

PROJECT MANAGER \_ CHRISTINA ALEXANDER (CITY PM) (703) 385-7810

SURVEYED BY, DATE \_ TIMMONS GROUP (804) 200-6500 8/2020 \_ \_\_\_

DESIGN BY \_ \_ \_ TIMMONS GROUP (804) 200-6500 8/2020

SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 8/2020

RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

# UNDERGROUND UTILITIES TEST HOLE INFORMATION

	REVISED	STATE		STATE	SHEET NO.
		SIAIE	ROUTE	PROJECT	SHEET NO.
		VA.	050	0050-151-225 P101	1J
		TION AND	) CONTRI HANGE A		
Timmons Group Richmond, Virginia ROADWAY ENGINEER					

PLAN SHEET	TEST HOLE	DISTANCE (FEET)	(1) STATION & ROADWAY	OWNER	TYPE OF FACILITY	(2) ELEV. (FEET)	(3) CONFLICT YES/NO	(4) REMARKS	UTILITY (5) ADJUSTMENT REQUIRED
3	1	21.4' RT	20+68.15 (MCLEAN NORTH)	VERIZON	TELEPHONE- CONCRETE DUCT.	374.3	YES	TO BE RELOCATED BY UTILITY OWNER. CONTRACTOR TO CONFIRM RELOCATION OR ABANDONMENT COMPLETE.	YES
3	2	9.1' LT	12+57.76 (WARWICK-MCLEAN)	VERIZON	TELEPHONE - CONCRETE DUCT.	375.8	TBD	RECONSTRUCT DRAINAGE STRUCTURE IN-PLACE, MAINTAIN EXIST. INVERTS. VERIZON TO CONFIRM CONFLICT OR CLEAR.	TBD
3	3	2.1' LT	11+85.31 (WARWICK-MCLEAN)	FIBERLIGHT DUCT BANK	UNK CONCRETE, UNK. SIZE	376.5	TBD	RECONSTRUCT MH IN-PLACE, MAINTAIN EXIST. INVERTS. FIBERLIGHT TO CONFIRM CONFLICT OR CLEAR.	TBD
4	3	3.5' RT	11+82.31 (WARWICK-MCLEAN)	GAS	GAS - 4" WRAPPED STEEL	376.0	YES	TO BE RELOCATED BY UTILITY OWNER. CONTRACTOR TO CONFIRM RELOCATION OR ABANDONMENT COMPLETE.	YES
5	3	30.2' RT	11+86.85 (WARWICK-MCLEAN)	VERIZON	TELEPHONE - CONCRETE DUCT.	377.8	YES	TO BE RELOCATED BY UTILITY OWNER. CONTRACTOR TO CONFIRM RELOCATION OR ABANDONMENT COMPLETE.	YES
6	3	41.5' RT	11+87.21 (WARWICK-MCLEAN)	FIBERLIGHT DUCT BANK	FIBER OPTIC - (2) 2" PLASTIC CONDUITS	374.1	NO		NO
7	3	6.3' RT	30+70.89 (WARWICK WEST)	GAS	GAS - 2" WRAPPED STEEL	380.6	YES	TO BE RELOCATED BY UTILITY OWNER. CONTRACTOR TO CONFIRM RELOCATION OR ABANDONMENT COMPLETE.	YES
8	3	0.5' RT	30+76.39 (WARWICK WEST)	FIBERLIGHT DUCT BANK	FIBER OPTIC - (2) 2" PLASTIC CONDUITS	381.1	YES	TO BE RELOCATED BY UTILITY OWNER. CONTRACTOR TO CONFIRM RELOCATION OR ABANDONMENT COMPLETE.	YES
9	4	11.1' LT	32+82.41 (WARWICK WEST)	GAS	GAS - 2" WRAPPED STEEL	374.8	YES	TO BE RELOCATED BY UTILITY OWNER. CONTRACTOR TO CONFIRM RELOCATION OR ABANDONMENT COMPLETE.	YES
10	4	6.3' RT	32+79.07 (WARWICK WEST)	WATER	WATER - 6" DUCTILE IRON	374.4	YES	TO BE RELOCATED BY UTILITY OWNER. CONTRACTOR TO CONFIRM RELOCATION OR ABANDONMENT COMPLETE.	YES
11	4	16.8' LT	40+91.17 (WARWICK EAST)	GAS	GAS - 2" WRAPPED STEEL	369.9	YES	TO BE RELOCATED BY UTILITY OWNER. CONTRACTOR TO CONFIRM RELOCATION OR ABANDONMENT COMPLETE.	YES
12	4	15.9' LT	52+66.52 (FARR AVENUE)	UNK.	UNK 2" PLASTIC	372.7	YES	TO BE RELOCATED BY UTILITY OWNER. CONTRACTOR TO CONFIRM RELOCATION OR ABANDONMENT COMPLETE.	YES
13	4	49.8' LT	52+81.79 (FARR AVENUE)	FIBERLIGHT DUCT BANK	FIBER OPTIC - (2) 2" PLASTIC CONDUITS	372.3	YES	TO BE RELOCATED BY UTILITY OWNER. CONTRACTOR TO CONFIRM RELOCATION OR ABANDONMENT COMPLETE.	YES
14	4	36.3' RT	53+04.83 (FARR AVENUE)	FIBERLIGHT DUCT BANK	FIBER OPTIC - (2) 2" PLASTIC CONDUITS	366.5	NO		NO
15	4	18.4' RT	53+14.30 (FARR AVENUE)	GAS	GAS - 8" WRAPPED STEEL	368.4	YES	TO BE RELOCATED BY UTILITY OWNER. CONTRACTOR TO CONFIRM RELOCATION OR ABANDONMENT COMPLETE.	YES
16	4	14.0' LT	108+30.40 (FAIRFAX BOULEVARD	WATER	NONE (DRY HOLE)	N/A	NO		NO

	LEGEND	
W		
T/Tg Duct -	•	•
SFM		
G		

NOTES:

- (1) ALL TEST HOLES ARE REFERENCED FROM THE SURVEY BASELINE UNLESS OTHERWISE NOTED.
- (2) ELEVATIONS SHOWN HEREON ARE TO THE TOP OF THE FACILITY UNLESS OTHERWISE NOTED.
- (3) YES OR NO; NO INDICATES NO DIRECT CONFLICT, HOWEVER, CLEARANCE MAY BE LESS THAN ACCEPTABLE TO UTILITY OWNER.
- (4) REMARKS TO INCLUDE CLEARANCE DIMENSION (REGARDLESS OF DISTANCE).
- (5) YES OR NO; INFORMATION TO BE PROVIDED BY THE VDOT DISTRICT UTILITY ENGINEER.

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# GENERAL NOTES

# CITY OF FAIRFAX

**GENERAL CONSTRUCTION NOTES** 

#### **PERMITS**

- 1. A STREET OPENING PERMIT IS REQUIRED FOR ANY WORK IN A CITY RIGHT-OF-WAY OR EASEMENT. THE PERMIT CAN BE OBTAINED FROM THE PUBLIC WORKS DEPARTMENT. FOR INFORMATION, CALL 703-385-7980 OR 703-385-7810.
- 2. ALL SIDEWALKS, CURBS, GUTTERS, DRIVEWAYS, STREETS, STORM PIPES, SANITARY SEWER, ENDWALLS AND RIP- RAPS MUST BE INSPECTED BY THE CITY. ALL WORK IN THE CITY STREETS WILL BE PERFORMED MONDAY- FRIDAY BETWEEN THE HOURS OF 9:00 A.M. AND 3:00 P.M. NO WORK IS TO BE PERFORMED ON WEEKENDS OR HOLIDAYS UNLESS PRE-APPROVED BY THE DIRECTOR OF PUBLIC
- 3. INSPECTIONS PERFORMED BY THE FACILITIES INSPECTOR WILL REQUIRE A FOUR-HOUR NOTICE PRIOR TO INSPECTIONS.

#### GENERAL STANDARDS

THE PUBLIC WORKS DIRECTOR MUST BE NOTIFIED ONE WEEK PRIOR TO PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO COMMENCEMENT OF LAND DISTURBING ACTIVITY AND ONE WEEK PRIOR TO FINAL INSPECTION. THE SITE PLAN COORDINATOR IN ZONING (703-385-7820) MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE.

- 4. A PRECONSTRUCTION MEETING WILL BE REQUIRED THREE DAYS PRIOR TO ANY CONSTRUCTION. CONTRACTORS WILL NOTIFY THE PUBLIC WORKS DEPARTMENT OR FACILITIES INSPECTOR FOR ALL WORK DONE ON SITE AND OFF SITE ONE DAY PRIOR TO STARTING.
- 5. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS FOR PARKING CONSTRUCTION EQUIPMENT AND PROVIDE EMPLOYEE PARKING ON SITE.
- 6. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST CITY OF FAIRFAX STANDARDS, VIRGINIA DEPARTMENT OF TRANSPORTATION AND THE VIRGINIA SEDIMENT & EROSION CONTROL CURRENT SPECIFICATIONS, EXCEPT AS SHOWN OR ALTERED BY THESE PLANS.
- 7. TRAFFIC SIGNS FOUND TO BE IN THE WAY AT CONSTRUCTION SITES SHALL BE REMOVED OR RELOCATED ONLY BY PERSONNEL IN THE SIGN & SIGNAL CREW OF THE PUBLIC WORKS DEPARTMENT AT THE CONTRACTOR'S REQUEST. ANY CONTRACTOR FOUND RESPONSIBLE FOR MOVING CITY PROPERTY WITHOUT PERMISSION WILL RECEIVE A SUMMONS.
- 8. AN AS-BUILT PLAN MUST BE SUBMITTED WITHIN 30 DAYS AFTER COMPLETION OF ALL CONSTRUCTION.
- 9. TEMPORARY STRUCTURES, CONSTRUCTION TRAILERS AND DEMOLITION REQUIRE PERMITS FROM THE OFFICE OF CODE ADMINISTRATION PRIOR TO START OF WORK OR INSTALLATION.
- 10. CITY ORDINANCE PERMITS CONSTRUCTION NOISE, INCLUDING EXCAVATION, BETWEEN THE HOURS OF 7:00 AM AND 6:00 PM ON WEEKDAYS AND 8:30 AM AND 5:00 PM ON SATURDAYS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO ENSURE THAT ALL CONTRACTORS AND SUBCONTRACTORS COMPLY WITH THIS ORDINANCE.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING COMPLIANCE WITH CITY CODE SECTIONS LIMITING GROWTH OF GRASS AND WEEDS TO SIX INCHES IN HEIGHT.

### ENVIRONMENTAL

- 1. ALL EROSION SILTATION CONTROL TO BE INSTALLED PRIOR TO STARTING PROJECT TO CONFORM TO THE CURRENT VIRGINIA EROSION AND SEDIMENT CONTROL MANUAL.
- 2. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING MUD FROM TRUCKS AND/OR OTHER EQUIPMENT PRIOR TO ENTERING THE CITY OF FAIRFAX RIGHTS-OF-WAY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS AND ALLAY DUST AND TO TAKE WHATEVER MEASURES NECESSARY TO ENSURE THAT THE ROAD IS MAINTAINED IN A CLEAN AND DUST-FREE CONDITION AT ALL TIMES.
- 3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM THE WORK IN SUCH A MANNER TO PREVENT THE WASHING OF ANY TOPSOIL, SILT, OR DEBRIS ONTO ADJACENT PROPERTIES.
- 4. IF THE PRESENCE OF ASBESTOS IS SUSPECTED IN THE SOIL, THE CONTRACTOR MUST CONTACT THE AIR POLLUTION CONTROL DIVISION OF THE FAIRFAX COUNTY HEALTH DEPARTMENT AT 703-246-2300.

REVISED	STATE		STATE	SHEET NO.					
	STATE	ROUTE	ROUTE PROJECT						
	VA.	050	0050-151-225 P101	2					

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

# CITY OF FAIRFAX GENERAL CONSTRUCTION NOTES

#### **ENVIRONMENTAL (CONTINUED)**

- 5. ONSITE STORAGE OF FUEL SHALL BE LIMITED TO DIESEL FUEL TANKS NOT OVER 660 GALLONS CAPACITY. TANKS SHALL BE OF A LISTED TYPE AND SHALL BE PROVIDED WITH APPROVED SECONDARY CONTAINMENT, IMPACT PROTECTION AND PLACARDING. A MINIMUM 2A-40BC FIRE EXTINGUISHER SHALL BE PROVIDED IN THE VICINITY OF THE REFUELING AREA. A PERMIT FOR COMBUSTIBLE LIQUID STORAGE SHALL BE OBTAINED FROM THE OFFICE OF CODE ADMINISTRATION, 703-385-7830. FUEL SHALL NOT BE PLACED IN ONSITE STORAGE TANKS UNTIL THE INSTALLATION HAS BEEN INSPECTED AND APPROVED.
- 6. ONSITE REPAIR OF VEHICLES AND EQUIPMENT SHALL BE LIMITED TO REPLACEMENT OF DAMAGED BELTS, HOSES AND TIRES. ANY SPILL OF FUEL, OIL, HYDRAULIC FLUID OR ANTI-FREEZE GREATER THAN ONE GALLON MUST BE REPORTED TO THE OFFICE OF CODE ADMINISTRATION AT 703-385-7830. ALL SPILLS MUST BE CLEANED UP PROMPTLY AND IN AN APPROVED MANNER.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING COMPLIANCE WITH CITY CODE SECTIONS REGARDING HEALTH AND SAFETY MENACES, INCLUDING ACCUMULATIONS OF WATER, STORAGE OF MATERIAL, CONSTRUCTION DEBRIS AND SECURITY OF THE SITE.
- 8. THE LINK TO THE ASBESTOS INFORMATION AND MAP ON THE FAIRFAX COUNTY WEBSITE HTTP://WWW.FAIRFAXCOUNTY.GOV/HD/ASB/

#### LANDSCAPE

- 1. THE AREA SURROUNDING ALL TREES, SHRUBS AND GROUNDCOVER SHALL BE TOPPED WITH TWO INCHES OF SHREDDED HARDWOOD BARK MULCH.
- NO CHANGES SHALL BE PERMITTED TO THE PLANT LIST UNLESS APPROVED BY THE CITY OF FAIRFAX.
- 3. TREES SHALL BE CLASSIFIED AS PER "AMERICAN STANDARD FOR NURSERY STOCK" AS ADOPTED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. PLANT MATERIAL BELOW THIS STANDARD SHALL NOT BE CONSIDERED.
  - a) ALL PLANTS MUST CONFORM TO REQUIREMENTS PER PLANT LIST;
  - b) ALL PLANT MATERIALS MUST BE NURSERY GROWN STOCK;
  - c) ALL TREES MUST BE WELL BRANCHED, FULL CROWN.
- 4. AT LEAST 5 DAYS BEFORE BEING PLANTED, THE ENGINEER SHALL BE NOTIFIED THAT PLANTS ARE AVAILABLE FOR INSPECTION.

NOTE: LANE CLOSURES ON FAIRFAX BOULEVARD SHALL ONLY BE PERMITTED DURING OFF-PEAK HOURS (9:00 A.M. - 3:00 P.M. M-TH, AND 9:00 A.M. - 12:00 P.M. FRIDAY) OR AS OTHERWISE DIRECTED BY THE ENGINEER OR THE CITY OF FAIRFAX.

# GRADING

- G-1 The grade line denotes top of finished pavement unless shown otherwise on typical sections or plans.
- G-3 Earthwork quantities on this project are based on anticipated settlement and may require adjusting during construction. Payment will be made only for quantities actually moved.
- G-4 The cost of removal of all existing concrete items located in the area to be graded, including, but not limited to the following, shall be included in the price bid for regular excavation: <u>curb</u>, <u>sidewalk</u>, <u>foundations</u>, <u>drainage</u> <u>structures</u>. <u>etc</u>.
- G-6 The borrow material for this project shall be a minimum CBR 5 and in accordance with the charaacteristics stipulated in the Geotechnical Engineering Report or as approved by the Materials Engineer.

# **PAVEMENT**

P-2 The pavement materials on this project will be paid for on a tonnage basis. The weight will vary in accordance with the specific gravity of the aggregates and the asphaltic content of the mix actually used to secure the design depth. The weight of the asphalt concrete is based on 95% of the theoretical maximum density.

# DRAINAGE

- D-1 The horizontal location of all drainage structures shown on these plans is approximate only, with the exception of structures showing specific stations, special design bridges and storm sewer systems.
- D-2 The horizontal location and invert elevations shown for proposed culverts and storm sewer outfall pipes are based on existing survey data and required design criteria. If during construction, it is found that the horizontal location or invert elevations shown on the plans differ significantly from the horizontal location or elevations of the stream or swale in which the culvert or storm sewer outfall pipe is to be placed, the Engineer shall confer with, and get approval from, the applicable District Drainage Engineer before installing the culvert or storm sewer outfall pipe.
- D-3 The "H" dimensions shown on plans for drop inlets and junction boxes and the "L.F." dimensions shown for manholes are for estimating purposes and are based on the proposed invert elevations shown for the structure and the anticipated top (rim) elevation based on existing or proposed finished grade. The actual "H" or "L.F." dimensions are to be determined by the contractor from field conditions.
- D-7 All pipe on this project shall be Class III RCP. For strength, sheet thickness, or class designation; available sizes; height of cover limitations; and other restrictions for a particular pipe type or height cover, see the applicable sections of the VDOT Road and Bridge Standards PC-1.
- D-14 Proposed drop inlets with a height (H) less than the standard minimum shown in the VDOT Road and Bridge Standards shall be considered and paid for as Standard Drop Inlets for the type specified. Pipes with less than standard minimum finished height of cover shall be noted as such in the drainage description for the pipe. Specific pipe bedding and cover requirements are provided in the applicable PB-1 and PC-1 standard drawings of the VDOT Road and Bridge Standards.
- D-16 When CG-6 or CG-7 is specified on a radius (such as at a street intersection), the Engineer may approve a decrease in the cross slope of the gutter to facilitate proper drainage.

# **EROSION AND SEDIMENT CONTROL (ESC)**

E-2 Rock for Check Dams, Inlet Protection, Erosion Control Stone and Riprap shall be in accordance with Section 203 and Section 414 of the applicable VDOT Road and Bridge Specifications.

### NOTES

- 1. ALL EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE VDOT R&B STANDARDS REFERENCED ABOVE. REFER TO THE VESCH FOR FURTHER DETAILS.
- 2. ALL CULVERT ENTRANCES SHALL BE PROTECTED PER ST'D. EC-6 TYPE C WITH SILT FENCE AND CHECK DAMS WHERE SHOWN (CIP).

I-5 That portion of the right of way lying within the Clear Zone or within a minimum of 10 feet from the edge of pavement or surfacing or within the limits of the construction slopes beyond 10 feet, shall be cleared and grubbed in accordance with the applicable VDOT Road and Bridge Specifications, Section 301, where sufficient right of way or construction easement is provided.

**INCIDENTALS** 

- I-6 Certain trees shall be preserved as noted on plans or as directed by the Engineer.
- I-7 Where Standard slope roundoffs would damage trees, bushes or other desirable vegetation, they shall be omitted when so ordered by the Engineer.
- I-8A Clearing and grubbing shall be confined to those areas needed for construction. No trees or shrubs in ungraded areas shall be cut without the permission of the Engineer.
- When no centerline alignment is shown for a proposed entrance, the entrance shall be constructed in the same location as the existing entrance.
- I-12 St'd. RM-2 right of way monuments shall be set by the Contractor.
- I-17 For method of constructing Straight-Line Taper Lanes in curb and/or curb and gutter sections, see typical details on Sheet 2A.
- I-18 All pavement markings and traffic flow arrows shown on the roadway construction plans are schematic only. The actual location and application of pavement markings shall be in accordance with Section 704 of the applicable VDOT Road and Bridge Specifications, MUTCD, sequence of construction/traffic control plans, pavement marking plan sheets ... thru ... and as directed by the Engineer.
- I-19 The following outside sources, under contract with VDOT, have provided information on this project.

Hydraulic Design Timmons Group Roadway Design -Timmons Group Utility Design -Utility Designation -Timmons Group Utility Location -Timmons Group Survey Timmons Group Bridge Design -N/A N/A Traffic Design Landscape Design -N/A

If questions or problems arise during construction, please contact the Area Construction Engineer. DO NOT CONTACT THE OUTSIDE SOURCES.

I-20 The Official Electronic PDF Version of the plans will override the paper copies or prints of specific layers.

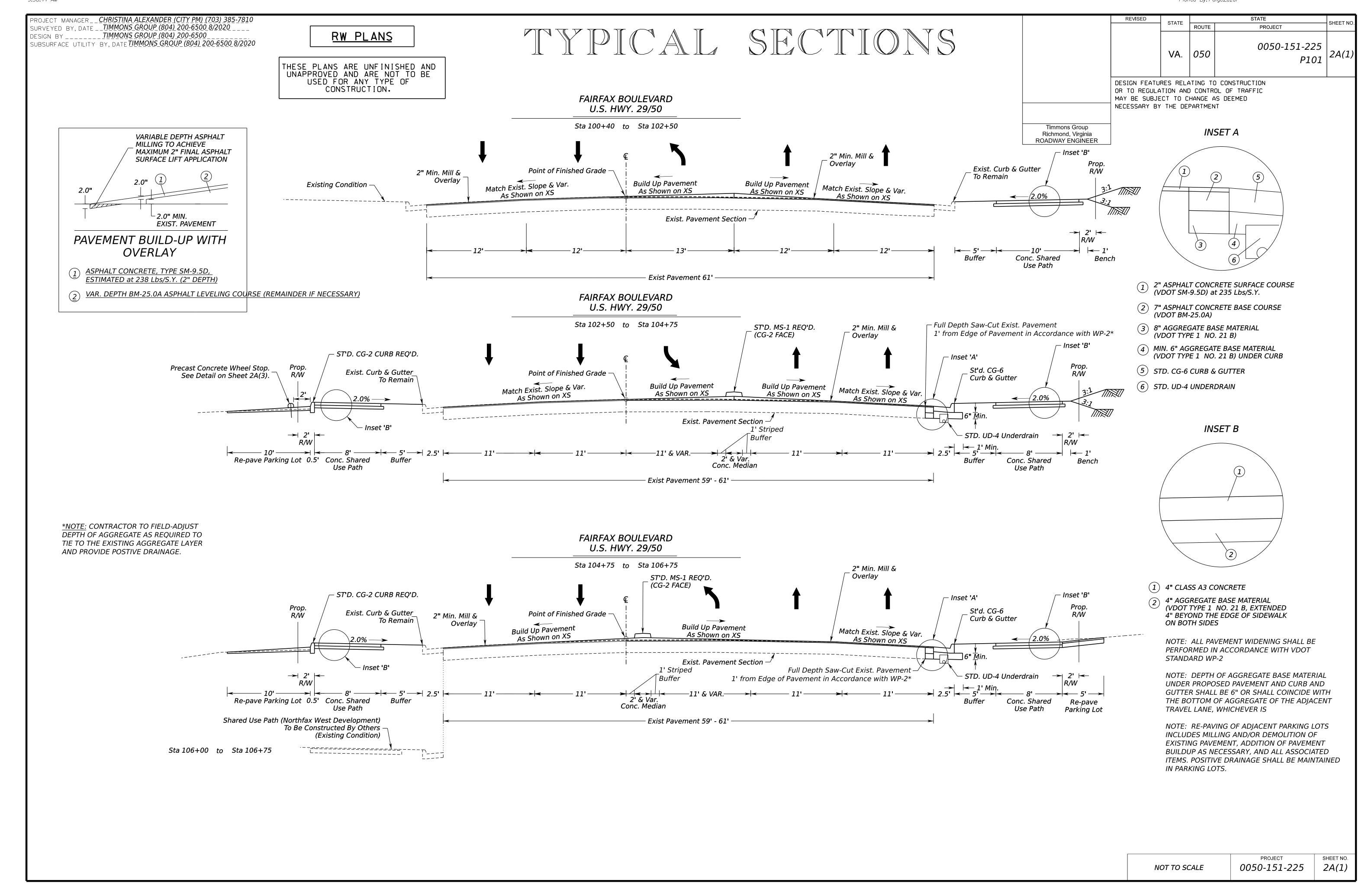
Portions of this plan assembly have been CADD generated. To assist in the preparation of the bid and construction of the project, Microstation format (.dgn) files will be made available to the prime contractor during bids and after award of the contract.

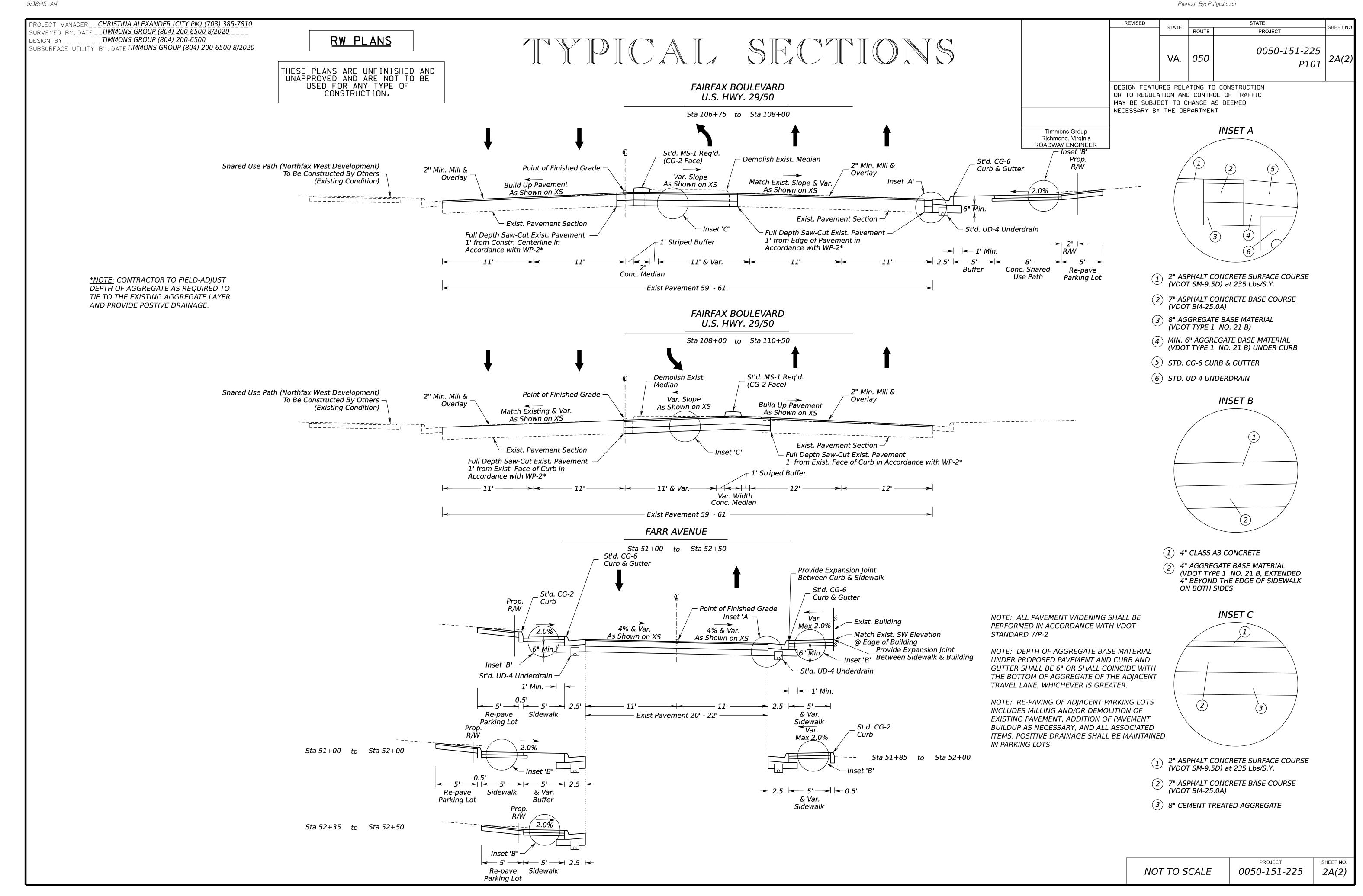
I-21 All electronic plan assemblies will include the construction plans in two formats: PDF files and MicroStation format (.dgn) files. Only the PDF files will be considered as part of the official plan assembly.

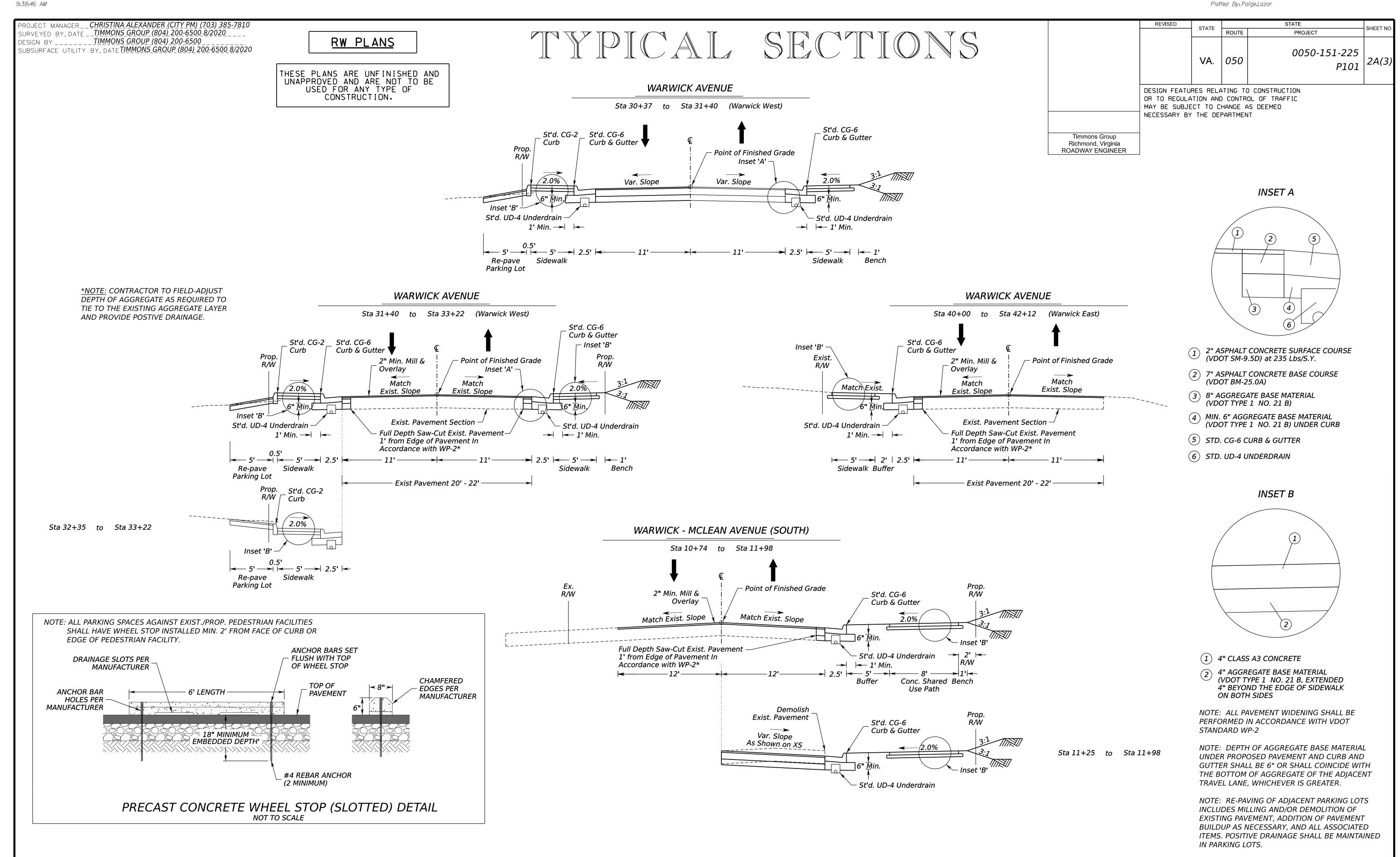
The MicroStation format (.dgn) files are furnished only as information for the contractor. These plans are developed in layers (levels) to aid in readability. (See the VDOT CADD Manual for CADD Level Structure). However, the construction items may or may not be in the proper layering scheme as described in the VDOT CADD Manual. The Microstation files will only match the scanned files if all required levels are turned on. A Microstation Software license is required to be able to read these files.

**PROJECT** 

SHEET NO.







NOT TO SCALE PROJECT SHEET NO. 2A(3)

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# EROSION & SEDIMENT CONTROL NOTES

#### REVISED SHEET NO ROUTE **PROJECT** 0050-151-225 VA. | 050 P101

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

Timmons Group Richmond, Virginia **ROADWAY ENGINEER** 

# PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO INSTALL A NEW SIGNAL AT THE INTERSECTION OF FAIRFAX BOULEVARD AND FARR AVENUE AND TO REPLACE THE EXISTING SIGNAL AT THE INTERSECTION OF FAIRFAX BOULEVARD, WARWICK AVENUE, AND MCLEAN AVENUE AND RECONFIGURE THE VARIOUS APPROACHES TO CONVERT THE SIX LEGGED INTERSECTION TO A FOUR-LEGGED INTERSECTION WITH TWO UNSIGNALIZED RIGHT-IN RIGHT-OUT INTERSECTIONS. ALONG FAIRFAX BOULEVARD, A SHARED USE PATH WILL BE INSTALLED AND ALONG ALL OF THE SIDE STREETS SIDEWALK WILL BE INSTALLED. NEW STORM SEWER FACILITIES WILL BE ADDED TO IMPROVE DRAINAGE IN THE PROJECT AREA.

# **EXISTING SITE CONDITIONS**

THE EXISTING AREA CONSISTS OF A SIX-LEGGED SIGNALIZED SPAN-WIRE INTERSECTION WITH SIGNIFICANT SKEW AND SUBSTANDARD GEOMETRIC CONDITIONS AND TWO UNSIGNALIZED RIGHT-IN RIGHT-OUT INTERSECTIONS. MINIMAL DRAINAGE STRUCTURES ARE PRESENT IN THE AREA. SURROUNDING LAND USES ARE PRIMARILY COMMERCIAL, TRANSITION TO RESIDENTIAL FURTHER AWAY FROM FAIRFAX BOULEVARD.

# ADJACENT PROPERTY

THE PROPOSED IMPROVEMENTS WILL RESULT IN RIGHT OF WAY & EASEMENT TAKES ALONG THE FRONTAGE OF SEVERAL PROPERTIES. IMPACTED PROPERTIES ARE ALL COMMERCIAL IN NATURE WITH NO PLANNED IMPACTS TO RESIDENTIAL PROPERTIES.

# SOILS

THE PREDOMINANT SOILS FOR THIS PROJECT ARE: -95 URBAN LAND COMPLEX. HYDROLOGIC SOIL GROUP D.

# **OFF-SITE AREAS**

NO OFF-SITE AREAS WILL BE USED FOR THIS PROJECT.

#### CRITICAL EROSION AREAS

- CRITICAL EROSION AREAS ARE AS FOLLOWS:
- 1. ADJACENT RESIDENTIAL PROPERTIES
- 2. ADJACENT AND CONNECTING ROADS SHALL REMAIN CLEAR FROM BUILD-UP OF SOIL.

SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY VARIANCE.

INTENDED TO PROVIDE A GENERAL PLAN FOR CONTROLLING EROSION AND SILSTATION WITHIN THE PROJECT LIMITS. THE EROSION & SEDIMENT CONTROL PLAN (ESC) IS BASED ON FIELD CONDITIONS AT THE TIME OF PLAN DEVELOPMENT AND AN ASSUMED SEQUENCE OF CONSTRUCTION FOR THE PROJECT. THE CONTRACTOR, IN CONJUNCTION WITH THE ENGINEER AND/OR ENVIRONMENTAL MONITOR, SHALL ADJUST THE LOCATION, ACTUAL FIELD CONDITIONS ENCOUNTERED AT THE TIME CONSTRUCTION AND THE ACTUAL SCHEDULING AND SEQUENCING OF THE CONSTRUCTION ACTIVITIES, SIGNIFICANT CHANGES TO THE PROPOSED ESC PLAN (E.G. THOSE THAT REQUIRE EMERGENCY ANALYSIS) SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. ANY CHANGES TO THE ESC PLAN MUST BE NOTED ON A DESIGNATED PLAN SET (RECORD SET) WHICH SHALL BE RETAINED ON THE PROJECT SITE AND MADE AVAILABLE UPON REQUEST.

# PERMANENT STABILIZATION

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE DONE IN ACCORDANCE WITH THE ROADSIDE DEVELOPMENT SHEET IN THESE PLANS AND SPEC. 3.32 OF THE HANDBOOK. EROSION CONTROL MATTING ST'D. EC-2 SHALL BE USED ON ALL SLOPES 2:1 AND STEEPER TO PROTECT THE SLOPES FROM EROSION.

# SEQUENCE OF CONSTRUCTION

- 1. SCHEDULE A PRECONSTRUCTION MEETING. GIVE 48 HOUR NOTIFICATION OF THE PRECONSTRUCTION MEETING TO THE CITY OF FAIRFAX. A CERTIFIED RESPONSIBLE LAND DISTURBER (CRLD) MUST BE PRESENT AT THE ON-SITE MEETING WITH THE INSPECTOR.
- 2. INSTALL PERIMETER CONTROLS INCLUDING SILT FENCE, ETC., AS SHOWN ON THE EROSION CONTROL PLANS, INSTALL INLET PROTECTION ON EXISTING STRUCTURES.
- 3. IF NECESSARY, THE CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY AGREEMENTS WITH PROPERTY OWNERS TO UTILIZE A STOCKPILE/STAGING AREA FOR THE STAGING AND STORAGE OF ALL MATERIALS.
- 4. TEMPORARY SEEDING IS REQUIRED WITHIN 7 DAYS OF DISTURBANCE FOR ALL AREAS WHICH ARE NOT TO BE ACTIVELY CONSTRUCTED UPON WITHIN 14 DAYS OF INITIAL
- 5. INSPECTIONS AND APPROVALS FOR COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL ACTIVITIES MUST BE RECEIVED BEFORE FURTHER CONSTRUCTION ACTITVITIES CAN BEGIN. ALL APPROVALS SHALL BE FROM THE EE INSPECTOR.
- 6. COMMENCE ROUGH GRADING AS REQUIRED FOR THE PROPOSED PAVEMENT AND STORM SEWER. MAINTAIN SILT FENCE AND SAFETY FENCE AT ALL TIMES AS DENOTED ON THE PLANS.
- 7. CONSTRUCT FAIRFAX BOULEVARD AND ALL SIDE STREETS, ASSOCIATED IMPROVEMENTS, AND ASSOCIATED DRAINAGE SYSTEMS IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION PLAN. AS PHASES OF CONSTRUCTION PROGRESS IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, ALL EROSION CONTROL PRACTICES SHALL BE MAINTAINED, ADJUSTED, AND/OR ADDED PER THE EROSION CONTROL PLANS TO ENSURE APPROPRIATE SEDIMENT CONTROL.
- 8. THE SITE SHALL BE PERMANENT STABILIZED AFTER ALL GRADING HAS BEEN COMPLETED BY SEEDING ALL DENUDED AREAS.
- 9. UPON CONSTRUCTION COMPLETION, THE CONTRACTOR MUST CONTACT THE CITY OF FAIRFAX FOR EROSION CONTROL INSPECTION OF SLOPE STABILITY. EROSION CONTROL MEASURES MAY NOT BE REMOVED WITHOUT AUTHORIZATION BY THE CITY INSPECTOR.
- 10. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUESTED BY THE CITY OF FAIRFAX AND/OR THE INSPECTOR AT ANY TIME DURING LAND DISTURBANCE.

# ADDITIONAL NOTES

- 1. CONTRACTOR MUST KEEP THE EXISTING ROAD FREE FROM BUILD-UP OF SOIL.
- 2. THE CONTRACTOR MUST DETERMINE STOCKPILE AREA (IF NEEDED). IF AREA IS OUTSIDE THE LIMITS OF DISTURBANCE AS SHOWN IN THESE PLANS, THE LOCATION MUST BE SUBMITTED TO AND APPROVED BY THE CITY OF FAIRFAX PRIOR TO CONSTRUCTION.
- 3. THE CONTRACTOR WILL PROVIDE THE LOCATION THE EXCESS SOIL IS HAULED TO OR BORROW MATERIAL IS BROUGHT IN FROM TO THE ENVIRONMENTAL ENGINEERING INSPECTOR AT THE PRE-CONSTRUCTION MEETING.
- 4. ANY ADDITIONAL PERMITTING FOR OFFSITE STOCKPILES, BORROW SOURCES, OR STAGING OF MEN/EQUIPMENT (IF REQUIRED) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

## MINIMUM STANDARDS

MS-1:PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

MS-2:TEMPORARY SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. PROVIDE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL TRANSPORTED FROM THE PROJECT SITE.

MS-3:A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IN THE OPINION OF THE ARCHITECT/ENGINEER, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.

MS-4: SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE OR TIMBERING TAKES PLACE.

MS-5:STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

MS-6: SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED TO ACCOMMODATE THE ANTICIPATED SEDIMENT LOADING FROM THE LAND-DISTURBING ACTIVITY. THE OUTFALL DEVICE OR SYSTEM DESIGN SHALL TAKE INTO ACCOUNT THE TOTAL DRAINAGE AREA FLOWING THROUGH THE DISTURBED AREA TO BE SERVED BY THE BASIN.

MS-7: CUT AND FILL SLOPES SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

MS-8: CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.

MS-9: WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

MS-10:ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

MS-11:BEFORE STORMWATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERM- ANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.

MS-12: WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED. PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NON-ERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NON-ERODIBLE COVER MATERIALS.

MS-13:WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY STREAM CROSSING CONSTRUCTED OF NON-ERODIBLE MATERIAL SHALL BE PROVIDED.

MS-14:ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

MS-15:THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY FOLLOWING AFTER WORK IN THE WATERCOURSE IS COMPLETED.

MS-16:UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

A.NO MORE THAN 500' OF TRENCH SHALL BE OPENED AT ONE TIME. B.EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. C.EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFFSITE PROPERTY.

D.RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.

E.APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

MS-17: WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MAKE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.

MS-18: ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL AUTHORITY HAVING JURISDICTION. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

MS-19: PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA:

A. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.

B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING

- B.1. THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION.
- B.2. NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR FREQUENCY STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS.
- B.3. ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR FREQUENCY STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED
- B.4. PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR FREQUENCY STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.
- C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN MADE CHANNELS OR PIPES ARE NOT ADEQUATE. THE APPLICANT SHALL:
- C.1. IMPROVE THE CHANNELS TO A CONDITION WHERE A TEN-YEAR FREQUENCY STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR FREQUENCY STORM WILL NOT CAUSE EROSION TO THE CHANNEL BED OR BANKS; OR
- C.2. IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR FREOUENCY STORM IS CONTAINED WITHIN THE APPURTENANCES: OR
- C.3. DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL,
- C.4. PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION/RETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE PLAN APPROVING AUTHORITY TO PREVENT DOWNSTREAM EROSION.
- D. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
- E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT CONDITION OF THE SUBJECT
- F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION/ RETENTION, HE SHALL OBTAIN APPROVAL FROM THE LOCALITY OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
- G. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL OR DETENTION FACILITY.
- H. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS IN A RESIDENTIAL SUBDIVISION DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE RESIDENTIAL SUBDIVISION DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE SUBDIVISION DEVELOPMENT SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
- I. PROPOSED COMMERCIAL OR INDUSTRIAL SUBDIVISIONS SHALL APPLY THESE STORMWATER MANAGEMENT CRITERIA TO THE DEVELOPMENT AS A WHOLE. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE SUBDIVISION DEVELOPMENT SHALL BE USED IN ALL ENGINEERING CALCULATIONS.

**PROJECT** 

0050-151-225

SHEET NO.

2B(1)

# **EROSION & SEDIMENT CONTROL MEASURES** UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). THE MINIMUM STANDARDS OF THE VESCH

THE TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS SHOWN ON THE PLANS ARE OUANTITY, AND TYPE OF EROSION AND SEDIMENT CONTROL ITEMS REQUIRED BASED ON

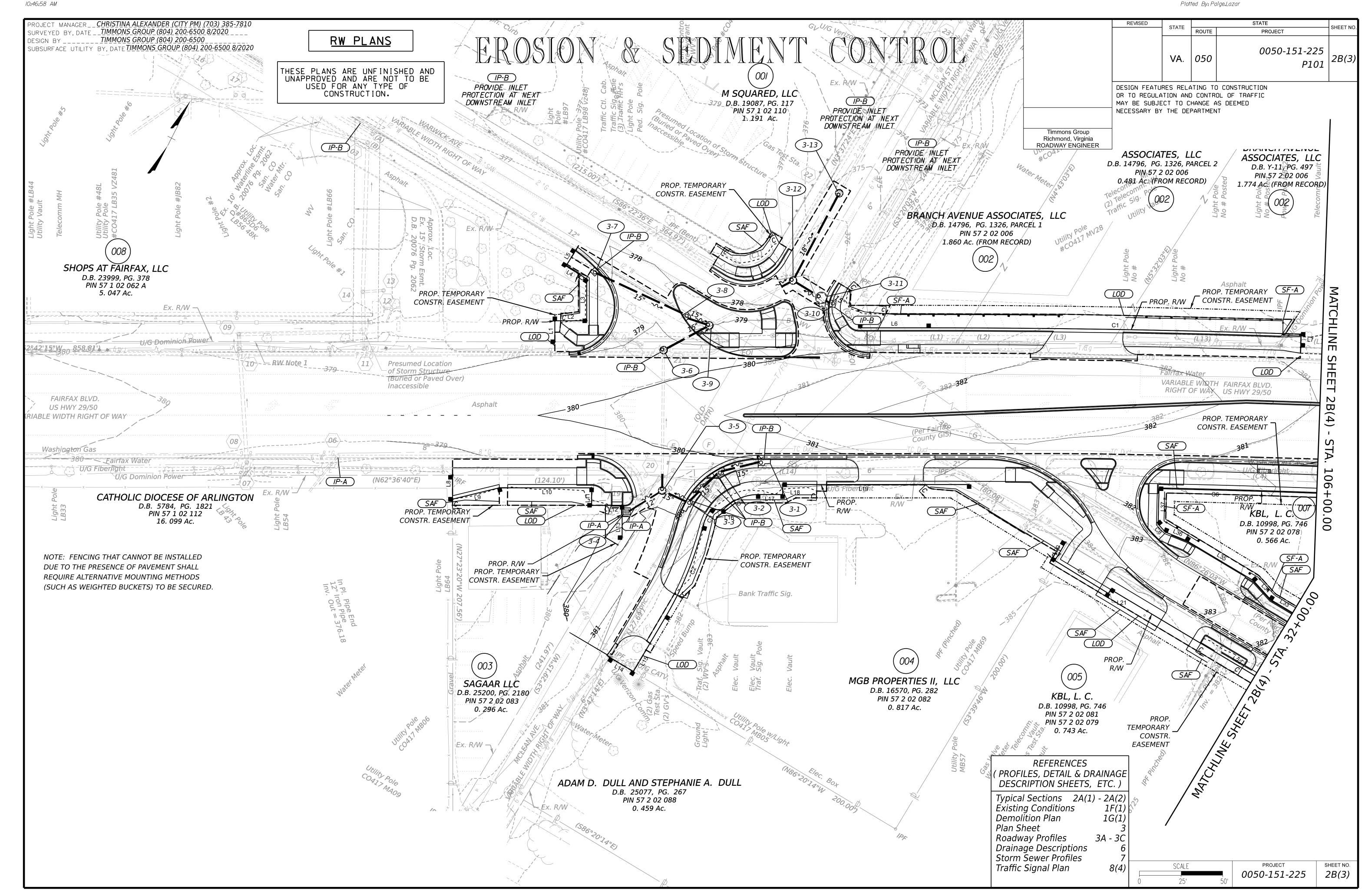
# DENOTES INLET PROTECTION TYPE A, ST'D. EC-6 DENOTES INLET PROTECTION TYPE B, ST'D. EC-6 SF-A DENOTES TEMPORARY SILT FENCE TYPE A, ST'D. EC-5 SAF DENOTES TEMPORARY SAFETY FENCE, VESCH ST'D. 3.01 DENOTES LIMITS OF DISTURBANCE \_\_\_\_\_\_

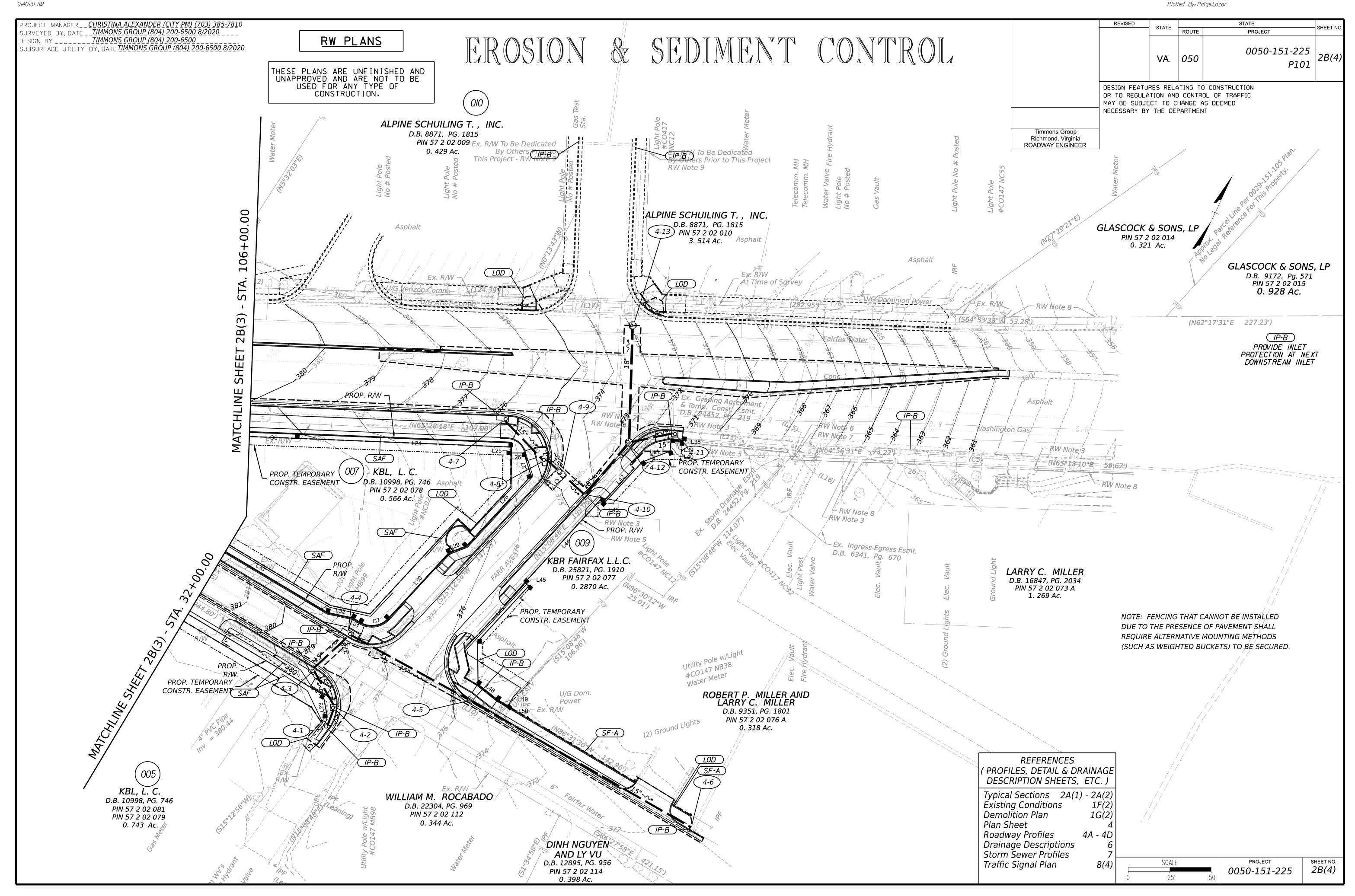
EROSION CONTROL LEGEND

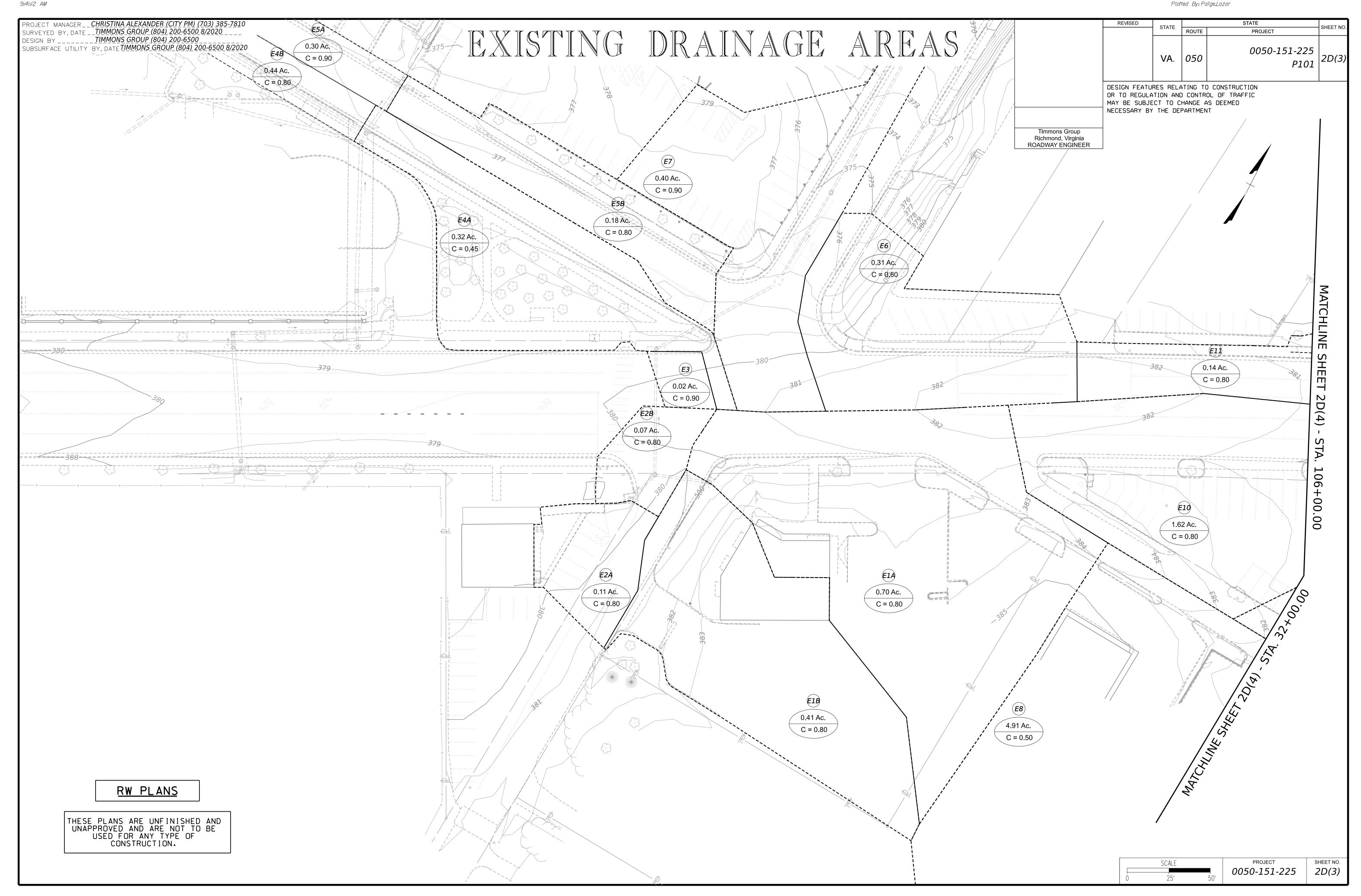
# EROSION CONTROL OUANTITY SUMMARY

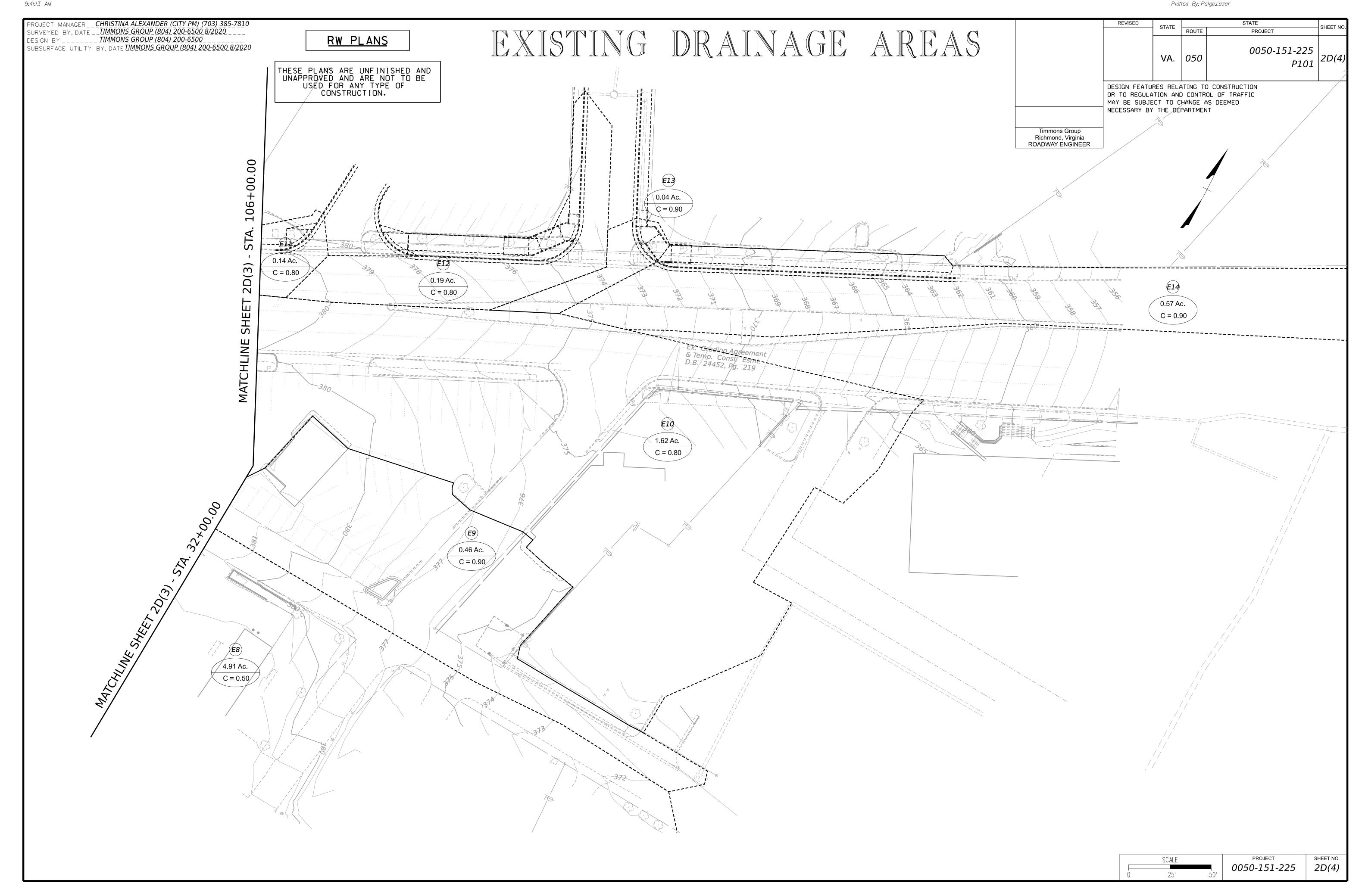
**ITEM** INLET PROTECTION TYPE A 25 INLET PROTECTION TYPE B 632 TEMP. SILT FENCE TYPE A TEMP. SAFETY FENCE 250 SILTATION CONTROL EXCAVATION

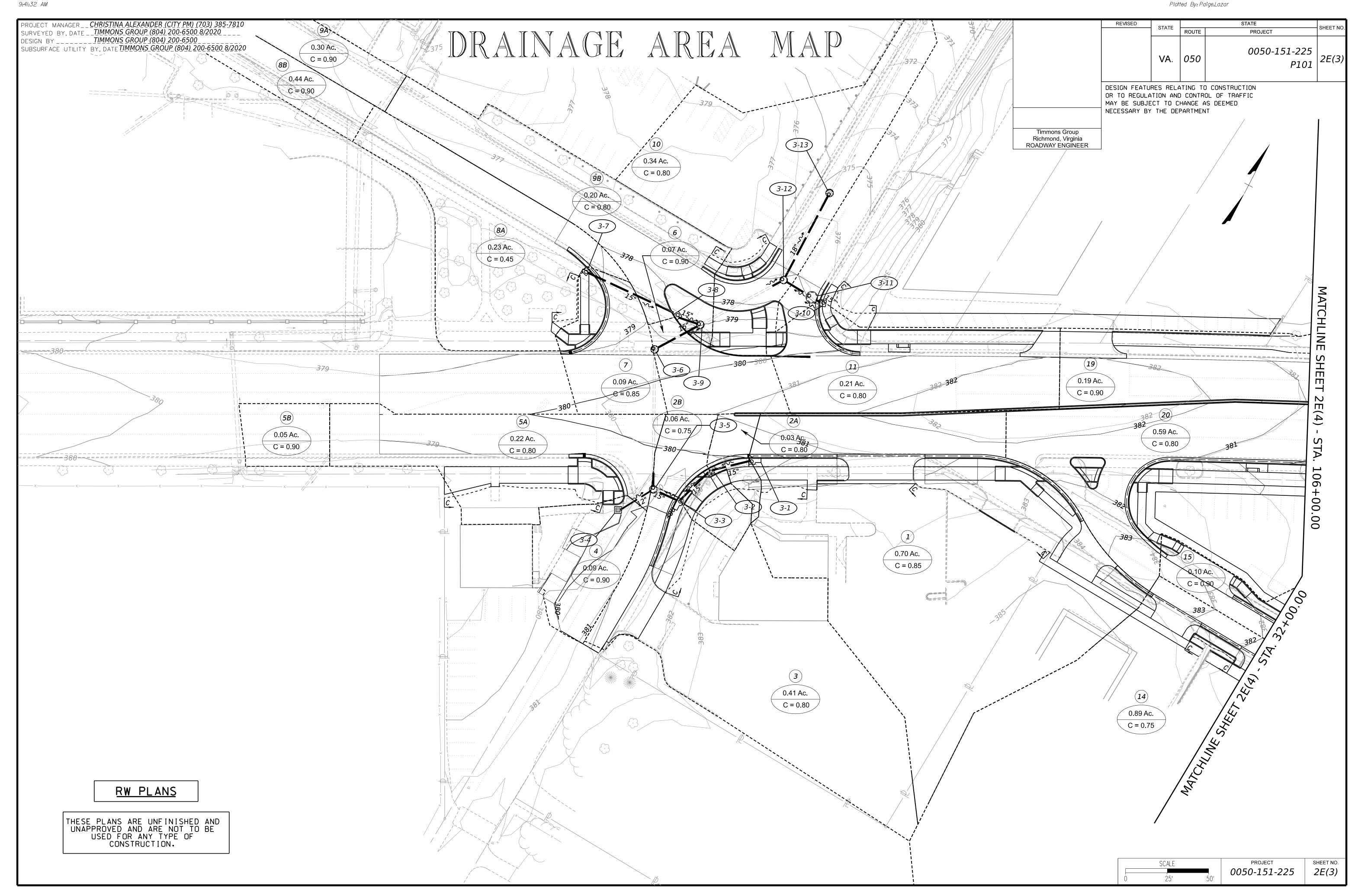
NOTE: EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED AS APPROPRIATE PRIOR TO EACH PHASE OF CONSTRUCTION. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED IN EACH PHASE DEPENDING ON SEQUENCING.

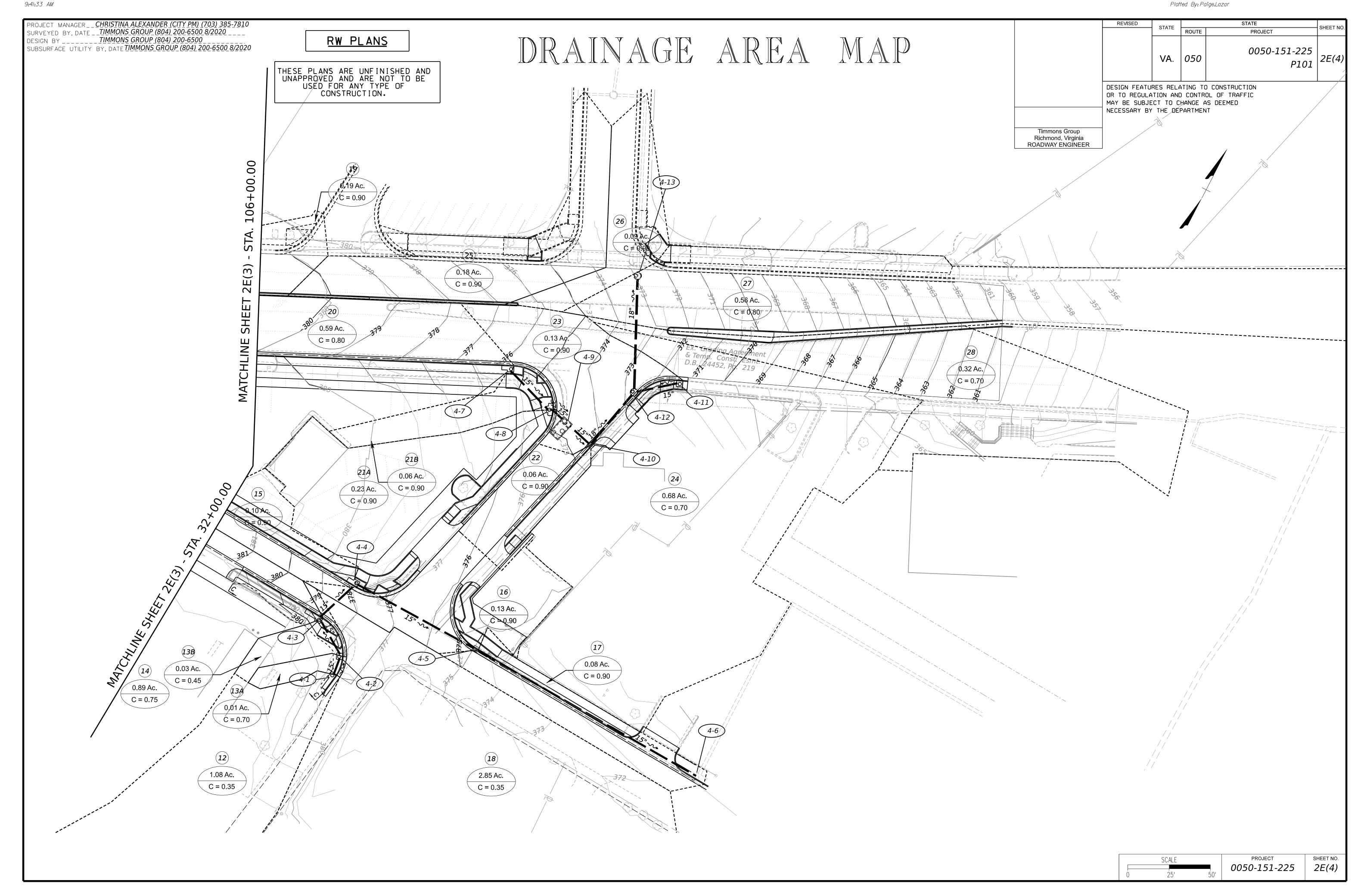


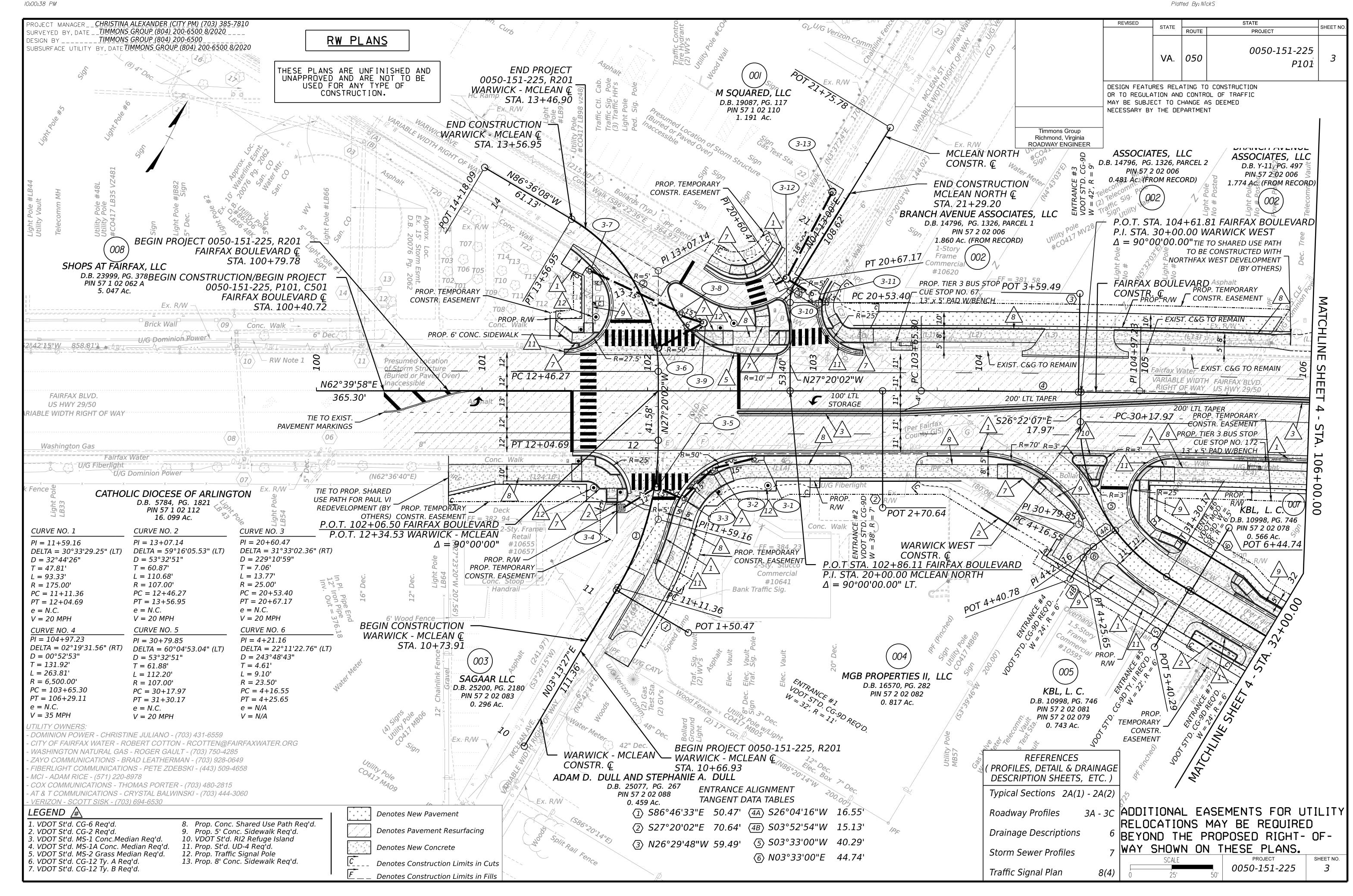


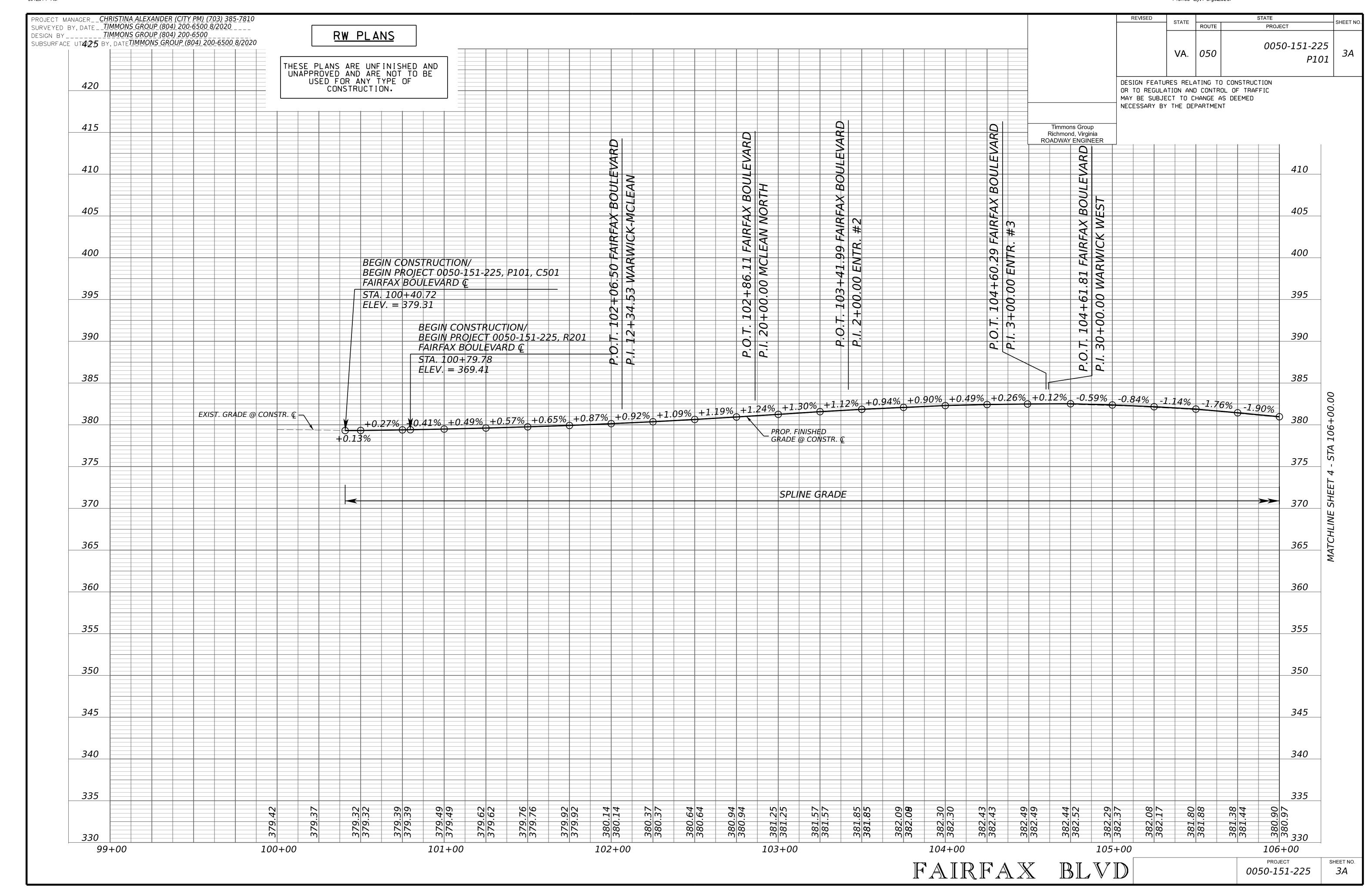


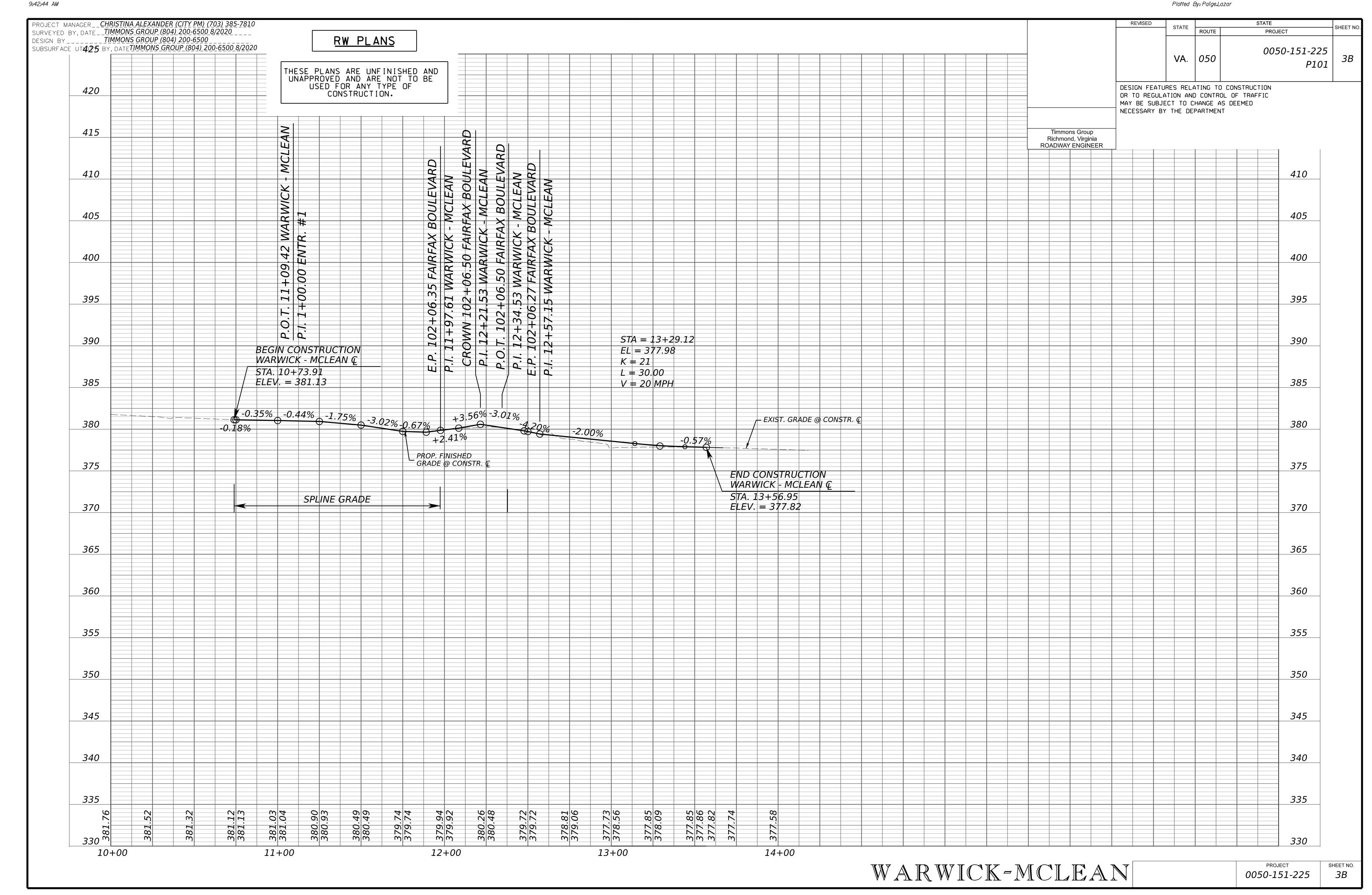


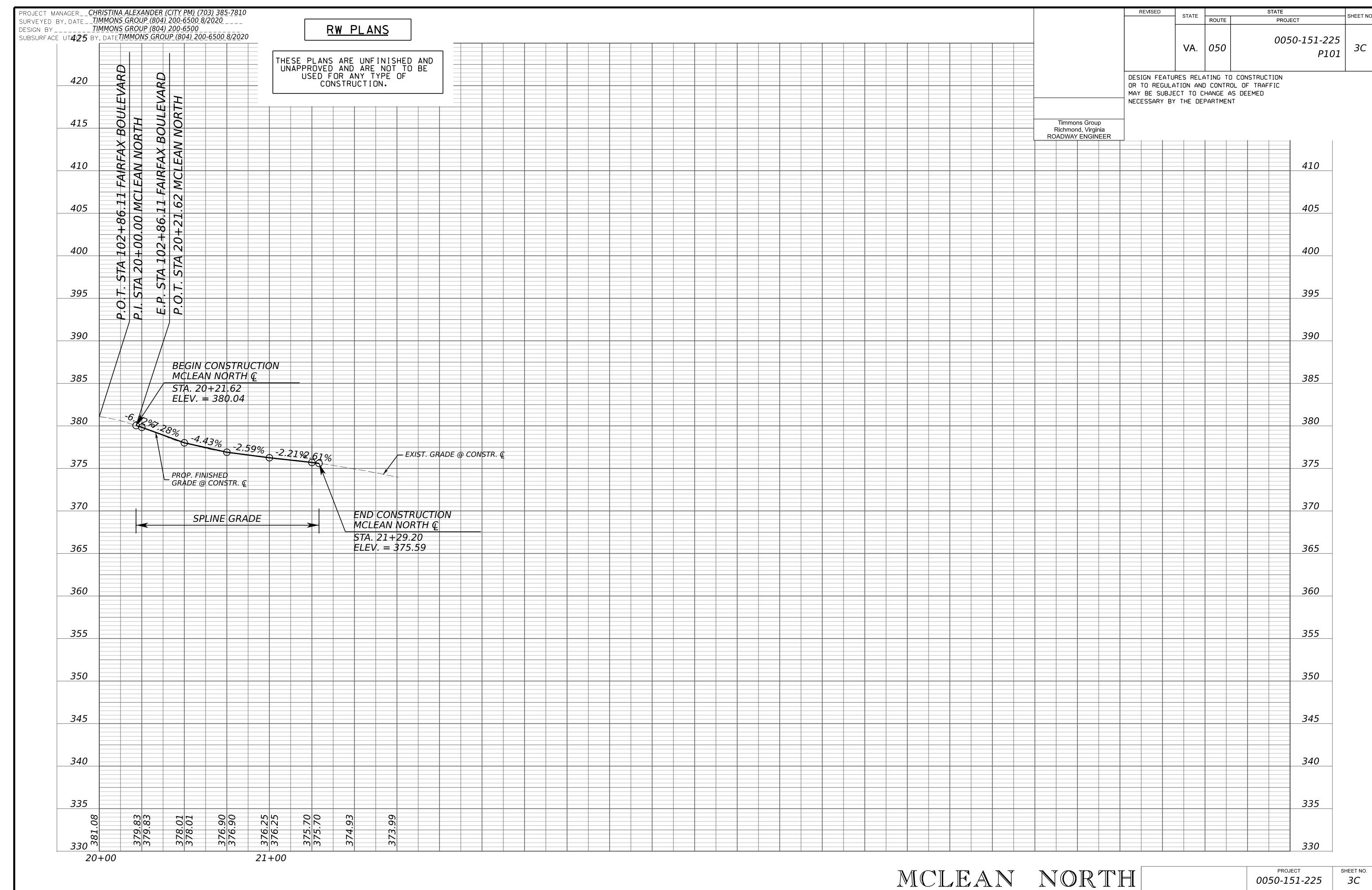


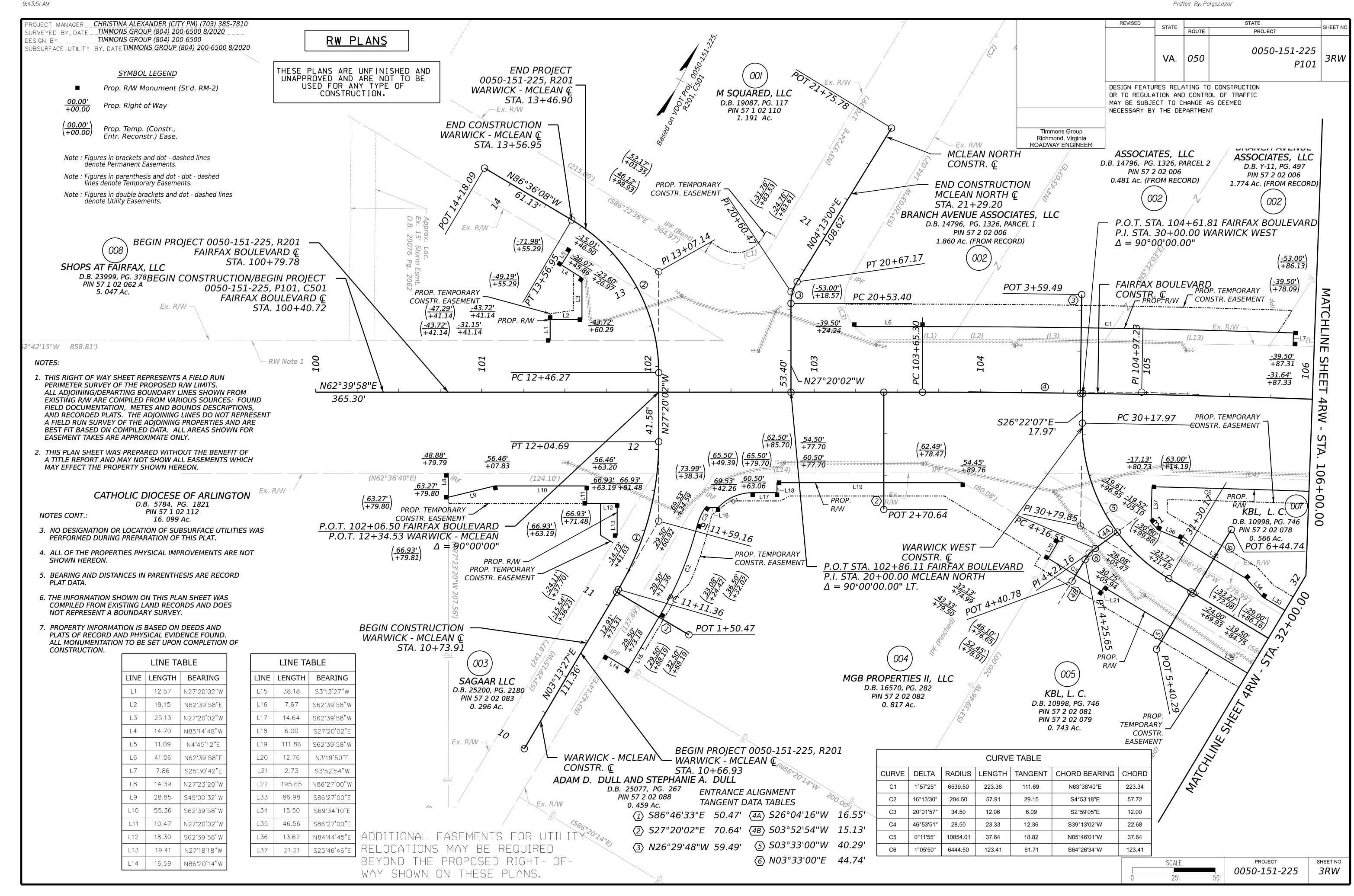


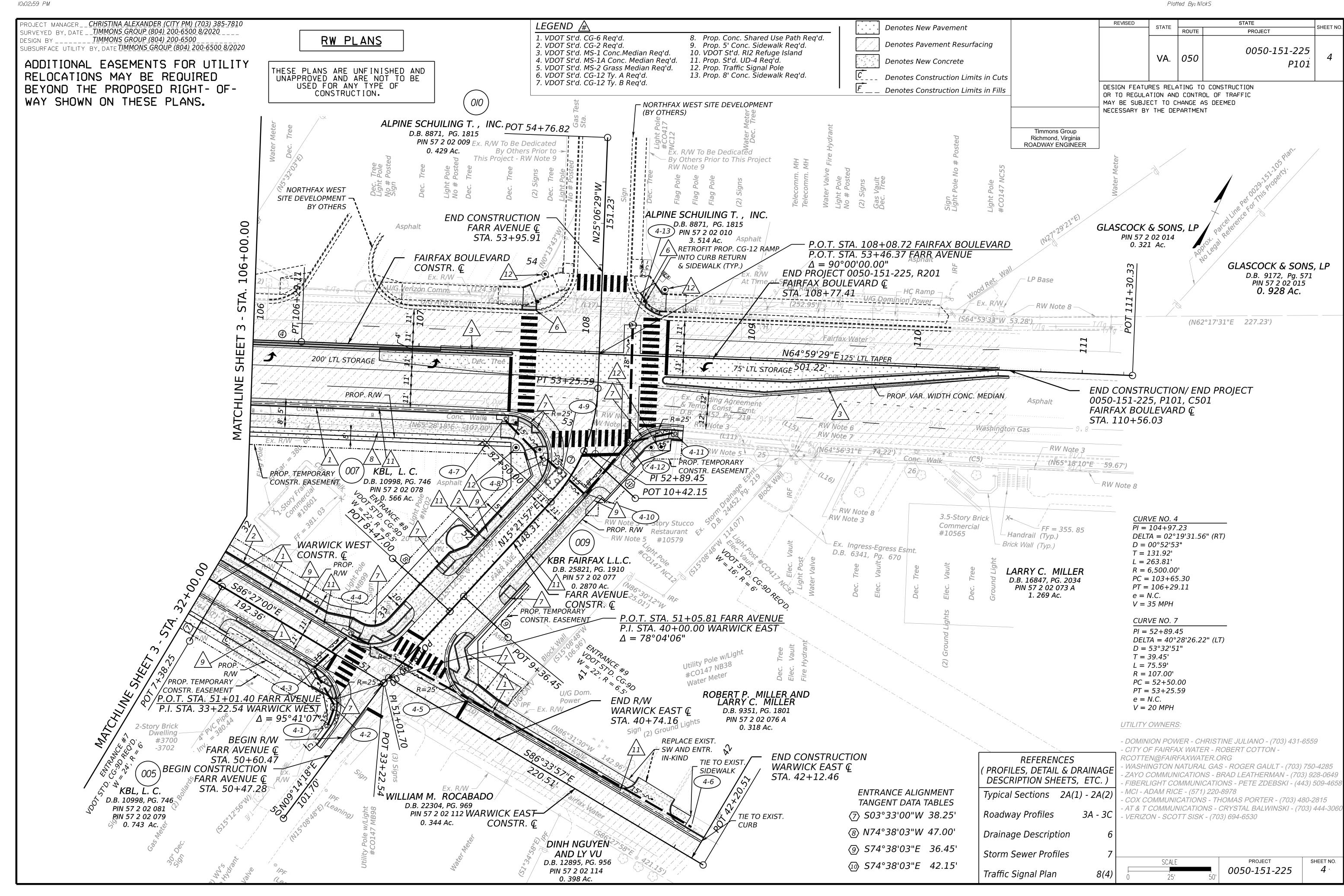


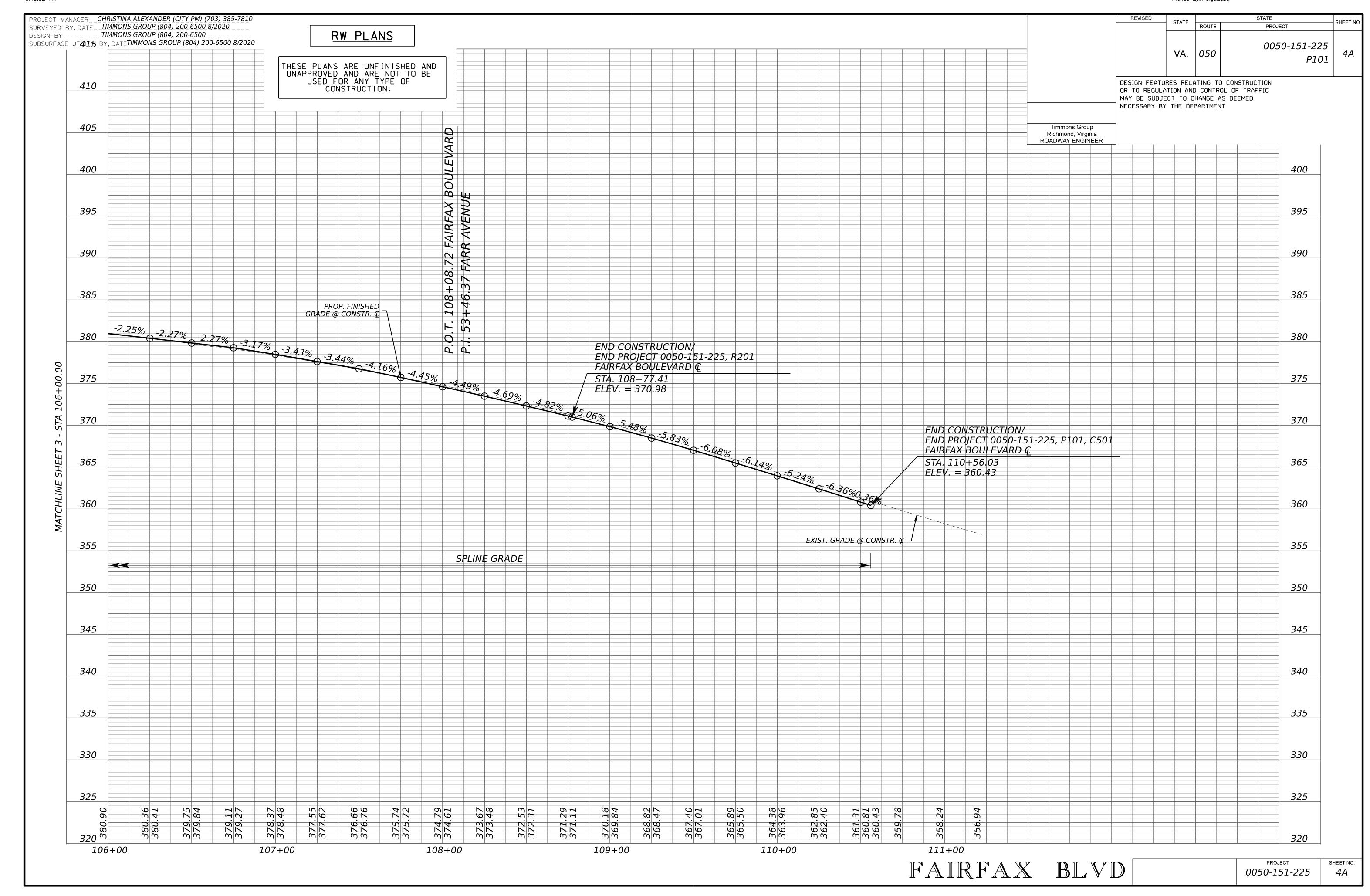


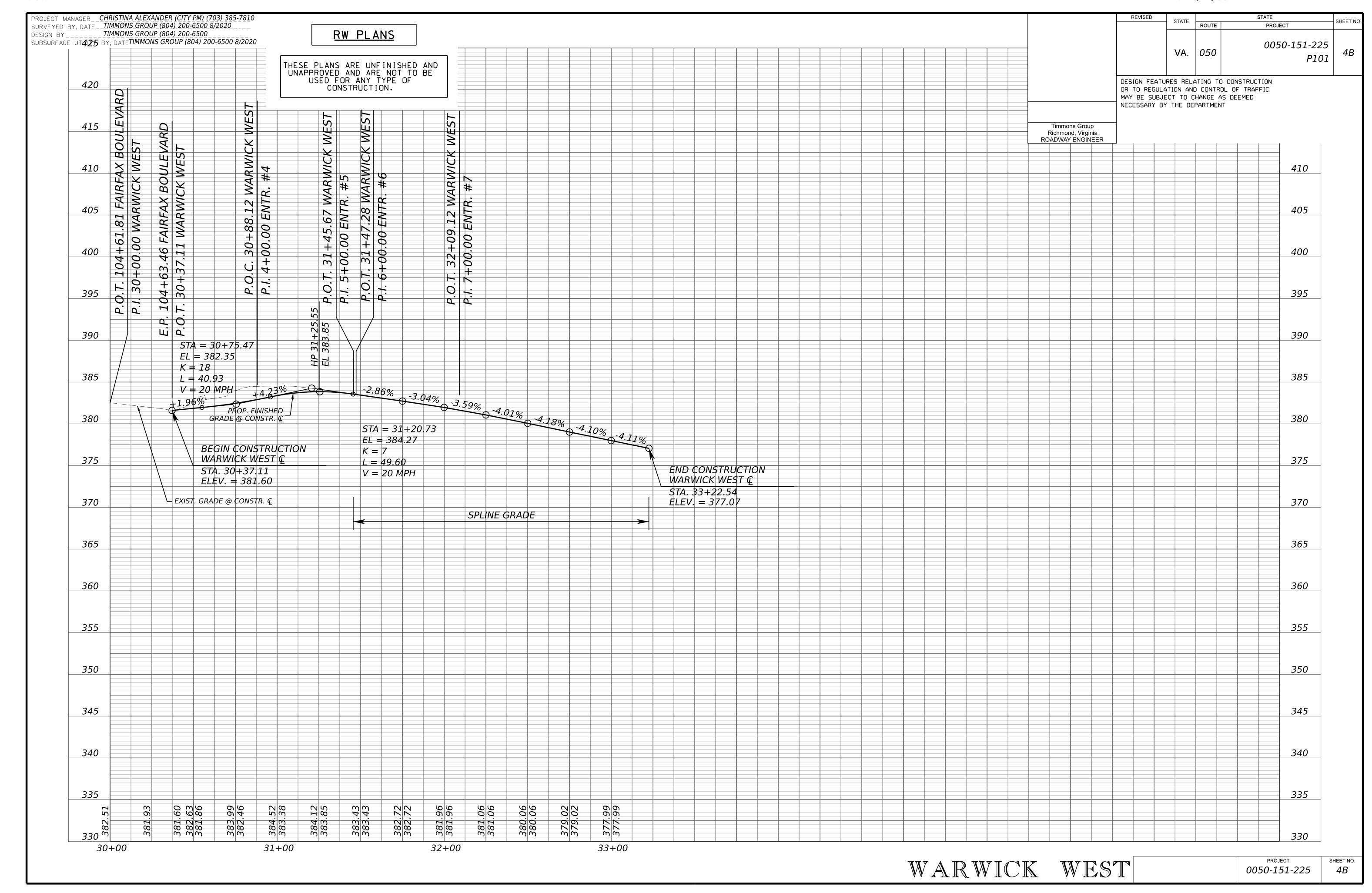


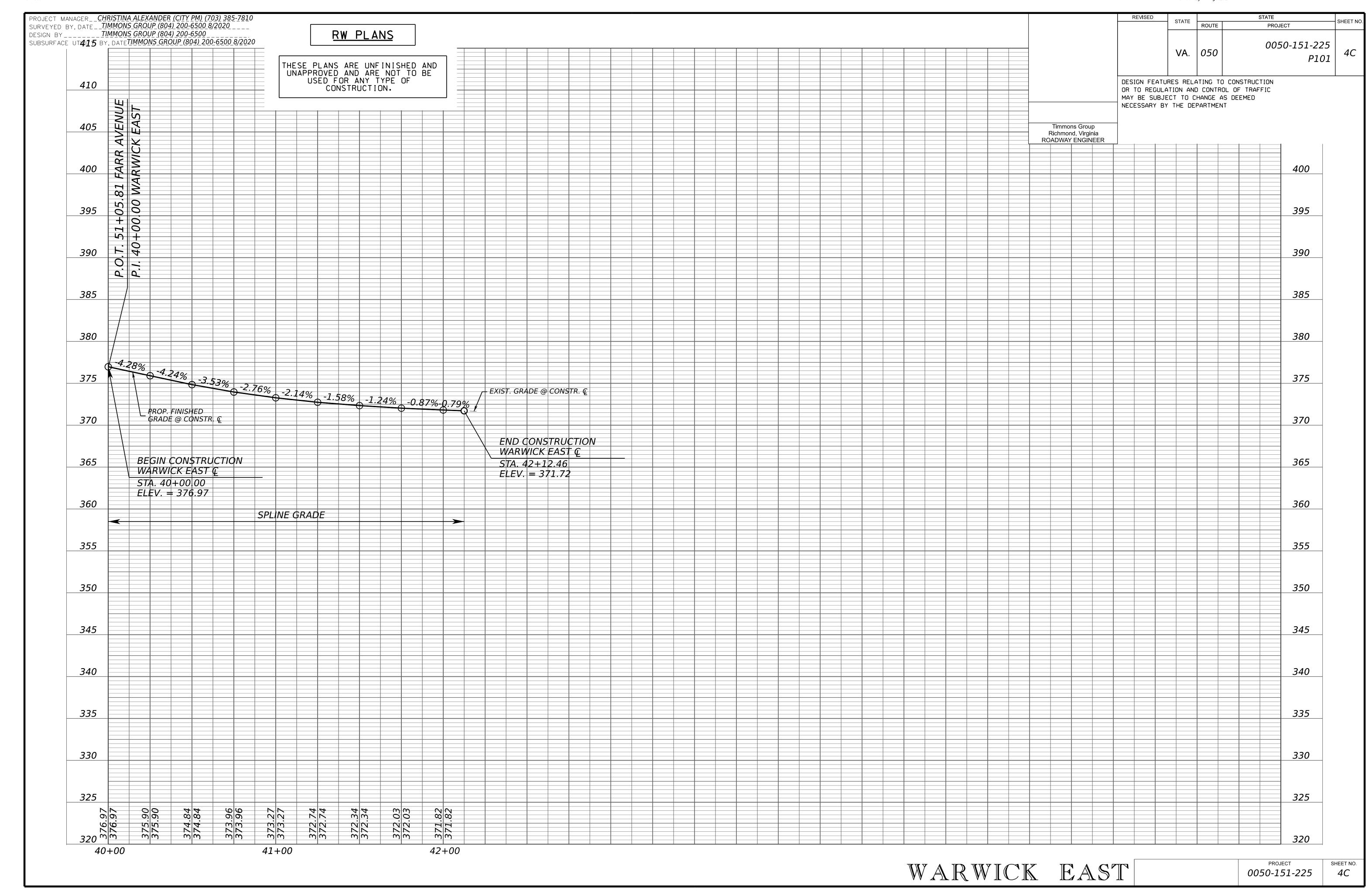


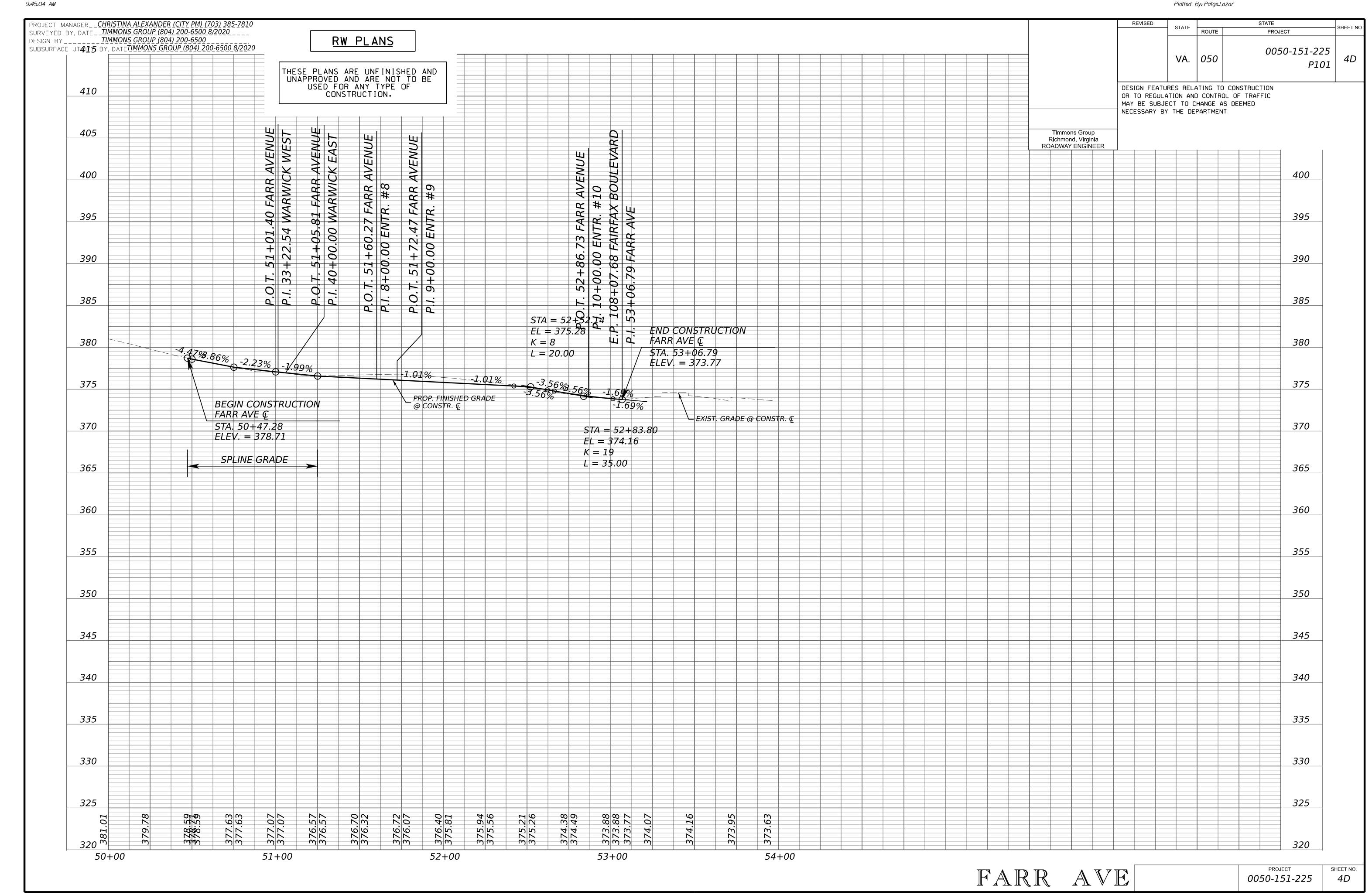


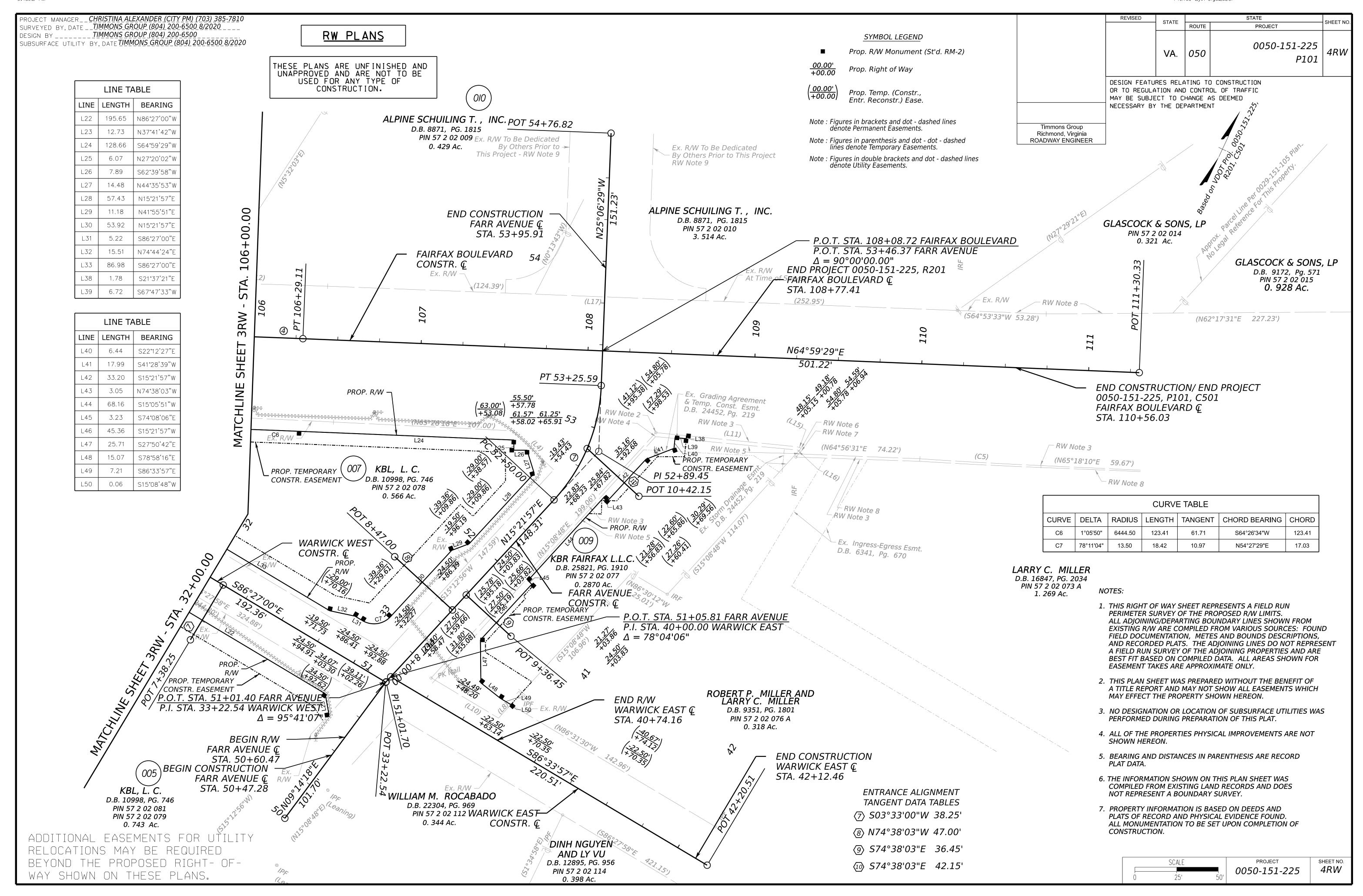










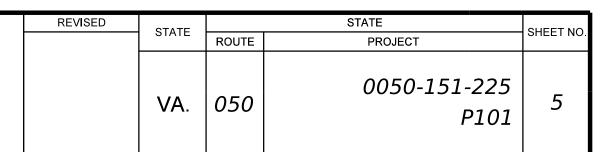


PROJECT MANAGER\_\_CHRISTINA ALEXANDER (CITY PM) (703) 385-7810 

RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

# ENTRANCE PROFILES



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

Timmons Group Richmond, Virginia **ROADWAY ENGINEER** 

400

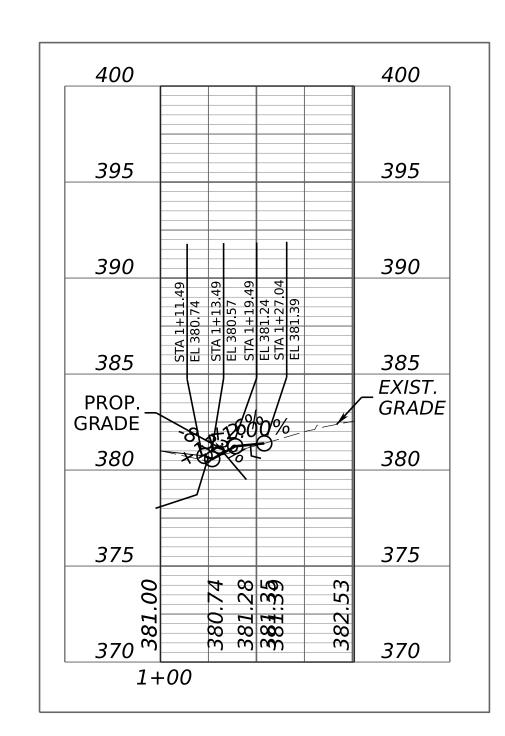
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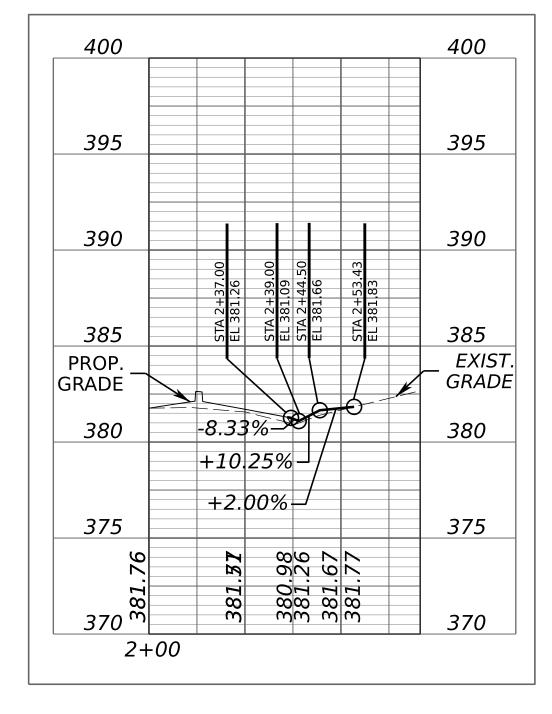
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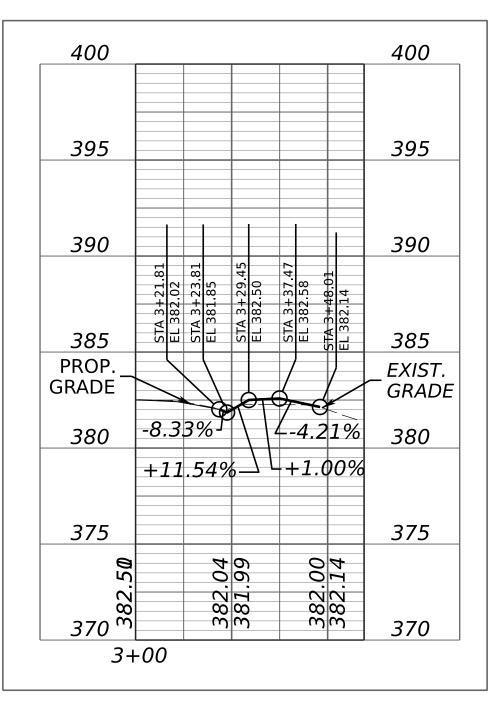
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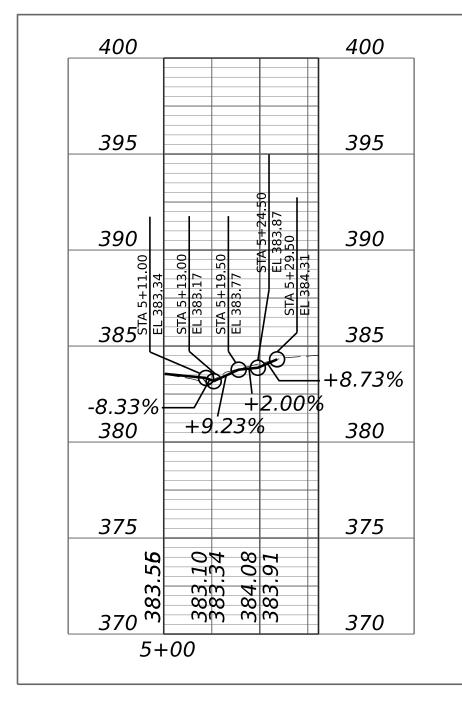
*375* 

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ENTR. NO. 2

ENTR. NO. 3

ENTR. NO. 4

97 66

400

395

EXIST.

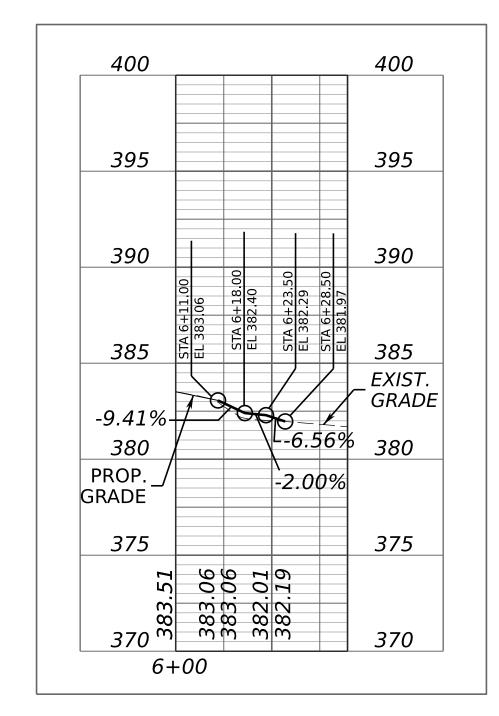
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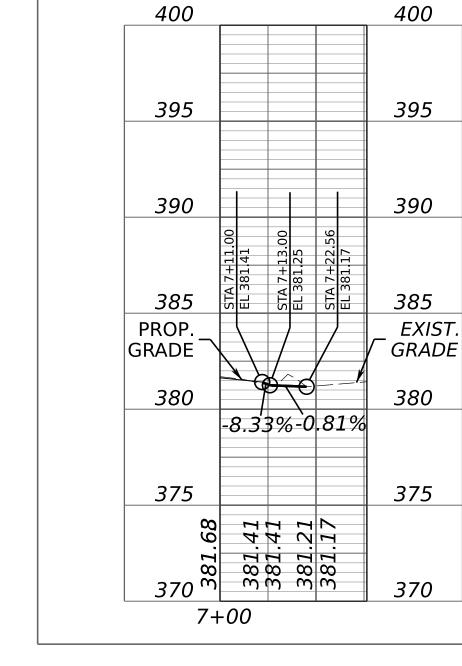
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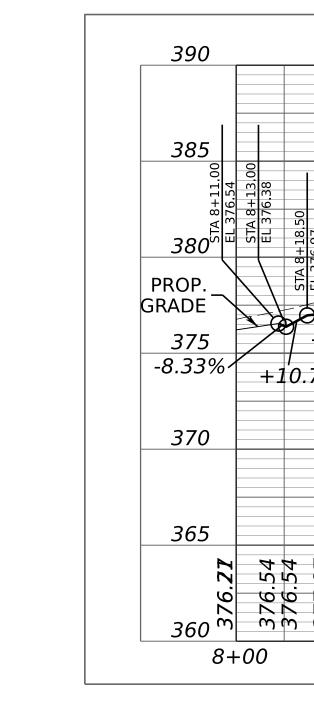
*375* 

+10.95%-

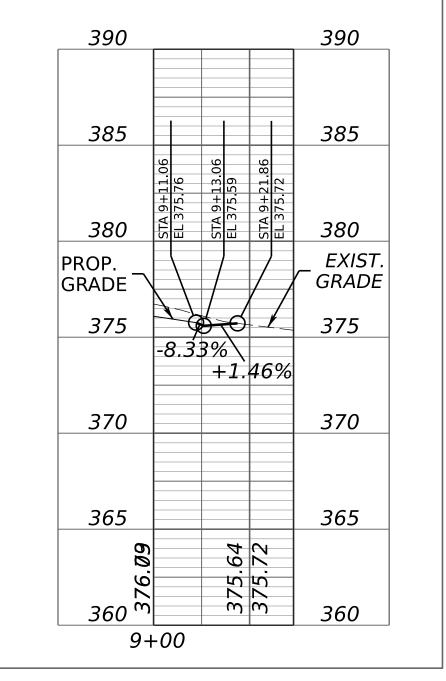
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390 385 385 EXIST GRADE 380 PROP. GRADE +2.00% *375 375* +10.77% *370 370* 365 365 375.64 376... 360 9+00



ENTR. NO. 6

ENTR. NO. 7

ENTR. NO. 8

ENTR. NO. 9

ENTR. NO. 10

9:47:37 AM PROJECT MANAGER\_\_CHRISTINA ALEXANDER (CITY PM) (703) 385-7810 SURVEYED BY, DATE \_\_**TIMMONS GROUP (804) 200-6500 8/2020** \_\_\_\_ SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 8/2020 NOTE: ALL STORM SEWER PIPE IS TO BE MIN.CLASS III RCP UNLESS OTHERWISE NOTED ON THE PLAN. 1 ST'D. DI-3B REQ'D, L=6' (TYPE B NOSE) INV. = 377.70', H = 3.1' (BELOW MIN.)24' - 15" STORM SEWER PIPE REQ'D. COVER = 1' & VAR.

INV. (IN) = 377.40', INV. (OUT) = 377.25'

1 MOD. DI-3C REQ'D, L=6' (TYPE B NOSE) INV. = 377.15', H = 3.0' (BELOW MIN.)ST'D. IS-1 REQ'D. REPLACE THROATS WITH FULL LENGTH CHAMBER

24' - 15" STORM SEWER PIPE REO'D. INV. (IN) = 377.15', INV. (OUT) = 377.00'COVER = 1' & VAR.

> 1 ST'D. DI-3B REQ'D, L=6' (TYPE B NOSE) INV. = 376.90', H = 3.5' (BELOW MIN.)ST'D. IS-1 REQ'D., 1 - ST'D. UD-4 CONN. REQ'D

15' - 15" CLASS IV RCP STORM SEWER PIPE REO'D. INV. (IN) = 376.90', INV. (OUT) = 376.71' COVER = 1' & VAR.

> 1 ST'D. DI-1 REQ'D INV. = 376.70', H = 2.2'

22' - 12" CLASS IV RCP STORM SEWER PIPE REQ'D. INV. (IN) = 376.70', INV. (OUT) = 376.61'

COVER = 1' & VAR.2.5 L.F. ST'D. MH-1 OR 2 REQ'D. 1 ST'D. MH-1 FRAME & COVER REQ'D.

INV. = 376.61'3-5 ST'D. IS-1 REQ'D. EXTEND EX. 15" PIPE TO NEW MANHOLE CONVERT EX. DROP INLET TO MANHOLE

1 ST'D. MH-1 FRAME & COVER REQ'D. INV. = 375.43ST'D. IS-1 REQ'D.

CONNECT TO EX. 15" PIPE FROM SOUTH 28' - 15" STORM SEWER PIPE REQ'D. INV. (IN) = 375.43', INV. (OUT) = 375.10'COVER = 2' & VAR.

> 1 ST'D. DI-3A REQ'D (TYPE B NOSE) INV. = 375.60', H = 2.7' (BELOW MIN.)1 - ST'D. UD-4 CONN. REQ'D.

59' - 15" CLASS IV RCP STORM SEWER PIPE REQ'D. INV. (IN) = 375.60', INV. (OUT) = 375.10'COVER = 1' & VAR.

1 ST'D. DI-3A REQ'D (TYPE B NOSE) INV. = 375.10', H = 3.6' (BELOW MIN.)

14' - 15" STORM SEWER PIPE REQ'D.  $INV. (IN) = 375.10^{\circ}, INV. (OUT) = 375.00^{\circ}$ COVER = 2' & VAR.

> 3.4 L.F. ST'D. MH-1 OR 2 REQ'D. 1 ST'D. MH-1 FRAME & COVER REQ'D. 3-9 ST'D. IS-1 REQ'D. SET INVERT ON EX. 15" PIPE TO NORTH

1 ST'D. DI-3A REQ'D, (TYPE B NOSE) INV. = 373.70', H = 3.7' (BELOW MIN.)1 - ST'D. UD-4 CONN. REQ'D. CONNECT UD-4 TO STRUCTURE, ST'D. IS-1 REQ'D.

3' - 15" STORM SEWER PIPE REQ'D. INV. (IN) = 373.70', INV. (OUT) = 373.60'COVER = 2' & VAR.

> SFMH72 CONTECH STORMFILTER REQ'D. 4 - 18" FILTER CARTRIDGES REQ'D. H = 5.9', INV. = 371.30'

15' - 15" STORM SEWER PIPE REQ'D. (3-11) (3-12) INV. (IN) = 371.30', INV. (OUT) = 371.20' COVER = 3' & VAR.

> 5.3 L.F. ST'D. MH-1 OR 2 REQ'D. 1 ST'D. MH-1 FRAME & COVER REQ'D. ( 3-12) INV. = 371.20', ST'D. IS-1 REQ'D.EXTEND EX. 15" PIPE 6' TO STRUCTURE

56' - 18" STORM SEWER PIPE REQ'D. (3-12) (3-13) INV. (IN) = 371.20', INV. (OUT) = 370.81'COVER = 2' & VAR.

> 4.1 L.F. ST'D. MH-1 OR 2 REQ'D. 1 ST'D. MH-1 FRAME & COVER REQ'D. ( 3-13) INV. = 370.81', ST'D. IS-1 REQ'D.CONNECT EX. 15" PIPE TO STRUCTURE

4-1) 1 ST'D. DI-3B REQ'D, L=10' (TYPE B NOSE) INV. = 374.70', H = 3.9'

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

> 11' - 15" STORM SEWER PIPE REQ'D.  $INV. (IN) = 374.70^{\circ}, INV. (OUT) = 374.60^{\circ}$ COVER = 2' & VAR.

> > 1 ST'D. DI-3A REQ'D (TYPE B NOSE) INV. = 374.50', H = 4.0'ST'D. ST-1 REQ'D., ST'D. IS-1 REQ'D., 1 - ST'D. UD-4 CONN. REQ'D.

22' - 15" STORM SEWER PIPE REQ'D.  $INV. (IN) = 374.50^{\circ}, INV. (OUT) = 374.40^{\circ}$ COVER = 2' & VAR.

> 1 ST'D. DI-3B REQ'D, L=10' (TYPE B NOSE) INV. = 374.30', H = 4.6'ST'D. IS-1 REQ'D., ST'D. ST-1 REQ'D., 1 - ST'D. UD-4 CONN. REQ'D.

29' - 15" STORM SEWER PIPE REQ'D.  $INV. (IN) = 374.30^{\circ}, INV. (OUT) = 373.80^{\circ}$ COVER = 3' & VAR.

> 1 ST'D. DI-3B REQ'D, L=6' (TYPE B NOSE) INV. = 373.70', H = 4.6'ST'D. IS-1 REQ'D., ST'D. ST-1 REQ'D., 1 - ST'D. UD-4 CONN. REQ'D.

80' - 15" STORM SEWER PIPE REQ'D.  $INV. (IN) = 373.70^{\circ}, INV. (OUT) = 371.10^{\circ}$ COVER = 2' & VAR.

> 1 ST'D. DI-2A REQ'D (TYPE B NOSE) INV. = 371.00', H = 3.5' (BELOW MIN.)ST'D. IS-1 REQ'D., 1 - ST'D. UD-4 CONN. REO'D.

153' - 15" STORM SEWER PIPE REQ'D.  $INV. (IN) = 371.00^{\circ}, INV. (OUT) = 367.00^{\circ}$ COVER = 2' & VAR.

> MODIFY EX. CURB INLET INSTALL 15" PIPE FROM NORTHWEST @ INV. 367.00', ST'D. IS-1 REQ'D., 1 - ST'D. UD-4 CONN. REQ'D.

1 ST'D. DI-3B REQ'D, L = 6' (TYPE B NOSE) INV. = 372.30', H = 3.9'ST'D. IS-1 REQ'D., 1 - ST'D. UD-4 CONN. REQ'D.

33' - 15" STORM SEWER PIPE REQ'D. 4-7 (4-8) INV. (IN) = 372.30', INV. (OUT) = 371.50' COVER = 2' & VAR.

> 1 ST'D. DI-3C REQ'D, L = 6' (TYPE B NOSE) INV. = 371.40', H = 3.9'ST'D. IS-1 REQ'D. 1 - ST'D. UD-4 CONN. REQ'D.

9' - 15" STORM SEWER PIPE REQ'D.  $INV. (IN) = 371.40^{\circ}, INV. (OUT) = 371.10^{\circ}$ COVER = 2' & VAR.

6' x 12' CONTECH PEAK DIVERSION STORMFILTER REQ'D. 10 - 18" FILTER CARTRIDGES REQ'D.  $H = 6.0^{\circ}$ , INV. = 368.80°

16' - 15" STORM SEWER PIPE REQ'D. ( 4-10)  $INV. (IN) = 368.80^{\circ}, INV. (OUT) = 368.70^{\circ}$ COVER = 2' & VAR.

> 1 ST'D. DI-2A REQ'D (TYPE B NOSE)  $INV. = 368.60^{\circ}, H = 6.2^{\circ}$ ST'D. IS-1 REQ'D., ST'D. ST-1 REQ'D., 1 - ST'D. UD-4 CONN. REQ'D.

39' - 18" STORM SEWER PIPE REQ'D.  $INV. (IN) = 368.60^{\circ}, INV. (OUT) = 368.50^{\circ}$ COVER = 3' & VAR.

> 1 ST'D. DI-3A REQ'D (TYPE B NOSE) INV. = 369.10', H = 2.6' (BELOW MIN.)1 - ST'D. UD-4 CONN. REQ'D.

25' - 15" CLASS IV RCP STORM SEWER PIPE REQ'D. INV. (IN) = 369.10', INV. (OUT) = 368.65'COVER = 1' & VAR.

> 3.7 L.F. ST'D. MH-1 OR 2 REQ'D. 1 ST'D. MH-1 FRAME & COVER REQ'D. INV. = 368.40ST'D. IS-1 REQ'D., ST'D. ST-1 REQ'D. CONNECT TO EX. 18" PIPE TO NORTH

67' - 18" STORM SEWER PIPE REQ'D.  $INV. (IN) = 368.40^{\circ}, INV. (OUT) = 368.10^{\circ}$ COVER = 3' & VAR.

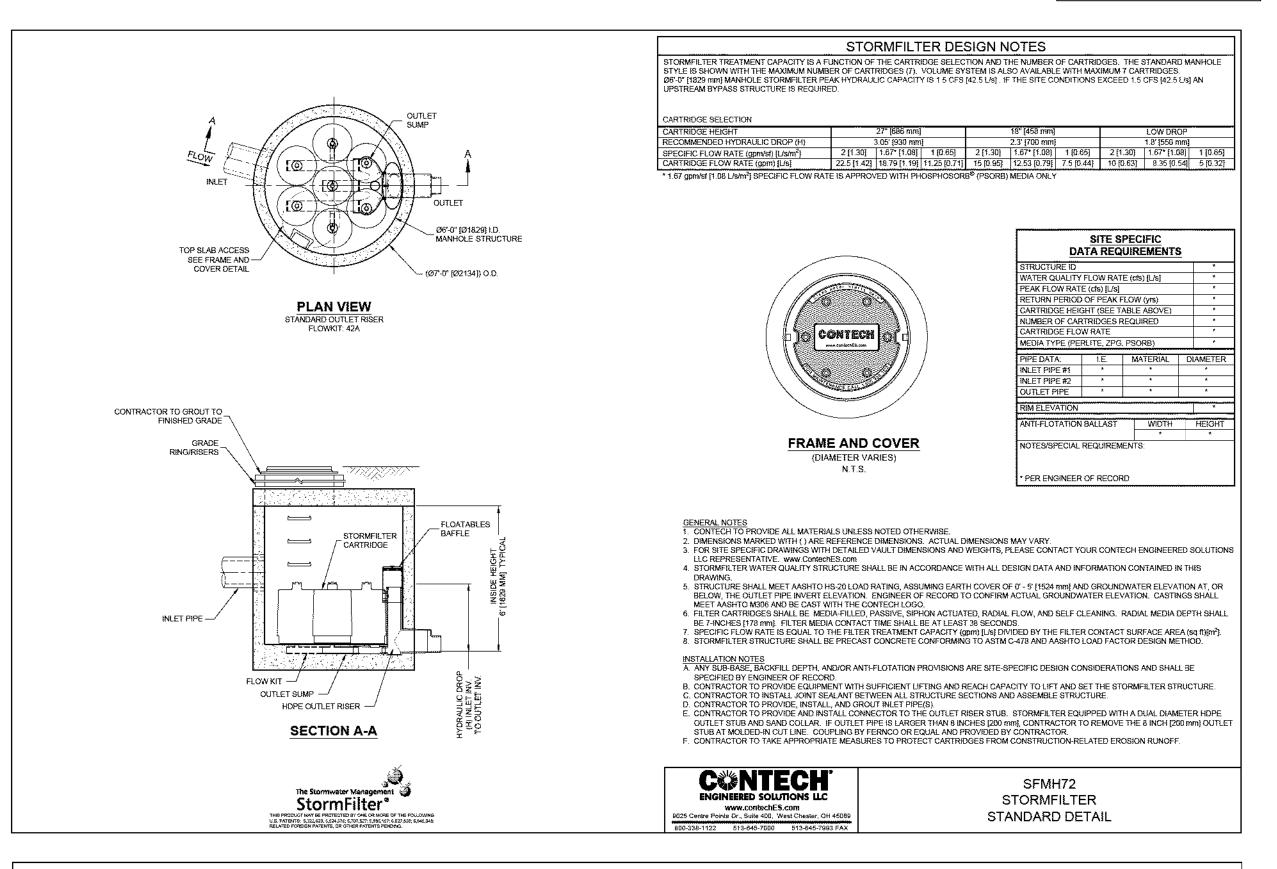
> MODIFY EX. MANHOLE CONNECT PROP. 18" PIPE FROM SOUTH @ INV. 368.00', ST'D. IS-1 REQ'D.

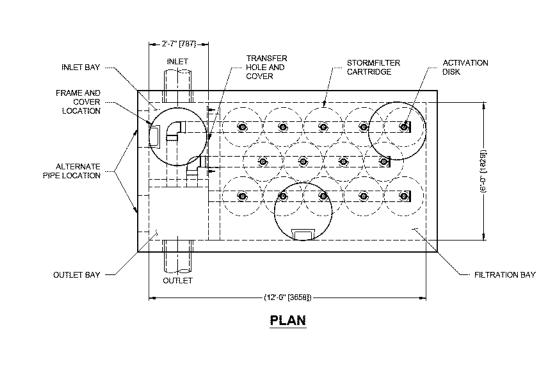
RW PLANS

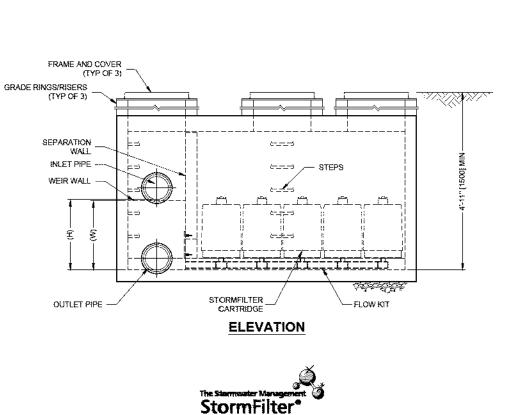
REVISED STATE SHEET N ROUTE PROJECT 0050-151-225 VA. | 050 P101 DESIGN FEATURES RELATING TO CONSTRUCTION

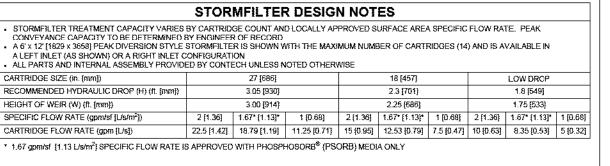
OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

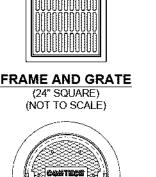
Timmons Group Richmond, Virginia **ROADWAY ENGINEER** 

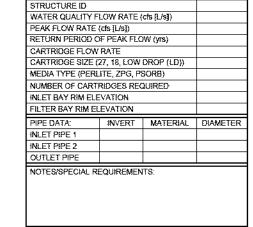












SITE SPECIFIC

**DATA REQUIREMENTS** 

Comtess FRAME AND COVER (30" ROUND) (NOT TO SCALE)

PERFORMANCE SPECIFICATION
FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH
SHALL BE 7" [178]. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 37 SECONDS. SPECIFIC FLOW RATE SHALL BE 2 GPM/SF [1.36 L/s/m²]
(MAXIMUM). SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA OLUMETRIC FLOW RATE SHALL BE 6 GPM/CF [13.39 L/s/m³] OF MEDIA (MAXIMUM). 3ENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.

2. DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.

3. ALTERNATE DIMENSIONS ARE IN MILLIMETERS [mm] UNILESS NOTED OTHERWISE.

4. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH. 4. FOR PABRICATION DAYWINGS WITH DEPAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT TOUR CONTECH
REPRESENTATIVE. WWW.CONBORES.COM
5. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS
DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
6. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0° - 10' [3048] AND GROUNDWATER ELEVATION AT, OR
BELOW, THE CUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS
SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.

NOTALESTION NOTES

A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.

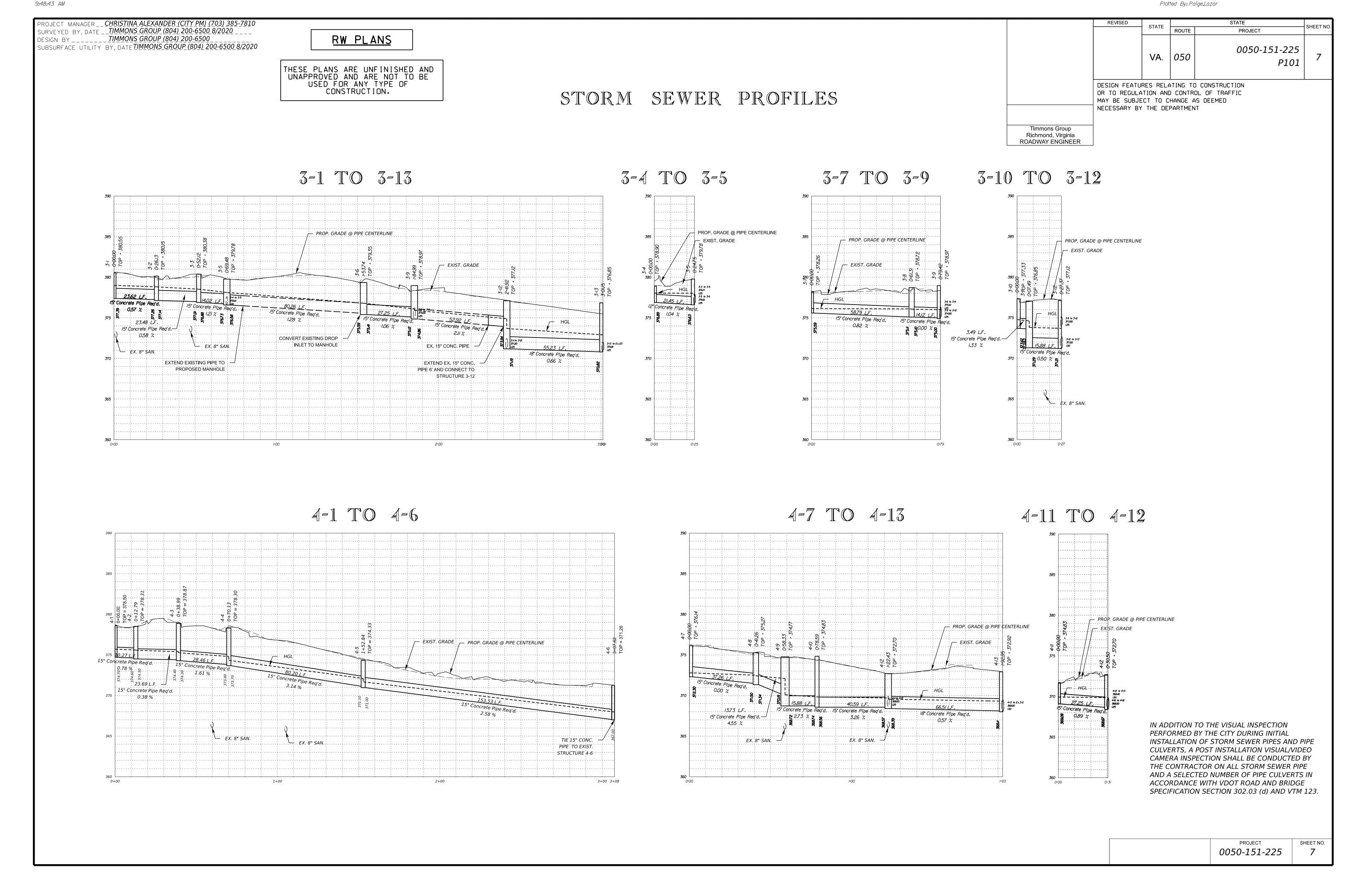
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL SECTIONS AND ASSEMBLE STRUCTURE.
CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

CONTRACTOR TO REMOVE THE TRANSFER OPENING COVER WHEN THE SYSTEM IS BROUGHT ONLINE.

**CONTECH** entre Pointe Dr., Suite 400, West Chester, OH 450

SFPD0612 (6' x 12') PEAK DIVERSION STORMFILTER STANDARD DETAIL

**PROJECT** SHEET NO. NOT TO SCALE 0050-151-225



PROJECT MANAGER \_ CHRISTINA ALEXANDER (CITY PM) (703) 385-7810 DESIGN BY \_\_\_\_\_ TIMMONS GROUP (804) 200-6500 SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 8/2020

# RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

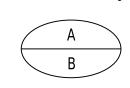
# GENERAL NOTES

REVISED STATE ROUTE PROJECT 0050-151-225 VA. | 050 P101 DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC

MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

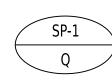
Timmons Group Richmond, Virginia **ROADWAY ENGINEER** 

- 1. Unless otherwise approved by the Engineer, existing traffic signs which are to be relocated shall remain in place until the new sign structure is in place.
- 2. The removal or modification of existing sign panels, structures, or foundations shall conform to section 510 of the specifications.
- 3. New materials and items required to complete the removal or modification of existing items shall be submitted to the Engineer for review and approval in accordance with section 105 of the specifications.
- 4. All existing and proposed sign locations are approximate and shall be field verified by the contractor. All proposed sign locations shall be according to VDOT standards and shall be approved by the Engineer.
- 5. All striping, where matching to existing, shall be done in a manner approved by the Engineer.
- 6. Definition of Symbols:



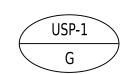
"A" Indicates the type of structure or sign panel. (see "Definition of Types")

**EXAMPLE:** 



Sign Panel 0-100 S.F.

Relocate existing sign panel, Type ()



U - Type Steel Post EA.

Remove and dispose of sign structure, Type ()

- 7. Raised pavement markers shall be installed according to the standard details.
- Existing pavement markings and/or markers that conflict with the proposed markings and/or markers shown herein shall be eradicated.
- 9. For lane and shoulder widths, see Roadway Plans and Typical Sections.
- 10. Proposed signs and pavement marking shall be according to VDOT standards.
- 11. Cost of Class A3 concrete foundation required for wood posts shall be included with the cost of the wood post.
- 12. Existing signs to be removed within project limits unless otherwise noted on plans.
- 13. No edgelines are to be added to streets which have curb and gutter unless otherwise directed on the plans.

# PAVEMENT MARKING LEGEND

TYPE B, CLASS I WHITE PAVEMENT LINE MARKING, 4" WIDTH



TYPE B, CLASS I WHITE PAVEMENT LINE MARKING, 4" WIDTH (2' DASHED, 6' SPACING)



TYPE B, CLASS I WHITE PAVEMENT LINE MARKING, 4" WIDTH (10' DASHED, 30' SPACING)



TYPE B, CLASS I YELLOW PAVEMENT LINE MARKING, 4" WIDTH

TYPE B, CLASS I DOUBLE YELLOW PAVEMENT LINE, 4" WIDTH

TYPE B, CLASS I WHITE PAVEMENT LINE MARKING, 24" WIDTH



TYPE B, CLASS I WHITE PAVEMENT CROSSWALK MARKING (24" WIDTH, 4' TO 7' CENTER TO CENTER SPACING, ORIENTED IN THE DIRECTION OF VEHICULAR TRAVEL)



TYPE B, CLASS I YELLOW PAVEMENT LINE MARKING, 24" WIDTH



NOT USED

TYPE B, CLASS I YELLOW PAVEMENT LINE MARKING, 4" WIDTH (2' DASHED, 6' SPACING)

# SIGNING LEGEND

**EXISTING** 

 $\overline{\mathsf{O}}$ 

**PROPOSED** 

**GROUND MOUNTED SIGN STRUCTURES** 



SIGN NO. TEXT NO.



SIGN PANEL

# \*ACTION DESCRIPTIONS

G. REMOVE AND DISPOSE OF SIGN STRUCTURE, TYPE ( ). will be measured in units of each and paid for at the contract unit price per each, which price shall be full compensation for removal and disposal of sign panels, posts and foundations to at least two feet below existing ground line, backfilling and restoration (topsoiling and seeding), and for all materials, labor, tools, equipment and incidentals necessary to complete the work.

#### H. REMOVE AND SALVAGE OF SIGN STRUCTURE, TYPE ( ).

will be measured in units of each and paid for at the contract unit price per each, which price shall be full compensation for removal and salvage of sign panels, posts and foundations to at least two feet below existing ground line, backfilling and restoration (topsoiling and seeding), and for all materials, labor, tools, equipment and incidentals necessary to complete the work.

#### Q. RELOCATE EXISTING SIGN PANEL, TYPE ( ).

will be measured in units of each and paid for at the contract unit price per each, which price shall be full compensation for removing existing panel, refurbishing framing members, furnishing and installing necessary back panels, erecting existing sign panel to new breakway posts, and for all materials, labor, tools, equipment and incidentals necessary to complete the work.

#### S. REMOVE AND DISPOSE OF EXISTING SIGN PANEL. TYPE ( ).

will be measured in units of each and paid for at the contract unit price per each, which price shall be full compensation for removing and disposing of sign panels, and for all materials, labor, tools, equipment, and incidentals necessary to complete the work.

# DEFINITION OF TYPES

TYPE	DESCRIPTION	SIZE
DP-1	O/H Double Pole	50 - 75 L.F.
DP-2	O/H Double Pole	76 - 101 L.F.
DP-3	O/H Double Pole	102 - 127 L.F.
DP-4	O/H Double Pole	128 - 153 L.F.
DP-5	O/H Double Pole	154 - 179 L.F.
DP-6	O/H Double Pole	180 - 205 L.F.
DC-1	O/H Double Pole & Cantilever	75 - 100 L.F.
DC-2	O/H Double Pole & Cantilever	101 - 126 L.F.
DC-3	O/H Double Pole & Cantilever	127 - 152 L. F.
DC-4	O/H Double Pole & Cantilever	153 - 178 L. F.
DC-5	O/H Double Pole & Cantilever	179 - 204 L.F.
DC-6	O/H Double Pole & Cantilever	205 - 230 L.F.
CS-1	O/H Single Arm Cantilever	25 - 40 L.F.
CS-2	O/H Single Arm Cantilever	41 - 60 L.F.
CD-1	O/H Double Arm Cantilever	50 - 74 L.F.
CD-2	O/H Double Arm Cantilever	75 - 125 L.F.
CD-3	O/H Double Arm Cantilever	126 - 175 L.F.
CD-4	O/H Double Arm Cantilever	176 - 225 L.F.
ВМ	O/H Bridge Mount	EA.
l I	Non-breakaway Single Metal Pole	EA.
l II	Non-breakaway Two Metal Poles	EA.
III	Non-breakaway Three Metal Poles	EA.
V	Breakaway Single Round Metal Pole	EA.
VA	Breakaway Single Metal Pole	EA.
VIA	Breakaway Two Metal Pole	EA.
VIA3	Breakaway Three Metal Pole	EA.
VI1A	3 1/2" Rolled Rail Steel Pole	EA.
WP-1	Single Wood Post	EA.
WP-2	Two Wood Posts	EA.
SP-1	Sign Panel	0 - 100 S.F.
SP-2	Sign Panel	101 - 200 S.F.
SP-3	Sign Panel	201 - 300 S.F.
SP-4	Sign Panel	301 - 400 S.F.
SP-5	Sign Panel	401 - 500 S.F.
SP-6	Sign Panel	501 - 600 S.F.
STP-1	Square Tube Sign Post	EA.
	1	1

<sup>\*</sup>The cost of all action descriptions listed above shall be included in lump sum contract price.

PROJECT MANAGER <u>CHRISTINA ALEXANDER (CITY PM) (703) 385-7810</u>
SURVEYED BY, DATE <u>TIMMONS GROUP (804) 200-6500 8/2020</u>
DESIGN BY <u>TIMMONS GROUP (804) 200-6500</u>
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 8/2020

RW PLANS

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NECESSARY BY THE DEPARTMENT

Timmons Group Richmond, Virginia

SIGN PANEL

ROADWAY ENGINEER

# SIGN SCHEDULE

			5	SIGN ASS COMPOI	SEMBLY NENTS		SIGN I AREA	PANEL (s.f.)		
TEXT NO.	SIGN ASSEMBLY NO(s).	TEXT	MUTCD ST'D.	PANE! W	L SIZE H	QTY.	per ASSEMBLY	ALL ASSEM- BLIES	PROP. SIGN STRUCTURE ST'D.	REMARKS
1	301	NOT USED	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2	302		R5-2	24"	24"	1	4	4	STP-1	
		MAY USE FULL LANE	R4-11	30"	30"	1	6.25	6.25	STP-1	
3	303, 318, 402 411, 412	NO PARKING ANY TIME	MOD. R7-107	12"	18"	4	1.5	7.5	STP-1	
4	304, 414		R4-7C	18"	30"	3	3.75	7.50	STP-1	
			OM3-L	12"	36"	3	3	6	STP-1	
		SPEED LIMIT 25	R2-1	24"	30"	1	5	5	STP-1	
5	305	MAY USE FULL LANE	R4-11	30"	30"	1	6.25	6.25	STP-1	
		NO PARKING ANY TIME	MOD. R7-107	12"	18"	1	1.5	1.5	STP-1	

IOTES:	

- 1) ALL SIGNS SHALL BE ORIENTATED AS SHOWN ON THE PLANS.
- 2) SIGN COLOR COMBINATIONS SHALL BE IN ACCORDANCE WITH THE FHWA SHS BOOK AND THE 2011 VIRGINIA SHS BOOK OR AS NOTED IN THE PLANS.
- 3) ALL POSITIVE CONTRAST GUIDE AND SPECIFIC SERVICE SIGNS
  SHALL UTILIZE FABRICATION LETTER TYPE L-3 OR L-4 UNLESS
  OTHERWISE NOTED IN THE REMARKS. ALL OTHER SIGNS SHALL
  UTILIZE FABRICATION LETTER TYPE L-1 OR L-2 UNLESS OTHERWISE
  NOTED IN THE REMARKS.
- 4) ALL BLACK SHEETING SHALL BE NON-REFLECTIVE.
- 5) SIGN STRUCTURES SHALL BE INSTALLED PER THE NOTED SIGN ST'D.
- 6) ALL ST'D. STP-1 STRUCTURES TO BE SINGLE POST UNLESS
- OTHERWISE NOTED.
- 7) IF APPLICABLE, SEE SHEET 2D FOR NON-STANDARD
- TYPE VA AND VIA SIGN STRUCTURE DETAILS.

				SIGN ASS COMPOI	EMBLY IENTS		SIGN I AREA	PANEL (s.f.)		
TEVT	SIGN		MUTCD	PANEI	L SIZE		, JBLY	Μ- S	PROP. SIGN	
TEXT NO.	ASSEMBLY NO(s).	TEXT	MUTCD ST'D.	W	Н	QTY.	per ASSEMBLY	ALL ASSEM- BLIES	PROP. SIGN STRUCTURE ST'D.	REMARKS
							A			
6	306		R5-2	24"	24"	1	4	4	STP-1	
		NO TEST	CUSTOM	24"	18"	1	3	3	STP-1	
		DRIVING								
		DO NOT								
		ENTER	R5-1	30"	30"	2	6.25	12.5	STP-1	
7	307, 308	STOP	R1-1	30"	30"	2	6.25	12.5	STP-1	
			R3-2	24"	24"	2	4	8	STP-1	
			W11-2	24"	24"	1	4	4	STP-1	
8	309									
			W16-7P	24"	12"	1	2	2	STP-1	
9	310		W3-1	30"	<i>30</i> "	1	6.25	6.25	STP-1	
			W1-1R	30"	<i>30</i> "	1	6.25	6.25	STP-1	
10	311									
		10 MPH	W13-1P	18"	18"	1	2.25	2.25	STP-1	
		МРН								
		CONTINUED ON SHEET 7(3)								
										<u> </u>

tII554508x.dgn Plotted By: PaigeLazar

PROJECT MANAGER <u>CHRISTINA ALEXANDER (CITY PM) (703) 385-7810</u>
SURVEYED BY, DATE <u>TIMMONS GROUP (804) 200-6500 8/2020</u>
DESIGN BY <u>TIMMONS GROUP (804) 200-6500</u>
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 8/2020

RW PLANS

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OR TO REGULATION AND CONTROL OF TRAFFIC
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NECESSARY BY THE DEPARTMENT

Timmons Group Richmond, Virginia ROADWAY ENGINEER

SIGN PANEL

# SIGN SCHEDULE

			9	SIGN ASS COMPOI	SEMBLY NENTS		SIGN AREA	PANEL (s.f.)		
TEXT NO.	SIGN ASSEMBLY NO(s).	TEXT	MUTCD ST'D.	PANE.	L SIZE H	QTY.	per ASSEMBLY	ALL ASSEM- BLIES	PROP. SIGN STRUCTURE ST'D.	REMARKS
· · · · · · · · · · · · · · · · · ·	312	KEEP	R4-7A	24"	30"	1	5	5	STP-1	
· · · · · · · · · · · · · · · · · ·			OM3-L	12"	36"	1	3	3	STP-1	· .
12 12	313, 413		R5-2 M6-1R	24" 21"	24" 15"	1	4 2.19	2.19	STP-1 STP-1	
13 13	314	ONE WAY	R3-2 R6-1R	24" 54"	24"	1	6.75	6.75	STP-1 STP-1	
· · · · · · · · · · · · · · · · · ·	315	STOP	R1-1 R4-7A	30" 24"	<i>30</i> "	1	6.25 5	6.25 5	STP-1 STP-1	
·	313	RIGHT	OM3-L	12"	36"	1	3	3	STP-1	

# NOTES:

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- 3) ALL POSITIVE CONTRAST GUIDE AND SPECIFIC SERVICE SIGNS
  SHALL UTILIZE FABRICATION LETTER TYPE L-3 OR L-4 UNLESS
  OTHERWISE NOTED IN THE REMARKS. ALL OTHER SIGNS SHALL
  UTILIZE FABRICATION LETTER TYPE L-1 OR L-2 UNLESS OTHERWISE
  NOTED IN THE REMARKS.
- 4) ALL BLACK SHEETING SHALL BE NON-REFLECTIVE.
- 5) SIGN STRUCTURES SHALL BE INSTALLED PER THE NOTED SIGN ST'D.
- 6) ALL ST'D. STP-1 STRUCTURES TO BE SINGLE POST UNLESS
- OTHERWISE NOTED.
- 7) IF APPLICABLE, SEE SHEET 2D FOR NON-STANDARD
- TYPE VA AND VIA SIGN STRUCTURE DETAILS.

				5	SIGN ASS COMPON	EMBLY IENTS		SIGN     AREA	PANEL (s.f.)		
	revt	SIGN		MUTCO	PANEI	SIZE		IBLY	M- S	PROP. SIGN	
	TEXT NO.	ASSEMBLY NO(s).	TEXT	MUTCD ST'D.	W	Н	QTY.	per ASSEMBLY	ALL ASSEM- BLIES	STRUCTURE ST'D.	REMARKS
 	15	316	STOP	R1-1	30"	30"	1	6.25	6.25	STP-1	SALVAGE EXISTING STREET NAME SIGNS (FAIRFAX BOULEVARD, WARWICK) AND INSTALL AT TOP OF ASSEMBLY
	16	317	SPEED LIMIT 25	R2-1 MOD. R7-107	24" 12"	30" 18"	1	5 1.5	5 1.5	STP-1 STP-1	
- <del>-</del>	17	401	15 MPH	W2-8 W13-1P	30" 18"	30" 18"	1	6.25 2.25	6.25 2.25	STP-1 STP-1	
			NO PARKING ANY TIME	MOD. R7-107	12"	18"	1	1.5	1.5	STP-1	
 	18	403, 404, 405	STOP  ALL WAY	R1-1	30"	30"	1	6.25	19.25	STP-1	
	19	406	ALL WAY	R1-3P	18"	6"	1	0.75	0.75	EX. STP-1	INSTALL BELOW EXISTING STOP SIGN ON FARR AVENUE
	20	407	DEAD END NO PARKING ANY TIME	W14-1 MOD. R7-107	30" 12"	30" 18"	1	6.25 1.5	6.25 1.5	STP-1 STP-1	
	21	408, 410	NO PARKING ANY TIME	MOD. R7-107L	12"	18"	2	1.5	3	STP-1	
			CONTINUED ON SHEET 7(4)								

PROJECT MANAGER\_\_**CHRISTINA\_ALEXANDER\_(CITY\_PM)\_(703)\_385-7810** Surveyed by, date \_**TIMMONS\_GROUP\_(804)\_200-6500\_8/2020**\_\_\_\_ 

RW PLANS

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REVISED	STATE		STATE	SHEET NO.
	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	050	0050-151-225 P101	8(4)
l				

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

Timmons Group Richmond, Virginia ROADWAY ENGINEER

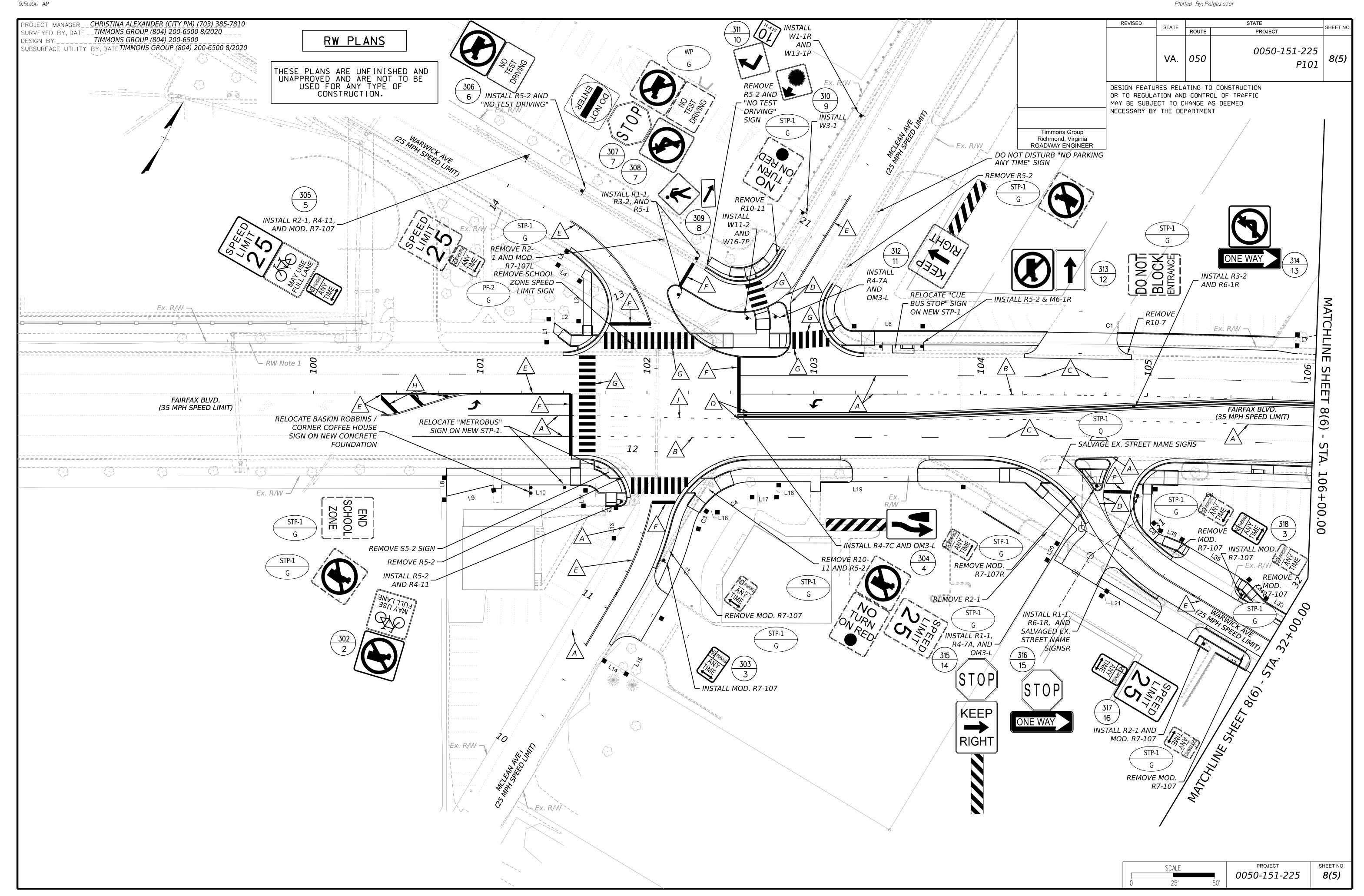
# SIGN SCHEDULE

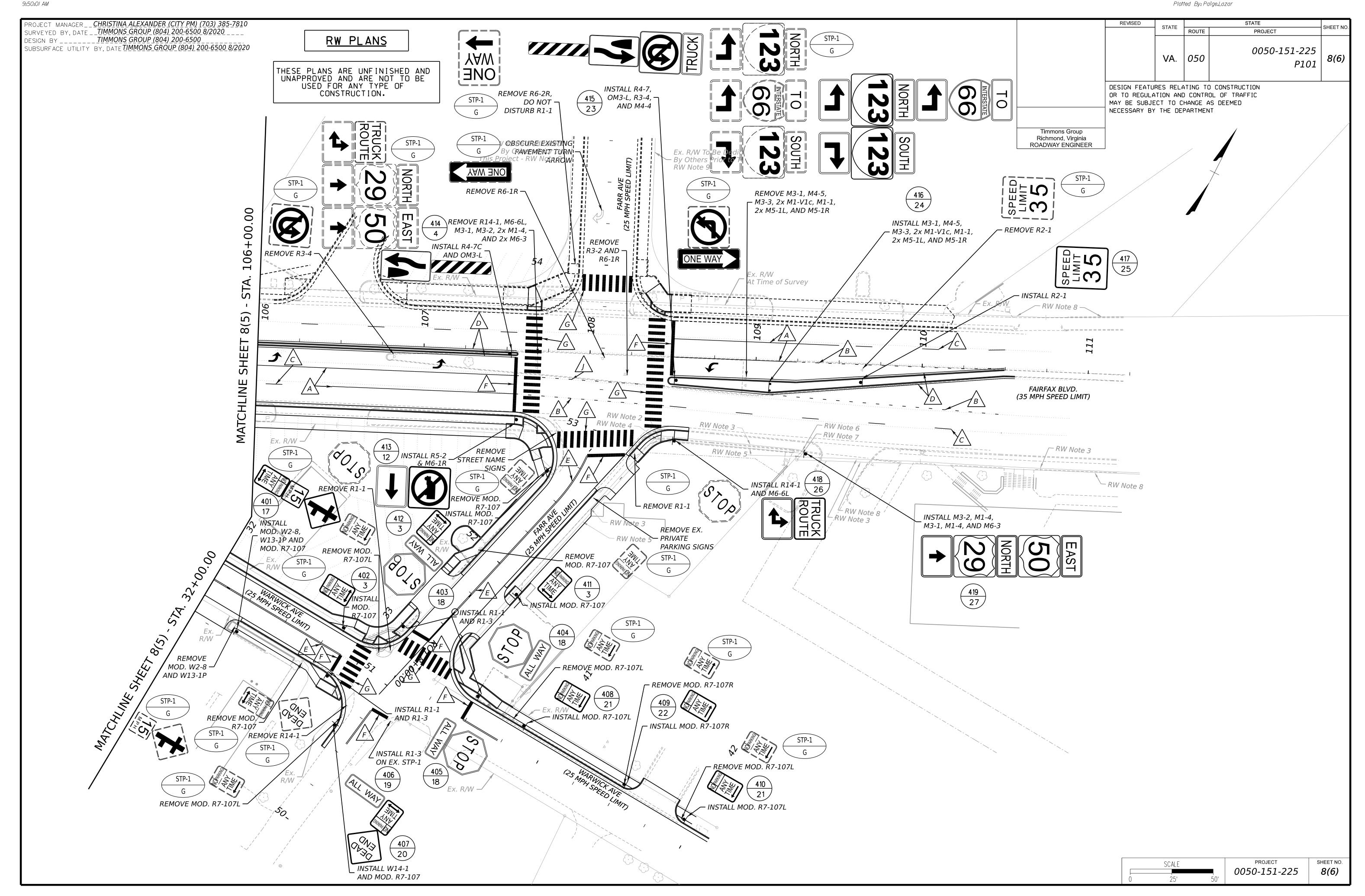
		5	SIGN ASS COMPOI	NENTS	,	AREA	PANEL \(s.f.)						
SIGN ASSEMBLY NO. NO(s).	TEXT	MUTCD ST'D.	PANE! W	L SIZE H	- QTY.	per ASSEMBLY	ALL ASSEM- BLIES	PROP. SIGN STRUCTURE ST'D.	REMARKS		TEXT NO.	SIGN ASSEMBLY NO(s).	TEXT
22 409	NOPARKING ANY TIME	MOD. R7-107R	12"	18"	1	1.5	1.5	STP-1		-	- 25 	417	SPEE LIMI
23 415		R4-7C OM3-L	18" 12"	30" 36"	1	3.75 3	3.75 3	STP-1 STP-1			- 26 - 26	418	TRUC
	TRUCK	R3-4 M4-4	36" 24"	36" 12"	1	9	9	STP-1 STP-1			- · · · · · · · · · · · · · · · · · · ·	419	EAS 50 NORT
	TO INTERSTATE 66	M4-5 M1-1	24" 24"	12" 24"	1	2	2	STP-1		-	- · · · · · · · · · · · · · · · · · · ·		25
24 416	123	M1-V1c M5-1L	30" 21"	24" 15"	2	10 4.38	10 4.38	STP-1 STP-1		-			
	NORTH	M3-1 M5-1R	24" 21"	12" 15"	1	2.19	2.19	STP-1 STP-1		-			

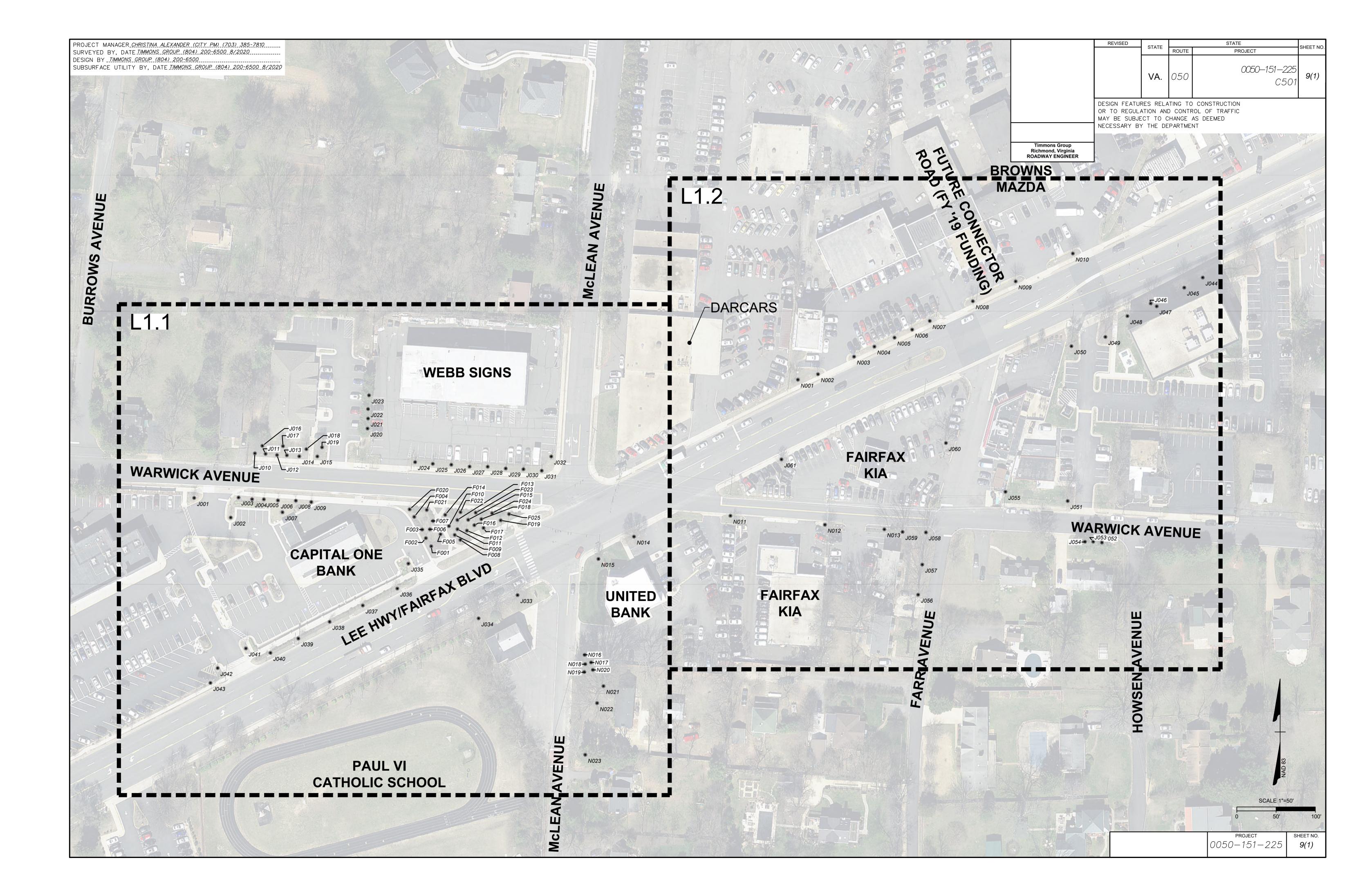
- 1) ALL SIGNS SHALL BE ORIENTATED AS SHOWN ON THE PLANS.
- 2) SIGN COLOR COMBINATIONS SHALL BE IN ACCORDANCE WITH THE FHWA SHS BOOK AND THE 2011 VIRGINIA SHS BOOK OR AS NOTED IN THE PLANS.
- 3) ALL POSITIVE CONTRAST GUIDE AND SPECIFIC SERVICE SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-3 OR L-4 UNLESS OTHERWISE NOTED IN THE REMARKS. ALL OTHER SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-1 OR L-2 UNLESS OTHERWISE NOTED IN THE REMARKS.
- 4) ALL BLACK SHEETING SHALL BE NON-REFLECTIVE.
- 5) SIGN STRUCTURES SHALL BE INSTALLED PER THE NOTED SIGN ST'D.
- 6) ALL ST'D. STP-1 STRUCTURES TO BE SINGLE POST UNLESS
- OTHERWISE NOTED.
- 7) IF APPLICABLE, SEE SHEET 2D FOR NON-STANDARD
- TYPE VA AND VIA SIGN STRUCTURE DETAILS.

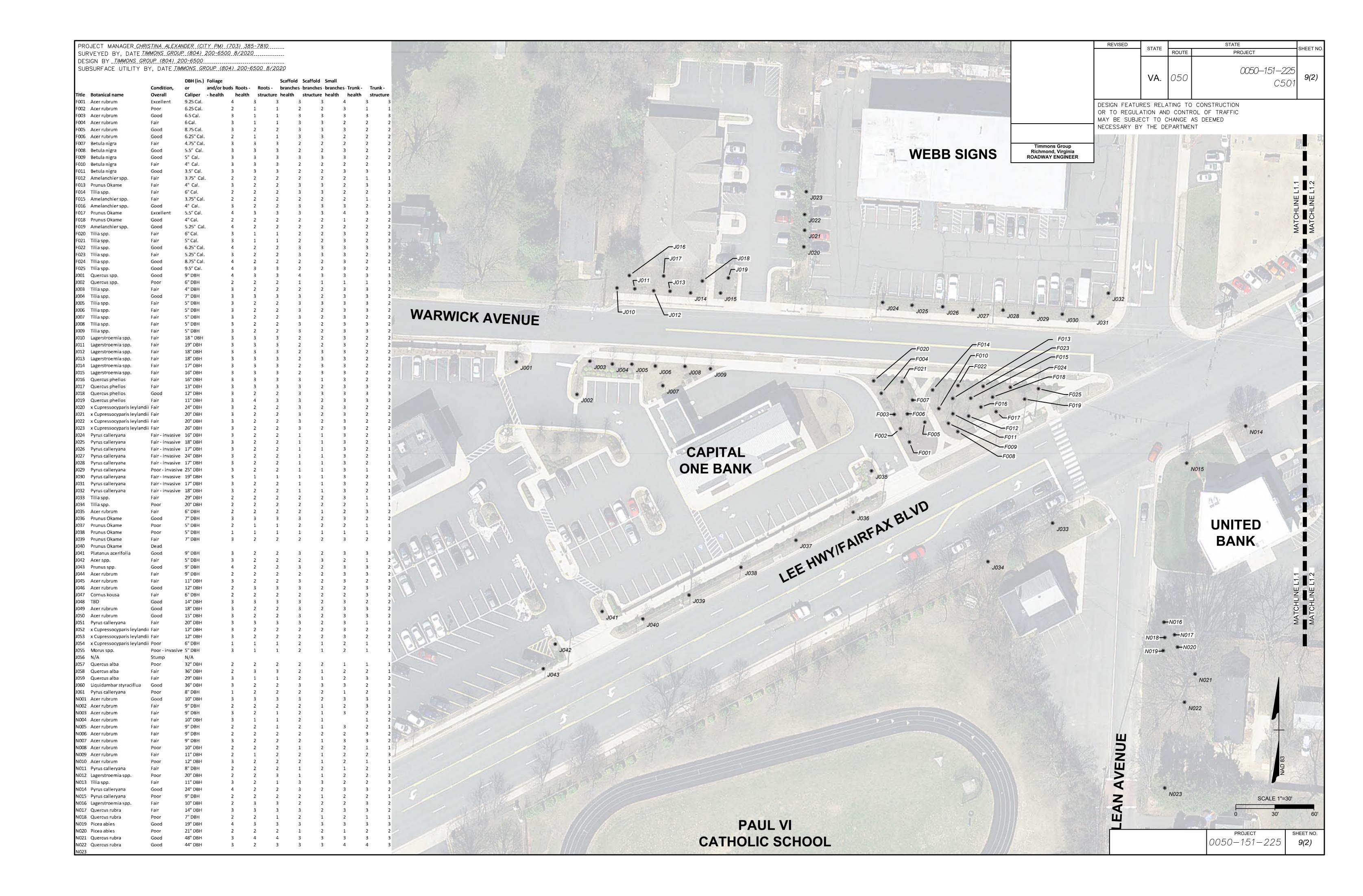
			5	SIGN ASS COMPOI	SEMBLY NENTS		SIGN . AREA	PANEL (s.f.)		
TEXT NO.	SIGN ASSEMBLY	TEXT	MUTCD	PANE	L SIZE	QTY.	per ASSEMBLY	ALL ASSEM- BLIES	PROP. SIGN STRUCTURE ST'D.	REMARKS
<i>NO.</i>	NO(s).		ST'D.	W	Н		ASSI	ASS BL	ST'D.	
									·	
25	417	SPEED LIMIT	R2-1	30"	36"	1	7.5	7.5	STP-1	
- -		35							·	
		TRUCK ROUTE	R14-1	24"	18"	1	3	3	STP-1	
- 26	418	ROUTE							·	
-			M6-6L	21"	15"	1	2.19	2.19	STP-1	
+ .										
		[ [ A CT ]	M3-2	24"	12"	1	2	2	STP-1	
		EAST							·	
		50	M1-4	24"	24"	1	4	4	STP-1	
27	419	NORTH	M3-1	24"	12"	1	2	2	STP-1	
			NA7 A	2411	2411	7		4	CTD 1	
			M1-4	24"	24"	1	4	4	STP-1	
			M6-3	21"	15"	1	2.19	2.19	STP-1	
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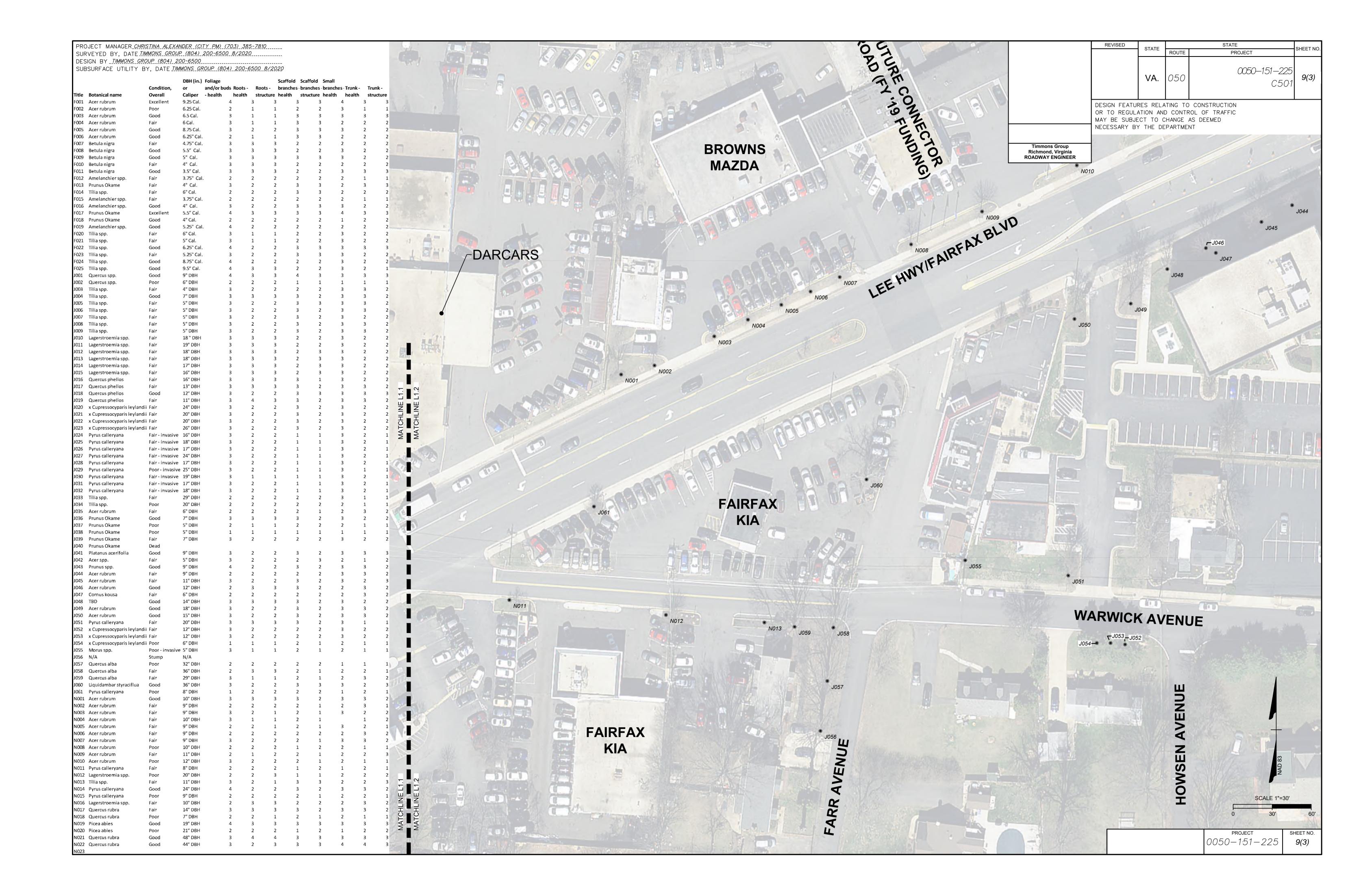
SHEET NO.











PROJECT MANAGER \_ CHRISTINA ALEXANDER (CITY PM) (703) 385-7810

SURVEYED BY, DATE \_ TIMMONS GROUP (804) 200-6500 8/2020

DESIGN BY \_ \_ \_ TIMMONS GROUP (804) 200-6500

SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 8/2020

RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

### CITY OF FAIRFAX GENERAL LIGHTING NOTES

- 1. THE CONTRACTOR SHALL PROVIDE 3 SETS OF AS-BUILT DRAWINGS TO THE CITY OF FAIRFAX WITHIN 30 DAYS OF COMPLETION OF THE PROJECT. THE DRAWING MAY BE COPIES OF THE ORIGINAL TRAFFIC LIGHTING PLAN WITH ACTUAL LOCATIONS SKETCHED IN.
- 2. MATERIALS AND OPERATIONS SHALL COMPLY WITH THE LATEST REVISION OF ALL APPLICABLE CODES AND STANDARDS.
- 3. MATERIALS AND OPERATIONS SHALL COMPLY WITH THE LATEST REVISION OF THE CODES AND STANDARDS ASTM A27, ASTM A36, ASTM A123, AND ASTM A595.
- 4. THE CONTRACTOR SHALL OBSERVE NEC AND NESC REQUIREMENTS FOR HANDLING AND STORAGE OF ALL ELECTRICAL WIRING. FIXTURES. ETC.
- 5. THE CONTRACTOR SHALL KEEP THE WORK AREA SURFACE IN A SAFE AND SATISFACTORY CONDITION DURING THE PROGRESS OF THE WORK.
- 6. WHEN TRAFFIC SIGNALS, LOOPS, OR THEIR APPURTENANCES ARE LIKELY TO BE DAMAGED OR INTERFERE AS A RESULT OF THE CONSTRUCTION, COORDINATE TEMPORARY OPERATION WITH THE APPLICABLE AGENCY HAVING JURISDICTION, AND WITH VDOT OR THE DEPARTMENT OF PUBLIC PROVIDE 48 HOURS NOTICE PRIOR TO ANTICIPATED DISTURBANCE OR INTERRUPTION.
- 7. IF NECESSARY, COORDINATE EMERGENCY TRAFFIC CONTROL WITH THE CITY OF FAIRFAX POLICE DEPARTMENT AND VDOT.
- 8. WHEN CUTS ARE MADE THROUGH ANY PAVED SURFACE AND THE CUTS EXTEND THROUGH THE PAVEMENT MARKINGS, THE REPLACED PAVEMENT SHALL BE MARKED TO MATCH THE EXISTING.
- 9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY MISS UTILITY AT 1-800-552-7001, 48 HOURS PRIOR TO THE START OF ANY EXCAVATIONS OR CONSTRUCTION WORK. CALL THE CITY OF FAIRFAX PUBLIC UTILITIES DEPARTMENT AT 703-385-7991 FOR WATER/SEWER SERVICE INTERRUPTION. AFTER HOURS, CALL 703-385-7924.
- 10. PROTECT UNDISTURBED LAWNS, SHRUBS, AND TREES AND PROMPTLY REPAIR DAMAGES CAUSED BY OPERATION.
- 11. THE CONTRACTOR SHALL AT ALL TIMES SO CONDUCT HIS WORK AS TO INSURE THE LEAST POSSIBLE INCONVENIENCE TO THE GENERAL PUBLIC AND THE RESIDENTS IN THE VICINITY OF THE WORK. FIRE HYDRANTS ON OR ADJACENT TO THE WORK SHALL BE KEPT ACCESSIBLE TO FIRE FIGHTING EQUIPMENT AT ALL TIMES. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO INSURE THE PROPER FUNCTIONING OF ALL GUTTERS, SEWER INLETS, DRAINAGE DITCHES, AND IRRIGATION DITCHES, WHICH SHALL NOT BE OBSTRUCTED EXCEPT AS APPROVED BY THE PUBLIC WORKS DIRECTOR.
- 12. WHEN WORKING WITHIN ANY CITY OR VDOT SYSTEM ROAD OR HIGHWAY, CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST REVISION, AS WELL AS THE VDOT ROAD AND BRIDGE SPECIFICATIONS.
- 13. TRAFFIC MAINTENANCE SHALL COMPLY WITH THE LATEST REVISION OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS, SECTIONS 512 AND 701, AS WELL AS OTHER APPLICABLE SECTIONS.
- 14. THE CONTRACTOR SHALL GUARANTEE HIS WORK AGAINST DEFECTS DUE TO POOR WORKMANSHIP OR POOR CONSTRUCTION FOR A PERIOD OF 12 MONTHS AFTER COMPLETION AND ACCEPTANCE OF HIS WORK.
- 15. CONDUIT AND FITTINGS SHALL BE OF THE SIZE AS SHOWN ON THE PLANS.
- 16. UNLESS OTHERWISE SPECIFIED BY THE PUBLIC WORKS DIRECTOR, CONDUIT SHALL BE 2" SCHEDULE 40 PVC IN APPROPRIATE AREAS, AND 2" RIGID GALVANIZED STEEL UNDER DRIVEWAYS, CONCRETE STRUCTURES, OR ROADWAYS.
- 17. ALL JUNCTION BOXES SHALL BE VDOT ST'D JB-S1.
- 18. A GROUND ROD SHALL BE INSTALLED NEXT TO EACH POLE AND AT ELECTRICAL SERVICE POINT.
- 19. GROUNDING RODS SHALL BE 5/8" X 8' COPPER-CLAD STEEL, UNLESS SPECIFIED OTHERWISE.
- 20. THE LENGTHS OF CONDUIT SHOWN ON THE PLANS ARE APPROXIMATE LENGTHS. THE CONTRACTOR SHALL DETERMINE THE EXACT LENGTHS OF CONDUIT IN THE FIELD.
- 21. THE CONDUIT SHALL BE INSTALLED IN REASONABLY CLOSE CONFORMITY WITH THE LINES SHOWN ON THE PLANS.

  CONDUIT RUNS MAY BE CHANGED TO AVOID OBSTRUCTIONS WITH THE APPROVAL OF THE PUBLIC WORKS

  DIRECTOR.
- 22. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL STORM DRAINS, WATER LINES, SANITARY SEWERS, AND EXISTING TRAFFIC SIGNAL EQUIPMENT AND TO TAKE ALL PRECAUTIONS TO PROTECT THESE FACILITIES. THE CONTRACTOR, AT THIS EXPENSE, SHALL REPAIR ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATION.
- 23. THE ENDS OF ALL CONDUITS, WHETHER SHOP OR FIELD CUT, SHALL BE REAMED TO REMOVE BURRS AND ROUGH EDGES. CUTS SHALL BE MADE SQUARE AND TRUE SO THAT THE ENDS WILL BUTT OR COME TOGETHER FOR THE FULL CIRCUMFERENCE THEREOF.
- 24. CONDUIT SHALL ENTER THE SIDE(S) OF THE STRUCTURE AT THE DEPTH OF THE CONDUIT RUN AND SHALL EXTEND A MINIMUM OF 2" AND A MAXIMUM OF 4" INTO THE STRUCTURE.
- 25. ALL JUNCTION BOXES SHALL BE SET ON A 12" MINIMUM DEPTH BEDDING OF WASHED GRAVEL (VDOT #57 STONE OR APPROVED EQUAL).
- 26. THE TOP OF ALL JUNCTION BOXES SHALL BE INSTALLED FLUSH WITH THE SURROUNDING GRADE OR PAVEMENT UNLESS OTHERWISE SPECIFIED BY THE PUBLIC WORKS DIRECTOR.
- 27. THE CONDUIT ENTRANCE HOLES SHALL BE PATCHED SUCH THAT DEBRIS AND WATER CANNOT ENTER THE STRUCTURE.
- 28. THE GROUNDING ROD SHALL BE DRIVEN INTO UNDISTURBED EARTH. THE GROUND WIRE SHALL BE ATTACHED TO THE GROUND ROD WITH A GROUND CLAMP.
- 29. THE GROUND WIRE SHALL BE CONTINUOUS AND UNSPLICED FROM THE GROUND ROD TO THE LIGHTING POLE IF APPLICABLE.
- 30. GROUND WIRE SHALL BE #8 AWG SOLID BARE COPPER WIRE.
- 31. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY HIS OPERATION TO CONDITIONS EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
- 32. DISPOSAL: REMOVE SURPLUS MATERIALS, UNSUITABLE SOIL, TRASH, AND DEBRIS AND LEGALLY DISPOSE OF OFF-SITE.

# PROJECT GENERAL LIGHTING NOTES

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF JUNCTION BOXES, CONDUIT, AND ALL OTHER ITEMS SPECIFIED AS CONTRACTOR'S RESPONSIBILITY ON THESE PLANS.
- LIGHT POLES AND LUMINAIRES WILL BE PROVIDED BY AND INSTALLED BY DOMINION VIRGINIA POWER.
- 3. CERTAIN UTILITIES WITHIN THE VICINITY OF THIS PROJECT AREA ARE SHOWN ON THE PLANS. THE UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETELY OR ACCURATELY LOCATED. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES AND LIGHTING SYSTEMS BEFORE PROCEEDING WITH THE WORK.
- 4. AT LOCATIONS WHERE PROPOSED CONDUIT SHALL CROSS EXISTING CONDUIT, THE CONTRACTOR SHALL HAND-DIG THE TRENCH AND SHALL TAKE ADEQUATE CARE NOT TO DAMAGE THE EXISTING CONDUIT OR THE CONTENTS THEREOF. THESE CONDITIONS SHALL APPLY AT ALL SUCH CONDUIT CROSSINGS EXCEPT THOSE LOCATIONS WHERE PROPOSED CONDUIT WILL CROSS CONDUIT DESIGNATED TO BE ABANDONED.
- 5. ALL PIPE SLEEVE SHALL BE INSTALLED IN ACCORDANCE WITH VDOT STANDARD ECI-1 AND OR ECI-2.
- . CONDUITS SHALL BE INSTALLED WITH LARGE RADIUS OFFSETS (5' MINIMUM RADIUS) TO BYPASS DRAINAGE INLETS, MANHOLES, AND OTHER OBSTRUCTIONS.
- CONDUITS SHALL BE INSTALLED A MINIMUM OF 2 FT. BEHIND GUARDRAIL POSTS.
- 8. CONDUITS SHALL BE INSTALLED A MINIMUM OF 5 FT. CLEAR OF SHOULDER EDGE WHEN NO GUARDRAIL IS INSTALLED, OR AS SHOWN IN THE PLANS.
- 9. ALL UNDERGROUND CONDUITS SHALL BE SLOPED TO DRAIN TO JUNCTION BOXES OR MANHOLES. IF THIS CANNOT BE ACCOMPLISHED, THEY SHALL BE PROVIDED WITH DRAINAGE TEES AT THE LOW POINTS OF CONDUIT RUNS, AT NO ADDITIONAL COST.
- 10. THE CONTRACTOR SHALL PROVIDE EXPANSION COUPLINGS AT ALL EXPANSION JOINTS ON STRUCTURES OR AS DESIGNATED BY THE ENGINEER.
- 11. THE LOCATION OF THE LIGHT POLE FOUNDATION GROUND ROD SHALL BE MARKED ON THE TOP SURFACE OF THE FOUNDATION BY A RECESSED ARROW AND THE INITIAL "G" FORMED IN THE CONCRETE. THE GROUND ROD SHALL TYPICALLY BE PLACED TO THE LEFT OF THE LIGHTING POLE FOUNDATION AS OBSERVED FROM THE POLE HANDHOLE.
- 12. GROUND RODS SHALL NOT HAVE A RESISTANCE TO GROUND OF MORE THAN 25 OHMS IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 700 OF THE SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A REPORT OF ELECTRICAL RESISTANCE MEASURED BETWEEN THE GROUND ROD AND GROUND.
- 13. GROUND RODS SHALL BE CONNECTED TO THE GROUND WIRE UTILIZING AN EXOTHERMIC WELD.
- 14. LOCATIONS OF EXISTING JUNCTION BOXES AND MANHOLES SHOWN ON THE PLANS ARE APPROXIMATE.
- 15. ALL JUNCTION BOXES AND MANHOLES SHALL BE PROVIDED WITH A MEANS FOR DRAINAGE.
- 16. AREAS AROUND CABINETS, JUNCTION BOXES, AND MANHOLES ON SLOPES SHALL BE GRADED AS APPROVED BY THE ENGINEER.
- 17. THE CONTRACTOR SHALL BE RESPONSIBLE TO RETURN ALL DISTURBED AREAS AND FENCING TO THEIR ORIGINAL STATE AT THE COMPLETION OF ALL WORK. DISTURBED AREAS SHALL BE SEEDED IN ACCORDANCE WITH SECTION 603 OF THE SPECIFICATIONS.
- 18. THE CONTRACTOR SHALL COORDINATE WITH DOMINION VIRGINIA POWER OR LOCAL POWER COMPANY FOR ALL QUANTITIES FOR APPROVAL PRIOR TO INSTALLATION.
- 19. LIGHT POLE FOUNDATIONS DESIGNATED TO BE REMOVED SHALL BE REMOVED TO A DEPTH OF AT LEAST 2 FT. BELOW FINISHED GRADE IF REQUIRED.
- 20. SEPARATE CONTRACTS WILL BE ONGOING WITHIN THE LIMITS OF THE PROJECT. THE CONTRACTOR SHALL NOT HINDER THE WORK BEING PERFORMED BY OTHER CONTRACTORS AND SHALL COOPERATE AND COORDINATE THE WORK OF THIS PROJECT WITH THE OTHER CONTRACTORS.
- 21. WIRING FOR PROJECT LIGHTING WILL BE PROVIDED BY DOMINION VIRGINIA POWER

### LIGHTING DESIGN PLAN NOTES

- 1. THE PROPOSED PHASE, CONTROL CENTER, AND CIRCUIT CALCULATIONS HAVE BEEN PROVIDED BY DOMINION VIRGINIA POWER (DVP).
- 2. ALL QUANTITIES AND MATERIALS FOR LIGHT POLES, LUMINAIRES, AND ELECTRICAL CONNECTIONS WILL BE PROVIDED AND INSTALLED BY DOMINION VIRGINIA POWER UNLESS OTHERWISE SPECIFIED.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONDUIT, JUNCITON BOXES, AND PIPE SLEEVES AS SHOWN ON PLANS.

REVISED	STATE		STATE	SHEET N
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			CONSTRUCTION	

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

Timmons Group Richmond, Virginia ROADWAY ENGINEER

LUM. NO.	LABEL	ALIGNMENT	STATION	OFFSET	HEIGHT	ORIENT	TILT
1	150-0°-16	FAIRFAX BOULEVARD	101+48.12	42.11' RT	16	0	0
 2	150-0°-16	FAIRFAX BOULEVARD	102+62.03	25.09' RT	16	0	0
 3	150-0°-16	FAIRFAX BOULEVARD	102+76.67	41.94' RT	16	0	0
4	150-0°-16	FAIRFAX BOULEVARD	103+43.76	27.28' LT	16	0	0
5	150-0°-16	FAIRFAX BOULEVARD	103+68.88	41.73' RT	16	0	0
6	150-0°-16	FAIRFAX BOULEVARD	104+25.27	28.36' RT	16	0	0
7	150-0°-16	FAIRFAX BOULEVARD	105+18.37	41.65' RT	16	0	0
8	150-0°-16	FAIRFAX BOULEVARD	105+28.29	27.39' RT	16	0	0
9	150-0°-16	FAIRFAX BOULEVARD	106+06.43	42.57' RT	16	0	0
10	150-0°-16	FAIRFAX BOULEVARD	106+78.99	42.00' RT	16	0	0
11	150-0°-16	FAIRFAX BOULEVARD	107+46.36	41.13' RT	16	0	0
12	150-0°-16	WARWICK - MCLEAN	11+61.72	16.95' RT	16	0	0
13	150-0°-16	WARWICK - MCLEAN	12+86.12	30.48' LT	16	0	0
14	150-0°-16	WARWICK - MCLEAN	12+88.93	20.39' RT	16	0	0
15	100-0°-14	WARWICK - MCLEAN	13+43.87	17.42' LT	14	0	0
16	150-0°-16	MCLEAN NORTH	20+51.93	6.14' LT	16	0	0
17	150-0°-16	WARWICK WEST	30+56.93	19.76' RT	16	0	0
18	100-0°-14	WARWICK WEST	31+20.35	16.30' RT	14	0	0
19	100-0°-14	WARWICK WEST	31+90.06	19.69' RT	14	0	0
20	100-0°-14	WARWICK WEST	32+74.41	20.56' RT	14	0	0
21	100-0°-14	WARWICK EAST	40+45.87	16.79' LT	14	0	0
22	100-0°-14	FARR AVENUE	50+47.95	12.53' LT	14	0	0
23	100-0°-14	FARR AVENUE	51+43.39	17.08' LT	14	0	0
24	100-0°-14	FARR AVENUE	51+84.54	17.07' LT	14	0	0
25	100-0°-14	FARR AVENUE	52+62.71	16.29' LT	14	0	0

AREA	CALC TYPE	UNITS	AVG	MAX	MIN	AVG/MIN	# PTS
FAIRFAX & FARR INT	ILLUMINANCE	Fc	1.16	2.7	0.5	2.32	97
FAIRFAX & WARWICK-MCLEAN INT	ILLUMINANCE	Fc	1.14	2.9	0.5	2.28	211
FAIRFAX BTWN WARWICK & FARR	ILLUMINANCE	Fc	1.08	2.6	0.4	2.7	249
FARR BTWN FAIRFAX & WARWICK	ILLUMINANCE	Fc	1.09	2.6	0.6	1.82	23
WARWICK & FARR INT	ILLUMINANCE	Fc	1.02	2.3	0.5	2.04	32
WARWICK BTWN FAIRFAX & FARR	ILLUMINANCE	Fc	0.96	2.6	0.4	2.4	65

LUMINAIRE SCHEDULE							
QTY	LABEL	ARRANGEMENT	TOTAL LAMP LUMENS	LLF	DESCRIPTION	LUM. WATTS	TOTAL WATTS
9	100-0°-14	SINGLE	5,063	0.767	DVP NO. WFCL2 P30 30K XX L3	70	630
16	150-0°-16	SINGLE	6,513	0.767	DVP NO. WFCL2 P40 30K XX L3	95	1520

TRAFFIC CONTROL DEVICE PLANS
LIGHTING GENERAL NOTES

CITY OF FAIRFAX

0050-151-225

10(1)

Plotted By: AndrewS

PROJECT MANAGER <u>CHRISTINA ALEXANDER (CITY PM) (703) 385-7810</u>
SURVEYED BY, DATE <u>TIMMONS GROUP (804) 200-6500 8/2020</u>
DESIGN BY <u>TIMMONS GROUP (804) 200-6500</u>
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 8/2020

RW PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

	REVISED	STATE		STATE	SHEET NO.
I		ROUTE		PROJECT	SHEET NO.
		VA.	050	0050-151-225 P101	10(2)

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

Timmons Group Richmond, Virginia ROADWAY ENGINEER

Section 10460 - Street Lighting

Page 10460-



Cutoff Acorn

These Cutoff luminaire options are a dark-skies friendly alternative to various fixture styles.

Comparable HID Wattage	Finish Color	Initial Lamp Lumens	Lighting Pattern	Correlated Color Temperature (CCT)	Input Wattage	Billing Tier	Basic / Premium	Recommended Mounting Height (ft.)	BUG Rating	Luminaire Stock#	WMIS CU Code
70	Black	3551	Type III	3000K	47	2	Premium	10 - 12	1-0-1	42315978	LEDACCO0333BXXX
100	Black	5063	Type III	3000K	70	3	Premium	12 - 16	1-0-1	42315866	LEDACCO0533BXXX
150	Black	6513	Type III	3000K	95	4	Premium	12 - 16	2-0-2	42315977	LEDACCO0733BXXX

Section 10460 - Street Lighting

Page 10460-



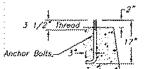
**Outdoor Lighting Pole Specifications** 

# Decorative Fluted Tapered Aluminum for Post Top Luminaires

Fluted tapered pole with structural Arlen style base constructed of aluminum alloy for single or twin post top luminaires. Poles are available directly embedded or base mounted for use with underground supplied conductors only. Anchor base poles require customer-installed and maintained concrete pole foundations and anchor-bolts.

#### Light fixtures that match well with this pole include:

- All LED Acorn styles
- All LED Colonial styles
- Premium LED Cutoff styles
   Premium LED Lanters at the
- Premium LED Lantern styles



# POLE SPECIFICATIONS

FIXTURE MOUNTING HEIGHT (ft)	TOTAL POLE LENGTH (ft)	BASE DIAMETER (in)	BASE HEIGHT (in)	EMBED or ANCHOR BASE	FINISH COLOR	WMIS CU	POLE ONLY STOCK#
12.0	16.0	17.0	17.0	Embed	Black RAL-9017	PA16ARB	42337639
12.0	16.0	17.0	17.0	Embed	Green RAL-6009	PA16ARM	42337 <del>6</del> 42
14.0	18.0	17.0	17.0	Embed	Black RAL-9005	PA18ARB	42337640
14.0	18.0	17.0	17.0	Embed	Green RAL-6009	PA18ARM	42337643
16.0	20.0	17.0	17.0	Embed	Black RAL-9005	PA20ARB	42337641
16.0	20.0	17.0	17.0	Embed	Green RAL-6009	PA20ARM	42337644
12.0*	12.0	12 inch l	oolt circle	Anchor	Black RAL-9017	PA12ABAB	42337782
12.0*	12.0	12 inch l	oolt circle	Anchor	Green RAL-6009	PA12ABAM	42337785
14.0*	14.0	12 inch l	oolt circle	Anchor	Black RAL-9005	PA14ABAB	42337783
14.0*	14.0	12 inch bolt circle		Anchor	Green RAL-6009	PA14ABAM	42337786
16.0*	16.0	12 inch bolt circle		Anchor	Black RAL-9005	PA16ABAB	42337784
16.0*	16.0	12 inch bolt circle		Anchor	Green RAL-6009	PA16ABAM	42337887

\* Approximate based on height above grade to top of anchor base

y localities have restrictions on light distribution and placement of outdoor lighting equipment. Consult with your local government before selecting outdoor lighting equipment.

TRAFFIC CONTROL DEVICE PLANS
LIGHTING DETAILS

CITY OF FAIRFAX

PROJECT 0050-151-225

SHEET NO. 10(2)

BUG Rating

Luminaire Stock # WMIS CU Code

Rating

LEDACCO0333BXXX

