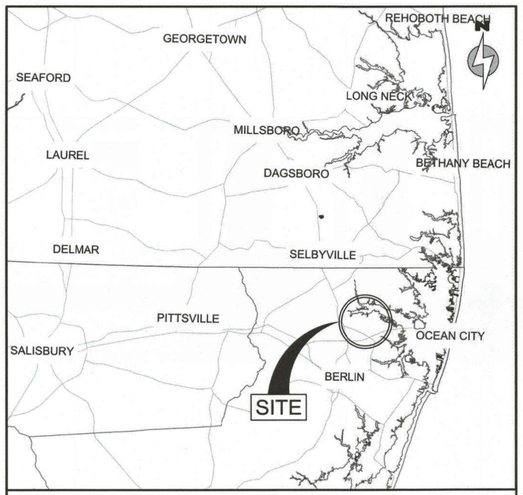
ST. MARTINS BY THE BAY

WATER PROJECT

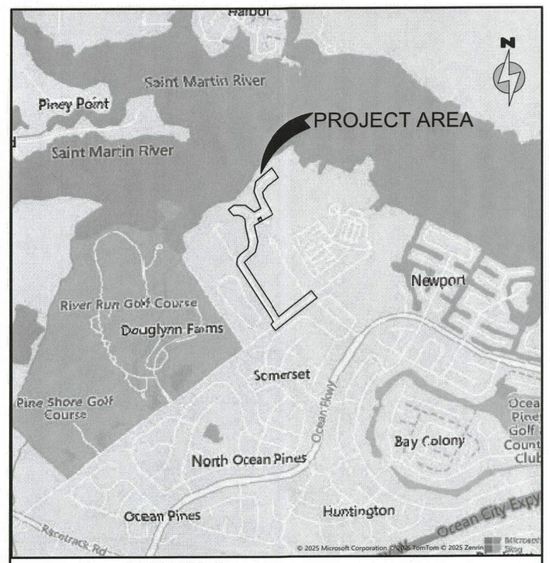
WORCESTER COUNTY MD

AUGUST 2026

DBF# 0085D028



VICINITY MAP 1"= 5 MILES



LOCATION MAP 1"= 2000'

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE, RIGHT-OF-WAY LINE OR LOT LINE	
	SETBACK LINE	
	CENTERLINE OF ROAD	
X	FENCE	
24	CONTOUR	
5352 / C&G 29.03 — 5352 / C&G 29.03	SPOT ELEVATIONS: SURFACE; TOP OF CURB / BOTTOM OF CURB	
	DITCH, SWALE	
	EDGE OF WOODS, LIMITS OF CLEARING LINE	
E	UNDERGROUND ELECTRIC LINE	
OH/E	OVERHEAD ELECTRIC LINE	
T	UNDERGROUND TELEPHONE LINE	
EX-G	UNDERGROUND GAS LINE	
EX-6"FM	FORCE MAIN	
EX-10SS — C.O.	SEWER MAIN, MANHOLE, AND CLEANOUT	
EX-W — CS — WM	WATER MAIN, HYDRANT, VALVE, CURB STOP AND METER	P8W — WM
	STORMDRAIN, COUPLING, AND MANHOLE	
	CURB, CURB AND GUTTER	
	CONCRETE SIDEWALK, CONCRETE PAD, OR CONCRETE PAVING	
	EXISTING PAVEMENT	
	PAVEMENT RESTORATION	
	BUILDING	
	DECIDUOUS TREE, EVERGREEN TREE, AND SHRUBS	
	ROAD SIGN, MAIL BOX	
	TRAFFIC SIGNAL POLE	
	UTILITY POLE WITH GUY WIRES	
	LIMITS OF DISTURBANCE	100 — 100

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C-105	PROPOSED SITE PLAN
C-106	PROPOSED SITE PLAN
C-107	PROPOSED SITE PLAN
C-108	PROPOSED SITE PLAN
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C-502	DETAILS
CG501	EROSION & SEDIMENT CONTROL DETAILS
CG502	EROSION & SEDIMENT CONTROL NOTES

Sediment Control Plan Approval
Worcester Soil Conservation District
Snow Hill, MD 21863
Approved by _____
Date _____

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS · ENGINEERS · SURVEYORS
EASTON, MARYLAND 410.770.4744 · MILFORD, DELAWARE 302.424.1441 · SALISBURY, MARYLAND 410.543.9091

STATE OF MARYLAND — NICHOLAS S. BRADLEY — 57406 — PROFESSIONAL ENGINEER

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland, License No. 57406 Expiration Date: 12-18-2027

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS · ENGINEERS · SURVEYORS
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ST. MARTINS BY THE BAY
WATER PROJECT
WORCESTER COUNTY MD

DATE	COMMENTS
08-18-2026	100% FINAL DESIGN PLAN SET

Date: AUGUST 2026
Scale: AS SHOWN
Dwn.By: NSB
Proj.No.: 0085D028

TITLE SHEET

Dwg.No.: **G-001**

ENGINEER CERTIFICATION

"I, NICHOLAS S. BRADLEY JR, P.E., HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER IN THE STATE OF MARYLAND, THAT THE INFORMATION SHOWN HEREON HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF REPRESENTS GOOD ENGINEERING PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF MARYLAND."

NSB — 08-18-2026
ENGINEER — DATE

MD# 57406 — 12-18-2027
LICENSE NUMBER — EXP. DATE

OWNER: WORCESTER COUNTY PUBLIC WORKS
6113 TIMMONS ROAD, SNOW HILL, MD 21863
410-632-5623

APPROVED BY WORCESTER COUNTY PUBLIC WORKS:

SIGNATURE: Lee Beauchamp DATE: 24Aug2026

NAME: Lee Beauchamp TITLE: W/WW Superintendent

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FIRE PROTECTION GENERAL NOTES

1. ALL FIRE LANES, FIRE HYDRANTS, AND FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED IN ACCORDANCE WITH THE STATE FIRE PREVENTION REGULATIONS.
2. FIRE HYDRANT SHALL BE IN ACCORDANCE WITH THE WORCESTER COUNTY PUBLIC WORKS STANDARDS AND SPECIFICATIONS .

INTERNAL PAVING / CONCRETE NOTES

1. BITUMINOUS CONCRETE ASPHALT SHALL BE INSTALLED IN ACCORDANCE WITH THE WORCESTER COUNTY ROADS STANDARD SPECIFICATIONS.
2. ALL DISTURBED AREAS NOT COVERED WITH IMPERVIOUS MATERIAL, SHALL BE TOPSOILED (6" MINIMUM), FERTILIZED, SEEDED AND MULCHED.
3. ALL SIGNING AND MAINTENANCE OF TRAFFIC IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL FOLLOW THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION).
4. DESIGN, FABRICATION, AND INSTALLATION OF ALL PERMANENT SIGNING SHALL BE AS OUTLINED IN THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION).
5. FOR FINAL PERMANENT PAVEMENT MARKINGS, EPOXY RESIN PAINT SHALL BE REQUIRED FOR LONG LINE STRIPING AND THERMO WILL BE REQUIRED FOR SHORT LINE STRIPING, i.e. SYMBOLS/LEGENDS.
6. ALL TRAFFIC CONTROL DEVICES SHALL BE IN NEW OR REFURBISHED CONDITION, SHALL COMPLY WITH THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION), AND SHALL BE NCHRP - 350 APPROVED AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED IN GOOD CONDITION FOR DURATION OF USE.
7. BREAKAWAY POSTS MEETING THE REQUIREMENTS OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION) SHALL BE USED WHEN INSTALLING ALL SIGNS.
8. PLAN LOCATION AND DIMENSIONS SHALL BE STRICTLY ADHERED TO UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT PAVING IS INSTALLED TO THE ELEVATIONS SHOWN AND THAT NO PONDING OF WATER EXISTS AFTER PAVING IS COMPLETE. PONDING IS DEFINED AS WATER STANDING IN AN AREA MORE THAN 1 HOUR AFTER A RAINFALL EVENT THAT PRODUCES RUNOFF. ELIMINATION OF PONDING WILL BE COMPLETED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
10. OPEN-CUT TRENCHES AND PROVIDE PAVEMENT RESTORATION IN ACCORDANCE WITH THE APPROPRIATE JURISDICTION'S STANDARDS AND SPECIFICATIONS. USE ONLY SUITABLE AND APPROVED GRANULAR MATERIALS FOR BACKFILLING TRENCHES.
12. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE WORCESTER COUNTY ROADS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING TWO WEEKS PRIOR TO THE START OF CONSTRUCTION AND SHALL APPRISE AND COORDINATE DURING ALL PHASES OF CONSTRUCTION:
   1.1 WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS 410-641-5251
   1.2 WORCESTER COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION 410-632-1220
   1.3 DAVIS, BOWEN & FRIEDEL, INC. 410-543-9091
2. BOUNDARY AND TOPOGRAPHIC SURVEY WAS PERFORMED BY DAVIS, BOWEN & FRIEDEL, INC. SEPTEMBER 2025 ON MARYLAND STATE PLANE COORDINATE NAD 83. BENCHMARKS ARE AS SHOWN ON PLANS, VERTICAL DATUM NGVD88.
3. CONTRACTOR SHALL PROVIDE STAKEOUT NECESSARY FOR THE INSTALLATION OF UTILITIES, STORM DRAINS, PAVING AND ALL OTHER SITE WORK INCLUDED IN THESE PLANS. ALL STAKEOUT WORK IS TO BE PERFORMED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF MARYLAND.
4. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY DEVIATION FROM THESE PLANS UNLESS WRITTEN APPROVAL HAS BEEN PROVIDED BY THE ENGINEER.
5. ACCORDING TO FEMA FLOOD INVENTORY MAP #24047C0045H, DATED: JULY 16, 2015, A PORTION OF THE SITE IS IMPACTED BY THE 100 YEAR FLOODPLAIN, ZONE AE, BASE FLOOD ELEVATION DETERMINED AS 5 FT
6. MISS UTILITY OF DELMARVA SHALL BE NOTIFIED THREE CONSECUTIVE WORKING DAYS PRIOR TO EXCAVATION, AT 1-800-282-8555.
7. EXISTING UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION. COMPLETENESS OR CORRECTNESS THEREOF IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITY COMPANIES INVOLVED IN ORDER TO SECURE THE MOST ACCURATE INFORMATION AVAILABLE AS TO UTILITY LOCATION AND ELEVATION. NO CONSTRUCTION AROUND OR ADJACENT TO UTILITIES SHALL BEGIN WITHOUT NOTIFYING THEIR OWNERS AT LEAST 48 HOURS IN ADVANCE. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE AND ANY DAMAGE DONE TO THEM DUE TO HIS/HER NEGLIGENCE SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT THE CONTRACTOR'S EXPENSE. TO LOCATE EXISTING UTILITIES IN THE FIELD PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT MISS UTILITY OF DELMARVA.
8. THE CONTRACTOR SHALL REMOVE AND IMMEDIATELY REPLACE, RELOCATE, RESET OR RECONSTRUCT ALL OBSTRUCTIONS IN THE ROAD WAY, INCLUDING, BUT NOT LIMITED TO, MAILBOXES, SIGNS, LANDSCAPING, LIGHTING, PLANTERS, CULVERTS, DRIVEWAYS, PARKING AREAS, CURBS, GUTTERS, FENCES, OR OTHER NATURAL OR MAN-MADE OBSTRUCTIONS. TRAFFIC CONTROL, REGULATORY, WARNING AND INFORMATIONAL SIGNS SHALL REMAIN FUNCTIONAL AND VISIBLE TO THE APPROPRIATE LANES OF TRAFFIC AT ALL TIMES. WITH THEIR RELOCATION KEPT TO A MINIMUM DISTANCE. THE COST SHALL BE INCLUDED IN THE COST OF ITEMS BID.
9. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS AND ORDERS OF ANY PUBLIC BODY HAVING JURISDICTION. THE CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY THE CONDITIONS AND PROGRESS OF THE WORK, ALL NECESSARY SAFEGUARDS FOR SAFETY AND PROTECTION.
10. MARYLAND REGULATIONS PROHIBIT THE BURIAL OF CONSTRUCTION DEMOLITION DEBRIS, INCLUDING TREES AND STUMPS ON CONSTRUCTION SITES. ANY SOLID WASTE FOUND DURING THE EXCAVATION FOR STRUCTURES AND UTILITY LINES ON AND OFF SITE MUST BE REMOVED AND PROPERLY DISCARDED. ANY REMEDIAL ACTION REQUIRED IS THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM. ADDITIONAL COSTS WILL BE NEGOTIATED WITH THE OWNER.
11. DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL WORK MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AS AMENDED AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
12. THE CONTRACTOR SHALL PERFORM DAILY STREET SWEEPING FOR ALL IMPERVIOUS SURFACES ADJACENT TO THE PROJECT, THROUGHOUT THE PROJECT.

POTABLE WATER DISTRIBUTION GENERAL NOTES

1. MISS UTILITY OF DELMARVA SHALL BE NOTIFIED THREE (3) CONSECUTIVE WORKING DAYS PRIOR TO EXCAVATION, AT 1-800-282-8555.
2. ALL WATER DISTRIBUTION WORK , RESTORATION WORK, AND PAVING WORK SHALL COMPLY WITH WORCESTER COUNTY PUBLIC WORKS CONSTRUCTION STANDARDS AND SPECIFICATIONS LATEST EDITION. ANY ADDITIONAL COSTS CAUSED BY THE FAILURE TO FOLLOW THE SPECIFICATIONS SHALL BE AT THE SOLE COST OF THE CONTRACTOR.
3. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE PERFORMED IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
4. THE CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING WATER MAINS TO WHICH NEW CONSTRUCTION WILL CONNECT.
5. WATER LATERALS SHALL HAVE A MINIMUM COVER OF 3.0 FEET FROM PROPOSED GRADE, AS MEASURED FROM THE TOP OF PIPE.
6. THE CONTRACTOR SHALL OPEN ONLY THAT SECTION OF TRENCH OR ACCESS PITS WHICH CAN BE BACKFILLED AND STABILIZED AT THE END OF EACH WORKING DAY. TRENCHES MAY NOT BE LEFT OPEN WITHOUT THE APPROVAL OF OWNER AND ENGINEER.
7. FINAL APPROVED SET OF PLANS AND SPECIFICATIONS SHALL BE MAINTAINED ON THE JOB SITE. FAILURE TO COMPLY WITH THIS PROVISION SHALL BE CONSIDERED CAUSE TO STOP THE WORK.
8. THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF CONTRACT DRAWINGS ON WHICH HE SHALL NOTE, IN RED, THE ALIGNMENTS AND INVERTS OF ALL UNDERGROUND UTILITIES INSTALLED OR ENCOUNTERED DURING THE PROSECUTION OF THE WORK. ALL DISCREPANCIES BETWEEN THE PLAN LOCATIONS AND ELEVATIONS OF BOTH THE EXISTING AND PROPOSED UTILITIES SHALL BE SHOWN ON THE AS-BUILT DRAWINGS TO BE MAINTAINED BY THE CONTRACTOR IN THE FIELD.
9. ROUTINE PERIODIC INSPECTIONS DURING CONSTRUCTION WILL BE PROVIDED BY OWNER OR DESIGNEE. THESE INSPECTIONS DO NOT RELIEVE THE CONTRACTOR FROM HIS/HER OBLIGATION AND RESPONSIBILITY FOR CONNECTING THE WATER SERVICES IN ACCORDANCE WITH WORCESTER COUNTY PUBLIC WORKS CONSTRUCTION STANDARDS AND SPECIFICATIONS LATEST EDITION.
10. DIFFERING SITE CONDITIONS AND/OR DIFFERING MATERIAL PROPERTIES SHALL REQUIRE OWNER OR DESIGNEE APPROVAL OF SPECIAL DESIGN DETAILS PREPARED BY THE DESIGN ENGINEER PRIOR TO INITIATING OR RESUMING CONSTRUCTION ACTIVITIES.
11. THE CONTRACTOR SHALL ALLOW SUFFICIENT TIME FOLLOWING EXCAVATIONS FOR INSPECTION AND EVALUATION OF EXISTING SOIL SUBGRADE CONDITIONS BY OWNER OR DESIGNEE. OWNER OR DESIGNEE SHALL INSPECT ALL LATERAL SUBGRADES FOLLOWING EXCAVATION AND PRIOR TO CONSTRUCTION OF NEW WORK TO CONFIRM DESIGN CONDITIONS ARE MET AND SUBGRADE CONDITIONS ARE SUITABLE FOR CONSTRUCTION. IN THE EVENT THE SOIL BEARING CAPACITY IS LESS THAN THE MINIMUM DESIGN VALUE, OWNER OR DESIGNEE SHALL CAUSE AFFECTED CONSTRUCTION TO CEASE AND SHALL NOTIFY THE DESIGN ENGINEER FOR RE-DESIGN TO ACCOMMODATE THE REDUCED SOIL BEARING CAPACITY.
12. IN THE EVENT THE SUBGRADE CONDITION IS UNSTABLE, DUE TO UNSUITABLE MATERIALS AND/OR GROUNDWATER INFILTRATION/INTRUSION INTO THE SURROUNDING SOILS, AS DETERMINED BY OWNER OR DESIGNEE, THE CONTRACTOR SHALL, AS DIRECTED BY OWNER OR DESIGNEE, REMOVE THE UNSUITABLE MATERIAL AND FILL WITH SUITABLE APPROVED GRANULAR FILL MATERIAL.
13. CONTRACTOR SHALL EXTEND LATERAL BELOW ANY CONFLICTS OR OBSTRUCTIONS TO PROVIDE REQUIRED CLEARANCES. COST SHALL BE INCLUDED IN THE PRICE OF THE CONTRACT.
14. THROUGHOUT THE PROJECT, WHERE WATER MAINS ARE LOCATED IN, ACROSS OR ADJACENT TO DRAINAGE DITCHES AND SWALES, THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION AND VEGETATE AS REQUIRED.
15. ALL PROPOSED WATER MAINS 6" AND LARGER SHALL BE CLASS 150(DR18) AWWA C900 PVC UNLESS OTHERWISE STATED. ALL PROPOSED WATER SERVICES SHALL BE 1" SDR-9 POLY PVC TUBING.
16. ALL WATER CONNECTIONS LESS THAN OR EQUAL TO 2" SHALL USE A STAINLESS STEEL SADDLE, CORPORATION STOP AND CURB STOP. ALL CONNECTIONS LARGER THAN 2" SHALL USE A TEE AND GATE VALVE WITH VALVE BOX.
17. PLACE NEW VALVES NEXT TO TEES, BENDS, ETC., SUPPORT ALL VALVES ON A SOLID 4"X8" CONCRETE MASONRY UNIT.
18. ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED IN ACCORDANCE WITH THE WORCESTER COUNTY PUBLIC WORKS STANDARDS AND SPECIFICATIONS BEFORE ACCEPTANCE.
19. ALL PROPOSED WATER MAIN AND SERVICES SHALL BE INSTALLED WITH A TRACER WIRE CONTINUOUSLY ALONG AND DIRECTLY ADHERED TO THE PIPE.
20. THE CONTRACTOR WILL INSTALL THE WATER SERVICE TO THE GROUND MARKER AS SHOWN ON THE STANDARD DETAILS. THE WATER METER AND PIT ASSEMBLY WILL BE PURCHASED BY THE CONTRACTOR AND INSTALLED BY THE CONTRACTOR WITH OWNER OR DESINGEE INPSECTION.
21. ALL VALVE CLOSURES AND CUT-INS SHALL BE COORDINATED WITH THE OWNER, OR DESIGNEE. CONTRACTOR SHALL COORDINATE ISOLATION OF EXISTING WATER MAINS WITH THE UTILITY OWNER, OWNER OR DESIGNEE AND NOTIFY RESIDENTS AT LEAST 48 HOURS PRIOR TO CUT-IN.
22. ALL FITTINGS SHALL BE DUCTILE IRON, MECHANICAL JOINT RESTRAINT, AWWA APPROVED, AND BE IN ACCORDANCE WITH THE WORCESTER COUNTY PUBLIC WORKS STANDARDS AND SPECIFICATIONS . ALL FITTINGS SHALL BE THRUST RESTRAINED AS SHOWN ON THE STANDARD DETAILS.
23. WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM SEWER MAINS. WATER CROSSING SEWER MAINS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 18" TO OUTSIDE OF PIPES. IF AN 18" CLEARANCE CANNOT BE OBTAINED, CONTRACTOR IS TO CONTACT THE DESIGN ENGINEER TO DETERMINE THE APPROPRIATE INSTALLATION OF WATER MAIN AT CLEARANCE CONFLICT. WATER MAINS MAY NEED TO BE REROUTED UTILIZING RESTRAINED MECHANICAL JOINT FITTINGS AS SHOWN ON THE STANDARD DETAILS TO MEET THE SEPARATION REQUIREMENTS.
24. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO LOCATE PROPERTY LINES, EASEMENTS, AND RIGHT-OF-WAY LINES PRIOR TO CONSTRUCTION AND AVOID CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY AND/OR RIGHTS OF WAYS WHERE SAID CONSTRUCTION IS PROHIBITED. THE CONTRACTOR MAY CONDUCT CONSTRUCTION ACTIVITIES ON PRIVATE PROPERTY PROVIDED HE HAS OBTAINED PRIOR WRITTEN PERMISSION FROM THE PROPERTY OWNER AND HAS SUBMITTED A COPY OF SAID WRITTEN PERMISSION TO OWNER. ANY DISTURBED AREAS BEYOND THE RIGHT-OF-WAY OR EASEMENT LINES SHALL BE RESTORED IMMEDIATELY TO THEIR ORIGINAL CONDITION. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE COST OF ITEMS BID.
25. THE CONTRACTOR SHALL DECOMMISSION AND ABANDON THE EXISTING ONSITE WATER SUPPLY WELL IN ACCORDANCE WITH MARYLAND STATE CODE 26.04.04.34.

STATE OF MARYLAND
THOMAS S. BRANEC
57406
PROFESSIONAL ENGINEER
10/6/2026

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland, License No. 57406 Expiration Date: 12-18-2027.

DAVIS BOWEN & FRIEDEL, INC.
ARCHITECTS · ENGINEERS · SURVEYORS
EASTON, MARYLAND 410.770.4744
MILFORD, DELAWARE 302.424.1441
SALISBURY, MARYLAND 410.543.9091

ST. MARTINS BY THE BAY WATER PROJECT
WORCESTER COUNTY MD

DATE	COMMENTS

Date: AUGUST 2026
Scale: AS SHOWN
Dwn.By: NSB
Proj.No.: 0085D028

GENERAL NOTES

Dwg.No.: **G-002**

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END OF PROPOSED WATER MAIN

V-103 C-107

V-104 C-108

END OF PROPOSED WATER MAIN

V-103 C-106

MARINA DRIVE

RIVERVIEW DRIVE

PROPOSED STAGING/STOCKPILE AREA AND STABILIZED CONSTRUCTION ENTRANCE

V-103 C-105

V-102 C-104 & C-108

V-102 C-104

V-102 C-103

PROPOSED CONNECTION TO EXISTING COUNTY WATER SYSTEM

ST. MARTINS PARKWAY

BEAUCHAMP ROAD

ST. MARTINS LANE

V-101 C-102

V-101 C-101

END OF PROPOSED WATER MAIN

0' 200' 400' 600'

STATE OF MARYLAND
CHARLES S. BRADLEY
57406
PROFESSIONAL ENGINEER
10/6/2026

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland, License No. 57406 Expiration Date: 12-18-2027

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ST. MARTINS BY THE BAY
WATER PROJECT
WORCESTER COUNTY MD

DATE	COMMENTS

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KEY MAP

Dwg.No.:
G-003

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ST. MARTIN LANE

EX. 24" CMP CULVERT

INV: 9.43'

MAP 16 PARCEL 39
LOT 1
N/F
JAMES J. HARBELL, SR. &
ELIZABETH A. HARBELL
DEED REF: 5672/262

INV: 9.98'

MAP 16 PARCEL 39
LOT 30
N/F
IAN FISHER &
ALLYSON FISHER
DEED REF: 8068/286

MAP 16 PARCEL 39
LOT 31
N/F
JAMES L. NICHOLSON &
JULIE L. NICHOLSON
DEED REF: 8078/215

MAP 16 PARCEL 64
UTILITY LOT
N/F
COUNTY COMMISSIONERS OF
WORCESTER CO. MARYLAND
DEED REF: 1993/576

MAP 16 PARCEL 39
LOT 33
N/F
KEVIN HARNS
DEED REF: 8683/78

MAP 16 PARCEL 39
LOT 34
N/F
BALNCHE D. DEASY
DEED REF: 8351/57

MAP 16 PARCEL 39
LOT 35
N/F
JENNIFER APRIL
DEED REF: 7762/156

MAP 16 PARCEL 39
LOT 36
N/F
MEGHAN ELIZABETH SCHOWE
& DAWIN E. THOMAS
DEED REF: 8584/92

MAP 16 PARCEL 39
LOT 37
N/F
WANDA GINN &
ROBERT GINN
DEED REF: 8365/379

MAP 16 PARCEL 39
LOT 38
N/F
KAREN WEINMANN
DEED REF: 7358/472

BEAUCHAMP ROAD

INV: 11.39'

DRIVEWAY (A.K.A. ROTHERWOOD LN.)

INV: 11.57'

EX. 15" RCP CULVERT

MAP 16 PARCEL 5
N/F
BLAIR M. SNYDER &
ALLISON J. SNYDER
DEED REF: 5781/183

MAP 16 PARCEL 5
N/F
BLAIR M. SNYDER &
ALLISON J. SNYDER
DEED REF: 5781/183

MATCHLINE
THIS SHEET

NOTE:
1. EXISTING WATER SERVICES SHOWN ARE BASED ON THE BEST AVAILABLE DATA, AND MAY NOT REPRESENT THE EXACT LOCATION OR LENGTH. ALL SERVICES SHOULD BE LOCATED BY TEST PIT PRIOR TO REPLACEMENT.

EXISTING CONDITIONS SITE PLAN

1" = 30'

0' 30' 60' 90'

BEAUCHAMP ROAD

MAP 16 PARCEL 63
LOT 102
N/F
JOHN J. FREDERICK, JR. &
KATHRYN A. FREDERICK
DEED REF: 1239/297

MAP 16 PARCEL 63
LOT 103
N/F
SHERRY A. STULL
DEED REF: 508/205

MAP 16 PARCEL 63
LOT 104
N/F
RONALD ALLABAND &
MARY ALLABAND
DEED REF: 2760/233

MAP 16 PARCEL 63
LOT 105
N/F
ALLISON J. SNYDER
REVOCABLE TRUST
DEED REF: 7284/396

MAP 16 PARCEL 63
LOT 106
N/F
PATRICK C. PRIEST
DEED REF: 3728/148

MAP 16 PARCEL 63
LOT 107
N/F
MARK WINTERLING &
JULIE WINTERLING
DEED REF: 7322/140

MAP 16 PARCEL 63
LOT 108
N/F
JOSEPH CRESPO &
MAUREEN CRESPO
DEED REF: 6580/128

INV: 18.02'

EX. 15" CMP CULVERT

EX. UNDERGROUND ELECTRIC, CONTRACTOR TO TEST PIT TO VERIFY DEPTH AND LOCATIONS

EX. 10" CMP CULVERT

INV: BURIED

DRIVEWAY

INV: 15.93'

EX. 10" CMP CULVERT

INV: 15.59'

ENTRANCE

INV: 15.38'

MAP 16 PARCEL 39
LOT 40
N/F
MARK B. MYERS &
PAULA A. MYERS
DEED REF: 2388/33

ST. MARTIN PARKWAY

MAP 16 PARCEL 39
LOT 39
N/F
KELLY LYNN DAY &
JOHN KEVIN DAY
DEED REF: 7834/392

EX. ELECTRICAL TRANSFORMER

EX. SIGNAGE

INV: 16.62'

MAP 16 PARCEL 39
LOT 38
N/F
KAREN WEINMANN
DEED REF: 7358/472

MAP 16 PARCEL 5
N/F
BLAIR M. SNYDER &
ALLISON J. SNYDER
DEED REF: 5781/183

MATCHLINE
THIS SHEET

MATCHLINE
SHEET V-102

NOTE:
1. EXISTING WATER SERVICES SHOWN ARE BASED ON THE BEST AVAILABLE DATA, AND MAY NOT REPRESENT THE EXACT LOCATION OR LENGTH. ALL SERVICES SHOULD BE LOCATED BY TEST PIT PRIOR TO REPLACEMENT.

EXISTING CONDITIONS SITE PLAN

1" = 30'

0' 30' 60' 90'

STATE OF MARYLAND
NICHOLAS S. BRADLEY
57406
PROFESSIONAL ENGINEER
10/6/2026

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland, License No. 57406 Expiration Date: 12-18-2027.

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SALISBURY, MARYLAND 410.543.9091
EASTON, MARYLAND 410.770.4744

ST. MARTINS BY THE BAY WATER PROJECT
WORCESTER COUNTY MD

DATE	COMMENTS

Date: AUGUST 2026
Scale: AS SHOWN
Dwn.By: NSB
Proj.No.: 0085D028

EXISTING CONDITIONS

Dwg.No.: **V-101**

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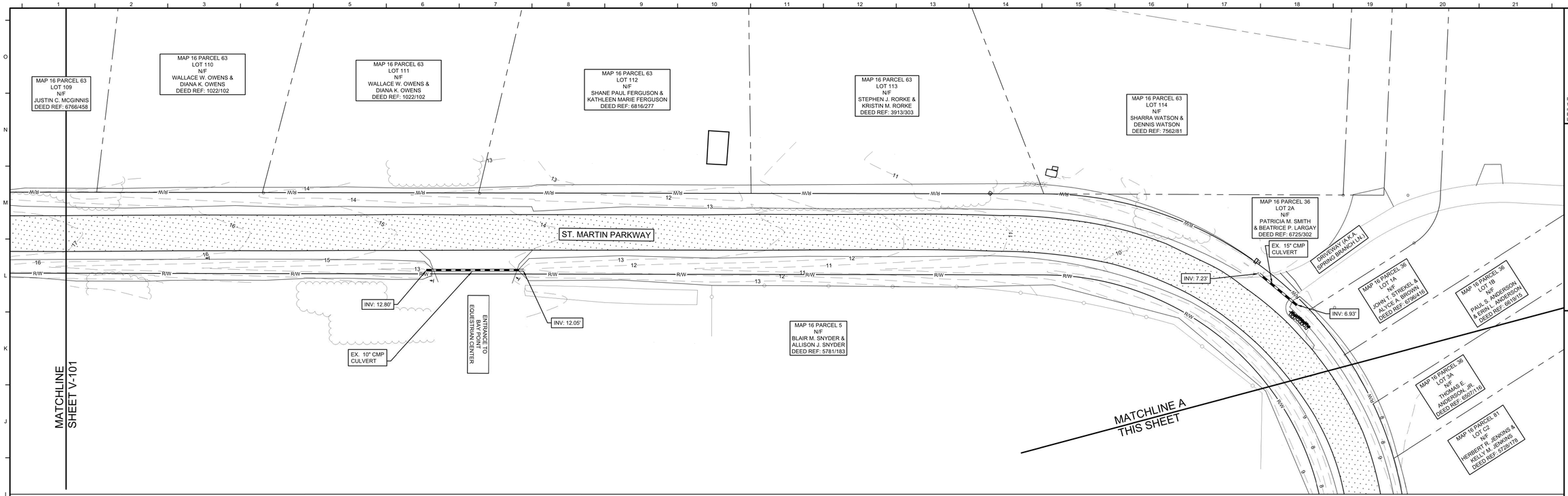

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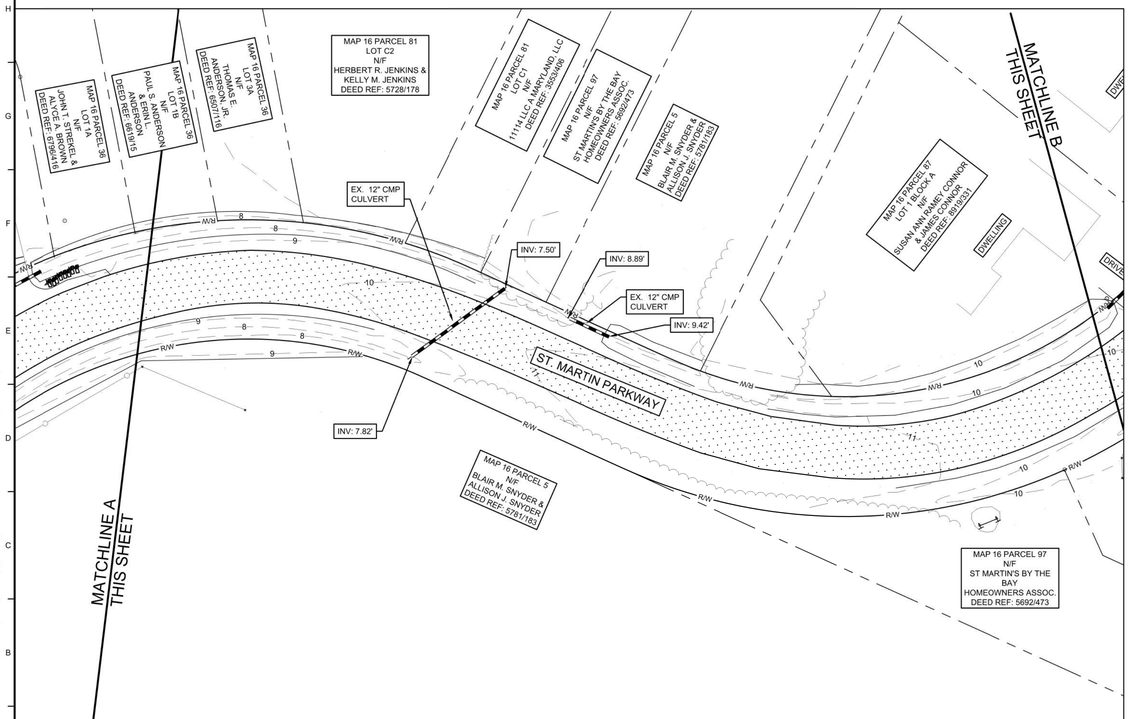

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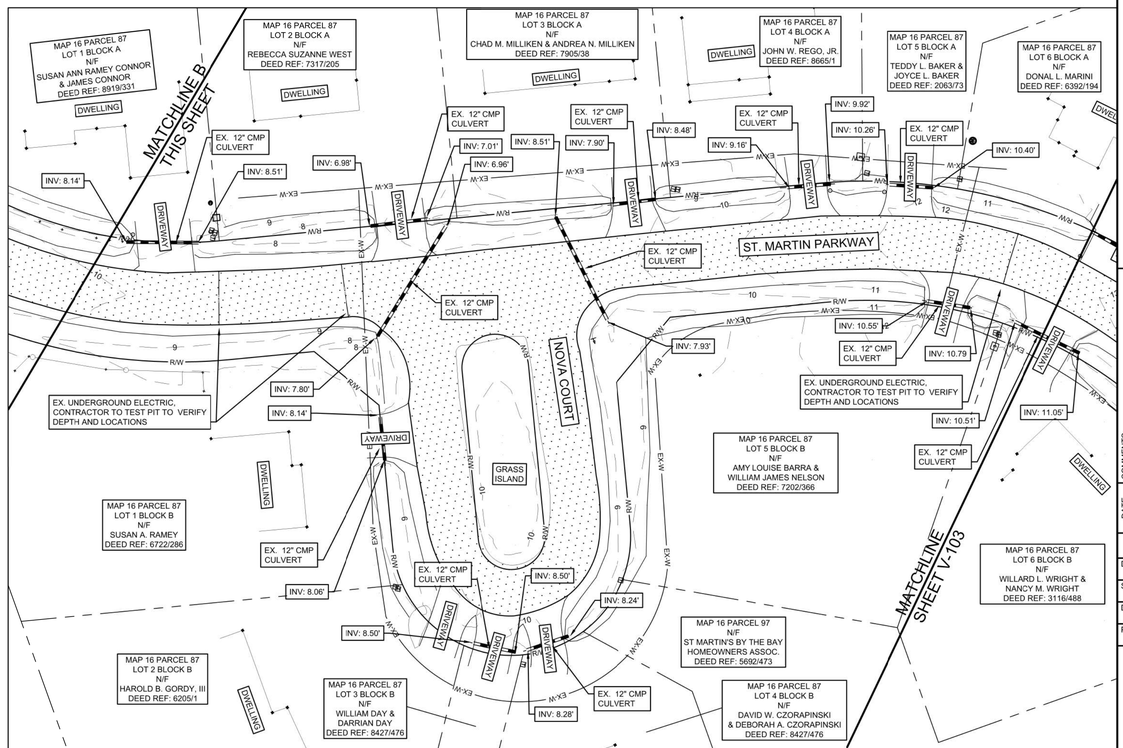

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STATE OF MARYLAND
NICHOLAS S. BRADLEY
57406
PROFESSIONAL ENGINEER
10/6/2026

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ST. MARTINS BY THE BAY
WATER PROJECT
WORCESTER COUNTY MD

DATE	COMMENTS

Date: AUGUST 2026
Scale: AS SHOWN
Dwn.By: NSB
Proj.No.: 0085D028

EXISTING CONDITIONS

Dwg.No.: **V-102**

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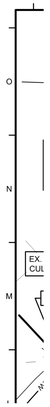

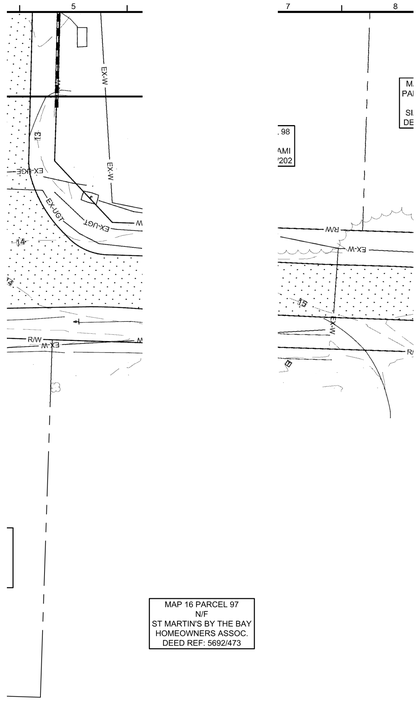
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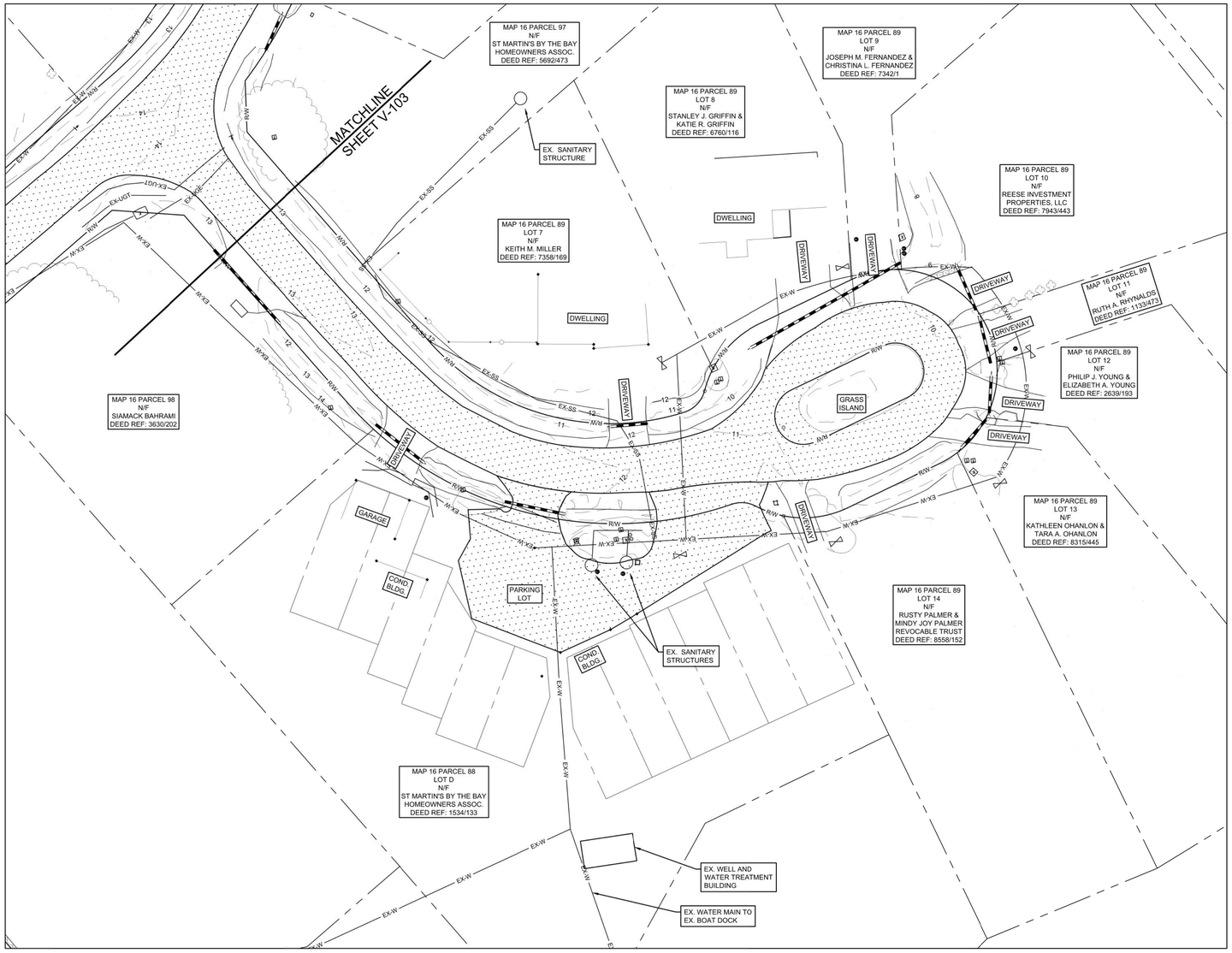

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EXISTING CONDITIONS SITE PLAN

1" = 30'

0' 30' 60' 90'

STATE OF MARYLAND
NICHOLAS S. BRANDT
57406
PROFESSIONAL ENGINEER
10/9/2026

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ST. MARTINS BY THE BAY
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WORCESTER COUNTY MD

DATE	COMMENTS

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Proj.No.: 0085D028

EXISTING CONDITIONS

Dwg.No.: **V-104**

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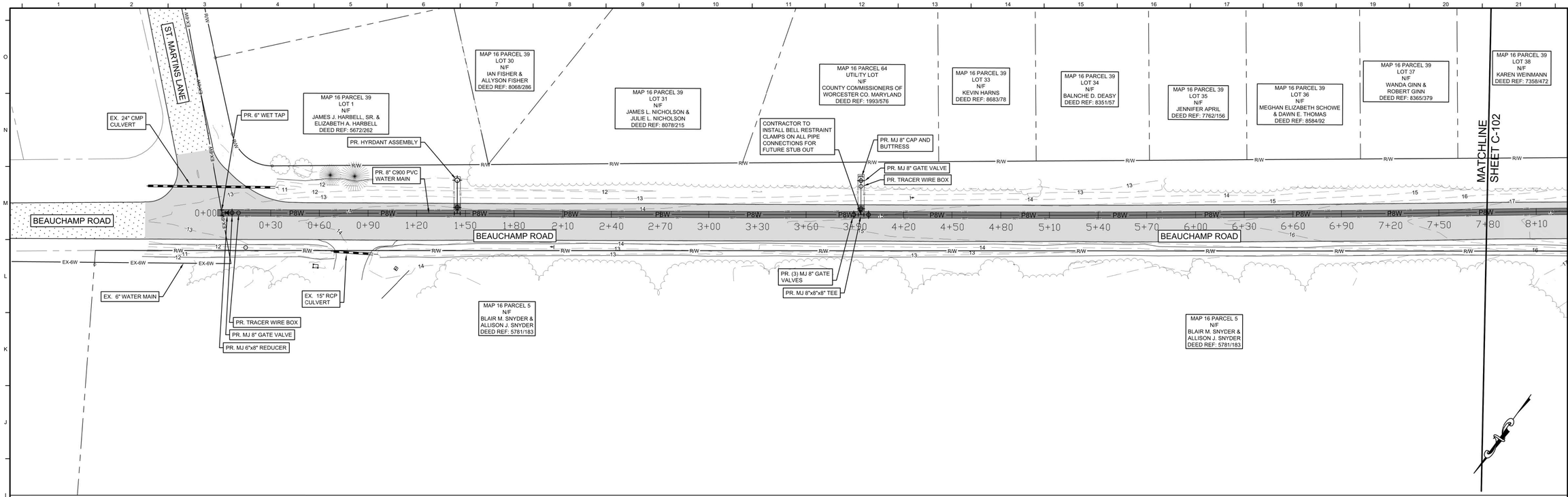

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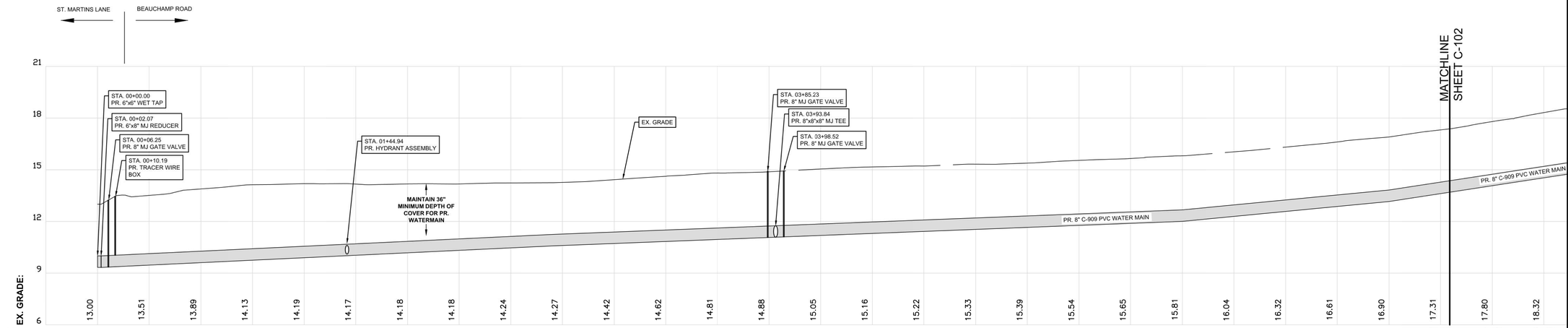
2. ALL EXISTING WATERLINES SHALL BE ABANDONED IN PLACE WITH FLOWABLE FILL UNLESS NOTED OTHERWISE.
3. CONTRACTOR SHALL RECONNECT ALL WATER SERVICES TO THE PROPOSED WATER METER ASSEMBLIES.

PROPOSED SITE PLAN (BEAUCHAMP ROAD)

1" = 30'

0' 30' 60' 90'



GENERAL NOTE:
PR. WATER MAIN SHALL MAINTAIN A MINIMUM OF 12" VERTICAL SEPARATION FROM OTHER UTILITIES, 18" FROM SEWER UTILITIES, FROM EDGE OF PIPE TO EDGE OF PIPE TYP.

UTILITY PROFILE (BEAUCHAMP ROAD)

SCALE: **1"=30' HORIZ.**
1"= 3' VERT.

0' 30' 60' 90'

STATE OF MARYLAND — BRADLEY S. BRANNAN — 57406 — PROFESSIONAL ENGINEER
10/9/2026
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland, License No. 57406 Expiration Date: 12-18-2027.

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PROPOSED SITE PLAN

Dwg.No.: **C-101**

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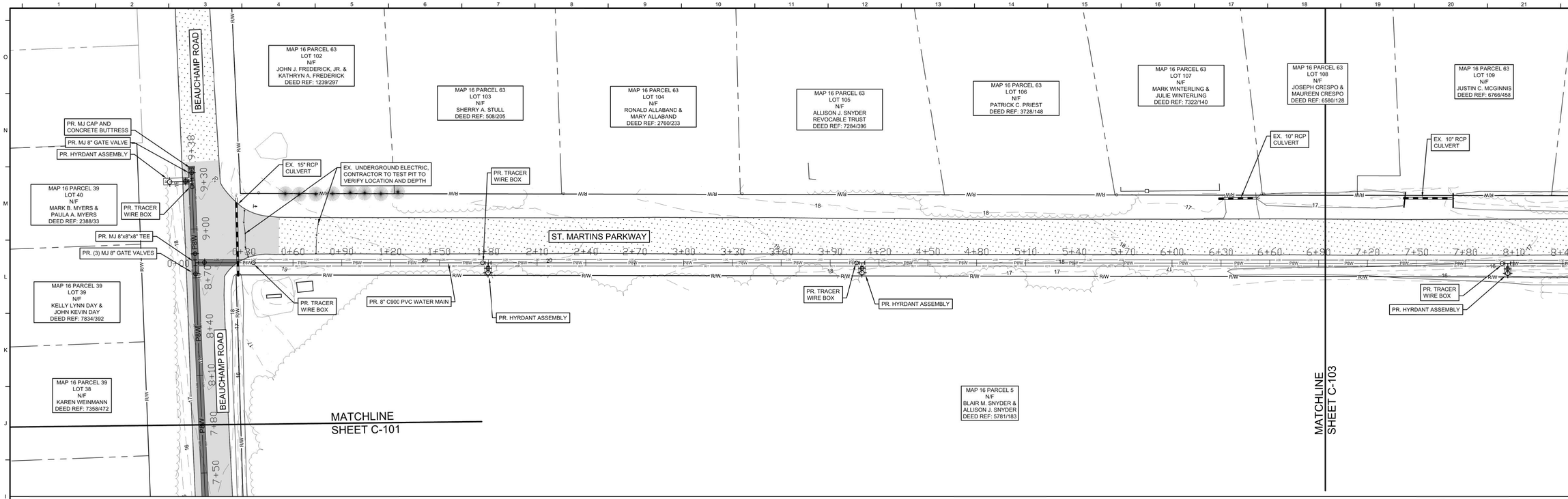

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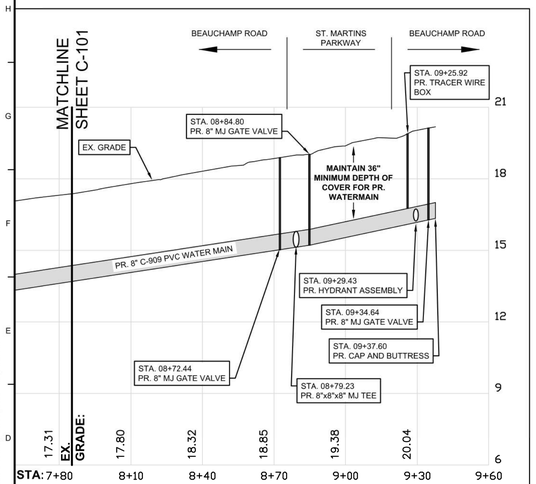
PROPOSED SITE PLAN (ST. MARTIN PARKWAY)

1" = 30'

0' 30' 60' 90'



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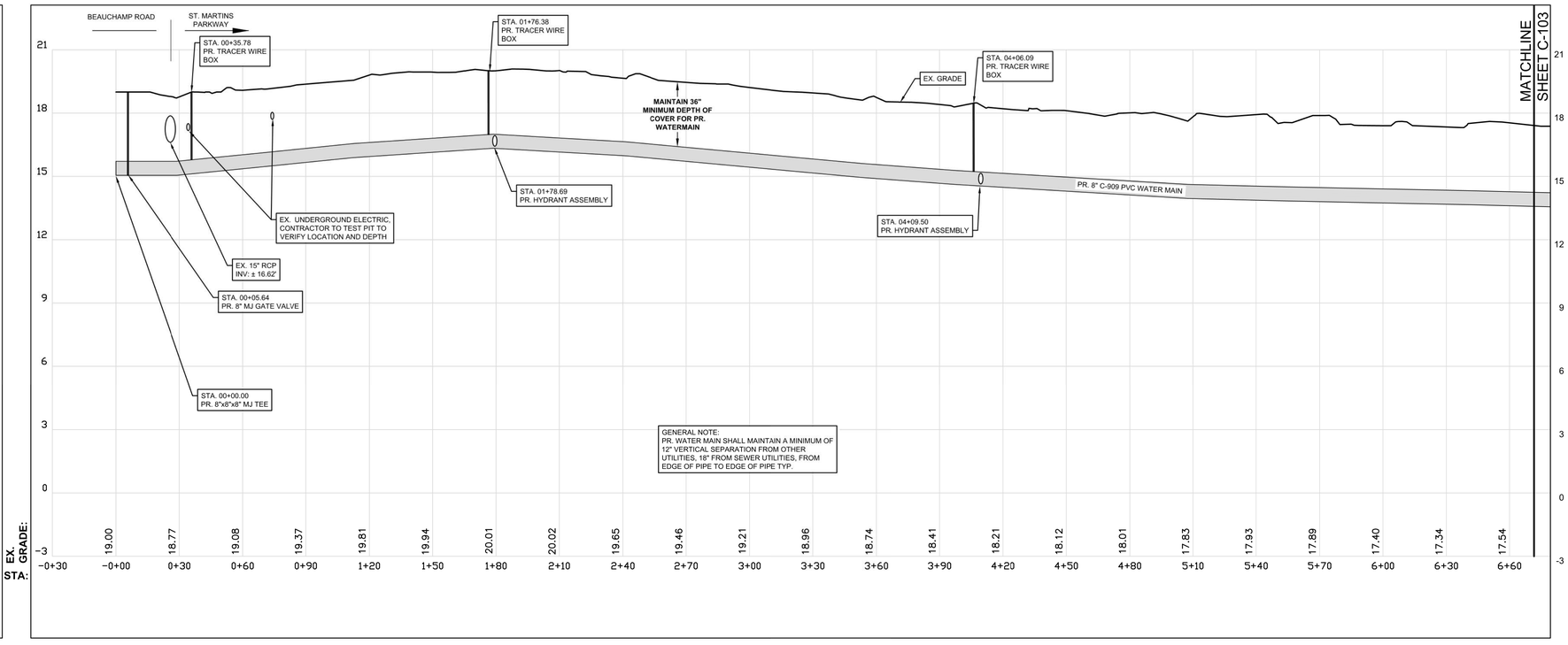
UTILITY PROFILE (BEAUCHAMP ROAD)

SCALE: 1"=30' HORIZ.
1"= 3' VERT.

0' 30' 60' 90'



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UTILITY PROFILE (ST. MARTIN PARKWAY)

SCALE: 1"=30' HORIZ.
1"= 3' VERT.

0' 30' 60' 90'

STATE OF MARYLAND
NICHOLAS S. BRADLEY
57406
PROFESSIONAL ENGINEER
10/9/2026

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ST. MARTINS BY THE BAY WATER PROJECT
WORCESTER COUNTY MD

DATE	COMMENTS

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PROPOSED SITE PLAN

Dwg.No.: C-102

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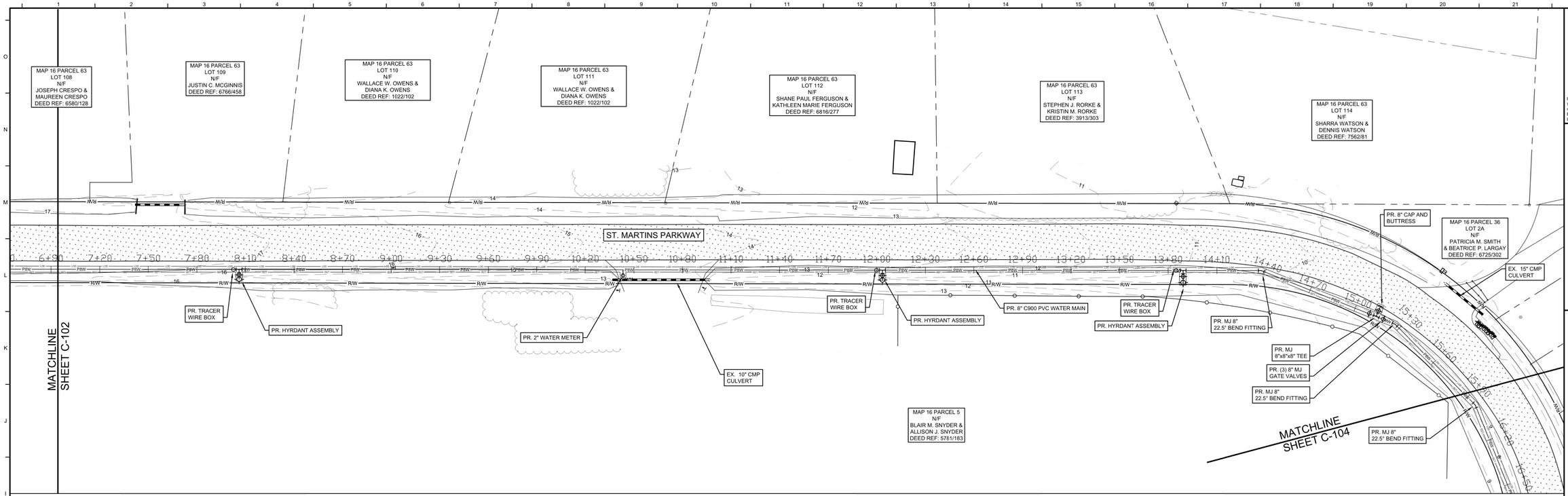

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PROPOSED SITE PLAN (ST. MARTIN PARKWAY)

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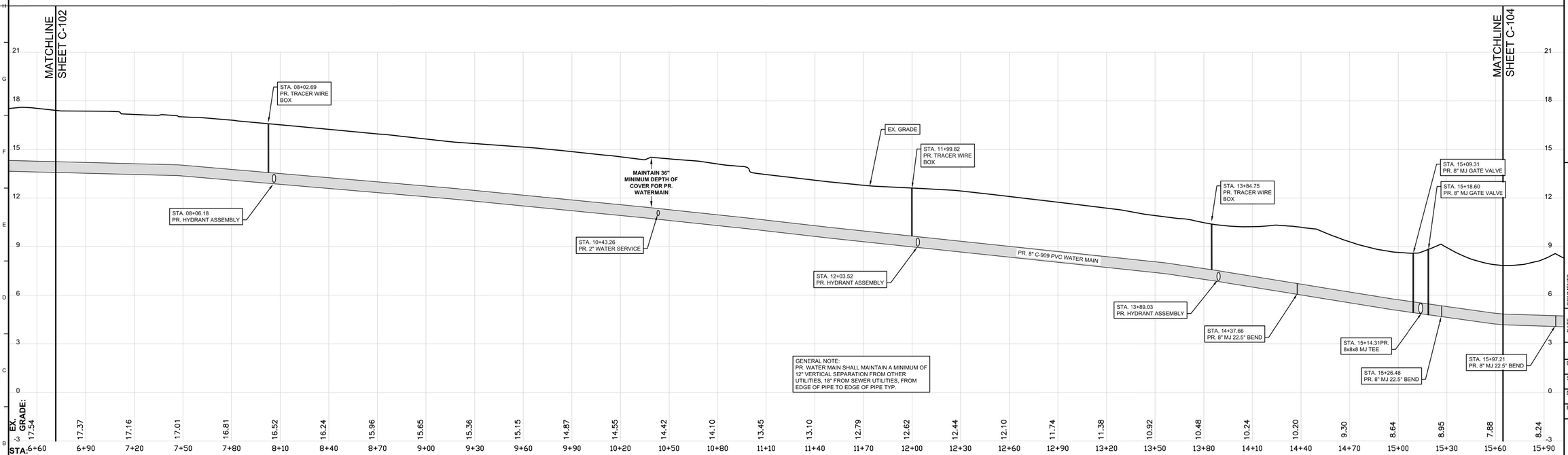

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UTILITY PROFILE (ST. MARTIN PARKWAY)

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57406
PROFESSIONAL ENGINEER
10/6/2026

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SALISBURY, MARYLAND 410.543.9091

ST. MARTINS BY THE BAY
WATER PROJECT
WORCESTER COUNTY MD

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PROPOSED SITE PLAN

Dwg.No.: **C-103**

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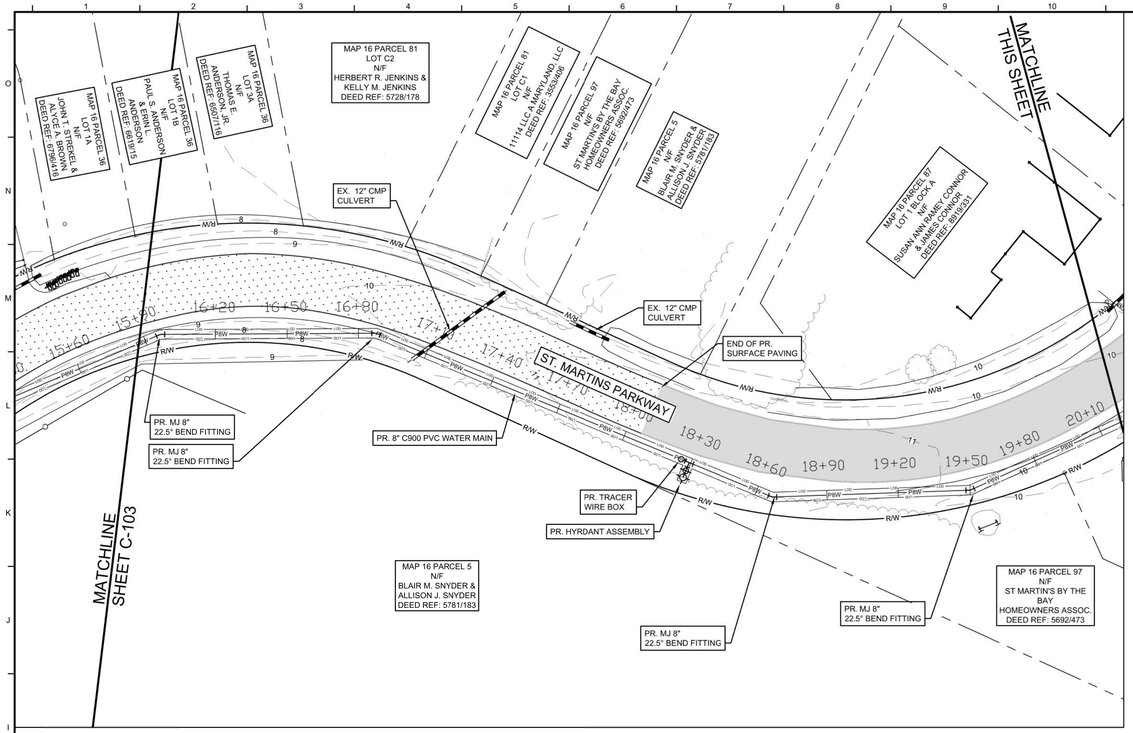

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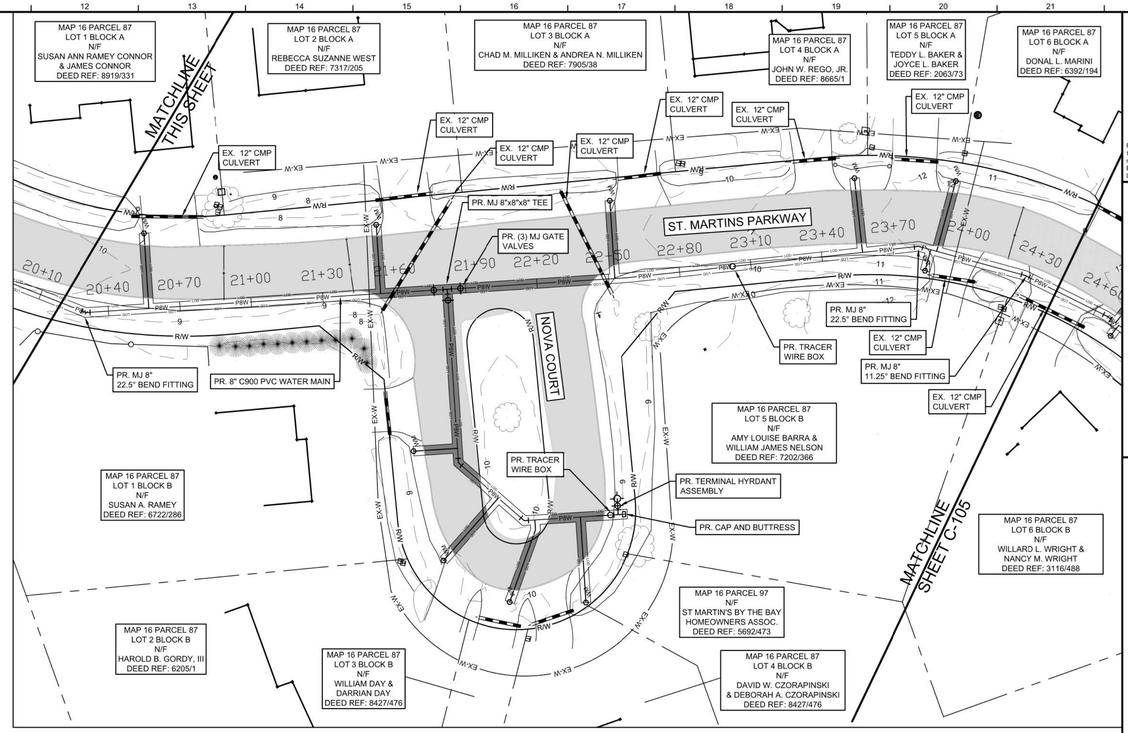

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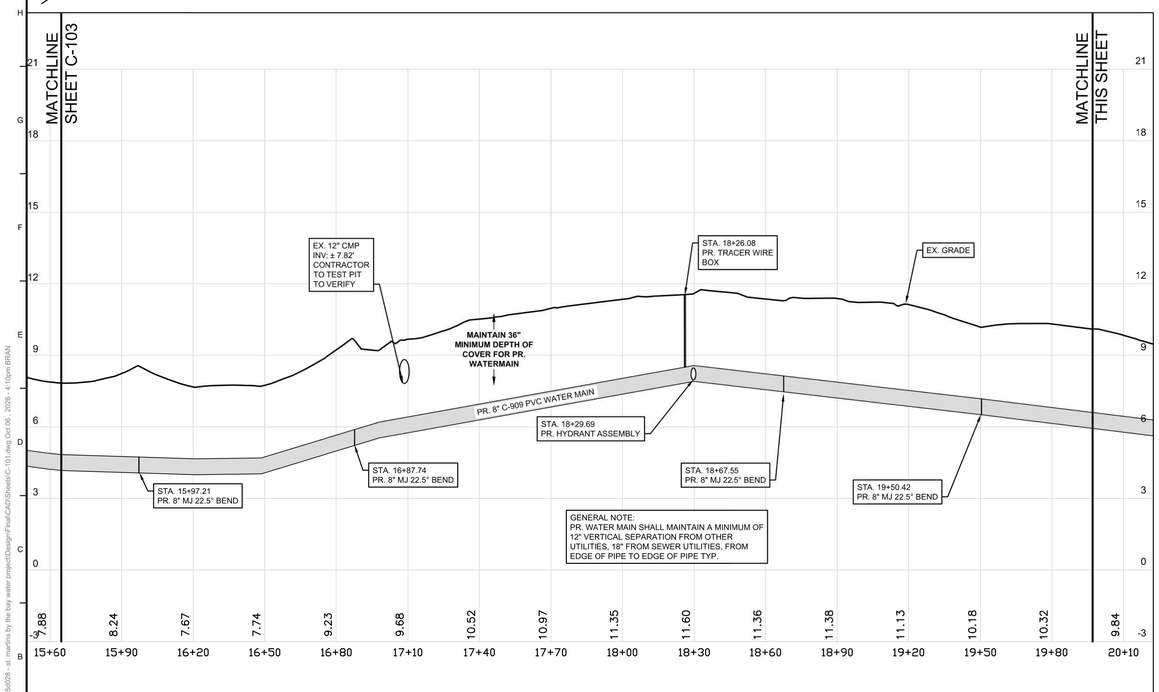
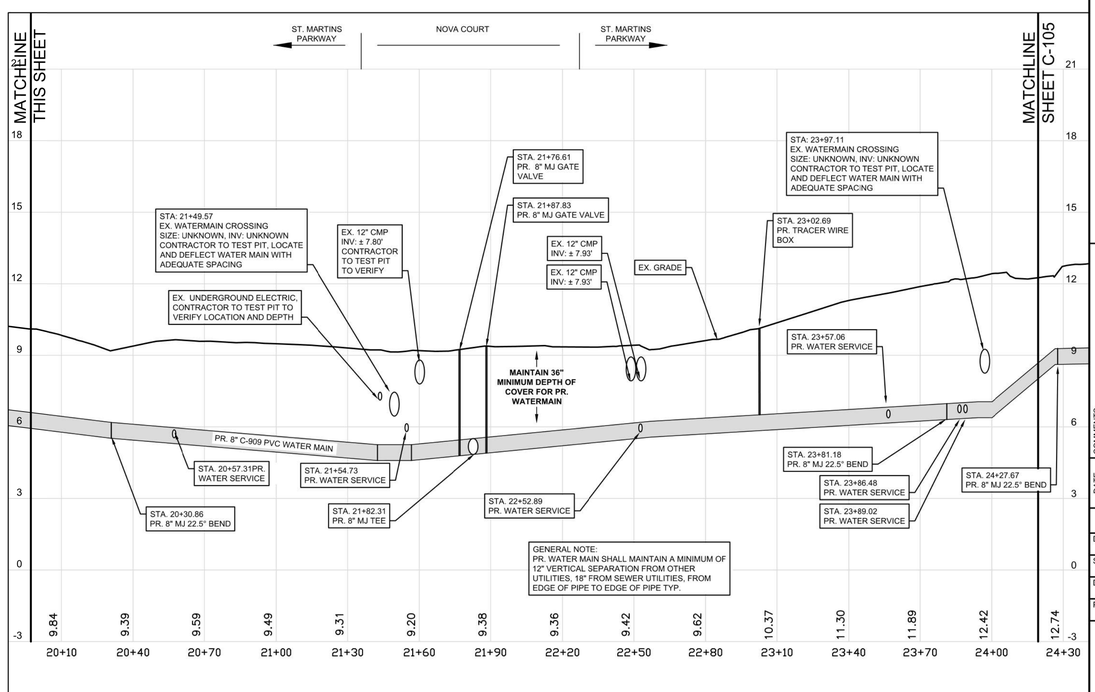


UTILITY PROFILE (ST. MARTIN PARKWAY)

SCALE: 1"=30' HORIZ.
1"= 3' VERT.

0' 30' 60' 90'



UTILITY PROFILE (ST. MARTIN PARKWAY)

SCALE: 1"=30' HORIZ.
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STATE OF MARYLAND
NICHOLAS S. BRADLEY
57406
PROFESSIONAL ENGINEER
10/6/2026

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PROPOSED SITE PLAN

Dwg.No.: **C-104**

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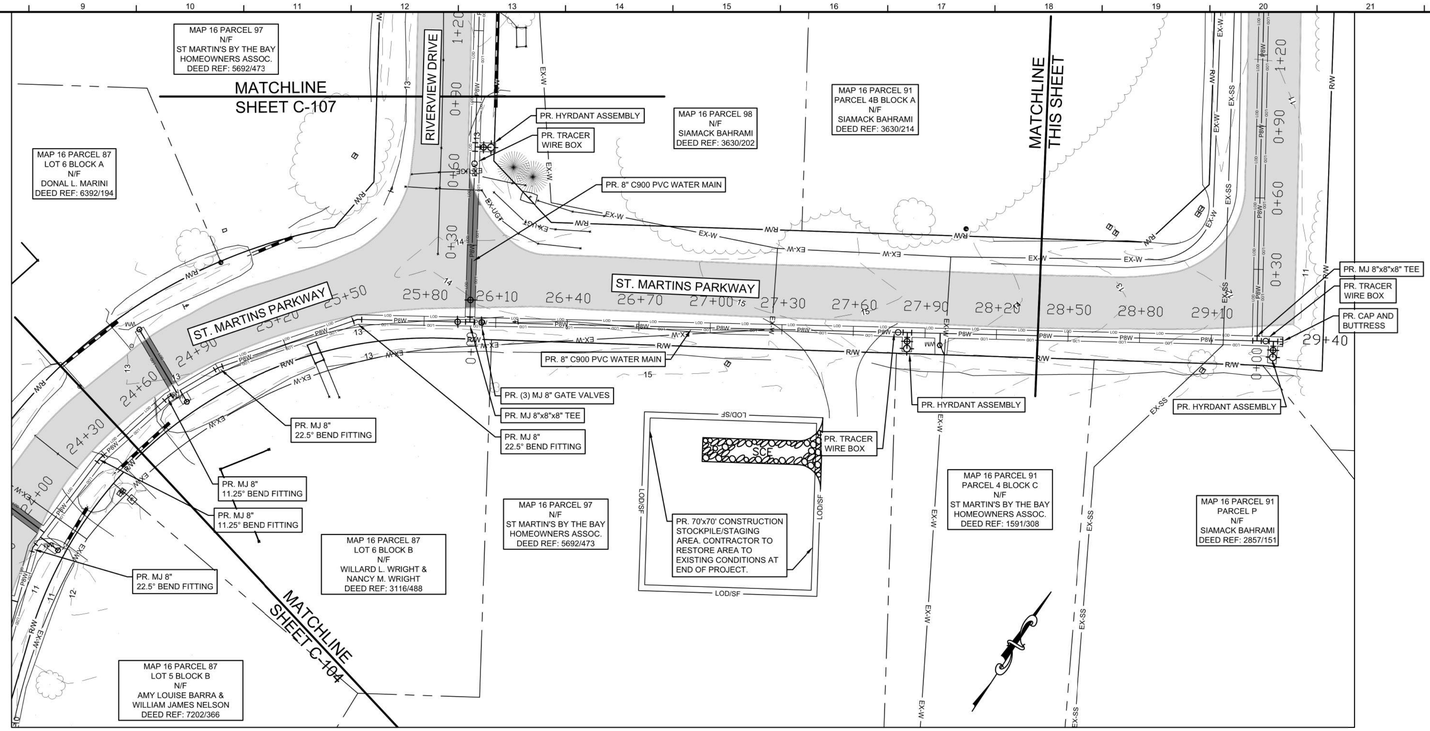

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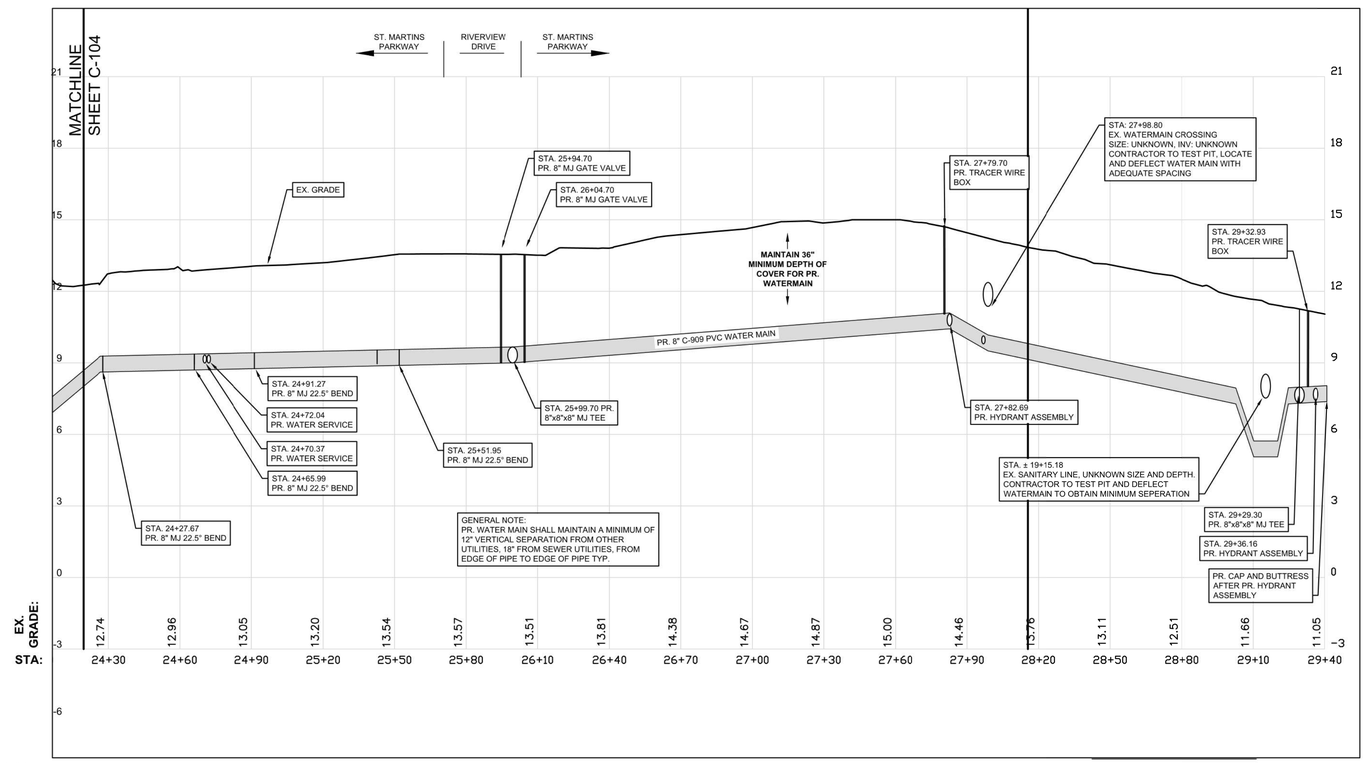

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UTILITY PROFILE (ST. MARTIN PARKWAY)

SCALE:
1"=30' HORIZ.
1"= 3' VERT.

STATE OF MARYLAND
NATHAN S. BRADLEY
57406
PROFESSIONAL ENGINEER
10/6/2026

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PROPOSED SITE PLAN

Dwg.No.: **C-105**

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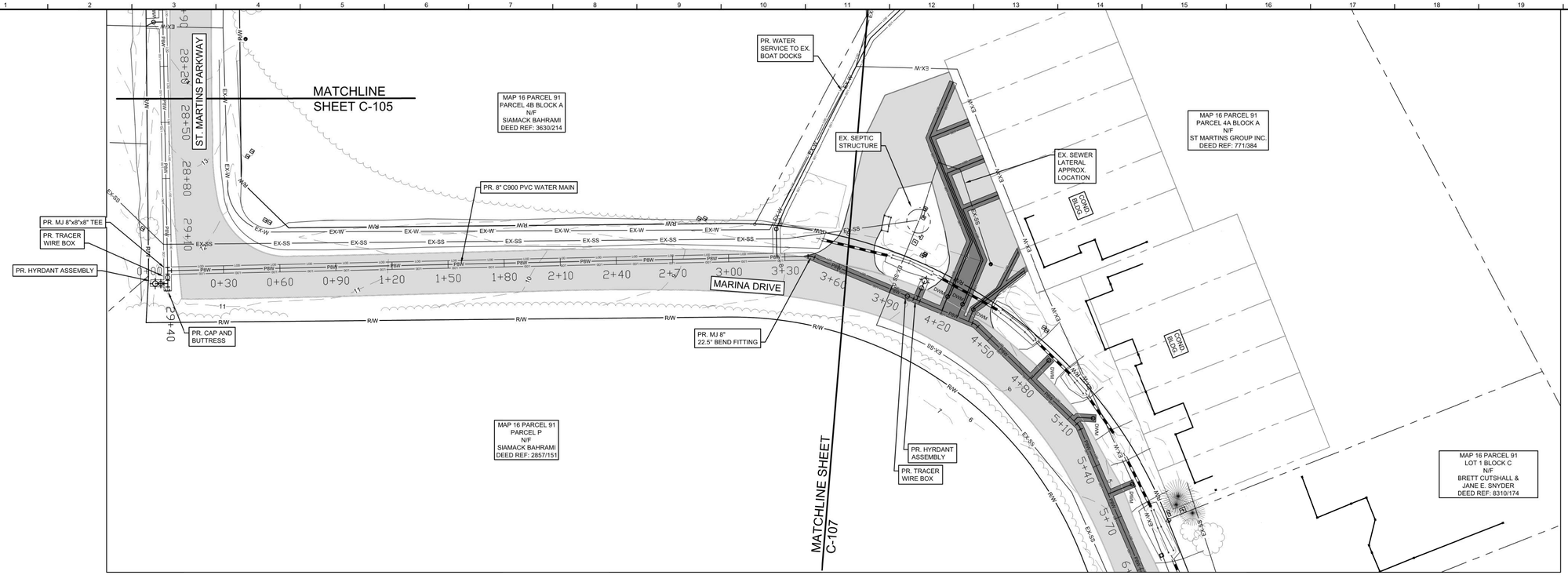

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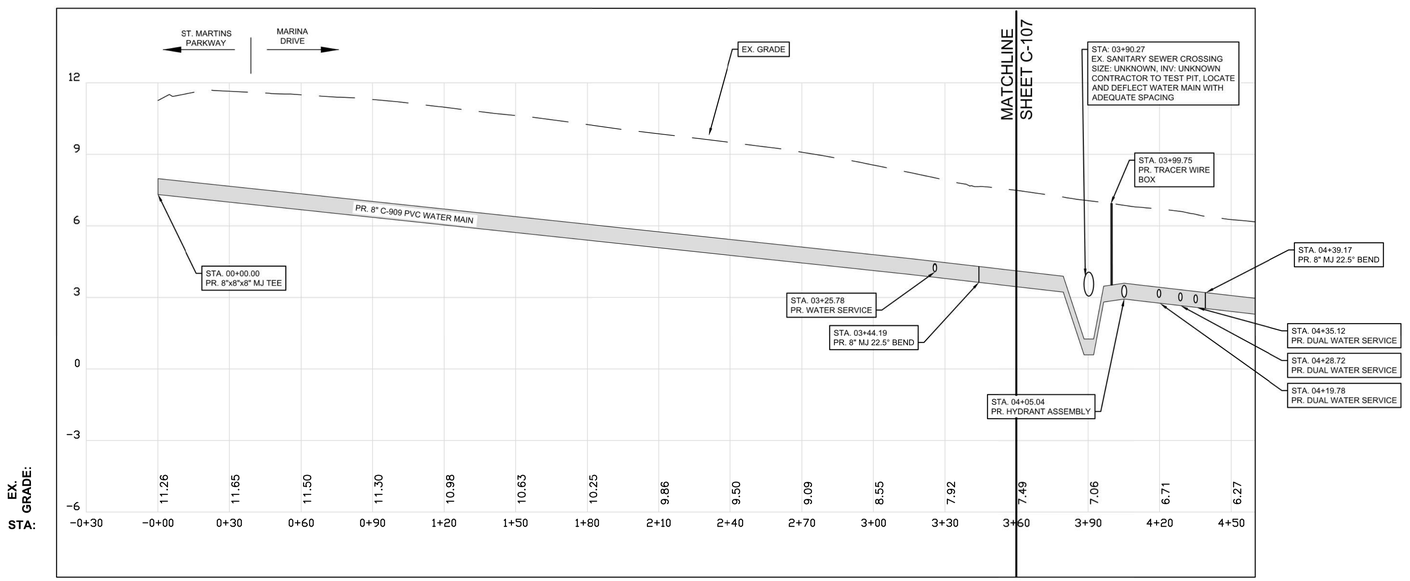
PROPOSED SITE PLAN (MARINA DRIVE)

1" = 30'

0' 30' 60' 90'



UTILITY PROFILE (MARINA DRIVE)

SCALE: 1"=30' HORIZ.
1"= 3' VERT.

0' 30' 60' 90'

STATE OF MARYLAND
CHARLES B. PHILLIPS
57406
PROFESSIONAL ENGINEER
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PROPOSED SITE PLAN

Dwg.No.: **C-106**

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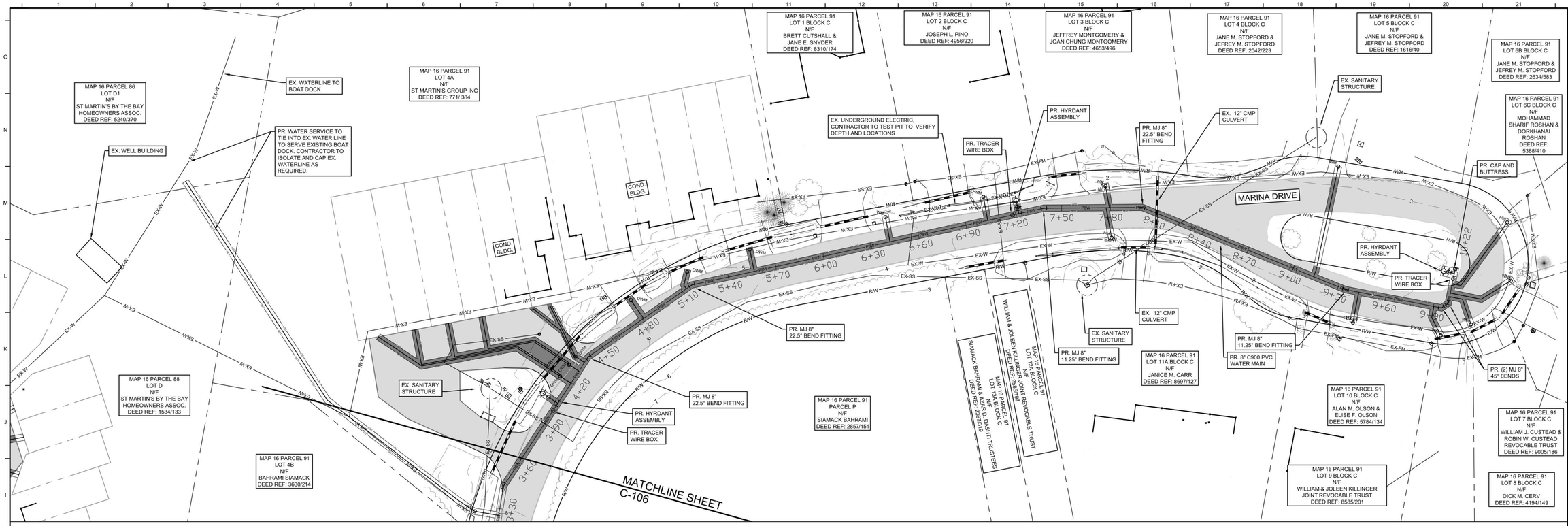

NOTE:
1. EXISTING WATER SERVICES SHOWN ARE BASED ON THE BEST AVAILABLE DATA, AND MAY NOT REPRESENT THE EXACT LOCATION OR LENGTH. ALL SERVICES SHOULD BE LOCATED BY TEST PIT PRIOR TO REPLACEMENT.
2. ALL EXISTING WATERLINES SHALL BE ABANDONED IN PLACE WITH FLOWABLE FILL UNLESS NOTED OTHERWISE.
3. CONTRACTOR SHALL RECONNECT ALL WATER SERVICES TO THE PROPOSED WATER METER ASSEMBLIES.

PROPOSED SITE PLAN (MARINA DRIVE)

1" = 30'

0' 30' 60' 90'

NOTE:
1. EXISTING WATER SERVICES SHOWN ARE BASED ON THE BEST AVAILABLE DATA, AND MAY NOT REPRESENT THE EXACT LOCATION OR LENGTH. ALL SERVICES SHOULD BE LOCATED BY TEST PIT PRIOR TO REPLACEMENT.

UTILITY PROFILE (MARINA DRIVE)

SCALE: 1"=30' HORIZ.
1"= 3' VERT.

0' 30' 60' 90'

STATE OF MARYLAND
JOHN A. BOWEN
57406
PROFESSIONAL ENGINEER

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland, License No. 57406 Expiration Date: 12-18-2027.

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ST. MARTINS BY THE BAY
WATER PROJECT
WORCESTER COUNTY MD

DATE	COMMENTS

Date: AUGUST 2026
Scale: AS SHOWN
Dwn.By: NSB
Proj.No.: 0085D028

PROPOSED SITE PLAN

Dwg.No.: **C-107**

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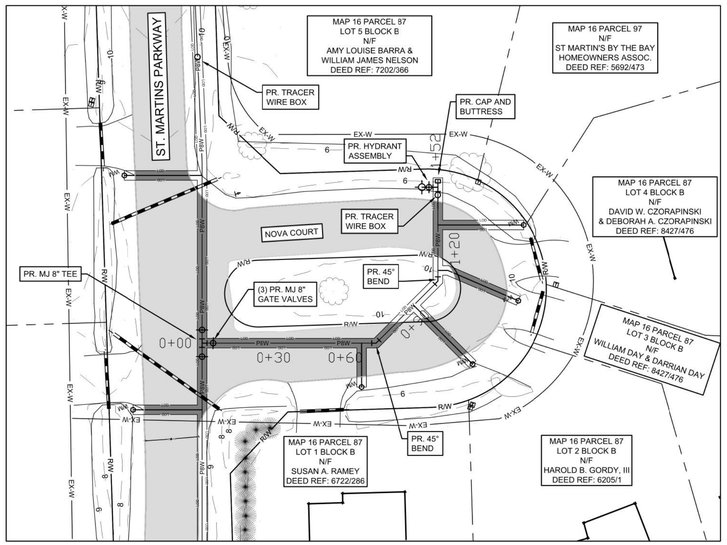
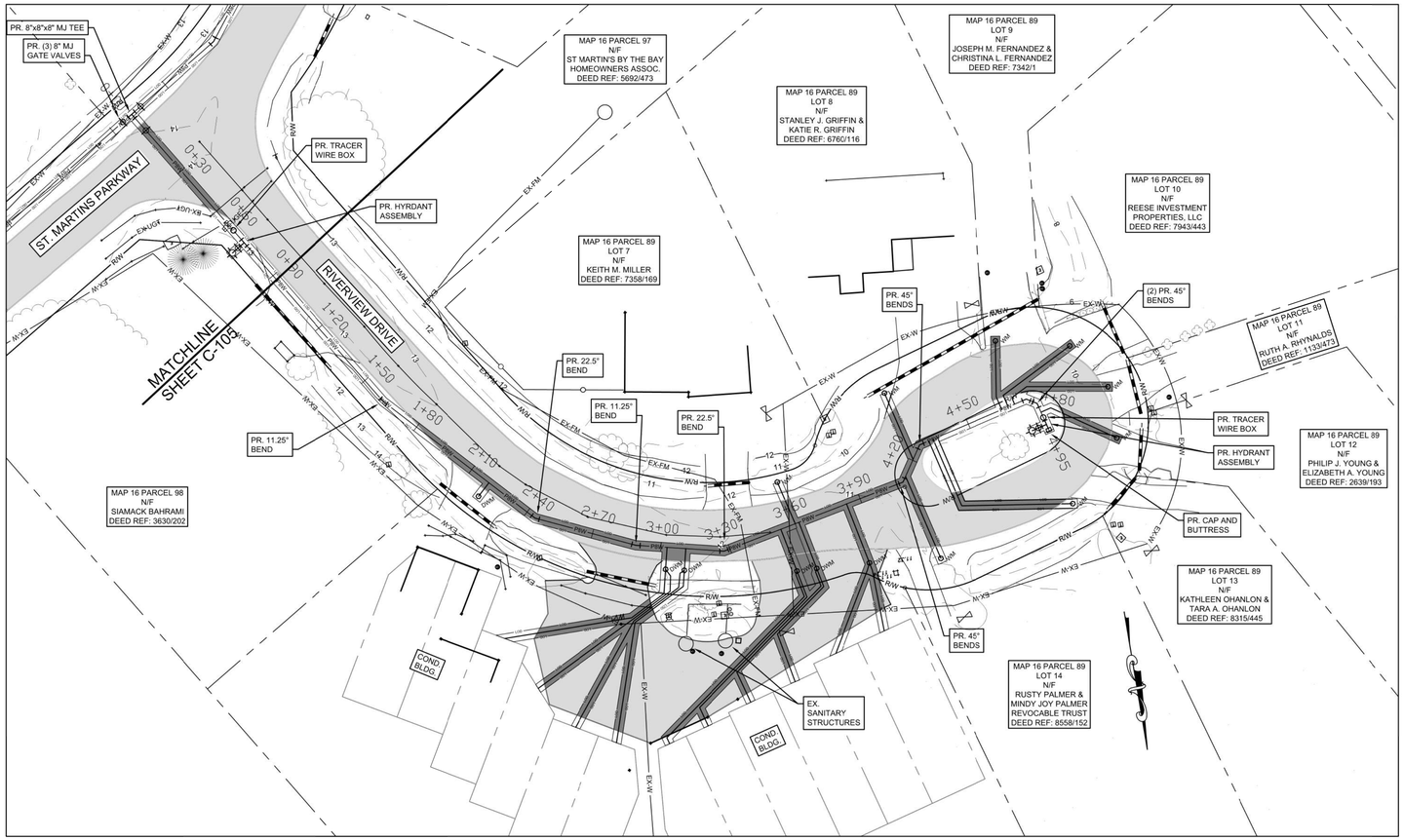


PROPOSED SITE PLAN (NOVA COURT)

1" = 30'

0' 30' 60' 90'

NOTE:
1. EXISTING WATER SERVICES SHOWN ARE BASED ON THE BEST AVAILABLE DATA, AND MAY NOT REPRESENT THE EXACT LOCATION OR LENGTH. ALL SERVICES SHOULD BE LOCATED BY TEST PIT PRIOR TO REPLACEMENT.
2. ALL EXISTING WATERLINES SHALL BE ABANDONED IN PLACE WITH FLOWABLE FILL UNLESS NOTED OTHERWISE.
3. CONTRACTOR SHALL RECONNECT ALL WATER SERVICES TO THE PROPOSED WATER METER ASSEMBLIES.

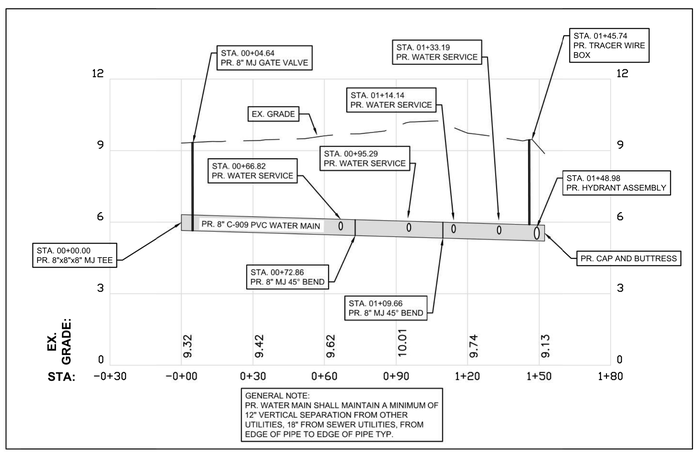


0' 30' 60' 90'

PROPOSED SITE PLAN (RIVERVIEW DRIVE)

1"=30'

NOTE:
1. EXISTING WATER SERVICES SHOWN ARE BASED ON THE BEST AVAILABLE DATA, AND MAY NOT REPRESENT THE EXACT LOCATION OR LENGTH. ALL SERVICES SHOULD BE LOCATED BY TEST PIT PRIOR TO REPLACEMENT.
2. ALL EXISTING WATERLINES SHALL BE ABANDONED IN PLACE WITH FLOWABLE FILL UNLESS NOTED OTHERWISE.
3. CONTRACTOR SHALL RECONNECT ALL WATER SERVICES TO THE PROPOSED WATER METER ASSEMBLIES.



UTILITY PROFILE (NOVA COURT)

SCALE: 1"=30' HORIZ.
1"= 3' VERT.

NOTE:
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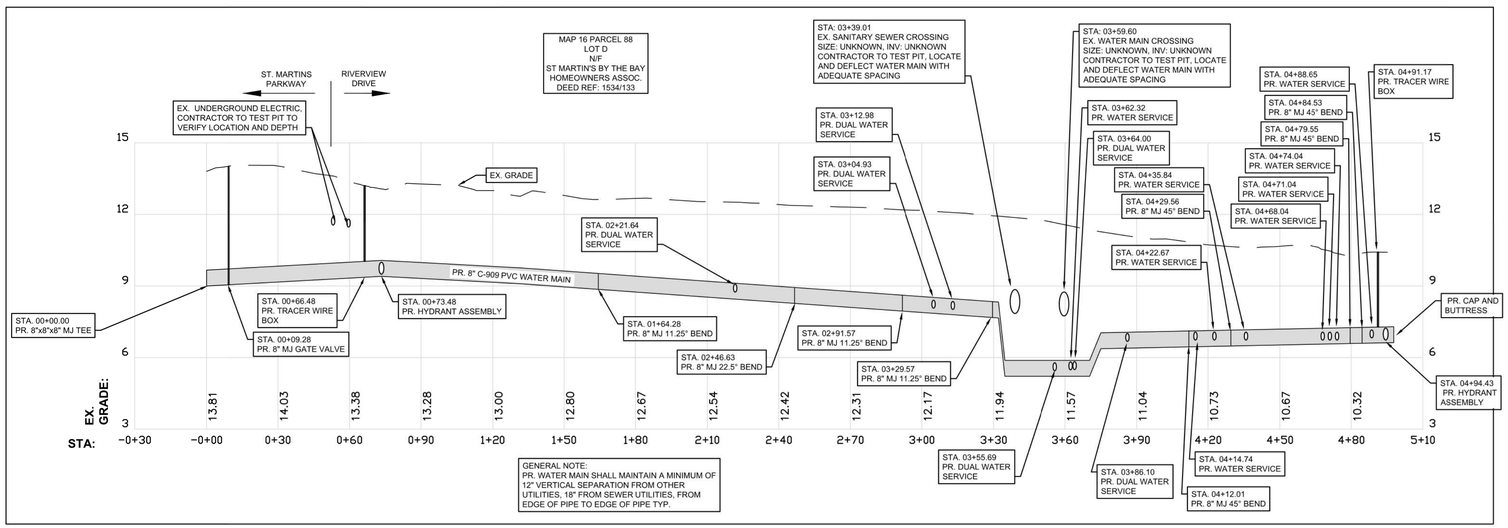

UTILITY PROFILE (RIVERVIEW DRIVE)

SCALE: 1"=30' HORIZ.
1"= 3' VERT.

NOTE:
1. EXISTING WATER SERVICES SHOWN ARE BASED ON THE BEST AVAILABLE DATA, AND MAY NOT REPRESENT THE EXACT LOCATION OR LENGTH. ALL SERVICES SHOULD BE LOCATED BY TEST PIT PRIOR TO REPLACEMENT.

0' 30' 60' 90'

STATE OF MARYLAND
S. S. BRADLEY
57406
PROFESSIONAL ENGINEER
10/6/2026

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland, License No. 57406 Expiration Date: 12-18-2027.

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EASTON, MARYLAND 410.770.4744

ST. MARTINS BY THE BAY
WATER PROJECT
WORCESTER COUNTY MD

DATE	COMMENTS

Date: AUGUST 2026
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Proj.No.: 0085D028

PROPOSED SITE PLAN

Dwg.No.: **C-108**

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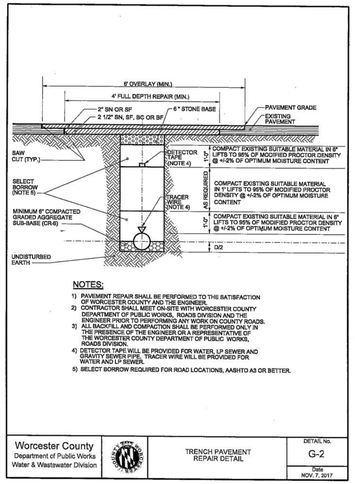
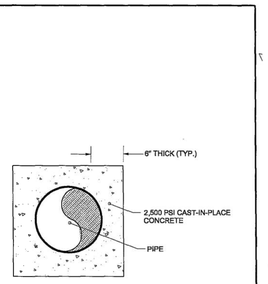


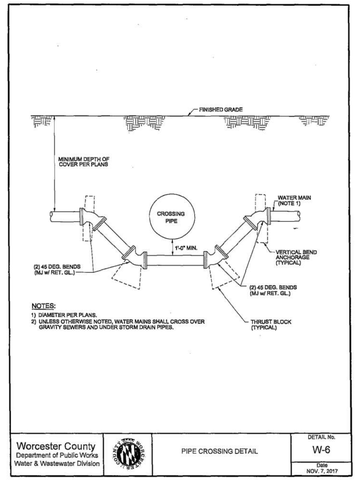
NOTES:

1) PAVEMENT REPAIR SHALL BE PERFORMED TO THE SATISFACTION OF WORCESTER COUNTY AND THE ENGINEER.
2) CONTRACTOR SHALL MEET ON-SITE WITH WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS, ROADS DIVISION AND THE ENGINEER PRIOR TO PERFORMING ANY WORK ON COUNTY ROADS.
3) ALL ROADWAY COMPACTION SHALL BE PERFORMED ONLY IN THE PRESENCE OF THE ENGINEER OR A REPRESENTATIVE OF THE WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS, ROADS DIVISION.
4) DETECTOR TAPE WILL BE PROVIDED FOR WATER, LP SEWER AND GRAVITY SEWER PIPE. TRACER WIRE WILL BE PROVIDED FOR WATER AND LP SEWER.
5) SELECT BORROW REQUIRED FOR ROAD LOCATIONS, AASHTO A3 OR BETTER.

Worcester County Department of Public Works Water & Wastewater Division	TRENCH PAVEMENT REPAIR DETAIL	DETAIL No. G-2	Date NOV. 7, 2017



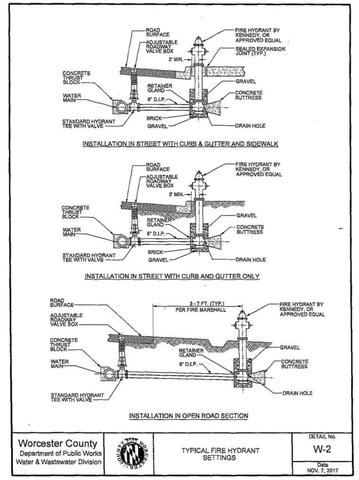
Worcester County Department of Public Works Water & Wastewater Division	CONCRETE ENCASEMENT DETAIL	DETAIL No. G-3	Date NOV. 7, 2017



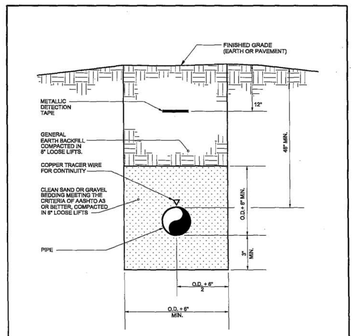
NOTES:

1) DIAMETER PER PLANS.
2) UNLESS OTHERWISE NOTED, WATER MAINS SHALL CROSS OVER GRAVITY SEWERS AND UNDER STORM DRAIN PIPES.

Worcester County Department of Public Works Water & Wastewater Division	PIPE CROSSING DETAIL	DETAIL No. W-6	Date NOV. 7, 2017



Worcester County Department of Public Works Water & Wastewater Division	TYPICAL FIRE HYDRANT SETTINGS	DETAIL No. W-2	Date NOV. 7, 2017



NOTES:

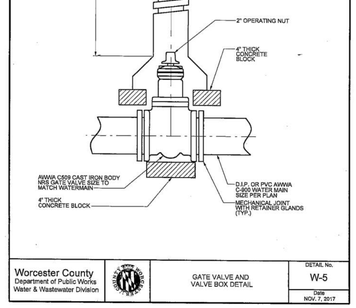
1) MAXIMUM TRENCH WIDTH O.D. +12", NOT TO EXCEED MAXIMUM TRENCH WIDTH WITHOUT WRITTEN PERMISSION OF THE ENGINEER.
2) COMPACTION IN ROADWAY AREAS SHALL BE TO 95% MODIFIED PROCTOR DENSITY. AT +/- 2% OF OPTIMUM MOISTURE CONTENT.
3) COMPACTION IN NON-ROADWAY AREAS SHALL BE TO 90% OF MODIFIED PROCTOR DENSITY. AT +/- 3% OF OPTIMUM MOISTURE CONTENT.

Worcester County Department of Public Works Water & Wastewater Division	PIPE TRENCH / BEDDING	DETAIL No. G-1	Date NOV. 7, 2017

DIAMETER (Ø) OF PIPE		8" OR LESS	8"	12" OR GREATER
HOR. ANGLE: ∠ FROM 10° TO 45°	A:	0.75 FT	1.0 FT	1.5 FT
HOR. ANGLE: ∠ FROM 46° TO 90°	A:	1.0 FT	1.5 FT	2.0 FT
TEE CONNECTION	A:	1.5 FT	1.75 FT	2.5 FT
VERTICAL BEND #6 BAR:	A:	2.0 FT	3.0 FT	4.0 FT
	B:	1.5 FT	2.0 FT	3.0 FT
PLUG OR CAP	A:	1.25 FT	1.5 FT	2.5 FT

1) ALL HORIZONTAL BENDS SHALL HAVE CONCRETE THRUST BLOCKS WITH MINIMUM BEARING AREAS AGAINST UNDISTURBED SOIL, AS SHOWN IN THIS DRAWING.
2) BEARING AREAS ARE BASED UPON UNDISTURBED SOIL WITH A MINIMUM BEARING CAPACITY OF 0.5 TONS PER SQUARE FOOT. FOR LESSER SOIL CAPACITY, THESE AREAS SHALL BE INCREASED ACCORDINGLY.
3) THRUST BLOCKS SHALL BE POURED DIRECTLY AGAINST TRENCH WALLS.
4) NO JOINT SHALL BE COVERED WITH CONCRETE.
5) CONCRETE SHALL BE OF A MINIMUM OF 2500 P.S.I. STRENGTH.

Worcester County Department of Public Works Water & Wastewater Division	THRUST BLOCKS AND VERTICAL BEND ANCHORAGE	DETAIL No. W-4	Date NOV. 7, 2017



Worcester County Department of Public Works Water & Wastewater Division	GATE VALVE AND VALVE BOX DETAIL	DETAIL No. W-5	Date NOV. 7, 2017

STATE OF MARYLAND
NICHOLAS S. BRADLEY
57406
PROFESSIONAL ENGINEER
10/6/2026

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland, License No. 57406 Expiration Date: 12-18-2027.

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ST. MARTINS BY THE BAY WATER PROJECT
WORCESTER COUNTY MD

DATE	COMMENTS

Date: AUGUST 2026
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Proj.No.: 0085D028

DETAILS

Dwg.No.: **C-501**

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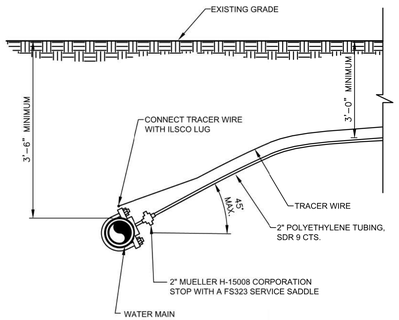
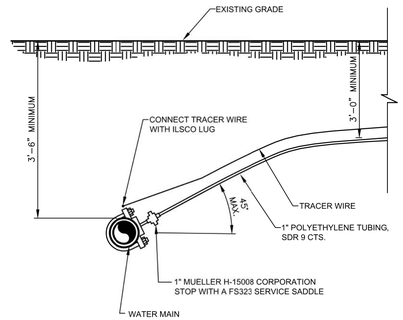


NOTES:
1. SEE SPECIFIC METER DETAILS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
2. DO NOT TORQUE SADDLE WITHOUT PRESSURE IN MAIN.
3. TAPPING TOOL SHALL USE SHELL TYPE CUTTER WHICH RETAINS THE COUPON AND CHIPS. CONTRACTOR TO PROVIDE COUPONS TO RPR FOR EACH SERVICE.
4. EACH SERVICE SHALL BE BLOWN OFF PRIOR TO CONNECTION TO THE METER PIT.

2" WATER SERVICE TAP DETAIL
NOT TO SCALE



NOTES:
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3. TAPPING TOOL SHALL USE SHELL TYPE CUTTER WHICH RETAINS THE COUPON AND CHIPS. CONTRACTOR TO PROVIDE COUPONS TO RPR FOR EACH SERVICE.
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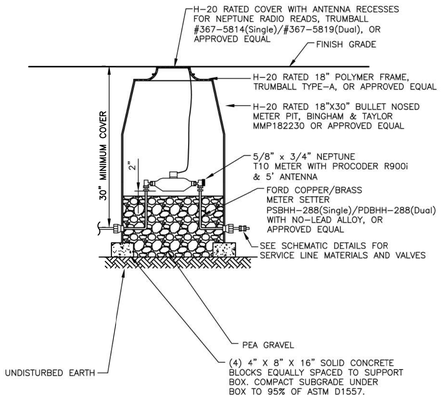
1" WATER SERVICE TAP DETAIL
NOT TO SCALE



NOTES:
1. DO NOT INSTALL PITS IN DITCHES OR SWALES.
2. ALL P.E. PIPE CONNECTIONS SHALL HAVE S.S. INSERT STIFFENERS. WRAPS ALL THREADS WITH TEFLON TAPE.
3. A CERTIFIED FIRE PROTECTION ENGINEER (ENGAGED BY THE PROPERTY OWNER OR DESIGN ENGINEER) SHALL DESIGN AND SIZE THE FIRE PROTECTION SYSTEM AND SERVICE AS REQUIRED FOR THE SPECIFIC APPLICATION.

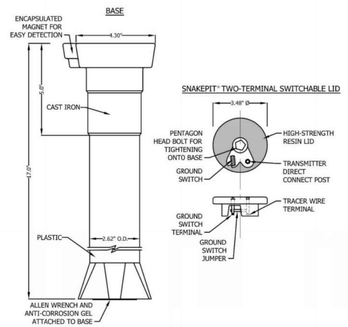
TYPICAL WATER METER ASSEMBLY DETAIL
NOT TO SCALE

Copperhead INDUSTRIES

SNAKEPIT® ROADWAY
with Two-terminal Switchable Lid
ACCESS POINT

APPLICATION
Use to terminate tracer wire systems and provide direct connection to tracer wire and ground rod, at ground level, in roadway applications. Two-terminal Switchable Lid allows locator to switch ground off and on from top of lid to isolate targeted sections of tracer wire systems. **No need to remove lid.**

Package includes: base, lid, anti-corrosion gel, Allen wrench, installation instructions



APWA UNIFORM COLOR CODE
- ELECTRIC
- GAS
- COMMUNICATION
- POTABLE WATER
- SEWER
- RECLAIMED WATER

***RB14*2T-SW**– SnakePit Roadway with Two-terminal Switchable Lid*
(denotes color)*



Patent Pending

FEATURES AND BENEFITS
- Once-and-done installation
- Two-terminal, switchable lid allows for direct connection to tracer wire and ground rod from the top of the lid; single terminal also available
- 5" cast iron collar withstands heavy traffic
- Anti-corrosion gel protects wire
- Locking cover protects against tampering
- Encapsulated magnet allows for detection by a ferrous metal detector
- Lid color-coded to meet American Public Works (APWA) standards for utility identification

SPECIFICATIONS

SCOPE
These specifications apply to the SnakePit® Roadway Access Point with the Two-terminal Switchable Lid.

MATERIAL AND DESIGN
Lid Material
- Non-corrosive, injection molded resin
- Flexural modulus 986000 psi, Conditioned (ISO 178)
- Flexural strength 28300 psi, Conditioned (ISO 178)
- Impact rating 43 (-22°F) / 44 (73°F) ft lb/in², Charpy unnotched (ISO 179/1eU)
- Melting temperature 451° F (ISO 11357-3)
- Hardware
  - pentagon head bolt - anodized aluminum
  - terminals and jumper - brass

Base Material
- High-grade ABS rigid plastic (ASTM D1788, Type 1)
- Cast iron collar

Detection
- Access point base designed with magnet securely attached to be easily detected by magnetic locators even when access point is covered by soil, sod and/or paving material

Security
- Locking mechanism secures lid to base in a closed position
- Notched bolt end prevents loss of locking mechanism
- Locking mechanism can only be removed with the proper pentagon wrench

Shape
- Tubular (cylindrical) construction with removable round lid
- Support flange at base

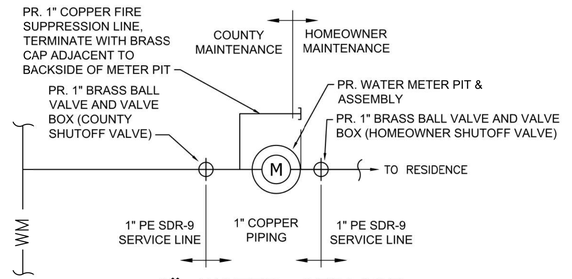
Wire Connections
- Ground switch/terminal used to connect ground wire and to engage/disengage the ground connection
- Ground switch designed to resist unintentional switching - use plyers to switch on/off
- Ground switch, when in 'OFF' position, may be used to ground locate transmitter
- Direct connect post designed for utility locate transmitter positive lead
- Set screws used to secure tracer wire and ground wire to terminals
- Anti-corrosion gel supplied with lid must be applied to wire connections and ground switch jumper to protect connection points
- Access point designed for operational access to underground tracer wire systems

Lid Position
- Access point designed so that when installed, the collar will be flush with the surface and contain the lid so that it will not be in contact with the adjoining backfill or pavement
- The top surface of the access point lid is flush with the top of the base. The top of the bolt, when completely tightened, is flush with or below the lid surface.

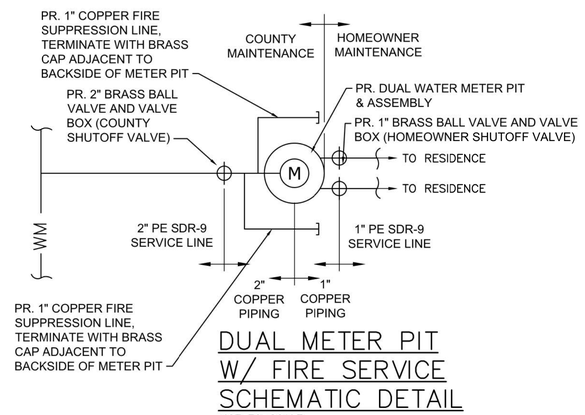
QUALITY ASSURANCE
- Copperhead products are manufactured under a quality control system that ensures products are free of defects and meet performance requirements.
- Copperhead provides best-in-class customer service. We promise to put forth our best efforts for our customers and to treat everyone we encounter with courtesy and respect.

copperheadwire.com | 877-726-5644 | 9530 Fallon Avenue NE / P.O. Box 1081 Monticello, MN 55362 MADE IN THE USA

TRACER WIRE BOX DETAIL
NOT TO SCALE



1" WATER SERVICE W/ FIRE SERVICE SCHEMATIC DETAIL
NOT TO SCALE



DUAL METER PIT W/ FIRE SERVICE SCHEMATIC DETAIL
NOT TO SCALE

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland. License No. 57406 Expiration Date: 12-18-2027.
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ST. MARTINS BY THE BAY
WATER PROJECT
WORCESTER COUNTY MD

DATE	COMMENTS

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Proj.No.: 0085D028

DETAILS

Dwg.No.: **C-502**

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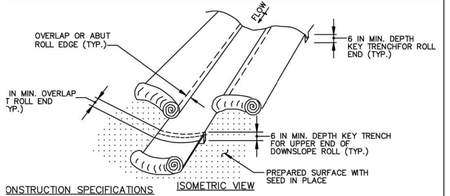
DETAIL B-4-6-A TEMPORARY SOIL STABILIZATION MATTING CHANNEL APPLICATION

STANDARD SYMBOL: TSSMC – * lb/ft² (* INCLUDE SHEAR STRESS)



ISOMETRIC VIEW

ONSTRUCTION SPECIFICATIONS

USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.

USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN–MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON–LEACHING AND NON–TOXIC TO VEGETATION AND SEED GERMINATION AND NON–INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.

SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH–SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.

PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTERLINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MAT SMOOTHLY AND FIRMLY ON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.

KEY–IN UPSTREAM END OF EACH MAT ROLL BY DIGGING A 6 INCH (MINIMUM) TRENCH AT THE UPSTREAM END OF THE MATTING, PLACING THE ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END.

OVERLAP OR ABUT THE ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.

STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.

ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B–4 VEGETATIVE STABILIZATION.

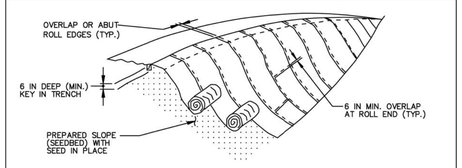
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE TURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

B.38

DETAIL B-4-6-B TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL: TSSMS – * lb/ft² (* INCLUDE SHEAR STRESS)



ISOMETRIC VIEW

CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN–MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON–LEACHING AND NON–TOXIC TO VEGETATION AND SEED GERMINATION AND NON–INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH–SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWNSLOPE. LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE UPSLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B–4 VEGETATIVE STABILIZATION.

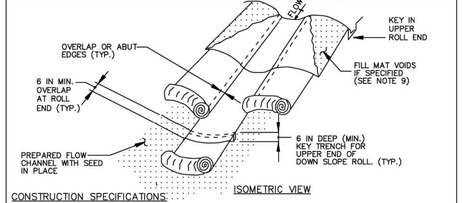
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

B.39

DETAIL B-4-6-C PERMANENT SOIL STABILIZATION MATTING CHANNEL APPLICATION

STANDARD SYMBOL: PSSMC – * lb/ft² (* INCLUDE SHEAR STRESS)



ISOMETRIC VIEW

CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON–DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON–LEACHING AND NON–TOXIC TO VEGETATION AND SEED GERMINATION AND NON–INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGTUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH–SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B–4 VEGETATIVE STABILIZATION.

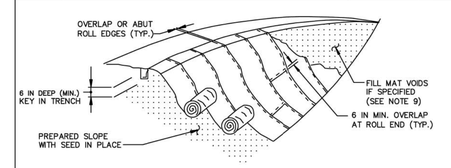
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

B.40

DETAIL B-4-6-D PERMANENT SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL: PSSMS – * lb/ft² (* INCLUDE SHEAR STRESS)



ISOMETRIC VIEW

CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON–DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON–LEACHING AND NON–TOXIC TO VEGETATION AND SEED GERMINATION AND NON–INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGTUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH–SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWN SLOPE. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B–4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

B.41

B-4-8 STANDARDS AND SPECIFICATIONS

FOR

STOCKPILE AREA

Definition

A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

Purpose

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies

Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

Criteria

1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.
3. Runoff from the stockpile area must drain to a suitable sediment control practice.
4. Access the stockpile area from the upgrade side.
5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.

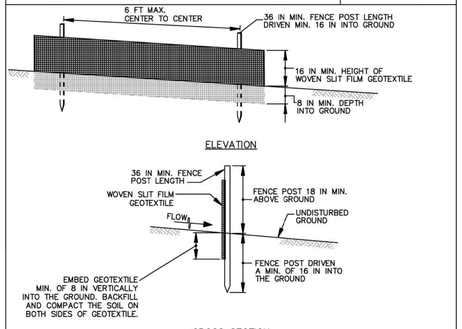
Maintenance

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

B.43

DETAIL E-1 SILT FENCE

STANDARD SYMBOL: ——SF——



1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

E.2

DETAIL E-1 SILT FENCE

STANDARD SYMBOL: ——SF——

CONSTRUCTION SPECIFICATIONS

1. USE WOOD POSTS 1¾ X 1¾ ± ⅛ INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
3. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H–1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID–SECTION.
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H–1 MATERIALS.
5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

2 OF 2

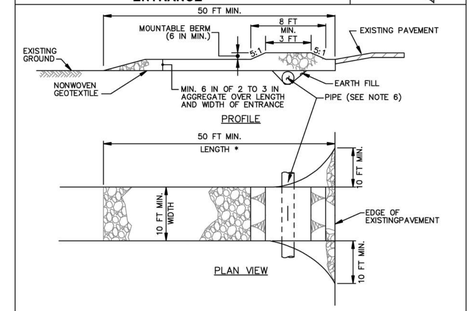
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

E.3

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE



CONSTRUCTION SPECIFICATIONS

1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H–1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

B.2

STATE OF MARYLAND
NICHOLAS S. BRAUN
E7406
PROFESSIONAL ENGINEER
10/8/2026

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer in the laws of the State of Maryland, License No. E7406 Expiration Date: 12-18-2027.

DAVIS BOWEN & FRIEDEL, INC.
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ST. MARTIN'S BY THE BAY
WATER PROJECT
WORCESTER COUNTY MD

DATE	COMMENTS

Date: AUGUST 2026
Scale: AS SHOWN
Dwn.By: NSB
Proj.No.: 0085D028

EROSION & SEDIMENT CONTROL DETAILS

Dwg.No.: **CG501**

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MARYLAND DEPARTMENT OF THE ENVIRONMENT
STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS
PER MDE SCE 2011 SEC MANUAL, TABLE B-4-2

A. SOIL PREPARATION
1. TEMPORARY STABILIZATION
   a. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
   b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
   c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
2. PERMANENT STABILIZATION
   a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
      i. SOIL PH BETWEEN 6.0 AND 7.0.
      ii. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
      iii. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
      iv. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
      v. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
   b. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
   c. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
   d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
   e. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.

B. TOPSOILING
1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
   a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
   b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
   c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
   d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
4. AREAS HAVING SLOPES STEEPER THAN 2: 1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
   a. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1½ INCHES IN DIAMETER.
   b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
   c. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
6. TOPSOIL APPLICATION
   a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
   b. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
   c. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDRO SEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

STANDARD STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE; PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:

a. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND

b. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED

TEMPORARY SEEDING SUMMARY

SEED MIXTURE (HARDINESS ZONE 7b) FROM TABLE 26					FERTILIZER RATE (10-20-20)	LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS		
4	ANNUAL RYE	40	2/15 - 4/30 8/15-11/30	1/2"	436 lb/ac (10lb/1000sf)	2 tons/ac (90lb/1000sf)
5	MILLET	30	5/1-8/14	1/2"		

MARYLAND DEPARTMENT OF THE ENVIRONMENT
STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING
PER MDE SCE 2011 SEC MANUAL, TABLE B-4-3

A. SEEDING
1. SPECIFICATIONS
   a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY IF ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING. SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
   b. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.
   c. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
   d. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
2. APPLICATION
   a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
      i. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.
      ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
   b. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
      i. CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
      ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
   c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
      i. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P2O5 (PHOSPHOROUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.
      ii. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
      iii. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
      iv. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING
1. MULCH MATERIALS (IN ORDER OF PREFERENCE)
   a. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. **NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.**
   b. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
      i. WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
      ii. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
      iii. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
      iv. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
      v. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.
2. APPLICATION
   a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
   b. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
   c. WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
3. ANCHORING
   a. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:
      i. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
      ii. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
      iii. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. **USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.**
      iv. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL".
2. A PERIODIC MAINTENANCE OF ALL SEDIMENT CONTROL MEASURES SHALL BE REQUIRED TO INSURE EFFECTIVE SEDIMENT CONTROL. INSPECTION OF ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MADE WEEKLY AND AFTER EACH RAINFALL.
3. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ESTABLISHED.
4. ALL AREAS NOT COVERED BY BUILDINGS, PAVEMENT, OR OTHER SUITABLE LANDSCAPING WILL BE SEEDED USING PERMANENT SEED MIXTURE SHOWN ON THIS PLAN.
5. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING. THE REQUIREMENTS OF THIS SUBPARAGRAPH DO NOT APPLY TO THOSE AREAS WHICH ARE SHOWN ON THE PLAN AND ARE CURRENTLY BEING USED FOR MATERIAL STORAGE OF FOR THESE AREAS ON WHICH ACTUAL CONSTRUCTION ACTIVITIES ARE CURRENTLY BEING PERFORMED.
6. THE WORCESTER SOIL CONSERVATION DISTRICT RESERVES THE RIGHT TO REQUIRE ADDITIONAL SEDIMENT AND EROSION MEASURES DURING THE CONSTRUCTION OF THIS PROJECT.
7. SEEDING (PERMANENT)
   A. SHALL BE CONDUCTED BETWEEN MARCH 1 TO MAY 15 OR AUGUST 15 TO OCTOBER 15.
   B. SEED BED PREPARATION: APPLY FERTILIZER PER "PERMANENT SEEDING SUMMARY" ON THIS SHEET. HARROW OR DISC INTO SOIL TO A DEPTH OF 3 TO 5 INCHES. APPLY GRANULATED LIMESTONE AT 2 TONS PER ACRE.
   C. SEEDING: APPLY SEEDING PER "PERMANENT SEEDING SUMMARY" ON THIS SHEET.
   D. MULCHING: IMMEDIATELY AFTER SEEDING, UNIFORMLY MULCH ENTIRE AREA WITH UNWEATHERED SMALL GRAIN STRAW AT A RATE OF 2.5 TONS PER ACRE. MULCH TO BE ANCHORED WITH MULCH ANCHORING TOOL ON THE CONTOUR.
8. TEMPORARY STABILIZATION:
   A. SEED BED PREP: APPLY 10 LB PER 1,000 SQ FT OF 10-20-20 FERTILIZER.
   B. PROVIDE TEMPORARY SEEDING WITH 40 LBS. PER ACRE ANNUAL RYE SEED DURING THE PERIODS OF FEBRUARY 15 TO APRIL 30 AND AUGUST 15 TO NOVEMBER 30, OR 30LBS. PER ACRE MILLET BETWEEN MAY 1 AND AUGUST 14, BETWEEN FALL AND SPRING SEEDING DATES USE MULCH ONLY IF GROUND IS FROZEN AND RESEED WHEN THAWED.
   C. MULCH PER 7.D. ABOVE.
9. IF TEMPORARY STABILIZATION IS REQUIRED, PERMANENT SEEDING SHALL BE PERFORMED DURING THE NEXT APPLICABLE PERIOD PER PARAGRAPH (7) ABOVE.
10. ALL FILL SLOPE AREAS SHOWN HEREON ARE TO BE STABILIZED PER PARAGRAPHS (7) OR (8) ABOVE IMMEDIATELY AFTER COMPLETION OF GRADING OPERATIONS FOR THESE SLOPES.
11. INSTALL EROSION CONTROL MATTING ON ALL SLOPES 3:1 OR GREATER.
12. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
13. A MARYLAND DEPARTMENT OF THE ENVIRONMENT NOTICE OF INTENT (NOI) GENERAL PERMIT FOR CONSTRUCTION ACTIVITY IS REQUIRED FOR ALL CONSTRUCTION ACTIVITY IN MARYLAND WITH A PLANNED TOTAL DISTURBANCE OF 1 ACRE OR MORE.
14. AS MANDATED BY THE NOTICE OF INTENT (NOI) GENERAL PERMIT ISSUED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, AN INSPECTION MUST BE PERFORMED ONSITE OF ALL SEDIMENT CONTROLS ON A WEEKLY BASIS AND AFTER EVERY RAINFALL EVENT. ALL SELF INSPECTIONS MUST BE MAINTAINED ALONG WITH ALL APPLICABLE GOVERNING AGENCY INSPECTION REPORTS IN A LOG BOOK, TO BE KEPT ON-SITE AT ALL TIMES.
15. APPROVAL SHALL BE REQUESTED UPON FINAL STABILIZATION OF ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES BEFORE REMOVAL OF SEDIMENT CONTROLS.
16. APPROVED PLANS REMAIN VALID FOR 3 YEARS FROM THE DATE OF APPROVAL. EXCEPT SURFACE MINES AND LANDFILL PLANS WHICH REMAIN VALID FOR 5 YEARS FROM THE DATE OF UNLESS SPECIFICALLY EXTENDED OR RENEWED BY THE APPROVAL AUTHORITY.
17. THE DEVELOPER SHALL REQUEST THAT THE INSPECTION AGENCY APPROVE WORK COMPLETED AT THE STAGES OF CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, THE GRADING OR BUILDING PERMIT.
18. THE CONTRACTOR SHALL PERFORM DAILY STREET SWEEPING FOR ALL IMPERVIOUS SURFACES ADJACENT TO THE PROJECT, THROUGHOUT THE PROJECT.
19. NO SITE REGRADING IS ANTICIPATED FOR THIS PROJECT. ALL EXISTING SURFACES DISTURBED BY THE PROJECT WILL BE RESTORED TO ORIGINAL CONDITIONS AND GRADES.

SEQUENCE OF CONSTRUCTION

1. NOTIFY THE WORCESTER COUNTY DEPARTMENT OF ENVIRONMENTAL PROGRAMS 410-632-1220, THE WORCESTER COUNTY PUBLIC WORKS 410-641-5251, AND THE DESIGN ENGINEER 410-543-9091 TWO WEEKS PRIOR TO START OF CONSTRUCTION TO REQUEST A PRE-CONSTRUCTION MEETING.
2. CLEARING AND GRUBBING FOR THOSE AREAS NECESSARY FOR INSTALLATION OF PERIMETER CONTROLS.
3. CONSTRUCT AND STABILIZE PERIMETER CONTROLS. SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE WHERE APPLICABLE. THERE ARE EXISTING IMPERVIOUS/STABILIZED SURFACES LOCATED AT PROJECT ENTRANCES, HOWEVER ADDITIONAL STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS REQUIRED BY THE COUNTY/MDE INSPECTOR.
4. PERFORM ALL TEST PITS FOR EXISTING UTILITIES.
5. INSTALL PROPOSED WATERMAIN AND PERFORM ALL TESTING REQUIRED.
6. REPLACE WATER SERVICE LINES TO EACH USER PERFORM ALL OTHER SITE WORK AS NOTED ON THE PLANS.
7. DEMOLISH AND ABANDON EXISTING WATERMAIN.
8. PROVIDE SAFE CONVEYANCE OF STORMWATER FLOWS DURING CONSTRUCTION. MAINTAIN ESC CONTROLS AS NECESSARY TO MEET ALL REQUIREMENTS OF THE COUNTY/STATE ESC STANDARDS.
9. PROVIDE FINAL GRADING/PAVING.
10. RESTORE ALL DISTURBED AREAS PER THE EROSION AND SEDIMENT CONTROL NOTES ON THIS DRAWING. ALL DISTURBED AREAS ARE TO BE SEEDED AND MULCHED WITHIN 7 DAYS OF INITIAL DISTURBANCE OR WITHIN 3 DAYS FOR SLOPES OVER 3:1.
11. CONTRACTOR TO REMOVE ALL TRASH AND DEBRIS FROM SITE. THE CONTRACTOR MUST OBTAIN FINAL ACCEPTANCE FROM THE TOWN, COUNTY, AND STATE FOR ESC REQUIREMENTS.
12. REMOVAL OF CONTROLS AFTER STABILIZATION/ACCEPTANCE BY THE TOWN, COUNTY, AND STATE.
13. USE OF THIS INFORMATION DOES NOT PRECLUDE MEETING ALL THE REQUIREMENTS OF THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL".

PERMANENT SEEDING SUMMARY

SEED MIXTURE (HARDINESS ZONE 7b) FROM TABLE 25					FERTILIZER RATE (10-20-20)			LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS	N	P_2O_5	K_2O	
3	Select Three Grasses: DEERTONGUE SHEEP FESCUE OR CANADA WILD RYE REDTOP Plus One of the following Legumes: COMMON LESPEDEZA KOREAN LESPEDEZA	20 20 3 1 10 10	3/1 - 5/15 8/15-11/15	1/4" - 1/2"	45lb/ac (1 lb/ 1000sf)	90lb/ac (2 lb/ 1000sf)	90lb/ac (2 lb/ 1000sf)	2 tons/ ac (90lb/ 1000sf)

CONSULTANT'S CERTIFICATION

I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL HAS BEEN DESIGNED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS. THE ONLY EXCEPTION TO THIS REQUIREMENT MAY BE IF A STORMWATER WAVIER IS APPROVED, AND IT WILL BE AT THE DISCRETION OF THE APPROVAL AUTHORITY.

NICHOLAS S. BRADLEY JR, P.E. — 57406 Exp: 12/18/27
PRINTED NAME — MD LICENSE NUMBER & EXPIRATION DATE

RESPONSIBLE PERSONNEL CERTIFICATION

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION PRIOR TO BEGINNING THE PROJECT. I/WE HEREBY CERTIFY RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY THE WORCESTER COUNTY SOIL CONSERVATION DISTRICT AND/OR MDE."

Lee Beauchamp - W/WW Superintendent
OWNER'S REPRESENTATIVE - PRINTED NAME AND TITLE

Lee Beauchamp — 24Aug2026
OWNER'S REPRESENTATIVE - SIGNATURE — DATE

WORCESTER COUNTY PUBLIC WORKS
1000 SHORE LANE
BERLIN, MD 21811
PHONE: (410) 641-5251

STANDARD STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:

A. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND

B. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

RESPONSIBILITY OF CONTACT

THE GENERAL CONTRACTOR SHALL CONTACT THE APPROPRIATE ENFORCEMENT AUTHORITY OR ITS AGENT AT THE FOLLOWING STAGES OR THE PROJECT:
A. PRIOR TO THE START OF EARTH DISTURBANCE;
B. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING,
C. PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT,