GENERAL NOTES:

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH BALTIMORE COUNTY STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION DATED SEPTEMBER, 2023 AND AMENDED.
- 2. NOTIFY BALTIMORE CITY BUREAU OF WATER AND WASTEWATER AT 410-396-3671 72 HOURS BEFORE STARTING
- 3. NOTIFY WATER AND WASTEWATER MAINTENANCE DIVISION AT 410-396-7807 AT LEAST THREE (3) DAYS PRIOR TO STARTING CONSTRUCTION.
- 4. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 FOUR (4) DAYS PRIOR TO BEGINNING OF WORK.
- 5. ONLY BALTIMORE CITY SHALL OPERATE EXISTING VALVES. CONTRACTORS SHALL NOTIFY THE BALTIMORE COUNTY INSPECTOR TO ARRANGE A SHUTDOWN WITH THE CITY AT LEAST TWO (2) WEEKS PRIOR TO PROPOSED SHUTDOWN. IF THE INSPECTOR IN THE FIELD IS UNAVAILABLE, CALL THE BALTIMORE COUNTY AREA ENGINEER AT 410-887-3531.
- 6. ONLY THAT SECTION OF THE TRENCH SHALL BE OPENED WHICH CAN BE BACKFILLED AND STABILIZED IN ONE DAY. THE END OF THE PIPE SHALL BE PLUGGED OR CAPPED AND PLATED OVER AT THE END OF EACH WORK DAY
- WHEN EXCAVATING FOR
- 8. FULL COMPACTION TO
- 9. ALL WORK SHALL BE
- 10. MAIN SHALL HAVE A
- 11. THE COST OF (I) CONS SEWER AND WATER HO CONNECTIONS SHALL
- 12. WHEN CROSSING EXIST CONSTRUCTION. (COST
- 13. CONTRACTOR SHALL T OR CONNECTED, INCLU FOR THIS TEST PITTING
- 14. REMOVAL OF EXISTING CONSIDERED INCIDENTA BE INCLUDED IN THE
- 15. THE CONTRACTOR SHA WORK.
- 16. CONTRACTOR SHALL V
- 17. ABANDONED EXISTING PRICE FOR WATER MAI
- 18. CONTRACTOR TO REPL NEW METER VAULT WIT WHETHER TO USE EXIS THE CORPORATION IS TRANSFERS SHALL BE
- 19. COST ASSOCIATED WIT CONSIDERED INCIDENTA ABANDONMENT OF EXIS
- 20. ON NEW OR RELOCATE VALVE WILL BE BOLTED RESTRAINED TO EACH OTHER BY RESTRAINING GLANDS.
- 21. ALL DIP FITTINGS SHALL BE RESTRAINED AND INSTALLED WITH MEGA-LUG OR APPROVED EQUAL TYPE RESTRAINED JOINTS OR IT SHALL BE INSTALLED WITH BUTTRESS OR THRUST BLOCK. ALL DUCTILE IRON PIPE TEES AND TAPPING TEES WILL REQUIRE A BUTTRESS ACCORDING TO BALTIMORE COUNTY DETAIL W-4, UNLESS IT IS RESTRAINED IN ALL DIRECTIONS OF THE TOTAL RESULTING THRUST. COST TO BE INCLUDED IN THE PRICE BID FOR THE PROPOSED WATER
- 22. THE LOCATION AND DEPTH OF THE EXISTING UTILITIES ARE NOT GUARANTEED CORRECT AND MUST BE MARKED BY MISS UTILITY PRIOR TO CONSTRUCTION. HOWEVER TEST PITTING BY THE CONTRACTOR (PRIOR TO CONSTRUCTION) MAY BE NECESSARY TO ADEQUATELY VERIFY THE ACTUAL LOCATION AND DEPTH OF EXISTING UTILITIES AT CROSSINGS. ALL TEST PITTING MUST BE APPROVED BY THE ENGINEER.
- 23. ALL DUCTILE IRON PIPE SHALL BE SPECIAL THICKNESS CLASS 54.

SMG

4/28/25

KCI TECHNOLOGIES, INC.

AS-BUILT PER RECORD PRINT

PROFESSIONAL CERTIFICATION

- 24. DUCTILE IRON FITTINGS SHALL MEET LATEST AWWA C110/A21.10 AND AWWA C153/A21.53. (PRESSURE RATING SHALL BE 350 PSI.)
- 25. ALL DUCTILE IRON PIPE AND FITTINGS SHALL HAVE BONDED COATINGS AND FULL CATHODIC PROTECTION.
- 26. ALL DUCTILE IRON PIPE AND FITTINGS ON THIS PROJECT SHALL BE RESTRAINED WITH EXISTING AND/OR NEW PIPE SYSTEM, AT ALL LOCATIONS INCLUDING AT TIE-INS AND CROSSINGS.
- 27. THE CONTRACTOR SHALL INSTALL NON-DETECTABLE TAPE ON THE NEW PIPE. REFER TO SPECIAL PROVISIONS FOR
- 28. ALL SHUTDOWNS FOR THE TIE-INS OF THE WATER MAINS SHALL BE BRIEF, AFFECTING THE LEAST POSSIBLE SERVICES 7. AND BETWEEN 9:00 PM AND 6:00 AM ON WEEKENDS OR AS DIRECTED BY THE ENGINEER
- 29. ALL BUSINESSES AND RESIDENTS SHALL BE INFORMED AT LEAST SEVEN DAYS PRIOR TO SHUTDOWN OF THEIR
- 30. THE LOCATION OF FIRE HYDRANTS SHOWN ON THE PLAN ARE APPROXIMATE, CONTRACTOR SHALL COORDINATE THE ULTIMATE LOCATION IN RESPECT TO THE FACE OF CURB FOR EACH FIRE HYDRANT WITH THE ENGINEER. ENGINEER SHALL APPROVE EVERY HYDRANT LOCATION PRIOR TO WORK BEING CARRIED OUT.
- 31. THE CONTRACTOR SHALL REMOVE WATER METERS WHICH ARE TO BE ABANDONED AND RETURN THEM TO BALTIMORE CITY AS DIRECTED.
- 32. THE CONTRACTOR SHALL REMOVE THE TOP PORTIONS OF VALVE VAULTS, METER VAULTS AND ROADWAY BOXES TO BE ABANDONED AND BACKFILL THE AREA. FITTINGS AND APPURTENANCES TO BE ABANDONED WHICH CONFLICT WITH NEW CONSTRUCTION SHALL BE REMOVED. NO EXTRA PAYMENT WILL BE GIVEN FOR THIS PROJECT.
- 33. THE CONTRACTOR SHALL RESTORE THE SURFACE WITH MATERIALS APPROPRIATE TO THE SITE AS DIRECTED BY THE ENGINEER.

CHIEF, OFFICE OF ENGINEERING AND CONSTRUCTION

DRAWN BY:

CITY OF BALTIMORE

4/30/25

AS-BUILT / REVISION

CONTRACT COMPLETION BOX

DATE REVIEWED:

DATE

HIGHWAYS

3/25/25

STRUCTURES

Steve Sharkey

DIRECTOR, DEPT. OF PUBLIC WORKS

R.O.W NO.

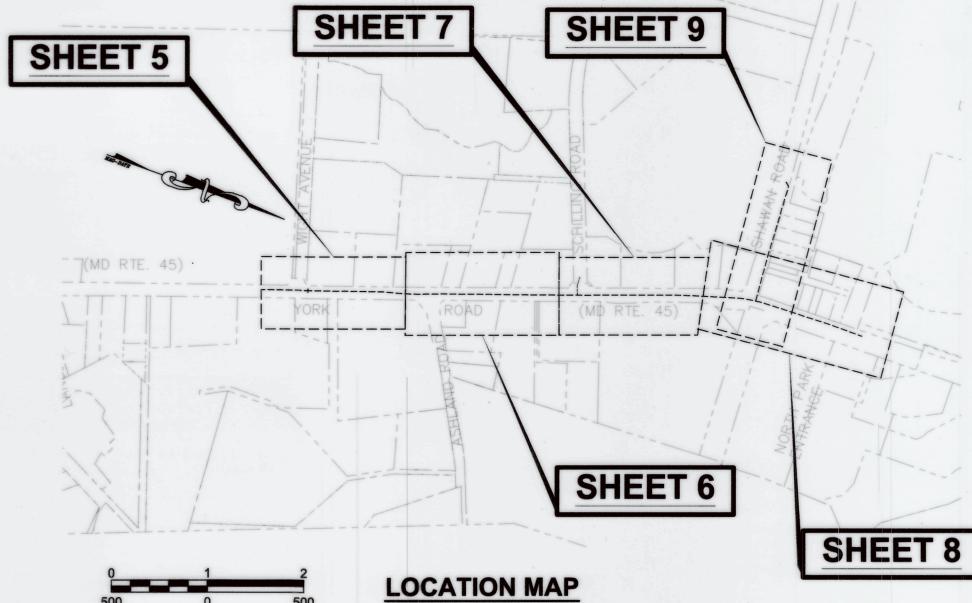
STORM DRAINS

BY DATE P.W.A. NO. KEY SHEET POSITION S

BALTIMORE COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION BUREAU OF ENGINEERING AND CONSTRUCTION

WATER MAIN REPLACEMENT - PHASE 5 VODE DOAD - MD DOUTE 15



- **BALTIMORE GAS & ELECTRIC NOTES** THE CONTRACTOR SHALL NOTIFY MICHAEL STEIN AT BGE (MICHAEL.STEIN@BGE.COM), AT LEAST TWO (2) FULL WORKING DAYS PRIOR TO CUTTING ANY ABANDONED GAS LINES.
- 2. IF CAST IRON, STEEL OR PLASTIC GAS MAINS ARE EXPOSED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT BGE AT 410-685-0123 TO ARRANGE FOR ENGINEERING APPROVAL OF THE SUPPORT, PROTECTION AND INSPECTION METHODS FOR THE GAS MAINS.

SCALE 1" = 500'

CONTRACTOR SHALL TEST HOLE ALL GAS FACILITY CROSSINGS PRIOR TO CONSTRUCTION.

REVISION - CITY OF BALTIMORE

DRAWING SCALE

PLAN SCALE: AS SHOWN

N/A

71NW7

WATER

SEWER

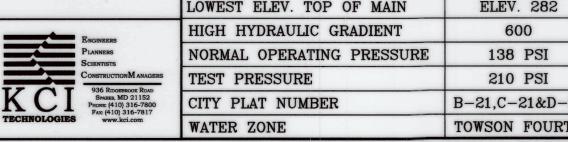
- 4. CONTRACTOR SHALL MAINTAIN EITHER 12" VERTICAL OR 4' HORIZONTAL CLEARANCE FROM ALL GAS FACILITIES THIS DOCUMENT INCLUDES INFORMATION AND DEPICTIONS OF BALTIMORE GAS AND ELECTRIC COMPANY'S (BGE) ELECTRIC AND/OR GAS UTILITIES LOCATED WITHIN THE PROJECT AREA (THE "BGE UTILITY INFORMATION"). LOCATIONS, DIMENSIONS, DEPTHS, AND OTHER DETAILS OF ANY SUCH UTILITIES MAY NOT BE AS-BUILT, AND THE INFORMATION SHALL NOT BE RELIED UPON WITHOUT FIELD VERIFICATION. EXCAVATORS MUST EMPLOY SAFE DIGGING BEST PRACTICES WHEN APPROACHING BGE ELECTRIC AND GAS UTILITIES AND COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, INCLUDING BUT NOT LIMITED TO, THE "MISS UTILITY LAW." NO REPRESENTATIONS, GUARANTEES, OR WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY BGE AS TO THE QUALITY,
- COMPLETENESS, OR ACCURACY OF THE BGE UTILITIES. THE CONTRACTOR WILL BE RESPONSIBLE FOR ADJUSTING FRAMES AND COVERS OVER BGE FACILITIES. PLEASE CONTACT JOE REGAN, PAVING DEPARTMENT,
- WITH ANY QUESTIONS OR CONCERNS, AT 410-470-6373 OR MAPREQUEST@BGE.COM FOR CURRENT GAS UTILITY MAPS. NOTIFY "MISS UTILITY" ON 1-800-257-7777 AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING WORK SO THAT BGE CAN ARRANGE TO MARK THE LOCATION OF THEIR FACILITIES. IN MAKING THIS NOTIFICATION, THE CONTRACTOR SHOULD: 1) STATE THE NATURE OF THE WORK TO BE DONE; 2) GIVE THE LOCATION OF THE JOB; 3) WHEN DIGGING ADJACENT TO AND CROSSING THESE FACILITIES. FOR ANY OVERHEAD FACILITIES IN THE AREA, THE CONTRACTOR SHOULD ADHERE TO MARYLAND HIGH VOLTAGE LINE ACT.
- BGE RESERVES THE RIGHT TO SEEK REIMBURSEMENT FOR ANY WORK IN THE AREA TO THE EXTENT THAT THE LEGAL STATUS OF BGE FACILITIES JUSTIFIES
- PRIOR TO CONSTRUCTION, A SITE WALK THROUGH SHALL BE ARRANGED WITH THE COUNTY INSPECTOR, CONTRACTOR AND BGE REPRESENTATIVE TO DETERMINE THE EXACT WORK REQUIRED AND TO SEE IF FIELD ADJUSTMENTS CAN BE MADE TO AVOID ANY ELECTRIC CONFLICTS. THE CONTRACTOR MUST MAINTAIN 10' CLEARANCE AT ALL TIMES TO COMPLY WITH THE MARYLAND HIGH VOLTAGE LINE ACT. IF EQUIPMENT IS TOO LARGE TO WORK UNDER ENERGIZED WIRES OR IF DITCH IS TOO WIDE TO SAFELY LEAVE POLES AT THEIR EXISTING LOCATIONS, THEN FURTHER RENEWAL LOCATIONS WILL BE NECESSARY AT THE EXPENSE OF THE CONTRACTOR. THE CONTRACTOR SHALL CONTACT JASON CROSSE, 667-313-2722, JASON.CROSSE@BGE.COM, TO SCHEDULE THE FIELD MEETING.
- THIRTY (30) DAY NOTICE WILL BE NECESSARY TO STUB POLES AND SIX (6) MONTHS TO DESIGN AND BUILD IF POLE RENEWAL OR RELOCATIONS ARE NECESSARY. ALL COSTS ASSOCIATED WITH POLE REMOVAL, RELOCATION, BRACING SHALL BE INCLUDED IN THE PRICES BID IN THE WATER MAIN BID ITEMS.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN PERMISSION FROM LANDOWNERS FOR ANY POLES THAT NEED TO BE BRACED OR RELOCATED BACK ON PRIVATE PROPERTY AND FOR ANY TREES THAT NEED TO BE TRIMMED TO PROVIDE CLEARANCE FOR OUTRIGGED WIRES. NO TRENCH EXCAVATION SHALL BE MADE IF THE NEAREST BOTTOM EDGE OF THE TRENCH IS LESS THAN A 1:1 SLOPE AWAY FROM ANY UTILITY POLES UNLESS SPECIAL ARRANGEMENTS ARE MADE WITH BGE ELECTRIC RELOCATION UNIT.

DPW AND TRANSPORTATION

BUR. OF ENGINEERING & CONSTRUCTION

APPROVED BY: DOCK GERREN

49/2025



SUBDIVISION: COCKEYSVILLE

LOWEST ELEV. TOP OF MAIN ELEV. 282 B-21,C-21&D-21TOWSON FOURTH

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION - BUREAU OF ENGINEERING & CONSTRUCTION

2024-2241

WATER MAIN REPLACEMENT - PHASE 5

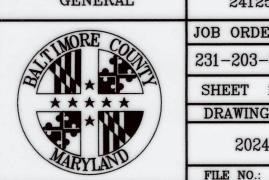
(FROM WIGHT AVENUE TO SHAWAN ROAD) TITLE SHEET

DESIGN AND DRAWINGS BASED ON MARYLAND COORDINATE SYSTEM (MCS).

HORIZONTAL: NAD 83/11 AND VERTICAL: NAVD 88

ELECTION DIST. NO.: 8C3

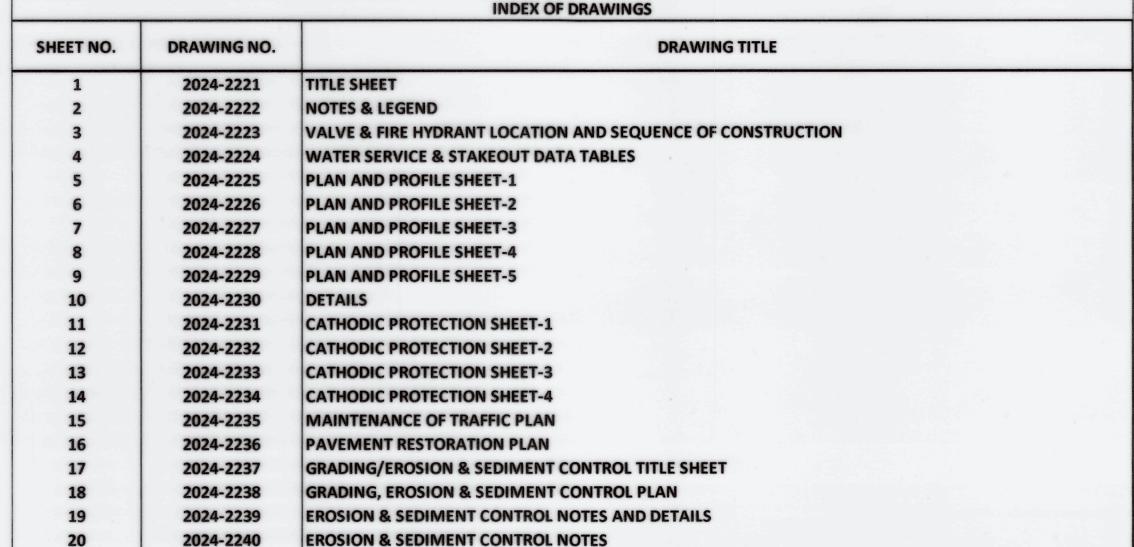
DATE COMPLETED: PIPE MATERIAL (Pressure Only) SHEET DESIGNATION CONTRACT NUMBER **GENERAL** 24125-WX0 JOB ORDER NUMBER 231-203-0050-0466



YORK ROAD – MD ROUTE 45

HALL BE PLUGGED OR CAPPED AND PLATED OVER AT THE END OF EACH WORK DAY.	TURN RUAD - MD RUUTE 43
FOR UTILITIES, ALL SPOIL MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.	
TO 95% OF MAXIMUM DRY DENSITY IS REQUIRED FOR ALL TRENCHES.	(FROM WIGHT AVENUE TO SHAWAN ROAD)
E DONE IN ACCORDANCE WITH THE SEDIMENT CONTROL PLANS AND PERMITS FOR PROJECT.	
MINIMUM OF FOUR (4) FEET OF COVER EXCEPT WHERE SPECIFIED.	J.O. 231-203-0050-0466
ONSTRUCTION UNDER OR OVER ANY EXISTING UTILITY OR CABLE. (II) REPLACEMENT OF EXISTING HOUSE CONNECTIONS DAMAGED DURING CONSTRUCTION, AND (III) RELOCATION OF SEWER HOUSE BE INCLUDED IN THE UNIT PRICE BID FOR THE PROPOSED WATER MAIN.	CONTRACT NO.: 24125 WXO
STING UTILITIES THE CONTRACTOR IS TO SUPPORT BRACE AND PROTECT SUCH UTILITIES DURING ST TO BE INCLUDED IN THE PRICE BID FOR THE PROPOSED WATER MAIN.)	WORKDAY PROJECT NO. 030500466
TEST PIT TO DETERMINE THE EXACT LOCATION AND DEPTH OF EXISTING UTILITIES TO BE CROSSED ELUDING ANY SIDELINE UTILITY, SEVEN (7) WORKING DAYS IN ADVANCE OF LAYING PIPE. THE COST ING WILL BE CONSIDERED INCIDENTAL TO THE WATER MAIN BID ITEMS. NO SEPARATE PAYMENT WILL	SHEET 5 SHEET 9
NG WATER MAIN, VALVES AND FITTINGS INCLUDING CONCRETE BUTTRESSES, IF ANY, SHALL BE ITAL TO THE INSTALLATION OF THE WATER MAIN AND PRICE OF REMOVAL OR ABANDONMENT SHALL PRICE BID FOR WATER MAIN.	
HALL VERIFY ALL EXISTING UTILITIES TO HIS/HER OWN SATISFACTION PRIOR TO STARTING ANY	
VERIFY THE LOCATION AND SIZE OF ALL WATER METERS BEFORE CONSTRUCTION.	
G WATER MAIN SHALL HAVE ALL OPENINGS CAPPED OR PLUGGED. COST TO BE INCLUDED IN BID MAIN.	7(MD RTE. 45)
PLACE SERVICE LINE FROM THE NEW MAIN CORPORATION TO EXISTING SERVICE, OR EXISTING OR WITH COPPER PIPE OF LIKE SIZE (MIN. 3/4 — INCH). THE ENGINEER ON THE JOB SHALL DETERMINE XISTING METER VAULT OR REPLACE IT DEPENDING ON ITS CONDITION. IF EXISTING SERVICE FROM S GALVANIZED, THE CONTRACTOR SHALL PLACE NEW COPPER PIPE TO METER. ALL SERVICE BE DONE AT NIGHT BETWEEN 9:00 PM AND 6:00 AM UNLESS OTHERWISE DIRECTED BY ENGINEER.	YORK (ROAD (MD RTE. 45)
WITH THE ABANDONMENT OF THE EXISTING WATER MAIN AND WATER SERVICE, IF AND SHALL BE NOTAL AND SHALL BE AT NO COST TO THE COUNTY. THIS SHALL INCLUDE THE REMOVAL AND EXISTING VALVE AND VAULTS WITH COMPACTED GRADED AGGREGATE BASE (GAB) AND PAVEMENT	
TED FIRE HYDRANT INSTALLATIONS, A NEW LOCK—ON TEE WILL BE INSTALLED AND THE 6—INCH TED TO THE LOCK—TEE. THE 6—INCH HYDRANT LEAD, VALVE AND THE HYDRANT WILL BE CH OTHER BY RESTRAINING GLANDS.	SHEET 6

SCALE: 1" = 500'



EROSION & SEDIMENT CONTROL DETAILS

WORKDAY PROJECT NUMBER 030500466

CONTRACT COMPLETION BOX

CONTRACTOR:

SHEET 1 OF 21 DRAWING NUMBER 2024-2221

ABANDONMENT NOTES

- 1. THE CONTRACTOR SHALL REMOVE FIRE HYDRANTS, WATER VALVES EIGHT INCHES AND LARGER, AND VALVE FRAMES AND COVERS WHICH ARE TO BE ABANDONED/REMOVED AND RETURN THEM TO THE BALTIMORE CITY MAINTENANCE FACILITY AT 2947 WASHINGTON BOULEVARD ON WEEKDAYS BETWEEN 8:30 A.M. AND 4:30 P.M. WATER VALVES LESS THAN EIGHT INCHES MAY BE ABANDONED IN PLACE.
- 2. THE CONTRACTOR SHALL REMOVE WATER METERS WHICH ARE TO BE ABANDONED AND RETURN THEM TO BALTIMORE CITY AS DIRECTED.
- 3. THE CONTRACTOR SHALL REMOVE THE TOP PORTIONS OF VALVE VAULTS, METER VAULTS AND ROADWAY BOXES TO BE "ABANDONED" OR "REMOVED" AND BACKFILL THE AREA.
- 4. THE CONTRACTOR SHALL RECONNECT/TRANSFER EX. WATER SERVICE CONNECTIONS TO THE NEW WATER MAIN AFTER IT HAS BEEN CHARGED AND IS APPROVED BY THE COUNTY FOR PUBLIC USE. PORTIONS OF THE EX. WATER SERVICE CONNECTION BETWEEN THE EX. WATER MAIN AND THE POINT OF RECONNECTION TO THE NEW MAIN MAY BE ABANDONED IN PLACE. THE BEST LOCATION FOR RECONNECTION OF THE SERVICES MAY BE ADJUSTED IN THE FIELD WITH COUNTY APPROVAL.
- 5. THE CONTRACTOR SHALL RESTORE THE SURFACE WITH MATERIALS APPROPRIATE TO THE SITE AS DIRECTED BY THE ENGINEER

			LEGEND		
		EXISTING		PROPOSI	<u>ED</u>
SS	SANITARY MANHOLE	W	WATER VALVE	—	FIRE HYDRANT
SD HBX	STORM DRAIN MANHOLE	F.H.	FIRE HYDRANT		WATER VALVE & VAULT
E	ELECTRIC HAND BOX ELECTRIC MANHOLE	w	WATER WETER		WATER MAIN
	GAS VALVE	(M) CO 0	WATER METER CLEANOUT	-w][DOUBLE CAPS, JACK & BUTTRESS (SEE BALT. CO. STANDARD DETAIL
(G)	GAS VAULT		ABANDONED SEWER FORCE MAIN SANITARY SEWER		W-5A) WYE BRANCH AND INSULATED
ф (Т)	SIGN TELEPHONE MANHOLE	— G—— G—	GAS GAS (RECENTLY INSTALLED)	\rightarrow	WATER MAIN HORIZONTAL BEND
- 0-	UTILITY POLE	—— SD ——— SD ——	STORM DRAIN	д	WATER MAIN TEE AND CROSS
⊕ -⇔	GUY WIRE LIGHT POLE	— T —— T—	TELEPHONE ELECTRIC	TWTW	TEMPORARY WATER REMOVE EX. FIRE HYDRANT
0	BOLLARD POST	—— FO ———FO ——	FIBER OPTIC		
が	DECIDUOUS TREE CONIFEROUS TREE	— W — W — W — W — W — W — W — W — W — W	WATER LINE ABANDONED WATER LINE	— // W/- //- //- //- //- //- //-	ABANDON EX. WATER LINE
\triangle	TRAVERSE POINT		PROPERTY LINE		TEST HOLE
	(FOR SURVEY CONTROLS & TRAVERSE DESCRIPTIONS,	— X———X—	FENCE	TH-XX	
	SEE PLAN SHEETS)	—— VZ———VZ——	VERIZUN		

REVISION - CITY OF BALTIMORE

REVISION

BY DATE P.W.A. NO. KEY SHEET POSITION SHT

R.O.W NO.

STATE

BUREAU OF ENGINEERING BUILDINGS HIGHWAYS STRUCTURES STORM DRAINS SEWER

FOR ORIGINAL SIGNATURES REFER TO DRAWING

NUMBER 2024-2221

DRAWING SCALE

WATER FIELD ENGINEER

N/A

N/A

PLAN SCALE:

PROFILE SCALE:

71NW7

72NW7

73NW7

CHIEF, UTILITY ENGINEERING

CHIEF. WATER ENGINEERING SECTION

DESIGN BY: JCA

DRAWN BY: <u>JCA</u>

CHKD BY: JAB

PROFESSIONAL CERTIFICATION

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED

PPROVED BY ME, AND THAT I AM A DULY LICENSE PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE (

LICENSE NO. 200436, expiration date 9/30/2027

ENGINEER: JOHN A. BLONDELL

KCI TECHNOLOGIES, INC.

AS-BUILT PER RECORD PRINT

----- WOOD SHEETING

CITY OF BALTIMORE

CHIEF, WATER & WASTEWATER ENG. DIV.

BUREAU OF WATER AND WASTEWATER

OF MAR

SHA NOTES

1. SHA PERMIT

THIS PROJECT IS WITHIN LIMIT OF THE STATE RIGHT OF WAY. ALL WORK WITHIN LIMIT OF THE STATE RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE STATE UTILITY CONSTRUCTION PERMIT ISSUED FOR THIS

2. UTILITY TRENCH REPAIR:

REFER TO LATEST STANDARD NO. MD 578.01 "REPAIRING PAVEMENT OPENINGS FOR UTILITY TRENCHES" OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATIONS (SHA), FOR THE WORK UNDER THIS PROJECT.

3. PAVEMENT MARKING:

UNLESS OTHERWISE NOTED OR DIRECTED BY ENGINEER, ALL EXISTING PAVEMENT MARKINGS SHALL REMAIN IN PLACE DURING AND AFTER CONSTRUCTION OR IT SHALL BE REPLACED IMMEDIATELY IN KIND. THIS WILL INCLUDE BOTH TEMPORARY AND PERMANENT PAVEMENT MARKINGS REQUIRED IN ACCORDANCE WITH THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATIONS (SHA) PREVAILING SPECIFICATIONS. THE COST SHALL BE INCLUDED IN THE BID ITEM FOR MAINTENANCE OF TRAFFIC.

- 4. TRAFFIC CONTROL AND MAINTENANCE OF TRAFFIC NECESSARY FOR THE PROJECT SHALL BE IN ACCORDANCE WITH STATE UTILITY PERMIT ISSUED FOR THE PROJECT.
- 5. THE CONTRACTOR MUST HAVE A "CERTIFIED" TRAFFIC CONTROL MANAGER ON SITE DURING ALL PHASES OF CONSTRUCTION AT ALL TIMES. THESE PLANS INCLUDE SUGGESTED CONTROL MEASURES, AND ANY UNSAFE CONDITIONS AND/OR RECOMMENDED MODIFICATIONS TO THE TRAFFIC CONTROL PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE MDSHA/BALTIMORE COUNTY INSPECTOR BY THE TRAFFIC CONTROL MANAGER AND ACTION TAKEN IMMEDIATELY.
- 6. THE CONTRACTOR MUST HAVE A "CERTIFIED" TRAFFIC CONTROL MANAGER ON SITE DURING ALL PHASES OF CONSTRUCTION AT ALL TIMES. THESE PLANS INCLUDE SUGGESTED CONTROL MEASURES, AND ANY UNSAFE CONDITIONS AND/OR RECOMMENDED MODIFICATIONS TO THE TRAFFIC CONTROL PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE MDSHA/BALTIMORE COUNTY INSPECTOR BY THE TRAFFIC CONTROL MANAGER AND ACTION TAKEN IMMEDIATELY.
- 7. TRAFFIC SIGNALS, LOOP DETECTORS AND TRAFFIC CAMERAS: TRAFFIC SIGNAL SYSTEM SHALL REMAIN IN PLACE AND OPERATIONAL DURING AND AFTER CONSTRUCTION. MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATIONS (SHA) SHALL OPERATE AND MAINTAIN THE TRAFFIC SIGNALS, LOOP DETECTORS AND TRAFFIC CAMERAS.
- 8. ALL BUSINESSES AND RESIDENTS SHALL BE INFORMED AT LEAST SEVEN DAYS PRIOR TO SHUTDOWN OF THEIR SERVICES.
- 9. ALL SHUTDOWN FOR THE TIE-INS OF THE WATER MAIN SHALL BE BRIEF, AFFECTING THE LEAST POSSIBLE SERVICES AND BETWEEN 9:00 PM AND 6:00 AM ON WEEKENDS OR AS DIRECTED BY THE ENGINEER.

EMERGENCY MANAGEMENT NOTES

- 1. DPW INSPECTORS WILL NOTIFY THE FIRE DEPARTMENT ADMINISTRATIVE DUTY OFFICER (ADO) OF ANY PLANNED WATER OUTAGE. (CONTACT: FIRE ADO@BALTIMORECOUNTYMD.GOV OR CALL AT 410-307-2052)
- 2. DPW INSPECTORS WILL NOTIFY BALTIMORE CITY'S 311 OF ANY PLANNED WATER OUTAGE.
- 3. FOR OUTAGES AFFECTING MORE THAN 200 SERVICES AND/OR THAT ARE MORE THAN EIGHT(8) HOURS IN DURATION CONTRACTORS WILL NOTE IN THEIR PLANS TO NOTIFY THE FIRE DEPARTMENT ADMINISTRATIVE OFFICER (ADO) AND THE OFFICE OF EMERGENCY MANAGEMENT BY E-MAIL AND BY PHONE (emergencymanagement@baltimorecountymd.gov and 410-887-5996.)

THE BASELINE USED IS A BEST FIT FOR THE WATER MAINS UNDER CONTRACT, 24125-WXO ONLY AS LOCATED BY MERCADO CONSULTANTS, INC OF ASHTON, MD. IT DOES NOT IN ANY WAY REFLECT

THE RIGHT-OF-WAY OF YORK ROAD OR ANY OF THE STATE'S BASELINES. DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM: HORIZONTAL - NAD 83/91 VERTICAL – NAVD 88 REFERENCE SURVEY BENCHMARK MONUMENTS ON THE SITE: **ELEVATION** 1,412,253.09 662,710.46 251.47 BCO#770 1,412,024.29 663,540.84 274.78 BCO#878 1,411,579.08 666,420.04 288.03 BASELINE CONTROLS COORDINATES FOR 24-INCH WATER $oxed{ t POINT | STATION | NORTHING | EASTING | } oxed{\Delta} oxed{ t D | R | T | L | E}$ BP 231+85.58 664162.5397 1411771.8963 238+65.43 | 664804.3262 | 1411547.8357 PC | 250+17.74 | 665888.4890 | 1411157.4392 05.55'00.0" | 03.00'00.0" | 1909.86' | 267.00' | 530.56' | 18.57 252+59.33 | 666406.0791 | 1411048.8835

BLOCKING/BRACING SIDELINE OR TERMINAL VALVE/WATER MAIN NOTES

- 1. WHEN EXCAVATING TRENCH OR ACCESS PITS NEAR SIDELINE OR TERMINAL VALVES OR WATER MAINS WHICH ARE TO REMAIN IN SERVICE, THE CONTRACTOR SHALL DESIGN AND INSTALL (AT HIS EXPENSE) A METHOD TO BLOCK OR BRACE THE VALVE, WATER MAIN AND/OR STRUCTURE TO PROTECT THEM FROM BLOWING OFF DUE TO UNBALANCED FORCES WHICH MAY RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.
- 2. IF A VALVE, WATER MAIN OR STRUCTURE BLOWS OFF, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECTIFYING ALL DAMAGES AT HIS EXPENSE.

CHLORINATED WATER DISCHARGE NOTES

- 1. CHLORINATED WATER DISCHARGES TO THE 8" AND 10" SEWERS LOCATED IN THE PROJECT AREA WILL BE LIMITED TO A RATE NOT TO EXCEED **50 GALLONS PER MINUTE**.
- 2. CHLORINATED WATER DISCHARGES TO THE 12" SEWERS LOCATED IN THE PROJECT AREA WILL BE LIMITED TO A RATE NOT TO EXCEED 100 GALLONS PER MINUTE.
- 3. ALL DISCHARGES WILL BE RESTRICTED TO DRY WEATHER AND NOT LESS THAN 24 HOURS AFTER ANY RAIN EVENT.
- 4. ONE (1) WORKING DAY PRIOR TO DISCHARGE OF ANY CHLORINATED WATER TO THE SANITARY SEWER, THE CONTRACTOR WILL NOTIFY THE SEWER DESIGN SECTION AT 410-887-3781 AND BUREAU OF UTILITIES AT 410- 887-7415 OF THE EXACT LOCATION OF THE PLANNED DISCHARGE. THIS WILL ALLOW THE REMOVAL OF THE FLOW MONITORING EQUIPMENT LOCATED WITHIN THE SANITARY SEWER SYSTEM IN THIS AREA AND GIVE NOTICE IN THE EVENT OF ANY SEWER BACKUPS OR OVERFLOWS CAUSED BY SUCH DISCHARGES.
- 5. FEDERAL REGULATION REQUIRES DOCUMENTATION OF ANY DISCHARGE FROM THE SANITARY SEWER COLLECTION SYSTEM AND THE CAUSE OF THE DISCHARGE. TO MEET THESE REQUIREMENTS, THE DATE, RATE, AND DURATION OF CHLORINATED WATER DISCHARGES SHALL BE DOCUMENTED BY THE CONTRACTOR AND/OR INSPECTOR.

MDE NOTES

- PRESSURE AND LEAKAGE TESTING SHALL BE IN ACCORDANCE WITH AWWA C600 & ASTM C969.
- 2. DISINFECTION OF MAINS & BACTERIOLOGICAL SAMPLING REQUIREMENTS:
 - A. THE COMPLETED WATER MAINS MUST BE DISINFECTED AND TESTED IN ACCORDANCE WITH THE LATEST VERSION OF AWWA STANDARD C651.
 - B. AFTER DISINFECTION, A SAMPLE SHALL BE COLLECTED AFTER THE REQUIRED MINIMUM TIME PERIOD. SAMPLES MUST BE COLLECTED BY A STATE-CERTIFIED SAMPLER AND ANALYZED AT A STATE-CERTIFIED LABORATORY. THE SAMPLE RESULTS MUST BE REVIEWED BY BALTIMORE CITY, WHICH WILL GIVE AUTHORIZATION TO PLACE THE MAINS INTO SERVICE. THE SAMPLE RESULTS MUST ALSO BE SUBMITTED TO THE MDE WSP FOR APPROVAL AT kristv.iones1@marvland.gov.
- 3. NSF NOTE:
- A. IN ACCORDANCE WITH CODE OF MARYLAND REGULATIONS (COMAR) 26.04.01.33, DIRECT AND INDIRECT ADDITIVES. SUPPLIERS OF WATER SHALL ONLY USE PRODUCTS (ANY MATERIALS THAT COME IN CONTACT WITH WATER INTENDED FOR USE IN PUBLIC WATER SUPPLY) THAT MEET THE APPLICABLE AMERICAN NATIONAL STANDARDS INSTITUTE / NSF INTERNATIONAL (ANSI / NSF) STANDARDS FOR DIRECT OR INDIRECT DRINKING WATER ADDITIVES. THE PRODUCTS CAN ALSO BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY THE ANSI FOR SUCH TESTING (I.E., INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS RESEARCH AND TESTING, ONTARIO CA, UNDERWRITERS LABORATORY, NORTHBROOK IL, AND WATER QUALITY ASSOCIATION, LISLE IL).
- 4 LEAD-FREE MATERIAL NOTE:
- A. IN COMPLIANCE WITH COMAR 09.20.01.03 AND THE SAFE DRINKING WATER ACT (SECTION 1417(A)(4)(8), MATERIALS THAT COME IN CONTACT WITH WATER INTENDED FOR USE IN PUBLIC WATER SUPPLY SHALL COMPLY WITH THE REDUCTION OF LEAD IN DRINKING WATER ACT, WHICH WENT INTO EFFECT IN MARYLAND IN JANUARY 2012.
- 5. WATER MAIN SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SANITARY OR STORM SEWER, SEPTIC TANK OR SUBSOIL TREATMENT SYSTEM. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. WATER MAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. AT CROSSINGS, ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE.

SHEET DESIGNATION CONTRACT NUMBER WATER 24125-WX0

**

JOB ORDER NUMBER 231-203-0050-0466 SHEET 2 OF 21 DRAWING NUMBER 2024-2222

FILE NO.:

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION - BUREAU OF ENGINEERING & CONSTRUCTION WATER MAIN REPLACEMENT - PHASE 5

> YORK ROAD — MD ROUTE 45 (FROM WIGHT AVENUE TO SHAWAN ROAD)

> > NOTES & LEGEND

FOR ORIGINAL SIGNATURES REFER TO DRAWING NUMBER 2024-2221

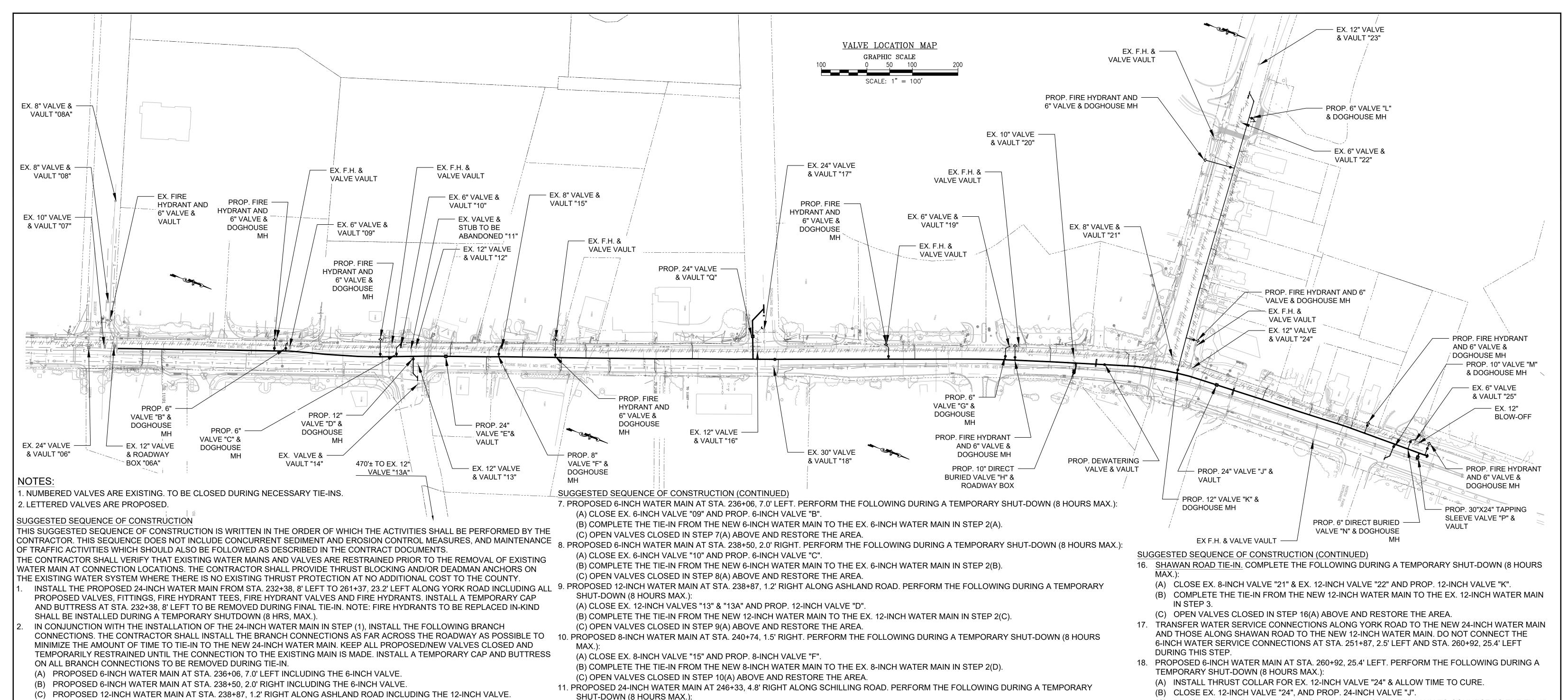
PI 256+81.23 666538.7732 1411039.8681 EP 261+37.39 666995.3902 1411008.8448

DPW AND TRANSPORTATION

FOR ORIGINAL SIGNATURES REFER TO DRAWING

NUMBER 2024-2221

BUR. OF ENGINEERING & CONSTRUCTION



(A) CLOSE EX. 12-INCH VALVE "16", EX. 24-INCH VALVES "17" & "17A", AND PROP. 24-INCH VALVE "Q".

(C) OPEN VALVES CLOSED IN STEP 11(A) ABOVE AND RESTORE THE AREA.

(C) OPEN VALVES CLOSED IN STEP 12(A) ABOVE AND RESTORE THE AREA.

(C) OPEN VALVES CLOSED IN STEP 13(A) ABOVE AND RESTORE THE AREA.

(C) OPEN VALVES CLOSED IN STEP 14(A) ABOVE AND RESTORE THE AREA.

(A) CLOSE EX. 6-INCH VALVE "19" AND PROP. 6-INCH VALVE "G".

(A) CLOSE EX. 10-INCH VALVE "20" AND PROP. 10-INCH VALVE "H".

(A) CLOSE EX. 6-INCH VALVE "22" AND PROP. 6-INCH VALVE "L".

APPROXIMATELY 700 FEET NORTH ON YORK ROAD.

(B) COMPLETE THE TIE-IN FROM THE NEW 24-INCH WATER MAIN TO THE EX. 24-INCH WATER MAIN IN STEP 2(E).

(B) COMPLETE THE TIE-IN FROM THE NEW 6-INCH WATER MAIN TO THE EX. 6-INCH WATER MAIN IN STEP 2(F).

(B) COMPLETE THE TIE-IN FROM THE NEW 10-INCH WATER MAIN TO THE EX. 10-INCH WATER MAIN IN STEP 2(G).

(B) COMPLETE THE TIE-IN FROM THE NEW 10-INCH WATER MAIN TO THE EX. 10-INCH WATER MAIN IN STEP 2(H).

12. PROPOSED 6-INCH WATER MAIN AT STA. 251+87, 2.5' LEFT. PERFORM THE FOLLOWING DURING A TEMPORARY SHUT-DOWN (8 HOURS MAX.):

13. PROPOSED 10-INCH WATER MAIN AT 253+43, 16.5' LEFT. PERFORM THE FOLLOWING DURING A TEMPORARY SHUT-DOWN (8 HOURS MAX.):

14. PROPOSED 10-INCH WATER MAIN AT 260+59, 28.6' LEFT. PERFORM THE FOLLOWING DURING A TEMPORARY SHUT-DOWN (8 HOURS MAX.):

15. PROPOSED 6-INCH WATER MAIN AT 5+83 SHAWAN ROAD. PERFORM THE FOLLOWING DURING A TEMPORARY SHUT-DOWN (8 HOURS MAX.):

(A) CLOSE EX. 30-INCH VALVE "18", PROP. 10-INCH VALVE "M" AND PROP. 24-INCH VALVE "P". CLOSE EX. 30-INCH VALVE LOCATED

- (D) PROPOSED 8-INCH WATER MAIN AT STA. 240+74, 1.5' RIGHT INCLUDING THE 8-INCH VALVE.
- (E) PROPOSED 24-INCH WATER MAIN AT STA. 246+33, 4.8' RIGHT ALONG SCHILLING ROAD INCLUDING THE 24-INCH VALVE.
- (F) PROPOSED 6-INCH WATER MAIN AT STA. 251+87, 2.5' LEFT INCLUDING THE 6-INCH VALVE.
- (G) PROPOSED 10-INCH WATER MAIN AT STA. 253+43, 16.5' LEFT INCLUDING THE 10-INCH VALVE.
- (H) PROPOSED 10-INCH WATER MAIN AT STA. 260+59, 28.6' LEFT INCLUDING THE 10-INCH VALVE.
- (I) PROPOSED 6-INCH WATER MAIN AT STA 260+92, 25.4' LEFT INCLUDING THE 6-INCH VALVE.
- INSTALL THE PROPOSED 12-INCH WATER MAIN IN SHAWAN ROAD FROM STA. 255+60, 45.6' LEFT TO STA. 6+37 INCLUDING ALL PROPOSED VALVES, FITTINGS, FIRE HYDRANT TEES, FIRE HYDRANT VALVES AND FIRE HYDRANTS.
- IN CONJUNCTION WITH THE INSTALLATION OF THE 12-INCH WATER MAIN IN STEP (3), INSTALL THE 6-INCH BRANCH CONNECTION. THE CONTRACTOR SHALL INSTALL THE BRANCH CONNECTION AS FAR ACROSS THE ROADWAY AS POSSIBLE TO MINIMIZE THE AMOUNT OF TIME TO TIE-IN TO THE NEW 12-INCH WATER MAIN. KEEP ALL PROPOSED/NEW VALVES CLOSED AND TEMPORARILY RESTRAINED UNTIL THE CONNECTION TO THE EXISTING 6-INCH MAIN IS MADE. INSTALL A TEMPORARY CAP AND BUTTRESS ON ALL BRANCH CONNECTIONS TO BE REMOVED DURING TIE-IN.
- (A) PROPOSED 6-INCH WATER MAIN AT STA. 5+83 (SHAWAN ROAD) FROM STA. 0+00 TO STA. 0+12.
- TEST AND DISINFECT THE WATER MAINS ALONG YORK ROAD AND SHAWAN ROAD

CITY OF BALTIMORE

INSTALL THE PROPOSED 30x24-INCH TAPPING SLEEVE, VALVE AND 24-INCH WATER MAIN AT STA. 261+17, 24.6' LEFT. OPEN THE VALVE AND CHARGE THE MAINS FOR SERVICE ALONG YORK ROAD AND SHAWAN ROAD.

REVISION - CITY OF BALTIMORE

CHIEF, WATER & WASTEWATER ENG. DIV. DATE BUREAU OF WATER AND WASTEWATER		CHIEF, UTILITY ENGII CHIEF, WATER ENGINEERI		PLANNERS SCIENTISTS CONSTRUCTIONM ANAGERS 936 REGEBROOK ROAD SPARES, MD 21152 PHONE (410) 316-7810 FAX (410) 316-7817 www.kci.com		` '	PLETE THE TIE-IN FROM THE NEW 6-INCH WATER MAIN TO THE EX. 6-INCH WATER MAIN IN STEP 4(A). VALVES CLOSED IN STEP 15(A) ABOVE AND RESTORE THE AREA.			
SEAL	PROFESSIO:	NAL CERTIFICATION	REVISION	BY DATE P.W.A. NO. K	EY SHEET POSITION SHT	DRAWING SCALE	DPW AND TRANSPORTATION			
OF MARY	I HEREBY CERTIFY THAT TI APPROVED BY ME. AND	HESE DOCUMENTS WERE PREPARED OR THAT I AM A DULY LICENSED		V:	SE 70NW7	PLAN SCALE: N/A		BALTIMORE COUNTY DEPARTMENT OF PUBLIC WO		
	MARYLAND.	UNDER THE LAWS OF THE STATE OF, EXPIRATION DATE 9/30/2027		R.O.W NO. STATE	71NW7 72NW7 VE 73NW7	PROFILE SCALE: N/A	FOR ORIGINAL SIGNATURES REFER TO DRAWING NUMBER 2024-2221	WATER M		
: " // 全 // // // // // // : : : : : : : :	MCENSE NO			317112		<u>N/A</u>		170 D 17		

- (C) REMOVE EX. 6-INCH VALVE AND INSTALL NEW 6-INCH WATER MAIN TO CONNECT TO THE EX. 6" WATER MAIN.
- (D) OPEN PROP. 24-INCH VALVE "J" IN STEP 18(B) AND RESTORE THE AREA. EX. 12-INCH VALVE "24" SHALL REMAIN CLOSED.
- YORK ROAD TIE-IN. COMPLETE THE FOLLOWING DURING A TEMPORARY SHUT-DOWN (8 HOURS MAX.):
- STAGE 1
- (A) CLOSE EX. 10-INCH VALVE "07" AND 24-INCH VALVE "06" AND 12-INCH VALVE "06A". (B) CLOSE PROP. 12-INCH VALVE "D" AND PROP. 24-INCH VALVE "E".
- (C) REMOVE THE TEMPORARY CAPS ON THE EX. 24-INCH WATER MAIN AND THE PROPOSED
- 24-INCH WATER MAIN AT STA. 232+38, 8' LEFT.
- (D) COMPLETE THE TIE-IN FROM THE NEW 24-INCH WATER MAIN TO THE EX. 24-INCH WATER MAIN BY INSTALLING THE NEW WATER MAIN FROM STA. 232+38, 8' LEFT TO 232+36, 8' LEFT.
- (E) OPEN VALVES CLOSED IN STEP 19(B) ABOVE AND RESTORE THE AREA. EX. VALVES TO REMAIN CLOSED.
- STAGE 2: (F) CLOSE PROP. 24-INCH VALVES "E", "J", AND "Q" AND PROP. 12-INCH VALVE "K".
- (G) CLOSE EX. 12-INCH VALVE "24", EX. 8-INCH VALVE "21", AND EX. 12-INCH VALVE "16".
- (H) REMOVE EX. 6-INCH VALVE AND INSTALL NEW 6-INCH WATER MAIN TO CONNECT TO THE EX. 6" WATER MAIN AT STA. 251+87.
- OPEN VALVES CLOSED IN STEP 19(F) ABOVE AND RESTORE THE AREA. EX. VALVES TO REMAIN CLOSED.

CT.			
SH	IEET DESIGNATION	CONTRACT NUMBI	E]
	WATER	24125-WXO	
	NORE CO	JOB ORDER NUMB	E
\prod		231-203-0050-04	46
		SHEET 3 OF 2	<u>-</u>
	* * * * * * *	DRAWING NUMBE	R
	ARVI NO	2024-2223	
	WITTED.	FILE NO.:	O

PORTATION REFER TO DRAWING ENGINEER: JOHN A. BLONDELL BUREAU OF ENGINEERING BUILDINGS FIELD ENGINEER BUR. OF ENGINEERING & CONSTRUCTION DESIGN BY: JCA | HIGHWAYS |STRUCTURES|STORM DRAINS| WATER KCI TECHNOLOGIES, INC. FOR ORIGINAL SIGNATURES REFER TO DRAWING AS-BUILT PER RECORD PRINT FOR ORIGINAL SIGNATURES REFER TO DRAWING NUMBER 2024-2221 NUMBER 2024-2221 CHKD BY: JAB

WATER MAIN REPLACEMENT - PHASE 5

YORK ROAD — MD ROUTE 45

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION - BUREAU OF ENGINEERING & CONSTRUCTION

(FROM WIGHT AVENUE TO SHAWAN ROAD)

VALVE & FIRE HYDRANT LOCATION AND SEQUENCE OF CONSTRUCTION ELECTION DIST. NO.: 8C3 SUBDIVISION: COCKEYSVILLE

			YORK				CONNECTION NUE TO SHA		
STATION	ADDRESS	TYPE OF SERVICE	SIZE OF SERVICE	METER TYPE	METER SIZE	METER ID	PROPOSED LENGTH OF SERVICE	REMARKS/COMMENTS	EXISTING SERVICE MATERIAL
232+92	11101 YORK ROAD	SINGLE	3/4"	AMCO	5/8"	14930002	40		
233+34	11101-A YORK ROAD	RESIDENTIAL	2"	NEPTUNE	1-1/2"	01105153	48		
236+06	11150 YORK ROAD	COMMERCIAL	6"	HE EDC III	6"	8047062	19	6" WATER SERVICE. RECONNECT TO EX. 6" SERVICE. SEE PROFILE ON SHEET 4	
238+50	11200 YORK ROAD	COMMERCIAL	6"	GRINNEL	6"	E22509	33	6" WATER SERVICE. RECONNECT TO EX. 6" SERVICE. SEE PROFILE ON SHEET 5	
239+68	11206 YORK ROAD	SINGLE	3/4"	NEPTUNE	5/8"	9999999	33		
240+48	11201 YORK ROAD	SINGLE	3/4"	ROCKWELL	5/8"	48586564	32		
240+74	11210 YORK ROAD	COMMERCIAL	8"	MFM-MVR	8"	8941683	29	8" WATER SERVICE. RECONNECT TO EX. 8" SERVICE. SEE PROFILE ON SHEET 5	
241+26	11212 YORK ROAD	COMMERCIAL	2"	ROCKWELL	1-1/2"	29724400	36		
242+12	11219 YORK ROAD	SINGLE	3/4"	ROCKWELL	5%"	42810209	34		
242+66	11222 YORK ROAD	OFFICES	2"	ROCKWELL	1-1/2"	36700318	33		
243+18	11223 YORK ROAD	SINGLE	1"	ROCKWELL	3/4"	41089148	34		
244+17	11229 YORK ROAD	RESIDENTIAL	3/4"	ROCKWELL	5/8"	48586359	33		
245+00	11234 YORK ROAD	SINGLE	1"	ROCKWELL	3/4"	33736589	35		
246+89	11235 YORK ROAD	COMMERCIAL	2"	NEPTUNE	1-1/2"	01105344	34	1-1/2" METER WITH REDUCER	
249+89	11310 YORK ROAD	COMMERCIAL	2"	ROCKWELL	1-1/2"	42847015	34		
	NWC YORK RD (VERIZON MARYLAND INC PROPERTY)	COMMERCIAL	6"	MFM TURBO	6"	5417360	34	6" WATER SERVICE. RECONNECT TO EX. 6" SERVICE. SEE PROFILE ON SHEET 6	
252+86	11320 YORK ROAD	COMMERCIAL	2"	ROCKWELL	1-1/2"	42847084	34		
253+43	11317 YORK ROAD	COMMERCIAL	10"	MFM TURBO	10"	8019432	29	10" WATER SERVICE. RECONNECT TO EX. 10" SERVICE. SEE PROFILE ON SHEET 7	
254+57	11330 YORK ROAD	SINGLE	3/4"	ROCKWELL	5/8"	48594938	34		
257+54	11416 YORK ROAD	COMMERCIAL	2"	ROCKWELL	1-1/2"	42847039	32		
258+62	11418 YORK ROAD	SINGLE	3/4"	ROCKWELL	5/8"	48588335	25		
259+26	11420 YORK ROAD	SINGLE	3/4"	AMCO	5/8"	14921875	20		
259+57	11424 YORK ROAD	SINGLE	3/4"	SENSUS SR2	5/8"	76346424	17	LOCATION APPROX. METER WAS NOT SURVEYED	
260+59	11429 YORK ROAD	RESIDENTIAL	10"	MFM-MVR	10"	7045913	40	10" WATER SERVICE. RECONNECT TO EX. 10" SERVICE. SEE PROFILE ON SHEET 7	
260+92	11426 YORK ROAD	OFFICES	6" 2"	HER EDC II ROCKWELL	6" 2"	7234869 29724281	29	6" WATER SERVICE (DOMESTIC TEES OFF OF 6" DETECTOR CHECK IN THE VAULT). RECONNECT TO EX. 6" SERVICE. SEE PROFILE ON SHEET 7	
·				WATER HOU	SE/SERVI	CE CONNECT	IONS (SHAWAN	N ROAD)	
1+94	1 SHAWAN ROAD	SINGLE	3/4"	ROCKWELL	5/8"	32771476	19		
2+23	2 SHAWAN ROAD	SINGLE	3/4"	AMCO	5/8"	14903772	12		
2+84	3 SHAWAN ROAD	SINGLE	3/4"	ROCKWELL	5/8"	31580991	15		
3+60	5 SHAWAN ROAD	COMMERCIAL	1"	BADGER M	3/4"	99409271	09		
5+07	6 SHAWAN ROAD	SINGLE	3/4"	BADGER M	5/8"	10012832	10		
							324'	3/4" SERVICE	
NOTES:							78'	1" SERVICE	
1. LINI	ESS OTHERWISE NOTED, T	HE CONTRACTO	OR SHALL R	FPLACE WATE	R SERVICES	S 2-INCH	251'	2" SERVICE	
	SMALLER WITH COPPER						115'	6" SERVICE	
ე т⊔г	DRUDUSED MYTED HOUSE	F CONNECTION	(WHC) DEDI		ICTU FOR	WATED	29'	8" SERVICE	
Z. IDE MET	PROPOSED WATER HOUSI ERS THAT WERE NOT SUF	RVEYED OR CO	OULD NOT B	E LOCATED IN	THE FIEL) HAVE	69'	10" SERVICE	
BEE	N ESTIMATED FROM THE F	PROPERTY TO	THE PROPOS	SED WATER MA	AIN.		866'	TOTAL LENGTH OF SERVICES	

	STAKEOUT DATA YORK ROAD (STA. 232+36 – S	TA. 261+37)
BASELINE STATION	FITTING	NORTHING	EASTING
232+36	CONNECTION TO EX. 24" W (PHASE 3B)	664208.7400	1411747.7700
235+81	24"X6" F.H. TEE AND 6" VALVE & DOGHOUSE MH	664533.4768	1411635.0275
236+06	24"X6" TEE AND 6" VALVE & DOGHOUSE MH	664557.3566	1411626.6386
238+14	24"X6" F.H. TEE AND 6" VALVE & DOGHOUSE MH	664756.7100	1411567.6400
238+50	24"X6" TEE AND 6" VALVE & DOGHOUSE MH	664790.1153	1411554.9339
238+87	24"X12" TEE AND 12" VALVE & DOGHOUSE MH	664824.5928	1411541.8202
239+58	24" VALVE & VAULT	664891.6867	1411517.2663
240+74	24"X8" TEE AND 8" VALVE & DOGHOUSE MH	665001.2466	1411478.5187
241+99	24"X6" F.H. TEE AND 6" VALVE & DOGHOUSE MH	665118.6500	1411437.4600
246+33	24"X24" TEE	665528.1411	1411292.3356
246+44	24"-1/8 UPPER VERTICAL BEND (U.V.B.)	665538.5063	1411288.6520
246+49	24"-1/8 LOWER VERTICAL BEND (L.V.B.)	665543.1882	1411287.0006
246+69	24"-1/8 LOWER VERTICAL BEND (L.V.B.)	665562.0386	1411280.3171
246+75	24"-1/8 UPPER VERTICAL BEND (U.V.B.)	665567.6938	1411278.3121
246+82	AIR RELEASE VALVE & DOGHOUSE MH	665573.8400	1411276.1200
249+30	24"X6" F.H. TEE AND 6" VALVE & DOGHOUSE MH	665807.5800	1411190.3600
251+87	24"X6" TEE AND 6" VALVE & DOGHOUSE MH	666049.0900	1411104.0700
252+09	24"X6" F.H. TEE AND 6" VALVE & DOGHOUSE MH	666069.6200	1411097.8300
253+24	24"-1/8 UPPER VERTICAL BEND (U.V.B.)	666181.0710	1411062.9996
253+33	24"-1/8 LOWER VERTICAL BEND (L.V.B.)	666189.7737	1411060.3508
253+43	24"X10" TEE AND 10" VALVE & ROADWAY BOX	666197.7100	1411057.9352
254+04	DEWATERING VALVE & VAULT	666258.3000	1411039.5000
254+41	24"-1/8 LOWER VERTICAL BEND (L.V.B.)	666295.3600	1411028.2000
254+46	24"-1/8 UPPER VERTICAL BEND (U.V.B.)	666300.2200	1411026.7200
255+60	24"X12" TEE AND 12" VALVE & DOGHOUSE MH	666413.5549	1411002.7477
256+50	24" VALVE & VAULT	666504.5500	1410997.1400
259+89	24"X6" F.H. TEE AND 6" VALVE & DOGHOUSE MH	666846.0500	1410985.6900
260+59	24"X10" TEE AND 10" VALVE & DOGHOUSE MH	666916.2400	1410985.6900
260+92	24"X6" TEE AND 6" VALVE & DOGHOUSE MH	666947.4100	1410985.7600
261+06	24"-1/8 UPPER VERTICAL BEND (U.V.B.)	666961.7400	1410985.6900
261+11	24"-1/8 LOWER VERTICAL BEND (L.V.B.)	666965.7500	1410985.6900
261+17	24"X24" TEE	666973.7700	1410985.6900
261+32	24"X6" F.H. TEE AND 6" VALVE & DOGHOUSE MH	666987.1800	1410985.7800
261+37	24" CAP	666993.8200	1410985.6900

		STAKEOUT DATA YORK ROAD (BRANCH CONNECTIONS)		
BASELINE STATION ALONG YORK ROAD	STATION ALONG BRANCH CONNECTION	FITTING	NORTHING	EASTING
		WIGHT AVENUE		
	0+12	6"-1/8 LOWER VERTICAL BEND (L.V.B.)	664553.4838	1411615.2807
236+06	0+15	6"-1/8 HORIZONTAL BEND	664552.5505	1411612.5436
	0+19	CONNECTION TO EX. 6" WATER	664554.5602	1411608.4543
	0+19	6"-1/8 HORIZONTAL BEND	664783.4505	1411537.2411
238+50	0+28	6"-1/32 UPPER VERTICAL BEND (U.V.B.)	664787.1995	1411528.9602
	0+33	CONNECTION TO EX. 6" WATER	664789.3503	1411524.2095
		ASHLAND ROAD		
	0+09	12"-1/8 UPPER VERTICAL BEND (U.V.B.)	664827.5949	1411550.3048
070 : 07	0+13	12"-1/8 LOWER VERTICAL BEND (L.V.B.)	664828.9292	1411554.0757
238+87	0+31	12"-1/16 LOWER VERTICAL BEND (L.V.B.)	664834.9334	1411571.0447
	0+38	12"-1/8 HORIZONTAL BEND	664837.1515	1411577.3132
	0+52	CONNECTION TO EX. 12" WATER	664849.8465	1411583.4287
	0+13	8"-1/8 HORIZONTAL BEND	664997.0447	1411465.6879
	0+17	8"-1/16 LOWER VERTICAL BEND (L.V.B.)	664997.3106	1411462.1745
240+74	0+24	8"-1/16 UPPER VERTICAL BEND (U.V.B.)	664997.8389	1411455.1945
	0+29	CONNECTION TO EX. 8" WATER	664998.1840	1411450.6347
	0120	SCHILLING ROAD	001000.1010	1111100.0017
	0+10	24"-1/32 UPPER VERTICAL BEND (U.V.B.)	665524.7191	1411282.9263
	0+18	24"-1/32 LOWER VERTICAL BEND (L.V.B.)	665521.7300	1411275.5000
246+33	0+50	24" VALVE & VAULT	665516.4300	1411245.5300
210100	0+61	24"-1/32 LOWER VERTICAL BEND (L.V.B.)	665506.4200	1411235.2500
	0+69	24"-1 32 UPPER VERTICAL BEND (U.V.B.)	665503.5800	1411227.8000
	0+85	24"-1/8 HORIZONTAL BEND	665497.9100	1411212.8800
	1+13	CONNECTION TO EX. 24" WATER	665512.1400	1411181.2400
	0 : 07	6" 1/9 HODIZONTAL DEND	666041.0000	4444070 0400
251+87	0+23	6"-1/8 HORIZONTAL BEND 6"-1/8 HORIZONTAL BEND	666041.2900 666048.6300	1411079.9400
231+67	0+33 0+34	CONNECTION TO EX. 6" WATER	666048.4900	1411073.1900 1411072.6800
	0+34		000040.4300	1411072.0800
	0+07	10"-1/8 LOWER VERTICAL BEND (L.V.B.)	666199.5543	1411064.6879
253+43	0+22	10"-1/8 HORIZONTAL BEND	666203.3759	1411078.6802
	0+29	CONNECTION TO EX. 10" WATER	666199.8775	1411084.8077
	0+28	10"-1/8 HORIZONTAL BEND	666915.4260	1411013.6883
260+59	0+34	10"-1/8 LOWER VERTICAL BEND (L.V.B.)	666911.0600	1411017.7976
	0+40	CONNECTION TO EX. 10" WATER	666906.3559	1411022.2251
	0+13	6" VALVE & DOGHOUSE MH	666947.3600	1410968.8000
000+00	0+19	6"-1/8 HORIZONTAL BEND	666947.5200	1410965.1100
260+92	0+29	CONNECTION TO EX. 6" WATER	666957.2200	1410959.4000
261+17	0+15	30"X24" TAPPING SLEEVE VALVE & VAULT	666973.7711	1411001.0267
	0+80	SHAWAN ROAD 12"X6" F.H. TEE AND 6" VALVE & DOGHOUSE MH	666406.2037	1410922.7448
	4+68	12"X6" F.H. TEE AND 6" VALVE & DOGHOUSE MH	666378.3600	1410536.6500
	5+83	12 X6 F.H. TEE AND 6 VALVE & ROADWAY BOX 12"X6" TEE AND 6" VALVE & DOGHOUSE MH	666370.6200	1410420.8200
255+60	5+65 6+19	12 X6 TEE AND 6 VALVE & DOGHOUSE MH 12"-1/8 HORIZONTAL BEND	666368.3300	1410383.9100
	6+22	12"-1/8 LOWER VERTICAL BEND (L.V.B.)	666366.1000	1410383.9100
	6+41	CONNECTION TO EX. 12" WATER	666352.9600	1410381.9000
	OT TI	6" W AT STA. 5+83 (SHAWAN ROAD)	100002.9000	1 1100/0.0000
	0+08	6"-1/8 HORIZONTAL BEND	666380.1800	1410420.2200
5+83	0+11	6"-1/16 LOWER VERTICAL BEND (L.V.B.)	666382.4100	1410420.2200
J , JJ	UTII	O I/ TO LOWER VERTICAL DEIND (L.V.D.)	UUUUUZ.41UU	1 1710422.2300

CITY OF E	CITY OF BALTIMORE REVISION - CITY					Z.	Engineers Planners					
CHIEF, UTILITY ENGIN CHIEF, WATER & WASTEWATER ENG. DIV. DATE BUREAU OF WATER AND WASTEWATER CHIEF, WATER ENGINEERIN				DATE DATE	K	C I	SCIENTISTS CONSTRUCTIONM ANAGE 936 RIDGEBROOK ROAD SPARKS, MD 21152 PHONE (410) 316-7807 FAX (410) 316-7807 www.kci.com	_				
SEAL	PROFESSIONAL CERTIFICATION				BY I	DATE	P.W.A. NO.	KEY SHEET	POSITION SHI	DRAWIN	G SCALE	DPW AND TRANSPORTATION
6 3	APPROVED BY ME, AND PROFESSIONAL ENGINEER UN MARYLAND.	ESE DOCUMENTS WERE PREPARED OR THAT I AM A DULY LICENSED DER THE LAWS OF THE STATE OF . EXPIRATION DATE $9/30/2027$.)				R.O.W NO.	VSE & VNE	70NW7 71NW7 72NW7 73NW7	PLAN SCALE: PROFILE SCALE:	N/A N/A N/A	FOR ORIGINAL SIGNATURES REFER TO DRAW NUMBER 2024-2221
	ENGINEER: <u>JOHN A. BLC</u> KCI TECHNOLOGIES,	DESIGN DI. JCA	BUREAU OF ENGINEERING AND CONSTRUCTION	BUILDINGS	HIGHW	IAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	BUR. OF ENGINEERING & CONSTRUCT
DATE: Sep: 09, 2025	AS-BUILT PER RECORD BY: DATE:	DRAWN RY . ICA		FOR ORIGIN			RES REFER 2024-2221	TO DRAWI	TO DRAWING			FOR ORIGINAL SIGNATURES REFER TO DRAW NUMBER 2024-2221

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION - BUREAU OF ENGINEERING & CONSTRUCTION WATER MAIN REPLACEMENT - PHASE 5

YORK ROAD - MD ROUTE 45 (FROM WIGHT AVENUE TO SHAWAN ROAD) WATER SERVICE & STAKEOUT DATA TABLES

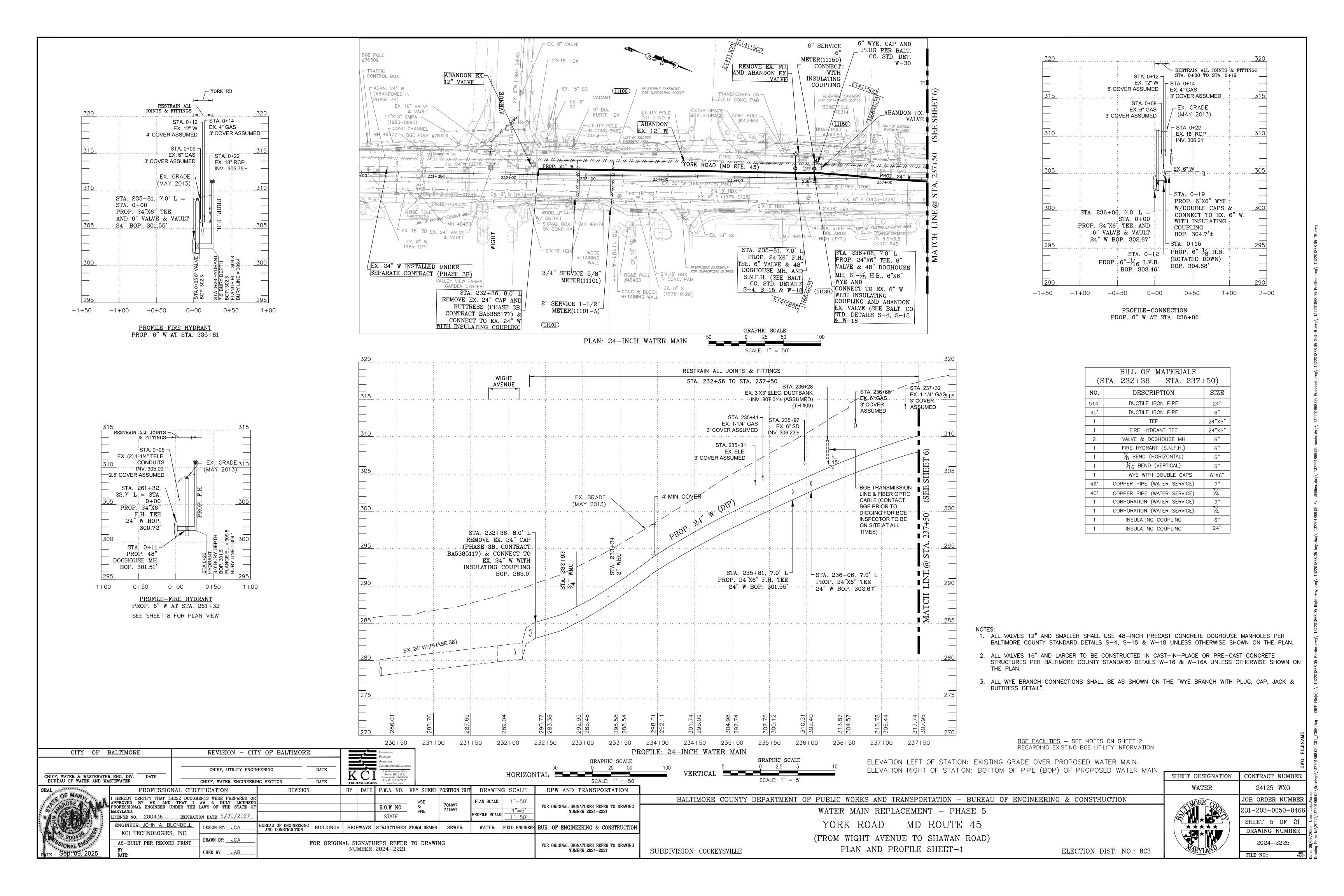
SUBDIVISION: COCKEYSVILLE

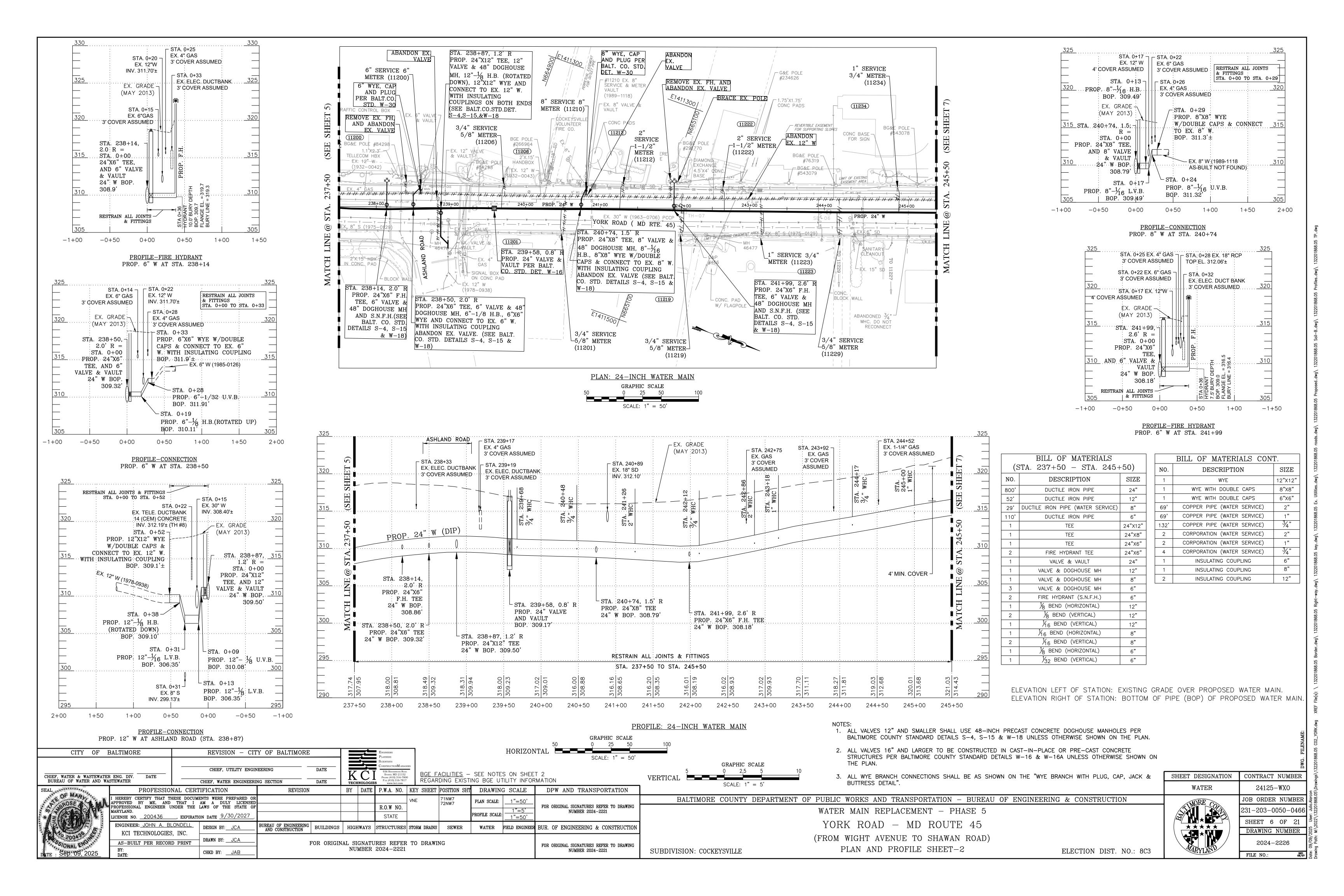
ELECTION DIST. NO.: 8C3

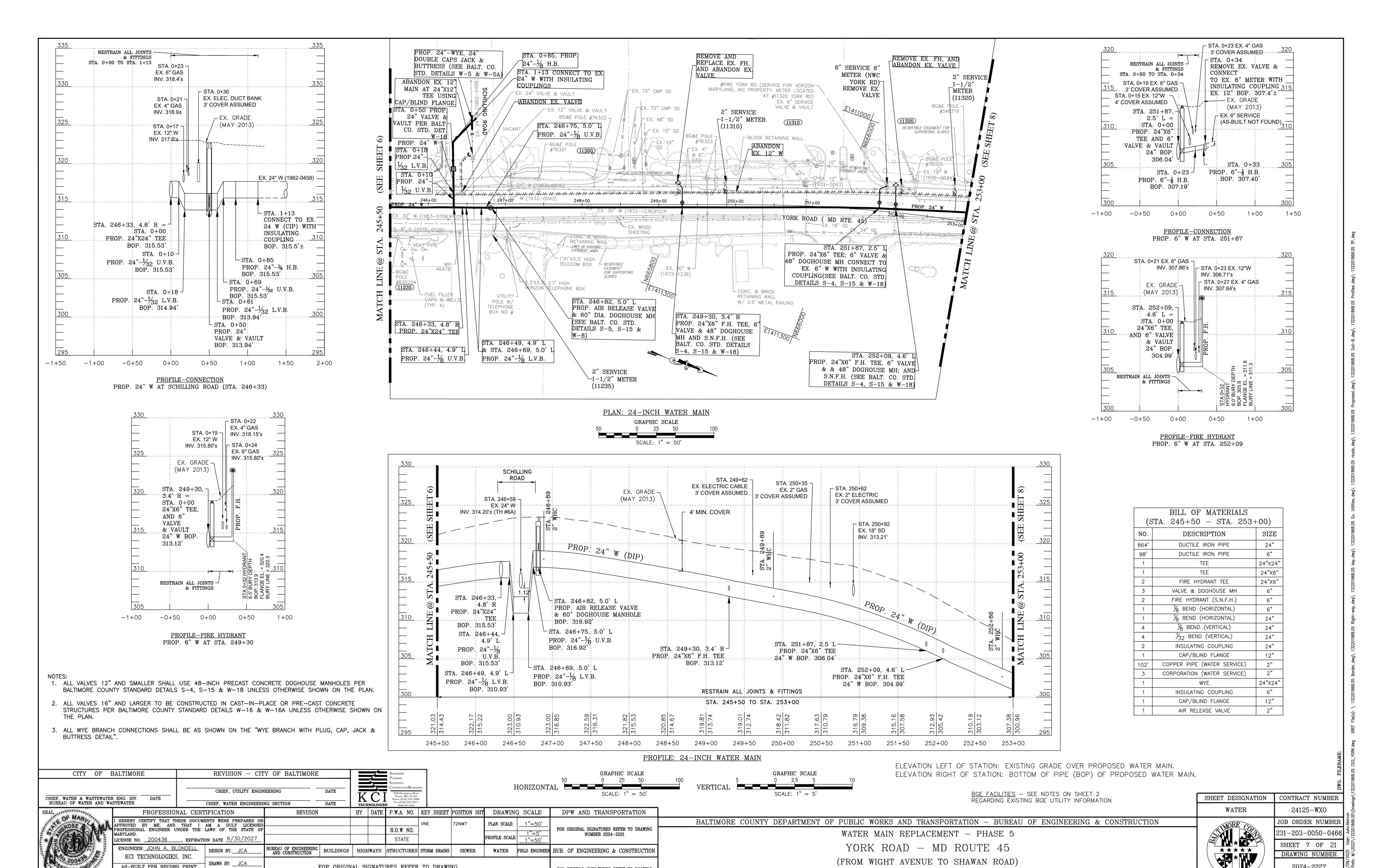
24125-WX0 JOB ORDER NUMBER 231-203-0050-0466 SHEET 4 OF 21 DRAWING NUMBER 2024-2224 FILE NO.:

SHEET DESIGNATION CONTRACT NUMBER

WATER







FOR ORIGINAL SIGNATURES REFER TO DRAWING

NUMBER 2024-2221

SUBDIVISION: COCKEYSVILLE

PLAN AND PROFILE SHEET-3

FOR ORIGINAL SIGNATURES REFER TO DRAWING

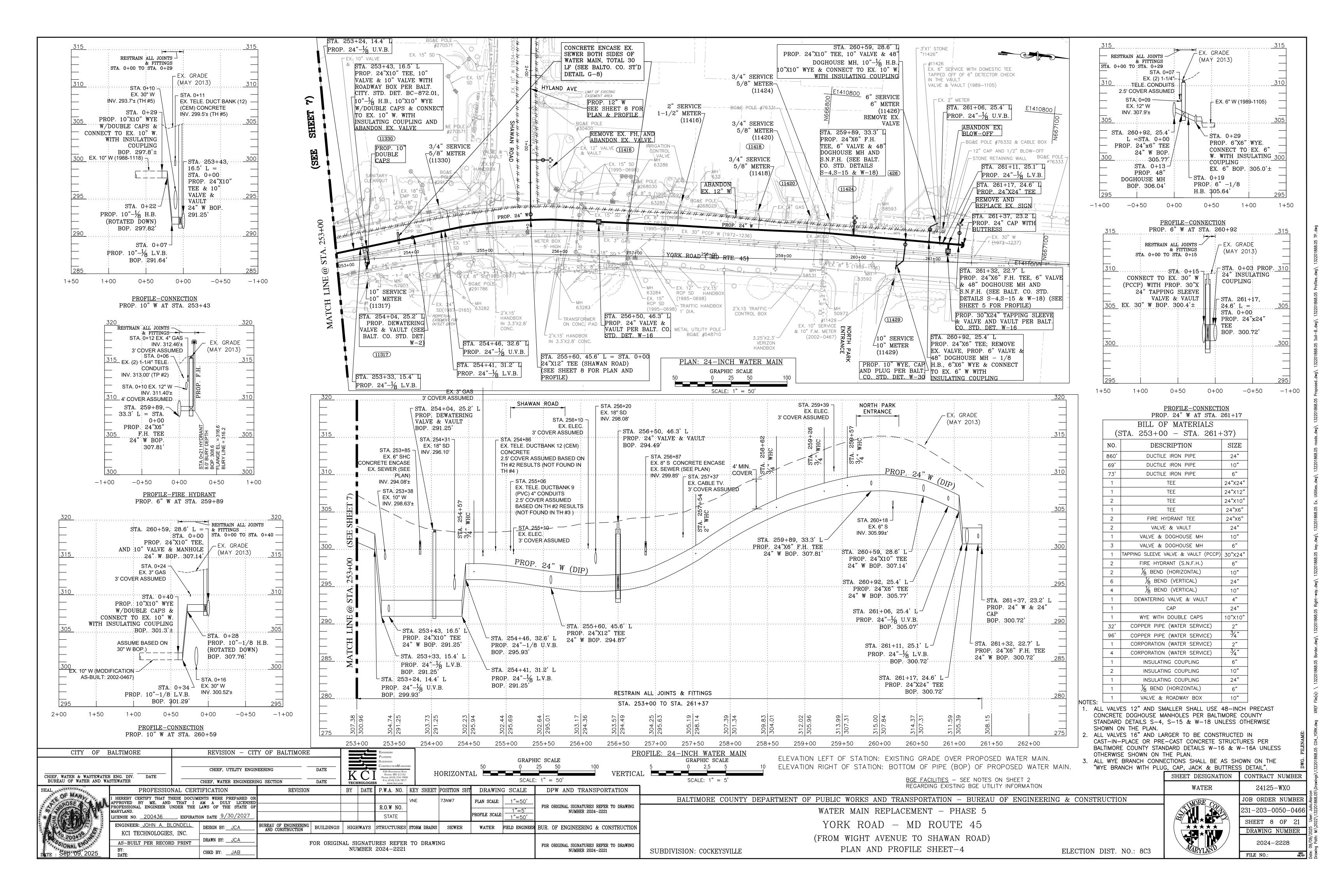
NUMBER 2024-2221

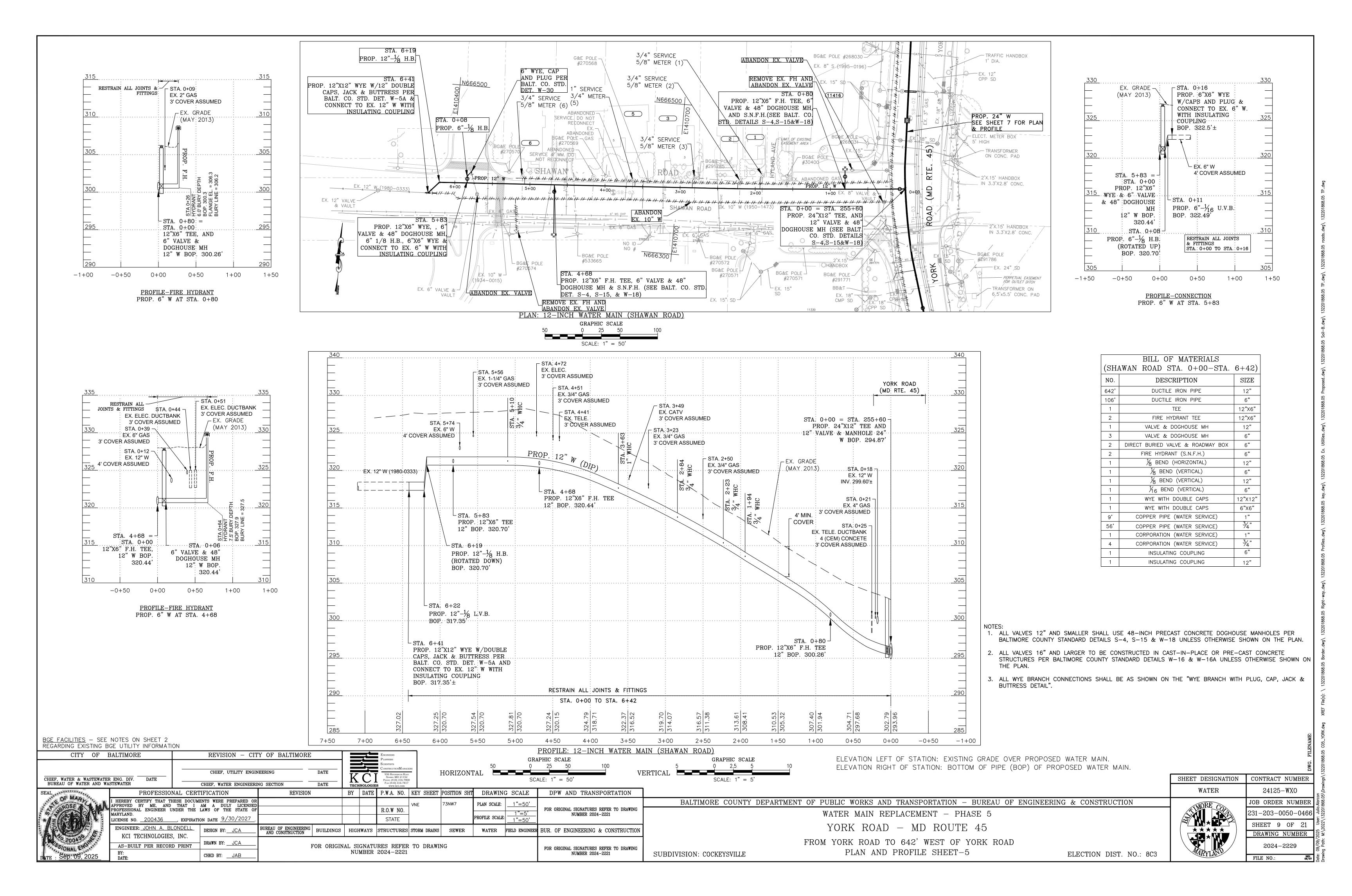
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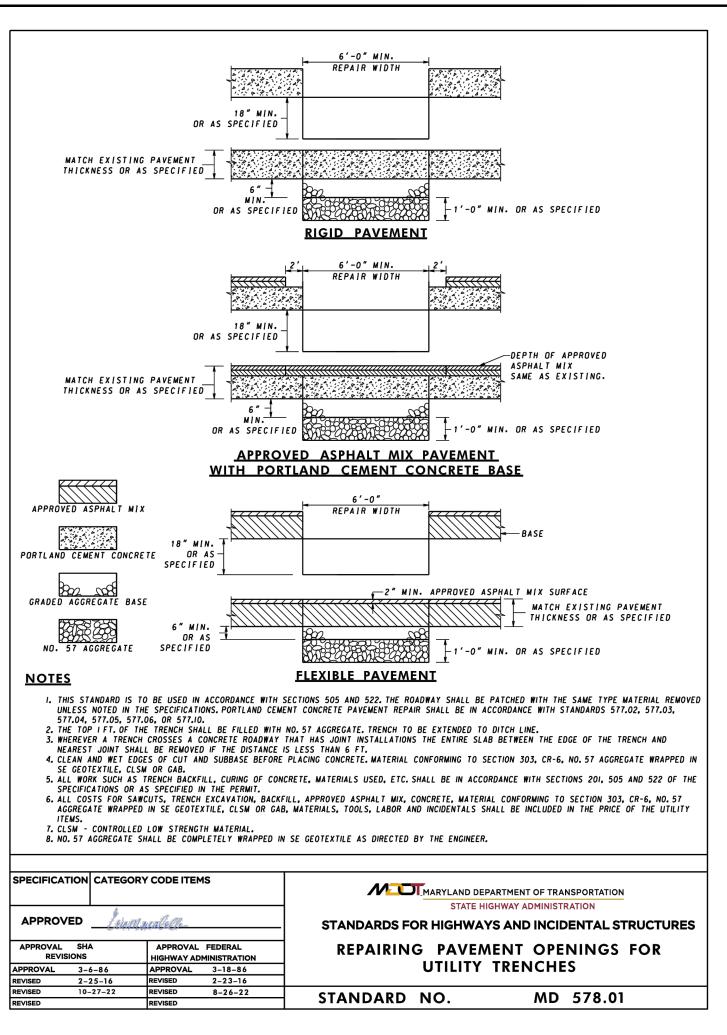
CHKD BY: JAB

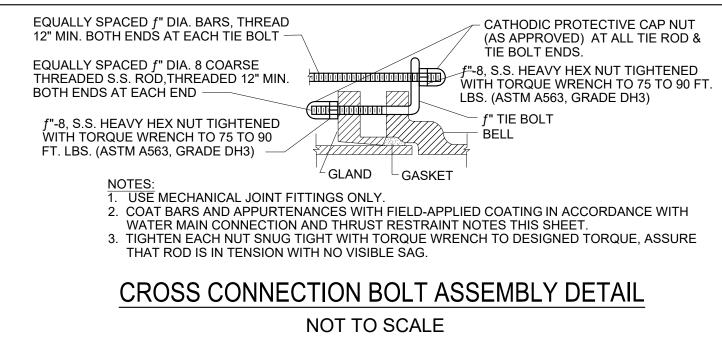
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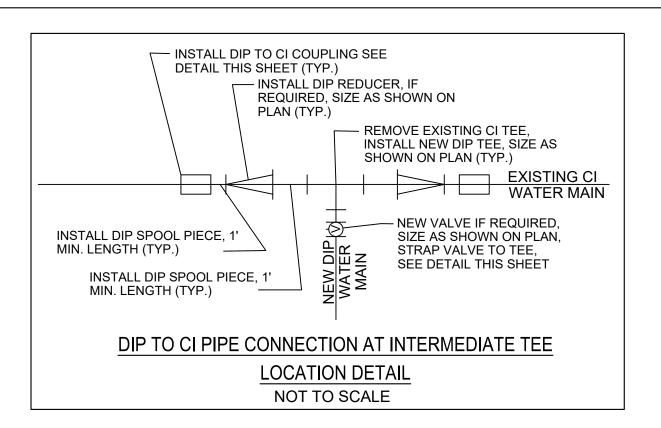
FILE NO.:





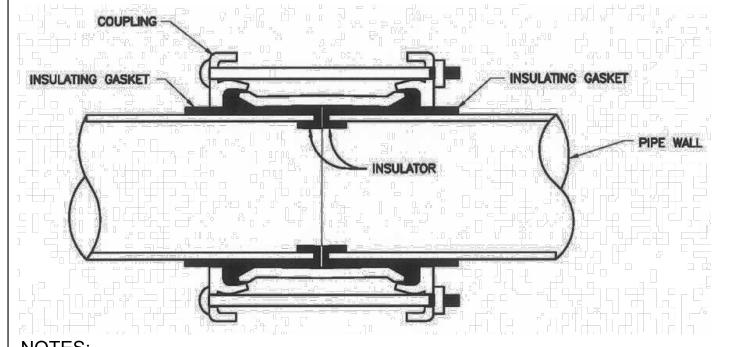






CITY OF BALTIMORE

REVISION - CITY OF BALTIMORE

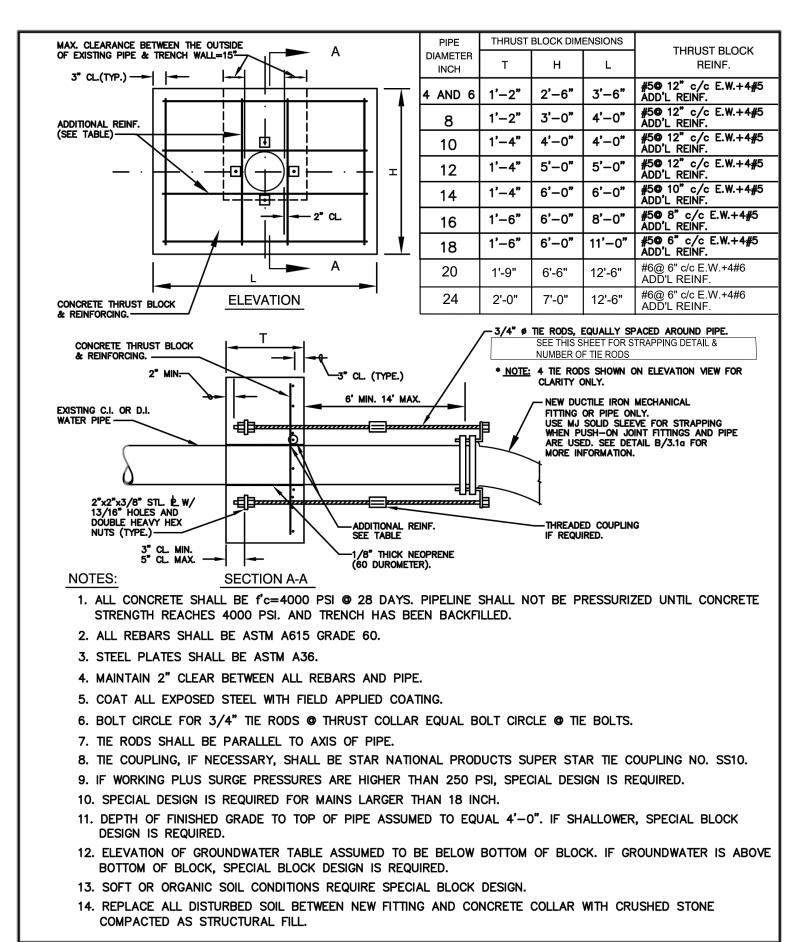


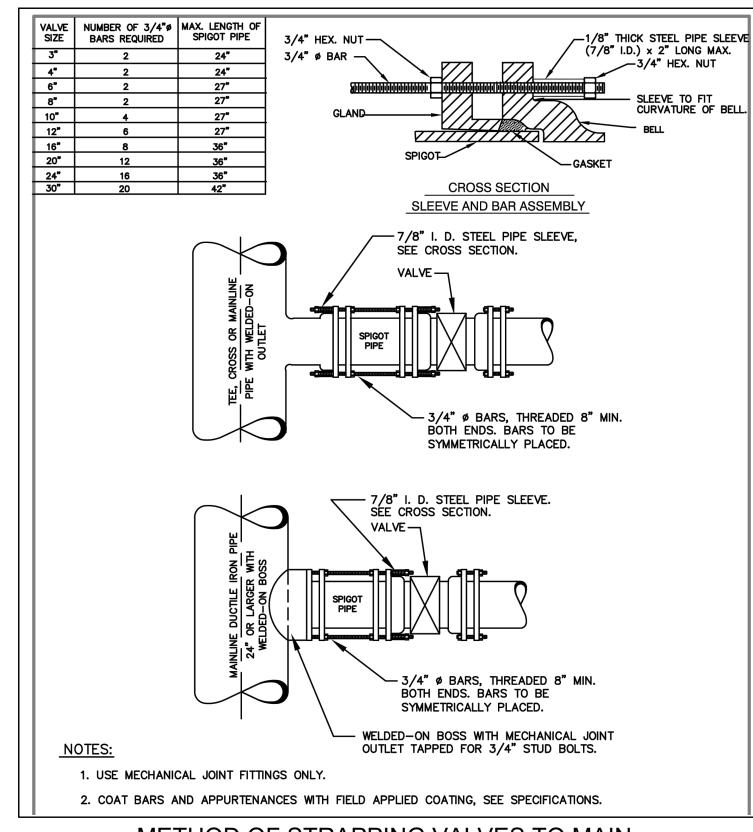
- 1. AFTER ASSEMBLY, TEST TO VERIFY THAT ISOLATION IS EFFECTIVE. IF ISOLATION IS NOT EFFECTIVE. REPAIR AS NECESSARY AND RETEST. THIS PROCESS SHALL CONTINUE UNTIL ISOLATION IS VERIFIED AS EFFECTIVE.
- 2. AFTER VERIFYING EFFECTIVE ISOLATION, COAT THE ENTIRE COUPLING AND ALL EXPOSED METAL INCLUDING BOLTS, NUTS, AND WASHERS.
- 3. ALL INSULATING COUPLINGS TO BE PROVIDED WITH TEST STATION.
- 4. ROMAC INDUSTRIES INC. STYLE IC501 FOR PIPES 4" THROUGH 14", ROMAC INDUSTRIES INC. STYLE IC400 FOR PIPES 16" THROUGH 24" OR APPROVED EQUAL.

STANDARD INSTALLATION OF ELECTRICAL ISOLATION OF PIPE FOR CORROSION PROTECTION (INSULATING COUPLING)

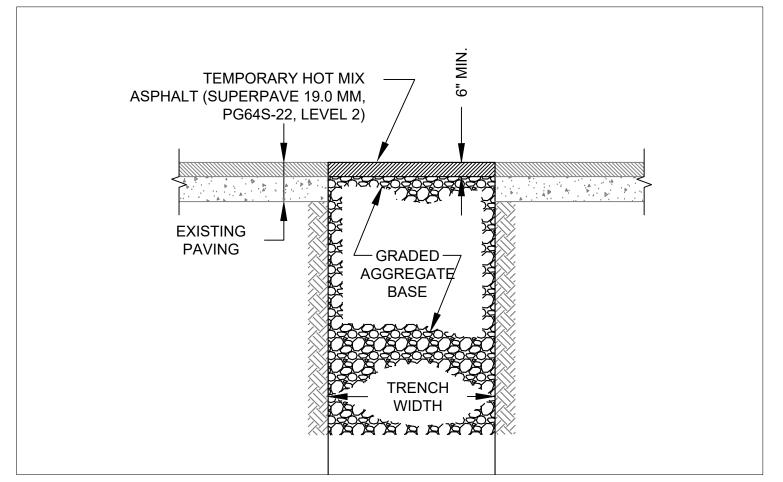
DIP TO CI COUPLING DETAIL

NOT TO SCALE





METHOD OF STRAPPING VALVES TO MAIN NOT TO SCALE



TEMPORARY REPAVING TRENCH OPENINGS FLEXIBLE PAVING

				-	_
THRUST (COLLAR DET	AIL - I	MECHANICAL	JOINT FITTING	

I: COCKEYSVILLE

CHIEF, WATER & WASTEWATER BUREAU OF WATER AND WAS			IEF, UTILITY ENGIN		DATE DATE	K	C I	936 RIDGEBROOK ROAL SPARKS, MD 21152 PHONE: (410) 316-780 FAX: (410) 316-7817 www.kci.com	-		THRUS	T COLL	AR DETAIL - MECHANICAL	JOINT FITTING
SEAL	PROFESSION	NAL CERTIFICAT		REVISION	-	BY				POSITION SHT	DRAWING	SCALE	DPW AND TRANSPORTATION	
OF MAR	I HEREBY CERTIFY THAT TH APPROVED BY ME, AND	THAT I AM A	DULY LICENSED								PLAN SCALE:	N/A		BALTIN
PROFESSIONAL ENGINEER UNDER THE MARYLAND.		DER THE LAWS OF THE STATE OF				R.O.W NO.						FOR ORIGINAL SIGNATURES REFER TO DRAWING NUMBER 2024-2221		
	LICENSE NO. 200436	, EXPIRATION DATE	E <u>9/30/2027</u> .					STATE			PROFILE SCALE:	N/A N/A		
P. S.	ENGINEER: <u>JOHN A. BL</u> KCI TECHNOLOGIES	DESIGN	N BY: JCA	BUREAU OF ENGINEERING AND CONSTRUCTION	BUILDINGS	HIGH	WAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	BUR. OF ENGINEERING & CONSTRUCTION	
SOONS 14	AS-BUILT PER RECORI	DDAWN	IBY: JCA	F	FOR ORIGINAL SIGNATURES REFER TO DRAWING FOR ORIGINAL SIGNATURES REFER TO DRAWING									
DATE: Sep. 09, 2025	BY: DATE:	CHKD 1	BY: JAB			NUI	MBER	2024-2221					NUMBER 2024-2221	SUBDIVISION:

IMORE COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION — BUREAU OF ENGINEERING & CONSTRUCTION WATER MAIN REPLACEMENT - PHASE 5

YORK ROAD – MD ROUTE 45

DETAILS

(FROM WIGHT AVENUE TO SHAWAN ROAD)

SHEET DESIGNATION | CONTRACT NUMBER 24125-WX0 WATER **** 2024-2230 FILE NO.:

ELECTION DIST. NO.: 8C3

JOB ORDER NUMBER 231-203-0050-0466 SHEET 10 OF 21 DRAWING NUMBER

GENERAL CORROSION NOTES

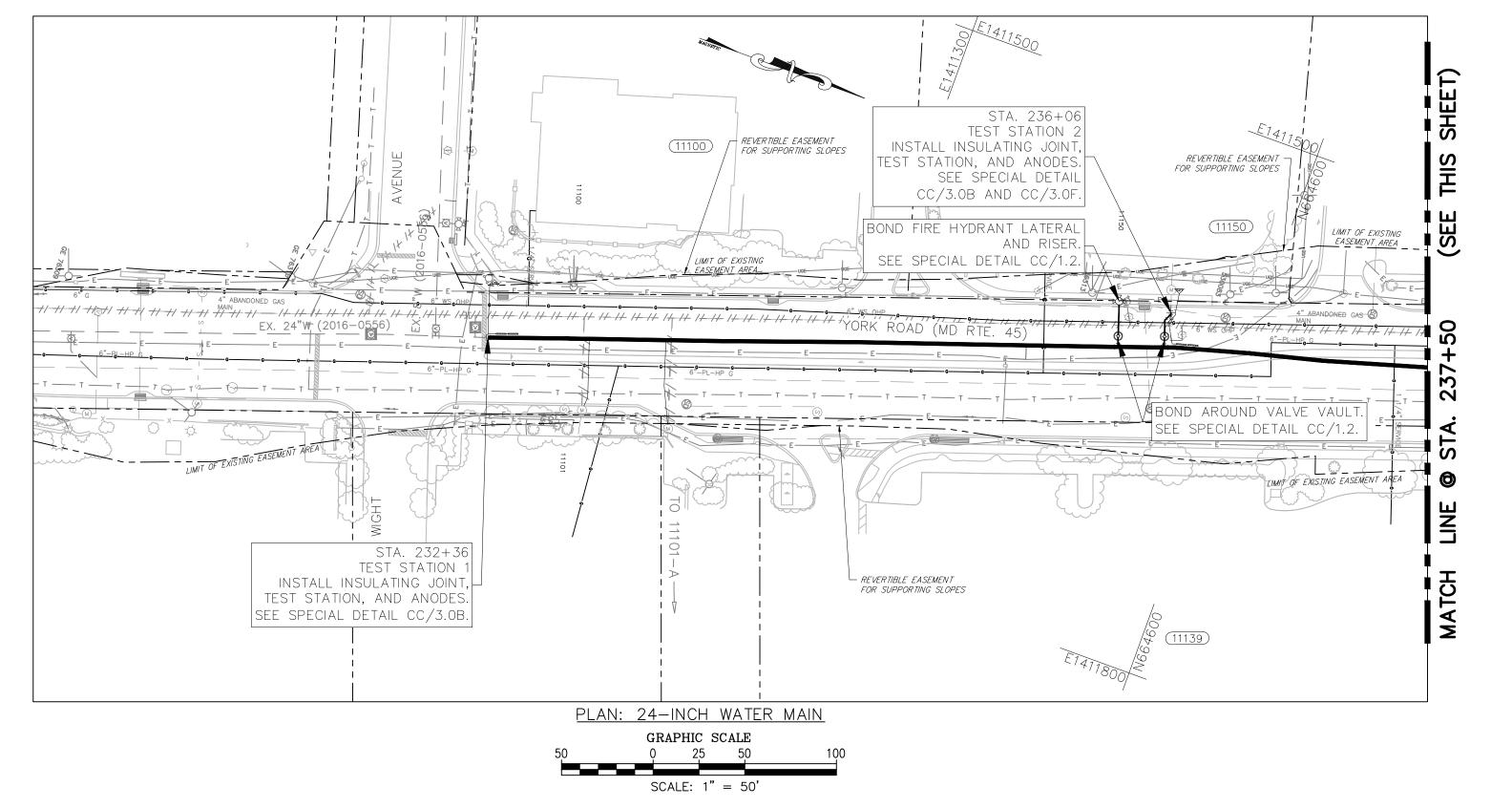
- 1. ALL NEW DUCTILE IRON WATER MAINS AND FIRE HYDRANT BRANCHES (INCLUDING RISERS) TO BE COATED AND CATHODICALLY PROTECTED PER BALTIMORE COUNTY SPECIFICATIONS 16640 AND AS SHOWN ON PLANS.
- 2. BOND ALL JOINTS ON DUCTILE PIPE UP TO BUT NOT ACROSS INSULATING JOINTS INCLUDING ANY TIE-INS UP TO INSULATING JOINTS. SEE DETAIL CC/1.0 AND CC/1.1.
- 3. BOND ALL FIRE HYDRANTS. SEE DETAIL CC/1.1.
- 4. BOND AROUND VALVE VAULTS. SEE DETAIL CC/1.2.
- 5. INSTALL INSULATING COUPLINGS AT PIPE CONNECTIONS WHERE SPECIFIED ON PLANS. SEE DETAIL CC/3.0B.
- 6. INSTALL INSULATING CORPORATION STOPS AT WATER SERVICE CONNECTIONS. SEE DETAIL CC/3.0E.
- 7. FIELD COAT ALL BONDED JOINTS. SEE DETAIL CC/3.1A.
- 8. INSTALL SEPARATOR MESH ON WATER MAIN AT EXISTING UTILITY CROSSING IF THERE IS LESS THAN 12-INCHES OF CLEARANCE BETWEEN THE TWO UTILITIES. SEE DETAIL CC/3.2.
- 9. USE LINKED RUBBER SEAL ON VALVE VAULTS. SEE DETAIL CC/3.4.
- 10. ALL ANODE BEDS TO BE TWO (2), 40-POUND MAGNESIUM ANODES INSTALLED HORIZONTALLY AND SPACED ONE (1) FOOT APART END TO END.
- 11. NO ANODES SHALL BE LOCATED SO THAT THEY LIE DIRECTLY OVER OR OBSTRUCT ACCESS TO OTHER UTILITIES.
- 12. BURY ALL TEST LEAD WIRES TO TOP OF PIPE DEPTH AND ROUTE THROUGH PVC CONDUIT TO FINAL TEST BOX LOCATION.
- 13. SPLICES SHALL NOT BE PERMITTED IN ANODE LEAD WIRES. ALL WIRES SHALL BE OF SUFFICIENT LENGTH TO REACH JUNCTION BOX WITHOUT SPLICING.
- 14. PAINT ALL TEST BOX LIDS BLUE AND LABEL INTERIOR WITH THE CONTRACT AND TEST STATION NUMBER.

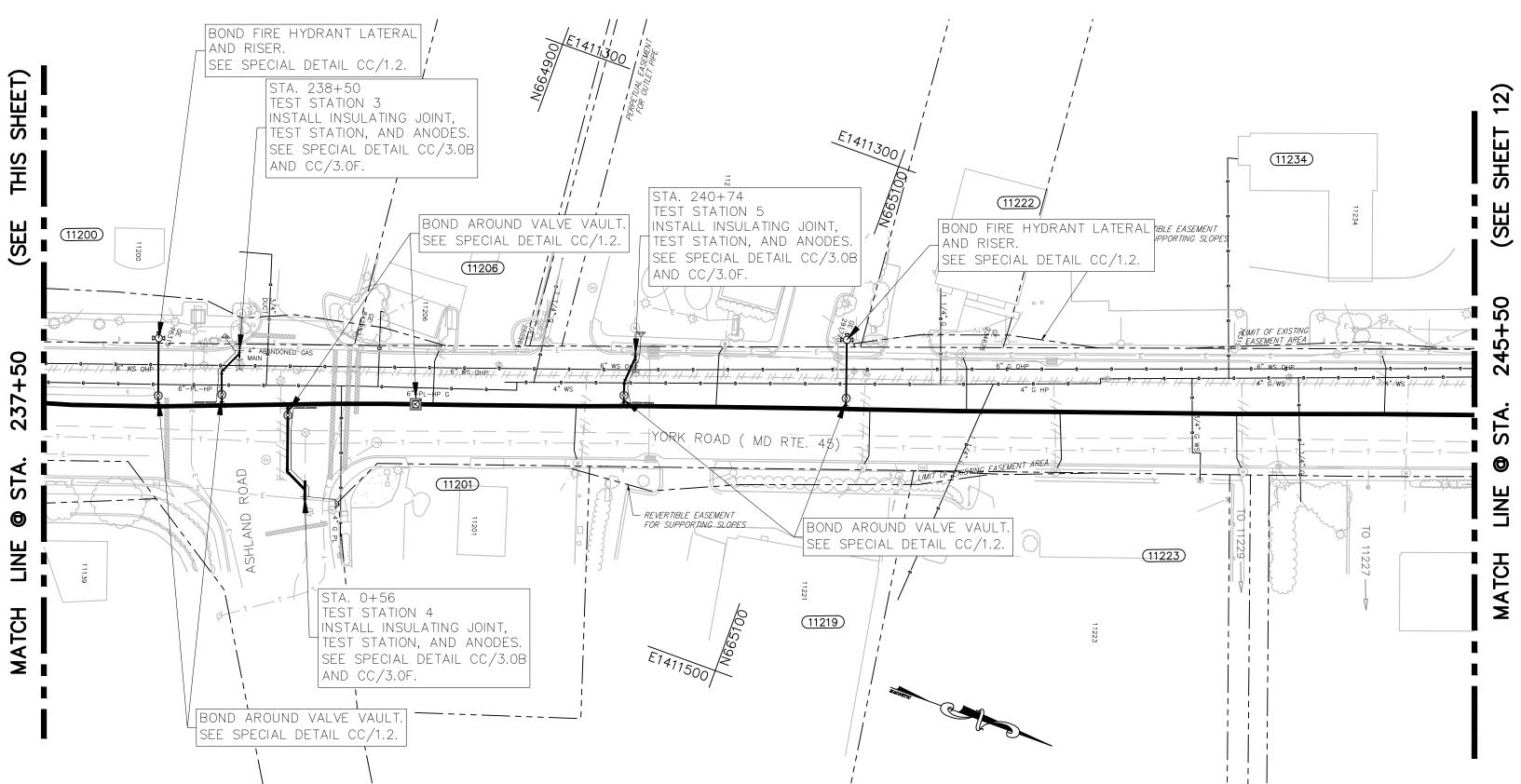
LEGEND

MAGNESIUM ANODE

INSULATING JOINT TEST STATION

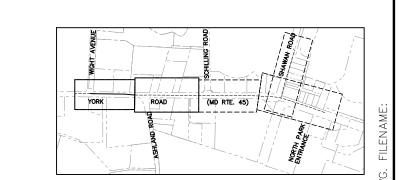
INSULATING JOINT





PLAN: 24-INCH WATER MAIN

SUBDIVISION: COCKEYSVILLE



SHEET DESIGNATION ONTRACT NUMBER CATHODIC PROTECTION 24125-WXO



JOB ORDER NUMBER
231-203-0050-0466
SHEET 11 OF 21
DRAWING NUMBER
2024-2231

CITY OF BALTIMORE REVISION - CITY OF BALTIMORE 10260 Old Columbia Road Columbia, MD 21046 PHONE : (410) 381-8475 CHIEF, UTILITY ENGINEERING FAX: (410) 381-9643 CHIEF, WATER & WASTEWATER ENG. DIV. BUREAU OF WATER AND WASTEWATER CHIEF, WATER ENGINEERING SECTION

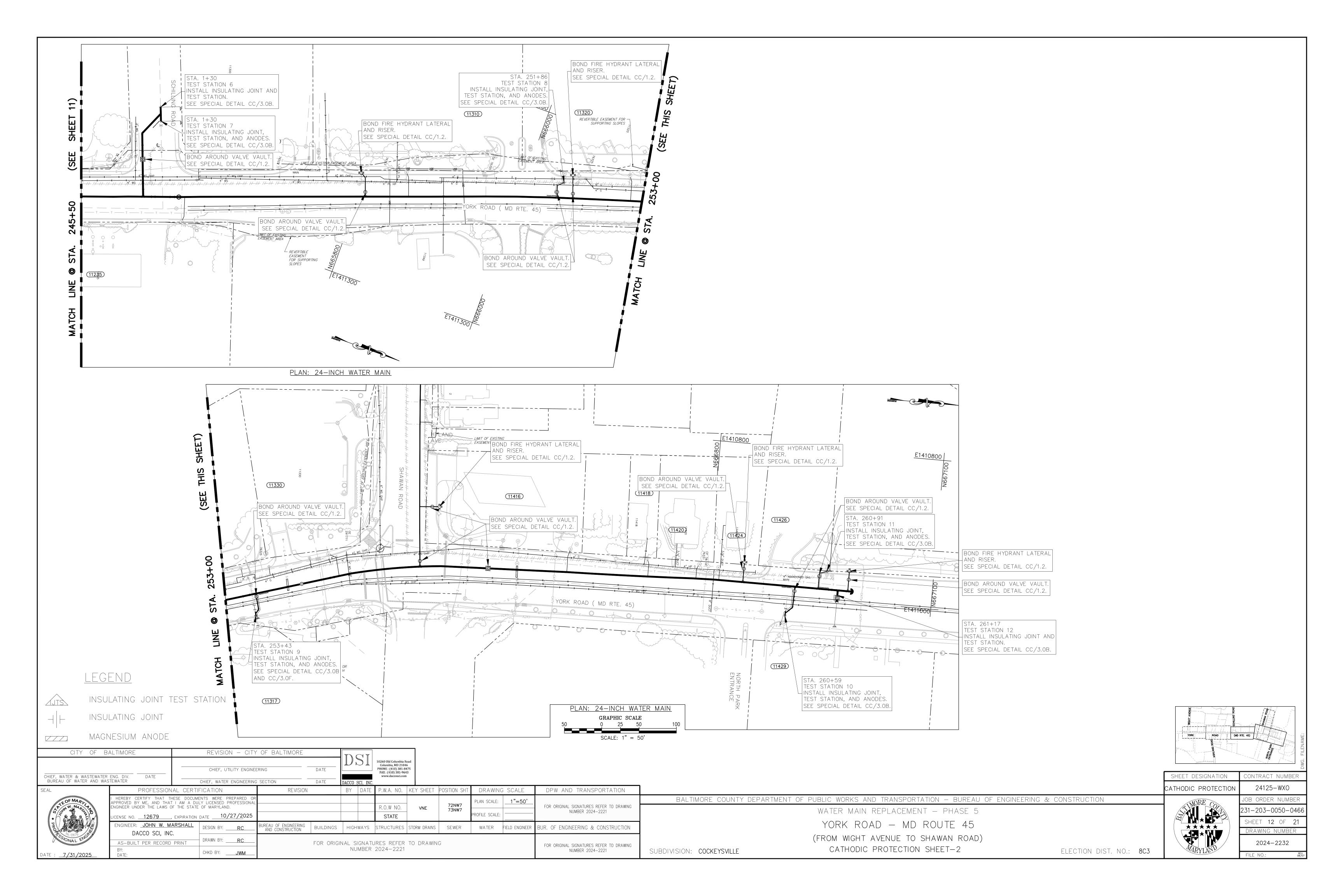
DPW AND TRANSPORTATION PROFESSIONAL CERTIFICATION REVISION P.W.A. NO. | KEY SHEET | POSITION S DRAWING SCALE PPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSION OF THE STATE OF MARYLAND. _AN SCALE: _____1"=50' 70NW7 71NW7 FOR ORIGINAL SIGNATURES REFER TO DRAWING R.O.W NO. NUMBER 2024-2221 72NW7 cense no. <u>12679</u>, expiration date <u>10/27/2</u>025 STATE ENGINEER: JOHN W. MARSHALL DESIGN BY: RC UREAU OF ENGINEERING BUILDINGS HIGHWAYS STRUCTURES STORM DRAINS SEWER JR. OF ENGINEERING & CONSTRUCTION DACCO SCI, INC. DRAWN BY: RC AS-BUILT PER RECORD PRINT FOR ORIGINAL SIGNATURES REFER TO DRAWING FOR ORIGINAL SIGNATURES REFER TO DRAWING NUMBER 2024-2221 NUMBER 2024-2221 CHKD BY: _____JWM_

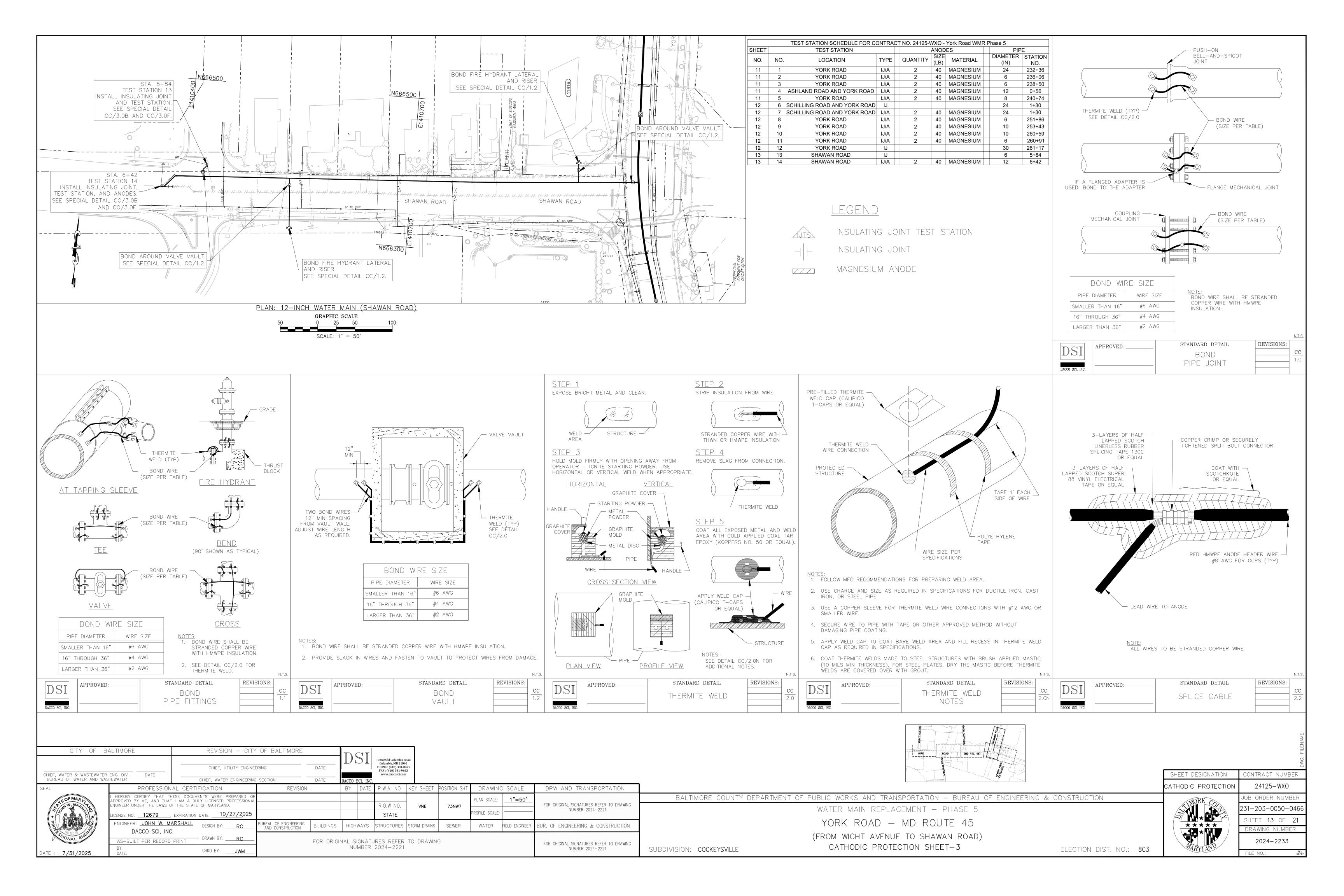
YORK ROAD — MD ROUTE 45 (FROM WIGHT AVENUE TO SHAWAN ROAD)

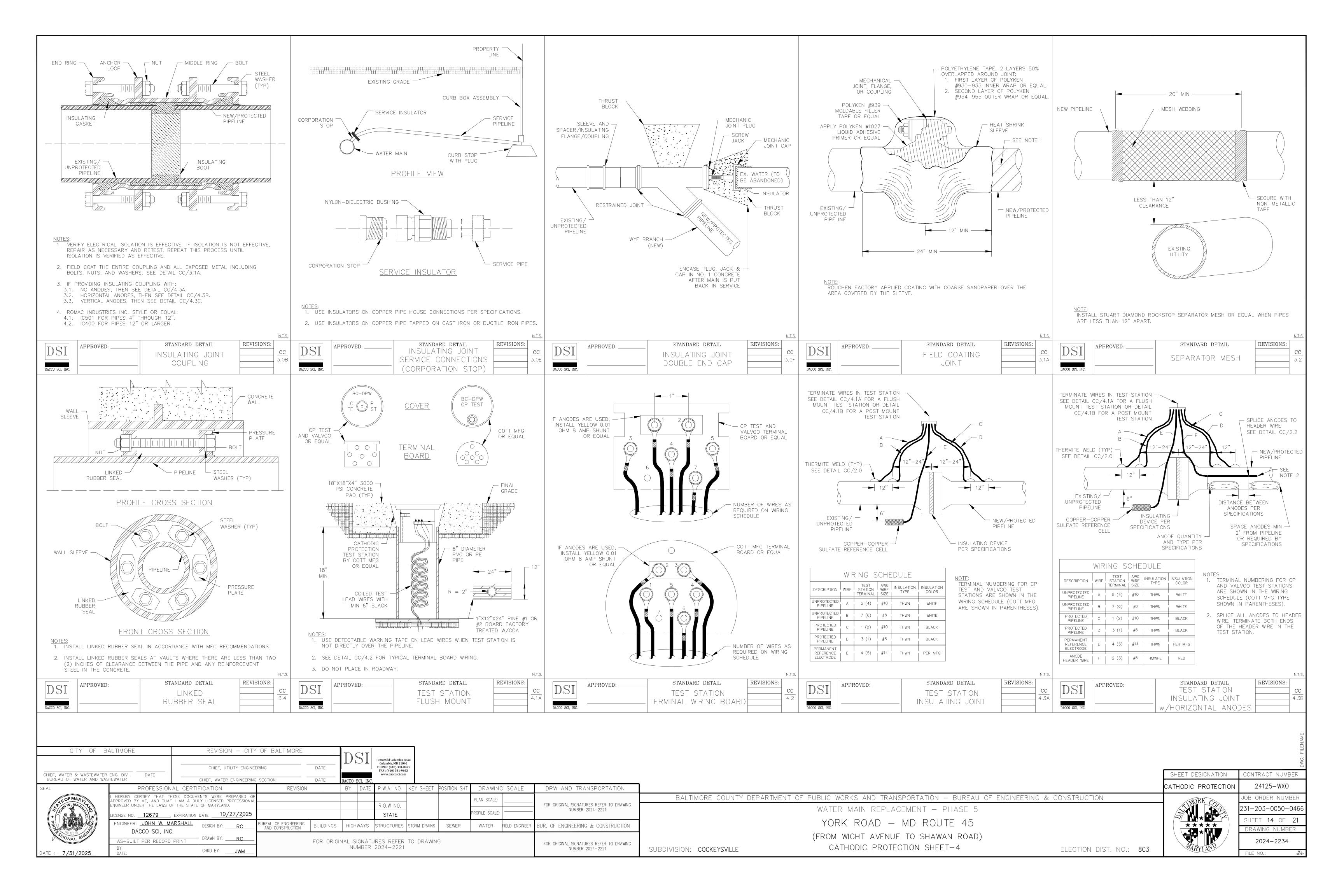
CATHODIC PROTECTION SHEET-1

WATER MAIN REPLACEMENT - PHASE 5

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION — BUREAU OF ENGINEERING & CONSTRUCTION







GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES AND PRACTICES SHALL CONFORM WITH THE GUIDELINES OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MD MUTCD) (LATEST EDITION), THE MDSHA "STANDARD SIGN BOOK", THE MDSHA "BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES" (LATEST EDITION).

2. THE TRAFFIC CONTROL SEQUENCE DEPICTS THE MINIMUM TRAFFIC CONTROLS REQUIRED DURING CONSTRUCTION TO MAINTAIN VEHICULAR TRAFFIC FLOW AND THE SAFETY OF VEHICLES AND WORKERS. ADDITIONAL DEVICES OR ADJUSTMENT OF THE LOCATION OF DEVICES SHALL BE INCORPORATED AS DIRECTED BY THE ENGINEER.

3. IN THE EVENT THAT ADJACENT CONSTRUCTION PROJECTS OCCUR SIMULTANEOUSLY WITH THIS PROJECT, COORDINATION OF THE TRAFFIC CONTROL PLANS FOR EACH PROJECT WILL BE REQUIRED. SPECIFICALLY THE LOCATION OF OVERLAPPING ADVANCE WARNING SIGNS SHALL BE ADJUSTED AS REQUIRED.

4. ALL TEMPORARY SIGNS INSTALLED FOR THIS PROJECT SHALL BE HIGH INTENSITY GRADE RETROREFLECTIVE SHEETING.

5. CONTRACTOR SHALL MAINTAIN DROP-OFF PROTECTION IN ACCORDANCE WITH MDSHA TYPICAL STANDARDS. DROP-OFFS GREATER THAN 2.5-INCHES TO 5-INCHES SHALL BE MAINTAINED ACCORDING TO MD 104.06-17 AT THE END OF EACH WORK PERIOD.

6. EXISTING SIGNS NOT APPLICABLE DURING WORK PERIOD SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

7. TEMPORARY SIGNS NOT APPLICABLE DURING NON-WORK PERIODS SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

8. THE CONTRACTOR SHALL REPAIR/REPLACE ALL TEMPORARY PAVEMENT MARKINGS AT THE END OF EACH WORK SHIFT. ALL DISTURBED LANE STRIPING WILL BE RESTORED AT THE COMPLETION OF THE PROJECT. PAVEMENT MARKINGS SHALL BE RESTORED IN KIND (EX. THERMOPLASTIC SHALL BE REPLACED BY NEW THERMOPLASTIC, EX. PAINT SHALL BE RE-PAINTED).

9. SEE CONTRACT SPECIAL PROVISIONS FOR LANE CLOSURE RESTRICTIONS. ROADWAY AND LANE CLOSURES NOT SPECIFICALLY IDENTIFIED IN THE CONTRACT SPECIAL PROVISIONS SHALL BE AT THE DISCRETION OF THE ENGINEER.

10. ALL TRAVEL LANES THROUGHOUT CONSTRUCTION MUST BE A MINIMUM OF 11 FEET WIDE.

11. ALL TRAVEL LANES THROUGHOUT CONSTRUCTION MUST BE OPEN FROM THE END OF THE WORK DAY TO THE BEGINNING OF WORK THE FOLLOWING DAY.

13. THE CONTRACTOR MUST OBTAIN A LANE CLOSURE PERMIT FROM THE STATE HIGHWAY ADMINISTRATION DISTRICT 4 TRAFFIC A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO PERFORMING ANY WORK ON A STATE OWNED ROADWAY

14. WORK HOURS ARE FROM 9 PM TO 5 AM, MONDAY THROUGH FRIDAY. NIGHTTIME WORKING HOURS ARE 9PM TO 5AM SUNDAY THROUGH THURSDAY NIGHT.

- 15. CONTRACTOR SHALL INSTALL PAVEMENT DROP-OFF SIGNING AND STEEL PLATE SIGNING
- IN ACCORDANCE WITH MD SHA STANDARD NOS. MD 104.06-15 AND MD 104.06-16.

16. COORDINATE WITH MDOT STATE HIGHWAY UTILITY INSPECTOR TO PLACE TRAFFIC SIGNALS IN FLASH MODE DURING WORK HOURS. THE CONTRACTOR SHALL NOTIFY THE SHA INSPECTOR 48 HRS

IN ADVANCE OF THE WORK.

DATE: 05/21/2025

17. THE CONTRACTOR WILL NEED TO SETUP A PRECONSTRUCTION MEETING WITH SHA PRIOR TO ANY WORK PERFORMED ON MD 45 OR MD 145.

18. COORDINATE WITH BALTIMORE COUNTY UTILITY INSPECTOR TO PLACE TRAFFIC SIGNALS

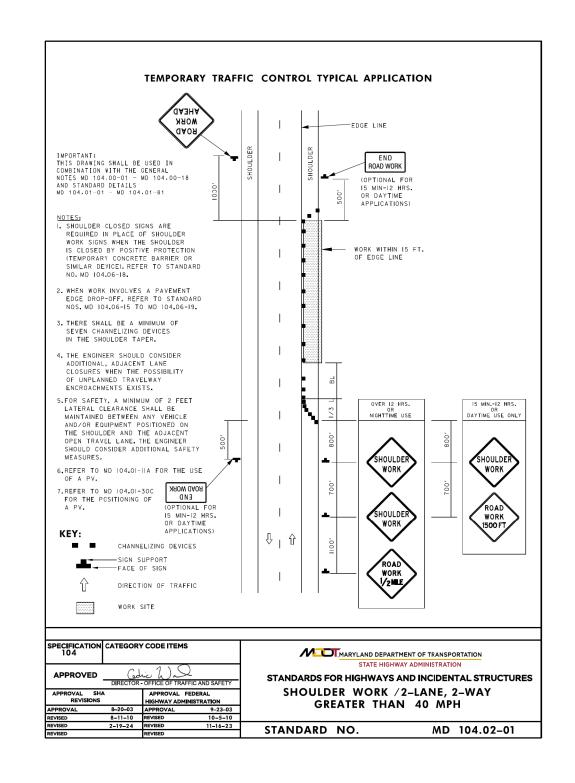
IN FLASH MODE DURING WORK HOURS. THE CONTRACTOR SHALL NOTIFY THE COUNTY INSPECTOR 48 HRS IN ADVANCE OF THE WORK.

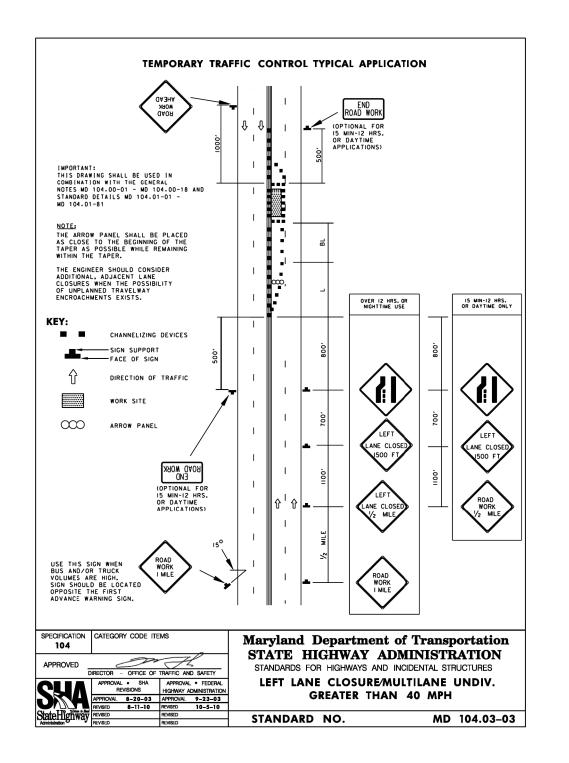
19. THE CONTRACTOR WILL NEED TO SETUP A PRECONSTRUCTION MEETING WITH BALTIMORE COUNTY PRIOR TO ANY WORK PERFORMED ON SHAWAN ROAD OR OTHER COUNTY ROADS. THIS MEETING SHALL BE COORDINATED WITH THE MEETING WITH MARYLAND STATE HIGHWAY WHEN TRAFFIC PATTERNS AFFECT MD 45 AND MD 145.

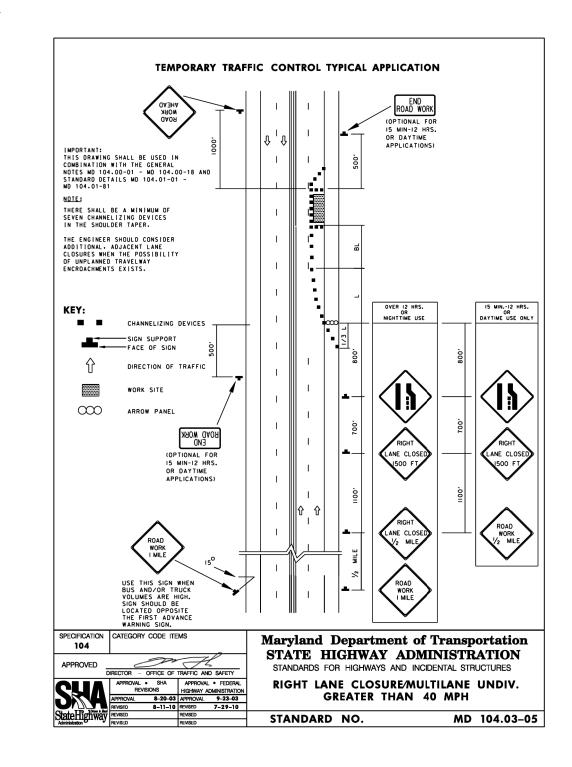
20. ANY SIDEWALK DISTURBANCE DURING CONSTRUCTION SHALL HAVE A SUITABLE MATERIAL/SURFACE IN PLACE TO MAINTAIN ADA ACCESS.

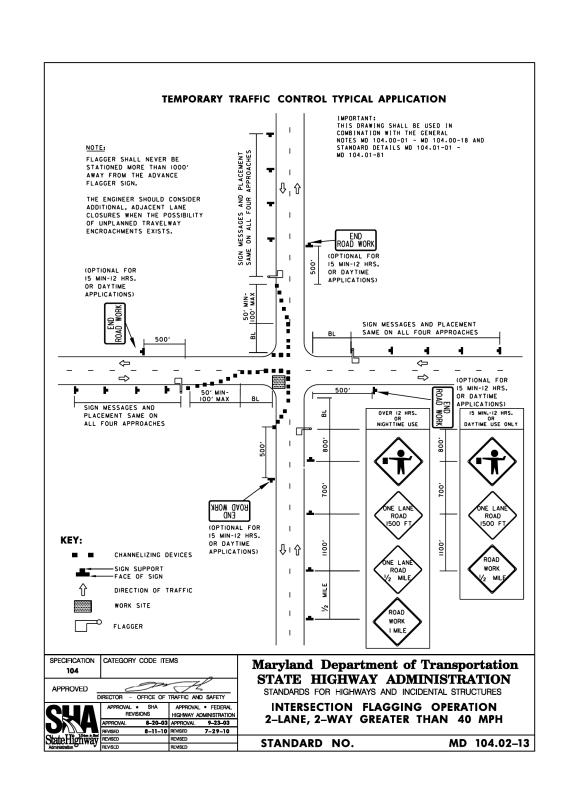
21. MAINTAIN A 60 INCH SIDEWALK WHEN ADDING A NEW FIRE HYDRANT.

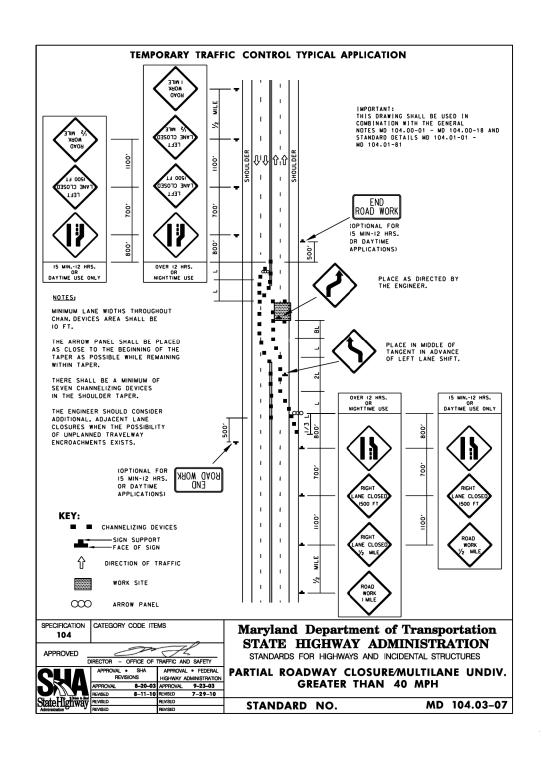
22. ALL LANE MARKINGS, STOP BARS AND CROSSWALKS MUST BE RESTORED IN KIND WITH TEMPORARY PAVEMENT MARKINGS.



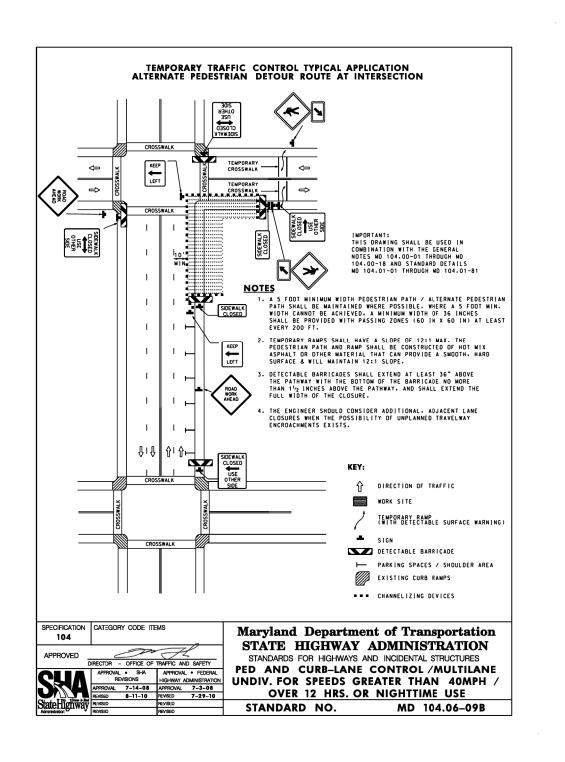


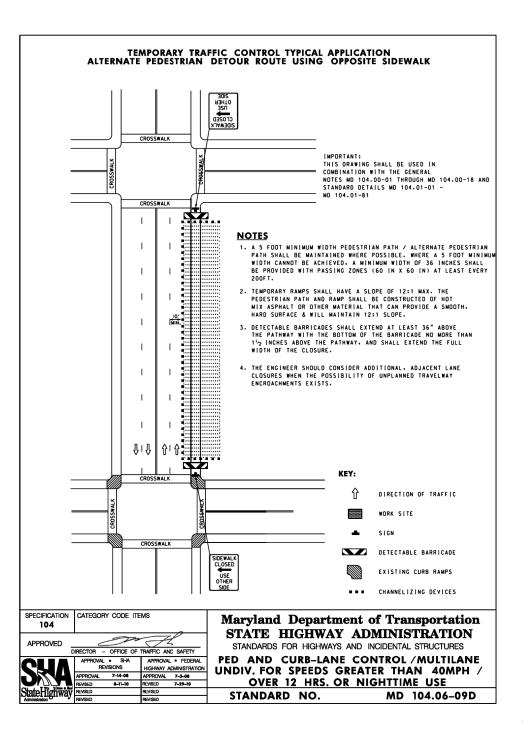






SUBDIVISION: COCKEYSVILLE





CITY OF BALTIMORE	REVISION - CITY OF BALTIMORE	
CHIEF. WATER & WASTEWATER ENG. DIV. DATE	CHIEF, UTILITY ENGINEERING DATE	_
BUREAU OF WATER AND WASTEWATER	CHIEF, WATER ENGINEERING SECTION DATE	_

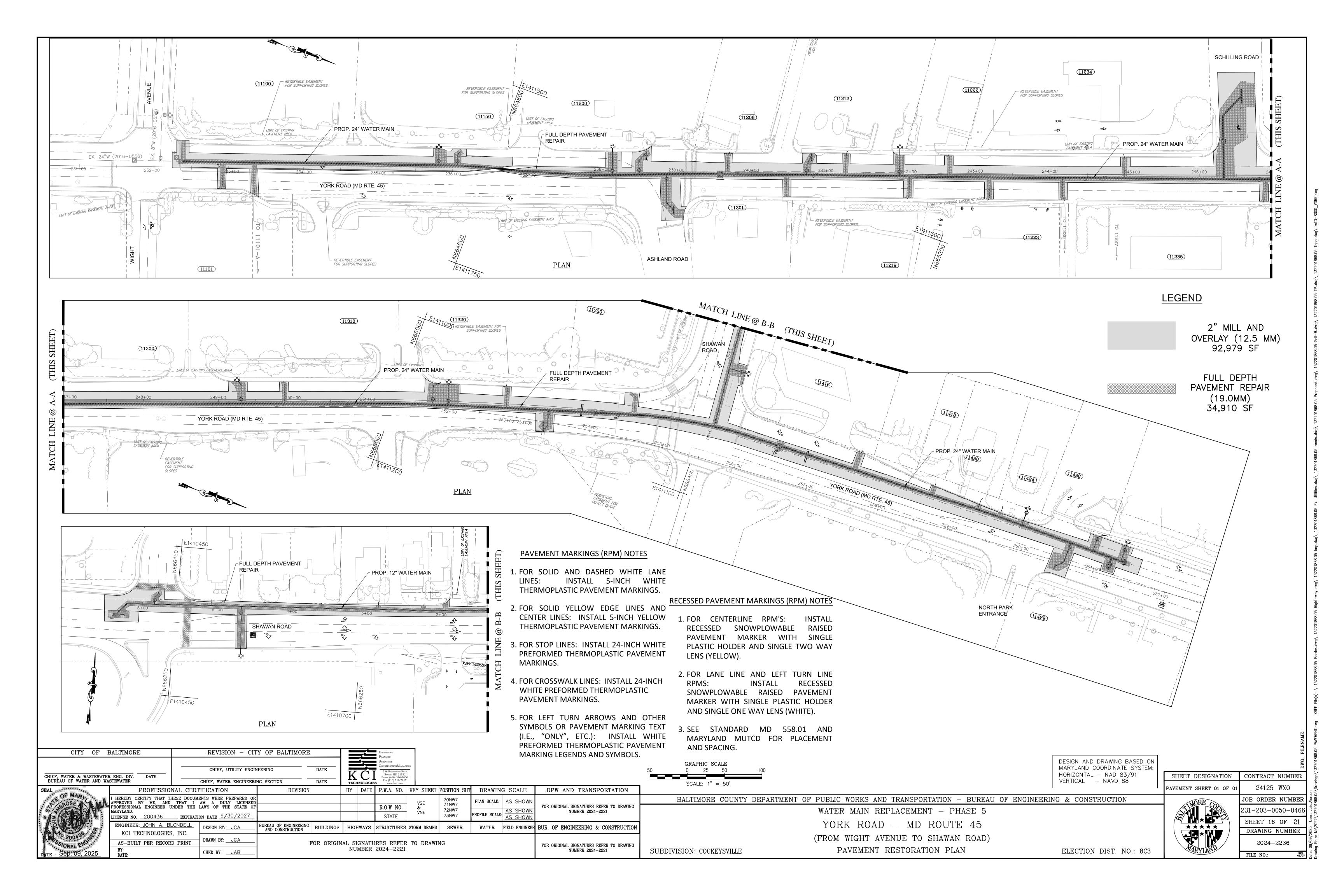
	ENG. DIV. DATE STEWATER	CHIEF, WATER ENGINEERI	NG SECTION	DATE								
	PROFESSION	AL CERTIFICATION	REVISION		BY DATE	P.W.A. NO.	KEY SHEET	POSITION SHT	DRAWING	G SCALE	DEPARTMENT OF PUBLIC WORK	(S
	APPROVED BY ME, AND THAT								PLAN SCALE:		APPROVED BY:	
	MARYLAND.	ER THE LAWS OF THE STATE OF				R.O.W NO.					DIRECT	OR
L	License no. $\phantom{00000000000000000000000000000000000$					STATE			PROFILE SCALE:		DATE:	
	ENGINEER:	DESIGN BY: CK	BUREAU OF ENGINEERING AND CONSTRUCTION	BUILDINGS	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	BUR. OF ENGINEERING & CONSTRUCTION	ON
	AS-BUILT PER RECORD	PRINT DRAWN BY: CK	REVIEWED BY:								APPROVED BY:	
	BY: DATE:	CHKD BY: AMH	DATE REVIEWED:								DATE:	.E.F

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION

24-INCH WATER TRANSMISSION MAIN REPLACEMENT-PHASE 5

YORK ROAD (MARYLAND ROUTE 45) FROM WIGHT AVENUE TO SHAWAN ROAD MAINTENANCE OF TRAFFIC PLAN

	DW
SHEET DESIGNATION	CONTRACT NUMBER
MOT SHEET 01 OF 01	24125-WXO
MORE CO	JOB ORDER NUMBER
	231-203-0050-0466
	SHEET 15 OF 21
	DRAWING NUMBER
ARVIND .	2024-2235
TILL LIFE	FILE NO · REV.



- 1. THE PROPOSED GRADING SHOWN ON THIS PLAN MEETS THE REQUIREMENTS SET FORTH BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND COMPLIES WITH ARTICLE 33, TITLE 5 OF THE BALTIMORE COUNTY CODE.

GRADING NOTE-(SCD)

LEGEND

BALTIMORE COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION **BUREAU OF ENGINEERING AND CONSTRUCTION**

WATER MAIN REPLACEMENT - PHASE 5 YORK ROAD - MD ROUTE 45 (FROM WIGHT AVENUE TO SHAWAN ROAD)

J.O. 231-203-0050-0466 CONTRACT NO.: 24125 WXO WORKDAY PROJECT NO. 030500466

INDEX OF DRAWINGS SHEET NO. DRAWING NO. DRAWING TITLE 2024-2239 2024-2240 EROSION & SEDIMENT CONTROL DETAILS

SANITARY MANHOLE	WATER VALVE	M	FIRE HYDRANT				
STORM DRAIN MANHOLE F.H.	FIRE HYDRANT		WATER VALVE & VAULT				
ELECTRIC HAND BOX	WATER VAULT	Υ					
ELECTRIC MANHOLE	WATER METER		WATER MAIN				
GAS VALVE	CLEANOUT	-w -}-€ \- □w					
GAS VAULTS	SANITARY SEWER						
SIGN G-G-G-G-G-G-G-G-G-G-G-G-G-G-G-G-G-G-G							
TELEPHONE MANHOLE	STORM DRAIN UNDERGROUND TELEPHONE(MAPPED)	\rightarrow	WATER MAIN HORIZONTAL BEND				
UTILITY POLE UT UT		, н 🕀	WATER MAIN TEE AND CROSS				
GUY WIRE		, —	TEMPORARY WATER				
LIGHT POLEUEUEUF	UNDERGROUND ELECTRIC(DESIGNATED)	N	WATER MAIN WATER MAIN HORIZONTAL BEND TEMPORARY WATER WATER MAIN HORIZONTAL BEND REMOVE EX. FIRE HYDRANT WATER MAIN HORIZONTAL BEND BENCHMARK BCO \$769 N 662710.46 E 1412253.09 ELEVATION 251.47 SPIKE SET AT 27.10' NORTH OF ELECTRIC POLE \$291767 ALONG YORK ROAD. WATER MAIN WATER WATER MAIN WATER WATER MAIN WAT				
BOLLARD POST FO FO	UNDERGROUND FIBER OPTIC						
	UNDERGROUND CABLE TV	* W * W *					
CONIFEROUS TREE W W	WATER LINE			/ E 1412253.09			
	EX. ABANDONED WATER LINE		TEST HOLE				
(FOR SURVEY CONTROLS &	PROPERTY LINE CONTOUR LINE FENCE	IH-XX					
SEE PLAN SHEETS)		GRADING/EROSION 8	SEDIMENT CONTROL	YORK ROAD.			
		ww	LIMIT OF DISTURBANCE				
		SF	SILT FENCE				
		<u> </u>	to account the real substance agreement	/			
		331					
			PROPERTY LINE	770-			
		CIP (CURB INLET PROTECTION				

		AGIP AT	GRADE INLET PROTECTION				
		COID	COMBINATION INLET	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
SITE INFO	RMATION	COIP					
	KINATION	*	, , , ,	7			
AREA DISTURBED	0.81 ± ACRES / 35,308 ± SQ.FT.	E 2 2		1			
AREA TO BE ROOFED OR PAVED	0.79 ± ACRES / 34,479 ± SQ.FT.						
AREA TO BE VEGETATIVELY STABILIZED	0.02 ± ACRES / 829 ± SQ.FT.			m			
		*, ' ',					
TOTAL CUT *	4,540 CU. YD.						
TOTAL FILL *	4,100 CU. YD.						
* FOR SEDIMENT AND CONTROL PURPOSE							

REVISION - CITY OF BALTIMORE

REVISION

BY DATE P.W.A. NO. KEY SHEET POSITION SHT

R.O.W NO.

STATE

FOR ORIGINAL SIGNATURES REFER TO DRAWING

NUMBER 2024-2221

BUREAU OF ENGINEERING BUILDINGS HIGHWAYS STRUCTURES STORM DRAINS

CHIEF, WATER ENGINEERING SECTION

CHKD BY: JAB

 FOR SEDIMENT AND EROSION **CONTROL PURPOSES ONLY**

PROFESSIONAL CERTIFICATION

ICENSE NO. 200436 EXPIRATION DATE 9/30/2025

AS-BUILT PER RECORD PRINT DRAWN BY: JCA

ENGINEER: JOHN A. BLONDELL

KCI TECHNOLOGIES, INC.

IEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR PROVED BY ME, AND THAT I AM A DULY LICENSED DFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF

SURVEY CONTROL DATA (US SURVEY FEET):

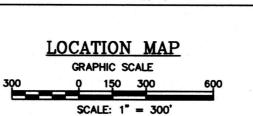
BCO 769 SPIKE: NORTHING: 662,710.46 EASTING: 1,412,253.09 ELEVATION: 251.47

BCO 770 CAPPED PIPE: NORTHING: 663,540.84 EASTING: 1,412,024.29 ELEVATION: 274.78

BCO 878 SPIKE: NORTHING: 666,420.04 EASTING: 1,411,579.08 ELEVATION: 288.03

CITY OF BALTIMORE

CHIEF, WATER & WASTEWATER ENG. DIV. BUREAU OF WATER AND WASTEWATER



ROAD

EPC 2

EQ3-2

N 666420.04 E 1411579.08

ELEVATION 288.03

SPIKE SET AT 42' NORTH OF FIRE

HYDRANT ALONG SHAWAN ROAD.

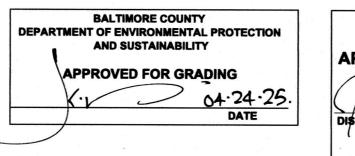
OWNER/DEVELOPER: BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION BUREAU OF ENGINEERING AND CONSTRUCTION WATER DESIGN SECTION 111 WEST CHESAPEAKE AVENUE, ROOM 205 TOWSON, MD 21204

SITE

E&S-2

STORMWATER MANAGEMENT NOTE

STORMWATER MANAGEMENT HAS BEEN ADDRESSED THROUGH A STORMWATER MANAGEMENT VARIANCE.



DPW AND TRANSPORTATION

FOR ORIGINAL SIGNATURES REFER TO DRAWING

FOR ORIGINAL SIGNATURES REFER TO DRAWING

STORMWATER MANAGEMENT PERMIT

WATER FIELD ENGINEER BUR. OF ENGINEERING & CONSTRUCTION

DRAWING SCALE

N/A

PLAN SCALE: _

PROFILE SCALE: -

72NW7

73NW7

APPROVED FOR SEDIMENT CONTROL 3-24-25

DESIGN AND DRAWINGS BASED ON MARYLAND COORDINATE SYSTEM (MCS).

E&S-2

OWNER'S/DEVELOPER'S CERTIFICATION I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION AND/C

CONSULTANT'S CERTIFICATION I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE

REQUIREMENTS OF THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT

AND THE CURRENT STATE OF MARYLAND SPECIFICATIONS FOR SOIL EROSION

AND SEDIMENT CONTROL. I HAVE REVIEWED THIS EROSION AND SEDIMENT

OWNER'S/DEVELOPER'S CERTIFICATION - AIR QUALITY

I ACKNOWLEDGE THAT I AM RESPONSIBLE UNDER THE CODE OF MARYLAND

REGULATIONS (26.11.06.03) TO PREVENT PARTICULATE MATTER FROM BECOMING

AIRBORNE DUE TO GRADING, LAND CLEARING, EXCAVATION, CONSTRUCTION OR

OTHER RELATED ACTIVITIES. I WILL CONTACT THE ENVIRONMENTAL HEALTH

OWNER'S/DEVELOPER'S CERTIFICATION - GRADING

I/WE HEREBY CERTIFY THAT ALL GRADING ON THIS SITE WILL BE DONE IN

ACCORDANCE WITH THE CURRENT GRADING REQUIREMENTS AS SET FORTH BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND

SUSTAINABILITY AND WITH THE REQUIREMENTS SPECIFIED IN ARTICLE 33, TITLE 5 OF

SECTION AT 410-887-4065 AT LEAST THREE DAYS PRIOR TO BEGINNING WORK.

Deputy Director 3/19/20

OWNER'S/DEVELOPER'S SIGNATURE

LISA K. Eicholtz

DEPUT NAME

200436

MD LICENSE NO.

SHEET DESIGNATION | CONTRACT NUMBER E&S SHEET 01 OF 05 24125-WX0

JOB ORDER NUMBER 31-203-0050-0466 SHEET 17 OF 21 DRAWING NUMBER 2024-2237

FILE NO .:

N 663540.84 E 1412024.29 **ELEVATION 274.78**

CAPPED PIPE SET AT 88.25 NORTH OF ELECTRIC POLE #830250 ALONG YORK ROAD.

APPROVAL GRANTED PER LETTER DATED DECEMBER 31, 2024. (EPS TRACKING NUMBER 03-24-4250)

BALTIMORE COUNTY SOIL CONSERVATION DISTRICT THIS PLAN APPROVAL WILL EXPIRE THREE (3) YEARS FROM THE APPROVAL DATE.

HORIZONTAL: NAD 83/91 AND VERTICAL: NAVD 88.

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION - BUREAU OF ENGINEERING & CONSTRUCTION

WATER MAIN REPLACEMENT - PHASE 5 YORK ROAD - MD ROUTE 45

PHONE: 410-887-3783

(FROM WIGHT AVENUE TO SHAWAN ROAD)

SUBDIVISION: COCKEYSVILLE

GRADING/EROSION & SEDIMENT CONTROL TITLE SHEET

ELECTION DIST. NO.: 8C3

THE BALTIMORE COUNTY CODE.

Lisa K. Ercholtz

PRINT NAME

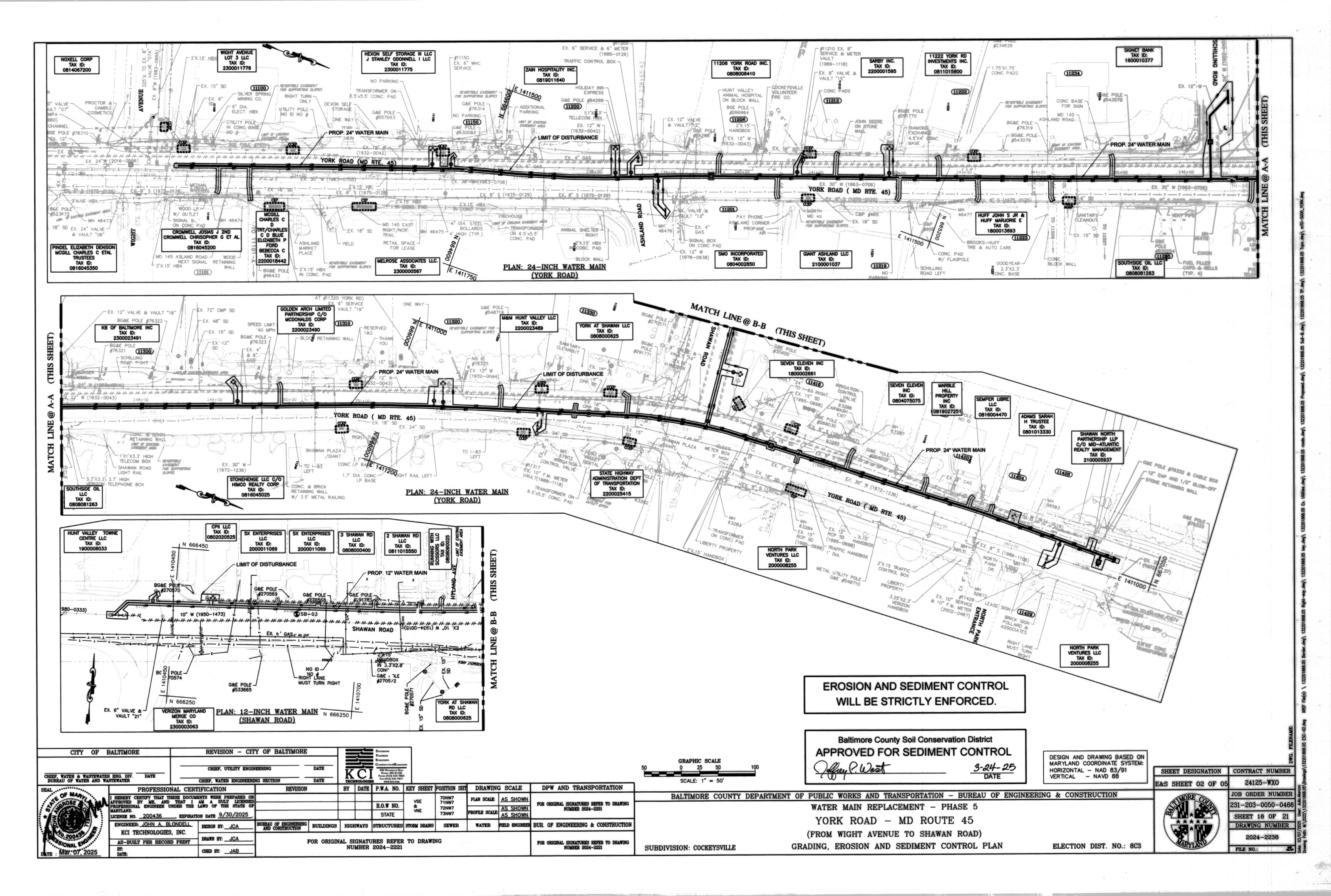
OWNER'S/DEVELOPER'S SIGNATURE TITLE

LISAK Eicholtz PRINT NAME

CONSULTANT'S SIGNATURE

JOHN A. BLONDELL

CONTROX PLAN WITH THE OWNER/DEVELOPER.



- 1. REFER TO "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN.
- 2. WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, MINOR FIELD ADJUSTMENTS CAN AND WILL BE MADE TO INSURE THE CONTROL OF ANY SEDIMENT. CHANGES IN SEDIMENT CONTROL PRACTICES REQUIRE PRIOR APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT.
- 3. AT THE END OF EACH WORKING DAY, ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT IN OPERATIONAL CONDITION
- 4. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN: A.) THREE (3) CALENDAR DAYS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE 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
- 5. ANY CHANGE TO THE GRADING PROPOSED ON THIS PLAN REQUIRES RE-SUBMISSION TO BALTIMORE COUNTY SOIL CONSERVATION DISTRICT FOR APPROVAL.
- 6. DUST CONTROL WILL BE PROVIDED FOR ALL DISTURBED AREAS. REFER TO "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PG. H.22 , FOR ACCEPTABLE METHODS AND SPECIFICATIONS FOR DUST CONTROL.
- 7. ANY VARIATIONS FROM THE SEQUENCE OF OPERATIONS STATED ON THIS PLAN REQUIRES THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT PRIOR TO THE INITIATION OF THE CHANGE.
- 8. EXCESS CUT OR BORROW MATERIAL SHALL GO TO, OR COME FROM, RESPECTIVELY, A SITE WITH AN OPEN GRADING PERMIT AND APPROVED SEDIMENT CONTROL PLAN.

STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN FOR WATERWAY CONSTRUCTION.

- 9. THE FOLLOWING ITEM MAY BE USED AS APPLICABLE: REFER TO "MARYLAND'S GUIDELINES TO WATERWAY CONSTRUCTION" BY THE WATER MANAGEMENT ADMINISTRATION (WMA) OF THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, REVISED NOVEMBER, 2000, FOR
- 10. PUMPING SEDIMENT LADEN WATER INTO WATERS OF THE STATE IS STRICTLY PROHIBITED. ANY PORTABLE DEWATERING DEVICE MUST BE LOCATED WITHIN THE LIMIT OF DISTURBANCE.
- 11. UPON INSTALLATION OF THE BASE PAVEMENT AND AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR, RELOCATE THE STABILIZED CONSTRUCTION ENTRANCE(S) AND INSTALL ADDITIONAL CONTROL MEASURES (STABILIZED CONSTRUCTION ENTRANCES, SILT FENCES, SUPER SILT FENCES) AS NEEDED TO CONTROL SEDIMENT RUNOFF FROM DISTURBED AREAS. THE ADDITIONAL CONTROLS MUST NOT ALTER DRAINAGE PATTERNS.

PROJECT DESCRIPTION

THIS PROJECT IS A LINEAR UNDERGROUND WATER INSTALLATION CONSISTING OF 3/4-INCH THROUGH 24-INCH WATER MAIN FOR APPROXIMATELY 3,000 FEET WITHIN THE PAVED LIMITS OF YORK ROAD AND ASSOCIATED SIDE STREETS FROM WIGHT AVENUE TO SHAWAN ROAD AND APPROXIMATELY 650 FEET OF 12-INCH WATER MAIN WITHIN THE PAVED LIMITS OF SHAWAN ROAD EXTENDING WEST FROM YORK ROAD.

EROSION AND SEDIMENT CONTROL NOTES

- A. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN. REFERENCE MANUALS INCLUDE: 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, MARYLAND GUIDELINES FOR WATERWAY CONSTRUCTION, DATE 2000, AND BALTIMORE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS DATED JANUARY 2000, AND BALTIMORE COUNTY STANDARD DETAILS FOR CONSTRUCTION DATED 2007.
- B. THE CONTRACTOR SHALL NOT BEGIN CONSTRUCTION ON ANY INDIVIDUAL PARCEL OF LAND UNTIL BALTIMORE COUNTY HAS OBTAINED THE LEGAL RIGHTS FOR THAT PARCEL
- C. SEQUENCE OF CONSTRUCTION
- CONTRACTOR SHALL OBTAIN ANY NECESSARY EASEMENTS OR RIGHT-OF-WAYS PRIOR TO BEGINNING WORK.
- 2. ALL FEDERAL, STATE AND LOCAL PERMITS MUST BE OBTAINED PRIOR TO THE PRE-CONSTRUCTION MEETING
- 3. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS (DPAI, SEDIMENT CONTROL) (410-887-3226): AT LEAST 48 HOURS PRIOR TO BEGINNING WORK.
- 4. IF APPLICABLE, ORANGE HIGH VISIBILITY FENCE SHALL BE MANUALLY INSTALLED ALONG THE LIMIT OF DISTURBANCE. WHERE THE LIMIT IS WITHIN 50 FEET OF THE FOREST BUFFER/CONSERVATION EASEMENT. THIS SHALL BE COMPLETED BY AND INSPECTED AT THE PRE-CONSTRUCTION MEETING. THE LIMIT OF DISTURBANCE (LOD) WILL BE CLEARLY DEFINED IN THE FIELD. THIS DEMARCATION SHALL BE INSPECTED AND APPROVED BY THE BALTIMORE COUNTY SEDIMENT CONTROL INSPECTOR AT THE PRE-CONSTRUCTION MEETING
- 5. IF NECESSARY CLEAR AND GRUB AS NECESSARY FOR THE INSTALLATION OF ALL SEDIMENT CONTROL MEASURES OR DEVICES. THE IMPLEMENTATION AND LOCATION OF ANY STABILIZED CONSTRUCTION ENTRANCE/S SHALL BE AT THE SOLE DISCRETION OF THE SEDIMENT CONTROL INSPECTOR. INSTALLATION OF INLET PROTECTION/S IN ROADWAYS SHALL ONLY BE AT THE SOLE DISCRETION OF THE SEDIMENT CONTROL INSPECTOR.
- 6. IF NECESSARY INSTALL ALL SEDIMENT AND EROSION CONTROL MEASURES AND DEVICES.
- 7. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL (DPAI, SC) UPON COMPLETION OF SAID INSTALLATION.
- 8. WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, AND THE SEDIMENT CONTROL INSPECTOR, PROCEED TO STEP 9.
- 9. INSTALL WATER MAIN/SERVICES/FIRE HYDRANTS AND APPURTENANCES. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE UTILITY NOTES AND DAILY STABILIZATION NOTE ON THIS SHEET. SEE ALL OTHER NOTES/GUIDELINES ON THE APPROVED PLANS. FINE GRADE & PROVIDE PERMANENT STABILIZATION AS REQUIRED.
- 10. UPON COMPLETION AND STABILIZATION OF THE SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS.
- D. EXCAVATED TOPSOIL AND SUBSOIL SHALL BE KEPT SEPARATE AND PROTECTED AS FOLLOWS:

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OF PROVED BY ME, AND THAT I AM A DULY LICENSE ROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF

- TEMPORARY STOCKPILES (IF EMPLOYED IN LIEU OF TRUCKS) SHALL BE LOCATED WITHIN THE LIMIT OF DISTURBANCE
- 2. TEMPORARY STOCKPILES (IF EMPLOYED IN LIEU OF TRUCKS) SHALL DRAIN TO A FUNCTIONING SEDIMENT CONTROL DEVICE.
- 3. TEMPORARY STOCKPILES (IF EMPLOYED IN LIEU OF TRUCKS) SHALL BE POSITIONED TO NOT IMPEDE UPON, OR IMPAIR THE FUNCTION OF SAID DEVICE.
- 4. TEMPORARY STOCKPILES (IF EMPLOYED IN LIEU OF TRUCKS) SHALL BE POSITIONED TO NOT ALTER DRAINAGE DIVIDES.
- E. POINT OF CONSTRUCTION INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT THE TRACKING OF SOIL ONTO PUBLIC WAYS BY USING STABILIZED CONSTRUCTION ENTRANCE AT THE INTERFACES WITH PUBLIC ROADWAYS.
- F. ANY DEWATERING DISCHARGE SHALL BE PLACED INTO AN APPROVED DEWATERING STRUCTURE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD DETAILS.

INLET PROTECTION NOTE

- THE CONTRACTOR IS REQUIRED TO INSTALL INLET PROTECTION ON ALL STORM DRAIN INLETS WITH THE EXCEPTION OF THE FOLLOWING:
- * 1. ANY INLET OUTFALLING DIRECTLY INTO A SEDIMENT TRAPPING DEVICE. 2. INLETS ON PRIVATE OR PUBLIC PAVED ROADWAYS OPEN TO THE PUBLIC
- * ALL INLET PROTECTION WILL BE INSTALLED AS DIRECTED BY THE INSPECTOR IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL PAGE E.23 (OR AS MAY BE AMENDED). THE REMOVAL OF ANY INLET PROTECTION DEVICES WILL REQUIRE APPROVAL FROM THE
- * STORM DRAINS TO BE FLUSHED PRIOR TO TRAPPING DEVICE REMOVAL

DAILY STABILIZATION NOTE

- THE CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY. STABILIZATION SHALL BE AS FOLLOWS:
- FOR AREAS TO BE PAVED, THE APPLICATION OF STONE BASE.
- 2. FOR AREAS TO BE VEGETATIVELY STABILIZED:
 - A PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES, CHANNELS
 - B. PERMANENT SEED AND MULCH FOR ALL OTHER AREAS.
- 3. ANY AREAS THAT CANNOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SILT FENCE INSTALLED ON THE DOWNSLOPE SIDE.

UTILITY NOTES

- CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE BE PLACED BELOW (DOWNSLOPE OF) OR THE STEEL PLATES SHALL BE PLACED ON THE TRENCH, AS APPROPRIATE.
- 2. PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.

H-1 STANDARDS AND SPECIFICATIONS

MATERIALS

Table H.1: Geotextile Fabrics

TEST METHOD | MD | CD |

ASTM D-4632

ASTM D-6241

ASTM D-4751

ASTM D-4491

ASTM D-4355

² Values for AOS represent the average maximum opening.

riprap on geotextile, do not exceed a one foot drop height.

DRAWING SCALE

PLAN SCALE:

71NW7

72NW7

SLIT FILM

GEOTEXTILE

450 lb

0.05 sec-1

70% strength

All numeric values except apparent opening size (AOS) represent minimum average roll values (MARV).

Geotextiles must be evaluated by the National Transportation Product Evaluation Program (NTPEP) and

The geotextile must be inert to commonly encountered chemicals and hydrocarbons and must be rot and mildew

resistant. The geotextile must be manufactured from fibers consisting of long chain synthetic polymers and

composed of a minimum of 95 percent by weight of polyolefins or polyesters, and formed into a stable network

When more than one section of geotextile is necessary, overlap the sections by at least one foot. The geotextile

must be pulled taut over the applied surface. Equipment must not run over exposed fabric. When placing

so the filaments or yarns retain their dimensional stability relative to each other, including selvages.

MARV is calculated as the typical minus two standard deviations. MD is machine direction; CD is cross

ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

SEDIMENT CONTROL TRAFFIC NOTE

ANY TRAVEL LANE CLOSED BEFORE 9:00 A.M. OR AFTER 3:30 P.M. MUST BE APPROVED BY BALTIMORE COUNTY BUREAU OF TRAFFIC ENGINEERING AND TRANSPORTATION PLANNING AT 410-887-3554. REFER TO SHA PERMIT FOR STATE ROADS.

MAINTENANCE NOTE

Grab Tensile Strength

Apparent Opening Size

Ultraviolet Resistance

Retained at 500 hours

Puncture Strength

Permittivity

Grab Tensile Elongation

CONTRACTOR SHALL INSPECT AND MAINTAIN ALL SEDIMENT CONTROL MEASURES AND DEVICES AFTER EVERY STORM EVENT. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO THE REMOVAL OF ALL ACCUMULATED SEDIMENT. GEOTEXTILE FABRIC SHALL BE REPLACED AS NEEDED TO ENSURE PROPER FUNCTION.

MONOFILAMENT

U.S. Sieve 70

0.28 sec⁻¹

DPW AND TRANSPORTATION

FOR ORIGINAL SIGNATURES REFER TO DRAWING

NUMBER 2024-2221

NUMBER 2024-2221

70% strength

MD CD MD

GEOTEXTILE

MINIMUM AVERAGE ROLL VAL

ASTM D-4632 200 lb 200 lb 370 lb 250 lb 200 lb 200 lb

ASTM D-4533 75 lb 75 lb 100 lb 60 lb 80 lb 80 lb

NONWOVEN

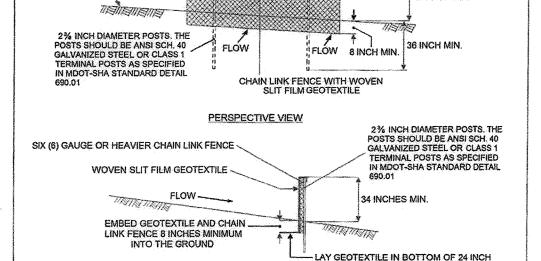
GEOTEXTILE

(0.21 mm)

1.1 sec⁻¹

70% strength

DETAIL E-3 SUPER SILT FENCE GROUND SURFACE -



<---10 FT. MAX--->

PROVIDE 1 CUBIC FOOT OF STORAGE FOR EACH GALLON PER MINUTE OF PUMP CAPACITY. REQUIRED STORAGE VOLUME MAY BE ATTAINED BY PLACEMENT OF TANKS IN PARALLEL WITH INFLOW EVENLY DISTRIBUTED AMONG TANKS. OVERTOPPING OF TANKS IS NOT PERMITTED.

USE 60 INCH CORRUGATED METAL OR PLASTIC PIPE WITH 1 INCH DIAMETER PERFORATIONS, 6 INCHES ON CENTER FOR THE INNER PIPE. LINE PIPE WITH NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, SANDWICHED BETWEEN, AND ATTACHED TO, 1/4 INCH HARDWARE CLOTH.

3. OVERLAP GEOTEXTILE 8 INCHES MINIMUM AT VERTICAL SEAM AND AT THE BOTTOM PLATE.

3. INFLOW PIPE MUST DISCHARGE INTO INNER PIPE AND BE REMOVABLE.

. ANCHOR GEOTEXTILE AT BOTTOM OF TANK WITH 4 INCHES OF 2 TO 3 INCH CLEAN STONE OR EQUIVALENT RECYCLED CONCRETE.

5. USE 72 INCH CORRUGATED METAL OR PLASTIC OUTER PIPE WITH PERMANENT OUTFLOW PIPE WITH INVERT LOWER THAN INFLOW PIPE

. PLACE TANK ON LEVEL SURFACE AND DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE

3. A PORTABLE SEDIMENT TANK REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT FROM INNER PIPE WHEN IT REACHES TWO FEET IN DEPTH. IF SYSTEM CLOGS, PULL OUT INNER PIPE, REMOVE ACCUMULATED SEDIMENT, AND REPLACE GEOTEXTILE. KEEP POINT OF DISCHARGE FREE OF EROSION.

CONSTRUCTION SPECIFICATIONS

1. INSTALL 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.15 INCH WALL THICKNESS AND SIX FOOT

DETAIL F-3 PORTABLE SEDIMENT TANK

OUTFLOW

- NONWOVEN GEOTEXTILE

2 FT CLEANOUT DEPTI

PLATE WELDED ON EACH PIPE

►¼ IN GALVANIZED HARDWARE CLOTH

STANDARD SYMBOL

----SSF----

WIDE TRENCH

REMOVABLE INFLOW PIPE-

60 IN PERFORATED PIPE -

CONSTRUCTION SPECIFICATIONS

72 IN PIPE-

- LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO 2. FASTEN 6 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (23% INCH MAXIMUM OPENING) 42 INCHES
- IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS. 3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H -1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID
 - SECTION, EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND. LAY THE GEOTEXTILE IN THE BOTTOM OF THE 24 INCH WIDE TRENCH
- 4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BYPASS.
- 6. PROVIDE MANUFACTURERS CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H - 1 MATERIALS.

5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE UPHILL A MINIMUM OF 3 VERTICAL FEET TO PREVENT

- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF THE FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS,
- REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MODIFIED FOR USE IN BALTIMORE COUNTY U.S. DEPARTMENT OF AGRICULTURE MODIFIED - 2012 MARYLAND DEPARTMENT OF THE ENVIRONMEN TURAL RESOURCES CONSERVATION SERVICE REVISED - 5/2023 WATER MANAGEMENT ADMINISTRATION

APPENDIX 17

Baltimore County Soil Conservation District APPROVED FOR SEDIMENT CONTROL

REVISION - CITY OF BALTIMORE CHIEF, UTILITY ENGINEERING CHIEF, WATER ENGINEERING SECTION PROFESSIONAL CERTIFICATION REVISION BY DATE P.W.A. NO. KEY SHEET POSITION SHT

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION - BUREAU OF ENGINEERING & CONSTRUCTION WATER MAIN REPLACEMENT - PHASE 5

YORK ROAD - MD ROUTE 45

(FROM WIGHT AVENUE TO SHAWAN ROAD) EROSION & SEDIMENT CONTROL NOTES AND DETAILS

ELECTION DIST. NO.: 8C3

SHEET DESIGNATION E&S SHEET 03 OF 05 ***

CONTRACT NUMBER 24125-WX0 JOB ORDER NUMBER 231-203-0050-0466 SHEET 19 OF 21 DRAWING NUMBER 2024-2239

FILE NO.:

MB

DETAIL C-8 MOUNTABLE BERM

ISOMETRIC VIEW

-25 FT (A DIKE) / 35 FT (B DIKE)-

8 IN MIN/A D

SECTION A-A

2. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE EARTH MOUND PRIOR TO PLACING STONE.

C.24

PLACE 2 TO 3 INCH STONE OR EQUIVALENT RECYCLED CONCRETE AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE MOUNTABLE BERM.

MAINTAIN LINE, GRADE, AND CROSS SECTION. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN SPECIFIED DIMENSIONS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE.

USE MINIMUM WIDTH OF 10 FEET TO ALLOW FOR VEHICULAR PASSAGE.

CONSTRUCTION SPECIFICATIONS

OF MARL

CITY OF BALTIMORE

MARYLAND.

CHIEF, WATER & WASTEWATER ENG. DIV.

BUREAU OF WATER AND WASTEWATER

ROFILE SCALE: _____, EXPIRATION DATE 9/30/2025 73NW7 STATE ICENSE NO. <u>200436</u> ENGINEER: JOHN A. BLONDELL DESIGN BY: JCA BUILDINGS | HIGHWAYS | STRUCTURES | STORM DRAINS | SEWER WATER FIELD ENGINEER BUR. OF ENGINEERING & CONSTRUCTION KCI TECHNOLOGIES, INC. DRAWN BY: JCA AS-BUILT PER RECORD PRINT FOR ORIGINAL SIGNATURES REFER TO DRAWING FOR ORIGINAL SIGNATURES REFER TO DRAWING NUMBER 2024-2221

R.O.W NO.

SUBDIVISION: COCKEYSVILLE

SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

The process of preparing the soils to sustain adequate vegetative stabilization.

To provide a suitable soil medium for vegetative growth

Conditions Where Practice Applies

<u>Purpose</u>

Where vegetative stabilization is to be established.

Criteria

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

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
- 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.

B-4-3 STANDARDS AND SPECIFICATIONS

The application of seed and mulch to establish vegetative cover.

Purpose

<u>Criteria</u>

1. Specifications

- 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.
- 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.

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- a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
- 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

B.15

- d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil
- 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 3:1 or 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.

- 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 11/2 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 ivv, 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.

- 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

b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

1/4 inch of soil covering. Seedbed must be firm after planting.

200 pounds per acre; K₂O (potassium), 200 pounds per acre.

time. Do not use burnt or hydrated lime when hydroseeding.

iv. When hydroseeding do not incorporate seed into the soil.

1. Mulch Materials (in order of preference)

areas where one species of grass is desired.

processed into a uniform fibrous physical state.

iii. Mix seed and fertilizer on site and seed immediately and without interruption.

i. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least

ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in

i. If fertilizer is being applied at the time of seeding, the application rates should not exceed

ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by

a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in

b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose

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

i. WCFM is to be dyed green or contain a green dye in the package that will provide an

the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P₂O₅ (phosphorous),

hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one

c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).

B.13

SEEDING AND MULCHING

To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies

To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

- 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. 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.
- c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture appropriate color to facilitate visual inspection of the uniformly spread slurry. of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used 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

B. Mulching

- 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
 - 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.

and seedbed preparation.

- 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 hydroseeding) 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.

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.

- 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 lack AR or other approved equal may be used. Follow application rates as specified by t 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
- 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

B-4-4 STANDARDS AND SPECIFICATIONS

<u>FOR</u>

TEMPORARY STABILIZATION Definition

To stabilize disturbed soils with vegetation for up to 6 months.

<u>Purpose</u> To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time,

permanent stabilization practices are required.

<u>Criteria</u>

- 1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
- 2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
- 3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

Temporary Seeding Summary

	Hardiness Zo Seed Mixture	Fertilizer Rate	Lime Rate				
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	(10-20-20)	Line Kate	
	SEE	TABLE B.1	THIS SHEE		436 lb/ac (10 lb/1000 sf)	2 tons/ac (90 lb/1000 sf)	
			:		enough management		

DPW AND TRANSPORTATION

FOR ORIGINAL SIGNATURES REFER TO DRAWING

NUMBER 2024-2221

NUMBER 2024-2221

FIELD ENGINEER BUR. OF ENGINEERING & CONSTRUCTION

PERMANENT SEEDING FOR SITE STABILIZATION

PERMANENT SEEDING FOR SITE STABILIZATION - EXISTING GRASS SLOPES ONLY (SEE OTHER TABLE FOR OTHER AREAS, THIS SHEET)

		ESS ZONE (FROM IXTURE (FROM TA		LIME				
No.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N-	P ₂ O ₅	K ₂ O	RATE
· · · · · · · · · · · · · · · · · · ·	DEERTONGUE	20		1/4-1/2 in	45 POUNDS PER ACRE (1.0 LB/ 1000 SF)	90 LB/AC (2 LB/ 1000 SF)	90 LB/AC (2 LB/ 1000 SF)	2 TONS/AC (90 LB/ 1000 SF)
MIX #3	CANADA WILD RYE	3						
CH VIIA	REDTOP	1	FEB 15-APRIL 30 MAY 1-MAY 31					
	COMMON LESPEDEZA	10						
	ORCHARD GRASS	25		1/4-1/2 in				
	CREEPING RED FESCUE	10	FEB 15-APRIL 30 AUG 15-OCT 31					
MIX #10	REDTOP	1						
	ALSIKE CLOVER	3						
	WHITE CLOVER	3						
	CREEPING RED FESCUE	25						
	HARD FESCUE	25	FEB 15-APRIL 30 AUG 15-OCT 31					
MIX #12	SHEEP FESCUE	25		1/4-1/2 in				
	WHITE CLOVER	3						
	RED CLOVER	3						

FOR THE PERIOD MAY 1-AUGUST 14, ADD EITHER FOXTAIL OR PEARL MILLET TO THE PERMANENT MIX AND REFER TO TABLE B.5 FOR OTHER DATES.

- 2 LBS /ACRE TO MIX #10 -4 LBS./ACRE TO MIX #12

Table B.1: Temporary Seeding for Site Stabilization

	Seeding Rate 1/		Seeding	Recommended Seeding Dates by Plant Hardiness Zone 3/				
Plant Species	lb/ac	lb/1000 ft ²	Depth 2/ (inches)	5b and 6a	6b	7a and 7b		
Cool-Season Grasses						1		
Annual Ryegrass (Lolium perenne ssp. multiflorum)	40	1.0	0.5	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Opt 15	Feb 15 to Apr 30; Aug 15 to Nov 30		
Barley (Hordeum vulgare)	96	2.2	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30		
Oats (Avena sativa)	72	1.7	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30		
Wheat (Triticum aestivum)	120	2.8	1.0	Mar 15 to May 31; Aug 1 to Sep 30	Mar 1 to May 15; Aug 1 to Oct 15	Feb 15 to Apr 30; Aug 15 to Nov 30		
Cereal Rye (Secale cereale)	112	2.8	1.0	Mar 15 to May 31: Aug 1 to Oct 31	Mar 1 to May 15; Aug 1 to Nov 15	Feb 15 to Apr 30; Aug 15 to Dec 15		
Warm-Season Grasses								
Foxtail Millet (Setaria italica)	30	0.7	0.5	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14		
Pearl Millet (Pennisetum glaucum)	20	0.5	0.5	Jun 1 to Jul 31	May 16 to Jul 31	May 1 to Aug 14		

1/ Seeding rates for the warm-season grasses are in pounds of Pure Live Seed (PLS). Actual planting rates shall be adjusted to reflect percent seed germination and purity, as tested. Adjustments are usually not needed for the cool-season grasses.

Seeding rates listed above are for temporary seedings, when planted alone. When planted as a nurse crop with permanent seed mixes, use 1/3 of the seeding rate listed above for barley, oats, and wheat. For smaller-seeded grasses (annual ryegrass, pearl millet, foxtail millet), do not exceed more than 5% (by weight) of the overall permanent seeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur in very late fall beyond the seeding dates for other temporary seedings. Cereal rive has allelonathic properties that inhibit the germination and growth of other plants. If it must be used as a nurse crop, seed at 1/3 of the rate listed above.

Oats are the recommended nurse crop for warm-season grasses

2/ For sandy soils, plant seeds at twice the depth listed above. 3/ The planting dates listed are averages for each Zone and may require adjustment to reflect local conditions, especially near the boundaries of the zone.

B-4-5 STANDARDS AND SPECIFICATIONS

PERMANENT STABILIZATION

Definition To stabilize disturbed soils with permanent vegetation.

Exposed soils where ground cover is needed for 6 months or more

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies

A. Seed Mixtures

- General Use
- a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
- b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
- c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.
- d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary

Turfgrass Mixtures

a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance b. Select one or more of the species or mixtures listed below based on the site conditions or

purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent

Seeding Summary. The summary is to be placed on the plan. i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per

ranging from 10 to 35 percent of the total mixture by weight.

ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where

1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each

YORK ROAD - MD ROUTE 45 (FROM WIGHT AVENUE TO SHAWAN ROAD)

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION - BUREAU OF ENGINEERING & CONSTRUCTION

WATER MAIN REPLACEMENT - PHASE 5

ELECTION DIST. NO.: 8C3

rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.

- iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per
- 1000 square feet. One or more cultivars may be blended iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 11/2 to 3 pounds per 1000 square feet.

Select turgerass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line

(Hardiness Zones: 7a, 7b)

c. Ideal Times of Seeding for Turf Grass Mixtures

Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)

Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b) Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15

- d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 11/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will
- e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

1. General Specifications

pose no difficulty.

- a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector.
- b. Sod must be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable
- c. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the
- d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
- e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its

Sod Installation

- a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate
- the subsoil immediately prior to laying the sod. b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.
- c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.
- d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.

3. Sod Maintenance

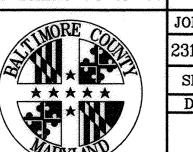
otherwise specified.

- a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting.
- b. After the first week, sod watering is required as necessary to maintain adequate moisture c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless

B.24

Baltimore County Soil Conservation District APPROVED FOR SEDIMENT CONTROL

> CONTRACT NUMBER SHEET DESIGNATION 24125-WX0 E&S SHEET 04 OF 05



JOB ORDER NUMBER 31-203-0050-0466 SHEET 20 OF 21 DRAWING NUMBER 2024-2240 FILE NO.:

OF MAR

APPROVED BY ME, AND THAT I AM A DULY LICENSEI PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF ICENSE NO. 200436 ENGINEER: JOHN A. BLONDELL KCI TECHNOLOGIES, INC. AS-BUILT PER RECORD PRINT

EXPIRATION DATE 9/30/2025

PROFESSIONAL CERTIFICATION

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED (

REVISION

REVISION - CITY OF BALTIMORE

CHIEF. UTILITY ENGINEERING

CHIEF, WATER ENGINEERING SECTION

FOR ORIGINAL SIGNATURES REFER TO DRAWING NUMBER 2024-2221

R.O.W NO.

STATE

HIGHWAYS STRUCTURES STORM DRAINS

BY DATE P.W.A. NO. KEY SHEET POSITION SHT

FOR ORIGINAL SIGNATURES REFER TO DRAWING

PLAN SCALE:

PROFILE SCALE:

WATER

70NW7 71NW7

72NW7

SEWER

DRAWING SCALE

SUBDIVISION: COCKEYSVILLE

EROSION & SEDIMENT CONTROL NOTES

CONSTRUCTION SPECIFICATIONS

- 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.
- . 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.
- . PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- . 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.
- 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 FRACKED 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 WATER MANAGEMENT ADMINISTRATION

STANDARD SYMBOL DETAIL E-1 SILT FENCE ⊢----SF------I 6 FT MAX. CENTER TO CENTER 16 IN MIN. HEIGHT OF WOVEN SLIT FILM GEOTEXTILE L8 IN MIN. DEPTH INTO GROUND **ELEVATION** 36 IN MIN. FENCE POST LENGTH WOVEN SLIT FILM-**GEOTEXTILE** EMBED GEOTEXTILE MIN. OF 8 IN VERTICALLY INTO THE GROUND. BACKFILL BOTH SIDES OF GEOTEXTILE. CROSS SECTION STEP 2 TWIST POSTS TOGETHER CONFIGURATION | V JOINING TWO ADJACENT SILT FENCE SECTIONS (TOP VIEW) 1 OF 2 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

E.2

STANDARD SYMBOL

. USE WOOD POSTS 1¾ X 1¾ ± ¾ 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. 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 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. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL. 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 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, 2 OF 2 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION 2011

E.3

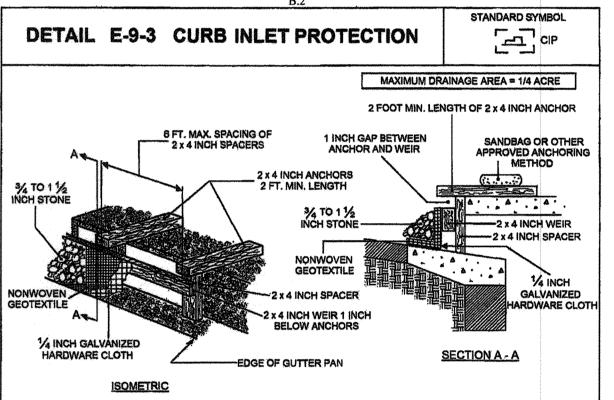
DETAIL E-1 SILT FENCE

CONSTRUCTION SPECIFICATIONS

|----SF-----|

DETAIL E-9-6 COMBINATION ___ MOD COIP INLET PROTECTION MAXIMUM DRAINAGE AREA = 1 ACRE OTHER APPROVED - ¾ TO 1½ IN STONE-BETWEEN WEIR-AND ANCHOR INCH BELOW ANCHORS INLET GRATE 1/2 IN HARDWARE CLOTH-6 IN OVERLAP-NONWOVEN GEOTEXTILE -6 FT MAX. SPACING OF 2 IN x 4 IN **ANCHORS** NONWOVEN GEOTEXTILE 2 IN x 4 IN MIN. LENGTH 2 IN x 4 IN SPACER 1/4 IN GALVANIZED --HARDWARE CLOTH 2 IN x 4 IN WEIR 1 INCH BELOW ANCHORS WITH GEOTEXTIL NOTE: HARDWARE CLOTH, GEOTEXTILE AND STONE SHALL EXTEND 2 FEET BEYOND THROAT ON EACH SIDE. MODIFIED FOR SUMP 1 OF 2 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MODIFIED FOR USE IN BALTIMORE COUNTY

STANDARD SYMBOL DETAIL E-9-6 COMBINATION MOD COIP INLET PROTECTION CONSTRUCTION SPECIFICATIONS 1. USE NOMINAL 2 INCH x 4 INCH LUMBER. 2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. 3. LIFT GRATE, AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS, THEN SET GRATE BACK IN PLACE. . NAIL THE 2X4 WEIR (1 INCH BELOW THE ANCHORS) TO THE TOP OF A 9 INCH LONG VERTICAL SPACER, LOCATED BETWEEN THE WEIR AND THE INLET FACE (MAXIMUM 4 FEET APART). 5. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2X4 ANCHORS (MINIMUM 2 FOOT LENGTHS) AT SPACER LOCATIONS. EXTEND 2X4 ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD. 6. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING. 7. ATTACH A CONTINUOUS PIECE OF % INCH GALVANIZED HARDWARE CLOTH WITH A MINIMUM WIDTH OF 60 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO 2 FEET BEYOND THE TOP OF CURB, EXTENDING 2 FEET BEYOND THROAT ON EACH SIDE. B. PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH. 9. FORM THE 1/4 INCH HARDWARE CLOTH AND THE GEOTEXTILE TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN 1/4 TO 11/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE OVER THE HARDWARE CLOTH AND GEOTEXTILE IN SUCH A MANNER O PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE. 10. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS LOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE. MODIFIED FOR SUMP MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MODIFIED FOR USE IN BALTIMORE COUNTY MODIFIED—2013 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION NATURAL RESOURCES CONSERVATION SERVICE



CONSTRUCTION SPECIFICATIONS . USE NOMINAL 2 x 4 INCH LUMBER

- 2. ATTACH A CONTINUOUS PIECE OF 1/4 INCH GALVANIZED HARDWARE CLOTH, MINIMUM WIDTH OF 30 INCHES, AND MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2 x 4 INCH WEIR, EXTENDING 2 FEET BEYOND THE THROAT ON EACH SIDE.
- PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE OF THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH TO THE 2 x 4 INCH WEIR.
- . USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H 1 MATERIALS.
- . NAIL THE 2 x 4 INCH WEIR (1 INCH BELOW THE ANCHORS) TO THE 9 INCH LONG VERTICAL SPACERS (MAX. 6 FEET APART).
- 3. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2 x 4 INCH ANCHORS (MIN. 2 FEET IN LENGTH). EXTEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD.
- . INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING.
- OF THE CURB TO SPAN THE INLET OPENING. COVER THE HARDWARE CLOTH AND GEOTEXTILE WITH CLEAN 3/4 TO 11/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE.

. FORM THE HARDWARE CLOTH AND GEOTEXTILE TO THE CONCRETE GUTTER AND AGAINST THE FACE

- 3. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASHPALT BERM TO PREVENT INLET
- D. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN OR REPLACE THE GEOTEXTILE AND STONE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROI MODIFIED FOR USE IN BALTIMORE COUNTY U.S DEPARTMENT OF AGRICULTURE NATURAL RESOURCE CONSERVATION SERVICE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

CITY OF BALTIMORE REVISION - CITY OF BALTIMORE DATE CHIEF, UTILITY ENGINEERING

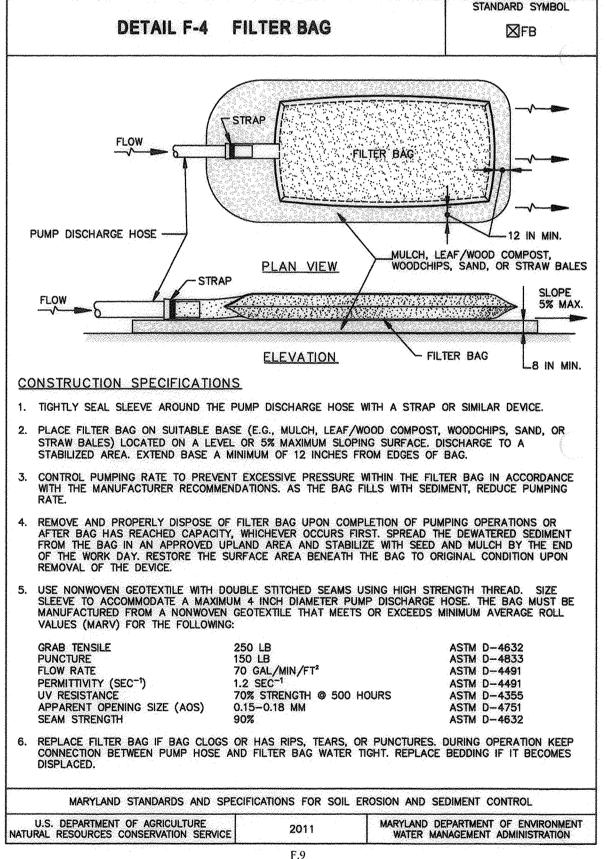
DETAIL E-9-2 AT-GRADE INLET PROTECTION ☐ AGIP Maximum drainage area = 1 acre NONWOVEN GEOTEXTILE PLAN / CUT AWAY VIEW - 4 IN HARDWARE CLOTH OVERLAP CROSS SECTION CONSTRUCTION SPECIFICATIONS 1. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE. 3. PLACE CLEAN 1/4 TO 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE 4. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

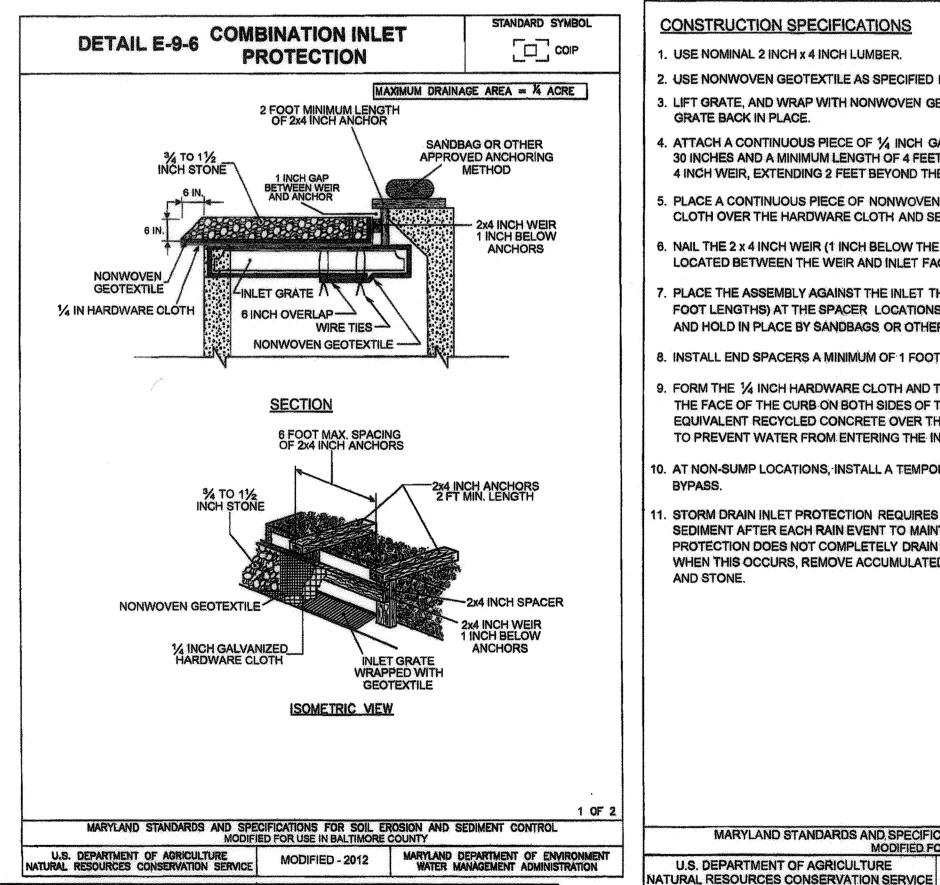
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MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION



SUBDIVISION: COCKEYSVILLE



. USE NOMINAL 2 INCH x 4 INCH LUMBER. 2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H - 1 MATERIALS. 3. LIFT GRATE, AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS, THEN SET GRATE BACK IN PLACE. I. ATTACH A CONTINUOUS PIECE OF $1\!\!\!/_{\!\!4}$ INCH GALVANIZED HARDWARE CLOTH WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2 INCH BY 4 INCH WEIR, EXTENDING 2 FEET BEYOND THE THROAT ON EACH SIDE. 5. PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH IT TO THE WEIR. NAIL THE 2 x 4 INCH WEIR (1 INCH BELOW THE ANCHORS) TO THE 9 INCH LONG VERTICAL SPACERS, LOCATED BETWEEN THE WEIR AND INLET FACE, (MAXIMUM 4 FEET APART). 7. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO THE 2 x 4 INCH ANCHORS (MINIMUM 2 FOOT LENGTHS) AT THE SPACER LOCATIONS. EXTEND THE 2 x 4 INCH ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD. . INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING. FORM THE ¼ INCH HARDWARE CLOTH AND THE GEOTEXTILE TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN 3/4 TO 11/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE OVER THE HARDWARE CLOTH AND GEOTEXTILE IN SUCH A MANNER TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE. 10. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN OR REPLACE THE GEOTEXTILE AND STONE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

MODIFIED FOR USE IN BALTIMORE COUNTY

COMBINATION INLET

PROTECTION

Baltimore County Soil Conservation District APPROVED FOR SEDIMENT CONTROL 3-24-25 DATE

APPENDIX 23

U.S. DEPARTMENT OF AGRICULTURE

SHEET DESIGNATION E&S SHEET 05 OF

MODIFIED - 2012 WATER MANAGEMENT ADMINISTRATION

24125-WX0 JOB ORDER NUMBER 31-203-0050-0466 SHEET 21 OF 21 DRAWING NUMBER 2024-2241

MARYLAND DEPARTMENT OF ENVIRONMENT

STANDARD SYMBOL

COIP

CHIEF, WATER & WASTEWATER ENG. DIV BUREAU OF WATER AND WASTEWATER CHIEF. WATER ENGINEERING SECTION PROFESSIONAL CERTIFICATION REVISION BY DATE P.W.A. NO. KEY SHEET POSITION SHT DRAWING SCALE DPW AND TRANSPORTATION OF MAA HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OF PROVED BY ME, AND THAT I AM A DULY LICENSE ROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF PLAN SCALE: 71NW7 FOR ORIGINAL SIGNATURES REFER TO DRAWING R.O.W NO. MARYLAND. 72NW7 NUMBER 2024-2221 ROFILE SCALE: _, EXPIRATION DATE 9/30/2025 73NW7 STATE ENGINEER: JOHN A. BLONDELL DESIGN BY: JCA BUILDINGS | HIGHWAYS | STRUCTURES | STORM DRAINS | SEWER WATER FIELD ENGINEER BUR. OF ENGINEERING & CONSTRUCTION KCI TECHNOLOGIES, INC. AS-BUILT PER RECORD PRINT FOR ORIGINAL SIGNATURES REFER TO DRAWING FOR ORIGINAL SIGNATURES REFER TO DRAWING NUMBER 2024-2221 NUMBER 2024-2221 CHKD BY: JAB

U.S. DEPARTMENT OF AGRICULTURE

RAL RESOURCES CONSERVATION SERVICE

WATER MAIN REPLACEMENT - PHASE 5 YORK ROAD - MD ROUTE 45 (FROM WIGHT AVENUE TO SHAWAN ROAD) EROSION & SEDIMENT CONTROL DETAILS

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION - BUREAU OF ENGINEERING & CONSTRUCTION

ELECTION DIST. NO.: 8C3

APPENDIX 23A CONTRACT NUMBER

FILE NO .: