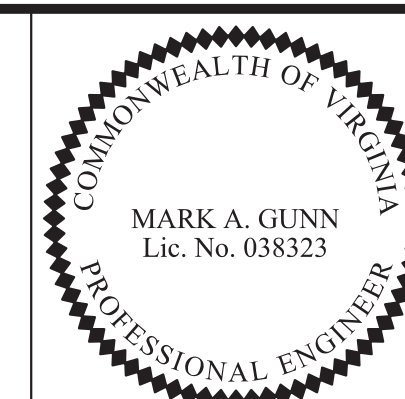


PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373



Mark A Gunn
2014.08.21 07:51:07 -04'00'
Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

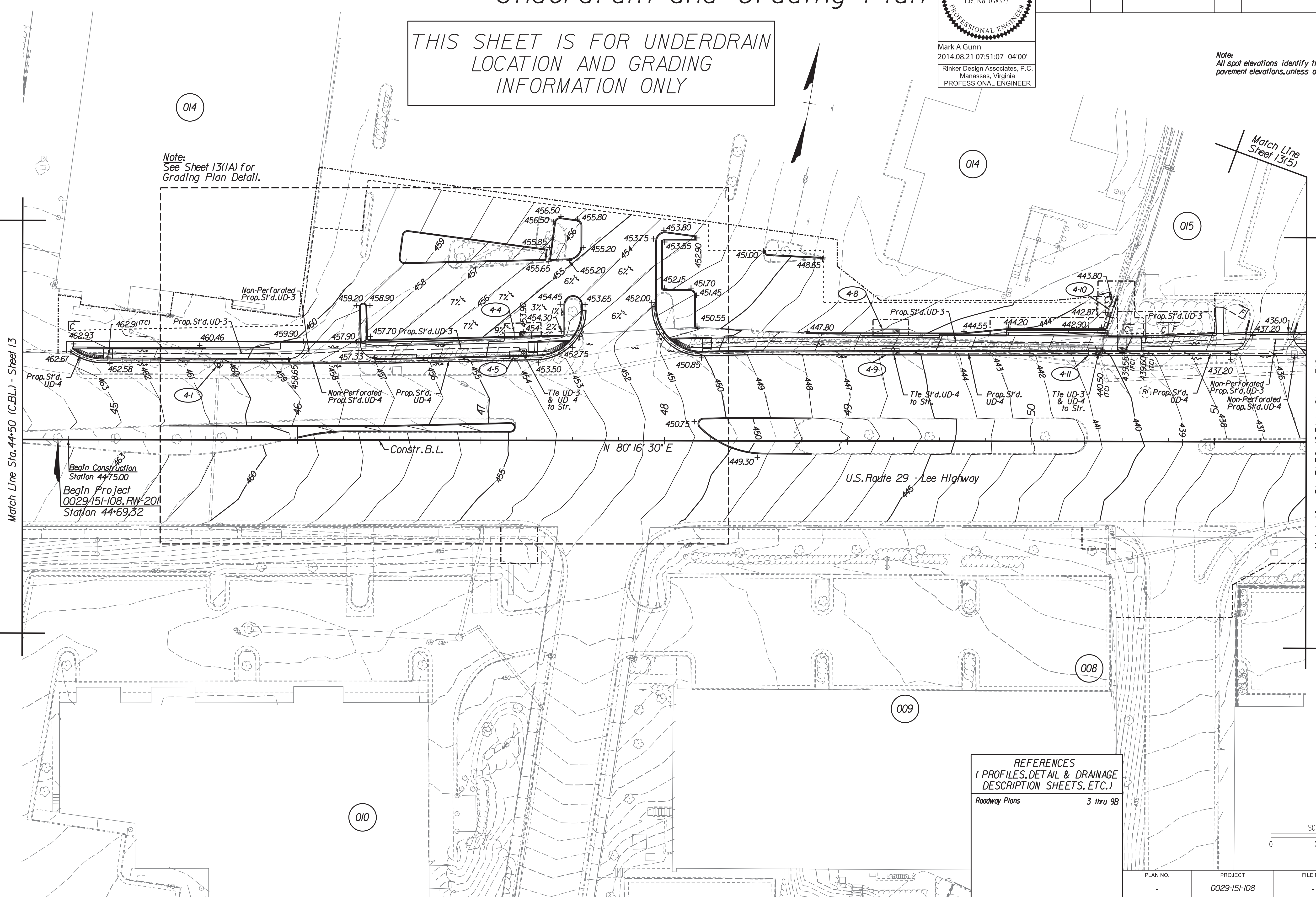
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08-23-13	VA.	STP-540(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	13(1)

Note:
All spot elevations identify the edge of pavement elevations, unless otherwise noted.

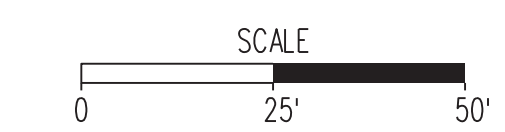
Underdrain and Grading Plan

THIS SHEET IS FOR UNDERDRAIN LOCATION AND GRADING INFORMATION ONLY

Note:
See Sheet 13(1A) for Grading Plan Detail.



REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)
Roadway Plans 3 thru 9B



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

NORTHERN VIRGINIA DISTRICT

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0029-151-108		13(1)

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
 SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
 DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
 DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

GRADING PLAN DETAIL

THIS SHEET IS FOR GRADING INFORMATION ONLY

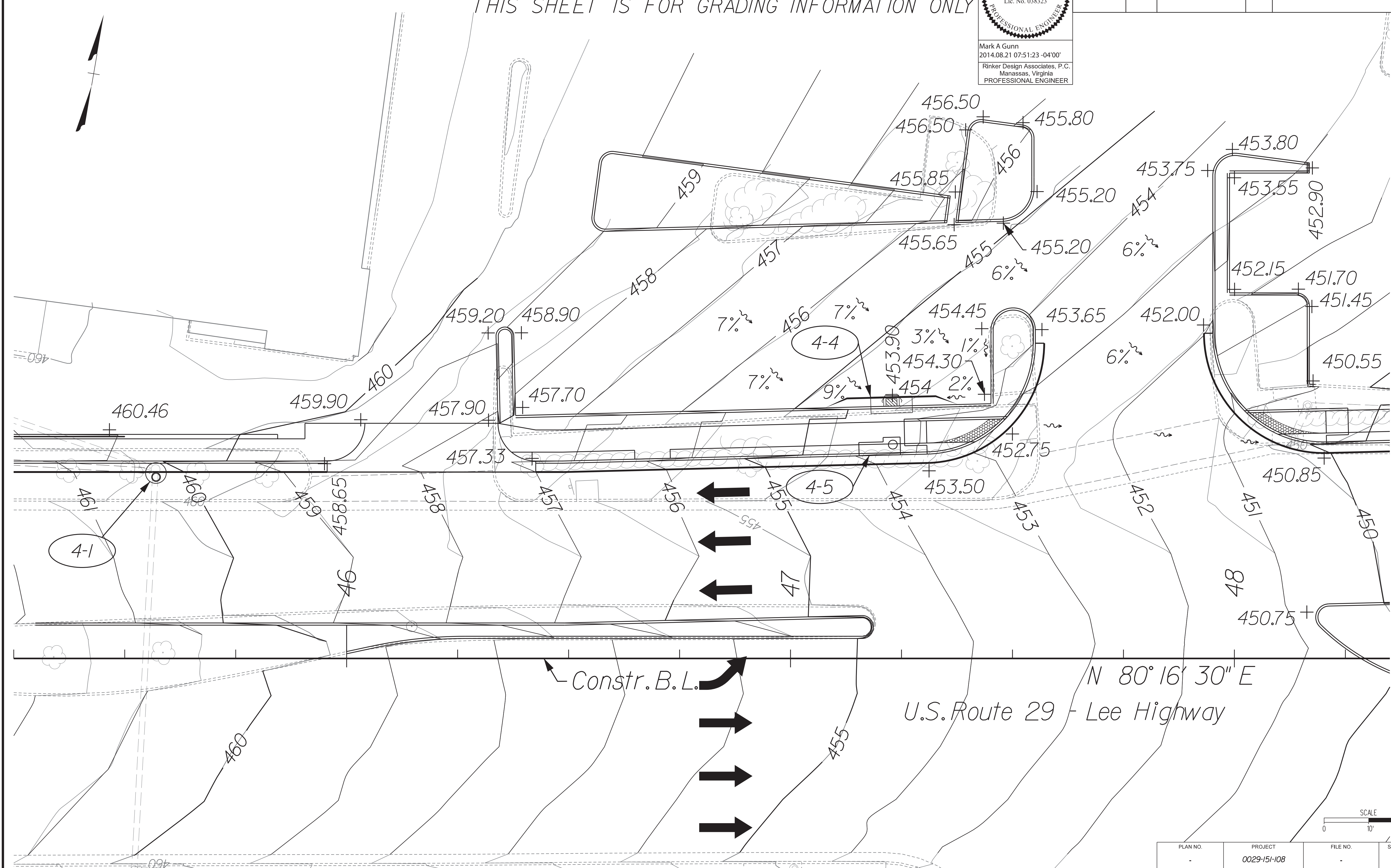
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 Rinker Design Associates, P.C.
 Manassas, Virginia
 PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID PROJECT OWNER	ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-540(675) RSTP-540(178)	29	0029-151-108 RW-201, C-501	131(A)

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

NORTHERN VIRGINIA DISTRICT

8/20/2014



PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	131(A)

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
SURVEYED BY Rinker Design Assoc. P.C. (703) 368-7373
DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc. P.C. (703) 368-7373
DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc. P.C. (703) 368-7373

Underdrain and Grading Plan

THIS SHEET IS FOR UNDERDRAIN LOCATION AND GRADING INFORMATION ONLY



Mark A. Gunn
2014.08.21 07:51:41 -04'00'
Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID PROJECT OWNER	ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-540(675) RSTP-540(178)	29	0029-151-108 RW-201, C-501	13(2)

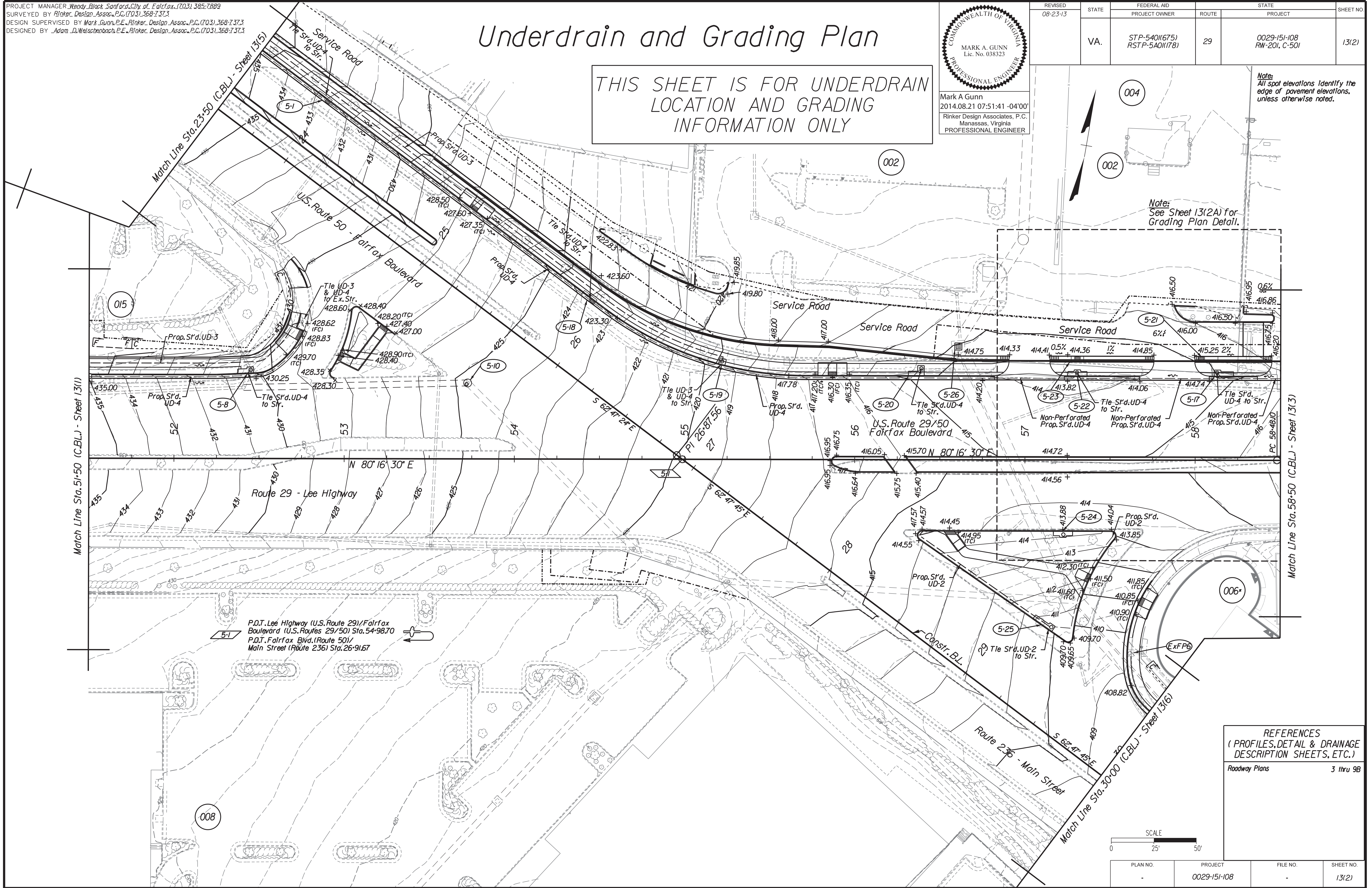
Note:
All spot elevations identify the edge of pavement elevations, unless otherwise noted.

Note:
See Sheet 13(2A) for Grading Plan Detail.

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

NORTHERN VIRGINIA DISTRICT

8/20/2014



REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Roadway Plans 3 thru 9B

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0029-151-108		13(2)

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
 SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
 DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
 DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

GRADING PLAN DETAIL

THIS SHEET IS FOR GRADING INFORMATION ONLY

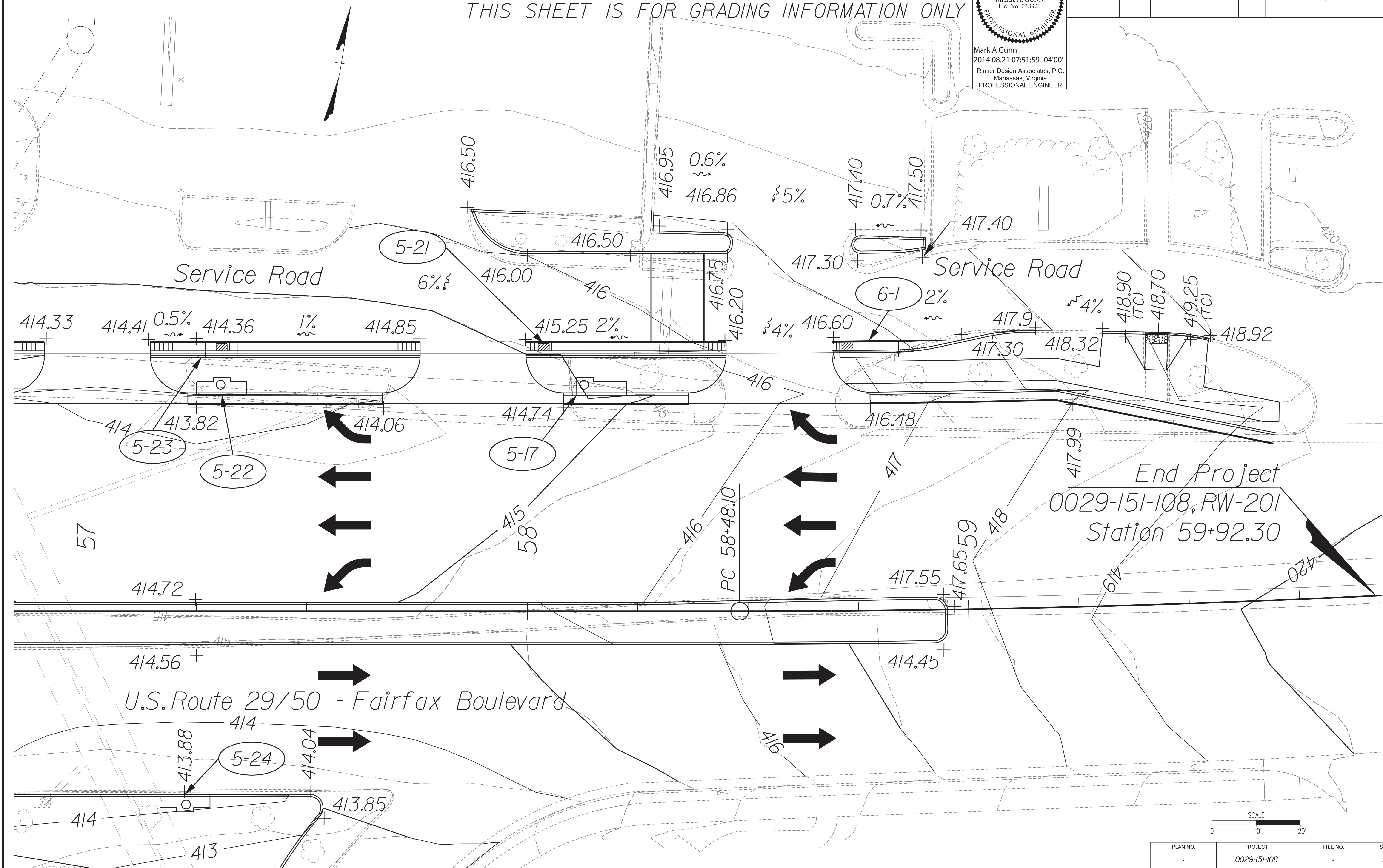
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 Rinker Design Associates, P.C.
 Manassas, Virginia
 PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID PROJECT OWNER	ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-540(675) RSTP-540(178)	29	0029-151-108 RW-201, C-501	13(2A)

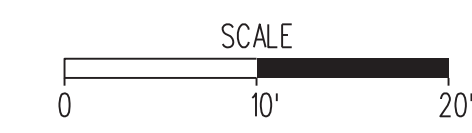
Rinker Design Associates, P.C.
 Civil Engineers
 Transportation - Environmental
 Right of Way Services

NORTHERN VIRGINIA DISTRICT

8/20/2014

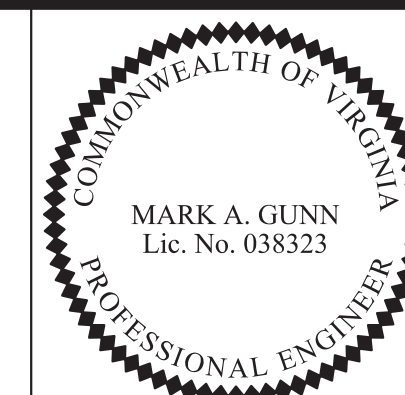


End Project
 0029-151-108, RW-201
 Station 59+92.30



PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	13(2A)

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
 SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
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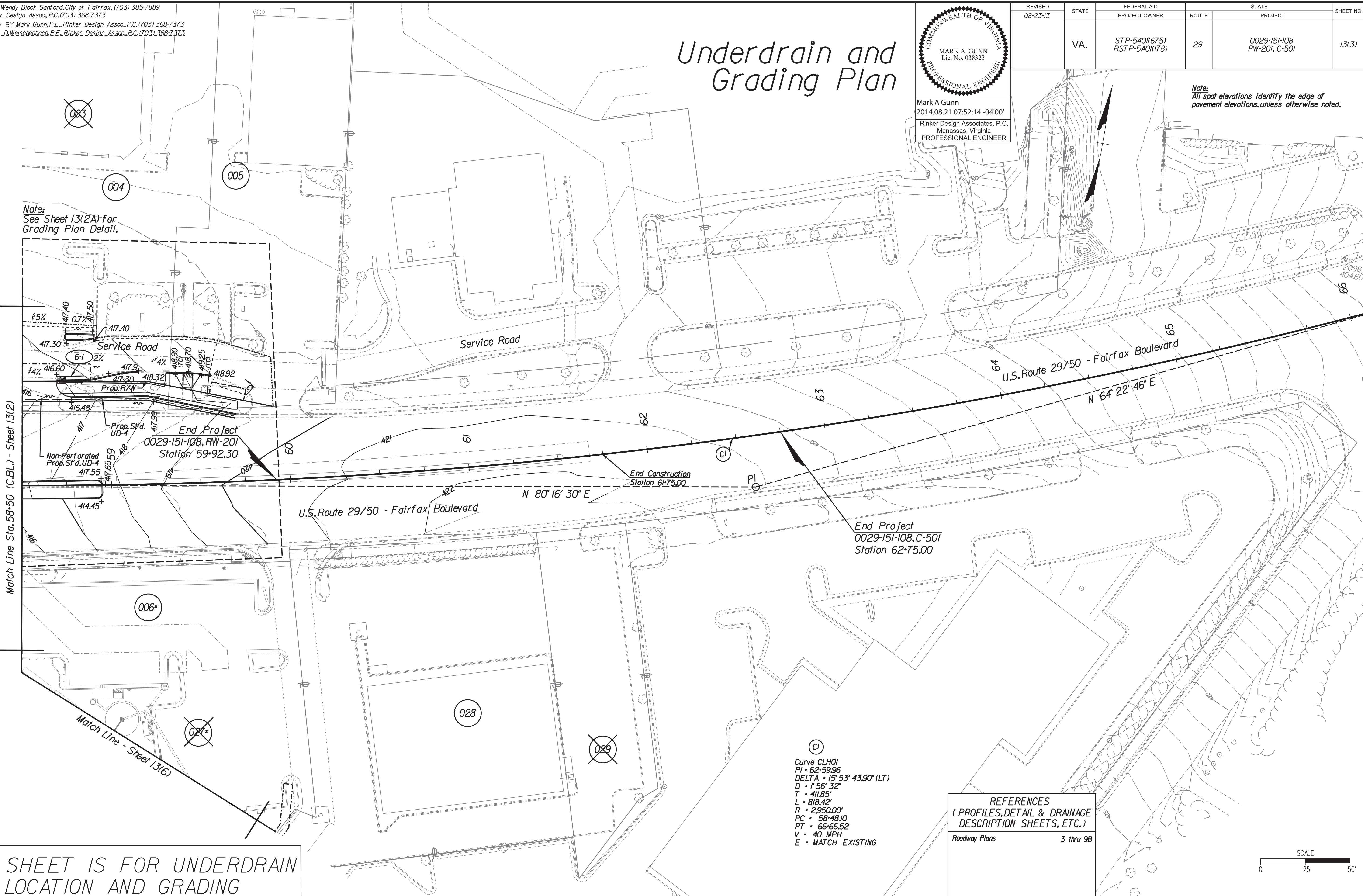
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 Rinker Design Associates, P.C.
 Manassas, Virginia
 PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID	ROUTE	STATE	SHEET NO.
08-23-13	VA.	PROJECT OWNER		PROJECT	
		STP-540(675) RSTP-540(178)	29	0029-151-108 RW-201, C-501	13(3)

Underdrain and Grading Plan

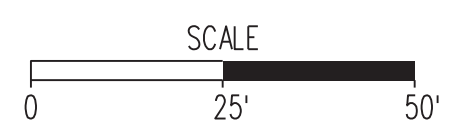
Note:
 All spot elevations identify the edge of pavement elevations, unless otherwise noted.

Note:
 See Sheet 13(2A) for Grading Plan Detail.



THIS SHEET IS FOR UNDERDRAIN LOCATION AND GRADING INFORMATION ONLY

REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)
 Roadway Plans 3 thru 9B

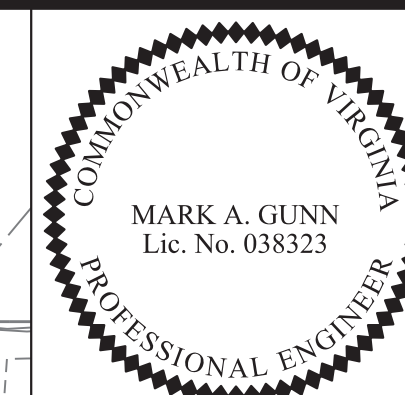


Rinker Design Associates, P.C.
 Civil Engineers
 Transportation - Environmental
 Right of Way Services

NORTHERN VIRGINIA DISTRICT

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	13(3)

PROJECT MANAGER *Wendy Block Sanford, City of Fairfax, (703) 385-7889*
 SURVEYED BY *Rinker Design Assoc., P.C. (703) 368-7373*
 DESIGN SUPERVISED BY *Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373*
 DESIGNED BY *Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373*



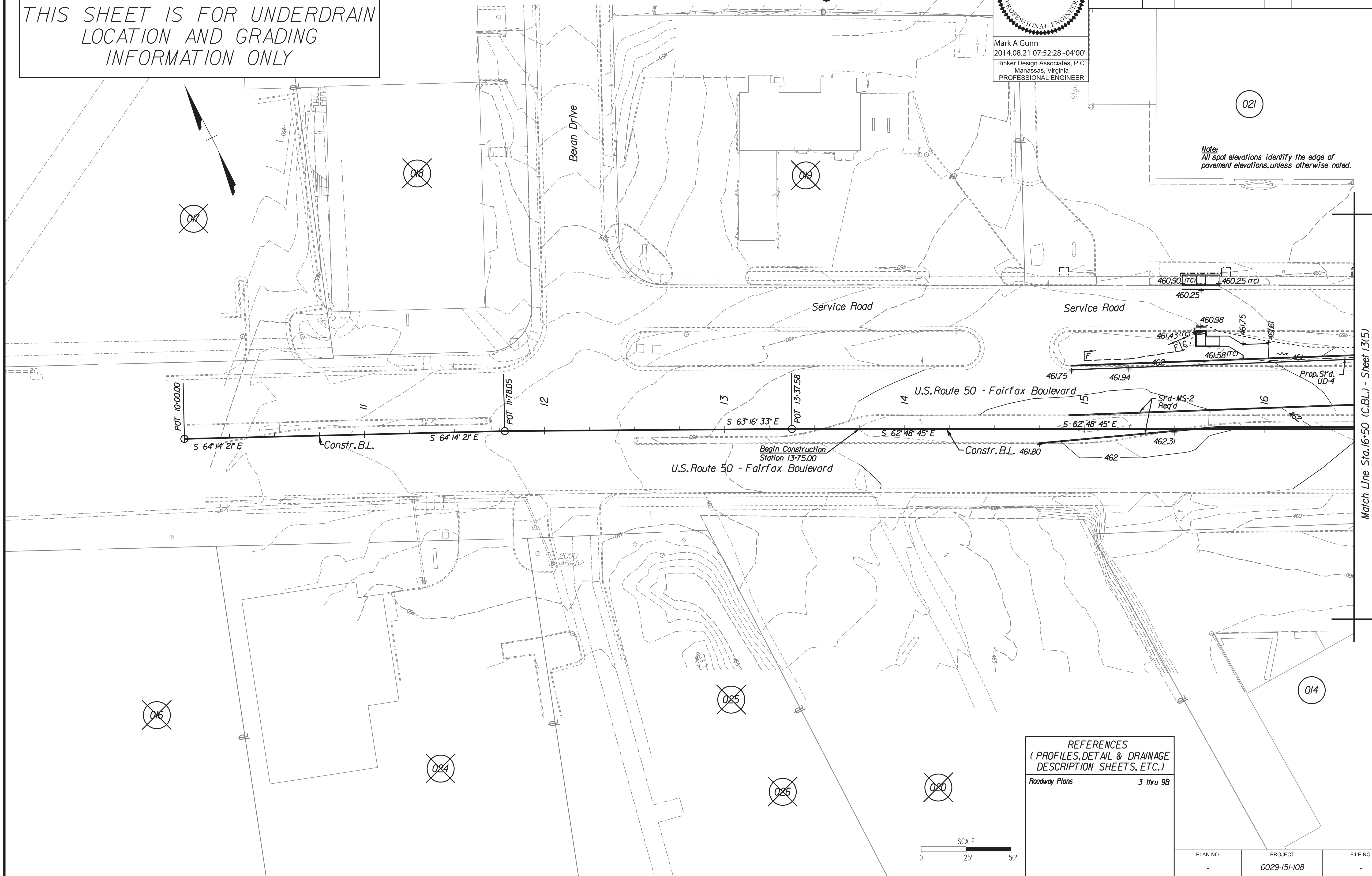
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 Rinker Design Associates, P.C.
 Manassas, Virginia
 PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID PROJECT OWNER	ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-540(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	13(4)

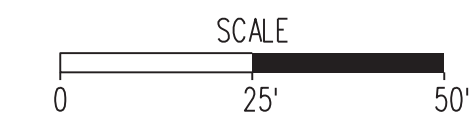
THIS SHEET IS FOR UNDERDRAIN LOCATION AND GRADING INFORMATION ONLY

Underdrain and Grading Plan

Note:
 All spot elevations identify the edge of pavement elevations, unless otherwise noted.



REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)
 Roadway Plans 3 thru 9B



PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	13(4)

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

NORTHERN VIRGINIA DISTRICT

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
 SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
 DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
 DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

Underdrain and Grading Plan

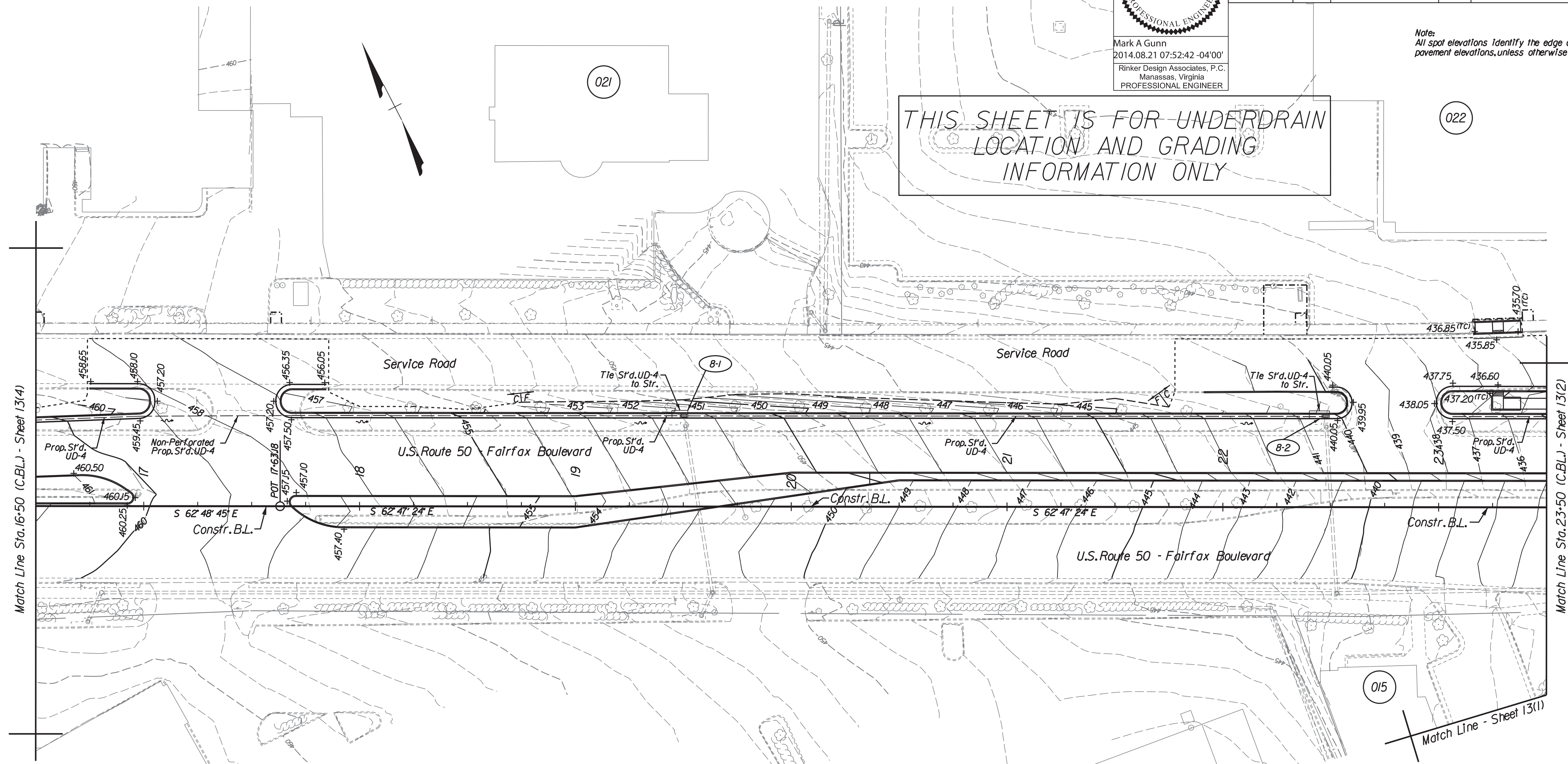
COMMONWEALTH OF VIRGINIA
 MARK A. GUNN
 Lic. No. 038323
 PROFESSIONAL ENGINEER

Mark A Gunn
 2014.08.21 07:52:42 -04'00'
 Rinker Design Associates, P.C.
 Manassas, Virginia
 PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID	ROUTE	STATE	SHEET NO.
08-23-13	VA.	STP-540(675) RSTP-540(178)	29	0029-151-108 RW-201, C-501	13(5)

Note:
All spot elevations identify the edge of pavement elevations, unless otherwise noted.

THIS SHEET IS FOR UNDERDRAIN LOCATION AND GRADING INFORMATION ONLY



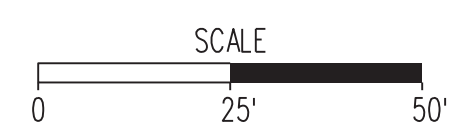
Rinker Design Associates, P.C.
 Civil Engineers
 Environmental Engineers
 Surveyors
 Transportation Engineers
 Right of Way Services

NORTHERN VIRGINIA DISTRICT

8/20/2014

REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

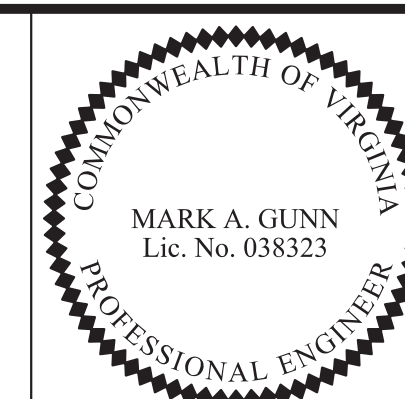
Roadway Plans	3 thru 9B
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PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	13(5)

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

Underdrain and Grading Plan

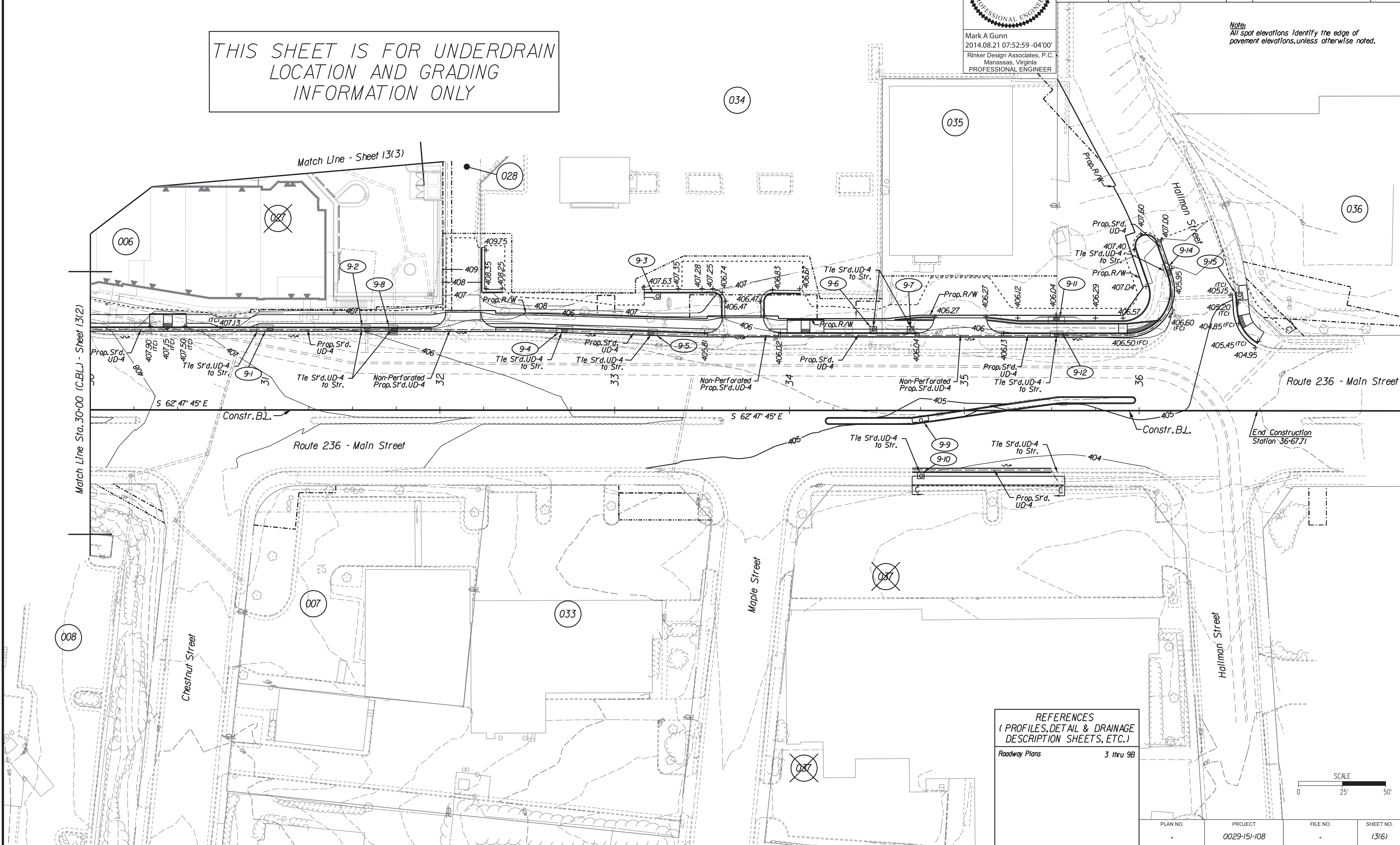


Mark A Gunn
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Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISED 08-23-13	STATE VA.	FEDERAL AID PROJECT OWNER STP-540(675) RSTP-540(178)	ROUTE 29	STATE PROJECT 0029-151-108 RW-201, C-501	SHEET NO. 13(6)
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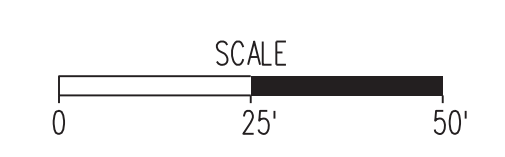
THIS SHEET IS FOR UNDERDRAIN
LOCATION AND GRADING
INFORMATION ONLY

Note:
All spot elevations identify the edge of
pavement elevations, unless otherwise noted.



REFERENCES
(PROFILES, DETAIL & DRAINAGE
DESCRIPTION SHEETS, ETC.)

Roadway Plans	3 thru 9B
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PLAN NO.	PROJECT 0029-151-108	FILE NO.	SHEET NO. 13(6)
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Rinker Design Associates, P.C.
Civil Engineering, Transportation, Environmental
Right of Way Services

NORTHERN VIRGINIA DISTRICT

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
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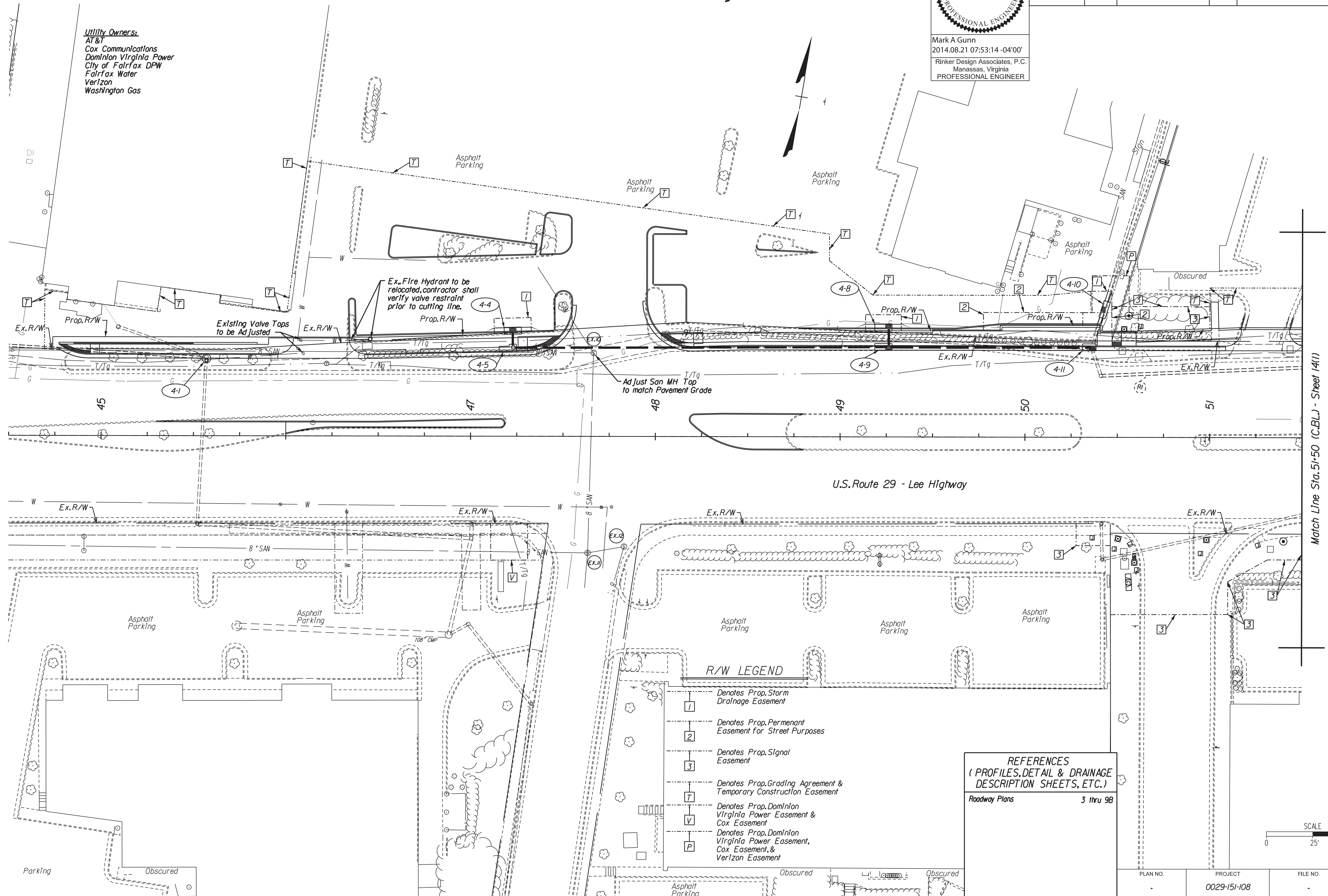
Waterline and Sanitary Sewer Plan

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark A Gunn
2014.08.21 07:53:14 -04'00'
Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID PROJECT OWNER	ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-540(675) RSTP-540(178)	29	0029-151-108 RW-201, C-501	14

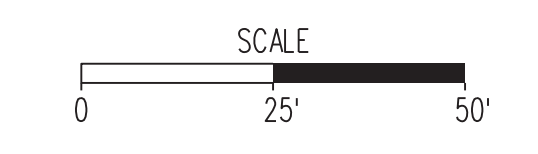
Utility Owners:
AT & T
Cox Communications
Dominion Virginia Power
City of Fairfax DPW
Fairfax Water
Verizon
Washington Gas



R/W LEGEND

- 1 Denotes Prop. Storm Drainage Easement
- 2 Denotes Prop. Permanent Easement for Street Purposes
- 3 Denotes Prop. Signal Easement
- 7 Denotes Prop. Grading Agreement & Temporary Construction Easement
- V Denotes Prop. Dominion Virginia Power Easement & Cox Easement
- P Denotes Prop. Dominion Virginia Power Easement, Cox Easement, & Verizon Easement

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)
Roadway Plans 3 thru 9B



PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	14

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

NORTHERN VIRGINIA DISTRICT

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
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 DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

Waterline and Sanitary Sewer Plan

COMMONWEALTH OF VIRGINIA
 PROFESSIONAL ENGINEER
 MARK A. GUNN
 Lic. No. 038323

Mark A Gunn
 2014.08.21 07:53:31 -04'00'
 Rinker Design Associates, P.C.
 Manassas, Virginia
 PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID PROJECT OWNER	ROUTE	STATE PROJECT	SHEET NO.
08-23-13	VA.	STP-540(675) RSTP-540(178)	29	0029-151-108 RW-201, C-501	14(1)

X X X X Denotes Existing Waterline to be Removed
 / / / / Denotes Existing Waterline to be Abandoned or Removed as Necessary

Connections to the existing waterline at station 12+37.20 and 15+36.30, shall be night time shut downs after business hours to minimize service interruptions and to take pressure off of the existing line to make the needed connections.

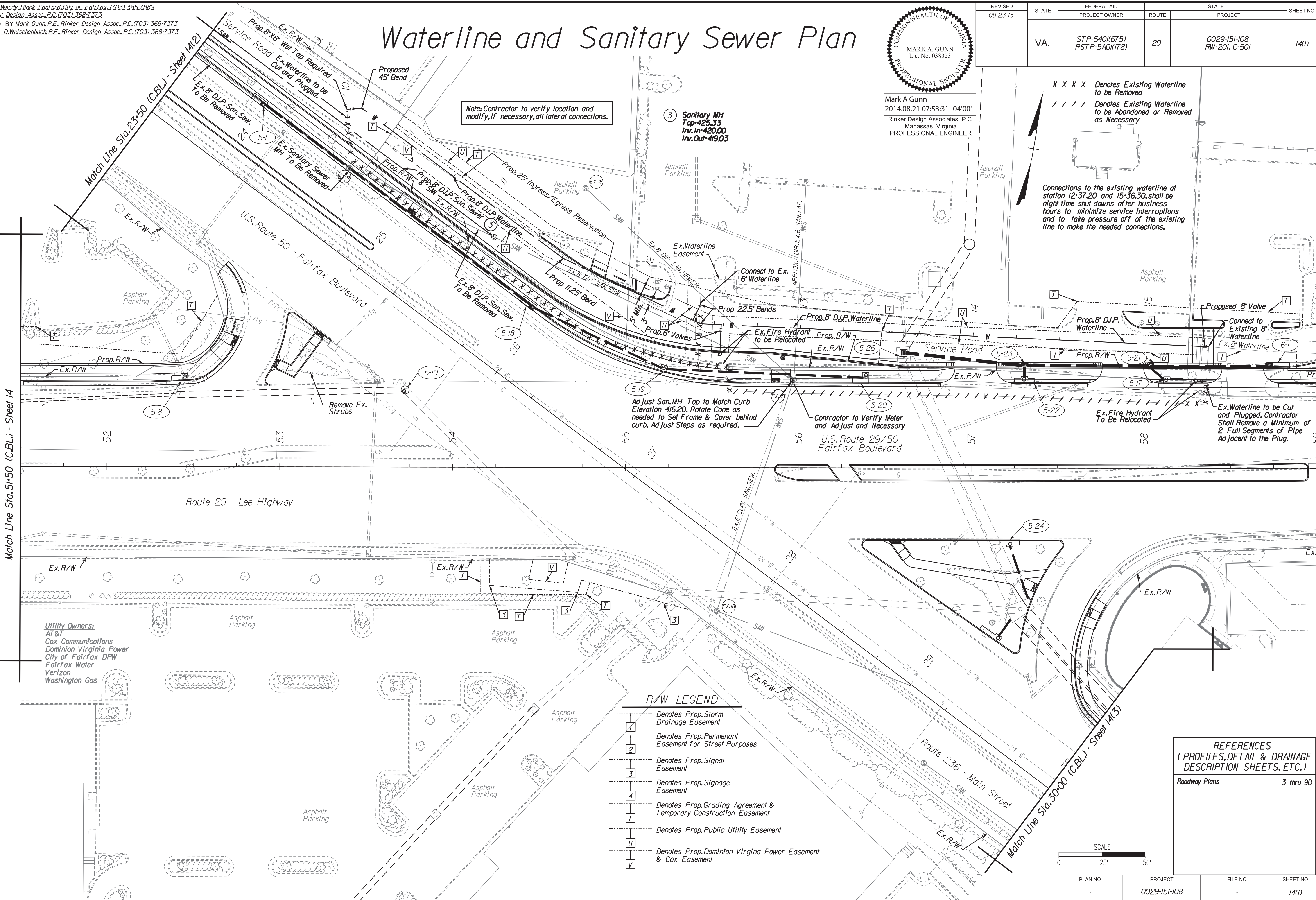
Note: Contractor to verify location and modify, if necessary, all lateral connections.

3 Sanitary MH
 Top=425.33
 Inv. In=420.00
 Inv. Out=419.03

Adjust San. MH Top to Match Curb Elevation 416.20. Rotate Cone as needed to Set Frame & Cover behind curb. Adjust Steps as required.

Contractor to Verify Meter and Adjust and Necessary

Ex. Waterline to be Cut and Plugged. Contractor Shall Remove a Minimum of 2 Full Segments of Pipe Adjacent to the Plug.



Match Line Sta. 51+50 (C.B.L.) - Street 14

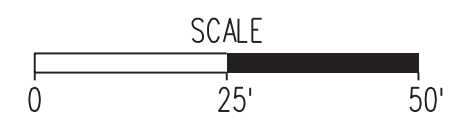
Match Line Sta. 30+00 (C.B.L.) - Street 14(3)

R/W LEGEND

1	Denotes Prop. Storm Drainage Easement
2	Denotes Prop. Permanent Easement for Street Purposes
3	Denotes Prop. Signal Easement
4	Denotes Prop. Signage Easement
7	Denotes Prop. Grading Agreement & Temporary Construction Easement
U	Denotes Prop. Public Utility Easement
V	Denotes Prop. Dominion Virginia Power Easement & Cox Easement

REFERENCES
 (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Roadway Plans 3 thru 9B



PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0029-151-108		14(1)

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

NORTHERN VIRGINIA DISTRICT

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
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DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

Waterline and Sanitary Sewer Plan

COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER
MARK A. GUNN
Lic. No. 038323

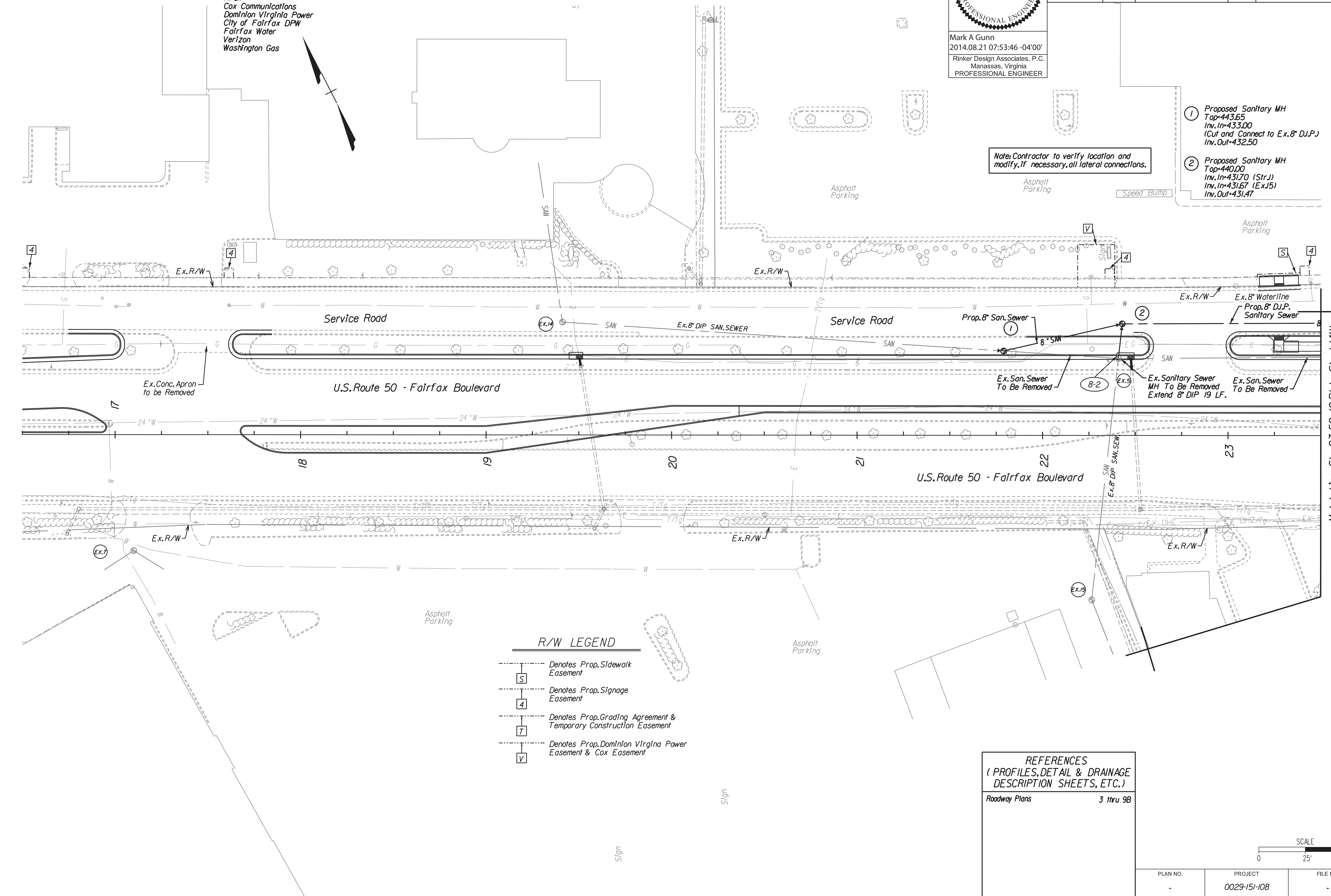
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Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID	ROUTE	STATE	SHEET NO.
08-23-13	VA.	STP-540(675) RSTP-540(178)	29	0029-151-108 RW-201, C-501	14(2)

Utility Owners:
AT&T
Cox Communications
Dominion Virginia Power
City of Fairfax DPW
Fairfax Water
Verizon
Washington Gas

Note: Contractor to verify location and modify, if necessary, all lateral connections.

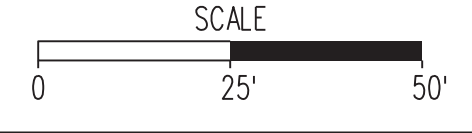
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Top=443.65
Inv. In=433.00
(Cut and Connect to Ex. 8" D.I.P.)
Inv. Out=432.50
- 2 Proposed Sanitary MH
Top=440.00
Inv. In=431.70 (Str. J)
Inv. In=431.67 (Ex. J5)
Inv. Out=431.47



R/W LEGEND

[S]	Denotes Prop. Sidewalk Easement
[4]	Denotes Prop. Signage Easement
[T]	Denotes Prop. Grading Agreement & Temporary Construction Easement
[V]	Denotes Prop. Dominion Virginia Power Easement & Cox Easement

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)
Roadway Plans 3 thru 9B



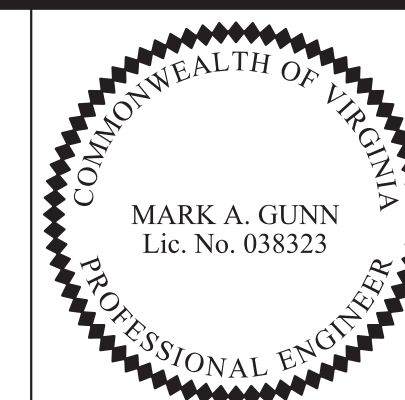
PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	14(2)

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

NORTHERN VIRGINIA DISTRICT

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
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DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

Waterline and Sanitary Sewer Plan



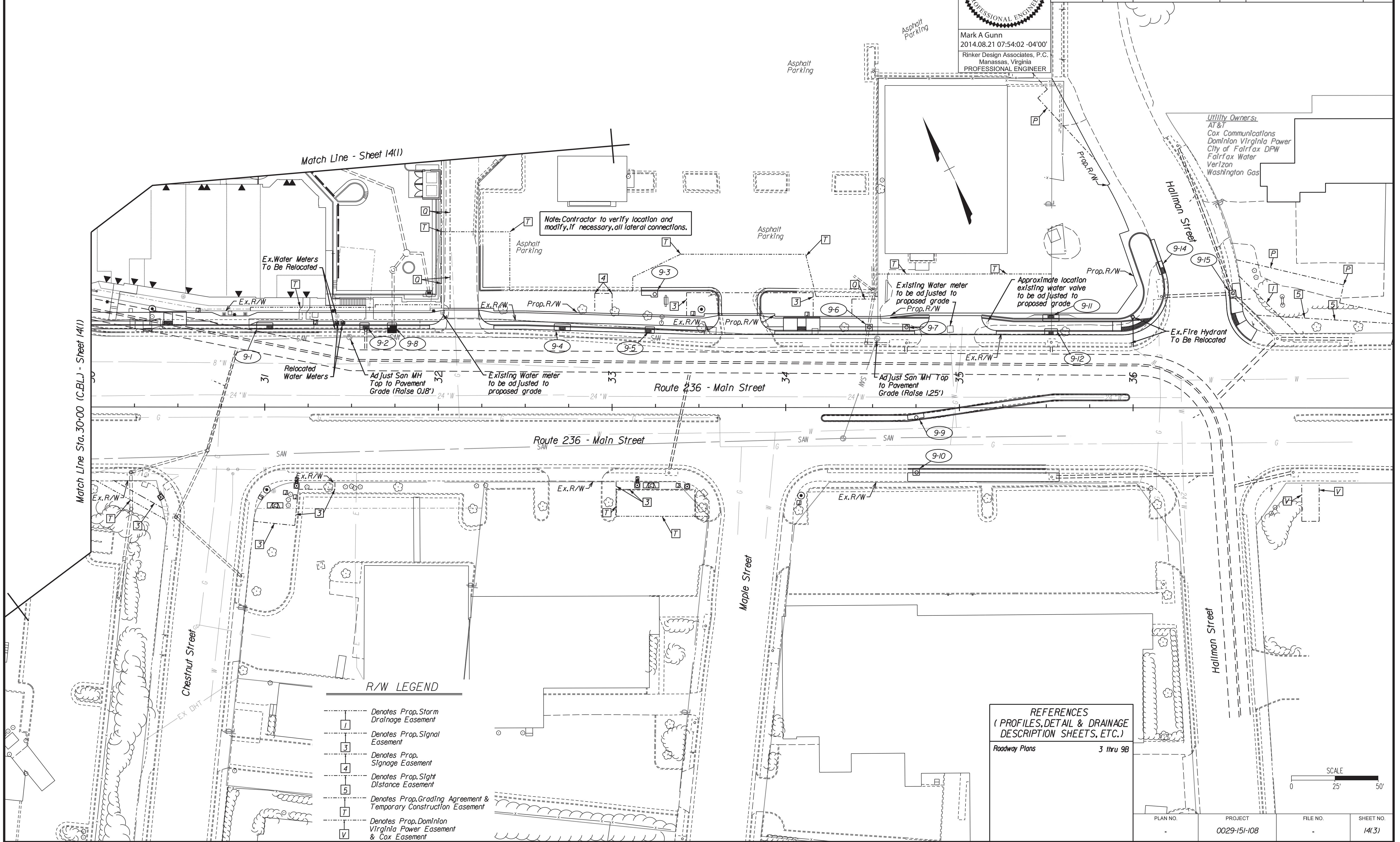
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Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISED 08-23-13	STATE VA.	FEDERAL AID PROJECT OWNER STP-540(675) RSTP-540(178)	ROUTE 29	STATE PROJECT 0029-151-108 RW-201, C-501	SHEET NO. 14(3)
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Rinker Design Associates, P.C.
Civil Engineers
Transportation - Environmental
Right of Way Services

NORTHERN VIRGINIA DISTRICT

8/20/2014



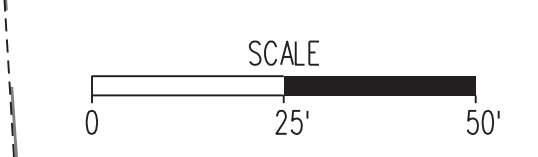
Utility Owners:
AT&T
Cox Communications
Dominion Virginia Power
City of Fairfax DPW
Fairfax Water
Verizon
Washington Gas

Note: Contractor to verify location and modify, if necessary, all lateral connections.

R/W LEGEND

1	Denotes Prop. Storm Drainage Easement
2	Denotes Prop. Signal Easement
3	Denotes Prop. Signage Easement
4	Denotes Prop. Sight Distance Easement
5	Denotes Prop. Grading Agreement & Temporary Construction Easement
7	Denotes Prop. Dominion Virginia Power Easement & Cox Easement

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)
Roadway Plans 3 thru 9B



PLAN NO.	PROJECT 0029-151-108	FILE NO.	SHEET NO. 14(3)
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PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
 SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
 DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
 DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

Proposed Sanitary Sewer Profiles

Mark A. Gunn
 2014.08.21 07:54:16 -04'00'
 Rinker Design Associates, P.C.
 Manassas, Virginia
 PROFESSIONAL ENGINEER

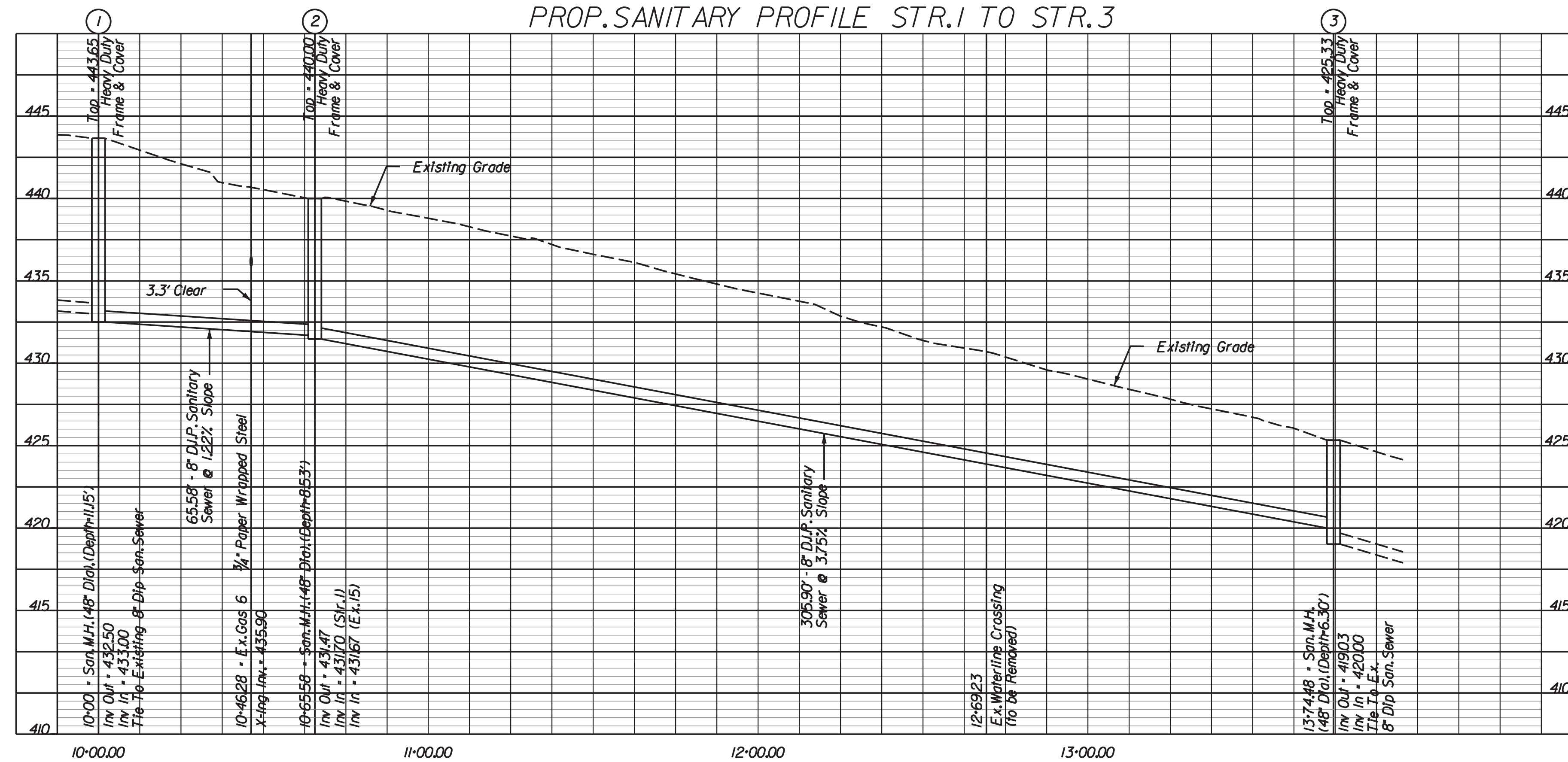
REVISED	STATE	FEDERAL AID	ROUTE	STATE	SHEET NO.
08-23-13		PROJECT OWNER		PROJECT	
	VA.	STP-5401(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	14(4)

Rinker Design Associates, P.C.
 Civil Engineers
 Environmental
 Transportation
 Right of Way Services

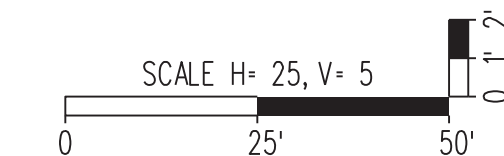
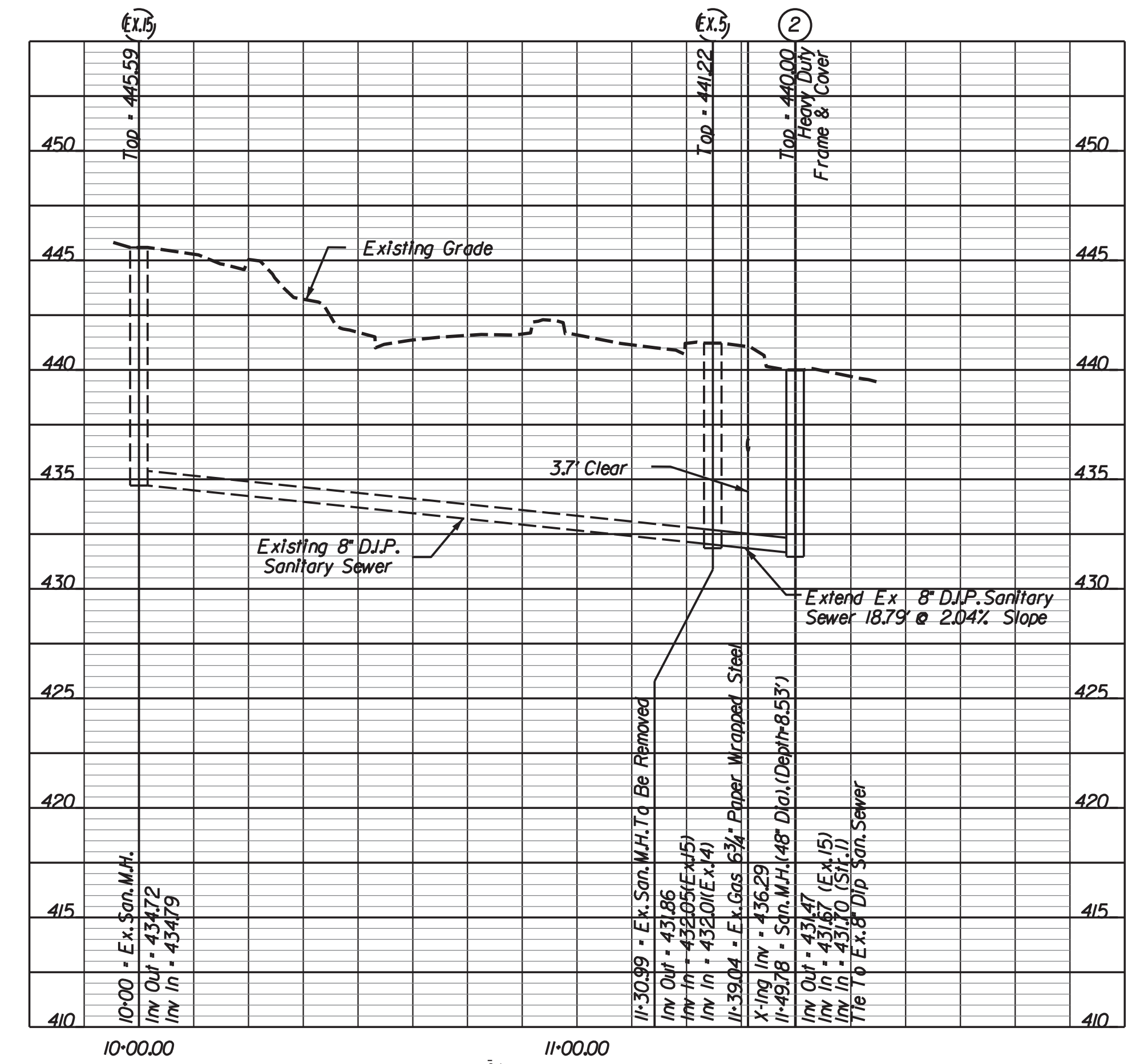
NORTHERN VIRGINIA DISTRICT

8/20/2014

PROP. SANITARY PROFILE STR.1 TO STR.3



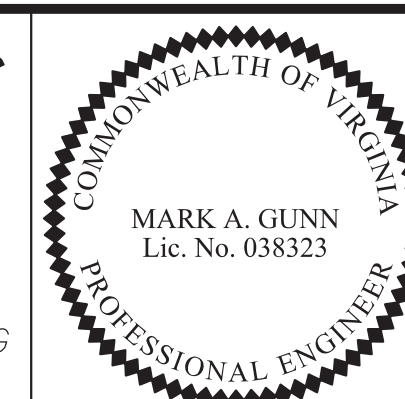
PROP. SANITARY PROFILE EX.15 TO STR.2



PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	14(4)

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

Proposed Waterline and Sanitary Sewer Profiles



Mark A Gunn
2014.08.21 07:54:33 -04'00'
Rinker Design Associates, P.C.
Manassas, Virginia
PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID	ROUTE	STATE	SHEET NO.
08-23-13	VA.	STP-540(675) RSTP-540(178)	29	0029-15I-108 RW-20I, C-50I	14(5)

- AT LEAST 2 WEEKS IN ADVANCE TO BEGINNING ANY WATER MAIN CONSTRUCTION, THE WATER MAIN INSTALLATION CONTRACTOR SHALL SUBMIT TO FAIRFAX WATER, FOR REVIEW AND APPROVAL THE FOLLOWING:
 - EVIDENCE OF SATISFACTORY COMPLETION OF AT LEAST FIVE WATER MAIN INSTALLATION CONTRACTS SIMILAR IN QUANTITY AND COMPLEXITY, INCLUDING SUPERINTENDENT'S EXPERIENCE IN INSTALLING THE PIPE MATERIAL AND JOINT TYPES TO BE USED, PROJECT TITLES, PIPE DIAMETER AND LENGTH, LOCATIONS, REFERENCE CONTACTS, AND TELEPHONE NUMBERS. THE SUPERINTENDENT SHALL HAVE AT LEAST 5 YEARS EXPERIENCE IN THE INSTALLATION OF WATER MAINS, AND SHALL HAVE BEEN IN CHARGE OF INSTALLING AT LEAST 10,000 LINEAR FEET OF DUCTILE PIPE.
 - DATA SHALL BE SUPPLIED TO SHOW THAT STAFFING SCHEDULED FOR THE PROJECT POSSESS THE REQUIRED EXPERIENCE. SUCH DATA SHALL CONSIST OF A HISTORY OF THE EMPLOYMENT EXPERIENCE OF THE JOB SUPERINTENDENT, WHO WILL BE IN CHARGE OF THE WATER MAIN INSTALLATION WORK ON THE CONSTRUCTION SITE, TOGETHER WITH A DESCRIPTION OF ANY PARTICULAR CERTIFICATIONS OR SPECIAL CREDENTIALS HE MAY POSSESS.
- DURING THE CONSTRUCTION OF THE WATER MAIN, FAIRFAX WATER, UPON NOTICE TO THE CONTRACTOR, AND IN FAIRFAX WATER'S SOLE DISCRETION, WILL HAVE THE RIGHT TO DIRECT THE CONTRACTOR TO REMOVE ANY EMPLOYEE PERMANENTLY FROM THE SITE FOR ANY REASON. IN ADDITION, IF ANY OF THE CONTRACTOR'S PERSONNEL ARE NOT SATISFACTORY TO FAIRFAX WATER THE CONTRACTOR SHALL REPLACE SAME WITH SATISFACTORY PERSONNEL.
- NOTICE OR COMMUNICATION TO THE SUPERINTENDENT SHALL BE EQUIVALENT TO NOTICE OR COMMUNICATION TO THE CONTRACTOR. THE SUPERINTENDENT SHALL FOLLOW WITHOUT DELAY ALL INSTRUCTIONS OF FAIRFAX WATER IN THE CONSTRUCTION AND COMPLETION OF THE WATER MAIN OR ANY WORK ASSOCIATED WITH OR IMPACTING FAIRFAX WATER INFRASTRUCTURE.
- FAIRFAX WATER SHALL HAVE THE RIGHT TO SUSPEND ANY PART OF THE WATER MAIN INSTALLATION WHENEVER IN THEIR JUDGMENT, SUCH SUSPENSION IS REQUIRED IN THE BEST INTEREST OF FAIRFAX WATER, OR TO TAKE OVER, USE, OCCUPY, OR OPERATE ANY PART OF THE COMPLETED OR PARTLY COMPLETED WATER MAIN INSTALLATION IF, BEFORE THE FINAL ACCEPTANCE OF THE WATER MAIN INSTALLATION, FAIRFAX WATER DEEMS IT NECESSARY.
- THE EXISTING UTILITIES, STRUCTURES, PROPERTY LINES, AND EASEMENTS SHOWN ARE BASED ON DATA AND CONSTRUCTION PLANS PROVIDED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION (THE DEPARTMENT, VDOT). THE WATER MAIN DESIGN HAS BEEN BASED ON THIS PROVIDED INFORMATION. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION AND SHALL DIG TEST PITS AS CALLED FOR IN THE CONSTRUCTION NOTES OR AS DEEMED NECESSARY BY THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR ENFORCING THE REQUIREMENTS OF CHAPTER 6-B, FAIRFAX COUNTY CODE-EXCAVATION AND UTILITY LINE INSTALLATION. IN PARTICULAR, THE CONTRACTOR IS DIRECTED TO SECTION 10, DEMOLITION OR EXCAVATION-PRIOR NOTICE OF THE AFORESAID CODE. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 1-800-257-7777 SUFFICIENTLY IN ADVANCE OF THE START OF CONSTRUCTION TO COMPLY WITH THIS REQUIREMENT.

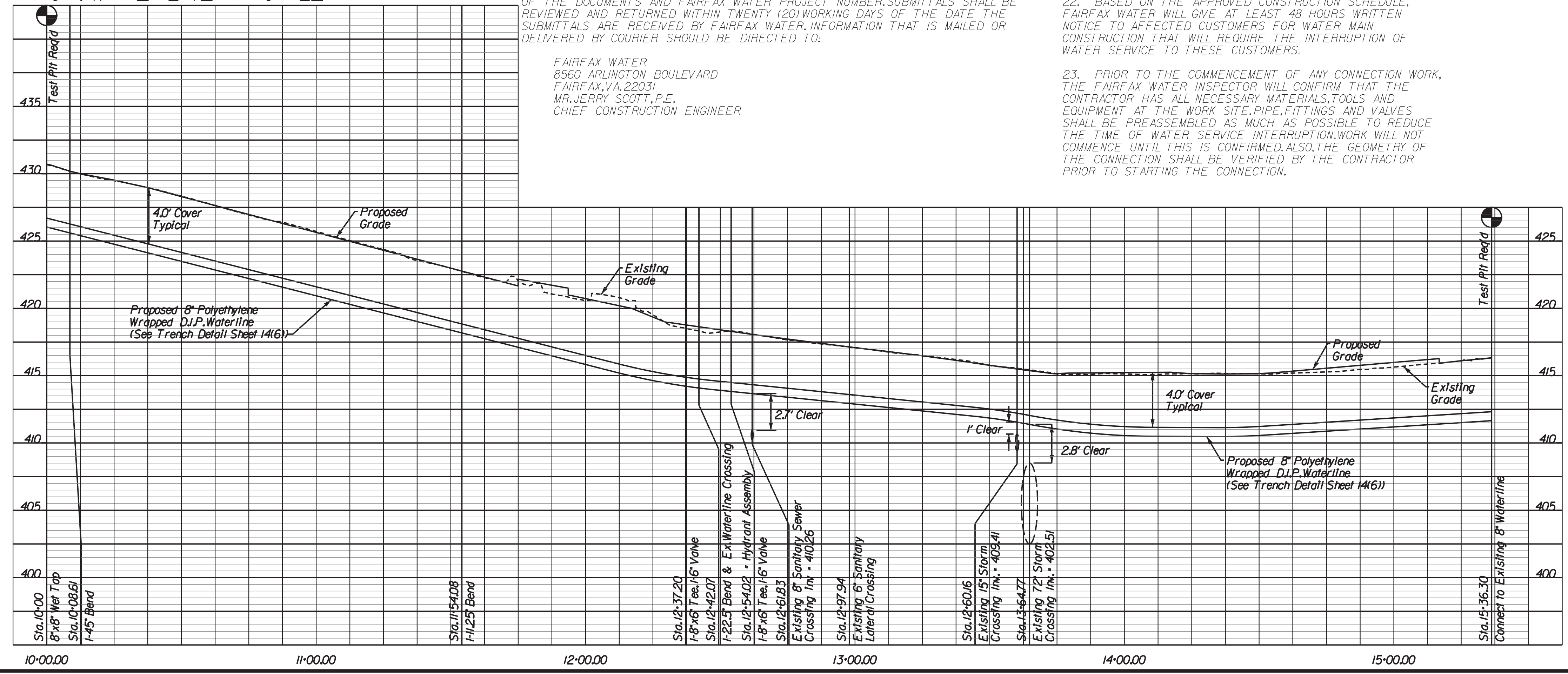
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AND UTILITY OWNER AT NO EXPENSE TO THE DEPARTMENT.
- ALL PIPE ELEVATIONS SHOWN ARE TOP OF PIPE UNLESS OTHERWISE SPECIFIED ON THE PLAN.
- THE CONTRACTOR IS REFERRED TO THE VDOT DRAWINGS AND STANDARDS FOR THE LATEST ROAD AND DRAINAGE DESIGN INFORMATION.
- NOTIFICATION OF PENDING WATER MAIN PRESSURE TESTS, DISINFECTION AND/OR CONNECTIONS; THE DESIRE TO HAVE AN EXISTING WATER SYSTEM VALVE OPENED OR CLOSED; AN EMERGENCY; ETC. SHALL BE DIRECTED TO:
 - 8:00 AM TO 4:00 P.M. MONDAY THROUGH FRIDAY
MR. JERRY SCOTT, P.E., CHIEF CONSTRUCTION ENGINEER
8560 ARLINGTON BOULEVARD FAIRFAX, VA 22031
TELEPHONE NO. (703) 289-6351
CELL PHONE NO. (571) 722-2750
 - NIGHT, WEEKENDS AND HOLIDAYS
DISPATCHER
TELEPHONE NO. (703) 289-6395 OR (703) 289-6323
- THE CONTRACTOR SHALL NOT OPEN OR CLOSE ANY EXISTING WATER SYSTEM VALVES WITHOUT A FAIRFAX WATER INSPECTOR OVERSEEING THE WORK.
- THE WORKING PRESSURE OF THE EXISTING WATER SYSTEM IS APPROXIMATELY 95 PSI.
- FAIRFAX WATER INSPECTOR WILL RECORD "AS BUILT" CONDITIONS FOR THE GENERAL WATER MAIN CONSTRUCTION.
- FAIRFAX WATER PUBLISHES AN "APPROVED PRODUCTS LIST" WHICH LISTS, BY CATEGORY, MANUFACTURER'S PRODUCTS APPROVED FOR USE IN FAIRFAX WATER'S SYSTEM. MANUFACTURER'S PRODUCTS COVERED BY THE CATEGORIES INCLUDED IN THIS DOCUMENT WHICH ARE NOT SPECIFICALLY LISTED ARE NOT APPROVED FOR USE. COPIES OF THIS DOCUMENT ARE AVAILABLE AT WWW.FAIRFAXWATER.ORG.
- ALL WATER MAIN INSTALLATION SHALL BE IN CONFORMANCE WITH FAIRFAX WATER'S STANDARD DETAILS INCLUDED HEREIN AND FOUND AT FAIRFAX WATER'S WEBSITE AT WWW.FAIRFAXWATER.ORG.
- FAIRFAX WATER WILL REVIEW AND APPROVE WATER MAIN LAYING SCHEDULES (FOR 24-INCH AND GREATER) AND WATER MAIN RELATED SHOP DRAWINGS FOR THIS PROJECT AS TRANSMITTED TO FAIRFAX WATER BY THE CONTRACTOR. SUBMITTALS TO FAIRFAX WATER SHALL CONSIST OF CATALOG CUTS, SUPPLIER CERTIFICATIONS AND ANY OTHER INFORMATION PERTINENT TO THE MATERIAL ITEM. ALL SUBMITTALS SHALL BE CLEAR AND READABLE QUALITY AND THE ITEM BEING SUBMITTED FOR REVIEW SHALL BE CLEARLY HIGHLIGHTED OR DEFINED SO THAT THE REVIEWER CAN READILY IDENTIFY IT. FAIRFAX WATER REQUIRES A MINIMUM OF FOUR (4) SETS OF SUBMITTALS FOR IN-HOUSE DISTRIBUTION. ADDITIONAL SETS OF SUBMITTALS TO BE RETURNED TO THE CONTRACTOR SHOULD BE PROVIDED AT THIS TIME. THE SUBMITTALS WILL BE PROVIDED TO FAIRFAX WATER WITH A TRANSMITTAL LETTER CLEARLY IDENTIFYING THE CONTENTS OF THE DOCUMENTS AND FAIRFAX WATER PROJECT NUMBER. SUBMITTALS SHALL BE REVIEWED AND RETURNED WITHIN TWENTY (20) WORKING DAYS OF THE DATE THE SUBMITTALS ARE RECEIVED BY FAIRFAX WATER. INFORMATION THAT IS MAILED OR DELIVERED BY COURIER SHOULD BE DIRECTED TO:

FAIRFAX WATER
8560 ARLINGTON BOULEVARD
FAIRFAX, VA 22031
MR. JERRY SCOTT, P.E.
CHIEF CONSTRUCTION ENGINEER

- THE CONTRACTOR SHALL NOT BE RELEASED FROM THE PROJECT UNTIL THE WATER MAIN INSTALLATION WORK AND FINAL WATER MAIN INSPECTION ARE COMPLETED TO THE SATISFACTION OF FAIRFAX WATER. A FAIRFAX WATER REPRESENTATIVE SHALL PROVIDE WRITTEN APPROVAL VERIFYING THAT THE WATER MAIN INSTALLATION WORK IS COMPLETE.
- AT EACH LOCATION WHERE A NEW WATER MAIN IS TO BE CONNECTED TO THE EXISTING WATER MAIN, THE CONTRACTOR SHALL NOT ORDER MATERIAL FOR THE CONNECTION UNTIL HE HAS DUG A TEST PIT AND VERIFIED THE EXACT LOCATION, SIZE, OUTSIDE DIAMETER, ROUNDNESS, ELEVATION, MATERIAL, JOINT LOCATION, AND TYPE AND DIRECTION OF THE EXISTING WATER MAIN. DIG TEST PITS ONLY IN THE PRESENCE OF AN AUTHORIZED REPRESENTATIVE OF FAIRFAX WATER.
- IF TEST PIT DATA OR FIELD CONDITIONS SHOW THERE IS A CONFLICT WITH AN EXISTING UTILITY OR THE WATER MAIN DESIGN HAS TO BE MODIFIED, SUBMIT THE TEST PIT DATA OR FIELD INFORMATION TO FAIRFAX WATER. FAIRFAX WATER WILL REVIEW AND MODIFY THE DRAWINGS AS REQUIRED.
- INSTALL EACH REPLACEMENT WATER MAIN UP TO BUT EXCLUDING THE CONNECTION(S) TO THE EXISTING WATER MAIN(S) TO THE LINES AND GRADES SHOWN ON THE DRAWINGS. INSTALL TEMPORARY PLUGS OR CAPS, AND SUCCESSFULLY PRESSURE TEST AND DISINFECT THE WATER MAIN. LEAKAGE LOSS (L) AS MEASURED IN GALLONS/HOUR, SHALL NOT EXCEED SDP) / (48000 FOR TWO HOURS WHERE "S" IS THE LENGTH IN FEET OF WATER MAIN TESTED, "D" IS THE NOMINAL INSIDE DIAMETER OF THE PIPE IN INCHES, AND "P" IS THE TEST PRESSURE OF 150 PSIOR 125% (PIPE LESS THAN 20") 150% (PIPE EQUAL TO OR GREATER THAN 20") OF THE MAXIMUM EXPECTED WORKING PRESSURE, WHICHEVER IS GREATER, AT THE HIGH POINT OF THE WATER MAIN UNLESS OTHERWISE SHOWN OR DIRECTED BY FAIRFAX WATER. PRESSURE TESTS SHALL BE LIMITED TO 2,500 FEET FOR ANY INDIVIDUAL TEST, NO ADDITIONAL PAYMENT FOR TEMPORARY BLOW OFFS OR AIR RELEASES.
- AT LEAST SEVEN WORKING DAYS PRIOR TO THE DATE THE CONTRACTOR ANTICIPATES INSTALLING THE CONNECTION(S) TO THE EXISTING WATER SYSTEM, THE CONTRACTOR SHALL MEET WITH A FAIRFAX WATER REPRESENTATIVE AND REVIEW HIS PROPOSED SCHEDULING AND CONSTRUCTION PROCEDURES FOR THE CONNECTION(S). SYSTEM DEMANDS AND OPERATING CONDITIONS AT THE TIME CONNECTION(S) ARE SCHEDULED MAY REQUIRE A NIGHT (9:00 P.M. TO 6:00 A.M.) CONNECTION TIME. NO ADDITIONAL PAYMENT WILL BE MADE TO THE CONTRACTOR FOR WORK WHICH MUST BE PERFORMED AT NIGHT. APPROVAL OF THE CONTRACTOR'S CONNECTION(S) SCHEDULE AND CONSTRUCTION PROCEDURES BY FAIRFAX WATER DOES NOT RELIEVE THE CONTRACTOR OF HIS TOTAL RESPONSIBILITY TO SEE THAT THE CONNECTION IS SUCCESSFULLY COMPLETED WITHIN THE DESIGNATED TIME FRAME.
- BASED ON THE APPROVED CONSTRUCTION SCHEDULE, FAIRFAX WATER WILL GIVE AT LEAST 48 HOURS WRITTEN NOTICE TO AFFECTED CUSTOMERS FOR WATER MAIN CONSTRUCTION THAT WILL REQUIRE THE INTERRUPTION OF WATER SERVICE TO THESE CUSTOMERS.
- PRIOR TO THE COMMENCEMENT OF ANY CONNECTION WORK, THE FAIRFAX WATER INSPECTOR WILL CONFIRM THAT THE CONTRACTOR HAS ALL NECESSARY MATERIALS, TOOLS AND EQUIPMENT AT THE WORK SITE. PIPE, FITTINGS AND VALVES SHALL BE PREASSEMBLED AS MUCH AS POSSIBLE TO REDUCE THE TIME OF WATER SERVICE INTERRUPTION. WORK WILL NOT COMMENCE UNTIL THIS IS CONFIRMED. ALSO, THE GEOMETRY OF THE CONNECTION SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO STARTING THE CONNECTION.

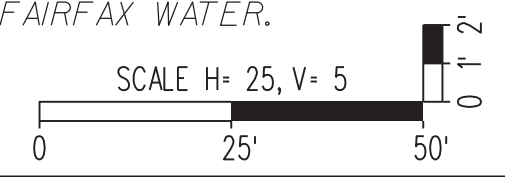
- THE CONTRACTOR SHALL WORK CONTINUOUSLY AND EXPEDITIOUSLY AROUND THE CLOCK USING MULTIPLE CREWS UNTIL THE CONNECTIONS ARE SUCCESSFULLY INSTALLED AND WATER SERVICE IS RESTORED. WHERE THE NEW WATER MAIN IS TO BE CONNECTED AT MORE THAN ONE POINT TO THE EXISTING WATER SYSTEM, CONNECTIONS SHALL PROCEED SIMULTANEOUSLY. ALL CONNECTION WORK MUST BE SUCCESSFULLY COMPLETED WITHIN TEN HOURS UNLESS NOTED DIFFERENTLY IN WRITING BY THE ENGINEER OR FAIRFAX WATER. THE CONTRACTOR SHALL COMMIT THE NECESSARY PERSONNEL AND EQUIPMENT REQUIRED TO PERFORM THE SIMULTANEOUS CONNECTIONS WITHIN THE ABOVE TIME CONSTRAINTS.
- ONLY NON-TOXIC LUBRICANTS RECOMMENDED BY THE PIPE MANUFACTURER AND APPROVED BY THE VIRGINIA DEPARTMENT OF HEALTH SHALL BE USED ON GASKETS. A SOAP SOLUTION WILL NOT BE ALLOWED.
- ANY WATER MAIN TO BE INSTALLED IN A FILL AREA SHALL HAVE THE FILL PLACED AND COMPACTED TO A MINIMUM OF 2 FEET ABOVE THE TOP OF THE PROPOSED PIPE PRIOR TO EXCAVATION FOR AND INSTALLATION OF THE PIPE.
- FIELD APPLIED DIELECTRIC COATING OR PETROLATUM TAPE TO BE APPLIED TO:
 - BURIED MECHANICAL JOINTS, BOLTS, NUTS, COUPLINGS, HARNESS TIE RODS, SADDLES, IRON AND STEEL ANCHORS, AND OTHER BURIED CONNECTING HARDWARE.
 - PIPE EMBEDDED IN CONCRETE, ANCHOR BLOCKS OR OTHERWISE IN CONTACT WITH CONCRETE, EXTENDING THROUGH CONCRETE AND ADJACENT 6 INCHES IN BOTH DIRECTIONS.
 - SERVICE CLAMPS, NON-MOVING PARTS OF CORPORATION STOPS AND OTHER TRANSITION FITTINGS BETWEEN COPPER SERVICES AND DUCTILE IRON PIPE.
- NO BLASTING SHALL OCCUR WITHIN 25 FEET OF EXISTING WATER MAINS. A MAXIMUM PARTICLE VELOCITY OF 1/2 INCHES PER SECOND AT THE CLOSEST POINT TO THE WATER MAIN FOR ANY BLASTING THAT OCCURS BEYOND THE 25 FEET LIMIT SHALL BE ADHERED TO.
- ANY SOUND BARRIER CONSTRUCTION, INCLUDING FOOTINGS, WITHIN 15 FEET OF THE EXISTING OR PROPOSED WATER MAINS SHALL BE REVIEWED FOR APPROVAL BY FAIRFAX WATER.
- INSTALL IDENTIFICATION TAPE DURING BACKFILL OPERATIONS ONE FOOT ABOVE WATER MAIN PIPING FOR ALL RESTRAINED PIPE JOINTS.
- WATER METERS WITHIN PROJECT LIMITS SHALL BE RELOCATED BY THE CONTRACTOR TO A LOCATION BEHIND THE PROPOSED CURB AND GUTTER. ALL WATER SERVICE RELOCATIONS AND RETAPS SHALL BE INSTALLED BY THE CONTRACTOR. ALL EXISTING SERVICES SHALL BE RECONNECTED BY THE CONTRACTOR AFTER ALL APPROVALS HAVE BEEN OBTAINED. WATER METER ASSEMBLIES SHALL INCLUDE ALL MATERIALS AS SHOWN IN FAIRFAX WATER'S STANDARD DETAILS.
- PROPOSED WATER MAINS AND SERVICES MUST BE IN SERVICE BEFORE EXISTING WATER MAINS AND SERVICES ARE ABANDONED.
- UPON COMPLETION OF PROJECT, INSPECTOR WILL CHECK THAT ALL METER BOXES ARE SET TO GRADE AND IN CORRECT LOCATIONS BEFORE THE CONTRACTOR MOVES OFF JOBSITE.
- IN INSTANCES WHERE THE VDOT AND FAIRFAX WATER SPECIFICATIONS OVERLAP OR ADDRESS THE SAME ISSUES, THE MORE STRINGENT SPECIFICATIONS SHALL BE ADHERED TO.
- ALL ABANDONED VALVES AND APPURTENANCES SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSAL/REMOVAL OF SUCH SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- IF THE PROJECT REQUIRES CUTTING OF ASBESTOS CEMENT PIPE (ACP) WATER MAINS, THE CONTRACTOR SHALL COMPLY WITH ALL STATE, FEDERAL AND LOCAL REGULATIONS INCLUDING, BUT NOT LIMITED TO, OSHA REQUIREMENTS AND VIRGINIA DEPARTMENT OF WASTE MANAGEMENT REGULATIONS IN WORKING WITH AND DISPOSAL OF ASBESTOS CEMENT PIPE.
- THE CONTRACTOR SHALL INSTALL 1 LAYER OF 4-MIL CROSS-LAMINATED POLYETHYLENE ENCASEMENT FOR WATER MAINS LESS THAN 24-INCH IN DIAMETER (2 LAYERS FOR WATER MAINS 24-INCH AND GREATER IN DIAMETER) AS SHOWN ON THE DRAWINGS AND STANDARD DETAILS.
- ALL EXISTING AND NEW VALVE BOXES MUST BE FULLY ADJUSTED TO CONFORM TO FINAL ASPHALT GRADE. NO PAVING ADJUSTERS WILL BE PERMITTED.
- IN AREAS WHERE PETROLEUM-CONTAMINATED SOILS ARE ENCOUNTERED ALONG THE PROPOSED WATER MAIN ALIGNMENT, THE CONTRACTOR, AS DIRECTED BY FAIRFAX WATER, SHALL REMOVE AND DISPOSE OF ALL CONTAMINATED SOILS WITHIN THE PIPELINE TRENCH WHERE THE TOTAL PETROLEUM HYDROCARBON (TPH) CONCENTRATION EXCEEDS 50 MG/KG. THE CONTRACTOR SHALL REMOVE THE SUBJECT SOILS AS DIRECTED BY FAIRFAX WATER IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (VDEQ), THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND INDUSTRY-RECOGNIZED REMOVAL PROCEDURES. THE CONTAMINATED SOILS SHALL BE DISPOSED OF AT A CERTIFIED LAND FILL SITE FOR THE CONCENTRATION LEVELS ENCOUNTERED. THE CONTRACTOR SHALL INSTALL VITON GASKETS IN ACCORDANCE WITH THE PIPELINE MANUFACTURER'S INSTALLATION REQUIREMENTS IN ALL AREAS WHERE EXCAVATED SOILS EXCEED 10 MG/KG TPH OR TO THE EXTENT DIRECTED BY FAIRFAX WATER. SUITABLE CLEAN FILL MATERIAL WILL BE PUT IN PLACE ABOVE THE NEWLY INSTALLED WATER MAIN, IF NON-PAVED AREA, IN ACCORDANCE WITH FAIRFAX WATER'S STANDARD TRENCH DETAILS.
- THE CONTRACTOR SHALL NOT INSTALL ANY EARTHWORK OVER EXISTING OR PROPOSED FAIRFAX WATER UTILITIES BEYOND THAT WHICH IS SHOWN IN THE APPROVED VDOT DRAWINGS WITHOUT THE APPROVAL OF FAIRFAX WATER.

PROP. WATERLINE PROFILE



Northern Virginia District
GDA Rinker
Civil Engineering
Design Associates, P.C.
Manassas, VA
Right of Way Services

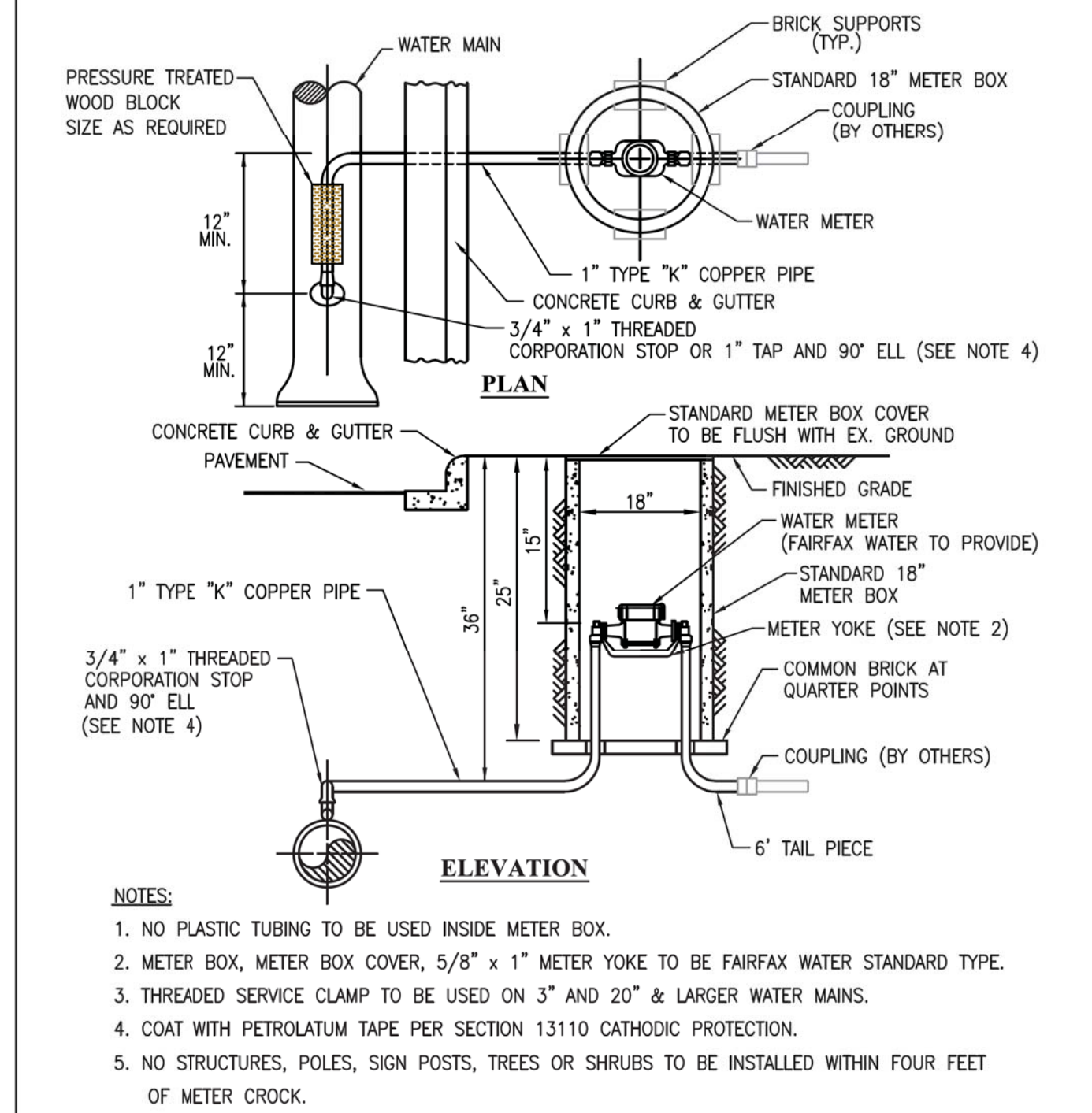
PLAN NO.	PROJECT	FILE NO.	SHEET NO.
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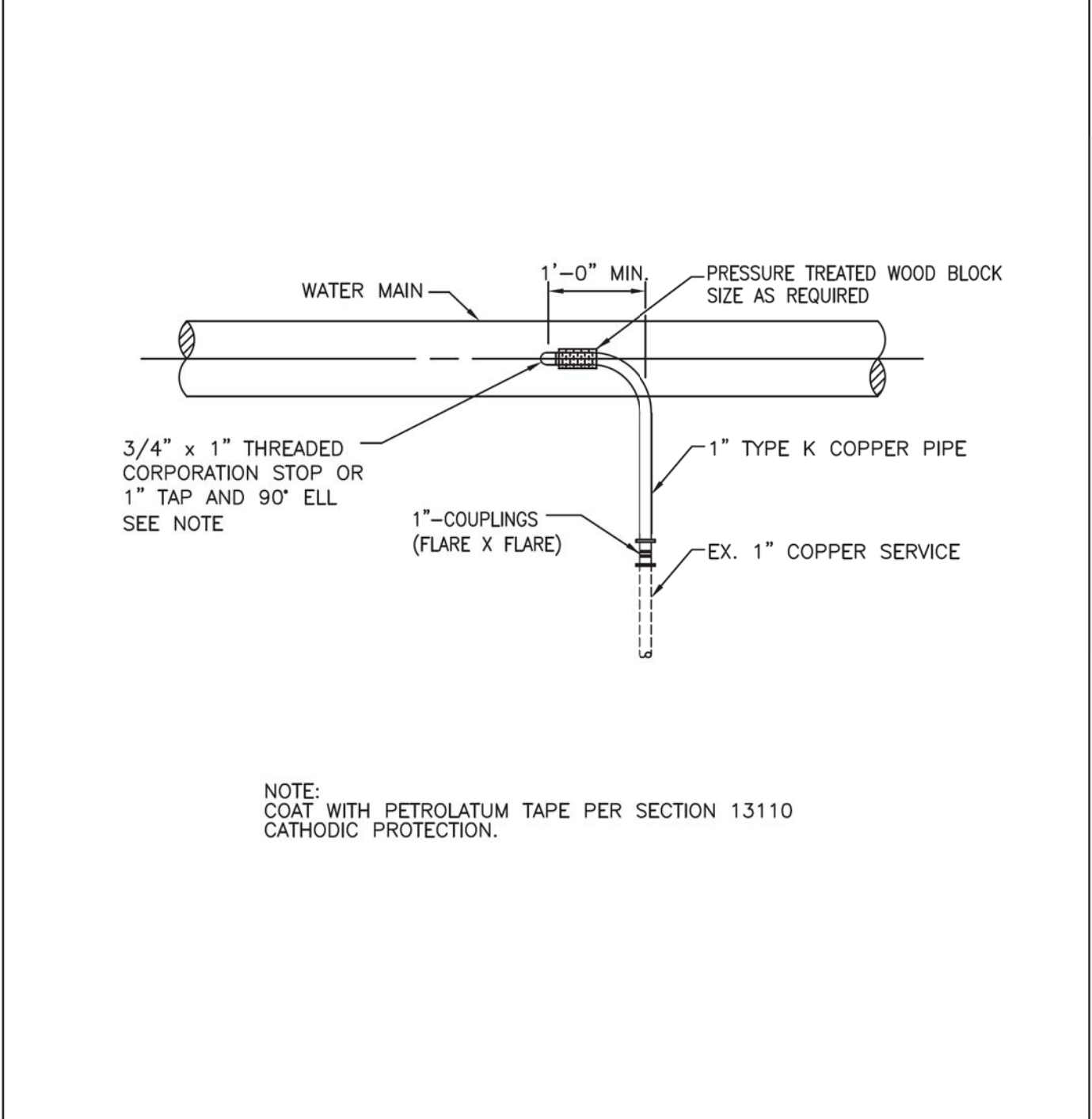
PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
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Proposed Waterline Details

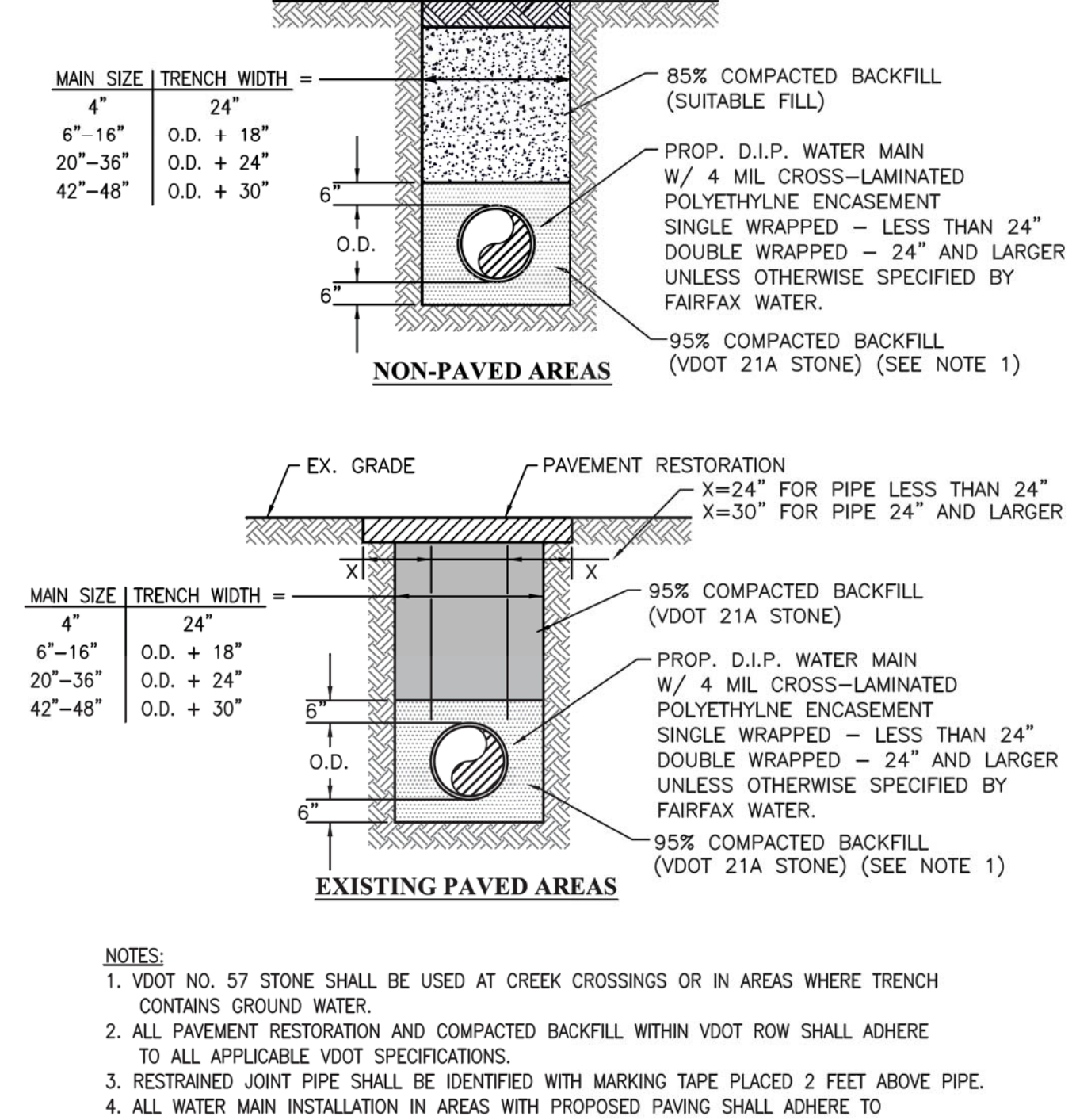
REVISED	STATE	FEDERAL AID	ROUTE	STATE	SHEET NO.
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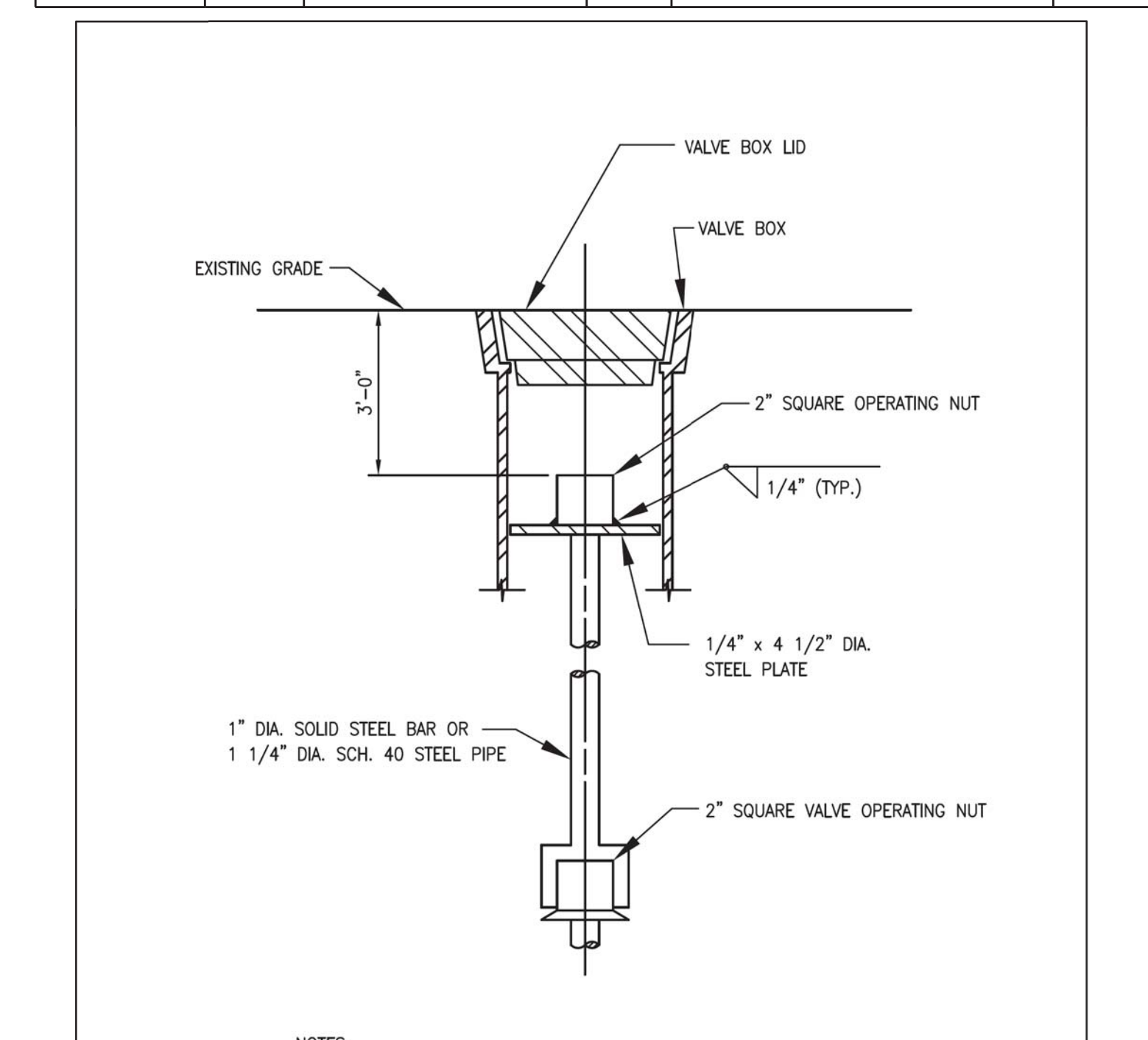
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W	1" SERVICE CONNECTION WITH WATER METER - 5/8" THRU 1"	DRAWING NO. 1
DATE: 1/12	Y:\design\caddtails\standard details\2012\FW DETAILS JAN.dwg	



W	FAIRFAX WATER STANDARD DETAILS	SCALE: NOT TO SCALE
W	1" SERVICE RE-CONNECTION	DRAWING NO. 3
DATE: 1/12	Y:\design\caddtails\standard details\2012\FW DETAILS JAN.dwg	



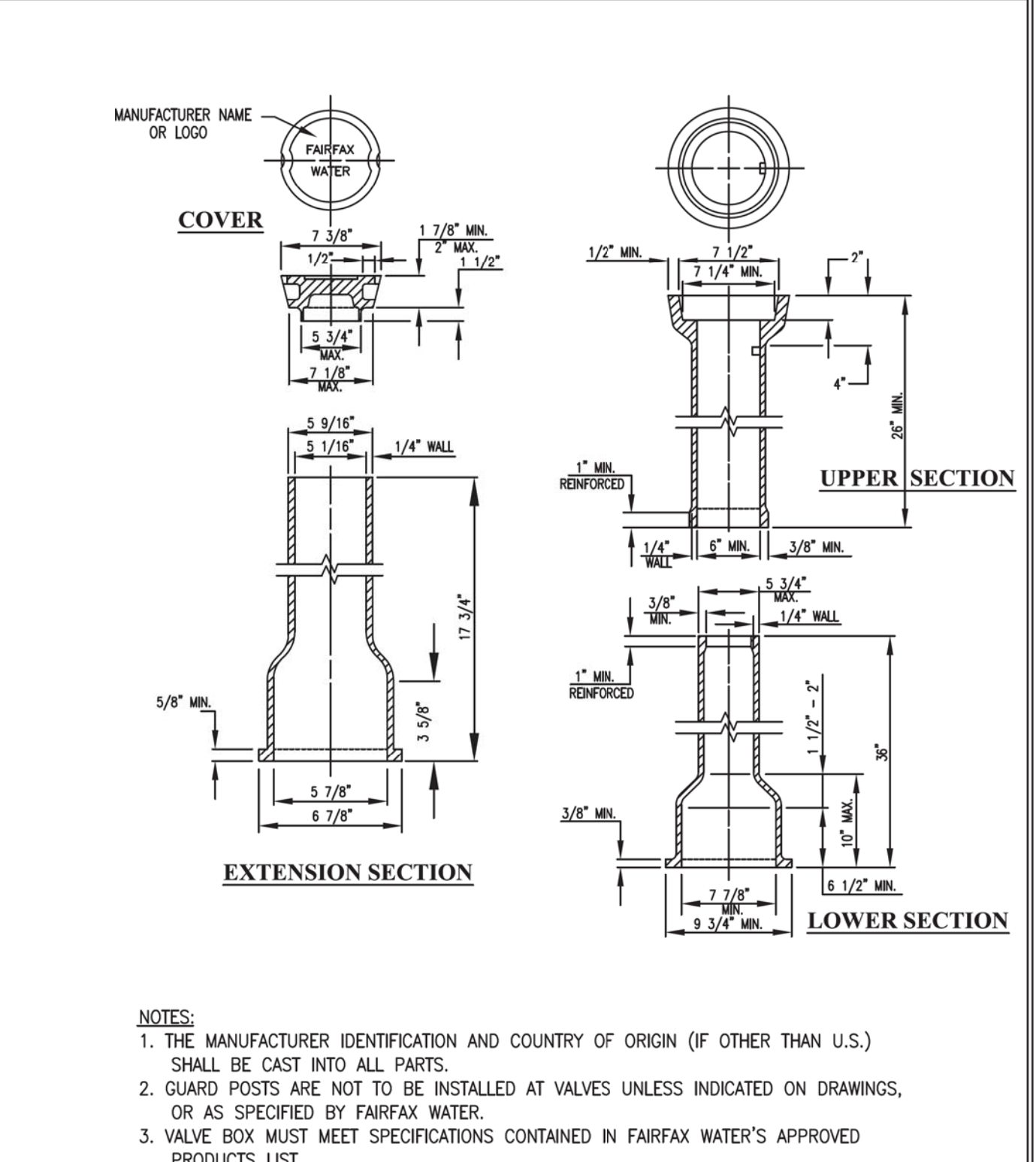
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W	TRENCH - DUCTILE IRON PIPE	DRAWING NO. 12
DATE: 1/12	Y:\design\caddtails\standard details\2012\FW DETAILS JAN.dwg	



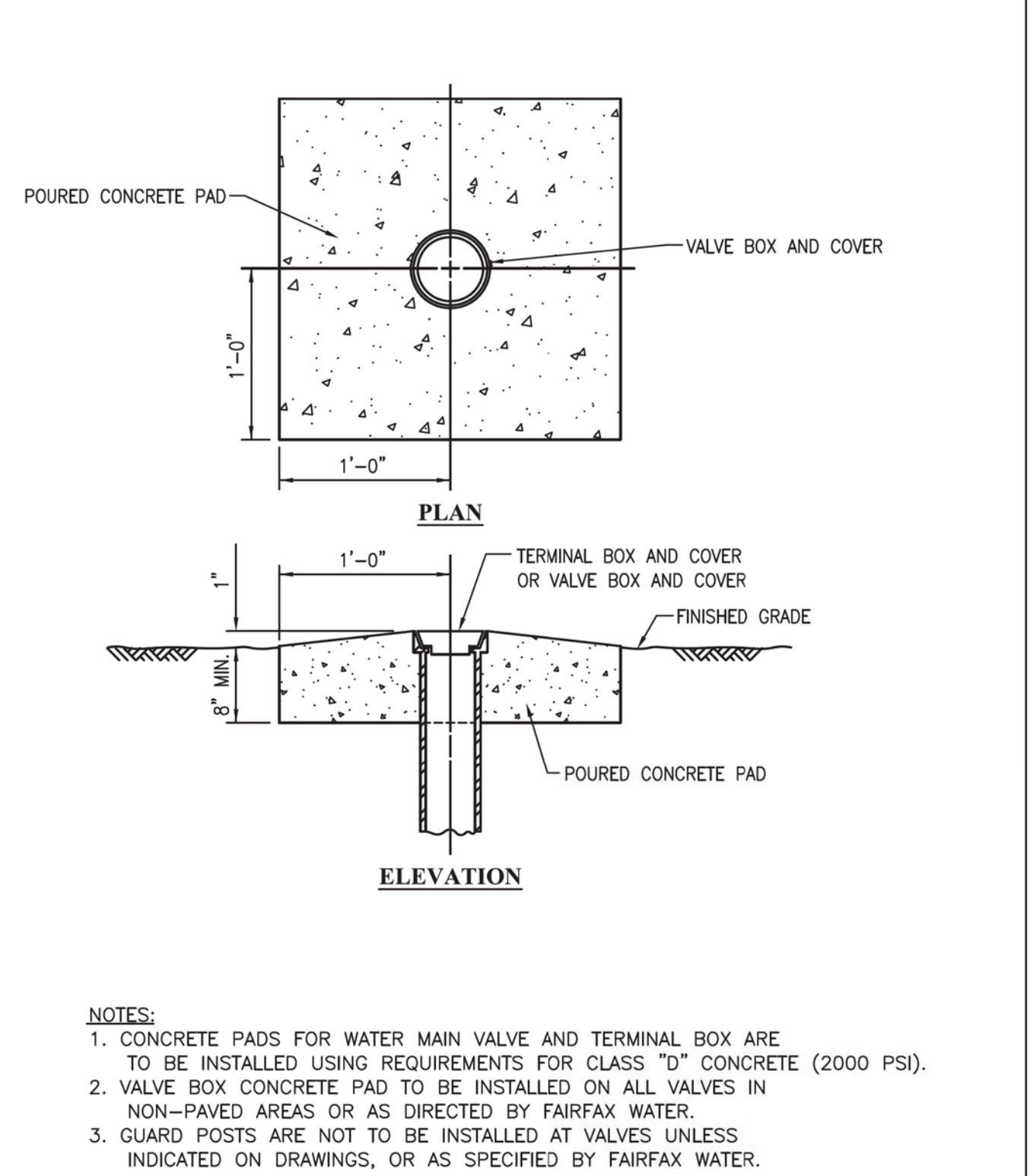
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W	VALVE STEM AND BOX EXTENSION	DRAWING NO. 29
DATE: 1/12	Y:\design\caddtails\standard details\2012\FW DETAILS JAN.dwg	

PIPE SIZE INCHES	DEGREE OF BEND (°)	(1) WORKING PRESSURE 175 PSI		
		H	L	T
6	90	3.0	2.0	1.25
	45	2.0	1.5	1.0
8	90	4.0	2.5	1.75
	45	2.5	2.0	1.0
12	90	5.5	4.0	2.25
	45	4.0	3.0	1.5
16	90	7.5	5.0	3.25
	45	5.0	4.5	2.0
20	90	9.5	6.0	4.0
	45	7.0	4.5	2.75
24	90	13.0	6.5	5.5
	45	9.0	5.0	3.5

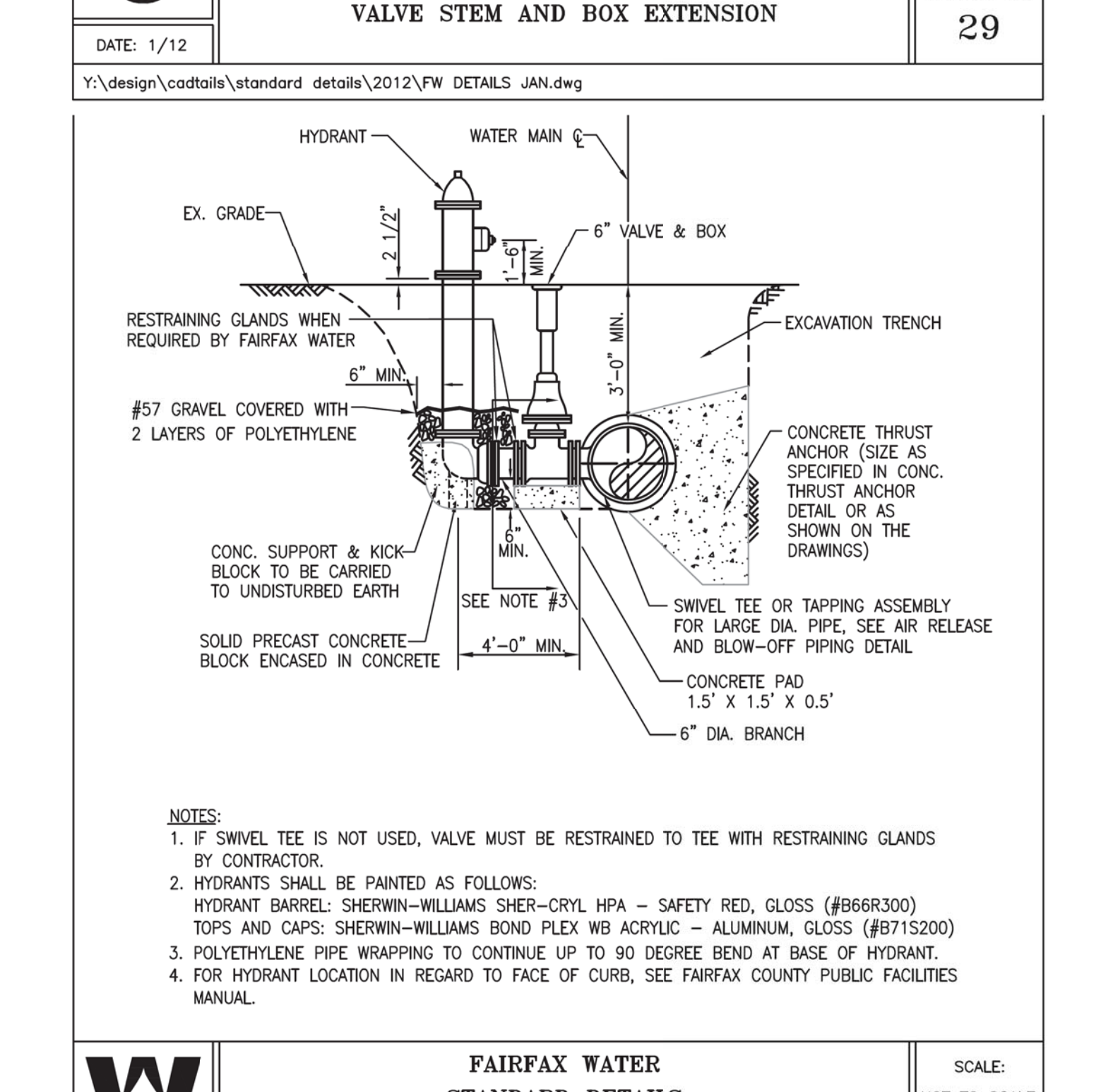
W	FAIRFAX WATER STANDARD DETAILS	SCALE: NOT TO SCALE
W	CONCRETE THRUST ANCHORS	DRAWING NO. 23
DATE: 1/12	Y:\design\caddtails\standard details\2012\FW DETAILS JAN.dwg	



W	FAIRFAX WATER STANDARD DETAILS	SCALE: NOT TO SCALE
W	VALVE BOX	DRAWING NO. 27
DATE: 1/12	Y:\design\caddtails\standard details\2012\FW DETAILS JAN.dwg	



W	FAIRFAX WATER STANDARD DETAILS	SCALE: NOT TO SCALE
W	VALVE BOX CONCRETE PAD	DRAWING NO. 28
DATE: 1/12	Y:\design\caddtails\standard details\2012\FW DETAILS JAN.dwg	



W	FAIRFAX WATER STANDARD DETAILS	SCALE: NOT TO SCALE
W	STANDARD HYDRANT INSTALLATION	DRAWING NO. 30
DATE: 7/13	Y:\design\caddtails\standard details\2013\FW DETAILS JUL 2013.dwg	

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	14(6)

Office Locations: Northern Virginia District, Reston, VA, Fairfax, VA, Herndon, VA, Leesburg, VA, Manassas, VA, Manassas Park, VA, Quantico, VA, Stafford, VA, Warrenton, OR, Washington, DC, York, PA
 Design Associates, P.C.
 Civil Engineering, Surveying, Environmental, Transportation, Environmental Remediation, Right of Way Services

NORTHERN VIRGINIA DISTRICT

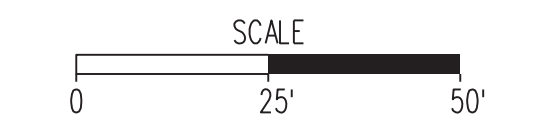
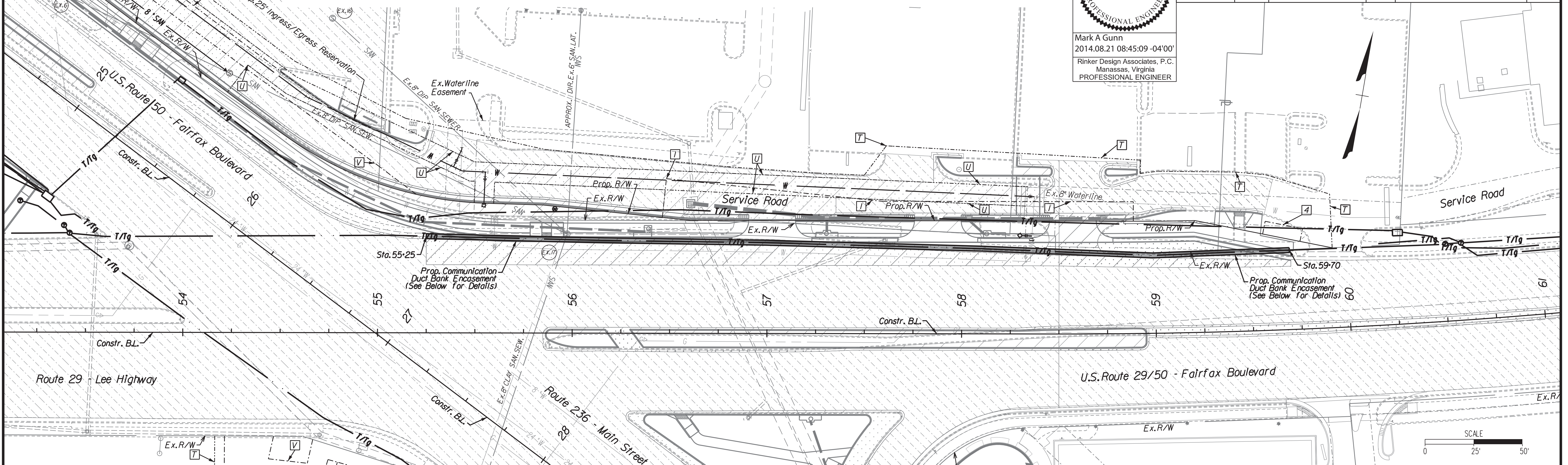
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Communication Duct Bank Encasement Plan and Detail

COMMONWEALTH OF VIRGINIA
 PROFESSIONAL ENGINEER
 MARK A. GUNN
 Lic. No. 038323

Mark A Gunn
 2014.08.21 08:45:09 -04'00'
 Rinker Design Associates, P.C.
 Manassas, Virginia
 PROFESSIONAL ENGINEER

REVISED	STATE	FEDERAL AID PROJECT OWNER	ROUTE	STATE PROJECT	SHEET NO.
	VA.	STP-540(675) RSTP-540(178)	29	0029-151-108 RW-201, C-501	15



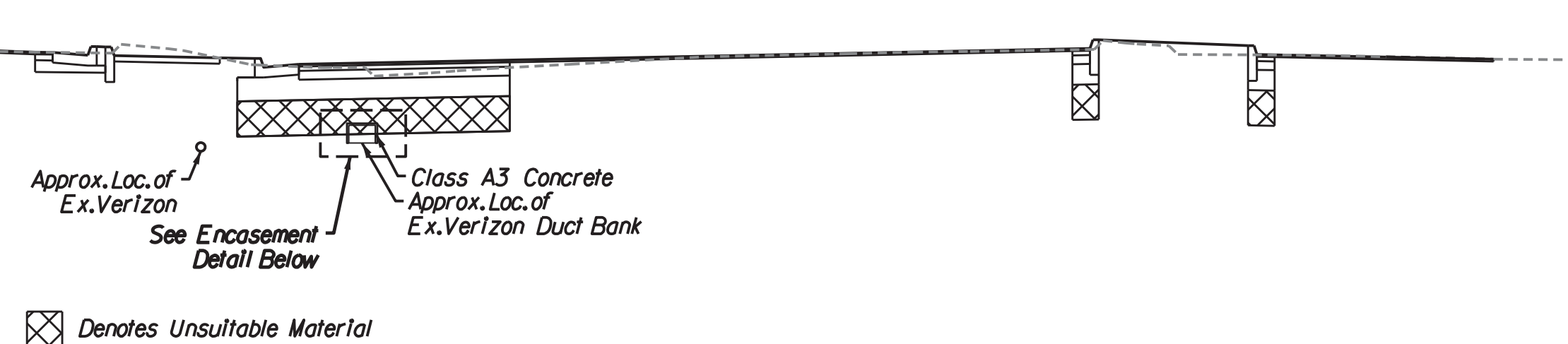
R/W LEGEND

- Denotes Prop. Storm Drainage Easement
- ① Denotes Prop. Permanent Easement for Street Purposes
- ② Denotes Prop. Signal Easement
- ③ Denotes Prop. Signage Easement
- ④ Denotes Prop. Grading Agreement & Temporary Construction Easement
- ⑤ Denotes Prop. Public Utility Easement
- ⑥ Denotes Prop. Dominion Virginia Power Easement & Cox Easement

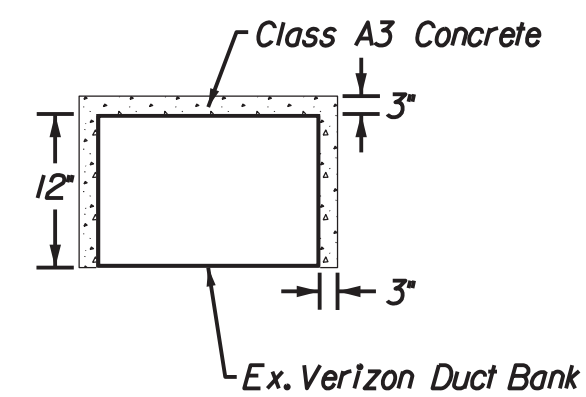
Duct Bank Encasement General Notes

- The cost to install this duct bank encasement shall include all materials, work and labor to install encasement around existing communication duct bank as shown on this sheet. The Contractor shall complete the encasement prior to removal of any unsuitable material and installation of replacement material in this area. The cost to install this duct bank encasement and all associated work, materials, labor and equipment shall be paid for as a lump-sum item.
- The Contractor shall notify Verizon (Contact: Donald Kelly at 703-217-1428, Donald.w.kelly@verizon.com) 14 business days prior to start of this work. Contractor shall comply with any Verizon Inspection requirements during the installation of this encasement and removal of unsuitable materials/Installation of replacement materials, at no additional cost to the project.

Duct Bank Encasement Typical Detail Not to Scale



Duct Bank Encasement Detail Not to Scale



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

NORTHERN VIRGINIA DISTRICT

8/21/2014

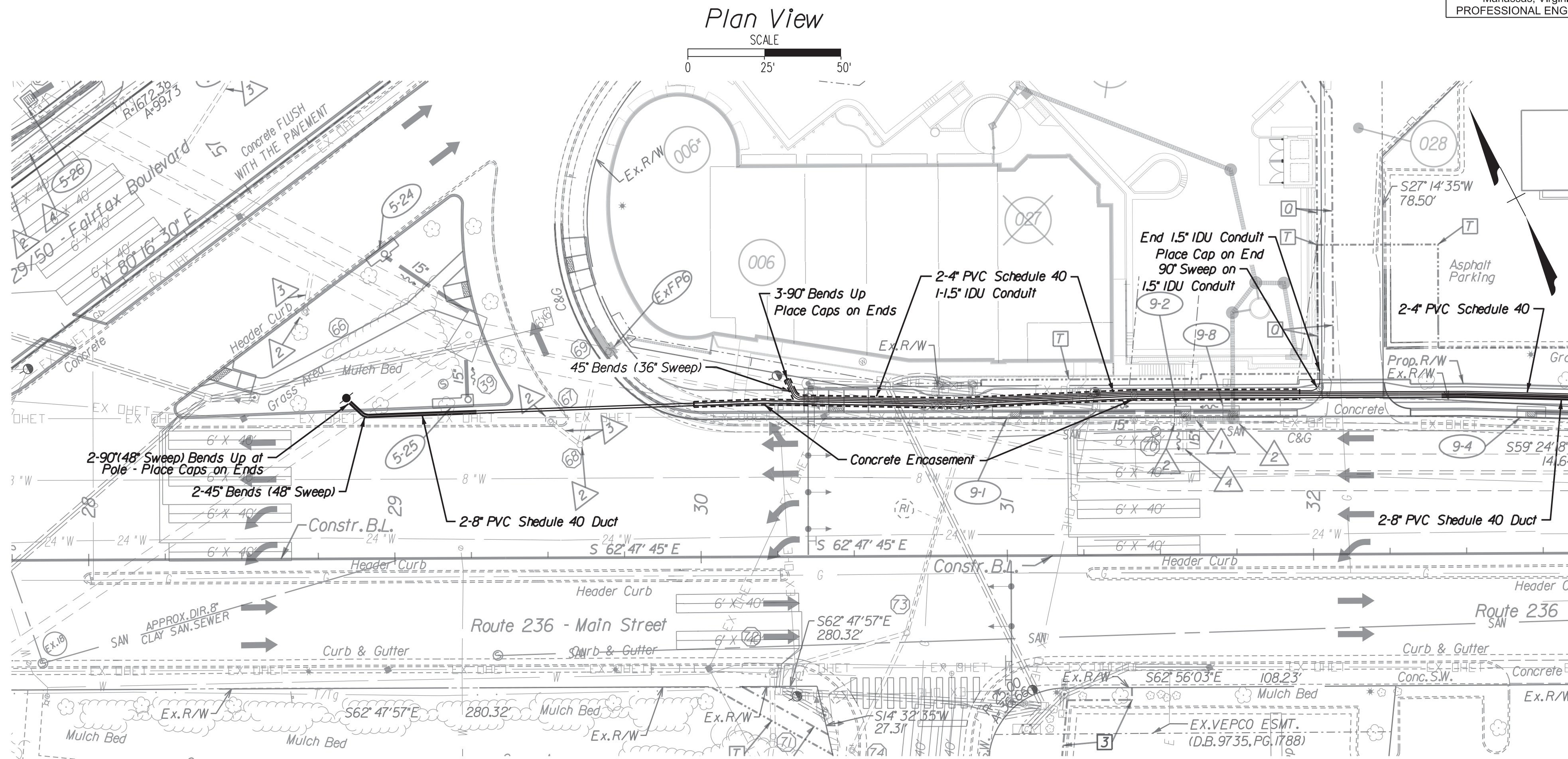
PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	15

PROJECT MANAGER Wendy Block Sanford, City of Fairfax, (703) 385-7889
SURVEYED BY Rinker Design Assoc., P.C. (703) 368-7373
DESIGN SUPERVISED BY Mark Gunn, P.E., Rinker Design Assoc., P.C. (703) 368-7373
DESIGNED BY Adam D. Welschenbach, P.E., Rinker Design Assoc., P.C. (703) 368-7373

Main Street Utility Duct Bank Design

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2015.03.02 18:08:41 -05'00'
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Trench Typicals (Not To Scale)

Trench Typical "A"
2-8" Elec. Conduits
36" Min. Cover
Min. 4" Suitable Backfill Material

Trench Typical "B"
2-8" Elec. Conduits With Concrete Encasement
Less Than 36" Cover Req'd

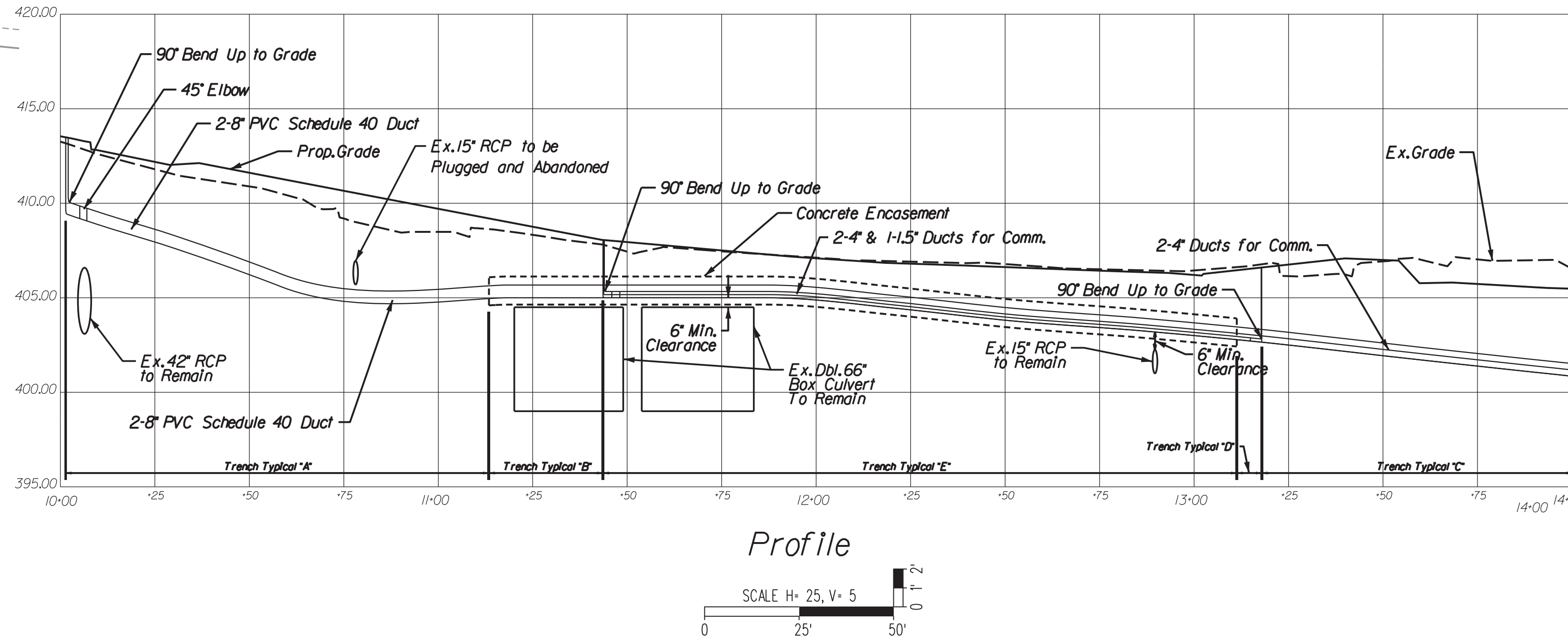
Trench Typical "C"
2-8" Elec. & 2-4" Comm. Conduits
36" Min. Cover
Min. 4" Suitable Backfill Material

Trench Typical "D"
2-8" Elec. & 2-4", 1-1.5" Comm. Conduits
36" Min. Cover
Min. 4" Suitable Backfill Material

Trench Typical "E"
2-8" Elec. & 2-4", 1-1.5" Comm. Conduits With Concrete Encasement
Less Than 36" Req'd Cover

- ### R/W LEGEND
- 1 Denotes Prop. Storm Drainage Easement
 - 4 Denotes Prop. Signage Easement
 - 5 Denotes Prop. Sight Distance Easement
 - 7 Denotes Prop. Grading Agreement & Temporary Construction Easement
 - 0 Denotes Prop. Verizon Easement

- ### Drainage Design Legend
- 1 Denotes Exlst. Pipe to be Removed
 - 2 Denotes Exlst. DI or MH to be Removed
 - 3 Denotes Exlst. Pipe to be Plugged and Aban.
 - 4 Denotes Exlst. Pipe to be Cleaned



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

NORTHERN VIRGINIA DISTRICT

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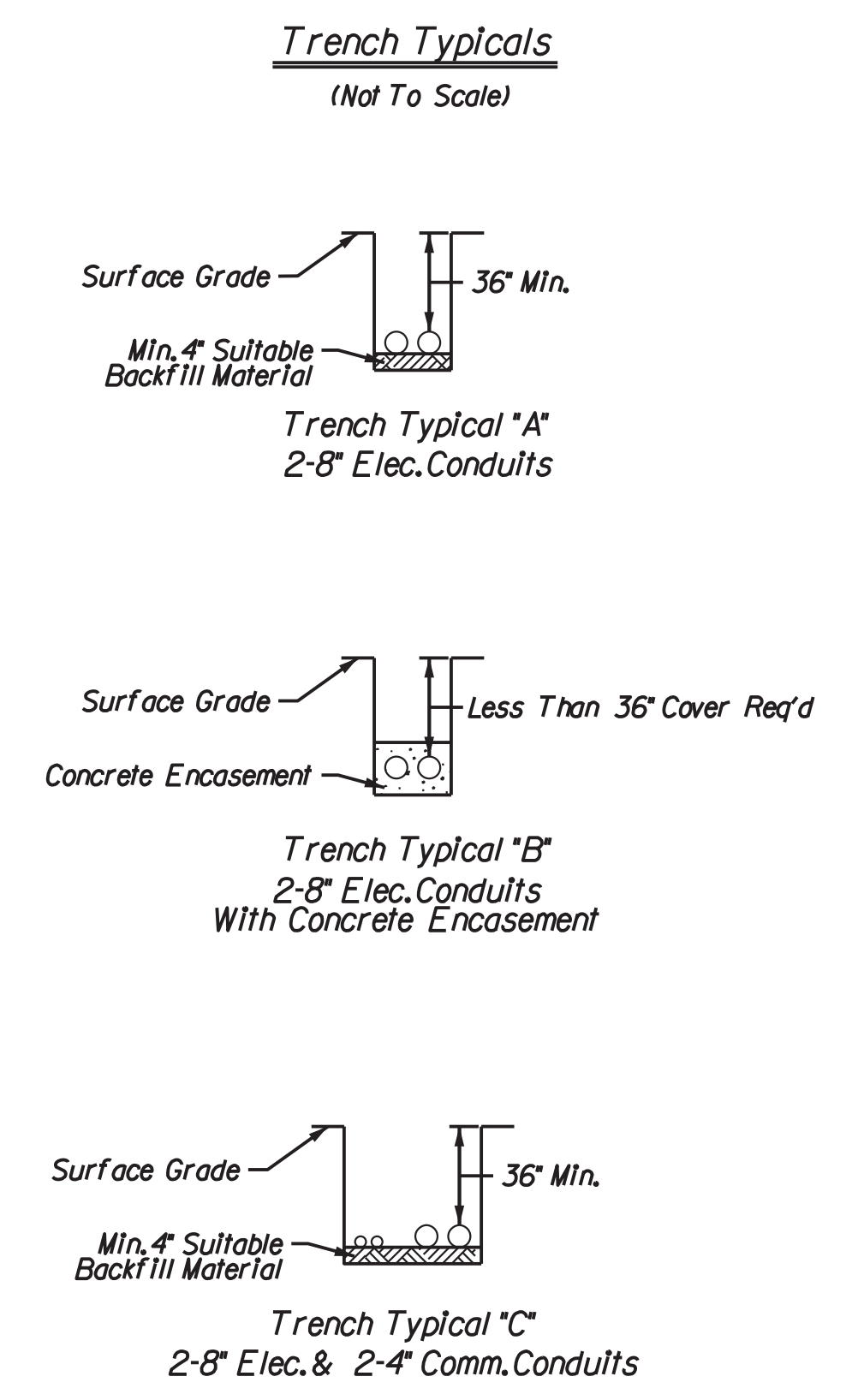
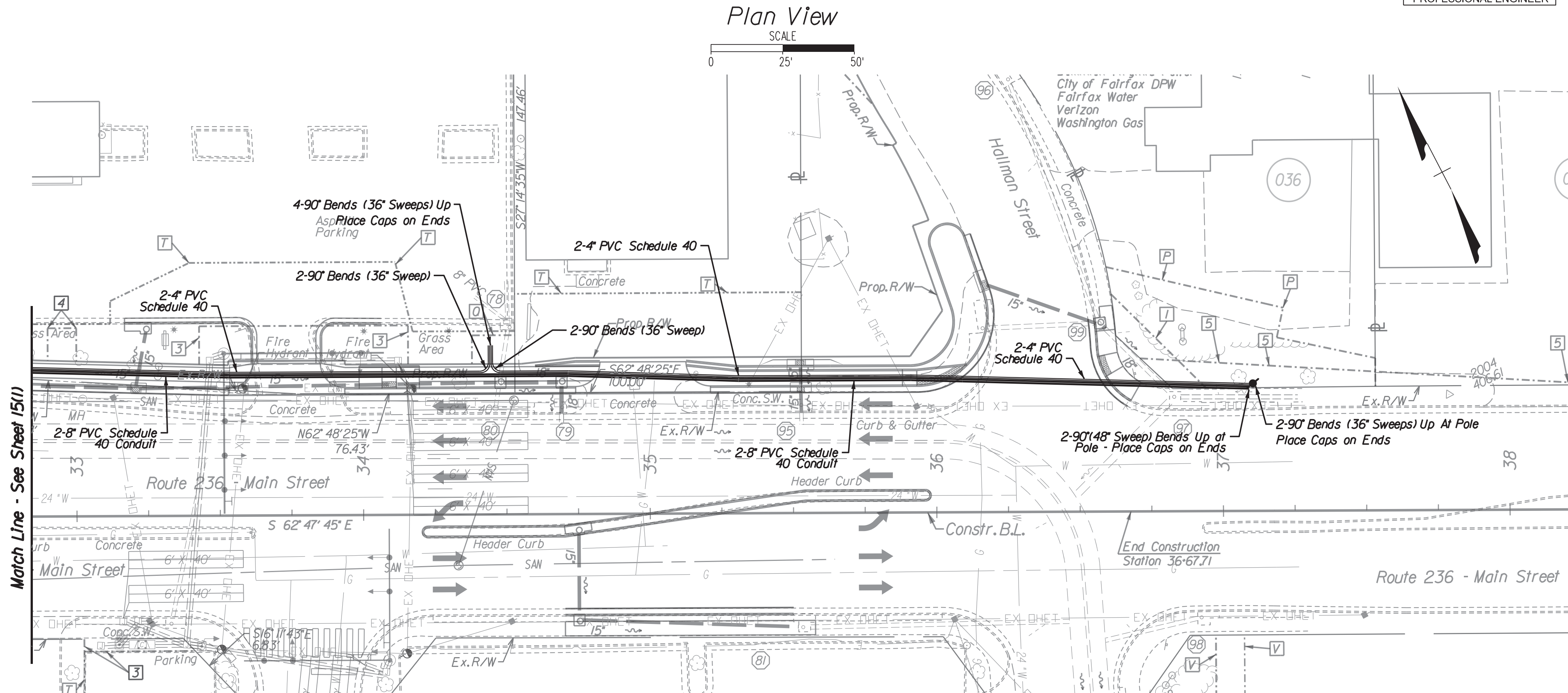
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COMMONWEALTH OF VIRGINIA
MARK A. GUNN
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2015.03.02 18:09:00 -05'00'
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REVISION	STATE	FEDERAL AID PROJECT OWNER	ROUTE	STATE PROJECT	SHEET NO.
	VA.	STP-540(675) RSTP-5A01(178)	29	0029-151-108 RW-201, C-501	15(2)

Main Street Utility Duct Bank Design

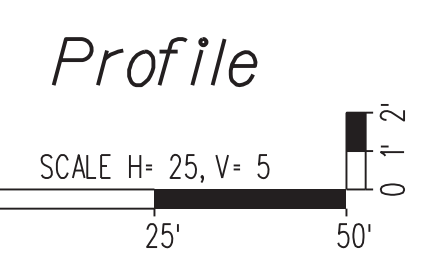
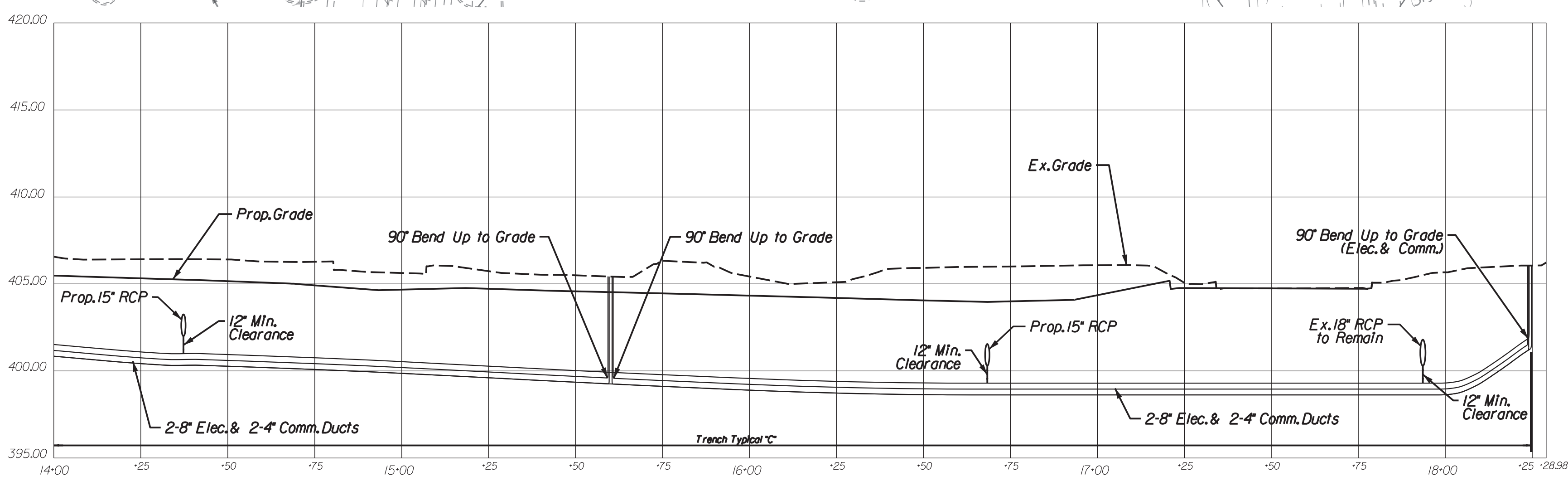


R/W LEGEND

- 1 Denotes Prop. Storm Drainage Easement
- 4 Denotes Prop. Signage Easement
- 5 Denotes Prop. Sight Distance Easement
- 7 Denotes Prop. Grading Agreement & Temporary Construction Easement
- 0 Denotes Prop. Verizon Easement

Drainage Design Legend

- 1 Denotes Exist. Pipe to be Removed
- 2 Denotes Exist. DI or MH to be Removed
- 3 Denotes Exist. Pipe to be Plugged and Aban.
- 4 Denotes Exist. Pipe to be Cleaned



Rinker Design Associates, P.C.

NORTHERN VIRGINIA DISTRICT

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
-	0029-151-108	-	15(2)