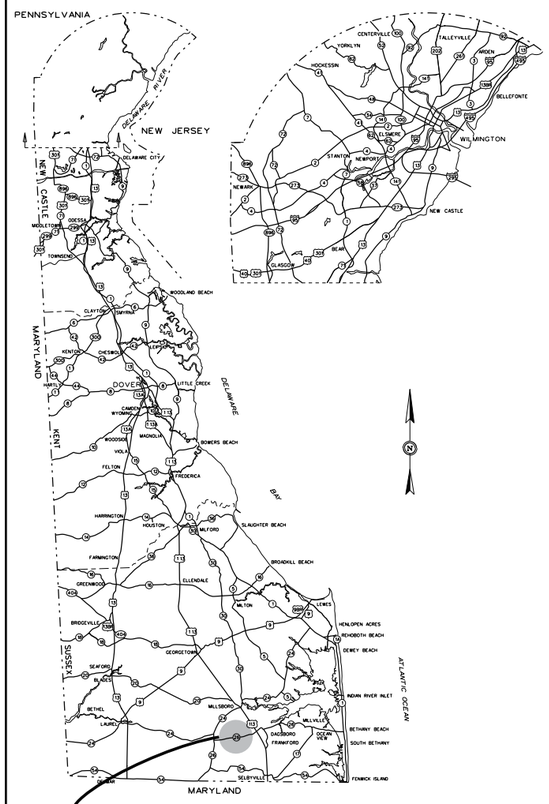


GENERAL LOCATION OF CONTRACT

PREPARED BY
DELDOT – TRANSPORTATION SOLUTIONS
BRIDGE DESIGN

2/21/19
DATE

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

JONATHAN WALID KARAM — No. 21169 — DELAWARE PROFESSIONAL ENGINEER — LICENSED
SEAL

THE STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION

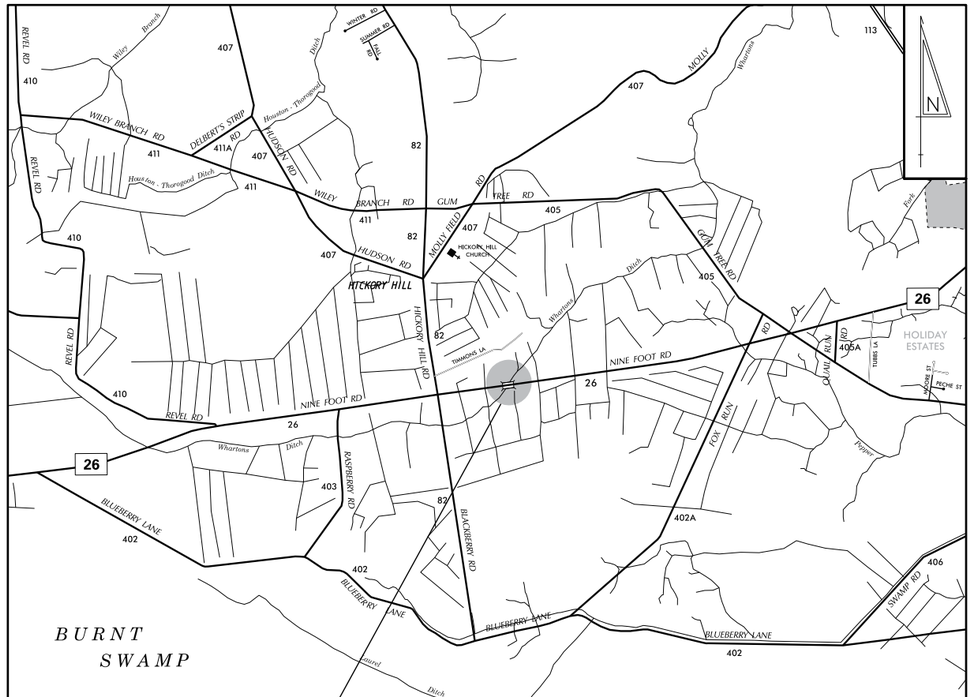
U.S. CUSTOMARY UNITS

CONSTRUCTION AND RIGHT-OF-WAY PLANS FOR:

BR 3–588 ON SR 26
NINE FOOT ROAD OVER
WHARTON'S BRANCH

CONTRACT NUMBER: T201407309
FEDERAL AID PROJECT NUMBER: EBRN-S026(10)

COUNTY: SUSSEX M.R. #: 26



BR 3–588

DESIGN DESIGNATION

MRD #: 26	ROAD NAME: NINE FOOT ROAD		
FUNCTIONAL CLASS: RURAL MAJOR COLLECTOR		D.H.V. PROJECTED: 420	YEAR: 2040
TYPE OF CONSTRUCTION: BRIDGE REPLACEMENT		DESIGN SPEED: 55 M.P.H.	
A.A.D.T. CURRENT: 5444	YEAR: 2012	TRUCKS: 7 %	
A.A.D.T. PROJECTED: 7000	YEAR: 2040	DIRECTION OF DISTRIBUTION: 60 %	

APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

ADDENDA / REVISIONS

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME
711	DAGSBORO - SHAFT OX
68-10-009	RT. 26, DAGSBORO TO SHAFT OX CORNER

APPROVED FOR ADVERTISEMENT

Robert B. McEvoy
DIRECTOR OF TRANSPORTATION SOLUTIONS

02/28/2019
DATE

DISCLAIMER:
THIS PLAN SET IS INTENDED TO BE A GUIDELINE FOR PREPARING A SET OF PLANS INVOLVING THE CONSTRUCTION OF A PRECAST CONCRETE BOX CULVERT. IT IS NOT INTENDED TO BE A SET OF STANDARDS. THE DESIGN ENGINEER IS STILL RESPONSIBLE FOR PERFORMING THE DESIGN AND NECESSARY DOCUMENTATION USING HIS/HER ENGINEERING JUDGEMENT AND EXPERTISE.

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ADDENDA / REVISIONS		NOT TO SCALE	BR 3-588 ON SR 26 NINE FOOT ROAD OVER WHARTON'S BRANCH	CONTRACT	BRIDGE NO. 3-588	INDEX OF SHEETS	SECTION
				T201407309	DESIGNED BY: JWK		BR
				COUNTY			SHEET NO.
				SUSSEX	CHECKED BY: NED		2

ADDENDUM PREPARED BY
DELDOT - TRANSPORTATION SOLUTIONS
XXXXXXXXXXXXXXXXXXXX

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

DATE

SEAL

REVISION PREPARED BY
DELDOT - TRANSPORTATION SOLUTIONS
XXXXXXXXXXXXXXXXXXXX

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

DATE

SEAL

ADDENDA / REVISIONS	

BR 3-588 ON SR 26
NINE FOOT ROAD
OVER WHARTON'S BRANCH

CONTRACT	BRIDGE NO.	3-588
T201407309	DESIGNED BY: JWK	
COUNTY	CHECKED BY: NED	
SUSSEX		

ADDENDA AND REVISIONS

SECTION
BR
SHEET NO.
3

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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
—x—	FENCE - CHAINLINK OR STRANDED
—○—	FENCE - STOCKADE OR SPLIT RAIL
F.P.	FLAG POLE
—n—	GUARDRAIL - STEEL BEAM
—o—	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
PL	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
Ⓔ	ELECTRIC MANHOLE
EM	ELECTRIC METER
E	ELECTRIC TRANSFORMER
	POLE MOUNTED LUMINAIRE
Ⓖ	GAS MANHOLE
G.M.	GAS METER
G.V.	GAS VALVE
G.P.	GAS PUMP - SERVICE STATION
	RAILROAD TRACKS
Ⓢ	SANITARY SEWER MANHOLE
S.V.	SANITARY SEWER VALVE
VENT	SANITARY SEWER VENT OR CLEANOUT
S.D.F.	SEPTIC DRAIN FIELD
B	TELEPHONE BOOTH
Ⓣ	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
⑦	MANHOLE - UNDETERMINED OWNER

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

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

IDENTIFIERS

AC	ADJUST BY CONTRACTOR
AO	ADJUST BY OTHERS
B	CONCRETE SAFETY BARRIER
C	CURB OR CURB & GUTTER
CJB	CONVERT TO JUNCTION BOX
CMH	CONVERT TO DRAINAGE MANHOLE
CO	CURB OPENING
CR	CURB RAMP / TYPE
CR-N	CURB RAMP / TYPE - WITHOUT SIDEWALK SURFACE DETECTABLE WARNING SYSTEM
CSF	CONSTRUCTION SAFETY FENCE
DI	DRAINAGE INLET
DND	DO NOT DISTURB
ED	ENERGY DISSIPATOR
F	FENCE
FES	FLARED END SECTION
FFC	FILL WITH FLOWABLE FILL
FS	FILTRATION STRUCTURE
GR	GUARDRAIL
JB	JUNCTION BOX
MH	MANHOLE
M	MONUMENT - RIGHT-OF-WAY
P	PIPE
RLC	RELOCATE BY CONTRACTOR
RLO	RELOCATE BY OTHERS
RMC	REMOVE BY CONTRACTOR
RMO	REMOVE BY OTHERS
UD	UNDERDRAIN / LENGTH
UDO	UNDERDRAIN OUTLET PIPE

LANDSCAPING

LS	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)

	2" SUPERPAVE TYPE C, PG 64-22 3" SUPERPAVE TYPE B, PG 64-22 4" SUPERPAVE TYPE BCBC, PG 64-22 8" GRADED AGGREGATE BASE COURSE, TYPE B
	2" SUPERPAVE TYPE C, PG 64-22 3" SUPERPAVE TYPE B, PG 64-22 VARIABLE DEPTH SUPERPAVE TYPE BCBC, PG 64-22 (REFER TO 'PROJECT NOTES' FOR GUIDANCE)
	2" SUPERPAVE, TYPE C, PG 64-22 8" GRADED AGGREGATE BASE COURSE, TYPE B

EROSION & SEDIMENT CONTROL

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

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ADDENDA / REVISIONS	

NOT TO SCALE

BR 3–588 ON SR 26
NINE FOOT ROAD
OVER WHARTON'S BRANCH

CONTRACT T201407309	BRIDGE NO.	3–588
COUNTY SUSSEX	DESIGNED BY: JWK	
	CHECKED BY: NED	

LEGEND

SECTION
BR
SHEET NO.
4

GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED AUGUST 2016 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED 2014, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.

2. 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)	ALL PLAN SHEETS, IN PDF FORMAT.
( )	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.

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

(X)	CROSS SECTIONS
(X)	RIGHT-OF-WAY PLANS (INCLUDED IN PLAN SET)

PROJECT NOTES

SECTION 100

4. 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

5. ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
   - TWO EXISTING CORRUGATED METAL PIPE ARCHES (72" x 104") IN THEIR ENTIRETY
   - EXISTING SACKED RIPRAP HEADWALL AND WINGWALL
   - EXISTING 15" CORRUGATED METAL DRAINAGE PIPE
   - EXISTING GUARDRAIL

SECTION 600

6. PORTLAND CEMENT CONCRETE:
   USE PORTLAND CEMENT CONCRETE FOR CAST-IN-PLACE ELEMENTS AS FOLLOWS:
   (f'c = 28-DAY COMPRESSIVE STRENGTH)
   CLASS A WITH 2% HIGH EARLY STRENGTH ADMIXTURE FOR FRAME CLOSURE POUR (f'c = 4.5 ksi)
   - 2% HIGH EARLY STRENGTH ADMIXTURE WILL BE INCIDENTAL TO ITEM 610000.

   USE PORTLAND CEMENT CONCRETE FOR PRECAST ELEMENTS AS FOLLOWS:
   (f'c = 28-DAY COMPRESSIVE STRENGTH)
   PRECAST - WINGWALLS, FRAME, PARAPET, HEADWALL, MOMENT SLAB (f'c = 5 ksi)
   -CHAMFER ALL EXPOSED EDGES ¾" X ¾" UNLESS OTHERWISE NOTED.

7. BAR REINFORCEMENT:
   - REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM A615), GRADE 60.
   - REINFORCING STEEL SHALL HAVE A 3" CLEAR COVER IF CAST AGAINST EARTH OR A 2" CLEAR COVER ELSEWHERE, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
   - ALL REINFORCING STEEL SHALL BE PROTECTED WITH FUSION BONDED EPOXY. EPOXY COATED REINFORCING STEEL SHALL CONFORM TO ASTM A775.
   - ANY FIELD CUTTING OR FIELD BENDING MUST BE APPROVED BY THE ENGINEER. PAYMENT SHALL BE INCIDENTAL TO THE BAR REINFORCEMENT ITEM.
   - GALVANIZED REINFORCING STEEL MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCING STEEL AT NO ADDITIONAL COST TO DELDOT WITH APPROVAL OF THE BRIDGE DESIGN ENGINEER.
   - WELDING OF REINFORCEMENT DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.

SECTION 700

8. 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. ALL HOT-MIX AND CONCRETE SAWCUTTING SHALL BE FULL DEPTH, UNLESS OTHERWISE NOTED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

SECTION 800

9. MAINTENANCE OF TRAFFIC SHALL BE AS PER DETOUR PLAN. THE DETOUR SHALL REMAIN IN EFFECT UNTIL THE FINAL BITUMINOUS CONCRETE PAVEMENT IS PLACED. ALL MOT ITEMS WITH THE EXCEPTION OF PORTABLE CHANGEABLE MESSAGE SIGNS (ITEM *803001) AND FLAGGERS (ITEM *811009) WILL BE INCLUDED IN ITEM *801500 - MAINTENANCE OF TRAFFIC, ALL INCLUSIVE.

SECTION 900

10. 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

11. DESIGN SPECIFICATIONS:
    (A) DELDOT BRIDGE DESIGN MANUAL, 2017 EDITION
    (B) AASHTO LRFD BRIDGE SPECIFICATIONS, 2014, 7TH EDITION, CUSTOMARY U.S. UNITS INCLUDING 2015 AND 2016 INTERIMS.
    (C) PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH THE DELDOT STANDARD SPECIFICATIONS, AUGUST 2016.

12. LOADING:
    -DESIGN LIVE LOADS INCLUDE HL-93 LOADING.

13. HYDRAULIC DATA:

DRAINAGE AREA:	2.82 sq. miles	DESIGN FREQ.: 50 YEARS	
DESIGN DISCHARGE:	384 cfs	100-YEAR DISCHARGE:	465 cfs
EXISTING (DESIGN STORM) WSE:	37.32 ft	PROPOSED (DESIGN STORM) WSE:	36.71 ft
EXISTING (DESIGN STORM) VELOCITY:	4.63 fps	PROPOSED (DESIGN STORM) VELOCITY:	4.05 fps
EXISTING 100-YEAR WSE:	38.49 ft	PROPOSED 100-YEAR WSE:	37.52 ft
EXISTING 100-YEAR VELOCITY:	5.60 fps	PROPOSED 100-YEAR VELOCITY:	4.49 fps
EXISTING WATERWAY OPENING:	81.00 sq. ft	PROPOSED WATERWAY OPENING:	108 sq. ft

14. SCOUR ANALYSIS:

SCOUR DESIGN FREQUENCY:	OVERTOPPING
SCOUR DESIGN FLOOD DISCHARGE:	900 cfs
SCOUR DESIGN FLOOD VELOCITY:	8.33 fps (AT BRIDGE OUTLET)
WATER SURFACE ELEVATION:	40.74 ft (IMMEDIATELY UPSTREAM OF BRIDGE)

    SCOUR COUNTERMEASURES HAVE BEEN DESIGNED FOR THE SCOUR DESIGN FLOOD IN ACCORDANCE WITH HEC 23 - BRIDGE SCOUR AND STREAM INSTABILITY COUNTERMEASURES AND HEC 14 - HYDRAULIC DESIGN OF ENERGY DISSIPATORS FOR CULVERTS AND CHANNELS.

15. UTILITIES:
    SEE UTILITY STATEMENT FOR FURTHER INFORMATION ON UTILITY COORDINATION.

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

17. THE DETOUR SHOWN IN THESE PLANS IS SUITABLE FOR CAR, TRUCK, AND SMALL FARM VEHICLE TRAFFIC. PRIOR TO AND AT THE COMPLETION OF THE BRIDGE REPLACEMENT, ALL OF THE ROADS THAT COMPRISE THE DETOUR ROUTES SHALL BE EVALUATED FOR THEIR CONDITION BY THE ENGINEER. ANY NOTED WEAR WHICH MAY BE CAUSED BY THE DETOUR TRAFFIC, SHALL BE REPAIRED AT THE ENGINEER'S DISCRETION. PATCHING ITEMS FOR TYPE 'B' AND 'C' SUPERPAVE (ITEMS *401029 AND *401030, RESPECTIVELY), AND BITUMINOUS CONCRETE PATCHING (ITEM 402000) HAVE BEEN INCLUDED IN THIS CONTRACT FOR THAT PURPOSE. ANY SAWCUTTING FOR PATCHING THE DETOUR, WILL BE INCIDENTAL TO ITEMS *401029 AND *401030.

18. CONTINGENT QUANTITIES:
    THESE CONTRACT DRAWINGS HAVE BEEN PREPARED BASED ON ORIGINAL CONTRACT PLANS AND FIELD INSPECTION NOTES. ACTUAL CONDITIONS MAY REQUIRE MODIFICATION IN CONSTRUCTION DETAILS AND WORK QUANTITIES. ALL DIMENSIONS AND DETAILS SHOWN ON THE PLANS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING ANY MATERIALS. THE ESTIMATED QUANTITIES FOR THE FOLLOWING PAY ITEMS INCLUDE CONTINGENCY FACTORS TO ACCOUNT FOR THE ANTICIPATED VARIATIONS IN THE ACTUAL QUANTITY.

    - ITEM *211001, REMOVAL OF P.C.C. PAVEMENT, CURB AND SIDEWALK (10% CONTINGENCY ADDED)

19. ROADWAY CORE RESULTS INDICATE APPOXIMATELY 6-INCH EXISTING 13-FOOT WIDE P.C.C. PAVEMENT THROUGH THE ENTIRE PROJECT LIMITS. REMOVE THE EXISTING P.C.C. PAVEMENT FROM STA. 3+00 TO STA. 4+00. FOR STA. 1+25.00 TO STA. 3+00.00 AND STA. 4+00.00 TO STA. 5+75.00, USE THE EXISTING P.C.C. PAVEMENT WITHIN THESE LIMITS IN LIEU OF GRADED AGGREGATE BASE COURSE AND PLACE VARIABLE THICKNESS OF BCBC BETWEEN BOTTOM OF SUPERPAVE TYPE B AND TOP OF EXISTING P.C.C. PAVEMENT. FOR AREAS OUTSIDE THE EXISTING P.C.C. PAVEMENT LIMITS, USE FULL PAVEMENT BOX AS SHOWN ON LEGEND SHEET.

ADDENDA / REVISIONS		NOT TO SCALE	BR 3-588 ON SR 26 NINE FOOT ROAD OVER WHARTON'S BRANCH	CONTRACT	BRIDGE NO. 3-588	NOTES	SECTION
				T201407309	DESIGNED BY: JWK		BR
				COUNTY			SHEET NO.
				SUSSEX	CHECKED BY: NED		5

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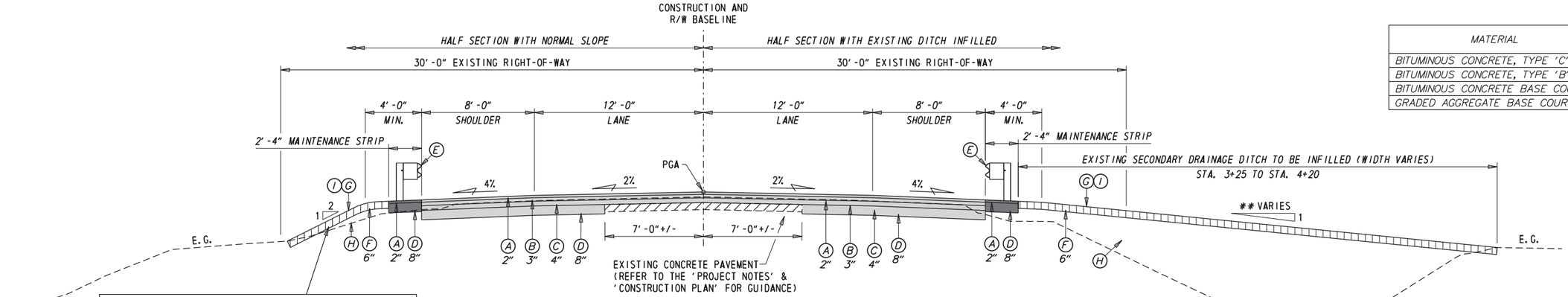


NOTE:
THE PROPOSED SLOPE BEHIND THE GUARDRAIL WILL TRANSITION FROM 2:1 TO 3:1 BEHIND THE GUARDRAIL END TREATMENT, AND TRANSITION TO 4:1 AT END OF THE GUARDRAIL END TREATMENT AND BEYOND THAT POINT TO END OF PROPOSED SLOPE WORK.

TYPICAL PROPOSED ROADWAY SECTION WITH GUARDRAIL

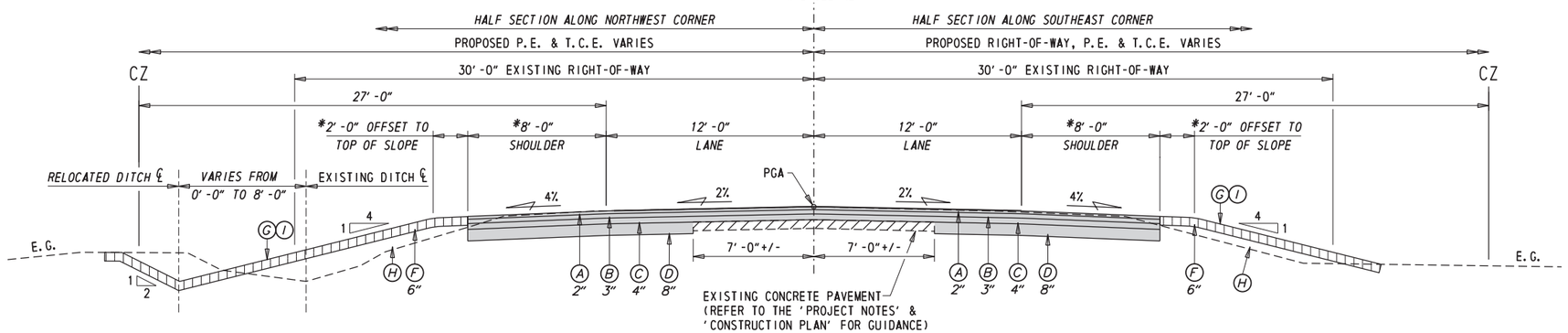
MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C'	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'B'	2.25"	3"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

NOTES:
* THE WIDTHS SHOWN FOR THE SHOULDER AND OFFSET TO TOP OF SLOPE IN THIS SECTION ARE MAXIMUM WIDTH AND SHALL VARY DURING THE TRANSITIONS TO MATCH EXISTING PAVEMENT WIDTH

** REFER TO THE CROSS SECTIONS FOR INFORMATION ON SIDE SLOPES.

LEGEND

- (A) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (B) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (C) ITEM 401021 - SUPERPAVE BCBC, PG 64-22
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 720021 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31
- (F) ITEM 908004 - TOPSOIL, 6" DEPTH (S.Y.)
- (G) ITEM 908019 - STREAMBANK SEED MIX
- (H) ITEM 209006 - BORROW, TYPE F
- (I) ITEM 908020 - EROSION CONTROL BLANKET MULCH



TYPICAL PROPOSED ROADWAY SECTION WITHOUT GUARDRAIL

ADDENDA / REVISIONS		SCALE	BR 3-588 ON SR 26 NINE FOOT ROAD OVER WHARTON'S BRANCH	CONTRACT	BRIDGE NO. 3-588	TYPICAL SECTIONS	SECTION
		0 4 8 12 FEET		T201407309	DESIGNED BY: JWK		BR
				COUNTY			SHEET NO.
				SUSSEX	CHECKED BY: NED		6

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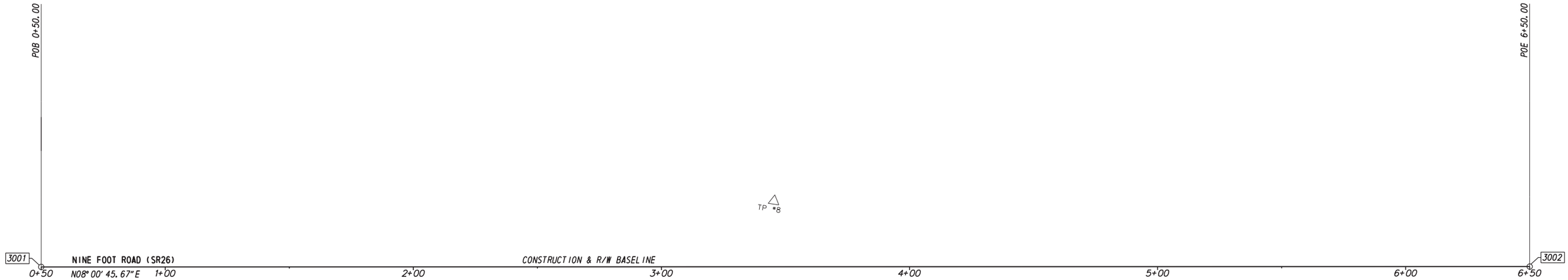

CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
3001	0+50.00	0.00	193768.5098	689339.5799
3002	6+50.00	0.00	193852.1452	689933.7222

HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP-5	3+43.54	23.98	193785.6791	689633.5921	39.16
TP-8	3+45.38	-26.46	193835.8806	689628.3841	39.16

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.

ADDENDA / REVISIONS	

SCALE
0 20 40 60
FEET

BR 3-588 ON SR 26
NINE FOOT ROAD
OVER WHARTON'S BRANCH

CONTRACT	BRIDGE NO.	3-588
T201407309	DESIGNED BY: JWK	
COUNTY		
SUSSEX	CHECKED BY: NED	

HORIZONTAL AND VERTICAL CONTROL

SECTION
BR
SHEET NO.
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RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
M-1	CAPPED REBAR WITH FLEXIBLE DELINEATOR	3+54.00	-30.00	193840.5922	689636.4302
M-2	CAPPED REBAR WITH FLEXIBLE DELINEATOR	4+07.00	-30.00	193847.9800	689688.9128
M-3	CAPPED REBAR WITH FLEXIBLE DELINEATOR	2+95.00	30.00	193772.9539	689586.3700
M-4	CAPPED REBAR WITH FLEXIBLE DELINEATOR	3+38.00	30.00	193778.9477	689628.9499

DITCH RELOCATION SCHEDULE

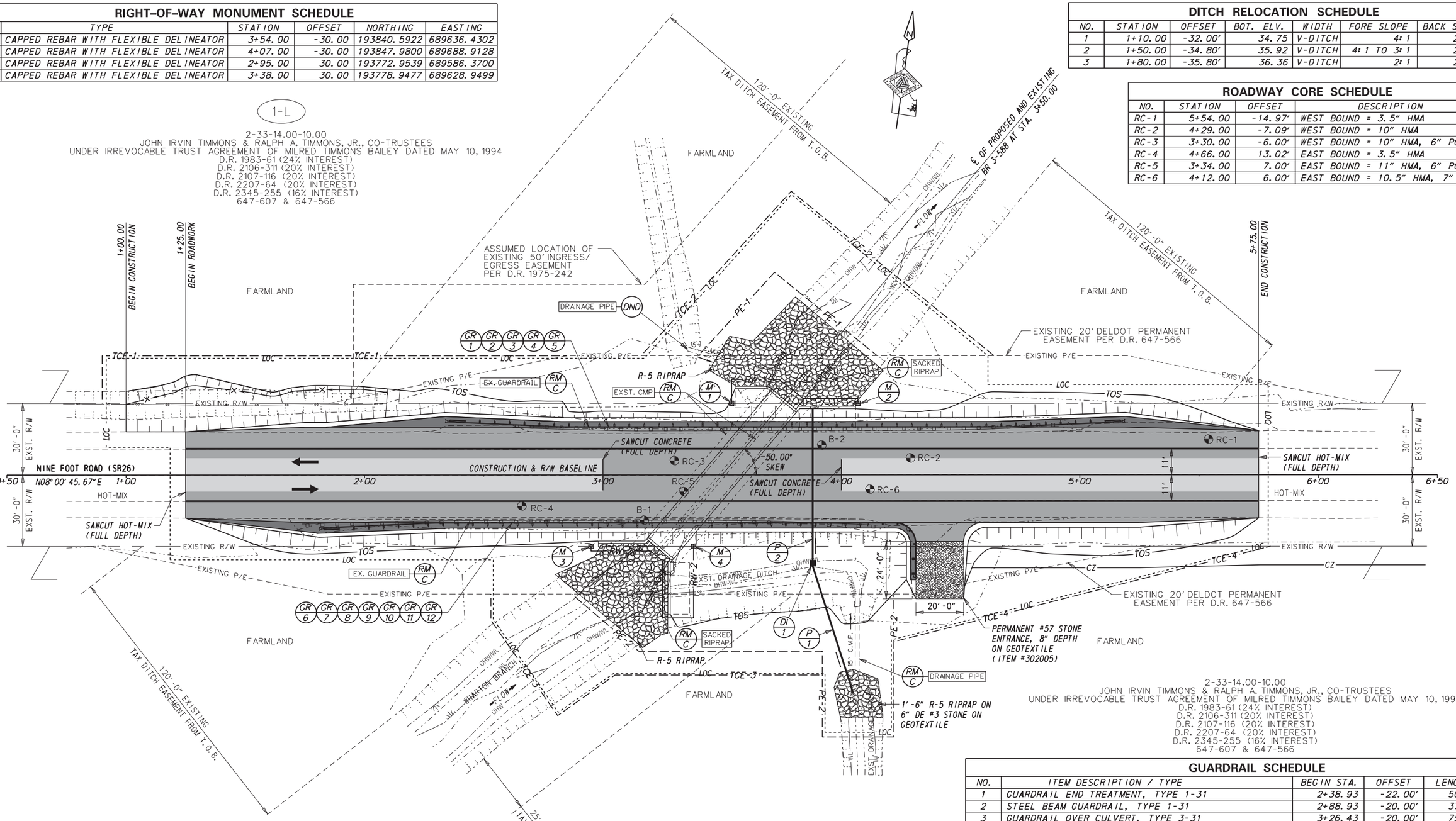
NO.	STATION	OFFSET	BOT. ELV.	WIDTH	FORE SLOPE	BACK SLOPE
1	1+10.00	-32.00'	34.75	V-DITCH	4:1	2:1
2	1+50.00	-34.80'	35.92	V-DITCH	4:1 TO 3:1	2:1
3	1+80.00	-35.80'	36.36	V-DITCH	2:1	2:1

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
RC-1	5+54.00	-14.97'	WEST BOUND = 3.5" HMA
RC-2	4+29.00	-7.09'	WEST BOUND = 10" HMA
RC-3	3+30.00	-6.00'	WEST BOUND = 10" HMA, 6" PCC
RC-4	4+66.00	13.02'	EAST BOUND = 3.5" HMA
RC-5	3+34.00	7.00'	EAST BOUND = 11" HMA, 6" PCC
RC-6	4+12.00	6.00'	EAST BOUND = 10.5" HMA, 7" PCC

1-L

2-33-14.00-10.00
JOHN IRVIN TIMMONS & RALPH A. TIMMONS, JR., CO-TRUSTEES
UNDER IRREVOCABLE TRUST AGREEMENT OF MILRED TIMMONS BAILEY DATED MAY 10, 1994
D.R. 1983-61 (24% INTEREST)
D.R. 2106-311 (20% INTEREST)
D.R. 2107-116 (20% INTEREST)
D.R. 2207-64 (20% INTEREST)
D.R. 2345-255 (16% INTEREST)
647-607 & 647-566



2-33-14.00-10.00
JOHN IRVIN TIMMONS & RALPH A. TIMMONS, JR., CO-TRUSTEES
UNDER IRREVOCABLE TRUST AGREEMENT OF MILRED TIMMONS BAILEY DATED MAY 10, 1994
D.R. 1983-61 (24% INTEREST)
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D.R. 2107-116 (20% INTEREST)
D.R. 2207-64 (20% INTEREST)
D.R. 2345-255 (16% INTEREST)
647-607 & 647-566

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
P-1	21" RCP	III	56.00	0.89%	32.00	31.50
P-2	21" RCP	III	64.00	0.78%	31.50	31.00

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
DI-1	3+87.95	37.00	48" x 30"	1	39.15	31.50

SOIL BORING SCHEDULE

NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
B-1	3+17.29	18.97	39.87	193786.9810	689606.9090
B-2	3+91.79	-12.52	40.39	193828.5470	689676.2840

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
1	GUARDRAIL END TREATMENT, TYPE 1-31	2+38.93	-22.00'	50.00
2	STEEL BEAM GUARDRAIL, TYPE 1-31	2+88.93	-20.00'	37.50
3	GUARDRAIL OVER CULVERT, TYPE 3-31	3+26.43	-20.00'	75.00
4	STEEL BEAM GUARDRAIL, TYPE 1-31	4+01.43	-20.00'	62.50
5	GUARDRAIL END TREATMENT, TYPE 1-31	4+63.93	-20.00'	50.00
6	GUARDRAIL END TREATMENT, TYPE 1-31	1+86.06	22.00'	50.00
7	STEEL BEAM GUARDRAIL, TYPE 1-31	2+36.06	20.00'	62.50
8	GUARDRAIL OVER CULVERT, TYPE 3-31	2+98.56	20.00'	75.00
9	STEEL BEAM GUARDRAIL, TYPE 1-31	3+73.56	20.00'	12.50
10	W-BEAM, TYPE 1-27 TO TYPE 1-31 TRANSITION SECTION *	3+86.06	20.00'	25.00
11	CURVED GUARDRAIL SECTION, TYPE 27 (8.5'R)	4+11.06	20.00'	31.67
12	ENTRANCE SPECIAL END ACHORAGE, TYPE 27	4+31.26	35.27'	6.25

* FOR GUARDRAIL SCHEDULE'S IDENTIFIER 10, THE TRANSITION FROM TYPE 1-27 TO TYPE 1-31 WILL BE PAID FOR UNDER ITEM #720021

ADDENDA / REVISIONS

SCALE
0 20 40 60
FEET

BR 3-588 ON SR 26
NINE FOOT ROAD
OVER WHARTON'S BRANCH

CONTRACT	BRIDGE NO.	3-588
T201407309	DESIGNED BY: JWK	
COUNTY	CHECKED BY: NED	
SUSSEX		

CONSTRUCTION PLAN

SECTION: BR
SHEET NO.: 8

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Type = Symmetric Parabola
Direction = Crest
L = 300.00'
G1 = 0.59%
G2 = -0.45%
e = -0.39'
K = 286.71
M = -0.35
SSD = 495.00'

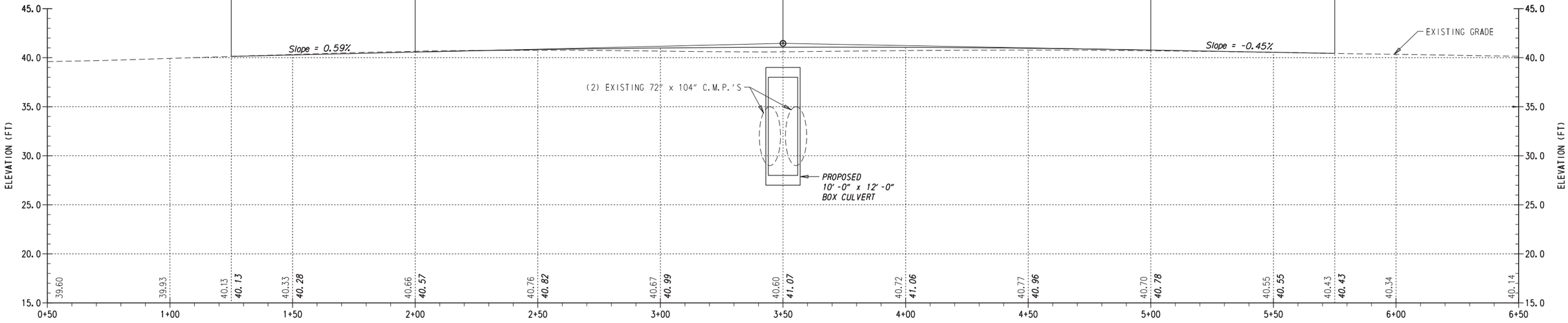
POB 1+25.00
Elev. 40.13

PVC 2+00.00
Elev. 40.57

PVI 3+50.00
Elev. 41.46

PVT 5+00.00
Elev. 40.78

POE 5+75.00
Elev. 40.43



NINE FOOT ROAD (SR26)

VERTICAL SCALE FEET
15
10
5
0

ADDENDA / REVISIONS		SCALE	BR 3-588 ON SR 26 NINE FOOT ROAD OVER WHARTON'S BRANCH	CONTRACT	BRIDGE NO. 3-588	PROFILE	SECTION
		0 20 40 60 FEET		T201407309	DESIGNED BY: JWK		BR
				COUNTY	CHECKED BY: NED		SHEET NO.
				SUSSEX			9

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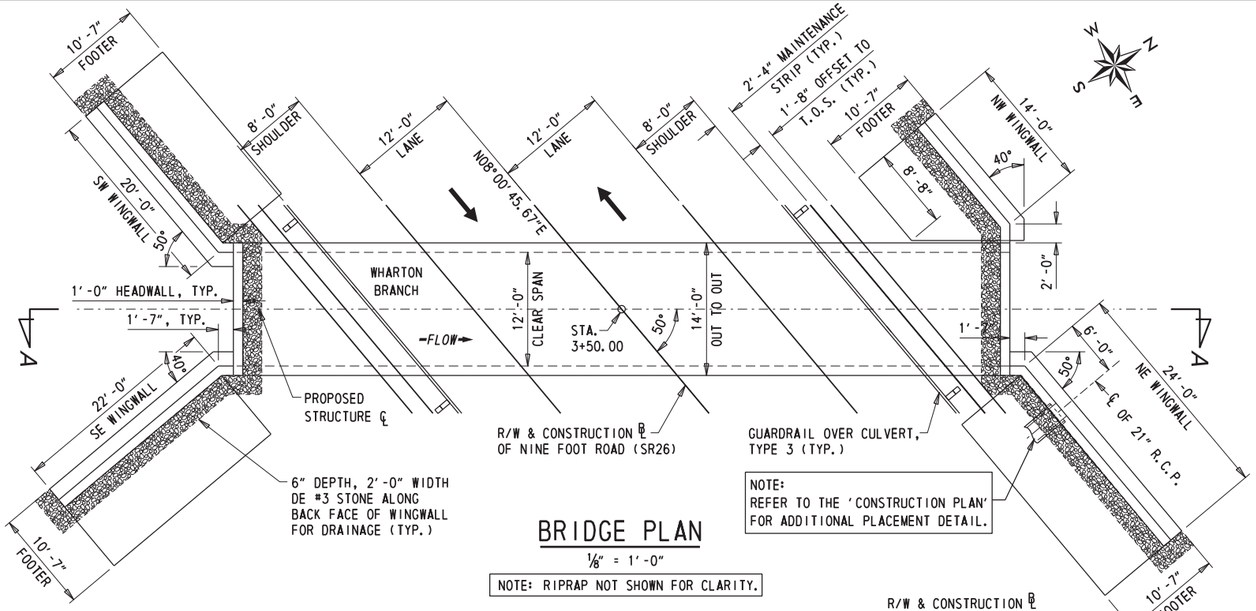
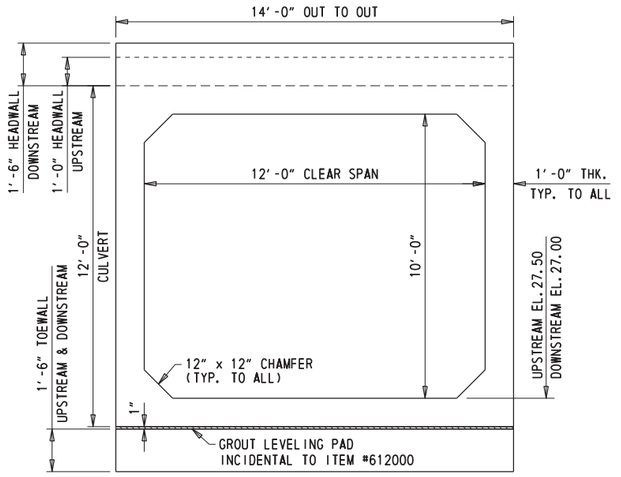


BRIDGE PLAN

1/8" = 1'-0"

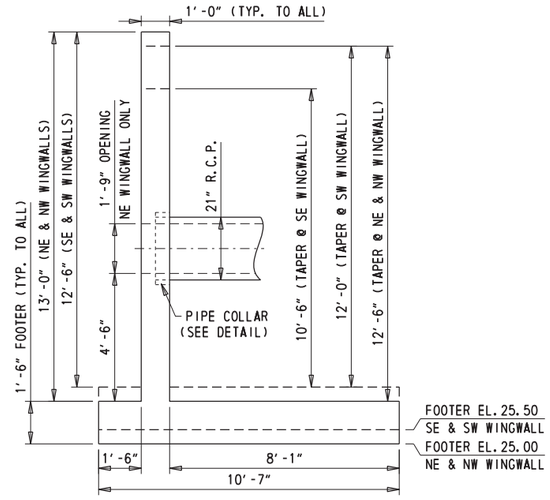
NOTE: RIPRAP NOT SHOWN FOR CLARITY.



TYPICAL PRECAST CULVERT SECTION

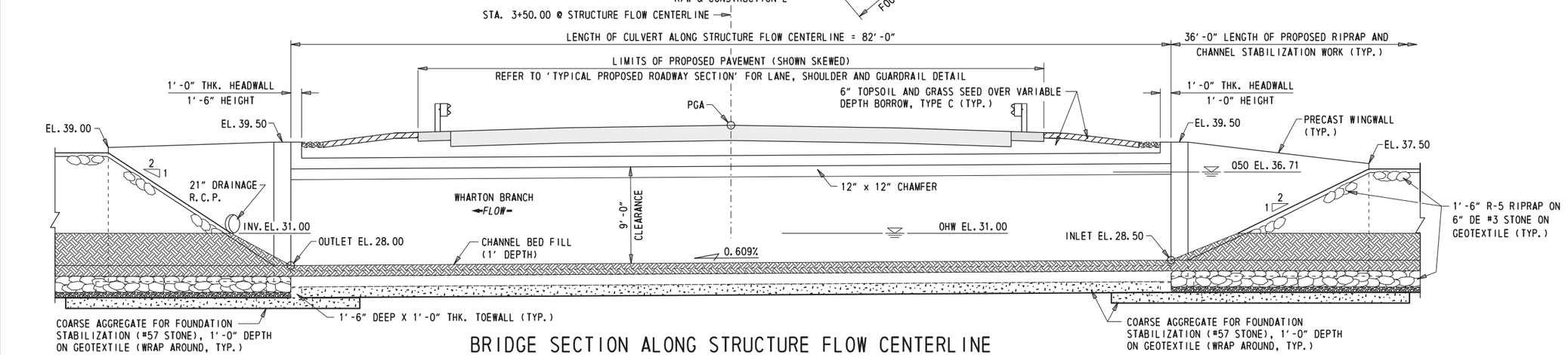
(SHOWING HEADWALL AND TOEWALL)

3/8" = 1'-0"



TYPICAL PRECAST WINGWALL SECTION

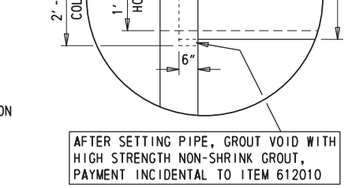
3/8" = 1'-0"



BRIDGE SECTION ALONG STRUCTURE FLOW CENTERLINE

(SECTION A-A)

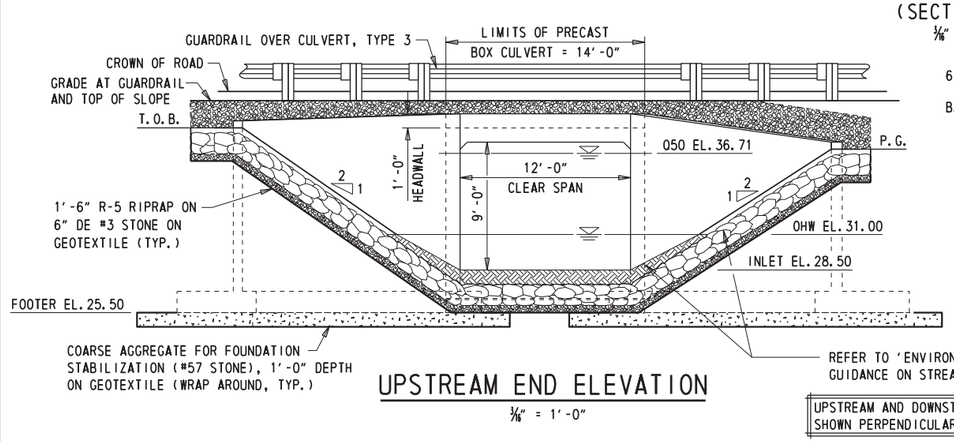
1/16" = 1'-0"



AFTER SETTING PIPE, GROUT VOID WITH HIGH STRENGTH NON-SHRINK GROUT, PAYMENT INCIDENTAL TO ITEM 612010

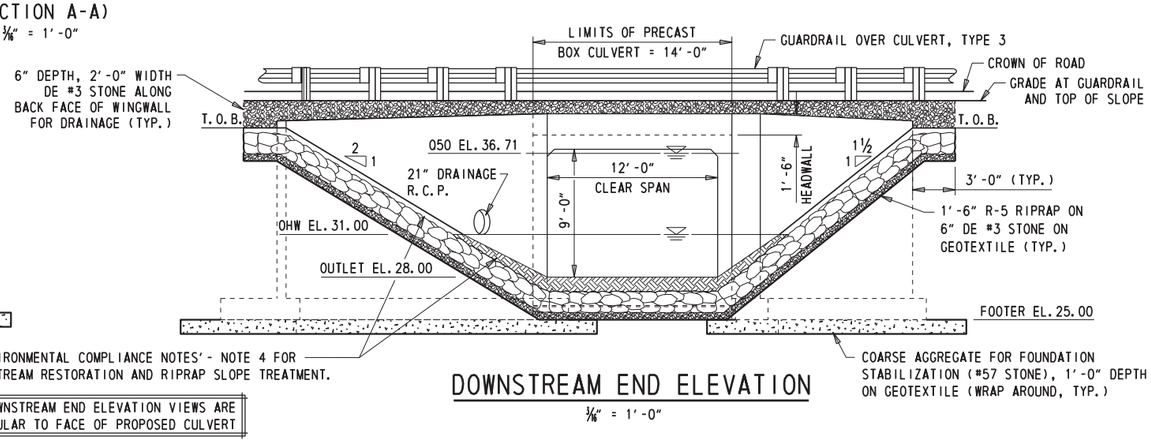
PIPE COLLAR DETAIL

1/2" = 1'-0"



UPSTREAM END ELEVATION

1/16" = 1'-0"



REFER TO 'ENVIRONMENTAL COMPLIANCE NOTES' - NOTE 4 FOR GUIDANCE ON STREAM RESTORATION AND RIPRAP SLOPE TREATMENT.

DOWNSTREAM END ELEVATION

1/16" = 1'-0"

UPSTREAM AND DOWNSTREAM END ELEVATION VIEWS ARE SHOWN PERPENDICULAR TO FACE OF PROPOSED CULVERT

ADDENDA / REVISIONS		SCALE: AS NOTED	BR 3-588 ON SR 26 NINE FOOT ROAD OVER WHARTON'S BRANCH	CONTRACT T201407309	BRIDGE NO. 3-588	BRIDGE PLAN, SECTION AND ELEVATION	SECTION BR
				COUNTY SUSSEX	DESIGNED BY: JWK		SHEET NO. 10
					CHECKED BY: NED		

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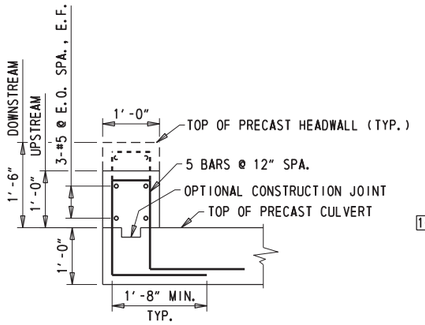
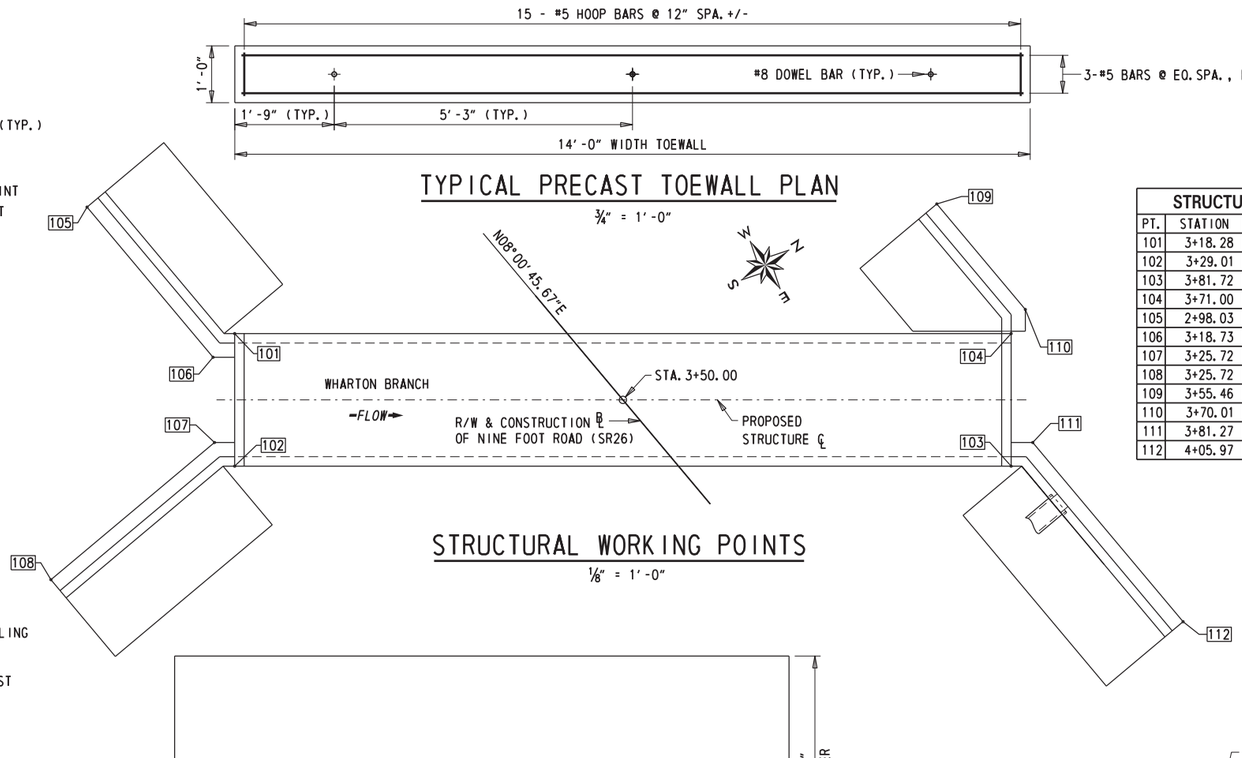


TYPICAL PRECAST HEADWALL SECTION

¾" = 1'-0"



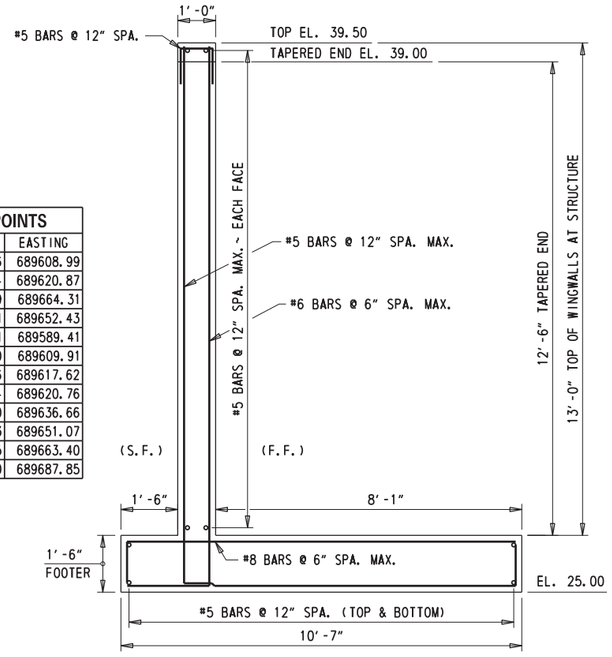
TYPICAL PRECAST TOEWALL PLAN

¾" = 1'-0"

STRUCTURAL WORKING POINTS

⅛" = 1'-0"

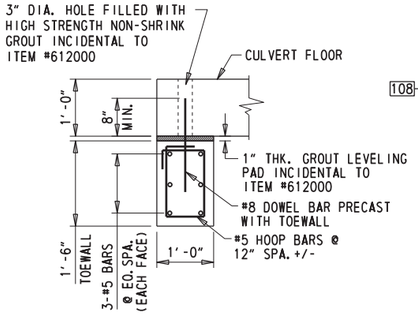
STRUCTURAL WORKING POINTS				
PT.	STATION	OFFSET	NORTHING	EASTING
101	3+18.28	26.91	193779.26	689608.99
102	3+29.01	35.91	193771.84	689620.87
103	3+81.72	-26.91	193841.39	689664.31
104	3+71.00	-35.91	193848.81	689652.43
105	2+98.03	30.26	193773.11	689589.41
106	3+18.73	30.26	193776.00	689609.91
107	3+25.72	35.93	193771.36	689617.62
108	3+25.72	56.48	193749.04	689620.76
109	3+55.46	-38.69	193849.40	689636.66
110	3+70.01	-38.69	193851.43	689651.07
111	3+81.27	-30.26	193844.65	689663.40
112	4+05.97	-30.26	193848.10	689687.85



TYPICAL DOWNSTREAM PRECAST WINGWALL SECTION

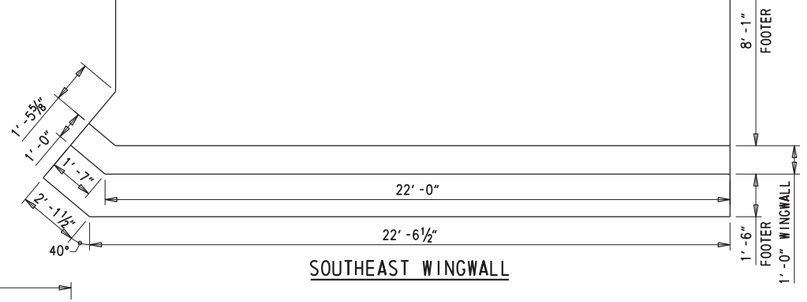
(NORTHWEST & NORTHEAST)

½" = 1'-0"

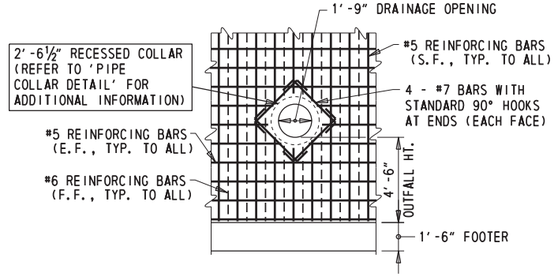


TYPICAL PRECAST TOEWALL SECTION

¾" = 1'-0"



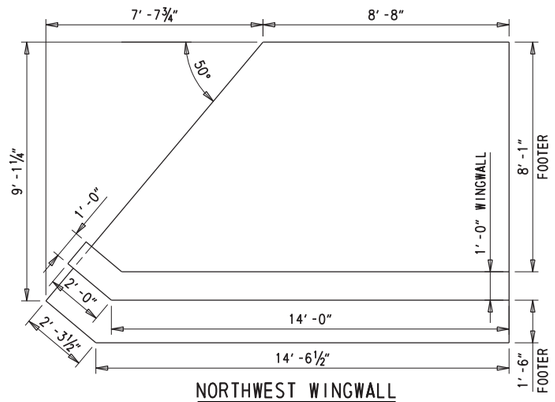
SOUTHEAST WINGWALL



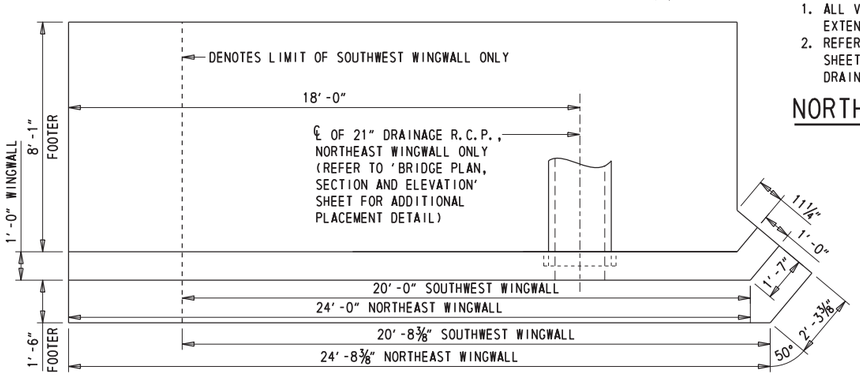
1. ALL VERTICAL AND HORIZONTAL CULVERT REINFORCEMENT SHALL EXTEND TO WITHIN 2" OF PROPOSED DRAINAGE OPENING.
2. REFER TO 'PROPOSED BRIDGE PLAN, SECTION AND ELEVATION' SHEET FOR ADDITIONAL INFORMATION REGARDING PROPOSED DRAINAGE PIPE LOCATIONS AND ELEVATIONS.

NORTHEAST WINGWALL PIPE COLLAR REINFORCEMENT DETAIL

¼" = 1'-0"



NORTHWEST WINGWALL

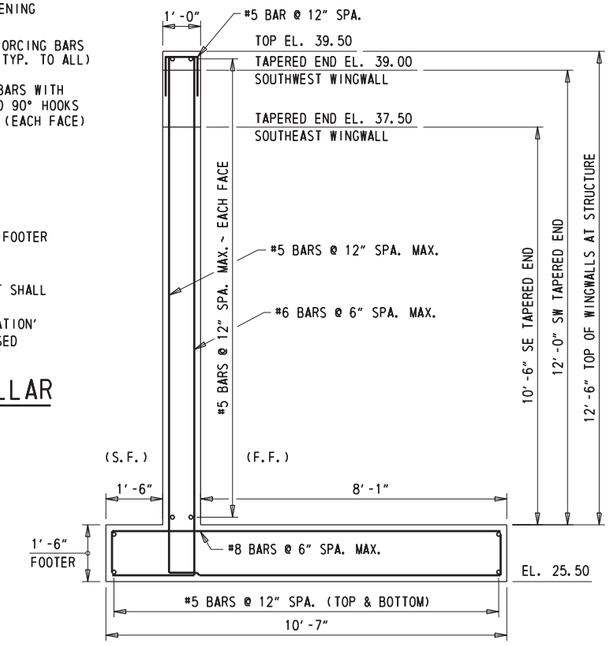


NORTHEAST & SOUTHWEST WINGWALLS

PRECAST WINGWALL PLAN DETAILS

⅜" = 1'-0"

LEGEND	
E.F. -	EACH FACE
F.F. -	FILL FACE
N.E. -	NORTHEAST
N.W. -	NORTHWEST
S.E. -	SOUTHEAST
S.F. -	STREAM FACE
S.W. -	SOUTHWEST
W.W. -	WINGWALL



TYPICAL UPSTREAM PRECAST WINGWALL SECTION

(SOUTHWEST & SOUTHEAST)

½" = 1'-0"

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ADDENDA / REVISIONS		SCALE: AS NOTED	BR 3-588 ON SR 26 NINE FOOT ROAD OVER WHARTON'S BRANCH	CONTRACT	BRIDGE NO. 3-588	PRECAST BRIDGE DETAILS	SECTION
				T201407309	DESIGNED BY: JWK		BR
				COUNTY			SHEET NO.
				SUSSEX	CHECKED BY: NED		11

BORING: B-1 | **DATE DRILLED:** 2/27/15
STATION: 3+17.29 | **OFFSET:** 18.97' | **ELEVATION:** 39.87 | **NORTHING:** 193786.981 | **EASTING:** 689606.909
COMMENTS: N/A

SAMPLE INFORMATION

NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	0.0	2 4 8	MOIST MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	HOT-MIX 5"
	2.0	13	12" RECOVERY		
2	2.0	10 4 5	MOIST LOOSE DARK BROWN ORGANIC FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
	4.0	7	15" RECOVERY		
3	4.0	3 4 7	MOIST MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
	6.0	9	15" RECOVERY		
4	6.0	10 12 10	MOIST MEDIUM DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)	
	8.0	9	12" RECOVERY		7.5' TO WATER
5	8.0	4 14 10	WET MEDIUM DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)	
	10.0	9	20" RECOVERY		10' TO WATER
6	13.0	9 9 10	WET VERY STIFF BROWN FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	13' TO BOTTOM OF CULVERT
	15.0	12	24" RECOVERY		BOTTOM OF DE #57 STONE
7	18.0	12 14 18	WET HARD GRAY CLAYEY SILT W/TRACE FINE TO COARSE SAND.	A-4(3)	
	20.0	23	24" RECOVERY		
8	23.0	10 11 13	WET VERY STIFF BROWN FINE SANDY SILT W/TRACE COARSE SAND AND FINE GRAVEL.	A-4(0)	
	25.0	6	24" RECOVERY		
9	28.0	4 3 3	WET FIRM GRAY CLAYEY SILT W/SOME FINE SAND, TRACE OF COARSE SAND AND FINE GRAVEL.	A-4(4)	
	30.0	4	24" RECOVERY		
10	33.0	8 14 16	WET HARD BROWN COARSE SANDY SILT W/SOME FINE SAND AND CLAY, TRACE OF FINE GRAVEL.	A-4(0)	
	35.0	23	24" RECOVERY		
11	38.0	10 10 11	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	
	40.0	12	24" RECOVERY		
12	43.0	13 18 23	WET DENSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
	45.0	32	24" RECOVERY		
13	48.0	11 11 12	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-1-B	
	50.0	12	24" RECOVERY		
			END BORING		

BORING: B-2 | **DATE DRILLED:** 3/2/15
STATION: 3+91.79 | **OFFSET:** -12.52' | **ELEVATION:** 40.39 | **NORTHING:** 193828.547 | **EASTING:** 689676.284
COMMENTS: N/A

SAMPLE INFORMATION

NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	0.0	1 10 12	MOIST MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	HOT-MIX 5"
	2.0	9	12" RECOVERY		
2	2.0	4 4 6	MOIST LOOSE BROWN SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
	4.0	7	20" RECOVERY		
3	4.0	2 3 3	MOIST LOOSE BROWN SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
	6.0	5	18" RECOVERY		
4	6.0	5 10 10	MOIST MEDIUM DENSE BROWN FINE SAND W/SOME COARSE SAND, TRACE OF SILT.	A-3	
	8.0	10	20" RECOVERY		
5	8.0	5 11 13	WET MEDIUM DENSE BROWN FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	9' TO WATER
	10.0	10	22" RECOVERY		
6	13.0	5 10 15	WET MEDIUM DENSE BROWN SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)	13' TO BOTTOM OF CULVERT
	15.0	20	24" RECOVERY		BOTTOM OF DE #57 STONE
7	18.0	13 19 23	WET HARD BROWN FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
	20.0	24	24" RECOVERY		
8	23.0	11 13 17	WET MEDIUM DENSE BROWN SILTY FINE SAND W/TRACE COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
	25.0	19	24" RECOVERY		
9	28.0	4 10 16	WET MEDIUM DENSE BROWN FINE SAND W/SOME COARSE SAND AND SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
	30.0	25	24" RECOVERY		
10	33.0	7 9 11	WET MEDIUM DENSE BROWN FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL AND SILT.	A-3	
	35.0	17	24" RECOVERY		
11	38.0	17 23 22	WET VERY DENSE BROWN FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
	40.0	30	24" RECOVERY		
12	43.0	19 22 26	WET DENSE BROWN FINE SAND W/SOME COARSE SAND, TRACE OF SILT.	A-3	
	45.0	28	24" RECOVERY		
13	48.0	7 9 11	WET MEDIUM DENSE BROWN FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
	50.0	14	24" RECOVERY		
			END BORING		

NOTES:
1. THE INFORMATION SHOWN ON THIS SHEET IS BASED ON LIMITED INVESTIGATIONS, AND IS IN NO WAY WARRANTED TO BE INDICATIVE OF ACTUAL CONDITIONS WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION. SEE SECTION 102.05 OF THE STANDARD SPECIFICATIONS FOR MORE DETAIL.
2. BORING LOGS MADE BY DELAWARE DEPARTMENT OF TRANSPORTATION, SUBSURFACE EXPLORATION COMPLETED BY HILLIS-CARNES ENGINEERING ASSOCIATES, INC (HCEA).
3. LOCATIONS OF BORINGS ARE REFERENCED TO THE CONSTRUCTION PLAN AND LABELED AS B-1 AND B-2.
4. SOIL SAMPLING: 2 IN. OUTSIDE DIA. SPLIT BARREL SAMPLER, DRIVEN WITH A 140 LB. HAMMER FALLING 30 IN.
5. ALL DEPTHS GIVEN ARE IN FEET.

ADDENDA / REVISIONS		NOT TO SCALE	BR 3-588 ON SR 26 NINE FOOT ROAD OVER WHARTON'S BRANCH	CONTRACT	BRIDGE NO. 3-588	SOIL BORING LOG	SECTION
				T201407309	DESIGNED BY: JWK		BR
				COUNTY	CHECKED BY: NED		SHEET NO.
				SUSSEX			12

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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, 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 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): #3(a) AND (c) (NO PCN)
DNREC - WETLANDS: PROJECT CONSISTENT WITH DEL. CODE CH. 72, SECTION 7217, SPECIAL EXEMPTION (b)
DNREC - WATER QUALITY & COASTAL ZONE - ISSUED

* THE PERMITS/APPROVALS LISTED ARE THOSE REQUIRED FOR THIS PROJECT. THE ENVIRONMENTAL STUDIES SECTION IS RESPONSIBLE FOR COORDINATING AND/OR OBTAINING THIS APPROVAL.

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

3. CULTURAL RESOURCE ISSUES:
ANY STAGING AND STOCKPILE AREA(S) OUTSIDE THE PROJECT'S LOC THAT INDIVIDUALLY OR CUMULATIVELY ARE LARGER THAN 10,000 SF MUST BE APPROVED BY DELDOT'S ARCHAEOLOGIST. WITHIN 30 DAYS, DELDOT WILL (1) APPROVE THE USE OF THE PROPOSED STAGING AND STOCKPILE AREA(S), (2) REJECT THE REQUEST; OR (3) PERFORM AN ARCHAEOLOGICAL SURVEY TO DETERMINE WHETHER TO APPROVE OR REJECT THE REQUEST, WHICH MAY TAKE UP TO 3 MONTHS. IF AN ARCHAEOLOGICAL SURVEY IS NECESSARY, DELDOT OR A CONSULTANT ON ITS BEHALF WILL UNDERTAKE THE SURVEY.

4. STREAM RESTORATION AND SLOPE RIPRAP TREATMENT

A. THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS OF ITEM #707500 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 #707500 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 #707500 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 #707500 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. EROSION CONTROL BLANKET AT TOE OF SLOPE CAN BE TRENCHED IN OR STAPLES PLACED AT 6" ON CENTER. ALL WORK, STARTING WITH THE INITIAL CHOKING WITH TOPSOIL THROUGH THE SEEDING SHALL BE COMPLETED PRIOR TO ANY RAIN EVENT. 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. 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 - DRY GROUND, (PAYMENT UNDER ITEM 908017). SILT FENCE AND/OR CONSTRUCTION SAFETY FENCE SHALL BE USED ALONG THE LIMITS OF CONSTRUCTION IN ALL AREAS WHERE WATER/WETLANDS EXIST (AS SHOWN ON THE EC SHEETS). CONTRACTOR ACCESS BEYOND THE LOC IS STRICTLY PROHIBITED.

WETLAND AREA DELINEATED BY CHRISTIE BONNIEWELL (DELDOT) & TJ AUSTIN (CENTURY) IN JUNE 2015 IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS "CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987) AND THE ATLANTIC AND GULF COAST REGIONAL SUPPLEMENT (2010)." ORIGINAL SHEET PREPARED BY JONATHAN KARAM ON 06-27-2016. SHEET LAST UPDATED ON 03-28-2019.

ADDENDA / REVISIONS		NOT TO SCALE	BR 3-588 ON SR 26 NINE FOOT ROAD OVER WHARTON'S BRANCH	CONTRACT	BRIDGE NO. 3-588	ENVIRONMENTAL COMPLIANCE NOTES	SECTION
				T201407309	DESIGNED BY: JWK		BR
				COUNTY			SHEET NO.
				SUSSEX	CHECKED BY: NED		13

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PERMANENT WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
W-1	UPSTREAM RIPRAP	155.68	0.0036	8.65	COE/ DNREC
W-2	DITCH GRADING	374.80	0.0086	83.28	COE/ DNREC
W-3	RIPRAP FOR DRAINAGE DITCH	151.64	0.0035	5.61	COE/ DNREC
W-4	DOWNSTREAM RIPRAP	191.66	0.0044	10.65	COE/ DNREC
TOTAL PERMANENT WETLAND IMPACT AREAS		873.78	0.0201	108.19	COE/ DNREC

TEMPORARY WETLAND IMPACT AREA SCHEDULE

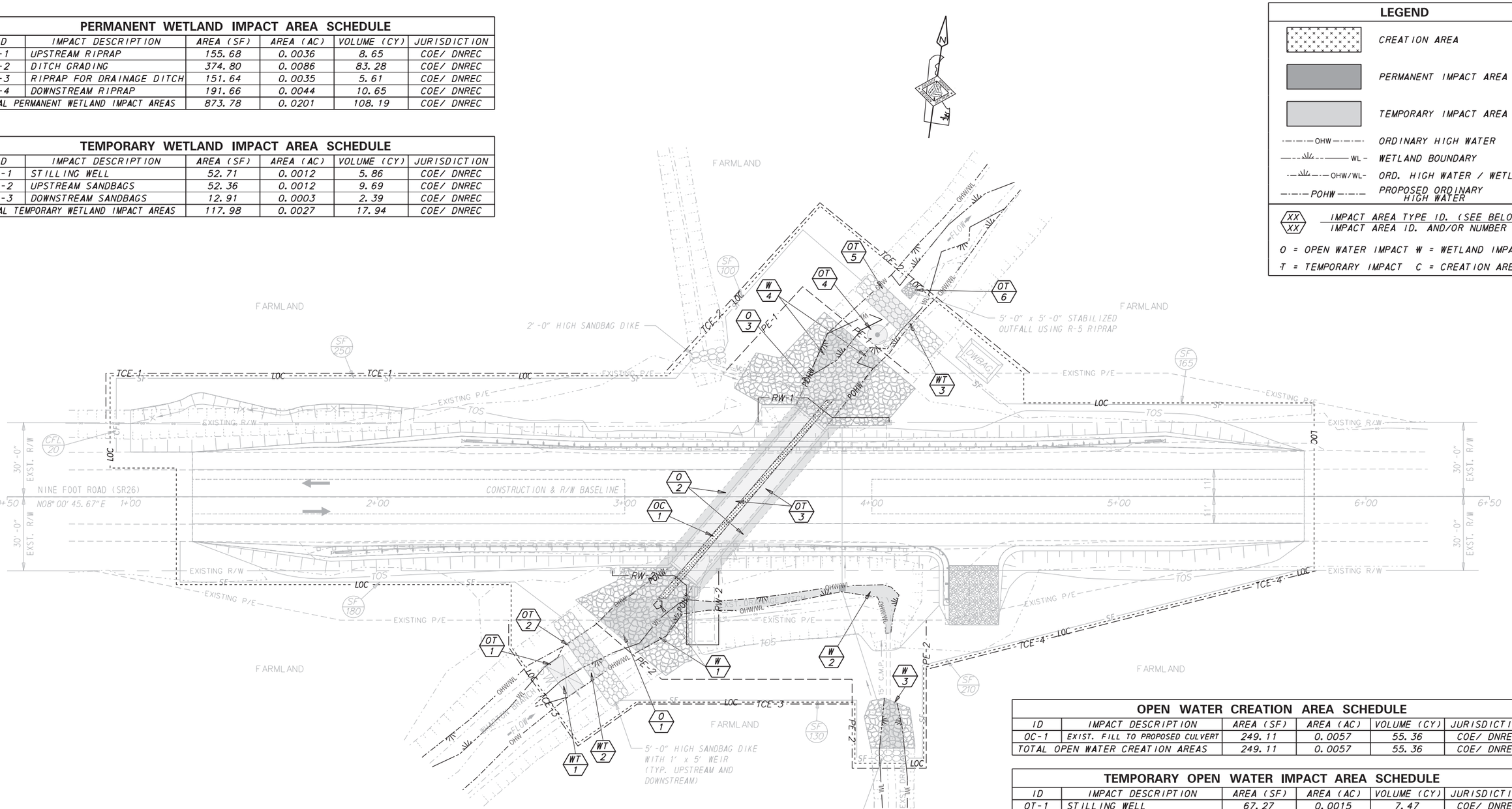
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
WT-1	STILLING WELL	52.71	0.0012	5.86	COE/ DNREC
WT-2	UPSTREAM SANDBAGS	52.36	0.0012	9.69	COE/ DNREC
WT-3	DOWNSTREAM SANDBAGS	12.91	0.0003	2.39	COE/ DNREC
TOTAL TEMPORARY WETLAND IMPACT AREAS		117.98	0.0027	17.94	COE/ DNREC

LEGEND

- CREATION AREA
- PERMANENT IMPACT AREA
- TEMPORARY IMPACT AREA
- OHW — ORDINARY HIGH WATER
- WL — WETLAND BOUNDARY
- OHW/WL — ORD. HIGH WATER / WETLAND
- POHW — PROPOSED ORDINARY HIGH WATER

XX / XX — 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



OPEN WATER CREATION AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OC-1	EXIST. FILL TO PROPOSED CULVERT	249.11	0.0057	55.36	COE/ DNREC
TOTAL OPEN WATER CREATION AREAS		249.11	0.0057	55.36	COE/ DNREC

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-1	STILLING WELL	67.27	0.0015	7.47	COE/ DNREC
OT-2	UPSTREAM SANDBAGS	110.24	0.0025	20.41	COE/ DNREC
OT-3	PIPES TO CULVERT	1159.23	0.0266	257.61	COE/ DNREC
OT-4	SUMP PIT	50.26	0.0011	9.31	COE/ DNREC
OT-5	DOWNSTREAM SANDBAGS	171.84	0.0039	31.82	COE/ DNREC
OT-6	STABLIZED RIPRAP OUTFALL	25.00	0.0005	1.39	COE/ DNREC
TOTAL TEMPORARY OPEN WATER IMPACTS		1583.84	0.0361	328.01	COE/ DNREC

PERMANENT OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
O-1	UPSTREAM RIPRAP	342.81	0.0078	19.05	COE/ DNREC
O-2	PIPES TO CULVERT	669.80	0.0154	148.84	COE/ DNREC
O-3	DOWNSTRAM RIPRAP	419.76	0.0096	23.32	COE/ DNREC
TOTAL PERMANENT OPEN WATER IMPACTS		1432.37	0.031	191.21	COE/ DNREC

PROJECT AREA DELINEATED BY CHRISTIE BONNIWELL (DELDOT) & TJ AUSTIN (CENTURY) IN JUNE 2015 IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS "CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987) AND THE ATLANTIC AND GULF COAST REGIONAL SUPPLEMENT (2010)."

SHEET PREPARED BY JONATHAN KARAM, 10/04/2016, DELAWARE D.O.T. BRIDGE DESIGN SECTION.
LAST UPDATED ON 6-29-2017.

ADDENDA / REVISIONS	

SCALE
0 20 40 60
FEET

BR 3-588 ON SR 26
NINE FOOT ROAD
OVER WHARTON'S BRANCH

CONTRACT	BRIDGE NO.	3-588
T201407309	DESIGNED BY: JWK	
COUNTY	CHECKED BY: NED	
SUSSEX		

ENVIRONMENTAL COMPLIANCE PLAN

SECTION	
BR	
SHEET NO.	
14	

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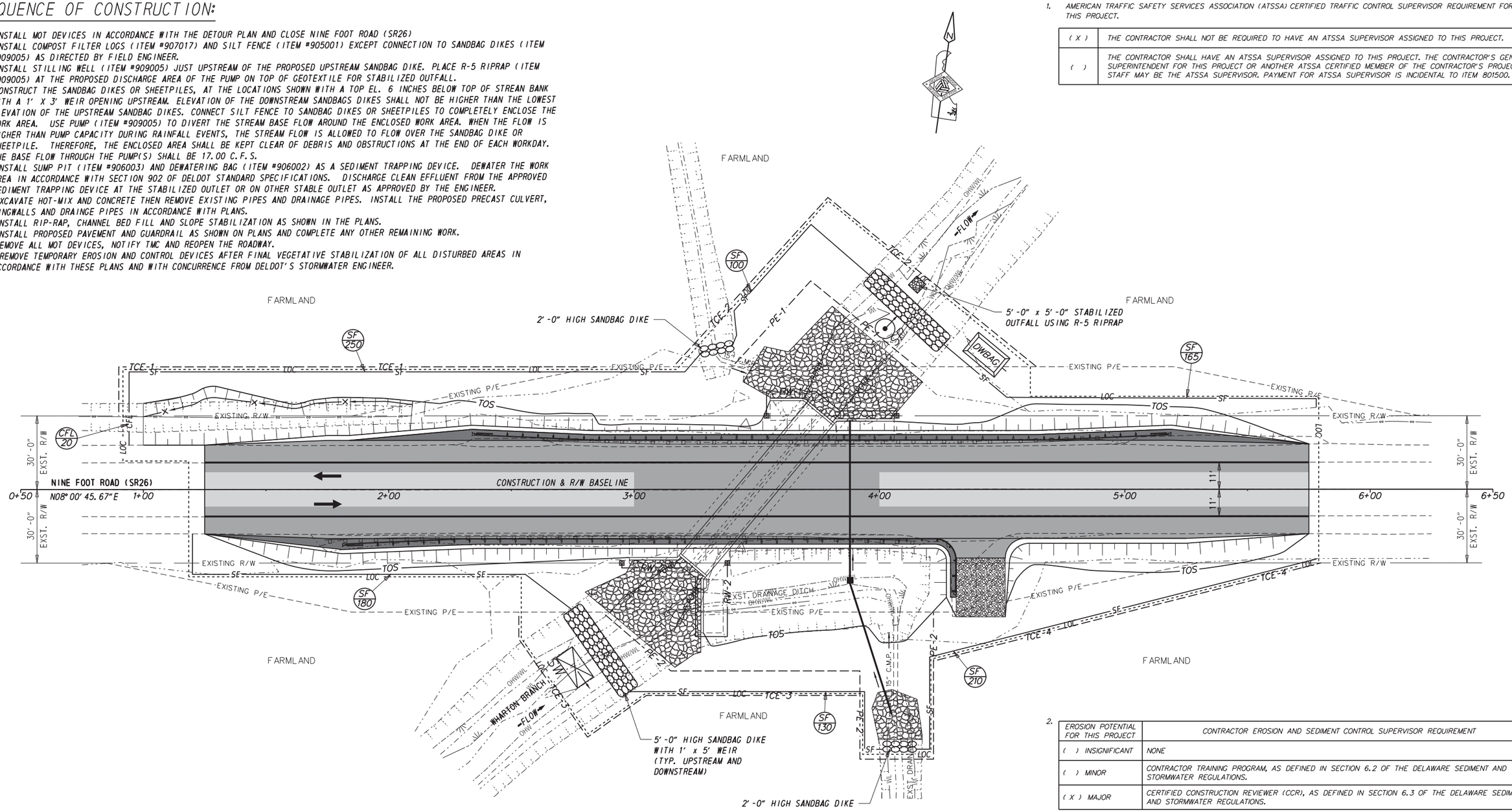
SEQUENCE OF CONSTRUCTION:

1. INSTALL MOT DEVICES IN ACCORDANCE WITH THE DETOUR PLAN AND CLOSE NINE FOOT ROAD (SR26)
2. INSTALL COMPOST FILTER LOGS (ITEM #907017) AND SILT FENCE (ITEM #905001) EXCEPT CONNECTION TO SANDBAG DIKES (ITEM #909005) AS DIRECTED BY FIELD ENGINEER.
3. INSTALL STILLING WELL (ITEM #909005) JUST UPSTREAM OF THE PROPOSED UPSTREAM SANDBAG DIKE. PLACE R-5 RIPRAP (ITEM #909005) AT THE PROPOSED DISCHARGE AREA OF THE PUMP ON TOP OF GEOTEXTILE FOR STABILIZED OUTFALL.
4. CONSTRUCT THE SANDBAG DIKES OR SHEETPILES, AT THE LOCATIONS SHOWN WITH A TOP EL. 6 INCHES BELOW TOP OF STREAN BANK WITH A 1' X 3' WEIR OPENING UPSTREAM. ELEVATION OF THE DOWNSTREAM SANDBAGS DIKES SHALL NOT BE HIGHER THAN THE LOWEST ELEVATION OF THE UPSTREAM SANDBAG DIKES. CONNECT SILT FENCE TO SANDBAG DIKES OR SHEETPILES TO COMPLETELY ENCLOSE THE WORK AREA. USE PUMP (ITEM #909005) TO DIVERT THE STREAM BASE FLOW AROUND THE ENCLOSED WORK AREA. WHEN THE FLOW IS HIGHER THAN PUMP CAPACITY DURING RAINFALL EVENTS, THE STREAM FLOW IS ALLOWED TO FLOW OVER THE SANDBAG DIKE OR SHEETPILE. THEREFORE, THE ENCLOSED AREA SHALL BE KEPT CLEAR OF DEBRIS AND OBSTRUCTIONS AT THE END OF EACH WORKDAY. THE BASE FLOW THROUGH THE PUMP(S) SHALL BE 17.00 C.F.S.
5. INSTALL SUMP PIT (ITEM #906003) AND DEWATERING BAG (ITEM #906002) AS A SEDIMENT TRAPPING DEVICE. DEWATER THE WORK AREA IN ACCORDANCE WITH SECTION 902 OF DELDOT STANDARD SPECIFICATIONS. DISCHARGE CLEAN EFFLUENT FROM THE APPROVED SEDIMENT TRAPPING DEVICE AT THE STABILIZED OUTLET OR ON OTHER STABLE OUTLET AS APPROVED BY THE ENGINEER.
6. EXCAVATE HOT-MIX AND CONCRETE THEN REMOVE EXISTING PIPES AND DRAINAGE PIPES. INSTALL THE PROPOSED PRECAST CULVERT, WINGWALLS AND DRAINGE PIPES IN ACCORDANCE WITH PLANS.
7. INSTALL RIP-RAP, CHANNEL BED FILL AND SLOPE STABILIZATION AS SHOWN IN THE PLANS.
8. INSTALL PROPOSED PAVEMENT AND GUARDRAIL AS SHOWN ON PLANS AND COMPLETE ANY OTHER REMAINING WORK.
9. REMOVE ALL MOT DEVICES, NOTIFY TMC AND REOPEN THE ROADWAY.
10. REMOVE TEMPORARY EROSION AND CONTROL DEVICES AFTER FINAL VEGETATIVE STABILIZATION OF ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND WITH CONCURRENCE FROM DELDOT'S STORMWATER ENGINEER.

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. 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 801500.



2.

EROSION POTENTIAL FOR THIS PROJECT	CONTRACTOR EROSION AND SEDIMENT CONTROL SUPERVISOR REQUIREMENT
( ) INSIGNIFICANT	NONE
( ) MINOR	CONTRACTOR TRAINING PROGRAM, AS DEFINED IN SECTION 6.2 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
(X) MAJOR	CERTIFIED CONSTRUCTION REVIEWER (CCR), AS DEFINED IN SECTION 6.3 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.

3. THE DISTURBED AREA FOR THIS PROJECT IS 0.868 ACRES.
4. THE ADDITIONAL IMPERVIOUS AREA FOR THIS PROJECT IS 2980 SQUARE FEET.
5. 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 FIVE 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 FIVE 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.

Vincent W. Davis 02/21/2019

DELDOT STORMWATER ENGINEER — DATE

"I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THESE PLANS MEET THE REQUIREMENTS OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS AND THAT ALL CLEARING, GRADING, AND CONSTRUCTION WILL BE ACCOMPLISHED PURSUANT TO THE PLAN."

ADDENDA / REVISIONS		SCALE	BR 3-588 ON SR 26 NINE FOOT ROAD OVER WHARTON'S BRANCH	CONTRACT	BRIDGE NO. 3-588	CONSTRUCTION SEQUENCE AND EROSION CONTROL PLAN	SECTION
		0 20 40 60 FEET		T201407309	DESIGNED BY: JWK		BR
				COUNTY			SHEET NO.
				SUSSEX	CHECKED BY: NED		15

28-MAR-2019
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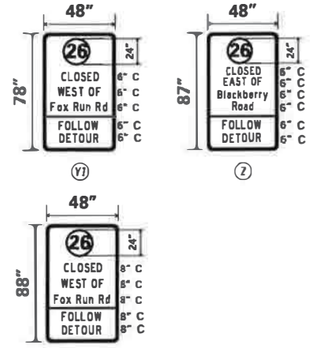
PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

SR 26 TO CLOSE	STARTING XX/XX/XX

SPECIAL SIGNS



*D/G RETROREFLECTIVE ORANGE BACKGROUND; BLACK LEGEND

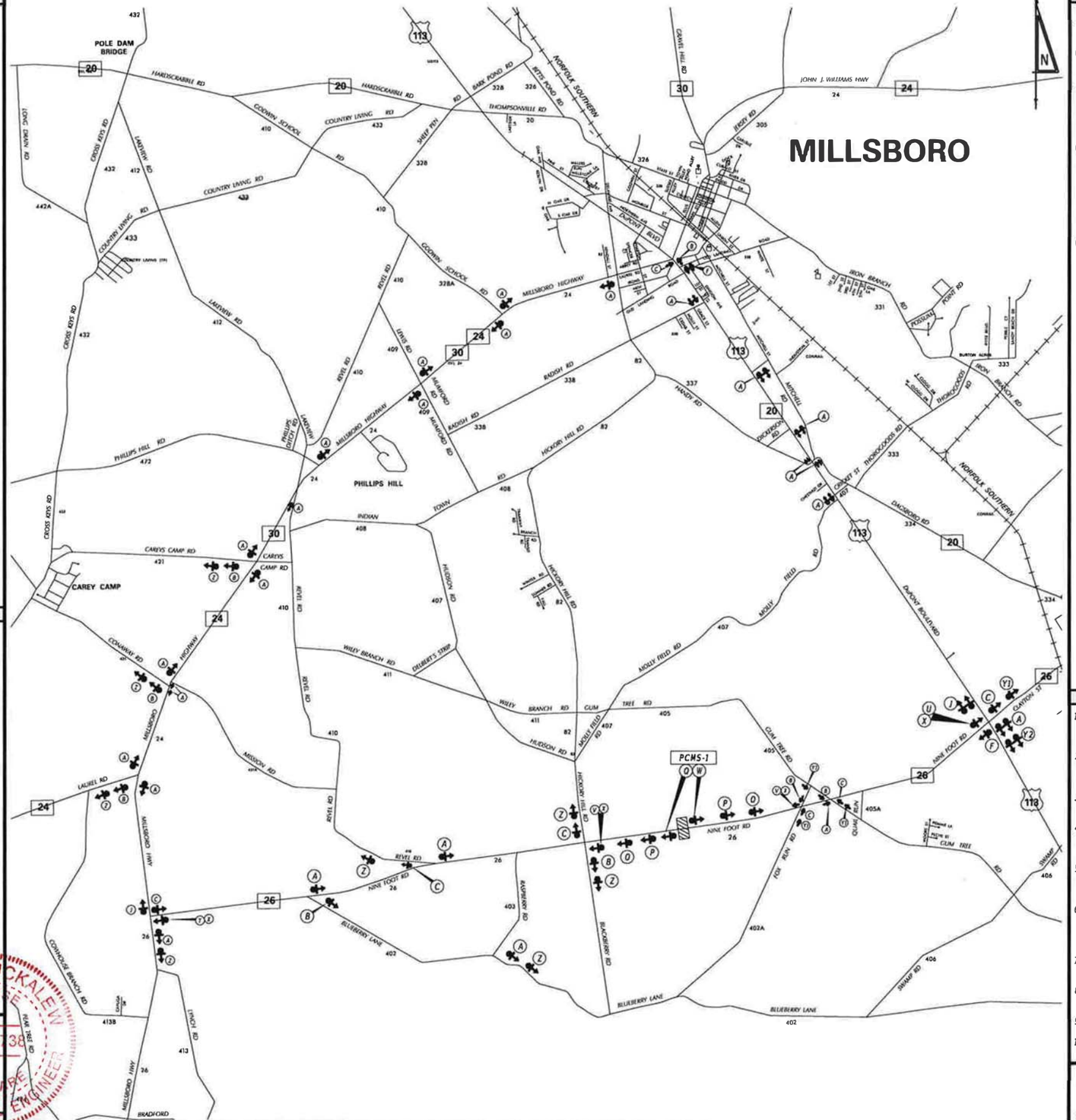
*ROUTE SHIELD – WHITE BACKGROUND; BLACK LEGEND

PREPARED BY
DELDOT - TRANSPORTATION SOLUTIONS
TRAFFIC SAFETY

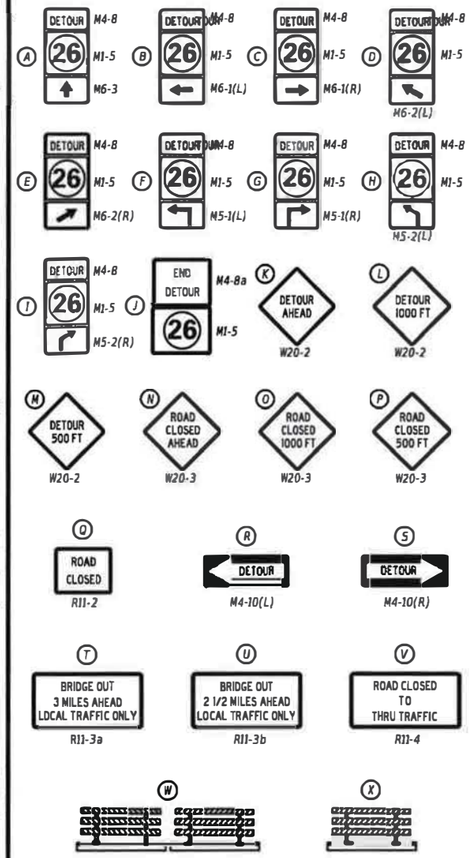
4/2/19
DATE

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

MARK S. BUCKALEW
LICENSE
No. 16738
DELAWARE
PROFESSIONAL ENGINEER



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) OR 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 ONTROL 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.

CONCURRENCE FOR IMPLEMENTATION

TRAFFIC SAFETY

4-1-19
DATE

ADDENDA / REVISIONS

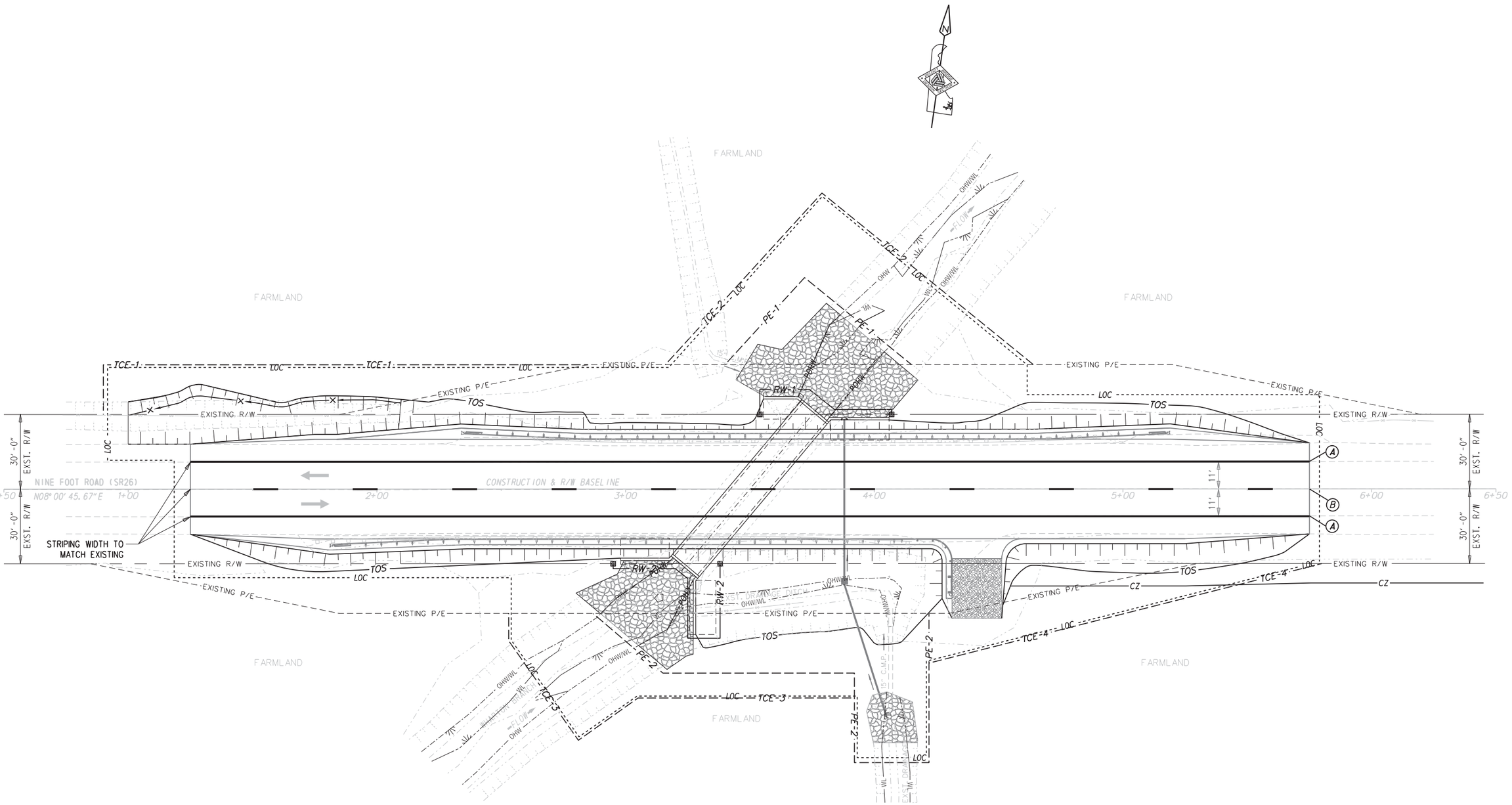
NOT TO SCALE

BR3-588 ON DE 26
OVER WHARTON DITCH

CONTRA CT	T201407309
COUNTY	SUSSEX
PERMIT NO.	S26
DESIGNED BY:	DBW
CHECKED BY:	MSB

DETOUR PLAN - VEHICULAR
RT 26 @ BLACKBERRY RD

SECTION	TS
SHEET NO.	16



PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	*940 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	*140 LF

*ADDED 20 FT PER LINE FOR CONSTRUCTION DAMAGE

NOTE:
1. PLACE RECESSED PAVEMENT MARKERS ALONG THE CENTERLINE OF THE ROADWAY THROUGHOUT THE PROJECT LIMITS. SPACE PROPOSED MARKERS 80 FT APART. PROVIDE APPROXIMATELY 80 FT SPACE FROM EXISTING AND PROPOSED PAVEMENT MARKERS AT EACH END OF PROJECT LIMITS TO ACHIEVE CONSISTENT APPEARANCE. PAYMENT UNDER ITEM #817027 - RAISED/RECESSED PAVEMENT MARKER.

ADDENDA / REVISIONS	

SCALE
0 20 40 60
FEET

BR 3-588 ON SR 26
NINE FOOT ROAD
OVER WHARTON'S BRANCH

CONTRACT	BRIDGE NO.	3-588
T201407309	DESIGNED BY: JWK	
COUNTY	CHECKED BY: NED	
SUSSEX		

SIGNING AND STRIPING PLAN

SECTION
BR
SHEET NO.
17

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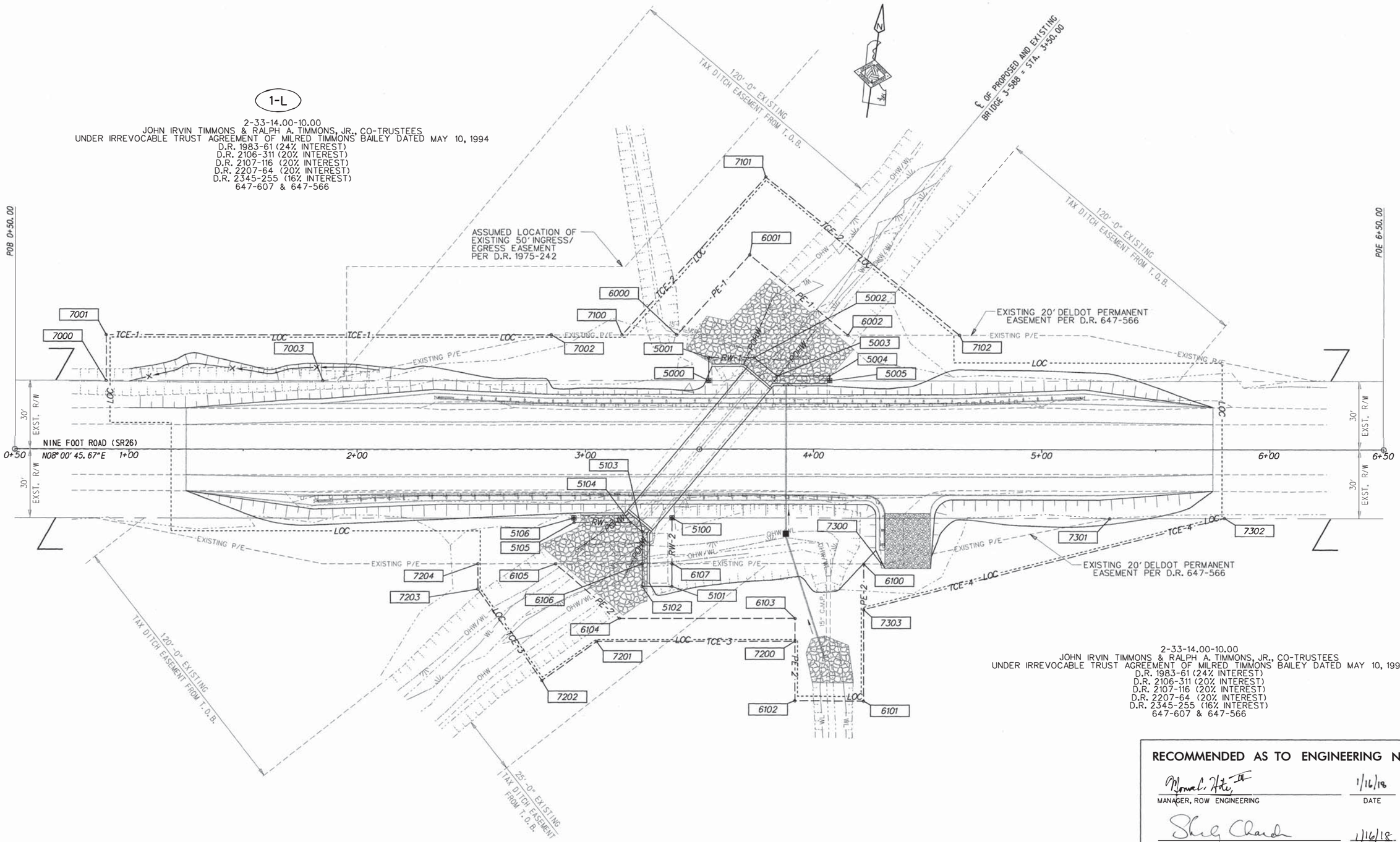

RECOMMENDED AS TO ENGINEERING NEED

MANAGER, ROW ENGINEERING	1/16/18 DATE
PROGRAM MANAGER, TEAM SUPPORT	1/16/18 DATE
TECHNICAL REVIEWER, TEAM SUPPORT	1/16/18 DATE

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 20 40 60 FEET	BRIDGE 3-588 ON SR26 NINE FOOT ROAD OVER WHARTON'S BRANCH	CONTRACT T201407309	BRIDGE NO. 3-588	RIGHT-OF-WAY PLAN	SECTION BR
				COUNTY SUSSEX	DESIGNED BY: JWK		SHEET NO. 18
					CHECKED BY: CAS		

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
2-33-14.00-10.00	(1-L) JOHN IRVIN TIMMONS & RALPH A. TIMMONS, JR., CO-TRUSTEES	FEE-1	D.R. 1983-61, 2106-311, 2107-116, 2207-64, 2345-255	146.550

ALIGNMENT NUMBER & DESCRIPTION: 3000 - ROW BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
5000	3000	3+54.00	-30.00	193840.5922	689636.4302	N 8°00'45.67" W	10.00				
5001	3000	3+54.00	-40.00	193850.4946	689635.0363	N 81°59'14.33" E	20.00				
5002	3000	3+74.00	-40.00	193853.2824	689654.8410	S 59°21'10.36" E	12.81				
5003	3000	3+84.00	-32.00	193846.7545	689665.8585	N 81°59'14.33" E	23.00				
5004	3000	4+07.00	-32.00	193849.9605	689688.6340	S 8°00'45.67" E	2.00				
5005	3000	4+07.00	-30.00	193847.9800	689688.9128	S 81°59'14.33" W	53.00				
5000	3000	3+54.00	-30.00	193840.5922	689636.4302						

FIGURE 5010 AREA = 306.0000 SQ. FT. (0.0070 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
2-33-14.00-10.00	(1-L) JOHN IRVIN TIMMONS & RALPH A. TIMMONS, JR., CO-TRUSTEES	FEE-2	D.R. 1983-61, 2106-311, 2107-116, 2207-64, 2345-255	146.550

ALIGNMENT NUMBER & DESCRIPTION: 3000 - ROW BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
5100	3000	3+38.00	30.00	193778.9477	689628.9499	S 8°00'45.67" E	30.00				
5101	3000	3+38.00	60.00	193749.2406	689633.1317	S 81°59'14.33" W	13.00				
5102	3000	3+25.00	60.00	193747.4285	689620.2586	N 8°00'45.67" W	24.00				
5103	3000	3+25.00	36.00	193771.1942	689616.9132	N 59°21'10.36" W	6.40				
5104	3000	3+20.00	32.00	193774.4582	689611.4045	S 81°59'14.33" W	25.00				
5105	3000	2+95.00	32.00	193770.9734	689586.6485	N 8°00'45.67" W	2.00				
5106	3000	2+95.00	30.00	193772.9538	689586.3697	N 81°59'14.33" E	43.00				
5100	3000	3+38.00	30.00	193778.9477	689628.9499						

FIGURE 5110 AREA = 460.0000 SQ. FT. (0.0106 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
2-33-14.00-10.00	(1-L) JOHN IRVIN TIMMONS & RALPH A. TIMMONS, JR., CO-TRUSTEES	P/E-1	D.R. 1983-61, 2106-311, 2107-116, 2207-64, 2345-255	146.550

ALIGNMENT NUMBER & DESCRIPTION: 3000 - ROW BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6000	3000	3+40.00	-50.00	193858.4455	689619.7790	N 34°25'24.76" E	47.42				
6001	3000	3+72.00	-85.00	193897.5643	689646.5879	S 58°52'07.32" E	55.44				
6002	3000	4+15.00	-50.00	193868.8999	689694.0468	S 81°59'14.33" W	75.00				
6000	3000	3+40.00	-50.00	193858.4455	689619.7790						

FIGURE 6010 AREA = 1312.5000 SQ. FT. (0.0301 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
2-33-14.00-10.00	(1-L) JOHN IRVIN TIMMONS & RALPH A. TIMMONS, JR., CO-TRUSTEES	P/E-2	D.R. 1983-61, 2106-311, 2107-116, 2207-64, 2345-255	146.550

ALIGNMENT NUMBER & DESCRIPTION: 3000 - ROW BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6100	3000	4+22.00	50.00	193770.8519	689714.9177	S 8°00'45.67" E	60.00				
6101	3000	4+22.00	110.00	193711.4377	689723.2813	S 81°59'14.33" W	30.00				
6102	3000	3+92.00	110.00	193707.2559	689693.5741	N 8°00'45.67" W	36.00				
6103	3000	3+92.00	74.00	193742.9044	689688.5560	S 81°59'14.33" W	77.00				
6104	3000	3+15.00	74.00	193732.1712	689612.3078	N 57°24'41.01" W	36.88				
6105	3000	2+87.00	50.00	193752.0339	689581.2357	N 81°59'14.33" E	38.00				
6106	3000	3+25.00	50.00	193757.3309	689618.8647	S 8°00'45.67" E	10.00				
5102	3000	3+25.00	60.00	193747.4285	689620.2586	N 81°59'14.33" E	13.00				
5101	3000	3+38.00	60.00	193749.2406	689633.1317	N 8°00'45.67" W	10.00				
6107	3000	3+38.00	50.00	193759.1430	689631.7378	N 81°59'14.33" E	84.00				
6100	3000	4+22.00	50.00	193770.8519	689714.9177						

FIGURE 6110 AREA = 3854.0000 SQ. FT. (0.0885 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
2-33-14.00-10.00	(1-L) JOHN IRVIN TIMMONS & RALPH A. TIMMONS, JR., CO-TRUSTEES	TCE-1	D.R. 1983-61, 2106-311, 2107-116, 2207-64, 2345-255	146.550

ALIGNMENT NUMBER & DESCRIPTION: 3000 - ROW BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
7000	3000	0+90.00	-30.00	193803.7926	689375.0076	N 8°00'45.67" W	20.00				
7001	3000	0+90.00	-50.00	193823.5974	689372.2197	N 81°59'14.33" E	194.95				
7002	3000	2+84.95	-50.00	193850.7719	689565.2665	S 70°40'38.58" W	101.98				
7003	3000	1+84.95	-30.00	193817.0279	689469.0306	S 81°59'14.33" W	94.95				
7000	3000	0+90.00	-30.00	193803.7926	689375.0076						

FIGURE 7010 AREA = 2899.0000 SQ. FT. (0.0666 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
2-33-14.00-10.00	(1-L) JOHN IRVIN TIMMONS & RALPH A. TIMMONS, JR., CO-TRUSTEES	TCE-2	D.R. 1983-61, 2106-311, 2107-116, 2207-64, 2345-255	146.550

ALIGNMENT NUMBER & DESCRIPTION: 3000 - ROW BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
7100	3000	3+16.00	-50.00	193855.1000	689596.0133	N 34°23'05.11" E	93.43				
7101	3000	3+79.00	-119.00	193932.2081	689648.7802	S 58°56'39.16" E	109.48				
7102	3000	4+64.00	-50.00	193875.7301	689742.5685	S 81°59'14.33" W	49.00				
6002	3000	4+15.00	-50.00	193868.8999	689694.0468	N 58°52'07.32" W	55.44				
6001	3000	3+72.00	-85.00	193897.5643	689646.5879	S 34°25'24.76" W	47.42				
6000	3000	3+40.00	-50.00	193858.4455	689619.7790	S 81°59'14.33" W	24.00				
7100	3000	3+16.00	-50.00	193855.1000	689596.0133						

FIGURE 7110 AREA = 3793.5000 SQ. FT. (0.0871 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
2-33-14.00-10.00	(1-L) JOHN IRVIN TIMMONS & RALPH A. TIMMONS, JR., CO-TRUSTEES	TCE-3	D.R. 1983-61, 2106-311, 2107-116, 2207-64, 2345-255	146.550

ALIGNMENT NUMBER & DESCRIPTION: 3000 - ROW BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
7200	3000	3+92.00	84.00	193733.0021	689689.9499	S 81°59'14.33" W	87.00				
7201	3000	3+05.00	84.00	193720.8749	689603.7993	S 46°40'33.96" W	29.41				
7202	3000	2+81.00	101.00	193700.6955	689582.4033	N 43°00'16.94" W	48.83				
7203	3000	2+53.00	61.00	193736.4020	689549.1009	N 8°00'45.67" W	11.00				
7204	3000	2+53.00	50.00	193747.2946	689547.5676	N 81°59'14.33" E	34.00				
6105	3000	2+87.00	50.00	193752.0339	689581.2357	S 57°24'41.01" E	36.88				
6104	3000	3+15.00	74.00	193732.1712	689612.3078	N 81°59'14.33" E	77.00				
6103	3000	3+92.00	74.00	193742.9044	689688.5560	S 8°00'45.67" E	10.00				
7200	3000	3+92.00	84.00	193733.0021	689689.9499						

FIGURE 7210 AREA = 2662.0000 SQ. FT. (0.0611 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
2-33-14.00-10.00	(1-L) JOHN IRVIN TIMMONS & RALPH A. TIMMONS, JR., CO-TRUSTEES	TCE-4	D.R. 1983-61, 2106-311, 2107-116, 2207-64, 2345-255	146.550

ALIGNMENT NUMBER & DESCRIPTION: 3000 - ROW BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
7300	3000	4+29.95	50.00	193771.9601	689722.7901	N 70°40'38.58" E	101.98				
7301	3000	5+29.95	30.00	193805.7041	689819.0260	N 81°59'14.33" E	50.05				
7302	3000	5+80.00	30.00	193812.6806	689868.5874	S 67°46'49.98" W	162.98				
7303	3000	4+22.00	70.00	193751.0472	689717.7056	N 8°00'45.67" W	20.00				
6100	3000	4+22.00	50.00	193770.8519	689714.9177	N 81°59'14.33" E	7.95				
7300	3000	4+29.95	50.00	193771.9601	689722.7901						

FIGURE 7310 AREA = 2001.0000 SQ. FT. (0.0459 ACRES)

LEGEND

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

ADDENDA / REVISIONS		NOT TO SCALE	BR 3-588 ON SR 26 NINE FOOT ROAD OVER WHARTON'S BRANCH	CONTRACT	BRIDGE NO. 3-588	RIGHT-OF-WAY DATA SHEET	SECTION
				T201407309	DESIGNED BY: JB		BR
				COUNTY			SHEET NO.
				SUSSEX	CHECKED BY: NED		19

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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)	TEMPORARY (SQ. FEET /ACRES)			
2-33-14.00-10.00	16	(1-L) JOHN IRVIN TIMMONS & RALPH A. TIMMONS, JR., CO-TRUSTEES	D.R. 1983-61 (24%)	D - 146.55	FEE-1	306.00 / 0.01						AREA OF FEE/RW CONTAINED IN EXISTING STATE PE = 306.00 / 0.01
		UNDER IRREVOCABLE TRUST AGREEMENT OF MILRED TIMMONS BAILEY DATED MAY 10, 1994	D.R. 2106-311 (20%)		FEE-2	460.00 / 0.01						AREA OF FEE/RW CONTAINED IN EXISTING STATE PE = 330.00 / 0.01
			D.R. 2107-116 (20%)		P/E-1			1312.50 / 0.03				AREA OF PE OCCUPIED BY TAX DITCH EASEMENT = 543.52 / 0.01
			D.R. 2207-64 (20%)		P/E-2			3854.00 / 0.09				AREA OF PE OCCUPIED BY TAX DITCH EASEMENT = 497.24 / 0.01
			D.R. 2345-255 (16%)		TCE-1				2899.00 / 0.07			AREA OF TCE OCCUPIED BY TAX DITCH EASEMENT = 704.68 / 0.02
					TCE-2				3793.50 / 0.09			AREA OF TCE OCCUPIED BY TAX DITCH EASEMENT = 2009.22 / 0.05
					TCE-3				2662.00 / 0.06			AREA OF TCE OCCUPIED BY TAX DITCH EASEMENT = 641.10 / 0.02
					TCE-4				2001.00 / 0.05	6382952.00 / 146.53		

ACQUISITION CODES

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

ADDENDA / REVISIONS		NOT TO SCALE	BR 3-588 ON SR 26 NINE FOOT ROAD OVER WHARTON'S BRANCH	CONTRACT	BRIDGE NO.	3-588	RIGHT-OF-WAY TABULATION SHEET	SECTION
				T201407309	DESIGNED BY: JB			BR
				COUNTY	CHECKED BY: NED			SHEET NO.
				SUSSEX				20

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