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STANDARD RESPONSIBILITY NOTES

- I (We) certify that:
 - All development and construction will be done in accordance with this sediment and erosion control plan, and further, authorize the right of entry for periodic on-site evaluation by the Anne Arundel Soil Conservation District (AASCD) Board of Supervisors or their authorized agents.
 - Any responsible personnel involved in the construction project will have a certificate of attendance from the Maryland Department of the Environment's approved training program for the control of sediment and erosion before beginning the project.
- Responsible personnel on site: _____
- If applicable, the appropriate enclosure will be constructed and maintained on sediment basin(s) included in this plan. Such structure(s) will be in compliance with the Anne Arundel County Code.
 - The developer is responsible for the acquisition of all easements, right, and/or rights-of-way that may be required for the sediment and erosion control practices, storm water management practices and the discharge of storm water onto or across adjacent or downstream properties included in the plan.
 - For initial soil disturbance or re-disturbance, permanent and/or temporary stabilization per the AASCD Vegetative Establishment shall be completed within three calendar days for the surface of all controls, dikes, swales, ditches, perimeter slopes and all slopes greater than 3 horizontal to 1 vertical (3:1); and seven days for all other disturbed or graded areas on the project site.
 - The grading and sediment control approval on this plan extends only to those areas within the limits of disturbance.
 - The approval of this plan for sediment and erosion control does not relieve the developer/consultant from complying with Federal, State or County requirements pertaining to environmental issues.
 - The developer must request that the sediment and erosion control inspector approve work completed in accordance with the approved erosion and sediment control plan, the grading or building permit, and the ordinance.
 - All material shall be taken to a site with an approved sediment and erosion control plan.
 - First phase inspection and approval of the sediment and erosion control inspector shall be required upon completion of the installation of erosion and sediment controls prior to proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until the initial approval by the sediment and erosion control inspector is given. Inspection and Permits may also require that an inspection and certification of the installation of sediment control also be performed by a design professional prior to construction commencing.
 - Approval from the inspector must be requested on final stabilization of all sites prior to removal of sediment and erosion controls.
 - Existing topography must be field verified by responsible personnel to the satisfaction of the sediment control inspector prior to commencing work.

David C. Braun 11/16/21
 Signature of Developer/Owner Date

Print: Name: DAVID BRAUN, PE
 Title: ENGINEER ADMINISTRATOR
 Affiliation: ANNE ARUNDEL COUNTY DPW
 Address: 2662 RIVA ROAD, ANNAPOLIS, MD 21401
 Telephone Number: (410) 222-7544
 Email Address: pwbrau78@aacounty.org

UTILITY CERTIFICATION
 I HEREBY CERTIFY TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF, THAT THE EXISTING UNDERGROUND AND OVERHEAD UTILITIES AS SHOWN HEREON HAS BEEN CORRECTLY DUPLICATED FROM UTILITY COMPANY RECORDS, FURTHER THAT THIS PROJECT HAS BEEN CAREFULLY COORDINATED WITH EACH INVOLVED UTILITY COMPANY AND ALL AVAILABLE UNDERGROUND UTILITY INFORMATION RELATIVE TO THIS PLAN HAS BEEN SOLICITED FROM THEM.

53587 P.E. No.
 SIGNATURE _____ DATE 12-09-2024
 DOMINIC M. TAGLIONE
 PRINT NAME

DRAINAGE CERTIFICATION
 I CERTIFY THAT I HAVE INSPECTED THIS SITE AND THAT DRAINAGE INTO THIS SITE FROM UPGRADE PROPERTIES AND FROM THIS SITE ONTO OTHER DOWNGRADE PROPERTIES HAS BEEN ADDRESSED IN SUBSTANTIAL ACCORDANCE WITH APPLICABLE CODE.

53587 P.E. No.
 SIGNATURE _____ DATE 12-09-2024
 DOMINIC M. TAGLIONE
 PRINT NAME

"ALL GRADING, DRAINAGE, STRUCTURES AND EROSION AND SEDIMENT CONTROL PRACTICES INCLUDING FACILITIES AND VEGETATIVE MEASURES HAVE BEEN COMPLETED IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AS REQUIRED BY COMAR."

SIGNATURE _____ DATE _____
 NAME _____

PROFESSIONAL CERTIFICATION
 "I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND."
 MD LICENSE NUMBER: 53587
 EXPIRATION DATE: 12-09-2024

AECOM
 AECOM
 4 NORTH PARK DRIVE
 SUITE 300
 HUNT VALLEY, MARYLAND 21030
 PHONE: 410-785-7220
 FAX: 410-785-6818

06/08/2023

ANNE ARUNDEL COUNTY

DEPARTMENT OF PUBLIC WORKS

BROADNECK PENINSULA TRAIL-PHASE IB & V

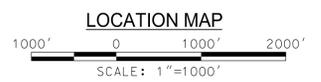
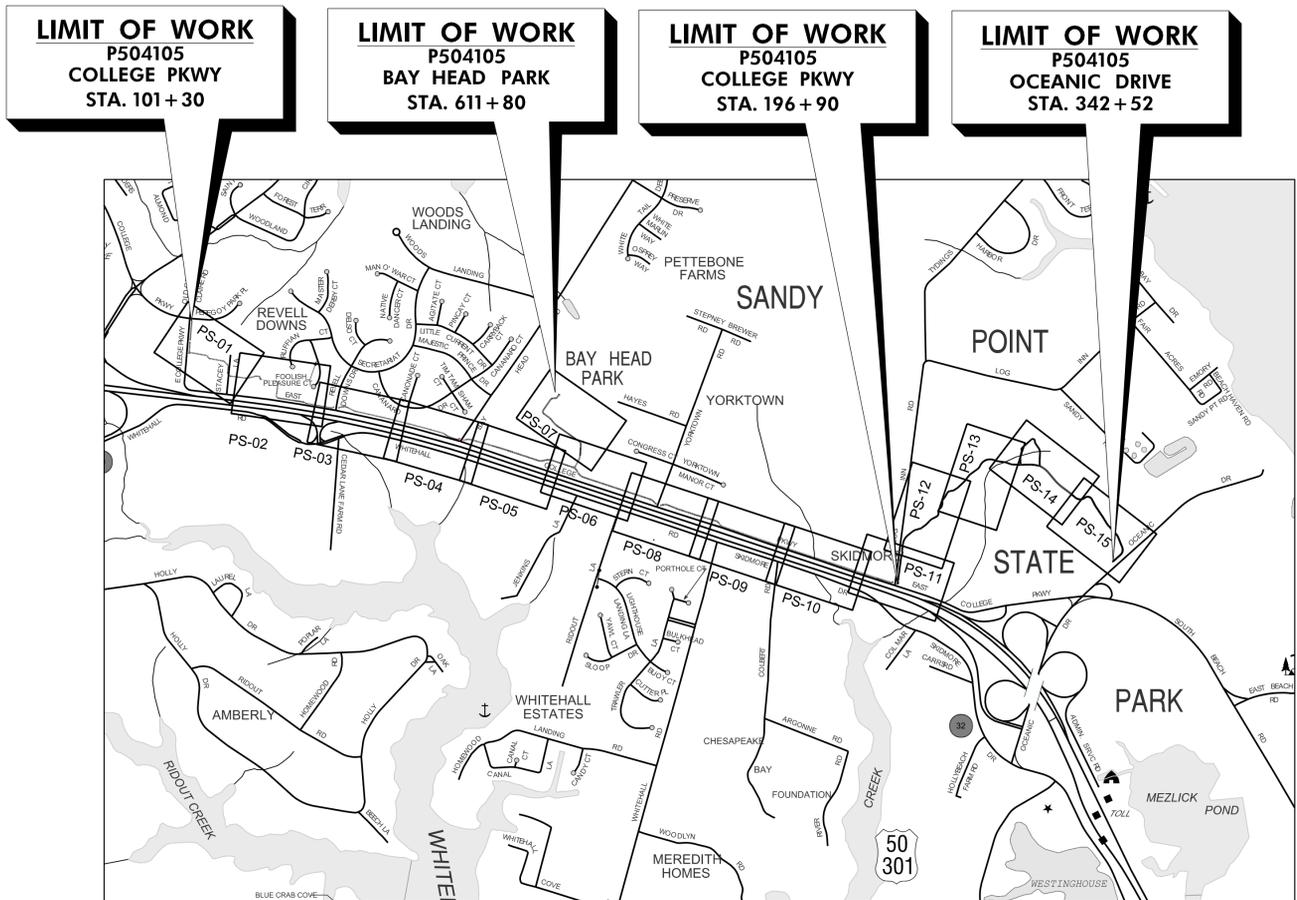
PROJECT NO. P504100 CONTRACT NO. P504105

100% CONSTRUCTION DOCUMENTS

ENGINEER / LANDSCAPE ARCHITECT: AECOM
 4 NORTH PARK DRIVE
 HUNT VALLEY, MD 21030
 (410) 785-7220

OWNER / DEVELOPER: ANNE ARUNDEL COUNTY
 DEPARTMENT OF RECREATION AND PARKS
 44 CALVERT STREET
 ANNAPOLIS, MD 21401
 (410) 222-7000

PROJECT LOCATION: COLLEGE PARKWAY
 FROM PEREGOY PARK PLACE
 TO SANDY POINT STATE PARK
 ANNAPOLIS, MD 21401



DESIGN DESIGNATION	
ROADWAY	EAST COLLEGE PKWY MD 980B
PROJECT LENGTH	2.75 MILES
FUNCTIONAL CLASSIFICATION	URBAN LOCAL
POSTED SPEED (M.P.H.)	40 MPH

DATUM: HORIZONTAL-NAD83
 VERTICAL- NADV88

UTILITY INFORMATION

THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE FOR INFORMATION AND GUIDANCE ONLY. NO GUARANTEE IS MADE AS TO THE ACCURACY OF SAID LOCATIONS.

VERIFICATION OF THE LOCATION, TYPE AND SIZE OF UTILITY LINES (BOTH EXISTING AND THOSE TO BE RELOCATED) SHALL BE PERFORMED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

OUTFALL STATEMENTS

SEE SHEET SWD-01

SEQUENCE OF CONSTRUCTION

SEE EROSION & SEDIMENT CONTROL PLANS SHEET ESN-02

GENERAL NOTES

- CONDUCT A PRE-CONSTRUCTION MEETING. NOTIFY THE DEPARTMENT OF INSPECTIONS AND PERMITS AT LEAST 48 HOURS BEFORE COMMENCING WORK AT (410) -222-7780. WORK MAY NOT COMMENCE UNTIL THE PERMITS OFFICE OR THE RESPONSIBLE PERSONNEL HAVE MET ON SITE WITH THE SEDIMENT AND EROSION CONTROL INSPECTOR TO REVIEW THE APPROVED PLANS, CONTAINED HEREIN.
- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF MDOT-SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS AND THE STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION OF ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS.
- NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SERVICES AND MAINS. ANY DAMAGE TO EXISTING SERVICES AND MAINS DUE TO THEIR NEGLIGENCE SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION BEFORE STARTING CONSTRUCTION. NEITHER THE OWNER NOR ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS WARRANT OR GUARANTEE THE COMPLETENESS OR THE CORRECTNESS OF THE INFORMATION GIVEN.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO SPECIFICALLY MENTION ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AT LEAST 5 DAYS PRIOR TO STARTING CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL NOTIFY MISS UTILITY@1-800-257-7777 FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- ALL UTILITY POLES SHALL BE BRACED AS NECESSARY AT CONTRACTOR'S EXPENSE. ANY DAMAGE TO UTILITY POLES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- PIPE ELEVATIONS REFER TO INVERTS UNLESS OTHERWISE NOTED.
- ALL STORM DRAIN PIPES ARE REINFORCED CONCRETE PIPE (RCP) UNLESS OTHERWISE NOTED.
- SEE DWG. NO. ESN-02 FOR THE PHASED SEQUENCE OF CONSTRUCTION.

SITE INFORMATION * (NOT FOR BIDDING PURPOSES)

TOTAL AREA OF SITE	14.7 ACRES
AREA DISTURBED	14.7 ACRES
OR PAVED	4.3 ACRES
TOTAL CUT	7,845 CU. YDS.
TOTAL FILL	4,980 CU. YDS.
OFFSITE WASTE/BORROW AREA LOCATION (IF KNOWN)	TO AN APPROVED SITE OR LANDFILL

* NOTE: ALL MATERIAL REMOVED FROM SITE SHALL TAKEN TO A SITE WITH AN APPROVED EROSION AND SEDIMENT CONTROL PLAN.

AS-BUILT CERTIFICATION

"I HEREBY CERTIFY THAT THE STORMWATER BEST MANAGEMENT PRACTICES SHOWN ON THE PLANS AND INDIVIDUALLY IDENTIFIED BELOW HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS INCLUDED UNDER ANNE ARUNDEL DEPARTMENT OF PUBLIC WORKS APPROVAL NUMBER P504102 EXCEPT AS NOTED IN RED ON THE "AS BUILT" DRAWINGS"

NAME (PRINTED) _____ SIGNATURE _____
 MARYLAND REGISTRATION # _____ DATE _____

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION

MAINTENANCE OF TRAFFIC STANDARDS

THE FOLLOWING STANDARDS (CONSTRUCTION AND TEMPORARY TRAFFIC CONTROL) ARE REQUIRED FOR THIS PROJECT (LIST THEM OUT AS SHOWN BELOW):

- MD-104.01-28 - STAGED ROADWAY CONSTRUCTION
- MD-104.02-01 - SHOULDER WORK / 2-LANE, 2-WAY GREATER THAN 40MPH
- MD-104.02-09 - FLAGGING OPERATION / 2-LANE, 2-WAY GREATER THAN 40MPH
- MD-104.02-13 - INTERSECTION FLAGGING OPERATION 2-LANE, 2-WAY GREATER THAN 40 MPH

FOR ALL STANDARDS REFERRED TO ON THE PLANS THE CONTRACTOR MUST GO TO THE BOOK OF STANDARDS WHICH WILL HAVE THE MOST CURRENT VERSION. THE BOOK OF STANDARDS CAN BE ACCESSED AT:

HTTP://APPS.ROADS.MARYLAND.GOV/BUSINESSWITHSHA/BIZSTDSSPECS/DESMANUALSTDPUB/PUBLICATIONSONLINE/OHD/BOOKSTD/INDEX.ASP

ALL ITEMS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VERSION OF THE REFERENCED STANDARD AT THE TIME OF CONSTRUCTION.

ENVIRONMENTAL INFORMATION

AASCD #2021-0281
 GRADING PERMIT #G02018957

WATER QUALITY: PROJECT REQUIRES 3.52 AC. OF IMPERVIOUS AREA TO BE TREATED. WATER QUALITY WILL BE PROVIDED IMPLEMENTATION OF ENVIRONMENTAL SENSITIVE DESIGN (ESD) TO THE MAXIMUM EXTENT PRACTICABLE (MEP) VIA COMBINATION OF GRASS SWALES, BIOSWALES, SUBMERGED GRAVEL WETLAND AND NON-ROOFTOP VEGETATIVE DISCONNECTS.

WATER QUANTITY: REQUIRED CHANNEL PROTECTION VOLUME WILL BE PROVIDED VIA ESDs TO THE MEP.

Anne Arundel Soil Conservation District
 Sediment and Erosion Control Approval

GP# G02018957 DWG. NO.: TI-01

REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS			
DATE	APPROVED	DATE	SCALE: AS NOTED
11/20/2023 08:59 EST	<i>[Signature]</i> CHIEF ENGINEER	11/17/2023 08:00	DRAWN BY: DMT
11/17/2023 11:56 EST	<i>[Signature]</i> ASSISTANT CHIEF ENGINEER	11/17/2023 18:30	CHECKED BY: DMT
			SHEET NO. 01 OF 116
			PROJECT NO. P504100
			CONTRACT NO. P504105

TITLE SHEET



GENERAL NOTES

- THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ARE FROM THE BEST AVAILABLE RECORDS, AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SERVICE MAINS. ANY DAMAGE TO THEM SHALL BE REPAIRED IMMEDIATELY AT NO ADDITIONAL COST TO ANNE ARUNDEL COUNTY OR THE SHA.
- UTILITY RELOCATION WILL BE PERFORMED BY OTHERS UNLESS NOTED OTHERWISE IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF HIS CONSTRUCTION WITH THE CONSTRUCTION OF OTHER CONTRACTORS (INCLUDING BUT NOT LIMITED TO BG&E, VERIZON, AND CABLE TV UTILITY).
- THE CONTRACTOR SHALL CALL "MISS UTILITY" 1-800-257-7777 A MINIMUM OF 72 HOURS PRIOR TO BEGINNING ANY EXCAVATION.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NATURALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
- THE CONTRACTOR SHALL NOTIFY THE ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS (410) 222-4126, AT LEAST FOURTEEN (14) DAYS PRIOR TO BEGINNING CONSTRUCTION.
- GRID COORDINATES ARE BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM NAD 83/91. VERTICAL ELEVATIONS ARE BASED UPON NAVD 88.
- THE CONTRACTOR SHALL ADJUST MANHOLES, WATER METERS, WATER VALVES, HAND BOXES, AND OTHER APPURTENANCES TO FINAL GRADE. THE COST OF PERFORMING THESE ACTIVITIES SHALL BE INCIDENTAL TO THE CONTRACT PRICE PAID FOR VARIOUS PAVEMENT ITEMS.
- UNLESS OTHERWISE NOTED, PIPE ELEVATIONS REFER TO THE PIPE INVERT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY EXISTING LIGHT POLES, TRAFFIC BARRIER, SIGNS, ETC., DAMAGED BY HIM DURING CONSTRUCTION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION TO THIS PLAN PRIOR TO ANY FIELD CHANGES BEING MADE. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR ANY FIELD CHANGES OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER.
- ALL WORK SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" ISSUED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT AND AMENDMENTS BY THE ANNE ARUNDEL SOIL CONSERVATION DISTRICT, CONTAINED HEREIN AND THE 2008 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS ISSUED BY THE MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION.
- THE DESIGN FOR THIS PROJECT INCORPORATES FACILITIES FOR THE ELDERLY AND HANDICAPPED IN COMPLIANCE WITH STATE AND FEDERAL LEGISLATION.
- WHERE CURB AND GUTTER ENDS ARE EXPOSED, PROVIDE A NOSE DOWN SECTION AT 3:1 SLOPE.
- IN PAVEMENT AND GRAVEL REMOVAL AREAS, THE CONTRACTOR SHALL REMOVE ALL PAVING AND BASE MATERIALS, BACKFILL WITH COMMON BORROW MATERIAL AND 4" OF TOPSOIL, SEED AND MULCH. THE AREA SHALL BE GRADED TO DRAIN.
- MATERIAL REMOVED DURING CONSTRUCTION SHALL BECOME THE CONTRACTOR'S PROPERTY UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIAL PROVISIONS.
- STORM DRAIN AND UTILITY INSTALLATION IN EXISTING PAVEMENT SHALL BE IN ACCORDANCE WITH MD STD. 578.01
- SUBGRADE DRAINS SHALL BE PLACED WHEN WET SUBGRADE IS ENCOUNTERED AND AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL USE CIRCULAR PIPE UNDERDRAIN OUTLET TO CONNECT ALL EXISTING AND PROPOSED SUBGRADE DRAIN AND PERFORATED CIRCULAR PIPE UNDERDRAIN TO PROPOSED INLETS.
- ALL INVERT ELEVATIONS ARE APPROXIMATE. INVERT ELEVATIONS OF INLETS AND PIPES MAY BE MODIFIED AS DIRECTED BY THE ENGINEER TO MEET CONDITIONS ENCOUNTERED DURING INSTALLATION OF DRAINAGE STRUCTURES. ALL PIPES AND DITCHES SHALL BE CONSTRUCTED ON A UNIFORM GRADE BETWEEN INVERT ELEVATIONS NOTED ON THE PLANS, UNLESS INDICATED OTHERWISE ON THE PLANS OR DETAILS OR AS DIRECTED BY THE ENGINEER. THE LOCATION AND LENGTH OF PIPE SHALL BE VERIFIED BY THE CONTRACTOR BEFORE ORDERING.
- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF MDOT-SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS AND THE STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION OF ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS, CONTAINED HEREIN UNLESS OTHERWISE NOTED.
- CONTRACTOR MUST HAND DIG NEAR EXISTING UNDERGROUND UTILITIES WITH LESS THAN OR EQUAL TO 3.0 FEET CLEAR DISTANCE.
- EXISTING OVERHEAD AND UNDERGROUND POWER LINES ARE IN THE VICINITY OF THE PROJECT. AT NO TIME WILL THE POWER BE PERMITTED TO BE SHUT OFF. AT ALL TIMES DURING CONSTRUCTION, THE CONTRACTOR SHALL COMPLY ABSOLUTELY WITH THE MARYLAND HIGH VOLTAGE ACT. IT IS THE CONTRACTOR'S OBLIGATION TO VERIFY THE EXISTING LOCATION OF THE POWER LINES IN THE FIELD AND TO MAINTAIN AND ENFORCE CLEARANCE REQUIREMENTS SPECIFIED IN THE ACT.
- SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

SYMBOL LEGEND

EXISTING	
SURVEY BASE LINE	
WOODS OR SHRUBBERY LINE	
TREE	
HEDGE	
EXISTING FENCE	
CURB OR CURB AND GUTTER	
EXISTING TRAFFIC BARRIER - W BEAM	
EXISTING SHOULDER AND EDGE OF PAVEMENT	
LIGHT POLE	
ELECTRIC BOX	
TRAFFIC SIGN	
FIRE HYDRANT	
EXISTING GRASS DITCH	
EXISTING RIPRAP DITCH	
EXISTING CONCRETE DITCH	
EXISTING CULVERT	
STORM DRAIN WITH INLET AND MANHOLE	
WATER LINE	
WATER VALVE	
GAS LINE	
ELECTRIC CONDUIT	
TELEPHONE CONDUIT	
WETLAND AREA	
WETLAND BUFFER	
100 YEAR FLOOD PLAIN	
SANITARY SEWER LINE	
HISTORIC BOUNDARY	
EXISTING TRAFFIC FLOW	
CABLE TV	
UTILITY POLE	
RIGHT OF WAY	
STREAM	

PROPOSED	
BASELINE CONSTRUCTION	
LIMIT OF CUT	
LIMIT OF FILL	
LIMIT OF DISTURBANCE	
PROPOSED TRAFFIC FLOW	
PAVEMENT REMOVAL	
CURB AND GUTTER	
PIPE WITH INLET AND MANHOLE	
PIPE TO BE REMOVED	
SIDE DITCH OR SURFACE DRAIN DITCH	
DRAINAGE STRUCTURE IDENTIFICATION NUMBER	
LONGITUDINAL UNDERDRAIN	
CONCRETE TRAFFIC BARRIER	
FENCE	
LIMITS OF WOODLAND CLEARING	
PROPOSED PIPE	
PROPOSED TRAFFIC BARRIER - W BEAM	
PLAN LOCATION OF SOIL BORING	
TEST HOLE	
PROPOSED RIPRAP	
NOT IN CONTRACT (N.I.C.)	

SURVEY NOTES

- THE TOPOGRAPHIC INFORMATION SHOWN ON THE PLANS IS A COMBINATION OF THE FOLLOWING: AACOUNTY PERFORMED SURVEY ALONG EAST COLLEGE PKWY, RK&K PERFORMED SURVEY, 2001 AERIAL PERFORMED SURVEY WHERE APPLICABLE, AND COUNTY GIS DATA TO SUPPLEMENT AREAS OUTSIDE THE SURVEY LIMIT
- SURVEY HORIZONTAL CONTROL: NAD83/91
- SURVEY VERTICAL CONTROL: NAVD 88
- SURVEY WAS PROVIDED BY THE COUNTY AND COORDINATES AND ELEVATIONS SHOWN HEREON ARE BASED ON THE FOLLOWING SURVEY CONTROL STATIONS:

CAPE (AAO)	CAPE-AZ (AAO)
NORTHING 499654.887	NORTHING 500015.989
EASTING 1471659.189	EASTING 1471744.669
ELEVATION 34.75'	ELEVATION 35.06'
2179 (AAO)	2180 (AAO)
NORTHING 494348.600	NORTHING 494032.963
EASTING 1475406.824	EASTING 1476497.784
ELEVATION 24.09'	ELEVATION 17.30'
2181 (AAO)	
NORTHING 496144.905	
EASTING 1473936.126	
ELEVATION 22.37'	

NOTE: EXISTING UNDERGROUND UTILITIES DEPICTED WITHIN THIS SET OF PLAN ARE DEVELOPED USING RECORD DRAWINGS FROM RESPECTIVE UTILITY COMPANIES AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. THE UTILITIES SHOWN HEREIN MAY BE INACCURATE OR INCOMPLETE. THE LOCATIONS AND DEPTHS OF ALL EXISTING UNDERGROUND UTILITIES ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE IN COORDINATION WITH THE AFFECTED UTILITY COMPANIES.

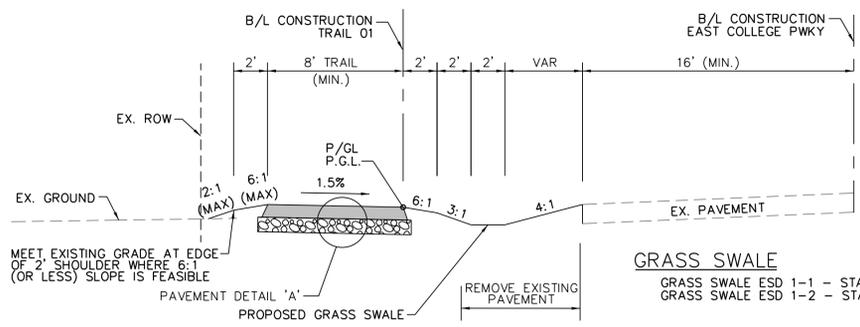
LIST OF ABBREVIATIONS

AATUR	- ABANDONED ACCORDING TO UTILITY RECORDS
A.D.T	- AVERAGE DAILY TRAFFIC
AHD	- AHEAD
BGE	- BALTIMORE GAS AND ELECTRIC COMPANY
BIT.	- BITUMINOUS
BK.	- BACK
B.M.	- BENCH MARK
BL	- BASELINE
C	- RATE OF TRANSITION
CC	- CENTER POINT OF CURVE
CATV	- CABLE TELEVISION
C&G	- CURB AND GUTTER
C.I.P.	- CAST IN PLACE (OR CURB INLET PROTECTION)
C.M.P.	- CORRUGATED METAL PIPE
C.S.P.	- CORRUGATED STEEL PIPE
C.O.	- CLEAN OUT
COMB.	- COMBINATION
COMM.	- COMMUNICATION
CONSTR.	- CONSTRUCTION
CORR.	- CORRECTION
DATUR	- DEPICTED ACCORDING TO UTILITY RECORDS
DWG.	- DRAWING
D ₂	- DEGREE OF CURVE
Δ	- DELTA (CENTRAL ANGLE), DEGREES
D.H.V.	- DESIGN HOUR VOLUME
D.I.	- DROP INLET
DIA.	- DIAMETER
D.S.	- DESIGN SPEED
E	- ELECTRIC
EB	- EASTBOUND
EOI	- END OF INFORMATION
EORI	- END OF RECORD INFORMATION
ERCCP	- ELLIPTICAL REINFORCED CEMENT CONCRETE PIPE
ES	- END STRUCTURE
EW	- ENDWALL OR EACH WAY
EX., EXIST.	- EXISTING
F.O.	- FIBER OPTIC
F.S.	- FULL SUPER
GA.	- GAUGE OR GAGE
G.H.C.	- GAS HOUSE CONNECTION
G.V.	- GAS VALVE
HDWL	- HEADWALL
HERCCP	- HORIZONTAL ELLIPTICAL REINFORCED CEMENT CONCRETE PIPE
H.H.	- HANDHOLE
HMA	- HOT MIX ASPHALT
H.S.D.	- HEADLIGHT SIGHT DISTANCE
H.P.	- HIGH POINT
I	- INLET
INV.	- INVERT
L	- LENGTH
L.P.	- LOW POINT (OR LIGHT POLE)
L.S.	- LEVEL SECTION
LT.	- LEFT
M.B.	- MAIL BOX
MD	- MARYLAND
MDE	- MARYLAND DEPARTMENT OF THE ENVIRONMENT
M.H.	- MANHOLE
N/A	- NOT APPLICABLE
NO.	- NUMBER
N.S.	- NORMAL SECTION
O.C.	- ON CENTER
O/S	- OFFSET
P.C.	- POINT OF CURVE
P/C	- POINT OF CROWN
P.C.C.	- POINT OF COMPOUND CURVE OR PORTLAND CEMENT CONCRETE
P/G.E.	- PROFILE GRADE ELEVATION
P.G.L.	- PROFILE GRADE LINE
P./G.L.	- PROFILE GROUND LINE
P.H.	- PUNCH HOLE
P.I.	- POINT OF INTERSECTION
P.O.C.	- POINT ON CURVE
P.O.T.	- POINT ON TANGENT
P/R	- POINT OF ROTATION
P.R.C.	- POINT OF REVERSE CURVATURE
P.T.	- POINT OF TANGENT
P.V.C.	- POINT OF VERTICAL CURVE (OR POLYVINYL CHLORIDE)
P.V.I.	- POINT OF VERTICAL INTERSECTION
PVMT.	- PAVEMENT
P.V.T.	- POINT OF VERTICAL TANGENCY
R	- RADIUS
R.C.C.P.	- REINFORCED CEMENT CONCRETE PIPE
REF.	- REFERENCE
ROW	- RIGHT-OF-WAY
R.S.E.	- REVERTIBLE SLOPE EASEMENT
RT.	- RIGHT
RTE.	- ROUTE
R/W	- RIGHT OF WAY
SAN.	- SANITARY
S.D.	- STORM DRAIN
S/E	- SUPER ELEVATION
S.H.A.	- STATE HIGHWAY ADMINISTRATION
SMH.	- SEWER MANHOLE
S.S.D.	- STOPPING SIGHT DISTANCE
STA.	- STATION
STD.	- STANDARD
STRUCT.	- STRUCTURE
T	- TELEPHONE
TC	- TRAFFIC CONTROL
T.C.E.	- TEMPORARY CONSTRUCTION EASEMENT
T.C.P.	- TRAFFIC CONTROL PLANS
T.H.	- TEST HOLE
TYP.	- TYPICAL
U.D.	- UNDERDRAIN PIPE
WB	- WESTBOUND
W.M.	- WATER METER
W.S.	- WRAPPED STEEL
W.U.S.	- WATERS OF THE UNITED STATES
W.V.	- WATER VALVE
V.C.	- LENGTH OF VERTICAL CURVE

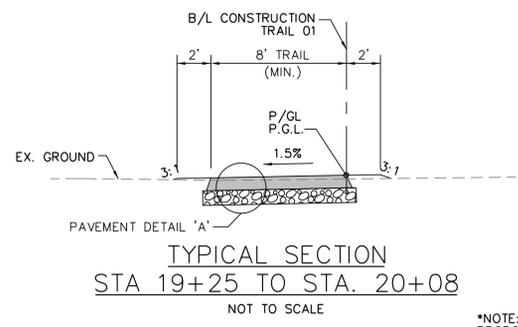
GP# G02018957

DWG. NO.:
TI-02

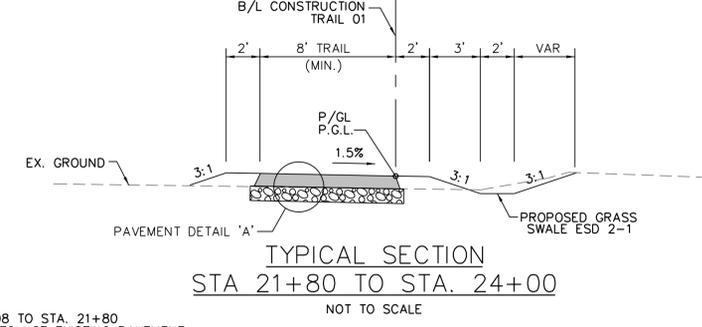
<p>AECOM 4 NORTH PARK DRIVE SUITE 300 HUNT VALLEY, MARYLAND 21030 PHONE: 410-785-7220 FAX: 410-785-6818</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>"I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND."</p> <p>MD LICENSE NUMBER: 53587</p> <p>EXPIRATION DATE: 12-09-2024</p>		<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	DESCRIPTION	BY	DATE					<p>ANNE ARUNDEL COUNTY</p> <p>DEPARTMENT OF PUBLIC WORKS</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>APPROVED</th> <th>DATE</th> <th>APPROVED</th> </tr> </thead> <tbody> <tr> <td>11/20/2023</td> <td></td> <td>11/17/2023</td> <td></td> </tr> <tr> <td> </td> <td>CHIEF ENGINEER</td> <td> </td> <td>PROJECT MANAGER</td> </tr> <tr> <td>11/17/2023</td> <td></td> <td>11/17/2023</td> <td></td> </tr> <tr> <td> </td> <td>ASSISTANT CHIEF ENGINEER</td> <td> </td> <td>CHIEF, RIGHT OF WAY</td> </tr> </tbody> </table>		DATE	APPROVED	DATE	APPROVED	11/20/2023		11/17/2023			CHIEF ENGINEER		PROJECT MANAGER	11/17/2023		11/17/2023			ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	<p>SCALE: AS NOTED</p> <p>DRAWN BY: DMT</p> <p>CHECKED BY: DMT</p> <p>SHEET NO. 02 OF 116</p> <p>PROJECT NO. P504100</p> <p>CONTRACT NO. P504105</p>	<p>BROADNECK PENINSULA TRAIL PHASE IB & V</p> <p>GENERAL NOTES, LEGEND, AND ABBREVIATIONS</p>
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11/17/2023		11/17/2023																																		
	ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY																																	



**TYPICAL SECTION
STA 6+00 TO STA. 9+80**
NOT TO SCALE

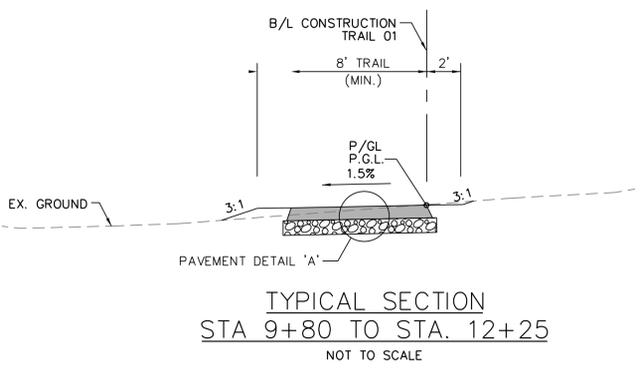


**TYPICAL SECTION
STA 19+25 TO STA. 20+08**
NOT TO SCALE

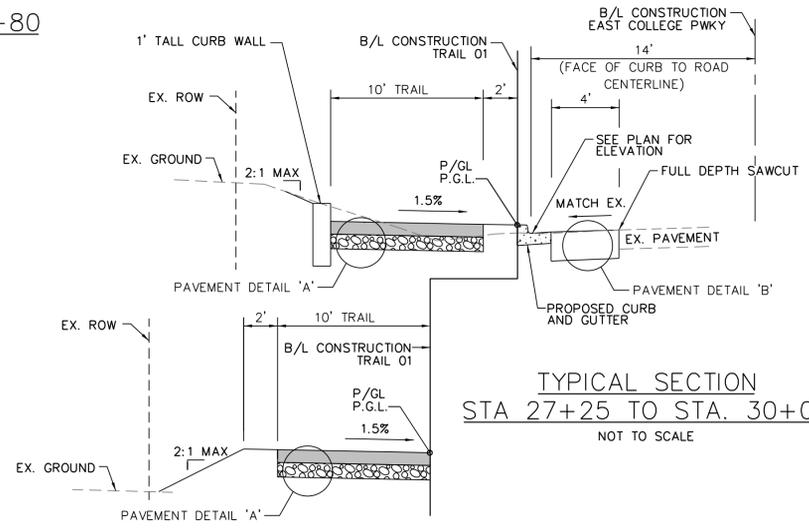


**TYPICAL SECTION
STA 21+80 TO STA. 24+00**
NOT TO SCALE

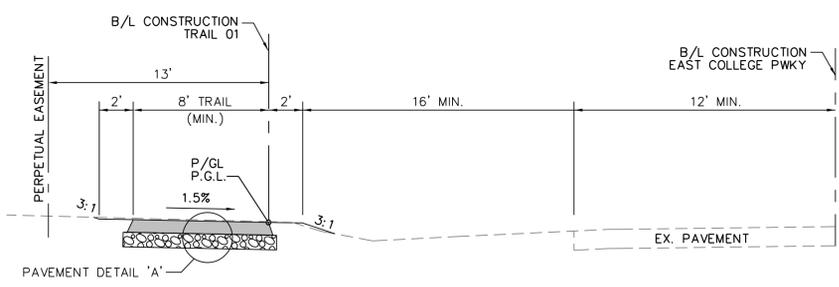
*NOTE: STA 20+08 TO STA. 21+80
PROPOSED TRAIL TO USE EXISTING PAVEMENT



**TYPICAL SECTION
STA 9+80 TO STA. 12+25**
NOT TO SCALE



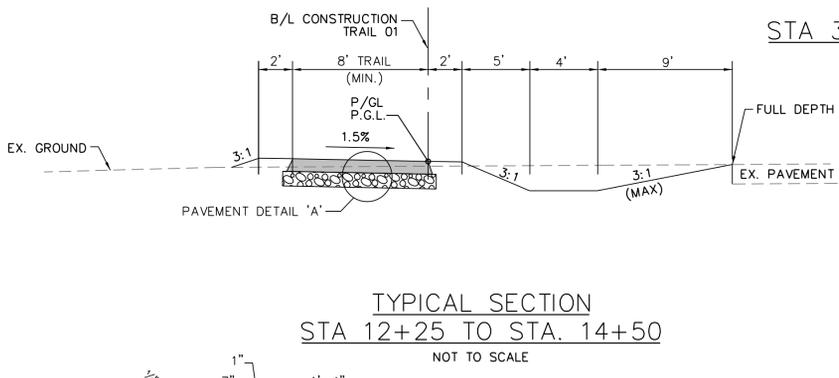
**TYPICAL SECTION
STA 27+25 TO STA. 30+00**
NOT TO SCALE



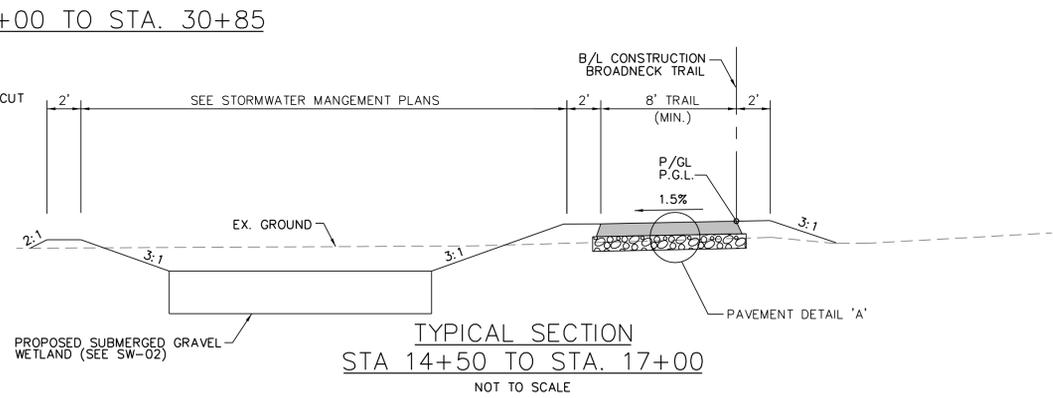
**TYPICAL SECTION
STA 24+00 TO STA. 27+15**
NOT TO SCALE

TRAIL CROSS-SLOPE TABLE			
BASELINE	STATION	S/E	COMMENTS
TRAIL-01	6+00	+1.50%	
	9+80	+1.50%	BEGIN TRANSITION
	10+00	-1.50%	END TRANSITION
	12+30	-1.50%	BEGIN TRANSITION
	12+50	+1.50%	END TRANSITION
	14+30	+1.50%	BEGIN TRANSITION
	14+50	-1.50%	END TRANSITION
TRAIL-02	20+05	-1.50%	
	21+90	+1.50%	NEW SEGMENT
	31+60	+1.50%	
	40+00	+1.50%	
TRAIL-03	41+80	+1.50%	BEGIN TRANSITION
	42+00	-1.50%	END TRANSITION
	55+00	-1.50%	
TRAIL-04	60+00	+1.50%	
	84+40	+1.50%	
BHP TRAIL	600+00	-1.50%	
	612+00	-1.50%	
TRAIL-04	90+00	+1.50%	
	97+87	+1.50%	
	500+00	+1.50%	
SPSP-01	521+40	+1.50%	
	300+00	+1.50%	
LOOP TRAIL	342+52	+1.50%	
	350+00	+1.50%	
	357+44	+1.50%	

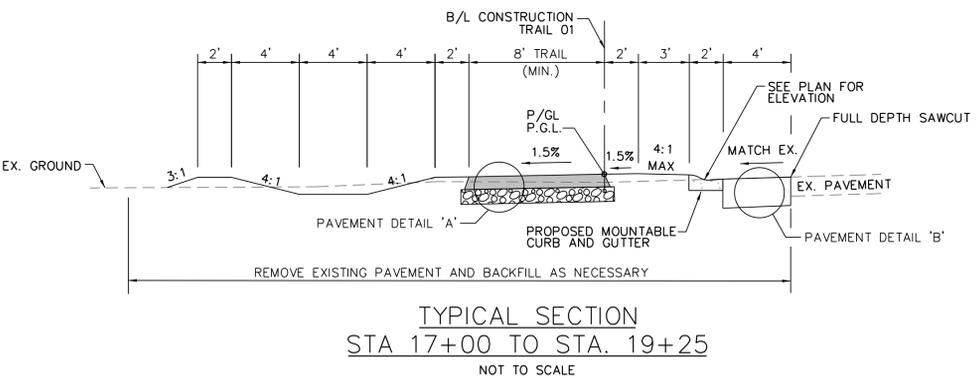
TRAIL CROSS-SLOPE NOTES:
TRAIL CROSS-SLOPE SHALL BE CONSTRUCTED AT 1.5% IN EITHER DIRECTION UNLESS OTHERWISE APPROVED BY THE ENGINEER. UNDER NO CIRCUMSTANCES SHALL THE TRAIL CROSS-SLOPE EXCEED 2.0%, AS SPECIFIED BY AND IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE MARYLAND STATE HIGHWAY ADMINISTRATION'S (MDSHA) "ACCESSIBILITY POLICY AND GUIDELINES FOR PEDESTRIAN FACILITIES ALONG STATE HIGHWAYS (2010)."
TRAIL CROSS-SLOPE TRANSITION SHALL BE A MINIMUM TRANSITION LENGTH OF 5FT FOR EACH 1 PERCENT CHANGE IN CROSS-SLOPE.



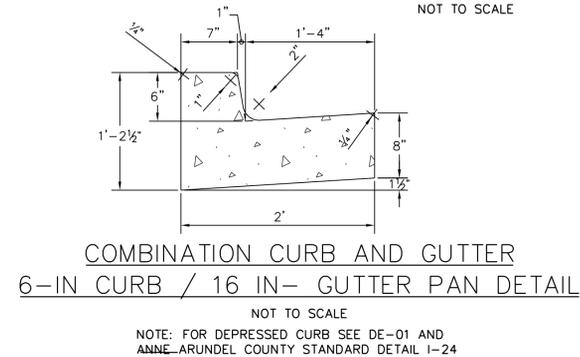
**TYPICAL SECTION
STA 12+25 TO STA. 14+50**
NOT TO SCALE



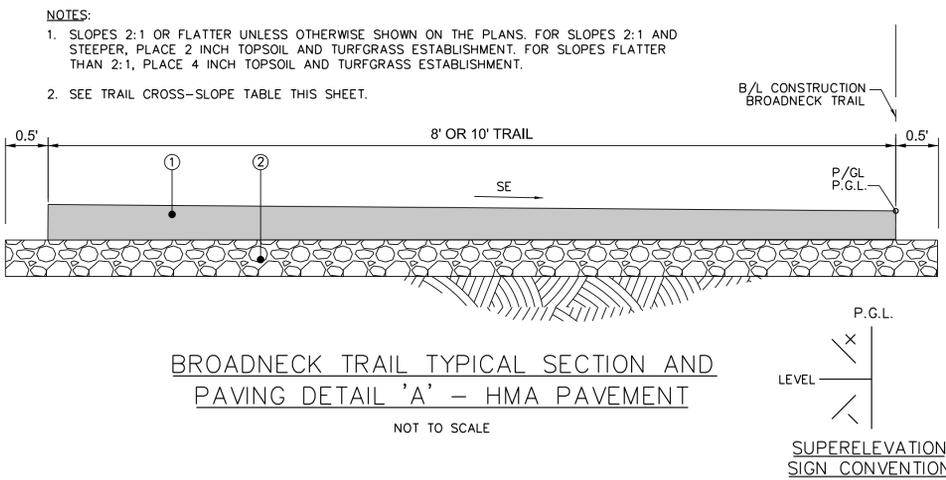
**TYPICAL SECTION
STA 14+50 TO STA. 17+00**
NOT TO SCALE



**TYPICAL SECTION
STA 17+00 TO STA. 19+25**
NOT TO SCALE

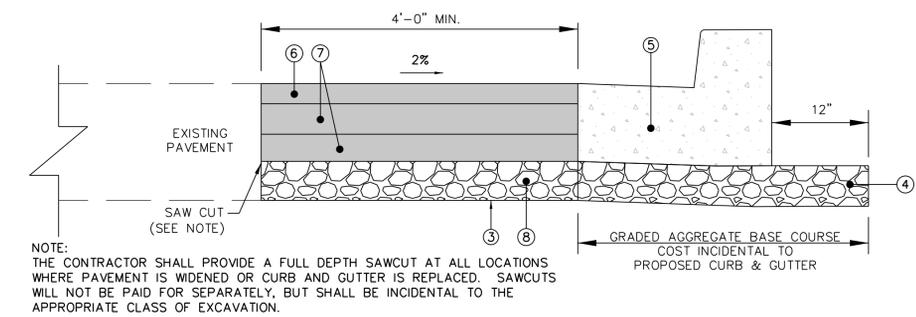


**COMBINATION CURB AND GUTTER
6-IN CURB / 16 IN- GUTTER PAN DETAIL**
NOT TO SCALE
NOTE: FOR DEPRESSED CURB SEE DE-01 AND ANNE ARUNDEL COUNTY STANDARD DETAIL I-24



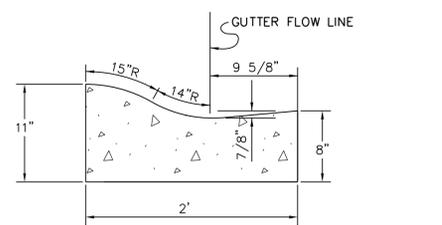
**BROADNECK TRAIL TYPICAL SECTION AND
PAVING DETAIL 'A' - HMA PAVEMENT**
NOT TO SCALE

- LEGEND**
- ① 2" HOT MIX ASPHALT, SUPERPAVE (9.5mm) SURFACE PG 64-22
 - ② 4" GRADED AGGREGATE BASE (ONE LIFT)
 - ③ LIMIT OF EXCAVATION
 - ④ 6" GRADED AGGREGATE BASE, INCIDENTAL TO CONCRETE CURB AND GUTTER ITEM.
 - ⑤ COMBINATION CURB AND GUTTER -6" CURB/16" GUTTER PAN
 - ⑥ 2" HOT MIX ASPHALT SURFACE COURSE
 - ⑦ 3" HOT MIX ASPHALT BASE COURSE
 - ⑧ 12" GRADED AGGREGATE BASE COURSE



**PAVING DETAIL 'B' - INTERSECTION CURB & GUTTER
REPLACEMENT**
NOT TO SCALE

NOTE: THE CONTRACTOR SHALL PROVIDE A FULL DEPTH SAWCUT AT ALL LOCATIONS WHERE PAVEMENT IS WIDENED OR CURB AND GUTTER IS REPLACED. SAWCUTS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCIDENTAL TO THE APPROPRIATE CLASS OF EXCAVATION.



MOUNTABLE CURB AND GUTTER
NOT TO SCALE
NOTE: SEE ANNE ARUNDEL COUNTY STANDARD DETAIL I-26 FOR TRANSITION FROM STANDARD CURB AND GUTTER TO MOUNTABLE CURB AND GUTTER

AECOM
AECOM
4 NORTH PARK DRIVE
SUITE 300
HUNT VALLEY, MARYLAND 21030
PHONE: 410-785-7220
FAX: 410-785-6818

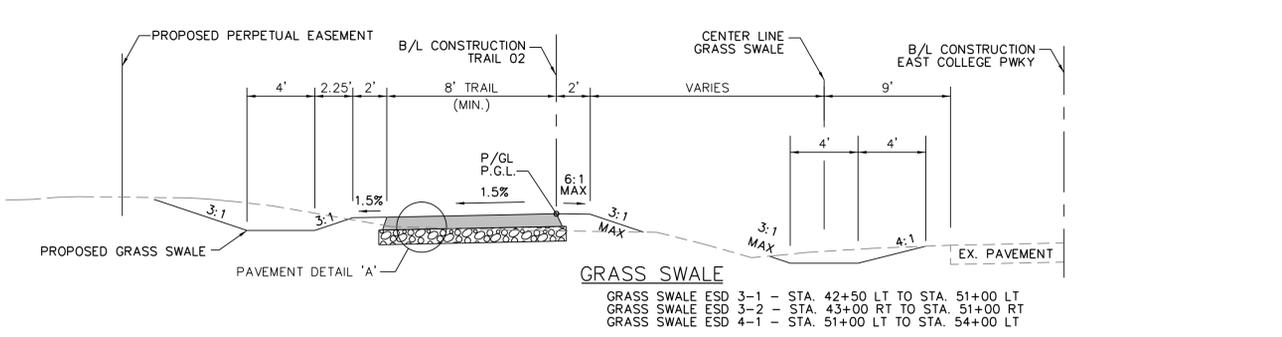
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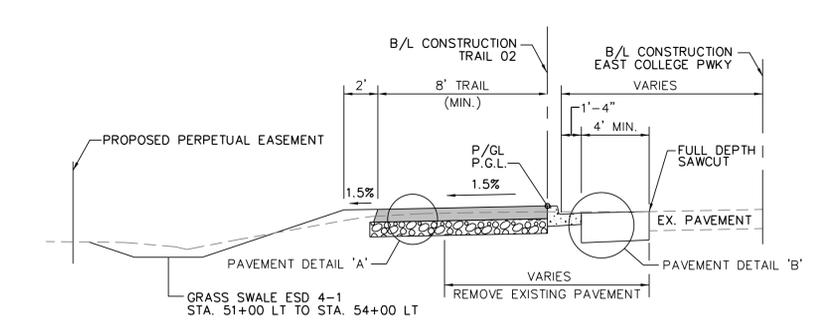
REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS			
DATE	APPROVED	DATE	APPROVED
11/20/2023 08:59 EST	<i>[Signature]</i>	11/17/2023 08:00 EST	<i>[Signature]</i>
11/17/2023 11:56 EST	<i>[Signature]</i>	11/17/2023 18:30 EST	<i>[Signature]</i>

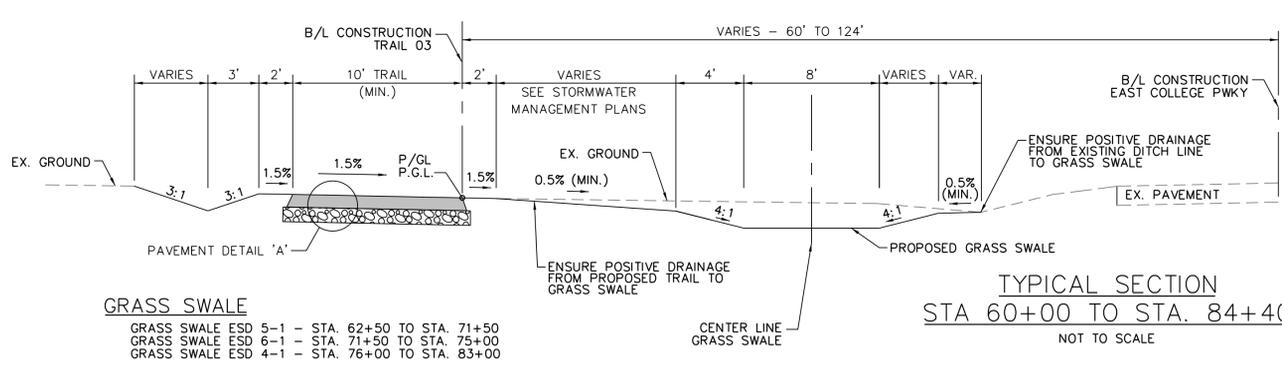
GP# G02018957
DWG. NO.: TS-01
SCALE: AS NOTED
DRAWN BY: DMT
CHECKED BY: DMT
SHEET NO. 3 OF 116
PROJECT NO. P504100
CONTRACT NO. P504105
TYPICAL SECTIONS AND DETAILS



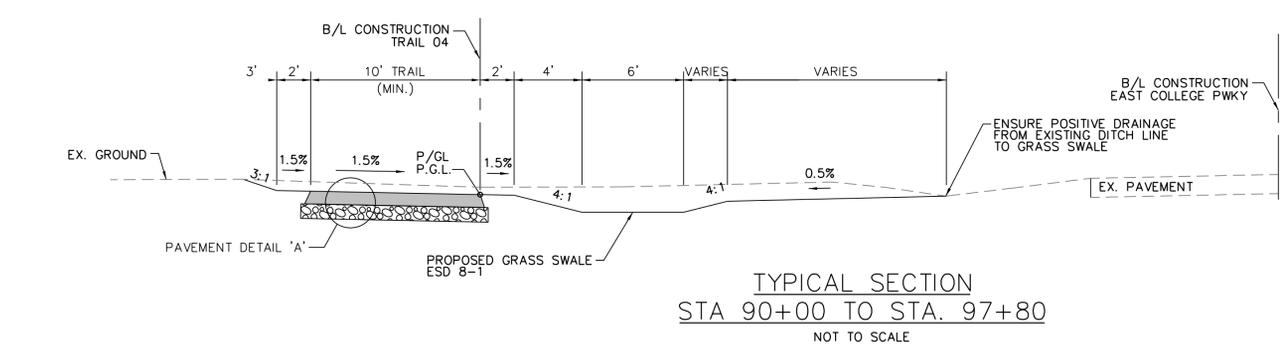
TYPICAL SECTION
STA 40+00 TO STA. 53+40
NOT TO SCALE



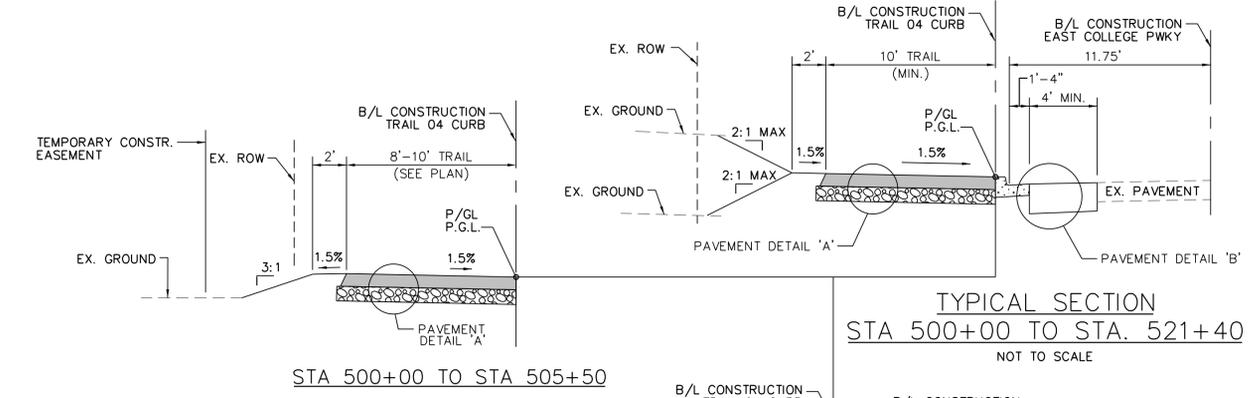
TYPICAL SECTION
STA 53+40 TO STA. 55+00
NOT TO SCALE



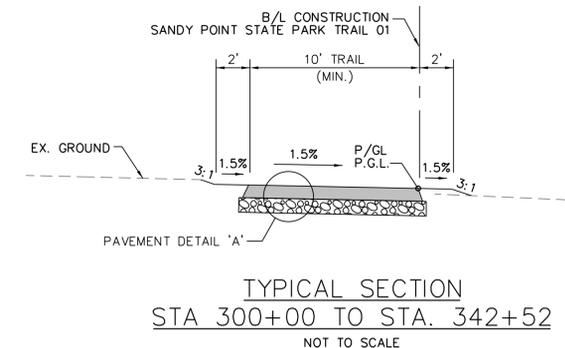
TYPICAL SECTION
STA 60+00 TO STA. 84+40
NOT TO SCALE



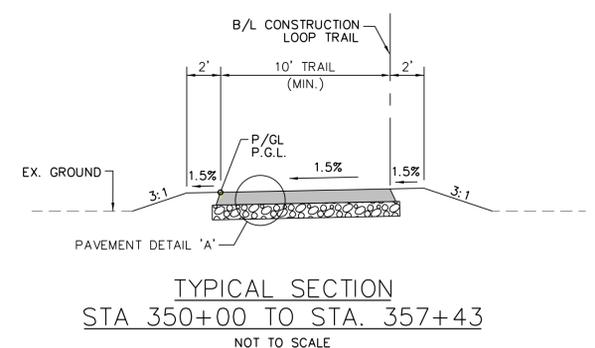
TYPICAL SECTION
STA 90+00 TO STA. 97+80
NOT TO SCALE



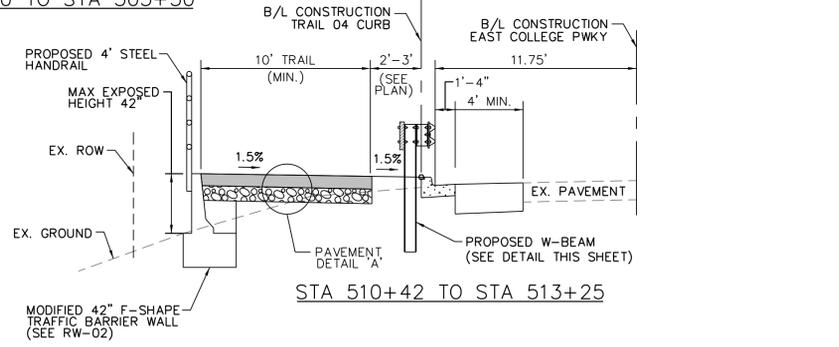
TYPICAL SECTION
STA 500+00 TO STA. 521+40
NOT TO SCALE



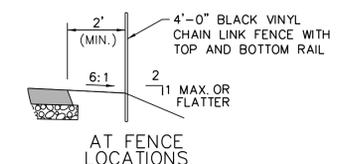
TYPICAL SECTION
STA 300+00 TO STA. 342+52
NOT TO SCALE



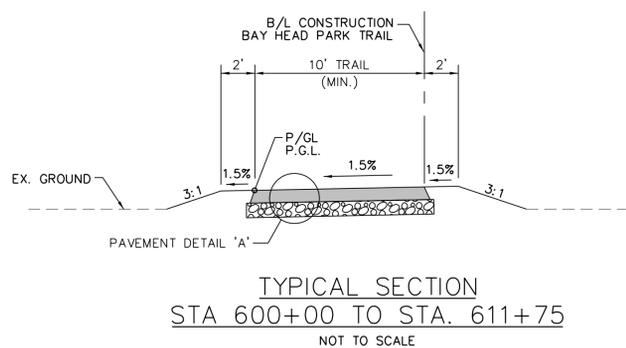
TYPICAL SECTION
STA 350+00 TO STA. 357+43
NOT TO SCALE



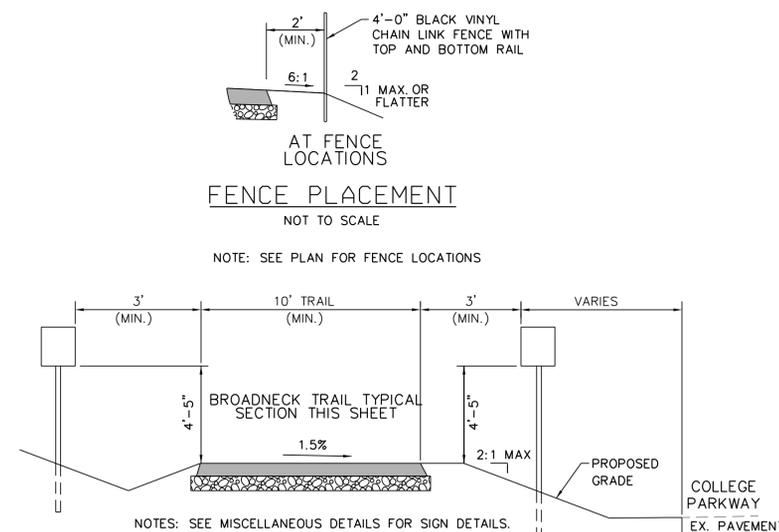
TYPICAL SECTION
STA 510+42 TO STA. 513+25



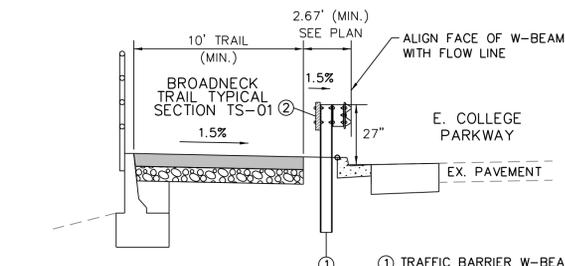
FENCE PLACEMENT
NOT TO SCALE



TYPICAL SECTION
STA 600+00 TO STA. 611+75
NOT TO SCALE



TRAIL SIGN PLACEMENT
NOT TO SCALE



TYPICAL W-BEAM TRAFFIC BARRIER PLACEMENT
NOT TO SCALE

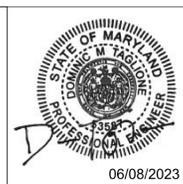
NOTE:
1. SLOPES 2:1 OR FLATTER UNLESS OTHERWISE SHOWN ON THE PLANS. FOR SLOPES 2:1 AND STEEPER, PLACE 2 INCH TOPSOIL AND TURFGRASS ESTABLISHMENT. FOR SLOPES FLATTER THAN 2:1, PLACE 4 INCH TOPSOIL AND TURFGRASS ESTABLISHMENT.

TRAIL SUMMARY			
LOCATION	PAVEMENT TYPE	WIDTH	LENGTH
E. COLLEGE PKWY	HOT MIX ASPHALT	8'	3,650 LF
	HOT MIX ASPHALT	10'	6,930 LF
SANDY POINT STATE PARK	HOT MIX ASPHALT	8'	N/A
	HOT MIX ASPHALT	10'	4,900 LF
TOTALS	HOT MIX ASPHALT	8'	3,650 LF
	HOT MIX ASPHALT	10'	11,830 LF
		TOTAL	15,480 LF

GP# G02018957 DWG. NO.: TS-02



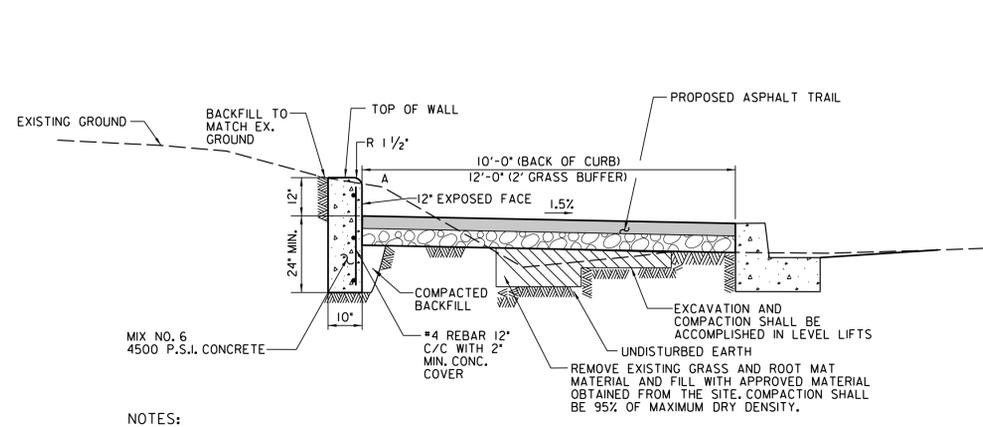
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NO.	DESCRIPTION	BY	DATE

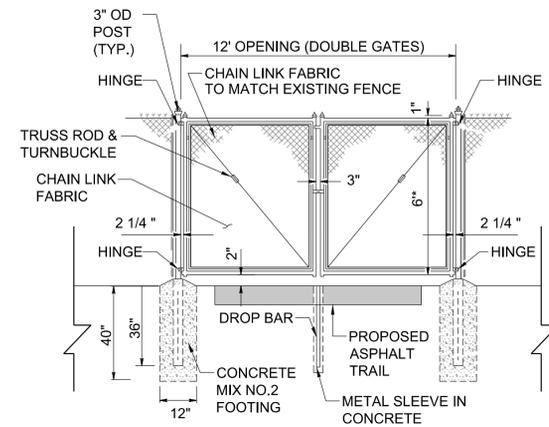
ANNE ARUNDEL COUNTY			
DEPARTMENT OF PUBLIC WORKS			
APPROVED	DATE	APPROVED	DATE
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CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
<i>[Signature]</i>	11/17/2023 11:56 EST	<i>[Signature]</i>	11/17/2023 18:30 EST
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	
SCALE: AS NOTED		DRAWN BY: DMT	
CHECKED BY: DMT		SHEET NO. 4 OF 116	
PROJECT NO. P504100		CONTRACT NO. P504105	

TYPICAL SECTIONS AND DETAILS



NOTES:
1. FOR PLAN DETAIL SEE DE-06

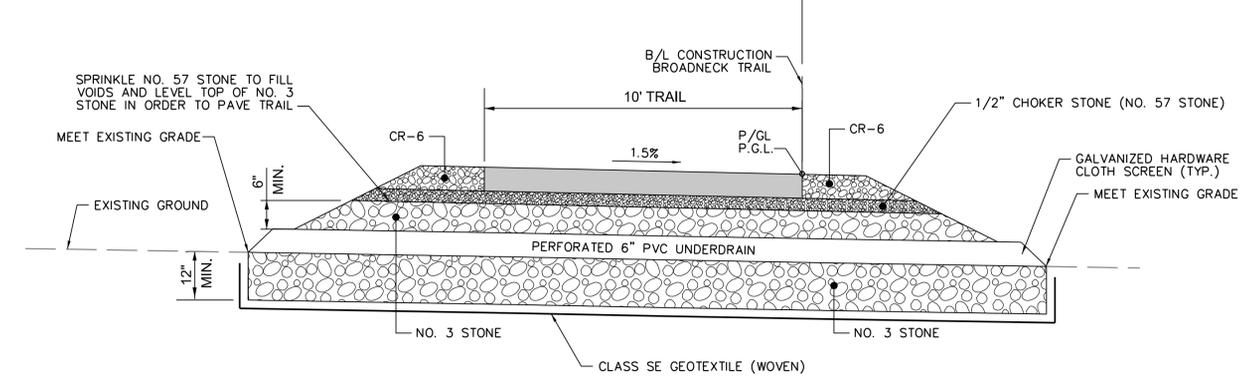
12" CONCRETE CURB - TYPICAL SECTION
STATION 27+25 TO STATION 29+85, LT
NOT TO SCALE



*CONTRACTOR TO VERIFY HEIGHT TO MATCH EXISTING FENCE

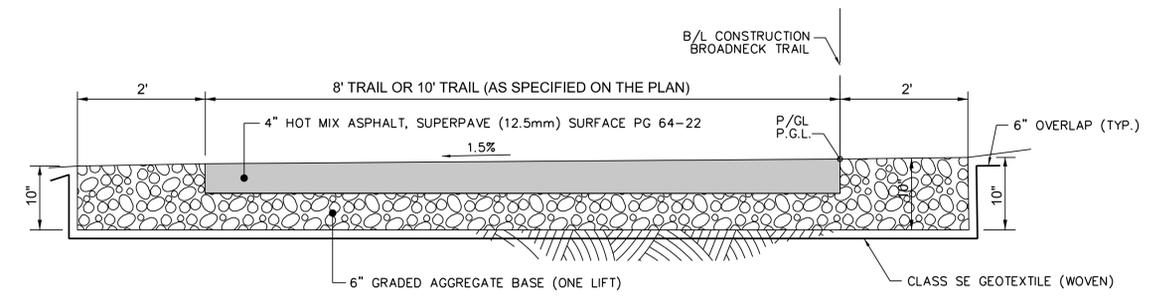
NOTES:
1. ALL FENCING COMPONENTS INCLUDING FRAMES, GATES, POSTS, RAILS, TENSION WIRE, AND FABRIC SHALL MATCHING EXISTING FENCE.
2. REMOVE EXISTING FENCE TO THE NEAREST POST TO INSTALL GATE AT TRAIL APPROX. STA. 609+15

DOUBLE CHAIN LINK SWING GATE - BAY HEAD PARK
NOT TO SCALE



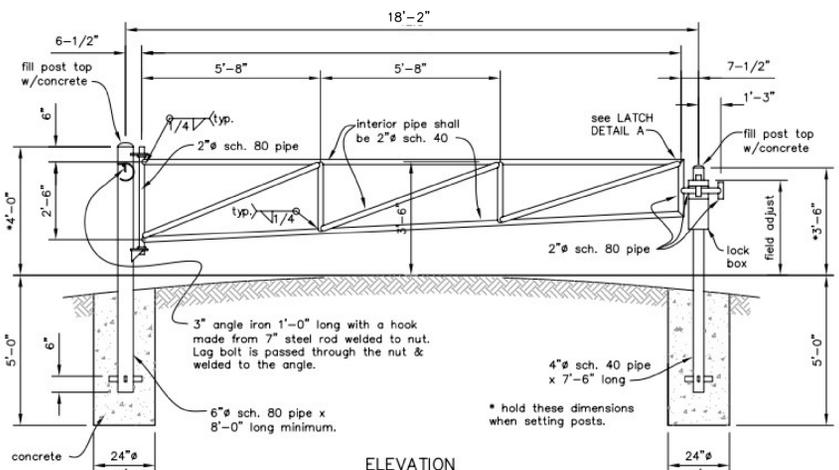
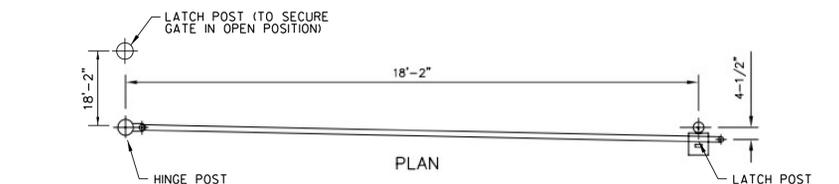
NOTES:
1. PERFORATED 6" PVC UNDERDRAIN TO BE SPACED 15' ON CENTER AND DAYLIGHTS ON BOTH ENDS OF TRAIL.

BROADNECK TRAIL - SANDY POINT STATE PARK
STATION 331+50 TO 334+50
NOT TO SCALE

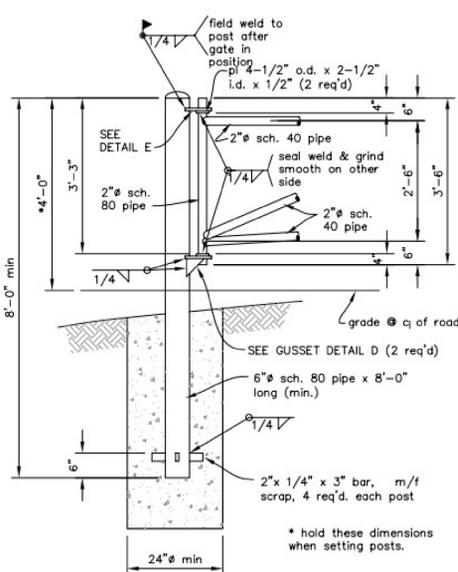


NOTES:
1. HEAVY DUTY PAVEMENT SECTION TO BE USED WITHIN EASEMENT ALONG BGE PROPERTY FROM APPROX. STATION 9+75 TO 12+00 AND AT DRIVEWAY ALONG LOG INN ROAD FROM STATION 302+95 TO 303+15

BROADNECK TRAIL - HEAVY DUTY PAVEMENT SECTION
STATION 9+75 TO STATION 12+00
STATION 303+10 TO 303+35
NOT TO SCALE



ELEVATION STEEL PIPE GATE



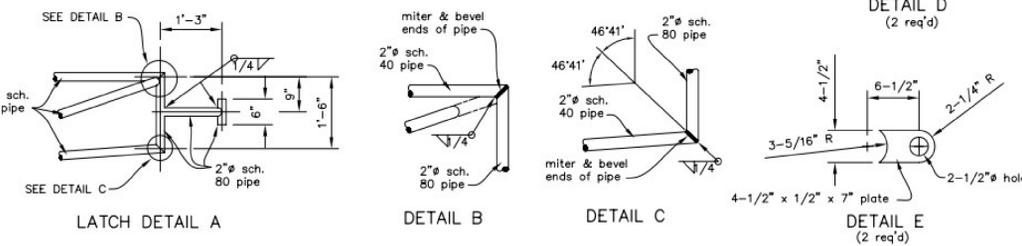
HINGE POST DETAIL

WELDING SYMBOL LEGEND

- field weld
- weld all around
- weld this side
- weld other side

NOTE:
The exposed surface of the concrete shall be crowned to shed water.
This drawing requires supporting technical documentation prior to use and must be adapted to the specific site.

Drawing not to scale.

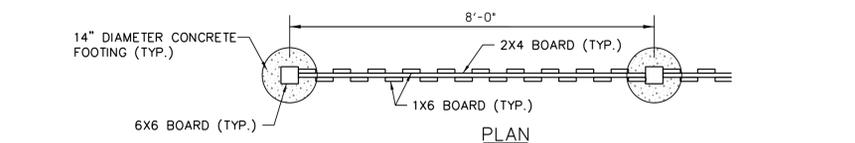


LATCH DETAIL A

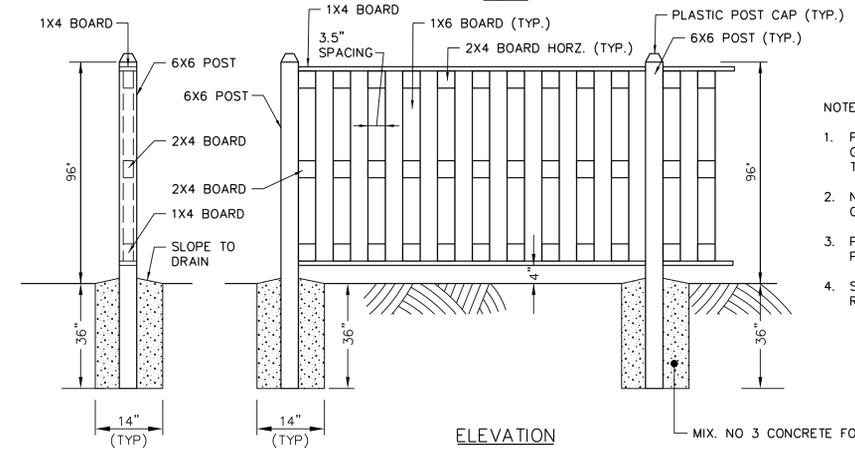
DETAIL B

DETAIL C

DETAIL E (2 req'd)



PLAN



ELEVATION

SIDE VIEW

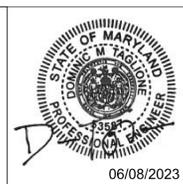
8' WOOD SCREEN FENCE

NOT TO SCALE

NOTES:
1. POSTS AND BOARDS SHALL BE GROUND CONTACT PRESSURE TREATED TIMBER.
2. NAILS AND HARDWARE SHALL BE GALVANIZED STEEL.
3. POST CAPS SHALL BE DPPC BLACK PLASTIC SECURED BY DECK SCREW.
4. SUBMIT SHOP DRAWING FOR REVIEW AND APPROVAL.

AECOM
4 NORTH PARK DRIVE
SUITE 300
HUNT VALLEY, MARYLAND 21030
PHONE: 410-785-7220
FAX: 410-785-6818

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SCALE: AS NOTED		DRAWN BY: DMT	
CHECKED BY: DMT		SHEET NO. 06 OF 116	
PROJECT NO. P504100		CONTRACT NO. P504105	
BROADNECK PENINSULA TRAIL PHASE IB & V			
MISCELLANEOUS DETAILS			

GP# G02018957 DWG. NO.: DE-02

NOTES

- CONTRACTOR HAS OPTION OF FURNISHING END SECTIONS CONFORMING TO DETAILS ON THIS SHEET OR END SECTIONS CONFORMING TO DETAILS ON STANDARD MD 368.02.
- END SECTIONS MUST BE REINFORCED TO CONFORM TO ASTM - CLASS IV REINFORCED CONCRETE PIPES.
- CONCRETE FOOTER SHALL BE USED WHEN SPECIFIED ON THE PLANS. COST OF CONCRETE FOOTER TO BE INCLUDED IN PRICE OF END SECTION. CONCRETE TO BE MIX NO. 2. REINFORCEMENT TO BE NO. 3 BARS.

INVERT ELEVATION TO BE AT THE PIPE END OF THE STANDARD END SECTION. ELEVATIONS TO BE NOTED ON THE CONSTRUCTION PLANS.

QUANTITIES FOR ESTIMATING PURPOSES ONLY

DIMENSIONS		QUANTITIES	
DIA.	SLOPE	CONC. FOOTER	STEEL (LBS.)
12"	3:1	4"	2.0
15"	3:1	4"	2.3
18"	3:1	4"	2.7
21"	3:1	4"	3.1
24"	3:1	4"	3.5
27"	3:1	4"	3.9
30"	3:1	4"	4.3
33"	3:1	4"	4.7
36"	3:1	4"	5.1

ISOMETRIC VIEW

Specification 305 CATEGORY CODE ITEMS

APPROVED: *[Signature]*

Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
STANDARD CONCRETE END SECTION ROUND CONCRETE PIPE
STANDARD NO. MD 368.01

NOTES

- END SECTIONS SHALL BE REINFORCED TO CONFORM TO ASTM - CLASS IV REINFORCED CONCRETE PIPES.
- CONCRETE FOOTER SHALL BE USED WHEN SPECIFIED ON THE PLANS. COST OF THE FOOTER TO BE INCLUDED IN PRICE OF THE END SECTION. CONCRETE SHALL BE MIX NO. 2 AND THE REINFORCEMENT IS TO BE NO. 3 BARS.
- INVERT ELEVATION TO BE AT THE PIPE END OF THE STANDARD END SECTION. ELEVATIONS TO BE NOTED ON THE CONSTRUCTION PLANS.

QUANTITIES FOR ESTIMATING PURPOSES ONLY

HERCP		CONCRETE END SECTION		CONCRETE FOOTER	
RISE/SPAN	APPR. WALL DIA. SLOPE	A	B	C	D
14"	23'	18"	3.21	2.34	8"
18"	23'	18"	3.71	2.84	8"
21"	23'	18"	4.21	3.34	8"
24"	23'	18"	4.71	3.84	8"
27"	23'	18"	5.21	4.34	8"
30"	23'	18"	5.71	4.84	8"
33"	23'	18"	6.21	5.34	8"
36"	23'	18"	6.71	5.84	8"

Specification 305 CATEGORY CODE ITEMS

APPROVED: *[Signature]*

Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
STANDARD CONCRETE END SECTION HORIZONTAL ELLIPTICAL PIPE
STANDARD NO. MD 369.00

GENERAL NOTES

- THIS STANDARD TO BE USED WITH TYPE A COMBINATION CURB AND GUTTER ONLY.
- CURB OPENINGS SHALL NOT ENCRUST ON CROSSWALK AREAS.
- CONCRETE SHALL BE MIX NO. 4 (4500 PSI) FOR PRECAST UNITS AND MIX NO. 3 (3500 PSI) FOR CAST IN PLACE UNITS.
- INLET MAY BE PRECAST OR CAST IN PLACE. ON WALLS, REINFORCEMENT SHALL BE AS SHOWN ON STD NO 374.55-01 TABLE WITH 2" COVER FOR SLOPED TROUGH FLOOR. ON BASE, REINFORCEMENT SHALL BE AS SHOWN ON STD. 374.55-01 TABLE WITH 1 1/2" COVER (PRECAST) AND 2" COVER (CAST IN PLACE) FROM TOP OF BASE.
- CONCRETE OR BRICK CHANNEL WHICH SLOPES AT LEAST 2 IN./FT TOWARD THE OUTLET SHALL BE PROVIDED IN THE FIELD.
- GRADE AND SLOPE ADJUSTMENTS SHALL BE COMPLETED IN THE FIELD USING PRECAST ADJUSTMENT COLLAR AND MORTAR.
- SLOPED TROUGH FLOOR TO BE CAST IN THE FIELD AND USED ONLY WHEN ROAD GRADE IS 1.5% OR LESS. WHEN SLOPED TROUGH FLOOR IS USED, ROUGHEN PRECAST TROUGH FLOOR.
- PRECAST INLET JOINTS- THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS TO THE FULL DIMENSION. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATER TIGHT USING THE MANUFACTURER'S RECOMMENDED ASTM OR ASHTO APPROVED SEALANT.
- LADDER RUNGS SHALL BE PLACED IN VERTICAL ALIGNMENT AT 1'-3" C/C. RUNG TYPE SHALL BE IN ACCORDANCE WITH STANDARDS MD 383.91 OR MD 384.52. RUNGS ARE INCIDENTAL TO THE COST OF THE INLET.
- ANGLE FROM AND SHEAR STUD CONNECTORS SHALL BE GALVANIZED AFTER WELDING IN ACCORDANCE WITH ASTM A 123. SEE STD. MD 374.55 & MD 374.64.
- SEE STANDARD MD 374.64 FOR ALTERNATE PRECAST COS TROUGHS.
- PAY MEASUREMENTS FOR CAST IN PLACE UNIT SHALL BE THE SAME AS THE PRECAST UNIT. REFER TO NOTE 14. ALL OTHER DIMENSIONS SHOWN FOR PRECAST SHALL APPLY TO CAST IN PLACE UNIT.
- MINIMUM DEPTH PAYMENT FOR EACH SHALL BE 6'-2" MEASURED FROM THE PIPE INVERT TO THE TOP OF THE TROUGH SLAB. VERTICAL DEPTH PAYMENT FOR LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 6'-2" INCLUDING ALL APPURTENANCES.
- PRECAST BASE UNIT WALLS MAY VARY PER MANUFACTURER'S DESIGN.
- FROM CURB LINE, INLET HAS BEEN DESIGNED FOR HS-25 LOADING ACCORDING TO ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
- SEE STD MD 374.51-01 FOR PIPE / PRECAST DIMENSIONS TABLE.

Specification 305 CATEGORY CODE ITEMS

APPROVED: *[Signature]*

Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
PRECAST OR CAST IN PLACE SQUARE AND RECTANGULAR COG INLETS 5', 10', 15' & 20'
STANDARD NO. MD 374.51

NOTES

- THIS STANDARD TO BE USED WITH TYPE A COMBINATION CURB AND GUTTER ONLY.
- CURB OPENINGS SHALL NOT ENCRUST ON CROSSWALK AREAS.
- CONCRETE SHALL BE MIX NO. 4 (4500 PSI) FOR PRECAST UNITS AND CONCRETE MIX NO. 3 (3500 PSI) FOR CAST IN PLACE UNITS.
- INLET MAY BE PRECAST OR CAST IN PLACE. ON WALLS, REINFORCEMENT SHALL BE AS SHOWN ON TABLE (STD NO 374.55-01) WITH 2" COVER FOR SLOPED TROUGH FLOOR. ON BASE, REINFORCEMENT SHALL BE AS SHOWN ON STD. NO 374.55-01 TABLE WITH 1 1/2" COVER (PRECAST) AND 2" COVER (CAST IN PLACE) FROM TOP OF BASE.
- CONCRETE OR BRICK CHANNEL WHICH SLOPES AT LEAST 2 IN./FT TOWARD THE OUTLET SHALL BE PROVIDED IN THE FIELD.
- GRADE AND SLOPE ADJUSTMENTS SHALL BE COMPLETED IN THE FIELD USING PRECAST ADJUSTMENT COLLAR AND MORTAR.
- SLOPED TROUGH FLOOR TO BE CAST IN THE FIELD AND USED ONLY WHEN ROAD GRADE IS 1.5% OR LESS. WHEN SLOPED TROUGH FLOOR IS USED, ROUGHEN PRECAST TROUGH FLOOR.
- PRECAST INLET JOINTS- THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS TO THE FULL DIMENSION. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATER TIGHT USING THE MANUFACTURER'S RECOMMENDED ASTM OR ASHTO APPROVED SEALANT.
- LADDER RUNGS SHALL BE PLACED IN VERTICAL ALIGNMENT AT 1'-3" C/C. RUNGS ARE INCIDENTAL TO THE COST OF THE INLET.
- ANGLE FROM AND SHEAR STUD CONNECTORS SHALL BE GALVANIZED AFTER WELDING IN ACCORDANCE WITH ASTM A 123. SEE STDS. MD 374.55 & MD 374.64.
- SEE STANDARD MD 374.64 FOR DEPRESSIONED GUTTER PAN.
- PAY MEASUREMENTS FOR CAST IN PLACE UNIT SHALL BE THE SAME AS THE PRECAST UNIT. REFER TO NOTE 14. ALL OTHER DIMENSIONS SHOWN FOR PRECAST UNIT SHALL APPLY TO CAST IN PLACE UNIT.
- MINIMUM DEPTH PAYMENT FOR EACH SHALL BE 6'-2" MEASURED FROM THE PIPE INVERT TO THE TOP OF THE TROUGH SLAB. VERTICAL DEPTH PAYMENT FOR LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 6'-2" INCLUDING ALL APPURTENANCES.
- PRECAST BASE UNIT WALLS MAY VARY PER MANUFACTURER'S DESIGN.
- FROM CURB LINE, INLET HAS BEEN DESIGNED FOR HS-25 LOADING, ACCORDING TO ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

Specification 305 CATEGORY CODE ITEMS

APPROVED: *[Signature]*

Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
PRECAST OR CAST IN PLACE SQUARE AND RECTANGULAR COS INLETS 5', 10', 15' & 20'
STANDARD NO. MD 374.61

NOTES

- SLOPED TROUGH FLOOR TO BE CAST IN THE FIELD AND USED ONLY WHEN ROAD GRADE IS 1.5% OR LESS. WHEN SLOPED TROUGH FLOOR IS USED, ROUGHEN PRECAST TROUGH FLOOR.
- CONCRETE SHALL BE MIX NO. 6.
- FOR CAST IN PLACE INLET, REINFORCEMENT SHALL BE NO. 4 BARS AT 6" C/C. TWO WAYS PLACED AT THE CENTER OF BOTH WALLS AND BASE. FOR PRECAST INLET, REINFORCEMENT SHALL BE TWO LAYERS OF #4-#6 @ 6" X 6" W/ 2" COVER AT WALLS AND TWO LAYERS OF #4-#6 @ 6" X 6" W/ 2" COVER AT BASE.
- FOR MANHOLE FRAME AND COVER SEE MD 383.61.
- MINIMUM DEPTH PAYMENT SHALL BE 3'-6" MEASURED FROM THE BOTTOM OF THE BASE UNIT TO THE TOP OF THE TROUGH SLAB. VERTICAL DEPTH PAYMENT IN EXCESS OF 3'-6" IS NOT PERMITTED. USE OTHER STANDARDS IF ADDITIONAL VERTICAL DEPTH IS REQUIRED.
- PIPE TO BE PAID FOR SEPARATELY.
- FROM CURB LINE (SIDEWALK), INLET HAS BEEN DESIGNED FOR HS-25 LOADING, ACCORDING TO ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

Specification 305 CATEGORY CODE ITEMS

APPROVED: *[Signature]*

Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
PRECAST OR CAST IN PLACE SHALLOW COG INLET 5' OR 10' TROUGH OPENING
STANDARD NO. MD 374.66

NOTES

- SLOPED TROUGH FLOOR TO BE CAST IN THE FIELD AND USED ONLY WHEN ROAD GRADE IS 1.5% OR LESS. WHEN SLOPED TROUGH FLOOR IS USED, ROUGHEN PRECAST TROUGH FLOOR.
- CONCRETE SHALL BE MIX NO. 6.
- FOR CAST IN PLACE INLET, REINFORCEMENT SHALL BE NO. 4 BARS AT 6" C/C. TWO WAYS PLACED IN THE CENTER OF THE INLET WALLS AND BASE. FOR PRECAST INLETS, REINFORCEMENT SHALL BE TWO LAYERS OF #4-#6 @ 6" X 6" W/ 2" COVER AT WALLS AND TWO LAYERS OF #4-#6 @ 6" X 6" W/ 2" COVER AT BASE.
- FOR MANHOLE FRAME AND COVER SEE MD 383.61.
- MINIMUM DEPTH PAYMENT SHALL BE 3'-6" MEASURED FROM THE BOTTOM OF THE BASE UNIT TO THE TOP OF THE TROUGH SLAB. VERTICAL DEPTH PAYMENT IN EXCESS OF 3'-6" IS NOT PERMITTED. USE OTHER STANDARDS IF ADDITIONAL VERTICAL DEPTH IS REQUIRED.
- PIPE TO BE PAID FOR SEPARATELY.
- FROM CURB LINE (SIDEWALK), INLET HAS BEEN DESIGNED FOR HS-25 LOADING, ACCORDING TO ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

Specification 305 CATEGORY CODE ITEMS

APPROVED: *[Signature]*

Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
PRECAST OR CAST IN PLACE SHALLOW COS INLET 5' OR 10' TROUGH OPENING
STANDARD NO. MD 374.67

NOTES

- CONCRETE VALLEY GUTTER TO BE USED IN CONJUNCTION WITH THIS INLET. WALLS OR WARRPS FROM THE STANDARD SECTION TO MEET THE SECTION AT THE END OF THE INLET. THIS TRANSITION WILL TAKE PLACE WITH A DISTANCE OF TEN (10) FEET FROM THE INLET. GUTTER TO BE PAID FOR SEPARATELY.
- INLET MAY BE CONSTRUCTED OF REINFORCED CONCRETE (MIX NO. 2) OR BRICK. CHAMFER INSIDE CORNER 3/4" X 3/4" REINFORCEMENT NO. 4 BARS @ 6" C/C. 2" COVER.
- PIPE OUTLETS AND GUTTER APPROACHES CAN BE REVISED TO MEET EXISTING CONDITIONS.
- GRATINGS ARE SUBJECT TO APPROVAL FOR EACH JOB. ANY TYPE OF SUBSTANTIAL TRANSVERSE BARS MAY BE USED WHICH WILL SUPPORT A MINIMUM UNIFORM LOAD OF 50 LBS./SQ. FT. THE TRANSVERSE BARS SHALL BE WELD RIGID BY SPACER BARS. AREA TO BE MADE UP OF TWO EQUAL PANELED NOTES. ARRANGED FOR BOLLING TOGETHER IN THE FIELD.
- ALL MATERIAL TO BE NOT TIPPED GALVANIZED.

Specification 305 CATEGORY CODE ITEMS

APPROVED: *[Signature]*

Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
STANDARD SINGLE OR DOUBLE OPENING TYPE K INLET OPEN-END GRATE NON-TRAFFIC AREAS
STANDARD NO. MD 378.03

NOTES

- MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASHTO M 199.
- CONCRETE SHALL BE MIX NO. 4 (4500 PSI).
- WALL REINFORCEMENT FOR BASE UNITS, RISER UNITS AND ECCENTRIC CONE UNITS SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.12 (IN²/FT) AND MAXIMUM SPACING OF 12" FOR THE 60" DIAMETER MANHOLES. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 AND A 92. REINFORCEMENT SHALL MEET ASTM A 675, GRADE 60.
- BASE REINFORCEMENT SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.20 (IN²/FT) AND A MAXIMUM SPACING OF 12" WITH 2" COVER FROM THE TOP OF THE BASE. THE BASE SHALL BE CAST MONOLITHIC WITH THE UNIT OR JOINTED PER THE MANUFACTURER'S DESIGN.
- THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATER TIGHT USING (WHERE APPLICABLE) MORTAR, RUBBER OILING CARBON MEETING ASTM C 483 OR FLEXIBLE PLASTIC GASKETS MEETING ASHTO M 198 TYPE B.
- LADDER RUNGS SHALL BE INSTALLED IN VERTICAL ALIGNMENT AT 7'-4" MAXIMUM C/C. RUNG TYPE SHALL BE IN ACCORDANCE WITH STANDARDS MD 383.91 OR MD 384.52. LADDER RUNGS SHALL BE INCIDENTAL TO THE COST OF THE MANHOLE.
- WHEN THE DISTANCE BETWEEN MULTIPLE OPENINGS IN THE BASE UNIT OR RISER UNIT IS LESS THAN 6" ADDITIONAL NO. 5 BARS ARE REQUIRED AROUND OPENINGS.
- LIFT HOLES OR LIFT EYES SHALL BE PROVIDED IN EACH SECTION FOR HANDLING.
- MIX NO. 2 CONCRETE OR BRICK CHANNEL SHALL BE PROVIDED IN THE FIELD AND SHALL SLOPE 2" PER FOOT TOWARD OUTLET OR AS DIRECTED BY THE ENGINEER.
- THE DRIP STONE LANDING SHALL BE USED ONLY WHEN THERE ARE PIPES CONNECTED TO THE RISER UNITS. SEE STD. MD 384.13 FOR DETAILS.
- MINIMUM DEPTH PAYMENT PER EACH SHALL BE 3'-0" MEASURED FROM THE BOTTOM OF THE BASE UNIT TO THE TOP OF THE MANHOLE COVER. VERTICAL DEPTH PAYMENT FOR LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 3'-0". THE COST OF THE DRIP STONE LANDING, NO. 5 BAR AGGREGATE GROUT, SEALANT, AND ALL NECESSARY APPURTENANCES SHALL BE INCIDENTAL TO THE PRICE BID.
- MANHOLE HAS BEEN DESIGNED FOR HS-25 LOADING, ACCORDING TO ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

Specification 305 CATEGORY CODE ITEMS

APPROVED: *[Signature]*

Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
48" DIAMETER PRECAST MANHOLE FOR 12" TO 24" PIPES
STANDARD NO. MD 384.01

AECOM

4 NORTH PARK DRIVE
SUITE 300
HUNT VALLEY, MARYLAND 21030
PHONE: 410-785-7200
FAX: 410-785-6818

PROFESSIONAL CERTIFICATION

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

MD LICENSE NUMBER: 53587

EXPIRATION DATE: 12-09-2024

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER
1987

06/08/2023

REVISIONS

NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

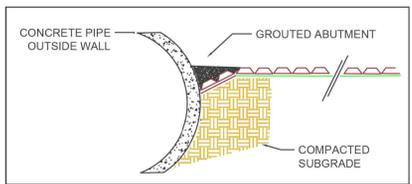
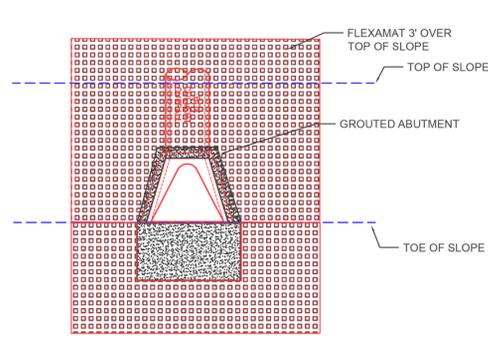
DATE	APPROVED	SCALE: AS NOTED	DATE	APPROVED
11/20/2023	<i>[Signature]</i> CHIEF ENGINEER	08:59 EST	11/17/2023	<i>[Signature]</i> PROJECT MANAGER
11/17/2023	<i>[Signature]</i> ASSISTANT CHIEF ENGINEER	11:56 EST	11/17/2023	<i>[Signature]</i> CHIEF, RIGHT OF WAY

BROADNECK PENINSULA TRAIL PHASE IB & V

CHECKED BY: DMT
SHEET NO. 07 OF 116
PROJECT NO. P504100
CONTRACT NO. P504105

MISCELLANEOUS DETAILS

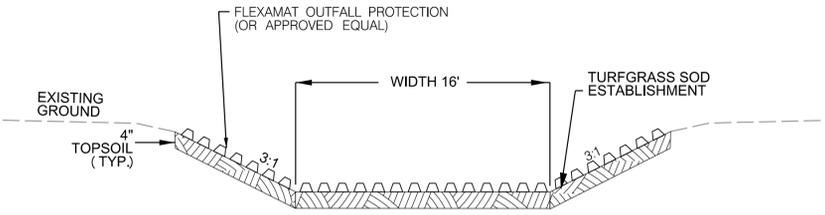
DWG. NO.: DE-03



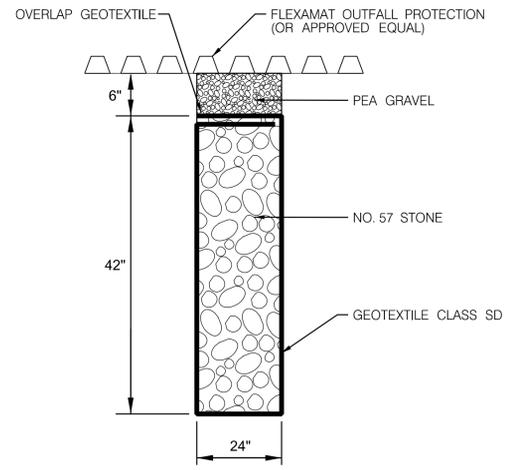
Guidance Table for Stormwater Outfall Protection

Pipe Diameter	Discharge (CFS) (Estimated, see notes below)	Flexamat Protection Width	Flexamat Protection Length (Maximum see notes below)
12"	5	5.5'	5'
18"	20	8'	8'
24"	50	12'	12'
36"	75	12'	12'
48"	100	18'	20'
60"	150	18'	25'

* Length of protection will vary on the length of the slope, degree of slope or if it is discharging into an area.
 - Outfall discharging onto slope - It is recommended to extend Flexamat the length of the slope and 3' past the toe.
 * Consult manufacturer for guidance if design discharges vary significantly from values listed in table.

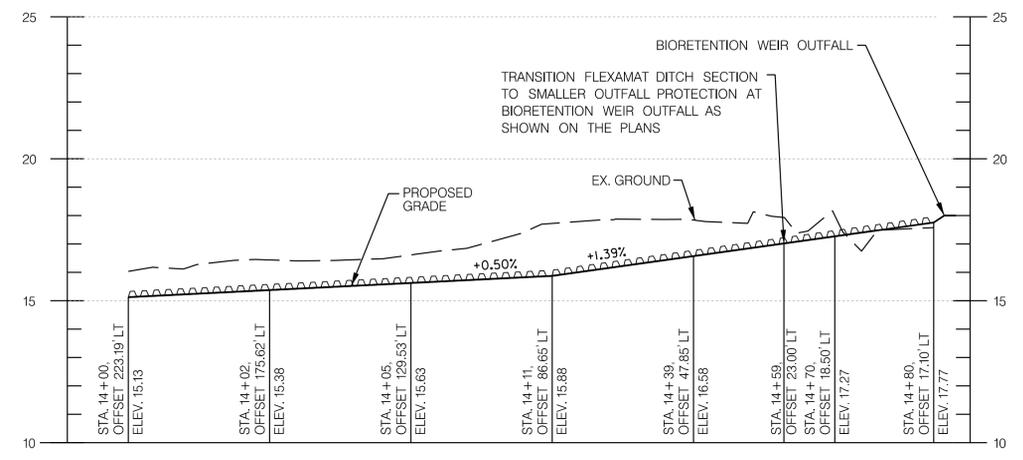


FLEXAMAT TYPICAL SECTION
NOT TO SCALE



FLEXAMAT STONE DIAPHRAGM - TYPICAL SECTION
NOT TO SCALE

- NOTES:
- STONE DIAPHRAGM CENTERED ON FLEXAMAT OUTFALL PROTECTION
 - NO UNDERDRAIN OR CLEANOUT REQUIRED, TO PROVIDE INFILTRATION AND STORAGE ONLY



FLEXAMAT PROFILE
HORZ. SCALE: 1"=30'
VERT. SCALE: 1"=3'

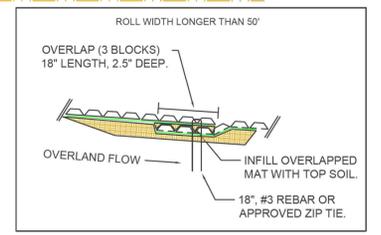
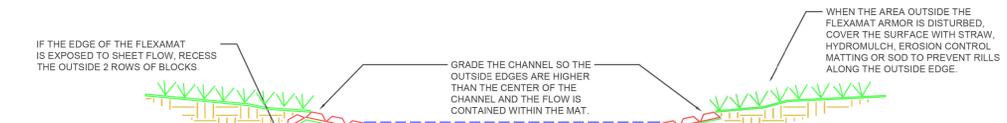
CONSTRUCTION NOTES:

- AN ENGINEER OR MANUFACTURERS REPRESENTATIVE SHALL BE ONSITE FOR THE START OF THE INSTALLATION.
- GRADE THE SITES SO THAT WATER WILL NOT FLOW ABOVE, BELOW, OR AROUND THE OUTSIDE OF THE AREA PROTECTED WITH FLEXAMAT. ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND.
- APPLY SITE SPECIFIC SEED, INCLUDING NATIVE GRASSES DIRECTLY TO THE PREPARED SOIL PRIOR TO FLEXAMAT INSTALLATION.
- FLEXAMAT ROLLS ARE AVAILABLE IN WIDTHS OF 4', 5.5', 8', 10', 12', & 16'. IT IS THE MANUFACTURERS RECOMMENDATION TO UTILIZE THE WIDEST MATS POSSIBLE TO REDUCE AN ABUNDANCE OF SEAMS OR OVERLAPS.
 - TO ACHIEVE WIDER WIDTHS, INSTALL MATS ADJACENT TO ONE ANOTHER. INSTALL ADDITIONAL UNDERLAYMENT UNDER ALL ADJOINING MATS. A MINIMUM OF 12" OF UNDERLAYMENT SHALL EXTEND UNDER EACH SIDE OF THE MAT AND DIRECTLY AGAINST THE SUBGRADE.
 - INSTALL 18" #3 REBAR U-ANCHORS OR STAINLESS STEEL ZIP TIES IN 3' INCREMENTS THE LENGTH OF THE LONGITUDINAL SEAM.
- AT THE BEGINNING OF THE FLEXAMAT, TRANSITION THE INITIAL LEADING EDGE PROPERLY WITH EROSION MATTING OR SOD. IF EXPOSED TO CONCENTRATED FLOWS EMBED 18" VERTICALLY INTO THE SUB GRADE TO SERVE AS AN ANCHOR TRENCH. THE TRENCH SHALL BE FILLED AND COMPACTED WITH SUITABLE FILL OR OTHER (AS SPECIFIED BY EOR).
- FOR ADDITIONAL SECTIONS OF MAT, OVERLAP THE DOWNSTREAM SECTION 18" WITH UPSTREAM SECTION OF MAT. PRIOR TO INSTALLING OVERLAP, FLIP UPSTREAM MAT BACK 24". EXCAVATE 2.25" OF SOIL 18" FROM END OF UPSTREAM MAT. DOWNSTREAM SECTION IS LAID IN THE SHALLOW TRENCH. LIGHTLY SPREAD TOPSOIL, SEED AND FERTILIZER OVER INITIAL EDGE. FLIP END OF UPSTREAM MAT OVER THE SOIL COVERED INITIAL LEADING EDGE OF DOWNSTREAM MAT.
- INSTALL 18" U-ANCHORS IN 3' INCREMENTS ACROSS THE OVERLAP. INSTALL ANCHORS DIRECTLY BEHIND BLOCKS. "U" ANCHORS CONSIST OF #3 REBAR "U" ANCHOR WITH 18" LEGS.
- AT THE END OF THE ARMORED CHANNEL, EMBED THE MAT 18" IN A TERMINATION TRENCH. FILL AND COMPACT TERMINATION TRENCH WITH SOIL (DETERMINED BY EOR).

FLEXAMAT INFORMATION

Manufacturer: Motz Enterprises, Inc.
 Product Name: Flexamat
 Address: 3153 Madison Road
 Cincinnati, OH 45209
 Telephone: 513-772-6689
 Email: info@Flexamat.com
 Website: www.Flexamat.com

FLEXAMAT OUTLET DETAIL NTS



CONSTRUCTION NOTES:

- AN ENGINEER OR MANUFACTURERS REPRESENTATIVE SHALL BE ONSITE FOR THE START OF THE INSTALLATION.
- GRADE THE SITES SO THAT WATER WILL NOT FLOW ABOVE, BELOW, OR AROUND THE OUTSIDE OF THE AREA PROTECTED WITH FLEXAMAT. ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND.
- APPLY SITE SPECIFIC SEED, INCLUDING NATIVE GRASSES DIRECTLY TO THE PREPARED SOIL PRIOR TO FLEXAMAT INSTALLATION.
- FLEXAMAT ROLLS ARE AVAILABLE IN WIDTHS OF 4', 5.5', 8', 10', 12', & 16'. IT IS THE MANUFACTURERS RECOMMENDATION TO UTILIZE THE WIDEST MATS POSSIBLE TO REDUCE AN ABUNDANCE OF SEAMS OR OVERLAPS.
 - TO ACHIEVE WIDER WIDTHS, INSTALL MATS ADJACENT TO ONE ANOTHER. INSTALL ADDITIONAL UNDERLAYMENT UNDER ALL ADJOINING MATS. A MINIMUM OF 12" OF UNDERLAYMENT SHALL EXTEND UNDER EACH SIDE OF THE MAT AND DIRECTLY AGAINST THE SUBGRADE.
 - INSTALL 18" #3 REBAR U-ANCHORS OR STAINLESS STEEL ZIP TIES IN 3' INCREMENTS THE LENGTH OF THE LONGITUDINAL SEAM.
- AT THE BEGINNING OF THE FLEXAMAT, TRANSITION THE INITIAL LEADING EDGE PROPERLY WITH EROSION MATTING OR SOD. IF EXPOSED TO CONCENTRATED FLOWS EMBED 18" VERTICALLY INTO THE SUB GRADE TO SERVE AS AN ANCHOR TRENCH. THE TRENCH SHALL BE FILLED AND COMPACTED WITH SUITABLE FILL OR OTHER (AS SPECIFIED BY EOR).
- FOR ADDITIONAL SECTIONS OF MAT, OVERLAP THE DOWNSTREAM SECTION 18" WITH UPSTREAM SECTION OF MAT. PRIOR TO INSTALLING OVERLAP, FLIP UPSTREAM MAT BACK 24". EXCAVATE 2.25" OF SOIL 18" FROM END OF UPSTREAM MAT. DOWNSTREAM SECTION IS LAID IN THE SHALLOW TRENCH. LIGHTLY SPREAD TOPSOIL, SEED AND FERTILIZER OVER INITIAL EDGE. FLIP END OF UPSTREAM MAT OVER THE SOIL COVERED INITIAL LEADING EDGE OF DOWNSTREAM MAT.
- INSTALL 18" U-ANCHORS IN 3' INCREMENTS ACROSS THE OVERLAP. INSTALL ANCHORS DIRECTLY BEHIND BLOCKS. "U" ANCHORS CONSIST OF #3 REBAR "U" ANCHOR WITH 18" LEGS.
- AT THE END OF THE ARMORED CHANNEL, EMBED THE MAT 18" IN A TERMINATION TRENCH. FILL AND COMPACT TERMINATION TRENCH WITH SOIL (DETERMINED BY EOR).

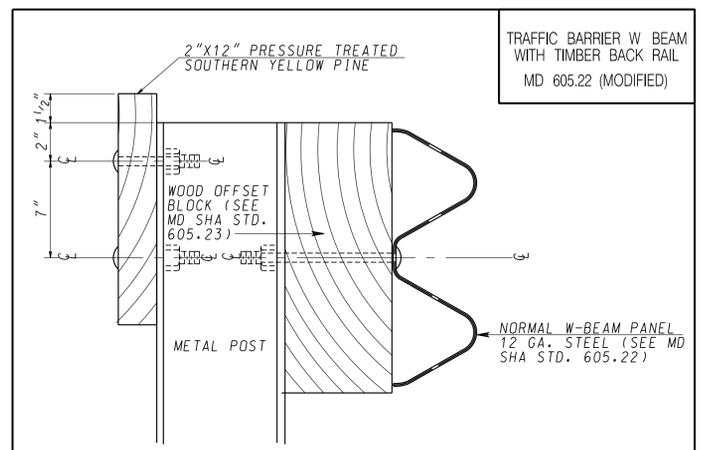
FLEXAMAT INFORMATION

Manufacturer: Motz Enterprises, Inc.
 Product Name: Flexamat
 Address: 3153 Madison Road
 Cincinnati, OH 45209
 Telephone: 513-772-6689
 Email: info@Flexamat.com
 Website: www.Flexamat.com

FLEXAMAT STANDARD CHANNEL DETAIL NTS



NOTE: CONTRACTOR MAY USE APPROVED EQUAL PRODUCT FOR FLEXAMAT



W-BEAM WITH TIMBER BACK RAIL DETAIL

- NOTES:
- 2"x12" TIMBER RAILING OPPOSITE THE W-BEAM PANEL SHALL CONSIST OF NO SPLICES. ALL JOINTS MUST BE AT METAL POSTS.
 - EACH TIMBER RAILING BOARD SHALL BE SECURED TO THE METAL POSTS WITH 2 EACH 3/8" GALVANIZED STEEL CARRIAGE BOLTS (11 THREADS PER INCH) PER BOARD PER POST.
 - REFER TO NOTES BELOW FOR ADDITIONAL W BEAM TRAFFIC BARRIER DETAILS.

TRAFFIC BARRIER NOTES:

- FOR TRAFFIC BARRIER W-BEAM SINGLE FACE DETAIL, SEE MD 605.22.
- FOR TRAFFIC BARRIER W-BEAM METAL 6" POST DETAIL, SEE MD 605.23 AND 605.23-01.
- FOR TRAFFIC BARRIER W-BEAM ONE-SIDED PARALLEL END TREATMENT (TYPE C), SEE MD 605.03
- WHEN A POST IS SKIPPED TO AVOID A CONFLICT WITH THE PROPOSED DRAINAGE OR EX. UTILITY, SEE MD 605.26 FOR TRAFFIC BARRIER W-BEAM LONG SPAN SYSTEM.
- HAND DIG FOR POST INSTALLATION DUE TO PRESENCE OF EXISTING UTILITIES.

GP# G02018957 DWG. NO.: DE-05

AECOM

AECOM
 4 NORTH PARK DRIVE
 SUITE 300
 HUNT VALLEY, MARYLAND 21030
 PHONE: 410-785-7220
 FAX: 410-785-6818

PROFESSIONAL CERTIFICATION

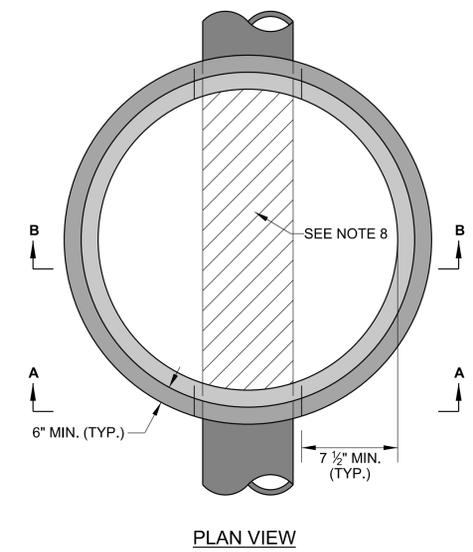
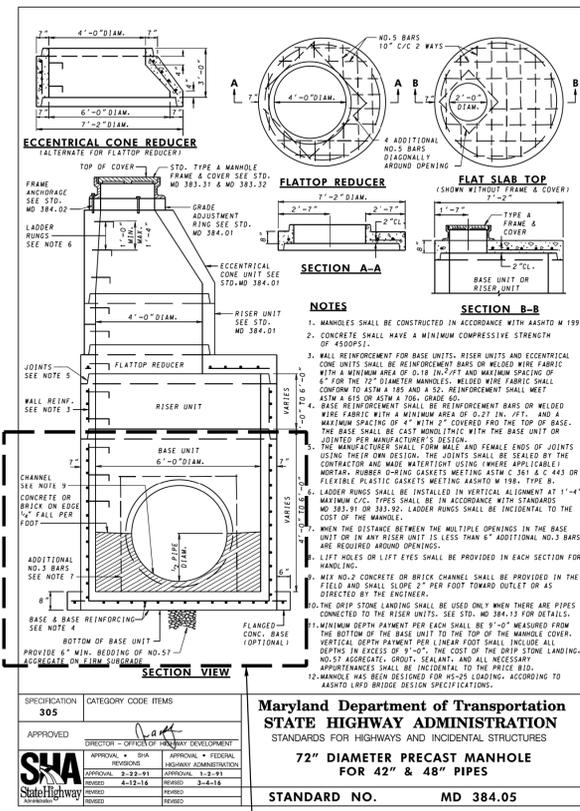
"I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND."

MD LICENSE NUMBER: S3587
 EXPIRATION DATE: 12-09-2024

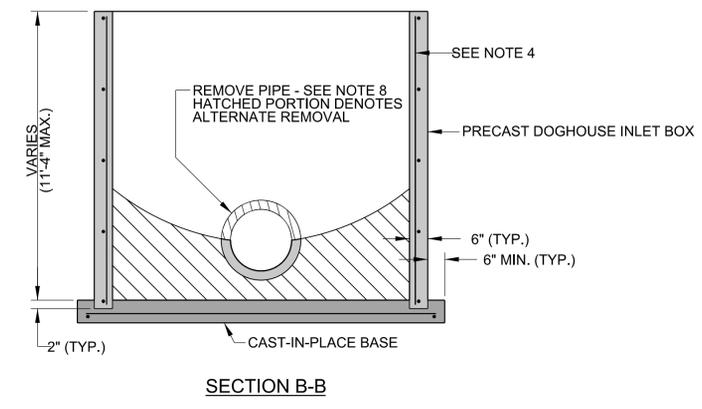
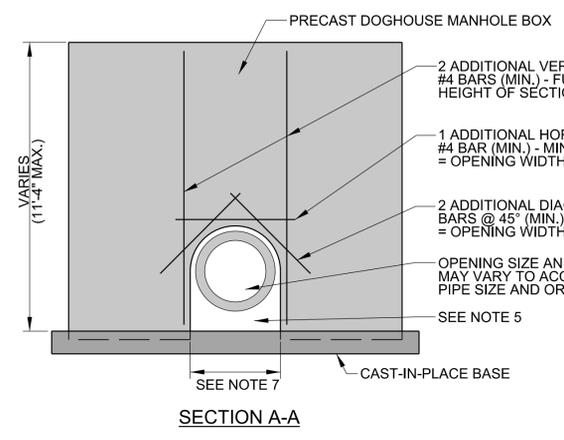
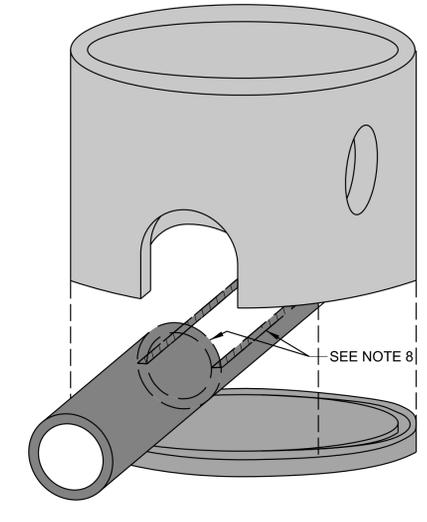
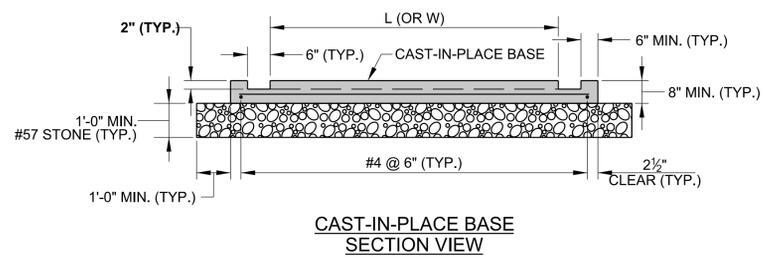


REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY			
DEPARTMENT OF PUBLIC WORKS			
APPROVED	DATE	APPROVED	DATE
<i>[Signature]</i>	11/20/2023 08:59 EST	<i>[Signature]</i>	11/17/2023 08:00 EST
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
<i>[Signature]</i>	11/17/2023 11:56 EST	<i>[Signature]</i>	11/17/2023 18:30 EST
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	
SCALE: AS NOTED		DRAWN BY: DMT	
CHECKED BY: DMT		SHEET NO. 09 OF 116	
PROJECT NO. P504100		CONTRACT NO. P504105	
BROADNECK PENINSULA TRAIL PHASE IB & V			
MISCELLANEOUS DETAILS			

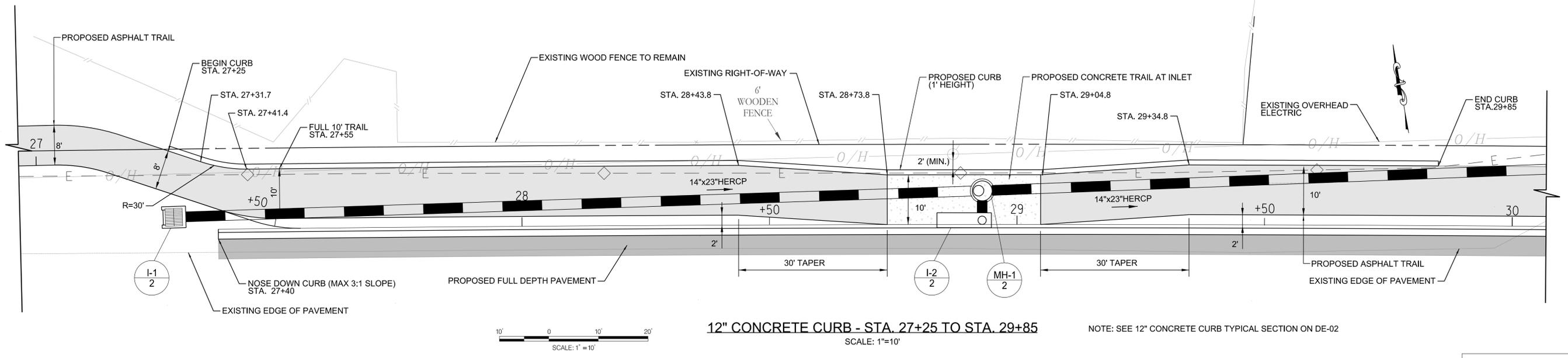


- NOTES:**
- PRECAST THE DOGHOUSE MANHOLE BOX AND CAST-IN-PLACE THE BASE UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. SEE DETAIL MD-384.05 FOR DETAILS AND NOTES FOR MANHOLE TOP.
 - PROVIDE A MINIMUM COVER OF 1 1/2' FOR ALL REINFORCEMENT, UNLESS NOTED OTHERWISE.
 - SUPPORT BOTH ENDS OF THE PIPE DURING THE CONSTRUCTION OF THE BASE.
 - SEE NOTE 3 ON MD-384.05 FOR WALL REINFORCEMENT DETAILS.
 - FILL DOGHOUSE OPENING WITH HIGH STRENGTH, NON-SHRINK GROUT MIXED WITH COARSE AGGREGATE IN A 1:1 RATIO BY WEIGHT.
 - MAINTAIN A MINIMUM OF 12" FROM THE TOP OF THE DOGHOUSE OPENING TO THE TOP OF THE BOX. ADDITIONAL REINFORCEMENT AT PIPE OPENING REQUIRED AS SHOWN.
 - CONSTRUCT DOGHOUSE OPENING BETWEEN 3" AND 4" LARGER THAN THE OUTSIDE DIAMETER OF THE PIPE. DO NOT ENCRoACH ON THE ADJACENT WALL.
 - INSIDE THE DOGHOUSE STRUCTURE, REMOVE THE EXISTING PIPE BY SAWCUTTING FLUSH WITH THE INSIDE WALL FACE. ALTERNATELY, REMOVE THE TOP HALF OF THE PIPE AND USE THE REMAINING PIPE SECTION AS THE BOTTOM OF THE FLOW CHANNEL, AS SHOWN IN SECTION B-B.



NOTE: FOR PRECAST DOGHOUSE MANHOLE LOCATION SEE MH-110 ON PS-10

DOGHOUSE MANHOLE BOX DETAIL
NOT TO SCALE



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4 NORTH PARK DRIVE
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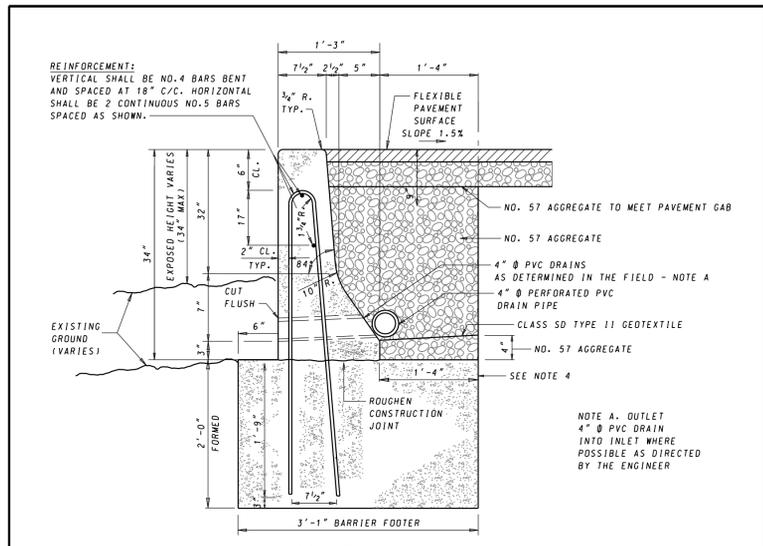
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PROJECT NO. P504100		CONTRACT NO. P504105	
BROADNECK PENINSULA TRAIL PHASE IB & V			
MISCELLANEOUS DETAILS			

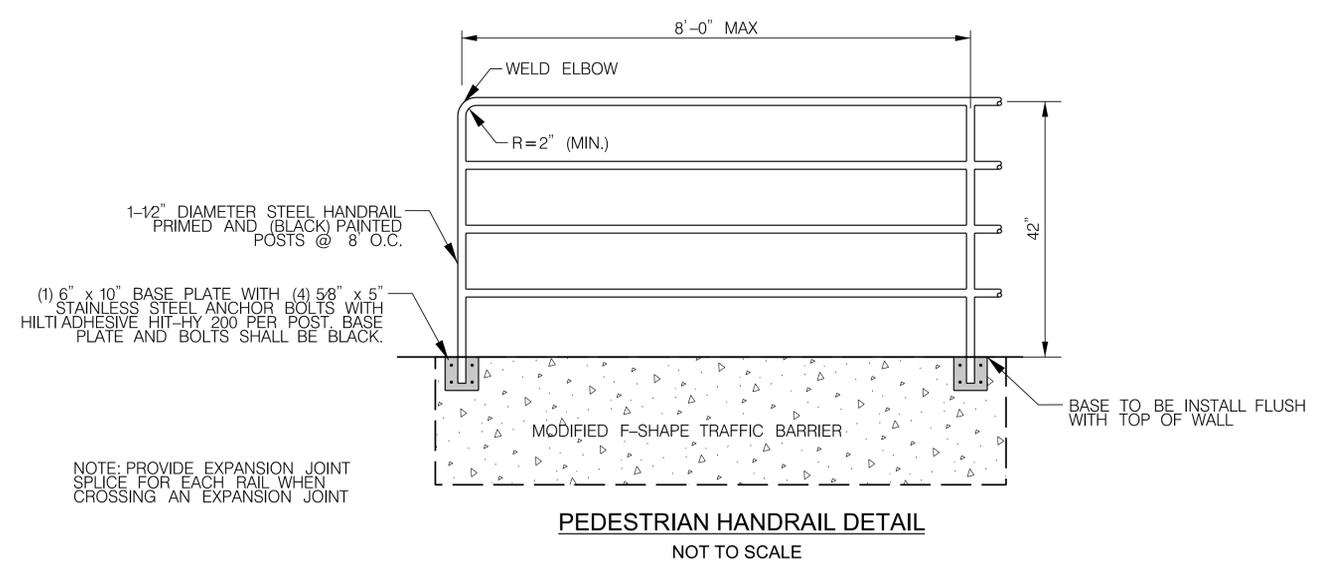
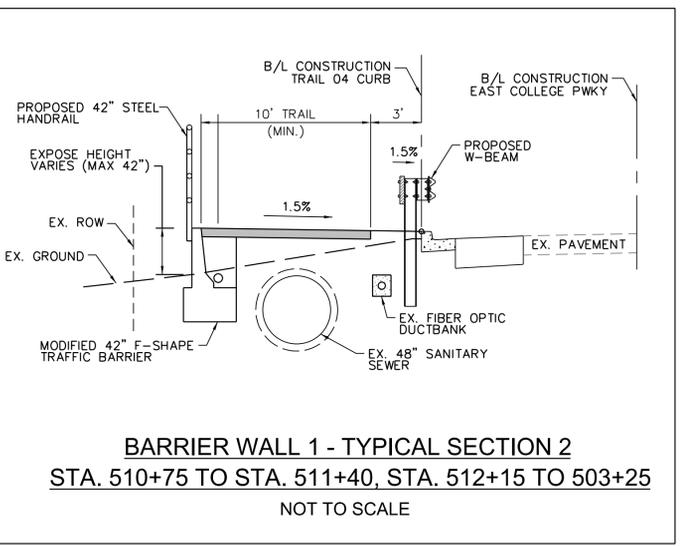
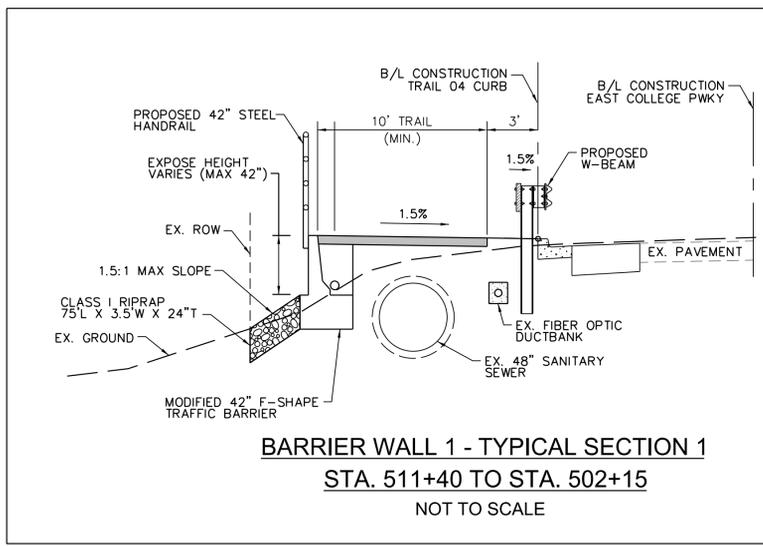
GP# G02018957 DWG. NO.: DE-06



TO BE USED WHEN THE BARRIER IS FUNCTIONING AS A RETAINING WALL AT THE BOTTOM OF THE CUT OR FILL SLOPES. (SEE STD. MD 648.52 FOR 42" F SHAPE CONCRETE TRAFFIC BARRIER SINGLE FACE TYPE 1 WITH EARTH BACKING AT TOP OF FILL SLOPES) (SEE STD. MD 648.53 FOR 42" F SHAPE CONCRETE TRAFFIC BARRIER SINGLE FACE TYPE 2 FREE STANDING AT TOP OF FILL SLOPES)

- NOTES**
1. THE BARRIER AND FOOTER SHALL BE CAST SEPARATELY USING THE FIXED FORM OR THE SLIP FORM CONSTRUCTION METHOD USING CONCRETE MIX NO. 6 CONTINUOUSLY PLACED.
 2. CONSTRUCT THE BARRIER FOOTER AND BARRIER PRIOR TO CONSTRUCTION OF THE PAVEMENT. THE FOOTER FORMS, IF USED, SHALL BE REMOVED BEFORE PLACING PAVEMENT.
 3. ALL REINFORCEMENT BARS, INCLUDING ENDS, SHALL BE EPOXY COATED. ALL BAR LAPS TO BE 30 BAR DIAMETERS. TIE BARS TOGETHER. ALL BARS SHALL BE ASTM A 615 GRADE 60.
 4. THE REAR VERTICAL WALL SHALL BE FORMED OR THE CONCRETE PLACED AGAINST THE VERTICAL EARTH SIDE IF APPROVED BY THE ENGINEER. NO ADDITIONAL COMPENSATION FOR ADDITIONAL CONCRETE WILL BE PAID IF CONCRETE IS PLACED AGAINST THE EARTH. THE BARRIER FOOTER SHALL HAVE CONSTRUCTION JOINTS TO COINCIDE WITH THE BARRIER JOINTS.
 5. LIMITS OF EXCAVATIONS: WHEN THE BARRIER IS AT THE BOTTOM OF A CUT SLOPE THE EXCAVATION LIMITS SHALL BE THE LINES INDICATING THE BARRIER FOOTER AND A VERTICAL LINE EXTENDING FROM THE HEEL OF THE FOOTER TO ITS INTERSECTION WITH THE CUT SLOPE. WHEN THE BARRIER IS AT THE TOE OF A FILL SLOPE THE EXCAVATION LIMITS SHALL BE THE LINES INDICATING THE BARRIER FOOTER.
 6. SPACING OF CONTRACTION JOINTS SHALL BE 20 FEET REGARDLESS OF THE CONSTRUCTION METHOD.
 7. COST OF THE CONCRETE FOOTER (FORMED OR NON-FORMED), REINFORCEMENT, DRAINAGE APPURTENANCES, EXCAVATION, GEOTEXTILE, AND BACKFILLING USING SELECT BORROM SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE PER LINEAR FOOT FOR 42 INCH F SHAPE CONCRETE TRAFFIC BARRIER SINGLE FACE TYPE 3.
 8. TOLERANCES IN DIMENSIONS SHOWN SHALL BE WITHIN 1/4".
 9. CONDUIT: IF REQUIRED REFER TO STD. MD 648.50.
 10. WHEN BARRIER IS CONSTRUCTED USING THE SLIP FORM METHOD DIAGONAL NO. 4 BARS ARE REQUIRED. SEE STD. MD 648.49.

SPECIFICATION	CATEGORY CODE ITEMS	<p>Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES MODIFIED 42 INCH F SHAPE CONCRETE TRAFFIC BARRIER SINGLE FACE TYPE 3 (BOTTOM OF CUT OR TOE OF FILL) STANDARD NO. MD 648.54-MOD</p>																				
604																						
APPROVED																						
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REVISION	REVISION	REVISION	REVISION																			



GP# G02018957 DWG. NO.: DE-07

AECOM

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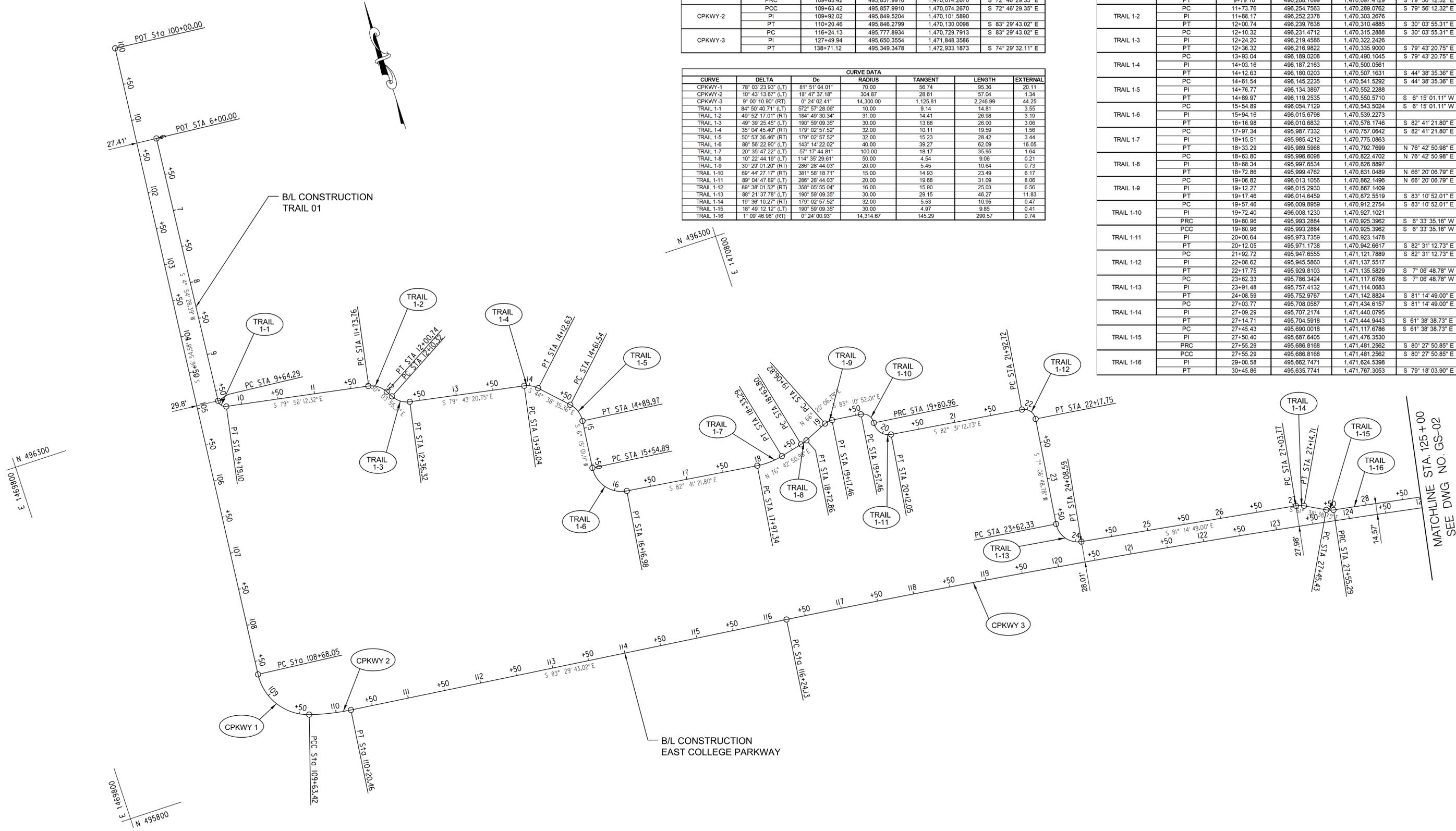
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PROJECT NO. P504100		CONTRACT NO. P504105	
BROADNECK PENINSULA TRAIL PHASE IB & V			
BARRIER WALL DETAILS			

CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L EAST COLLEGE PARKWAY					
	POB	100+00	496,795.6620	1,470,105.2015	S 5° 16' 54.58" W
CPKWY-1	PC	108+68.05	495,931.2953	1,470,025.2932	S 51° 58' 41.39" E
	PI	109+24.79	495,874.7941	1,470,020.0698	
	PRC	109+63.42	495,857.9910	1,470,074.2670	S 72° 46' 29.35" E
CPKWY-2	PCC	109+63.42	495,857.9910	1,470,074.2670	S 72° 46' 29.35" E
	PI	109+92.02	495,849.5204	1,470,101.5890	
	PT	110+20.46	495,846.2799	1,470,130.0098	S 83° 29' 43.02" E
CPKWY-3	PC	116+24.13	495,777.8934	1,470,729.7913	S 83° 29' 43.02" E
	PI	127+49.94	495,650.3554	1,471,848.3586	
	PT	138+71.12	495,349.3478	1,472,933.1873	S 74° 29' 32.11" E

CURVE DATA						
CURVE	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
CPKWY-1	78° 03' 23.83" (LT)	81° 51' 04.01"	70.00	56.74	95.36	20.11
CPKWY-2	10° 43' 13.87" (LT)	18° 47' 37.18"	304.87	28.81	57.04	1.34
CPKWY-3	9° 00' 10.90" (RT)	0° 24' 02.41"	14,300.00	1,125.81	2,246.99	44.25
TRAIL 1-1	84° 50' 40.71" (LT)	57° 57' 28.06"	10.00	9.14	14.81	3.55
TRAIL 1-2	49° 52' 17.01" (RT)	184° 49' 30.34"	31.00	14.41	26.98	3.19
TRAIL 1-3	49° 39' 25.45" (LT)	190° 59' 09.35"	30.00	13.88	26.00	3.06
TRAIL 1-4	35° 04' 45.40" (RT)	179° 02' 57.52"	32.00	10.11	19.59	1.56
TRAIL 1-5	59° 53' 36.46" (RT)	179° 02' 57.52"	32.00	15.23	26.42	3.44
TRAIL 1-6	88° 56' 12.90" (LT)	143° 14' 22.02"	40.00	39.27	62.09	16.05
TRAIL 1-7	20° 35' 47.22" (LT)	57° 17' 44.81"	100.00	18.17	35.95	1.64
TRAIL 1-8	10° 22' 44.19" (LT)	114° 35' 29.61"	50.00	4.54	9.06	0.21
TRAIL 1-9	30° 29' 01.20" (RT)	286° 28' 44.03"	20.00	5.45	10.64	0.73
TRAIL 1-10	89° 44' 27.17" (RT)	381° 58' 18.71"	15.00	14.93	23.49	6.17
TRAIL 1-11	89° 04' 47.89" (LT)	286° 28' 44.03"	20.00	19.68	31.09	8.06
TRAIL 1-12	89° 38' 01.52" (RT)	358° 05' 55.04"	16.00	15.90	25.03	6.56
TRAIL 1-13	88° 21' 37.76" (LT)	190° 59' 09.35"	30.00	29.15	46.27	11.83
TRAIL 1-14	19° 36' 10.27" (RT)	179° 02' 57.52"	32.00	5.53	10.95	0.47
TRAIL 1-15	18° 49' 12.12" (LT)	190° 59' 09.35"	30.00	4.97	9.85	0.41
TRAIL 1-16	1° 09' 46.96" (RT)	0° 24' 00.93"	14,314.67	145.29	290.57	0.74

CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L TRAIL 01					
	POB	6+00	496,662.4277	1,470,120.3636	S 4° 54' 28.39" W
TRAIL 1-1	PC	9+64.29	496,299.4716	1,470,089.1970	S 4° 54' 28.39" W
	PI	9+73.43	496,290.3667	1,470,088.4151	
	PT	9+79.10	496,288.7699	1,470,097.4129	S 79° 56' 12.32" E
TRAIL 1-2	PC	11+73.76	496,254.7563	1,470,289.0762	S 79° 56' 12.32" E
	PI	11+86.17	496,252.2378	1,470,303.2676	
	PT	12+00.74	496,239.7638	1,470,310.4885	S 30° 03' 55.31" E
TRAIL 1-3	PC	12+10.32	496,231.4712	1,470,315.2888	S 30° 03' 55.31" E
	PI	12+24.20	496,219.4586	1,470,322.2426	
	PT	12+36.32	496,216.9822	1,470,335.9000	S 79° 43' 20.75" E
TRAIL 1-4	PC	13+93.04	496,189.0208	1,470,490.1045	S 79° 43' 20.75" E
	PI	14+03.16	496,187.2163	1,470,500.0561	
	PT	14+12.63	496,180.0203	1,470,507.1631	S 44° 38' 35.36" E
TRAIL 1-5	PC	14+61.54	496,145.2235	1,470,541.5292	S 44° 38' 35.36" E
	PI	14+76.77	496,134.3897	1,470,552.2288	
	PT	14+86.97	496,119.2535	1,470,550.5710	S 6° 15' 01.11" W
TRAIL 1-6	PC	15+54.89	496,054.7129	1,470,543.5024	S 6° 15' 01.11" W
	PI	15+94.16	496,015.6798	1,470,539.2273	
	PT	16+16.98	496,010.6832	1,470,578.1746	S 82° 41' 21.80" E
TRAIL 1-7	PC	17+97.34	495,987.7332	1,470,757.0642	S 82° 41' 21.80" E
	PI	18+15.51	495,985.4212	1,470,775.0863	
	PT	18+33.29	495,989.5968	1,470,792.7699	N 76° 42' 50.98" E
TRAIL 1-8	PC	18+63.80	495,996.6098	1,470,822.4702	N 76° 42' 50.98" E
	PI	18+68.34	495,997.6534	1,470,826.8897	
	PT	18+72.86	495,999.4762	1,470,831.0489	N 66° 20' 06.79" E
TRAIL 1-9	PC	19+06.82	496,013.1056	1,470,862.1496	N 66° 20' 06.79" E
	PI	19+12.27	496,015.2930	1,470,867.1409	
	PT	19+17.46	496,014.6459	1,470,872.5519	S 83° 10' 52.01" E
TRAIL 1-10	PC	19+57.46	496,009.8959	1,470,912.2754	S 83° 10' 52.01" E
	PI	19+72.40	496,008.1230	1,470,927.1021	
	PRC	19+80.96	495,993.2884	1,470,925.3962	S 6° 33' 35.16" W
TRAIL 1-11	PCC	19+80.96	495,993.2884	1,470,925.3962	S 6° 33' 35.16" W
	PI	20+00.64	495,973.7359	1,470,923.1478	
	PT	20+12.05	495,971.1738	1,470,942.6617	S 82° 31' 12.73" E
TRAIL 1-12	PC	21+92.72	495,947.6555	1,471,121.7889	S 82° 31' 12.73" E
	PI	22+06.62	495,945.5860	1,471,137.5517	
	PT	22+17.75	495,929.8103	1,471,135.5829	S 7° 06' 48.78" W
TRAIL 1-13	PC	23+62.33	495,786.3424	1,471,117.6786	S 7° 06' 48.78" W
	PI	23+91.48	495,757.4132	1,471,114.0683	
	PT	24+06.59	495,752.9767	1,471,142.8824	S 81° 14' 49.00" E
TRAIL 1-14	PC	27+03.77	495,708.0587	1,471,434.6157	S 81° 14' 49.00" E
	PI	27+09.29	495,707.2174	1,471,440.0795	
	PT	27+14.71	495,704.5918	1,471,444.9443	S 61° 38' 38.73" E
TRAIL 1-15	PC	27+45.43	495,690.0018	1,471,117.6786	S 61° 38' 38.73" E
	PI	27+50.40	495,687.6405	1,471,476.3530	
	PRC	27+55.29	495,686.8168	1,471,481.2562	S 80° 27' 50.85" E
TRAIL 1-16	PCC	27+55.29	495,686.8168	1,471,481.2562	S 80° 27' 50.85" E
	PI	29+00.58	495,662.7471	1,471,624.5398	
	PT	30+45.86	495,635.7741	1,471,767.3053	S 79° 18' 03.90" E



GP# G02018957 DWG. NO.: GS-01

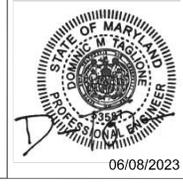
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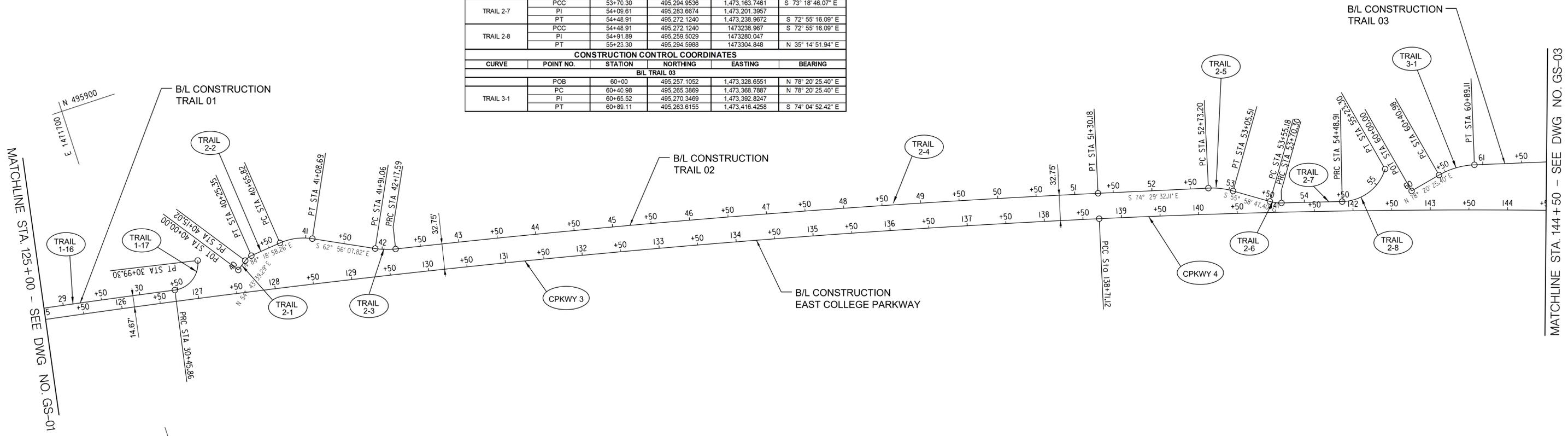
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BROADNECK PENINSULA TRAIL PHASE IB & V

GEOMETRIC LAYOUT

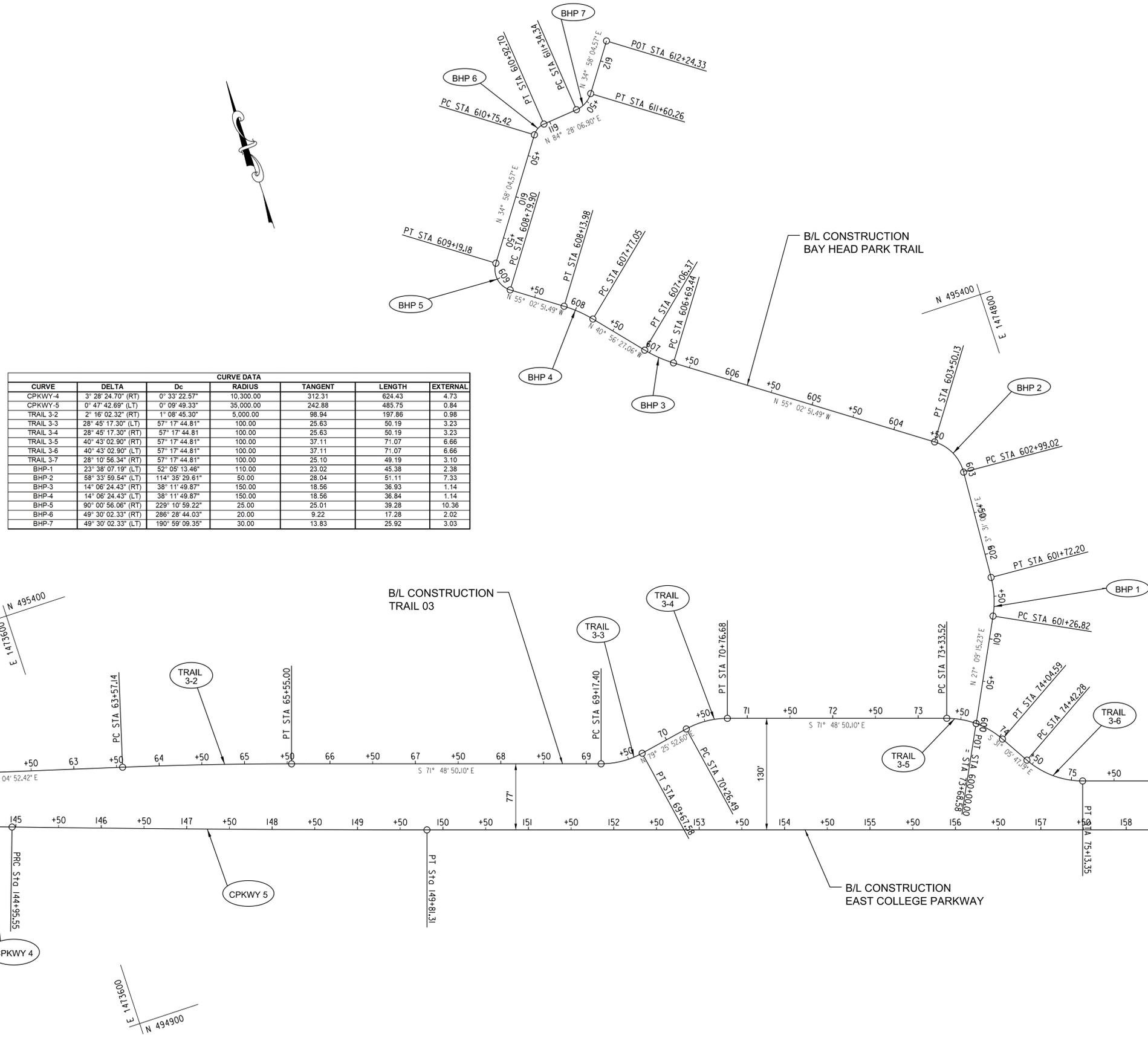
CURVE DATA						
CURVE	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
CPKWY-3	9° 00' 10.90" (RT)	0° 24' 02.41"	14,300.00	1,125.81	2,246.99	44.25
CPKWY-4	3° 28' 24.70" (RT)	0° 33' 22.57"	10,300.00	312.31	624.43	4.73
TRAIL 1-17	89° 10' 53.43" (LT)	166° 52' 51.86"	34.33	33.85	53.44	13.88
TRAIL 2-1	29° 35' 18.97" (RT)	286° 28' 44.03"	20.00	5.28	10.33	0.89
TRAIL 2-2	32° 44' 53.93" (RT)	76° 23' 39.74"	75.00	22.04	42.87	3.17
TRAIL 2-3	15° 12' 17.54" (LT)	57° 17' 44.81"	100.00	13.35	26.54	0.89
TRAIL 2-4	3° 38' 53.25" (RT)	0° 23' 59.12"	14,332.75	456.45	912.59	7.27
TRAIL 2-5	18° 30' 44.71" (RT)	57° 17' 44.81"	100.00	16.30	32.31	32.31
TRAIL 2-6	17° 19' 58.67" (LT)	114° 35' 29.61"	50.00	7.62	15.13	0.58
TRAIL 2-7	0° 23' 29.98" (RT)	0° 29' 53.66"	11,499.67	39.30	78.61	0.07
TRAIL 2-8	71° 49' 51.97" (LT)	96° 33' 57.51"	59.33	42.97	74.39	13.93
TRAIL 3-1	27° 34' 42.18" (RT)	57° 17' 44.81"	100.00	24.54	48.13	2.97

CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L EAST COLLEGE PARKWAY					
CPKWY-3	PC	116+24.13	495,777.8934	1,470,729.7913	S 83° 29' 43.02" E
	PI	127+49.94	495,650.3554	1,471,848.3586	
	PRC	138+71.12	495,349.3478	1,472,933.1873	S 74° 29' 32.11" E
CPKWY-4	PCC	138+71.12	495,349.3478	1,472,933.1873	S 74° 29' 32.11" E
	PI	141+83.43	495,265.8454	1,473,234.1293	
	PRC	144+95.55	495,164.2631	1,473,529.4592	S 71° 01' 07.41" E
CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L TRAIL 01					
TRAIL 1-17	PCC	30+45.86	495,635.7741	1,471,767.3053	S 79° 18' 03.90" E
	PI	30+79.71	495,629.4906	1,471,800.5633	
	PT	30+96.30	495,662.6554	1,471,807.3212	N 11° 31' 02.68" E
CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L TRAIL 02					
TRAIL 2-1	POB	40+00	495,634.6356	1,471,853.4518	N 54° 43' 39.29" E
	PC	40+15.02	495,643.3083	1,471,865.7132	N 54° 43' 39.29" E
	PI	40+20.30	495,646.3585	1,471,870.0256	
	PT	40+25.35	495,646.8817	1,471,875.2817	N 84° 18' 58.26" E
TRAIL 2-2	PC	40+65.82	495,650.8901	1,471,915.5558	N 84° 18' 58.26" E
	PI	40+87.86	495,653.0726	1,471,937.4844	
	PT	41+08.69	495,643.0459	1,471,957.1082	S 62° 56' 07.82" E
TRAIL 2-3	PC	41+91.06	495,605.5690	1,472,030.4565	S 62° 56' 07.82" E
	PI	42+04.40	495,599.4961	1,472,042.3421	
	PT	42+17.59	495,596.7531	1,472,055.4044	S 78° 08' 25.36" E
TRAIL 2-4	PC	42+17.59	495,596.7531	1,472,055.4044	S 78° 08' 25.36" E
	PI	46+74.04	495,502.9460	1,472,502.1110	
	PRC	51+30.18	495,380.9056	1,472,941.9436	S 74° 29' 32.11" E
TRAIL 2-5	PCC	52+73.20	495,342.6671	1,473,079.7547	S 74° 29' 32.11" E
	PI	52+99.50	495,338.3097	1,473,095.4596	
	PRC	53+05.51	495,329.1917	1,473,108.9863	S 55° 58' 47.40" E
TRAIL 2-6	PC	53+55.18	495,301.4059	1,473,150.1292	S 55° 58' 47.40" E
	PI	53+62.80	495,297.1420	1,473,156.4459	
	PRC	53+70.30	495,294.9536	1,473,163.7481	S 73° 18' 46.07" E
TRAIL 2-7	PCC	53+70.30	495,294.9536	1,473,163.7481	S 73° 18' 46.07" E
	PI	54+09.61	495,283.6674	1,473,201.3957	
	PT	54+48.91	495,272.1240	1,473,238.9672	S 72° 55' 16.09" E
TRAIL 2-8	PCC	54+48.91	495,272.1240	1,473,238.9672	S 72° 55' 16.09" E
	PI	54+91.89	495,259.5029	1,473,280.047	
	PT	55+23.30	495,294.5988	1,473,304.848	N 35° 14' 51.94" E
CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L TRAIL 03					
TRAIL 3-1	POB	60+00	495,257.1052	1,473,328.6551	N 78° 20' 25.40" E
	PC	60+40.98	495,265.3869	1,473,368.7887	N 78° 20' 25.40" E
	PI	60+65.52	495,270.3469	1,473,392.8247	
	PT	60+89.11	495,263.6155	1,473,416.4258	S 74° 04' 52.42" E



<p>AECOM 4 NORTH PARK DRIVE SUITE 300 HUNT VALLEY, MARYLAND 21030 PHONE: 410-785-7220 FAX: 410-785-6818</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>"I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND."</p> <p>MD LICENSE NUMBER: S3587 EXPIRATION DATE: 12-09-2024</p>		<p style="text-align:center">REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				NO.	DESCRIPTION	BY	DATE									<p style="text-align:center">ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS</p> <table border="1"> <thead> <tr> <th>APPROVED</th> <th>DATE</th> <th>APPROVED</th> <th>DATE</th> <th>SCALE: AS NOTED</th> <th rowspan="2">BROADNECK PENINSULA TRAIL PHASE IB & V</th> </tr> </thead> <tbody> <tr> <td><i>[Signature]</i> CHIEF ENGINEER</td> <td>11/20/2023 08:59 EST</td> <td><i>[Signature]</i> PROJECT MANAGER</td> <td>11/17/2023 08:00 EST</td> <td>DMT</td> <td rowspan="2">SHEET NO. 13 OF 116 PROJECT NO. P504100 CONTRACT NO. P504105</td> </tr> <tr> <td><i>[Signature]</i> ASSISTANT CHIEF ENGINEER</td> <td>11/17/2023 11:56 EST</td> <td><i>[Signature]</i> CHIEF, RIGHT OF WAY</td> <td>11/17/2023 18:30 EST</td> <td>DMT</td> </tr> </tbody> </table>				APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED	BROADNECK PENINSULA TRAIL PHASE IB & V	<i>[Signature]</i> CHIEF ENGINEER	11/20/2023 08:59 EST	<i>[Signature]</i> PROJECT MANAGER	11/17/2023 08:00 EST	DMT	SHEET NO. 13 OF 116 PROJECT NO. P504100 CONTRACT NO. P504105	<i>[Signature]</i> ASSISTANT CHIEF ENGINEER	11/17/2023 11:56 EST	<i>[Signature]</i> CHIEF, RIGHT OF WAY	11/17/2023 18:30 EST	DMT
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CURVE DATA						
CURVE	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
CPKWY-4	3° 28' 24.70" (RT)	0° 33' 22.57"	10,300.00	312.31	624.43	4.73
CPKWY-5	0° 47' 42.69" (LT)	0° 09' 49.33"	35,000.00	485.75	0.84	
TRAIL 3-2	2° 16' 02.32" (RT)	1° 08' 45.30"	5,000.00	98.94	197.86	0.98
TRAIL 3-3	28° 45' 17.30" (LT)	57° 17' 44.81"	100.00	25.63	50.19	3.23
TRAIL 3-4	28° 45' 17.30" (RT)	57° 17' 44.81"	100.00	25.63	50.19	3.23
TRAIL 3-5	40° 43' 02.90" (RT)	57° 17' 44.81"	100.00	37.11	71.07	6.66
TRAIL 3-6	40° 43' 02.90" (LT)	57° 17' 44.81"	100.00	37.11	71.07	6.66
TRAIL 3-7	28° 10' 56.34" (RT)	57° 17' 44.81"	100.00	25.10	49.19	3.10
BHP-1	23° 38' 07.19" (LT)	52° 05' 13.46"	110.00	23.02	45.38	2.38
BHP-2	58° 33' 59.54" (LT)	114° 35' 29.61"	50.00	28.04	51.11	7.33
BHP-3	14° 06' 24.43" (RT)	38° 11' 49.87"	150.00	18.56	36.93	1.14
BHP-4	14° 06' 24.43" (LT)	38° 11' 49.87"	150.00	18.56	36.84	1.14
BHP-5	90° 00' 56.06" (RT)	229° 10' 59.22"	25.00	25.01	39.28	10.36
BHP-6	49° 30' 02.33" (RT)	286° 28' 44.03"	20.00	9.22	17.28	2.02
BHP-7	49° 30' 02.33" (LT)	190° 59' 09.35"	30.00	13.83	25.92	3.03



CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L EAST COLLEGE PARKWAY					
CPKWY-4	PCC	138+71.12	495,349.3478	1,472,933.1873	S 74° 29' 32.11" E
	PI	141+83.43	495,265.8454	1,473,234.1293	
	PRC	144+95.55	495,164.2631	1,473,529.4592	S 71° 01' 07.41" E
CPKWY-5	PCC	144+95.55	495,164.2631	1,473,529.4592	S 71° 01' 07.41" E
	PI	147+38.44	495,085.2638	1,473,759.1338	
	PRC	149+81.31	495,009.4595	1,473,989.8826	S 71° 48' 50.10" E

CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L TRAIL 03					
TRAIL 3-2	PC	63+57.14	495,190.1032	1,473,674.1725	S 74° 04' 52.42" E
	PI	64+56.08	495,162.9656	1,473,789.3212	
	PT	65+55.00	495,132.0851	1,473,863.3218	S 71° 48' 50.10" E
TRAIL 3-3	PC	69+17.40	495,018.9790	1,474,207.8178	S 71° 48' 50.10" E
	PI	69+43.03	495,010.9786	1,474,231.9710	
	PT	69+67.58	495,015.6802	1,474,257.1697	N 79° 25' 52.60" E
TRAIL 3-4	PC	70+26.49	495,026.4844	1,474,315.0761	N 79° 25' 52.60" E
	PI	70+52.12	495,031.1859	1,474,340.2748	
	PT	70+76.68	495,023.1656	1,474,364.6280	S 71° 48' 50.10" E
TRAIL 3-5	PC	73+33.52	494,943.0220	1,474,608.8486	S 71° 48' 50.10" E
	PI	73+70.83	494,931.4465	1,474,643.9007	
	PT	74+04.59	494,899.8652	1,474,683.0661	S 31° 05' 47.19" E
TRAIL 3-6	PC	74+42.28	494,867.9903	1,474,682.5329	S 31° 05' 47.19" E
	PI	74+79.39	494,835.6150	1,474,701.6983	
	PT	75+13.35	494,824.0335	1,474,736.9524	S 71° 48' 50.10" E
TRAIL 3-7	PC	83+72.32	494,555.9444	1,475,553.0179	S 71° 48' 50.10" E
	PI	83+72.32	494,555.9444	1,475,553.0179	
	PT	84+37.46	494,508.0621	1,475,598.6660	S 43° 37' 53.76" E

CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L BAY HEAD PARK TRAIL					
BHP-1	POB	600+00	494,928.5279	1,474,639.3722	N 27° 09' 15.23" E
	PC	601+26.82	495,039.3689	1,474,667.2506	N 27° 09' 15.23" E
	PT	601+48.83	495,059.8477	1,474,707.7543	
BHP-2	PC	601+72.20	495,082.8199	1,474,709.1673	N 3° 31' 08.04" E
	PI	602+99.02	495,209.4045	1,474,716.9515	N 3° 31' 08.04" E
	PT	603+27.06	495,237.3911	1,474,718.6725	
BHP-3	PC	606+69.44	495,436.3855	1,474,433.9755	N 55° 02' 51.49" W
	PI	606+88.00	495,447.0182	1,474,418.7635	
	PT	607+06.37	495,461.0379	1,474,406.6018	N 40° 56' 27.06" W
BHP-4	PC	607+77.05	495,514.4274	1,474,360.2877	N 40° 56' 27.06" W
	PI	607+95.61	495,528.4470	1,474,348.1260	
	PT	608+13.98	495,539.0797	1,474,332.9140	N 55° 02' 51.49" W
BHP-5	PC	608+79.90	495,576.8453	1,474,278.8836	N 55° 02' 51.49" W
	PI	609+04.91	495,591.1716	1,474,258.3873	
	PT	609+19.18	495,611.6640	1,474,272.7192	N 34° 58' 04.57" E
BHP-6	PC	610+75.42	495,739.7034	1,474,362.2666	N 34° 58' 04.57" E
	PI	610+84.64	495,747.2591	1,474,367.5509	
	PT	610+92.70	495,748.1479	1,474,376.7282	N 84° 28' 06.90" E
BHP-7	PC	611+34.34	495,752.1617	1,474,418.1753	N 84° 28' 06.90" E
	PI	611+48.17	495,753.4948	1,474,431.9413	
	PT	611+60.26	495,764.8285	1,474,439.8677	N 34° 58' 04.57" E
POE	612+24.33	495,817.3303	1,474,476.5862	N 34° 58' 04.57" E	

MATCHLINE STA. 144+50 - SEE DWG. NO. GS-02

MATCHLINE STA. 164+00 - SEE DWG. NO. GS-04

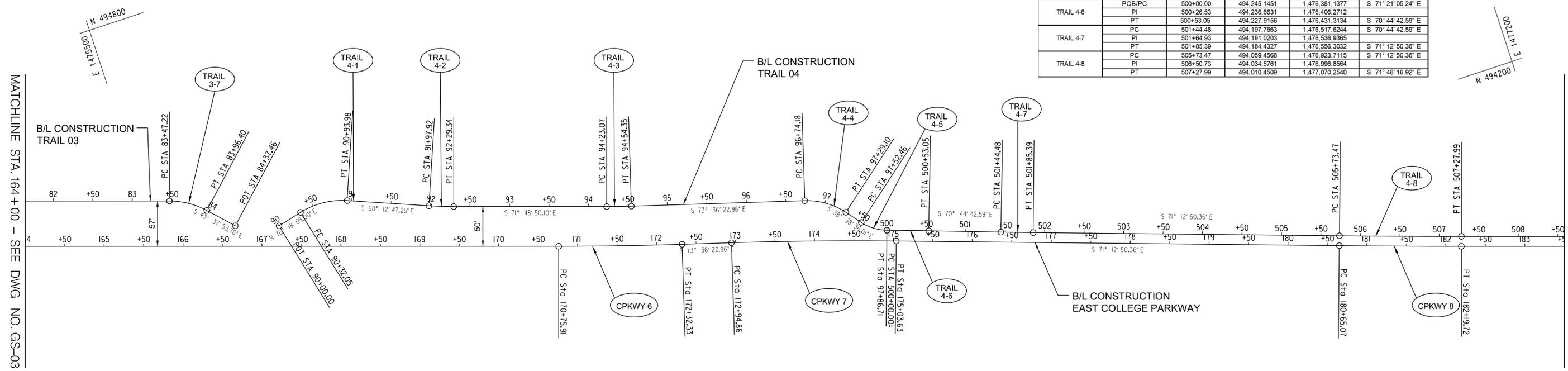


GP# G02018957 DWG. NO.: GS-03

<p>AECOM 4 NORTH PARK DRIVE SUITE 300 HUNT VALLEY, MARYLAND 21030 PHONE: 410-785-7220 FAX: 410-785-6818</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.</p> <p>MD LICENSE NUMBER: S3587 EXPIRATION DATE: 12-09-2024</p>		<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				NO.	DESCRIPTION	BY	DATE					<p>ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS</p> <table border="1"> <thead> <tr> <th>APPROVED</th> <th>DATE</th> <th>APPROVED</th> <th>DATE</th> <th>SCALE: AS NOTED</th> </tr> </thead> <tbody> <tr> <td></td> <td>11/20/2023</td> <td></td> <td>11/17/2023</td> <td>DMT</td> </tr> <tr> <td>CHIEF ENGINEER</td> <td></td> <td>PROJECT MANAGER</td> <td></td> <td>CHECKED BY: DMT</td> </tr> <tr> <td>APPROVED</td> <td>DATE</td> <td>APPROVED</td> <td>DATE</td> <td>SHEET NO. 14 OF 116</td> </tr> <tr> <td></td> <td>11/17/2023</td> <td></td> <td>11/17/2023</td> <td>PROJECT NO. P504100</td> </tr> <tr> <td>ASSISTANT CHIEF ENGINEER</td> <td></td> <td>CHIEF, RIGHT OF WAY</td> <td></td> <td>CONTRACT NO. P504105</td> </tr> </tbody> </table>				APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED		11/20/2023		11/17/2023	DMT	CHIEF ENGINEER		PROJECT MANAGER		CHECKED BY: DMT	APPROVED	DATE	APPROVED	DATE	SHEET NO. 14 OF 116		11/17/2023		11/17/2023	PROJECT NO. P504100	ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		CONTRACT NO. P504105
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<p>GEOMETRIC LAYOUT</p>																																																

CURVE DATA						
CURVE	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
CPKWY-6	1° 47' 32.86" (LT)	1' 08" 45.30"	5,000.00	78.22	156.42	0.61
CPKWY-7	2° 23' 32.60" (RT)	1' 08" 45.30"	5,000.00	104.40	208.78	1.09
CPKWY-8	0° 35' 26.57" (LT)	0' 22" 55.10"	15,000.00	77.32	154.65	0.20
TRAIL 4-1	35° 29' 07.75" (RT)	57" 17' 44.81"	100.00	32.00	61.93	4.99
TRAIL 4-2	3° 36' 02.84" (LT)	11' 27' 32.96"	500.00	15.72	31.42	0.25
TRAIL 4-3	1° 47' 32.86" (LT)	5' 43' 46.48"	1,000.00	15.64	31.28	0.12
TRAIL 4-4	34° 57' 48.95" (RT)	63' 39' 43.12"	90.00	28.35	54.92	4.36
TRAIL 4-5	32° 42' 31.23" (LT)	95' 29' 34.68"	60.00	17.61	34.25	2.53
TRAIL 4-6	0° 36' 22.65" (RT)	1' 08" 34.19"	5,013.50	26.53	53.05	0.07
TRAIL 4-7	0° 28' 07.77" (LT)	1' 08" 45.30"	5,000.00	20.46	40.91	0.04
TRAIL 4-8	0° 35' 26.57" (LT)	0' 22" 56.24"	14,987.58	77.26	154.52	0.20

CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L EAST COLLEGE PARKWAY					
CPKWY-6	PCC	170+75.91	494,355.7254	1,475,979.8551	S 71° 48' 50.10" E
	PI	171+54.13	494,331.3134	1,476,054.1653	
	PRC	172+32.33	494,309.2378	1,476,129.2026	S 73° 36' 22.96" E
CPKWY-7	PCC	172+94.86	494,291.5918	1,476,189.1832	S 73° 36' 22.96" E
	PI	173+99.28	494,262.1257	1,476,289.3416	
	PRC	175+03.63	494,228.5044	1,476,388.1827	S 71° 12' 50.36" E
CPKWY-8	PCC	180+65.07	494,047.7016	1,478,919.7129	S 71° 12' 50.36" E
	PI	181+42.39	494,022.8003	1,478,992.9184	
	PRC	182+19.72	493,998.6551	1,477,066.3768	S 71° 48' 16.92" E
CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L TRAIL 04					
TRAIL 4-1	POB	90+00	494,490.7393	1,475,851.1978	N 76° 18' 05.00" E
	PC	90+32.05	494,498.3291	1,475,882.3356	N 76° 18' 05.00" E
	PT	90+64.05	494,505.9063	1,475,713.4218	S 68° 12' 47.25" E
TRAIL 4-2	PC	90+93.98	494,494.0307	1,475,743.1326	S 68° 12' 47.25" E
	PI	91+97.92	494,455.4550	1,475,839.6429	
	PT	92+13.63	494,449.6217	1,475,854.2369	S 68° 12' 47.25" E
TRAIL 4-3	PC	92+28.34	494,444.7165	1,475,869.1684	S 71° 48' 50.10" E
	PI	94+23.07	494,384.2531	1,476,053.2193	S 71° 48' 50.10" E
	PT	94+38.71	494,379.3707	1,476,068.0813	S 73° 36' 22.96" E
TRAIL 4-4	PC	94+54.35	494,374.9556	1,476,083.0888	S 73° 36' 22.96" E
	PI	96+74.18	494,312.9130	1,476,293.9783	S 73° 36' 22.96" E
	PT	97+02.52	494,304.9129	1,476,321.1713	S 38° 38' 34.01" E
TRAIL 4-5	PC	97+29.10	494,282.7736	1,476,338.8720	S 38° 38' 34.01" E
	PI	97+52.46	494,264.5272	1,476,353.4602	S 38° 38' 34.01" E
	PT	97+70.07	494,250.7752	1,476,364.4551	S 71° 21' 05.24" E
TRAIL 4-6	PC	97+86.71	494,245.1451	1,476,381.1377	S 71° 21' 05.24" E
	PI	97+86.71	494,245.1451	1,476,381.1377	
	PT	97+86.71	494,245.1451	1,476,381.1377	
CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L TRAIL 04 CURB					
TRAIL 4-6	POB/PC	500+00.00	494,245.1451	1,476,381.1377	S 71° 21' 05.24" E
	PI	500+26.53	494,236.6631	1,476,406.2712	
	PT	500+53.05	494,227.9156	1,476,431.3134	S 70° 44' 42.59" E
TRAIL 4-7	PC	501+44.48	494,197.7663	1,476,517.6244	S 70° 44' 42.59" E
	PI	501+64.93	494,191.0203	1,476,536.9365	
	PT	501+85.39	494,184.4327	1,476,556.3032	S 71° 12' 50.36" E
TRAIL 4-8	PC	505+73.47	494,059.4568	1,476,923.7115	S 71° 12' 50.36" E
	PI	506+50.73	494,034.5761	1,476,996.8564	
	PT	507+27.99	494,010.4509	1,477,070.2540	S 71° 48' 16.92" E



GP# G02018957 DWG. NO.: GS-04

AECOM

AECOM
4 NORTH PARK DRIVE
SUITE 300
HUNT VALLEY, MARYLAND 21030
PHONE: 410-785-7220
FAX: 410-785-6818

PROFESSIONAL CERTIFICATION

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

MD LICENSE NUMBER: 53587
EXPIRATION DATE: 12-09-2024



REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

APPROVED <i>[Signature]</i> CHIEF ENGINEER	DATE 11/20/2023 08:59 EST	APPROVED <i>[Signature]</i> PROJECT MANAGER	DATE 11/17/2023 08:10 EST
APPROVED <i>[Signature]</i> ASSISTANT CHIEF ENGINEER	DATE 11/17/2023 11:56 EST	APPROVED <i>[Signature]</i> CHIEF, RIGHT OF WAY	DATE 11/17/2023 18:30 EST

SCALE: AS NOTED
DRAWN BY: DMT
CHECKED BY: DMT
SHEET NO. 15 OF 116
PROJECT NO. P504100
CONTRACT NO. P504105

BROADNECK PENINSULA TRAIL PHASE IB & V

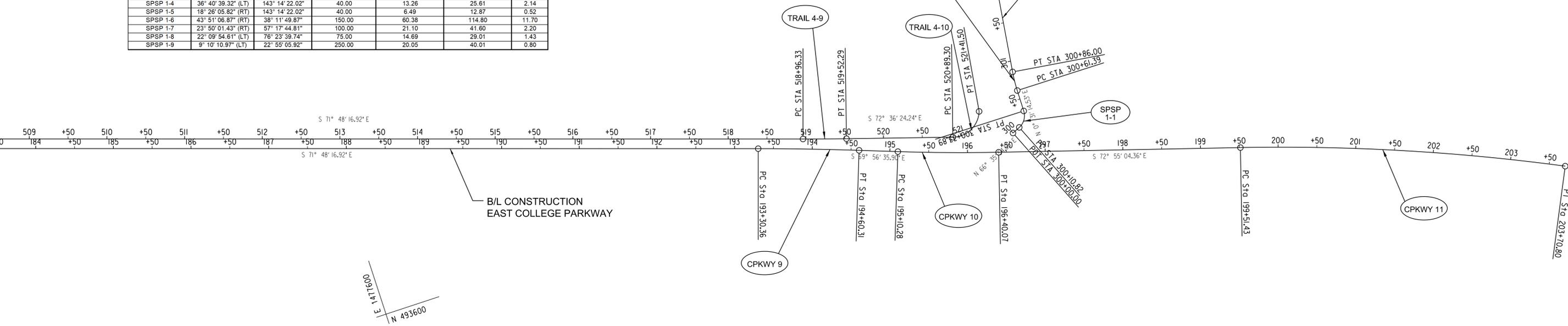
GEOMETRIC LAYOUT

CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L TRAIL 04 CURB					
TRAIL 4-9	PC	518+96.33	493,645.6278	1,478,180.1768	S 71° 48' 16.92" E
	PI	519+24.31	493,636.8919	1,478,206.7544	
	PT	519+52.29	493,628.5286	1,478,233.4517	S 72° 36' 22.17" E
TRAIL 4-10	PC	520+91.31	493,586.9707	1,478,366.1177	S 72° 36' 22.17" E
	PI	521+31.48	493,575.3057	1,478,404.5538	
	PT	521+50.61	493,615.0890	1,478,410.0937	N 7° 55' 39.24" E
POE	521+60.76	493,625.1453	1,478,411.4941		
B/L EAST COLLEGE PARKWAY					
CPKWY-9	PCC	193+30.36	493,651.8498	1,478,121.4827	S 71° 48' 16.92" E
	PI	193+95.34	493,631.5592	1,478,183.2141	
	PRC	194+60.31	493,609.2741	1,478,244.2539	S 69° 56' 35.90" E
CPKWY-10	PCC	195+10.28	493,592.1377	1,478,291.1912	S 69° 56' 35.90" E
	PI	195+75.19	493,569.8769	1,478,352.1644	
	PRC	196+40.07	493,550.8102	1,478,414.2105	S 72° 55' 04.36" E
CPKWY-11	PCC	199+51.43	493,459.3504	1,478,711.8359	S 72° 55' 04.36" E
	PI	201+61.52	493,397.6367	1,478,912.6622	
	PRC	203+70.80	493,306.1319	1,479,101.7828	S 64° 10' 49.01" E

CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L SANDY POINT STATE PARK 01					
SPSP 1-1	POB	300+00	493,568.5417	1,478,439.4488	N 66° 35' 54.55" E
	PC	300+10.82	493,572.8397	1,478,449.3801	N 66° 35' 54.55" E
	PI	300+23.83	493,578.0059	1,478,461.3177	
SPSP 1-2	PT	300+33.89	493,591.0128	1,478,461.4359	N 0° 31' 14.53" E
	PC	300+61.39	493,618.5119	1,478,461.6858	N 0° 31' 14.53" E
	PI	300+73.71	493,630.8317	1,478,461.7977	
SPSP 1-3	PT	300+86.00	493,643.0447	1,478,463.4210	N 7° 34' 14.97" E
	PC	303+46.03	493,900.8120	1,478,497.8809	N 7° 34' 14.97" E
	PI	303+52.45	493,907.1762	1,478,498.6270	
SPSP 1-4	PT	303+58.77	493,912.9596	1,478,501.3235	N 25° 48' 48.48" E
	PC	303+71.03	493,923.9995	1,478,506.6636	N 25° 48' 48.48" E
	PI	303+84.29	493,935.9353	1,478,512.4371	
SPSP 1-5	PT	303+96.64	493,948.9565	1,478,509.9381	N 10° 51' 50.84" W
	PC	304+08.51	493,960.6165	1,478,507.7002	N 10° 51' 50.84" W
	PI	304+15.00	493,966.9913	1,478,506.4768	
SPSP 1-6	PT	304+21.38	493,973.4258	1,478,507.3320	N 7° 34' 14.97" E
	PC	304+91.97	494,043.4055	1,478,516.6330	N 7° 34' 14.97" E
	PI	305+52.35	494,103.2577	1,478,524.5880	
SPSP 1-7	PT	306+06.78	494,140.9080	1,478,571.7900	N 51° 25' 21.84" E
	PC	306+81.43	494,187.4603	1,478,630.1526	N 51° 25' 21.84" E
	PI	307+02.54	494,200.6201	1,478,646.6510	
SPSP 1-8	PT	307+23.03	494,205.9909	1,478,667.0602	N 75° 15' 23.26" E
	PC	307+69.03	494,217.6970	1,478,711.5435	N 75° 15' 23.26" E
	PI	307+83.72	494,221.4357	1,478,725.7505	
SPSP 1-9	PT	307+98.04	494,230.2581	1,478,737.4972	N 53° 05' 28.66" E
	PC	308+45.35	494,258.6672	1,478,775.3226	N 53° 05' 28.66" E
	PI	308+65.40	494,270.7069	1,478,791.3528	
PT	308+85.36	494,285.1473	1,478,805.2596	N 43° 55' 17.69" E	

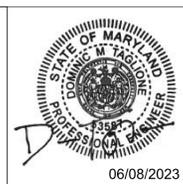
CURVE DATA						
CURVE	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
TRAIL 4-9	0° 48' 05.24" (LT)	1° 25' 56.62"	4,000.00	27.98	55.95	0.10
TRAIL 4-10	98° 57' 18.14" (LT)	166° 52' 51.86"	34.33	40.17	59.30	18.51
CPKWY-9	1° 51' 41.02" (RT)	1° 25' 56.62"	4,000.00	64.98	129.95	0.53
CPKWY-10	2° 58' 28.46" (LT)	2° 17' 30.59"	2,500.00	64.91	129.79	0.84
CPKWY-11	8° 44' 15.36" (RT)	2° 05' 00.54"	2,750.00	210.09	419.37	8.01
SPSP 1-1	66° 04' 40.02" (LT)	286° 28' 44.03"	20.00	13.01	23.07	3.86
SPSP 1-2	7° 03' 00.45" (RT)	28° 38' 52.40"	200.00	12.32	24.61	0.38
SPSP 1-3	18° 14' 33.50" (RT)	143° 14' 22.02"	40.00	6.42	12.74	0.51
SPSP 1-4	36° 40' 39.32" (LT)	143° 14' 22.02"	40.00	13.26	25.61	2.14
SPSP 1-5	18° 26' 05.82" (RT)	143° 14' 22.02"	40.00	6.49	12.87	0.52
SPSP 1-6	43° 51' 06.87" (RT)	38° 11' 49.87"	150.00	60.38	114.80	11.70
SPSP 1-7	23° 50' 01.43" (RT)	57° 17' 44.81"	100.00	21.10	41.60	2.20
SPSP 1-8	22° 09' 54.61" (LT)	76° 23' 39.74"	75.00	14.69	29.01	1.43
SPSP 1-9	9° 10' 10.97" (LT)	22° 55' 05.92"	250.00	20.05	40.01	0.60

MATCHLINE STA. 183+50 - SEE DWG. NO. GS-04



AECOM
 4 NORTH PARK DRIVE
 SUITE 300
 HUNT VALLEY, MARYLAND 21030
 PHONE: 410-785-7200
 FAX: 410-785-6818

PROFESSIONAL CERTIFICATION
 I CERTIFY THAT THESE DOCUMENTS
 WERE PREPARED OR APPROVED BY
 ME, AND THAT I AM A DULY LICENSED
 PROFESSIONAL ENGINEER UNDER
 THE LAWS OF THE STATE OF
 MARYLAND.
 MD LICENSE NUMBER: 53587
 EXPIRATION DATE: 12-09-2024



REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY
 DEPARTMENT OF PUBLIC WORKS

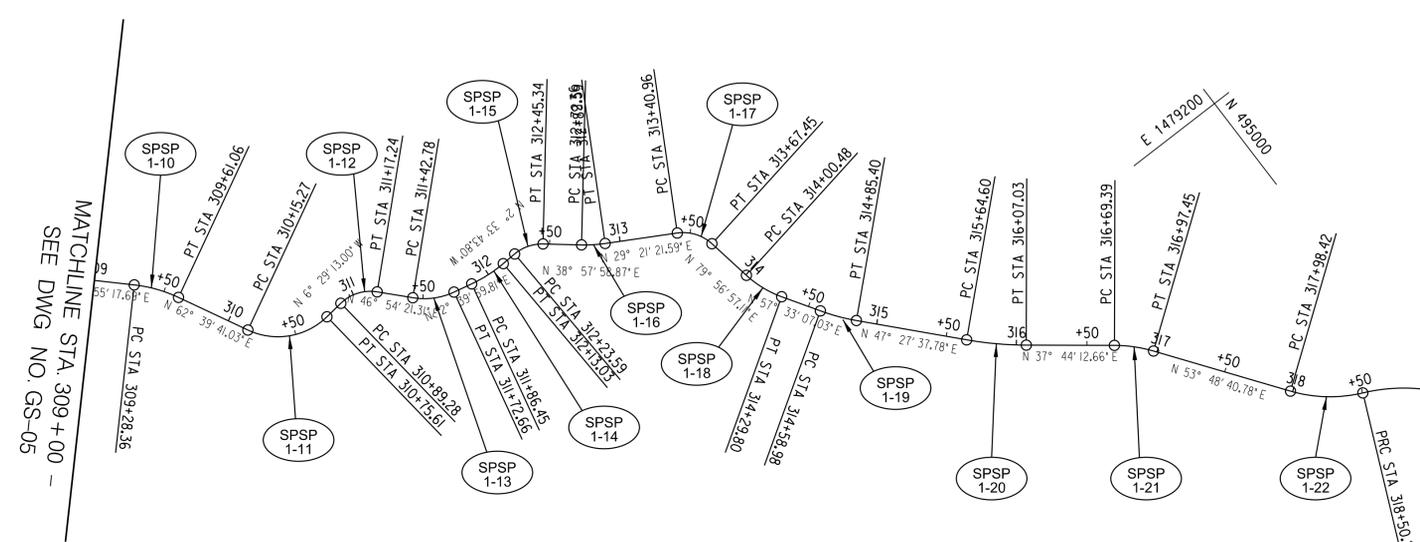
APPROVED <i>[Signature]</i> CHIEF ENGINEER	DATE 11/20/2023 08:59 EST	APPROVED <i>[Signature]</i> PROJECT MANAGER	DATE 11/17/2023 08:00 EST
APPROVED <i>[Signature]</i> ASSISTANT CHIEF ENGINEER	DATE 11/17/2023 11:56 EST	APPROVED <i>[Signature]</i> CHIEF, RIGHT OF WAY	DATE 11/17/2023 18:30 EST

SCALE: AS NOTED
 DRAWN BY: DMT
 CHECKED BY: DMT
 SHEET NO. 16 OF 116
 PROJECT NO. P504100
 CONTRACT NO. P504105

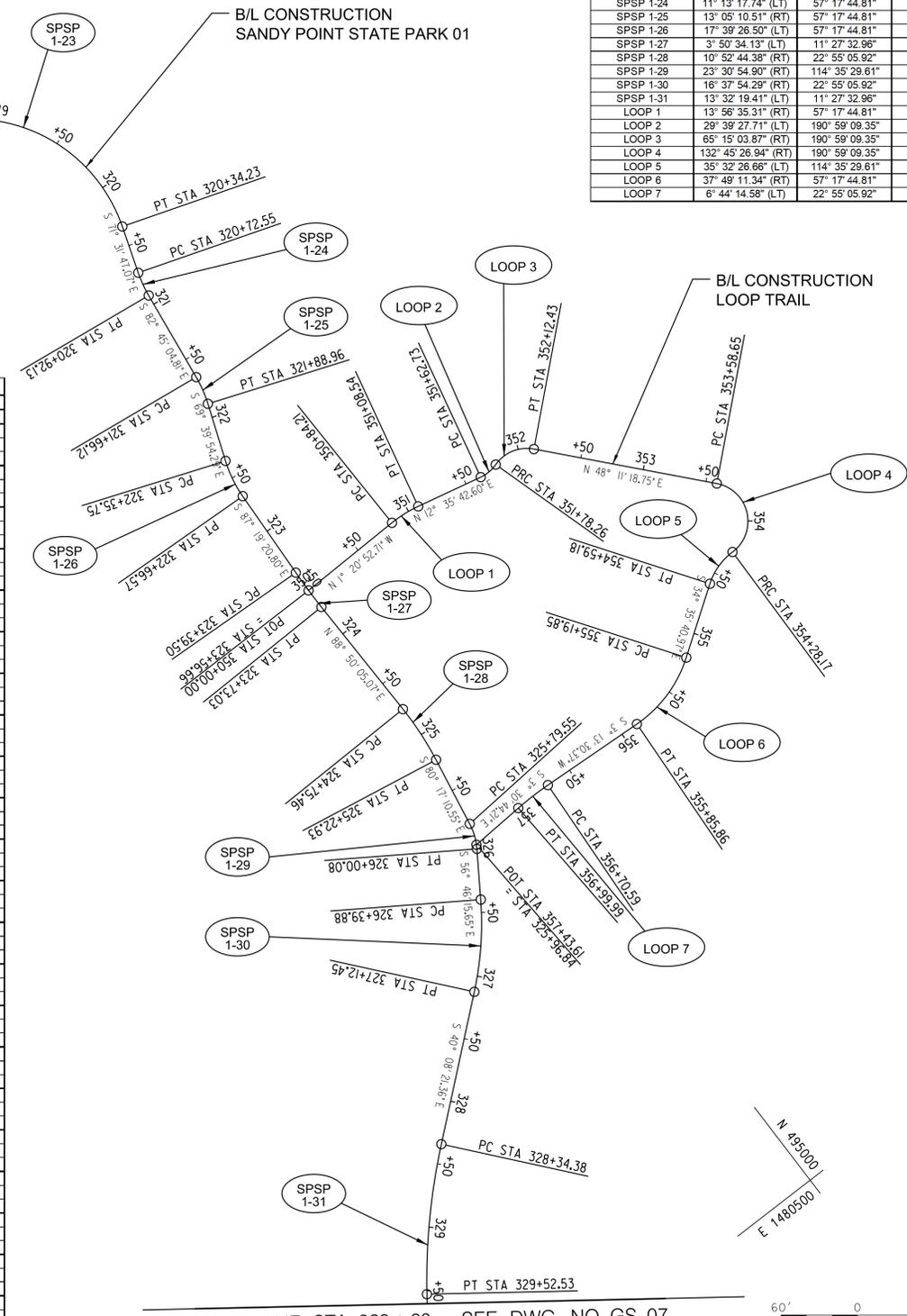
BROADNECK PENINSULA TRAIL
 PHASE IB & V
GEOMETRIC LAYOUT

GP# G02018957 DWG. NO.: GS-05





CURVE DATA						
CURVE	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
SPSP 1-10	18° 44' 23.34" (RT)	57° 17' 44.81"	100.00	16.50	32.71	1.35
SPSP 1-11	69° 08' 54.03" (LT)	114° 35' 29.61"	50.00	34.46	60.34	10.72
SPSP 1-12	53° 23' 34.31" (RT)	190° 59' 09.35"	30.00	15.09	27.96	3.58
SPSP 1-13	34° 14' 21.50" (LT)	114° 35' 29.61"	50.00	15.40	29.88	2.32
SPSP 1-14	15° 13' 43.61" (LT)	57° 17' 44.81"	100.00	13.37	26.58	0.89
SPSP 1-15	41° 31' 42.66" (RT)	190° 59' 09.35"	30.00	11.37	21.74	2.08
SPSP 1-16	9° 36' 37.27" (LT)	57° 17' 44.81"	100.00	8.41	16.77	0.35
SPSP 1-17	50° 35' 35.52" (RT)	190° 59' 09.35"	30.00	14.18	26.49	3.18
SPSP 1-18	22° 23' 50.08" (LT)	78° 23' 38.74"	75.00	14.85	29.32	1.46
SPSP 1-19	10° 05' 28.25" (LT)	38° 11' 49.87"	150.00	13.24	26.42	0.58
SPSP 1-20	9° 43' 25.12" (LT)	22° 55' 05.92"	250.00	21.26	42.43	0.90
SPSP 1-21	16° 04' 28.13" (RT)	57° 17' 44.81"	100.00	14.12	28.06	0.99
SPSP 1-22	29° 40' 59.12" (LT)	57° 17' 44.81"	100.00	26.50	51.81	3.45
SPSP 1-23	84° 20' 31.27" (RT)	45° 50' 11.84"	125.00	113.23	184.01	43.66
SPSP 1-24	11° 13' 17.74" (LT)	57° 17' 44.81"	100.00	9.82	19.59	0.48
SPSP 1-25	13° 05' 10.51" (RT)	57° 17' 44.81"	100.00	11.47	22.84	0.66
SPSP 1-26	17° 39' 26.50" (LT)	57° 17' 44.81"	100.00	15.53	30.82	1.20
SPSP 1-27	3° 50' 34.13" (LT)	11° 27' 32.96"	500.00	16.77	33.53	0.28
SPSP 1-28	10° 52' 44.38" (RT)	22° 55' 05.92"	250.00	23.81	47.47	1.13
SPSP 1-29	23° 30' 54.90" (RT)	114° 35' 29.61"	50.00	10.41	20.52	1.07
SPSP 1-30	16° 37' 54.29" (RT)	22° 55' 05.92"	250.00	36.54	72.57	2.66
SPSP 1-31	13° 32' 19.41" (LT)	11° 27' 32.96"	500.00	59.35	118.15	3.51
LOOP 1	13° 56' 35.31" (RT)	57° 17' 44.81"	100.00	12.23	24.34	0.74
LOOP 2	29° 39' 27.71" (LT)	190° 59' 09.35"	30.00	7.94	15.53	1.03
LOOP 3	65° 15' 03.87" (RT)	190° 59' 09.35"	30.00	19.20	34.17	5.62
LOOP 4	132° 45' 28.94" (RT)	190° 59' 09.35"	30.00	68.60	69.51	44.87
LOOP 5	35° 32' 26.86" (LT)	114° 35' 29.61"	50.00	16.02	31.02	2.51
LOOP 6	37° 49' 11.34" (RT)	57° 17' 44.81"	100.00	34.26	66.01	5.71
LOOP 7	6° 44' 14.58" (LT)	22° 55' 05.92"	250.00	14.72	29.40	0.43



CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L SANDY POINT STATE PARK 01					
SPSP 1-10	PC	309+28.36	494.316.1188	1,478.835.0866	N 43° 55' 17.69" E
SPSP 1-10	PI	309+44.86	494.328.0042	1,478.846.5329	
SPSP 1-10	PT	309+61.06	494.335.5823	1,478.861.1908	N 62° 39' 41.03" E
SPSP 1-11	PC	310+15.27	494.360.4767	1,478.909.3432	N 62° 39' 41.03" E
SPSP 1-11	PI	310+49.73	494.376.3021	1,478.939.9538	
SPSP 1-11	PT	310+75.61	494.410.5409	1,478.936.0607	N 6° 29' 13.00" W
SPSP 1-12	PC	310+89.28	494.424.1190	1,478.934.5168	N 6° 29' 13.00" W
SPSP 1-12	PI	311+04.37	494.439.1085	1,478.932.8124	
SPSP 1-12	PT	311+17.24	494.449.4153	1,478.943.6288	N 46° 54' 21.31" E
SPSP 1-13	PC	311+42.78	494.466.8643	1,478.962.4790	N 46° 54' 21.31" E
SPSP 1-13	PI	311+58.18	494.477.3861	1,478.973.7252	
SPSP 1-13	PT	311+72.66	494.492.4120	1,478.977.1022	N 12° 39' 59.81" E
SPSP 1-14	PC	311+86.45	494.505.8716	1,478.980.1272	N 12° 39' 59.81" E
SPSP 1-14	PI	311+99.82	494.518.9147	1,478.983.0586	
SPSP 1-14	PT	312+13.03	494.532.2697	1,478.982.4610	N 2° 33' 43.80" W
SPSP 1-15	PC	312+23.59	494.542.8203	1,478.981.9889	N 2° 33' 43.80" W
SPSP 1-15	PI	312+34.97	494.554.1834	1,478.981.4904	
SPSP 1-15	PT	312+45.34	494.563.0273	1,478.988.6335	N 38° 57' 58.87" E
SPSP 1-16	PC	312+72.59	494.584.2189	1,479.005.7735	N 38° 57' 58.87" E
SPSP 1-16	PI	312+81.00	494.590.7550	1,479.011.1600	
SPSP 1-16	PT	312+89.36	494.598.0819	1,479.015.1010	N 29° 21' 21.59" E
SPSP 1-17	PC	313+40.96	494.643.0530	1,479.040.4755	N 29° 21' 21.59" E
SPSP 1-17	PI	313+55.14	494.655.4111	1,479.047.4264	
SPSP 1-17	PT	313+67.45	494.667.8856	1,479.061.3876	N 79° 56' 57.11" E
SPSP 1-18	PC	314+00.48	494.663.6500	1,479.093.9105	N 79° 56' 57.11" E
SPSP 1-18	PI	314+15.33	494.666.2414	1,479.108.5312	
SPSP 1-18	PT	314+29.80	494.674.2081	1,479.121.0615	N 57° 33' 07.03" E
SPSP 1-19	PC	314+58.98	494.689.8627	1,479.145.6835	N 57° 33' 07.03" E
SPSP 1-19	PI	314+72.22	494.696.9885	1,479.156.8598	
SPSP 1-19	PT	314+85.40	494.705.9227	1,479.166.6181	N 47° 27' 37.78" E
SPSP 1-20	PC	315+64.60	494.759.4744	1,479.224.9787	N 47° 27' 37.78" E
SPSP 1-20	PI	315+85.87	494.773.8515	1,479.240.6468	
SPSP 1-20	PT	316+07.03	494.790.6683	1,479.253.6616	N 37° 44' 12.66" E
SPSP 1-21	PC	316+69.39	494.839.9873	1,479.291.8303	N 37° 44' 12.66" E
SPSP 1-21	PI	316+83.51	494.851.1541	1,479.300.4725	
SPSP 1-21	PT	316+96.45	494.859.4914	1,479.311.8687	N 53° 48' 40.78" E
SPSP 1-22	PC	317+86.42	494.919.1089	1,479.393.3567	N 53° 48' 40.78" E
SPSP 1-22	PI	318+24.92	494.934.7529	1,479.414.7432	
SPSP 1-22	PT	318+50.22	494.958.8365	1,479.425.5754	N 24° 07' 41.68" E
SPSP 1-23	PC	318+50.22	494.958.8365	1,479.425.5754	N 24° 07' 41.68" E
SPSP 1-23	PVI	319+63.45	495.062.2720	1,479.471.8607	
SPSP 1-23	PT	320+34.23	495.026.4000	1,479.579.2560	S 71° 31' 47.07" E
SPSP 1-24	PC	320+72.55	495.014.2605	1,479.615.5998	S 71° 31' 47.07" E
SPSP 1-24	PI	320+82.37	495.011.1481	1,479.624.9179	
SPSP 1-24	PT	320+92.13	495.009.9086	1,479.634.6635	S 82° 45' 04.81" E
SPSP 1-25	PC	321+66.12	495.000.5735	1,479.708.0572	S 82° 45' 04.81" E
SPSP 1-25	PI	321+77.59	494.999.1262	1,479.719.4354	
SPSP 1-25	PT	321+88.96	494.995.1404	1,479.730.1904	S 69° 39' 54.29" E
SPSP 1-26	PC	322+35.75	494.978.8782	1,479.774.0707	S 69° 39' 54.29" E
SPSP 1-26	PI	322+51.29	494.973.4807	1,479.788.6348	
SPSP 1-26	PT	322+66.57	494.972.7551	1,479.804.1499	S 87° 19' 20.80" E
SPSP 1-27	PC	323+39.50	494.969.3484	1,479.876.9950	S 87° 19' 20.80" E
SPSP 1-27	PI	323+56.27	494.968.5648	1,479.893.7504	
SPSP 1-27	PT	323+73.03	494.968.9059	1,479.910.5207	N 88° 50' 05.07" E
SPSP 1-28	PC	324+75.46	494.970.9889	1,480.012.9262	N 88° 50' 05.07" E
SPSP 1-28	PI	324+99.26	494.971.4730	1,480.036.7271	
SPSP 1-28	PT	325+22.93	494.967.4563	1,480.060.1916	S 80° 17' 10.55" E
SPSP 1-29	PC	325+79.55	494.957.9017	1,480.116.0081	S 80° 17' 10.55" E
SPSP 1-29	PI	325+89.96	494.956.1458	1,480.126.2659	
SPSP 1-29	PT	326+00.08	494.950.4429	1,480.134.9712	S 56° 46' 15.65" E
SPSP 1-30	PC	326+39.88	494.928.6306	1,480.168.2671	S 56° 46' 15.65" E
SPSP 1-30	PI	326+76.42	494.908.8062	1,480.198.8338	
SPSP 1-30	PT	327+12.45	494.880.8707	1,480.222.3904	S 40° 08' 21.36" E
SPSP 1-31	PC	328+34.38	494.787.4558	1,480.300.9939	S 40° 08' 21.36" E
SPSP 1-31	PI	328+93.73	494.742.0837	1,480.339.2539	
SPSP 1-31	PT	329+52.53	494.706.9292	1,480.387.0724	S 53° 40' 40.77" E

CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L LOOP TRAIL					
LOOP-1	POB	350+00	494.968.8410	1,479.894.1477	N 1° 20' 52.71" W
LOOP-1	PC	350+84.21	495.053.0256	1,479.892.1667	N 1° 20' 52.71" W
LOOP-1	PI	350+96.44	495.065.2503	1,479.891.8791	
LOOP-1	PT	351+08.54	495.077.1841	1,479.894.5455	N 12° 35' 42.60" E
LOOP-2	PC	351+62.73	495.130.0709	1,479.906.3624	N 12° 35' 42.60" E
LOOP-2	PI	351+70.68	495.137.8223	1,479.906.0944	
LOOP-2	PT	351+78.26	495.145.4152	1,479.905.7639	N 17° 03' 45.12" W
LOOP-3	PC	351+78.26	495.145.4152	1,479.905.7639	N 17° 03' 45.12" W
LOOP-3	PI	351+97.47	495.163.7745	1,479.900.1290	
LOOP-3	PT	352+12.43	495.176.5779	1,479.914.4430	N 48° 11' 18.75" E
LOOP-4	PC	353+58.65	495.274.0638	1,480.023.4312	N 48° 11' 18.75" E
LOOP-4	PI	354+27.25	495.319.7967	1,480.074.5601	
LOOP-4	PT	354+28.17	495.251.2082	1,480.073.4275	S 0° 56' 45.69" W
LOOP-5	PC	354+28.17	495.251.2082	1,480.073.4275	S 0° 56' 45.69" W
LOOP-5	PI	354+44.19	495.235.1856	1,480.073.1629	
LOOP-5	PT	354+59.18	495.221.9942	1,480.082.2613	S 34° 35' 40.98" E
LOOP-6	PC	355+19.85	495.172.0511	1,480.116.7080	S 34° 35' 40.98" E
LOOP-6	PI	355+54.11	495.143.8511	1,480.136.1580	
LOOP-6	PT	355+85.86	495.109.6484	1,480.134.2307	S 3° 13' 30.37" W
LOOP-7	PC	356+70.59	495.025.0475	1,480.129.4636	S 3° 13' 30.37" W
LOOP-7	PI	356+85.31	495.010.3552	1,480.128.6357	
LOOP-7	PT	356+99.99	494.995.6671	1,480.129.5372	S 3° 30' 44.21" E
LOOP-7	POE	357+43.61	494.952.1269	1,480.132.2096	S 3° 30' 44.21" E

MATCHLINE STA. 329+60 - SEE DWG NO. GS-07



GP# G02018957 DWG. NO.: GS-06



PROFESSIONAL CERTIFICATION

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

MD LICENSE NUMBER: S3587

EXPIRATION DATE: 12-09-2024

06/08/2023

REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY

DEPARTMENT OF PUBLIC WORKS

APPROVED	DATE	APPROVED	DATE
<i>[Signature]</i>	11/20/2023 08:59 EST	<i>[Signature]</i>	11/17/2023 08:00 EST
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
<i>[Signature]</i>	11/17/2023 11:56 EST	<i>[Signature]</i>	11/17/2023 18:30 EST
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: AS NOTED

DRAWN BY: DMT

CHECKED BY: DMT

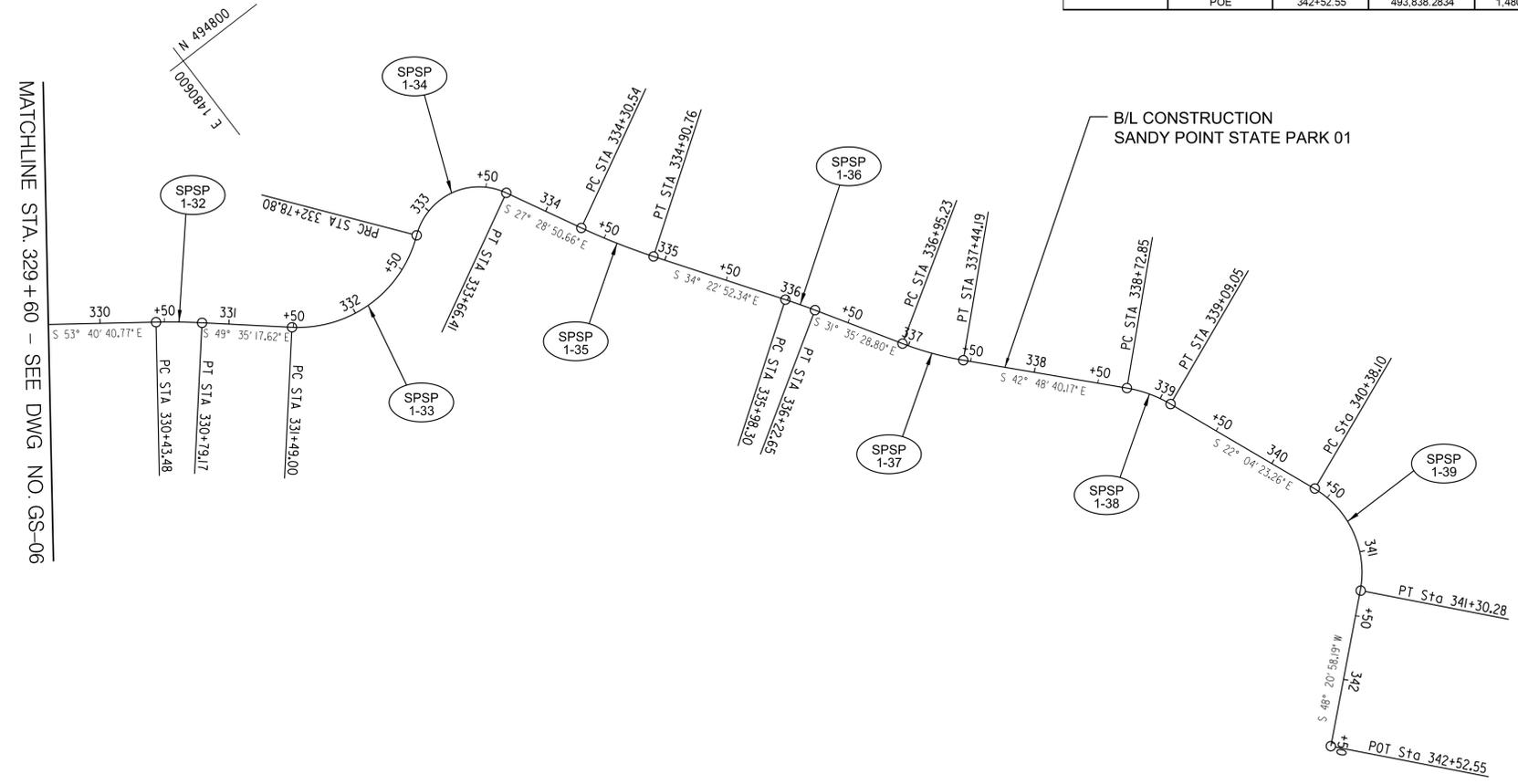
SHEET NO. 17 OF 116

PROJECT NO. P504100

CONTRACT NO. P50

CONSTRUCTION CONTROL COORDINATES					
CURVE	POINT NO.	STATION	NORTHING	EASTING	BEARING
B/L SANDY POINT STATE PARK 01					
SPSP 1-32	PC	330+43.48	494.653 0592	1,480,460.3486	S 53° 40' 40.77" E
	PI	330+61.33	494.642 4848	1,480,474.7324	
	PT	330+79.17	494.630 9114	1,480,488.3254	S 49° 35' 17.62" E
SPSP 1-33	PC	331+49.00	494.585 6404	1,480,541.4964	S 49° 35' 17.62" E
	PI	332+26.32	494.535 5162	1,480,600.3677	
	PRC	332+78.80	494.582 9821	1,480,661.4027	N 52° 07' 42.07" E
SPSP 1-34	PCC	332+78.80	494.582 9821	1,480,661.4027	N 52° 07' 42.07" E
	PI	333+38.80	494.619 8171	1,480,708.7677	
	PT	333+66.41	494.566 5852	1,480,736.4557	S 27° 28' 50.66" E
SPSP 1-35	PC	334+30.54	494.509 6835	1,480,766.0525	S 27° 28' 50.66" E
	PI	334+60.69	494.482 9395	1,480,779.9631	
	PT	334+90.76	494.458 0605	1,480,786.9861	S 34° 22' 52.34" E
SPSP 1-36	PC	335+98.30	494.369 3082	1,480,857.7127	S 34° 22' 52.34" E
	PI	336+10.48	494.359 2607	1,480,864.5882	
	PT	336+22.65	494.348 8895	1,480,870.9664	S 31° 35' 28.80" E
SPSP 1-37	PC	336+95.23	494.287 0630	1,480,908.9895	S 31° 35' 28.80" E
	PI	337+19.79	494.266 1457	1,480,921.8535	
	PT	337+44.19	494.248 1312	1,480,938.5417	S 42° 48' 40.17" E
SPSP 1-38	PC	338+72.85	494.153 7433	1,481,025.9800	S 42° 48' 40.17" E
	PI	338+91.15	494.140 3203	1,481,038.4147	
	PT	339+09.05	494.123 3638	1,481,045.2907	S 22° 04' 23.26" E
SPSP 1-39	PC	340+38.10	494.003 7693	1,481,093.7877	S 22° 04' 23.26" E
	PI	340+91.03	493.954 7199	1,481,113.6778	
	PT	341+30.28	493.919 5442	1,481,074.1287	S 48° 20' 58.19" W
	POE	342+52.55	493.838 2834	1,480,982.7648	S 48° 20' 58.19" W

CURVE DATA						
CURVE	DELTA	Dc	RADIUS	TANGENT	LENGTH	EXTERNAL
SPSP 1-32	4° 05' 23.14" (RT)	11' 27' 32.96"	500.00	17.85	35.69	0.32
SPSP 1-33	78° 17' 00.30" (LT)	60' 18' 40.85"	95.00	77.32	129.80	27.49
SPSP 1-34	100° 23' 27.26" (RT)	114' 35' 29.61"	50.00	60.00	87.61	28.10
SPSP 1-35	6° 54' 01.68" (LT)	11' 27' 32.96"	500.00	30.15	60.22	0.91
SPSP 1-36	2° 47' 23.55" (RT)	11' 27' 32.96"	500.00	12.18	24.35	0.15
SPSP 1-37	11° 13' 11.38" (LT)	22' 55' 05.92"	250.00	24.56	48.96	1.20
SPSP 1-38	20° 44' 16.91" (RT)	57' 17' 44.81"	100.00	18.30	36.19	1.66
SPSP 1-39	17° 41' 43.42" (LT)	104' 10' 26.92"	55.00	8.56	16.99	0.66



GP# G02018957 DWG. NO.: GS-07

AECOM
 AECOM
 4 NORTH PARK DRIVE
 SUITE 300
 HUNT VALLEY, MARYLAND 21030
 PHONE: 410-785-7220
 FAX: 410-785-6818

PROFESSIONAL CERTIFICATION
 *I CERTIFY THAT THESE DOCUMENTS
 WERE PREPARED OR APPROVED BY
 ME, AND THAT I AM A DULY LICENSED
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 MD LICENSE NUMBER: S3587
 EXPIRATION DATE: 12-09-2024



REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY
 DEPARTMENT OF PUBLIC WORKS

APPROVED <i>[Signature]</i> CHIEF ENGINEER	DATE 11/20/2023 08:59 EST	APPROVED <i>[Signature]</i> PROJECT MANAGER	DATE 11/17/2023 08:00 EST	SCALE: AS NOTED	BROADNECK PENINSULA TRAIL PHASE IB & V
APPROVED <i>[Signature]</i> ASSISTANT CHIEF ENGINEER	DATE 11/17/2023 11:56 EST	APPROVED <i>[Signature]</i> CHIEF, RIGHT OF WAY	DATE 11/17/2023 18:30 EST	CHECKED BY: DMT	
				SHEET NO. 18 OF 116 PROJECT NO. P504100 CONTRACT NO. P504105	

GEOMETRIC LAYOUT

LIMIT OF WORK
CONTRACT NO. P504105
EAST COLLEGE PARKWAY
STA. 101+30

TEST PIT INFORMATION						
NO.	UTILITY	NORTHING	EASTING	ELEVATION	TOP OF UTILITY	COMPLETED
TP-1	GAS	496,625.19	1,470,116.00	25.22	18.97	EUMC 4/24/21
TP-5	SANITARY	496,500.20	1,470,100.44	24.17		
TP-6	GAS	496,391.97	1,470,094.11	23.20		

NOTE: THE CONTRACTOR TO TEST PIT TP-5 AND TP-6. CONTRACTOR SHALL CALL "MISS UTILITY" 1-800-257-7777 A MINIMUM OF 72 HOURS PRIOR TO BEGINNING ANY EXCAVATION.

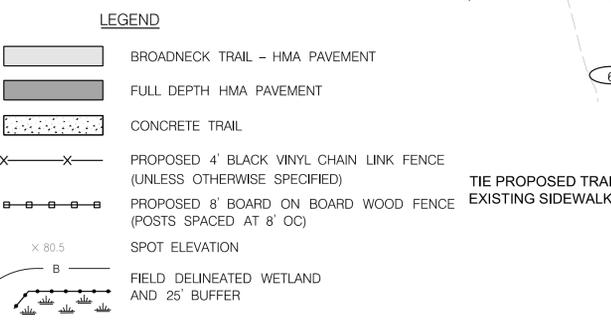
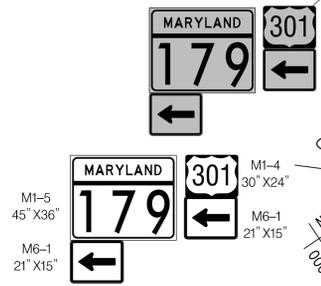
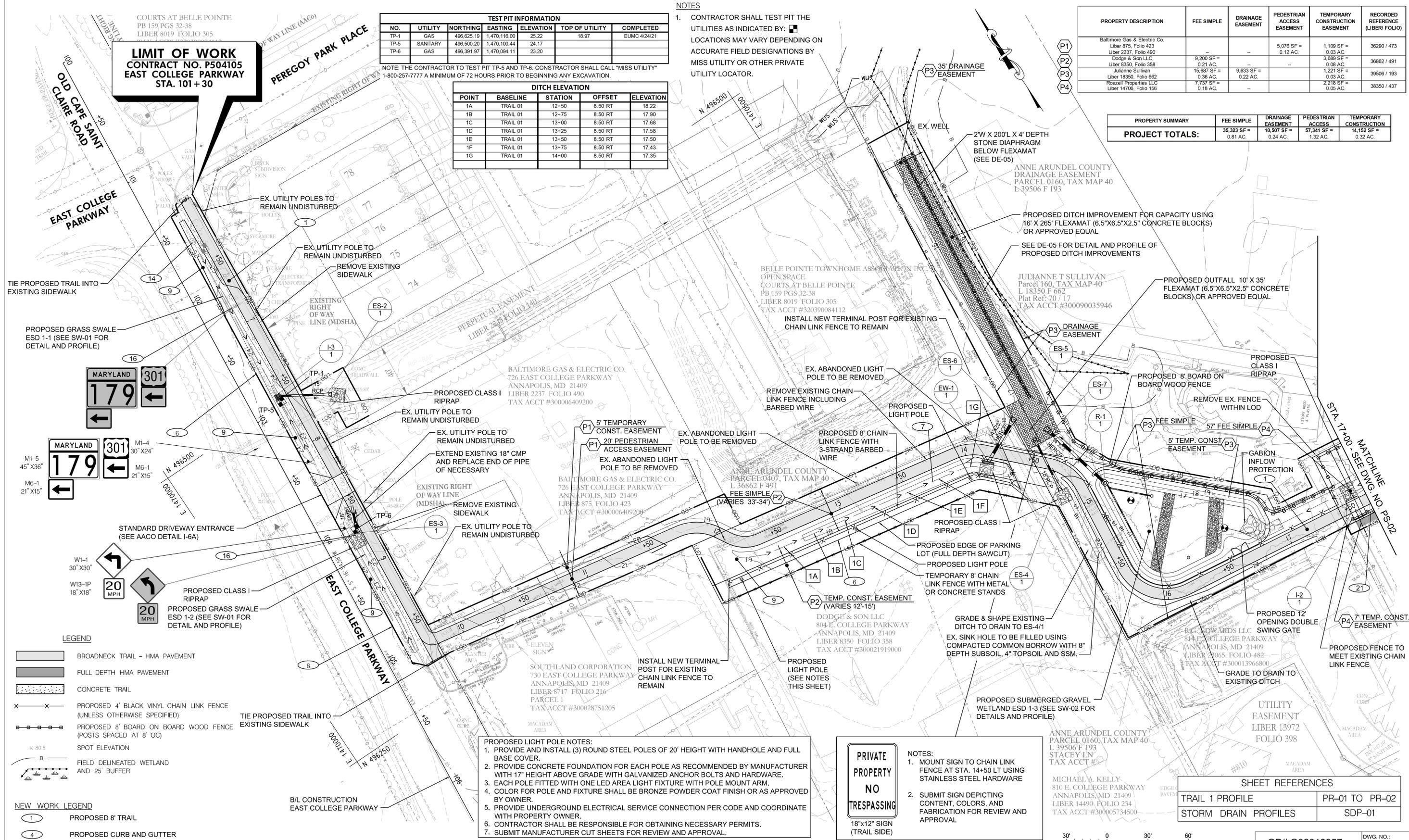
DITCH ELEVATION			
POINT	BASELINE	STATION	ELEVATION
1A	TRAIL 01	12+50	8.50 RT 18.22
1B	TRAIL 01	12+75	8.50 RT 17.90
1C	TRAIL 01	13+00	8.50 RT 17.68
1D	TRAIL 01	13+25	8.50 RT 17.58
1E	TRAIL 01	13+50	8.50 RT 17.50
1F	TRAIL 01	13+75	8.50 RT 17.43
1G	TRAIL 01	14+00	8.50 RT 17.35

NOTES

- CONTRACTOR SHALL TEST PIT THE UTILITIES AS INDICATED BY: [Symbol] LOCATIONS MAY VARY DEPENDING ON ACCURATE FIELD DESIGNATIONS BY MISS UTILITY OR OTHER PRIVATE UTILITY LOCATOR.

PROPERTY DESCRIPTION	FEE SIMPLE	DRAINAGE EASEMENT	PEDESTRIAN ACCESS EASEMENT	TEMPORARY CONSTRUCTION EASEMENT	RECORDED REFERENCE (LIBER/ FOLIO)
Baltimore Gas & Electric Co. Liber 875, Folio 423			5,076 SF = 0.12 AC.	1,109 SF = 0.03 AC.	36290 / 473
Dodge & Son LLC Liber 8350, Folio 358	9,200 SF = 0.21 AC.			3,689 SF = 0.08 AC.	36862 / 491
Julianne Sullivan Liber 18350, Folio 662	15,687 SF = 0.36 AC.	9,633 SF = 0.22 AC.		1,221 SF = 0.03 AC.	39506 / 193
Rozzell Properties LLC Liber 14706, Folio 156	7,737 SF = 0.18 AC.			2,218 SF = 0.05 AC.	38350 / 437

PROPERTY SUMMARY	FEE SIMPLE	DRAINAGE EASEMENT	PEDESTRIAN ACCESS	TEMPORARY CONSTRUCTION
PROJECT TOTALS:	35,323 SF = 0.81 AC.	10,507 SF = 0.24 AC.	57,341 SF = 1.32 AC.	14,152 SF = 0.32 AC.



- NEW WORK LEGEND**
- 1 PROPOSED 8' TRAIL
 - 4 PROPOSED CURB AND GUTTER
 - 6 FULL DEPTH SAWCUT
 - 7 PROPOSED DRAINAGE DITCH (SEE TYPICAL SECTIONS)
 - 9 REMOVE EXISTING PAVEMENT SECTION
 - 14 EXISTING SANITARY MANHOLE TO BE ADJUSTED (FRAME & COVER)
 - 16 EXISTING SIGN TO BE RELOCATED
 - 21 PROPOSED MOUNTABLE CURB AND GUTTER

- PROPOSED LIGHT POLE NOTES:**
- PROVIDE AND INSTALL (3) ROUND STEEL POLES OF 20' HEIGHT WITH HANDHOLE AND FULL BASE COVER.
 - PROVIDE CONCRETE FOUNDATION FOR EACH POLE AS RECOMMENDED BY MANUFACTURER WITH 17" HEIGHT ABOVE GRADE WITH GALVANIZED ANCHOR BOLTS AND HARDWARE.
 - EACH POLE FITTED WITH ONE LED AREA LIGHT FIXTURE WITH POLE MOUNT ARM.
 - COLOR FOR POLE AND FIXTURE SHALL BE BRONZE POWDER COAT FINISH OR AS APPROVED BY OWNER.
 - PROVIDE UNDERGROUND ELECTRICAL SERVICE CONNECTION PER CODE AND COORDINATE WITH PROPERTY OWNER.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY PERMITS.
 - SUBMIT MANUFACTURER CUT SHEETS FOR REVIEW AND APPROVAL.

PRIVATE PROPERTY NO TRESPASSING
 18"x12" SIGN (TRAIL SIDE)

- NOTES:**
- MOUNT SIGN TO CHAIN LINK FENCE AT STA. 14+50 LT USING STAINLESS STEEL HARDWARE
 - SUBMIT SIGN DEPICTING CONTENT, COLORS, AND FABRICATION FOR REVIEW AND APPROVAL

SHEET REFERENCES

TRAIL 1 PROFILE	PR-01 TO PR-02
STORM DRAIN PROFILES	SDP-01

GP# G02018957 DWG. NO.: PS-01

<p>AECOM 4 NORTH PARK DRIVE SUITE 300 HUNT VALLEY, MARYLAND 21030 PHONE: 410-785-7220 FAX: 410-785-6818</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>"I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND."</p> <p>MD LICENSE NUMBER: 53587 EXPIRATION DATE: 12-09-2024</p> <p>06/08/2023</p>	<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	DESCRIPTION	BY	DATE					<p>ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS</p> <table border="1"> <thead> <tr> <th>APPROVED</th> <th>DATE</th> <th>APPROVED</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td></td> <td>11/20/2023</td> <td></td> <td>11/17/2023</td> </tr> <tr> <td>CHIEF ENGINEER</td> <td></td> <td>PROJECT MANAGER</td> <td></td> </tr> <tr> <td></td> <td>11/17/2023</td> <td></td> <td>11/17/2023</td> </tr> <tr> <td>ASSISTANT CHIEF ENGINEER</td> <td></td> <td>CHIEF, RIGHT OF WAY</td> <td></td> </tr> </tbody> </table>		APPROVED	DATE	APPROVED	DATE		11/20/2023		11/17/2023	CHIEF ENGINEER		PROJECT MANAGER			11/17/2023		11/17/2023	ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	
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<p>SCALE: AS NOTED</p> <p>DRAWN BY: DMT CHECKED BY: DMT SHEET NO. 19 OF 116 PROJECT NO. P504100 CONTRACT NO. P504105</p>		<p>BROADNECK PENINSULA TRAIL PHASE IB & V</p> <p>PLAN SHEET</p>																															

TEST PIT INFORMATION						
NO.	UTILITY	NORTHING	EASTING	ELEVATION	TOP OF UTILITY	COMPLETED
TP-2	GAS	495,689.41	1,471,455.51	20.54	NOT FOUND	EUMC 4/24/21
TP-7	ELECTRIC	495,754.84	1,471,129.00	21.84		
TP-8	ELECTRIC	495,701.94	1,471,457.25	21.66		
TP-9	GAS	495,662.10	1,471,610.19	19.60		
TP-10	ELECTRIC	495,672.78	1,471,623.14	20.06		

NOTE: THE CONTRACTOR TO TEST PIT TP-7, TP-8, TP-9 AND TP-10. THE CONTRACTOR SHALL CALL "MISS UTILITY" 1-800-257-7777 A MINIMUM OF 72 HOURS PRIOR TO BEGINNING ANY EXCAVATION.

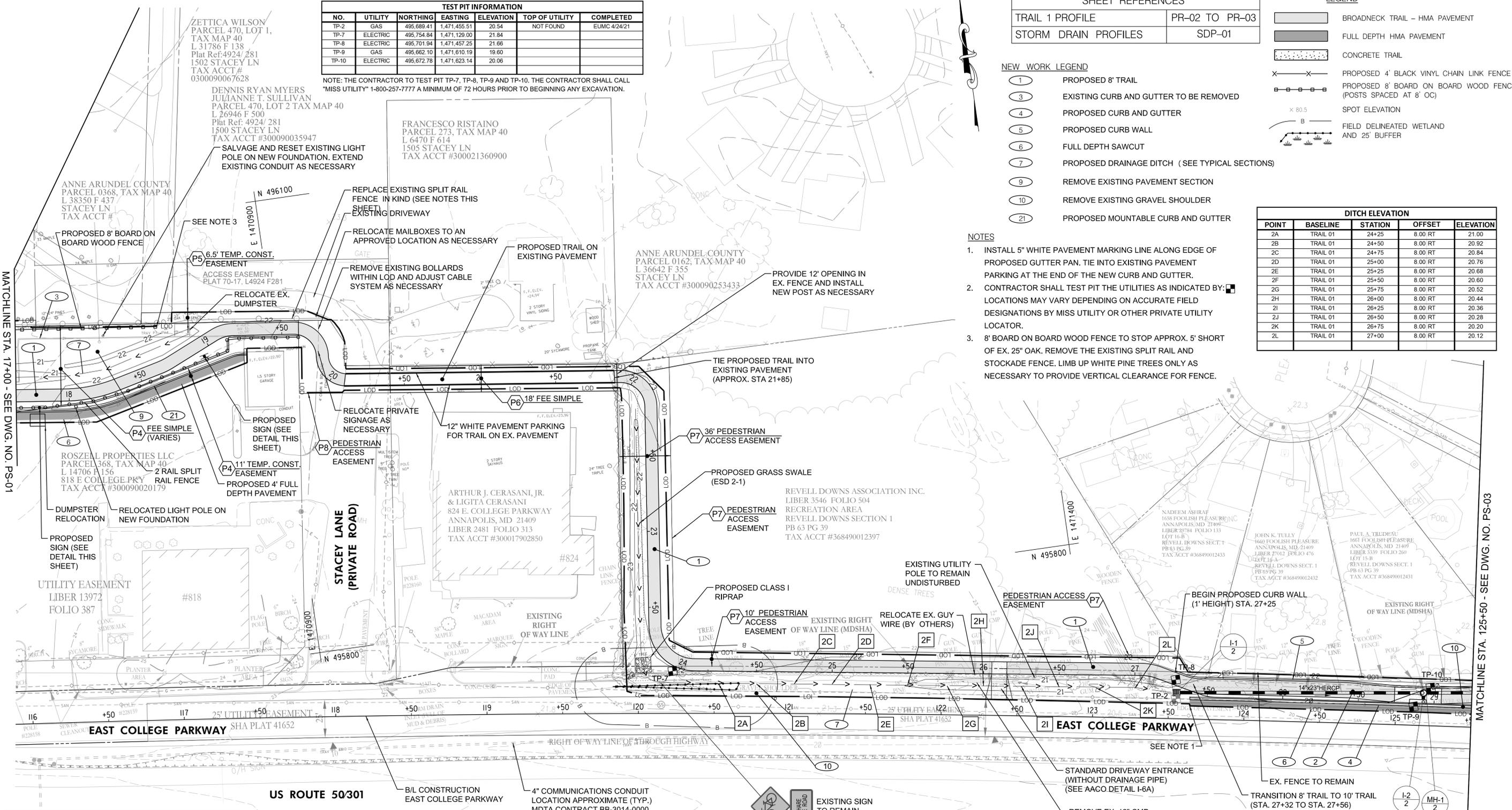
SHEET REFERENCES	
TRAIL 1 PROFILE	PR-02 TO PR-03
STORM DRAIN PROFILES	SDP-01

LEGEND	
	BROADNECK TRAIL - HMA PAVEMENT
	FULL DEPTH HMA PAVEMENT
	CONCRETE TRAIL
	PROPOSED 4' BLACK VINYL CHAIN LINK FENCE
	PROPOSED 8' BOARD ON BOARD WOOD FENCE (POSTS SPACED AT 8' OC)
	SPOT ELEVATION
	FIELD DELINEATED WETLAND AND 25' BUFFER

NEW WORK LEGEND	
	PROPOSED 8' TRAIL
	EXISTING CURB AND GUTTER TO BE REMOVED
	PROPOSED CURB AND GUTTER
	PROPOSED CURB WALL
	FULL DEPTH SAWCUT
	PROPOSED DRAINAGE DITCH (SEE TYPICAL SECTIONS)
	REMOVE EXISTING PAVEMENT SECTION
	REMOVE EXISTING GRAVEL SHOULDER
	PROPOSED MOUNTABLE CURB AND GUTTER

DITCH ELEVATION				
POINT	BASELINE	STATION	OFFSET	ELEVATION
2A	TRAIL 01	24+25	8.00 RT	21.00
2B	TRAIL 01	24+50	8.00 RT	20.92
2C	TRAIL 01	24+75	8.00 RT	20.84
2D	TRAIL 01	25+00	8.00 RT	20.76
2E	TRAIL 01	25+25	8.00 RT	20.68
2F	TRAIL 01	25+50	8.00 RT	20.60
2G	TRAIL 01	25+75	8.00 RT	20.52
2H	TRAIL 01	26+00	8.00 RT	20.44
2I	TRAIL 01	26+25	8.00 RT	20.36
2J	TRAIL 01	26+50	8.00 RT	20.28
2K	TRAIL 01	26+75	8.00 RT	20.20
2L	TRAIL 01	27+00	8.00 RT	20.12

- NOTES**
- INSTALL 5" WHITE PAVEMENT MARKING LINE ALONG EDGE OF PROPOSED GUTTER PAN. TIE INTO EXISTING PAVEMENT PARKING AT THE END OF THE NEW CURB AND GUTTER.
 - CONTRACTOR SHALL TEST PIT THE UTILITIES AS INDICATED BY: LOCATIONS MAY VARY DEPENDING ON ACCURATE FIELD DESIGNATIONS BY MISS UTILITY OR OTHER PRIVATE UTILITY LOCATOR.
 - 8' BOARD ON BOARD WOOD FENCE TO STOP APPROX. 5' SHORT OF EX. 25" OAK. REMOVE THE EXISTING SPLIT RAIL AND STOCKADE FENCE. LIMB UP WHITE PINE TREES ONLY AS NECESSARY TO PROVIDE VERTICAL CLEARANCE FOR FENCE.



PRIVATE PROPERTY NO TRESPASSING

18"x12" SIGN (PROPERTY SIDE)

NOTICE PRIVATE PROPERTY NO TRESPASSING

CUSTOMER/EMPLOYEE PARKING ONLY

18"x12" SIGN (TRAIL SIDE)

BAYHEAD INSURANCE SIGNAGE DETAILS

NOTES:

- MOUNT SIGNS ON ONE 6" HEIGHT 4X4 TREATED WOOD POST WITH GALVANIZED HARDWARE AT THE TWO LOCATIONS NOTED.
- SUBMIT EACH SIGN DEPICTING CONTENT, COLORS, AND FABRICATION FOR REVIEW AND APPROVAL BY OWNER.

SPLIT RAIL FENCE NOTES:

- PROVIDE AND INSTALL 2-RAIL SPLIT RAIL FENCE, OR REPLACE EXISTING SPLIT RAIL FENCE IN KIND, WHERE INDICATED ON THE PLANS.
- EX. SPLIT RAIL SHALL BE REPLACED UP TO THE EX. 25" OAK WITHIN THE ACCESS EASEMENT.
- POSTS AND RAILS SHALL BE TREATED SOUTHERN YELLOW PINE. PROVIDE LINE, END AND CORNER POSTS WHERE NEEDED.
- MAXIMUM POST SPACING SHALL BE 10 FEET. POSTS SHALL BE PRE-ROUTED FOR RAIL INSTALLATION.
- INSTALL POST 24 TO 30 INCHES DEPTH WITHOUT CONCRETE. TAMP EXCAVATED EARTH TO BACKFILL POST HOLES.
- TOP OF POSTS TO BE CONSISTENT HEIGHT ABOVE GRADE.
- VERTICAL SPACING BETWEEN RAILS SHALL BE 10 INCHES.
- SUBMIT MANUFACTURER CUT SHEETS FOR REVIEW AND APPROVAL.

PROPERTY DESCRIPTION	FEE SIMPLE	DRAINAGE EASEMENT	PEDESTRIAN ACCESS EASEMENT	TEMPORARY CONSTRUCTION EASEMENT	RECORDED REFERENCE (LIBER/ FOLIO)
Roszell Properties LLC Liber 14706, Folio 156	7,737 SF = 0.18 AC.	--	--	2,218 SF = 0.05 AC.	38350 / 437
Valerie J. Sullivan & Christine Taylor Liber 33220, Folio 255	--	--	--	656 SF = 0.02 AC.	39506 / 152
Arthur J. Cerasani Jr & Ligita Cerasani Liber 2481, Folio 313	2,699 SF = 0.06 AC.	--	--	--	36642 / 355
Revell Downs Associations Inc. Liber 3546, Folio 502	--	320 SF = 0.01 AC.	50,118 SF = 1.15 AC.	382 SF = 0.01 AC.	36815 / 430
Stacey Lane Private Road Liber 70, Folio 17	--	--	1,918 SF = 0.04 AC.	--	--

REVISIONS				ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS			
NO.	DESCRIPTION	BY	DATE	APPROVED	DATE	APPROVED	DATE

AECOM

4 NORTH PARK DRIVE
SUITE 300
HUNT VALLEY, MARYLAND 21030
PHONE: 410-785-7220
FAX: 410-785-6818

PROFESSIONAL CERTIFICATION

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

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EXPIRATION DATE: 12-09-2024

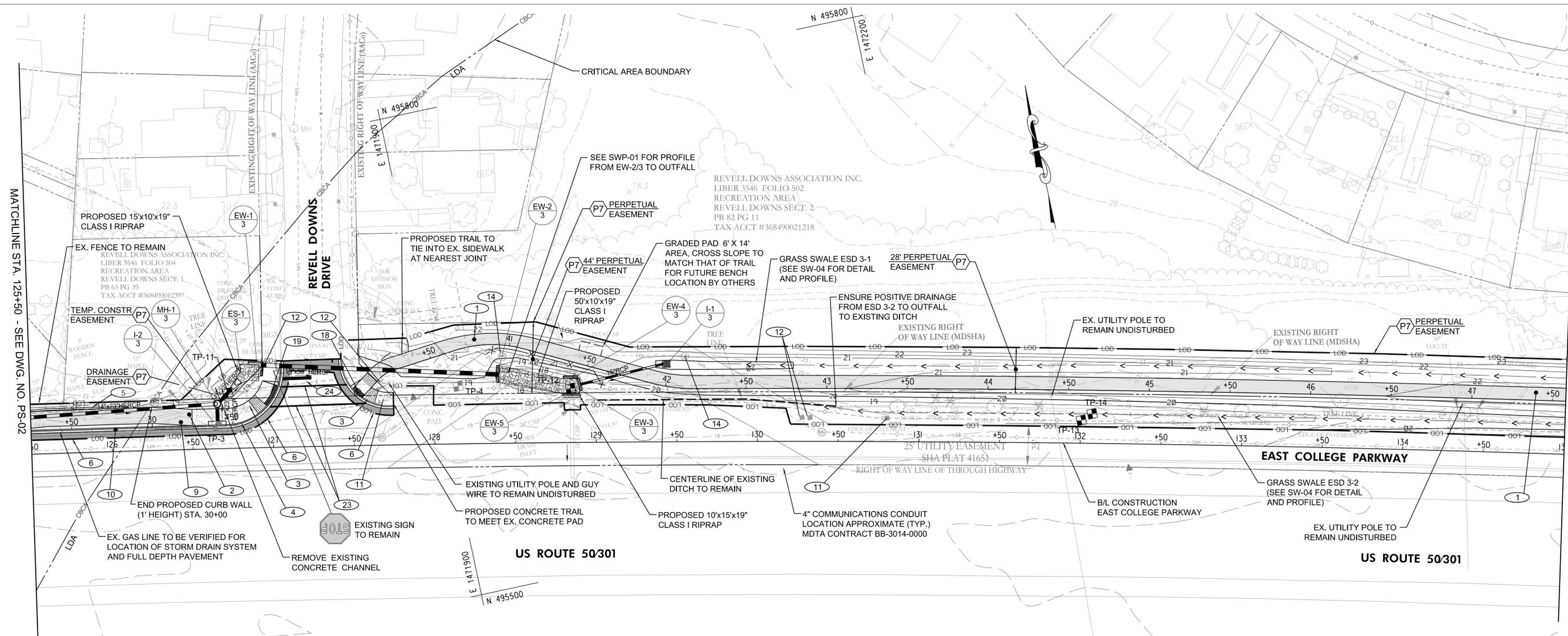
STATE OF MARYLAND
DIVISION OF PROFESSIONAL ENGINEERS
06/08/2023

APPROVED	DATE	APPROVED	DATE
	11/20/2023 08:59 EST		11/17/2023 08:00 EST
CHIEF ENGINEER	PROJECT MANAGER	CHECKED BY:	DMT
APPROVED	DATE	APPROVED	DATE
	11/17/2023 11:56 EST		11/17/2023 18:30 EST
ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	SHEET NO.	20 OF 116
CONTRACT NO. P504105		PROJECT NO. P504100	

GP# G02018957

DWG. NO.: PS-02

PLAN SHEET



MATCHLINE STA. 125+50 - SEE DWG. NO. PS-02

MATCHLINE STA. 135+00 - SEE DWG. NO. PS-04

- NOTES**
- INSTALL 5" WHITE PAVEMENT MARKING LINE ALONG EDGE OF PROPOSED GUTTER PAN. TIE INTO EXISTING PAVEMENT PARKING AT THE END OF THE NEW CURB AND GUTTER.
 - CONTRACTOR SHALL TEST PIT THE UTILITIES AS INDICATED BY: [Symbol] LOCATIONS MAY VARY DEPENDING ON ACCURATE FIELD DESIGNATIONS BY MISS UTILITY OR OTHER PRIVATE UTILITY LOCATOR.

TEST PIT INFORMATION						
NO.	UTILITY	NORTHING	EASTING	ELEVATION	TOP OF UTILITY	COMPLETED
TP-3	GAS	495,636.48	1,471,761.74	18.93	NOT FOUND	EUMC 4/24/21
TP-4	SANITARY	495,628.83	1,471,912.79	18.62	16.63	EUMC 4/24/21
TP-11	ELECTRIC	495,654.80	1,471,772.36	17.97		
TP-12	ELECTRIC	495,612.79	1,471,980.73	15.48		
TP-13	GAS	495,526.89	1,472,286.21	18.91		
TP-14	ELECTRIC	495,529.73	1,472,293.65	18.77		

NOTE: THE CONTRACTOR TO TEST PIT TP-11, TP-12, TP-13, AND TP-14. THE CONTRACTOR SHALL CALL "MISS UTILITY" 1-800-257-7777 A MINIMUM OF 72 HOURS PRIOR TO BEGINNING ANY EXCAVATION.

- NEW WORK LEGEND**
- 1 PROPOSED 8' TRAIL
 - 3 EXISTING CURB AND GUTTER TO BE REMOVED
 - 4 PROPOSED CURB AND GUTTER
 - 5 PROPOSED CURB WALL
 - 6 FULL DEPTH SAWCUT
 - 9 REMOVE EXISTING PAVEMENT SECTION
 - 10 REMOVE EXISTING GRAVEL SHOULDER
 - 11 EXISTING TV HANDBOX TO BE ADJUSTED
 - 12 EXISTING TELEPHONE HANDBOX TO BE ADJUSTED
 - 14 EXISTING SANITARY MANHOLE TO BE ADJUSTED (FRAME & COVER)
 - 18 PROPOSED CURB RAMP MDOT SHA STANDARD 655.11
 - 19 PROPOSED CURB RAMP MDOT SHA STANDARD 655.12
 - 23 12" WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
 - 24 24" WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS

SHEET REFERENCES	
TRAIL 1 PROFILE	PR-03
TRAIL 2 PROFILE	PR-04
INTERSECTION DETAIL	ID-01
STORM DRAIN PROFILES	SDP-01

- LEGEND**
- [Symbol] BROADNECK TRAIL - HMA PAVEMENT
 - [Symbol] FULL DEPTH HMA PAVEMENT
 - [Symbol] CONCRETE TRAIL
 - [Symbol] PROPOSED 4' BLACK VINYL CHAIN LINK FENCE
 - [Symbol] SPOT ELEVATION
 - [Symbol] FIELD DELINEATED WETLAND AND 25' BUFFER

PROPERTY DESCRIPTION	FEE SIMPLE	DRAINAGE EASEMENT	PEDESTRIAN ACCESS EASEMENT	TEMPORARY CONSTRUCTION EASEMENT	RECORDED REFERENCE (LIBER/ FOLIO)
Revell Downs Associations Inc. Liber 3546, Folio 502 Liber 3546, Folio 504	-	320 SF = 0.01 AC.	50,118 SF = 1.15 AC.	382 SF = 0.01 AC.	36815 / 430



GP# G02018957 DWG. NO.: PS-03

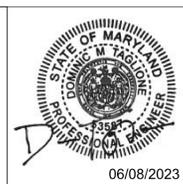
AECOM

4 NORTH PARK DRIVE
SUITE 300
HUNT VALLEY, MARYLAND 21030
PHONE: 410-785-7220
FAX: 410-785-6818

PROFESSIONAL CERTIFICATION

"I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND."

MD LICENSE NUMBER: 53587
EXPIRATION DATE: 12-09-2024



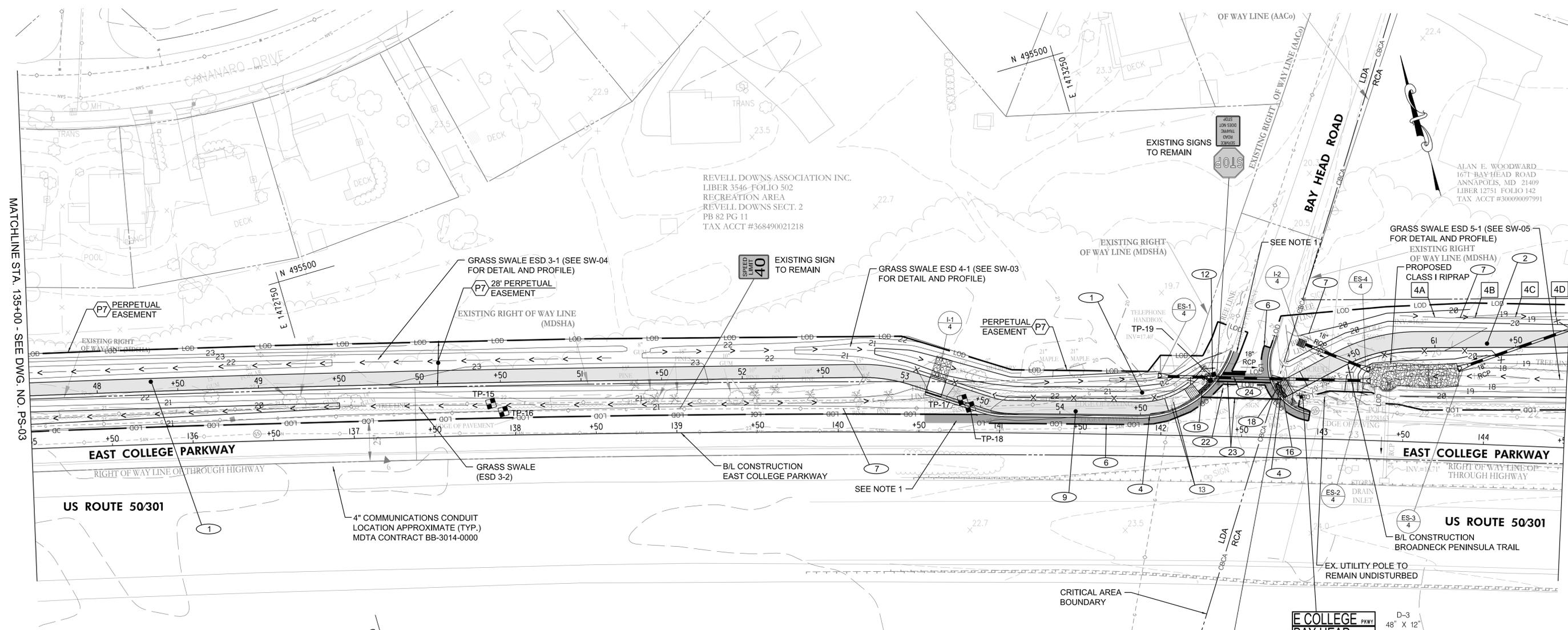
REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED
[Signature]	11/20/2023	[Signature]	11/17/2023	AS NOTED
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: DMT
APPROVED	DATE	APPROVED	DATE	CHECKED BY: DMT
[Signature]	11/17/2023	[Signature]	11/17/2023	SHEET NO. 21 OF 116
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PROJECT NO. P504100
				CONTRACT NO. P504105

BROADNECK PENINSULA TRAIL PHASE IB & V

PLAN SHEET



MATCHLINE STA. 135+00 - SEE DWG. NO. PS-03

MATCHLINE STA. 144+50 - SEE DWG. NO. PS-05

REVELL DOWNS ASSOCIATION INC.
LIBER 3546-FOLIO 502
RECREATION AREA
REVELL DOWNS SECT. 2
PB 82 PG 11
TAX ACCT #368490021218

ALAN E. WOODWARD
1671 BAY HEAD ROAD
ANNAPOLIS, MD 21409
LIBER 12751 FOLIO 142
TAX ACCT #30009097991

DITCH ELEVATION				
POINT	BASELINE	STATION	OFFSET	ELEVATION
4A	TRAIL 03	61+00	19.25 LT	
4B	TRAIL 03	61+25	18.78 LT	
4C	TRAIL 03	61+50	18.51 LT	
4D	TRAIL 03	61+75	18.30 LT	

- NEW WORK LEGEND**
- 1 PROPOSED 8' TRAIL
 - 2 PROPOSED 10' TRAIL
 - 3 EXISTING CURB AND GUTTER TO BE REMOVED
 - 4 PROPOSED CURB AND GUTTER
 - 6 FULL DEPTH SAWCUT
 - 7 PROPOSED DRAINAGE DITCH (SEE TYPICAL SECTIONS)
 - 9 REMOVE EXISTING PAVEMENT SECTION
 - 12 EXISTING TELEPHONE HANDBOX TO BE ADJUSTED
 - 13 EXISTING GAS VALVE TO BE ADJUSTED
 - 16 EXISTING SIGN TO BE RELOCATED
 - 18 PROPOSED CURB RAMP MDOT SHA STANDARD 655.11
 - 19 PROPOSED CURB RAMP MDOT SHA STANDARD 655.12
 - 22 REMOVE EXISTING STOP BAR
 - 23 12" WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
 - 24 24" WHITE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS

SHEET REFERENCES	
TRAIL 2 PROFILE	PR-04 TO PR-05
TRAIL 3 PROFILE	PR-06
INTERSECTION DETAIL	ID-02
STORM DRAIN PROFILES	SDP-02

- NOTES**
- INSTALL 5" WHITE PAVEMENT MARKING LINE ALONG EDGE OF PROPOSED GUTTER PAN. TIE INTO EXISTING PAVEMENT PARKING AT THE END OF THE NEW CURB AND GUTTER.
 - CONTRACTOR SHALL TEST PIT THE UTILITIES AS INDICATED BY: [Symbol] LOCATIONS MAY VARY DEPENDING ON ACCURATE FIELD DESIGNATIONS BY MISS UTILITY OR OTHER PRIVATE UTILITY LOCATOR.

TEST PIT INFORMATION						
NO.	UTILITY	NORTHING	EASTING	ELEVATION	TOP OF UTILITY	COMPLETED
TP-15	ELECTRIC	495,391.16	1,472,855.44	21.57		
TP-16	GAS	495,384.29	1,472,861.49	21.65		
TP-17	ELECTRIC	495,311.69	1,473,136.77	21.33		
TP-18	GAS	495,306.13	1,473,139.95	21.76		
TP-19	GAS	495,281.68	1,473,289.16	21.23		

NOTE: THE CONTRACTOR TO TEST PIT TP-15, TP-16, TP-17, TP-18, AND TP-19. THE CONTRACTOR SHALL CALL "MISS UTILITY" 1-800-257-7777 A MINIMUM OF 72 HOURS PRIOR TO BEGINNING ANY EXCAVATION.

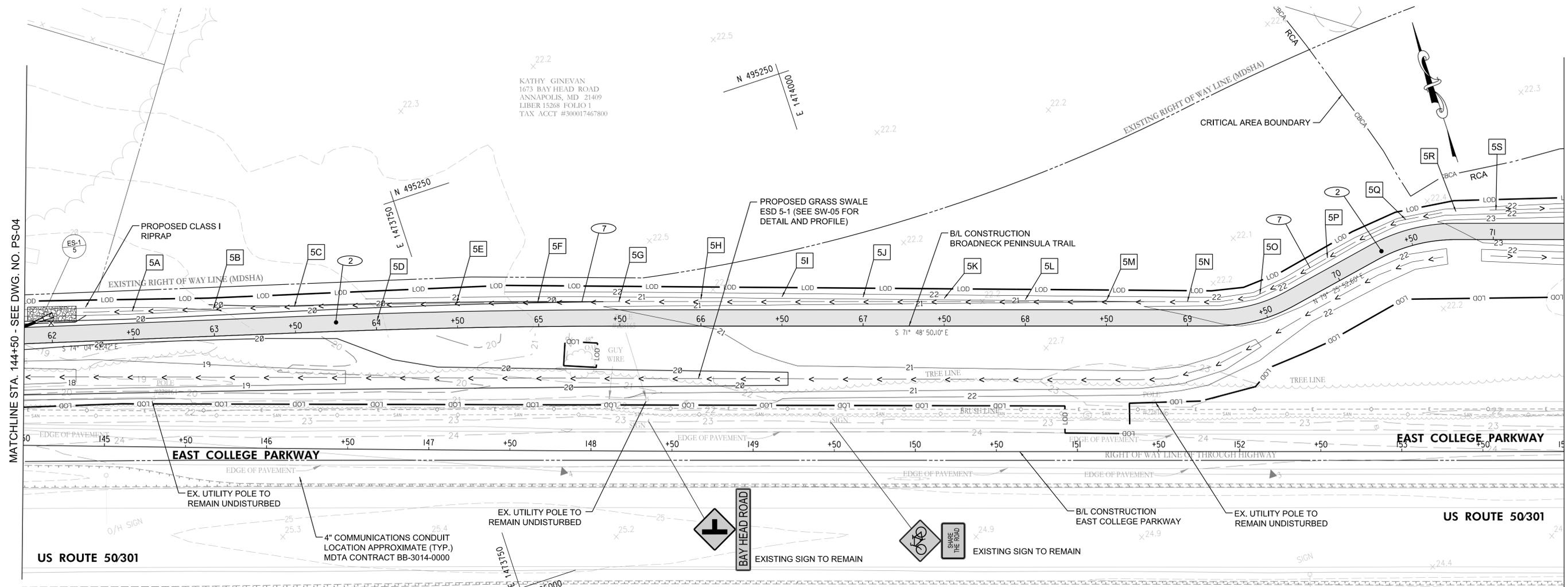
PROPERTY DESCRIPTION	FEE SIMPLE	DRAINAGE EASEMENT	PEDESTRIAN ACCESS EASEMENT	TEMPORARY CONSTRUCTION EASEMENT	RECORDED REFERENCE (LIBER/ FOLIO)
Revell Downs Associations Inc. Liber 3546, Folio 502 Liber 3546, Folio 504		320 SF = 0.01 AC.	50,118 SF = 1.15 AC.	382 SF = 0.01 AC.	36815 / 430

- LEGEND**
- [Symbol] BROADNECK TRAIL - HMA PAVEMENT
 - [Symbol] FULL DEPTH HMA PAVEMENT
 - [Symbol] CONCRETE TRAIL
 - [Symbol] PROPOSED 4' BLACK VINYL CHAIN LINK FENCE
 - [Symbol] SPOT ELEVATION
 - [Symbol] FIELD DELINEATED WETLAND AND 25' BUFFER



GP# G02018957 DWG. NO.: PS-04

<p>AECOM 4 NORTH PARK DRIVE SUITE 300 HUNT VALLEY, MARYLAND 21030 PHONE: 410-785-7220 FAX: 410-785-6818</p>	<p>PROFESSIONAL CERTIFICATION</p> <p>"I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND."</p> <p>MD LICENSE NUMBER: 53587 EXPIRATION DATE: 12-09-2024</p>		<p>06/08/2023</p>	<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DESCRIPTION	BY	DATE					<p style="text-align: center;">ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS</p> <table border="1"> <thead> <tr> <th>APPROVED</th> <th>DATE</th> <th>APPROVED</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td></td> <td>11/20/2023</td> <td></td> <td>11/17/2023</td> </tr> <tr> <td>CHIEF ENGINEER</td> <td></td> <td>PROJECT MANAGER</td> <td></td> </tr> <tr> <td>APPROVED</td> <th>DATE</th> <th>APPROVED</th> <th>DATE</th> </tr> <tr> <td></td> <td>11/17/2023</td> <td></td> <td>11/17/2023</td> </tr> <tr> <td>ASSISTANT CHIEF ENGINEER</td> <td></td> <td>CHIEF, RIGHT OF WAY</td> <td></td> </tr> </tbody> </table>	APPROVED	DATE	APPROVED	DATE		11/20/2023		11/17/2023	CHIEF ENGINEER		PROJECT MANAGER		APPROVED	DATE	APPROVED	DATE		11/17/2023		11/17/2023	ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		<p>SCALE: AS NOTED</p> <p>DRAWN BY: DMT CHECKED BY: DMT SHEET NO. 22 OF 116 PROJECT NO. P504100 CONTRACT NO. P504105</p> <p style="text-align: center;">BROADNECK PENINSULA TRAIL PHASE IB & V</p> <p style="text-align: center;">PLAN SHEET</p>
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MATCHLINE STA. 144+50 - SEE DWG. NO. PS-04

MATCHLINE STA. 154+00 - SEE DWG. NO. PS-06

KATHY GINEVAN
1673 BAY HEAD ROAD
ANNAPOLIS, MD 21409
LIBER 15368 FOLIO 1
TAX ACCT #300017467800

DITCH ELEVATION				
POINT	BASELINE	STATION	OFFSET	ELEVATION
5A	TRAIL 03	62+50	17.65 LT	18.61
5B	TRAIL 03	63+00	15.98 LT	18.94
5C	TRAIL 03	63+50	15.00 LT	19.42
5D	TRAIL 03	64+00	15.00 LT	19.57
5E	TRAIL 03	64+50	15.00 LT	19.72
5F	TRAIL 03	65+00	15.00 LT	19.87
5G	TRAIL 03	65+50	15.00 LT	20.02
5H	TRAIL 03	66+00	15.00 LT	20.17
5I	TRAIL 03	66+50	15.00 LT	20.32
5J	TRAIL 03	67+00	15.00 LT	20.47
5K	TRAIL 03	67+50	15.00 LT	20.62
5L	TRAIL 03	68+00	15.00 LT	20.77
5M	TRAIL 03	68+50	15.00 LT	20.92
5N	TRAIL 03	69+00	15.00 LT	21.07
5O	TRAIL 03	69+50	15.00 LT	21.27
5P	TRAIL 03	70+00	16.09 LT	21.16
5Q	TRAIL 03	70+50	16.48 LT	21.35
5R	TRAIL 03	71+75	17.00 LT	22.00
5S	TRAIL 03	71+00	18.22 LT	21.90

SHEET REFERENCES	
TRAIL 3 PROFILE	PR-06 to PR-07
STORM DRAIN PROFILES	SDP-02

- NEW WORK LEGEND**
- (2) PROPOSED 10' TRAIL
 - (7) PROPOSED DRAINAGE DITCH (SEE TYPICAL SECTIONS)

- LEGEND**
- [Pattern] BROADNECK TRAIL - HMA PAVEMENT
 - [Pattern] FULL DEPTH HMA PAVEMENT
 - [Pattern] CONCRETE TRAIL
 - X-X PROPOSED 4' BLACK VINYL CHAIN LINK FENCE
 - x 80.5 SPOT ELEVATION
 - [Symbol] FIELD DELINEATED WETLAND AND 25' BUFFER



GP# G02018957 DWG. NO.: PS-05



PROFESSIONAL CERTIFICATION
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
MD LICENSE NUMBER: 53587
EXPIRATION DATE: 12-09-2024



REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY			
DEPARTMENT OF PUBLIC WORKS			
APPROVED	DATE	APPROVED	DATE
<i>[Signature]</i>	11/20/2023 08:59 EST	<i>[Signature]</i>	11/17/2023 08:00 EST
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
<i>[Signature]</i>	11/17/2023 11:56 EST	<i>[Signature]</i>	11/17/2023 18:30 EST
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	
SCALE: AS NOTED		DRAWN BY: DMT	
CHECKED BY: DMT		SHEET NO. 23 OF 116	
PROJECT NO. P504100		CONTRACT NO. P504105	
BROADNECK PENINSULA TRAIL PHASE IB & V			
PLAN SHEET			