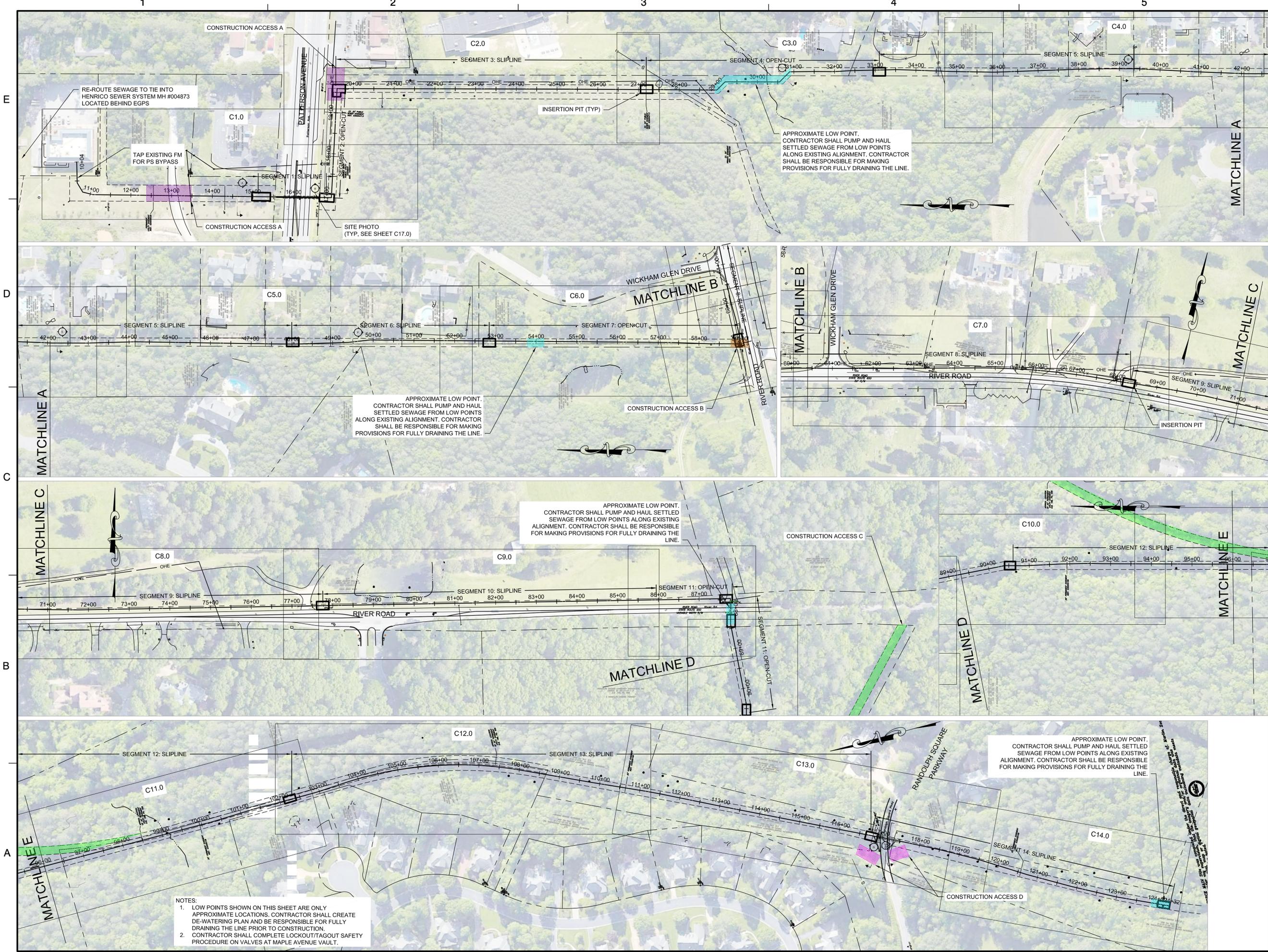
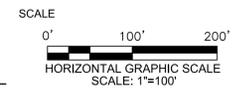
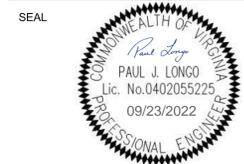


**EASTERN GOOCHLAND FORCE
 MAIN REHABILITATION AND
 REPLACEMENT**
 GOOCHLAND COUNTY
 DEPARTMENT OF PUBLIC UTILITIES
 GOOCHLAND COUNTY, VIRGINIA



KEY PLAN



No.	DATE	BY	Description

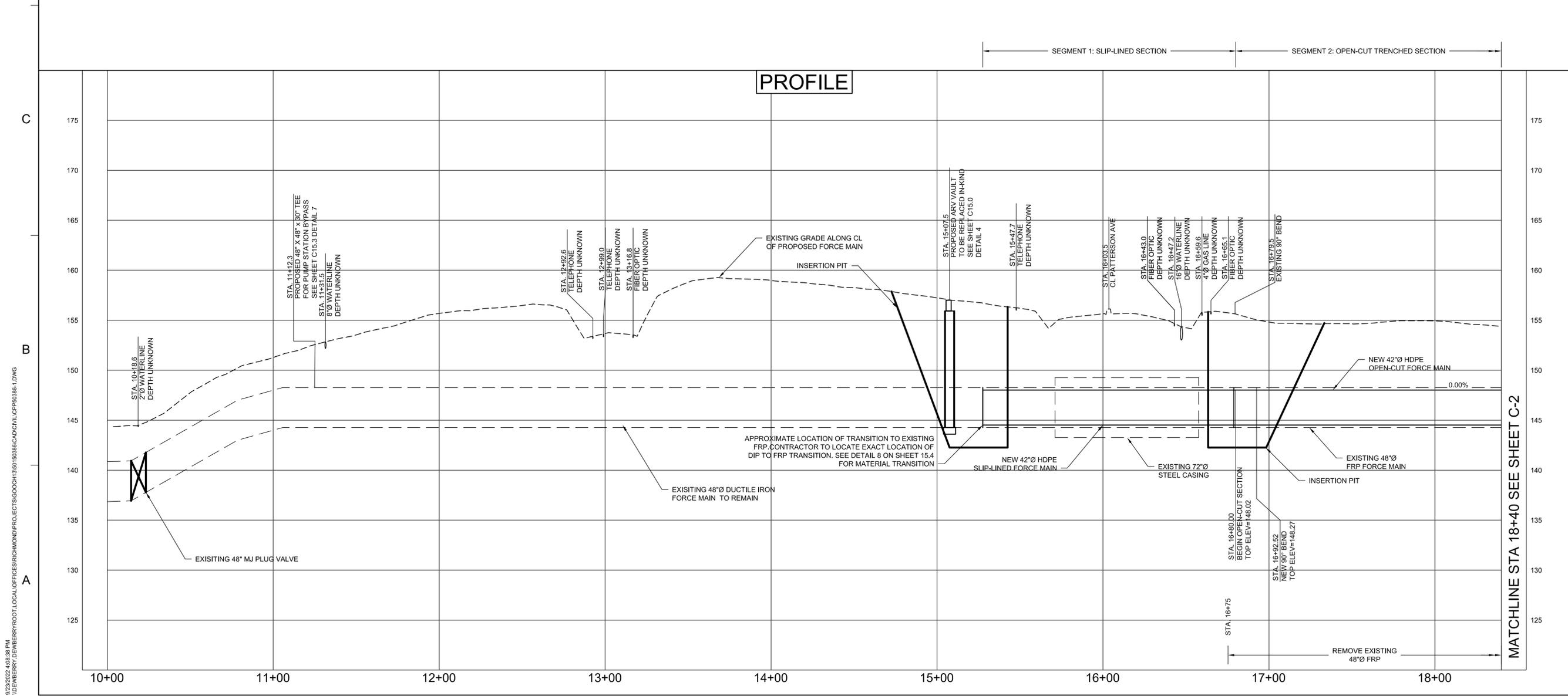
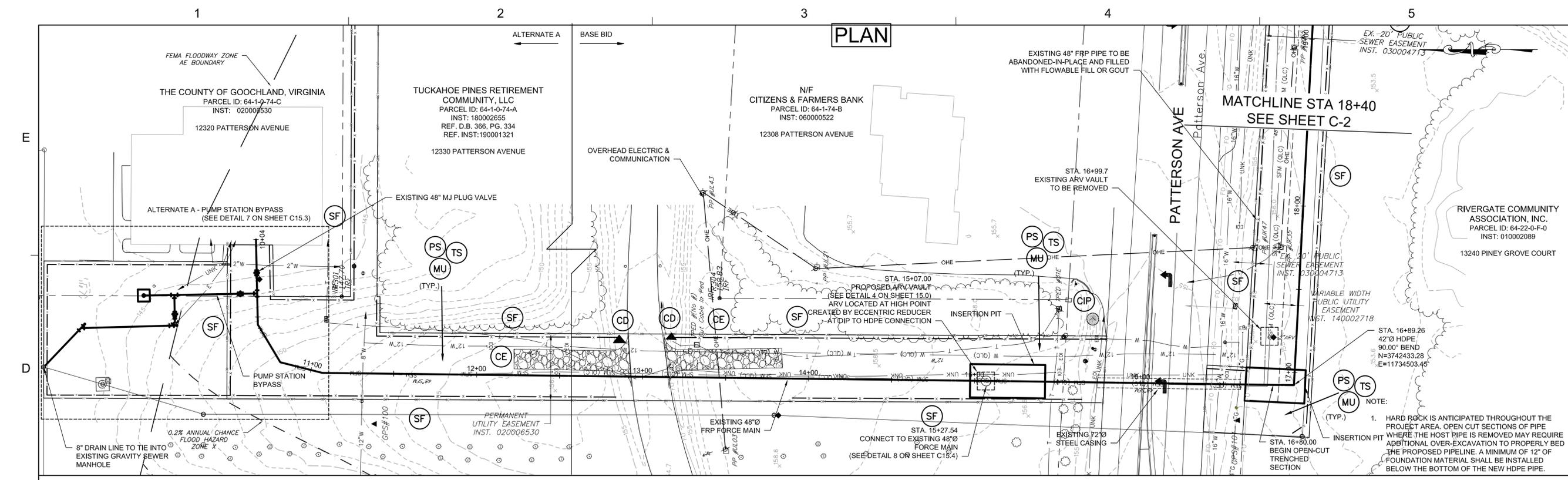
**KEY SHEET AND
 DEWATERING PLAN**

PROJECT NO. 50150386

C0.1

SHEET NO.

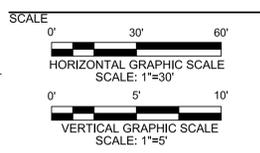
- NOTES:
1. LOW POINTS SHOWN ON THIS SHEET ARE ONLY APPROXIMATE LOCATIONS. CONTRACTOR SHALL CREATE DE-WATERING PLAN AND BE RESPONSIBLE FOR FULLY DRAINING THE LINE PRIOR TO CONSTRUCTION.
 2. CONTRACTOR SHALL COMPLETE LOCKOUT/TAGOUT SAFETY PROCEDURE ON VALVES AT MAPLE AVENUE VAULT.



**EASTERN GOOCHLAND FORCE
 MAIN REHABILITATION AND
 REPLACEMENT**
 GOOCHLAND COUNTY
 GOOCHLAND COUNTY, VIRGINIA



KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY NJM
 APPROVED BY PJL
 CHECKED BY RNK
 DATE SEPTEMBER 2022
 TITLE

**PLAN & PROFILE
 STA. 10+00 TO
 STA. 18+40**

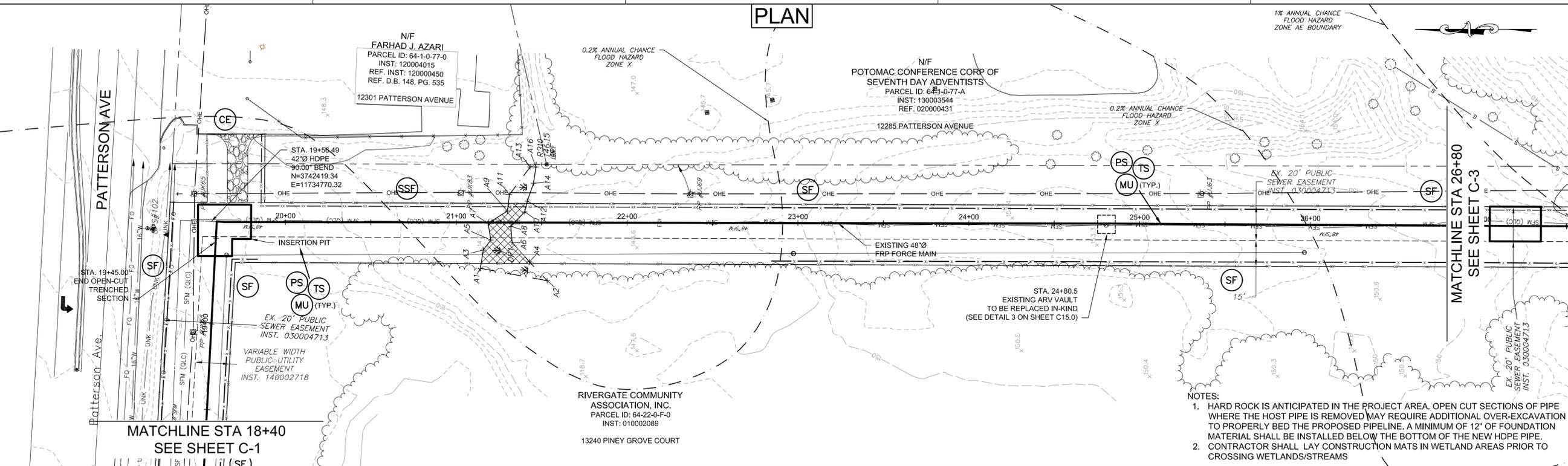
PROJECT NO. 50150386

C1.0

SHEET NO. - OF -

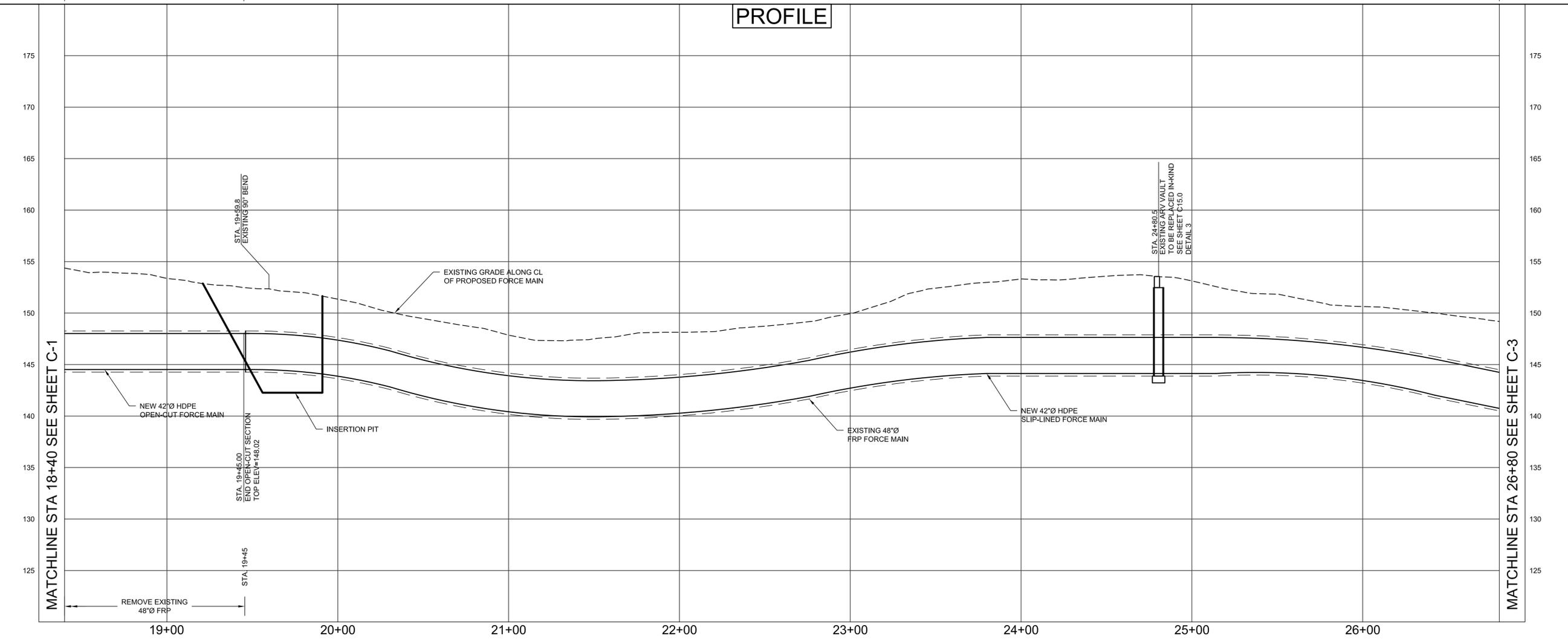
9/23/2022 4:08:38 PM \\DEWBERRY\DEWBERRY\ROOT\LOCAL\OFFICES\RHMOND\PROJECTS\GOOCH\13\00130386\CAD\CIVIL\CP\09086-1.DWG

PLAN



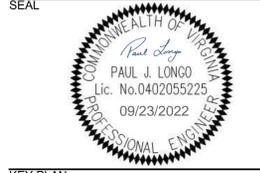
- NOTES:
- HARD ROCK IS ANTICIPATED IN THE PROJECT AREA. OPEN CUT SECTIONS OF PIPE WHERE THE HOST PIPE IS REMOVED MAY REQUIRE ADDITIONAL OVER-EXCAVATION TO PROPERLY BED THE PROPOSED PIPELINE. A MINIMUM OF 12" OF FOUNDATION MATERIAL SHALL BE INSTALLED BELOW THE BOTTOM OF THE NEW HDPE PIPE.
 - CONTRACTOR SHALL LAY CONSTRUCTION MATS IN WETLAND AREAS PRIOR TO CROSSING WETLANDS/STREAMS

PROFILE



Dewberry
 Dewberry Engineers Inc.
 4805 Lake Brook Drive, Suite 200
 Glen Allen, Virginia 23060
 PHONE: 804.250.7957
 FAX: 804.250.7928
 www.dewberry.com

EASTERN GOOCHLAND FORCE MAIN REHABILITATION AND REPLACEMENT
 GOOCHLAND COUNTY
 GOOCHLAND COUNTY, VIRGINIA



KEY PLAN

SCALE
 0' 30' 60'
 HORIZONTAL GRAPHIC SCALE
 SCALE: 1"=30'

0' 5' 10'
 VERTICAL GRAPHIC SCALE
 SCALE: 1"=5'

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY NJM
 APPROVED BY P.J.L.
 CHECKED BY RNK
 DATE SEPTEMBER 2022
 TITLE

**PLAN & PROFILE
 STA. 18+40 TO
 STA. 26+80**

PROJECT NO. 50150386

C2.0

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1

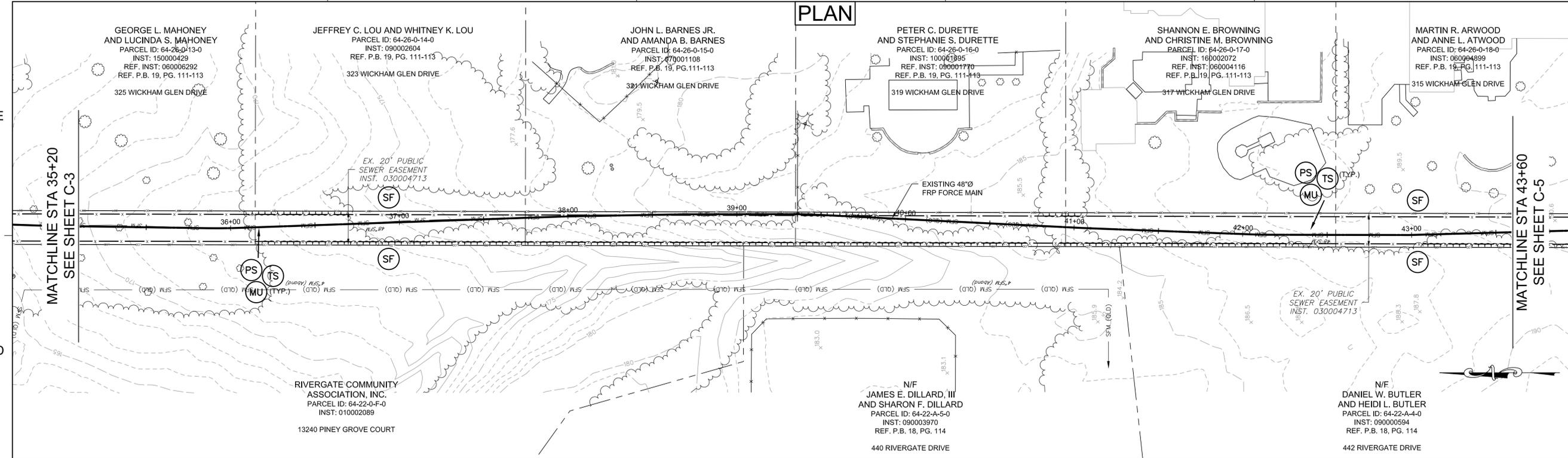
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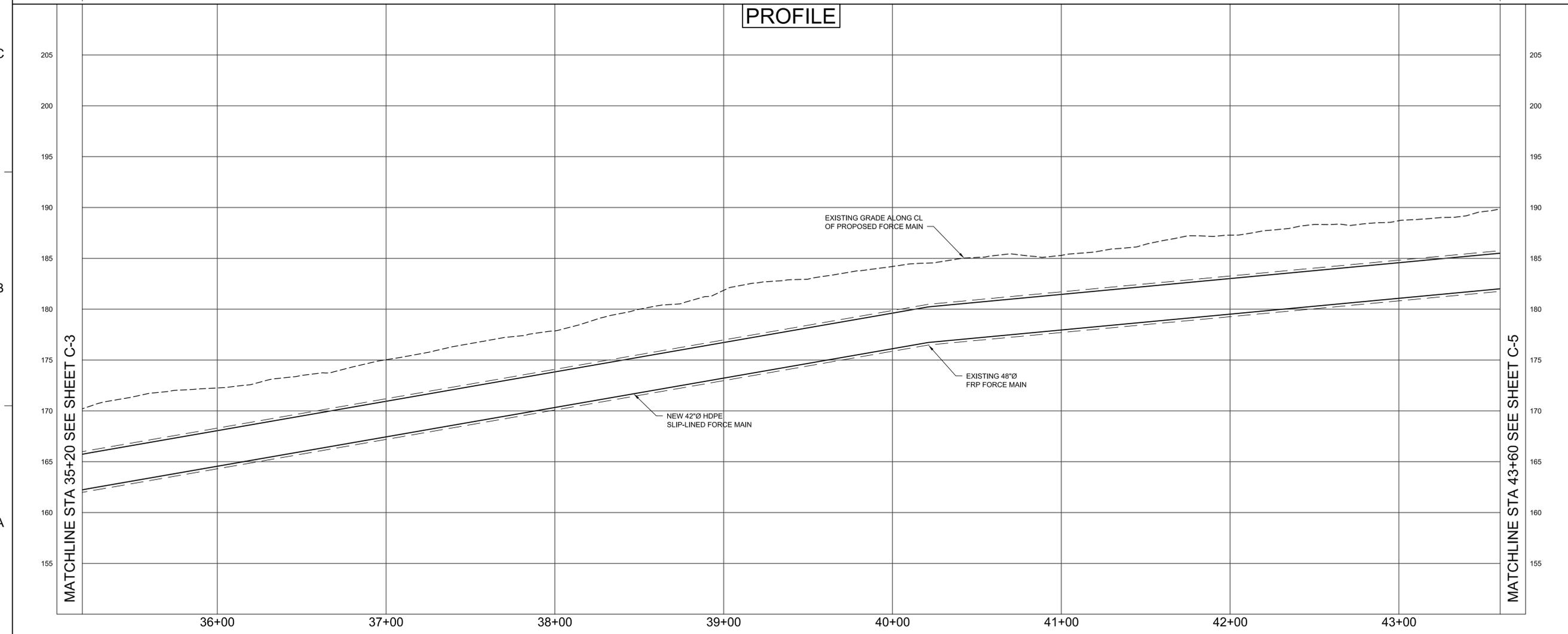
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PLAN



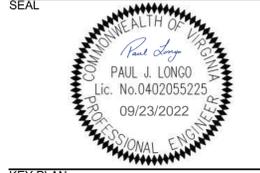
SEGMENT 5: SLIP-LINED SECTION

PROFILE



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 Glen Allen, Virginia 23060
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 FAX: 804-290-7929
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**EASTERN GOOCHLAND FORCE
 MAIN REHABILITATION AND
 REPLACEMENT**
 GOOCHLAND COUNTY
 GOOCHLAND COUNTY, VIRGINIA



KEY PLAN

SCALE
 0' 30' 60'
 HORIZONTAL GRAPHIC SCALE
 SCALE: 1"=30'

0' 5' 10'
 VERTICAL GRAPHIC SCALE
 SCALE: 1"=5'

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY: NJM
 APPROVED BY: P.J.L.
 CHECKED BY: RNK
 DATE: SEPTEMBER 2022
 TITLE:

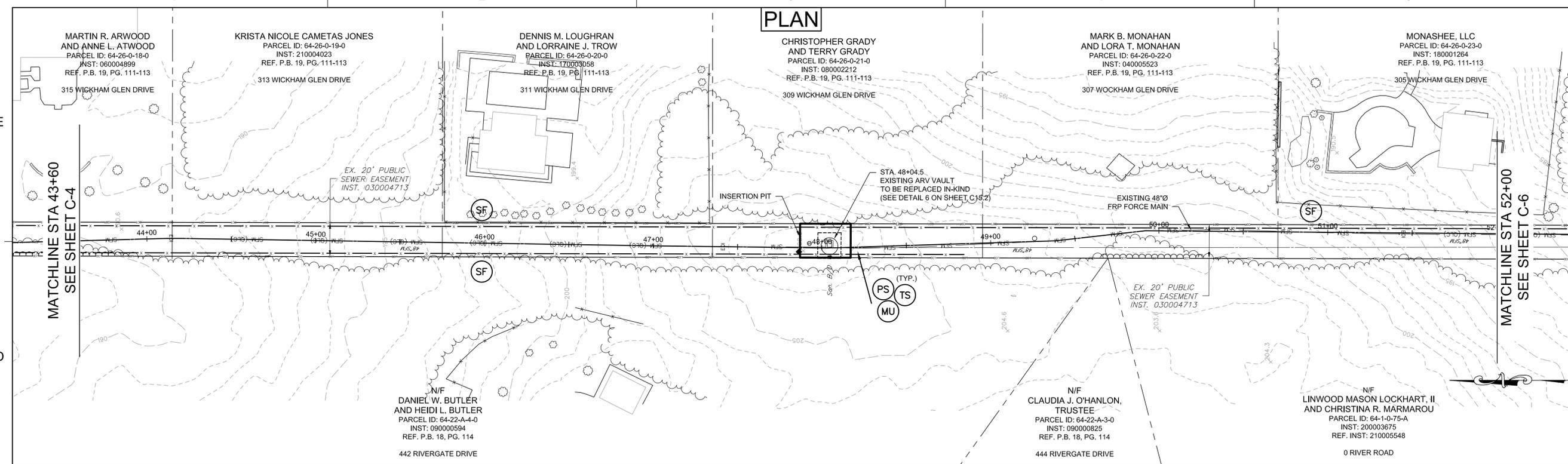
**PLAN & PROFILE
 STA. 35+20 TO
 STA. 43+60**

PROJECT NO. 50150386

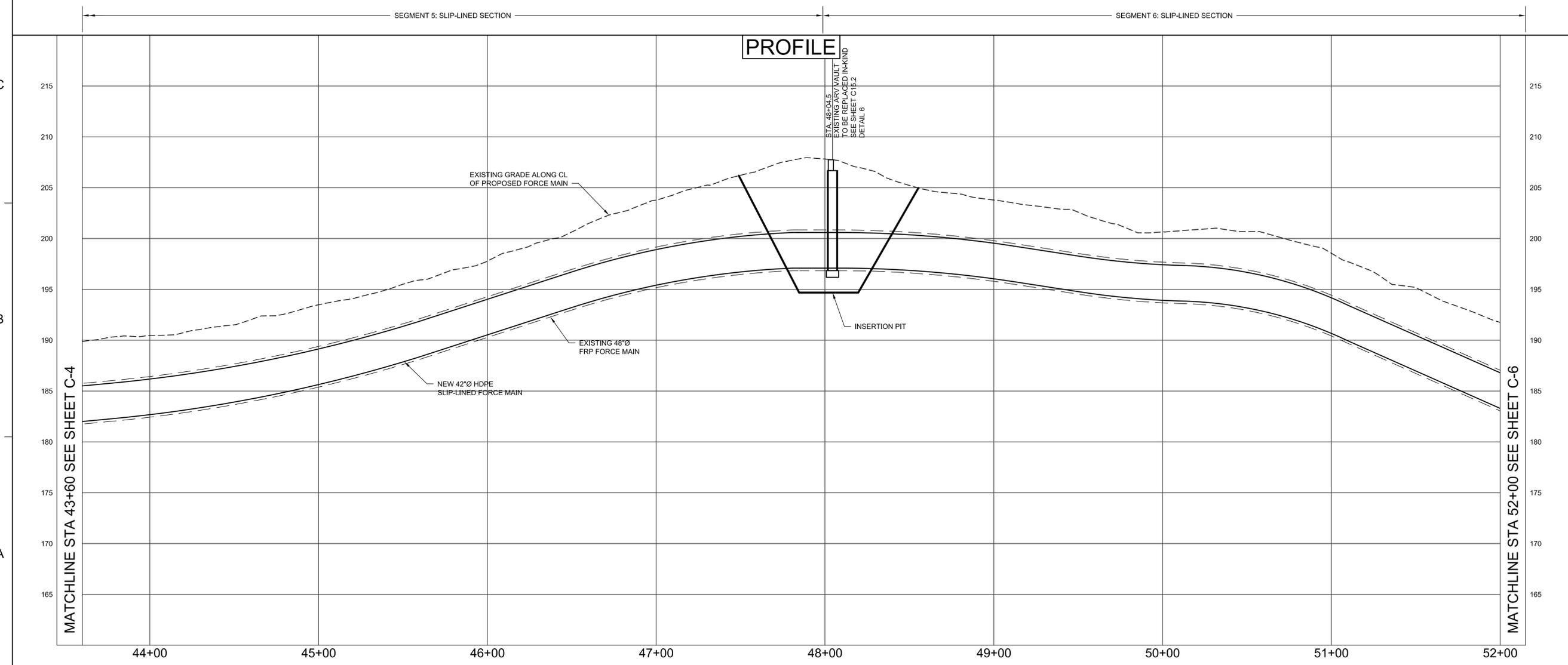
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PLAN



PROFILE

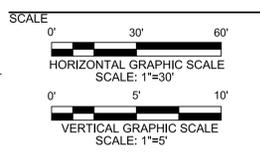


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EASTERN GOOCHLAND FORCE MAIN REHABILITATION AND REPLACEMENT
 GOOCHLAND COUNTY
 GOOCHLAND COUNTY, VIRGINIA

SEAL

 KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY: NJM
 APPROVED BY: PJL
 CHECKED BY: RNK
 DATE: SEPTEMBER 2022
 TITLE:

PLAN & PROFILE STA. 43+60 TO STA. 52+00

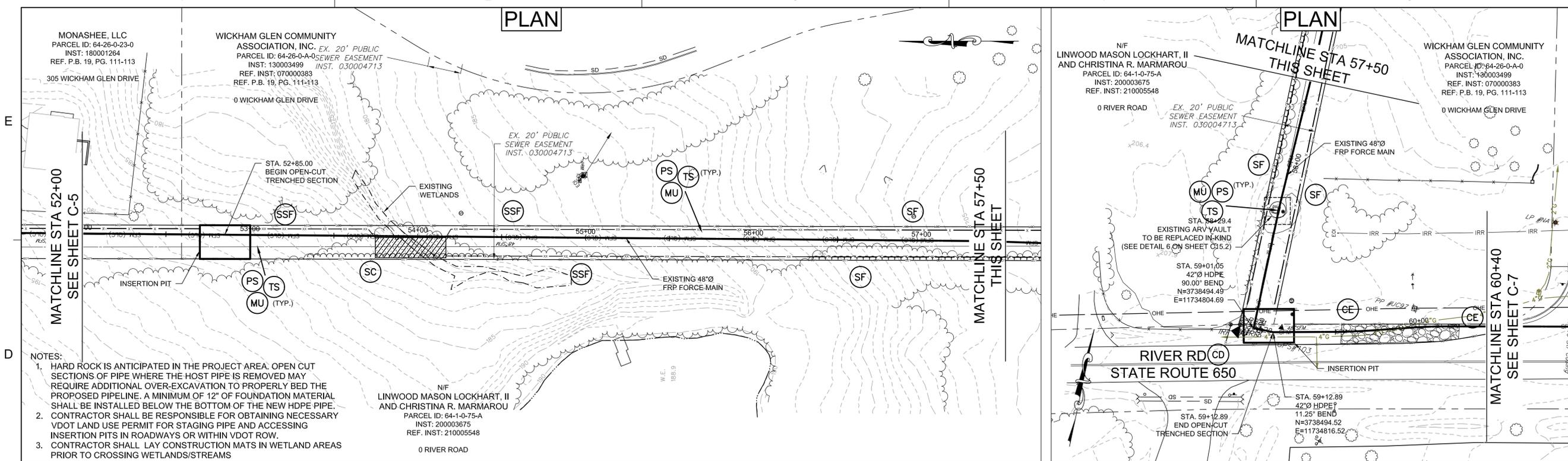
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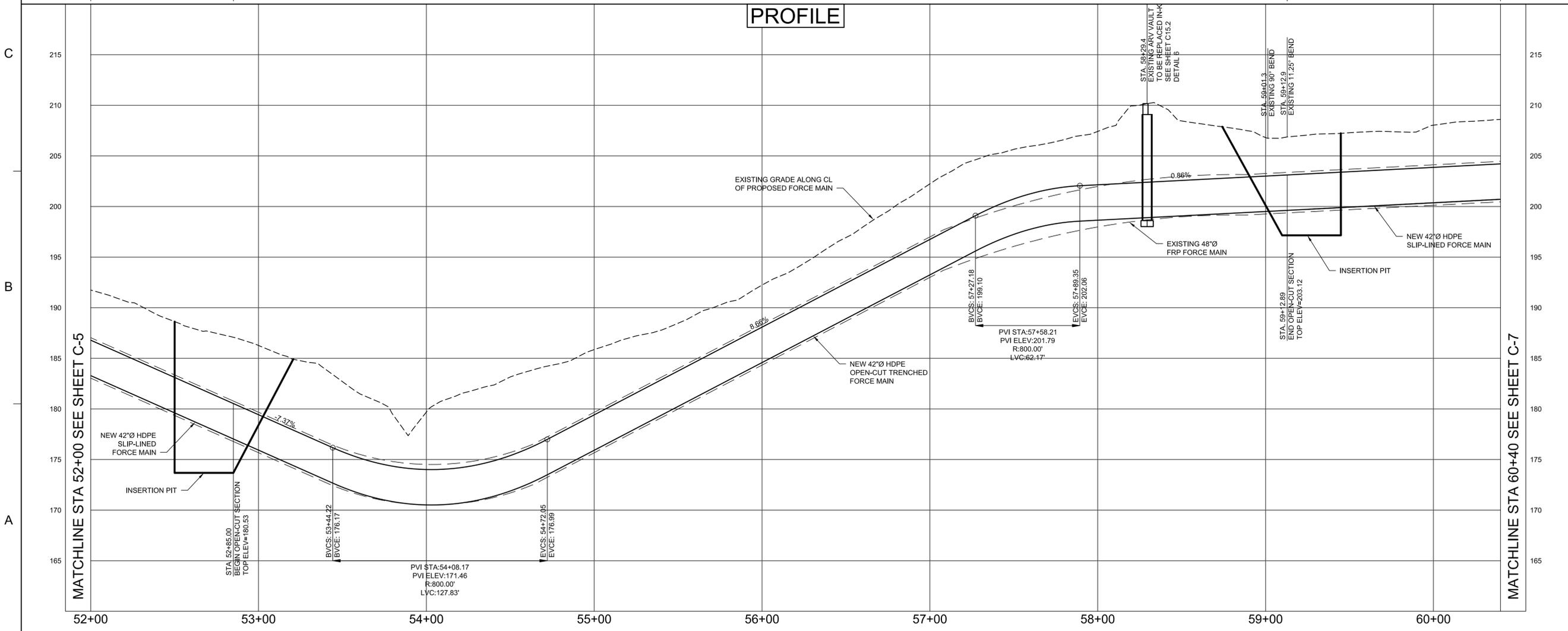
PLAN

PLAN



- NOTES:**
- HARD ROCK IS ANTICIPATED IN THE PROJECT AREA. OPEN CUT SECTIONS OF PIPE WHERE THE HOST PIPE IS REMOVED MAY REQUIRE ADDITIONAL OVER-EXCAVATION TO PROPERLY BED THE PROPOSED PIPELINE. A MINIMUM OF 12" OF FOUNDATION MATERIAL SHALL BE INSTALLED BELOW THE BOTTOM OF THE NEW HDPE PIPE.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY VDOT LAND USE PERMIT FOR STAGING PIPE AND ACCESSING INSERTION PITS IN ROADWAYS OR WITHIN VDOT ROW.
 - CONTRACTOR SHALL LAY CONSTRUCTION MATS IN WETLAND AREAS PRIOR TO CROSSING WETLANDS/STREAMS

PROFILE



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EASTERN GOOCHLAND FORCE MAIN REHABILITATION AND REPLACEMENT
GOOCHLAND COUNTY
GOOCHLAND COUNTY, VIRGINIA

SEAL

KEY PLAN

HORIZONTAL GRAPHIC SCALE
SCALE: 1"=30'

VERTICAL GRAPHIC SCALE
SCALE: 1"=5'

REVISIONS

NO.	DESCRIPTION	DATE

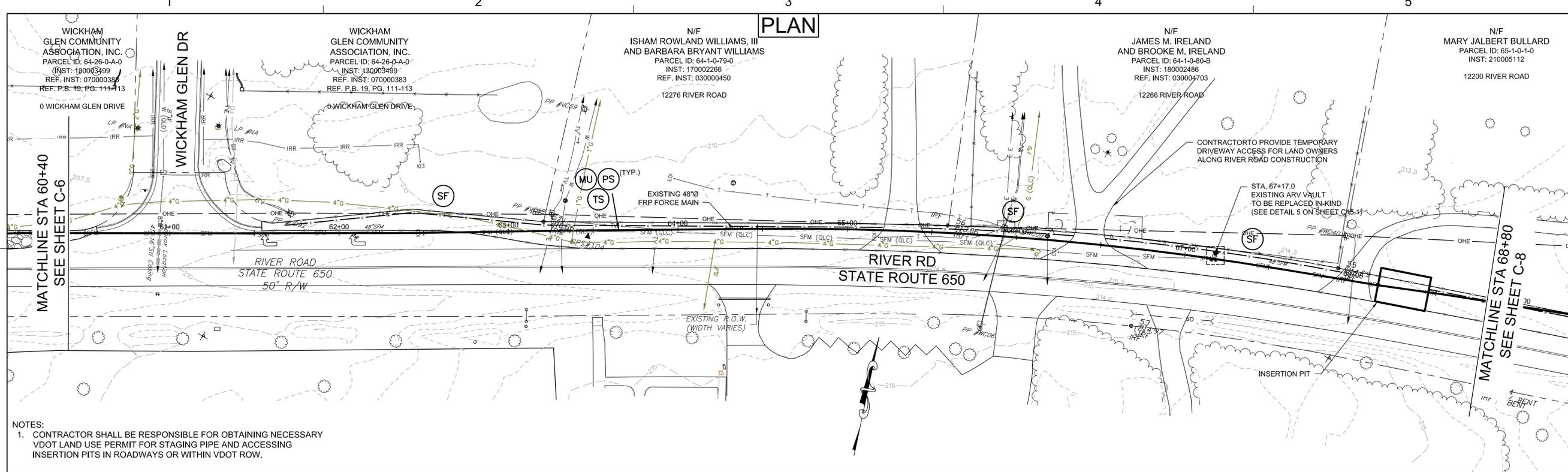
DRAWN BY: NJM
APPROVED BY: PJL
CHECKED BY: RNK
DATE: SEPTEMBER 2022
TITLE:

PLAN & PROFILE
STA. 52+00 TO
STA. 60+40

PROJECT NO. 50150386

C6.0

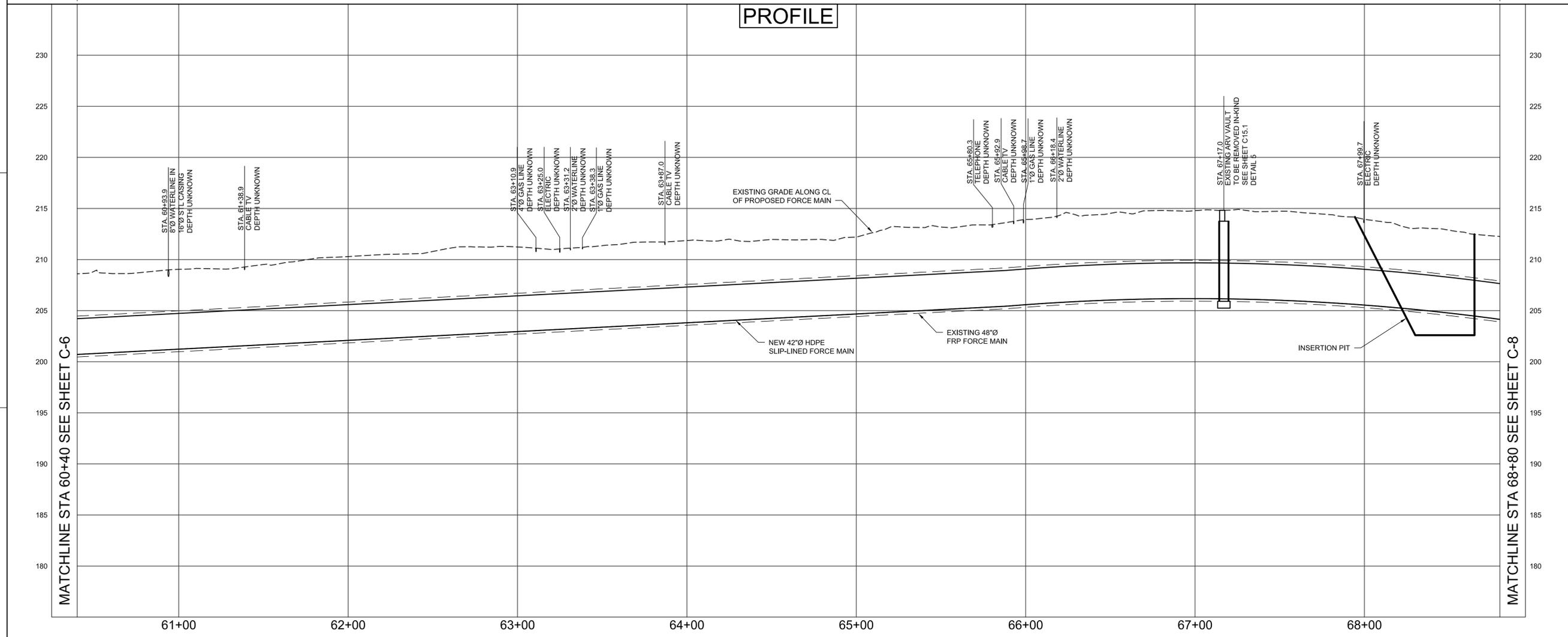
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NOTES:
 1. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY VDOT LAND USE PERMIT FOR STAGING PIPE AND ACCESSING INSERTION PITS IN ROADWAYS OR WITHIN VDOT ROW.

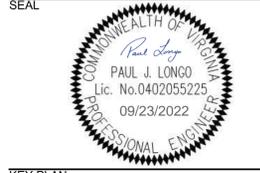
SEGMENT 8: SLIP-LINED SECTION

PROFILE

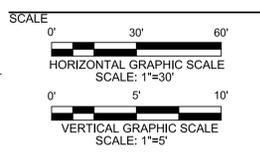


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 GOOCHLAND COUNTY
 GOOCHLAND COUNTY, VIRGINIA



KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY: NJM
 APPROVED BY: PJL
 CHECKED BY: RNK
 DATE: SEPTEMBER 2022
 TITLE:

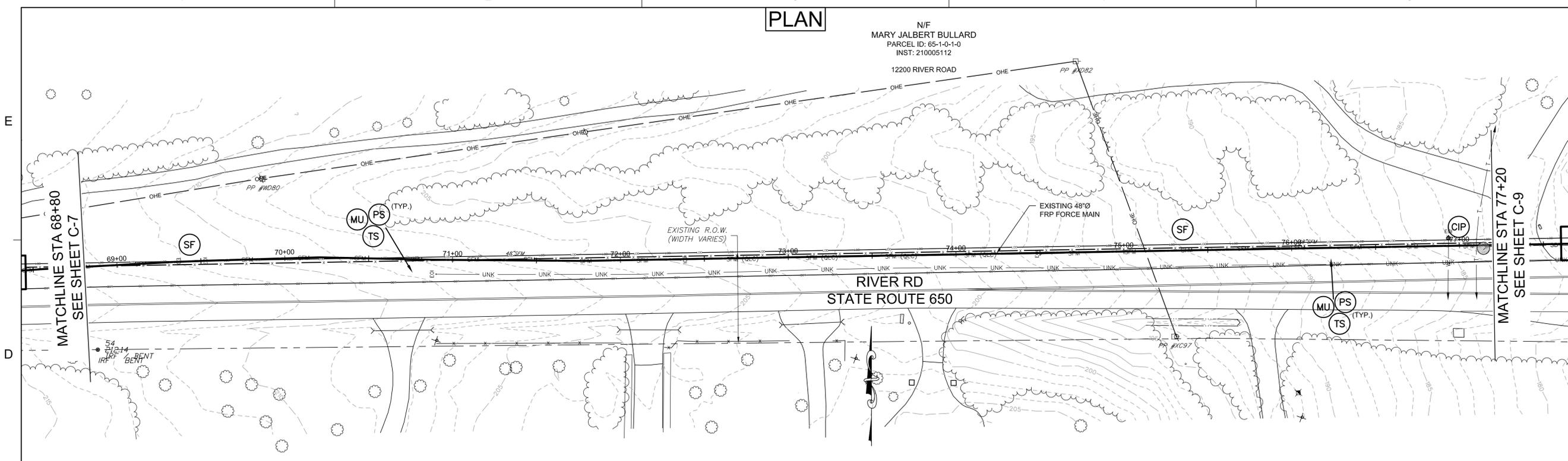
PLAN & PROFILE STA. 60+40 TO STA. 68+80

PROJECT NO. 50150386

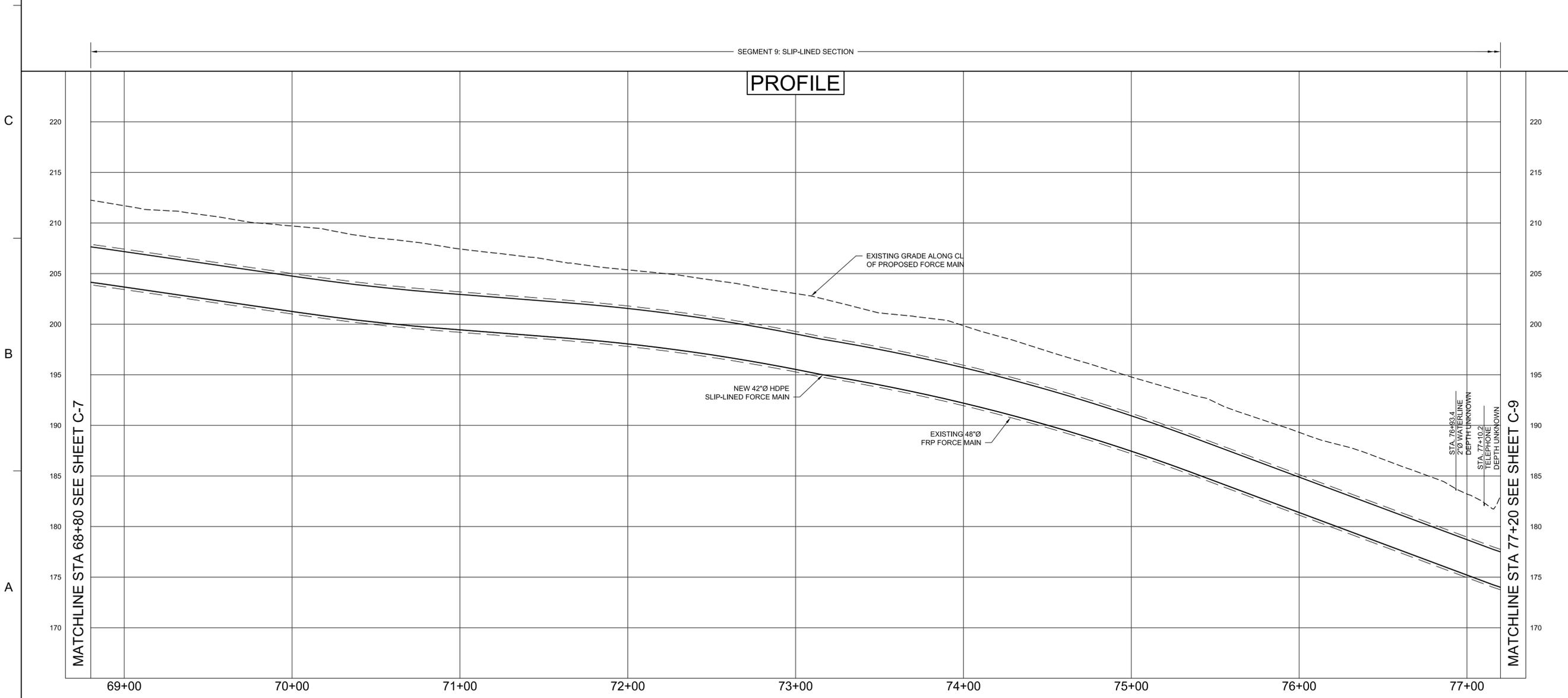
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PLAN

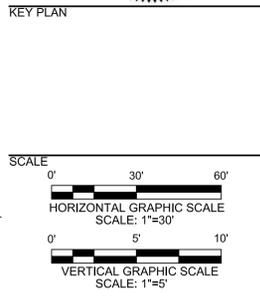
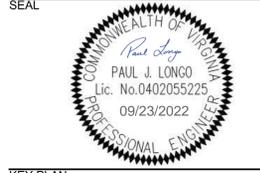


PROFILE



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**EASTERN GOOCHLAND FORCE
 MAIN REHABILITATION AND
 REPLACEMENT**
 GOOCHLAND COUNTY
 GOOCHLAND COUNTY, VIRGINIA



REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY: NJM
 APPROVED BY: P.J.L.
 CHECKED BY: RNK
 DATE: SEPTEMBER 2022
 TITLE:

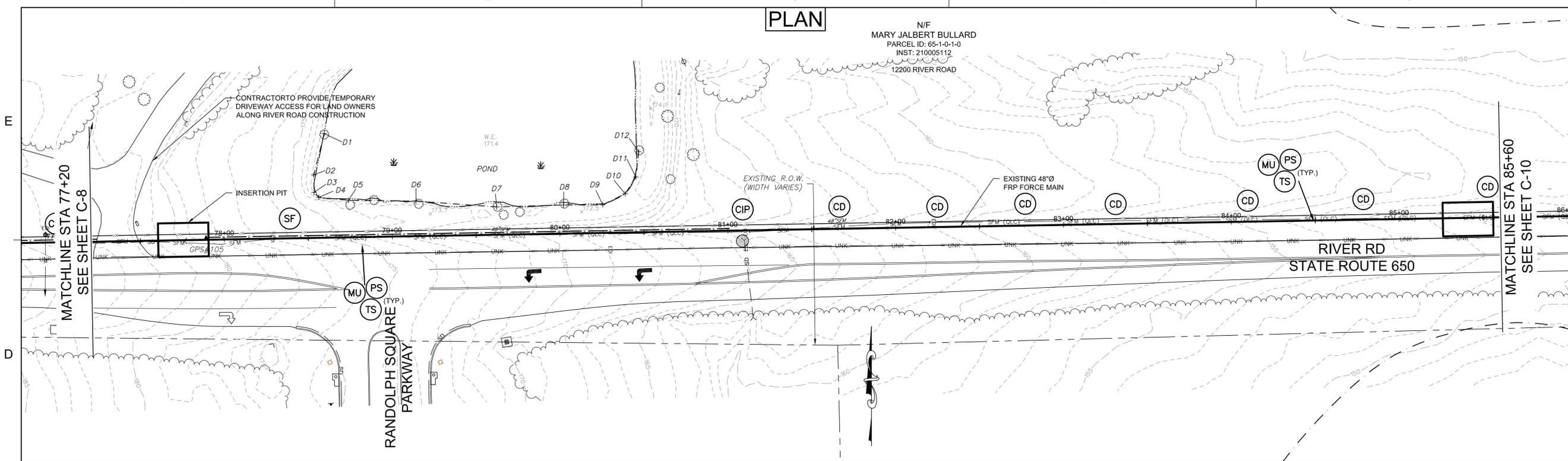
**PLAN & PROFILE
 STA. 68+80 TO
 STA. 77+20**

PROJECT NO. 50150386

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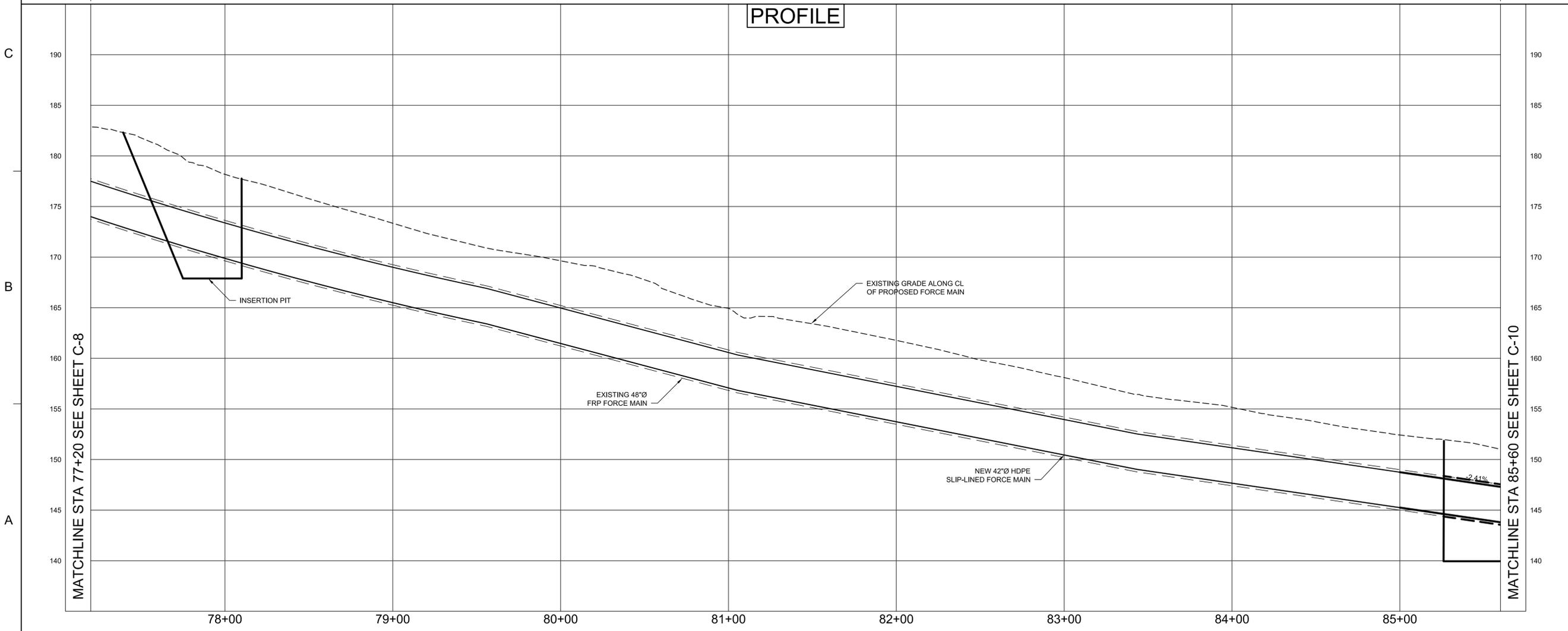
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PLAN



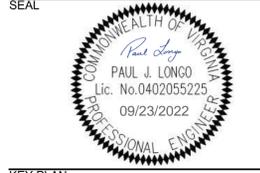
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PROFILE

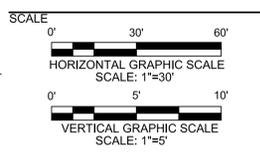


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 MAIN REHABILITATION AND
 REPLACEMENT**
 GOOCHLAND COUNTY
 GOOCHLAND COUNTY, VIRGINIA



KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

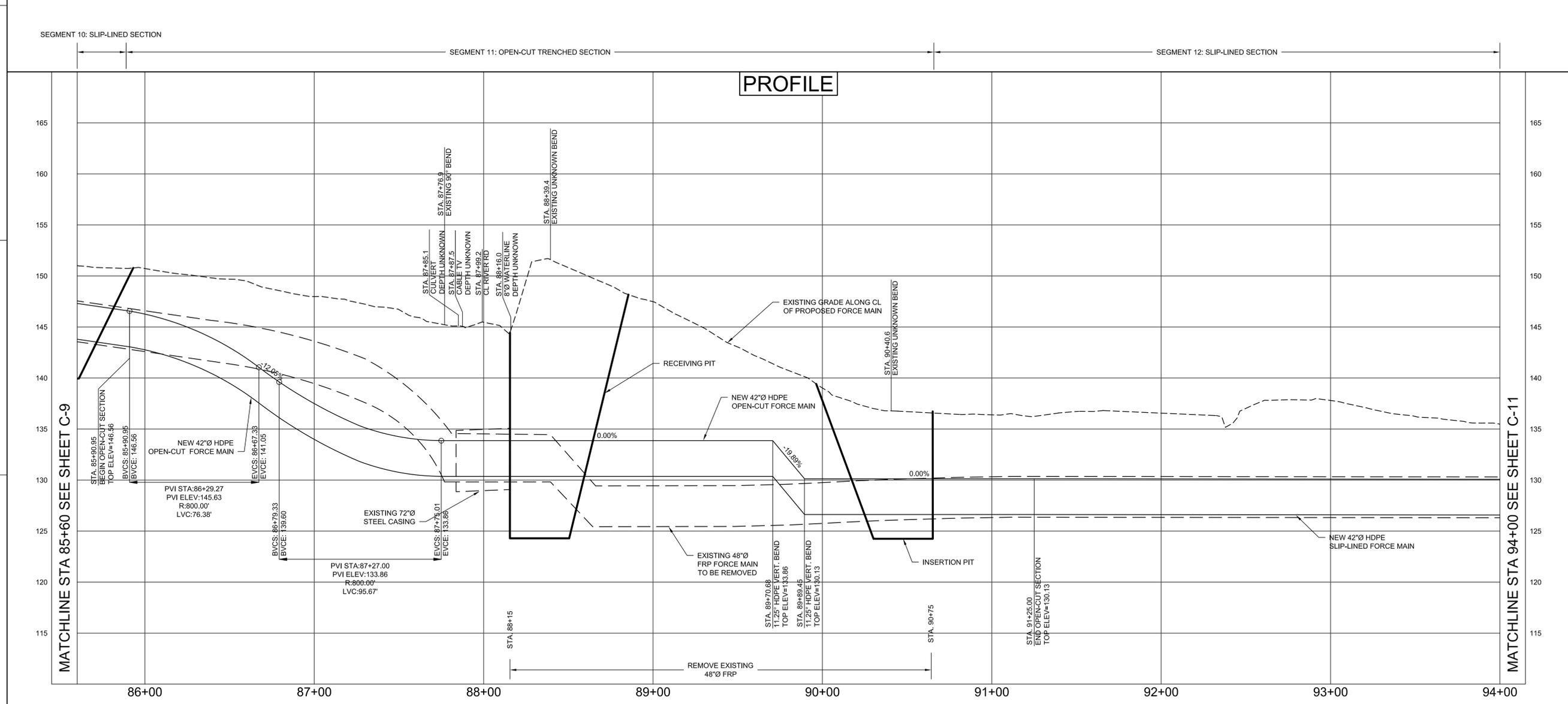
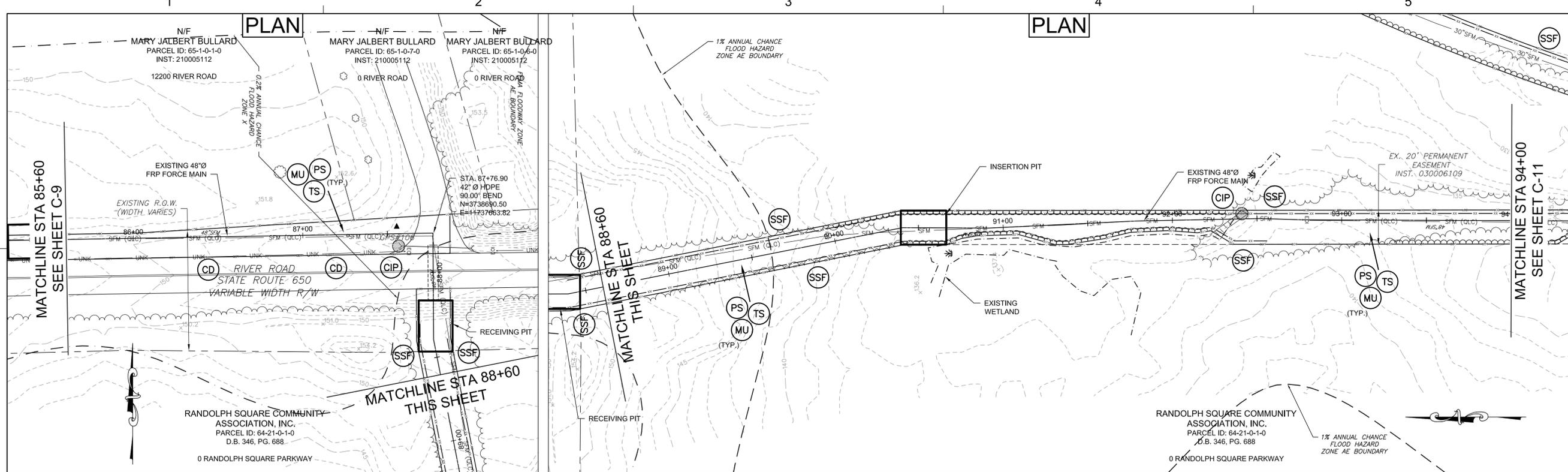
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 APPROVED BY: PJL
 CHECKED BY: RNK
 DATE: SEPTEMBER 2022
 TITLE:

**PLAN & PROFILE
 STA. 77+20 TO
 STA. 85+60**

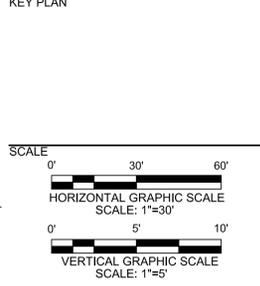
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**EASTERN GOOCHLAND FORCE
 MAIN REHABILITATION AND
 REPLACEMENT**
 GOOCHLAND COUNTY
 GOOCHLAND COUNTY, VIRGINIA



REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY: NJM
 APPROVED BY: P.J.L.
 CHECKED BY: RNK
 DATE: SEPTEMBER 2022
 TITLE:

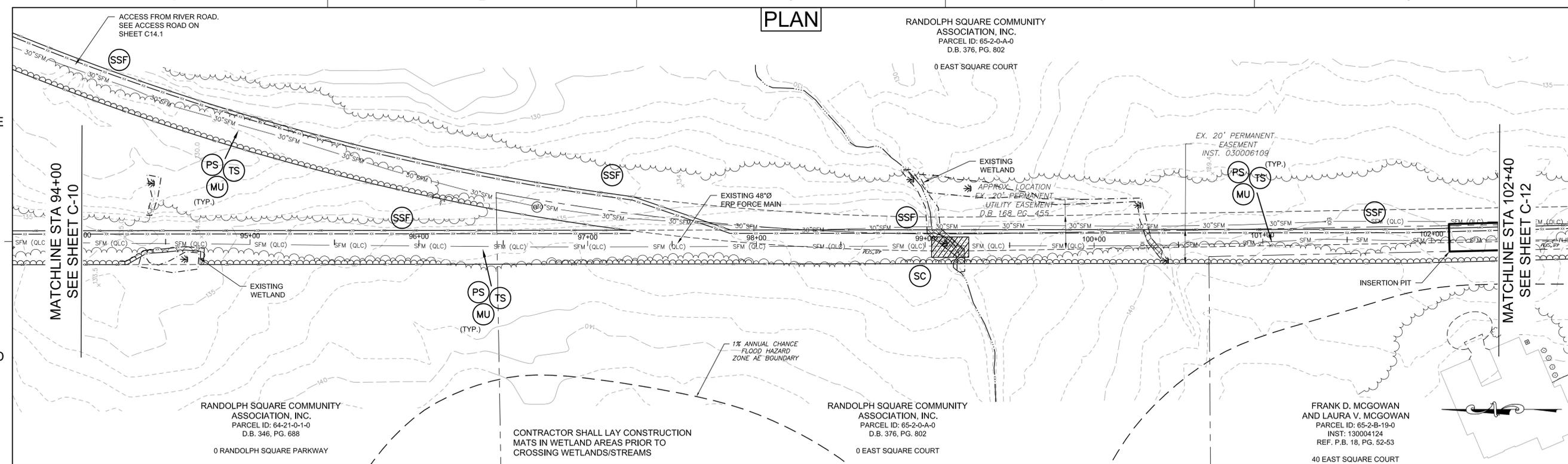
**PLAN & PROFILE
 STA. 85+60 TO
 STA. 94+00**

PROJECT NO. 50150386

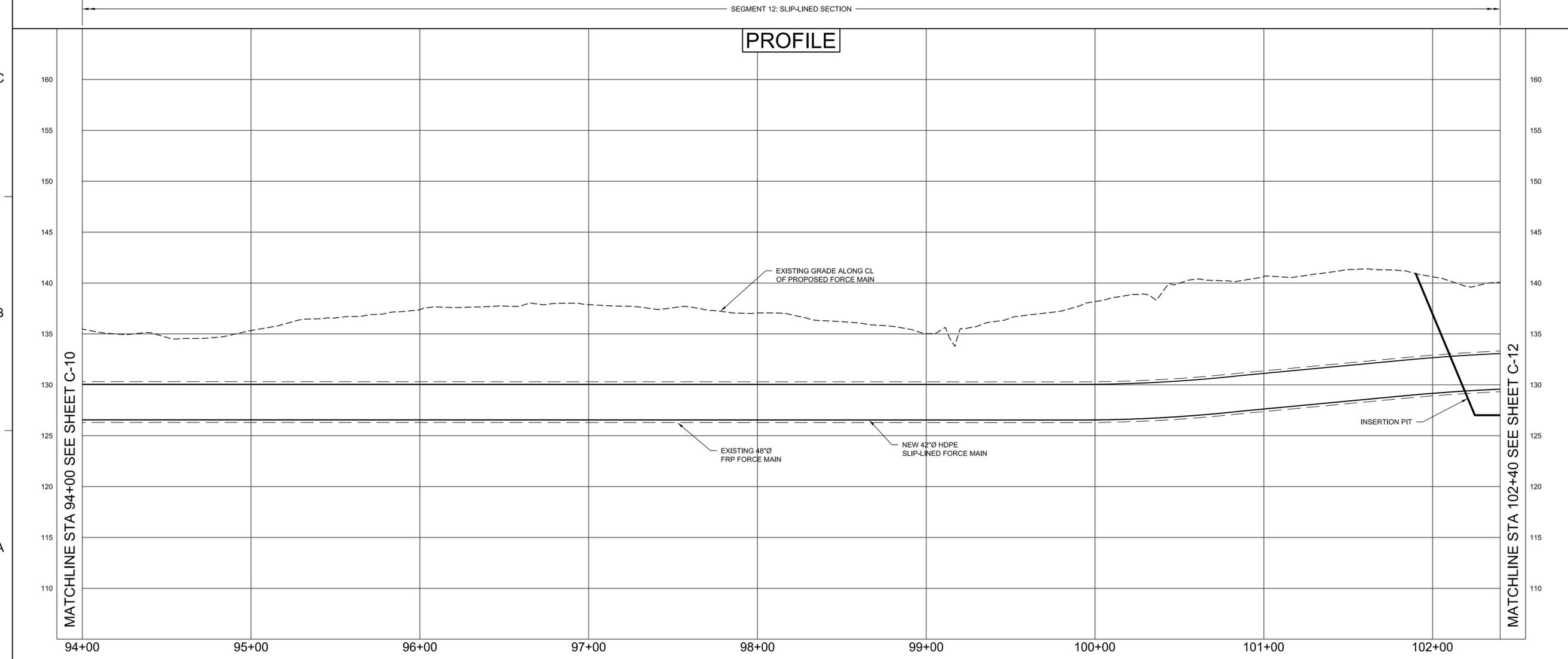
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PLAN

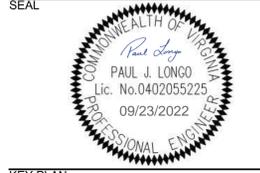


PROFILE



Dewberry
 Dewberry Engineers Inc.
 4805 Lake Brook Drive, Suite 200
 Glen Allen, Virginia 23060
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**EASTERN GOOCHLAND FORCE
 MAIN REHABILITATION AND
 REPLACEMENT**
 GOOCHLAND COUNTY
 GOOCHLAND COUNTY, VIRGINIA



KEY PLAN

SCALE
 0' 30' 60'
 HORIZONTAL GRAPHIC SCALE
 SCALE: 1"=30'

0' 5' 10'
 VERTICAL GRAPHIC SCALE
 SCALE: 1"=5'

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY: NJM
 APPROVED BY: P.J.L.
 CHECKED BY: RNK
 DATE: SEPTEMBER 2022
 TITLE:

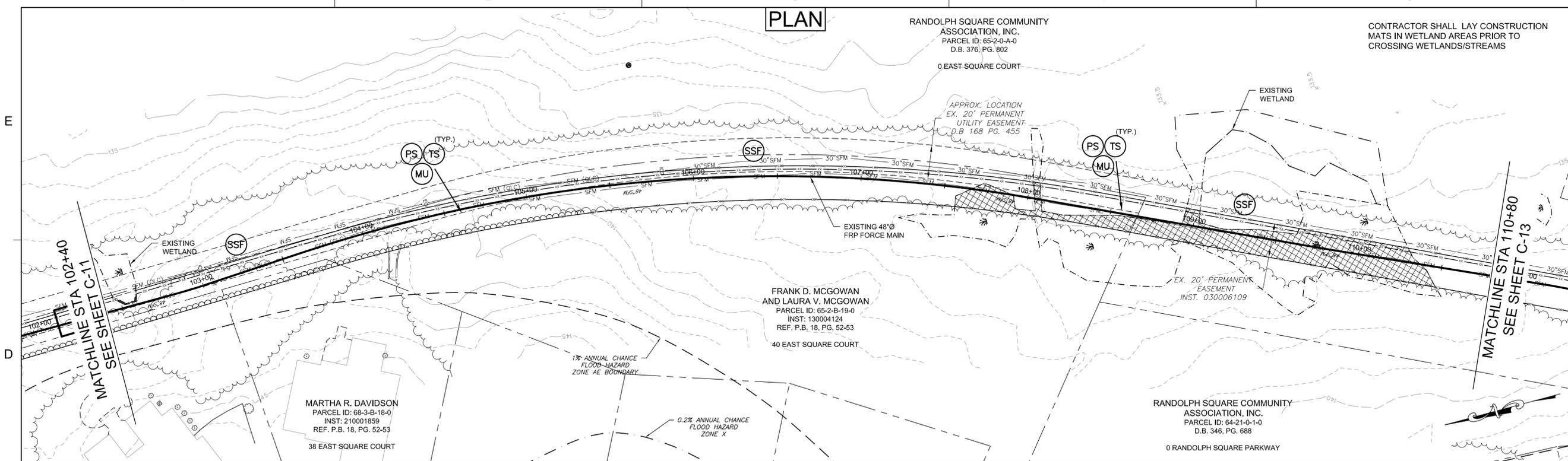
**PLAN & PROFILE
 STA. 94+00 TO
 STA. 102+00**

PROJECT NO. 50150386

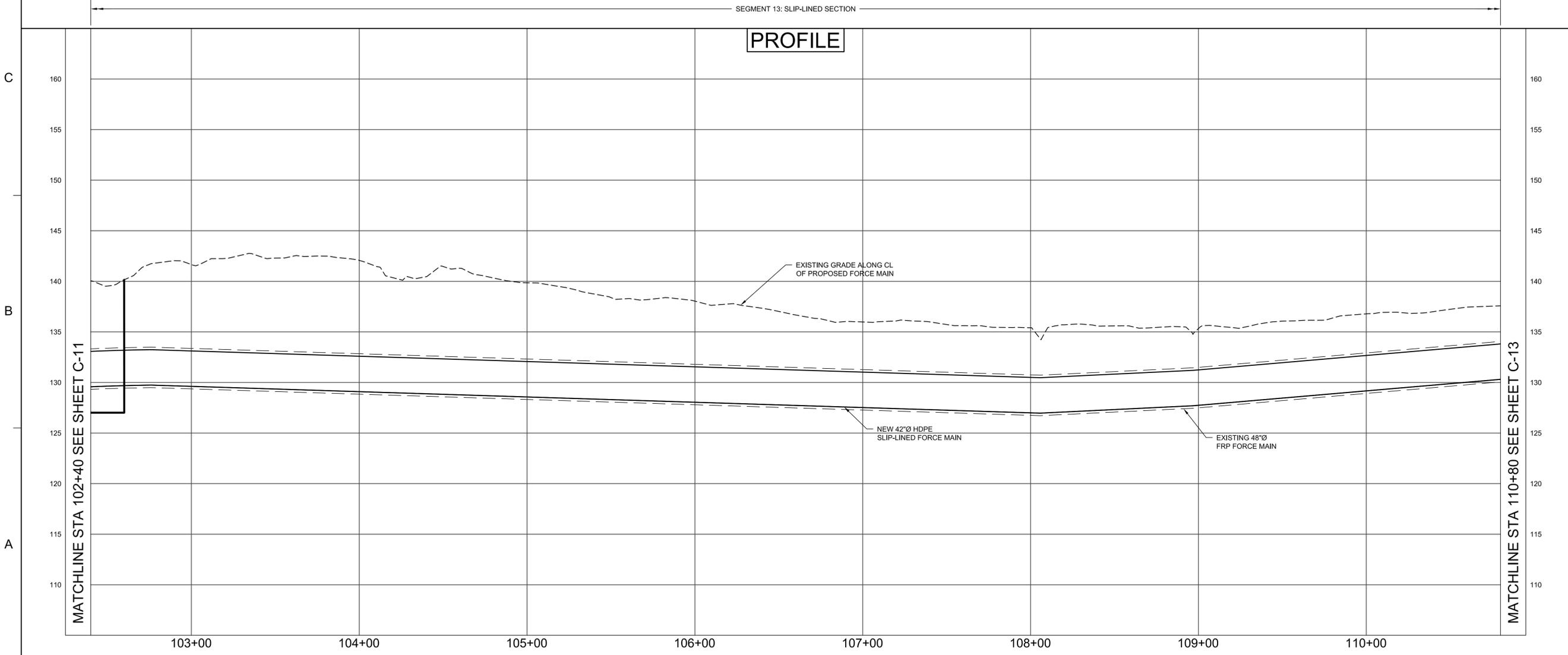
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1/22/2018 8:07:15 AM
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PLAN



PROFILE



CONTRACTOR SHALL LAY CONSTRUCTION MATS IN WETLAND AREAS PRIOR TO CROSSING WETLANDS/STREAMS

RANDOLPH SQUARE COMMUNITY ASSOCIATION, INC.
PARCEL ID: 65-2-0-A-0
D.B. 376, PG. 802

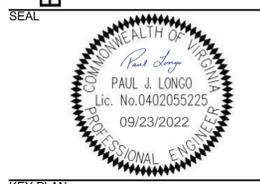
FRANK D. MCGOWAN AND LAURA V. MCGOWAN
PARCEL ID: 65-2-B-19-0
INST: 130004124
REF. P.B. 18, PG. 52-53

MARTHA R. DAVIDSON
PARCEL ID: 68-3-B-18-0
INST: 210001859
REF. P.B. 18, PG. 52-53

RANDOLPH SQUARE COMMUNITY ASSOCIATION, INC.
PARCEL ID: 64-21-0-1-0
D.B. 346, PG. 688

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EASTERN GOOCHLAND FORCE MAIN REHABILITATION AND REPLACEMENT
GOOCHLAND COUNTY
GOOCHLAND COUNTY, VIRGINIA



KEY PLAN

SCALE
0' 30' 60'
HORIZONTAL GRAPHIC SCALE
SCALE: 1"=30'

0' 5' 10'
VERTICAL GRAPHIC SCALE
SCALE: 1"=5'

REVISIONS

NO.	DESCRIPTION	DATE

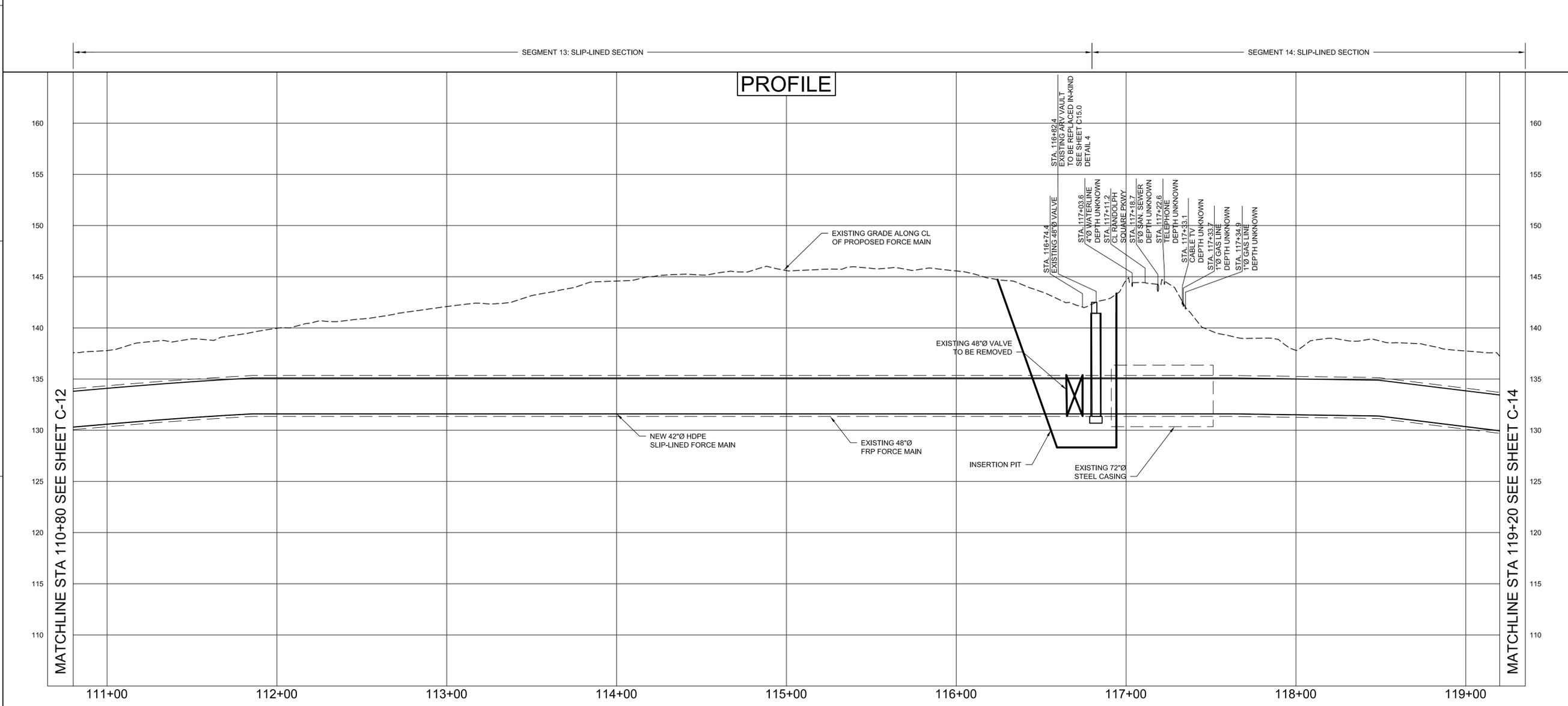
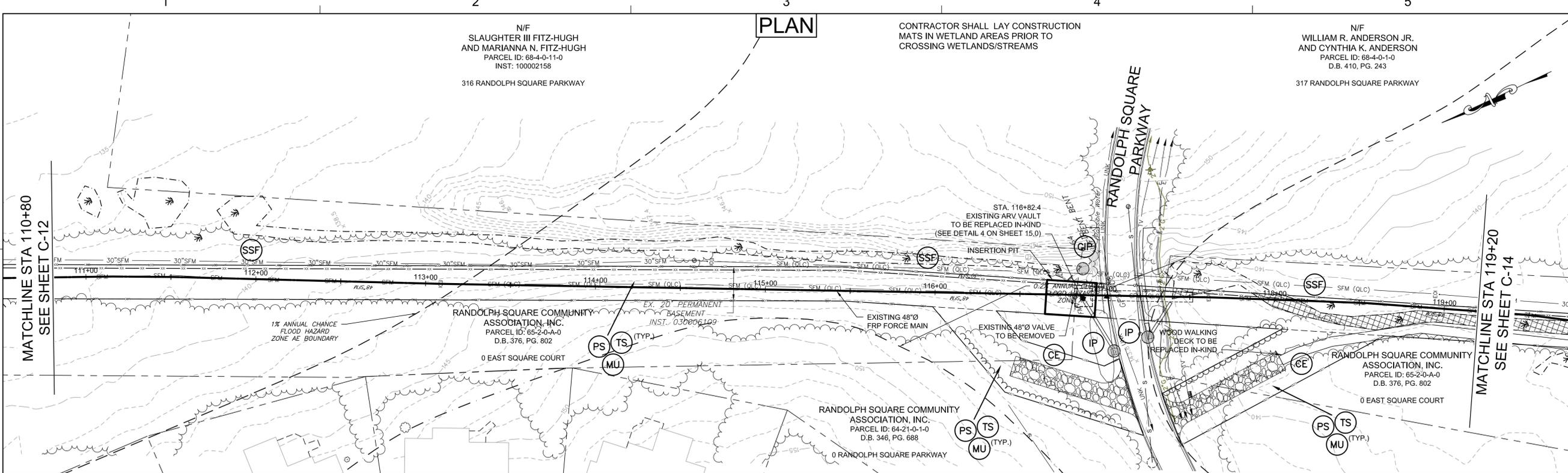
DRAWN BY: NJM
APPROVED BY: P.J.L.
CHECKED BY: RNK
DATE: SEPTEMBER 2022
TITLE:

**PLAN & PROFILE
STA. 102+40 TO
STA. 110+80**

PROJECT NO. 50150386

C12.0

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PLAN

PROFILE

CONTRACTOR SHALL LAY CONSTRUCTION MATS IN WETLAND AREAS PRIOR TO CROSSING WETLANDS/STREAMS

N/F
WILLIAM R. ANDERSON JR.
AND CYNTHIA K. ANDERSON
PARCEL ID: 68-4-0-1-0
D.B. 410, PG. 243
317 RANDOLPH SQUARE PARKWAY

N/F
SLAUGHTER III FITZ-HUGH
AND MARIANNA N. FITZ-HUGH
PARCEL ID: 68-4-0-11-0
INST: 100002158
316 RANDOLPH SQUARE PARKWAY

RANDOLPH SQUARE COMMUNITY ASSOCIATION, INC.
PARCEL ID: 65-2-0-A-0
D.B. 376, PG. 802
0 EAST SQUARE COURT

RANDOLPH SQUARE COMMUNITY ASSOCIATION, INC.
PARCEL ID: 64-21-0-1-0
D.B. 346, PG. 688
0 RANDOLPH SQUARE PARKWAY

RANDOLPH SQUARE COMMUNITY ASSOCIATION, INC.
PARCEL ID: 65-2-0-A-0
D.B. 376, PG. 802
0 EAST SQUARE COURT

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EASTERN GOOCHLAND FORCE MAIN REHABILITATION AND REPLACEMENT
GOOCHLAND COUNTY
GOOCHLAND COUNTY, VIRGINIA

SEAL

KEY PLAN

REVISIONS

NO.	DESCRIPTION	DATE

DRAWN BY: NJM
APPROVED BY: P.J.L.
CHECKED BY: RNK
DATE: SEPTEMBER 2022
TITLE:

PLAN & PROFILE
STA. 110+80 TO
STA. 119+20

PROJECT NO. 50150386

C13.0

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**EASTERN GOOCHLAND FORCE
 MAIN REHABILITATION AND
 REPLACEMENT**
 GOOCHLAND COUNTY
 DEPARTMENT OF PUBLIC UTILITIES
 GOOCHLAND COUNTY, VIRGINIA

KEY PLAN

SEAL



SCALE

No. DATE BY Description

REVISIONS

DRAWN BY AMJ

APPROVED BY PJL

CHECKED BY RNK

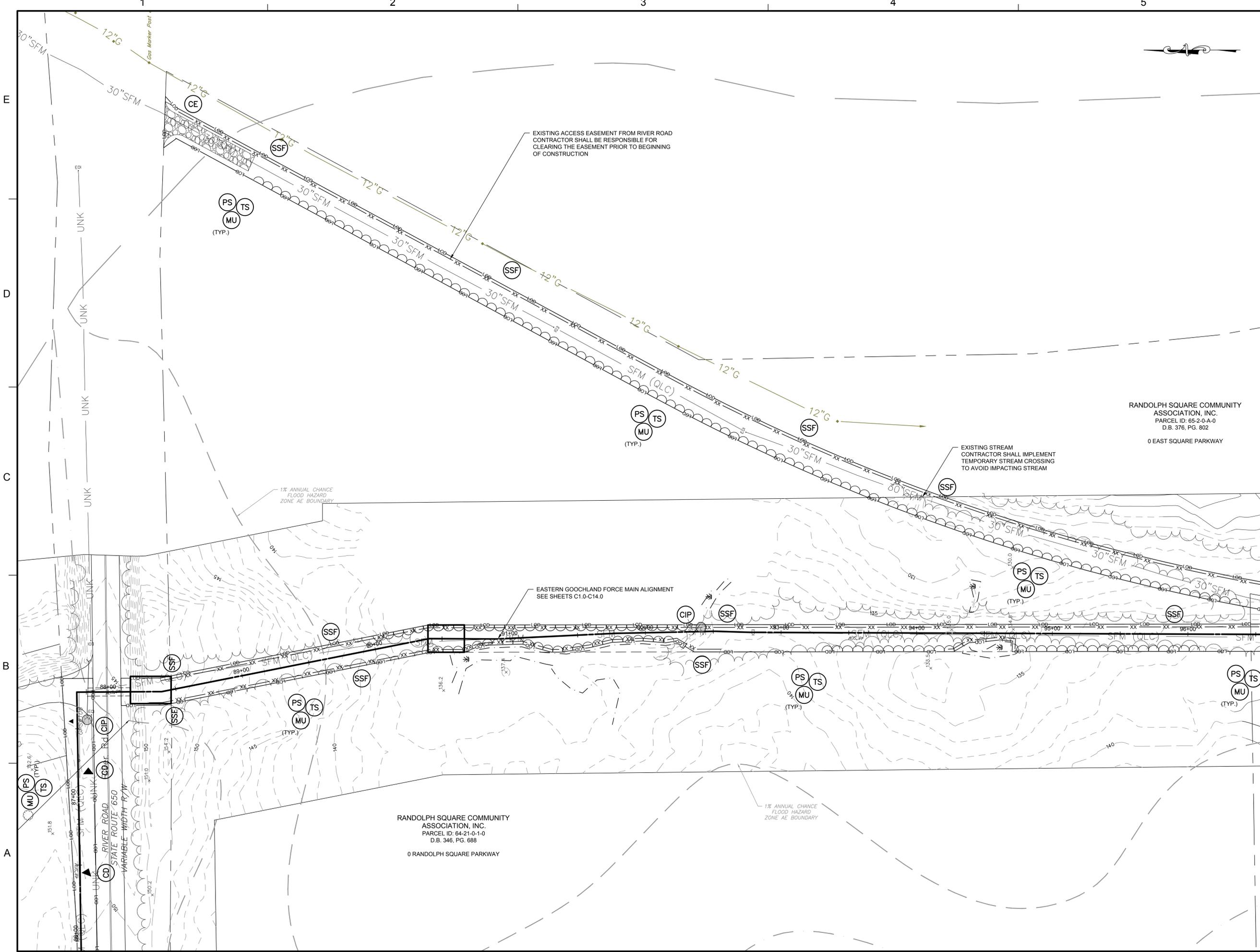
DATE SEPTEMBER 2022

TITLE

**RIVER ROAD
 ACCESS EASEMENT**

PROJECT NO. 50150386

C14.1



RANDOLPH SQUARE COMMUNITY
 ASSOCIATION, INC.
 PARCEL ID: 64-21-0-1-0
 D.B. 346, PG. 688
 0 RANDOLPH SQUARE PARKWAY

1% ANNUAL CHANCE
 FLOOD HAZARD
 ZONE AE BOUNDARY

EXISTING ACCESS EASEMENT FROM RIVER ROAD
 CONTRACTOR SHALL BE RESPONSIBLE FOR
 CLEARING THE EASEMENT PRIOR TO BEGINNING
 OF CONSTRUCTION

EXISTING STREAM
 CONTRACTOR SHALL IMPLEMENT
 TEMPORARY STREAM CROSSING
 TO AVOID IMPACTING STREAM

RANDOLPH SQUARE COMMUNITY
 ASSOCIATION, INC.
 PARCEL ID: 65-2-0-A-0
 D.B. 376, PG. 802
 0 EAST SQUARE PARKWAY

KEY PLAN

SEAL



SCALE

No.	DATE	BY	Description
REVISIONS			

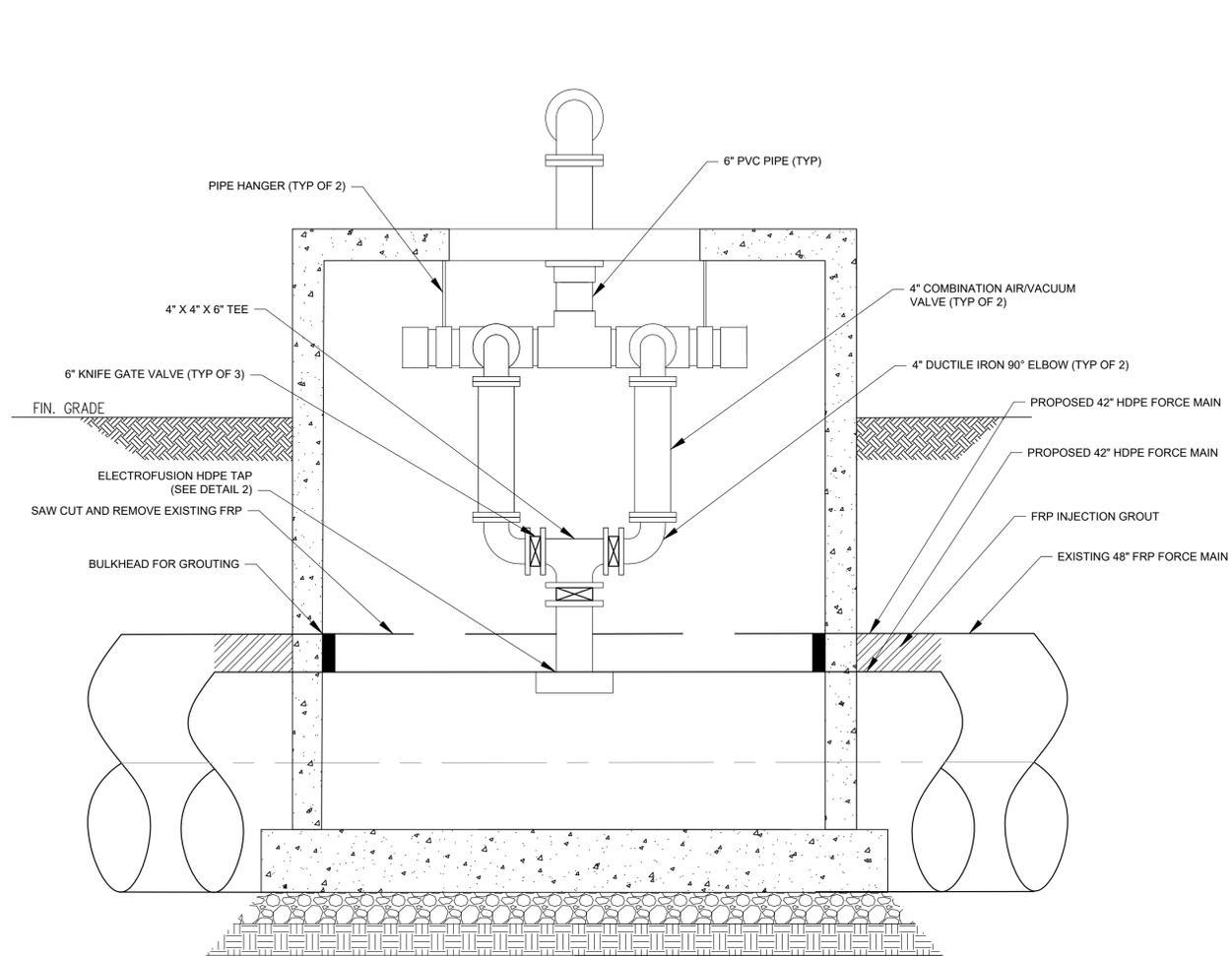
TITLE
**ARV DOGHOUSE
 MANHOLE
 REPLACEMENT
 DETAIL**

PROJECT NO. 50150386

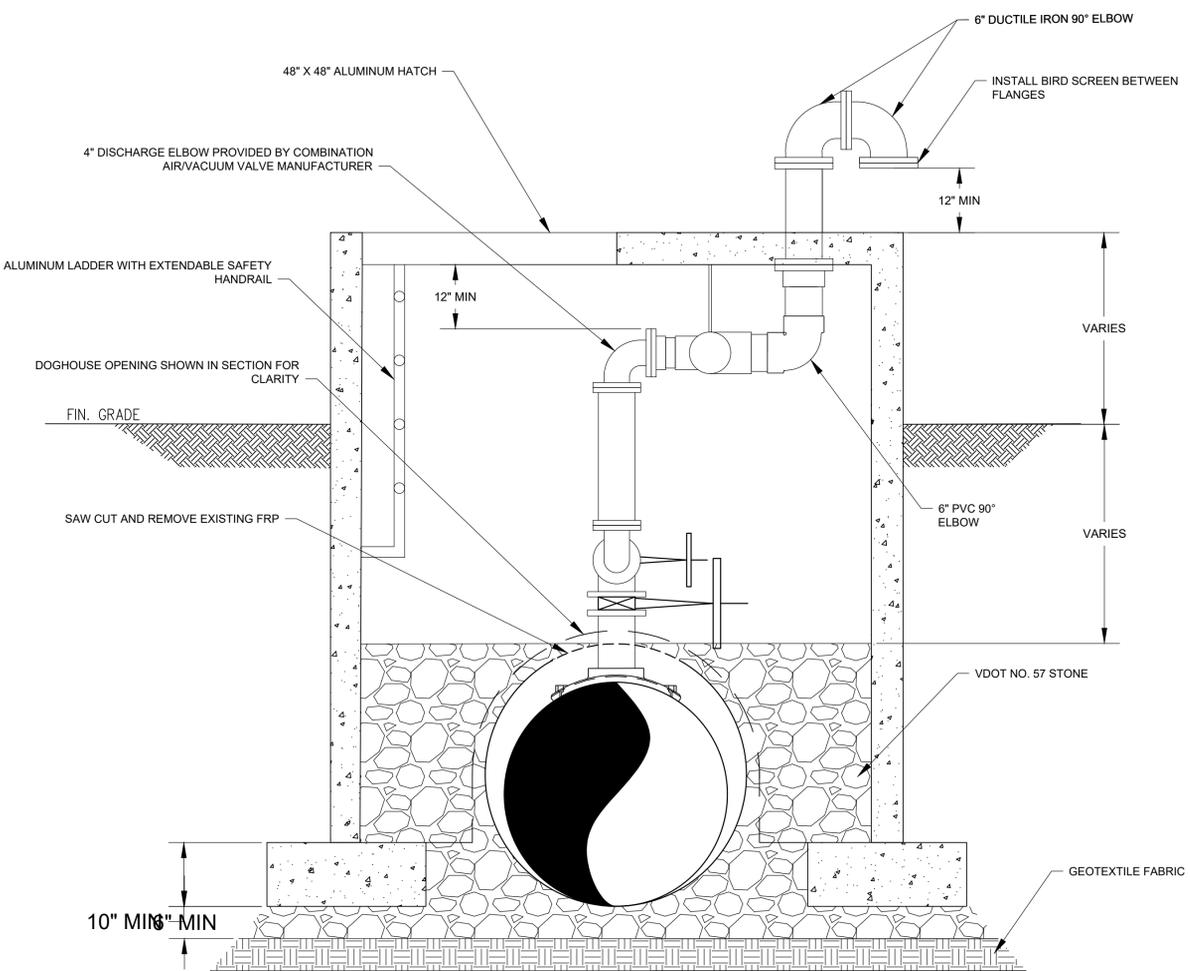
C15.1

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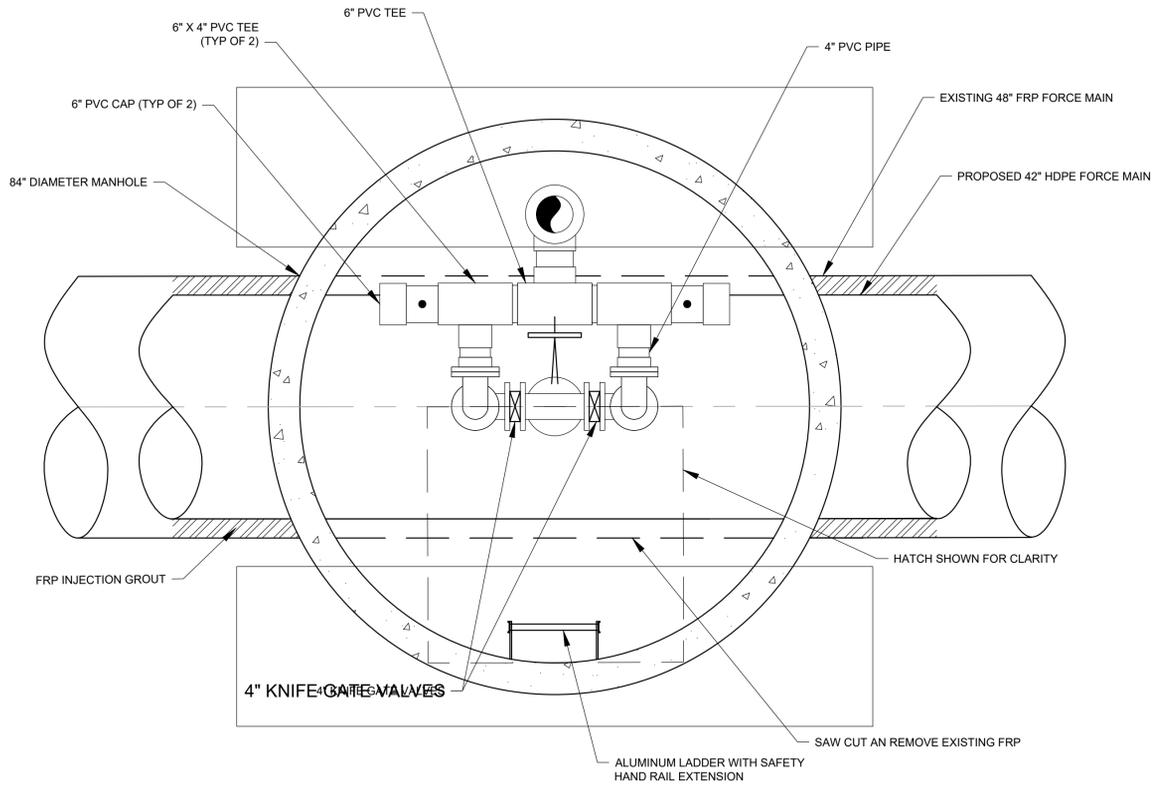
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SECTION VIEW



SECTION VIEW



PLAN VIEW

5 ARV DOGHOUSE MANHOLE REPLACEMENT DETAIL
 N.T.S.

**EASTERN GOOCHLAND FORCE
 MAIN REHABILITATION AND
 REPLACEMENT**
 GOOCHLAND COUNTY
 DEPARTMENT OF PUBLIC UTILITIES
 GOOCHLAND COUNTY, VIRGINIA

KEY PLAN

SEAL



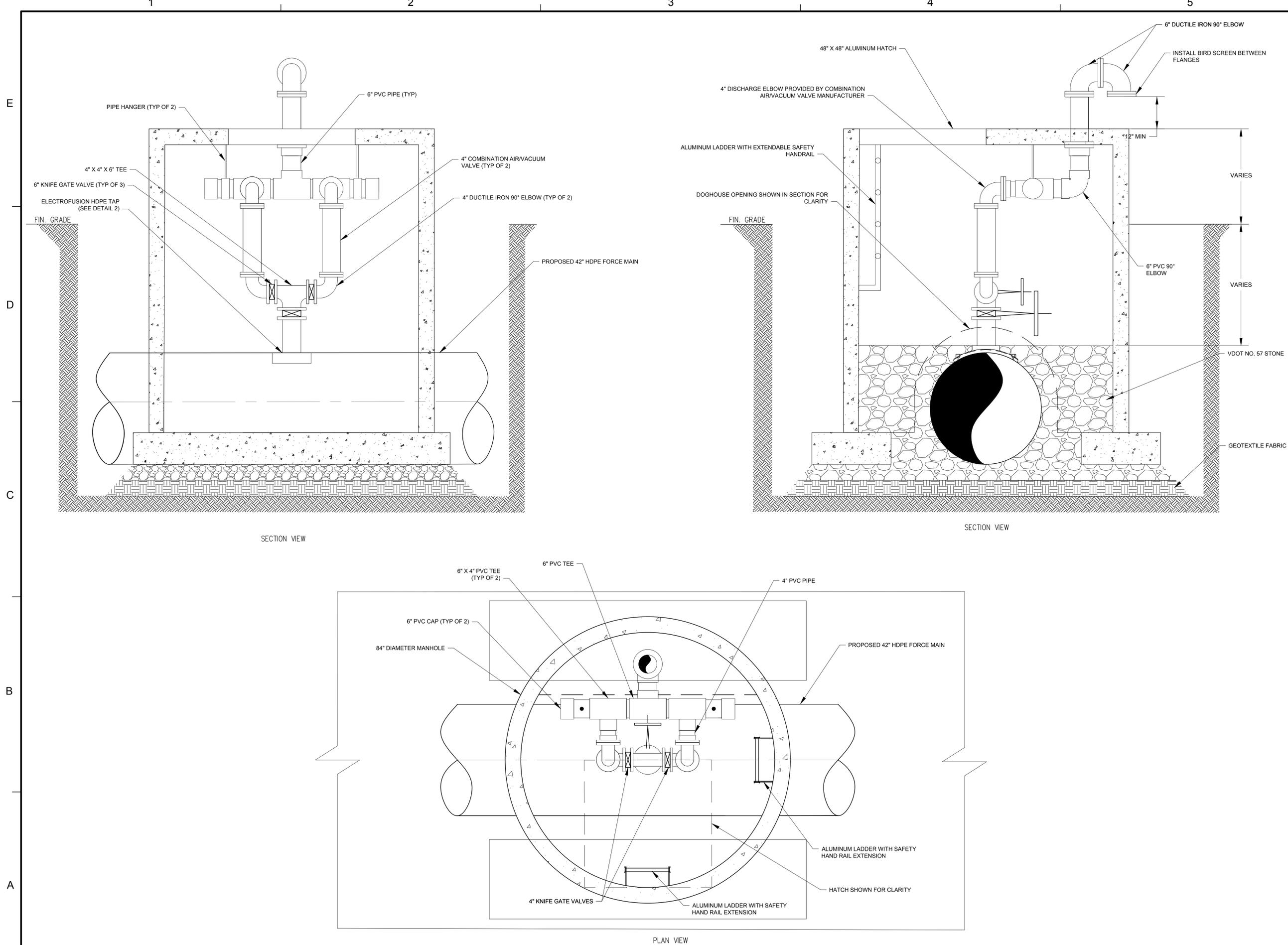
SCALE

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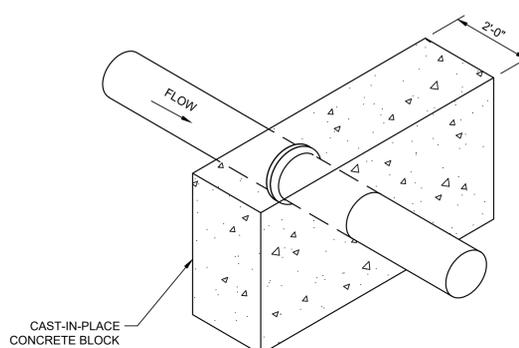
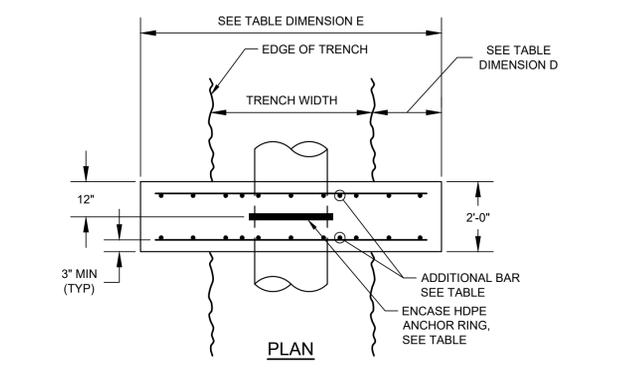
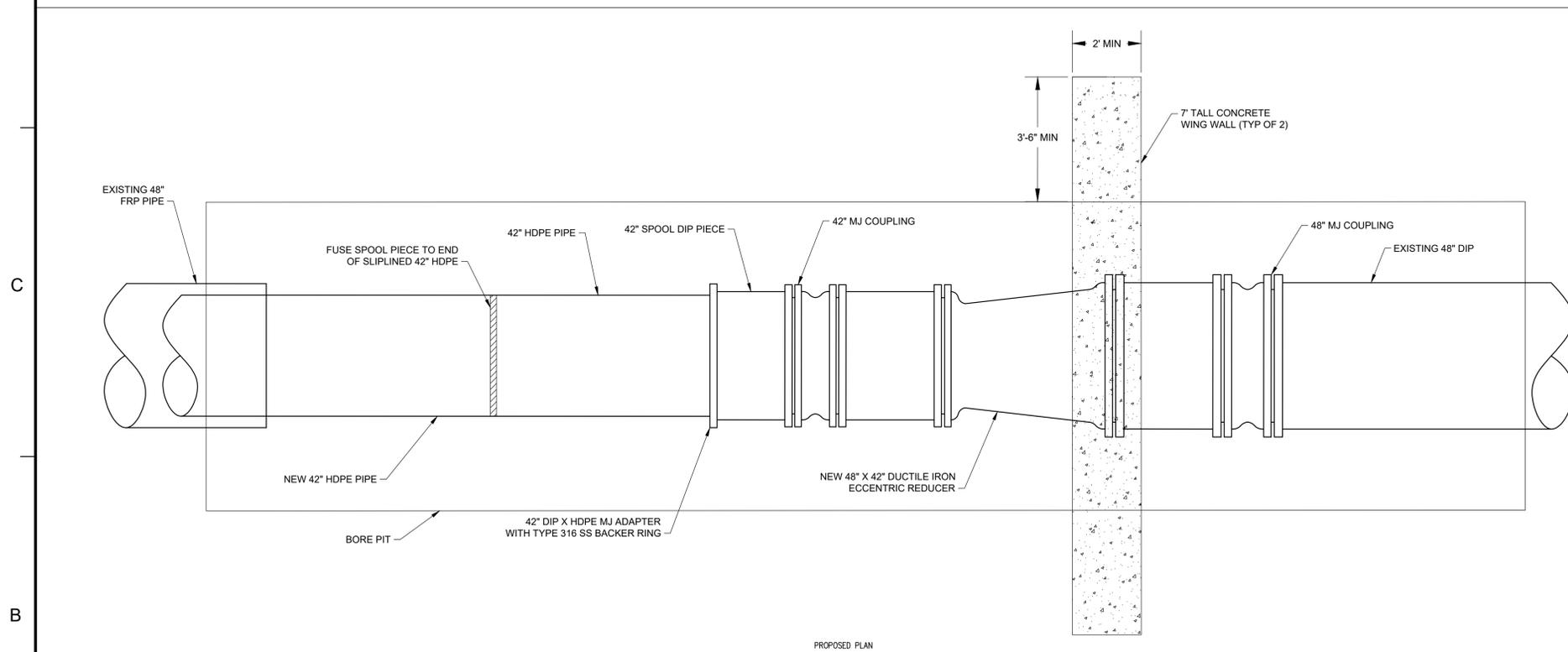
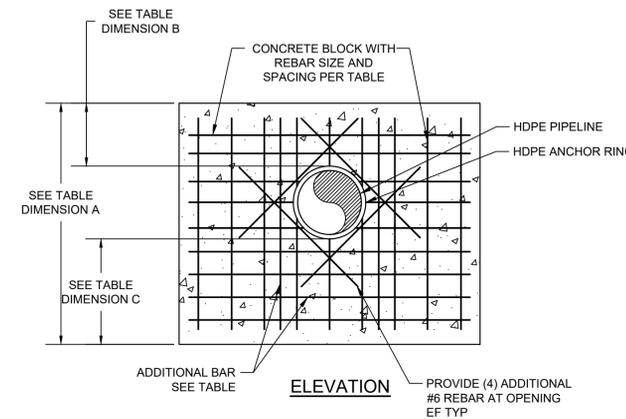
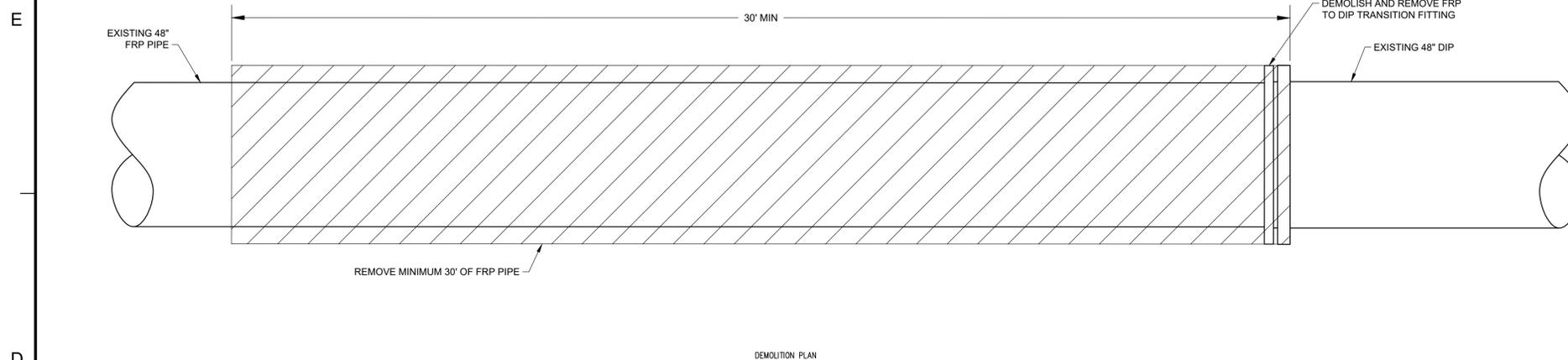
TITLE
**ARV DOGHOUSE
 MANHOLE OPEN
 CUT REPLACEMENT
 DETAIL**

PROJECT NO. 50150386

C15.2



6 ARV DOGHOUSE MANHOLE OPEN CUT REPLACEMENT DETAIL
 N.T.S.



NOTE:
 ALL CONNECTIONS SHALL BE RESTRAINED JOINT AND
 DIP CONNECTIONS SHALL ALL INCLUDE MEGALUG OR
 APPROVED EQUAL.

CONCRETE WING WALL TABLE								
STATION	DESIGN PRESSURE	NOMINAL PIPE DIAMETER AND MATERIAL	DIMENSION A (HEIGHT)	DIMENSION B	DIMENSION C	DIMENSION D	DIMENSION E (WIDTH)	REBAR
APPROX. 15+27.54	90 PSI	48"Ø DIP	7'-0"	2'-0"	1'-0"	3'-6"	2'-0"	#5 @ 12" O.C. E.F.E.W. w/#5 ADDL. BAR EA. FACE T&B
APPROX. 124+32.00	90 PSI	48"Ø DIP	7'-0"	2'-0"	1'-0"	3'-6"	2'-0"	#5 @ 12" O.C. E.F.E.W. w/#5 ADDL. BAR EA. FACE T&B

KEY PLAN

SEAL



SCALE

No.	DATE	BY	Description

REVISIONS
 DRAWN BY: AMJ
 APPROVED BY: P.J.L.
 CHECKED BY: RNK
 DATE: SEPTEMBER 2022
 TITLE:

**HDPE TO DIP
 CONNECTION
 DETAIL**

PROJECT NO. 50150386

C15.4

E&S NARRATIVE

PROJECT DESCRIPTION

THE PROJECT INCLUDES PROVIDING MATERIALS, LABOR, AND EQUIPMENT NECESSARY FOR THE IMPROVEMENTS TO AN EXISTING 48' FORCE MAIN IN GOOCHLAND COUNTY. SOME FORCE MAIN SECTIONS WILL BE REPLACED WITH A NEW 42" HDPE FORCE MAIN AND OTHER SECTIONS WILL SLOUPLINE THE EXISTING FORCE MAIN. THE PROJECT IS LOCATED WITHIN THE EXISTING UTILITY EASEMENT THAT BEGINS AT THE EASTERN GOOCHLAND PUMP STATION AND RUNS SOUTH TO THE COUNTRY CLUB OF VIRGINIA - TUCKAHOE CREEK. THE FORCE MAIN CROSSES PATTERSON AVENUE AND RUNS ALONG AND CROSSES RIVER ROAD IN GOOCHLAND COUNTY. THIS AREA IS GENERALLY WITHIN A RURAL AREA WITH SOME RESIDENTIAL AREAS. TOTAL LAND DISTURBANCE FOR THIS PROJECT IS APPROXIMATELY 6.26 AC.

EXISTING SITE CONDITIONS

STORMWATER RUNOFF FROM THE PROJECT IS GENERALLY CONVEYED THROUGH OVERLAND FLOW, EXISTING DITCHES, AND CULVERTS TO UNNAMED TRIBUTARIES TO TUCKAHOE CREEK. ELEVATIONS RANGE FROM APPROXIMATELY 126' TO 216' THROUGHOUT THE PROJECT AREA. SOME WATERS OF THE UNITED STATES (WOUS)/ WETLANDS ARE ANTICIPATED TO BE AFFECTED BY THE CONSTRUCTION OF THE PROJECT. PORTIONS OF THE SITE ARE SHOWN TO BE IN AREAS DESIGNATED "AE", AREAS WITHIN THE 100-YEAR FLOOD PLAIN FROM FEMA FLOODPLAIN MAP #51075C0310B, 51087C0085C AND 51075C0328B.

ADJACENT SITE

ADJACENT PROPERTIES ARE NOT ANTICIPATED TO BE AFFECTED BY THIS PROJECT.

OFF-SITE AREAS

OFF-SITE SOIL STOCKPILES AND BORROW AREAS ARE NOT ANTICIPATED WITH THIS PROJECT.

SOILS

ACCORDING TO NATIONAL COOPERATIVE SOIL SURVEY BY THE UNITED STATES DEPARTMENT OF AGRICULTURE, THE FOLLOWING SOILS MAY BE FOUND WITHIN THE PROJECT LIMITS:

8C	CREEDMOOR FINE SANDY LOAM, 7 TO 15 PERCENT SLOPES
8B	CREEDMOOR FINE SANDY LOAM, 2 TO 7 PERCENT SLOPES
32D2	PINKSTON-MAYODAN FINE SANDY LOAM, 15 TO 25 PERCENT SLOPES, ERODED
38B2	TURBEVILLE FINE SANDY LOAM, 2 TO 7 PERCENT SLOPES, ERODED
W	WATER
13A	FORK VARIANT SOILS, 0 TO 2 PERCENT SLOPES
21C	MASADA FINE SANDY LOAM, 7 TO 15 PERCENT SLOPES
4B	BOURNE FINE SANDY LOAM, 2 TO 7 PERCENT SLOPES
22C2	MAYODAN FINE SANDY LOAM, 7 TO 15 PERCENT SLOPES, ERODED
24	MONACAN COMPLEX

CRITICAL AREAS

CRITICAL AREAS ASSOCIATED WITH THIS PROJECT ARE SHOWN ON THE PLAN AND PROFILE SHEETS. THE AREAS MARKED WATERS OF THE UNITED STATES (WOUS) / WETLAND AREAS ARE DESIGNATED AS CRITICAL AREAS THAT WOULD EXPERIENCE DEGRADATION IF SEDIMENT WERE TO LEAVE THE SITE. THEREFORE, CARE SHALL BE TAKEN TO MINIMIZE LAND DISTURBANCE WITHIN THESE AREAS. APPROXIMATELY 0.23 ACRES (10,217 SF) OF WATERS OF THE UNITED STATES (WOUS) / WETLANDS WILL BE DISTURBED DURING THIS PROJECT. THE CONTRACTOR SHALL NOT IMPACT ANY WOUS / WETLAND AREAS EXCEPT AS SHOWN ON THE PLAN SHEETS. THIS PROJECT IS LOCATED WITHIN A RPA AREA. THERE IS NO OFF-SITE DISTURBANCE ON THIS PROJECT. CONTRACTOR SHALL ACQUIRE ALL NECESSARY PERMITS.

EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

STRUCTURAL PRACTICES

CONSTRUCTION ENTRANCE (VESCH STD & SPEC 3.02)

A STABILIZED STONE PAD WITH A FILTER FABRIC UNDERLINER LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON CONSTRUCTION SITE. IT REDUCES THE AMOUNT OF MUD TRANSPORTED ONTO PAVED PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF.

SILT FENCE (VESCH STD & SPEC 3.05)

A TEMPORARY SEDIMENT BARRIER CONSISTING OF A FILTER FABRIC STRETCHED ACROSS AND ATTACHED TO SUPPORTING POSTS AND ENTRENCHED. SILT FENCE IS INSTALLED TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE AND TO DECREASE THE VELOCITY OF SHEET FLOWS AND LOW-TO-MODERATE CHANNEL FLOWS. SUPER SILT FENCE INCLUDES A WIRE MESH SUPPORT WITH FILTER FABRIC TIED TO THE MESH.

INLET PROTECTION (VESCH STD. AND SPEC 3.07)

A SEDIMENT FILTER OR AN EXCAVATED IMPOUNDMENT AREA AROUND A STORM DRAIN DROP INLET OR CURB INLET. TO PREVENT SEDIMENT FROM ENTERING STORM DRAINAGE SYSTEMS PRIOR TO PERMANENT STABILIZATION OF DISTURBED AREA.

CULVERT INLET PROTECTION (VESCH STD. AND SPEC 3.08)

A SEDIMENT FILTER LOCATED AT THE INLET TO STORM SEWER CULVERTS TO PREVENT SEDIMENT FROM ENTERING, ACCUMULATING IN AND BEING TRANSFERRED BY A CULVERT AND ASSOCIATED DRAINAGE SYSTEM PRIOR TO PERMANENT STABILIZATION OF A DISTURBED PROJECT AREA AND TO PROVIDE EROSION CONTROL AT CULVERT INLETS DURING THE PHASE OF A PROJECT WHERE ELEVATION AND DRAINAGE PATTERNS CHANGE, CAUSING ORIGINAL CONTROL MEASURES TO BE INEFFECTIVE OR IN NEED OF REMOVAL.

ROCK CHECK DAM (VESCH STD & SPEC 3.20)

A SMALL TEMPORARY STONE DAM CONSTRUCTED ACROSS A SWALE OR DRAINAGE DITCH. ROCK CHECK DAMS ARE INSTALLED TO REDUCE THE VELOCITY OF CONCENTRATED STORMWATER FLOW, THEREBY REDUCING EROSION OF THE SWALE OR DITCH. THE ROCK CHECK DAM TRAPS SEDIMENT GENERATED FROM ADJACENT AREAS OR THE DITCH ITSELF, MAINLY BY PONDING STORMWATER RUNOFF.

TEMPORARY VEHICULAR STREAM CROSSING (VESCH STD & SPEC 3.24)

A TEMPORARY STRUCTURAL SPAN INSTALLED ACROSS A FLOWING WATERCOURSE FOR USE BY CONSTRUCTION TRAFFIC. STRUCTURES MAY INCLUDE BRIDGES, ROUND PIPES, PIPE ARCHES, OR OVAL PIPES. IT PROVIDES A MEANS FOR CONSTRUCTION TRAFFIC TO CROSS FLOWING STREAMS WITHOUT DAMAGING A CHANNEL OR BANKS AND TO KEEP SEDIMENT GENERATED BY CONSTRUCTION TRAFFIC OUT OF THE STREAM.

VEGETATIVE PRACTICES

TEMPORARY SEEDING (VESCH STD & SPEC 3.31)

THE ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS BY SEEDING WITH APPROPRIATE RAPIDLY GROWING ANNUAL PLANTS. TEMPORARY SEEDING REDUCES EROSION AND SEDIMENTATION BY STABILIZING DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 14 DAYS. TEMPORARY SEEDING REDUCES DAMAGE FROM SEDIMENT AND RUNOFF TO DOWNSTREAM OR OFF-SITE AREAS, AND TO PROVIDE PROTECTION TO BARE SOILS EXPOSED DURING CONSTRUCTION UNTIL PERMANENT VEGETATION OR OTHER EROSION CONTROL MEASURES CAN BE ESTABLISHED. FOR USE WHERE EXPOSED SOIL SURFACES WILL NOT BE AT FINAL GRADE FOR MORE THAN 14 DAYS. SUCH AREAS INCLUDED DENUDED AREAS, SOIL STOCKPILES, DIKES, DAMS, SIDES OF SEDIMENT BASINS, TEMPORARY ROADBANKS, ETC. (SEE MS#1 AND MS#2). A PERMANENT VEGETATIVE COVER SHALL BE APPLIED TO AREAS THAT WILL BE LEFT DORMANT FOR A PERIOD OF MORE THAN ONE (1) YEAR.

PERMANENT SEEDING (VESCH STD & SPEC 3.32)

AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. PERMANENT AREAS SHALL BE SEEDING IN ACCORDANCE WITH THE PERMANENT SEEDING SCHEDULE SHOWN ON THE PLANS.

MULCHING (VESCH STD & SPEC 3.35)

APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIALS TO DISTURBED SURFACES TO PREVENT EROSION AND REDUCE OVERLAND FLOW VELOCITIES. FOSTERS PLANT GROWTH BY INCREASING AVAILABLE MOISTURE AND PROVIDING INSULATION AGAINST EXTREME HEAT OR COLD. SHOULD BE APPLIED TO ALL SEEDING OPERATIONS. OTHER PLANT MATERIALS WHICH DO NOT PROVIDE ADEQUATE SOIL PROTECTION BY THEMSELVES, AND BARE AREAS WHICH CANNOT BE SEEDING DUE TO THE SEASON BUT WHICH STILL NEED PROTECTION TO PREVENT SOIL LOSS.

TEMPORARY AND PERMANENT STABILIZATION

THE SITE SHALL BE PERMANENTLY STABILIZED FOLLOWING CONSTRUCTION WITH PERMANENT SEEDING ACCORDING TO THE VESCH STD AND SPEC 3.32 AND THE PERMANENT SEEDING SCHEDULE FOR THE PIEDMONT AREA AS SHOWN ON THE PLANS.

ESC MEASURES SHALL BE INSTALLED AND NO MORE THAN 500 LINEAR FEET OF TRENCH BE OPEN AT A GIVEN AREA OF CONSTRUCTION WITH STABILIZATION WITHIN SEVEN (7) DAYS OF THE AREA IMPACTED BY THE INSTALLATION OF THE FORCE MAIN. ALL DENUDED AREAS SHALL BE TEMPORARILY SEEDING AND STABILIZED WITHIN SEVEN (7) DAYS IN ACCORDANCE WITH MINIMUM STANDARD 16. CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT FROM DITCH AND RESTORE DITCH TO ORIGINAL CONDITION.

NO MORE THAN 1 ACRE OF LAND SHALL BE DISTURBED PER DAY THROUGHOUT THE PROJECT AREA.

COUNTY AND VDOT INSPECTORS MAY REQUIRE THE CONTRACTOR TO INSTALL ADDITIONAL E&S MEASURES DURING CONSTRUCTION TO PREVENT SEDIMENT RUNOFF AS THEY DEEM APPROPRIATE, WHICH SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

STORMWATER RUN-OFF CONSIDERATIONS

THE PROJECT WILL DISTURB APPROXIMATELY 6.26 ACRES OF LAND, REQUIRING APPROXIMATELY 0.57 ACRES OF CLEARING WITHIN THE PROPOSED UTILITY EASEMENT. THIS PROJECT DOES NOT RESULT IN SIGNIFICANT CHANGES TO THE PRE-DEVELOPMENT RUNOFF CHARACTERISTICS OF THE LAND SURFACE. AFTER COMPLETION OF CONSTRUCTION AND FINAL STABILIZATION, ALL STORMWATER RUNOFF FROM THE PROJECT AREA WILL BE SHEET FLOW OR CONVEYED THROUGH EXISTING CHANNELS. THEREFORE, WATER QUANTITY AND QUALITY CONTROLS ARE NOT REQUIRED.

LINEAR UTILITY PROJECTS NOTES

NOTES FROM GUIDANCE MEMO NO. 15-2003: "POST-DEVELOPMENT STORMWATER MANAGEMENT IMPLEMENTATION GUIDANCE FOR LINEAR UTILITY PROJECTS UNDER THE VIRGINIA STORMWATER MANAGEMENT PROGRAM REGULATION, 9VAC25-870:"

UNDERGROUND LINEAR UTILITIES MAY BE CONSTRUCTED WITHOUT A VPDES PERMIT (GENERAL CONSTRUCTION PERMIT) PROVIDED THAT:

- THE PROJECT DOES NOT SIGNIFICANTLY ALTER THE PREDEVELOPMENT RUNOFF CHARACTERISTICS OF THE LAND SURFACE AFTER THE COMPLETIONS OF CONSTRUCTION AND FINAL STABILIZATION;
- THE PROJECT IS MANAGED SO THAT LESS THAN ONE (1) ACRE OF LAND DISTURBANCE OCCURS ON A DAILY BASIS;
- THE DISTURBED LAND WHERE WORK HAS BEEN COMPLETED IS ADEQUATELY STABILIZED ON A DAILY BASIS;
- THE ENVIRONMENT IS PROTECTED FROM EROSION AND SEDIMENTATION DAMAGE ASSOCIATED WITH THE LAND-DISTURBING ACTIVITY
- THE OWNER AND/OR CONSTRUCTION ACTIVITY OPERATOR SHALL DESIGN, INSTALL, IMPLEMENT, AND MAINTAIN POLLUTION PREVENTION MEASURES TO:
 - MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER AND OTHER WASH WATERS.
 - MINIMIZE THE EXPOSURE OF BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTER, AND OTHER MATERIAL PRESENT ON-SITE TO PRECIPITATION AND TO STORMWATER.
 - MINIMIZE THE DISCHARGE OF POLLUTANTS FROM SPILLS AND LEAKS AND IMPLEMENT CHEMICAL SPILL AND LEAK PREVENTION AND RESPONSE PROCEDURES.
 - PROHIBIT THE DISCHARGE OF WASTEWATER FROM THE WASHOUT OF CONCRETE
 - PROHIBIT THE DISCHARGE OF WASTEWATER FROM THE WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS, AND OTHER CONSTRUCTION MATERIALS
 - PROHIBIT THE DISCHARGE OF FUELS, OILS, OR THE POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE.

EROSION AND SEDIMENT CONTROL SEQUENCE

1. CONTRACTOR SHALL CLEAR THE MINIMUM AMOUNT IN ORDER TO INSTALL PERIMETER CONTROLS AS SHOWN ON THE PLANS. NO LAND DISTURBANCE SHALL BE PERMITTED OUTSIDE THE PRELIMINARY LIMITS UNTIL THE INITIAL EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN APPROVED BY THE ENVIRONMENTAL INSPECTOR.
2. ONCE THE EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN APPROVED, THE CONTRACTOR SHALL CONTINUE CLEARING AND GRUBBING OPERATIONS AND BEGIN INSTALLATION OF THE FORCE MAIN. CONTRACTOR SHALL ONLY DISTURB THE MAXIMUM AREA OF 1 ACRE PER DAY (INCLUDE INSTALLATION AND CLEARING AND GRUBBING).
3. ALL AREAS IMPACTED BY THE INSTALLATION OF THE FORCE MAIN SHALL BE TEMPORARILY SEEDING AND STABILIZED WITHIN SEVEN (7) DAYS IN ACCORDANCE WITH MS-16.
4. PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
5. CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT FROM DITCH AND RESTORE DITCH TO ORIGINAL CONDITION.
6. NO E&S MEASURES CAN BE REMOVED WITHOUT THE APPROVAL OF THE ENVIRONMENTAL INSPECTOR FOR THE PROJECT. FOLLOWING APPROVAL, REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES PER MS-18.

EROSION AND SEDIMENT CONTROL MAINTENANCE

IN GENERAL, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED DAILY AND AFTER EACH RUNOFF PRODUCING RAINFALL. NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY. MAINTENANCE SHALL CONTINUE THE LENGTH OF THE PROJECT. EROSION AND SEDIMENT CONTROL MEASURES SHALL NOT BE REMOVED WITHOUT THE APPROVAL FROM GOOCHLAND COUNTY'S ENVIRONMENTAL INSPECTOR. THE FOLLOWING ITEMS SHALL BE CHECKED, CLEANED, AND REPAIRED IN PARTICULAR:

1. CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF STONE MAY BE REQUIRED AS NEEDED.
2. SILT FENCE BARRIER SHALL BE REPLACED IF IT HAS DECOMPOSED OR BECOME INEFFECTIVE. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
3. INLET PROTECTION SHALL BE CHECKED FOR SEDIMENT BUILDUP PREVENTING DRAINAGE. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP.
4. CULVERT INLET PROTECTION SHALL BE INSPECTED AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE IMPOUNDMENT RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT AS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH.
5. CHECK DAMS SHOULD BE CHECKED FOR SEDIMENT ACCUMULATION WHICH SHOULD BE REMOVED WHEN IT REACHES ONE- HALF THE ORIGINAL HEIGHT OF THE MEASURE. REGULAR INSPECTIONS SHOULD BE MADE TO INSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
6. SEEDING AREAS SHALL BE CHECKED TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RE-SEEDING AS NEEDED.
7. MULCHED AREAS SHALL BE CHECKED FOR EROSION. ADDITIONAL MULCH SHALL BE APPLIED AS NEEDED.
8. TEMPORARY VEHICULAR STREAM CROSSING SHALL BE INSPECTED AFTER EVERY RAINFALL AND AT LEAST ONCE A WEEK, WHETHER IT HAS RAINED OR NOT, AND ALL DAMAGES REPAIRED IMMEDIATELY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AN EMPLOYEE WHO WILL BE RESPONSIBLE IN CHARGE OF THE EROSION AND SEDIMENT CONTROL PLAN AND REQUIREMENTS FOR THE PROJECT THAT IS CERTIFIED BY THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION AS A RESPONSIBLE LAND DISTURBER (RLD). THE NAME OF THE CONTRACTOR'S RLD AND COPY OF HIS CURRENT CERTIFICATION SHALL BE PROVIDED TO THE OWNER, ENGINEER AND GOOCHLAND COUNTY'S ENVIRONMENTAL INSPECTOR PRIOR TO PERFORMING ANY LAND DISTURBING ACTIVITY.

DISPOSAL OF SEDIMENTS SHALL BE IN AN APPROVED LOCATION.

E&S CONTROL LEGEND

	L0D	LIMITS OF DISTURBANCE		TEMPORARY VEHICULAR STREAM CROSSING
	X	SILT FENCE		CONSTRUCTION ENTRANCE
	XX	SUPER SILT FENCE		INLET / CULVERT INLET PROTECTION
		CHECK DAM		

ITEMS	QUANTITY	UNIT
INLET PROTECTION	2	EA
CULVERT INLET PROTECTION	6	EA
SILT FENCE	8,550	LF
SUPER SILT FENCE	7,330	LF
CHECK DAM	12	EA
STREAM CROSSING	3	EA
CONSTRUCTION ENTRANCE	7	EA
PERMANENT SEEDING	6.26	AC
DISTURBANCE AREA	6.26	AC

EROSION CONTROL QUANTITIES FOR COUNTY USE ONLY. THESE QUANTITIES ARE NOT TO BE USED FOR BIDDING PURPOSES.

(MU) ORGANIC MULCH MATERIALS AND APPLICATION RATES

MULCHES:	RATES:		NOTES:
	PER ACRE	PER 1000 SQ FT	
STRAW OR HAY	1 1/2 - 2 TONS (MINIMUM 2 TONS FOR WINTER COVER)	70-90 LBS	FREE FROM WEEDS AND COARSE MATTER. MUST BE ANCHORED. SPREAD WITH MULCH BLOWER OR BY HAND.
FIBER MULCH	MINIMUM 1500 LBS	35 LBS	DO NOT USE AS MULCH FOR WINTER COVER OR DURING HOT, DRY PERIODS.* APPLY AS SLURRY.
CORN STALKS	4 - 6 TONS	185-275 LBS	CUT OR SHREDDED IN 4-6" LENGTHS. AIR-DRIED. DO NOT USE IN FINE TURF AREAS. APPLY WITH MULCH BLOWER OF BY HAND.
WOOD CHIPS	4 - 6 TONS	185-275 LBS	FREE OF COARSE MATTER. AIR-DRIED. TREAT WITH 12 LBS NITROGEN PER TON. DO NOT USE IN FINE TURF AREAS. APPLY WITH MULCH BLOWER, CHIP HANDLER, OR BY HAND.
BARK CHIPS OR SHREDDED BARK	50 - 70 CU YDS	1-2 CU YDS	FREE COARSE MATTER. AIR-DRIED. DO NOT USE IN FINE TURF AREAS. APPLY WITH MULCH BLOWER, CHIP HANDLER, OR BY HAND.

* WHEN FIBER MULCH IS THE ONLY AVAILABLE MULCH DURING PERIODS WHEN STRAW SHOULD BE USED, APPLY AT A MINIMUM RATE OF 2000 LBS/AC OR 45 LBS/1000 SQ FT.

(TS)

APPLICATION DATES	SEED	
	SPECIES	APPLICATION RATES
SEPT 1 - FEB 15	50/50 MIX OF ANNUAL RYEGRASS (LOLIUM MULTI-FLORUM) & CEREAL (WINTER) RYE (SECALE CEREALE)	50-100 (LBS/ACRE)
FEB 16 - APR 30	ANNUAL RYEGRASS (LOLIUM MULTI-FLORUM)	60-100 (LBS/ACRE)
MAY 1 - AUG 31	GERMAN MILLET	50 (LBS/ACRE)

FERTILIZER & LIME

- APPLY 10-10-10 FERTILIZER AT A RATE OF 450 LBS/ACRE (OR 10 LBS/1,000 SQ FT)
- APPLY PULVERIZED AGRICULTURAL LIMESTONE AT A RATE OF 2 TONS/ACRE (OR 90 LBS/1,000 SQ FT)

NOTES:

- 1.) A SOIL TEST IS NECESSARY TO DETERMINE THE ACTUAL AMOUNT OF LIME REQUIRED TO ADJUST THE SOIL pH OF SITE.
- 2.) INCORPORATE THE LIME AND FERTILIZER INTO THE TOP 4-6 INCHES OF THE SOIL BY DISKING OR BY OTHER MEANS.
- 3.) WHEN APPLYING SLOWLY AVAILABLE NITROGEN USE RATES AVAILABLE IN EROSION & SEDIMENT CONTROL TECHNICAL BULLETIN #4, NUTRIENT MANAGEMENT FOR DEVELOPMENT SITES AT: [HTTP://WWW.DEQ.VIRGINIA.GOV/PORTALS/0/DEQ/WATER/PUBLICATIONS/ESCTECHNICALBULLETIN4.PDF](http://www.deq.virginia.gov/portals/0/DEQ/WATER/PUBLICATIONS/ESCTECHNICALBULLETIN4.PDF).

TEMPORARY SEEDING SPECIFICATIONS QUICK REFERENCE FOR ALL REGIONS

TABLE 3.31-B (REVISED JUNE 2003)

LAND USE	SEED ¹	
	SPECIES	APPLICATION PER ACRE
MINIMUM CARE LAWN (COMMERCIAL OR RESIDENTIAL)	TALL FESCUE ¹ PERENNIAL RYEGRASS ¹ KENTUCKY BLUEGRASS ¹	95-100% 0-5% 0-5% TOTAL: 175-200 LBS.
HIGH-MAINTENANCE LAWN	TALL FESCUE ¹	TOTAL: 200-250 LBS.
GENERAL SLOPE (3:1 OR LESS)	TALL FESCUE RED TOP GRASS OR CREEPING RED FESCUE ² SEASONAL NURSE CROP	128 LBS. 2 LBS. 20 LBS. TOTAL: 150 LBS.
LOW MAINTENANCE SLOPE (STEEPER THAN 3:1)	TALL FESCUE RED TOP GRASS OR CREEPING RED FESCUE ² SEASONAL NURSE CROP CROWNVETCH ³	108 LBS. 2 LBS. 20 LBS. 20 LBS. TOTAL: 150 LBS.

- 1-WHEN SELECTING VARIETIES OF TURFGRASS, USE THE VIRGINIA CROP IMPROVEMENT ASSOCIATION (VCIA) RECOMMENDED TURFGRASS VARIETY LIST. QUALITY SEED WILL BEAR A LABEL INDICATING THAT THEY ARE APPROVED BY VCIA. A CURRENT TURFGRASS VARIETY LIST IS AVAILABLE AT THE LOCAL COUNTY EXTENSION OFFICE OR THROUGH VCIA AT 804.746.4884 OR AT <http://sudan.cses.vt.edu/html/Turf/turf/publications/publications2.html>
- 2-USE SEASONAL NURSE CROP IN ACCORDANCE WITH SEEDING DATES AS STATED BELOW:

FEBRUARY 16 - APRIL 30.....	ANNUAL RYE
MAY 1 - AUGUST 15.....	FOXTAIL MILLET
AUGUST 16 - OCTOBER 31.....	ANNUAL RYE
NOVEMBER 1 - FEBRUARY 15.....	WINTER RYE
- 3-SUBSTITUTE SERICEA LESPEDEZA FOR CROWNVETCH EAST OF FARMVILLE, VA (MAY THROUGH SEPTEMBER USE HULLED SEED, ALL OTHER PERIODS, USE UNHULLED SERICEA). IF FLATPEA IS USED, INCREASE RATE TO 30 LBS./ACRE. IF WEEPING LOVEGRASS IS USED, INCLUDE IN ANY SLOPE OR LOW MAINTENANCE MIXTURE DURING WARMER SEEDING PERIODS, INCREASE TO 30-40.

FERTILIZER & LIME

- APPLY 10-10-10 FERTILIZER AT A RATE OF 450 lbs./acre (OR 10 lbs./1,000 sq. ft.)
- APPLY PULVERIZED AGRICULTURAL LIMESTONE AT A RATE OF 2 TONS/ACRE (OR 90 LBS./1,000 SQ. FT.)

NOTE:

- 1.) A SOIL TEST IS NECESSARY TO DETERMINE THE ACTUAL AMOUNT OF LIME REQUIRED TO ADJUST THE SOIL pH OF SITE.
- 2.) INCORPORATE THE LIME AND FERTILIZER INTO THE TOP 4-6 INCHES OF THE SOIL BY DISKING OR BY OTHER MEANS.
- 3.) WHEN APPLYING SLOWLY AVAILABLE NITROGEN USE RATES AVAILABLE IN EROSION & SEDIMENT CONTROL TECHNICAL BULLETIN #4, 2003 NUTRIENT MANAGEMENT FOR DEVELOPMENT SITES AT: <http://www.dcr.state.va.us/sw/e&s.htm#pubs>

PERMANENT SEEDING SPECIFICATIONS FOR PIEDMONT AREA

TABLE 3.32-D (REVISED JUNE 2003)

(PS)



Dewberry Engineers Inc.

4805 Lake Brook Drive, Suite 200
Glen Allen, Virginia 23060
PHONE: 804.290.7957
FAX: 804.290.7928
www.dewberry.com

EASTERN GOOCHLAND FORCE MAIN REHABILITATION AND REPLACEMENT
 GOOCHLAND COUNTY DEPARTMENT OF PUBLIC UTILITIES
 GOOCHLAND COUNTY, VIRGINIA

KEY PLAN

SEAL



SCALE

No.	DATE	BY	Description

REVISIONS

DRAWN BY HEW

APPROVED BY HCG

CHECKED BY HCG

DATE SEPTEMBER 2022

TITLE

E&S CONTROL NARRATIVE & DETAILS

PROJECT NO. 50150386

C16.0

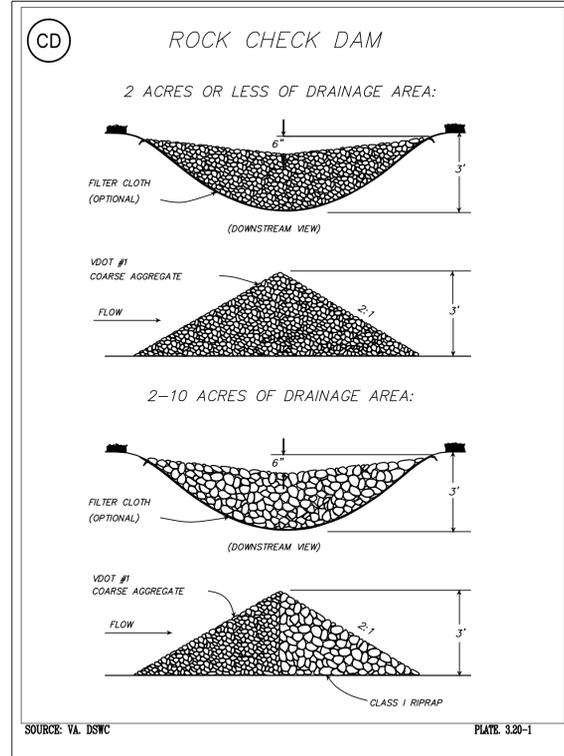
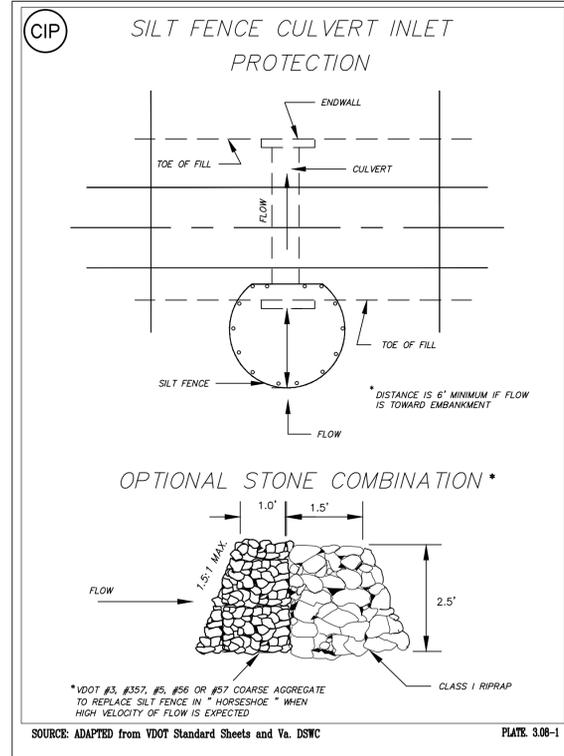
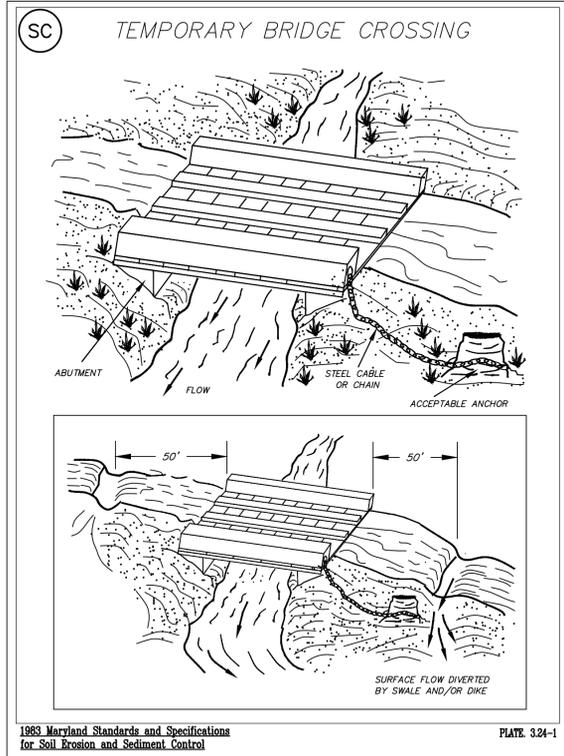
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KEY PLAN

SEAL



SCALE

No.	DATE	BY	Description
REVISIONS			

DRAWN BY HEW
APPROVED BY HCG
CHECKED BY HCG
DATE SEPTEMBER 2022
TITLE

PROJECT NO. 50150386

C16.1

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Dewberry Engineers Inc.
4805 Lake Brook Drive, Suite 200
Glen Allen, Virginia 23060
PHONE: 804.290.7957
FAX: 804.290.7928
www.dewberry.com

EASTERN GOOCHLAND FORCE
MAIN REHABILITATION AND
REPLACEMENT
GOOCHLAND COUNTY
DEPARTMENT OF PUBLIC UTILITIES
GOOCHLAND COUNTY, VIRGINIA

KEY PLAN

SEAL



SCALE

No.	DATE	BY	Description
REVISIONS			

TITLE

SITE PHOTOS

PROJECT NO. 50150386

C17.0

NOTE:
PHOTOS ARE FOR INFORMATION ONLY AND ARE
REPRESENTATIVE OF SITE CONDITIONS AS OF 8/23/2022.