WETLANDS AND SUBAQUEOUS LANDS SECTION PERMIT APPLICATION FORM

For Subaqueous Lands, Wetlands, Marina and 401 Water Quality Certification Projects

State of Delaware
Department of Natural Resources and Environmental Control
Division of Water

Wetlands and Subaqueous Lands Section

APPLICATION FOR APPROVAL OF
SUBAQUEOUS LANDS, WETLANDS, MARINA
AND WATER QUALITY CERTIFICATION PROJECTS

Last Revised on: March 28, 2017

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

Application Instructions:

1. Complete each section of this basic application and appropriate appendices as thoroughly and accurately as possible. Incomplete or inaccurate applications will be returned.

2. All applications must be accompanied by a scaled plan view and cross-section view plans that show the location and design details for the proposed project. Full construction plans must be submitted for major projects.

3. All applications must have an original signature page and proof of ownership or permitted land use agreement.

4. Submit an original and two (2) additional copies of the application (total of 3) with the appropriate application fee and public notice fee* (prepared in separate checks) to:

Department of Natural Resources and Environmental Control
Wetlands and Subaqueous Lands Section
89 Kings Highway
Dover, Delaware 19901

*Application and public notice fees are non-refundable regardless of the Permit decision or application status.

5. No construction may begin at the project site before written approval has been received from this office.

Helpful Information:

1.	Tax Parcel Information:	New Castle County	(302) 395-5400
		Kent County	(302) 736-2010
		Sussex County	(302) 855-7878
2.	Recorder of Deeds:	New Castle County	(302) 571-7550
		Kent County	(302) 744-2314
		Sussex County	(302) 855-7785

3. A separate application and/or approval may be required through the Army Corps of Engineers. Applicants are strongly encouraged to contact the Corps for a determination of their permitting requirements. For more information, contact the Philadelphia District Regulator of the Day at (215) 656-6728 or visit their website at: http://www.nap.usace.army.mil/Missions/Regulatory.aspx.

4. For questions about this application or the Wetlands and Subaqueous Lands Section, contact us at (302) 739-9943 or visit our website at: http://www.dnrec.delaware.gov/wr/Services/Pages/WetlandsAndSubaqueousLands.aspx. Office hours are Monday through Friday 8:00 AM to 4:30 PM, except on State Holidays.

APPLICANT'S REVIEW BEFORE MAILING

DID YOU COMPLETE THE FOLLOWING?

x	Yes	BASIC APPLICATION
x	Yes	SIGNATURE PAGE (Page 3)
x	Yes	APPLICABLE APPENDICES
x	Yes	SCALED PLAN VIEW
x	Yes	SCALED CROSS-SECTION OR ELEVATION VIEW PLANS
x	Yes	VICINITY MAP
N/A	Yes	COPY OF THE PROPERTY DEED & SURVEY
N/A	Yes	THREE (3) COMPLETE COPIES OF THE APPLICATION PACKET
N/A	Yes	APPROPRIATE APPLICATION FEE & PUBLIC NOTICE FEE (Separate checks made payable to the State of Delaware)

Submit 3 complete copies of the application packet to:

Department of Natural Resources and Environmental Control
Wetlands and Subaqueous Lands Section
89 Kings Highway
Dover, Delaware 19901

Before signing and mailing your application packet, please read the following:

The Department requests that the contractor or party who will perform the construction of your proposed project, if other than the applicant, sign the application signature page along with the applicant in the spaces provided. When the application is signed by the contractor as well as the applicant, the Department will issue the Permit to both parties. For Leases, the contractor will receive a separate construction authorization that will make them subject to all of the terms and conditions of the Lease relating to the construction

Section 1: Applicant Identification

1. Applicant's Name: Town of Ocean View (Carol Houck, Town Manager)
   Mailing Address: 201 Central Ave, 2nd Floor, Ocean View, DE 19970
   Telephone #: 302-539-9797 ext. 104
   Fax #:
   E-mail: chouck@oceanviewde.gov

2. Consultant's Name: Harry Waddington
   Mailing Address: 800 South Bay Road, Dover DE
   Company Name: DelDOT
   Telephone #: 302-760-2278
   Fax #:
   E-mail: harry.waddington@delaware.gov

3. Contractor's Name:
   Mailing Address:
   Company Name:
   Telephone #:
   Fax #:
   E-mail:

Section 2: Project Description

4. Check those that apply:
   X New Project/addition to existing project?
   Repair/Replace existing structure? (If checked, must answer #16)

5. Project Purpose (attach additional sheets as necessary):
   The purpose of this project is to create a nature trail/boardwalk/signage in the area of Ocean View for general use by the public.

6. Check each Appendix that is enclosed with this application:

X	A. Boat Docking Facilities		G. Bulkheads		N. Preliminary Marina Checklist
	B. Boat Ramps		H. Fill		O. Marinas
	C. Road Crossings		I. Rip-Rap Sills and Revetments		P. Stormwater Management
	D. Channel Modifications/Dams		J. Vegetative Stabilization		Q. Ponds and Impoundments
	E. Utility Crossings		K. Jetties, Groins, Breakwaters		R. Maintenance Dredging
	F. Intake or Outfall Structures	X	M. Activities in State Wetlands		S. New Dredging

Section 3: Project Location

7. Project Site Address: 38.521854, -75.069760
   County: N.C. Kent X Sussex
   Site owner name (if different from applicant):
   Address of site owner:

8. Driving Directions: Turn right onto S Bay Rd, Use the right 2 lanes to turn slightly right to stay on S Bay Rd, Merge onto DE-1 S, Follow DE-1 S to Rd 361/Kent Ave, Continue straight onto DE-1 S, Slight right toward Garfield Pkwy, Merge onto Garfield Pkwy, Turn left onto Rd 361/Kent Ave, Destination will be on the left.
   (Attach a vicinity map identifying road names and the project location)

9. Tax Parcel ID Number:
   Subdivision Name:

WSLS Use Only: **Permit #s:**

Type SP ☐ SL ☐ SU ☐ WE ☐ WQ ☐ LA ☐ SA ☐ MP ☐ WA ☐

Corps Permit: SPGP 18 ☐ 20 ☐ **Nationwide Permit #:** **Individual Permit #**
Received Date: **Project Scientist:**
Fee Received? Yes ☐ No ☐ **Amt: $** **Receipt #:**
Public Notice #: **Public Notice Dates: ON** **OFF**

Section 3: Project Location (Continued)

10. Name of waterbody at Project Location: No active water body. waterbody is a tributary to: Jefferson Creek

11. Is the waterbody: X Tidal X Non-tidal Waterbody width at mean low or ordinary high water _____

12. Is the project: ☐ On public subaqueous lands? ☐ In State-regulated wetlands? X On private subaqueous lands?* ☐ In Federally-regulated wetlands?

*If the project is on private subaqueous lands, provide the name of the subaqueous lands owner:
Town of Ocean View
(Written permission from the private subaqueous lands owner must be included with this application)

13. Present Zoning: ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industrial X Other

Section 4: Miscellaneous

14. A. List the names and complete mailing addresses of the immediately adjoining property owners on all sides of the project (attach additional sheets as necessary):

B. For wetlands and marina projects, list the names and complete mailing addresses of property owners within a 1,000 foot radius of the project (attach additional sheets as necessary):
See attached sheets.

15. Provide the names of DNREC and/or Army Corps of Engineers representatives whom you have discussed the project with:

A. Have you had a State Jurisdictional Determination performed on the property? ☐ Yes X No
B. Has the project been reviewed in a monthly Joint Permit Processing Meeting? ☐ Yes X No
*If yes, what was the date of the meeting? _____

16. Are there existing structures or fill at the project site in subaqueous lands? X Yes ☐ No
*If yes, provide the permit and/or lease number(s):
LA-138.24

*If no, were structures and/or fill in place prior to 1969? ☐ Yes X No

17. Have you applied for or obtained a Federal permit from the Army Corps of Engineers?
No X Pending ☐ Issued ☐ Denied Date: _____

Type of Permit: NWP 23 Federal Permit or ID #: _____

18. Have you applied for permits from other Sections within DNREC?
X No ☐ Pending ☐ Issued ☐ Denied Date: _____ Permit or ID #: _____

Type of permit (circle all that apply): Septic Well NPDES Storm Water

Other: _____

Section 5: Signature Page

19. Agent Authorization:

If you choose to complete this section, all future correspondence to the Department may be signed by the duly authorized agent. In addition, the agent will become the primary point of contact for all correspondence from the Department.

I do not wish to authorize an agent to act on my behalf

I wish to authorize an agent as indicated below

I, _____, hereby designate and authorize Harry Waddington
(Name of Applicant) (Name of Agent)
to act on my behalf in the processing of this application and to furnish any additional information requested by the Department.

Authorized Agent's Name: Harry Waddington
Mailing Address: 800 S Bay Road Dover, DE 19901
Telephone #: 302-760-2278
Fax #:
E-mail:

20. Agent's Signature:

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application.

Harry Waddington
Agent's Signature

11/21/2025
Date

21. Applicant's Signature:

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge and that I am required to inform the Department of any changes or updates to the information provided in this application. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application. I grant permission to authorized Department representatives to enter upon the premises for inspection purposes during working hours.

Carol S Houck
Applicant's Signature

11/21/25
Date

Carol S Houck
Print Name

22. Contractor's Signature:

I hereby certify that the information on this form and on the attached plans are true and accurate to the best of my knowledge, and that I am required to inform the Department of any changes or updates to the information provided in this application. I further understand that the Department may request information in addition to that set forth herein if deemed necessary to appropriately consider this application.

Contractor's Name

Date

Print Name

TOWN OF OCEAN VIEW

U.S. CUSTOMARY UNITS

FINAL PLANS

CONSTRUCTION PLANS FOR:

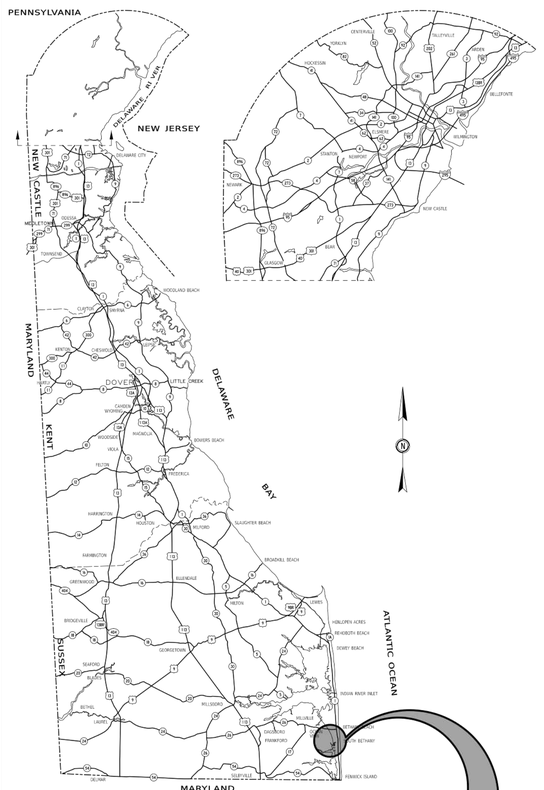
BERZINS NATURE PARK & TRAIL

OCEAN VIEW CONTRACT No.: OVPZ&D 26-07

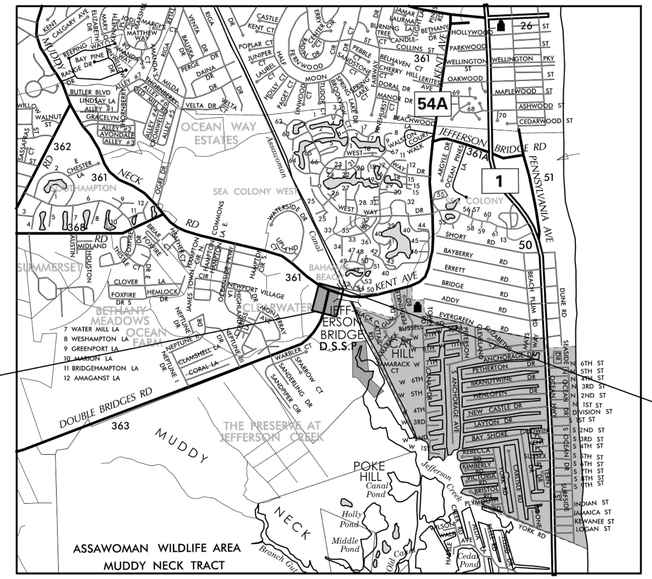
CONTRACT NUMBER: T202320007

FEDERAL AID PROJECT NUMBER: ETA-2023(52)

COUNTY: SUSSEX **M.R. #: S363, S361**



GENERAL LOCATION OF CONTRACT



LOCATION MAP

SCALE: 1" = 1000'

DESIGN DESIGNATION

MRD #: S363	ROAD NAME: DOUBLE BRIDGES ROAD		
FUNCTIONAL CLASS: MAJOR COLLECTOR		D.H.V. PROJECTED: 1,969	YEAR: 2025
TYPE OF CONSTRUCTION: TRAIL		DESIGN SPEED: 50 M.P.H.	
A.A.D.T. CURRENT: 3,217	YEAR: 2023	TRUCKS: N/A	
A.A.D.T. PROJECTED: 3,420	YEAR: 2025	DIRECTION OF DISTRIBUTION: 57.6%	
MRD #: S361	ROAD NAME: MUDDY NECK ROAD		
FUNCTIONAL CLASS: MAJOR COLLECTOR		D.H.V. PROJECTED: 1,969	YEAR: 2025
TYPE OF CONSTRUCTION: TRAIL		DESIGN SPEED: 50 M.P.H.	
A.A.D.T. CURRENT: 3,735	YEAR: 2023	TRUCKS: N/A	
A.A.D.T. PROJECTED: 3,420	YEAR: 2025	DIRECTION OF DISTRIBUTION: 57.6%	

APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

ADDENDA / REVISIONS

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME
T201769009	DOUBLE BRIDGES ROAD MULTI-USE TRAIL PHASE 1

PREPARED BY
Wallace Montgomery

06/30/2025
DATE

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WM" SECTION DESIGNATION.

MATTHEW J. ALLEN LICENSE No. 15807 DELAWARE PROFESSIONAL ENGINEER
SEAL

* I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE COMPLIES WITH THE APPLICABLE STATE AND LOCAL REGULATIONS AND ORDINANCES.*

PARCEL DATA
i) PROJECT TAX MAP IDENTIFICATION NUMBER: 134-17.00-30.00
ii) PLUS NUMBER: N/A
iii) DNREC SEDIMENT AND STORMWATER PROGRAM NUMBER: 302-608-5458
iv) SITE ADDRESS: 38588 DOUBLE BRIDGES ROAD, OCEAN VIEW, DE 19970
v) LATITUDE AND LONGITUDE: 38.521978, -75.070538
vi) EXISTING SITE AREA: 1 PARCEL
vii) PROPOSED SITE AREA/CONDITION: 1 PARCEL
ix) EXISTING WETLAND AREA: 3,551.46 SF
x) PROPOSED DISCHARGE LOCATION: N/A
xi) PROPOSED TOTAL LIMIT OF DISTURBANCE: 0.84 ACRES
xii) HUC10 WATERSHED AND DE HUNDREDS: INLAND BAYS (0204030303) , BALTIMORE

OWNER/DEVELOPER CONTACT INFO
KENNETH CIMINO, DIRECTOR - PLANNING, ZONING AND DEVELOPMENT, TOWN OF OCEAN VIEW,
201 CENTRAL AVE, 2ND FLOOR, OCEAN VIEW, DE 19970.
KCIMINO@OCEANVIEWDE.GOV, 302-539-9797

DESIGNER CONTACT INFO
WALLACE MONTGOMERY, 222 S. DUPONT HIGHWAY, SUITE 202, DOVER, DE 19901
JBARBEN@WALLACEMONTGOMERY.COM, 410-494-9093

APPROVE AS TO PROCESS

07/03/2025
DelDOT DIRECTOR OF PLANNING — DATE

SEDIMENT AND STORMWATER APPROVAL

APPROVAL LETTER RECEIVED 09/26/2025
SUSSEX CONSERVATION DISTRICT — DATE

APPROVED FOR ADVERTISEMENT

09/12/2025
TOWN OF OCEAN VIEW — DATE

"I, THE UNDERSIGNED, CERTIFY THAT ALL LAND CLEARING, CONSTRUCTION, AND DEVELOPMENT SHOULD BE DONE PURSUANT TO THE APPROVED PLAN AND THAT RESPONSIBLE PERSONNEL (I.E. BLUE CARD HOLDER) INVOLVEED IN THE LAND DISTURBANCE WILL HAVE A CERTIFICATION OF TRAINING PRIOR TO INITIATION OF THE PROJECT, AT A DNREC SPONSORED OR APPROVED TRAINING COURSE FOR THE CONTROL OF EROSION AND SEDIMENT DURING CONSTRUCTION. IN ADDITION, I GRANT THE DNREC SEDIMENT AND STORMWATER PROGRAM AND/OR THE RELEVANT DELEGATED AGENCY THE RIGHT TO CONDUCT ONSITE REVIEWS, AND I UNDERSTAND MY RESPONSIBILITIES UNDER THE NPDES CONSTRUCTION GENERAL PERMIT, AS REFERENCED ON THIS COVERSHEET."

LAST REVISED: 11/26/2018
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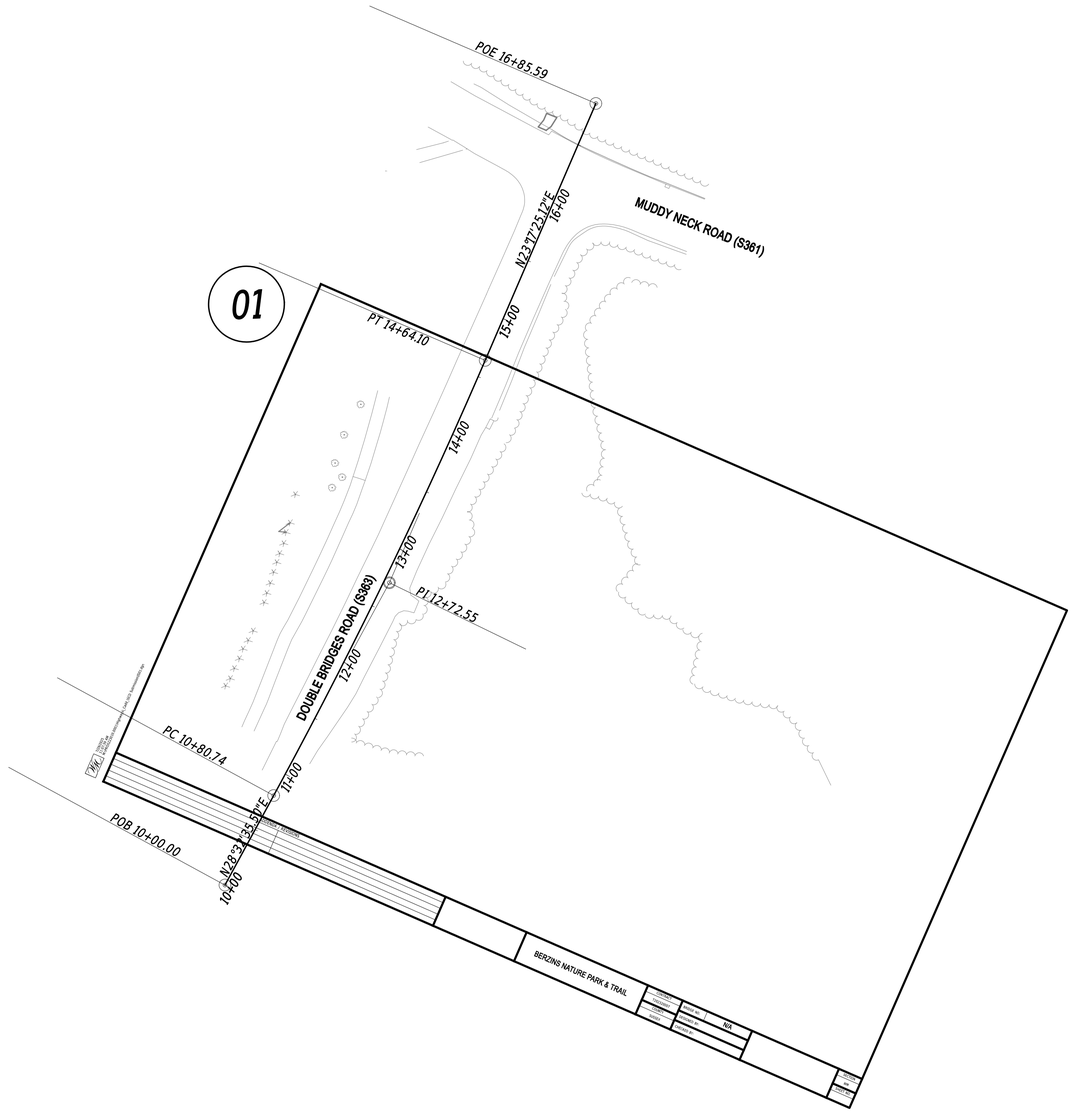

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ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

BERZINS NATURE PARK & TRAIL

CONTRACT	T202320007
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	M. WILLIAMS
CHECKED BY:	S. NICKEL

INDEX OF SHEETS

SECTION	
WM	
SHEET NO.	2

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ADDENDUM PREPARED BY

WALLACE MONTGOMERY

THIS SEAL APPLIES TO THE FOLLOWING SHEETS CHANGED UNDER ADDENDUM #X:
XX, XX-XX, XX

DATE

SEAL

REVISION PREPARED BY

WALLACE MONTGOMERY

THIS SEAL APPLIES TO THE FOLLOWING SHEETS CHANGED UNDER REVISION #X:
XX, XX-XX, XX

DATE

SEAL

4-AUG-2025
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ADDENDA / REVISIONS		SCALE NOT NOTED	BERZINS NATURE PARK & TRAIL	CONTRACT	BRIDGE NO. N/A	ADDENDA AND REVISIONS	SECTION
				T202320007			WM
				COUNTY	DESIGNED BY: M. WILLIAMS		SHEET NO.
				SUSSEX	CHECKED BY: M. STEIMER		3

MANMADE ROADSIDE FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED	ID
BOLLARD - STEEL POLE			
BOLLARD - WOOD POST			
CURB, TYPE 1 AND TYPE 3	CURB, TYPE "X"		C XXX
CURB, TYPE 2			
CURB & GUTTER, TYPE 1	C&G, TYPE "X"		
CURB & GUTTER, TYPE 2			
CURB & GUTTER, TYPE 3			
CURB OPENING - SUMP / ON GRADE			C O
CURB OPENING WITH SIDEWALK			CO SW
FENCE - CHAINLINK OR STRANDED			F XXX
FENCE - STOCKADE OR SPLIT RAIL			
FLAG POLE	F.P.		
GUARDRAIL - STEEL BEAM, TYPE 1			GR XXX
GUARDRAIL - STEEL BEAM, TYPE 2			
GUARDRAIL - STEEL BEAM, TYPE 3			
GUARDRAIL - WIRE ROPE			
GUARDRAIL - END ANCHORAGE			
GUARDRAIL - END TREATMENT, TYPE 1			
GUARDRAIL - END TREATMENT, TYPE 2			
GUARDRAIL - END TREATMENT, TYPE 3			
GUARDRAIL - IMPACT ATTENUATOR			
LAMP AND POST - RESIDENTIAL	LAMP		
MAILBOX	MB	MB	
PARKING METER AND POST	P.M.		
PAVEMENT - FLEXIBLE			
PAVEMENT - RIGID			
PILE - BRIDGE			
PILLAR OR MISCELLANEOUS POST			
TRAFFIC SIGN AND POST			
WALL - BRICK OR BLOCK			
WALL - STONE			

DRAINAGE FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED	ID
BIOFILTRATION SWALE		BFS	
DITCH OR STREAM CENTERLINE			
DIRECTIONAL STREAM FLOW ARROW			
DRAINAGE INLET	C.B. / D.I.		DI XXX
DRAINAGE JUNCTION BOX	J.B.		JB XXX
DRAINAGE MANHOLE	Ⓓ		MH XXX
DRAINAGE PIPE AND FLOW ARROW	SIZE/TYPE LABEL		P XXX
DRAINAGE PIPE HEADWALL			
FLARED END SECTION			FES XXX
RIPRAP - AREA FEATURE			RR XXX
RIPRAP - LINEAR FEATURE			
SAFETY END SECTION			SES XXX
UNDERDRAIN			UD XXX
UNDERDRAIN OUTLET			UDO XXX

UTILITY FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED
CABLE TV DISTRIBUTION BOX	TV	
COMMUNICATIONS - UNDERGROUND		
ELECTRIC - UNDERGROUND	E(A)	E
ELECTRIC MANHOLE	Ⓔ	
ELECTRIC METER	EM	
ELECTRIC TRANSFORMER	E	
GAS - UNDERGROUND	G(A)	G
GAS MANHOLE	Ⓖ	
GAS METER	G.M.	
GAS VALVE	G.V.	
GAS PUMP - SERVICE STATION	G.P.	
IRRIGATION - UNDERGROUND	IR(A)	IR
ITMS - UNDERGROUND	ITMS(A)	ITMS
LIGHTING - UNDERGROUND	LI(A)	LI
LUMINAIRE - POLE MOUNTED		
MANHOLE - UNDETERMINED OWNER	Ⓜ	
RAILROAD TRACKS		
SANITARY - UNDERGROUND	S(A)	S
SANITARY SEWER MANHOLE	Ⓢ	
SANITARY SEWER VALVE	S.V.	
SANITARY SEWER CLEANOUT OR VENT	S.C.O.	
SEPTIC DRAIN FIELD	S.D.F.	
SIGNALIZATION - UNDERGROUND	SIG(A)	SIG
SOIL BORING LOCATION		
TELEPHONE BOOTH	B	
TELEPHONE MANHOLE	Ⓣ	
TELEPHONE TEST POINT	T	
TRAFFIC - CONDUIT JUNCTION WELL	J.W.	
TRAFFIC - LIGHT POLE AND BASE		
TRAFFIC - PEDESTRIAN POLE & BASE		
TRAFFIC - SIGNAL CABINET & BASE		
TRAFFIC - SIGNAL POLE AND BASE		
UTILITY BOX	U	
UTILITY POLE GUY WIRE ANCHOR		
UTILITY POLE		
UTILITY TEST HOLE LOCATION		
WATER - UNDERGROUND	W(A)	W
WATER - FIRE HYDRANT	F.H.	F.H.
WATER METER	W.M.	
WATER VALVE	W.V.	W.V.
WELL HEAD	WELL	

PAVEMENT SECTION(S)

OVERLAY PAVEMENT - SEE TYPICAL SECTIONS FOR MATERIALS AND DEPTHS	
RECONSTRUCTED PAVEMENT - SEE TYPICAL SECTIONS FOR MATERIALS AND DEPTHS	
DRIVEWAY AND ENTRANCE PAVEMENT - SEE NOTES FOR MATERIALS AND DEPTHS	

NATURAL ROADSIDE FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED
HEDGEROW OR THICKET		
MARSH BOUNDARY LINE		
TREE - CONIFEROUS		
TREE - DECIDUOUS		
TREE STUMP		
SHRUBBERY		
WETLAND BOUNDARY - DELINEATED	WL	
WOODS LINE BOUNDARY		

RIGHT-OF-WAY FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED
DENIAL OF ACCESS	DA	DA
EASEMENT - OTHERS	EASEMENT TYPE	
PERMANENT EASEMENT	PE	PE
PROPERTY LINE		
PROPERTY MARKER - CONCRETE	C.M.	
PROPERTY MARKER - IRON PIPE	I.P.	
RIGHT-OF-WAY BASELINE	100+00	100+00
RIGHT-OF-WAY LINE	R/W	R/W
RIGHT-OF-WAY & DENIAL OF ACCESS	R/W-DA	R/W-DA
RIGHT-TO-ENTER		RTE
TEMPORARY CONSTRUCTION EASEMENT		TCE

EROSION & SEDIMENT CONTROL

CFL	COMPOST FILTER LOG
CFL XXX	COMPOST FILTER LOG / LENGTH
DWBAG	DEWATERING BAG
DWB	DEWATERING BASIN
ED	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
PST	PORTABLE SEDIMENT TANK
SBD	SANDBAG DIKE
SB	SANDBAG DIVERSION
	STONE CHECK DAM
SCE	STABILIZED CONSTRUCTION ENTRANCE
SF XXX	SILT FENCE / LENGTH
SF	SILT FENCE
RSF XXX	REINFORCED SILT FENCE / LENGTH
RSF	REINFORCED SILT FENCE
SSF XXX	SUPER SILT FENCE / LENGTH
SSF	SUPER SILT FENCE
SP	SUMP PIT
ST XXX	SEDIMENT TRAP / NUMBER
ST	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
ST	SEDIMENT TRAP PIPE OUTLET
SW	STILLING WELL
	TEMPORARY SWALE
TSD	TEMPORARY SLOPE DRAIN
T XXX	TURBIDITY CURTAIN / LENGTH
T	TURBIDITY CURTAIN

IDENTIFIERS

FEATURE DESCRIPTION	ID
ABANDON BY CONTRACTOR	AB C
ABANDON BY OTHERS	AB O
ADJUST BY CONTRACTOR	A C
ADJUST BY OTHERS	A O
BEST MANAGEMENT PRACTICE	BMP XXX
BUS STOP PAD / TYPE	BSP X
BUS STOP WITH SHELTER PAD / TYPE	BSSP X
CONCRETE SAFETY BARRIER	B XXX
CONVERT TO JUNCTION BOX	CJB XXX
CONVERT TO DRAINAGE MANHOLE	CMH XXX
DO NOT DISTURB	DND
ENERGY DISSIPATOR	ED XXX
FILL WITH FLOWABLE FILL	FF C
LANDSCAPE PLANTINGS	LS XXX
PEDESTRIAN CONNECTION / TYPE	PC XX
PEDESTRIAN CONNECTION / TYPE WITHOUT DETECTABLE WARNING SYSTEM	PC-N XXX
RELOCATE BY CONTRACTOR	RL C
RELOCATE BY OTHERS	RL O
RELOCATE BY PROPERTY OWNER	RL PO
REMOVE BY CONTRACTOR	RM C
REMOVE BY OTHERS	RM O
REMOVE BY TRAFFIC CONTRACTOR	RM TC
RIGHT-OF-WAY MONUMENT	M XXX

SURVEY CONTROL & MONUMENTATION

FEATURE DESCRIPTION	EXISTING
POINT OF CURVATURE OR TANGENCY	◎
POINT OF INTERSECTING TANGENTS	◎
SURVEY BENCHMARK LOCATION	B.M.
SURVEY NGS POINT LOCATION	
SURVEY TIE POINT LOCATION	T.P.
SURVEY TRAVERSE POINT	△

MISCELLANEOUS FEATURES

FEATURE DESCRIPTION	PROPOSED
BARRIER, DOUBLE-FACED, PERMANENT	
BARRIER, SINGLE-FACED, PERMANENT, TEST LEVEL 4 / TEST LEVEL 5	
BRICK PATTERNED SURFACE	
BUTT JOINT	
CLEAR ZONE	CZ
CONSTRUCTION BASELINE	100+00
LATERAL OFFSET	LO
LIMIT OF CONSTRUCTION	LOC
PAVEMENT PATCH	
PAVEMENT REMOVAL - TOPSOIL, SEED AND MULCH	
P.C.C. SIDEWALK - 4"	
P.C.C. SIDEWALK - 6" (USE 8" DEPTH FOR CHANNELIZATION ISLANDS.)	

4-AUG-2025
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ADDENDA / REVISIONS

SCALE NOT NOTED

BERZINS NATURE PARK & TRAIL

CONTRACT	T202320007
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	J. NICKEL
CHECKED BY:	M. WILLIAMS

LEGEND

SECTION	WM
SHEET NO.	4

GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED 2024 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED 2022.

2. ELECTRONIC DESIGN DATA FILES THAT WILL BE MADE AVAILABLE TO THE BIDDERS INCLUDE:

( )	NONE
(X)	ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
(X)	DESIGN FILE, IN .DGN FILE FORMAT, THAT CONTAINS 3D TRIANGLES REPRESENTING THE EXISTING SURFACE.
( )	DESIGN FILE, IN .DGN FILE FORMAT, THAT CONTAINS 3D FEATURE LINES FOR THE PROPOSED DESIGN. 3D FEATURE LINES ARE FOR THE PROPOSED TOP SURFACE ELEVATION ONLY.

NOTE: THE DOCUMENT ENTITLED "ELECTRONIC FILE SHARING RELEASE" MUST BE SIGNED BY ALL PARTIES PRIOR TO THE DELIVERY OF ANY ELECTRONIC PROJECT FILES.

NOTE: THERE MAY BE SOME AREAS OF THE PROJECT NOT INCLUDED IN THE ELECTRONIC DESIGN DATA FILE(S). IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE DESIGN DATA FILE AND DETERMINE THE LIMITS OF THE PROJECT INCLUDED.

3. PROJECT FILES THAT WILL BE MADE AVAILABLE TO THE CONTRACTOR, INCLUDE:

( )	CROSS SECTIONS
( )	RIGHT-OF-WAY PLANS

PROJECT NOTES

SECTION 100

1. ANY DAMAGE TO ITEMS NOTED TO BE RELOCATED OR RESET BY THE CONTRACTOR, AT THE DISCRETION OF THE ENGINEER, SHALL BE REPAIRED AND/OR REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.

2. THE CONTRACTOR WILL CONTACT THE DELAWARE TMC AT 302-659-4600 PRIOR TO ANY UNMANNED AERIAL VEHICLE (UAV) FLIGHTS. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE THE FOLLOWING INFORMATION: THE REGISTRATION NUMBER OF THE UAV, THE FLIGHT TIME, LOCATION OF THE FLIGHT, THE PILOT'S NAME AND THE PILOT'S CONTACT NUMBER DURING THE FLIGHT.

3. NIGHT WORK IS NOT PERMITTED ON THIS PROJECT UNLESS THE CONTRACTOR OBTAINS: APPROVAL FROM THE ENGINEER, ACCEPTABLE RESPONSES ON NIGHT WORK SURVEYS, AND ACCEPTANCE FROM THE MUNICIPALITY. METHOD AND FORMAT OF NIGHT WORK SURVEYS WILL BE PROVIDED BY THE ENGINEER UPON REQUEST. NIGHT WORK, SURVEYS, AND COORDINATION WITH MUNICIPALITIES IS NOT COMPENSABLE AND THE TIME TO COMPLETE THE SURVEYS IS NOT EXCUSABLE."

SECTION 200

4. UNLESS OTHERWISE NOTED AS DO NOT DISTURB OR ADJUST BY CONTRACTOR/OTHERS, ALL EXISTING FEATURES, INCLUDING TREES, WITHIN THE PROPOSED LOC SHALL BE REMOVED BY THE CONTRACTOR AND PAID FOR UNDER THE RESPECTIVE BID ITEM. REMOVAL OF EXISTING STORM DRAIN PIPE SHALL BE PAID UNDER ITEM 202000 UNLESS NOTED WITH A FLOWABLE FILL IDENTIFIER, REMOVAL OF TREES AND SHRUBS SHALL BE PAID FOR UNDER 201000, AND REMOVAL OF ADDITIONAL EXISTING FEATURES SHALL BE PAID FOR UNDER ITEM 210000 AS NOTED IN SECTION 200 OF THE PROJECT NOTES.

SECTION 600

5. PORTLAND CEMENT CONCRETE:
USE PORTLAND CEMENT CONCRETE FOR CAST-IN-PLACE ELEMENTS AS FOLLOWS:
(f'c = 28-DAY COMPRESSIVE STRENGTH)
CLASS B - (INTERPRETIVE GUIDE SIGN FOUNDATIONS), (f'c = 3.0 ksi)

6. TIMBER:
ALL TIMBER SHALL BE PRESSURE TREATED SOUTHERN YELLOW PINE SELECT STRUCTURAL OR BETTER.

UNLESS OTHERWISE NOTED, ALL TIMBER SHALL BE OF NOMINAL SIZE CROSS SECTION AS INDICATED ON THE PLANS WITH MINIMUM STRENGTH VALUES OF:
Fb = 1000 PSI
Fv = 175 PSI
E - 1,600,000 PSI

DO NOT DRILL OR CUT NOTCHES IN FRAMING MEMBERS UNLESS DETAILED IN THE STRUCTURAL DRAWINGS.

7. COMPOSITE DECK BOARD:
DECK BOARDS SHALL BE CONSTRUCTED, MANUFACTURED AND FABRICATED IN ACCORDANCE WITH ASTM D7032 STANDARD SPECIFICATIONS. COLOR: GREY. CONTRACTOR SHALL PROVIDE A SAMPLE FOR TOWN APPROVAL PRIOR TO ORDERING AND FABRICATION OF MATERIALS.

8. RAILING:
RAILING SYSTEM SHALL BE ALUMINUM. RAILING MANUFACTURER'S STANDARD MECHANICAL FASTENERS AND FITTINGS SHALL BE UTILIZED, PROVIDING FLUSH, SMOOTH, RIGID JOINTS THAT CAN BE REMOVED AND RECONNECTED AFTER INSTALLATION. EXPOSED ENDS OF HOLLOW MEMBERS SHALL BE CLOSED WITH MANUFACTURER'S PREFABRICATED END FITTINGS. CONTRACTOR SHALL SUBMIT RAILING SYSTEM COMPATIBLE WITH DECKING FOR APPROVAL PRIOR TO FABRICATION.

9. HARDWARE:
ALL SCREWS SHALL BE STAINLESS STEEL. ALL OTHER HARDWARE SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL. THREADED RODS SHALL CONFORM TO ASTM A307.

10. DECK FASTENERS:
ALL DECK FASTENERS SHALL BE CONFORM TO ASTM D1761. STAINLESS STEEL SCREWS OF LENGTH IN ACCORDANCE WITH COMPOSITE DECKING MANUFACTURER'S WRITTEN RECOMMENDATIONS. MINIMUM LENGTH OF SCREWS SHALL BE 3". EVERY PLANK SHALL BE INSTALLED WITH A MAXIMUM OF 1/8" GAP BETWEEN THE PLANKS, UNLESS NOTED OTHERWISE BY THE MANUFACTURER AND APPROVED BY THE ENGINEER. HIDDEN FASTENERS SHALL BE STAINLESS STEEL DECK CLIPS CAPABLE OF SUPPORTING DECK BOARDS ABOVE STRINGERS.

SECTION 700

11. WHERE PROPOSED CONCRETE SIDEWALK IS CONSTRUCTED TO MEET EXISTING SIDEWALK, THE EXISTING SIDEWALK SHALL BE SAWCUT AT THE TIE-IN POINT OR MEET THE NEAREST EXISTING SIDEWALK JOINT. ALL SAW CUTTING SHALL BE FULL DEPTH, UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER AND SHALL BE PAID FOR UNDER ITEM 762001 - SAWCUTTING, CONCRETE, FULL DEPTH.

12. ALL PAVED AREAS TO BE RECONSTRUCTED OR WIDENED SHALL BE SAWCUT AT THE POINT WHERE THE NEW PAVEMENT IS TO TIE INTO THE EXISTING PAVEMENT.

13. PAYMENT FOR THE CONCRETE WASHOUT IS INCIDENTAL TO THE CONTRACT

SECTION 900

14. THIS PROJECT IS COVERED UNDER AN NPDES GENERAL PERMIT FOR CONSTRUCTION. UNDER THE GENERAL PERMIT, COMPLIANCE WITH DELDOT'S APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLANS WILL CONSTITUTE COMPLIANCE WITH THE NPDES INDUSTRIAL PERMITTING REQUIREMENTS FOR THIS CONSTRUCTION PROJECT. A COPY OF THE NPDES GENERAL PERMIT AND NOI IS KEPT ON FILE IN EACH OF THE CONSTRUCTION OFFICES AND THE DEPARTMENT'S STORMWATER SECTION. A COPY OF THE GENERAL PERMIT OR THE NOI CAN BE OBTAINED UPON REQUEST FROM EITHER THE DEPARTMENT'S STORMWATER ENGINEER OR THE APPROPRIATE CONSTRUCTION ENGINEER.

15. PROVIDE ALL DNREC REQUIRED POST CONSTRUCTION VERIFICATION DOCUMENTATION FOR STORMWATER BEST MANAGEMENT PRACTICES (BMP) TO THE ENGINEER AT THE TIME OF SUBSTANTIAL COMPLETION.

MISC. NOTES

16. THE CONTRACTOR SHALL NOTIFY DART FIRST STATE AT DOT_DETOURS@DELAWARE.GOV AT LEAST 14 DAYS PRIOR TO THE START OF ANY DETOURS OR CONSTRUCTION, AND DOT_DTC_PROJECTDEVELOPMENT@DELAWARE.GOV AT SUCH TIME THE FACILITY IS COMPLETED AND OPERABLE FOR TRANSIT OPERATIONS. FOR EMERGENCY DETOUR INFORMATION ONLY, PLEASE CONTACT DTC'S CHIEF SCHEDULER AT 302-576-6019.

17. ANY STAGING AND/OR STOCKPILE AREA(S) OUTSIDE THE PROJECT'S LIMIT OF CONSTRUCTION (LOC) THAT INDIVIDUALLY OR CUMULATIVELY ARE LARGER THAN 10,000 SQUARE FEET, MUST BE APPROVED BY DELDOT'S ARCHAEOLOGIST. CONTACT THE CONSTRUCTION AREA ENGINEER WHO WILL COORDINATE WITH DELDOT'S ARCHAEOLOGIST.

WITHIN 30 DAYS, DELDOT WILL;
1) APPROVE THE USE OF THE PROPOSED STAGING AND STOCKPILE AREA(S);
2) REJECT THE REQUEST; OR
3) PERFORM AN ARCHAEOLOGICAL SURVEY TO DETERMINE WHETHER TO APPROVE OR REJECT THE REQUEST, WHICH MAY TAKE UP TO 3 MONTHS. IF AN ARCHAEOLOGICAL SURVEY IS NECESSARY, DELDOT OR A CONSULTANT ON ITS BEHALF WILL UNDERTAKE THE SURVEY.

18. DESIGN SPECIFICATIONS:
(A) DELDOT BRIDGE DESIGN MANUAL, 2023 EDITION.
(B) AASHTO LRFD BRIDGE SPECIFICATIONS, 2020, 9TH EDITION, CUSTOMARY U.S. UNITS.
(C) AASHTO LRFS GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, SECOND EDITION WITH 2015 INTERIM REVISIONS.

19. PEDESTRIAN LOADING = 90 PSF

LIGHTING NOTES

1. ALL GROUND WIRE CONNECTIONS TO GROUND RODS SHALL BE COMPLETED USING EXOTHERMIC WELDS.

2. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER ON THE LOCATIONS OF ALL CONDUIT, JUNCTION WELLS, POLE BASES, AND EQUIPMENT BASES TO ELIMINATE CONSTRUCTION CONFLICTS. THE CONTRACTOR SHALL STAKE ALL PROPOSED EQUIPMENT LOCATIONS FOR APPROVAL BY THE ENGINEER BEFORE INSTALLATION.

3. COLOR CODING SHALL BE PROVIDED THROUGHOUT THE ENTIRE NETWORK FOR SERVICE, FEEDER, BRANCH, AND CONTROL CONDUCTORS. EACH PHASE SHALL BE AN INDEPENDENT COLOR. CONDUCTORS SHALL HAVE FACTORY IMPREGNATED COLOR THROUGHOUT THEIR ENTIRE LENGTH.

4. ALL FUSED CONNECTIONS SHALL BE MADE IN THE POLE BASE. SPLICES IN JUNCTION BOXES OR PULL BOXES SHALL NOT BE FUSED. ALL CONDUITS SHALL BE BONDED IN A CONTINUOUS RUN FROM THE SOURCE BY A COPPER GROUNDING CONDUCTOR WITH SIZE AS NOTED ON PLANS. 10 FEET OF ADDITIONAL SLACK FOR EACH GROUND WIRE IN EACH JUNCTION WELL SHALL BE PROVIDED AND NEATLY COILED.

5. ALL PROPOSED CONDUITS (SERVICE RUNS) SHALL BE RIGID POLYVINYL CHLORIDE SCHEDULE 80 WHEN INSTALLED BY TRENCHING AND SDR-13.5 HDPE WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED ON PLANS.

6. SPLICES FOR ALL ROADWAY LIGHTING ELECTRICAL CABLES SHALL BE COMPLETED USING APPROVED SPLICE KITS OR METHODS APPROVED BY THE ENGINEER AND SHALL BE INCIDENTAL TO THE SUPPLY AND INSTALLATION OF THE VARIOUS ROADWAY LIGHTING ELECTRICAL CABLES.

7. (1) 3/4" DIAMETER BY 10' LONG GROUND ROD SHALL BE INSTALLED AT EACH LIGHTING STANDARD POLE BASE. (1) 3/4" DIAMETER BY 10' LONG GROUND ROD SHALL BE INSTALLED IN THE JUNCTION WELL CLOSEST TO THE LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE AND THE BARE COPPER GROUNDING CONDUCTORS FOR EACH RUN OF CIRCUITS SHALL BE CONNECTED TO THE GROUND ROD.

8. (1) 3/4" DIAMETER BY 10' LONG GROUND ROD SHALL BE INSTALLED AT THE LIGHTING CONTROL CONTROL AND DISTRIBUTION ENCLOSURE WHICH SHALL BE BONDED TO THE GROUND ROD IN THE JUNCTION WELL CLOSEST TO THE LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE. (1) 3/4" BY 10' LONG GROUND ROD SHALL BE INSTALLED AT THE ELECTRICAL SERVICE PEDESTAL. GROUND RODS SHALL BE SEPARATED BY A MINIMUM OF 6 FEET.

9. ALL PROPOSED ROADWAY LIGHTING CONDUITS (SERVICE RUNS) SHALL BE SEALED WITH A DUCT SEAL/WATER BLOCK FOAM (POLYWATER FST OR APPROVED EQUAL). SEALING LIGHTING CONDUITS WILL NOT BE MEASURED AND PAID FOR BUT WILL BE INCIDENTAL TO THE PERTINENT FURNISH AND INSTALL ELECTRICAL CABLE ITEMS.

10. SERVICE RUNS ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL LOCATE THE SERVICE RUNS IN A MANNER THAT AVOIDS CONFLICTS WITH ALL EXISTING AND PROPOSED FEATURES AS FIELD CONDITIONS DICTATE AND AS APPROVED BY THE ENGINEER.

EARTHWORK SUMMARY

EXCAVATION	
EXCAVATION FROM CROSS SECTIONS	904 C.Y.
ROCK EXCAVATION FOR ROADWAY AND TRENCHES	0 C.Y.
TOPSOIL STRIPPING	0 C.Y.
TOTAL EXCAVATION	904 C.Y.
EXCAVATION AVAILABLE FOR EMBANKMENT	
EXCAVATION MEETING BORROW TYPE 'A'	0 C.Y.
EXCAVATION MEETING BORROW TYPE 'F'	0 C.Y.
EXCAVATION MEETING TOPSOIL	0 C.Y.
EMBANKMENT REQUIREMENTS	
BORROW TYPE 'C' REQUIRED (INCLUDING UNDERCUT)	1,240 C.Y.
BORROW TYPE 'F' REQUIRED	92 C.Y.
TOPSOIL REQUIRED	167 C.Y.
MATERIAL BALANCE ("+"= EXCESS, "-"= NEED)	
BORROW TYPE 'C'	-1,240 C.Y.
BORROW TYPE 'F'	-92 C.Y.
TOPSOIL	-167 C.Y.
UNSUITABLE MATERIAL	+904 C.Y.

NOTES:
1) THE VALUES LISTED IN THE EARTHWORK SUMMARY ARE APPROXIMATE AND ARE NOT TO BE USED AS A BASIS OF PAYMENT. THE EARTHWORK SUMMARY IS CONSIDERED FOR INFORMATIONAL PURPOSES ONLY.

2) OTHER SOURCES OF EXCAVATION MAY INCLUDE PIPE TRENCH EXCAVATION, STRUCTURE EXCAVATION, UNDERCUT EXCAVATION, STORMWATER MANAGEMENT POND EXCAVATION, ENVIRONMENTAL SITE EXCAVATION, MAINTENANCE OF TRAFFIC EXCAVATION, ETC.

3) UNSUITABLE MATERIALS INCLUDE UNDERCUT SOILS, BITUMINOUS PAVEMENT, ETC.

ADDENDA / REVISIONS		SCALE NOT NOTED	BERZINS NATURE PARK & TRAIL	CONTRACT	BRIDGE NO. N/A	NOTES	SECTION
				T202320007	DESIGNED BY: M. WILLIAMS		WM
				COUNTY	CHECKED BY: M. STEIMER		SHEET NO.
				SUSSEX			5

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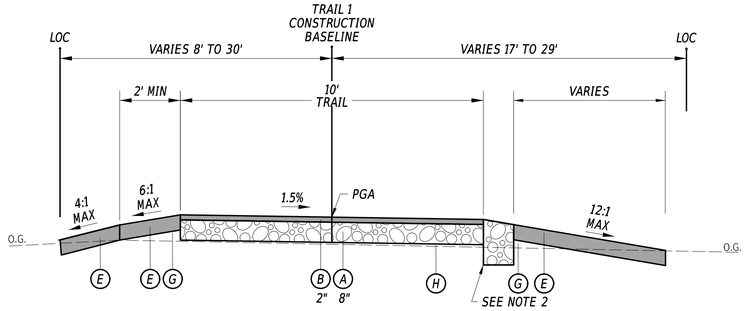
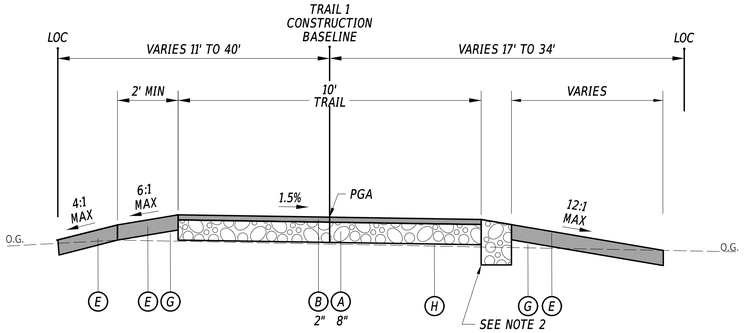


TRAIL 1
STATION 100+00 TO 102+24.74



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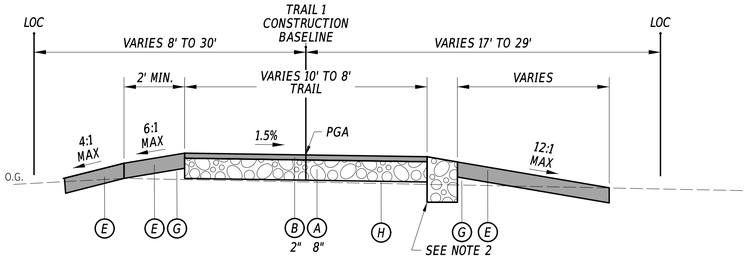
STATION 200+00.00 TO 201+59.91



TRAIL 1
STATION 102+24.74 TO 102+68.03

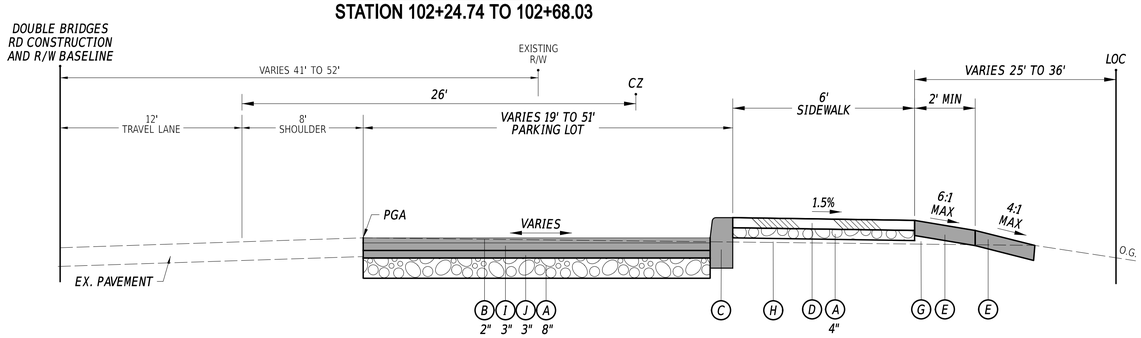
LEGEND

- (A) ITEM 301001 - GRADED AGGREGATE BASE COURSE
- (B) ITEM 401005 - SUPERPAVE TYPE C, 9.5 mm, PG 64-22 (CARBONATE STONE)
- (C) ITEM 701013 - PORTLAND CEMENT CONCRETE CURB, TYPE 1-8
- (D) ITEM 705001 - PORTLAND CEMENT CONCRETE SIDEWALK, 4"
- (E) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908500 - PERMANENT SEEDING
  ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (F) ITEM 607012 - CONCRETE MASONRY UNIT MODULAR BLOCK RETAINING WALLS
- (G) ITEM 209006 - BORROW, TYPE F
- (H) ITEM 207021 - STRUCTURAL BACKFILL, BORROW TYPE C
- (I) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (J) ITEM 401021 - SUPERPAVE TYPE BCBC, PG 64-22

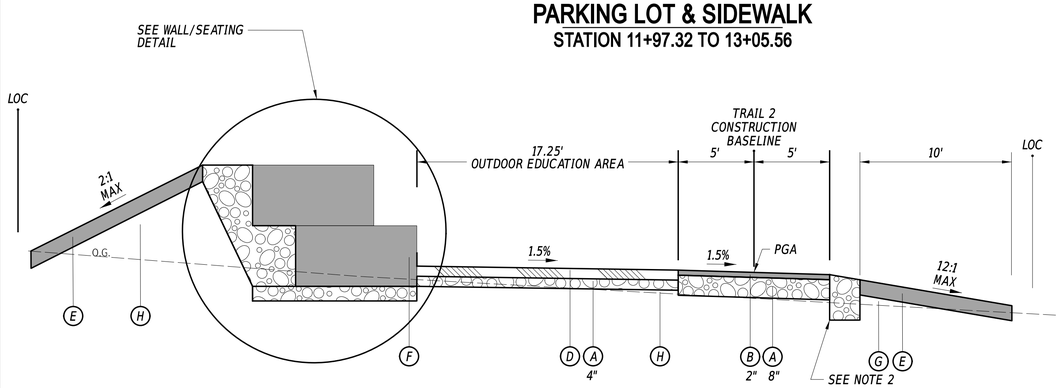
MATERIAL	BINDER GRADE	LIFT THICKNESS	
		MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C' (9.5 mm MIX)	ALL	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'B' (19 mm MIX)	64-22	2.25"	6"
BITUMINOUS CONCRETE BASE COURSE (25 mm MIX)	64-22	3"	6"
GRADED AGGREGATE BASE COURSE	ALL	4"	8"

NOTES:

1. ITEM 207061 - STRUCTURAL BACKFILL, (BORROW TYPE C) TO BE USED UNDERNEATH PARKING LOT, SIDEWALK, AND TRAIL FOOTPRINT WHERE FILL IS NEEDED.
2. SEE SWM DETAILS FOR GRAVEL DIAPHRAGM MATERIALS AND DIMENSIONS.



PARKING LOT & SIDEWALK
STATION 11+97.32 TO 13+05.56

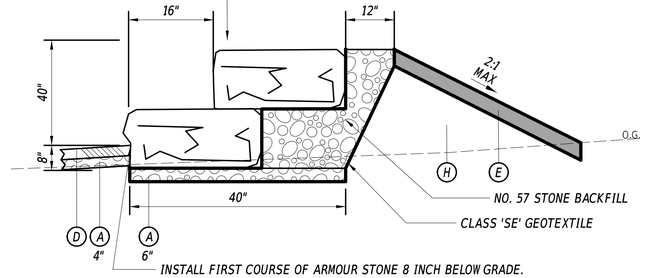


OUTDOOR EDUCATION AREA
STATION 201+00

ARMOUR STONE TO BE PLACED TO CREATE A CONSISTENT SEATING AREA TO THE APPROVAL OF THE TOWN.

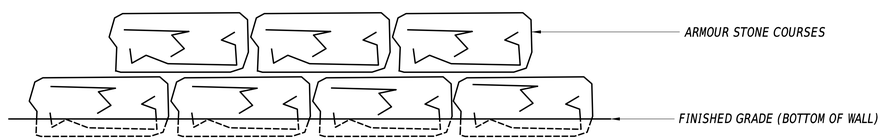
STONE SIZE SHALL MAINTAIN A HEIGHT, WIDTH, AND LENGTH OF APPROXIMATELY 2'-0"± BY 2'-0"± BY 4'-0"± RESPECTIVELY. WIDTH ALONG THE WALL CAN VARY PROVIDED THERE IS AT LEAST 8" OF OVERLAP FROM ONE COURSE TO THE NEXT.

STONE COURSES ARE TO BE STEPPED BACK APPROXIMATELY 1'-4" TO THE APPROVAL OF THE TOWN.



OUTDOOR EDUCATION AREA WALL/SEATING DETAIL
SIDE PROFILE

NOTES:
1. AS INDICATED ABOVE, STONES SHALL BE LARGE IMBRICATED ARMOR TYPE STONES WITH NATURAL EDGES AND SURFACE SUITABLE FOR A NATURAL LOOK BUT ALSO MAINTAINING A LEVEL AND EVEN APPEARANCE SUITABLE FOR SEATING. COLOR IS TO BE WHITE AND GRAY WITH MINIMAL BROWNS TO THE APPROVAL OF THE TOWN.
2. ALL JOINTS TO BE TIGHT-FITED WITH NO GAPS EXCEEDING 2 INCH.
3. CONTRACTOR TO USE TAPERED CORNER ARMOUR STONE IN CORNERS OF OUTDOOR EDUCATION SEATING AREA.
4. CONTRACTOR TO INSTALL ARMOUR STONES PER MANUFACTURERS SPECIFICATIONS.



OUTDOOR EDUCATION AREA WALL/SEATING DETAIL
FRONT ELEVATION

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ADDENDA / REVISIONS	NOT TO SCALE	BERZINS NATURE PARK & TRAIL	CONTRACT	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION
			T202320007	DESIGNED BY: A. FREELAND		WM
			COUNTY	CHECKED BY: M. WILLIAMS		SHEET NO.
			SUSSEX			6

CIRCULAR CURVE NO. 1

Element: Circular

		STATION	NORTHING	EASTING
PC	(30002)	10+80.74	190117.7293	755013.7089
HPI	(30003)	12+72.55	190286.231	755105.363
CC	(XXXXX)		192115.750	751340.419
PT	(30004)	14+64.10	190462.4164	755181.2046

Radius:	4181.524
Delta:	5.253° Left
Degree of Curvature (Arc):	1.370°
Length:	383.363
Tangent:	191.816
Chord:	383.228
Middle Ordinate:	4.393
External:	4.397
Tangent Direction:	N 28.543° E
Radial Direction:	S 61.457° E
Chord Direction:	N 25.917° E
Radial Direction:	S 66.710° E
Tangent Direction:	N 23.290° E

CIRCULAR CURVE NO. 2

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	100+00.00	190277.888	755206.813
HPI	(XXXXX)	100+24.68	190300.563	755216.561
CC	(XXXXX)		190267.638	755230.658
PCC	(XXXXX)	100+39.46	190291.968	755239.697

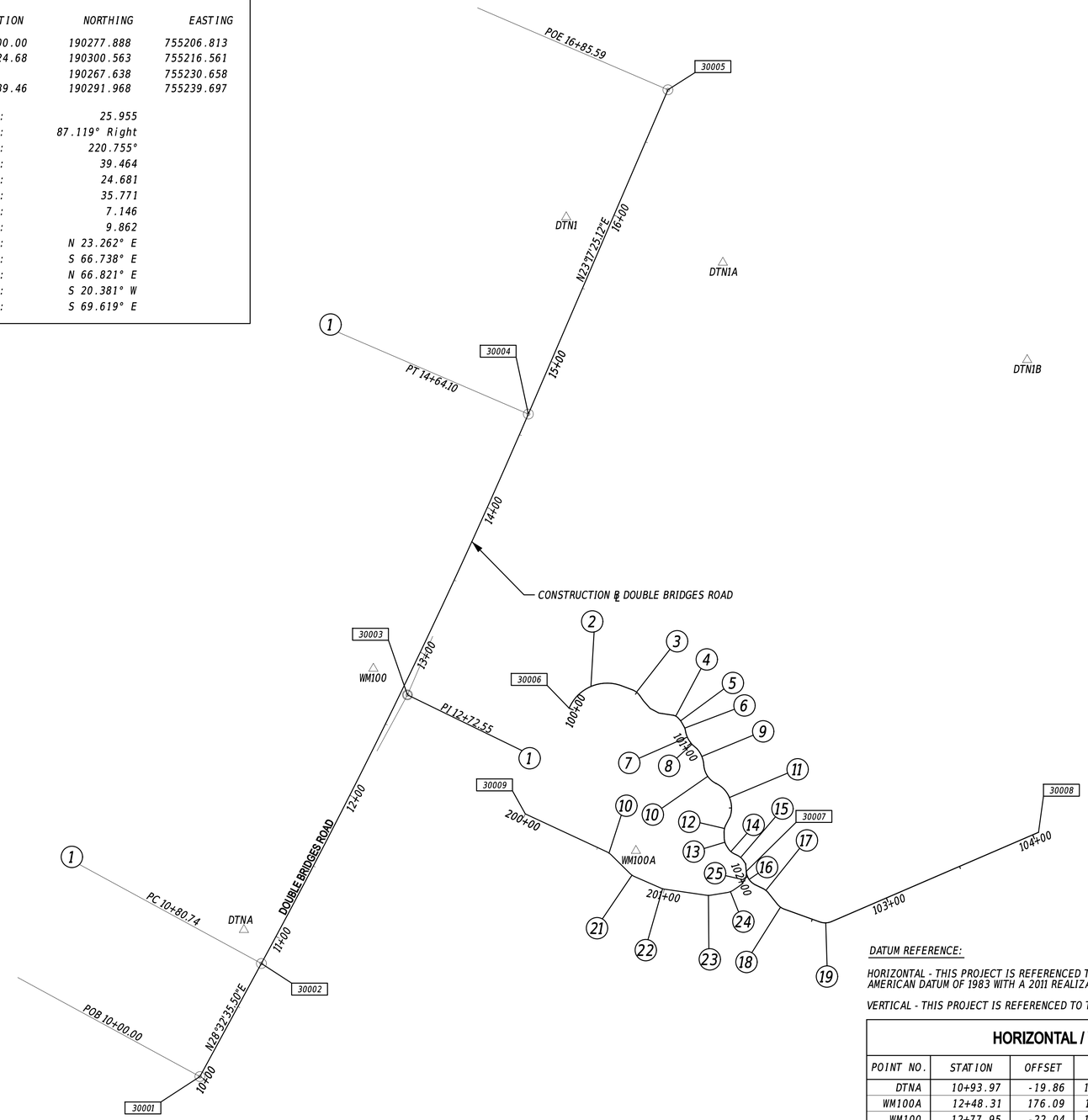
Radius:	25.955
Delta:	87.119° Right
Degree of Curvature (Arc):	220.755°
Length:	39.464
Tangent:	24.681
Chord:	35.771
Middle Ordinate:	7.146
External:	9.862
Tangent Direction:	N 23.262° E
Radial Direction:	S 66.738° E
Chord Direction:	N 66.821° E
Radial Direction:	S 20.381° W
Tangent Direction:	S 69.619° E

CIRCULAR CURVE NO. 3

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	100+46.58	190289.488	755246.371
HPI	(XXXXX)	100+49.77	190288.379	755249.357
CC	(XXXXX)		190280.114	755242.888
PT	(XXXXX)	100+51.38	190285.748	755251.151

Radius:	10
Delta:	35.333° Right
Degree of Curvature (Arc):	212.958°
Length:	6.167
Tangent:	3.185
Chord:	6.069
Middle Ordinate:	0.472
External:	0.495
Tangent Direction:	S 69.619° E
Radial Direction:	S 20.381° W
Chord Direction:	S 51.953° E
Radial Direction:	S 55.713° W
Tangent Direction:	S 34.287° E



DATUM REFERENCE:

HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 WITH A 2011 REALIZATION (NAD 83/2011).

VERTICAL - THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CONSTRUCTION ALIGNMENT CONTROL

POINT NO.	STATION	OFFSET	NORTHING	EASTING
30001	10+00.00	0.0000	190046.8042	754975.1305
30002	10+80.74	0.0000	190117.7293	755013.7089
30003	12+72.55	0.0000	190286.2311	755105.3625
30004	14+64.10	0.0000	190462.4164	755181.2046
30005	16+85.59	0.0000	190665.8603	755268.7806
30006	100+00.00	0.0000	190277.8883	755206.8133
30007	101+95.78	0.0000	190175.5529	755317.9602
30008	104+06.28	0.0000	190200.0038	755501.2880
30009	200+00.00	0.0000	190211.7060	755180.2454

HORIZONTAL / VERTICAL CONTROL DATA

POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEV.	DESCRIPTION
DTNA	10+93.97	-19.86	190138.8432	755002.7675	2.630	R&C
WM100A	12+48.31	176.09	190188.4821	755248.6722	2.752	R&C
WM100	12+77.95	-22.04	190302.7324	755083.9893	4.349	R&C
DTN1	15+86.40	-28.16	190585.9760	755204.9765	7.940	R&C
DTN1A	15+99.09	74.51	190557.4920	755303.2489	11.401	R&C
DTN1B	16+18.50	274.02	190496.4347	755494.1757	15.009	R&C

NOTE: NEGATIVE VALUE INDICATES LEFT OF BASELINE

ADDENDA / REVISIONS

SCALE 0 40 80 120 FEET

BERZINS NATURE PARK & TRAIL

CONTRACT	BRIDGE NO.	N/A
T202320007	DESIGNED BY:	J. NICKEL
COUNTY	CHECKED BY:	M. WILLIAMS
SUSSEX		

HORIZONTAL AND VERTICAL CONTROL

SECTION	WM
SHEET NO.	7

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CIRCULAR CURVE NO. 4

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	100+78.34	190273.443	755272.126
HPI	(XXXXX)	100+80.06	190273.174	755273.828
CC	(XXXXX)		190268.505	755271.345
PT	(XXXXX)	100+81.66	190271.913	755275.003

Radius:	5
Delta:	38.033° Right
Degree of Curvature (Arc):	65.916°
Length:	3.319
Tangent:	1.723
Chord:	3.258
Middle Ordinate:	0.273
External:	0.289
Tangent Direction:	S 81.013° E
Radial Direction:	S 8.987° W
Chord Direction:	S 61.996° E
Radial Direction:	S 47.020° W
Tangent Direction:	S 42.980° E

CIRCULAR CURVE NO. 5

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	100+83.69	190270.424	755276.391
HPI	(XXXXX)	100+84.27	190270.001	755276.784
CC	(XXXXX)		190267.015	755272.733
PT	(XXXXX)	100+84.84	190269.500	755277.071

Radius:	5
Delta:	13.173° Right
Degree of Curvature (Arc):	65.916°
Length:	1.150
Tangent:	0.577
Chord:	1.147
Middle Ordinate:	0.033
External:	0.033
Tangent Direction:	S 42.980° E
Radial Direction:	S 47.020° W
Chord Direction:	S 36.393° E
Radial Direction:	S 60.193° W
Tangent Direction:	S 29.807° E

CIRCULAR CURVE NO. 6

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	100+88.76	190266.099	755279.020
HPI	(XXXXX)	100+89.56	190265.410	755279.415
CC	(XXXXX)		190263.614	755274.681
PT	(XXXXX)	100+90.34	190264.632	755279.576

Radius:	5
Delta:	18.061° Right
Degree of Curvature (Arc):	65.916°
Length:	1.576
Tangent:	0.795
Chord:	1.570
Middle Ordinate:	0.062
External:	0.063
Tangent Direction:	S 29.807° E
Radial Direction:	S 60.193° W
Chord Direction:	S 20.776° E
Radial Direction:	S 78.254° W
Tangent Direction:	S 11.746° E

CIRCULAR CURVE NO. 7

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	100+92.27	190262.742	755279.969
HPI	(XXXXX)	100+95.44	190259.638	755280.615
CC	(XXXXX)		190265.796	755294.655
PT	(XXXXX)	100+98.52	190257.061	755282.461

Radius:	15
Delta:	23.869° Left
Degree of Curvature (Arc):	21.972°
Length:	6.249
Tangent:	3.17
Chord:	6.204
Middle Ordinate:	0.324
External:	0.331
Tangent Direction:	S 11.746° E
Radial Direction:	S 78.254° W
Chord Direction:	S 23.681° E
Radial Direction:	S 54.385° W
Tangent Direction:	S 35.615° E

CIRCULAR CURVE NO. 8

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	101+00.12	190255.755	755283.397
HPI	(XXXXX)	101+00.75	190255.245	755283.759
CC	(XXXXX)		190258.689	755294.655
PT	(XXXXX)	101+01.37	190254.838	755284.235

Radius:	5.066
Delta:	14.085° Left
Degree of Curvature (Arc):	51.093°
Length:	1.245
Tangent:	0.626
Chord:	1.242
Middle Ordinate:	0.038
External:	0.039
Tangent Direction:	S 35.400° E
Radial Direction:	S 54.600° W
Chord Direction:	S 42.442° E
Radial Direction:	S 40.515° W
Tangent Direction:	S 49.485° E

CIRCULAR CURVE NO. 9

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	101+04.87	190252.560	755286.900
HPI	(XXXXX)	101+11.02	190248.029	755291.052
CC	(XXXXX)		190241.128	755274.422
PT	(XXXXX)	101+16.66	190241.889	755291.328

Radius:	16.924
Delta:	39.917° Right
Degree of Curvature (Arc):	338.554°
Length:	11.790
Tangent:	6.146
Chord:	11.553
Middle Ordinate:	1.016
External:	1.081
Tangent Direction:	S 42.494° E
Radial Direction:	S 47.506° W
Chord Direction:	S 22.535° E
Radial Direction:	S 87.423° W
Tangent Direction:	S 2.577° E

CIRCULAR CURVE NO. 10

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	101+16.96	190241.595	755291.350
HPI	(XXXXX)	101+24.55	190234.040	755292.138
CC	(XXXXX)		190243.023	755305.042
PT	(XXXXX)	101+30.84	190230.678	755298.949

Radius:	13.766
Delta:	57.779° Left
Degree of Curvature (Arc):	56.203°
Length:	13.882
Tangent:	7.596
Chord:	13.302
Middle Ordinate:	1.713
External:	1.957
Tangent Direction:	S 5.951° E
Radial Direction:	S 84.049° W
Chord Direction:	S 34.841° E
Radial Direction:	S 26.270° W
Tangent Direction:	S 63.730° E

CIRCULAR CURVE NO. 11

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	101+30.84	190230.650	755299.008
HPI	(XXXXX)	101+46.02	190224.109	755312.706
CC	(XXXXX)		190215.309	755291.683
PT	(XXXXX)	101+55.62	190209.761	755307.752

Radius:	17
Delta:	83.526° Right
Degree of Curvature (Arc):	337.034°
Length:	24.783
Tangent:	15.180
Chord:	22.646
Middle Ordinate:	4.320
External:	5.791
Tangent Direction:	S 64.477° E
Radial Direction:	S 25.523° W
Chord Direction:	S 22.715° E
Radial Direction:	N 70.952° W
Tangent Direction:	S 19.048° W

CIRCULAR CURVE NO. 12

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	101+61.28	190204.731	755305.160
HPI	(XXXXX)	101+63.84	190202.462	755303.974
CC	(XXXXX)		190200.097	755314.022
PT	(XXXXX)	101+66.29	190199.902	755304.024

Radius:	10
Delta:	28.726° Left
Degree of Curvature (Arc):	212.958°
Length:	5.014
Tangent:	2.561
Chord:	4.961
Middle Ordinate:	0.313
External:	0.323
Tangent Direction:	S 27.604° W
Radial Direction:	N 62.396° W
Chord Direction:	S 13.241° W
Radial Direction:	S 88.877° W
Tangent Direction:	S 1.123° E

CIRCULAR CURVE NO. 13

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	101+69.69	190196.510	755304.090
HPI	(XXXXX)	101+72.49	190193.706	755304.145
CC	(XXXXX)		190196.706	755314.089
PT	(XXXXX)	101+75.16	190191.340	755305.650

Radius:	10
Delta:	31.333° Left
Degree of Curvature (Arc):	212.958°
Length:	5.469
Tangent:	2.805
Chord:	5.401
Middle Ordinate:	0.372
External:	0.386
Tangent Direction:	S 1.123° E
Radial Direction:	S 88.877° W
Chord Direction:	S 16.789° E
Radial Direction:	S 57.544° W
Tangent Direction:	S 32.456° E

CIRCULAR CURVE NO. 14

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	101+76.64	190190.085	755306.448
HPI	(XXXXX)	101+79.55	190187.630	755308.010
CC	(XXXXX)		190195.452	755314.886
PT	(XXXXX)	101+82.31	190186.396	755310.645

Radius:	10
Delta:	32.448° Left
Degree of Curvature (Arc):	212.958°
Length:	5.663
Tangent:	2.910
Chord:	5.588
Middle Ordinate:	0.398
External:	0.415
Tangent Direction:	S 32.456° E
Radial Direction:	S 57.544° W
Chord Direction:	S 48.680° E
Radial Direction:	S 25.096° W
Tangent Direction:	S 64.904° E

CIRCULAR CURVE NO. 15

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	101+83.95	190185.697	755312.137
HPI	(XXXXX)	101+86.72	190184.525	755314.640
CC	(XXXXX)		190176.641	755307.896
PT	(XXXXX)	101+89.35	190182.233	755316.186

Radius:	10
Delta:	30.900° Right
Degree of Curvature (Arc):	212.958°
Length:	5.393
Tangent:	2.764
Chord:	5.328
Middle Ordinate:	0.361
External:	0.375
Tangent Direction:	S 64.904° E
Radial Direction:	S 25.096° W
Chord Direction:	S 49.454° E
Radial Direction:	S 55.996° W
Tangent Direction:	S 34.004° E

4-AUG-2025
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ADDENDA / REVISIONS		SCALE NOT NOTED	BERZINS NATURE PARK & TRAIL	CONTRACT	BRIDGE NO. N/A	HORIZONTAL AND VERTICAL CONTROL	SECTION
				T202320007	DESIGNED BY: J. NICKEL		WM
				COUNTY	CHECKED BY: M. WILLIAMS		SHEET NO.
				SUSSEX			8

CIRCULAR CURVE NO. 16

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	101+96.81	190175.204	755317.992
HPI	(XXXXX)	102+02.43	190169.608	755318.504
CC	(XXXXX)		190176.115	755327.950
PT	(XXXXX)	102+07.05	190167.135	755323.550

Radius:	10
Delta:	58.670° Left
Degree of Curvature (Arc):	212.958°
Length:	10.240
Tangent:	5.620
Chord:	9.798
Middle Ordinate:	1.282
External:	1.471
Tangent Direction:	S 5.225° E
Radial Direction:	S 84.775° W
Chord Direction:	S 34.560° E
Radial Direction:	S 26.105° W
Tangent Direction:	S 63.895° E

CIRCULAR CURVE NO. 17

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	102+12.41	190164.775	755328.367
HPI	(XXXXX)	102+14.66	190163.783	755330.390
CC	(XXXXX)		190155.795	755323.967
PT	(XXXXX)	102+16.84	190162.020	755331.793

Radius:	10
Delta:	25.395° Right
Degree of Curvature (Arc):	212.958°
Length:	4.432
Tangent:	2.253
Chord:	4.396
Middle Ordinate:	0.245
External:	0.251
Tangent Direction:	S 63.895° E
Radial Direction:	S 26.105° W
Chord Direction:	S 51.197° E
Radial Direction:	S 51.500° W
Tangent Direction:	S 38.500° E

CIRCULAR CURVE NO. 18

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	102+25.86	190154.968	755337.403
HPI	(XXXXX)	102+28.70	190152.742	755339.173
CC	(XXXXX)		190161.193	755345.229
PT	(XXXXX)	102+31.40	190151.781	755341.850

Radius:	10
Delta:	31.754° Left
Degree of Curvature (Arc):	212.958°
Length:	5.542
Tangent:	2.844
Chord:	5.472
Middle Ordinate:	0.381
External:	0.397
Tangent Direction:	S 38.500° E
Radial Direction:	S 51.500° W
Chord Direction:	S 54.377° E
Radial Direction:	S 19.746° W
Tangent Direction:	S 70.254° E

CIRCULAR CURVE NO. 19

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	102+55.02	190143.799	755364.086
HPI	(XXXXX)	102+58.97	190142.466	755367.800
CC	(XXXXX)		190153.211	755367.465
PT	(XXXXX)	102+62.54	190144.028	755371.423

Radius:	10
Delta:	43.064° Left
Degree of Curvature (Arc):	212.958°
Length:	7.516
Tangent:	3.946
Chord:	7.340
Middle Ordinate:	0.698
External:	0.750
Tangent Direction:	S 70.254° E
Radial Direction:	S 19.746° W
Chord Direction:	N 88.214° E
Radial Direction:	S 23.318° E
Tangent Direction:	S 66.682° E

CIRCULAR CURVE NO. 20

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	200+56.23	190187.845	755230.298
HPI	(XXXXX)	200+57.97	190187.112	755231.874
CC	(XXXXX)		190178.777	755226.081
PT	(XXXXX)	200+59.67	190185.890	755233.110

Radius:	10
Delta:	19.721° Right
Degree of Curvature (Arc):	212.958°
Length:	3.442
Tangent:	1.738
Chord:	3.425
Middle Ordinate:	0.148
External:	0.150
Tangent Direction:	S 65.060° E
Radial Direction:	S 24.940° W
Chord Direction:	S 55.200° W
Radial Direction:	S 444.661° E
Tangent Direction:	S 45.339° E

CIRCULAR CURVE NO. 21

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	200+76.15	190174.309	755244.830
HPI	(XXXXX)	200+78.00	190173.008	755246.146
CC	(XXXXX)		190181.421	755251.859
PT	(XXXXX)	200+79.81	190172.264	755247.840

Radius:	10
Delta:	20.966° Left
Degree of Curvature (Arc):	212.958°
Length:	3.659
Tangent:	1.850
Chord:	3.639
Middle Ordinate:	0.167
External:	0.170
Tangent Direction:	S 45.339° E
Radial Direction:	S 44.661° W
Chord Direction:	S 55.822° E
Radial Direction:	S 23.695° W
Tangent Direction:	S 66.305° E

CIRCULAR CURVE NO. 22

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	200+97.60	190165.113	755264.136
HPI	(XXXXX)	200+98.95	190164.571	755265.370
CC	(XXXXX)		190174.270	755268.154
PT	(XXXXX)	201+00.28	190164.376	755266.704

Radius:	10
Delta:	15.355° Left
Degree of Curvature (Arc):	212.958°
Length:	2.680
Tangent:	1.348
Chord:	2.672
Middle Ordinate:	0.090
External:	0.090
Tangent Direction:	S 66.305° E
Radial Direction:	S 23.695° W
Chord Direction:	S 73.983° E
Radial Direction:	S 08.339° W
Tangent Direction:	S 81.661° E

CIRCULAR CURVE NO. 23

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	201+26.55	190160.566	755292.690
HPI	(XXXXX)	201+28.09	190160.343	755294.212
CC	(XXXXX)		190170.461	755294.140
PT	(XXXXX)	201+29.60	190160.588	755295.732

Radius:	10
Delta:	17.497° Left
Degree of Curvature (Arc):	212.958°
Length:	3.054
Tangent:	1.539
Chord:	3.042
Middle Ordinate:	0.116
External:	0.118
Tangent Direction:	S 81.661° E
Radial Direction:	S 08.339° W
Chord Direction:	N 89.591° E
Radial Direction:	S 09.158° E
Tangent Direction:	N 80.842° E

CIRCULAR CURVE NO. 24

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	201+39.90	190162.228	755305.901
HPI	(XXXXX)	201+42.16	190162.586	755308.126
CC	(XXXXX)		190172.100	755304.310
PT	(XXXXX)	201+44.33	190163.864	755309.981

Radius:	10
Delta:	25.393° Left
Degree of Curvature (Arc):	212.958°
Length:	4.432
Tangent:	2.253
Chord:	4.396
Middle Ordinate:	0.245
External:	0.521
Tangent Direction:	N 80.842° E
Radial Direction:	S 09.158° E
Chord Direction:	N 68.146° E
Radial Direction:	S 34.550° E
Tangent Direction:	N 55.450° E

CIRCULAR CURVE NO. 25

Element: Circular

		STATION	NORTHING	EASTING
PC	(XXXXX)	201+48.82	190166.406	755313.673
HPI	(XXXXX)	201+54.67	190169.725	755318.493
CC	(XXXXX)		190174.642	755308.002
PT	(XXXXX)	201+59.41	190175.553	755317.960

Radius:	10
Delta:	60.675° Left
Degree of Curvature (Arc):	212.958°
Length:	10.590
Tangent:	5.852
Chord:	10.102
Middle Ordinate:	1.369
External:	1.587
Tangent Direction:	N 55.450° E
Radial Direction:	S 34.550° E
Chord Direction:	N 25.112° E
Radial Direction:	N 84.775° E
Tangent Direction:	N 05.225° W

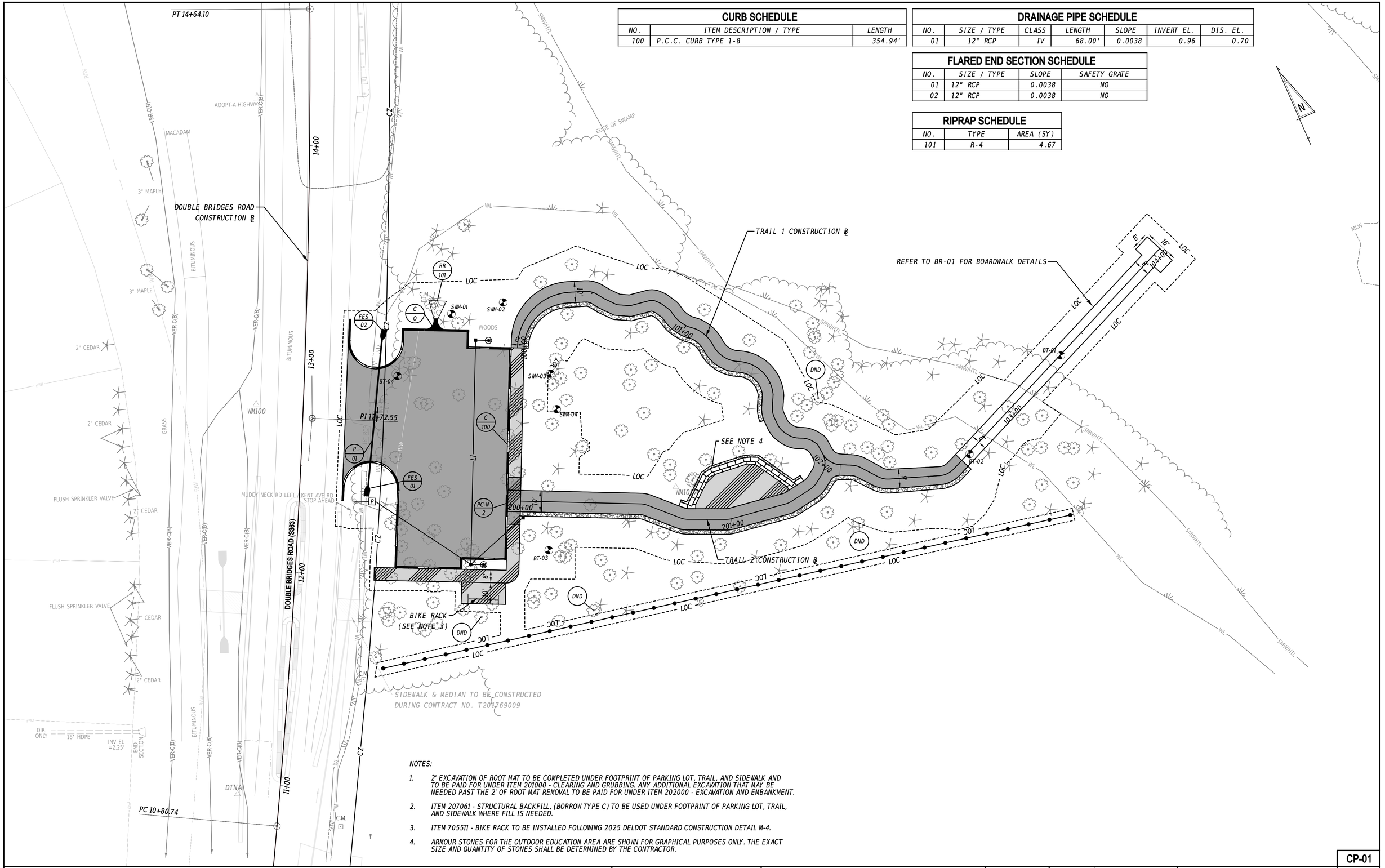
ADDENDA / REVISIONS		SCALE NOT NOTED	BERZINS NATURE PARK & TRAIL	CONTRACT	BRIDGE NO. N/A	HORIZONTAL AND VERTICAL CONTROL	SECTION
				T202320007			WM
				COUNTY	DESIGNED BY: J. NICKEL		SHEET NO.
				SUSSEX	CHECKED BY: M. WILLIAMS		9

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
100	P.C.C. CURB TYPE 1-8	354.94'

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
01	12" RCP	IV	68.00'	0.0038	0.96	0.70

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
01	12" RCP	0.0038	NO
02	12" RCP	0.0038	NO

RIPRAP SCHEDULE		
NO.	TYPE	AREA (SY)
101	R-4	4.67



NOTES:

1. 2' EXCAVATION OF ROOT MAT TO BE COMPLETED UNDER FOOTPRINT OF PARKING LOT, TRAIL, AND SIDEWALK AND TO BE PAID FOR UNDER ITEM 201000 - CLEARING AND GRUBBING. ANY ADDITIONAL EXCAVATION THAT MAY BE NEEDED PAST THE 2' OF ROOT MAT REMOVAL TO BE PAID FOR UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT.
2. ITEM 207061 - STRUCTURAL BACKFILL, (BORROW TYPE C) TO BE USED UNDER FOOTPRINT OF PARKING LOT, TRAIL, AND SIDEWALK WHERE FILL IS NEEDED.
3. ITEM 705511 - BIKE RACK TO BE INSTALLED FOLLOWING 2025 DELDOT STANDARD CONSTRUCTION DETAIL M-4.
4. ARMOUR STONES FOR THE OUTDOOR EDUCATION AREA ARE SHOWN FOR GRAPHICAL PURPOSES ONLY. THE EXACT SIZE AND QUANTITY OF STONES SHALL BE DETERMINED BY THE CONTRACTOR.

ADDENDA / REVISIONS

SCALE
0 20 40 60
FEET

BERZINS NATURE PARK & TRAIL

CONTRACT	BRIDGE NO.	N/A
T202320007	DESIGNED BY:	M. WILLIAMS
COUNTY	CHECKED BY:	M. STEIMER
SUSSEX		

CONSTRUCTION PLAN

CP-01
SECTION: WM
SHEET NO.: 10

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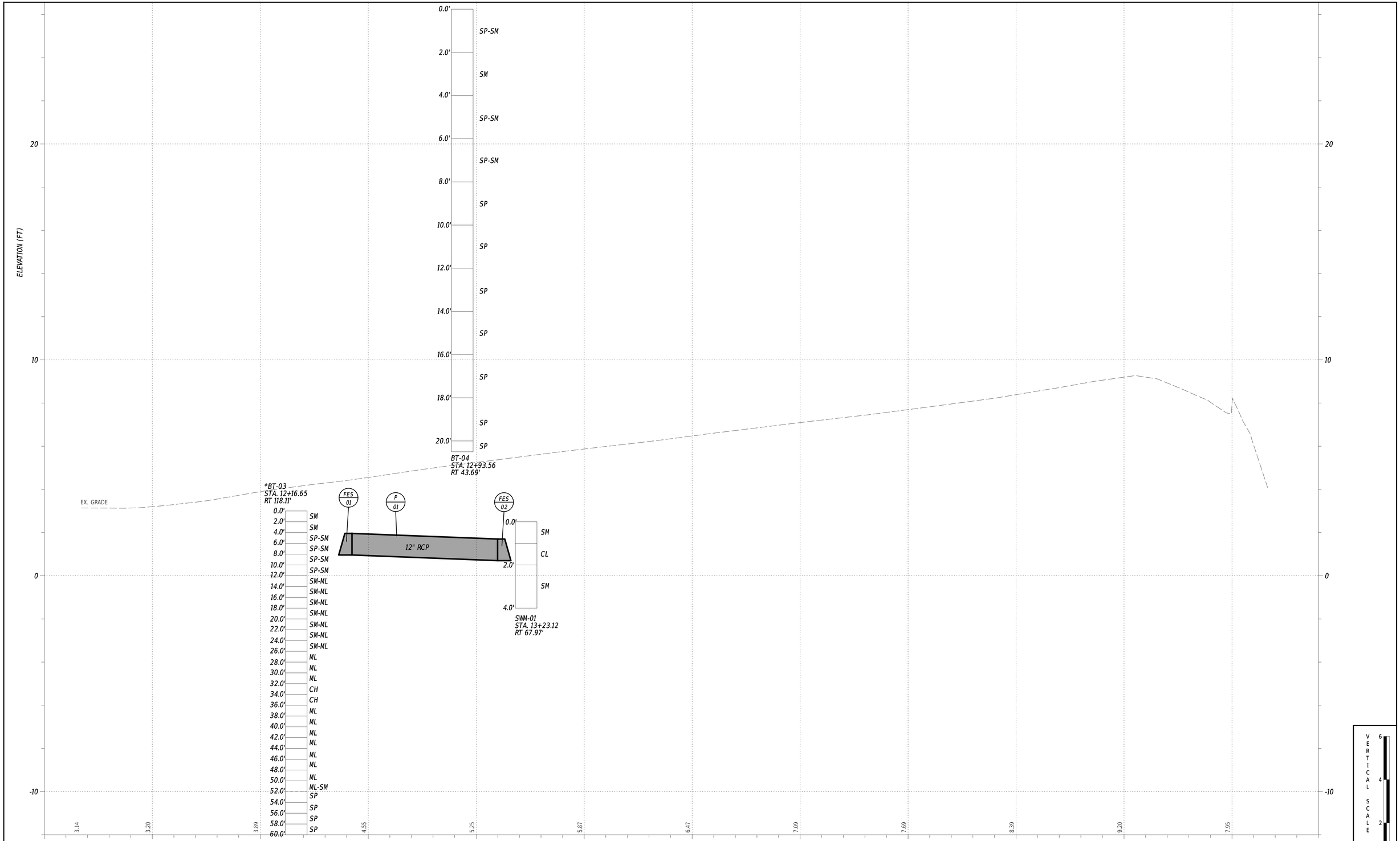

NOTE: THE BORING DATA PROVIDED ON THE PROFILE SHEETS INDICATED THE SOIL CONDITION ONLY AT THE SPECIFIC LOCATION EACH BORING WAS PERFORMED AND ONLY TO THE DEPTH PENETRATED.

CONSTRUCTION BASELINE DOUBLE BRIDGES ROAD

*SOIL BORING BT-03 DOES NOT MATCH VERTICAL EXAGERATION OF PROFILE IN ORDER TO FIT ON THE SHEET.

VERTICAL SCALE FEET 0 2 4 6

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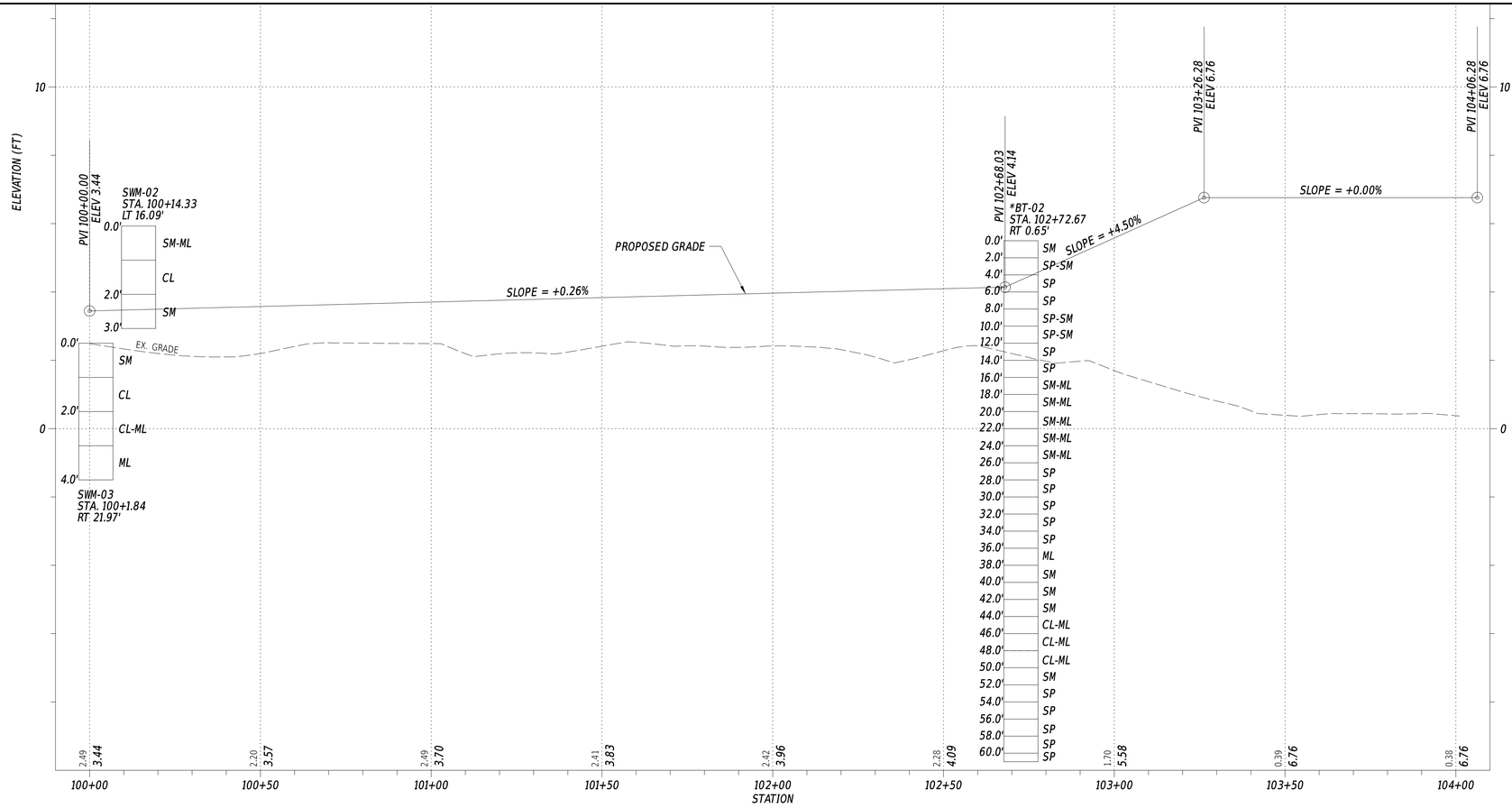
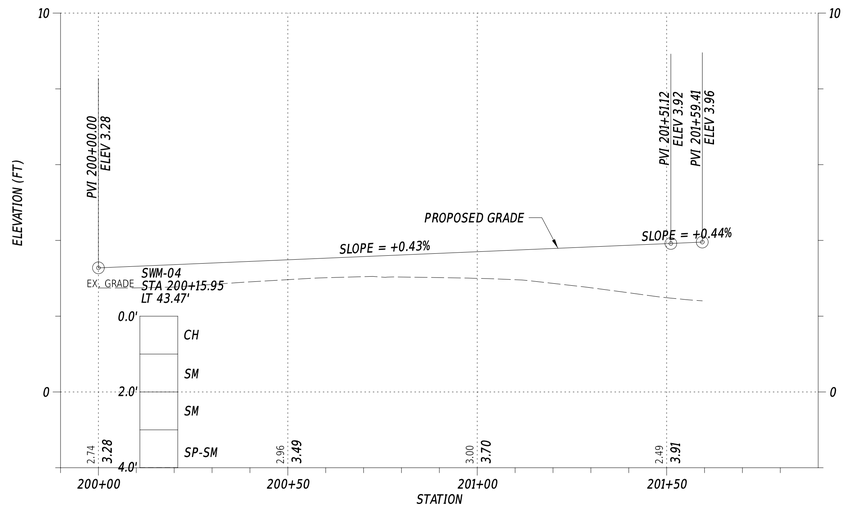
ADDENDA / REVISIONS		SCALE 0 20 40 60 FEET	BERZINS NATURE PARK & TRAIL	CONTRACT T202320007	BRIDGE NO. N/A	PROFILES	SECTION WM
				COUNTY SUSSEX	DESIGNED BY: M. WILLIAMS		SHEET NO. 11
					CHECKED BY: M. STEIMER		



CONSTRUCTION BASELINE TRAIL 1



CONSTRUCTION BASELINE TRAIL 2

NOTE: THE BORING DATA PROVIDED ON THE PROFILE SHEETS INDICATES THE SOIL CONDITION ONLY AT THE SPECIFIC LOCATION EACH BORING WAS PERFORMED AND ONLY TO THE DEPTH PENETRATED.

**SOIL BORING BT-02 DOES NOT MATCH VERTICAL EXAGERATION OF PROFILE IN ORDER TO FIT ON THE SHEET.*

VERTICAL SCALE FEET: 0, 2, 4, 6

ADDENDA / REVISIONS	

SCALE: 0 20 40 60 FEET

BERZINS NATURE PARK & TRAIL

CONTRACT	T202320007
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	M. WILLIAMS
CHECKED BY:	M. STEIMER

PROFILES

SECTION	
WM	
SHEET NO.	
12	

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ADDENDA / REVISIONS

SCALE
0 5 10 15
FEET

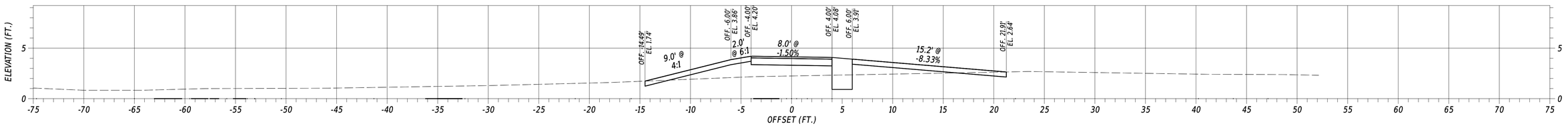
BERZINS NATURE PARK & TRAIL

CONTRACT	T202320007
COUNTY	SUSSEX

BRIDGE NO.	N/A
DESIGNED BY:	M. WILLIAMS
CHECKED BY:	M. STEIMER

CROSS SECTIONS
STA. 100+00 TO 101+50

SECTION	WM
SHEET NO.	13



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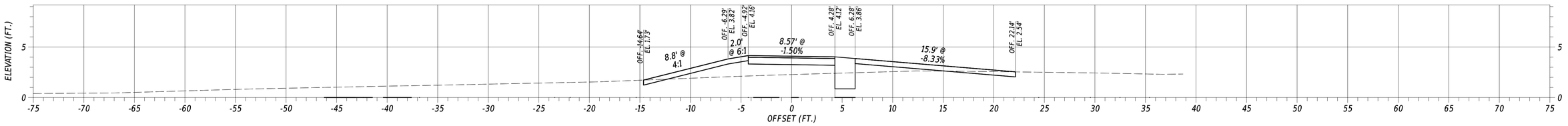

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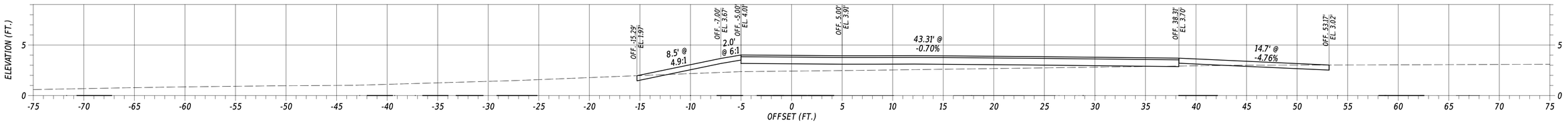

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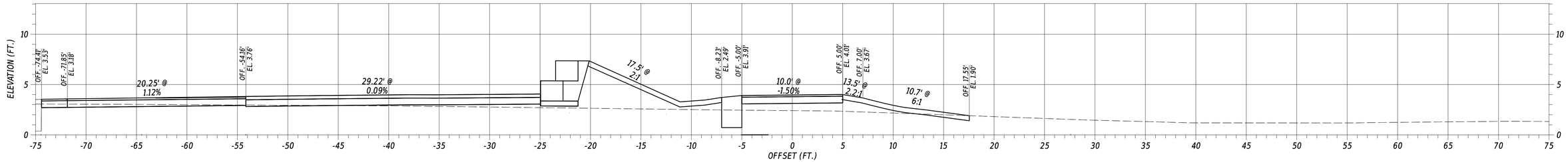
ADDENDA / REVISIONS	SCALE	BERZINS NATURE PARK & TRAIL	CONTRACT	BRIDGE NO. N/A	CROSS SECTIONS	SECTION
	0 5 10 15 FEET		T202320007	DESIGNED BY: M. WILLIAMS	*STA. 102+00 TO 102+68.02*	WM
			COUNTY			SHEET NO.
			SUSSEX	CHECKED BY: M. STEIMER		14



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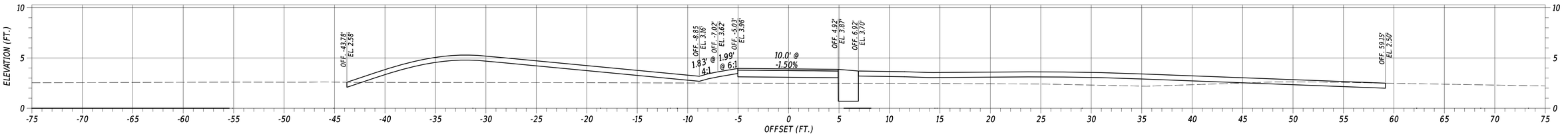

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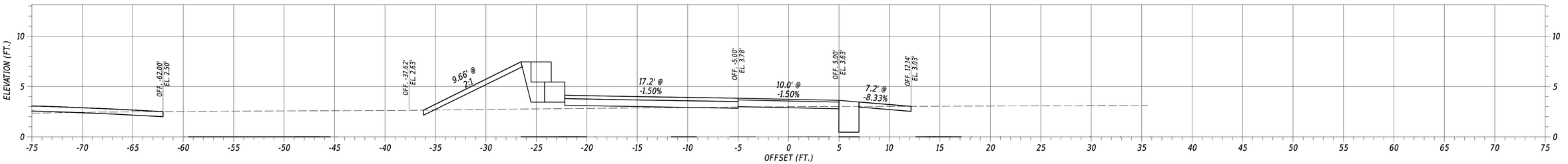

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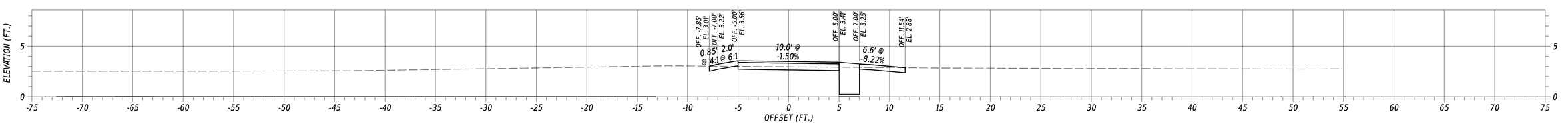

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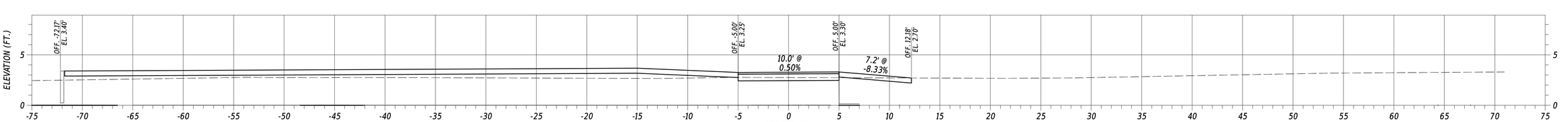

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ADDENDA / REVISIONS	SCALE	BERZINS NATURE PARK & TRAIL	CONTRACT	BRIDGE NO. N/A	CROSS SECTIONS	SECTION
	0 5 10 15 FEET		T202320007	DESIGNED BY: M. WILLIAMS	STA. 200+00 TO 201+59.41	WM
			COUNTY	CHECKED BY: M. STEIMER		SHEET NO.
			SUSSEX			15

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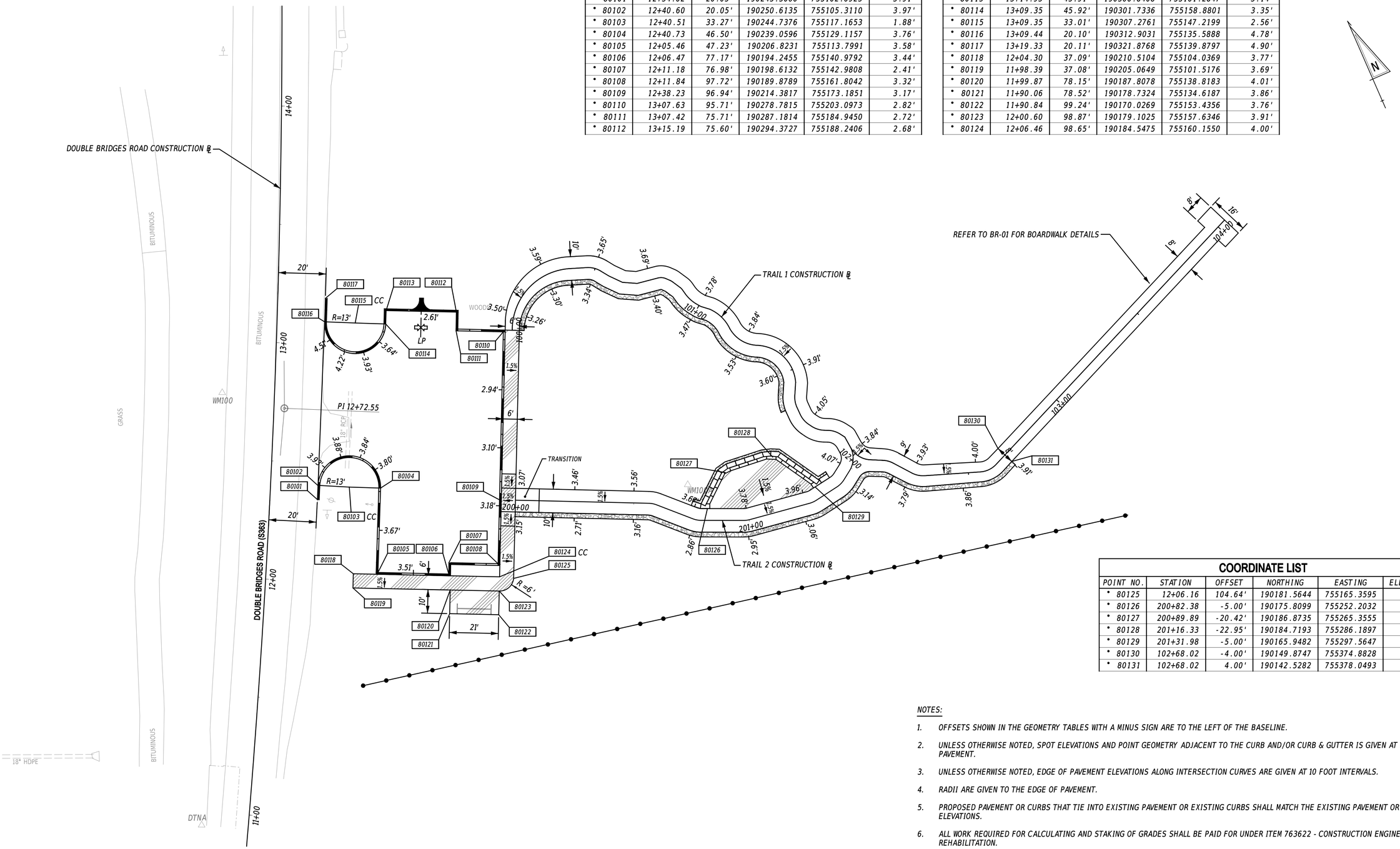
COORDINATE LIST					
POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION
* 80101	12+34.62	20.05'	190245.3066	755102.6923	3.91'
* 80102	12+40.60	20.05'	190250.6135	755105.3110	3.97'
* 80103	12+40.51	33.27'	190244.7376	755117.1653	1.88'
* 80104	12+40.73	46.50'	190239.0596	755129.1157	3.76'
* 80105	12+05.46	47.23'	190206.8231	755113.7991	3.58'
* 80106	12+06.47	77.17'	190194.2455	755140.9792	3.44'
* 80107	12+11.18	76.98'	190198.6132	755142.9808	2.41'
* 80108	12+11.84	97.72'	190189.8789	755161.8042	3.32'
* 80109	12+38.23	96.94'	190214.3817	755173.1851	3.17'
* 80110	13+07.63	95.71'	190278.7815	755203.0973	2.82'
* 80111	13+07.42	75.71'	190287.1814	755184.9450	2.72'
* 80112	13+15.19	75.60'	190294.3727	755188.2406	2.68'

COORDINATE LIST					
POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION
* 80113	13+14.93	45.91'	190306.8408	755161.2847	3.14'
* 80114	13+09.35	45.92'	190301.7336	755158.8801	3.35'
* 80115	13+09.35	33.01'	190307.2761	755147.2199	2.56'
* 80116	13+09.44	20.10'	190312.9031	755135.5888	4.78'
* 80117	13+19.33	20.11'	190321.8768	755139.8797	4.90'
* 80118	12+04.30	37.09'	190210.5104	755104.0369	3.77'
* 80119	11+98.39	37.08'	190205.0649	755101.5176	3.69'
* 80120	11+99.87	78.15'	190187.8078	755138.8183	4.01'
* 80121	11+90.06	78.52'	190178.7324	755134.6187	3.86'
* 80122	11+90.84	99.24'	190170.0269	755153.4356	3.76'
* 80123	12+00.60	98.87'	190179.1025	755157.6346	3.91'
* 80124	12+06.46	98.65'	190184.5475	755160.1550	4.00'



COORDINATE LIST					
POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION
* 80125	12+06.16	104.64'	190181.5644	755165.3595	3.91'
* 80126	200+82.38	-5.00'	190175.8099	755252.2032	3.77'
* 80127	200+89.89	-20.42'	190186.8735	755265.3555	4.01'
* 80128	201+16.33	-22.95'	190184.7193	755286.1897	4.07'
* 80129	201+31.98	-5.00'	190165.9482	755297.5647	4.07'
* 80130	102+68.02	-4.00'	190149.8747	755374.8828	4.20'
* 80131	102+68.02	4.00'	190142.5282	755378.0493	4.08'

NOTES:

1. *OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE BASELINE.*
2. *UNLESS OTHERWISE NOTED, SPOT ELEVATIONS AND POINT GEOMETRY ADJACENT TO THE CURB AND/OR CURB & GUTTER IS GIVEN AT THE EDGE OF PAVEMENT.*
3. *UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS ALONG INTERSECTION CURVES ARE GIVEN AT 10 FOOT INTERVALS.*
4. *RADII ARE GIVEN TO THE EDGE OF PAVEMENT.*
5. *PROPOSED PAVEMENT OR CURBS THAT TIE INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR EXISTING CURB ELEVATIONS.*
6. *ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763622 - CONSTRUCTION ENGINEERING, PAR REHABILITATION.*
7. *TIE INTO SIDEWALK BEING CONSTRUCTED DURING CONTRACT NO. T201769009. ADDITIONAL CONSTRUCTION ENGINEERING MAY BE NEEDED.*
8. *POINT GEOMETRY FOR PATH MATCHES BASELINE GEOMETRY PROVIDED IN HORIZONTAL AND VERTICAL CONTROL SHEETS WITH 5' OFFSET ON EACH SIDE.*

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ADDENDA / REVISIONS

SCALE
0 20 40 60
FEET

BERZINS NATURE PARK & TRAIL

CONTRACT	T202320007
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	M. WEBER
CHECKED BY:	M. STEIMER

GRADES AND GEOMETRICS

	GG-01
SECTION	WM
SHEET NO.	16

GENERAL MOT NOTES

1. MAINTENANCE OF TRAFFIC DURING LANE CLOSURES AND LANE SHIFTS SHALL CONFORM TO TYPICAL APPLICATION TA-3, TA-10, AND TA-11B OF THE DELAWARE MUTCD.

2. AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR REQUIREMENT FOR THIS PROJECT.

(X)	THE CONTRACTOR SHALL NOT BE REQUIRED TO HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT.
( )	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT AND THAT PERSON'S SOLE RESPONSIBILITY SHALL BE THE MANAGEMENT AND SUPERVISION OF THE PROJECT'S TEMPORARY TRAFFIC CONTROL ACTIVITIES. THIS PERSON SHALL NOT HAVE ANY OTHER ROLE ON THE PROJECT. RESPONSIBILITIES AND REQUIREMENTS OF THE ATSSA SUPERVISOR ARE DEFINED IN SECTION 812 OF THE STANDARD SPECIFICATIONS. PAYMENT FOR ATSSA SUPERVISOR IS INCIDENTAL TO ITEM 801000.

3. THE USE OF MILLINGS AND GRADED AGGREGATE BASE COURSE (GABC) IN THE TRAVEL WAY, TEMPORARY TRAVEL WAY, HIGH VOLUME ENTRANCES AND ACCESS RAMP FOR THE PURPOSE OF PROVIDING A TEMPORARY ROADWAY SURFACE, POTHOLE REPAIR, TAPERED EDGE FOR UTILITIES, BUTT JOINTS, AND LONGITUDINAL DROP-OFFS (MILLING AND PAVING OPERATIONS) IS PROHIBITED UNLESS IT IS OTHERWISE DESIGNATED TO BE USED IN THE CONTRACT PLANS. USE COLD PATCH, BITUMINOUS CONCRETE, BITUMINOUS CONCRETE WEDGE, OR TAPER MILL, AS NOTED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE ENGINEER. PAYMENT FOR COLD PATCH, BITUMINOUS CONCRETE OR BITUMINOUS CONCRETE WEDGE SHALL BE PAID AS NOTED IN THE CONTRACT DOCUMENTS. TAPER MILL BITUMINOUS CONCRETE SHALL BE PAID UNDER THE BITUMINOUS CONCRETE MILLING ITEM.

   MILLINGS OR GABC SHALL BE USED AT THE FOLLOWING LOCATIONS WHERE ACCESS TO A BUSINESS, RESIDENCE, OR EDGE DROP OFF NEEDS TO BE MAINTAINED UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE ENGINEER TO USE BITUMINOUS CONCRETE OR COLD PATCH. ALL MILLINGS AND GABC WILL BE ROLLED AND COMPACTED TO HELP PREVENT THE MATERIAL FROM UNRAVELLING:
   - A. DRIVEWAYS
   - B. ENTRANCES
   - C. LOW VOLUME ACCESS RAMPS (IDENTIFIED IN THE CONTRACT DOCUMENTS)
   - D. EDGE DROP-OFFS ADJACENT TO LIVE ROADWAY(LANES AND SHOULDER) AND THE PROPOSED ROAD CONSTRUCTION
   - E. EDGE OF ROADWAY DROP-OFF

   GRADING AND MAINTAINING BASE COURSE THAT IS BEING USED FOR ROADWAY WEDGE/FILLET BETWEEN TRAVEL LANES AND PAVEMENT BOX, EDGE OF TRAVELWAY, DRIVEWAY OR ENTRANCE ACCESS SHALL BE INCIDENTAL TO ITEM NO. 801000 - MAINTENANCE OF TRAFFIC. THE BASE COURSE MATERIAL SHALL BE PLACED AT NO GREATER THAN THE SLOPE SPECIFIED IN TABLE 6G-1 AND SHALL BE COMPACTED. EXCESS BASE COURSE MATERIAL SHALL BE PUSHED AHEAD AND USED IN THE NEXT SEGMENT AND SHALL BE INCIDENTAL TO THE PARTICULAR BASE COURSE PAY ITEM. NO SEPARATE PAYMENT SHALL BE MADE FOR MILLINGS OR GABC TEMPORARY ROADWAY MATERIAL (TRM) USED TO PROTECT EDGE DROP-OFFS, UNLESS THE MATERIAL IS EVENTUALLY UTILIZED AS PART OF A PERMANENT ROADWAY AT WHICH TIME THE MATERIAL WOULD BE PAID FOR UNDER THE RESPECTIVE CONTRACT MATERIAL ITEM.

   VERTICAL DIFFERENCES SHALL BE CORRECTED IN ACCORDANCE WITH TABLE 6G-1 OF THE DELAWARE MUTCD.

4. MESSAGE BOARDS SHALL BE PLACED 10 DAYS IN ADVANCE OF THE WORK AND TRAFFIC PATTERN CHANGES AND REMAIN IN PLACE FOR 5 DAYS AFTER THE START OF THE WORK. LOCATIONS OF MESSAGE BOARDS AND MESSAGES DISPLAYED SHALL BE REVIEWED AND APPROVED BY THE DISTRICT SAFETY OFFICER.

5. NEW PEDESTRIAN FACILITIES SHALL REMAIN CLOSED WITH TYPE 3 BARRICADES AND CLOSED SIGNS UNTIL THE ENTIRE SEGMENT IS CONSTRUCTED AND CONNECTED TO AN EXISTING FACILITY.

DOUBLE BRIDGES ROAD AND MUDDY NECK/KENT AVE – ALLOWABLE LANE CLOSURE HOURS (INCLUDING TURN LANES)

	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SUNDAY									■	■	■	■	■	■	■	■								
MONDAY									■	■	■	■	■	■	■	■								
TUESDAY									■	■	■	■	■	■	■	■								
WEDNESDAY									■	■	■	■	■	■	■	■								
THURSDAY									■	■	■	■	■	■	■	■								
FRIDAY									■	■	■	■	■	■	■	■								
SATURDAY									■	■	■	■	■	■	■	■								

■ LANE CLOSURE

□ ALL LANES OPEN

4-AUG-2025
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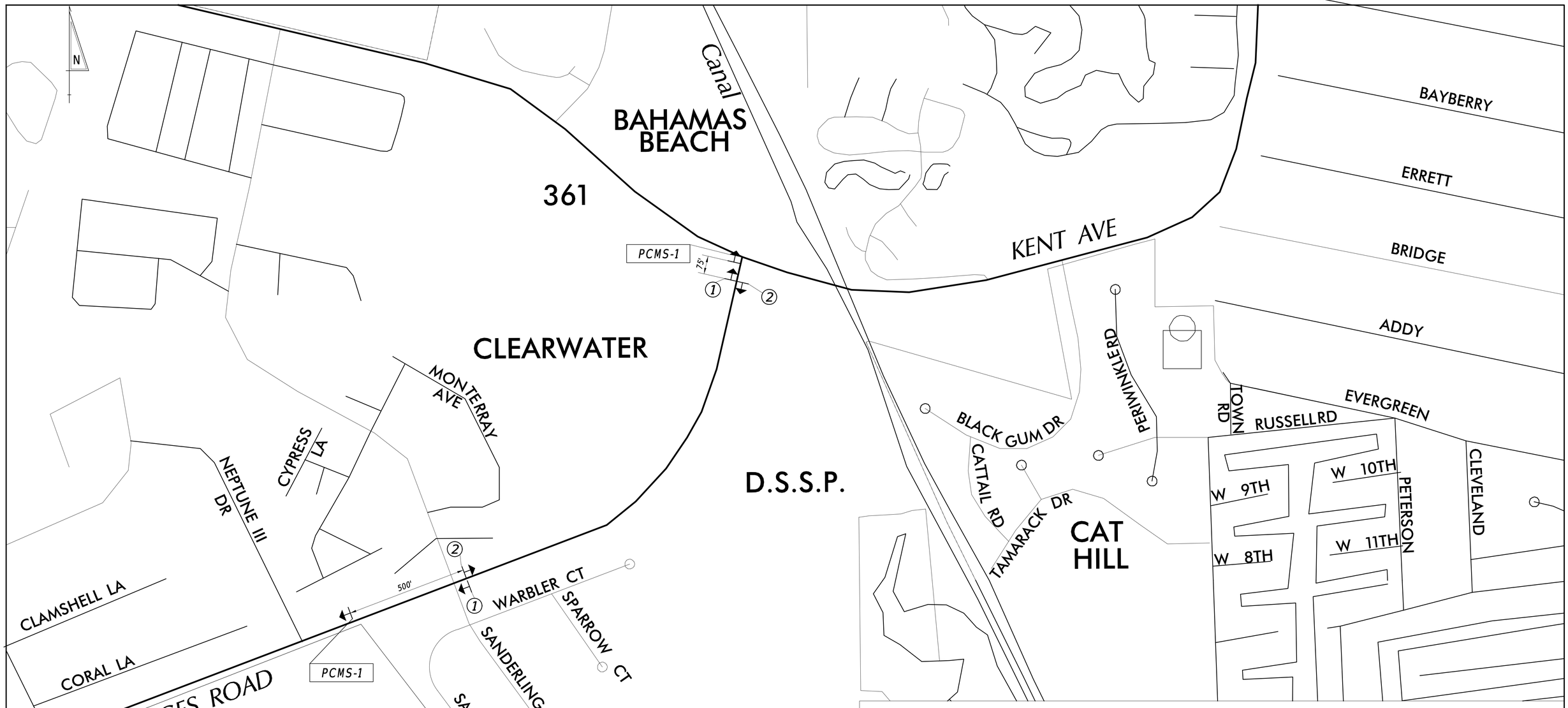
ADDENDA / REVISIONS		SCALE NOT NOTED	BERZINS NATURE PARK & TRAIL	CONTRACT T202320007	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN	SECTION WM
				COUNTY SUSSEX	DESIGNED BY: M. WILLIAMS		SHEET NO. 17
					CHECKED BY: S. NICKEL		



THE PRESERVE AT JEFFERSON CREEK

PRIOR TO CONSTRUCTION

(10 DAYS PRIOR TO BEGINNING OF CONSTRUCTION

PCMS-1

ROAD WORK TO BEGIN

STARTING XX/XX/XX

DURING CONSTRUCTION

(DISPLAY FOR 5 DAYS AFTER START OF CONSTRUCTION)

PCMS-1

ROAD WORK AHEAD

EXPECT DELAYS

NOTES:

1. *ALL WARNING SIGNS SHOWN ON THIS SHEET ARE TO BE DISPLAYED THROUGHOUT THE DURATION OF THE CONTRACT AND ARE TO BE PAID FOR UNDER ITEM 810001 - TEMPORARY WARNING SIGNS AND PLAQUES.*
2. *ANY EXISTING SIGNS THAT CONFLICT WITH CONSTRUCTION WARNING SIGNS SHALL BE COVERED AS NEEDED AS DIRECTED BY THE ENGINEER.*
3. *PLACE CHANGEABLE MESSAGE SIGNS ALONG HOLLAND GLADE ROAD TEN (10) CALENDAR DAYS IN ADVANCE OF THE START OF CONSTRUCTION AND FOR FIVE (5) DAYS AFTER THE START OF CONSTRUCTION. PCMS SHALL BE APPROVED BY TRAFFIC SAFETY PRIOR TO USE.*

ROAD WORK AHEAD — W20-1 — 1

END ROAD WORK — G20-2A — 2

4-AUG-2025
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ADDENDA / REVISIONS		SCALE NOT NOTED	BERZINS NATURE PARK & TRAIL	CONTRACT	BRIDGE NO.	N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN	SECTION
				T202320007				WM
				COUNTY	DESIGNED BY:	M. WEBER		SHEET NO.
				SUSSEX	CHECKED BY:	S. NICKEL		18

GENERAL EROSION AND SEDIMENT CONTROL (E&S) NOTES

1. THE DNREC SEDIMENT AND STORMWATER PROGRAM (OR THE RELEVANT DELEGATED AGENCY) SHALL BE NOTIFIED IN WRITING FIVE (5) DAYS PRIOR TO COMMENCING WITH CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
2. REVIEW AND/OR APPROVAL OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE REQUIREMENTS OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS, NOR SHALL IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSION IN THE APPROVED PLAN.
3. IF THE APPROVED PLAN NEEDS TO BE MODIFIED,ADDITIONAL SEDIMENT AND FORMATTER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY DNREC OR THE DELEGATED AGENCY.
4. FOLLOWING SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED FOR ALL PERIMETER SEDIMENT CONTROLS, SOIL STOCKPILES, AND ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE WITHIN FOURTEEN (14) CALENDAR DAYS UNLESS MORE RESTRICTIVE FEDERAL REQUIREMENTS APPLY.
5. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL COMPLY WITH THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK LATEST EDITION.
6. AT ANYTIME A DEWATERING OPERATION IS USED, IT SHALL BE PREVIOUSLY APPROVED BY THE AGENCY CONSTRUCTION SITE REVIEWER FOR A NON-EROSIVE POINT OF DISCHARGE, AND A DEWATERING PERMIT SHOULD BE APPROVED BY THE DNREC WELL PERMITTING BRANCH.
7. APPROVED PLANS REMAIN VALID FOR 5 YEARS FROM DATE OF APPROVAL.
8. POST CONSTRUCTION VERIFICATION DOCUMENTS SHALL BE SUBMITTED TO THE DEPARTMENT (OR THE RELEVANT DELEGATED AGENCY) WITHIN SIXTY (60) DAYS OF STORMWATER MANAGEMENT FACILITY COMPLETION.
9. APPROVAL OF A SEDIMENT AND STORMWATER MANAGEMENT PLAN DOES NOT GRANT OR IMPLY A RIGHT TO DISCHARGE STORMWATER RUNOFF. THE OWNER/DEVLEOPER IS RESPONSIBLE FOR ACQUIRING ANY AND ALL AGREEMENTS, EASEMENTS, ECT., NECESSARY TO COMPLY WITH STATE DRAINAGE AND OTHER APPLICABLE LAWS.
10. THE NOTICE OF INTENT FOR STORMWATER DISCHARGEE ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER A NPDES GENERAL PERMIT FOR THIS PROJECT IS # (TO BE FILLED IN ONCE RECEIVED). THE PERMITTEE OF RECORD SHALL NOT BE RELIVED OF THEIR RESPONSIBILITIES UNTIL A NOTICE OF TERMINATION HAS BEEN PROCESSED BY THE DEPARTMENT.
11. THE OWNER SHALL BE FAMILIAR WITH AND COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION GENERAL PERMIT.
12. THE CONTRACTOR SHALL AT ALL TIMES PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF OR WIND FROM LEAVING THE SITE. PERIMETER CONTROLS SHALL BE CHECKED DAILY AND ADJUSTED OR REPAIRED TO FULLY CONTAIN AND CONTROL SEDIMENT FROM LEAVING THE SITE. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVITY CAPACITY OF THE CONTROL. IN ADDITION, THE CONTRACTOR MAY NEED TO ADJUST OR ALTER MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE AGENCY CONSTRICTION SITE REVIEWER.
13. BEFORE ANY EARTHWORK OR EXCAVATION TAKES PLACE, THE CONTRACTOR SHOULD CALL MISS UTILITY AT 811 OR 1-800-282-8555 AT LEAST FORTY-EIGHT (48) HOURS PRIOR to CONSTRUCTION, TO HAVE ALL EXISTING UTILITIES MARKED ONSITE.
14. BEST AVAILABLE TECHNOLOGY (BAT) SHALL BE EMPLOYED TO MANAGE TURBID DISCHARGE IN ACCORDANCE WITH REQUIREMENTS OF 7 DEL. C. CH. 62 AND CURRENT DELAWARE CONSTRUCTION GENERAL PERMIT (CGP).
15. DOCUMENTATION OF SOIL TESTING AND MATERIALS USED FOR TEMPORARY OR PERMANENT STABILIZATION INCLUDING BUT NOT LIMITED TO SOIL TEST RESULTS, SEED TAGS, SOIL AMENDMENTS TAGS,ECT. SHALL BE PROVIDED TO THE DEPARTMENT (OR THE RELEVANT DELEGATED AGENCY) TO VERIFY THAT PERMANENT OR TEMPORARY STABILIZATION HAS BEEN COMPLETED IN ACCORDANCE WITH THE APPROVED PLAN.
16. THE DEPARTMENT(OR THE RELEVANT DELEGATED AGENCY) MAY REQUIRE ADDITIONAL SOIL TESTING AND REAPPLICATION OF PERMANENT OR TEMPORARY STABILIZATION IN ACCORDANCE WITH SPECIFICATIONS IN THE DELAWARE EROSIONS AND SEDIMENT CONTROL HANDBOOK, OR ALTERNATIVE MEASURE THAT PROVIDE FUNCTIONAL EQUIVALENCY.
17. WHEN DIRECTED BY THE DEPARTMENT(OR THE RELEVANT DELEGATED AGENCY), THE OWNER SHALL ACQUIRE THE SERVICES OF A THIRD PARTY CERTIFIED CONSTRUCTION REVIEWER (CCR) TO PERFORM WEEKLY CONSTRICTION REVIEWS. SEDIMENT AND STORMWATER PLANS APPROVED BY THE DEPARTMENT SHALL HAVE A THIRD PARTY CCR.
18. THE TERMINATION OF CONSTRUCTION GENERAL PERMIT WILL REQUIRE SUBMISSION AND ACCEPTANCE OF THE POST CONSTRUCTION VERIFICATION DOCUMENTS, INCLUDING FINAL STABILIZATION THROUGHOUT THE SITE, ALL ELEMENTS OF SEDIMENT AND STORMWATER MANAGEMENT PLAN IMPLEMENTED, AND ACCEPTANCE OF THE FINAL OPERATION AND MAINTENANCE PROGRAM.

AMOUNT OF DISTURBED AREA FOR THE PROJECT	0.84 AC
ADDED IMPERVIOUS FOR THE PROJECT	12,687 sf
HUC-10 WATERSHED	INLAND BAYS

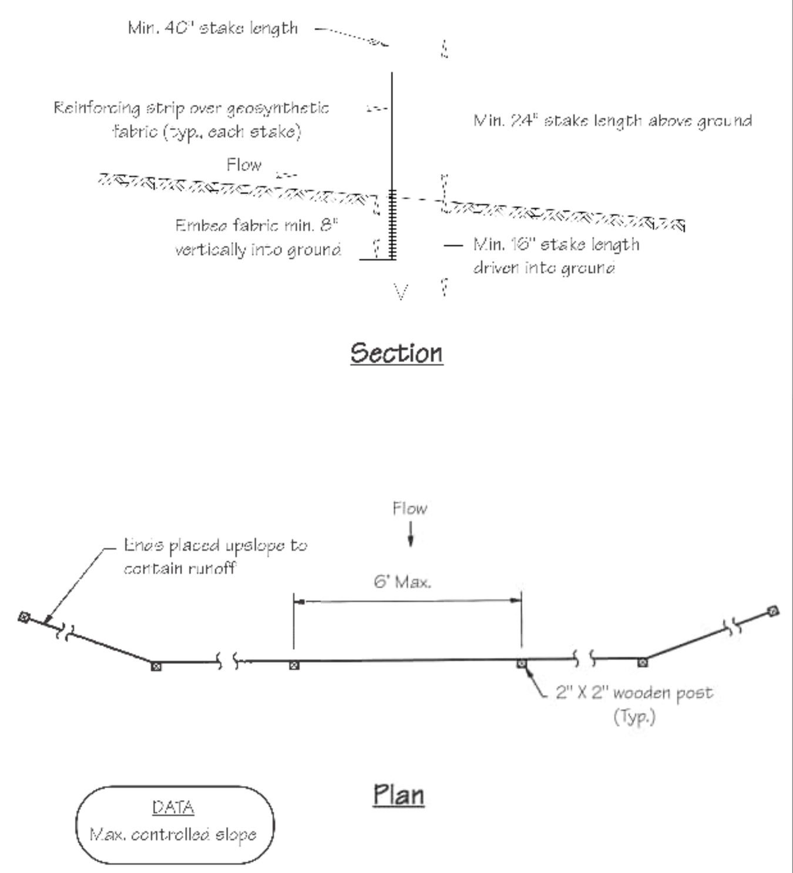
GENERAL E&S SEQUENCE NOTES (FOR ALL PHASES)

1. THE DNREC SEDIMENT AND STORMWATER PROGRAM (OR THE RELEVANT DELEGATED AGENCY) SHALL BE NOTIFIED IN WRITING FIVE (5) DAYS PRIOR TO COMMENCING WITH CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
2. PRIOR TO ANY CLEARING, INSTALLATION OF SEDIMENT CONTROLS MEASURES OR GRADING, A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED AND CONDUCTED WITH THE AGENCY CONSTRUCTION SITE REVIEWER. THE LANDONWER/DEVELOPER, CONTRACTOR, AND A THIRD PARTY CERTIFIED CONSTRUCTION REVIEWER (CCR) ARE REQUIRED TO BE IN ATTENDANCE AT THE PRE-CONSTRUTION MEETING; THE DESIGNER IS RECOMMENDED TO ATTEND.
3. POST NOI PERMIT COVERAGE SO THAT IT IS VISIBLE IN CLOSE PROXIMITY TO THE CONSTRUCTION SITE AS DIRECTED BY THE ENGINEER. THE NOTICE MUST BE IN ACCORDANCE WITH DELDOT GUIDANCE.
4. CONTRACTOR IS TO INSTALL STABILIZED CONSTRUCTION ENTRANCE AND CLEAR AND GRUB THE AREAS NEEDED TO INSTALL THE PERIMETER CONTROLS.
5. INSTALL PERMITTER CONTROLS. ALL PERIMETER CONTROLS ARE TO BE REVIEWED BY THE AGENCY CONSTRUCTION SITE REVIEWER AND APPROVED PRIOR TO PROCEEDING WITH FURTHER SITE DISTURBANCE OR CONSTRUCTION.
6. CLEAR AND GRUB THE REMAINDER OF THE SITE.
7. CONTRACTOR TO INSTALL BOARDWALK AS SHOWN ON THE PLANS USING A SANDBAG DIVERSION.
8. COMPLETE THE REMINDER OF THE PROJECT IMPROVEMENTS AS SHOWN ON THE PLANS.
9. ONCE IMPROVEMENTS ARE COMPLETE AND WITH THE APPROVAL OF THE CERTIFIED CONSTRUCTION REVIEWER (CCR) THE CONTRACTOR IS TO INSTALL THE FILTER STRIPS. PER REQUIREMENTS SHOWN ON SHEETS 9-16 OF THE BMP HANDBOOK A PCVD IS REQUIRED.
10. INSTALL PLANTINGS PER LANDSCAPING PLANS. COMPLETE PERMANENT STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS.
11. ONCE CONSTRUCTION, STABILIZATION, STORMWATER MANAGEMENT AND LANDSCAPING ARE COMPLETE THE CONTRACTOR IS TO REQUEST A FINAL CONSTRUCTION REVIEW.
12. PERFORM ANY PUNCH LIST ITEMS FROM FINAL CONSTRUCTION REVIEW.
13. WITH THE APPROVAL OF THE CERTIFIED CONSTRICTION REVIEWER (CCR) REMOVE EROSION AND SEDIMENT CONTROL DEVICES.

$DATE$
$TIME$
$FILE$

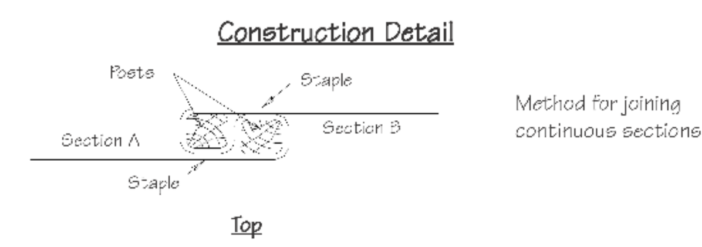
ADDENDA / REVISIONS		NOT TO SCALE	BERZINS NATURE PARK & TRAIL	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN	MOT-03
				T202320007			SECTION
				COUNTY	DESIGNED BY: G. TRIPP		WM
				SUSSEX	CHECKED BY: K. GULATI		SHEET NO. 19

Standard Detail & Specifications
Silt Fence



Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	SF	DE-ESC-3.1.2.1 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications
Silt Fence



Construction Notes:

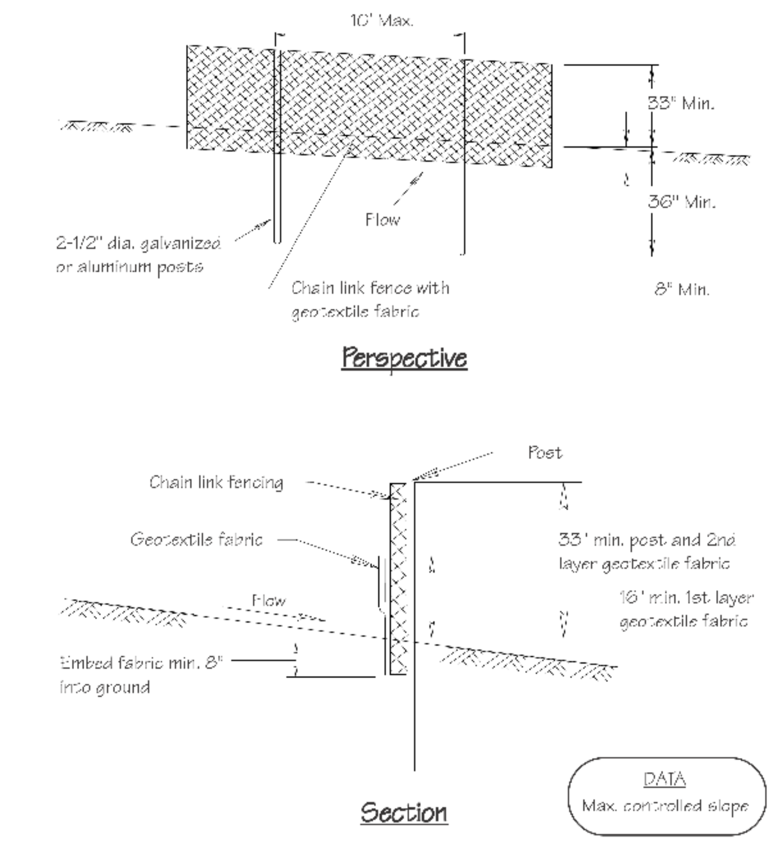
1. Geosynthetic fabric to be fastened securely to fence posts with wire ties or staples.
2. When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
3. Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.

Materials:

1. Stakes: Steel (either T or U) or 2" x 2" hardwood
2. Geosynthetic Fabric: Type GD-I
3. Reinforcing strip: Wooden lath or plastic strip

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	SF	DE-ESC-3.1.2.1 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications
Super Silt Fence



Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	SSF	DE-ESC-3.1.2.3 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications
Super Silt Fence

Construction Notes:

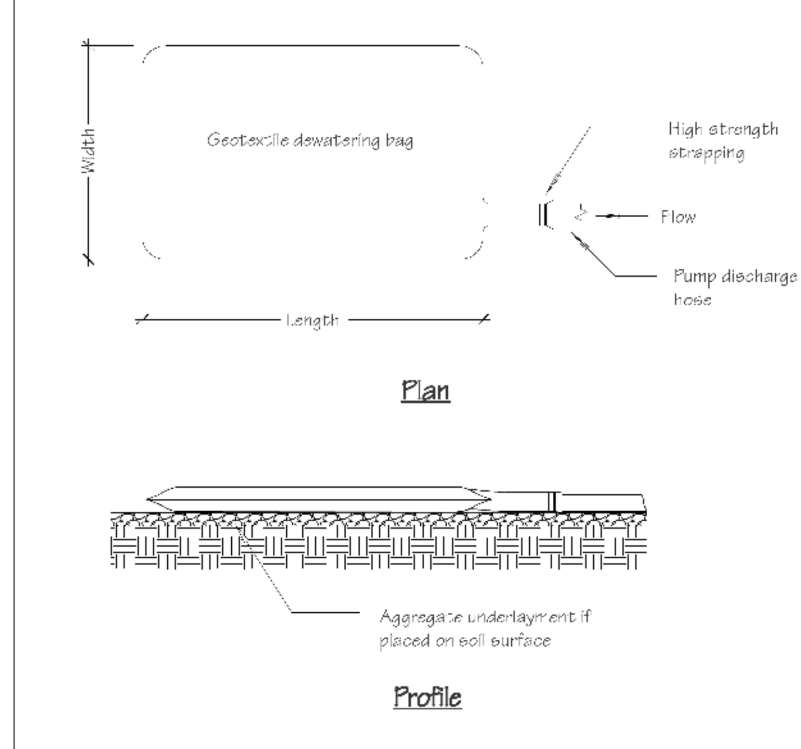
1. The poles do not need to be set in concrete.
2. Chain link fence shall be fastened securely to the fence posts with wire ties or staples.
3. Geotextile fabric shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
4. Geotextile fabric shall be embedded a minimum of 8" into the ground.
5. When two sections of geotextile fabric adjoin each other, they shall be overlapped by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence.

Materials:

1. Fencing: Fencing shall be 42 inches in height and constructed in accordance with the latest Delaware Department of Transportation (Del-DOT) Specifications for Chain Link Fencing (Section 727). The Del-DOT specification for a 6 foot fence shall be used, substituting 42 inch fabric and 6 foot length posts.
2. Geosynthetic Fabric: Type GD-I

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	SSF	DE-ESC-3.1.2.3 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications
Geotextile Dewatering Bag



NOTE: Pre-manufactured products installed in accordance with manufacturer's recommendations may be used as an equivalent substitute with Departmental approval.

Source:	Symbol:	Detail No.
Adapted from ACF Products, Inc.	GB	DE-ESC-3.2.1.2 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications
Geotextile Dewatering Bag

Construction Notes:

1. The dewatering bag should be placed so the incoming water flows into and through the bag, and then flow off the site without creating more erosion. The neck should be tied off tightly to stop the water from flowing out of the bag without going through the walls. The dewatering bag should be placed on a gravel bed to allow water to flow in all directions.
2. The dewatering bag is considered full and should be disposed when it is impractical for the bag to filter the sediment out at a reasonable flow rate. At this point, it should be replaced with a new bag.
3. Disposal may be accomplished as directed by the construction reviewer. If the site allows, the bag may be buried on site and seeded, visible fabric removed and seeded or removed from site to a proper disposal area.

Materials:

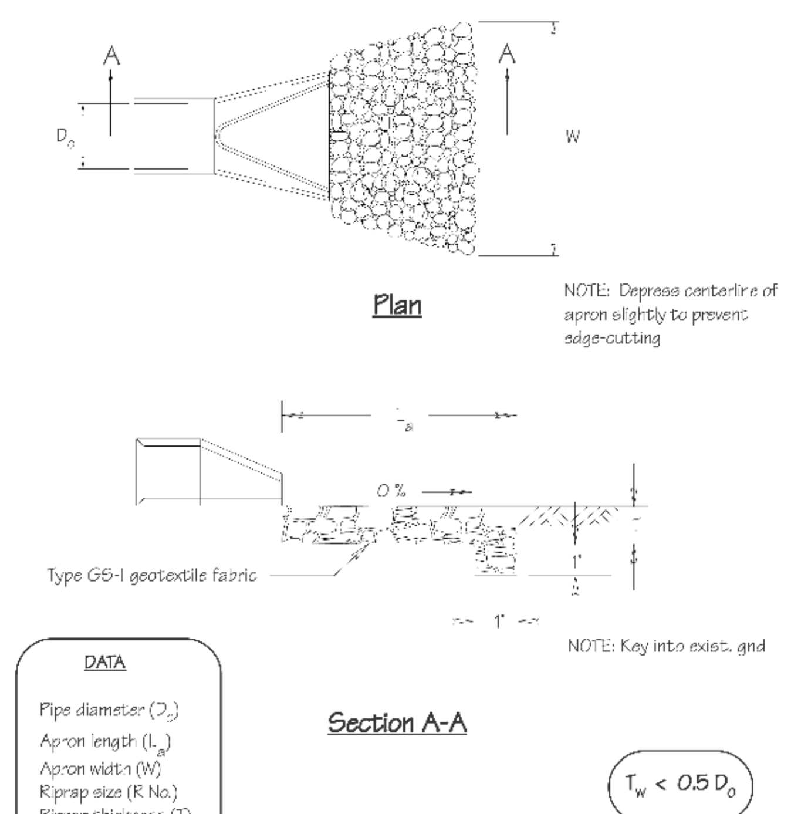
1. The geotextile fabric shall be a Type GD-IV.
2. The dewatering bag shall be sewn with a double needle machine using high strength thread. All structural seams will be sewn with high strength, double stitched "J" type. Seam strength test will have the following minimum average roll values:

Type	TEST METHOD	TEST RESULT
Heavy duty	ASTM D-4884	100 lb / in

3. The dewatering bag shall have an opening large enough to accommodate a four (4) inch discharge hose with attached strap to tie off the hose to prevent the pumped water from escaping from the bag without being filtered.

Source:	Symbol:	Detail No.
Adapted from ACF Products, Inc.	GB	DE-ESC-3.2.1.2 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications
Riprap Outlet Protection - 1



Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	ROP-1	DE-ESC-3.3.10.1 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications
Riprap Outlet Protection - 1

Construction Notes:

1. The subgrade for the riprap shall be prepared to the required lines and grades as shown on the plan. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
2. The riprap shall conform to the grading limits as shown on the plan.
3. Filter cloth shall be protected from punching, cutting or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of cloth over the damaged area. All connecting joints should overlap a minimum of 1 ft. If the damage is extensive, replace the entire filter cloth.
4. Stone for the riprap or gabion outlets may be placed by equipment. Riprap shall be placed in a manner to prevent damage to the filter cloth. Hand placement will be required to the extent necessary to prevent damage to the conduits, structures, etc.

Source:	Symbol:	Detail No.
Adapted from MD Stds. & Specs. for ESC	ROP-1	DE-ESC-3.3.10.1 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications
Vegetative Stabilization

TEMPORARY SEEDING BY RATES, DEPTHS AND DATES

Mix #	Species[5]	Seeding Rate		Optimum Seeding Dates[1] O Optimum Planting Period; A Acceptable Planting Period							Planting Depth[3]
				Coastal Plain			Piedmont			All	
	Certified Seed	lb/Ac[4]	lb/1000 sq.ft.	2/1-4/30	5/1-8/14	8/15-10/31	3/1-4/30	5/1-7/31	8/1-10/31	10/31-2/1	
1	Barley	125	4	O	A	O	O	A	O		1-2 inches 2-3" sandy soils
2	Oats	125	4	O	A	A	O	A	A		1-2 inches 2-3" sandy soils
3	Rye	125	4	O	A	O	O	A	O	A	1-2 inches 2-3" sandy soils
4	Perennial Ryegrass	125	4	O	A	O	O	A	O		0.5 inches 1-2" sandy soils
5	Annual Ryegrass	125	4	O	A	O	O	A	O	A	0.5 inches 1-2" sandy soils
6	Winter Wheat	125	4	O	A	O	O	A	O	A	1-2 inches 2-3" sandy soils
7	Foxtail Millet	30 PLS	0.7		O			O			0.5 inches 1-2" sandy soils
8	Pearl Millet	20 PLS	0.5		O			O			0.5 inches 1-2" sandy soils

1. Winter seeding requires 3 tons per acre of straw mulch for proper stabilization.
2. May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
3. Applicable on slopes 3:1 or less.
4. Use varieties currently recommended for Delaware. Contact a County Extension Office for information.
5. Warm season grasses such as Millet may be used between 5/1 and 9/1 if desired. Seed at 3-5 lbs. per acre. Good on low fertility and acid areas. Seed after frost through summer at a depth of 0.5".

NOTE: Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.4.3 Sheet 1 of 4 Effective July 2023

Standard Detail & Specifications
Vegetative Stabilization

PERMANENT SEEDING AND SEEDING DATES

Mix No.	Seeding Mixtures / Certified Seed[3]	Seeding Rate[1] lb/Ac	lb/1000 sq.ft.	Coastal Plain 2/1-4/30	5/1-8/14	8/15-10/31	Piedmont 3/1-4/30	5/1-7/31	8/1-10/31	All[4] 10/31-2/1	Remarks
	Well Drained Soils			Optimum Seeding Dates[2] O = Optimum Planting Period A = Acceptable Planting Period							
1	Tall Fescue Canada Wild Rye	140 10	3.2 0.23	A	O	A	A	O	A	Add 100 lbs./ac Winter Rye	Good erosion control mix. Tolerant of low fertility soils. Good for droughty sites.
2	Deertongue Sheep Fescue White Clover	30 30 10	0.69 0.69 0.35	A	O	A	A	O	A	Add 100 lbs./ac Winter Rye	Good erosion control mix. Tolerant of low fertility soils. Legume that fixes atmospheric N into soil.
3	Tall Fescue (Turf-type) or Strong Creeping Red Fescue or Perennial Ryegrass **plus** Flatpea[5]	50 50 50 15	1.15 1.15 1.15 0.34	O	A[4]	O	O	A[4]	O	Add 100 lbs./ac. Winter Rye	Good erosion control mix. Tall Fescue for droughty conditions. Creeping Red Fescue for heavy shade. Flatpea to suppress woody vegetation.
4	Strong Creeping Red Fescue Kentucky Bluegrass Perennial Ryegrass or Redtop **plus** White Clover[5]	100 70 15 5 3	2.3 1.61 0.35 0.11 0.07	O	A[4]	O	O	A[4]	O	Add 100 lbs./ac. Winter Rye	Suitable waterway mix. Canada Bluegrass more drought tolerant. Use Redtop for increased drought tolerance.
5	Switchgrass[6,7] or Coastal Panicgrass Big Bluestem Little Bluestem Indian Grass	10 10 5 5 5	0.23 0.23 0.11 0.11 0.1		O			O			Native warm season mixture tolerant of low fertility soils. Drought tolerant. Poor shade tolerance. N fertilizer discouraged - weeds.
6	Tall Fescue (turf-type) (Blend of 3 cultivars)	150	3.5	O	A[4]	O	O	A[4]	O		Managed filter strip for nutrient uptake.
7	Tall Fescue Ky. Bluegrass (Blend) Perennial Ryegrass	150 20 20	3.5 0.46 0.46	O	A[4]	O	O	A[4]	O		Three cultivars of Kentucky Bluegrass. Traffic tolerant.
8	Big Bluestem[7] Indian Grass[7] Little Bluestem[7] Creeping Red Fescue **plus one of:** Partridge Pea Bush Clover Wild Indigo Showy Tick-Trefoil	10 10 8 30 5 3 3 2	0.23 0.23 0.18 0.69 0.11 0.07 0.07 0.05	O	A[4]		O	A[4]			All species are native. Indian Grass and Bluestem have fluffy seeds. Plant with a specialized native seed drill. Creeping Red Fescue will provide erosion protection while the warm season grasses get established.

NOTE: Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.4.3 Sheet 2 of 4 Effective July 2023

Standard Detail & Specifications
Vegetative Stabilization

PERMANENT SEEDING AND SEEDING DATES (cont.)

Mix No.	Seeding Mixtures / Certified Seed[3]	Seeding Rate[1] lb/Ac	lb/1000 sq.ft.	Coastal Plain 2/1-4/30	5/1-8/14	8/15-10/31	Piedmont 3/1-4/30	5/1-7/31	8/1-10/31	All[4] 10/31-2/1	Remarks
	Poorly Drained Soils			Optimum Seeding Dates[2] O = Optimum Planting Period A = Acceptable Planting Period							
9	Redtop Creeping Bentgrass Sheep Fescue Rough Bluegrass	75 35 30 45	1.72 0.8 0.69 1	O	A[4]	O	O	A[4]	O	Add 100 lbs./ac. Winter Rye	Quick stabilization of disturbed sites and waterways
10	Switchgrass[6]	10	0.23	A		O	A		O		Good erosion control, wildlife cover and wetland revegetation.
	Residential Lawns										
11	Tall Fescue Perennial Ryegrass Kentucky Bluegrass Blend	100 25 30	2.3 0.57 0.69	O	A[4]	O	O	A[4]	O		High value, high maintenance, light traffic, irrigation necessary. Well drained soils, full sun.
12	Tall Fescue Perennial Ryegrass Sheep Fescue	100 25 25	2.3 0.57 0.57	O	A[4]	O	O	A[4]	O		Moderate value, low maintenance, traffic tolerant.
13	Creeping Red Fescue Chewings Fescue Rough Bluegrass Kentucky Bluegrass	50 50 20 20	1.15 1.15 0.4 0.4	O	A[4]	O	O	A[4]	O		Shade tolerant, moderate traffic tolerance, moderate maintenance.
14	Creeping Red Fescue Rough Bluegrass or Chewings Fescue	50 90	1.15 2.1	O	A[4]	O	O	A[4]	O		Shade tolerant, moisture tolerant.
15	K-31 Tall Fescue	150	3.5	O	A[4]	O	O	A[4]	O		Monoculture, but performs well alone in lawns. Discouraged.

1. When hydroseeding is the chosen method of application, the total rate of seed should be increased by 25%.
2. Winter seeding requires 3 tons per acre of straw mulch. Planting dates listed above are average for Delaware. These dates may require adjustment to reflect local conditions.
3. All seed shall meet the minimum purity and minimum germination percentages recommended by the Delaware Department of Agriculture. The maximum % of weed seeds shall be in accordance with Chapter 15, Title 3 of the Delaware Code.
4. Turf-type species may be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
5. It is recommended that all leguminous seed be inoculated.
6. Warm season grass mix and Switchgrass cannot be mowed more than 4 times per year.
7. Warm season grasses require a soil temperature of at least 50 degrees in order to germinate and will remain dormant until then.

NOTE: Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.4.3 Sheet 3 of 4 Effective July 2023

Standard Detail & Specifications
Vegetative Stabilization

Construction Notes:

1. Site Preparation
   a. Prior to seeding, install needed erosion and sediment control practices such as diversions, grade stabilization structures, berms, dikes, grassed waterways, and sediment basins.
   b. Final grading and shaping is not necessary for temporary seedings.
2. Seedbed Preparation

   It is important to prepare a good seedbed to ensure the success of establishing vegetation. The seedbed should be well prepared, loose, uniform, and free of large clods, rocks, and other objectionable material. The soil surface should not be compacted or crusted.
3. Soil Amendments
   a. Lime - Apply liming materials based on the recommendations of a **soil test** in accordance with the approved nutrient management plan. If a nutrient management plan is not required, apply dolomitic limestone at the rate of 1 to 2 tons per acre. Apply limestone uniformly and incorporate into the top 4 to 6 inches of soil.
   b. Fertilizer - Apply fertilizer based on the recommendations of a **soil test** in accordance with the approved nutrient management plan. If a nutrient management plan is not required, apply a formulation of 10-10-10 at the rate of 600 pounds per acre. Apply fertilizer uniformly and incorporate into the top 4 to 6 inches of soils.
4. Seeding
   a. For **temporary stabilization**, select a mixture from **Sheet 1**. For a **permanent stabilization**, select a mixture from **Sheet 2** or **Sheet 3** depending on the conditions. Alternative seed mixes may be used with prior approval from the Department or Delegated Agency.
   b. Apply seed uniformly with a broadcast seeder, drill, cultipacker seeder or hydroseeder. All seed will be applied at the recommended rate and planting depth.
   c. Seed that has been broadcast should be covered by raking or dragging and then lightly tamped into place using a roller or cultipacker. If hydroseeding is used and the seed and fertilizer is mixed, they will be mixed on site and the seeding shall be done immediately and without interruption.
5. Mulching

   All mulching shall be done in accordance with detail **DE-ESC-3.4.5**.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.4.3 Sheet 4 of 4 Effective July 2023

Standard Detail & Specifications
Mulching

1. Materials and Amounts

a. *Straw* - Straw shall be unrotted small grain straw applied at the rate of 1-1/2 to 2 tons per acre, or 70 to 90 pounds (two bales) per 1,000 square feet. Mulch materials shall be relatively free of weeds and shall be free of noxious weeds such as; thistles, Johnsongrass, and quackgrass. Spread mulch uniformly by hand or mechanically. For uniform distribution of hand spread mulch, divide area into approximately 1,000 square feet sections and place 70-90 pounds (two bales) of mulch in each section.

b. *Wood chips* - Apply at the rate of approximately 6 tons per acre or 275 pounds per 1,000 square feet when available and when feasible. These are particularly well suited for utility and road rights-of-way. If wood chips are used, increase the application rate of nitrogen fertilizer by 20 pounds of N per acre (200 pounds of 10-10-10 or 66 pounds of 30-0-0 per acre).

c. *Hydraulically applied mulch* - The following conditions apply to hydraulically applied mulch:

i. Definitions:
   a. Wood fiber mulch shall consist of specially prepared wood that has been processed to a uniform state, is packaged for sale as a hydraulic mulch for use with hydraulic seeding equipment, and consists of a minimum of 70% virgin or recycled wood fiber combined with 30% paper fiber and additives.
   b. Blended fiber mulch shall consist of any hydraulic mulch that contains greater than 30% paper fiber. The paper component must consist of specially prepared paper that has been processed to a uniform fibrous state and is packaged for sale as a hydraulic mulch for use with hydraulic seeding equipment.
   c. A bonded fiber matrix (BFM) consists of long strand, specially prepared wood fibers that have been processed to a uniform state held together by a water resistant bonding agent. BFMs shall contain no paper (cellulose) mulch but may contain small percentages of synthetic fibers to enhance performance.
   d. Refer to **Figure 3.4.5a** for conditions and limitations of use for each of the above categories of hydraulic mulch.

ii. All components of the hydraulically applied mulches shall be pre-packaged by the manufacturer to assure material performance. Field mixing of the mulch components is acceptable, but must be done per manufacturers recommendations to ensure the proper results.

iii. Hydraulic mulches shall be applied with a viable seed and at manufacturer's recommended rates. Increased rates may be necessary based on site conditions.

iv. Hydraulically applied mulches and additives shall be mixed according to manufacturers recommendations.

iv. Materials within this category shall only be used when hydraulically applied mulch has been specified for use on the approved Sediment and Stormwater Plan, or supplemental approval from the plan approval agency has been obtained in writing for a specific area.

Source:	Symbol:	Detail No.
Delaware ESC Handbook & Filtrexx™ International		DE-ESC-3.4.5 Sheet 1 of 3 Effective July 2023

Standard Detail & Specifications
Mulching

v. Application:
   a. Apply product to geotechnically stable slopes that have been designed and constructed to divert runoff away from the face of the slope.
   b. Do not apply to saturated soils, or if precipitation is anticipated within 24-48 hours.
   c. During the spring (March 1 to May 31) and fall (September 1 to November 30) seasons, hydraulic mulches may be applied in a one-step process where all components are mixed together in single-tank loads. It is recommended that the product be applied from opposing directions to achieve optimum soil coverage.
   d. During the summer (June 1 to August 31) and winter (December 1 to February 28) seasons, the following two-step process is required:

      Step One – Mix and apply seed and soil amendments with a small amount of mulch for visual metering.

      Step Two – Mix and apply mulch at manufacturers recommended rates over freshly seeded surfaces. Apply from opposing directions to achieve optimum soil coverage.
   e. Minimum curing temperature is 40° F (4° C). The best results and more rapid curing are achieved at temperatures exceeding 60° F (15° C). Curing times may be accelerated in high temperature, low humidity conditions on dry soils.

vi. Recommended application rates are for informational purposes only. Conformance with this standard and specification shall be performance-based and requires **100% soil coverage**. Any areas with bare soil showing shall be top dressed until full coverage is achieved.

d. *Compost blanket (CB)* - Loosely applied with a pneumatic blower so that a 1" compost blanket uniformly covers the **soil with 100% coverage.** This application can be used with seed to promote germination by applying the approved seed mix directly into the loosely blown compost. The compost blanket performs best on slopes less than 2:1 and requires no mulch anchoring.

2. Anchoring mulch - Mulch must be anchored immediately to minimize loss by wind or water. This may be done by one of the following methods, depending upon size of area, erosion hazard, and cost.

a. *Crimping* - A crimper is a tractor drawn implement designed to punch and anchor mulch into the top two (2) inches of soil. This practice affords maximum erosion control but is limited to flatter slopes where equipment can operate safely. On sloping land, crimping should be done on the contour whenever possible.

b. *Tracking* - Tracking is the process of cutting mulch (usually straw) into the soil using a bulldozer or other equipment that runs on cleated tracks. Tracking is used primarily on slopes 3:1 or steeper and should be done up and down the slope with cleat marks running across the slope.

c. *Liquid mulch binders* - Applications of liquid mulch binders should be heavier at edges, in valleys, and at crests of banks and other areas where the mulch will be moved by wind or water. All other areas should have a uniform application of binder. The use of synthetic binders is the preferred method of mulch binding and should be applied at the rates recommended by the manufacturer.

d. *Paper fiber* - The fiber binder shall be applied at a net dry weight of 750 lbs/ac. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons.

e. *Nettings* - Biodegradable nettings may be used to secure straw mulch. Install and secure according to the manufacturer's recommendations. Photodegradable or synthetic nettings are not acceptable.

Source:	Symbol:	Detail No.
Delaware ESC Handbook & Filtrexx™ International		DE-ESC-3.4.5 Sheet 2 of 3 Effective July 2023

Standard Detail & Specifications
Mulching

MULCHING MATERIAL SELECTION GUIDE

Percent Slope	Type of Mulch / App. Rate*	Dec. 1 to Feb. 28(29)	March 1 to May 31	June 1 to Aug. 31	Sept. 1 to Nov. 30
Less than 2%	Blended Fiber @ 2000 lbs/ac. minimum	xxxxxxxxxxxxxxxx	OK (≤ 1 ac.)	xxxxxxxxxxxxxxxx	OK (≤ 1 ac.)
	Wood Fiber @ 2000 lbs/ac. min.	xxxxxxxxxxxxxxxx	OK	xxxxxxxxxxxxxxxx	OK
	BFM @ 3000 lbs/ac. min.	OK	OK	OK	OK
	Straw @ 2 Tons/ac. Min.	OK	OK	OK	OK
	Stabilization Matting**	OK	OK	OK	OK
	1" Compost Blanket (CB)	OK	OK	OK	OK
2% to 5.9%	Wood Fiber @ 2000 lbs/ac. min.	xxxxxxxxxxxxxxxx	OK	xxxxxxxxxxxxxxxx	OK
	BFM @ 3000-3500 lbs/ac. min	OK	OK	OK	OK
	Straw @ 2 Tons/ac. min.	OK	OK	OK	OK
	Stabilization Matting**	OK	OK	OK	OK
	1" Compost Blanket (CB)	OK	OK	OK	OK
6% to 10.9%	Wood Fiber @ 2000-2500 lbs/ac. min.	xxxxxxxxxxxxxxxx	OK	xxxxxxxxxxxxxxxx	OK
	BFM @ 3500-4000 lbs/ac. min.	OK	OK	OK	OK
	Straw @ 2 Tons/ac. min.	OK	OK	OK	OK
	Stabilization Matting**	OK	OK	OK	OK
	1" Compost Blanket (CB)	OK	OK	OK	OK
11% to 24.9%	Wood Fiber @ 2500-3000 lbs/ac. min.	xxxxxxxxxxxxxxxx	OK	xxxxxxxxxxxxxxxx	OK
	BFM @ 3500-4000 lbs/ac. min.	OK	OK	OK	OK
	Straw @ 2 Tons/ac. min.	OK	OK	OK	OK
	Stabilization Matting**	OK	OK	OK	OK
	1" Compost Blanket (CB)	OK	OK	OK	OK
25% to 33%	Wood Fiber @ 2500-3000 lbs/ac. min.	xxxxxxxxxxxxxxxx	OK	xxxxxxxxxxxxxxxx	OK
	BFM @ 4000 lbs/ac. min.	xxxxxxxxxxxxxxxx	OK	xxxxxxxxxxxxxxxx	OK
	Straw @ 2 Tons/ac. min.	OK	OK	OK	OK
	Stabilization Matting**	OK	OK	OK	OK
	1" Compost Blanket (CB)	OK	OK	OK	OK
33% and up	BFM @ 4000-4500 lbs/ac. min.	xxxxxxxxxxxxxxxx	OK	xxxxxxxxxxxxxxxx	OK
	Straw @ 2 Tons/ac. min.***	OK	OK	OK	OK
	Stabilization Matting**	OK	OK	OK	OK
	1" Compost Blanket (CB)	2:1 Max.	2:1 Max.	2:1 Max.	2:1 Max.

* Note: Manufacturers Recommended Rates for informational purposes only. Performance standard requires 100% soil coverage.
** Note: Stabilization Matting must be applied in accordance with Section 3.4.6 of the Delaware ESC Handbook.
***Note: Straw applied on slopes greater than 33% must be netted (this does not apply to topsoil stockpiles).
OK = Acceptable to use during this time period.
xxx = Not acceptable to use during this time period.
All application rates are minimums

Source:	Symbol:	Detail No.
Delaware ESC Handbook & Filtrexx™ International		DE-ESC-3.4.5 Sheet 3 of 3 Effective July 2023

$DATE$
$TIME$
$FILE$

ADDENDA / REVISIONS

NOT TO SCALE

BERZINS NATURE PARK & TRAIL

CONTRACT	T202320007	COUNTY	SUSSEX

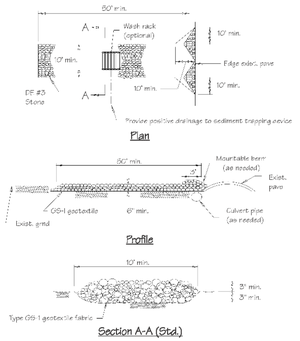
BRIDGE NO.	N/A
DESIGNED BY:	G.TRIPP
CHECKED BY:	K. GULATI

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN

MOT-04
SECTION
WM
SHEET NO.
20

Standard Detail & Specifications

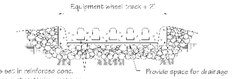
Stabilized Construction Entrance



Source:	Symbol	Detail No.
Adapted from VA ESC Handbook	SCE	DE-ESC-3.4.7 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Stabilized Construction Entrance



Construction Notes:

1. Stone size - Use DE #3 stone.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than size (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Geotextile - Type GS-I, placed over the entire area prior to placing of stone.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Vehicle wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Inspection - Periodic inspection and needed maintenance shall be provided after each rain.

Source:	Symbol:	Detail No.
Adapted from VA ESC Handbook	SCE	DE-ESC-3.4.7 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Construction Site Pollution Prevention

Delaware NPDES Discharge Permit
General Permit for Discharge of Stormwater from Construction Activities

((Project Name))

((NOI Permit Number))

((Agency Plan Approval ID))

((Contact Name & Number for Additional Site Information))

((Contact Name & Number to Obtain Copy of Approved Plan))

If you observe indicators of stormwater pollutants in the discharge or in the receiving waterbody, call the DNREC Spill Notification 24 HR Hotline at

1-800-662-8802

Example Construction General Permit (CGP) Signage

NOTES:
1. Minimum sign size 2' x 2'
2. Minimum text size 1"
3. Sign must be posted at a safe, publicly accessible location close to construction site
4. Sign must be visible from the public road nearest the active construction site
5. Signs posted within a DelDOT or other public road right-of-way (ROW) must be in accordance with all local and/or State requirements in regards to safety, location, orientation, etc.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.6.1 Sheet 1 of 4 Effective July 2023

Standard Detail & Specifications

Construction Site Pollution Prevention

Notes:

The Construction Site Pollution Prevention Plan includes the following elements:

1. **Material Inventory**

   Document the storage and use of the following materials:
   a. Concrete
   b. Detergents
   c. Paints (enamel and latex)
   d. Cleaning solvents
   e. Pesticides
   f. Wood scraps
   g. Fertilizers
   h. Petroleum based products
2. **Good housekeeping practices**
   a. Store only enough product required to do the job.
   b. Store all materials in a neat, orderly manner in their original labeled containers and covered.
   c. Do not mix different substances.
   d. When possible, use all of a product prior to disposal of the container.
   e. Manufacturers' instructions for disposal should be strictly adhered to.
   f. Designate someone to inspect all BMPs daily.
3. **Waste management practices**
   a. Collect and store all waste materials in securely lidded dumpsters in a location that does not drain to a waterbody.
   b. Salvage and/or recycle waste materials whenever possible.
   c. The dumpsters shall be emptied a minimum of twice per week, or more if necessary. The licensed trash hauler is responsible for cleaning out dumpsters.

Source:	Symbol:	Detail No.
Adapted from USEPA Pub. 840-B-92-002		DE-ESC-3.6.1 Sheet 2 of 4 Effective July 2023

Standard Detail & Specifications

Construction Site Pollution Prevention

Notes (cont.)

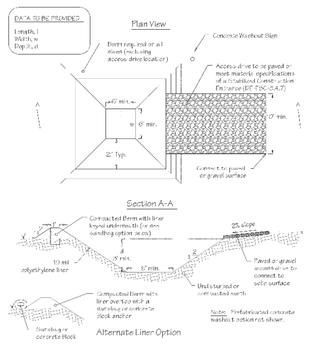
d. Dispose of all trash in accordance with all applicable Delaware laws.
e. Littering is strictly prohibited. Trash cans should be placed at all lunch spots and recycle bins should be placed near the construction trailer.
f. If fertilizer bags can not be stored in a weather-proof location, they should be kept on a pallet and covered with plastic sheeting which is overlapped and anchored.

4. Equipment maintenance practices
   a. If possible, equipment should be taken to off-site commercial facilities for washing and maintenance.
   b. If performed on-site, wash vehicles with high-pressure water spray without detergents in an area contained by an impervious berm.
   c. Use drip pans for all equipment maintenance.
   d. Inspect equipment for leaks on a daily basis.
   e. Direct washout from concrete trucks into a temporary pit for hardening and proper disposal.
   f. Equip fuel nozzles with automatic shut-off valves.
   g. Dispose of all used products such as oil, antifreeze, solvents and tires in accordance with manufacturers' recommendations and local, state and federal laws and regulations.
5. **Spill prevention practices**
   a. Identify potential spill areas and contain them in covered areas with no connection to the storm drain system.
   b. Post warning signs in hazardous material storage areas.
   c. Perform preventive maintenance on all tanks, valves, pumps, pipes and other equipment as necessary.
   d. Prioritize low or non-toxic substances for use.

Source:	Symbol:	Detail No.
Adapted from USEPA Pub. 840-B-92-002		DE-ESC-3.6.1 Sheet 3 of 4 Effective July 2023

Standard Detail & Specifications

Concrete Washout



Source:	Symbol:	Detail No.
Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3	CW	DE-ESC-3.6.2 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Concrete Washout

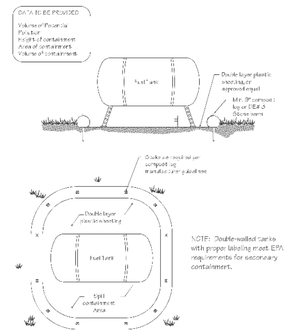
Construction Notes:

1. Locate washout area a minimum of 50 feet from open channels, stormdrain inlets, wetlands or waterbodies.
2. Locate washout area so that it is accessible to concrete equipment (service with a minimum 10 foot wide gravel accessway), but so it is not in a highly active construction area causing accidental damage.
3. Minimum dimensions for prefabricated units are 4 feet by 4 feet by 1 foot deep with a minimum 4mil polyethylene plastic liner. Minimum dimensions for constructed concrete washout areas are 6 feet by 6 feet by 3 feet deep, with a minimum 10mil polyethylene liner, 2:1 side slopes, and a 1 foot high by 1 foot wide compacted fill berm.
4. The liner must be free of tears or holes and placed over smooth surfaces to prevent puncturing. For excavated washouts, anchor the liner underneath the berm or overtop with sandbags or concrete blocks to hold in place.
5. Provide a sign designating the washout area, and for large construction sites, provide signs throughout directing traffic to its location.
6. Allow washed out concrete mixture to harden through evaporation of the wastewater. Once the facility has reached 75 percent of its capacity, remove the hardened concrete by reusing the broken aggregate onsite, recycling, or disposing of offsite. The hardened material can be buried on site with minimum of 1 foot of clean, compacted fill.
7. Apply a new liner before reusing the station for additional washouts after maintenance has occurred.

Source:	Symbol	Detail No.
Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3	CW	DE-ESC-3.6.2 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Fueling & Spill Control



Source:	Symbol	Detail No.
Delaware ESC Handbook		DE-ESC-3.6.4 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Fueling & Spill Control

Pollution Prevention – Fueling & Spill Control

1. Fueling should only take place in signed designated areas, away from downstream drainage facilities and watercourses.
2. Fueling must be with nozzles equipped with automatic shut-off to control drips. Do not top off.
3. Protect the areas where equipment or vehicles are being repaired, maintained, fueled or parked from storm water run-on and runoff.
4. Use barriers such as berms to prevent storm water run-on and runoff, and to contain spills.
5. Place a "Fueling Area" sign next to each fueling area.
6. Store hazardous materials such as fuel, solvents, oil and chemicals in secondary containment.
7. Inspect vehicles and equipment for leaks on each day of use. Repair fluid and oil leaks immediately.
8. Absorbent spill clean-up materials and spill kits must be available in fueling areas and on fuel trucks.
9. If fueling is to take place at night, make sure the fueling area is sufficiently illuminated.
10. Properly dispose of used oil, fluids, lubricants and spill clean-up materials.

CLEAN UP SPILLS

1. If it is safe to do so, immediately contain and clean up any chemical and/or hazardous material spills.
2. Properly dispose of used oil, fluids, lubricants and spill clean-up materials.
3. Do not bury spills or wash them down with water.

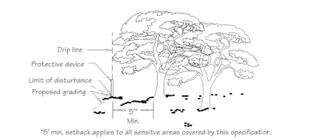
LEAKS AND DRIPS

1. Use drip pans or absorbent pads at all times. Place under and around leaky equipment.
2. Do not allow oil, grease, fuel or chemicals to drip onto the ground.
3. Have spill kits and clean up material on-site.
4. Repair leaky equipment promptly or remove problem vehicles and equipment from the site. Clean up contaminated soil immediately.
5. Store contaminated waste in sealed containers constructed of suitable material. Label these containers properly.
6. Clean up all spills and leaks. Promptly dispose of waste and spent clean up materials.

Source:	Symbol:	Detail No.
Delaware ESC Handbook		DE-ESC-3.6.4 Sheet 2 of 2 Effective July 2023

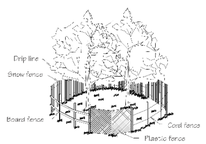
Standard Detail & Specifications

Sensitive Area Protection



"8' min. setback applies to all sensitive areas covered by this specification.

Location of Sensitive Area Protection



Methods of Sensitive Area Protection

Source:	Symbol:	Detail No.
Adapted from VA ESC Handbook	SAP	DE-ESC-3.7.2 Sheet 1 of 3 Effective July 2023

Standard Detail & Specifications

Sensitive Area Protection

Construction Notes:

Fencing shall be installed at the extents of all sensitive areas. For trees, the fencing shall be installed outside the dripline (mature canopy) and at no time within 5 feet of the trunk. Personnel must be instructed to honor protective devices. The devices described are suggested only, and are not intended to exclude the use of other devices which will protect the trees to be retained. If silt fence is to be used for demarcation purposes, appropriate signage shall be provided a minimum of every 20 feet denoting the area as a sensitive area protection zone.

Materials:

1. Snow Fence - Standard 40-inch high snow fence shall be placed at the limits of clearing or construction on standard steel posts set 6 feet apart.
2. Board Fence - Board fencing consisting of 4-inch square posts set securely in the ground and protruding at least 4 feet above the ground shall be placed at the limits of clearing with a minimum of two horizontal boards between posts. For tree protection, if it is not practical to erect a fence at the drip line, construct a triangular fence nearer the trunk. The limits of clearing will still be located at the drip line, since the root zone within the drip line will still require protection.
3. Plastic Fencing - 40-inch high "international orange" plastic (polyethylene) web fencing secured to conventional metal "T" or "U" posts driven to a minimum depth of 18 inches on 6-foot minimum centers shall be installed at the limits of clearing. The fence should have the following minimum physical qualities:
   a. Tensile yield: Average 2,000 lbs. per 4-foot width (ASTM D638)
   b. Ultimate tensile yield: Average 2,900 lbs. per 4-foot width (ASTM D638)
   c. Elongation at break (%): Greater than 1000% (ASTM D638)
   d. Chemical resistance: Inert to most chemicals and acids

Source:	Symbol	Detail No.
Adapted from VA ESC Handbook	SAP	DE-ESC-3.7.2 Sheet 2 of 3 Effective July 2023

Standard Detail & Specifications

Sensitive Area Protection

4. Cord Fence - Posts with a minimum size of 2 inches square or 2 inches in diameter set securely in the ground and protruding at least 4 feet above the ground shall be placed at the limits of clearing with two rows of cord 1/4-inch or thicker at least 2 feet apart running between posts with strips of colored surveyor's flagging tied securely to the string at intervals no greater than 3 feet.
5. Earth Berms - Temporary earth berms shall be constructed according to specifications for a Temporary Earth Dike with the base of the berm on the sensitive area side located along the limits of clearing. Earth berms may not be used for this purpose if their presence will conflict with drainage patterns.
6. Trunk Armoring (Tree Protection Only) - As a last resort, a tree trunk can be armored with burlap wrapping and 2-inch slats wired vertically no more than 2 inches apart to a height of 5 feet encircling the trunk. If this alternative is used, the root zone within the drip line will still require protection. Nothing should ever be nailed to a tree.

Maintenance:

Fencing and armoring devices shall be in place before any excavation or grading is begun, shall be kept in good repair for the duration of construction activities, and shall be the last items removed during the final cleanup after the completion of the project.

Source:	Symbol	Detail No.
Adapted from VA ESC Handbook	SAP	DE-ESC-3.7.2 Sheet 3 of 3 Effective July 2023

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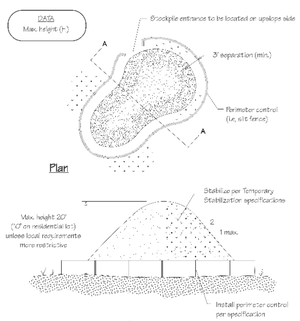
ADDENDA / REVISIONS		NOT TO SCALE	BERZINS NATURE PARK & TRAIL	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN	MOT-05
				T202320007			SECTION
				COUNTY	DESIGNED BY: G.TRIPP		WM
				SUSSEX	CHECKED BY: K. GULATI		SHEET NO.
							21

Standard Detail & Specifications

Soil Stockpile



Source:	Symbol	Detail No.
Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3	SP	DE-ESC-3.7.3 Sheet 1 of 2 Effective July 2023

Standard Detail & Specifications

Soil Stockpile

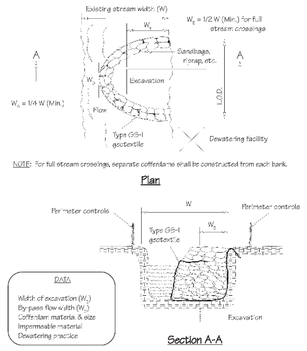
Construction Notes:

1. Locate stockpiles so that they are 50 feet from any storm drain inlet, open channel, wetland or waterbody. Redirect any concentrated flow around the stockpile using an approved erosion and sediment control measure.
2. Secure the perimeter of the stockpile with an approved erosion and sediment control perimeter device.
3. If stockpile is to remain inactive for more than 14 calendar days, the stockpile must be vegetated. Follow the temporary vegetation specifications. The vegetation chosen shall last the duration of the stockpile; the stockpile shall be restabilized if the temporary vegetation dies or erosion results.

Source:	Symbol	Detail No.
Adapted from Colorado Urban Storm Drainage Criteria Manual, Vol 3	SP	DE-ESC-3.7.3 Sheet 2 of 2 Effective July 2023

Standard Detail & Specifications

Cofferdam Stream Diversion



Source:	Symbol:	Detail No.
Adapted from VA ESC Handbook	CD	DE-ESC-3.5.2.2 Sheet 1 of 2 Effective July 2023

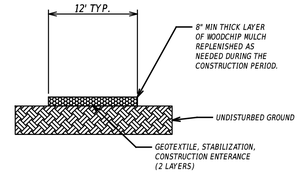
Standard Detail & Specifications

Cofferdam Stream Diversion

Construction Notes:

1. Construction shall be performed during low flow conditions.
2. Cofferdam shall not impede the flow of the stream in any way.
3. Controls for approach areas shall be provided in accordance with the approved plan.
4. Large rocks, woody vegetation, or other material in the streambed and banks which may preclude proper installation of the cofferdam materials and/or impede the proposed construction shall be removed.
5. Cofferdam shall be formed by placing riprap, sandbags, sheet metal or wood planks in a semi-circle around the proposed work area. Height of the cofferdam shall be adequate to keep water from overtopping the dam and flooding the work area.
6. Water in the work area shall be pumped to an approved dewatering practice.
7. Once adequately dewatered, in-stream construction may begin from the first bank and proceed to the centerline of the stream, as required.
8. If a full stream crossing is required, all disturbed areas within the first work area shall be stabilized in accordance with the approved plan prior to dismantling and reconstructing the cofferdam on the opposite bank.
9. Repeat the operation from the opposite bank.

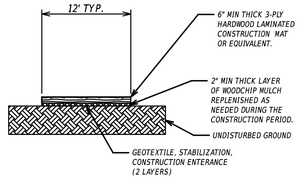
Source:	Symbol:	Detail No.
Adapted from VA ESC Handbook	CD	DE-ESC-3.5.2.2 Sheet 2 of 2 Effective July 2023



TEMPORARY MULCH ACCESS ROAD

NOTES: NOT TO SCALE

1. ACCESS ROUTES TO BE VERIFIED BY THE ENGINEER AT PRE-CONSTRUCTION MEETING. REVISIONS TO ALIGNMENT THAT MINIMIZE TREE DISTURBANCE ARE ENCOURAGED AND REQUIRE REVIEW AND APPROVAL BY THE ENGINEER.
2. GEOTEXTILE SHALL BE PLACED WITH SEAMS PARALLEL TO THE FLOW OF TRAFFIC. OVERLAP FABRIC BY 18" MIN. AT SEAMS.
3. CONTRACTOR SHALL MAINTAIN TEMPORARY ACCESS ROAD THROUGHOUT CONSTRUCTION PERIOD.



TEMPORARY MULCH ACCESS ROAD WITH HARDWOOD CONSTRUCTION MAT

NOTES: NOT TO SCALE

1. HARDWOOD MATS TO BE INSTALLED AS INDICATED ON CONTRACT AMD DOCUMENTS IN WETLANDS OR UTILITY CROSSING.
2. ACCESS ROUTES TO BE VERIFIED BY THE ENGINEER AT PRE-CONSTRUCTION MEETING. REVISIONS TO ALIGNMENT THAT MINIMIZE TREE DISTURBANCE ARE ENCOURAGED AND REQUIRE REVIEW AND APPROVAL BY THE ENGINEER.
3. GEOTEXTILE SHALL BE PLACED WITH SEAMS PARALLEL TO THE FLOW OF TRAFFIC. OVERLAP FABRIC BY 18" MIN. AT SEAMS.

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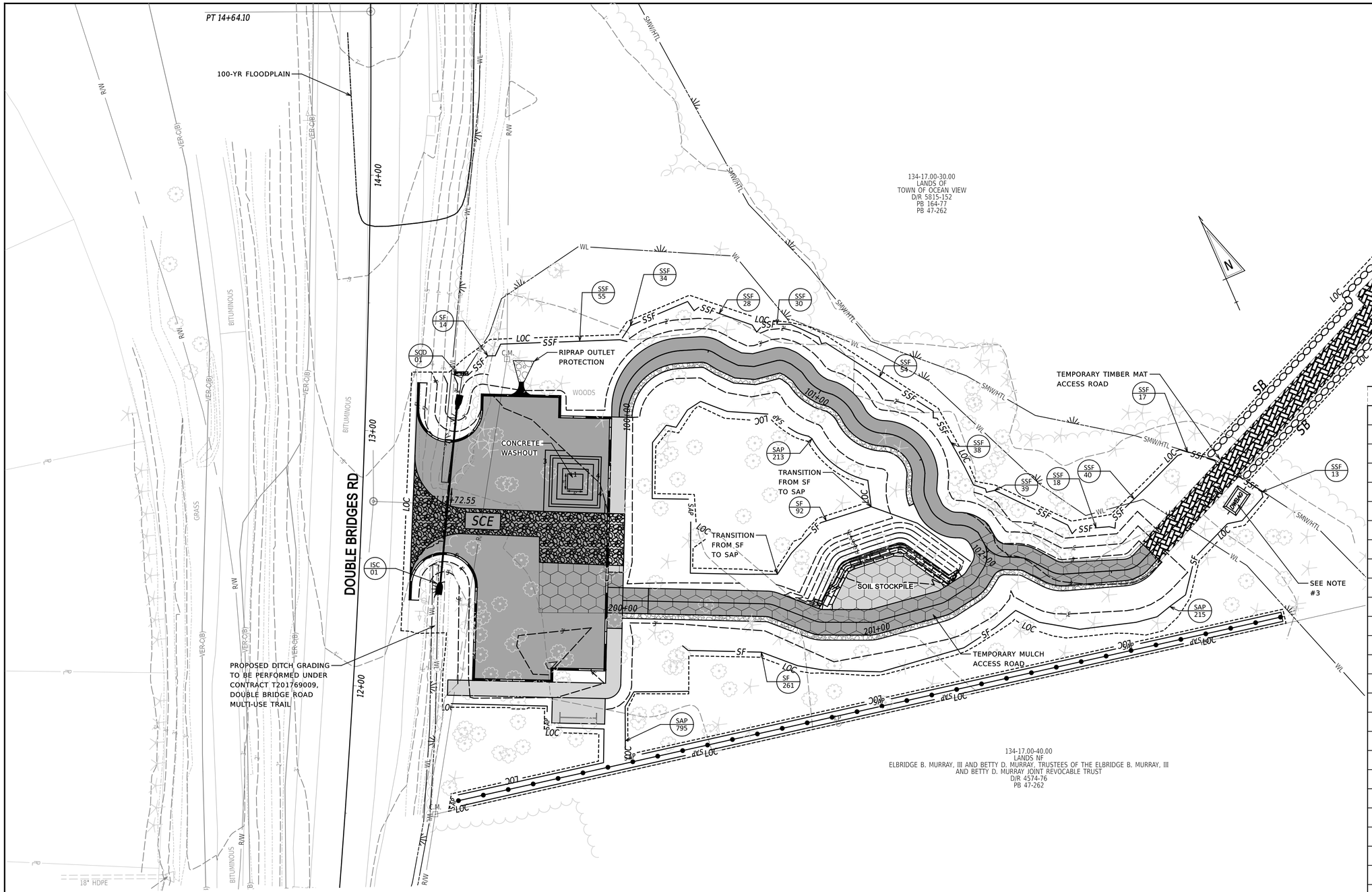
ADDENDA / REVISIONS							
		NOT TO SCALE	BERZINS NATURE PARK & TRAIL	CONTRACT T202320007	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN	MOT-06
				COUNTY SUSSEX	DESIGNED BY: G.TRIPP		SECTION WM
					CHECKED BY: K. GULATI		SHEET NO. 22



NOTES:

1. CONTRACTOR MAY USED PROPOSED PARKING LOT AS A STAGING/STOCKPILE AREA. FOLLOW 3.7.3 SOIL STOCKPILE DETAIL FROM THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK.
2. REFER TO SECTION 3.7.2 OF DELAWARE'S LATEST EROSION AND SEDIMENT HANDBOOK FOR SENSITIVE AREA PROTECTION DETAILS.
3. CONTRACTOR TO ADJUST LOCATION OF THE DEWATERING BAG AS NEEDED.
4. FOR SANDBAG DIVERSION REFER TO DETAIL DE-ESC-3.5.2.2.

EROSION & SEDIMENT CONTROL

CFL	COMPOST FILTER LOG
CFL	COMPOST FILTER LOG / LENGTH
DWBAG	DEWATERING BAG
DWB	DEWATERING BASIN
CW	CONCRETE WASHOUT
ED	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
PST	PORTABLE SEDIMENT TANK
SBD	SANDBAG DIKE
SB	SANDBAG DIVERSION
SCD	STONE CHECK DAM
SCE	STABILIZED CONSTRUCTION ENTRANCE
SF	SILT FENCE / LENGTH
SF	SILT FENCE
RSF	REINFORCED SILT FENCE / LENGTH
RSF	REINFORCED SILT FENCE
SSF	SUPER SILT FENCE / LENGTH
SSF	SUPER SILT FENCE
SP	SUMP PIT
ST	SEDIMENT TRAP / NUMBER
ST	SEDIMENT TRAP
ST	SEDIMENT TRAP WITH INLET AS OUTLET
ST	SEDIMENT TRAP PIPE OUTLET
SW	STILLING WELL
	TEMPORARY SWALE
TSD	TEMPORARY SLOPE DRAIN
T 1000	TURBIDITY CURTAIN / LENGTH
T	TURBIDITY CURTAIN
SAP	SENSITIVE AREA PROTECTION
	TEMPORARY MULCH ACCESS ROAD
	TEMPORARY TIMBER MAT ACCESS ROAD

ADDENDA / REVISIONS	

SCALE
0 20 40 60
FEET

BERZINS NATURE PARK & TRAIL

CONTRACT	T202320007
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	G. TRIPP
CHECKED BY:	K. GULATI

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN

	MOT-07
SECTION	WM
SHEET NO.	23

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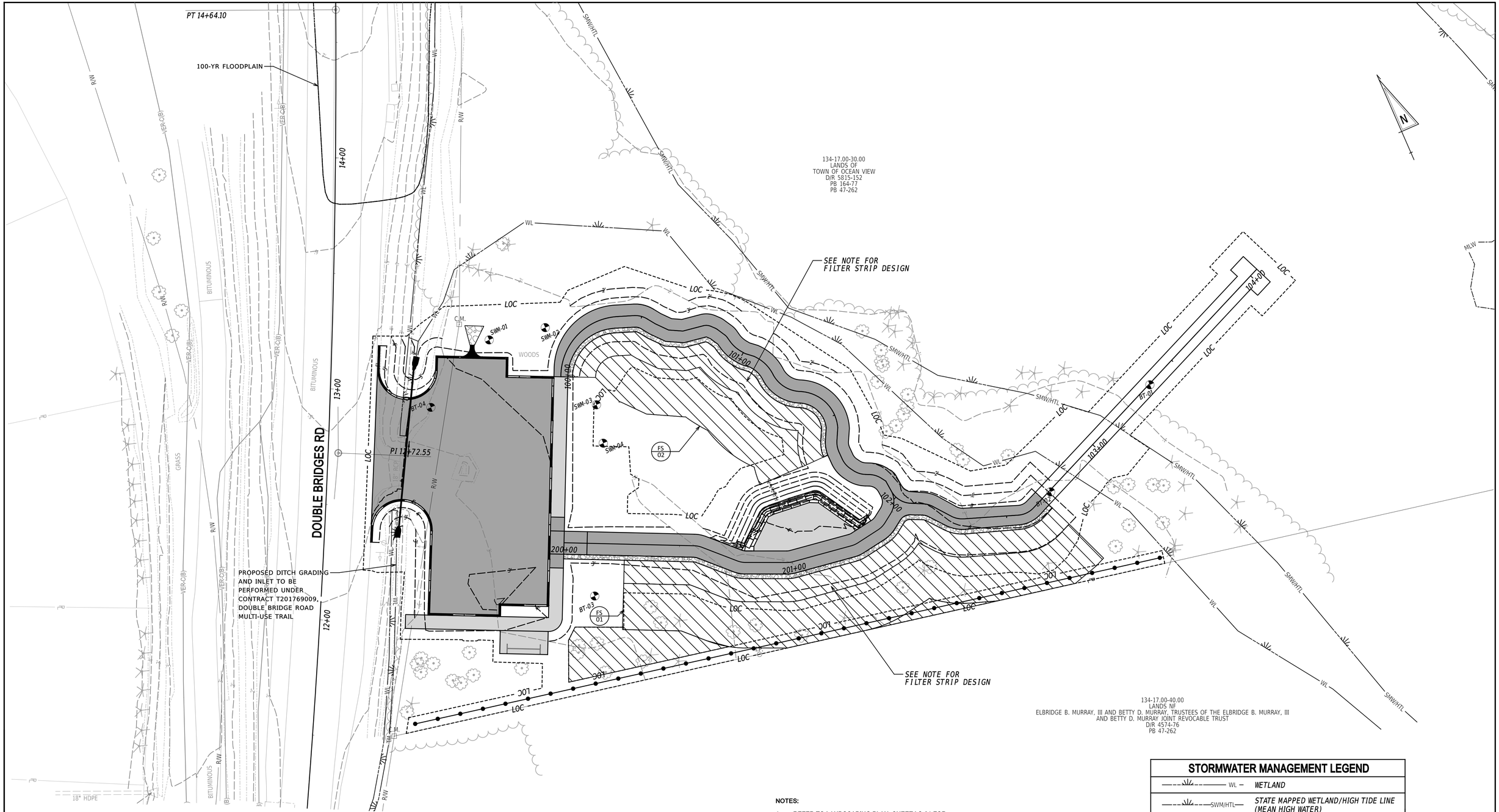

STORMWATER MANAGEMENT LEGEND

WL	WETLAND
SWM/HTL	STATE MAPPED WETLAND/HIGH TIDE LINE (MEAN HIGH WATER)
MLW	MEAN LOW WATER
	100-YR FLOODPLAIN
	EXISTING TREE LINE
	EXISTING DECIDUOUS TREE
	EXISTING CONIFEROUS TREE
	GRAVEL DIAPHRAGM
	FILTER STRIP

NOTES:

1. REFER TO LANDSCAPING PLAN, SHEET LS-01 FOR EXTENT OF SEEDING FOR FILTER STRIP. AREAS SHOWN OUTSIDE THE LOC SHALL BE CONSTRUCTED BY HAND PER THE NOTES ON PLAN SHEET LS-01.
2. THE FILTER STRIP EXTENT IS SHOWN BOTH WITHIN AND OUTSIDE THE LOC ON THIS SHEET. FOR CONSTRUCTION CONSISTENCY WITH THE DETAIL ANY WORK OUTSIDE THE LOC SHALL RECEIVE PERMANENT SEEDING ONLY PER THE LANDSCAPE PLAN. WHILE ANY WORK SHOWN WITHIN THE LOC SHALL FOLLOW THE OPERATION AND MAINTENANCE PLAN.
3. SEE CP-01 FOR RIPRAP OUTLET PROTECTION DIMENSIONS.

SWM FACILITY SCHEDULE

NO.	TYPE / DESCRIPTION	LOCATION
FS-01	FILTER STRIP	STA. 200+15 RT. TO STA. 102+68 RT.
FS-02	FILTER STRIP	STA. 100+00 RT. TO STA. 101+70 RT.

PREPARED BY
WALLACE MONTGOMERY

DATE

SEAL

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "SW" SECTION DESIGNATION.

"I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE DESIGN OF THESE PLANS MEETS THE REQUIREMENTS OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS."

ADDENDA / REVISIONS

SCALE
0 20 40 60
FEET

BERZINS NATURE PARK & TRAIL

CONTRACT	T202320007	BRIDGE NO.	N/A
COUNTY	SUSSEX	DESIGNED BY:	G. TRIPP
		CHECKED BY:	K. GULATI

STORMWATER MANAGEMENT PLAN

	SW-01
SECTION	WM
SHEET NO.	24

$DATE$
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GENERAL STORMWATER MANAGEMENT (SWM) NOTES

1. *THE TOWN OF OCEAN VIEW IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE STORMWATER MANAGEMENT FACILITY.*
2. *THE DNREC SEDIMENT AND STORMWATER PROGRAM AND/OR SUSSEX CONSERVATION DISTRICT RESERVES THE RIGHT TO ENTER PRIVATE PROPERTY FOR THE PURPOSE OF PERIODIC SITE REVIEWS.*
3. *THE DNREC SEDIMENT AND STORMWATER PROGRAM AND/OR SUSSEX CONSERVATION DISTRICT SHOULD BE NOTIFIED WITHIN 30 BUSINESS DAYS IF THE PROPERTY OWNERSHIP IS TRANSFERRED TO A NEW PERSON OR ENTITY.*
4. *THE DNREC SEDIMENT AND STORMWATER PROGRAM AND/OR SUSSEX CONSERVATION DISTRICT MAY SEEK ENFORCEMENT ACTION AGAINST ANY OWNER DEEMED NEGLIGENT IN FULFILLING THE OPERATION AND MAINTENANCE REQUIREMENTS OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.*
5. *THE DNREC SEDIMENT AND STORMWATER PROGRAM AND/OR SUSSEX CONSERVATION DISTRICT SHOULD BE CONTACTED IF A CONCERN ARISES REGARDING A STORMWATER MANAGEMENT FACILITY, BEFORE ANY NON-ROUTINE MAINTENANCE, OR MODIFICATIONS TO THE FACILITY ARE DESIRED.*
6. *ANY DESIGN MODIFICATIONS MADE TO THE STORMWATER SYSTEM SHALL REQUIRE THE CREATION OF A NEW POST CONSTRUCTION STORMWATER MANAGEMENT PLAN AND/OROPERATIONS AND MAINTENANCE PLAN, WITH APPROVAL OF THE PLAN(S) BY DNREC SEDIMENT AND STORMWATER PROGRAM OR THE SUSSEX CONSERVATION DISTRICT.*
7. *WHEN THE FACILITY IS EXCAVATED TO REMOVE ACCUMULATED SEDIMENT, THE DISPOSAL AREA SHALL BE PERMANENTLY STABILIZED SO THAT IT DOES NOT RECREATE AN EROSION PROBLEM. ANY MATERIAL TAKEN OFFSITE SHALL BE USED OR DISPOSED OF IN AN APPROVED DNREC MANNER.*
8. *BEFORE ANY EARTHWORK OR EXCAVATION TAKES PLACE, THE CONTRACTOR SHOULD CALL MISS UTILITY AT 811 OR 1-800-282-8555 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, TO HAVE ALL EXISTING UTILITIES MARKED ONSITE.*

9.8 **Sheet Flow Construction**

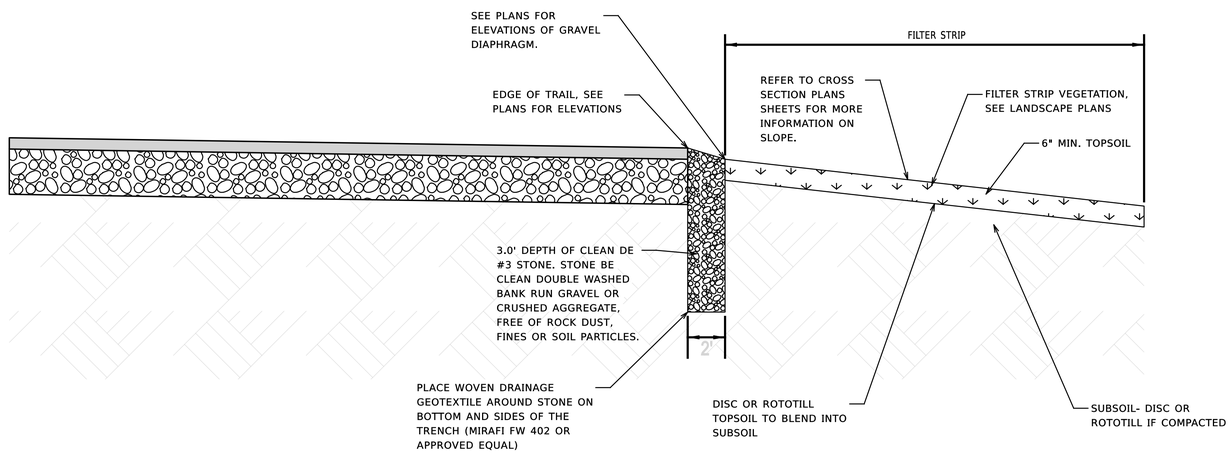
Construction Sequence for Vegetated Filter Strips. Vegetated Filter Strips can be within the limits of disturbance during construction. The following procedures should be followed during construction:

- Before site work begins, filter strip boundaries should be clearly marked.
- Only vehicular traffic used for filter strip construction should be allowed within the filter strip boundary.
- If existing topsoil is stripped during grading, it should be stockpiled for later use.
- Construction runoff should be directed away from the proposed filter strip site, using perimeter silt fence, or, preferably, a diversion dike.
- Construction of the gravel diaphragm or engineered level spreader should not commence until the contributing drainage area has been stabilized and perimeter erosion and sediment (E&S) controls have been removed and cleaned out.
- Filter strips require light grading to achieve desired elevations and slopes. This should be done with tracked vehicles to prevent compaction. Topsoil and or compost amendments should be incorporated evenly across the filter strip area, stabilized with seed, and protected by biodegradable erosion control matting or blankets.
- Stormwater should not be diverted into the filter strip until the turf cover is dense and well established.
- For afforested filter strips, refer to *Specification 17. Afforestation*.

9.0 Sheet Flow to Vegetated Filter Strip or Vegetated Open Space

Typical Maintenance Items and Frequency for Sheet Flow to Filter Strips or Open Space

Frequency	Maintenance Items
During establishment, as needed (first year)	• Inspect the site after storm event that exceeds 0.5 inches of rainfall. • Stabilize any bare or eroding areas • Water trees and shrubs during the first growing season. In general, water every 3 days for first month, and then weekly during the remainder of the first growing season (April - October), depending on rainfall.
Quarterly or after major storms (>1 inch of rainfall)	• Repair eroded, and/or bare soil areas
Twice a year	• Mowing of the grassed filter strip or grassed open space • Inspect and treat for invasive species as needed
Annually	• Remove trash and debris • A full maintenance review



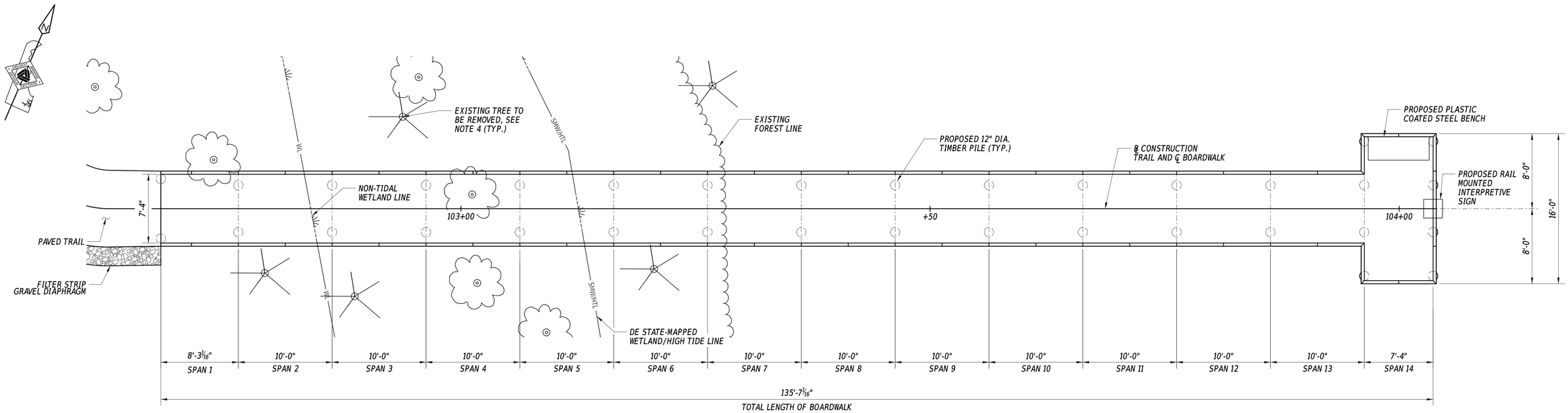
FILTER STRIP TYPICAL SECTION
NOT TO SCALE

VEGETATED FILTER STRIP SEQUENCE OF CONSTRUCTION

1. *CONTRACTOR SHALL IN STALL SENSITIVE AREA PROTECTION FENCING AROUND EACH FACILITY LOCATION.*
2. *CONTRACTOR SHALL CONTACT THE CCR AT LEAST 3 WORKING DAYS BEFORE CONSTRUCTION OF THE FILTER STRIP COMMENCES SO THE CCR CAN BE ON-SITE. SEE CCR RESPONSIBILITY IN GENERAL E&S CONTROL NOTES.*
3. *DRAINAGE AREA TO FACILITY IS TO BE STABILIZED OR TEMPORARILY DIVERTED AROUND THE FACILITY PRIOR TO INSTALLATION AND UNTIL THE SITE IS STABILIZED.*
4. *BEFORE SITE WORK BEGINS, FILTER STRIP BOUNDARIES SHOULD BE CLEARLY MARKED.*
5. *ONLY VEHICULAR TRAFFIC USED FOR FILTER STRIP CONSTRUCTION SHOULD BE ALLOWED WITHIN THE FILTER STRIP BOUNDARY.*
6. *CONSTRUCTION RUNOFF SHOULD BE DIRECTED AWAY FROM THE PROPOSED FILTER STRIP SITE, USING PERIMETER SITE FENCE OR PREFERABLY A DIVERSION DIKE.*
7. *CONSTRUCTION OF THE GRAVEL DIAPHRAGM SHALL NOT COMMENCE UNTIL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED AND PERIMETER EROSION AND SEDIMENT (E&S) CONTROLS HAVE BEEN REMOVED AND CLEANED OUT.*
8. *FILTER STRIPS REQUIRE LIGHT GRADING TO ACHIEVE DESIRED ELEVATIONS AND SLOPES. THIS SHOULD BE DONE BY USING A TRACKED VEHICLES TO PREVENT COMPACTION. TOPSOIL AND OR COMPOST AMENDMENTS SHOULD BE INCORPORATED EVENLY ACROSS THE FILTER STRIP AREA. STABILIZED WITH SEED AND PROTECTED BY BIODEGRADABLE EROSION CONTROL MATING BLANKETS.*
9. *STORMWATER SHOULD NOT BE DIVERTED INTO FILTER STRIP UNTIL THE TURF COVER IS DENSE AND WELL ESTABLISHED.*
10. *AN AS-BUILT SURVEY MUST BE PREFORMED AND THE REQUIRED STORMWATER POST-CONSTRUCTION VERIFICATION SUBMISSION SHALL BE SUBMITTED TO DNREC SEDIMENT AND STORMWATER PROGRAM AFTER FINAL COMPLETION OF THE FACILITY FOR FINAL APPROVAL PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.*

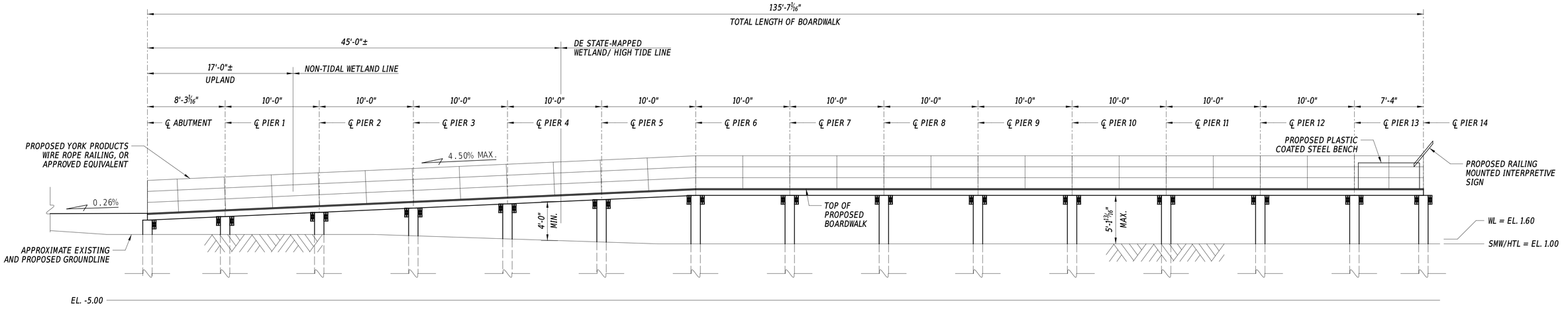
$DATE$
$TIME$
$FILE$

ADDENDA / REVISIONS		SCALE NOT NOTED	BERZINS NATURE PARK & TRAIL	CONTRACT T202320007	BRIDGE NO. N/A	STORMWATER MANAGEMENT PLAN	SW-02 SECTION
				COUNTY SUSSEX	DESIGNED BY: G. TRIPP		WM SHEET NO.
					CHECKED BY: K. GULATI		25



PLAN

SCALE: 3/16" = 1'-0"



ELEVATION

SCALE: 3/16" = 1'-0"

NOTES:

1. FOR TYPICAL SECTIONS, SEE SHEET NO. 28.
2. FOR INTERPRETIVE SIGN DETAILS, SEE SHEETS NO. 31 AND 32.
3. FOR FOUNDATION AND FRAMING PLAN, SEE SHEET NO. 27.
4. CLEAR AND GRUB ALL TRESS WITHIN THE LOC UNLESS OTHERWISE NOTED. GRUBBING SHALL NOT OCCUR WITHIN THE WETLAND AREAS. SEE LANDSCAPING PLAN ON SHEET NO. 35 FOR DETAILS.

ADDENDA / REVISIONS		SCALE AS NOTED	BERZINS NATURE PARK & TRAIL	CONTRACT T202320007	BRIDGE NO. N/A	BOARDWALK GENERAL PLAN AND ELEVATION	SECTION WM
				COUNTY SUSSEX	DESIGNED BY: EJS		SHEET NO. 26
					CHECKED BY: EMC		

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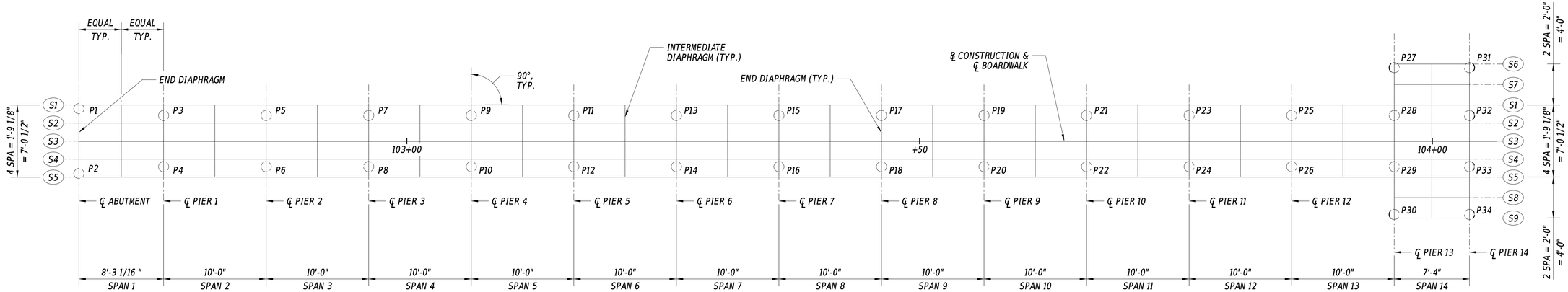

FRAMING PLAN

SCALE: $^{3}/_{16}$" = 1'-0"

LEGEND:

( ) 12" DIA. PILE

PX PILE NUMBER

(SX) STRINGER NUMBER

PILE NO.	STATION	OFFSET	TOP OF BOARDWALK ELEVATION	TOP OF PILE ELEVATION
P1	102+68.02	3.17' LT.	4.24	3.53
P2	102+68.02	3.17' RT.	4.61	3.90
P3	102+76.28	2.50' LT.	5.06	4.35
P4	102+76.28	2.50' RT.	5.51	4.80
P5	102+86.28	2.50' LT.	5.96	5.25
P6	102+86.28	2.50' RT.	6.41	5.70
P7	102+96.28	2.50' LT.	6.87	6.15
P8	102+96.28	2.50' RT.	6.87	6.15
P9	103+06.28	2.50' LT.	6.87	6.15
P10	103+06.28	2.50' RT.	6.87	6.15
P11	103+16.28	2.50' LT.	6.87	6.15
P12	103+16.28	2.50' RT.	6.87	6.15
P13	103+26.28	2.50' LT.	6.87	6.15
P14	103+26.28	2.50' RT.	6.87	6.15
P15	103+36.28	2.50' LT.	6.87	6.15
P16	103+36.28	2.50' RT.	6.87	6.15
P17	103+46.28	2.50' LT.	6.87	6.15
P18	103+46.28	2.50' RT.	6.87	6.15
P19	103+56.28	2.50' LT.	6.87	6.15
P20	103+56.28	2.50' RT.	6.87	6.15

PILE NO.	STATION	OFFSET	TOP OF BOARDWALK ELEVATION	TOP OF PILE ELEVATION
P21	103+66.28	2.50' LT.	6.87	6.15
P22	103+66.28	2.50' RT.	6.87	6.15
P23	103+76.28	2.50' LT.	6.87	6.15
P24	103+76.28	2.50' RT.	6.87	6.15
P25	103+86.28	2.50' LT.	6.87	6.15
P26	103+86.28	2.50' RT.	6.87	6.15
P27	103+96.28	7.17' LT.	6.87	6.15
P28	103+96.28	2.50' LT.	6.87	6.15
P29	103+96.28	2.50' RT.	6.87	6.15
P30	103+96.28	7.17' RT.	6.87	6.15
P31	104+03.61	7.17' LT.	6.87	6.15
P32	104+03.61	2.50' LT.	6.87	6.15
P33	104+03.61	2.50' RT.	6.87	6.15
P34	104+03.61	7.17' RT.	6.87	6.15

PILE TYPE	MINIMUM EMBEDMENT (FT)	BEARING RESISTANCE (KSF)	LRFD DESIGN LOAD (KIPS)
12" DIA. TIMBER	19	67.4	10

PILE NOTES:

1. FOR IMPACT DRIVING, AN INITIAL SET OF THREE STRIKES WOULD BE MADE BY HAMMER AT 40 PERCENT ENERGY, FOLLOWED BY A 1-MINUTE WAIT PERIOD, THEN TWO SUBSEQUENT 3-STRIKE SETS AT 40 PERCENT ENERGY, WITH 1-MINUTE WAITING PERIODS, BEFORE INITIATING CONTINUOUS IMPACT DRIVING. IN ADDITION TO A SOFT START AT THE BEGINNING OF THE DAY FOR IMPACT PILE DRIVING, A SOFT START MUST ALSO BE USED AT ANY TIME FOLLOWING CESSATION OF IMPACT PILE DRIVING FOR A PERIOD OF THIRTY MINUTES OR LONGER AND IF ANY INCREASE IN PILE INSTALLATION OR REMOVAL INTENSITY IS REQUIRED. BUILD UP POWER SLOWLY FROM A LOW ENERGY START-UP OVER A 20-MINUTE PERIOD TO WARN FISH TO LEAVE THE VICINITY. THIS BUILDUP SHALL OCCUR IN UNIFORM STAGES TO PROVIDE A CONTANT INCREASE IN OUTPUT. THIS SHOULD BE DONE IN ACCORDANCE WITH THE METHODS OUTLINED IN THE NMFS GARFO/FHWA BEST MANAGEMENT PRACTICES (BMP) MANUAL.
2. ALL IN-WATER WORK, INCLUDING DREDGING OR DISCHARGE OF FILL MATERIAL WILL BE UNDERTAKEN AT, OR APPROXIMATING, LOW TIDE AND USING LOW GROUND PRESSURE EQUIPMENT TO PREVENT COMPACTION. LOW GROUND PRESSURE IS DEFINED AS <3 PSI. WHERE CONSTRUCTION REQUIRES HEAVY EQUIPMENT OPERATION IN OR ACROSS WETLANDS OR MUDFLATS, THE EQUIPMENT SHALL BE PLACED ON CONSTRUCTION TIMBER MATS THAT ARE ADEQUATE TO SUPPORT THE EQUIPMENT; BE OPERATED ON DRY OR FROZEN WETLANDS SUCH THAT SHEAR PRESSURE DOES NOT CAUSE SUBSIDENCE OF THE WETLANDS IMMEDIATELY BENEATH EQUIPMENT AND UPHEAVAL OF ADJACENT WETLANDS. CONSTRUCTION MATS MUST NOT BE DRAGGED INTO POSITION.

FOUNDATION NOTES:

1. TOP OF FOOTING ELEVATIONS AS SHOWN SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING AND/OR FABRICATING ANY FOUNDATION RELATED MATERIALS.
2. CONTRACTOR SHALL SUBMIT IN WRITING ANY CHANGES IN TOP OF FOOTING ELEVATIONS FOR ENGINEER'S REVIEW AND APPROVAL.
3. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXCESS EXCAVATED MATERIALS AND DEBRIS FROM THE SITE.

MEMBER NOTES:

1. ALL TIMBER STRINGERS SHALL BE 4x8.
2. ALL TIMBER INTERMEDIATE DIAPHRAGMS SHALL BE 2x6.
3. ALL TIMBER END DIAPHRAGMS SHALL BE 4x12.

NOTE:

1. FOR GENERAL PLAN AND ELEVATION, SEE SHEET NO. 26.
2. FOR TYPICAL SECTIONS, SEE SHEET NO. 28.

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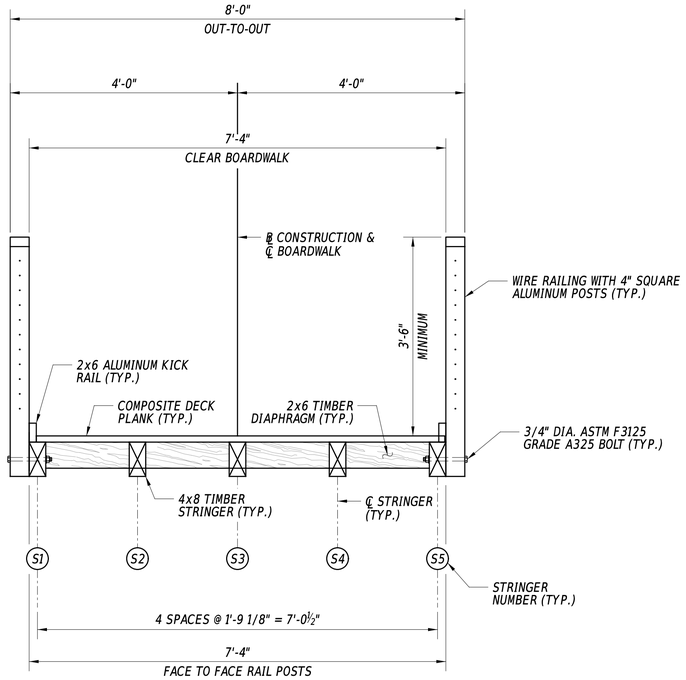
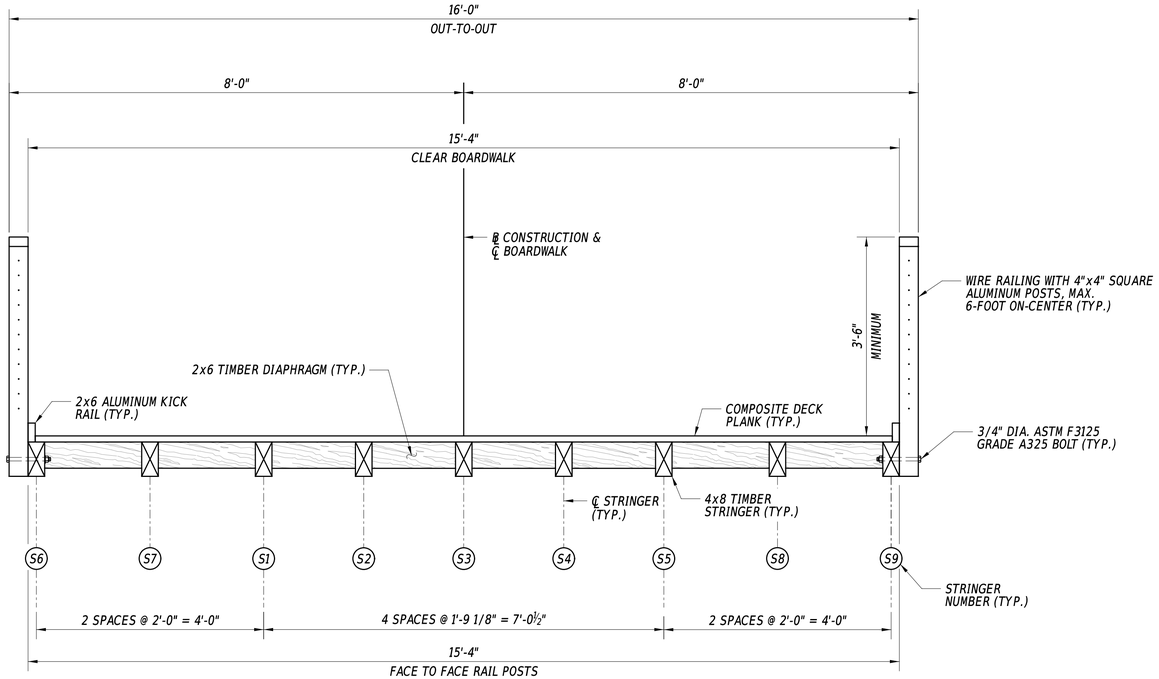
ADDENDA / REVISIONS		SCALE AS NOTED	BERZINS NATURE PARK & TRAIL	CONTRACT	BRIDGE NO. N/A	FRAMING AND FOUNDATION PLAN	SECTION
				T202320007	DESIGNED BY: EJS		WM
				COUNTY			SHEET NO.
				SUSSEX	CHECKED BY: EMC		27



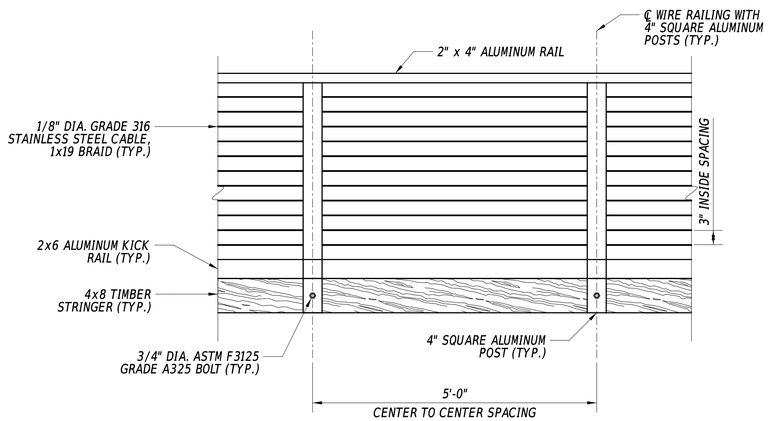
BOARDWALK TYPICAL SECTION

SCALE: ¾" = 1'-0"



VIEWING PLATFORM TYPICAL SECTION

SCALE: ¾" = 1'-0"



RAILING TYPICAL SECTION

SCALE: ¾" = 1'-0"

NOTES:

1. FOR GENERAL PLAN AND ELEVATION, SEE SHEET NO. 26.
2. RAILING SHALL BE 54" YORK BRIDGE PRODUCTS WIRE ROPE RAILING WITH ALUMINUM POSTS OR APPROVED EQUIVALENT.

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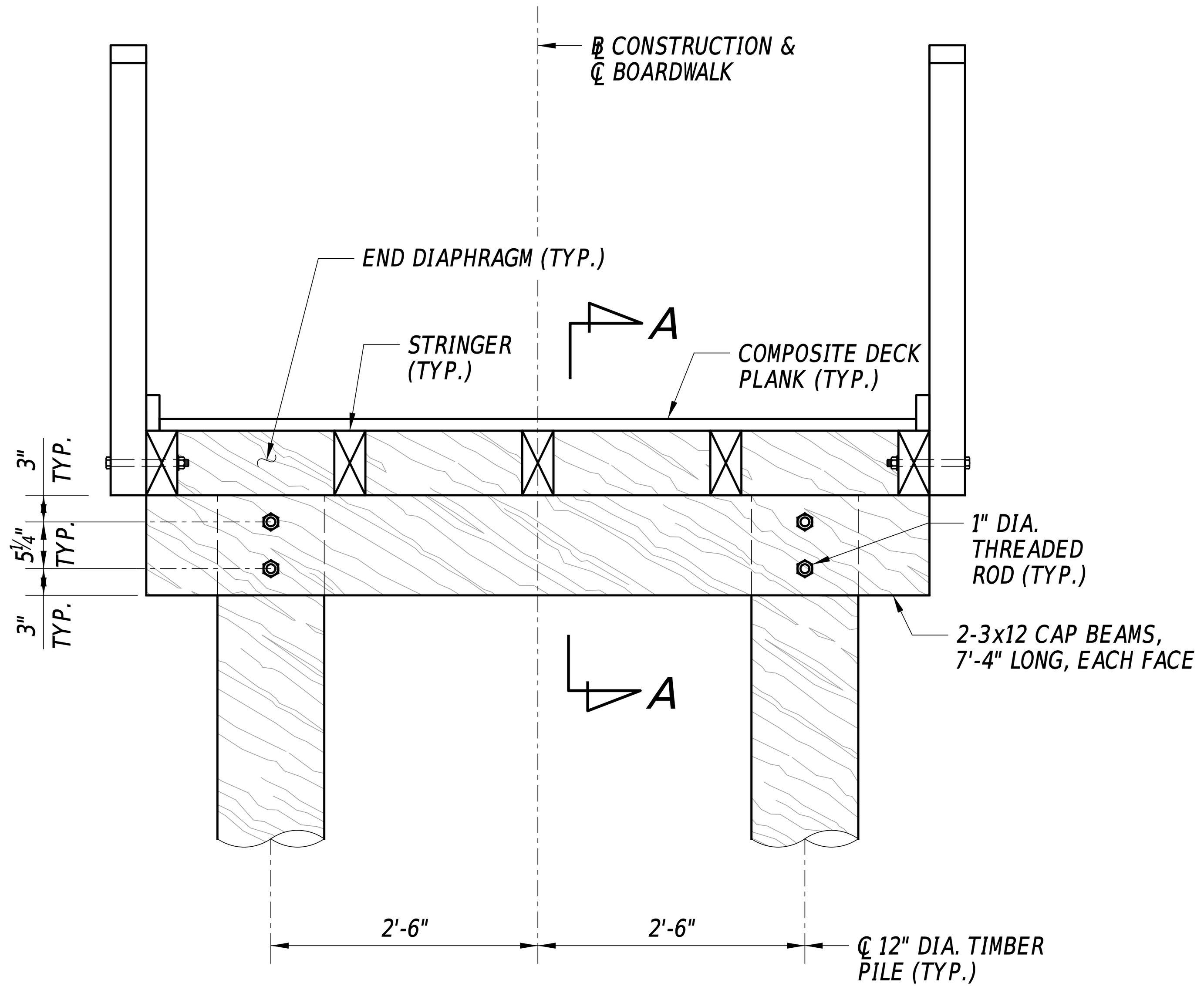
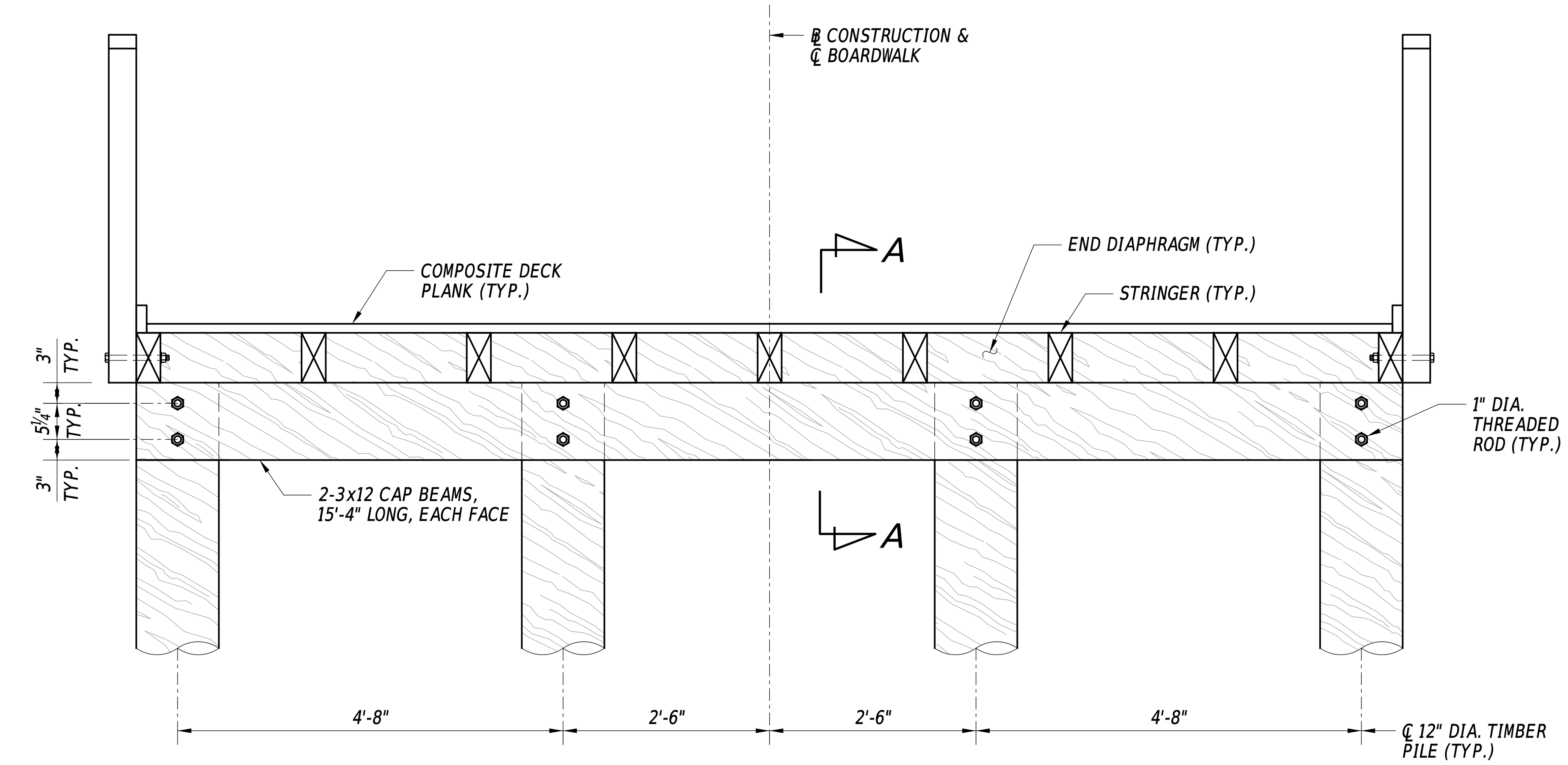
ADDENDA / REVISIONS		SCALE AS NOTED	BERZINS NATURE PARK & TRAIL	CONTRACT	BRIDGE NO. N/A	BOARDWALK TYPICAL SECTIONS	SECTION
				T202320007	DESIGNED BY: EJS		WM
				COUNTY			SHEET NO.
				SUSSEX	CHECKED BY: EMC		28



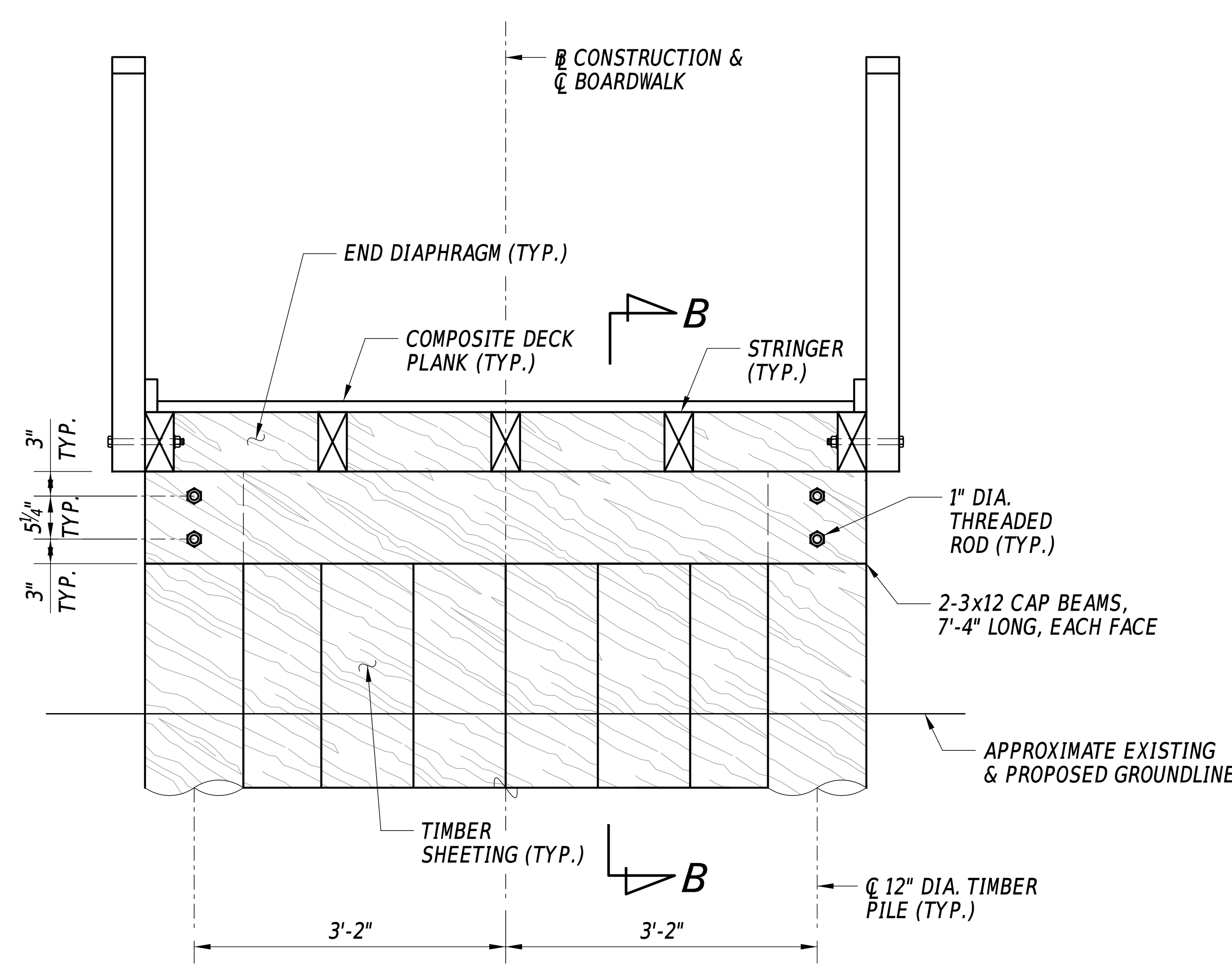
TYPICAL TIMBER PIER ELEVATION (BOARDWALK)

SCALE: ¾" = 1'-0"



TYPICAL TIMBER PIER ELEVATION (VIEWING PLATFORM)

SCALE: ¾" = 1'-0"



TYPICAL ABUTMENT ELEVATION

SCALE: ¾" = 1'-0"

PILE TIP DATA (LRFD)				
PILE TYPE	REQUIRED HAMMER ENERGY (FT–LB)	MINIMUM EMBEDMENT (FT)	LRFD DESIGN LOAD (KIPS)	MINIMUM DRIVING LOAD (Pu) (KIPS)
12" DIA. TIMBER	7,500 to 12,000	19	10	66

NOTES:

1. IF A HARD LAYER IS REACHED BEFORE MINIMUM EMBEDMENT IS ACHIEVED, PILES SHALL BE AUGERED INTO THE HARD LAYER. THE HARD LAYER SHALL BE DEFINED AS MATERIAL EQUIVALENT TO 50 BLOWS/6" WITH A 2" SAMPLING SPOON AND 140 POUND HAMMER.
2. PERFORM ONE TEST PILE AT THE ABUTMENT AND ONE TEST PILE AT EVERY THIRD PIER.
3. PILE DRIVING SHALL BE IN ACCORDANCE WITH SECTION 605 OF THE STANDARD SPECIFICATIONS.
4. PROVIDE PILE DRIVING ANALYZER (PDA) FOR ALL PRODUCTION AND TEST PILES.

NOTES:

1. FOR GENERAL PLAN AND ELEVATION, SEE SHEET NO. 26.
2. FOR TYPICAL SECTION, SEE SHEET NO. 28.
3. FOR SECTION A-A AND B-B, SEE SHEET NO. 30.

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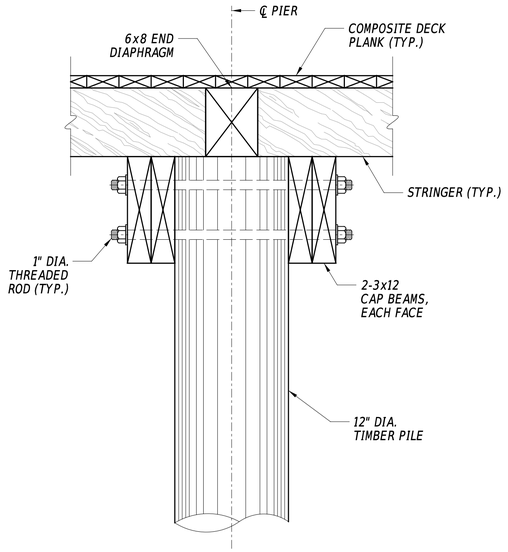
ADDENDA / REVISIONS	SCALE AS NOTED	BERZINS NATURE PARK & TRAIL	CONTRACT: T202320007	BRIDGE NO.: N/A	SUBSTRUCTURE ELEVATIONS	SECTION: WM
			COUNTY: SUSSEX	DESIGNED BY: EJS		SHEET NO.: 29
				CHECKED BY: EMC		

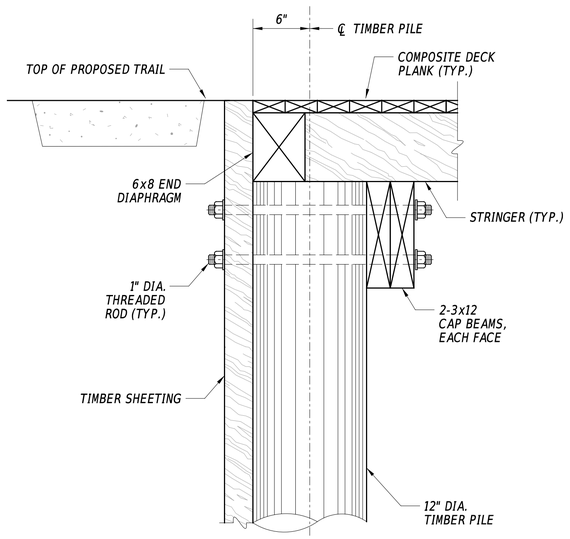


SECTION A-A

SCALE: 1½" = 1'-0"

NOTE:

RAILING NOT SHOWN OR CLARITY.

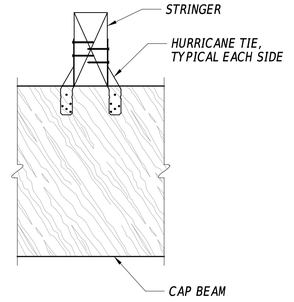


SECTION B-B

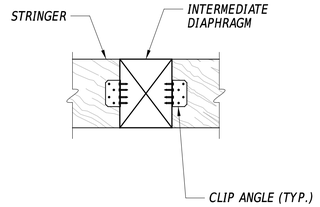
SCALE: 1½" = 1'-0"

NOTE:

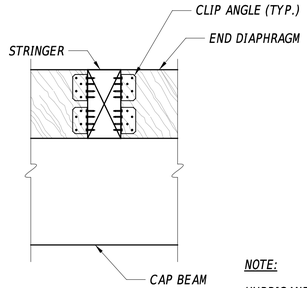
RAILING NOT SHOWN OR CLARITY.



STRINGER TO CAP PLATE



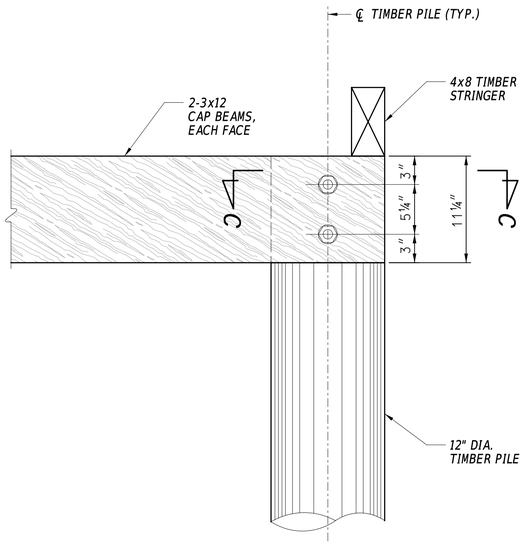
INTERMEDIATE DIAPHRAGM TO STRINGER



NOTE:

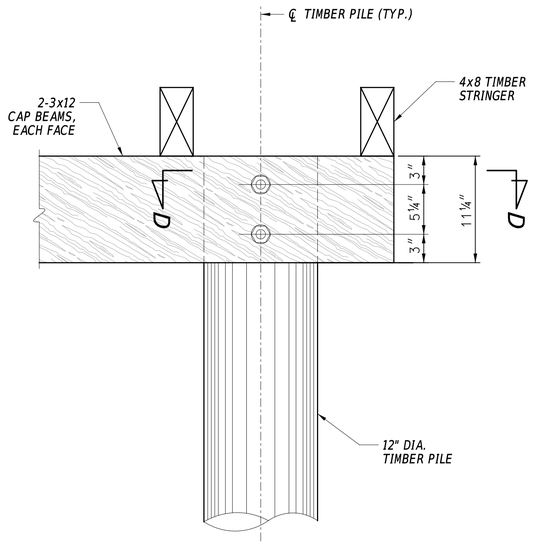
HURRICANE TIES NOT SHOWN FOR CLARITY

END DIAPHRAGM TO STRINGER



TYPICAL CONNECTION DETAIL

SCALE: 1½" = 1'-0"

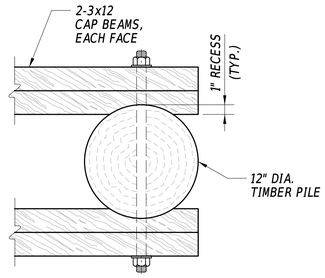


TYPICAL CONNECTION DETAIL

SCALE: 1½" = 1'-0"

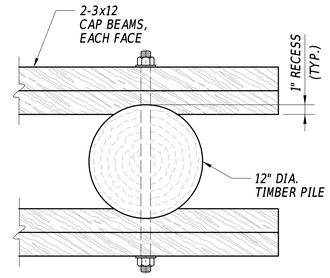
CONNECTION DETAILS

SCALE: 1½" = 1'-0"



SECTION C-C

SCALE: 1½" = 1'-0"



SECTION D-D

SCALE: 1½" = 1'-0"

NOTES:

1. FOR GENERAL PLAN AND ELEVATION, SEE SHEET NO. 26.
2. FOR LOCATIONS OF SECTIONS A-A AND B-B, SEE SHEET NO. 29.

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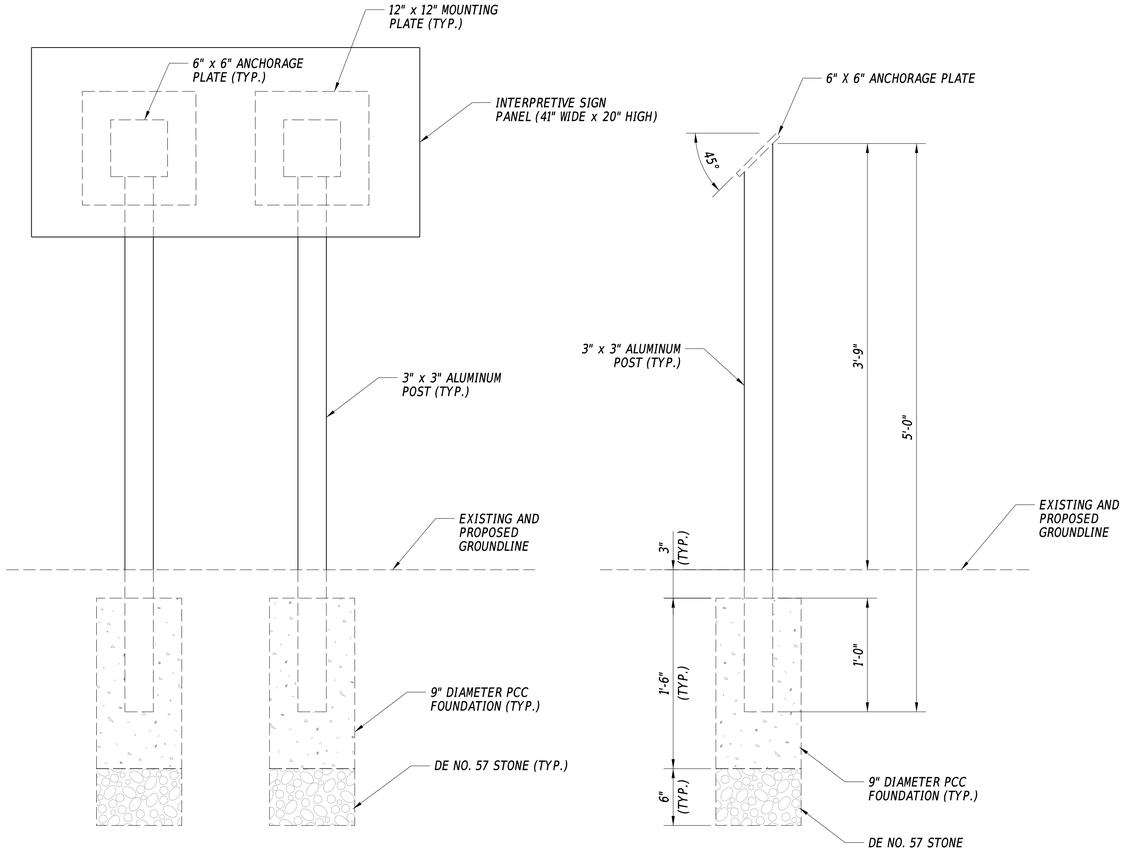
ADDENDA / REVISIONS		SCALE AS NOTED	BERZINS NATURE PARK & TRAIL	CONTRACT	BRIDGE NO. N/A	TYPICAL DETAILS	SECTION
				T202320007			WM
				COUNTY	DESIGNED BY: EJS		SHEET NO.
				SUSSEX	CHECKED BY: EMC		30

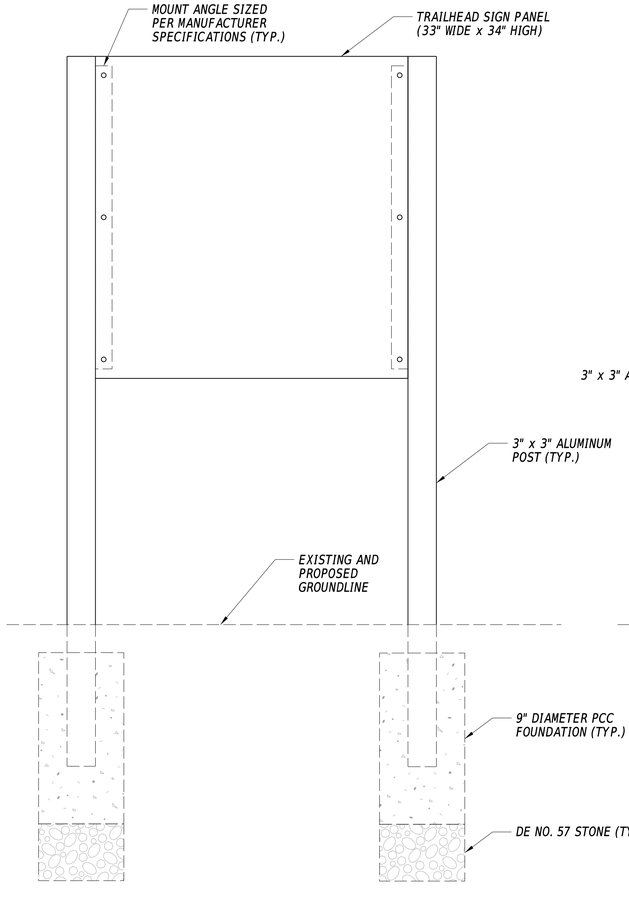


NOTES:

1. INTERPRETIVE SIGN NOT SHOWN FOR CLARITY.
2. ALUMINUM ANCHORAGE PLATE SHALL BE ATTACHED DIRECTLY TO POSTS.
3. MOUNT PLATE SHALL BE SPECIFIED BY THE SIGN MANUFACTURER.

GROUND MOUNTED INTERPRETIVE SIGN DETAIL

SCALE: 1 1/2" = 1'-0"

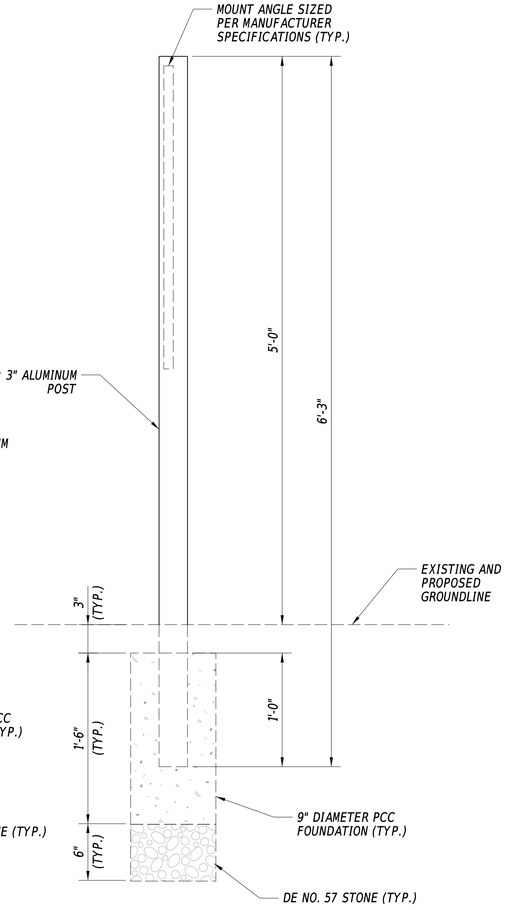


NOTES:

1. TRAILHEAD SIGN NOT SHOWN FOR CLARITY.
2. ALUMINUM ANCHORAGE PLATE SHALL BE ATTACHED DIRECTLY TO POSTS.
3. MOUNT PLATE SHALL BE SPECIFIED BY THE SIGN MANUFACTURER.

TRAILHEAD SIGN DETAIL

SCALE: 1 1/2" = 1'-0"



NOTES:

1. FOR RAIL MOUNTED SIGN LOCATION, SEE SHEET NO. 26.
2. FOR GROUND MOUNTED SIGN LOCATIONS, SEE SHEET NO. 38.
3. SEE SECTION 763505 OF THE CONTRACT DOCUMENTS FOR SIGN GRAPHIC DETAILS.

ADDENDA / REVISIONS		SCALE AS NOTED	BERZINS NATURE PARK & TRAIL	CONTRACT	BRIDGE NO. N/A	SIGNAGE DETAILS - 1	SECTION
				T202320007	DESIGNED BY: EJS		WM
				COUNTY			SHEET NO.
				SUSSEX	CHECKED BY: EMC		31

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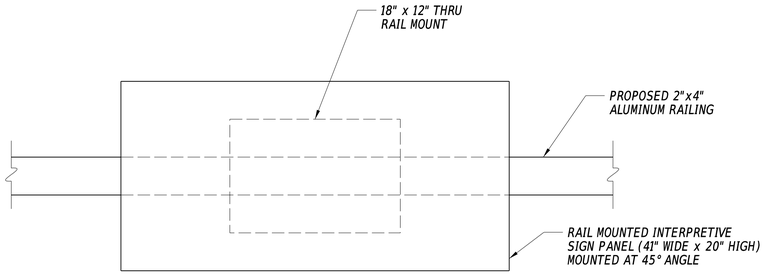
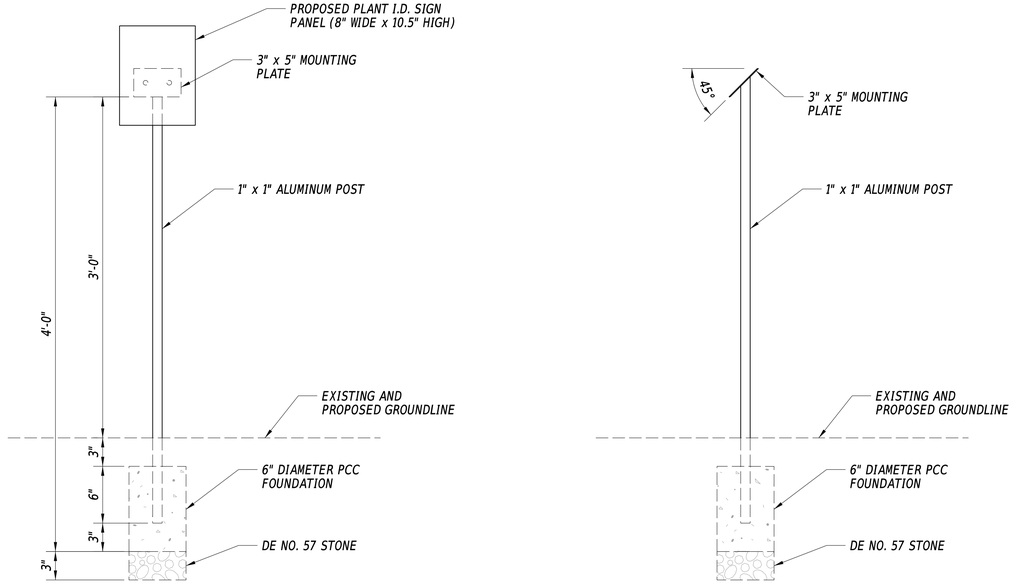


NOTE:

1. MOUNT PLATE SHALL BE SPECIFIED BY THE SIGN MANUFACTURER.

RAIL MOUNTED INTERPRETIVE SIGN DETAIL

SCALE: 1 1/2" = 1'-0"

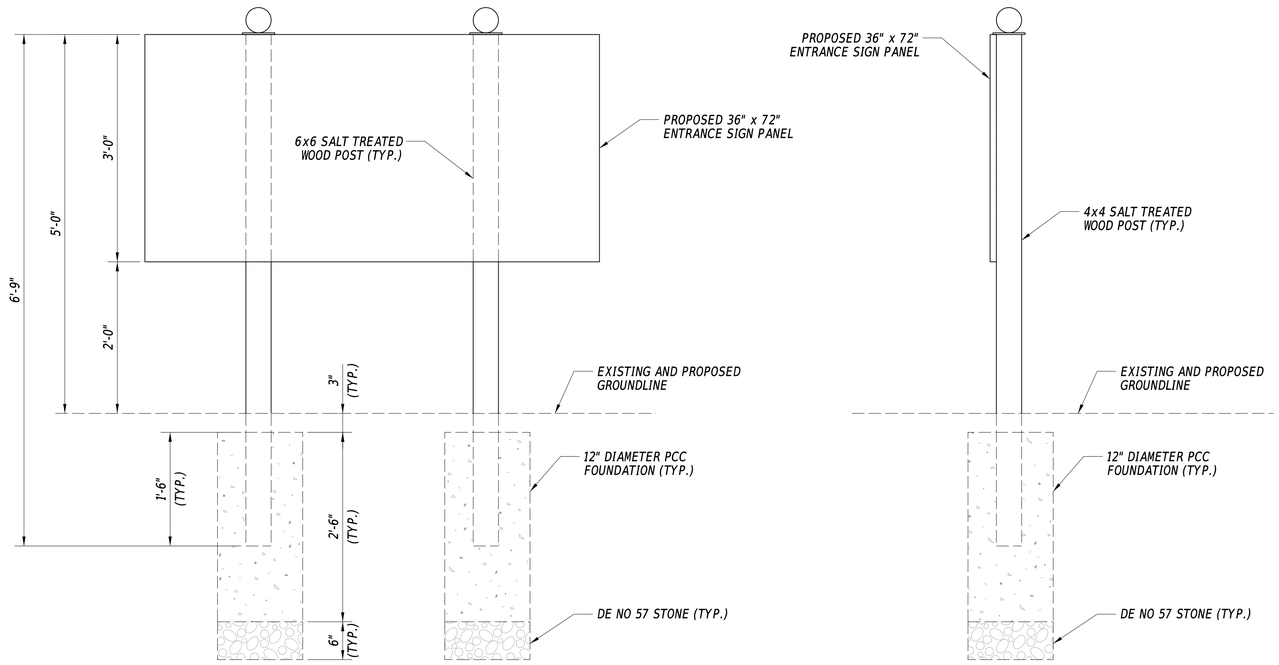


ROUNDED CORNER PLANT I.D. SIGN DETAIL

SCALE: 1 1/2" = 1'-0"

NOTE:

1. PLANT I.D. SIGN PANEL NOT SHOWN FOR CLARITY.
2. ALUMINUM ANCHORAGE PLATE SHALL BE ATTACHED DIRECTLY TO POSTS.



MAIN ENTRANCE SIGN DETAIL

SCALE: 1" = 1'-0"

NOTES:

1. FOR RAIL MOUNTED SIGN LOCATION, SEE SHEET NO. 26.
2. FOR GROUND MOUNTED SIGN LOCATIONS, SEE SHEET NO. 38.
3. SEE SECTION 763505 OF THE CONTRACT DOCUMENTS FOR SIGN GRAPHIC DETAILS.

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ADDENDA / REVISIONS						
		SCALE AS NOTED	BERZINS NATURE PARK & TRAIL	CONTRACT T202320007	BRIDGE NO. N/A	SIGNAGE DETAILS - 2
				COUNTY SUSSEX	DESIGNED BY: EJS	SECTION WM
					CHECKED BY: EMC	SHEET NO. 32

1. GENERAL NOTES:

A. THE PURPOSE OF THIS SHEET IS TO IDENTIFY THOSE ITEMS ASSOCIATED WITH ENVIRONMENTAL COMPLIANCE. IMPACT CALCULATIONS ARE FOR THE AGENCY PERMIT REPORTING PURPOSES ONLY AND ARE NOT TO BE USED FOR BIDDING PURPOSES.

B. IF A DEPARTURE FROM THE APPROVED PLANS (WHICH WOULD AFFECT ANY NATURAL AND/OR CULTURAL RESOURCES) IS NECESSARY, CONTACT THE ENVIRONMENTAL STUDIES SECTION AT (302-760-2264 OR DOT_ENVIRONMENTALSTUDIES@DELAWARE.GOV) TO ALLOW FOR COORDINATION WITH THE APPROPRIATE RESOURCE AGENCIES AND APPROVAL.

C. USE OF THIS SHEET DOES NOT ALLEVIATE THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL CONDITIONS SET FORTH IN THE ENVIRONMENTAL STATEMENT AND PERMITS.

2. NATURAL RESOURCE ISSUES:

A. PERMIT REQUIREMENTS/APPROVALS *:
U.S. ARMY CORPS OF ENGINEERS (COE): NATIONWIDE PERMIT 23
DNREC - WETLANDS & SUBAQUEOUS LANDS (WLSL): WETLANDS & SUBAQUEOUS LANDS PERMIT
DNREC - WATER QUALITY (WQC) & COASTAL ZONE CONSISTENCY (CZM)
US COAST GUARD (USCG): N/A

* THE PERMITS/APPROVALS LISTED ARE THOSE REQUIRED FOR THIS PROJECT. THE ENVIRONMENTAL STUDIES SECTION IS RESPONSIBLE FOR COORDINATING AND/OR OBTAINING THESE APPROVALS.
** THE CONTRACTOR MUST ENSURE THAT THESE PERMITS/APPROVALS ARE IN THEIR POSSESSION PRIOR TO BEGINNING CONSTRUCTION IN THE PERMITTED AREA(S) AND ENSURE THEY ARE DISPLAYED ON-SITE DURING THE ENTIRE CONSTRUCTION PERIOD.

B. CONSTRUCTION RESTRICTIONS:

FISHERIES - NONE
ENDANGERED SPECIES - THE PROJECT IS LOCATED WITHIN THE ASSAWOMAN WILDLIFE AREA, HOWEVER, THE PROJECT IS NOT LIKELY TO ADVERSELY AFFECT EASTERN BLACK RAIL (LATERALLUS JAMAICENSIS).
MIGRATORY BIRDS - TO REDUCE IMPACTS TO GROUND-NESTING MARSH BIRDS, PROJECT ACTIVITIES DIRECTLY IMPACTING OR ADJACENT TO MARSHES SHALL NOT OCCUR FROM APRIL 1 TO JULY 31, AND NO TREE CLEARING SHALL OCCUR FROM MAY 15 TO JULY 31.
INVASIVE SPECIES - EUROPEAN REED (PHRAGMITES AUSTRALIS) IS PRESENT ON THE SITE. ANY SOIL DISTURBANCE WITHIN THE MARSH HAS THE POTENTIAL TO FURTHER SPREAD THE INVASIVE SPECIES. IF GROUND DISTURBANCE OCCURS THE AREA MUST BE REVEGETATED USING NATIVE PLANT SPECIES.

3. CULTURAL RESOURCE ISSUES:

A. THERE ARE NO CULTURAL RESOURCE CONCERNS WITH THE PROJECT AS CURRENTLY DESIGNED. A PHASE I ARCHEOLOGICAL SURVEY WILL BE COMPLETED BY THE DELDOT ENVIRONMENTAL STUDIES STAFF PRIOR TO CONSTRUCTION. SHOULD IT BE NECESSARY TO ADD ADDITIONAL ACCESS LOCATION OR IMPACT AREAS OUTSIDE OF THE LIMITS OF CONSTRUCTION (LOC), OR OTHERWISE MODIFY THE LOC OR PROJECT SCOPE FROM WHAT IS DETAILED IN THE APPROVED PLANS, DELDOT ENVIRONMENTAL STUDIES STAFF (DOT_ENVIRONMENTALSTUDIES@DELAWARE.GOV, (302) 760-4887) MUST BE CONTACTED TO REVIEW THESE CHANGES FOR POTENTIAL CULTURAL RESOURCES CONCERNS AND COORDINATE WITH THE FEDERAL HIGHWAY ADMINISTRATION AND DE STATE HISTORIC PRESERVATION OFFICE AS NECESSARY. IF ANY HISTORIC, CULTURAL, OR ARCHEOLOGICAL REMAINS OR ARTIFACTS ARE FOUND WHILE COMPLETING THE APPROVED ACTIVITIES THE WORK MUST STOP AND THE CONTRACTOR SHALL CONTACT DELDOT ENVIRONMENTAL STUDIES STAFF (DOT_ENVIRONMENTALSTUDIES@DELAWARE.GOV, (302) 760-4887) IMMEDIATELY.

4. PROTECTION OF RESOURCES:

A. MINIMIZE CLEARING IN WETLAND AREAS TO ONLY WHAT IS ABSOLUTELY NECESSARY FOR CONSTRUCTION ACCESS. SUPPORT ALL EQUIPMENT TRAVERSING WETLANDS AND SUBAQUEOUS LAND ON MATS. PAYMENT FOR MATS WILL BE MADE UNDER ITEM 621500 - TEMPORARY TIMBER MAT. IN WETLAND AREAS THAT ARE CLEARED, NO GRUBBING IS PERMITTED EXCEPT WHERE NECESSARY TO CONSTRUCT PROJECT COMPONENTS SUCH AS FOUNDATIONS AND RIPRAP PROTECTION IS PERMITTED. CUT VEGETATION FLUSH WITH THE GROUND (I.E. NO DISTURBANCE OF THE ROOT MAT). RESTORE TEMPORARILY DISTURBED WETLAND AREAS TO GRADE AND SEED ACCORDING TO THE LANDSCAPING PLANS.

B. USE SILT FENCE OR CONSTRUCTION SAFETY FENCE ALONG THE LIMITS OF CONSTRUCTION IN ALL AREAS WHERE WATER / WETLANDS ARE BEING IMPACTED (AS SHOWN ON ENVIRONMENTAL COMPLIANCE SHEETS), AND ALSO IN ANY AREA WHERE WATER/WETLANDS EXIST WITHIN 20 FEET OF THE LIMIT OF CONSTRUCTION (AS SHOWN ON CONSTRUCTION PLAN SHEETS). ANY CONTRACTOR ACCESS BEYOND THE LIMIT OF CONSTRUCTION IS STRICTLY PROHIBITED.

C. USE SANDBAGS OR COMPOST FILTER LOG (CFL) TO SECURE SILT FENCE AT AREAS ADJACENT TO WOODED UPLANDS/ ALL WETLANDS IN LIEU OF TRENCHING UNLESS PROPER EROSION AND SEDIMENT CONTROL CANNOT BE MAINTAINED. REMOVE SANDBAGS AND CFLS (AND CONTENTS) IN THEIR ENTIRETY WHEN NO LONGER NEEDED. SANDBAGS/CFLS USED TO SECURE THE SILT FENCE IS INCIDENTAL TO ITEM 905001 - SILT FENCE. THE ENVIRONMENTAL STUDIES SECTION (302-760-2259 OR DOT_ENVIRONMENTALSTUDIES@DELAWARE.GOV) CAN PROVIDE FURTHER GUIDANCE REGARDING THIS METHOD OF INSTALLATION.

D. CLEARLY MARK ALL TREES TO BE REMOVED WITH PAINT PRIOR TO THE EROSION AND SEDIMENT CONTROL MEETING.

5. PLANTING GUIDANCE, WORK DONE PER LANDSCAPE PLANS:

UPON FINAL ACCEPTANCE OF THE CONTRACT, NOTIFY THE ENVIRONMENTAL STUDIES SECTION (302-760-2259 OR DOT_ENVIRONMENTALSTUDIES@DELAWARE.GOV) AND ROADSIDE ENVIRONMENTAL (DARIN CALLAWAY, 302-760-2186) OF COMPLETION. PLANT APPROPRIATE TREES AND/OR SHRUBS IN A NATURALIZED PATTERN WHERE SPECIFIED ON THE LANDSCAPE PLANS.

6. ANY STAGING AND/OR STOCKPILE AREA(S) OUTSIDE THE PROJECT'S LOC THAT INDIVIDUALLY OR CUMULATIVELY ARE LARGER THAN 10,000 SQUARE FEET, MUST BE APPROVED BY DELDOT'S ARCHAEOLOGIST. CONTACT THE CONSTRUCTION AREA ENGINEER WHO WILL COORDINATE WITH DELDOT'S ARCHAEOLOGIST.

WITHIN 30 DAYS, DELDOT WILL;

1. APPROVE THE USE OF THE PROPOSED STAGING AND STOCKPILE AREA(S);
2. REJECT THE REQUEST; OR
3. PERFORM AN ARCHAEOLOGICAL SURVEY TO DETERMINE WHETHER TO APPROVE OR REJECT THE REQUEST, WHICH MAY TAKE UP TO 3 MONTHS. IF AN ARCHAEOLOGICAL SURVEY IS NECESSARY, DELDOT OR A CONSULTANT ON ITS BEHALF WILL UNDERTAKE THE SURVEY.

THIS PROPERTY, TAX MAP 134-17.00-30.00, HAS BEEN EXAMINED BY WALLACE MONTGOMERY ON 01-28-2021 FOR THE PRESENCE OF WATERS OF THE UNITED STATES, INCLUDING WETLANDS (SECTION 404 AND SECTION 10), STATE SUBAQUEOUS LANDS AND STATE REGULATED WETLANDS AS ESTABLISHED BY THE REVIEWING AGENCIES IN THE FORM OF MANUALS, POLICIES AND PROCEDURES IN PLACE AT THE TIME THAT THE INVESTIGATION WAS CONDUCTED. THE WETLAND INFORMATION CONTAINED IN THIS PLAN SET IS IN ACCORDANCE WITH THIS CRITERIA, PER ARMY CORPS PRELIMINARY JD# NAP-2022-00817-85.

A PRELIMINARY/APPROVED JURISDICTIONAL DETERMINATION WAS SUBMITTED/APPROVED ON 06-27-2022.

Wetland Certification. The site has been examined to both State and Federal requirements.

ORIGINAL SHEET PREPARED BY WALLACE MONTGOMERY ON 06-28-2024. SHEET LAST UPDATED ON 12-19-2025.

PERMANENT TIDAL WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	TYPE OF IMPACT
WT-2-01	24 TIMBER PILES	18.85	0.0004	1.62	DNREC / USACE	LOSS
TOTAL PERMANENT TIDAL WETLAND IMPACTS		18.85	0.0004	1.62	DNREC / USACE	LOSS

TEMPORARY TIDAL WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	TYPE OF IMPACT
TT-2-01	WORK AREA / ACCESS	2,204.58	0.0506	0.00	DNREC / USACE	NO LOSS
TOTAL TEMPORARY TIDAL WETLAND IMPACTS		2,204.58	0.0506	0.00	DNREC / USACE	NO LOSS

PERMANENT WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	TYPE OF IMPACT
W-2-01	CULVERT EXTENSION / FILL	115.19	0.0026	6.39	USACE	LOSS
W-2-02	CULVERT EXTENSION / FILL	26.21	0.0006	3.21	USACE	LOSS
TOTAL PERMANENT WETLAND IMPACT AREAS		146.11	0.0033	9.87	USACE	LOSS

TEMPORARY WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	TYPE OF IMPACT
T-2-01	WORK AREA / PLANTINGS	1,080.86	0.0248	0.00	USACE	NO LOSS
T-2-02	WORK AREA	72.05	0.0016	0.00	USACE	NO LOSS
T-2-03	WORK AREA	33.73	0.0007	0.00	USACE	NO LOSS
TOTAL TEMPORARY WETLAND IMPACT AREAS		1,186.64	0.0271	0.00	USACE	NO LOSS

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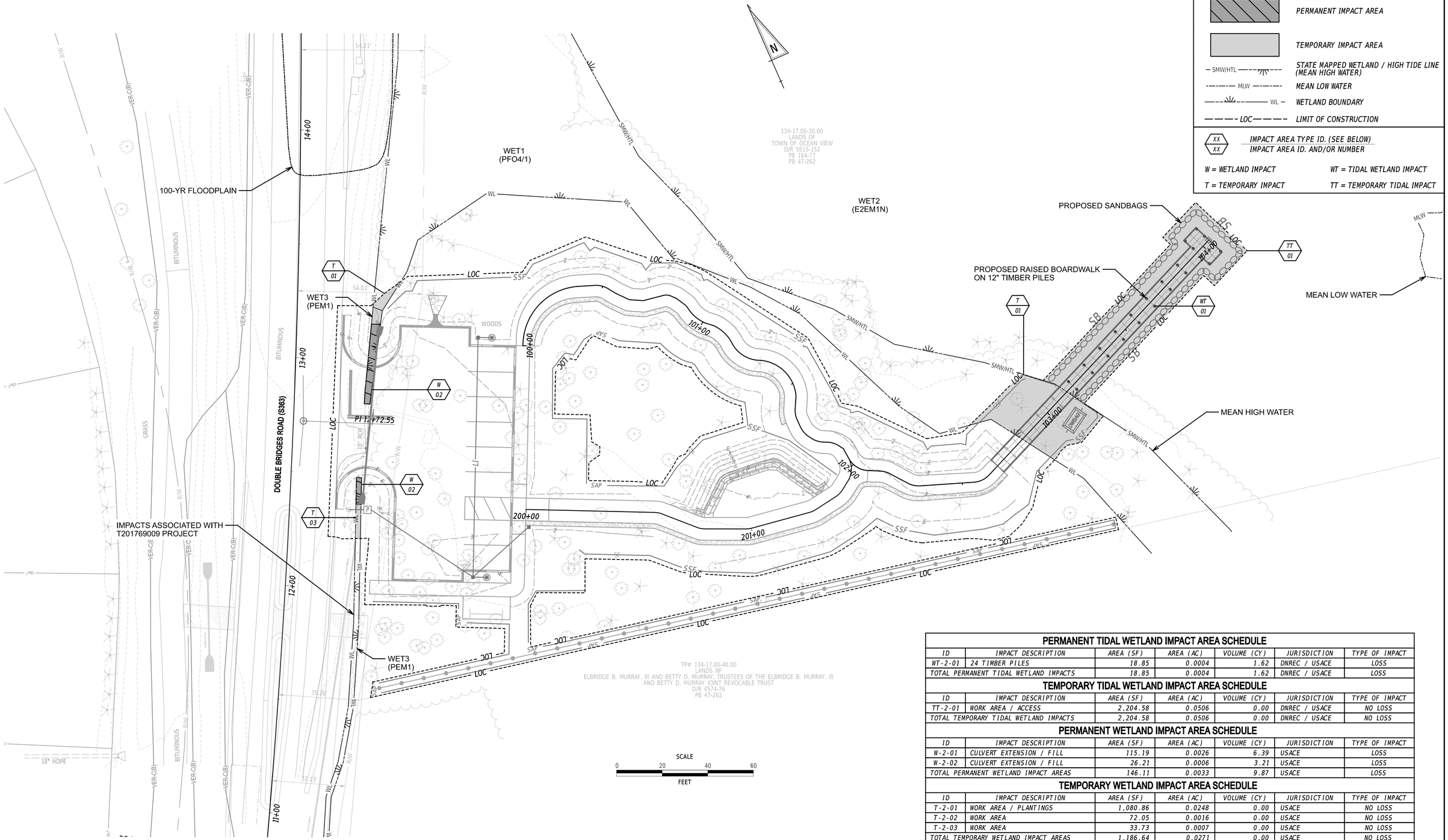
ADDENDA / REVISIONS		NOT TO SCALE	BERZINS NATURE PARK & TRAIL	CONTRACT	T202320007	BRIDGE NO.	N/A	ENVIRONMENTAL COMPLIANCE PLAN	EC-01
				COUNTY	SUSSEX	DESIGNED BY:	OKS		SECTION
						CHECKED BY:	JHB		WM
									SHEET NO.
									33



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T-2-03	WORK AREA	33.73	0.0007	0.00	USACE	NO LOSS
TOTAL TEMPORARY WETLAND IMPACT AREAS		1,186.64	0.0271	0.00	USACE	NO LOSS

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ADDENDA / REVISIONS

BERZINS NATURE PARK & TRAIL

CONTRACT	T202320007
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	OKS
CHECKED BY:	JHB

ENVIRONMENTAL COMPLIANCE PLAN

	EC-02
SECTION	WM
SHEET NO.	34

LANDSCAPE PLANTING SCHEDULE

KEY	PLANTING DESCRIPTION	QTY	KEY	PLANTING DESCRIPTION	QTY
	TREES			**PERENNIALS**	
CF	CORNUS FLORIDA	4	MF	MONARDA FISTULOSA	16
AC	AMELANCHIER CANADENSIS	2	OF	OENOTHERA FRUTICOSA	16
AR	ACER RUBRUM	3	EC	EUPATORIUM COELESTINUM	16
NS	NYSSA SYLVATICA	1	PD	PENSTEMON DIGITALIS	16
PT	PINUS TAEDA	1		**WETLAND PLANTING AREA**	
IO	ILEX OPACA	3	SS	SOLIDAGO SEMPERVIRENS	50
JV	JUNIPERUS VIRGINIANA	10	ST	SYMPHYOTRICHUM TENUIFOLIUM	50
	SHRUBS		HM	HIBISCUS MOSCHEUTOS	50
KL	KALMIA LATIFOLIA	6		**MARSH PLANTING AREA**	
AA	ARONIA ARBUTIFOLIA	6	SP	SPARTINA PATENS	800
IV	ITEA VIRGINICA	7	SPS	SYMPHYOTRICHUM SUBULATUM	800
SC	SAMBUCUS CANADENSIS	4	SNP	SCHOENOPLECTUS PUNGENS	800
VP	VIBURNUM PRUNIFOLIUM	8		SHREDDED HARDWOOD MULCH	99 SY
RA	RHODODENDRON ATLANTICUM	8		PERMANENT SEEDING	2,558 SY

LANDSCAPE LEGEND

- LANDSCAPE IDENTIFIER
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- PROPOSED TREE
- PROPOSED SHRUB
- WETLAND PLANTING AREA
- MARSH PLANTING AREA
- PERMANENT SEEDING
- PERENNIAL PLANTING BED

LANDSCAPING NOTES

1. CONTRACTOR SHALL BE AWARE OF THE LOCATION OF NEWLY INSTALLED UNDERGROUND CONDUIT AND AVOID ANY CONFLICTS WITH UTILITIES.
2. REFER TO LANDSCAPING SCHEDULE SHEET FOR SUMMARY OF QUANTITIES, SPACING, SIZING, AND DETAILS.
3. SHRUBS SPECIES SHALL BE PLANTED AS SPECIFIED ON THE PLANS IN AN ALTERNATING AND SYMMETRICAL PATTERN WHEN POSSIBLE.
4. CLEAR AND GRUB ALL TREES WITHIN THE LOC UNLESS OTHERWISE NOTED. GRUBBING SHALL NOT OCCUR WITHIN THE WETLAND AREAS.
5. ALL PROPOSED TREES LOCATED OUTSIDE OF THE LOC SHALL BE PLANTED BY HAND AND MULCHED. NO DISTURBANCE FROM EQUIPMENT IS ALLOWED OUTSIDE OF THE APPROVED LOC.
6. PERMANENT SEEDING SHOWN OUTSIDE OF THE LOC FOR THE FILTER STRIP SHALL BE BROADCAST SPREAD ONLY AND NO EQUIPMENT, RAKING, DRAGGING, AND USE OF EQUIPMENT THAT MAY CAUSE DISTURBANCE, SUCH AS A ROLLER OR CULTIPACKER, IS NOT ALLOWED OUTSIDE OF THE APPROVED LOC.
7. PERENNIAL PLANTING BEDS ADJACENT TO THE PARKING LOT TO RECEIVE TOPSOIL AND MULCH, SHREDDED HARDWOOD BARK OR WOODCHIPS, OR AN APPROVED EQUAL AS ACCEPTED BY THE TOWN.
8. USE PERMANENT SEEDING MIXTURE #6 WITHIN AREAS DESIGNATED AS FILTER STRIP ON SHEET SW-01. USE COMBINATION OF PERMANENT SEEDING MIXTURE #1 AND #4 WITHIN LOC. SEE VEGETATIVE STABILIZATION DETAIL DE-ESC-3.4.3.

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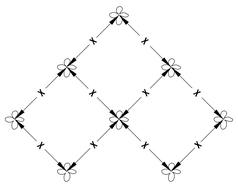
ADDENDA / REVISIONS					
		BERZINS NATURE PARK & TRAIL	CONTRACT T202320007	BRIDGE NO. N/A	LANDSCAPING PLAN
			COUNTY SUSSEX	DESIGNED BY: OKS	
				CHECKED BY: JHB	

LS-01
SECTION WM
SHEET NO. 35

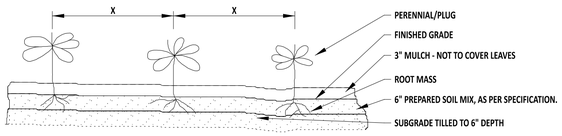
LANDSCAPE PLANTING SUMMARY SCHEDULE

ID	QTY	BOTANICAL NAME	COMMON NAME	SIZE	METHOD	COMMENTS
TREES						
CF	4	CORNUS FLORIDA	FLOWERING DOGWOOD	.75" CAL	#7 CG	15' ON CENTER
AC	2	AMELANCHIER CANADENSIS	CANADIAN SERVICEBERRY	1" CAL	#7 CG	15' ON CENTER
AR	3	ACER RUBRUM	RED MAPLE	1" CAL	#7 CG	30' ON CENTER
NS	1	NYSSA SYLVATICA	BLACKGUM	1" CAL	#7 CG	20' ON CENTER
PT	1	PINUS TAEDA	LOBLOLLY PINE	.75" CAL	#7 CG	20' ON CENTER
IO	3	ILEX OPACA	AMERICAN HOLLY	.75" CAL	#7 CG	15' ON CENTER
JV	10	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	.75" CAL	#7 CG	20' ON CENTER
SHRUBS						
KL	6	KALMIA LATIFOLIA	MOUTAIN LAUREL	36" HEIGHT	#3 CG	6' ON CENTER
AA	6	ARONIA ARBUTIFOLIA	RED CHOKEBERRY	36" HEIGHT	#3 CG	6' ON CENTER
IV	7	ITEA VIRGINICA	VIRGINIA SWEETSPIRE	36" HEIGHT	#3 CG	6' ON CENTER
SC	4	SAMBUCUS CANADENSIS	AMERICAN ELDERBERRY	36" HEIGHT	#3 CG	4' ON CENTER
VP	8	VIBURNUM PRUNIFOLIUM	BLACK HAW	36" HEIGHT	#3 CG	4' ON CENTER
RA	8	RHODODENDRON ATLANTICUM	COAST AZALEA	12" HEIGHT	#1 CG	4' ON CENTER
PERENNIALS						
MF	16	MONARDA FISTULOSA	WILD BERGAMOT	N/A	#1 CG	3' ON CENTER
OF	16	OENOTHERA FRUTICOSA	NARROWLEAF EVENING PRIMROSE	N/A	#1 CG	3' ON CENTER
EC	16	EUPATORIUM COELESTINUM	BLUE MISTFLOWER	N/A	#1 CG	3' ON CENTER
PD	16	PENSTEMON DIGITALIS	FOXGLOVE BEARDTONGUE	N/A	#1 CG	3' ON CENTER
WETLAND PLANTING AREA						
SS	50	SOLIDAGO SEMPERVIRENS	SEASIDE GOLDENROD	2" DIAMETER	PLUGS	36" ON CENTER
ST	50	SYMPHYOTRICHUM TENUIFOLIUM	PERENNIAL SALTMARSH ASTER	2" DIAMETER	PLUGS	36" ON CENTER
HM	50	HIBISCUS MOSCHEUTOS	SWAMP ROSE MALLOW	2" DIAMETER	PLUGS	36" ON CENTER
MARSH PLANTING AREA						
SP	800	SPARTINA PATENS	SALTMEADOW CORDGRASS	2" DIAMETER	PLUGS	12" ON CENTER
SPS	800	SYMPHYOTRICHUM SUBULATUM	EASTERN ANNUAL SALTMARSH ASTER	2" DIAMETER	PLUGS	12" ON CENTER
SNP	800	SCHOENOPLECTUS PUNGENS	COMMON THREESQUARE	2" DIAMETER	PLUGS	12" ON CENTER

MISCELLANEOUS		
QTY	*TYPE*	*COMMENTS*
2,558 SY	PERMANENT SEEDING	USE PERMANENT SEEDING MIXTURE #6 WITHIN AREAS DESIGNATED AS FILTER STRIP ON SHEET SW-01. USE EQUAL COMBINATION OF PERMANENT SEEDING MIXTURE #1 AND #4 WITHIN LOC. SEE VEGETATIVE STABILIZATION DETAIL DE-ESC-3.4.3.



PLAN VIEW



SECTION VIEW

PERENNIAL/PLUG PLANTING DETAIL

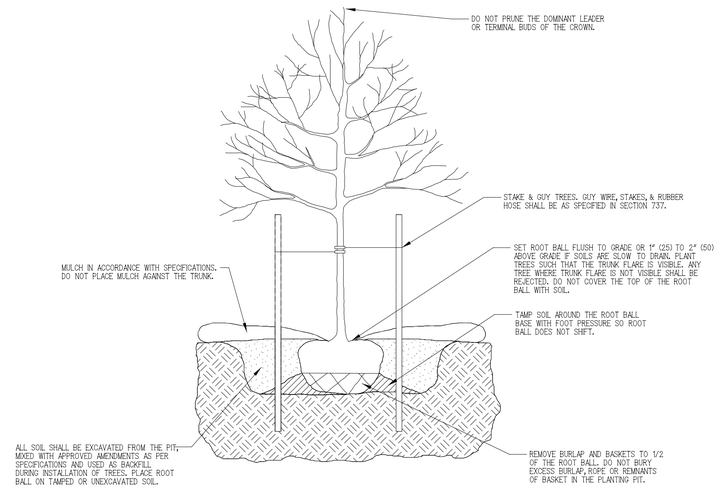
NOTE:
1). SEE PLANT LIST FOR SPACING (X).

LANDSCAPING NOTES:

1. ALL LANDSCAPING SHALL BE DONE IN ACCORDANCE WITH DELDOT STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS; AND ANY SPECIAL PROVISIONS AND DETAILS PROVIDED ON THE PLANS AND IN THE CONTRACT DOCUMENTS. SEE SECTION 908 SOIL STABILIZATION PRACTICES, AND SECTION 911 PLANTINGS OF THE STANDARD SPECIFICATIONS.
2. LANDSCAPING PLANS ARE FOR LANDSCAPING PURPOSES ONLY. AS-BUILT CONDITIONS MAY VARY. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND SHALL INFORM THE ENGINEER OF ANY DISCREPANCIES OR POTENTIAL PROBLEMS PRIOR TO COMMENCING WORK.
3. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING MISS UTILITY TO LOCATE ALL UTILITIES PRIOR TO PROCEEDING WITH ANY EXCAVATION FOR PLANT MATERIAL INSTALLATION.
4. ANY ADJUSTMENTS OR CHANGES TO PLANT LAYOUT SHALL BE APPROVED BY THE TOWN OF OCEAN VIEW PRIOR TO INSTALLATION.
5. THE BACKFILL FOR THE PLANTING PITS SHALL BE AMENDED PER STANDARD SPECIFICATIONS.
6. THE BASE OF THE PLANTING PIT SHALL BE A MINIMUM WIDTH OF TWO TIMES OR A MAXIMUM WIDTH OF THREE TIMES THE CONTAINER SIZE.
7. STAKES, GUYS, AND RELATED MATERIALS SHALL CONFORM TO SECTION 911 OF THE STANDARD SPECIFICATIONS.
8. TEMPORARY CONSTRUCTION FENCE SHALL BE PLACED ALONG THE LIMIT OF CONSTRUCTION WITHIN THE EXISTING FORESTED AND WETLAND AREA.
9. THERE ARE 131 TREES GREATER THAN 2" DBH TO BE REMOVED WITHIN THE LIMITS OF CONSTRUCTION.
10. AREAS SHOWN ON THE LANDSCAPE PLANS OUTSIDE OF THE LOC SHALL BE CONDUCTED BY HAND PER THE NOTES ON THE PLAN SHEET.

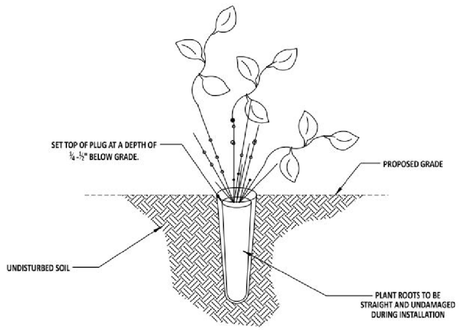
MULCH REQUIREMENTS:

1. MULCH, SHREDDED HARDWOOD BARK OR WOODCHIPS, OR AN APPROVED EQUAL AS ACCEPTED BY THE TOWN SHALL BE USED. 2 INCH THICK MULCH REQUIRED FOR PERENNIAL PLANTING BEDS AND 4 INCH THICK MULCH REQUIRED FOR TREES AND SHRUBS. TOTAL QUANTITY: 99 S.Y.



TREE PLANTING DETAIL

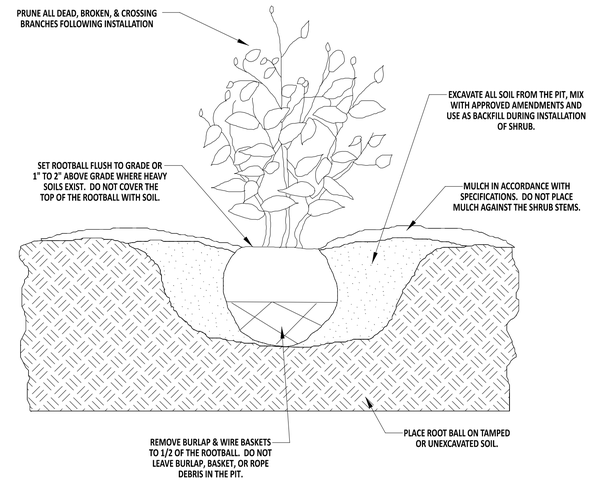
NOTES
1). ALL PRUNING SHALL BE DONE BY OR UNDER THE DIRECTION OF, AN I.S.A. CERTIFIED ARBORIST OR CERTIFIED NURSERY PROFESSIONAL. DO NOT HEAVILY PRUNE TREES AT PLANTING.
2). ALL DEAD, BROKEN, & CROSSING BRANCHES SHALL BE PRUNED OFF FOLLOWING INSTALLATION.
3). BASE OF PLANTING PIT SIZE SHALL BE A MINIMUM WIDTH OF TWICE THE ROOT BALL SIZE AND A MAXIMUM OF THREE TIMES THE ROOT BALL SIZE.
4). WHEN PLANTING TREES ALONG STREETS, THERE MUST BE A MINIMUM OF 6' (1800) BETWEEN THE BACK OF CURB AND THE EDGE OF SIDEWALK AND SHALL BE CENTERED BETWEEN THE BACK OF CURB AND THE EDGE OF SIDEWALK.
5). WHEN PLANTING TREES ALONG SIDEWALKS, THE TREE SHALL BE LIMBED TO 7' (2100) FOR PEDESTRIAN CLEARANCE.



SECTION VIEW

AQUATIC PLANTING DETAIL - 2" PLUG

NOTES:
1). PLANT USING A DIBBLE BAR, STEEL STAKE OR SIMILAR APPROVED PLANTING DEVICE.
2). PLANTING PIT SHALL BE SLIGHTLY LARGER THAN THE PLANT ROOT MASS.
3). DO NOT DAMAGE LEAVES, ROOTS OR STAKES DURING CONSTRUCTION.
4). PLANT AQUATIC PLUGS IN GROUPS OF 50 PLANTS MINIMUM, PER SPECIES.



ROADSIDE SHRUB PLANTING DETAIL

NOTES:
1). DIG BASE OF PLANTING PIT A MINIMUM OF TWO AND A MAXIMUM OF THREE TIMES THE SIZE OF THE ROOT BALL.
2). INSTALL SHRUBS IN MASSES OF NO LESS THAN 3 PLANTS. A MINIMUM OF 3'-0" IS REQUIRED FROM MIDDLE OF SHRUB TO ANY PERMANENT STRUCTURE (I.E. CURB, SIDEWALK, BUILDING, ETC...)
3). SHRUB PRUNING IS TO BE PERFORMED BY AN I.S.A. CERTIFIED ARBORIST, CERTIFIED NURSERY PROFESSIONAL, OR UNDER THE DIRECTION THEREOF. DO NOT HEAVILY PRUNE SHRUBS AT PLANTING.
4). HAND DIG AUGERED HOLES TO FINAL WIDTH AND DEPTH TO ELIMINATE GLAZING.
5). MULCH ALL SHRUB MASSES IN ONE CONTINUOUS BED.

$DATE$
$TIME$
$FILE$

ADDENDA / REVISIONS		NOT TO SCALE	BERZINS NATURE PARK & TRAIL	CONTRACT T202320007	BRIDGE NO. N/A	LANDSCAPING SCHEDULE	LS-02
				COUNTY SUSSEX	DESIGNED BY: OKS		SECTION WM
					CHECKED BY: JHB		SHEET NO. 36

CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2"-RGS	10'	T	WIRES BY ULTLITY - LOAD SIDE
2	1	2"-PVC	60'	T	(2)#8, (1)#8 GND
3	1	2"-PVC	10'	T	(2)#8, (1)#8 GND
4	1	4"-PVC	110'	T	(2)#8, (1)#8 GND
5	1	2"-PVC	10'	T	(2)#8, (1)#8 GND
6	1	4"-PVC	35'	T	EMPTY - FOR FUTURE USE

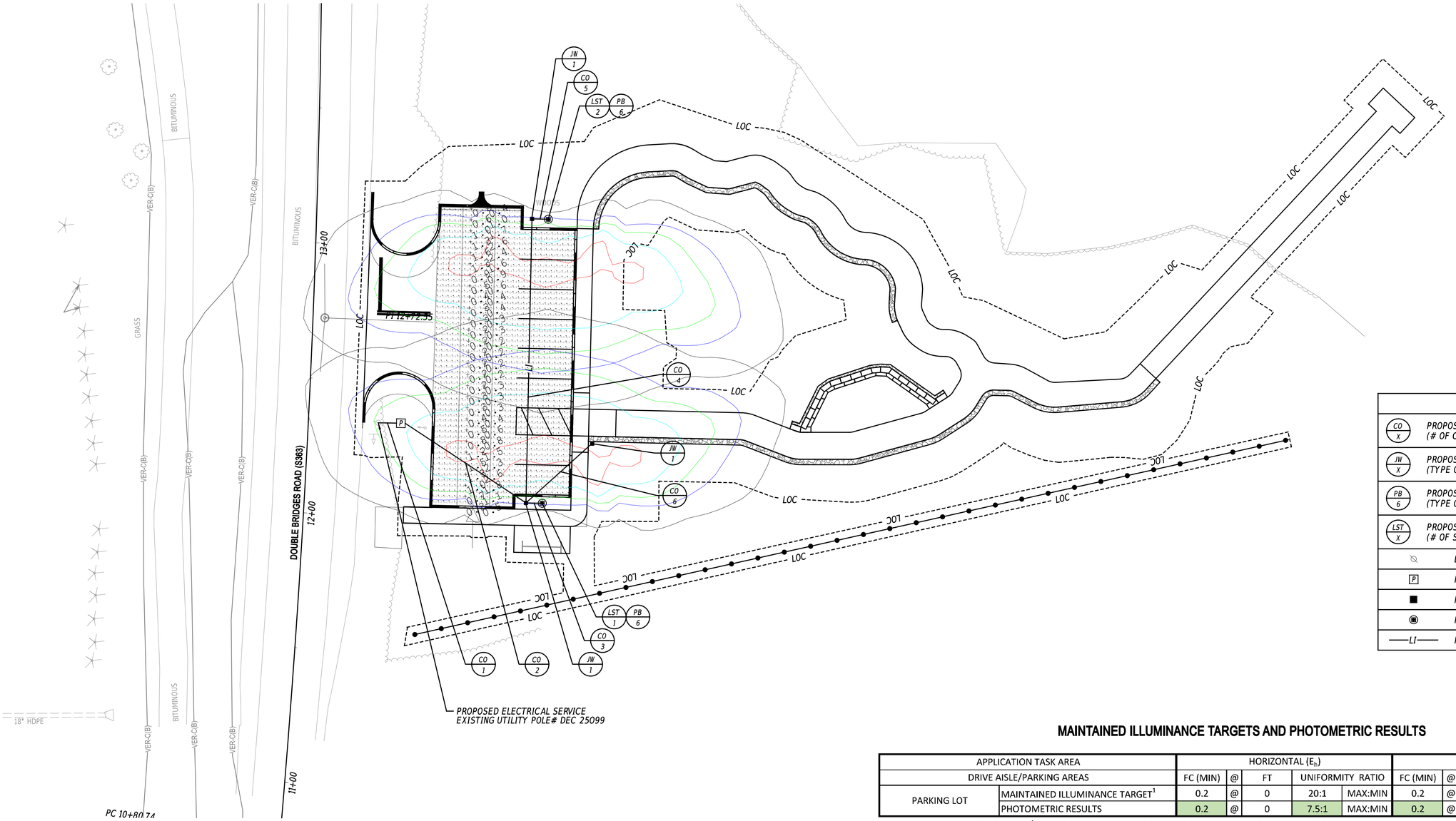
* DENOTES EXISTING CONDUIT RUN.
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

LIGHTING STANDARD SCHEDULE

NO.	CIRCUIT NO.	POLE HEIGHT	COLOR TEMP.	LUMINAIRE
LST 1	1	18'	4000K CCT	95W LED, IES TYPE IV DISTRIBUTION
LST 2	1	18'	4000K CCT	95W LED, IES TYPE IV DISTRIBUTION

NOTES:

1. INSTALL 180° HOUSE SIDE SHIELD ON LST 1 AND LST 2 TO REDUCE LIGHT TRESPASS ON ADJACENT PROPERTIES.
2. POLE BASE BOLT CIRCLE DIAMETER SHALL BE IN ACCORDANCE WITH POLE MANUFACTURER'S SPECIFICATIONS.



LEGEND

CO X	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
PB 6	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
LST X	PROPOSED LIGHTING STANDARD IDENTIFIER (# OF STANDARD)
	EXISTING UTILITY POLE
P	PROPOSED METERED PEDESTAL
	PROPOSED JUNCTION WELL
	PROPOSED LIGHTING PEDESTAL
LI	PROPOSED LIGHTING CONDUIT

MAINTAINED ILLUMINANCE TARGETS AND PHOTOMETRIC RESULTS

APPLICATION TASK AREA		HORIZONTAL (E_h)					VERTICAL (E_v)				
DRIVE AISLE/PARKING AREAS		FC (MIN)	@	FT	UNIFORMITY RATIO		FC (MIN)	@	FT	UNIFORMITY RATIO	
PARKING LOT	MAINTAINED ILLUMINANCE TARGET[1]	0.2	@	0	20:1	MAX:MIN	0.2	@	5	20:1	MAX:MIN
	PHOTOMETRIC RESULTS	0.2	@	0	7.5:1	MAX:MIN	0.2	@	5	13:1	MAX:MIN

1= TARGET VALUES BASED ON ANSI/IES RP-8-21, TABLE 17-2. RECOMMENDED MAINTAINED ILLUMINANCE VALUES FOR PARKING LOTS.

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ADDENDA / REVISIONS

SCALE
0 20 40 60
FEET

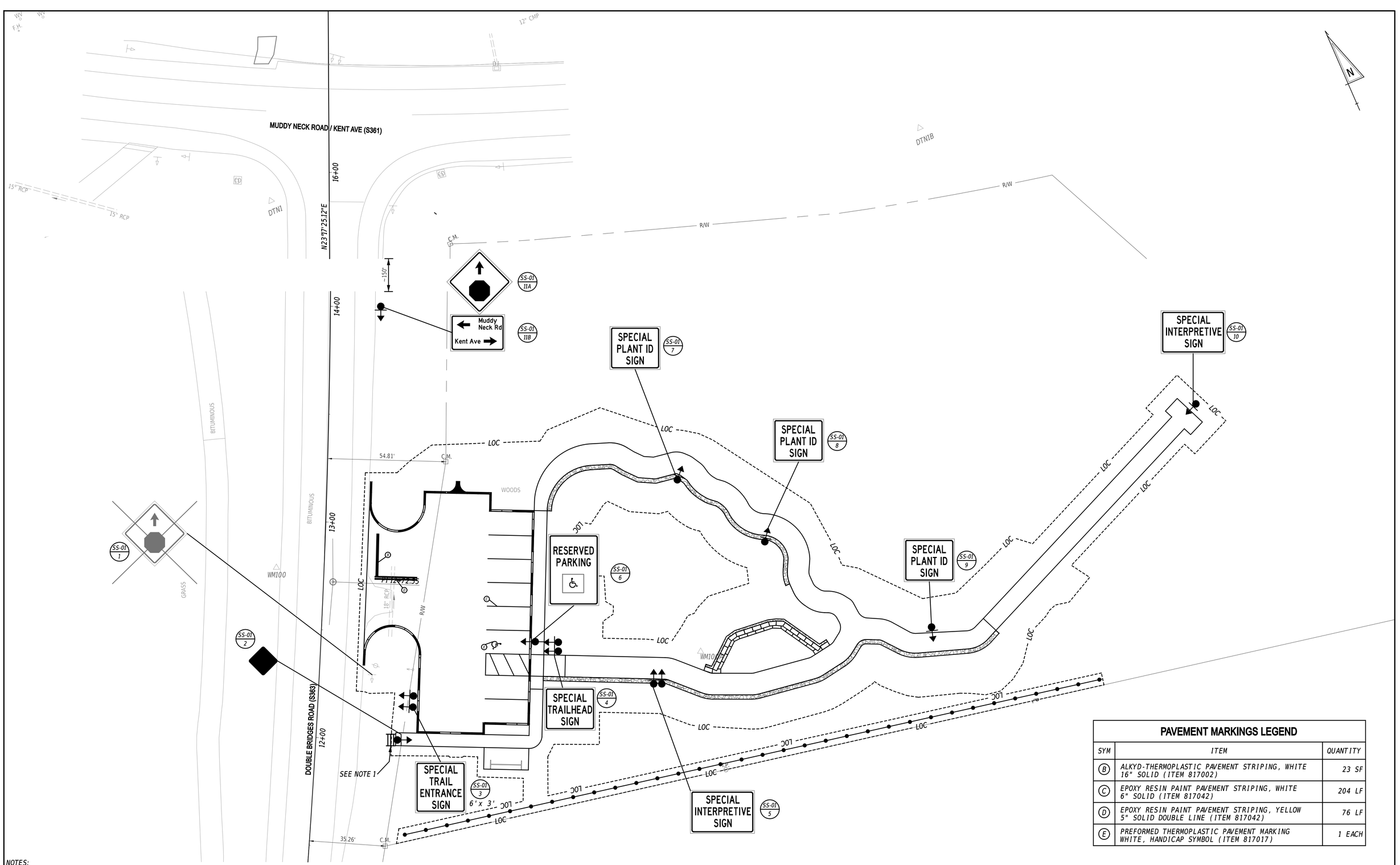
BERZINS NATURE PARK & TRAIL

CONTRACT T202320007
COUNTY SUSSEX

BRIDGE NO. N/A
DESIGNED BY: J. WIGGINS
CHECKED BY: J. VARGAS

LIGHTING PLAN

LI-01
SECTION WM
SHEET NO. 37



PAVEMENT MARKINGS LEGEND		
SYM	ITEM	QUANTITY
(B)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	23 SF
(C)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	204 LF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817042)	76 LF
(E)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, HANDICAP SYMBOL (ITEM 817017)	1 EACH

NOTES:

1. PERMANENT BARRICADE SHOULD BE INSTALLED ACCORDING TO DELDOT STANDARD CONSTRUCTION DETAIL T-16 (2025) FOR 6FT WIDE BARRICADE.

ADDENDA / REVISIONS

SCALE
0 20 40 60
FEET

BERZINS NATURE PARK & TRAIL

CONTRACT	T202320007
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	M. WILLIAMS
CHECKED BY:	J. VARGAS

SIGNING, STRIPING AND CONDUIT PLAN

SS-01	
SECTION	WM
SHEET NO.	38

12/29/2025
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PERMANENT SIGN SCHEDULE - ROADWAY

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	X13 / ITEM 816001 SUPPLY OF ROADSIDE FLAT SHEET ALUMINUM, TYPE IV, RETROREFLECTIVE SHEETING (SF)	X14 / ITEM 816003 SUPPLY OF ROADSIDE FLAT SHEET ALUMINUM, TYPE XI, RETROREFLECTIVE SHEETING (SF)	X15 / ITEM 819512 SIGN POST REFLECTIVE PANEL (EA)	ITEM 819003 INSTALL OR REMOVE TRAFFIC SIGNS (EACH)			ITEM 819001 PROVIDE GALVANIZED TELESCOPING SIGN POST (EACH) TO BE USED FOR NEW SIGN POSTS, CONTRACTOR TO DETERMINE LENGTH	ITEM 819002 INSTALL OR REMOVE GALVANIZED TELESCOPING SIGN POST (EACH)			POST INSTALLATION TYPE	ITEM 819010 4" HOLE, 0-6' (EACH)	ITEM 819011 4" HOLE, >6' (EACH)	SIGN DISPOSITION	ITEM 821003 INSTALLATION OF BARRIER MOUNTED SIGN SUPPORT (EACH) (PROJECT CONTRACTOR ITEM)	ITEM 821006 INSTALLATION OF SIGN ON BARRIER MOUNTED SIGN SUPPORT (SF) (PROJECT CONTRACTOR ITEM)	ITEM 821006 REMOVAL OF SIGN ON BARRIER MOUNTED SIGN SUPPORT (SF) (PROJECT CONTRACTOR ITEM)	X14A FLAT SHEET ALUMINUM SIGN PANELS (TYPE XI SHEETING) - SIGNS ON POLES, SPAN WIRES, MAST ARMS (TRAFFIC SUPPLY)	ITEM 822500 INSTALL OVERHEAD SIGN (SF) ON SIGNAL POLES, TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823003 REMOVAL OF SIGN ON SPAN WIRE OR MAST ARM (EA) TRAFFIC CONTRACTOR ITEM EXCEPT FOR PILOT PROJECTS	ITEM 823001 INSTALLATION OF SIGN ON SPAN WIRE OR MAST ARM (SF) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	REMARKS
										SIGN DISPOSITION	REMOVE	INSTALL		SIGN POST DISPOSITION	REMOVE	INSTALL											
SS-01	1	W3-1(30)	1	STOP AHEAD (Symbol) - 30x30	30	30				REMOVE	1																
SS-01	2	OM4-3	1	END OF ROAD OBJECT MARKER	18	18	-																-				INSTALLED ON BARRICADE PER STANDARD ITEM 826001 AND DELDOT STANDARD CONSTRUCTION DETAIL T-16 (2025)
SS-01	6	R7-8	1	RESERVED PARKING (Disabilities - symbols)	12	18	1.5			NEW W/ POST		1	1	NEW		1	NEW CONCRETE	1									
SS-01	3,4,5,7-10	CUSTOM	7	CUSTOM SIGNS																							DETAILS ON SIGNS AND INSTALLATION IS LOCATED IN SIGNAGE DETAILS SHEET OF PLAN
SS-01	11A	W3-1(30)	1	STOP AHEAD (Symbol) - 30x30	30	30	6.3			NEW W/ POST		1	1	NEW		1	SOIL										
SS-01	11B	W16-8aP	1	ADVANCE STREET NAME (3 - line plaque)	42	18	5.3			ADD TO ASSEMBLY		1															(Left Arrow) Muddy Neck Rd Kent Ave (Right Arrow) - Highway C 4"
PAGE TOTALS							13	0	0		1	3	2		0	2		1	0	0	0	0	0	0	0	0	

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ADDENDA / REVISIONS					

BERZINS NATURE PARK & TRAIL

CONTRACT	BRIDGE NO.	N/A	SECTION
T202320007	DESIGNED BY:	M. WILLIAMS	WM
COUNTY	CHECKED BY:	J. VARGAS	SHEET NO.
SUSSEX			39

SIGNING, STRIPING AND CONDUIT PLAN

Electronically Recorded Document# 2022000053179 BK: 5815 PG: 152
Recorder of Deeds, Scott Dailey On 11/30/2022 at 3:18:35 PM Sussex County, DE
Consideration: $500,000.00 County/Town: $0.00 State: $0.00 Total: $0.00
Doc Surcharge Paid Town: OCEAN VIEW

PARCEL #: 134-17.00-30.00
PREPARED BY & RETURN TO:
Morris James LLP
19339 Coastal Highway
302-260-7281; fax-302-727-5886
Rehoboth Beach, De. 19971
File No. 22-1067/

THIS DEED, made this 30 day of November 2022,

- BETWEEN -

RAYMOND BERZINS, TRUSTEE OF THE RAYMOND BERZINS REVOCABLE TRUST, DATED DECEMBER 7, 2007, AS AMENDED, and **RAYMOND BERZINS, INDIVIDUALLY,** of PO BOX 863, Bethany Beach, DE 19930, **SUSAN L. BERZINS, CO-TRUSTEE OF THE SIGURD E. BERZINS REVOCABLE TRUST, DATED NOVEMBER 10, 2008**, of 36227 Double Bridges Road, Frankford, DE 19945, and **ERIC E. BERZINS, CO-TRUSTEE OF THE SIGURD E. BERZINS REVOCABLE TRUST, DATED NOVEMBER 10, 2008** of 1822 Garvin Street, Orlando, FL 32803, parties of the first part,

- AND -

TOWN OF OCEAN VIEW, a municipality of the State of Delaware, of 201 Central Avenue, Ocean View, DE 19970, party of the second part.

WITNESSETH: That the said parties of the first part, for and in consideration of the sum of **Ten and 00/100 Dollars ($10.00)**, lawful money of the United States of America, the receipt whereof is hereby acknowledged, hereby grant and convey unto the party of the second part, and its heirs and assigns, in fee simple, the following described lands, situate, lying and being in Sussex County, State of Delaware:

ALL THAT CERTAIN tract, piece or parcel of land, lying and being situate in Baltimore Hundred, Sussex County, State of Delaware, and being more fully described on a certain Plat entitled, "Lands of Raymond Berzins, Sigurd E. Berzins and Talivaldis Berzins," as prepared by DELAWARE SURVEYING SERVICES dated August 15, 2011 and recorded in the Office of the Recorder of Deeds in and for Sussex County, Delaware in Plot Book 164, Page 77, and more particularly described as follows, to-wit:

BEGINNING at a concrete monument, situate at the intersection of the easterly side of Double Bridges Road (50' wide) with the southerly side of Muddy Neck Road (70' wide), said concrete monument being a corner for these lands; thence by and with the southerly side of Muddy Neck Road the following three (3) courses and distances: 1. Along a curve bearing to the left, said curve having a Delta Angle of 02° 41' 36" and a Radius of 832.66', and Arc Distance of 39.14' to a point; 2. Thence S 71° 21' 35" E, 141.81' to a point; 3. Thence along a curve bearing to the left of said curve having a Delta Angle of 04° 05' 56" and a Radius of 1,403.14', an Arc Distance of

of said curve having a Delta Angle of 04° 05' 56" and a Radius of 1,403.14', an Arc Distance of 100.38' to a concrete monument on line of lands of the Assawoman Canal (210' wide), said monument being a corner for these lands; Thence by and with the said Assawoman Canal, S 24° 53'54" E, 456.69' to a point, said point being a corner for these lands and lands of Elbridge B. Murray, III and Betty D. Murray; Thence by and with the said Murray Lands N 79 ° 04' 17" W, 667.46' to a concrete monument on the easterly side of Double Bridges Road, said monument being a corner for these lands and said Murray lands; Thence by and with the easterly side of Double Bridges road the following two (2) courses and distances: 1. N 32° 31' 59" E, 180.36' to a concrete monument; Thence 2. N 24° 04' 59" E. 238.94' to a concrete monument, said monument being the point and place of beginning. The above-described parcel contains 4.06 Acres of land, be the same more or less.

SUBJECT to all easements, agreements, covenants, and plans of record, this reference to which shall not be construed to reimpose any such easements, agreement, covenants and plans that have otherwise lapsed, expired, or have otherwise been terminated in accordance with their terms or otherwise, as applicable, but not subject to any mortgages, judgments or other liens of record or otherwise.

Being the same lands conveyed to Raymond Berzins, Trustee of the Raymond Berzins Revocable Trust dated December 7, 2007, Sigurd E. Berzins, Individually and as Trustee of the Sigurd E. Berzins Revocable Trust dated November 10, 2008 and Talivaldis Berzins, Individually by Deed from Raymond Berzins, Trustee of the Raymond Berzins Revocable Trust dated December 7, 2007, Sigurd E. Berzins, Individually and as Trustee of the Sigurd E. Berzins Revocable Trust dated November 10, 2008 and Talivaldis Berzins, Individually, dated November 8, 2011, and recorded in the Office of the Recorder of Deeds in and for Sussex County at Georgetown, Delaware in Book 3942, Page 339.

Talivaldis Berzins died intestate on November 6,2017. The Amended Inventory Filed in his Estateat Case No. 14880, Transaction ID 68368990, reflects that his undivided one-third interest as a tenant in common in the afore-described lands passed 50 % to his son, Raymond Berzins and 50% to his son Sigurd Berzins,

Sigurd E. Berzins died testate April 1, 2021. At the time of his death, Sigurd E. Berzins owned an interest in the afore-described lands individually and in his capacity as Trustee of the Sigurd E. Berzins Revocable Trust dated November 10, 2008. The Inventory filed in his Estate at Case No. 23217, Transaction ID 68423712, reflects this his individually owned interest in the aforesaid lands passed 100% to the Sigurd E. Berzins Revocable Trust Dated November 10, 2008. The Sigurd E. Berzins Revocable Trust dated November 10, 2008, names his wife Susan L. Berzins, and his child, Eric E. Berzins, as successor co-trustees of the Trust upon his death.

SIGNATURE PAGES TO FOLLOW

Document# 2022000053179 BK: 5815 PG: 154
Recorder of Deeds, Scott Dailey On 11/30/2022 at 3:18:35 PM Sussex County, DE
Doc Surcharge Paid

IN WITNESS WHEREOF, the parties of the first part have hereunto set their hands and seals the day and year first above written.

Witness

By: _____(SEAL)
RAYMOND BERZINS, TRUSTEE OF THE RAYMOND BERZINS REVOCABLE TRUST, DATED DECEMBER 7, 2007, AS AMENDED

Witness

By: _____(SEAL)
RAYMOND BERZINS, INDIVIDUALLY

STATE OF DELAWARE, COUNTY OF SUSSEX: to-wit

BE IT REMEMBERED, that on November 30, 2022, personally came before me, the subscriber, **Raymond Berzins, Trustee of the Raymond Berzins Revocable Trust, dated December 7, 2007, as amended**, party of the first part to this Indenture, known to me personally to be such, and acknowledged this Indenture to be his act and deed and the act and deed of the Trust.

GIVEN under my Hand and Seal of Office the day and year aforesaid.

VERONICA O. FAUST
Attorney at Law
Notary Officer, State of Delaware
Pursuant to 29 Del.C §4323(a)(3)
My Commission Has No Expiration Date

Notary Public
My Commission Expires: _____

BE IT REMEMBERED, that on November 30, 2022, personally came before me, the subscriber, **Raymond Berzins, Individually**, party of the first part to this Indenture, known to me personally to be such, and acknowledged this Indenture to be his act and deed.

GIVEN under my Hand and Seal of Office the day and year aforesaid.

Notary Public
My Commission Expires: _____

VERONICA O. FAUST
Attorney at Law
Notary Officer, State of Delaware
Pursuant to 29 Del.C §4323(a)(3)
My Commission Has No Expiration Date

Document# 2022000053179 BK: 5815 PG: 155
Recorder of Deeds, Scott Dailey On 11/30/2022 at 3:18:35 PM Sussex County, DE
Doc Surcharge Paid

IN WITNESS WHEREOF, the parties of the first part have hereunto set their hands and seals the day and year first above written.

Witness

By: Susan L Berzins TTEE (SEAL)
SUSAN L. BERZINS, CO-TRUSTEE OF THE SIGURD E. BERZINS REVOCABLE TRUST, DATED NOVEMBER 10, 2008

STATE OF DELAWARE, COUNTY OF SUSSEX: to-wit

BE IT REMEMBERED, that on November 30, 2022, personally came before me, the subscriber **Susan L. Berzins, Co-Trustee of the Sigurd E. Berzins Revocable Trust, Dated November 10, 2008,** party of the first part to this Indenture, known to me personally to be such, and acknowledged this Indenture to be her act and deed and the act and deed of the Trust.

GIVEN under my Hand and Seal of Office the day and year aforesaid.

Notary Public
My Commission Expires: _____

VERONICA O. FAUST
Attorney at Law
Notary Officer, State of Delaware
Pursuant to 29 Del.C §4323(a)(3)
My Commission Has No Expiration Date

Document# 2022000053179 BK: 5815 PG: 156
Recorder of Deeds, Scott Dailey On 11/30/2022 at 3:18:35 PM Sussex County, DE
Doc Surcharge Paid

IN WITNESS WHEREOF, the parties of the first part have hereunto set their hands and seals the day and year first above written.

Witness

By: _____ (SEAL)
ERIC E. BERZINS, CO-TRUSTEE OF THE SIGURD E. BERZINS REVOCABLE TRUST, DATED NOVEMBER 10, 2008

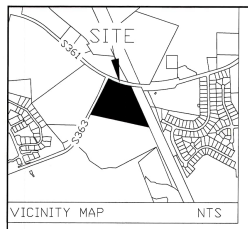
STATE OF FLORIDA , COUNTY OF Orange : to-wit

BE IT REMEMBERED, that on 11/28th 2022, personally came before me, the subscriber **Eric E. Berzins, Co-Trustee of the Sigurd E. Berzins Revocable Trust, Dated November 10, 2008,** party of the first part to this Indenture, known to me personally to be such, and acknowledged this Indenture to be his act and deed and the act and deed of the Trust.

GIVEN under my Hand and Seal of Office the day and year aforesaid.

Notary Public
My Commission Expires: 10/27/24

Walbert Soto
State of Florida
My Commission Expires 10/27/2024
Commission No. HH 50461



MUDDY NECK ROAD (S361)
VARIED WIDTH R/W

DOUBLE BRIDGES ROAD (S363)
VARIED WIDTH R/W

POC
POB
CMF

R=798.94'
CHD=S69° 12' 07"E
39.15'
L=39.15'

238.94'

CIPS

S71° 20' 42"E

141.80'

CIPS

R=1408.14'
CHD=S76° 33' 57"E
100.37'
L=100.39'

CMF

S24° 51' 01"E

N24° 105' 53"E

189.36'

CMF

N32° 33' 29"E

CMF

667.46'

69.74'

CMF

POST
0.07'

POST
0.11'

POST
0.15'

POST
1.02'

BOUNDARY LINE BASED ON LOCATED MONUMENTS SHOWN ON BOUNDARY AND AGREEMENT LINE SURVEY PLAN AS RECORDED IN PLAT BOOK 47 PAGE 262

457.09'

N79° 01' 18"W

CMF

CMF

NAD 83

LEGEND

NOT TO SCALE	NTS
POINT OF BEGINNING	POB
POINT OF COMMENCEMENT	POC
POST	○ POST
PROPERTY LINE	
ADJACENT PROPERTY LINE	
CONCRETE MONUMENT FOUND	○ CMF
CAPPED IRON PIN SET	○ CIPS

TP# 134-17.00-30.00
LANDS OF
TOWN OF OCEAN VIEW
D/R 3815-152
PB 164-77
PB 47-262

+/- 177,153 SQUARE FEET
+/- 4.0669 ACRES

(NO WETLANDS OR IMPROVEMENTS
SHOWN ON THIS PLAN)

TP# 134-17.00-30.00
LANDS OF DELAWARE
STATE
ASSAWOMAN CANAL
210' WIDE R/W

TP# 134-17.00-40.00
LANDS NF
ELBRIDGE B. MURRAY, III AND BETTY D.
MURRAY, TRUSTEES OF THE ELBRIDGE B.
MURRAY, III AND BETTY D. MURRAY JOINT
REVOCABLE TRUST
D/R 4574-76
PB 47-262

0 30 60
30 SCALE

SURVEYORS CERTIFICATION

SURVEY CLASSIFICATION: SUBURBAN

A TITLE REPORT BY A DELAWARE LICENSED ATTORNEY HAS NOT BEEN PERFORMED IN CONJUNCTION WITH THIS SURVEY. "I, KENNETH M. REYNOLDS REGISTERED AS A PROFESSIONAL LAND SURVEYOR IN THE STATE OF DELAWARE, HEREBY STATE THAT THE INFORMATION SHOWN ON THIS PLAN HAS BEEN PREPARED UNDER MY SUPERVISION AND MEETS THE STANDARDS OF PRACTICE AS ESTABLISHED BY THE STATE OF DELAWARE BOARD OF PROFESSIONAL LAND SURVEYORS. ANY CHANGES TO THE PROPERTY CONDITIONS, IMPROVEMENTS, BOUNDARY OR PROPERTY CORNERS AFTER THE DATE SHOWN HEREON SHALL NECESSITATE A NEW REVIEW AND CERTIFICATION FOR ANY OFFICIAL OR LEGAL USE."

KENNETH M. REYNOLDS, DE P.L.S.# 740
CENTURY ENGINEERING, LLC, A KLEINFELDER COMPANY
550 BAY ROAD, DOVER, DE 19901

CENTURY ENGINEERING
A Kleinfelder Company

REVISIONS

ADDENDUM

DESCRIPTION	DATE

PROJECT

BOUNDARY SURVEY PLAN
FOR
TOWN OF OCEAN VIEW
BALTIMORE HUNDRED, SUSSEX COUNTY, STATE OF DELAWARE

JC	KR
DRAWN	CHK'D/DESIGNER
1" = 30'	1 OF 1
SCALE	SHEET NO.
195068.17	6/29/23
PROJECT NO.	DATE