

Issue Analysis Form



Date: April 26, 2022

Item: Acceptance of Agreement to allow VDOT to adjust County Water and Sewer Facilities for Route 106 Road Improvements

Lead Department(s): Engineering & Utilities

Contact Person(s): Frank Haltom, Director

Description and Current Status

Virginia Department of Transportation (VDOT) is proposing improvements to the intersection of Bull Hill Road (Rte. 630) and Courthouse Road (Route 106). This project will require major adjustments to the County's water and sewer facilities located within the project limits.

It has been determined that the VDOT is responsible for bearing 100% of the cost of the water and sewer adjustments indicated on the improvement plans. The County staff has reviewed the plans and find the adjustments to be acceptable. It will be in the best interest of the County to have these adjustments included in the highway contract and performed by the highway contractor.

The attached agreement sets forth the agreed upon terms and conditions for the adjustments to the County water and sewer facilities.

Sample Motion: I move that the Board approve the resolution to accept the agreement between VDOT and the County for the adjustment of the County's water and sewer facilities

Government Path

- Does this require IDA action?** Yes No
- Does this require BZA action?** Yes No
- Does This require Planning Commission Action?** Yes No
- Does this require Board of Supervisors action?** Yes No
- Does this require a public hearing?** Yes No
- If so, before what date?**

Fiscal Impact Statement

None.

County Impact

Acceptance of the agreement allows VDOT to perform the necessary adjustments to the County's water and sewer facilities in order to complete their road improvements at no cost to the County.

Board of Supervisors
County of Prince George, Virginia

Resolution

At a regular meeting of the Board of Supervisors of the County of Prince George held in the Boardroom, Third Floor, County Administration Building, 6602 Courts Drive, Prince George, Virginia, this 26th day of April, 2022:

Present:

Marlene J. Waymack, Chair
Donald Hunter, Vice Chair
Floyd M. Brown, Jr.
Alan R. Carmichael
T. J. Webb

Vote:

A-2

On motion of _____, seconded by _____, which carried by a vote of _____ in favor and _____ opposed, the following Resolution was adopted:

RESOLUTION: ACCEPTANCE OF AGREEMENT BETWEEN COUNTY AND VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) PROPOSING IMPROVEMENTS TO THE INTERSECTION OF COURTHOUSE ROAD (ROUTE 106) AND BULL HILL ROAD (RTE. 630)

WHEREAS Virginia Department of Transportation (VDOT) is proposing improvements to the intersection of Rives Road/Bull Hill Road (Route 630) and Route 460. This project will require minor adjustments to the County's water and sewer facilities located within the project limits; and

WHEREAS it has been determined that VDOT is responsible for bearing 100% of the cost of the water and sewer adjustments indicated on the improvement plans. It will be to the best interest of the County to have these adjustments included in the highway contract and performed by the highway contractor.

NOW, THEREFORE, BE IT RESOLVED that the Prince George County Board of Supervisors this 26th day of April, 2022, does hereby authorize the County Administrator to execute an agreement allowing VDOT to perform the necessary adjustments to the County's water and sewer facilities

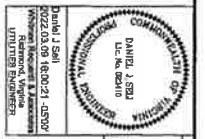
A Copy Teste:

Jeffrey D. Stoke
County Administrator

SANITARY SEWER MATERIAL/CONSTRUCTION NOTES

- 51. ALL NEW MATERIALS FOR PROPOSED ADJUSTMENTS/RELOCATIONS OF SANITARY SEWER FACILITIES SHALL BE SUBMITTED FOR APPROVAL BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION AND THE PAMUNCE GEORGE COUNTY UTILITIES DEPARTMENT PRIOR TO ORDERING MATERIALS.
- 52. ADJUSTMENTS OF EXISTING SANITARY SEWER FACILITIES SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION AND THE PAMUNCE GEORGE COUNTY UTILITIES DEPARTMENT. ALL EXISTING SANITARY SEWER MANHOLES LOCATED IN PAVED AREAS SHALL BE ADJUSTED TO FINAL FINISHED GRADE AND ALL MANHOLES NOT IN PAVED AREAS SHALL BE ADJUSTED TO NO MORE THAN 12" ABOVE FINAL GRADE. ALL ADJUSTMENTS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS BASED ON FIELD CONDITIONS AND SHALL BE SHOWN ON THE RECORD DRAWINGS.
- 53. THE MAXIMUM ADJUSTMENT BETWEEN THE TOP OF THE MANHOLE CONE SECTION OR FLAT TOP AND THE BOTTOM OF THE CASTING IS 2".
- 54. CONSTRUCTION AND INSTALLATION OF PROPOSED SANITARY SEWER MANHOLES SHALL BE IN ACCORDANCE WITH SECTION 510 OF THE CURRENT VDOT ROAD AND BRIDGE SPECIFICATIONS AND STANDARD DETAILS SAN-2, SAN-2B, SAN-6 AND SAN-14. AS SHOWN ON UTILITY SHEET 0106-07-4786-0501. ALL MANHOLES SHALL BE CONSTRUCTED WITH 15" DIA. PRECAST CONCRETE MANHOLES AND SHOULD BE ASSOCIATED WITH THE MANHOLE CONSTRUCTION SHALL BE IDENTICAL TO THE COST FROM SANITARY SEWER MANHOLE PRECAST CONCRETE MANHOLES SHALL BE IDENTICAL TO THE COST FROM SANITARY SEWER MANHOLE PRECAST CONCRETE MANHOLES SHALL BE IDENTICAL TO THE COST FROM SANITARY SEWER MANHOLE PRECAST CONCRETE PRODUCTS.
- 55. STANDARD MANHOLE FRAMES AND COVERS (FR-C) SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION AND THE PAMUNCE GEORGE COUNTY UTILITIES DEPARTMENT. ALL MANHOLES SHALL BE MANUFACTURED BY CANTON FOUNDRY, NEWMY FOUNDRY OR SIMA CORPORATION.
- 56. SANITARY SEWER PIPE SHALL BE DUCTILE IRON (D.I.) MEETING THE REQUIREMENTS OF AWWA C900 (LATEST REVISION) WITH MECHANICAL JOINTS. ALL MANHOLES SHALL BE CONSTRUCTED WITH AWWA C900 (LATEST REVISION) PIPE SHALL BE FURNISHED IN NOMINAL DIAMETER OF 18" OR 20" FEET AND SHALL INCLUDE ALL JOINTING MATERIALS. DUCTILE IRON SHALL BE MANUFACTURED BY AMERICAN CAST IRON PIPE WORKS DUCTILE OR U.S. PIPE AND FOUNDRY.
- 57. PIPE BEYOND AND BACKUP FOR NEW SANITARY SEWER PIPE INSTALLATIONS SHALL BE IN ACCORDANCE WITH VDOT STANDARD DETAIL SAN-1, TYPE 2.
- 58. ACCEPTANCE TESTING OF PROPOSED SANITARY SEWER NON-PRESSURE PIPE SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION AND THE PAMUNCE GEORGE COUNTY UTILITIES DEPARTMENT. THE CURRENT VDOT ROAD AND BRIDGE SPECIFICATIONS BOTH IN WATER LEAKAGE TEST AND A LOW PRESSURE AIR TEST SHALL BE PERFORMED ON THE SECTION OF SANITARY SEWER MANHOLES SHALL BE TESTED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THE TEST UTILITY WITH THREE (3) DAYS ADVANCE NOTICE PRIOR TO UNDERGOING ANY TESTS. ALL COSTS FOR PROVIDING ACCEPTANCE TESTING, INCLUDING MATERIALS, LABOR AND EQUIPMENT, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. REQUESTED SHALL BE IDENTICAL TO THE COST OF THE ASSOCIATED SANITARY SEWER PIPE OR SANITARY SEWER MANHOLE.
- 59. SANITARY SEWER LATERAL CONNECTIONS SHALL BE A MINIMUM OF 8" IN DIAMETER AND SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH STANDARD DETAIL SAN-4 AS SHOWN ON UTILITY SHEET 6.
- 60. SANITARY SEWER CLEANOUTS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH STANDARD DETAIL SAN-10 OR SAN-10A AS SHOWN ON UTILITY SHEET 6.
- 61. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SEWAGE OVERTOWNS AND THE CLEANUP OF ANY SPILLAGE DURING THE SANITARY SEWER RELOCATION AND RELOCATION. TO INCLUDE ALL COSTS FOR PAVED, EXISTING COUNTY UTILITIES.

THIS SHEET FOR UTILITY ADJUSTMENT/RELOCATION ONLY



REVISION	DATE	BY	REASON	SHEET NO.
1	08/19/10	VA	0106-07-4786-0501	91(B)

DESIGN FEATURES RELATIVE TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC NECESSARY BY THE DEPARTMENT

PROJECT NUMBER: 0106-07-1786
 SHEET NO. 922
 SHEET TITLE: UTILITY ADJUSTMENT/RELOCATION ONLY

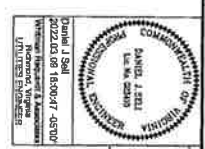
THIS SHEET FOR UTILITY ADJUSTMENT/RELOCATION ONLY

PAY ITEM SUMMARY OF WATER FACILITIES

SHEET NO.	3/4" WATER SERVICE LINE	1" WATER SERVICE LINE	6" WATER MAIN	8" D.I. WATER MAIN	8" D.I. WATER MAIN	12" WATER MAIN	12" D.I. WATER MAIN	6" GATE VALVE & BOX	8" GATE VALVE & BOX	12" GATE VALVE & BOX	FIRE HYDRANT	7" AIR RELEASE VALVE & BOX	5/8" WATER METER BOX & YOKE	8" STEEL ENCASE TYPE	24" STEEL ENCASE TYPE	SHEET NO.
3	67	105	487	28	6	228	407	4	1	2	1	1	8	110	220	3
4	51	-	50	-	-	-	-	-	-	-	-	-	2	-	-	4
TOTAL	118	105	537	28	6	228	407	4	1	2	1	1	10	110	220	4

PAY ITEM SUMMARY OF SAN. SEWER FACILITIES

SHEET NO.	8" SANITARY SEWER MATERIAL CONNECTION	8" D.I. SANITARY SEWER PIPE	8" D.I. SANITARY SEWER MANHOLE	MANHOLE & FOUNDATION FC-1	ADJUST. EXH. & COVER	8" SEWER CLEANOUT	SHEET NO.
3A	298	182	30	4	2	8	3A
4	-	-	-	-	-	-	4
TOTAL	298	182	30	4	2	8	4



OPTION FEATURES RELATING TO CONSTRUCTION SHALL BE SHOWN ON THE DRAWING. ANY CHANGES WILL BE SUBJECT TO CHANGE NO. ORDER NECESSARY BY THE DEPARTMENT.

DATE	NO.	STATE	SHEET NO.
VA	106	0106-07-1786 CS01	922

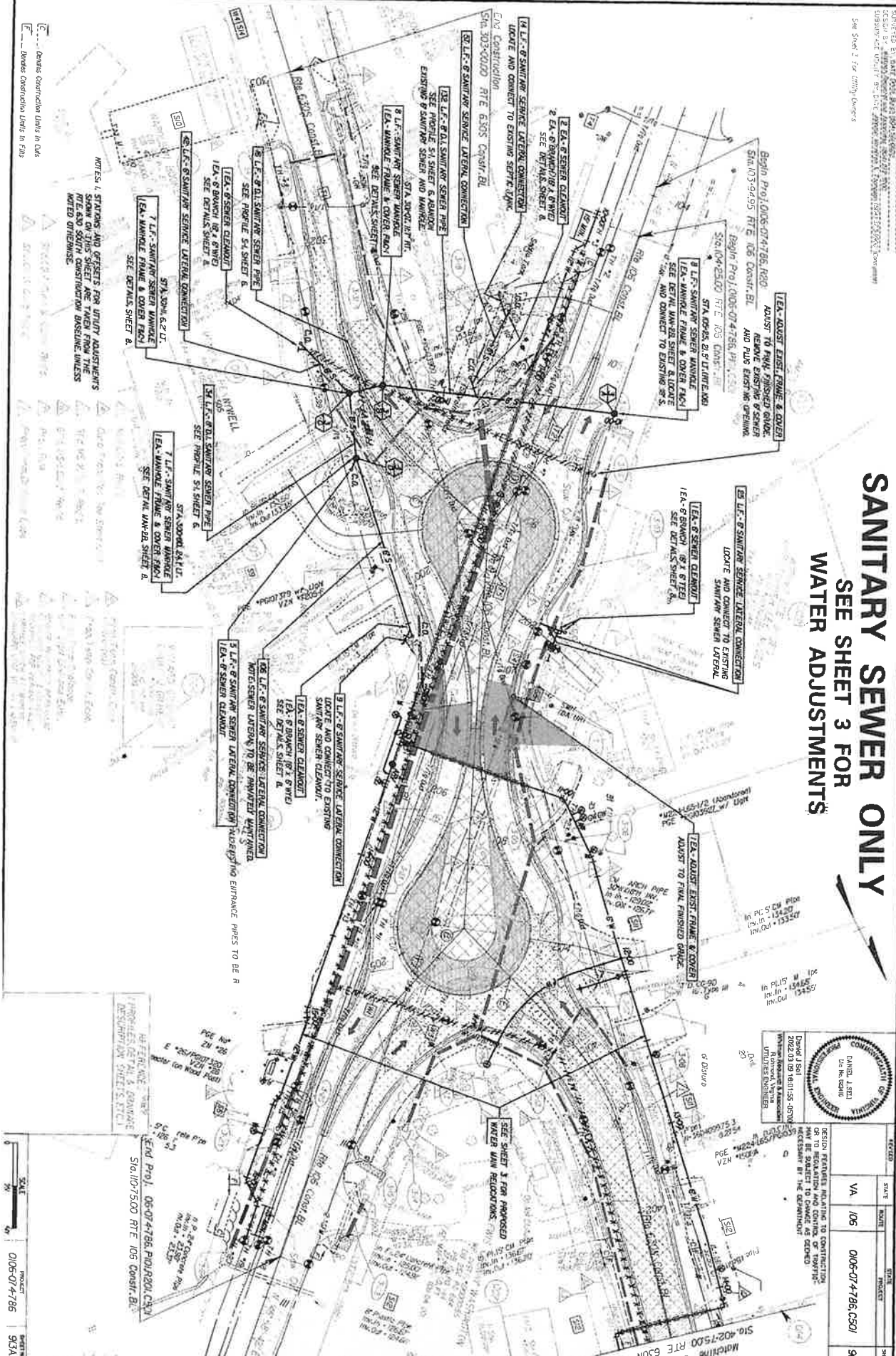
PROJECT NUMBER: 006-07-4786-R20
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 DATE: 03/09/2022

Scale: 1" = 40'

SANITARY SEWER ONLY

SEE SHEET 3 FOR WATER ADJUSTMENTS

THIS SHEET FOR UTILITY ADJUSTMENT/RELOCATION ONLY



NOTES: STRINGS AND OFFSETS FOR UTILITY ADJUSTMENTS
 SHOWN ON THIS SHEET ARE TAKEN FROM THE
 MOST RECENT INSTRUMENTAL RECORDS, UNLESS
 NOTED OTHERWISE.

1. --- Shows Construction Limits in Cuts
 2. --- Shows Construction Limits in Fills

SCALE: 1" = 40'
 PROJECT: 006-07-4786
 SHEET NO: 93A1

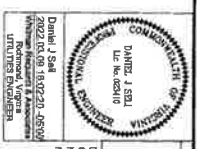
DESIGN REQUIRES INCLUDING TO CONSTRUCTION
 PERMITS AND CONTROL OF EROSION
 NECESSARY AT THE DEPARTMENT

DATE: 03/09/2022
 DRAWN BY: [Name]
 CHECKED BY: [Name]

FIELD	STATE	ROUTE	PROJECT	SHEET NO.
VA	106	006-07-4786(CS0)	93A1	

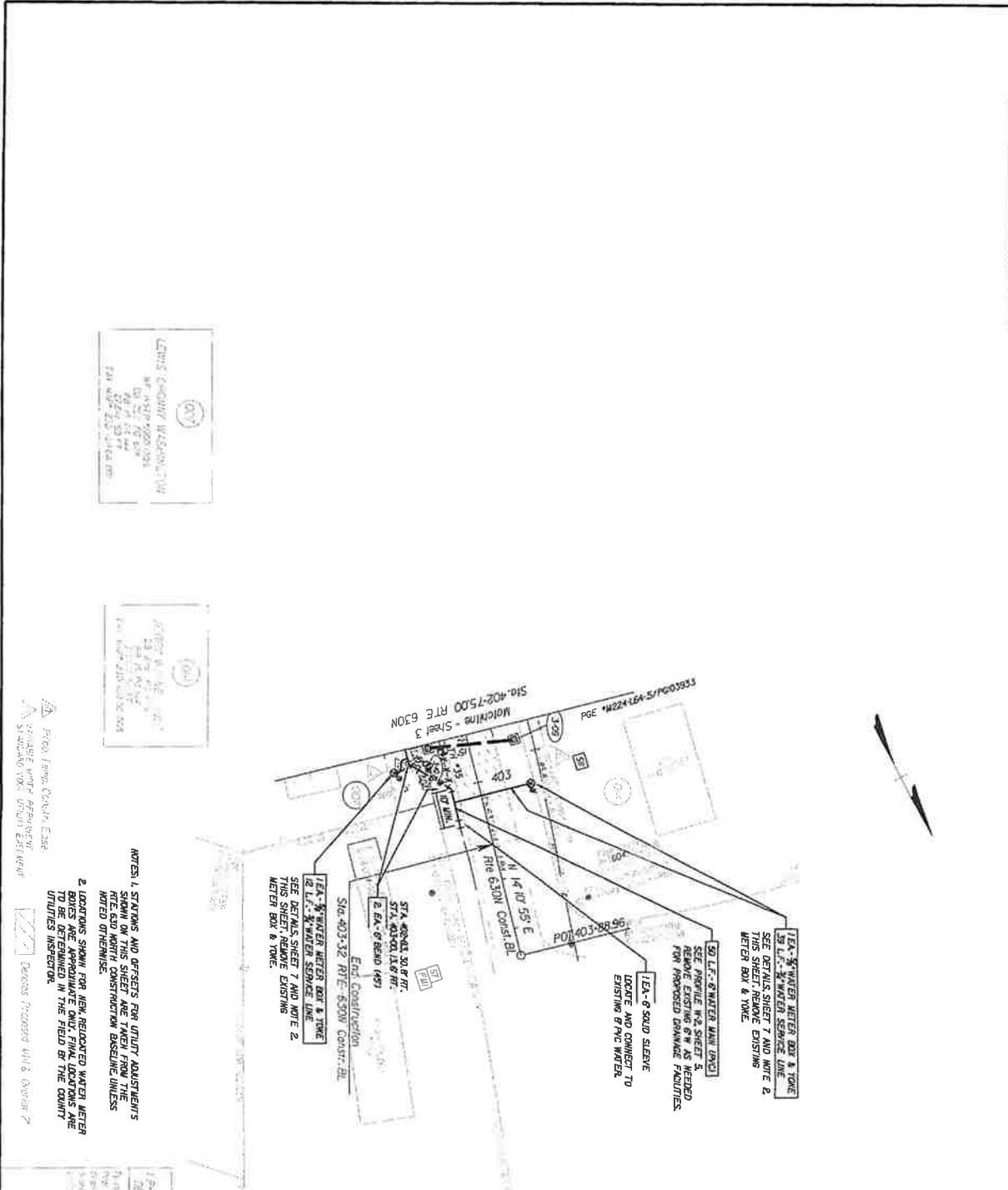
PROJECT NO. 006-07-4786
 SHEET NO. 94 J
 DATE: 01/10/2018

THIS SHEET FOR UTILITY ADJUSTMENT/RELOCATION ONLY



DESIGN FEATURES RELATIVE TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC WILL BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT.

STATE	ROUTE	PROJECT	SHEET NO.
VA	106	006-07-4786 (SO)	94 J



- NOTES:**
- STATIONS AND OFFSETS FOR UTILITY ADJUSTMENTS SHOWN ON THIS SHEET ARE TAKEN FROM THE RTE. 630 NORTH CONSTRUCTION BASELINE UNLESS NOTED OTHERWISE.
 - LOCATIONS SHOWN FOR NEW, RELOCATED WATER METER BOXES ARE APPROXIMATE ONLY. FINAL LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE COUNTY UTILITIES INSPECTOR.

REFERENCES:

NO.	DESCRIPTION SHEETS, ETC.
1	PLAN SHEET 94 I
2	PLAN SHEET 94 J
3	PLAN SHEET 94 K
4	PLAN SHEET 94 L
5	PLAN SHEET 94 M
6	PLAN SHEET 94 N
7	PLAN SHEET 94 O
8	PLAN SHEET 94 P
9	PLAN SHEET 94 Q
10	PLAN SHEET 94 R
11	PLAN SHEET 94 S
12	PLAN SHEET 94 T
13	PLAN SHEET 94 U
14	PLAN SHEET 94 V
15	PLAN SHEET 94 W
16	PLAN SHEET 94 X
17	PLAN SHEET 94 Y
18	PLAN SHEET 94 Z
19	PLAN SHEET 94 AA
20	PLAN SHEET 94 AB

SCALE: 1" = 20'

PROJECT NO: 006-07-4786

SHEETING: 94 J

LEWIS COMPANY

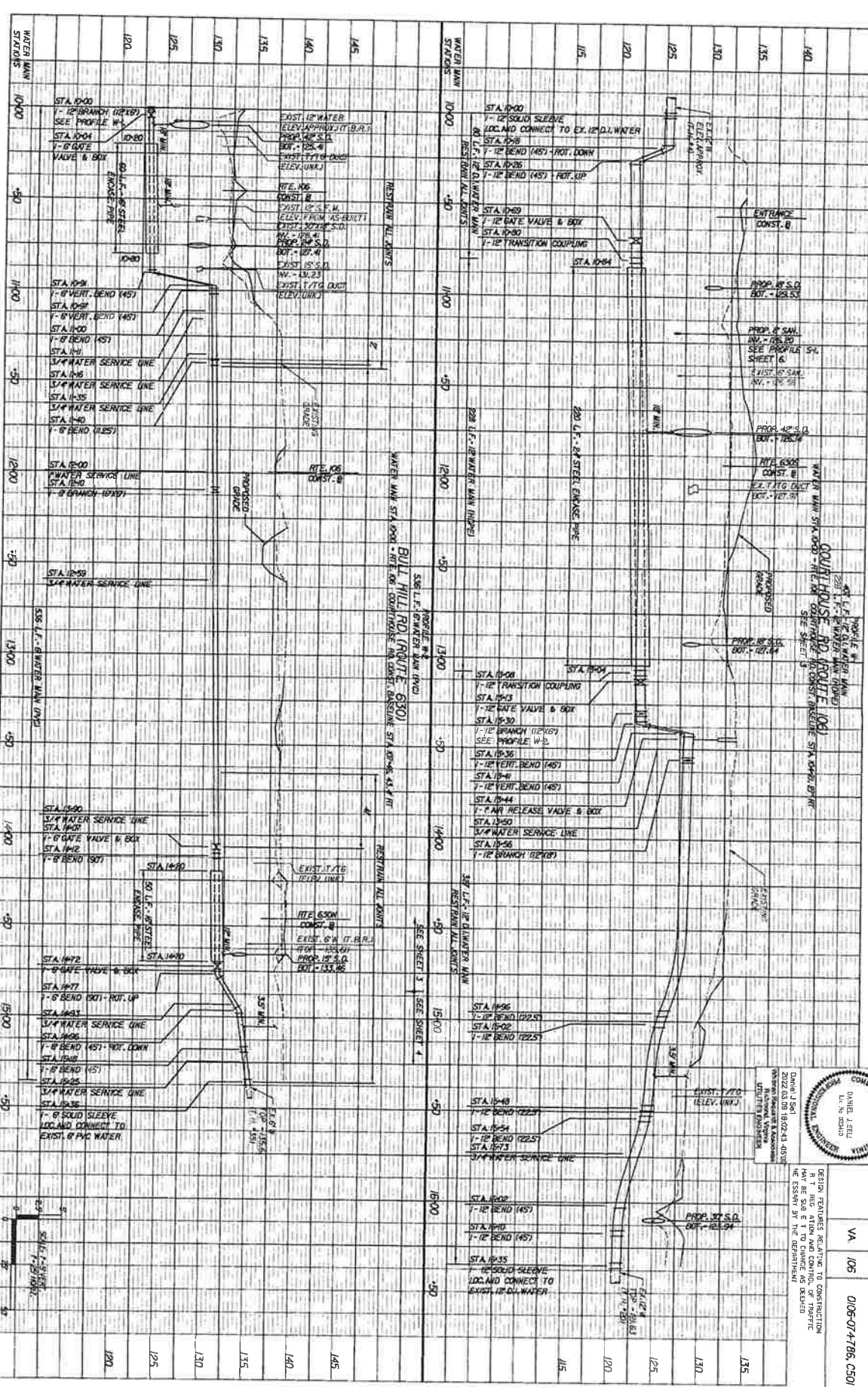
1001 WEST 10TH AVENUE
 SUITE 200
 DENVER, CO 80202
 TEL: 303.733.1111
 FAX: 303.733.1112

STANTEC

1900 WEST 10TH AVENUE
 SUITE 200
 DENVER, CO 80202
 TEL: 303.733.1111
 FAX: 303.733.1112

Private Land, County Case
 1/10/18 10:00 AM
 1/10/18 10:00 AM
 1/10/18 10:00 AM
 1/10/18 10:00 AM
 1/10/18 10:00 AM

PROJECT: WATER MAIN ADJUSTMENT/RELOCATION ONLY
 SHEET NO. 0106-07-4786 (9/5)
 DATE: 01/20/2022



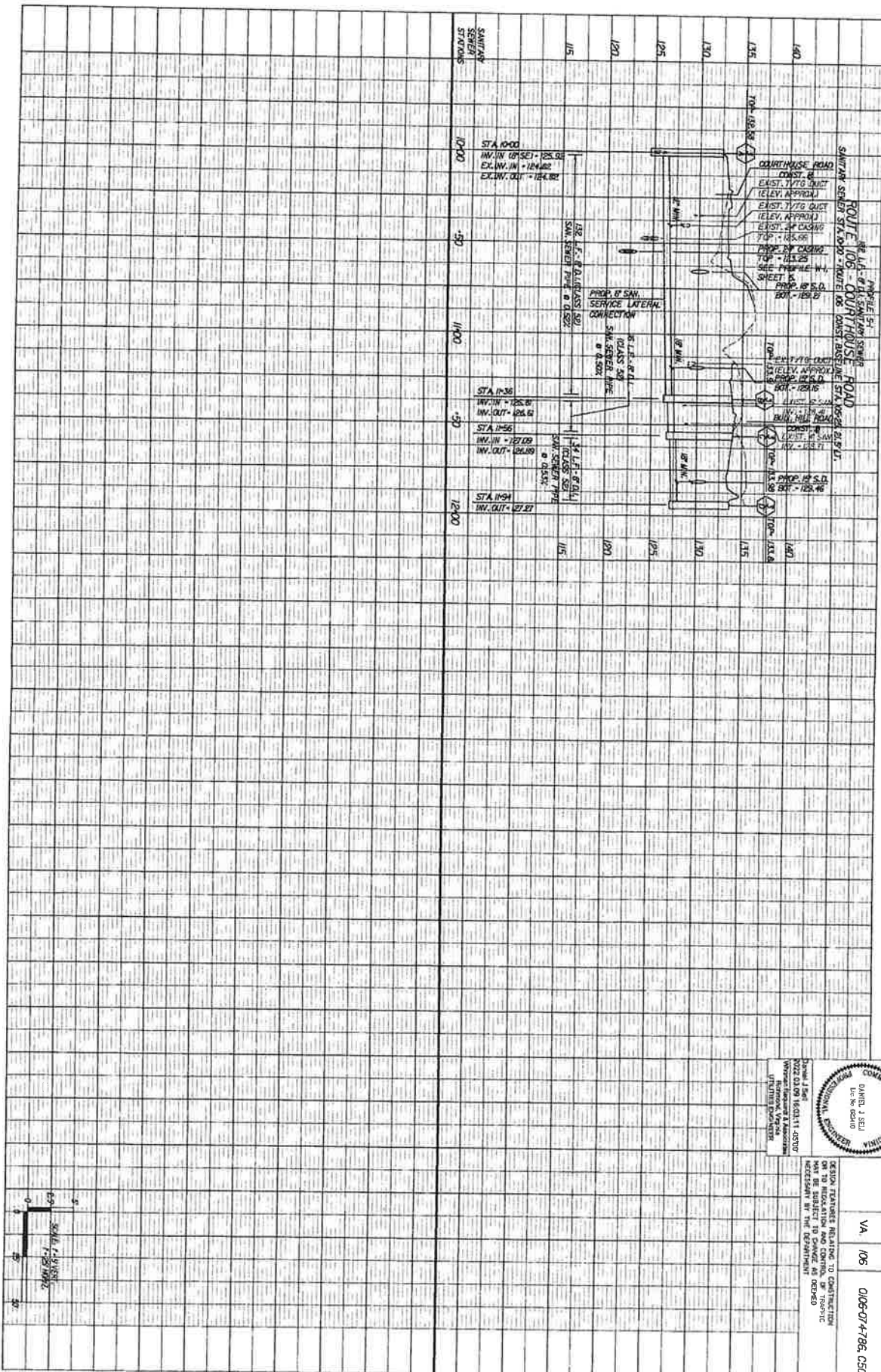
Daniel J. Selig
 L.S. 30310
 PROFESSIONAL ENGINEER
 STATE OF MARYLAND
 2022.03.08 18:02:43 -0500
 Daniel J. Selig
 11111 University Way
 Columbia, MD 21046
 410.326.8888

STATE	MD
COUNTY	VA
PROJECT	0106-07-4786 (9/5)
DATE	01/20/2022

DESIGN FEATURES RELATIVE TO CONSTRUCTION
 R T REC. ADJ. AND CORRECT. OR TRAFFIC
 ME. EXIST. IN THE ENVIRONMENT

0106-07-4786
 9/5

PROJECT NUMBER: 006-01-4796-0000
 SHEET NO. 967
 DATE: 01/15/2022



Daniel J. Sedo
 License No. 62410
 State of Virginia
 Professional Engineer

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO RELOCATION AND CONTROL OF TOPOG. SHALL BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE CONTRACTOR.

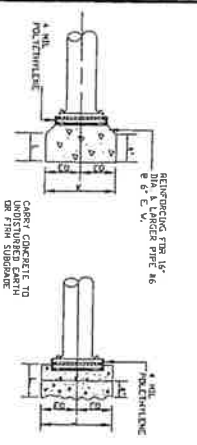
NO.	DATE	BY	DESCRIPTION
1	01/15/2022	DJS	ISSUED FOR PERMIT



THIS SHEET FOR UTILITY ADJUSTMENT/RELOCATION ONLY

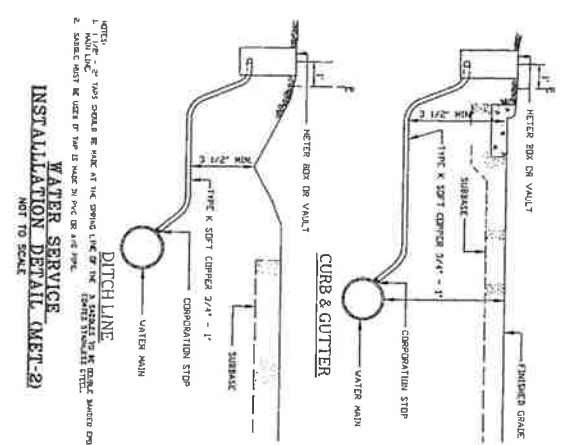
PROJECT NUMBER: 0106-07-1786-0501
 SHEET NO. 977
 DATE: 0106-07-1786-0501
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 APPROVED BY: [Name]

THIS SHEET FOR UTILITY ADJUSTMENT/RELOCATION ONLY

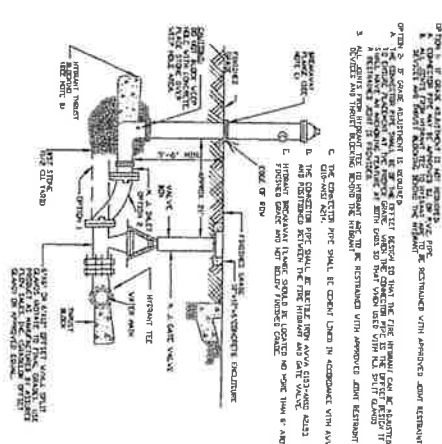


PLAN	ELEVATION
4"	3'-0"
6"	1'-6"
8"	1'-6"
10"	2'-6"
12"	2'-6"
14"	3'-6"
16"	4'-0"
18"	4'-0"
20"	4'-6"
24"	5'-0"

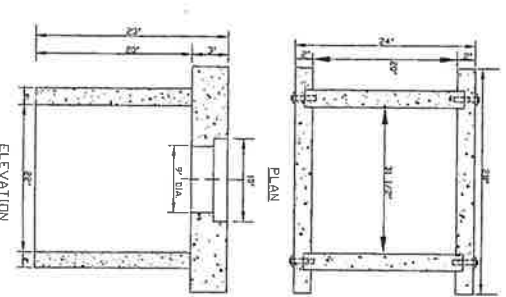
PLUGS, CAPS AND HYDRANTS (BLK-3)
 NOT TO SCALE



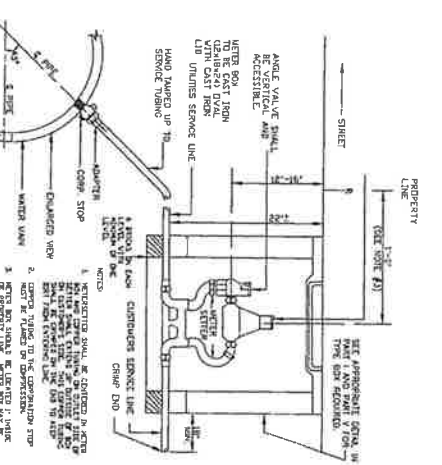
INSTALLATION DETAIL (MET-2)
 NOT TO SCALE



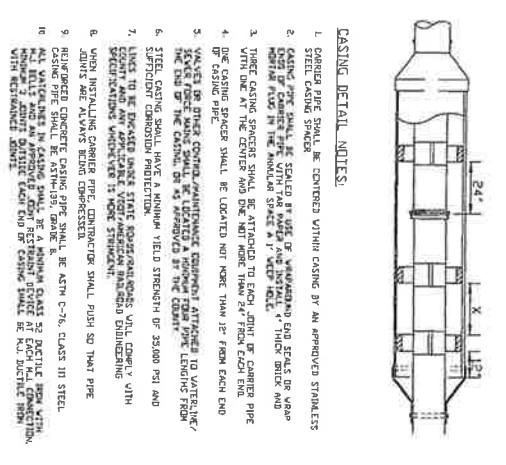
TYPICAL FIRE HYDRANT DETAIL (FIR-2)
 NOT TO SCALE



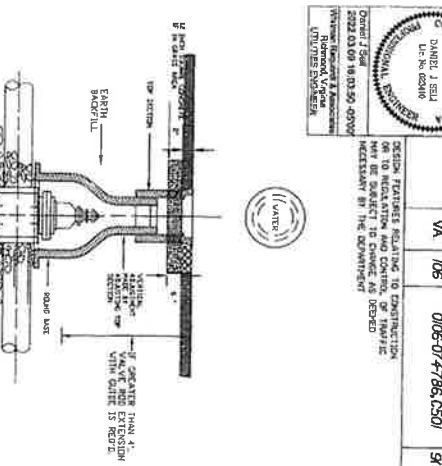
1" KNOCK DOWN METER BOX (MET-3)
 NOT TO SCALE



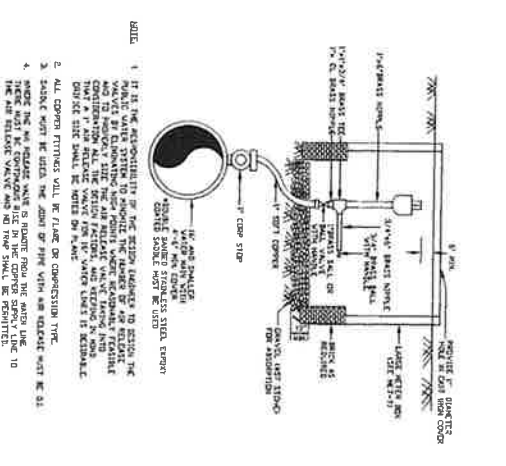
TYPICAL WATER METER CONNECTION FOR 3/4" SERVICE (WAT-1)
 NOT TO SCALE



CASING DETAIL FOR WATER LINES (CAS-4)
 NOT TO SCALE

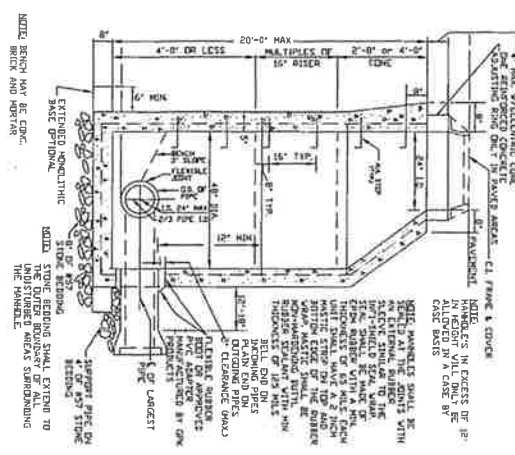


TYPICAL GATE VALVE & BOX (WAT-7)
 NOT TO SCALE

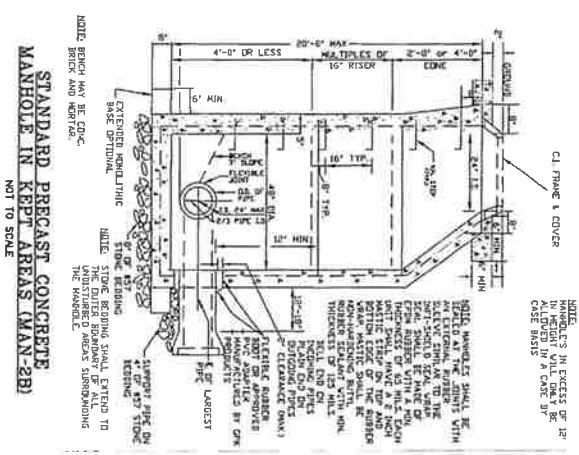


1" RELEASE VALVE (WAT-1)
 NOT TO SCALE

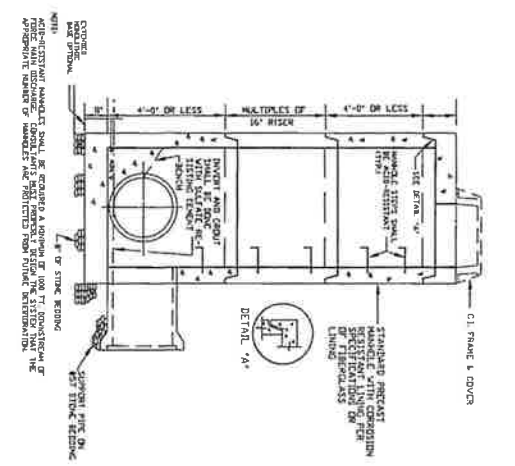
PROJECT NUMBER: 006-07-4786-0501
 SURVEYED BY: J. S. JONES
 DATE: 12/15/10
 SCALE: AS SHOWN
 NORTH ARROW: TRUE



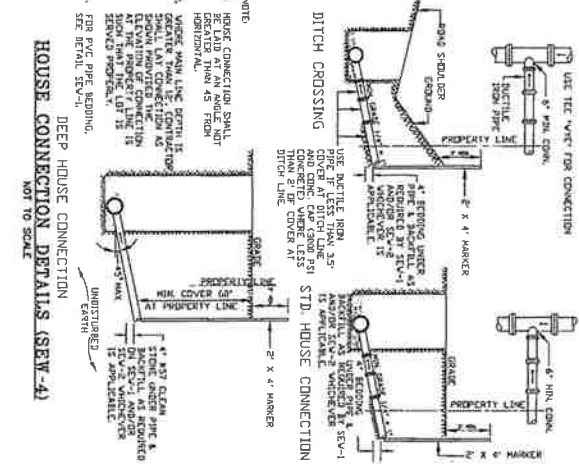
STANDARD PRECAST CONCRETE MANHOLE (MAN-2)
 NOT TO SCALE



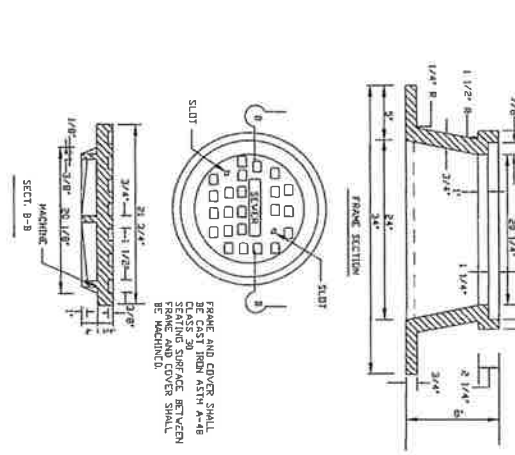
STANDARD PRECAST CONCRETE MANHOLE IN KEPT ABRAS (MAN-2B)
 NOT TO SCALE



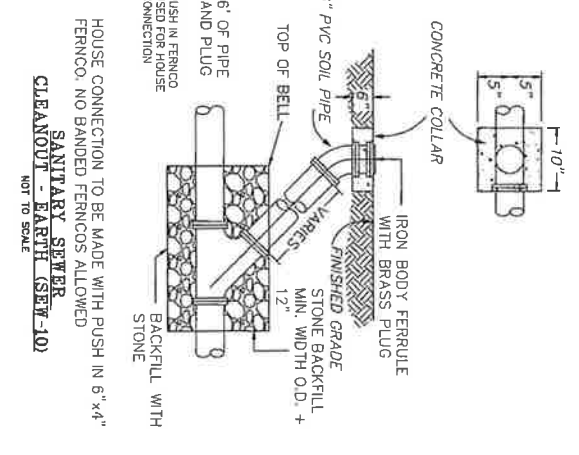
SPECIAL ACID-RESISTANT LINING ALL MANHOLES (MAN-6)
 NOT TO SCALE



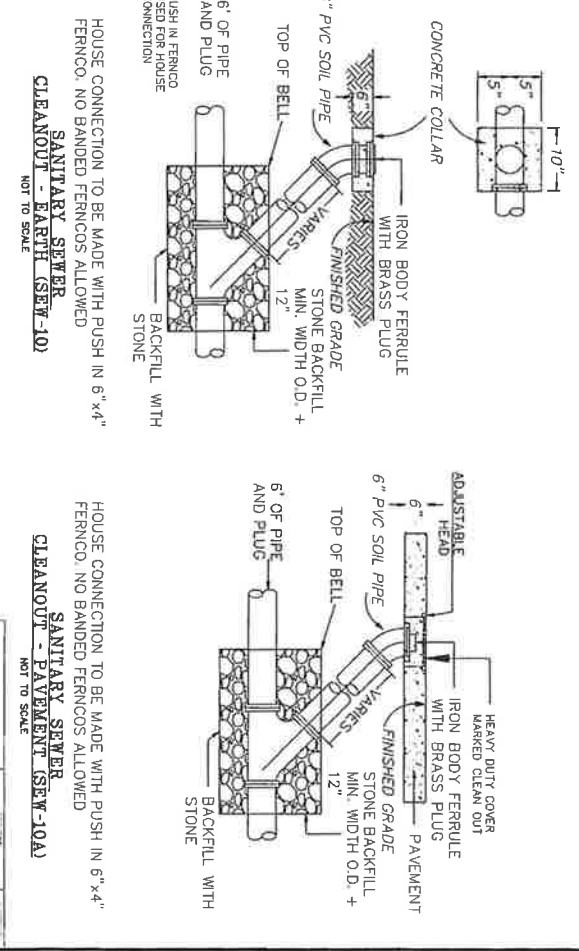
DEEP HOUSE CONNECTION
HOUSE CONNECTION DETAILS (SEW-4)
 NOT TO SCALE



STANDARD MANHOLE FRAME & COVER (MAN-10)
 NOT TO SCALE



TYPICAL MANHOLE STEP (MAN-14)
 NOT TO SCALE



SANITARY SEWER CLEANOUT - EARTH (SEW-10A)
 NOT TO SCALE
SANITARY SEWER CLEANOUT - PAVEMENT (SEW-10A)
 NOT TO SCALE

COMMUNITY OF VINEBROOK

DANIEL J. SOU
 Lic. No. 66333

DESIGN SERVICES RELATING TO CONSTRUCTION OF TO REGULATE AND CONTROL OF TRAFFIC NECESSARY BY THE DEPARTMENT

006-07-4786-0501
 DATE: 08/15/10

NO.	DATE	DESCRIPTION	SHEET NO.
1	08/15/10	ISSUE FOR BIDDING	9 OF 8

AGREEMENT
between
PRINCE GEORGE COUNTY
and
COMMONWEALTH OF VIRGINIA, DEPARTMENT OF TRANSPORTATION
for
ADJUSTMENT OF WATER AND SEWER FACILITIES

THIS AGREEMENT, made and entered into as of the _____ day of _____, 2022, by and between the PRINCE GEORGE COUNTY (hereinafter called County), and the COMMONWEALTH OF VIRGINIA, DEPARTMENT OF TRANSPORTATION, (hereinafter called the STATE), acting by its Commissioner:

WITNESSETH

WHEREAS, the STATE is proposing to construct a section of highway designated as, Rte. 106 and Rte. 630 Intersection, Rte. 106, Project: 0106-074-786, C-501, which will necessitate changes in the COUNTY'S water and sewer facilities: and,

WHEREAS, the STATE and COUNTY wish to agree upon the terms and conditions under which the necessary changes will be made as hereinafter set forth:

NOW THEREFORE, for and in consideration of the premises and of the mutual covenants herein contained, the parties hereto agree as follows:

SECTION I

(a) It will be to the best interest of the STATE and the COUNTY to have the adjustment of the water and sewer facilities included in the highway contract to be adjusted by the highway contractor.

(b) The STATE through its highway contractor, will relocate and adjust the COUNTY'S water and sewer facilities in accordance with attached plans and the STATE'S Road and Bridge Specifications; said plans being identified as Eleven (11) one-half size plans sheets numbered 9(1) through 9(8) of the STATE'S construction plans for Project: 0106-074-786, C-501, as attached.

SECTION II

(a) It has been determined that the STATE is responsible for bearing 100% of the cost of the water adjustments indicated in SECTION I (b).

(b) It has been determined that the COUNTY is responsible for bearing 0% of the project cost of the water adjustments SECTION I (b).

(c) It has been determined that the STATE is responsible for bearing 100% of the cost of the sewer adjustments indicated in SECTION I (b).

(d) It has been determined that the COUNTY is responsible for bearing 0% of the project cost of the sewer adjustments SECTION I (b).

SECTION III

(a) The COUNTY agrees that it will relinquish its existing rights of way, which are within the limits of the proposed STATE right of way for this project. The STATE will, upon application by the COUNTY, issue and continue in effect a permit to the COUNTY for the construction, maintenance and operation of the water facilities indicated in SECTION I(b).

(b) The water and sewer facilities of the COUNTY erected under such a permit shall be and remain the property of the COUNTY, no charge shall at any time be made for the use of the STATE right of way occupied by the COUNTY, or for the privilege of constructing, maintaining and operating said water and sewer facilities. Any construction of maintenance operations to be performed by the COUNTY within the STATE right of way must have prior approval of the STATE. When emergency conditions require immediate maintenance operations by the COUNTY, such operations may be performed by the COUNTY without advance notice to the STATE. The COUNTY will, to the best of its ability, perform all operations within the STATE right of way in a manner which will reduce to a minimum, interference to the flow of traffic and disturbance of the roadway, and which will provide a maximum of safety to traffic and to the COUNTY'S forces.

(c) In the event the STATE should request at any time hereafter that the facilities which were adjusted onto STATE right of way at STATE expense be again adjusted when they are on STATE right of way, the STATE will pay the COUNTY the applicable costs incurred by the COUNTY, including the cost of securing any necessary easements.

(d) In the event the STATE should request at any time hereafter that the facilities which were not adjusted, hereunder, but for which the COUNTY'S rights of way were relinquished, be

adjusted, the STATE will pay the COUNTY the applicable costs incurred by the COUNTY, including the cost of securing any necessary easements.

SECTION IV

(a) The COUNTY agrees that the existing facilities, which are to be abandoned, will become the property of the STATE's highway contractor with exceptions as noted in the attached plans. Any salvage value derived therefrom will accrue to the STATE'S highway contractor.

In WITNESS WHEREOF, each party has caused this agreement to be executed in duplicate in its name and on its behalf by its duly authorized officer as of the day and year first written.

In the presence of:

Prince George County

As to Prince George County

By: _____
Title: _____

In the presence of:

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

As to the Commonwealth

By: _____
State Right of Way & Utilities Director

VDOT Project: 0106-074-786, C-501
 Name: Route 106 Roundabout
 Locality: Prince George County
 UPC #: 111635

Final Submission Cost Estimate
 Date: 3/10/2022
 Revised:
 Page 1 of 1

W. O. 46514-027

Item Code	Items / Units	Unit Cost	Total Units	Total Cost	Project Units	Project Cost	Betterment Units	Betterment Cost
40002	3/4" Water Service Line (L.F.)	\$85.00	118	\$10,030.00	118	\$10,030.00	0	\$0.00
40003	1" Water Service Line (L.F.)	\$135.00	105	\$14,175.00	105	\$14,175.00	0	\$0.00
40060	6" Water Main (L.F.)	\$125.00	537	\$67,125.00	537	\$67,125.00	0	\$0.00
40061	6" D.I. Water Main (L.F.)	\$250.00	28	\$7,000.00	28	\$7,000.00	0	\$0.00
40081	8" D.I. Water Main (L.F.)	\$485.00	6	\$2,910.00	6	\$2,910.00	0	\$0.00
40120	12" Water Main (L.F.)	\$250.00	228	\$57,000.00	228	\$57,000.00	0	\$0.00
40121	12" D.I. Water Main (L.F.)	\$225.00	407	\$91,575.00	407	\$91,575.00	0	\$0.00
41006	5" Gate Valve & Box (Ea.)	\$1,175.00	4	\$4,700.00	4	\$4,700.00	0	\$0.00
41008	8" Gate Valve & Box (Ea.)	\$2,350.00	1	\$2,350.00	1	\$2,350.00	0	\$0.00
41012	12" Gate Valve & Box (Ea.)	\$3,500.00	2	\$7,000.00	2	\$7,000.00	0	\$0.00
41820	Fire Hydrant (Ea.)	\$5,000.00	1	\$5,000.00	1	\$5,000.00	0	\$0.00
41830	1" Air Release Valve & Box (Ea.)	\$1,850.00	1	\$1,850.00	1	\$1,850.00	0	\$0.00
41967	5/8" Water Meter Box & Yoke (Ea.)	\$1,350.00	10	\$13,500.00	10	\$13,500.00	0	\$0.00
45562	16" Steel Encase. Pipe (L.F.)	\$285.00	110	\$31,350.00	110	\$31,350.00	0	\$0.00
45582	24" Steel Encase. Pipe (L.F.)	\$350.00	220	\$77,000.00	220	\$77,000.00	0	\$0.00
				Total Cost		Project Cost		County Cost
Total Water Items				\$392,965.00		\$392,965.00		\$0.00
Percentage						100.0%		0.0%

VDOT Project: 0106-074-786, C-501
 Name: Route 106 Roundabout
 Locality: Prince George County
 UPC #: 111635

Final Submission Cost Estimate
 Date: 3/10/2022
 Revised:

W. O. 46514-027

Item Code	Items / Units	Unit Cost	Total Units	Total Cost	Project Units	Project Cost	Betterment Units	Betterment Cost
42064	6" Sanitary Service Lateral Connection (L.F.)	\$250.00	258	\$64,500.00	258	\$64,500.00	0	\$0.00
42082	8" D.I. Sanitary Sewer Pipe (L.F.)	\$275.00	182	\$50,050.00	182	\$50,050.00	0	\$0.00
42755	Sanitary Sewer Manhole (L.F.)	\$975.00	30	\$29,250.00	30	\$29,250.00	0	\$0.00
42764	Manhole Frame & Cover F&C-1 (Ea.)	\$1,025.00	4	\$4,100.00	4	\$4,100.00	0	\$0.00
42765	Adjust ExdL. Frame & Cover (Ea.)	\$600.00	2	\$1,200.00	2	\$1,200.00	0	\$0.00
42846	6" Sewer Cleanout (Ea.)	\$1,250.00	6	\$7,500.00	6	\$7,500.00	0	\$0.00
				Total Cost		Project Cost		County Cost
Total Sanitary Sewer Items				\$156,600.00		\$156,600.00		\$0.00
Percentage						100.0%		0.0%
Total Overall Costs				\$549,165.00		\$549,165.00		\$0.00
Percentage						100.0%		0.0%