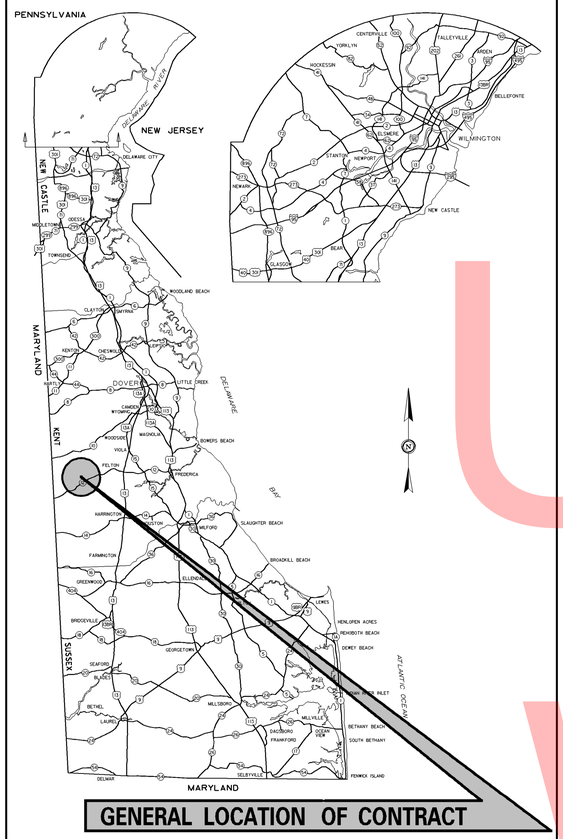


THE STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY UNITS

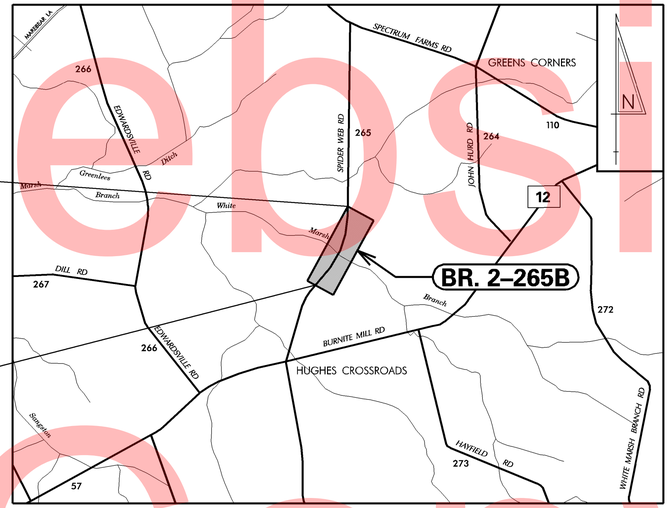
CONSTRUCTION & RIGHT-OF-WAY PLANS FOR:

BR 2-265B ON SPIDER WEB ROAD OVER WHITE MARSH BRANCH

CONTRACT NUMBER: T201307202

FEDERAL AID PROJECT NUMBER: EBROS-K265(02)

COUNTY: KENT **M.R. #:** K265



END CONTRACT STATION 13+75

BEGIN CONTRACT STATION 12+05

DESIGN DESIGNATION

FUNCTIONAL CLASS: RURAL LOCAL ROAD	D.H.V. PROJECTED: 11	YEAR: 2040
TYPE OF CONSTRUCTION: BRIDGE REPLACEMENT	DESIGN SPEED: 55 M.P.H.	
A.A.D.T. CURRENT: 91 YEAR: 2011	TRUCKS: 9 %	
A.A.D.T. PROJECTED: 150 YEAR: 2040	DIRECTION OF DISTRIBUTION: 65 %	

INDEX OF SHEETS

SHEET Nº	TABLE OF CONTENTS
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2	LEGEND
3	NOTES
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5	HORIZONTAL AND VERTICAL CONTROL
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8	BRIDGE PLAN, SECTION, & ELEVATION
9	SOIL BORING LOGS
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11	ENVIRONMENTAL COMPLIANCE PLAN
12	CONSTRUCTION SEQUENCE, AND EROSION AND SEDIMENT CONTROL PLAN
13	DETOUR PLAN
14	RIGHT-OF-WAY PLAN
15	RIGHT-OF-WAY DATA SHEET
16	RIGHT-OF-WAY TABULATION

TOTAL SHEETS: 16

APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

ADDENDA & REVISIONS

DESCRIPTION	NAME & DATE

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME

RECOMMENDED

AREA ENGINEER, CONSTRUCTION — DATE 05/06/2015

GROUP ENGINEER, CONSTRUCTION — DATE 05/06/2015

ASSISTANT DIRECTOR, CONSTRUCTION — DATE 05/06/2015

FINAL PLANS

RECOMMENDED

STORMWATER ENGINEER

DATE 05/05/2015

VINCENT W. DAVIS REGISTERED No. 12898 DELAWARE PROFESSIONAL ENGINEER — SEAL

RECOMMENDED

SQUAD MANAGER, BRIDGE DESIGN

DATE 05/04/2015

KEVIN R. LINDELL LICENSED No. 15242 DELAWARE PROFESSIONAL ENGINEER — SEAL

RECOMMENDED

BRIDGE DESIGN ENGINEER

DATE 05/06/2015

JASON N. HASTINGS REGISTERED No. 19545 DELAWARE PROFESSIONAL ENGINEER — SEAL

RECOMMENDED

ASSISTANT DIRECTOR, BRIDGE

DATE 05/06/2015

BARRY A. BENTON REGISTERED No. 10774 DELAWARE PROFESSIONAL ENGINEER — SEAL

APPROVED

CHIEF ENGINEER

DATE 05/06/2015

ROBERT BRIAN McCLEARY REGISTERED No. 8567 DELAWARE PROFESSIONAL ENGINEER — SEAL

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EXISTING SYMBOLS

DRAINAGE

	DITCH OR STREAM CENTERLINE
	DIRECTIONAL STREAM FLOW ARROW
C.B. / D.I.	DRAINAGE INLET
J.B.	DRAINAGE JUNCTION BOX
	DRAINAGE MANHOLE
SIZE/TYPE LABEL	DRAINAGE PIPE AND FLOW ARROW
	DRAINAGE PIPE HEADWALL
	RIPRAP - AREA FEATURE
	RIPRAP - LINEAR FEATURE

MANMADE ROADSIDE FEATURES

	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
(TYPE LABEL)	CURB
(TYPE LABEL)	CURB AND GUTTER
	FENCE - CHAINLINK OR STRANDED
	FENCE - STOCKADE OR SPLIT RAIL
F.P.	FLAG POLE
	GUARDRAIL - STEEL BEAM
	GUARDRAIL - WIRE ROPE
LAMP	LAMP AND POST - RESIDENTIAL
MB	MAILBOX
P.M.	PARKING METER AND POST
	PAVEMENT - FLEXIBLE
	PAVEMENT - RIGID
	PILE - BRIDGE
	PILLAR OR MISCELLANEOUS POST
	TRAFFIC SIGN AND POST
	WALL - BRICK OR BLOCK
	WALL - STONE

NATURAL ROADSIDE FEATURES

	GRASS LAWN
	HEDGEROW OR THICKET
	MARSH BOUNDARY LINE
	TREE - CONIFEROUS
	TREE - DECIDUOUS
	TREE STUMP
	SHRUBBERY
WL	DELINEATED WETLAND BOUNDARY LINE
	WOODS LINE BOUNDARY

RIGHT-OF-WAY SYMBOLS

C.M.	PROPERTY MARKER - CONCRETE MON.
I.P.	PROPERTY MARKER - IRON PIPE
100+00	HISTORIC RIGHT-OF-WAY BASELINE
	EXISTING RIGHT-OF-WAY
PP	EXISTING PROPERTY LINE
EASEMENT TYPE	EXISTING EASEMENT
DA	EXISTING DENIAL OF ACCESS
R/W-DA	EXISTING R/W & DENIAL OF ACCESS

SURVEY CONTROL & MONUMENTATION

B.M.	SURVEY BENCHMARK LOCATION
T.P.	SURVEY TIE POINT LOCATION
	SURVEY TRAVERSE POINT
	POINT OF CURVATURE OR TANGENCY
	POINT OF INTERSECTING TANGENTS

UTILITY

	SOIL BORING LOCATION
	UTILITY TEST HOLE LOCATION
TV	CABLE TV DISTRIBUTION BOX
E	ELECTRIC MANHOLE
EM	ELECTRIC METER
E	ELECTRIC TRANSFORMER
	POLE MOUNTED LUMINAIRE
G	GAS MANHOLE
G.M.	GAS METER
G.V.	GAS VALVE
G.P.	GAS PUMP - SERVICE STATION
	RAILROAD TRACKS
S	SANITARY SEWER MANHOLE
S.V.	SANITARY SEWER VALVE
VENT	SANITARY SEWER VENT OR CLEANOUT
S.D.F.	SEPTIC DRAIN FIELD
B	TELEPHONE BOOTH
T	TELEPHONE MANHOLE
T	TELEPHONE TEST POINT
J.W.	TRAFFIC - CONDUIT JUNCTION WELL
	TRAFFIC - LIGHT POLE AND BASE
	TRAFFIC - PEDESTRIAN POLE & BASE
	TRAFFIC - SIGNAL CABINET & BASE
	TRAFFIC - SIGNAL POLE AND BASE
U	UTILITY BOX
	UTILITY POLE GUY WIRE ANCHOR
	UTILITY POLE
F.H.	WATER - FIRE HYDRANT
W.M.	WATER METER
W.V.	WATER VALVE
WELL	WELL HEAD
?	MANHOLE - UNDETERMINED OWNER

UTILITY COMPANY FACILITIES

DEC-E-OH	DELAWARE ELECTRIC COOPERATIVE
VER-C	VERIZON

PROPOSED SYMBOLS

CONSTRUCTION

	CONCRETE SAFETY BARRIER - PERMANENT
BFS	BIOFILTRATION SWALE
	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
	BRICK PATTERNED SURFACE
	BUTT JOINT
100+00	CONSTRUCTION BASELINE
CSF	CONSTRUCTION SAFETY FENCE
	CURB, TYPE 1 & TYPE 3
	CURB, TYPE 2
	CURB & GUTTER, TYPE 1
	CURB & GUTTER, TYPE 2
	CURB & GUTTER, TYPE 3
	CURB & GUTTER, TYPE 4
CZ	CLEAR ZONE
	DRAINAGE INLET
	DITCH
	FENCE - METAL
	FENCE - WOOD
	FLARED END SECTION
	GUARDRAIL, TYPE 1
	GUARDRAIL, TYPE 2
	GUARDRAIL, TYPE 3
	GUARDRAIL END ANCHORAGE
	GUARDRAIL END TREATMENT, TYPE 1
	GUARDRAIL END TREATMENT, TYPE 2
	GUARDRAIL END TREATMENT, TYPE 3
HC	HORIZONTAL CLEARANCE
	IMPACT ATTENUATOR
	JUNCTION BOX - DRAINAGE
LOC	LIMIT OF CONSTRUCTION
MB	MAILBOX
	MANHOLE
	PAVEMENT PATCH
	PAVEMENT REMOVAL - TOPSOIL, SEED AND MULCH
	PIPE & DIRECTIONAL FLOW ARROW
	RIPRAP
	P.C.C. SIDEWALK - 4"
	P.C.C. SIDEWALK - 6" (USE 8" DEPTH FOR CHANNELIZATION ISLANDS.)
	UNDERDRAIN
	UNDERDRAIN OUTLET
TOS	TOE OF SLOPE
TOB	TOP OF BANK

IDENTIFIERS

A C	ADJUST BY CONTRACTOR
A O	ADJUST BY OTHERS
B	CONCRETE SAFETY BARRIER
C	CURB OR CURB & GUTTER
C.J.B.	CONVERT TO JUNCTION BOX
C.M.H.	CONVERT TO DRAINAGE MANHOLE
C O	CURB OPENING
C.R.	CURB RAMP / TYPE
C.R.-N.	CURB RAMP / TYPE - WITHOUT SIDEWALK SURFACE DETECTABLE WARNING SYSTEM
C.S.F.	CONSTRUCTION SAFETY FENCE
D.I.	DRAINAGE INLET
D.N.D.	DO NOT DISTURB
E.D.	ENERGY DISSIPATOR
F.	FENCE
F.E.S.	FLARED END SECTION
F.F. C	FILL WITH FLOWABLE FILL
F.S.	FILTRATION STRUCTURE
G.R.	GUARDRAIL
J.B.	JUNCTION BOX
M.H.	MANHOLE
M.	MONUMENT - RIGHT-OF-WAY
P.	PIPE
R.L. C	RELOCATE BY CONTRACTOR
R.L. O	RELOCATE BY OTHERS
R.M. C	REMOVE BY CONTRACTOR
R.M. O	REMOVE BY OTHERS
U.D.	UNDERDRAIN / LENGTH
U.O.O.	UNDERDRAIN OUTLET PIPE

LANDSCAPING

L.S.	LANDSCAPE PLANTINGS
	SHRUBBERY
	CONIFEROUS TREE
	DECIDUOUS TREE

TRAFFIC

ITMS-CON	ITMS CONDUIT
SIG-CON	SIGNAL CONDUIT
	CONDUIT JUNCTION WELL
	LUMINAIRE
	PAVEMENT MARKINGS
	PAVEMENT STRIPING
	TRAFFIC SIGN

PAVEMENT SECTION(S)

	PAVEMENT - MILLING, HOT-MIX 2" DEPTH, 2" TYPE C, PG 64-22, 115 GYRATIONS (CARBONATE STONE)
	1.25" TYPE C, PG 64-22, 115 GYRATIONS (CARBONATE STONE) 2.25" TYPE B, PG 64-22, 115 GYRATIONS 6" GABC
	N/A

EROSION & SEDIMENT CONTROL

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

UTILITY COMPANY FACILITIES

DEC-E	DELAWARE ELECTRIC COOPERATIVE
VER-C	VERIZON

RIGHT-OF-WAY SYMBOLS

	PROPOSED RIGHT-OF-WAY MONUMENT
DA	PROPOSED DENIAL OF ACCESS
PE	PROPOSED PERMANENT EASEMENT
R/W	PROPOSED RIGHT-OF-WAY
R/W-DA	PROPOSED R/W & DENIAL OF ACCESS
TCE	TEMPORARY CONSTRUCTION EASEMENT
100+00	PROPOSED RIGHT-OF-WAY BASELINE

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

NOT TO SCALE

BR 2-265B ON SPIDER WEB ROAD OVER WHITE MARSH BRANCH

CONTRACT T201307202	BRIDGE NO. 2-265B	SHEET NO. 2
COUNTY KENT	DESIGNED BY: CBB	TOTAL SHTS. 16
	CHECKED BY: KRL	

LEGEND

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GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED AUGUST 2001 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED 2001, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.

2.

EROSION POTENTIAL FOR THIS PROJECT	SITE REVIEWER REQUIREMENT
( ) INSIGNIFICANT	NONE
( ) MINOR	CONTRACTOR CERTIFICATION COURSE TRAINING ONLY, AS DEFINED IN SECTION 13 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
(X) MEDIUM	THE SUPERINTENDENT OR A SEPARATE INDIVIDUAL FROM THE CONTRACTOR'S STAFF SHALL BE A CERTIFIED CONSTRUCTION REVIEWER (CCR), AS DEFINED IN SECTION 12 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
( ) MAJOR	SUPERINTENDENT AND AN INDIVIDUAL FROM CONTRACTOR'S STAFF SHALL BE CCR. ONE INDIVIDUAL FROM THE CONTRACTOR'S STAFF MUST BE A CCR PRIOR TO THE EXECUTION OF THE CONTRACT. THE SUPERINTENDENT MUST BECOME A CCR WITHIN ONE YEAR AFTER THE AWARD OF CONTRACT.

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

( )	NONE
( )	ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
(X)	RASTER FILES, IN PDF FILE FORMAT, FOR ALL PLAN SHEETS.
( )	EXISTING DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
( )	PROPOSED DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
( )	DESIGN FILE, IN .DGN FILE FORMAT, CONTAINING ONLY THE PROPOSED 3D TRIANGLES OF THE PROPOSED DIGITAL TERRAIN MODEL (DTM).

NOTE: THE DOCUMENT ENTITLED "RELEASE FOR DELIVERY OF DOCUMENTS IN ELECTRONIC FORM TO A CONTRACTOR" MUST BE SIGNED BY ALL PARTIES PRIOR TO THE DELIVERY OF ANY ELECTRONIC PROJECT FILES.

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

(X)	CROSS SECTIONS (WILL BE MADE AVAILABLE TO THE AWARDED CONTRACTOR)
(X)	RIGHT-OF-WAY PLANS (INCLUDED IN PLAN SET)

5. 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. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT OR ANOTHER ATSSA CERTIFIED MEMBER OF THE CONTRACTOR'S PROJECT STAFF MAY BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR IS INCIDENTAL TO ITEM 743000.
( )	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE ATSSA SUPERVISOR'S SOLE JOB SHALL BE SUPERVISION OF THE INSTALLATION, OPERATION AND MAINTENANCE OF TRAFFIC CONTROL DEVICES FOR THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT SHALL NOT BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR SHALL BE PAID FOR UNDER ITEM 743031.

6. THE DISTURBED AREA FOR THIS PROJECT IS 0.87 ACRES.

7. THE ADDITIONAL IMPERVIOUS AREA FOR THIS PROJECT IS 0.00 SQ. FT.

9. THE SEDIMENT AND STORMWATER MANAGEMENT PLANS HAVE BEEN APPROVED BY DELDOT'S STORMWATER ENGINEER UNDER DELDOT'S DELEGATED AUTHORITY. THE SEDIMENT AND STORMWATER MANAGEMENT PLANS ARE VALID FOR A THREE YEAR PERIOD, BEGINNING ON THE DATE THE STORMWATER ENGINEER SIGNED THE CONSTRUCTION TITLE SHEET. IF THE FINAL ACCEPTANCE OF THE PROJECT IS ANTICIPATED TO EXTEND BEYOND THE THREE YEARS, THE CONTRACTOR WILL INFORM THE ENGINEER THREE MONTHS PRIOR TO THE EXPIRATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLANS. THE STORMWATER ENGINEER WILL REVIEW THE CURRENT SEDIMENT AND STORMWATER MANAGEMENT PLAN AND ISSUE AN EXTENSION WITH ANY APPROPRIATE MODIFICATIONS.

PROJECT NOTES

SECTION 100

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

SECTION 200

2. ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
   - EXISTING CORRUGATED METAL PIPES AND SACK HEADWALLS
   - EXISTING GUARDRAIL
   - EXISTING RCP DRAINAGE PIPES

SECTION 300

3. A. THE CONTRACTOR MAY ELECT TO USE ANY OF THE FOLLOWING MATERIALS TO MEET THE REQUIREMENTS OF ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B':
   a. CRUSHED STONE (PER STANDARD SPECIFICATION 821)
   b. CRUSHED CONCRETE (PER STANDARD SPECIFICATION 821)
   c. HOT-MIX MILLINGS (PER SPECIAL PROVISION 302514 MILLED HOT-MIX BASE COURSE)

   THE CONTRACTOR WILL NOT BE ALLOWED TO MIX DIFFERENT MATERIALS (OR SIMILAR MATERIALS FROM DIFFERENT SOURCES) TO MEET THE REQUIREMENTS OF ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

   ALL OF THE ABOVE LISTED MATERIALS ARE PERMITTED FOR USE ON THE JOB, PROVIDED THEY ARE SEPARATED INTO APPROVED AREAS. EACH AREA OF BASE COURSE MUST BE CONSTRUCTED USING MATERIALS FROM A SINGULAR SOURCE, FULL DEPTH, IN ORDER THAT PROPER TESTING MAY BE ACCOMPLISHED. THE CONTRACTOR AND ENGINEER SHALL AGREE ON THE LIMITS OF EACH SOURCE OF MATERIAL PRIOR TO PLACEMENT.

   B. THE QUANTITY USED FOR BASE OF EACH OF THE ABOVE LISTED MATERIALS WILL BE THE CONTRACTOR'S CHOICE, WITH THE TOTAL BEING EQUAL TO THE ACTUAL QUANTITY USED UNDER ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

   C. THE CONTRACTOR MAY ALSO ELECT TO RECYCLE MILLINGS FOR USE IN HOT-MIX AS PERMITTED BY THE STANDARD SPECIFICATIONS. THE CHOICE OF THE QUANTITY OF MILLINGS USED FOR THIS PURPOSE, OR FOR BASE COURSE, LIES WITH THE CONTRACTOR. ALL EXCESS MILLING MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR.

   D. HOT-MIX MILLINGS MAY BE GENERATED FROM THE FOLLOWING SOURCES:
   a. MATERIAL MADE AVAILABLE WHEN MILLED ON THIS CONTRACT UNDER ITEM 760006.
   b. MATERIAL MILLED ON THIS CONTRACT AT THE CONTRACTOR'S CHOICE UNDER ITEM 202000.
   c. MILLED MATERIAL FURNISHED ON THE JOB FROM THE CONTRACTOR'S YARD OR OTHER OUTSIDE SOURCE.
   ALL MILLED MATERIALS SHALL MEET THE MATERIAL REQUIREMENTS OF ITEM 302514 - MILLED HOT-MIX BASE COURSE.

   E. PAYMENT CLARIFICATION:
   a. SHOULD THE CONTRACTOR ELECT TO MILL PORTIONS OF HOT-MIX SHOWN ON THE PLANS TO BE REMOVED UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT THE COST OF MILLING THIS HOT-MIX WILL BE PAID AS ITEM 202000 - EXCAVATION AND EMBANKMENT. THE MILLINGS GENERATED MAY BE RECYCLED INTO HOT-MIX, UTILIZED FOR BASE COURSE, OR DISPOSED OF TO AN APPROVED SITE. HAULING COSTS FOR DISPOSAL AND/OR RECYCLING ARE INCIDENTAL TO ITEM 202000 - EXCAVATION AND EMBANKMENT.

   b. SHOULD THE CONTRACTOR ELECT TO TEMPORARILY STOCKPILE MILLINGS ON THE JOB SITE FOR LATER USE, ALL COSTS FOR STOCKPILING AND SUBSEQUENT REHANDLING SHALL BE INCIDENTAL TO ITEM 202000 - EXCAVATION AND EMBANKMENT.

   c. MILLINGS USED FOR BASE COURSE SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIAL PROVISION 302514 - MILLED HOT-MIX BASE COURSE. NO SEPARATE PAYMENT WILL BE MADE TO FURNISH MILLINGS FROM AN OUTSIDE SOURCE OR TRANSPORT MILLINGS WITHIN THE PROJECT LIMITS. MILLINGS USED FOR BASE COURSE WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

   d. ALL COSTS TO UTILIZE MILLINGS IN RECYCLED HOT-MIX WILL BE INCIDENTAL TO THE UNIT PRICE BID FOR THE HOT-MIX ITEM USING THE RECYCLED MATERIAL.

   e. SPECIAL PROVISION 302514 - MILLED HOT-MIX BASE COURSE IS PROVIDED TO SPECIFY THE MEANS OF LAY DOWN AND COMPACTION AS WELL AS THE MATERIAL REQUIREMENTS FOR MILLINGS USED AS BASE COURSE. ALL COSTS TO BRING THE MILLINGS INTO COMPLIANCE WITH THE REQUIREMENTS OF ITEM - 302514 MILLED HOT-MIX BASE COURSE ARE INCIDENTAL TO ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'. NO PAYMENT WILL BE MADE FOR ITEM 302514 - MILLED HOT-MIX BASE COURSE. THE QUANTITY OF MILLINGS USED FOR BASE COURSE WILL BE PAID FOR UNDER ITEM 302007 - GRADED AGGREGATE BASE COURSE.

SECTION 700

4. 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.

5. STRIPING
   PROPOSED STRIPING SHALL MATCH EXISTING STRIPING. PAYMENT FOR PERMANENT PAVEMENT STRIPING UNDER ITEM 74548-PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5".

6. SIGNING
   TO AVOID DAMAGE, SIGNS MAY BE REMOVED DURING CONSTRUCTION IF NEEDED, BUT MUST BE REPLACED TO MATCH EXISTING CONDITIONS BEFORE REOPENING THE ROADWAY. ALL WORK RELATED TO MOVING AND REINSTALLING THE SIGN SHALL BE INCIDENTAL TO ITEM *211000-REMOVAL OF STRUCTURES AND OBSTRUCTIONS. IF THE SIGN IS DAMAGED, THE SIGN MUST BE REPLACED AT THE CONTRACTORS EXPENSE.

7. MAINTENANCE OF TRAFFIC SHALL BE AS PER DETOUR. THE DETOUR SHALL REMAIN IN EFFECT UNTIL THE FINAL HOT MIX IS PLACED. ALL MOT ITEMS WITH THE EXCEPTION OF CHANGEABLE MESSAGE BOARDS AND FLAGGERS WILL BE INCLUDED IN ITEM *763643 - MAINTENANCE OF TRAFFIC, ALL INCLUSIVE.

SECTION 900

8. 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 THE 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 TEAM SUPPORT 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

9. HYDRAULIC DATA:
   -DRAINAGE AREA = 1.56 SQ. MILES
   -DESIGN FREQUENCY = 25-YEARS
   -DESIGN DISCHARGE = 259.0 CFS
   -DESIGN FLOOD ELEVATION = 51.58 FT
   -PROPOSED OPENING = (3) 58" X 91" ELLIPTICAL PIPES (88.5 SF)

10. SCOUR ANALYSIS:
    THE PROPOSED STRUCTURE HAS BEEN ANALYZED FOR THE EFFECTS OF SCOUR IN ACCORDANCE WITH HEC-14- 'HYDRAULIC DESIGN OF ENERGY DISSIPATORS FOR CULVERTS AND CHANNELS', HEC-18 - 'EVALUATING SCOUR AT BRIDGES'. SCOUR COUNTERMEASURES HAVE BEEN DESIGNED FOR THE LESSER OF THE OVERTOPPING FLOOD OR THE SCOUR DESIGN FLOOD.

    -DESIGN EVENT = 100-YEAR STORM
    -DESIGN DISCHARGE = 385.0 CFS
    -DESIGN VELOCITY = 4.66 FT/S
    -TAILWATER DEPTH = 5.06 FT

11. ENVIRONMENTAL COMPLIANCE:
    REFER TO THE ENVIRONMENTAL COMPLIANCE PLAN FOR ANY RESTRICTIONS AND ADDITIONAL GUIDANCE THAT MAY BE ASSOCIATED WITH THIS PROJECT.

12. UTILITIES:
    PERMITTING FOR UTILITIES: AS OUTLINED IN CHAPTER 3 OF THE DELDOT UTILITIES MANUAL, THE INDIVIDUAL UTILITY COMPANIES ARE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FROM MUNICIPAL, STATE AND FEDERAL GOVERNMENT AGENCIES AND RAILROADS. THIS INCLUDES BUT IS NOT LIMITED TO WATER QUALITY PERMIT/DNREC WATER QUALITY CERTIFICATION, DNREC SUBAQUEOUS LANDS/WETLANDS PERMITS, DNREC COASTAL ZONE CONSISTENCY CERTIFICATION, COUNTY FLOODPLAIN PERMITS (NEW CASTLE COUNTY ONLY), U.S. COAST GUARD PERMITS, U.S. ARMY CORPS 404 PERMITS, SEDIMENT AND EROSION PERMITS, AND RAILROAD CROSSING PERMITS. THE ENVIRONMENTAL PERMITS CITED ON THE EC SHEETS(S) DO NOT AUTHORIZE ANY PART OF THE UTILITY WORK ASSOCIATED WITH THIS PROJECT.

13. UTILITIES:
    SEE UTILITY STATEMENT FOR FULL DETAILS.

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	BR 2-265B ON SPIDER WEB ROAD OVER WHITE MARSH BRANCH	CONTRACT T201307202	BRIDGE NO. 2-265B	NOTES	SHEET NO. 3
				COUNTY KENT	DESIGNED BY: CBB		TOTAL SHTS. 16
					CHECKED BY: KRL		

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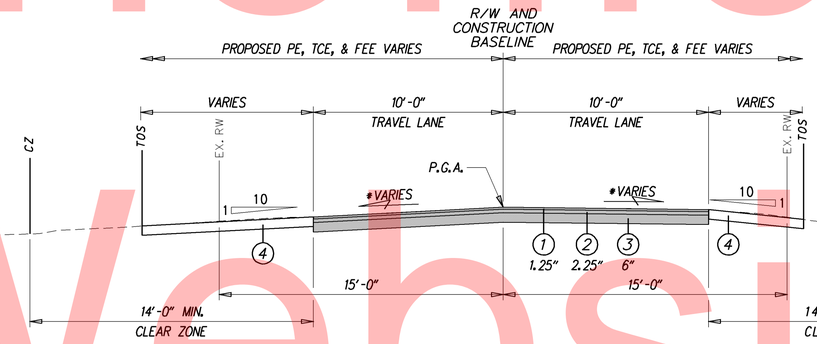
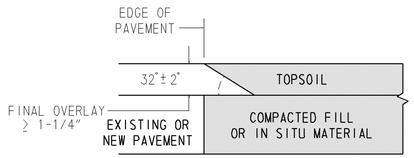
MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C'	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'B'	2.25"	4"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	-	8"



TYPICAL SECTION

*MATCH EXISTING CROSS SLOPES



HOT-MIX PAVEMENTS AND OVERLAYS
NOT TO SCALE

SAFETY EDGE DETAIL
NOT TO SCALE

LEGEND

1. ITEM 401800 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)
2. ITEM 401809 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 115 GYRATIONS, PG 64-22
3. ITEM 302007 - GRADE AGGREGATE BASE COURSE
4. ITEM 908004 - TOPSOIL, 6" DEPTH
   ITEM 908019 - STREAMBANK SEEDMIX, SEEDING

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 4 8 12 FEET

BR 2-265B ON SPIDER WEB ROAD OVER WHITE MARSH BRANCH

CONTRACT	BRIDGE NO.	2-265B
T201307202	DESIGNED BY: CBB	
COUNTY	CHECKED BY: KRL	
KENT		

TYPICAL SECTION

SHEET NO.
4
TOTAL SHTS.
16

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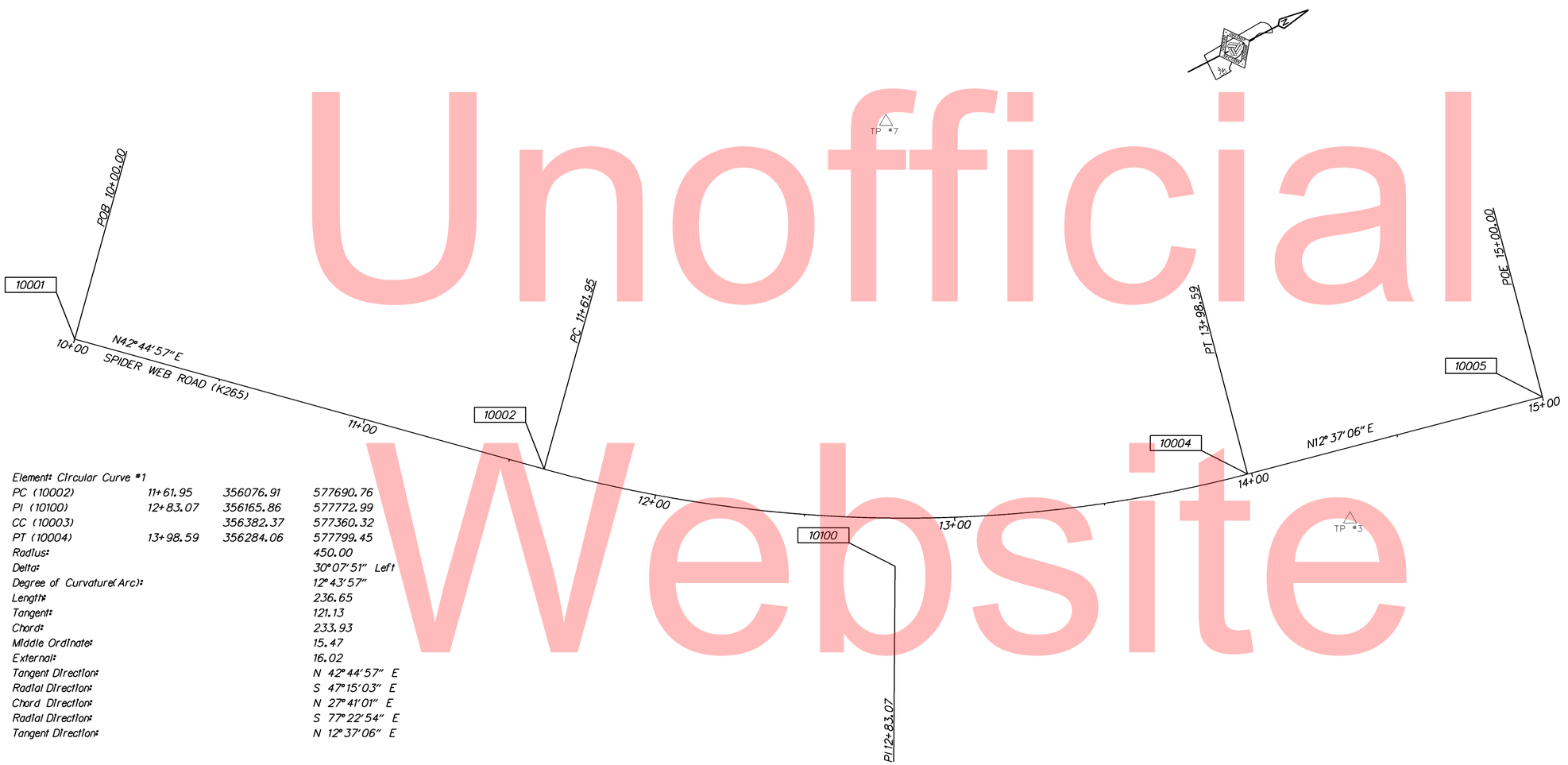

Element: Circular Curve #1			
PC (10002)	11+61.95	356076.91	577690.76
PI (10100)	12+83.07	356165.86	577772.99
CC (10003)		356382.37	577360.32
PT (10004)	13+98.59	356284.06	577799.45
Radius:			450.00
Delta:			30°07'51" Left
Degree of Curvature(Arc):			12°43'57"
Length:			236.65
Tangent:			121.13
Chord:			233.93
Middle Ordinate:			15.47
External:			16.02
Tangent Direction:			N 42°44'57" E
Radial Direction:			S 47°15'03" E
Chord Direction:			N 27°41'01" E
Radial Direction:			S 77°22'54" E
Tangent Direction:			N 12°37'06" E

CONSTRUCTION ALIGNMENT CONTROL

POINT	STATION	OFFSET	NORTHING	EASTING
10001	10+00.00	0.00	355957.99	577580.84
10005	15+00.00	0.00	356383.02	577821.60

HORIZONTAL / VERTICAL CONTROL DATA

POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP #3	14+27.83	23.14	356307.54	577828.42	53.31
TP #7	12+74.57	-131.76	356230.95	577640.23	53.01

DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).

VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE
0 20 40 60
FEET

BR 2-265B ON
SPIDER WEB ROAD OVER
WHITE MARSH BRANCH

CONTRACT	BRIDGE NO.	2-265B
T201307202	DESIGNED BY: CBB	
COUNTY	CHECKED BY: KRL	
KENT		

HORIZONTAL AND
VERTICAL CONTROL

SHEET NO.
5
TOTAL SHTS.
16

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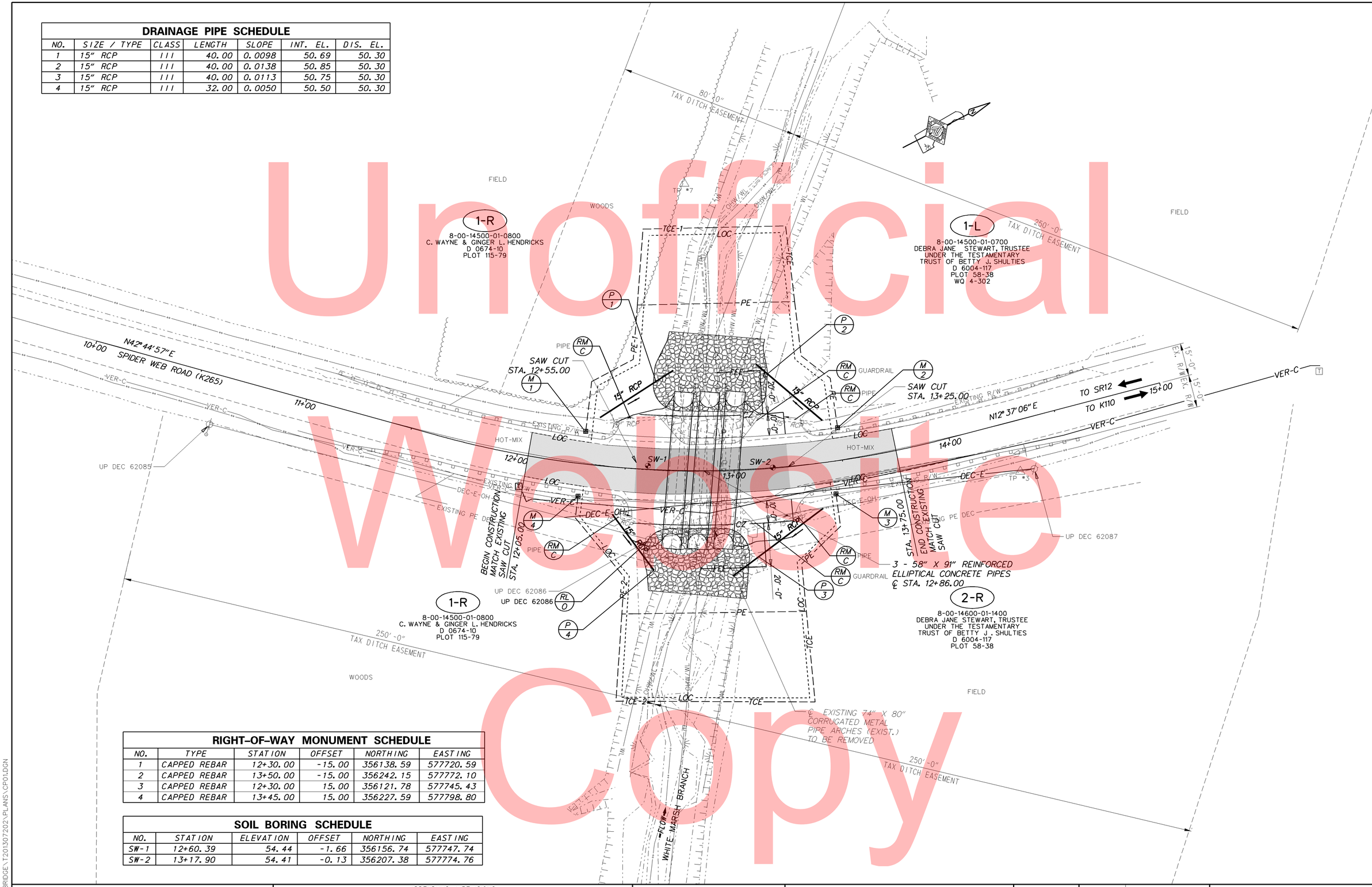
DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
1	15" RCP	III	40.00	0.0098	50.69	50.30
2	15" RCP	III	40.00	0.0138	50.85	50.30
3	15" RCP	III	40.00	0.0113	50.75	50.30
4	15" RCP	III	32.00	0.0050	50.50	50.30



RIGHT-OF-WAY MONUMENT SCHEDULE					
NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
1	CAPPED REBAR	12+30.00	-15.00	356138.59	577720.59
2	CAPPED REBAR	13+50.00	-15.00	356242.15	577772.10
3	CAPPED REBAR	12+30.00	15.00	356121.78	577745.43
4	CAPPED REBAR	13+45.00	15.00	356227.59	577798.80

SOIL BORING SCHEDULE					
NO.	STATION	ELEVATION	OFFSET	NORTHING	EASTING
SW-1	12+60.39	54.44	-1.66	356156.74	577747.74
SW-2	13+17.90	54.41	-0.13	356207.38	577774.76

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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE
0 20 40 60
FEET

BR 2-265B ON
SPIDER WEB ROAD OVER
WHITE MARSH BRANCH

CONTRACT	BRIDGE NO.	2-265B
T201307202	DESIGNED BY: CBB	
COUNTY	CHECKED BY: KRL	
KENT		

CONSTRUCTION PLAN

SHEET NO.
6
TOTAL SHTS.
16

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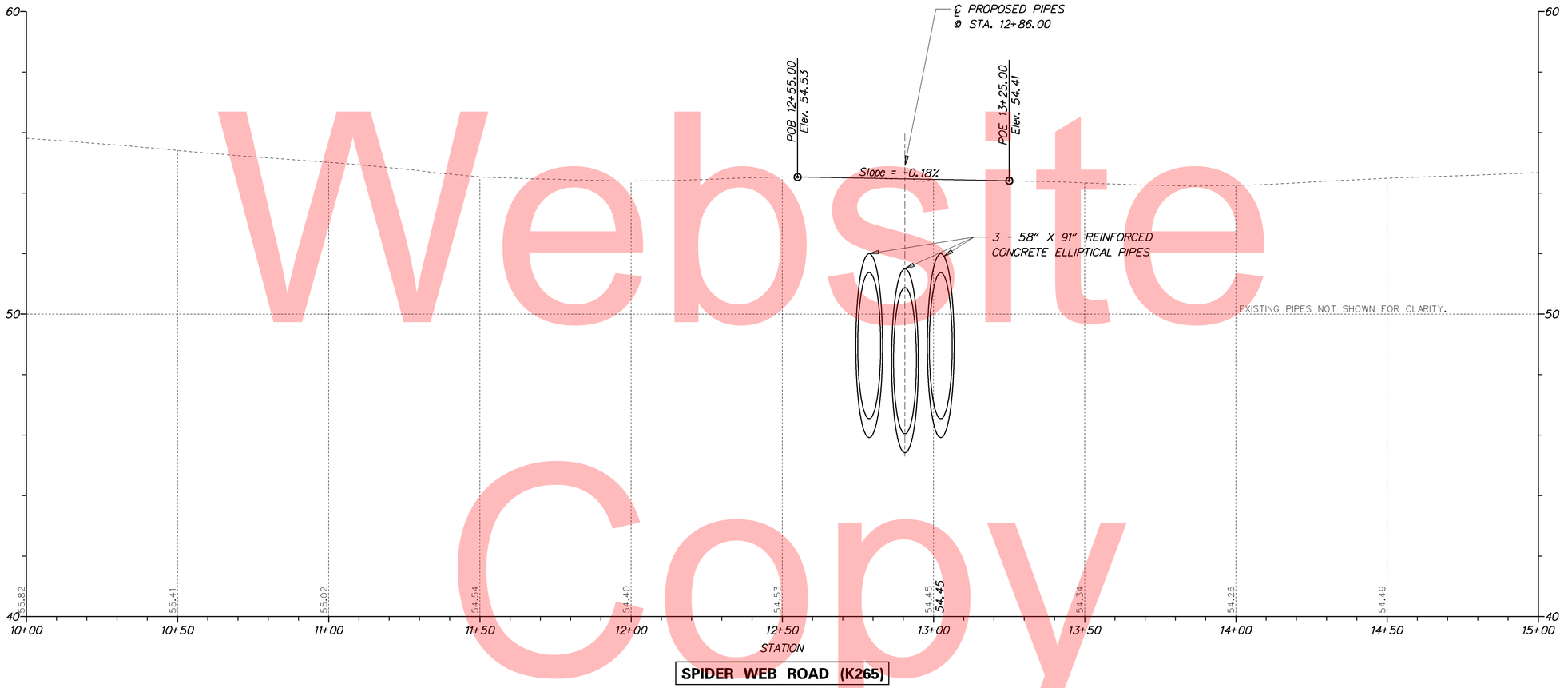

SPIDER WEB ROAD (K265)

VERTICAL SCALE FEET 0 2 4 6

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS	

SCALE
0 20 40 60
FEET

BR 2-265B ON
SPIDER WEB ROAD OVER
WHITE MARSH BRANCH

CONTRACT	BRIDGE NO.	2-265B
T201307202	DESIGNED BY: CBB	
COUNTY		
KENT	CHECKED BY: KRL	

PROFILE

SHEET NO.
7
TOTAL SHTS.
16

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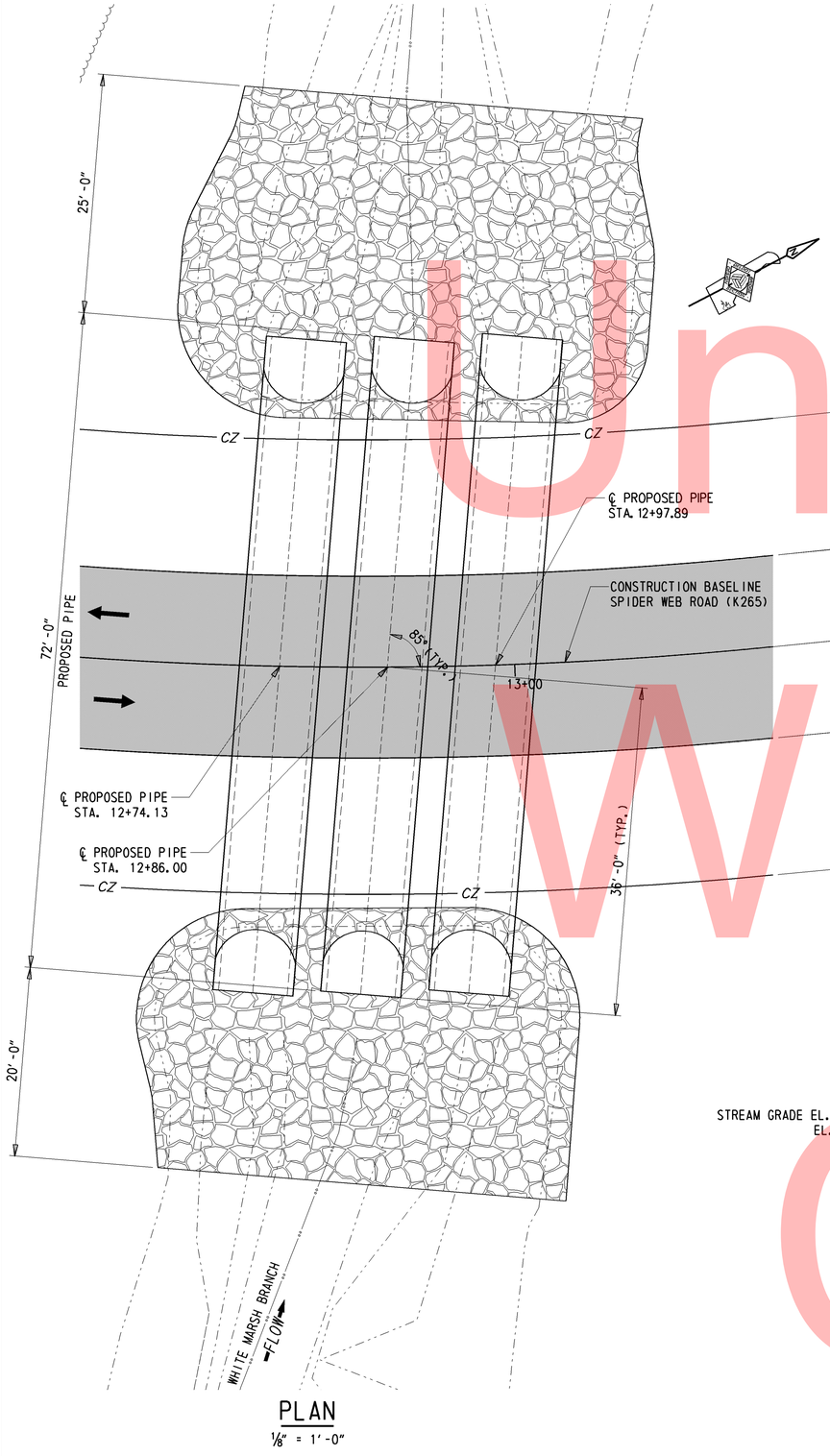
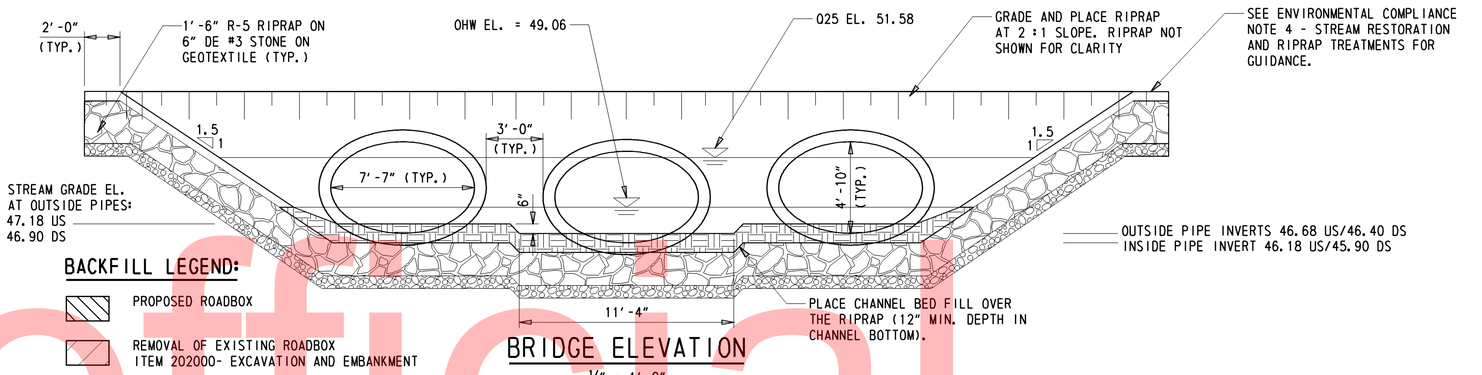


PLAN

1⁄8" = 1'-0"

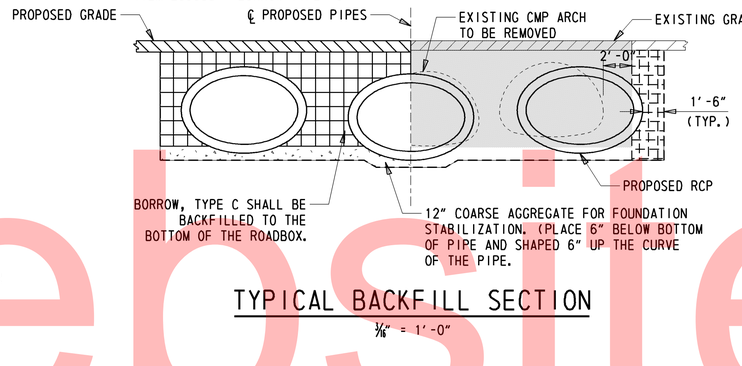


BRIDGE ELEVATION

1⁄4" = 1'-0"

BACKFILL LEGEND:

- PROPOSED ROADBOX
- REMOVAL OF EXISTING ROADBOX
  ITEM 202000- EXCAVATION AND EMBANKMENT
- REMOVAL OF EXISTING PIPE/FRAME
  ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS
- EXCAVATION FOR PROPOSED STRUCTURES
  ITEM 207000 - EXCAVATION AND BACKFILL FOR STRUCTURES
- BACKFILL AROUND PROPOSED STRUCTURES
  ITEM 210000 - FURNISHING BORROW TYPE "C" FOR PIPE, UTILITY TRENCH, AND STRUCTURE BACKFILL
  ITEM 209003 - BORROW TYPE 'C'

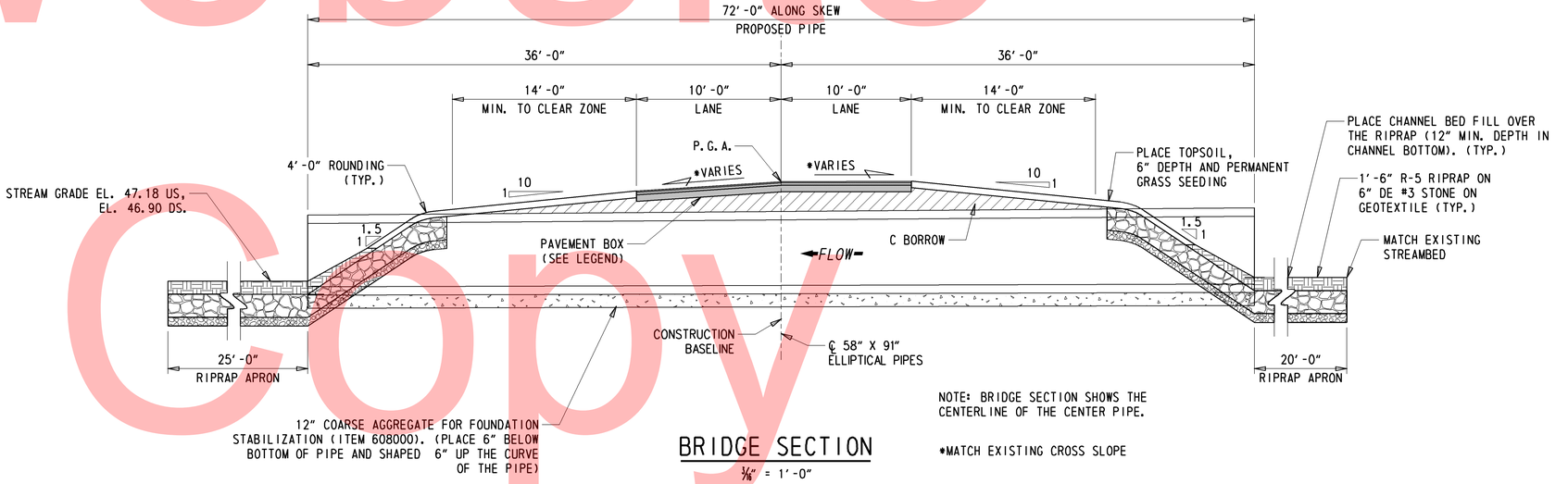


TYPICAL BACKFILL SECTION

1⁄4" = 1'-0"

NOTES:

1. PROPOSED BRIDGE
   THE EXISTING (3) 74" X 80" CORRUGATED METAL PIPE ARCHES SHALL BE REPLACED WITH (3) 58" X 91" REINFORCED CONCRETE ELLIPTICAL PIPES (72'-0" LONG). THE OUTSIDE PIPES SHALL BE PLACED 6" BELOW THE ESTABLISHED STREAM GRADE. PLACE PIPES WITH A 3'-0" GAP BETWEEN THE OUTER WALLS OF EACH RUN. PLACE 6" COARSE AGGREGATE BEDDING BENEATH PIPES AND 6" SHAPED UP THE CURVE OF EACH PIPE. BORROW, TYPE C SHALL BE BACKFILLED TO THE BOTTOM OF THE ROAD BOX.
2. RIPRAP PLACEMENT
   A. UPSTREAM - RIPRAP SHALL BE PLACED IN THE CHANNEL BOTTOM 20'-0" FROM THE PIPE INLET ALONG THE STREAM CENTERLINE AND SHALL BE PLACED TO CREATE A SMOOTH BEND THAT MATCHES THE EXISTING STREAM BANKS.
   B. DOWNSTREAM - RIPRAP SHALL BE PLACED IN THE CHANNEL BOTTOM 25'-0" FROM THE PIPE OUTLET ALONG THE STREAM CENTERLINE AND SHALL BE PLACED TO CREATE A SMOOTH BEND THAT MATCHES THE EXISTING STREAM BANKS.



BRIDGE SECTION

1⁄4" = 1'-0"

NOTE: BRIDGE SECTION SHOWS THE CENTERLINE OF THE CENTER PIPE.

*MATCH EXISTING CROSS SLOPE

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE AS NOTED	BR 2-265B ON SPIDER WEB ROAD OVER WHITE MARSH BRANCH	CONTRACT T201307202	BRIDGE NO. 2-265B	BRIDGE PLAN, SECTION, & ELEVATION
				COUNTY KENT	DESIGNED BY: CBB	SHEET NO. 8
					CHECKED BY: KRL	TOTAL SHTS. 16

BORING: SW-1 | **DATE DRILLED:** 6/19/13
STATION: 12+60.39 | **OFFSET:** -1.66 | **ELEVATION:** 54.44 | **NORTHING:** 356156.740 | **EASTING:** 577747.740
COMMENTS: N/A

NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	1.0	6	MOIST MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME SILT AND FINE GRAVEL.	A-1-B	HOT MIX 5". STONE 5"
	2.0	8			
2	2.0	2	WET FIRM GRAY CLAYEY FINE SANDY SILT W/TRACE OF COARSE SAND.	A-4(2)	APPROXIMATE WATER LEVEL DEPTH
		4			
		3			
	4.0	4			
3	4.0	3	WET VERY LOOSE BROWN SILTY FINE SAND W/TRACE OF COARSE SAND.	A-2-4(0)	
		2			
		2			
	6.0	3			
4	6.0	7	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		11			
		10			
	8.0	9			
5	8.0	5	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-1-B	COARSE AGGREGATE FOR FOUNDATION STABILIZATION
		5			
		6			
	10.0	5			
6	14.0	5	WET LOOSE BROWN FINE TO COARSE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-3	
		5			
		5			
	16.0	7			
7	19.0	4	WET LOOSE BROWN FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL AND SILT.	A-3	
		5			
		5			
	21.0	7			
8	24.0	20	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		7			
		7			
	26.0	10			
9	29.0	11	WET MEDIUM DENSE BROWN FINE GRAVELLY COARSE SAND W/SOME FINE SAND, TRACE OF SILT.	A-1-B	
		11			
		13			
	31.0	20			
10	34.0	30	WET DENSE BROWN COARSE SANDY FINE GRAVEL W/TRACE OF FINE SAND AND SILT.	A-1-A	
	36.0	50			
11	39.0	5	SATURATED STIFF GRAY FINE SANDY CLAY W/SOME COARSE SAND AND SILT.	A-7-5(8)	
		5			
		7			
	41.0	8			
U-1	42.0				
	44.0				
12	44.0	5	SATURATED VERY STIFF GRAY COARSE TO FINE SANDY CLAY W/SOME SILT.	A-7-5(7)	
		7			
		16			
	46.0	15			
13	48.0	5	SATURATED VERY STIFF DARK GRAY CLAYEY FINE SANDY SILT W/TRACE OF COARSE SAND.	A-4(4)	
		7			
		10			
	50.0	12			
			END BORING.		

BORING: SW-2 | **DATE DRILLED:** 6/19/13
STATION: 13+17.90 | **OFFSET:** -0.13 | **ELEVATION:** 54.41 | **NORTHING:** 356207.379 | **EASTING:** 577774.756
COMMENTS: N/A

NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	1.0	6	MOIST MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	HOT-MIX 2". STONE 4"
	2.0	6			
2	2.0	3	WET LOOSE BROWN COARSE TO FINE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		4			
		4			
	4.0	4			
3	4.0	4	WET VERY LOOSE BROWN COARSE SAND W/SOME FINE SAND AND FINE GRAVEL, TRACE OF SILT.	A-1-B	APPROXIMATE WATER LEVEL DEPTH
		2			
		2			
	6.0	3			
4	6.0	3	WET VERY LOOSE BROWN SILTY COARSE TO FINE SAND W/TRACE OF FINE GRAVEL.	A-2-4(0)	
		2			
		2			
	8.0	3			
5	8.0	5	WET LOOSE GRAY COARSE SAND W/SOME FINE SAND AND FINE GRAVEL, TRACE OF SILT.	A-1-B	COARSE AGGREGATE FOR FOUNDATION STABILIZATION
		4			
		3			
	10.0	3			
6	13.0	8	WET MEDIUM DENSE ORANGE FINE TO COARSE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-3	
		7			
		6			
	15.0	6			
7	18.0	7	WET MEDIUM DENSE ORANGE FINE TO COARSE SAND W/TRACE OF SILT.	A-3	
		6			
		7			
	20.0	8			
8	23.0	9	WET MEDIUM DENSE ORANGE FINE TO COARSE SAND W/TRACE OF SILT AND FINE GRAVEL.	A-3	
		7			
		9			
	25.0	9			
9	28.0	10	WET MEDIUM DENSE ORANGE FINE GRAVELLY COARSE SAND W/TRACE OF FINE SAND AND SILT.	A-1-B	
		12			
		15			
	30.0	16			
10	33.0	16	WET DENSE ORANGE SILTY FINE GRAVELLY FINE SAND W/SOME COARSE SAND AND CLAY.	A-2-4(0)	
		18			
		21			
	35.0	19			
11	38.0	5	SATURATED STIFF GRAY COARSE TO FINE SANDY CLAY W/SOME SILT.	A-7-6(6)	
		5			
		6			
	40.0	8			
U-1	42.0				
	44.0				
12	44.0	9	SATURATED VERY STIFF GRAY CLAYEY FINE SANDY SILT W/TRACE OF COARSE SAND.	A-4(7)	
		10			
		16			
	46.0	20			
13	48.0	10	SATURATED VERY STIFF GRAY CLAYEY FINE SANDY SILT W/TRACE OF COARSE SAND.	A-4(7)	
		11			
		9			
	50.0	10			
			END BORING		

NOTES:
1. *BORING LOGS CREATED BY THE DELAWARE DEPARTMENT OF TRANSPORTATION. SUBSURFACE EXPLORATION COMPLETED BY WALTON CORPORATION.*
2. *REFER TO CONSTRUCTION PLAN SHEET FOR APPROXIMATE BORING LOCATIONS. BORING LOGS ARE LABELED AS SW-1 AND SW-2.*
3. *SOIL SAMPLING: 2 IN. OUTSIDE DIA. SPLIT BARREL SAMPLER, DRIVEN WITH A 140 LB. HAMMER FALLING 30 IN.*
4. *ALL DEPTHS GIVEN ARE IN FEET.*

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	BR 2-265B ON SPIDER WEB ROAD OVER WHITE MARSH BRANCH	CONTRACT T201307202	BRIDGE NO. 2-265B	SOIL BORING LOGS	SHEET NO. 9
				COUNTY KENT	DESIGNED BY: CBB		TOTAL SHTS. 16
					CHECKED BY: KRL		

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ENVIRONMENTAL COMPLIANCE NOTES

1. GENERAL NOTES:

A. THE PURPOSE OF THESE SHEETS ARE 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, THE ENVIRONMENTAL STUDIES SECTION SHALL BE CONTACTED AT (302)760-2264 TO ALLOW FOR COORDINATION WITH THE APPROPRIATE RESOURCE AGENCIES AND APPROVAL.

C. USE OF THESE SHEETS 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 #3(a) AND (c) (NO PCN)
DNREC - WETLANDS & SUBAQUEOUS LANDS (WLSL): PROJECT CONSISTENT WITH DEL. CODE CH. 72, SECTION 7217, SPECIAL EXEMPTION (b)
DNREC - WATER QUALITY CERTIFICATION (WQC) & COASTAL ZONE CONSISTENCY (CZM): ISSUED (PROJECT IS NOT LOCATED IN CRW)

* THE PERMITS/APPROVALS LISTED ARE THOSE REQUIRED FOR THIS PROJECT. THE ENVIRONMENTAL STUDIES SECTION IS RESPONSIBLE FOR COORDINATING AND/OR OBTAINING THIS APPROVAL.
NOTE: THE ABSENCE OF ASTERISKS AFTER A PERMIT (COE, WLSL, WQC, CZM) INDICATES THAT COORDINATION HAS BEEN DONE WITH THAT AGENCY BUT NO WRITTEN AUTHORIZATION WAS REQUIRED. AS SUCH, NO PAPERWORK FROM THAT AGENCY SHOULD BE ANTICIPATED.

B. CONSTRUCTION RESTRICTIONS:
FISHERIES - NONE
ENDANGERED SPECIES - NONE
MIGRATORY BIRDS - NONE

3. CULTURAL RESOURCE ISSUES:

A. PROJECT WAS CONSISTENT WITH THE DELDOT CULTURAL RESOURCES PROGRAMMATIC AGREEMENT (STIP. II B.4.a). NO CULTURAL RESOURCE IMPACTS BASED ON CURRENT PLANS.

4. STREAM RESTORATION AND RIPRAP TREATMENTS

A. THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS OF ITEM #7125.31 CHANNEL BED FILL IN REGARDS TO THE SALVAGING OF ON-SITE NATURAL STREAM BOTTOM MATERIAL OR THE FURNISHING OF OFF-SITE MATERIAL. IF SUFFICIENT SOURCES FOR CHANNEL BED FILL DO NOT EXIST ON-SITE, ANY NEW MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF ITEM #7125.31 CHANNEL BED FILL. ALL RIPRAP IN THE CHANNEL BOTTOM (I.E. BELOW THE WATER LINE) SHALL BE RECESSED ONE FOOT BELOW STREAM BED ELEVATION AND CHOKED WITH BORROW TYPE 'B' SO THAT ALL OF THE VOIDS IN THE RIPRAP ARE FILLED WITH MATERIAL. PAYMENT UNDER ITEM #209002 BORROW TYPE 'B'. THE RIPRAP SHALL THEN BE COVERED WITH A MINIMUM OF 12" CHANNEL BED FILL. FINAL CHANNEL ELEVATIONS SHALL MATCH EXISTING ELEVATIONS AT THE UPSTREAM AND DOWNSTREAM PROJECT LIMITS. THROUGH THE STRUCTURE, ELEVATIONS SHALL BE AS NOTED ON THE PLANS. PAYMENT UNDER ITEM #7125.31 - CHANNEL BED FILL.

B. OTHER AREAS OF THE CHANNEL BOTTOM AFFECTED BY CONSTRUCTION (INCLUDING, BUT NOT LIMITED TO, THE LOCATION OF SUMP PITS, STABILIZED OUTFALLS, TEMPORARY PIPES AND/OR SANDBAG DIKES AND DIVERSIONS) SHALL BE RESTORED TO EXISTING CONDITIONS. ANY CAVITIES OR SCOUR HOLES RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE FILLED WITH CHANNEL BED FILL. PAYMENT UNDER ITEM #712531 CHANNEL BED FILL.

C. WHEN ALL EROSION AND SEDIMENT CONTROL MEASURES ARE REMOVED AND THE STREAM RETURNS TO ITS NATURAL FLOW CONDITIONS, THE FLOW MUST REMAIN ABOVE GROUND AND ABOVE THE RIPRAP (I.E. THE FLOW CANNOT BE "LOST" IN THE RIPRAP OR BENEATH THE STRUCTURE). IF THIS IS NOT ACHIEVED, THE CONTRACTOR WILL BE REQUIRED TO TAKE CORRECTIVE ACTION AT THE CONTRACTOR'S EXPENSE.

D. ALL RIPRAP ON THE STREAM BANK, OUTSIDE THE CHANNEL BED, SHALL BE CHOKED WITH DELAWARE #57 STONE, FILLED WITH TOPSOIL, AND SEEDED. PLACE JUST ENOUGH CHOKE MATERIAL TO PREVENT THE LOSS OF TOPSOIL THROUGH THE RIPRAP, AND THEN FINISH FILLING THE VOIDS WITH TOPSOIL SO THAT THE RIPRAP PEAKS ARE BARELY VISIBLE. AN ADDITIONAL 4-INCH TOPSOIL LAYER SHALL BE PLACED ON TOP OF THE RIPRAP. SLOPE SEEDING SHALL BE WITH ITEM #908019 STREAMBANK SEED MIX, SEEDING. FOLLOWING THE SEEDING OPERATION, ITEM #908020 EROSION CONTROL BLANKET MULCH, OR OTHER BLANKET AS SHOWN ON THE PLANS SHALL BE INSTALLED. ALL WORK, STARTING WITH THE INITIAL CHOKING WITH TOPSOIL THROUGH THE SEEDING SHALL BE COMPLETED PRIOR TO ANY RAIN EVENT. PAYMENT FOR DELAWARE #57 STONE SHALL BE INCIDENTAL TO THE RIPRAP ITEM. ALL OTHER ITEMS SHALL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS.

E. THE TOPSOIL/SEED/MULCH CAN BE PLACED BEFORE OR AFTER THE REMOVAL OF THE STREAM DIVERSION. IF IT OCCURS AFTER STREAM DIVERSION REMOVAL, A TURBIDITY CURTAIN SHALL BE USED TO MINIMIZE IN-STREAM SEDIMENTATION. PAYMENT SHALL BE INCIDENTAL TO ITEM #909005 STREAM DIVERSION.

5. PROTECTION OF RESOURCES:

A. CLEARING IN WETLAND AREAS SHALL BE KEPT TO A MINIMUM ABSOLUTELY NECESSARY FOR CONSTRUCTION ACCESS. IN WETLAND AREAS THAT ARE CLEARED, THERE SHALL BE NO GRUBBING EXCEPT WHERE NECESSARY TO CONSTRUCT PROJECT COMPONENTS SUCH AS FOUNDATIONS AND RIPRAP PROTECTION. VEGETATION SHALL BE CUT FLUSH WITH THE GROUND (I.E. NO DISTURBANCE OF THE ROOT MAT. TEMPORARILY DISTURBED WETLAND AREAS SHALL BE RESTORED TO GRADE AND SEEDED WITH TEMPORARY GRASS SEEDING (PAYMENT UNDER ITEM #908017).

B. SILT FENCE INSTALLATION ADJACENT TO WOODED UPLANDS/WETLANDS: SANDBAGS SHALL BE USED TO SECURE SILT FENCE IN LIEU OF TRENCHING UNLESS PROPER SEDIMENT CONTROL CANNOT BE MAINTAINED. SANDBAGS USED TO SECURE SILT FENCE SHALL BE INCIDENTAL TO ITEM #905001 - SILT FENCE. THE ENVIRONMENTAL STUDIES SECTION (CAROL SULLIVAN, 302-760-2129) CAN PROVIDE FURTHER GUIDANCE REGARDING THIS METHOD OF INSTALLATION.

6. PLANTING GUIDANCE

(INFORMATIONAL ONLY. WORK TO BE DONE BY OTHERS. THERE SHALL BE NO PAYMENT FOR PLANTING ON THIS CONTRACT.) UPON FINAL ACCEPTANCE OF THE CONTRACT, APPROPRIATE TREES AND/OR SHRUBS SHALL BE PLANTED IN A NATURALIZED PATTERN (MINIMUM 8', MAXIMUM 12' CENTERS) IN TEMPORARILY DISTURBED WOODED WETLAND AREAS WITHIN THE LOC. FINAL PLANT COUNTS WILL BE BASED ON FIELD CONDITIONS AND DETERMINED BY THE ROADSIDE ENVIRONMENTAL ADMINISTRATOR OR HIS DESIGNEE. SPECIFIC PLANT SELECTION IS ALSO AT HIS DISCRETION BUT SHALL BE A NATIVE SPECIES APPROVED BY THE DELAWARE DEPARTMENT OF NATURAL RESOURCES.

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	BR 2-265B ON SPIDER WEB ROAD OVER WHITE MARSH BRANCH	CONTRACT T201307202 / COUNTY KENT	BRIDGE NO. 2-265B / DESIGNED BY: CBB / CHECKED BY: KRL	ENVIRONMENTAL NOTES	SHEET NO. 10 / TOTAL SHTS. 16

LEGEND

- CREATION AREA
- PERMANENT IMPACT AREA
- TEMPORARY IMPACT AREA
- OHW — ORDINARY HIGH WATER
- POHW — PROPOSED ORDINARY HIGH WATER
- WL — WETLAND BOUNDARY
- OHW/WL — ORD. HIGH WATER / WETLAND
- XX / 2X — IMPACT AREA TYPE ID. (SEE BELOW) / IMPACT AREA ID. AND/OR NUMBER

O = OPEN WATER IMPACT W = WETLAND IMPACT

T = TEMPORARY IMPACT C = CREATION AREA

SHEET PREPARED BY BRYCE BAKER, (06/26/14), DELAWARE D.O.T. BRIDGE DESIGN SECTION

PROJECT AREA DELINEATED BY KEN DUNNE, DELDOT, ON 06/26/13, IN ACCORDANCE WITH THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987) AND THE ATLANTIC AND GULF COAST REGIONAL SUPPLEMENT (2010)

TEMPORARY WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
WT-1	DOWNSTREAM SANDBAGS	179.11	0.0041	N/A	COE
WT-2	UPSTREAM SANDBAGS	222.69	0.0051	N/A	COE
WT-3	TEMPORARY DIVERSION PIPE	50.45	0.0012	N/A	COE
WT-4	SUMP PIT	50.27	0.0012	4.02	DNREC/COE
TOTAL PERMANENT WETLAND IMPACT AREAS		502.52	0.0116	4.02	DNREC/COE

PERMANENT WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
W-1	DOWNSTREAM RIPRAP	280.97	0.0065	N/A	COE
W-2	DOWNSTREAM RIPRAP	310.63	0.0071	N/A	COE
W-3	UPSTREAM RIPRAP	243.05	0.0056	N/A	COE
W-4	UPSTREAM RIPRAP	376.39	0.0086	N/A	COE
TOTAL PERMANENT WETLAND IMPACT AREAS		1211.04	0.0278	N/A	COE

OPEN WATER CREATION AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OC-1	PROPOSED PIPES	1076.16	0.0247	86.09	DNREC/COE
TOTAL OPEN WATER CREATION AREAS		1076.16	0.0247	86.09	DNREC/COE

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-1	RIPRAP OUTFALL	25.00	0.0006	2.00	DNREC/COE
OT-2	DOWNSTREAM SANDBAGS	123.99	0.0028	9.92	DNREC/COE
OT-3	TEMPORARY DIVERSION PIPE	61.37	0.0014	4.91	DNREC/COE
OT-4	EXISTING TO PROPOSED PIPE	809.65	0.0186	64.77	DNREC/COE
OT-5	UPSTREAM SANDBAGS	103.08	0.0024	8.25	DNREC/COE
OT-6	STILLING WELL	120.00	0.0028	9.60	DNREC/COE
TOTAL TEMPORARY OPEN WATER IMPACTS		1243.09	0.0285	99.45	DNREC/COE

PERMANENT OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
O-1	DOWNSTREAM RIPRAP	423.54	0.0097	33.88	DNREC/COE
O-2	EX. PIPES TO FILL	338.99	0.0078	27.12	DNREC/COE
O-3	UPSTREAM RIPRAP	249.21	0.0057	19.94	DNREC/COE
TOTAL PERMANENT OPEN WATER IMPACTS		1011.74	0.0232	80.94	DNREC/COE

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 20 40 60 FEET	BR 2-265B ON SPIDER WEB ROAD OVER WHITE MARSH BRANCH	CONTRACT T201307202	BRIDGE NO. 2-265B	ENVIRONMENTAL COMPLIANCE PLAN	SHEET NO. 11
				COUNTY KENT	DESIGNED BY: CBB		TOTAL SHTS. 16
					CHECKED BY: KRL		

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SEQUENCE OF CONSTRUCTION:

1. INSTALL M.O.T. DEVICES IN ACCORDANCE WITH THE DETOUR PLAN.

2. INSTALL SILT FENCE (905001) AS SHOWN ON THE PLAN, EXCEPT AT CONNECTION TO SANDBAGS (ITEM 909005).

3. REMOVE EXISTING GUARDRAIL AS PER PLANS AND 4 - 15" DIAMETER EXISTING REINFORCED CONCRETE DRAINAGE PIPES.

PHASE 1

4. STABILIZE THE PROPOSED DISCHARGE AREA OF THE PIPE WITH R-5 RIPRAP (ITEM 909005) AS INDICATED ON THIS SHEET WITH TOP OF STONES LEVEL WITH THE EXISTING STREAM BOTTOM. INSTALL UPSTREAM AND DOWNSTREAM SANDBAG DIKES IN THE EXISTING CHANNEL. INSTALL A 182'-0" TEMPORARY DIVERSION PIPE THROUGH AN EXISTING PIPE ARCH. TO MAINTAIN STREAM FLOW, THE DIVERSIONS MUST BE ABLE TO PASS A MINIMUM FLOW OF 22.0 CFS AROUND THE WORK AREA. CONNECT THE SILT FENCE TO THE SANDBAGS, ENCLOSING THE WORK AREA. SECURE THE PIPE TO MINIMIZE MOVEMENT UNDER USE TO PREVENT LEAKAGE INTO THE WORK AREA. STREAM DIVERSION SHALL BE INSTALLED AS PER ITEM # 909005 - STREAM DIVERSION. CONSTRUCT SANDBAG DIKES AT THE LOCATIONS AND DIMENSIONS SHOWN.

5. INSTALL SUMP PIT (ITEM 906003) AND DEWATERING BAG (ITEM 906002) FOR USE IN DEWATERING THE WORK AREA. SEE SECTION 111 OF THE STANDARD SPECIFICATIONS FOR MORE INFORMATION ON DEWATERING OPERATIONS. REMOVE THE SOUTHERNMOST EXISTING PIPE ARCH. INSTALL THE SOUTHERNMOST PROPOSED ELLIPTICAL PIPE.

PHASE 2

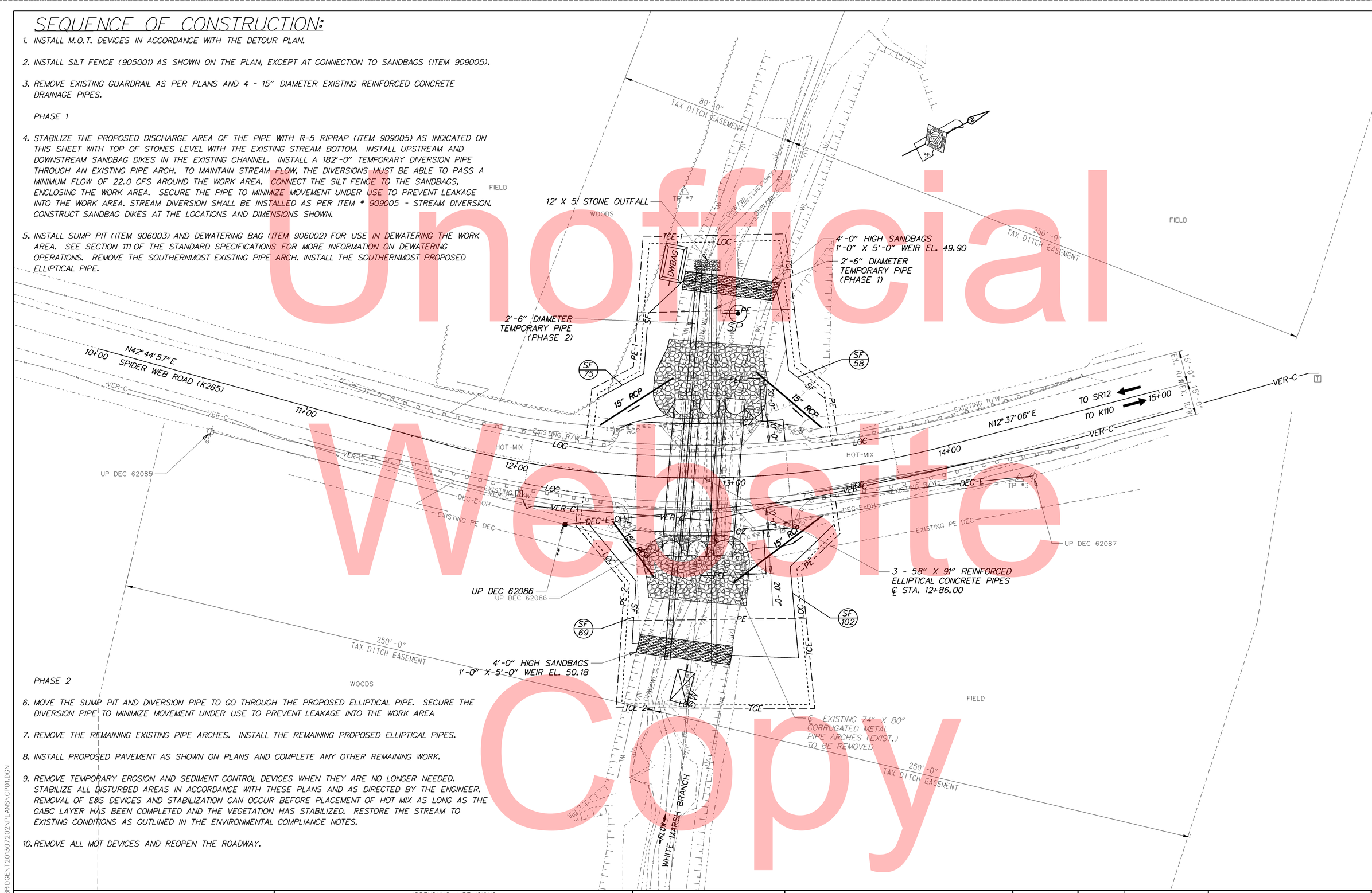
6. MOVE THE SUMP PIT AND DIVERSION PIPE TO GO THROUGH THE PROPOSED ELLIPTICAL PIPE. SECURE THE DIVERSION PIPE TO MINIMIZE MOVEMENT UNDER USE TO PREVENT LEAKAGE INTO THE WORK AREA

7. REMOVE THE REMAINING EXISTING PIPE ARCHES. INSTALL THE REMAINING PROPOSED ELLIPTICAL PIPES.

8. INSTALL PROPOSED PAVEMENT AS SHOWN ON PLANS AND COMPLETE ANY OTHER REMAINING WORK.

9. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES WHEN THEY ARE NO LONGER NEEDED. STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER. REMOVAL OF E&S DEVICES AND STABILIZATION CAN OCCUR BEFORE PLACEMENT OF HOT MIX AS LONG AS THE GABC LAYER HAS BEEN COMPLETED AND THE VEGETATION HAS STABILIZED. RESTORE THE STREAM TO EXISTING CONDITIONS AS OUTLINED IN THE ENVIRONMENTAL COMPLIANCE NOTES.

10. REMOVE ALL MOT DEVICES AND REOPEN THE ROADWAY.



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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 20 40 60 FEET	BR 2-265B ON SPIDER WEB ROAD OVER WHITE MARSH BRANCH	CONTRACT T201307202	BRIDGE NO. 2-265B	CONSTRUCTION SEQUENCE, AND EROSION AND SEDIMENT CONTROL PLAN	SHEET NO. 12
				COUNTY KENT	DESIGNED BY: CBB		TOTAL SHTS. 16
					CHECKED BY: KRL		

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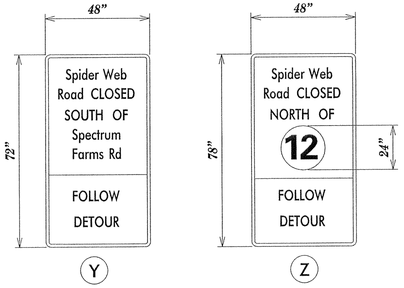
PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

SPIDER WEB ROAD	TO CLOSE STARTING XX/XX/XX

SPECIAL SIGNS

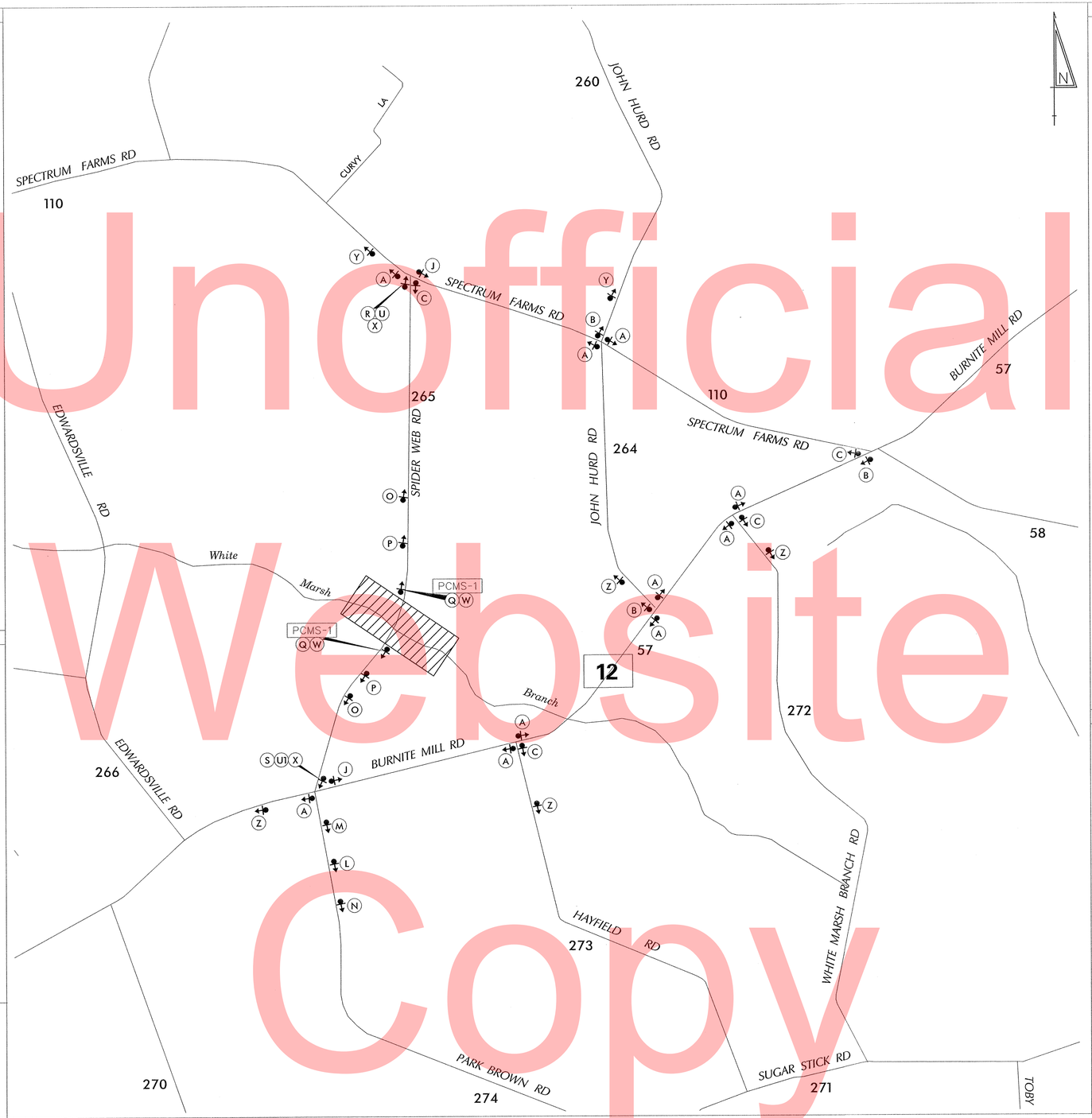


*D/G RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND; BLACK LEGEND

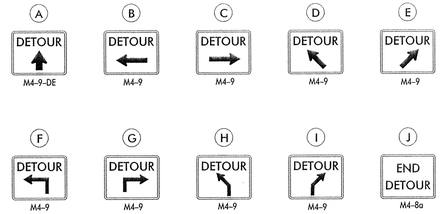
12 ——> WHITE BACKGROUND; BLACK LEGEND

U1

WHITE BACKGROUND; BLACK LEGEND



LEGEND



GENERAL NOTES

1. ALL DETOUR SIGNING, INCLUDING TRAILBLAZERS, ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR IN COMPLIANCE WITH "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.)
2. THE CONTRACTOR SHALL COMPLY WITH GUIDELINES IN "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD PART 6) FOR BARRICADES AND SIGNS (AS PER LATEST REVISION.)
3. DESIGN OF ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FHWA STANDARD HIGHWAY SIGNS BOOK.
4. SIZES OF ALL SIGNS SHALL BE IN ACCORDANCE WITH "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.) SIZE OF SIGN SHALL BE BASED ON TYPE OF ROADWAY ON WHICH THE SIGN IS INSTALLED.
5. SIGNS NO LONGER IN USE SHALL BE COMPLETELY COVERED WITH NO RETROREFLECTIVE MATERIAL SHOWING, OR SHALL BE REMOVED, AS DIRECTED BY THE ENGINEER.
6. FIELD CONDITIONS MAY DICTATE CHANGES AT SOME TIME DURING THE LIFE OF THE CONTRACT. IN THE EVENT OF OMISSIONS OR CORRECTIONS, THE SIGNING PROVISIONS OF "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD) WILL PREVAIL.
7. SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHOULD BE CHANGED TO "RAMP", "RR XING", OR "BRIDGE" WHERE APPLICABLE.
8. WARNING SIGNS AND DETOUR TRAILBLAZERS SHALL BE MOUNTED ON BREAKAWAY POSTS AND HAVE RETROREFLECTIVE FLUORESCENT ORANGE SHEETING.
9. "W" BARRICADES SHALL COMPLETELY RUN THE FULL WIDTH OF THE ROADWAY.
10. BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

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RECOMMENDED	DATE: 6-4-13	RECOMMENDED	DATE: 060413	RECOMMENDED	DATE:	APPROVED CHIEF SAFETY OFFICER	DATE: 6-5-13	APPROVED TRAFFIC ENGINEER	DATE: 6/7/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

NOT TO SCALE

SPIDER WEB RD ON BR 2-265B OVER WHITE MARSH BRANCH

CONTRACT	ROAD NO.	K265
T201307202	DESIGNED BY: MFR	
COUNTY	CHECKED BY: ASW	
KENT		

VEHICULAR DETOUR PLAN
SPIDER WEB RD

SHEET NO.	13
TOTAL SHTS.	16

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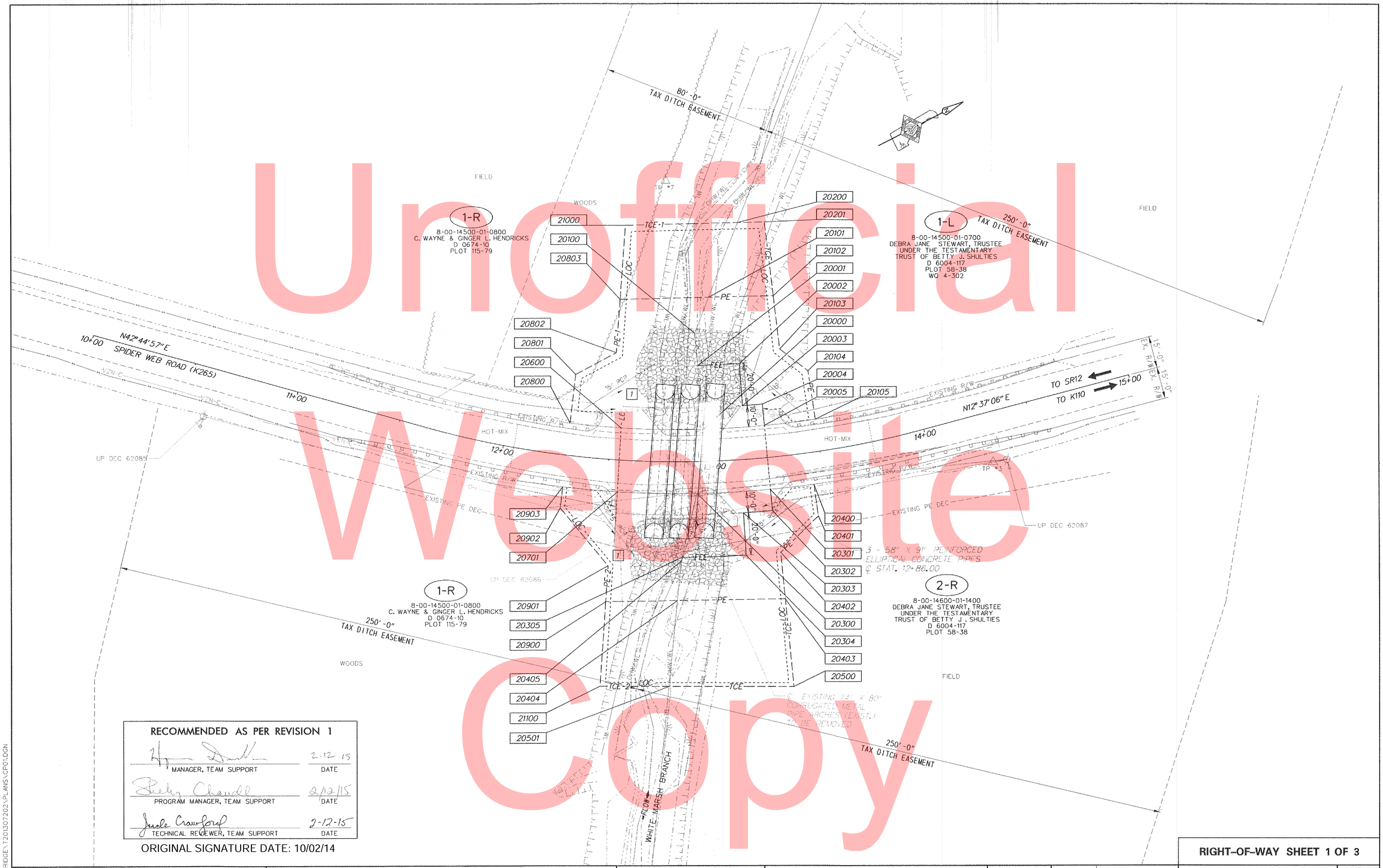

RECOMMENDED AS PER REVISION 1

MANAGER, TEAM SUPPORT	DATE 2-12-15
PROGRAM MANAGER, TEAM SUPPORT	DATE 2/12/15
TECHNICAL REVIEWER, TEAM SUPPORT	DATE 2-12-15

ORIGINAL SIGNATURE DATE: 10/02/14

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS	
1 MODIFICATION TO PARCEL 1-R DUE TO FEDERALLY FUNDED PRESERVATION EASEMENT CONVERTED FEE ACQUISITION TO PE	CBB 1/20/15

SCALE 0 20 40 60 FEET

BR 2-265B ON SPIDER WEB ROAD OVER WHITE MARSH BRANCH

CONTRACT T201307202	BRIDGE NO.	2-265B
COUNTY KENT	DESIGNED BY: CBB	
	CHECKED BY: KRL	

RIGHT-OF-WAY SHEET 1 OF 3

RIGHT-OF-WAY PLAN

SHEET NO.	TOTAL SHTS.
14	16

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ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
8-00-14500-01-0700	(1-L) DEBRA JANE STEWART, TRUSTEE UNDER THE TESTAMENTARY TRUST OF BETTY J. SHULTIES	FEE	D 6004-117	122.787

ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
20000	10000	12+95.28	-15.00	356193.2269	577752.0435	N 67°51'04.63" W	30.06				
20001	10000	12+93.17	-45.00	356204.5616	577724.1975			N 24°39'06.06" E	19.65	19.65	-405.00
20002	10000	13+15.00	-45.00	356222.4192	577732.3928	S 66°44'17.84" E	20.00				
20003	10000	13+15.00	-25.00	356214.5206	577750.7670			N 22°37'30.33" E	9.44	9.44	-425.00
20004	10000	13+25.00	-25.00	356223.2380	577754.4002	S 68°00'41.51" E	10.00				
20005	10000	13+25.00	-15.00	356219.4938	577763.6728			S 23°52'50.30" W	28.73	28.73	435.00
20000	10000	12+95.28	-15.00	356193.2269	577752.0435						

FIGURE 20000 AREA = 676.2787 SQ. FT. (0.0155 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
8-00-14500-01-0700	(1-L) DEBRA JANE STEWART, TRUSTEE UNDER THE TESTAMENTARY TRUST OF BETTY J. SHULTIES	P/E	D 6004-117	122.787

ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
20001	10000	12+93.17	-45.00	356204.5616	577724.1975	N 67°51'04.63" W	15.07				
20100	10000	12+91.99	-60.04	356210.2437	577710.2381	N 41°31'02.96" W	18.08				
20101	10000	13+00.25	-76.70	356223.7811	577698.2538	N 26°00'33.49" E	30.46				
20102	10000	13+36.84	-75.00	356251.1562	577711.6110	S 69°31'08.97" E	25.00				
20103	10000	13+36.84	-50.00	356242.4088	577735.0308	N 64°52'55.71" E	16.90				
20104	10000	13+50.03	-38.00	356249.5817	577750.3307	S 71°09'18.66" E	23.00				
20105	10000	13+50.01	-15.00	356242.1525	577772.0978			S 20°23'46.36" W	24.17	24.18	435.00
20005	10000	13+25.00	-15.00	356219.4938	577763.6728	N 68°00'41.51" W	10.00				
20004	10000	13+25.00	-25.00	356223.2380	577754.4002			S 22°37'30.33" W	9.44	9.44	425.00
20003	10000	13+15.00	-25.00	356214.5206	577750.7670	N 66°44'17.84" W	20.00				
20002	10000	13+15.00	-45.00	356222.4192	577732.3928			S 24°39'06.06" W	19.65	19.65	405.00
20001	10000	12+93.17	-45.00	356204.5616	577724.1975						

FIGURE 20100 AREA = 2019.1231 SQ. FT. (0.0464 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
8-00-14500-01-0700	(1-L) DEBRA JANE STEWART, TRUSTEE UNDER THE TESTAMENTARY TRUST OF BETTY J. SHULTIES	TCE	D 6004-117	122.787

ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
20101	10000	13+00.25	-76.70	356223.7811	577698.2538	N 41°31'02.96" W	37.70				
20200	10000	13+20.09	-110.99	356252.0093	577673.2643	N 26°00'33.49" E	12.68				
20201	10000	13+36.84	-110.00	356263.4025	577678.8234	S 69°31'08.97" E	35.00				
20102	10000	13+36.84	-75.00	356251.1562	577711.6110	S 26°00'33.49" W	30.46				
20101	10000	13+00.25	-76.70	356223.7811	577698.2538						

FIGURE 20200 AREA = 751.3865 SQ. FT. (0.0172 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
8-00-14600-01-1400	(2-R) DEBRA JANE STEWART, TRUSTEE UNDER THE TESTAMENTARY TRUST OF BETTY J. SHULTIES	FEE	D 6004-117	22.085

ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
20300	10000	12+91.44	15.00	356176.6217	577777.3211			N 24°07'29.17" E	34.67	34.68	-465.00
20301	10000	13+25.00	15.00	356208.2612	577791.4906	S 68°00'41.51" E	10.00				
20302	10000	13+25.00	25.00	356204.5170	577800.7632			S 22°48'57.87" W	13.72	13.72	475.00
20303	10000	13+12.00	25.00	356191.8689	577795.4422	S 66°21'22.74" E	20.00				
20304	10000	13+12.00	45.00	356183.8480	577813.7634			S 25°23'40.00" W	30.25	30.25	495.00
20305	10000	12+84.50	45.00	356156.5241	577800.7923	N 49°25'39.91" W	30.90				
20300	10000	12+91.44	15.00	356176.6217	577777.3211						

FIGURE 20300 AREA = 908.2458 SQ. FT. (0.0209 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
8-00-14600-01-1400	(2-R) DEBRA JANE STEWART, TRUSTEE UNDER THE TESTAMENTARY TRUST OF BETTY J. SHULTIES	P/E	D 6004-117	22.085

ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
20301	10000	13+25.00	15.00	356208.2612	577791.4906			N 20°42'54.83" E	20.66	20.67	-465.00
20400	10000	13+45.00	15.00	356227.5902	577798.8003	S 70°33'28.88" E	15.00				
20401	10000	13+45.00	30.00	356222.5974	577812.9450	S 16°43'23.99" E	24.74				
20402	10000	13+26.84	45.00	356198.9078	577820.0627	S 68°14'45.29" E	22.00				
20403	10000	13+26.84	67.00	356190.7541	577840.4959	S 26°27'17.79" W	50.84				
20404	10000	12+82.53	65.33	356145.2392	577817.8477	N 57°08'34.99" W	18.78				
20405	10000	12+84.14	46.64	356155.4276	577802.0730	N 49°25'39.91" W	1.69				
20305	10000	12+84.50	45.00	356156.5241	577800.7923			N 25°23'40.00" E	30.25	30.25	-495.00
20304	10000	13+12.00	45.00	356183.8480	577813.7634	N 66°21'22.74" W	20.00				
20303	10000	13+12.00	25.00	356191.8689	577795.4422			N 22°48'57.87" E	13.72	13.72	-475.00
20302	10000	13+25.00	25.00	356204.5170	577800.7632	N 68°00'41.51" W	10.00				
20301	10000	13+25.00	15.00	356208.2612	577791.4906						

FIGURE 20400 AREA = 1781.7399 SQ. FT. (0.0409 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
8-00-14600-01-1400	(2-R) DEBRA JANE STEWART, TRUSTEE UNDER THE TESTAMENTARY TRUST OF BETTY J. SHULTIES	TCE	D 6004-117	22.085

ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
20404	10000	12+82.53	65.33	356145.2392	577817.8477	N 26°27'17.79" E	50.84				
20403	10000	13+26.84	67.00	356190.7541	577840.4959	S 68°14'45.29" E	41.78				
20500	10000	13+26.84	108.78	356175.2681	577879.3038	S 27°27'48.24" W	58.83				
20501	10000	12+79.38	106.02	356123.0696	577852.1733	N 57°08'34.99" W	40.86				
20404	10000	12+82.53	65.33	356145.2392	577817.8477						

FIGURE 20500 AREA = 2255.1406 SQ. FT. (0.0518 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
1 8-00-14500-01-0800	(1-R) C. WAYNE & GINGER L. HENDRICKS	P/E-1	D 0674-10	110.000

ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
20101	10000	13+00.25	-76.70	356223.7811	577698.2538	S 41°31'02.96" E	18.08				
20100	10000	12+91.99	-60.04	356210.2437	577710.2381	S 67°51'04.63" E	45.14				
20000	10000	12+95.28	-15.00	356193.2269	577752.0435			S 28°20'13.11" W	38.92	38.94	435.00
20600	10000	12+55.00	-15.00	356158.9686	577733.5688	S 32°29'33.70" W	24.16				
20800	10000	12+30.00	-15.00	356138.5876	577720.5884	N 55°54'56.72" W	23.00				
20801	10000	12+30.00	-38.00	356151.4771	577701.5394	N 0°48'34.40" W	21.67				
20802	10000	12+50.00	-50.00	356173.1423	577701.2333	N 58°27'44.04" W	25.00				
20803	10000	12+50.00	-75.00	356186.2188	577679.9259	N 26°00'33.49" E	41.80				
20101	10000	13+00.25	-76.70	356223.7811	577698.2538						

FIGURE 20600 AREA = 2977.4086 SQ. FT. (0.0684 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
1 8-00-14500-01-0800	(1-R) C. WAYNE & GINGER L. HENDRICKS	P/E-2	D 0674-10	110.000

ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
20404	10000	12+82.53	65.33	356145.2392	577817.8477	S 26°27'17.79" W	33.90				
20900	10000	12+53.00	67.00	356114.8878	577802.7449	N 58°50'39.14" W	17.00				
20901	10000	12+53.00	50.00	356123.6830	577788.1969	S 77°42'34.07" W	35.29				
20902	10000	12+30.00	25.00	356116.1711	577753.7169	N 55°54'56.72" W	10.00				
20903	10000	12+30.00	15.00	356121.7753	577745.4348	N 32°29'33.70" E	25.83				
20701	10000	12+55.00	15.00	356143.5618	577759.3105			N 28°34'51.99" E	37.65	37.66	-465.00
20300	10000	12+91.44	15.00	356176.6217	577777.3211	S 49°25'39.91" E	32.59				
20405	10000	12+84.14	46.64	356155.4276	577802.0730	S 57°08'34.99" E	18.78				
20404	10000	12+82.53	65.33	356145.2392	577817.8477						

FIGURE 20700 AREA = 2375.4194 SQ. FT. (0.0545 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
8-00-14500-01-0800	(1-R) C. WAYNE & GINGER L. HENDRICKS	TCE-1	D 0674-10	110.000

ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
20101	10000	13+00.25	-76.70	356223.7811	577698.2538	S 26°00'33.49" W	41.80				
20803	10000	12+50.00	-75.00	356186.2188	577679.9259	N 58°27'44.04" W	35.00				
21000	10000	12+50.00	-110.00	356204.5259	577650.0955	N 26°00'33.49" E	52.83				
20200	10000	13+20.09	-110.99	356252.0093	577673.2643	S 41°31'02.96" E	37.70				
20101	10000	13+00.25	-76.70	356223.7811	577698.2538						

FIGURE 20800 AREA = 1648.3132 SQ. FT. (0.0378 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
8-00-14500-01-0800	(1-R) C. WAYNE & GINGER L. HENDRICKS	TCE-2	D 0674-10	110.000

ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
20404	10000	12+82.53	65.33	356145.2392	577817.8477	S 57°08'34.99" E	40.86				
20501	10000	12+79.38	106.02	356123.0696	577852.1733	S 27°27'48.24" W	32.64				
21100	10000	12+53.00	107.17	356094.1061	577837.1194	N 58°50'39.14" W	40.17				
20900	10000	12+53.00	67.00	356114.8878	577802.7449	N 26°27'17.79" E	33.90				
20404	10000	12+82.53	65.33	356145.2392	577817.8477						

FIGURE 20900 AREA = 1342.5550 SQ. FT. (0.0308 ACRES)

LEGEND

FEE	AREA OF ACQUISITION
R/W	AREA OCCUPIED BY EXISTING RW
P/E	PERMANENT EASEMENT
TCE	TEMPORARY CONSTRUCTION EASEMENT
*	"-" OFFSET IS LEFT OF BASELINE
**	"-" CURVE TURNS TO THE LEFT

RIGHT-OF-WAY SHEET 2 OF 3

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS	
1 MODIFICATION TO PARCEL 1-R DUE TO	CBB 1/20/15
FEDERALLY FUNDED PRESERVATION EASEMENT	
CONVERTED FEE ACQUISITION TO PE	
MODIFIED PARCEL 1-L PROPERTY AREA	

NOT TO SCALE

BR 2-265B ON
SPIDER WEB ROAD OVER
WHITE MARSH BRANCH

CONTRACT	T201307202
COUNTY	KENT
BRIDGE NO.	2-265B
DESIGNED BY:	CBB
CHECKED BY:	KRL

RIGHT-OF-WAY DATA SHEET

SHEET NO.	15
TOTAL SHTS.	16

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COUNTY ASSESSMENT PARCEL NUMBER	PLAN SHEET NUMBER	OWNERSHIP OF RECORD	TITLE SOURCE	PROPERTY AREA BEFORE ACQUISITION (ACRE) D=DEED C=CALCULATED A=ASSESMENT	ACQUISITION CODE FEE, R/W, P/E, TCE	AREA TO BE ACQUIRED				PROPERTY AREA REMAINING (SQ. FEET /ACRES)	DEED RECORD OF ACQUISTITION	REMARKS
						ACQUISITION (SQ. FEET /ACRES)	AREA OCCUPIED BY EXISTING RIGHT OF WAY (SQ. FEET /ACRES)	EASEMENT PERMANENT (SQ. FEET /ACRES)	EASEMENT TEMPORARY (SQ. FEET /ACRES)			
8-00-14500-01-0700	6	(1-L) DEBRA JANE STEWART, TRUSTEE UNDER THE TESTAMENTARY TRUST OF	D 6004-117	D - 122.787	FEE	676.2787 / 0.02						
		BETTY J. SHULTIES			P/E			2019.1231 / 0.05				
					TCE				751.3865 / 0.02	5347925.4410 / 122.77		
8-00-14600-01-1400	6	(2-R) DEBRA JANE STEWART, TRUSTEE UNDER THE TESTAMENTARY TRUST OF	D 6004-117	D - 22.09	FEE	908.2458 / 0.02						761.76 SF WITHIN DEC
		BETTY J. SHULTIES			P/E			1781.7399 / 0.04				589.56 SF WITHIN DEC
					TCE				2255.1406 / 0.05	961114.7542 / 22.06		
8-00-14500-01-0800	6	(1-R) C. WAYNE & GINGER L. HENDRICKS	D 0674-10	D - 110.00	P/E-1			[1] 2977.4086 / 0.07				
					P/E-2			[1] 2375.4194 / 0.05				891.10 SF WITHIN DEC
					TCE-1				1648.3132 / 0.04			
					TCE-2				1342.555 / 0.03	4791600.00 / 110.00		540.85 SF WITHIN DEC

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ACQUISITION CODES

FEE - ACQUISITION
R/W - AREA OCCUPIED BY EXISTING R/W
P/E - PERMANENT EASEMENT
TCE - TEMPORARY EASEMENT

RIGHT-OF-WAY SHEET 3 OF 3

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS	
[1] MODIFICATION TO PARCEL 1-R DUE TO	CBB 1/20/15
FEDERALLY FUNDED PRESERVATION EASEMENT	
CONVERTED FEE ACQUISITION TO PE	
MODIFIED PARCEL 1-L PROPERTY AREA	

NOT TO SCALE

BR 2-265B ON
SPIDER WEB ROAD OVER
WHITE MARSH BRANCH

CONTRACT	T201307202
COUNTY	KENT
BRIDGE NO.	2-265B
DESIGNED BY: CBB	
CHECKED BY: KRL	

RIGHT-OF-WAY
TABULATION SHEET

SHEET NO.	16
TOTAL SHTS.	16

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