



## 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	
	EXISTING UTILITY NAME

## PROPOSED SYMBOLS

CONSTRUCTION	
	CONCRETE SAFETY BARRIER - PERMANENT
	BIOFILTRATION SWALE
	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
	IMPACT ATTENUATOR
	JUNCTION BOX - DRAINAGE
	LATERAL OFFSET
	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

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

UTILITY COMPANY FACILITIES	
	PROPOSED UTILITY NAME

# GENERAL NOTES

1. CONSTRUCTION OF THIS CONTRACT SHALL CONFORM TO DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED AUGUST 2001 AS AMENDED BY THE SUPPLEMENTAL SPECIFICATIONS, THE SPECIAL PROVISIONS, THE MOST RECENT STANDARD CONSTRUCTION DETAILS, DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THESE PLANS.

2. THE PURPOSE OF THIS CONTRACT IS TO MAKE GENERAL IMPROVEMENTS TO ROADS AND/OR STREETS WITHIN THE DISTRICT HEREIN SPECIFIED. DEPENDING ON FUND AVAILABILITY, THE DEPARTMENT RESERVES THE RIGHT TO ADD OR DELETE LOCATIONS AND/OR QUANTITIES FOR THIS CONTRACT. SUCH LOCATION OR QUANTITY ADDITIONS OR DELETIONS SHALL NOT BE CAUSE FOR AN INCREASE OR DECREASE IN ANY CONTRACT UNIT BID PRICES. NO ITEM PRICES ARE TO BE RENEGOTIATED DUE TO EITHER AN INCREASE OR DECREASE IN QUANTITY USAGE RESULTING FROM SAID ADDITIONS OR DELETIONS.

3. THE CONTRACTOR SHALL PROVIDE ALL RESIDENTS AND BUSINESSES WHO LIVE ADJACENT TO THE WORK ZONE A MINIMUM 48 HR. PRIOR WRITTEN NOTICE FOR THE START OF CONSTRUCTION WORK. THIS NOTIFICATION SHALL INCLUDE THE SCOPE OF WORK, WORKING HOURS, ANTICIPATED START AND COMPLETION DATES, CONTRACTOR NAME & ADDRESS, AND DELDOT CONTACT NUMBERS. FAILURE TO GIVE PROPER NOTICE WILL RESULT IN A SUSPENSION OF WORK REQUIRING NOTICE, UNTIL PROPER NOTICE IS PROVIDED. ACCESS TO ALL BUSINESSES AND RESIDENCES WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THIS CONTRACT. ANY TEMPORARY CLOSURE OF A DRIVEWAY FOR TIE-IN PURPOSES SHALL BE COORDINATED WITH THE ENGINEER AND/OR PROPERTY OWNER IN ADVANCE OF THE CLOSURE.

4. THE CONTRACTOR SHALL SUBMIT THE REQUIRED COPIES OF A DETAILED PROGRESS SCHEDULE (PSC) AS OUTLINED IN STANDARD SPECIFICATION 108.04 PRIOR TO OR AT THE PRECONSTRUCTION MEETING. DETAILS SHALL INCLUDE A DESCRIPTION OF EACH WORK ACTIVITY, THE PLANNED DAYS OF WORK, MULTIPLE CREWS OR SHIFTS, AND SCHEDULED WORKING HOURS. DURING THE CONTRACT, THE CONTRACTOR SHALL SUBMIT TWO-WEEK (OR AS REQUIRED) "LOOK AHEAD" SCHEDULES TO THE AREA ENGINEER/ MANAGER NO LATER THAN NOON OF EACH THURSDAY. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE REQUIRED CLEARANCES AND INSURANCES FOR EACH RAILWAY COMPANY INVOLVED IF THE RAILROAD PROPERTY AND/OR FACILITIES ARE LOCATED WITHIN OR NEAR THE PROPOSED LIMITS OF WORK AND/OR IF THE PROPOSED WORK ENCROACHES UPON THE RAILROAD'S RIGHT-OF-WAY, IN ACCORDANCE WITH DELDOT MAINTENANCE OF RAILROAD TRAFFIC ITEM NO. 76.3502. THE CONTRACTOR MUST CONTACT DELDOT'S RAILROAD SECTION MANAGER AT (302) 760-2183 PRIOR TO ANY WORK STARTED TO COORDINATE THE EXECUTION OF THE APPROPRIATE AGREEMENTS AND AUTHORIZATIONS REQUIRED FROM ANY RAILWAY COMPANY INVOLVED, INCLUDING COORDINATION FOR RAILROAD FLAGGING, IF NECESSARY.

## MAINTENANCE OF TRAFFIC

6. ALL PERMANENT ADVANCE WARNING SIGNS SHALL BE GROUND-MOUNTED ON TWO NCHRP-40 OR MASH APPROVED BREAKAWAY POSTS AND SHALL BE MOUNTED IN COMPLIANCE WITH THE DE-MUTCD. PERMANENT ADVANCE WARNING SHALL BE MOUNTED AT A HEIGHT OF 7 FEET, MEASURED FROM THE PAVEMENT GRADE TO THE BOTTOM OF THE SIGN. THE USE OF SKID-MOUNTED SIGN SUPPORTS IS NOT ALLOWED UNLESS THE CONTRACTOR CAN DEMONSTRATE THAT A UTILITY CONFLICT EXISTS AND/ OR CONCRETE MEDIANS PREVENT THE INSTALLATION OF THE PERMANENT SIGNS IN THE APPROPRIATE LOCATION WHICH SHALL BE VERIFIED BY THE ENGINEER.

7. THE CONTRACTOR SHALL BE REQUIRED TO SHOW PROOF THAT HE HAS SUFFICIENT APPROVED STRIPING MATERIALS ON HAND TO ENSURE STRIPING IS COMPLETED PRIOR TO FULL OPENING ROADWAY TO TRAFFIC.

8. AT THE END OF EACH DAY'S OPERATION AND BEFORE TRAFFIC IS RETURNED TO UNRESTRICTED ROADWAY USE, TEMPORARY STRIPING SHALL BE UTILIZED AT LOCATIONS THAT REQUIRE PERMANENT STRIPING. SHALL BE INSTALLED IN ACCORDANCE WITH THE TEMPORARY STRIPING POLICY. TEMPORARY PAVEMENT STRIPING MUST MATCH PERMANENT PAVEMENT STRIPING IN ALL REGARDS. TEMPORARY PAVEMENT MARKINGS SHALL BE PAID AT THE APPLICABLE CONTRACT UNIT PRICE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE TEMPORARY MARKINGS IN GOOD CONDITION SUCH THAT THE PAVEMENT IS PROPERLY DELINEATED AT ALL TIMES. ANY REFRESHING OF THE TEMPORARY MARKINGS WILL BE AT THE CONTRACTOR'S EXPENSE.

9. 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.

10. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AND ALONG PEDESTRIAN FACILITIES AT ALL TIMES DURING CONSTRUCTION. EARTH, STONE AND GRAVEL SURFACES ARE NOT ACCEPTABLE FOR PROVIDING PEDESTRIAN ACCESS. WHERE PEDESTRIAN ROUTES ARE CLOSED OR BLOCKED, ALTERNATE PEDESTRIAN ACCESS SHALL BE PROVIDED USING TA-28 AND/OR TA-29 OF THE 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR TO THE SATISFACTION OF THE ENGINEER. PEDESTRIAN DETOUR ROUTES OR ALTERNATE PEDESTRIAN FACILITIES SHALL CONSIST OF ADA COMPLIANT FACILITIES TO THE LEVEL OF WHICH EXISTS ON THE PEDESTRIAN ROUTE. THE COST FOR ANY PROVISIONS SHALL BE INCIDENTAL TO ITEM 76.3643 - MAINTENANCE OF TRAFFIC, ALL INCLUSIVE.

PEDESTRIAN MAINTENANCE OF TRAFFIC: THIS WORK SHALL CONSIST OF PROVIDING AND MAINTAINING AN ACCESSIBLE PEDESTRIAN ROUTE THROUGHOUT THE PROJECT'S LIMITS IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT OF 1990 (ADA) TITLE II, PARAGRAPH 35.130.

THE CONTRACTOR SHALL BE REQUIRED TO REVIEW EACH CURB RAMP LOCATION AND SUBMIT THE APPROPRIATE MAINTENANCE OF TRAFFIC DETAIL AND DEVICES TO THE ENGINEER FOR EACH LOCATION AT LEAST 2 WEEKS BEFORE CONSTRUCTION FOR REVIEW, COMMENT, AND APPROVAL. THE FOLLOWING CONSIDERATIONS SHALL BE TAKEN INTO ACCOUNT WHEN ADDRESSING ACCESSIBLE PEDESTRIAN MAINTENANCE OF TRAFFIC: ALL PEDESTRIANS, INCLUDING PERSONS WITH DISABILITIES, SHALL BE PROVIDED WITH A REASONABLY SAFE, CONVENIENT AND ACCESSIBLE PATH THAT REPLICATES AS MUCH AS PRACTICABLE THE EXISTING PEDESTRIAN FACILITIES. MAINTAIN ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES. PROVIDE PEDESTRIAN ACCESS THROUGH OR AROUND THE WORK ZONE. IF A DETOUR IS CHOSEN THE CONTRACTOR MUST SUBMIT THE DETOUR ROUTE TO THE ENGINEER FOR REVIEW AND APPROVAL. THE DETOUR ROUTE MUST MEET OR EXCEED THE CURRENT CONDITIONS. WORK SHOULD BE PHASED SO THAT ALL AREAS OF AN INTERSECTION/SIDEWALK PATH ARE NOT UNDER CONSTRUCTION AT THE SAME TIME UNLESS A CLEAR PATH IS PROVIDED AND IDENTIFIED. TRAFFIC CONTROL DEVICES AND OTHER CONSTRUCTION MATERIALS AND FEATURES SHALL NOT INTRUDE INTO THE USABLE WIDTH OF THE SIDEWALK, TEMPORARY PATHWAY OR OTHER PEDESTRIAN FACILITY. SIGNS AND OTHER DEVICES MOUNTED LOWER THAN 7 FT ABOVE THE TEMPORARY PEDESTRIAN PATHWAY SHALL NOT PROJECT MORE THAN 4 IN. INTO ACCESSIBLE PEDESTRIAN ROUTE.

A SMOOTH, CONTINUOUS HARD SURFACE SHALL BE PROVIDED THROUGHOUT THE ENTIRE LENGTH AND WIDTH OF THE PEDESTRIAN ROUTE THROUGHOUT CONSTRUCTION. THERE SHALL BE NO CURBS OR VERTICAL ELEVATION CHANGES GREATER THAN 3/4" IN. IN GRADE OR TERRAIN THAT COULD CAUSE TRIPPING OR BE A BARRIER TO WHEELCHAIR USE.

11. AN AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR SHALL BE REQUIRED FOR ALL LOCATIONS SPECIFIED IN THE CONTRACT PLANS. A COPY OF THE CERTIFICATION CARD FOR THE ATSSA TRAFFIC CONTROL SUPERVISOR SHALL BE SUBMITTED AT THE PRECONSTRUCTION MEETING. THE PAPER CERTIFICATE IS NOT ACCEPTABLE.

## PAVEMENT MARKINGS

12. AT THE PRECONSTRUCTION MEETING, THE CONTRACTOR SHALL SUBMIT DETAILED DRAWINGS (INCLUDING BUT NOT LIMITED TO EXISTING STRIPING LENGTHS, LANE AND SHOULDER WIDTHS, TURN LANE LENGTHS, LOCATIONS OF STOP BARS, TURN ARROWS, CROSSWALKS AND RAILROAD CROSSINGS) THAT DEPICT THE EXISTING PAVEMENT MARKINGS FOR EACH PROJECT LOCATION. THESE DRAWINGS WILL BE REVIEWED BY THE DEPARTMENT'S TRAFFIC SECTION TO DETERMINE IF ANY CHANGES TO THE FINAL PAVEMENT MARKINGS ARE REQUIRED. FINAL PAVEMENT MARKINGS SHALL CONFORM TO ALL EXISTING PATTERNS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

THE DEPARTMENT WILL PROVIDE STRIPING LAYOUT AT LOCATIONS WHERE NO PAVEMENT MARKINGS PREVIOUSLY EXISTED. IF DEPARTMENT FORCES PROVIDE STRIPING LAYOUT ON LOCATIONS WHERE MARKINGS PREVIOUSLY EXISTED, THEN THE CONTRACTOR SHALL REIMBURSE THE DEPARTMENT FOR THE LAYOUT COSTS.

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, WHITE EDGE LINES SHALL WRAP AROUND THE RADIUS OF ALL SIDE STREETS AND MAJOR COMMERCIAL ENTRANCES TO A TANGENT POINT. YELLOW CENTERLINES SHALL BE CONTINUOUS AROUND MEDIAN ISLANDS. ALL DOUBLE YELLOW CENTERLINES SHALL BE PLACED IN A 5-6-5 CONFIGURATION (2 EACH, 5" YELLOW STRIPES WITH A 6" GAP BETWEEN).

13. ANY ERRONEOUS MARKING WILL NOT BE PAID FOR AND SHALL BE CORRECTED IMMEDIATELY AT THE CONTRACTORS EXPENSE. ERRONEOUS MARKINGS OR SHADOWS THAT EXCEED ONE (1) INCH IN WIDTH SHALL BE REMOVED BY EITHER SAND OR WATER BLASTING AS DIRECTED BY THE ENGINEER. NO OTHER REMOVAL METHODS WILL BE ALLOWED. A FLAT BLACK PAINT OR DRIVEWAY SEALER SHALL BE APPLIED IN THE AREA OF THE REMOVED MARKING TO MASK THE REPAIR. ANY DAMAGE TO THE PAVEMENT CAUSED BY REMOVAL OF ERRONEOUS MARKINGS SHALL BE REPAIRED / REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTORS EXPENSE.

14. STOP LINES "BARS" SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 3B.16 OF THE 2011 DELAWARE MUTCD.

15. ALL CROSSWALKS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 3B.18 OF THE 2011 DELAWARE MUTCD.

## TRAFFIC SIGNAL NOTES

16. TRAFFIC DETECTION LOOPS SHALL BE PLACED IN THE FINAL WEARING SURFACE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

17. TRAFFIC DETECTION LOOPS THAT ARE CURRENTLY 5'x7' SHALL BE REPLACED WITH LOOPS THAT ARE 6'x6' AT THE SAME LOCATION. STOP BAR DETECTION LOOPS SHALL BE THE SAME SIZE AS CURRENTLY EXISTING, AND SHOULD BE PLACED STARTING TWO FEET BEHIND THE STOP BAR, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IF SEPARATE SIGNAL PLANS HAVE BEEN DEVELOPED, THE PLANS SUPERSEDE THIS NOTE.

## PROJECT

18. UNLESS SPECIFIED, OVERLAY WIDTHS SHALL MATCH EXISTING WIDTHS.

19. THE COST OF CLIPPING BACK THE EDGES OF THE ROADWAY, SHOULDERS, AND THE FIRST 3' OF UNPAVED DRIVEWAY ENTRANCES, PICKING UP AND DISPOSING OF WASTE AND EXCESS MATERIAL, AND CLEANING THE EXISTING PAVEMENT PRIOR TO OVERLAY SHALL BE INCIDENTAL TO SECTION 40X ). PREPARING UNPAVED DRIVEWAY ENTRANCES BEYOND THE FIRST 3' SHALL BE PAID UNDER THE APPROPRIATE CONTRACT ITEMS: 202000 AND/OR 30200X.

20. BUTT JOINTS SHALL BE PLACED AT ALL INTERSECTING HOT MIX ROADS AND ANY OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. BUTT JOINTS AT DRAINAGE STRUCTURES NOT TO BE RESURFACED SHALL BE AS PER THE INCLUDED PLAN DETAIL OR LOCATION NOTES. BUTT JOINTS CUT PRIOR TO THE DAY OF THE PAVEMENT OVERLAY SHALL BE RAMPED WITH HOT MIX TRM. IN MILLING AREAS, THERE WILL BE NO SEPARATE PAYMENT FOR BUTT JOINTS. AFTER PAVEMENT MILLING, ALL TRANSVERSE VERTICAL DIFFERENCES, RAISED EDGES OF MANHOLES, CATCH BASINS, WATER VALVE BOXES, ETC...SHALL BE RAMPED WITH HOT-MIX TRM AT A 20:1 OR FLATTER SLOPE PRIOR TO OPENING THE ROADWAY TO TRAFFIC. PAVEMENT MILLINGS WILL NOT BE ALLOWED FOR USE AS RAMPING MATERIAL.

21. TAPER MILLING IS INTENDED FOR MILLING IN THE AREA OF FIXED STRUCTURES (I.E. CURBS GUARDRAIL, ETC.) THE MILLED DEPTH AT THE STRUCTURE SHALL BE THE DEPTH OF THE PROPOSED OVERLAY AND 0" AT A DISTANCE OF +/- 6% FROM THE STRUCTURE. THE COMPUTED DEPTH FOR PAYMENT PURPOSES IS THE AVERAGE OF THE TWO DEPTHS.

22. ALL MILLED MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE STATED.

23. EXCAVATION FOR P.C.C. CURBS, SIDEWALK OR VALLEY GUTTER SHALL BE INCIDENTAL TO THE BID PRICE FOR THESE RESPECTIVE ITEMS. EXCAVATED MATERIAL, NOT NEEDED ON THE PROJECT, SHALL BE REMOVED FROM THE CONTRACT AT THE CONTRACTORS EXPENSE. ITEM 732XXX, TOPSOIL, SHALL BE USED AS BACKFILL MATERIAL FOR CURB AND SIDEWALK AS DIRECTED BY THE ENGINEER. TOPSOIL SHALL BE SCREENED/SIFTED SO AS NO MATERIAL GREATER THAN .5" IS PRESENT IN MATERIAL USED FOR BACKFILL. AT EACH LOCATION, BACKFILLING SHALL BE PERFORMED IMMEDIATELY UPON REMOVAL OF FORMS FOR CURB OR SIDEWALK WORK. COMPLETE RESTORATION, TOPSOIL, SEEDING, AND REMOVAL OF ALL MATERIALS FOR CURB & GUTTER OR SIDEWALK; SEALING OF VALLEY GUTTERS AND PARGING OF CATCH BASINS, SHALL BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS OF COMPLETION OF THE ITEM OF WORK. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

24. ALL ADJUSTMENTS SHALL BE MADE NO MORE THAN SEVEN (7) CALENDAR DAYS PRIOR TO THE PLACEMENT OF THE FINAL COURSE OF HOT MIX UNLESS OTHERWISE APPROVED BY THE ENGINEER. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

25. ALL PAVING, INCLUDING TURN LANES, SHOULDERS AND INTERSECTIONS, IS TO BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS FROM THE TIME THE AREA WAS MILLED. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

26. THE CONTRACTOR SHALL TAKE CARE IN REMOVING PAVEMENT AROUND UTILITIES, BUTT JOINTS, CURBING, ETC. SO THAT EXISTING PAVEMENT BEYOND THE SPECIFIED DEPTHS IS NOT DAMAGED. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS MAY RESULT IN PLACING LEVELING COURSES AT THE CONTRACTOR'S EXPENSE. THE REMOVAL AND CLEAN UP OF THE HOT MIX RESIDUE WEDGE REMAINING AFTER MILLING OPERATIONS SHALL BE INCIDENTAL TO THE MILLING ITEM. THE REMOVAL OF EXISTING RAISED PAVEMENT MARKERS (RPM'S) SHALL BE INCIDENTAL TO THE APPLICABLE MILLING AND/OR RECLAMATION ITEMS.

27. ALL PORTLAND CEMENT CONCRETE MUST BE RECEIVED FROM AN APPROVED PRODUCTION PLANT UNLESS OTHERWISE APPROVED BY THE ENGINEER. ONLY CALIBRATED VOLUMETRIC CONCRETE TRUCKS WILL BE PERMITTED TO PROVIDE ON-SITE MIXTURES. THIS PERTAINS TO BOTH WORK OCCURRING DURING NORMAL WORKING HOURS AND NIGHTTIME RESTRICTED WORK.

28. DRAINAGE INLETS, WHICH ARE 4' GREATER IN DEPTH AND ARE SLATED FOR REPAIR WILL HAVE STEPS INSTALLED IN ACCORDANCE WITH SECTION 708.07 OF THE STANDARD SPECIFICATIONS. PAYMENT SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR ITEM 710001.

29. THE PORTLAND CEMENT CONCRETE USED WITHIN ITEM 701002 - ADJUST AND REPAIR EXISTING MAN HOLES AND ITEM 750000 - ADJUST WATER VALVE BOX SHALL CONFORM TO THE REQUIREMENTS OF CLASS A CONCRETE AS STATED WITHIN SECTION 503.02 OF THE DEPARTMENT'S STANDARD SPECIFICATIONS.

# PROJECT SPECIFIC NOTES

1. AN "ASPHALT" PERMEABLE TREATED BASE WITH UNDERDRAIN SYSTEM SHALL BE INSTALLED AS SHOWN PER THE TYPICAL SECTION DETAIL. THE OUTFALL PIPES SHALL BE INSTALLED AT INTERVALS NO GREATER THAN 300 FEET ALONG THE LENGTH OF THE UNDERDRAIN PIPE WHILE MAINTAINING POSITIVE FLOW FOLLOWING THE PROFILE OF THE ROADWAY. IN THE EVENT AN OBSTRUCTION IS ENCOUNTERED, THE OUTFALL PIPE INTERVAL MUST BE ADJUSTED ACCORDINGLY AND APPROVED BY THE FIELD ENGINEER.

2. THE P.C.C. PAVEMENT SHALL BE PLACED USING THE "SLIP-FORM METHOD" OPERATION FOR THE PROJECT. MULTIPLE CREWS ARE EXPECTED FOR ALL PHASES OF WORK TO COMPLETE THE PROJECT IN A ACCELERATED TIMELINE.

3. THE P.C.C. PAVEMENT TRANSVERSE AND LONGITUDINAL JOINTS SHALL BE "SAWCUT ONLY". THE TRANSVERSE JOINTS SHALL BE SET AT 15 FOOT INTERVALS, NO JOINT SEALS WILL BE REQUIRED. REFERENCE P.C.C. PAVEMENT JOINT DETAIL.

4. DOWEL BARS SHALL BE INSTALLED WHEN ABUTTING INTO EXISTING P.C.C. PAVEMENT, TO BE PAID UNDER ITEM 503006 - DOWEL BARS. DOWEL BARS FOR THE CONSTRUCTION OF THE NEW P.C.C. PAVEMENT IS INCIDENTAL TO 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12".

5. FOR THE PAVEMENT SMOOTHNESS TESTING THE CONTRACTOR MAY ELECT TO USE THE INERTIAL PROFILER SYSTEM METHOD MEETING THE STANDARDS SET FORTH IN AASHTO M-328 THAT IS CAPABLE OF SIMULTANEOUSLY COLLECTING DATA IN BOTH WHEELPATHS OF A TRAVEL LANE. ANY AND ALL EXPENSES INCURRED TO COMPLETE THIS TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

6. THE CONTRACTOR SHALL REMOVE AND RESET ALL MAILBOXES TO MAINTAIN MAIL SERVICE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL RELOCATE MAILBOXES AS REQUIRED BY THE PROPOSED GEOMETRICS AND AS DIRECTED BY THE ENGINEER. WHEN RELOCATING MAILBOXES IN OPEN SECTIONS, THE FACE OF THE MAILBOX SHALL SET BACK 8 INCHES FROM THE EDGE OF THE PAVED SHOULDER. THE BOTTOM OF THE MAILBOX SHALL BE SET 46 INCHES ABOVE THE ROADWAY SURFACE. MAILBOXES LOCATED AT DRIVEWAY ENTRANCES SHALL BE PLACED ON THE FAR SIDE OF THE DRIVEWAY IN THE DIRECTION OF TRAVEL. AFTER COMPLETION OF THE PROJECT ALL MAILBOXES SHALL BE RELOCATED BACK TO THEIR ORIGINAL LOCATION. COST FOR ALL WORK AND MATERIALS SHALL BE INCIDENTAL TO ITEM 202000 - EXCAVATION AND EMBANKMENT.

7. THE EXISTING PAVEMENT BOX OVER THE HUDSON POND CREEK CULVERT IS 1.07' +/- FROM TOP OF CULVERT TO EXISTING PAVEMENT GRADE. THE TYPICAL PAVEMENT SECTION FOR THE LENGTH OF THE CULVERT (23LF) SHALL BE PLACED AT A REDUCED THICKNESS AND MAINTAIN EXISTING GRADE OVER THE EXISTING BRIDGE CULVERT STRUCTURE AS FOLLOWS:

A. 11" PORTLAND PAVEMENT CEMENT OVER 1.3/4" +/- BIT. ASPHALT BASE COURSE.

THE REDUCED SECTION SHALL BE PAID AS ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT 12" AND ITEM - 304501 PERMEABLE TREATED BASE 4", RESPECTIVELY.

8. RELENSING OF THE RAISED PAVEMENT MARKERS IN THE NORTHBOUND TRAVEL LANES SHALL BE PAID UNDER THE FOLLOWING ITEMS:

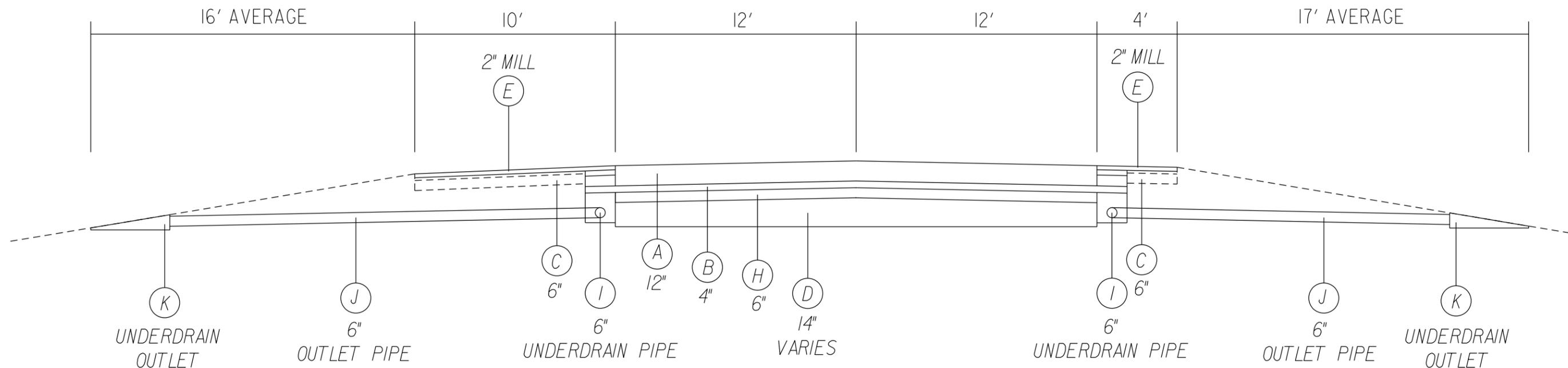
A. YELLOW/YELLOW FOR OPPOSING TRAFFIC FLOW - ITEM 748654.  
B. WHITE/RED FOR TRAFFIC FLOW IN THE SAME DIRECTION - ITEM 748652.

9. GABC ITEM 302005 AND QUANTITY IS FOR UIMPROVED DRIVEWAYS.

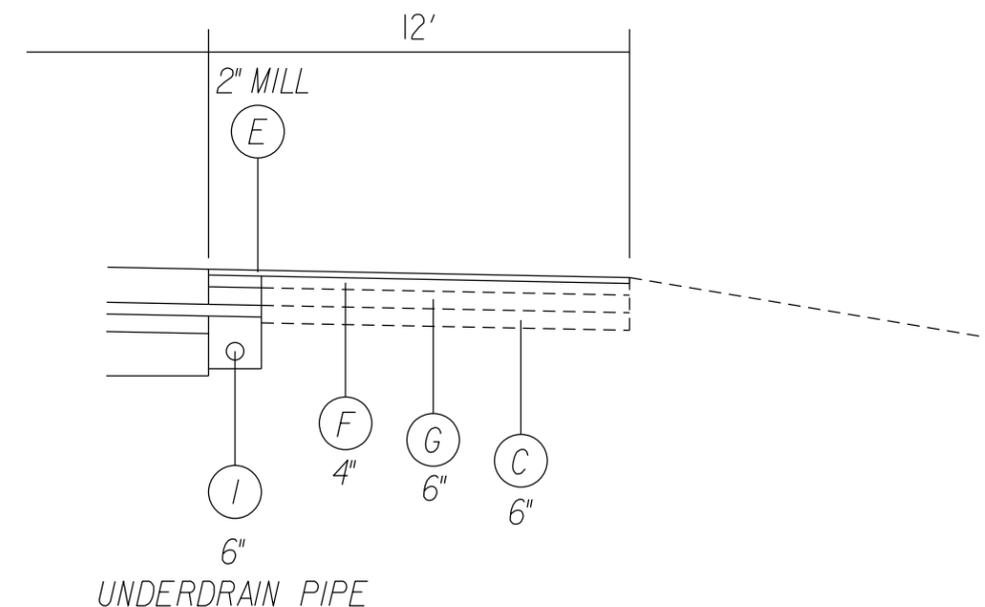
10. THE MILLING AND PAVING LIMITS SHALL INCLUDE ALL INTERSECTING ROADS AND ENTRANCES TYING BACK TO THE EXISTING ASPHALT JOINTS.

11. ANY AND ALL SURVEY REQUIRED TO COMPLETE THE PROJECT SHALL BE PAID UNDER ITEM 763501 - CONSTRUCTION ENGINEERING.

12. DURING THE CONTRACT WORK THE NORTHBOUND SIDE STRIPING SHALL BE REFRESHED AND THE MOT ITEMS MAINTAINED AS NEEDED, AFTER COMPLETION OF THE CONTRACT WORK THE STRIPING SHALL BE RESTORED BACK TO ITS ORIGINAL CONFIGURATION AND AS DIRECTED BY THE FIELD ENGINEER.



**TYPICAL SECTION - SOUTHBOUND LANES**  
N.T.S.



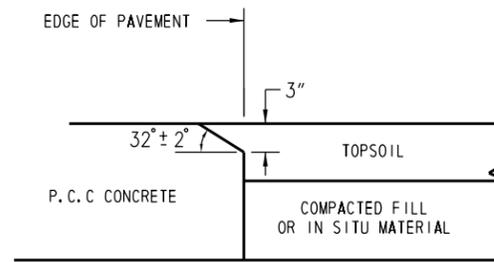
**TYPICAL SECTION - LEFT TURN LANE**  
N.T.S.

**PAVEMENT LEGEND**

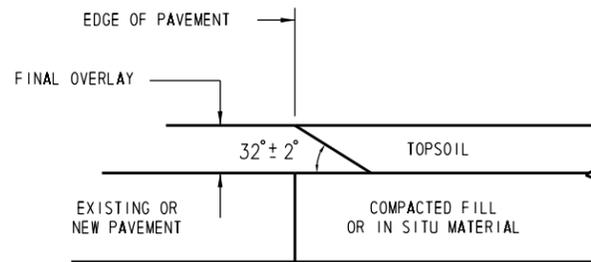
- (A) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (B) ITEM 304501 - PERMEABLE TREATED BASE COURSE, ASPHALT
- (C) SOIL CEMENT
- (D) ITEM 209001 - BORROW, TYPE A - DEPTH VARIES
- (E) ITEM 401801 - BIT. ASPHALT TYPE C
- (F) ITEM 401810 - BIT. ASPHALT TYPE B
- (G) ITEM 401823 - BIT. ASPHALT TYPE BCBC
- (H) ITEM 304502 - SOIL CEMENT BASE COURSE
- (I) ITEM 715001 - UNDERDRAIN PIPE
- (J) ITEM 715500 - UNDERDRAIN OUTLET PIPE
- (K) ITEM 707005 - UNDERDRAIN OUTLET

TOTAL PROJECT ITEMS AND QUANTITIES			
NO.	DESCRIPTION	QTY	UNITS
202000	EXCAVATION AND EMBANKMENT	39,694	C. Y.
209001	BORROW, TYPE A	18,890	C. Y.
302005	GRADED AGG. BASE COURSE, TYPE B	2	TON
302007	GRADED AGG. BASE COURSE, TYPE B	612	C. Y.
304501	PERMEABLE TREATED BASE, 4"	48,900	S. Y.
304502	SOIL CEMENT BASE COURSE, 6"	43,467	S. Y.
401696	ENT. DRIVEWAY & INTERSECTING PAVING SURCHARGE	70	TON
401801	BIT. CONCRETE, SUPERPAVE, TYPE C, 160 GYR. PG 64-22 (CARB.)	3851	TON
401810	BIT. CONCRETE, SUPERPAVE, TYPE B, 160 GYR. PG 64-22	690	TON
401822	BIT. CONCRETE, SUPERPAVE, TYPE B, 160 GYR. PG 64-22 PATCHING	1,252	TON
401823	BIT. CONCRETE, SUPERPAVE, BIT. CONC. BASE COURSE, 160 GYR. PG 64-22 PATCHING	2,006	TON
402000	BIT. CONCRETE AND/OR COLD-LAID BIT. CONCRETE (TRM)	35	TON
501006	PORTLAND CEMENT CONCRETE PAVEMENT, 12"	43,467	S. Y.
503006	DOWEL BARS	48	EACH
612200	REINFORCED CONCRETE ELLIPTICAL PIPE, 14"X23", CLASS III	560	L. F.
707005	UNDERDRAIN OUTLET	110	EACH
708508	DRAINAGE SAFETY END STRUCTURE	2	EACH
715001	PERFORATED PIPE UNDERDRAINS, 6"	32,600	L. F.
715500	UNDERDRAIN OUTLET PIPE, 6"	2,448	L. F.
743003	ARROWPANELS, TYPE C	190	EA-DY
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	225	EA-DY
743005	FURNISH AND MAINTAIN PORTABLE LIGHT ASSEMBLY	630	EA-DY
743007	**TRAFFIC OFFICERS	946	HOURL
743052	FLAGGER, SUSSEX COUNTY, STATE	2,837	HOURL
743064	FLAGGER, SUSSEX COUNTY, STATE, OVERTIME	426	HOURL
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	730	S. F.
748026	TEMPORARY MARKINGS, PAINT, SYMBOL/LEGEND	449	S. F.
748032	TEMPORARY MARKINGS, PAINT, 5"	59,270	L. F.
748502	RAISED/RECESSED PAVEMENT MARKER	428	EACH
748530	REMOVAL OF PAVEMENT STRIPING	58,142	S. F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	82,752	L. F.
748557	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 3"	16,850	L. F.
748559	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK 5"	4,150	L. F.
748566	RETROFLECTIVE PREFORMED PATTERNED MARKINGS, 8"	1,800	L. F.
748570	TEMPORARY MARKINGS, TAPE, 5"	34,000	L. F.
748652	REPLACEMENT OF RAISED PAVEMENT MARKER LENSES, WHITE/RED	224	EACH
748654	REPLACEMENT OF RAISED PAVEMENT MARKER LENSES, YELLOW/YELLOW	224	EACH
749687	INSTALLATION OR REMOVAL OF TRAFFIC SIGNS(S) ON SINGLE POST	80	EACH
749690	INSTALLATION OR REMOVAL OF TRAFFIC SIGNS ON MULTIPLE SIGN POSTS	128	S. F.
758000	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT, CURB, SIDEWALK, ETC...	44,480	S. Y.
760012	RUMBLE STRIPS, BIKE-FRIENDLY, HOT-MIX	14,450	L. F.
760016	RUMBLE STRIPS, HOT MIX	10,250	L. F.
760507	PROFILE MILLING, BIT. CONCRETE	66,597	SY-IN
761001	BUTT JOINTS, HOT MIX	119	S. Y.
762001	SAW CUTTING, BIT. CONCRETE	32,970	L. F.
763000	INITIAL EXPENSE	1	LUMP SUM
763501	CONSTRUCTION ENGINEERING	1	LUMP SUM
763643	MAINTENANCE OF TRAFFIC. ALL INCLUSIVE	1	LUMP SUM
907510	COMPOST FILTER LOG	350	L. F.
908001	TOPSOIL (TON)	381	TON
908004	TOPSOIL, 6" DEPTH	44,200	S. Y.
908014	PERMANENT GRASS SEEDING, DRY GROUND	49,617	S. Y.
908020	EROSION CONTROL BLANKET	44,200	S. Y.

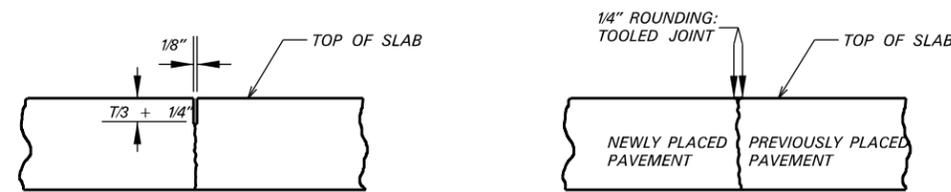
STORMWATER MANAGEMENT ITEMS AND QUANTITIES BREAKOUT			
NO.	DESCRIPTION	QTY	UNITS
202000	EXCAVATION AND EMBANKMENT	6700	C. Y.
907510	COMPOST FILTER LOG	350	L. F.
908004	TOPSOIL. 6" DEPTH	44200	S. Y.
908014	PERMANENT GRASS SEEDING, DRY GROUND	44200	S. Y.
908020	EROSION CONTROL BLANKET MULCH	44200	S. Y.



CONCRETE PAVEMENTS  
NOT TO SCALE



BIT. ASPHALT MIX PAVEMENTS AND OVERLAYS  
NOT TO SCALE  
SAFETY EDGE DETAIL  
NOT TO SCALE



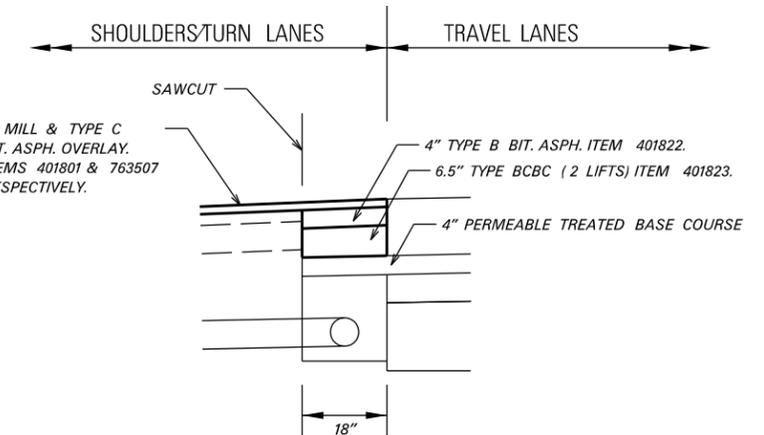
T = PAVEMENT THICKNESS IN INCHES

LONGITUDIAL AND TRANSVERSE SAW-CUT JOINT DETAIL      LONGITUDIAL AND TRANSVERSE CONSTRUCTION JOINT DETAIL

NOTES:

1. THESE JOINT DETAILS SHALL BE APPLIED IN LIEU OF THE SEALANT RESERVOIR AND SEALANT DETAILS IN THE STANDARD CONSTRUCTION DETAILS.
2. THE P.C.C. PAVEMENT TRANSVERSE JOINTS SHALL BE "SAWCUT ONLY" AT 15 FOOT INTERVALS.
3. NO JOINT SEALANT IS REQUIRED TO BE PLACED IN THE PAVEMENT JOINTS, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS.
4. DOWEL AND TIE BARS NOT SHOWN. SEE STANDARD CONSTRUCTION DETAILS FOR DOWEL AND TIE BAR REQUIREMENTS.

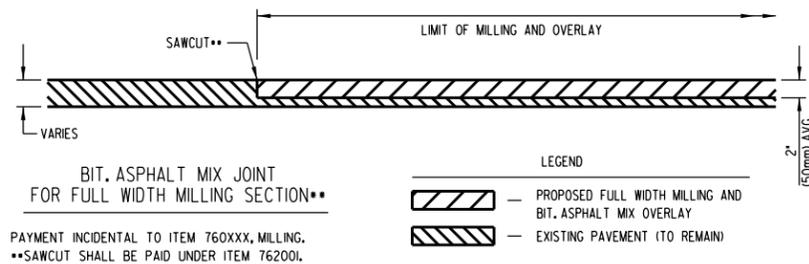
P.C.C. PAVEMENT JOINT DETAILS



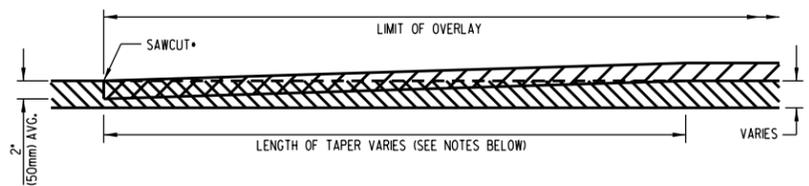
NOTES:

1. SEE D-9 OF THE STANDARD CONSTRUCTION DETAILS FOR UNDERDRAIN DETAIL.

BIT. ASPHALT PATCHING  
10' OUTSIDE, 4' INSIDE SHOULDERS AND TURN LANES  
N.T.S.



PAYMENT INCIDENTAL TO ITEM 760XXX, MILLING.  
\*\*SAWCUT SHALL BE PAID UNDER ITEM 76200I.

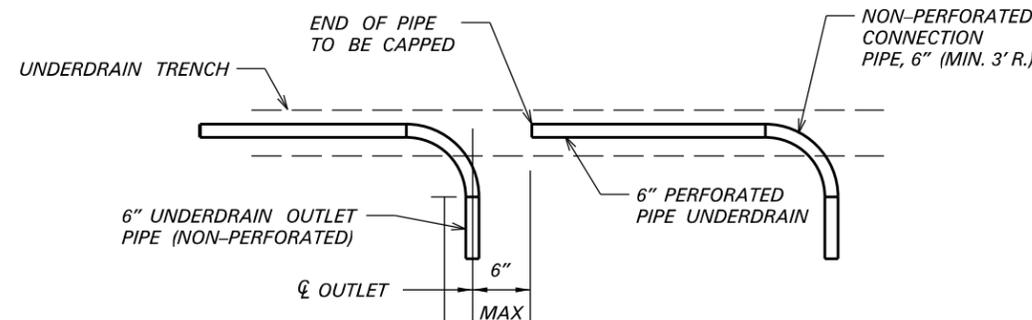


PAYMENT UNDER ITEM 76100I.  
\*SAWCUT IS INCIDENTAL TO ITEM 76100I.

NOTES:

- THE FOLLOWING LENGTHS ARE BASED ON THE POSTED SPEED OF THE ROADWAY:
1. EQUAL TO OR GREATER THAN 55 MPH = 40 FT (9.1m) PER 1" (25mm) OF OVERLAY DEPTH.
  2. LESS THAN 55 MPH = 30 FT (6m) PER 1" (25mm) OF OVERLAY DEPTH.
  3. AT STOP SIGNS = 15 FT (4.6m) PER 1" (25mm) OF OVERLAY DEPTH.

BITUMINOUS ASPHALT MIX JOINT DETAILS



NOTES:

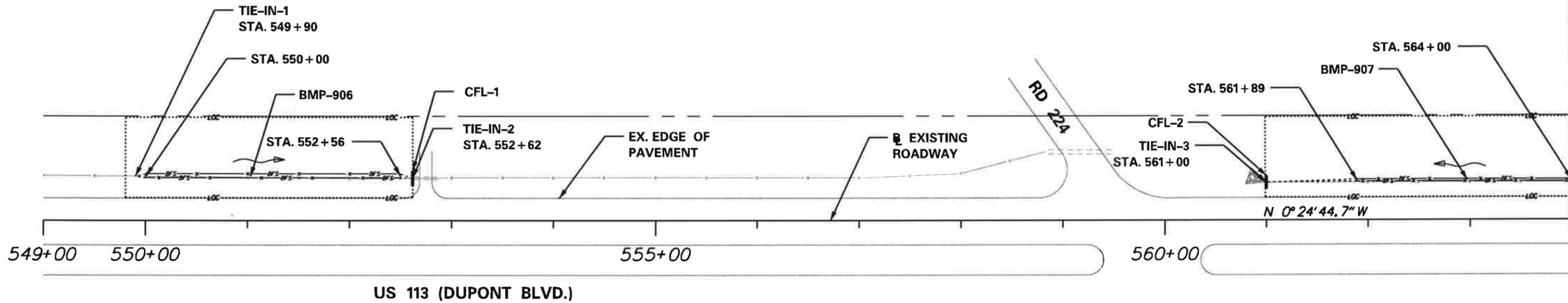
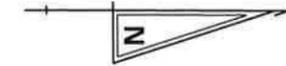
1. SEE D-9 OF THE STANDARD CONSTRUCTION DETAILS.
2. CONNECTION PIPE SHALL BE LAID WITH A MINIMUM RADIUS OF 3'.
3. WHEN TWO LINES OF PIPE UNDERDRAIN TO A LOW POINT, EACH PIPE MUST HAVE ITS OWN OUTLET.
4. CUT GEOTEXTILE IN WALL OF UNDERDRAIN TRENCH FOR CONNECTION PIPE SO AS TO MINIMIZE EXPOSURE OF THE TRENCH. WRAP SECTION OF CONNECTION PIPE OUTSIDE TRENCH IN GEOTEXTILE AND PROVIDE 6" LAP AROUND CONNECTION PIPE AT UNDERDRAIN TRENCH WALL. GEOTEXTILE TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 715001 - PERFORATED PIPE UNDERDRAINS 6".
5. NON-PERFORATED UNDERDRAIN OUTLET PIPE SHALL HAVE A SMOOTH INSIDE WALL AND BE THE SAME MATERIAL AS FOR PERFORATED PIPE UNDERDRAINS OR AS APPROVED BY THE ENGINEER. ALL REQUIRED CONNECTIONS SHALL BE INCIDENTAL TO ITEM 715500 - UNDERDRAIN OUTLET PIPE 6".

UNDERDRAIN OUTLET DETAIL  
N.T.S.

BIOFILTRATION SWALE DIMENSIONS			
BMP ID	BOTTOM WIDTH (FT)	LENGTH (FT)	LONGITUDINAL SLOPE (FT/FT)
BMP-906	4	250	0.0032
BMP-907	2	211	0.0037

COMPOST FILTER LOG (CFL)		
CFL ID	STATION	OFFSET (FT)
CFL-1	552+60	41.5 L
CFL-2	561+75	37.0 L

LEGEND	
	BIOFILTRATION SWALE
	COMPOST FILTER LOG
	LIMIT OF CONSTRUCTION
	EXISTING DITCH
	EXISTING RIGHT-OF-WAY
	EXISTING PIPE



BIOFILTRATION SWALE LOCATION & ELEVATION					
BMP ID	STATION	OFFSET (FT) <sup>1</sup>	EXISTING EDGE OF PAVEMENT ELEV. (FT)	BOTTOM ELEVATION (FT) <sup>2</sup>	ELEVATION DIFFERENCE FROM EDGE OF PAVEMENT TO BOTTOM ELEVATION (FT)
TIE-IN-1	549+90	44.0 L	49.23	46.07	3.16
BMP-906	550+00	44.0 L	49.19	46.00	3.19
BMP-906	552+50	44.0 L	47.45	45.19	2.26
TIE-IN-2	552+62	41.6 L	47.36	45.17	2.19
TIE-IN-3	561+00	37.0 L	44.54	42.25	2.29
BMP-907	561+89	39.0 L	44.61	42.35	2.26
BMP-907	564+00	39.0 L	45.39	43.13	2.26

**NOTES:**

- 1) OFFSET IS MEASURED FROM THE BASELINE OF THE EXISTING ROADWAY TO THE CENTERLINE OF THE PROPOSED BIOFILTRATION SWALE.
- 2) BOTTOM ELEVATION REFERS TO THE INVERT ELEVATION OF THE PROPOSED BIOFILTRATION SWALE.
- 3) EXISTING TOPOGRAPHIC FEATURES DIGITIZED BASED ON DELDOT CONTRACT 88-013-04 AS-BUILTS DATED FEB. 7, 2001 AND GIS AERIAL IMAGERY.
- 4) CONTRACTOR TO VERIFY LOCATIONS OF UTILITIES PRIOR TO EXCAVATION.

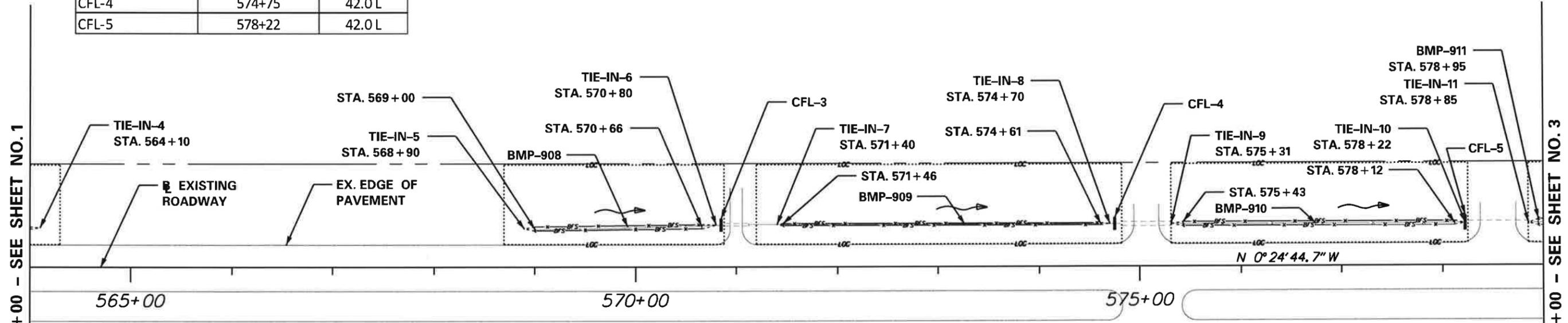


MATCH LINE STA. 564+00 - SEE SHEET NO. 2

BIOFILTRATION SWALE DIMENSIONS			
BMP ID	BOTTOM WIDTH (FT)	LENGTH (FT)	LONGITUDINAL SLOPE (FT/FT)
BMP-908	4	166	0.0024
BMP-909	4	315	0.0011
BMP-910	4	269	0.0010
BMP-911	6	299	0.0038

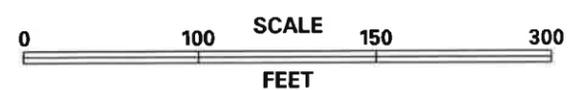
COMPOST FILTER LOG (CFL)		
CFL ID	STATION	OFFSET (FT)
CFL-3	570+85	41.6 L
CFL-4	574+75	42.0 L
CFL-5	578+22	42.0 L

LEGEND	
	BIOFILTRATION SWALE
	COMPOST FILTER LOG
	LIMIT OF CONSTRUCTION
	EXISTING DITCH
	EXISTING RIGHT-OF-WAY
	EXISTING PIPE



BIOFILTRATION SWALE LOCATION & ELEVATION					
BMP ID	STATION	OFFSET (FT) <sup>1</sup>	EXISTING EDGE OF PAVEMENT ELEV. (FT)	BOTTOM ELEVATION (FT) <sup>2</sup>	ELEVATION DIFFERENCE FROM EDGE OF PAVEMENT TO BOTTOM ELEVATION (FT)
TIE-IN-4	564+10	37.0 L	45.73	43.35	2.38
TIE-IN-5	568+90	37.0 L	45.87	43.60	2.27
BMP-908	569+00	38.0 L	45.86	43.60	2.26
BMP-908	570+66	39.5 L	45.67	43.20	2.47
TIE-IN-6	570+80	41.4 L	45.65	42.90	2.75
TIE-IN-7	571+40	42.0 L	45.58	42.72	2.86
BMP-909	571+46	42.0 L	45.57	42.70	2.87
BMP-909	574+61	42.0 L	45.20	42.34	2.86
TIE-IN-8	574+70	42.0 L	45.19	42.33	2.86
TIE-IN-9	575+31	42.0 L	45.12	42.27	2.85
BMP-910	575+43	42.0 L	45.11	42.26	2.85
BMP-910	578+12	42.0 L	44.79	41.98	2.81
TIE-IN-10	578+22	42.0 L	44.77	41.96	2.81
TIE-IN-11	578+85	42.0 L	44.70	41.83	2.87
BMP-911	578+95	42.5 L	44.68	41.81	2.87

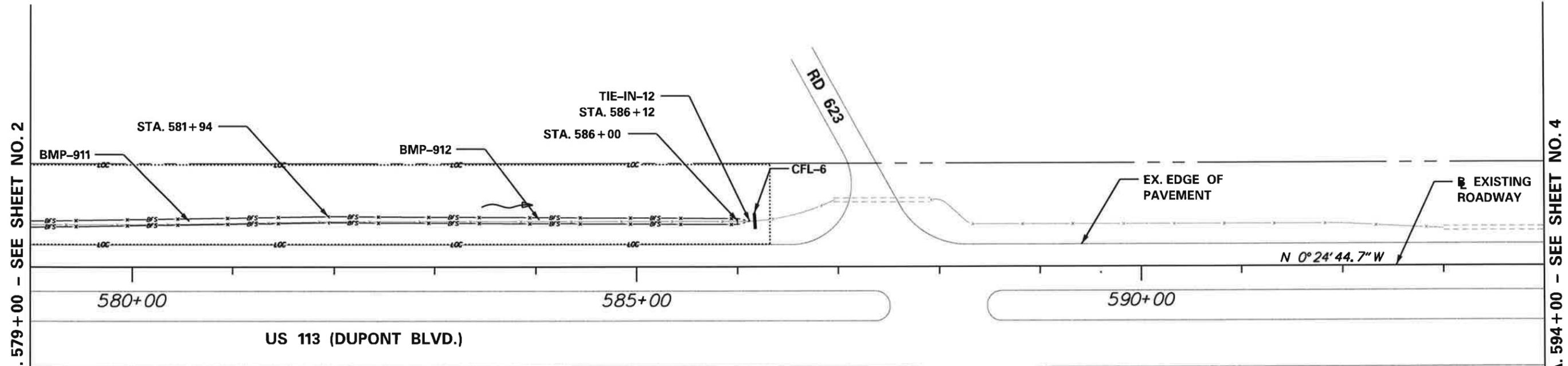
- NOTES:**
- 1) OFFSET IS MEASURED FROM THE BASELINE OF THE EXISTING ROADWAY TO THE CENTERLINE OF THE PROPOSED BIOFILTRATION SWALE.
  - 2) BOTTOM ELEVATION REFERS TO THE INVERT ELEVATION OF THE PROPOSED BIOFILTRATION SWALE.
  - 3) EXISTING TOPOGRAPHIC FEATURES DIGITIZED BASED ON DELDOT CONTRACT 88-013-04 AS-BUILTS DATED FEB. 7, 2001 AND GIS AERIAL IMAGERY.
  - 4) CONTRACTOR TO VERIFY LOCATIONS OF UTILITIES PRIOR TO EXCAVATION.



BIOFILTRATION SWALE DIMENSIONS			
BMP ID	BOTTOM WIDTH (FT)	LENGTH (FT)	LONGITUDINAL SLOPE (FT/FT)
BMP-912	6	406	0.0004

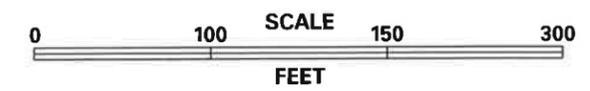
COMPOST FILTER LOG (CFL)		
CFL ID	STATION	OFFSET (FT)
CFL-6	586+17	45.5 L

LEGEND	
	BIOFILTRATION SWALE
	COMPOST FILTER LOG
	LIMIT OF CONSTRUCTION
	EXISTING DITCH
	EXISTING RIGHT-OF-WAY
	EXISTING PIPE



BIOFILTRATION SWALE LOCATION & ELEVATION					
BMP ID	STATION	OFFSET (FT) <sup>1</sup>	EXISTING EDGE OF PAVEMENT ELEV. (FT)	BOTTOM ELEVATION (FT) <sup>2</sup>	ELEVATION DIFFERENCE FROM EDGE OF PAVEMENT TO BOTTOM ELEVATION (FT)
BMP-911	581+94	47.0 L	44.34	40.67	3.67
BMP-912	581+94	47.0 L	44.34	40.67	3.67
BMP-912	586+00	45.0 L	43.86	40.50	3.36
TIE-IN-12	586+12	45.2 L	43.85	40.50	3.35

- NOTES:
- 1) OFFSET IS MEASURED FROM THE BASELINE OF THE EXISTING ROADWAY TO THE CENTERLINE OF THE PROPOSED BIOFILTRATION SWALE.
  - 2) BOTTOM ELEVATION REFERS TO THE INVERT ELEVATION OF THE PROPOSED BIOFILTRATION SWALE.
  - 3) EXISTING TOPOGRAPHIC FEATURES DIGITIZED BASED ON DELDOT CONTRACT 88-013-04 AS-BUILTS DATED FEB. 7, 2001 AND GIS AERIAL IMAGERY.
  - 4) CONTRACTOR TO VERIFY LOCATIONS OF UTILITIES PRIOR TO EXCAVATION.



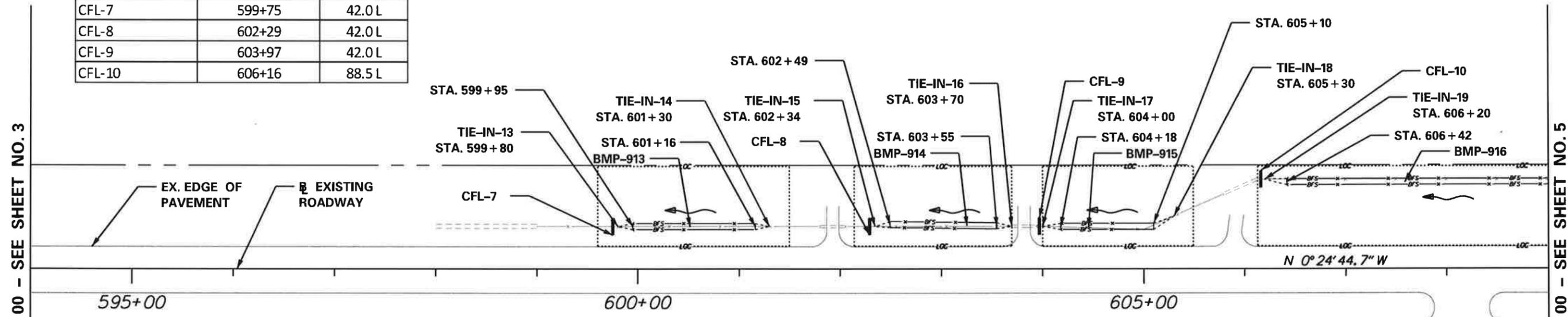
	ADDENDUMS / REVISIONS		<b>PAVEMENT &amp; REHABILITATION, SUSSEX II, (US113, P.C.C. PAVEMENT) 2016</b>	CONTRACT	SHEET TITLE	<b>STORMWATER MANAGEMENT PLAN</b>	SHEET NO.
				T201606302	DESIGNED BY: SCW		9
				SUSSEX COUNTY	CHECKED BY: ND		TOTAL SHTS.
							52

BIOFILTRATION SWALE DIMENSIONS			
BMP ID	BOTTOM WIDTH (FT)	LENGTH (FT)	LONGITUDINAL SLOPE (FT/FT)
BMP-913	8	121	0.0060
BMP-914	8	106	0.0103
BMP-915	8	92	0.0096
BMP-916	6	726	0.0030

LEGEND	
	BIOFILTRATION SWALE
	COMPOST FILTER LOG
	LIMIT OF CONSTRUCTION
	EXISTING DITCH
	EXISTING RIGHT-OF-WAY
	EXISTING PIPE



COMPOST FILTER LOG (CFL)		
CFL ID	STATION	OFFSET (FT)
CFL-7	599+75	42.0 L
CFL-8	602+29	42.0 L
CFL-9	603+97	42.0 L
CFL-10	606+16	88.5 L



**US 113 (DUPONT BLVD.)**

BIOFILTRATION SWALE LOCATION & ELEVATION					
BMP ID	STATION	OFFSET (FT) <sup>1</sup>	EXISTING EDGE OF PAVEMENT ELEV. (FT)	BOTTOM ELEVATION (FT) <sup>2</sup>	ELEVATION DIFFERENCE FROM EDGE OF PAVEMENT TO BOTTOM ELEVATION (FT)
TIE-IN-13	599+80	42.0 L	40.95	38.80	2.15
BMP-913	599+95	42.0 L	41.06	38.86	2.20
BMP-913	601+16	42.0 L	42.07	39.58	2.49
TIE-IN-14	601+30	42.0 L	41.36	39.65	1.71
TIE-IN-15	602+34	42.0 L	43.27	40.35	2.92
BMP-914	602+49	44.0 L	43.40	40.45	2.95
BMP-914	603+55	42.5 L	44.28	41.54	2.74
TIE-IN-16	603+70	42.0 L	44.36	41.70	2.66
TIE-IN-17	604+00	42.0 L	44.67	42.00	2.67
BMP-915	604+18	42.0 L	44.82	42.17	2.65
BMP-915	605+10	42.0 L	45.59	43.05	2.54
TIE-IN-18	605+30	74.0 L	45.76	SEE NOTE 5	SEE NOTE 5
TIE-IN-19	606+20	86.0 L	46.32	SEE NOTE 5	SEE NOTE 5
BMP-916	606+42	86.0 L	46.50	SEE NOTE 5	SEE NOTE 5

**NOTES:**

- 1) OFFSET IS MEASURED FROM THE BASELINE OF THE EXISTING ROADWAY TO THE CENTERLINE OF THE PROPOSED BIOFILTRATION SWALE.
- 2) BOTTOM ELEVATION REFERS TO THE INVERT ELEVATION OF THE PROPOSED BIOFILTRATION SWALE.
- 3) EXISTING TOPOGRAPHIC FEATURES DIGITIZED BASED ON DELDOT CONTRACT 88-013-04 AS-BUILTS DATED FEB. 7, 2001 AND GIS AERIAL IMAGERY.
- 4) CONTRACTOR TO VERIFY LOCATIONS OF UTILITIES PRIOR TO EXCAVATION.
- 5) MATCH ELEVATION TO THE EXISTING DITCH BOTTOM ELEVATION.

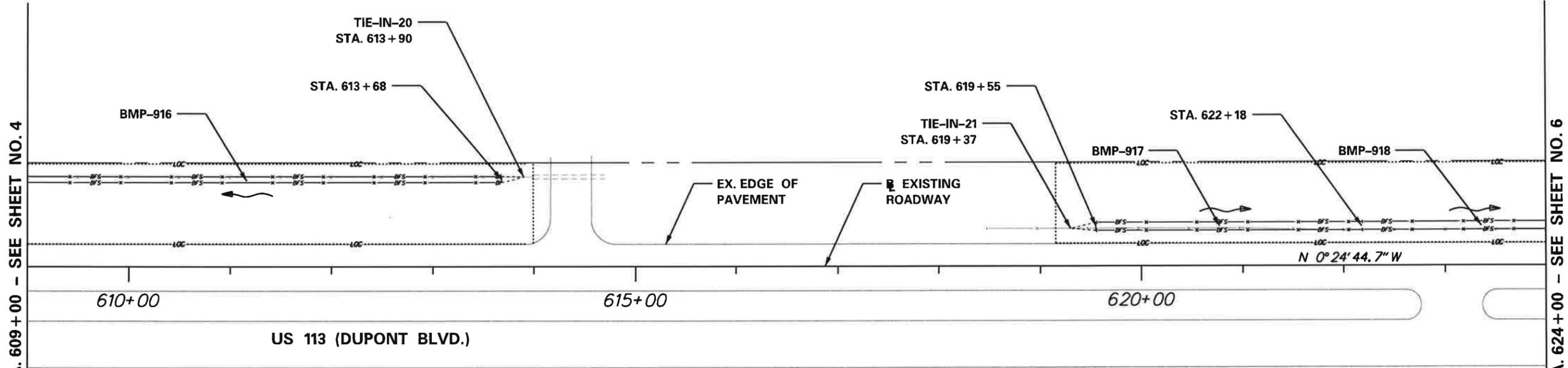


MATCH LINE STA. 594+00 - SEE SHEET NO. 3

MATCH LINE STA. 609+00 - SEE SHEET NO. 5

BIOFILTRATION SWALE DIMENSIONS			
BMP ID	BOTTOM WIDTH (FT)	LENGTH (FT)	LONGITUDINAL SLOPE (FT/FT)
BMP-917	8	263	0.0021
BMP-918	8	344	0.0024

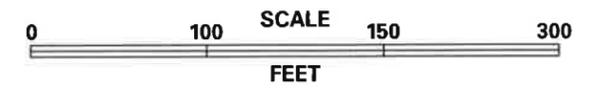
LEGEND	
	BIOFILTRATION SWALE
	COMPOST FILTER LOG
	LIMIT OF CONSTRUCTION
	EXISTING DITCH
	EXISTING RIGHT-OF-WAY
	EXISTING PIPE



BIOFILTRATION SWALE LOCATION & ELEVATION					
BMP ID	STATION	OFFSET (FT) <sup>1</sup>	EXISTING EDGE OF PAVEMENT ELEV. (FT)	BOTTOM ELEVATION (FT) <sup>2</sup>	ELEVATION DIFFERENCE FROM EDGE OF PAVEMENT TO BOTTOM ELEVATION (FT)
BMP-916	613+68	86.0 L	49.65	SEE NOTE 5	SEE NOTE 5
TIE-IN-20	613+90	86.0 L	49.59	SEE NOTE 5	SEE NOTE 5
TIE-IN-21	619+37	37.0 L	48.15	46.34	1.81
BMP-917	619+55	39.0 L	48.11	46.00	2.11
BMP-917	622+18	39.0 L	47.54	45.44	2.10
BMP-918	622+18	39.0 L	47.54	45.44	2.10

**NOTES:**

- 1) OFFSET IS MEASURED FROM THE BASELINE OF THE EXISTING ROADWAY TO THE CENTERLINE OF THE PROPOSED BIOFILTRATION SWALE.
- 2) BOTTOM ELEVATION REFERS TO THE INVERT ELEVATION OF THE PROPOSED BIOFILTRATION SWALE.
- 3) EXISTING TOPOGRAPHIC FEATURES DIGITIZED BASED ON DELDOT CONTRACT 88-013-04 AS-BUILTS DATED FEB. 7, 2001 AND GIS AERIAL IMAGERY.
- 4) CONTRACTOR TO VERIFY LOCATIONS OF UTILITIES PRIOR TO EXCAVATION.
- 5) MATCH ELEVATION TO THE EXISTING DITCH BOTTOM ELEVATION.

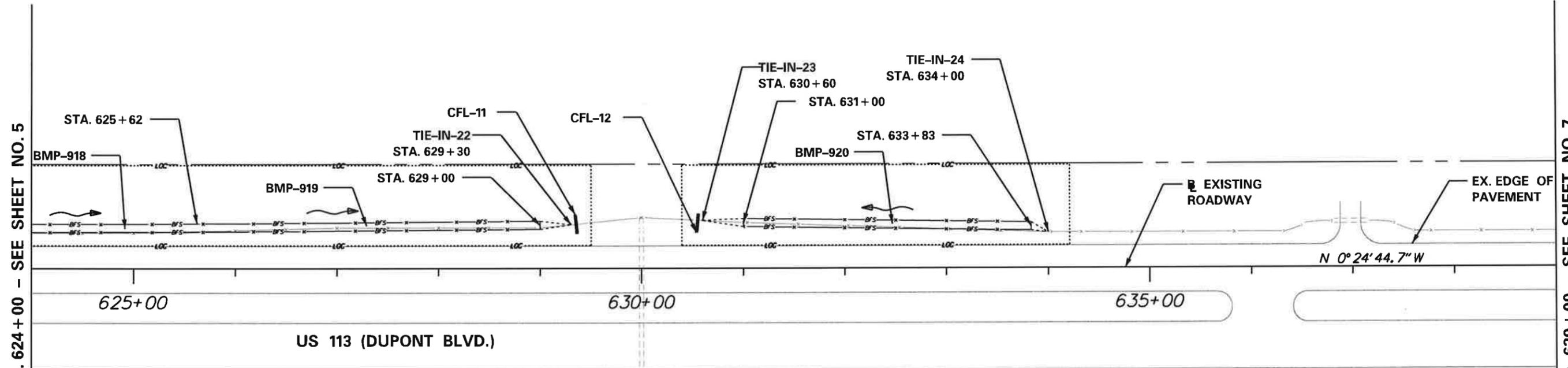
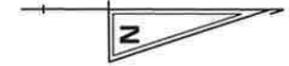


	DELWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	PAVEMENT & REHABILITATION, SUSSEX II, (US113, P.C.C. PAVEMENT) 2016	CONTRACT T201606302 COUNTY SUSSEX COUNTY	SHEET TITLE DESIGNED BY: SCW CHECKED BY: ND	<b>STORMWATER MANAGEMENT PLAN</b>	SHEET NO. 11 TOTAL SHTS. 52

BIOFILTRATION SWALE DIMENSIONS			
BMP ID	BOTTOM WIDTH (FT)	LENGTH (FT)	LONGITUDINAL SLOPE (FT/FT)
BMP-919	8	338	0.0018
BMP-920	8	283	0.0021

COMPOST FILTER LOG (CFL)		
CFL ID	STATION	OFFSET (FT)
CFL-11	629+35	43.5 L
CFL-12	630+55	44.5 L

LEGEND	
	BIOFILTRATION SWALE
	COMPOST FILTER LOG
	LIMIT OF CONSTRUCTION
	EXISTING DITCH
	EXISTING RIGHT-OF-WAY
	EXISTING PIPE



MATCH LINE STA. 624+00 - SEE SHEET NO. 5

MATCH LINE STA. 639+00 - SEE SHEET NO. 7

BIOFILTRATION SWALE LOCATION & ELEVATION					
BMP ID	STATION	OFFSET (FT) <sup>1</sup>	EXISTING EDGE OF PAVEMENT ELEV. (FT)	BOTTOM ELEVATION (FT) <sup>2</sup>	ELEVATION DIFFERENCE FROM EDGE OF PAVEMENT TO BOTTOM ELEVATION (FT)
BMP-918	625+62	40.0 L	46.94	44.60	2.34
BMP-919	625+62	40.0 L	46.94	44.60	2.34
BMP-919	629+00	42.5 L	46.71	44.00	2.71
TIE-IN-22	629+30	43.3 L	46.71	43.55	3.16
TIE-IN-23	630+60	69.0 L	46.67	43.34	3.33
BMP-920	631+00	45.0 L	46.65	43.60	3.05
BMP-920	633+83	41.0 L	46.68	44.20	2.48
TIE-IN-24	634+00	35.0 L	46.71	44.80	1.91

**NOTES:**

- 1) OFFSET IS MEASURED FROM THE BASELINE OF THE EXISTING ROADWAY TO THE CENTERLINE OF THE PROPOSED BIOFILTRATION SWALE.
- 2) BOTTOM ELEVATION REFERS TO THE INVERT ELEVATION OF THE PROPOSED BIOFILTRATION SWALE.
- 3) EXISTING TOPOGRAPHIC FEATURES DIGITIZED BASED ON DELDOT CONTRACT 88-013-04 AS-BUILTS DATED FEB. 7, 2001 AND GIS AERIAL IMAGERY.
- 4) CONTRACTOR TO VERIFY LOCATIONS OF UTILITIES PRIOR TO EXCAVATION.



ADDENDUMS / REVISIONS

PAVEMENT & REHABILITATION,  
SUSSEX II, (US113, P.C.C.  
PAVEMENT) 2016

CONTRACT	SHEET TITLE
T201606302	DESIGNED BY: SCW
COUNTY	CHECKED BY: MD
SUSSEX COUNTY	

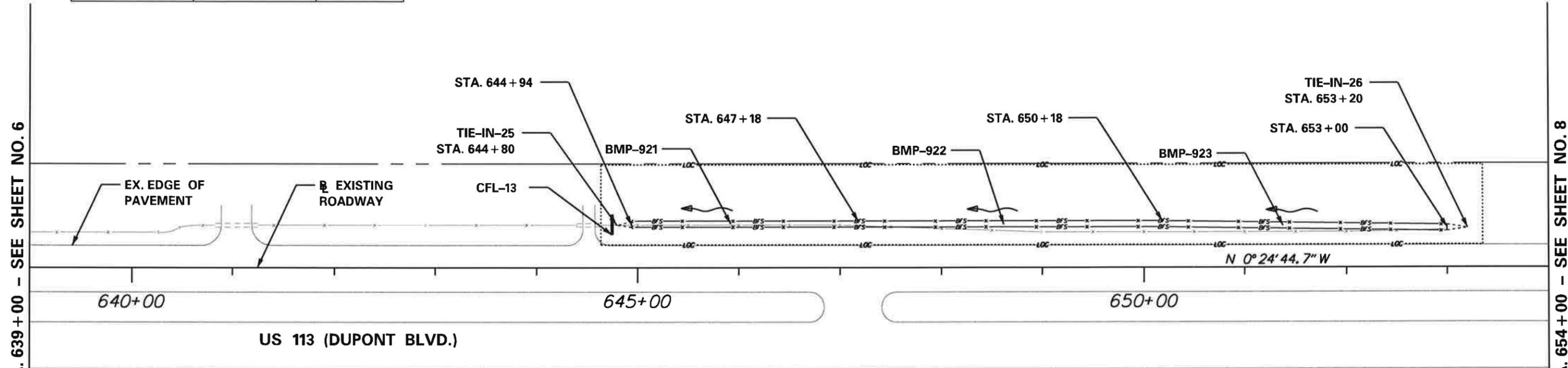
STORMWATER  
MANAGEMENT PLAN

SHEET NO.	12
TOTAL SHTS.	52

BIOFILTRATION SWALE DIMENSIONS			
BMP ID	BOTTOM WIDTH (FT)	LENGTH (FT)	LONGITUDINAL SLOPE (FT/FT)
BMP-921	6	224	0.0069
BMP-922	6	300	0.0057
BMP-923	6	282	0.0039

COMPOST FILTER LOG (CFL)		
CFL ID	STATION	OFFSET (FT)
CFL-13	644+75	42.0 L

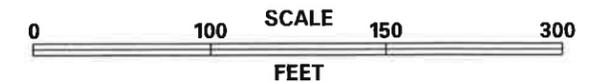
LEGEND	
	BIOFILTRATION SWALE
	COMPOST FILTER LOG
	LIMIT OF CONSTRUCTION
	EXISTING DITCH
	EXISTING RIGHT-OF-WAY
	EXISTING PIPE



BIOFILTRATION SWALE LOCATION & ELEVATION					
BMP ID	STATION	OFFSET (FT) <sup>1</sup>	EXISTING EDGE OF PAVEMENT ELEV. (FT)	BOTTOM ELEVATION (FT) <sup>2</sup>	ELEVATION DIFFERENCE FROM EDGE OF PAVEMENT TO BOTTOM ELEVATION (FT)
TIE-IN-25	644+80	42.0 L	50.22	47.34	2.88
BMP-921	644+94	43.0 L	50.31	47.35	2.96
BMP-921	647+18	43.0 L	51.70	48.89	2.81
BMP-922	647+18	43.0 L	51.70	48.89	2.81
BMP-922	650+18	43.0 L	53.54	50.60	2.94
BMP-923	650+18	43.0 L	53.54	50.60	2.94
BMP-923	653+00	39.0 L	53.89	51.70	2.19
TIE-IN-26	653+20	38.8 L	53.83	52.20	1.63

**NOTES:**

- 1) OFFSET IS MEASURED FROM THE BASELINE OF THE EXISTING ROADWAY TO THE CENTERLINE OF THE PROPOSED BIOFILTRATION SWALE.
- 2) BOTTOM ELEVATION REFERS TO THE INVERT ELEVATION OF THE PROPOSED BIOFILTRATION SWALE.
- 3) EXISTING TOPOGRAPHIC FEATURES DIGITIZED BASED ON DELDOT CONTRACT 88-013-04 AS-BUILTS DATED FEB. 7, 2001 AND GIS AERIAL IMAGERY.
- 4) CONTRACTOR TO VERIFY LOCATIONS OF UTILITIES PRIOR TO EXCAVATION.



MATCH LINE STA. 639+00 - SEE SHEET NO. 6

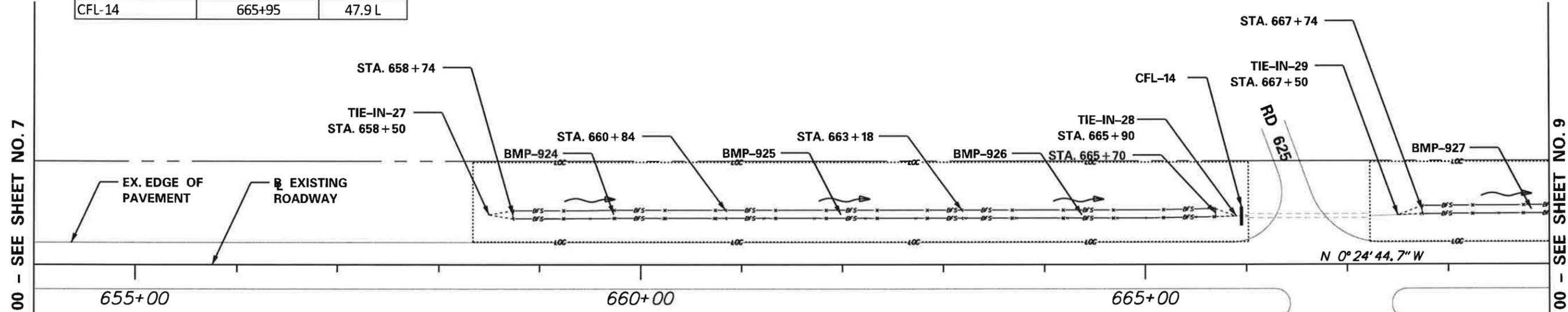
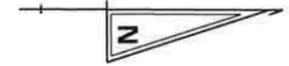
MATCH LINE STA. 654+00 - SEE SHEET NO. 8

<p><b>DELAWARE</b> DEPARTMENT OF TRANSPORTATION</p>	ADDENDUMS / REVISIONS		<p><b>PAVEMENT &amp; REHABILITATION,</b> SUSSEX II, (US113, P.C.C. PAVEMENT) 2016</p>	CONTRACT	SHEET TITLE	<p><b>STORMWATER</b> MANAGEMENT PLAN</p>	SHEET NO.
				T201606302	DESIGNED BY: SCW		13
				SUSSEX COUNTY	CHECKED BY: ND		TOTAL SHTS.
							52

BIOFILTRATION SWALE DIMENSIONS			
BMP ID	BOTTOM WIDTH (FT)	LENGTH (FT)	LONGITUDINAL SLOPE (FT/FT)
BMP-924	8	210	0.0023
BMP-925	8	234	0.0035
BMP-926	8	251	0.0033
BMP-927	8	181	0.0030

COMPOST FILTER LOG (CFL)		
CFL ID	STATION	OFFSET (FT)
CFL-14	665+95	47.9 L

LEGEND	
	BIOFILTRATION SWALE
	COMPOST FILTER LOG
	LIMIT OF CONSTRUCTION
	EXISTING DITCH
	EXISTING RIGHT-OF-WAY
	EXISTING PIPE



US 113 (DUPONT BLVD.)

BIOFILTRATION SWALE LOCATION & ELEVATION					
BMP ID	STATION	OFFSET (FT) <sup>1</sup>	EXISTING EDGE OF PAVEMENT ELEV. (FT)	BOTTOM ELEVATION (FT) <sup>2</sup>	ELEVATION DIFFERENCE FROM EDGE OF PAVEMENT TO BOTTOM ELEVATION (FT)
TIE-IN-27	658+50	45.5 L	52.07	48.15	3.92
BMP-924	658+74	49.5 L	51.99	48.08	3.91
BMP-924	660+84	50.0 L	51.29	47.60	3.69
BMP-925	660+84	50.0 L	51.29	47.60	3.69
BMP-925	663+18	50.0 L	50.51	46.77	3.74
BMP-926	663+18	50.0 L	50.51	46.77	3.74
BMP-926	665+70	51.0 L	49.68	45.95	3.73
TIE-IN-28	665+90	47.8 L	49.62	45.80	3.82
TIE-IN-29	667+50	50.5 L	49.13	45.00	4.13
BMP-927	667+74	53.9 L	49.26	44.61	4.65

NOTES:

- 1) OFFSET IS MEASURED FROM THE BASELINE OF THE EXISTING ROADWAY TO THE CENTERLINE OF THE PROPOSED BIOFILTRATION SWALE.
- 2) BOTTOM ELEVATION REFERS TO THE INVERT ELEVATION OF THE PROPOSED BIOFILTRATION SWALE.
- 3) EXISTING TOPOGRAPHIC FEATURES DIGITIZED BASED ON DELDOT CONTRACT 88-013-04 AS-BUILTS DATED FEB. 7, 2001 AND GIS AERIAL IMAGERY.
- 4) CONTRACTOR TO VERIFY LOCATIONS OF UTILITIES PRIOR TO EXCAVATION.



MATCH LINE STA. 654+00 - SEE SHEET NO. 7

MATCH LINE STA. 669+00 - SEE SHEET NO. 9

ADDENDUMS / REVISIONS

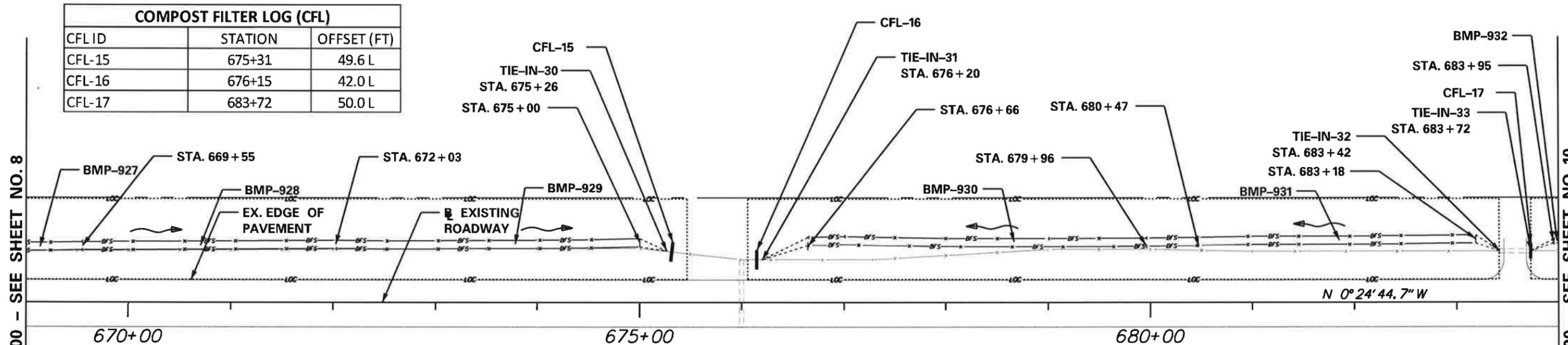
CONTRACT	T201606302	SHEET TITLE	
COUNTY	SUSSEX COUNTY	DESIGNED BY:	SCW
		CHECKED BY:	ND

BIOFILTRATION SWALE DIMENSIONS			
BMP ID	BOTTOM WIDTH (FT)	LENGTH (FT)	LONGITUDINAL SLOPE (FT/FT)
BMP-928	8	248	0.0027
BMP-929	8	297	0.0020
BMP-930	8	329	0.0049
BMP-931	8	323	0.0055
BMP-932	4	512	0.0129

LEGEND	
	BIOFILTRATION SWALE
	COMPOST FILTER LOG
	LIMIT OF CONSTRUCTION
	EXISTING DITCH
	EXISTING RIGHT-OF-WAY
	EXISTING PIPE



COMPOST FILTER LOG (CFL)		
CFL ID	STATION	OFFSET (FT)
CFL-15	675+31	49.6 L
CFL-16	676+15	42.0 L
CFL-17	683+72	50.0 L



MATCH LINE STA. 669+00 - SEE SHEET NO. 8

MATCH LINE STA. 684+00 - SEE SHEET NO. 10

BIOFILTRATION SWALE LOCATION & ELEVATION					
BMP ID	STATION	OFFSET (FT) <sup>1</sup>	EXISTING EDGE OF PAVEMENT ELEV. (FT)	BOTTOM ELEVATION (FT) <sup>2</sup>	ELEVATION DIFFERENCE FROM EDGE OF PAVEMENT TO BOTTOM ELEVATION (FT)
BMP-927	669+55	54.3 L	48.79	44.07	4.72
BMP-928	669+55	54.3 L	48.79	44.07	4.72
BMP-928	672+03	56.0 L	48.39	43.40	4.99
BMP-929	672+03	56.0 L	48.39	43.40	4.99
BMP-929	675+00	58.2 L	48.16	42.80	5.36
TIE-IN-30	675+26	50.1 L	48.15	42.77	5.38
TIE-IN-31	676+20	42.0 L	48.32	42.72	5.60
BMP-930	676+66	60.0 L	48.43	42.77	5.66
BMP-930	679+96	59.0 L	49.90	44.40	5.50
BMP-931	679+96	59.0 L	49.90	44.40	5.50
BMP-931	680+47	59.8 L	50.08	44.68	5.40
BMP-931	683+18	61.9 L	52.17	46.18	5.99
TIE-IN-32	683+42	50.0 L	52.34	46.42	5.92
TIE-IN-33	683+72	50.0 L	52.56	46.72	5.84
BMP-932	683+95	58.6 L	52.72	46.95	5.77

US 113 (DUPONT BLVD.)

**NOTES:**

- 1) OFFSET IS MEASURED FROM THE BASELINE OF THE EXISTING ROADWAY TO THE CENTERLINE OF THE PROPOSED BIOFILTRATION SWALE.
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- 3) EXISTING TOPOGRAPHIC FEATURES DIGITIZED BASED ON DELDOT CONTRACT 88-013-04 AS-BUILTS DATED FEB. 7, 2001 AND GIS AERIAL IMAGERY.
- 4) CONTRACTOR TO VERIFY LOCATIONS OF UTILITIES PRIOR TO EXCAVATION.



ADDENDUMS / REVISIONS	

PAVEMENT & REHABILITATION,  
SUSSEX II, (US113, P.C.C.  
PAVEMENT) 2016

CONTRACT	T201606302	SHEET TITLE	
COUNTY	SUSSEX COUNTY	DESIGNED BY:	SCW
		CHECKED BY:	ND

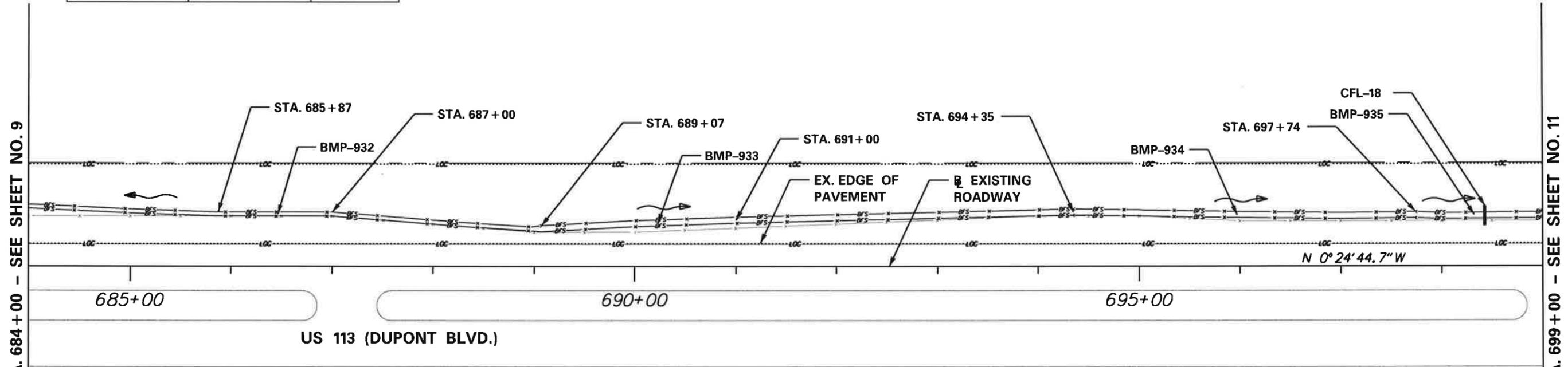
STORMWATER  
MANAGEMENT PLAN

SHEET NO.	15
TOTAL SHTS.	52

BIOFILTRATION SWALE DIMENSIONS			
BMP ID	BOTTOM WIDTH (FT)	LENGTH (FT)	LONGITUDINAL SLOPE (FT/FT)
BMP-933	6	527	0.0098
BMP-934	6	339	0.0033
BMP-935	6	348	0.0046

COMPOST FILTER LOG (CFL)		
CFL ID	STATION	OFFSET (FT)
CFL-18	698+43	50.2 L

LEGEND	
	BIOFILTRATION SWALE
	COMPOST FILTER LOG
	LIMIT OF CONSTRUCTION
	EXISTING DITCH
	EXISTING RIGHT-OF-WAY
	EXISTING PIPE



BIOFILTRATION SWALE LOCATION & ELEVATION					
BMP ID	STATION	OFFSET (FT) <sup>1</sup>	EXISTING EDGE OF PAVEMENT ELEV. (FT)	BOTTOM ELEVATION (FT) <sup>2</sup>	ELEVATION DIFFERENCE FROM EDGE OF PAVEMENT TO BOTTOM ELEVATION (FT)
BMP-932	685+87	52.0 L	54.75	49.43	5.32
BMP-932	687+00	52.0 L	54.92	50.89	4.03
BMP-932	689+07	37.6 L	55.67	53.57	2.10
BMP-933	689+07	37.6 L	55.67	53.57	2.10
BMP-933	691+00	46.0 L	55.18	51.68	3.50
BMP-933	694+35	53.9 L	53.21	48.40	4.81
BMP-934	694+35	53.9 L	53.21	48.40	4.81
BMP-934	697+74	50.9 L	51.60	47.28	4.32
BMP-935	697+74	50.9 L	51.60	47.28	4.32

**NOTES:**

- 1) OFFSET IS MEASURED FROM THE BASELINE OF THE EXISTING ROADWAY TO THE CENTERLINE OF THE PROPOSED BIOFILTRATION SWALE.
- 2) BOTTOM ELEVATION REFERS TO THE INVERT ELEVATION OF THE PROPOSED BIOFILTRATION SWALE.
- 3) EXISTING TOPOGRAPHIC FEATURES DIGITIZED BASED ON DELDOT CONTRACT 88-013-04 AS-BUILTS DATED FEB. 7, 2001 AND GIS AERIAL IMAGERY.
- 4) CONTRACTOR TO VERIFY LOCATIONS OF UTILITIES PRIOR TO EXCAVATION.



ADDENDUMS / REVISIONS

PAVEMENT & REHABILITATION,  
SUSSEX II, (US113, P.C.C.  
PAVEMENT) 2016

CONTRACT	T201606302	SHEET TITLE	
COUNTY	SUSSEX COUNTY	DESIGNED BY:	SCW
		CHECKED BY:	ND

STORMWATER  
MANAGEMENT PLAN

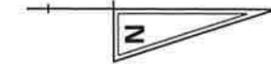
SHEET NO.	16
TOTAL SHTS.	52

MATCH LINE STA. 684+00 - SEE SHEET NO. 9

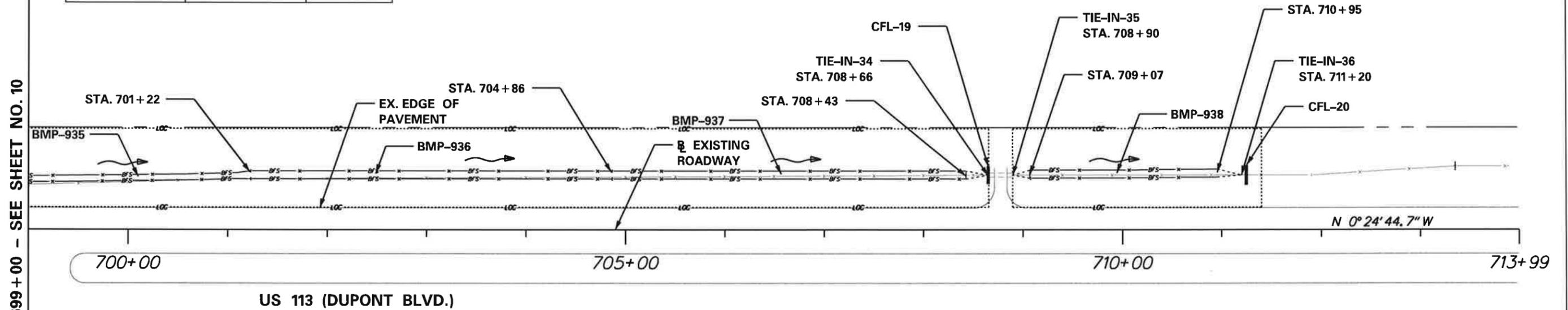
MATCH LINE STA. 699+00 - SEE SHEET NO. 11

BIOFILTRATION SWALE DIMENSIONS			
BMP ID	BOTTOM WIDTH (FT)	LENGTH (FT)	LONGITUDINAL SLOPE (FT/FT)
BMP-936	8	364	0.0025
BMP-937	8	357	0.0025
BMP-938	8	189	0.0028

LEGEND	
	BIOFILTRATION SWALE
	COMPOST FILTER LOG
	LIMIT OF CONSTRUCTION
	EXISTING DITCH
	EXISTING RIGHT-OF-WAY
	EXISTING PIPE



COMPOST FILTER LOG (CFL)		
CFL ID	STATION	OFFSET (FT)
CFL-19	708+66	54.9 L
CFL-20	711+25	54.9 L



MATCH LINE STA. 699+00 - SEE SHEET NO. 10

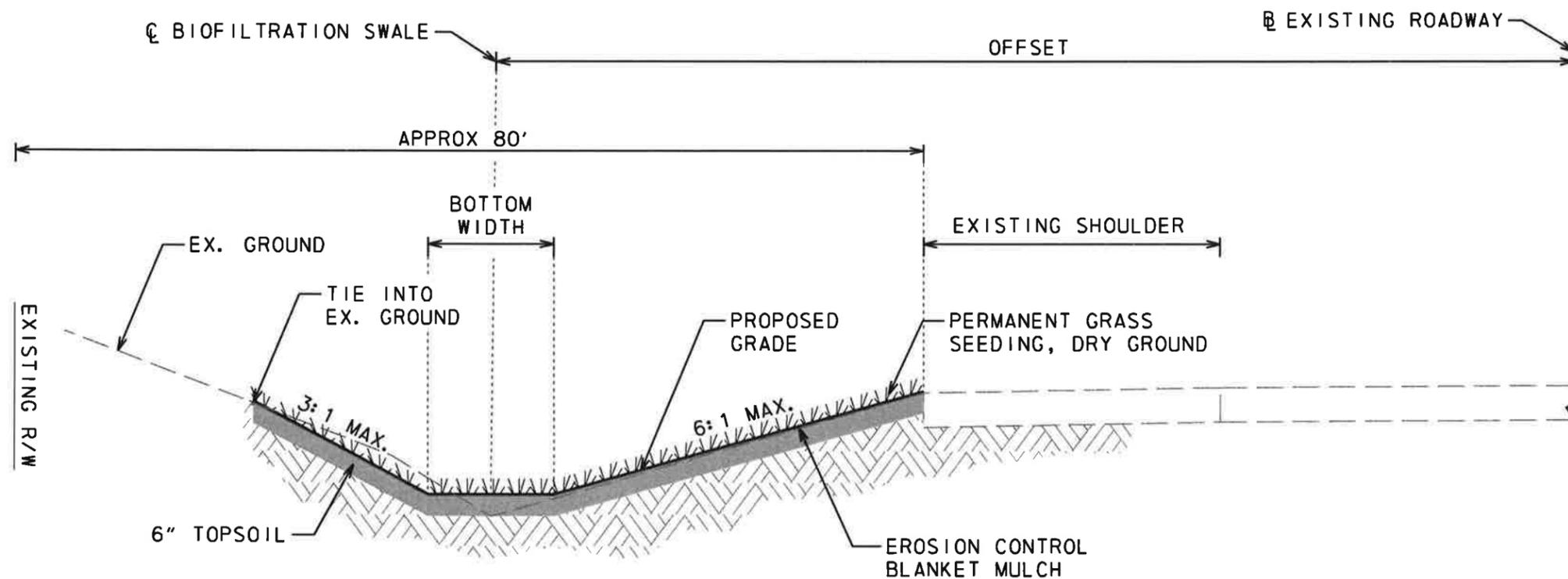
BIOFILTRATION SWALE LOCATION & ELEVATION					
BMP ID	STATION	OFFSET (FT) <sup>1</sup>	EXISTING EDGE OF PAVEMENT ELEV. (FT)	BOTTOM ELEVATION (FT) <sup>2</sup>	ELEVATION DIFFERENCE FROM EDGE OF PAVEMENT TO BOTTOM ELEVATION (FT)
BMP-935	701+22	54.5 L	50.46	45.69	4.77
BMP-936	701+22	55.0 L	50.46	45.69	4.77
BMP-936	704+86	55.0 L	49.56	44.79	4.77
BMP-937	704+86	55.0 L	49.56	44.79	4.77
BMP-937	708+43	55.0 L	48.72	43.89	4.83
TIE-IN-34	708+66	51.0 L	48.68	43.84	4.84
TIE-IN-35	708+90	51.0 L	48.63	43.77	4.86
BMP-938	709+07	55.8 L	48.69	43.73	4.96
BMP-938	710+95	57.4 L	48.36	43.21	5.15
TIE-IN-36	711+20	51.0 L	48.33	43.18	5.15

**NOTES:**

- 1) OFFSET IS MEASURED FROM THE BASELINE OF THE EXISTING ROADWAY TO THE CENTERLINE OF THE PROPOSED BIOFILTRATION SWALE.
- 2) BOTTOM ELEVATION REFERS TO THE INVERT ELEVATION OF THE PROPOSED BIOFILTRATION SWALE.
- 3) EXISTING TOPOGRAPHIC FEATURES DIGITIZED BASED ON DELDOT CONTRACT 88-013-04 AS-BUILTS DATED FEB. 7, 2001 AND GIS AERIAL IMAGERY.
- 4) CONTRACTOR TO VERIFY LOCATIONS OF UTILITIES PRIOR TO EXCAVATION.

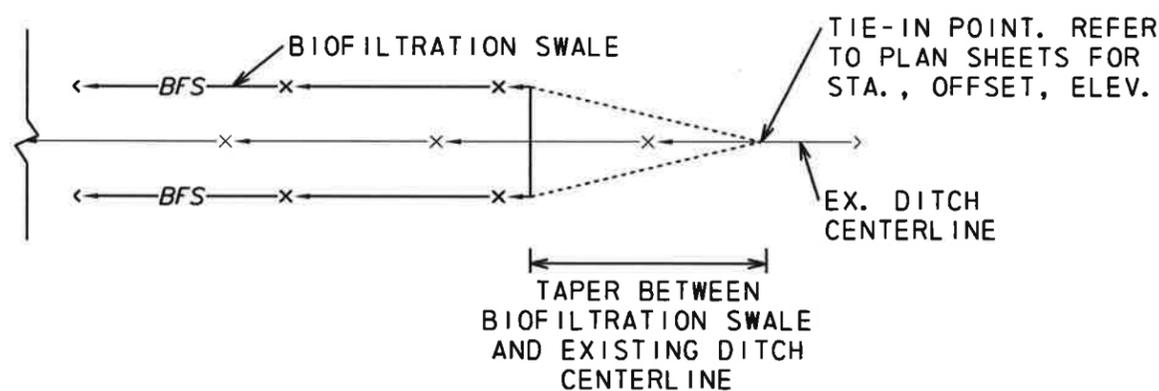


# TYPICAL SECTION - BIOFILTRATION SWALE

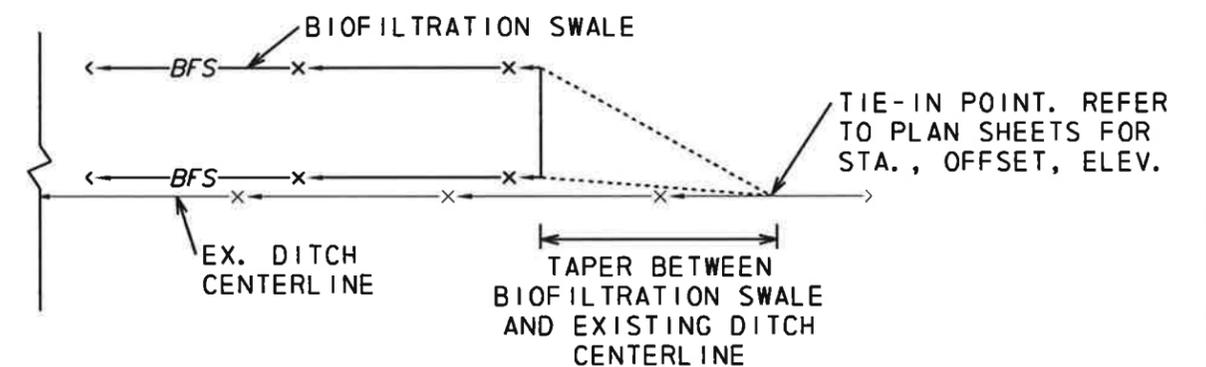


- NOTES:  
 1. REFER TO STORMWATER MANAGEMENT PLAN SHEETS FOR BEGINNING AND END STATIONS OF BIOFILTRATION SWALES.  
 2. REFER TO BIOFILTRATION SWALE DIMENSIONS TABLES FOR BOTTOM WIDTH AND OFFSET DIMENSIONS.

# BIOFILTRATION SWALE TAPER DETAIL - PLAN VIEW



BIOFILTRATION SWALE ALIGNED WITH EXISTING DITCH



BIOFILTRATION SWALE SHIFTED FROM EXISTING DITCH

**GENERAL NOTES AND SEQUENCE OF CONSTRUCTION:**

1. OBTAIN COPIES OF ALL REQUIRED PERMITS PRIOR TO STARTING CONSTRUCTION ACTIVITIES.
2. NOTIFY MISS UTILITY AT LEAST THREE (3) DAYS PRIOR TO START OF CONSTRUCTION TO IDENTIFY ANY UNDERGROUND UTILITIES.
3. NOTIFY THE DNREC SEDIMENT & STORMWATER PROGRAM IN WRITING AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
4. PRIOR TO ANY CLEARING, INSTALLATION OF SEDIMENT CONTROL MEASURES, OR GRADING, SCHEDULE AND CONDUCT A PRE-CONSTRUCTION MEETING WITH THE AGENCY CONSTRUCTION SITE REVIEWER. THE DELDOT REPRESENTATIVE, SITE CONTRACTOR, AND CERTIFIED CONSTRUCTION REVIEWER ARE REQUIRED TO BE IN ATTENDANCE AT THE PRE-CONSTRUCTION MEETING; THE SITE DESIGNER IS RECOMMENDED TO ATTEND.
5. INSTALL THE PERIMETER CONTROLS (I.E. COMPOST FILTER LOGS). MARK THE LIMITS OF SENSITIVE AREAS, SUCH AS PRESERVED TREES AND OTHER SECTIONS THAT ARE NOT TO BE DISTURBED WITH A PHYSICAL BARRIER.
6. SCHEDULE A PERIMETER CONTROL REVIEW WITH THE AGENCY CONSTRUCTION SITE REVIEWER. ALL PERIMETER CONTROLS ARE TO BE REVIEWED BY THE AGENCY CONSTRUCTION SITE REVIEWER AND APPROVED PRIOR TO PROCEEDING WITH FURTHER SITE DISTURBANCE OR CONSTRUCTION.
7. CHECK PERIMETER CONTROLS DAILY AND ADJUST AND/OR REPAIR TO FULLY CONTAIN AND CONTROL SEDIMENT FROM LEAVING THE SITE. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. ADJUST OR ALTER MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, AS NEEDED OR AS DIRECTED BY THE AGENCY CONSTRUCTION SITE REVIEWER.
8. PERFORM CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF BIOFILTRATION SWALES. TREES SHALL NOT BE REMOVED FOR CONSTRUCTION OF BIOFILTRATION SWALES. CONTRACTOR TO CONTACT THE DELDOT ENGINEER IF TREE IMPACTS ARE ANTICIPATED.
9. STOCKPILE TOPSOIL AND EXCAVATED SUBSOILS. STOCKPILES SHOULD BE SURROUNDED WITH A PERIMETER CONTROL, LOCATED ON LAND WITH SLIGHT TO NO SLOPE, AND STABILIZED ONCE INACTIVE.
10. PERFORM GRADING FOR THE BIOSWALE FACILITIES BEGINNING FROM DOWNSTREAM AND WORKING UPSTREAM AS INDICATED ON THE PLAN AND STABILIZE IMMEDIATELY AS PER THE VEGETATION SPECIFICATIONS. ALL CONVEYANCE AREAS REQUIRE SEEDING AND MATTING AT A MINIMUM.
11. NO DISTURBED AREAS SHALL BE LEFT UNSTABILIZED OVERNIGHT UNLESS RUNOFF IS DIVERTED TO AN APPROVED EROSION AND SEDIMENT CONTROL DEVICE.
12. PERFORM FINAL GRADING OF BIOSWALE FACILITIES AND APPLY TOPSOIL TO A DEPTH OF 6 INCHES. FINAL GRADE SHALL BE ACHIEVED AT THE SURFACE OF THE TOPSOIL. NATIVE TOPSOIL EXISTING WITHIN THE PROPOSED GRADING AREAS SHALL BE SALVAGED AND UTILIZED TO THE MAXIMUM EXTENT PRACTICABLE, WITH FURNISHED TOPSOIL TO BE UTILIZED AS SUPPLEMENTARY MATERIAL TO MEET THE REQUIRED DEPTH.
13. APPLY PERMANENT STABILIZATION AS SOON AS FINAL GRADE IS ACHIEVED. STABILIZE BIOFILTRATION SWALE FACILITIES WITH EROSION CONTROL BLANKET MULCH AND PERMANENT GRASS SEEDING, AS INDICATED ON THE TYPICAL SECTION.
14. THE EROSION AND SEDIMENT CONTROL DEVICES SHALL BE REMOVED ONLY AFTER WORK IN AN AREA HAS BEEN COMPLETED AND STABILIZED, WITH WRITTEN APPROVAL FROM THE AGENCY CONSTRUCTION SITE REVIEWER. COORDINATE THE INSPECTION, AND AFTER THE WRITTEN APPROVAL, REMOVE THE REMAINING CONSTRUCTION SITE CONTROLS.
15. TERMINATE COVERAGE OF THE CONSTRUCTION GENERAL PERMIT, WHICH REQUIRES SUBMISSION AND ACCEPTANCE OF THE POST CONSTRUCTION VERIFICATION DOCUMENTS, INCLUDING FINAL STABILIZATION THROUGHOUT THE SITE, ALL ELEMENTS OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN IMPLEMENTED, ACCEPTANCE OF THE FINAL OPERATION AND MAINTENANCE PLAN, AND SUBMITTAL OF THE NOTICE OF TERMINATION.

 <b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>	ADDENDUMS / REVISIONS		<b>PAVEMENT &amp; REHABILITATION, SUSSEX II, (US113, P.C.C. PAVEMENT) 2016</b>	CONTRACT	SHEET TITLE	<b>STORMWATER MANAGEMENT NOTES</b>	SHEET NO.
	T201606302	DESIGNED BY: SCW		19			
	COUNTY	CHECKED BY: ND		TOTAL SHTS.			
	SUSSEX COUNTY			52			

WARNING SIGNS

1. THE "PERMANENT" TEMPORARY WARNING SIGNS AND PLAQUES FOR SHALL BE INSTALLED AS DEPICTED ON THE PERMANENT CONSTRUCTION WARNING SIGNAGE PLAN, RESPECTIVELY.

TRAFFIC OFFICERS, FLAGGERS, AND PROJECT COORDINATION

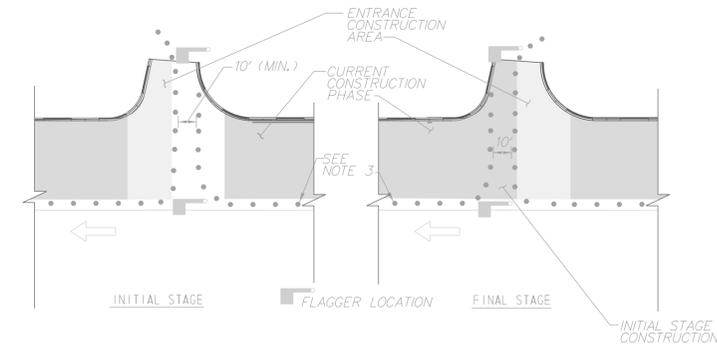
2. THE CONTRACTOR SHALL SUPPLY LIGHT PLANTS TO ILLUMINATE THE TEMPORARY CROSSOVERS AT NIGHT.
3. IF WORK ZONE ACTIVITIES REQUIRE FLAGGER CONTROL TO ASSIST WORK VEHICLES ENTERING OR EXITING THE WORK ZONE, THEN FLAGGER (W20-7) OR "FLAGGER AHEAD" (W20-7A) SIGNS SHALL BE DISPLAYED TO APPROACHING TRAFFIC AND ALL FLAGGER STATIONS SHALL BE ILLUMINATED AT NIGHT.
4. CONTRACTOR OR ENGINEER SHALL INFORM DELDOT'S TRANSPORTATION MANAGEMENT CENTER (TMC) AT 302-659-4600 OF ALL DAILY WORK ACTIVITIES.
5. CONTRACTOR SHALL PROVIDE TWO TRAFFIC OFFICERS FOR ALL MAJOR TRAFFIC PHASE CHANGES TO INCLUDE WHEN TRAFFIC IS PLACED IN THE CONTRA-FLOW OPERATION AND WHEN TRAFFIC IS REMOVED FROM THE CONTRA-FLOW OPERATION BACK TO NORMAL TRAFFIC OPERATIONS. TRAFFIC OFFICERS UNDER THESE OPERATIONS SHALL BE USED TO DIRECT VEHICULAR TRAFFIC INTO THE APPROPRIATE TRAVEL LANES WHEN THE TRAFFIC PHASE CHANGES ARE IMPLEMENTED.
6. CONTRACTOR SHALL PROVIDE ONE TRAFFIC OFFICER FOR EACH PAVEMENT MARKING OPERATION ALONG US 113.
7. THREE TRAFFIC OFFICERS SHALL BE USED TO PERFORM SPEED ENFORCEMENT ON US113 WITHIN THE PROJECT LIMITS ONE DAY PER WEEK FOR A FOUR-HOUR PERIOD. DAYS AND TIME PERIODS SHALL BE SPECIFIED BY THE ENGINEER. ALL TRAFFIC OFFICERS ARE REQUIRED TO PROVIDE ENFORCEMENT STATISTICS TO THE ENGINEER FOR EACH SPEED ENFORCEMENT PERIOD. FAILURE TO PROVIDE ENFORCEMENT STATISTICS WILL RESULT IN NON-PAYMENT FOR TRAFFIC OFFICERS.
8. ONE TRAFFIC OFFICER SHALL BE USED TO PERFORM ENFORCEMENT OF TURNING RESTRICTIONS WITHIN THE PROJECT LIMITS ONE DAY PER WEEK FOR A TWO-HOUR PERIOD. DAYS AND TIME PERIODS SHALL BE SPECIFIED BY THE ENGINEER. ALL TRAFFIC OFFICERS ARE REQUIRED TO PROVIDE ENFORCEMENT STATISTICS TO THE ENGINEER FOR EACH ENFORCEMENT PERIOD. FAILURE TO PROVIDE ENFORCEMENT STATISTICS WILL RESULT IN NON-PAYMENT FOR TRAFFIC OFFICERS.
9. ADDITIONAL USE OF TRAFFIC OFFICERS SHALL BE APPROVED BY THE TRAFFIC SAFETY SECTION AS NEEDED IN CONSULTATION WITH THE ENGINEER AND CONTRACTOR.

OTHER MOT DEVICES

10. GRADING AND MAINTAINING HOT MIX TRM THAT IS BEING USED AS A TEMPORARY TRAVEL WAY, DRIVEWAY, ACCESS RAMP, ETC. SHALL BE INCIDENTAL TO ITEM 743000. EXCESS BASE COURSE MATERIAL SHALL BE PUSHED AHEAD AND USED IN THE NEXT SEGMENT AND SHALL BE INCIDENTAL TO THE PARTICULAR BASE COURSE PAY ITEM. NO SEPARATE PAYMENT SHALL BE MADE FOR TEMPORARY ROADWAY MATERIAL (TRM) USED TO PROTECT PAVEMENT EDGE DROP-OFFS UNLESS THE MATERIAL IS EVENTUALLY USED AS PART OF A PERMANENT ROADWAY, AT WHICH TIME THE MATERIAL WOULD BE PAID FOR UNDER THE CORRESPONDING CONTRACT BID ITEM.
11. CONTRACTOR OR ENGINEER SHALL CONTACT MELODY PETERS (AT 302-222-5920 OR 302-760-2565) OF DELDOT'S SIGNAL CONSTRUCTION AND JIM BUNTING (AT 302-222-5971 OR 302-760-4814) OF DELDOT'S SIGNAL MAINTENANCE SECTIONS A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF ALL WORK ACTIVITIES TO DEACTIVATE OR CONVERT THE TRAFFIC SIGNAL AT US 113/DUPONT BLVD AND FITZGERALD RD/JOHNSON RD TO FLASHING OPERATIONS.
12. CONTRACTOR SHALL PROVIDE MOT FOR DELDOT'S TRAFFIC CONTRACTOR DURING ALL APPLICABLE CONSTRUCTION PHASES.
13. CONTRACTOR SHALL REMOVE ALL RAISED PAVEMENT MARKING LENSES FROM THEIR HOUSINGS PRIOR TO INSTALLATION OF CONTRAFLOW SETUP. RAISED PAVEMENT MARKING LENSES SHALL BE REPLACED WHEN TRAFFIC IS RESTORED TO NORMAL OPERATIONS.
14. CONTRACTOR SHALL SUPPLY PORTABLE CHANGEABLE MESSAGE BOARDS (PCMS) UNDER ITEM 743004. ONE PCMS WILL BE PLACED ALONG US113 NORTHBOUND AND SOUTHBOUND DIRECTIONS PRIOR TO CONSTRUCTION. PLACEMENT SHALL BE COORDINATED WITH THE DISTRICT SAFETY OFFICER. THE PCMS'S SHOULD BE PLACED A MINIMUM OF TEN (10) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION TO REMIND ROAD USERS OF PENDING TRAFFIC PATTERN. DISPLAY MESSAGE PCMS-1 FOR 10 DAYS PRIOR TO WORK THEN MESSAGE PCMS-2 FOR 5 DAYS AFTER. REFERENCE PERMANENT CONSTRUCTION WARNING SIGNAGE PLAN FOR DETAILS.
15. CONTRACTOR SHALL FILL CONFLICTING RUMBLE STRIPS USING AN APPROVED METHOD AS DIRECTED BY THE ENGINEER. LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER.
16. CONTRACTOR SHALL COMPLETELY COVER ALL CONFLICTING SIGNS AS DIRECTED BY ENGINEER PRIOR TO OPENING CONTRAFLOW SETUP. ALL PREVIOUSLY COVERED SIGNS SHALL BE COMPLETELY UNCOVERED WHEN TRAFFIC IS RESTORED TO NORMAL OPERATIONS.
17. CONTRACTOR SHALL CONFORM TO TA-3, TA-3A, TA-10, TA-17, TA-33, TA-35H, AND TA-39 PER PART 6 OF THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

PAVEMENT MARKINGS

18. THE CONTRACTOR SHALL INVENTORY THE EXISTING PAVEMENT MARKINGS PRIOR TO INSTALLING THE TEMPORARY CROSSOVERS. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING ALL IMPACTED PAVEMENT MARKINGS ALONG US113 NORTHBOUND AND SOUTHBOUND AT THE TEMPORARY CROSSOVERS PRIOR TO REMOVING THE CROSSOVERS. THE PAVEMENT MARKING REPLACEMENT SHOULD MEET THE EXISTING CONDITION PRIOR TO INSTALLATION OF THE TEMPORARY CROSSOVERS WHICH SHALL MATCH THE CONTRACTOR'S INVENTORY RECORDS.



TYPICAL DRIVEWAY/ ENTRANCE RECONSTRUCTION  
NOT TO SCALE

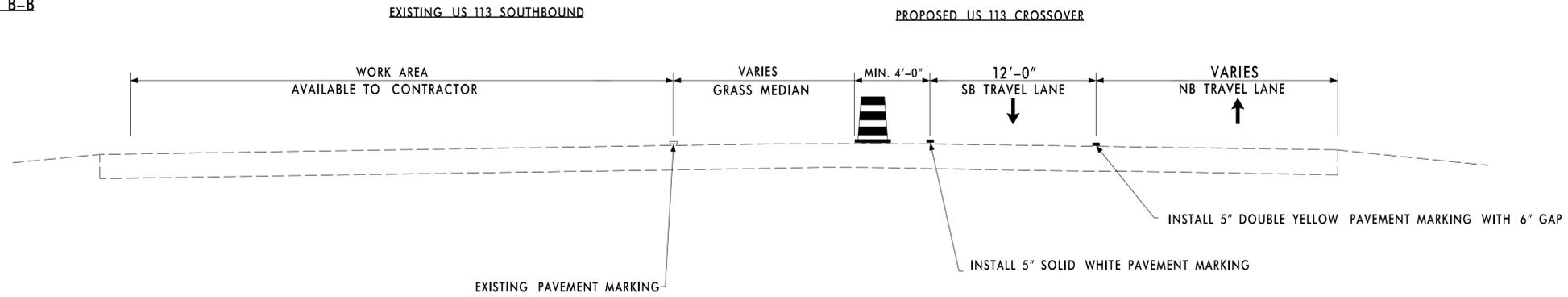
NOTES:

1. THIS DETAIL PROVIDES THE PROPER TRAFFIC CONTROL DEVICES AT DRIVEWAYS AND ENTRANCES THAT ARE TO BE BUILT IN HALF-SECTION UNDER FLAGGER CONTROL. APPLICATION OF THIS DETAIL SHALL BE AS INDICATED ON THE PLANS, DURING DAYLIGHT HOURS ONLY, OR AS DIRECTED BY THE ENGINEER. TRAFFIC CONTROL DEVICES AT ENTRANCES SHALL BE RESET TO MAIN PHASE AT END OF EACH WORKING DAY.
2. CHANNELIZATION THROUGH ENTRANCE AREA SHALL BE ACCOMPLISHED WITH DRUMS PLACED AT 10' BETWEEN THE EDGES OF THE DRUMS IMMEDIATELY ADJACENT TO THE TRAVELED WAY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DRUM LAYOUT SHALL ACCOMMODATE LARGEST DESIGN VEHICLE EXPECTED TO USE ENTRANCE.
3. TRAFFIC CONTROL DEVICES ALONG MAINLINE ROADWAY SHALL BE AS SHOWN ON CONSTRUCTION PHASING PLANS.
4. DEPENDING ON TRAFFIC VOLUME UTILIZING ENTRANCE AND OTHER SITE-SPECIFIC CONDITIONS, THE NUMBER OF FLAGGERS USED DURING ENTRANCE CONSTRUCTION MAY BE REDUCED FROM 2 TO 1, SUBJECT TO APPROVAL OF ENGINEER.

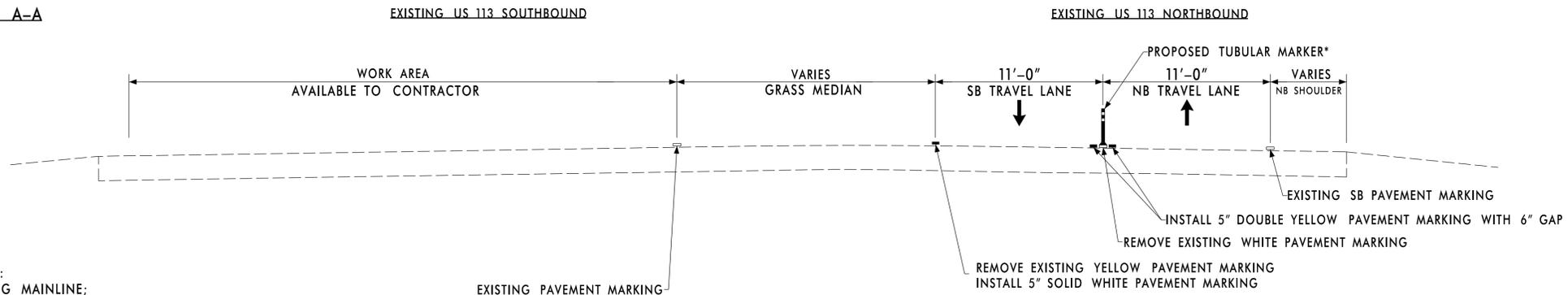
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RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: _____	APPROVED CHIEF SAFETY OFFICER _____ DATE: _____	APPROVED TRAFFIC ENGINEER _____ DATE: _____				
<b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>	ADDENDUM / REVISIONS		<b>NOT TO SCALE</b>	<b>Pavement &amp; Rehabilitation Sussex II, 2016 US 113 (DuPont Blvd) Southbound</b>	CONTRACT	PERMIT NO.	<b>MAINTENANCE OF TRAFFIC</b>  <b>NOTES</b>	SHEET NO.
					T201606302	DESIGNED BY: PRH		1
					Sussex	CHECKED BY: AW		TOTAL SHTS. 15

TYPICAL SECTION FOR  
US113\_CROSSOVER B-B  
(NOT TO SCALE)

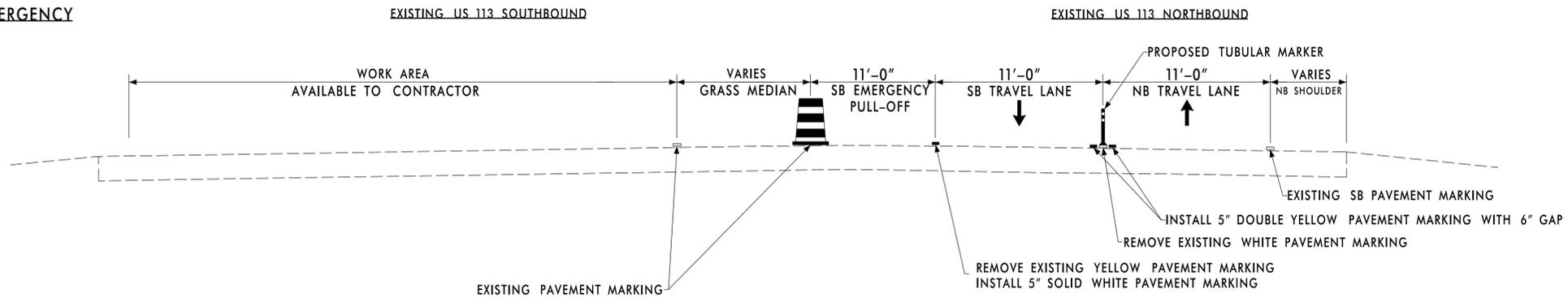


TYPICAL SECTION ON  
US 113 NORTHBOUND A-A  
(NOT TO SCALE)



\*TUBULAR MARKING SPACING:  
1) SHALL BE 30FT ALONG MAINLINE;  
2) SHALL BE 10FT AT INTERSECTIONS EXTENDING 350FT LONGITUDINALLY;  
3) SHALL BE 10FT AT TEMPORARY CROSSOVERS EXTENDING 550FT LONGITUDINALLY.

TYPICAL SECTION ON US 113  
NORTHBOUND AT EMERGENCY  
PULL-OFFS C-C  
(NOT TO SCALE)



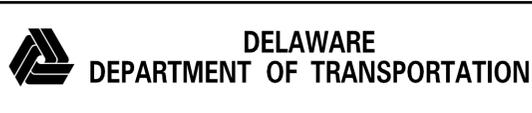
RECOMMENDED \_\_\_\_\_ DATE: \_\_\_\_\_

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

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

APPROVED CHIEF SAFETY OFFICER \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED TRAFFIC ENGINEER \_\_\_\_\_ DATE: \_\_\_\_\_



ADDENDUM / REVISIONS	

NOT TO SCALE

Pavement & Rehabilitation  
Sussex II, 2016  
US 113 (DuPont Blvd) Southbound

CONTRACT T201606302	PERMIT NO.
COUNTY Sussex	DESIGNED BY: PRH
	CHECKED BY: AW

MAINTENANCE OF TRAFFIC  
TYPICAL SECTIONS

SHEET NO. 2
TOTAL SHTS. 15

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**PORTABLE CHANGEABLE MESSAGE SIGNS**

**PRIOR TO CONSTRUCTION**  
(10 DAYS PRIOR TO BEGINNING CONSTRUCTION)

PCMS-1

**ROAD  
WORK**

**STARTING  
XXXXXX**

**DURING CONSTRUCTION**

(DISPLAY FOR 5 DAYS AFTER IMPLEMENTATION OF WORK ZONE SETUP)

PCMS-2

**NEW  
TRAFFIC  
PATTERN**

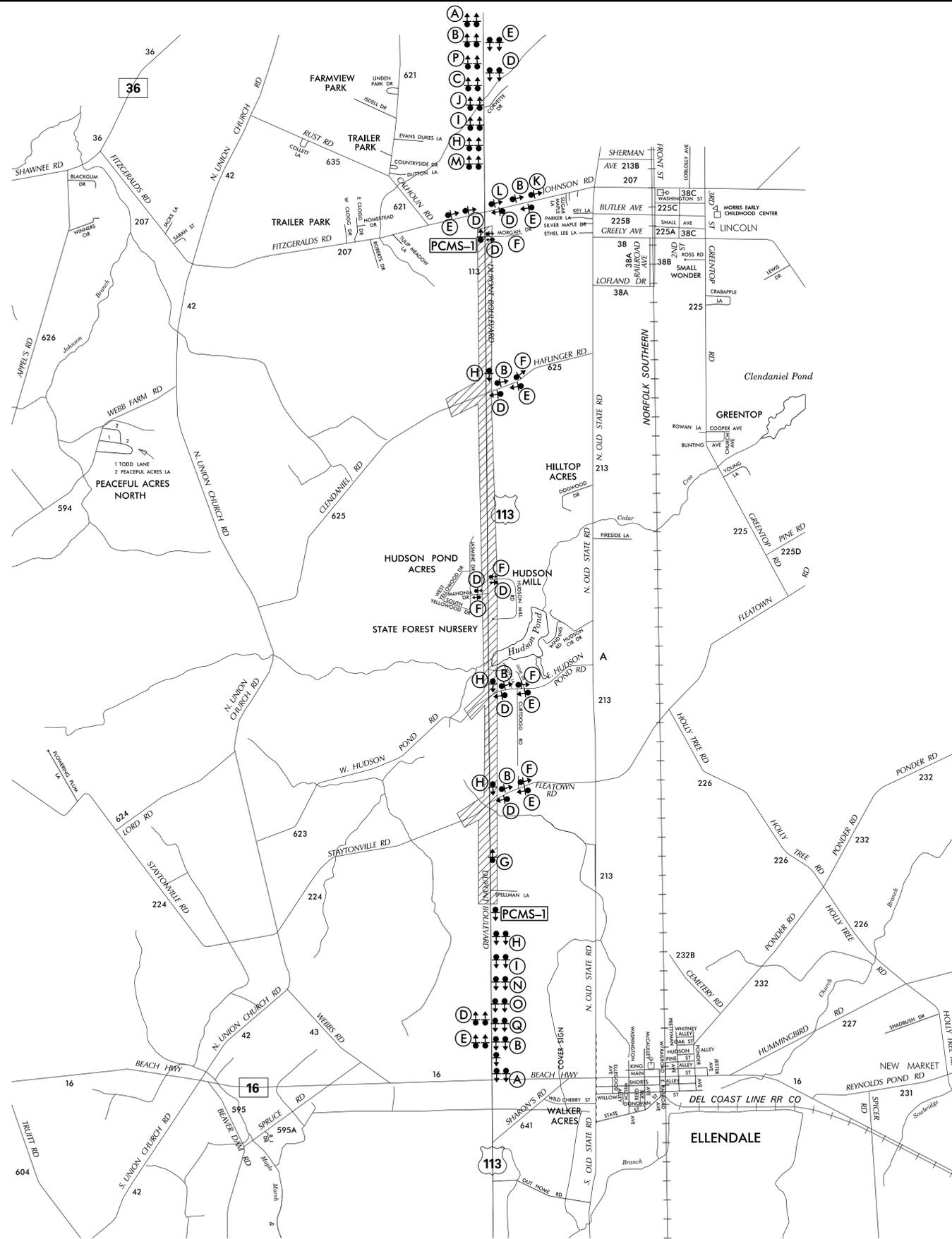
**STARTING  
XXXXXX**

INSTALL PCMS-2 1 MILE NORTH AND SOUTH OF SIGN A.

**SPECIAL SIGNS**

**LEGEND**


**MOT NOTES**



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

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

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

APPROVED CHIEF SAFETY OFFICER \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED TRAFFIC ENGINEER \_\_\_\_\_ DATE: \_\_\_\_\_



ADDENDUM / REVISIONS

**NOT TO SCALE**

**Pavement & Rehabilitation  
Sussex II, 2016  
US 113 (DuPont Blvd) Southbound**

CONTRACT T201606302	PERMIT NO.
COUNTY Sussex	DESIGNED BY: PRH
	CHECKED BY: AW

**PERMANENT CONSTRUCTION  
WARNING SIGNAGE**

SHEET NO. 3
TOTAL SHTS. 15

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**PORTABLE CHANGEABLE MESSAGE SIGNS**

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

PCMS-1

ACCESS TO US113 TO CLOSE

STARTING XX/XX/XX

**DURING DETOUR**  
(DISPLAY FOR 5 DAYS AFTER IMPLEMENTATION OF DETOUR)

PCMS-2

ACCESS TO US113 CLOSED

FOLLOW DETOUR

**SPECIAL SIGNS**

Y

48" / 30"

60"

Access to 113

6" C

24"

CLOSED 6" C

FOLLOW DETOUR 6" C

Z1

DETOUR

M4-9-DE

Z2

DETOUR

M4-9

Z3

DETOUR

M4-9

Z4

END DETOUR

M4-8a

Z5

WEST

Z6

EAST

Z7

NO TURNS FOLLOW DETOUR To 16

6" C

6" C

6" C

6" C

24"

24"

36"

24"

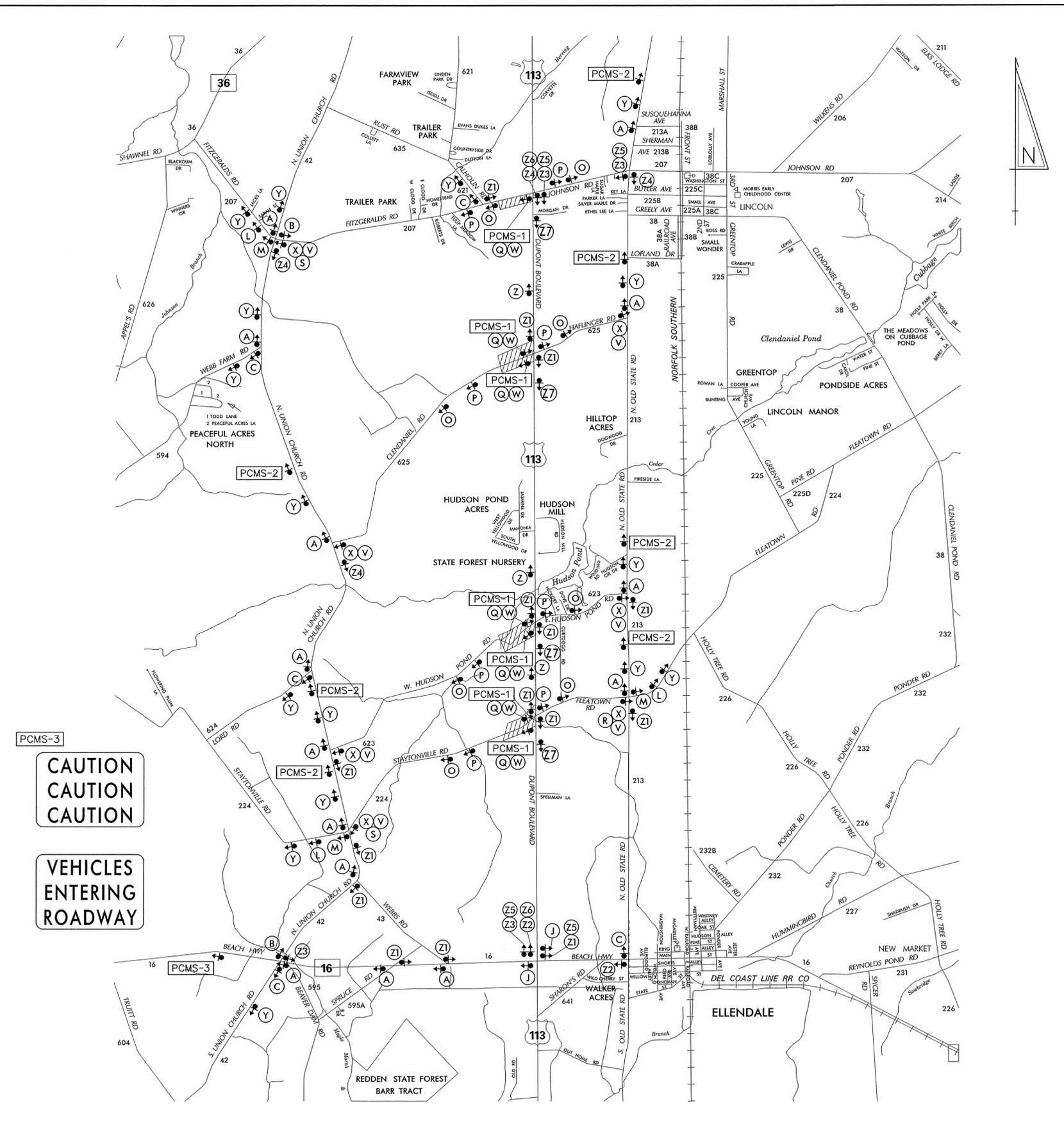
6" C

6" C

**SIGN NOTES:**

1) D/G RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND; BLACK LEGEND

2) 113 16 WHITE BACKGROUND; BLACK LEGEND



**LEGEND**

A M4-8 M1-4 M6-3

B M4-8 M1-4 M6-1(L)

C M4-8 M1-4 M6-1(R)

D M4-8 M1-4 M6-2(L)

E M4-8 M1-4 M6-2(R)

F M4-8 M1-4 M5-1(L)

G M4-8 M1-4 M5-1(R)

H M4-8 M1-4 M5-2(L)

I M4-8 M1-4 M5-2(R)

J M4-8a M1-4

K DETOUR AHEAD W20-2

L DETOUR 1000 FT W20-2

M DETOUR 500 FT W20-2

N ROAD CLOSED AHEAD W20-3

O ROAD CLOSED 1000 FT W20-3

P ROAD CLOSED 500 FT W20-3

Q ROAD CLOSED R11-2

R DETOUR M4-10(L)

S DETOUR M4-10(R)

T ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY R11-3a

U BRIDGE OUT XX MILES AHEAD LOCAL TRAFFIC ONLY R11-3b

V ROAD CLOSED TO THRU TRAFFIC R11-4

W

X

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

RECOMMENDED <u>Dan Thompson</u> DATE: <u>7/2015</u>	RECOMMENDED _____ DATE: _____	RECOMMENDED <u>[Signature]</u> DATE: <u>7/21/15</u>	APPROVED CHIEF SAFETY OFFICER <u>[Signature]</u> DATE: <u>7-22-15</u>	APPROVED TRAFFIC ENGINEER <u>[Signature]</u> DATE: <u>7/22/15</u>
<p><b>DELAWARE DEPARTMENT OF TRANSPORTATION</b></p>		ADDENDUM / REVISIONS	NOT TO SCALE	<p><b>Pavement &amp; Rehabilitation</b></p> <p><b>Sussex II, 2016</b></p> <p><b>US 113 (DuPont Blvd) Southbound</b></p>
<p>CONTRACT T201606302</p> <p>COUNTY Sussex</p>		<p>PERMIT NO.</p> <p>DESIGNED BY: PRH</p> <p>CHECKED BY: AW</p>	<p><b>VEHICULAR DETOUR PLAN</b></p> <p>Clendaniel Rd (S625), Hudson Pond Rd (625), Fitzgerald Rd (S207) and Staytonville Rd (S224)</p>	
SHEET NO. 4		TOTAL SHTS. 15		

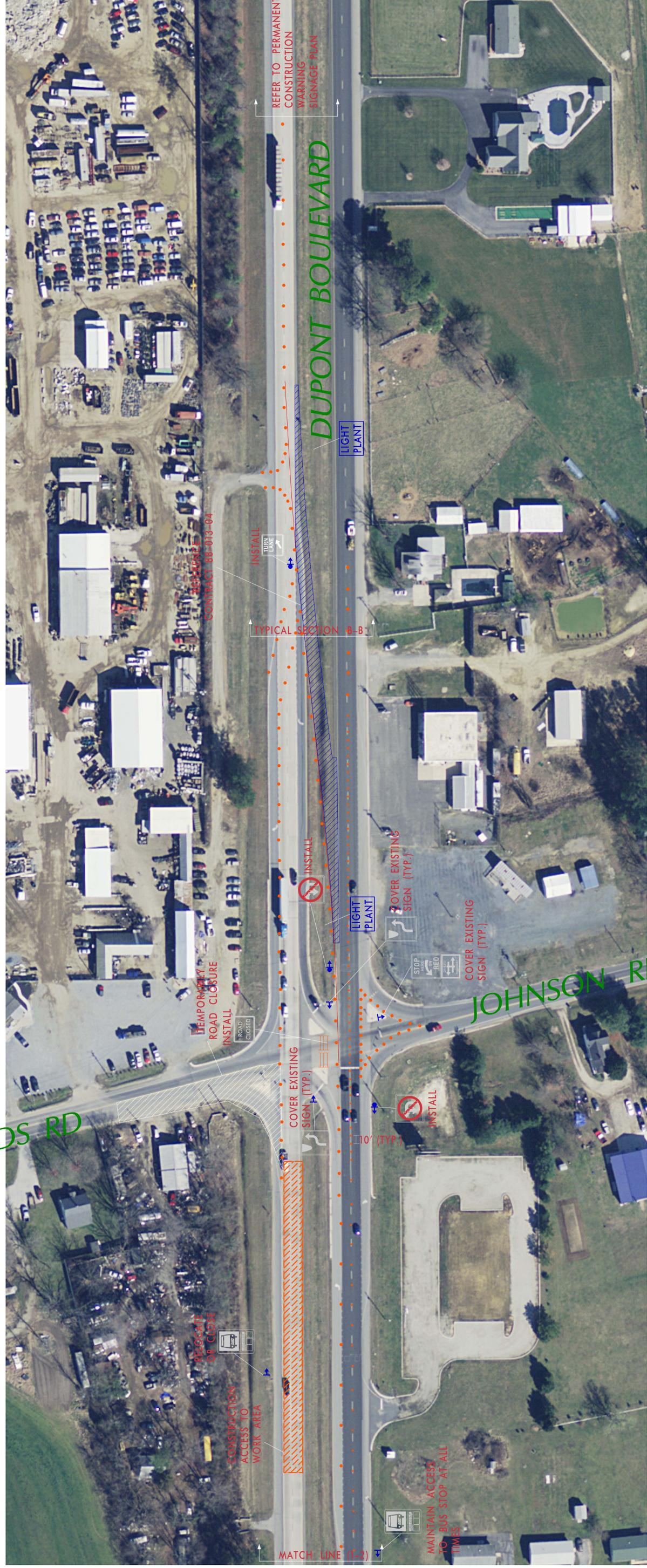
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FITZGERALDS RD

DUPONT BOULEVARD

JOHNSON RD



\*REMOVE STOP BARS ALONG NORTHBOUND US 113/DUPONT BLVD AT FITZGERALD RD/ JOHNSON RD

RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: _____	APPROVED TRAFFIC ENGINEER _____ DATE: _____
ADDENDUM / REVISIONS		CONTRACT T201606302	PERMIT NO.
		COUNTY Sussex	DESIGNED BY: PRH
		CHECKED BY: AW	
DELAWARE DEPARTMENT OF TRANSPORTATION		MAINTENANCE OF TRAFFIC PLANS	
NOT TO SCALE		Pavement & Rehabilitation Sussex II, 2016 US 113 (DuPont Blvd) Southbound	
		SHEET NO. 5	TOTAL SHEETS 15







 <b>DELAWARE</b> <b>DEPARTMENT OF TRANSPORTATION</b>	RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: _____	APPROVED CHIEF SAFETY OFFICER _____ DATE: _____	APPROVED TRAFFIC ENGINEER _____ DATE: _____
	ADDENDUM / REVISIONS				
				<b>Pavement &amp; Rehabilitation</b> <b>Sussex II, 2016</b> <b>US 113 (DuPont Blvd) Southbound</b>	
			<b>NOT TO SCALE</b>	CONTRACT T201606302 COUNTY Sussex DESIGNED BY: PRH CHECKED BY: AW	MAINTENANCE OF TRAFFIC PLANS SHEET NO. 8 TOTAL SHEETS 15

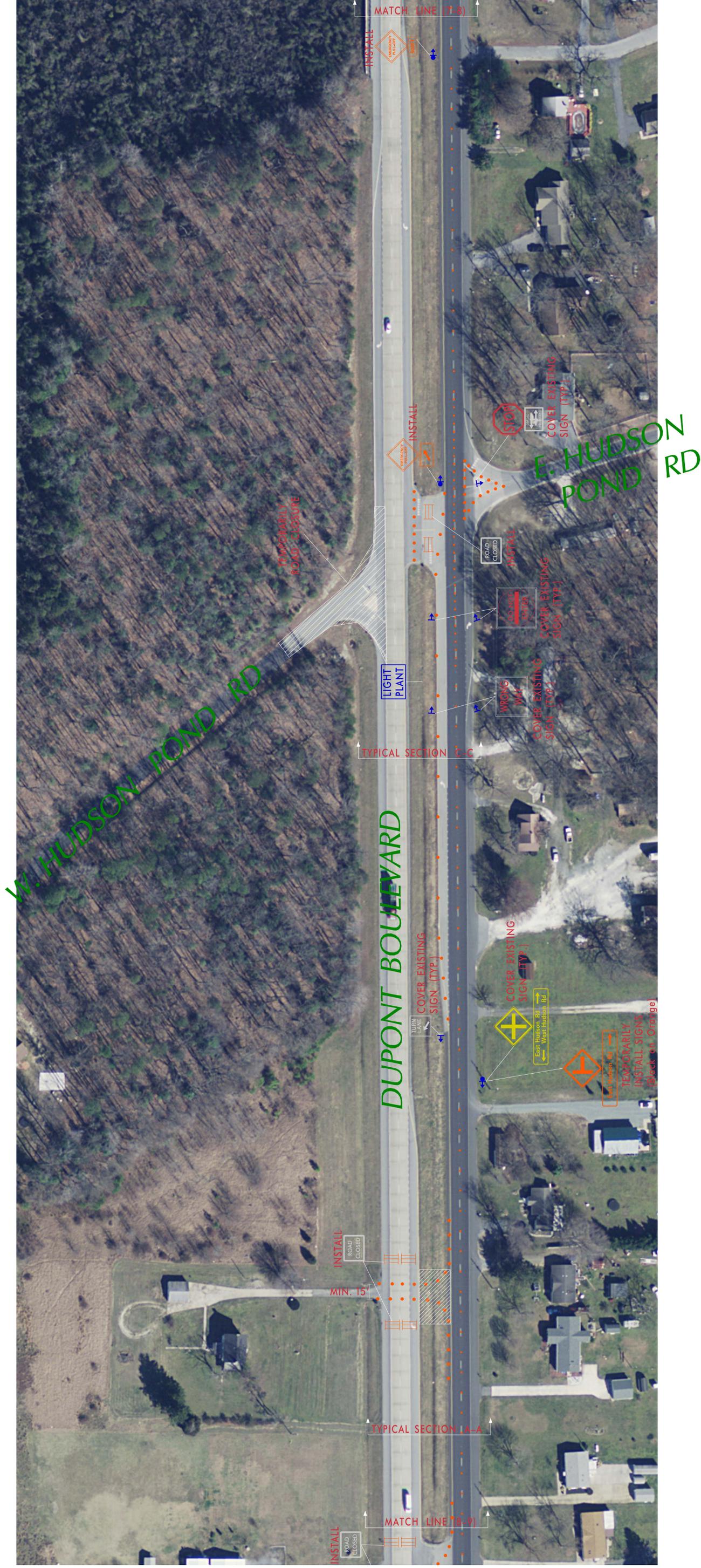


 <b>DELAWARE</b> <b>DEPARTMENT OF TRANSPORTATION</b>	RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: _____	APPROVED CHIEF SAFETY OFFICER _____ DATE: _____	APPROVED TRAFFIC ENGINEER _____ DATE: _____
	ADDENDUM / REVISIONS	CONTRACT T201606302	PERMIT NO. DESIGNED BY: PRH	COUNTY Sussex
NOT TO SCALE	<b>Pavement &amp; Rehabilitation          Sussex II, 2016          US 113 (DuPont Blvd) Southbound</b>			MAINTENANCE OF TRAFFIC PLANS
			CHECKED BY: AW	SHEET NO. 9
				TOTAL SHEETS 15





 <b>DELAWARE</b> <b>DEPARTMENT OF TRANSPORTATION</b>	RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: _____	APPROVED CHIEF SAFETY OFFICER _____ DATE: _____	APPROVED TRAFFIC ENGINEER _____ DATE: _____
	ADDENDUM / REVISIONS	NOT TO SCALE	<b>Pavement &amp; Rehabilitation</b> <b>Sussex II, 2016</b> <b>US 113 (DuPont Blvd) Southbound</b>	CONTRACT T201606302 COUNTY Sussex
SHEET NO. 11 TOTAL SHEETS 15				

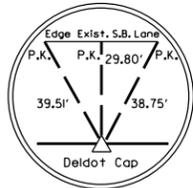


 <b>DELAWARE</b> <b>DEPARTMENT OF TRANSPORTATION</b>	RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: _____	APPROVED TRAFFIC ENGINEER _____ DATE: _____
	ADDENDUM / REVISIONS			CONTRACT PERMIT NO. T201606302 DESIGNED BY: PRH COUNTY Sussex CHECKED BY: AM
				MAINTENANCE OF TRAFFIC PLANS
				SHEET NO. 12 TOTAL SHEETS 15
				US 113 (DuPont Blvd) Southbound
				NOT TO SCALE
				Pavement & Rehabilitation Sussex II, 2016

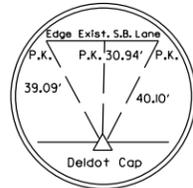




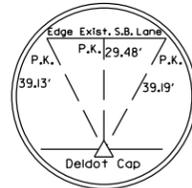




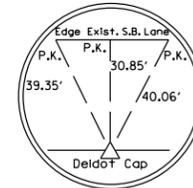
TRAVERSE POINT #30



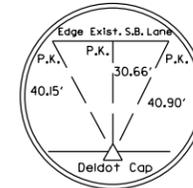
TRAVERSE POINT #31



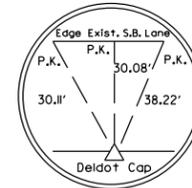
TRAVERSE POINT #32



TRAVERSE POINT #33

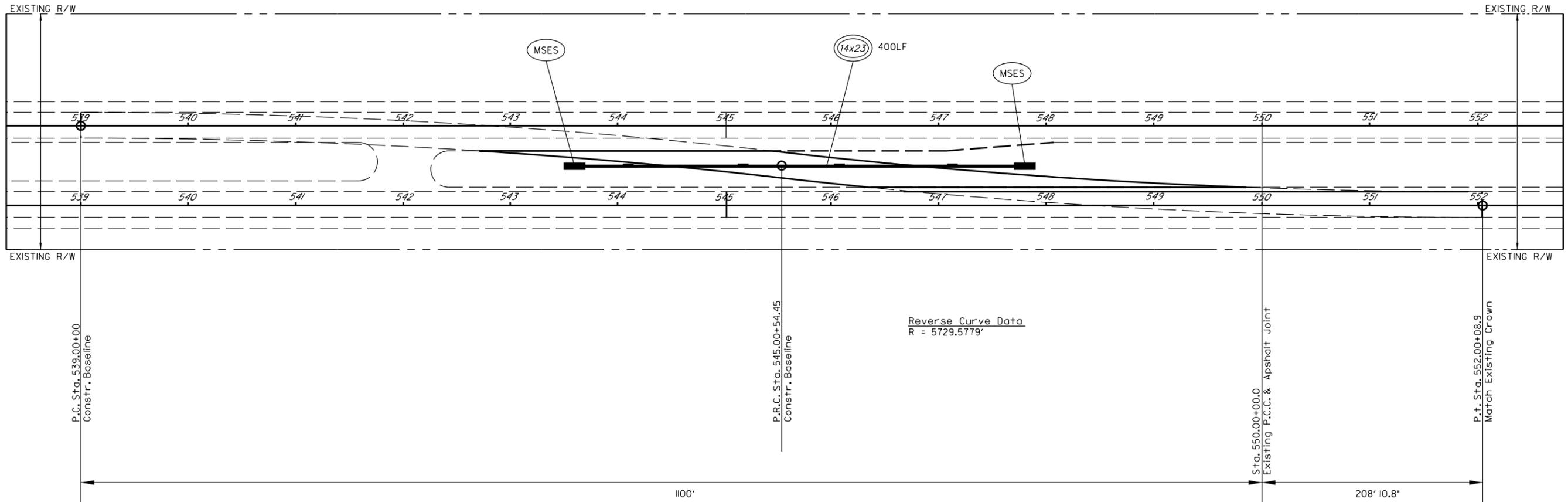


TRAVERSE POINT #34



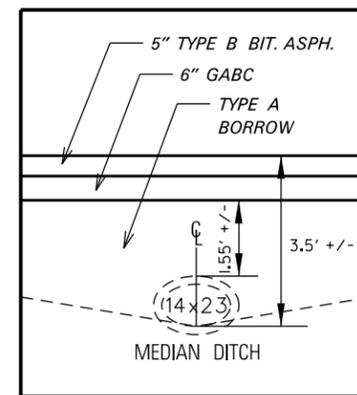
TRAVERSE POINT #35

\*TRANSVERSE POINTS ARE REFERENCED FROM ARCHIVE PLANS 88-013-02 AND 88-013-04 AND INTENDED FOR INFORMATIONAL PURPOSES ONLY. CONFIRMATION IN THE FIELD WILL BE REQUIRED.

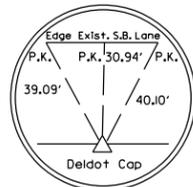


**NOTES**

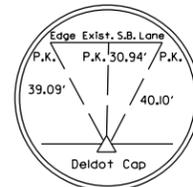
1. THE CONTRACTOR SHALL REMOVE ALL TOPSOIL FROM THE AREAS IMPACTED PRIOR TO THE CONSTRUCTION OF ALL TEMPORARY CROSSOVERS.
2. THE CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ALL TEMPORARY CROSSOVERS UNTIL COMPLETION OF THE PROJECT.
3. UPON COMPLETION OF THE CONTRACT WORK THE CONTRACTOR SHALL RESTORE ALL AREAS IMPACTED BY TEMPORARY CROSSOVERS BACK TO ORIGINAL AS DIRECTED BY THE ENGINEER. REMOVAL SHALL BE PAID UNDER ITEM 202000 EXCAVATION AND EMBANKMENT. TOPSOIL AND SEEDING SHALL BE PAID UNDER ITEMS 908001 AND 908014 RESPECTIVELY.



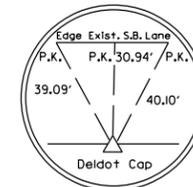
**TEMPORARY CROSSOVER TYPICAL SECTION MEDIAN**



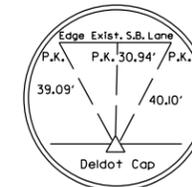
TRAVERSE POINT #79



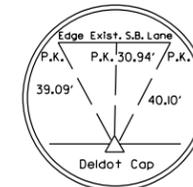
TRAVERSE POINT #80



TRAVERSE POINT #81

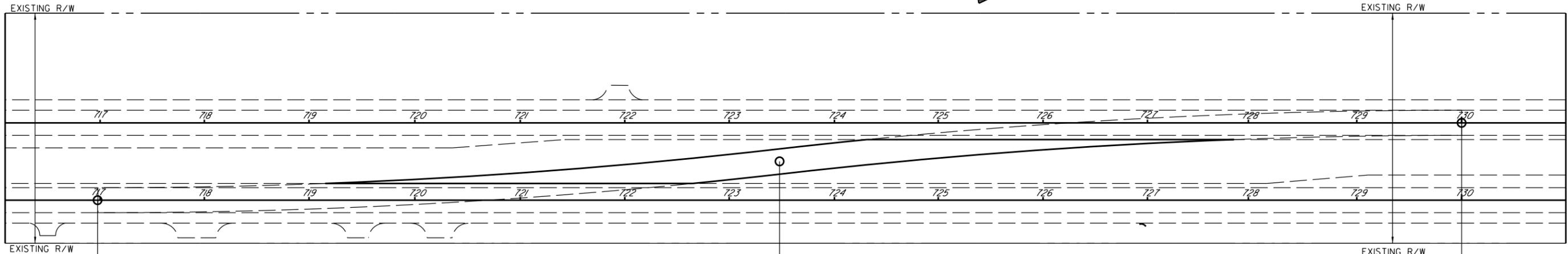


TRAVERSE POINT #82



TRAVERSE POINT #83

\*TRANSVERSE POINTS ARE REFERENCED FROM ARCHIVE PLANS 88-013-02 AND 88-013-04 AND INTENDED FOR INFORMATIONAL PURPOSES ONLY. CONFIRMATION IN THE FIELD WILL BE REQUIRED.



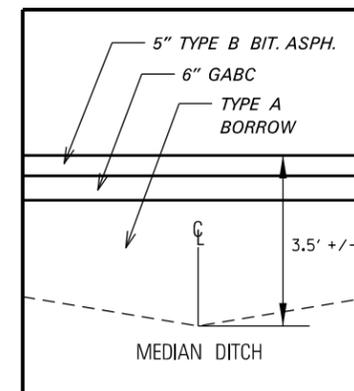
P.t. Sta. 716.00+91.1  
Match Existing Crown

Reverse Curve Data  
R = 5729.5779'

P.C. Sta. 723.00+45.55  
Constr. Baseline

P.C. Sta. 730.00+00  
Constr. Baseline

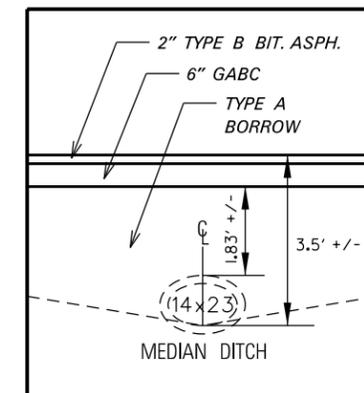
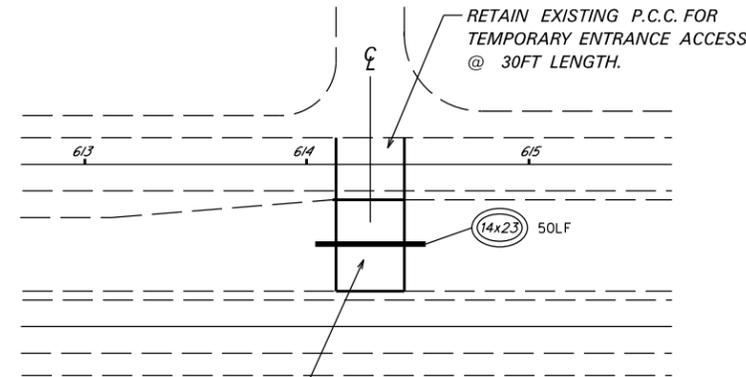
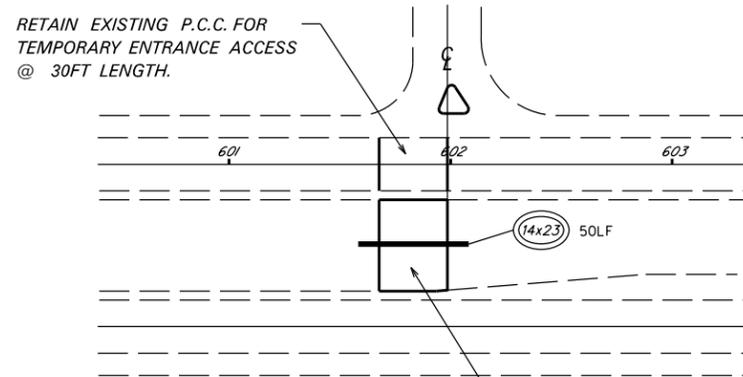
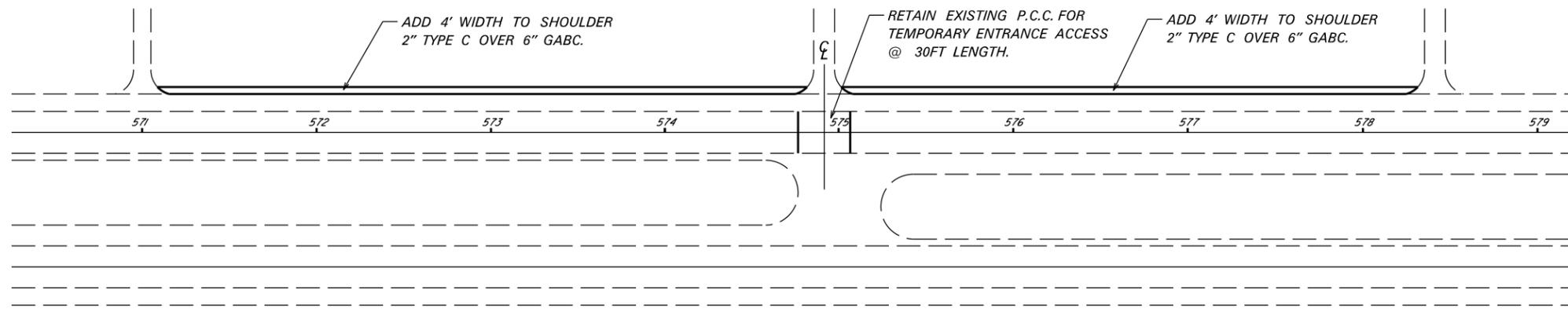
Sta. 762.00+63.0  
Existing P.C.C. & Asphalt Joint



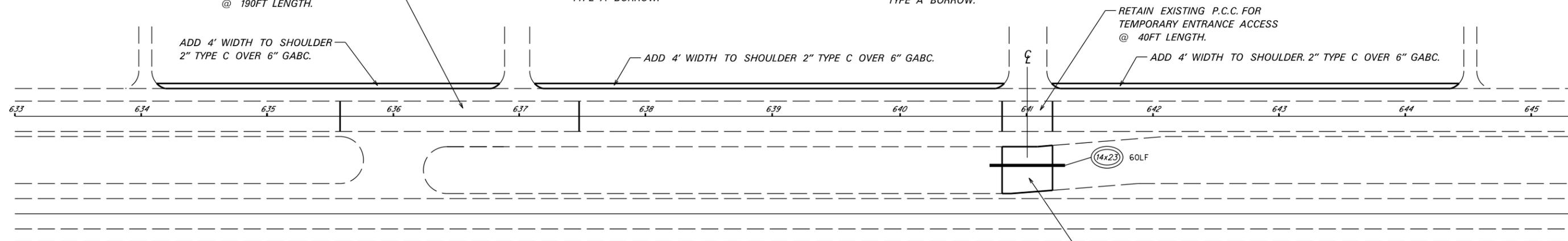
TEMPORARY CROSSOVER TYPICAL SECTION MEDIAN

NOTES

1. THE CONTRACTOR SHALL REMOVE ALL TOPSOIL FROM THE AREAS IMPACTED PRIOR TO THE CONSTRUCTION OF ALL TEMPORARY CROSSOVERS.
2. THE CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ALL TEMPORARY CROSSOVERS UNTIL COMPLETION OF THE PROJECT.
3. UPON COMPLETION OF THE CONTRACT WORK THE CONTRACTOR SHALL RESTORE ALL AREAS IMPACTED BY TEMPORARY CROSSOVERS BACK TO ORIGINAL AS DIRECTED BY THE ENGINEER. REMOVAL SHALL BE PAID UNDER ITEM 202000 EXCAVATION AND EMBANKMENT. TOPSOIL AND SEEDING SHALL BE PAID UNDER ITEMS 908001 AND 908014 RESPECTIVELY.



TEMPORARY CROSSOVER TYPICAL SECTION MEDIAN



**NOTES**

1. THE CONTRACTOR SHALL REMOVE ALL TOPSOIL FROM THE AREAS IMPACTED PRIOR TO THE CONSTRUCTION OF ALL TEMPORARY CROSSOVERS.
2. THE CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ALL TEMPORARY ENTRANCES UNTIL COMPLETION OF THE PROJECT.
3. THE CONTRACTOR MUST MAINTAIN ACCESS FOR BUSINESSES AND RESIDENTS AT ALL TIMES.
2. WILSONS AUCTION:
  - A. AUTOMOBILE AUCTION EVERY TUESDAY; ANTICIPATED 150 TO 200 VEHICLES - INCLUDING AUTO CARRIERS FOR EACH EVENT.
  - B. PUBLIC AUCTIONS CONDUCTED EVERY SATURDAY; ANTICIPATED 150 TO 200 VEHICLES FOR EACH EVENT.
  - C. THE CONTRACTOR SHALL MAINTAIN ONE ENTRANCE TO WILSONS AUCTION AT ALL TIMES. THE TWO ENTRANCE OPTIONS ARE SHOWN FOR CONSTRUCTION PHASING PURPOSES.
4. UPON COMPLETION OF THE CONTRACT WORK THE CONTRACTOR SHALL RESTORE ALL AREAS IMPACTED BY THE TEMPORARY ENTRANCES AND CROSSOVERS, INCLUDING BUT NOT LIMITED TO THE SHOULDER WIDENING, BACK TO ORIGINAL AS DIRECTED BY THE ENGINEER. REMOVAL SHALL BE PAID UNDER ITEM 202000 EXCAVATION AND EMBANKMENT. TOPSOIL AND SEEDING SHALL BE PAID UNDER ITEMS 908001 AND 908014 RESPECTIVELY.





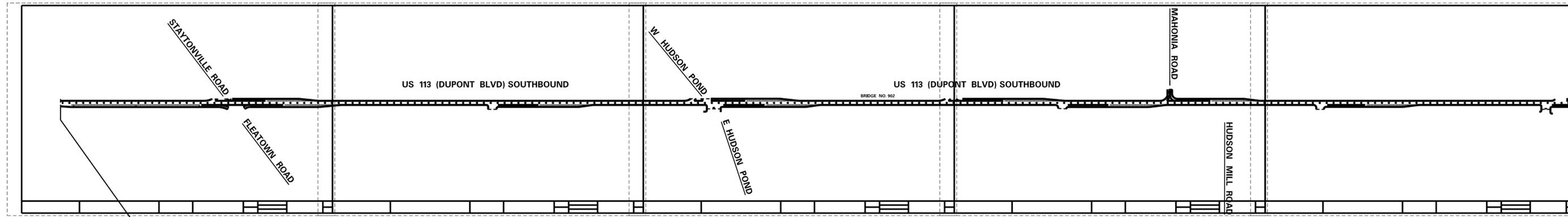
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8



MATCHLINE - THIS SHEET

LIMIT OF CONSTRUCTION  
PAVEMENT JOINT SOUTH OF  
STAYTONVILLE ROAD

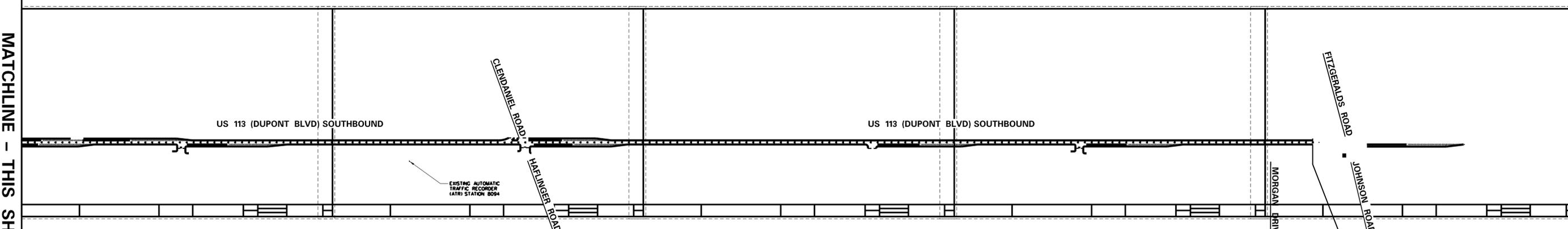
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13



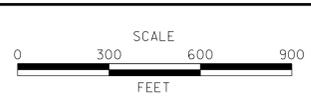
MATCHLINE - THIS SHEET

LIMIT OF CONSTRUCTION  
SOUTH OF SR 16 (FITZGERALDS ROAD)

Y:\TRAFFIC PROJECTS\T2016\T201606302\STRIPING\BORDER.DGN

 **DELAWARE**  
**DEPARTMENT OF TRANSPORTATION**

ADDENDUMS / REVISIONS	



**PAVEMENT & REHABILITATION**  
**SUSSEX II, 2016**  
**US 113, P.C.C. PAVEMENT**

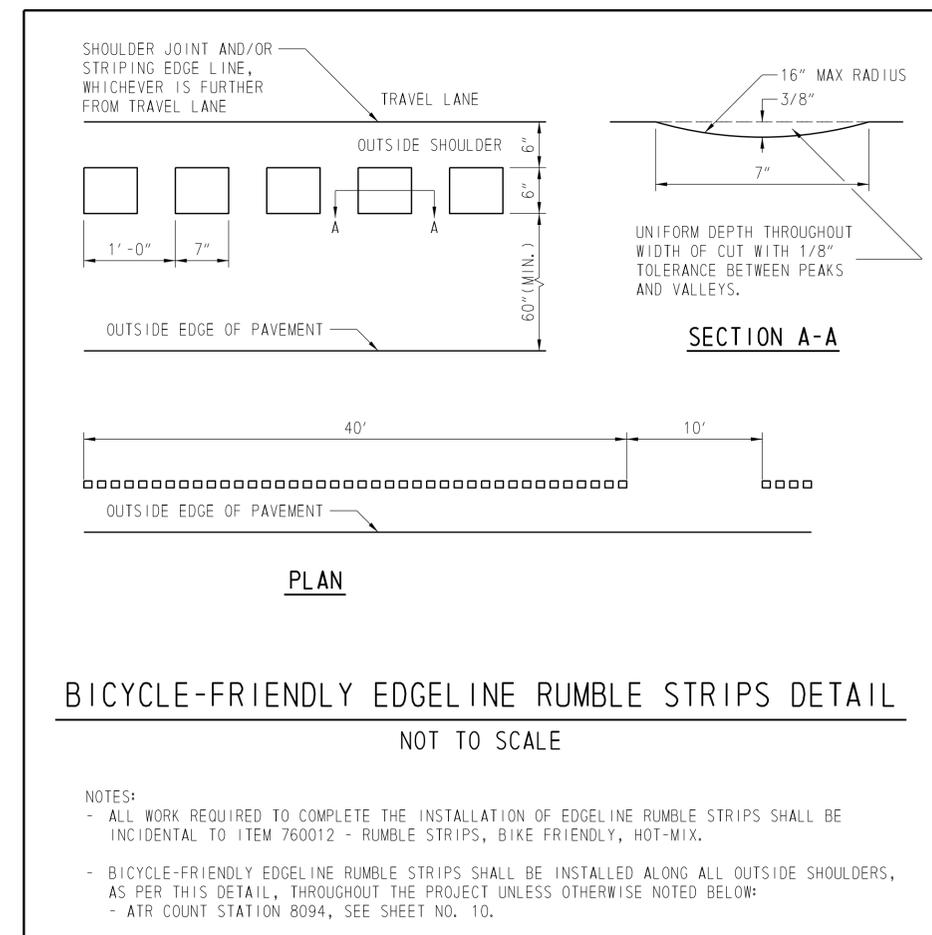
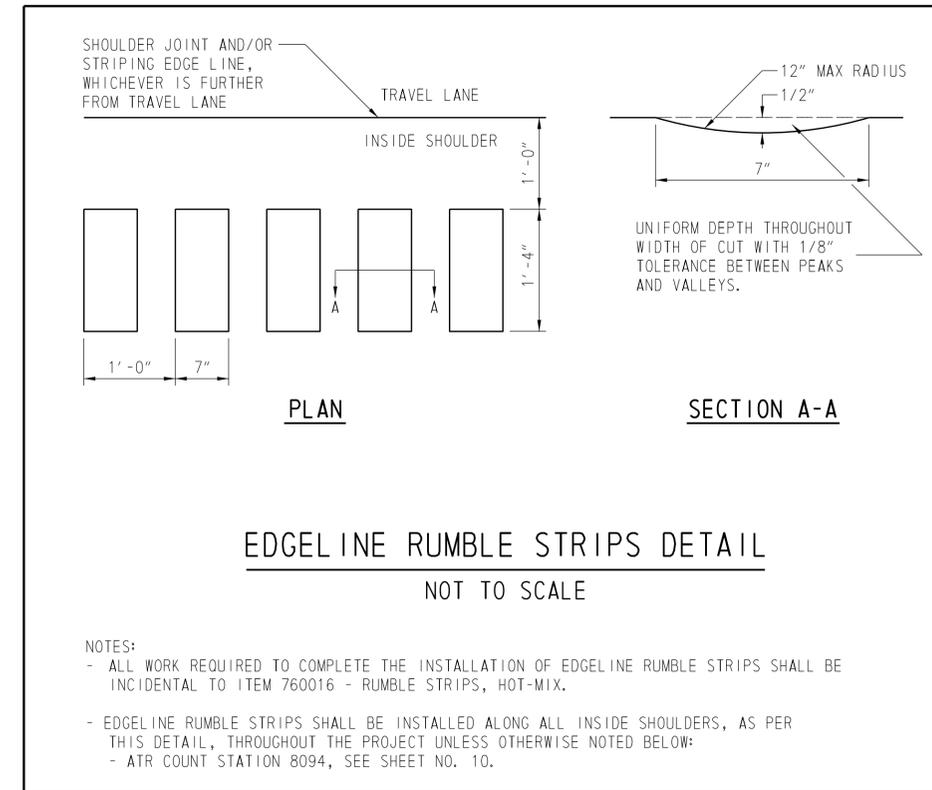
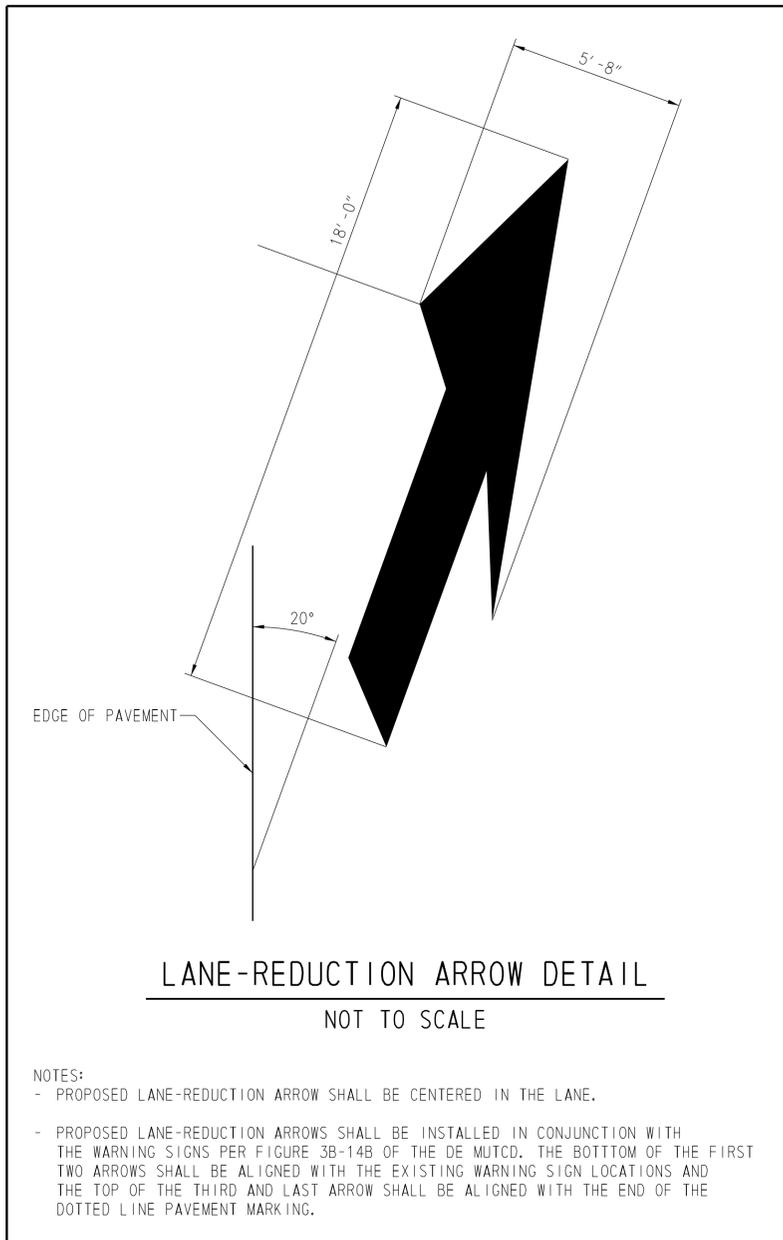
CONTRACT	BRIDGE NO.	-
T201606302.01	DESIGNED BY:	JVB
COUNTY	CHECKED BY:	MS
SUSSEX		

<b>PLAN SHEET INDEX</b>
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SHEET NO.	2
TOTAL SHTS.	15

# GENERAL NOTES

- ROADWAY GEOMETRY IS BASED ON AERIAL PHOTOGRAPHY. CONTRACTOR SHALL FOLLOW PROPOSED STRIPING AND PAVEMENT MARKINGS LEGEND. LOCATIONS OF EXISTING STRIPING SHOWN ON AERIAL IS NOT TO BE REPRODUCED.
- THE CONTRACTOR SHALL BE GOVERNED BY THE STANDARDS AND REQUIREMENTS OF THE FOLLOWING PUBLICATIONS, EXCEPT AS MODIFIED BY THE SPECIAL PROVISIONS OF THIS CONTRACT OR THROUGH WRITTEN APPROVAL BY THE ENGINEER.
  - DELDOT - MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) - 2011 EDITION AND SUBSEQUENT REVISIONS.
  - AASHTO - STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS - 4TH EDITION AND SUBSEQUENT PUBLICATIONS.
  - FHWA - STANDARD HIGHWAY SIGNS - 2004 EDITION AND SUBSEQUENT SUPPLEMENTS.
- THE CONTRACTOR SHALL INSTALL NEW SIGN POSTS WHERE ADDITIONAL SIGN HEIGHT IS WARRANTED.
- THE CONTRACTOR SHALL RE-STRIPE CENTER LINE(S) ALONG THE SAME ALIGNMENT(S) AS EXISTING CENTER LINE STRIPING, UNLESS NOTED OTHERWISE. TRAVEL LANE WIDTH DIMENSIONS ARE SHOWN FROM THE STRIPING CENTER LINE(S) TO THE EDGE OF TRAVEL LANE, PLEASE NOTE: SHOULDER WIDTHS VARY THROUGHOUT CORRIDOR.
- THE CONTRACTOR SHALL INSTALL RAISED PAVEMENT MARKERS (RPMS) ALONG US 113 (DUPONT BOULEVARD) SOUTHBOUND PER PART 3 OF THE DELAWARE MUTCD (SEE FIGURES 3B-15A AND 3B-15F).
- THE CONTRACTOR SHALL INSTALL EDGELINE RUMBLE STRIPS ALONG THE INSIDE SHOULDER AND BICYCLE-FRIENDLY EDGELINE RUMBLE STRIPS ALONG THE OUTSIDE SHOULDER OF US 113 (DUPONT BOULEVARD) SOUTHBOUND PER THE EDGELINE RUMBLE STRIPS DETAIL.
- ATR STATION DETECTION LOOPS HAVE BEEN SHOWN ON THE SIGNING AND STRIPING PLANS FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL CONTACT MR. MICHAEL SOMERS, TRAFFIC-STUDIES, AT 302-659-4099 A MINIMUM OF TEN (10) DAYS PRIOR TO CLOSING US 113 SOUTHBOUND LANES. AND, THE CONTRACTOR SHALL CONTACT MR. MICHAEL SOMERS, TRAFFIC-STUDIES, AT 302-659-4099 WITHIN TEN (10) DAYS UPON COMPLETION OF ALL ROADWAY CONSTRUCTION. THE COST OF RE-CUTTING LOOPS AND INSTALLATION OF WIM SENSORS IS COORDINATED AND PAID FOR UNDER THE SPR PROGRAM.
- THE CONTRACTOR SHALL REMOVE ALL EXISTING YIELD LINES AT MEDIAN OPENINGS ALONG US 113.
- THE CONTRACTOR SHALL INSTALL BLACK MARKINGS ON P.C.C. PAVEMENT AS FOLLOWS:
  - TYPE "B": ALONG THE INSIDE OF THE WHITE LINE ONLY; CLOSEST TO TRAFFIC
  - TYPE "C": IN ADVANCE OF 10' WHITE LINE ONLY
  - TYPE "D": UNDER 2' WHITE LINE.



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<b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>	ADDENDUMS / REVISIONS	<b>NOT TO SCALE</b>	<b>PAVEMENT &amp; REHABILITATION SUSSEX II, 2016 US 113, P.C.C. PAVEMENT</b>	CONTRACT	BRIDGE NO.	-	<b>PROJECT NOTES AND DETAILS SHEET</b>	SHEET NO.	3
				T201606302.01	DESIGNED BY: JVB	TOTAL SHTS.		15	
				COUNTY	SUSSEX	CHECKED BY: MS			