACCESS PLAN (RIVERDALE & HIGHLAND RD)
3J.	TRANSPORTATION MANAGEMENT PLAN
2K.	RIGHT OF WAY DATA SHEET (STA. 96+85 TO 151+00)
2L.	RIGHT OF WAY DATA SHEET (STA. 151+00 TO 192+00)
2M.	RIGHT OF WAY DATA SHEET (STA. 192+00 TO 211+00)
3.	GREENWAY PLAN & PROFILE (STA. 99+00 TO 109+00)
4.	GREENWAY PLAN & PROFILE (STA. 109+00 TO 121+00)
5.	GREENWAY PLAN & PROFILE (STA. 121+00 TO 133+00)
6.	GREENWAY PLAN & PROFILE (STA. 133+00 TO 145+00)
7.	GREENWAY PLAN & PROFILE (STA. 145+00 TO 157+25)
8.	GREENWAY PLAN & PROFILE (STA. 157+25 TO 169+00)
9.	GREENWAY PLAN & PROFILE (STA. 169+00 TO 180+00)
10.	GREENWAY PLAN & PROFILE (STA. 180+00 TO 189+00)
11.	GREENWAY PLAN & PROFILE (STA. 189+00 TO 195+25)
12.	GREENWAY PLAN & PROFILE (STA. 195+25 TO 205+00)
12A.	GREENWAY PROFILE (STA. 195+25 TO 294+00)
12B.	GREENWAY PROFILE (STA. 204+00 TO 219+00)
12C.	SWITCHBACK DETAIL
13.	GREENWAY PLAN (STA. 215+00 TO 222+50)
13A.	GREENWAY PROFILE (STA. 215+00 TO 222+50)
14.	GREENWAY PLAN & PROFILE (STA. 222+50 TO 230+50)
15.	GREENWAY & TRAILHEAD PLAN (STA. 230+50 TO 237+87)
15A.	GRNWAY (230+50 TO 237+87), TRAILHEAD, AND FARM RD PROF
16.	HIGHLAND ROAD TRAILHEAD PLAN
17.	HIGHLAND ROAD TRAILHEAD ENTRANCE SIGHT DISTANCE
18 TO 18E.	RETAINING WALL PROFILES
19 TO 24.	PIPE PROFILES
25 TO 25B.	WETLAND DELINEATION
26.	LANDSCAPING PLAN
XS00 TO XS55.	CROSS SECTIONS - GREENWAY & ACCESS ROADS

LEGEND

EXISTING		PROPOSED
4"W	WATER LINE	6"W
8"SS	SANITARY SEWER	8"SS
fm	FORCE MAIN	6"FM
18"	STORM SEWER	18"
2"g	GAS LINE	G
ugt	U/G TELEPHONE	UGT
uge	U/G ELECTRIC	UGE
oht	O/H TELEPHONE	OHT
ohp	O/H POWER	OHP
WM	WATER METER	WM
	VALVE	
	FIRE HYDRANT	
	UTILITY BOX	
	POWER POLE	
	GUY WIRE	
	SIGN	
	LIGHT POLE	
	MANHOLE	
	PROPERTY LINE	
	PERMANENT CONST. EASEMENT	
	TEMPORARY CONST. EASEMENT	

SURVEY INFORMATION

Horizontal and vertical control surveys were performed in year: 2014
By: ANDERSON & ASSOCIATES, INC.

All vertical elevations must be referenced to the National Geodetic Vertical Datum of 1929 or 1988.
All horizontal elevations must be referenced to the North American Datum of 1927 or 1983.

Horizontal Datum: NAD 83 (2011) Vertical Datum: NAVD 88

Source of topographic mapping in detail: 2014
ANDERSON &
Boundary was performed by ASSOCIATES, INC. dated: 2014

Benchmark information: 2014

The professional seal and signature certifies the boundary survey and topographic mapping to be accurate and correct.

HURT & PROFFITT
1861 PRATT DRIVE, SUITE 1100
BLACKSBURG, VIRGINIA 24060
800.763.5596 TOLL FREE
540.552.5592 MAIN
ENGINEERING • SURVEYING
LAND DEVELOPMENT • ENVIRONMENTAL
GEOTECHNICAL
CONSTRUCTION TESTING & INSPECTION
CULTURAL RESOURCES

TIER I PROJECT

LOCALLY ADMINISTERED PROJECTS

Roanoke County, VA
NAME OF LOCALITY

Doug Blount
RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION
Roanoke Co. Parks, Rec. and Tourism Director
DATE — TITLE OF POSITION

CONCURRED:
NAME OF RESPONSIBLE LOCAL GOVERNMENT OFFICIAL (TYPED)
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION
DATE — TITLE OF POSITION

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION
DATE — DISTRICT PLANNING AND INVESTMENT MANAGER
DATE — DISTRICT PROJECT DEVELOPMENT ENGINEER

APPROVED FOR RIGHT OF WAY ACQUISITION
DATE — DISTRICT ADMINISTRATOR

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION
DATE — DISTRICT PLANNING AND INVESTMENT MANAGER
DATE — DISTRICT PROJECT DEVELOPMENT ENGINEER

APPROVED FOR CONSTRUCTION
DATE — DISTRICT ADMINISTRATOR

COMMONWEALTH OF VIRGINIA — JAY W. MATTOX, JR. — Lic. No. 039440 — 29 March 2018 — REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA — CHRISTOPHER B. HANKS — 21 March 2018 — Lic. No. 2339 — REGISTERED LAND SURVEYOR

2nd County Review
Final Plans
NOT FOR CONTRUCTION

DATE STAMP

APPROVAL STAMP

Eastern Roanoke River Greenway
VDOT PROJECT #: ENO8-080-105, P101, R201, C501
UPC #: 91191
FEDERAL #: TEA-5128(260)
Roanoke County
Roanoke, Virginia

GENERAL NOTES

PLAN NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE THE PROJECT STANDARDS AND SPECIFICATIONS AND THE LATEST EDITION OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, VDOT ROAD AND BRIDGE STANDARDS, THE VIRGINIA WORK AREA PROTECTION MANUAL, THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, THE STANDARD HIGHWAY SIGNS BOOK, AND THESE PLANS.
2. TREES AND BRUSH SHALL BE CLEARED & GRUBBED WITHIN THE CONSTRUCTION LIMITS. DEBRIS AND REFUSE WITHIN THE PROPOSED TRAIL CORRIDOR AND AREAS OF DISTURBANCE/PROPOSED IMPROVEMENTS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
3. TESTING, QUALITY CONTROL, SHALL BE PROVIDED BY THE CONTRACTOR'S INDEPENDENT LABORATORY REPRESENTATIVE AND SHALL BE IN ACCORDANCE WITH VDOT SPECIFICATIONS. QUALITY ASSURANCE TESTING WILL BE PROVIDED BY THE OWNER.
4. EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND DO NOT REPRESENT ALL UTILITIES OR SERVICE LINES. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL CONTACT THE PERTINENT UTILITY COMPANIES AND/OR UTILITY LOCATING SERVICES TO HAVE ALL UNDERGROUND UTILITIES LOCATED AND MARKED. THE CONTRACTOR SHALL PROTECT AND MAINTAIN EXISTING UTILITIES DURING CONSTRUCTION. WHERE PROPOSED IMPROVEMENTS, DRAINAGE CULVERTS, OR GRADING IS FOUND TO BE IN CONFLICT WITH EXISTING UTILITIES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
5. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING UTILITY RELOCATIONS WITH THE APPROPRIATE UTILITY OWNER(S).
6. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF SECTION 59.1-406 ET SEQ. OF THE CODE OF VIRGINIA (OVERHEAD HIGH VOLTAGE LINE SAFETY ACT.)
7. THE CONTRACTOR SHALL FURNISH AND INSTALL SIGNAGE IN ACCORDANCE WITH THESE PLANS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE STANDARD HIGHWAY SIGNS BOOK, AND VDOT SUPPLEMENTS LATEST ED.
8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF TRAFFIC.
9. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY ON THE PROJECT. EXCAVATIONS SHALL NOT BE LEFT OPEN OVERNIGHT UNLESS APPROVED BY THE ENGINEER. THE MAIN ACCESS POINTS TO THE TRAIL SHALL BE GATED OR BARRICADED AND SIGNED "CONSTRUCTION ZONE DO NOT ENTER."
10. PROPOSED CULVERTS SHALL BE CLASS III REINFORCED CONCRETE PIPE, UNLESS OTHERWISE NOTED, AND INSTALLED ACCORDING TO THE PLANS. MINOR FIELD ADJUSTMENTS MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER.
11. THE PROPOSED TRAIL SHALL PROVIDE SMOOTH TRANSITIONS AND SHALL NOT EXCEED A 5% MAX. LONGITUDINAL SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
12. WHERE CROSS SLOPES TRANSITION FROM "GRADE LEFT" TO "GRADE RIGHT", THE TRANSITION SHOULD BE APPROXIMATELY 25' IN LENGTH.
13. THE CONTRACTOR SHALL OBTAIN ALL PERMITS, THESE INCLUDE BUT ARE NOT LIMITED TO:
    a. LAND USE PERMIT FROM VDOT PRIOR TO BEGINNING ANY ACTIVITIES/OPERATIONS ON STATE RIGHT OF WAY. THIS WOULD INCLUDE POSITIONING EQUIPMENT ON THE HIGHWAY SHOULDER/RIGHT OF WAY AND USE OF CONSTRUCTION ENTRANCE.
    b. EROSION AND SEDIMENT CONTROL PERMIT FROM THE COUNTY OF ROANOKE. CONTRACTOR SHALL BE THE RESPONSIBLE LAND DISTURBER.
    c. VSMP PERMIT.
    d. BUILDING PERMIT (AS REQUIRED).
14. ALL MATERIAL SHALL BE FROM VDOT PRE-APPROVED SOURCES. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING FULL SOURCE MATERIAL DOCUMENTATION (ON VDOT APPROVED FORMS) WITH SHOP SUBMITTALS.
15. TREE TRIMMING OR REMOVAL MAY BE REQUIRED TO OBTAIN SIGHT DISTANCE ON HIGHLAND RD., CONTRACTOR TO COORDINATE.

SURVEYING NOTES:

1. AERIAL MAPPING PORTION:
   THIS PHOTOGRAMMETRIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF, MALCOLM C. MCKENZIE & JEFFREY L. SNYDER FROM AN ACTUAL AIRBORNE SURVEY MADE UNDER OUR SUPERVISION; THE IMAGERY WAS OBTAINED ON JANUARY 3, 2014 AND THIS DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED. PREPARED FOR ANDERSON & ASSOC.
2. A&A FIELD WORK PORTION:
   THE AERIAL CONTROL AND CONVENTIONAL TOPOGRAPHIC FIELD SURVEY WORK WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF, CHRIS KAKNIS, OF ANDERSON AND ASSOCIATES, INC. FROM AN ACTUAL GROUND SURVEY MADE UNDER HIS SUPERVISION; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED DURING THE MONTHS OF JANUARY THRU APRIL OF 2014; AND THAT THIS TOPOGRAPHIC MAP MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
3. PROPERTY DATA:
   PROPERTY LINE DATA SHOWN ON THE PLANS IS BASED ON A COMPILATION OF DEED RESEARCH, FIELD SURVEYS, AND GIS DATA. ANDERSON & ASSOCIATES DID NOT PREPARE A FULL BOUNDARY SURVEY OR TITLE SEARCH OF EACH PARCEL SHOWN. DATA ON EXISTING EASEMENTS IS BASED ON TITLE INFORMATION PROVIDED BY THE COUNTY OF ROANOKE.

GENERAL EROSION & SEDIMENT CONTROL NOTES:

ES-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 9VAC25-840 EROSION AND SEDIMENT CONTROL REGULATIONS.

ES-2: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.

ES-3: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES AS WELL AS THE STORM WATER POLLUTION PREVENTION PLAN.

ES-4: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.

ES-5: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.

ES-6: ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

ES-7: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

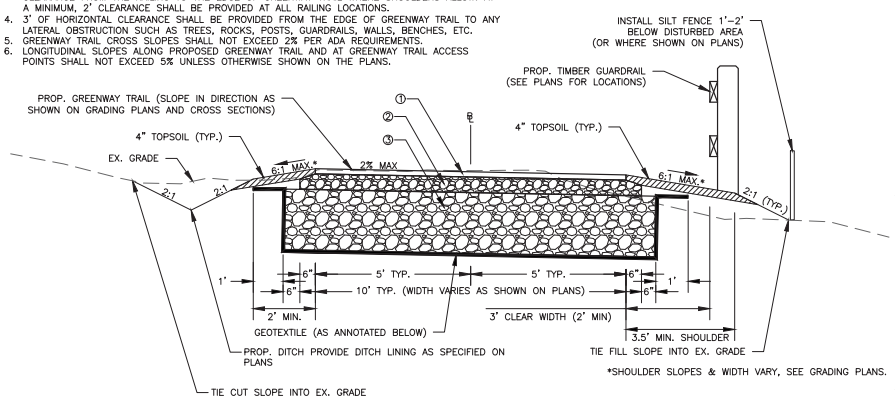
ES-8: THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

ES-9 ALL AREAS DISTURBED DURING REMOVAL OF E&S MEASURES SHALL BE RESTORED AND SEEDED AT NO ADDITIONAL COST TO THE OWNER.

ES-10 SEE THESE PLANS AND THE "EROSION & SEDIMENT CONTROL AND STORMWATER MANAGEMENT NARRATIVE AND STORMWATER POLLUTION PREVENTION PLAN" FOR EROSION CONTROL PLANS, STANDARD DETAILS, AND FOR THE E&S CONTROL NARRATIVE.

NOTES:
1. 4" OF COMPACTED TOPSOIL IS TO BE PROVIDED ON ALL DISTURBED AREAS, EXPOSED SLOPES, AND GREENWAY TRAIL SHOULDERS.
2. PERMANENT SEEDING IS TO BE PROVIDED FOR ALL DISTURBED AREAS.
3. SHOULDER WIDTH IN FILL SHALL BE A MINIMUM OF 3.5' UNLESS OTHERWISE SHOWN IN THE CROSS SECTIONS. WHERE FENCING/RAILING IS SPECIFIED ON THE PLANS, PROVIDE 3' OF CLEARANCE FROM THE RAILING TO THE EDGE OF GREENWAY TRAIL WHERE SHOULDERS ALLOW. AT A MINIMUM, 2' CLEARANCE SHALL BE PROVIDED AT ALL RAILING LOCATIONS.
4. 3' OF HORIZONTAL CLEARANCE SHALL BE PROVIDED FROM THE EDGE OF GREENWAY TRAIL TO ANY LATERAL OBSTRUCTION SUCH AS TREES, ROCKS, POSTS, GUARDRAILS, WALLS, BENCHES, ETC.
5. GREENWAY TRAIL CROSS SLOPES SHALL NOT EXCEED 2% PER ADA REQUIREMENTS.
6. LONGITUDINAL SLOPES ALONG PROPOSED GREENWAY TRAIL AND AT GREENWAY TRAIL ACCESS POINTS SHALL NOT EXCEED 5% UNLESS OTHERWISE SHOWN ON THE PLANS.

① 2" VDOT SM-9.5A @ 235 LB/SY
② 8" AGGREGATE BASE MATERIAL TYPE 1, NO. 21B (COMPACTED)
③ 2' AGGREGATE MATERIAL NO. 1 (COMPACTED) (AS ANNOTATED BELOW)

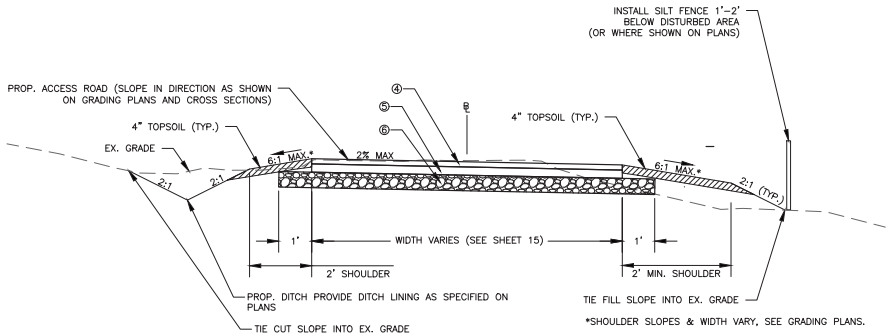


TYPICAL PAVED GREENWAY TRAIL AND DITCH SECTION
Not To Scale

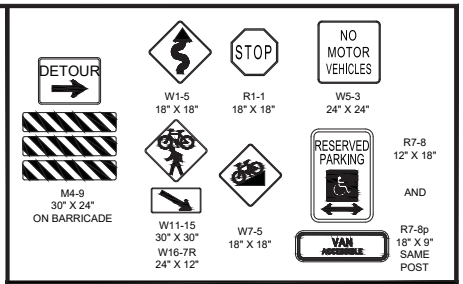
STATIONS WITH ONLY 8" AGGREGATE BASE:	STATIONS WITH ADDITIONAL 2' AGGREGATE BASE AND GEOTEXTILE FABRIC:
100+00 - 101+75	101+75 - 127+88
127+88 - 139+10	139+10 - 179+85
179+85 - 237+88	

NOTES:
1. 4" OF COMPACTED TOPSOIL IS TO BE PROVIDED ON ALL DISTURBED AREAS, EXPOSED SLOPES, AND GREENWAY TRAIL SHOULDERS.
2. PERMANENT SEEDING IS TO BE PROVIDED FOR ALL DISTURBED AREAS.
3. 3' OF HORIZONTAL CLEARANCE SHALL BE PROVIDED FROM THE EDGE OF ACCESS ROAD TO ANY LATERAL OBSTRUCTION SUCH AS TREES, ROCKS, POSTS, GUARDRAILS, WALLS, BENCHES, ETC.

④ 2" VDOT SM-9.5A @ 235 LB/SY
⑤ 3" VDOT BM 25.0 (COMPACTED)
⑥ 8" AGGREGATE BASE MATERIAL TYPE 1, NO. 21B (COMPACTED)



TYPICAL ACCESS ROAD



Abbreviations:

Bl:	Base Line	P.B.:	Plat Book
Bnt:	Bent	Pg.:	Page
C&P:	Cheasapeake & Potomac Telephone	Pks:	PK Traverse Nail Set
Cl:	Center Line	PP:	Power Pole
Cmp:	Corrugated Metal Pipe	P.T.:	Pressure Treated
CY:	Cubic Yards	Pvc:	Polyvinylchoride Pipe
D.B.:	Deed Book	Rcp:	Reinforced Concrete Pipe
Dip:	Ductile Iron Pipe	Ssmh:	Sanitary Sewer Manhole
D.N.D	Do Not Disturb	Stmh:	Storm Manhole
Fh:	Fire Hydrant	Stdi:	Storm Drop Inlet
Fnd:	Found	Stgr:	Storm Grate
Lp:	Light Pole	Tns:	Traverse Nail Set
MB:	Mail Box	Trs:	Traverse Rod Set
Ngas:	Natural Gas	Wm:	Water Meter
O.C.:	On Center	Wv:	Water Valve

Supplemental Legend:

EXISTING		PROPOSED
	100 YEAR FLOODPLANE	
	FLOODWAY	
	PERPETUAL EASEMENT	
	TEMPORARY EASEMENT	
2050	CONTOUR LINE	360
	EARTH DITCH OR SWALE	
	RAILING/SPLIT FENCE	
	PROPOSED TRAIL	
	POST	
	PT/PC	
	BENCHMARK	
	HORIZONTAL CONTROL	
	TREE	
	WOODS	
	GRAVEL ROAD/ PARKING	
	PAVEMENT	
	GRASS	
	CONCRETE	
	RIVER OR STREAM	
	DIRECTION OF FLOW	
	ORANGE SAFETY FENCE (VESCH STD. & SPEC. 3.01)	SAF
	CONSTRUCTION ENTRANCE (VESCH STD. & SPEC. 3.02)	CE
	SILT FENCE (VESCH STD. & SPEC. 3.05)	SF
	INLET PROTECTION (VESCH STD. & SPEC. 3.07)	IP
	CULVERT INLET PROTECTION (VESCH STD. & SPEC. 3.08)	CIP
	TEMPORARY DIVERSION DIKE (VESCH STD. & SPEC. 3.09)	DD
	OUTLET PROTECTION (VESCH STD. & SPEC. 3.18)	OP
	ROCK CHECK DAM (VESCH STD. & SPEC. 3.20)	CD
	PERMANENT SEEDING (VESCH STD. & SPEC. 3.32)	PS
	TOPSOILING (VESCH STD. & SPEC. 3.30)	TO
	EC-2 OR EC-3 DITCH LINING	
	CONCRETE DITCH	
	SURFACE ROUGHENING (VESCH STD. & SPEC. 3.29)	SR

COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
Lic.No. 033440
27 March 2018
PROFESSIONAL ENGINEER

HURT & PROFFITT
ENGINEERING • SURVEYING
LAND DEVELOPMENT • ENVIRONMENTAL
GEOTECHNICAL • CONSTRUCTION TESTING & INSPECTION
CULTURAL RESOURCES
1861 Pratt Dr. Suite 1100
Blacksburg, Va. 24060
540-552-5592

DATE	07 OCT 16
DESIGNED:	JMM
DRAWN	MDA
CHECKED	JMJ
QA / QC	JDW

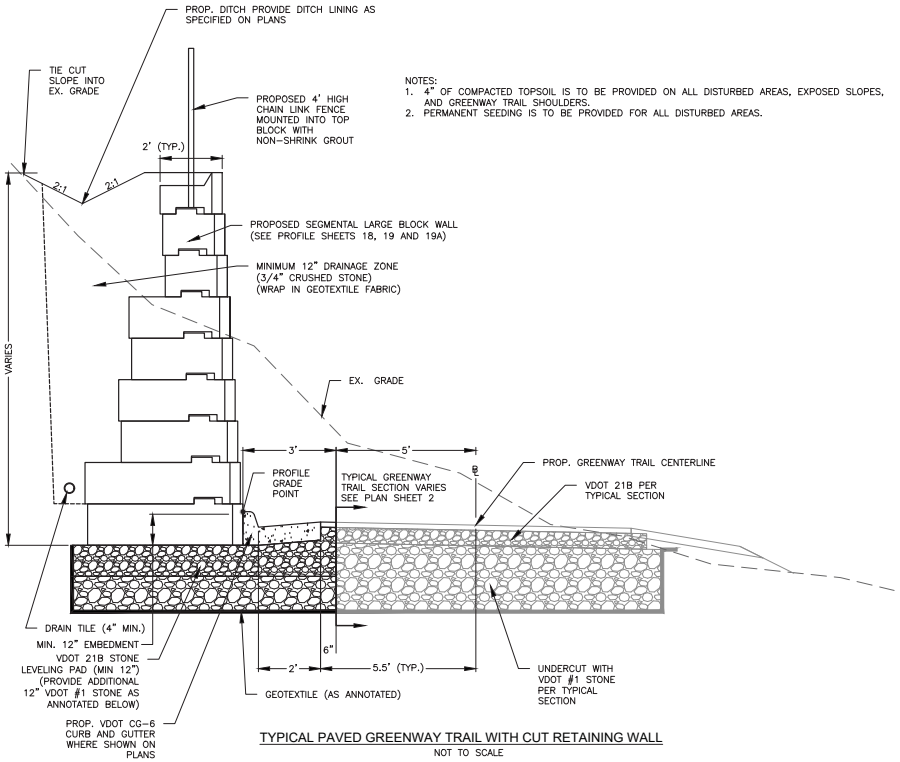
REV. #	COMMENTS	DATE
1	VDOT 100% COMMENTS	15 DEC 16

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GENERAL NOTES & DETAILS

DOCUMENT NO. 29681 – 002
SHEET 2 OF 26

Allen, Matthew / 4/3/2018 8:34 AM / \\aaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_002-002d_notes_details.dwg



NOTES:
1. 4" OF COMPACTED TOPSOIL IS TO BE PROVIDED ON ALL DISTURBED AREAS, EXPOSED SLOPES, AND GREENWAY TRAIL SHOULDERS.
2. PERMANENT SEEDING IS TO BE PROVIDED FOR ALL DISTURBED AREAS.

TYPICAL PAVED GREENWAY TRAIL WITH CUT RETAINING WALL

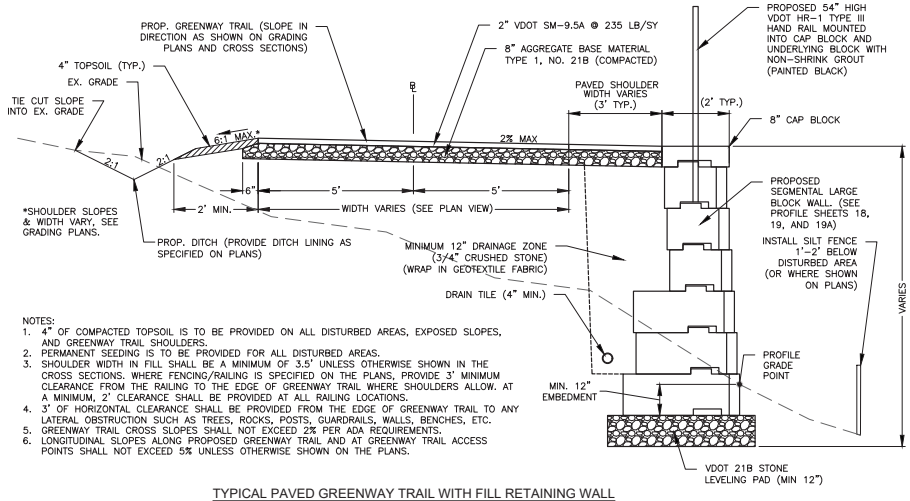
NOT TO SCALE

STATIONS WITH 12" MIN. AGGREGATE BASE:

127+88 - 132+59	193+73 - 195+37
133+14 - 137+04	206+94 - 210+07
187+87 - 190+21	

STATIONS WITH ADDITIONAL 12" AGGREGATE BASE AND GEOTEXTILE FABRIC:

102+15 - 103+85	155+38 - 156+85
104+33 - 106+92	164+43 - 166+35
152+30 - 152+70	166+98 - 168+07



NOTES:
1. 4" OF COMPACTED TOPSOIL IS TO BE PROVIDED ON ALL DISTURBED AREAS, EXPOSED SLOPES, AND GREENWAY TRAIL SHOULDERS.
2. PERMANENT SEEDING IS TO BE PROVIDED FOR ALL DISTURBED AREAS.
3. SHOULDER WIDTH IN FILL SHALL BE A MINIMUM OF 3.5' UNLESS OTHERWISE SHOWN IN THE CROSS SECTIONS. WHERE FENCING/RAILING IS SPECIFIED ON THE PLANS, PROVIDE 3' MINIMUM CLEARANCE FROM THE RAILING TO THE EDGE OF GREENWAY TRAIL WHERE SHOULDERS ALLOW. AT A MINIMUM, 2' CLEARANCE SHALL BE PROVIDED AT ALL RAILING LOCATIONS.
4. 3' OF HORIZONTAL CLEARANCE SHALL BE PROVIDED FROM THE EDGE OF GREENWAY TRAIL TO ANY LATERAL OBSTRUCTION SUCH AS TREES, ROCKS, POSTS, GUARDRAILS, WALLS, BENCHES, ETC.
5. GREENWAY TRAIL CROSS SLOPES SHALL NOT EXCEED 2% PER ADA REQUIREMENTS.
6. LONGITUDINAL SLOPES ALONG PROPOSED GREENWAY TRAIL AND AT GREENWAY TRAIL ACCESS POINTS SHALL NOT EXCEED 5% UNLESS OTHERWISE SHOWN ON THE PLANS.

TYPICAL PAVED GREENWAY TRAIL WITH FILL RETAINING WALL

NOT TO SCALE

STATIONS:
99+90 - 101+45 (Variable Offset)
204+60 - 206+94
208+04 - 210+07

NOTES:
1. 4" OF COMPACTED TOPSOIL IS TO BE PROVIDED ON ALL DISTURBED AREAS, EXPOSED SLOPES, AND GREENWAY TRAIL SHOULDERS.
2. PERMANENT SEEDING IS TO BE PROVIDED FOR ALL DISTURBED AREAS.
3. SHOULDER WIDTH IN FILL SHALL BE A MINIMUM OF 3.5' UNLESS OTHERWISE SHOWN IN THE CROSS SECTIONS. WHERE FENCING/RAILING IS SPECIFIED ON THE PLANS, PROVIDE 3' MINIMUM CLEARANCE FROM THE RAILING TO THE EDGE OF GREENWAY TRAIL WHERE SHOULDERS ALLOW. AT A MINIMUM, 2' CLEARANCE SHALL BE PROVIDED AT ALL RAILING LOCATIONS.
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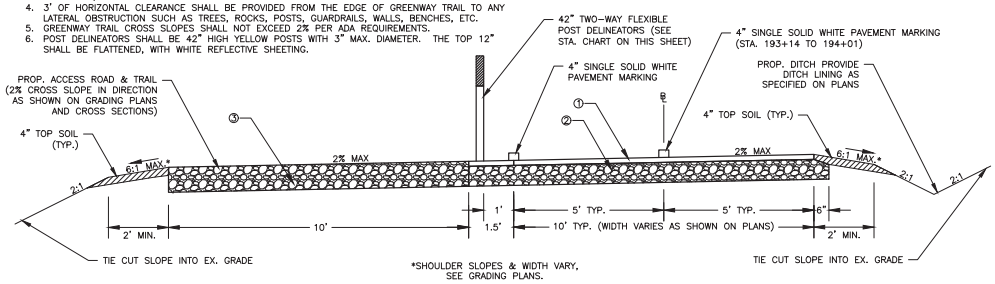
5. GREENWAY TRAIL CROSS SLOPES SHALL NOT EXCEED 2% PER ADA REQUIREMENTS.
6. POST DELINEATORS SHALL BE 42" HIGH YELLOW POSTS WITH 3" MAX. DIAMETER. THE TOP 12" SHALL BE FLATTENED, WITH WHITE REFLECTIVE SHEETING.

① 2" VDOT SM-9.5A @ 235 LB/SY
② 8" AGGREGATE BASE MATERIAL TYPE 1, NO. 21B (COMPACTED)
③ 10" AGGREGATE BASE MATERIAL TYPE 1, NO. 21B (COMPACTED)



TWO-WAY FLEXIBLE DELINEATOR STATIONS				
193+26	194+26	195+26	196+26	197+26
193+46	194+46	195+46	196+46	197+46
193+66	194+66	195+66	196+66	197+66
193+86	194+86	195+86	196+86	197+86
194+06	195+06	196+06	197+06	198+06

COMMONWEALTH OF VIRGINIA
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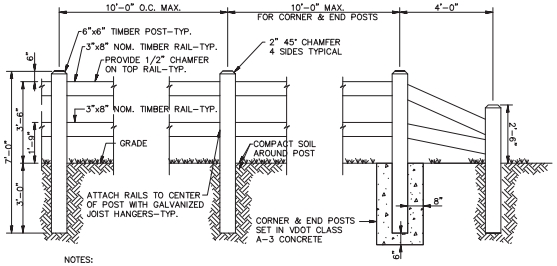
EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GENERAL NOTES & DETAILS

DOCUMENT NO. 29681 – 003
SHEET 2A OF 26

Allen, Matthew / 4/3/2018 8:34 AM / \\aaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_002-002d_notes_details.dwg



NOTES:

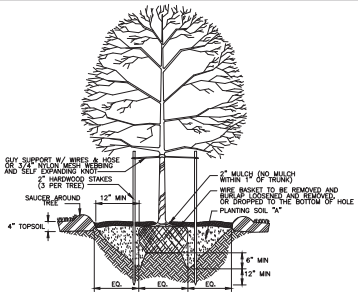
1) TIMBER POSTS SHALL BE 6"X6"X7' #1 SYP (SOUTHERN YELLOW PINE), S4S (SURFACE FOUR SIDES), GM (GRADE MARKED), ACQ PRESERVATIVE TO 0.40 LB./CU. FT., PET (PRECISION END TRIM), 2" CH4TE (2" CHAMFER AROUND TOP FOUR EDGES).

2) TIMBER RAILS SHALL BE #1 SYP (SOUTHERN YELLOW PINE), S4S (SURFACE FOUR SIDES), GM (GRADE MARKED), ACQ PRESERVATIVE TO 0.40 LB./CU. FT., DET (DOUBLE END TRIM), 1/2" CHAMFER ON BOTH EDGES OF TOP RAIL, DOH (DEPARTMENT OF HIGHWAYS). RAILS SHALL BE ATTACHED TO POST WITH TYPE 316 STAINLESS STEEL (18 GAUGE) CONCEALED FLANGE JOIST HANGERS WITH STAINLESS STEEL SCREWS.

3) ALL CUT ENDS SHALL BE FIELD TREATED IN ACCORDANCE WITH AWPA STANDARDS.

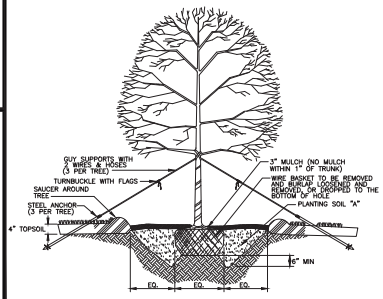
2 / T-3 TYPICAL TIMBER GUARDRAIL

NTS



TYPICAL TREE PLANTING (Under 2 1/2" Caliper)

NTS



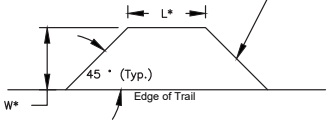
TYPICAL TREE PLANTING (Over 2 1/2" Caliper)

NTS

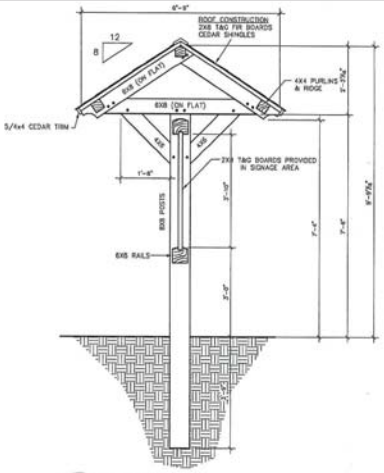
NOTE: ALL TREES SHALL BE PROVIDED WITH A ONE YEAR GUARANTEE, MINIMUM, WITH THE CONTRACTOR RESPONSIBLE FOR ALL WATERING DURING THE ESTABLISHMENT PERIOD.

ADA REST AREA DETAIL

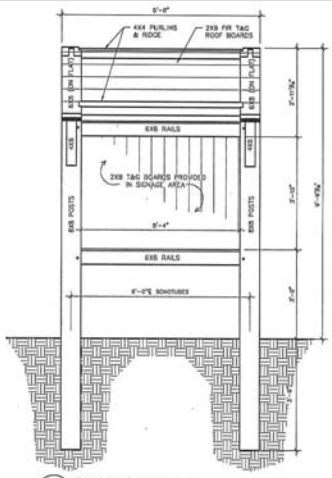
Install Rest Area same Typical Section as Trail (Slope Shall Not Exceed 2% in Any Direction)



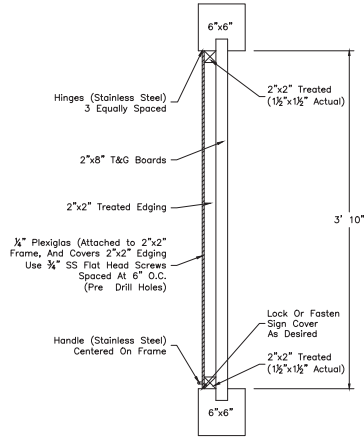
* See Plan Sheets For Specified Length & Width Distances



1 SECTION VIEW
1/2"=1'-0"

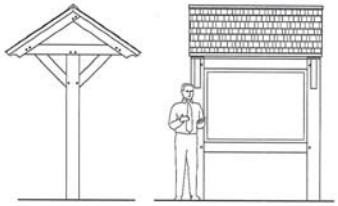


2 SECTION VIEW
1/2"=1'-0"



KIOSK DISPLAY DETAIL

(Not To Scale)



SIDE ELEVATION
3/8"=1'-0"

FRONT ELEVATION
3/8"=1'-0"

NOTES:
1. CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND INSTALLATION OF THE KIOSK AND DISPLAY. INCLUDING FOUNDATION. SEE DETAILS THIS SHEET.
2. FOUNDATION SHALL BE MOUNTED ON CONCRETE OR SET IN CONCRETE PER MANUFACTURER'S SPECIFICATIONS.
3. THE KIOSK STRUCTURE IS INTENDED TO BE PRE-MANUFACTURED AND THE DISPLAY IS CUSTOM.
4. TIMBERS SHALL BE NATURALS, DECAY RESISTANT HEAVY TIMBERS CONNECTED WITH TRADITIONAL MORTISE TENON JOINERY WITH OAK PEGS. SEE KIOSK DISPLAY DETAIL, THIS SHEET.

INFORMATION KIOSK

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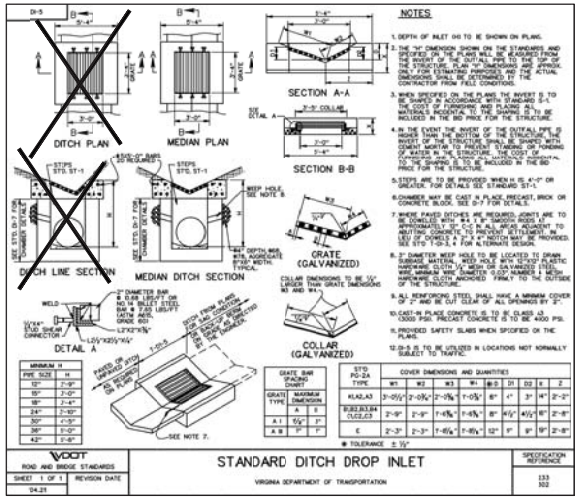
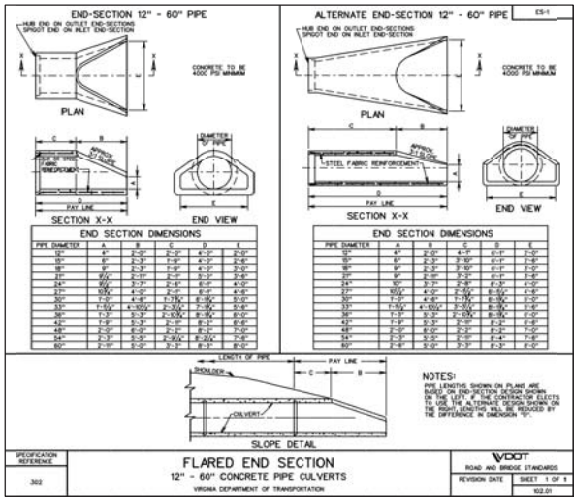
EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

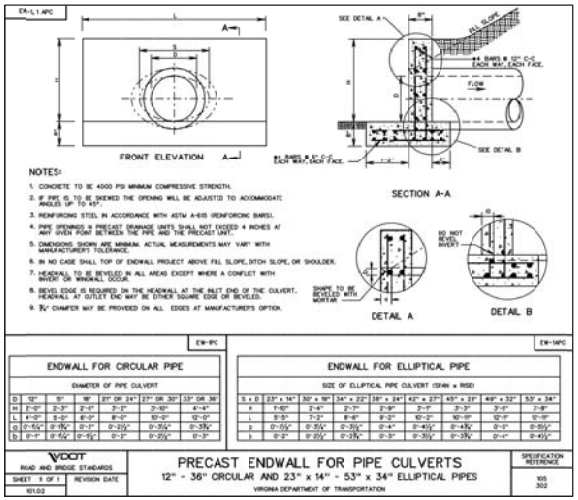
GENERAL NOTES & DETAILS

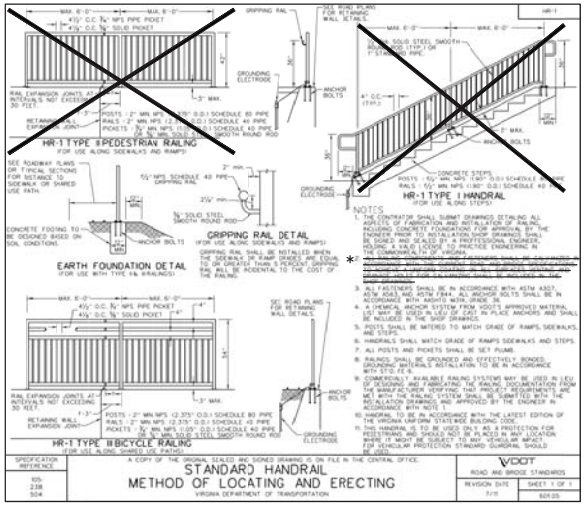
DOCUMENT NO. 29681 — 004
SHEET 2B OF 26

Allen, Matthew / 4/3/2018 8:34 AM / \\aaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_002-002d_notes_details.dwg

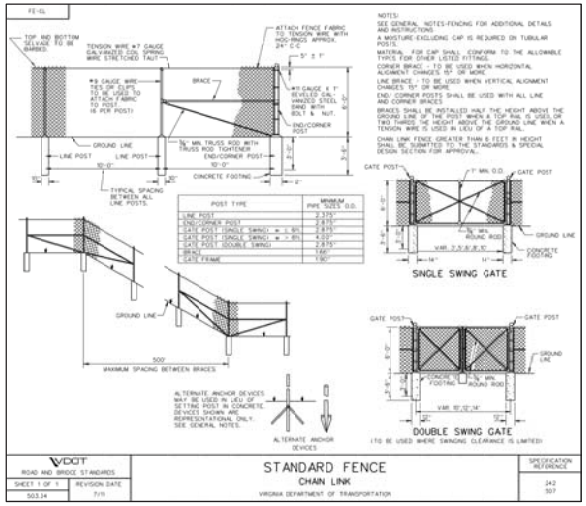


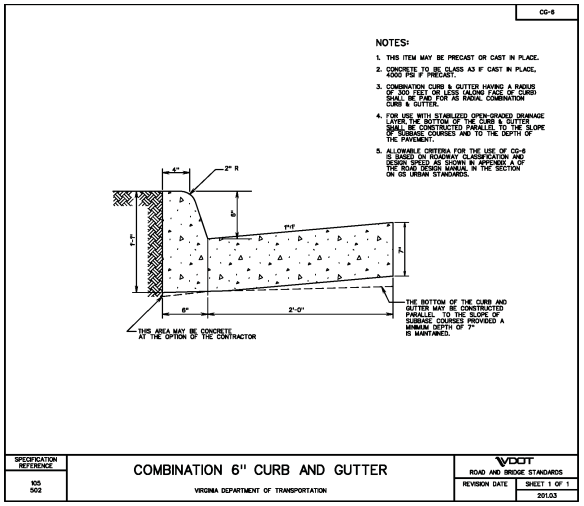






* RAILING SHALL BE POWDER COATED BLACK.





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EASTERN ROANOKE RIVER GREENWAY
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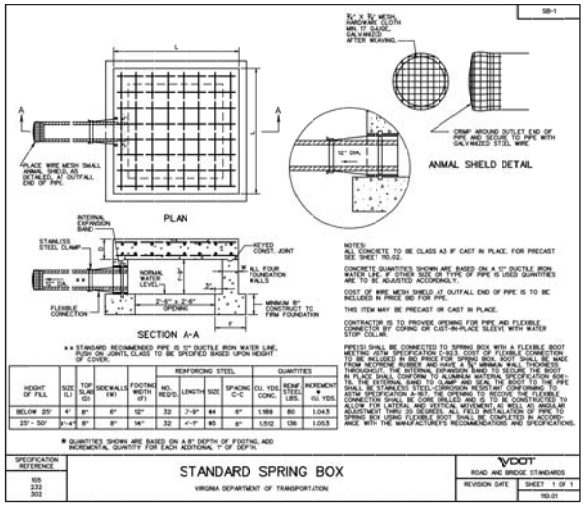
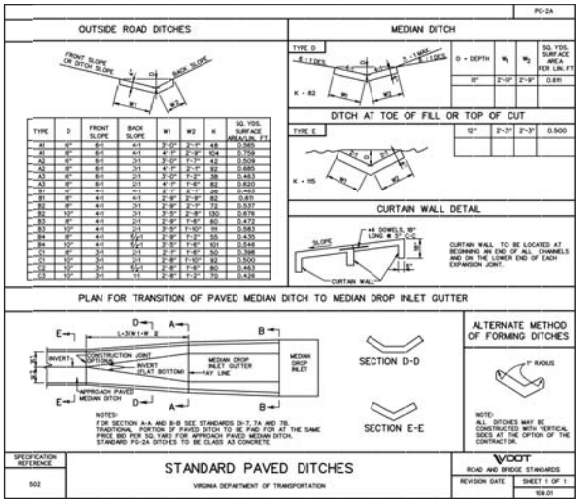
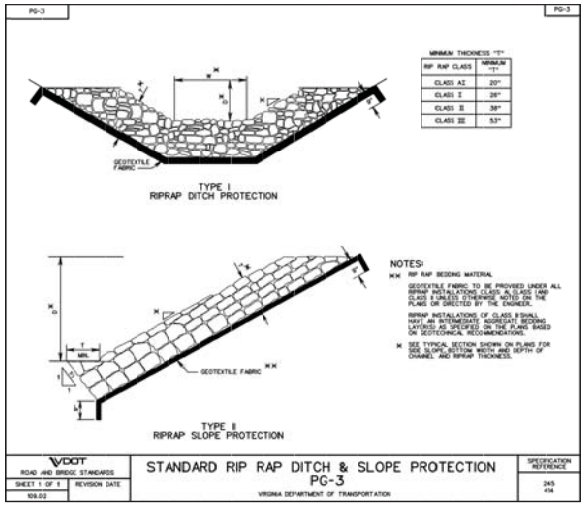
VDOT STANDARD DETAILS

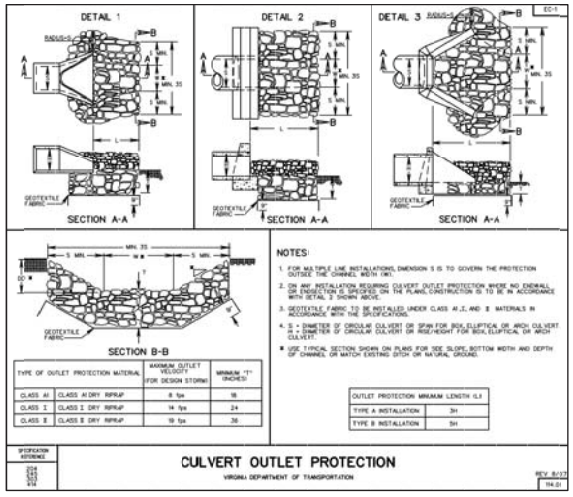
DOCUMENT NO. 29681 — 005
SHEET 2C OF 26

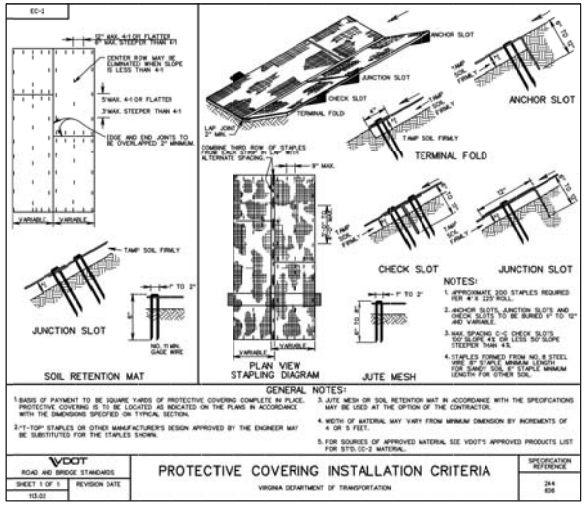
Allen, Matthew / 4/3/2018 8:34 AM / \\aaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_002-002d_notes_details.dwg

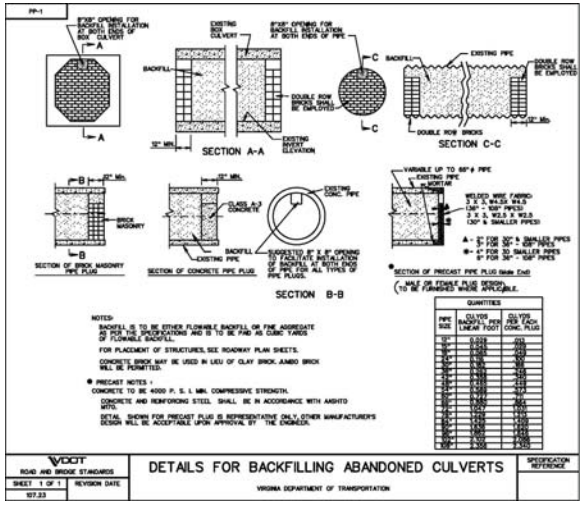












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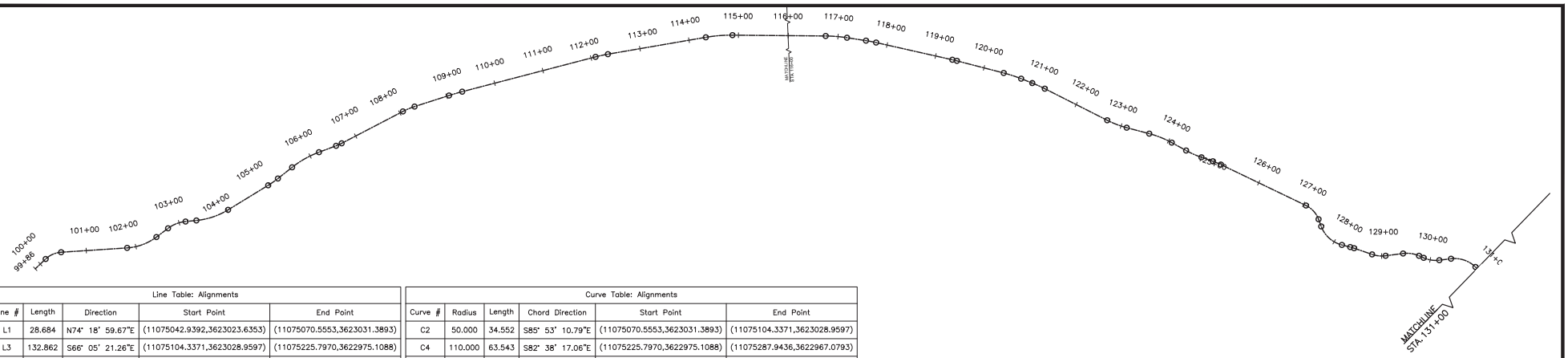
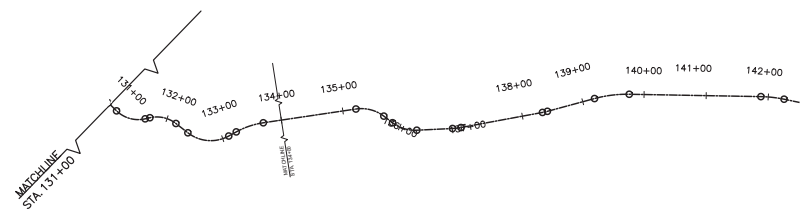
VDOT STANDARD DETAILS

DOCUMENT NO. 29681 – 006
SHEET 2D OF 26

Allen, Matthew / 4/3/2018 8:34 AM / \\aaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_002-002d_notes_details.dwg





Line Table: Alignments				
Line #	Length	Direction	Start Point	End Point
L1	28.684	N74° 18' 59.67"E	(11075042.9392,3623023.6353)	(11075070.5553,3623031.3893)
L3	132.862	S66° 05' 21.26"E	(11075104.3371,3623028.9597)	(11075225.7970,3622975.1088)
L5	29.194	N80° 48' 47.14"E	(11075287.9436,3622967.0793)	(11075316.7635,3622971.7404)
L7	21.816	S67° 53' 57.93"E	(11075354.2757,3622967.4950)	(11075374.4887,3622959.2871)
L9	94.408	N86° 13' 32.33"E	(11075440.7978,3622948.5912)	(11075535.0007,3622954.8058)
L11	36.327	N79° 25' 04.77"E	(11075558.5638,3622957.7734)	(11075594.2730,3622964.4446)
L13	36.656	S82° 46' 19.41"E	(11075656.1649,3622966.2567)	(11075692.5298,3622961.6447)
L15	138.575	S89° 49' 16.44"E	(11075704.7995,3622960.8505)	(11075843.3740,3622960.4182)
L17	72.638	S80° 06' 35.67"E	(11075868.6698,3622958.1898)	(11075940.2286,3622945.7135)
L19	276.718	S76° 56' 47.23"E	(11075967.2800,3622940.2237)	(11076236.8474,3622877.7237)
L21	199.493	S72° 06' 09.24"E	(11076261.2831,3622870.9584)	(11076451.1223,3622809.6514)
L23	187.136	S61° 49' 26.08"E	(11076500.5830,3622788.6191)	(11076665.5432,3622700.2568)
L25	38.528	S53° 35' 34.26"E	(11076701.9442,3622677.2526)	(11076732.9520,3622654.3856)
L27	156.890	S49° 38' 25.13"E	(11076749.1714,3622641.5379)	(11076868.7209,3622539.9383)
L29	97.031	S47° 49' 52.58"E	(11076875.8406,3622533.6914)	(11076947.7572,3622468.5529)
L31	24.004	S40° 47' 09.13"E	(11076973.5092,3622442.1717)	(11076989.1896,3622423.9967)
L33	140.455	S35° 31' 35.34"E	(11077006.1969,3622402.3503)	(11077087.8122,3622288.0416)
L35	46.823	S47° 33' 45.49"E	(11077115.6248,3622256.6544)	(11077150.1809,3622225.0590)
L37	32.898	S33° 36' 12.80"E	(11077181.8015,3622188.1446)	(11077200.0089,3622160.7440)
L39	24.332	S43° 15' 31.11"E	(11077220.9327,3622134.3741)	(11077237.6076,3622116.6535)
L41	189.797	S36° 41' 02.79"E	(11077248.6587,3622103.4700)	(11077362.0441,3621951.2636)
L43	15.386	S7° 08' 05.84"W	(11077371.5599,3621915.1831)	(11077369.6488,3621899.9162)
L45	17.256	S48° 08' 39.95"E	(11077389.1489,3621847.7741)	(11077402.0014,3621836.2601)
L47	38.087	S43° 24' 14.99"E	(11077407.9284,3621830.4912)	(11077434.0992,3621802.8204)
L49	35.368	S69° 43' 07.31"E	(11077456.8929,3621787.7687)	(11077490.0677,3621775.5093)
L51	10.283	S38° 33' 07.64"E	(11077516.1924,3621756.6227)	(11077522.6013,3621748.5808)
L53	23.609	S69° 18' 14.22"E	(11077548.3191,3621729.8463)	(11077570.4043,3621721.5027)
L55	18.735	S18° 12' 08.14"E	(11077606.1973,3621684.1169)	(11077612.0495,3621666.3196)
L57	7.820	S75° 17' 41.68"E	(11077646.8553,3621633.5760)	(11077654.4194,3621631.5909)
L59	24.385	S24° 27' 06.99"E	(11077687.2426,3621603.9251)	(11077697.3362,3621581.7275)
L61	13.797	N88° 50' 36.30"E	(11077753.1658,3621546.5755)	(11077766.9596,3621546.8540)
L63	150.721	S70° 47' 13.20"E	(11077812.3641,3621539.6397)	(11077954.6901,3621490.0403)
L65	17.633	S25° 18' 12.33"E	(11077989.1887,3621459.0270)	(11077996.7252,3621443.0858)
L67	57.593	S65° 03' 06.07"E	(11078025.6606,3621414.3292)	(11078077.8797,3621390.0364)
L69	133.519	S72° 49' 24.58"E	(11078090.5281,3621385.1653)	(11078218.0917,3621345.7351)
L71	78.622	S77° 29' 23.29"E	(11078225.9620,3621343.6493)	(11078302.7175,3621326.6187)
L73	212.001	S61° 18' 32.35"E	(11078355.4120,3621306.8115)	(11078541.3837,3621205.0328)
L75	77.639	S50° 32' 34.29"E	(11078572.4666,3621184.0086)	(11078632.4114,3621134.6692)

Curve Table: Alignments					
Curve #	Radius	Length	Chord Direction	Start Point	End Point
C2	50.000	34.552	S85° 53' 10.79"E	(11075070.5553,3623031.3893)	(11075104.3371,3623028.9597)
C4	110.000	63.543	S82° 38' 17.06"E	(11075225.7970,3622975.1088)	(11075287.9436,3622967.0793)
C6	70.000	38.225	S83° 32' 35.39"E	(11075316.7635,3622971.7404)	(11075354.2757,3622967.4950)
C8	150.000	67.740	S80° 50' 12.80"E	(11075374.4887,3622959.2871)	(11075440.7978,3622948.5912)
C10	200.000	23.763	N82° 49' 18.55"E	(11075535.0007,3622954.8058)	(11075558.5638,3622957.7734)
C12	200.000	62.168	N88° 19' 22.68"E	(11075594.2730,3622964.4446)	(11075656.1649,3622966.2567)
C14	100.000	12.303	S86° 17' 47.92"E	(11075692.5298,3622961.6447)	(11075704.7995,3622960.8505)
C16	150.000	25.424	S84° 57' 56.06"E	(11075843.3740,3622960.4182)	(11075868.6698,3622958.1898)
C18	500.000	27.606	S78° 31' 41.45"E	(11075940.2286,3622945.7135)	(11075967.2800,3622940.2237)
C20	300.000	25.363	S74° 31' 28.24"E	(11076236.8474,3622877.7237)	(11076261.2831,3622870.9584)
C22	300.000	53.819	S66° 57' 47.66"E	(11076451.1223,3622809.6514)	(11076500.5830,3622788.6191)
C24	300.000	43.098	S57° 42' 30.17"E	(11076665.5432,3622700.2568)	(11076701.9442,3622677.2526)
C26	300.000	20.695	S51° 36' 59.70"E	(11076732.9520,3622654.3856)	(11076749.1714,3622641.5379)
C28	300.000	9.472	S48° 44' 08.86"E	(11076868.7209,3622539.9383)	(11076875.8406,3622533.6914)
C30	300.000	36.890	S44° 18' 30.85"E	(11076947.7572,3622468.5529)	(11076973.5092,3622442.1717)
C32	300.000	27.538	S38° 09' 22.24"E	(11076989.1896,3622423.9967)	(11077006.1969,3622402.3503)
C34	200.000	42.014	S41° 32' 40.42"E	(11077087.8122,3622288.0416)	(11077115.6248,3622256.6544)
C36	200.000	48.726	S40° 34' 59.14"E	(11077150.1809,3622225.0590)	(11077181.8015,3622188.1446)
C38	200.000	33.703	S38° 25' 51.95"E	(11077200.0089,3622160.7440)	(11077220.9327,3622134.3741)
C40	150.000	17.212	S39° 58' 16.95"E	(11077237.6076,3622116.6535)	(11077248.6587,3622103.4700)
C42	50.000	38.239	S14° 46' 28.47"E	(11077362.0441,3621951.2636)	(11077371.5599,3621915.1831)
C44	60.000	57.888	S20° 30' 17.05"E	(11077369.6488,3621899.9162)	(11077389.1489,3621847.7741)
C46	100.000	8.273	S45° 46' 27.47"E	(11077402.0014,3621836.2601)	(11077407.9284,3621830.4912)
C48	60.000	27.557	S56° 33' 41.15"E	(11077434.0992,3621802.8204)	(11077456.8929,3621787.7687)
C50	60.000	32.638	S54° 08' 07.48"E	(11077490.0677,3621775.5093)	(11077516.1924,3621756.6227)
C52	60.000	32.203	S53° 55' 40.93"E	(11077522.6013,3621748.5808)	(11077548.3191,3621729.8463)
C54	60.000	53.514	S43° 45' 11.18"E	(11077570.4043,3621721.5027)	(11077606.1973,3621684.1169)
C56	50.000	49.823	S46° 44' 54.91"E	(11077612.0495,3621666.3196)	(11077646.8553,3621633.5760)
C58	50.000	44.369	S49° 52' 24.33"E	(11077654.4194,3621631.5909)	(11077687.2426,3621603.9251)
C60	60.000	69.853	S57° 48' 15.34"E	(11077697.3362,3621581.7275)	(11077753.1658,3621546.5755)
C62	130.000	46.217	S80° 58' 18.45"E	(11077766.9596,3621546.8540)	(11077812.3641,3621539.6397)
C64	60.000	47.630	S48° 02' 42.76"E	(11077954.6901,3621490.0403)	(11077989.1887,3621459.0270)
C66	60.000	41.624	S45° 10' 39.20"E	(11077996.7252,3621443.0858)	(11078025.6606,3621414.3292)
C68	100.000	13.564	S68° 56' 15.33"E	(11078077.8797,3621390.0364)	(11078090.5281,3621385.1653)
C70	100.000	8.144	S75° 09' 23.93"E	(11078218.0917,3621345.7351)	(11078225.9620,3621343.6493)
C72	200.000	56.482	S69° 23' 57.82"E	(11078302.7175,3621326.6187)	(11078355.4120,3621306.8115)
C74	200.000	37.581	S55° 55' 33.32"E	(11078541.3837,3621205.0328)	(11078572.4666,3621184.0086)

COMMONWEALTH OF VIRGINIA
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27 March 2018
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DESIGNED: JMM
DRAWN : MDA
CHECKED : JMJ
QA / QC : JDW

REV. #	COMMENTS	DATE
1	VDOT 100% COMMENTS	15 DEC 16

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

ALIGNMENT DATA SHEET
STA. 99+86 TO 142+50

DOCUMENT NO. 29681 – 007
SHEET 2E OF 26

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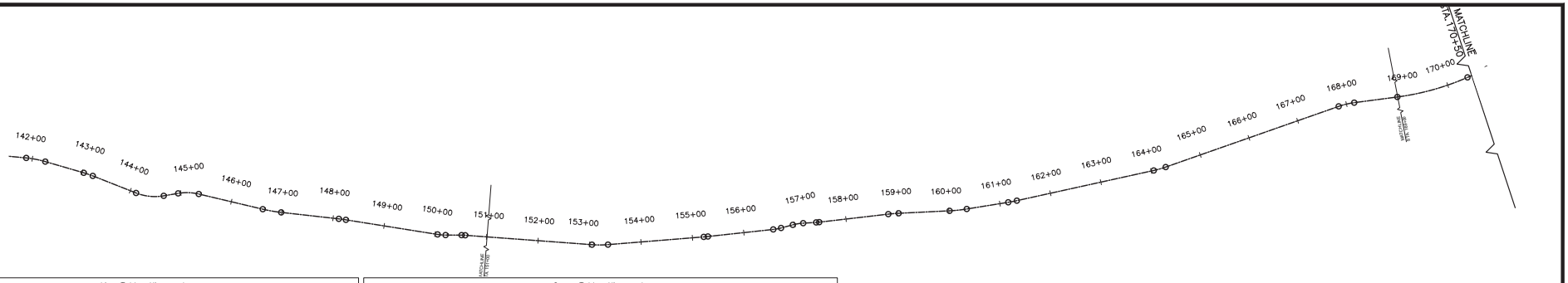

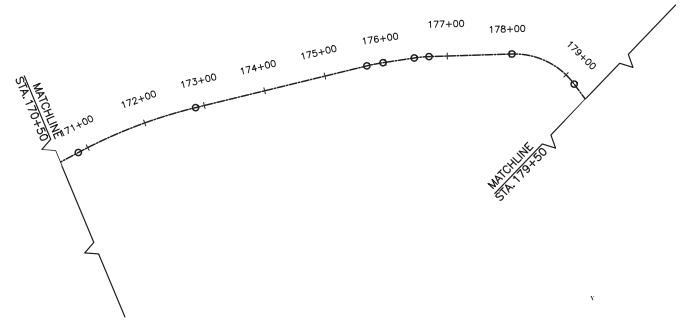

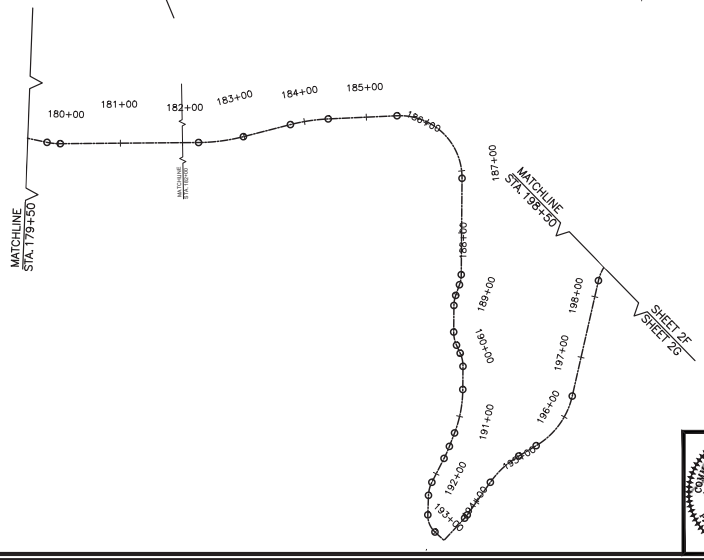

Line Table: Alignments				
Line #	Length	Direction	Start Point	End Point
L75	77.639	S50° 32' 34.29"E	(11078572.4666,3621184.0086)	(11078632.4114,3621134.6692)
L77	90.166	S45° 14' 51.46"E	(11078646.1200,3621122.2804)	(11078710.1516,3621058.8000)
L79	28.349	S76° 30' 40.77"E	(11078757.2307,3621032.5740)	(11078784.7973,3621025.9616)
L81	127.488	S53° 27' 45.42"E	(11078821.0067,3621009.0668)	(11078923.4389,3620933.1675)
L83	112.279	S60° 23' 07.36"E	(11078953.7939,3620913.3974)	(11079051.4061,3620857.9130)
L85	179.898	S57° 44' 18.85"E	(11079063.2919,3620850.7888)	(11079215.4172,3620754.7624)
L87	31.050	S66° 37' 17.07"E	(11079229.1151,3620747.5343)	(11079257.6159,3620735.2135)
L89	246.204	S62° 32' 54.25"E	(11079264.0353,3620732.1633)	(11079482.5171,3620618.6633)
L91	186.161	S71° 25' 41.65"E	(11079511.0185,3620606.5584)	(11079687.4850,3620547.2676)
L93	127.370	S72° 58' 48.70"E	(11079695.2220,3620544.7842)	(11079817.0138,3620507.5026)
L95	23.521	S81° 47' 08.30"E	(11079831.9963,3620504.1489)	(11079855.2755,3620500.7884)
L97	25.191	S70° 04' 00.98"E	(11079875.0800,3620495.8235)	(11079898.7618,3620487.2354)
L99	134.735	S73° 26' 23.59"E	(11079904.3519,3620485.3924)	(11080033.4985,3620446.9900)
L101	98.683	S69° 35' 22.41"E	(11080052.6150,3620440.5992)	(11080145.1028,3620406.1841)
L103	81.387	S76° 00' 00.65"E	(11080177.1500,3620396.2607)	(11080256.1198,3620376.5715)
L105	271.583	S79° 14' 58.89"E	(11080272.7367,3620372.9257)	(11080539.5530,3620322.2675)
L107	355.209	S86° 09' 28.94"E	(11080563.4579,3620319.2069)	(11080917.8688,3620295.4062)
L109	84.301	S74° 19' 11.41"E	(11080948.3582,3620290.1611)	(11081029.5220,3620267.3773)
L111	41.810	N89° 27' 35.36"E	(11081169.3694,3620248.7922)	(11081211.1772,3620249.1864)
L113	283.804	S76° 01' 40.61"E	(11081411.8783,3620225.5528)	(11081687.2852,3620157.0289)
L115	50.903	S70° 58' 10.89"E	(11081712.6711,3620149.5086)	(11081760.7916,3620132.9110)
L117	133.571	S64° 08' 43.10"E	(11081782.7960,3620123.8223)	(11081902.9968,3620065.5733)
L119	61.839	S8° 53' 19.11"E	(11081969.2248,3619976.1267)	(11081978.7799,3619915.0299)
L121	222.599	S21° 12' 22.86"E	(11081984.3506,3619894.3086)	(11082064.8708,3619686.7833)
L123	78.147	S35° 08' 20.21"E	(11082099.2283,3619622.6333)	(11082144.2069,3619558.7276)
L125	110.928	S23° 21' 42.89"E	(11082174.2848,3619505.0205)	(11082218.2719,3619403.1866)
L127	155.107	S69° 44' 39.11"W	(11082161.0913,3619269.7172)	(11082015.5772,3619216.0175)
L129	18.122	S88° 46' 47.74"W	(11081999.3312,3619212.9366)	(11081981.2129,3619212.5507)
L131	42.702	S69° 44' 39.11"W	(11081964.9669,3619209.4699)	(11081924.9061,3619194.6861)
L133	14.221	S44° 44' 39.11"W	(11081906.7039,3619182.9754)	(11081896.6932,3619172.8749)
L135	37.216	S69° 44' 39.11"W	(11081878.4910,3619161.1642)	(11081843.5764,3619148.2796)
L137	23.188	N89° 44' 45.92"W	(11081773.4477,3619135.9128)	(11081750.2602,3619136.0155)
L139	43.175	N83° 41' 12.23"W	(11081729.1536,3619137.2265)	(11081686.2400,3619141.9742)
L141	31.442	S71° 11' 54.59"W	(11081664.6273,3619139.6095)	(11081634.8628,3619129.4760)
L143	19.735	S22° 05' 02.68"W	(11081613.1065,3619108.9317)	(11081605.6869,3619090.6449)
L144	48.832	S67° 47' 15.35"E	(11081605.6869,3619090.6449)	(11081650.8952,3619072.1843)
L146	64.408	S75° 27' 00.46"E	(11081657.2361,3619070.0772)	(11081719.5785,3619053.8965)
L148	32.473	S51° 26' 14.94"E	(11081775.4004,3619025.9964)	(11081800.7917,3619005.7539)
L150	190.636	N82° 03' 27.99"E	(11081895.9846,3618979.6939)	(11082084.7916,3619006.0349)

Curve Table: Alignments					
Curve #	Radius	Length	Chord Direction	Start Point	End Point
C76	200.000	18.484	S47° 53' 42.87"E	(11078632.4114,3621134.6692)	(11078646.1200,3621122.2804)
C78	100.000	54.565	S60° 52' 46.12"E	(11078710.1516,3621058.8000)	(11078757.2307,3621032.5740)
C80	100.000	40.228	S64° 59' 13.10"E	(11078784.7973,3621025.9616)	(11078821.0067,3621009.0668)
C82	300.000	36.247	S56° 55' 26.39"E	(11078923.4389,3620933.1675)	(11078953.7939,3620913.3974)
C84	300.000	13.859	S59° 03' 43.10"E	(11079051.4061,3620857.9130)	(11079063.2919,3620850.7888)
C86	100.000	15.503	S62° 10' 47.96"E	(11079215.4172,3620754.7624)	(11079229.1151,3620747.5343)
C88	100.000	7.109	S64° 35' 05.66"E	(11079257.6159,3620735.2135)	(11079264.0353,3620732.1633)
C90	200.000	30.996	S66° 59' 17.95"E	(11079482.5171,3620618.6633)	(11079511.0185,3620606.5584)
C92	300.000	8.126	S72° 12' 15.17"E	(11079687.4850,3620547.2676)	(11079695.2220,3620544.7842)
C94	100.000	15.368	S77° 22' 58.50"E	(11079817.0138,3620507.5026)	(11079831.9963,3620504.1489)
C96	100.000	20.453	S75° 55' 34.64"E	(11079855.2755,3620500.7884)	(11079875.0800,3620495.8235)
C98	100.000	5.887	S71° 45' 12.29"E	(11079898.7618,3620487.2354)	(11079904.3519,3620485.3924)
C100	300.000	20.160	S71° 30' 53.00"E	(11080033.4985,3620446.9900)	(11080052.6150,3620440.5992)
C102	300.000	33.566	S72° 47' 41.53"E	(11080145.1028,3620406.1841)	(11080177.1500,3620396.2607)
C104	300.000	17.014	S77° 37' 29.77"E	(11080256.1198,3620376.5715)	(11080272.7367,3620372.9257)
C106	200.000	24.115	S82° 42' 13.91"E	(11080539.5530,3620322.2675)	(11080563.4579,3620319.2069)
C108	150.000	30.992	S80° 14' 20.17"E	(11080917.8688,3620295.4062)	(11080948.3582,3620290.1611)
C110	500.000	141.549	S82° 25' 48.03"E	(11081029.5220,3620267.3773)	(11081169.3694,3620248.7922)
C112	800.000	202.629	S83° 17' 02.63"E	(11081211.1772,3620249.1864)	(11081411.8783,3620225.5528)
C114	300.000	26.485	S73° 29' 55.75"E	(11081687.2852,3620157.0289)	(11081712.6711,3620149.5086)
C116	200.000	23.822	S67° 33' 26.99"E	(11081760.7916,3620132.9110)	(11081782.7960,3620123.8223)
C118	120.000	115.729	S36° 31' 01.10"E	(11081902.9968,3620065.5733)	(11081969.2248,3619976.1267)
C120	100.000	21.498	S15° 02' 50.99"E	(11081978.7799,3619915.0299)	(11081984.3506,3619894.3086)
C122	300.000	72.951	S28° 10' 21.54"E	(11082064.8708,3619686.7833)	(11082099.2283,3619622.6333)
C124	300.000	61.664	S29° 15' 01.55"E	(11082144.2069,3619558.7276)	(11082174.2848,3619505.0205)
C126	100.000	162.501	S23° 11' 28.11"W	(11082218.2719,3619403.1866)	(11082161.0913,3619269.7172)
C128	50.000	16.612	S79° 15' 43.42"W	(11082015.5772,3619216.0175)	(11081999.3312,3619212.9366)
C130	50.000	16.612	S79° 15' 43.42"W	(11081981.2129,3619212.5507)	(11081964.9669,3619209.4699)
C132	50.000	21.817	S57° 14' 39.11"W	(11081924.9061,3619194.6861)	(11081906.7039,3619182.9754)
C134	50.000	21.817	S57° 14' 39.11"W	(11081896.6932,3619172.8749)	(11081878.4910,3619161.1642)
C136	200.000	71.592	S79° 59' 56.60"W	(11081843.5764,3619148.2796)	(11081773.4477,3619135.9128)
C138	200.000	21.151	N86° 42' 59.07"W	(11081750.2602,3619136.0155)	(11081729.1536,3619137.2265)
C140	50.000	21.917	S83° 45' 21.18"W	(11081686.2400,3619141.9742)	(11081664.6273,3619139.6095)
C142	36.000	30.860	S46° 38' 28.63"W	(11081634.8628,3619129.4760)	(11081613.1065,3619108.9317)
C145	50.000	6.687	S71° 37' 07.90"E	(11081650.8952,3619072.1843)	(11081657.2361,3619070.0772)
C147	150.000	62.865	S63° 26' 37.70"E	(11081719.5785,3619053.8965)	(11081775.4004,3619025.9964)
C149	125.000	101.458	S74° 41' 23.47"E	(11081800.7917,3619005.7539)	(11081895.9846,3618979.6939)
C151	70.000	32.438	S84° 40' 00.67"E	(11082084.7916,3619006.0349)	(11082116.8008,3619003.0468)

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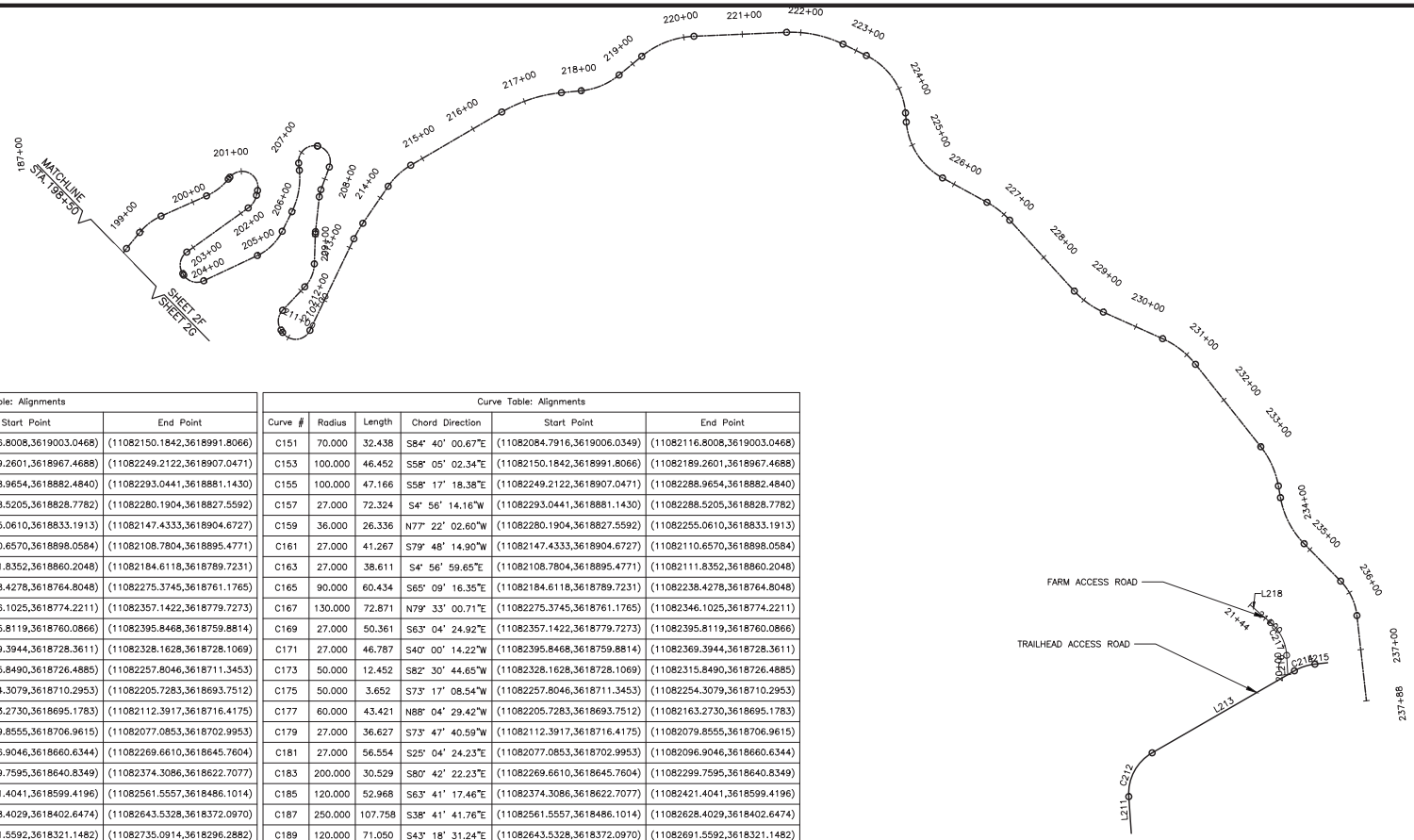
Allen, Matthew / 4/4/2018 11:04 AM / \\oaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_002e-002g-data_alignment.dwg



Line Table: Alignments				
Line #	Length	Direction	Start Point	End Point
L152	35.225	S71° 23' 29.33"E	(11082116.8008,3619003.0468)	(11082150.1842,3618991.8066)
L154	85.118	S44° 46' 35.35"E	(11082189.2601,3618967.4688)	(11082249.2122,3618907.0471)
L156	4.294	S71° 48' 01.40"E	(11082288.9654,3618882.4840)	(11082293.0441,3618881.1430)
L158	8.419	S81° 40' 29.72"W	(11082288.5205,3618828.7782)	(11082280.1904,3618827.5592)
L160	129.203	N56° 24' 34.92"W	(11082255.0610,3618833.1913)	(11082147.4333,3618904.6727)
L162	3.191	S36° 01' 04.72"W	(11082110.6570,3618898.0584)	(11082108.7804,3618895.4771)
L164	101.312	S45° 55' 04.01"E	(11082111.8352,3618860.2048)	(11082184.6118,3618789.7231)
L166	37.124	S84° 23' 28.69"E	(11082238.4278,3618764.8048)	(11082275.3745,3618761.1765)
L168	12.337	N63° 29' 30.11"E	(11082346.1025,3618774.2211)	(11082357.1422,3618779.7273)
L170	0.208	S9° 38' 19.94"E	(11082395.8119,3618760.0866)	(11082395.8468,3618759.8814)
L172	41.232	S89° 38' 48.38"W	(11082369.3944,3618728.3611)	(11082328.1628,3618728.1069)
L174	59.987	S75° 22' 40.92"W	(11082315.8490,3618726.4885)	(11082257.8046,3618711.3453)
L176	51.319	S71° 11' 36.15"W	(11082254.3079,3618710.2953)	(11082205.7283,3618693.7512)
L178	55.136	N67° 20' 34.99"W	(11082163.2730,3618695.1783)	(11082112.3917,3618716.4175)
L180	4.838	S34° 55' 56.16"W	(11082079.8555,3618706.9615)	(11082077.0853,3618702.9953)
L182	173.396	S85° 04' 44.63"E	(11082096.9046,3618660.6344)	(11082269.6610,3618645.7604)
L184	76.721	S76° 19' 59.82"E	(11082299.7595,3618640.8349)	(11082374.3086,3618622.7077)
L186	180.232	S51° 02' 35.09"E	(11082421.4041,3618599.4196)	(11082561.5557,3618486.1014)
L188	34.092	S26° 20' 48.42"E	(11082628.4029,3618402.6474)	(11082643.5328,3618372.0970)
L190	50.131	S60° 16' 14.06"E	(11082691.5592,3618321.1482)	(11082735.0914,3618296.2882)
L192	158.351	S23° 09' 47.23"E	(11082798.6140,3618225.0342)	(11082860.9014,3618079.4480)
L194	44.427	S5° 19' 28.92"W	(11082876.1606,3617982.2180)	(11082872.0378,3617937.9832)
L196	15.639	S64° 34' 53.53"W	(11082804.0628,3617840.7355)	(11082789.9375,3617834.0227)
L198	86.568	S7° 59' 33.09"W	(11082722.6103,3617742.3244)	(11082710.5735,3617656.5975)
L200	163.853	S26° 56' 10.91"W	(11082695.7571,3617609.5040)	(11082621.5315,3617463.4271)
L202	110.959	S3° 25' 09.16"W	(11082605.5251,3617404.4232)	(11082598.9074,3617293.6620)
L204	179.456	S30° 55' 13.10"W	(11082577.8568,3617225.5314)	(11082485.6443,3617071.5793)
L206	20.363	S59° 13' 40.34"W	(11082433.7056,3617019.7748)	(11082416.2099,3617009.3568)
L208	89.269	S24° 57' 35.81"W	(11082356.9632,3616943.7731)	(11082319.2931,3616862.8418)
L210	146.480	S62° 54' 16.40"W	(11082274.1803,3616816.0154)	(11082143.7764,3616749.2974)
L211	62.921	N65° 21' 31.25"E	(11081789.9275,3617044.7338)	(11081847.1190,3617070.9680)
L213	280.438	S50° 40' 26.36"E	(11081931.1725,3617060.1373)	(11082148.1063,3616882.4146)
L215	21.868	S27° 05' 43.60"E	(11082171.1928,3616853.7876)	(11082181.1531,3616834.3195)
L216	33.139	N65° 53' 11.58"E	(11082137.9905,3616890.7020)	(11082168.2376,3616904.2407)
L218	46.679	N20° 16' 31.16"E	(11082210.5970,3616949.5372)	(11082226.7726,3616993.3235)

Curve Table: Alignments					
Curve #	Radius	Length	Chord Direction	Start Point	End Point
C151	70.000	32.438	S84° 40' 00.67"E	(11082084.7916,3619006.0349)	(11082116.8008,3619003.0468)
C153	100.000	46.452	S58° 05' 02.34"E	(11082150.1842,3618991.8066)	(11082189.2601,3618967.4688)
C155	100.000	47.166	S58° 17' 18.38"E	(11082249.2122,3618907.0471)	(11082288.9654,3618882.4840)
C157	27.000	72.324	S4° 56' 14.16"W	(11082293.0441,3618881.1430)	(11082288.5205,3618828.7782)
C159	36.000	26.336	N77° 22' 02.60"W	(11082280.1904,3618827.5592)	(11082255.0610,3618833.1913)
C161	27.000	41.267	S79° 48' 14.90"W	(11082147.4333,3618904.6727)	(11082110.6570,3618898.0584)
C163	27.000	38.611	S4° 56' 59.65"E	(11082108.7804,3618895.4771)	(11082111.8352,3618860.2048)
C165	90.000	60.434	S65° 09' 16.35"E	(11082184.6118,3618789.7231)	(11082238.4278,3618764.8048)
C167	130.000	72.871	N79° 33' 00.71"E	(11082275.3745,3618761.1765)	(11082346.1025,3618774.2211)
C169	27.000	50.361	S63° 04' 24.92"E	(11082357.1422,3618779.7273)	(11082395.8119,3618760.0866)
C171	27.000	46.787	S40° 00' 14.22"W	(11082395.8468,3618759.8814)	(11082369.3944,3618728.3611)
C173	50.000	12.452	S82° 30' 44.65"W	(11082328.1628,3618728.1069)	(11082315.8490,3618726.4885)
C175	50.000	3.652	S73° 17' 08.54"W	(11082257.8046,3618711.3453)	(11082254.3079,3618710.2953)
C177	60.000	43.421	N88° 04' 29.42"W	(11082205.7283,3618693.7512)	(11082163.2730,3618695.1783)
C179	27.000	36.627	S73° 47' 40.59"W	(11082112.3917,3618716.4175)	(11082079.8555,3618706.9615)
C181	27.000	56.554	S25° 04' 24.23"E	(11082077.0853,3618702.9953)	(11082096.9046,3618660.6344)
C183	200.000	30.529	S80° 42' 22.23"E	(11082269.6610,3618645.7604)	(11082299.7595,3618640.8349)
C185	120.000	52.968	S63° 41' 17.46"E	(11082374.3086,3618622.7077)	(11082421.4041,3618599.4196)
C187	250.000	107.758	S38° 41' 41.76"E	(11082561.5557,3618486.1014)	(11082628.4029,3618402.6474)
C189	120.000	71.050	S43° 18' 31.24"E	(11082643.5328,3618372.0970)	(11082691.5592,3618321.1482)
C191	150.000	97.147	S41° 43' 00.65"E	(11082735.0914,3618296.2882)	(11082798.6140,3618225.0342)
C193	200.000	99.441	S8° 55' 09.15"E	(11082860.9014,3618079.4480)	(11082876.1606,3617982.2180)
C195	120.000	124.107	S34° 57' 11.23"W	(11082872.0378,3617937.9832)	(11082804.0628,3617840.7355)
C197	120.000	118.520	S36° 17' 13.31"W	(11082789.9375,3617834.0227)	(11082722.6103,3617742.3244)
C199	150.000	49.595	S17° 27' 52.00"W	(11082710.5735,3617656.5975)	(11082695.7571,3617609.5040)
C201	150.000	61.568	S15° 10' 40.03"W	(11082621.5315,3617463.4271)	(11082605.5251,3617404.4232)
C203	150.000	71.998	S17° 10' 11.13"W	(11082598.9074,3617293.6620)	(11082577.8568,3617225.5314)
C205	150.000	74.109	S45° 04' 26.72"W	(11082485.6443,3617071.5793)	(11082433.7056,3617019.7748)
C207	150.000	89.713	S42° 05' 38.07"W	(11082416.2099,3617009.3568)	(11082356.9632,3616943.7731)
C209	100.000	66.226	S43° 55' 56.10"W	(11082319.2931,3616862.8418)	(11082274.1803,3616816.0154)
C212	80.000	89.315	S82° 39' 27.56"E	(11081847.1190,3617070.9680)	(11081931.1725,3617060.1373)
C214	90.000	37.037	S38° 53' 04.98"E	(11082148.1063,3616882.4146)	(11082171.1928,3616853.7876)
C217	80.000	63.685	N43° 04' 51.37"E	(11082168.2376,3616904.2407)	(11082210.5970,3616949.5372)

JAY MARCEL McGUIRE
Lic.No. 033440
27 March 2018
COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER

HURT & PROFFITT
ENGINEERING • SURVEYING
LAND DEVELOPMENT • ENVIRONMENTAL
GEOTECHNICAL • CONSTRUCTION TESTING & INSPECTION
CULTURAL RESOURCES
1861 Pratt Dr. Suite 1100
Blacksburg, Va. 24060
540-552-5592

DATE : 30 JUN 16
DESIGNED: JMM
DRAWN : MDA
CHECKED : JMJ
QA / QC : JDW

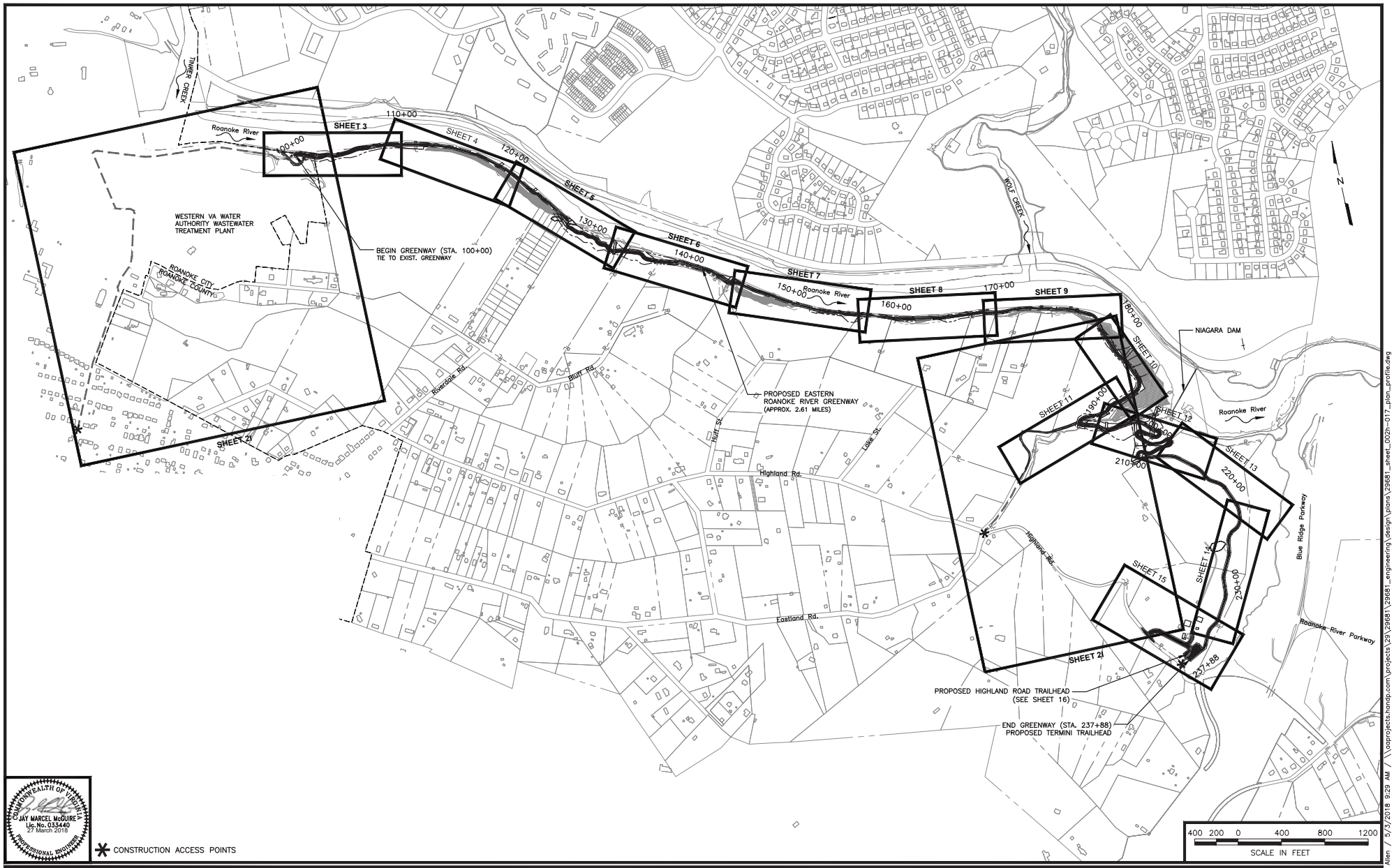
REV. #	COMMENTS	DATE
1	VDOT 100% COMMENTS	15 DEC 16

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

ALIGNMENT DATA SHEET
STA. 198+50 TO 237+88

DOCUMENT NO.
29681 – 009
SHEET 2G OF 26

Allen, Matthew / 4/4/2018 11:04 AM / \\oaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_002e-002g-data_alignment.dwg



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27 March 2018
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✱ CONSTRUCTION ACCESS POINTS

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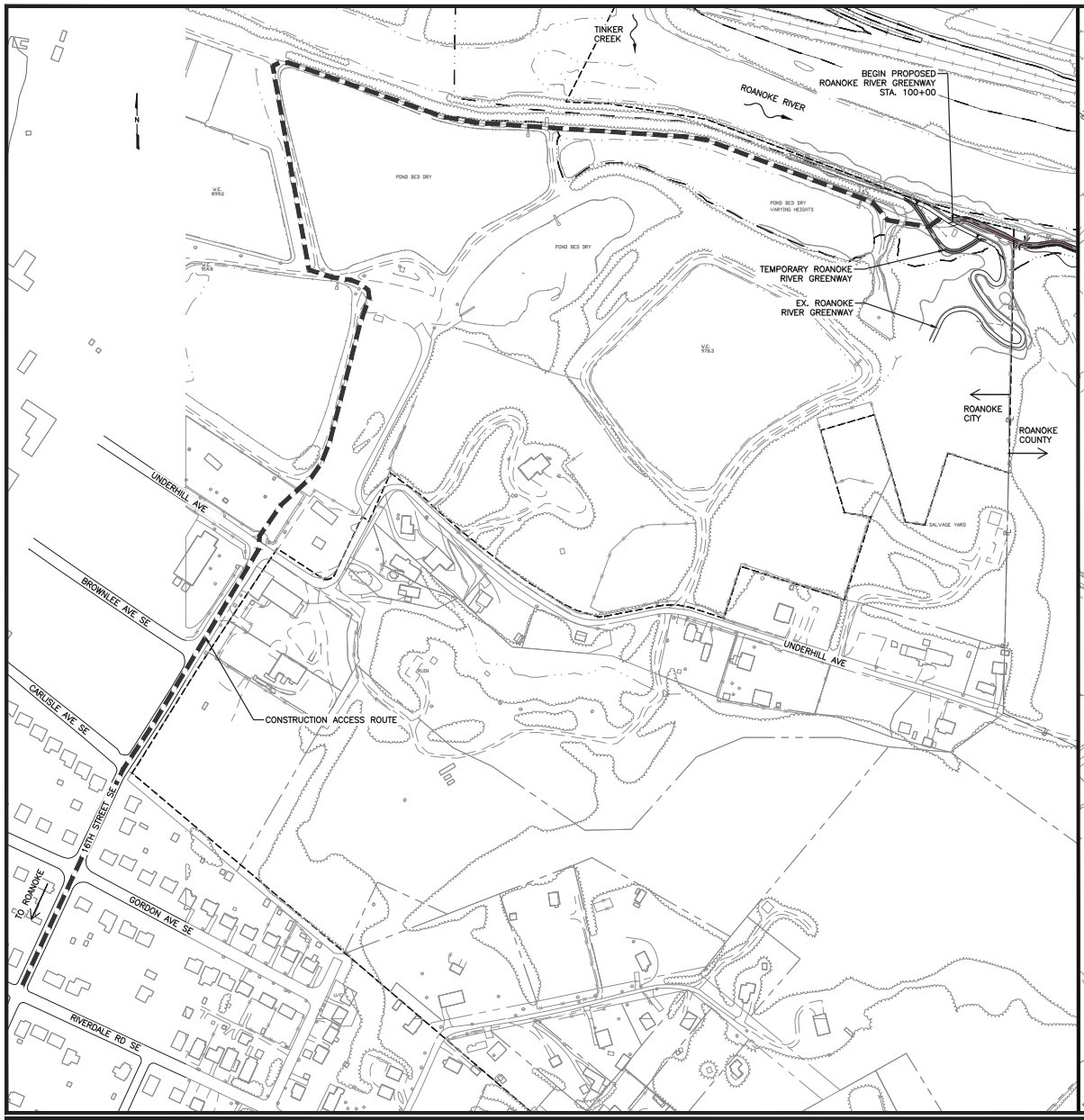
1	VDOT 100% COMMENTS	15 DEC 16

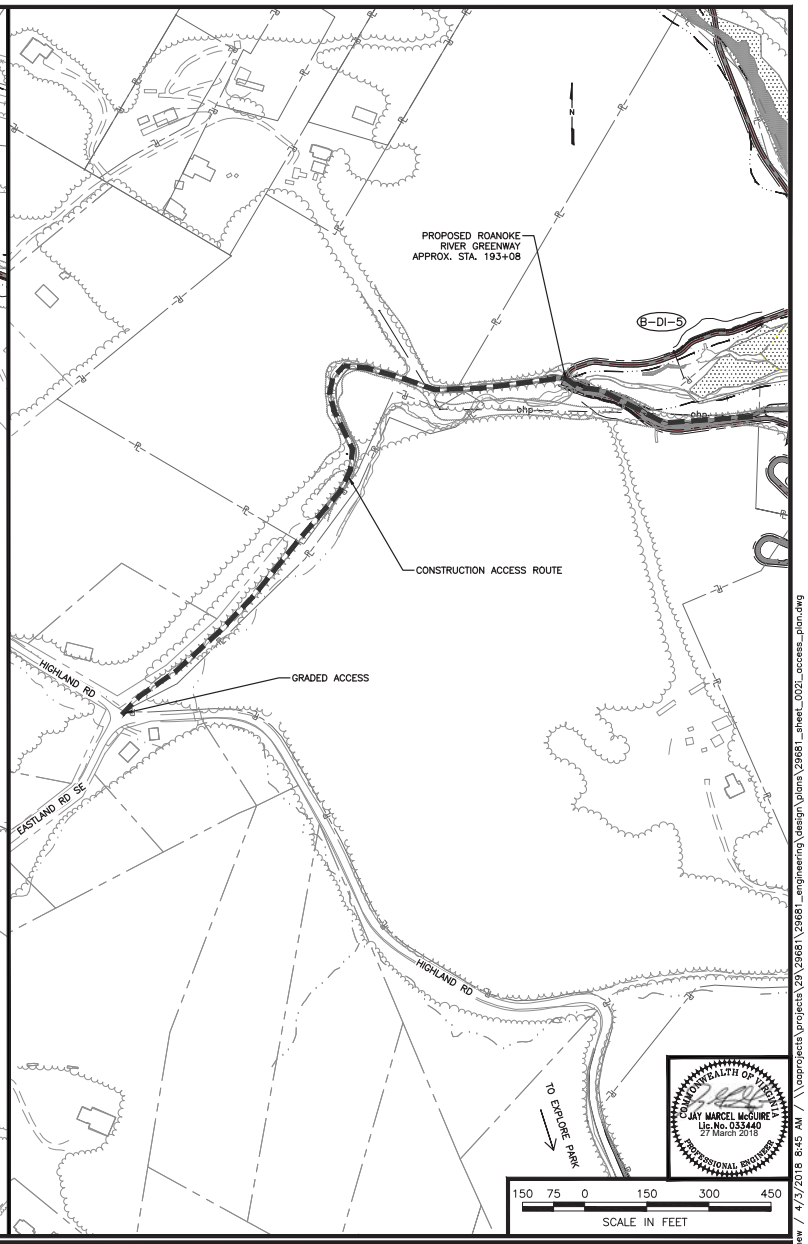
EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

PLAN SHEET LAYOUT
STA: 100+00 TO 237+88

DOCUMENT NO. **29681 – 010**
SHEET **2H** OF **26**

Matthew D. Allen / 5/3/2018 9:29 AM / \\oaprojects.hondp.com\projects\29\29681\29681_engineering\design\plans\29681_sheet_002h-017_plan_profile.dwg





COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
Lic.No. 033440
27 March 2018
PROFESSIONAL ENGINEER

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DATE	30 JUN 16
DESIGNED:	JMM
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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

CONSTRUCTION ACCESS PLAN
RIVERDALE RD & HIGHLAND RD

DOCUMENT NO. 29681 – 011
SHEET 2I OF 26

Allen, Matthew / 4/3/2018 8:45 AM / \\aaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_0021_access_plan.dwg

ROADWAY CLASSIFICATION

- Highland Road Rte 618 - MINOR ARTERIAL (30 MPH)*
  *Speed study performed by Anderson & Associates, dated 22 December 2014

PROJECT NUMBERS

- FEDERAL PROJECT NUMBER: TEA-5128(260)
- VDOT PROJECT NUMBER: EN08-080-105, P101, R201, C501
- UPC: 91191

TEMPORARY TRAFFIC CONTROL REFERENCES

- TTC-1.1: WORK BEYOND THE SHOULDER OPERATION
- TTC-5.1: SHOULDER OPERATION WITH MINOR ENCROACHMENT
- TTC-23.1: LANE CLOSURE ON A TWO-LANE ROADWAY USING FLAGGERS
- TTC-53.0: SIGNING FOR PROJECT LIMITS

LOCAL EMERGENCY RESPONSE AGENCY CONTACT LIST (911)

• ROANOKE COUNTY (POLICE)	540-562-3265
• ROANOKE COUNTY (FIRE & RESCUE)	540-777-8701
• VDOT TRAFFIC OPERATIONS CENTER	540-375-0170
• VIRGINIA STATE POLICE (DIV. 6 AREA 40)	540-375-9518 & 540-375-9538
• SMART TRAFFIC	1-866-378-7743

PROPOSED CONSTRUCTION SEQUENCE

EACH STAGE OF CONSTRUCTION WILL INCLUDE THE FOLLOWING GENERAL STEPS:

1. INSTALLATION OF PROJECT LIMITS SIGNING.
2. INSTALLATION OF APPROVED TEMPORARY TRAFFIC CONTROL MEASURES.
3. PERFORM DEMOLITION ACTIVITIES.
4. INSTALLATION OF PROPOSED IMPROVEMENTS.
5. RESTORATION OF PROPERTY.
6. REMOVAL OF TEMPORARY TRAFFIC CONTROL MEASURES.
7. REMOVAL OF PROJECT LIMITS SIGNING.

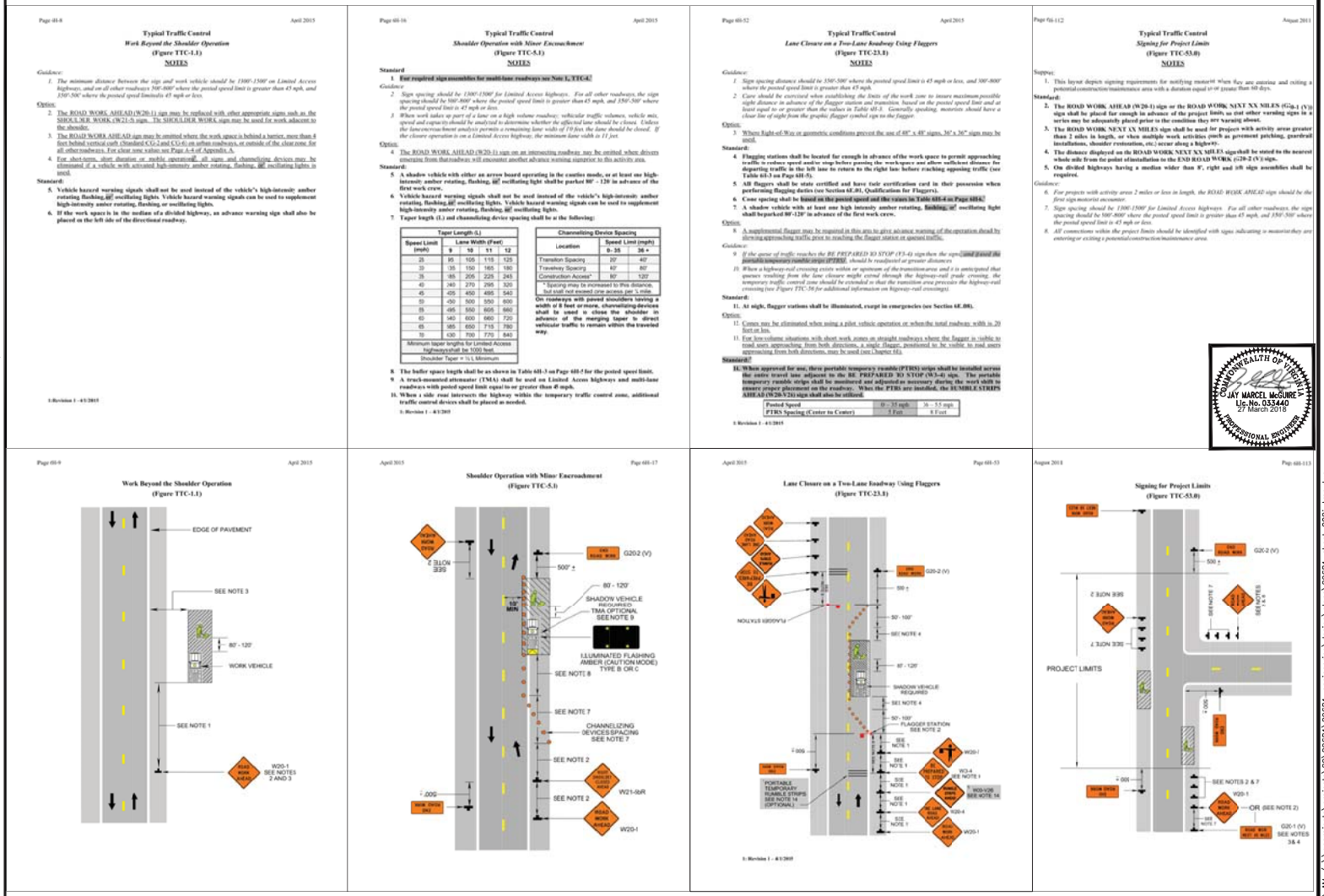
PROPOSED CONSTRUCTION PHASES INCLUDE (AS DETERMINED BY THE CONTRACTOR):

CONSTRUCTION OF TRAILHEAD ENTRANCE ON THE NORTH SIDE OF HIGHLAND ROAD (RT. 618)

CONSTRUCTION OF THE TRAILHEAD ACCESS ROAD ADJACENT TO HIGHLAND ROAD WILL BEGIN WITH INSTALLATION OF TEMPORARY TRAFFIC CONTROL AND E&S MEASURES FOLLOWED BY CLEARING AND GRUBBING WITHIN THE SHOULDERS. CONSTRUCTION OPERATIONS WITHIN THE CLEAR ZONE WILL BE COMPLETED USING TTC 1.1. ONCE THE ACCESS ROAD IS ESTABLISHED, THE NORTHBOUND LANE OF HIGHLAND ROAD WILL BE CLOSED USING TTC 5-1 TO COMPLETE CONSTRUCTION OF THE ENTRANCE AND ROADWAY TIE IN. RESTORATION OF PROPERTY AND PERMANENT SEEDING WILL BE INSTALLED. FINALLY E&S MEASURES WILL BE REMOVED, AND TEMPORARY TRAFFIC CONTROL REMOVED.

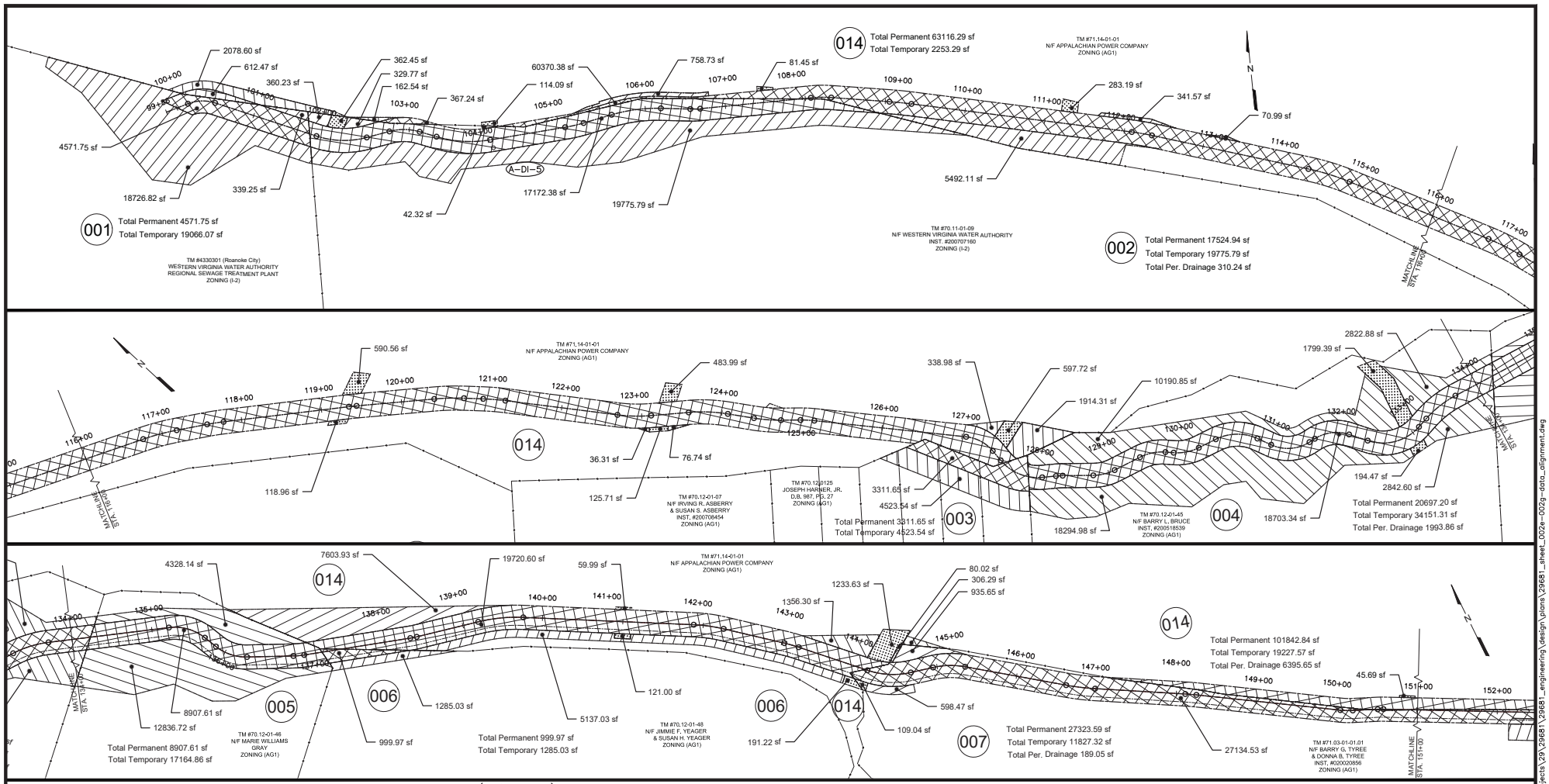
NOTES

1. PROJECT CATEGORY: TYPE A, CATEGORY I.
2. THIS PLAN DEPICTS A SUGGESTED SEQUENCE OF CONSTRUCTION FOR THIS PROJECT. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SEQUENCE PLAN TO GAIN APPROVAL FROM VDOT PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF LANE CLOSURES WITH VDOT.
3. TWO-LANE TRAFFIC SHALL BE MAINTAINED AT ALL TIMES UNLESS APPROVED BY THE ENGINEER. LANE WIDTHS SHALL BE A MINIMUM OF 10 FEET. FLAGGING OPERATIONS MAY BE REQUIRED FOR CERTAIN TASKS. THE USE OF FLAGGING OPERATIONS SHALL BE CARRIED OUT AS APPROVED AND DIRECTED BY THE ENGINEER.
4. VEHICULAR ACCESS TO ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.
5. ALL TEMPORARY TRAFFIC CONTROL PLANS AND MEASURES SHALL BE COMPLETED PER THE 2011 VDOT WORK AREA PROTECTION MANUAL (LATEST REVISION) AND AT NO ADDITIONAL COST TO THE OWNER.



ANDERSON & ASSOCIATES, INC. Professional Design Services www.andassoc.com 1861 Pratt Dr. Suite 1100 Blacksburg, Va. 24060 540-552-5592	DATE : 07 OCT 16 DESIGNED: JMM DRAWN : MDA CHECKED : JMJ QA / QC : JDW	REV. # 1 — COMMENTS: VDOT 100% COMMENTS — DATE: 15 DEC 16	**EASTERN ROANOKE RIVER GREENWAY** ROANOKE, VIRGINIA	**TRANSPORTATION MANAGEMENT PLAN**	DOCUMENT NO. **29681 – 011A** SHEET **2J** OF **26**

Allen, Matthew / 4/3/2018 8:50 AM / \\aaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_002j_tmp.dwg



RIGHT OF WAY AND PROPERTY DATA (UPC: 91191)

TRACT NO.	TAX NUMBER	OTHER INFORMATION	ZONING	LANDOWNER	SHEET NO.	PERMANENT GREENWAY EASEMENT AREA (AC)	TEMP. CONSTRUCTION EASEMENT AREA (AC)	PERMANENT PUBLIC DRAINAGE EASEMENT AREA (AC)
001	#4330301		I-2	WVWA	3	0.105	0.438	N/A
002	#70.11-01-09	INST. #200707160	I-2	WVWA	3	0.394	0.472	0.008
003	#70.12-0125	D.B. 987, PG. 27	AG1	JOSEPH HARNER, JR.	5	0.076	0.104	N/A
004	#70.12-01.45	INST. #200518539	AG1	BARRY L. BRUCE	5 / 6	0.429	0.784	0.046
005	#70.12-01-46		AG1	MARIE WILLIAMS GRAY	6	0.204	0.394	N/A
006	#70.12-01-48		AG1	JIMMIE F. & SUSAN H. YEAGER	6	0.023	0.030	N/A
007	#71.03-01-01.01	INST. #020020856	AG1	BARRY G. & DONNA B. TYREE	6 / 7	0.623	0.250	0.004
008	#71.03-01-02	D.B. 1437, PG. 1206	AG1	PENNY L. SAUNDERS & WILLIAM R. WILSON	7	N/A	0.048	N/A
009	#71.03-01-03	D.B. 1112, PG. 408 & P.B. 2, PG. 76	AG1	CLARENCE D. & NORMA P. THOMAS	8	0.096	0.170	N/A
010	#71.03-01-05	INST. #201105676	AG1	JOHN R. PUCKETT	8	0.012	0.058	N/A
011	#71.03-01-13.01	P.B. #200612507	AG1	HOLLAND'S HEIRS LLC	9 / 10 / 11 / 12	1.324	1.954	0.137
012	#71.03-01-09.01	D.B. 1243, PG. 1557	AG1	APPALACHIAN POWER CO.	12	0.341	0.656	0.108
013	#71.03-01-10.01	D.B. 1243, PG. 1554	AG1	APPALACHIAN POWER CO.	12	0.295	0.345	0.024
014	#71.14-01-01		AG1	APPALACHIAN POWER CO.	3 THRU 12	3.628	0.747	0.155
					Total	7.55	6.450	0.482

LEGEND

- PROPERTY LINE
- GREENWAY TRAIL
- PROPOSED PERM. EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED TEMP. EASEMENT

60 30 0 60 120 180
SCALE IN FT

COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
Lic.No. 033440
27 March 2018
PROFESSIONAL ENGINEER

HURT & PROFFITT
ENGINEERING • SURVEYING
LAND DEVELOPMENT • ENVIRONMENTAL
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DESIGNED: JMM
DRAWN : MDA
CHECKED : JMJ
QA / QC : JDW

REV. #	COMMENTS	DATE
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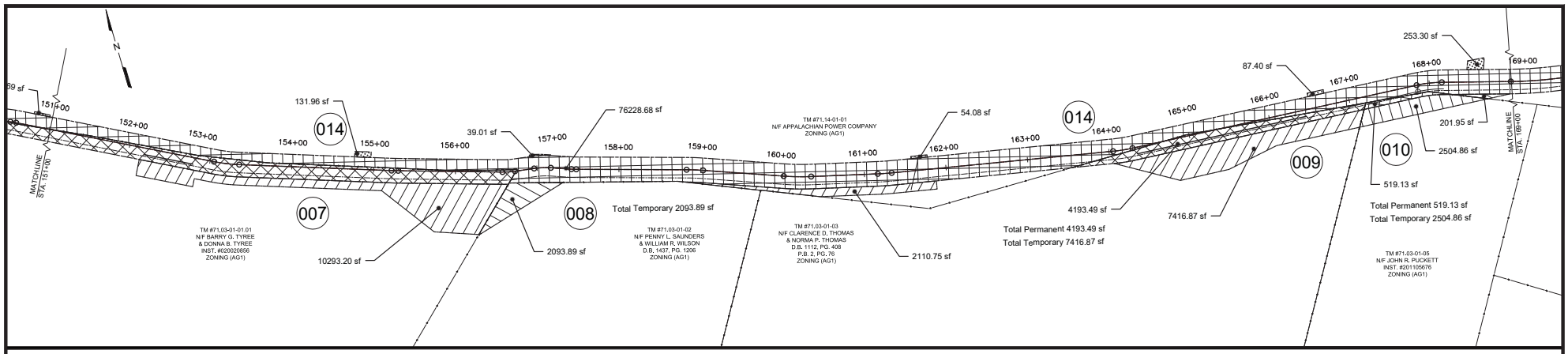
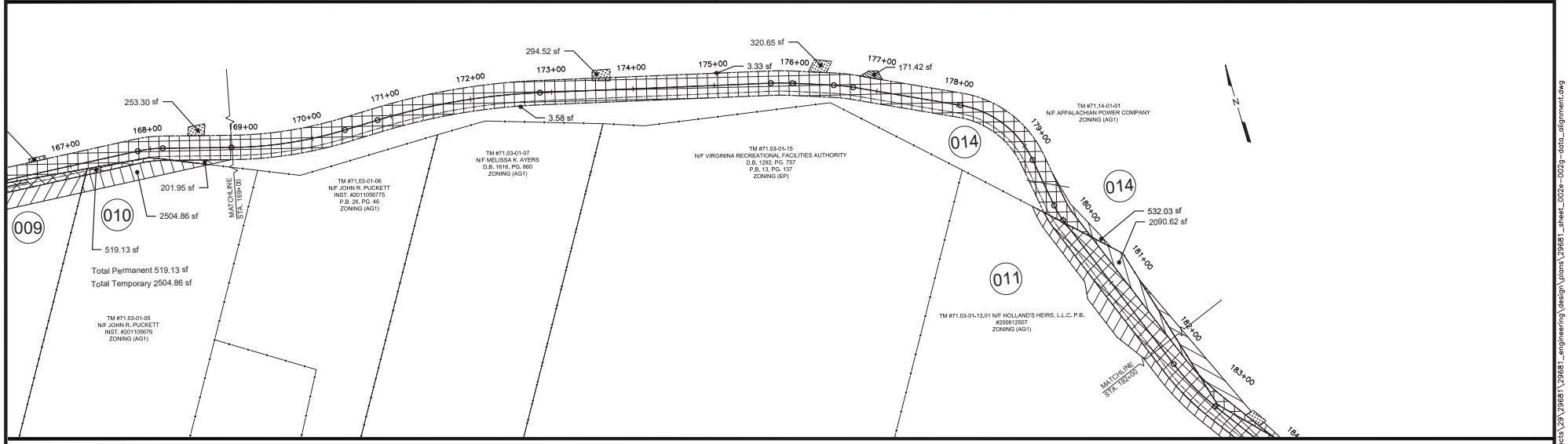
EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

RIGHT OF WAY DATA SHEET
1 OF 3

DOCUMENT NO.: 29681 – 046
SHEET 2K OF 26

Allen, Matthew / 4/4/2018 11:04 AM / \\oaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_002e-002g-data_alignment.dwg





RIGHT OF WAY AND PROPERTY DATA (UPC: 91191)

TRACT NO.	TAX NUMBER	OTHER INFORMATION	ZONING	LANDOWNER	SHEET NO.	PERMANENT GREENWAY EASEMENT AREA (AC)	TEMP. CONSTRUCTION EASEMENT AREA (AC)	PERMANENT PUBLIC DRAINAGE EASEMENT AREA (AC)
001	#4330301		I-2	WVWA	3	0.105	0.438	N/A
002	#70.11-01-09	INST. #200707160	I-2	WVWA	3	0.394	0.472	0.008
003	#70.12-0125	D.B. 987, PG. 27	AG1	JOSEPH HARNER, JR.	5	0.076	0.104	N/A
004	#70.12-01.45	INST. #200518539	AG1	BARRY L. BRUCE	5 / 6	0.429	0.784	0.046
005	#70.12-01-46		AG1	MARIE WILLIAMS GRAY	6	0.204	0.394	N/A
006	#70.12-01-48		AG1	JIMMIE F. & SUSAN H. YEAGER	6	0.023	0.030	N/A
007	#71.03-01-01.01	INST. #020020856	AG1	BARRY G. & DONNA B. TYREE	6 / 7	0.623	0.250	0.004
008	#71.03-01-02	D.B. 1437, PG. 1206	AG1	PENNY L. SAUNDERS & WILLIAM R. WILSON	7	N/A	0.048	N/A
009	#71.03-01-03	D.B. 1112, PG. 408 & P.B. 2, PG. 76	AG1	CLARENCE D. & NORMA P. THOMAS	8	0.096	0.170	N/A
010	#71.03-01-05	INST. #201105676	AG1	JOHN R. PUCKETT	8	0.012	0.058	N/A
011	#71.03-01-13.01	P.B. #200612507	AG1	HOLLAND'S HEIRS LLC	9 / 10 / 11 / 12	1.324	1.954	0.137
012	#71.03-01-09.01	D.B. 1243, PG. 1557	AG1	APPALACHIAN POWER CO.	12	0.341	0.656	0.108
013	#71.03-01-10.01	D.B. 1243, PG. 1554	AG1	APPALACHIAN POWER CO.	12	0.295	0.345	0.024
014	#71.14-01-01		AG1	APPALACHIAN POWER CO.	3 THRU 12	3.628	0.747	0.155
					Total	7.55	6.450	0.482

LEGEND

- PROPERTY LINE
- GREENWAY TRAIL
- PROPOSED PERM. EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PROPOSED TEMP. EASEMENT

60 30 0 60 120 180
SCALE IN FEET

COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
Lic.No. 033440
27 March 2018
PROFESSIONAL ENGINEER

HURT & PROFFITT
ENGINEERING • SURVEYING
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CULTURAL RESOURCES
1861 Pratt Dr. Suite 1100
Blacksburg, Va. 24060
540-552-5592

DATE : 30 JUN 16
DESIGNED: JMM
DRAWN : MDA
CHECKED : JMJ
QA / QC : JDW

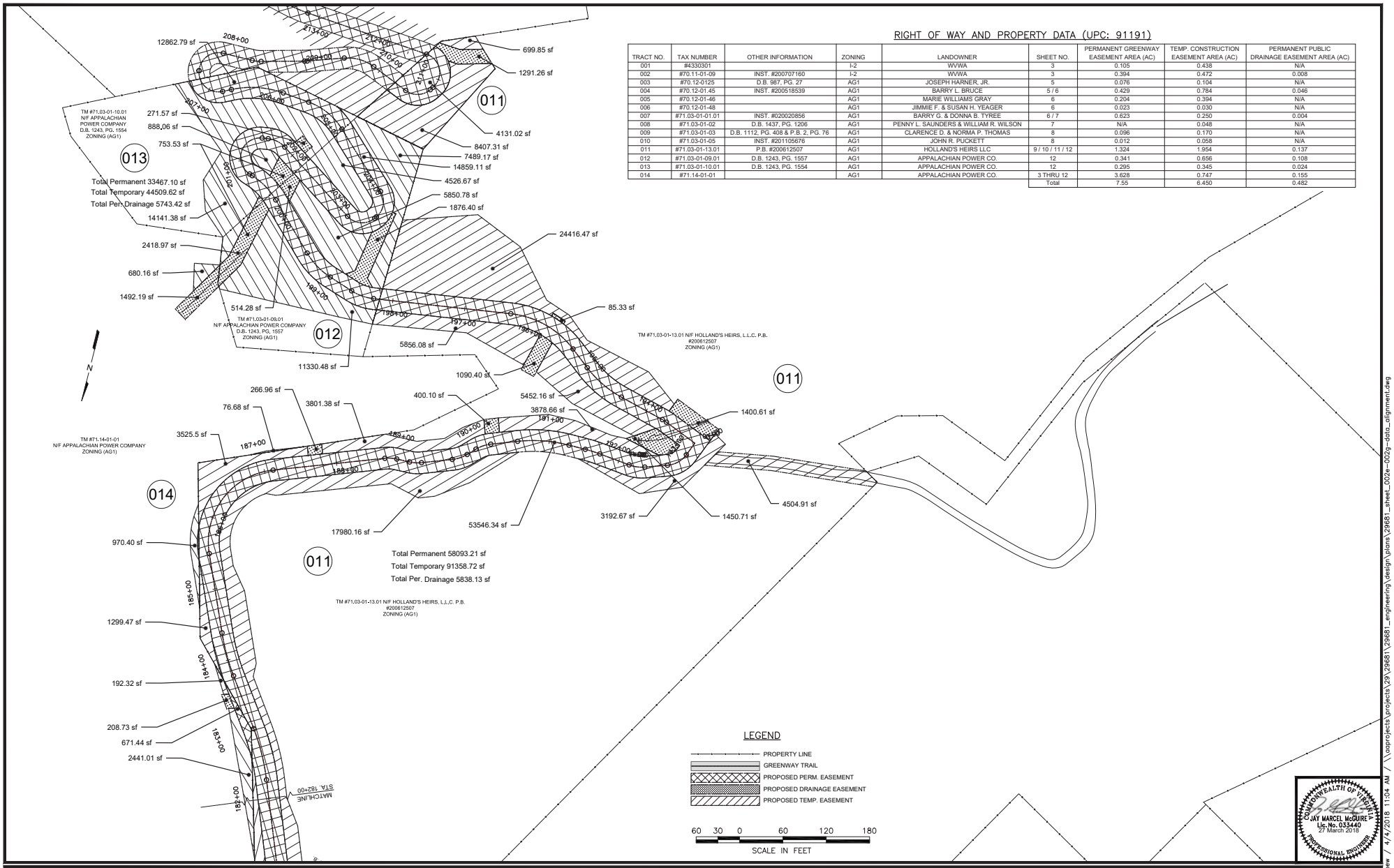
REV. #	COMMENTS	DATE
1	VDOT 100% COMMENTS	15 DEC 16

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

RIGHT OF WAY DATA SHEET
2 OF 3

DOCUMENT NO.
29681 – 046
SHEET 2L OF 26

Allen, Matthew / 4/4/2018 11:04 AM / \\oaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_002e-002g-data_alignment.dwg



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007	#71.03-01-01.01	INST. #020020856	AG1	BARRY G. & DONNA B. TYREE	6 / 7	0.623	0.250	0.004
008	#71.03-01-02	D.B. 1437, PG. 1206	AG1	PENNY L. SAUNDERS & WILLIAM R. WILSON	7	N/A	0.048	N/A
009	#71.03-01-03	D.B. 1112, PG. 408 & P.B. 2, PG. 76	AG1	CLARENCE D. & NORMA P. THOMAS	8	0.096	0.170	N/A
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					Total	7.55	6.450	0.482

COMMONWEALTH OF VIRGINIA
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27 March 2018
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REV. #	COMMENTS	DATE
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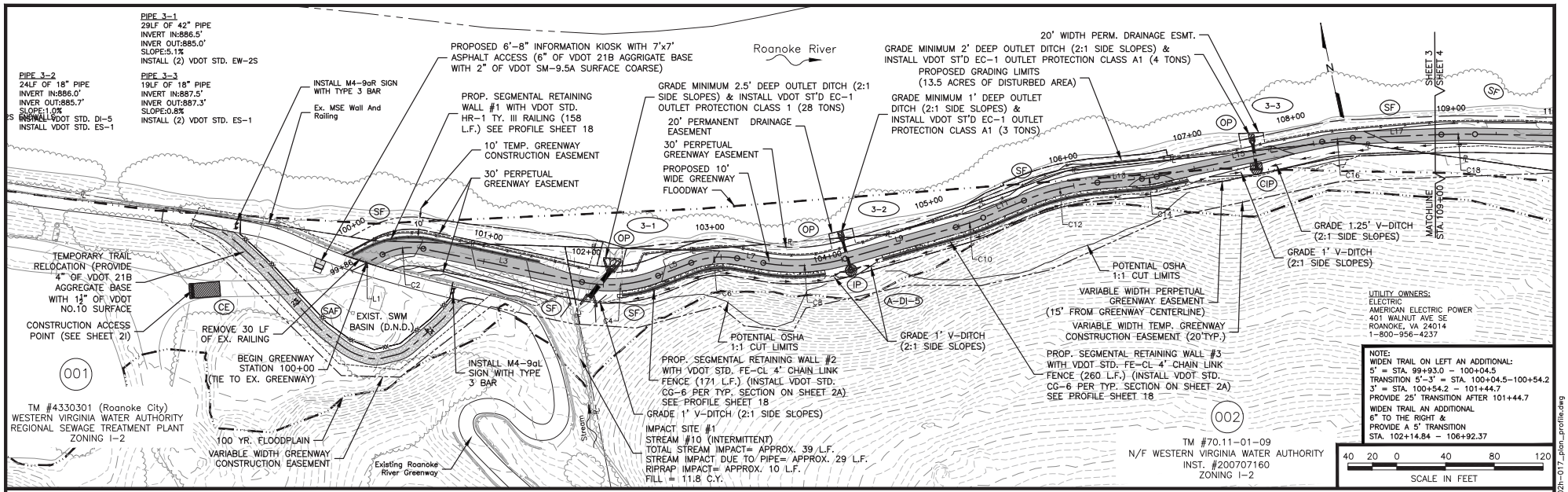
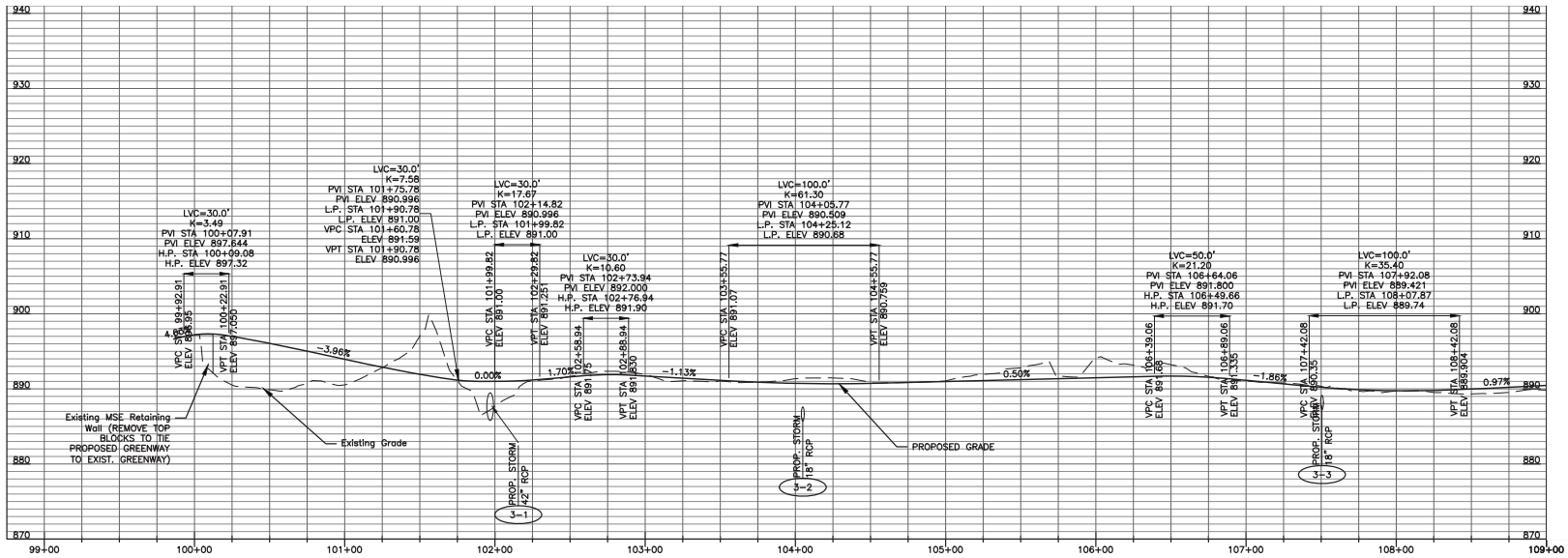
EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

RIGHT OF WAY DATA SHEET
3 OF 3

DOCUMENT NO. 29681 — 047
SHEET 2M OF 26

Allen, Matthew / 4/4/2018 11:04 AM / \\oaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_002e-002g-data_alignment.dwg





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DATE	07 OCT 16
DESIGNED	JMM
DRAWN	MDA
CHECKED	JMJ
QA / QC	JDW

REV. #	COMMENTS	DATE
1	VDOT 100% COMMENTS	15 DEC 16

EASTERN ROANOKE RIVER GREENWAY

ROANOKE, VIRGINIA

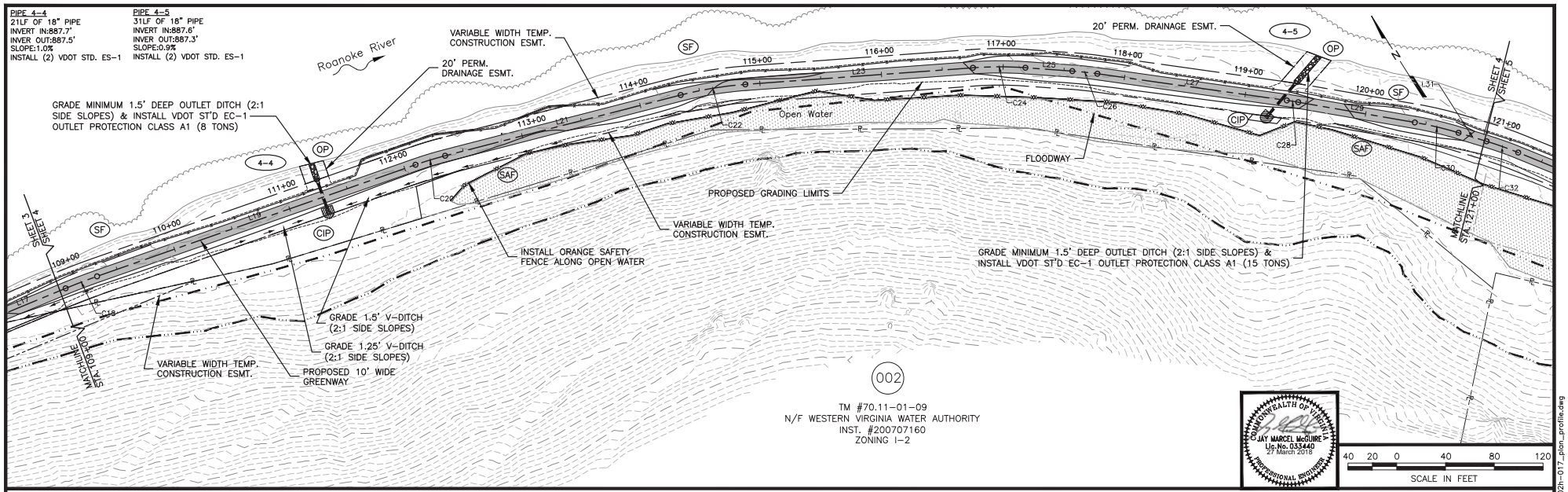
GREENWAY PLAN & PROFILE
STA: 100+00 TO 109+00

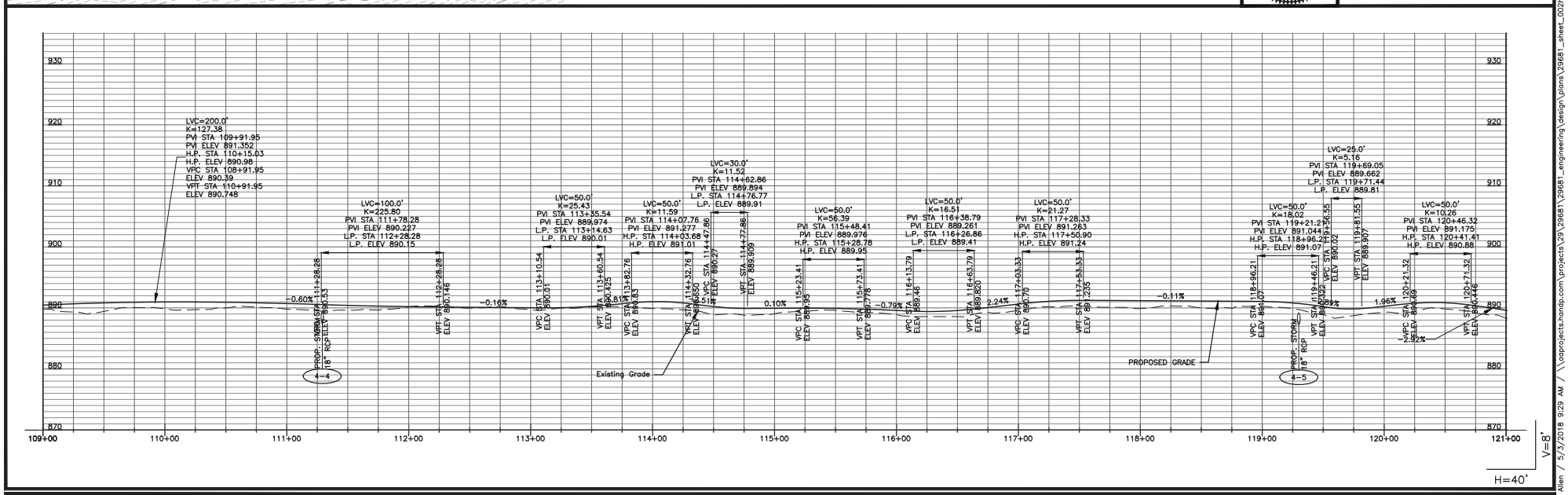
DOCUMENT NO. 29681 – 012

SHEET 3 OF 26

COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
Lic.No. 033440
27 March 2018
PROFESSIONAL ENGINEER

Matthew D. Allen / 5/3/2018 9:29 AM / \\oaprojects.handp.com\projects\29\29681\29681_engineering\design\plans\29681_002h-017_plan_profile.dwg





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DATE	07 OCT 16
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DRAWN	MDA
CHECKED	JMJ
QA / QC	JDW

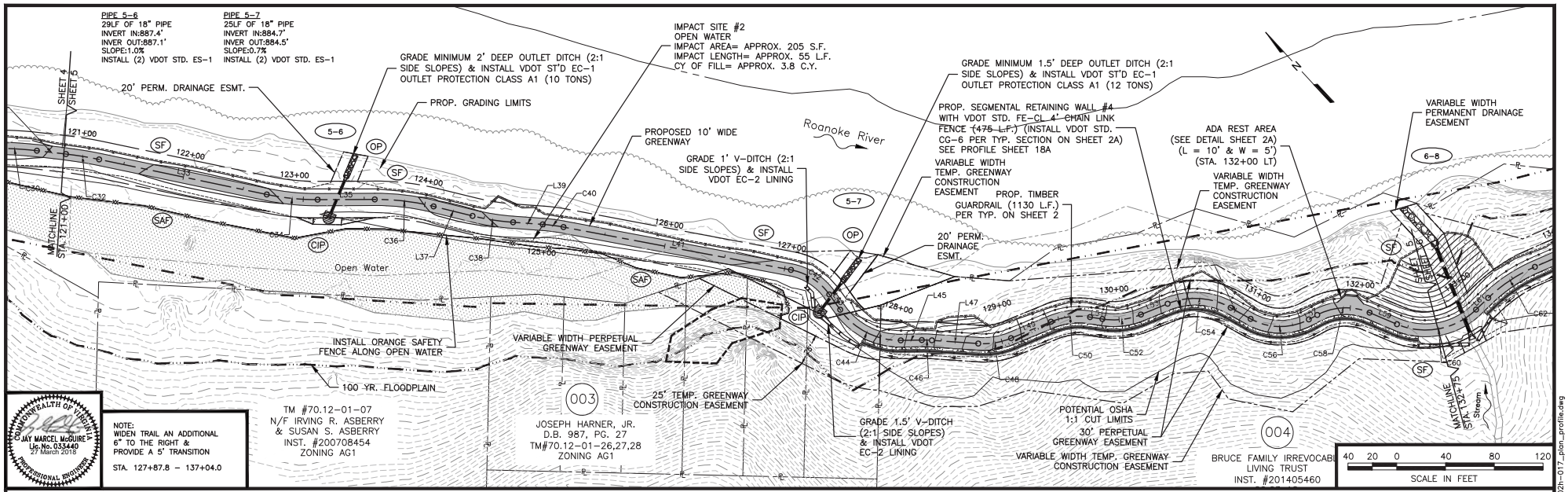
REV. #	COMMENTS	DATE
1	VDOT 100% COMMENTS	15 DEC 16

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GREENWAY PLAN & PROFILE
STA: 109+00 TO 121+00

DOCUMENT NO. 29681 – 013
SHEET 4 OF 26

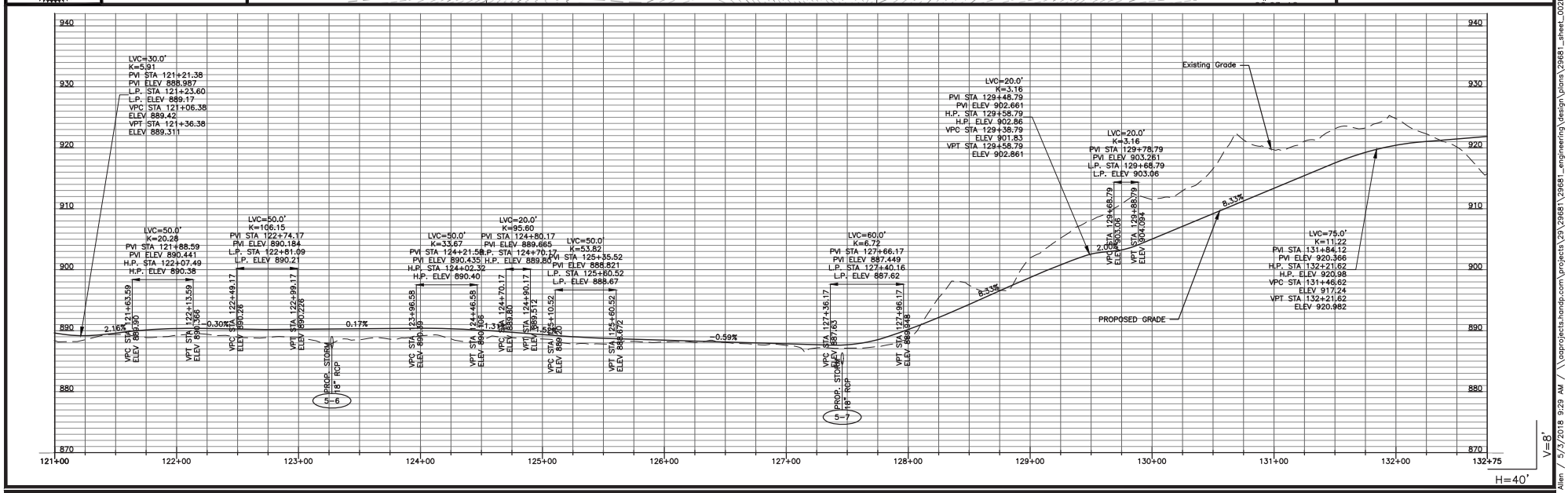
Matthew D. Allen / 5/3/2018 9:29 AM / \\oapprojects.hondp.com\projects\29\29681\29681_engineering\design\plans\29681_sheet_002h–017_plan_profile.dwg



COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
Lic. No. 033440
27 March 2018
PROFESSIONAL ENGINEER

NOTE:
WIDEN TRAIL AN ADDITIONAL 6" TO THE RIGHT & PROVIDE A 5' TRANSITION

STA. 127+87.8 – 137+04.0



HURT & PROFFITT ENGINEERING • SURVEYING LAND DEVELOPMENT • ENVIRONMENTAL GEOTECHNICAL • CONSTRUCTION TESTING & INSPECTION CULTURAL RESOURCES	1861 Pratt Dr. Suite 1100 Blacksburg, Va. 24060 540-552-5592	DATE : 07 OCT 16 DESIGNED: JMM DRAWN : MDA CHECKED : JMJ QA / QC : JDW	REV. # 1 COMMENTS: VDOT 100% COMMENTS DATE: 15 DEC 16	**EASTERN ROANOKE RIVER GREENWAY** ROANOKE, VIRGINIA	**GREENWAY PLAN & PROFILE** **STA: 121+00 TO 132+75**

DOCUMENT NO. 29681 – 014
SHEET 5 OF 26

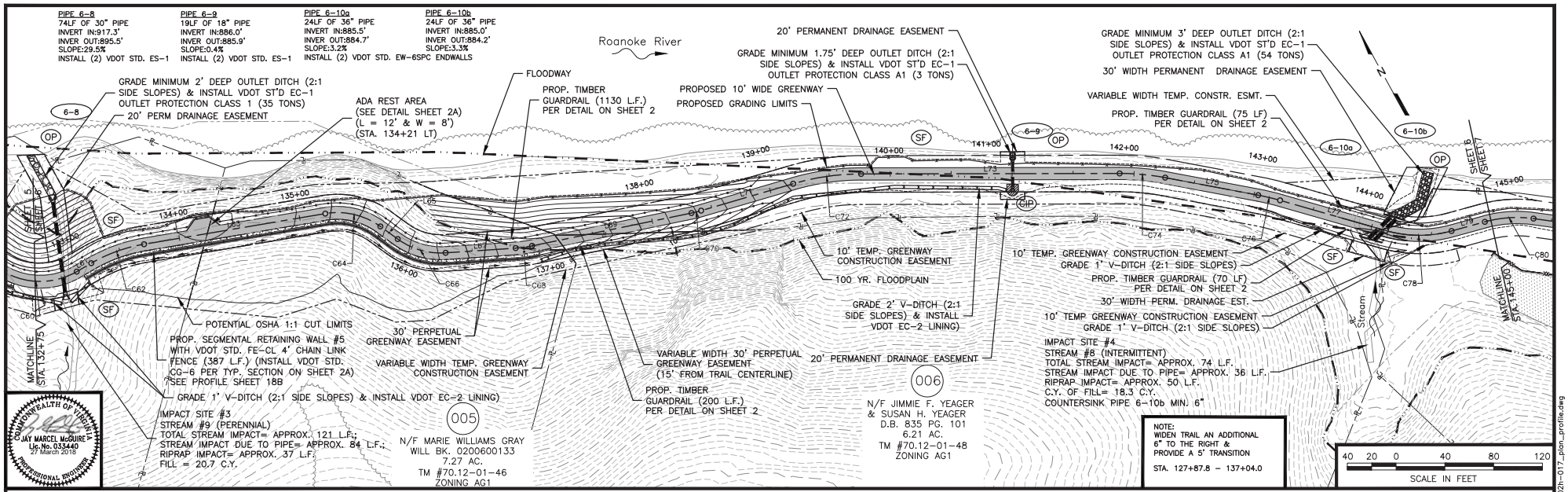
Matthew D. Allen / 5/3/2018 9:29 AM / \\oaprojects.hpdp.com\projects\29\29681\29681_engineering\design\plans\29681_sheet_002h-017_plan_profile.dwg

PIPE 6–8
74LF OF 30" PIPE
INVERT IN:917.3'
INVER OUT:895.5'
SLOPE:29.5%
INSTALL (2) VDOT STD. ES–1

PIPE 6–9
19LF OF 18" PIPE
INVERT IN:886.0'
INVER OUT:885.9'
SLOPE:0.4%
INSTALL (2) VDOT STD. ES–1

PIPE 6–10a
24LF OF 36" PIPE
INVERT IN:885.5'
INVER OUT:884.7'
SLOPE:3.2%
INSTALL (2) VDOT STD. EW–6SPC ENDWALLS

PIPE 6–10b
24LF OF 36" PIPE
INVERT IN:885.0'
INVER OUT:884.2'
SLOPE:3.3%
INSTALL (2) VDOT STD. EW–6SPC ENDWALLS



COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
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27 March 2018
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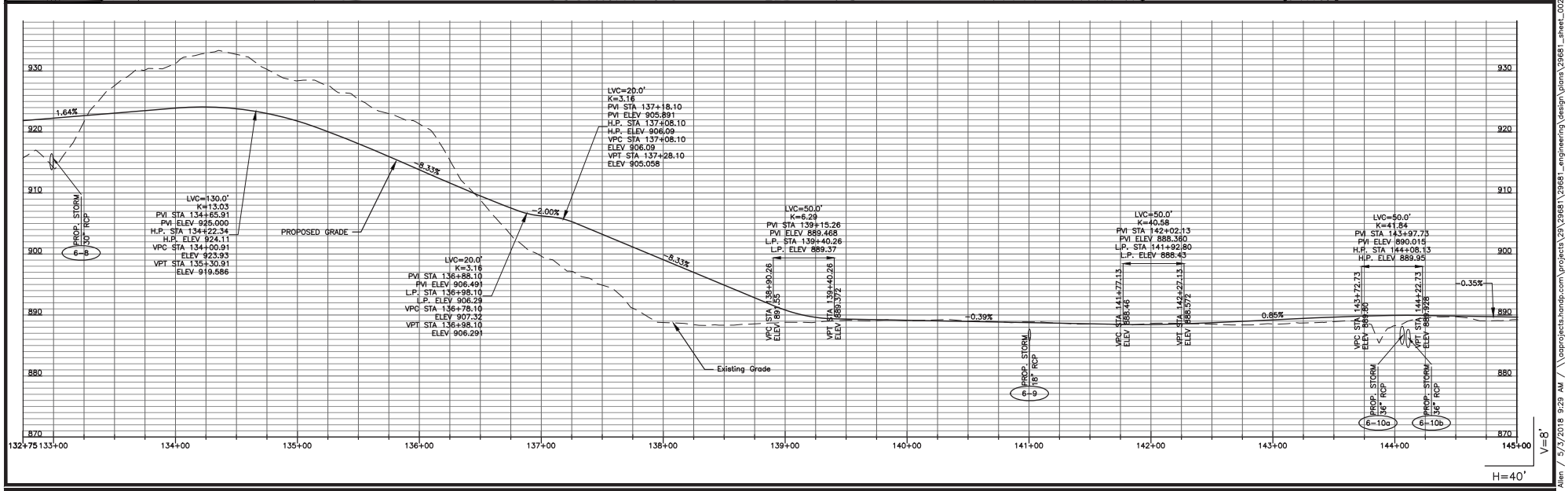

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REV. #	COMMENTS	DATE
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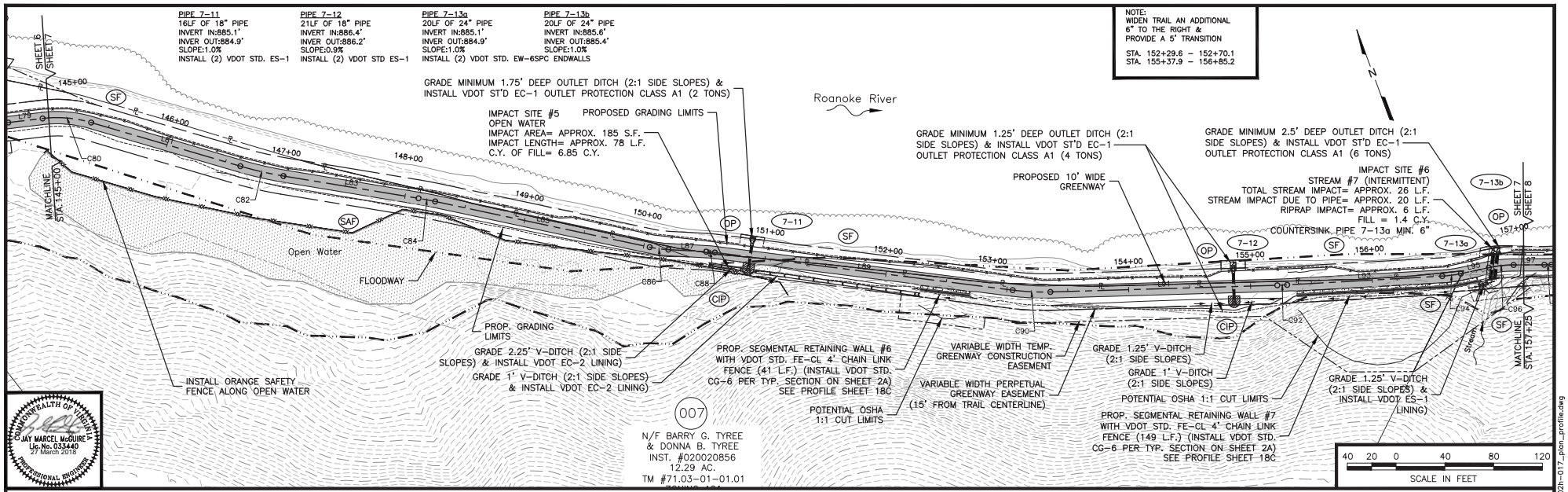
EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GREENWAY PLAN & PROFILE
STA: 132+75 TO 145+00

DOCUMENT NO. 29681 – 15
SHEET 6 OF 26

Matthew D. Allen / 5/3/2018 9:29 AM / \\oaprojects.hondp.com\projects\29\29681\29681_engineering\design\plans\29681_sheet_002h-017_plan_profile.dwg



COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
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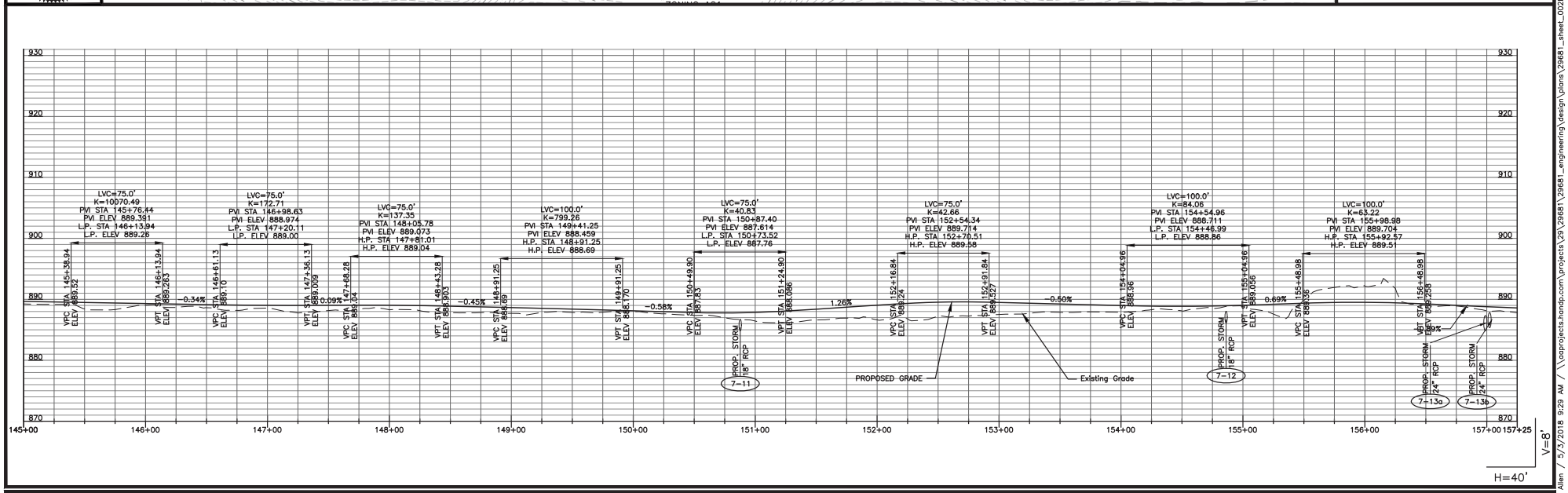
27 March 2018
PROFESSIONAL ENGINEER



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CHECKED	: JMJ
QA / QC	: JDW

REV. #	COMMENTS	DATE
1	VDOT 100% COMMENTS	15 DEC 16

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GREENWAY PLAN & PROFILE
STA: 145+00 TO 157+25

DOCUMENT NO. 29681 – 016
SHEET 7 OF 26

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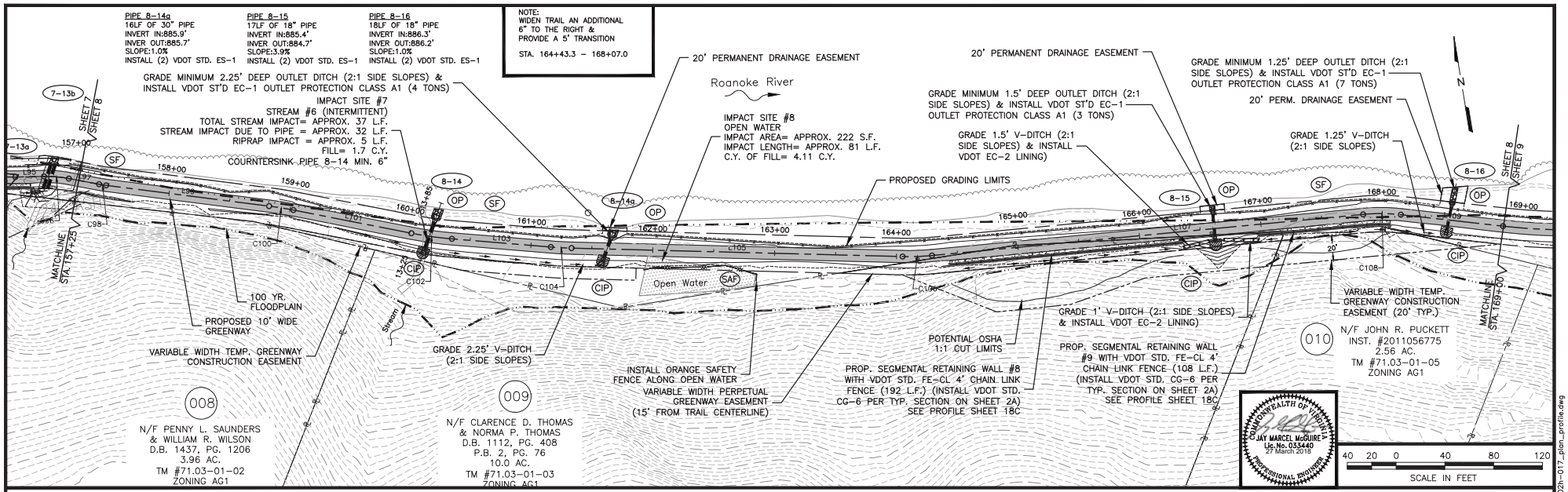

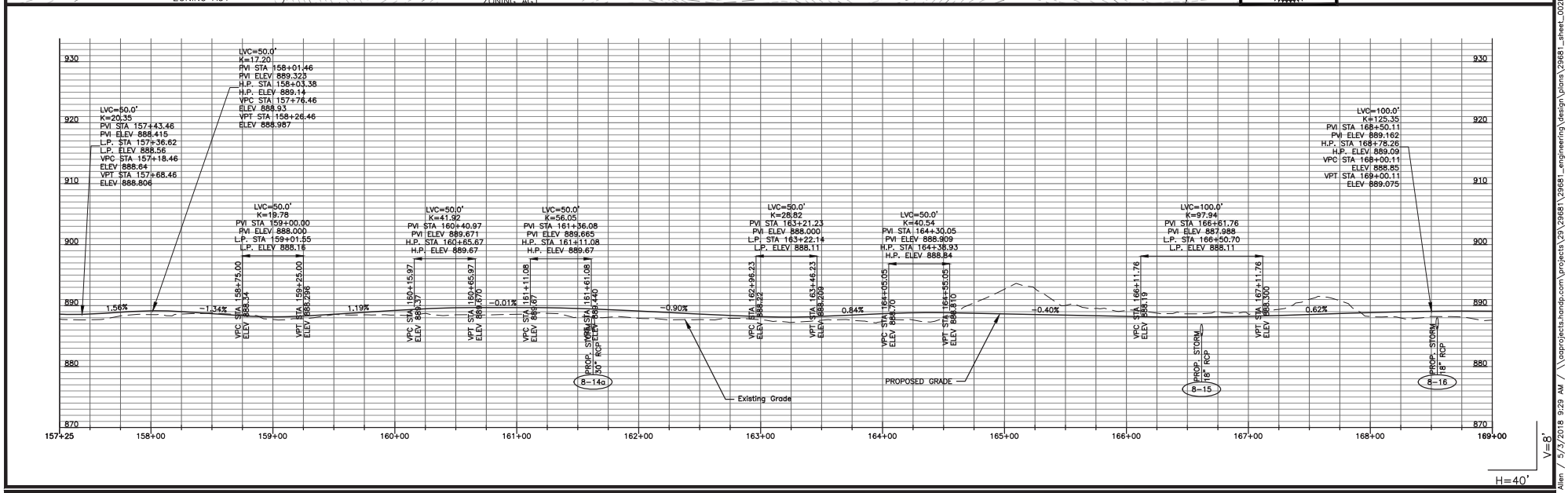

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REV. #	COMMENTS	DATE
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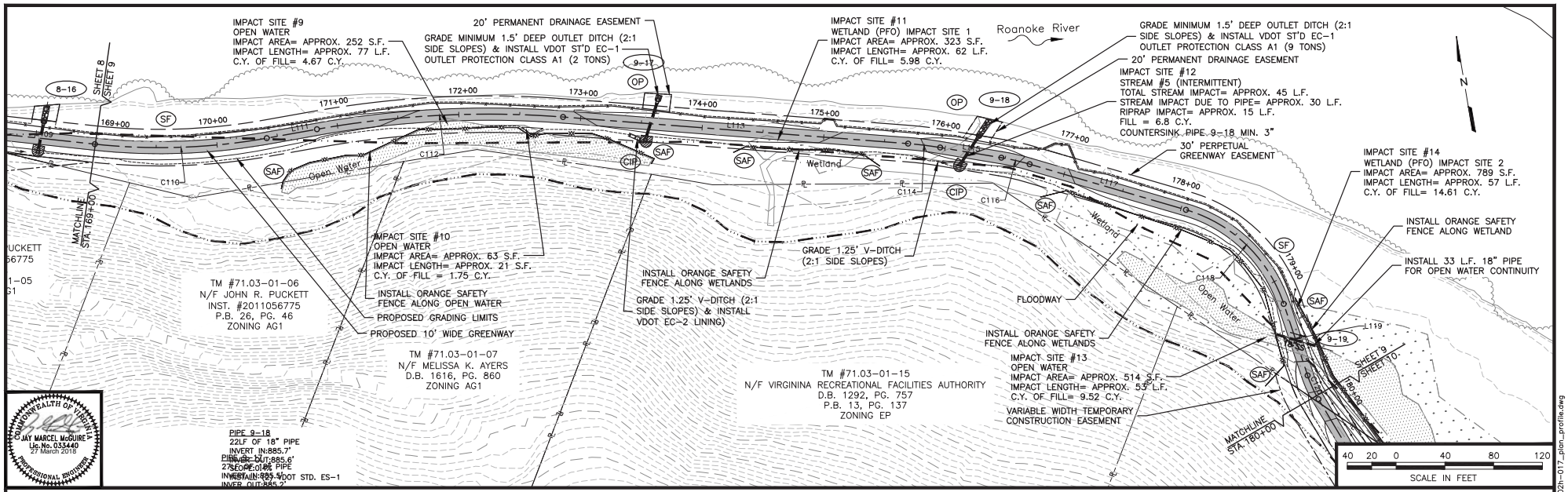
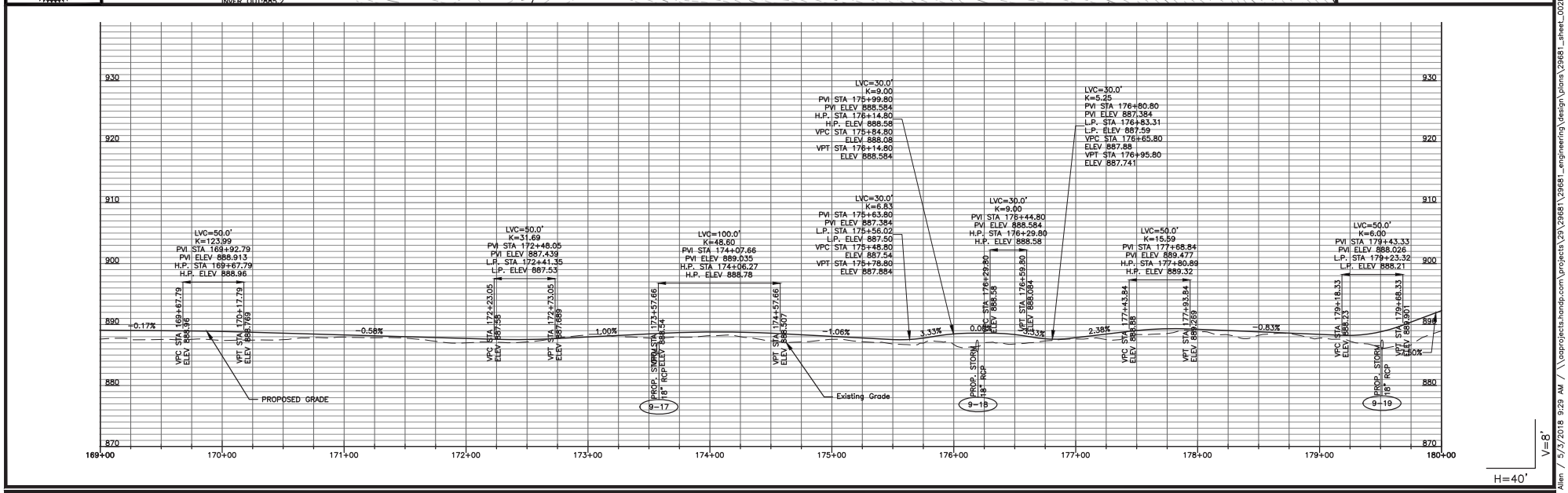
EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GREENWAY PLAN & PROFILE
STA: 157+25 TO 169+00

DOCUMENT NO. 29681 – 017
SHEET 8 OF 26

Matthew D. Allen / 5/3/2018 9:29 AM / \\oaprojects.hondp.com\projects\29\29681\29681_engineering\design\plans\29681_sheet_002h-017_plan_profile.dwg





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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GREENWAY PLAN & PROFILE
STA: 169+00 TO 180+00

DOCUMENT NO. 29681 – 018
SHEET 9 OF 26

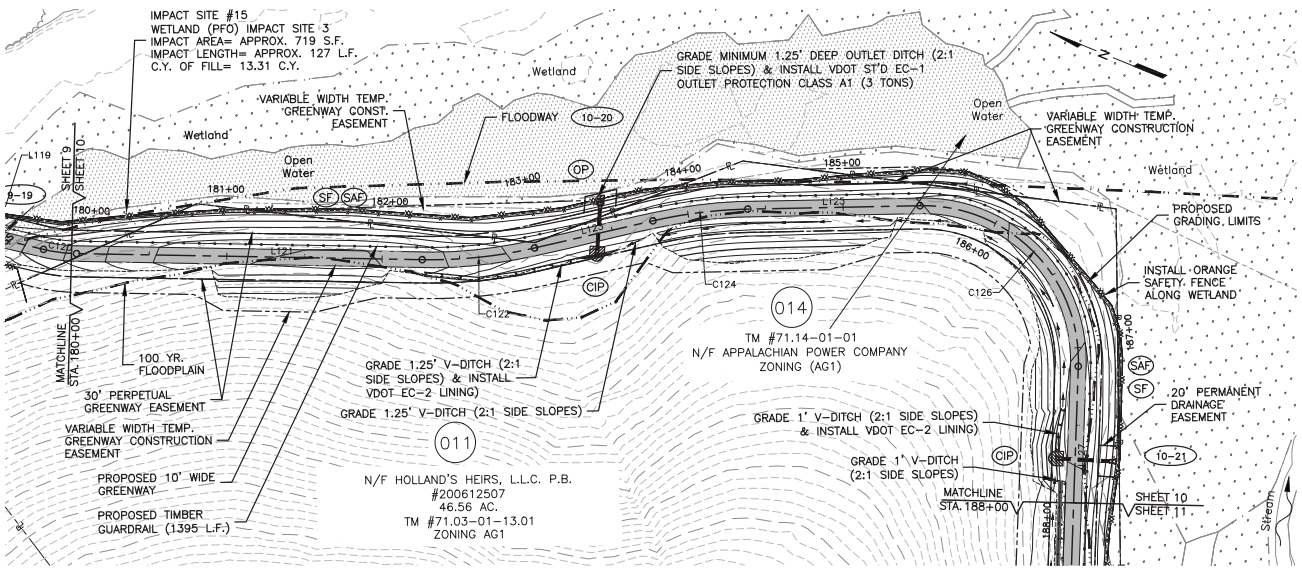
Matthew D. Allen / 5/3/2018 9:29 AM / \\oaprojects.hondp.com\projects\29\29681\29681_engineering\design\plans\29681_sheet_002h-017_plan_profile.dwg

PIPE 10–20
26LF OF 18" PIPE
INVERT IN:889.3'
INVER OUT:887.1'
SLOPE:8.0%
INSTALL (2) VDOT STD. ES–1

PIPE 10–21
30LF OF 18" PIPE
INVERT IN:894.9'
INVER OUT:889.7'
SLOPE:17.0%
INSTALL (2) VDOT STD. ES–1

NOTE:
WIDEN TRAIL AN ADDITIONAL
6" TO THE RIGHT &
PROVIDE A 5' TRANSITION

STA. 187+8680 – 190+21.2



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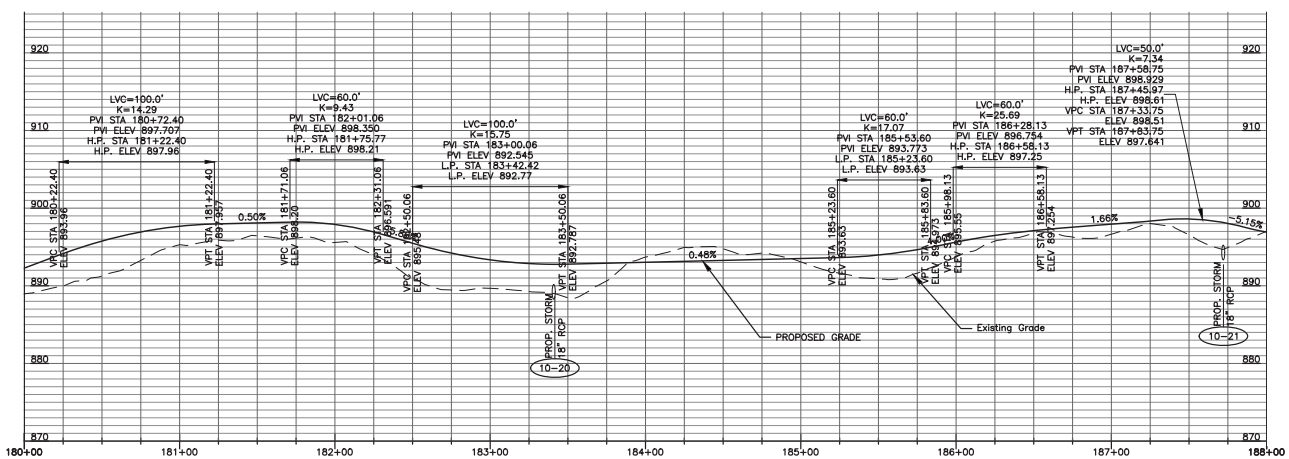
SCALE IN FEET



V=8'
H=40'

COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
Lic.No. 033440
27 March 2018
PROFESSIONAL ENGINEER

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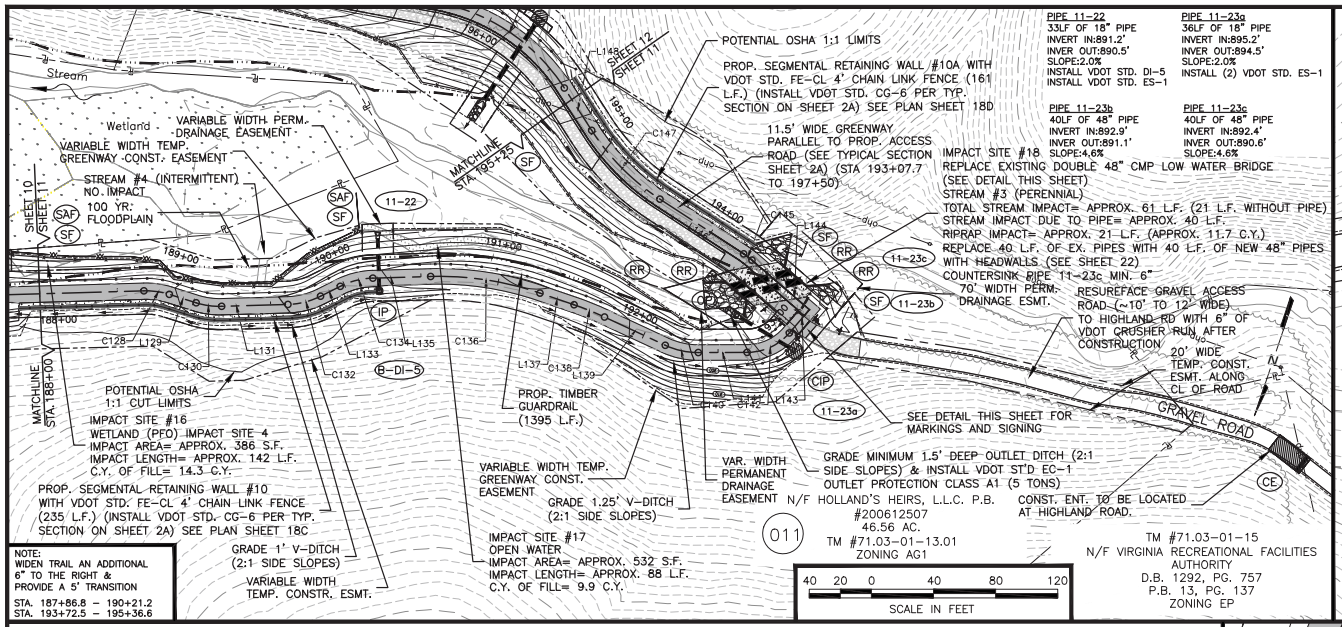
EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

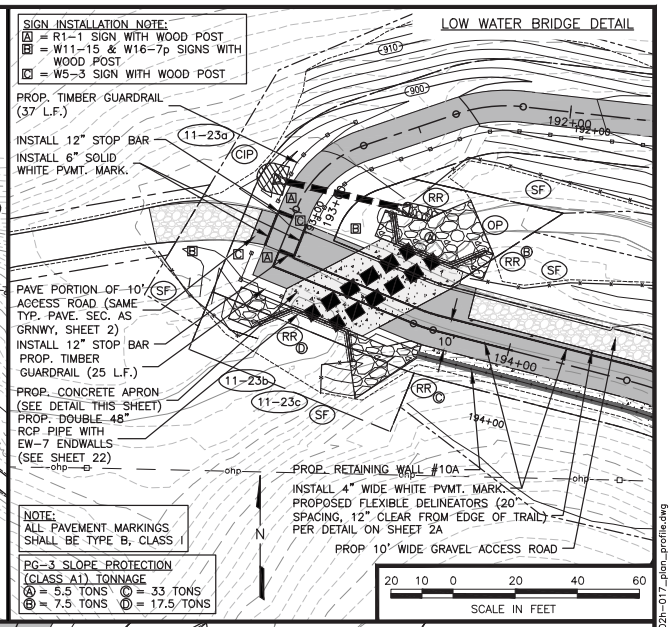
GREENWAY PLAN & PROFILE
STA: 180+00 TO 188+00

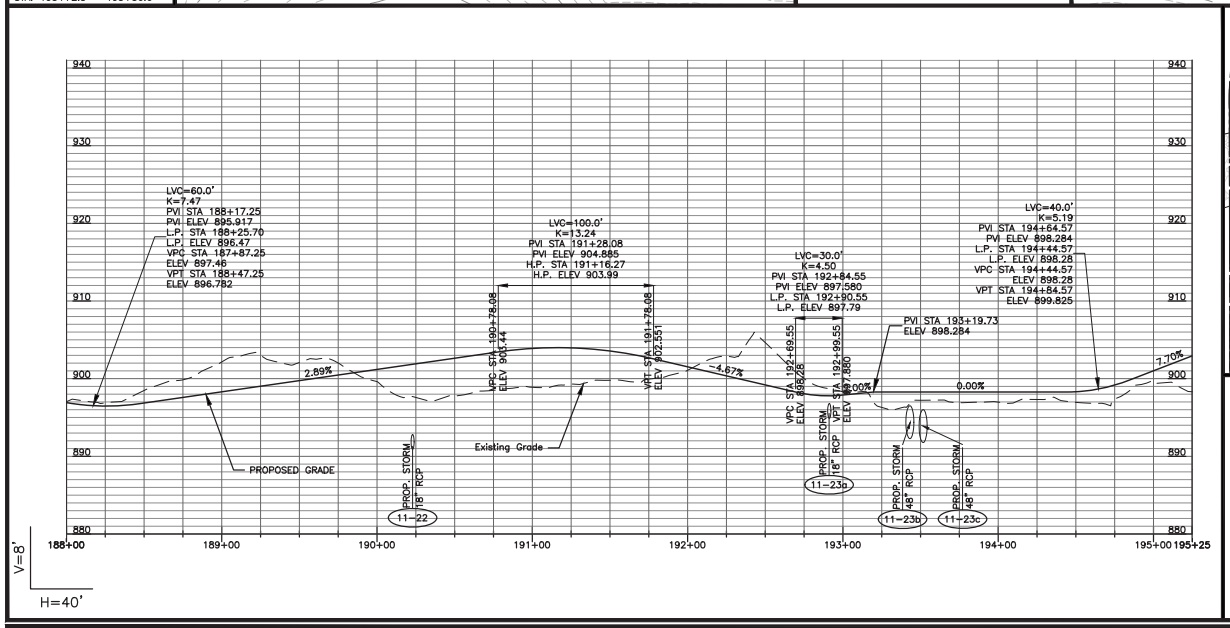
DOCUMENT NO. 29681 – 019
SHEET 10 OF 26

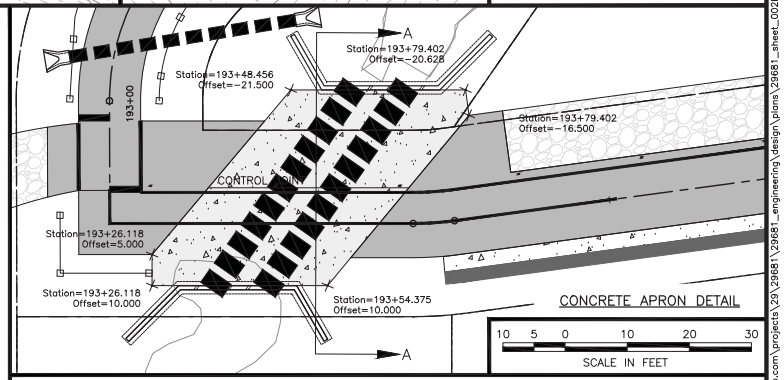
Matthew D. Allen / 5/3/2018 9:29 AM / \\oapprojects.handp.com\projects\29\29681\29681_engineering\design\plans\29681_sheet_002h–017_plan_profile.dwg

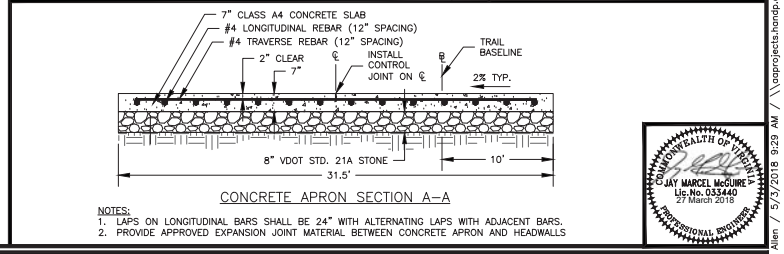


NOTE:
WIDEN TRAIL AN ADDITIONAL 6" TO THE RIGHT & PROVIDE A 5' TRANSITION
STA. 187+86.8 – 190+21.2
STA. 193+72.5 – 195+36.6









CONCRETE APRON SECTION A–A

NOTES:
1. LAPS ON LONGITUDINAL BARS SHALL BE 24" WITH ALTERNATING LAPS WITH ADJACENT BARS.
2. PROVIDE APPROVED EXPANSION JOINT MATERIAL BETWEEN CONCRETE APRON AND HEADWALLS

COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
Lic.No. 033440
27 March 2018
PROFESSIONAL ENGINEER

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CULTURAL RESOURCES
1861 Pratt Dr. Suite 1100
Blacksburg, Va. 24060
540-552-5592

DATE	07 OCT 16
DESIGNED:	JMM
DRAWN :	MDA
CHECKED :	JMJ
QA / QC :	JDW

REV. #	COMMENTS	DATE
1	VDOT 100% COMMENTS	15 DEC 16

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GREENWAY PLAN & PROFILE
STA: 188+00 TO 195+25

DOCUMENT NO. 29681 – 021
SHEET 11 OF 26

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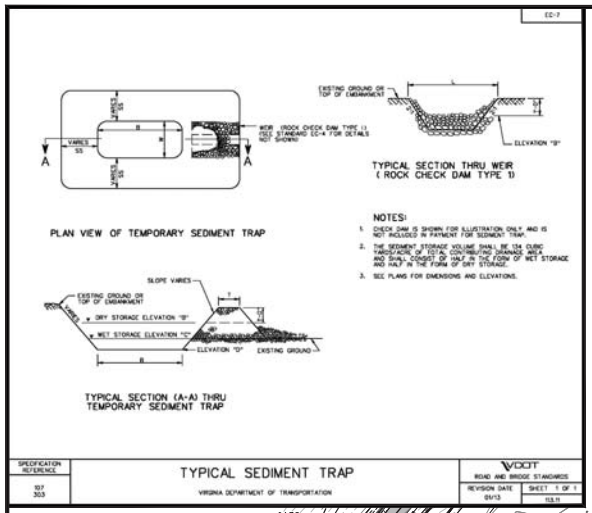

PIPE 12-24
57LF OF 24" PIPE
INVERT IN:898.8'
INVER OUT:891.3'
SLOPE:13.0%
INSTALL (2) VDOT STD. ES-1

PIPE 12-24a
77LF OF 18" PIPE
INVERT IN:892.0'
INVER OUT:888.2'
SLOPE:4.8%
INSTALL (2) VDOT STD. ES-1

PIPE 12-24b
159LF OF 12" PIPE
INVERT IN:932.6'
INVER OUT:892.5'
SLOPE:25.1%
INSTALL VDOT STD. SB-1

PIPE 12-25
59LF OF 24" PIPE
INVERT IN:944.0'
INVER OUT:935.5'
SLOPE:14.1%
INSTALL VDOT STD. DI-7
INSTALL VDOT STD. ES-1

COMMONWEALTH OF VIRGINIA
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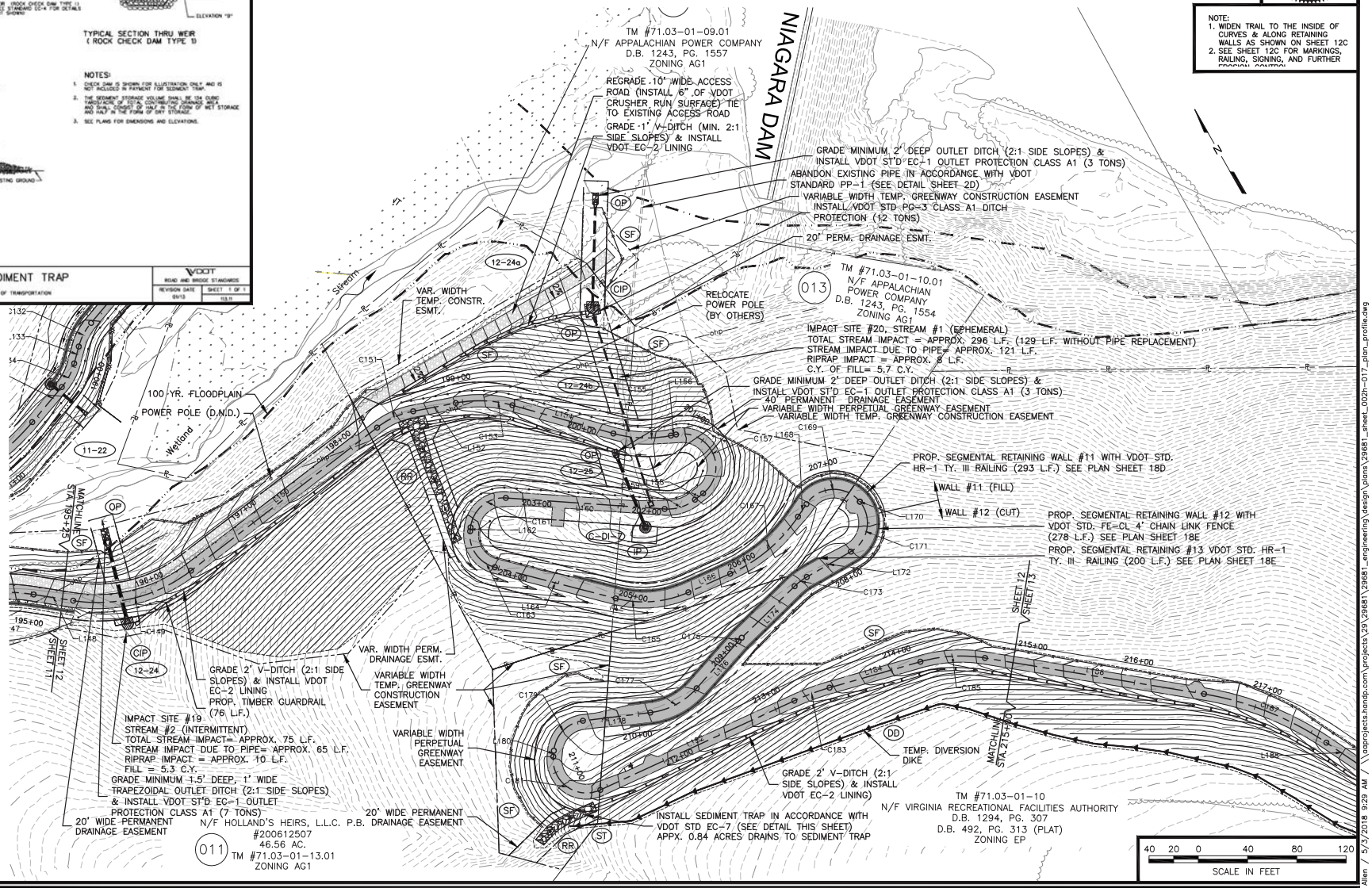
NOTE:
1. WIDEN TRAIL TO THE INSIDE OF CURVES & ALONG RETAINING WALLS AS SHOWN ON SHEET 12C
2. SEE SHEET 12C FOR MARKINGS, RAILING, SIGNING, AND FURTHER EROSION CONTROL



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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GREENWAY PLAN
STA: 195+25 TO 215+00

DOCUMENT NO. 29681 – 022
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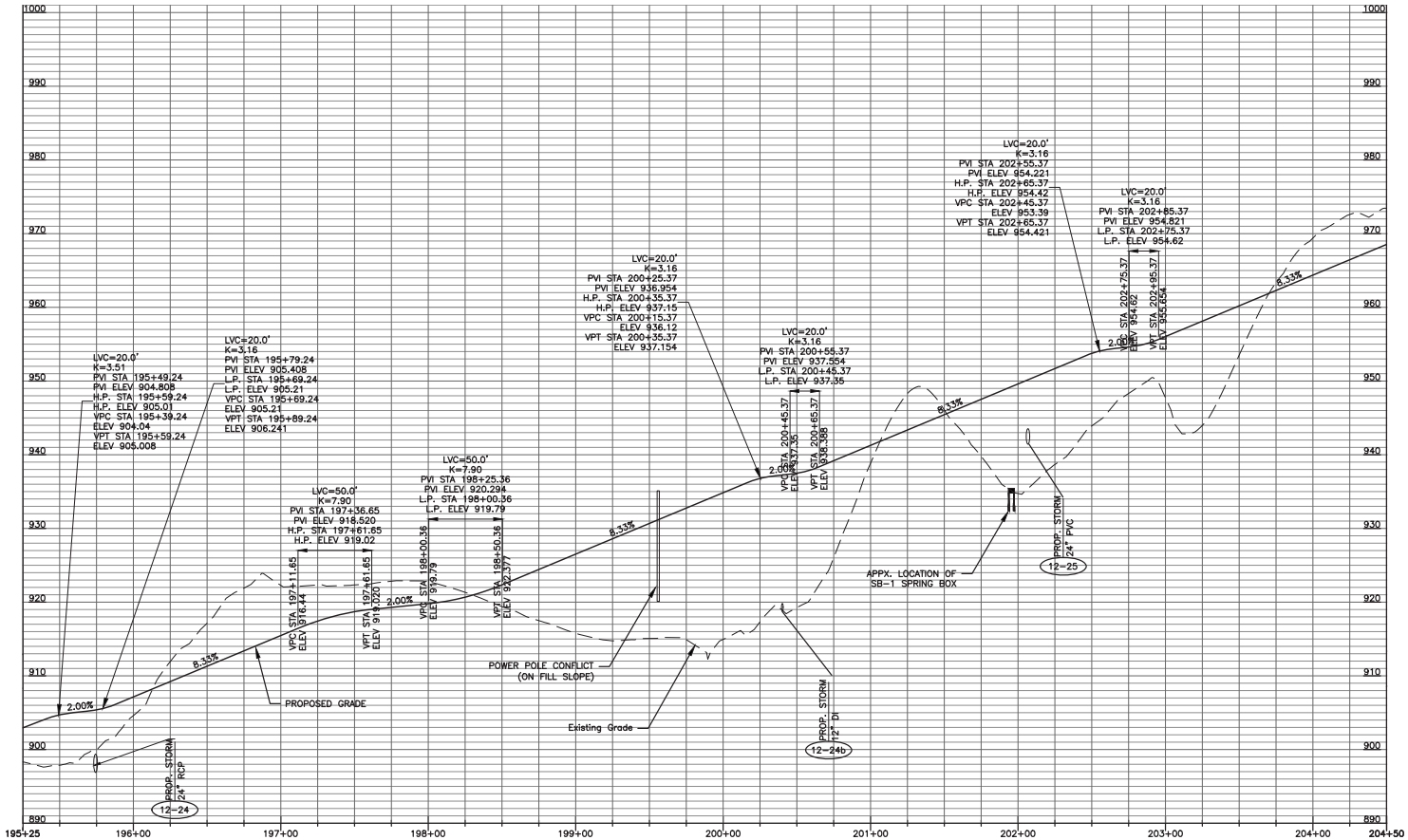

V=8'

H=40'

COMMONWEALTH OF VIRGINIA
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27 March 2018
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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GREENWAY PROFILE
STA. 195+25 TO 204+50

DOCUMENT NO. 29681 – 023
SHEET 12A OF 26

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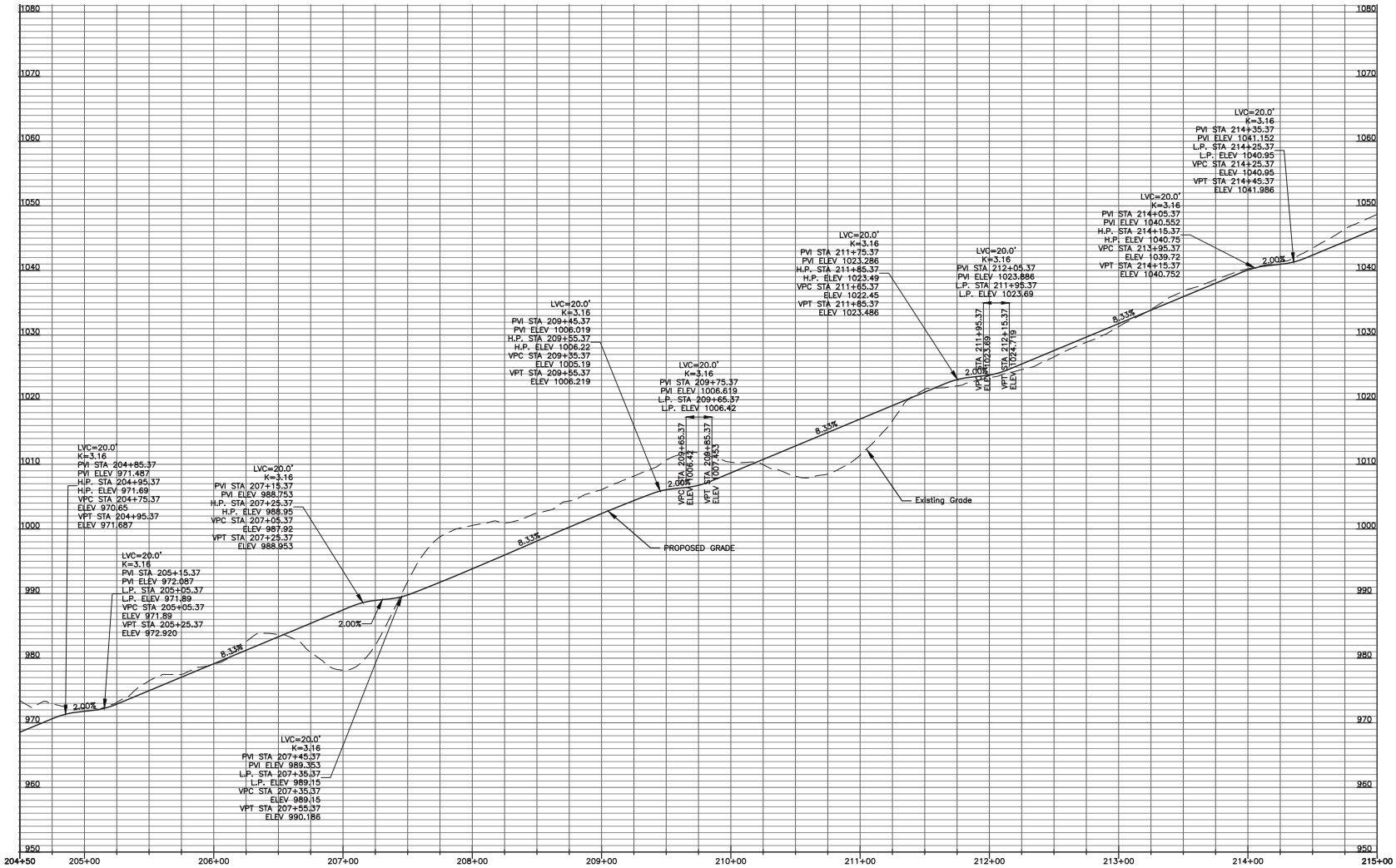

V=8'

H=40'

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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GREENWAY PROFILE
STA. 204+50 TO 215+00

DOCUMENT NO. 29681 – 043
SHEET 12B OF 26

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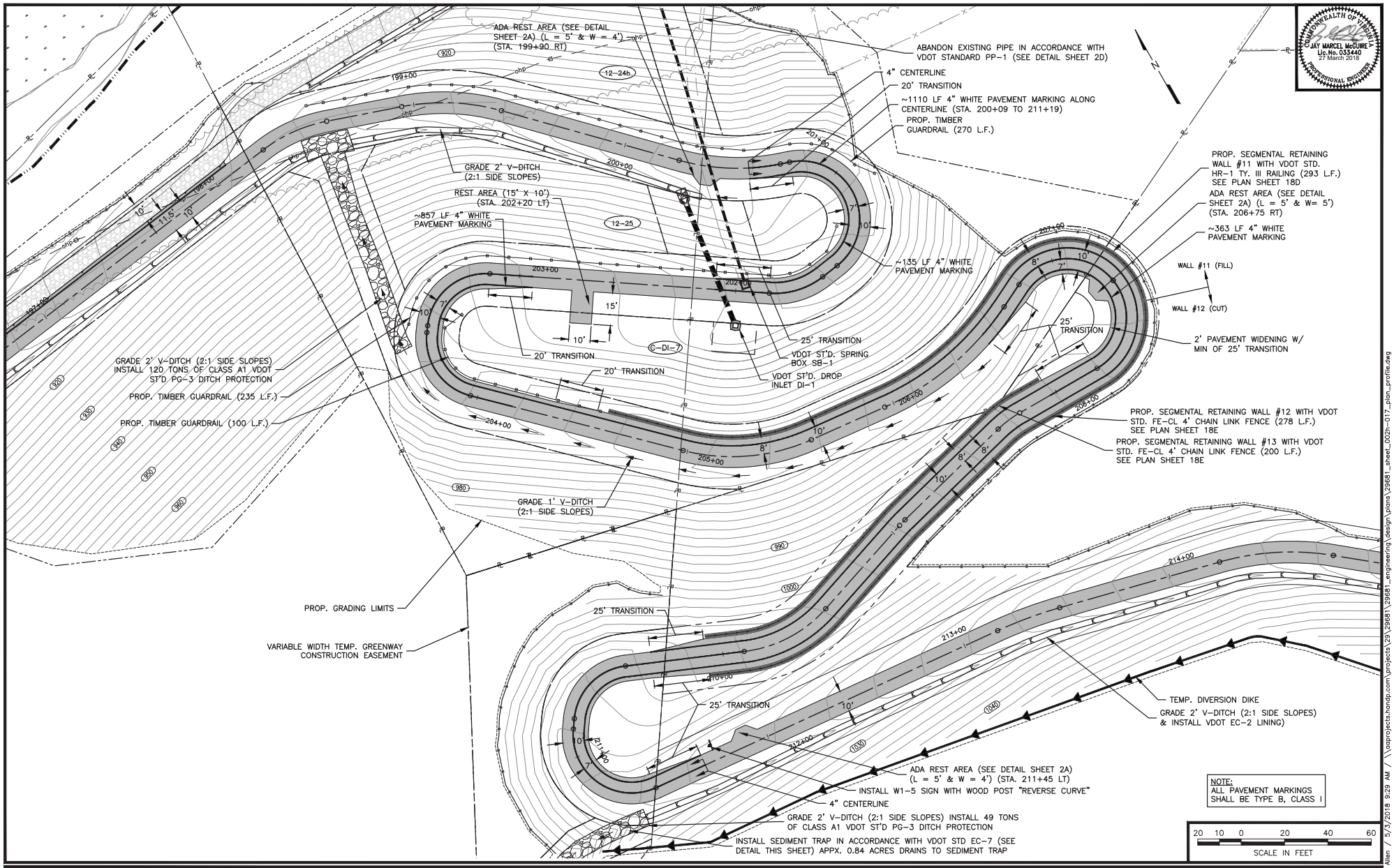

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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

SWITCHBACK DETAIL

DOCUMENT NO. 29681 – 044
SHEET 12C OF 26

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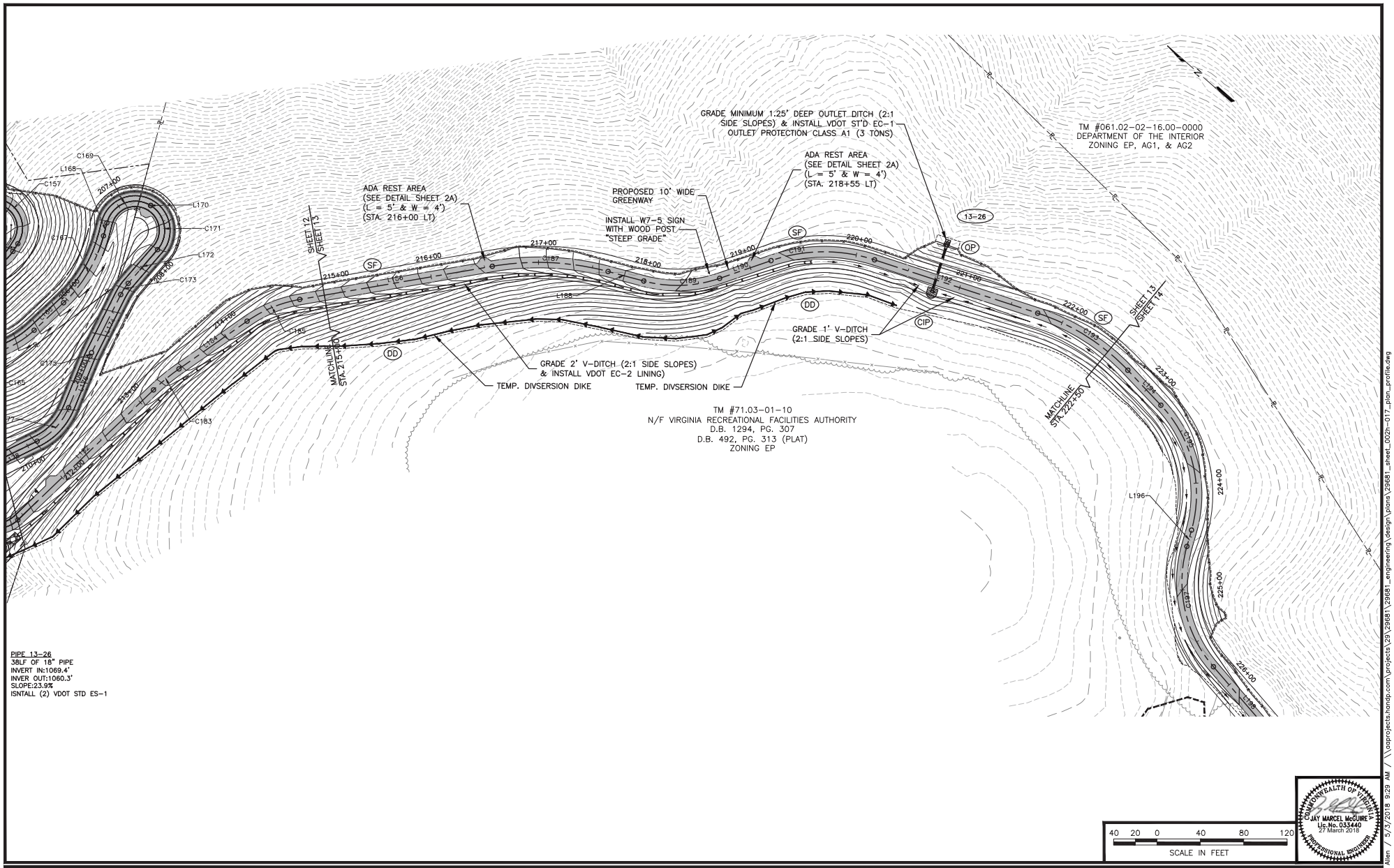

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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GREENWAY PLAN
STA: 215+00 TO 222+50

DOCUMENT NO. 29681 – 024
SHEET 13 OF 26

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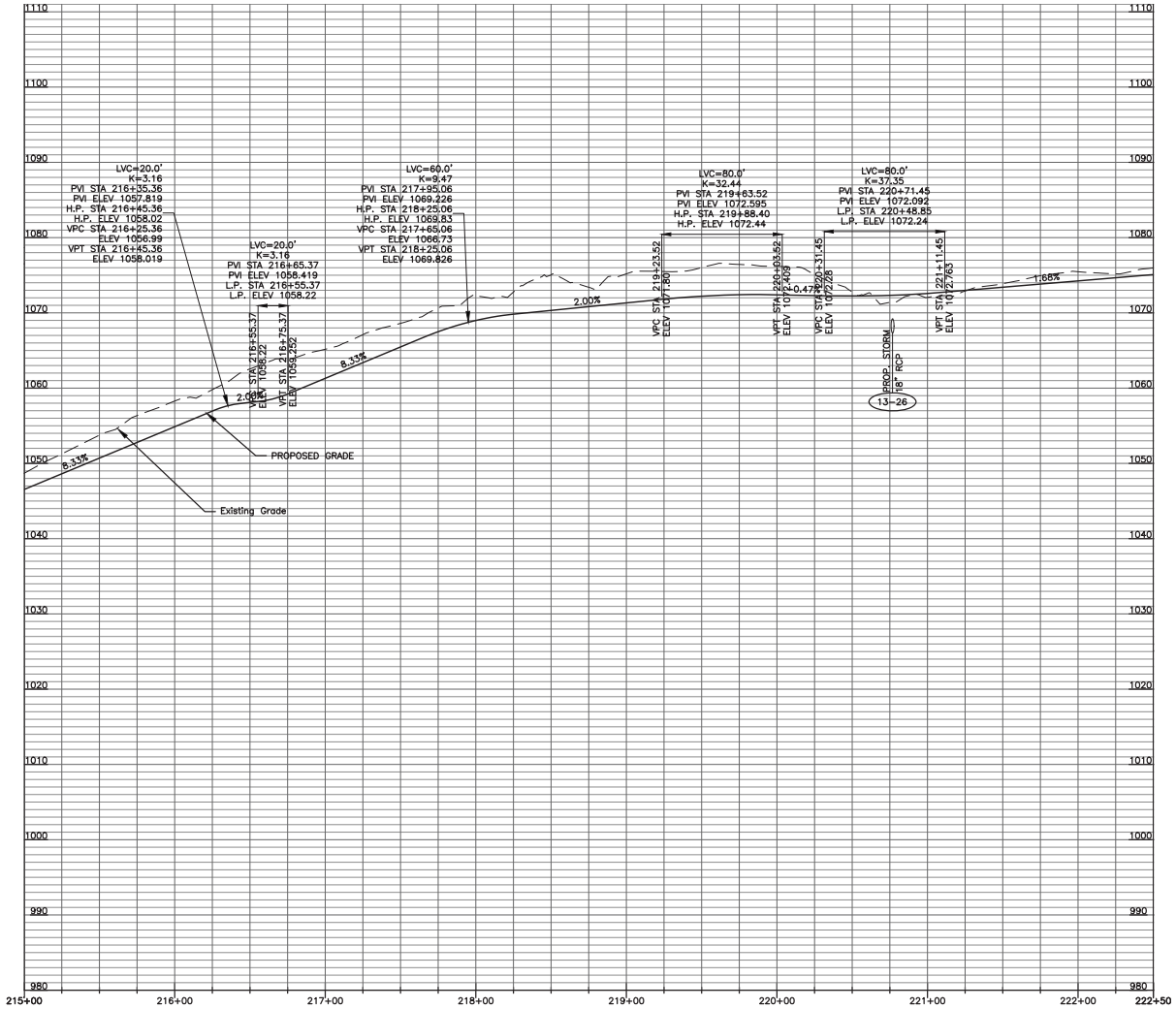

V=8'

H=40'

COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
Lic.No. 033440
27 March 2018
PROFESSIONAL ENGINEER

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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GREENWAY PROFILE
STA. 215+00 TO 222+50

DOCUMENT NO. 29681 – 025
SHEET 13A OF 26

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PIPE 14–27
35LF OF 18" PIPE
INVERT IN:1060.4'
INVER OUT:1056.4'
SLOPE:11.4%
INSTALL (2) VDOT STD. ES–1

TM #061.02–02–16.00–0000
DEPARTMENT OF THE INTERIOR
ZONING EP, AG1, & AG2

GRADE MINIMUM 1.25' DEEP OUTLET DITCH (2:1 SIDE SLOPES) & INSTALL VDOT ST'D. EC–1 OUTLET PROTECTION CLASS A1 (3 TONS)

PROPOSED 10' WIDE GREENWAY

PROP. TIMBER GUARDRAIL (200 L.F.)

PROPOSED GRADING LIMITS

REMOVE EX. FENCE (1250')

TM #71.03–01–11
N/F VIRGINIA RECREATIONAL FACILITIES AUTHORITY
D.B. 1295, PG. 1441
(VERIFY)
ZONING EP

GRADE 1.25' V–DITCH (2:1 SIDE SLOPES)

ARCHAEOLOGICAL SITE (DHR ID: 44RN0172) (D.N.D.)

MATCHLINE STA. 222+50 SHEET 13 SHEET 14

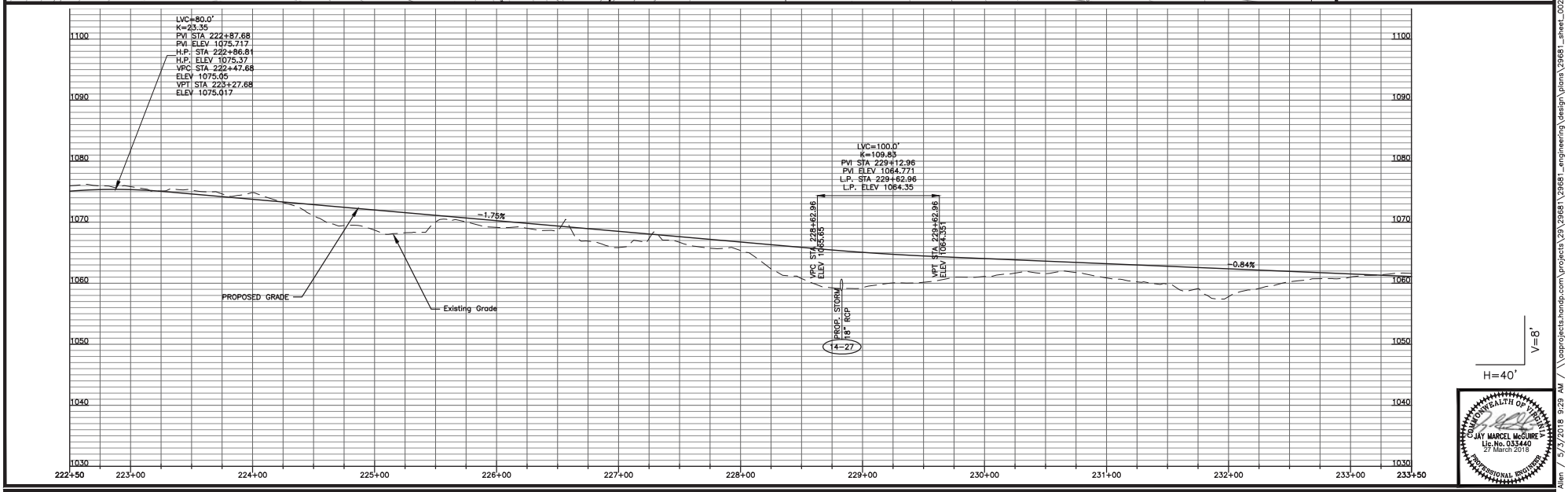
MATCHLINE STA. 233+50 SHEET 14 SHEET 15

14–27 OP CIP SF

222+00 223+00 224+00 225+00 226+00 227+00 228+00 229+00 230+00 231+00 232+00 233+00 234+00 235+00

C192 C193 C194 C195 C196 C197 C198 C199 C200 C201 C202 C203 C204 C205 C206 C207 L194 L195 L196 L198 L199 L200 L201 L202 L203 L204 L205 L206 L218

SCALE IN FEET: 40 20 0 40 80 120



H=40'
V=8'

COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
Lic.No. 033440
27 March 2018
PROFESSIONAL ENGINEER

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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GREENWAY PLAN & PROFILE
STA: 222+50 TO 233+50

DOCUMENT NO. 29681 – 026
SHEET 14 OF 26

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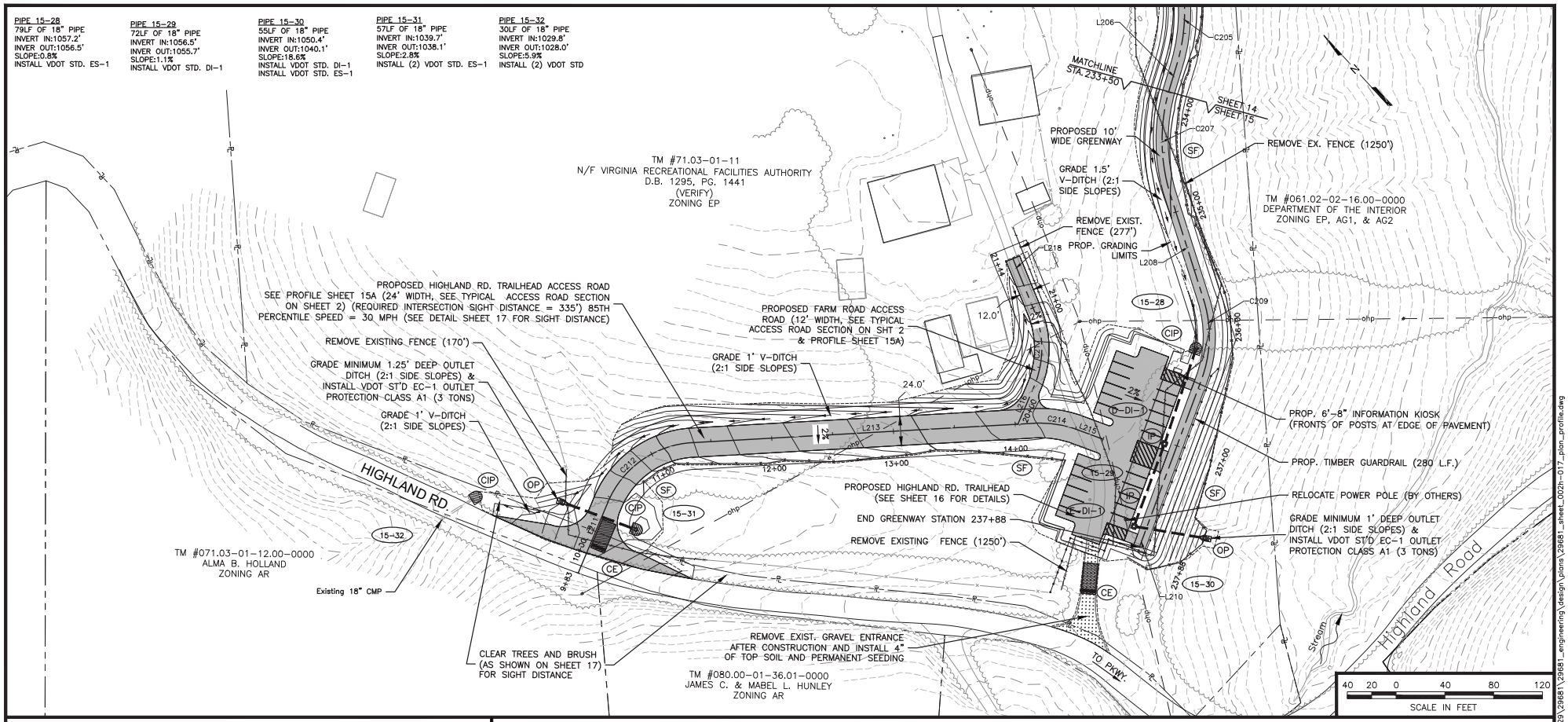

HIGHLAND ROAD TRAILHEAD ACCESS ROAD & FARM ACCESS ROAD ALIGNMENT DATA

Line Table: Alignments				
Line #	Length	Direction	Start Point	End Point
L211	62.921	N65° 21' 31.25"E	(11081789.9275,3617044.7338)	(11081847.1190,3617070.9680)
L213	280.438	S50° 40' 26.36"E	(11081931.1725,3617060.1373)	(11082148.1063,3616882.4146)
L215	21.868	S27° 05' 43.60"E	(11082171.1928,3616853.7876)	(11082181.1531,3616834.3195)
L216	33.139	N65° 53' 11.58"E	(11082137.9905,3616890.7020)	(11082168.2376,3616904.2407)
L218	46.679	N20° 16' 31.16"E	(11082210.5970,3616949.5372)	(11082226.7726,3616993.3235)

Curve Table: Alignments					
Curve #	Radius	Length	Chord Direction	Start Point	End Point
C212	80.000	89.315	S82° 39' 27.56"E	(11081847.1190,3617070.9680)	(11081931.1725,3617060.1373)
C214	90.000	37.037	S38° 53' 04.98"E	(11082148.1063,3616882.4146)	(11082171.1928,3616853.7876)
C217	80.000	63.685	N43° 04' 51.37"E	(11082168.2376,3616904.2407)	(11082210.5970,3616949.5372)

SEE SHEET 15A FOR PROFILES

COMMONWEALTH OF VIRGINIA
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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

TRAILHEAD & GREENWAY PLAN
STA: 233+50 TO 237+88

DOCUMENT NO. 29681 – 020
SHEET 15 OF 26

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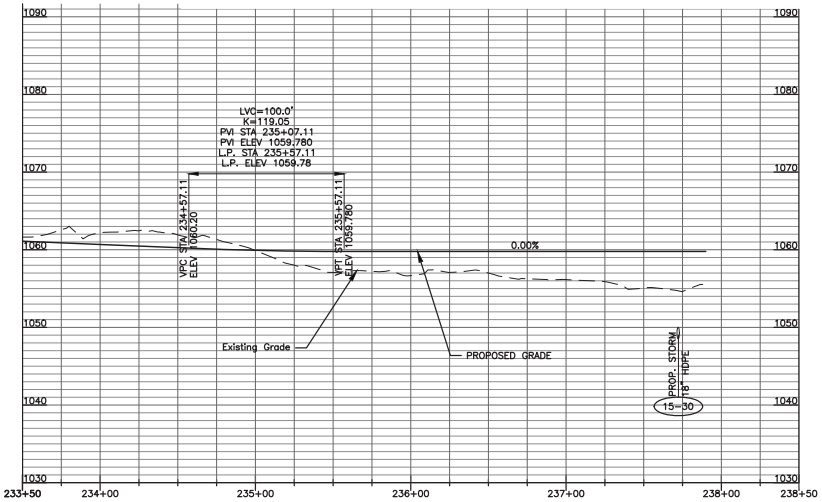
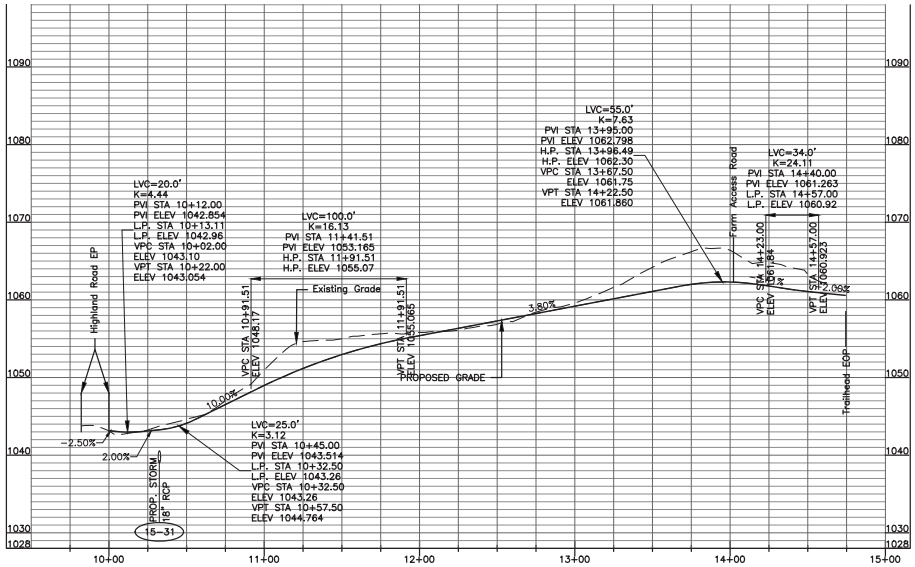
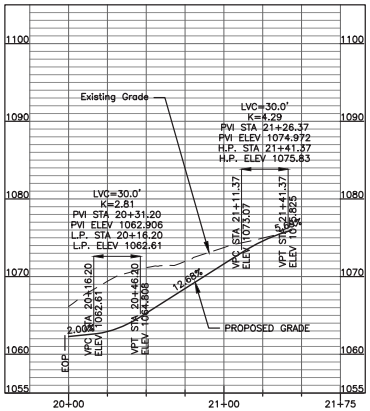
GREENWAY PROFILE – STA. 229+00 TO 237+38



PROFILE: HIGHLAND ROAD TRAILHEAD ACCESS ROAD



PROFILE: FARM ACCESS ROAD



V=8'

H=40'

COMMONWEALTH OF VIRGINIA
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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

GREENWAY, TRAILHEAD & FARM RD. PROFILE VIEW
233+50 TO 237+88, 10+00 TO 15+75, 20+00 TO 21+45

DOCUMENT NO. 29681 – 028
SHEET 15A OF 26

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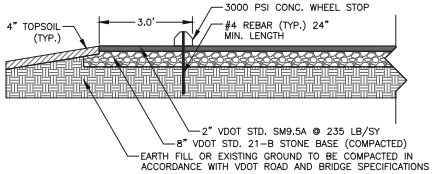
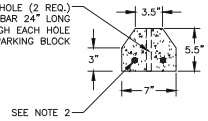
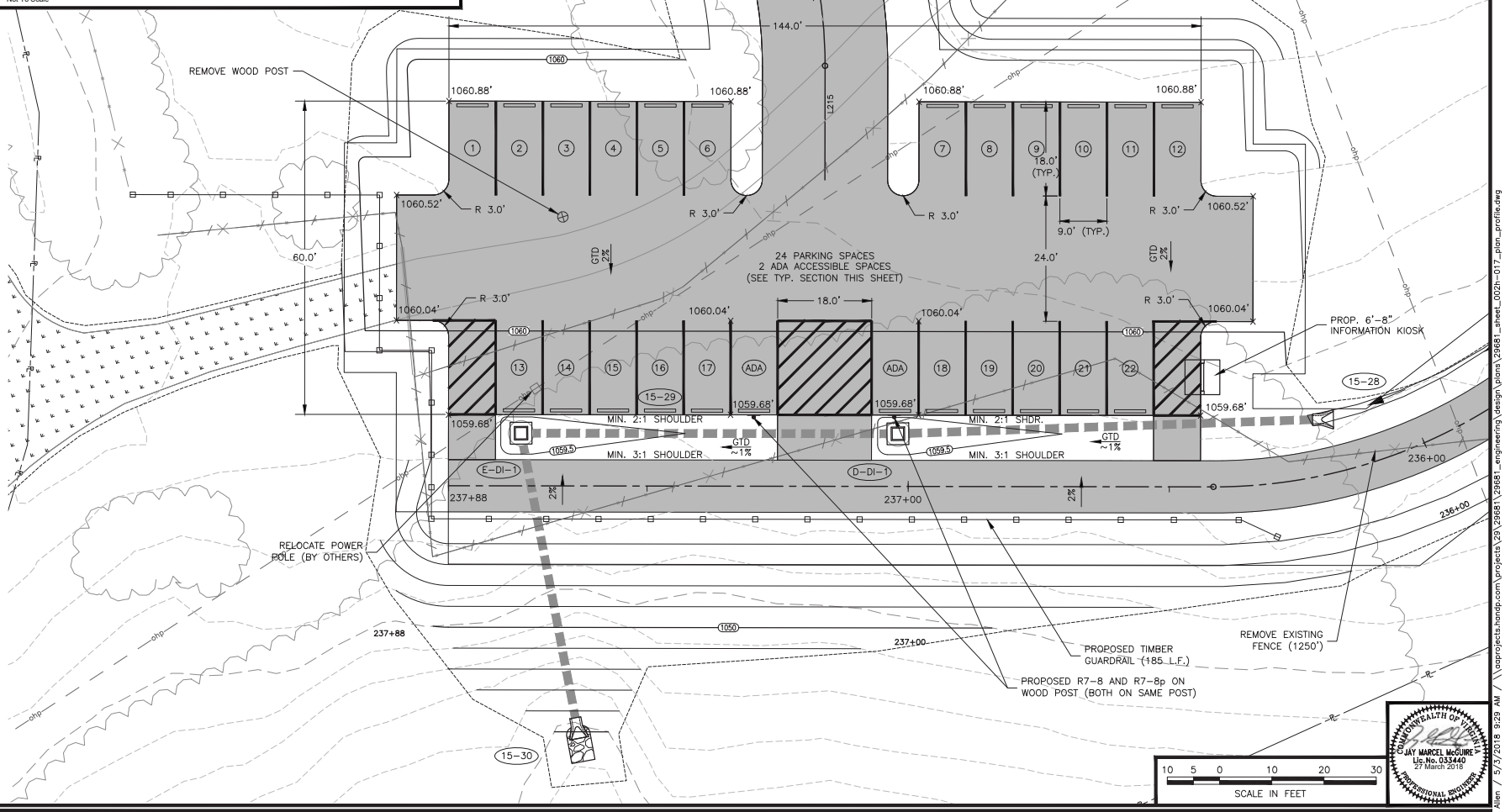
NOTES:
1. CONCRETE SHALL BE 3,000 PSI AT 28 DAYS.
2. CONCRETE SHALL BE REINFORCED 2–#4 REINFORCING BARS.
3. WHEEL STOPS SHALL 6'–0" LONG AND BE POSITIONED AS SHOWN ON THE PARKING DETAILS (CENTERED IN THE PARKING SPACE) ALLOWING A 10' WIDTH (MIN.) PARKING SPACE AND THEN ANCHORED ACCORDING TO DETAIL



TYPICAL PAVED TRAILHEAD PARKING DETAIL
Not To Scale



TYPICAL WHEEL STOP DETAIL
Not To Scale



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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

HIGHLAND ROAD TRAILHEAD PLAN

DOCUMENT NO. 29681 – 029
SHEET 16 OF 26

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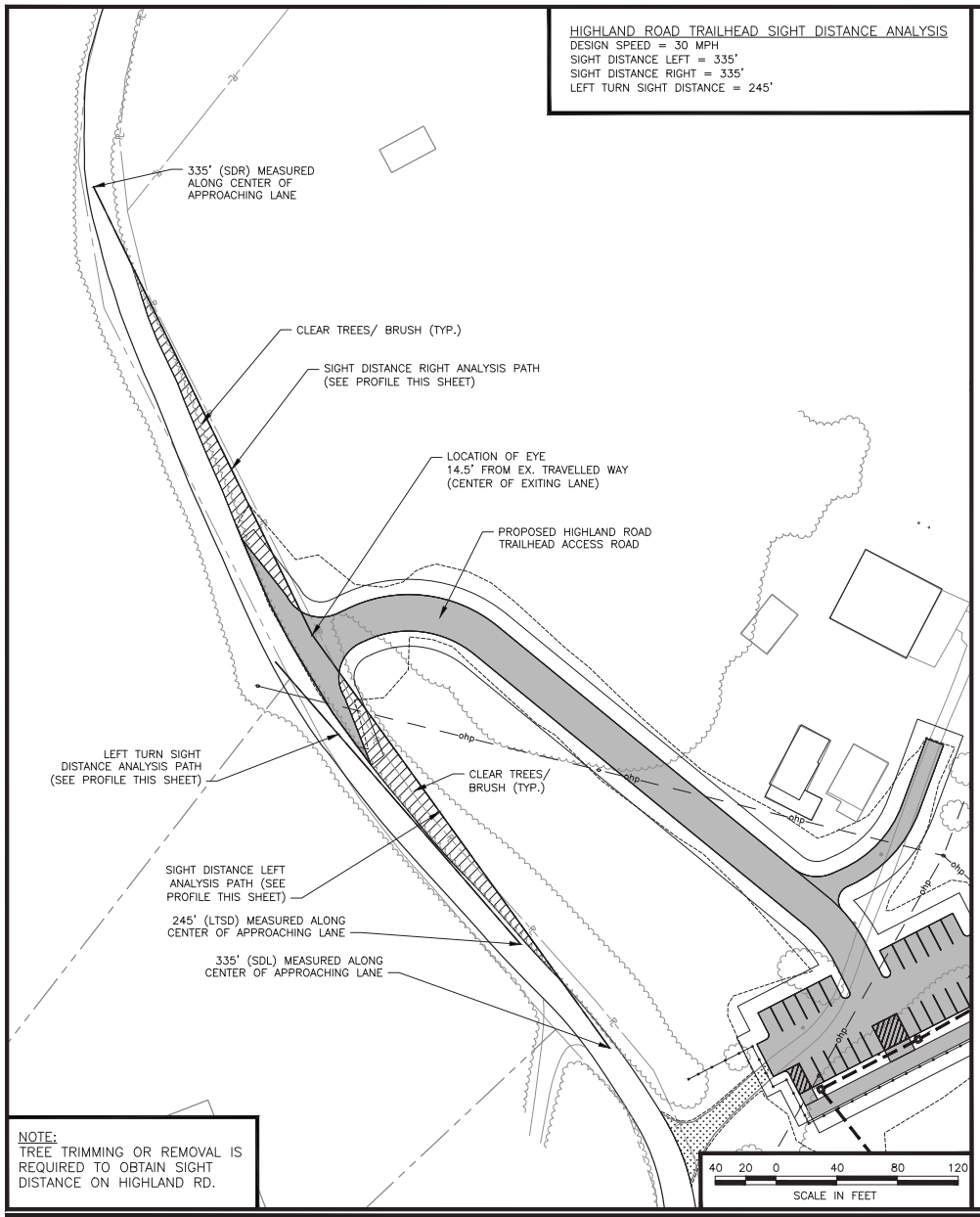
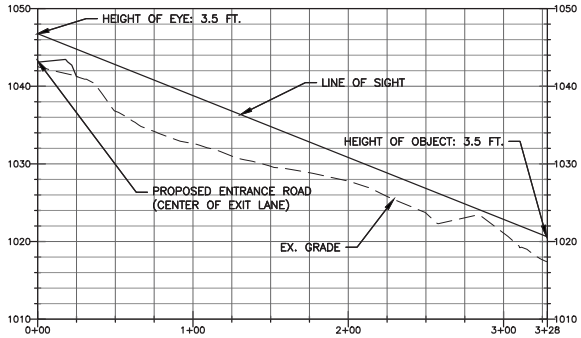
HIGHLAND ROAD TRAILHEAD SIGHT DISTANCE ANALYSIS
DESIGN SPEED = 30 MPH
SIGHT DISTANCE LEFT = 335'
SIGHT DISTANCE RIGHT = 335'
LEFT TURN SIGHT DISTANCE = 245'

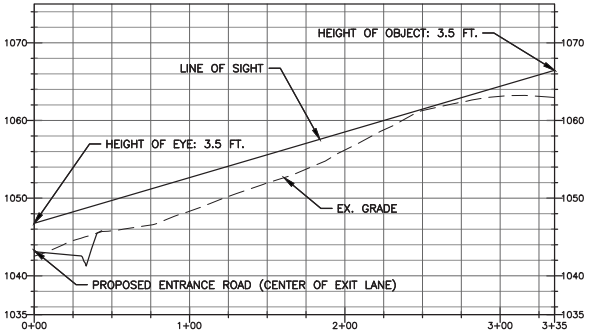


NOTE:
TREE TRIMMING OR REMOVAL IS REQUIRED TO OBTAIN SIGHT DISTANCE ON HIGHLAND RD.

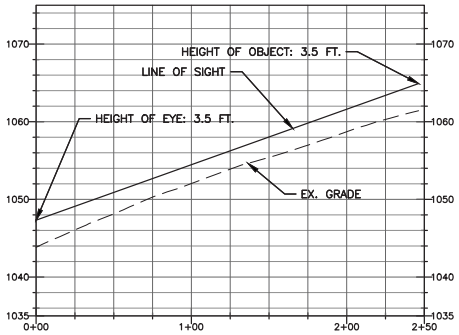
HIGHLAND ROAD SIGHT DISTANCE – RIGHT



HIGHLAND ROAD SIGHT DISTANCE – LEFT



HIGHLAND ROAD LEFT TURN SIGHT DISTANCE – CONDITION F



COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
Lic.No. 033440
27 March 2018
PROFESSIONAL ENGINEER

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1861 Pratt Dr. Suite 1100
Blacksburg, Va. 24060
540-552-5592

DATE	07 OCT 16
DESIGNED:	JMM
DRAWN	MDA
CHECKED	JMJ
QA / QC	JDW

REV. #	COMMENTS	DATE
1	VDOT 100% COMMENTS	15 DEC 16

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

HIGHLAND ROAD TRAILHEAD ENTRANCE SIGHT DISTANCE

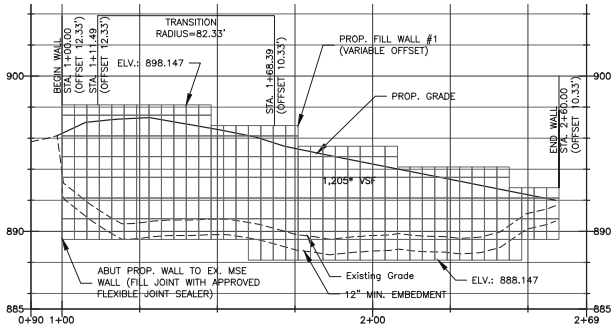
DOCUMENT NO. 29681 – 031
SHEET 17 OF 26

Matthew D. Allen / 5/3/2018 9:29 AM / \\oaprojects.hondp.com\projects\29\29681\29681_engineering\design\plans\29681_sheet_002h-017_plan_profile.dwg

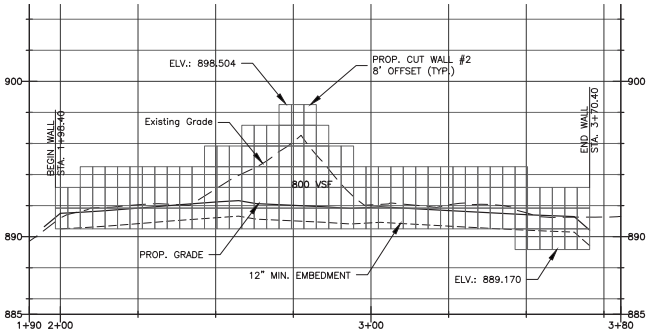
LEGEND

Existing Grade
PROPOSED GRADE
TOP OF WALL
BOTTOM OF WALL

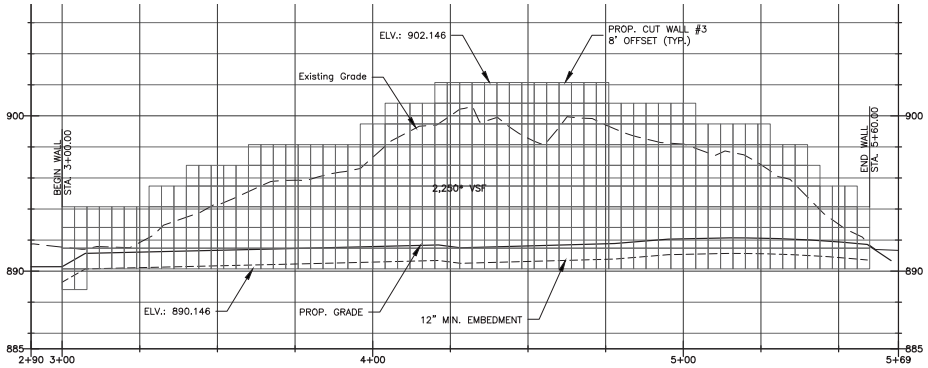
RETAINING WALL #1 PROFILE
(GREENWAY BASELINE STA. 100+00 – 101+44.7)
(SEE PROFILE BELOW FOR OFFEST)

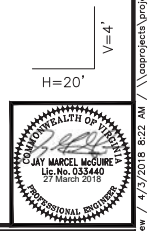


RETAINING WALL #2 PROFILE
(GREENWAY BASELINE STA. 102+14.8 – 103+84.7)
(8' OFFSET RIGHT)



RETAINING WALL #3 PROFILE
(GREENWAY BASELINE STA. 104+32.5 – 106+92.4)
(8' OFFSET RIGHT)





V=4'
H=20'

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RETAINING WALL PROFILES
SHEET 1 OF 6

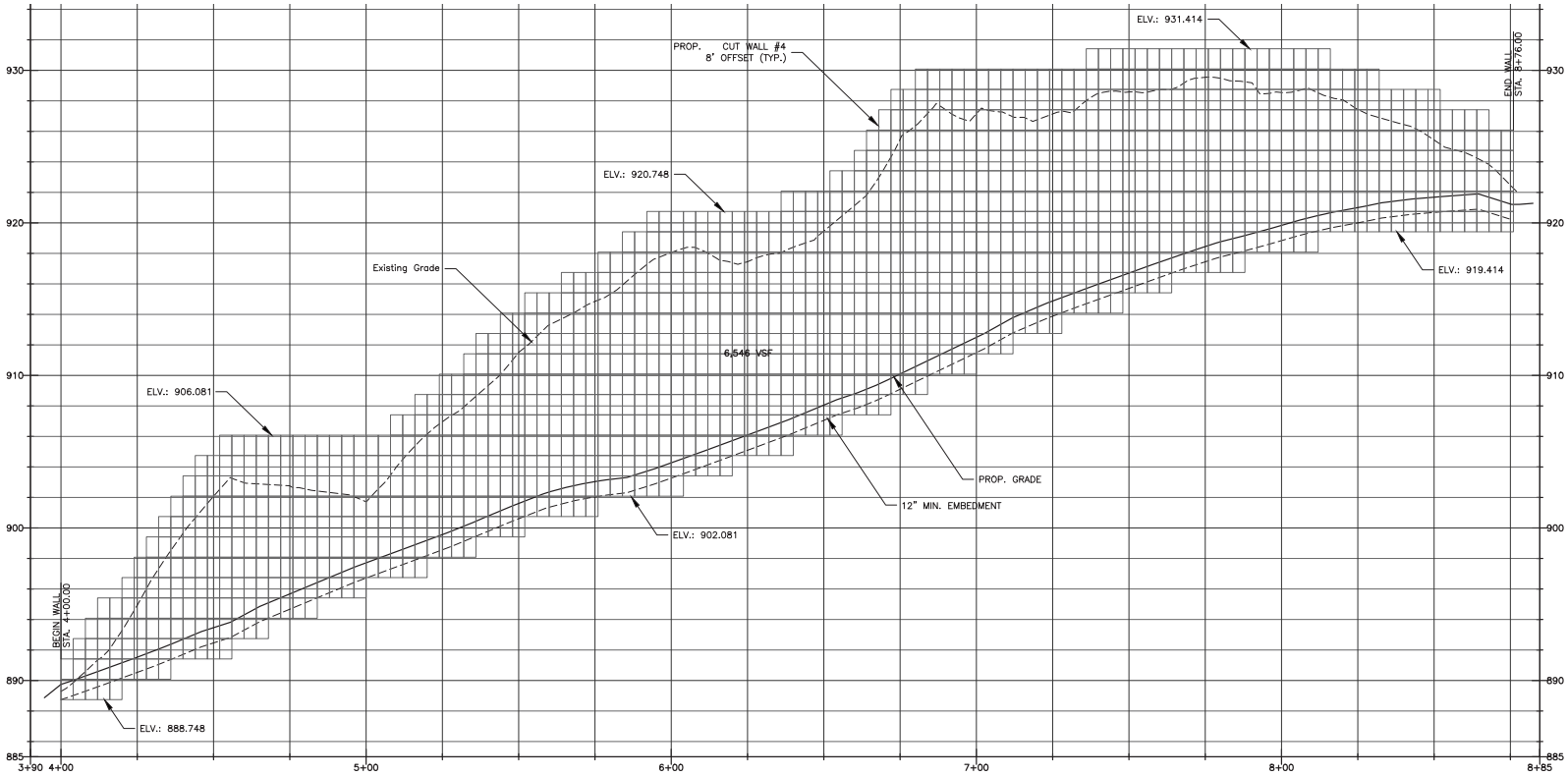
DOCUMENT NO. **29681 – 032**
SHEET **18** OF **26**

Allen, Matthew / 4/3/2018 8:22 AM / \\aaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_018-018d_retaining_profile.dwg

LEGEND

Existing Grade
PROPOSED GRADE
TOP OF WALL
BOTTOM OF WALL

RETAINING WALL #4 PROFILE
(GREENWAY BASELINE STA. 127+87.8 – 132+59.4)
(8' OFFSET RIGHT)



V=4'
H=20'

COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
Lic.No. 033440
27 March 2018
PROFESSIONAL ENGINEER

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DATE : 7 OCT 16
DESIGNED: JMM
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CHECKED : JMJ
QA / QC : JDW

REV. #	COMMENTS	DATE

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

RETAINING WALL PROFILES
SHEET 2 OF 6

DOCUMENT NO. 29681 – 033
SHEET 18A OF 26

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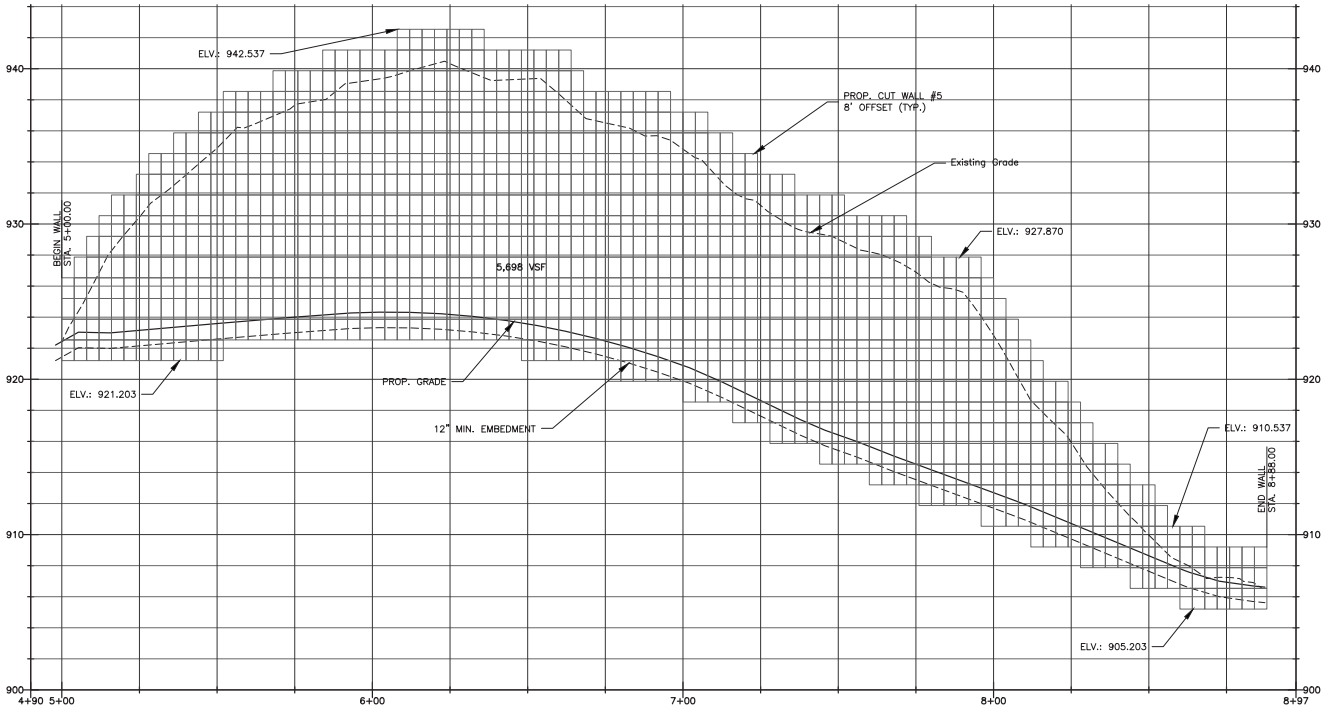
LEGEND

Existing Grade
PROPOSED GRADE
TOP OF WALL
BOTTOM OF WALL

RETAINING WALL #5 PROFILE
(GREENWAY BASELINE STA. 133+14.0 – 137+04.0)
(8' OFFSET RIGHT)



V=4'
H=20'

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CHECKED : JMJ
QA / QC : JDW

REV. #	COMMENTS	DATE

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

RETAINING WALL PROFILES
SHEET 3 OF 6

DOCUMENT NO. 29681 – 034
SHEET 18B OF 26

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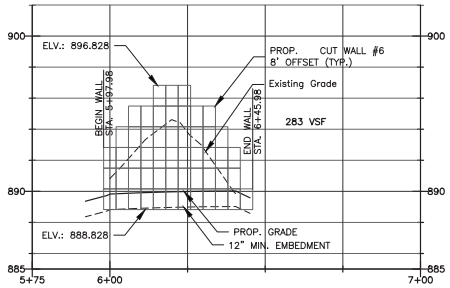
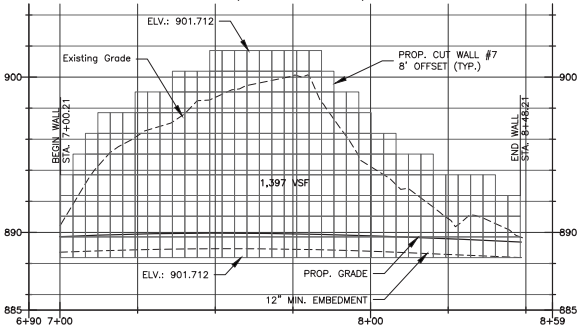
LEGEND

Existing Grade
PROPOSED GRADE
TOP OF WALL
BOTTOM OF WALL

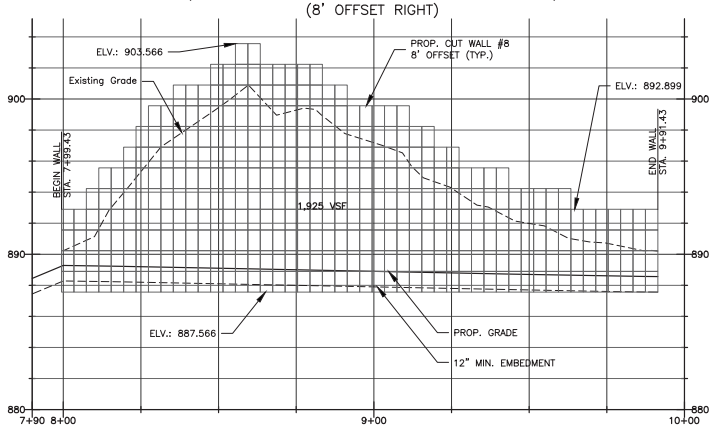
RETAINING WALL #6 PROFILE
(GREENWAY BASELINE STA. 152+29.6 – 152+70.1)
(8' OFFSET RIGHT)



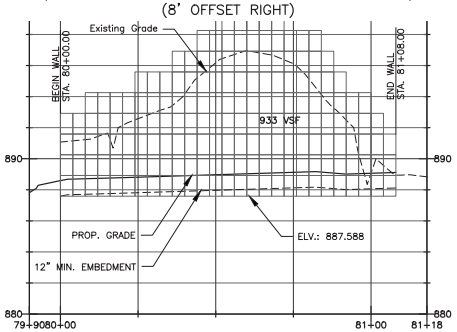
RETAINING WALL #7 PROFILE
(GREENWAY BASELINE STA. 155+38.9 – 156+85.2)
(8' OFFSET RIGHT)



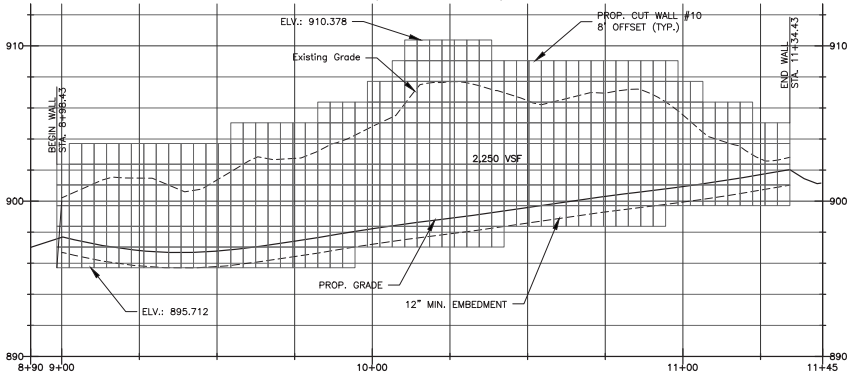
RETAINING WALL #8 PROFILE
(GREENWAY BASELINE STA. 164+43.2 – 166+34.7)
(8' OFFSET RIGHT)



RETAINING WALL #9 PROFILE
(GREENWAY BASELINE STA. 166+97.8 – 168+07.0)
(8' OFFSET RIGHT)



RETAINING WALL #10 PROFILE
(GREENWAY BASELINE STA. 187+86.8 – 190+21.2)
(8' OFFSET RIGHT)



V=4'
H=20'

COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
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27 March 2018
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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

RETAINING WALL PROFILES
SHEET 4 OF 6

DOCUMENT NO. 29681 – 035
SHEET 18C OF 26

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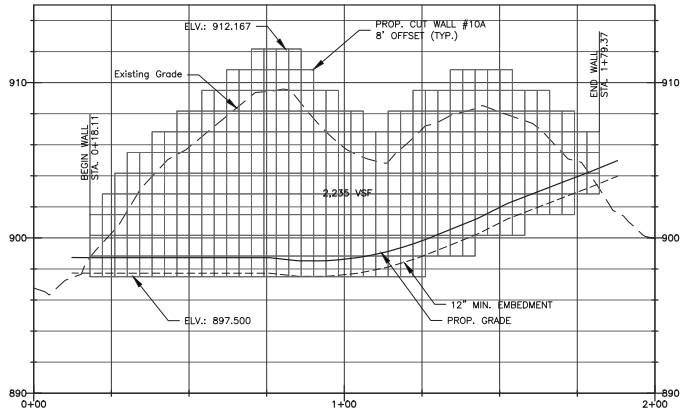
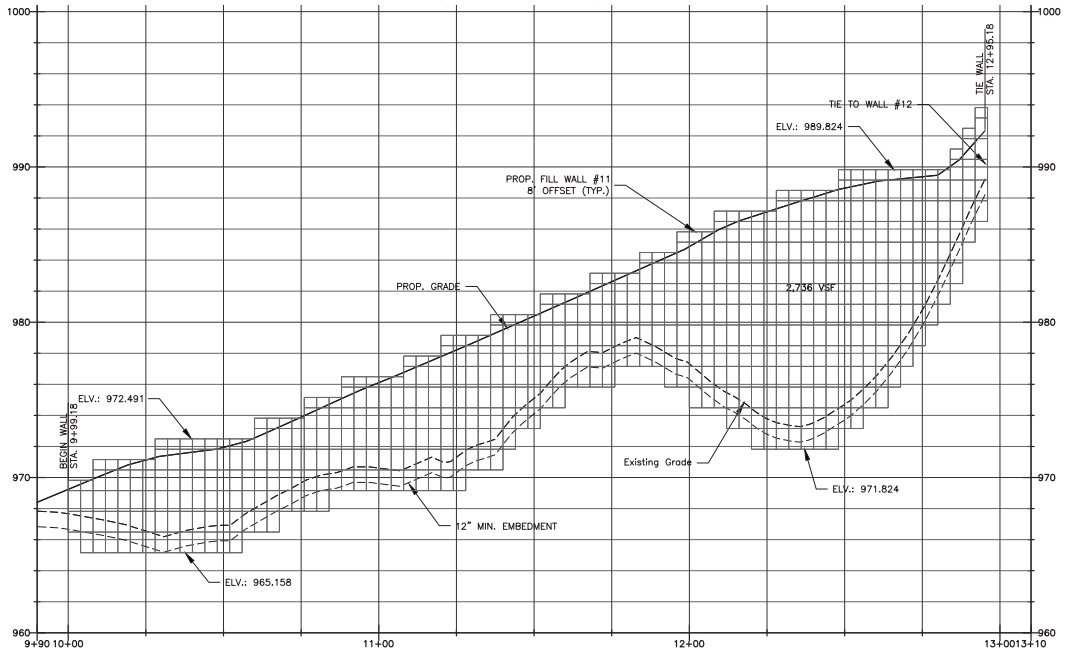
LEGEND

Existing Grade
PROPOSED GRADE
TOP OF WALL
BOTTOM OF WALL

RETAINING WALL #10A PROFILE
(GREENWAY BASELINE STA. 193+72.5 – 195+36.6)
(8' OFFSET RIGHT)



RETAINING WALL #11 PROFILE
(GREENWAY BASELINE STA. 204+60.3 – 206+94.0)
(10.343' OFFSET LEFT)



V=4'
H=20'

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REV. #	COMMENTS	DATE

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

RETAINING WALL PROFILES
SHEET 5 OF 6

DOCUMENT NO. 29681 – 036
SHEET 18D OF 26

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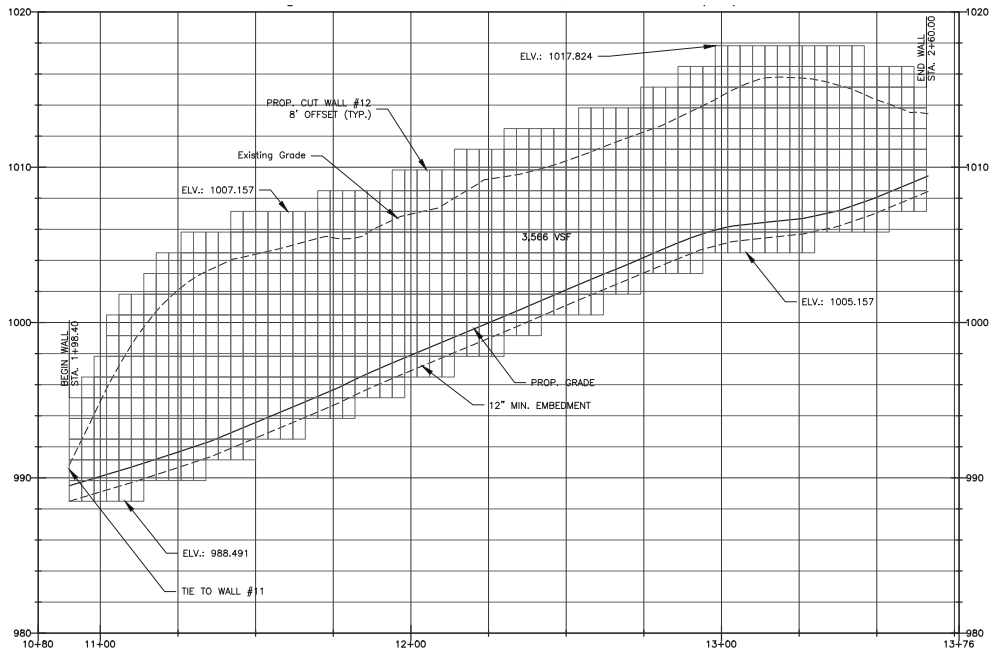
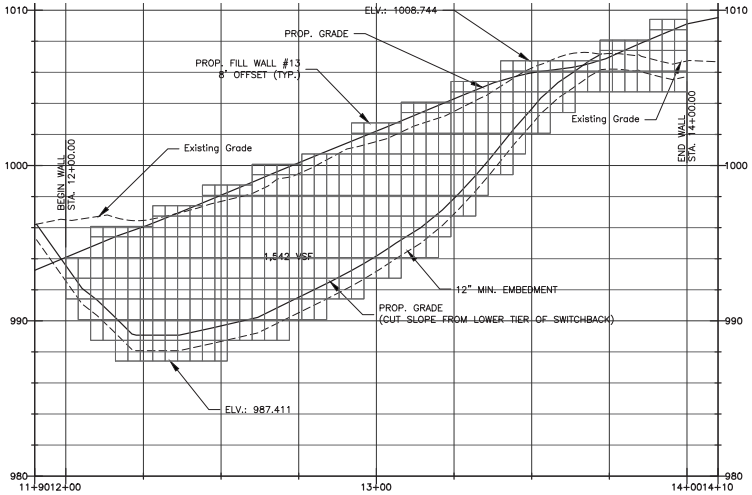
LEGEND

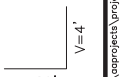
Existing Grade
PROPOSED GRADE
TOP OF WALL
BOTTOM OF WALL

RETAINING WALL #12 PROFILE
(GREENWAY BASELINE STA. 206+94.0 – 210+07.3)
(8.0' OFFSET LEFT)



RETAINING WALL #13 PROFILE
(GREENWAY BASELINE STA. 208+04.1 – 210+07.3)
(10.343' OFFSET RIGHT)





COMMONWEALTH OF VIRGINIA
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REV. #	COMMENTS	DATE

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

RETAINING WALL PROFILES
SHEET 6 OF 6

DOCUMENT NO. 29681 – 037
18E
SHEET 26 OF

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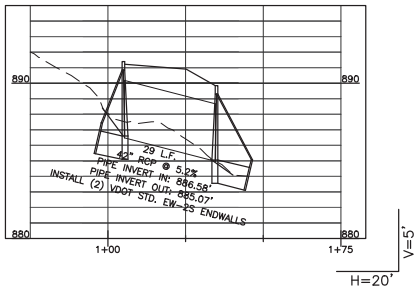
PIPE 3–1



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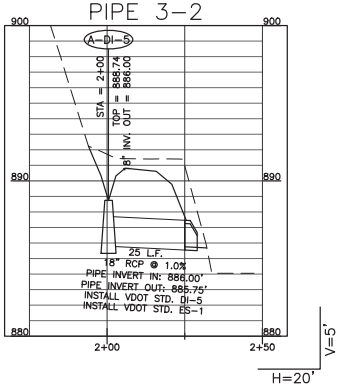

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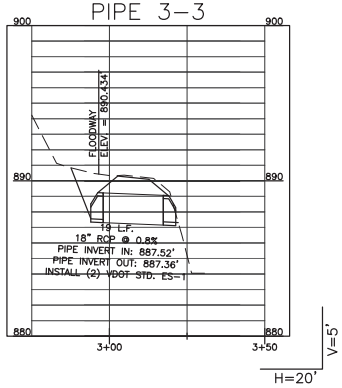

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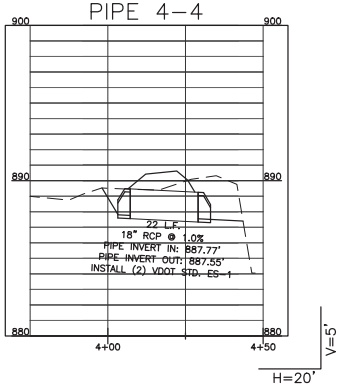

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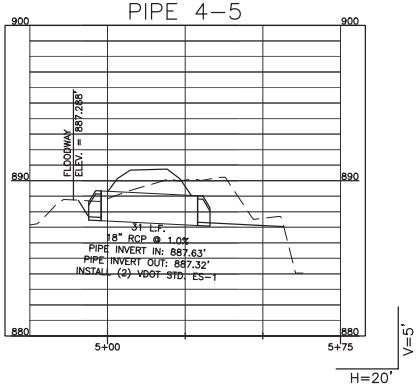

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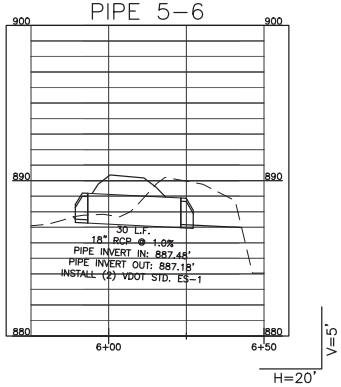
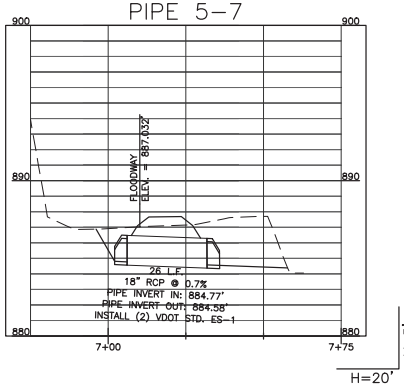


PIPE 5–7



Existing Grade - - - - - - - - - - - - - - -
PROPOSED GRADE ———————————

COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
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27 March 2018
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HURT & PROFFITT
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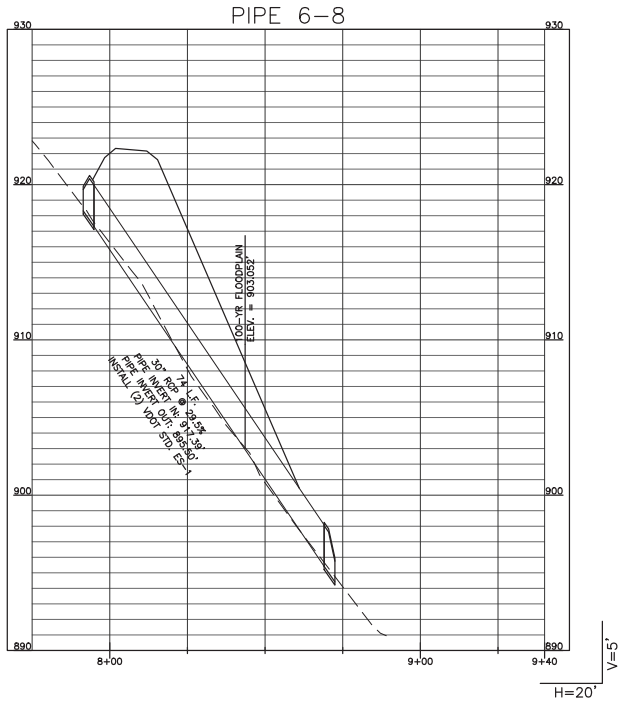
REV. #	COMMENTS	DATE

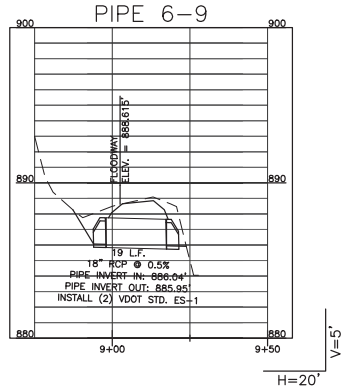
EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

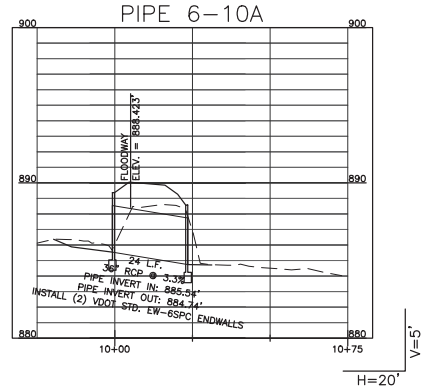
PIPE PROFILES

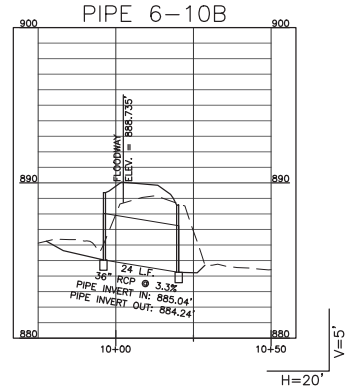
DOCUMENT NO. 29681 – 038
SHEET 19 OF 26

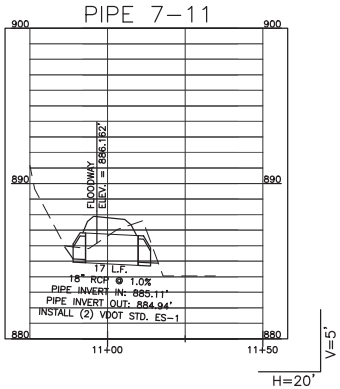
Matthew D. Allen / 5/7/2018 11:24 AM / \\aaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_19–24_pipe_profiles.dwg

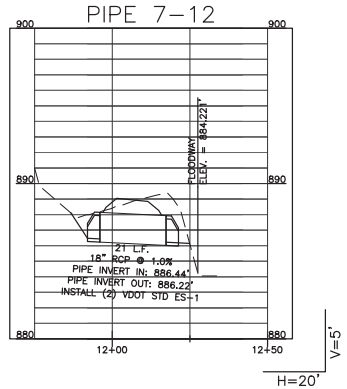


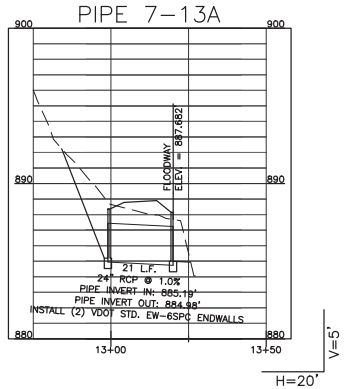


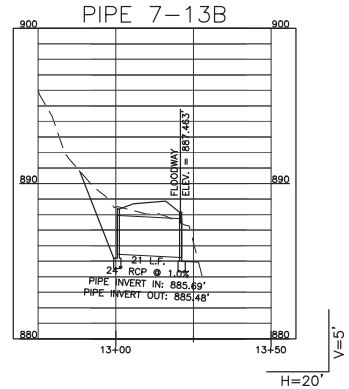












Existing Grade - - - - - - - - - - - - - - -
PROPOSED GRADE ————————————

COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
Lic. No. 033440
27 March 2018
PROFESSIONAL ENGINEER

HURT & PROFFITT
ENGINEERING • SURVEYING
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GEOTECHNICAL • CONSTRUCTION TESTING & INSPECTION
CULTURAL RESOURCES
1861 Pratt Dr. Suite 1100
Blacksburg, Va. 24060
540-552-5592

DATE : 07 OCT 16
DESIGNED: JMM
DRAWN : MDA
CHECKED : JMJ
QA / QC : JDW

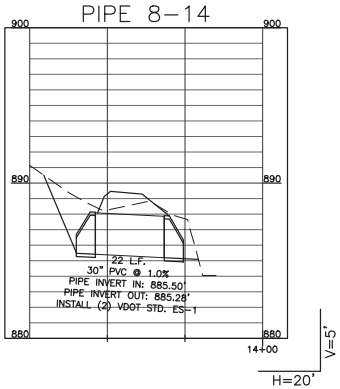
REV. #	COMMENTS	DATE

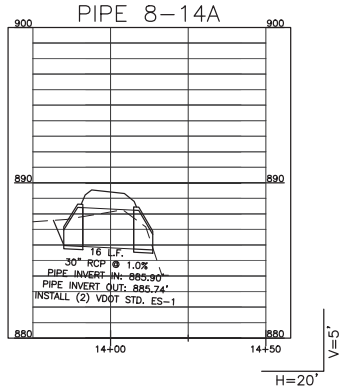
EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

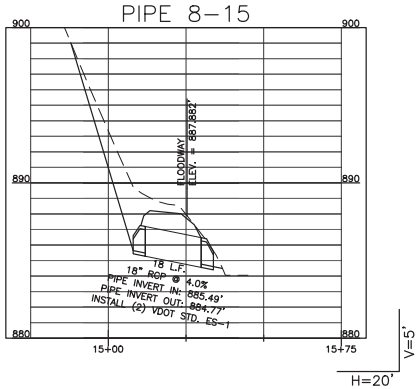
PIPE PROFILES

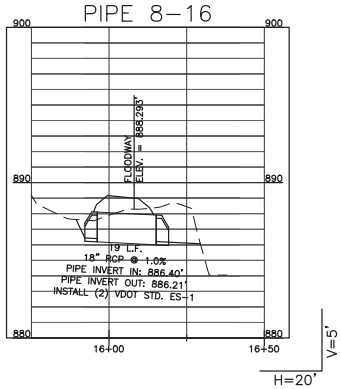
DOCUMENT NO. 29681 – 039
SHEET 20 OF 26

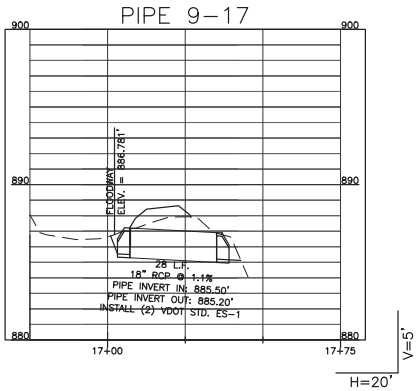
Matthew D. Allen / 5/7/2018 11:24 AM / \\aaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_19-24_pipe_profiles.dwg

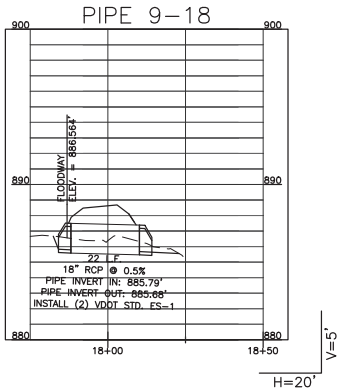


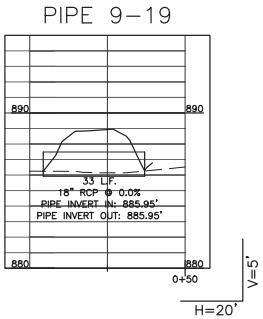












Existing Grade - - - - - - - - - - - - - - -
PROPOSED GRADE ————————————

COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
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CHECKED : JMJ
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REV. #	COMMENTS	DATE

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

PIPE PROFILES

DOCUMENT NO. 29681 – 040
SHEET 21 OF 26

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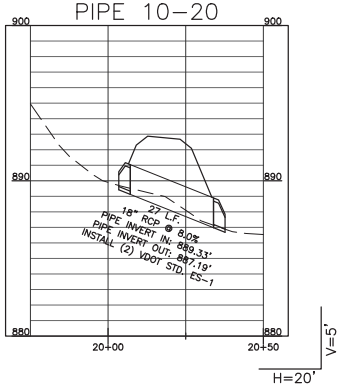
PIPE 10–20



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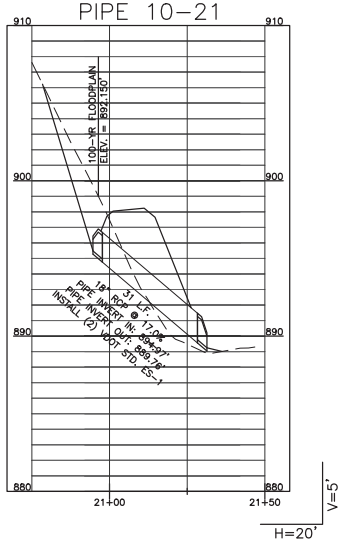
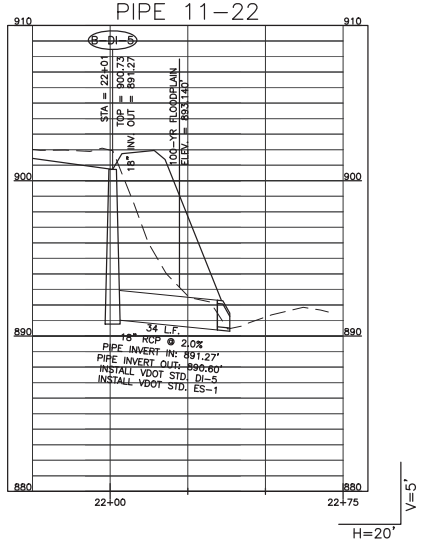


PIPE 11–22



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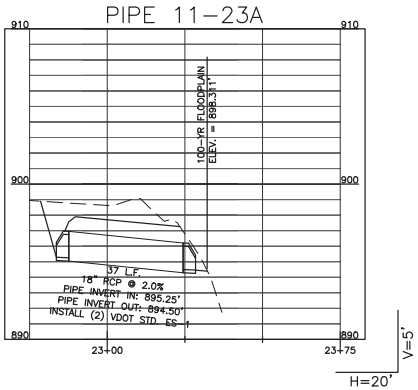

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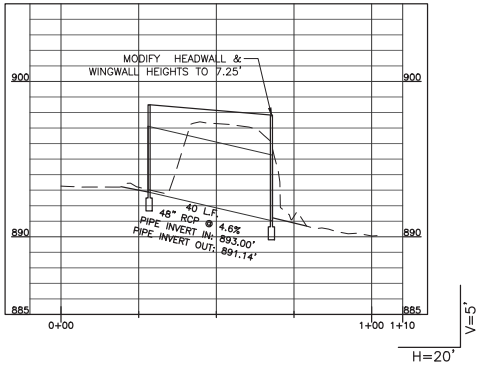

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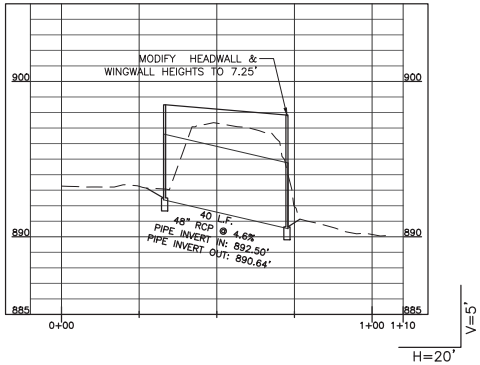

Existing Grade ----------
PROPOSED GRADE ————————

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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

PIPE PROFILES

DOCUMENT NO. 29681 – 041
SHEET 22 OF 26

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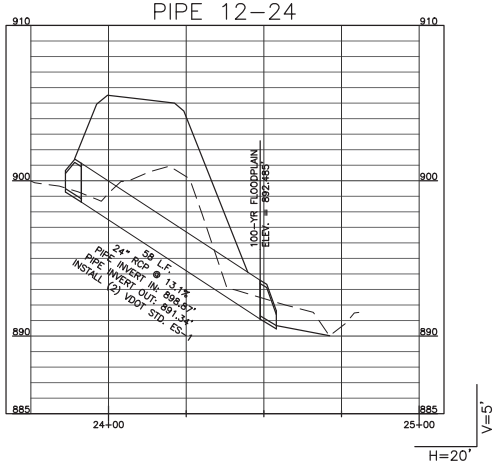
PIPE 12–24



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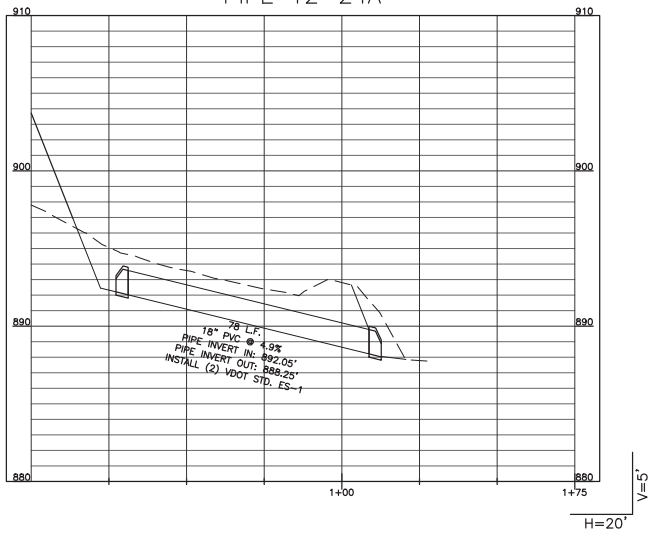

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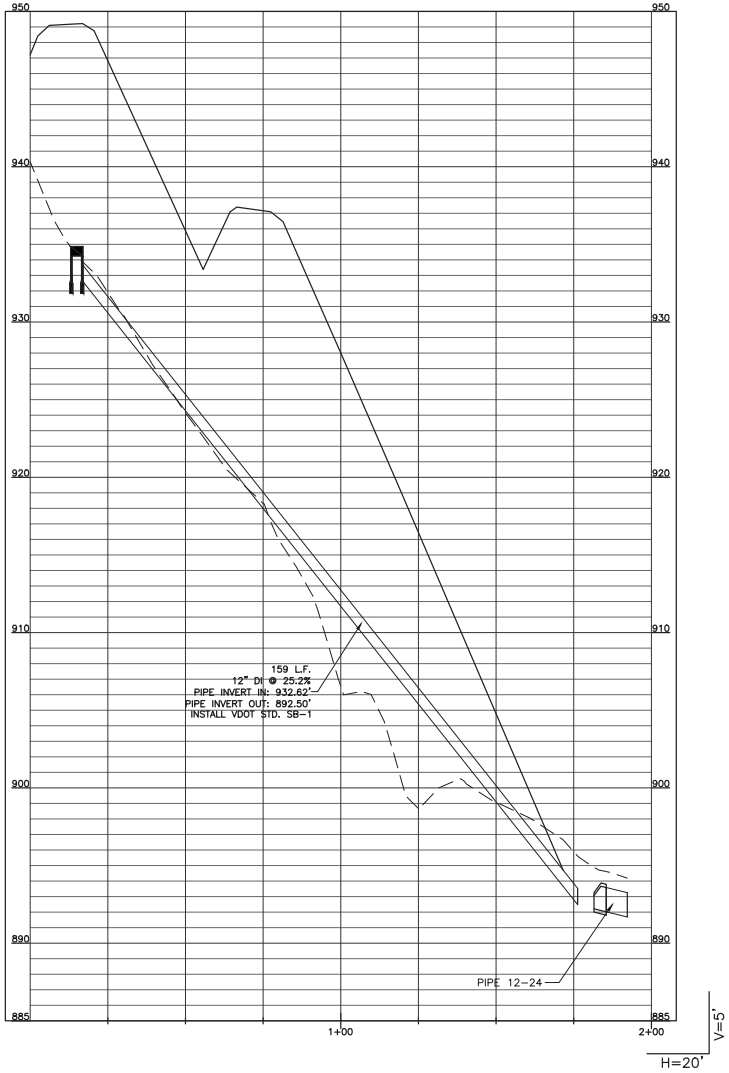

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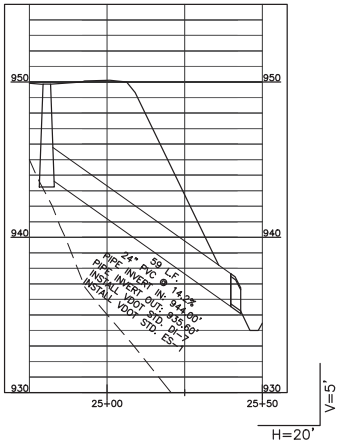

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EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

PIPE PROFILES

DOCUMENT NO. **29681 – 042**
SHEET **23** OF **26**

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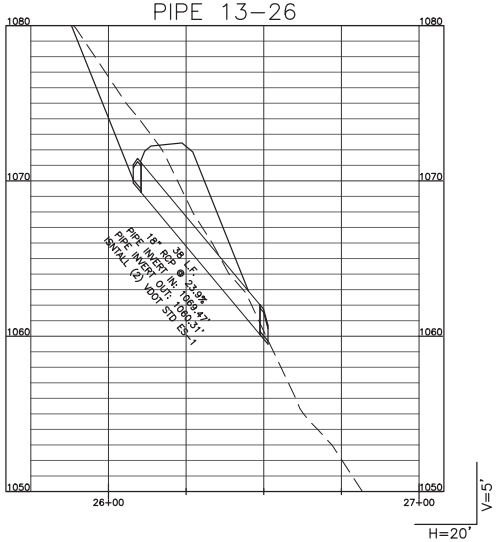
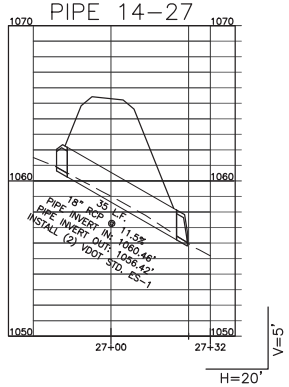
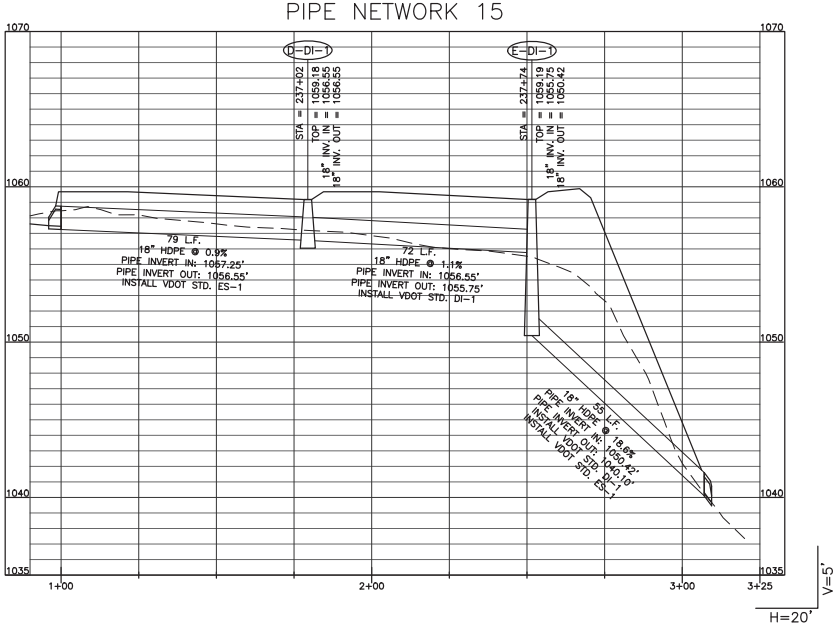
PIPE 13–26



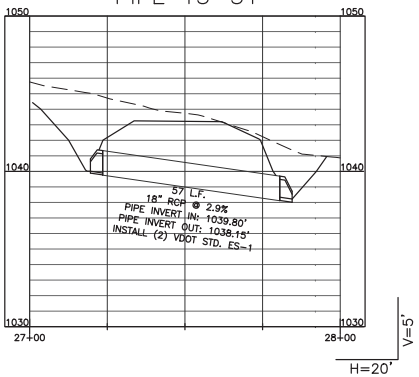
PIPE 14–27



PIPE NETWORK 15



PIPE 15–31



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REV. #	COMMENTS	DATE

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

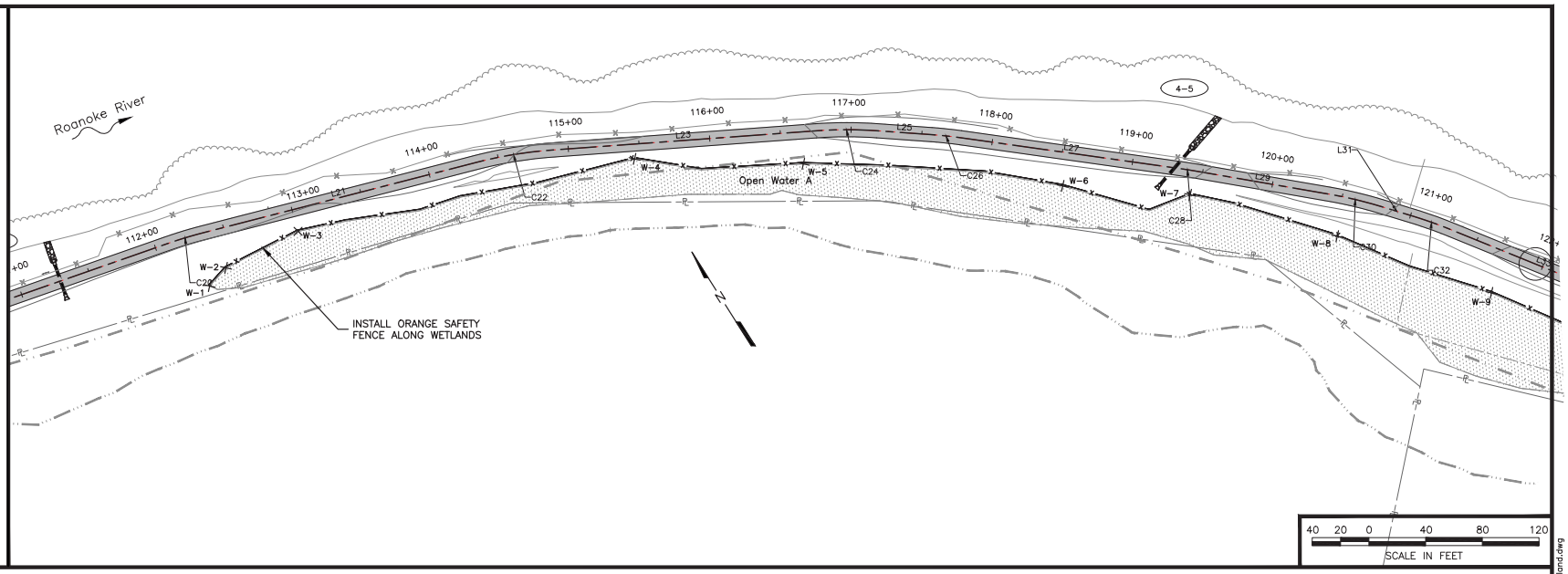
PIPE PROFILES

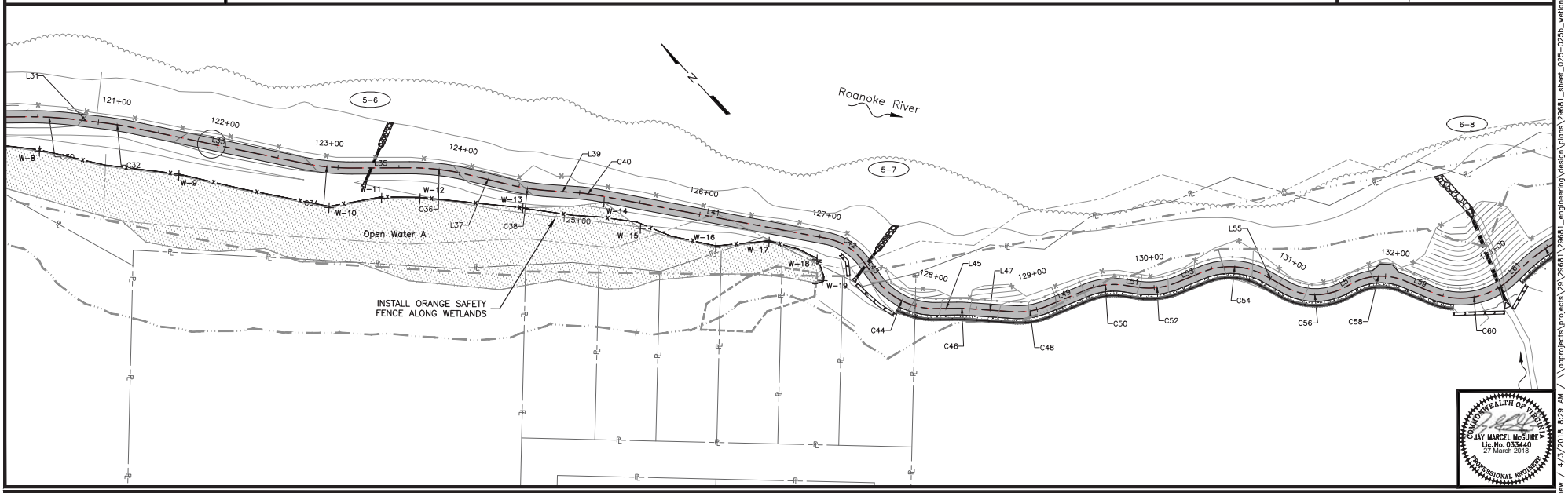
DOCUMENT NO. 29681 – 043
SHEET 24 OF 26

Matthew D. Allen / 5/7/2018 11:24 AM / \\aaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_19-24_pipe_profiles.dwg

Open Water A

Point Table		
Point #	Northing	Easting
1	3622836.6092	11076245.5671
2	3622841.2134	11076262.1893
3	3622835.8222	11076318.9049
4	3622751.9864	11076546.8136
5	3622685.3165	11076645.5479
6	3622574.2698	11076791.7990
7	3622520.8369	11076864.4378
8	3622440.6595	11076936.5071
9	3622348.6280	11077006.9638
10	3622245.7329	11077079.5044
11	3622222.2898	11077116.4753
12	3622200.6677	11077139.3839
13	3622137.9423	11077196.2873
14	3622096.2308	11077248.2917
15	3622060.2001	11077255.6497
16	3622007.0720	11077290.7129
17	3621980.5428	11077325.6160
18	3621943.1562	11077344.6629
19	3621927.6736	11077336.4102





COMMONWEALTH OF VIRGINIA
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540-552-5592

DATE : 07 OCT 16
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REV. #	COMMENTS	DATE

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

WETLAND DELINEATION
WETLAND A

DOCUMENT NO. 29681 – 044
SHEET 25 OF 26

Allen, Matthew / 4/3/2018 8:29 AM / \\aaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_025-026b_wetland.dwg

Open Water B

Point Table		
Point #	Northing	Easting
25	3620975.2474	11078755.3095
26	3620984.7000	11078757.6352
27	3620998.9764	11078778.5480
28	3620975.9320	11078791.3035
29	3620933.6819	11078847.9555
30	3620888.4663	11078919.3177
31	3620849.2335	11078990.4450
32	3620852.8130	11079036.0098
33	3620837.0197	11079064.7900
34	3620800.3274	11079105.5542
35	3620737.4740	11079228.1981
36	3620720.6197	11079256.7050
37	3620704.6065	11079312.7472
38	3620698.3138	11079307.8073
39	3620706.0585	11079260.8621

Open Water C

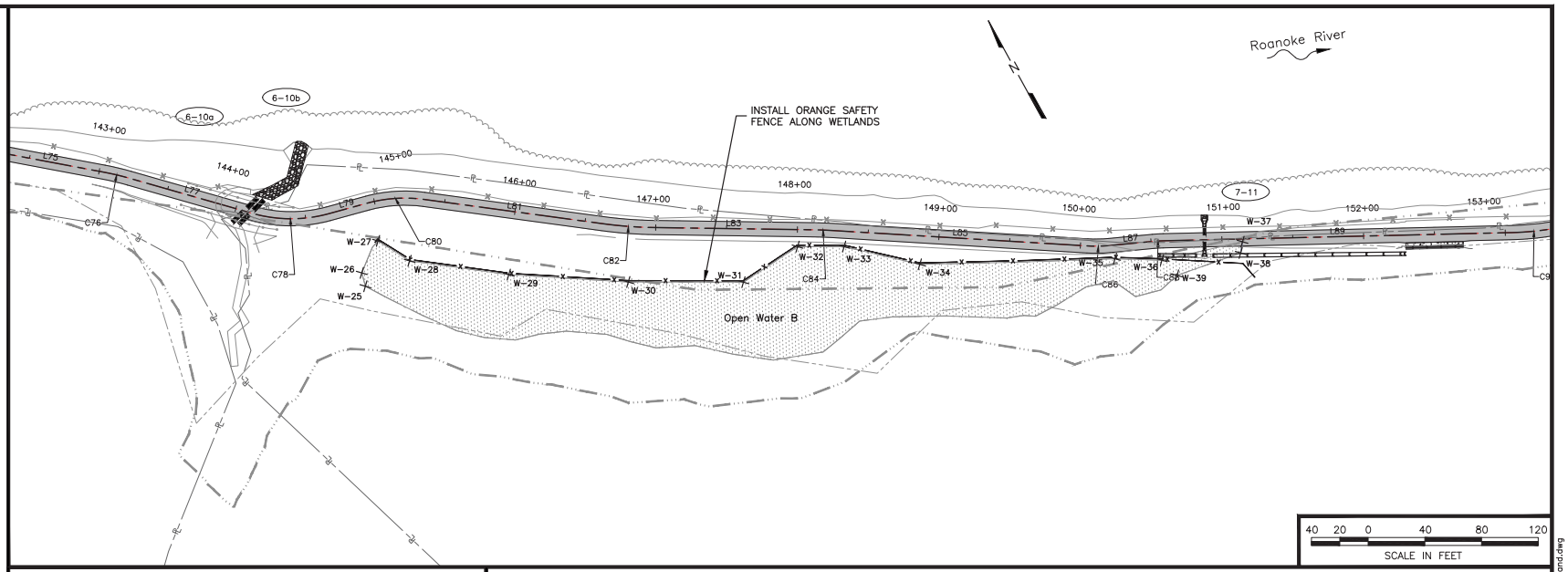
Point Table		
Point #	Northing	Easting
40	3620325.4557	11080321.1719
41	3620356.3161	11080333.4138
42	3620341.6923	11080376.0999
43	3620341.7062	11080392.7924
44	3620326.7968	11080418.0097
45	3620318.2155	11080415.8426

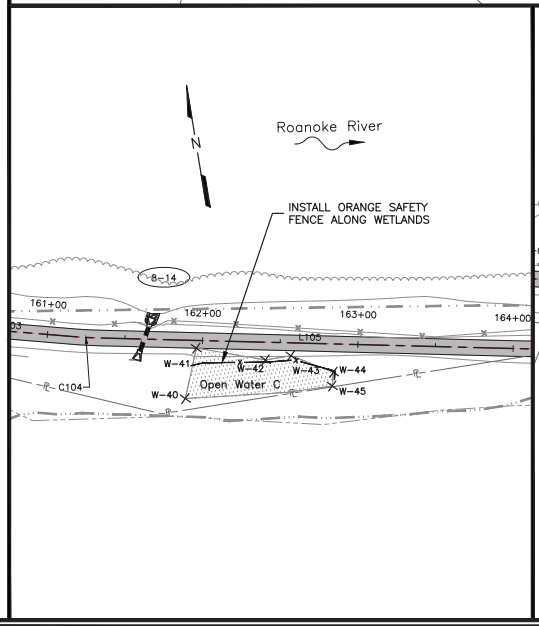
Open Water D

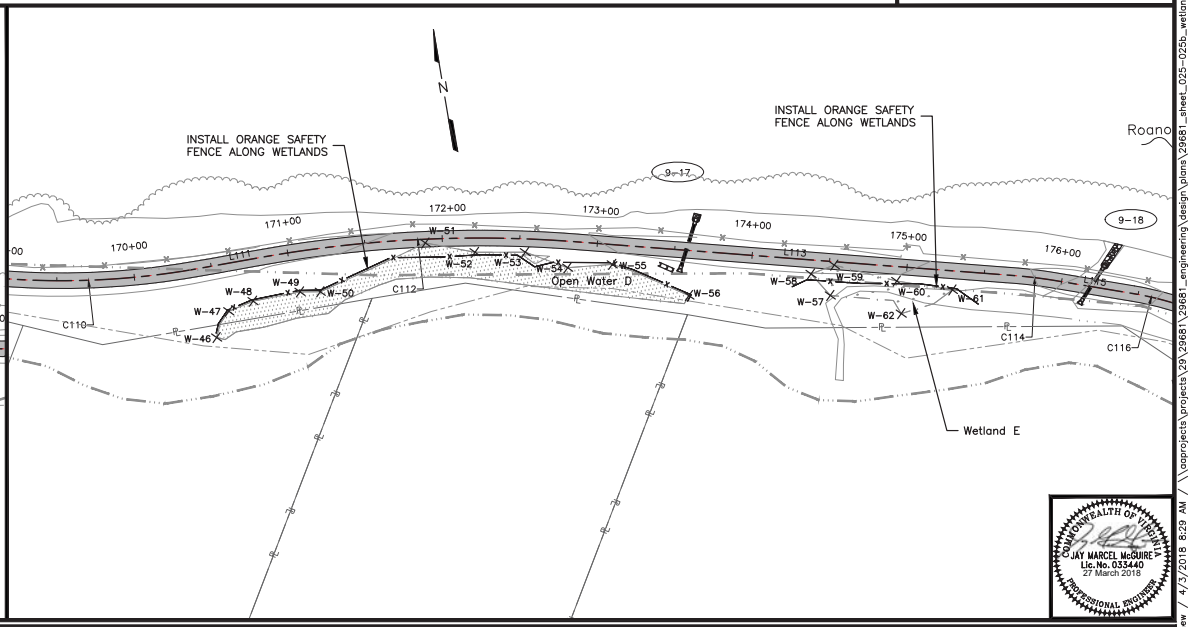
Point Table		
Point #	Northing	Easting
46	3620203.0448	11081174.0529
47	3620218.4412	11081184.5454
48	3620222.2343	11081201.0650
49	3620223.1272	11081231.8714
50	3620221.0147	11081244.7842
51	3620240.7512	11081316.7377
52	3620229.5485	11081347.2575
53	3620224.2095	11081379.1962
54	3620209.8469	11081404.4395
55	3620207.1849	11081433.1021
56	3620179.1719	11081478.4592

Wetland E

Point Table		
Point #	Northing	Easting
57	3620164.1140	11081568.2382
58	3620179.8587	11081558.3043
59	3620182.9573	11081574.0174
60	3620166.1743	11081611.9760
61	3620154.5613	11081646.3592
62	3620144.9936	11081611.3386







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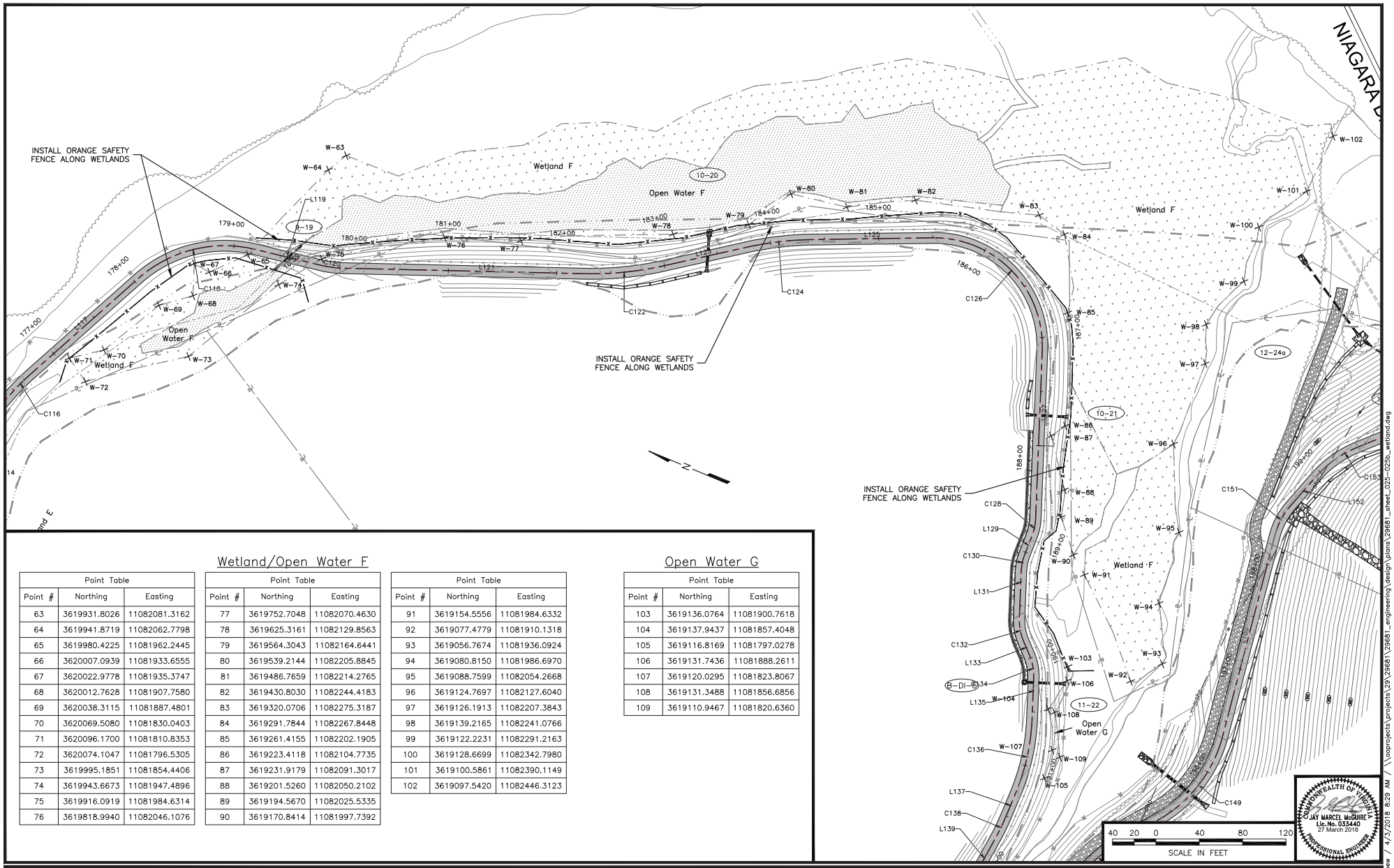
EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

WETLAND DELINEATION
WETLAND B, C, D & E

DOCUMENT NO. 29681 – 045
SHEET 25A OF 26

Allen, Matthew / 4/3/2018 8:29 AM / \\aaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_025-025b_wetland.dwg



Wetland/Open Water F

Point Table		
Point #	Northing	Easting
63	3619931.8026	11082081.3162
64	3619941.8719	11082062.7798
65	3619980.4225	11081962.2445
66	3620007.0939	11081933.6555
67	3620022.9778	11081935.3747
68	3620012.7628	11081907.7580
69	3620038.3115	11081887.4801
70	3620069.5080	11081830.0403
71	3620096.1700	11081810.8353
72	3620074.1047	11081796.5305
73	3619995.1851	11081854.4406
74	3619943.6673	11081947.4896
75	3619916.0919	11081984.6314
76	3619818.9940	11082046.1076

Point Table		
Point #	Northing	Easting
77	3619752.7048	11082070.4630
78	3619625.3161	11082129.8563
79	3619564.3043	11082164.6441
80	3619539.2144	11082205.8845
81	3619486.7659	11082214.2765
82	3619430.8030	11082244.4183
83	3619320.0706	11082275.3187
84	3619291.7844	11082267.8448
85	3619261.4155	11082202.1905
86	3619223.4118	11082104.7735
87	3619231.9179	11082091.3017
88	3619201.5260	11082050.2102
89	3619194.5670	11082025.5335
90	3619170.8414	11081997.7392

Point Table		
Point #	Northing	Easting
91	3619154.5556	11081984.6332
92	3619077.4779	11081910.1318
93	3619056.7674	11081936.0924
94	3619080.8150	11081986.6970
95	3619088.7599	11082054.2668
96	3619124.7697	11082127.6040
97	3619126.1913	11082207.3843
98	3619139.2165	11082241.0766
99	3619122.2231	11082291.2163
100	3619128.6699	11082342.7980
101	3619100.5861	11082390.1149
102	3619097.5420	11082446.3123

Open Water G

Point Table		
Point #	Northing	Easting
103	3619136.0764	11081900.7618
104	3619137.9437	11081857.4048
105	3619116.8169	11081797.0278
106	3619131.7436	11081888.2611
107	3619120.0295	11081823.8067
108	3619131.3488	11081856.6856
109	3619110.9467	11081820.6360

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QA / QC : JDW

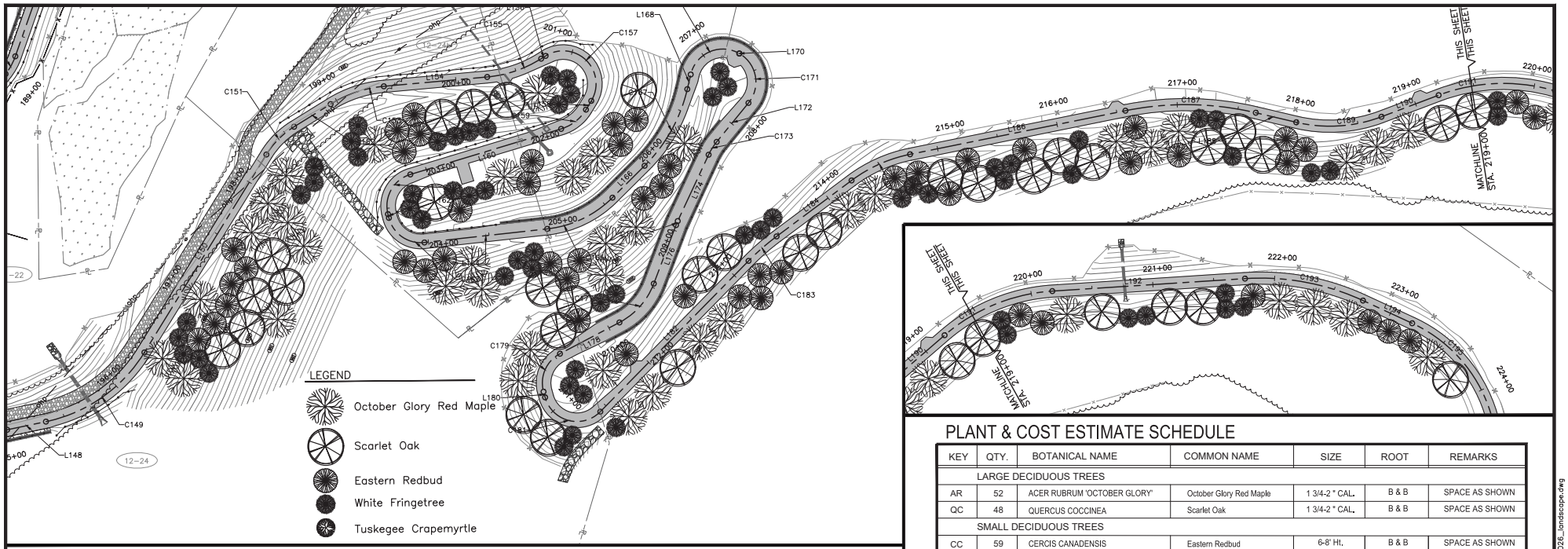
REV. # COMMENTS DATE

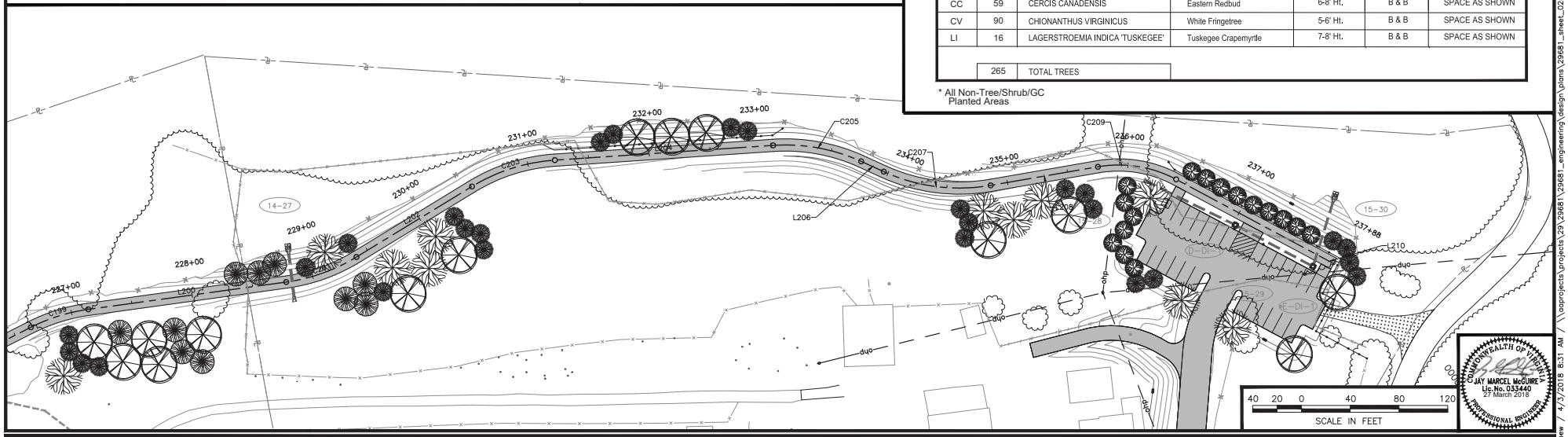
EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

WETLAND DELINEATION
WETLAND F & G

DOCUMENT NO. 29681 – 046
SHEET 25B OF 26

Allen, Matthew / 4/3/2018 8:29 AM / \\aaprojects\projects\29\29681\29681_engineering\design\plans\29681_sheet_025-025b_wetland.dwg





PLANT & COST ESTIMATE SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
LARGE DECIDUOUS TREES						
AR	52	ACER RUBRUM 'OCTOBER GLORY'	October Glory Red Maple	1 3/4-2 " CAL.	B & B	SPACE AS SHOWN
QC	48	QUERCUS COCCINEA	Scarlet Oak	1 3/4-2 " CAL.	B & B	SPACE AS SHOWN
SMALL DECIDUOUS TREES						
CC	59	CERCIS CANADENSIS	Eastern Redbud	6-8' Ht.	B & B	SPACE AS SHOWN
CV	90	CHIONANTHUS VIRGINICUS	White Fringetree	5-6' Ht.	B & B	SPACE AS SHOWN
LI	16	LAGERSTROEMIA INDICA 'TUSKEGEE'	Tuskegee Crapemyrtle	7-8' Ht.	B & B	SPACE AS SHOWN
	265	TOTAL TREES				

* All Non-Tree/Shrub/GC Planted Areas

40 20 0 40 80 120
SCALE IN FEET

COMMONWEALTH OF VIRGINIA
JAY MARCEL McGUIRE
Lic.No. 033440
27 March 2018
PROFESSIONAL ENGINEER

HURT & PROFFITT
ENGINEERING • SURVEYING
LAND DEVELOPMENT • ENVIRONMENTAL
GEOTECHNICAL • CONSTRUCTION TESTING & INSPECTION
CULTURAL RESOURCES

1861 Pratt Dr. Suite 1100
Blacksburg, Va. 24060
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DATE : 07 OCT 16
DESIGNED: JMM
DRAWN : TGP
CHECKED : JMJ
QA / QC : JDW

REV. #	COMMENTS	DATE

EASTERN ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA

LANDSCAPING PLAN

DOCUMENT NO. 29681 – 047
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