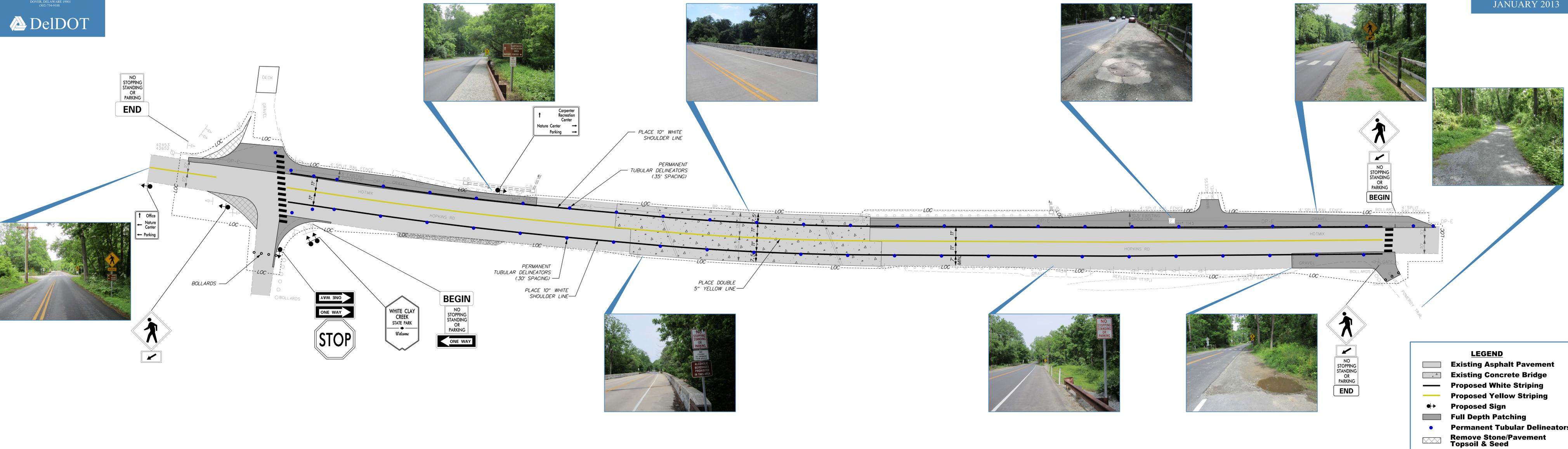


# WHITE CLAY CREEK STATE PARK



**LEGEND**

- Existing Asphalt Pavement
- Existing Concrete Bridge
- Proposed White Striping
- Proposed Yellow Striping
- Proposed Sign
- Full Depth Patching
- Permanent Tubular Delineators
- Remove Stone/Pavement Topsoil & Seed

## BICYCLE AND PEDESTRIAN IMPROVEMENTS

# LOCATION 04: HOPKINS ROAD BIKE/PED IMPROVEMENTS

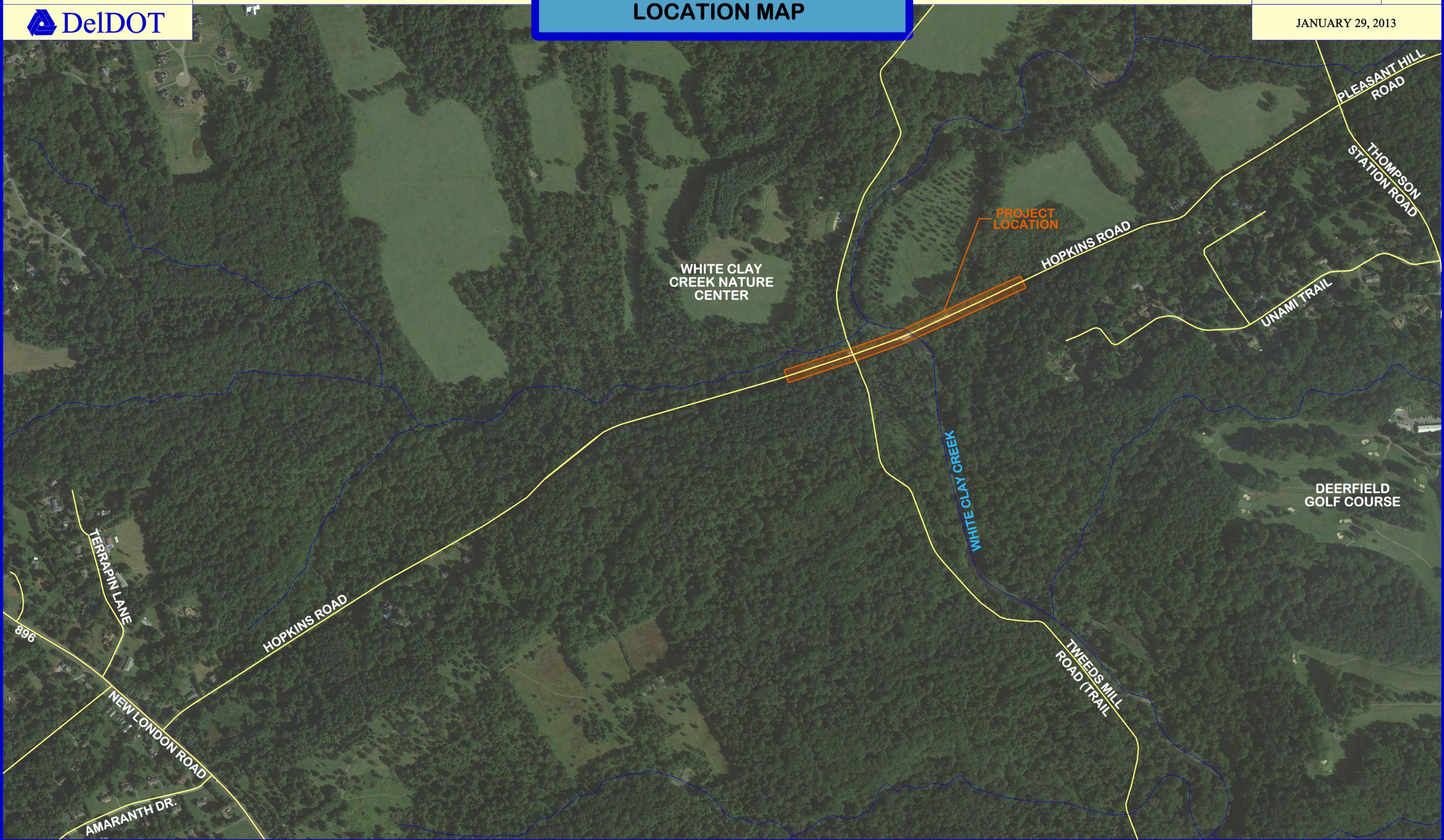
(34X22)

300 SCALE



JANUARY 29, 2013

## LOCATION MAP

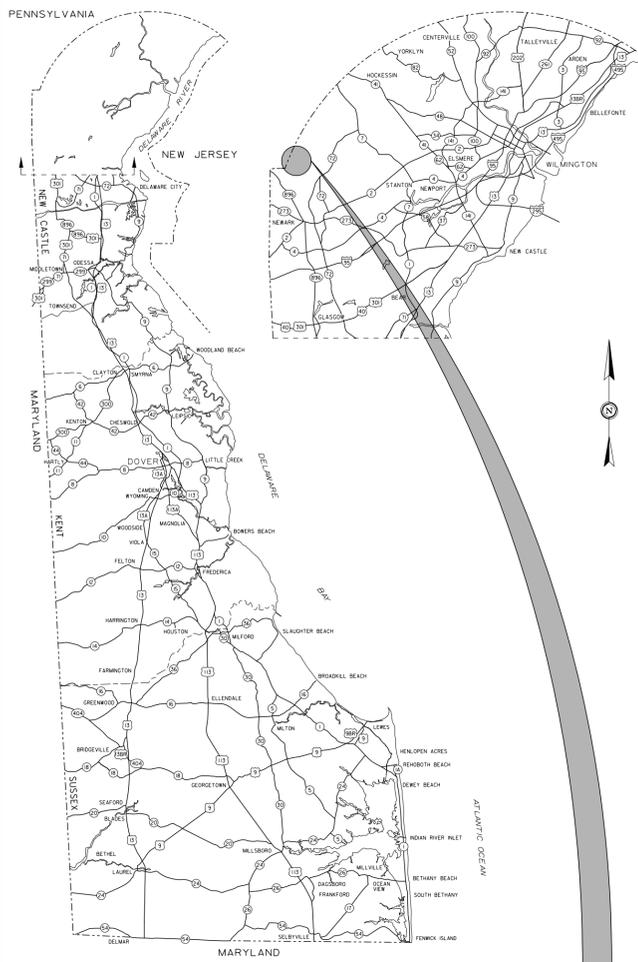




White Clay Creek State Park  
Bicycle & Pedestrian Improvements



White Clay Creek State Park  
Bicycle & Pedestrian Improvements



**GENERAL LOCATION OF CONTRACT**

# THE STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION



## CONSTRUCTION PLANS FOR: **OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC**

**LOCATION 04:  
HOPKINS ROAD BIKE AND  
PEDESTRIAN IMPROVEMENTS**

**CONTRACT NUMBER: T201230007**

**COUNTY: NEW CASTLE M.R. #: N302**

U.S. CUSTOMARY  
UNITS

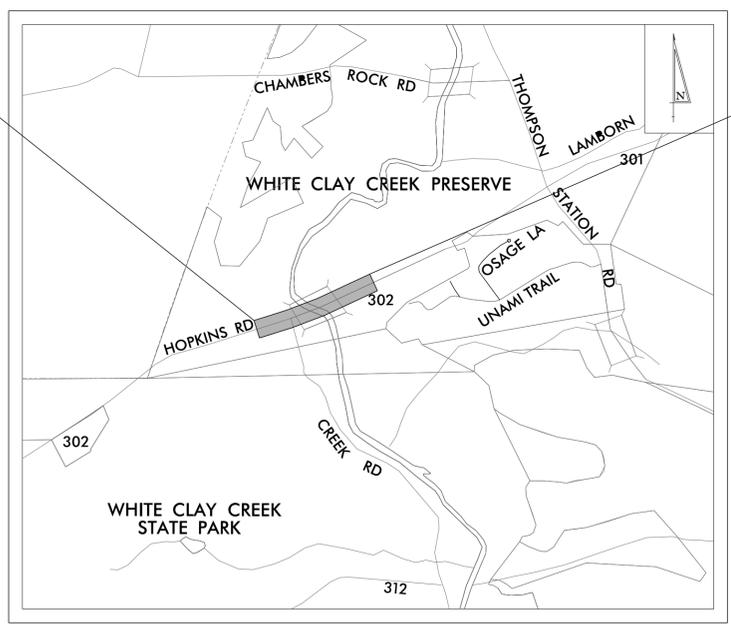
### DESIGN DESIGNATION

FUNCTIONAL CLASS: LOCAL	D.H.V. PROJECTED: N/A	YEAR: N/A
TYPE OF CONSTRUCTION: ENHANCEMENT	DESIGN SPEED: 35 M.P.H.	
A.A.D.T. CURRENT: 1986	YEAR: 2011	TRUCKS: N/A %
A.A.D.T. PROJECTED: N/A	YEAR: N/A	DIRECTION OF DISTRIBUTION: N/A %

### INDEX OF SHEETS

SHEET NO	TABLE OF CONTENTS
1	TITLE SHEET
2	PLAN SHEET INDEX
3	LEGEND
4	NOTES
5	TYPICAL SECTIONS
6	HORIZONTAL AND VERTICAL CONTROL
7 - 8	CONSTRUCTION PLANS, AND GRADES AND GEOMETRICS
9	CONSTRUCTION DETAILS
10 - 11	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLANS
12 - 14	SIGNING AND STRIPING
15	RIGHT OF WAY PLANS

**BEGIN CONSTRUCTION  
CONTRACT NO. T201230007  
HOPKINS ROAD  
STATION 20 + 50**



**END CONSTRUCTION  
CONTRACT NO. T201230007  
HOPKINS ROAD  
STATION 10 + 00**

**PROJECT LOCATION  
NOT TO SCALE**

**FOR INFORMATIONAL  
PURPOSES ONLY**

### RECOMMENDED

_____ SQUAD MANAGER, CONSTRUCTION	_____ DATE
_____ GROUP ENGINEER, CONSTRUCTION	_____ DATE
_____ ASSISTANT DIRECTOR, TRANSPORTATION SOLUTIONS, CONSTRUCTION	_____ DATE

**FINAL DESIGN  
JANUARY 2012**

TOTAL SHEETS: 15

### APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

### ADDENDA & REVISIONS

DESCRIPTION	NAME & DATE

### ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME
84-071-03	REPLACEMENT OF BRIDGE NO.1-218 ON N.C. 302

### PREPARED BY



### RECOMMENDED

\_\_\_\_\_  
STORMWATER ENGINEER  
DATE \_\_\_\_\_

### RECOMMENDED

\_\_\_\_\_  
BRIDGE DESIGN ENGINEER  
DATE \_\_\_\_\_

### RECOMMENDED

\_\_\_\_\_  
TRANSPORTATION ENHANCEMENTS,  
PROGRAM MANAGER  
DATE \_\_\_\_\_



### RECOMMENDED

\_\_\_\_\_  
ASSISTANT DIRECTOR,  
TRANSPORTATION SOLUTIONS  
DATE \_\_\_\_\_

### APPROVED

\_\_\_\_\_  
CHIEF ENGINEER  
DATE \_\_\_\_\_

RECOMMENDED \_\_\_\_\_ DATE \_\_\_\_\_

SEAL \_\_\_\_\_

SEAL \_\_\_\_\_

SEAL \_\_\_\_\_

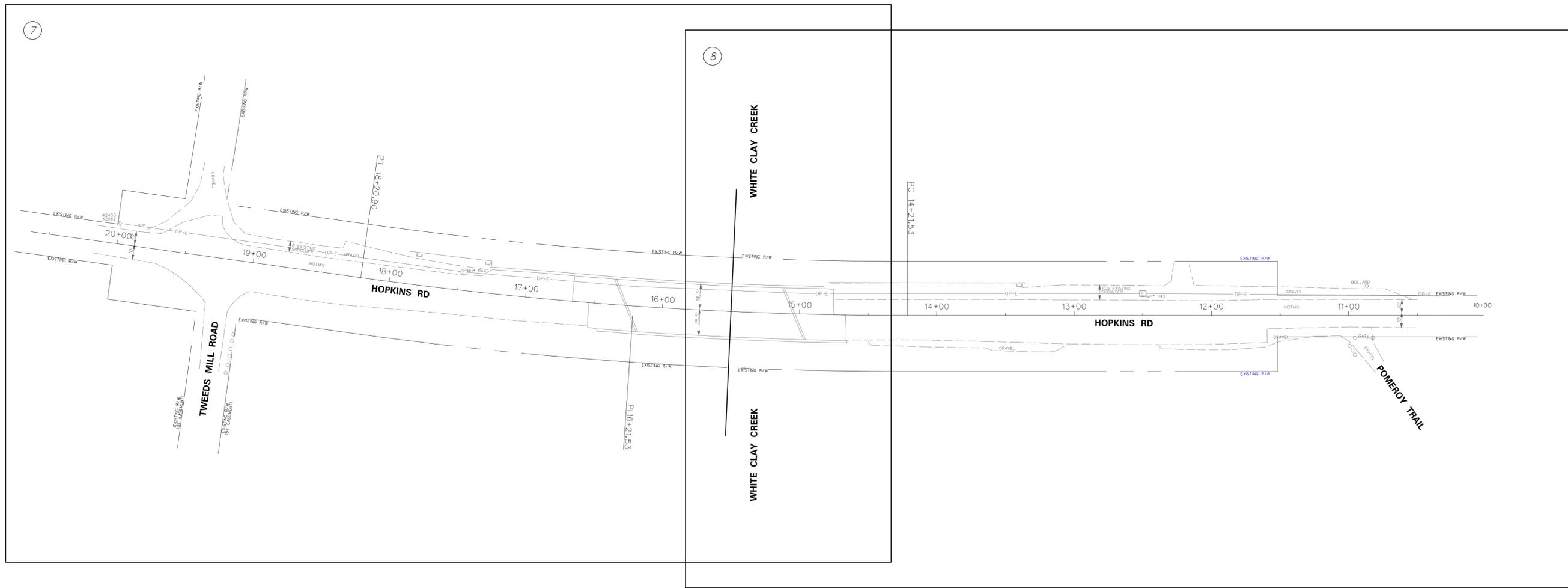
SEAL \_\_\_\_\_

SEAL \_\_\_\_\_

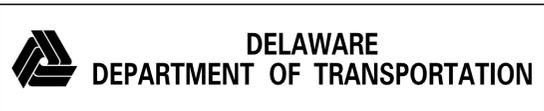
SEAL \_\_\_\_\_

CONSTRUCTION PLANS, GRADES & GEOMETRICS	7	8
CONSTRUCTION PHASING, M. O. T. AND EROSION CONTROL PLANS	10	11
SIGNING & STRIPING PLANS	12	13
RIGHT OF WAY PLANS	-	15

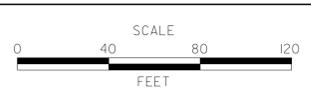
# FOR INFORMATIONAL PURPOSES ONLY



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ADDENDUMS / REVISIONS	



**OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC**

CONTRACT	BRIDGE NO.	-
T201230007	DESIGNED BY:	JMH
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

**PLAN SHEET INDEX**

SHEET NO.	2
TOTAL SHTS.	15

## EXISTING SYMBOLS

DRAINAGE	
	DITCH OR STREAM CENTERLINE
	DIRECTIONAL STREAM FLOW ARROW
	DRAINAGE INLET
	DRAINAGE JUNCTION BOX
	DRAINAGE MANHOLE
	DRAINAGE PIPE AND FLOW ARROW
	DRAINAGE PIPE HEADWALL
	RIPRAP - AREA FEATURE
	RIPRAP - LINEAR FEATURE

MANMADE ROADSIDE FEATURES	
	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
	CURB
	CURB AND GUTTER
	FENCE - CHAINLINK OR STRANDED
	FENCE - STOCKADE OR SPLIT RAIL
	FLAG POLE
	GUARDRAIL - STEEL BEAM
	GUARDRAIL - WIRE ROPE
	LAMP AND POST - RESIDENTIAL
	MAILBOX
	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
	DELINEATED WETLAND BOUNDARY LINE
	WOODS LINE BOUNDARY

RIGHT-OF-WAY SYMBOLS	
	PROPERTY MARKER - CONCRETE MON.
	PROPERTY MARKER - IRON PIPE
	HISTORIC RIGHT-OF-WAY BASELINE
	EXISTING RIGHT-OF-WAY
	EXISTING PROPERTY LINE
	EXISTING EASEMENT
	EXISTING DENIAL OF ACCESS
	EXISTING R/W & DENIAL OF ACCESS

SURVEY CONTROL & MONUMENTATION	
	SURVEY BENCHMARK LOCATION
	SURVEY TIE POINT LOCATION
	SURVEY TRAVERSE POINT
	POINT OF CURVATURE OR TANGENCY
	POINT OF INTERSECTING TANGENTS

UTILITY	
	SOIL BORING LOCATION
	UTILITY TEST HOLE LOCATION
	CABLE TV DISTRIBUTION BOX
	ELECTRIC MANHOLE
	ELECTRIC METER
	ELECTRIC TRANSFORMER
	POLE MOUNTED LUMINAIRE
	GAS MANHOLE
	GAS METER
	GAS VALVE
	GAS PUMP - SERVICE STATION
	RAILROAD TRACKS
	SANITARY SEWER MANHOLE
	SANITARY SEWER VALVE
	SANITARY SEWER VENT OR CLEANOUT
	SEPTIC DRAIN FIELD
	TELEPHONE BOOTH
	TELEPHONE MANHOLE
	TELEPHONE TEST POINT
	TRAFFIC - CONDUIT JUNCTION WELL
	TRAFFIC - LIGHT POLE AND BASE
	TRAFFIC - PEDESTRIAN POLE & BASE
	TRAFFIC - SIGNAL CABINET & BASE
	TRAFFIC - SIGNAL POLE AND BASE
	UTILITY BOX
	UTILITY POLE GUY WIRE ANCHOR
	UTILITY POLE
	WATER - FIRE HYDRANT
	WATER METER
	WATER VALVE
	WELL HEAD
	MANHOLE - UNDETERMINED OWNER

UTILITY COMPANY FACILITIES	
	DELMARVA POWER - ELECTRIC
	W.L. GORE AND ASSOC.
	COMCAST - CABLE
	VERIZON UNDERGROUND

CONSTRUCTION	
	CONCRETE SAFETY BARRIER - PERMANENT
	BIOFILTRATION SWALE
	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
	BRICK PATTERNED SURFACE
	BUTT JOINT
	CONSTRUCTION BASELINE
	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
	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
	HORIZONTAL CLEARANCE
	IMPACT ATTENUATOR
	JUNCTION BOX - DRAINAGE
	LIMIT OF CONSTRUCTION
	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
	PROPOSED DENIAL OF ACCESS
	PROPOSED PERMANENT EASEMENT
	PROPOSED RIGHT-OF-WAY
	PROPOSED R/W & DENIAL OF ACCESS
	TEMPORARY CONSTRUCTION EASEMENT
	PROPOSED RIGHT-OF-WAY BASELINE

## PROPOSED SYMBOLS

IDENTIFIERS	
	ADJUST BY CONTRACTOR
	ADJUST BY OTHERS
	CONCRETE SAFETY BARRIER
	CURB OR CURB & GUTTER
	CONVERT TO JUNCTION BOX
	CONVERT TO DRAINAGE MANHOLE
	CURB OPENING
	CURB RAMP / TYPE
	CURB RAMP / TYPE - WITHOUT SIDEWALK SURFACE DETECTABLE WARNING SYSTEM
	CONSTRUCTION SAFETY FENCE
	DRAINAGE INLET
	DO NOT DISTURB
	ENERGY DISSIPATOR
	FENCE
	FLARED END SECTION
	FILL WITH FLOWABLE FILL
	FILTRATION STRUCTURE
	GUARDRAIL
	JUNCTION BOX
	MANHOLE
	MONUMENT - RIGHT-OF-WAY
	PIPE
	RELOCATE BY CONTRACTOR
	RELOCATE BY OTHERS
	REMOVE BY CONTRACTOR
	REMOVE BY OTHERS
	UNDERDRAIN / LENGTH
	UNDERDRAIN OUTLET PIPE

LANDSCAPING	
	LANDSCAPE PLANTINGS
	SHRUBBERY
	CONIFEROUS TREE
	DECIDUOUS TREE

TRAFFIC	
	ITMS CONDUIT
	SIGNAL CONDUIT
	CONDUIT JUNCTION WELL
	LUMINAIRE
	PAVEMENT MARKINGS
	PAVEMENT STRIPING
	TRAFFIC SIGN

PAVEMENT SECTION(S)	
	2" SUPERPAVE, TYPE C - HOT-MIX 2 1/2" SUPERPAVE, TYPE B - HOT-MIX 8" GRADED AGGREGATE BASE COURSE, TYPE B WMA SUPERPAVE, TYPE C, 160 GYR., PG 64-22, PATCHING WMA SUPERPAVE, TYPE B, 160 GYR., PG 64-22, PATCHING

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PURPOSES ONLY

**GENERAL NOTES**

- THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED AUGUST 2001, THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED 2001, AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "MUTCD," DATED 2011, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.
- THE CONTRACTOR SHALL GIVE TWO (2) WEEKS NOTICE TO THE PROPERTY OWNER WHEN ANY FIXTURE, SHRUB OR OTHER OBJECT MUST BE REMOVED FROM THE RIGHT OF WAY OR EASEMENT AREA. IF THE OWNER HAS NOT ATTEMPTED TO SALVAGE THIS PROPERTY, THE CONTRACTOR SHALL REMOVE IT WITHOUT OBLIGATION. COMPENSATION SHALL BE INCIDENTAL TO THE CONTRACT.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL PVC SLEEVES (4" INSIDE MINIMUM DIAMETER, 6" INSIDE MAXIMUM DIAMETER) IN PROPOSED CONCRETE SIDEWALKS, ISLANDS, AND MEDIANS FOR FUTURE TRAFFIC SIGN POSTS AS DIRECTED BY THE ENGINEER. THE LOWER END OF THE SLEEVE SHALL SIT ON THE TOP OF THE SUBBASE MATERIAL. THE COST SHALL BE INCIDENTAL TO THE CONTRACT.
- THE ENDS OF ALL CURBS SHALL BE DEPRESSED FLUSH WITH THE PAVEMENT AT A RATIO OF TWELVE TO ONE (12:1) UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- STAGING AREAS - PROPER EROSION AND SEDIMENT CONTROL MEASURES AS DETERMINED BY THE ENGINEER SHALL BE INSTALLED IN ALL STAGING AREAS. ALL AREAS USED BY THE CONTRACTOR FOR STAGING OPERATIONS SHALL BE FULLY RESTORED BY THE CONTRACTOR UPON COMPLETION OF THE CONTRACT. IF THE STAGING AREA IS PAVED, IT SHALL BE RESTORED TO ITS ORIGINAL CONDITION. IF THE AREA IS UNPAVED, IT SHALL BE RE-GRADED, TOPSOILED, SEEDED AND MULCHED IN ACCORDANCE WITH DELAWARE STANDARD SPECIFICATIONS 732, 734 AND 735, FOR TOPSOIL, SEED AND MULCH RESPECTIVELY, TO THE SATISFACTION OF THE ENGINEER. THE SEED SHALL ADHERE TO THE SPECIFICATIONS OF SECTION 734 FOR PERMANENT GRASS SEEDING - DRY GROUND. ALL COSTS ASSOCIATED WITH RESTORATION OF THE STAGING AREA SHALL BE AT THE CONTRACTOR'S EXPENSE. IF THE ENGINEER DETERMINES THAT A SATISFACTORY STAND OF GRASS DOES NOT EXIST AT THE TIME OF FINAL INSPECTION, ALL COSTS ASSOCIATED WITH REESTABLISHING A SATISFACTORY STAND OF GRASS SHALL BE AT THE CONTRACTOR'S EXPENSE. ALL STAGING AREAS SHALL BE SECTIONED OFF FROM THE TRAVELING PUBLIC USING TRAFFIC CONTROL DEVICES APPROVED BY THE ENGINEER, ALL COSTS SHALL BE PAID BY THE RESPECTIVE TRAFFIC CONTROL ITEM.
- SITE REVIEWER - AN EROSION CONTROL SITE REVIEWER SHALL BE A PERSON FROM THE CONTRACTOR'S STAFF ASSIGNED TO EROSION AND SEDIMENT CONTROL IMPLEMENTATION AND MAINTENANCE AND SHALL BE REQUIRED ON SPECIFIC PROJECTS. THE NAME AND DNREC CERTIFICATION NUMBER OF EACH SITE REVIEWER SO REQUIRED SHALL BE SUBMITTED TO THE DEPARTMENT. THE NAME OF THE DELAWARE REGISTERED PROFESSIONAL ENGINEER PROVIDING DIRECTION AND SUPERVISION OF THE SITE REVIEWER, AS REQUIRED IN SECTION 12.3 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS, SHALL ALSO BE SUBMITTED TO THE DEPARTMENT. THE SITE REVIEWER REQUIREMENTS IN EFFECT ON THIS PROJECT SHALL BE MARKED WITH AN "X" BELOW:

EROSION POTENTIAL FOR THIS PROJECT	SITE REVIEWER REQUIREMENT
( ) INSIGNIFICANT	NONE
( X ) MINOR	CONTRACTOR CERTIFICATION COURSE TRAINING ONLY, AS DEFINED IN SECTION 13 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
( ) MEDIUM	AT THE TIME OF BID OF THE CONTRACT, EITHER 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 AT THE TIME OF BID OF THE CONTRACT. THE SUPERINTENDENT MUST BECOME A CCR WITHIN ONE YEAR AFTER THE AWARD OF CONTRACT.

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

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

- 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 IS INCIDENTAL TO ITEM 743001.

- THE DISTURBED AREA FOR THIS PROJECT IS 0.18 ACRES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO THE CONSTRUCTION SITE POLLUTION PREVENTION SPECIFICATIONS AS DETAILED IN SECTION 3.6 OF THE "DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK". ALL COSTS ASSOCIATED WITH ADHERING TO THE STANDARDS SHALL BE INCIDENTAL TO THE OVERALL CONTRACT COSTS.
- THE EROSION AND SEDIMENT CONTROL PLANS HAVE BEEN APPROVED BY DELDOT'S STORMWATER ENGINEER UNDER DELDOT'S DELEGATED AUTHORITY. THE EROSION AND SEDIMENT CONTROL 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 SHALL INFORM THE ENGINEER THREE MONTHS PRIOR TO THE EXPIRATION OF THE EROSION AND SEDIMENT CONTROL PLAN APPROVAL. DELDOT WILL REVIEW THE CURRENT EROSION AND SEDIMENT CONTROL PLAN AND ISSUE AN EXTENSION WITH ANY APPROPRIATE MODIFICATIONS.

**PROJECT NOTES**

SECTION 100

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

SECTION 200

- THE ENGINEER MAY REQUIRE THE CONTRACTOR TO EXCAVATE TEST PITS ALONG THE PROPOSED CONSTRUCTION AT POINTS OF POSSIBLE UTILITY CONFLICTS, TO DETERMINE IF CONFLICTS EXIST. ANY CONFLICTS SHALL BE COORDINATED BY THE CONTRACTOR, WITH THE ENGINEER AND THE UTILITY COMPANY INVOLVED. THE ENGINEER SHALL ULTIMATELY DETERMINE THE SOLUTION TO THE UTILITY CONFLICT. TEST HOLES SHALL BE MEASURED AND PAID FOR IN ACCORDANCE WITH ITEM 202000 - EXCAVATION AND EMABANKMENT, BUT ONLY TO THE ACTUAL DEPTH EXCAVATED.
- THIS PROJECT IS COVERED UNDER A "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 NOIIS KEPT ON FILE IN EACH OF THE CONSTRUCTION OFFICES AND THE DEPARTMENT'S TEAM SUPPORT SECTION. A COPY OF THE GENERAL PERMIT OR THE NOIIS CAN BE OBTAINED UPON REQUEST FROM EITHER THE DEPARTMENT'S STORMWATER ENGINEER OR THE APPROPRIATE CONSTRUCTION ENGINEER.
- IN AREAS WHERE TREES AND SHRUBS WILL BE OVERHANGING THE SHOULDER, PRUNING MAY BE NECESSARY TO ACHIEVE A VERTICAL CLEAR SPACE OF 10 FEET ABOVE THE SHOULDER ELEVATION. THE CONTRACTOR SHALL PRUNE THE EXISTING TREE AND SHRUB BRANCHES, WHICH OVERHANG THE SHOULDER, IN ACCORDANCE WITH I.S.A. STANDARDS. THE CONTRACTOR SHALL NOTIFY DELDOT'S ROADSIDE ENVIRONMENTALIST ADMINISTRATOR, EUGENE ROSAN, JR. AT (302) 760-2185 AND/OR HIS DESIGNEE, AT LEAST TWO (2) DAYS PRIOR TO THE PRUNING OPERATION. ALL COSTS WILL BE PAID FOR UNDER ITEM NO. 201000 - CLEARING AND GRUBBING.

SECTION 600

- THE DEPARTMENT AND THE CONTRACTOR SHALL INSPECT ALL EXISTING PIPES AND DRAINAGE STRUCTURES TO BE USED IN THE FINAL DRAINAGE SYSTEM AND AGREE ON AND MAKE RECORD OF THE CONDITION PRIOR TO CONSTRUCTION. DAMAGES TO EXISTING PIPES AND DRAINAGE STRUCTURES DUE TO CONTRACTOR OPERATIONS SHALL BE REPAIRED OR REPLACED IN-KIND AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL PERFORM THE FOLLOWING MAINTENANCE ACTIVITIES ALONG THE BRIDGE, PARAPETS AND ABUTMENTS. ALL WORK SHALL BE PERFORMED PER DELDOT STANDARDS FOR THE ITEMS CALLED OUT.
  - REPLACE ALL SILICONE JOINTS SEALS BETWEEN APPROACH SLAB AND BACKWALL, AND APPROACH SLAB AND PARAPET/WINGWALL. PAID FOR UNDER ITEM \*605692 - SILICONE JOINT SEAL.
  - REPLACE MISSING STONE VENEER ON THE ABUTMENT(S). PAID FOR UNDER ITEM \*610001 - STONE MASONRY.
  - REPOINT STONE VENEER ON PARAPET(S), AS NECESSARY. PAID FOR UNDER ITEM \*610502 - POINTING EXISTING STONE MASONRY.
  - EPOXY INJECT CRACKS WITH RUST STAINING IN THE ABUTMENT BACKWALL. PAID FOR UNDER ITEM \*602611 - REPAIR OF CONCRETE STRUCTURES BY EPOXY INJECTION.
  - REPAIR SPALL IN NORTH PARAPET WALL. PAID FOR UNDER ITEM \*602586 - REHABILITATION OF CONCRETE STRUCTURE.

SECTION 700

- THE CONTRACTOR SHALL INSTALL ALL PERMANENT SIGNAGE AND TEMPORARY SIGNAGE AS SHOWN ON THE CONTRACT DOCUMENTS. ALL COSTS COVERED UNDER THE APPROPRIATE ITEMS.
- ALL PAVED AREAS (INCLUDING DRIVEWAYS) TO BE RECONSTRUCTED OR WIDENED SHALL BE SAWCUT AT THE POINT WHERE THE NEW PAVEMENT IS TO TIE INTO THE EXISTING PAVEMENT, UNLESS OTHERWISE NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- DURING CONSTRUCTION OF THE SHOULDERS, ALL BARE AREAS SHALL BE STABILIZED AT THE END OF EACH WORK DAY. BARE AREAS SHALL BE EITHER PERMANENTLY STABILIZED OR COVERED WITH GABC.

MISCELLANEOUS

- THERE ARE NO ENVIRONMENTAL PERMITS ASSOCIATED WITH THIS PROJECT. AS SUCH, AN ENVIRONMENTAL COMPLIANCE SHEET WAS NOT PREPARED.
- THE CONTRACTOR SHALL COORDINATE WITH THE WHITE CLAY CREEK STATE PARK SUPERINTENDENT, NICK MCFADDEN AT (302) 368-6900, TO SCHEDULE THE REMOVAL OF THE EXISTING BOLLARDS AND GATES AND TO PROVIDE A WORK SCHEDULE. ALL COSTS SHALL BE INCIDENTAL TO THE CONTRACT.
- THE LOCATION OF ALL BOLLARDS SHALL BE LAID OUT IN THE FIELD AND APPROVED BY DNREC AND THE ENGINEER PRIOR TO THEIR INSTALLATION. ALL COSTS ARE INCIDENTAL TO ITEM 763501 - CONSTRUCTION ENGINEERING.

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ADDENDUMS / REVISIONS

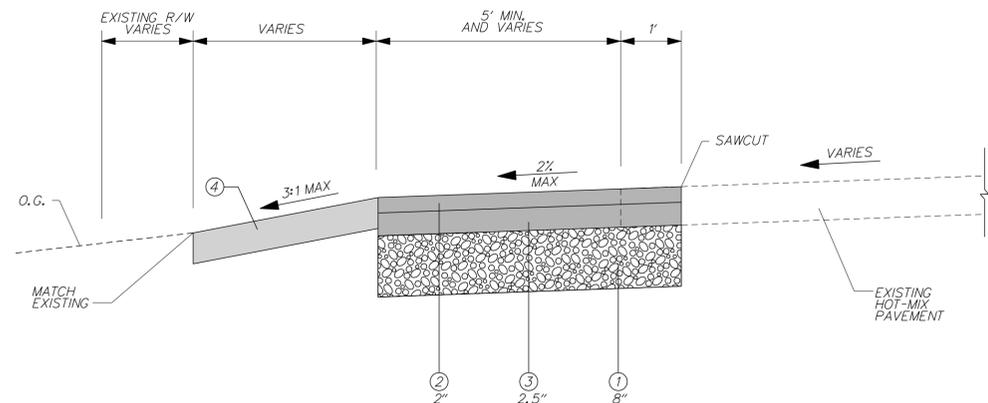
**OPEN END  
CONSTRUCTION SERVICES,  
STATEWIDE TRAILS, NCC**

CONTRACT	BRIDGE NO.	-
T201230007	DESIGNED BY:	JMH
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

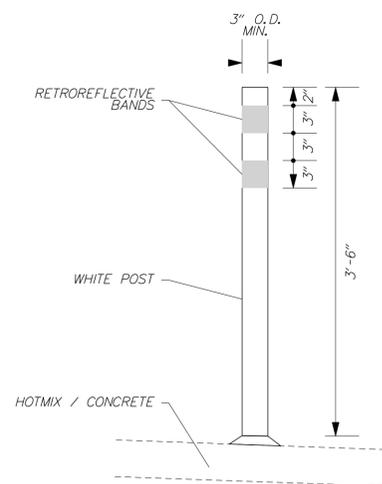
**NOTES**

SHEET NO.	4
TOTAL SHTS.	15

1/29/2013 9:47:09 AM g:\Projects\15019.00 (DeIDOT Agrmt 1595 TEP)\15019.09 (Task 8 - Trap - White Clay - Killens - Final Design)\CADD FILES\White Clay\15019\_00.dgn



**ASPHALT PATCHING TYPICAL SECTION**



**TUBULAR DELINEATORS  
(ITEM 743550)**

**LEGEND**

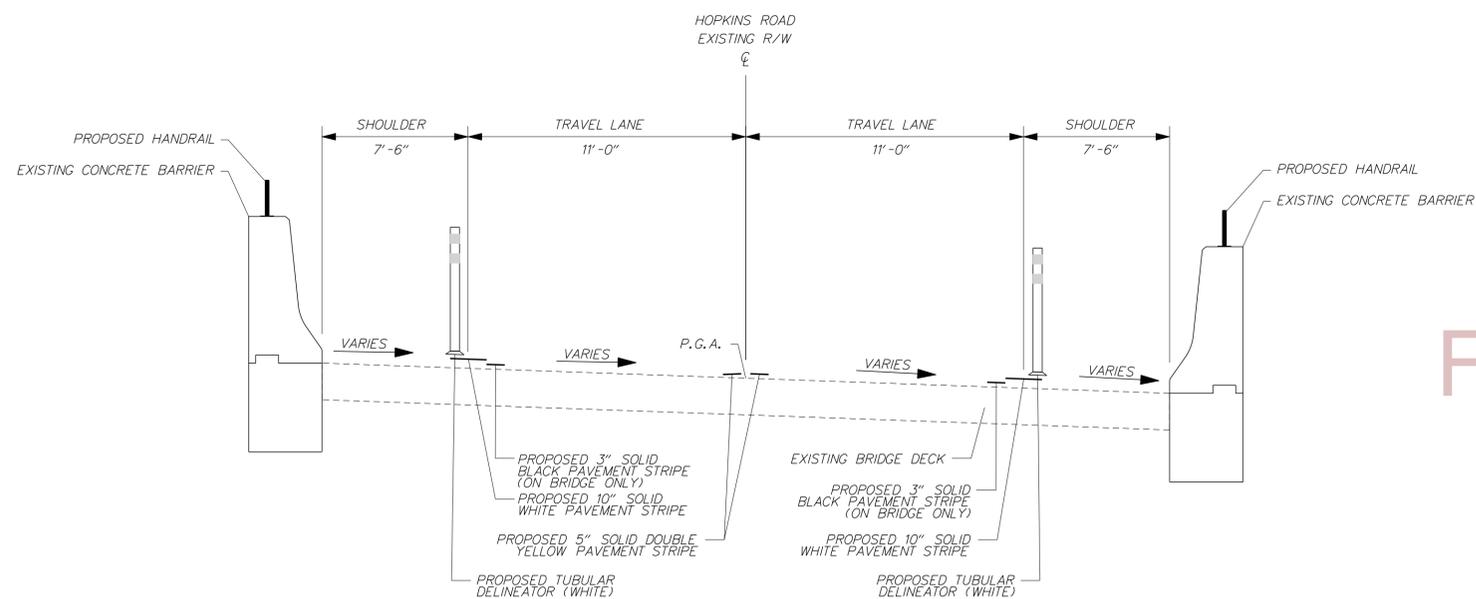
- ① ITEM 302008 - GRADED AGGREGATE  
BASE COURSE, TYPE B PATCHING
- ② ITEM 401821 - WMA, SUPERPAVE, TYPE C, 160 GYR.,  
PG 64-22, PATCHING
- ③ ITEM 401822 - WMA, SUPERPAVE, TYPE B, 160 GYR.,  
PG 64-22, PATCHING
- ④ ITEM 732002 - TOPSOIL, 6" DEPTH  
ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND

PR - POINT OF ROTATION  
PDGA - PROFILE DITCH GRADE APPLICATION  
PGA - PROFILE GRADE APPLICATION

MAXIMUM SINGLE LIFTS FOR THE FOLLOWING  
MATERIALS AFTER COMPACTION ARE:  
2" = WARM-MIX, TYPE C  
3" = WARM-MIX, TYPE B  
6" = WARM-MIX, BCBC  
8" = GABC

**NOTES:**

- 1. MAXIMUM ALGEBRAIC DIFFERENCE OF CROSS SLOPES  
SHALL NOT EXCEED 8%.



**TUBULAR DELINEATOR PLACEMENT TYPICAL SECTION**

NOTE:  
ALL SHOULDERS MUST HAVE A CLEAR  
WIDTH OF AT LEAST 5'.

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PURPOSES ONLY



**CIRCULAR CURVE NO. 1**

PC ( 2001 )	14+21.53	628367.1125	558036.6557
PI ( 2002 )	16+21.53	628281.7775	557855.7753
CC ( )		630987.4113	556800.4623
PT ( 2003 )	18+20.90	628222.1060	557664.8851
Radius:	2897.2642		
Delta:	7° 53' 52.0000" Right		
Degree of Curvature(Arc)	1° 58' 39.2957"		
Length:	399.3653		
Tangent:	199.9994		
Chord:	399.0492		
Middle Ordinate:	6.8785		
External:	6.8948		
Tangent Direction:	S 64° 44' 35.5141" W		
Radial Direction:	N 25° 15' 24.4859" W		
Chord Direction:	S 68° 41' 31.5141" W		
Radial Direction:	N 17° 21' 32.4859" W		
Tangent Direction:	S 72° 38' 27.5141" W		

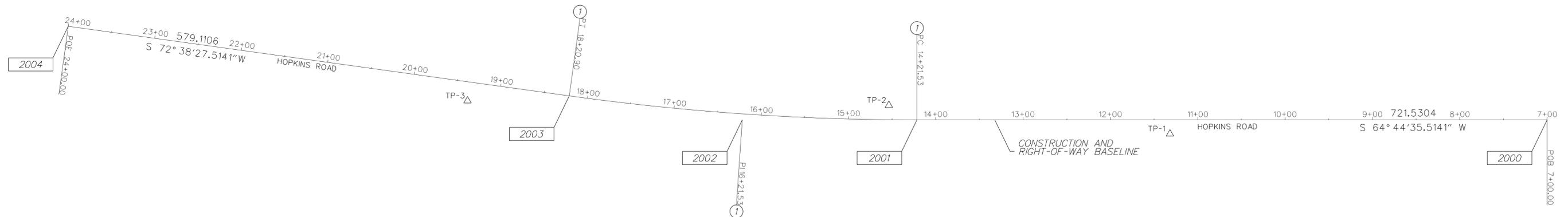
**HORIZONTAL / VERTICAL CONTROL DATA**

POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP-1	11+31.81	-15.98	628476.2751	558305.4968	100.09
TP-2	14+53.88	16.46	628368.4396	558000.4618	101.27
TP-3	19+35.51	-21.61	628167.2881	557561.9350	99.11

**CONSTRUCTION ALIGNMENT CONTROL**

POINT	STATION	OFFSET	NORTHING	EASTING
2000	7+00.00	0.00	628674.9723	558689.2111
2004	24+00.00	0.00	628049.3236	557112.1507

ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM (NAVD 1988) AND HORIZONTAL DATUM NORTH AMERICAN DATUM, NAD 83 (2007).



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ADDENDUMS / REVISIONS



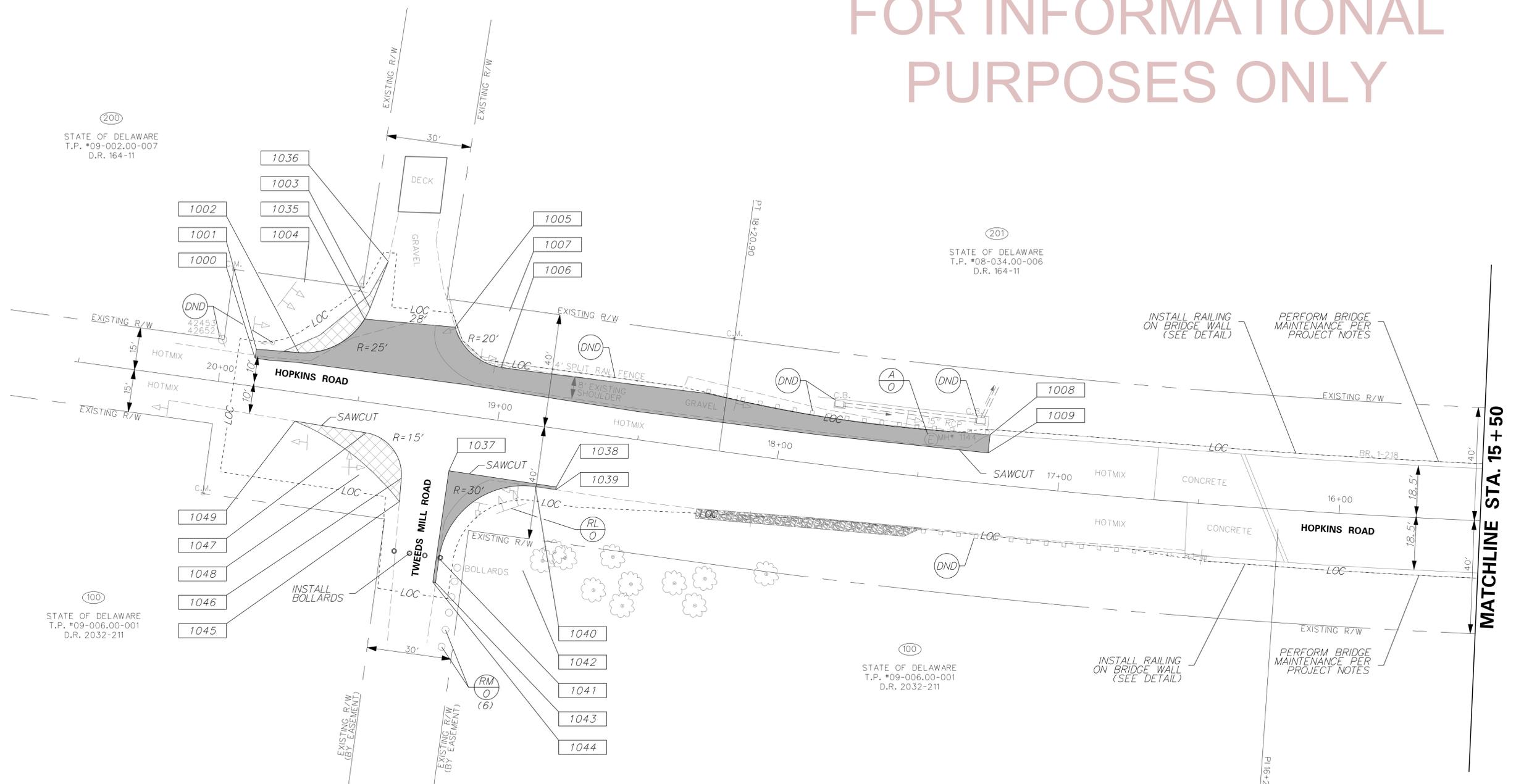
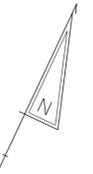
**OPEN END  
CONSTRUCTION SERVICES,  
STATEWIDE TRAILS, NCC**

CONTRACT	BRIDGE NO.	-
T201230007	DESIGNED BY:	JMH
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

**HORIZONTAL AND  
VERTICAL CONTROL**

SHEET NO.	6
TOTAL SHTS.	15

# FOR INFORMATIONAL PURPOSES ONLY



**COORDINATE LIST**

POINT NO.	STATION	OFFSET	NORTHING	EASTING
1000	19+88.25	9.97	628181.6889	557502.1765
1001	19+88.22	13.15	628184.7393	557501.2576
1002	19+73.16	14.02	628190.0578	557515.3689
1003	19+50.28	33.17	628215.1578	557531.4937
1004	19+74.60	38.98	628213.4514	557506.5520
1005	19+19.53	30.53	628221.8188	557561.6306
1006	19+01.28	38.71	628235.0672	557576.6133
1007	19+01.43	18.71	628215.9328	557582.4334
1008	17+26.00	17.36	628268.2888	557749.2654
1009	17+26.00	10.90	628262.1887	557751.3885
1035	19+51.69	28.97	628210.7353	557531.4040
1036	19+46.19	50.30	628232.7307	557530.2915
1037	19+14.75	20.06	628174.9566	557581.2893

**COORDINATE LIST**

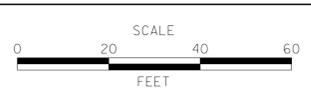
POINT NO.	STATION	OFFSET	NORTHING	EASTING
1038	18+76.26	20.49	628186.0359	557618.1558
1039	18+76.26	21.49	628185.0782	557618.4437
1040	18+83.61	21.40	628182.9657	557611.4143
1041	19+13.94	51.22	628145.4573	557591.3614
1042	18+83.94	51.40	628154.2351	557620.0485
1043	19+13.99	59.82	628137.2319	557593.8782
1044	19+14.99	59.82	628136.9393	557592.9220
1045	19+30.62	33.21	628157.6696	557570.0663
1046	19+31.05	25.00	628165.3794	557567.2020
1047	19+45.66	10.79	628174.5793	557549.0230
1048	19+46.03	25.79	628160.1556	557553.1410
1049	19+71.20	10.16	628167.5654	557524.5654

**NOTES:**  
 1. ALL EXISTING UTILITIES ARE TO REMAIN UNLESS OTHERWISE NOTED ON THE PLANS.

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ADDENDUMS / REVISIONS

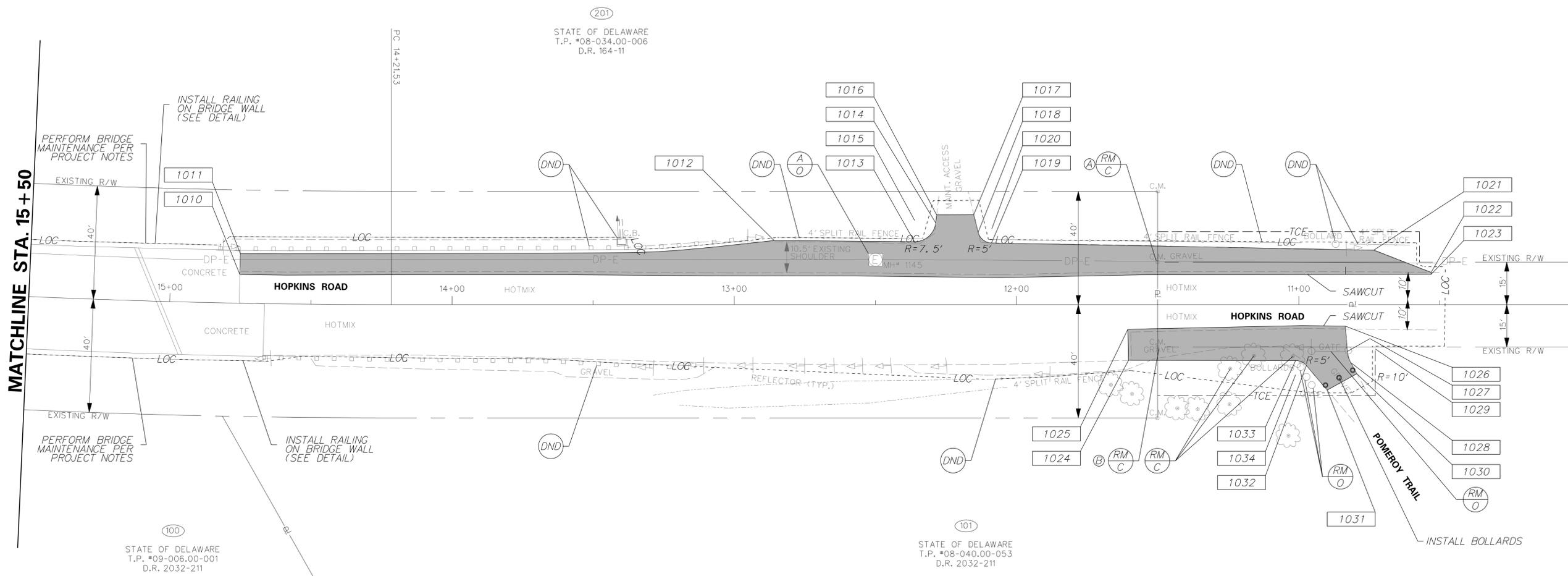
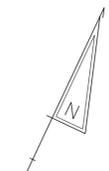


**OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC**

CONTRACT	BRIDGE NO.	-
T201230007	DESIGNED BY:	JMH
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

<b>CONSTRUCTION PLAN</b>	SHEET NO.	7
	TOTAL SHTS.	15

# FOR INFORMATIONAL PURPOSES ONLY



**COORDINATE LIST**

POINT NO.	STATION	OFFSET	NORTHING	EASTING
1010	14+75.38	10.14	628353.8394	557983.5923
1011	14+75.34	17.53	628360.6013	557980.5945
1012	12+85.90	22.63	628445.4529	558149.6640
1013	12+36.15	22.21	628446.2943	558194.8401
1014	12+28.63	28.84	628475.5033	558198.8044
1015	12+36.08	29.71	628473.1046	558191.6983
1016	12+28.30	31.71	628478.2364	558197.8818
1017	12+15.14	31.82	628483.9541	558209.7341
1018	12+13.60	25.57	628478.9597	558213.7983
1019	12+18.84	21.77	628477.5518	558219.7268
1020	12+08.74	26.77	628482.1130	558217.6786
1021	10+73.42	19.23	628533.0349	558343.2853
1022	10+53.11	11.36	628534.5828	558365.0049
1023	10+53.12	10.68	628533.9631	558365.2927

**COORDINATE LIST**

POINT NO.	STATION	OFFSET	NORTHING	EASTING
1024	11+60.55	-19.65	628460.8178	558281.3402
1025	11+60.55	-8.70	628470.5963	558276.4042
1026	10+83.51	-7.59	628504.4745	558345.5965
1027	10+82.76	-16.53	628496.7143	558350.0965
1028	10+81.56	-20.48	628493.6441	558352.8647
1029	10+72.79	-15.68	628501.7308	558358.7473
1030	10+79.41	-24.41	628491.0088	558356.4873
1031	10+89.94	-30.18	628481.2990	558349.4240
1032	10+97.31	-21.51	628485.9961	558339.0551
1033	11+01.12	-19.75	628485.9662	558334.8639
1034	11+01.12	-24.75	628481.4417	558336.9919

**NOTES:**

- ALL EXISTING UTILITIES ARE TO REMAIN UNLESS OTHERWISE NOTED ON THE PLANS.
- WHERE EXISTING CONCRETE MONUMENTS ARE TO BE REMOVED, THE CONTRACTOR SHALL SET A PK NAIL IN THE PROPOSED PAVEMENT. PAID FOR UNDER ITEM NO. 763501 - CONSTRUCTION ENGINEERING. THE CONTROL DATA FOR THE PK NAILS IS:

	STA	NORTHING	EASTING
Ⓐ	11+50.00	N 628496.5364	E 558275.7877
Ⓑ	11+50.00	N 628469.3167	E 558288.6348



ADDENDUMS / REVISIONS



**OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC**

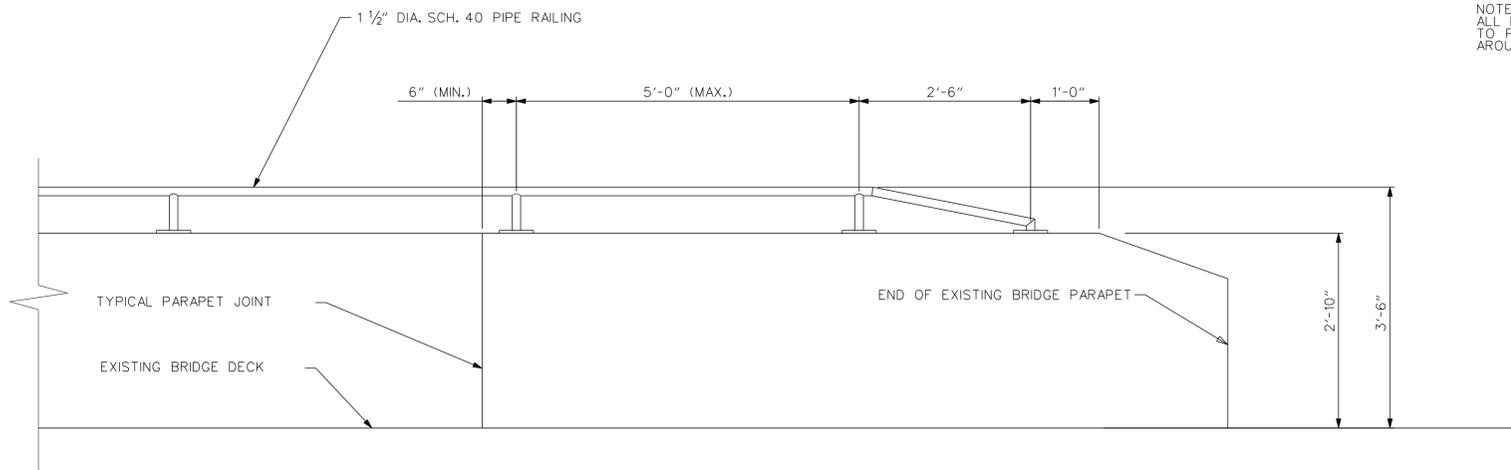
CONTRACT	BRIDGE NO.	-
T201230007	DESIGNED BY:	JMH
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

**CONSTRUCTION PLAN**

SHEET NO.	8
TOTAL SHTS.	15

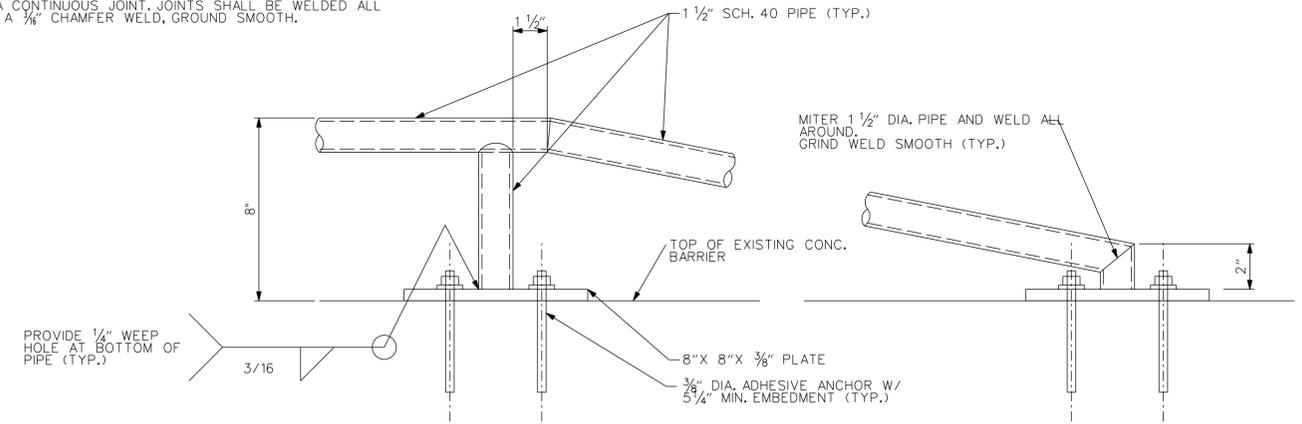
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NOTE:  
ALL PIPE CONNECTIONS SHALL BE MITERED OR OTHERWISE CONSTRUCTED TO PROVIDE A CONTINUOUS JOINT. JOINTS SHALL BE WELDED ALL AROUND WITH A 1/8" CHAMFER WELD, GROUND SMOOTH.



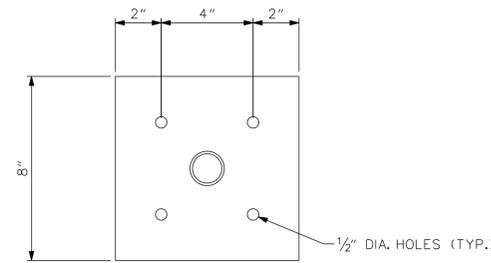
**HANDRAIL ELEVATION**

SCALE: 3/4" = 1'-0"



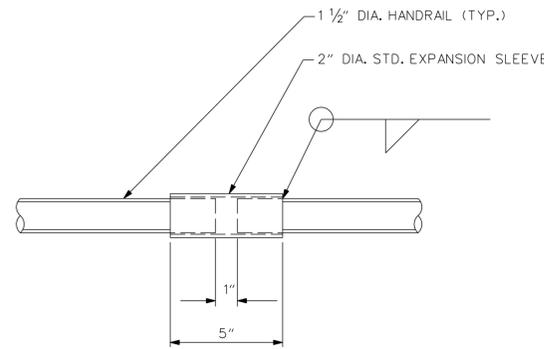
**HANDRAIL ANCHORAGE DETAIL**

SCALE: 3" = 1'-0"



**BASE PLATE DETAIL**

SCALE: 3" = 1'-0"



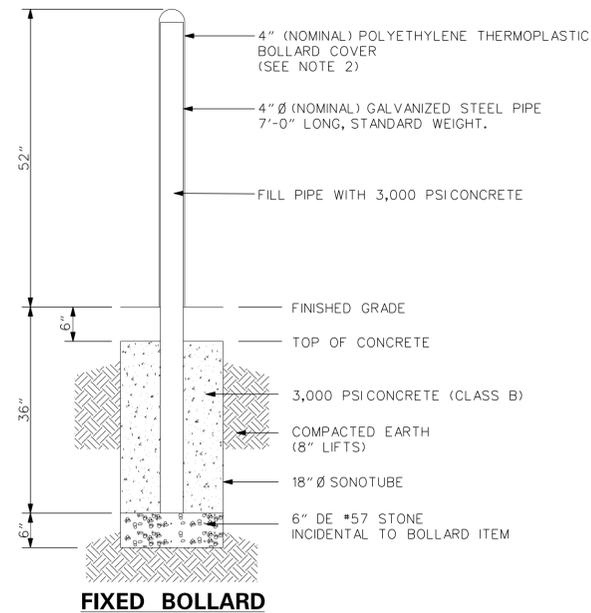
**EXPANSION JOINT DETAIL**

SCALE: 3" = 1'-0"

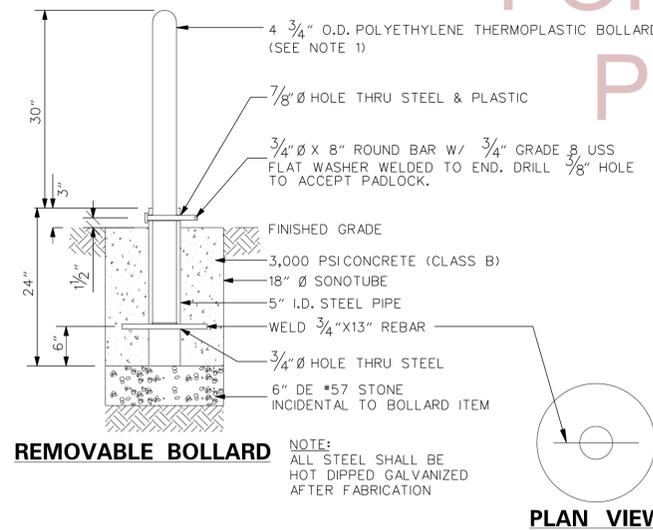
**STEEL HANDRAIL NOTES:**

1. ALL POSTS AND RAILS SHALL BE ANSISCHEDULE 40 STEEL PIPE.
2. BASE PLATES SHALL BE AASHTO M-84a (ASTM A 36).
3. ALL STEEL PIPE MEMBERS SHALL BE GALVANIZED PER ASHTO M111-94 (OR CURRENT) ASTM A-123.
4. ANCHOR BOLTS SHALL BE GALVANIZED STEEL OR STAINLESS STEEL AND SHALL BE INSTALLED WITH A TWO PART EPOXY SUITABLE FOR THE APPLICATION.
5. HANDRAIL SHALL BE CENTERED ON THE TOP OF THE EXISTING CONCRETE BRIDGE PARAPET, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
6. LOCATE EXPANSION JOINT(S) AT JOINTS IN EXISTING CONCRETE PARAPET AND AT INTERVALS NOT TO EXCEED 20' O.C.
7. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS SHOWING ALL DIMENSIONS, EXPANSION JOINTS, ANCHOR BOLTS, AND BASE PLATE LAYOUTS WITH RESPECT TO EXISTING PARAPET JOINTS.
8. ALL ITEMS REQUIRED FOR THE STEEL HANDRAIL, INCLUDING BUT NOT LIMITED TO, MATERIALS, SHOP DRAWINGS, LABOR, WELDS, ANCHORS, AND FINISHES, SHALL BE INCLUDED IN ITEM 606503 - STEEL HAND RAILING.
9. STEEL BASE PLATES AND RAIL SHALL BE POWDER COATED WITH A BLACK FINISH.

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**FIXED BOLLARD**



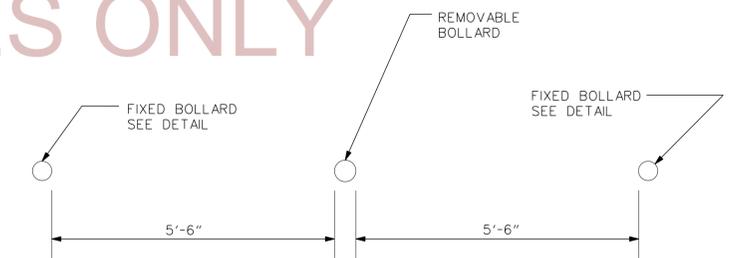
**REMOVABLE BOLLARD**

NOTE:  
ALL STEEL SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION

**PLAN VIEW**

**BOLLARD - ITEM 720556**

NTS



**BOLLARD SPACING**

**BOLLARD NOTES:**

1. REMOVABLE BOLLARD IS TO BE YELLOW AND SHALL BE CUT TO HEIGHT DIMENSION AS NECESSARY. SUBMIT MANUFACTURER'S STANDARD COLORS FOR APPROVAL BY THE ENGINEER PRIOR TO ORDERING.
2. FIXED BOLLARD COVER IS TO BE RED. SUBMIT MANUFACTURER'S STANDARD COLORS FOR APPROVAL BY THE ENGINEER PRIOR TO ORDERING.
3. FIXED BOLLARD COVER SHALL BE INSTALLED BY SLIDING OVER AND ATTACHING TO STEEL PIPE UTILIZING 2-SIDED TAPE PROVIDED BY THE BOLLARD COVER MANUFACTURER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. TAPE SHALL BE WRAPPED AROUND THE CIRCUMFERENCE OF THE STEEL PIPE AT THREE LOCATIONS: AT TOP JUST BELOW DOME, IN MIDDLE, AND AT BOTTOM.
4. IF THERE ARE MORE THAN ONE REMOVABLE BOLLARD MAINTAIN 5'-6" SPACING BETWEEN BOLLARDS.

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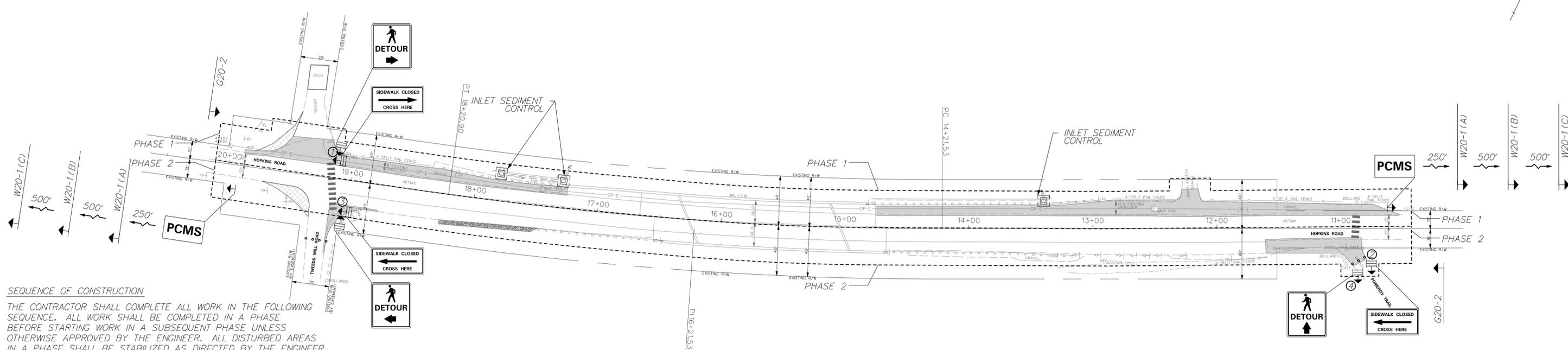
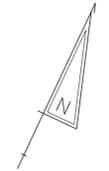
TRAFFIC CONTROL NOTES

1. ALL WORK SHALL BE PERFORMED IN A MANNER THAT WILL REASONABLY PROVIDE THE LEAST PRACTICABLE OBSTRUCTION TO ALL ROAD USERS, INCLUDING VEHICULAR, PEDESTRIAN AND BICYCLE TRAFFIC, AND SHALL CONFORM TO THE REQUIREMENTS OF THE 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PART 6, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT FOR BIDS.
2. CONTRACTOR SHALL ONLY WORK ON ONE SIDE OF HOPKINS ROAD AT A TIME OR AS DIRECTED IN FIELD BY THE ENGINEER.
3. THE CONTRACTOR SHALL MAINTAIN A MINIMUM LANE WIDTH OF 10 FEET AT ALL TIMES.
4. WORK SHALL NOT BE PERFORMED BETWEEN THE HOURS OF 9:00 AM AND 4:00 PM MONDAY THROUGH FRIDAY. WORK SHALL NOT BE PERFORMED AT NIGHT OR ON WEEKENDS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
5. THE CONTRACTOR SHALL ADHERE TO ALL PEDESTRIAN M.O.T. REQUIREMENTS AS INCLUDED ON THE PLANS OR AS DIRECTED IN THE FIELD BY THE ENGINEER.
6. FLAGGERS SHALL BE USED TO ASSIST PEDESTRIANS CROSSING HOPKINS ROAD WHEN THE ROAD WORK IS WITHIN THE CROSSWALK AREAS.

GENERAL PROJECT NOTES FOR SEDIMENT AND STORMWATER MANAGEMENT

1. DUST CONTROL  
DUST IS TO BE CONTROLLED EXCLUSIVELY THROUGH THE USE OF WATER. COSTS ASSOCIATED WITH THE FURNISHING AND APPLICATION OF WATER FOR DUST CONTROL SHALL BE INCIDENTAL TO ALL THE CONTRACT ITEMS.
2. EXISTING INLETS AND PIPES  
ALL EXISTING INLETS AND PIPES WITHIN THE PROJECT LIMITS TO REMAIN SHALL BE CLEANED OUT. THE COST OF CLEANING OUT THE EXISTING PIPES TO REMAIN IS INCIDENTAL TO ITEM #201000.
3. REVIEW AND OR APPROVAL OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE THE REQUIREMENTS OF THE SEDIMENT AND STORMWATER REGULATIONS, NOR SHALL IT RELIEVE THE CONTRACTOR FROM THE ERRORS OR OMISSIONS IN THE APPROVED PLAN.
4. SOIL DISTURBANCE  
FOLLOWING SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 14 CALENDAR DAYS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR OF ALL EROSION AND SEDIMENT CONTROLS, AND STORMWATER MANAGEMENT PRACTICES DURING THE PROJECT.
6. EROSION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS OR AS DIRECTED BY ENGINEER IN THE FIELD.
7. STAGING AREAS. PROPER EROSION AND SEDIMENT CONTROL MEASURES AS DETERMINED BY THE ENGINEER SHALL BE INSTALLED IN ALL STAGING AREAS, AT COMPLETION OF THE PROJECT. STAGING AREAS THAT ARE PAVED SHALL BE RESTORED TO ITS ORIGINAL CONDITION. IF UNPAVED, STAGING AREAS SHALL BE REGRADED TO THE SATISFACTION OF THE ENGINEER, TOPSOILED SEEDED, AND MULCHED IN ACCORDANCE WITH DELDOT STANDARD SPECIFICATIONS SECTIONS 732, 734, AND 735 FOR TOPSOIL, SEED AND MULCH RESPECTIVELY. SEED SHALL ADHERE TO THE SPECIFICATIONS FOR PERMANENT GRASS SEEDING - DRY GROUND. ALL COSTS ASSOCIATED TO THE ABOVE ITEMS SHALL BE AT THE CONTRACTOR'S EXPENSE. IF THE ENGINEER DETERMINES THAT A SATISFACTORY STAND OF GRASS DOES NOT EXIST AT THE TIME OF FINAL INSPECTION. ALL COSTS ASSOCIATED WITH RE-ESTABLISHING A SATISFACTORY STAND OF GRASS SHALL ALSO BE AT THE CONTRACTOR'S EXPENSE.
8. SOIL STOCKPILES (IF REQUIRED.) STOCKPILES OF SOIL SHALL BE STABILIZED AND SEEDED PER DELDOT REQUIREMENTS.
9. THE CONTRACTOR SHALL PLACE SILT FENCE (IF REQUIRED) AS DIRECTED IN THE FIELD BY THE ENGINEER. ALL COSTS ARE INCLUDED UNDER ITEM 251000.

 <b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>	ADDENDUMS / REVISIONS		<b>OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC</b>	CONTRACT	BRIDGE NO.	-	<b>CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL NOTES</b>	SHEET NO.
				T201230007	DESIGNED BY: JMH			10
				COUNTY	CHECKED BY: WFC			TOTAL SHTS.
				NEW CASTLE				15



**SEQUENCE OF CONSTRUCTION**

THE CONTRACTOR SHALL COMPLETE ALL WORK IN THE FOLLOWING SEQUENCE. ALL WORK SHALL BE COMPLETED IN A PHASE BEFORE STARTING WORK IN A SUBSEQUENT PHASE UNLESS OTHERWISE APPROVED BY THE ENGINEER. ALL DISTURBED AREAS IN A PHASE SHALL BE STABILIZED AS DIRECTED BY THE ENGINEER BEFORE BEGINNING WORK IN THE NEXT PHASE.

**PHASE 1: WESTBOUND LANE OF HOPKINS ROAD**

1. INSTALL ADVANCE WARNING SIGNS ON HOPKINS ROAD.
2. PLACE PORTABLE CHANGEABLE MESSAGE SIGN TEN (10) DAYS IN ADVANCE OF CONSTRUCTION ON HOPKINS ROAD. PLACEMENT OF PORTABLE CHANGEABLE MESSAGE SIGNS AND MESSAGE ON PORTABLE CHANGEABLE MESSAGE SIGN SHOULD BE COORDINATED AND APPROVED BY THE NORTH DISTRICT SAFETY OFFICER.

**PHASE 2: EASTBOUND LANE OF HOPKINS ROAD**

3. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES. UTILIZE TYPICAL APPLICATION 10 FROM PART 6 OF THE DE MUTCD FOR THE FOLLOWING CONSTRUCTION SEQUENCE:
4. DURING CONSTRUCTION FROM STA. 10+00 TO STA. 20+50, IMPLEMENT PEDESTRIAN BARRICADE AND SIGN ASSEMBLY NO. 1 & 2.
5. PERFORM ALL MAINTENANCE ACTIVITIES ALONG THE BRIDGE, PARAPETS AND ABUTMENTS. ALL WORK ITEMS ARE LISTED IN THE PROJECT NOTES, NO. 6.
6. SAWCUT AND REMOVE EXISTING PAVEMENT WITHIN THE CONSTRUCTION LIMITS IN THIS STAGE.
7. DALMARVA POWER TO ADJUST MANHOLES.
8. PREPARE BASE AND SUBBASE SECTIONS OF PAVEMENT AS SHOWN ON THE PLANS. PLACE ASPHALT PAVEMENT AS SHOWN ON THE PLANS.

9. TOPSOIL, SEED, AND MULCH ON ALL DISTURBED AREAS WITHIN THIS STAGE OF CONSTRUCTION.
10. PLACE PERMANENT PAVEMENT MARKINGS AND RELATED SIGNS FOR THIS STAGE OF WORK.

**PHASE 2: EASTBOUND LANE OF HOPKINS ROAD**

1. MAINTAIN ADVANCE WARNING SIGNS ON HOPKINS ROAD. UTILIZE TYPICAL APPLICATION 10 FROM PART 6 OF THE DE MUTCD FOR THE FOLLOWING CONSTRUCTION SEQUENCE:
2. DURING CONSTRUCTION FROM STA. 10+00 TO STA. 20+50, IMPLEMENT PEDESTRIAN BARRICADE AND SIGN ASSEMBLY NO. 3 & 4. CONTRACTOR MUST MAINTAIN ACCESS TO POMEROY TRAIL AT ALL TIMES.
3. PERFORM ALL MAINTENANCE ACTIVITIES ALONG THE BRIDGE, PARAPETS AND ABUTMENTS. ALL WORK ITEMS ARE LISTED IN THE PROJECT NOTES, NO. 6.
4. SAWCUT AND REMOVE EXISTING PAVEMENT WITHIN THE CONSTRUCTION LIMITS IN THIS STAGE.
5. PREPARE BASE AND SUBBASE SECTIONS OF PAVEMENT AS SHOWN ON THE PLANS.
6. PLACE ASPHALT PAVEMENT AS SHOWN ON THE PLANS.
7. TOPSOIL, SEED, AND MULCH ON ALL DISTURBED AREAS WITHIN THIS STAGE OF CONSTRUCTION.
8. PLACE PERMANENT PAVEMENT MARKINGS AND RELATED SIGNS FOR THIS STAGE OF WORK.
9. PLACE TUBULAR DELINEATORS FOR ENTIRE PROJECT.
10. REMOVE EROSION AND SEDIMENT CONTROL MEASURES.

CONTRACTOR SHALL MAINTAIN ACCESS AS SHOWN DURING THIS PHASE OF CONSTRUCTION OR AS DIRECTED BY ENGINEER IN FIELD. COSTS ASSOCIATED WITH MAINTAINING ACCESS SHALL BE PAID FOR UNDER ITEM NO. 743000 - MAINTENANCE OF TRAFFIC.

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**LEGEND**

- WORK AREA
- SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- INLET SEDIMENT CONTROL
- STONE CHECK DAM

\* PCMS BOARDS SHALL DISPLAY THE FOLLOWING MESSAGES 10 DAYS PRIOR TO CONSTRUCTION, THROUGH 5 DAYS AFTER THE BEGINNING OF CONSTRUCTION:

10 DAYS PRIOR TO CONSTRUCTION:

ROAD WORK STARTING

XXXX/XX EXPECT DELAYS

5 DAYS AFTER BEGINNING CONSTRUCTION:

ROAD WORK AHEAD

XX AM-X PM EXPECT DELAYS

PCMS

PORTABLE CHANGEABLE MESSAGE SIGN LOCATION

\* NOTE: THE CONTRACTOR SHALL LAYOUT SIGNS FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION. THE COVERING OF ANY CONFLICTING SIGNS SHALL BE INCIDENTAL TO ITEM# 743024. ALL SIGNS PAID UNDER ITEM # 743024.

**CONSTRUCTION ZONE WARNING SIGNS**

\* DISTANCE LEGEND

LETTER	DISTANCE
A	500 FT
B	1000 FT
C	1500 FT
D	BOTH SHOULDERS CLOSED

END ROAD WORK

G20-2  
48" X 24"

ROAD WORK \*

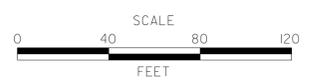
W20-1  
48" X 48"

\* NOTE: ALL PERMANENT WARNING SIGNS PAID UNDER ITEM# 743024.

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ADDENDUMS / REVISIONS	



**OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC**

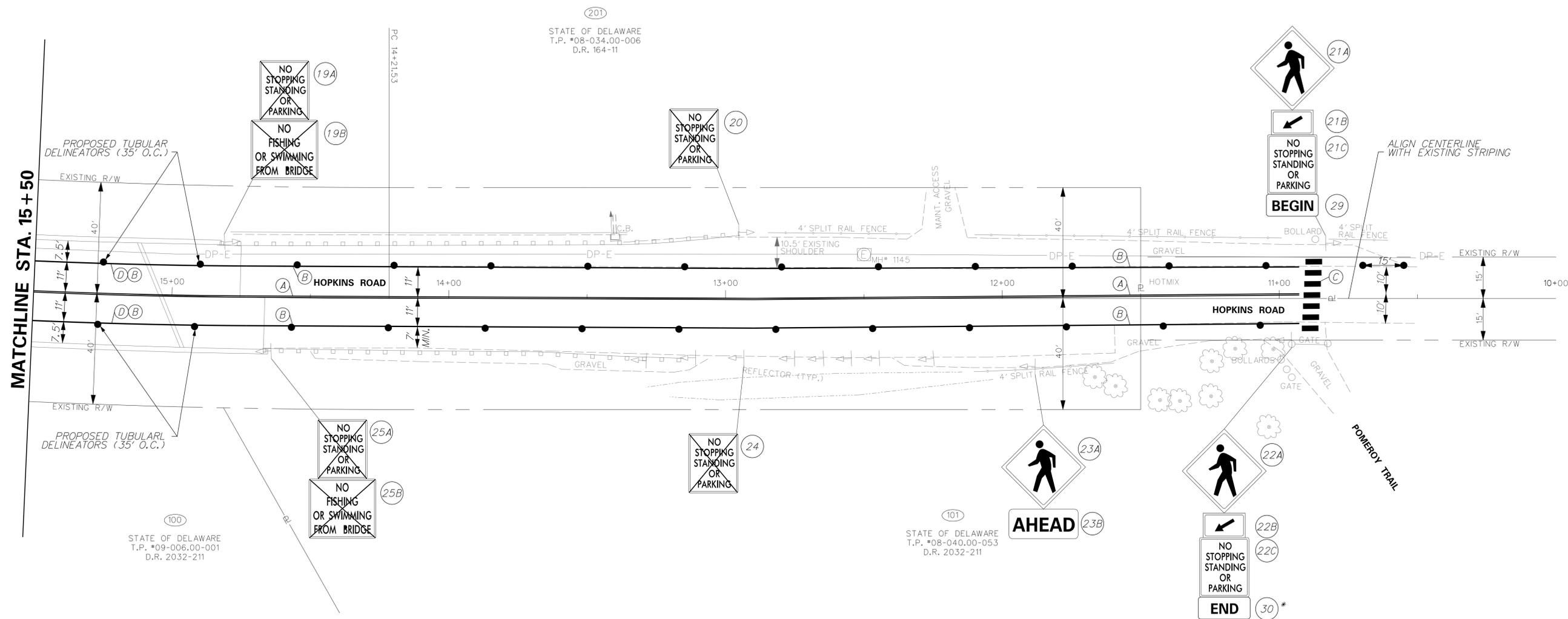
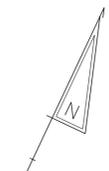
CONTRACT	BRIDGE NO.	-
T201230007	DESIGNED BY:	JMH
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

**CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLANS**

SHEET NO.	11
TOTAL SHTS.	15



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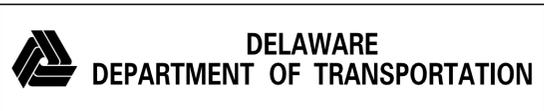


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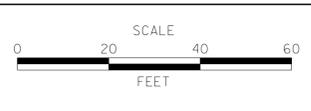
PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
(A)	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, SOLID DOUBLE YELLOW, 5" (ITEM 748548)	920 LF
(B)	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, SOLID WHITE, 10" (ITEM 748549)	920 LF
(C)	PERMANENT PAVEMENT STRIPING, SYMBOL/ LEGEND, ALKYD-THERMOSPLASTIC (ITEM 748015)	84 SF
(D)	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, SOLID BLACK, 3" (ITEM 748557)	160 LF

**NOTES:**

- CONTRACTOR SHALL REMOVE EXISTING SHOULDER STRIPING ON BRIDGE DECK. PAID FOR UNDER ITEM NO. 748530 - REMOVAL OF PAVEMENT STRIPING.
- \* INSTALL ON LAST NO STOPPING, STANDING, OR PARKING SIGN.



ADDENDUMS / REVISIONS	



**OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC**

CONTRACT T201230007	BRIDGE NO. -
COUNTY NEW CASTLE	DESIGNED BY: JMH CHECKED BY: WFC

**SIGNING AND STRIPING**

SHEET NO. 13
TOTAL SHTS. 15

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**PERMANENT SIGN SCHEDULE**

SHEET NO.	NO.	CODE	DESCRIPTION	ASSEMBLY NO.	SIGN HEIGHT (IN.)	SIGN WIDTH (IN.)	SIGN AREA (SF)	SIGN ACTIVITY	SINGLE POST (EACH)		MULTI POST (SF)		ITEM 749688 4" HOLE, 0-6" (EACH)	ITEM 749689 4" HOLE, >6" (EACH)	REMARKS
									REMOVE	INSTALL	REMOVE	INSTALL			
12	1A		NO STOPPING, STANDING, OR PARKING	1				REMAIN							
12	1B	R3-9dP	END	1	12	30	3	NEW							
12	2		WHITE CLAY CREEK STATE PARK	2				REMAIN							
12	3		STOP	3				REMAIN							
12	4		NO STOPPING, STANDING, OR PARKING	4				REMOVE							ON FENCE
12	5B		NO STOPPING, STANDING, OR PARKING	5				REMAIN							
12	6A		PEDESTRIAN CROSSING	6				REMAIN							
12	6B		DOWNWARD DIAGONAL ARROW	6				REMAIN							
12	7A		PEDESTRIAN CROSSING	7				REMAIN							
12	7B		AHEAD	7				REMAIN							
12	8		SPECIAL DESTINATION	8				REMOVE	1						
12	9A	GG-1	SPECIAL DESTINATION	9	30	36	7.5	NEW		1					WHITE LEGEND W/ BROWN BACKGROUND, 3" TYPE B
12	9B		NO STOPPING, STANDING, OR PARKING	9				REMOVE							REMOVE FROM POST
12	10A		NO STOPPING, STANDING, OR PARKING	10				REMOVE	1						
12	10B		NO FISHING OR SWIMMING	10				REMOVE							
12	10C		ALCOHOLIC BEVERAGES PROHIBITED	10				REMOVE							
12	11A		SPEED LIMIT - 35 MPH	11				REMAIN							
12	11B		NO STOPPING, STANDING, OR PARKING	11				REMOVE							REMOVE FROM POST
12	12A		BEGIN	12				REMAIN							
12	12B		NO STOPPING, STANDING, OR PARKING	12				REMAIN							
12	12C		ONE WAY - LEFT ARROW	12				REMOVE							REMOVE FROM POST
12	13		WHITE CLAY CREEK STATE PARK	13				REMOVE							TO BE REMOVED BY DNREC
12	14		STOP	14				REMOVE	1						
12	15A		ONE WAY - RIGHT ARROW	15				REMOVE	1						
12	15B		NO STOPPING, STANDING, OR PARKING	15				REMOVE							
12	15C		ADOPT A HIGHWAY	15				REMOVE							
12	15D		FRIENDS OF WHITE CLAY CREEK	15				REMOVE							
12	16A		PEDESTRIAN CROSSING	16				REMOVE	1						
12	16B		DOWNWARD DIAGONAL ARROW	16				REMOVE							
12	17	GG-2	SPECIAL DESTINATION	17	30	36	7.5	NEW		1					
12	18		SPECIAL DESTINATION	18				REMOVE	1						WHITE LEGEND W/ BROWN BACKGROUND, 3" TYPE B
13	19A		NO STOPPING, STANDING, OR PARKING	19				REMOVE	1						
13	19B		NO FISHING OR SWIMMING	19				REMOVE							
13	20		NO STOPPING, STANDING, OR PARKING	20				REMOVE	1						
13	21A		PEDESTRIAN CROSSING	21				REMAIN							
13	21B		DOWNWARD DIAGONAL ARROW	21				REMAIN							
13	21C		NO STOPPING, STANDING, OR PARKING	21				REMAIN							
13	22A		PEDESTRIAN CROSSING	22				REMAIN							
13	22B		DOWNWARD DIAGONAL ARROW	22				REMAIN							
13	22C		NO STOPPING, STANDING, OR PARKING	22				REMAIN							
13	23A		PEDESTRIAN CROSSING	23				REMAIN							
13	23B		AHEAD	23				REMAIN							
13	24		NO STOPPING, STANDING, OR PARKING	24				REMOVE	1						
13	25A		NO STOPPING, STANDING, OR PARKING	25				REMOVE	1						
13	25B		NO FISHING OR SWIMMING	25				REMOVE							
12	26A	R6-1	ONE WAY - LEFT ARROW	26	12	36	3	NEW							
12	26B	R6-1	ONE WAY - RIGHT ARROW	26	12	36	3	NEW							
12	27	SPECIAL	WHITE CLAY CREEK STATE PARK	27				NEW							TO BE INSTALLED BY DNREC
12	28	R1-1	STOP	26	36	36	9	NEW		1					
13	29	R3-9cP	BEGIN	21	12	30	3	NEW		1					
13	30	R3-9dP	END	22	12	30	3	NEW		1					
12	31A	W11-2	PEDESTRIAN CROSSING	31	36	36	9	NEW		1					
12	31B	W16-7P	DOWNWARD DIAGONAL ARROW	31	12	24	2	NEW							

FOR INFORMATIONAL PURPOSES ONLY



ADDENDUMS / REVISIONS

**OPEN END  
CONSTRUCTION SERVICES,  
STATEWIDE TRAILS, NCC**

CONTRACT	BRIDGE NO.	-
T201230007	DESIGNED BY:	JMH
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

**SIGNING AND STRIPING  
SCHEDULE**

SHEET NO.	14
TOTAL SHTS.	15

COUNTY ASSESSMENT PARCEL NUMBER	PLAN SHEET NUMBER	OWNERSHIP OF RECORD	TITLE SOURCE	PROPERTY AREA BEFORE ACQUISITION (ACRE) D=DEED C=CALCULATED A=ASSESSMENT	ACQUISITION CODE FEE, R/W, P/E, TCE	AREA TO BE ACQUIRED			PROPERTY AREA REMAINING (SQ. FEET / ACRES)	DEED RECORD OF ACQUISITION	REMARKS
						ACQUISITION (SQ. FEET / ACRES)	AREA OCCUPIED BY EXISTING RIGHT OF WAY (SQ. FEET / ACRES)	EASEMENT PERMANENT (SQ. FEET / ACRES) TEMPORARY (SQ. FEET / ACRES)			
08-040.00-053	-	(101) STATE OF DELAWARE	2032-211	D - 21.57	TCE			1324.9216 / 0.03	939589.20 / 21.57		PER AGREEMENT
08-034.00-006	-	(201) STATE OF DELAWARE	164-11	D - 346.49	TCE			998.0976 / 0.02	15093104.40 / 346.49		PER AGREEMENT

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
08-040.00-053	(101) STATE OF DELAWARE	TCE	2032-211	21.57

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
50000	100	11+50.00	-15.00	628469.4020	558288.6291	N 64°44'35.51" E	77.1200				
50001	100	10+72.88	-15.00	628502.3072	558358.3768	S 25°15'24.49" E	17.1800				
50002	100	10+72.88	-32.18	628486.7696	558365.7071	S 64°44'35.51" W	77.1200				
50003	100	11+50.00	-32.18	628453.8643	558295.9594	N 25°15'24.49" W	17.1800				
50000	100	11+50.00	-15.00	628469.4020	558288.6291						

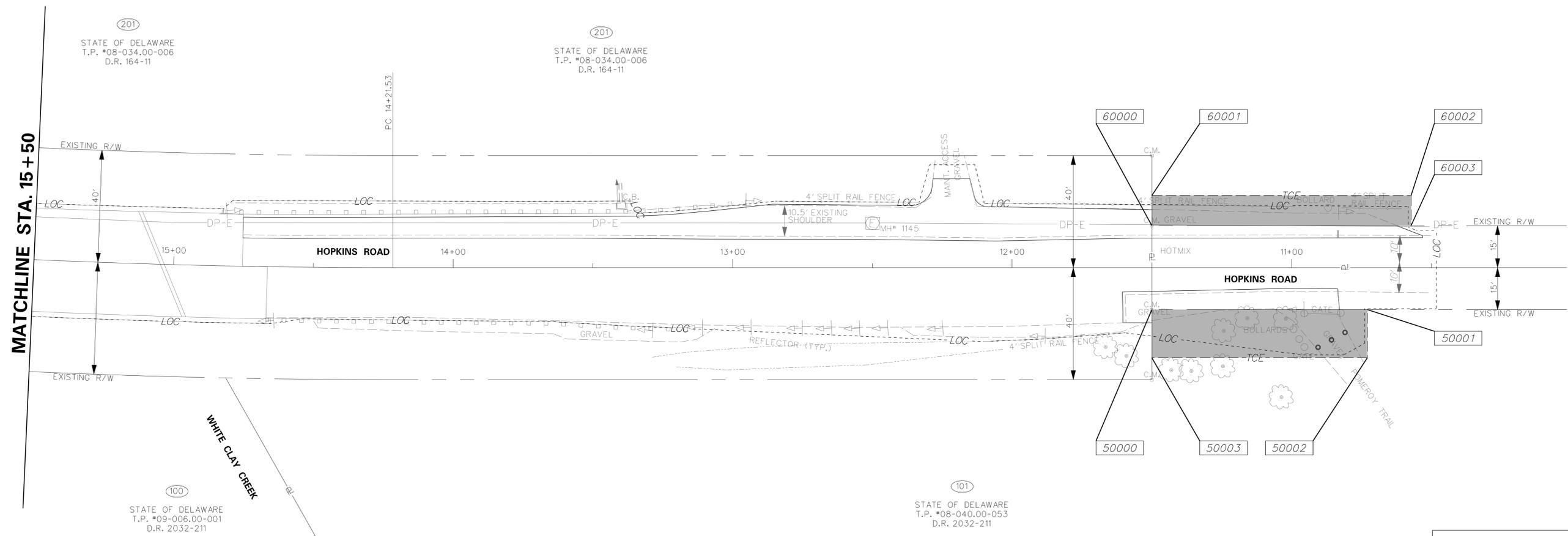
FIGURE 40101 AREA = 1324.9216 SQ. FT. (0.0304 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
08-034.00-006	(201) STATE OF DELAWARE	TCE	164-11	346.49

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
60000	100	11+50.00	15.00	628496.5341	558275.8288	N 25°15'24.49" W	10.7600				
60001	100	11+50.00	25.76	628506.2655	558271.2378	N 64°44'35.51" E	92.7600				
60002	100	10+57.24	25.76	628545.8440	558355.1304	S 25°15'24.49" E	10.7600				
60003	100	10+57.24	15.00	628536.1126	558359.7214	S 64°44'35.51" W	92.7600				
60000	100	11+50.00	15.00	628496.5341	558275.8288						

FIGURE 40201 AREA = 998.0976 SQ. FT. (0.0229 ACRES)



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PREPARED BY THE CONSULTING FIRM OF <b>CENTURY ENGINEERING</b> CONSULTING ENGINEERS, SURVEYORS 4134 N. DUPONT HWY. DOVER, DELAWARE 19901 (302) 734-9188	
RECOMMENDED	DATE 20
RECOMMENDED	DATE 20
TEAM SUPPORT SQUAD MANAGER	DATE 20
TEAM SUPPORT ENGINEER	DATE 20
ASSISTANT DIRECTOR ENGINEERING SUPPORT	DATE 20



ADDENDUMS / REVISIONS



OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC

CONTRACT T201230007	BRIDGE NO. -
COUNTY NEW CASTLE	DESIGNED BY: JMH CHECKED BY: WFC

RIGHT OF WAY / TABULATION SHEET

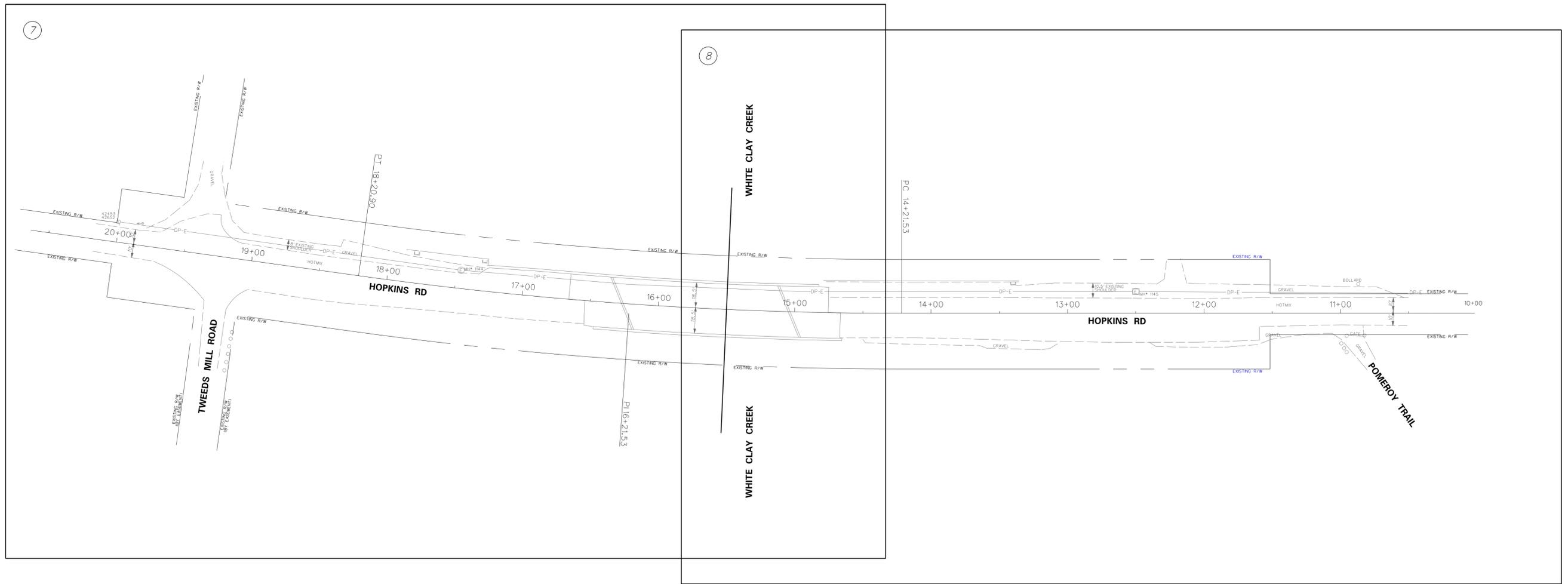
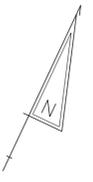
SHEET NO.	15
TOTAL SHTS.	15

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CONSTRUCTION PLANS, GRADES & GEOMETRICS	7	8
CONSTRUCTION PHASING, M. O. T. AND EROSION CONTROL PLANS	10	11
SIGNING & STRIPING PLANS	12	13
RIGHT OF WAY PLANS	-	15

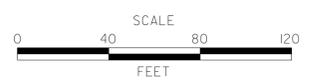
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ADDENDUMS / REVISIONS	



**OPEN END  
CONSTRUCTION SERVICES,  
STATEWIDE TRAILS, NCC**

CONTRACT	BRIDGE NO.	-
T201230007	DESIGNED BY:	JMH
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

**PLAN SHEET INDEX**

SHEET NO.	2
TOTAL SHTS.	15

## EXISTING SYMBOLS

DRAINAGE	
	DITCH OR STREAM CENTERLINE
	DIRECTIONAL STREAM FLOW ARROW
	DRAINAGE INLET
	DRAINAGE JUNCTION BOX
	DRAINAGE MANHOLE
	DRAINAGE PIPE AND FLOW ARROW
	DRAINAGE PIPE HEADWALL
	RIPRAP - AREA FEATURE
	RIPRAP - LINEAR FEATURE

MANMADE ROADSIDE FEATURES	
	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
	CURB
	CURB AND GUTTER
	FENCE - CHAINLINK OR STRANDED
	FENCE - STOCKADE OR SPLIT RAIL
	FLAG POLE
	GUARDRAIL - STEEL BEAM
	GUARDRAIL - WIRE ROPE
	LAMP AND POST - RESIDENTIAL
	MAILBOX
	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
	DELINEATED WETLAND BOUNDARY LINE
	WOODS LINE BOUNDARY

RIGHT-OF-WAY SYMBOLS	
	PROPERTY MARKER - CONCRETE MON.
	PROPERTY MARKER - IRON PIPE
	HISTORIC RIGHT-OF-WAY BASELINE
	EXISTING RIGHT-OF-WAY
	EXISTING PROPERTY LINE
	EXISTING EASEMENT
	EXISTING DENIAL OF ACCESS
	EXISTING R/W & DENIAL OF ACCESS

SURVEY CONTROL & MONUMENTATION	
	SURVEY BENCHMARK LOCATION
	SURVEY TIE POINT LOCATION
	SURVEY TRAVERSE POINT
	POINT OF CURVATURE OR TANGENCY
	POINT OF INTERSECTING TANGENTS

UTILITY	
	SOIL BORING LOCATION
	UTILITY TEST HOLE LOCATION
	CABLE TV DISTRIBUTION BOX
	ELECTRIC MANHOLE
	ELECTRIC METER
	ELECTRIC TRANSFORMER
	POLE MOUNTED LUMINAIRE
	GAS MANHOLE
	GAS METER
	GAS VALVE
	GAS PUMP - SERVICE STATION
	RAILROAD TRACKS
	SANITARY SEWER MANHOLE
	SANITARY SEWER VALVE
	SANITARY SEWER VENT OR CLEANOUT
	SEPTIC DRAIN FIELD
	TELEPHONE BOOTH
	TELEPHONE MANHOLE
	TELEPHONE TEST POINT
	TRAFFIC - CONDUIT JUNCTION WELL
	TRAFFIC - LIGHT POLE AND BASE
	TRAFFIC - PEDESTRIAN POLE & BASE
	TRAFFIC - SIGNAL CABINET & BASE
	TRAFFIC - SIGNAL POLE AND BASE
	UTILITY BOX
	UTILITY POLE GUY WIRE ANCHOR
	UTILITY POLE
	WATER - FIRE HYDRANT
	WATER METER
	WATER VALVE
	WELL HEAD
	MANHOLE - UNDETERMINED OWNER

UTILITY COMPANY FACILITIES	
	DELMARVA POWER - ELECTRIC
	W.L. GORE AND ASSOC.
	COMCAST - CABLE
	VERIZON UNDERGROUND

CONSTRUCTION	
	CONCRETE SAFETY BARRIER - PERMANENT
	BIOFILTRATION SWALE
	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
	BRICK PATTERNED SURFACE
	BUTT JOINT
	CONSTRUCTION BASELINE
	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
	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
	HORIZONTAL CLEARANCE
	IMPACT ATTENUATOR
	JUNCTION BOX - DRAINAGE
	LIMIT OF CONSTRUCTION
	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
	PROPOSED DENIAL OF ACCESS
	PROPOSED PERMANENT EASEMENT
	PROPOSED RIGHT-OF-WAY
	PROPOSED R/W & DENIAL OF ACCESS
	TEMPORARY CONSTRUCTION EASEMENT
	PROPOSED RIGHT-OF-WAY BASELINE

## PROPOSED SYMBOLS

IDENTIFIERS	
	ADJUST BY CONTRACTOR
	ADJUST BY OTHERS
	CONCRETE SAFETY BARRIER
	CURB OR CURB & GUTTER
	CONVERT TO JUNCTION BOX
	CONVERT TO DRAINAGE MANHOLE
	CURB OPENING
	CURB RAMP / TYPE
	CURB RAMP / TYPE - WITHOUT SIDEWALK SURFACE DETECTABLE WARNING SYSTEM
	CONSTRUCTION SAFETY FENCE
	DRAINAGE INLET
	DO NOT DISTURB
	ENERGY DISSIPATOR
	FENCE
	FLARED END SECTION
	FILL WITH FLOWABLE FILL
	FILTRATION STRUCTURE
	GUARDRAIL
	JUNCTION BOX
	MANHOLE
	MONUMENT - RIGHT-OF-WAY
	PIPE
	RELOCATE BY CONTRACTOR
	RELOCATE BY OTHERS
	REMOVE BY CONTRACTOR
	REMOVE BY OTHERS
	UNDERDRAIN / LENGTH
	UNDERDRAIN OUTLET PIPE

LANDSCAPING	
	LANDSCAPE PLANTINGS
	SHRUBBERY
	CONIFEROUS TREE
	DECIDUOUS TREE

TRAFFIC	
	ITMS CONDUIT
	SIGNAL CONDUIT
	CONDUIT JUNCTION WELL
	LUMINAIRE
	PAVEMENT MARKINGS
	PAVEMENT STRIPING
	TRAFFIC SIGN

PAVEMENT SECTION(S)	
	2" SUPERPAVE, TYPE C - HOT-MIX 2 1/2" SUPERPAVE, TYPE B - HOT-MIX 8" GRADED AGGREGATE BASE COURSE, TYPE B WMA SUPERPAVE, TYPE C, 160 GYR., PG 64-22, PATCHING WMA SUPERPAVE, TYPE B, 160 GYR., PG 64-22, PATCHING

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**GENERAL NOTES**

- THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED AUGUST 2001, THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED 2001, AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "MUTCD," DATED 2011, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.
- THE CONTRACTOR SHALL GIVE TWO (2) WEEKS NOTICE TO THE PROPERTY OWNER WHEN ANY FIXTURE, SHRUB OR OTHER OBJECT MUST BE REMOVED FROM THE RIGHT OF WAY OR EASEMENT AREA. IF THE OWNER HAS NOT ATTEMPTED TO SALVAGE THIS PROPERTY, THE CONTRACTOR SHALL REMOVE IT WITHOUT OBLIGATION. COMPENSATION SHALL BE INCIDENTAL TO THE CONTRACT.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL PVC SLEEVES (4" INSIDE MINIMUM DIAMETER, 6" INSIDE MAXIMUM DIAMETER) IN PROPOSED CONCRETE SIDEWALKS, ISLANDS, AND MEDIANS FOR FUTURE TRAFFIC SIGN POSTS AS DIRECTED BY THE ENGINEER. THE LOWER END OF THE SLEEVE SHALL SIT ON THE TOP OF THE SUBBASE MATERIAL. THE COST SHALL BE INCIDENTAL TO THE CONTRACT.
- THE ENDS OF ALL CURBS SHALL BE DEPRESSED FLUSH WITH THE PAVEMENT AT A RATIO OF TWELVE TO ONE (12:1) UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- STAGING AREAS - PROPER EROSION AND SEDIMENT CONTROL MEASURES AS DETERMINED BY THE ENGINEER SHALL BE INSTALLED IN ALL STAGING AREAS. ALL AREAS USED BY THE CONTRACTOR FOR STAGING OPERATIONS SHALL BE FULLY RESTORED BY THE CONTRACTOR UPON COMPLETION OF THE CONTRACT. IF THE STAGING AREA IS PAVED, IT SHALL BE RESTORED TO ITS ORIGINAL CONDITION. IF THE AREA IS UNPAVED, IT SHALL BE RE-GRADED, TOPSOILED, SEEDED AND MULCHED IN ACCORDANCE WITH DELAWARE STANDARD SPECIFICATIONS 732, 734 AND 735, FOR TOPSOIL, SEED AND MULCH RESPECTIVELY, TO THE SATISFACTION OF THE ENGINEER. THE SEED SHALL ADHERE TO THE SPECIFICATIONS OF SECTION 734 FOR PERMANENT GRASS SEEDING - DRY GROUND. ALL COSTS ASSOCIATED WITH RESTORATION OF THE STAGING AREA SHALL BE AT THE CONTRACTOR'S EXPENSE. IF THE ENGINEER DETERMINES THAT A SATISFACTORY STAND OF GRASS DOES NOT EXIST AT THE TIME OF FINAL INSPECTION, ALL COSTS ASSOCIATED WITH REESTABLISHING A SATISFACTORY STAND OF GRASS SHALL BE AT THE CONTRACTOR'S EXPENSE. ALL STAGING AREAS SHALL BE SECTIONED OFF FROM THE TRAVELING PUBLIC USING TRAFFIC CONTROL DEVICES APPROVED BY THE ENGINEER, ALL COSTS SHALL BE PAID BY THE RESPECTIVE TRAFFIC CONTROL ITEM.
- SITE REVIEWER - AN EROSION CONTROL SITE REVIEWER SHALL BE A PERSON FROM THE CONTRACTOR'S STAFF ASSIGNED TO EROSION AND SEDIMENT CONTROL IMPLEMENTATION AND MAINTENANCE AND SHALL BE REQUIRED ON SPECIFIC PROJECTS. THE NAME AND DNREC CERTIFICATION NUMBER OF EACH SITE REVIEWER SO REQUIRED SHALL BE SUBMITTED TO THE DEPARTMENT. THE NAME OF THE DELAWARE REGISTERED PROFESSIONAL ENGINEER PROVIDING DIRECTION AND SUPERVISION OF THE SITE REVIEWER, AS REQUIRED IN SECTION 12.3 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS, SHALL ALSO BE SUBMITTED TO THE DEPARTMENT. THE SITE REVIEWER REQUIREMENTS IN EFFECT ON THIS PROJECT SHALL BE MARKED WITH AN "X" BELOW:

EROSION POTENTIAL FOR THIS PROJECT	SITE REVIEWER REQUIREMENT
( ) INSIGNIFICANT	NONE
( X ) MINOR	CONTRACTOR CERTIFICATION COURSE TRAINING ONLY, AS DEFINED IN SECTION 13 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
( ) MEDIUM	AT THE TIME OF BID OF THE CONTRACT, EITHER 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 AT THE TIME OF BID OF THE CONTRACT. THE SUPERINTENDENT MUST BECOME A CCR WITHIN ONE YEAR AFTER THE AWARD OF CONTRACT.

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

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

- 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 IS INCIDENTAL TO ITEM 743001.

- THE DISTURBED AREA FOR THIS PROJECT IS 0.18 ACRES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO THE CONSTRUCTION SITE POLLUTION PREVENTION SPECIFICATIONS AS DETAILED IN SECTION 3.6 OF THE "DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK". ALL COSTS ASSOCIATED WITH ADHERING TO THE STANDARDS SHALL BE INCIDENTAL TO THE OVERALL CONTRACT COSTS.
- THE EROSION AND SEDIMENT CONTROL PLANS HAVE BEEN APPROVED BY DELDOT'S STORMWATER ENGINEER UNDER DELDOT'S DELEGATED AUTHORITY. THE EROSION AND SEDIMENT CONTROL 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 SHALL INFORM THE ENGINEER THREE MONTHS PRIOR TO THE EXPIRATION OF THE EROSION AND SEDIMENT CONTROL PLAN APPROVAL. DELDOT WILL REVIEW THE CURRENT EROSION AND SEDIMENT CONTROL PLAN AND ISSUE AN EXTENSION WITH ANY APPROPRIATE MODIFICATIONS.

**PROJECT NOTES**

SECTION 100

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

SECTION 200

- THE ENGINEER MAY REQUIRE THE CONTRACTOR TO EXCAVATE TEST PITS ALONG THE PROPOSED CONSTRUCTION AT POINTS OF POSSIBLE UTILITY CONFLICTS, TO DETERMINE IF CONFLICTS EXIST. ANY CONFLICTS SHALL BE COORDINATED BY THE CONTRACTOR, WITH THE ENGINEER AND THE UTILITY COMPANY INVOLVED. THE ENGINEER SHALL ULTIMATELY DETERMINE THE SOLUTION TO THE UTILITY CONFLICT. TEST HOLES SHALL BE MEASURED AND PAID FOR IN ACCORDANCE WITH ITEM 202000 - EXCAVATION AND EMABANKMENT, BUT ONLY TO THE ACTUAL DEPTH EXCAVATED.
- THIS PROJECT IS COVERED UNDER A "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 NOIS KEPT ON FILE IN EACH OF THE CONSTRUCTION OFFICES AND THE DEPARTMENT'S TEAM SUPPORT SECTION. A COPY OF THE GENERAL PERMIT OR THE NOICAN BE OBTAINED UPON REQUEST FROM EITHER THE DEPARTMENT'S STORMWATER ENGINEER OR THE APPROPRIATE CONSTRUCTION ENGINEER.
- IN AREAS WHERE TREES AND SHRUBS WILL BE OVERHANGING THE SHOULDER, PRUNING MAY BE NECESSARY TO ACHIEVE A VERTICAL CLEAR SPACE OF 10 FEET ABOVE THE SHOULDER ELEVATION. THE CONTRACTOR SHALL PRUNE THE EXISTING TREE AND SHRUB BRANCHES, WHICH OVERHANG THE SHOULDER, IN ACCORDANCE WITH I.S.A. STANDARDS. THE CONTRACTOR SHALL NOTIFY DELDOT'S ROADSIDE ENVIRONMENTALIST ADMINISTRATOR, EUGENE ROSAN, JR. AT (302) 760-2185 AND/OR HIS DESIGNEE, AT LEAST TWO (2) DAYS PRIOR TO THE PRUNING OPERATION. ALL COSTS WILL BE PAID FOR UNDER ITEM NO. 201000 - CLEARING AND GRUBBING.

SECTION 600

- THE DEPARTMENT AND THE CONTRACTOR SHALL INSPECT ALL EXISTING PIPES AND DRAINAGE STRUCTURES TO BE USED IN THE FINAL DRAINAGE SYSTEM AND AGREE ON AND MAKE RECORD OF THE CONDITION PRIOR TO CONSTRUCTION. DAMAGES TO EXISTING PIPES AND DRAINAGE STRUCTURES DUE TO CONTRACTOR OPERATIONS SHALL BE REPAIRED OR REPLACED IN-KIND AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL PERFORM THE FOLLOWING MAINTENANCE ACTIVITIES ALONG THE BRIDGE, PARAPETS AND ABUTMENTS. ALL WORK SHALL BE PERFORMED PER DELDOT STANDARDS FOR THE ITEMS CALLED OUT.
  - REPLACE ALL SILICONE JOINTS SEALS BETWEEN APPROACH SLAB AND BACKWALL, AND APPROACH SLAB AND PARAPET/WINGWALL. PAID FOR UNDER ITEM \*605692 - SILICONE JOINT SEAL.
  - REPLACE MISSING STONE VENEER ON THE ABUTMENT(S). PAID FOR UNDER ITEM \*610001 - STONE MASONRY.
  - REPOINT STONE VENEER ON PARAPET(S), AS NECESSARY. PAID FOR UNDER ITEM \*610502 - POINTING EXISTING STONE MASONRY.
  - EPOXY INJECT CRACKS WITH RUST STAINING IN THE ABUTMENT BACKWALL. PAID FOR UNDER ITEM \*602611 - REPAIR OF CONCRETE STRUCTURES BY EPOXY INJECTION.
  - REPAIR SPALL IN NORTH PARAPET WALL. PAID FOR UNDER ITEM \*602586 - REHABILITATION OF CONCRETE STRUCTURE.

SECTION 700

- THE CONTRACTOR SHALL INSTALL ALL PERMANENT SIGNAGE AND TEMPORARY SIGNAGE AS SHOWN ON THE CONTRACT DOCUMENTS. ALL COSTS COVERED UNDER THE APPROPRIATE ITEMS.
- ALL PAVED AREAS (INCLUDING DRIVEWAYS) TO BE RECONSTRUCTED OR WIDENED SHALL BE SAWCUT AT THE POINT WHERE THE NEW PAVEMENT IS TO TIE INTO THE EXISTING PAVEMENT, UNLESS OTHERWISE NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- DURING CONSTRUCTION OF THE SHOULDERS, ALL BARE AREAS SHALL BE STABILIZED AT THE END OF EACH WORK DAY. BARE AREAS SHALL BE EITHER PERMANENTLY STABILIZED OR COVERED WITH GABC.

MISCELLANEOUS

- THERE ARE NO ENVIRONMENTAL PERMITS ASSOCIATED WITH THIS PROJECT. AS SUCH, AN ENVIRONMENTAL COMPLIANCE SHEET WAS NOT PREPARED.
- THE CONTRACTOR SHALL COORDINATE WITH THE WHITE CLAY CREEK STATE PARK SUPERINTENDENT, NICK MCFADDEN AT (302) 368-6900, TO SCHEDULE THE REMOVAL OF THE EXISTING BOLLARDS AND GATES AND TO PROVIDE A WORK SCHEDULE. ALL COSTS SHALL BE INCIDENTAL TO THE CONTRACT.
- THE LOCATION OF ALL BOLLARDS SHALL BE LAID OUT IN THE FIELD AND APPROVED BY DNREC AND THE ENGINEER PRIOR TO THEIR INSTALLATION. ALL COSTS ARE INCIDENTAL TO ITEM 763501 - CONSTRUCTION ENGINEERING.

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ADDENDUMS / REVISIONS

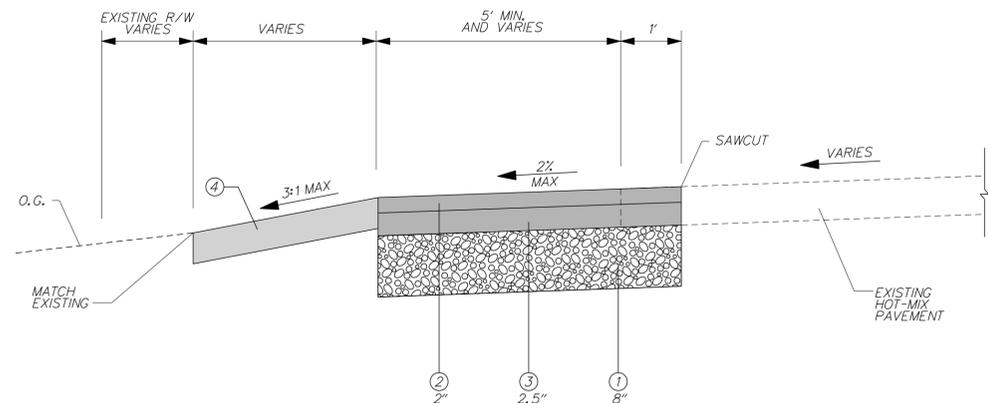
**OPEN END  
CONSTRUCTION SERVICES,  
STATEWIDE TRAILS, NCC**

CONTRACT	BRIDGE NO.	-
T201230007	DESIGNED BY:	JMH
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

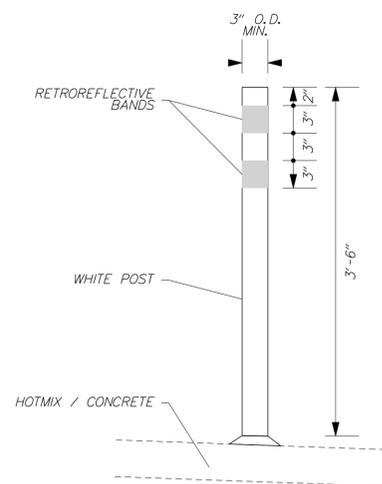
**NOTES**

SHEET NO.	4
TOTAL SHTS.	15

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**ASPHALT PATCHING TYPICAL SECTION**



**TUBULAR DELINEATORS  
(ITEM 743550)**

**LEGEND**

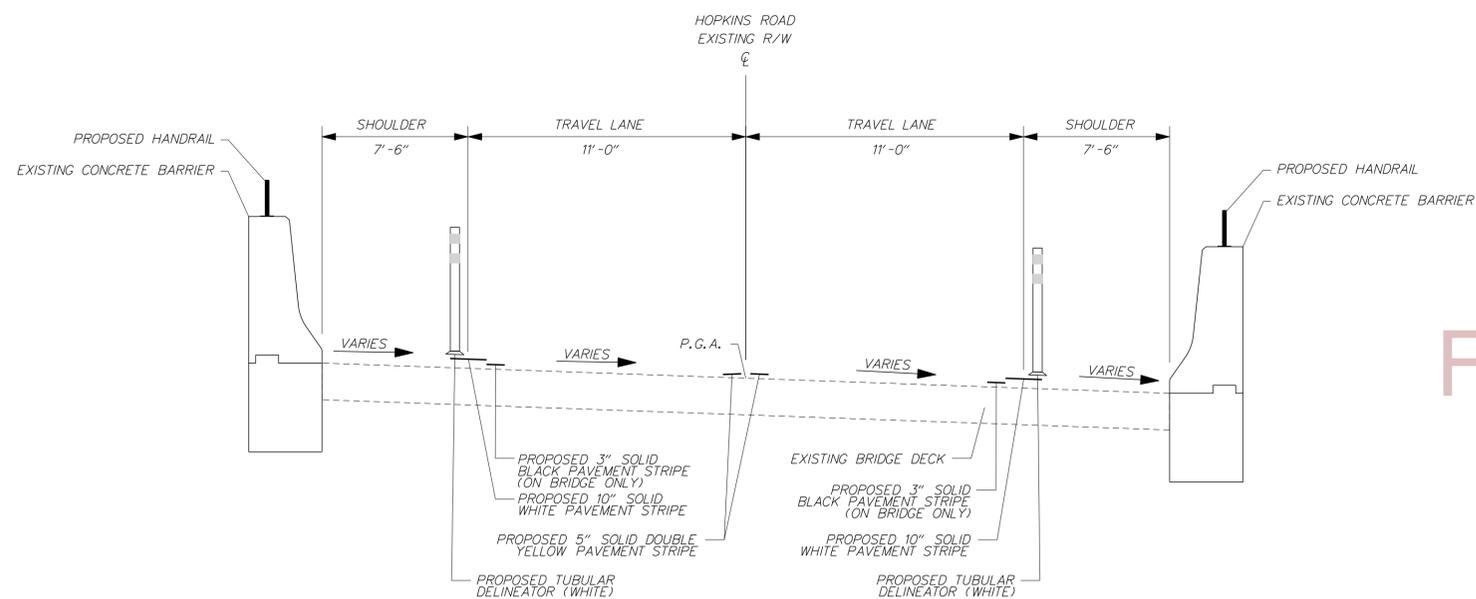
- ① ITEM 302008 - GRADED AGGREGATE BASE COURSE, TYPE B PATCHING
- ② ITEM 401821 - WMA, SUPERPAVE, TYPE C, 160 GYR., PG 64-22, PATCHING
- ③ ITEM 401822 - WMA, SUPERPAVE, TYPE B, 160 GYR., PG 64-22, PATCHING
- ④ ITEM 732002 - TOPSOIL, 6" DEPTH  
ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND

PR - POINT OF ROTATION  
PDGA - PROFILE DITCH GRADE APPLICATION  
PGA - PROFILE GRADE APPLICATION

MAXIMUM SINGLE LIFTS FOR THE FOLLOWING MATERIALS AFTER COMPACTION ARE:  
2" = WARM-MIX, TYPE C  
3" = WARM-MIX, TYPE B  
6" = WARM-MIX, BCBC  
8" = GABC

**NOTES:**

- 1. MAXIMUM ALGEBRAIC DIFFERENCE OF CROSS SLOPES SHALL NOT EXCEED 8%.



**TUBULAR DELINEATOR PLACEMENT TYPICAL SECTION**

NOTE: ALL SHOULDERS MUST HAVE A CLEAR WIDTH OF AT LEAST 5'.

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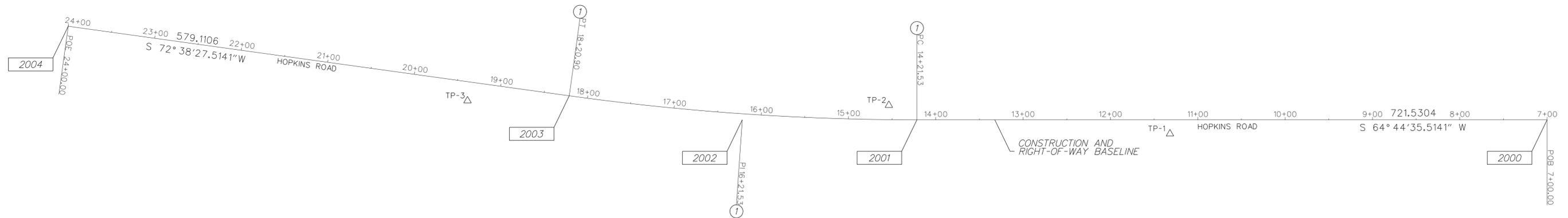


CIRCULAR CURVE NO. 1			
PC ( 2001 )	14+21.53	628367.1125	558036.6557
PI ( 2002 )	16+21.53	628281.7775	557855.7753
CC ( )		630987.4113	556800.4623
PT ( 2003 )	18+20.90	628222.1060	557664.8851
Radius:	2897.2642		
Delta:	7° 53' 52.0000" Right		
Degree of Curvature(Arc)	1° 58' 39.2957"		
Length:	399.3653		
Tangent:	199.9994		
Chord:	399.0492		
Middle Ordinate:	6.8785		
External:	6.8948		
Tangent Direction:	S 64° 44' 35.5141" W		
Radial Direction:	N 25° 15' 24.4859" W		
Chord Direction:	S 68° 41' 31.5141" W		
Radial Direction:	N 17° 21' 32.4859" W		
Tangent Direction:	S 72° 38' 27.5141" W		

HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP-1	11+31.81	-15.98	628476.2751	558305.4968	100.09
TP-2	14+53.88	16.46	628368.4396	558000.4618	101.27
TP-3	19+35.51	-21.61	628167.2881	557561.9350	99.11

CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
2000	7+00.00	0.00	628674.9723	558689.2111
2004	24+00.00	0.00	628049.3236	557112.1507

ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM (NAVD 1988) AND HORIZONTAL DATUM NORTH AMERICAN DATUM, NAD 83 (2007).



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ADDENDUMS / REVISIONS



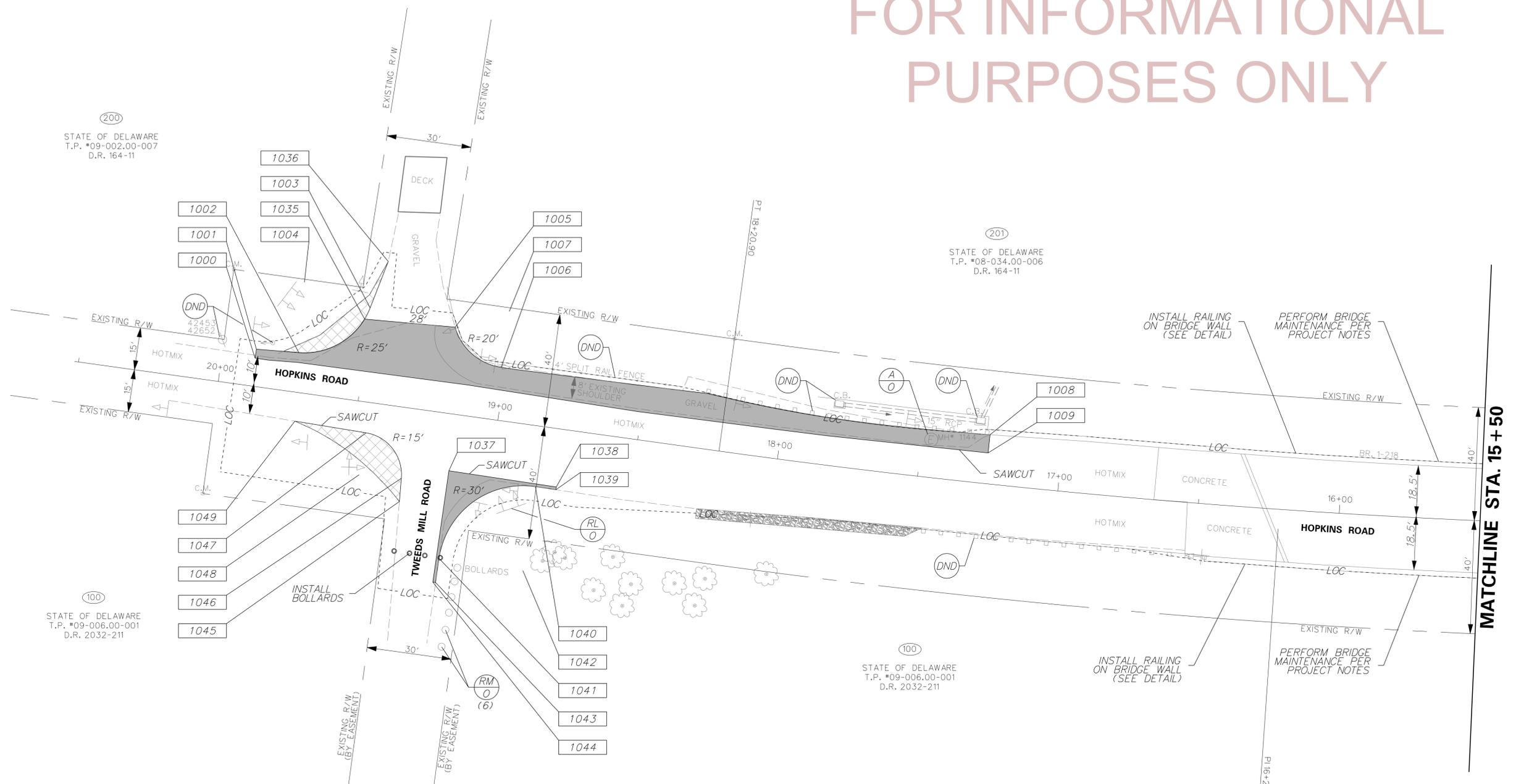
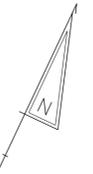
**OPEN END  
CONSTRUCTION SERVICES,  
STATEWIDE TRAILS, NCC**

CONTRACT	BRIDGE NO.	-
T201230007	DESIGNED BY:	JMH
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

**HORIZONTAL AND  
VERTICAL CONTROL**

SHEET NO.	6
TOTAL SHTS.	15

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**COORDINATE LIST**

POINT NO.	STATION	OFFSET	NORTHING	EASTING
1000	19+88.25	9.97	628181.6889	557502.1765
1001	19+88.22	13.15	628184.7393	557501.2576
1002	19+73.16	14.02	628190.0578	557515.3689
1003	19+50.28	33.17	628215.1578	557531.4937
1004	19+74.60	38.98	628213.4514	557506.5520
1005	19+19.53	30.53	628221.8188	557561.6306
1006	19+01.28	38.71	628235.0672	557576.6133
1007	19+01.43	18.71	628215.9328	557582.4334
1008	17+26.00	17.36	628268.2888	557749.2654
1009	17+26.00	10.90	628262.1887	557751.3885
1035	19+51.69	28.97	628210.7353	557531.4040
1036	19+46.19	50.30	628232.7307	557530.2915
1037	19+14.75	20.06	628174.9566	557581.2893

**COORDINATE LIST**

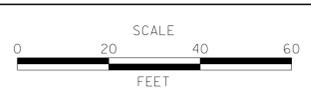
POINT NO.	STATION	OFFSET	NORTHING	EASTING
1038	18+76.26	20.49	628186.0359	557618.1558
1039	18+76.26	21.49	628185.0782	557618.4437
1040	18+83.61	21.40	628182.9657	557611.4143
1041	19+13.94	51.22	628145.4573	557591.3614
1042	18+83.94	51.40	628154.2351	557620.0485
1043	19+13.99	59.82	628137.2319	557593.8782
1044	19+14.99	59.82	628136.9393	557592.9220
1045	19+30.62	33.21	628157.6696	557570.0663
1046	19+31.05	25.00	628165.3794	557567.2020
1047	19+45.66	10.79	628174.5793	557549.0230
1048	19+46.03	25.79	628160.1556	557553.1410
1049	19+71.20	10.16	628167.5654	557524.5654

**NOTES:**  
 1. ALL EXISTING UTILITIES ARE TO REMAIN UNLESS OTHERWISE NOTED ON THE PLANS.

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ADDENDUMS / REVISIONS

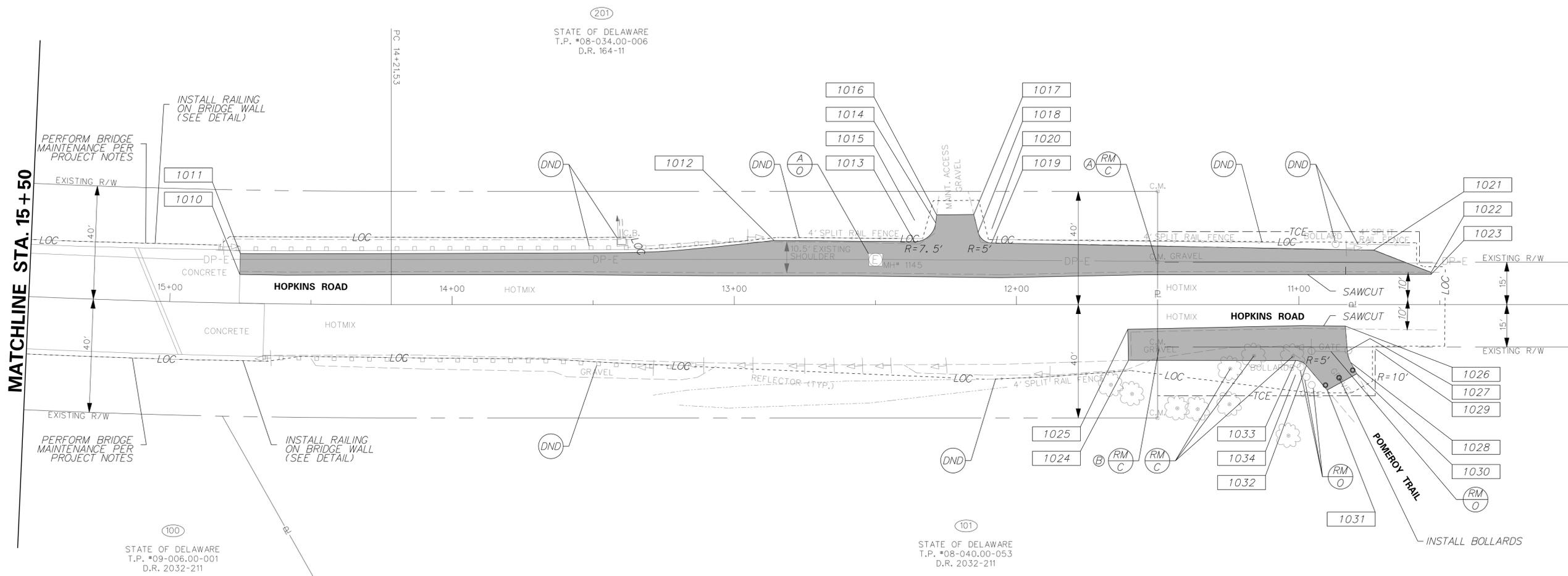
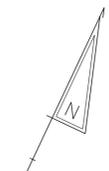


**OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC**

CONTRACT	BRIDGE NO.	-
T201230007	DESIGNED BY:	JMH
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

<b>CONSTRUCTION PLAN</b>	SHEET NO.	7
	TOTAL SHTS.	15

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### COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
1010	14+75.38	10.14	628353.8394	557983.5923
1011	14+75.34	17.53	628360.6013	557980.5945
1012	12+85.90	22.63	628445.4529	558149.6640
1013	12+36.15	22.21	628446.2943	558194.8401
1014	12+28.63	28.84	628475.5033	558198.8044
1015	12+36.08	29.71	628473.1046	558191.6983
1016	12+28.30	31.71	628478.2364	558197.8818
1017	12+15.14	31.82	628483.9541	558209.7341
1018	12+13.60	25.57	628478.9597	558213.7983
1019	12+18.84	21.77	628477.5518	558219.7268
1020	12+08.74	26.77	628482.1130	558217.6786
1021	10+73.42	19.23	628533.0349	558343.2853
1022	10+53.11	11.36	628534.5828	558365.0049
1023	10+53.12	10.68	628533.9631	558365.2927

### COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
1024	11+60.55	-19.65	628460.8178	558281.3402
1025	11+60.55	-8.70	628470.5963	558276.4042
1026	10+83.51	-7.59	628504.4745	558345.5965
1027	10+82.76	-16.53	628496.7143	558350.0965
1028	10+81.56	-20.48	628493.6441	558352.8647
1029	10+72.79	-15.68	628501.7308	558358.7473
1030	10+79.41	-24.41	628491.0088	558356.4873
1031	10+89.94	-30.18	628481.2990	558349.4240
1032	10+97.31	-21.51	628485.9961	558339.0551
1033	11+01.12	-19.75	628485.9662	558334.8639
1034	11+01.12	-24.75	628481.4417	558336.9919

### NOTES:

- ALL EXISTING UTILITIES ARE TO REMAIN UNLESS OTHERWISE NOTED ON THE PLANS.
- WHERE EXISTING CONCRETE MONUMENTS ARE TO BE REMOVED, THE CONTRACTOR SHALL SET A PK NAIL IN THE PROPOSED PAVEMENT. PAID FOR UNDER ITEM NO. 763501 - CONSTRUCTION ENGINEERING. THE CONTROL DATA FOR THE PK NAILS IS:

	STA	NORTHING	EASTING
Ⓐ	11+50.00	N 628496.5364	E 558275.7877
Ⓑ	11+50.00	N 628469.3167	E 558288.6348



ADDENDUMS / REVISIONS



**OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC**

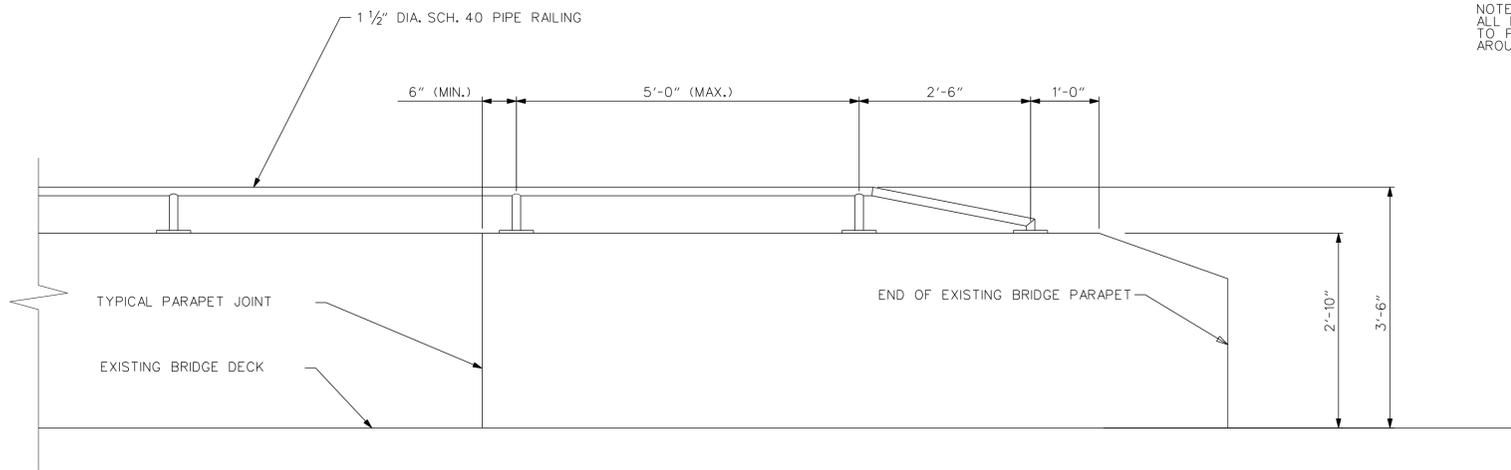
CONTRACT	BRIDGE NO.	-
T201230007	DESIGNED BY:	JMH
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

**CONSTRUCTION PLAN**

SHEET NO.	8
TOTAL SHTS.	15

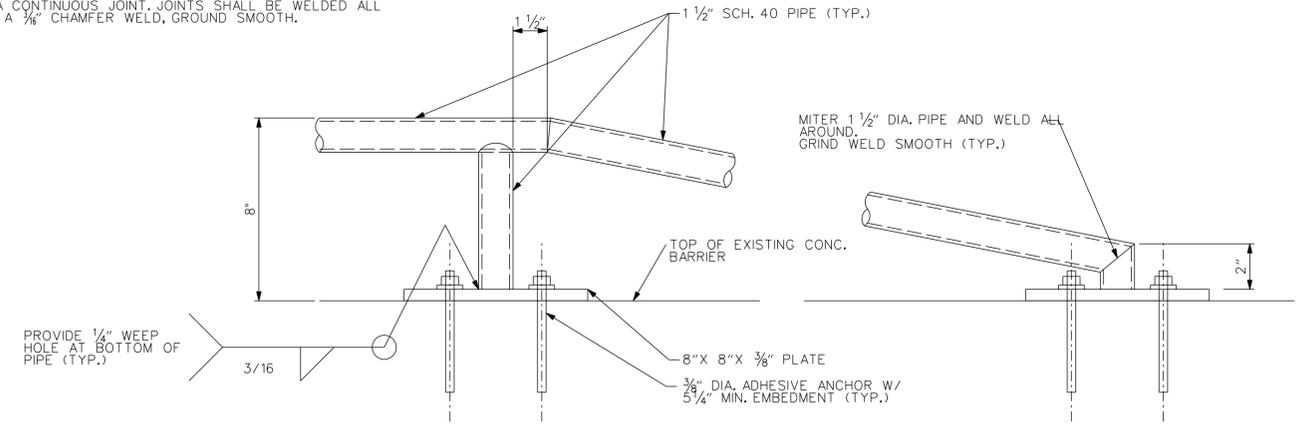
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NOTE:  
ALL PIPE CONNECTIONS SHALL BE MITERED OR OTHERWISE CONSTRUCTED TO PROVIDE A CONTINUOUS JOINT. JOINTS SHALL BE WELDED ALL AROUND WITH A 1/8" CHAMFER WELD, GROUND SMOOTH.



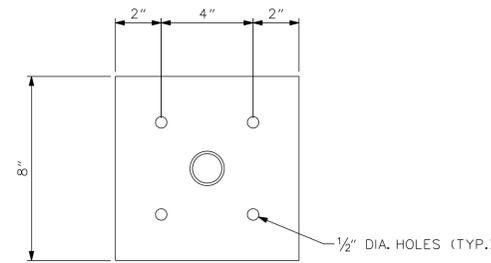
**HANDRAIL ELEVATION**

SCALE: 3/4" = 1'-0"



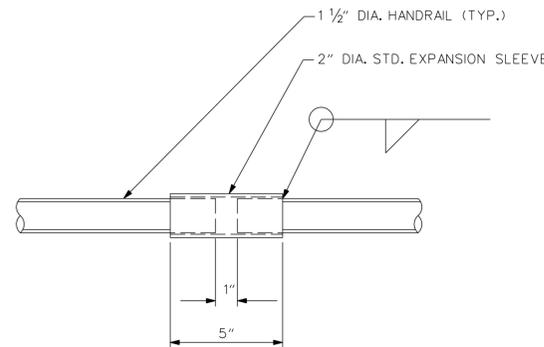
**HANDRAIL ANCHORAGE DETAIL**

SCALE: 3" = 1'-0"



**BASE PLATE DETAIL**

SCALE: 3" = 1'-0"



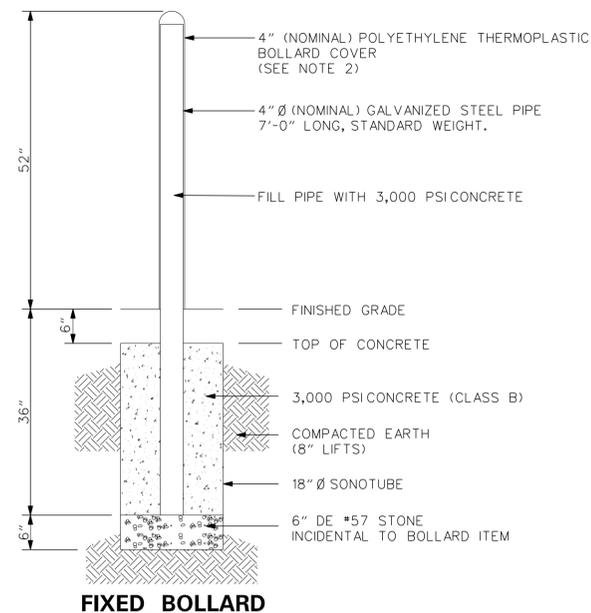
**EXPANSION JOINT DETAIL**

SCALE: 3" = 1'-0"

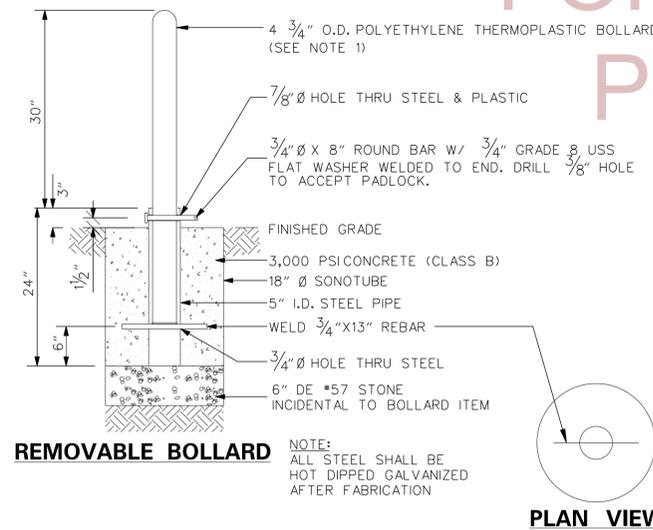
**STEEL HANDRAIL NOTES:**

1. ALL POSTS AND RAILS SHALL BE ANSISCHEDULE 40 STEEL PIPE.
2. BASE PLATES SHALL BE AASHTO M-84d (ASTM A 36).
3. ALL STEEL PIPE MEMBERS SHALL BE GALVANIZED PER ASHTO M111-94 (OR CURRENT) ASTM A-123.
4. ANCHOR BOLTS SHALL BE GALVANIZED STEEL OR STAINLESS STEEL AND SHALL BE INSTALLED WITH A TWO PART EPOXY SUITABLE FOR THE APPLICATION.
5. HANDRAIL SHALL BE CENTERED ON THE TOP OF THE EXISTING CONCRETE BRIDGE PARAPET, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
6. LOCATE EXPANSION JOINT(S) AT JOINTS IN EXISTING CONCRETE PARAPET AND AT INTERVALS NOT TO EXCEED 20' O.C.
7. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS SHOWING ALL DIMENSIONS, EXPANSION JOINTS, ANCHOR BOLTS, AND BASE PLATE LAYOUTS WITH RESPECT TO EXISTING PARAPET JOINTS.
8. ALL ITEMS REQUIRED FOR THE STEEL HANDRAIL, INCLUDING BUT NOT LIMITED TO, MATERIALS, SHOP DRAWINGS, LABOR, WELDS, ANCHORS, AND FINISHES, SHALL BE INCLUDED IN ITEM 606503 - STEEL HAND RAILING.
9. STEEL BASE PLATES AND RAIL SHALL BE POWDER COATED WITH A BLACK FINISH.

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**FIXED BOLLARD**



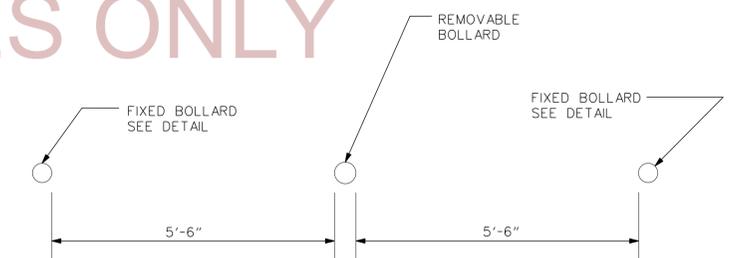
**REMOVABLE BOLLARD**

NOTE:  
ALL STEEL SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION

**PLAN VIEW**

**BOLLARD - ITEM 720556**

NTS



**BOLLARD SPACING**

**BOLLARD NOTES:**

1. REMOVABLE BOLLARD IS TO BE YELLOW AND SHALL BE CUT TO HEIGHT DIMENSION AS NECESSARY. SUBMIT MANUFACTURER'S STANDARD COLORS FOR APPROVAL BY THE ENGINEER PRIOR TO ORDERING.
2. FIXED BOLLARD COVER IS TO BE RED. SUBMIT MANUFACTURER'S STANDARD COLORS FOR APPROVAL BY THE ENGINEER PRIOR TO ORDERING.
3. FIXED BOLLARD COVER SHALL BE INSTALLED BY SLIDING OVER AND ATTACHING TO STEEL PIPE UTILIZING 2-SIDED TAPE PROVIDED BY THE BOLLARD COVER MANUFACTURER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. TAPE SHALL BE WRAPPED AROUND THE CIRCUMFERENCE OF THE STEEL PIPE AT THREE LOCATIONS: AT TOP JUST BELOW DOME, IN MIDDLE, AND AT BOTTOM.
4. IF THERE ARE MORE THAN ONE REMOVABLE BOLLARD MAINTAIN 5'-6" SPACING BETWEEN BOLLARDS.

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TRAFFIC CONTROL NOTES

1. ALL WORK SHALL BE PERFORMED IN A MANNER THAT WILL REASONABLY PROVIDE THE LEAST PRACTICABLE OBSTRUCTION TO ALL ROAD USERS, INCLUDING VEHICULAR, PEDESTRIAN AND BICYCLE TRAFFIC, AND SHALL CONFORM TO THE REQUIREMENTS OF THE 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PART 6, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT FOR BIDS.
2. CONTRACTOR SHALL ONLY WORK ON ONE SIDE OF HOPKINS ROAD AT A TIME OR AS DIRECTED IN FIELD BY THE ENGINEER.
3. THE CONTRACTOR SHALL MAINTAIN A MINIMUM LANE WIDTH OF 10 FEET AT ALL TIMES.
4. WORK SHALL NOT BE PERFORMED BETWEEN THE HOURS OF 9:00 AM AND 4:00 PM MONDAY THROUGH FRIDAY. WORK SHALL NOT BE PERFORMED AT NIGHT OR ON WEEKENDS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
5. THE CONTRACTOR SHALL ADHERE TO ALL PEDESTRIAN M.O.T. REQUIREMENTS AS INCLUDED ON THE PLANS OR AS DIRECTED IN THE FIELD BY THE ENGINEER.
6. FLAGGERS SHALL BE USED TO ASSIST PEDESTRIANS CROSSING HOPKINS ROAD WHEN THE ROAD WORK IS WITHIN THE CROSSWALK AREAS.

GENERAL PROJECT NOTES FOR SEDIMENT AND STORMWATER MANAGEMENT

1. DUST CONTROL  
DUST IS TO BE CONTROLLED EXCLUSIVELY THROUGH THE USE OF WATER. COSTS ASSOCIATED WITH THE FURNISHING AND APPLICATION OF WATER FOR DUST CONTROL SHALL BE INCIDENTAL TO ALL THE CONTRACT ITEMS.
2. EXISTING INLETS AND PIPES  
ALL EXISTING INLETS AND PIPES WITHIN THE PROJECT LIMITS TO REMAIN SHALL BE CLEANED OUT. THE COST OF CLEANING OUT THE EXISTING PIPES TO REMAIN IS INCIDENTAL TO ITEM #201000.
3. REVIEW AND OR APPROVAL OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE THE REQUIREMENTS OF THE SEDIMENT AND STORMWATER REGULATIONS, NOR SHALL IT RELIEVE THE CONTRACTOR FROM THE ERRORS OR OMISSIONS IN THE APPROVED PLAN.
4. SOIL DISTURBANCE  
FOLLOWING SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 14 CALENDAR DAYS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR OF ALL EROSION AND SEDIMENT CONTROLS, AND STORMWATER MANAGEMENT PRACTICES DURING THE PROJECT.
6. EROSION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS OR AS DIRECTED BY ENGINEER IN THE FIELD.
7. STAGING AREAS. PROPER EROSION AND SEDIMENT CONTROL MEASURES AS DETERMINED BY THE ENGINEER SHALL BE INSTALLED IN ALL STAGING AREAS, AT COMPLETION OF THE PROJECT. STAGING AREAS THAT ARE PAVED SHALL BE RESTORED TO ITS ORIGINAL CONDITION. IF UNPAVED, STAGING AREAS SHALL BE REGRADED TO THE SATISFACTION OF THE ENGINEER, TOPSOILED SEEDED, AND MULCHED IN ACCORDANCE WITH DELDOT STANDARD SPECIFICATIONS SECTIONS 732, 734, AND 735 FOR TOPSOIL, SEED AND MULCH RESPECTIVELY. SEED SHALL ADHERE TO THE SPECIFICATIONS FOR PERMANENT GRASS SEEDING - DRY GROUND. ALL COSTS ASSOCIATED TO THE ABOVE ITEMS SHALL BE AT THE CONTRACTOR'S EXPENSE. IF THE ENGINEER DETERMINES THAT A SATISFACTORY STAND OF GRASS DOES NOT EXIST AT THE TIME OF FINAL INSPECTION. ALL COSTS ASSOCIATED WITH RE-ESTABLISHING A SATISFACTORY STAND OF GRASS SHALL ALSO BE AT THE CONTRACTOR'S EXPENSE.
8. SOIL STOCKPILES (IF REQUIRED.) STOCKPILES OF SOIL SHALL BE STABILIZED AND SEEDED PER DELDOT REQUIREMENTS.
9. THE CONTRACTOR SHALL PLACE SILT FENCE (IF REQUIRED) AS DIRECTED IN THE FIELD BY THE ENGINEER. ALL COSTS ARE INCLUDED UNDER ITEM 251000.



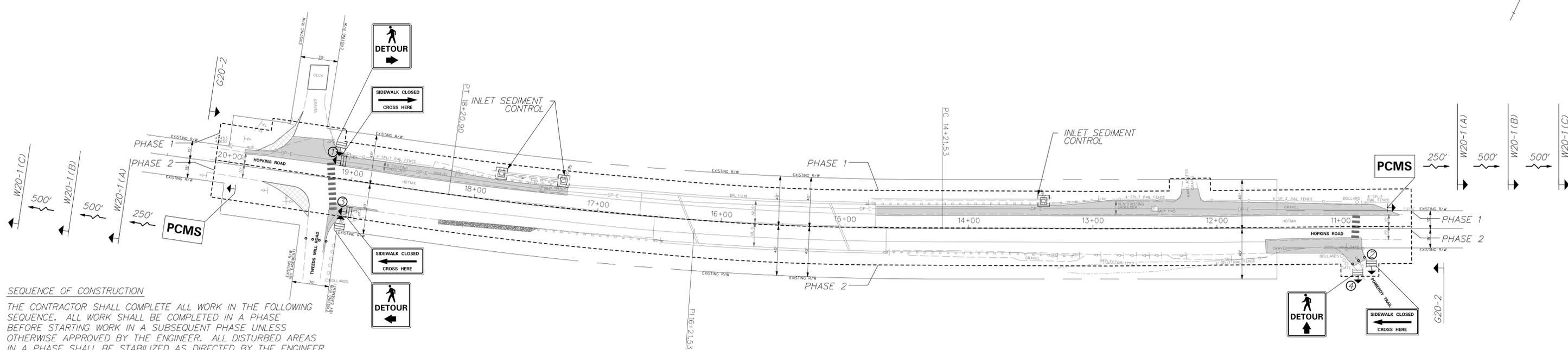
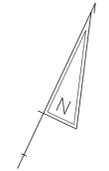
ADDENDUMS / REVISIONS	



CONTRACT	BRIDGE NO.	-
T201230007	DESIGNED BY:	JMH
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL NOTES
--

SHEET NO.	10
TOTAL SHTS.	15



**SEQUENCE OF CONSTRUCTION**

THE CONTRACTOR SHALL COMPLETE ALL WORK IN THE FOLLOWING SEQUENCE. ALL WORK SHALL BE COMPLETED IN A PHASE BEFORE STARTING WORK IN A SUBSEQUENT PHASE UNLESS OTHERWISE APPROVED BY THE ENGINEER. ALL DISTURBED AREAS IN A PHASE SHALL BE STABILIZED AS DIRECTED BY THE ENGINEER BEFORE BEGINNING WORK IN THE NEXT PHASE.

**PHASE 1: WESTBOUND LANE OF HOPKINS ROAD**

1. INSTALL ADVANCE WARNING SIGNS ON HOPKINS ROAD.
2. PLACE PORTABLE CHANGEABLE MESSAGE SIGN TEN (10) DAYS IN ADVANCE OF CONSTRUCTION ON HOPKINS ROAD. PLACEMENT OF PORTABLE CHANGEABLE MESSAGE SIGNS AND MESSAGE ON PORTABLE CHANGEABLE MESSAGE SIGN SHOULD BE COORDINATED AND APPROVED BY THE NORTH DISTRICT SAFETY OFFICER.

UTILIZE TYPICAL APPLICATION 10 FROM PART 6 OF THE DE MUTCD FOR THE FOLLOWING CONSTRUCTION SEQUENCE:

4. DURING CONSTRUCTION FROM STA. 10+00 TO STA. 20+50, IMPLEMENT PEDESTRIAN BARRICADE AND SIGN ASSEMBLY NO. 1 & 2.
5. PERFORM ALL MAINTENANCE ACTIVITIES ALONG THE BRIDGE, PARAPETS AND ABUTMENTS. ALL WORK ITEMS ARE LISTED IN THE PROJECT NOTES, NO. 6.
6. SAWCUT AND REMOVE EXISTING PAVEMENT WITHIN THE CONSTRUCTION LIMITS IN THIS STAGE.
7. DALMARVA POWER TO ADJUST MANHOLES.
8. PREPARE BASE AND SUBBASE SECTIONS OF PAVEMENT AS SHOWN ON THE PLANS. PLACE ASPHALT PAVEMENT AS SHOWN ON THE PLANS.

9. TOPSOIL, SEED, AND MULCH ON ALL DISTURBED AREAS WITHIN THIS STAGE OF CONSTRUCTION.
10. PLACE PERMANENT PAVEMENT MARKINGS AND RELATED SIGNS FOR THIS STAGE OF WORK.

**PHASE 2: EASTBOUND LANE OF HOPKINS ROAD**

1. MAINTAIN ADVANCE WARNING SIGNS ON HOPKINS ROAD.
2. DURING CONSTRUCTION FROM STA. 10+00 TO STA. 20+50, IMPLEMENT PEDESTRIAN BARRICADE AND SIGN ASSEMBLY NO. 3 & 4. CONTRACTOR MUST MAINTAIN ACCESS TO POMEROY TRAIL AT ALL TIMES.

UTILIZE TYPICAL APPLICATION 10 FROM PART 6 OF THE DE MUTCD FOR THE FOLLOWING CONSTRUCTION SEQUENCE:

3. PERFORM ALL MAINTENANCE ACTIVITIES ALONG THE BRIDGE, PARAPETS AND ABUTMENTS. ALL WORK ITEMS ARE LISTED IN THE PROJECT NOTES, NO. 6.
4. SAWCUT AND REMOVE EXISTING PAVEMENT WITHIN THE CONSTRUCTION LIMITS IN THIS STAGE.
5. PREPARE BASE AND SUBBASE SECTIONS OF PAVEMENT AS SHOWN ON THE PLANS.
6. PLACE ASPHALT PAVEMENT AS SHOWN ON THE PLANS.
7. TOPSOIL, SEED, AND MULCH ON ALL DISTURBED AREAS WITHIN THIS STAGE OF CONSTRUCTION.
8. PLACE PERMANENT PAVEMENT MARKINGS AND RELATED SIGNS FOR THIS STAGE OF WORK.
9. PLACE TUBULAR DELINEATORS FOR ENTIRE PROJECT.
10. REMOVE EROSION AND SEDIMENT CONTROL MEASURES.

CONTRACTOR SHALL MAINTAIN ACCESS AS SHOWN DURING THIS PHASE OF CONSTRUCTION OR AS DIRECTED BY ENGINEER IN FIELD. COSTS ASSOCIATED WITH MAINTAINING ACCESS SHALL BE PAID FOR UNDER ITEM NO. 743000 - MAINTENANCE OF TRAFFIC.

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\* PCMS BOARDS SHALL DISPLAY THE FOLLOWING MESSAGES 10 DAYS PRIOR TO CONSTRUCTION, THROUGH 5 DAYS AFTER THE BEGINNING OF CONSTRUCTION:

10 DAYS PRIOR TO CONSTRUCTION:

ROAD WORK STARTING

XXXX/XX EXPECT DELAYS

5 DAYS AFTER BEGINNING CONSTRUCTION:

ROAD WORK AHEAD

XX AM-X PM EXPECT DELAYS

PCMS

PORTABLE CHANGEABLE MESSAGE SIGN LOCATION

\* NOTE: THE CONTRACTOR SHALL LAYOUT SIGNS FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION. THE COVERING OF ANY CONFLICTING SIGNS SHALL BE INCIDENTAL TO ITEM# 743024. ALL SIGNS PAID UNDER ITEM # 743024.

**CONSTRUCTION ZONE WARNING SIGNS**

\* DISTANCE LEGEND

LETTER	DISTANCE
A	500 FT
B	1000 FT
C	1500 FT
D	BOTH SHOULDERS CLOSED

END ROAD WORK

G20-2  
48" X 24"

ROAD WORK \*

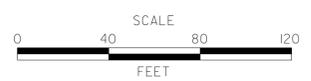
W20-1  
48" X 48"

\* NOTE: ALL PERMANENT WARNING SIGNS PAID UNDER ITEM# 743024.

1/29/2013 9:46:05 AM g:\Projects\15019.00 (DeDOT Agrmt 1595 TEP)\15019.09 (Task 8 - Trap - White Clay - Killens - Final Design)\CADD FILES\White Clay\cs01\_wc.dgn



ADDENDUMS / REVISIONS	



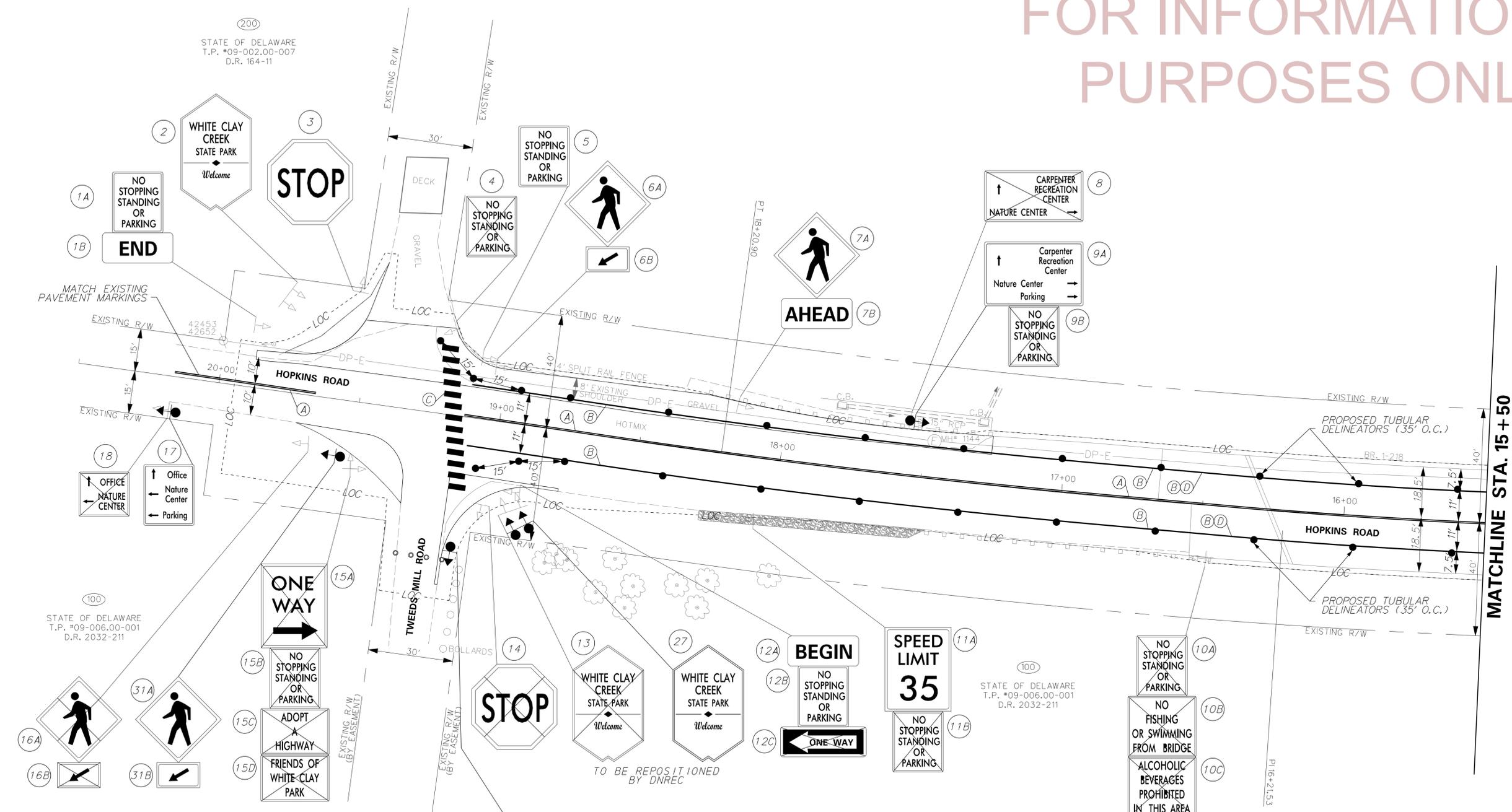
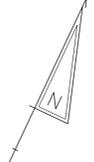
**OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC**

CONTRACT	T201230007	BRIDGE NO.	-
COUNTY	NEW CASTLE	DESIGNED BY:	JMH
		CHECKED BY:	WFC

**CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLANS**

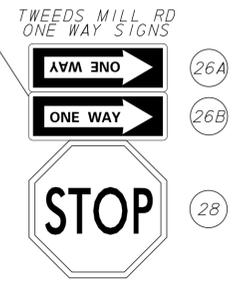
SHEET NO.	11
TOTAL SHTS.	15

# FOR INFORMATIONAL PURPOSES ONLY



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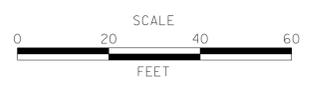
PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
(A)	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, SOLID DOUBLE YELLOW, 5" (ITEM 748548)	830 LF
(B)	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, SOLID WHITE, 10" (ITEM 748549)	830 LF
(C)	PERMANENT PAVEMENT STRIPING, SYMBOL / LEGEND, ALKYD-THERMOSPLASTIC (ITEM 748015)	156 SF
(D)	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, SOLID BLACK, 3" (ITEM 748557)	220 LF



NOTES:  
 1. CONTRACTOR SHALL REMOVE EXISTING SHOULDER STRIPING ON BRIDGE DECK. PAID FOR UNDER ITEM NO. 748530 - REMOVAL OF PAVEMENT STRIPING.



ADDENDUMS / REVISIONS	

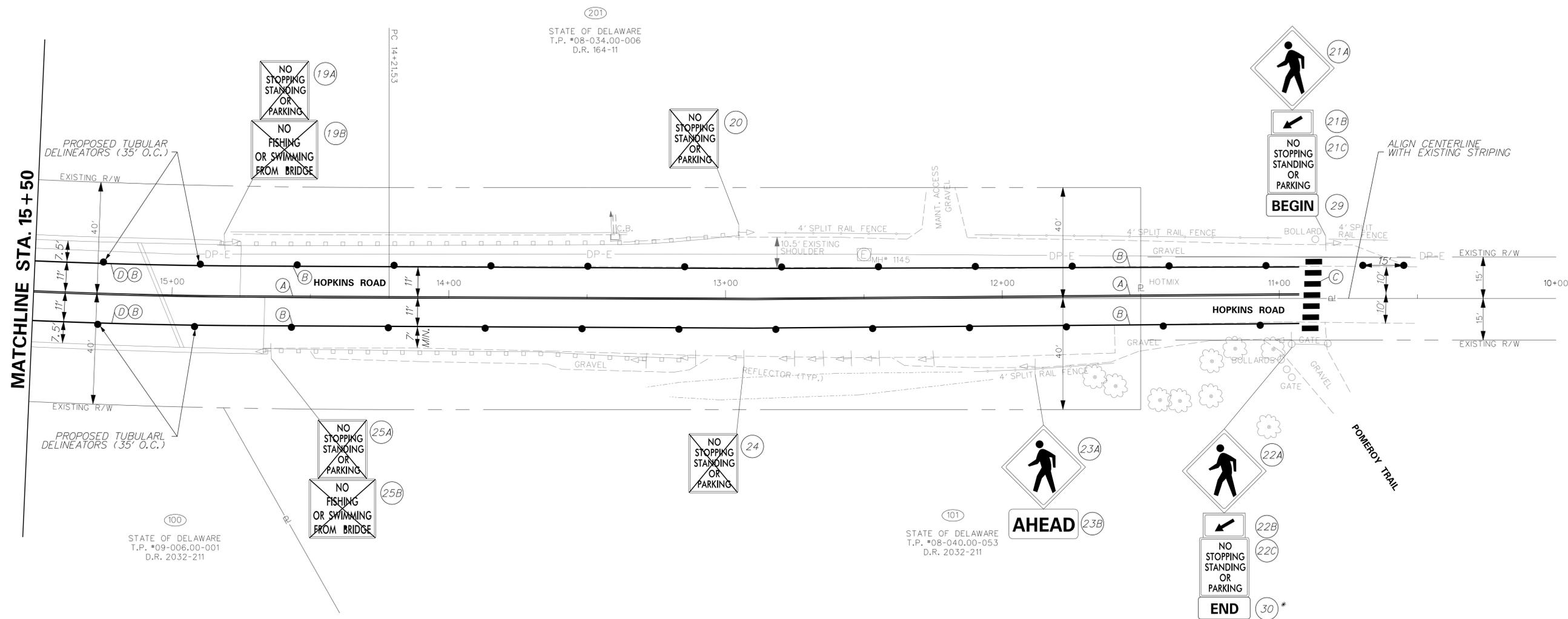
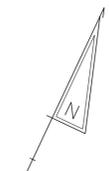


**OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC**

CONTRACT T201230007	BRIDGE NO. -
COUNTY NEW CASTLE	DESIGNED BY: JMH CHECKED BY: WFC

<b>SIGNING AND STRIPING</b>	SHEET NO. 12
	TOTAL SHTS. 15

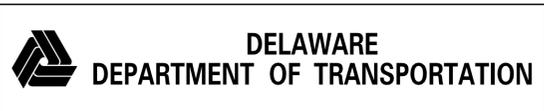
# FOR INFORMATIONAL PURPOSES ONLY



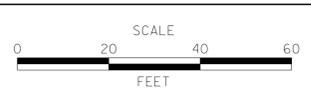
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PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
(A)	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, SOLID DOUBLE YELLOW, 5" (ITEM 748548)	920 LF
(B)	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, SOLID WHITE, 10" (ITEM 748549)	920 LF
(C)	PERMANENT PAVEMENT STRIPING, SYMBOL/ LEGEND, ALKYD-THERMOSPLASTIC (ITEM 748015)	84 SF
(D)	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, SOLID BLACK, 3" (ITEM 748557)	160 LF

- NOTES:**
- CONTRACTOR SHALL REMOVE EXISTING SHOULDER STRIPING ON BRIDGE DECK. PAID FOR UNDER ITEM NO. 748530 - REMOVAL OF PAVEMENT STRIPING.
  - \* INSTALL ON LAST NO STOPPING, STANDING, OR PARKING SIGN.



ADDENDUMS / REVISIONS	



**OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC**

CONTRACT T201230007	BRIDGE NO. -
COUNTY NEW CASTLE	DESIGNED BY: JMH CHECKED BY: WFC

**SIGNING AND STRIPING**

SHEET NO. 13
TOTAL SHTS. 15

1/29/2013 9:45:37 AM g:\Projects\15019.00 (DelDOT Agrmt 1595 TEP)\15019.09 (Task 8 - Trap - White Clay - Kilens\_Final Design)\CADD FILES\White Clay\ss03\_w.c.dgn

**PERMANENT SIGN SCHEDULE**

SHEET NO.	NO.	CODE	DESCRIPTION	ASSEMBLY NO.	SIGN HEIGHT (IN.)	SIGN WIDTH (IN.)	SIGN AREA (SF)	SIGN ACTIVITY	SINGLE POST (EACH)		MULTI POST (SF)		ITEM 749688 4" HOLE, 0-6" (EACH)	ITEM 749689 4" HOLE, >6" (EACH)	REMARKS
									REMOVE	INSTALL	REMOVE	INSTALL			
12	1A		NO STOPPING, STANDING, OR PARKING	1				REMAIN							
12	1B	R3-9dP	END	1	12	30	3	NEW							
12	2		WHITE CLAY CREEK STATE PARK	2				REMAIN							
12	3		STOP	3				REMAIN							
12	4		NO STOPPING, STANDING, OR PARKING	4				REMOVE							ON FENCE
12	5B		NO STOPPING, STANDING, OR PARKING	5				REMAIN							
12	6A		PEDESTRIAN CROSSING	6				REMAIN							
12	6B		DOWNWARD DIAGONAL ARROW	6				REMAIN							
12	7A		PEDESTRIAN CROSSING	7				REMAIN							
12	7B		AHEAD	7				REMAIN							
12	8		SPECIAL DESTINATION	8				REMOVE	1						
12	9A	GG-1	SPECIAL DESTINATION	9	30	36	7.5	NEW		1					WHITE LEGEND W/ BROWN BACKGROUND, 3" TYPE B
12	9B		NO STOPPING, STANDING, OR PARKING	9				REMOVE							REMOVE FROM POST
12	10A		NO STOPPING, STANDING, OR PARKING	10				REMOVE	1						
12	10B		NO FISHING OR SWIMMING	10				REMOVE							
12	10C		ALCOHOLIC BEVERAGES PROHIBITED	10				REMOVE							
12	11A		SPEED LIMIT - 35 MPH	11				REMAIN							
12	11B		NO STOPPING, STANDING, OR PARKING	11				REMOVE							REMOVE FROM POST
12	12A		BEGIN	12				REMAIN							
12	12B		NO STOPPING, STANDING, OR PARKING	12				REMAIN							
12	12C		ONE WAY - LEFT ARROW	12				REMOVE							REMOVE FROM POST
12	13		WHITE CLAY CREEK STATE PARK	13				REMOVE							TO BE REMOVED BY DNREC
12	14		STOP	14				REMOVE	1						
12	15A		ONE WAY - RIGHT ARROW	15				REMOVE	1						
12	15B		NO STOPPING, STANDING, OR PARKING	15				REMOVE							
12	15C		ADOPT A HIGHWAY	15				REMOVE							
12	15D		FRIENDS OF WHITE CLAY CREEK	15				REMOVE							
12	16A		PEDESTRIAN CROSSING	16				REMOVE	1						
12	16B		DOWNWARD DIAGONAL ARROW	16				REMOVE							
12	17	GG-2	SPECIAL DESTINATION	17	30	36	7.5	NEW		1					
12	18		SPECIAL DESTINATION	18				REMOVE	1						WHITE LEGEND W/ BROWN BACKGROUND, 3" TYPE B
13	19A		NO STOPPING, STANDING, OR PARKING	19				REMOVE	1						
13	19B		NO FISHING OR SWIMMING	19				REMOVE							
13	20		NO STOPPING, STANDING, OR PARKING	20				REMOVE	1						
13	21A		PEDESTRIAN CROSSING	21				REMAIN							
13	21B		DOWNWARD DIAGONAL ARROW	21				REMAIN							
13	21C		NO STOPPING, STANDING, OR PARKING	21				REMAIN							
13	22A		PEDESTRIAN CROSSING	22				REMAIN							
13	22B		DOWNWARD DIAGONAL ARROW	22				REMAIN							
13	22C		NO STOPPING, STANDING, OR PARKING	22				REMAIN							
13	23A		PEDESTRIAN CROSSING	23				REMAIN							
13	23B		AHEAD	23				REMAIN							
13	24		NO STOPPING, STANDING, OR PARKING	24				REMOVE	1						
13	25A		NO STOPPING, STANDING, OR PARKING	25				REMOVE	1						
13	25B		NO FISHING OR SWIMMING	25				REMOVE							
12	26A	R6-1	ONE WAY - LEFT ARROW	26	12	36	3	NEW							
12	26B	R6-1	ONE WAY - RIGHT ARROW	26	12	36	3	NEW							
12	27	SPECIAL	WHITE CLAY CREEK STATE PARK	27				NEW							TO BE INSTALLED BY DNREC
12	28	R1-1	STOP	26	36	36	9	NEW		1					
13	29	R3-9cP	BEGIN	21	12	30	3	NEW		1					
13	30	R3-9dP	END	22	12	30	3	NEW		1					
12	31A	W11-2	PEDESTRIAN CROSSING	31	36	36	9	NEW		1					
12	31B	W16-7P	DOWNWARD DIAGONAL ARROW	31	12	24	2	NEW							

FOR INFORMATIONAL  
PURPOSES ONLY



ADDENDUMS / REVISIONS

**OPEN END  
CONSTRUCTION SERVICES,  
STATEWIDE TRAILS, NCC**

CONTRACT	BRIDGE NO.	-
T201230007	DESIGNED BY:	JMH
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

**SIGNING AND STRIPING  
SCHEDULE**

SHEET NO.	14
TOTAL SHTS.	15

COUNTY ASSESSMENT PARCEL NUMBER	PLAN SHEET NUMBER	OWNERSHIP OF RECORD	TITLE SOURCE	PROPERTY AREA BEFORE ACQUISITION (ACRE) D=DEED C=CALCULATED A=ASSESSMENT	ACQUISITION CODE FEE, R/W, P/E, TCE	AREA TO BE ACQUIRED			PROPERTY AREA REMAINING (SQ. FEET / ACRES)	DEED RECORD OF ACQUISITION	REMARKS
						ACQUISITION (SQ. FEET / ACRES)	AREA OCCUPIED BY EXISTING RIGHT OF WAY (SQ. FEET / ACRES)	EASEMENT PERMANENT (SQ. FEET / ACRES) TEMPORARY (SQ. FEET / ACRES)			
08-040.00-053	-	(101) STATE OF DELAWARE	2032-211	D - 21.57	TCE			1324.9216 / 0.03	939589.20 / 21.57		PER AGREEMENT
08-034.00-006	-	(201) STATE OF DELAWARE	164-11	D - 346.49	TCE			998.0976 / 0.02	15093104.40 / 346.49		PER AGREEMENT

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
08-040.00-053	(101) STATE OF DELAWARE	TCE	2032-211	21.57

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
50000	100	11+50.00	-15.00	628469.4020	558288.6291	N 64°44'35.51" E	77.1200				
50001	100	10+72.88	-15.00	628502.3072	558358.3768	S 25°15'24.49" E	17.1800				
50002	100	10+72.88	-32.18	628486.7696	558365.7071	S 64°44'35.51" W	77.1200				
50003	100	11+50.00	-32.18	628453.8643	558295.9594	N 25°15'24.49" W	17.1800				
50000	100	11+50.00	-15.00	628469.4020	558288.6291						

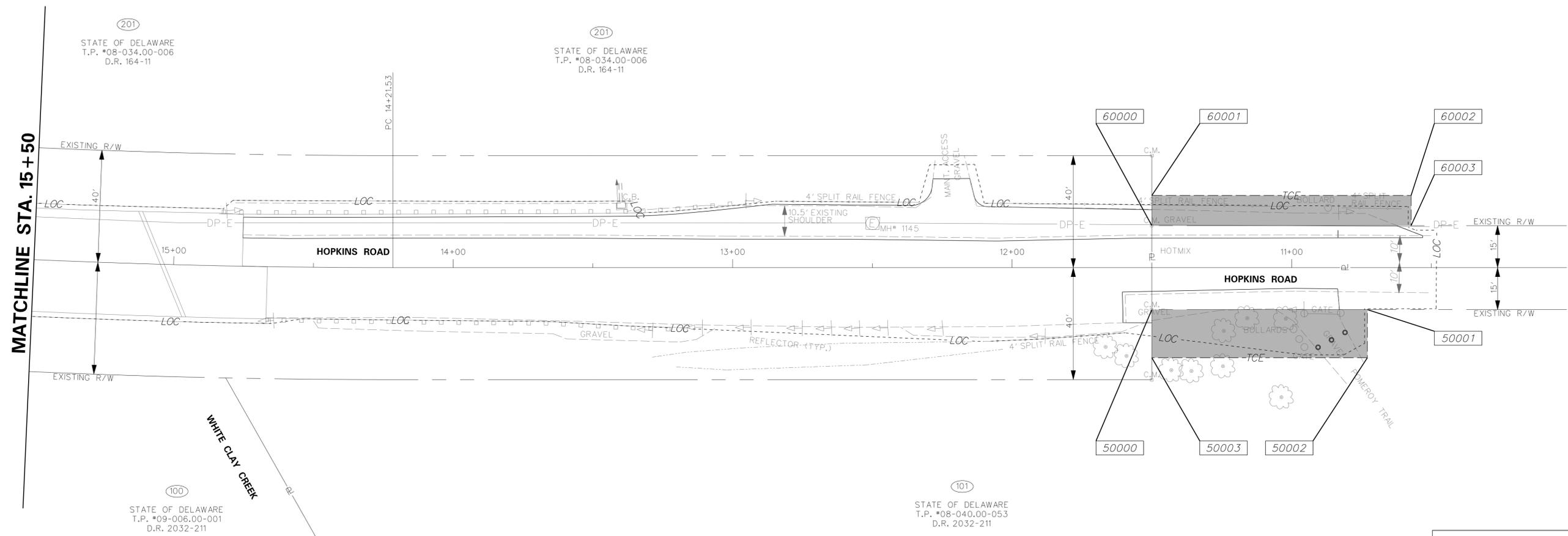
FIGURE 40101 AREA = 1324.9216 SQ. FT. (0.0304 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
08-034.00-006	(201) STATE OF DELAWARE	TCE	164-11	346.49

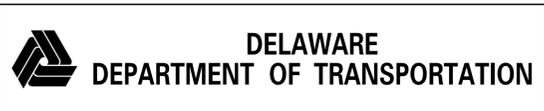
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
60000	100	11+50.00	15.00	628496.5341	558275.8288	N 25°15'24.49" W	10.7600				
60001	100	11+50.00	25.76	628506.2655	558271.2378	N 64°44'35.51" E	92.7600				
60002	100	10+57.24	25.76	628545.8440	558355.1304	S 25°15'24.49" E	10.7600				
60003	100	10+57.24	15.00	628536.1126	558359.7214	S 64°44'35.51" W	92.7600				
60000	100	11+50.00	15.00	628496.5341	558275.8288						

FIGURE 40201 AREA = 998.0976 SQ. FT. (0.0229 ACRES)

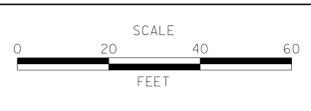


FOR INFORMATIONAL PURPOSES ONLY

PREPARED BY THE CONSULTING FIRM OF <b>CENTURY ENGINEERING</b> CONSULTING ENGINEERS, SURVEYORS 4134 N. DUPONT HWY. DOVER, DELAWARE 19901 (302) 734-9188	
RECOMMENDED	DATE 20
RECOMMENDED	DATE 20
TEAM SUPPORT SQUAD MANAGER	DATE 20
TEAM SUPPORT ENGINEER	DATE 20
ASSISTANT DIRECTOR ENGINEERING SUPPORT	DATE 20



ADDENDUMS / REVISIONS

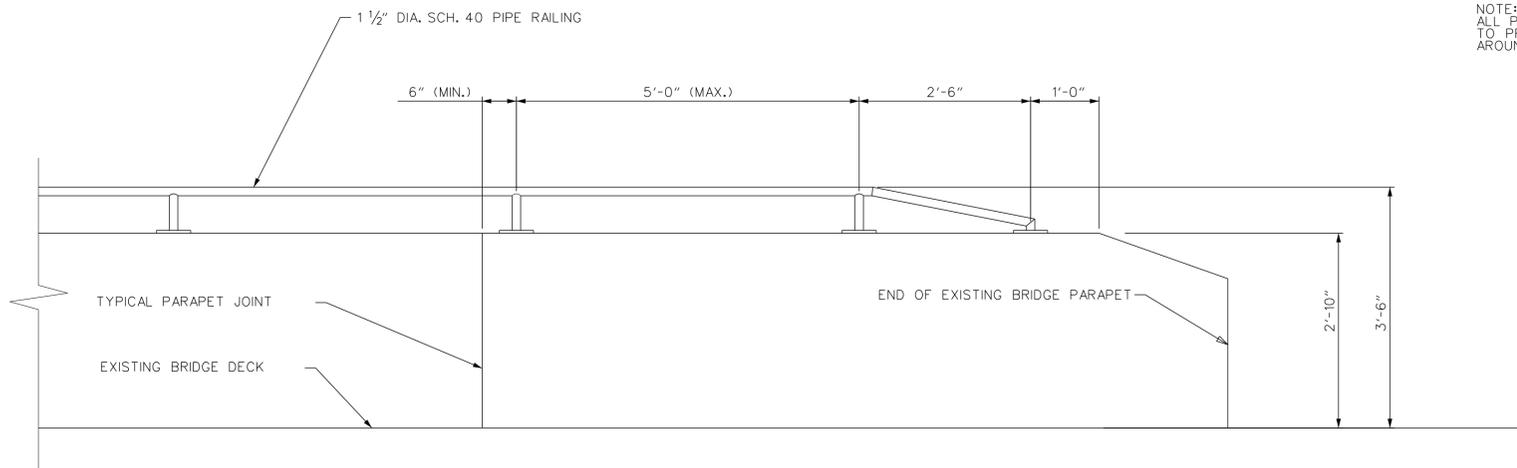


OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC

CONTRACT T201230007	BRIDGE NO. -
COUNTY NEW CASTLE	DESIGNED BY: JMH CHECKED BY: WFC

RIGHT OF WAY / TABULATION SHEET	SHEET NO. 15
	TOTAL SHTS. 15

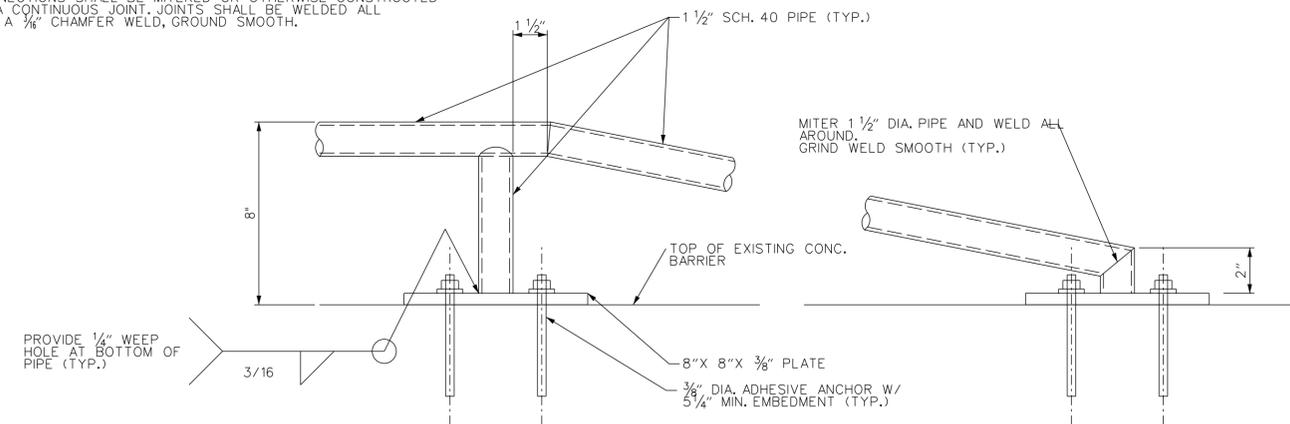
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**HANDRAIL ELEVATION**

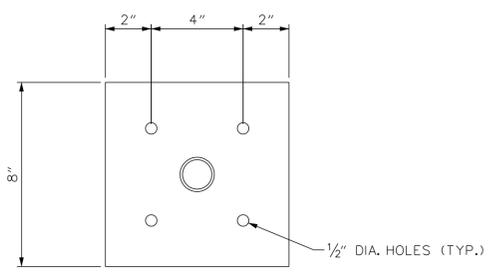
SCALE: 3/4" = 1'-0"

NOTE:  
ALL PIPE CONNECTIONS SHALL BE MITERED OR OTHERWISE CONSTRUCTED TO PROVIDE A CONTINUOUS JOINT. JOINTS SHALL BE WELDED ALL AROUND WITH A 1/8" CHAMFER WELD, GROUND SMOOTH.



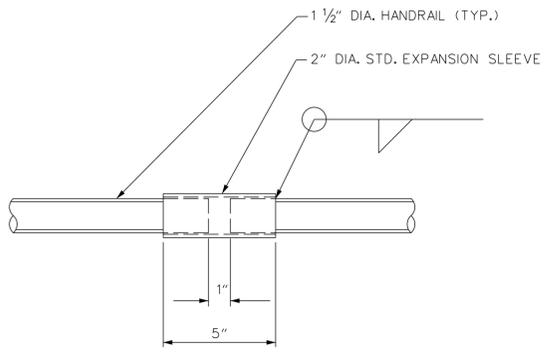
**HANDRAIL ANCHORAGE DETAIL**

SCALE: 3" = 1'-0"



**BASE PLATE DETAIL**

SCALE: 3" = 1'-0"

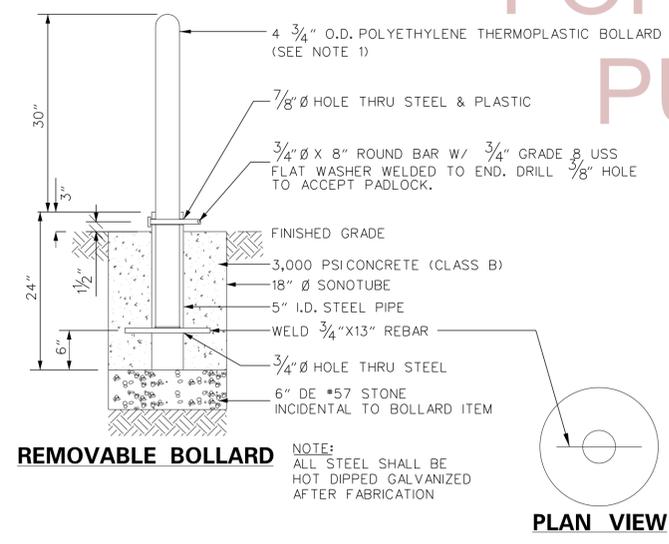
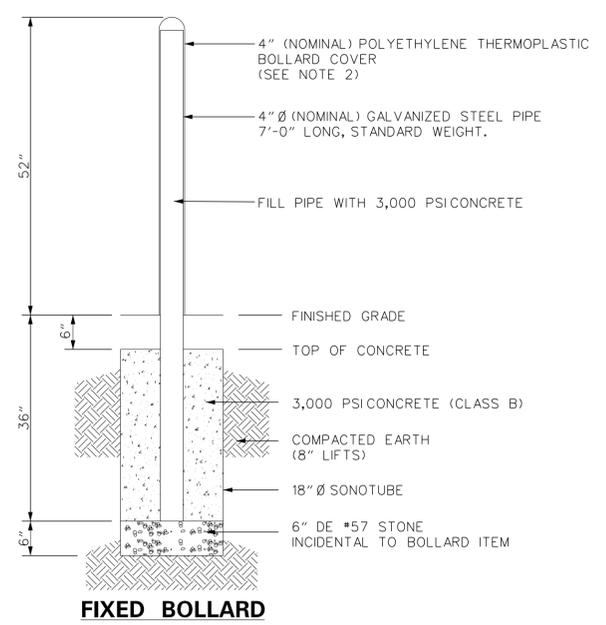


**EXPANSION JOINT DETAIL**

SCALE: 3" = 1'-0"

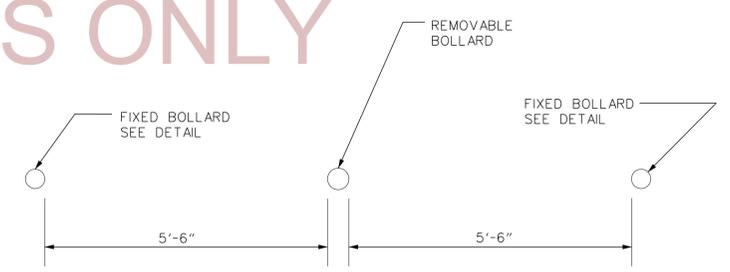
- STEEL HANDRAIL NOTES:
1. ALL POSTS AND RAILS SHALL BE ANSISCHEDULE 40 STEEL PIPE.
  2. BASE PLATES SHALL BE AASHTO M-84a (ASTM A 36).
  3. ALL STEEL PIPE MEMBERS SHALL BE GALVANIZED PER ASHTO M111-94 (OR CURRENT) ASTM A-123.
  4. ANCHOR BOLTS SHALL BE GALVANIZED STEEL OR STAINLESS STEEL AND SHALL BE INSTALLED WITH A TWO PART EPOXY SUITABLE FOR THE APPLICATION.
  5. HANDRAIL SHALL BE CENTERED ON THE TOP OF THE EXISTING CONCRETE BRIDGE PARAPET, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
  6. LOCATE EXPANSION JOINT(S) AT JOINTS IN EXISTING CONCRETE PARAPET AND AT INTERVALS NOT TO EXCEED 20' O.C.
  7. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS SHOWING ALL DIMENSIONS, EXPANSION JOINTS, ANCHOR BOLTS, AND BASE PLATE LAYOUTS WITH RESPECT TO EXISTING PARAPET JOINTS.
  8. ALL ITEMS REQUIRED FOR THE STEEL HANDRAIL, INCLUDING BUT NOT LIMITED TO, MATERIALS, SHOP DRAWINGS, LABOR, WELDS, ANCHORS, AND FINISHES, SHALL BE INCLUDED IN ITEM 606503 - STEEL HAND RAILING.
  9. STEEL BASE PLATES AND RAIL SHALL BE POWDER COATED WITH A BLACK FINISH.

FOR INFORMATIONAL PURPOSES ONLY



**BOLLARD - ITEM 720556**

NTS



**BOLLARD SPACING**

- BOLLARD NOTES:
1. REMOVABLE BOLLARD IS TO BE YELLOW AND SHALL BE CUT TO HEIGHT DIMENSION AS NECESSARY. SUBMIT MANUFACTURER'S STANDARD COLORS FOR APPROVAL BY THE ENGINEER PRIOR TO ORDERING.
  2. FIXED BOLLARD COVER IS TO BE RED. SUBMIT MANUFACTURER'S STANDARD COLORS FOR APPROVAL BY THE ENGINEER PRIOR TO ORDERING.
  3. FIXED BOLLARD COVER SHALL BE INSTALLED BY SLIDING OVER AND ATTACHING TO STEEL PIPE UTILIZING 2-SIDED TAPE PROVIDED BY THE BOLLARD COVER MANUFACTURER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. TAPE SHALL BE WRAPPED AROUND THE CIRCUMFERENCE OF THE STEEL PIPE AT THREE LOCATIONS: AT TOP JUST BELOW DOME, IN MIDDLE, AND AT BOTTOM.
  4. IF THERE ARE MORE THAN ONE REMOVABLE BOLLARD MAINTAIN 5'-6" SPACING BETWEEN BOLLARDS.

<p><b>DELAWARE DEPARTMENT OF TRANSPORTATION</b></p>	ADDENDUMS / REVISIONS		SCALE AS SHOWN	<p><b>OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NCC LOCATION 04: HOPKINS ROAD</b></p>	CONTRACT	BRIDGE NO.	-	<p><b>DETAILS</b></p>	SHEET NO.
					T201230007	DESIGNED BY: JMH	TOTAL SHTS.		
					COUNTY	CHECKED BY: WFC			
					NEW CASTLE				