



STATE OF DELAWARE  
**DEPARTMENT OF TRANSPORTATION**  
 800 BAY ROAD  
 P.O. BOX 778  
 DOVER, DELAWARE 19903

SHANTÉ A. HASTINGS  
 SECRETARY

Mr. Kevin Casula  
 DNREC Wetlands and Subaqueous Lands  
 89 Kings Highway  
 Dover, DE 19901

Dear Mr. Casula,

Enclosed you will find a copy of the Subaqueous Lands Permit Application for **Resiliency Improvements, KC, Cypress Branch Rd, Contract #T202566204**, in Kent County Delaware. This project involves addressing a frequently flooded roadway segment on Cypress Branch Road by elevating the roadway 1.75 feet.

The primary objective of the project is to reduce the frequency that Cypress Branch Road is overtopped by tidal water, which has been causing significant disruptions and safety concerns. The work consists of removing the existing pavement and raising the roadway with borrow. Guardrail will also be installed along the roadway. This project aims to ensure safer and more reliable access along Cypress Branch Road, especially during times of high tides or heavy rainfall.

Bridge 2-364B (39.096538055965866, -75.48652473022383) Resiliency Improvements are located on Cypress Branch Road in Rising Sun, Delaware and helps traffic travel over Cypress Branch Waterway. This project impacts State Regulated Wetlands found on map number 252. Construction will be between the intersection of Ponderosa Drive and Cypress Branch Road extending north through bridge 2-364B to the intersection of Evergreen Road and Cypress Branch Road. 0.017 Acres or 742.54 square feet will be permanently impacted/loss due to Fill type F (borrow), (1-W-(01-08)) as shown on EC-01.

PERMANENT WETLAND IMPACT AREA SCHEDULE							
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	LOSS VS. IMPACT	LOSS AREA (AC)
1-W-01	FILL TYPE F	1059.76	0.0243	235.50	USACE	LOSS	0.0243
1-W-02	FILL TYPE F	232.22	0.0053	25.80	USACE/DNREC	LOSS	0.0053
1-W-03	FILL TYPE F	389.46	0.0089	43.27	DNREC	LOSS	0.0089
1-W-04	FILL TYPE F	2.35	0.0000	0.10	DNREC	LOSS	0.0000
1-W-05	FILL TYPE F	15.48	0.0004	0.43	DNREC	LOSS	0.0004
1-W-06	FILL TYPE F	178.84	0.0041	19.87	USACE	LOSS	0.0041
1-W-07	FILL TYPE F	103.03	0.0024	11.45	USACE/DNREC	LOSS	0.0024
1-W-08	FILL TYPE F	63.67	0.0015	7.07	USACE	LOSS	0.0015
TOTAL PERMANENT WETLAND IMPACT AREAS		2044.81	0.0469	343.49	USACE/DNREC	LOSS	0.0469



Proper erosion and sediment control methods will be set in place for this project. Before construction starts silt fence will be installed to ensure it isolates sediment. Once construction is done stabilization of the disturbed areas will be addressed. Stabilization will most be achieved via item 908515 – Permanent Grass Seeding, Wet Ground. Stabilization of the disturbed areas must be achieved before the removal of the silt fence can happen.

According to the Species Conservation and Research Program (SCRCP) letter dated July 2<sup>nd</sup>, 2025, the Resiliency Improvements project area does not lie within a State Natural Heritage Site, nor does it lie within a Delaware National Estuarine Research Reserve. However, Part of the block is mapped as non-regulatory Key Wildlife Habitat (KWH). Impacts were minimized to help reduce impacts to Key Wildlife Habitat to the greatest extent possible.

Multiple Time of Year construction restrictions are adopted for this project. Several state-rare species of conservation concern frequently nest in low and high marsh habitat that is present within this work area. An in-marsh time or year restriction of April 1<sup>st</sup> to July 31<sup>st</sup> is adopted to avoid impacts to marsh nesting birds. Cypress Branch (a tributary of Saint Jones River) is used by large numbers of American eel (*Anguilla rostrata*). In-stream work will not take place from March 1st to May 15th to allow upstream passage of elvers (young eels). Lastly, there is not a downstream barrier to fish passage. To protect diadromous fish migrations, spawning activities, and EFH, in-water work shall be avoided from March 1<sup>st</sup> to June 30<sup>th</sup>.

After consultation with United States Fish and Wildlife, Resiliency Improvements project area regarding Section 7 of the Endangered Species Act, the department received “not likely to adversely affect” correspondence confirmation the Tricolored bat and Black Rail on 7/9/2025. USFWS also said the project was “not likely to adversely affect” Black Rail when TOYR for all work was used April 1 -July 31. The Department lastly received “not likely to jeopardize the continued existence of the species” for the Monarch butterfly with the same consultation, confirming no more section 7 requirements are needed for remaining proposed and candidate species.

Regarding historic and archaeological concerns, Delaware State Historic Preservation Office (SHPO) has concurred with DelDOT’s proposed finding of No Historic Properties Affected on 8/28/2025.

Reached out to DNREC Watershed Stewardship regarding a wetland assessment on 12/15/2025. We have not received a response.

Thank you for your time and continuous cooperation. Should you have any questions feel free to contact me.

Darren Foraker  
Environmental Specialist  
DelDOT Environmental Studies Office

# **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**

**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?

_____	Yes	BASIC APPLICATION
_____	Yes	SIGNATURE PAGE (Page 3)
_____	Yes	APPLICABLE APPENDICES
_____	Yes	SCALED PLAN VIEW
_____	Yes	SCALED CROSS-SECTION OR ELEVATION VIEW PLANS
_____	Yes	VICINITY MAP
_____	Yes	COPY OF THE PROPERTY DEED & SURVEY
_____	Yes	THREE (3) COMPLETE COPIES OF THE APPLICATION PACKET
_____	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: DeIDOT C/O Darren Foraker Telephone #: 302 760 2125  
 Mailing Address: PO Box 778 800 S Bay Road Dover, Fax #: \_\_\_\_\_  
DE 19901 E-mail: Darren.foraker@delaware.gov
2. Consultant's Name: \_\_\_\_\_ Company Name: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
 \_\_\_\_\_ Fax #: \_\_\_\_\_  
 \_\_\_\_\_ E-mail: \_\_\_\_\_
3. Contractor's Name: \_\_\_\_\_ Company Name: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
 \_\_\_\_\_ Fax #: \_\_\_\_\_  
 \_\_\_\_\_ E-mail: \_\_\_\_\_

**Section 2: Project Description**

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

5. Project Purpose (attach additional sheets as necessary):

As a low-lying and coastal state, Delaware is vulnerable to flooding from rain/storm inundation, tidal flooding, coastal erosion, and storm surge. This project will reduce the frequency that Cypress Branch Road is over topped by tidal water, which has been causing significant disruptions and safety concerns. By elevating the roadway, this project aims to ensure safer and more reliable access along Cypress Branch Road, especially during times of high tides or heavy rainfall.

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

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

**Section 3: Project Location**

7. Project Site Address: 39.096538055965866, County:  N.C.  Kent  Sussex  
-75.48652473022383 Site owner name (if different from applicant): \_\_\_\_\_  
 Address of site owner: \_\_\_\_\_
8. Driving Directions: Located on Cypress Branch Road over top Cypress Branch Waterway in Rising Sun-Lebanon Delaware. .246 miles N of Ponderosa Drive .  
 (Attach a vicinity map identifying road names and the project location)
9. Tax Parcel ID Number: Right-of-way Subdivision Name: \_\_\_\_\_

<b>WSLS Use Only:</b>		<b>Permit #s:</b> _____		_____		_____		_____	
<b>Type</b>	SP <input type="checkbox"/>	SL <input type="checkbox"/>	SU <input type="checkbox"/>	WE <input type="checkbox"/>	WQ <input type="checkbox"/>	LA <input type="checkbox"/>	SA <input type="checkbox"/>	MP <input type="checkbox"/>	WA <input type="checkbox"/>
<b>Corps Permit:</b> SPGP 18 <input type="checkbox"/> 20 <input type="checkbox"/>		<b>Nationwide Permit #:</b> _____		<b>Individual Permit #</b> _____					
<b>Received Date:</b> _____		<b>Project Scientist:</b> _____							
<b>Fee Received?</b> Yes <input type="checkbox"/> No <input type="checkbox"/>		<b>Amt: \$</b> _____		<b>Receipt #:</b> _____					
<b>Public Notice #:</b> _____		<b>Public Notice Dates:</b> ON _____		OFF _____					

**Section 3: Project Location (Continued)**

10. Name of waterbody at Project Location: Cypress Branch waterbody is a tributary to: Saint Jones River

11. Is the waterbody:  Tidal  Non-tidal Waterbody width at mean low or ordinary high water 23'-10.75"

12. Is the project:  On public subaqueous lands?  On private subaqueous lands?\*

In State-regulated wetlands?  In Federally-regulated wetlands?

\*If the project is on private subaqueous lands, provide the name of the subaqueous lands owner:

(Written permission from the private subaqueous lands owner must be included with this application)

13. Present Zoning:  Agricultural  Residential  Commercial  Industrial  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):

Palmer Daniel J. and Palmer Catherine J.	281 Cypress Branch Road	Magnolia	DE	19962	_____
Del-homes, Inc.	46 S State	Dover	DE	19901	_____
Del-homes, Inc	46 S State	Dover	DE	19901	_____
U & I Investments, LLC	1200 Bay Rd	Dover	DE	19901	_____

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):

Attached is a table with property owners

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

Jamie Colligan USACE

Kevin Casula

Mike Yost USACE

Katie Esposito

A. Have you had a State Jurisdictional Determination performed on the property?

Yes  No

B. Has the project been reviewed in a monthly Joint Permit Processing Meeting?

Yes  No

\*If yes, what was the date of the meeting? 11/19/2024

16. Are there existing structures or fill at the project site in subaqueous lands?  Yes  No

\*If yes, provide the permit and/or lease number(s):

N/A

\*If no, were structures and/or fill in place prior to 1969?

Yes  No

17. Have you applied for or obtained a Federal permit from the Army Corps of Engineers?

No

Pending

Issued

Denied

Date: \_\_\_\_\_

Type of Permit: NWP 18 PCN required

Federal Permit or ID #: \_\_\_\_\_

18. Have you applied for permits from other Sections within DNREC?

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 \_\_\_\_\_  
 (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: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_ 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.

\_\_\_\_\_  
 Agent's Signature

\_\_\_\_\_  
 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.

Darren Foraker  
 Applicant's Signature

1/2/2026  
 Date

Darren Foraker  
 Print Name

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

Print Name



INDEX OF SHEETS	
SHEET DESCRIPTION	SHEET NO(S)
TITLE	1
INDEX OF SHEETS	2
ADDENDA AND REVISIONS	3
LEGEND	4
NOTES	5
TYPICAL SECTIONS	6
HORIZONTAL AND VERTICAL CONTROL	7
CONSTRUCTION PLANS (CP)	8
PROFILES	9
GRADES AND GEOMETRICS (GG)	10
ENVIRONMENTAL COMPLIANCE PLANS (EC)	11-12
CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLANS	13-14
DETOUR PLANS	15
SIGNING, STRIPING AND CONDUIT PLANS (SS)	16

ADDENDA / REVISIONS

NOT TO SCALE

**RESILIENCY IMPROVEMENTS, KC,  
CYPRESS BRANCH ROAD**

CONTRACT	BRIDGE NO.	<b>N/A</b>
T202566204	DESIGNED BY:	M. PHILBIN
COUNTY	CHECKED BY:	D. SEMPLE
KENT		

<b>INDEX OF SHEETS</b>	SECTION
	AEC
	SHEET NO.
	2

**ADDENDUM PREPARED BY**  
AECOM TECHNICAL SERVICES, INC.

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

DATE

SEAL

**REVISION PREPARED BY**  
AECOM TECHNICAL SERVICES, INC.

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

DATE

SEAL

**AECOM**

ADDENDA / REVISIONS

NOT TO SCALE

**RESILIENCY IMPROVEMENTS, KC,  
CYPRESS BRANCH ROAD**

CONTRACT	BRIDGE NO.	N/A
T202566204	DESIGNED BY:	M. PHILBIN
COUNTY	CHECKED BY:	D. SEMPLE
KENT		

**ADDENDA AND REVISIONS**

SECTION
AEC
SHEET NO.
3

**MANMADE ROADSIDE FEATURES**

FEATURE DESCRIPTION	EXISTING	PROPOSED	ID
BARRIER - DOUBLE-FACED, PERMANENT			
BARRIER - SINGLE-FACED, PERMANENT, TEST LEVEL 4 / TEST LEVEL 5	BARRIER, TYPE "X"		
BARRIER - HIGH TENSION CABLE (HTCB)			
BARRIER - HTCB END TERMINAL			
BOLLARD - STEEL POLE			
BOLLARD - WOOD POST			
CURB, TYPE 1 AND TYPE 3			
CURB, TYPE 2	CURB, TYPE "X"		
CURB & GUTTER, TYPE 1			C XXX
CURB & GUTTER, TYPE 2			
CURB & GUTTER, TYPE 3	C&G, TYPE "X"		
CURB OPENING - SUMP / ON GRADE			C O
CURB/SW OPENING - ADJACENT CURB			CO SW
CURB/SW OPENING - NON-ADJACENT CURB			
FENCE - CHAINLINK OR STRANDED			F XXX
FENCE - STOCKADE OR SPLIT RAIL			
FLAG POLE	F.P.		
GUARDRAIL - STEEL BEAM, TYPE 1			
GUARDRAIL - STEEL BEAM, TYPE 2			
GUARDRAIL - STEEL BEAM, TYPE 3			
GUARDRAIL - WIRE ROPE			
GUARDRAIL - END ANCHORAGE			OR XXX
GUARDRAIL - END TREATMENT, TYPE 1			
GUARDRAIL - END TREATMENT, TYPE 2			
GUARDRAIL - END TREATMENT, TYPE 3			
IMPACT ATTENUATOR			
LAMP AND POST - RESIDENTIAL	LAMP 		
MAILBOX	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			
DITCH OR STREAM (V-SHAPE / TRAPEZOIDAL)			
DIRECTIONAL STREAM FLOW ARROW			
DRAINAGE INLET	C.B. 	D.I. 	DI XXX
DRAINAGE JUNCTION BOX	J.B. 		JB XXX
DRAINAGE MANHOLE			RM XXX
DRAINAGE PIPE AND FLOW ARROW	SIZE/TYPE LABEL 		P XXX
FLARED END SECTION			FES XXX
RIPRAP - AREA FEATURE			RR XXX
RIPRAP - LINEAR FEATURE			
SAFETY END STRUCTURE			
UNDERDRAIN			UD XXX
UNDERDRAIN OUTLET			UDO XXX

ADDENDA / REVISIONS

**UTILITY FEATURES**

FEATURE DESCRIPTION	EXISTING	PROPOSED
COMMUNICATIONS DISTRIBUTION BOX		
COMMUNICATIONS MANHOLE		C
COMMUNICATIONS TEST POINT		
COMMUNICATIONS - UNDERGROUND	COMM(A)	COMM
ELECTRIC - UNDERGROUND	E(A)	E
ELECTRIC MANHOLE	E	E
ELECTRIC METER	EM	
ELECTRIC TRANSFORMER	E	
GAS - UNDERGROUND	G(A)	G
GAS MANHOLE	G	G
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	S	S
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	
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 MARKER		
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		
MEAN HIGH WATER LINE	MHW	
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 BY PE	R/W-PE	
RIGHT-OF-WAY & DENIAL OF ACCESS	R/W-DA	R/W-DA
RIGHT-TO-ENTER		RTE
TEMPORARY CONSTRUCTION EASEMENT		TCE

**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
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.)	

**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	BSP X
CONCRETE SAFETY BARRIER	B XXX
CONVERT TO JUNCTION BOX	CJB XXX
CONVERT TO DRAINAGE MANHOLE	CDM XXX
DO NOT DISTURB	DND
ENERGY DISSIPATOR	ED XXX
FILL WITH FLOWABLE FILL	FF C
LANDSCAPE PLANTINGS	LS XXX
PEDESTRIAN CONNECTION / TYPE	PC X
PEDESTRIAN CONNECTION / TYPE WITHOUT DETECTABLE WARNING SYSTEM	PC-W 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

## GENERAL NOTES

- THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED JANUARY 2025 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED JANUARY 2025.
- ELECTRONIC DESIGN DATA FILES THAT WILL BE MADE AVAILABLE TO THE AWARDED CONTRACTOR, INCLUDE:

( X )	NONE
( )	ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
( )	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.

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

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

## PROJECT NOTES

### SECTION 100

- 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.
- 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.
- 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

- THE CONTRACTOR SHALL REMOVE AND RESET ALL MAILBOXES TO MAINTAIN MAIL SERVICE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL RELOCATE MAILBOXES AS REQUIRED BY THE PROPOSED GEOMETRICS AND AS DIRECTED BY THE ENGINEER. WHEN RELOCATING MAILBOXES IN CURBED SECTIONS, THE FACE OF THE MAILBOX SHALL BE FLUSH WITH THE BACK EDGE OF CURB. WHEN RELOCATING MAILBOXES IN OPEN SECTIONS, THE FACE OF THE MAILBOX SHALL SET BACK 8 INCHES FROM THE EDGE OF THE PAVED SHOULDER. THE BOTTOM OF THE MAILBOX SHALL BE POSITIONED IN ACCORDANCE WITH THE LATEST VERSION OF THE UNITED STATES POSTAL SERVICE GUIDELINES. MAILBOXES LOCATED AT DRIVEWAY ENTRANCES SHALL BE PLACED ON THE FAR SIDE OF THE DRIVEWAY IN THE DIRECTION OF TRAVEL. POSTS BEING RESET IN CONCRETE SIDEWALK SHALL BE IN AN APPROPRIATE SIZE PVC SLEEVE. ACCEPTABLE POST SHALL BE 4 INCH X 4 INCH WOOD POST OR 4 INCH DIAMETER WOOD POST. FOR RELOCATING MULTIPLE MAILBOXES TOGETHER ALL POST SHALL BE SEPARATED BY A DISTANCE OF NO LESS THAN 3/4 OF THEIR FULL HEIGHT ABOVE THE GROUND. MULTIPLE MAILBOXES ATTACHED TO A SINGLE HORIZONTAL BOARD SHALL NOT BE LOCATED INSIDE THE CLEARZONE. EACH MAILBOX SHALL BE PLACED ON AN INDIVIDUAL POST MEETING THE CRITERIA ABOVE. ALL MAILBOXES SHALL BE SET NOT TO IMPEDE THE MINIMUM PAR (PEDESTRIAN ACCESS ROUTE) WIDTH AS DETERMINED BY THE CURRENT EDITION OF THE PEDESTRIAN ACCESSIBILITY STANDARDS FOR FACILITIES IN THE PUBLIC RIGHT OF WAY. IF MAILBOXES ARE NOT SET IN ACCORDANCE WITH THE ABOVE DIRECTIONS, RESETTING OF THE MAILBOXES WILL BE AT THE COST OF THE CONTRACTOR. COST FOR ALL WORK AND MATERIALS SHALL BE PAID UNDER ITEM 201000 - CLEARING AND GRUBBING.
- 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 700

- 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.

## SECTION 900

- 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.

## MISCELLANEOUS

- 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 MONROE GARAGE: 302-576-6208 (NEW CASTLE COUNTY), DOVER GARAGE: 302-760-2892 EXT 2894 (KENT COUNTY), CONTROL CENTER: 302-576-6177 (SUSSEX COUNTY).

- 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:

- APPROVE THE USE OF THE PROPOSED STAGING AND STOCKPILE AREA(S);
- REJECT THE REQUEST; OR
- 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.

- ALL PROPOSED WORK WILL OCCUR WITHIN THE EXISTING ROW.

## EARTHWORK SUMMARY

EXCAVATION	
EXCAVATION FROM CROSS SECTIONS	236 C.Y.
ROCK EXCAVATION FOR ROADWAY AND TRENCHES	0 C.Y.
TOPSOIL STRIPPING	127 C.Y.
TOTAL EXCAVATION	363 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 'A' REQUIRED (INCLUDING UNDERCUT)	148 C.Y.
BORROW TYPE 'F' REQUIRED	210 C.Y.
TOPSOIL REQUIRED	127 C.Y.
MATERIAL BALANCE ("+"= EXCESS, "-"= NEED)	
BORROW TYPE 'A'	-148 C.Y.
BORROW TYPE 'F'	-210 C.Y.
TOPSOIL	-127 C.Y.
UNSUITABLE MATERIAL	363 C.Y.

NOTES:

- 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.
- 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.
- UNSUITABLE MATERIALS INCLUDE UNDERCUT SOILS, BITUMINOUS PAVEMENT, ETC.

ADDENDA / REVISIONS

NOT TO SCALE

RESILIENCY IMPROVEMENTS, KC,  
CYPRESS BRANCH ROAD

CONTRACT

T202566204

COUNTY

KENT

BRIDGE NO.

N/A

DESIGNED BY: M. PHILBIN

CHECKED BY: D. SEMPLE

NOTES

SECTION

AEC

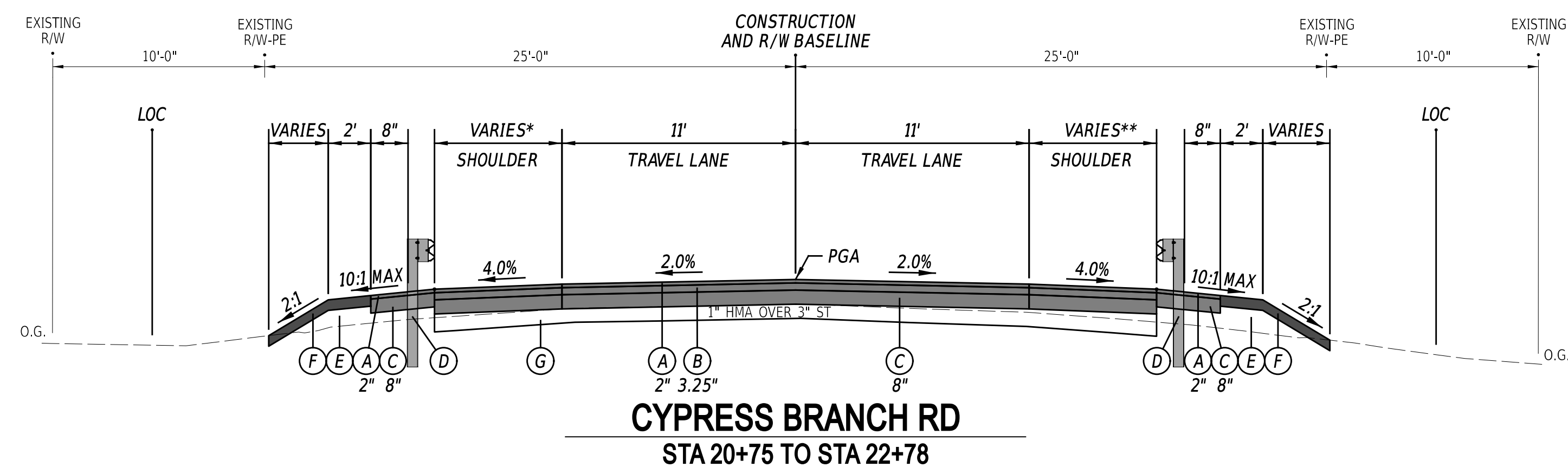
SHEET NO.

5

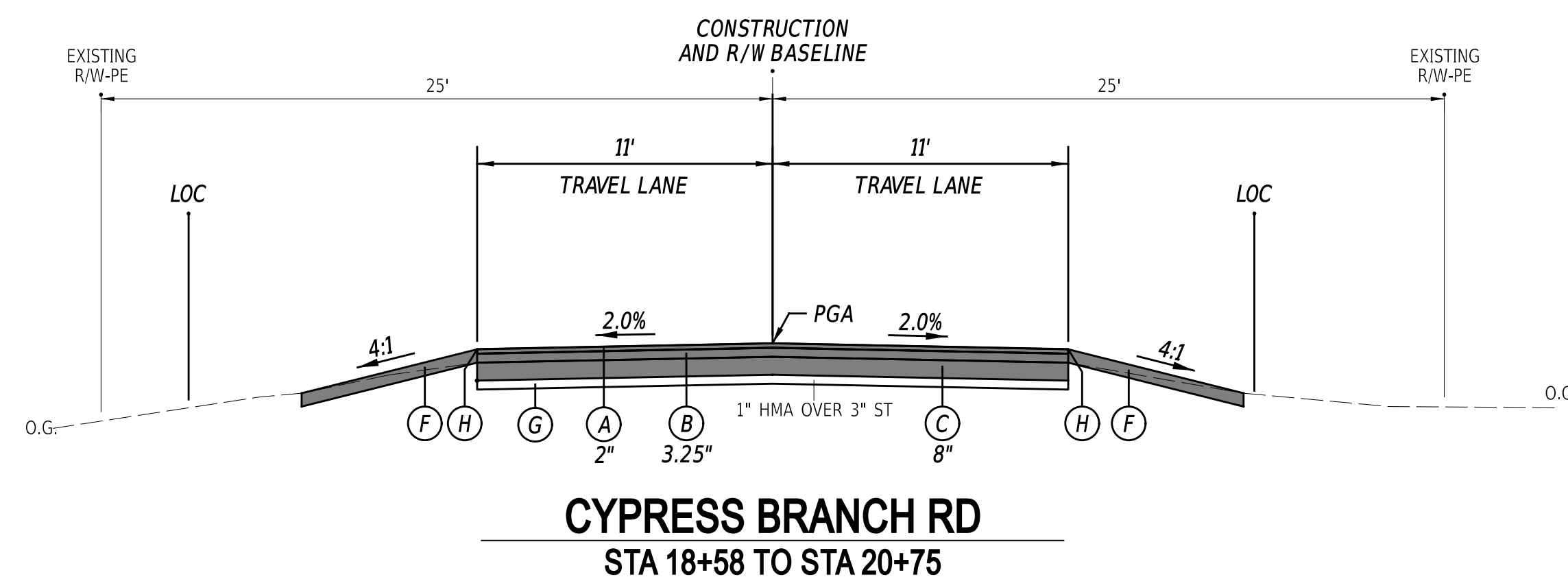
**LEGEND**

- (A) ITEM 401005 - SUPERPAVE TYPE C, 9.5 mm, PG 64-22 (CARBONATE STONE)
- (B) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (C) ITEM 301001 - GABC
- (D) ITEM 720021 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31
- (E) ITEM 209006 - BORROW, TYPE F
- (F) ITEM 908004 - TOPSOIL, 6" DEPTH  
ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (G) ITEM 209001 - BORROW, TYPE A
- (H) SAFETY EDGE FOR ROADWAY PAVEMENT

MATERIAL TYPE	BINDER GRADE	LIFT THICKNESS (IN)	
		MINIMUM	MAXIMUM
TYPE C (4.75 MM MIX)	ALL	0.5	1.0
TYPE C (9.5 MM MIX)	ALL	1.25	2.0
TYPE C (12.5 MM MIX)	ALL	1.5	2.0
TYPE B (19 MM MIX)	76-22, 70-22	2.25	4.0
TYPE B (19 MM MIX)	64-22	2.25	6.0
TYPE BCBC (25 MM MIX)	64-22	3.0	6.0
GABC	-	4.0	8.0



\* STA 18+58.00 TO STA 20+75.10 - 0'  
 \* STA 20+75.10 TO STA 21+75.00 - 0' TO 8'  
 \* STA 21+75.00 TO STA 22+78.06 - 8'  
 \*\* STA 18+58.00 TO STA 20+75.10 - 0'  
 \*\* STA 20+75.10 TO STA 21+75.00 - 0' TO 7'  
 \*\* STA 21+75.00 TO STA 22+78.06 - 7'



ADDENDA / REVISIONS

NOT TO SCALE

**RESILIENCY IMPROVEMENTS, KC,  
CYPRESS BRANCH ROAD**

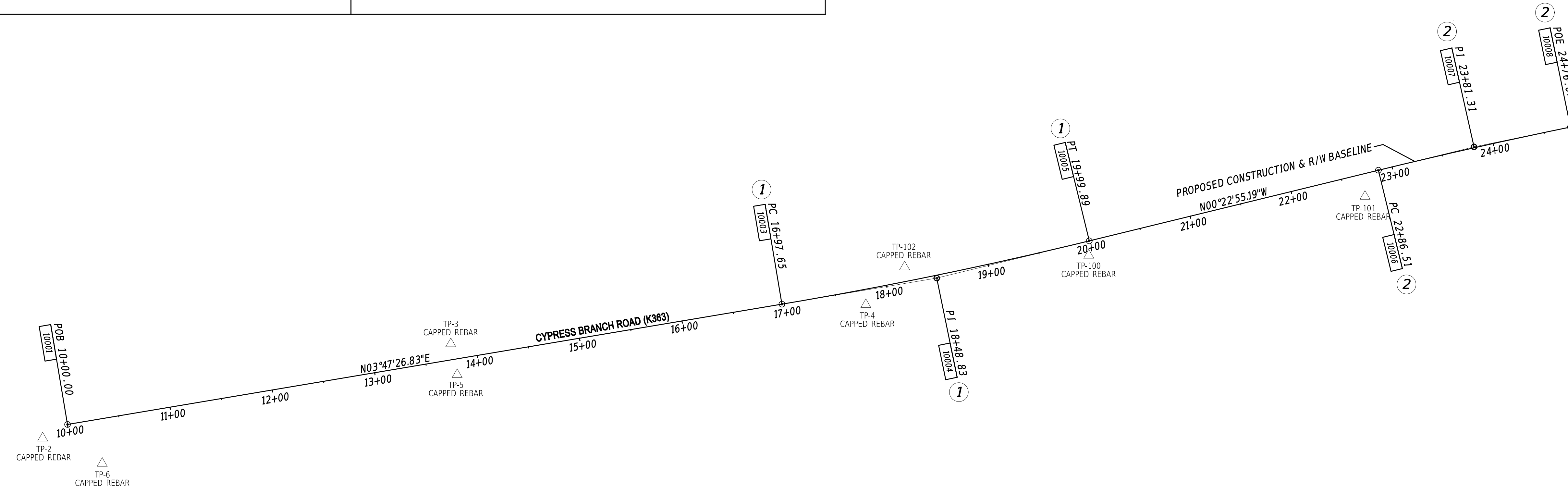
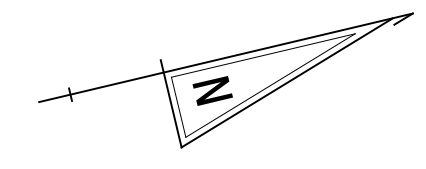
CONTRACT	BRIDGE NO.	N/A
T202566204	DESIGNED BY:	M. PHILBIN
COUNTY	CHECKED BY:	D. SEMPLE
KENT		

TYPICAL SECTIONS

SECTION
AEC
SHEET NO.
6



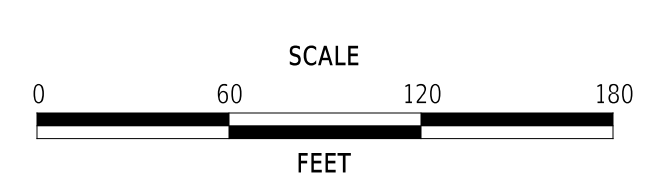
CIRCULAR CURVE ①				CIRCULAR CURVE ②			
Element:	STATION	NORTHING	EASTING	Element:	STATION	NORTHING	EASTING
Circular				Circular			
PC(10003)	16+97.65	398756.2339	636331.0457	PC(10006)	22+86.51	399344.8931	636338.1223
PI(10004)	18+48.83	398907.0898	636341.0412	PI(10007)	23+81.31	399439.6822	636337.4903
CC(11001)		399030.6048	632190.1255	CC(11002)		399378.5480	641385.9201
PT(10005)	19+99.89	399058.2731	636340.0332	PT(10008)	24+76.07	399534.4281	636340.4175
Radius:	4150.00			Radius:	5047.91		
Delta:	04°10'22.03" Left			Delta:	02°09'05.69" Right		
Degree of Curvature:	01°22'50.24"			Degree of Curvature:	01°08'06.14"		
Length:	302.24			Length:	189.56		
Tangent:	151.19			Tangent:	94.79		
Chord:	302.17			Chord:	189.55		
Middle Ordinate:	2.75			Middle Ordinate:	0.89		
External:	2.75			External:	0.89		
Tangent Direction:	N03°47'26.83"E			Tangent Direction:	N00°22'55.19"W		
Radial Direction:	S86°12'33.17"E			Radial Direction:	N89°37'04.81"E		
Chord Direction:	N01°42'15.82"E			Chord Direction:	N00°41'37.65"E		
Radial Direction:	N89°37'04.81"E			Radial Direction:	S88°13'49.503"E		
Tangent Direction:	N00°22'55.19"W			Tangent Direction:	N01°46'10.497"E		



POINT NO.	STATION	OFFSET	NORTHING	EASTING
10001	10+00.00	0.00	398060.1126	636284.9218
10002	15+00.00	0.00	398559.0187	636317.9786

POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEV.
TP-1	9+74.21	456.11	398022.2847	636739.4610	23.87
TP-2	9+92.31	27.28	398033.7938	636292.1132	15.81
TP-3	13+76.89	-15.33	398437.1890	636294.5430	10.24
TP-4	17+77.00	14.61	398834.7750	636350.1330	6.29
TP-5	13+77.95	15.01	398436.2440	636324.8870	11.26
TP-6	10+26.73	42.57	398083.9680	636329.1650	16.49
TP-100	19+96.12	13.40	399054.5830	636353.4520	3.83
TP-101	22+68.03	21.44	399326.5570	636359.6820	3.22
TP-102	18+20.53	-13.96	398879.4600	636323.4080	5.43

DATUM REFERENCE:  
 TP-1  
 CAPPED REBAR  
 HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD 83 / 2011 / EPOCH 2010.00).  
 VERTICAL - THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88 BASED ON MODELED GEOID 12A).



**RESILIENCY IMPROVEMENTS, KC,  
 CYPRESS BRANCH ROAD**

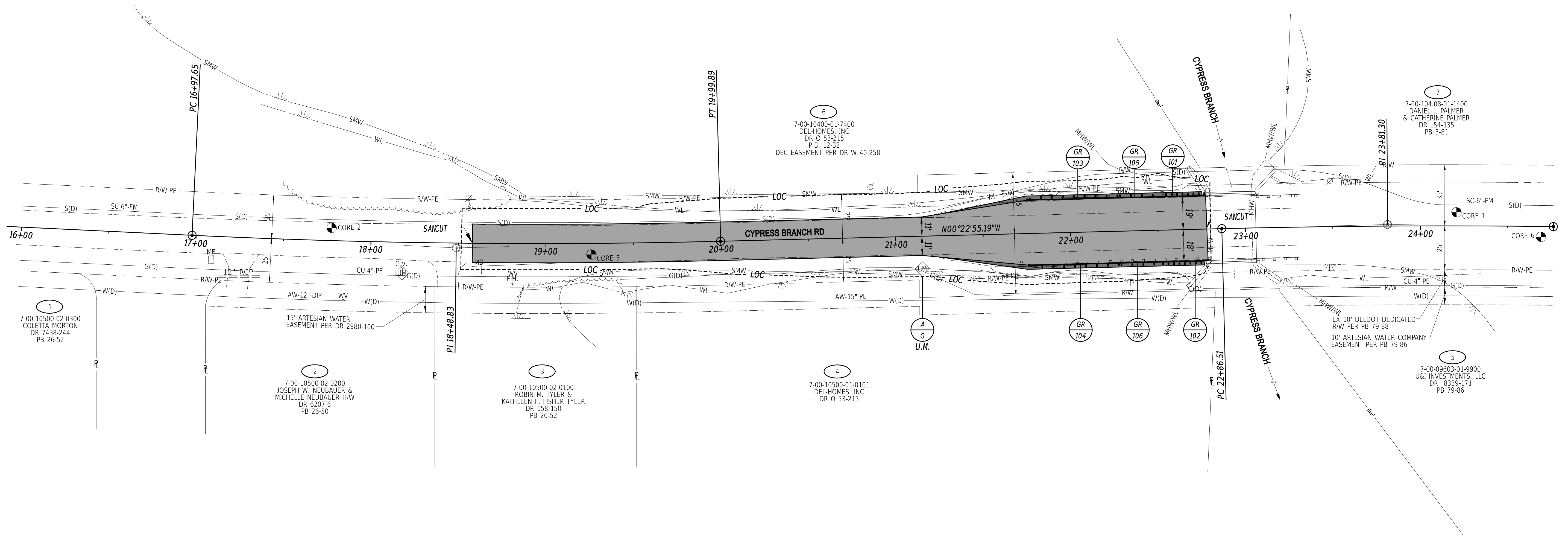
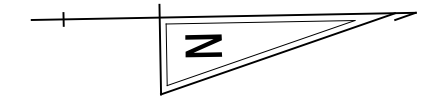
CONTRACT	BRIDGE NO.	N/A
T202566204	DESIGNED BY:	M. PHILBIN
COUNTY	CHECKED BY:	D. SEMPLE
KENT		

HORIZONTAL AND VERTICAL CONTROL	
SECTION	AEC
SHEET NO.	7

ADDENDA / REVISIONS

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
101	GUARDRAIL BARRIER CONNECTION, APPROACH TYPE 1-31	22+49.41	-19.00	25.00
102	GUARDRAIL BARRIER CONNECTION, APPROACH TYPE 1-31	22+46.23	18.00	25.00
103	GUARDRAIL END TREATMENT, TYPE 1-31	21+76.67	-19.00	50.00
104	GUARDRAIL END TREATMENT, TYPE 1-31	21+76.13	18.00	50.00
105	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	22+28.17	-19.00	25.00
106	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	22+27.90	18.00	25.00

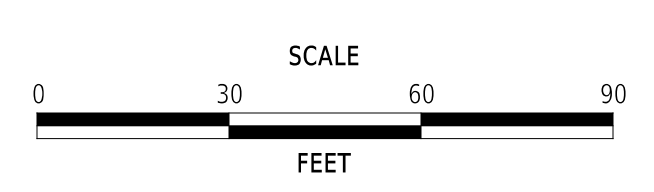
ROADWAY CORE SCHEDULE			
NO.	STATION	OFFSET	DESCRIPTION
1	24+20.68	-7.80	7" HMA OVER 3" CRUSHER RUN
2	17+77.31	-7.28	1" HMA OVER 3" SURFACE TREATMENT
5	19+25.97	6.36	1" HMA OVER 2.25" SURFACE TREATMENT
6	24+69.07	5.94	1" HMA OVER 3" SURFACE TREATMENT



**NOTES:**  
 1. PROPERTY LINES ARE APPROXIMATE BASED ON DEED INFORMATION AND ARE FOR INFORMATION ONLY.

**AECOM**

ADDENDA / REVISIONS

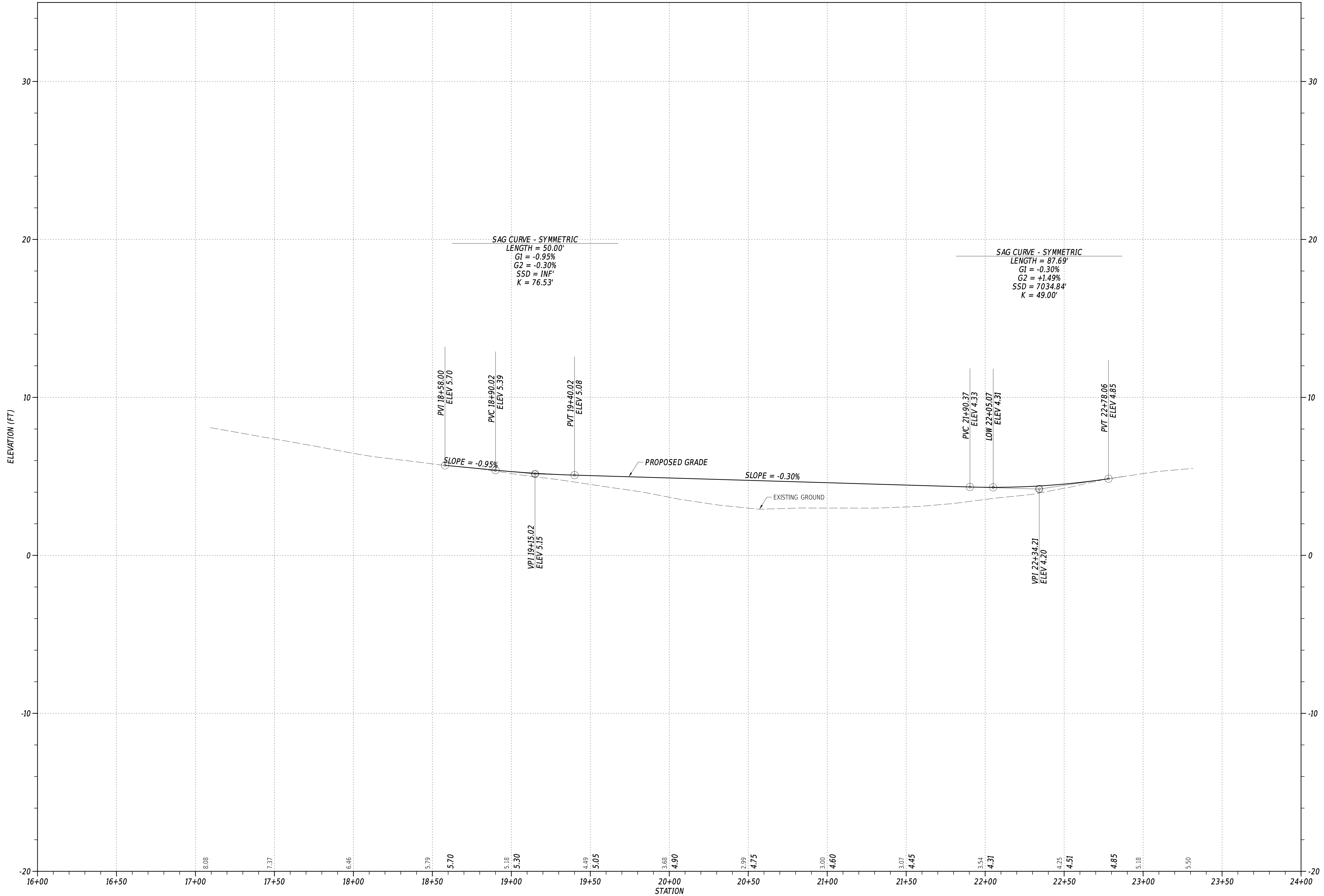


**RESILIENCY IMPROVEMENTS, KC,  
 CYPRESS BRANCH ROAD**

CONTRACT	BRIDGE NO.	N/A
T202566204	DESIGNED BY:	M. PHILBIN
COUNTY	CHECKED BY:	D. SEMPLE
KENT		

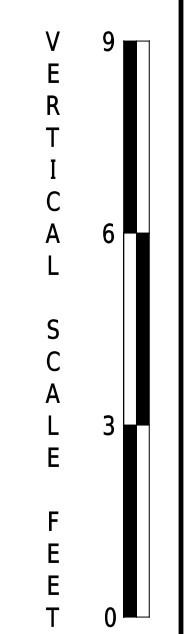
CONSTRUCTION PLAN		SECTION
		AEC
CONSTRUCTION PLAN		SHEET NO.
		8

**CP-01**



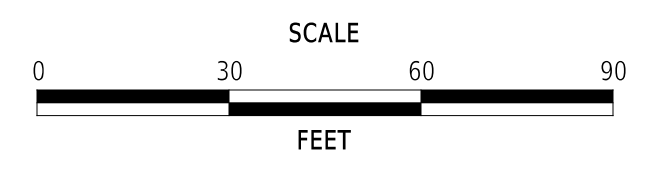
ELEVATION (FT)

STATION



**AECOM**

ADDENDA / REVISIONS



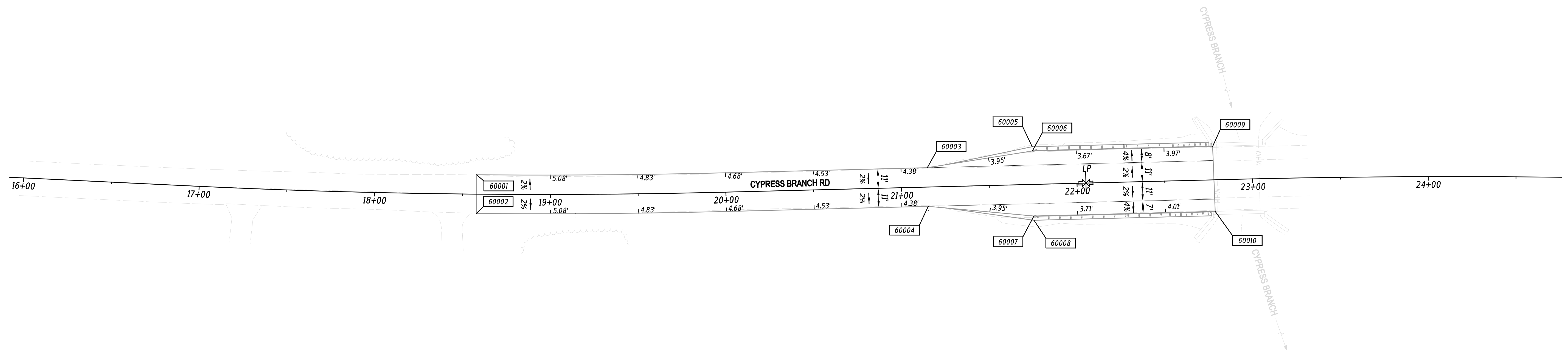
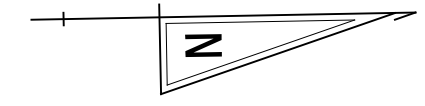
**RESILIENCY IMPROVEMENTS, KC,  
 CYPRESS BRANCH ROAD**

CONTRACT	BRIDGE NO.	N/A
T202566204	DESIGNED BY:	M. PHILBIN
COUNTY	CHECKED BY:	D. SEMPLE
KENT		

PROFILES

SECTION
AEC
SHEET NO.
9

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
60001	18+58.00	-11.00	398916.7031	636327.5579
60002	18+58.00	11.00	398916.0977	636349.5496
60003	21+15.00	-11.00	399173.3099	636328.2660
60004	21+15.00	11.00	399173.4565	636350.2655
60005	21+75.00	-21.44	399233.2389	636317.4287
60006	21+75.00	-19.00	399233.2552	636319.8662
60007	21+75.00	18.00	399233.5019	636356.8653
60008	21+75.00	20.44	399233.5181	636359.3015
60009	22+77.72	-19.00	399335.9765	636319.1813
60010	22+78.23	18.00	399336.7290	636356.1771



NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND 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 763501 - CONSTRUCTION ENGINEERING.

AECOM

ADDENDA / REVISIONS			<b>RESILIENCY IMPROVEMENTS, KC, CYPRESS BRANCH ROAD</b>	CONTRACT	BRIDGE NO.	N/A	<b>GRADES AND GEOMETRICS</b>	GG-01
				T202566204	DESIGNED BY:	M. PHILBIN		SECTION
		COUNTY	CHECKED BY:	D. SEMPLE		SHEET NO.		10
		KENT						

# ENVIRONMENTAL COMPLIANCE NOTES

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): NWP 18, MINOR DISCHARGES, PCN REQUIRED
  - DNREC - WETLANDS & SUBAQUEOUS LANDS (WLSL): WETLANDS & SUBAQUEOUS LANDS PERMIT
  - DNREC - WATER QUALITY (WQC) & COASTAL ZONE CONSISTENCY (CZM): ISSUED WITH NWP
- \* 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 - NO IN WATER WORK MARCH 1 - JUNE 30
  - ENDANGERED SPECIES - N/A
  - MIGRATORY BIRDS - N/A
  - NESTING MARSH BIRDS - NO IN-WETLAND WORK APRIL 1 - JULY 31
  - 1. IF WORK IS PROPOSED DURING THE TIME OF YEAR RESTRICTION IN WETLAND AREAS, PLEASE REACH OUT TO DELDOT ENVIRONMENTAL VIA EMAIL AT DOT\_ENVIRONMENTALSTUDIES@DELAWARE.GOV TO CONDUCT A SUITABLE HABITAT SURVEY NO MORE THAN 14 DAYS PRIOR.

3. CULTURAL RESOURCE ISSUES:

- A. DUE TO THE NEED FOR A PERMIT FROM THE US ARMY CORPS, THIS PROJECT WILL BE SUBJECT TO SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT AND CONSULTATION WITH THE STATE HISTORIC PRESERVATION OFFICE. IDENTIFICATION OF HISTORIC PROPERTIES AND ASSESSMENT OF POTENTIAL EFFECTS WILL NEED TO BE EVALUATED.

4. PROTECTION OF RESOURCES:

- A. KEEP CLEARING IN WETLAND AREAS TO A MINIMUM 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 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 WITH ITEM 908515 - TEMPORARY GRASS SEEDING, WET GROUND.
- 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.

PERMANENT WETLAND IMPACT AREA SCHEDULE							
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	LOSS VS. IMPACT	LOSS AREA (AC)
1-W-01	FILL TYPE F	1059.76	0.0243	235.50	USACE	LOSS	0.0243
1-W-02	FILL TYPE F	232.22	0.0053	25.80	USACE/DNREC	LOSS	0.0053
1-W-03	FILL TYPE F	389.46	0.0089	43.27	DNREC	LOSS	0.0089
1-W-04	FILL TYPE F	2.35	0.0000	0.10	DNREC	LOSS	0.0000
1-W-05	FILL TYPE F	15.48	0.0004	0.43	DNREC	LOSS	0.0004
1-W-06	FILL TYPE F	178.84	0.0041	19.87	USACE	LOSS	0.0041
1-W-07	FILL TYPE F	103.03	0.0024	11.45	USACE/DNREC	LOSS	0.0024
1-W-08	FILL TYPE F	63.67	0.0015	7.07	USACE	LOSS	0.0015
TOTAL PERMANENT WETLAND IMPACT AREAS		2044.81	0.0469	343.49	USACE/DNREC	LOSS	0.0469

TEMPORARY WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
1-WT-01	WORK AREA / E&S CONTROLS	333.64	0.0077	N/A	USACE
1-WT-02	WORK AREA / E&S CONTROLS	282.40	0.0065	N/A	USACE/DNREC
1-WT-03	WORK AREA / E&S CONTROLS	18.29	0.0004	N/A	DNREC
1-WT-04	WORK AREA / E&S CONTROLS	138.26	0.0032	N/A	DNREC
1-WT-05	WORK AREA / E&S CONTROLS	27.61	0.0006	N/A	USACE
1-WT-06	WORK AREA / E&S CONTROLS	316.89	0.0073	N/A	USACE/DNREC
TOTAL TEMPORARY WETLAND IMPACT AREAS		1117.09	0.0257	N/A	USACE/DNREC

WETLANDS DELINEATED BY DELDOT ON 5/31/2024 IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS "CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987)".

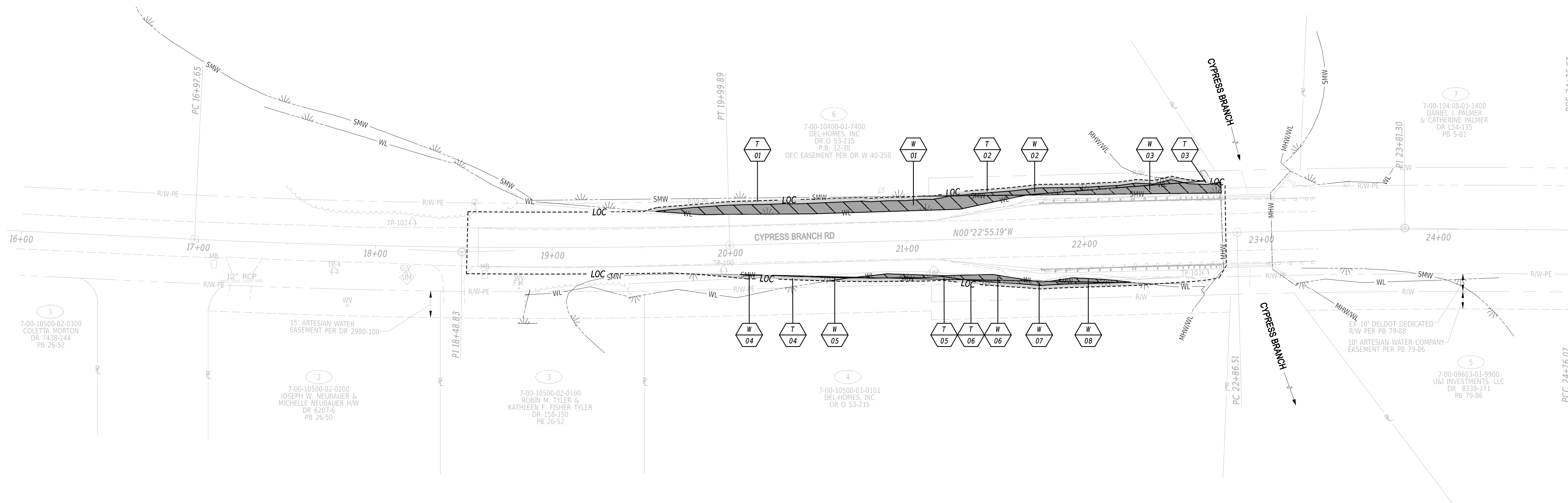
ORIGINAL SHEET PREPARED BY AECOM ON 10-10-2024. SHEET LAST UPDATED ON 1-14-2026.



ADDENDA / REVISIONS		NOT TO SCALE	RESILIENCY IMPROVEMENTS, KC, CYPRESS BRANCH ROAD	CONTRACT	BRIDGE NO.	N/A	ENVIRONMENTAL COMPLIANCE PLAN	SECTION
				T202566204	DESIGNED BY: M. PHILBIN			AEC
				COUNTY	CHECKED BY: D. SEMPLE	SHEET NO.		
				KENT		11		

PERMANENT WETLAND IMPACT AREA SCHEDULE							
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	LOSS VS. IMPACT	LOSS AREA (AC)
1-W-01	FILL TYPE F	1059.76	0.0243	235.50	USACE	LOSS	0.0243
1-W-02	FILL TYPE F	232.22	0.0053	25.80	USACE/DNREC	LOSS	0.0053
1-W-03	FILL TYPE F	389.46	0.0089	43.27	DNREC	LOSS	0.0089
1-W-04	FILL TYPE F	2.35	0.0000	0.10	DNREC	LOSS	0.0000
1-W-05	FILL TYPE F	15.48	0.0004	0.43	DNREC	LOSS	0.0004
1-W-06	FILL TYPE F	178.84	0.0041	19.87	USACE	LOSS	0.0041
1-W-07	FILL TYPE F	103.03	0.0024	11.45	USACE/DNREC	LOSS	0.0024
1-W-08	FILL TYPE F	63.67	0.0015	7.07	USACE	LOSS	0.0015
TOTAL PERMANENT WETLAND IMPACT AREAS		2044.81	0.0469	343.49	USACE/DNREC	LOSS	0.0469

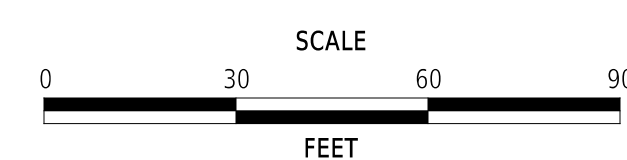
TEMPORARY WETLAND IMPACT AREA SCHEDULE						
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	
1-WT-01	WORK AREA / E&S CONTROLS	333.64	0.0077	N/A	USACE	
1-WT-02	WORK AREA / E&S CONTROLS	282.40	0.0065	N/A	USACE/DNREC	
1-WT-03	WORK AREA / E&S CONTROLS	18.29	0.0004	N/A	DNREC	
1-WT-04	WORK AREA / E&S CONTROLS	138.26	0.0032	N/A	DNREC	
1-WT-05	WORK AREA / E&S CONTROLS	27.61	0.0006	N/A	USACE	
1-WT-06	WORK AREA / E&S CONTROLS	316.89	0.0073	N/A	USACE/DNREC	
TOTAL TEMPORARY WETLAND IMPACT AREAS		1117.09	0.0257	N/A	USACE/DNREC	



LEGEND	
	TEMPORARY IMPACT AREA
	PERMANENT IMPACT AREA
	SMW - STATE MAPPED WETLAND
	WL - WETLAND BOUNDARY
	LOC - LIMIT OF CONSTRUCTION
	IMPACT AREA TYPE ID. (SEE BELOW)
	IMPACT AREA ID. AND/OR NUMBER
T	TEMPORARY IMPACT
W	WETLAND IMPACT

AECOM

ADDENDA / REVISIONS



**RESILIENCY IMPROVEMENTS, KC,  
CYPRESS BRANCH ROAD**

CONTRACT	BRIDGE NO.	N/A
T202566204	DESIGNED BY:	M. PHILBIN
COUNTY	CHECKED BY:	D. SEMPLE
KENT		

<b>ENVIRONMENTAL COMPLIANCE PLAN</b>	
--------------------------------------	--

<b>EC-01</b>
SECTION
AEC
SHEET NO.
12

**GENERAL MOT NOTES**

1. 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.

2. CONSTRUCTION SHALL BE DONE UNDER DETOUR AS SHOWN ON THE DETOUR PLAN.
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 STANDARD DETAIL M-16 OF THE 2026 STANDARD DETAILS.

4. ALL NECESSARY SIGNS, PAVEMENT MARKINGS AND ROADSIDE APPURTENANCES SHALL BE INSTALLED PRIOR TO THE OPENING/REOPENING OF A ROADWAY OR RAMP. A WALKTHROUGH WITH THE ENGINEER, TRAFFIC SAFETY, TRAFFIC CONSTRUCTION AND OTHER PERSONNEL SHALL OCCUR NO LESS THAN 48 HOURS PRIOR TO THE OPENING/REOPENING OF ANY ROAD OR RAMP.

**GENERAL EROSION AND SEDIMENT CONTROL (E&S) NOTES**

1. THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN APPROVED BY DELDOT'S STORMWATER ENGINEER UNDER DELDOT'S DELEGATED AUTHORITY. PLAN APPROVAL IS VALID FOR A FIVE YEAR PERIOD BEGINNING ON THE DATE OF THE STORMWATER ENGINEER'S SIGNATURE. IF THE FINAL ACCEPTANCE OF THE PROJECT IS ANTICIPATED TO EXTEND BEYOND THE FIVE YEARS, NOTIFY THE ENGINEER THREE MONTHS PRIOR TO THE EXPIRATION. ANY DEVIATIONS TO THE SWPPP NEED APPROVAL FROM THE ENGINEER.

( ) INSIGNIFICANT	CONTRACTOR EROSION AND SEDIMENT CONTROL SUPERVISOR REQUIREMENT
( X ) MINOR	CONTRACTOR TRAINING PROGRAM, AS DEFINED IN SECTION 6.2 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
( ) MAJOR	CERTIFIED CONSTRUCTION REVIEWER (CCR), AS DEFINED IN SECTION 6.3 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.

3. 

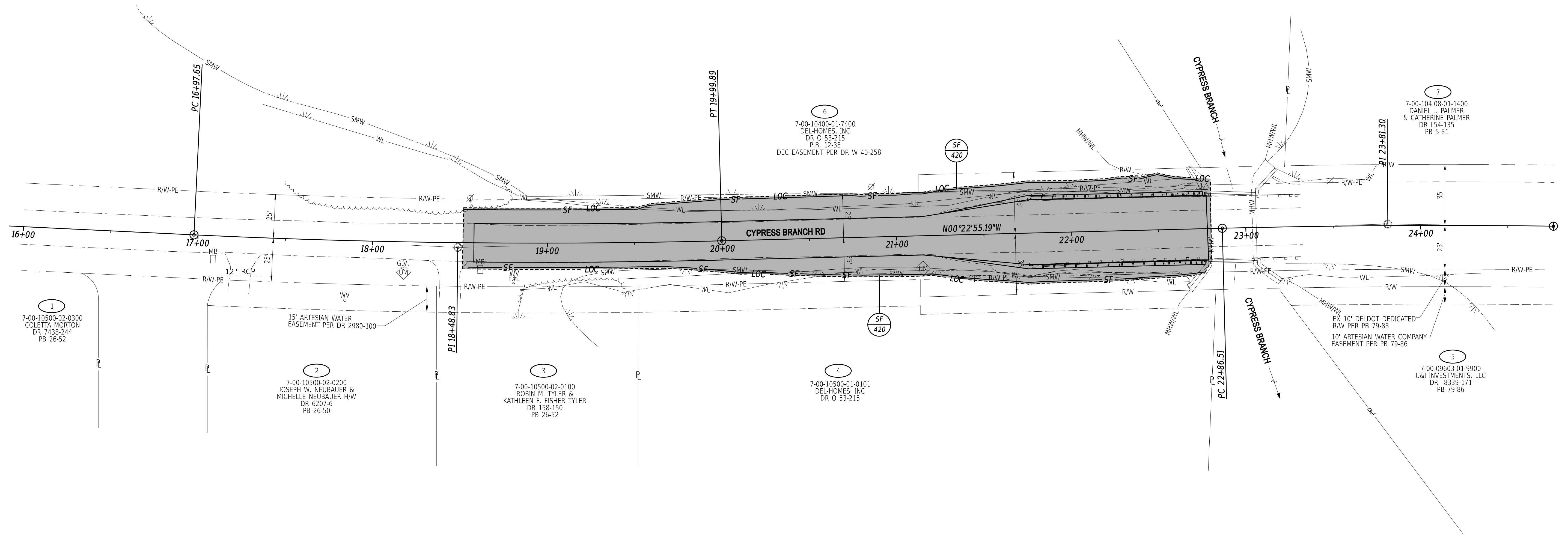
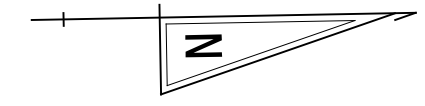
--	--

AMOUNT OF DISTURBED AREA FOR THE PROJECT	0.46 AC
ADDED IMPERVIOUS FOR THE PROJECT	-456 SF
HUC-10 WATERSHED	ST. JONES RIVER WATERSHED

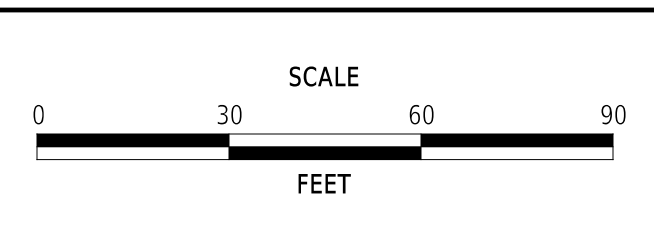
4. ASSIGN A RESPONSIBLE PERSON TO BE ON SITE DURING ALL EARTH DISTURBING ACTIVITIES AND BE AN ACTIVE DNREC BLUE CARD HOLDER AS DEFINED IN SECTION 6.2 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS (DSSR). BE FAMILIAR WITH AND COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION GENERAL PERMIT.
5. FILE AS A CO-PERMITTEE IN ACCORDANCE WITH SECTION 901 OF THE STANDARD SPECIFICATIONS. POSTING AND MAINTENANCE OF THE NOT PERMIT COVERAGE IS INCIDENTAL TO THE CONTRACT.
6. REVISIONS TO THE SWPPP OR ENVIRONMENTAL COMPLIANCE PLAN SHEET(S) SHALL BE APPROVED PRIOR TO INITIATION IN THE FIELD. THE ENGINEER IS RESPONSIBLE FOR APPROVING ALL REDLINES AND REVISIONS TO THE SWPPP.
7. IMPLEMENTING AND MAINTAINING POLLUTION PREVENTION DEVICES AND PRACTICES IS REQUIRED UNDER THE DELAWARE CONSTRUCTION GENERAL PERMIT AND THE DSSR AND ARE INCIDENTAL TO THE CONTRACT.
8. PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF FROM LEAVING THE SITE. CHECK PERIMETER CONTROLS DAILY AND ADJUST OR REPAIR TO FULLY CONTAIN AND CONTROL SEDIMENT FROM LEAVING THE SITE. REMOVE ACCUMULATED SEDIMENT BEFORE IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. ADJUST OR ALTER MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE ENGINEER.
9. ANY SEDIMENT LADEN DISCHARGE LEAVING THE LIMIT OF CONSTRUCTION SHALL IMMEDIATELY BE ADDRESSED THROUGH BEST AVAILABLE TECHNOLOGIES TO CONTROL ANY FURTHER SEDIMENT LADEN DISCHARGE. REMEDIATION MAY INCLUDE STANDARD E&S PRACTICES OR OTHER METHODS AS APPROVED BY THE ENGINEER.
10. ALL TEMPORARY CONCENTRATED FLOW AREAS INCLUDING CHANNEL SIDE SLOPES SHALL HAVE EROSION CONTROL BLANKET MULCH AS DIRECTED BY THE ENGINEER. INSTALL WITHIN SEVEN CALENDAR DAYS UPON CONSTRUCTION INITIATION. A TEMPORARY CONCENTRATED FLOW AREA MAY INCLUDE DITCHES, SWALES, BERMS, CONCENTRATED RUNOFF AREAS, ETC.
11. NO MORE THAN 20 ACRES MAY BE DISTURBED AT ANY TIME. DISTURBANCE OF A SECOND 20 ACRE SECTION MAY NOT PROCEED UNTIL TEMPORARY OR PERMANENT STABILIZATION OF THE FIRST 20 ACRE SECTION IS ACCOMPLISHED AS APPROVED BY THE ENGINEER.
12. MAINTAIN POSITIVE DRAINAGE IN EXISTING AND PROPOSED DRAINAGE SYSTEMS BY EXECUTING CONSTRUCTION, CLEANING EXISTING DRAINAGE SYSTEMS, AND PROPERLY DISPOSING OF SEDIMENT THROUGHOUT THE DURATION OF THE PROJECT.
13. 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. SANDBAGS AND CFL'S (AND CONTENTS) MUST BE REMOVED IN THE ENTIRETY WHEN NO LONGER NEEDED. SANDBAGS/CFL USED TO SECURE THE SILT FENCE IS INCIDENTAL TO ITEM 905001 - SILT FENCE. THE ENVIRONMENTAL STUDIES SECTION CAN PROVIDE FURTHER GUIDANCE REGARDING THIS METHOD OF INSTALLATION.
14. DEWATERING BAGS SHALL ONLY BE USED TO REMOVE WATER FROM THE ROADWAY.



ADDENDA / REVISIONS	NOT TO SCALE	<b>RESILIENCY IMPROVEMENTS, KC, CYPRESS BRANCH ROAD</b>	<table border="1" style="width: 100%;"> <tr> <td>CONTRACT</td> <td>BRIDGE NO.</td> <td style="text-align: center;">N/A</td> </tr> <tr> <td>T202566204</td> <td>DESIGNED BY:</td> <td>M. PHILBIN</td> </tr> <tr> <td>COUNTY</td> <td>CHECKED BY:</td> <td>D. SEMPLE</td> </tr> <tr> <td>KENT</td> <td></td> <td></td> </tr> </table>	CONTRACT	BRIDGE NO.	N/A	T202566204	DESIGNED BY:	M. PHILBIN	COUNTY	CHECKED BY:	D. SEMPLE	KENT			<b>CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN</b>	<table border="1" style="width: 100%;"> <tr> <td>SECTION</td> </tr> <tr> <td>AEC</td> </tr> <tr> <td>SHEET NO.</td> </tr> <tr> <td>13</td> </tr> </table>	SECTION	AEC	SHEET NO.	13
CONTRACT	BRIDGE NO.	N/A																			
T202566204	DESIGNED BY:	M. PHILBIN																			
COUNTY	CHECKED BY:	D. SEMPLE																			
KENT																					
SECTION																					
AEC																					
SHEET NO.																					
13																					



ADDENDA / REVISIONS	



**RESILIENCY IMPROVEMENTS, KC,  
CYPRESS BRANCH ROAD**

CONTRACT	BRIDGE NO.	N/A
T202566204	DESIGNED BY:	M. PHILBIN
COUNTY	CHECKED BY:	D. SEMPLE
KENT		

<b>CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN</b>
SECTION
AEC
SHEET NO.
14

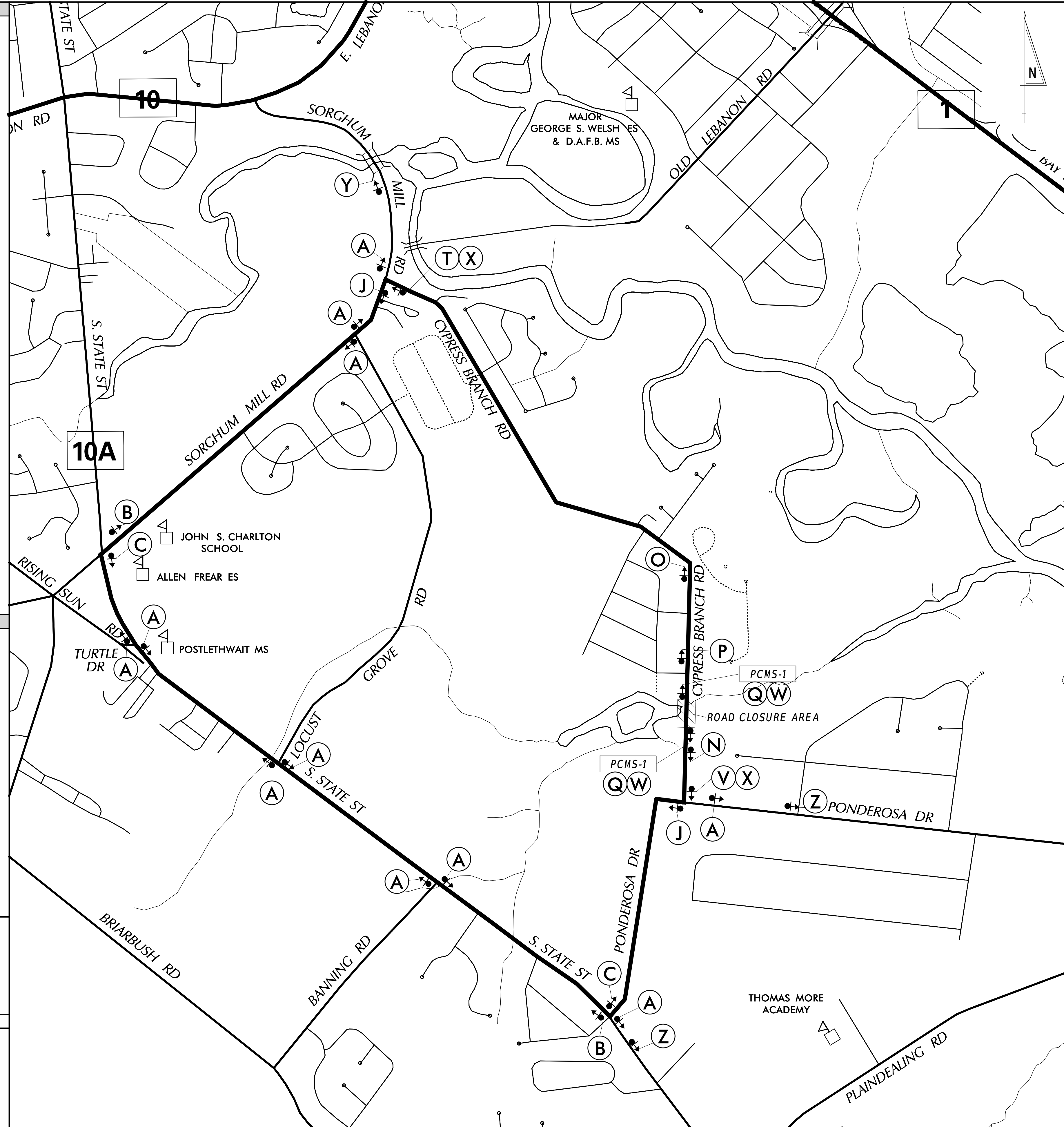
**PORTABLE CHANGEABLE MESSAGE SIGNS**

**PRIOR TO DETOUR**  
(10 DAYS PRIOR TO BEGINNING OF DETOUR)

PCMS-1

**CYPRESS  
BRANCH  
ROAD**

**TO CLOSE  
STARTING  
XX/XX/XX**



**LEGEND**

 M4-9-DE	 M4-9	 M4-9	 M4-9	 M4-9
 M4-9	 M4-9	 M4-9	 M4-9	 M4-8a
 W20-2	 W20-2	 W20-2		
 W20-3	 W20-3	 W20-3		
 R11-2	 M4-10(L)	 M4-10(R)		
 R11-3a	 R11-3b	 R11-4		

**SPECIAL SIGNS**

 6" C 6" C 6" C 6" C 6" C 6" C 6" C 6" C 54"	 6" C 6" C 6" C 6" C 6" C 6" C 6" C 6" C 54"
---	---

SIGN SHALL HAVE A BLACK LEGEND AND BORDER ON A PRISMATIC FLUORESCENT ORANGE RETROREFLECTIVE BACKGROUND.

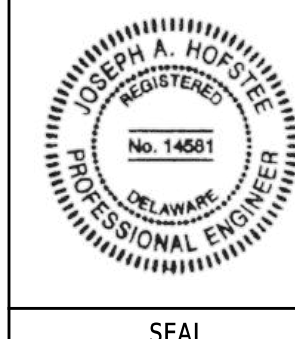
**GENERAL NOTES**

- ALL TEMPORARY TRAFFIC CONTROL DEVICES ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR AND SHALL BE IN COMPLIANCE WITH THIS PLAN AND THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE MUTCD) LATEST EDITION.
  - SIGNS "N" THROUGH "O" AND "T" AND "V", THE WORD "ROAD" SHALL BE CHANGED TO "RAMP", "RR XING" OR "BRIDGE" WHERE APPLICABLE.
  - "W" TYPE 3 BARRICADES AT A ROAD CLOSURE SHALL BE PLACED COMPLETELY ACROSS THE ROADWAY, FROM CURB TO CURB, OR FROM EDGE OF ROAD TO EDGE OF ROAD, WITH THE STRIPES POSITIONED DOWNWARD TOWARD THE CENTER OF THE ROADWAY.
  - BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.
- DETOUR DESCRIPTION**  
(TO BE USED ON ROAD CLOSURE NOTIFICATION AND TRAFFIC ALERT BY ENGINEER)
- MOTORISTS WANTING TO TRAVEL SOUTH ON CYPRESS BRANCH ROAD WILL GO STRAIGHT ON SORGHUM MILL ROAD, TURN LEFT ON SOUTH STATE STREET, THEN TURN LEFT ON PONDEROSA DRIVE, RETURNING TO CYPRESS BRANCH ROAD.
- MOTORISTS WANTING TO TRAVEL NORTH ON CYPRESS BRANCH ROAD WILL GO STRAIGHT ON PONDEROSA DRIVE, TURN RIGHT ON SOUTH STATE STREET, THEN TURN RIGHT ON SORGHUM MILL ROAD, RETURNING TO CYPRESS BRANCH ROAD.

**CONCURRENCE FOR IMPLEMENTATION**

TRAFFIC SAFETY 10/16/2025  
DATE

**PREPARED BY**  
AECOM TECHNICAL SERVICES, INC  
  
10/14/2025  
DATE



QA/QC 10/9/2025  
DATE

\*I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THIS DETOUR PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.\*

ADDENDA / REVISIONS

NOT TO SCALE

**RESILIENCY IMPROVEMENTS, KC,  
CYPRESS BRANCH ROAD**

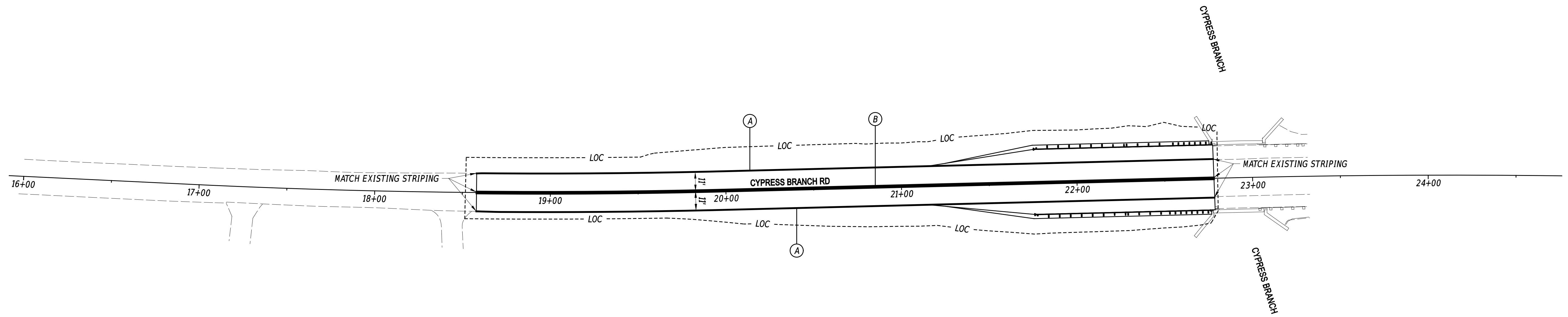
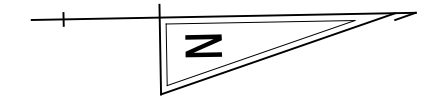
CONTRACT T20256204	PERMIT NO. X
COUNTY KENT	DESIGNED BY: M. PHILBIN
	CHECKED BY: D. SEMPLE

**DETOUR PLAN -  
VEHICULAR  
CYPRESS BRANCH RD**

SECTION AEC
SHEET NO. 15

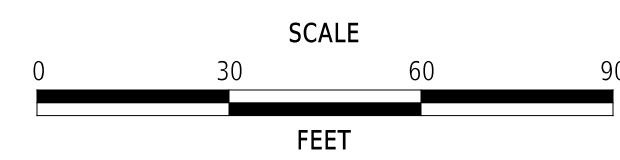
LAST REVISED: 9/11/2018  
 9-OCT-2025  
 14:41  
 pw:/aecom-nw-bentley.com:AECOM\_USA\_Delaware/Documents/6681128-DeDOT\_1903F TO18 General Support to R57900-CAD 65/910\_CAD/20\_SHEETS/910.20.06 Cypress Branch Rd/DP00.dgn

PAVEMENT MARKINGS LEGEND		
SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 861001)	840 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 861001)	840 LF



AECOM

ADDENDA / REVISIONS



**RESILIENCY IMPROVEMENTS, KC,  
CYPRESS BRANCH ROAD**

CONTRACT T202566204	BRIDGE NO. N/A
COUNTY KENT	DESIGNED BY: M. PHILBIN
	CHECKED BY: D. SEMPLE

<b>SIGNING, STRIPING AND CONDUIT PLAN</b>	SECTION AEC
	SHEET NO. 16
	SS-01

**From:** Adams, Van (DelDOT)  
**Sent:** Monday, December 15, 2025 9:53 AM  
**To:** Rogerson, Alison B. (DNREC)  
**Cc:** Foraker, Darren (DelDOT)  
**Subject:** DelDOT Resiliency Paving Project

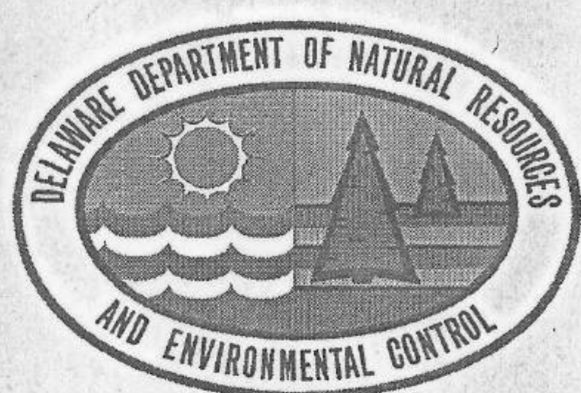
Morning Alison,

Hope all is well. Looking to get a wetland assessment for an upcoming DelDOT project that has impacts to State Mapped Wetlands. Project is located on Cypress Branch Road in Magnolia Delaware ([39°05'47.1"N 75°29'11.4"W](#)). The road is being raised to help with flooding in the area. Raising the road will cause fills to be placed into the surrounding SMW.

This assessment will allow the Wetlands and Waters section put into their permit about in-lieu fee information.

Thanks,

**Van Adams**  
Natural Resource Supervisor  
Environmental Stewardship Office  
Delaware Department of Transportation  
Office: (302) 760-2107  
Cell: (302) 535-2486



Prepared for: DEPARTMENT OF NATURAL RESOURCES  
and ENVIRONMENTAL CONTROL



SCALE 1:3600

### State of Delaware Wetlands KENT COUNTY, DELAWARE

(In Accordance with the Delaware Wetlands Act # 6607)  
Approximate Scale (1:3600)



Produced by: SALISBURY STATE UNIVERSITY  
IMAGE PROCESSING & REMOTE SENSING CENTER  
SALISBURY, MARYLAND

### Legend for Delaware Tidal Wetland Delineations:

- |   |  |   |
|---|--|---|
| B - Beach   | IS - Impounded Scrub-Shrub Wetland                                   | S - Tidal Scrub-Shrub Swamps  |
| DF - Disturbed Forested Swamp   | IW - Impounded Water   | SS - Areas flooded by tidal storm surges                              |
| DM - Disturbed Marsh (vegetation removed for agricultural activities) | LM - Low Marsh   | SS* - Areas flooded by storm surges at a higher flood plain elevation |
| F - Tidal Forested Swamp  | M - Marsh  | T - Tidal Mudflats (in some cases vegetated)/ sand bars               |
| IF - Impounded Forested Wetland                                       | MS - Marsh in spoil areas  | W - Water   |
| ILM - Impounded Low Marsh   | N - Non-tidal wetlands (400 acres - including tidal forested swamps) | WS - Water in a spoil area  |
| IM - Impounded Marsh  | O - Other (Upland or Non-tidal wetlands less than 400 acres)         | / - complexes among different community types (ex. M/S)               |




---

**RE: T202566204 - Cypress Branch Road Resiliency Improvements - Cultural Resources Review**


---

**From** Carr, Sarah (DOS) <Sarah.Carr@delaware.gov>

**Date** Thu 8/28/2025 11:04 AM

**To** McCarthy, John (DeIDOT) <john.mccarthy.2@delaware.gov>

**Cc** Martin, John (DeIDOT) <John.W.Martin@delaware.gov>; Smith, Anna (DeIDOT) <Anna.Smith@delaware.gov>; Byrne, Bridgid (DeIDOT) <bridgid.byrne@delaware.gov>; Younger, Micaela (DeIDOT) <micaela.younger@delaware.gov>; Shehan, Katherine (DeIDOT) <katherine.shehan@delaware.gov>

Mac,

I can't find if I responded to this one or not. After review, SHPO concurs with DeIDOT's proposed finding of No Historic Properties Affected. Do not hesitate to reach out with any questions.

Sarah Carr

she/they

**Environmental Specialist - Archaeologist**

29 N. State St | Dover, DE 19901

tel (302) 736-7431




---

**From:** McCarthy, John (DeIDOT) <john.mccarthy.2@delaware.gov>

**Sent:** Tuesday, July 8, 2025 8:51 AM

**To:** Carr, Sarah (DOS) <Sarah.Carr@delaware.gov>

**Cc:** March, Wendy A. (DeIDOT) <Wendy.March@delaware.gov>; Martin, John (DeIDOT) <John.W.Martin@delaware.gov>; Bonniwell, Christie (DeIDOT) <Christie.Bonniwell@delaware.gov>; Smith, Anna (DeIDOT) <Anna.Smith@delaware.gov>; Byrne, Bridgid (DeIDOT) <bridgid.byrne@delaware.gov>; Younger, Micaela (DeIDOT) <micaela.younger@delaware.gov>; Shehan, Katherine (DeIDOT) <katherine.shehan@delaware.gov>

**Subject:** T202566204 - Cypress Branch Road Resiliency Improvements - Cultural Resources Review

Good morning, Sarah –

Please find attached a cultural resources review package for state-funded resiliency improvements to Cypress Branch Road. Overlay pavement will raise the elevation of the roadway and new guardrails will be installed. According to CHRIS, there are no previously recorded cultural resources in the Area of Potential Effects, or project vicinity. The work will take place in the existing Right-of-Way. However, there will be impacts to wetlands, requiring a permit from the US Army Corps of Engineers.

We request your concurrence in a finding of No Historic Properties Affected. Thank you, as always, for your continued cooperation.

John Mac

**John “Mac” P. McCarthy, RPA**

Environmental Specialist III

(Cultural Resources)

Delaware Department of Transportation

Environmental Stewardship

P. O. Box 778

(800 Bay Road)

Dover, DE 19903

Desk: 302-760-2193


Mobile: 404-903-6753

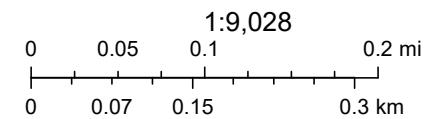


# T202566204 Aerial



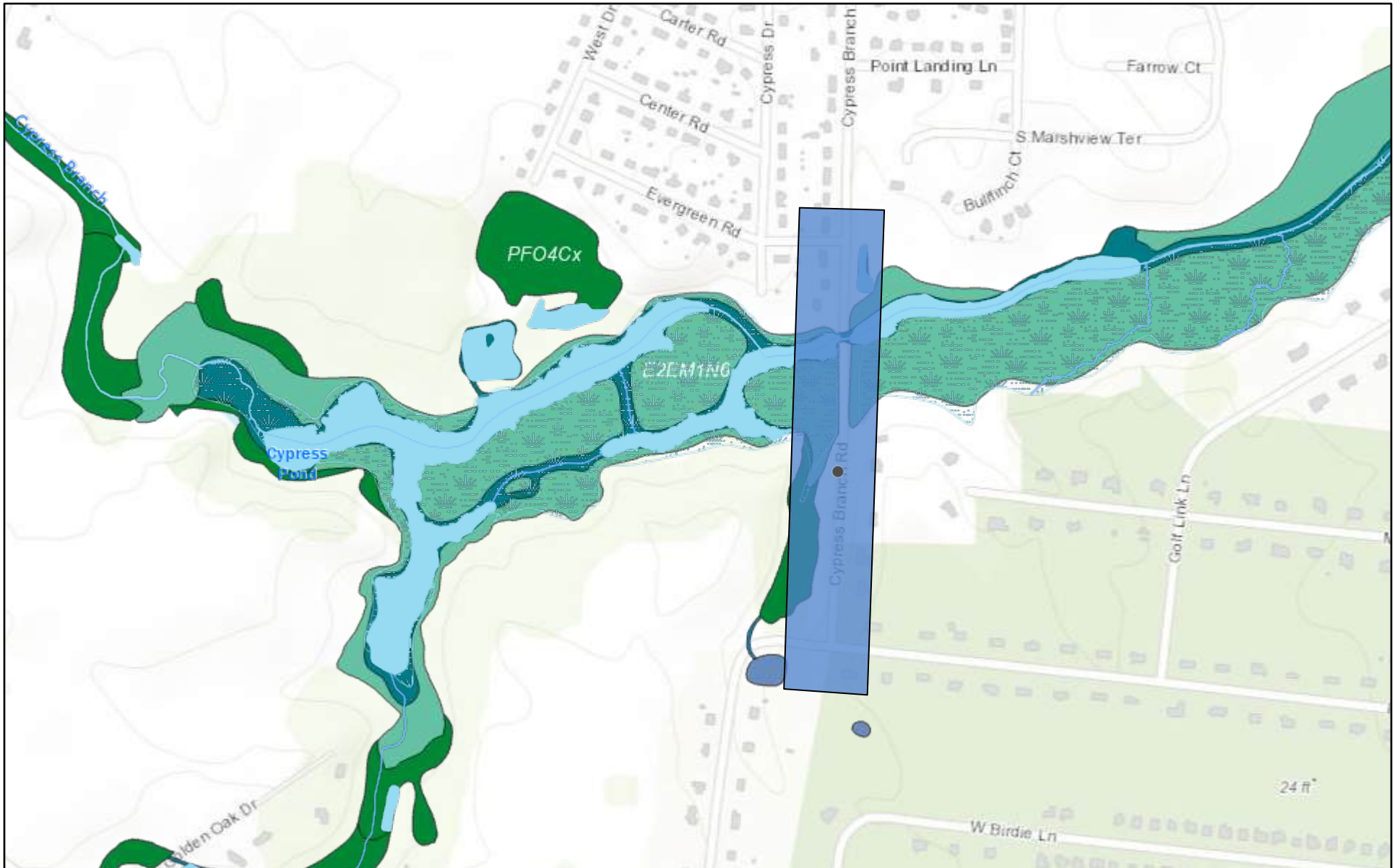
6/2/2025, 12:59:17 PM

 T202566204 Resiliency Improvements, KC, Cypress Branch Rd - shapefile















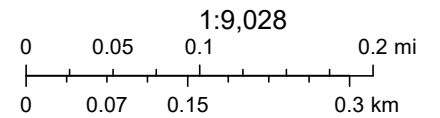
Maxar

# T202566204 Topo



6/2/2025, 12:58:38 PM

- |  |   |
|--|---|
|  T202566204 Resiliency Improvements, KC, Cypress Branch Rd - shapefile |  Wetlands                          |
|  Lakes and Ponds   |  Estuarine and Marine Deepwater    |
|  Marsh   |  Estuarine and Marine Wetland      |
|  Water   |  Freshwater Forested/Shrub Wetland |
|  FlowLine  |  Freshwater Pond                   |
|  MajorRivers   |  Riverine                          |



U.S. Fish & Wildlife Service, Delaware FirstMap, State of New Jersey, VITA, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA,

ArcGIS Web AppBuilder

USGS WBD - Watershed Boundary Dataset. Data refreshed March, 2025. | USGS TNM - National Hydrography Dataset Plus High Resolution (NHDPlus HR). Data refreshed October, 2022. | EPA OFA, OMS, US Army Corps | U.S. Fish & Wildlife Service | U.S. Fish &

<b>Owner</b>	<b>Address</b>	<b>City</b>	<b>State</b>	<b>Zip Code</b>
Clark Timothy B. and Clark Carla R.	804 Evergreen Road	Magnolia	DE	19962
Palmer Daniel J. and Palmer Catherine J.	281 Cypress Branch Road	Magnolia	DE	19962
Del-homes, Inc.	46 S State	Dover	DE	19901
Collins Damond and Collins Valerie	533 Cypress Drive	Magnolia	DE	19962
Jones Henry J. Jr.	387 Cypress Branch Rd	Magnolia	DE	19962
James Dianne J.	401 Cypress Branch Rd	Magnolia	DE	19962
Del-homes, Inc	46 S State	Dover	DE	19901
Krumm Jerry L. and Krumm Sandra L.	343 Cypress Branch Rd	Magnolia	DE	19962
Nobles Bryan Trust, The and Nobles Karen Trust, The	534 Cypress Dr	Magnolia	DE	19962
Chirillo Megan D.	809 Evergreen Rd	Magnolia	DE	19962
Rodriguez Lourdes and Morales Jaime	531 Cypress Drive	Magnolia	DE	19962
Allen Laura M.	529 Cypress Dr	Magnolia	DE	19962
DAVIS CORTNEY D. SR.	297 CYPRESS BRANCH RD	Magnolia	DE	19962
Goodwill John H.f.	311 Cypress Branch Road	Magnolia	DE	19962
Brown Alan and Brown Katherine	802 Evergreen Road	Magnolia	DE	19962
Garcia-korosec Horacio L. and Garcia-korosec Michael	306 S Marshview Terr	Magnolia	DE	19962
Lmg, Llc	Po Box 723	Milford	DE	19963
Evins Danielle A Trustee	281 S Marshview Ter	Magnolia	DE	19962
Buchholtz Matthew J. and Buchholtz Danielle	57 Bullfinch Court	Magnolia	DE	19962
U & I Investments, Llc	1200 Bay Rd	Dover	DE	19901
Boris Nicole Michelle	810 Evergreen Rd	Magnolia	DE	19962
Doak James P. and Doak Lilliam J. Santa	535 Cypress Dr	Magnolia	DE	19962
Roof George S.	359 Cypress Branch Rd	Magnolia	DE	19962
Kent County Levy Court	555 Bay Rd	Dover	DE	19901
Raab-long Ronald A. and Raab-long Suzanne E.	532 Cypress Dr	Magnolia	DE	19962
D R Horton Inc - New Jersey	671 S Carter Rd Ste 6	Smyrna	DE	19977
DEL-HOMES, INC	46 S State	Dover	DE	19901
Paugh Joseph W. Jr. and Vecere Emmalee S.	308 S Marshview Terrace	Magnolia	DE	19962
Lorentz Jason T. and Lorentz Jessica J.	80 Bullfinch Ct	Magnolia	DE	19962
Harrington Karen and Harrington Odell	82 Bullfinch Court	Magnolia	DE	19962
Klein William M. and Klein Barbara L.	806 Evergreen Drive	Magnolia	DE	19962
Vergara Kristian and Vergara Melissa	808 Evergreen Rd	Magnolia	DE	19962
Neubauer Joseph W. and Neubauer Michelle	96 Cypress Branch Road	Magnolia	DE	19962
Pfeifer David and Pfeifer Chris	555 Masters Lane	Magnolia	DE	19962

Towner Douglas F. and Towner Rebecca K.	536 Masters Ln	Magnolia	DE	19962
Eloi Gilvane and Jacob Senex	310 S Marshview Ter	Magnolia	DE	19962
Davis Willie A. Jr. and Davis Tiffany N.	73 Bull Finch Ct	Magnolia	DE	19962
U & I Investments, Llc	1200 Bay Rd	Dover	DE	19901
Tyler Robin M. and Fisher Kathleen F.	128 Cypress Branch Rd	Magnolia	DE	19962
Jensen Jonathan T	556 Masters Ln	Magnolia	DE	19962
Morton Coletta	78 Cypress Branch Rd	Magnolia	DE	19962



STATE OF DELAWARE  
**DEPARTMENT OF NATURAL RESOURCES AND  
ENVIRONMENTAL CONTROL**

DIVISION OF FISH & WILDLIFE  
RICHARDSON & ROBBINS BUILDING  
89 KINGS HIGHWAY  
DOVER, DELAWARE 19901

**DIRECTOR'S  
OFFICE**

PHONE  
(302) 739-9910

July 2<sup>nd</sup>, 2025

Alexa Fuad  
800 Bay Road  
P.O. Box 778  
Dover, DE 19903

*Re: DelDOT 2025 Resiliency Improvements KC Cypress Branch Road T202566204*

Dear Alexa:

Thank you for contacting the Species Conservation and Research Program (SCRP) about information on rare, threatened and endangered species, unique natural communities, and other significant natural resources as they relate to the above referenced project.

*State Natural Heritage Site*

A review of our database indicates that there are currently no records of state-rare or federally listed plants, animals or natural communities at this project site. As a result, at present, this project does not lie within a State Natural Heritage Site, nor does it lie within a Delaware National Estuarine Research Reserve which are two criteria used to identify "Designated Critical Resource Waters" in the Army Corps of Engineers (ACOE) Nationwide Permit General Condition No. 22. A copy of this letter shall be included in any permit application or pre-construction notification submitted to the Army Corps of Engineers for activities on this property.

*Key Wildlife Habitat*

The wetland block on this property is mapped as Key Wildlife Habitat (KWH) in the Delaware Wildlife Action Plan (DEWAP) because

- it is part of a large wetland complex/large forest block that can support an array of plant and animal species across the landscape.

Although designation as KWH is non-regulatory, these maps are intended to help guide site-specific conservation planning efforts. Impacts to KWH should be minimized to the greatest extent practicable.

The DEWAP is a comprehensive strategy for conserving the full array of native wildlife and habitats, common and uncommon, as vital components of the state's natural resources. This document can be viewed via the [Division of Fish and Wildlife's website](#).

### *State Natural Area*

The proposed project area occurs within Delaware's Natural Areas Inventory. State Natural Areas are composed of areas of land and/or water, whether in public or private ownership, which have retained or reestablished its natural character (although it need not be undisturbed), has unusual flora or fauna, or has biotic, geological, scenic, or archaeological features of scientific or educational value. If you require further information about this area for your planning, please contact Benjamin Schlusser at 302-739-9039 or [Bejamin.Schlusser@delaware.gov](mailto:Bejamin.Schlusser@delaware.gov).

### *Delaware Ecological Network*

Habitat on this parcel has been identified as ecologically important by the Delaware Ecological Network (DEN) and is classified as a core area. The DEN, although non-regulatory, is a statewide conservation network developed using GIS and field collected datasets that help to identify and prioritize ecologically important areas for natural resource protection. The DEN includes ecologically important areas such as forests, wetlands, streams, habitat that supports rare species and areas of especially high quality. The DEN includes the following key elements: 1) Core areas – which contain relatively intact natural ecosystems, and provide high-quality habitat for native plants and animals, 2) Hubs – which are slightly fragmented aggregations of core areas with contiguous natural cover and 3) Corridors – which link core areas together, allowing wildlife movement and seed and pollen transfer between them. The DEN can be accessed through First Map: [Delaware Ecological Network 2.0 | Delaware Ecological Network 2.0 | State of Delaware \(arcgis.com\)](#). We recommend that this DEN designated area be protected to the fullest extent possible.

### *Low Marsh*

Currently, there are no records of state-rare or federally-listed marsh bird species at this site. However, aerial imagery and wetland habitat maps indicate that low marsh habitat (i.e., dominated by *Spartina alterniflora*) is present. Several state-rare species of conservation concern frequently nest in low marsh habitat, including the seaside sparrow (*Ammodramus maritimus*), clapper rail (*Rallus longirostris*), and willet (*Tringa semipalmata*). We recommend a time of year restriction of **April 1<sup>st</sup> to July 31<sup>st</sup>** to avoid impacts to marsh nesting birds.

### *High Marsh*

Currently, there are no records of state-rare or federally-listed marsh bird species at this site. However, aerial imagery and wetland habitat maps indicate that high marsh habitat (i.e., dominated by plants such as *Spartina patens*, *Distichlis spicata*, and *Iva frutescens*) is present. Several state-rare species of conservation concern solely or frequently nest in high marsh habitat, including the saltmarsh sparrow (*Ammodramus caudacutus*), Coastal Plain swamp sparrow (*Melospiza georgiana nigrescens*), willet (*Tringa semipalmata*), state-listed endangered American oystercatcher (*Haematopus palliatus*) and federally-listed threatened black rail

(*Laterallus jamaicensis*). We recommend a time of year restriction of **April 1<sup>st</sup> to July 31<sup>st</sup>** to avoid impacts to marsh nesting birds.

### *Wetlands*

Wetlands are perhaps Delaware's most significant natural feature, covering one-fourth of the state, with a total of approximately 320,000 acres. An estimated 47 percent of wetlands are located in Sussex County, 38 percent in Kent County, and 15 percent in New Castle County. Wetland habitats include a wide range of types – tidal, nontidal, freshwater, brackish, and saltwater, and include coastal wetland impoundments, vernal pools, Coastal Plain seasonal pond wetlands, peat wetlands, and Piedmont stream valley wetlands. Wetlands are found along the shores of the Delaware Bay and Inland Bays, along rivers, streams, and ponds, and in forests and fields throughout the state. Delaware is one of only 16 U.S. states with greater than 50% loss of wetlands. The majority of these were freshwater wetlands that were lost to ditching, stream channelization, conversion to ponds, and filling for development. Tidal wetlands were also lost to filling for development, shoreline hardening, conversion to impoundments, and ditching for mosquito control or agricultural drainage. Fortunately, wetland regulations at both the state and federal levels have greatly curtailed these losses in the last several decades. Tidal wetland losses have slowed dramatically, but protection of isolated freshwater wetlands remains insufficient.

Many wetlands in the state suffer from degradation caused by sedimentation, nutrient enrichment, and invasive plant species. These problems are exacerbated by insufficient natural buffers around many wetland blocks. Tidal wetlands, which constitute the great bulk of wetland blocks, are almost all threatened by sea level rise, especially given the lack of buffers to accommodate migration. Although there are no records of rare species or natural communities at this location, the cumulative impacts of projects such as this could lead to the long-term degradation of the marsh habitat through fragmentation and disturbance.

### *Wetland Buffer*

Buffers are an integral component of aquatic and wetland habitats, reducing the amount of sediments, pollutants, and other non-point source material that may affect the function and integrity of habitat and the condition and survivability of aquatic organisms. Forested buffers serve as habitat for many terrestrial species that are dependent on aquatic and wetlands habitats for a portion of their annual life cycle.

In the interest of water quality and wildlife habitat, we recommend maintaining an upland buffer of at least 100 ft along rivers, streams and wetlands. This recommendation is based on peer reviewed research that suggests that buffer values increase noticeably with widths of 100 ft or more. This buffer should *not* be a maintained lawn area and should *not* contain lot lines or infrastructure. We recommend the buffer area be comprised of the existing vegetation or planted with Delaware native species of trees, shrubs, grasses or wildflowers.

### *Soil Disturbance and Phragmites*

Soil disturbance within the project boundaries will likely result in the establishment of the non-native invasive grass – European reed (*Phragmites australis*), as well as other potentially invasive, non-native plant species. We recommend that, as a condition of the permit, the applicant revegetate the area using native plant species that are indigenous to the state of Delaware and are appropriate for the site. Our staff can provide guidance in selecting plant

material suitable for replanting at this site (302-735-3600 or [DNREC\\_EnvReview@delaware.gov](mailto:DNREC_EnvReview@delaware.gov)). In addition, we also recommend that the applicant commit to a two-year monitoring and management plan that would include the removal of non-native invasive plants and additional plantings of native species as necessary.

*Fisheries*

*American Eel*

Cypress Branch (a tributary of Saint Jones River) is used by large numbers of American eel (*Anguilla rostrata*). We request that in-stream work not take place from **March 1<sup>st</sup> to May 15<sup>th</sup>** to allow upstream passage of elvers (young eels).

We are continually updating our records on Delaware's rare, threatened and endangered species, unique natural communities and other significant natural resources. If the start of the project is delayed more than a year past the date of this letter, please contact us again for the latest information.

Please feel free to contact me with any questions or if you require additional information.

Sincerely,



Matthew Young  
*Environmental Review Coordinator*  
Phone: (302) 735-8677  
Email: [matthew.young@delaware.gov](mailto:matthew.young@delaware.gov)  
89 Kings Highway  
Dover, DE 19901



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Chesapeake Bay Ecological Services Field Office  
177 Admiral Cochrane Drive  
Annapolis, MD 21401-7307  
Phone: (410) 573-4599 Fax: (410) 266-9127

In Reply Refer To:

06/17/2025 17:52:56 UTC

Project code: 2025-0103966

Project Name: T202566204 Resiliency Improvements, KC, Cypress Branch Rd.

Federal Nexus: yes

Federal Action Agency (if applicable): Army Corps of Engineers

**Subject:** Federal agency coordination under the Endangered Species Act, Section 7 for 'T202566204 Resiliency Improvements, KC, Cypress Branch Rd.'

Dear Alexa Fuad:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 17, 2025, for 'T202566204 Resiliency Improvements, KC, Cypress Branch Rd.' (here forward, Project). This project has been assigned Project Code 2025-0103966 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements may not be complete.**

## **Ensuring Accurate Determinations When Using IPaC**

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (DKey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid. Note that conservation measures for northern long-eared bat and tricolored bat may differ. If both bat species are present in the action area and the key suggests more conservative measures for one of the species for your Project, the Project may need to apply the most conservative measures in order to avoid adverse effects. If unsure which conservation measures should be applied, please contact the appropriate Ecological Services Field Office.***

**Determination for the Northern Long-Eared Bat and Tricolored Bat**

Based on your IPaC submission and a standing analysis completed by the Service, you determined the proposed Project will have the following effect determinations:

<b>Species</b>	<b>Listing Status</b>	<b>Determination</b>
Tricolored Bat ( <i>Perimyotis subflavus</i> )	Proposed Endangered	NLAA

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate.

Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that consultation on the Action is complete for northern long-eared bat and/or tricolored bat and no further action is necessary unless either of the following occurs:

- new information reveals effects of the action that may affect the northern long-eared bat or tricolored bat in a manner or to an extent not previously considered; or,
- the identified action is subsequently modified in a manner that causes an effect to the northern long-eared bat or tricolored bat that was not considered when completing the determination key.

### **15-Day Review Period**

As indicated above, the Service will notify you within 15 calendar days if we determine that this proposed Action does not meet the criteria for a “may affect, not likely to adversely affect” (NLAA) determination for the northern long-eared bat and/or tricolored bat. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the identified Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that we did not anticipate when developing the key. In such cases, the identified Ecological Services Field Office may request additional information to verify the effects determination reached through the Northern Long-eared Bat and Tricolored Bat DKey.

### **Other Species and Critical Habitat that May be Present in the Action Area**

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* Threatened

- Monarch Butterfly *Danaus plexippus* Proposed Threatened

You may coordinate with our Office to determine whether the Action may affect the species and/or critical habitat listed above. Note that reinitiation of consultation would be necessary if a new species is listed or critical habitat designated that may be affected by the identified action before it is complete.

If you have any questions regarding this letter or need further assistance, please contact the Chesapeake Bay Ecological Services Field Office and reference Project Code 2025-0103966 associated with this Project.

## Action Description

You provided to IPaC the following name and description for the subject Action.

### 1. Name

T202566204 Resiliency Improvements, KC, Cypress Branch Rd.

### 2. Description

The following description was provided for the project 'T202566204 Resiliency Improvements, KC, Cypress Branch Rd.':

The primary objective of the project is to reduce the frequency that Cypress Branch Road is overtopped by tidal water, which has been causing significant disruptions and safety concerns. By elevating the roadway, this project aims to ensure safer and more reliable access along Cypress Branch Road, especially during times of high tides or heavy rainfall.

The project will raise the low-lying section of the road by 1.75 feet, thereby reducing the frequency that the road is overtopped by water during tidal events. The reconstruction work will extend 420 feet south from Bridge 2-364B. Additionally, guardrails will be installed throughout the project area to protect wetlands and minimize any adverse environmental impacts.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.095232100000004,-75.48669401026964,14z>



## DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for a least one species covered by this determination key.

## QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

*No*

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

**Automatically answered**

*No*

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

**Automatically answered**

*No*

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

**Note:** For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

*No*

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

*Yes*

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

*No*

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

*Yes*

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

*No*

9. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

*No*

10. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

*No*

11. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

*No*

12. Will the action cause effects to a bridge?

**Note:** Covered bridges should be considered as bridges in this question.

*No*

13. Will the action result in effects to a culvert or tunnel at any time of year?

*No*

14. Are trees present within 1000 feet of the action area?

**Note:** If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

*Yes*

15. Does the action include the intentional exclusion of bats from a building or structure?

**Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

*No*

16. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats?**

*No*

17. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

*No*

18. Will the action include or cause any construction or other activity that is reasonably certain to increase average night-time traffic permanently or temporarily on one or more existing roads? **Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.). .

*No*

19. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

*No*

20. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

**Note:** For information regarding NSF/ANSI 60 please visit <https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects>

*No*

21. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

22. Will the action include drilling or blasting?

Yes

23. Will the drilling or blasting produce noise or vibrations above existing background levels that will affect suitable summer habitat for northern long-eared bats and/or tricolored bats?

**Note:** Additional information defining suitable suitable summer habitat for the northern long-eared bat and/or tricolored bat, can be found in Appendix A in the USFWS' Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>

Yes

24. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

No

25. Will the proposed action involve the use of herbicides or other pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?

No

26. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

**Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

27. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

**Note:** Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

28. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

No

29. Will the proposed action result in the use of prescribed fire?

**Note:** If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

No

30. Does the action area intersect the tricolored bat species list area?

**Automatically answered**

Yes

31. [Semantic] Is the action area located within 0.5 miles of radius of an entrance/opening to any known tricolored bat hibernacula? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

No

32. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

**Automatically answered**

No

33. Has a presence/probable absence bat survey targeting the [tricolored bat and following the Service's Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines](#) been conducted within the project area?

No

34. Is suitable summer habitat for the tricolored bat present within 1000 feet of project activities?

(If unsure, answer ""Yes."" )

**Note:** If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pines) answer ""Yes."" For a complete definition of suitable summer habitat for the tricolored bat, please see Appendix A in the [Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines](#).

Yes

35. Will drilling or blasting occur during the **Pup season** for tricolored bats in the action area?

**Note:** Bat activity periods for your state can be found in Appendix L of the Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines

*No*

36. Do you have any documents that you want to include with this submission?

*No*

# PROJECT QUESTIONNAIRE

## **IPAC USER CONTACT INFORMATION**

Agency: Delaware Department of Transportation

Name: Alexa Fuad

Address: 800 S Bay Rd

City: Dover

State: DE

Zip: 19901

Email alexa.fuad@delaware.gov

Phone: 3027602547

## **LEAD AGENCY CONTACT INFORMATION**

Lead Agency: Army Corps of Engineers



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Chesapeake Bay Ecological Services Field Office  
177 Admiral Cochrane Drive  
Annapolis, MD 21401-7307  
Phone: (410) 573-4599 Fax: (410) 266-9127

In Reply Refer To:

06/02/2025 14:06:09 UTC

Project Code: 2025-0103966

Project Name: T202566204 Resiliency Improvements, KC, Cypress Branch Rd.

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Wetlands

## **OFFICIAL SPECIES LIST**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Chesapeake Bay Ecological Services Field Office**

177 Admiral Cochrane Drive

Annapolis, MD 21401-7307

(410) 573-4599

## PROJECT SUMMARY

Project Code: 2025-0103966  
Project Name: T202566204 Resiliency Improvements, KC, Cypress Branch Rd.  
Project Type: Road/Hwy - Maintenance/Modification  
Project Description: The primary objective of the project is to reduce the frequency that Cypress Branch Road is overtopped by tidal water, which has been causing significant disruptions and safety concerns. By elevating the roadway, this project aims to ensure safer and more reliable access along Cypress Branch Road, especially during times of high tides or heavy rainfall.

The project will raise the low-lying section of the road by 1.75 feet, thereby reducing the frequency that the road is overtopped by water during tidal events. The reconstruction work will extend 420 feet south from Bridge 2-364B. Additionally, guardrails will be installed throughout the project area to protect wetlands and minimize any adverse environmental impacts.

### Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.095232100000004,-75.48669401026964,14z>



Counties: Kent County, Delaware

## ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

NAME	STATUS
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

## BIRDS

NAME	STATUS
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>▪ Potential habitat for Black Rail exists in this area.</li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/10477">https://ecos.fws.gov/ecp/species/10477</a>	Threatened

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Proposed Threatened

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

## USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

ESTUARINE AND MARINE WETLAND

- E2EM1N
- E2EM1/5P6
- E2EM1P
- E2EM1N6

FRESHWATER POND

- PUBF<sub>x</sub>
- PUBH<sub>x</sub>

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1R

ESTUARINE AND MARINE DEEPWATER

- E1UBL

## **IPAC USER CONTACT INFORMATION**

Agency: Delaware Department of Transportation

Name: Alexa Fuad

Address: 800 S Bay Rd

City: Dover

State: DE

Zip: 19901

Email alexa.fuad@delaware.gov

Phone: 3027602547

## **LEAD AGENCY CONTACT INFORMATION**

Lead Agency: Army Corps of Engineers

## March, Wendy A. (DeIDOT)

---

**From:** CBFO Project Review, FW5 <cbfoprojectreview@fws.gov>  
**Sent:** Wednesday, July 9, 2025 10:17 AM  
**To:** Fuad, Alexa (DeIDOT); EnvReview, DNREC (MailBox Resources)  
**Cc:** Smith, Anna (DeIDOT); Adams, Van (DeIDOT); Martin, John (DeIDOT); March, Wendy A. (DeIDOT); Ledebohm, Rebecca (FHWA); Foraker, Darren (DeIDOT)  
**Subject:** Re: [EXTERNAL] Priority Status: NORMAL; QUERY; T202566204 Resiliency Improvements, KC, Cypress Branch Rd

Hi Alexa-

Thank you for sending this project for review. Suitable habitat for Eastern black rail may be present within your project area. We recommend a time of year restriction between April 1- July 31 in order to avoid impacts to the species. If this TOY restriction is adhered to, this project is "not likely to adversely affect" Eastern black rail.

The "not likely to adversely affect" concurrence letter you received on June 17, 2025 serves as our official correspondence on the projects potential effects to the proposed endangered tricolored bat. No further consultation is necessary unless the scope of the project changes.

The monarch butterfly is proposed for Federal listing as threatened. Our assessment is that the proposed action is not likely to jeopardize the continued existence of the species. No further consultation is required at this time. However, if the monarch is listed under the ESA before this project is completed, you should contact our office to reinstate consultation for this project.

Thank you,

Kathleen

---

**From:** Fuad, Alexa (DeIDOT) <alexa.fuad@delaware.gov>  
**Sent:** Tuesday, June 17, 2025 2:16 PM  
**To:** EnvReview, DNREC (MailBox Resources) <DNREC\_EnvReview@delaware.gov>; CBFO Project Review, FW5 <cbfoprojectreview@fws.gov>  
**Cc:** Smith, Anna (DeIDOT) <Anna.Smith@delaware.gov>; Adams, Van (DeIDOT) <Van.Adams@delaware.gov>; Martin, John (DeIDOT) <John.W.Martin@delaware.gov>; March, Wendy A. (DeIDOT) <Wendy.March@delaware.gov>; Ledebohm, Rebecca (FHWA) <rebecca.ledbohm@dot.gov>; Foraker, Darren (DeIDOT) <Darren.Foraker@delaware.gov>  
**Subject:** [EXTERNAL] Priority Status: NORMAL; QUERY; T202566204 Resiliency Improvements, KC, Cypress Branch Rd

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Good morning,

This email provides a brief description of an upcoming DeIDOT project. DeIDOT is requesting your review and response concerning the presence of rare, threatened, and endangered species within the project area for the project described

below. Additionally, please forward any information you have regarding State Natural Heritage Sites, Delaware Natural Estuarine Research Reserves, and Fisheries within the project area.

**Priority Status: NORMAL; QUERY; [T202566204 Resiliency Improvements, KC, Cypress Branch Rd]. (39.095232, - 75.486694).** The primary objective of the project is to reduce the frequency that Cypress Branch Road is overtopped by tidal water, which has been causing significant disruptions and safety concerns. By elevating the roadway, this project aims to ensure safer and more reliable access along Cypress Branch Road, especially during times of high tides or heavy rainfall.

The project will raise the low-lying section of the road by 1.75 feet, thereby reducing the frequency that the road is overtopped by water during tidal events. The reconstruction work will extend 420 feet south from Bridge 2-364B. Additionally, guardrails will be installed throughout the project area to protect wetlands and minimize any adverse environmental impacts. There will be no trees impacted as part of this project, however there will be 453.63 sq ft of wetland impacts – mostly phragmites.

**IPaC:** There were hits for Tricolored Bat (*Perimyotis subflavus*), Eastern Black Rail (*Laterallus jamaicensis ssp. jamaicensis*), and the Monarch butterfly (*Danaus plexippus*). The DKey determined may affect – NLAA for Tricolored Bat and may affect for Eastern Black Rail.

- **Tree clearing** = none.

**EFH:** Several hits. Coordination to be continued by USACE.

**S7:** No hits.

**WCC:** The project will have no impact on the White Clay Creek Wild and Scenic River System.

**Barriers:** There are no barriers.

If you have any questions or require additional information, please do not hesitate to contact me via email or at the number below. Thank you for your assistance!

Best fishes ,

**Alexa Fuad**

Environmental Specialist II  
DelDOT- Environmental Studies  
Office Phone: (302) 760-2547  
[alexa.fuad@delaware.gov](mailto:alexa.fuad@delaware.gov)

# EFH Mapper Report

## EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

[Greater Atlantic Regional Office](#)

[Atlantic Highly Migratory Species Management Division](#)

## Query Results

Degrees, Minutes, Seconds: Latitude = 39° 5' 42" N, Longitude = 76° 30' 48" W









Decimal Degrees: Latitude = 39.095, Longitude = -75.487

















The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

### \*\*\* WARNING \*\*\*

Please note under "Life Stage(s) Found at Location" the category "ALL" indicates that all life stages of that species share the same map and are designated at the queried location.

## EFH

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Atlantic Butterfish	Adult, Larvae	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11
		Atlantic Herring	Adult, Juvenile	New England	Amendment 3 to the Atlantic Herring FMP
		Black Sea Bass	Adult, Juvenile	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Bluefish	Adult, Juvenile	Mid-Atlantic	Bluefish

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Clearnose Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Little Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Longfin Inshore Squid	Eggs	Mid-Atlantic	Atlantic Mackerel, Squid, & Butterfish Amendment 11
		Red Hake	Adult	New England	Amendment 14 to the Northeast Multispecies FMP
		Scup	Adult, Juvenile	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Summer Flounder	Adult, Juvenile	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Windowpane Flounder	Adult, Juvenile	New England	Amendment 14 to the Northeast Multispecies FMP
		Winter Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP



### Pacific Salmon EFH

No Pacific Salmon Essential Fish Habitat (EFH) were identified at the report location.

### Atlantic Salmon

No Atlantic Salmon were identified at the report location.

### HAPCs

Link	Data Caveats	HAPC Name	Management Council
		Summer Flounder SAV	Mid-Atlantic Fishery Management Council

### EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

**Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.**

**\*\*For links to all EFH text descriptions see the complete data inventory: [open data inventory -->](#)**

**All spatial data is currently available for the Mid-Atlantic and New England councils, Secretarial EFH,**

Bigeye Sand Tiger Shark,

Bigeye Sixgill Shark,

Caribbean Sharpnose Shark,

Galapagos Shark,

Narrowtooth Shark,

Sevengill Shark,

Sixgill Shark,

Smooth Hammerhead Shark,

Smalltail Shark

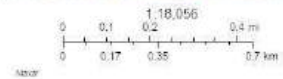
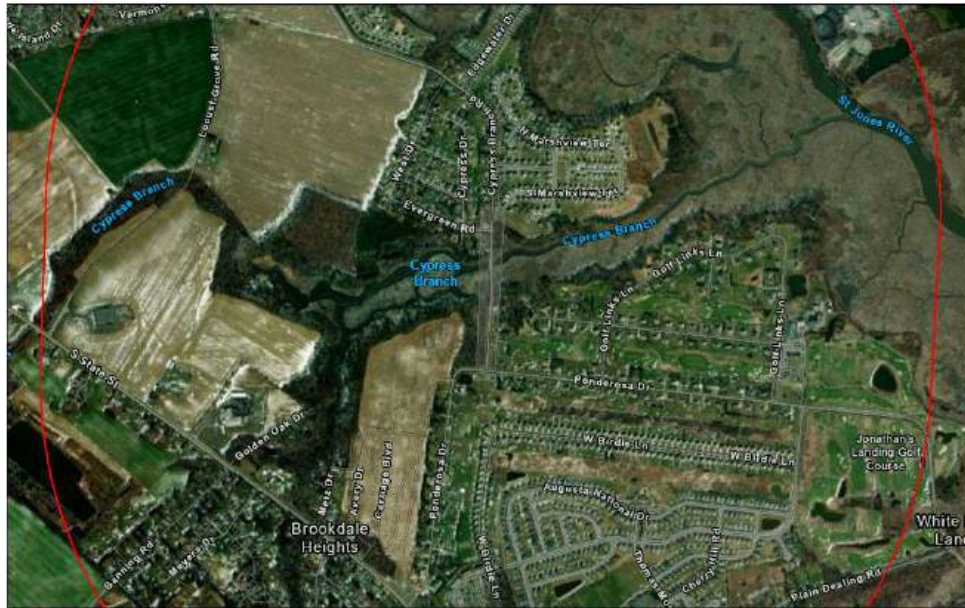


# Drawn Action Area & Overlapping S7 Consultation Areas

## Area of Interest (AOI) Information

Area : 2,588.15 acres

Jun 2 2025 9:56:37 Eastern Daylight Time



## Summary

Name	Count	Area(acres)	Length(mi)
Atlantic Sturgeon	0	0	N/A
Shortnose Sturgeon	0	0	N/A
Atlantic Salmon	0	0	N/A
Sea Turtles	0	0	N/A
Atlantic Large Whales	0	0	N/A
In or Near Critical Habitat	0	0	N/A