THE STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY UNITS

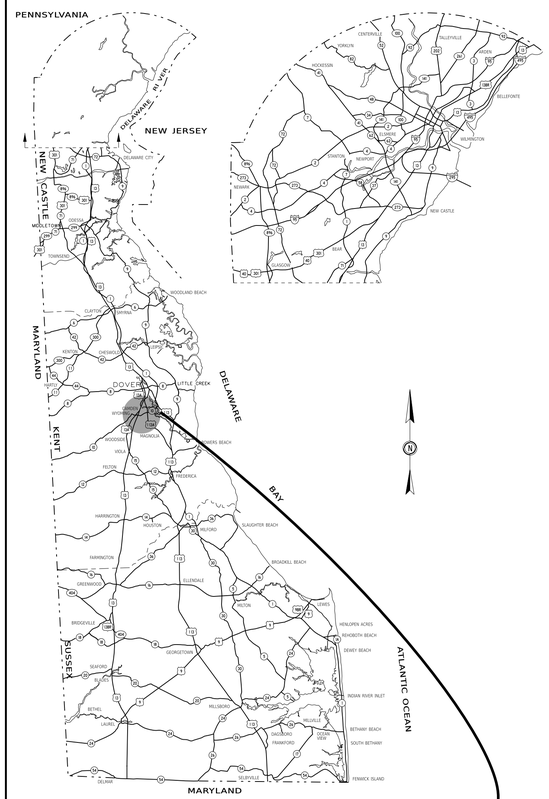
FINAL PLANS

CONSTRUCTION PLANS FOR:

WEST CAMDEN BYPASS

CONTRACT NUMBER: T201709502
FEDERAL AID PROJECT NUMBER: ESTP-K029(07)

COUNTY: KENT M.R. #: K53



GENERAL LOCATION OF CONTRACT

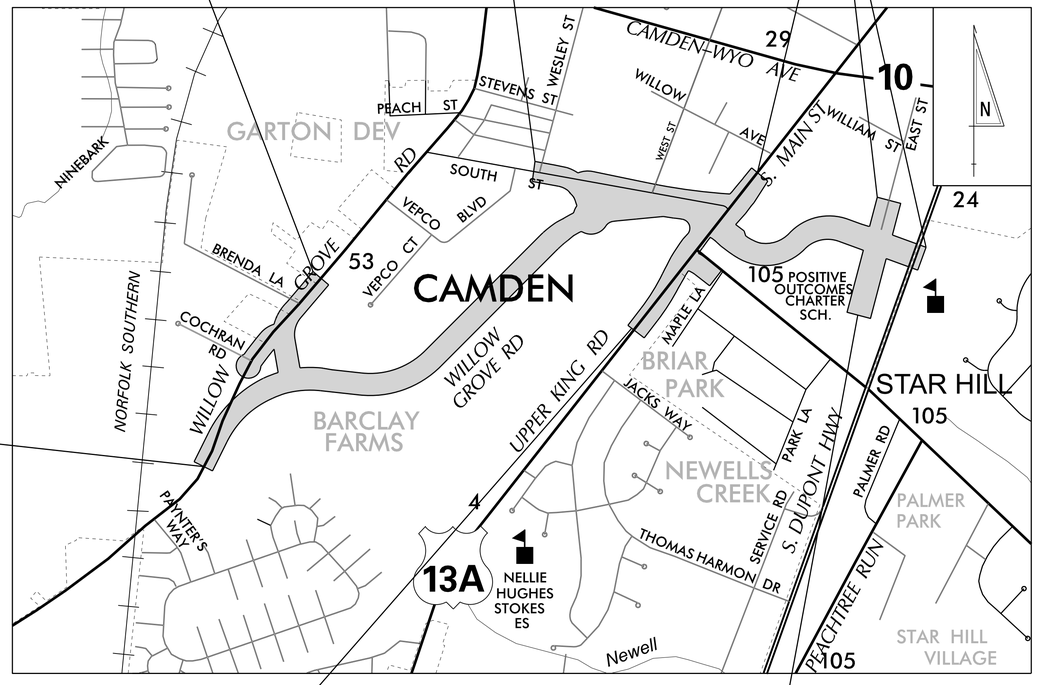
LIMIT OF CONTRACT
S. CAESAR RODNEY AVE
STATION 1511+50

LIMIT OF CONTRACT
SOUTH STREET
STATION 2498+87

LIMIT OF CONTRACT
S. MAIN STREET
STATION 4505+94

LIMIT OF CONTRACT
KING BOULEVARD
STATION 6006+96

END CONTRACT
WILLOW GROVE RD
STATION 5021+25



LOCATION MAP
NOT TO SCALE

BEGIN CONTRACT
WILLOW GROVE RD
STATION 1001+54

LIMIT OF CONTRACT
UPPER KING ROAD
STATION 3501+97

LIMIT OF CONTRACT
KING BOULEVARD
STATION 6001+29

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company

William F. Conway — 8/18/2024
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "CEN" SECTION DESIGNATION. DATE

WILLIAM F. CONWAY LICENSE NO. 12391 DELAWARE PROFESSIONAL ENGINEER
SEAL

DESIGN DESIGNATION

MRD #: K24	ROAD NAME: US13 S. DUPONT HWY		
FUNCTIONAL CLASS: PRINCIPAL ARTERIAL		D.H.V. PROJECTED: 7,083	YEAR: 2050
TYPE OF CONSTRUCTION: RECONSTRUCTION		DESIGN SPEED: 45 MPH	
A.A.D.T. CURRENT: 49,685	YEAR: 2018	TRUCKS: 6.14%	
A.A.D.T. PROJECTED: 71,041	YEAR: 2050	DIRECTION OF DISTRIBUTION: 58.81%	

DESIGN DESIGNATION

MRD #: K105	ROAD NAME: VOSHELLS MILL ROAD		
FUNCTIONAL CLASS: MAJOR COLLECTOR		D.H.V. PROJECTED: 585	YEAR: 2050
TYPE OF CONSTRUCTION: RECONSTRUCTION		DESIGN SPEED: 35 MPH	
A.A.D.T. CURRENT: 3,276	YEAR: 2018	TRUCKS: 9.34%	
A.A.D.T. PROJECTED: 5,487	YEAR: 2050	DIRECTION OF DISTRIBUTION: 60.83%	

DESIGN DESIGNATION

MRD #: K4	ROAD NAME: SOUTH MAIN STREET / UPPER KING ROAD		
FUNCTIONAL CLASS: MAJOR COLLECTOR		D.H.V. PROJECTED: 845	YEAR: 2050
TYPE OF CONSTRUCTION: RECONSTRUCTION		DESIGN SPEED: 25 MPH	
A.A.D.T. CURRENT: 7,924	YEAR: 2018	TRUCKS: 9.34%	
A.A.D.T. PROJECTED: 11,775	YEAR: 2050	DIRECTION OF DISTRIBUTION: 60.83%	

DESIGN DESIGNATION

MRD #: TOWN MAINT.	ROAD NAME: SOUTH STREET		
FUNCTIONAL CLASS: LOCAL		D.H.V. PROJECTED: 864	YEAR: 2050
TYPE OF CONSTRUCTION: RECONSTRUCTION		DESIGN SPEED: 25 MPH	
A.A.D.T. CURRENT: 4,180	YEAR: 2018	TRUCKS: 13.11%	
A.A.D.T. PROJECTED: 6,100	YEAR: 2050	DIRECTION OF DISTRIBUTION: 62.08%	

DESIGN DESIGNATION

MRD #: K53	ROAD NAME: WILLOW GROVE ROAD (WEST CAMDEN BYPASS)		
FUNCTIONAL CLASS: MAJOR COLLECTOR		D.H.V. PROJECTED: 998	YEAR: 2050
TYPE OF CONSTRUCTION: NEW CONSTRUCTION		DESIGN SPEED: 45 MPH	
A.A.D.T. CURRENT: -	YEAR: -	TRUCKS: 9.34%	
A.A.D.T. PROJECTED: 9,357	YEAR: 2050	DIRECTION OF DISTRIBUTION: 60.83%	

DESIGN DESIGNATION

MRD #: K53A	ROAD NAME: S. CAESAR RODNEY AVENUE		
FUNCTIONAL CLASS: MAJOR COLLECTOR		D.H.V. PROJECTED: 846	YEAR: 2050
TYPE OF CONSTRUCTION: NEW CONSTRUCTION		DESIGN SPEED: 50 MPH	
A.A.D.T. CURRENT: 5,339	YEAR: 2018	TRUCKS: 9.34%	
A.A.D.T. PROJECTED: 7,934	YEAR: 2050	DIRECTION OF DISTRIBUTION: 60.83%	

APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

ADDENDA / REVISIONS

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME
30	UPPER KING ROAD - WOODSIDE TO CAMDEN
39	UPPER KING ROAD - THRU CAMDEN
512	WOODSIDE - CAMDEN (WIDENING & RESURFACING)
1048	US ROUTE 13 - 9/10 MILE SOUTH OF WOODSIDE TO CAMDEN
1062	CAMDEN TO WYOMING - WILLOW GROVE RD.
C.K. 22 & 1447	WILLOW GROVE BYPASS - WILLOW GROVE TO WYOMING - RTE. 10

APPROVED FOR ADVERTISEMENT

DIRECTOR OF TRANSPORTATION SOLUTIONS — 08/29/2024 DATE

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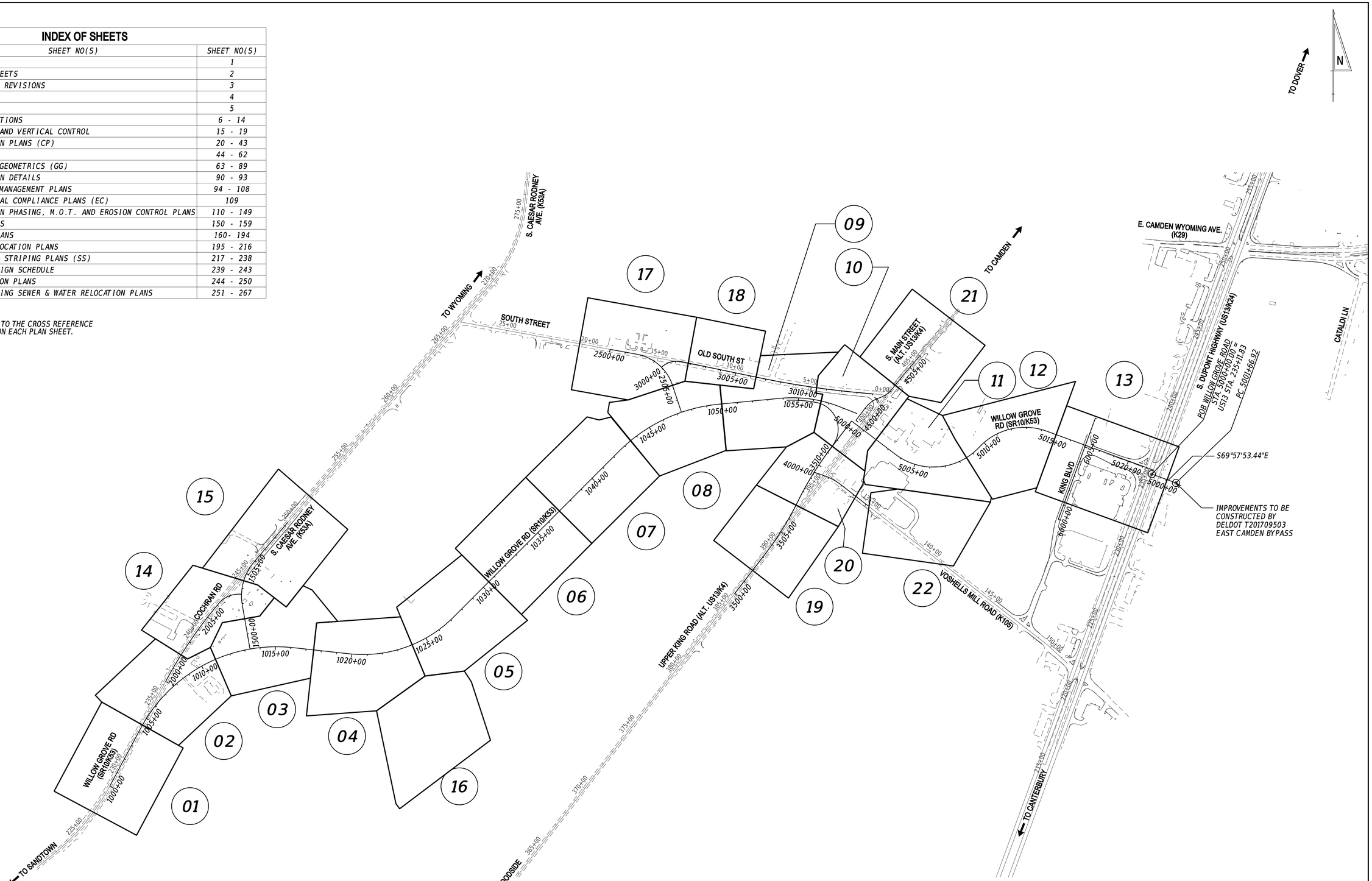
XX CORRESPONDS TO THE CROSS REFERENCE SHEET LABEL ON EACH PLAN SHEET.



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ADDENDA / REVISIONS		SCALE 0 300 600 900 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	INDEX OF SHEETS	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 2
					CHECKED BY: J. FREY		

ADDENDUM PREPARED BY

CENTURY ENGINEERING
A Kleinfelder Company

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

DATE

SEAL

REVISION PREPARED BY

CENTURY ENGINEERING
A Kleinfelder Company

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

DATE

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ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	ADDENDA AND REVISIONS	SECTION
				T201709502			CEN
				COUNTY	DESIGNED BY: L. HAXTON		SHEET NO.
				KENT	CHECKED BY: J. FREY		3

MANMADE ROADSIDE FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED	ID
BARRIER - DOUBLE-FACED, PERMANENT			
BARRIER - SINGLE-FACED, PERMANENT, TEST LEVEL 4 / TEST LEVEL 5	BARRIER, TYPE "X"		B XXX
BARRIER - HIGH TENSION CABLE (HTCB)			
BARRIER - HTCB END TERMINAL			
BOLLARD - STEEL POLE			
BOLLARD - WOOD POST			
CURB, TYPE 1 AND TYPE 3			
CURB, TYPE 2	CURB, TYPE "X"		
CURB & GUTTER, TYPE 1			C XXX
CURB & GUTTER, TYPE 2	C&G, TYPE "X"		
CURB & GUTTER, TYPE 3			
CURB OPENING - SUMP / ON GRADE			C O
CURB/SW OPENING - ADJACENT CURB			CO SW
CURB/SW OPENING - NON-ADJACENT CURB			
FENCE - CHAINLINK OR STRANDED			F XXX
FENCE - STOCKADE OR SPLIT RAIL			
FLAG POLE	F.P.		
GUARDRAIL - STEEL BEAM, TYPE 1			
GUARDRAIL - STEEL BEAM, TYPE 2			
GUARDRAIL - STEEL BEAM, TYPE 3			
GUARDRAIL - WIRE ROPE			
GUARDRAIL - END ANCHORAGE			GR XXX
GUARDRAIL - END TREATMENT, TYPE 1			
GUARDRAIL - END TREATMENT, TYPE 2			
GUARDRAIL - END TREATMENT, TYPE 3			
IMPACT ATTENUATOR			
LAMP AND POST - RESIDENTIAL	LAMP		
MAILBOX	MB	MB	
PARKING METER AND POST	P.M.		
PAVEMENT - FLEXIBLE			
PAVEMENT - RIGID			
PILE - BRIDGE			
PILLAR OR MISCELLANEOUS POST			
TRAFFIC SIGN AND POST			
WALL - BRICK OR BLOCK			
WALL - STONE			

DRAINAGE FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED	ID
BIOFILTRATION SWALE		BFS	
DITCH OR STREAM (V-SHAPE / TRAPEZOIDAL)			
DIRECTIONAL STREAM FLOW ARROW			
DRAINAGE INLET	C.B. / D.I.		DI XXX
DRAINAGE JUNCTION BOX	J.B.		JB XXX
DRAINAGE MANHOLE	Ⓓ		MH XXX
DRAINAGE PIPE AND FLOW ARROW	SIZE/TYPE LABEL		P XXX
FLARED END SECTION			FES XXX
RIPRAP - AREA FEATURE			RR XXX
RIPRAP - LINEAR FEATURE			
SAFETY END STRUCTURE			SES XXX
UNDERDRAIN			UD XXX
UNDERDRAIN OUTLET			UDO XXX

UTILITY FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED
COMMUNICATIONS DISTRIBUTION BOX	CD / TV	
COMMUNICATIONS MANHOLE	Ⓒ / Ⓣ	Ⓒ
COMMUNICATIONS TEST POINT	CT / T	
COMMUNICATIONS - UNDERGROUND	COM-C (X) / COM-FO (X)	COMM
ELECTRIC - UNDERGROUND	DEC-E (X)	E
ELECTRIC MANHOLE	Ⓔ	Ⓔ
ELECTRIC METER	EM	
ELECTRIC TRANSFORMER	E	
GAS - UNDERGROUND	CU-G (X) / ESNG-G (X)	G
GAS MANHOLE	Ⓖ	Ⓖ
GAS METER	G.M.	
GAS VALVE	G.V.	
GAS PUMP - SERVICE STATION	G.P.	
IRRIGATION - UNDERGROUND	IR(A)	IR
ITMS - UNDERGROUND	ITMS(A)	ITMS
LIGHTING - UNDERGROUND	LI(A)	LI
LUMINAIRE - POLE MOUNTED		
MANHOLE - UNDETERMINED OWNER	?	
RAILROAD TRACKS		
SANITARY - UNDERGROUND	KC-S (X) / TCW-S (X)	S
SANITARY SEWER MANHOLE	Ⓢ	Ⓢ
SANITARY SEWER VALVE	S.V.	
SANITARY SEWER CLEANOUT OR VENT	S.C.O.	
SEPTIC DRAIN FIELD	S.D.F.	
SIGNALIZATION - UNDERGROUND	SIG(A)	SIG
SOIL BORING LOCATION		
TELEPHONE BOOTH	B	
TRAFFIC - CONDUIT JUNCTION WELL	J.W.	
TRAFFIC - LIGHT POLE AND BASE		
TRAFFIC - PEDESTRIAN POLE & BASE		
TRAFFIC - SIGNAL CABINET & BASE		
TRAFFIC - SIGNAL POLE AND BASE		
UTILITY BOX	U	
UTILITY MARKER	UM	
UTILITY POLE GUY WIRE ANCHOR		
UTILITY POLE		
UTILITY TEST HOLE LOCATION		
WATER - UNDERGROUND	TU-W (X)	W
WATER - FIRE HYDRANT	F.H.	F.H.
WATER METER	W.M.	
WATER VALVE	WV	W.V.
WELL HEAD	WELL	

PAVEMENT SECTION(S)

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

NATURAL ROADSIDE FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED
HEDGEROW OR THICKET		
MARSH BOUNDARY LINE		
TREE - CONIFEROUS		
TREE - DECIDUOUS		
TREE STUMP		
SHRUBBERY		
WETLAND BOUNDARY - DELINEATED	WL	
WOODS LINE BOUNDARY		

RIGHT-OF-WAY FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED
DENIAL OF ACCESS	DA	DA
EASEMENT - OTHERS	EASEMENT TYPE	
PERMANENT EASEMENT	PE	PE
PROPERTY LINE		
PROPERTY MARKER - CONCRETE	C.M.	
PROPERTY MARKER - IRON PIPE	I.P.	
RIGHT-OF-WAY BASELINE	100+00	100+00
RIGHT-OF-WAY LINE	R/W	R/W
RIGHT-OF-WAY BY PE	R/W-PE	
RIGHT-OF-WAY & DENIAL OF ACCESS	R/W-DA	R/W-DA
RIGHT-TO-ENTER		RTE
TEMPORARY CONSTRUCTION EASEMENT		TCE

SURVEY CONTROL & MONUMENTATION

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

MISCELLANEOUS FEATURES

FEATURE DESCRIPTION	PROPOSED
BRICK PATTERNED SURFACE	
BUTT JOINT	
CLEAR ZONE	CZ
CONSTRUCTION BASELINE	100+00
LATERAL OFFSET	LO
LIMIT OF CONSTRUCTION	LOC
PAVEMENT PATCH	
PAVEMENT REMOVAL - TOPSOIL, SEED AND MULCH	
P.C.C. SIDEWALK - 4"	
P.C.C. SIDEWALK - 6" (USE 8" DEPTH FOR CHANNELIZATION ISLANDS.)	

IDENTIFIERS

FEATURE DESCRIPTION	ID
ABANDON BY CONTRACTOR	AB C
ABANDON BY OTHERS	AB O
ADJUST BY CONTRACTOR	A C
ADJUST BY OTHERS	A O
BEST MANAGEMENT PRACTICE	BMP XXX
BUS STOP PAD / TYPE	BSP Y
BUS STOP WITH SHELTER PAD / TYPE	BSSP Y
CONCRETE SAFETY BARRIER	B XXX
CONVERT TO JUNCTION BOX	CJB XXX
CONVERT TO DRAINAGE MANHOLE	CMH XXX
DO NOT DISTURB	DND
ENERGY DISSIPATOR	ED XXX
FILL WITH FLOWABLE FILL	FF C
LANDSCAPE PLANTINGS	LS XXX
PEDESTRIAN CONNECTION / TYPE	PC XX
PEDESTRIAN CONNECTION / TYPE WITHOUT DETECTABLE WARNING SYSTEM	PC-N XXX
RELOCATE BY CONTRACTOR	RL C
RELOCATE BY OTHERS	RL O
RELOCATE BY PROPERTY OWNER	RL PO
REMOVE BY CONTRACTOR	RM C
REMOVE BY OTHERS	RM O
REMOVE BY TRAFFIC CONTRACTOR	RM TC
RIGHT-OF-WAY MONUMENT	M XXX

EARTHWORK SUMMARY

EXCAVATION	
EXCAVATION FROM CROSS SECTIONS	57,324 C.Y.
ROCK EXCAVATION FOR ROADWAY AND TRENCHES	0 C.Y.
TOPSOIL STRIPPING	56,104 C.Y.
TOTAL EXCAVATION	113,428 C.Y.
STORMWATER MANAGEMENT POND EXCAVATION	
EXCAVATION FROM CROSS SECTIONS	117,538 C.Y.
ROCK EXCAVATION FOR ROADWAY AND TRENCHES	0 C.Y.
TOPSOIL STRIPPING	7,257 C.Y.
TOTAL EXCAVATION	124,795 C.Y.
EXCAVATION AVAILABLE FOR EMBANKMENT	
EXCAVATION MEETING BORROW TYPE 'A'	0 C.Y.
EXCAVATION MEETING BORROW TYPE 'F'	174,862 C.Y.
EXCAVATION MEETING TOPSOIL	63,361 C.Y.
EMBANKMENT REQUIREMENTS	
BORROW TYPE 'A' REQUIRED (INCLUDING UNDERCUT)	38,959 C.Y.
BORROW TYPE 'F' REQUIRED	38,489 C.Y.
TOPSOIL REQUIRED	81,365 C.Y.
MATERIAL BALANCE ("+"= EXCESS, "-"= NEED)	
BORROW TYPE 'A'	-38,959 C.Y.
BORROW TYPE 'F'	+136,373 C.Y.
TOPSOIL	-18,004 C.Y.
UNSUITABLE MATERIAL	+11,555 C.Y.

NOTES:
1) THE VALUES LISTED IN THE EARTHWORK SUMMARY ARE APPROXIMATE AND ARE NOT TO BE USED AS A BASIS OF PAYMENT.THE EARTHWORK SUMMARY IS CONSIDERED FOR INFORMATIONAL PURPOSES ONLY.
2) OTHER SOURCES OF EXCAVATION MAY INCLUDE PIPE TRENCH EXCAVATION, STRUCTURE EXCAVATION, UNDERCUT EXCAVATION, STORMWATER MANAGEMENT POND EXCAVATION, ENVIRONMENTAL SITE EXCAVATION, MAINTENANCE OF TRAFFIC EXCAVATION, ETC.
3) UNSUITABLE MATERIALS INCLUDE UNDERCUT SOILS, BITUMINOUS PAVEMENT, ETC.

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ADDENDA / REVISIONS

NOT TO SCALE

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

LEGEND

SECTION: CEN
SHEET NO.: 4

GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED JANUARY 2024 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED DECEMBER 2023, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.

2. ELECTRONIC DESIGN DATA FILES THAT WILL BE MADE AVAILABLE TO THE AWARDED CONTRACTOR, INCLUDE:

( )	NONE
(X)	ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
(X)	EXISTING DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
(X)	PROPOSED DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
(X)	DESIGN FILE, IN .DGN FILE FORMAT, THAT CONTAINS 3D FEATURE LINES FOR THE PROPOSED DESIGN. 3D FEATURE LINES ARE FOR THE PROPOSED TOP SURFACE ELEVATION ONLY.

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

NOTE: THERE MAY BE SOME AREAS OF THE PROJECT NOT INCLUDED IN THE ELECTRONIC DESIGN DATA FILE(S). IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE DESIGN DATA FILE AND DETERMINE THE LIMITS OF THE PROJECT INCLUDED.

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

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

PROJECT NOTES

SECTION 100

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

2. THE CONTRACTOR WILL CONTACT THE DELAWARE TMC AT 302-659-4600 PRIOR TO ANY UNMANNED AERIAL VEHICLE (UAV) FLIGHTS. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE THE FOLLOWING INFORMATION: THE REGISTRATION NUMBER OF THE UAV, THE FLIGHT TIME, LOCATION OF THE FLIGHT, THE PILOT'S NAME AND THE PILOT'S CONTACT NUMBER DURING THE FLIGHT.

3. A NIGHT WORK SURVEY OF ADJACENT PROPERTY OWNERS WAS CONDUCTED. NIGHT WORK IS PERMITTED ON THIS CONTRACT. APPROVAL BY THE TOWN OF CAMDEN IS REQUIRED IF CONTRACTOR WORKS BETWEEN 10 P.M. AND 7 A.M. FOR CONSTRUCTION ON S. CAESAR RODNEY AVE. ADJACENT TO PARCELS 837 AND 842 APPROVAL BY TOWN OF WYOMING IS REQUIRED IF CONTRACTOR WORKS BETWEEN 6 P.M. AND 8 A.M ON WEEKDAYS AND 5 P.M. AND 9 A.M. ON WEEKENDS.

SECTION 200

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

5. ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
   TEMPORARY/PERMANENT DRAINAGE STRUCTURES, TRAFFIC STRUCTURES AND FOUNDATIONS, CONDUITS, BOLLARDS, LIGHT POLES, SIGNS, PRIVATE SPRINKLERS AND ABANDONED SEWER AND WATER FACILITIES.
   REMOVAL OF ITEMS IDENTIFIED AS 'RELOCATE BY OWNER' THAT ARE STILL PRESENT AFTER 2 WEEKS NOTICE TO THE PROPERTY OWNER SHALL BE PAID FOR UNDER 211000.

6. REMOVAL OF EXISTING UNDERDRAIN SHALL BE INCIDENTAL TO ITEM 202000. CONNECTING TO AN EXISTING UNDERDRAIN SYSTEM (IF ONE IS ENCOUNTERED) SHALL BE INCIDENTAL TO THE CONTRACT.

7. UNLESS OTHERWISE NOTED AS DO NOT DISTURB OR ADJUST BY CONTRACTOR/OTHERS, ALL EXISTING FEATURES, INCLUDING TREES, WITHIN THE PROPOSED LOC SHALL BE REMOVED BY THE CONTRACTOR AND PAID FOR UNDER THE RESPECTIVE BID ITEM. REMOVAL OF EXISTING STORM DRAIN PIPE SHALL BE PAID UNDER ITEM 202000 UNLESS NOTED WITH A FLOWABLE FILL IDENTIFIER, REMOVAL OF TREES AND SHRUBS SHALL BE PAID FOR UNDER 201000, AND REMOVAL OF ADDITIONAL EXISTING FEATURES SHALL BE PAID FOR UNDER ITEM 211000 AS NOTED IN SECTION 200 OF THE PROJECT NOTES.

8. CRUSHED CONCRETE MEETING THE REQUIREMENTS FOR GABC (SECTION 1004), BORROW TYPE A (SECTION 1001), OR EXCAVATED MATERIAL MEETING TYPE A REQUIREMENTS, SHALL BE USED TO BACKFILL ALL DRY UNDERCUT AREAS AS DIRECTED BY THE ENGINEER. BORROW TYPE B (SECTION 1001), OR EXCAVATED MATERIAL MEETING TYPE B REQUIREMENTS, SHALL BE USED TO BACKFILL UNDERCUT IN WET CONDITIONS AS DIRECTED BY THE ENGINEER.

SECTION 300

9. PLACE MATERIALS FOR GABC (CRUSHED STONE OR RECYCLED CONCRETE) CONTINUOUSLY FOR THE FULL PAVEMENT BOX WIDTH. LONGITUDINAL JOINTS CONSTRUCTED OF NON-MATCHING MATERIALS ARE NOT PERMITTED. TRANSVERSE JOINTS ARE PERMITTED WHERE MATERIAL TYPES CHANGE. NO MIXING OF DIFFERENT MATERIALS WITHIN THE SAME AREA IS PERMITTED.

SECTION 400

10. THE PAVEMENT SECTION FOR FLEXIBLE PAVEMENT RESIDENTIAL DRIVEWAYS SHALL BE 2" BITUMINOUS CONCRETE, TYPE 'C', OVER 8" GRADED AGGREGATE BASE COURSE, UNLESS OTHERWISE NOTED ON THE PLANS.

11. ITEM 403000 - BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM) SHALL BE USED ONLY FOR MINOR REPAIRS TO ROADWAYS OR PAVED DRIVEWAYS ALREADY UNDER TRAFFIC. TRM SHALL NOT BE USED FOR CONSTRUCTION OF TEMPORARY ROADWAYS OR RAMPS INCLUDED IN THE CONSTRUCTION PHASING PLANS.

SECTION 600

12. DRAINAGE INLET GRATES ADJACENT TO THE CURB OR EDGE PAVING, WITHIN THE PROJECT LIMITS, WHICH ARE NOT TYPE 1 OR TYPE 4, SHALL BE REPLACED WITH TYPE 1. INLET GRATES WITHIN THE PAVING, NOT ADJACENT TO THE CURB OR EDGE OF PAVING SHALL BE REPLACED WITH TYPE 3. THE ACTUAL LOCATIONS, THE NEED FOR ANY GRATE MODIFICATIONS OR FOR NEW FRAMES SHALL BE DETERMINED BY THE ENGINEER. ALL REPLACED GRATES/FRAMES SHALL BE DELIVERED TO THE DELAWARE DEPARTMENT OF TRANSPORTATION'S MAGNOLIA MAINTENANCE YARD WITH THE COST OF DELIVERY INCIDENTAL TO ITEM 602100 - DRAINAGE INLET GRATE(S) & ITEM 602101 - DRAINAGE INLET FRAME(S). FINAL PAYMENT FOR REPLACED GRATES/FRAMES SHALL NOT BE MADE UNTIL RECEIPT OF DELIVERED MATERIALS IS PRODUCED, SIGNED BY A DELDOT MAINTENANCE YARD SUPERVISOR.

13. STATION AND ELEVATION DATA GIVEN FOR DRAINAGE STRUCTURES ARE TO BE APPLIED TO THE CENTER OF THE GRATE FOR INLETS AND TO THE CENTER OF THE STRUCTURE FOR JUNCTION BOXES AND MANHOLES.

SECTION 700

14. IN AREAS WHERE PROPOSED CURB MEETS EXISTING CURB AND THE TWO CURB TYPES ARE NOT SIMILAR, THE PROPOSED CURB SHALL BE TRANSITIONED IN 10 LINEAR FEET, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE TRANSITIONED CURB WORK SHALL BE MEASURED AND PAID FOR UNDER THE PROPOSED CURB ITEM. SAW CUTTING OF THE EXISTING CURB SHALL BE INCIDENTAL TO THE PROPOSED CURB ITEM.

15. WHERE PROPOSED CONCRETE SIDEWALK IS CONSTRUCTED TO MEET EXISTING SIDEWALK, THE EXISTING SIDEWALK SHALL BE SAWCUT AT THE TIE-IN POINT OR MEET THE NEAREST EXISTING SIDEWALK JOINT. ALL SAW CUTTING SHALL BE FULL DEPTH, UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER AND SHALL BE PAID FOR UNDER ITEM 762001 - SAWCUTTING, CONCRETE, FULL DEPTH.

16. PORTLAND CEMENT CONCRETE CHANNELIZING ISLANDS THAT ARE LESS THAN 75 SQ FT MAY BE POURED MONOLITHICALLY, OR AS DIRECTED BY THE ENGINEER.

17. ALL PAVED AREAS TO BE RECONSTRUCTED OR WIDENED SHALL BE SAWCUT AT THE POINT WHERE THE NEW PAVEMENT IS TO TIE INTO THE EXISTING PAVEMENT.

18. SAWCUTTING OF HOT-MIX ON TOP OF CONCRETE PAVEMENT SHALL BE INCIDENTAL TO ITEM 762001 - SAW CUTTING CONCRETE, FULL DEPTH.

19. CASINGS IF REQUIRED FOR INSTALLATION OF POLE BASES SHALL BE INCIDENTAL TO THE ITEM BEING INSTALLED. THE CASING SHALL BE STEEL, PVC, OR OTHER PERMANENT MATERIAL CAPABLE OF SUPPORTING THE AUGERED HOLE TO ITS FULL DEPTH. THE CASING SHALL BE ADVANCED AS THE EXCAVATION PROGRESSES TO ELIMINATE ANY VOID BETWEEN THE CASING AND THE SURROUNDING SOIL. ANY RESULTING VOIDS BETWEEN THE CASING AND ORIGINAL GROUND SHALL BE PRESSURE GROUTED PRIOR TO PLACING CONCRETE FOR THE POLE BASE. THE CASING SHALL BE INSTALLED OR CUT OFF IF REQUIRED SO THAT THE TOP OF THE CASING IS AT OR SLIGHTLY BELOW THE FINISHED GROUND ELEVATION SURROUNDING THE POLE BASE. THE CASING SHALL REMAIN IN PLACE. JUST PRIOR TO CONCRETE PLACEMENT, THE EXCAVATION SHALL BE INSPECTED AND ANY EXCESS WATER SHALL BE PUMPED SO THAT THE CONCRETE IS PLACED IN A DRY HOLE. COSTS TO PROVIDE AND INSTALL THE CASING, PRESSURE GROUT, CUT OFF AND PUMP OUT ANY EXCESS WATER SHALL BE INCIDENTAL TO THE POLE BASE.

20. CONTAMINATED MATERIALS NOTES:
   A. A CONTAMINATED MATERIALS MANAGEMENT PLAN (CMMP) AND HEALTH AND SAFETY PLAN (HASP) HAVE BEEN PROVIDED AS PART OF THE CONTRACT DOCUMENTS. COOPERATION SHALL BE MAINTAINED WITH DNREC PERSONNEL AND THE DEPARTMENT'S ENVIRONMENTAL REPRESENTATIVE THROUGHOUT THE DURATION OF THE CONTRACT TO ENSURE THAT THE GOALS OF THE PROGRAM ARE ADDRESSED. EXCAVATION WORK WILL TAKE PLACE IN AREAS THAT MAY CONTAIN CONTAMINATED SOIL AND/OR GROUNDWATER.
   B. WORKER SAFETY TRAINING AND PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS FOR EXCAVATION CONTRACTORS OUTLINED IN THE HASP ARE:
      1. 24-HOUR OSHA HAZWOPER TRAINING.
      2. MODIFIED LEVEL D PERSONAL PROTECTIVE EQUIPMENT (HARD HATS, STEEL TOE BOOTS, NITRILE GLOVES, SAFETY VESTS).
      3. POSSIBLE OSHA LEVEL C PERSONAL PROTECTIVE EQUIPMENT/40-HOUR OSHA HAZWOPER TRAINING UPGRADE IN AREAS SHOWN ON PLANS OR AS DIRECTED BY THE ENVIRONMENTAL REPRESENTATIVE.

      CONTRACTOR IS REFERRED TO THE PROJECT'S HASP FOR DETAILED INFORMATION REGARDING REQUIRED HEALTH AND SAFETY PRACTICES FOR THIS CONTRACT. ALL COSTS ASSOCIATED WITH THE REQUIRED TRAINING, PERSONAL PROTECTIVE EQUIPMENT, ETC. TO BE IN COMPLIANCE WITH THE PROJECT'S HASP SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 763000, INITIAL EXPENSE.
   C. IN ORDER TO COMPLY WITH DNREC'S FINAL PLAN OF REMEDIAL ACTION, ALL IMPORTED MATERIAL SHALL BE TESTED AND APPROVED BY DNREC. THE DEPARTMENT'S ENVIRONMENTAL REPRESENTATIVE WILL BE RESPONSIBLE TO CONDUCT THE TESTING AND SUBMIT THE FINDINGS TO DNREC. THE CONTRACTOR SHALL SUBMIT MATERIAL SOURCES AT THE TIME OF PROJECT AWARD IN ORDER TO COMPLY WITH DNREC'S 30-DAY SOURCE APPROVAL TIMEFRAME.
   D. NO SOIL CAN BE TAKEN OFF SITE WITHOUT APPROVAL OF THE ENGINEER. CONTAMINATED SOIL DISPOSAL WILL BE HANDLED BY THE DEPARTMENT'S ENVIRONMENTAL REPRESENTATIVE. ALL SOIL EXCAVATED DUE TO THE PROJECT'S CONSTRUCTION SHALL BE STOCKPILED IN THE DESIGNATED STOCKPILE AREAS, REUSED AS BACKFILL MATERIAL, OR DIRECT LOADED INTO THE ENVIRONMENTAL REPRESENTATIVE'S TRUCKS, AS DIRECTED IN ACCORDANCE WITH THE CONTAMINATED MATERIALS MANAGEMENT PLAN (CMMP) AND DELDOT STANDARD SPECIFICATIONS. SOIL THAT IS ENVIRONMENTALLY SUITABLE FOR REUSE WILL BE PAID FOR UNDER THE APPROPRIATE ITEM. THE CONTRACTOR SHALL REUSE CONTAMINATED SOIL AS EMBANKMENT, FILL OR OTHER APPROPRIATE ON-SITE USE AS DETERMINED AND APPROVED BY THE ENGINEER AND THE ENVIRONMENTAL REPRESENTATIVE, AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

21. PEDESTRIAN CONNECTIONS WILL BE PAID UTILIZING THE SPECIFIC CURB, DWS AND SIDEWALK ITEMS.

SECTION 800

22. THE PROJECT WILL EXTEND OVER WINTER PERIODS AND ALL SNOW REMOVAL ALONG THE STATE MAINTAINED ROADWAYS WILL BE HANDLED BY STATE FORCES. FOLLOWING THE SNOW REMOVAL OPERATION, REPAIRS TO ANY MAINTENANCE OF TRAFFIC CONTROL DEVICES SHALL BE PERFORMED BY THE CONTRACTOR. COSTS FOR REPAIRS ARE INCIDENTAL TO ITEM 801000. DEVICES REQUIRING REPLACEMENT WILL BE PAID FOR UNDER THE APPLICABLE BID ITEM.

23. HIGHWAY LIGHTING SHALL BE PROVIDED ALONG ALL PERMANENT ROADWAY AREAS PRIOR TO OPENING TO TRAFFIC IN EACH PHASE. THE PREFERENCE WOULD BE TO HAVE THE PERMANENT LIGHTING INSTALLED AND ENERGIZED PRIOR TO OPENING THE VARIOUS PHASES OF THE PROJECT TO TRAFFIC. SHOULD THE CONTRACTOR ELECT TO COMPLETE THE PERMANENT FACILITIES AFTER THE ROADWAYS ARE OPENED TO TRAFFIC, THEN TEMPORARY LIGHT PLANTS AS DIRECTED BY THE ENGINEER MUST BE PROVIDED BY THE CONTRACTOR UNTIL THE PERMANENT FACILITIES ARE ENERGIZED. COSTS TO PROVIDE LIGHT PLANTS FOR THIS PURPOSE WILL NOT BE PAID SEPARATELY AND ARE INCIDENTAL TO ITEM 801000, MAINTENANCE OF TRAFFIC.

24. WHERE PORTIONS OF ROADWAYS ARE BEING CONSTRUCTED WHILE MAINTAINING ACCESS TO BUSINESSES AND/OR RESIDENCES, THE FOLLOWING REQUIREMENTS MUST BE MET:
   DURING WORKING HOURS – UTILIZE FLAGGERS TO DIRECT LOCAL TRAFFIC THROUGH THE WORK ZONE. MAINTAIN SAFE ACCESS AT ALL TIMES, UNLESS OTHERWISE COORDINATED IN ADVANCE WITH THE PROPERTY OWNERS.

SECTION 900

25. THIS PROJECT IS COVERED UNDER AN NPDES GENERAL PERMIT FOR CONSTRUCTION. UNDER THE GENERAL PERMIT, COMPLIANCE WITH DELDOT'S APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLANS WILL CONSTITUTE COMPLIANCE WITH THE NPDES INDUSTRIAL PERMITTING REQUIREMENTS FOR THIS CONSTRUCTION PROJECT. A COPY OF THE NPDES GENERAL PERMIT AND NOI IS KEPT ON FILE IN EACH OF THE CONSTRUCTION OFFICES AND THE DEPARTMENT'S STORMWATER SECTION. A COPY OF THE GENERAL PERMIT OR THE NOI CAN BE OBTAINED UPON REQUEST FROM EITHER THE DEPARTMENT'S STORMWATER ENGINEER OR THE APPROPRIATE CONSTRUCTION ENGINEER.

26. STOCKPILE AREAS ARE SHOWN IN THE PLANS BUT MAY BE OBTAINED BY THE CONTRACTOR, IN ACCORDANCE WITH SECTION 908 OF THE STANDARD SPECIFICATIONS, SUBJECT TO THE APPROVAL OF THE ENGINEER. THESE STOCKPILE AREAS MAY BE LOCATED OUTSIDE THE PROJECT LIMITS, IF NECESSARY. COSTS FOR SECONDARY MOVEMENTS OF STOCKPILED MATERIALS (EXCEPT TOPSOIL) TO BE INCORPORATED PERMANENTLY INTO THE PROJECT, OR TAKEN TO OFFSITE DISPOSAL SITES, WILL BE INCIDENTAL TO THE EXCAVATION ITEMS THAT GENERATED THE MATERIAL. PAYMENT WILL BE MADE ONLY ONE TIME, THAT BEING WHEN THE MATERIAL IS ORIGINALLY EXCAVATED. STOCKPILED TOPSOIL THAT CAN BE INCORPORATED INTO THE PERMANENT PROJECT WILL BE PAID FOR UNDER ITEM 908010, TOPSOILING 6" DEPTH. NO ADDITIONAL PAYMENT WILL BE MADE FOR OFF-SITE STOCKPILING. RESTORATION OF THE AREA SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE DEPARTMENT.

27. PROVIDE ALL DNREC REQUIRED POST CONSTRUCTION VERIFICATION DOCUMENTATION FOR STORMWATER BEST MANAGEMENT PRACTICES (BMP) TO THE ENGINEER AT THE TIME OF SUBSTANTIAL COMPLETION.

MISCELLANEOUS NOTES

28. THE LOCATIONS OF ALL ABOVE GROUND ITEMS TO BE INSTALLED, SUCH AS SIGNS, ETC. SHALL BE STAKED BY THE CONTRACTOR AND VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION. ALL COSTS INCIDENTAL TO ITEM 763501 - CONSTRUCTION ENGINEERING.

29. THE CONTRACTOR SHALL NOTIFY DART FIRST STATE AT DOT_DETOURS@DELAWARE.GOV AT LEAST 14 DAYS PRIOR TO THE START OF ANY DETOURS OR CONSTRUCTION, AND DOT_DTC_PROJECTDEVELOPMENT@DELAWARE.GOV AT SUCH TIME THE FACILITY IS COMPLETED AND OPERABLE FOR TRANSIT OPERATIONS. FOR EMERGENCY DETOUR INFORMATION ONLY, PLEASE CONTACT DTC'S CHIEF SCHEDULER AT 302-576-6019.

30. ALL DART SIGNS HAVE BEEN UPDATED TO A NEW DESIGN. THE DELDOT SIGN SHOP DOES NOT FABRICATE THE UPDATED SIGN OR ANY SUPPLEMENTAL PLAQUES TO ALLOW FOR ADDITIONAL ROUTE NUMBERS. ALL REQUESTS FOR FABRICATION OF THESE SIGNS MUST BE MADE THROUGH DART TRANSIT AT (302) 576-6132.

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

32. ALL CURB OPENINGS SHALL BE CONSTRUCTED PER THE DELDOT STANDARD CONSTRUCTION DETAIL WITH A 2 FOOT WIDE OPENING, UNLESS OTHERWISE NOTED ON THE PLANS.

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

34. THE CONTRACTOR SHALL MAKE AVAILABLE AT LEAST ONE EMPLOYEE TO ATTEND AND REPRESENT THE FIRM AT ALL SCHEDULED JOB PROGRESS MEETINGS, PROJECT WORKING GROUP MEETINGS, OR OTHER INFORMATIONAL MEETINGS AS REQUESTED BY THE ENGINEER. THE PERSON ATTENDING SHALL BE KNOWLEDGEABLE OF CURRENT JOB PROGRESS, THE ANTICIPATED CONSTRUCTION SCHEDULE, AND ANY ONGOING OR POTENTIAL CONTRACT ISSUES. COSTS ARE INCIDENTAL TO ITEM 801000, MAINTENANCE OF TRAFFIC.

35. PIPE IDENTIFIED WITH FLOWABLE FILL ARE TO BE SAWCUT AND REMOVED AT THE LIMITS OF FULL DEPTH PAVEMENT.

36. THE CONTRACTOR WILL BE REQUIRED TO COORDINATE WORK WITH ANY CONSTRUCTION ACTIVITY IN THE AREA DUE TO UTILITY RELOCATIONS OR OTHER ADJACENT CONTRACTS. WE ANTICIPATE THAT WORK WILL BE DONE ON STATE CONTRACTS T201709503 EAST CAMDEN BYPASS AND T201500202 HEP KC, US13 LOCHMEATH WAY TO PUNCHEON RUN CONNECTOR DURING THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE, AT THE DIRECTION OF THE ENGINEER, ALL ROAD AND LANE CLOSURES AND ASSOCIATED DETOUR ROUTES WITH THESE CONTRACTS.

37. THE CONTRACTOR SHALL MAKE AVAILABLE AT LEAST ONE EMPLOYEE TO ATTEND AND REPRESENT THE FIRM AT ALL SCHEDULED JOB PROGRESS MEETINGS, PROJECT WORKING GROUP MEETINGS, OR OTHER INFORMATION MEETINGS AS REQUESTED BY THE ENGINEER. THE PERSON ATTENDING SHALL BE KNOWLEDGEABLE OF CURRENT JOB PROGRESS, THE ANTICIPATED CONSTRUCTION SCHEDULE, AND ANY ONGOING OR POTENTIAL CONSTRUCTION ISSUES. COSTS ARE INCIDENTAL TO ITEM 763501 - CONSTRUCTION ENGINEERING.

38. SEWER CONNECTION FROM THE 10" SEWER LINE ON WILLOW GROVE ROAD TO PROPOSED VALVE LOCATED AT RIGHT OF WAY LINE ON PARCEL 826 AS SHOWN IN CAMDEN WYOMING SEWER AND WATER AUTHORITY UTILITY RELOCATION PLANS MUST BE PERFORMED PRIOR TO IMPACTING EXISTING SEWER SYSTEM CURRENTLY OPERATING AT RESIDENCE. CONTRACTOR WILL CONTACT DELDOT ONCE WORK IS COMPLETED TO GIVE 30 DAYS NOTICE BEFORE EXISTING SEWER SYSTEM IS IMPACTED.

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ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	NOTES	SECTION
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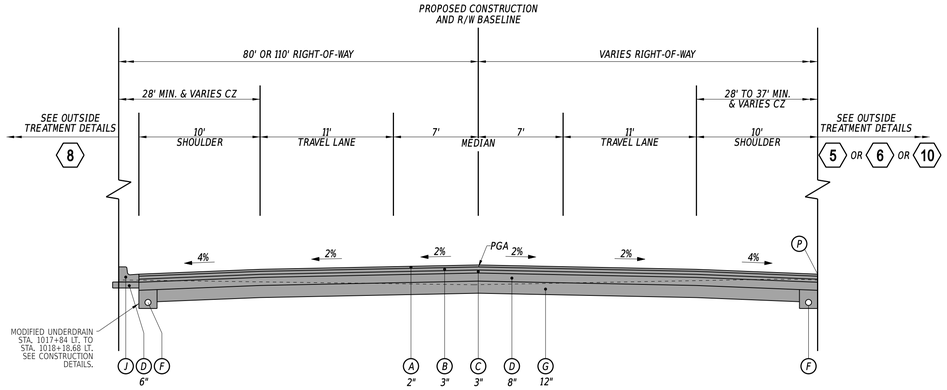
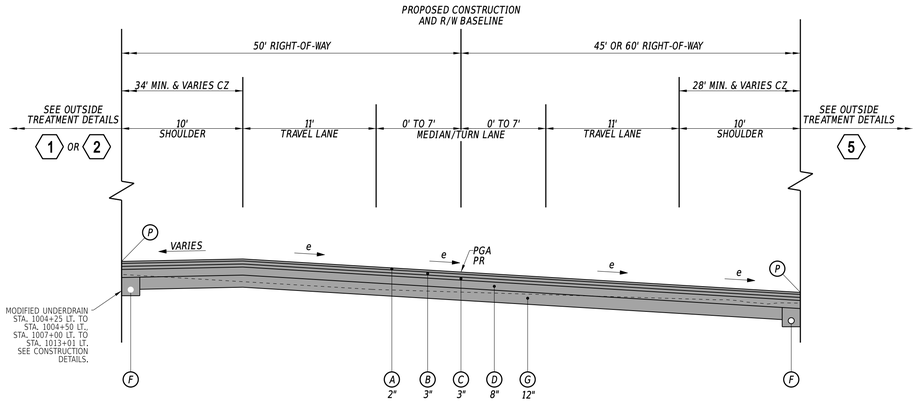
				KENT	CHECKED BY: J. FREY		5



TYPICAL NORMAL SECTION - WILLOW GROVE ROAD

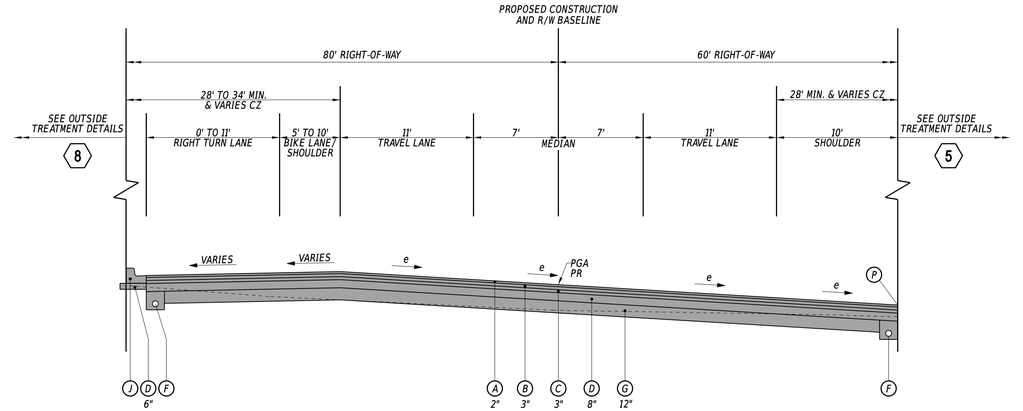
STATION 1017+71.70 TO 1018+18.68

STATION 1028+90.68 TO 1041+32.18



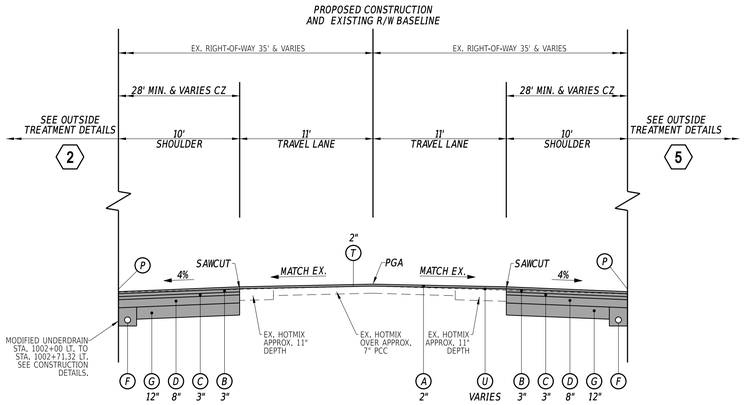
TYPICAL SUPERELEVATED SECTION - WILLOW GROVE ROAD

STATION 1004+25 TO 1012+53



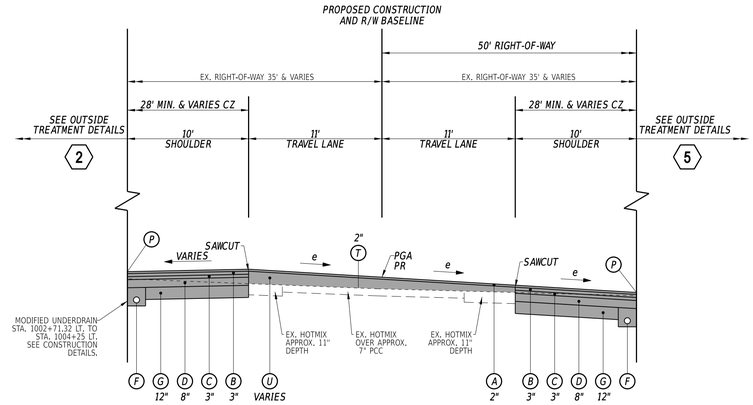
TYPICAL SUPERELEVATED SECTION - WILLOW GROVE ROAD

STATION 1013+96 TO 1017+71.70



TYPICAL NORMAL SECTION - WILLOW GROVE ROAD

STATION 1001+75 TO 1002+71.32



TYPICAL SUPERELEVATED SECTION - WILLOW GROVE ROAD

STATION 1002+71.32 TO 1004+25

LEGEND

- (A) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (B) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (C) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (D) ITEM 301001 - GABC
- (E) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (F) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (G) ITEM 209001 - BORROW, TYPE A
- (H) ITEM 209006 - BORROW, TYPE F (OR MATERIAL MEETING THE REQUIREMENTS OF BORROW, TYPE F)
- (I) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
  ITEM 908026 - EROSION CONTROL MULCH
- (J) ITEM 701023 - I.PCC CURB AND GUTTER, TYPE 3-8
- (K) ITEM 701025 - PCC CURB, TYPE 2 ROUNDABOUT
- (L) ITEM 701013 - PCC CURB, TYPE 1-8
- (M) ITEM 705521 - PATTERNED PCC SIDEWALK, 8"
- (N) ITEM 701027 - PCC CURB, TYPE 1-2 ROUNDABOUT
- (O) ITEM 701020 - I.PCC CURB AND GUTTER, TYPE 3-2
- (P) SAFETY EDGE
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705005 - PCC SIDEWALK, 8"
- (S) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (T) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (U) ITEM 401036 - SUPERPAVE TYPE C, PG 64-22, WEDGE
- (V) ITEM 701014 - PCC CURB, TYPE 2
- (W) ITEM 401030 - SUPERPAVE TYPE B, PG 64-22, PATCHING
- (X) ITEM 301002 - GABC PATCHING

PR - POINT OF ROTATION PGA - PROFILE GRADE APPLICATION

PDGA - PROFILE DITCH GRADE APPLICATION

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

NOTES:

1. BORROW, TYPE A SHALL BE PLACED IN SUCCESSIVE LAYERS NOT TO EXCEED 8" IN DEPTH, LOOSE MEASUREMENT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. LATERAL OFFSET IS MEASURED TO THE POINT 4' (6' AT INTERSECTIONS AND ALONG OUTSIDES OF CURVES) BEHIND THE FACE OF CURB, WHERE APPLICABLE.
3. ITEM 908020 - EROSION CONTROL BLANKET MULCH SHALL BE UTILIZED ON THE BOTTOM OF DITCHES AND UP TO 2 FT ON THE ADJACENT SLOPES UNLESS NOTED OTHERWISE.
4. ITEM 908026 - EROSION CONTROL MULCH SHALL BE UTILIZED IN ALL PERMANENT GRASS SEEDING AREAS OUTSIDE OF EROSION CONTROL BLANKET MULCH FOOTPRINT.

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ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO.	N/A	TYPICAL SECTIONS	SECTION
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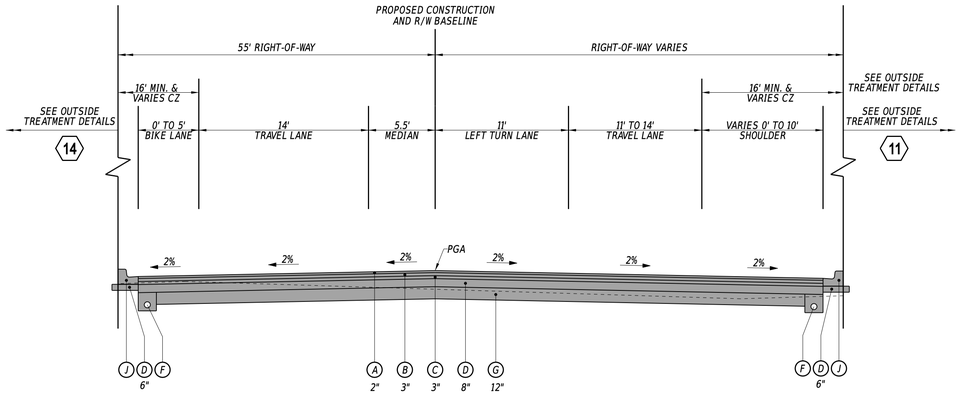
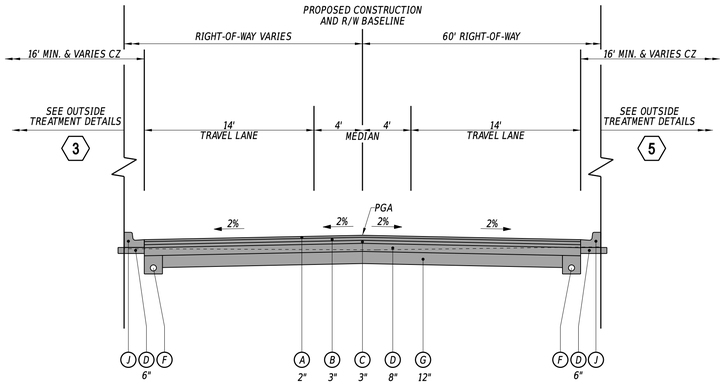
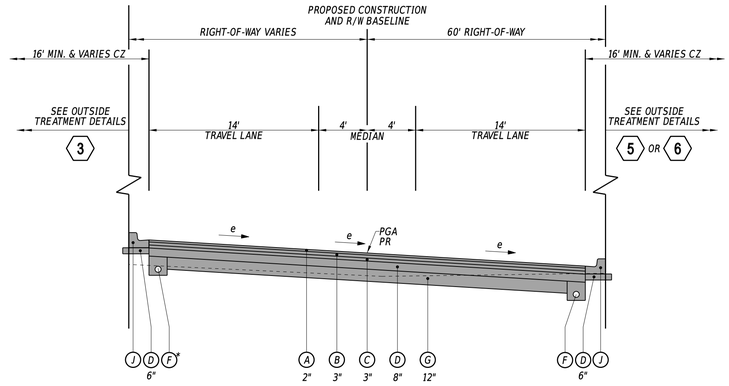
				COUNTY	CHECKED BY:	J. FREY		SHEET NO.
				KENT				6



TYPICAL NORMAL SECTION - WILLOW GROVE ROAD
STATION 5001+52 TO 5002+12.77

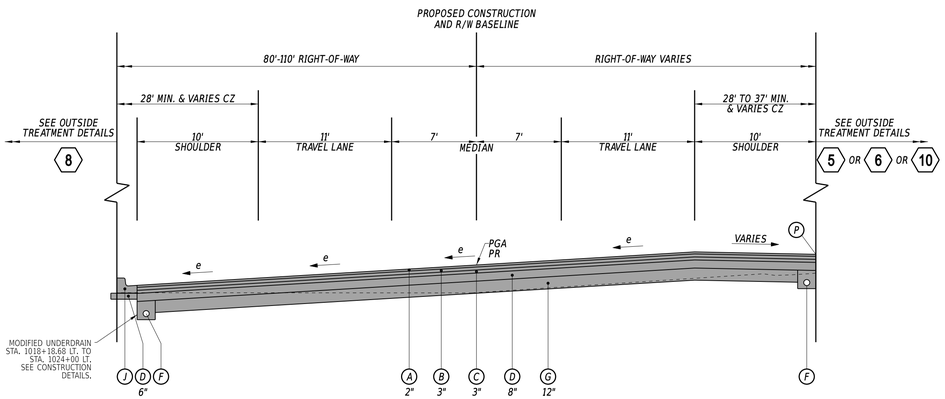


TYPICAL NORMAL SECTION - WILLOW GROVE ROAD
STATION 1051+54 TO 1052+83.52

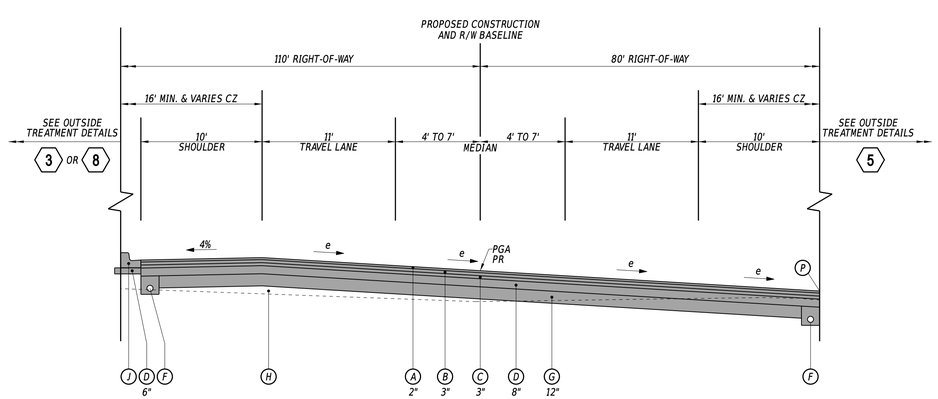


*UNDERDRAIN FROM STA. 1052+83.52 LT. TO STA. 1053+22 LT.

TYPICAL SUPERELEVATED SECTION - WILLOW GROVE ROAD
STATION 1052+83.52 TO 1056+21



TYPICAL SUPERELEVATED SECTION - WILLOW GROVE ROAD
STATION 1018+18.68 TO 1028+90.68



TYPICAL SUPERELEVATED SECTION - WILLOW GROVE ROAD
STATION 1041+32.18 TO 1044+22

LEGEND

- (A) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (B) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (C) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (D) ITEM 301001 - GABC
- (E) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (F) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (G) ITEM 209001 - BORROW, TYPE A
- (H) ITEM 209006 - BORROW, TYPE F (OR MATERIAL MEETING THE REQUIREMENTS OF BORROW, TYPE F)
- (I) ITEM 908004 - TOPSOIL, 6" DEPTH
ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
ITEM 908026 - EROSION CONTROL MULCH
- (J) ITEM 701023 - I.PCC CURB AND GUTTER, TYPE 3-8
- (K) ITEM 701025 - PCC CURB, TYPE 2 ROUNDABOUT
- (L) ITEM 701013 - PCC CURB, TYPE 1-8
- (M) ITEM 705521 - PATTERNED PCC SIDEWALK, 8"
- (N) ITEM 701027 - PCC CURB, TYPE 1-2 ROUNDABOUT
- (O) ITEM 701020 - I.PCC CURB AND GUTTER, TYPE 3-2
- (P) SAFETY EDGE
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705005 - PCC SIDEWALK, 8"
- (S) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (T) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (U) ITEM 401036 - SUPERPAVE TYPE C, PG 64-22, WEDGE
- (V) ITEM 701014 - PCC CURB, TYPE 2
- (W) ITEM 401030 - SUPERPAVE TYPE B, PG 64-22, PATCHING
- (X) ITEM 301002 - GABC PATCHING

PR - POINT OF ROTATION PGA - PROFILE GRADE APPLICATION

PDGA - PROFILE DITCH GRADE APPLICATION

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

NOTES:

1. BORROW, TYPE A SHALL BE PLACED IN SUCCESSIVE LAYERS NOT TO EXCEED 8" IN DEPTH, LOOSE MEASUREMENT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. LATERAL OFFSET IS MEASURED TO THE POINT 4' (6' AT INTERSECTIONS AND ALONG OUTSIDES OF CURVES) BEHIND THE FACE OF CURB, WHERE APPLICABLE.
3. ITEM 908020 - EROSION CONTROL BLANKET MULCH SHALL BE UTILIZED ON THE BOTTOM OF DITCHES AND UP TO 2 FT ON THE ADJACENT SLOPES UNLESS NOTED OTHERWISE.
4. ITEM 908026 - EROSION CONTROL MULCH SHALL BE UTILIZED IN ALL PERMANENT GRASS SEEDING AREAS OUTSIDE OF EROSION CONTROL BLANKET MULCH FOOTPRINT.

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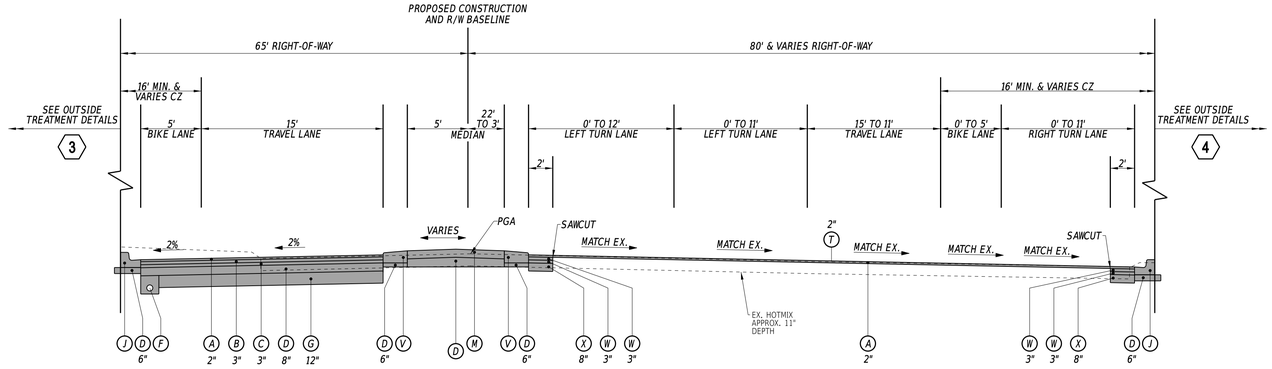
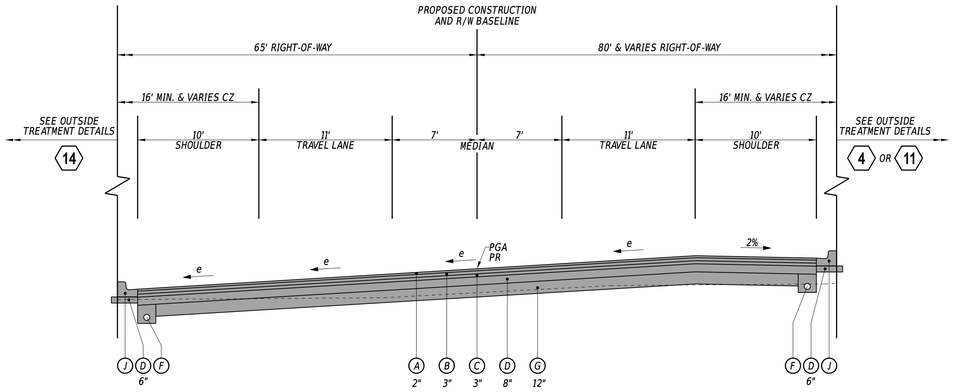
ADDENDA / REVISIONS	NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION
			T201709502	DESIGNED BY: L. HAXTON		CEN
			COUNTY	CHECKED BY: J. FREY		SHEET NO.
			KENT			7



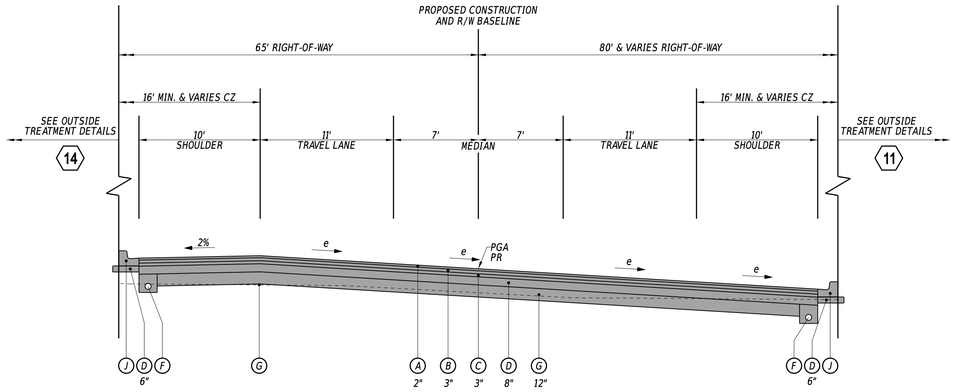
TYPICAL NORMAL SECTION - WILLOW GROVE ROAD

STATION 5018+18 TO 5020+08



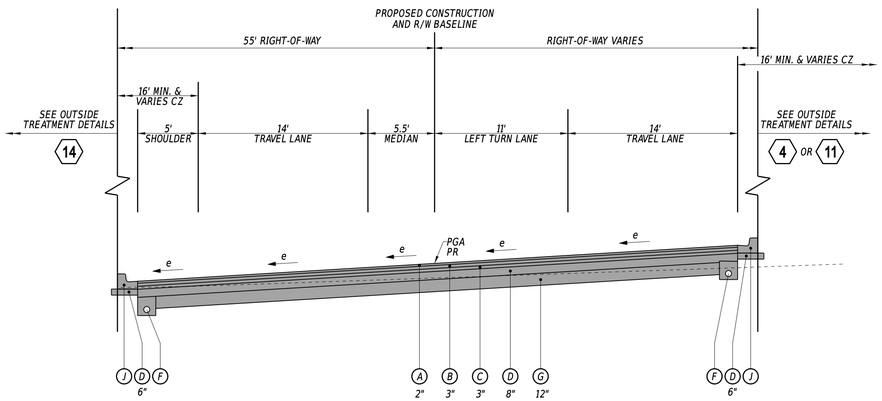
TYPICAL SUPERELEVATED SECTION - WILLOW GROVE ROAD

STATION 5005+50 TO 5009+56.80



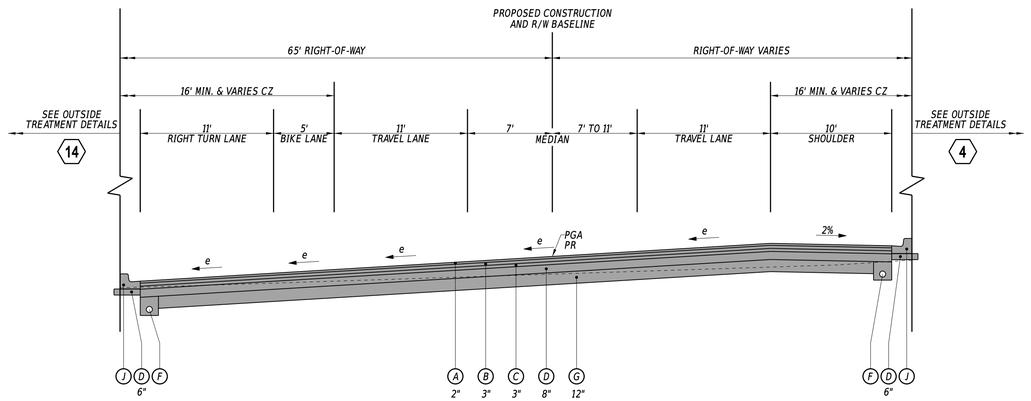
TYPICAL SUPERELEVATED SECTION - WILLOW GROVE ROAD

STATION 5009+56.80 TO 5014+35



TYPICAL SUPERELEVATED SECTION - WILLOW GROVE ROAD

STATION 5002+12.77 TO 5002+99



TYPICAL SUPERELEVATED SECTION - WILLOW GROVE ROAD

STATION 5002+99 TO 5005+50

LEGEND

- (A) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (B) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (C) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (D) ITEM 301001 - GABC
- (E) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (F) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (G) ITEM 209001 - BORROW, TYPE A
- (H) ITEM 209006 - BORROW, TYPE F (OR MATERIAL MEETING THE REQUIREMENTS OF BORROW, TYPE F)
- (I) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
  ITEM 908026 - EROSION CONTROL MULCH
- (J) ITEM 701023 - I.PCC CURB AND GUTTER, TYPE 3-8
- (K) ITEM 701025 - PCC CURB, TYPE 2 ROUNDABOUT
- (L) ITEM 701013 - PCC CURB, TYPE 1-8
- (M) ITEM 705521 - PATTERNED PCC SIDEWALK, 8"
- (N) ITEM 701027 - PCC CURB, TYPE 1-2 ROUNDABOUT
- (O) ITEM 701020 - I.PCC CURB AND GUTTER, TYPE 3-2
- (P) SAFETY EDGE
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705005 - PCC SIDEWALK, 8"
- (S) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (T) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (U) ITEM 401036 - SUPERPAVE TYPE C, PG 64-22, WEDGE
- (V) ITEM 701014 - PCC CURB, TYPE 2
- (W) ITEM 401030 - SUPERPAVE TYPE B, PG 64-22, PATCHING
- (X) ITEM 301002 - GABC PATCHING

PR - POINT OF ROTATION PGA - PROFILE GRADE APPLICATION

PDGA - PROFILE DITCH GRADE APPLICATION

MATERIAL TYPE	BINDER GRADE	LIFT THICKNESS (IN)	
		MINIMUM	MAXIMUM
TYPE C (4.75 MM MIX)	ALL	0.5	1.0
TYPE C (9.5 MM MIX)	ALL	1.25	2.0
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TYPE B (19 MM MIX)	64-22	2.25	6.0
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GABC	-	4.0	8.0

NOTES:

1. BORROW, TYPE A SHALL BE PLACED IN SUCCESSIVE LAYERS NOT TO EXCEED 8" IN DEPTH, LOOSE MEASUREMENT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. LATERAL OFFSET IS MEASURED TO THE POINT 4' (6' AT INTERSECTIONS AND ALONG OUTSIDES OF CURVES) BEHIND THE FACE OF CURB, WHERE APPLICABLE.
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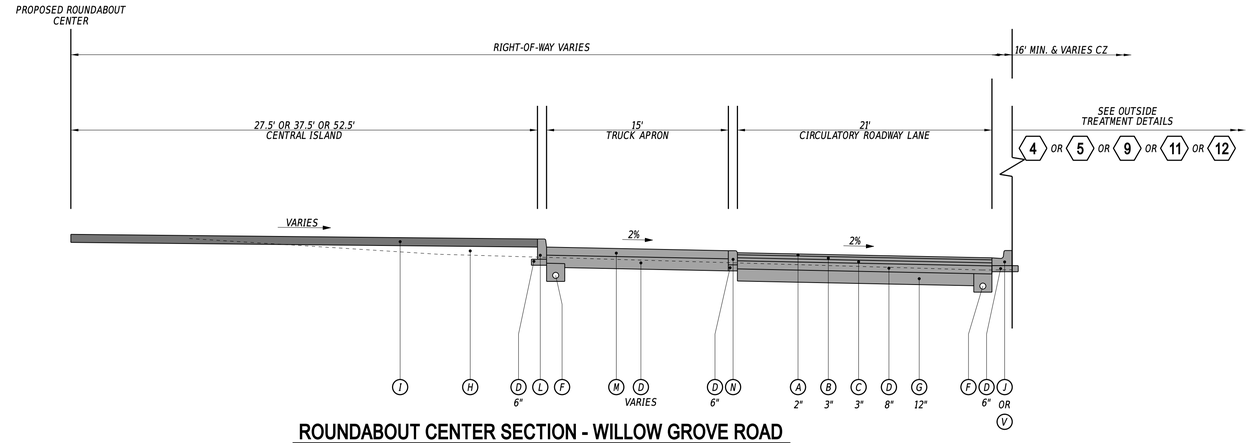
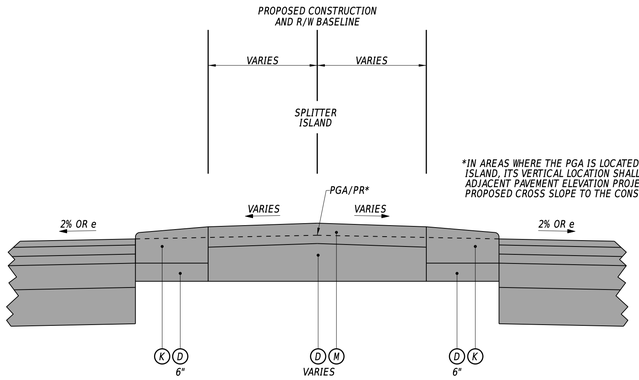
ADDENDA / REVISIONS	NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION
			T201709502	DESIGNED BY: L. HAXTON		CEN
			COUNTY	CHECKED BY: J. FREY		SHEET NO.
			KENT			8



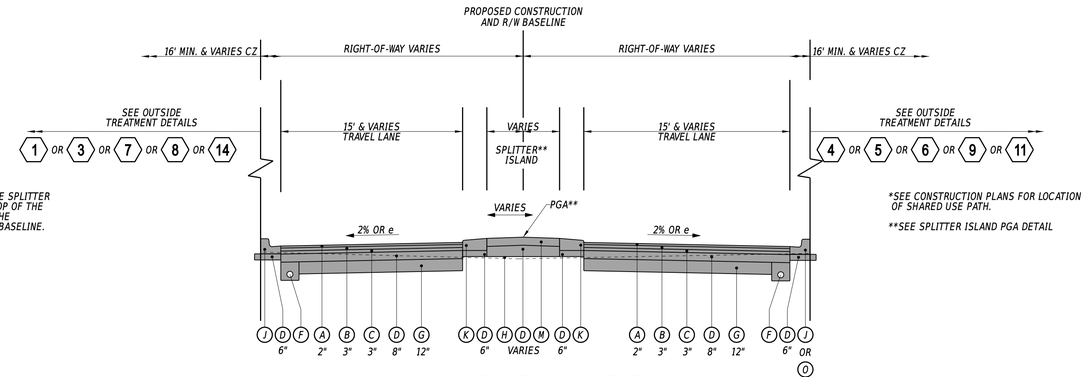
ROUNDABOUT CENTER SECTION - WILLOW GROVE ROAD



*IN AREAS WHERE THE PGA IS LOCATED WITHIN THE SPLITTER ISLAND, ITS VERTICAL LOCATION SHALL BE THE TOP OF THE ADJACENT PAVEMENT ELEVATION PROJECTED AT THE PROPOSED CROSS SLOPE TO THE CONSTRUCTION BASELINE.

SPLITTER ISLAND PGA DETAIL

NOT TO SCALE



*SEE CONSTRUCTION PLANS FOR LOCATION OF SHARED USE PATH.

**SEE SPLITTER ISLAND PGA DETAIL

ROUNDABOUT APPROACH SECTION

WILLOW GROVE RD STATION 1044+90 TO 1046+41	SOUTH STREET STATION 2505+35 TO 2505+94
WILLOW GROVE RD STATION 1048+22 TO 1051+10	SOUTH MAIN STREET STATION 4500+73 TO 4503+02
WILLOW GROVE RD STATION 1056+21 TO 1058+21	KING BLVD STATION 6003+95 TO 6004+47
WILLOW GROVE RD STATION 5014+35 TO 5016+38	UPPER KING ROAD STATION 3511+92.63 TO 3513+02
WILLOW GROVE RD STATION 5017+67 TO 5018+18	WILLOW GROVE RD STATION 5000+72 TO 5001+52

LEGEND

- (A) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (B) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (C) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (D) ITEM 301001 - GABC
- (E) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
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- (M) ITEM 705521 - PATTERNED PCC SIDEWALK, 8"
- (N) ITEM 701027 - PCC CURB, TYPE 1-2 ROUNDABOUT
- (O) ITEM 701020 - I.PCC CURB AND GUTTER, TYPE 3-2
- (P) SAFETY EDGE
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705005 - PCC SIDEWALK, 8"
- (S) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (T) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (U) ITEM 401036 - SUPERPAVE TYPE C, PG 64-22, WEDGE
- (V) ITEM 701014 - PCC CURB, TYPE 2
- (W) ITEM 401030 - SUPERPAVE TYPE B, PG 64-22, PATCHING
- (X) ITEM 301002 - GABC PATCHING

PR - POINT OF ROTATION PGA - PROFILE GRADE APPLICATION

PDGA - PROFILE DITCH GRADE APPLICATION

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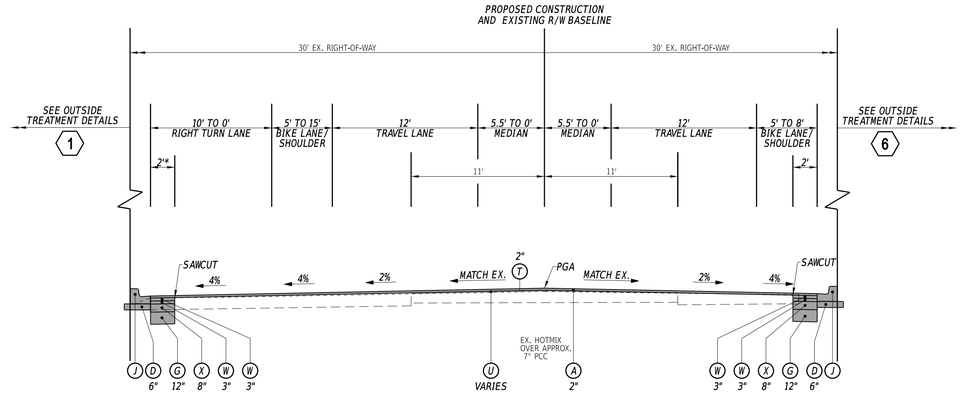
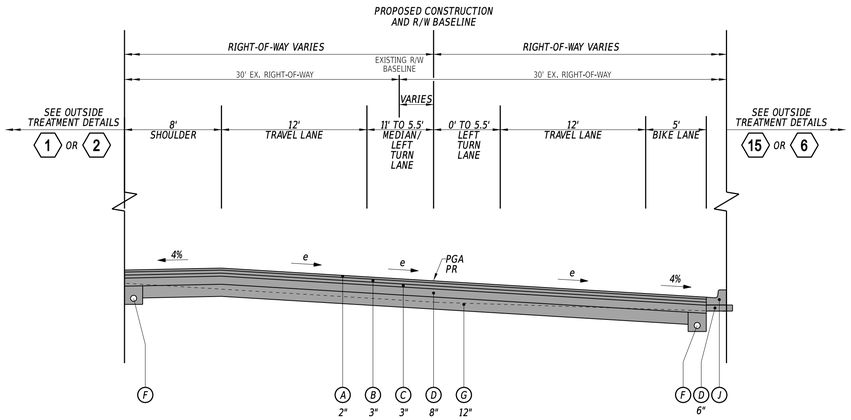
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO.	N/A	TYPICAL SECTIONS	SECTION
				T201709502				CEN
				COUNTY	DESIGNED BY:	L. HAXTON		SHEET NO.
				KENT	CHECKED BY:	J. FREY		9

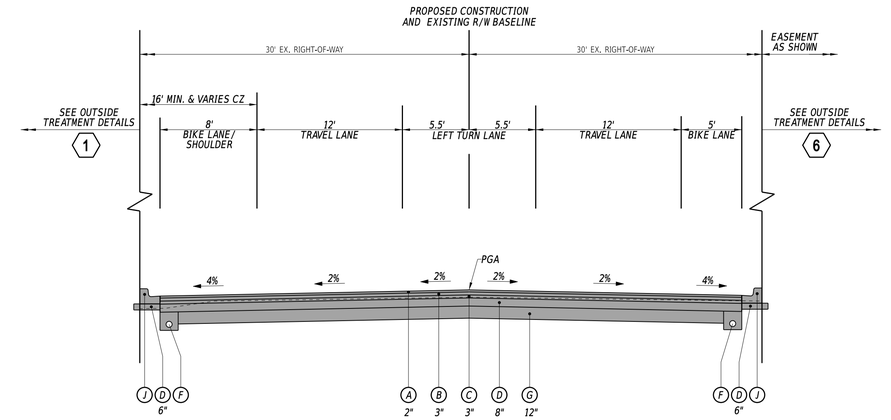


*NO CURB FROM STATION 1508+68 TO 1511+40. REPLACE WITH SAFETY EDGE.

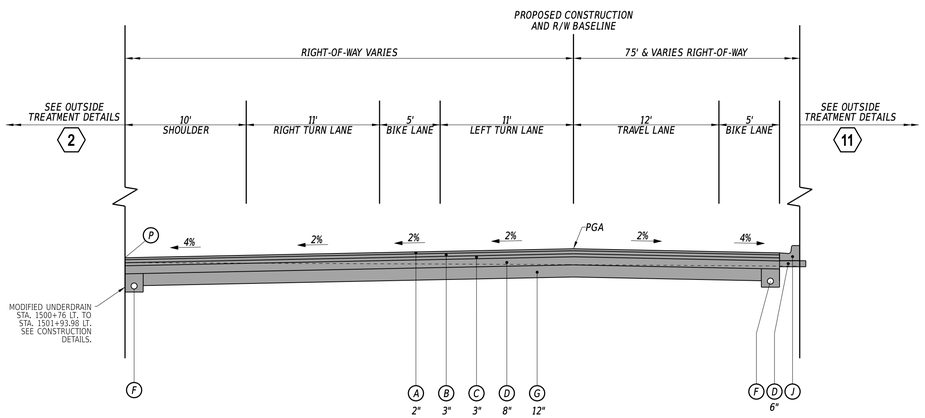
TYPICAL NORMAL SECTION - S. CAESAR RODNEY AVENUE
STATION 1508+37 TO 1511+40



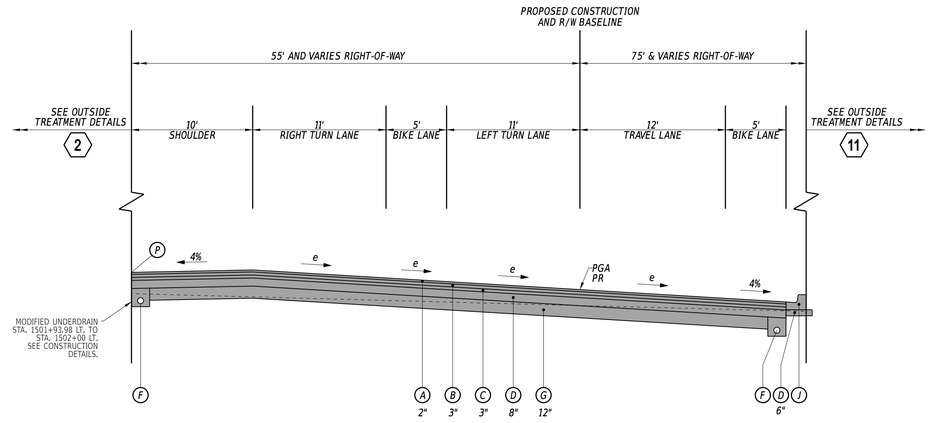
TYPICAL SUPERELEVATED SECTION - S. CAESAR RODNEY AVENUE
STATION 1504+00 TO 1506+85.81



TYPICAL NORMAL SECTION - S. CAESAR RODNEY AVENUE
STATION 1506+85.81 TO 1508+37



TYPICAL NORMAL SECTION - S. CAESAR RODNEY AVENUE
STATION 1500+74 TO 1501+93.98



TYPICAL SUPERELEVATED SECTION - S. CAESAR RODNEY AVENUE
STATION 1501+93.98 TO 1502+97

LEGEND

- (A) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (B) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (C) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (D) ITEM 301001 - GABC
- (E) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
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- (G) ITEM 209001 - BORROW, TYPE A
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  ITEM 908026 - EROSION CONTROL MULCH
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- (K) ITEM 701025 - PCC CURB, TYPE 2 ROUNDABOUT
- (L) ITEM 701013 - PCC CURB, TYPE 1-8
- (M) ITEM 705521 - PATTERNED PCC SIDEWALK, 8"
- (N) ITEM 701027 - PCC CURB, TYPE 1-2 ROUNDABOUT
- (O) ITEM 701020 - I.PCC CURB AND GUTTER, TYPE 3-2
- (P) SAFETY EDGE
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705005 - PCC SIDEWALK, 8"
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- (T) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (U) ITEM 401036 - SUPERPAVE TYPE C, PG 64-22, WEDGE
- (V) ITEM 701014 - PCC CURB, TYPE 2
- (W) ITEM 401030 - SUPERPAVE TYPE B, PG 64-22, PATCHING
- (X) ITEM 301002 - GABC PATCHING

PR - POINT OF ROTATION PGA - PROFILE GRADE APPLICATION

PDGA - PROFILE DITCH GRADE APPLICATION

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NOTES:

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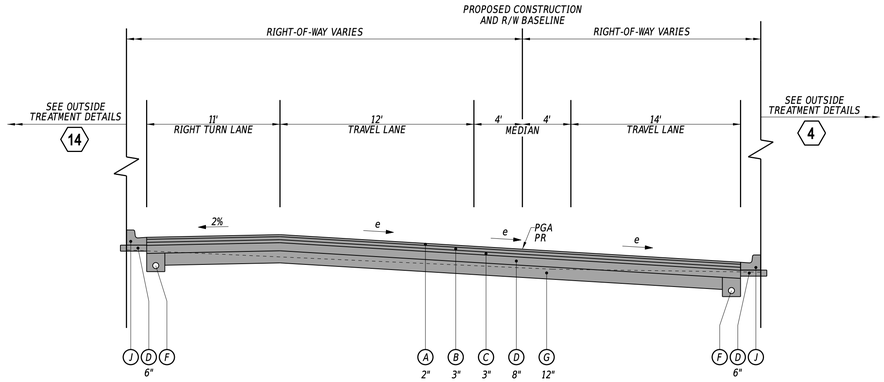
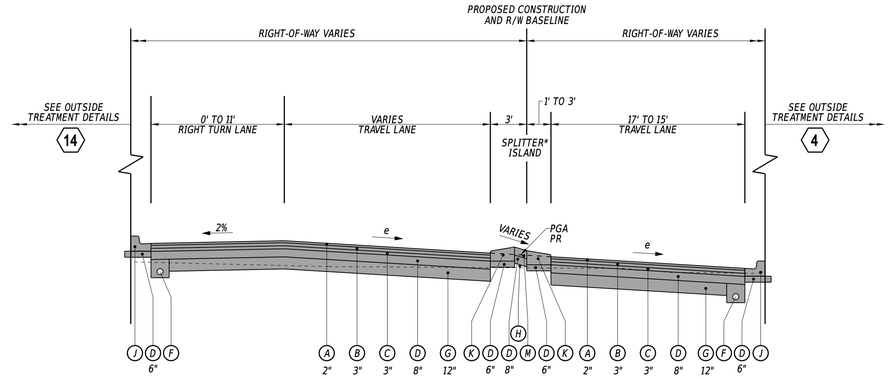
ADDENDA / REVISIONS	NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION CEN
			COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 10
				CHECKED BY: J. FREY		



TYPICAL SUPERELEVATED SECTION - SOUTH STREET

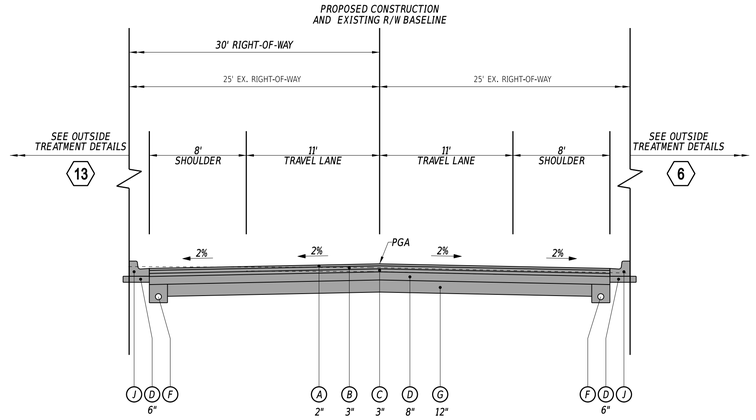
STATION 2504+25 TO 2504+42



TYPICAL SUPERELEVATED SECTION - SOUTH STREET

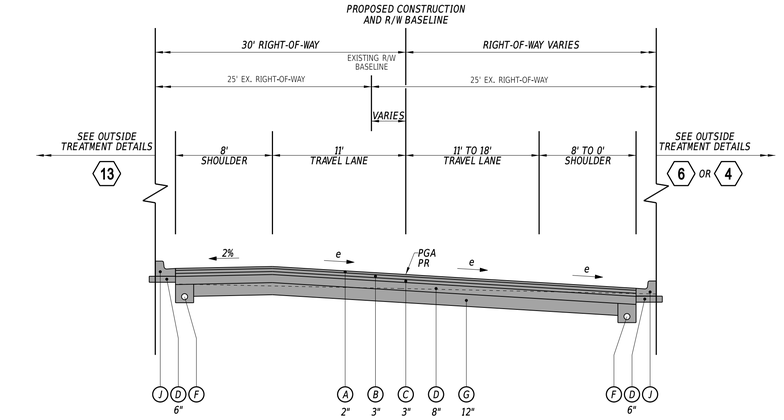
STATION 2504+42 TO 2505+35

*SEE SPLITTER ISLAND PGA DETAIL



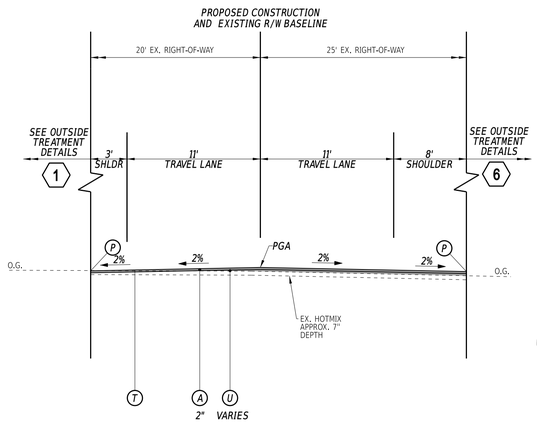
TYPICAL NORMAL SECTION - SOUTH STREET

STATION 2500+02 TO 2500+85.99



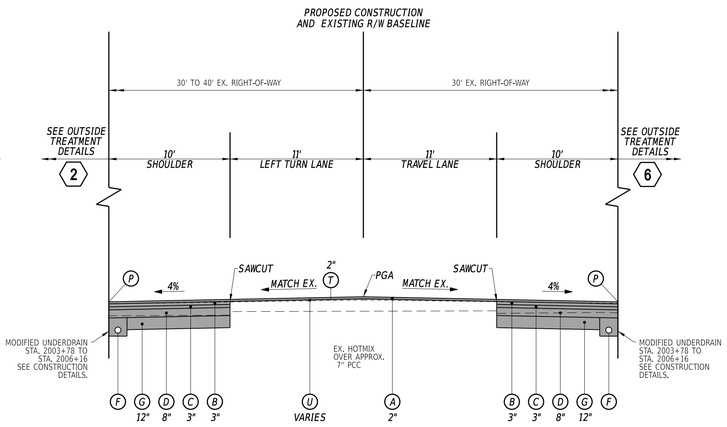
TYPICAL SUPERELEVATED SECTION - SOUTH STREET

STATION 2500+85.99 TO 2503+25



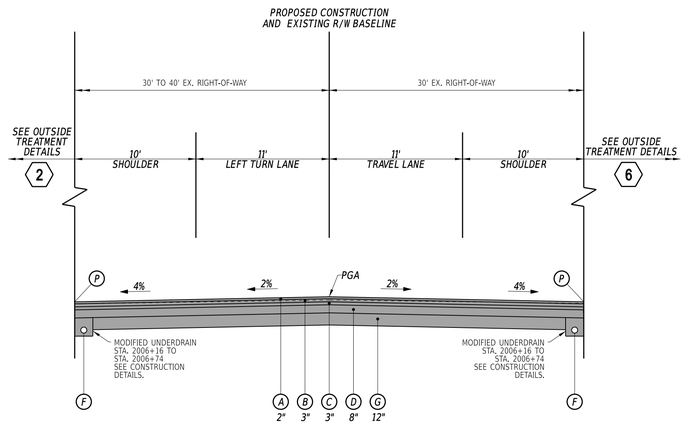
TYPICAL NORMAL SECTION - SOUTH STREET

STATION 2498+89 TO 2500+02



TYPICAL NORMAL SECTION - COCHRAN ROAD

STATION 2003+78 TO 2006+16



TYPICAL NORMAL SECTION - COCHRAN ROAD

STATION 2006+15 TO 2006+74

LEGEND

- (A) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (B) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (C) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (D) ITEM 301001 - GABC
- (E) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
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- (G) ITEM 209001 - BORROW, TYPE A
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- (K) ITEM 701025 - PCC CURB, TYPE 2 ROUNDABOUT
- (L) ITEM 701013 - PCC CURB, TYPE 1-8
- (M) ITEM 705521 - PATTERNED PCC SIDEWALK, 8"
- (N) ITEM 701027 - PCC CURB, TYPE 1-2 ROUNDABOUT
- (O) ITEM 701020 - I.PCC CURB AND GUTTER, TYPE 3-2
- (P) SAFETY EDGE
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705005 - PCC SIDEWALK, 8"
- (S) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (T) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (U) ITEM 401036 - SUPERPAVE TYPE C, PG 64-22, WEDGE
- (V) ITEM 701014 - PCC CURB, TYPE 2
- (W) ITEM 401030 - SUPERPAVE TYPE B, PG 64-22, PATCHING
- (X) ITEM 301002 - GABC PATCHING

PR - POINT OF ROTATION PGA - PROFILE GRADE APPLICATION

PDGA - PROFILE DITCH GRADE APPLICATION

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

NOTES:

1. BORROW, TYPE A SHALL BE PLACED IN SUCCESSIVE LAYERS NOT TO EXCEED 8" IN DEPTH, LOOSE MEASUREMENT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. LATERAL OFFSET IS MEASURED TO THE POINT 4' (6' AT INTERSECTIONS AND ALONG OUTSIDES OF CURVES) BEHIND THE FACE OF CURB, WHERE APPLICABLE.
3. ITEM 908020 - EROSION CONTROL BLANKET MULCH SHALL BE UTILIZED ON THE BOTTOM OF DITCHES AND UP TO 2 FT ON THE ADJACENT SLOPES UNLESS NOTED OTHERWISE.
4. ITEM 908026 - EROSION CONTROL MULCH SHALL BE UTILIZED IN ALL PERMANENT GRASS SEEDING AREAS OUTSIDE OF EROSION CONTROL BLANKET MULCH FOOTPRINT.

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ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO.	N/A	TYPICAL SECTIONS	SECTION
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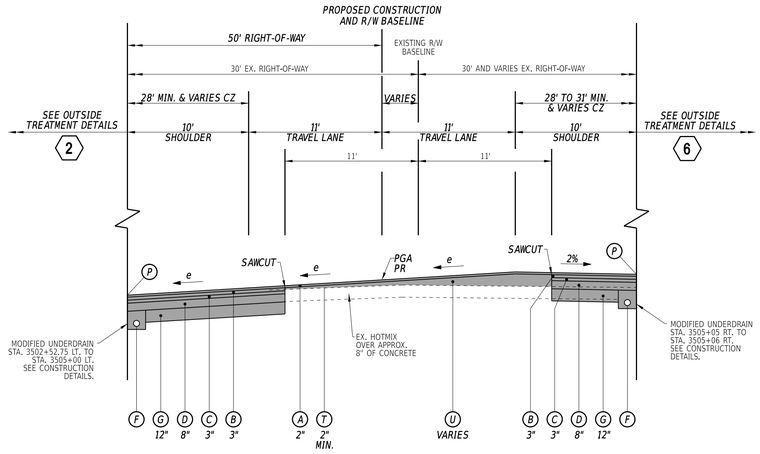
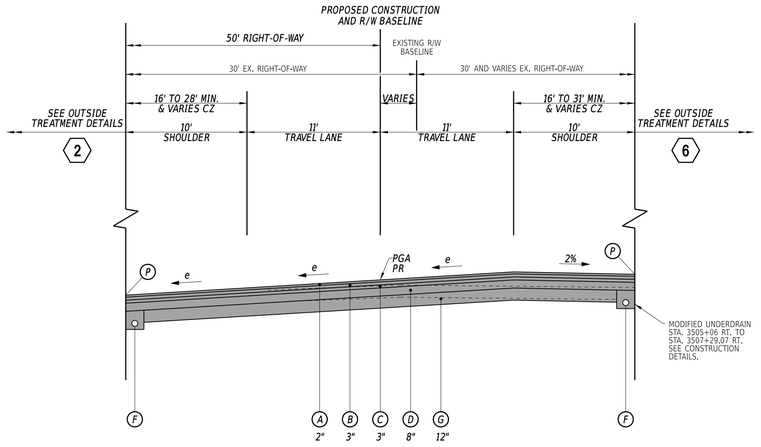
				COUNTY	CHECKED BY:	J. FREY		SHEET NO.
				KENT				11



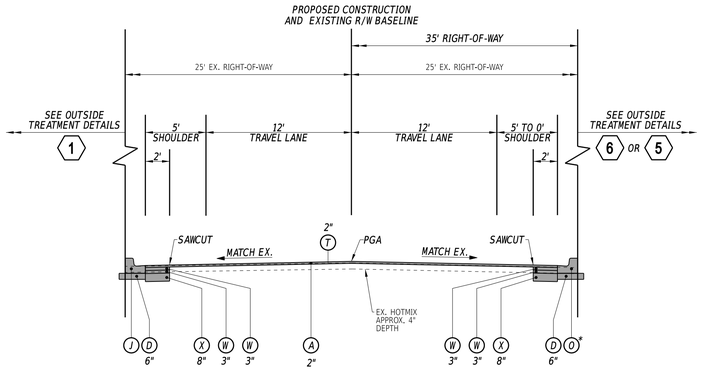
TYPICAL SUPERELEVATED SECTION - UPPER KING ROAD

STATION 3502+52.75 TO 3505+06



TYPICAL SUPERELEVATED SECTION - UPPER KING ROAD

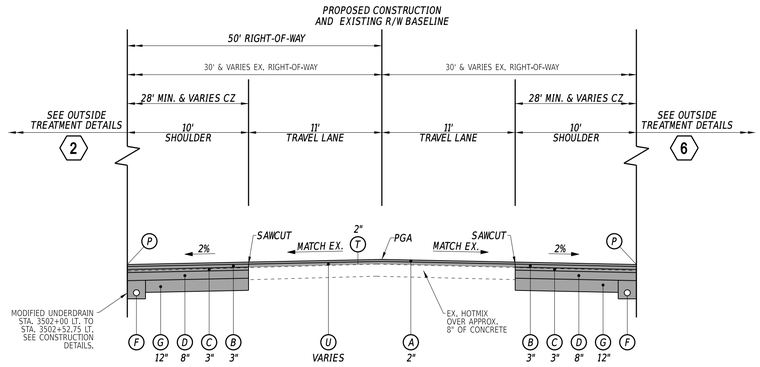
STATION 3505+06 TO 3507+29.07



TYPICAL NORMAL SECTION - OLD SOUTH STREET

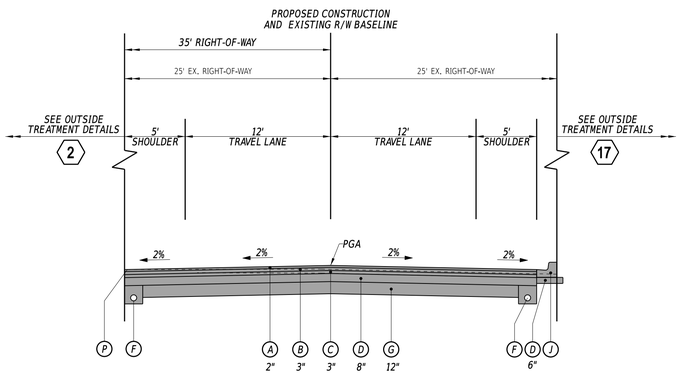
STATION 2+59 TO 11+35

*NO CURB FROM STATION 7+10 TO 11+35. REPLACE WITH SAFETY EDGE.



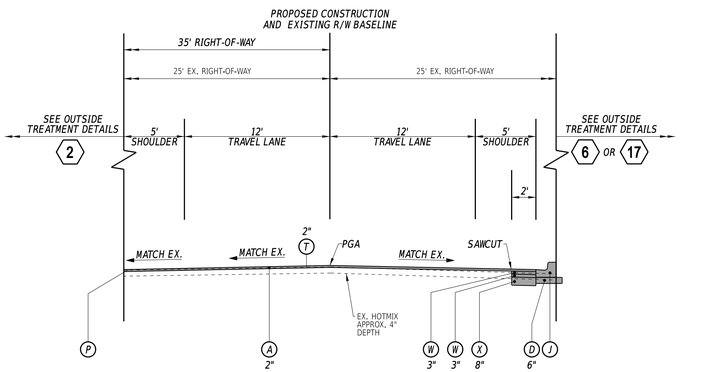
TYPICAL NORMAL SECTION - UPPER KING ROAD

STATION 3502+00 TO 3502+52.75



TYPICAL NORMAL SECTION - OLD SOUTH STREET

STATION 3000+52 TO 3001+29



TYPICAL NORMAL SECTION - OLD SOUTH STREET

STATION 3001+29 TO 3003+47

LEGEND

- (A) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (B) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (C) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (D) ITEM 301001 - GABC
- (E) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (F) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (G) ITEM 209001 - BORROW, TYPE A
- (H) ITEM 209006 - BORROW, TYPE F (OR MATERIAL MEETING THE REQUIREMENTS OF BORROW, TYPE F)
- (I) ITEM 908004 - TOPSOIL, 6" DEPTH
ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
ITEM 908026 - EROSION CONTROL MULCH
- (J) ITEM 701023 - I.PCC CURB AND GUTTER, TYPE 3-8
- (K) ITEM 701025 - PCC CURB, TYPE 2 ROUNDABOUT
- (L) ITEM 701013 - PCC CURB, TYPE 1-8
- (M) ITEM 705521 - PATTERNED PCC SIDEWALK, 8"
- (N) ITEM 701027 - PCC CURB, TYPE 1-2 ROUNDABOUT
- (O) ITEM 701020 - I.PCC CURB AND GUTTER, TYPE 3-2
- (P) SAFETY EDGE
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705005 - PCC SIDEWALK, 8"
- (S) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (T) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (U) ITEM 401036 - SUPERPAVE TYPE C, PG 64-22, WEDGE
- (V) ITEM 701014 - PCC CURB, TYPE 2
- (W) ITEM 401030 - SUPERPAVE TYPE B, PG 64-22, PATCHING
- (X) ITEM 301002 - GABC PATCHING

PR - POINT OF ROTATION PGA - PROFILE GRADE APPLICATION

PDGA - PROFILE DITCH GRADE APPLICATION

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

NOTES:

1. BORROW, TYPE A SHALL BE PLACED IN SUCCESSIVE LAYERS NOT TO EXCEED 8" IN DEPTH, LOOSE MEASUREMENT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. LATERAL OFFSET IS MEASURED TO THE POINT 4' (6' AT INTERSECTIONS AND ALONG OUTSIDES OF CURVES) BEHIND THE FACE OF CURB, WHERE APPLICABLE.
3. ITEM 908020 - EROSION CONTROL BLANKET MULCH SHALL BE UTILIZED ON THE BOTTOM OF DITCHES AND UP TO 2 FT ON THE ADJACENT SLOPES UNLESS NOTED OTHERWISE.
4. ITEM 908026 - EROSION CONTROL MULCH SHALL BE UTILIZED IN ALL PERMANENT GRASS SEEDING AREAS OUTSIDE OF EROSION CONTROL BLANKET MULCH FOOTPRINT.

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ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO.	N/A	TYPICAL SECTIONS	SECTION
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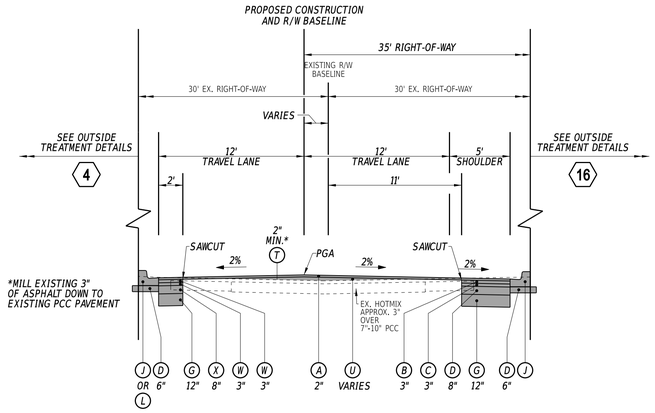
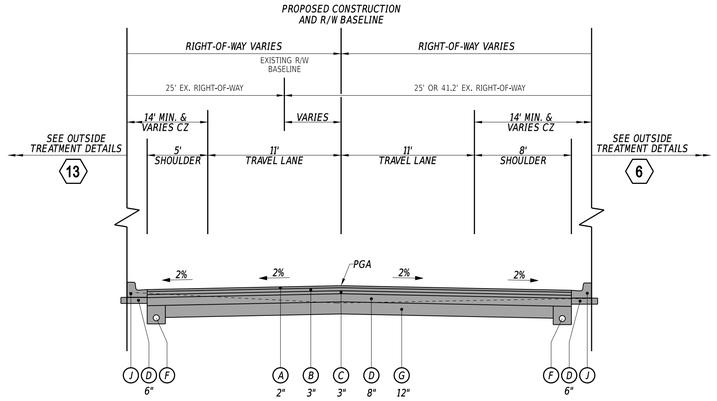
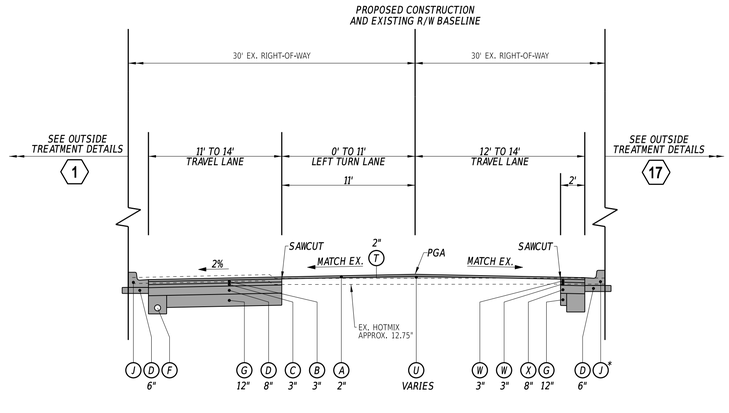
				COUNTY	CHECKED BY:	J. FREY		SHEET NO.
				KENT				12



TYPICAL NORMAL SECTION - SOUTH MAIN STREET
STATION 4503+19 TO 4505+80



TYPICAL NORMAL SECTION - VOSHELLS MILL ROAD
STATION 4000+80 TO 4001+88



TYPICAL NORMAL SECTION - KING BLVD
STATION 6001+30 TO 6003+95

*NO CURB FROM STATION 6001+30 TO 6003+16. REPLACE WITH SAFETY EDGE.

TYPICAL NORMAL SECTION - VOSHELLS MILL ROAD
STATION 4001+88 TO 4002+87

*SEE CONSTRUCTION PLANS FOR LIMITS OF SIDEWALK

TYPICAL SUPERELEVATED SECTION - UPPER KING ROAD
STATION 3507+29.07 TO 3508+97

*NO CURB FROM STATION 3507+29.07 TO 3508+18. REPLACE WITH SAFETY EDGE.

ROUNDABOUT APPROACH SECTION - UPPER KING ROAD
STATION 3510+30 TO 3511+92.63

*SEE SPLITTER ISLAND PGA DETAIL

LEGEND

- (A) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (B) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (C) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (D) ITEM 301001 - GABC
- (E) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (F) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (G) ITEM 209001 - BORROW, TYPE A
- (H) ITEM 209006 - BORROW, TYPE F (OR MATERIAL MEETING THE REQUIREMENTS OF BORROW, TYPE F)
- (I) ITEM 908004 - TOPSOIL, 6" DEPTH
ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
ITEM 908026 - EROSION CONTROL MULCH
- (J) ITEM 701023 - I.PCC CURB AND GUTTER, TYPE 3-8
- (K) ITEM 701025 - PCC CURB, TYPE 2 ROUNDABOUT
- (L) ITEM 701013 - PCC CURB, TYPE 1-8
- (M) ITEM 705521 - PATTERNED PCC SIDEWALK, 8"
- (N) ITEM 701027 - PCC CURB, TYPE 1-2 ROUNDABOUT
- (O) ITEM 701020 - I.PCC CURB AND GUTTER, TYPE 3-2
- (P) SAFETY EDGE
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705005 - PCC SIDEWALK, 8"
- (S) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (T) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (U) ITEM 401036 - SUPERPAVE TYPE C, PG 64-22, WEDGE
- (V) ITEM 701014 - PCC CURB, TYPE 2
- (W) ITEM 401030 - SUPERPAVE TYPE B, PG 64-22, PATCHING
- (X) ITEM 301002 - GABC PATCHING

PR - POINT OF ROTATION PGA - PROFILE GRADE APPLICATION

PDGA - PROFILE DITCH GRADE APPLICATION

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

NOTES:

1. BORROW, TYPE A SHALL BE PLACED IN SUCCESSIVE LAYERS NOT TO EXCEED 8" IN DEPTH, LOOSE MEASUREMENT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. LATERAL OFFSET IS MEASURED TO THE POINT 4' (6' AT INTERSECTIONS AND ALONG OUTSIDES OF CURVES) BEHIND THE FACE OF CURB, WHERE APPLICABLE.
3. ITEM 908020 - EROSION CONTROL BLANKET MULCH SHALL BE UTILIZED ON THE BOTTOM OF DITCHES AND UP TO 2 FT ON THE ADJACENT SLOPES UNLESS NOTED OTHERWISE.
4. ITEM 908026 - EROSION CONTROL MULCH SHALL BE UTILIZED IN ALL PERMANENT GRASS SEEDING AREAS OUTSIDE OF EROSION CONTROL BLANKET MULCH FOOTPRINT.

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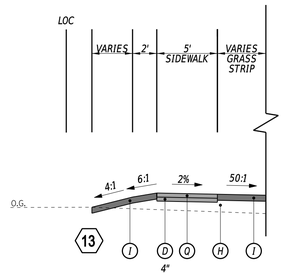
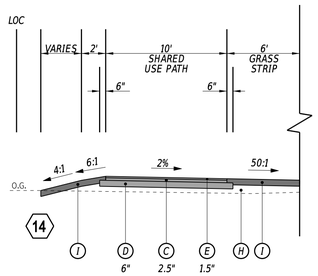
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION
				T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY	CHECKED BY: J. FREY		SHEET NO.
				KENT			13

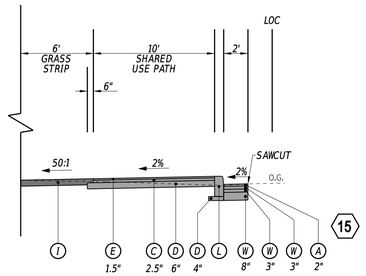
OUTSIDE TREATMENT DETAILS



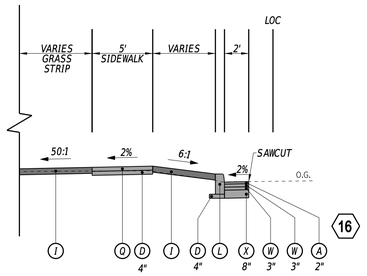
SOUTH STREET STA 2500+02 TO 2503+30
VOSHELLS MILL ROAD STA 4000+80 TO 4002+87



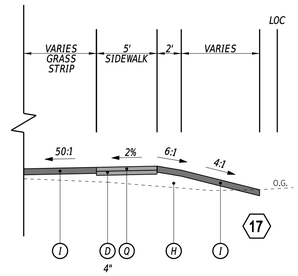
WILLOW GROVE RD STA 5001+52 TO 5002+45
WILLOW GROVE RD STA 5003+36 TO 5007+07
WILLOW GROVE RD STA 5009+56 TO 5016+38
SOUTH STREET STA 2504+14 TO 2505+94



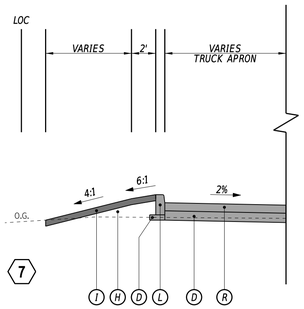
S. CAESAR RODNEY AVENUE STA 1504+00 TO 1506+50



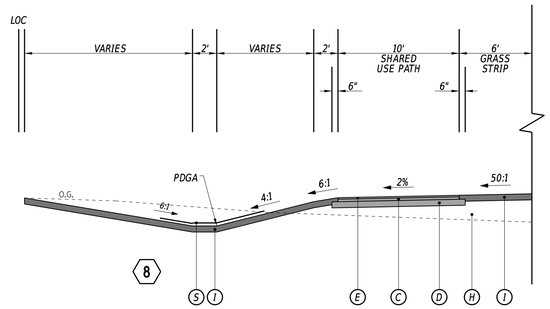
SOUTH MAIN STREET STA 4503+50 TO 4505+80



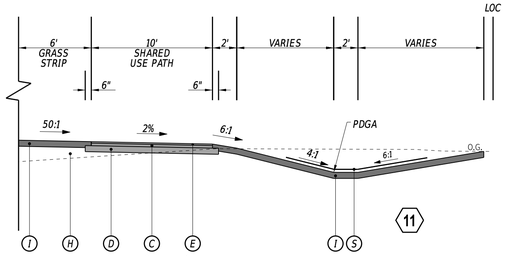
KING BLVD STA 6003+21 TO 6003+95



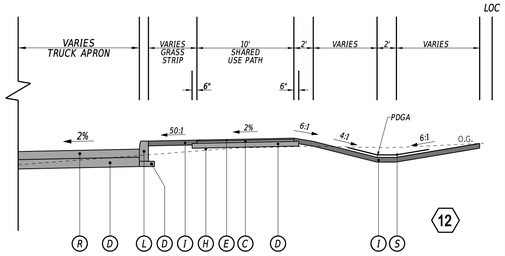
UPPER KING ROAD STA 3512+27 TO 3513+02



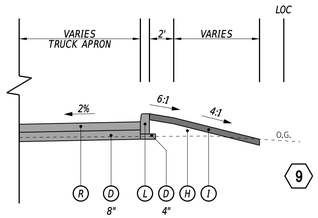
WILLOW GROVE RD STA 1013+96 TO 1043+42
WILLOW GROVE RD STA 5007+07 TO 5009+56
WILLOW GROVE RD STA 5017+67 TO 5018+50



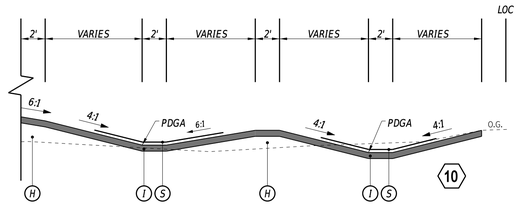
ROUNDABOUT CENTER SECTION
S. CAESAR RODNEY AVENUE STA 1500+74 TO 1504+00
UPPER KING ROAD STA 3510+12 TO 3512+36
WILLOW GROVE RD STA 5001+15 TO 5002+69
WILLOW GROVE RD STA 5008+00 TO 5014+72



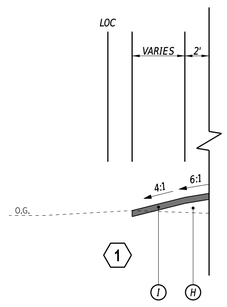
ROUNDABOUT CENTER SECTION
WILLOW GROVE RD STA 5000+72 TO 5001+15
WILLOW GROVE RD STA 5015+80 TO 5016+38
UPPER KING ROAD STATION 3512+36 TO 3513+02



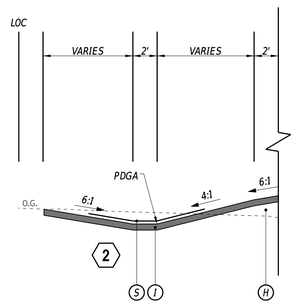
ROUNDABOUT CENTER SECTION
WILLOW GROVE RD STA 1056+97 TO 1058+21



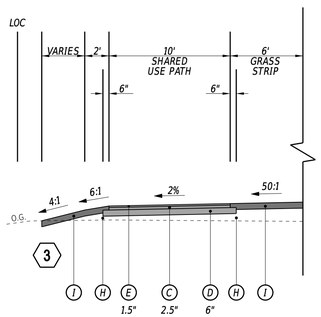
WILLOW GROVE RD STA 1025+00 TO 1030+00



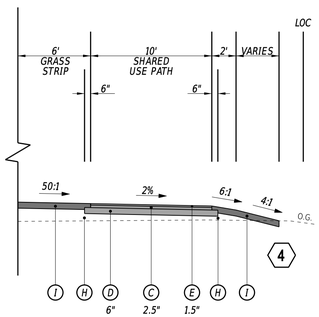
WILLOW GROVE RD STA 1005+00 TO 1006+00
S. CAESAR RODNEY AVENUE STA 1505+47 TO 1511+40
UPPER KING ROAD STA 3509+70 TO 3512+27
SOUTH MAIN STREET STA 4501+00 TO 4505+80
OLD SOUTH STREET STA 2+59 TO 11+39
KING BLVD STA 6001+30 TO 6004+17
SOUTH STREET 2498+89 TO 2500+02



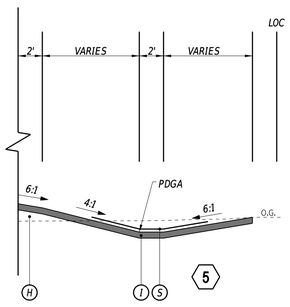
WILLOW GROVE RD STA 1002+00 TO 1005+00
WILLOW GROVE RD STA 1006+00 TO 1012+53
S. CAESAR RODNEY AVENUE STA 1500+32 TO 1502+97
S. CAESAR RODNEY AVENUE STA 1504+00 TO 1505+47
COCHRAN RD STA 2003+46 TO 2006+74
OLD SOUTH STREET STA 3000+52 TO 3003+47
UPPER KING ROAD STA 3502+00 TO 3508+97



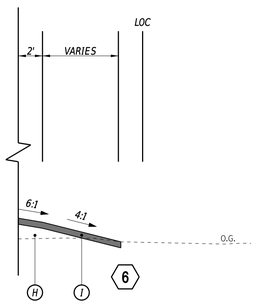
WILLOW GROVE RD STA 1043+42 TO 1046+41
WILLOW GROVE RD STA 1048+22 TO 1058+21
WILLOW GROVE RD STA 5018+50 TO 5020+96



ROUNDABOUT CENTER SECTION
SOUTH STREET STA 2501+88 TO 2505+94
WILLOW GROVE RD STA 5002+69 TO 5008+00
WILLOW GROVE RD STA 5014+72 TO 5016+50
WILLOW GROVE RD STA 5018+18 TO 5020+96



ROUNDABOUT CENTER SECTION
WILLOW GROVE RD STA 1002+00 TO 1021+90
WILLOW GROVE RD STA 1024+50 TO 1025+00
WILLOW GROVE RD STA 1030+00 TO 1054+22
OLD SOUTH STREET STA 7+10 TO 11+35



WILLOW GROVE RD STA 1021+90 TO 1024+50
WILLOW GROVE RD STA 1054+22 TO 1056+97
S. CAESAR RODNEY AVENUE STA 1506+50 TO 1511+40
COCHRAN RD STA 2003+46 TO 2006+74
SOUTH STREET STA 2498+89 TO 2501+88
UPPER KING ROAD STA 3502+00 TO 3508+97
VOSHELLS MILL ROAD STA 4000+80 TO 4002+87
OLD SOUTH STREET STA 2+59 TO 7+10
OLD SOUTH STREET STA 3002+00 TO 3003+47

LEGEND

- (A) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (B) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (C) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (D) ITEM 301001 - GABC
- (E) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (F) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (G) ITEM 209001 - BORROW, TYPE A
- (H) ITEM 209006 - BORROW, TYPE F (OR MATERIAL MEETING THE REQUIREMENTS OF BORROW, TYPE F)
- (I) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
  ITEM 908026 - EROSION CONTROL MULCH
- (J) ITEM 701023 - I.PCC CURB AND GUTTER, TYPE 3-8
- (K) ITEM 701025 - PCC CURB, TYPE 2 ROUNDABOUT
- (L) ITEM 701013 - PCC CURB, TYPE 1-8
- (M) ITEM 705521 - PATTERNED PCC SIDEWALK, 8"
- (N) ITEM 701027 - PCC CURB, TYPE 1-2 ROUNDABOUT
- (O) ITEM 701020 - I.PCC CURB AND GUTTER, TYPE 3-2
- (P) SAFETY EDGE
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705005 - PCC SIDEWALK, 8"
- (S) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (T) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (U) ITEM 401036 - SUPERPAVE TYPE C, PG 64-22, WEDGE
- (V) ITEM 701014 - PCC CURB, TYPE 2
- (W) ITEM 401030 - SUPERPAVE TYPE B, PG 64-22, PATCHING
- (X) ITEM 301002 - GABC PATCHING

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

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

NOTES:

1. BORROW, TYPE A SHALL BE PLACED IN SUCCESSIVE LAYERS NOT TO EXCEED 8" IN DEPTH, LOOSE MEASUREMENT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. LATERAL OFFSET IS MEASURED TO THE POINT 4' (6' AT INTERSECTIONS AND ALONG OUTSIDES OF CURVES) BEHIND THE FACE OF CURB, WHERE APPLICABLE.
3. ITEM 908020 - EROSION CONTROL BLANKET MULCH SHALL BE UTILIZED ON THE BOTTOM OF DITCHES AND UP TO 2 FT ON THE ADJACENT SLOPES UNLESS NOTED OTHERWISE.
4. ITEM 908026 - EROSION CONTROL MULCH SHALL BE UTILIZED IN ALL PERMANENT GRASS SEEDING AREAS OUTSIDE OF EROSION CONTROL BLANKET MULCH FOOTPRINT.

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ADDENDA / REVISIONS

NOT TO SCALE

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

TYPICAL SECTIONS

SECTION
CEN
SHEET NO.
14

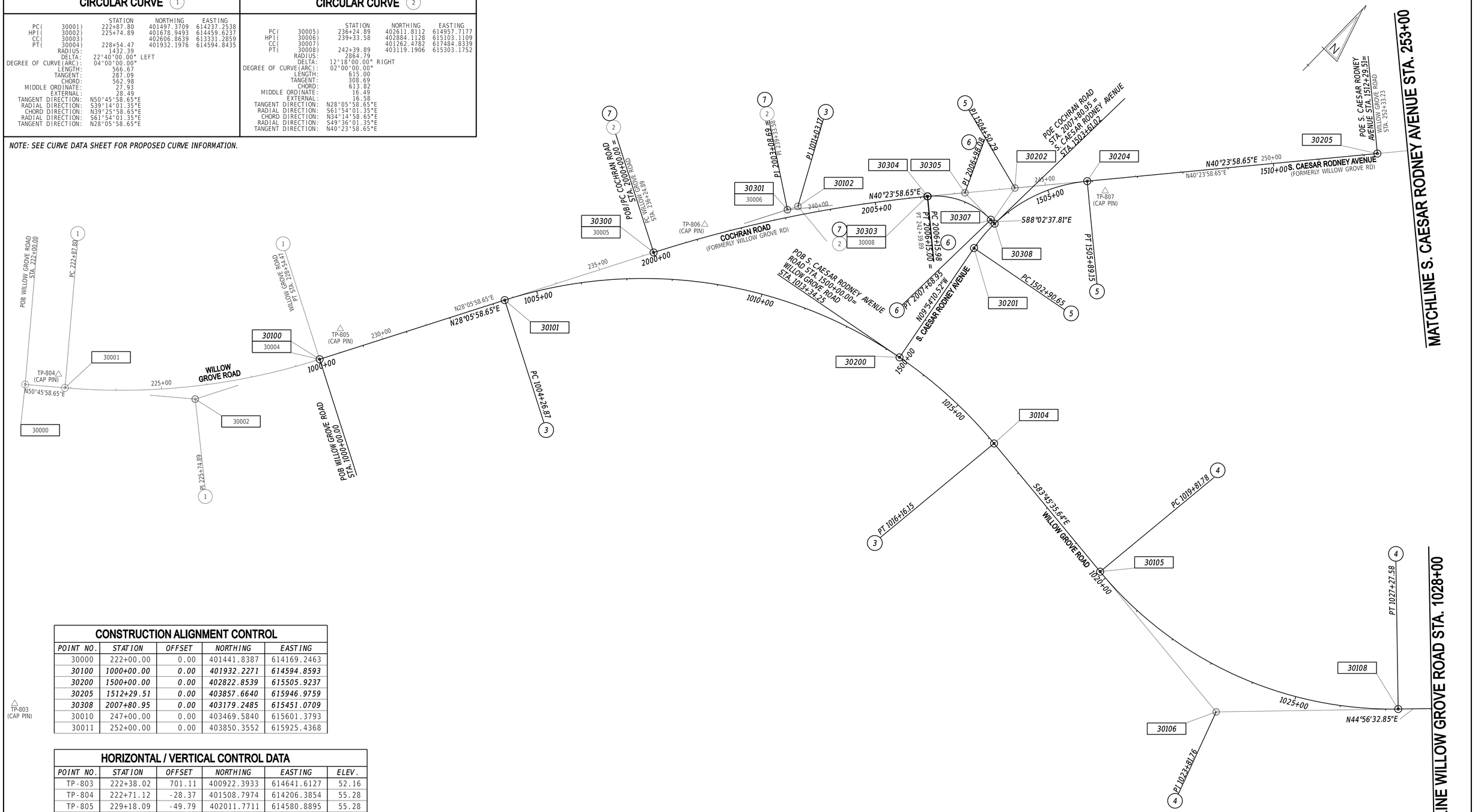
CIRCULAR CURVE (1)

	STATION	NORTHING	EASTING
PC(30001)	222+87.80	401497.3709	614237.2538
HPI(30002)	225+74.89	401678.9493	614459.6237
CC(30003)		402606.8639	613331.2859
PT(30004)	228+54.47	401932.1976	614594.8435
RADIUS:	1432.39		
DELTA:	22°40'00.00" LEFT		
DEGREE OF CURVE(ARC):	04°00'00.00"		
LENGTH:	566.67		
TANGENT:	287.09		
CHORD:	562.98		
MIDDLE ORDINATE:	27.93		
EXTERNAL:	28.49		
TANGENT DIRECTION:	N50°45'58.65"E		
RADIAL DIRECTION:	S39°14'01.35"E		
CHORD DIRECTION:	N39°25'58.65"E		
RADIAL DIRECTION:	S61°54'01.35"E		
TANGENT DIRECTION:	N28°05'58.65"E		

CIRCULAR CURVE (2)

	STATION	NORTHING	EASTING
PC(30005)	236+24.89	402611.8112	614957.7177
HPI(30006)	239+33.58	402884.1128	615103.1109
CC(30007)		401262.4782	617484.8339
PT(30008)	242+39.89	403119.1906	615303.1752
RADIUS:	2864.79		
DELTA:	12°18'00.00" RIGHT		
DEGREE OF CURVE(ARC):	02°00'00.00"		
LENGTH:	615.00		
TANGENT:	308.69		
CHORD:	613.82		
MIDDLE ORDINATE:	16.49		
EXTERNAL:	16.58		
TANGENT DIRECTION:	N28°05'58.65"E		
RADIAL DIRECTION:	S61°54'01.35"E		
CHORD DIRECTION:	N34°14'58.65"E		
RADIAL DIRECTION:	S49°36'01.35"E		
TANGENT DIRECTION:	N40°23'58.65"E		

NOTE: SEE CURVE DATA SHEET FOR PROPOSED CURVE INFORMATION.



CONSTRUCTION ALIGNMENT CONTROL

POINT NO.	STATION	OFFSET	NORTHING	EASTING
30000	222+00.00	0.00	401441.8387	614169.2463
30100	*1000+00.00*	*0.00*	*401932.2271*	*614594.8593*
30200	*1500+00.00*	*0.00*	*402822.8539*	*615505.9237*
30205	*1512+29.51*	*0.00*	*403857.6640*	*615946.9759*
30308	*2007+80.95*	*0.00*	*403179.2485*	*615451.0709*
30010	247+00.00	0.00	403469.5840	615601.3793
30011	252+00.00	0.00	403850.3552	615925.4368

TP-803 (CAP PIN)

HORIZONTAL / VERTICAL CONTROL DATA

POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEV.
TP-803	222+38.02	701.11	400922.3933	614641.6127	52.16
TP-804	222+71.12	-28.37	401508.7974	614206.3854	55.28
TP-805	229+18.09	-49.79	402011.7711	614580.8895	55.28
TP-806	237+49.40	-27.05	402734.0988	614995.4415	49.45
TP-807	246+30.11	25.34	403399.9384	615575.3774	47.65

DATUM REFERENCE:

HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/2011).

VERTICAL - THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD 88).

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ADDENDA / REVISIONS

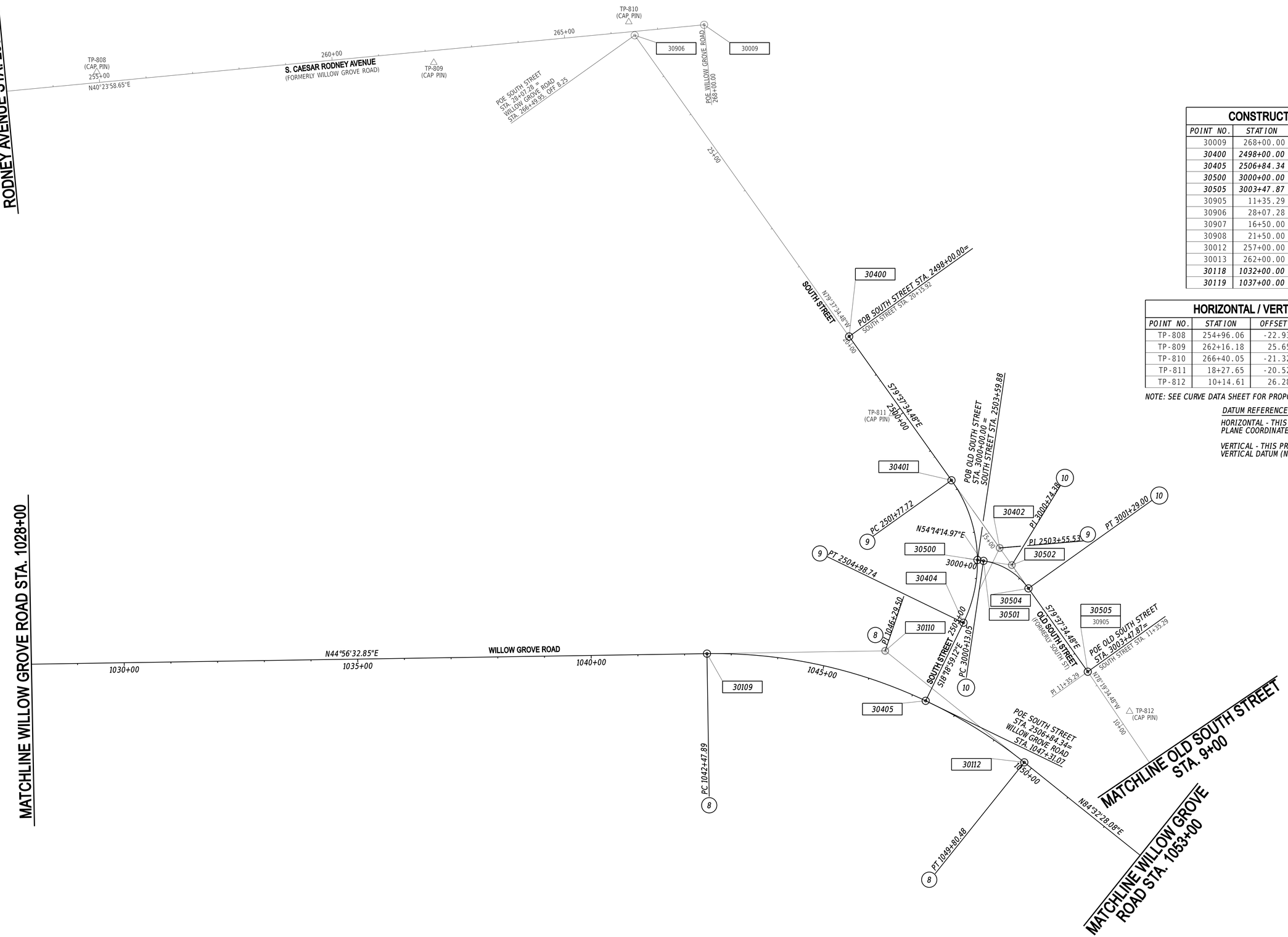
SCALE 0 100 200 300 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

HORIZONTAL AND VERTICAL CONTROL

SECTION
CEN
SHEET NO.
15



CONSTRUCTION ALIGNMENT CONTROL

POINT NO.	STATION	OFFSET	NORTHING	EASTING
30009	268+00.00	0.00	405068.8233	616962.4206
30400	*2498+00.00*	*0.00*	*404806.7081*	*617649.8796*
30405	*2506+84.34*	*0.00*	*404361.6797*	*618310.5359*
30500	*3000+00.00*	*0.00*	*404655.1218*	*618180.1444*
30505	*3003+47.87*	*0.00*	*404648.1342*	*618516.1151*
30905	11+35.29	0.00	404648.1342	618516.1151
30906	28+07.28	0.00	404949.2071	616871.4553
30907	16+50.00	0.00	404740.8173	618009.8185
30908	21+50.00	0.00	404830.8516	617517.9915
30012	257+00.00	0.00	404231.1265	616249.4942
30013	262+00.00	0.00	404611.8978	616573.5517
30118	*1032+00.00*	*0.00*	*403366.1380*	*617164.0822*
30119	*1037+00.00*	*0.00*	*403720.0463*	*617517.2803*

HORIZONTAL / VERTICAL CONTROL DATA

POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEV.
TP-808	254+96.06	-22.93	404090.6770	616099.8575	49.37
TP-809	262+16.18	25.65	404607.5989	616603.5686	47.07
TP-810	266+40.05	-21.32	404960.8268	616842.5202	43.24
TP-811	18+27.65	-20.52	404752.6256	617831.3778	46.23
TP-812	10+14.61	26.28	404649.4485	618639.6205	43.16

NOTE: SEE CURVE DATA SHEET FOR PROPOSED CURVE INFORMATION.

DATUM REFERENCE:

HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/2011).

VERTICAL - THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD 88).

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ADDENDA / REVISIONS	

SCALE
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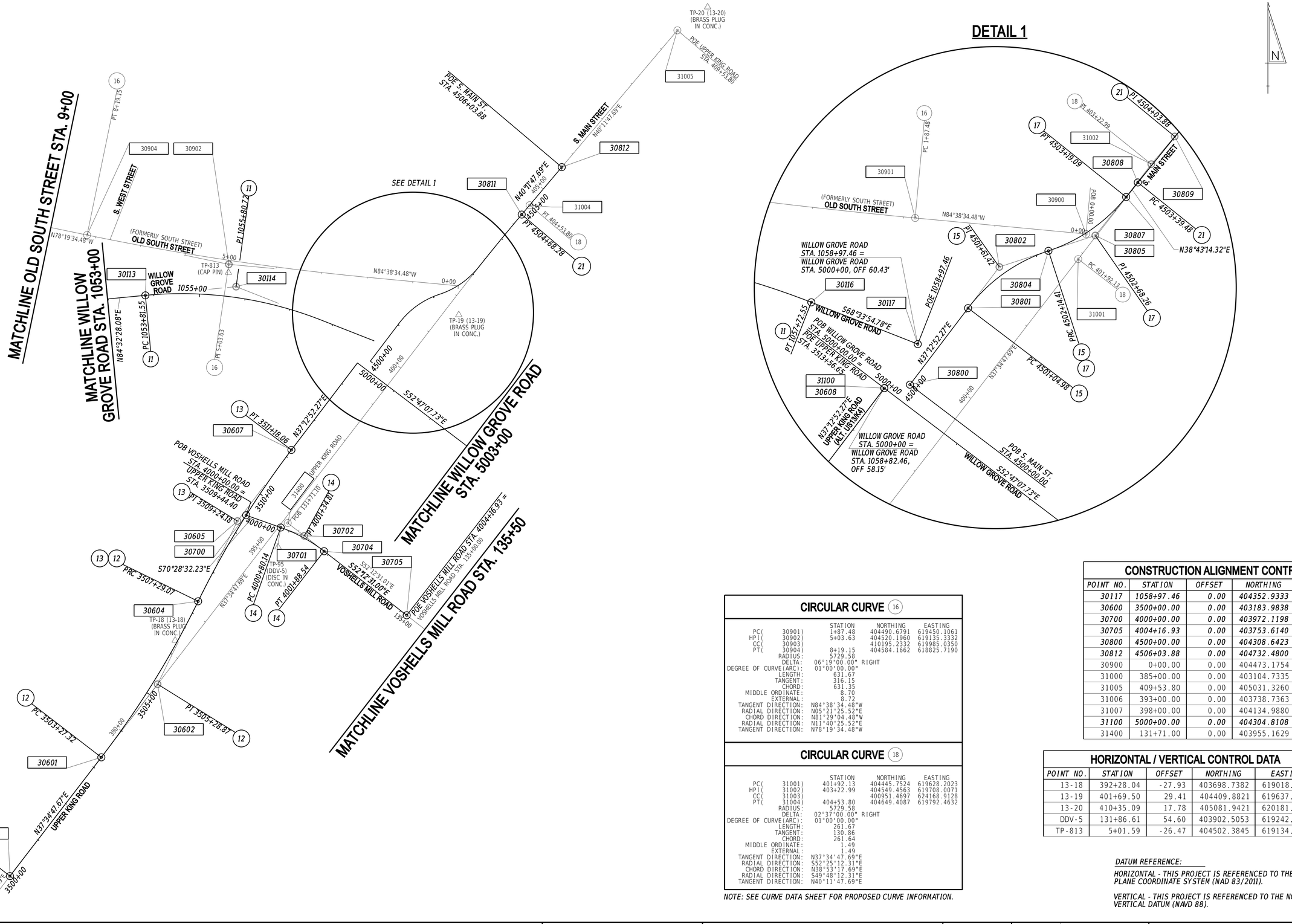
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	SECTION
T201709502	DESIGNED BY:	L. HAXTON	CEN
COUNTY	CHECKED BY:	J. FREY	SHEET NO.
KENT			16

HORIZONTAL AND VERTICAL CONTROL



CONSTRUCTION ALIGNMENT CONTROL

POINT NO.	STATION	OFFSET	NORTHING	EASTING
30117	1058+97.46	0.00	404352.9333	619452.9313
30600	3500+00.00	0.00	403183.9838	618657.2141
30700	4000+00.00	0.00	403972.1198	619173.1873
30705	4004+16.93	0.00	403753.6140	619523.9251
30800	4500+00.00	0.00	404308.6423	619444.4087
30812	4506+03.88	0.00	404732.4800	619862.6554
30900	0+00.00	0.00	404473.1754	619636.7672
31000	385+00.00	0.00	403104.7335	618596.2274
31005	409+53.80	0.00	405031.3260	620115.1693
31006	393+00.00	0.00	403738.7363	619084.1213
31007	398+00.00	0.00	404134.9880	619389.0550
31100	5000+00.00	0.00	404304.8108	619416.3852
31400	131+71.00	0.00	403955.1629	619264.0091

CIRCULAR CURVE (16)

	STATION	NORTHING	EASTING
PC(30901)	1+87.48	404490.6791	619450.1061
PI(30902)	5+03.63	404520.1960	619135.3332
CC(30903)		410195.2332	619985.0350
PT(30904)	8+19.15	404584.1662	618825.7190
RADIUS:	5729.58		
DELTA:	06°19'00.00"	RIGHT	
DEGREE OF CURVE(ARC):	01°00'00.00"		
LENGTH:	631.67		
TANGENT:	316.15		
CHORD:	631.35		
MIDDLE ORDINATE:	8.70		
EXTERNAL:	8.72		
TANGENT DIRECTION:	N84°38'34.48"W		
RADIAL DIRECTION:	N05°21'25.52"E		
CHORD DIRECTION:	N81°29'04.48"W		
RADIAL DIRECTION:	N11°40'25.52"E		
TANGENT DIRECTION:	N78°19'34.48"W		

CIRCULAR CURVE (18)

	STATION	NORTHING	EASTING
PC(31001)	401+92.13	404445.7524	619628.2023
PI(31002)	403+22.99	404549.4563	619708.0071
CC(31003)		400951.4697	624168.9128
PT(31004)	404+53.80	404649.4087	619792.4632
RADIUS:	5729.58		
DELTA:	02°37'00.00"	RIGHT	
DEGREE OF CURVE(ARC):	01°00'00.00"		
LENGTH:	261.67		
TANGENT:	130.86		
CHORD:	261.64		
MIDDLE ORDINATE:	1.49		
EXTERNAL:	1.49		
TANGENT DIRECTION:	N37°34'47.69"E		
RADIAL DIRECTION:	S52°25'12.31"E		
CHORD DIRECTION:	N38°53'17.69"E		
RADIAL DIRECTION:	S49°48'12.31"E		
TANGENT DIRECTION:	N40°11'47.69"E		

NOTE: SEE CURVE DATA SHEET FOR PROPOSED CURVE INFORMATION.

HORIZONTAL / VERTICAL CONTROL DATA

POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEV.
13-18	392+28.04	-27.93	403698.7382	619018.0977	46.80
13-19	401+69.50	29.41	404409.8821	619637.7033	41.27
13-20	410+35.09	17.78	405081.9421	620181.2149	40.91
DDV-5	131+86.61	54.60	403902.5053	619242.8108	44.59
TP-813	5+01.59	-26.47	404502.3845	619134.4148	42.05

DATUM REFERENCE:

HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/2011).

VERTICAL - THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD 88).

ADDENDA / REVISIONS

SCALE 0 100 200 300 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	SECTION
T201709502	DESIGNED BY: L. HAXTON		CEN
COUNTY	CHECKED BY: J. FREY		SHEET NO.
KENT			17

HORIZONTAL AND VERTICAL CONTROL

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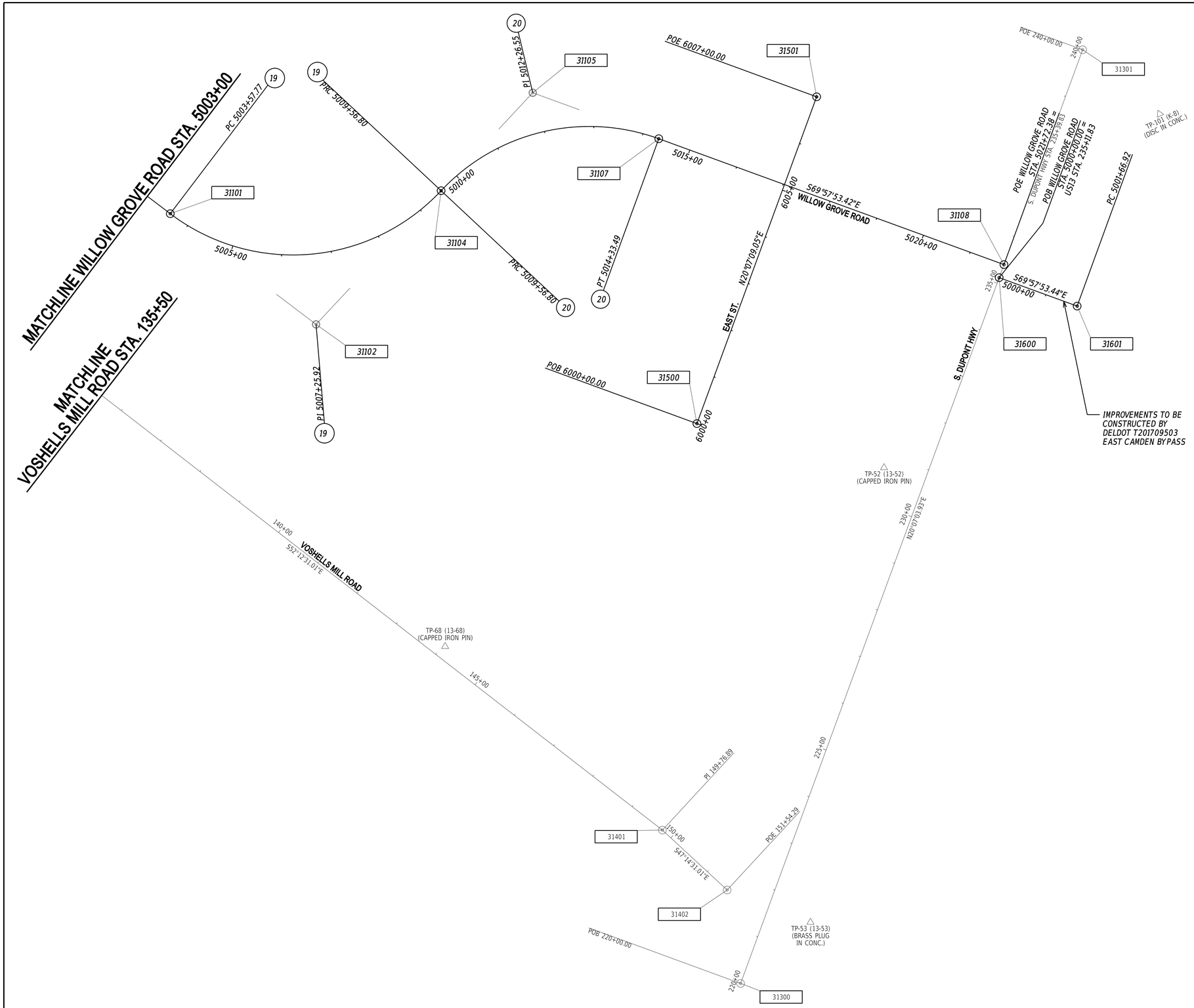

CONSTRUCTION ALIGNMENT CONTROL

POINT NO.	STATION	OFFSET	NORTHING	EASTING
31108	***5021+72.38***	***0.00***	***403986.0526***	***621377.8999***
31300	220+00.00	0.00	402540.1730	620848.2748
31301	240+00.00	0.00	404418.1484	621536.1763
31302	225+00.00	0.00	403009.6668	621020.2502
31303	230+00.00	0.00	403479.1607	621192.2256
31304	235+00.00	0.00	403948.6545	621364.2009
31401	149+76.89	0.00	402848.5959	620691.0295
31402	152+54.29	0.00	402728.1553	620821.2848
31403	136+00.00	0.00	403692.3351	619602.9498
31404	141+00.00	0.00	403385.9410	619998.0733
31405	146+00.00	0.00	403079.5469	620393.1969
31500	***6000+00.00***	***0.00***	***403666.2158***	***620760.4067***
31501	***6007+00.00***	***0.00***	***404323.5012***	***621001.1885***
31600	***5000+00.00***	***0.00***	***403959.7609***	***621368.2692***
31601	***5001+66.92***	***0.00***	***403902.5755***	***621525.0854***

HORIZONTAL / VERTICAL CONTROL DATA

POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEV.
13-52	230+73.30	-85.95	403577.5492	621136.7280	38.05
13-53	221+63.94	89.62	402663.2850	620988.8147	36.97
13-68	144+05.22	-24.14	403217.9810	620254.0628	42.14
K-8	239+32.01	189.75	404289.0365	621690.9652	41.84

NOTE: SEE CURVE DATA SHEET FOR PROPOSED CURVE INFORMATION.

DATUM REFERENCE:

HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/2011).

VERTICAL - THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD 88).

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ADDENDA / REVISIONS		SCALE 0 100 200 300 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	HORIZONTAL AND VERTICAL CONTROL	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 18
					CHECKED BY: J. FREY		

CIRCULAR CURVE 3

	STATION	NORTHING	EASTING
PC(30101)	1004+26.87	402308.7850	614795.9193
HPI(30102)	1011+03.17	402905.3638	615114.4577
CC(30103)		401837.7789	615678.0493
PT(30104)	1016+16.15	402831.8540	615786.7444
RADIUS:	1000.00		
DELTA:	68°08'25.72" RIGHT		
DEGREE OF CURVE(ARC):	05°43'46.48"		
LENGTH:	1189.28		
TANGENT:	676.29		
CHORD:	1120.42		
MIDDLE ORDINATE:	171.65		
EXTERNAL:	207.22		
TANGENT DIRECTION:	N28°05'58.65"E		
RADIAL DIRECTION:	S61°54'01.35"E		
CHORD DIRECTION:	N62°10'11.50"E		
RADIAL DIRECTION:	S06°14'24.36"W		
TANGENT DIRECTION:	S83°45'35.64"E		

CIRCULAR CURVE 4

	STATION	NORTHING	EASTING
PC(30105)	1019+81.78	402792.1117	616150.2091
HPI(30106)	1023+81.76	402748.6359	616547.8191
CC(30107)		403620.1763	616240.7521
PT(30108)	1027+27.58	403031.7482	616830.3633
RADIUS:	833.00		
DELTA:	51°17'51.50" LEFT		
DEGREE OF CURVE(ARC):	06°52'41.68"		
LENGTH:	745.80		
TANGENT:	399.98		
CHORD:	721.13		
MIDDLE ORDINATE:	82.08		
EXTERNAL:	91.05		
TANGENT DIRECTION:	S83°45'35.64"E		
RADIAL DIRECTION:	S06°14'24.36"W		
CHORD DIRECTION:	N70°35'28.60"E		
RADIAL DIRECTION:	S45°03'27.15"E		
TANGENT DIRECTION:	N44°56'32.85"E		

CIRCULAR CURVE 5

	STATION	NORTHING	EASTING
PC(30201)	1502+90.65	403109.1696	615455.9386
HPI(30202)	1504+50.29	403266.4299	615428.4840
CC(30203)		403167.6426	615790.8727
PT(30204)	1505+89.15	403388.0017	615531.9483
RADIUS:	340.00		
DELTA:	50°18'09.17" RIGHT		
DEGREE OF CURVE(ARC):	16°51'06.12"		
LENGTH:	298.50		
TANGENT:	159.64		
CHORD:	289.01		
MIDDLE ORDINATE:	32.24		
EXTERNAL:	35.61		
TANGENT DIRECTION:	N09°54'10.52"W		
RADIAL DIRECTION:	N80°05'49.48"E		
CHORD DIRECTION:	N15°14'54.06"E		
RADIAL DIRECTION:	S49°36'01.35"E		
TANGENT DIRECTION:	N40°23'58.65"E		

CIRCULAR CURVE 6

	STATION	NORTHING	EASTING
PC(30304)	2006+15.98	403119.9368	615303.8102
HPI(30305)	2006+98.08	403182.4607	615357.0215
CC(30306)		403009.7572	615433.2724
PT(30307)	2007+68.95	403179.6582	615439.0754
RADIUS:	170.00		
DELTA:	51°33'23.54" RIGHT		
DEGREE OF CURVE(ARC):	33°42'12.24"		
LENGTH:	152.97		
TANGENT:	82.10		
CHORD:	147.86		
MIDDLE ORDINATE:	16.92		
EXTERNAL:	18.79		
TANGENT DIRECTION:	N40°23'58.65"E		
RADIAL DIRECTION:	S49°36'01.35"E		
CHORD DIRECTION:	N66°10'40.42"E		
RADIAL DIRECTION:	S01°57'22.19"W		
TANGENT DIRECTION:	S88°02'37.81"E		

CIRCULAR CURVE 7

	STATION	NORTHING	EASTING
PC(30300)	2000+00.00	402611.8112	614957.7177
HPI(30301)	2003+08.69	402884.1128	615103.1109
CC(30302)		401262.4782	617484.8339
PT(30303)	2006+15.00	403119.1906	615303.1752
RADIUS:	2864.79		
DELTA:	12°18'00.00" RIGHT		
DEGREE OF CURVE(ARC):	02°00'00.00"		
LENGTH:	615.00		
TANGENT:	308.69		
CHORD:	613.82		
MIDDLE ORDINATE:	16.49		
EXTERNAL:	16.58		
TANGENT DIRECTION:	N28°05'58.65"E		
RADIAL DIRECTION:	S61°54'01.35"E		
CHORD DIRECTION:	N34°14'58.65"E		
RADIAL DIRECTION:	S49°36'01.35"E		
TANGENT DIRECTION:	N40°23'58.65"E		

CIRCULAR CURVE 8

	STATION	NORTHING	EASTING
PC(30109)	1042+47.89	404107.8505	617904.3064
HPI(30110)	1046+29.50	404377.9601	618173.8740
CC(30111)		403359.0704	618654.5919
PT(30112)	1049+80.48	404414.2631	618553.7529
RADIUS:	1060.00		
DELTA:	39°35'55.23" RIGHT		
DEGREE OF CURVE(ARC):	05°24'18.94"		
LENGTH:	732.59		
TANGENT:	381.61		
CHORD:	718.10		
MIDDLE ORDINATE:	62.66		
EXTERNAL:	66.60		
TANGENT DIRECTION:	N44°56'32.85"E		
RADIAL DIRECTION:	S45°03'27.15"E		
CHORD DIRECTION:	N64°44'30.47"E		
RADIAL DIRECTION:	S05°27'31.92"E		
TANGENT DIRECTION:	N84°32'28.08"E		

CIRCULAR CURVE 9

	STATION	NORTHING	EASTING
PC(30401)	2501+77.72	404738.6919	618021.4288
HPI(30402)	2503+55.53	404706.6743	618196.3301
CC(30403)		404443.5957	617967.4082
PT(30404)	2504+98.74	404537.8751	618252.2088
RADIUS:	300.00		
DELTA:	61°18'35.35" RIGHT		
DEGREE OF CURVE(ARC):	19°05'54.94"		
LENGTH:	321.02		
TANGENT:	177.81		
CHORD:	305.92		
MIDDLE ORDINATE:	41.92		
EXTERNAL:	48.73		
TANGENT DIRECTION:	S79°37'34.48"E		
RADIAL DIRECTION:	S10°22'25.52"W		
CHORD DIRECTION:	S48°58'16.80"E		
RADIAL DIRECTION:	S71°41'00.88"W		
TANGENT DIRECTION:	S18°18'59.12"E		

CIRCULAR CURVE 10

	STATION	NORTHING	EASTING
PC(30501)	3000+13.05	404662.7482	618190.7334
HPI(30502)	3000+74.38	404698.5891	618240.4966
CC(30503)		404545.9000	618274.8908
PT(30504)	3001+29.00	404687.5461	618300.8207
RADIUS:	144.00		
DELTA:	46°08'10.55" RIGHT		
DEGREE OF CURVE(ARC):	39°47'19.45"		
LENGTH:	115.95		
TANGENT:	61.33		
CHORD:	112.85		
MIDDLE ORDINATE:	11.51		
EXTERNAL:	12.52		
TANGENT DIRECTION:	N54°14'14.97"E		
RADIAL DIRECTION:	S35°45'45.03"E		
CHORD DIRECTION:	N77°18'20.24"E		
RADIAL DIRECTION:	S10°22'25.52"W		
TANGENT DIRECTION:	S79°37'34.48"E		

CIRCULAR CURVE 11

	STATION	NORTHING	EASTING
PC(30113)	1053+81.55	404452.4174	618953.0049
HPI(30114)	1055+80.72	404471.3645	619151.2698
CC(30115)		403623.1952	619032.2491
PT(30116)	1057+72.55	404398.5801	619336.6623
RADIUS:	833.00		
DELTA:	26°53'37.14" RIGHT		
DEGREE OF CURVE(ARC):	06°52'41.68"		
LENGTH:	391.00		
TANGENT:	199.17		
CHORD:	387.42		
MIDDLE ORDINATE:	22.84		
EXTERNAL:	23.48		
TANGENT DIRECTION:	N84°32'28.08"E		
RADIAL DIRECTION:	S05°27'31.92"E		
CHORD DIRECTION:	S82°00'43.35"E		
RADIAL DIRECTION:	S21°26'05.22"W		
TANGENT DIRECTION:	S68°33'54.78"E		

CIRCULAR CURVE 12

	STATION	NORTHING	EASTING
PC(30601)	3503+27.32	403443.3862	618856.8360
HPI(30602)	3505+28.87	403603.1164	618979.7556
CC(30603)		404663.1208	617271.8289
PRC(30604)	3507+29.07	403784.1604	619068.3334
RADIUS:	2000.00		
DELTA:	11°30'33.07" LEFT		
DEGREE OF CURVE(ARC):	02°51'53.24"		
LENGTH:	401.75		
TANGENT:	201.55		
CHORD:	401.07		
MIDDLE ORDINATE:	10.08		
EXTERNAL:	10.13		
TANGENT DIRECTION:	N37°34'47.67"E		
RADIAL DIRECTION:	S52°25'12.33"E		
CHORD DIRECTION:	N31°49'31.14"E		
RADIAL DIRECTION:	S63°55'45.40"E		
TANGENT DIRECTION:	N26°04'14.60"E		

CIRCULAR CURVE 13

	STATION	NORTHING	EASTING
PRC(30604)	3507+29.07	403784.1604	619068.3334
HPI(30605)	3509+24.18	403959.4197	619154.0811
CC(30606)		402905.2000	620864.8380
PT(30607)	3511+18.06	404114.8019	619272.0846
RADIUS:	2000.00		
DELTA:	11°08'37.67" RIGHT		
DEGREE OF CURVE(ARC):	02°51'53.24"		
LENGTH:	388.99		
TANGENT:	195.11		
CHORD:	388.38		
MIDDLE ORDINATE:	9.45		
EXTERNAL:	9.49		
TANGENT DIRECTION:	N26°04'14.60"E		
RADIAL DIRECTION:	S63°55'45.40"E		
CHORD DIRECTION:	N31°38'33.43"E		
RADIAL DIRECTION:	S52°47'07.73"E		
TANGENT DIRECTION:	N37°12'52.27"E		

CIRCULAR CURVE 14

	STATION	NORTHING	EASTING
PC(30701)	4000+80.14	403945.3354	619248.7221
HPI(30702)	4001+34.81	403927.0665	619300.2420
CC(30703)		403624.8856	619135.0914
PT(30704)	4001+88.54	403893.5696	619343.4394
RADIUS:	340.00		
DELTA:	18°16'01.22" RIGHT		
DEGREE OF CURVE(ARC):	16°51'06.12"		
LENGTH:	108.40		
TANGENT:	54.66		
CHORD:	107.94		
MIDDLE ORDINATE:	4.31		
EXTERNAL:	4.37		
TANGENT DIRECTION:	S70°28'32.23"E		
RADIAL DIRECTION:	S19°31'27.77"W		
CHORD DIRECTION:	S61°20'31.62"E		
RADIAL DIRECTION:	S37°47'28.99"W		
TANGENT DIRECTION:	S52°12'31.01"E		

CIRCULAR CURVE 15

	STATION	NORTHING	EASTING
PC(30801)	4501+04.98	404392.2436	619507.8989
HPI(30802)	4501+61.42	404437.1968	619542.0382
CC(30803)		404282.7746	619652.0431
PRC(30804)	4502+14.41	404454.7747	619595.6786
RADIUS:	181.00		
DELTA:	34°38'29.40" RIGHT		
DEGREE OF CURVE(ARC):	31°39'18.46"		
LENGTH:	109.43		
TANGENT:	56.45		
CHORD:	107.77		
MIDDLE ORDINATE:	8.21		
EXTERNAL:	8.60		
TANGENT DIRECTION:	N37°12'52.27"E		
RADIAL DIRECTION:	S52°47'07.73"E		
CHORD DIRECTION:	N54°32'06.97"E		
RADIAL DIRECTION:	S18°08'38.33"E		
TANGENT DIRECTION:	N71°51'21.67"E		

CIRCULAR CURVE 17

	STATION	NORTHING	EASTING
PRC(30804)	4502+14.41	404454.7747	619595.6786
HPI(30805)	4502+68.26	404471.5431	619646.8485
CC(30806)		404626.7749	619539.3142
PT(30807)	4503+19.09	404513.5551	619680.5313
RADIUS:	181.00		
DELTA:	33°08'07.35" LEFT		
DEGREE OF CURVE(ARC):	31°39'18.46"		
LENGTH:	104.68		
TANGENT:	53.85		
CHORD:	103.22		
MIDDLE ORDINATE:	7.51		
EXTERNAL:	7.84		
TANGENT DIRECTION:	N71°51'21.67"E		
RADIAL DIRECTION:	S18°08'38.33"E		
CHORD DIRECTION:	N55°17'18.00"E		
RADIAL DIRECTION:	S51°16'45.68"E		
TANGENT DIRECTION:	N38°43'14.32"E		

CIRCULAR CURVE 19

	STATION	NORTHING	EASTING
PC(31101)	5003+57.77	404088.4326	619701.3030
HPI(31102)	5007+25.92	403865.7727	619994.4923
CC(31103)		404413.3543	619948.0618
PRC(31104)	5009+56.80	404134.6190	620246.0058
RADIUS:	408.00		
DELTA:	84°07'20.24" LEFT		
DEGREE OF CURVE(ARC):	14°02'35.10"		
LENGTH:	599.03		
TANGENT:	368.15		
CHORD:	546.66		
MIDDLE ORDINATE:	105.09		
EXTERNAL:	141.55		
TANGENT DIRECTION:	S52°47'07.73"E		
RADIAL DIRECTION:	S37°12'52.27"W		
CHORD DIRECTION:	N85°09'12.15"E		
RADIAL DIRECTION:	S46°54'27.97"E		
TANGENT DIRECTION:	N43°05'32.03"E		

CIRCULAR CURVE 20

	STATION	NORTHING	EASTING
PRC(31104)	5009+56.80	404134.6190	620246.0058
HPI(31105)	5012+26.55	404331.6105	620430.2971
CC(31106)		403855.8837	620543.9498
PT(31107)	5014+33.49	404239.1926	620683.7293
RADIUS:	408.00		
DELTA:	66°56'34.55" RIGHT		
DEGREE OF CURVE(ARC):	14°02'35.10"		
LENGTH:	476.70		
TANGENT:	269.76		
CHORD:	450.04		
MIDDLE ORDINATE:	67.66		
EXTERNAL:	81.11		
TANGENT DIRECTION:	N43°05'32.03"E		
RADIAL DIRECTION:	S46°54'27.97"E		
CHORD DIRECTION:	N76°33'49.30"E		
RADIAL DIRECTION:	S20°02'06.58"W		
TANGENT DIRECTION:	S69°57'53.42"E		

CIRCULAR CURVE 21

	STATION	NORTHING	EASTING
PC (30808)	4503+39.48	404529.4652	619693.2871
HPI(30809)	4504+03.88	404579.7131	619733.5730
CC(30810)		401401.8461	623594.3124
PT(30811)	4504+68.28	404628.9066	619775.1397
RADIUS:	5000.00		
DELTA:	01°28'33.37" RIGHT		
DEGREE OF CURVE(ARC):	01°08'45.30"		
LENGTH:	128.80		
TANGENT:	64.40		
CHORD:	128.80		
MIDDLE ORDINATE:	0.41		
EXTERNAL:	0.41		
TANGENT DIRECTION:	N38°43'14.32"E		
RADIAL DIRECTION:	S51°16'45.68"E		
CHORD DIRECTION:	N39°27'31.01"E		
RADIAL DIRECTION:	S49°48'12.31"E		
TANGENT DIRECTION:	N40°11'47.69"E		

PROPOSED CURVE DATA SHEET

ADDENDA / REVISIONS

NOT TO SCALE

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

HORIZONTAL AND VERTICAL CONTROL

SECTION	CEN
SHEET NO.	19

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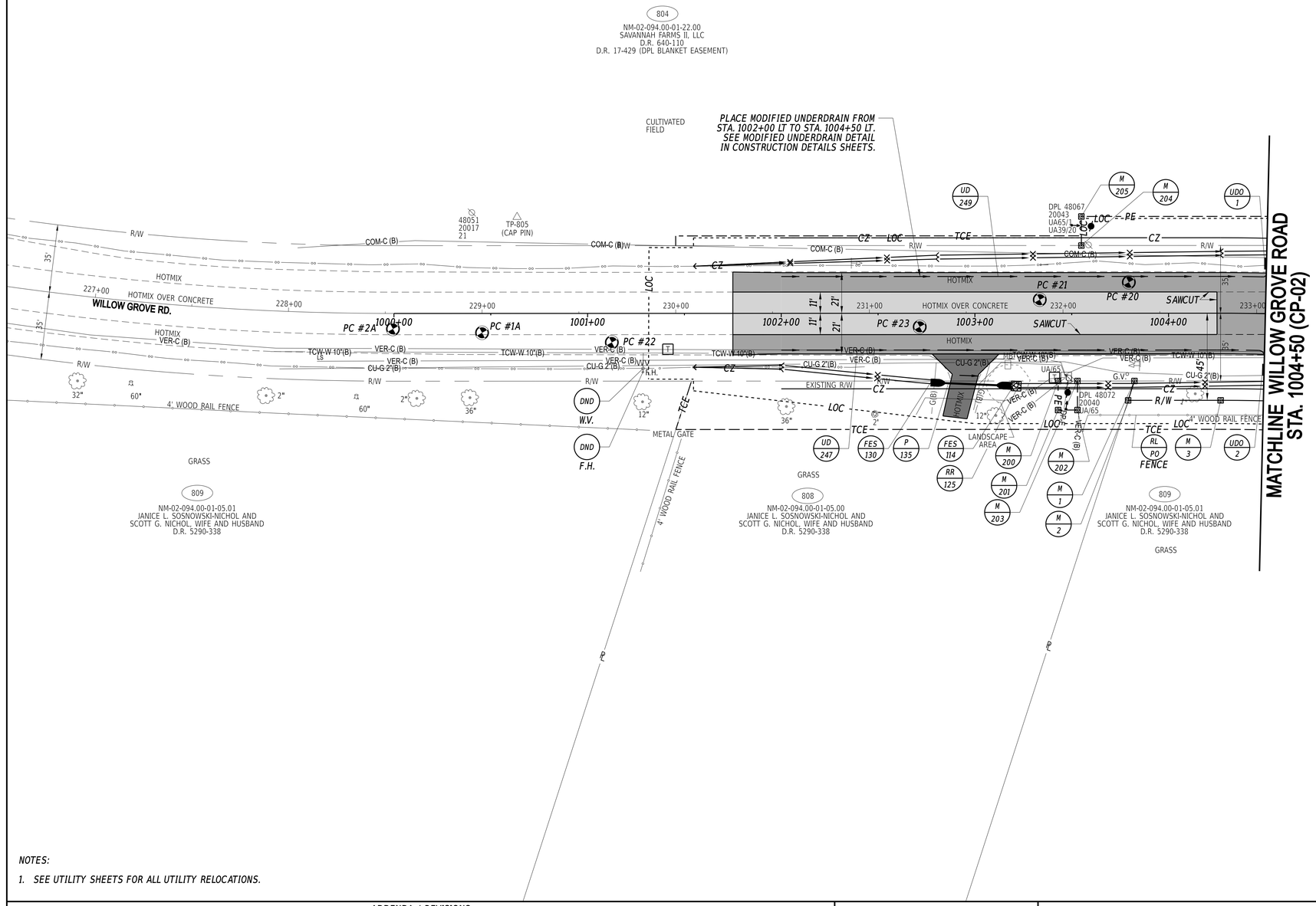

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
1	10.00	49.56
2	13.00	47.75

ITEM# 908020 - EROSION CONTROL BLANKET MULCH SHALL BE EXTENDED TO UNDERDRAIN OUTLET LOCATION.

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
125*	R-4	3.00

** SEE RIPRAP OUTLET PROTECTION DETAIL IN THE CONSTRUCTION PLAN DETAILS*

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
114	15" RCP	0.0169	NO
130	15" RCP	0.0169	NO

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
1	CAPPED REBAR	1003+82.35	35.00	402253.0314	614805.8268
2	CAPPED REBAR	1003+79.12	45.00	402245.4619	614813.1214
3	CONCRETE	1004+26.87	45.00	402287.5897	614835.6152
200	CAPPED REBAR	1003+42.95	35.00	402218.2698	614787.2662
201	CAPPED REBAR	1003+42.95	50.00	402211.2047	614800.4981
202	CAPPED REBAR	1003+52.95	50.00	402220.0260	614805.2082
203	CAPPED REBAR	1003+52.95	35.00	402227.0911	614791.9762
204	CAPPED REBAR	1003+54.99	-35.00	402261.8555	614731.1850
205	CAPPED REBAR	1003+54.99	-50.00	402268.9206	614717.9530

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
20	232+34.00	-16.00'	3" HMA
21	231+88.00	-7.00'	6.5" HMA, 8.5" PCC
22	230+67.00	15.00'	2.75" HMA
23	231+26.00	7.00'	5.5" HMA
1A	229+00.00	10.00'	6.25" HMA, 8.5" PCC
2A	228+54.00	8.00'	6.5" HMA.8.25" PCC

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
135	15" RCP	IV	32	0.0169	48.25	47.71

NOTES:

1. *SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.*

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

CONSTRUCTION PLAN

CP-01
SECTION CEN
SHEET NO. 20

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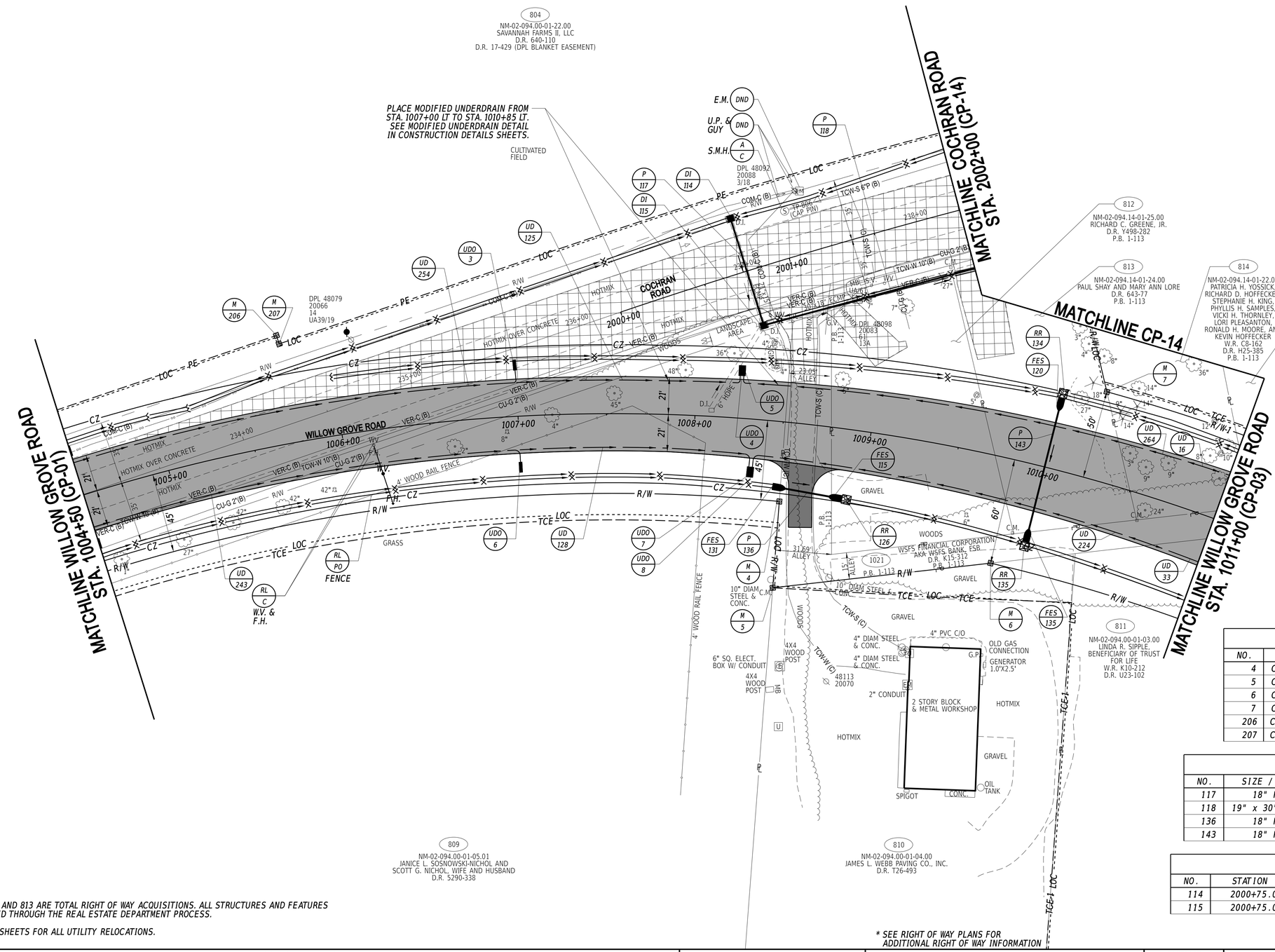

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
3	13.00	47.71
4	10.00	48.02
5	10.00	48.02
6	13.00	46.27
7	13.00	45.73
8	13.00	45.73

ITEM# 908020 - EROSION CONTROL BLANKET MULCH SHALL BE EXTENDED TO UNDERDRAIN OUTLET LOCATION.

RIPRAP SCHEDULE		
NO.	TYPE	AREA (SY)
126*	R-4	3.00
134	R-4	3.00
135*	R-4	3.00

* SEE RIPRAP OUTLET PROTECTION DETAIL IN THE CONSTRUCTION PLAN DETAILS

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
115	18" RCP	0.0139	NO
131	18" RCP	0.0139	NO
120	18" RCP	0.0394	NO
135	18" RCP	0.0394	NO

RIGHT-OF-WAY MONUMENT SCHEDULE					
NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
4	CAPPED REBAR	1008+52.20	45.00	402595.1197	615096.2762
5	CAPPED REBAR	1008+53.41	93.88	402557.0225	615126.9220
6	CAPPED REBAR	1009+82.60	60.00	402651.3536	615207.2030
7	CAPPED REBAR	1010+22.65	-50.00	402766.8902	615188.9151
206	CAPPED REBAR	1005+73.57	-61.40	402469.1901	614824.8853
207	CAPPED REBAR	1005+74.15	-56.44	402466.7362	614829.2432

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
117	18" RCP	IV	61	0.0070	44.76	44.34
118	19" x 30" HERCP	IV	291	0.0030	44.34	43.47
136	18" RCP	IV	32	0.0139	45.01	44.56
143	18" RCP	IV	72	0.0394	46.73	44.37

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
114	2000+75.00	-31.09	34" x 24"	2	47.40	44.76
115	2000+75.00	32.13	48" x 48"	2	47.70	44.34

NOTES:
1. PARCELS 812 AND 813 ARE TOTAL RIGHT OF WAY ACQUISITIONS. ALL STRUCTURES AND FEATURES WERE REMOVED THROUGH THE REAL ESTATE DEPARTMENT PROCESS.
2. SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.

* SEE RIGHT OF WAY PLANS FOR ADDITIONAL RIGHT OF WAY INFORMATION

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT T201709502
COUNTY KENT
BRIDGE NO. N/A
DESIGNED BY: L. HAXTON
CHECKED BY: J. FREY

CONSTRUCTION PLAN

CP-02
SECTION CEN
SHEET NO. 21

20-DEC-2024
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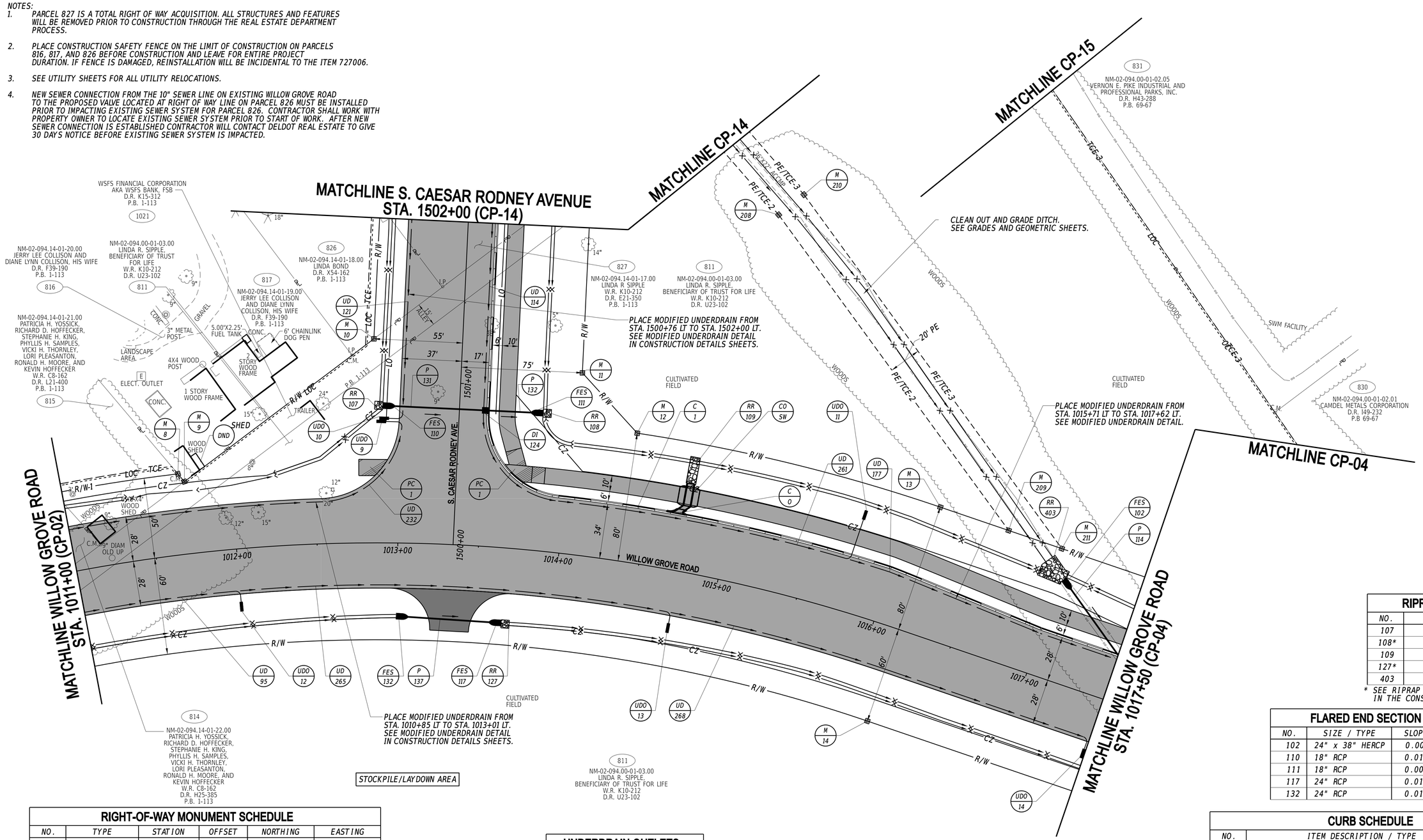
NOTES:

1. PARCEL 827 IS A TOTAL RIGHT OF WAY ACQUISITION. ALL STRUCTURES AND FEATURES WILL BE REMOVED PRIOR TO CONSTRUCTION THROUGH THE REAL ESTATE DEPARTMENT PROCESS.
2. PLACE CONSTRUCTION SAFETY FENCE ON THE LIMIT OF CONSTRUCTION ON PARCELS 816, 817, AND 826 BEFORE CONSTRUCTION AND LEAVE FOR ENTIRE PROJECT DURATION. IF FENCE IS DAMAGED, REINSTALLATION WILL BE INCIDENTAL TO THE ITEM 727006.
3. SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.
4. NEW SEWER CONNECTION FROM THE 10" SEWER LINE ON EXISTING WILLOW GROVE ROAD TO THE PROPOSED VALVE LOCATED AT RIGHT OF WAY LINE ON PARCEL 826 MUST BE INSTALLED PRIOR TO IMPACTING EXISTING SEWER SYSTEM FOR PARCEL 826. CONTRACTOR SHALL WORK WITH PROPERTY OWNER TO LOCATE EXISTING SEWER SYSTEM PRIOR TO START OF WORK. AFTER NEW SEWER CONNECTION IS ESTABLISHED CONTRACTOR WILL CONTACT DELDOT REAL ESTATE TO GIVE 30 DAYS NOTICE BEFORE EXISTING SEWER SYSTEM IS IMPACTED.



RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
8	CAPPED REBAR	1011+69.37	-50.00	402828.4137	615329.9937
9	CAPPED REBAR	1011+72.66	-44.78	402824.6295	615334.9736
10	CAPPED REBAR	1501+25.04	-55.00	402936.5681	615430.2395
11	CAPPED REBAR	1501+10.06	75.00	402944.1761	615560.8776
12	CAPPED REBAR	1014+36.98	-80.00	402915.1144	615602.2327
13	CONCRETE	1016+16.15	-80.00	402911.3801	615795.4400
14	CONCRETE	1016+16.15	60.00	402772.2095	615780.2227
208	CAPPED REBAR	1502+13.57	191.85	403066.2388	615658.1822
209	CAPPED REBAR	1016+60.89	-80.00	402906.5168	615839.9172
210	CAPPED REBAR	1502+26.77	206.90	403081.8318	615670.7363
211	CAPPED REBAR	1016+95.70	-80.00	402902.7334	615874.5181

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
9	17.00	46.53
10	15.00	46.62
11	33.00	43.70
12	13.00	45.39
13	13.00	42.83
14	13.00	41.75

ITEM# 908020 - EROSION CONTROL BLANKET MULCH SHALL BE EXTENDED TO UNDERDRAIN OUTLET LOCATION.

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
124	1500+84.00	**	34" x 24"	4	*	45.37

* MATCH CURB FLOWLINE ELEVATION.
** MATCH CURB FLOWLINE OFFSET.

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
107	R-4	3.00
108*	R-4	3.00
109	R-4	12.00
127*	R-4	3.00
403	R-4	22.00

* SEE RIPRAP OUTLET PROTECTION DETAIL IN THE CONSTRUCTION PLAN DETAILS

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
102	24" x 38" HERCP	0.0071	NO
110	18" RCP	0.0100	YES
111	18" RCP	0.0085	NO
117	24" RCP	0.0153	NO
132	24" RCP	0.0153	NO

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
1	I.PCC CURB AND GUTTER, TYPE 3-8	556.00

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
114	24" X 38" HERCP	IV	178	0.0071	41.54	40.27
131	18" RCP	IV	58	0.0100	45.94	45.37
132	18" RCP	IV	28	0.0085	45.37	45.13
137	24" RCP	IV	56	0.0153	43.04	42.18

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	CP-03
T201709502	DESIGNED BY:	L. HAXTON	SECTION
COUNTY			CEN
KENT	CHECKED BY:	J. FREY	SHEET NO.
			22

CONSTRUCTION PLAN

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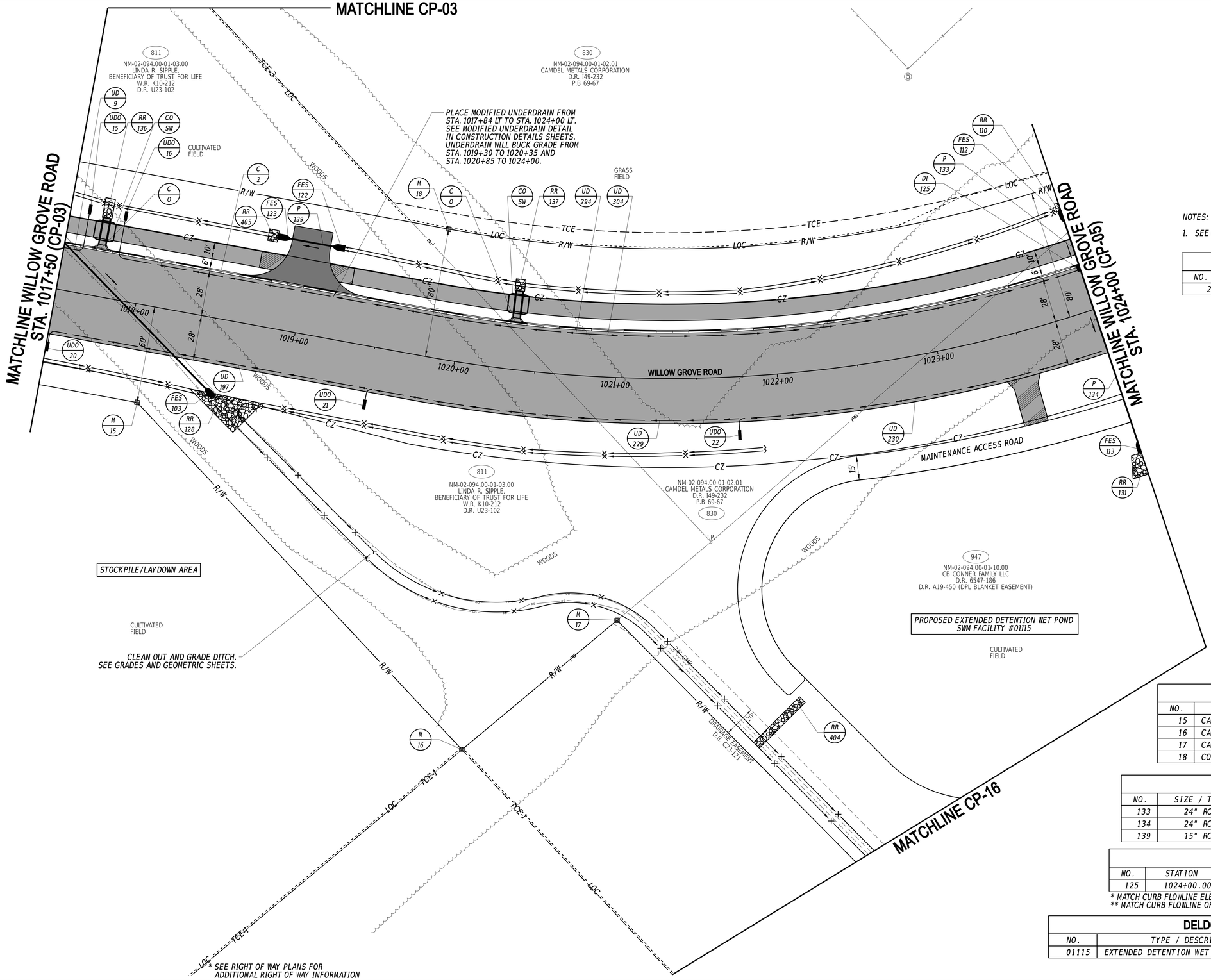

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NOTES:

1. *SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.*

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
2	1.PCC CURB AND GUTTER, TYPE 3-8	636.00

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
15	30.00	42.47
16	30.00	42.41
20	13.00	41.74
21	13.00	43.15
22	14.00	44.82

ITEM# 908020 - EROSION CONTROL BLANKET MULCH SHALL BE EXTENDED TO UNDERDRAIN OUTLET LOCATION.

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
110	R-4	3.00
128*	R-4	54.00
131*	R-4	22.00
136	R-4	8.50
137	R-4	5.00
404	R-4	22.00
405	R-4	5.00

** SEE RIPRAP OUTLET PROTECTION DETAIL IN THE CONSTRUCTION PLAN DETAILS*

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
103	24" X 38" HERCP	0.0071	NO
112	24" RCP	0.0048	YES
113	24" RCP	0.0045	NO
122	15" RCP	0.0034	NO
123	15" RCP	0.0034	NO

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
15	CAPPED REBAR	1018+11.72	60.00	402750.9522	615974.6317
16	CAPPED REBAR	1020+33.11	236.95	402551.4229	616190.1714
17	CAPPED REBAR	1021+05.78	149.91	402638.0543	616280.0075
18	CONCRETE	1019+81.78	-80.00	402871.6378	616158.9047

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
133	24" RCP	IV	30	0.0048	41.68	41.54
134	24" RCP	IV	115	0.0045	41.54	41.03
139	15" RCP	IV	32	0.0034	42.67	42.56

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
125	1024+00.00	**	48" x 30"	4	*	41.54

** MATCH CURB FLOWLINE ELEVATION.*
*** MATCH CURB FLOWLINE OFFSET.*

DELDOT SWM FACILITY SCHEDULE

NO.	TYPE / DESCRIPTION	LOCATION
01115	EXTENDED DETENTION WET POND	STA. 1022+00 RT. TO STA. 1025+00 RT.

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ADDENDA / REVISIONS

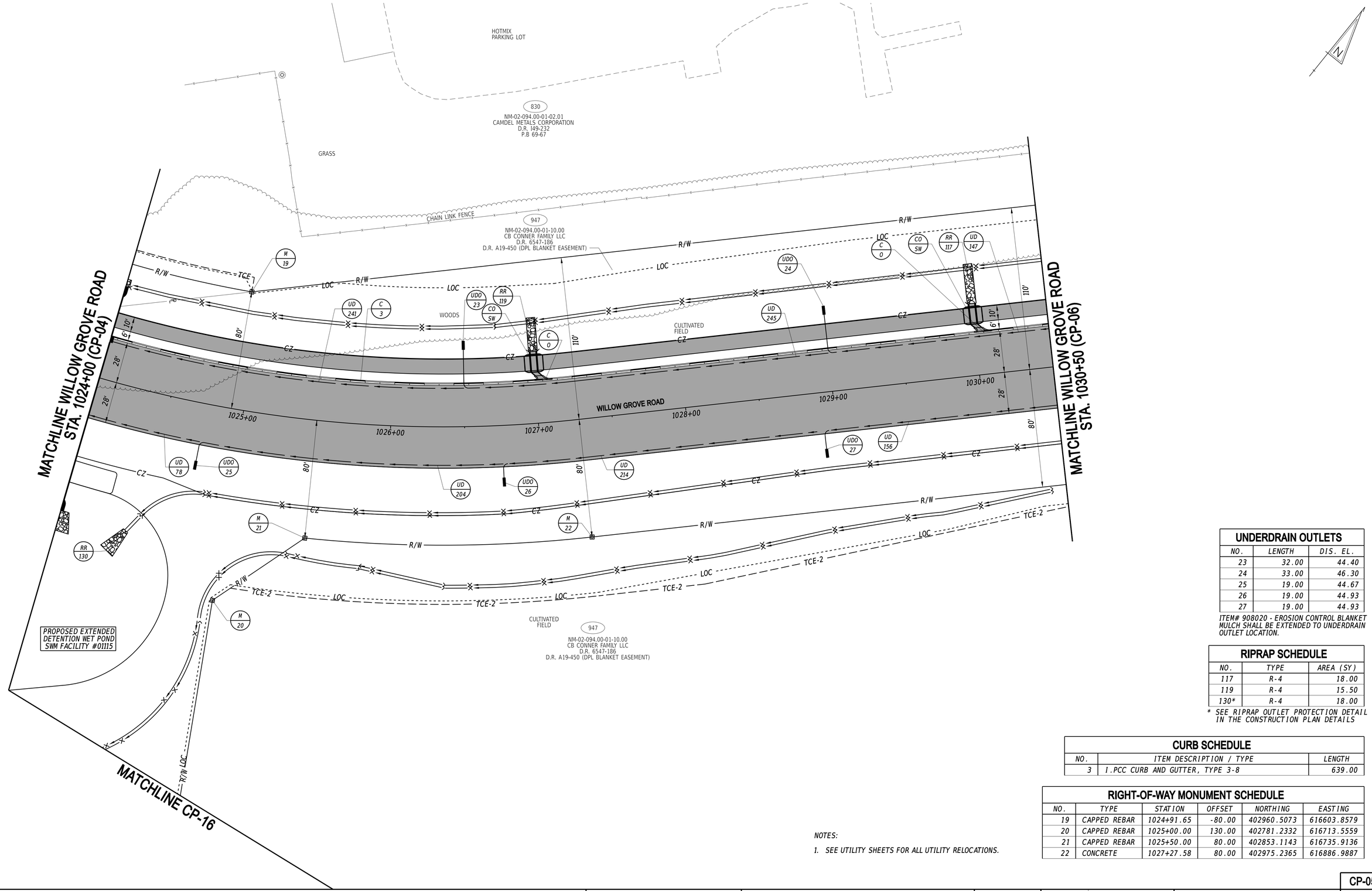
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502	BRIDGE NO.	N/A
COUNTY	KENT	DESIGNED BY:	L. HAXTON
		CHECKED BY:	J. FREY

CONSTRUCTION PLAN

CP-04
SECTION
CEN
SHEET NO.
23



UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
23	32.00	44.40
24	33.00	46.30
25	19.00	44.67
26	19.00	44.93
27	19.00	44.93

ITEM# 908020 - EROSION CONTROL BLANKET MULCH SHALL BE EXTENDED TO UNDERDRAIN OUTLET LOCATION.

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
117	R-4	18.00
119	R-4	15.50
130*	R-4	18.00

* SEE RIPRAP OUTLET PROTECTION DETAIL IN THE CONSTRUCTION PLAN DETAILS

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
3	1.PCC CURB AND GUTTER, TYPE 3-8	639.00

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
19	CAPPED REBAR	1024+91.65	-80.00	402960.5073	616603.8579
20	CAPPED REBAR	1025+00.00	130.00	402781.2332	616713.5559
21	CAPPED REBAR	1025+50.00	80.00	402853.1143	616735.9136
22	CONCRETE	1027+27.58	80.00	402975.2365	616886.9887

NOTES:

1. SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT T201709502
COUNTY KENT
BRIDGE NO. N/A
DESIGNED BY: L. HAXTON
CHECKED BY: J. FREY

CONSTRUCTION PLAN

CP-05
SECTION CEN
SHEET NO. 24

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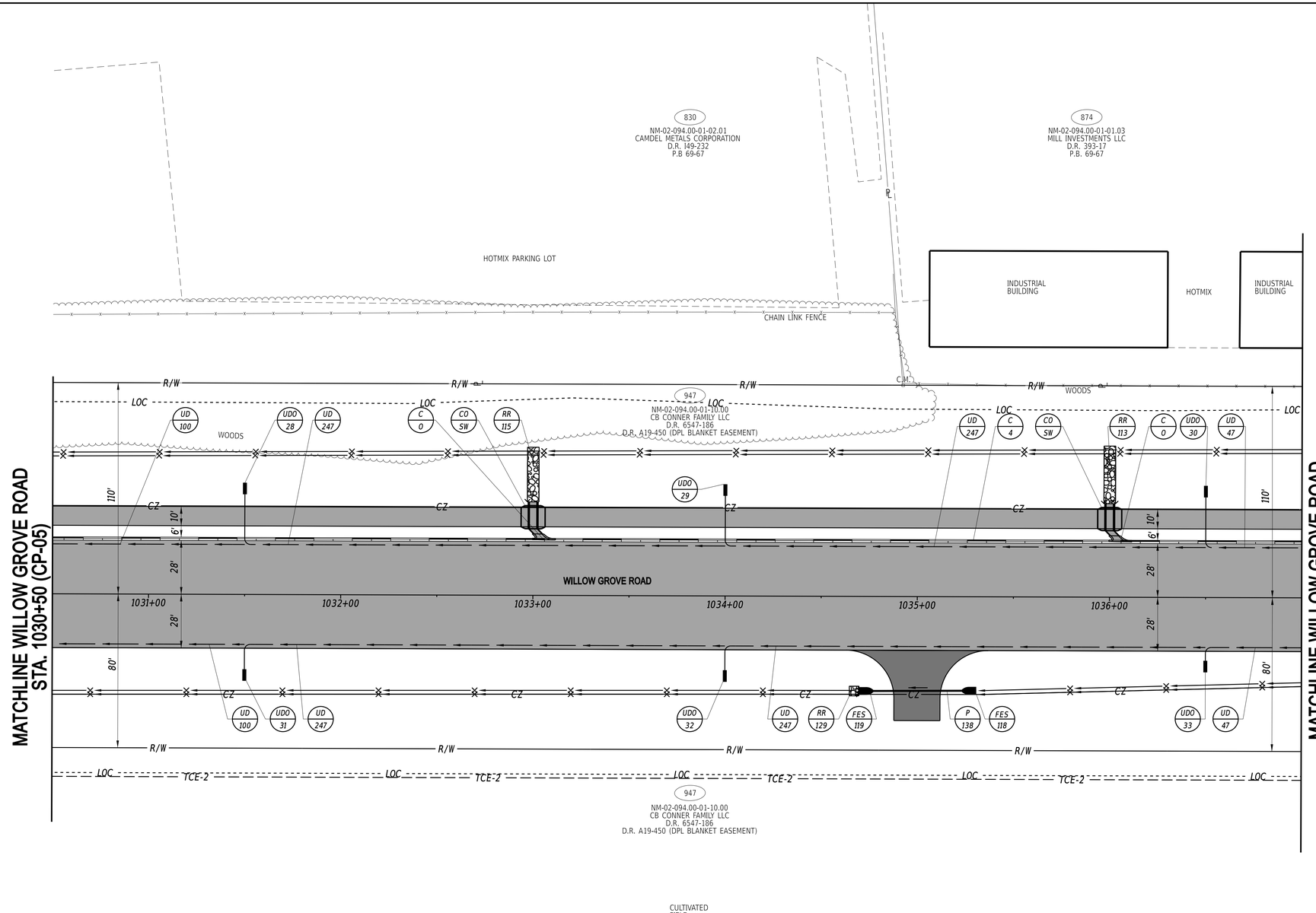

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
28	33.00	47.38
29	33.00	48.45
30	33.00	49.53
31	19.00	46.05
32	19.00	47.12
33	13.00	49.63

ITEM# 908020 - EROSION CONTROL BLANKET MULCH SHALL BE EXTENDED TO UNDERDRAIN OUTLET LOCATION.

RIPRAP SCHEDULE		
NO.	TYPE	AREA (SY)
113	R-4	20.00
115	R-4	19.00
129*	R-4	3.00

* SEE RIPRAP OUTLET PROTECTION DETAIL IN THE CONSTRUCTION PLAN DETAILS

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
118	15" RCP	0.0048	NO
119	15" RCP	0.0048	NO

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
4	1.PCC CURB AND GUTTER, TYPE 3-8	650.00

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
138	15" RCP	IV	48	0.0048	46.61	46.38

NOTES:

1. SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.

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ADDENDA / REVISIONS

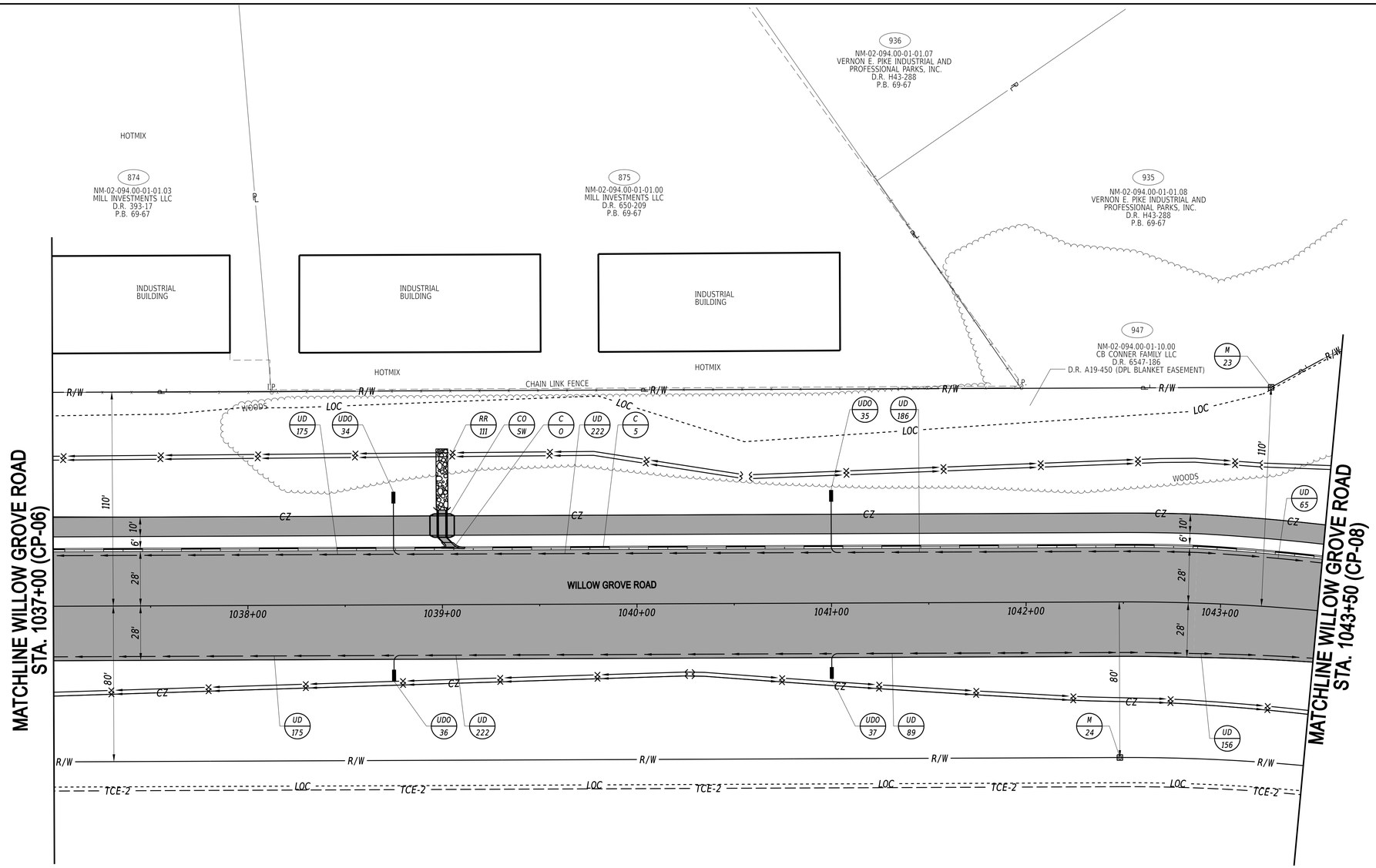
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PLAN

CP-06
SECTION
CEN
SHEET NO.
25



UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
34	33.00	50.50
35	33.00	51.44
36	13.00	50.62
37	13.00	51.54

ITEM# 908020 - EROSION CONTROL BLANKET MULCH SHALL BE EXTENDED TO UNDERDRAIN OUTLET LOCATION.

RIPRAP SCHEDULE		
NO.	TYPE	AREA (SY)
111	R-4	21.00

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
5	I.PCC CURB AND GUTTER, TYPE 3-8	653.00

RIGHT-OF-WAY MONUMENT SCHEDULE					
NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
23	CAPPED REBAR	1043+18.94	-112.63	404241.1449	617881.9259
24	CONCRETE	1042+47.89	80.00	404051.338	617960.9317

NOTES:

1. SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.

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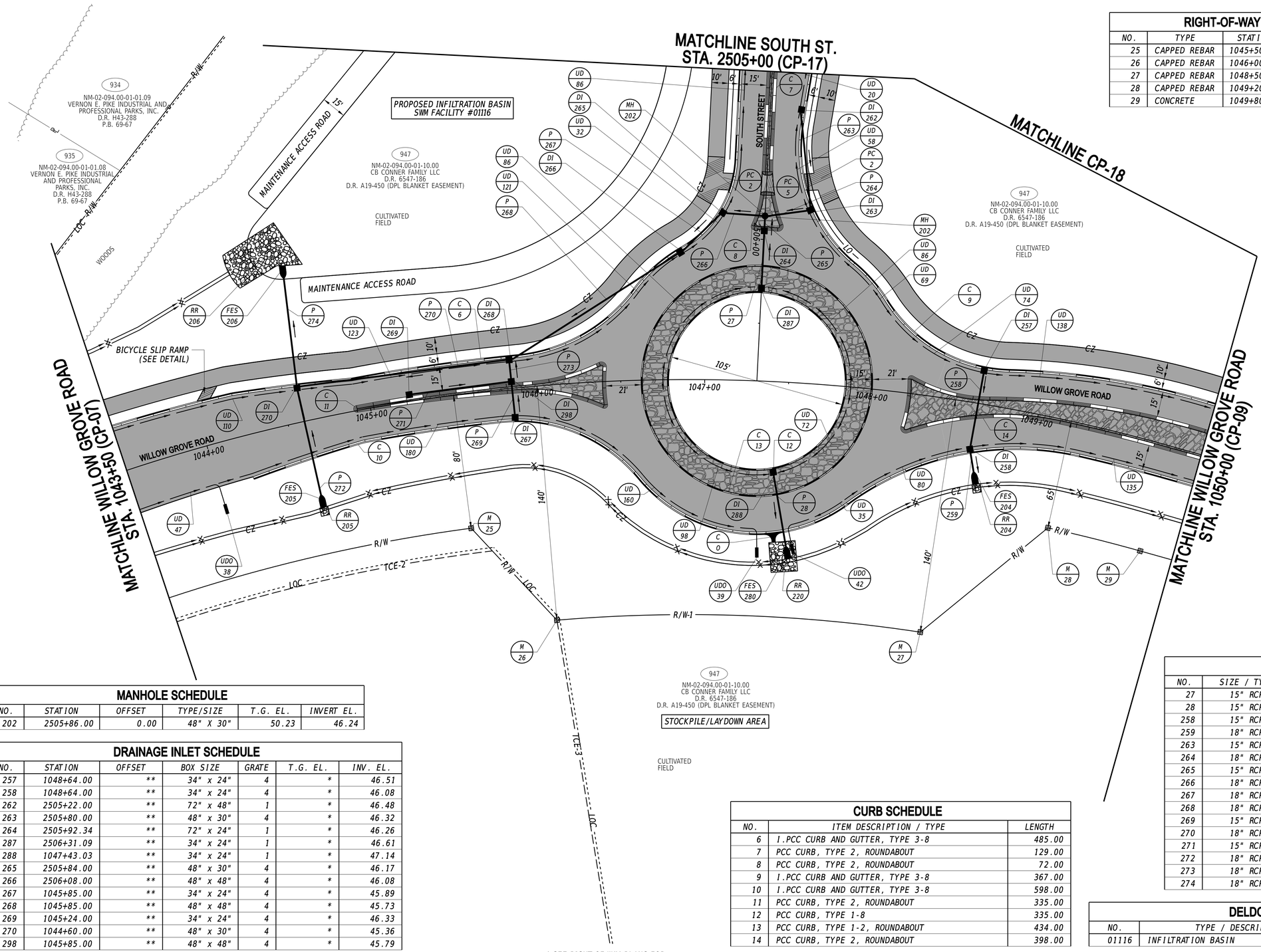
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	CONSTRUCTION PLAN	CP-07
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 26



RIGHT-OF-WAY MONUMENT SCHEDULE					
NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
25	CAPPED REBAR	1045+50.00	80.00	404218.4469	618183.5589
26	CAPPED REBAR	1046+00.00	140.00	404185.7851	618250.9302
27	CAPPED REBAR	1048+50.00	140.00	404257.2217	618455.2823
28	CAPPED REBAR	1049+20.15	65.00	404342.5689	618503.7418
29	CONCRETE	1049+80.48	65.00	404349.5578	618559.9365

NOTES:

1. SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
38	13.00	50.66
39	18.00	47.48
42	18.00	47.48

ITEM# 908020 - EROSION CONTROL BLANKET MULCH SHALL BE EXTENDED TO UNDERDRAIN OUTLET LOCATION.

RIPRAP SCHEDULE		
NO.	TYPE	AREA (SY)
204	R-4	5.50
205	R-4	5.50
206*	R-4	38.00
220	R-4	32.00

* SEE RIPRAP OUTLET PROTECTION DETAIL IN THE CONSTRUCTION PLAN DETAILS

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
204	18" RCP	0.0050	NO
205	18" RCP	0.0064	YES
206	18" RCP	0.0050	NO
280	15" RCP	0.0050	NO

MANHOLE SCHEDULE					
NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INVERT EL.
202	2505+86.00	0.00	48" X 30"	50.23	46.24

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
257	1048+64.00	**	34" x 24"	4	*	46.51
258	1048+64.00	**	34" x 24"	4	*	46.08
262	2505+22.00	**	72" x 48"	1	*	46.48
263	2505+80.00	**	48" x 30"	4	*	46.32
264	2505+92.34	**	72" x 24"	1	*	46.26
287	2506+31.09	**	34" x 24"	1	*	46.61
288	1047+43.03	**	34" x 24"	1	*	47.14
265	2505+84.00	**	48" x 30"	4	*	46.17
266	2506+08.00	**	48" x 48"	4	*	46.08
267	1045+85.00	**	34" x 24"	4	*	45.89
268	1045+85.00	**	48" x 48"	4	*	45.73
269	1045+24.00	**	34" x 24"	4	*	46.33
270	1044+60.00	**	48" x 30"	4	*	45.36
298	1045+85.00	**	48" x 48"	4	*	45.79

* MATCH CURB FLOWLINE ELEVATION.
** MATCH CURB FLOWLINE OFFSET.

* SEE RIGHT OF WAY PLANS FOR ADDITIONAL RIGHT OF WAY INFORMATION

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
6	1.PCC CURB AND GUTTER, TYPE 3-8	485.00
7	PCC CURB, TYPE 2, ROUNDABOUT	129.00
8	PCC CURB, TYPE 2, ROUNDABOUT	72.00
9	1.PCC CURB AND GUTTER, TYPE 3-8	367.00
10	1.PCC CURB AND GUTTER, TYPE 3-8	598.00
11	PCC CURB, TYPE 2, ROUNDABOUT	335.00
12	PCC CURB, TYPE 1-8	335.00
13	PCC CURB, TYPE 1-2, ROUNDABOUT	434.00
14	PCC CURB, TYPE 2, ROUNDABOUT	398.00

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
27	15" RCP	IV	35	0.0100	46.61	46.26
28	15" RCP	IV	46	0.0050	47.14	46.91
258	15" RCP	IV	48	0.0050	46.51	46.28
259	18" RCP	IV	14	0.0050	46.08	46.01
263	15" RCP	IV	55	0.0030	46.48	46.32
264	18" RCP	IV	26	0.0030	46.32	46.24
265	15" RCP	IV	5	0.0050	46.26	46.24
266	18" RCP	IV	24	0.0030	46.24	46.17
267	18" RCP	IV	31	0.0030	46.17	46.08
268	18" RCP	IV	117	0.0030	46.08	45.73
269	15" RCP	IV	20	0.0053	45.89	45.79
270	18" RCP	IV	124	0.0030	45.73	45.36
271	15" RCP	IV	59	0.0050	46.33	46.04
272	18" RCP	IV	67	0.0064	45.78	45.36
273	18" RCP	IV	12	0.0050	45.79	45.73
274	18" RCP	IV	66	0.0050	45.36	45.03

DELDOT SWM FACILITY SCHEDULE		
NO.	TYPE / DESCRIPTION	LOCATION
01116	INFILTRATION BASIN	STA. 2503+00 LT. TO STA. 2506+50 LT.

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ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PLAN

CP-08
SECTION
CEN
SHEET NO.
27

NOTES:

1. SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.
2. CONTRACTOR SHALL CONTACT DELMARVA POWER 30 DAYS PRIOR TO CONSTRUCTION OF PROPOSED DRAINAGE TO COORDINATE THE NECESSARY EFFORTS TO SUPPORT POLE #48487/20267 WHILE WORK IS BEING PERFORMED.
3. CONTRACTOR SHALL CONTACT DELMARVA POWER 30 DAYS PRIOR TO CONSTRUCTION OF PROPOSED DRAINAGE TO COORDINATE THE NECESSARY EFFORTS TO SUPPORT POLE #48489/20272 WHILE WORK IS BEING PERFORMED.
4. CONNECT THE PROPOSED DRAINAGE PIPE TO THE EXISTING DRAINAGE INLET(S) IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTIONS 602.3.8.9 AND AS DIRECTED BY THE ENGINEER. ALL COSTS TO CONNECT TO THE DRAINAGE INLET(S) ARE INCIDENTAL TO THE INLET BEING INSTALLED.

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
220	18" RCP	0.0242	NO
221	18" RCP	0.0242	NO

JUNCTION BOX SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	INVERT EL.
21	7+23.73	71.16	XX" x XX"	36.08

DELDOT SWM FACILITY SCHEDULE

NO.	TYPE / DESCRIPTION	LOCATION
01117	EXTENDED DETENTION WET POND	STA. 1051+00 RT. TO STA. 1058+00 RT.

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
43	23.00	45.52

ITEM# 908020 - EROSION CONTROL BLANKET MULCH SHALL BE EXTENDED TO UNDERDRAIN OUTLET LOCATION.

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
212*	R-4	6.00
213*	R-4	13.00
209	R-4	77.00

*SEE DUMPED RIPRAP CHUTE DETAIL.

MANHOLE SCHEDULE

NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INVERT EL.
204	7+50.00	-33.03	66" x 48"	40.50	36.34
205	7+31.89	21.12	66" x 48"	41.80	36.21

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
15	PCC CURB, TYPE 2, ROUNDABOUT	225.00
16	I.PCC CURB AND GUTTER, TYPE 3-8	645.00
17	PCC CURB, TYPE 2, ROUNDABOUT	62.00
18	I.PCC CURB AND GUTTER, TYPE 3-8	657.00
19	I.PCC CURB AND GUTTER, TYPE 3-2	318.00
20	I.PCC CURB AND GUTTER, TYPE 3-8	402.00

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
11	08+50.00	13.00'	2.25" HMA, 1" ST

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
30	CAPPED REBAR	1050+50.00	65.00	404356.1711	618629.1383
31	CAPPED REBAR	8+19.14	35.00	404618.4409	618832.8075
32	CAPPED REBAR	7+77.96	35.00	404610.3036	618872.9191
33	CAPPED REBAR	7+63.78	50.00	404622.2861	618889.6407
34	CAPPED REBAR	7+55.14	100.00	404669.7178	618907.6075
35	CAPPED REBAR	7+50.13	99.15	404667.9466	618912.2833

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
25	18" RCP	IV	104	0.0242	41.50	39.00
26	15" RCP	IV	119	0.0100	37.81	36.63
230	15" RCP	IV	81	0.0050	39.26	38.86
231	15" RCP	IV	111	0.0050	38.86	38.31
257	36" RCP	IV	4	0.0030	36.52	36.50
20	24" RCP	IV	4	0.0040	36.50	36.46
*260	24" RCP	IV	63	0.0040	37.00	36.75
261	24" RCP	IV	32	0.0040	36.75	36.63
262	24" RCP	IV	37	0.0045	36.63	36.46
281	36" RCP	IV	42	0.0030	36.46	36.34
282	36" RCP	IV	40	0.0030	36.33	36.21
291	24" RCP	IV	240	0.0070	38.27	36.60
292	24" RCP	IV	43	0.0080	36.60	36.21
293	36" RCP	IV	35	0.0030	36.21	36.10
**T201	24" RCP	IV	7	0.0030	36.35	36.33
20A	24" RCP	IV	7	0.0030	36.10	36.08

* PROVIDE CLASS A CONCRETE BEDDING (SEE STORMWATER MANAGEMENT PLAN SHEET)
**TEMPORARY PIPE. CONTRACTOR SHALL SUPPORT UTILITY POLE ADJACENT TO PIPE DURING INSTALLATION. SEE CONSTRUCTION PHASING SHEETS.

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
230	1054+78.00	**	34" x 24"	4	*	39.26
231	1055+65.00	**	72" x 24"	1	*	38.86
256	1054+47.45	-47.70	48" x 48"	2	40.85	36.52
259++	1053+22.00	78.89	48" x 30"	+	+	37.00
260	1053+22.00	**	48" x 30"	4	*	36.75
261	1053+22.00	**	48" x 48"	4	*	36.63
289	1052+00.00	**	34" x 24"	4	*	37.81
276	1053+22.00	-57.50	66" x 48"	2	41.34	36.46
292	7+83.74	24.84	48" x 48"	2	42.19	36.60
20+	7+27.56	59.91	66" x 66"	4	*	36.10

* MATCH CURB FLOWLINE ELEVATION. +SPECIAL INLET. SEE CONSTRUCTION DETAILS SHEETS.
** MATCH CURB FLOWLINE OFFSET. ++ POND OUTLET STRUCTURE. SEE SWM SHEETS.

MATCHLINE OLD SOUTH ST. STA. 8+50 (CP-18)
MATCHLINE CP-18
MATCHLINE OLD SOUTH ST. STA. 4+50 (CP-10)
MATCHLINE WILLOW GROVE ROAD STA. 1050+00 (CP-08)
MATCHLINE WILLOW GROVE ROAD STA. 1056+50 (CP-10)
MATCHLINE CP-20
OLD SOUTH STREET
WILLOW GROVE ROAD
MAINTENANCE ACCESS ROAD
PROPOSED UNDERGROUND DETENTION SYSTEM SEE CONSTRUCTION DETAILS
PROPOSED EXTENDED DETENTION WET POND SWM FACILITY #01117
STOCKPILE/LAYDOWN AREA
NM-02-094.11-01-41.00 BURRIS PROPERTIES, L.L.C. D.R. 7083-43
NM-02-094.11-01-42.00 SIMPSON PROPERTIES, LLC D.R. 5473-320 P.B. 110-43
NM-02-094.11-01-43.00 HELENE A. HALL D.R. F34-325
NM-02-094.11-01-44.00 JENNIFER M. PIRES D.R. 7023-169
NM-02-094.11-01-46.00 JEREMY R. MOORE D.R. 9754-22
NM-02-094.11-01-47.00 JOHN H. CLARK III, TRUSTEE D.R. 9473-293 P.B. 258
NM-02-094.00-01-10.00 CB CONNER FAMILY LLC D.R. 6547-186 D.R. A19-450 (DPL BLANKET EASEMENT)
CULTIVATED FIELD

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PLAN

CP-09 | SECTION CEN | SHEET NO. 28

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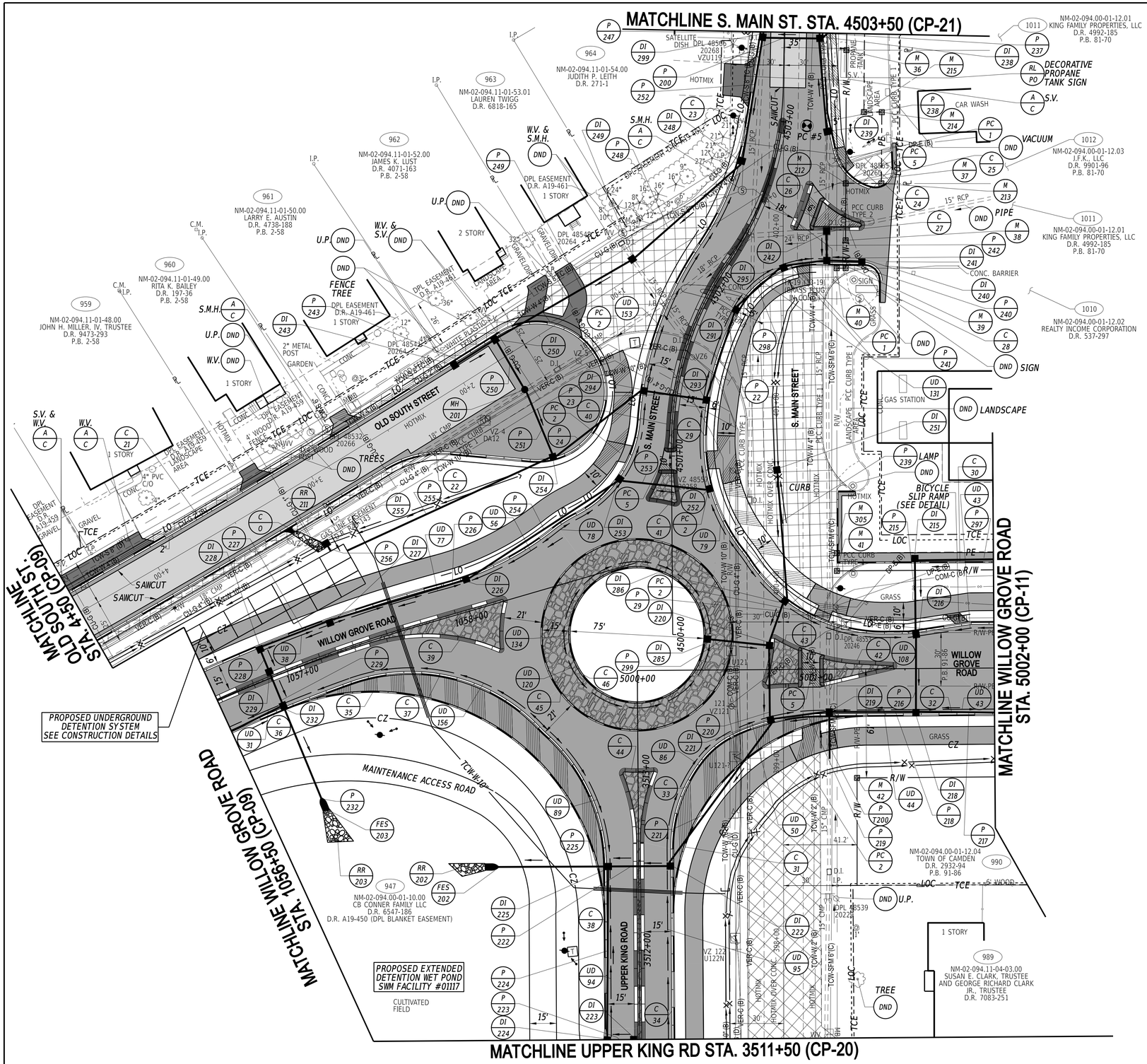

NOTES:

1. *SCHEDULES ARE LOCATED ON CP-10A*
2. *SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.*
3. *CONNECT THE PROPOSED DRAINAGE INLET TO THE EXISTING PIPE(S) IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTIONS 602.3.8.9 AND AS DIRECTED BY THE ENGINEER. ALL COSTS TO CONNECT TO THE EXISTING PIPE(S) ARE INCIDENTAL TO THE INLET BEING INSTALLED.*

ADDENDA / REVISIONS		SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PLAN	CP-10
		0 30 60 90 FEET		T201709502	DESIGNED BY: L. HAXTON		SECTION CEN
				COUNTY KENT	CHECKED BY: J. FREY		SHEET NO. 29

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FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
202	24" RCP	0.0050	NO
203	18" RCP	0.0050	NO

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
21	I.PCC CURB AND GUTTER, TYPE 3-2	282.00
22	I.PCC CURB AND GUTTER, TYPE 3-8	416.00
23	I.PCC CURB AND GUTTER, TYPE 3-8	526.00
24	PCC CURB, TYPE 1-8	34.00
25	I.PCC CURB AND GUTTER, TYPE 3-8	98.00
26	PCC CURB, TYPE 2	63.00
27	PCC CURB, TYPE 2	81.00
28	PCC CURB, TYPE 1-8	13.00
29	I.PCC CURB AND GUTTER, TYPE 3-8	399.00
30	PCC CURB, TYPE 1-8	137.00
31	PCC CURB, TYPE 1-8	173.00
32	I.PCC CURB AND GUTTER, TYPE 3-8	71.00
33	I.PCC CURB AND GUTTER, TYPE 3-2, MODIFIED**	190.00
34	I.PCC CURB AND GUTTER, TYPE 3-8	71.00
35	PCC CURB, TYPE 1-8	254.00
36	I.PCC CURB AND GUTTER, TYPE 3-8	33.00
37	I.PCC CURB AND GUTTER, TYPE 3-2, MODIFIED**	276.00
38	I.PCC CURB AND GUTTER, TYPE 3-8	67.00
39	PCC CURB, TYPE 2, MODIFIED*	371.00
40	PCC CURB, TYPE 2, MODIFIED*	67.00
41	PCC CURB, TYPE 2, MODIFIED*	408.00
42	PCC CURB, TYPE 2, MODIFIED*	91.00
43	PCC CURB, TYPE 2, MODIFIED*	106.00
44	PCC CURB, TYPE 2, MODIFIED*	326.00
45	PCC CURB, TYPE 1-2, MODIFIED*	340.00
46	PCC CURB, TYPE 1-8	241.00

* SEE DELDOT STANDARD PCC ROUNDABOUT CURB DETAIL C-1-4.
** SEE CONSTRUCTION DETAILS.

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
22	24" RCP	IV	50	0.0022	37.18	37.07
23	24" RCP	IV	29	0.0022	37.07	37.01
24	30" RCP	IV	60	0.0022	37.01	36.88
200	14" X 23" HERCP	IV	29	0.0030	37.52	37.43
215	15" RCP	IV	39	0.0030	38.29	38.17
216	18" RCP	IV	42	0.0030	38.17	38.05
217	15" RCP	IV	49	0.0030	38.19	38.05
218	18" RCP	IV	44	0.0030	38.05	37.92
219	18" RCP	IV	30	0.0030	37.92	37.83
220	15" RCP	IV	38	0.0030	37.95	37.83
221	21" RCP	IV	98	0.0030	37.83	37.54
222	24" RCP	IV	31	0.0050	37.54	37.45
223	18" RCP	IV	14	0.0075	39.24	39.14
224	18" RCP	IV	93	0.0075	38.64	37.95
225	24" RCP	IV	67	0.0030	37.45	37.25
226	15" RCP	IV	76	0.0050	39.03	38.65
227	15" RCP	IV	38	0.0050	38.65	38.46
228	18" RCP	IV	14	0.0050	38.46	38.40
229	18" RCP	IV	19	0.0050	38.40	38.31
232	18" RCP	IV	62	0.0050	38.31	38.00
237	15" RCP	V	27	0.0070	37.70	37.52
238	15" RCP	V	47	0.0050	37.75	37.52
239	15" RCP	V	71	0.0030	38.23	38.01
240	18" RCP	IV	15	0.0040	37.37	37.31
241	21" RCP	IV	21	0.0027	37.31	37.25
242	21" RCP	V	13	0.0021	37.33	37.31
243	15" RCP	IV	23	0.0150	37.55	37.21
247	18" RCP	V	24	0.0060	37.26	37.12
248	19" X 30" HERCP	IV	78	0.0018	37.31	37.17
249	19" X 30" HERCP	IV	78	0.0020	37.17	37.01
250	24" X 38" HERCP	V	29	0.0020	37.01	36.95
251	29" X 45" HERCP	V	35	0.0020	36.95	36.88
252	19" X 30" HERCP	IV	66	0.0018	37.43	37.31
253	24" RCP	IV	50	0.0050	39.77	39.52
254	15" RCP	IV	99	0.0050	39.52	39.03
255	29" X 45" HERCP	V	125	0.0030	36.88	36.50
256	36" RCP	IV	4	0.0030	36.52	36.50
297	15" RCP	V	93	0.0030	38.57	38.29
298	24" RCP	IV	33	0.0022	37.25	37.18
299	15" RCP	IV	33	0.0050	38.31	38.15
29	15" RCP	IV	23	0.0030	38.01	37.95
**T200	15" RCP	IV	24	*	*	39.37

* MATCH EXISTING PIPE BEING REPLACED.
**TEMPORARY PIPE. SEE CONSTRUCTION PHASING SHEETS.

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
215	5001+56.00	**	34" x 24"	4	*	38.29
216	5001+56.00	**	72" x 24"	4	*	38.17
218	5001+56.00	**	72" x 48"	4	*	38.05
219	5001+07.42	**	48" x 48"	4	*	37.92
220	5000+76.71	**	72" x 48"	4	*	37.95
285	5000+38.16	**	34" x 24"	4	*	38.31
221	5000+56.00	**	48" x 48"	4	*	37.83
222	3512+47.00	**	48" x 48"	4	*	37.54
223	3511+50.00	**	34" x 24"	4	*	39.24
224	3511+50.00	**	48" x 30"	4	*	38.64
225	3512+47.00	**	72" x 48"	4	*	37.45
226	1058+03.00	**	48" x 48"	4	*	39.03
227	1057+24.00	**	72" x 24"	1	*	38.65
228	1056+83.00	**	34" x 24"	4	*	38.46
229	1056+83.00	**	34" x 24"	4	*	38.40
232	1056+83.00	**	34" x 24"	4	*	38.31
238+	4503+47.00	**	72" x 48"	4	*	37.52
239+	4503+02.00	**	72" x 48"	4	*	37.75
240	4502+44.11	**	72" x 48"	4	*	37.37
241	4502+38.37	**	48" x 30"	4	*	37.31
242+	4502+54.22	**	48" x 48"	4	*	37.33
243	1+99.00	**	34" x 24"	4	*	37.55
248	4502+68.00	**	72" x 72"	1	*	37.31
249	4501+92.00	-47.01	72" x 48"	2	40.20	37.17
250+	1+72.00	**	72" x 48"	4	*	37.01
251+	4501+15.00	55.34	72" x 48"	2	40.60	38.23
252+	4501+15.00	**	48" x 30"	4	*	39.77
253	4501+15.00	**	48" x 30"	4	*	39.52
254+	1058+66.00	**	66" x 66"	4	*	36.88
255+	1057+36.42	-60.72	48" x 48"	2	40.59	36.52
285	5000+80.32	27.59	34" x 24"	4	*	38.31
286	5000+80.32	27.59	72" x 48"	4	*	38.01
291	4501+93.38	17.67	72" x 48"	4	*	37.18
293	4501+34.18	17.67	48" x 48"	4	*	37.25
294	4501+33.95	-17.67	66" x 66"	4	*	37.01
295+	4502+28.40	-37.94	48" x 48"	4	*	37.25
299+	4503+46.97	**	72" x 48"	4	*	37.12

* MATCH CURB FLOWLINE ELEVATION.
** MATCH CURB FLOWLINE OFFSET.
+SPECIAL INLET. SEE CONSTRUCTION DETAILS SHEETS.
++ VERIFY AND MATCH EXISTING INVERT.

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
36	CAPPED REBAR	4503+40.66	35.00	404508.4876	619721.3283
37	CAPPED REBAR (DISC)	4502+75.69	42.42	404449.6202	619675.4551
38	CAPPED REBAR (DISC)	4502+51.72	52.57	404424.4071	619655.9399
39	CAPPED REBAR	4502+40.86	58.95	404412.0624	619646.4401
40	CAPPED REBAR	4502+39.19	54.46	404415.1205	619642.4843
41	CAPPED REBAR	5001+12.26	-55.00	404280.7147	619539.0530
42	CAPPED REBAR	5001+22.72	61.00	404182.0185	619477.2265
212	CAPPED REBAR	4502+75.69	42.42	404449.6202	619675.4551
213	CAPPED REBAR	4502+79.49	61.82	404437.3878	619691.2784
214	CAPPED REBAR	4503+09.07	55.78	404468.8781	619715.8176
215	CAPPED REBAR	4503+09.34	45.61	404475.0248	619707.9298
305	CAPPED REBAR (DISC)	5001+12.33	-65.00	404236.8754	619505.8397

DISC TO BE PLACED AT PROPERTY CORNER LOCATED WITHIN PAVEMENT. PAID UNDER 706002 RW MARKER, CAPPED REBAR

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
5	402+56.44	13.00	4.25" HMA

MANHOLE SCHEDULE

NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INVERT EL.
201	1+73.01	-21.47	66" x 48"	40.25	36.95

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
202*	R-4	5.50
203*	R-4	5.50
211**	R-4	6.00

* SEE RIPRAP OUTLET PROTECTION DETAIL IN THE CONSTRUCTION PLAN DETAILS
**SEE DUMPED RIPRAP CHUTE DETAIL

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ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

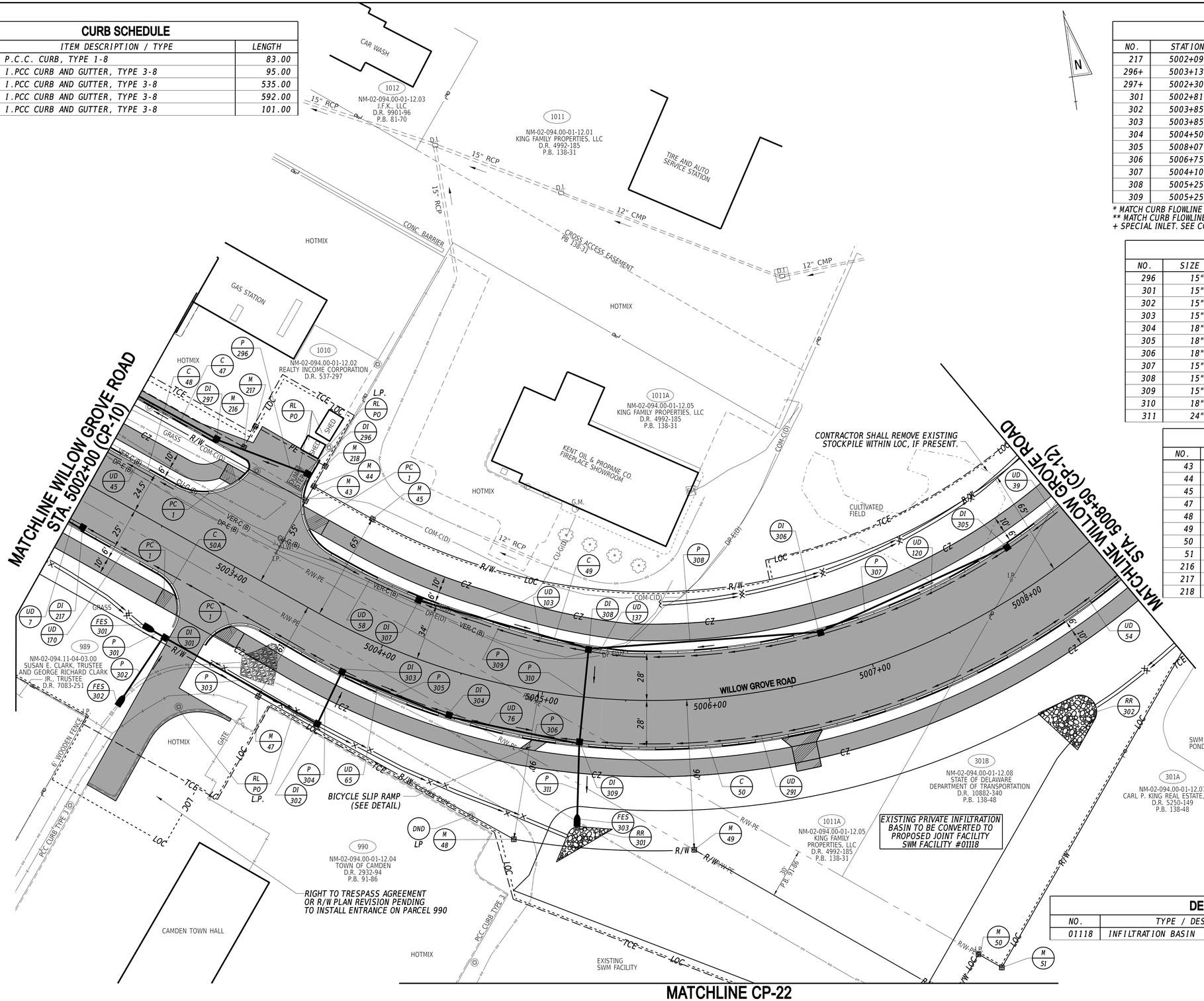
CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

CONSTRUCTION PLAN

CP-10A
SECTION CEN
SHEET NO. 30

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
47	P.C.C. CURB, TYPE 1-8	83.00
48	I.PCC CURB AND GUTTER, TYPE 3-8	95.00
49	I.PCC CURB AND GUTTER, TYPE 3-8	535.00
50	I.PCC CURB AND GUTTER, TYPE 3-8	592.00
50A	I.PCC CURB AND GUTTER, TYPE 3-8	101.00



DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
217	5002+09.00	**	34" x 24"	4	*	38.19
296+	5003+13.42	**	72" x 24"	4	*	38.74
297+	5002+30.40	**	48" x 30"	4	*	38.57
301	5002+81.62	**	34" x 24"	1	*	39.59
302	5003+85.00	59.14	34" x 24"	2	41.94	38.76
303	5003+85.00	**	48" x 30"	4	*	38.67
304	5004+50.00	**	48" x 30"	4	*	38.47
305	5008+07.00	**	48" x 30"	4	*	40.43
306	5006+75.00	**	48" x 30"	4	*	39.64
307	5004+10.00	**	72" x 48"	1	*	39.02
308	5005+25.00	**	48" x 30"	4	*	38.72
309	5005+25.00	**	48" x 30"	4	*	38.24

* MATCH CURB FLOWLINE ELEVATION.
** MATCH CURB FLOWLINE OFFSET.
+ SPECIAL INLET. SEE CONSTRUCTION DETAILS.

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
296	15" RCP	V	56	0.0030	38.14	37.97
301	15" RCP	IV	7	0.0320	39.81	39.59
302	15" RCP	IV	43	0.0045	39.78	39.59
303	15" RCP	IV	104	0.0080	39.59	38.76
304	18" RCP	IV	32	0.0030	38.76	38.67
305	18" RCP	IV	66	0.0030	38.67	38.47
306	18" RCP	IV	76	0.0030	38.47	38.24
307	15" RCP	IV	119	0.0050	40.43	39.84
308	15" RCP	IV	135	0.0050	39.64	38.97
309	15" RCP	IV	101	0.0030	39.02	38.72
310	18" RCP	IV	55	0.0050	38.72	38.44
311	24" RCP	IV	43	0.0050	38.24	38.03

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
43	CAPPED REBAR	5003+17.59	-55.00	404156.5311	619702.5728
44	CAPPED REBAR	5003+17.68	-65.00	404164.4430	619708.6891
45	CONCRETE	5003+57.77	-65.00	404140.1971	619740.6151
47	CAPPED REBAR	5003+50.00	61.00	404044.5515	619658.2242
48	CAPPED REBAR	5004+97.69	90.00	403938.5734	619797.7718
49	CAPPED REBAR	5005+86.48	90.00	403917.3234	619903.8201
50	CAPPED REBAR	5007+02.75	184.95	403831.7583	620063.5546
51	CAPPED REBAR	5007+09.85	197.13	403821.9501	620076.2420
216	CAPPED REBAR	5002+69.66	-65.00	404193.4854	619670.4473
217	CAPPED REBAR	5002+69.66	-79.25	404204.8308	619679.0635
218	CAPPED REBAR	5003+17.80	-78.83	404175.3877	619717.1500

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
301	15" RCP	0.0320	YES
302	15" RCP	0.0045	YES
303	24" RCP	0.0050	NO

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
301*	R-4	30.00
302*	R-4	34.00

* SEE RIPRAP OUTLET PROTECTION DETAIL IN THE CONSTRUCTION PLAN DETAILS

DELDOT SWM FACILITY SCHEDULE

NO.	TYPE / DESCRIPTION	LOCATION
01118	INFILTRATION BASIN	STA. 5005+50 RT. TO STA. 5008+50 RT.

NOTES:

1. SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.

MATCHLINE CP-22

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ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

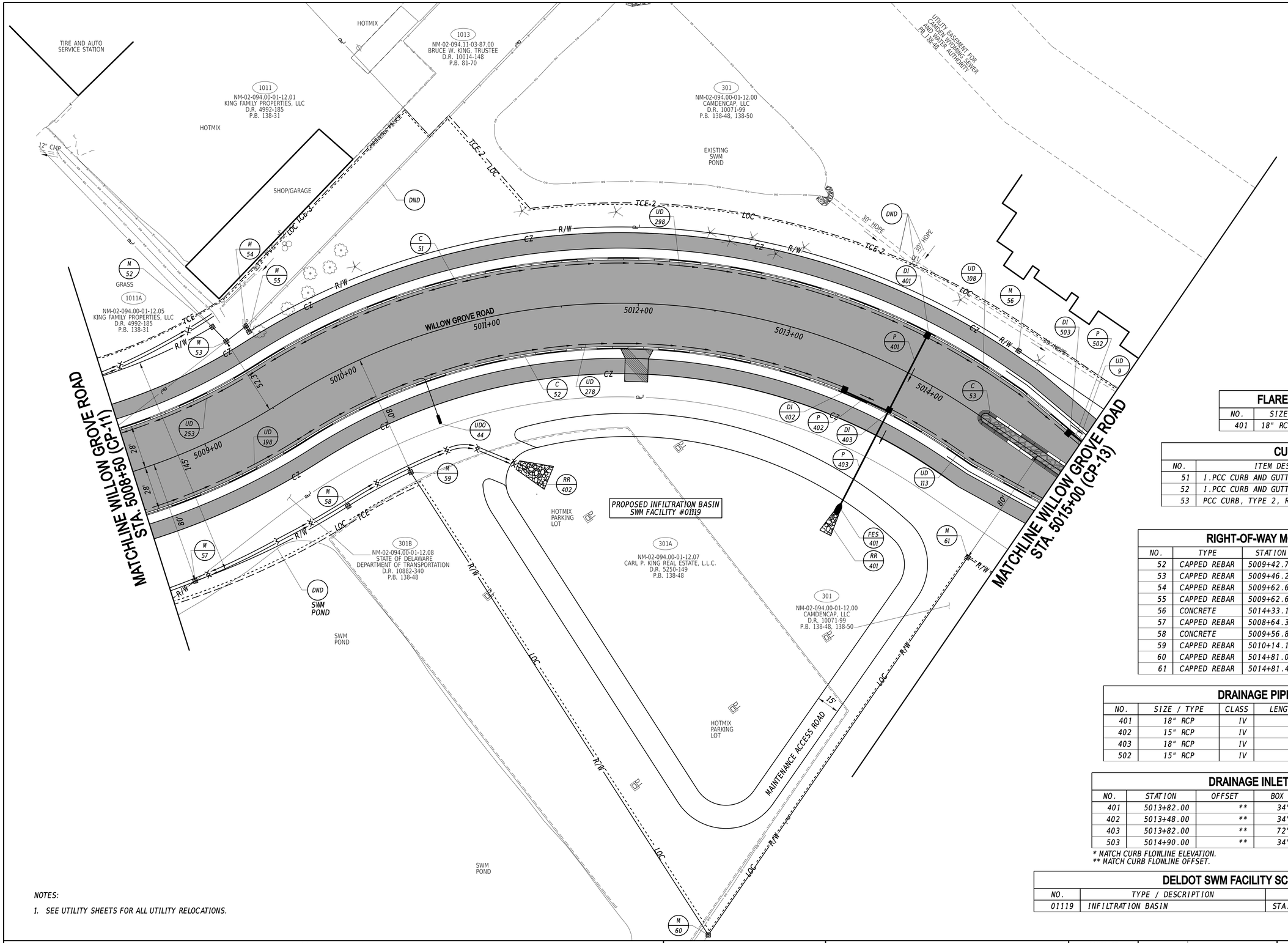
WEST CAMDEN BYPASS

CONTRACT	T201709502	BRIDGE NO.	N/A
COUNTY	KENT	DESIGNED BY:	L. HAXTON
		CHECKED BY:	J. FREY

CONSTRUCTION PLAN

SECTION	CEN
SHEET NO.	31

CP-11



UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
44	33.00	41.52

ITEM# 908020 - EROSION CONTROL BLANKET MULCH SHALL BE EXTENDED TO UNDERDRAIN OUTLET LOCATION.

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
401*	R-4	9.50
402*	R-4	27.50

* SEE RIPRAP OUTLET PROTECTION DETAIL IN THE CONSTRUCTION PLAN DETAILS

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
401	18" RCP	0.0050	NO

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
51	I.PCC CURB AND GUTTER, TYPE 3-8	676.00
52	I.PCC CURB AND GUTTER, TYPE 3-8	625.00
53	PCC CURB, TYPE 2, ROUNDABOUT	136.00

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
52	CAPPED REBAR	5009+42.75	-65.00	404170.5415	620190.3340
53	CAPPED REBAR	5009+46.20	-52.29	404163.6793	620201.4205
54	CAPPED REBAR	5009+62.65	-53.95	404176.2874	620211.1694
55	CAPPED REBAR	5009+62.60	-49.95	404173.4711	620214.0100
56	CONCRETE	5014+33.15	-48.95	404285.3154	620700.1420
57	CAPPED REBAR	5008+64.38	80.00	404008.4457	620220.4458
58	CONCRETE	5009+56.80	80.00	404079.9650	620304.4262
59	CAPPED REBAR	5010+14.18	80.00	404111.3296	620338.2040
60	CAPPED REBAR	5014+81.03	376.71	403868.9982	620599.3287
61	CAPPED REBAR	5014+81.46	80.00	404147.5997	620701.3882

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
401	18" RCP	IV	55	0.0100	38.41	37.87
402	15" RCP	IV	28	0.0100	38.14	37.87
403	18" RCP	IV	68	0.0050	37.87	37.53
502	15" RCP	IV	47	0.0050	35.33	35.10

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
401	5013+82.00	**	34" x 24"	4	*	38.41
402	5013+48.00	**	34" x 24"	4	*	38.14
403	5013+82.00	**	72" x 24"	1	*	37.87
503	5014+90.00	**	34" x 24"	4	*	35.33

* MATCH CURB FLOWLINE ELEVATION.
** MATCH CURB FLOWLINE OFFSET.

DELDOT SWM FACILITY SCHEDULE

NO.	TYPE / DESCRIPTION	LOCATION
01119	INFILTRATION BASIN	STA. 5010+50 RT. TO STA. 5014+50 RT.

NOTES:

1. SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502	BRIDGE NO.	N/A
COUNTY	KENT	DESIGNED BY:	L. HAXTON
		CHECKED BY:	J. FREY

CONSTRUCTION PLAN

CP-12
SECTION
CEN
SHEET NO.
32

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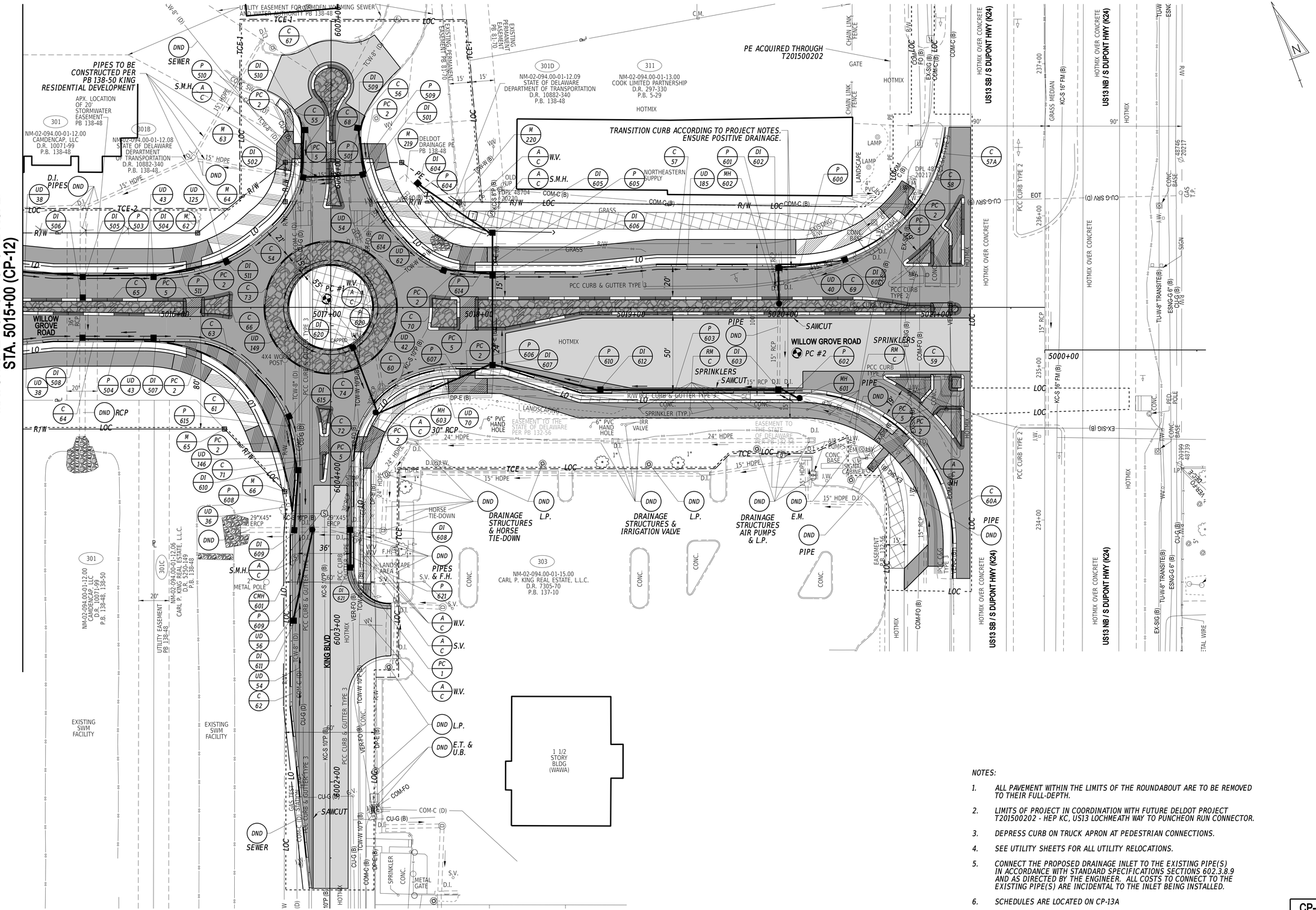
MATCHLINE WILLOW GROVE ROAD
STA. 5015+00 (CP-12)



NOTES:

1. *ALL PAVEMENT WITHIN THE LIMITS OF THE ROUNDABOUT ARE TO BE REMOVED TO THEIR FULL-DEPTH.*
2. *LIMITS OF PROJECT IN COORDINATION WITH FUTURE DELDOT PROJECT T201500202 - HEP KC, US13 LOCHMEATH WAY TO PUNCHEON RUN CONNECTOR.*
3. *DEPRESS CURB ON TRUCK APRON AT PEDESTRIAN CONNECTIONS.*
4. *SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.*
5. *CONNECT THE PROPOSED DRAINAGE INLET TO THE EXISTING PIPE(S) IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTIONS 602.3.8.9 AND AS DIRECTED BY THE ENGINEER. ALL COSTS TO CONNECT TO THE EXISTING PIPE(S) ARE INCIDENTAL TO THE INLET BEING INSTALLED.*
6. *SCHEDULES ARE LOCATED ON CP-13A*

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ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	CP-13
T201709502	DESIGNED BY:	L. HAXTON	SECTION
COUNTY			CEN
KENT	CHECKED BY:	J. FREY	SHEET NO.
			33

CONSTRUCTION PLAN

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
54	I.PCC CURB AND GUTTER, TYPE 3-8	234.00
55	PCC CURB, TYPE 1-8	24.00
56	PCC CURB, TYPE 1-8	19.00
57	I.PCC CURB AND GUTTER, TYPE 3-8	337.00
57A	I.PCC CURB AND GUTTER, TYPE 1-8	151.00
58	PCC CURB, TYPE 2	175.00
59	PCC CURB, TYPE 2	207.00
60	I.PCC CURB AND GUTTER, TYPE 3-8	445.00
60A	I.PCC CURB AND GUTTER, TYPE 1-8	182.00
61	PCC CURB, TYPE 1-8	166.00
62	I.PCC CURB AND GUTTER, TYPE 3-8	250.00
63	I.PCC CURB AND GUTTER, TYPE 3-2	178.00
64	I.PCC CURB AND GUTTER, TYPE 3-8	81.00
65	PCC CURB, TYPE 2, ROUNDABOUT	226.00
66	PCC CURB, TYPE 2, ROUNDABOUT	69.00
67	PCC CURB, TYPE 2, ROUNDABOUT	128.00
68	PCC CURB, TYPE 2, ROUNDABOUT	84.00
69	PCC CURB, TYPE 2	659.00
70	PCC CURB, TYPE 2, ROUNDABOUT	84.00
71	PCC CURB, TYPE 2, ROUNDABOUT	47.00
72	PCC CURB, TYPE 2, ROUNDABOUT	55.00
73	PCC CURB, TYPE 1-8	277.00
74	PCC CURB, TYPE 1-8	178.00

CONVERT TO MANHOLE SCHEDULE

NO.	STATION	OFFSET	T.C. EL.	INVERT EL.
601	6003+65.90	-11.94	39.91	34.72

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
62	CAPPED REBAR	5016+15.03	-48.94	404222.9782	620871.0483
63	CAPPED REBAR (DISC)	5016+72.72	-95.35	404246.8146	620941.1465
64	CAPPED REBAR	5016+72.68	-69.45	404222.4950	620932.2375
65	CAPPED REBAR	5016+32.75	80.00	404095.7697	620843.5187
66	CAPPED REBAR	5016+72.40	121.15	404043.5256	620866.6761
219	CAPPED REBAR	6006+07.34	46.55	404220.4835	621013.0249
220	CAPPED REBAR	5017+87.15	-69.27	404183.1053	621039.7110

DISC TO BE PLACED AT PROPERTY CORNER LOCATED WITHIN PAVEMENT. PAID UNDER 706002 RW MARKER, CAPPED REBAR

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
1	5017+00.00	-5.50'	12.75" HMA
2	5020+09.38	30.00'	11" HMA

MANHOLE SCHEDULE

NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INVERT EL.
601	5020+11.00	59.63	48" x 30"	40.64	36.38
602	5019+97.50	-2.54	72" x 48"	40.78	36.91
603	6004+43.02	29.65	66" x 48"	41.50	35.32

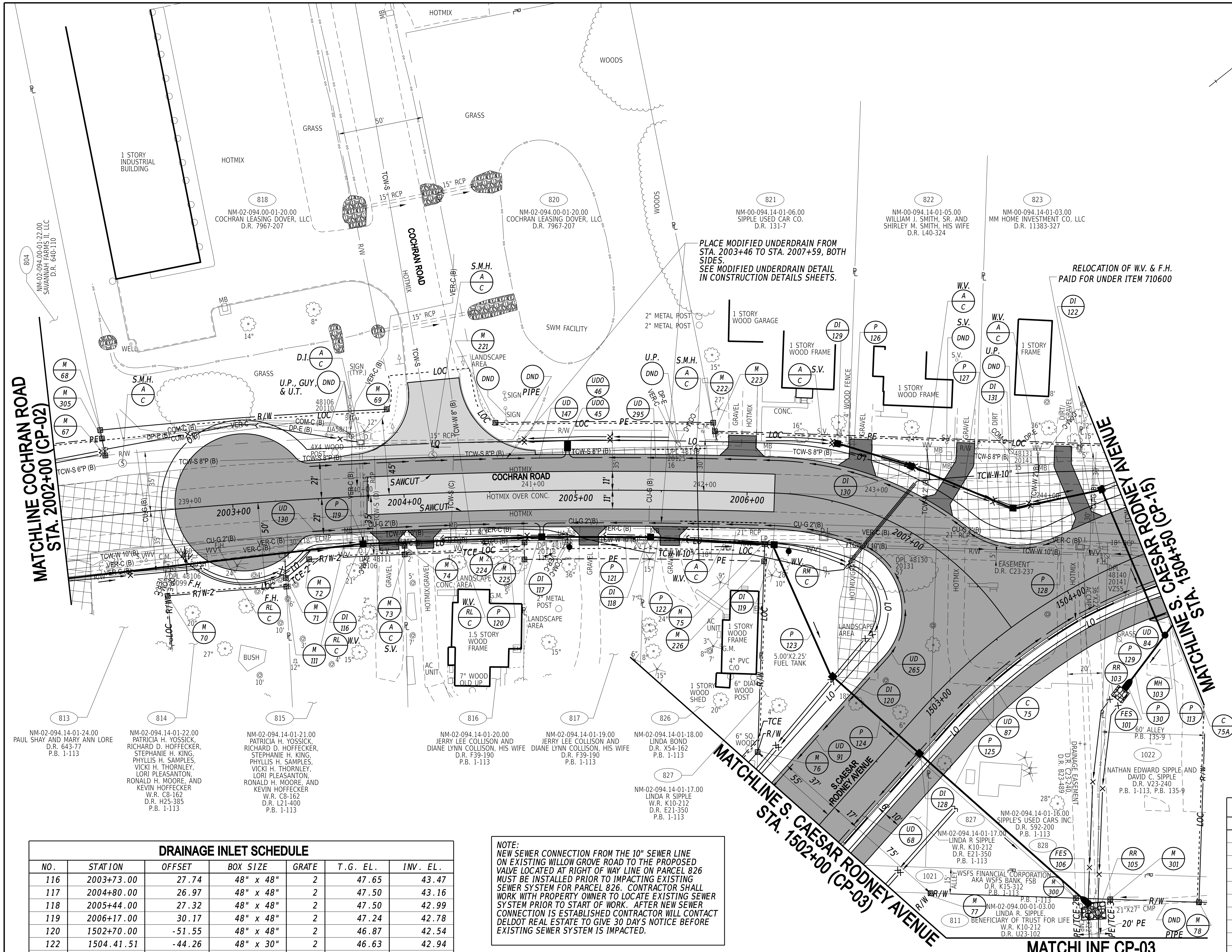
DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
501	15" RCP	IV	40	0.0050	36.77	36.57
503	15" RCP	IV	42	0.0050	35.30	35.10
504	15" RCP	IV	44	0.0050	35.26	35.04
600	15" RCP	IV	41	0.0050	37.22	37.02
601	15" RCP	IV	22	0.0050	37.02	36.91
602	15" RCP	IV	12	0.0075	36.38	36.30
603	18" RCP	IV	112	0.0045	36.30	35.79
620	15" RCP	IV	43	0.0050	35.53	35.32
604	15" RCP	IV	57	0.0050	36.24	35.96
605	15" RCP	IV	24	0.0050	35.96	35.84
606	18" RCP	IV	58	0.0050	35.84	35.55
607	24" RCP	IV	79	0.0030	35.55	35.32
608	15" RCP	IV	36	0.0050	35.06	34.88
609	15" RCP	IV	58	0.0050	35.21	34.92
610	18" RCP	IV	68	0.0035	35.79	35.55
509	15" RCP	IV	27	0.0050	36.90	36.77
510	15" RCP	IV	29	0.0050	36.71	36.57
511	15" RCP	IV	45	0.0050	35.52	35.30
614	15" RCP	IV	28	0.0050	35.98	35.84
615	15" RCP	IV	33	0.0050	35.22	35.06
621	15" RCP	IV	21	0.0030	35.13	35.07

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
501	6006+00.00	**	72" x 48"	1	*	36.77
502+	6005+98.00	**	48" x 30"	4	*	36.57
504	5015+86.00	**	72" x 48"	1	*	35.30
505+	5015+39.54	**	66" x 30"	4	*	35.10
506+	5015+39.47	**	66" x 30"	4	*	35.08
507	5015+86.00	**	34" x 24"	4	*	35.26
508+	5015+39.38	**	66" x 30"	4	*	35.04
601+	5020+40.00	**	48" x 30"	4	*	37.22
602+	5019+97.00	**	48" x 30"	4	*	37.02
603+	5019+97.00	**	72" x 48"	1	*	36.30
620	5017+16.28	**	34" x 24"	1	*	35.53
604++	6005+93.68	-57.07	34" x 24"	2	39.50	36.24
605	5018+09.00	-49.07	48" x 48"	2	39.88	35.96
606	5018+09.00	**	72" x 48"	1	*	35.84
607	5018+09.00	**	72" x 48"	1	*	35.55
608+	6003+65.75	**	72" x 72"	1	*	35.07
609+	6003+65.75	**	72" x 24"	1	*	34.68
610	6004+05.00	**	48" x 30"	4	*	35.06
611	6003+06.00	**	48" x 30"	4	*	35.21
509	6006+29.76	**	48" x 48"	4	*	36.90
510	6006+29.76	**	34" x 24"	4	*	36.71
511	5016+33.20	**	48" x 30"	4	*	35.52
612	5018+79.91	**	48" x 48"	4	*	35.79
614	5017+77.58	**	48" x 30"	4	*	35.98
615	6004+39.54	**	48" x 30"	4	*	35.22
620	5017+17.22	**	48" x 30"	4	*	37.02
621	6003+40.99	**	34" X 24"	4	*	35.13

* MATCH PROPOSED CURBLINE.
** MATCH CURB FLOWLINE OFFSET.
+ DOGHOUSE INLET BOX, SEE DELDOT STANDARD DETAIL.
++ ADD CONCRETE GUTTER. SEE CONSTRUCTION DETAILS.



NOTES:

1. PARCELS 813, 814, 815, 827, AND 828 ARE TOTAL RIGHT OF WAY ACQUISITIONS. ALL STRUCTURES AND FEATURES WILL BE REMOVED PRIOR TO CONSTRUCTION THROUGH THE REAL ESTATE DEPARTMENT PROCESS.
2. PLACE CONSTRUCTION SAFETY FENCE ON THE PERIMETER OF PARCELS 816, 817, AND 826 BEFORE CONSTRUCTION AND LEAVE FOR ENTIRE PROJECT DURATION. IF FENCE IS DAMAGED, REINSTALLATION WILL BE INCIDENTAL TO THE ITEM.
3. SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.
4. CONNECT THE PROPOSED DRAINAGE INLET TO THE EXISTING PIPE(S) IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTIONS 602.3.8.9 AND AS DIRECTED BY THE ENGINEER. ALL COSTS TO CONNECT TO THE EXISTING PIPE(S) ARE INCIDENTAL TO THE INLET BEING INSTALLED.

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
45	10.00	46.79
46	10.00	46.79

ITEM# 908020 - EROSION CONTROL BLANKET MULCH SHALL BE EXTENDED TO UNDERDRAIN OUTLET LOCATION.

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
103*	R-4	3.00
105*	R-4	7.00

* SEE RIPRAP OUTLET PROTECTION DETAIL IN THE CONSTRUCTION PLAN DETAILS

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
101	30" RCP	0.0047	NO
106	24" RCP	0.0030	NO

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
75	I.PCC CURB AND GUTTER, TYPE 3-8	242.00
75A	PCC CURB, TYPE 1-8	12.00

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
67	CAPPED REBAR	2002+28.97	-35.00	402828.1656	615044.0556
68	CAPPED REBAR	2002+27.54	-50.00	402835.0449	615030.6480
69	CAPPED REBAR	2003+92.15	-50.00	402973.3880	615125.0071
70	CAPPED REBAR	2002+62.71	50.00	402805.6890	615130.7869
71	CAPPED REBAR	2003+28.05	45.00	402866.1312	615165.4575
72	CAPPED REBAR	2003+42.48	35.00	402883.5246	615165.3697
73	CAPPED REBAR	2003+98.92	35.00	402928.9013	615197.7529
74	CAPPED REBAR	2003+99.02	30.00	402931.9271	615193.7711
75	CAPPED REBAR	2006+11.24	30.00	403096.9136	615323.6132
76	CAPPED REBAR	1502+08.02	-55.00	403018.3143	615415.9682
77	CAPPED REBAR	1502+13.46	75.00	403046.0313	615543.0956
78	CAPPED REBAR	1503+43.77	193.63	403165.2121	615644.5251
111	CAPPED REBAR	2003+20.45	50.00	402863.2245	615169.5266
221	CAPPED REBAR	2004+54.19	-40.00	403018.0443	615170.5766
222	CAPPED REBAR	2005+79.38	-40.00	403117.4653	615249.4767
223	CAPPED REBAR	2005+80.47	-35.00	403115.1217	615254.0295
224	CAPPED REBAR	2004+69.76	30.00	402987.9855	615235.6890
225	CAPPED REBAR	2004+69.52	40.00	402981.7123	615243.4801
226	CAPPED REBAR	2006+11.23	40.00	403090.4325	615331.2286
300	CAPPED REBAR	1502+67.57	140.19	403110.5490	615598.0037
301	CAPPED REBAR	1502+80.37	155.61	403125.8177	615610.9983
305	CAPPED REBAR	2002+28.02	-45.00	402832.7519	615035.1171

MANHOLE SCHEDULE

NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INVERT EL.
103	1504+42.68	48.47	48" x 48"	47.10	42.58

DRAINAGE PIPE SCHEDULE

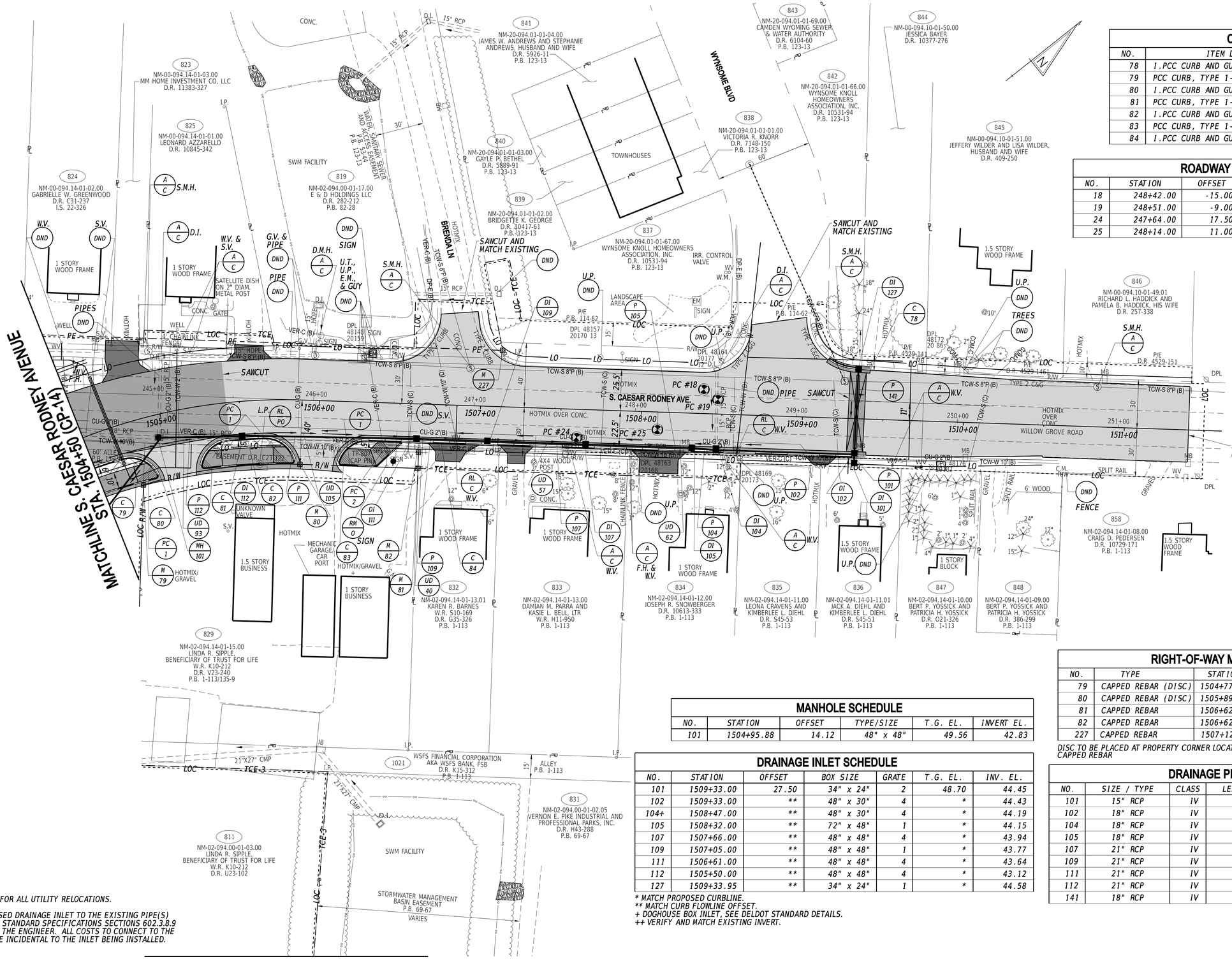
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
113	24" RCP	IV	56	0.0046	42.83	42.58
119	18" RCP	IV	3	0.0150	44.32	43.47
120	24" RCP	IV	102	0.0030	43.47	43.16
121	24" RCP	IV	60	0.0030	43.16	42.99
122	24" RCP	IV	69	0.0030	42.99	42.78
123	24" RCP	IV	81	0.0030	42.78	42.54
124	24" RCP	IV	66	0.0030	42.54	42.34
125	24" RCP	IV	126	0.0030	42.34	41.97
126	15" RCP	IV	43	0.0040	44.07	43.90
127	15" RCP	IV	62	0.0040	43.70	43.46
128	15" RCP	IV	50	0.0040	43.34	43.14
129	18" RCP	IV	90	0.0040	42.94	42.58
130	30" RCP	IV	32	0.0047	42.58	42.43

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
116	2003+73.00	27.74	48" x 48"	2	47.65	43.47
117	2004+80.00	26.97	48" x 48"	2	47.50	43.16
118	2005+44.00	27.32	48" x 48"	2	47.50	42.99
119	2006+17.00	30.17	48" x 48"	2	47.24	42.78
120	1502+70.00	-51.55	48" x 48"	2	46.87	42.54
122	1504.41.51	-44.26	48" x 30"	2	46.63	42.94
128	1502+70.00	**	48" x 30"	4	*	43.34
129+	2006+46.00	-33.20	34" x 24"	2	46.75	44.07
130	2006+83.46	-34.29	34" x 24"	2	46.58	43.70
131+	1503+97.24	-57.64	34" x 24"	2	46.35	43.34

* MATCH PROPOSED CURBLINE.
** MATCH CURB FLOWLINE OFFSET.
\+ ROTATE DRAINAGE INLET 90-DEGREES PERPENDICULAR TO DITCH.

NOTE:
NEW SEWER CONNECTION FROM THE 10" SEWER LINE ON EXISTING WILLOW GROVE ROAD TO THE PROPOSED VALVE LOCATED AT RIGHT OF WAY LINE ON PARCEL 826 MUST BE INSTALLED PRIOR TO IMPACTING EXISTING SEWER SYSTEM FOR PARCEL 826. CONTRACTOR SHALL WORK WITH PROPERTY OWNER TO LOCATE EXISTING SEWER SYSTEM PRIOR TO START OF WORK. AFTER NEW SEWER CONNECTION IS ESTABLISHED CONTRACTOR WILL CONTACT DELDOT REAL ESTATE TO GIVE 30 DAYS NOTICE BEFORE EXISTING SEWER SYSTEM IS IMPACTED.



CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
78	I.PCC CURB AND GUTTER, TYPE 2	28.00
79	PCC CURB, TYPE 1-8	37.00
80	I.PCC CURB AND GUTTER, TYPE 3-8	46.00
81	PCC CURB, TYPE 1-8	62.00
82	I.PCC CURB AND GUTTER, TYPE 3-8	75.00
83	PCC CURB, TYPE 1-8	47.00
84	I.PCC CURB AND GUTTER, TYPE 3-8	335.00

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
18	248+42.00	-15.00'	3" HMA, 0.5" ST
19	248+51.00	-9.00'	5.5" HMA, 8" PCC
24	247+64.00	17.50'	5.5" HMA
25	248+14.00	11.00'	7" HMA, 7.5" PCC

MANHOLE SCHEDULE

NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INVERT EL.
101	1504+95.88	14.12	48" x 48"	49.56	42.83

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
101	1509+33.00	27.50	34" x 24"	2	48.70	44.45
102	1509+33.00	**	48" x 30"	4	*	44.43
104+	1508+47.00	**	48" x 30"	4	*	44.19
105	1508+32.00	**	72" x 48"	1	*	44.15
107	1507+66.00	**	48" x 48"	4	*	43.94
109	1507+05.00	**	48" x 48"	1	*	43.77
111	1506+61.00	**	48" x 48"	4	*	43.64
112	1505+50.00	**	48" x 48"	4	*	43.12
127	1509+33.95	**	34" x 24"	1	*	44.58

* MATCH PROPOSED CURBLINE.
** MATCH CURB FLOWLINE OFFSET.
+ DOGHOUSE BOX INLET, SEE DELDOT STANDARD DETAILS.
++ VERIFY AND MATCH EXISTING INVERT.

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
79	CAPPED REBAR (DISC)	1504+77.56	40.00	403278.0572	615511.9308
80	CAPPED REBAR (DISC)	1505+89.15	40.00	403362.0771	615562.4100
81	CAPPED REBAR	1506+62.45	40.00	403417.8974	615609.9161
82	CAPPED REBAR	1506+62.45	30.00	403424.3785	615602.3007
227	CAPPED REBAR	1507+12.61	-35.00	403504.7108	615585.3149

DISC TO BE PLACED AT PROPERTY CORNER LOCATED WITHIN PAVEMENT. PAID UNDER 706002 RW MARKER, CAPPED REBAR

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
101	15" RCP	IV	3	0.0050	44.45	44.43
102	18" RCP	IV	82	0.0030	44.43	44.19
104	18" RCP	IV	10	0.0040	44.19	44.15
105	18" RCP	IV	61	0.0033	44.15	43.94
107	21" RCP	IV	57	0.0030	43.94	43.77
109	21" RCP	IV	40	0.0033	43.77	43.64
111	21" RCP	IV	105	0.0050	43.64	43.12
112	21" RCP	IV	48	0.0060	43.12	42.83
141	18" RCP	IV	51	0.0030	44.58	44.43

NOTES:

1. *SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.*
2. *CONNECT THE PROPOSED DRAINAGE INLET TO THE EXISTING PIPE(S) IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTIONS 602.3.8.9 AND AS DIRECTED BY THE ENGINEER. ALL COSTS TO CONNECT TO THE EXISTING PIPE(S) ARE INCIDENTAL TO THE INLET BEING INSTALLED.*

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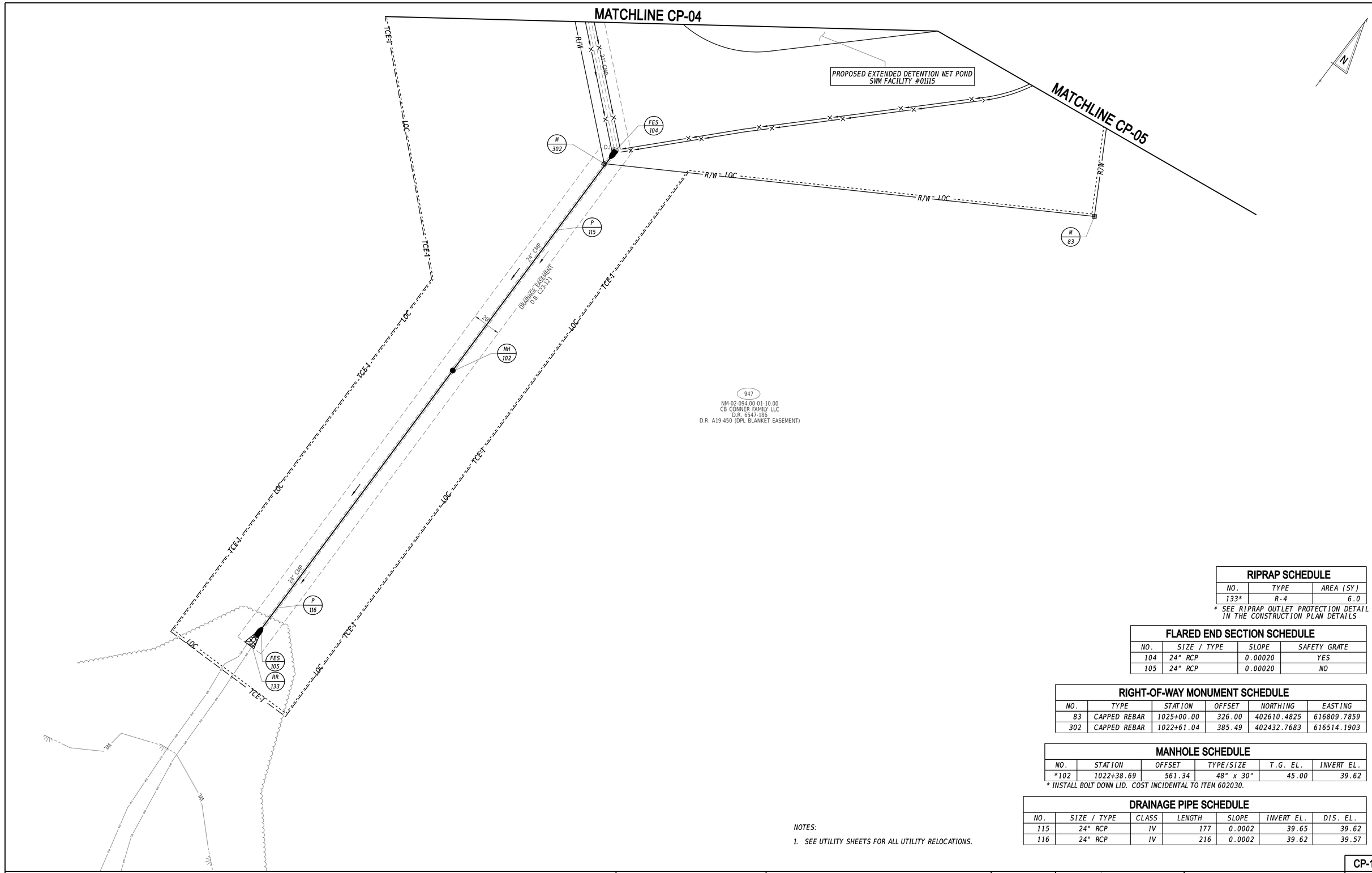
ADDENDA / REVISIONS	SCALE		CONTRACT	BRIDGE NO. N/A		CP-15
	0 30 60 90	WEST CAMDEN BYPASS	T201709502	DESIGNED BY: L. HAXTON	CONSTRUCTION PLAN	SECTION CEN
	FEET		COUNTY KENT	CHECKED BY: J. FREY		SHEET NO. 36



RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
133*	R-4	6.0

* SEE RIPRAP OUTLET PROTECTION DETAIL IN THE CONSTRUCTION PLAN DETAILS

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
104	24" RCP	0.00020	YES
105	24" RCP	0.00020	NO

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
83	CAPPED REBAR	1025+00.00	326.00	402610.4825	616809.7859
302	CAPPED REBAR	1022+61.04	385.49	402432.7683	616514.1903

MANHOLE SCHEDULE

NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INVERT EL.
*102	1022+38.69	561.34	48" x 30"	45.00	39.62

* INSTALL BOLT DOWN LID. COST INCIDENTAL TO ITEM 602030.

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
115	24" RCP	IV	177	0.0002	39.65	39.62
116	24" RCP	IV	216	0.0002	39.62	39.57

NOTES:

1. SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.

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ADDENDA / REVISIONS

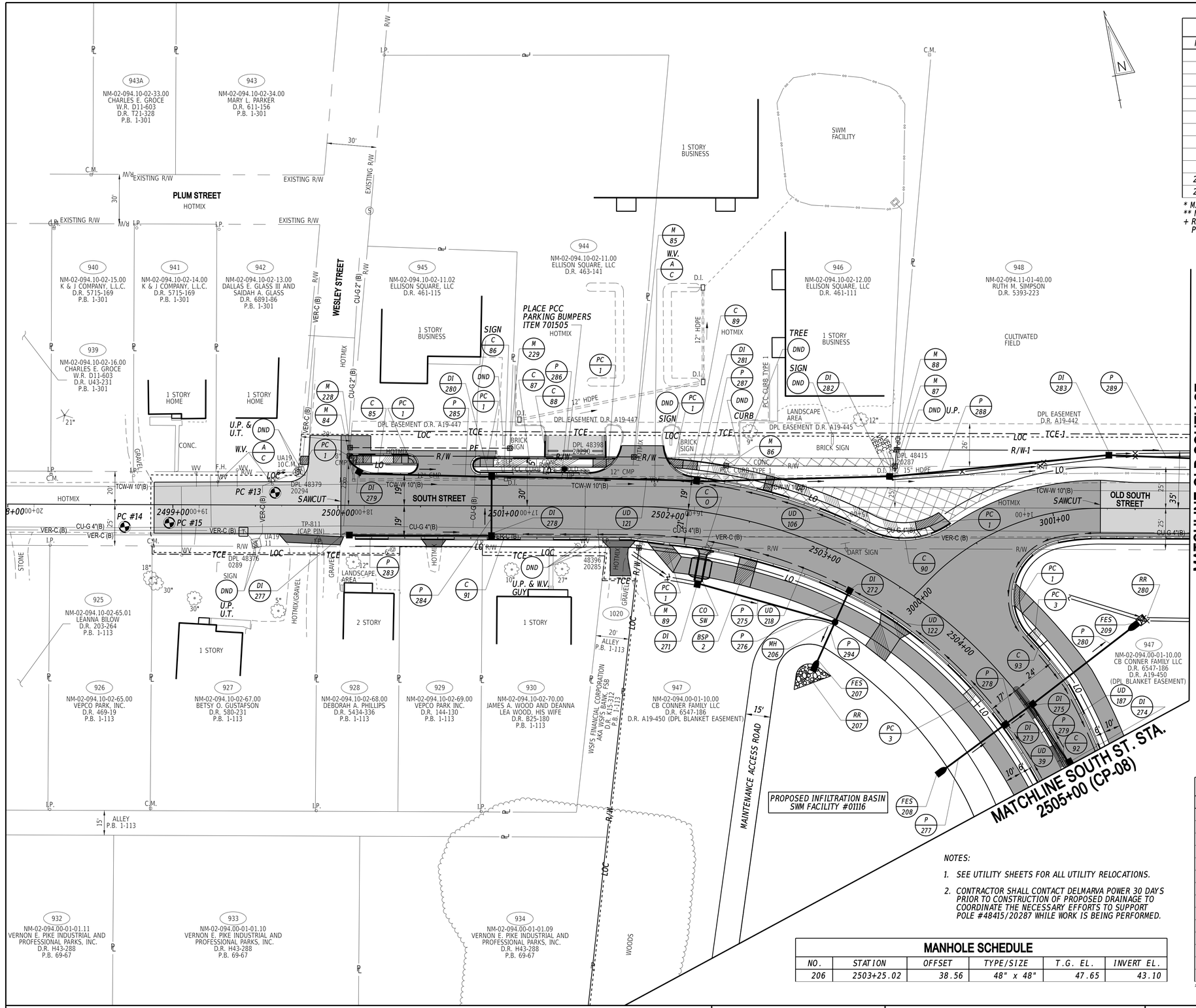
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

CONSTRUCTION PLAN

	CP-16
SECTION	CEN
SHEET NO.	37



DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
271	2502+25.00	42.67	48" x 30"	2	45.75	43.35
272	2503+24.00	**	48" x 48"	4	*	43.15
273	2504+57.00	**	34" x 24"	4	*	44.50
274	2504+98.00	**	34" x 24"	4	*	44.95
275	2504+57.00	**	34" x 24"	4	*	44.32
277	2500+07.00	19.17	72" x 24"	1	45.93	42.09
278	2500+93.00	**	34" x 24"	4	*	41.44
279	2500+14.00	**	72" x 48"	1	*	41.91
280	2500+93.00	**	48" x 30"	4	*	41.25
281	2502+15.00	**	48" x 30"	4	*	40.89
282+	2503+14.50	-55.06	34" x 24"	2	44.50	40.55
283+	3001+34.00	-32.16	34" x 24"	2	43.25	40.09

* MATCH PROPOSED CURBLINE.
** MATCH CURB FLOWLINE OFFSET.
\+ ROTATE DRAINAGE INLET 90-DEGREES PERPENDICULAR TO DITCH

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
207*	R-4	20.50
280*	R-4	3.00

* SEE RIPRAP OUTLET PROTECTION DETAIL IN THE CONSTRUCTION PLAN DETAILS

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
207	18" RCP	0.0030	NO
208	18" RCP	0.0100	YES
209	18" RCP	0.0110	NO

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
85	PCC CURB, TYPE 1-8	98.00
86	I.PCC CURB AND GUTTER, TYPE 3-8	84.00
87	PCC CURB, TYPE 1-8	111.00
88	PCC CURB, TYPE 1-8	28.00
89	PCC CURB, TYPE 1-8	29.00
90	I.PCC CURB AND GUTTER, TYPE 3-8	166.00
91	I.PCC CURB AND GUTTER, TYPE 3-8	468.00
92	PCC CURB, TYPE 2, ROUNDABOUT	117.00
93	I.PCC CURB AND GUTTER, TYPE 3-8	236.00

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
84	CAPPED REBAR	2500+06.78	-30.00	404798.9826	617858.6843
85	CAPPED REBAR (DISC)	2501+78.91	-30.00	404767.9659	618028.1182
86	CAPPED REBAR	2502+30.03	-30.00	404752.9757	618082.2374
87	CAPPED REBAR	14+78.64	25.00	404734.5523	618182.8781
88	CAPPED REBAR	14+77.81	35.00	404744.2384	618185.5005
89	CAPPED REBAR	2501+82.78	24.96	404713.2660	618021.4863
228	CAPPED REBAR	2500+07.20	-35.00	404803.8259	617859.9941
229	CAPPED REBAR	2501+03.93	-35.00	404786.4071	617955.1474

DISC TO BE PLACED AT PROPERTY CORNER LOCATED WITHIN PAVEMENT. PAID UNDER 706002 RW MARKER, CAPPED REBAR

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
13	18+54.00	7.50'	7" HMA
14	19+45.00	-13.50'	3.75" HMA, 0.5" ST
15	19+18.00	-11.00'	4" HMA

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
275	15" RCP	IV	85	0.0030	43.35	43.10
276	18" RCP	IV	18	0.0030	43.15	43.10
277*	18" RCP	IV	44	0.0100	44.94	44.50
278	18" RCP	IV	19	0.0100	44.50	44.32
279	15" RCP	IV	38	0.0100	44.95	44.57
280	18" RCP	IV	78	0.0110	44.32	43.47
283	15" RCP	IV	82	0.0050	42.09	41.69
284	18" RCP	IV	37	0.0050	41.44	41.25
285	15" RCP	IV	81	0.0050	41.91	41.50
286	18" RCP	IV	121	0.0030	41.25	40.89
287	18" RCP	IV	114	0.0030	40.89	40.55
288	21" RCP	IV	132	0.0035	40.55	40.09
289	21" RCP	IV	215	0.0060	40.09	38.80
294	18" RCP	IV	26	0.0030	43.10	43.02

* PROVIDE CLASS A CONCRETE BEDDING (SEE STORMWATER MANAGEMENT PLAN SHEET)

NOTES:

1. SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.
2. CONTRACTOR SHALL CONTACT DELMARVA POWER 30 DAYS PRIOR TO CONSTRUCTION OF PROPOSED DRAINAGE TO COORDINATE THE NECESSARY EFFORTS TO SUPPORT POLE #48415/20287 WHILE WORK IS BEING PERFORMED.

MANHOLE SCHEDULE

NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INVERT EL.
206	2503+25.02	38.56	48" x 48"	47.65	43.10

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

CONSTRUCTION PLAN

CP-17
SECTION CEN
SHEET NO. 38

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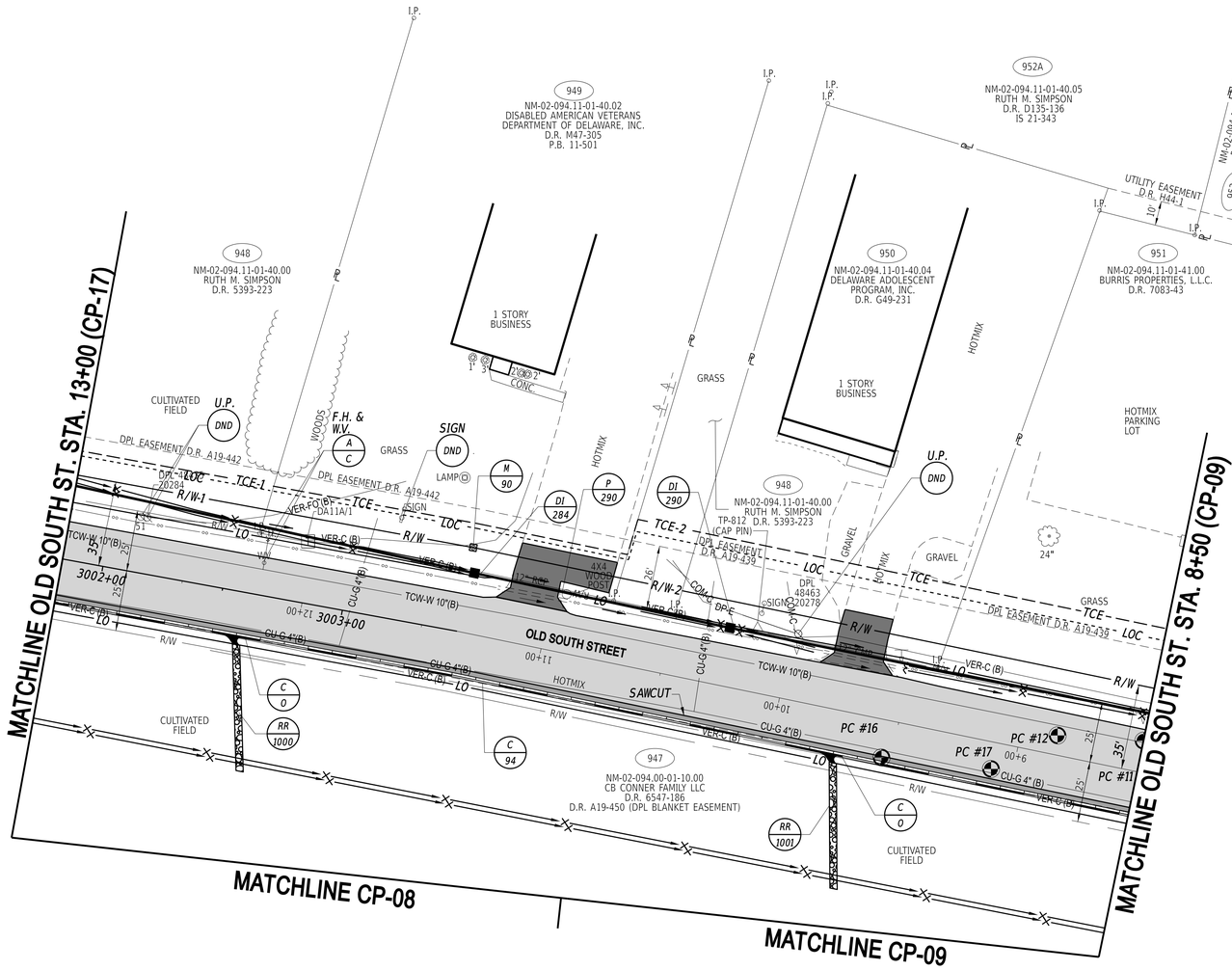

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
1000*	R-4	17.00
1001*	R-4	17.00

*SEE DUMPED RIPRAP CHUTE DETAIL.

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
94	I.PCC CURB AND GUTTER, TYPE 3-8	450.00

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
90	CAPPED REBAR	11+35.35.29	35.00	404682.4906	618522.8081

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
11	08+50.00	13.00'	2.25" HMA, 1" ST
12	08+85.00	8.00'	6.25" HMA
16	09+54.00	-15.50'	4" HMA, 1" ST
17	09+09.00	-11.00'	4" HMA, 0.75" ST

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
290	21" RCP	IV	106	0.0050	38.80	38.27

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
284	11+31.10	24.83	34" x 24"	2	42.50	38.80
290	10+25.00	22.05	48" x 48"	2	42.19	38.27

NOTES:

1. *SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.*
2. *CONTRACTOR SHALL CONTACT DELMARVA POWER 30 DAYS PRIOR TO CONSTRUCTION OF PROPOSED DRAINAGE TO COORDINATE THE NECESSARY EFFORTS TO SUPPORT POLE #48463/20278 WHILE WORK IS BEING PERFORMED.*

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT T201709502	BRIDGE NO. N/A	CONSTRUCTION PLAN	CP-18
COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
	CHECKED BY: J. FREY		SHEET NO. 39

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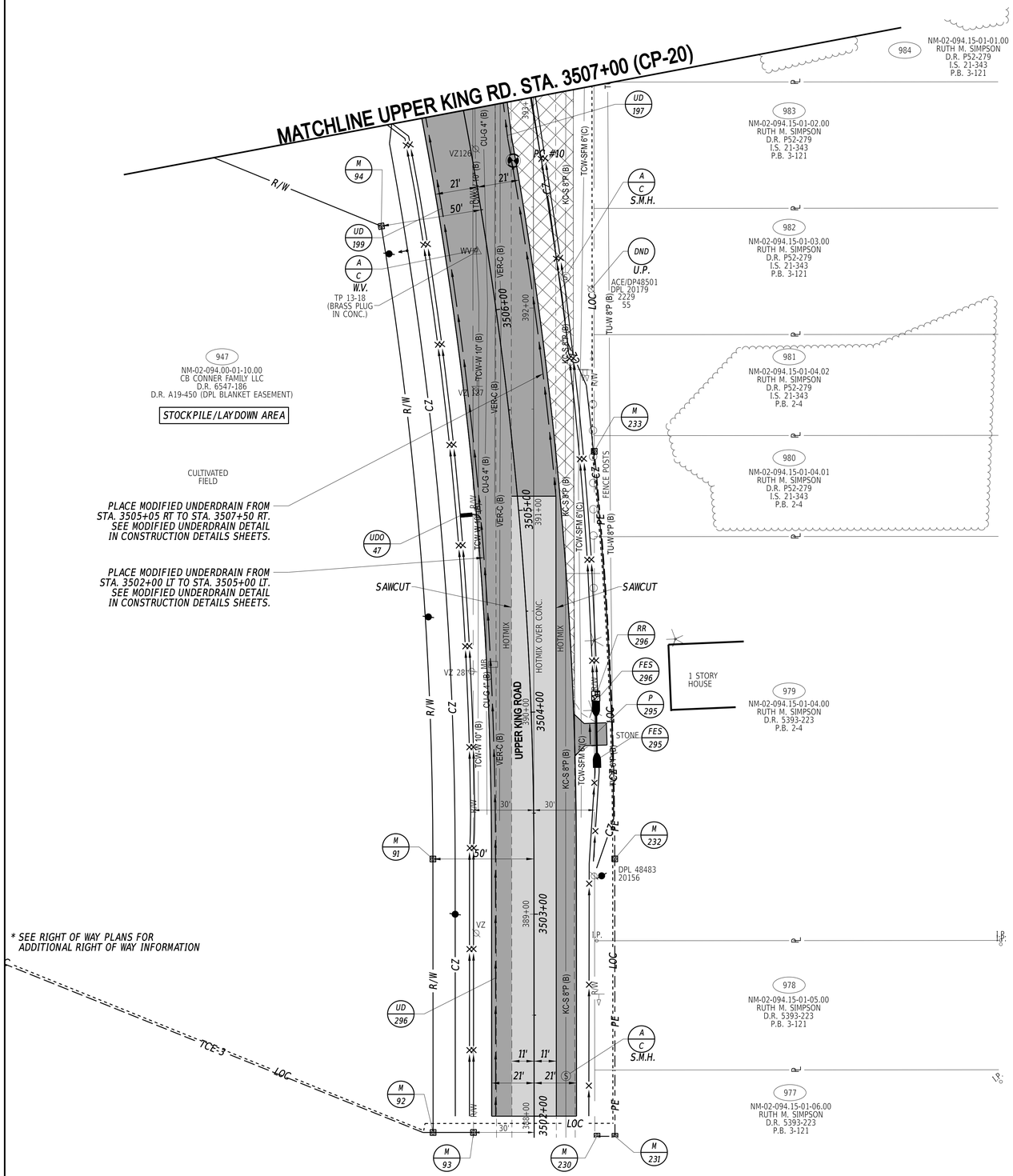

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
295	15" RCP	0.0082	NO
296	15" RCP	0.0082	NO

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
295	15" RCP	V	24	0.0082	46.52	46.32

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
296	R-4	3.0

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
47	10.00	45.81

ITEM# 908020 - EROSION CONTROL BLANKET MULCH SHALL BE EXTENDED TO UNDERDRAIN OUTLET LOCATION.

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
91	CONCRETE	3503+27.32	-50.00	403473.8796	618817.2108
92	CAPPED REBAR	3501+91.97	-50.00	403366.6178	618734.6680
93	CAPPED REBAR	3501+91.97	-30.00	403354.4205	618750.5181
94	CAPPED REBAR	3506+50.00	-50.00	403737.5759	618988.1816
230	CAPPED REBAR	3501+90.00	30.00	403315.6384	618797.8221
231	CAPPED REBAR	3501+90.00	40.00	403310.1648	618804.7891
232	CAPPED REBAR	3503+27.32	40.00	403418.9915	618888.5361
233	CAPPED REBAR	3505+25.43	40.00	403584.9716	619003.6471

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
10	392+73.00	-10.00'	5.5" HMA, 10" PCC

NOTES:

1. SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.

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ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

CONSTRUCTION PLAN

CP-19
SECTION
CEN
SHEET NO.
40

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
48	35.00	43.45
49	11.00	44.37

ITEM# 908020 - EROSION CONTROL BLANKET MULCH SHALL BE EXTENDED TO UNDERDRAIN OUTLET LOCATION.

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
22	R-4	2.00
200*	R-4	64.00
201*	R-4	5.50

** SEE RIPRAP OUTLET PROTECTION DETAIL IN THE CONSTRUCTION PLAN DETAILS*

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
21	15" RCP	0.0098	NO
22	15" RCP	0.0098	NO
201	24" RCP	0.0030	NO

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
95	1.PCC CURB AND GUTTER, TYPE 3-8	337.00
96	PCC CURB, TYPE 2	116.00
97	PCC CURB, TYPE 2 ROUNDABOUT	510.00
98	PCC CURB, TYPE 1-8	9.00
99	1.PCC CURB AND GUTTER, TYPE 3-8	335.00
100	1.PCC CURB AND GUTTER, TYPE 3-8	272.00
100A	PCC CURB, TYPE 1-8	66.00
101	PCC CURB, TYPE 1-8	64.00
101A	1.PCC CURB AND GUTTER, TYPE 3-8	49.00

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
95	CAPPED REBAR	4000+95.71	40.00	403902.7495	619248.1916
96	CAPPED REBAR	4001+40.00	30.00	403894.3988	619288.2665
97	CONCRETE	4001+88.54	30.00	403869.8622	619325.0557
98	CAPPED REBAR	4003+09.06	30.00	403796.0127	619420.2914
100	CAPPED REBAR	4001+32.58	-30.00	403950.4742	619310.8527
101	CAPPED REBAR	4001+86.99	-30.00	403918.3142	619360.4855
102	CAPPED REBAR	4002+61.85	-30.00	403872.3555	619419.7535
303	CAPPED REBAR	4001+14.94	-38.00	403966.3799	619297.1581
304	CAPPED REBAR	4001+32.58	-38.00	403957.5138	619314.6533

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
9	394+00.00	-15.50'	1" HMA
3A	393+57.23	-17.00'	0.75" HMA

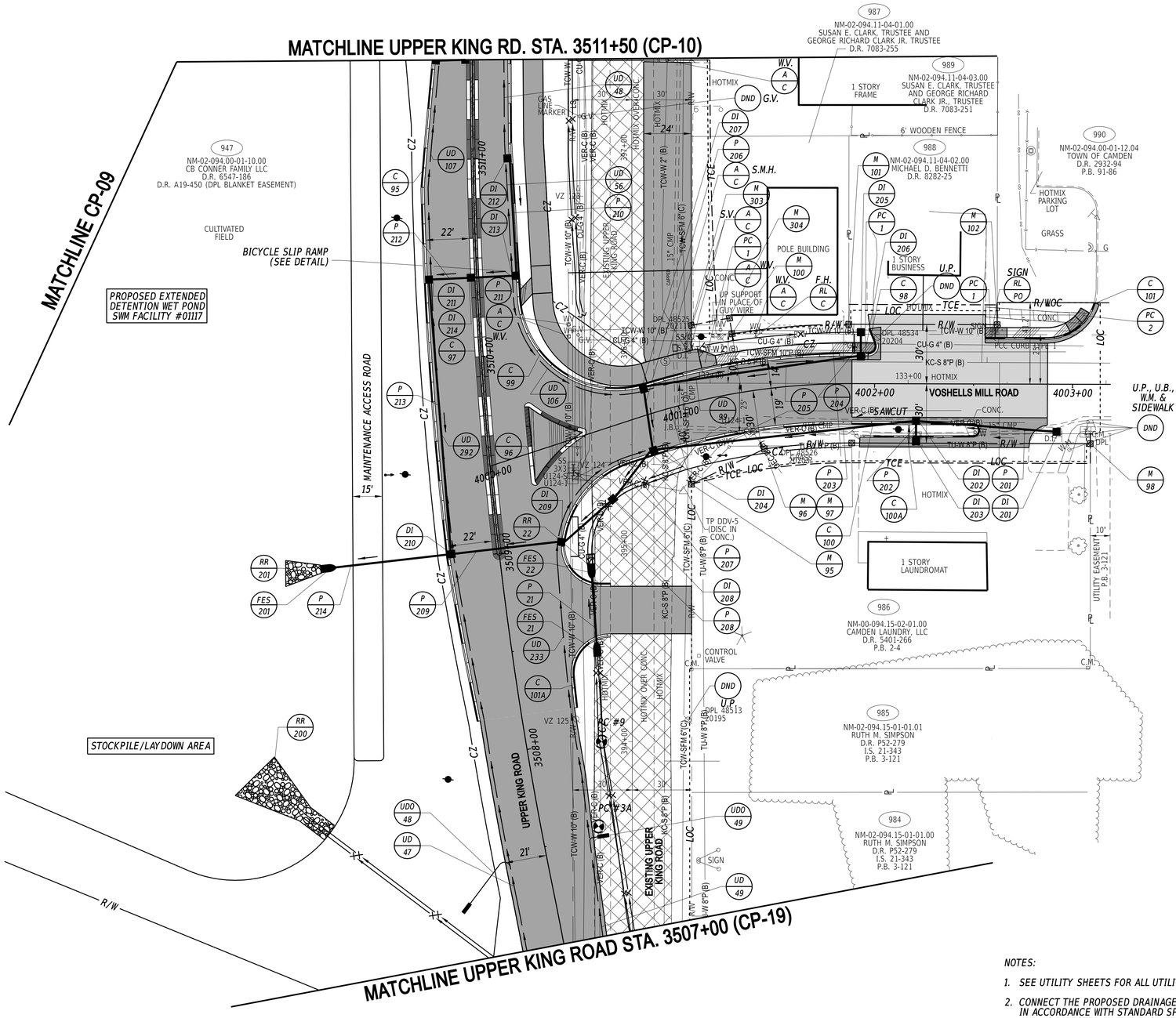
DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
21	15" RCP	V	40	0.0098	43.09	42.70
201	15" RCP	V	68	0.0060	39.52	39.12
202	15" RCP	IV	8	0.0050	39.15	39.12
203	18" RCP	IV	130	0.0045	39.12	38.53
204	15" RCP	IV	10	0.0050	38.99	38.94
205	15" RCP	IV	108	0.0030	38.94	38.62
206	21" RCP	IV	30	0.0030	38.62	38.53
207	21" RCP	IV	29	0.0030	38.53	38.45
208	24" RCP	IV	31	0.0030	38.45	38.35
209	24" RCP	IV	53	0.0030	38.35	38.19
210	15" RCP	IV	55	0.0050	39.03	38.76
211	18" RCP	IV	21	0.0050	38.76	38.65
212	18" RCP	IV	19	0.0030	38.65	38.60
213	24" RCP	IV	136	0.0030	38.60	38.19
214	24" RCP	IV	59	0.0030	38.19	38.02

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
201	4002+92.00	24.00	34" x 24"	2	42.05	39.52
202	4002+21.00	**	48" x 30"	4	*	39.12
203	4002+21.00	28.52	34" x 24"	2	42.65	39.15
204	4000+81.00	**	48" x 48"	4	*	38.53
205	4001+93.00	-25.98	34" x 24"	2	42.56	38.99
206	4001+93.00	**	48" x 30"	4	*	38.94
207	4000+85.67	**	48" x 30"	4	*	38.62
208+	4000+53.78	35.17	48" x 30"	2	42.11	38.45
209	3509+02.17	**	72" x 24"	4	*	38.35
210	3509+02.47	**	72" x 48"	1	*	38.19
211	3510+40.00	**	72" x 48"	4	*	38.60
212	3511+00.00	**	66" x 30"	4	*	39.03
213	3510+40.00	**	48" x 30"	1	*	38.76
214	3510+40.00	**	48" x 30"	1	*	38.65

** MATCH PROPOSED CURBLINE.*
*** MATCH CURB FLOWLINE OFFSET.*
+ SPECIAL INLET, - SEE CONSTRUCTION DETAIL.



NOTES:

1. *SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.*
2. *CONNECT THE PROPOSED DRAINAGE INLET TO THE EXISTING PIPE(S) IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTIONS 602.3.8.9 AND AS DIRECTED BY THE ENGINEER. ALL COSTS TO CONNECT TO THE EXISTING PIPE(S) ARE INCIDENTAL TO THE INLET BEING INSTALLED.*

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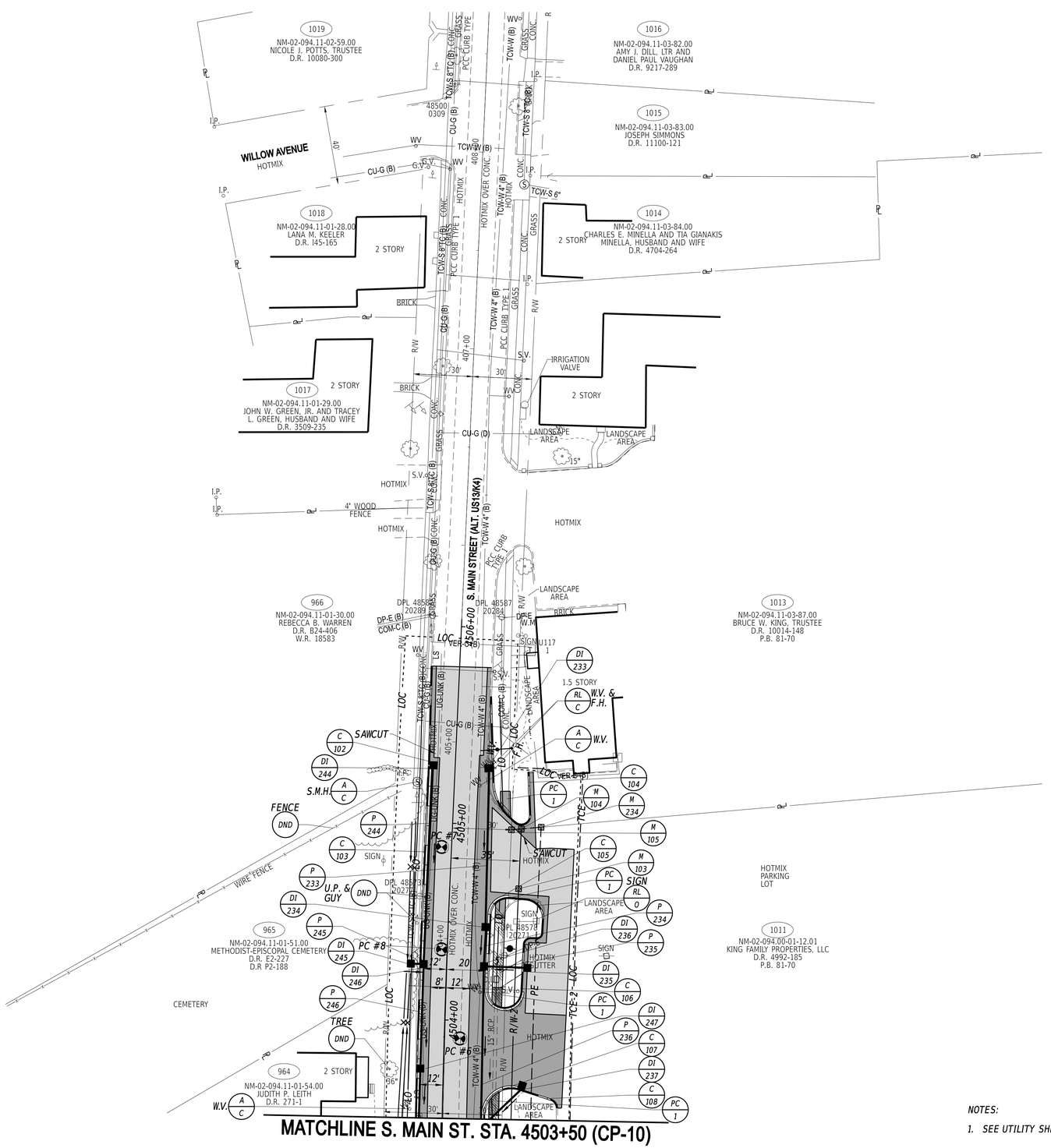
ADDENDA / REVISIONS	SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PLAN	CP-20
	0 30 60 90 FEET		T201709502	DESIGNED BY: L. HAXTON		SECTION CEN
			COUNTY KENT	CHECKED BY: J. FREY		SHEET NO. 41



MATCHLINE S. MAIN ST. STA. 4503+50 (CP-10)

NOTES:

1. *SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.*

NOTES:

1. *DUE TO THE PRESENCE OF A KNOWN CEMETERY RESOURCE, CONTRACTOR ACCESS BEYOND THE LOC (STA. 4504+17 TO STA. 4505+19) IS PROHIBITED. THIS INCLUDES PARCEL NM-02-094.11-01-51.00 AND AREAS WITHIN DELDOT'S RIGHT-OF-WAY. ALL CHANGES TO THE LOC MUST BE COORDINATED WITH DELDOT CULTURAL RESOURCES STAFF. IF GRAVE SHAFTS, HUMAN REMAINS, OR GRAVE MARKERS ARE ENCOUNTERED DURING CONSTRUCTION, ALL WORK IN THE AREA SHALL STOP IMMEDIATELY AND DELDOT ARCHAEOLOGIST JOHN W. MARTIN, WILL BE CONTACTED (JOHN.W.MARTIN@DELAWARE.GOV, 302-760-2189). WORK WILL NOT RESUME UNTIL DELDOT QUALIFIED STAFF AND THE STATE HISTORIC PRESERVATION OFFICE HAVE CONCURRED THAT THE CONSTRUCTION WORK WILL NOT IMPACT ANY INTACT ARCHAEOLOGICAL DEPOSITS OR HUMAN REMAINS. CONSULTATION BETWEEN DELDOT AND DE SHPO SHALL TAKE PLACE NO MORE THAN 24 HOURS AFTER CONSTRUCTION HAS STOPPED. ALL WORK ON THE PROJECT SHALL COMPLY WITH THE DELAWARE STATE UNMARKED HUMAN REMAINS LAW (7DEL.C. CH.54).*

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
102	PCC CURB, TYPE 1-8	50.00
103	I.PCC CURB AND GUTTER, TYPE 3-8	180.00
104	PCC CURB, TYPE 1-8	102.00
105	I.PCC CURB AND GUTTER, TYPE 3-8	86.00
106	PCC CURB, TYPE 1-8	68.00
107	I.PCC CURB AND GUTTER, TYPE 3-8	31.00
108	PCC CURB, TYPE 1-8	23.00

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
103	CAPPED REBAR (DISC)	4504+68.27	35.00	404628.8991	619775.1334
104	CAPPED REBAR (DISC)	4504+98.71	35.00	404652.1555	619794.7842
105	CAPPED REBAR (DISC)	4504+98.06	30.00	404651.6510	619794.3579
234	CAPPED REBAR	4505+00.04	45.00	404624.1210	619830.0093

DISC TO BE PLACED AT PROPERTY CORNER LOCATED WITHIN PAVEMENT. PAID UNDER 706002 RW MARKER, CAPPED REBAR

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
6	403+51.44	7.67'	2.25" HMA, 8" PCC
7	404+46.44	-5.00'	10" HMA
8	403+94.44	-3.00	2.75" HMA, 6.75" PCC

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
233	15" RCP	V	79	0.0050	38.08	37.69
234	15" RCP	V	16	0.0052	37.69	37.61
235	12" RCP	V	18	0.0029	37.66	37.61
236	14" x 23" HERCP	V	75	0.0013	37.61	37.52
244	15" RCP	V	98	0.0060	38.04	37.45
245	15" RCP	V	4	0.0075	37.48	37.45
246	18" RCP	V	49	0.0040	37.45	37.26

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
233	4505+29.00	**	34" x 24"	4	*	38.08
234	4504+48.00	**	34" x 24"	4	*	37.69
235	4504+28.00	**	34" x 24"	1	*	37.66
236+	4504+28.00	**	72" x 48"	4	*	37.61
237	4503+65.00	**	34" x 24"	4	*	37.70
244	4505+29.00	**	34" x 24"	4	*	38.04
245++	4504+28.00	-18.17	34" x 24"	2	39.90	37.48
246+	4504+28.00	**	48" x 30"	4	*	37.45
247+	4503+75.00	**	72" x 48"	4	*	37.26

** MATCH PROPOSED CURBLINE.*
*** MATCH CURB FLOWLINE OFFSET.*
+SPECIAL INLET. SEE CONSTRUCTION DETAILS.
++ ADD CONCRETE APRON. SEE CONSTRUCTION DETAILS.

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ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

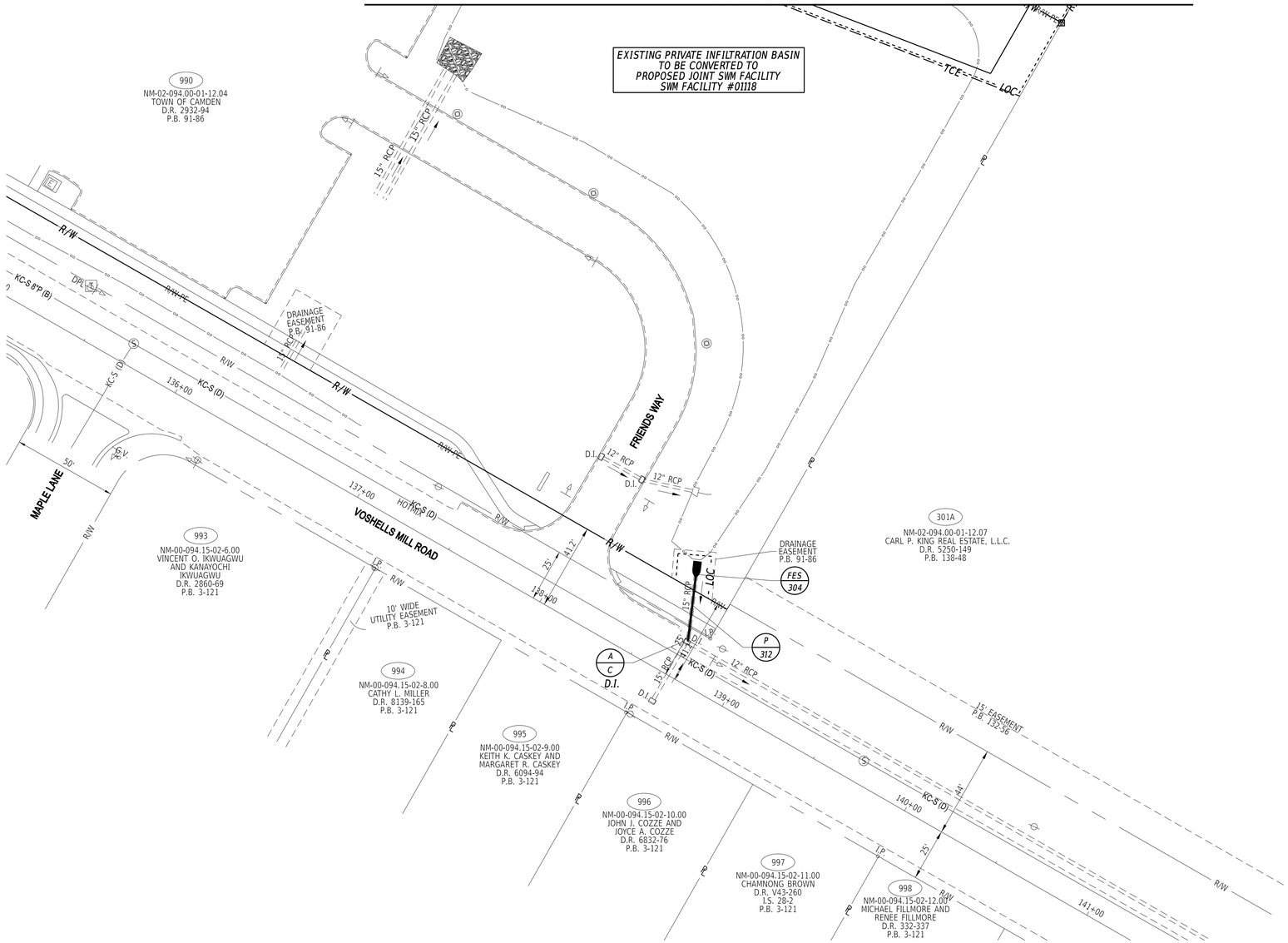
WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PLAN

CP-21
SECTION
CEN
SHEET NO.
42

MATCHLINE CP-11



NOTES:

1. *SEE UTILITY SHEETS FOR ALL UTILITY RELOCATIONS.*
2. *CONNECT THE PROPOSED DRAINAGE INLET TO THE EXISTING PIPE(S) IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTIONS 602.3.8.9 AND AS DIRECTED BY THE ENGINEER. ALL COSTS TO CONNECT TO THE EXISTING PIPE(S) ARE INCIDENTAL TO THE INLET BEING INSTALLED.*

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
304	15" RCP	0.0167	YES

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
*312	15" RCP	IV	33	0.0167	39.40	38.86

**PROVIDE CLASS A CONCRETE BEDDING (SEE STORMWATER MANAGEMENT PLAN SHEET)*

CP-22

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	CONSTRUCTION PLAN	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 43
					CHECKED BY: J. FREY		

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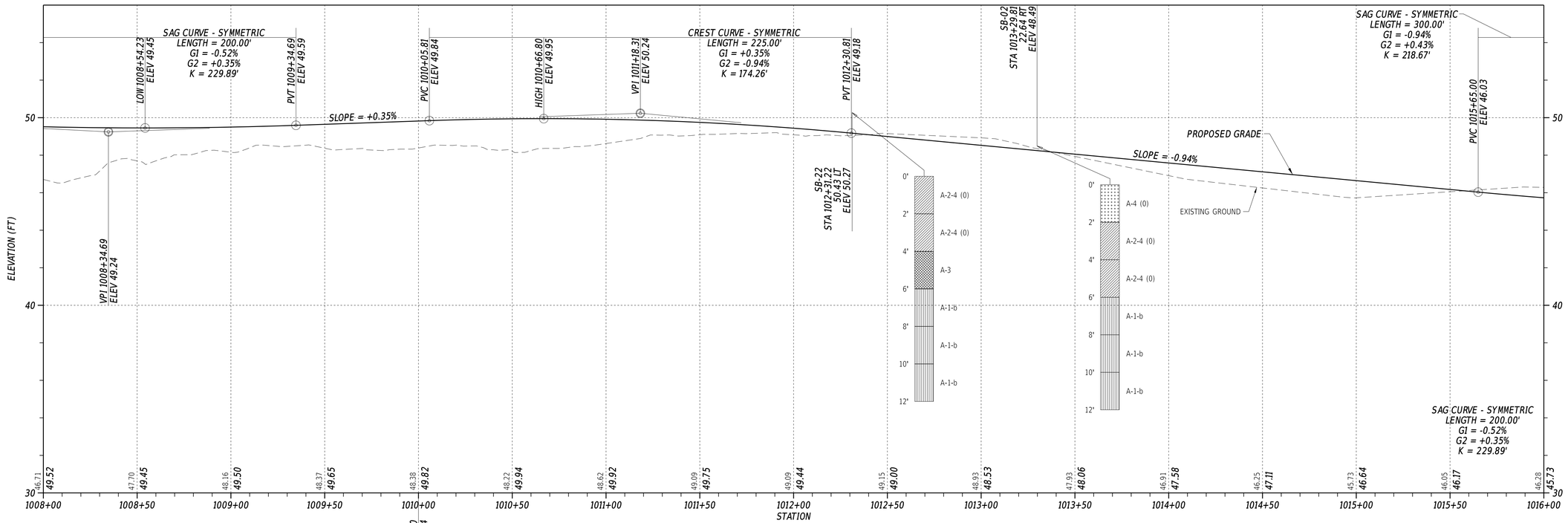

WILLOW GROVE ROAD STATION 1008+00 TO 1016+00

WILLOW GROVE ROAD STATION 1000+00 TO 1008+00

NOTE: THE BORING DATA PROVIDED ON THE PROFILE SHEETS INDICATES THE SOIL CONDITION ONLY AT THE SPECIFIC LOCATION EACH BORING WAS PERFORMED AND ONLY TO THE DEPTH PENETRATED.

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS	SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	PROFILES	SECTION CEN
			COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 44
				CHECKED BY: J. FREY		

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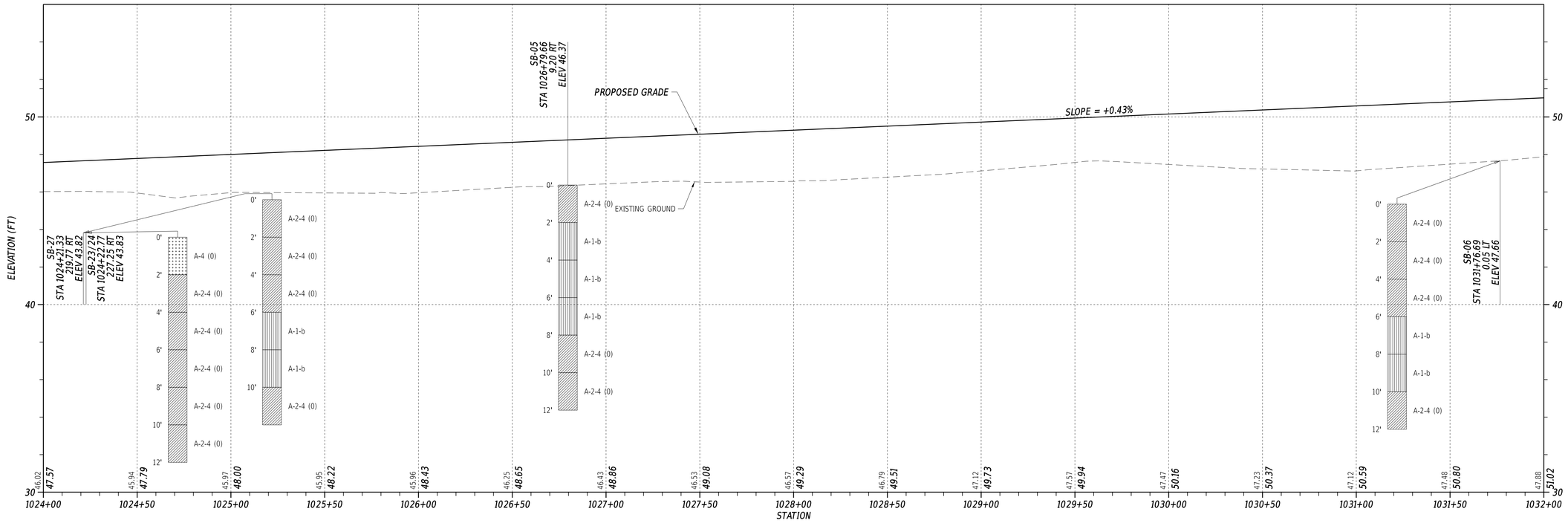
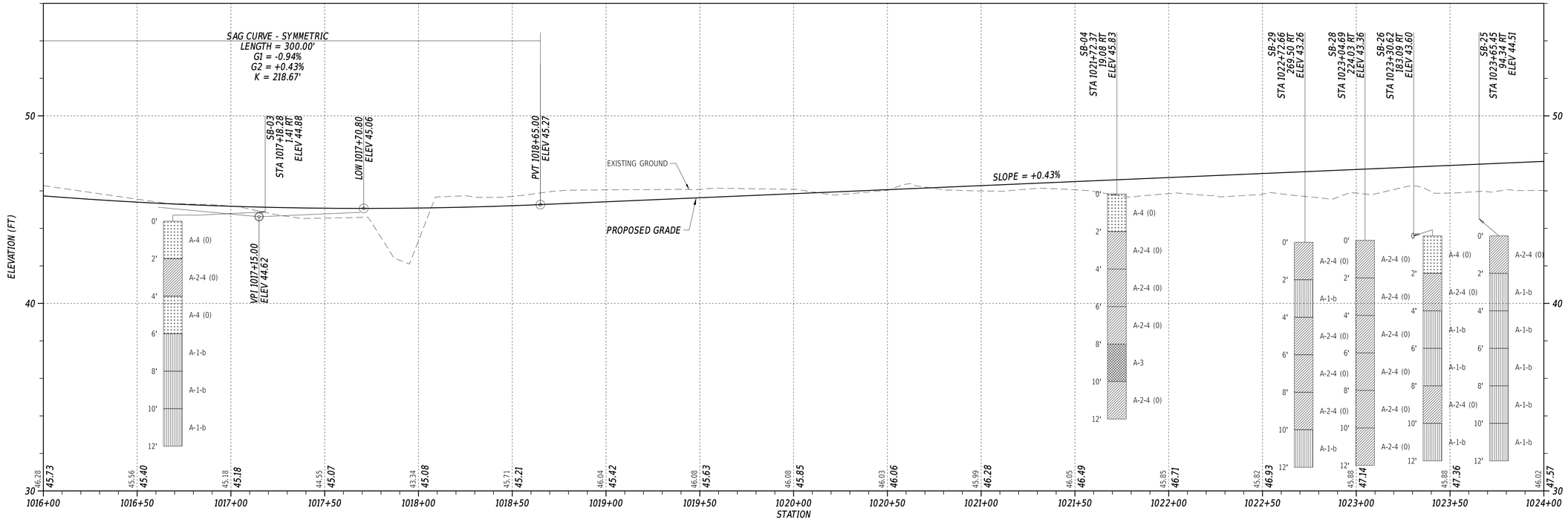


WILLOW GROVE ROAD STATION 1024+00 TO 1032+00



WILLOW GROVE ROAD STATION 1016+00 TO 1024+00

NOTE: THE BORING DATA PROVIDED ON THE PROFILE SHEETS INDICATES THE SOIL CONDITION ONLY AT THE SPECIFIC LOCATION EACH BORING WAS PERFORMED AND ONLY TO THE DEPTH PENETRATED.

VERTICAL SCALE FEET 0 3 6 9

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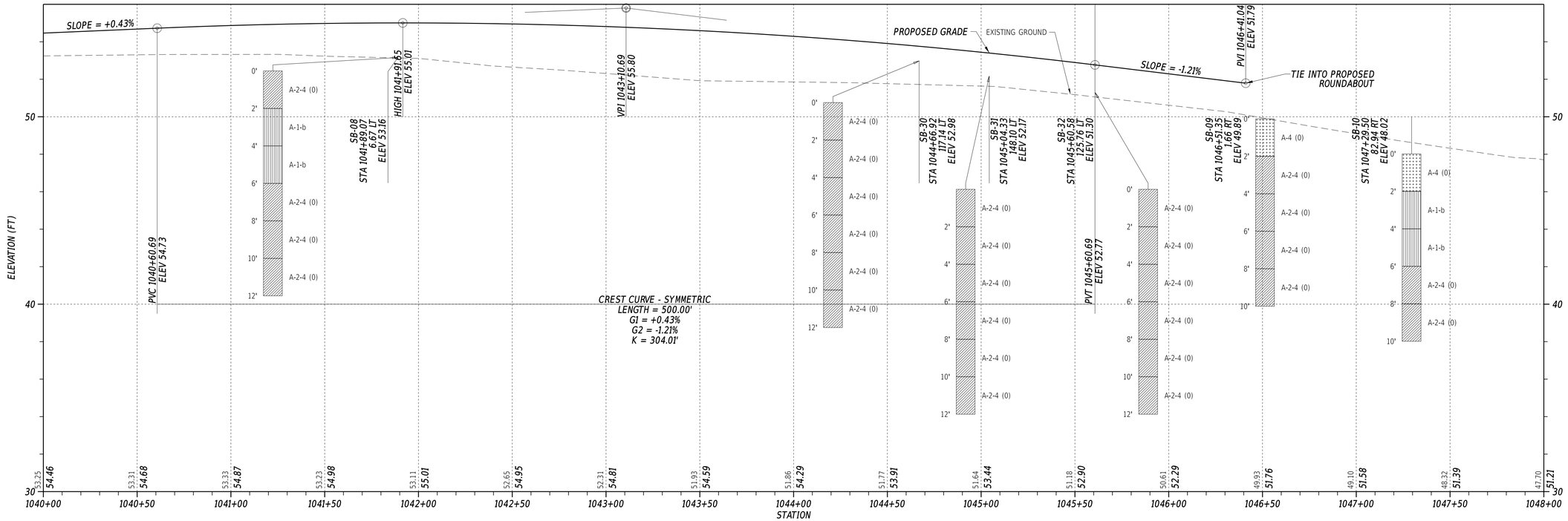
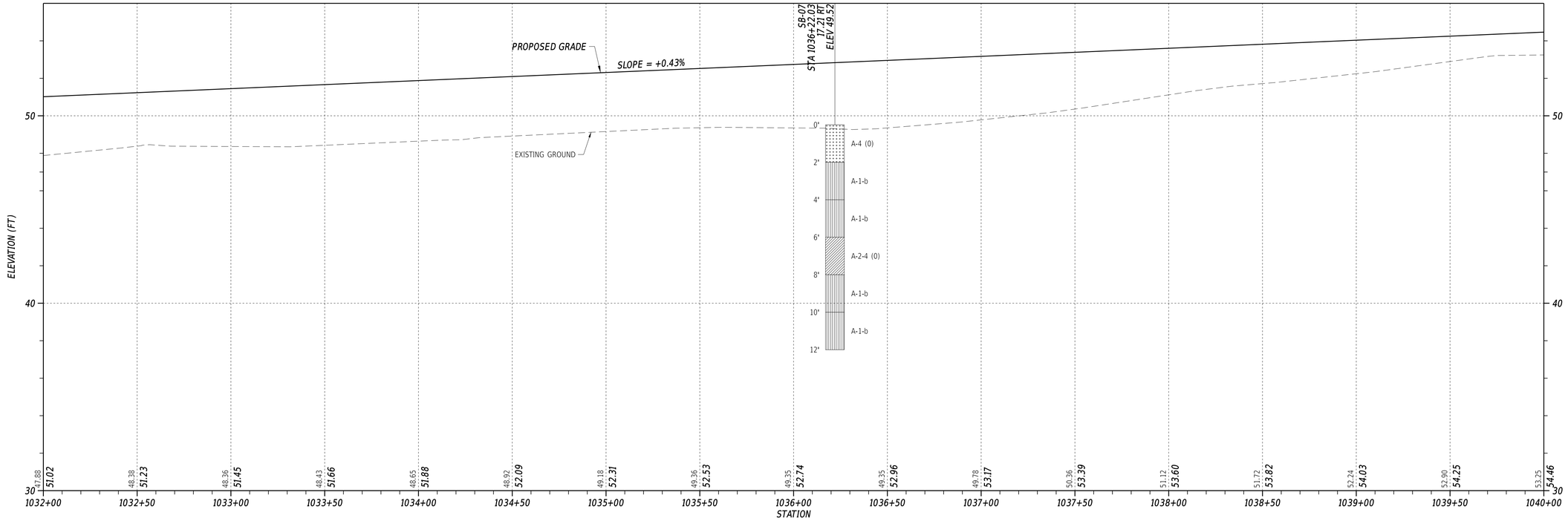
ADDENDA / REVISIONS	SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	PROFILES	SECTION CEN
			COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 45
				CHECKED BY: J. FREY		



WILLOW GROVE ROAD STATION 1040+00 TO 1048+00



WILLOW GROVE ROAD STATION 1032+00 TO 1040+00

NOTE: THE BORING DATA PROVIDED ON THE PROFILE SHEETS INDICATES THE SOIL CONDITION ONLY AT THE SPECIFIC LOCATION EACH BORING WAS PERFORMED AND ONLY TO THE DEPTH PENETRATED.

VERTICAL SCALE FEET 0 3 6 9

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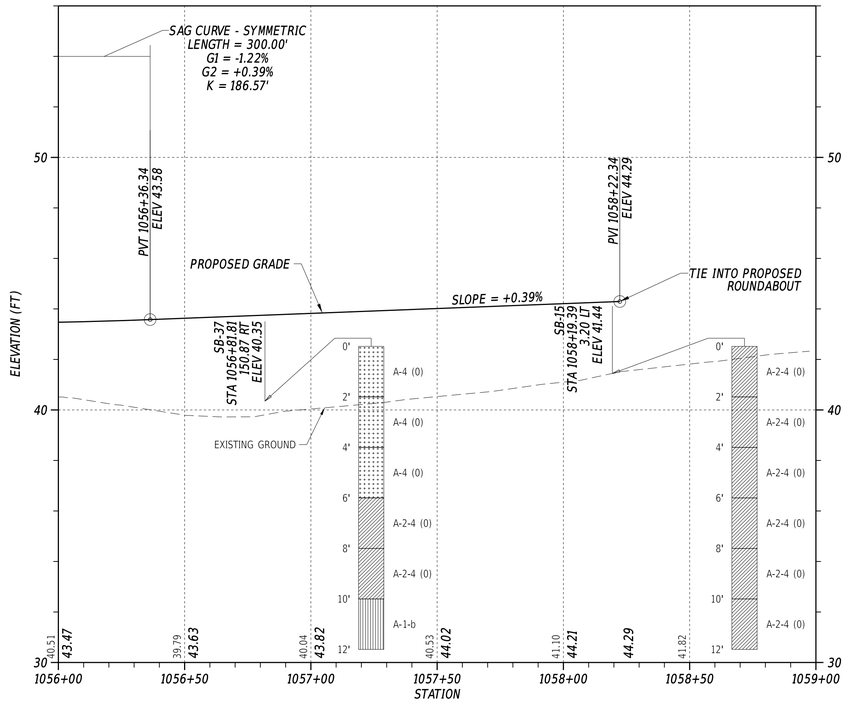
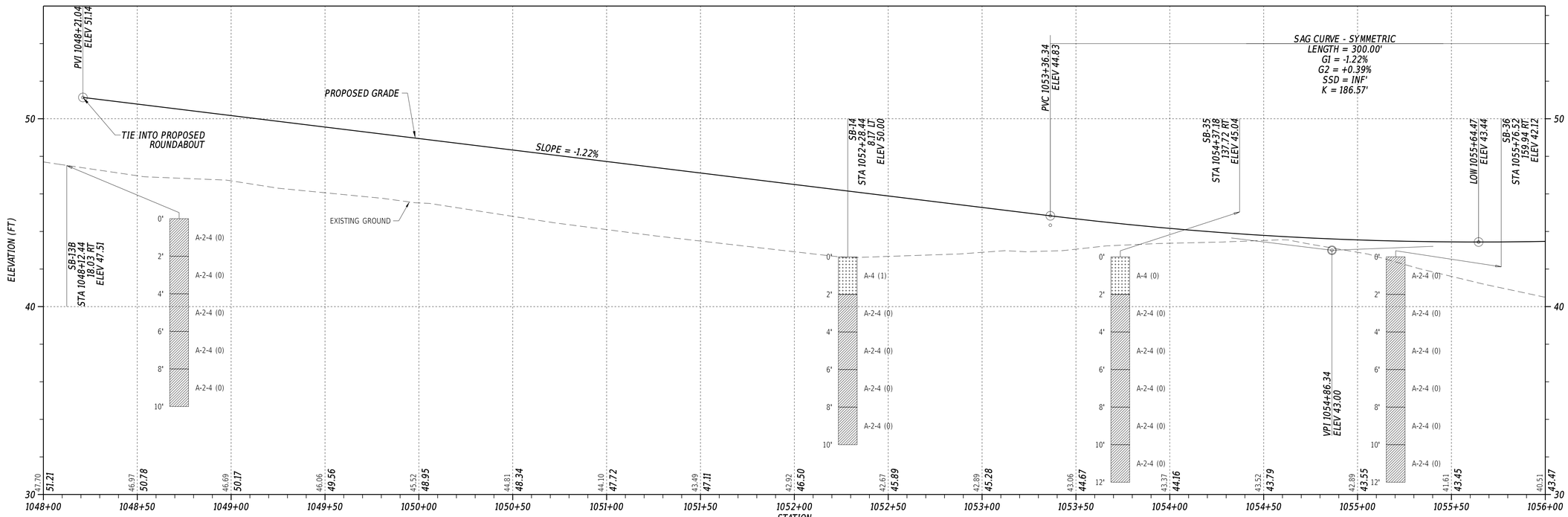
ADDENDA / REVISIONS	SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	PROFILES	SECTION CEN
			COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 46
				CHECKED BY: J. FREY		



WILLOW GROVE ROAD STATION 1056+00 TO 1059+00



NOTE: THE BORING DATA PROVIDED ON THE PROFILE SHEETS INDICATES THE SOIL CONDITION ONLY AT THE SPECIFIC LOCATION EACH BORING WAS PERFORMED AND ONLY TO THE DEPTH PENETRATED.

WILLOW GROVE ROAD STATION 1048+00 TO 1056+00

VERTICAL SCALE FEET 0 3 6 9

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10:33
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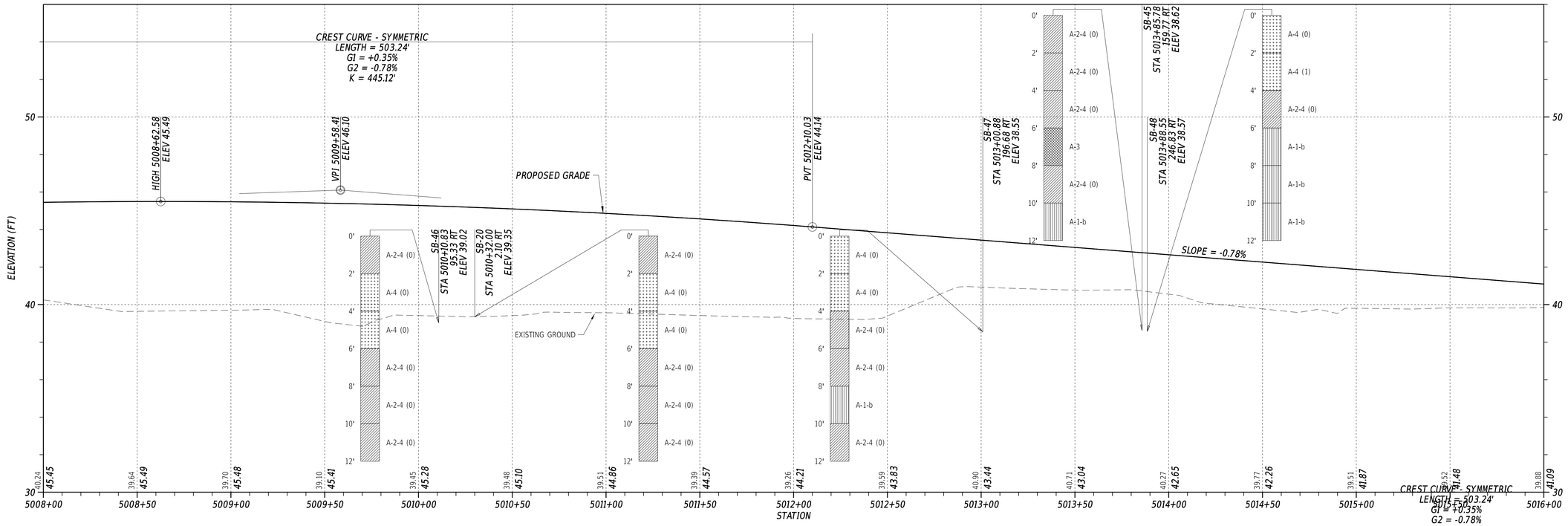
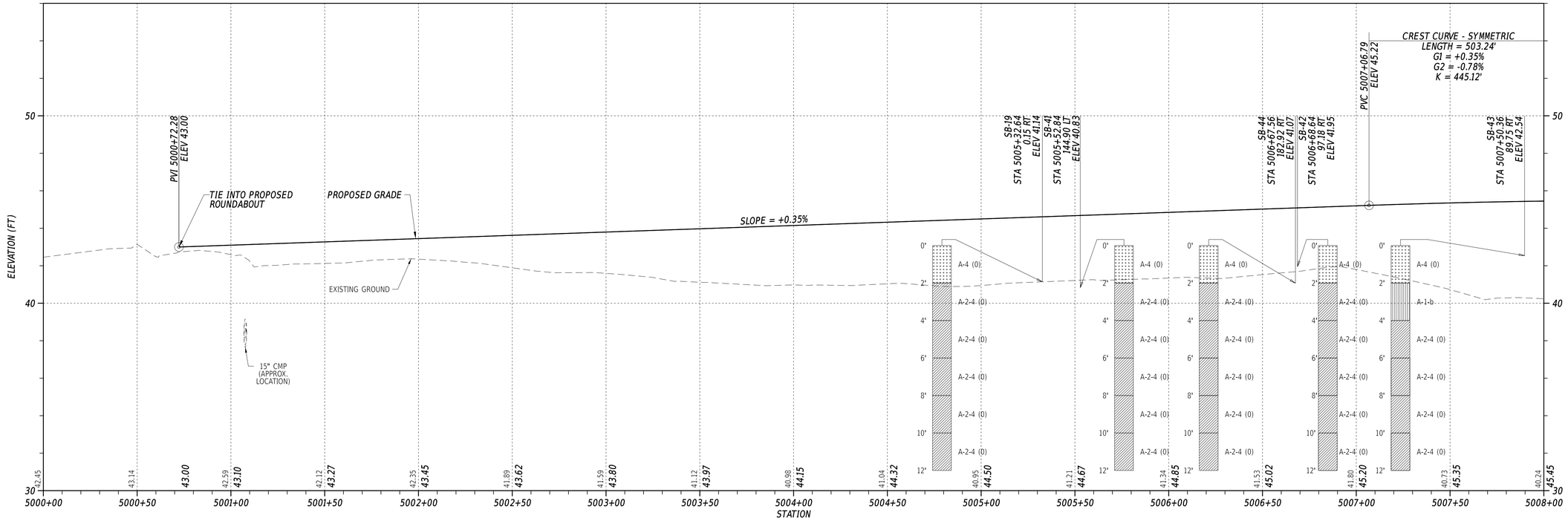
ADDENDA / REVISIONS	SCALE		CONTRACT	BRIDGE NO. N/A		SECTION
	0 30 60 90	WEST CAMDEN BYPASS	T201709502	DESIGNED BY: L. HAXTON	PROFILES	CEN
	FEET		COUNTY	CHECKED BY: J. FREY		SHEET NO.
			KENT			47



WILLOW GROVE ROAD STATION 5008+00 TO 5016+00



WILLOW GROVE ROAD STATION 5000+00 TO 5008+00

NOTE: THE BORING DATA PROVIDED ON THE PROFILE SHEETS INDICATES THE SOIL CONDITION ONLY AT THE SPECIFIC LOCATION EACH BORING WAS PERFORMED AND ONLY TO THE DEPTH PENETRATED.

VERTICAL SCALE FEET: 0, 3, 6, 9

ADDENDA / REVISIONS	SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
	0 30 60 90 FEET		T201709502	DESIGNED BY: L. HAXTON		CEN
			COUNTY	CHECKED BY: J. FREY		SHEET NO.
			KENT			48

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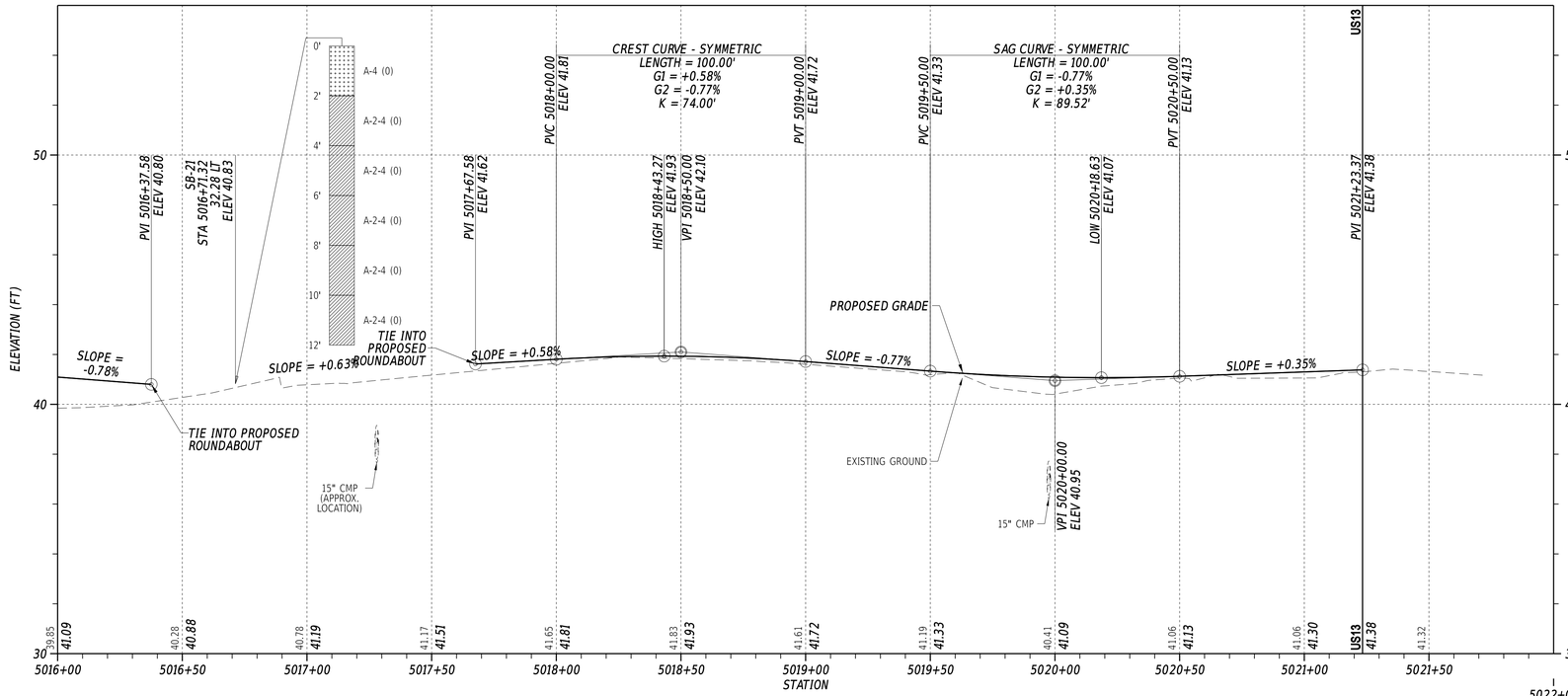

NOTE: THE BORING DATA PROVIDED ON THE PROFILE SHEETS INDICATES THE SOIL CONDITION ONLY AT THE SPECIFIC LOCATION EACH BORING WAS PERFORMED AND ONLY TO THE DEPTH PENETRATED.

WILLOW GROVE ROAD STATION 5016+00 TO 5022+00

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	PROFILES	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 49
					CHECKED BY: J. FREY		

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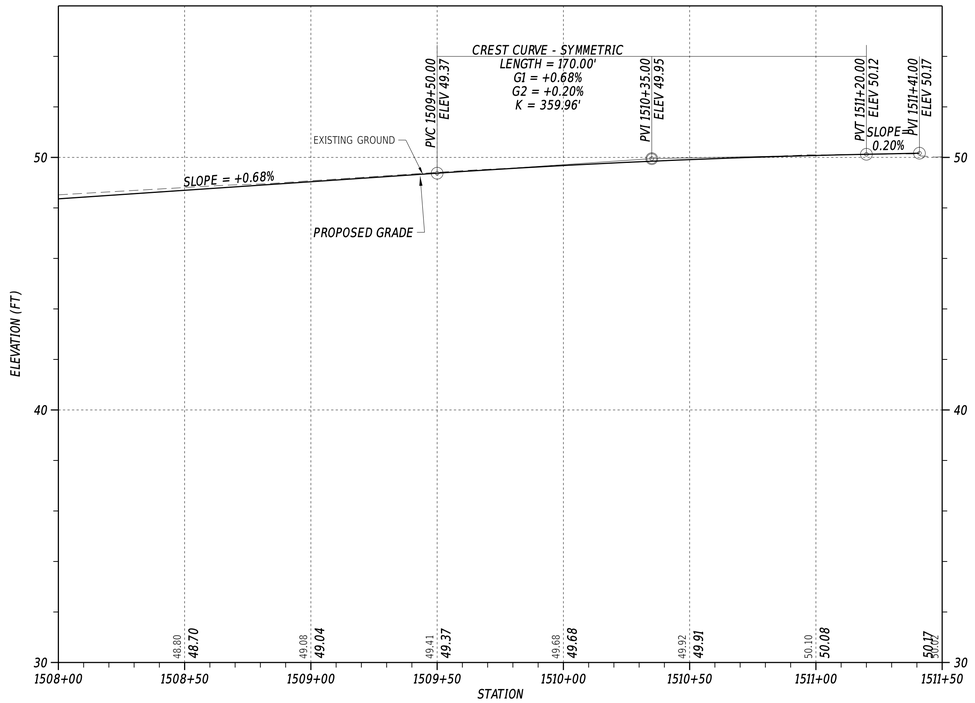
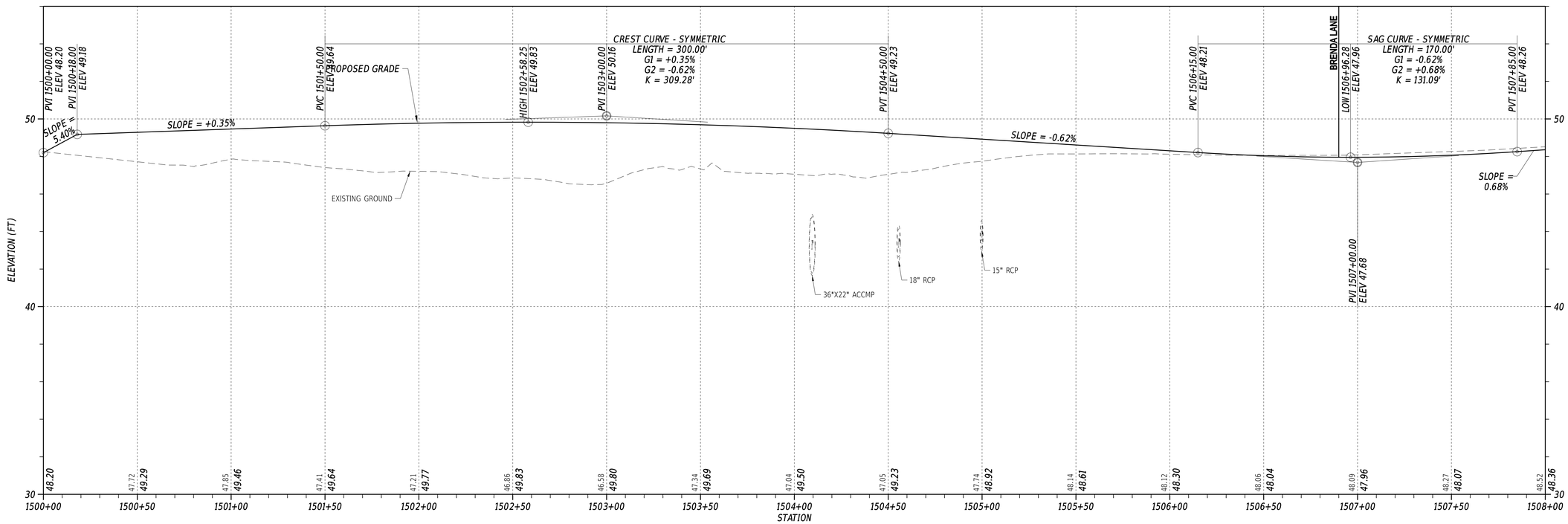


SOUTH CAESAR RODNEY AVENUE STATION 1508+00 TO 1511+50



NOTE: THE BORING DATA PROVIDED ON THE PROFILE SHEETS INDICATES THE SOIL CONDITION ONLY AT THE SPECIFIC LOCATION EACH BORING WAS PERFORMED AND ONLY TO THE DEPTH PENETRATED.

SOUTH CAESAR RODNEY AVENUE STATION 1500+00 TO 1508+00

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS	SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	PROFILES	SECTION CEN
			COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 50
				CHECKED BY: J. FREY		

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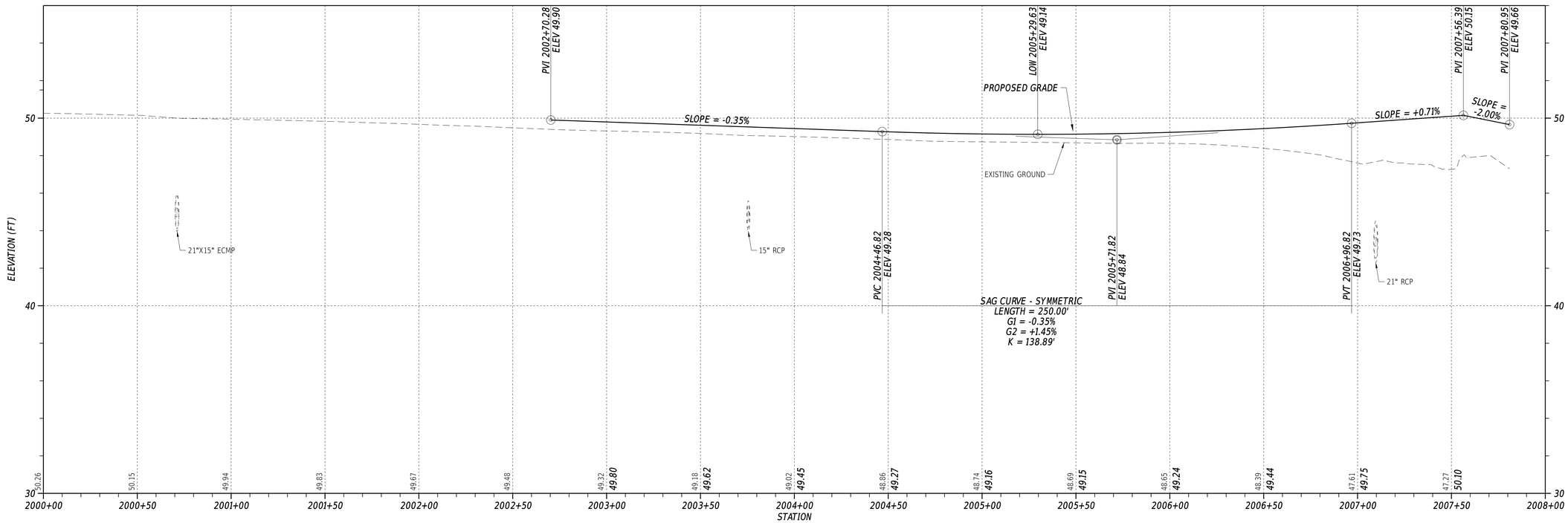

NOTE: THE BORING DATA PROVIDED ON THE PROFILE SHEETS INDICATES THE SOIL CONDITION ONLY AT THE SPECIFIC LOCATION EACH BORING WAS PERFORMED AND ONLY TO THE DEPTH PENETRATED.

COCHRAN ROAD STATION 2000+00 TO 2008+00

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	PROFILES	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 51
					CHECKED BY: J. FREY		

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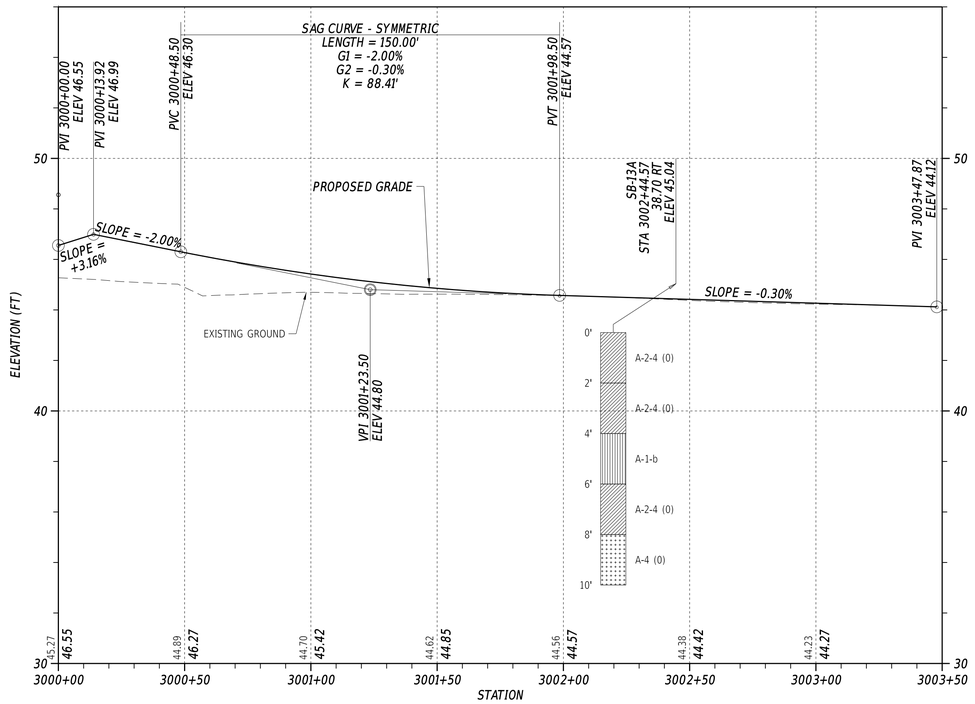
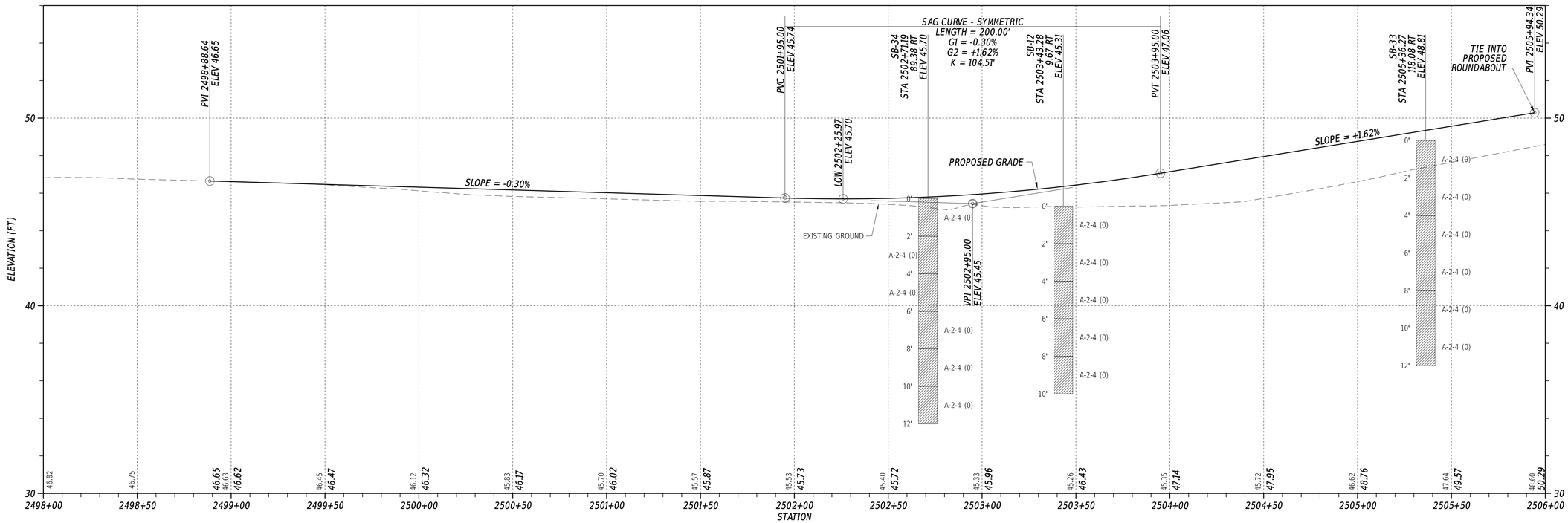


OLD SOUTH STREET STATION 3000+00 TO 3003+50



SOUTH STREET STATION 2498+00 TO 2506+00

NOTE: THE BORING DATA PROVIDED ON THE PROFILE SHEETS INDICATES THE SOIL CONDITION ONLY AT THE SPECIFIC LOCATION EACH BORING WAS PERFORMED AND ONLY TO THE DEPTH PENETRATED.

VERTICAL SCALE FEET 0 3 6 9

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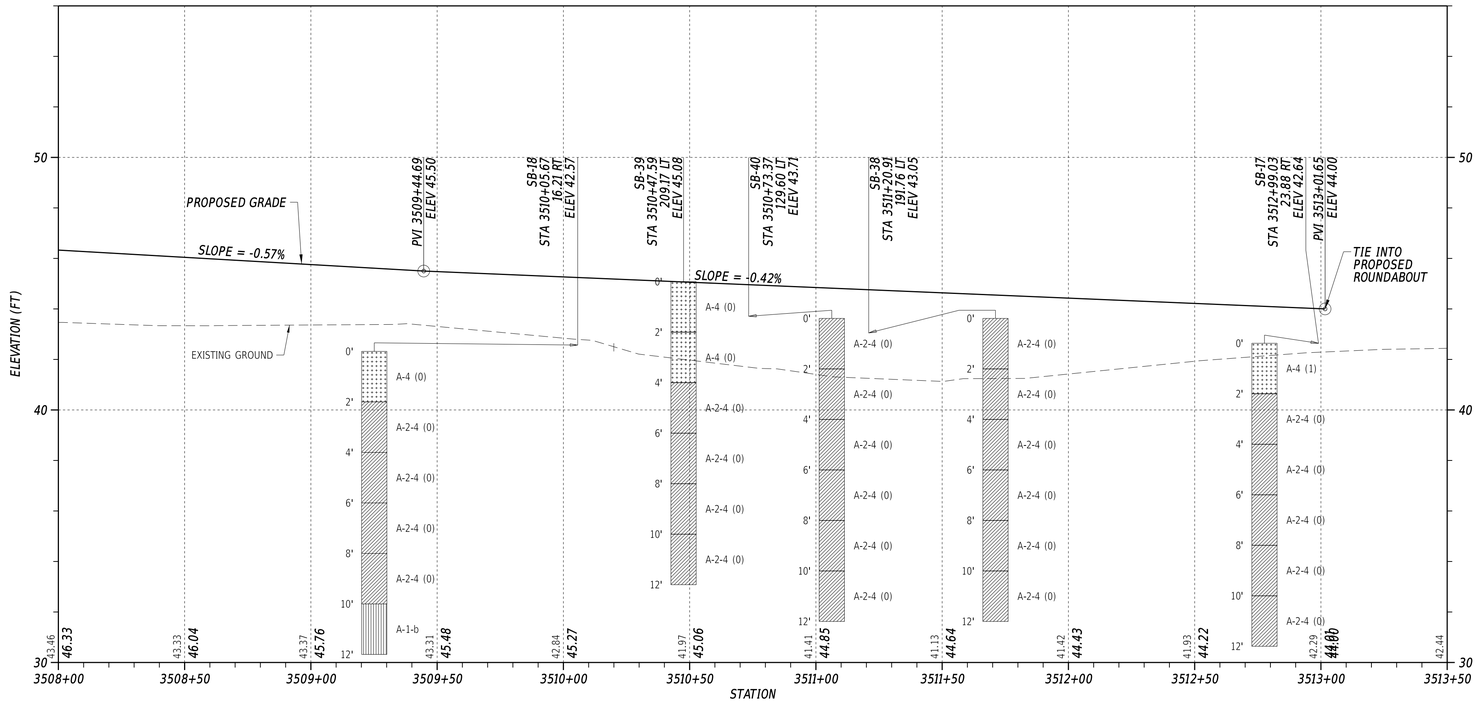
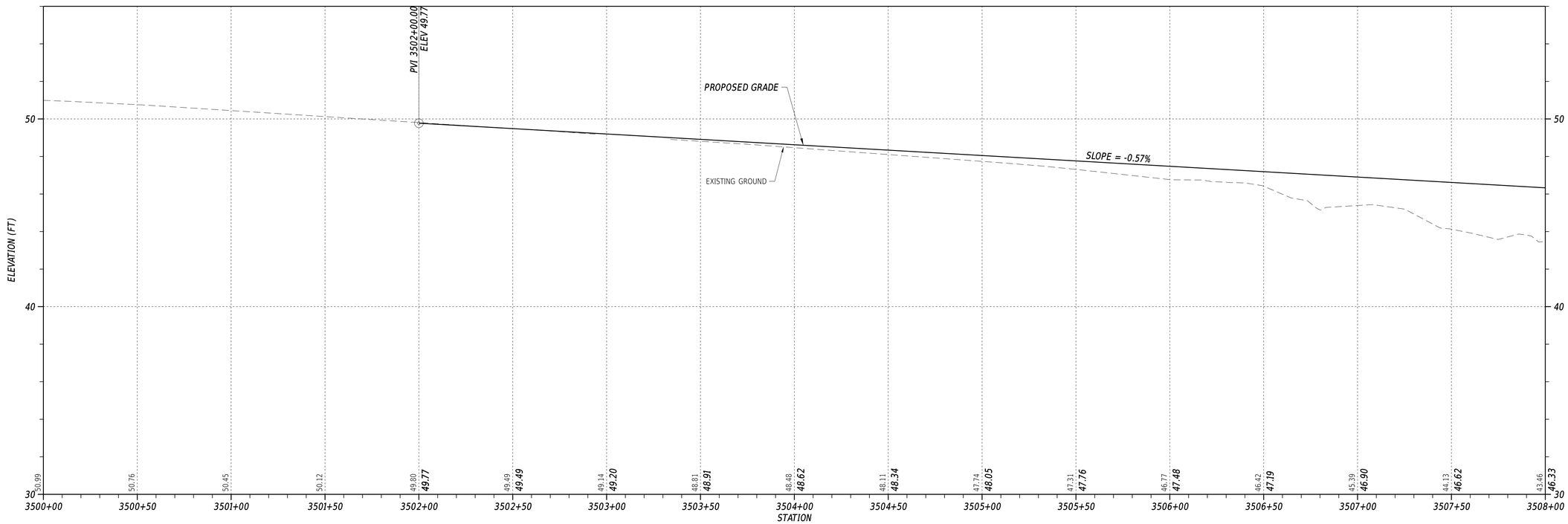
ADDENDA / REVISIONS	SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	PROFILES	SECTION CEN
			COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 52
				CHECKED BY: J. FREY		



UPPER KING ROAD STATION 3508+00 TO 3513+50



UPPER KING ROAD STATION 3500+00 TO 3508+00

NOTE: THE BORING DATA PROVIDED ON THE PROFILE SHEETS INDICATES THE SOIL CONDITION ONLY AT THE SPECIFIC LOCATION EACH BORING WAS PERFORMED AND ONLY TO THE DEPTH PENETRATED.

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS	SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	PROFILES	SECTION CEN
			COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 53
				CHECKED BY: J. FREY		

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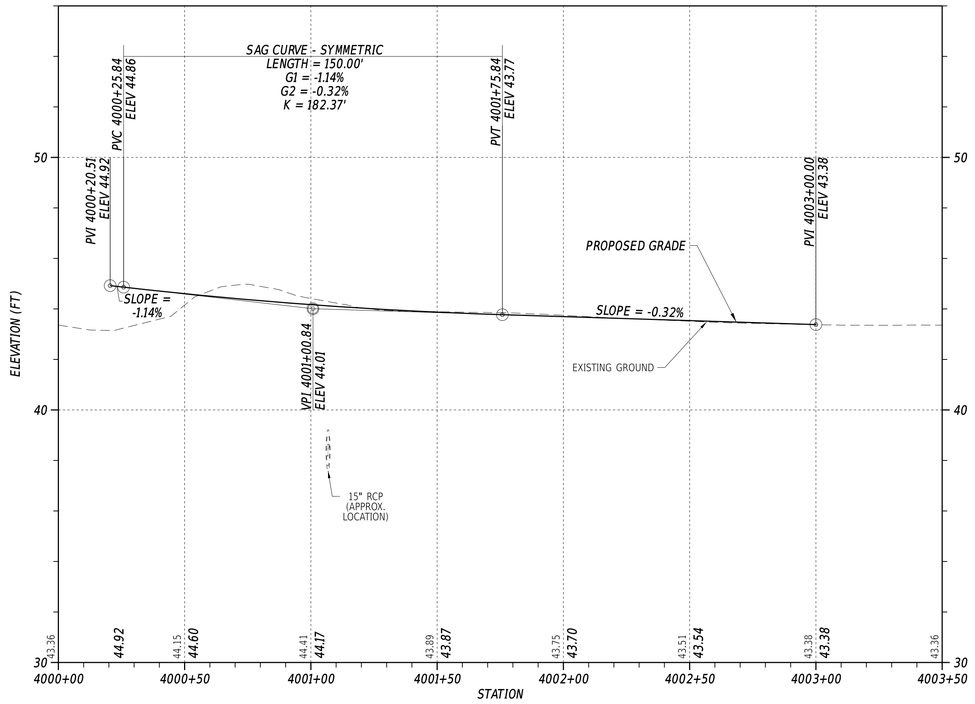
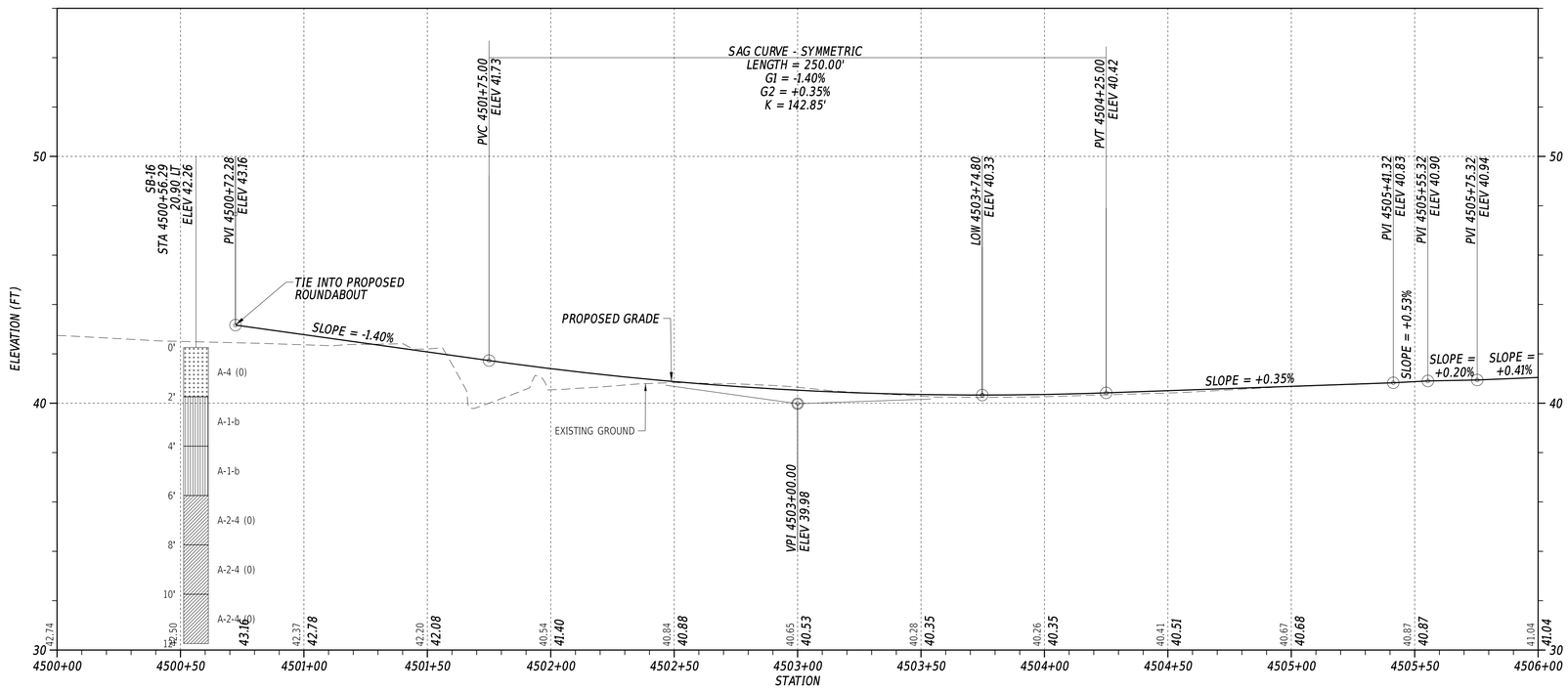


VOSHELLS MILL ROAD STATION 4000+00 TO 4003+50



NOTE: THE BORING DATA PROVIDED ON THE PROFILE SHEETS INDICATES THE SOIL CONDITION ONLY AT THE SPECIFIC LOCATION EACH BORING WAS PERFORMED AND ONLY TO THE DEPTH PENETRATED.

MAIN STREET STATION 4500+00 TO 4506+00

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS	SCALE		CONTRACT	BRIDGE NO. N/A		SECTION
	0 30 60 90 FEET	WEST CAMDEN BYPASS	T201709502	DESIGNED BY: L. HAXTON	PROFILES	CEN
			COUNTY	CHECKED BY: J. FREY		SHEET NO.
			KENT			54

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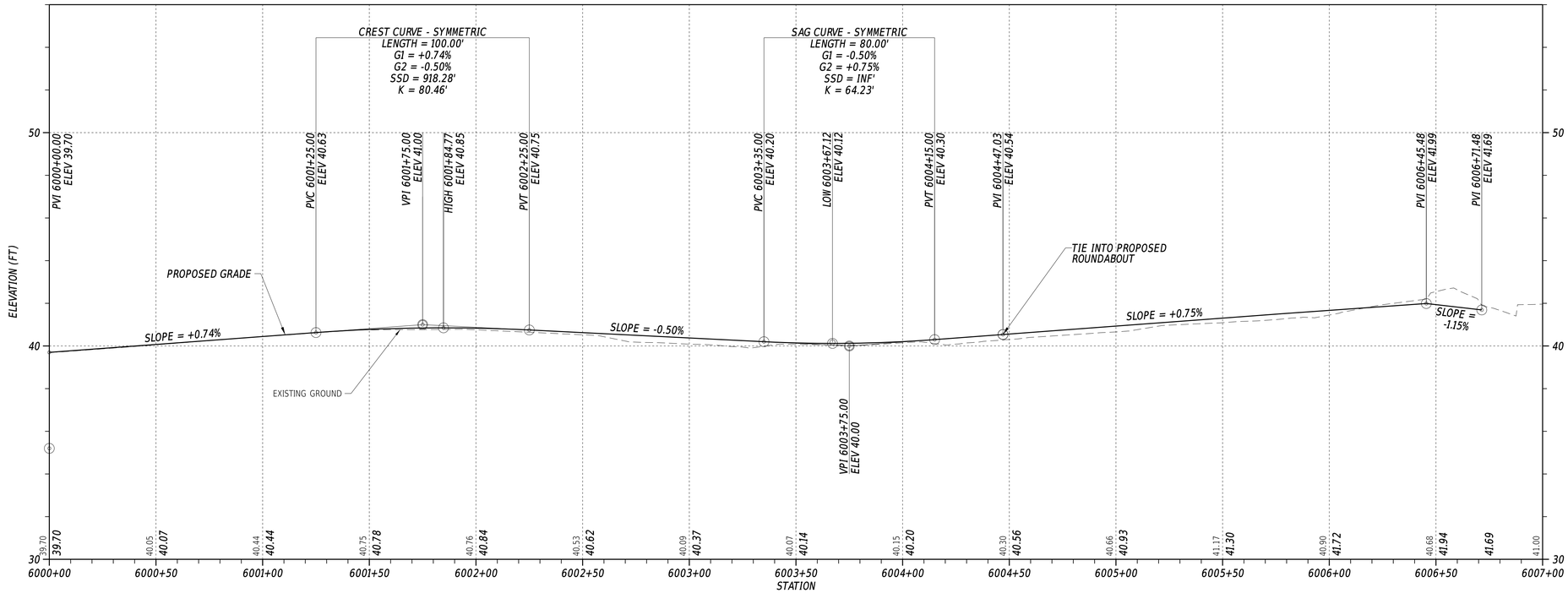

NOTE: THE BORING DATA PROVIDED ON THE PROFILE SHEETS INDICATES THE SOIL CONDITION ONLY AT THE SPECIFIC LOCATION EACH BORING WAS PERFORMED AND ONLY TO THE DEPTH PENETRATED.

KING BLVD STATION 6000+00 TO 6007+00

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS	SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	PROFILES	SECTION CEN
			COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 55
				CHECKED BY: J. FREY		

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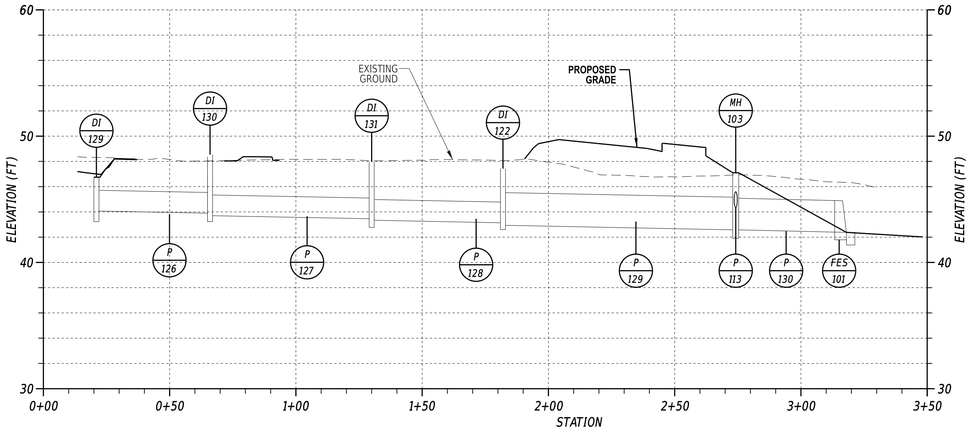
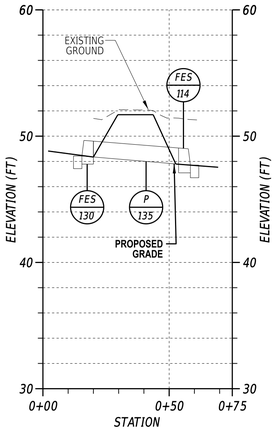
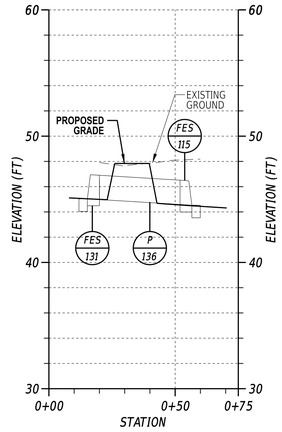


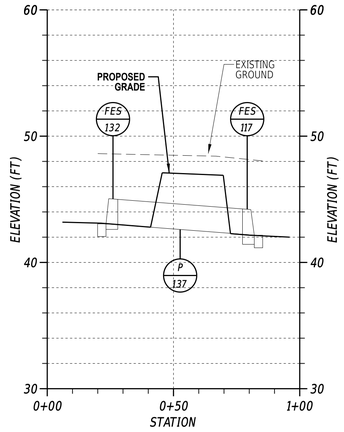
DI-129 TO FES-101



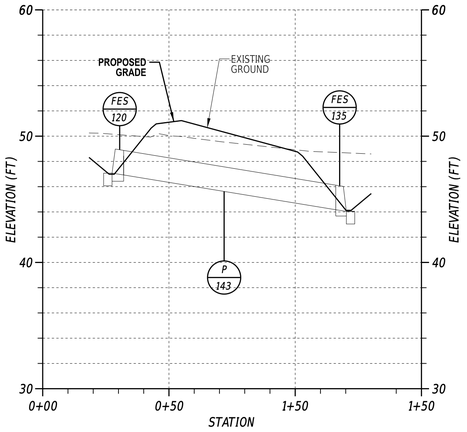
FES-130 TO FES-114



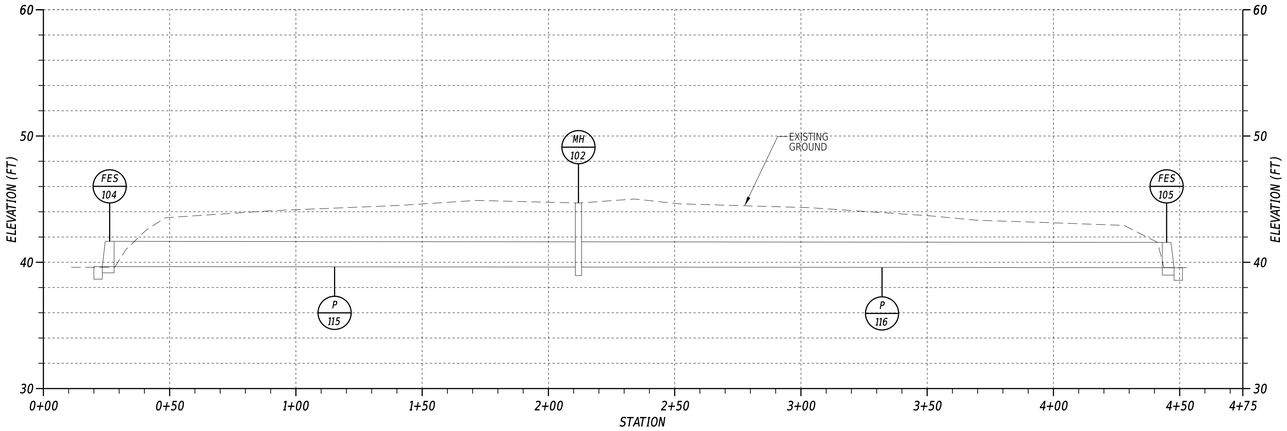
FES-131 TO FES-115



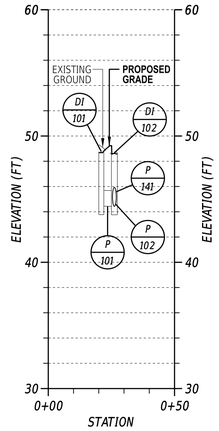
FES-132 TO FES-117



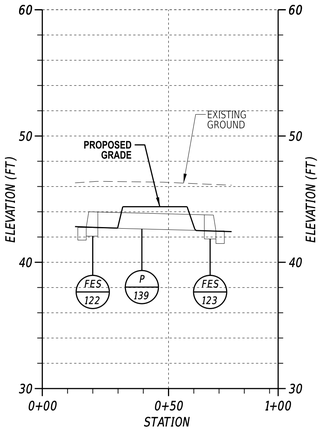
FES-120 TO FES-135



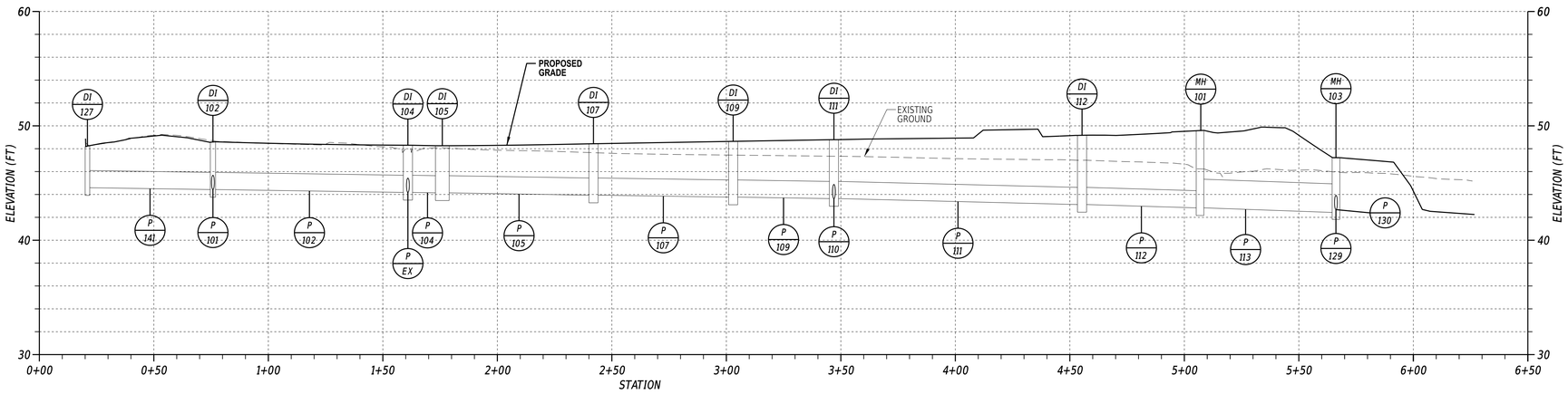
FES-104 TO FES-105



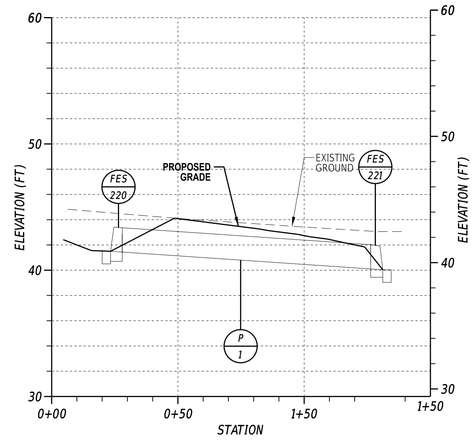
DI-101 TO DI-102



FES-122 TO FES-123



DI-127 TO MH103



FES-220 TO FES-221

VERTICAL SCALE FEET
18
12
6
0

ADDENDA / REVISIONS	SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
	0 30 60 90 FEET		T201709502	DESIGNED BY: L. HAXTON		CEN
			COUNTY	CHECKED BY: J. FREY		SHEET NO.
			KENT			56

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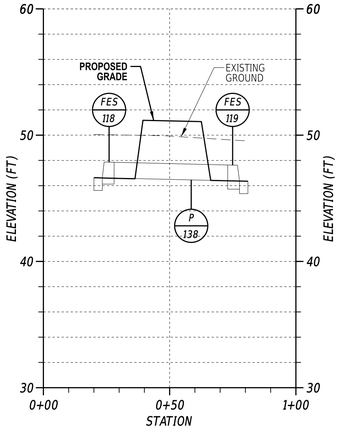
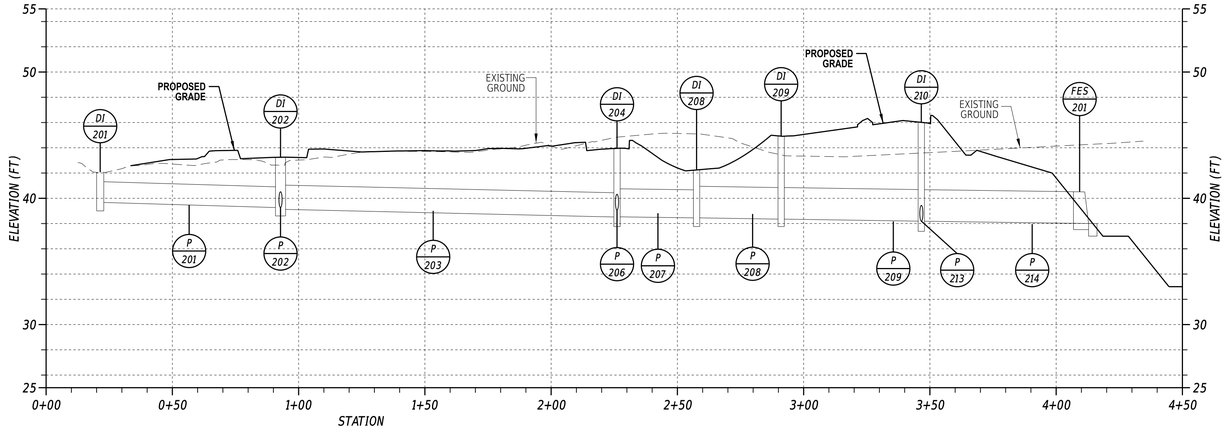
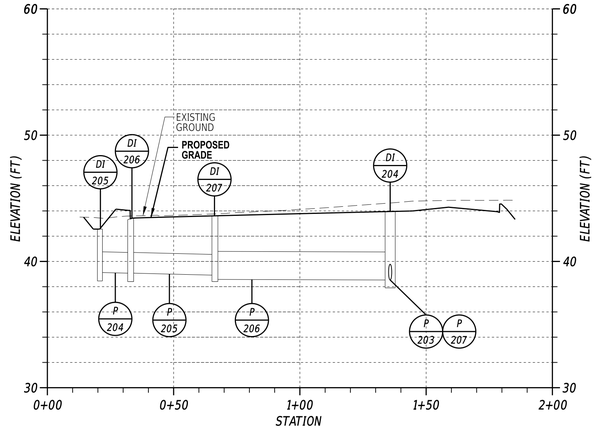


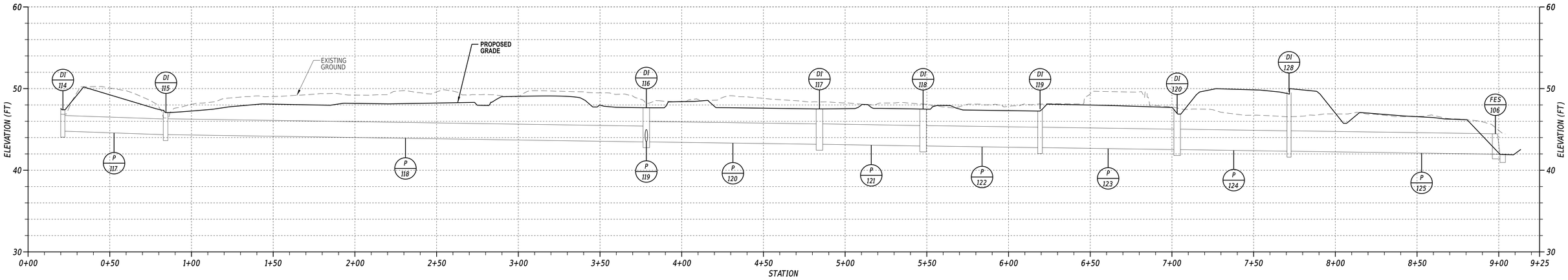
FES-118 TO FES-119



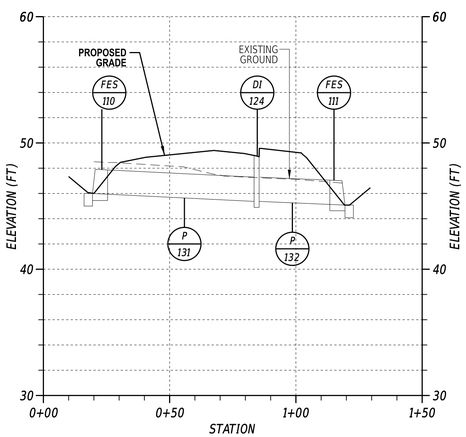
DI-201 TO FES-201



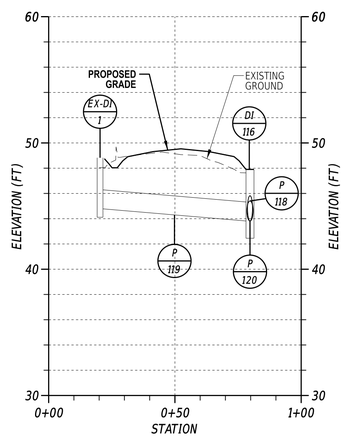
DI-205 TO DI-204



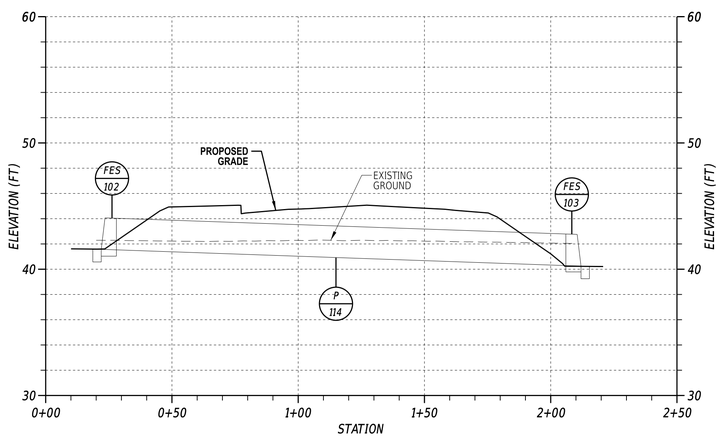
DI-114 TO FES-106



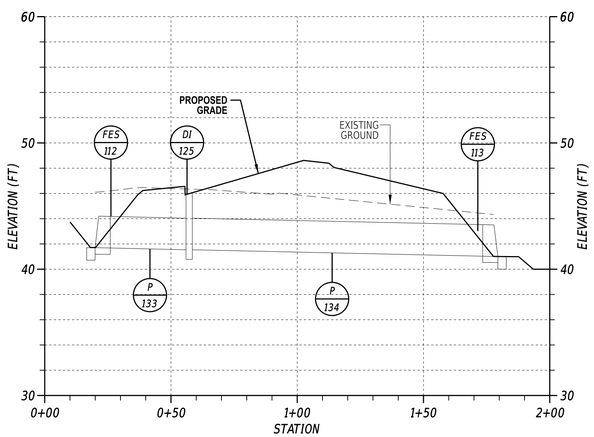
FES-110 TO FES-111



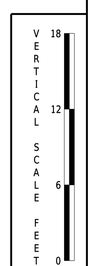
EX-DI-1 TO DI-116



FES-102 TO FES-103



FES-112 TO FES-113



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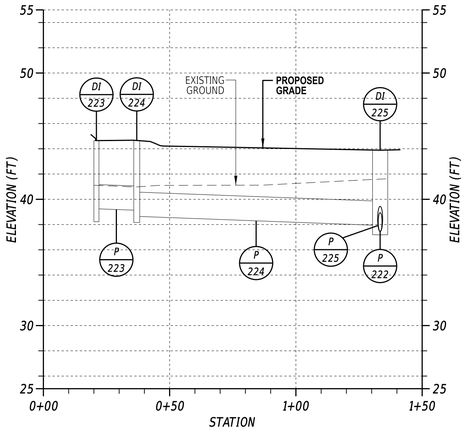
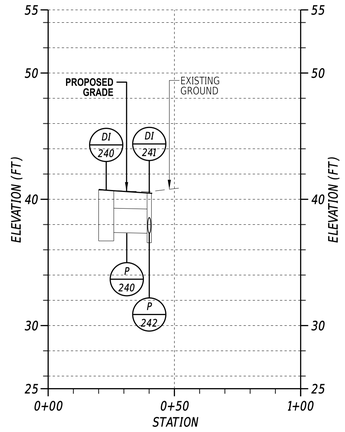
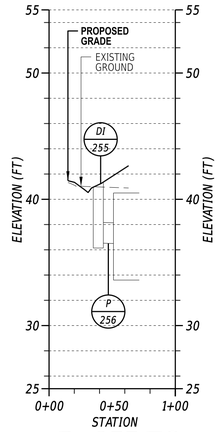
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	PROFILES	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 57
					CHECKED BY: J. FREY		



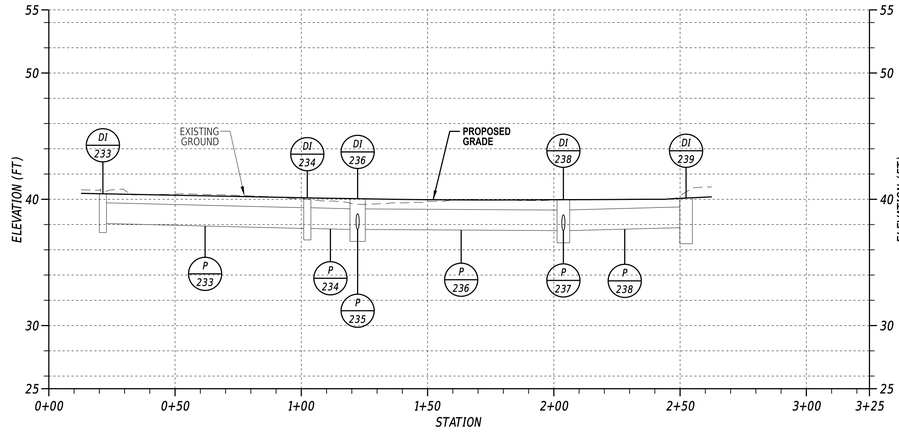
DI-223 TO DI-225



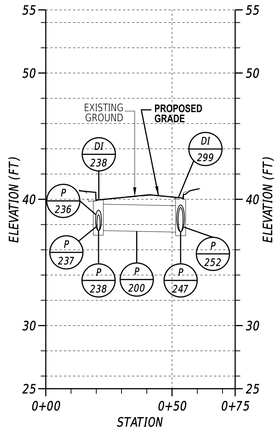
DI-240 TO DI-241



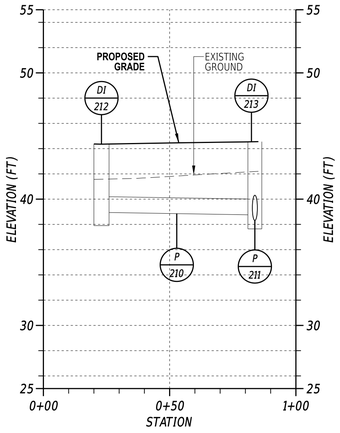
DI-255 TO UNDERGROUND DETENTION



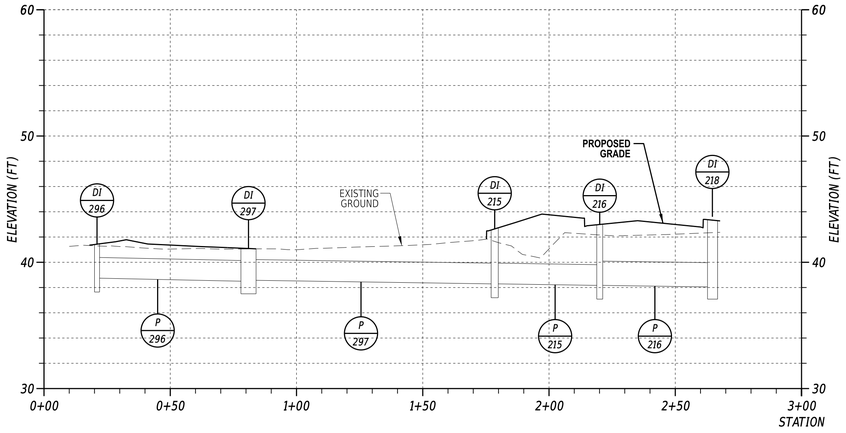
DI-233 TO DI-239



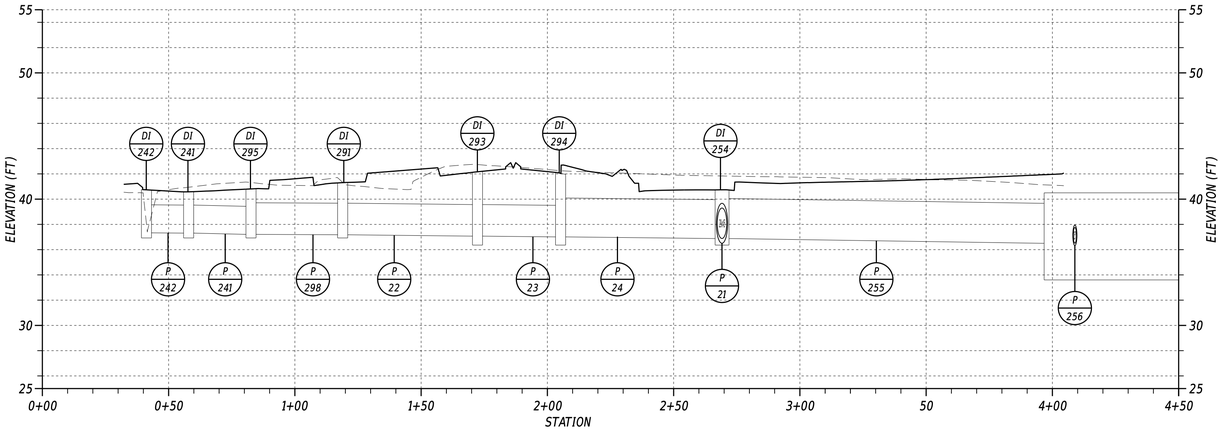
DI-238 TO DI-299



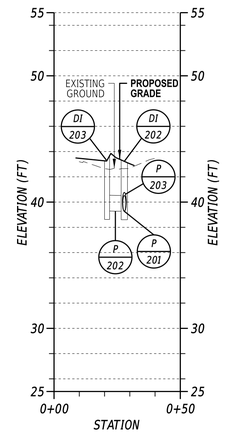
DI-212 TO DI-213



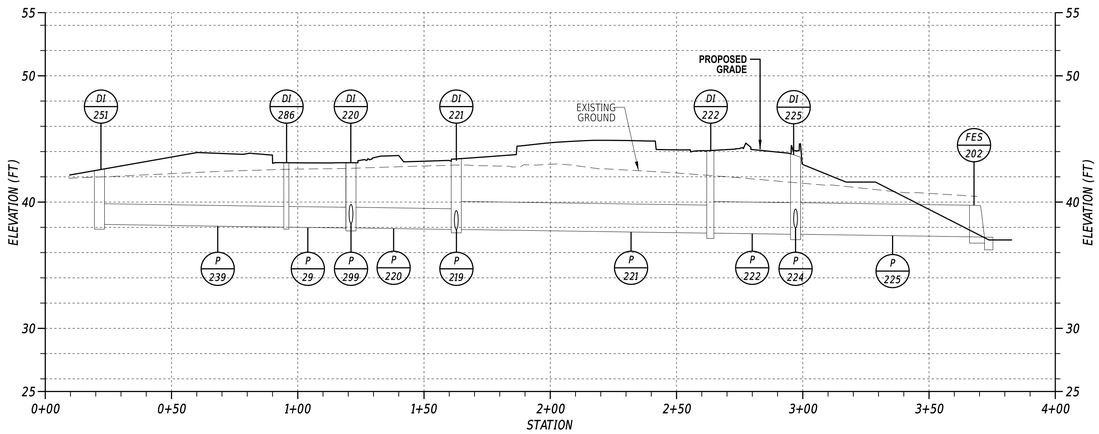
DI-296 TO DI-218



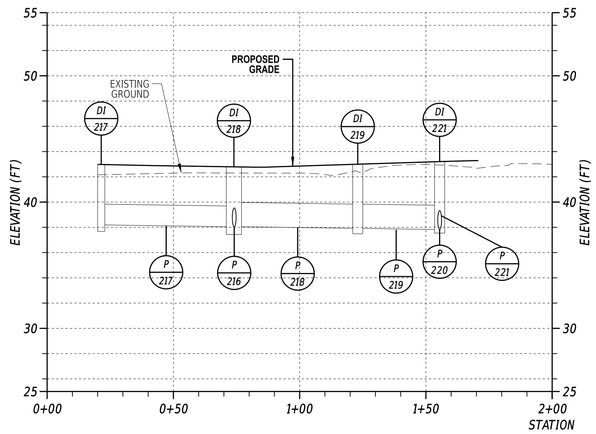
DI-242 TO UNDERGROUND DETENTION



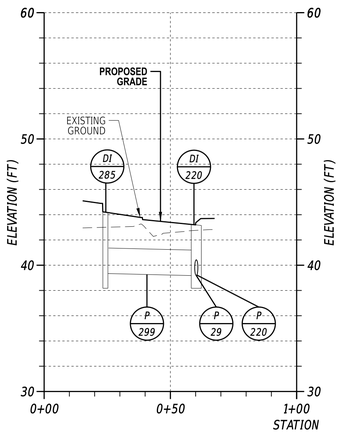
DI-203 TO DI-202



DI-251 TO FES-202



DI-217 TO DI-221



DI-285 TO DI-220

VERTICAL SCALE FEET
18
12
6
0

ADDENDA / REVISIONS		SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
		0 30 60 90 FEET		T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY KENT	CHECKED BY: J. FREY		SHEET NO. 58

20-DEC-2024
07:22
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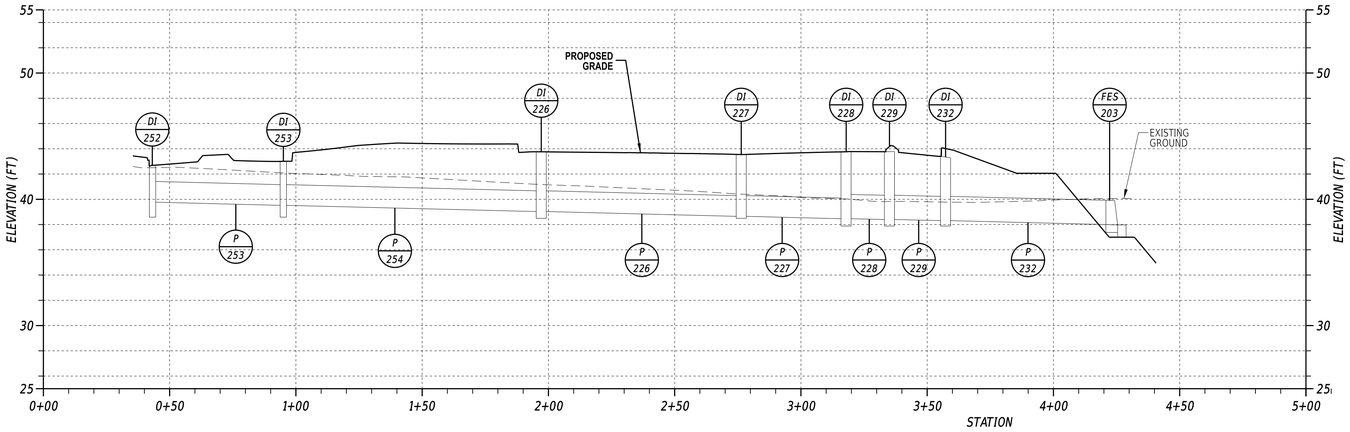
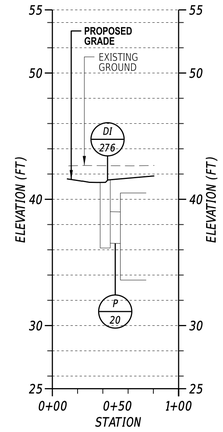
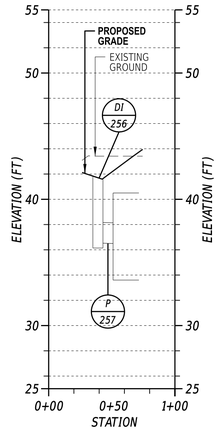


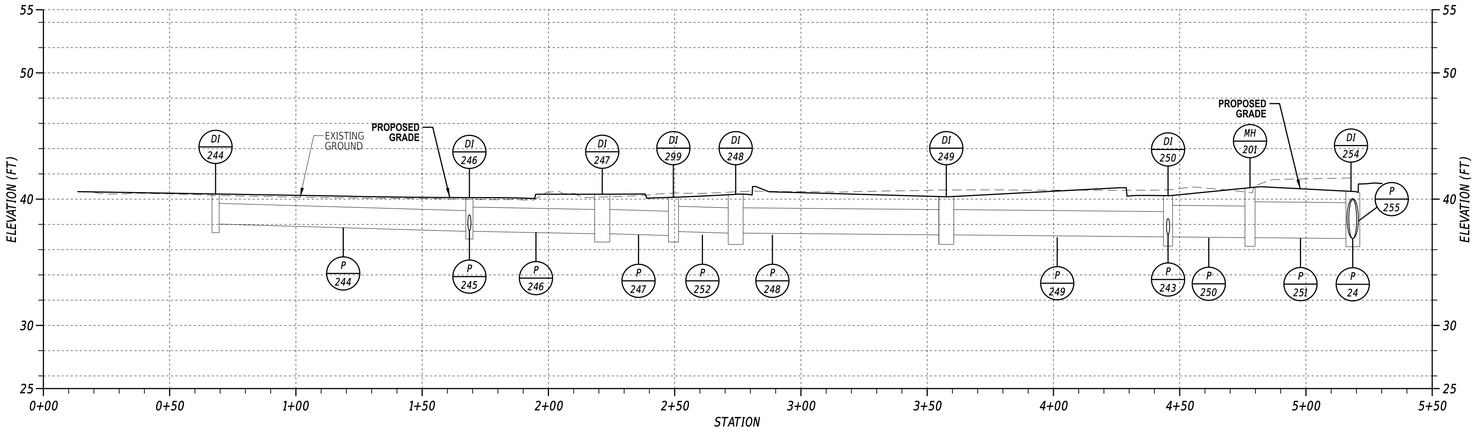
DI-252 TO FES-203



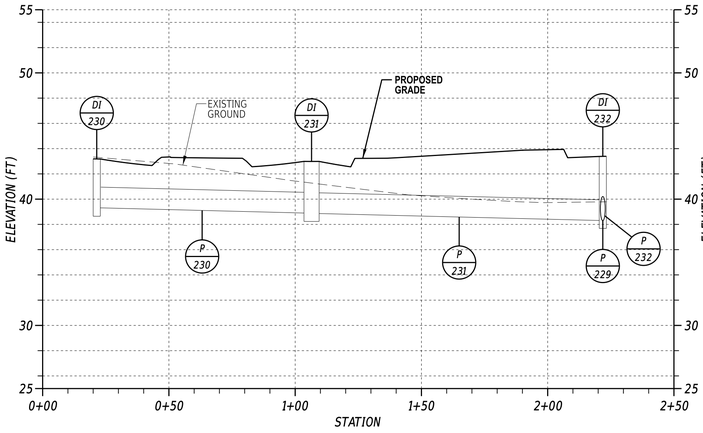
DI-276 TO UNDERGROUND DETENTION



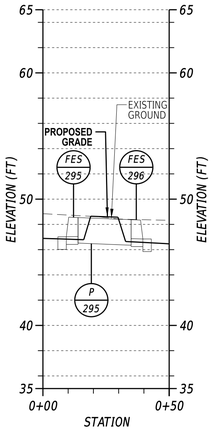
DI-256 TO UNDERGROUND DETENTION



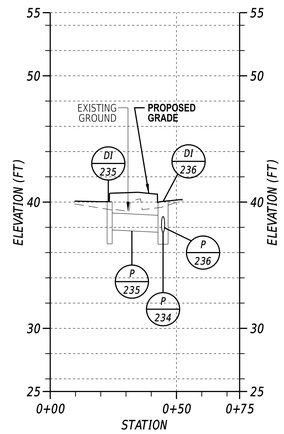
DI-244 TO DI-254



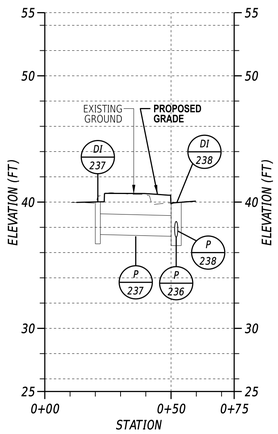
DI-230 TO DI-232



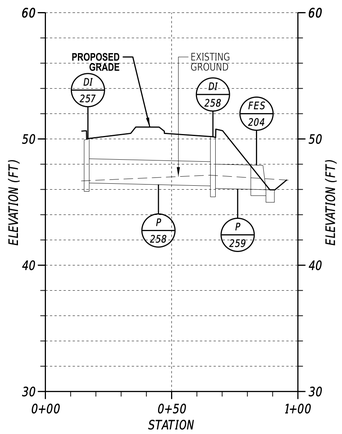
FES-295 TO FES-296



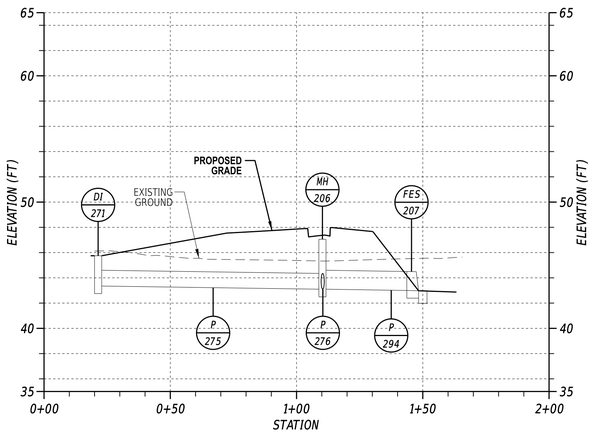
DI-235 TO DI-236



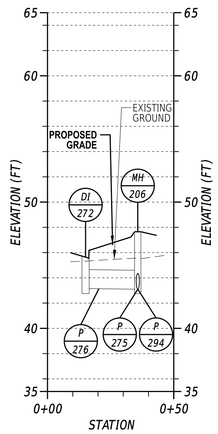
DI-237 TO DI-238



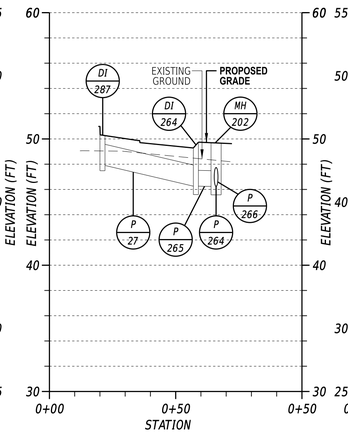
DI-257 TO FES-204



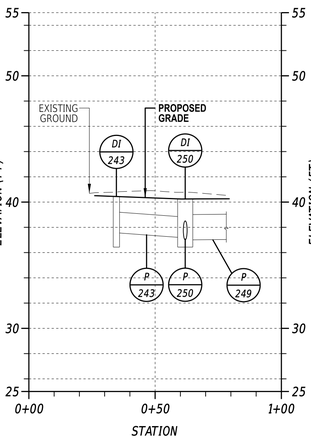
DI-271 TO FES-207



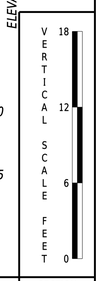
DI-272 TO MH-206



DI-287 TO MH-202



DI-243 TO DI-250



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ADDENDA / REVISIONS

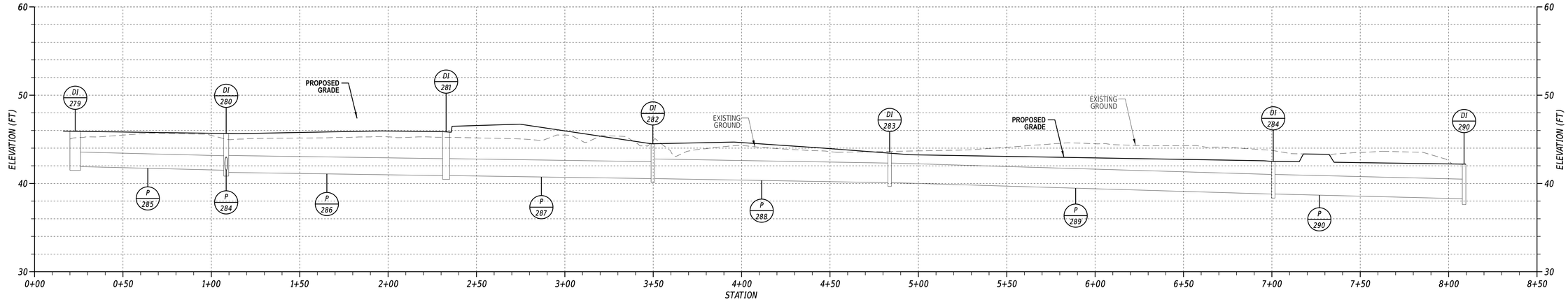
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

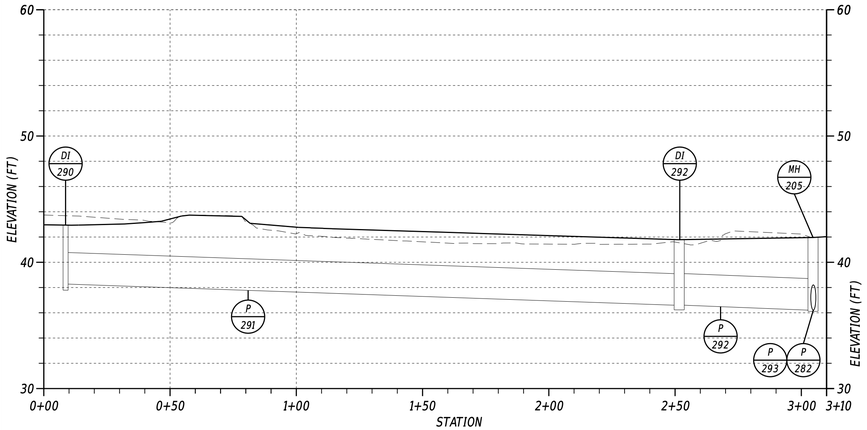
CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

PROFILES

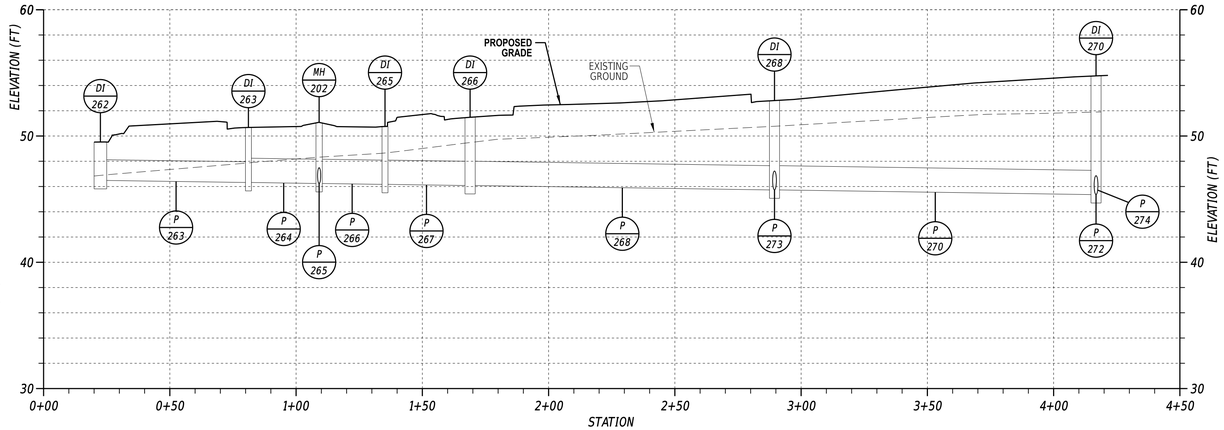
SECTION
CEN
SHEET NO.
59



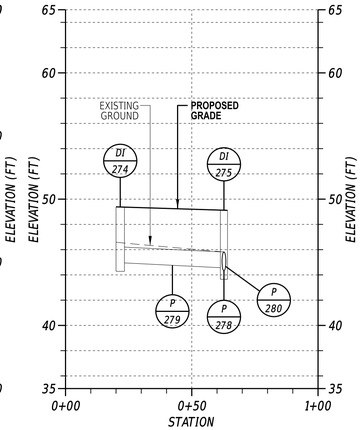
DI-279 TO DI-290



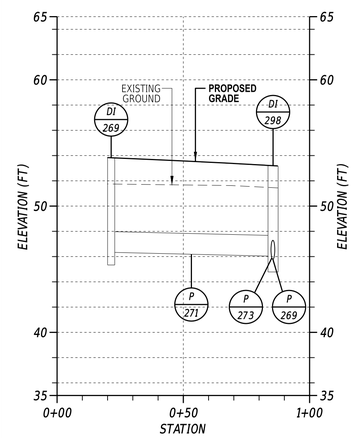
DI-290 TO MH-205



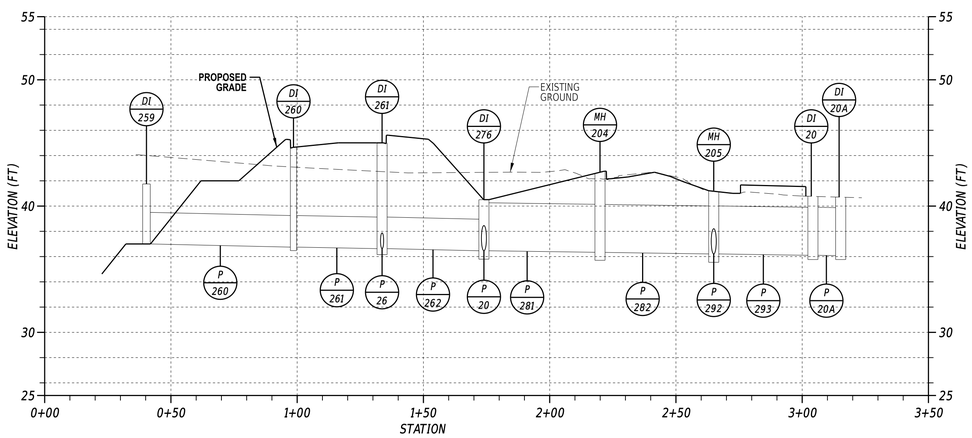
DI-262 TO DI-270



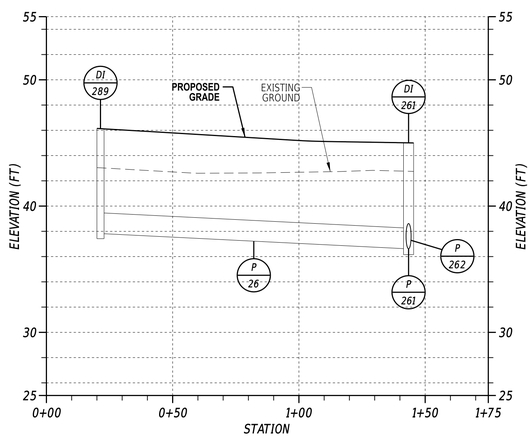
DI-274 TO DI-275



DI-269 TO DI-298



DI-259 TO DI-20A



DI-289 TO DI-261

VERTICAL SCALE FEET 0 6 12 18

ADDENDA / REVISIONS	SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	SECTION
	0 30 60 90 FEET		T201709502	DESIGNED BY: L. HAXTON	CEN
			COUNTY	CHECKED BY: J. FREY	SHEET NO.
			KENT		60

PROFILES

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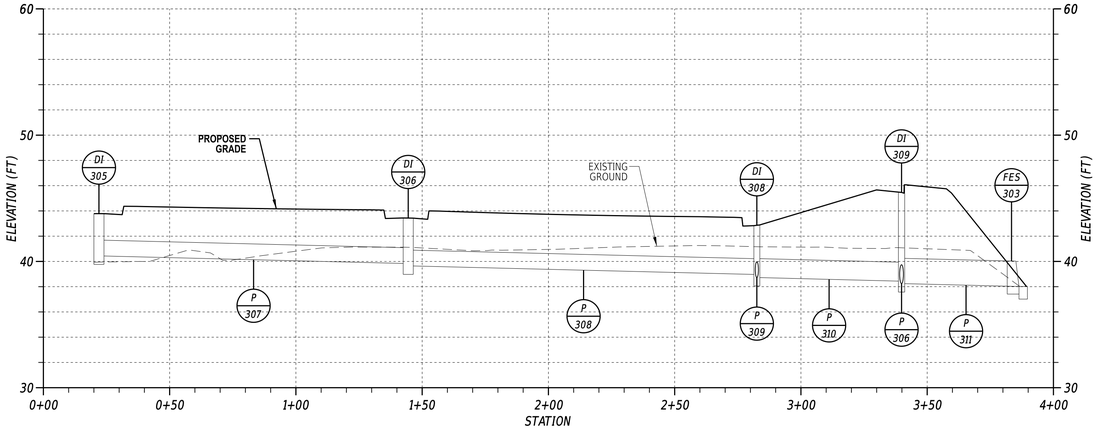
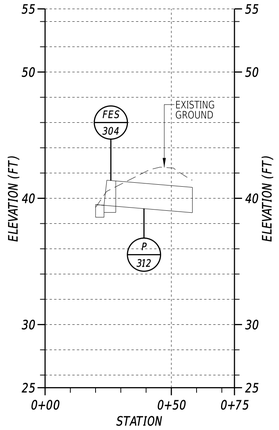
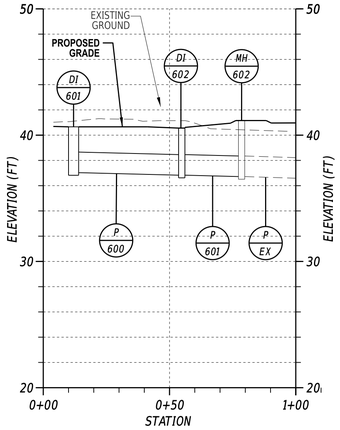


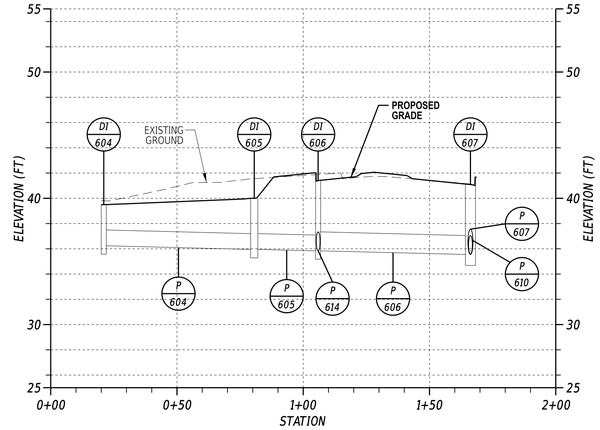
DI-305 TO FES-303



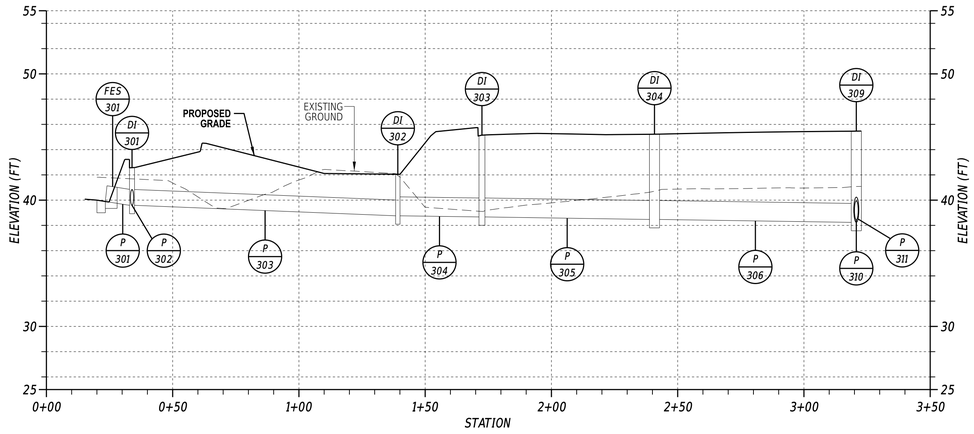
FES-304 TO P-312



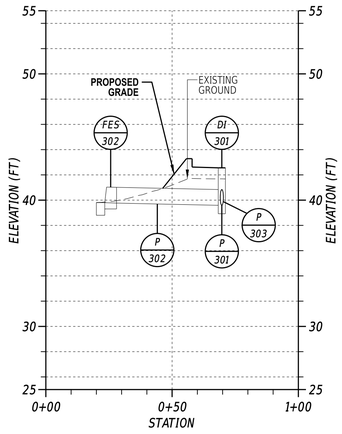
DI-601 TO MH-602



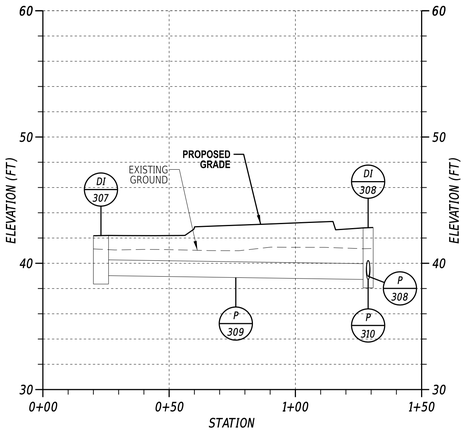
DI-604 TO DI-607



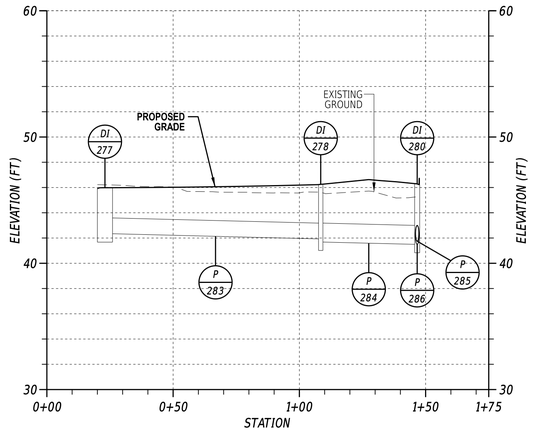
FES-301 TO DI-309



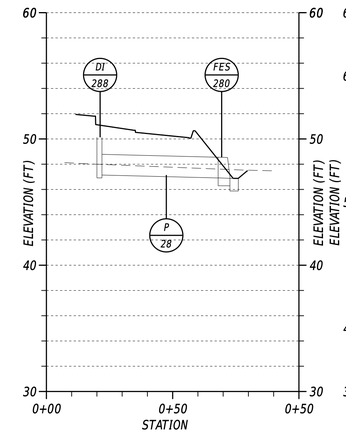
FES-302 TO DI-301



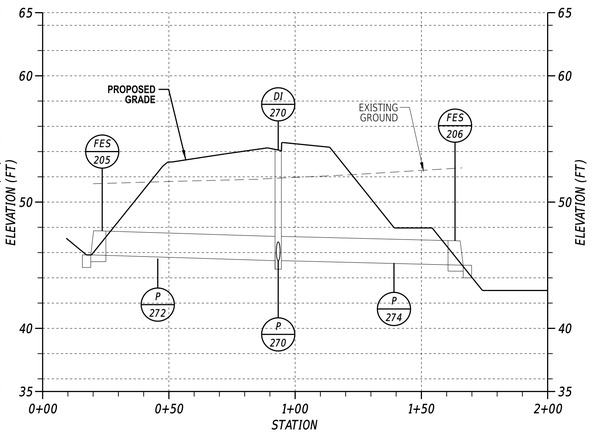
DI-307 TO DI-308



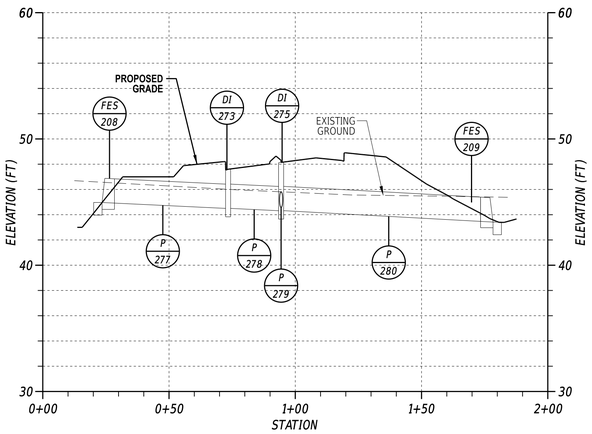
DI-277 TO DI-280



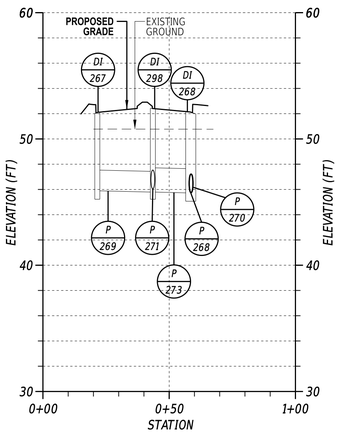
DI-288 TO FES-280



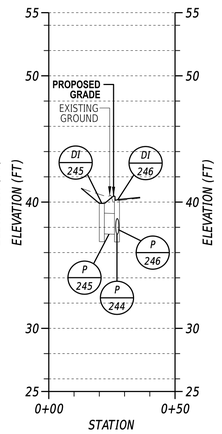
FES-205 TO FES-206



FES-208 TO FES-209



DI-267 TO DI-268



DI-245 TO DI-246

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ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

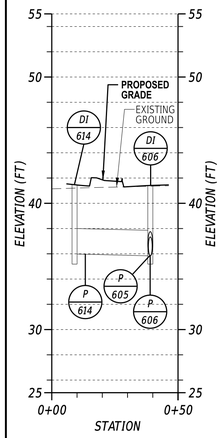
WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

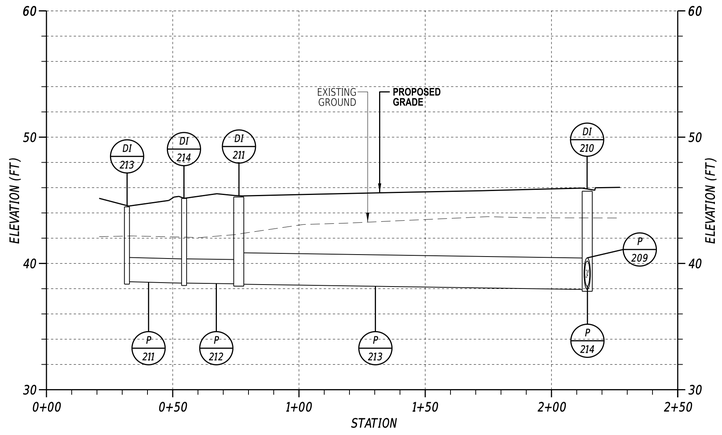
PROFILES

SECTION
CEN
SHEET NO.
61

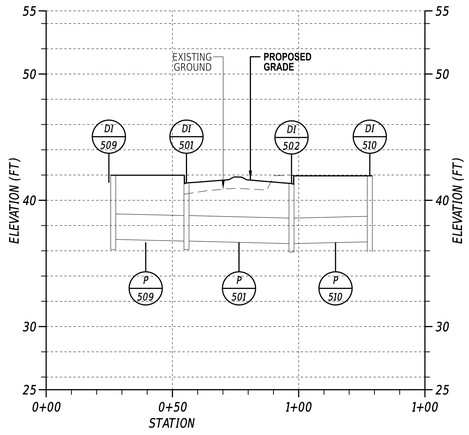
VERTICAL SCALE FEET
18
12
6
0



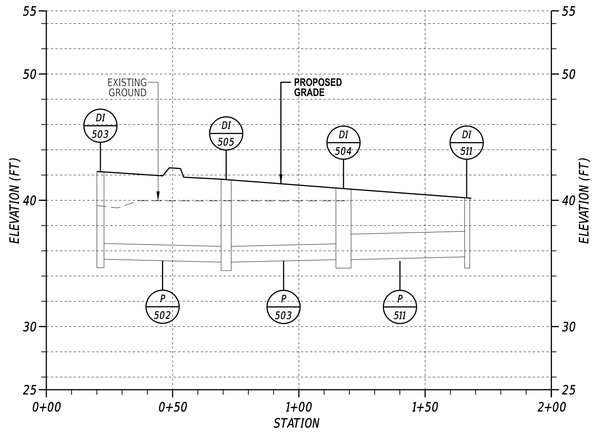
DI-614 TO DI-606



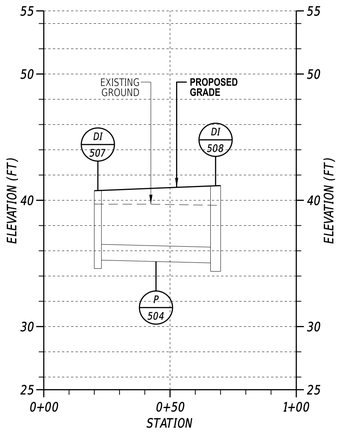
DI-213 TO DI-210



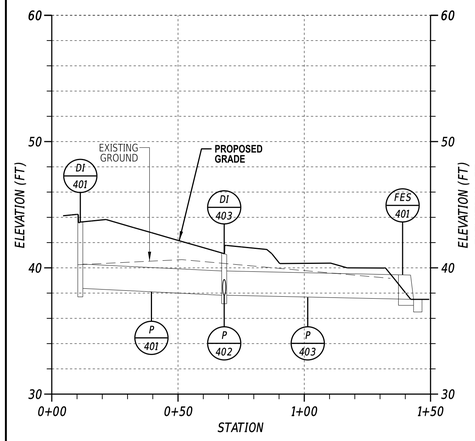
DI-509 TO DI-510



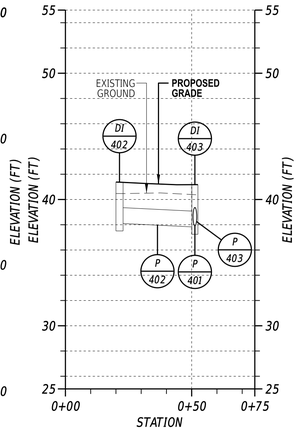
DI-503 TO DI-511



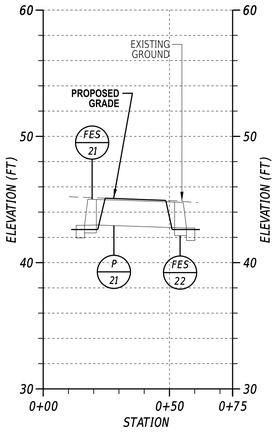
DI-507 TO DI-508



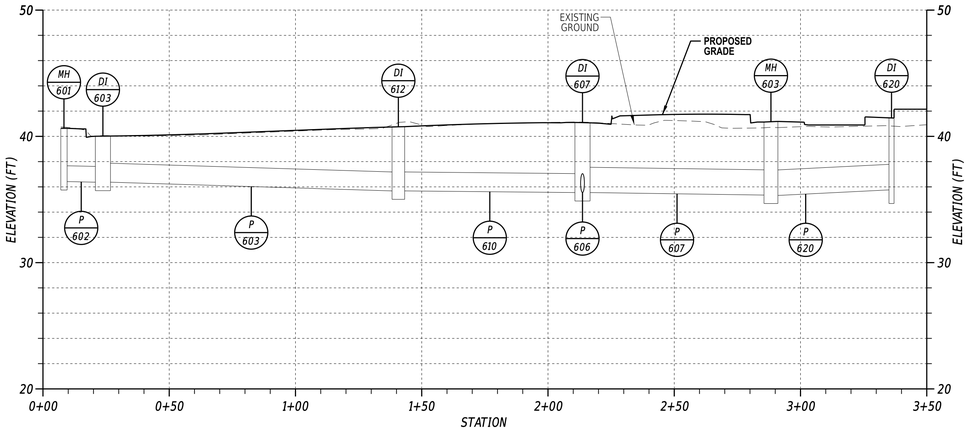
DI-401 TO FES-401



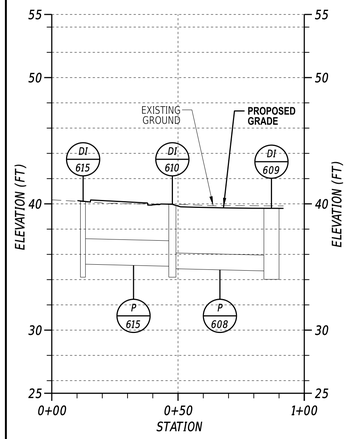
DI-402 TO DI-403



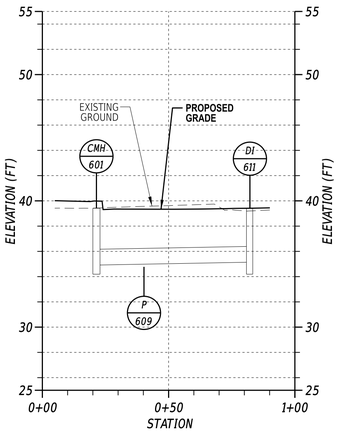
FES-21 TO FES-22



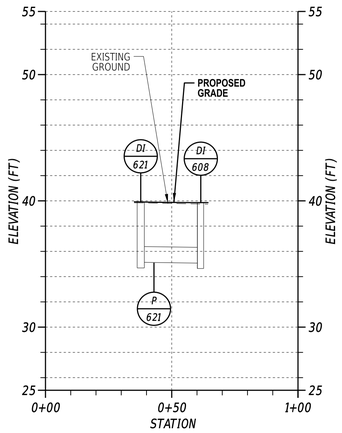
MH-601 TO DI-620



DI-615 TO DI-609



CMH-601 TO DI-611



DI-621 TO DI-608

VERTICAL SCALE FEET 18 12 6 0

ADDENDA / REVISIONS	SCALE		CONTRACT	BRIDGE NO.	N/A		SECTION
	0 30 60 90 FEET	WEST CAMDEN BYPASS	T201709502	DESIGNED BY:	L. HAXTON	PROFILES	CEN
			COUNTY	CHECKED BY:	J. FREY		SHEET NO.
			KENT				62

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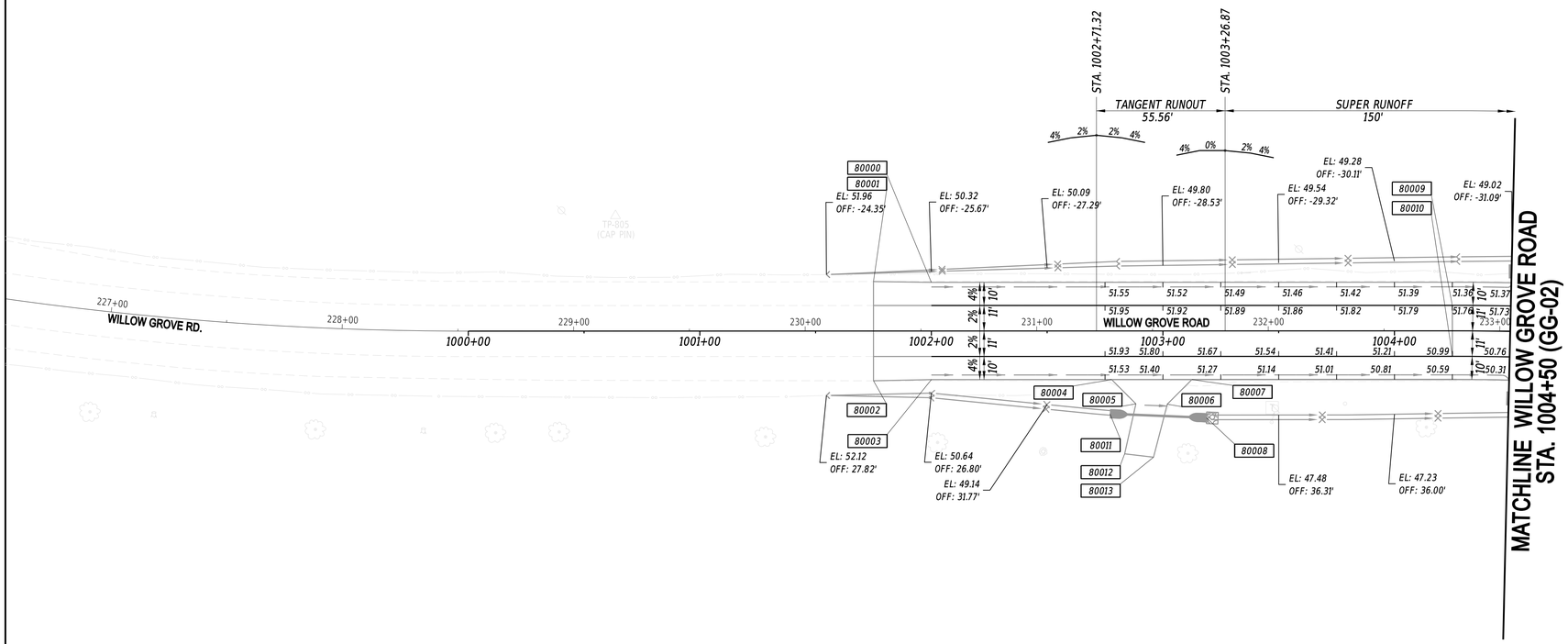

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
80000	1002+00.00	-21.00	402118.5443	614670.5358
80001	1001+75.00	-21.34	402096.6522	614658.4587
80002	1001+75.00	21.48	402076.4811	614696.2366
80003	1002+00.00	21.00	402098.7620	614707.5853
80004	1002+77.86	21.00	402167.4412	614744.2560
80005	1002+88.32	31.47	402171.7439	614758.4176
80006	1003+01.88	31.63	402183.6254	614764.9431
80007	1003+12.50	21.00	402198.0037	614760.5746
80008	1003+18.80	37.49	402195.7906	614778.0866
80009	1004+25.00	-11.00	402312.3134	614785.3335
80010	1004+25.04	11.00	402301.9873	614804.7595
80011	1002+77.10	35.75	402159.8281	614756.9150
80012	1002+83.46	53.05	402157.2923	614775.1719
80013	1002+95.93	54.51	402167.6036	614782.3309

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501-CONSTRUCTION ENGINEERING.
6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.

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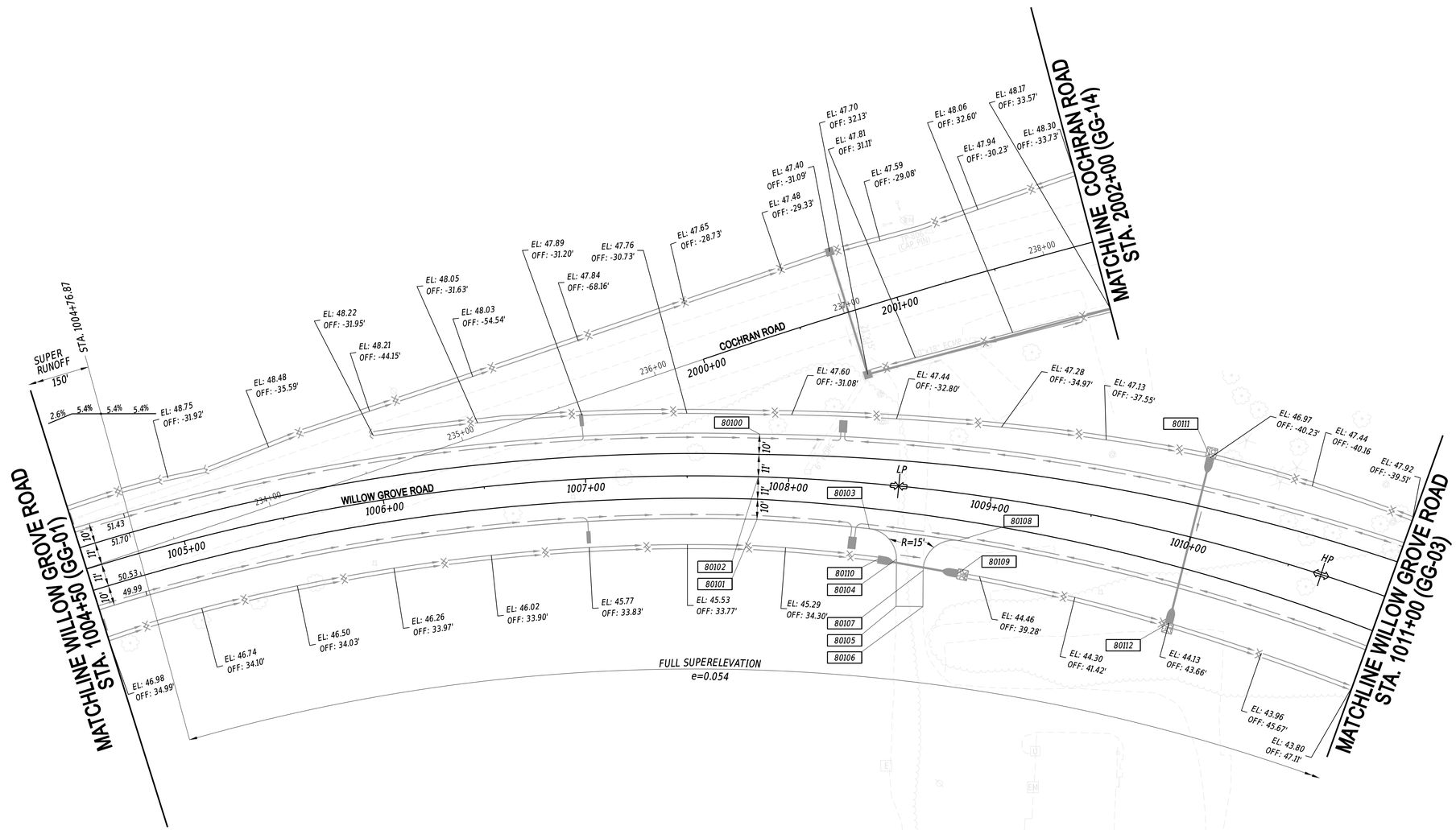
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	GRADES AND GEOMETRICS	GG-01 SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 63
					CHECKED BY: J. FREY		



COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
80100	1007+85.00	-21.00	402603.8634	615003.1007
80101	1007+85.00	21.00	402572.3496	615030.8655
80102	1007+85.00	0.00	402588.1065	615016.9831
80103	1008+41.65	22.26	402606.8232	615074.2727
80104	1008+56.81	35.96	402604.9880	615094.2934
80105	1008+59.13	59.01	402587.9609	615109.9965
80106	1008+73.07	57.65	402596.9034	615119.6929
80107	1008+71.01	40.00	402609.9468	615107.6555
80108	1008+86.87	23.26	402632.5167	615110.2417
80109	1008+88.69	39.43	402620.3776	615121.0633
80110	1008+47.26	36.88	402598.6507	615087.5645
80111	1010+00.00	-40.24	402747.0387	615172.7380
80112	1010+00.00	43.66	402673.7064	615213.4916

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.
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6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.

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ADDENDA / REVISIONS	

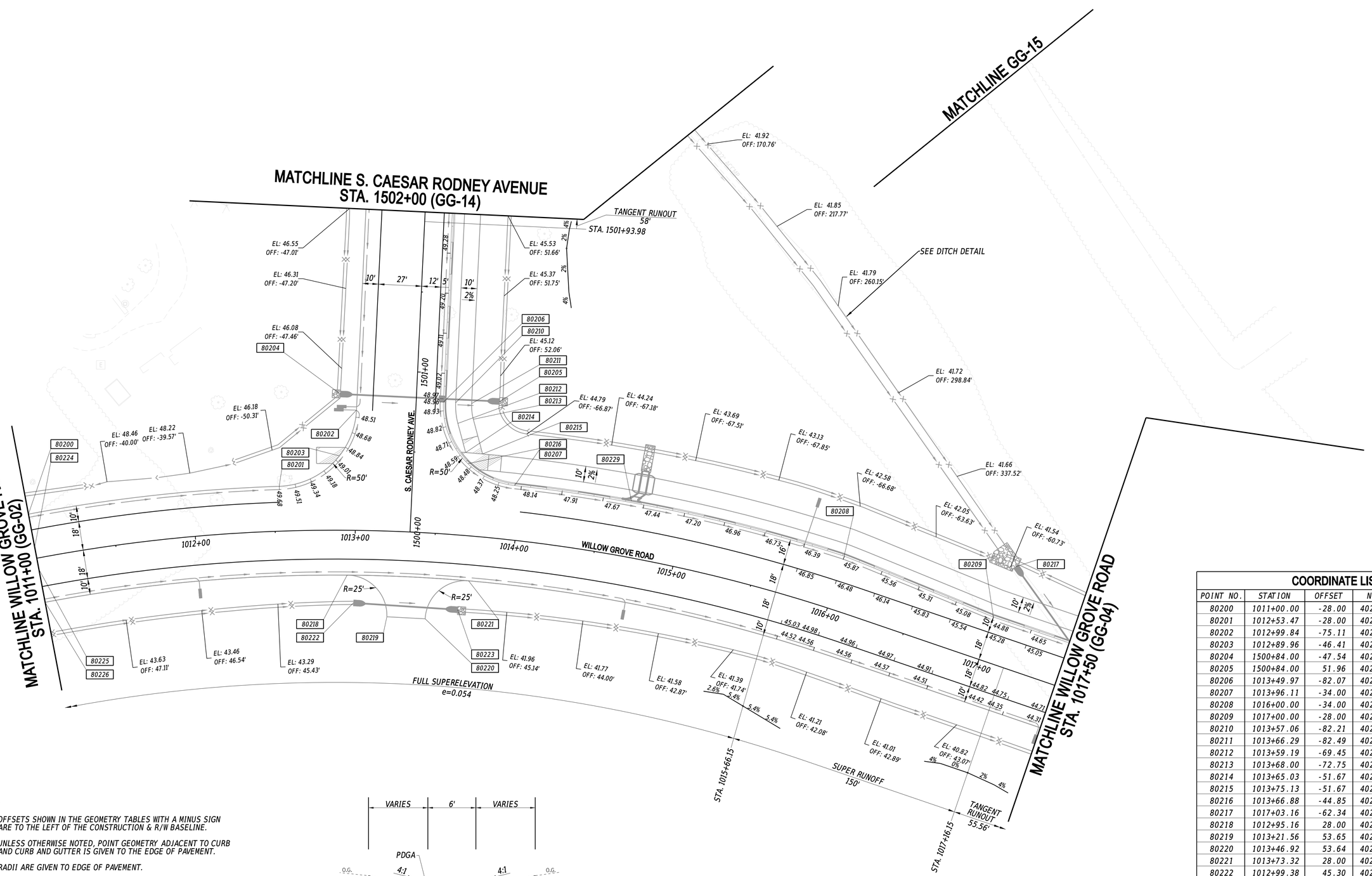
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

GRADES AND GEOMETRICS

GG-02	
SECTION	CEN
SHEET NO.	64



NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.
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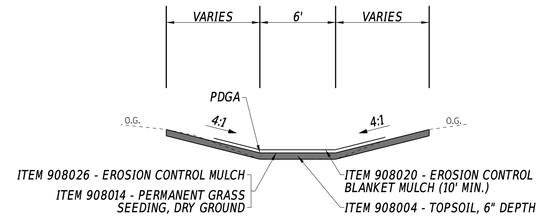
6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.



DITCH DETAIL

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
80200	1011+00.00	-28.00	402781.7070	615270.8837
80201	1012+53.47	-28.00	402832.8550	615419.9651
80202	1012+99.84	-75.11	402889.8527	615456.6674
80203	1012+89.96	-46.41	402859.5843	615452.4727
80204	1500+84.00	-47.54	402897.4271	615444.6496
80205	1500+84.00	51.96	402914.5390	615542.6665
80206	1013+49.97	-82.07	402906.4934	615508.5790
80207	1013+96.11	-34.00	402865.4008	615563.3790
80208	1016+00.00	-34.00	402867.3335	615773.8269
80209	1017+00.00	-28.00	402850.5740	615873.1420
80210	1013+57.06	-82.21	402907.8119	615516.1314
80211	1013+66.29	-82.49	402909.5317	615525.9824
80212	1013+59.19	-69.45	402895.5302	615520.2916
80213	1013+68.00	-72.75	402900.1512	615529.1599
80214	1013+65.03	-51.67	402878.8290	615528.9941
80215	1013+75.13	-51.67	402880.2810	615539.5136
80216	1013+66.88	-44.85	402872.3585	615531.8760
80217	1017+03.16	-62.34	402884.3635	615880.0172
80218	1012+95.16	28.00	402788.0022	615473.4530
80219	1013+21.56	53.65	402767.8618	615503.3427
80220	1013+46.92	53.64	402772.0007	615526.9832
80221	1013+73.32	28.00	402801.0764	615548.2728
80222	1012+99.38	45.30	402771.9299	615481.0364
80223	1013+67.79	46.55	402781.9719	615545.5233
80224	1011+00.00	-7.00	402762.4244	615279.2013
80225	1011+00.00	7.00	402749.5693	615284.7464
80226	1011+00.00	28.00	402730.2868	615293.0639
80229	1014+67.18	-35.00	402871.9469	615636.5949

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ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

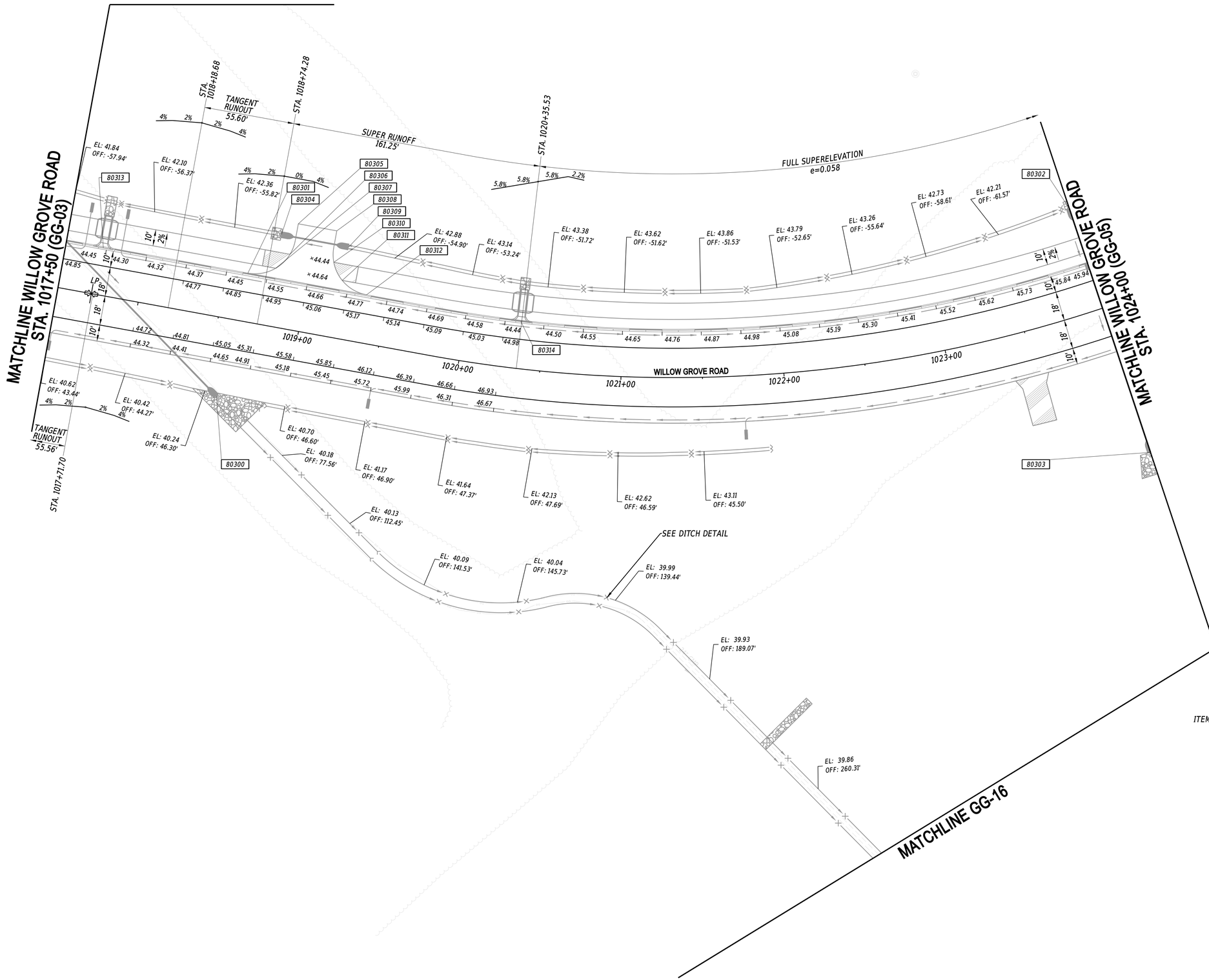
CONTRACT	
T201709502	
COUNTY	
KENT	

BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

GRADES AND GEOMETRICS

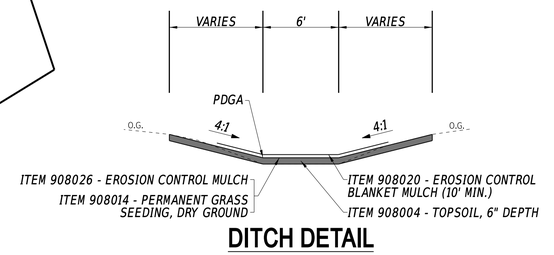
GG-03

SECTION
CEN
SHEET NO.
65



COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
80300	1018+57.64	48.14	402757.7456	616021.5753
80301	1018+63.00	-29.67	402834.5135	616035.3574
80302	1024+00.00	-64.53	402910.3380	616535.1574
80303	1024+00.00	93.25	402764.5956	616595.6018
80304	1018+79.00	-56.56	402859.5114	616054.1861
80305	1018+88.00	-65.00	402866.9201	616064.0498
80306	1018+86.32	-45.67	402847.8835	616060.2821
80307	1018+79.25	-35.67	402838.7118	616052.1613
80308	1019+12.00	-65.00	402864.3114	616087.9076
80309	1019+21.00	-56.56	402854.9462	616095.9372
80310	1019+13.68	-45.67	402844.9104	616087.4724
80311	1019+20.75	-35.67	402834.2006	616093.4193
80312	1019+37.00	-29.67	402826.4700	616108.9189
80313	1017+72.95	-29.00	402843.6384	615945.7717
80314	1020+34.95	-29.00	402816.9943	616204.5211



DITCH DETAIL

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.
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6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

GRADES AND GEOMETRICS

GG-04

SECTION CEN

SHEET NO. 66

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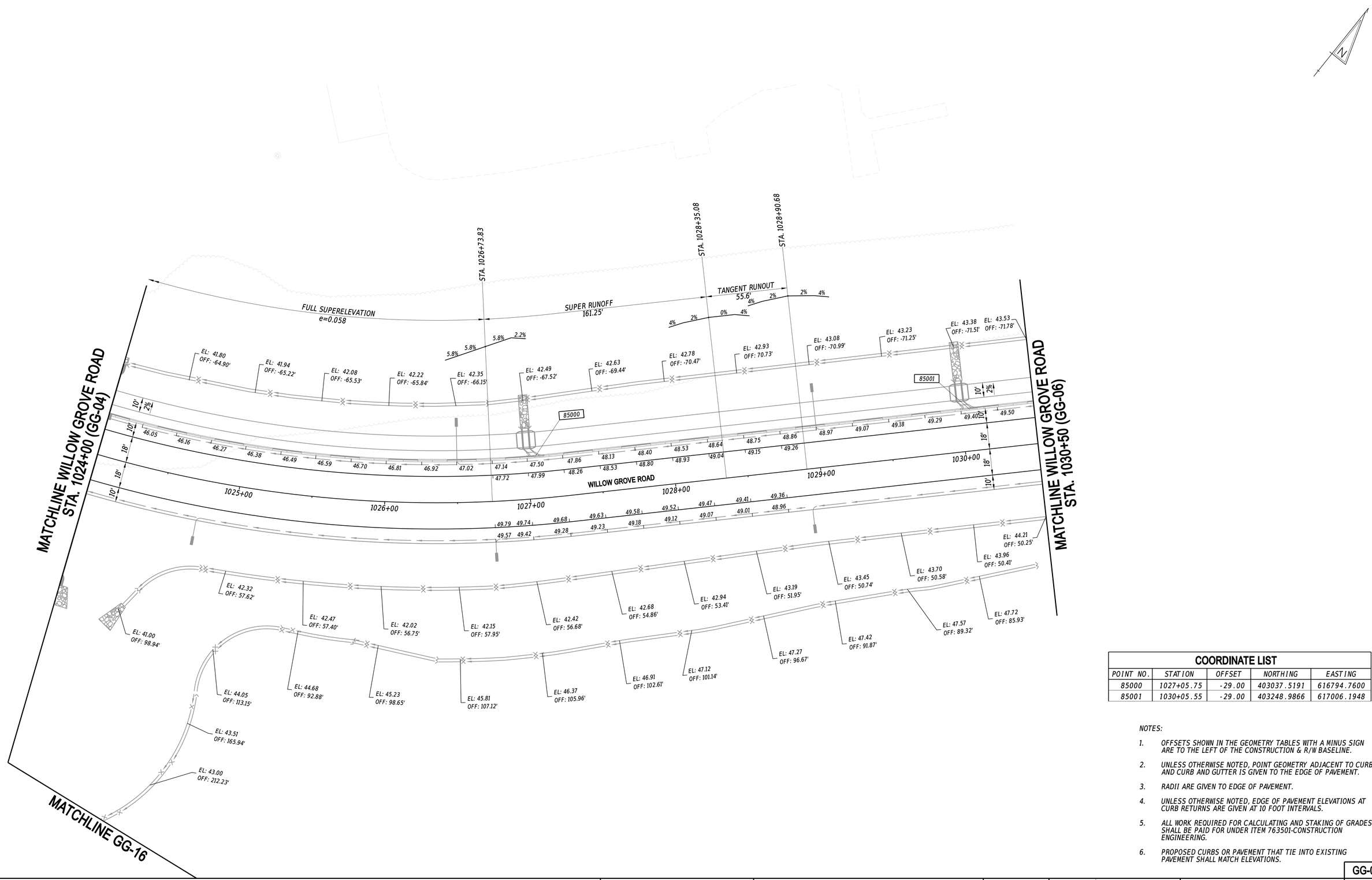

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
85000	1027+05.75	-29.00	403037.5191	616794.7600
85001	1030+05.55	-29.00	403248.9866	617006.1948

NOTES:

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6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.

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ADDENDA / REVISIONS			

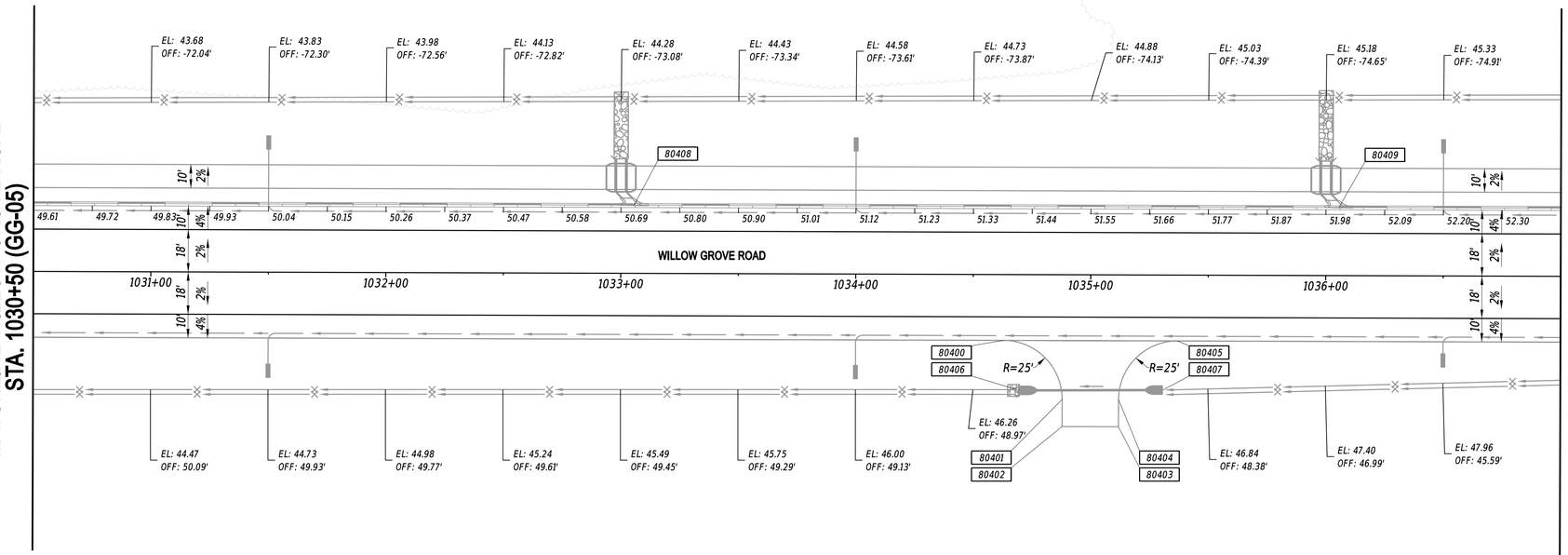
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

GRADES AND GEOMETRICS

	GG-05
SECTION	CEN
SHEET NO.	67



COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
80400	1034+63.00	28.00	403532.5147	617369.6832
80401	1034+88.00	53.00	403532.5502	617405.0386
80402	1034+88.00	64.56	403524.3858	617413.2194
80403	1035+12.00	64.56	403541.3742	617430.1737
80404	1035+12.00	53.00	403549.5378	617421.9921
80405	1035+37.00	28.00	403584.8931	617421.9566
80406	1034+69.82	49.24	403522.3337	617389.5326
80407	1035+30.81	48.91	403565.7463	617432.3852
80408	1033+05.55	-29.00	403461.3316	617218.1137
80409	1036+05.55	-29.00	403673.6765	617430.0325

NOTES:

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ADDENDA / REVISIONS

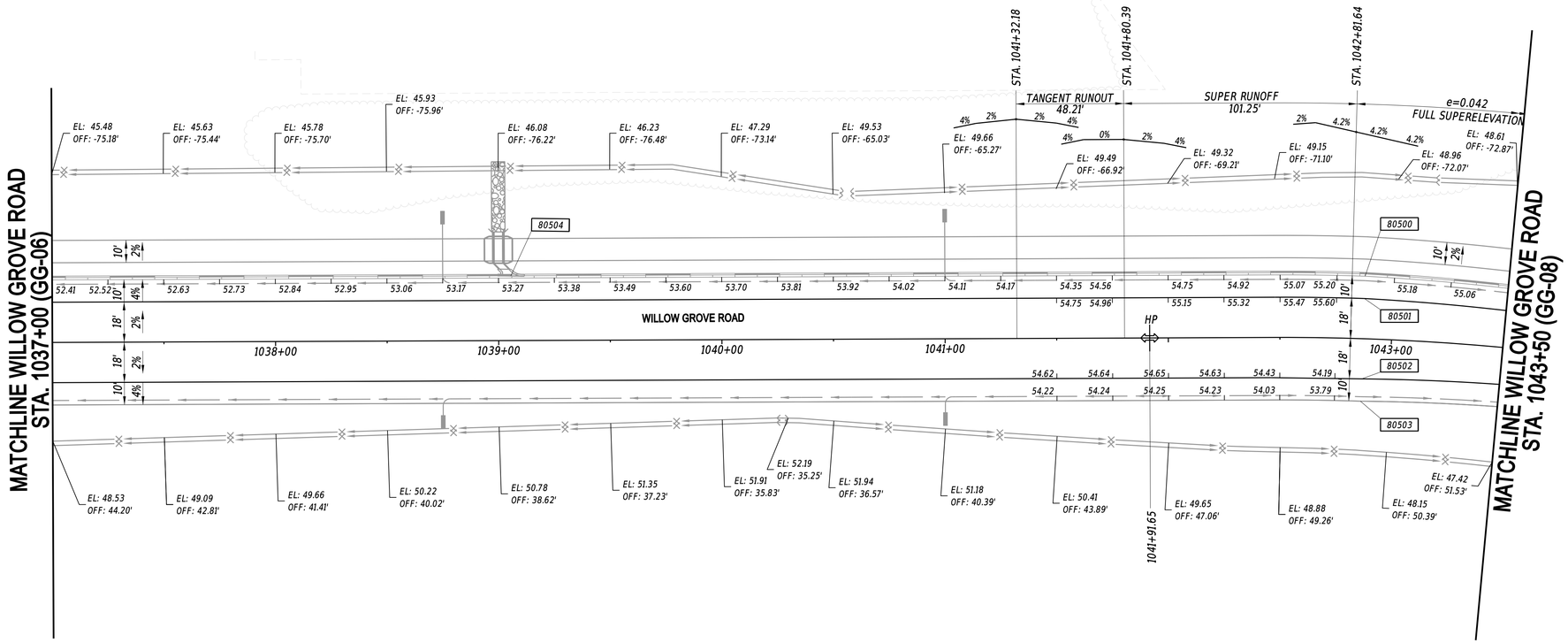
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	
T201709502	DESIGNED BY:	L. HAXTON	GRADES AND GEOMETRICS
COUNTY	CHECKED BY:	J. FREY	
KENT			

GG-06

SECTION
CEN
SHEET NO.
68



COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
80500	1042+87.26	-28.00	404155.6960	617913.5577
80501	1042+87.26	-18.00	404148.3720	617920.3710
80502	1042+87.23	18.00	404121.9977	617944.8660
80503	1042+87.00	28.00	404114.5219	617951.5151
80504	1039+05.55	-29.00	403886.0215	617641.9514

NOTES:

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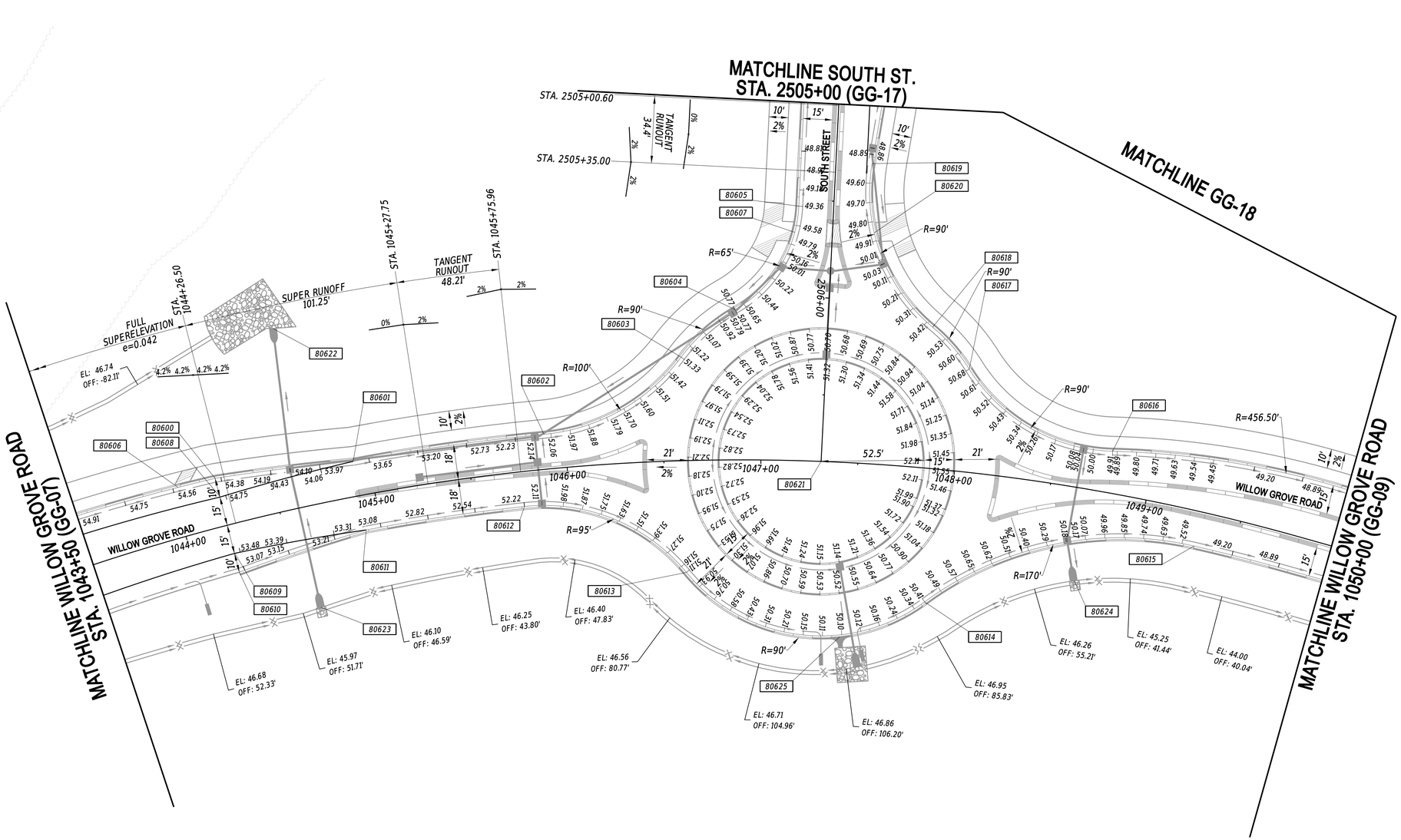
ADDENDA / REVISIONS		SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	GRADES AND GEOMETRICS	GG-07
		0 30 60 90 FEET		T201709502	DESIGNED BY: L. HAXTON		SECTION CEN
				COUNTY KENT	CHECKED BY: J. FREY		SHEET NO. 69



COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
80600	1044+22.00	-25.00	404240.7737	618022.2753
80601	1044+92.00	-18.00	404274.6331	618085.5321
80602	1045+89.71	-18.00	404323.1255	618172.2209
80603	1046+60.38	-53.41	404385.7787	618223.8224
80604	1046+86.92	-77.52	404418.6923	618240.8971
80605	1047+16.32	-131.21	404480.2953	618252.3092
80606	1044+02.80	-25.43	404229.5245	618006.1539
80607	1047+14.73	-117.66	404466.9390	618255.2167
80608	1044+22.22	-15.00	404232.7775	618028.2845
80609	1044+22.22	15.00	404208.3980	618045.7636
80610	1044+22.00	25.00	404200.1422	618051.4143
80611	1044+92.00	18.00	404244.0577	618104.5360
80612	1045+75.96	18.00	404284.8067	618176.2863
80613	1046+59.98	57.64	404283.2225	618266.4398
80614	1047+91.14	68.75	404313.3668	618386.4692
80615	1049+29.38	18.00	404390.3619	618505.5892
80616	1048+78.56	-21.49	404420.8087	618448.8267
80617	1048+02.06	-53.01	404433.6385	618364.5908
80618	1047+82.36	-72.73	404447.0012	618339.1757
80619	1047+48.81	-154.68	404514.4202	618279.6139
80620	1047+51.58	-119.09	404481.5142	618293.5288
80621	1047+31.07	0.00	404361.6797	618310.5359
80622	1044+66.34	-93.33	404323.5948	618022.2359
80623	1044+60.08	52.43	404198.4108	618097.1873
80624	1048+70.26	47.84	404351.2042	618454.2458
80625	1047+45.35	89.97	404280.7407	618352.1263

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501-CONSTRUCTION ENGINEERING.
6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.
7. SPLITTER ISLAND GRADES AND GEOMETRICS ARE LOCATED ON ROUNDABOUT SPLITTER ISLAND DETAIL SHEET.

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ADDENDA / REVISIONS

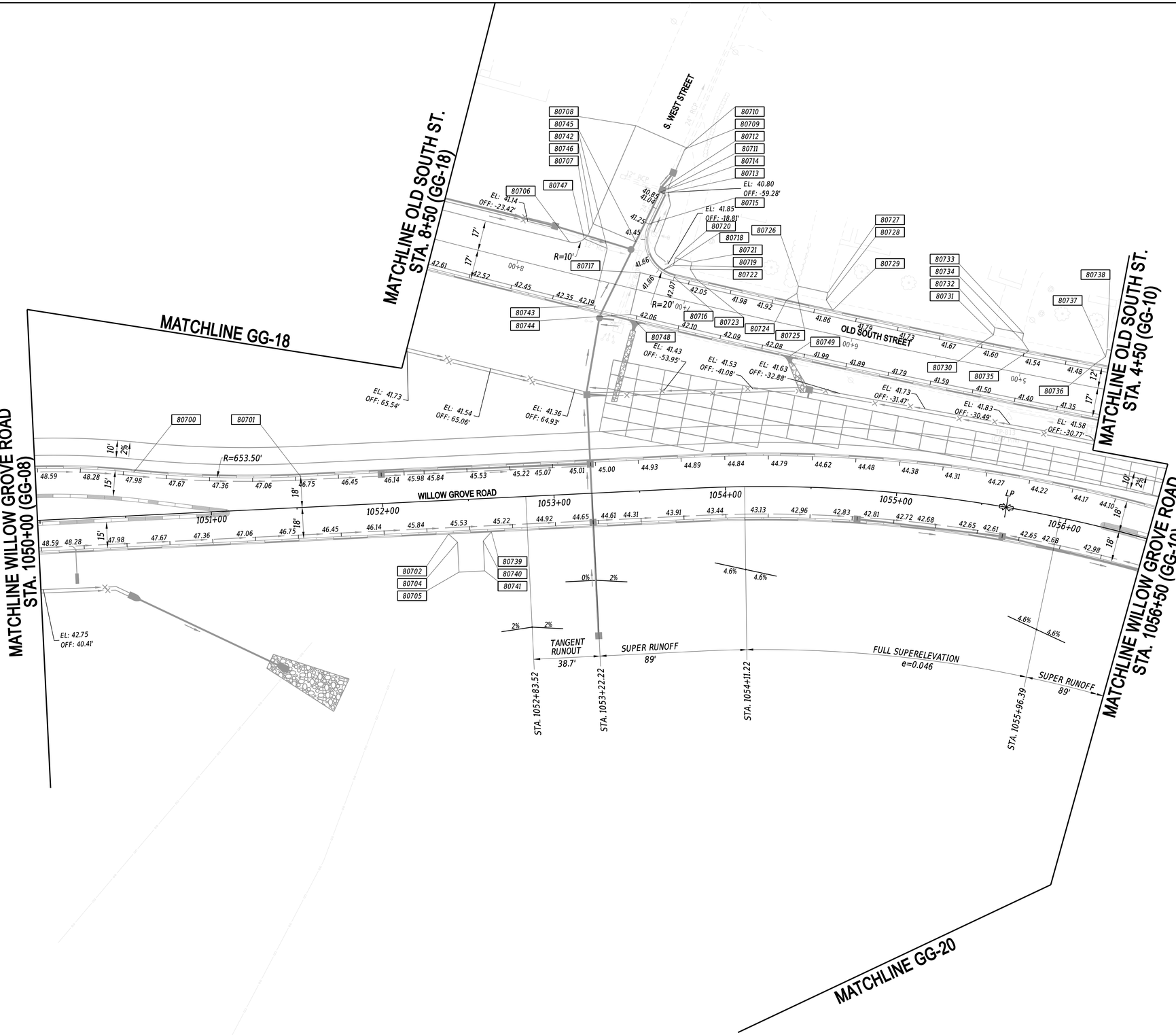
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

GRADES AND GEOMETRICS

GG-08
SECTION
CEN
SHEET NO.
70



COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
80700	1050+55.95	-25.25	404446.5804	618626.4790
80701	1051+53.04	-18.00	404448.5972	618723.8170
80702	1052+37.50	19.67	404419.1359	618811.4753
80704	1052+42.50	24.67	404414.6342	618816.9283
80705	1052+42.50	42.14	404397.2445	618818.5901
80706	7+73.41	17.68	404592.4364	618873.9832
80707	7+63.40	25.99	404598.6545	618885.3776
80708	7+51.69	92.70	404661.9066	618909.5424
80709	7+19.04	86.96	404650.2259	618940.0274
80710	7+20.26	85.89	404649.3979	618938.6507
80711	7+24.61	61.37	404626.0957	618929.8795
80712	7+26.72	61.60	404626.7187	618927.8707
80713	7+26.49	58.06	404623.1964	618927.4358
80714	7+28.46	58.49	404623.9829	618925.5969
80715	7+30.77	38.75	404605.0179	618919.6614
80716	7+09.15	12.00	404574.7407	618935.8521
80717	7+28.98	10.00	404576.4415	618916.0285
80718	7+16.02	14.85	404578.8084	618929.6355
80719	7+11.01	18.67	404581.6356	618935.2481
80720	7+11.02	23.00	404585.8964	618936.0418
80721	7+00.98	23.00	404584.0651	618945.8727
80722	7+00.98	18.67	404579.8060	618945.0793
80723	6+95.97	13.67	404573.9822	618949.0805
80724	6+42.10	13.67	404564.4905	619001.9778
80725	6+37.08	18.67	404568.5564	619007.7738
80726	6+37.06	23.00	404572.8234	619008.5279
80727	6+19.42	23.00	404569.8440	619025.8413
80728	6+19.45	18.67	404565.5768	619025.0872
80729	6+14.47	13.67	404559.8147	619029.1464
80730	5+24.59	13.67	404545.5136	619117.6635
80731	5+19.57	18.67	404549.6983	619123.3698
80732	5+19.56	23.00	404553.9803	619124.0317
80733	5+02.37	23.00	404551.4237	619140.9584
80734	5+02.39	18.67	404547.1408	619140.2963
80735	4+97.40	13.67	404541.4620	619144.4779
80736	4+57.77	13.67	404535.7830	619183.6059
80737	4+52.75	18.67	404540.0335	619189.2669
80738	4+52.73	23.00	404544.3221	619189.8823
80739	1052+62.50	19.67	404421.5142	618836.3619
80740	1052+57.50	24.67	404416.0612	618831.8603
80741	1052+57.50	42.14	404398.6715	618833.5221
80742	7+51.03	19.21	404589.6419	618896.1714
80743	7+51.03	-15.00	404556.0555	618889.6473
80744	7+28.98	-15.00	404551.8820	618911.3559
80745	7+35.46	26.78	404594.1345	618912.8316
80746	7+62.49	31.21	404603.6038	618887.2684
80747	7+65.37	21.54	404594.6721	618882.5919
80748	7+25.00	-18.00	404548.1925	618914.7171
80749	6+33.21	-18.00	404531.7698	619005.3253

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501-CONSTRUCTION ENGINEERING.
6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.

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ADDENDA / REVISIONS

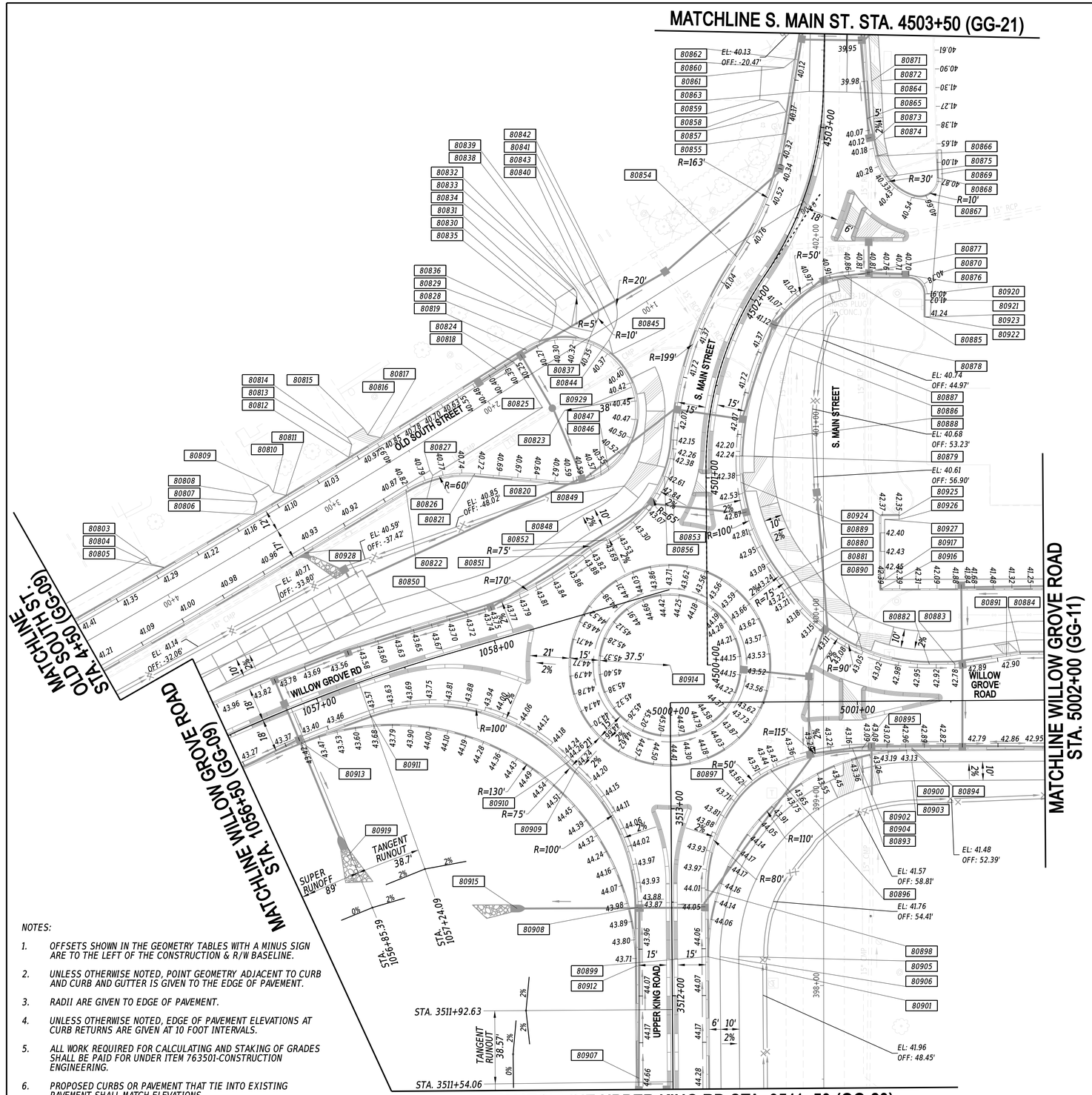
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	
T201709502	DESIGNED BY:	L. HAXTON	
COUNTY	CHECKED BY:	J. FREY	
KENT			

GRADES AND GEOMETRICS

GG-09
SECTION
CEN
SHEET NO.
71



COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
80803	3+99.43	23.00	404537.1716	619242.4875
80804	3+99.48	18.67	404532.8804	619241.8718
80805	3+94.53	13.67	404527.2821	619246.1198
80806	3+38.64	13.67	404520.3434	619301.4481
80807	3+33.66	18.67	404524.7170	619306.9660
80808	3+33.70	23.00	404529.0240	619307.4455
80809	3+23.66	23.00	404527.8452	619317.3758
80810	3+23.63	18.67	404523.5384	619316.8963
80811	3+18.59	13.67	404517.9863	619321.3090
80812	2+79.23	13.67	404513.5605	619360.3268
80813	2+74.30	18.67	404517.9964	619365.7508
80814	2+74.38	23.00	404522.3127	619366.1434
80815	2+64.34	23.00	404521.2367	619376.0853
80816	2+64.27	18.67	404516.9207	619375.6928
80817	2+59.18	13.67	404511.4093	619380.2122
80818	1+87.48	12.00	404502.6266	619451.2264
80819	1+68.10	12.00	404500.8175	619470.5191
80820	1+91.20	-56.15	404435.1275	619441.1248
80821	2+26.54	-29.04	404465.5665	619408.3193
80822	2+62.26	-17.00	404481.2431	619373.8900
80823	1+68.10	-26.00	404462.9835	619466.9713
80824	1+77.24	10.00	404499.6796	619461.2326
80825	1+77.24	-18.32	404471.4793	619458.5882
80826	2+46.02	-18.00	404478.5407	619389.9870
80827	2+46.02	-15.00	404481.5224	619390.3010
80828	1+59.02	12.61	404500.5790	619479.6213
80829	1+50.13	14.89	404502.0201	619488.6798
80830	1+42.41	23.30	404509.6716	619497.1565
80831	1+41.09	26.69	404512.9242	619498.7851
80832	1+28.99	26.71	404511.8138	619510.8318
80833	1+28.99	25.08	404510.1919	619510.6823
80834	1+30.31	21.69	404506.9392	619509.0537
80835	1+41.30	9.73	404496.0545	619496.9951
80836	1+40.80	2.77	404489.0805	619496.8443
80837	1+33.13	1.78	404487.3806	619504.3864
80838	1+28.12	5.03	404490.1446	619509.6749
80839	1+23.56	13.44	404498.0893	619515.0007
80840	1+23.58	24.99	404509.5953	619516.0613
80841	1+13.58	25.01	404508.6775	619526.0190
80842	1+13.56	13.45	404497.1714	619524.9585
80843	1+22.68	-3.36	404481.2821	619514.3068
80844	1+27.82	-6.69	404478.4441	619508.8769
80845	1+30.23	-14.21	404471.1843	619505.7810
80846	1+70.14	-65.61	404423.7322	619461.2457
80847	1+65.05	-65.55	404423.3223	619466.3139
80848	1058+85.30	-57.37	404410.7758	619462.5734
80849	1058+89.58	-59.96	404411.6211	619467.5129
80850	1057+90.03	-17.82	404408.7788	619359.4486
80851	1058+58.01	-30.49	404395.7299	619427.3579
80852	1058+72.67	-34.82	404394.4017	619442.5779
80853	4501+19.01	-18.00	404415.0407	619503.3600
80854	4502+14.41	-18.00	404471.8797	619590.0733
80855	4502+93.61	-18.00	404507.9830	619650.9273
80856	4501+00.42	-22.21	404402.0449	619487.4563
80857	4503+06.62	-19.25	404517.1482	619658.2479
80858	4503+12.43	-23.82	404524.0119	619658.2511
80859	4503+12.98	-33.81	404530.8831	619650.9841
80860	4503+31.94	-33.15	404544.3147	619662.7067
80861	4503+31.44	-21.35	404536.5535	619671.5994
80862	4503+36.02	-15.66	404536.5614	619678.9098
80863	4503+19.09	-10.00	404519.8103	619672.7292
80864	4503+19.09	15.04	404504.1461	619692.2669
80865	4503+06.86	24.16	404487.9278	619690.3509
80866	4502+90.00	31.17	404469.2830	619681.4791
80867	4502+76.05	54.97	404439.9548	619683.4730

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
80868	4502+86.03	65.82	404439.9787	619700.6366
80869	4502+87.76	67.34	404440.3841	619703.4275
80870	4502+49.98	79.41	404399.9079	619667.1655
80871	4503+25.17	25.76	404502.1887	619704.4356
80872	4503+25.54	30.75	404499.3607	619708.5589
80873	4502+97.28	29.63	404476.2258	619686.6285
80874	4502+98.42	34.47	404473.7222	619690.9744
80875	4502+81.69	38.24	404457.4597	619678.5876
80876	4502+46.27	67.21	404408.0806	619656.7162
80877	4502+37.46	42.74	404424.7291	619635.4302
80878	4501+93.35	18.00	404430.7299	619583.6455
80879	4501+12.36	18.00	404386.5719	619526.3645
80880	5000+59.17	-66.09	404321.6616	619503.4755
80881	5000+63.01	-60.68	404315.0292	619503.2636
80882	5001+38.62	-19.50	404236.5043	619538.5704
80883	5001+52.28	-19.50	404228.2386	619549.4544
80884	5001+87.28	-24.50	404211.0524	619580.3516
80885	4502+34.24	36.31	404428.9109	619629.1621
80886	4501+82.82	31.44	404414.6519	619581.4990
80887	4501+91.66	25.67	404423.1558	619585.5483
80888	4501+24.82	35.67	404382.8072	619546.6142
80889	4500+97.49	18.56	404375.0584	619518.1525
80890	5001+02.76	-26.95	404264.1209	619514.5235
80891	5001+79.86	-23.44	404214.6982	619573.7972
80893	5000+97.25	30.57	404221.6466	619475.3405
80894	5001+28.92	25.00	404206.9325	619503.9314
80895	5001+02.47	25.00	404222.9278	619482.8695
80896	5000+53.25	36.07	404243.8848	619436.9748
80897	5000+35.73	49.87	404243.4895	619414.6755
80898	3512+56.56	18.00	404214.2171	619370.1870
80899	3512+20.73	18.00	404185.6835	619348.5174
80900	5001+28.92	25.92	404206.2024	619503.3770
80901	3512+20.73	18.92	404185.1291	619349.2475
80902	5001+28.92	42.67	404192.8631	619493.2466
80903	5001+28.92	32.67	404200.8269	619499.2946
80904	5000+96.99	25.13	404226.1384	619478.4257
80905	3512+20.73	35.67	404174.9987	619362.5868
80906	3512+20.73	25.67	404181.0467	619354.6230
80907	3511+55.99	-18.00	404155.8986	619280.6928
80908	3512+47.42	-18.00	404228.7071	619335.9866
80909	3513+21.26	-50.57	404307.2165	619354.7102
80910	3513+25.41	-54.77	404313.0538	619353.8759
80911	1057+24.09	18.00	404397.8583	619285.4726
80912	3512+16.18	-18.92	404204.3877	619316.3663
80913	1056+83.46	18.92	404408.4002	619247.1555
80914	5000+00.00	-20.00	404320.7384	619428.4812
80915	3512+47.19	-82.62	404267.6090	619284.3864
80916	5001+13.05	-60.02	404284.2360	619542.7091
80917	5001+15.08	-65.01	404286.9839	619547.3461
80919	1056+83.00	84.67	404345.0836	619229.4015
80920	4502+42.74	80.43	404394.0755	619658.4577
80921	4502+40.41	81.02	404392.0229	619655.7058
80922	4502+34.88	85.08	404384.8923	619650.1759
80923	4502+35.70	87.42	404383.2736	619652.2631
80924	5001+13.29	-99.12	404315.2330	619566.5529
80925	5001+23.03	-99.06	404309.2900	619574.2787
80926	5001+23.02	-97.06	404307.7048	619573.0593
80927	5001+15.27	-97.11	404312.4283	619566.9188
80928	3+26.00	-18.00	404487.4042	619310.2478
80929	1+31.07	-34.54	404451.0241	619503.0403

NOTES:

1. *OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.*
2. *UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.*
3. *RADII ARE GIVEN TO EDGE OF PAVEMENT.*
4. *UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.*
5. *ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501-CONSTRUCTION ENGINEERING.*
6. *PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.*
7. *SPLITTER ISLAND GRADES AND GEOMETRICS ARE LOCATED ON ROUNDABOUT SPLITTER ISLAND DETAIL SHEET.*

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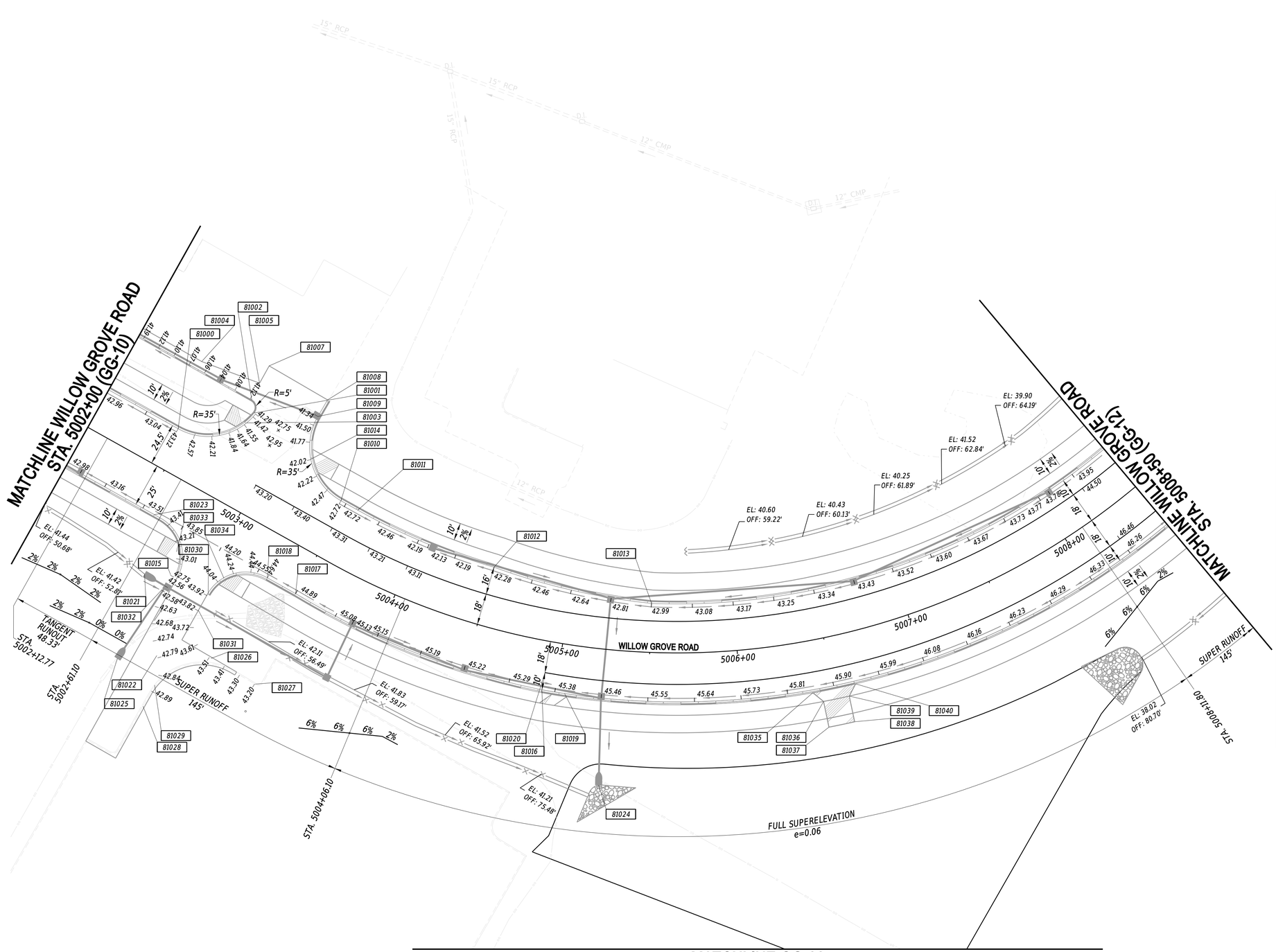
ADDENDA / REVISIONS	SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	GRADES AND GEOMETRICS	GG-10
			COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
				CHECKED BY: J. FREY		SHEET NO. 72



COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81000	5002+45.42	-24.50	404175.8900	619626.6520
81001	5002+78.99	-53.57	404178.7448	619670.9664
81002	5002+74.05	-59.44	404186.4042	619670.5852
81003	5002+77.92	-46.51	404173.7633	619665.8479
81004	5002+38.42	-64.57	404212.0359	619645.3108
81005	5002+73.32	-69.92	404195.1862	619676.3351
81007	5002+73.29	-81.22	404204.2053	619683.1499
81008	5003+11.88	-80.54	404180.3268	619713.4684
81009	5003+11.69	-69.59	404171.7159	619706.6979
81010	5003+46.69	-34.00	404122.2096	619713.0437
81011	5003+57.77	-34.00	404115.5094	619721.8662
81012	5004+50.00	-34.00	404072.3881	619794.3800
81013	5005+50.00	-28.00	404039.3825	619880.6445
81014	5003+20.08	-46.26	404148.0668	619699.2699
81015	5002+82.41	50.43	404093.8506	619610.7916
81016	5004+93.00	28.00	403999.2229	619811.7122
81017	5003+50.00	25.00	404073.2211	619679.9970
81018	5003+31.51	25.00	404084.4050	619665.2705
81019	5005+05.30	28.00	403995.3015	619824.2559
81020	5004+93.00	18.00	404008.7213	619814.8395
81021	5002+69.22	57.37	404096.3000	619596.0835
81022	5002+98.07	94.61	404049.1912	619596.5384
81023	5002+57.50	25.00	404129.1672	619606.3295
81024	5005+27.96	77.65	403940.7606	619836.2253
81025	5002+79.24	107.15	404050.5947	619573.9569
81026	5003+25.92	80.87	404043.2902	619627.0266
81027	5003+55.05	81.45	404025.2063	619649.8800
81028	5003+05.30	123.70	404021.6478	619584.7070
81029	5003+05.23	109.97	404032.6342	619592.9556
81030	5003+06.51	49.56	404079.9638	619630.5104
81031	5003+06.32	60.52	404071.3485	619623.7251
81032	5002+82.32	60.10	404086.1980	619604.8706
81033	5002+78.96	37.32	404106.3752	619615.9698
81034	5003+09.96	37.32	404087.6242	619640.6602
81035	5006+38.35	29.67	403976.0066	619964.7699
81036	5006+43.10	35.67	403970.2384	619970.1625
81037	5006+43.33	50.67	403955.2697	619971.1630
81038	5006+56.67	50.67	403956.2701	619986.1296
81039	5006+56.90	35.67	403971.2387	619985.1291
81040	5006+61.65	29.67	403977.6736	619989.7088

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501-CONSTRUCTION ENGINEERING.
6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.

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ADDENDA / REVISIONS

SCALE
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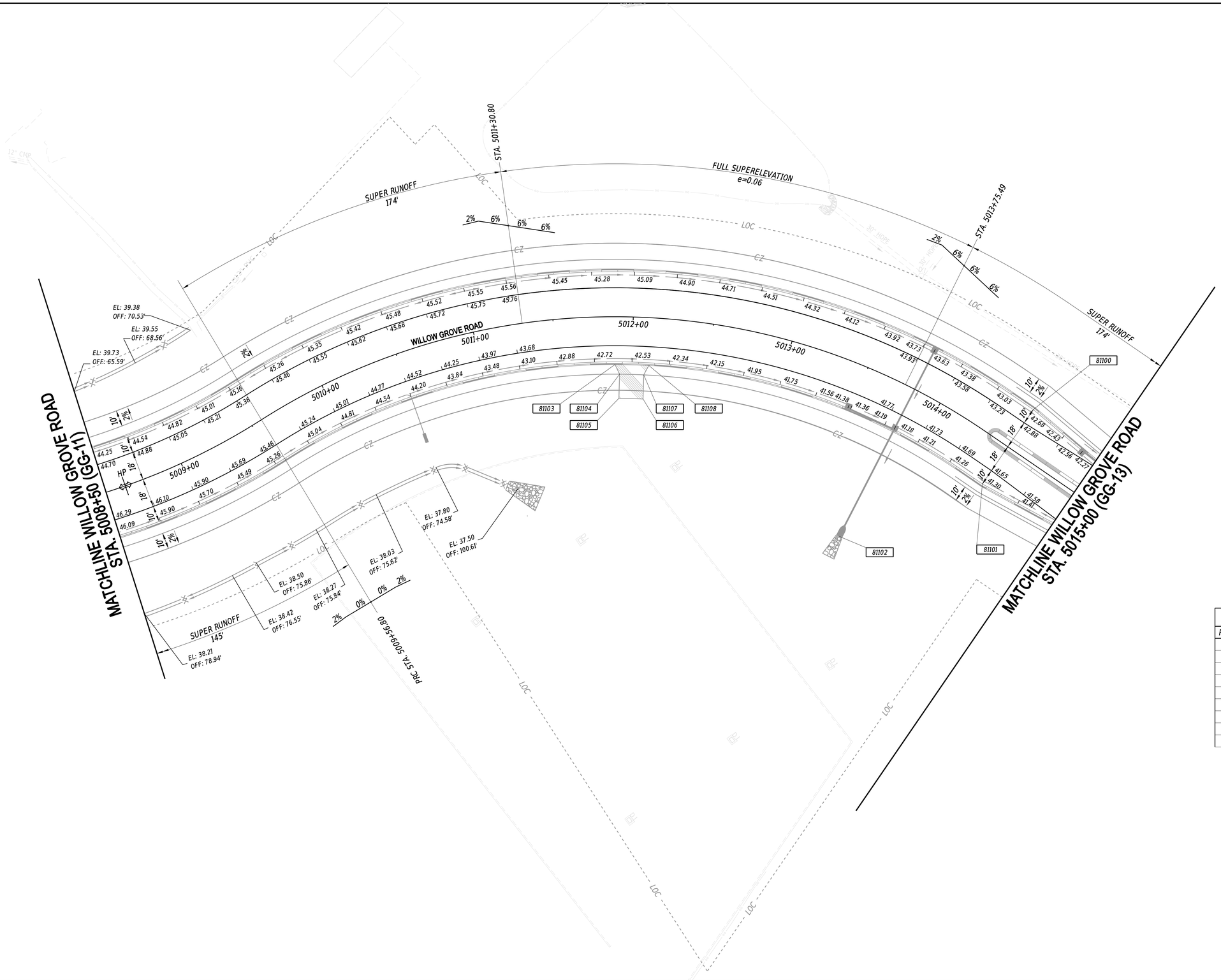
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

GRADES AND GEOMETRICS

	GG-11
SECTION	CEN
SHEET NO.	73



COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81100	5014+50.00	-28.00	404259.8434	620708.8286
81101	5014+50.00	28.00	404207.2324	620689.6432
81102	5013+82.00	102.68	404153.6098	620611.6120
81103	5011+88.67	29.67	404222.4210	620450.2133
81104	5011+91.78	35.67	404217.2999	620454.4489
81105	5011+91.44	50.67	404202.6670	620457.7613
81106	5012+08.56	50.67	404205.9786	620472.3912
81107	5012+08.22	35.67	404220.6116	620469.0788
81108	5012+11.33	29.67	404227.0575	620470.6962

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501-CONSTRUCTION ENGINEERING.
6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.

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ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

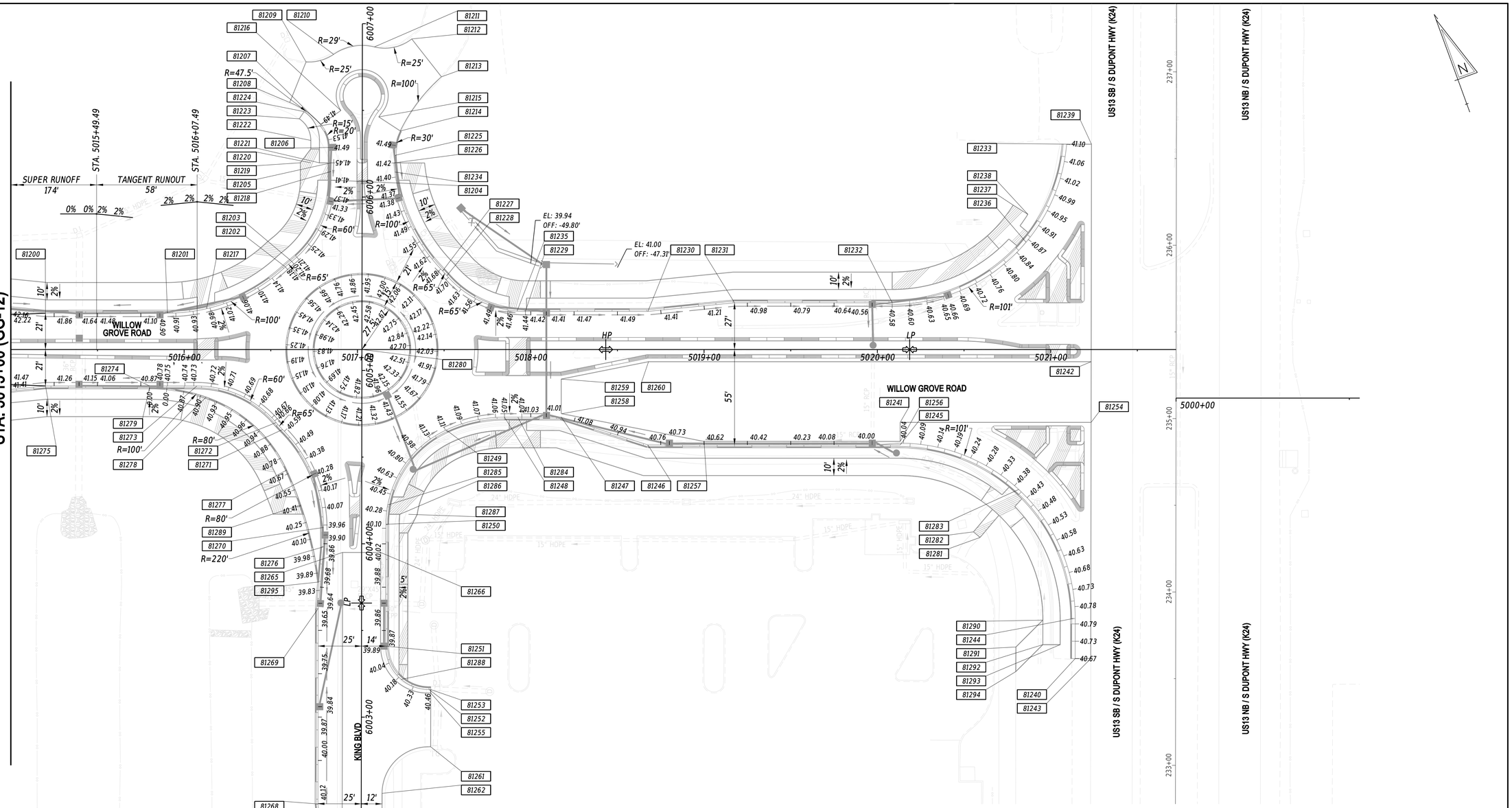
WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

GRADES AND GEOMETRICS

	GG-12
SECTION	CEN
SHEET NO.	74

MATCHLINE WILLOW GROVE ROAD
STA. 5015+00 (GG-12)



NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501-CONSTRUCTION ENGINEERING.
6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.
7. LIMITS OF PROJECT IN COORDINATION WITH FUTURE DELDOT PROJECT T201500202 - HEP KC, LOCHMEATH WAY TO PUNCHEON RUN CONNECTOR.
8. SPLITTER ISLAND GRADES AND GEOMETRICS ARE LOCATED ON ROUNDABOUT SPLITTER ISLAND DETAIL SHEET.

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ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

GRADES AND GEOMETRICS

GG-13
SECTION
CEN
SHEET NO.
75

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
81200	5015+20.00	-21.00	404229.2852	620772.1942
81201	5015+90.40	-21.00	404205.1650	620838.3375
81202	6005+59.63	-44.26	404206.9258	620911.3460
81203	6005+62.83	-40.56	404208.6487	620915.9190
81204	6006+09.71	-18.00	404244.9131	620953.2298
81205	6006+19.71	-18.00	404254.3029	620956.6695
81206	6006+28.58	-18.92	404262.9495	620958.8607
81207	6006+41.81	-23.91	404277.0864	620958.7180
81208	6006+54.49	-41.87	404295.1687	620946.2179
81209	6006+77.91	-32.48	404313.9314	620963.0913
81210	6006+82.31	-16.58	404312.5928	620979.5403
81211	6006+86.62	6.96	404308.5447	621003.1203
81212	6006+91.24	28.47	404305.4846	621024.9108
81213	6006+69.44	45.65	404279.1009	621033.5422
81214	6006+38.16	21.95	404257.8878	621000.5329
81215	6006+46.25	9.54	404269.7517	620991.6550
81216	6006+49.89	-12.35	404280.6954	620972.3593
81217	5016+12.99	-23.58	404199.8549	620860.4411
81218	6006+14.71	-18.00	404249.6080	620954.9496
81219	6006+19.71	-35.67	404260.3798	620940.0809
81220	6006+19.71	-29.67	404258.3159	620945.7147
81221	6006+19.71	-24.67	404256.5961	620950.4096
81222	6006+32.63	-29.67	404270.4457	620950.1582
81223	6006+45.09	-36.32	404284.4400	620948.1957
81224	6006+49.25	-33.54	404287.3849	620952.2364
81225	6006+24.10	18.97	404245.7089	620992.8942
81226	6006+19.71	18.29	404241.8190	620990.7480
81227	6005+57.47	46.48	404173.6750	620995.8087
81228	6005+54.74	49.00	404170.2559	620997.2315
81229	5017+96.93	-22.00	404135.3502	621032.7054
81230	5018+67.58	-22.00	404111.1441	621099.0844
81231	5019+17.58	-27.00	404098.7117	621147.7715
81232	5020+08.56	-27.00	404067.5419	621233.2467
81233	5021+09.20	-118.46	404118.9908	621359.1295
81234	6006+14.48	18.83	404236.7210	620989.4558
81235	5017+92.11	-22.19	404137.1844	621028.2420
81236	5020+85.05	-62.58	404074.7621	621317.2884
81237	5020+78.36	-83.32	404096.5437	621318.1101
81238	5020+86.83	-78.02	404088.6555	621324.2563
81239	5021+23.55	-118.44	404114.0553	621372.6033
81240	5021+14.12	178.26	403838.5436	621262.0987
81241	5020+13.16	42.00	404001.1438	621213.9230
81242	5021+23.37	7.00	403996.2670	621329.4575
81243	5021+23.12	178.27	403835.4481	621270.5496
81244	5021+13.16	155.14	403860.5872	621269.1083
81245	5020+13.16	55.00	403988.9306	621209.4692
81246	5018+67.58	55.00	404038.8039	621072.7045
81247	5018+17.58	39.00	404070.9655	621031.2119
81248	5017+84.84	39.00	404082.1840	621000.4482
81249	6004+65.70	48.71	404086.7439	620966.3363
81250	6004+11.29	14.00	404047.5934	620915.0257
81251	6003+40.98	14.00	403981.5745	620890.8411
81252	6003+15.98	39.00	403949.5007	620905.7162
81253	6003+15.98	40.00	403949.1567	620906.6552
81254	5021+23.32	42.00	403963.4024	621317.4192
81255	6003+13.98	40.00	403947.2787	620905.9673
81256	5020+13.16	53.00	403990.8095	621210.1544
81257	5019+00.00	53.00	404029.5768	621103.8454
81258	5018+17.89	37.00	404072.7375	621032.1904
81259	5018+17.58	17.04	404091.5969	621038.7354
81260	5018+67.95	7.00	404083.7733	621089.4941
81261	6002+82.98	40.00	403918.1704	620895.3041
81262	6002+56.09	12.00	403902.5466	620859.7610
81263	6001+30.00	12.00	403784.1554	620816.3910
81264	6001+30.00	-11.00	403792.0668	620794.7945
81265	6003+95.00	-11.00	404040.8962	620885.9476
81266	6003+95.00	11.00	404033.3288	620906.6052
81267	6001+30.00	-12.00	403792.4107	620793.8555
81268	6002+49.88	-25.00	403909.4427	620822.8828
81269	6003+62.63	-25.00	404015.3188	620861.6681
81270	6004+08.97	-22.00	404057.8018	620880.4258
81271	6004+65.83	-45.72	404119.3524	620877.7076
81272	6004+69.84	-49.44	404124.3937	620875.5919
81273	5016+07.38	21.00	404159.8917	620839.8947
81274	5015+80.00	21.00	404169.2712	620814.1741

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
81275	5015+20.00	21.00	404189.8270	620757.8051
81276	6003+98.23	-21.95	404047.6938	620876.7774
81277	6004+42.47	-43.29	404096.5769	620871.9530
81278	5016+12.74	27.43	404152.0170	620842.7287
81279	5015+80.00	21.92	404168.4100	620813.8600
81280	5017+02.58	0.00	404147.0039	620936.5327
81281	5020+59.27	108.38	403922.9859	621234.5019
81282	5020+55.45	105.14	403927.3310	621232.0281
81283	5020+81.56	80.69	403941.3655	621264.9291
81284	5017+92.58	39.00	404079.5304	621007.7248
81285	6004+22.38	15.03	404057.6524	620919.8118
81286	6004+17.03	21.98	404050.2395	620924.4964
81287	6004+17.03	27.02	404048.5080	620929.2228
81288	6003+21.81	22.95	403960.4986	620892.6514
81289	6004+22.30	-35.14	404074.8330	620872.6747
81290	5020+95.49	156.07	403865.7708	621252.1925
81291	5020+79.94	171.58	403856.5309	621232.2706
81292	5020+95.47	170.21	403852.4915	621247.3283
81293	5021+05.47	170.23	403849.0520	621256.7181
81294	5020+79.86	185.77	403843.2187	621227.3354
81295	6003+77.91	-24.69	404029.5590	620867.2104

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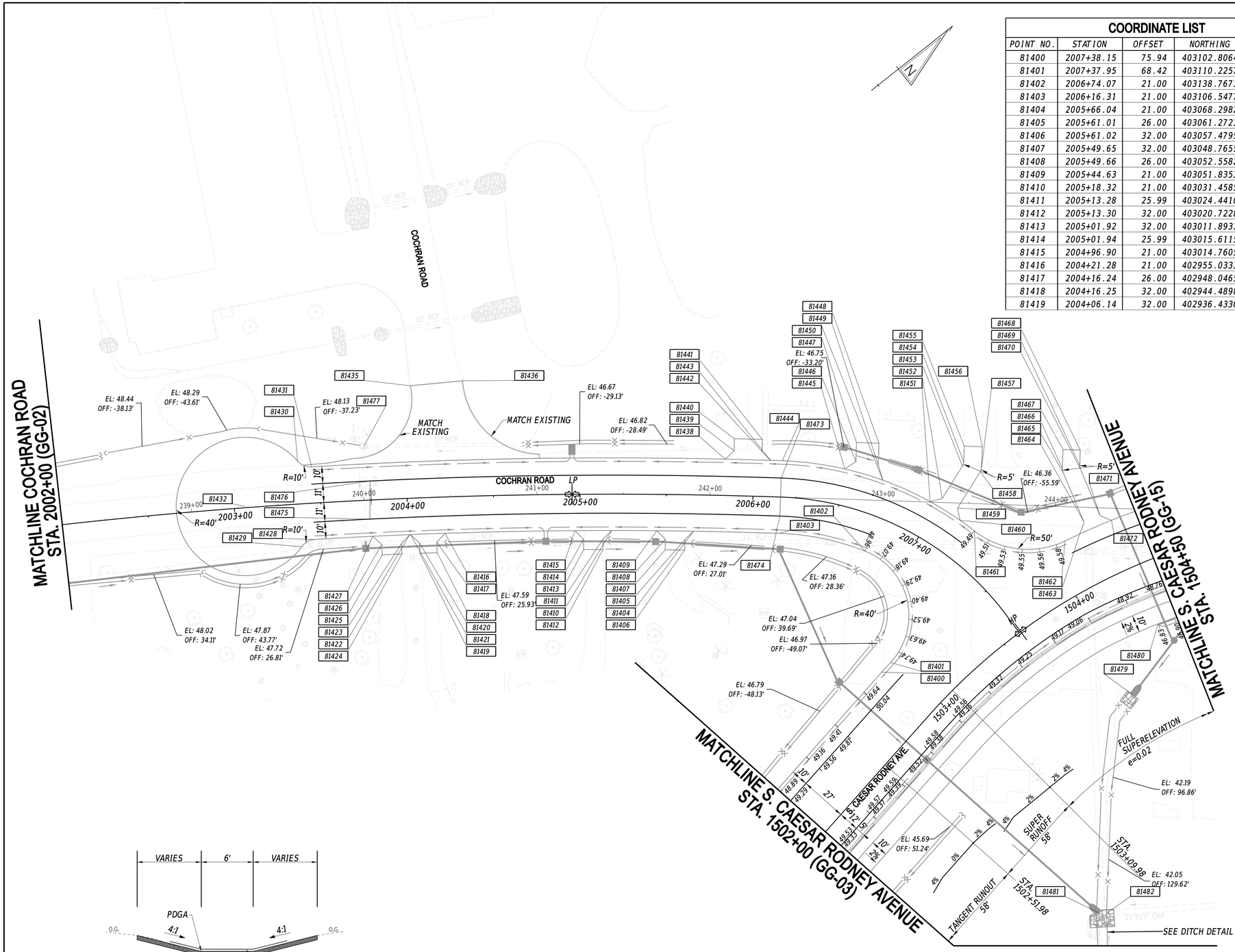
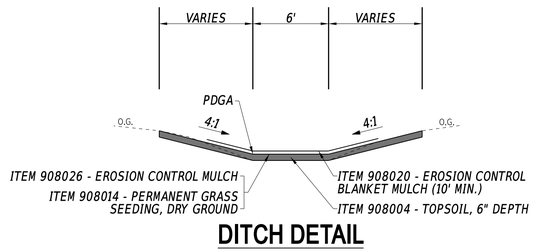
ADDENDA / REVISIONS	NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	GRADES AND GEOMETRICS	GG-13A
			COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
				CHECKED BY: J. FREY		SHEET NO. 76





DITCH DETAIL

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
81400	2007+38.15	75.94	403102.8064	615419.4898
81401	2007+37.95	68.42	403110.2257	615418.2707
81402	2006+74.07	21.00	403138.7673	615358.7244
81403	2006+16.31	21.00	403106.5477	615319.9913
81404	2005+66.04	21.00	403068.2982	615287.9839
81405	2005+61.01	26.00	403061.2723	615288.6866
81406	2005+61.02	32.00	403057.4795	615293.3359
81407	2005+49.65	32.00	403048.7655	615286.2273
81408	2005+49.66	26.00	403052.5582	615281.5780
81409	2005+44.63	21.00	403051.8353	615274.5541
81410	2005+18.32	21.00	403031.4585	615258.2122
81411	2005+13.28	25.99	403024.4410	615259.0213
81412	2005+13.30	32.00	403020.7228	615263.7375
81413	2005+01.92	32.00	403011.8933	615256.7764
81414	2005+01.94	25.99	403015.6115	615252.0603
81415	2004+96.90	21.00	403014.7605	615245.0477
81416	2004+21.28	21.00	402955.0333	615199.5783
81417	2004+16.24	26.00	402948.0465	615200.6257
81418	2004+16.25	32.00	402944.4898	615205.4633
81419	2004+06.14	32.00	402936.4330	615199.5399

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
81420	2004+06.15	26.00	402939.9896	615194.7022
81421	2004+01.11	21.00	402938.9054	615187.7211
81422	2004+00.68	21.00	402938.5621	615187.4705
81423	2003+95.65	26.00	402931.5819	615188.5674
81424	2003+95.66	32.00	402928.0624	615193.4320
81425	2003+84.11	32.00	402918.8086	615186.7341
81426	2003+84.12	25.99	402922.3301	615181.8688
81427	2003+79.08	21.00	402921.1913	615174.8974
81428	2003+45.26	21.00	402893.8048	615155.4758
81429	2003+37.42	24.70	402885.3093	615154.0550
81430	2003+38.12	-24.90	402914.2301	615113.7553
81431	2003+45.97	-21.00	402918.4809	615121.4818
81432	2003+06.40	-0.72	402874.2730	615115.6076
81435	2004+04.52	-64.98	402992.4077	615120.3234
81436	2004+34.04	-66.80	403017.7610	615136.8200
81438	2005+83.53	-21.00	403108.5475	615266.7703
81439	2005+88.51	-25.98	403115.5920	615266.1577
81440	2005+88.53	-32.95	403120.0709	615260.8256
81441	2006+04.47	-32.95	403132.4195	615271.1938
81442	2006+04.49	-26.00	403127.9502	615276.5144
81443	2006+09.46	-21.00	403128.5511	615283.5729
81444	2006+16.28	-21.00	403133.8054	615288.0380
81445	2006+48.71	-21.00	403159.0939	615314.1944
81446	2006+53.34	-26.72	403166.8460	615314.8550
81447	2006+51.29	-37.46	403173.9038	615306.4060
81448	2006+61.55	-40.52	403183.7860	615314.8163
81449	2006+64.50	-28.43	403175.7089	615324.4855
81450	2006+69.18	-21.00	403172.3117	615332.9876
81451	2006+95.88	-21.00	403185.9993	615359.6536
81452	2007+00.45	-26.00	403192.5776	615362.6184
81453	2007+00.91	-48.05	403213.3574	615355.2179
81454	2007+00.45	-50.55	403215.4727	615353.7658
81455	2006+97.24	-58.63	403221.4188	615346.8439
81456	2007+03.99	-63.62	403229.3744	615353.6146
81457	2007+08.46	-53.29	403221.5899	615362.6766
81458	2007+09.01	-50.82	403219.4746	615364.1287
81459	2007+09.52	-26.00	403196.0824	615372.4595
81460	2007+14.09	-21.00	403192.8591	615378.9151
81461	2007+23.27	-21.00	403195.5278	615388.8845
81462	2007+57.58	-53.20	403232.8332	615425.9650
81463	2007+59.37	-62.35	403242.0464	615428.1076
81464	2007+56.89	-68.65	403248.2449	615424.4902
81465	2007+36.40	-80.09	403256.7538	615394.0883
81466	2007+35.24	-81.39	403257.7700	615392.1851
81467	2007+30.62	-89.89	403264.9029	615383.8513
81468	2007+35.61	-96.25	403272.5183	615390.3324
81469	2007+39.32	-89.59	403266.8040	615397.0089
81470	2007+40.47	-88.33	403265.7878	615398.9121
81471	2007+58.91	-78.22	403257.9012	615427.0810
81472	2007+63.17	-81.59	403261.3479	615433.3137
81473	2006+15.98	-11.00	403127.0660	615295.4332
81474	2006+15.98	11.00	403112.8075	615312.1872
81475	2003+77.90	11.00	402926.0640	615166.0856
81476	2003+79.15	-11.00	402939.9117	615148.9445
81477	2003+76.30	-30.81	402949.1247	615131.1751
81479	1504+00.00	66.25	403208.2237	615520.1484
81480	1504+37.18	36.77	403245.0516	615497.6937
81481	1502+70.00	149.33	403114.5124	615606.5924
81482	1502+73.02	152.84	403118.0911	615609.5297

NOTES:

1. *OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.*
2. *UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.*
3. *RADII ARE GIVEN TO EDGE OF PAVEMENT.*
4. *UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.*
5. *ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501-CONSTRUCTION ENGINEERING.*
6. *PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.*

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ADDENDA / REVISIONS

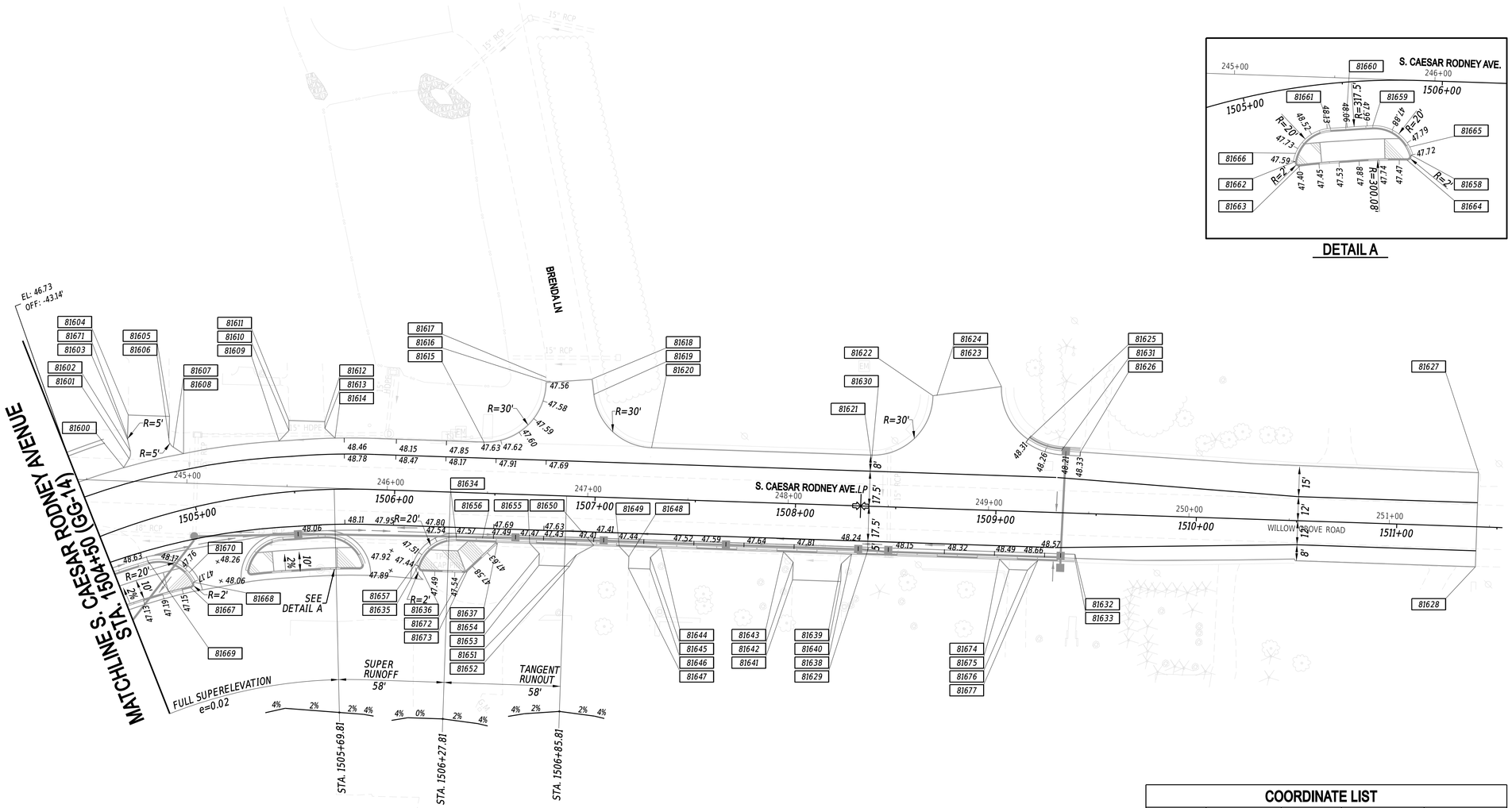
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

GRADES AND GEOMETRICS

	GG-14
SECTION	CEN
SHEET NO.	77



DETAIL A

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
81623	1509+00.65	-61.88	403665.3258	615686.7123
81624	1508+68.67	-56.52	403637.4989	615670.0712
81625	1509+14.96	-36.19	403659.5760	615715.5457
81626	1509+41.10	-30.57	403675.8399	615736.7742
81627	1511+39.91	-27.00	403824.9303	615868.3444
81628	1511+39.91	20.00	403794.4689	615904.1369
81629	1508+37.20	20.50	403563.6188	615708.3272
81630	1508+37.20	-23.50	403592.1385	615674.8162
81631	1509+31.58	-30.88	403668.7964	615730.3678
81632	1509+40.13	20.50	403642.0059	615775.0390
81633	1509+40.13	22.50	403640.7097	615776.5621
81634	1506+31.49	22.50	403405.6667	615576.5275
81635	1506+13.11	37.38	403382.0228	615575.9446
81636	1506+15.04	39.92	403381.8460	615579.1250
81637	1506+52.11	24.70	403419.9464	615591.5653
81638	1508+28.83	24.17	403554.8680	615705.6946
81639	1508+23.83	29.17	403547.8197	615706.2617
81640	1508+23.83	38.00	403542.0947	615712.9887
81641	1507+99.80	38.00	403523.7960	615697.4155
81642	1507+99.80	29.17	403529.5210	615690.6885
81643	1507+94.80	24.17	403528.9538	615683.6402
81644	1507+33.57	24.17	403482.3234	615643.9552
81645	1507+28.57	29.17	403475.2751	615644.5223
81646	1507+28.57	35.00	403471.4945	615648.9646
81647	1507+17.83	35.00	403463.3115	615642.0005
81648	1507+17.83	29.17	403467.0922	615637.5582
81649	1507+12.83	24.17	403466.5250	615630.5099
81650	1507+00.15	24.17	403456.8737	615622.2960
81651	1506+91.65	29.17	403447.1618	615620.5963
81652	1506+88.41	35.00	403440.9132	615622.9383
81653	1506+73.15	35.00	403429.2877	615613.0443
81654	1506+73.15	29.17	403433.0683	615608.6020
81655	1506+68.15	24.17	403432.5012	615601.5537
81656	1506+44.51	22.50	403415.5815	615584.9655
81657	1506+13.70	33.36	403385.0807	615573.2684
81658	1505+85.21	37.32	403361.1310	615558.1143
81659	1505+64.40	22.50	403355.2881	615534.7567
81660	1505+49.94	22.50	403344.2300	615527.0108
81661	1505+41.78	22.23	403337.9950	615522.6215
81662	1505+20.18	36.28	403313.8583	615524.6645
81663	1505+22.19	38.95	403314.1274	615527.8641
81664	1505+83.06	39.92	403358.0110	615558.9032
81665	1505+84.38	33.28	403363.1340	615554.5293
81666	1505+21.19	32.28	403316.5859	615521.5957
81667	1504+87.09	38.65	403286.3636	615513.8987
81668	1504+89.36	36.26	403289.1673	615512.4998
81669	1504+68.81	19.54	403277.8815	615489.9729
81670	1504+88.43	31.07	403290.4623	615507.4109
81671	1504+77.55	-42.22	403308.3067	615435.4773
81672	1506+36.07	39.92	403397.8610	615592.7547
81673	1506+37.48	39.33	403399.3177	615593.2251
81674	1509+02.60	24.17	403611.0435	615753.5140
81675	1509+07.56	29.18	403611.5728	615760.5371
81676	1509+16.71	29.19	403618.5371	615766.4724
81677	1509+21.71	24.19	403625.5853	615765.9047

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
81600	1504+71.75	-28.37	403297.3476	615446.0978
81601	1504+75.45	-31.90	403302.3699	615444.2325
81602	1504+76.96	-35.26	403305.1381	615441.7060
81603	1504+77.32	-40.96	403307.6054	615436.5571
81604	1504+80.67	-52.82	403315.5557	615426.9596
81605	1504+97.86	-46.86	403331.2337	615440.3025
81606	1504+95.23	-36.29	403324.1177	615448.6640
81607	1504+96.28	-31.52	403323.1814	615453.4840
81608	1505+00.06	-27.19	403325.0643	615459.1394
81609	1505+44.76	-25.67	403366.3714	615483.9233
81610	1505+49.73	-30.51	403373.5283	615482.8306
81611	1505+50.04	-35.48	403376.5742	615478.8898
81612	1505+66.26	-33.85	403390.2415	615490.5214
81613	1505+66.20	-30.50	403388.1945	615493.1697
81614	1505+70.76	-25.50	403389.1342	615500.1293
81615	1506+43.68	-25.50	403446.0542	615547.8695
81616	1506+73.64	-56.86	403489.2014	615543.4116
81617	1506+73.56	-58.79	403490.3853	615541.8855
81618	1506+96.50	-58.79	403507.8572	615556.7550
81619	1506+97.64	-51.11	403503.7446	615563.3417
81620	1507+27.31	-25.50	403509.7482	615602.0766
81621	1508+36.69	-25.50	403593.0397	615672.9623
81622	1508+66.68	-56.18	403635.7658	615669.0347

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.
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3. RADII ARE GIVEN TO EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501-CONSTRUCTION ENGINEERING.
6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.

MATCHLINE GG-03

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

GRADES AND GEOMETRICS

	GG-15
SECTION	CEN
SHEET NO.	78

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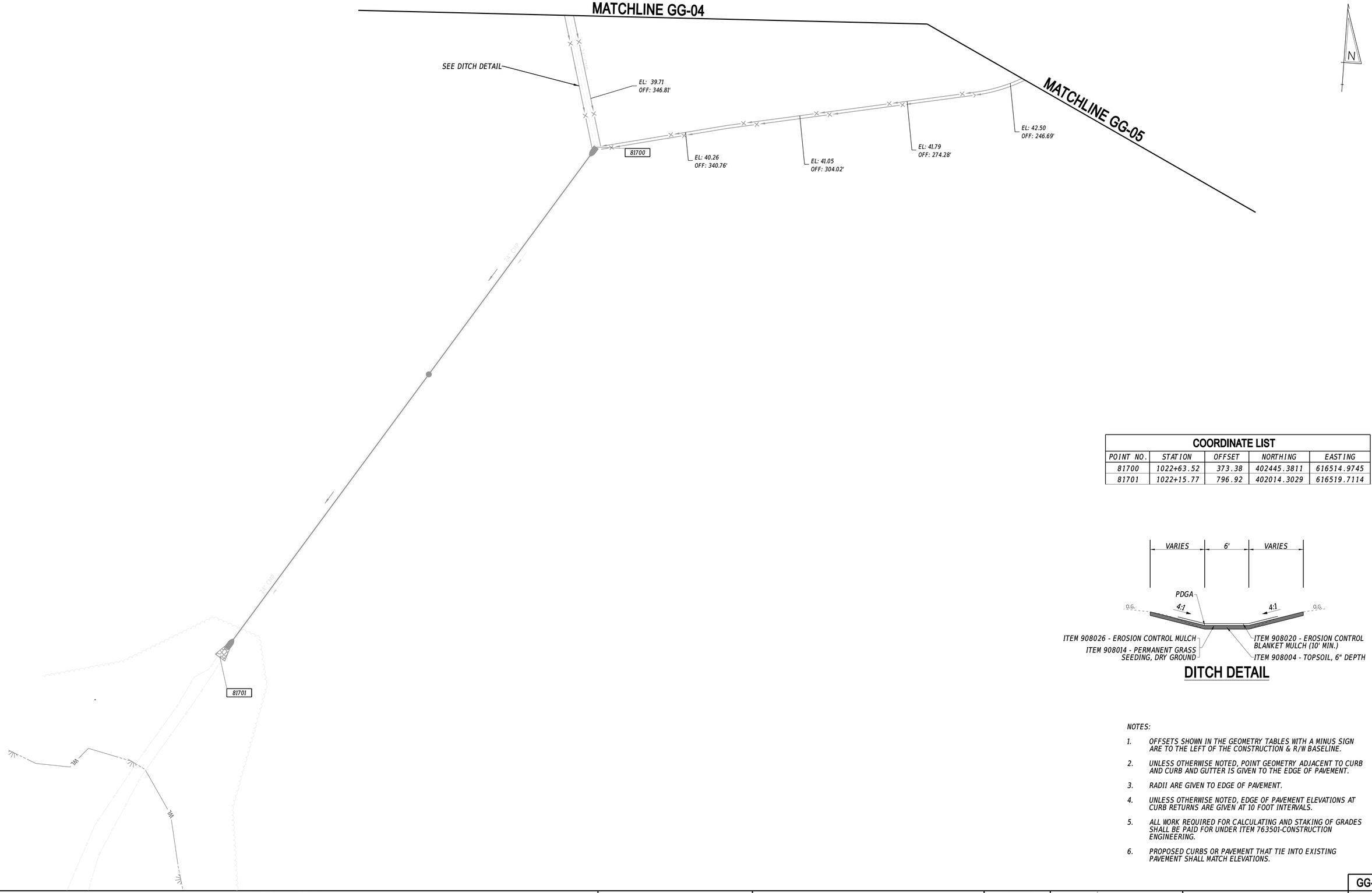

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81700	1022+63.52	373.38	402445.3811	616514.9745
81701	1022+15.77	796.92	402014.3029	616519.7114

DITCH DETAIL

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.
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6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.

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ADDENDA / REVISIONS	

SCALE
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FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

GRADES AND GEOMETRICS

	GG-16
SECTION	CEN
SHEET NO.	79

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
81800	2500+01.75	19.00	404751.6899	617844.9102
81801	2501+77.72	19.00	404720.0025	618018.0075
81802	2501+88.65	21.79	404715.2515	618027.4377
81803	2503+61.04	18.00	404641.6560	618168.1471
81804	2500+51.04	20.67	404741.1744	617893.0966
81805	2500+53.56	25.00	404736.4729	617894.7148
81808	2500+63.56	25.00	404734.7671	617904.0331
81809	2500+66.04	20.67	404738.4734	617907.8515
81810	2501+60.01	20.67	404721.5531	618000.2815
81811	2501+65.01	25.67	404715.7345	618004.2994
81813	2501+65.01	42.00	404699.6681	618001.3583
81814	2501+77.59	42.00	404697.4022	618013.7364
81815	2501+75.59	30.62	404708.9533	618013.8168
81816	2501+75.80	25.67	404713.7908	618014.9172
81817	2501+80.32	20.98	404717.6121	618020.0222
81818	2502+06.80	38.67	404694.8977	618039.1189
81819	2502+02.72	21.00	404712.9011	618040.3165
81820	2504+98.74	18.00	404532.2183	618235.1208
81821	2504+98.74	-3.00	404538.8179	618255.0568
81822	2504+98.74	-22.35	404544.8993	618273.4275
81823	2504+60.00	-27.00	404585.4813	618262.0223
81824	2504+24.69	-27.00	404619.0933	618243.3241
81825	3000+59.06	31.83	404652.9009	618241.2447
81826	3000+99.75	17.00	404672.8689	618272.0824
81827	3001+29.00	17.00	404670.8240	618297.7596
81828	3000+52.67	38.11	404645.4065	618238.6758
81829	2502+55.23	22.67	404694.5817	618085.3904
81830	2502+61.10	21.00	404693.7207	618091.0144
81833	3001+29.00	15.00	404672.7913	618298.1197
81834	3001+29.00	-17.00	404704.2683	618303.8819
81835	3000+43.75	-17.00	404693.4953	618210.5742
81836	3000+42.58	-17.00	404692.9642	618209.3690
81837	2503+16.67	-19.00	404698.6579	618158.9918
81838	2502+12.20	-19.92	404749.6027	618060.7162
81839	2501+94.93	-35.13	404769.2445	618046.5560
81840	2501+94.50	-37.41	404771.5745	618046.6156
81841	3000+38.57	-17.26	404691.3215	618205.1856
81842	2501+98.86	-26.48	404759.8038	618048.6535
81843	2501+71.80	-36.88	404776.0354	618022.2474
81844	2501+52.04	-19.92	404762.9086	617999.7477
81845	2500+86.02	-19.00	404773.8939	617934.6477
81846	2500+86.02	-29.42	404784.1403	617936.5234
81847	2501+68.17	-29.42	404769.3480	618017.3288
81848	2501+65.76	-25.37	404765.7996	618014.2285
81849	2500+81.54	-28.14	404783.6880	617931.8862
81850	2501+61.69	-29.42	404770.5157	618010.9501
81851	2501+61.51	-43.00	404783.9086	618013.2234
81852	2501+25.55	-29.42	404777.0225	617975.4057
81853	2501+25.69	-43.00	404790.3583	617977.9909
81854	2500+42.43	-19.00	404781.7436	617891.7670
81855	2500+22.86	-19.00	404785.2674	617872.5179
81856	2500+07.23	-26.06	404795.0296	617858.4118
81857	2500+09.05	-31.33	404799.8859	617861.1544
81858	2500+42.43	-31.33	404793.8754	617893.9879
81859	2500+47.03	-29.28	404791.0258	617898.1390
81860	2500+06.81	-26.55	404795.5879	617858.0865
81861	2500+95.61	-29.42	404782.4129	617945.9593
81862	2500+95.61	-33.33	404786.2656	617946.6646
81863	2500+01.75	-42.31	404811.9961	617855.9499
81864	2499+83.02	-42.31	404815.3680	617837.5306
81865	2499+82.12	-25.56	404799.0577	617833.6275
81866	2499+70.22	-14.21	404790.0322	617819.8766
81867	2499+64.07	-14.17	404791.0988	617813.8176
81868	2498+88.64	-13.63	404804.1580	617739.5256
81869	2498+88.64	17.31	404773.7209	617733.9537
81870	2499+64.07	17.26	404760.1825	617808.1580
81871	2500+19.70	-42.31	404808.7632	617873.6099
81872	2500+19.70	-33.33	404799.9349	617871.9938
81873	2503+28.46	71.30	404620.9206	618111.8398
81874	2504+56.98	68.86	404545.9758	618174.6332
81875	2504+55.68	-84.24	404615.2823	618311.1558
81876	2502+25.56	22.00	404705.6346	618060.2501

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
81877	2503+49.06	19.89	404648.1348	618158.7841
81878	2503+71.54	19.67	404633.3806	618173.7293
81879	2503+52.23	25.78	404641.8406	618156.8714
81880	2503+68.64	25.67	404631.2622	618167.5083
81881	2503+52.13	41.32	404630.6642	618146.0656
81882	2503+69.58	42.11	404619.4265	618156.0651
81883	2504.30.01	18.00	404590.6998	618208.0000
81884	2504+29.28	-27.00	404614.8523	618245.9763

NOTES:

1. *OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.*
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3. *RADII ARE GIVEN TO EDGE OF PAVEMENT.*
4. *UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.*
5. *ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501-CONSTRUCTION ENGINEERING.*
6. *PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.*

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ADDENDA / REVISIONS	

SCALE
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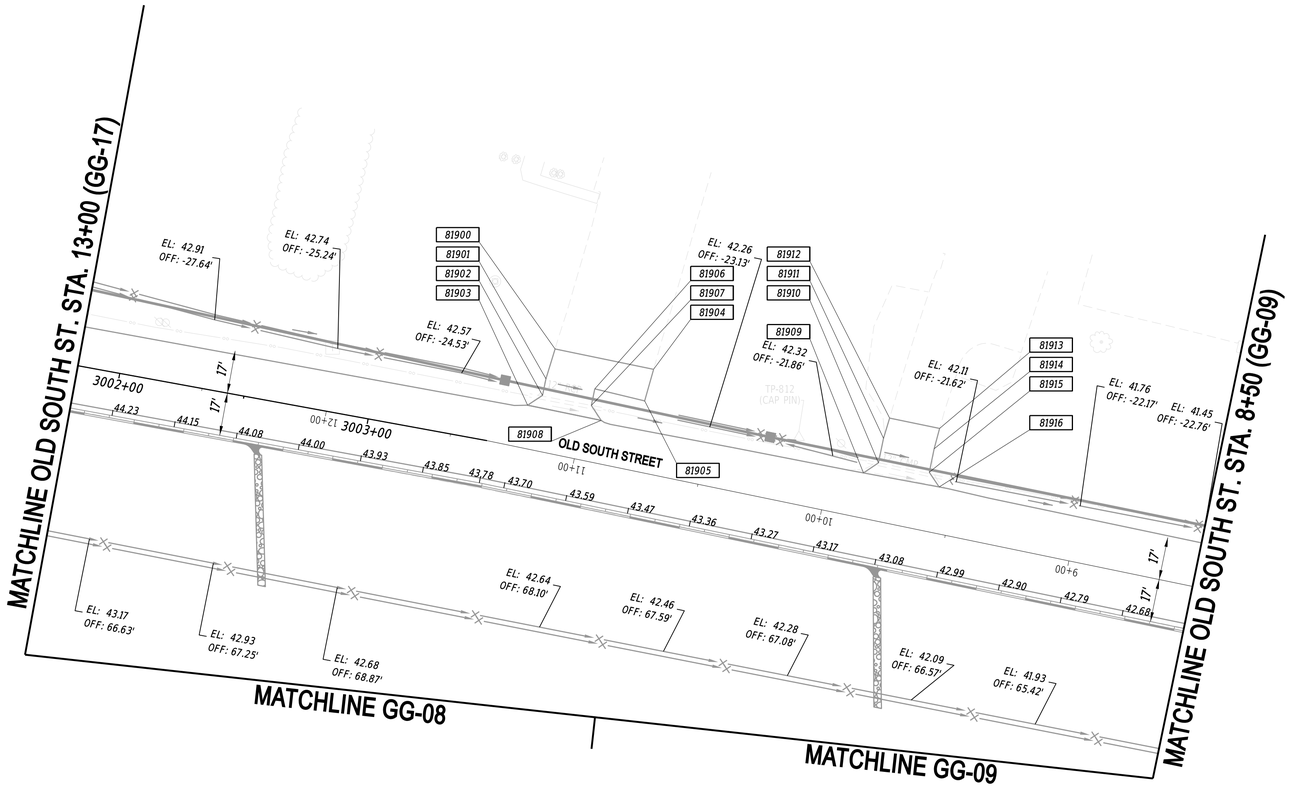
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	
T201709502	DESIGNED BY:	L. HAXTON	
COUNTY	CHECKED BY:	J. FREY	
KENT			

GRADES AND GEOMETRICS

GG-17
SECTION
CEN
SHEET NO.
80



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COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
81900	11+16.24	41.00	404684.4311	618543.0696
81901	11+17.40	28.72	404672.6386	618539.4493
81902	11+17.40	22.00	404666.0586	618538.0898
81903	11+22.40	17.00	404662.1737	618532.1815
81904	10+76.40	41.05	404676.4177	618582.0967
81905	10+77.34	28.04	404663.8702	618578.5356
81906	10+97.65	28.72	404668.6434	618558.7858
81907	10+97.65	22.00	404662.0634	618557.4263
81908	10+92.65	17.00	404656.1552	618561.3112
81909	9+86.71	17.64	404635.3476	618665.1916
81910	9+81.71	22.74	404639.3332	618671.1207
81911	9+81.71	32.67	404649.0500	618673.1283
81912	9+80.96	41.00	404657.0588	618675.5509
81913	9+60.75	41.00	404652.9704	618695.3385
81914	9+61.23	32.67	404644.9069	618693.1807
81915	9+61.23	23.16	404635.5986	618691.2575
81916	9+56.23	18.26	404629.7891	618695.1628

NOTES:

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6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.

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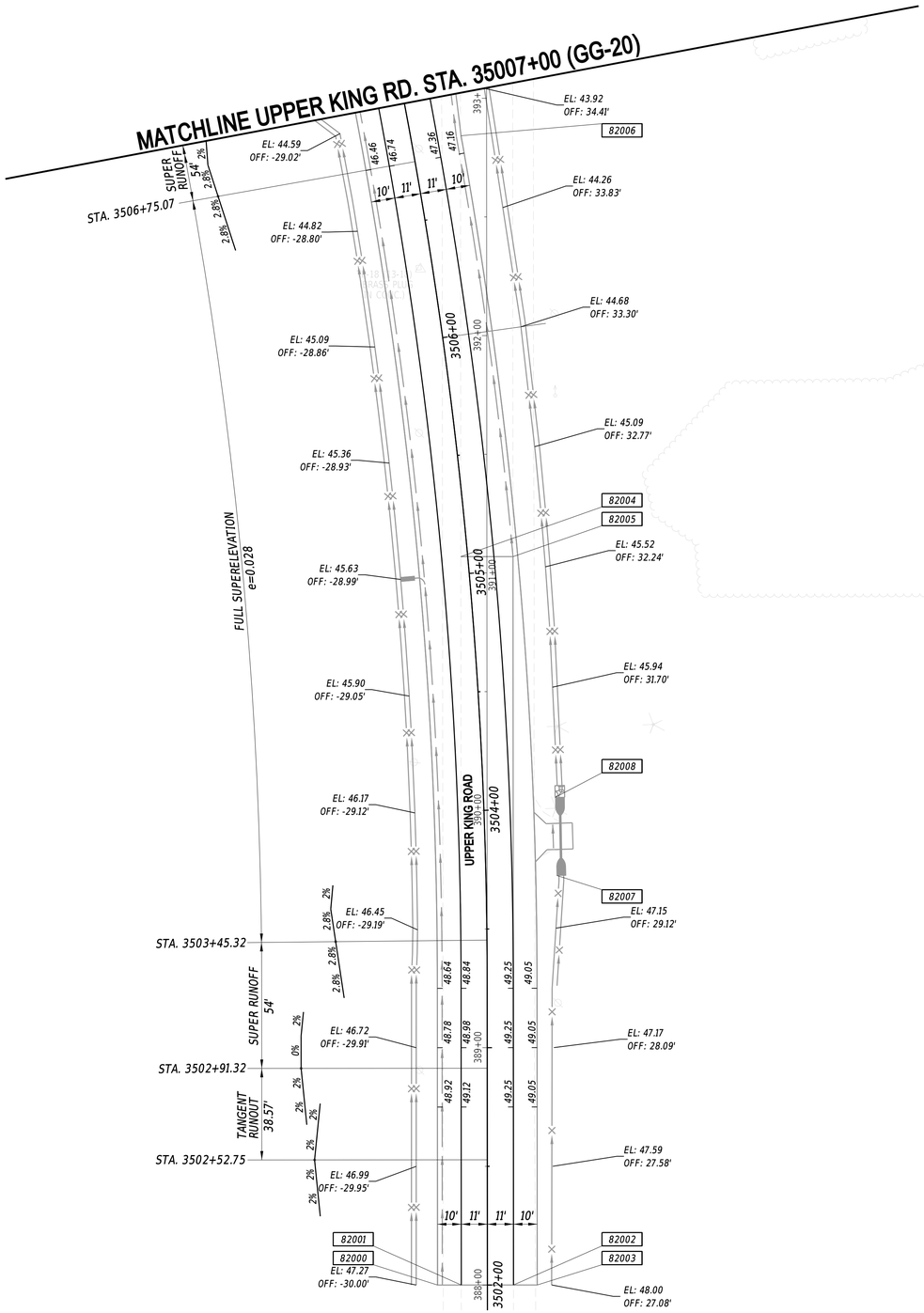
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	GRADES AND GEOMETRICS	GG-18 SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 81
					CHECKED BY: J. FREY		



COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
82000	3502+00.00	-21.00	403355.2917	618762.5450
82001	3502+00.00	-11.00	403349.1931	618770.4701
82002	3502+00.00	11.00	403335.7760	618787.9051
82003	3502+00.00	21.00	403329.6773	618795.8302
82004	3505+07.38	-2.91	403592.3923	618957.6229
82005	3505+05.42	19.00	403578.9752	618975.0580
82006	3506+82.36	21.00	403732.7864	619065.9635
82007	3503+71.83	29.92	403461.2430	618907.6994
82008	3504+04.34	30.34	403487.7492	618927.3571

NOTES:

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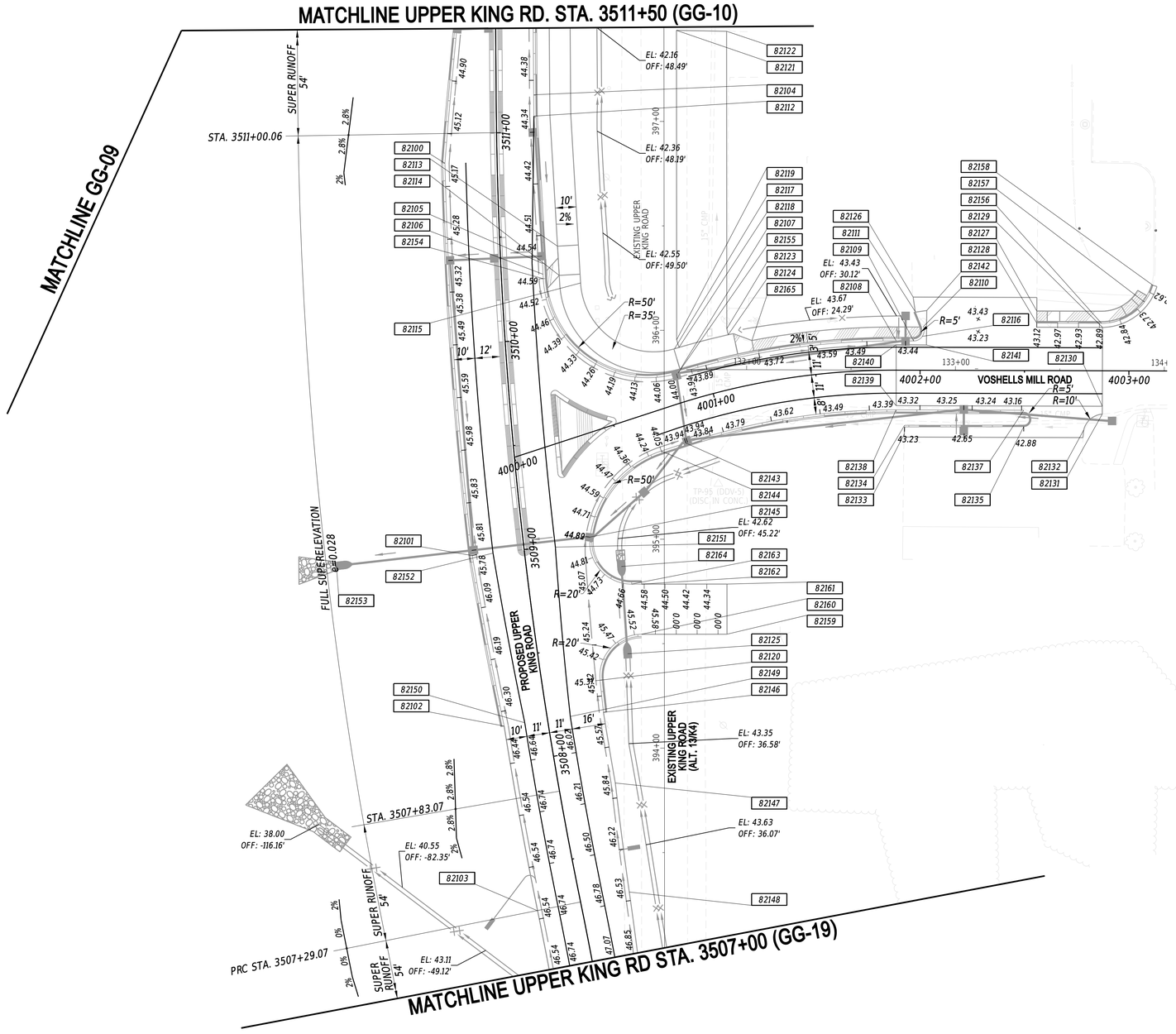
ADDENDA / REVISIONS							
		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	GRADES AND GEOMETRICS	GG-19
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 82



COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
82100	3510+85.99	-25.00	404103.9103	619232.7478
82101	3509+00.00	-25.00	403947.1705	619128.4848
82102	3508+18.00	-21.00	403873.2084	619090.7465
82103	3507+29.07	-21.00	403793.3895	619049.4702
82104	3511+18.06	18.00	404103.9154	619286.4194
82105	3510+36.50	19.99	404037.4278	619240.4931
82106	3510+31.24	20.00	404033.1508	619237.5314
82107	4000+87.39	-15.67	403957.4927	619261.0728
82108	4001+88.54	-14.00	403904.6331	619352.0184
82109	4001+96.87	-14.00	403899.5295	619358.5999
82110	4002+01.50	-20.88	403902.1251	619366.4766
82111	4001+97.60	-28.08	403910.2101	619367.8015
82112	3511+07.75	18.00	404095.7663	619280.2636
82113	3510+44.48	27.56	404039.5511	619251.2193
82114	3510+35.30	32.67	404029.2159	619250.2250
82115	3510+20.82	37.76	404014.6141	619246.3220
82116	4002+01.02	-16.21	403898.7319	619363.2288
82117	4000+87.39	-20.67	403962.1685	619262.8438
82118	3509+86.20	83.91	403961.0026	619265.8804
82119	3509+95.24	82.02	403969.2675	619269.0964
82120	3508+32.69	27.75	403862.5516	619140.5306
82121	3511+48.42	86.58	404086.6183	619359.4032
82122	4001+33.70	-168.58	404071.6240	619378.1482
82123	4001+13.08	-28.67	403958.8081	619291.3312
82124	4001+13.08	-20.67	403951.5620	619287.9408
82125	3508+43.46	42.65	403864.5222	619158.6947
82126	4001+96.58	-35.00	403916.3010	619371.2410
82127	4002+55.81	-28.50	403874.8689	619414.0644
82128	4002+55.79	-22.75	403870.3363	619410.5262
82129	4002+87.31	-20.76	403849.4481	619434.2086
82130	4002+87.31	17.00	403819.6120	619411.0725
82131	4002+87.31	20.75	403816.6529	619408.7769
82132	4002+78.42	28.43	403816.0285	619397.0486
82133	4001+92.51	30.54	403867.0039	619327.8641
82134	4001+92.64	26.42	403870.1834	619330.4877
82135	4002+49.70	26.88	403834.8469	619375.3019
82137	4002+49.70	19.00	403840.3487	619379.5709
82138	4001+88.54	19.00	403878.5549	619331.7964
82139	4001+88.59	17.00	403880.1063	619333.0596
82140	4001+88.51	-12.17	403903.2106	619350.8723
82141	4002+03.01	-12.09	403894.2567	619362.2813
82142	4002+03.11	-28.58	403907.2336	619372.4657
82143	4000+80.14	19.00	403927.4279	619242.3721
82144	4000+67.79	19.00	403931.5579	619230.7249
82145	3509+02.30	32.09	403919.7366	619178.6075
82146	3508+17.04	27.00	403849.3863	619132.4289
82147	3507+82.26	27.00	403819.1220	619116.2741
82148	3507+29.07	23.80	403773.6986	619089.7163
82149	3508+17.58	11.00	403857.5141	619118.6367
82150	3508+18.00	-11.00	403868.4187	619099.5248
82151	3508+99.40	15.00	403926.0828	619162.4768
82152	3509+00.00	-15.00	403942.0250	619137.0594
82153	3509+02.49	-90.17	403982.9388	619073.9464
82154	3510+29.10	20.00	404031.4120	619236.3275
82155	4000+86.72	-14.00	403956.1794	619259.8327
82156	4002+86.76	-22.75	403851.3606	619434.9971
82157	4003+07.31	-32.99	403846.8561	619457.5123
82158	4003+11.39	-40.98	403850.6760	619465.6309
82159	3508+46.01	91.11	403842.8928	619202.1292
82160	3508+51.97	50.61	403867.8396	619169.7116
82161	3508+70.95	94.37	403861.9129	619216.7660
82162	3508+76.40	53.80	403886.8597	619184.3484
82163	3508+77.01	49.07	403889.7651	619180.5730
82164	3508+86.23	45.28	403899.4416	619181.8587

NOTES:

1. *OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.*
2. *UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.*
3. *RADII ARE GIVEN TO EDGE OF PAVEMENT.*
4. *UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.*
5. *ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501-CONSTRUCTION ENGINEERING.*
6. *PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.*

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ADDENDA / REVISIONS

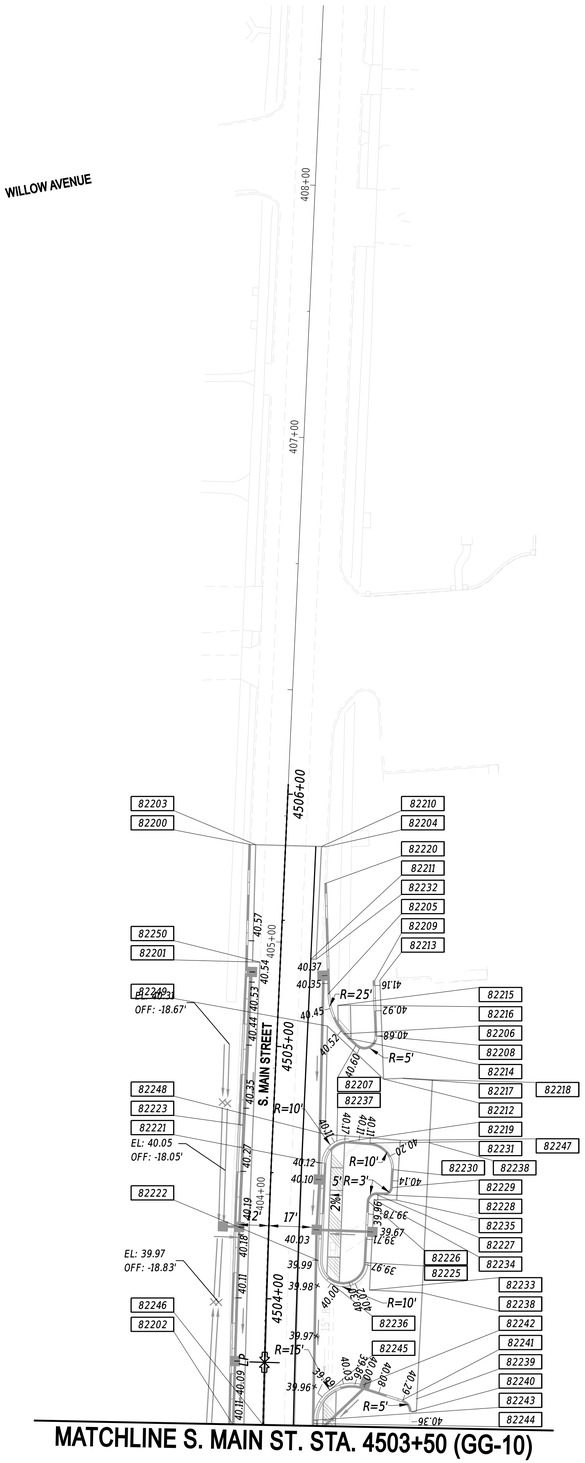
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

GRADES AND GEOMETRICS

	GG-20
SECTION	CEN
SHEET NO.	83



COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
82200	4505+79.36	-13.81	404722.6710	619836.2837
82201	4505+32.97	-10.98	404685.4033	619808.5013
82202	4503+50.00	-12.00	404545.1924	619690.5299
82203	4505+79.40	-11.81	404721.4078	619837.8342
82204	4505+79.90	16.23	404703.6926	619859.5786
82205	4505+21.54	19.45	404657.0380	619824.3689
82206	4505+06.14	26.29	404640.8601	619819.6554
82207	4505+01.67	31.29	404634.2198	619820.5918
82208	4505+05.87	39.54	404632.1037	619829.6012
82209	4505+27.86	37.72	404650.0734	619842.4097
82210	4505+79.87	14.23	404704.9561	619858.0277
82211	4505+35.16	12.14	404672.1585	619827.5797
82212	4504+88.99	42.94	404617.0183	619821.3047
82213	4505+28.03	39.72	404648.9126	619844.0383
82214	4505+04.46	28.06	404638.4351	619819.9208
82215	4505+17.29	23.52	404651.1648	619824.7422
82216	4505+17.61	28.51	404648.1842	619828.7567
82217	4504+89.63	50.62	404612.5403	619827.5870
82218	4504+89.56	62.27	404604.9724	619836.4357
82219	4504+63.73	30.36	404605.8577	619795.4074
82220	4505+65.25	16.19	404692.5254	619850.0940
82221	4504+54.60	20.00	404605.5761	619781.6344
82222	4504+15.88	20.00	404575.9557	619756.9399
82223	4504+68.28	-12.00	404636.6516	619765.9737
82225	4504+15.61	38.91	404563.6966	619771.3401
82226	4504+39.93	39.25	404582.0422	619787.0304
82227	4504+42.92	42.19	404582.4327	619791.1871
82228	4504+42.99	45.35	404580.4529	619793.6561
82229	4504+45.96	48.29	404580.8252	619797.7971
82230	4504+53.17	48.42	404586.2116	619802.4792
82231	4504+63.41	38.80	404600.1694	619801.6608
82232	4505+35.16	14.12	404670.8833	619829.0889
82233	4504+04.75	40.72	404554.2411	619765.8850
82234	4504+40.89	41.26	404581.4785	619789.1801
82235	4504+41.07	50.20	404575.8862	619796.1539
82236	4504+06.71	25.72	404565.2776	619755.5469
82237	4504+63.60	25.55	404608.8601	619791.6513
82238	4504+04.36	61.36	404540.8243	619781.5723
82239	4503+61.67	60.39	404508.7623	619754.1509
82240	4503+56.52	58.60	404505.9332	619749.5620
82241	4503+61.16	55.02	404511.7494	619749.6633
82242	4503+66.82	39.25	404526.0261	619740.9375
82243	4503+52.33	20.00	404526.9271	619716.9076
82244	4503+50.95	19.99	404525.8699	619716.0425
82245	4503+64.39	25.99	404532.5049	619729.1148
82246	4503+50.00	0.00	404537.6664	619699.8766
82247	4504+64.98	50.60	404593.7542	619811.6856
82248	4504+66.10	20.81	404613.8112	619789.6360
82249	4505+08.95	19.79	404647.2003	619816.5004
82250	4505+33.02	-8.00	404683.5202	619810.8127

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501-CONSTRUCTION ENGINEERING.
6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.

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ADDENDA / REVISIONS			

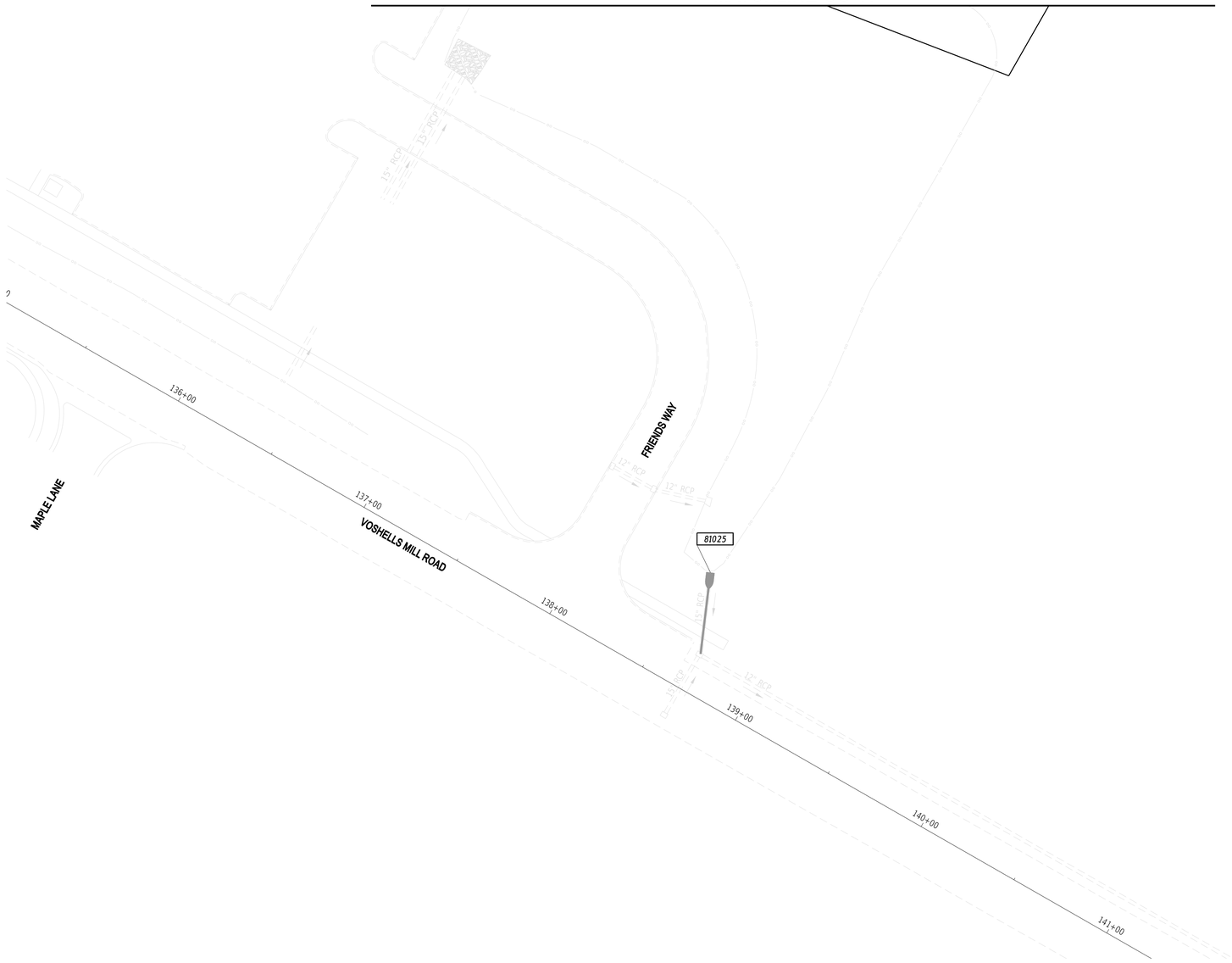
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	
T201709502	DESIGNED BY:	L. HAXTON	
COUNTY	CHECKED BY:	J. FREY	
KENT			

GRADES AND GEOMETRICS

GG-21
SECTION
CEN
SHEET NO.
84



COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81025	5005+69.32	434.13	403578.4449	619838.0447

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION & R/W BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501-CONSTRUCTION ENGINEERING.
6. PROPOSED CURBS OR PAVEMENT THAT TIE INTO EXISTING PAVEMENT SHALL MATCH ELEVATIONS.

GG-22

ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

GRADES AND GEOMETRICS

SECTION	SHEET NO.
CEN	85

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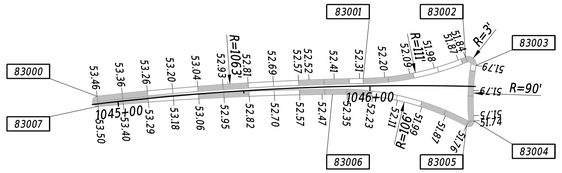
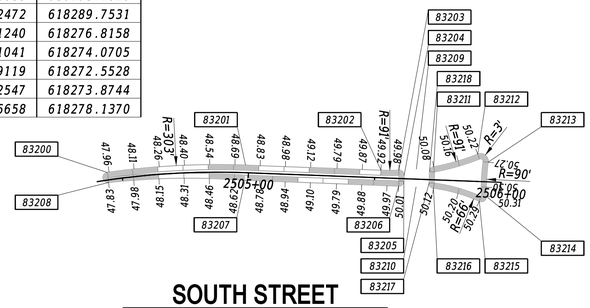
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
83000	1044+92.02	-3.00	404261.9054	618093.4698
83001	1045+97.40	-3.00	404313.1363	618185.8412
83002	1046+37.64	-11.49	404337.9994	618218.9402
83003	1046+41.78	-8.34	404336.8078	618224.0409
83004	1046+41.51	13.70	404316.5361	618232.6767
83005	1046+38.58	15.70	404313.5356	618230.8425
83006	1045+85.07	3.00	404302.2663	618177.4855
83007	1044+92.00	1.00	404258.4961	618095.5619



WILLOW GROVE ROAD
STATION 1044+92 TO 1046+42

NOTES:
1. ALL CURB, TYPE 2, RADII SHALL BE 2' UNLESS OTHERWISE NOTED.

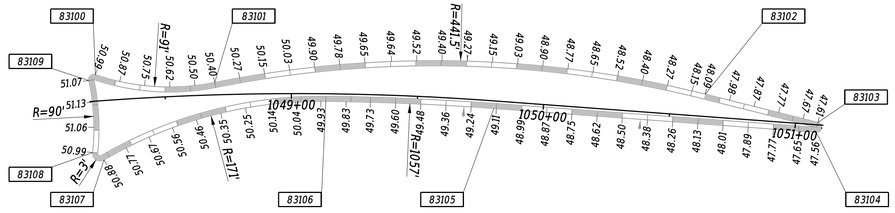
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
83200	2504+44.38	-3.00	404589.0978	618233.1866
83201	2504+98.74	-3.00	404538.8179	618255.0568
83202	2505+52.40	-3.00	404487.8772	618271.9200
83203	2505+59.49	-3.28	404481.2364	618274.4095
83204	2505+61.64	-1.28	404478.5632	618273.1941
83205	2505+61.64	1.00	404477.8459	618271.0273
83206	2505+59.64	3.00	404479.1161	618268.5001
83207	2504+98.74	3.00	404536.9323	618249.3608
83208	2504+44.34	1.00	404587.2114	618229.6591
83209	2505+66.39	-3.90	404474.8792	618277.1698
83210	2505+66.55	3.00	404472.5569	618270.6714
83211	2505+73.21	-5.13	404468.7895	618280.4845
83212	2505+90.47	-10.79	404454.1813	618291.2828
83213	2505+94.68	-7.79	404449.2472	618289.7531
83214	2505+94.53	5.79	404445.1240	618276.8158
83215	2505+91.78	7.77	404447.1041	618274.0705
83216	2505+73.45	3.30	404465.9119	618272.5528
83217	2505+71.64	1.31	404468.2547	618273.8744
83218	2505+71.64	-3.18	404469.6658	618278.1370



SOUTH STREET
STATION 2504+60 TO 2505+92

NOTES:
1. ALL CURB, TYPE 2, RADII SHALL BE 2' UNLESS OTHERWISE NOTED.

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
83100	1048+23.10	-10.46	404397.8903	618396.2460
83101	1048+69.81	-4.89	404402.8048	618443.3621
83102	1050+63.52	-8.84	404430.9573	618635.5679
83103	1051+08.88	-0.97	404427.4441	618681.4781
83104	1051+08.54	3.00	404423.4590	618681.5158
83105	1049+80.48	3.00	404411.2767	618554.0383
83106	1049+13.69	3.00	404402.8559	618487.9759
83107	1048+24.00	23.43	404365.2072	618405.2768
83108	1048+19.65	20.19	404367.3212	618400.3589
83109	1048+20.36	-8.35	404395.1714	618394.0722



WILLOW GROVE ROAD
STATION 1048+22 TO 1051+10

ROUNDABOUT SPLITTER ISLAND DETAILS

NOTES:
1. ALL CURB, TYPE 2, RADII SHALL BE 2' UNLESS OTHERWISE NOTED.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

GRADES AND GEOMETRICS

SECTION
CEN
SHEET NO.
86

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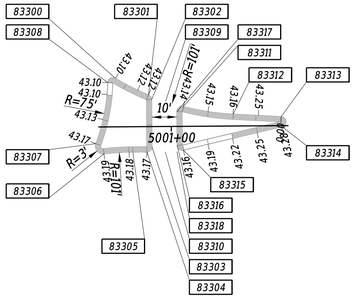
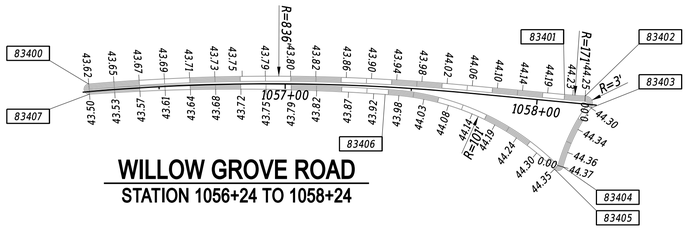
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
83300	5000+78.00	-19.21	404272.9335	619490.1181
83301	5000+91.06	-12.51	404259.6971	619496.4728
83302	5000+92.28	-10.67	404257.4932	619496.3303
83303	5000+92.28	8.00	404242.6263	619485.0397
83304	5000+90.28	10.00	404242.2431	619482.2374
83305	5000+84.71	10.00	404245.6172	619477.7946
83306	5000+73.27	10.65	404252.0175	619468.2925
83307	5000+70.12	6.60	404257.1406	619468.2346
83308	5000+74.96	-17.56	404273.4619	619486.7044
83309	5000+97.84	-9.92	404253.5335	619500.3053
83310	5000+97.54	10.00	404237.8533	619488.0177
83311	5001+04.79	-7.82	404247.6611	619504.5704
83312	5001+24.55	-4.67	404233.2069	619518.3993
83313	5001+43.53	-3.56	404220.8353	619532.8420
83314	5001+43.86	0.39	404217.4926	619530.7200
83315	5001+04.73	9.41	404233.9747	619494.1018
83316	5001+02.28	7.46	404237.0081	619493.3299
83317	5001+02.28	-5.89	404247.6380	619501.4027
83318	5001+02.17	10.00	404235.0543	619491.7033



WILLOW GROVE ROAD
STATION 5000+12 TO 5001+52

NOTES:
1. ALL CURB, TYPE 2, RADII SHALL BE 2' UNLESS OTHERWISE NOTED.

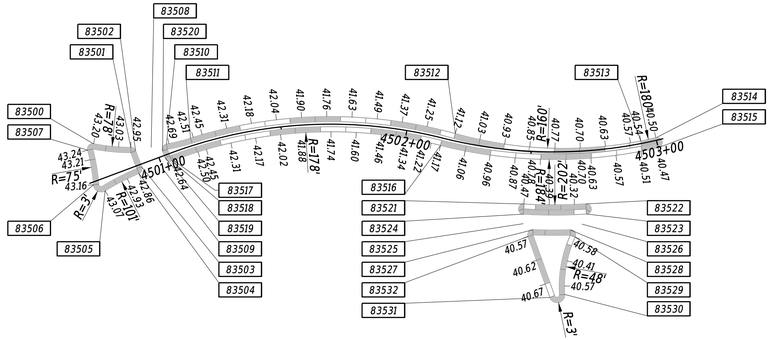
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
83400	1056+22.36	-3.00	404443.5432	619193.2623
83401	1058+10.65	-3.00	404387.4500	619373.2214
83402	1058+18.83	-3.20	404384.6420	619380.9098
83403	1058+21.57	1.30	404379.4517	619381.8150
83404	1058+12.65	25.59	404360.1003	619364.6405
83405	1058+09.41	26.78	404360.1835	619361.1871
83406	1057+40.99	3.00	404406.7220	619306.0845
83407	1056+22.34	1.00	404439.6217	619192.4732



WILLOW GROVE ROAD
STATION 1056+24 TO 1058+24

NOTES:
1. ALL CURB, TYPE 2, RADII SHALL BE 2' UNLESS OTHERWISE NOTED.

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
83500	4500+77.67	-14.11	404379.0321	619480.1420
83501	4500+90.99	-7.62	404385.7101	619493.3689
83502	4500+92.28	-5.75	404385.6111	619495.6454
83503	4500+92.28	1.09	404381.4743	619501.0926
83504	4500+90.37	3.09	404378.7407	619501.5257
83505	4500+75.43	4.85	404365.7844	619493.8903
83506	4500+71.98	1.06	404365.3273	619488.7873
83507	4500+74.63	-12.61	404375.7035	619479.5090
83508	4500+98.53	-4.78	404389.9998	619500.1920
83509	4500+99.98	5.05	404385.2053	619508.8970
83510	4501+04.64	-3.88	404394.3158	619504.6067
83511	4501+14.23	-3.00	404401.3989	619511.3865
83512	4502+19.03	-2.89	404458.9876	619599.0812
83513	4502+93.84	-1.00	404495.7480	619662.7320
83514	4503+00.00	-1.00	404500.0238	619667.1193
83515	4503+00.00	3.00	404497.2071	619669.9595
83516	4502+14.41	3.00	404451.9239	619596.6129
83517	4501+04.98	3.00	404390.4292	619510.2881
83518	4501+04.28	3.00	404389.8774	619509.8690
83519	4501+02.28	1.00	404389.4943	619507.0667
83520	4501+02.28	-1.91	404391.2520	619504.7522
83521	4502+48.39	21.00	404449.9332	619636.9411
83522	4502+70.38	21.00	404463.0681	619657.6531
83523	4502+70.38	25.00	404459.8264	619659.9965
83524	4502+48.39	25.00	404446.4314	619638.8743
83525	4502+48.64	28.76	404443.2729	619640.9383
83526	4502+68.58	28.89	404455.4617	619660.5777
83527	4502+51.98	31.00	404443.2456	619645.4321
83528	4502+64.58	31.00	404451.0703	619657.9392
83529	4502+66.09	33.88	404449.6919	619661.0387
83530	4502+62.27	56.48	404428.2668	619669.6724
83531	4502+57.84	57.65	404424.1459	619665.3931
83532	4502+50.42	33.76	404439.9388	619645.2010



MAIN STREET
STATION 4500+72.28 TO 4501+92

ROUNDABOUT SPLITTER ISLAND DETAILS

NOTES:
1. ALL CURB, TYPE 2, RADII SHALL BE 2' UNLESS OTHERWISE NOTED.

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502	BRIDGE NO.	N/A
COUNTY	KENT	DESIGNED BY:	L. HAXTON
		CHECKED BY:	J. FREY

GRADES AND GEOMETRICS

SECTION	CEN
SHEET NO.	87

20-DEC-2024
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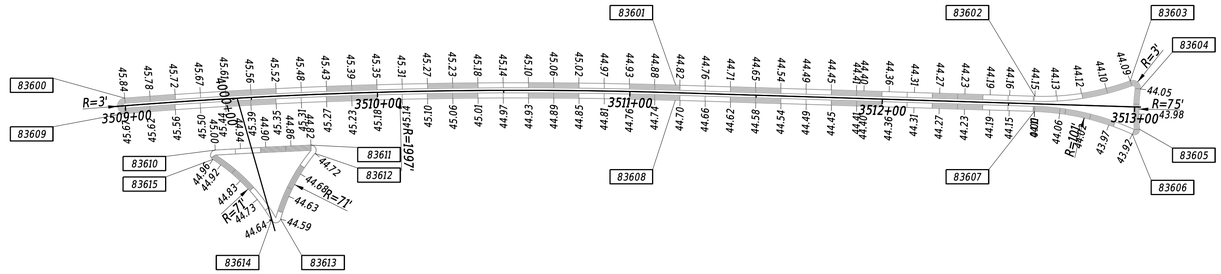
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
83600	3509+00.00	-3.00	403935.8503	619147.3489
83601	3511+18.06	-3.00	404116.6163	619269.6955
83602	3512+60.37	-3.00	404229.9536	619355.7685
83603	3512+97.89	-10.23	404264.2018	619372.7038
83604	3513+01.99	-7.15	404265.6098	619377.6300
83605	3513+02.16	8.77	404256.1168	619390.4147
83606	3512+99.41	10.85	404252.6625	619390.4012
83607	3512+60.37	3.00	404226.3248	619360.5468
83608	3511+18.06	3.00	404112.9875	619274.4738
83609	3508+99.63	3.00	403932.4428	619152.3015
83610	3509+34.49	20.00	403953.1446	619184.8939
83611	3509+72.80	20.00	403985.1286	619205.2735
83612	3509+74.31	23.34	403984.5565	619208.8814
83613	3509+59.29	48.72	403958.3877	619222.1957
83614	3509+55.53	49.01	403955.1400	619220.4577
83615	3509+33.31	23.62	403950.2325	619187.3422

ROUNDABOUT SPLITTER ISLAND DETAILS



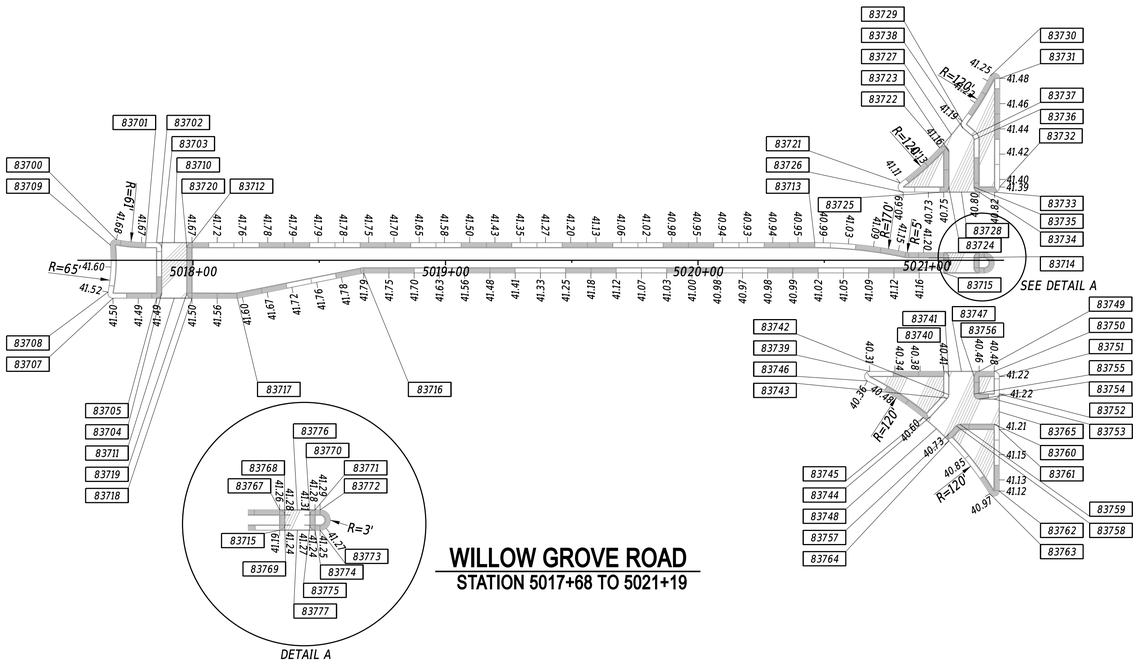
UPPER KING RD
STATION 3508+97 TO 3513+02

NOTES:
1. ALL CURB, TYPE 2, RADII SHALL BE 2' UNLESS OTHERWISE NOTED.

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
83700	5017+69.68	-8.11	404131.6372	621002.3485
83701	5017+81.27	-7.00	404126.6216	621012.8580
83702	5017+85.58	-7.00	404125.1448	621016.9079
83703	5017+87.58	-5.00	404122.5806	621018.1017
83704	5017+87.58	13.00	404105.6699	621011.9349
83705	5017+85.58	15.00	404104.4762	621009.3708
83706	5017+68.31	15.00	404110.3940	620993.1428
83708	5017+66.35	12.61	404113.3097	620992.1177
83709	5017+67.31	-5.96	404130.4326	620999.3848
83710	5017+92.58	-7.00	404122.7466	621023.4843
83711	5017+92.58	15.00	404102.0780	621015.9471
83712	5017+99.58	-7.00	404120.3484	621030.0607
83713	5020+46.20	-7.00	404035.8570	621261.7565
83714	5020+82.34	-3.11	404019.8252	621294.3775
83715	5020+97.31	5.00	404007.0737	621305.6606
83716	5018+67.58	5.00	404085.7781	621089.8343
83717	5018+17.58	24.00	404085.0577	621036.3508
83718	5017+99.58	15.00	404099.6798	621022.5235
83719	5017+97.58	13.00	404102.2440	621021.3298
83720	5017+97.58	-5.00	404119.1547	621027.4965
83721	5020+80.04	-30.61	404046.4439	621301.6293
83722	5020+95.76	-44.55	404054.1603	621321.1749
83723	5020+99.31	-43.09	404051.5662	621324.0174
83724	5020+99.31	-29.00	404038.3299	621319.1906
83725	5020+97.31	-27.00	404037.1362	621316.6264
83726	5020+81.23	-27.00	404042.6475	621301.5129
83727	5021+00.34	-49.69	404057.4165	621327.2448
83728	5021+04.31	-27.00	404034.7388	621323.2004
83729	5021+04.63	-55.08	404061.0156	621333.1178
83730	5021+15.70	-72.94	404074.0014	621349.6387
83731	5021+19.48	-72.04	404071.8554	621352.8856
83732	5021+19.42	-29.00	404031.4382	621338.0808
83733	5021+17.42	-27.00	404030.2472	621335.5176
83734	5021+11.31	-27.00	404032.3415	621329.7745
83735	5021+09.31	-29.00	404034.9057	621328.5807
83736	5021+09.31	-47.74	404052.5159	621335.0025

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
83775	5021+09.31	3.00	404004.8414	621317.6196
83776	5021+04.31	-3.00	404012.1915	621314.9775
83777	5021+04.31	5.00	404004.6755	621312.2370

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
83737	5021+08.60	-49.27	404054.1967	621334.8581
83738	5021+04.94	-52.36	404058.3454	621332.4768
83739	5020+67.96	44.00	403980.4907	621264.7211
83740	5020+97.31	44.00	403970.4329	621292.3020
83741	5020+99.31	46.00	403967.8660	621293.4948
83742	5020+99.30	53.24	403961.0671	621291.0044
83743	5020+98.78	54.60	403959.9784	621290.0449
83744	5020+91.96	62.00	403955.3587	621281.1090
83745	5020+89.22	62.19	403956.1165	621278.4695
83746	5020+67.06	47.79	403977.2408	621262.5797
83747	5021+04.31	44.00	403968.0347	621298.8784
83748	5020+94.42	66.71	403950.0910	621281.8071
83749	5021+11.31	44.00	403965.6365	621305.4548
83750	5021+17.31	44.00	403963.5810	621311.0917
83751	5021+19.31	46.00	403961.0141	621312.2845
83752	5021+19.30	52.97	403954.4763	621309.8897
83753	5021+17.30	54.96	403953.2863	621307.3238
83754	5021+11.30	54.95	403955.3500	621301.6899
83755	5021+09.30	52.95	403957.9158	621300.4998
83756	5021+09.31	46.00	403964.4455	621302.8916
83757	5020+99.32	68.77	403946.4756	621285.7014
83758	5021+02.25	65.59	403948.4606	621289.5409
83759	5021+03.72	64.94	403948.5619	621291.1473
83760	5021+17.29	64.96	403943.8964	621303.8843
83761	5021+19.28	66.97	403941.3305	621305.0744
83762	5021+19.25	91.37	403918.4130	621296.6797
83763	5021+15.54	92.41	403918.7055	621292.8412
83764	5020+99.36	71.51	403943.8840	621284.7934
83765	5021+19.29	59.97	403947.9034	621307.4821
83766	5020+83.41	-3.00	404019.3537	621295.3369
83767	5020+97.31	-3.00	404014.5896	621308.4011
83768	5020+99.31	-1.00	404012.0256	621309.5950
83769	5020+99.31	3.00	404008.2676	621308.2248
83770	5021+09.31	-1.00	404008.5994	621318.9897
83771	5021+11.31	-3.00	404009.7933	621321.5539
83772	5021+13.31	-3.00	404009.1080	621323.4330
83773	5021+13.31	5.00	404001.5922	621320.6922
83774	5021+11.31	5.00	404002.2773	621318.8134



WILLOW GROVE ROAD
STATION 5017+68 TO 5021+19

NOTES:
1. ALL CURB, TYPE 2, RADII SHALL BE 2' UNLESS OTHERWISE NOTED.

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ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

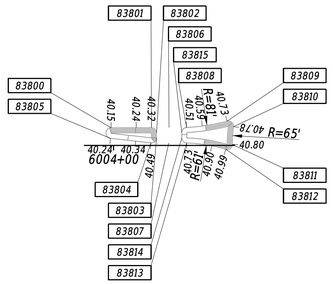
WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

GRADES AND GEOMETRICS

SECTION	
CEN	
SHEET NO.	
88	

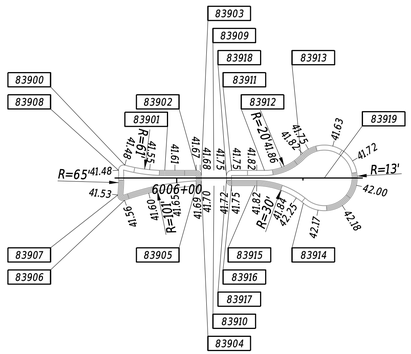
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
83800	6003+99.03	-7.00	404043.3071	620891.0907
83801	6004+15.03	-7.00	404058.3308	620896.5943
83802	6004+17.03	-5.00	404059.5208	620899.1602
83803	6004+17.03	-3.00	404058.8328	620901.0382
83804	6004+14.81	-1.01	404056.0625	620902.1401
83805	6003+98.81	-2.80	404041.6542	620894.9569
83806	6004+21.98	-7.06	404064.8735	620898.9315
83807	6004+21.89	-0.99	404062.7036	620904.5950
83808	6004+28.93	-7.11	404071.4163	620901.2687
83809	6004+44.97	-9.58	404087.3298	620904.4650
83810	6004+47.46	-7.42	404088.9216	620907.3533
83811	6004+47.03	-0.38	404086.1012	620913.8201
83812	6004+44.46	1.53	404083.0328	620914.7254
83813	6004+28.97	-0.97	404069.3446	620907.0499
83814	6004+27.03	-2.97	404068.2123	620904.5062
83815	6004+27.03	-5.11	404068.9500	620902.4923



KING BOULEVARD
STATION 6003+97 TO 6004+47

NOTES:
1. ALL CURB, TYPE 2, RADII SHALL BE 2' UNLESS OTHERWISE NOTED.

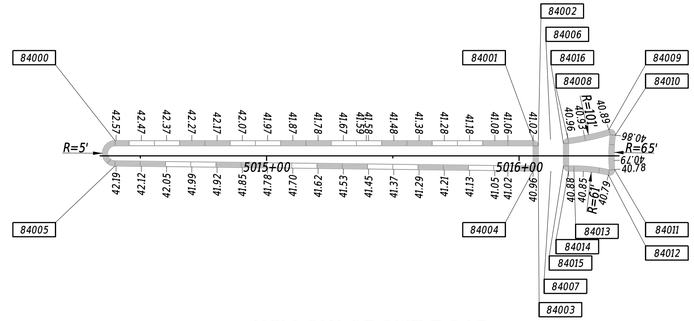
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
83900	6005+79.48	-5.08	404212.0800	620954.9608
83901	6005+95.27	-3.00	404226.1971	620962.3483
83902	6006+07.71	-3.00	404237.8756	620966.6265
83903	6006+09.71	-1.00	404239.0656	620969.1924
83904	6006+09.71	1.14	404238.3296	620971.2015
83905	6006+07.82	3.14	404235.8624	620972.4247
83906	6005+79.34	8.80	404207.1805	620967.9472
83907	6005+76.69	6.71	404205.4048	620965.0693
83908	6005+76.96	-3.06	404209.0210	620955.9976
83909	6006+14.71	-3.00	404244.4484	620969.0343
83910	6006+14.76	3.07	404242.4099	620974.7504
83911	6006+21.71	-3.00	404251.0213	620971.4421
83912	6006+34.77	-3.00	404263.2816	620975.9334
83913	6006+49.14	-9.09	404278.8707	620975.1578
83914	6006+50.16	9.94	404273.2859	620993.3816
83915	6006+30.97	3.00	404257.6527	620980.2613
83916	6006+21.71	3.00	404248.9574	620977.0760
83917	6006+19.71	1.00	404247.7674	620974.5101
83918	6006+19.71	-1.00	404248.4554	620972.6321
83919	6006+58.48	-0.05	404284.5319	620986.8604



EAST STREET
STATION 6005+77 TO 6006+71

NOTES:
1. ALL CURB, TYPE 2, RADII SHALL BE 2' UNLESS OTHERWISE NOTED.

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
84000	5014+40.03	-6.00	404242.5904	620691.9250
84001	5016+05.58	-6.00	404185.8727	620847.4584
84002	5016+07.58	-4.00	404183.3086	620848.6522
84003	5016+07.58	4.00	404175.7927	620845.9114
84004	5016+05.61	6.00	404174.5908	620843.3700
84005	5014+39.97	4.00	404233.2166	620688.4424
84006	5016+12.45	-6.43	404183.9204	620854.0592
84007	5016+12.59	6.00	404172.1967	620849.9350
84008	5016+19.32	-6.85	404181.9680	620860.6600
84009	5016+35.54	-10.35	404179.6977	620877.0886
84010	5016+38.10	-8.18	404176.7844	620878.7562
84011	5016+37.81	5.43	404164.0970	620873.8204
84012	5016+35.37	7.54	404162.9446	620870.8030
84013	5016+21.74	6.00	404169.0645	620858.5241
84014	5016+19.58	6.00	404169.8026	620856.5000
84015	5016+17.58	4.00	404172.3667	620855.3063
84016	5016+17.58	-4.87	404180.7012	620858.3455



WILLOW GROVE ROAD
STATION 5014+35 TO 5016+37

ROUNDABOUT SPLITTER ISLAND DETAILS

NOTES:
1. ALL CURB, TYPE 2, RADII SHALL BE 2' UNLESS OTHERWISE NOTED.

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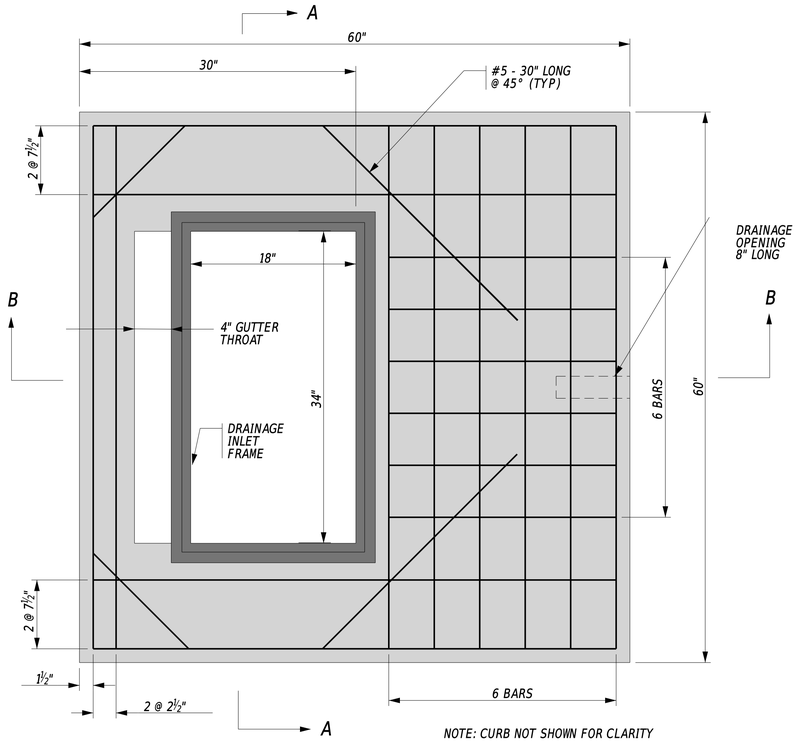
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	GRADES AND GEOMETRICS	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 89
					CHECKED BY: J. FREY		

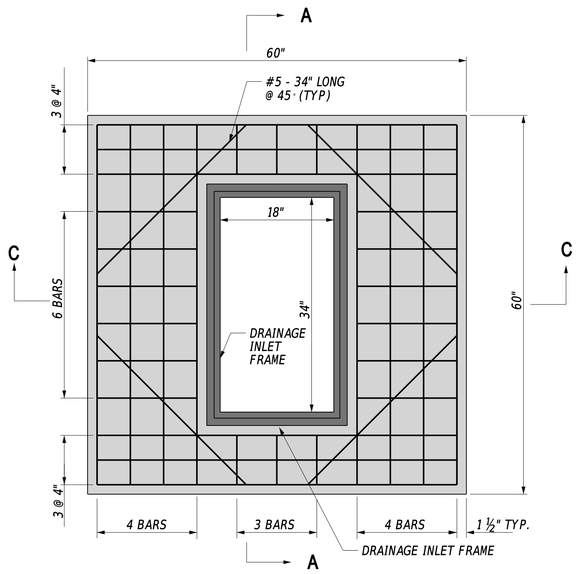


NOTE: CURB NOT SHOWN FOR CLARITY

MODIFIED 48" x 48" INLET WITH CURB

N.T.S.

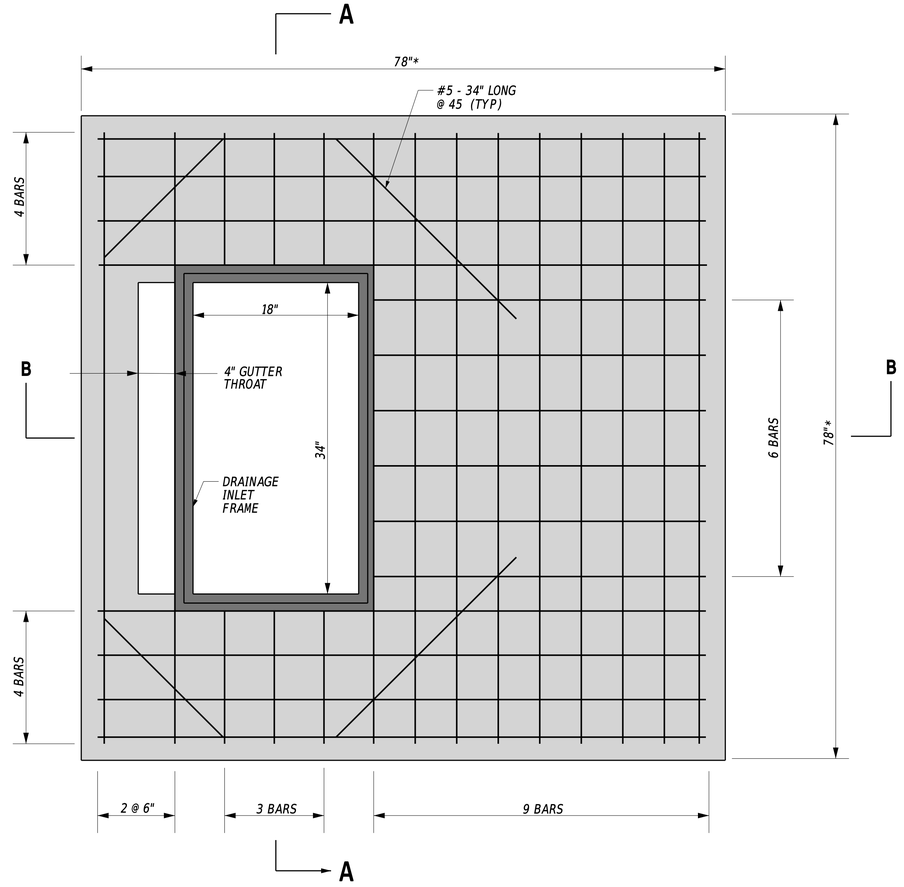
ITEM# 602013, DRAINAGE INLET, SPECIAL
(SECTION VIEW SHOWN ON SHEET 92)
DI 242
DI 295



48" X 48" LAWN BASIN

N.T.S.

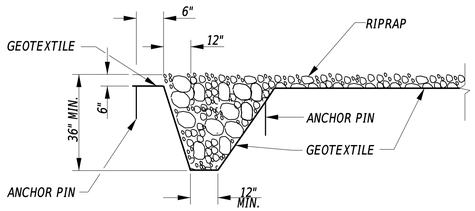
ITEM# 602013 - DRAINAGE INLET, SPECIAL
(SECTION VIEW SHOWN ON SHEET 92)
DI 255



MODIFIED 66" x 66" INLET WITH CURB

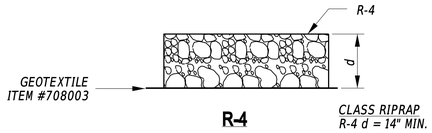
N.T.S.

ITEM# 602013, DRAINAGE INLET, SPECIAL
(SECTION VIEW SHOWN ON SHEET 92)
DI 20
DI 254



RIPRAP KEY-IN DETAIL

N.T.S.



RIPRAP BLANKET SECTION DETAILS

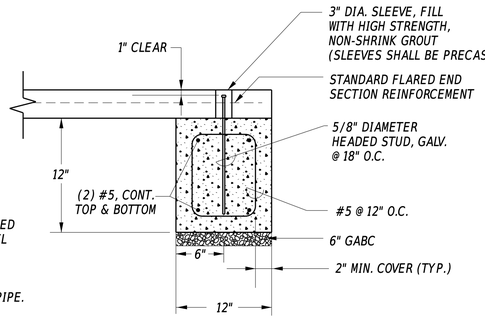
N.T.S.

NOTES:

1. SEE CONSTRUCTION PLANS FOR LOCATIONS AND SIZES OF RIPRAP BLANKET.
2. RIPRAP SHALL BE KEYED IN AT DOWNSTREAM END OF BLANKET FOLLOWING RIPRAP KEY-IN DETAIL.

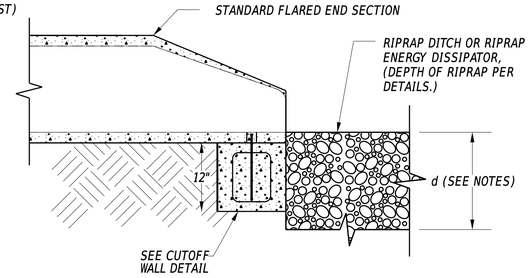
NOTES:

1. FLARED END SECTIONS SMALLER THAN 24 INCHES SHALL UTILIZE DELDOT STANDARD DETAIL D-8, PIPE FLARED END SUPPORT. FLARED END SECTIONS 24 INCHES AND LARGER SHALL UTILIZE THE DETAIL PROVIDED ON THIS SHEET.
2. FLARED END SECTIONS SHALL BE BEDDED IN ACCORDANCE WITH DELDOT STANDARD SPECIFICATION 601, REINFORCED CONCRETE PIPE.
3. FLARED END SECTIONS SHALL RECEIVE A 12 INCH WIDE CUTOFF WALL CONSTRUCTED AS SHOWN. CUTOFF WALL MAY BE CAST-IN-PLACE OR PRECAST CLASS B CONCRETE. ALL COSTS FOR THE CUTOFF WALL SHALL BE INCIDENTAL TO THE FLARED END SECTION BEING INSTALLED.
4. DEPTH OF RIPRAP (d) PER DETAILS.
5. PAYMENT FOR CUTOFF WALL EXCAVATION, CONCRETE, REBAR, SLEEVE, GROUT, AND GALVANIZED STUD ARE INCIDENTAL TO THE FLARED END SECTION BEING INSTALLED.



CUTOFF WALL DETAIL

N.T.S.



SIDE VIEW WITH OUTLET PROTECTION

N.T.S.

ADDENDA / REVISIONS	NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	CONSTRUCTION DETAILS	SECTION CEN
			COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 90
				CHECKED BY: J. FREY		

20-DEC-2024
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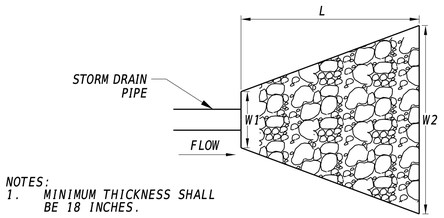
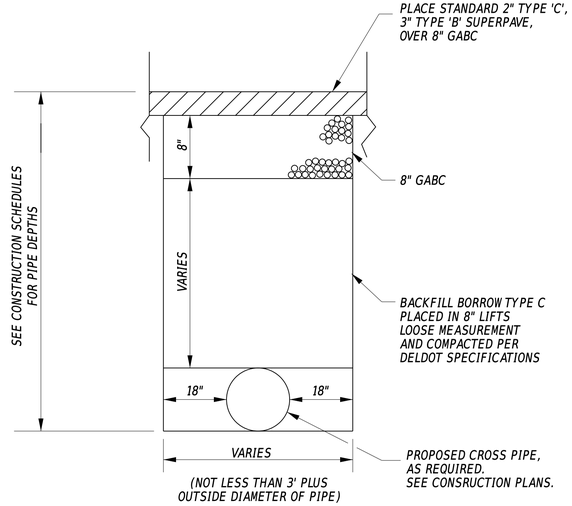


NOTES:
1. MINIMUM THICKNESS SHALL BE 18 INCHES.

RIPRAP OUTLET PROTECTION DETAIL
N.T.S.

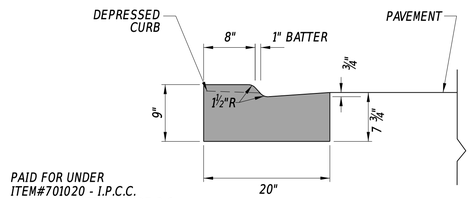
RIPRAP SCHEDULE			
NO.	W1 (FT)	W2(FT)	L(FT)
103	6.00	11.20	9.00
105	6.00	11.20	9.00
108	4.50	11.50	10.00
125	3.75	7.50	6.00
126	4.50	7.90	16.00
127	6.00	12.00	9.00
128	6.00	19.00	14.00
129	3.75	4.45	8.00
130	6.00	16.00	14.00
131	6.00	12.00	10.00
133	6.00	17.20	38.00

RIPRAP SCHEDULE			
NO.	W1 (FT)	W2(FT)	L(FT)
135	4.50	11.50	10.00
200	6.00	16.00	14.00
201	6.00	11.20	9.00
202	6.00	16.00	14.00
203	4.50	11.50	10.00
206	4.50	9.00	7.00
207	6.00	11.50	10.00
280	4.50	11.50	10.00
301	6.00	11.20	9.00
302	6.00	16.00	14.00
401	4.50	8.60	7.00
402	6.00	16.00	14.00



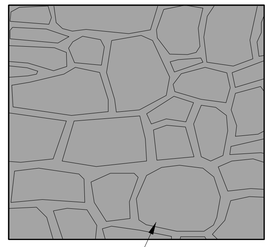
TEMPORARY PATCH DETAIL (BITUMINOUS CONCRETE)
N.T.S.

NOTES:
1. ALL MATERIALS AND METHODS FOR CONSTRUCTION SHALL MEET THE REQUIREMENTS SET FORTH IN THE CURRENT DELAWARE DEPARTMENT OF TRANSPORTATION STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.



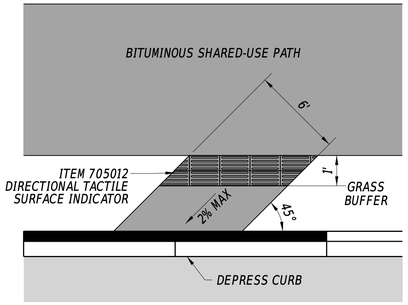
PAID FOR UNDER ITEM#701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2

I.P.C.C. CURB AND GUTTER TYPE 3-2, MODIFIED DETAIL
N.T.S.

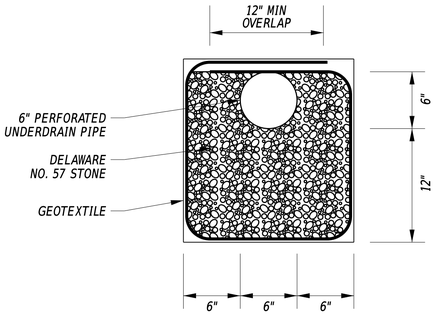


PATTERNED PORTLAND CEMENT CONCRETE DETAIL
N.T.S.

NOTES:
1. PLACE IN ROUNDABOUT TRUCK APRONS AND SPLITTER ISLANDS.
2. CONTRACTOR SHALL SUBMIT MEANS AND METHODS FOR CONSTRUCTION OF THE PATTERNED PCC SIDEWALK TO THE ENGINEER FOR APPROVAL.
3. PAID FOR UNDER ITEM 705521 - PATTERNED PCC SIDEWALK, 8".

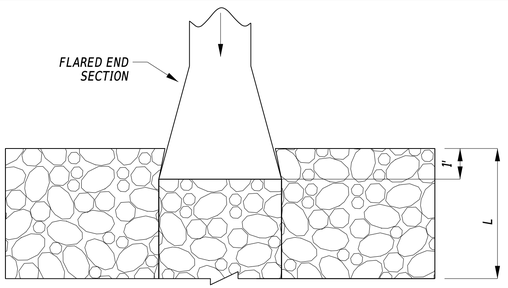


BICYCLE SLIP RAMP
N.T.S.

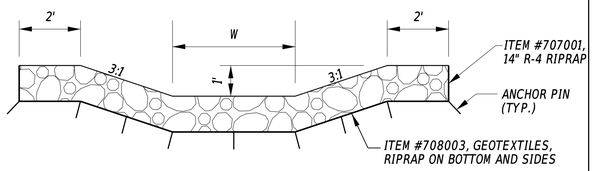


MODIFIED UNDERDRAIN DETAIL
N.T.S.

ITEM# 709001 - PERFORATED PIPE UNDERDRAINS, 6"

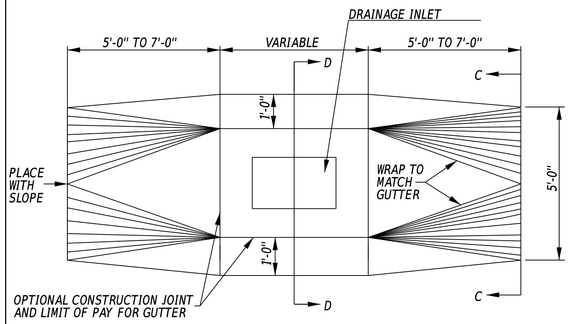


DUMPED RIPRAP CHUTE DETAIL - PLAN
N.T.S.

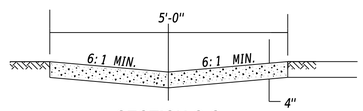


DUMPED RIPRAP CHUTE DETAIL - ELEVATION
N.T.S.

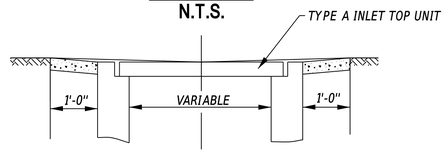
NOTES:
1. GEOTEXTILE SHALL BE KEYED IN AT TOP OF SLOPE AND AT BOTTOM OF SLOPE AS SHOWN IN THE RIPRAP KEY-IN DETAIL. ANCHOR PINS SHALL BE INSTALLED EVERY 2 FEET ALONG THE PROFILE OF THE SLOPE. ANCHOR PINS SHALL BE A MINIMUM OF 18 INCHES IN LENGTH AND SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO USE. COST FOR ANCHOR PINS SHALL BE INCIDENTAL TO ITEM #708003, GEOTEXTILES, RIPRAP.
2. NO. 3 STONE SHALL BE KEYED IN AT TOP AND BOTTOM OF CHUTE FOLLOWING THE RIPRAP KEY-IN DETAIL.
3. THE WIDTH (W) SHALL BE EQUAL TO THE WIDTH AT THE DOWNSTREAM END OF THE FLARED END SECTION.



CONC. GUTTER TO BE USED WITH DRAINAGE INLET
N.T.S.

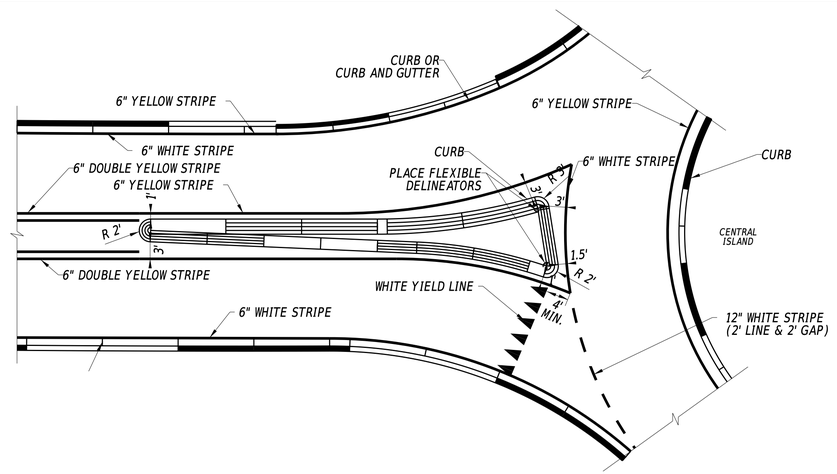


SECTION C-C
N.T.S.



SECTION D-D
N.T.S.

PAID FOR UNDER ITEM 705001- PCC SIDEWALK, 4"



SPLITTER ISLAND STRIPING DETAIL (TYP.)
N.T.S.

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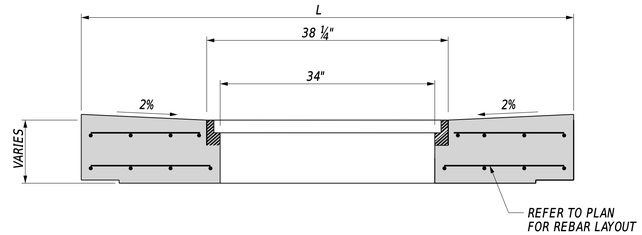
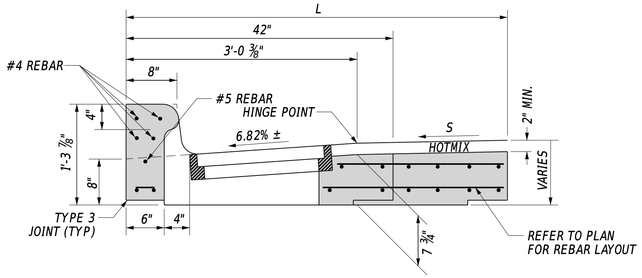
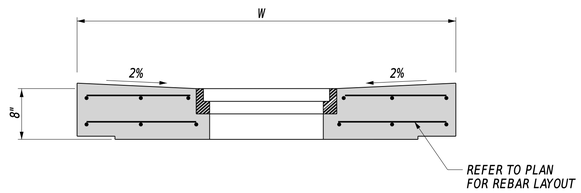
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	CONSTRUCTION DETAILS	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 91
					CHECKED BY: J. FREY		



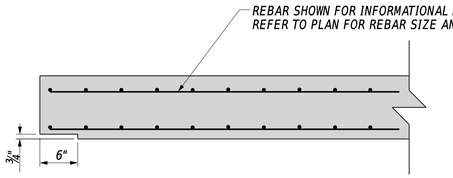
INLET TOP SECTION A-A



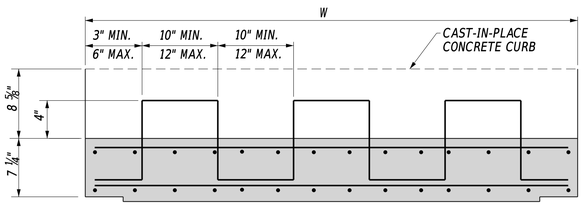
INLET TOP SECTION B-B



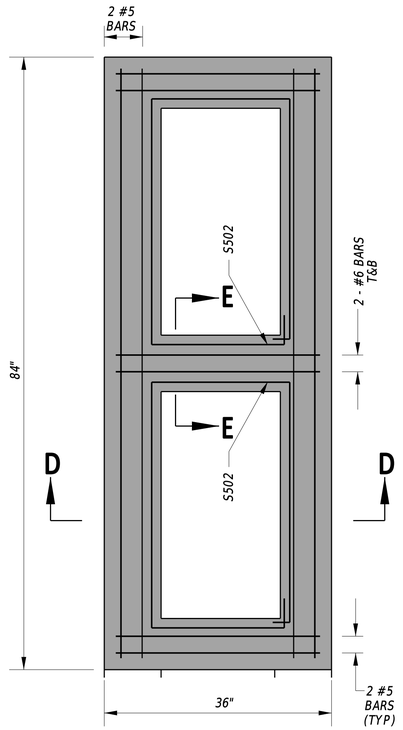
INLET TOP SECTION C-C



TYPE 3 JOINT DETAIL



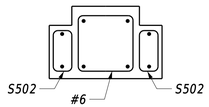
ELEVATION 1



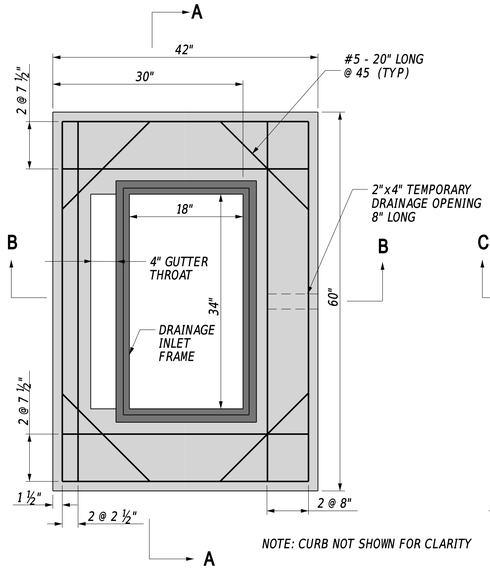
72" x 24" INLET WITH CURB

N.T.S.

ITEM# 602013 - DRAINAGE INLET, SPECIAL
DI 296



SECTION E-E

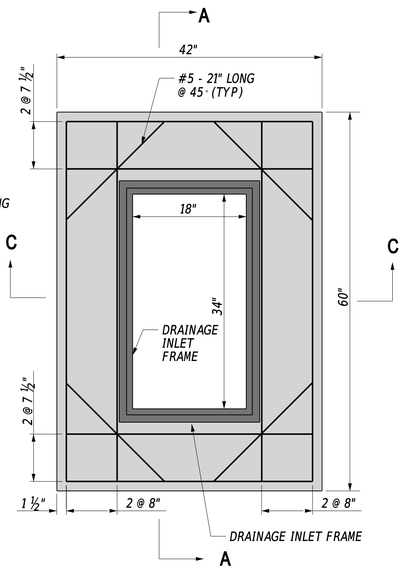


NOTE: CURB NOT SHOWN FOR CLARITY

48" X 30" INLET WITH CURB

N.T.S.

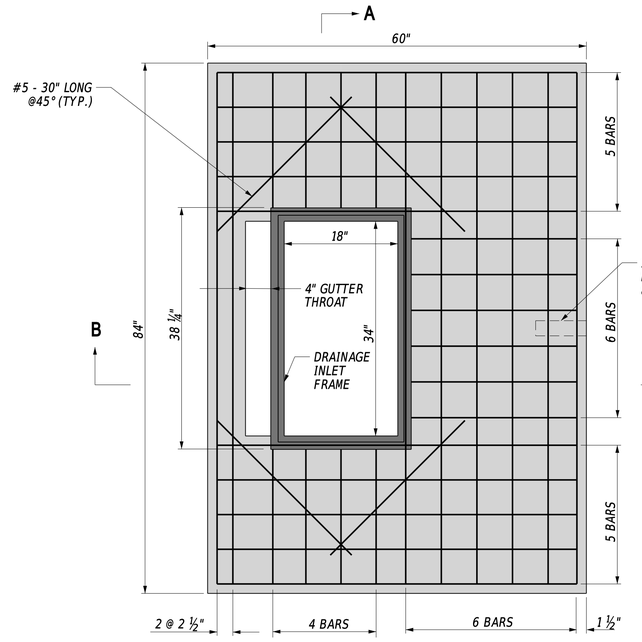
ITEM# 602013 - DRAINAGE INLET, SPECIAL
DI 246
DI 252
DI 297



48" X 30" LAWN BASIN

N.T.S.

ITEM# 602013 - DRAINAGE INLET, SPECIAL
DI 208
DI 271

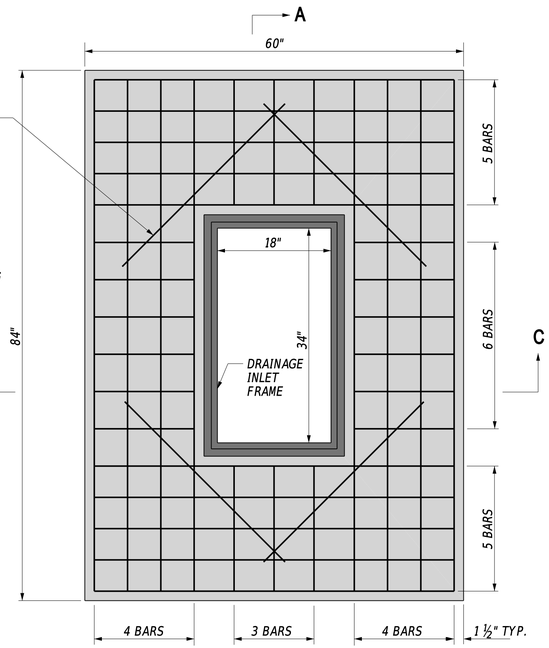


NOTE: CURB NOT SHOWN FOR CLARITY

72" X 48" INLET WITH CURB

N.T.S.

ITEM# 602013 - DRAINAGE INLET, SPECIAL
DI 236, DI 238, DI 239, DI 247, DI 299, DI 250



72" X 48" LAWN BASIN

N.T.S.

ITEM# 602013 - DRAINAGE INLET, SPECIAL
DI 251

NOTES:

1. *4" THROAT IS FOR TYPE B TOP UNITS ONLY.*
2. *INLET COVERS SHALL BE PRE-CAST AND MUST BE SIZED TO FIT INLET BOX DIMENSIONS.*
3. *ALL BARS ARE TO BE #5 SPACED @ 6" ± UNLESS NOTED OTHERWISE.*
4. *MINIMUM BAR COVER = 1 ½".*
5. *"W" REPRESENTS OVERALL WIDTH OF COVER SLAB.*
6. *"S" REPRESENTS ROADWAY CROSS SLOPE. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT INLET TOP SLOPE MATCHES FINAL ROADWAY CROSS SLOPE.*

SPECIAL INLET DETAILS

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ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION DETAILS	SECTION
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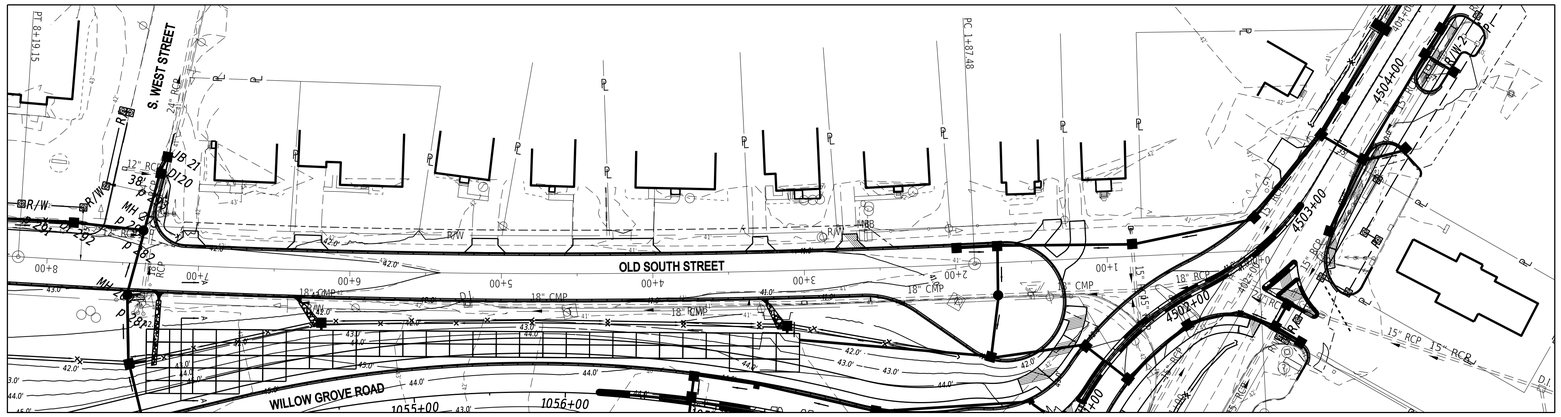
				COUNTY	CHECKED BY: J. FREY		SHEET NO.
				KENT			92



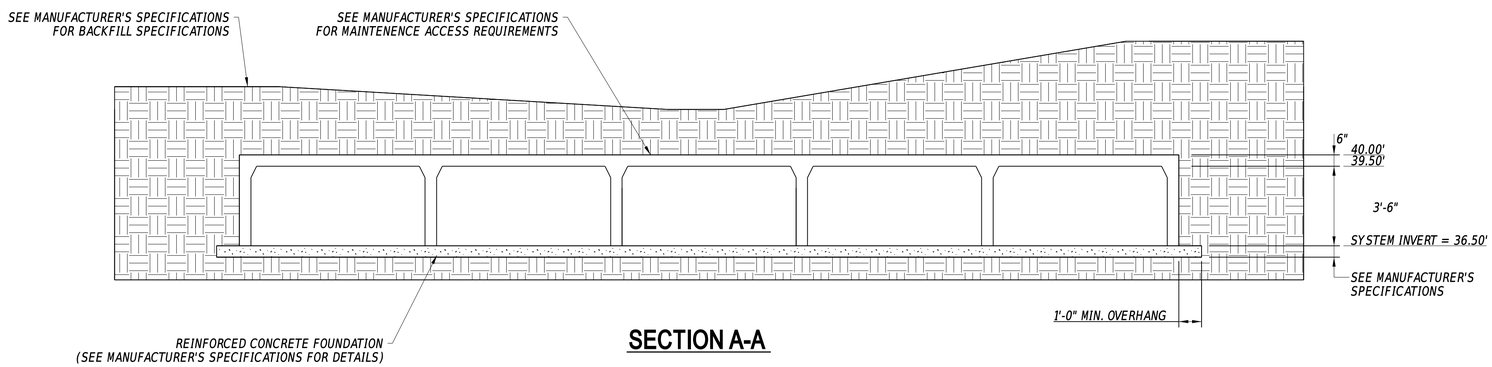
CONCRETE UNDERGROUND DETENTION SYSTEM

ITEM # 910504 - CONCRETE UNDERGROUND DETENTION SYSTEM

UNDERGROUND DETENTION SYSTEM CONSTRUCTION SEQUENCE AND NOTES:

NOTIFY THE CCR A MINIMUM OF TWO WORKING DAYS IN ADVANCE OF ANY CONSTRUCTION.

1. *CONDUCT A PRECONSTRUCTION MEETING TO INCLUDE REPRESENTATIVES OF THE DETENTION SYSTEM MANUFACTURER, THE CONTRACTOR, AND THE DEPARTMENT AT LEAST 2 WEEKS PRIOR TO INSTALLATION OF THE SYSTEM.*
2. *EXCAVATE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. EMBANK OR STOCKPILE SUITABLE EXCAVATED MATERIAL. DISPOSE OF ANY UNSUITABLE EXCAVATION.*
3. *PLACE STONE BEDDING PER THE SHOP DRAWING DETAILS.*
4. *INSTALL THE CONCRETE UNDERGROUND DETENTION SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.*
5. *PLACE APPLICABLE SECTIONS OF PIPE AT THE INLET AND DISCHARGE OPENINGS AND SEAL THE CONNECTIONS.*
6. *BACKFILL WITH MATERIAL MEETING BORROW TYPE C IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MATERIAL MEETING BORROW, TYPE F MAY BE USED ABOVE THE TOP OF THE DETENTION SYSTEM TO ESTABLISH FINISHED GRADE.*
7. *PROVIDE AN ON-SITE TECHNICAL REPRESENTATIVE FROM THE DETENTION SYSTEM MANUFACTURER TO WITNESS THE INSTALLATION.*



SECTION A-A

NOTES: SEE CONSTRUCTION PLANS FOR STORM DRAIN PIPE, DRAINAGE INLET, FLARED SECTION, AND RIPRAP SCHEDULES.

ADDENDA / REVISIONS	SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION DETAILS	SECTION
	0 50 100 150 FEET		T201709502			CEN
			COUNTY	DESIGNED BY: L. HAXTON		SHEET NO.
			KENT	CHECKED BY: J. FREY		93

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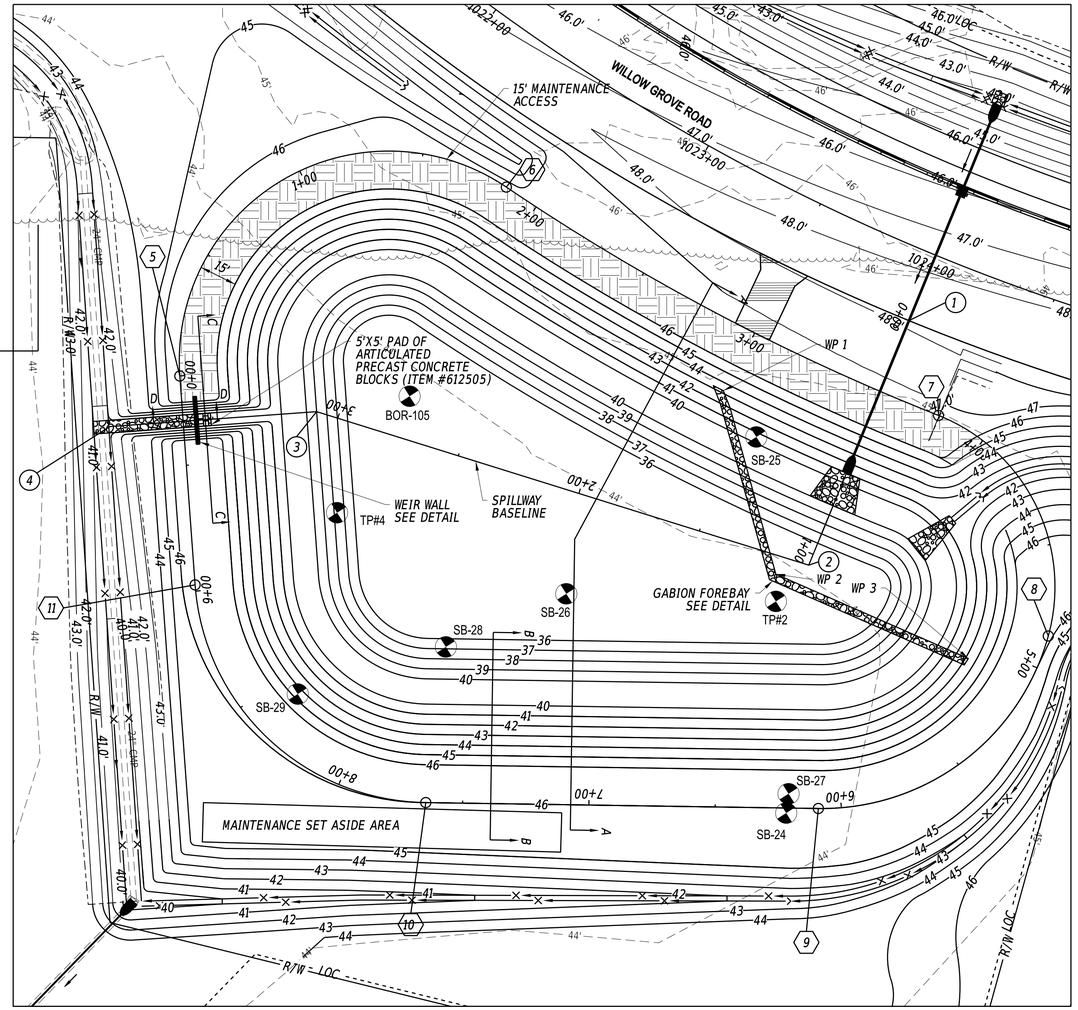

PLAN - DELDOT SWM FACILITY #01115
EXTENDED DETENTION WET POND

NOTES:

1. SEE CONSTRUCTION PLANS FOR STORM DRAIN PIPE, DRAINAGE INLET, FLARED SECTION, AND RIPRAP SCHEDULES.

WET POND CONSTRUCTION SEQUENCE AND NOTES:

NOTIFY THE CCR A MINIMUM OF TWO WORKING DAYS IN ADVANCE OF ANY CONSTRUCTION SO THAT THE REQUIRED FACILITY CONSTRUCTION CHECKLIST CAN BE COMPLETED.

A. INITIAL CONSTRUCTION:

1. *INSTALL STABILIZED CONSTRUCTION ENTRANCE(S) AS NEEDED AND APPROVED BY THE ENGINEER.*
2. *CLEAR AND GRUB FOR INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS.*
3. *INSTALL PERIMETER SEDIMENT CONTROLS AS SHOWN ON EROSION AND SEDIMENT CONTROL PLANS.*
4. *CLEAR AND GRUB REMAINING AREA FOR POND CONSTRUCTION.*
5. *CONSTRUCT POND OUTLET AND OUTFALL AS SHOWN ON THE PLANS. DEWATER FOUNDATION AS NEEDED IN ACCORDANCE WITH SECTION 900 OF THE STANDARD SPECIFICATIONS. BLOCK UP WEIR AND INSTALL SKIMMER DEWATERING DEVICE (ITEM #906004), CONNECT TO 3" ORIFICE. INSTALL OTHER TEMPORARY MODIFICATIONS AS SHOWN IN THE PLANS.*
6. *EXCAVATE POND TO THE LINES AND GRADES SHOWN ON THE PLANS. POND EXCAVATION WILL BE PAID FOR UNDER ITEM #910008, STORMWATER MANAGEMENT POND.*
7. *ALL DISTURBED AREAS MEETING FINAL ELEVATIONS MEETING FINAL ELEVATIONS AND GRADES ABOVE THE PERMANENT POOL ELEVATION SHALL BE SEEDED WITH ITEM #908015, PERMANENT GRASS SEEDING - STORMWATER AND MULCHED WITH ITEM #908020, EROSION CONTROL BLANKET MULCH.*

B. MAINTENANCE OF POND AS A SEDIMENT BASIN:

1. *THE CONTRACTOR SHALL INSPECT THE BASIN THE NEXT WORKDAY FOLLOWING A RAIN EVENT AND MAKE ANY REPAIRS AS NEEDED.*
2. *ANY EXCESS SEDIMENT AROUND THE OUTFALL AREA SHALL BE REMOVED WITHIN TWO WORKING DAYS AND DISPOSED AT A LOCATION APPROVED BY THE ENGINEER.*

C. CONVERSION TO PERMANENT STORMWATER MANAGEMENT WET POND:

1. *CONVERT THE SEDIMENT BASIN TO PERMANENT STORMWATER MANAGEMENT WET POND AFTER ALL AREAS DRAINING TO IT HAVE ATTAINED FINAL STABILIZATION AND THE STORMWATER ENGINEER HAS APPROVED THE CONVERSION.*
2. *INSTALL CLAY LINER AND REMOVE ANY EXCESS SEDIMENT FROM THE POND BOTTOM ABOVE ELEVATION 36.00'.*
3. *REMOVE ANY EXCESS SEDIMENT FROM THE FOREBAY ABOVE ELEVATION 36.00'.*
4. *COMPLETE STABILIZATION OF ALL BARE AREAS ABOVE PERMANENT POOL ELEVATION WITH ITEM #908015, PERMANENT GRASS SEEDING - STORMWATER AND MULCHED WITH ITEM #908020, EROSION CONTROL BLANKET MULCH.*
5. *AFTER ALL SURROUNDING AREAS DRAINING TO THE POND HAVE SUFFICIENT VEGETATION, AS APPROVED BY THE STORMWATER ENGINEER, EROSION AND SEDIMENT CONTROL DEVICES SHALL BE REMOVED.*

AS-BUILT DRAWINGS SHALL BE COMPLETED BY THE CONTRACTOR AND CERTIFIED BY A DELAWARE PLS BEFORE THE DELDOT INITIAL INSPECTION DATE. THESE DRAWINGS SHALL BE SENT TO THE STORMWATER ENGINEER FOR VERIFICATION. AS-BUILTS INCIDENTAL TO ITEM 910008. AS-BUILT DRAWINGS SHALL INCLUDE, BUT NOT BE LIMITED TO:

1. *GENERAL TOPOGRAPHY OF THE WHOLE FACILITY AT 1-FOOT CONTOURS INCLUDING FOREBAYS AND TOP/TOE OF ANY EMBANKMENT.*
2. *INVERTS OF ALL PIPES AND SWALES THAT INFLOW TO THE POND.*
3. *OUTLINE OF ALL RIPRAP AND SPOT ELEVATIONS ON TOP OF THE RIPRAP.*
4. *OUTLET STRUCTURE (OR WEIR WALL), INVERTS OF ANY AND ALL ORIFICES/WEIRS, TOP OF STRUCTURE, OUTLET PIPE, ETC.*
5. *PRIMARY OUTFLOW PIPE OR CHANNEL. FOR A PIPE OUTFALL, INVERTS AT THE ENTRANCE AND EXIT. FOR A PRIMARY OUTFLOW CHANNEL/SWALE, SHOW AT MINIMUM THREE CROSS-SECTIONS OF EQUAL DISTANCE APART AT 50' DOWNSTREAM ALONG THE SLOPE.*

DELDOT SWM FACILITY SCHEDULE

NO.	TYPE / DESCRIPTION	LOCATION
01115	EXTENDED DETENTION WET POND	STA. 1022+00 RT. TO STA. 1025+00 RT.

SWM FACILITY #01115 SPILLWAY BASELINE

POINT NO.	STATION	NORTHING	EASTING
1 POB	0+00.00	402824.87	616570.61
2 PI	1+04.65	402728.21	616610.70
3 PI	3+08.79	402633.95	616429.61
4 POB	3+90.89	402572.03	616375.70

SWM FACILITY #01115 EMBANKMENT BASELINE

POINT NO.	STATION	NORTHING	EASTING
5 POB/PC	0+00.00	402605.78	616381.22
PI	1+71.23	402718.11	616251.98
		RADIUS = 83.00'	
6 PRC	1+85.83	402749.98	616420.22
PI	2+83.19	402768.10	616515.88
		RADIUS = 889.29'	
7 PRC	3+79.77	402806.48	616605.35
PI	4+45.33	402832.33	616665.60
		RADIUS = 73.00'	
8 PCC	4+86.61	402775.19	616697.75
PI	5+58.59	402712.51	616733.13
		RADIUS = 93.00'	
9 PT	6+09.12	402662.55	616681.32
10 PC	7+64.61	402554.61	616569.40
PI	8+49.76	402495.50	616508.10
		RADIUS = 63.00'	
11 PT	9+02.51	402551.36	616443.83
5 POE	9+85.45	402605.78	616381.22

GABION WORKING POINTS

POINT NO.	NORTHING	EASTING
WP 1	402753.38	616538.00
WP 2	402716.50	616603.95
WP 3	402746.88	616681.57

POND DESIGN SUMMARY

DESIGN STORM	FACILITY INFLOW	FACILITY DISCHARGE	WATER SURFACE EL.	STORAGE VOL. (AC-FT)
RPv	10.86	0.21	41.91	3.590
Cv	27.53	1.98	42.59	4.221
Fv	63.55	10.24	44.04	5.676

HAZARD CLASSIFICATION: CLASS A PER POND CODE 378
DRAINAGE AREA TO FACILITY: 11.76 AC.
MANAGEMENT PROVIDED BY FACILITY: WATER QUALITY FOR RPv STORM EVENT BY 48-HOUR DETENTION
WATER QUANTITY FOR Cv AND Fv STORM EVENTS

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	SECTION
T201709502	DESIGNED BY: L. HAXTON		CEN
COUNTY	CHECKED BY: J. FREY		SHEET NO.
KENT			94

STORMWATER MANAGEMENT PLAN

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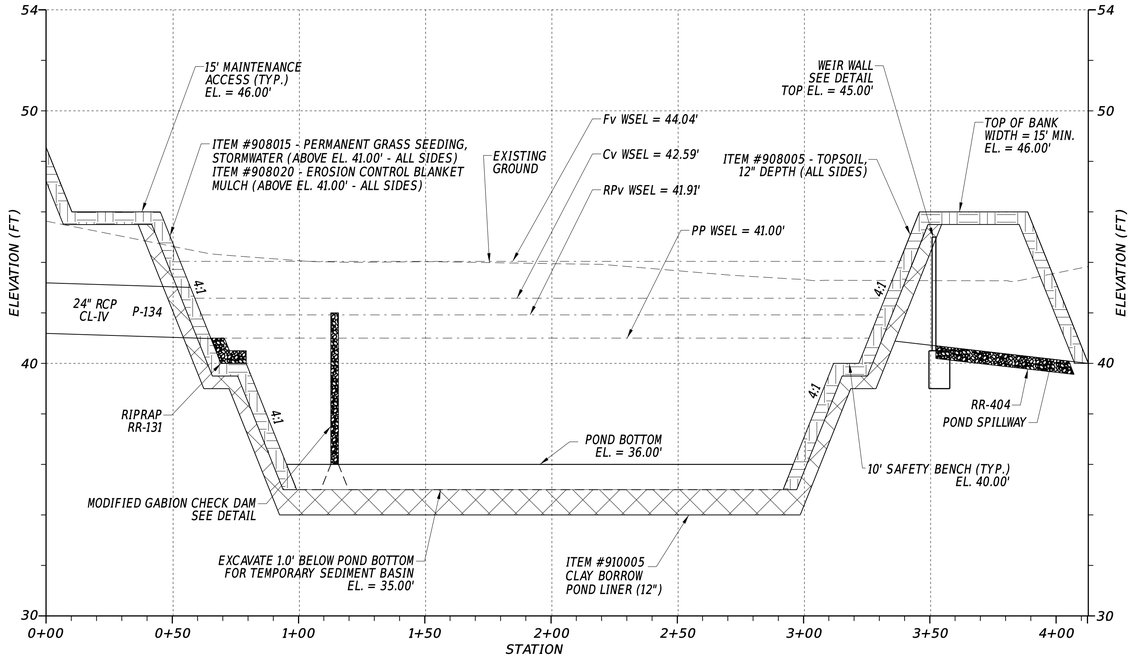
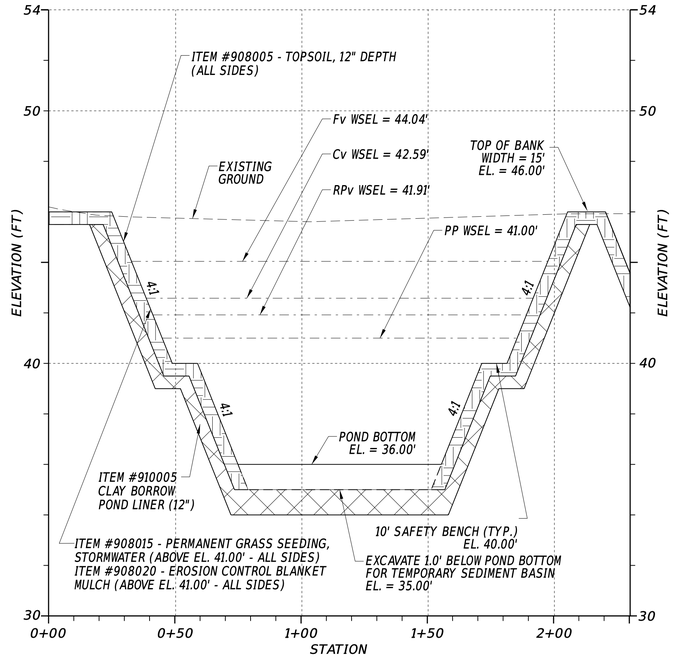
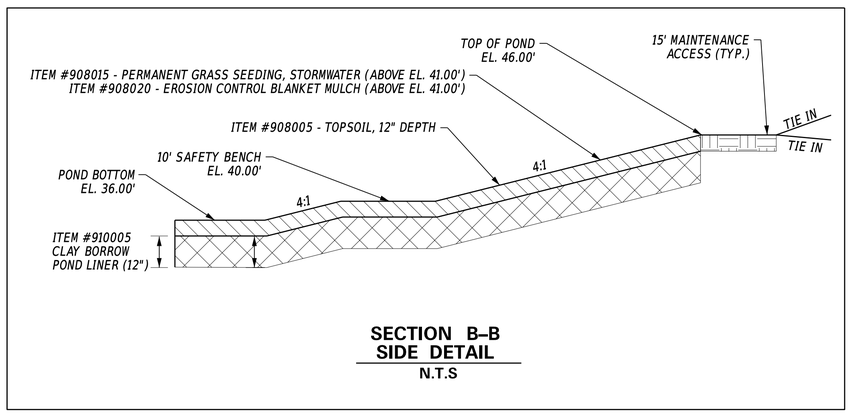


SWM FACILITY #01115 SPILLWAY PROFILE



SECTION A–A



SECTION B–B SIDE DETAIL

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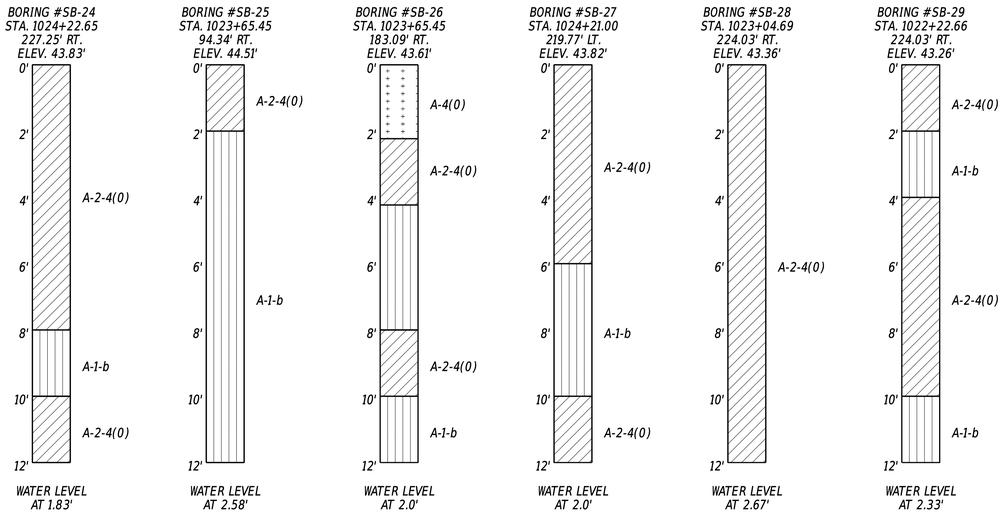

VERTICAL SCALE FEET 9 6 3 0

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	SECTION
T201709502	DESIGNED BY: L. HAXTON		CEN
COUNTY	CHECKED BY: J. FREY		SHEET NO.
KENT			95

STORMWATER MANAGEMENT PLAN

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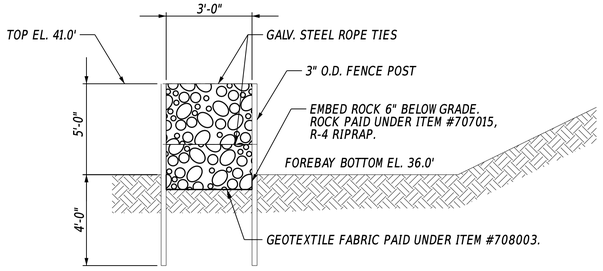
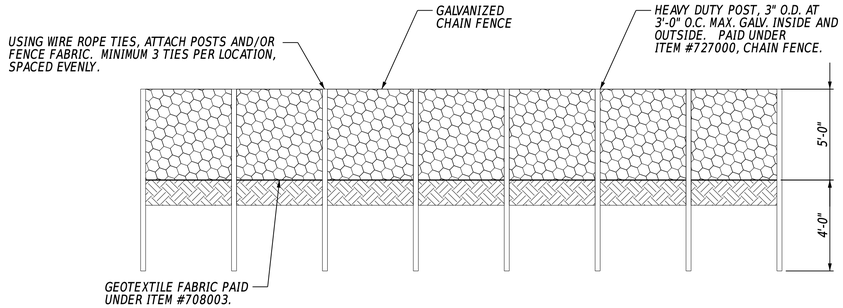


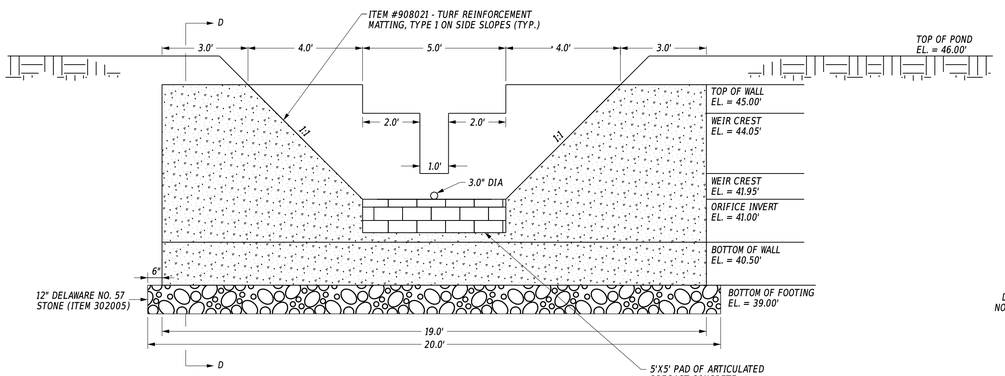
MODIFIED GABION CHECK DAM SECTION



MODIFIED GABION CHECK DAM ELEVATION

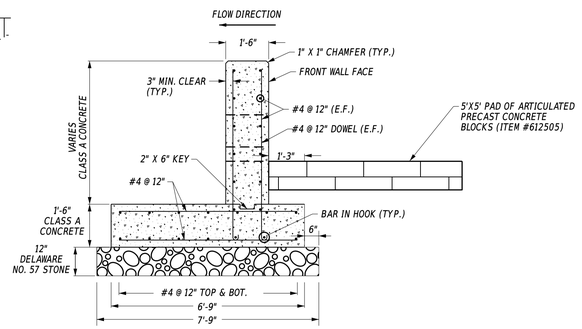
MODIFIED GABION CHECK DAM GENERAL NOTES:

1. *FENCE POST SHALL BE TIED TOGETHER USING 1/4" GALVANIZED STEEL ROPE. THREE TIES PER FENCE POST PAIR. FENCE POST AND TIES SHALL BE PAID UNDER ITEM #727000, CHAIN FENCE.*
2. *GALVANIZED CHAIN LINK FENCE SHALL BE TIED TOGETHER USING 1/4" GALVANIZED STEEL ROPE. TIES SHALL BE SPACED 1'-6" O.C. ALONG LENGTH. TIES SHALL BE PLACED AT TOP, MIDDLE, AND BOTTOM OF EACH SECTION. WHERE TIES FALL ON A FENCE POST THE SAME TIE MAY BE USED TO TIE THE FENCE POSTS AS IS USED TO TIE THE FENCE. CHAIN LINK FENCE AND TIES SHALL BE PAID UNDER ITEM #727000, CHAIN FENCE.*
3. *THE STONE PLACED INSIDE MODIFIED GABION SHALL BE R-4 RIPRAP. SPECIAL CARE SHALL BE TAKEN WHEN PLACING THE ROCK TO ENSURE THAT THE COATING ON THE FENCE IS NOT DAMAGED. RIPRAP SHALL BE PAID UNDER ITEM #707015, R-4 RIPRAP.*
4. *GEOTEXTILE BENEATH THE MODIFIED GABION CHECKDAM SHALL BE PAID UNDER ITEM #708003.*
5. *EXCAVATION REQUIRED TO INSTALL THE MODIFIED GABION CHECK DAM SHALL BE PAID UNDER ITEM #910008 - STORMWATER MANAGEMENT POND.*
6. *EXTEND MODIFIED GABION CHECKDAM ENDS 5' INTO EMBANKMENT.*



WEIR WALL DETAIL - SECTION C-C

NTS



WEIR WALL DETAIL - SECTION D-D

NTS

WEIR WALL GENERAL NOTES:

1. *FURNISHING, CONSTRUCTING AND PLACING ALL ITEMS ASSOCIATED WITH THE OUTLET STRUCTURE, INCLUDING BUT NOT LIMITED TO, EXCAVATION, TRASH RACKS, CONCRETE, REINFORCING STEEL, STONE BEDDING, GEOTEXTILE, BALLAST, FASTENERS AND BACKFILL MATERIAL SHALL BE INCLUDED IN ITEM #910007, OUTLET STRUCTURE.*
2. *ALL CONCRETE FOR OUTLET STRUCTURE SHALL BE PORTLAND CEMENT CONCRETE CLASS A.*
3. *REINFORCING STEEL SHALL BE EPOXY COATED AND SHALL CONFORM TO AASHTO M31-94, GRADE 60.*
4. *CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING LAYOUT AND DESIGN OF OUTLET STRUCTURE SEALED BY A REGISTERED DELAWARE PROFESSIONAL ENGINEER.*
5. *CONTRACTOR SHALL STENCIL THE APPROVED DELDOT BMP NUMBER ONTO THE CONCRETE OUTLET STRUCTURE. THE BMP NUMBER SHALL BE 4" TALL AND STENCILED IN BLACK PAINT ON TWO SIDES OF THE CONCRETE OUTLET STRUCTURE THAT ARE CLEARLY VISIBLE FROM THE ROADWAY. COST SHALL BE INCIDENTAL TO ITEM #910007.*
6. *REINFORCED CONCRETE PIPE SHALL BE PAID FOR SEPARATELY.*
7. *BAR GUARD FOR 3" ORIFICE SHALL BE AGRI DRAIN OR APPROVED EQUAL, AND SHALL BE INCIDENTAL TO ITEM #910007.*

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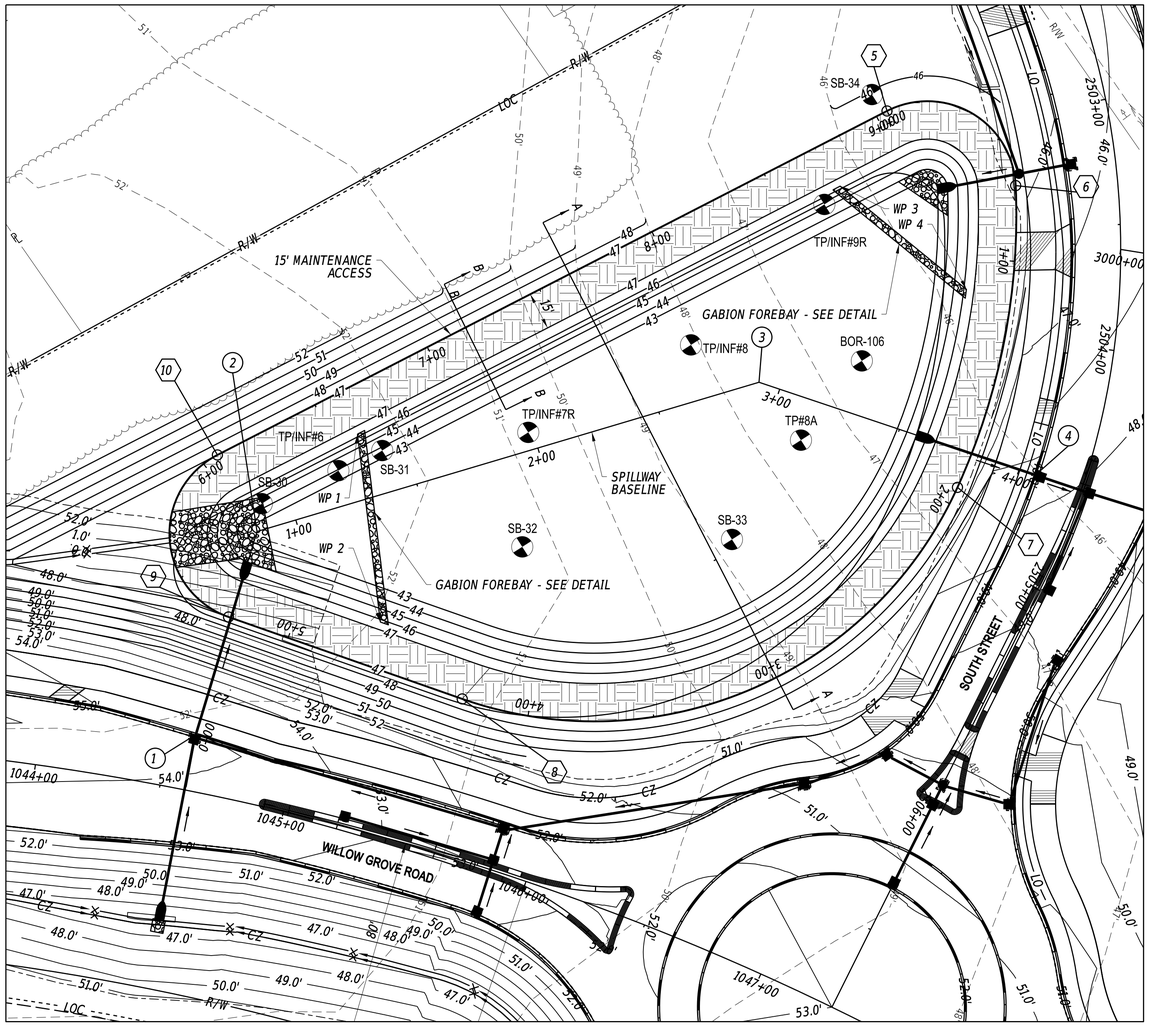
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	STORMWATER MANAGEMENT DETAIL	SECTION
				T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY			SHEET NO.
				KENT	CHECKED BY: J. FREY		96



PLAN - DELDOT SWM FACILITY #01116
INFILTRATION BASIN

NOTES:
1. SEE CONSTRUCTION PLANS FOR STORM DRAIN PIPE, DRAINAGE INLET, FLARED SECTION, AND RIPRAP SCHEDULES.

INFILTRATION BASIN CONSTRUCTION SEQUENCE AND NOTES:

NOTIFY THE CCR A MINIMUM OF TWO WORKING DAYS IN ADVANCE SO THAT THE REQUIRED FACILITY CONSTRUCTION CHECKLIST CAN BE COMPLETED. IF THE INFILTRATION BASIN IS TO BE USED AS A SEDIMENT BASIN DURING CONSTRUCTION, GRADING SHALL BE COMPLETED TO MAINTAIN A MINIMUM OF 2-FEET OF COVER ABOVE THE PERMANENT BOTTOM ELEVATION AT ALL TIMES. INCOMING AND OUTFLOWING INVERTS MAY NEED TO BE ADJUSTED TO ALLOW FOR SEDIMENT STORAGE AND BOTTOM COVER NEEDED DURING CONSTRUCTION. IF CONTRACTOR CANNOT MEET THE 2-FEET OF COVER, THEN DISCUSS WITH THE STORMWATER ENGINEER. NO HEAVY EQUIPMENT SHALL BE ALLOWED WITHIN 2-FEET OF PERMANENT BOTTOM ELEVATION.

A. *INITIAL CONSTRUCTION:*
1. *INSTALL STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON EROSION AND SEDIMENT CONTROL PLANS.*
2. *CLEAR AND GRUB FOR INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS.*
3. *INSTALL PERIMETER SEDIMENT CONTROLS AS SHOWN ON EROSION AND SEDIMENT CONTROL PLANS.*
4. *CLEAR AND GRUB REMAINING AREA FOR INFILTRATION BASIN CONSTRUCTION, MAKING SURE NOT TO INTRUDE WITHIN 2-FEET OF THE PERMANENT BOTTOM ELEVATION*
5. *EXCAVATE AND CONSTRUCT BASIN OUTLET STRUCTURE AND OUTFALL ITEM 910006 AS SHOWN ON THE PLANS. DEWATER FOUNDATION AS NEEDED IN ACCORDANCE WITH DEWATERING PRACTICES AS DESCRIBED IN SECTION 900 OF THE STANDARD SPECIFICATIONS.*
6. *COMPLETE BASIN EXCAVATION TO MAINTAIN A MINIMUM OF 2-FEET OF COVER ABOVE THE PERMANENT BOTTOM ELEVATION. SIDE SLOPES, MAINTENANCE ACCESS ROAD, AND FOREBAYS SHALL BE CONSTRUCTED AS PER FINAL DESIGN ELEVATION AND CONFIGURATION. ALL DISTURBED AREAS MEETING FINAL ELEVATIONS AND GRADES ABOVE THE PERMANENT BOTTOM ELEVATION SHALL BE SEEDED WITH ITEM 908015, PERMANENT GRASS SEEDING - STORMWATER*

B. *MAINTENANCE OF INFILTRATION BASIN BEING USED AS A SEDIMENT BASIN:*
1. *CONTRACTOR SHALL INSPECT THE BASIN THE NEXT WORKDAY FOLLOWING A RAIN EVENT AND MAKE ANY REPAIRS AS NEEDED.*
2. *REMOVE EXCESS SEDIMENT AROUND THE OUTFALL AREA WITHIN TWO WORKING DAYS AND DISPOSE OF REMOVED SEDIMENT AT A LOCATION APPROVED BY THE ENGINEER.*

C. *CONVERSION TO PERMANENT INFILTRATION BASIN:*
1. *CONVERT THE SEDIMENT BASIN AFTER ALL AREAS DRAINING INTO IT HAVE ATTAINED FINAL STABILIZATION AS APPROVED BY THE ENGINEER WITH CONCURRENCE FROM THE STORMWATER ENGINEER. AN ONSITE MEETING WILL BE CONDUCTED WITH THE STORMWATER ENGINEER TO DETERMINE THE E&S REQUIREMENTS PRIOR TO THE CONVERSION. DURING EXCAVATION, THE CCR SHALL OBSERVE THE SOIL TYPE. IF STANDING WATER, ORGANIC MATERIAL OR CLAY/SILT MATERIAL IS DISCOVERED AT THE PROPOSED BOTTOM ELEVATION, THE CCR SHALL NOTIFY THE ENGINEER AND STORMWATER ENGINEER IMMEDIATELY. FILL ANY VOIDS IN THE BOTTOM OF THE POND WITH CONCRETE SAND MEETING THE GRADATION REQUIREMENTS OF SECTION 1003 IN THE STANDARD SPECIFICATIONS. OVER EXCAVATION AND BACKFILLING WITH SAND INCIDENTAL TO ITEM 910008, STORMWATER MANAGEMENT POND.*
2. *REMOVE EXCESS SEDIMENT ABOVE THE FINAL FOREBAY ELEVATION FROM THE FOREBAYS. NO HEAVY EQUIPMENT SHALL BE USED WITHIN 2 FOOT OF THE PERMANENT BOTTOM ELEVATION.*
3. *THE FINAL 2-FEET OF MATERIAL TO BE EXCAVATED SHALL BE STARTED FROM ONE SIDE OF THE BASIN AND REMOVED GOING ACROSS OR STARTED IN THE MIDDLE AND REMOVED TOWARDS THE OUTSIDES.NO HEAVY EQUIPMENT SHALL BE USED WITHIN 2-FOOT OF THE PERMANENT BOTTOM ELEVATION. THE ABSOLUTE MINIMUM OF INGRESS AND EGRESS POINTS SHALL BE UTILIZED AND THESE AREAS WILL BE STABILIZED WITHIN ONE WORKING DAY WHEN NO LONGER NEEDED. NO DISTURBANCE OF THE SIDE SLOPES SHALL BE CONDUCTED AT THIS TIME, OTHER THAN WHAT IS NECESSARY TO COMPLETE THE BOTTOM EXCAVATION. THE COMPLETION OF THE SIDE SLOPES TO THE DESIGN BOTTOM ELEVATION SHALL BE COMPLETED TO THE BEST OF THE CONTRACTOR'S ABILITY TO LIMIT DISTURBANCE TO ADJACENT AREAS. COMPOST FILTER LOGS SHALL BE INSTALLED AROUND TOES OF SLOPE FOR ENTIRE BASIN AND ARE INCIDENTAL TO THE CONSTRUCTION OF THE ITEM 910008, STORMWATER MANAGEMENT POND.*
4. *AFTER FINAL 2-FEET IS REMOVED, THE ENGINEER WILL COORDINATE WITH A SOILS PROFESSIONAL TO PERFORM CONFIRMATORY INFILTRATION TESTING. CONFIRMATORY TESTING RATE SHALL BE NO LESS THAN 150% OF THE APPROVED DESIGN RATE. IF TEST RESULTS ARE LESS THAN 150% OF DESIGN RATE, THE DESIGN ENGINEER SHALL VERIFY THAT THE FACILITY WILL FUNCTION AS ORIGINALLY DESIGNED OR SUBMIT ALTERNATE COMPLIANCE PLAN AND REVISE SWM REPORT ACCORDINGLY.*
5. *IN ADDITION TO CONFIRMATORY INFILTRATION TESTING, A HAND AUGER SHALL BE PERFORMED ADJACENT TO THE CONFIRMATORY INFILTRATION TEST LOCATION OR AT LOCATIONS RECOMMENDED BY THE SOILS PROFESSIONAL TO A MINIMUM DEPTH OF 3 FEET BELOW THE BOTTOM OF THE FACILITY TO CONFIRM THAT A LIMITING LAYER IS NOT PRESENT AND TO LOG THE SOILS CONDITIONS. IF A LIMITING LAYER IS OBSERVED AT A DEPTH LESS THAN 2 FEET, THE LICENSED PROFESSIONAL SHALL RE-EVALUATE THE DESIGN AND SUBMIT RECOMMENDATIONS AND ANY REQUIRED DESIGN CHANGES TO THE DEPARTMENT FOR APPROVAL.*
6. *ALL DISTURBED AREAS MEETING FINAL ELEVATIONS AND GRADES ABOVE THE PERMANENT BOTTOM ELEVATION SHALL BE SEEDED WITH ITEM 908015, PERMANENT GRASS SEEDING, STORMWATER AND MULCHED WITH ITEM 908020, EROSION CONTROL BLANKET MULCH.*
7. *BASIN BOTTOM ELEVATION SHALL BE SEEDED WITH ITEM 908015, PERMANENT GRASS SEEDING, STORMWATER, AND MULCHED WITH A HYDRAULIC MULCH, ITEM 908026*
8. *AFTER ALL SURROUNDING AREAS DRAINING TO THE INFILTRATION BASIN HAVE SUFFICIENT VEGETATION AS APPROVED BY THE ENGINEER, E&S DEVICES SHALL BE REMOVED.*
9. *AS PART OF FINAL STABILIZATION POST CONSTRUCTION VERIFICATION SURVEY WILL BE COMPLETED IN ACCORDANCE WITH DELAWARE POST CONSTRUCTION STORMWATER BMP STANDARDS & SPECIFICATIONS BY THE CONTRACTOR AND LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF DELAWARE AND SENT TO THE STORMWATER ENGINEER FOR VERIFICATION.*

D. *AS-BUILT DRAWINGS SHALL BE COMPLETED BY THE CONTRACTOR AND CERTIFIED BY A DELAWARE PLS BEFORE THE DELDOT INITIAL INSPECTION DATE. THESE DRAWINGS SHALL BE SENT TO THE STORMWATER ENGINEER FOR VERIFICATION. AS-BUILTS INCIDENTAL TO ITEM 910008. AS-BUILT DRAWINGS SHALL INCLUDE, BUT NOT BE LIMITED TO:*
1. *GENERAL TOPOGRAPHY OF THE WHOLE FACILITY AT 1-FOOT CONTOURS INCLUDING FOREBAYS AND TOP/TOE OF ANY EMBANKMENT.*
2. *INVERTS OF ALL PIPES AND SWALES THAT INFLOW TO THE BASIN.*
3. *OUTLINE OF ALL RIPRAP AND SPOT ELEVATIONS ON TOP OF THE RIPRAP.*
4. *OUTLET STRUCTURE (OR WEIR WALL), INVERTS OF ANY AND ALL ORIFICES/WEIRS, TOP OF STRUCTURE, OUTLET PIPE, ETC.*
5. *PRIMARY OUTFLOW PIPE OR CHANNEL. FOR A PIPE OUTFALL, INVERTS AT THE ENTRANCE AND EXIT. FOR A PRIMARY OUTFLOW CHANNEL/SWALE, SHOW AT MINIMUM THREE CROSS-SECTIONS OF EQUAL DISTANCE APART AT 50' DOWNSTREAM ALONG THE SLOPE.*

E. *INFILTRATION BASIN EXCAVATION WILL BE PAID FOR UNDER ITEM 910008 - STORMWATER MANAGEMENT POND.*

SWM FACILITY #01116 SPILLWAY BASELINE

POINT NO.	STATION	NORTHING	EASTING
1 POB	0+00.00	404260.70	618055.77
2 PI	0+83.96	404334.79	618016.27
3 PI	2+91.36	404516.84	618115.62
4 PI	4+06.86	404567.97	618219.19

SWM FACILITY #01116 EMBANKMENT BASELINE

POINT NO.	STATION	NORTHING	EASTING
5 PC/POB	0+00.00	404628.78	618075.86
PI	0+54.52	404680.63	618092.69
RADIUS = 35.00'			
6 PCC	0+70.01	404643.73	618132.83
PI	1+32.59	404601.38	618178.90
RADIUS = 260.54'			
7 PCC	1+92.84	404542.73	618200.71
PI	3+37.35	404407.27	618251.08
RADIUS = 158.00'			
8 PT	4+26.95	404345.05	618120.64
9 PC	5+25.00	404302.84	618032.14
PI	6+06.45	404267.77	617958.63
RADIUS = 35.00'			
10 PT	606.55	404345.24	617983.78
5 POE	9+04.47	404628.59	618075.79

GABION WORKING POINTS

POINT NO.	NORTHING	EASTING
WP 1	404390.19	618017.30
WP 2	404343.80	618076.20
WP 3	404594.58	618083.68
WP 4	404600.83	618147.96

POND DESIGN SUMMARY

DESIGN STORM	FACILITY INFLOW	FACILITY DISCHARGE	WATER SURFACE EL.	STORAGE VOL. (AC-FT)
RPv	5.79	0.00	43.34	0.198
Cv	14.66	0.00	44.09	0.659
Fv	35.52	1.43	45.54	1.660

HAZARD CLASSIFICATION: CLASS A PER POND CODE 378
DRAINAGE AREA TO FACILITY: 6.48 AC.
MANAGEMENT PROVIDED BY FACILITY: WATER QUALITY FOR RPv STORM EVENT BY INFILTRATION
WATER QUANTITY FOR Cv AND Fv STORM EVENTS

DELDOT SWM FACILITY SCHEDULE

NO.	TYPE / DESCRIPTION	LOCATION
01116	INFILTRATION BASIN	STA. 2503+00 RT. TO STA. 2506+50 RT.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO. N/A
T201709502	DESIGNED BY: L. HAXTON
COUNTY	CHECKED BY: J. FREY
KENT	

STORMWATER MANAGEMENT PLAN

SECTION	
CEN	
SHEET NO.	
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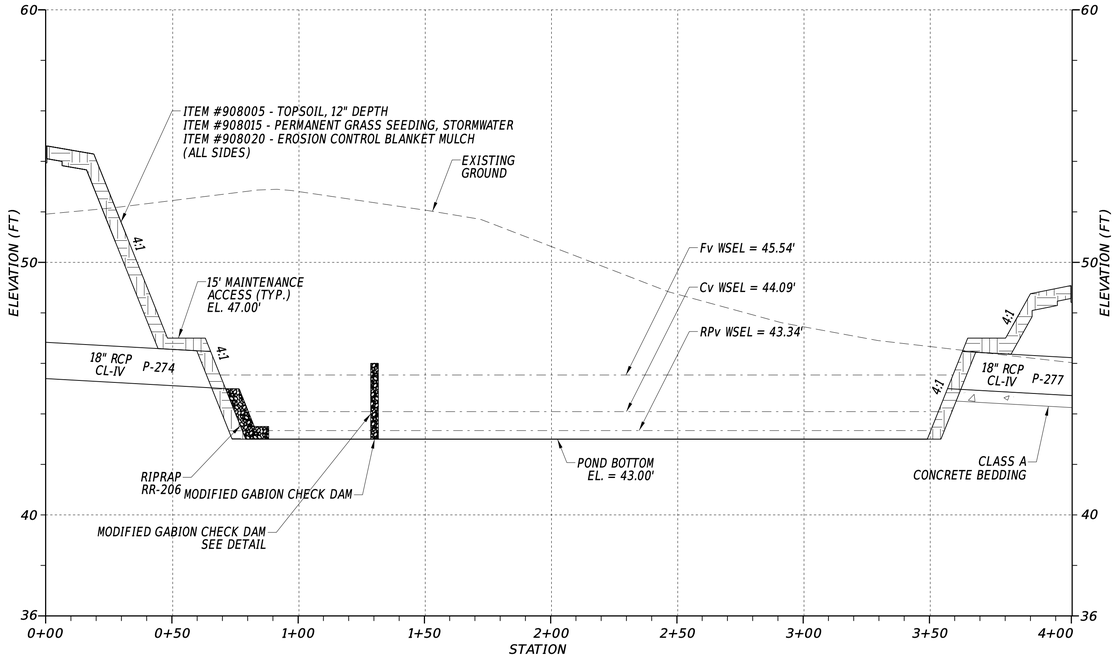
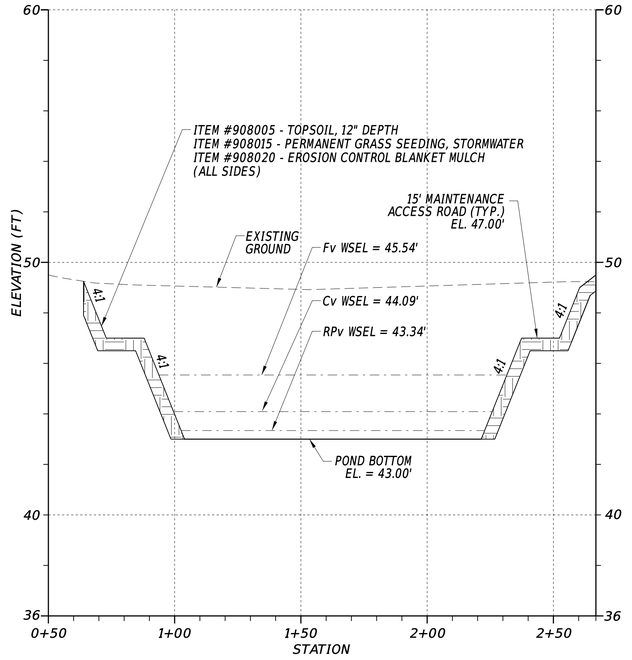
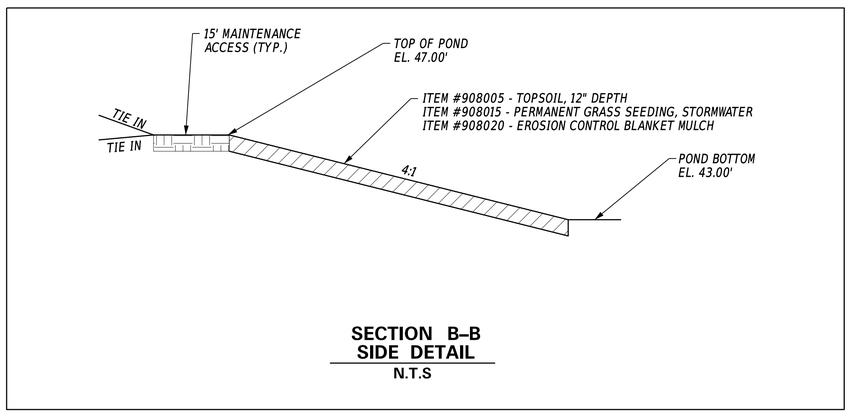


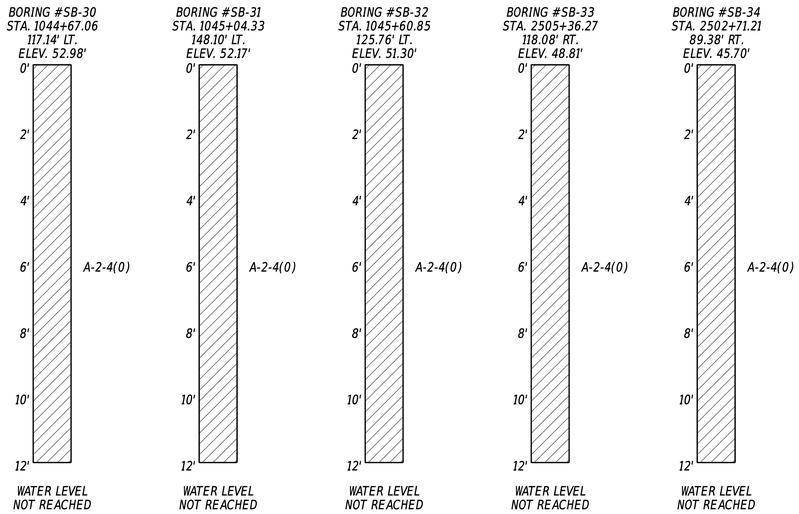
SWM FACILITY #01116 SPILLWAY PROFILE

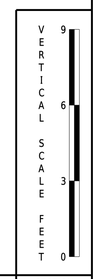


SECTION A–A



SECTION B–B
SIDE DETAIL
N.T.S





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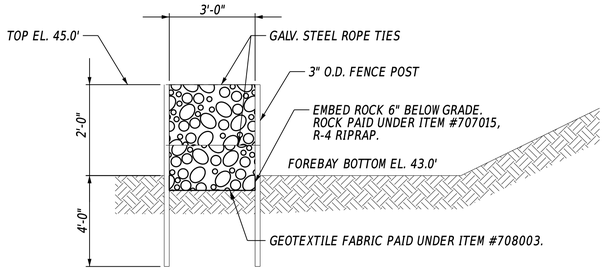
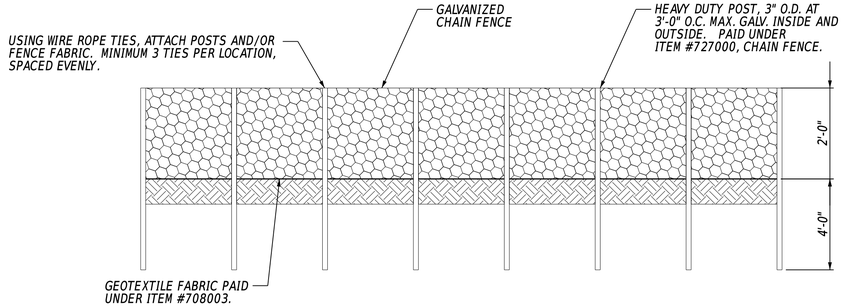
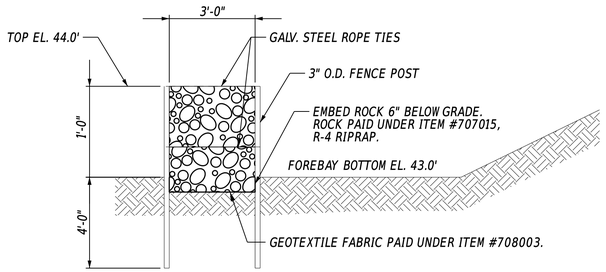
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	STORMWATER MANAGEMENT PLAN	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 98
					CHECKED BY: J. FREY		



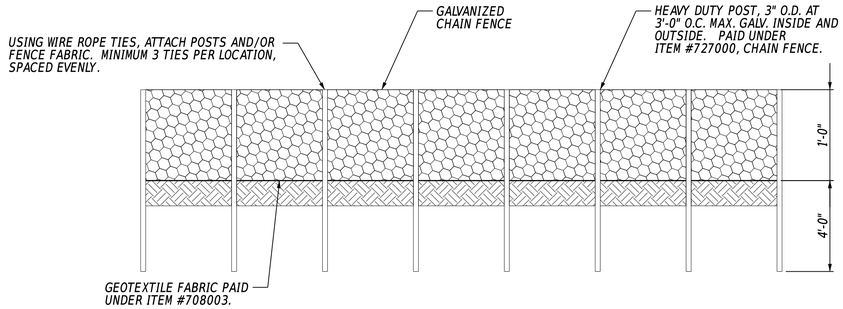
MODIFIED GABION CHECK DAM SECTION (FES-206)



MODIFIED GABION CHECK DAM ELEVATION



MODIFIED GABION CHECK DAM SECTION (FES-207)



MODIFIED GABION CHECK DAM ELEVATION

MODIFIED GABION CHECK DAM GENERAL NOTES:

1. *FENCE POST SHALL BE TIED TOGETHER USING 1/4" GALVANIZED STEEL ROPE. THREE TIES PER FENCE POST PAIR. FENCE POST AND TIES SHALL BE PAID UNDER ITEM #727000, CHAIN FENCE.*
2. *GALVANIZED CHAIN LINK FENCE SHALL BE TIED TOGETHER USING 1/4" GALVANIZED STEEL ROPE. TIES SHALL BE SPACED 1'-6" O.C. ALONG LENGTH. TIES SHALL BE PLACED AT TOP, MIDDLE, AND BOTTOM OF EACH SECTION. WHERE TIES FALL ON A FENCE POST THE SAME TIE MAY BE USED TO TIE THE FENCE POSTS AS IS USED TO TIE THE FENCE. CHAIN LINK FENCE AND TIES SHALL BE PAID UNDER ITEM #727000, CHAIN FENCE.*
3. *THE STONE PLACED INSIDE MODIFIED GABION SHALL BE R-4 RIPRAP. SPECIAL CARE SHALL BE TAKEN WHEN PLACING THE ROCK TO ENSURE THAT THE COATING ON THE FENCE IS NOT DAMAGED. RIPRAP SHALL BE PAID UNDER ITEM #707015, R-4 RIPRAP.*
4. *GEOTEXTILE BENEATH THE MODIFIED GABION CHECKDAM SHALL BE PAID UNDER ITEM #708003.*
5. *EXCAVATION REQUIRED TO INSTALL THE MODIFIED GABION CHECK DAM SHALL BE PAID UNDER ITEM #910008 - STORMWATER MANAGEMENT POND.*
6. *EXTEND MODIFIED GABION CHECKDAM ENDS 5' INTO EMBANKMENT.*

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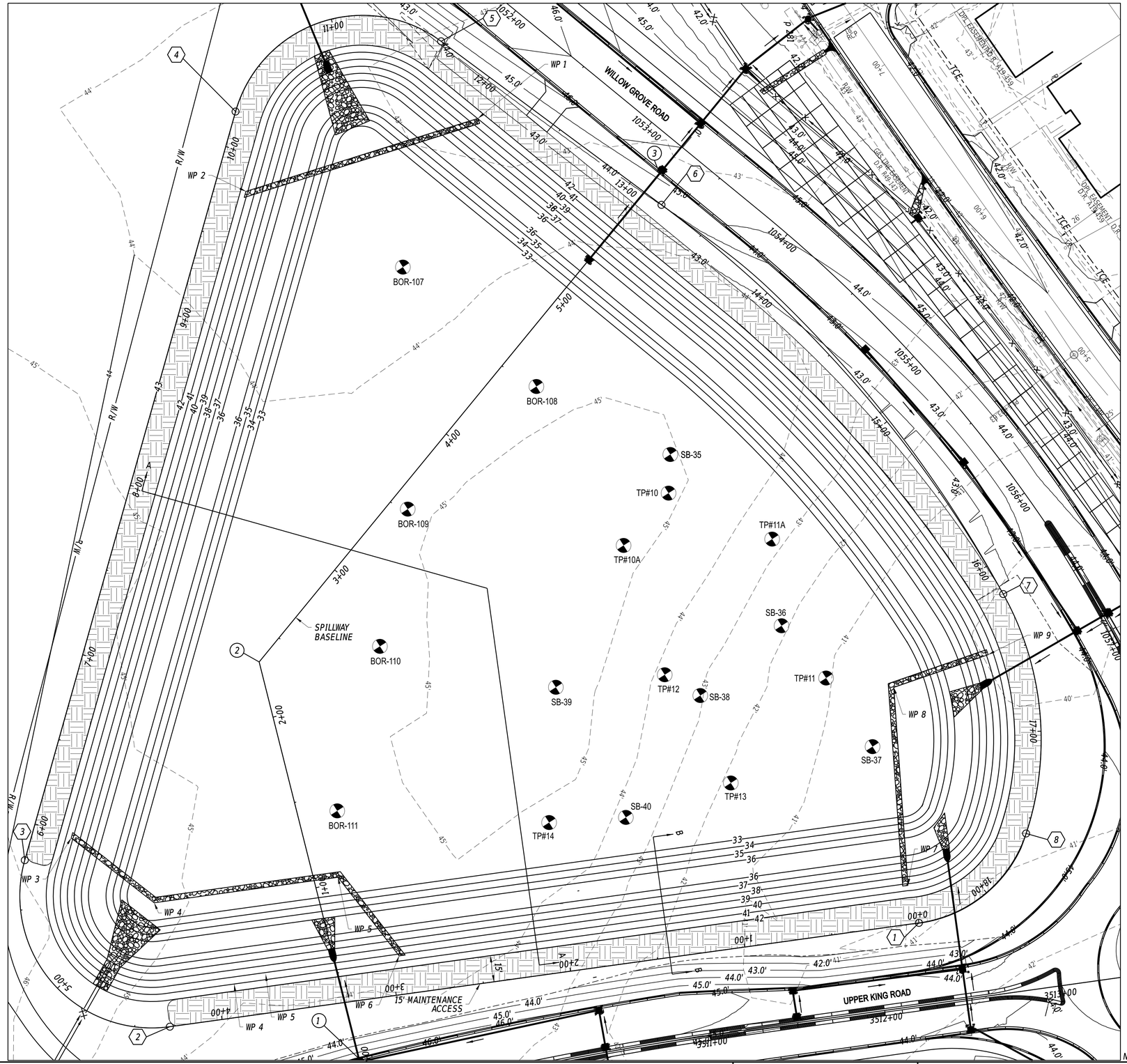
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO.	N/A	STORMWATER MANAGEMENT DETAIL	SECTION
				T201709502	DESIGNED BY: L. HAXTON			CEN
				COUNTY				SHEET NO.
				KENT	CHECKED BY: J. FREY			99

PLAN - DELDOT SWM FACILITY #01117
EXTENDED DETENTION WET POND



SWM FACILITY #01117 EMBANKMENT BASELINE

POINT NO.	STATION	NORTHING	EASTING
1 POB	0+00.00	404229.04	619300.33
2 PC	4+29.95	403886.99	619039.84
PI	5+44.59	403886.99	618970.38
3 PT	5+78.67	403895.96	618914.63
		RADIUS = 75.00'	
4 PC	10+20.67	404282.20	618699.73
PI	11+29.45	404377.26	618646.83
5 PT	11+65.75	404392.88	618754.49
		RADIUS = 75.00'	
6 PC	13+21.76	404415.30	618908.89
PI	14+72.33	404436.93	619057.90
7 PCC	16+18.38	404395.37	619202.62
		RADIUS = 700.00'	
PI	16+93.01	404374.78	619274.35
8 PCC	17+59.03	404308.03	619307.74
		RADIUS = 170.00'	
PI	18+05.78	404266.22	619328.65
9 PT	18+42.64	404229.04	619300.33
		RADIUS = 75.00'	

SWM FACILITY #01117 SPILLWAY BASELINE

POINT NO.	STATION	NORTHING	EASTING
1 POB	0+00.00	403949.92	619128.77
2 PI	2+32.34	404069.79	618929.75
3 PI	5+91.85	404383.05	618951.46

GABION WORKING POINTS

POINT NO.	NORTHING	EASTING
WP 1	404376.59	618800.26
WP 2	404254.17	618735.92
WP 3	403923.48	618924.49
WP 4	403930.65	618983.90
WP 5	404014.60	619047.83
WP 6	404007.42	619103.95
WP 7	404239.74	619280.89
WP 8	404313.88	619195.83
WP 9	404364.88	619220.82

POND DESIGN SUMMARY

DESIGN STORM	FACILITY INFLOW	FACILITY DISCHARGE	WATER SURFACE EL.	STORAGE VOL. (AC-FT)
RPv	19.33	0.00	38.15	17.008
Cv	47.86	2.10	39.33	21.703
Fv	108.47	15.50	40.83	27.968

HAZARD CLASSIFICATION: CLASS A PER POND CODE 378

DRAINAGE AREA TO FACILITY: 46.82 AC.

MANAGEMENT PROVIDED BY FACILITY: WATER QUALITY FOR RPv STORM EVENT BY 48-HOUR DETENTION
WATER QUANTITY FOR Cv AND Fv STORM EVENTS

WET POND CONSTRUCTION SEQUENCE AND NOTES:

NOTIFY THE CCR A MINIMUM OF TWO WORKING DAYS IN ADVANCE OF ANY CONSTRUCTION SO THAT THE REQUIRED FACILITY CONSTRUCTION CHECKLIST CAN BE COMPLETED.

A. INITIAL CONSTRUCTION:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE(S) AS NEEDED AND APPROVED BY THE ENGINEER.
2. CLEAR AND GRUB FOR INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS.
3. INSTALL PERIMETER SEDIMENT CONTROLS AS SHOWN ON EROSION AND SEDIMENT CONTROL PLANS.
4. CLEAR AND GRUB REMAINING AREA FOR POND CONSTRUCTION.
5. CONSTRUCT POND OUTLET AND OUTFALL AS SHOWN ON THE PLANS. DEWATER FOUNDATION AS NEEDED IN ACCORDANCE WITH SECTION 900 OF THE STANDARD SPECIFICATIONS. BLOCK UP WEIR DURING CONSTRUCTION. INSTALL AND CONNECT SKIMMER DEWATERING DEVICE (ITEM #906004) TO LOW FLOW ORIFICE.
6. EXCAVATE POND TO THE LINES AND GRADES SHOWN ON THE PLANS. POND EXCAVATION WILL BE PAID FOR UNDER ITEM #910008.
7. ALL DISTURBED AREAS MEETING FINAL ELEVATIONS AND GRADES ABOVE THE PERMANENT POOL ELEVATION SHALL BE SEEDED WITH ITEM #908015, PERMANENT GRASS SEEDING - STORMWATER AND MULCHED WITH ITEM #908020, EROSION CONTROL BLANKET MULCH.

B. MAINTENANCE OF POND AS A SEDIMENT BASIN:

1. THE CONTRACTOR SHALL INSPECT THE BASIN THE NEXT WORKDAY FOLLOWING A RAIN EVENT AND MAKE ANY REPAIRS AS NEEDED.
2. ANY EXCESS SEDIMENT AROUND THE OUTFALL AREA SHALL BE REMOVED WITHIN TWO WORKING DAYS AND DISPOSED AT A LOCATION APPROVED BY THE ENGINEER.

C. CONVERSION TO PERMANENT STORMWATER MANAGEMENT WET POND:

1. CONVERT THE SEDIMENT BASIN TO PERMANENT STORMWATER MANAGEMENT WET POND AFTER ALL AREAS DRAINING TO IT HAVE ATTAINED FINAL STABILIZATION AND THE STORMWATER ENGINEER HAS APPROVED THE CONVERSION.
2. INSTALL CLAY LINER AND REMOVE ANY EXCESS SEDIMENT FROM THE POND BOTTOM ABOVE ELEVATION 33.00'.
3. REMOVE ANY EXCESS SEDIMENT FROM THE FOREBAYS ABOVE ELEVATION 33.00'.
4. COMPLETE STABILIZATION OF ALL BARE AREAS ABOVE PERMANENT POOL ELEVATION WITH ITEM #908015, PERMANENT GRASS SEEDING - STORMWATER AND MULCHED WITH ITEM #908020, EROSION CONTROL BLANKET MULCH.
5. AFTER ALL SURROUNDING AREAS DRAINING TO THE POND HAVE SUFFICIENT VEGETATION, AS APPROVED BY THE STORMWATER ENGINEER, EROSION AND SEDIMENT CONTROL DEVICES SHALL BE REMOVED.

AS-BUILT DRAWINGS SHALL BE COMPLETED BY THE CONTRACTOR AND CERTIFIED BY A DELAWARE PLS BEFORE THE DELDOT INITIAL INSPECTION DATE. THESE DRAWINGS SHALL BE SENT TO THE STORMWATER ENGINEER FOR VERIFICATION. AS-BUILTS INCIDENTAL TO ITEM 910008. AS-BUILT DRAWINGS SHALL INCLUDE, BUT NOT BE LIMITED TO:

1. GENERAL TOPOGRAPHY OF THE WHOLE FACILITY AT 1-FOOT CONTOURS INCLUDING FOREBAYS AND TOP/TOE OF ANY EMBANKMENT.
2. INVERTS OF ALL PIPES AND SWALES THAT INFLOW TO THE POND.
3. OUTLINE OF ALL RIPRAP AND SPOT ELEVATIONS ON TOP OF THE RIPRAP.
4. OUTLET STRUCTURE (OR WEIR WALL), INVERTS OF ANY AND ALL ORIFICES/WEIRS, TOP OF STRUCTURE, OUTLET PIPE, ETC.
5. PRIMARY OUTFLOW PIPE OR CHANNEL. FOR A PIPE OUTFALL, INVERTS AT THE ENTRANCE AND EXIT. FOR A PRIMARY OUTFLOW CHANNEL/SWALE, SHOW AT MINIMUM THREE CROSS-SECTIONS OF EQUAL DISTANCE APART AT 50' DOWNSTREAM ALONG THE SLOPE.

NOTES: SEE CONSTRUCTION PLANS FOR STORM DRAIN PIPE, DRAINAGE INLET, FLARED SECTION, AND RIPRAP SCHEDULES.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

STORMWATER MANAGEMENT PLAN

SECTION
CEN
SHEET NO.
100

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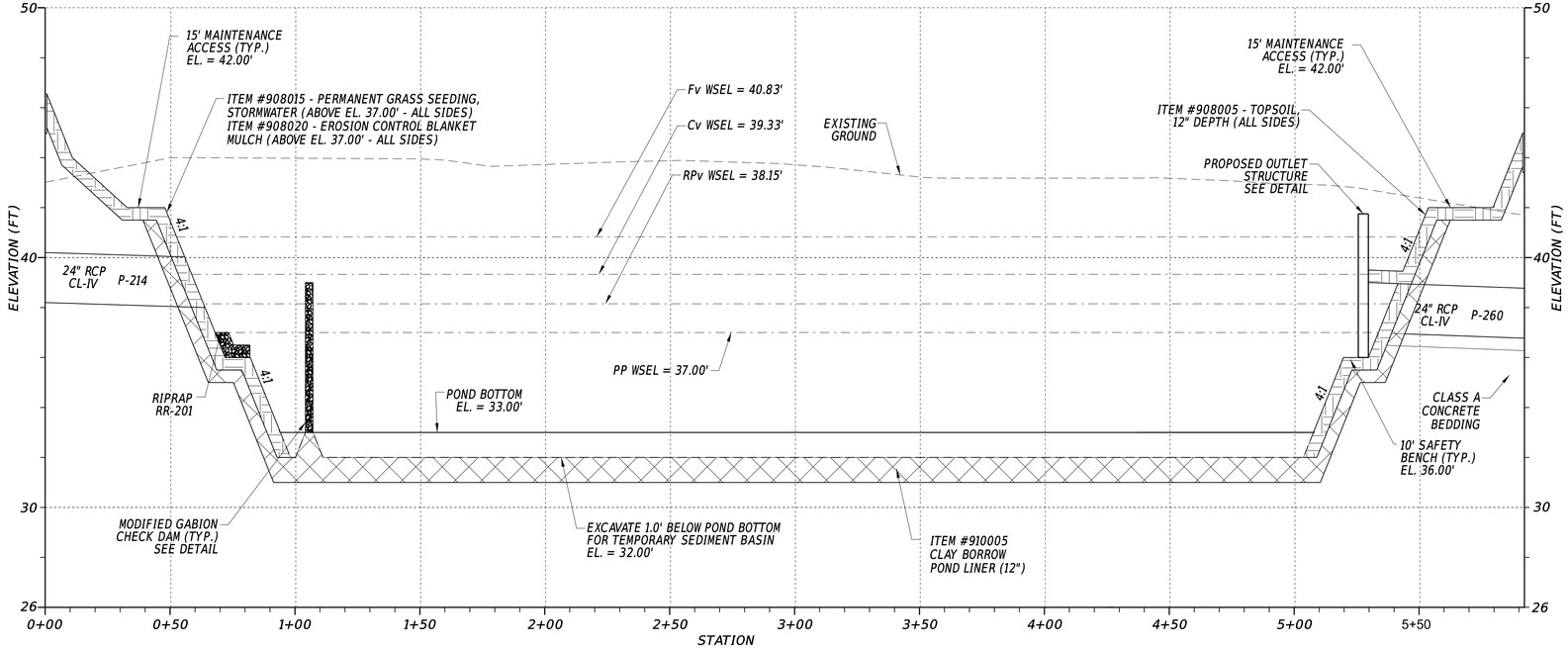
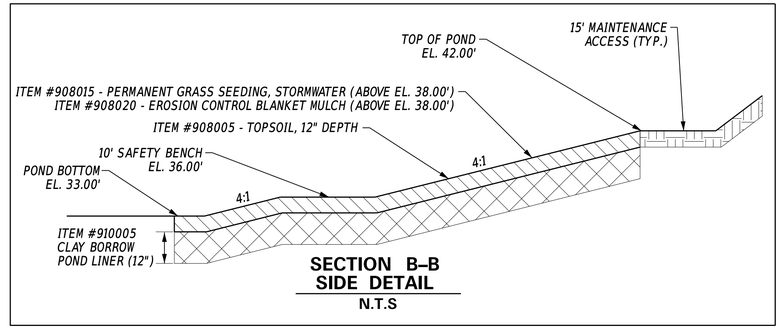


SWM FACILITY #01117 SPILLWAY PROFILE

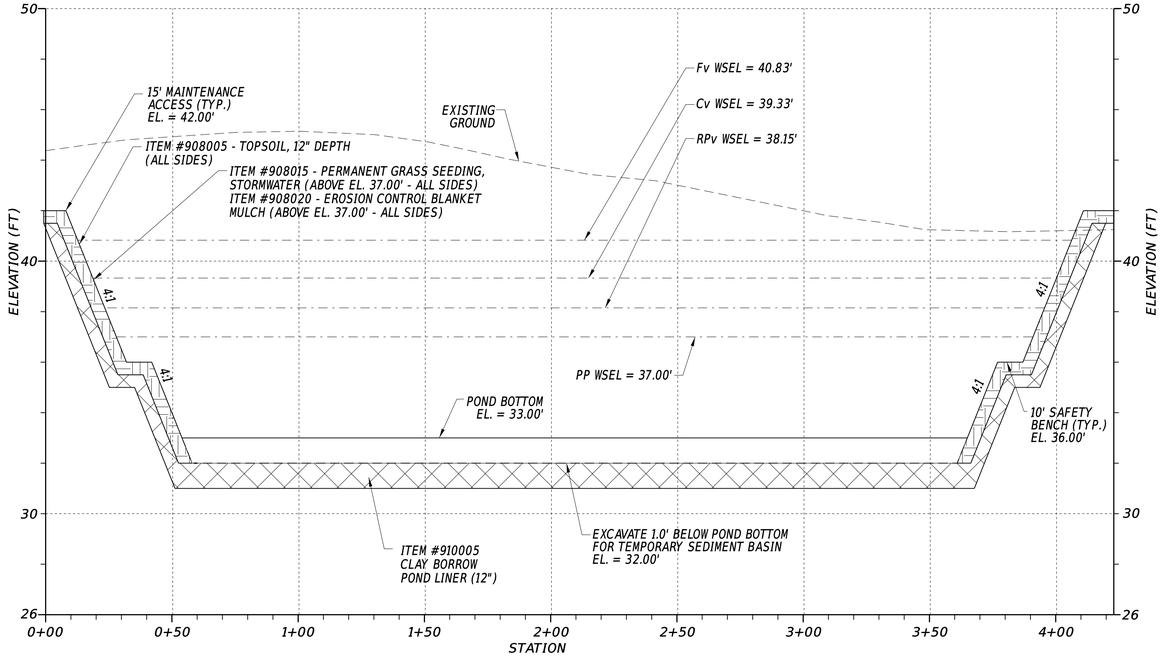


SECTION B–B SIDE DETAIL

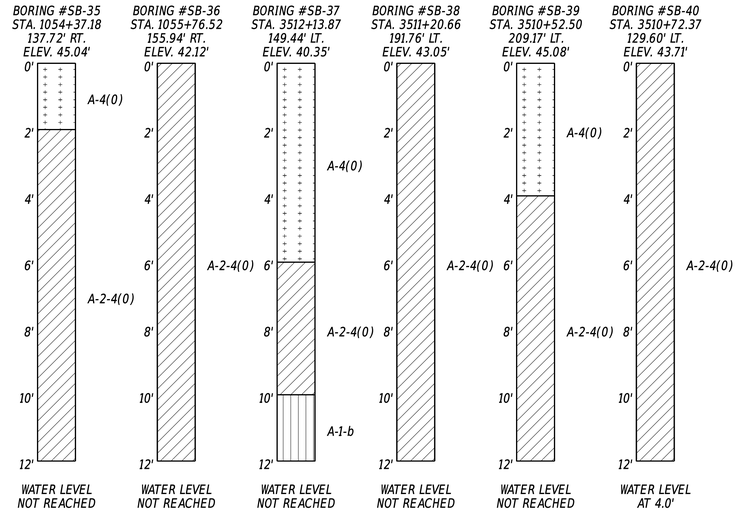
N.T.S

DELDOT SWM FACILITY SCHEDULE

NO.	TYPE / DESCRIPTION	LOCATION
01117	EXTENDED DETENTION WET POND	STA. 1051+00 RT. TO STA. 1058+00 RT.



SECTION A–A



ADDENDA / REVISIONS		SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO.	N/A	SECTION
		0 30 60 90 FEET		T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY	CHECKED BY: J. FREY	STORMWATER MANAGEMENT PLAN	SHEET NO.
				KENT			101

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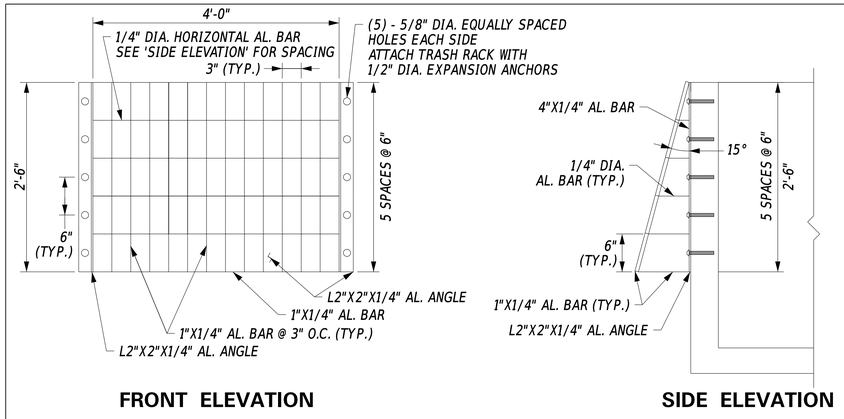
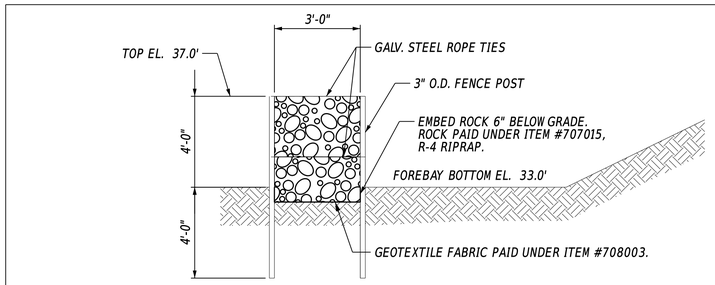
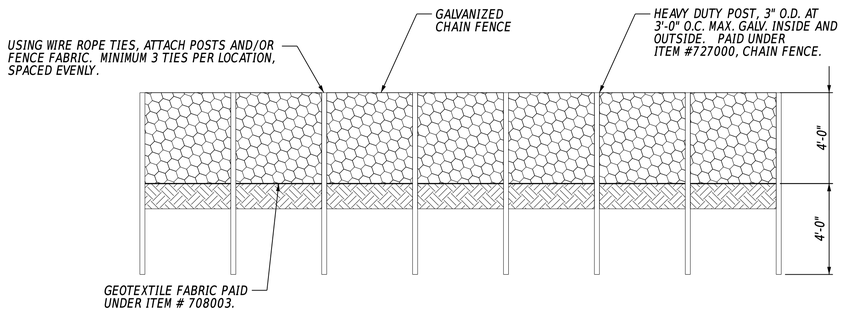


WEIR OPENING TRASH RACK DETAIL



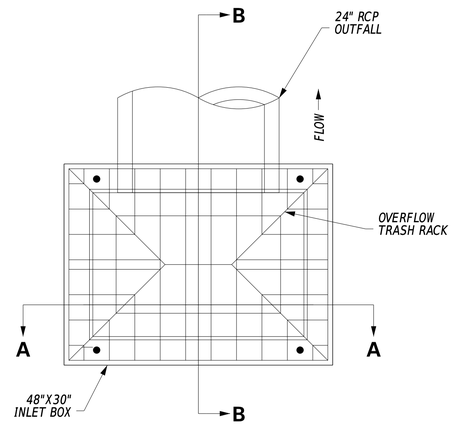
MODIFIED GABION CHECK DAM SECTION



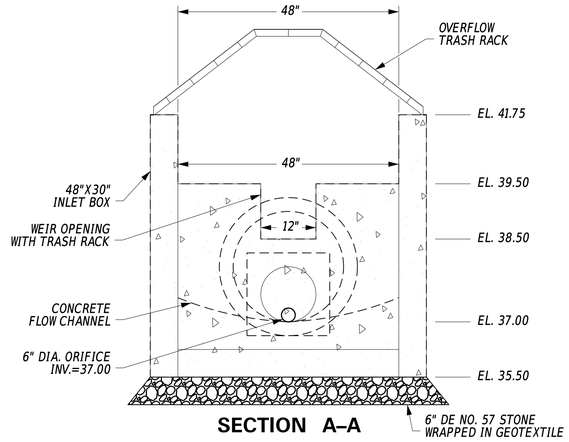
MODIFIED GABION CHECK DAM ELEVATION

MODIFIED GABION CHECK DAM GENERAL NOTES:

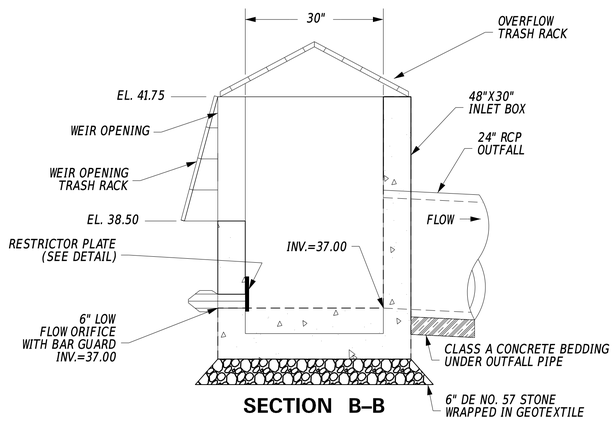
1. *FENCE POST SHALL BE TIED TOGETHER USING 1/4" GALVANIZED STEEL ROPE. THREE TIES PER FENCE POST PAIR. FENCE POST AND TIES SHALL BE PAID UNDER ITEM #727000, CHAIN FENCE.*
2. *GALVANIZED CHAIN LINK FENCE SHALL BE TIED TOGETHER USING 1/4" GALVANIZED STEEL ROPE. TIES SHALL BE SPACED 1'-6" O.C. ALONG LENGTH. TIES SHALL BE PLACED AT TOP, MIDDLE, AND BOTTOM OF EACH SECTION. WHERE TIES FALL ON A FENCE POST THE SAME TIE MAY BE USED TO TIE THE FENCE POSTS AS IS USED TO TIE THE FENCE. CHAIN LINK FENCE AND TIES SHALL BE PAID UNDER ITEM #727000, CHAIN FENCE.*
3. *THE STONE PLACED INSIDE MODIFIED GABION SHALL BE R-4 RIPRAP. SPECIAL CARE SHALL BE TAKEN WHEN PLACING THE ROCK TO ENSURE THAT THE COATING ON THE FENCE IS NOT DAMAGED. RIPRAP SHALL BE PAID UNDER ITEM #707015, R-4 RIPRAP.*
4. *GEOTEXTILE BENEATH THE MODIFIED GABION CHECKDAM SHALL BE PAID UNDER ITEM #708003.*
5. *EXCAVATION REQUIRED TO INSTALL THE MODIFIED GABION CHECK DAM SHALL BE PAID UNDER ITEM #910008 - STORMWATER MANAGEMENT POND.*
6. *EXTEND MODIFIED GABION CHECKDAM ENDS 5' INTO EMBANKMENT.*



TOP VIEW



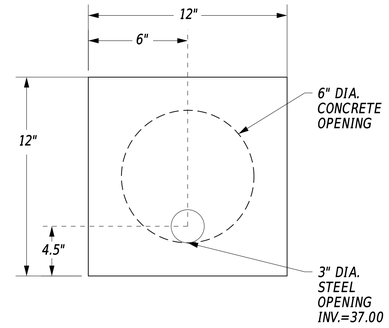
SECTION A–A



SECTION B–B

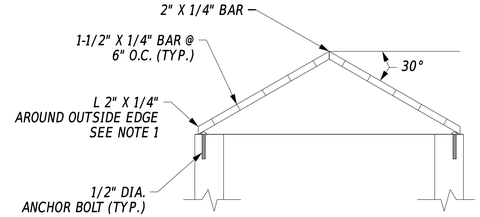
NOTES:
1. *OUTLET STRUCTURE AND ALL APPURTENANCES PAID UNDER ITEM #910007.*

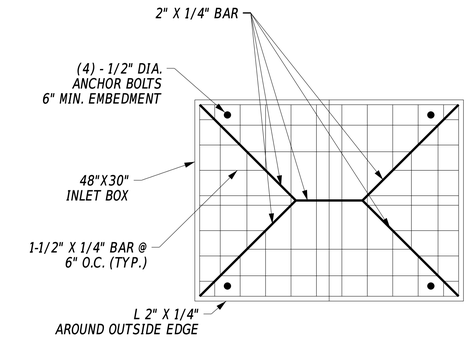
SWM FACILITY #01117 OUTLET STRUCTURE (DI-259) DETAIL



NOTES:
1. *RESTRICTOR PLATE SHALL BE CONSTRUCTED OF 3/8" STEEL, HOT DIP GALVANIZED AFTER FABRICATION.*
2. *PLATE SHALL BE SECURED WITH 4 - 3" INSERT WITH 1/2" DIAMETER BOLTS.*
3. *PLACE SILICONE CAULK ON PLATE PRIOR TO INSTALLATION TO SEAL PLATE TO CONCRETE SURFACE.*

RESTRICTOR PLATE DETAIL





NOTES:
1. *ANCHOR BOLTS TO BE STAINLESS STEEL.*
2. *TRASH RACK BARS TO BE GALVANIZED STEEL.*

OVERFLOW TRASH RACK DETAIL

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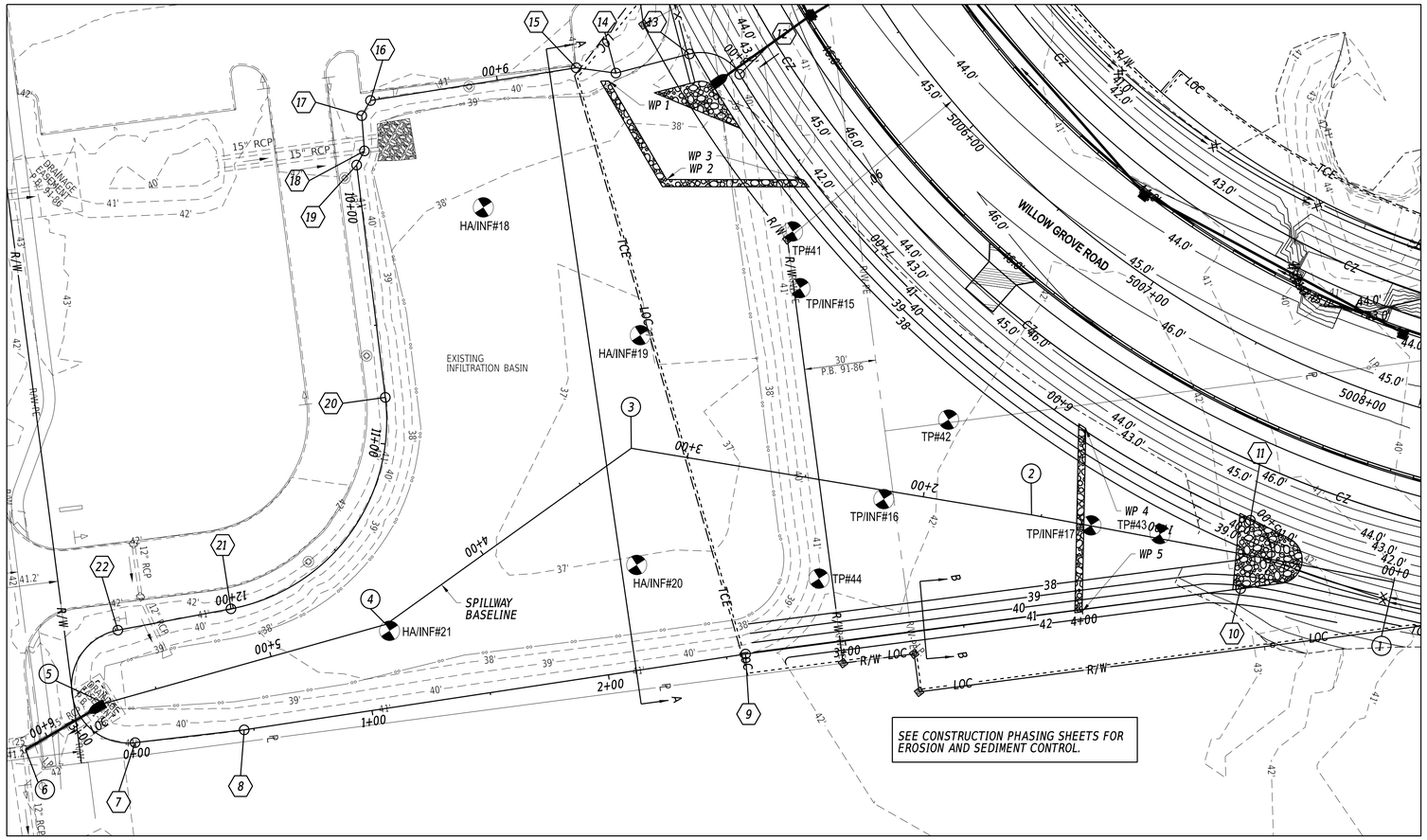
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	STORMWATER MANAGEMENT DETAIL	SECTION
				T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY	CHECKED BY: J. FREY		SHEET NO.
				KENT			102



PLAN - DELDOT SWM FACILITY #01118
INFILTRATION BASIN

SWM FACILITY #01118 EMBANKMENT BASELINE

POINT NO.	STATION	NORTHING	EASTING
7 POB	0+00.00	403575.75	619858.64
8 PI	0+45.93	403611.70	619887.22
9 PI	2+57.98	403781.98	620013.59
10 PC	4+66.84	403947.33	620141.20
PI	5+20.64	403989.92	620174.06
		RADIUS = 15.00'	
11 PRC	5+05.81	403970.48	620123.90
PI	6+54.43	403916.77	619985.32
		RADIUS = 471.67'	
12 PRC	7+93.76	403952.22	619840.99
PI	8+07.87	403955.58	619827.28
		RADIUS = 19.00'	
13 PT	8+18.04	403943.44	619820.10
14 PI	8+49.83	403916.07	619803.92
15 PI	8+66.59	403905.94	619790.56
16 PI	9+53.70	403835.59	619739.20
17 PI	9+61.02	403828.51	619741.06
18 PI	9+75.80	403818.86	619752.26
19 PI	9+82.57	403812.35	619754.11
20 PC	10+80.44	403751.90	619831.09
PI	11+55.49	403705.55	619890.11
		RADIUS = 80.00'	
21 PT	12+01.00	403643.69	619847.62
22 PC	12+49.14	403604.01	619820.37
PI	--	403041.95	619434.30
		RADIUS = 23.80'	
7 POE	13+22.25	403575.72	619858.62

SWM FACILITY #01118 SPILLWAY BASELINE

POINT NO.	STATION	NORTHING	EASTING
1 POB	0+00.00	403994.44	620184.72
2 PI	1+54.11	403907.59	620057.42
3 PI	3+23.80	403809.34	619919.06
4 PI	4+50.08	403684.79	619898.19
5 PI	5+72.26	403578.45	619838.05
6 POB	6+10.59	403541.40	619828.20

DELDOT SWM FACILITY SCHEDULE

NO.	TYPE / DESCRIPTION	LOCATION
01118	INFILTRATION BASIN	STA. 5005+00 LT. TO STA. 5008+00 RT.

GABION WORKING POINTS

POINT NO.	NORTHING	EASTING
WP 1	403911.62	619804.09
WP 2	403899.35	619850.70
WP 3	403939.74	619891.01
WP 4	403949.21	620048.05
WP 5	403893.72	620100.97

POND DESIGN SUMMARY

DESIGN STORM	FACILITY INFLOW	FACILITY DISCHARGE	WATER SURFACE EL.	STORAGE VOL. (AC-FT)
RPv	8.22	0.00	37.65	0.310
Cv	20.70	0.00	38.24	0.935
Fv	45.61	0.00	39.44	2.521

HAZARD CLASSIFICATION: CLASS A PER POND CODE 378
DRAINAGE AREA TO FACILITY: 8.80 AC.
MANAGEMENT PROVIDED BY FACILITY: WATER QUALITY FOR RPv STORM EVENT BY INFILTRATION
WATER QUANTITY FOR Cv AND Fv STORM EVENTS

NOTES:
1. SEE CONSTRUCTION PLANS FOR STORM DRAIN PIPE, DRAINAGE INLET, FLARED SECTION, AND RIPRAP SCHEDULES.

INFILTRATION BASIN CONSTRUCTION SEQUENCE AND NOTES:

NOTIFY THE CCR A MINIMUM OF TWO WORKING DAYS IN ADVANCE SO THAT THE REQUIRED FACILITY CONSTRUCTION CHECKLIST CAN BE COMPLETED. IF THE INFILTRATIONBASIN IS TO BE USED AS A SEDIMENT BASIN DURING CONSTRUCTION, GRADING SHALL BE COMPLETED TO MAINTAIN A MINIMUM OF 2-FEET OF COVER ABOVE THE PERMANENT BOTTOM ELEVATION AT ALL TIMES. INCOMING AND OUTFLOWING INVERTS MAY NEED TO BE ADJUSTED TO ALLOW FOR SEDIMENT STORAGE AND BOTTOM COVER NEEDED DURING CONSTRUCTION. IF CONTRACTOR CANNOT MEET THE 2-FEET OF COVER, THEN DISCUSS WITH THE STORMWATER ENGINEER. NO HEAVY EQUIPMENT SHALL BE ALLOWED WITHIN 2-FEET OF PERMANENT BOTTOM ELEVATION.

A. *INITIAL CONSTRUCTION:*
1. *INSTALL STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON EROSION AND SEDIMENT CONTROL PLANS.*
2. *CLEAR AND GRUB FOR INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS.*
3. *INSTALL PERIMETER SEDIMENT CONTROLS AS SHOWN ON EROSION AND SEDIMENT CONTROL PLANS.*
4. *CLEAR AND GRUB REMAINING AREA FOR INFILTRATION BASIN CONSTRUCTION, MAKING SURE NOT TO INTRUDE WITHIN 2-FEET OF THE PERMANENT BOTTOM ELEVATION*
5. *EXCAVATE AND CONSTRUCT BASIN OUTLET STRUCTURE AND OUTFALL ITEM 910006 AS SHOWN ON THE PLANS. DEWATER FOUNDATION AS NEEDED IN ACCORDANCE WITH DEWATERING PRACTICES AS DESCRIBED IN SECTION 900 OF THE STANDARD SPECIFICATIONS.*
6. *COMPLETE BASIN EXCAVATION TO MAINTAIN A MINIMUM OF 2-FEET OF COVER ABOVE THE PERMANENT BOTTOM ELEVATION. SIDE SLOPES, MAINTENANCE ACCESS ROAD, AND FOREBAYS SHALL BE CONSTRUCTED AS PER FINAL DESIGN ELEVATION AND CONFIGURATION. ALL DISTURBED AREAS MEETING FINAL ELEVATIONS AND GRADES ABOVE THE PERMANENT BOTTOM ELEVATION SHALL BE SEEDED WITH ITEM 908015, PERMANENT GRASS SEEDING - STORMWATER*

B. *MAINTENANCE OF INFILTRATION BASIN BEING USED AS A SEDIMENT BASIN:*
1. *CONTRACTOR SHALL INSPECT THE BASIN THE NEXT WORKDAY FOLLOWING A RAIN EVENT AND MAKE ANY REPAIRS AS NEEDED.*
2. *REMOVE EXCESS SEDIMENT AROUND THE OUTFALL AREA WITHIN TWO WORKING DAYS AND DISPOSE OF REMOVED SEDIMENT AT A LOCATION APPROVED BY THE ENGINEER.*

C. *CONVERSION TO PERMANENT INFILTRATION BASIN:*
1. *CONVERT THE SEDIMENT BASIN AFTER ALL AREAS DRAINING INTO IT HAVE ATTAINED FINAL STABILIZATION AS APPROVED BY THE ENGINEER WITH CONCURRENCE FROM THE STORMWATER ENGINEER. AN ONSITE MEETING WILL BE CONDUCTED WITH THE STORMWATER ENGINEER TO DETERMINE THE E&S REQUIREMENTS PRIOR TO THE CONVERSION. DURING EXCAVATION, THE CCR SHALL OBSERVE THE SOIL TYPE. IF STANDING WATER, ORGANIC MATERIAL OR CLAY/SILT MATERIAL IS DISCOVERED AT THE PROPOSED BOTTOM ELEVATION, THE CCR SHALL NOTIFY THE ENGINEER AND STORMWATER ENGINEER IMMEDIATELY. FILL ANY VOIDS IN THE BOTTOM OF THE POND WITH CONCRETE SAND MEETING THE GRADATION REQUIREMENTS OF SECTION 1003 IN THE STANDARD SPECIFICATIONS. OVER EXCAVATION AND BACKFILLING WITH SAND INCIDENTAL TO ITEM 910008, STORMWATER MANAGEMENT POND.*
2. *REMOVE EXCESS SEDIMENT ABOVE THE FINAL FOREBAY ELEVATION FROM THE FOREBAYS. NO HEAVY EQUIPMENT SHALL BE USED WITHIN 2 FOOT OF THE PERMANENT BOTTOM ELEVATION.*
3. *THE FINAL 2-FEET OF MATERIAL TO BE EXCAVATED SHALL BE STARTED FROM ONE SIDE OF THE BASIN AND REMOVED GOING ACROSS OR STARTED IN THE MIDDLE AND REMOVED TOWARDS THE OUTSIDES.NO HEAVY EQUIPMENT SHALL BE USED WITHIN 2-FOOT OF THE PERMANENT BOTTOM ELEVATION. THE ABSOLUTE MINIMUM OF INGRESS AND EGRESS POINTS SHALL BE UTILIZED AND THESE AREAS WILL BE STABILIZED WITHIN ONE WORKING DAY WHEN NO LONGER NEEDED. NO DISTURBANCE OF THE SIDE SLOPES SHALL BE CONDUCTED AT THIS TIME, OTHER THAN WHAT IS NECESSARY TO COMPLETE THE BOTTOM EXCAVATION. THE COMPLETION OF THE SIDE SLOPES TO THE DESIGN BOTTOM ELEVATION SHALL BE COMPLETED TO THE BEST OF THE CONTRACTOR'S ABILITY TO LIMIT DISTURBANCE TO ADJACENT AREAS. COMPOST FILTER LOGS SHALL BE INSTALLED AROUND TOES OF SLOPE FOR ENTIRE BASIN AND ARE INCIDENTAL TO THE CONSTRUCTION OF THE ITEM 910008, STORMWATER MANAGEMENT POND.*
4. *AFTER FINAL 2-FEET IS REMOVED, THE ENGINEER WILL COORDINATE WITH A SOILS PROFESSIONAL TO PERFORM CONFIRMATORY INFILTRATION TESTING. CONFIRMATORY TESTING RATE SHALL BE NO LESS THAN 150% OF THE APPROVED DESIGN RATE. IF TEST RESULTS ARE LESS THAN 150% OF DESIGN RATE, THE DESIGN ENGINEER SHALL VERIFY THAT THE FACILITY WILL FUNCTION AS ORIGINALLY DESIGNED OR SUBMIT ALTERNATE COMPLIANCE PLAN AND REVISE SWM REPORT ACCORDINGLY.*
5. *IN ADDITION TO CONFIRMATORY INFILTRATION TESTING, A HAND AUGER SHALL BE PERFORMED ADJACENT TO THE CONFIRMATORY INFILTRATION TEST LOCATION OR AT LOCATIONS RECOMMENDED BY THE SOILS PROFESSIONAL TO A MINIMUM DEPTH OF 3 FEET BELOW THE BOTTOM OF THE FACILITY TO CONFIRM THAT A LIMITING LAYER IS NOT PRESENT AND TO LOG THE SOILS CONDITIONS. IF A LIMITING LAYER IS OBSERVED AT A DEPTH LESS THAN 2 FEET, THE LICENSED PROFESSIONAL SHALL RE-EVALUATE THE DESIGN AND SUBMIT RECOMMENDATIONS AND ANY REQUIRED DESIGN CHANGES TO THE DEPARTMENT FOR APPROVAL.*
6. *ALL DISTURBED AREAS MEETING FINAL ELEVATIONS AND GRADES ABOVE THE PERMANENT BOTTOM ELEVATION SHALL BE SEEDED WITH ITEM 908015, PERMANENT GRASS SEEDING, STORMWATER AND MULCHED WITH ITEM 908020, EROSION CONTROL BLANKET MULCH.*
7. *BASIN BOTTOM ELEVATION SHALL BE SEEDED WITH ITEM 908015, PERMANENT GRASS SEEDING, STORMWATER, AND MULCHED WITH A HYDRAULIC MULCH, ITEM 908026*
8. *AFTER ALL SURROUNDING AREAS DRAINING TO THE INFILTRATION BASIN HAVE SUFFICIENT VEGETATION AS APPROVED BY THE ENGINEER, E&S DEVICES SHALL BE REMOVED.*
9. *AS PART OF FINAL STABILIZATION POST CONSTRUCTION VERIFICATION SURVEY WILL BE COMPLETED IN ACCORDANCE WITH DELAWARE POST CONSTRUCTION STORMWATER BMP STANDARDS & SPECIFICATIONS BY THE CONTRACTOR AND LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF DELAWARE AND SENT TO THE STORMWATER ENGINEER FOR VERIFICATION.*

D. *AS-BUILT DRAWINGS SHALL BE COMPLETED BY THE CONTRACTOR AND CERTIFIED BY A DELAWARE PLS BEFORE THE DELDOT INITIAL INSPECTION DATE. THESE DRAWINGS SHALL BE SENT TO THE STORMWATER ENGINEER FOR VERIFICATION. AS-BUILTS INCIDENTAL TO ITEM 910008. AS-BUILT DRAWINGS SHALL INCLUDE, BUT NOT BE LIMITED TO:*
1. *GENERAL TOPOGRAPHY OF THE WHOLE FACILITY AT 1-FOOT CONTOURS INCLUDING FOREBAYS AND TOP/TOE OF ANY EMBANKMENT.*
2. *INVERTS OF ALL PIPES AND SWALES THAT INFLOW TO THE BASIN.*
3. *OUTLINE OF ALL RIPRAP AND SPOT ELEVATIONS ON TOP OF THE RIPRAP.*
4. *OUTLET STRUCTURE (OR WEIR WALL), INVERTS OF ANY AND ALL ORIFICES/WEIRS, TOP OF STRUCTURE, OUTLET PIPE, ETC.*
5. *PRIMARY OUTFLOW PIPE OR CHANNEL. FOR A PIPE OUTFALL, INVERTS AT THE ENTRANCE AND EXIT. FOR A PRIMARY OUTFLOW CHANNEL/SWALE, SHOW AT MINIMUM THREE CROSS-SECTIONS OF EQUAL DISTANCE APART AT 50' DOWNSTREAM ALONG THE SLOPE.*

E. *INFILTRATION BASIN EXCAVATION WILL BE PAID FOR UNDER ITEM 910008 - STORMWATER MANAGEMENT POND.*

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ADDENDA / REVISIONS	SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	STORMWATER MANAGEMENT PLAN	SECTION
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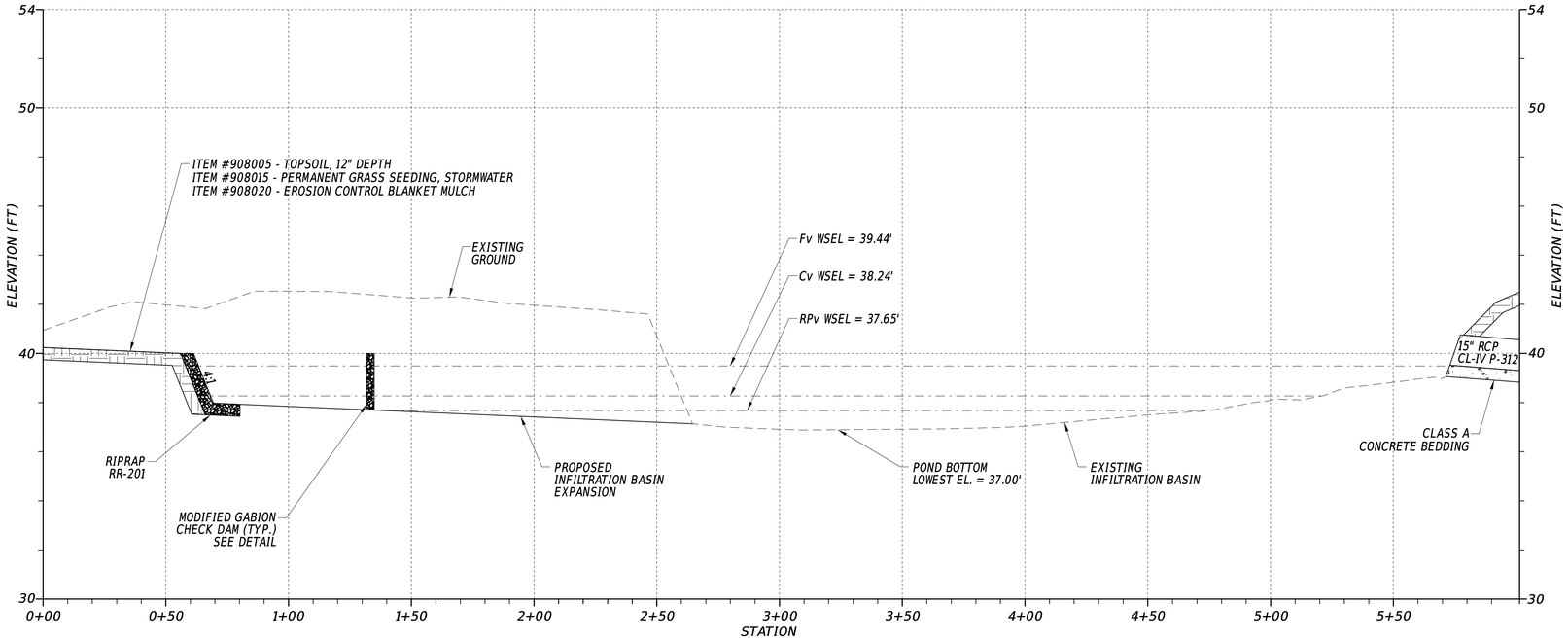
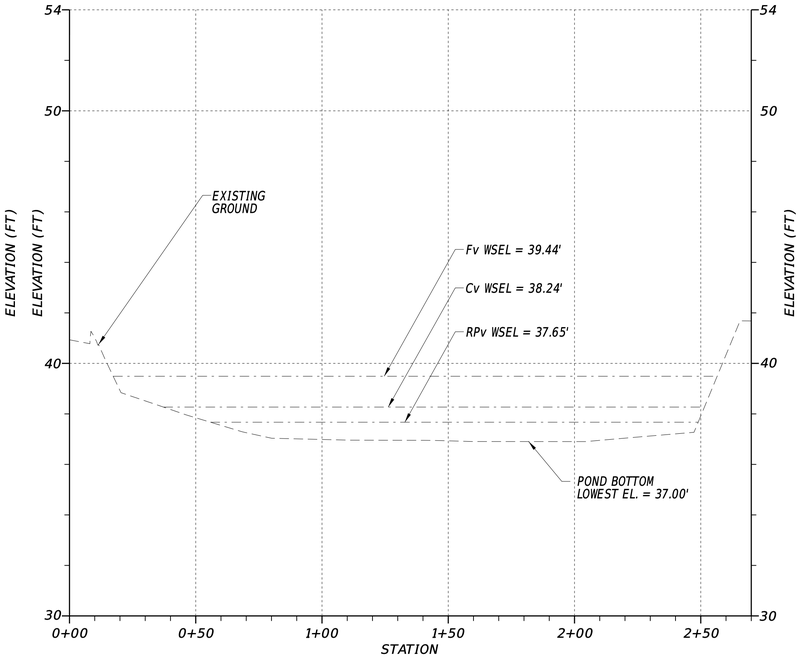
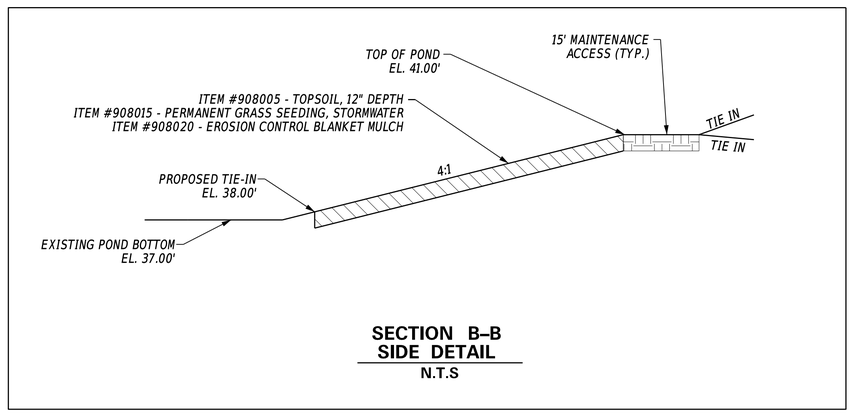
			COUNTY KENT	CHECKED BY: J. FREY		SHEET NO. 103



SWM FACILITY #01118 SPILLWAY PROFILE



SECTION A–A



SECTION B–B
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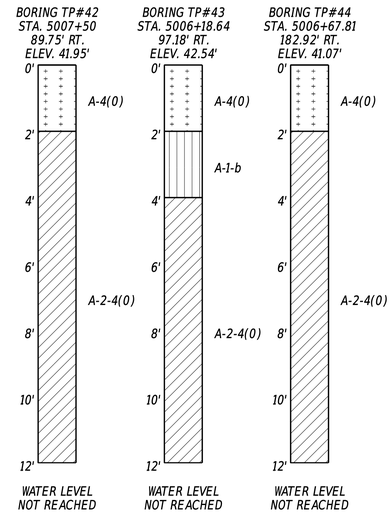
N.T.S



VERTICAL SCALE FEET
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6
3
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ADDENDA / REVISIONS	SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	STORMWATER MANAGEMENT PLAN	SECTION
	0 30 60 90 FEET		T201709502	DESIGNED BY: L. HAXTON		CEN
			COUNTY	CHECKED BY: J. FREY		SHEET NO.
			KENT			104

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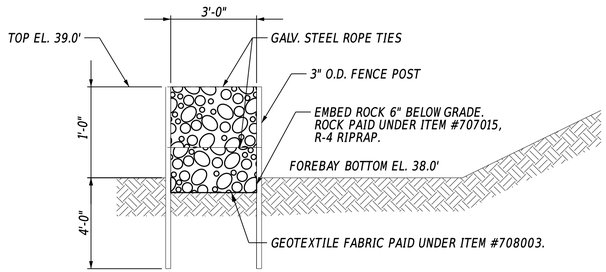
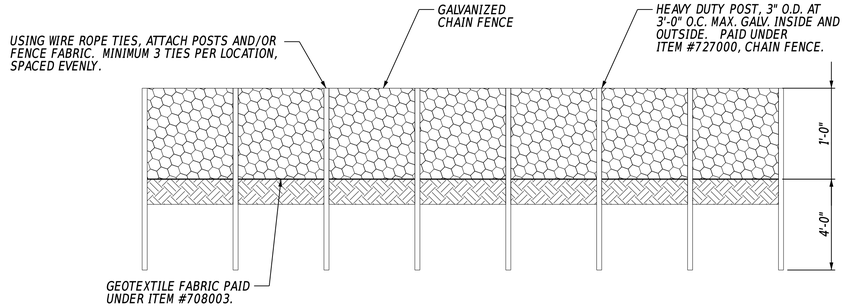


MODIFIED GABION CHECK DAM SECTION



MODIFIED GABION CHECK DAM ELEVATION

MODIFIED GABION CHECK DAM GENERAL NOTES:

1. *FENCE POST SHALL BE TIED TOGETHER USING 1/4" GALVANIZED STEEL ROPE. THREE TIES PER FENCE POST PAIR. FENCE POST AND TIES SHALL BE PAID UNDER ITEM #727000, CHAIN FENCE.*
2. *GALVANIZED CHAIN LINK FENCE SHALL BE TIED TOGETHER USING 1/4" GALVANIZED STEEL ROPE. TIES SHALL BE SPACED 1'-6" O.C. ALONG LENGTH. TIES SHALL BE PLACED AT TOP, MIDDLE, AND BOTTOM OF EACH SECTION. WHERE TIES FALL ON A FENCE POST THE SAME TIE MAY BE USED TO TIE THE FENCE POSTS AS IS USED TO TIE THE FENCE. CHAIN LINK FENCE AND TIES SHALL BE PAID UNDER ITEM #727000, CHAIN FENCE.*
3. *THE STONE PLACED INSIDE MODIFIED GABION SHALL BE R-4 RIPRAP. SPECIAL CARE SHALL BE TAKEN WHEN PLACING THE ROCK TO ENSURE THAT THE COATING ON THE FENCE IS NOT DAMAGED. RIPRAP SHALL BE PAID UNDER ITEM #707015, R-4 RIPRAP.*
4. *GEOTEXTILE BENEATH THE MODIFIED GABION CHECKDAM SHALL BE PAID UNDER ITEM #708003.*
5. *EXCAVATION REQUIRED TO INSTALL THE MODIFIED GABION CHECK DAM SHALL BE PAID UNDER ITEM #910008 - STORMWATER MANAGEMENT POND.*
6. *EXTEND MODIFIED GABION CHECKDAM ENDS 5' INTO EMBANKMENT.*

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ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	STORMWATER MANAGEMENT DETAIL	SECTION
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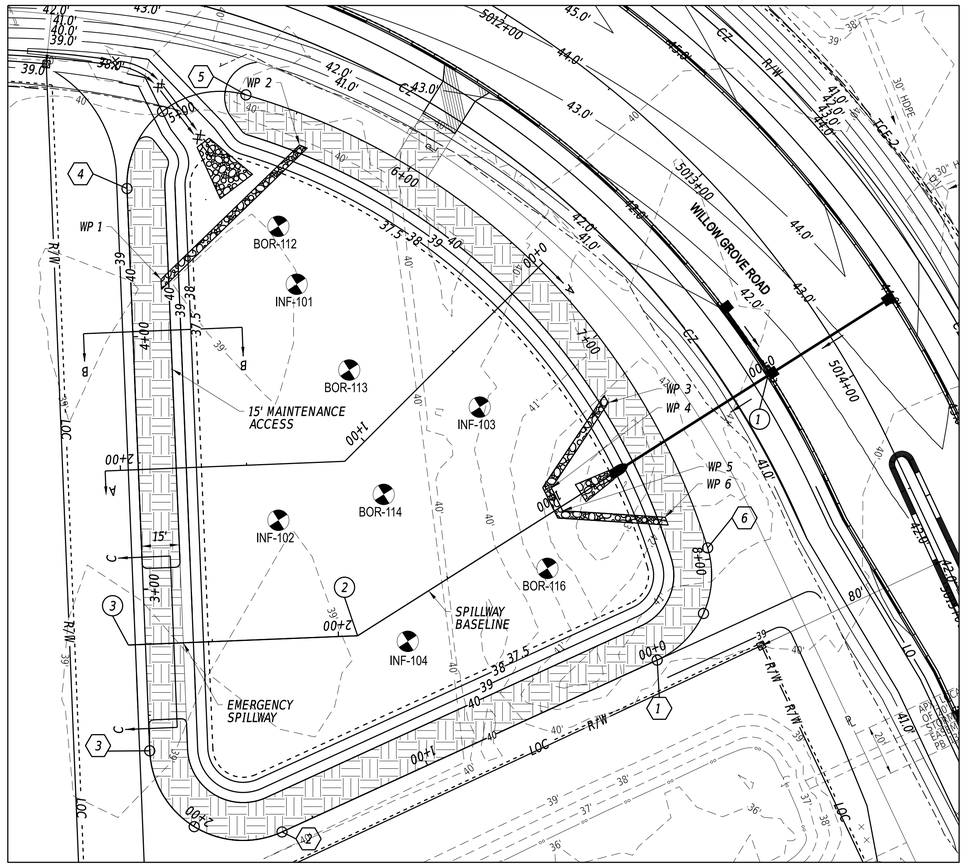
				COUNTY			SHEET NO.
				KENT	CHECKED BY: J. FREY		105



PLAN - DELDOT SWM FACILITY #01119
INFILTRATION BASIN

NOTES:

1. SEE CONSTRUCTION PLANS FOR STORM DRAIN PIPE, DRAINAGE INLET, FLARED SECTION, AND RIPRAP SCHEDULES.

INFILTRATION BASIN CONSTRUCTION SEQUENCE AND NOTES:

NOTIFY THE CCR A MINIMUM OF TWO WORKING DAYS IN ADVANCE SO THAT THE REQUIRED FACILITY CONSTRUCTION CHECKLIST CAN BE COMPLETED. IF THE INFILTRATION BASIN IS TO BE USED AS A SEDIMENT BASIN DURING CONSTRUCTION, GRADING SHALL BE COMPLETED TO MAINTAIN A MINIMUM OF 2-FEET OF COVER ABOVE THE PERMANENT BOTTOM ELEVATION AT ALL TIMES. INCOMING AND OUTFLOWING INVERTS MAY NEED TO BE ADJUSTED TO ALLOW FOR SEDIMENT STORAGE AND BOTTOM COVER NEEDED DURING CONSTRUCTION. IF CONTRACTOR CANNOT MEET THE 2-FEET OF COVER, THEN DISCUSS WITH THE STORMWATER ENGINEER. NO HEAVY EQUIPMENT SHALL BE ALLOWED WITHIN 2-FEET OF PERMANENT BOTTOM ELEVATION.

A. *INITIAL CONSTRUCTION:*
   1. *INSTALL STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON EROSION AND SEDIMENT CONTROL PLANS.*
   2. *CLEAR AND GRUB FOR INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS.*
   3. *INSTALL PERIMETER SEDIMENT CONTROLS AS SHOWN ON EROSION AND SEDIMENT CONTROL PLANS.*
   4. *CLEAR AND GRUB REMAINING AREA FOR INFILTRATION BASIN CONSTRUCTION, MAKING SURE NOT TO INTRUDE WITHIN 2-FEET OF THE PERMANENT BOTTOM ELEVATION*
   5. *EXCAVATE AND CONSTRUCT BASIN OUTLET STRUCTURE AND OUTFALL ITEM 910006 AS SHOWN ON THE PLANS. DEWATER FOUNDATION AS NEEDED IN ACCORDANCE WITH DEWATERING PRACTICES AS DESCRIBED IN SECTION 900 OF THE STANDARD SPECIFICATIONS.*
   6. *COMPLETE BASIN EXCAVATION TO MAINTAIN A MINIMUM OF 2-FEET OF COVER ABOVE THE PERMANENT BOTTOM ELEVATION. SIDE SLOPES, MAINTENANCE ACCESS ROAD, AND FOREBAYS SHALL BE CONSTRUCTED AS PER FINAL DESIGN ELEVATION AND CONFIGURATION. ALL DISTURBED AREAS MEETING FINAL ELEVATIONS AND GRADES ABOVE THE PERMANENT BOTTOM ELEVATION SHALL BE SEEDED WITH ITEM 908015, PERMANENT GRASS SEEDING - STORMWATER*

B. *MAINTENANCE OF INFILTRATION BASIN BEING USED AS A SEDIMENT BASIN:*
   1. *CONTRACTOR SHALL INSPECT THE BASIN THE NEXT WORKDAY FOLLOWING A RAIN EVENT AND MAKE ANY REPAIRS AS NEEDED.*
   2. *REMOVE EXCESS SEDIMENT AROUND THE OUTFALL AREA WITHIN TWO WORKING DAYS AND DISPOSE OF REMOVED SEDIMENT AT A LOCATION APPROVED BY THE ENGINEER.*

C. *CONVERSION TO PERMANENT INFILTRATION BASIN:*
   1. *CONVERT THE SEDIMENT BASIN AFTER ALL AREAS DRAINING INTO IT HAVE ATTAINED FINAL STABILIZATION AS APPROVED BY THE ENGINEER WITH CONCURRENCE FROM THE STORMWATER ENGINEER. AN ONSITE MEETING WILL BE CONDUCTED WITH THE STORMWATER ENGINEER TO DETERMINE THE E&S REQUIREMENTS PRIOR TO THE CONVERSION. DURING EXCAVATION, THE CCR SHALL OBSERVE THE SOIL TYPE. IF STANDING WATER, ORGANIC MATERIAL OR CLAY/SILT MATERIAL IS DISCOVERED AT THE PROPOSED BOTTOM ELEVATION, THE CCR SHALL NOTIFY THE ENGINEER AND STORMWATER ENGINEER IMMEDIATELY. FILL ANY VOIDS IN THE BOTTOM OF THE POND WITH CONCRETE SAND MEETING THE GRADATION REQUIREMENTS OF SECTION 1003 IN THE STANDARD SPECIFICATIONS. OVER EXCAVATION AND BACKFILLING WITH SAND INCIDENTAL TO ITEM 910008, STORMWATER MANAGEMENT POND.*
   2. *REMOVE EXCESS SEDIMENT ABOVE THE FINAL FOREBAY ELEVATION FROM THE FOREBAYS. NO HEAVY EQUIPMENT SHALL BE USED WITHIN 2 FOOT OF THE PERMANENT BOTTOM ELEVATION.*
   3. *THE FINAL 2-FEET OF MATERIAL TO BE EXCAVATED SHALL BE STARTED FROM ONE SIDE OF THE BASIN AND REMOVED GOING ACROSS OR STARTED IN THE MIDDLE AND REMOVED TOWARDS THE OUTSIDES.NO HEAVY EQUIPMENT SHALL BE USED WITHIN 2-FOOT OF THE PERMANENT BOTTOM ELEVATION. THE ABSOLUTE MINIMUM OF INGRESS AND EGRESS POINTS SHALL BE UTILIZED AND THESE AREAS WILL BE STABILIZED WITHIN ONE WORKING DAY WHEN NO LONGER NEEDED. NO DISTURBANCE OF THE SIDE SLOPES SHALL BE CONDUCTED AT THIS TIME, OTHER THAN WHAT IS NECESSARY TO COMPLETE THE BOTTOM EXCAVATION. THE COMPLETION OF THE SIDE SLOPES TO THE DESIGN BOTTOM ELEVATION SHALL BE COMPLETED TO THE BEST OF THE CONTRACTOR'S ABILITY TO LIMIT DISTURBANCE TO ADJACENT AREAS. COMPOST FILTER LOGS SHALL BE INSTALLED AROUND TOES OF SLOPE FOR ENTIRE BASIN AND ARE INCIDENTAL TO THE CONSTRUCTION OF THE ITEM 910008, STORMWATER MANAGEMENT POND.*
   4. *AFTER FINAL 2-FEET IS REMOVED, THE ENGINEER WILL COORDINATE WITH A SOILS PROFESSIONAL TO PERFORM CONFIRMATORY INFILTRATION TESTING. CONFIRMATORY TESTING RATE SHALL BE NO LESS THAN 150% OF THE APPROVED DESIGN RATE. IF TEST RESULTS ARE LESS THAN 150% OF DESIGN RATE, THE DESIGN ENGINEER SHALL VERIFY THAT THE FACILITY WILL FUNCTION AS ORIGINALLY DESIGNED OR SUBMIT ALTERNATE COMPLIANCE PLAN AND REVISE SWM REPORT ACCORDINGLY.*
   5. *IN ADDITION TO CONFIRMATORY INFILTRATION TESTING, A HAND AUGER SHALL BE PERFORMED ADJACENT TO THE CONFIRMATORY INFILTRATION TEST LOCATION OR AT LOCATIONS RECOMMENDED BY THE SOILS PROFESSIONAL TO A MINIMUM DEPTH OF 3 FEET BELOW THE BOTTOM OF THE FACILITY TO CONFIRM THAT A LIMITING LAYER IS NOT PRESENT AND TO LOG THE SOILS CONDITIONS. IF A LIMITING LAYER IS OBSERVED AT A DEPTH LESS THAN 2 FEET, THE LICENSED PROFESSIONAL SHALL RE-EVALUATE THE DESIGN AND SUBMIT RECOMMENDATIONS AND ANY REQUIRED DESIGN CHANGES TO THE DEPARTMENT FOR APPROVAL.*
   6. *ALL DISTURBED AREAS MEETING FINAL ELEVATIONS AND GRADES ABOVE THE PERMANENT BOTTOM ELEVATION SHALL BE SEEDED WITH ITEM 908015, PERMANENT GRASS SEEDING, STORMWATER AND MULCHED WITH ITEM 908020, EROSION CONTROL BLANKET MULCH.*
   7. *BASIN BOTTOM ELEVATION SHALL BE SEEDED WITH ITEM 908015, PERMANENT GRASS SEEDING, STORMWATER, AND MULCHED WITH A HYDRAULIC MULCH, ITEM 908026*
   8. *AFTER ALL SURROUNDING AREAS DRAINING TO THE INFILTRATION BASIN HAVE SUFFICIENT VEGETATION AS APPROVED BY THE ENGINEER, E&S DEVICES SHALL BE REMOVED.*
   9. *AS PART OF FINAL STABILIZATION POST CONSTRUCTION VERIFICATION SURVEY WILL BE COMPLETED IN ACCORDANCE WITH DELAWARE POST CONSTRUCTION STORMWATER BMP STANDARDS & SPECIFICATIONS BY THE CONTRACTOR AND LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF DELAWARE AND SENT TO THE STORMWATER ENGINEER FOR VERIFICATION.*

D. *AS-BUILT DRAWINGS SHALL BE COMPLETED BY THE CONTRACTOR AND CERTIFIED BY A DELAWARE PLS BEFORE THE DELDOT INITIAL INSPECTION DATE. THESE DRAWINGS SHALL BE SENT TO THE STORMWATER ENGINEER FOR VERIFICATION. AS-BUILTS INCIDENTAL TO ITEM 910008. AS-BUILT DRAWINGS SHALL INCLUDE, BUT NOT BE LIMITED TO:*
   1. *GENERAL TOPOGRAPHY OF THE WHOLE FACILITY AT 1-FOOT CONTOURS INCLUDING FOREBAYS AND TOP/TOE OF ANY EMBANKMENT.*
   2. *INVERTS OF ALL PIPES AND SWALES THAT INFLOW TO THE BASIN.*
   3. *OUTLINE OF ALL RIPRAP AND SPOT ELEVATIONS ON TOP OF THE RIPRAP.*
   4. *OUTLET STRUCTURE (OR WEIR WALL), INVERTS OF ANY AND ALL ORIFICES/WEIRS, TOP OF STRUCTURE, OUTLET PIPE, ETC.*
   5. *PRIMARY OUTFLOW PIPE OR CHANNEL. FOR A PIPE OUTFALL, INVERTS AT THE ENTRANCE AND EXIT. FOR A PRIMARY OUTFLOW CHANNEL/SWALE, SHOW AT MINIMUM THREE CROSS-SECTIONS OF EQUAL DISTANCE APART AT 50' DOWNSTREAM ALONG THE SLOPE.*

E. *INFILTRATION BASIN EXCAVATION WILL BE PAID FOR UNDER ITEM 910008 - STORMWATER MANAGEMENT POND.*

SWM FACILITY #01119 SPILLWAY BASELINE

POINT NO.	STATION	NORTHING	EASTING
1 POB	0+00.00	404225.30	620627.90
2 PI	1+92.41	404037.67	620585.26
3 POE	2+83.29	403971.06	620523.44

SWM FACILITY #01119 EMBANKMENT BASELINE

POINT NO.	STATION	NORTHING	EASTING
1 POB	0+00.00	404114.45	620676.20
2 PC	1+63.42	403961.45	620618.78
PI	2+18.58	403909.81	620599.41
3 PT	2+35.94	403947.33	620558.97
		RADIUS = 37.00'	
4 PC	4+58.77	404098.91	620395.64
PI	5+09.86	404133.66	620358.19
5 PCC	5+28.62	404158.40	620402.90
		RADIUS = 37.00'	
PI	6+74.49	404229.03	620530.53
6 PCC	7+95.73	404160.06	620659.06
		RADIUS = 267.66	
PI	8+28.10	404144.76	620687.57
		RADIUS = 37.00'	
1 PT/POE	8+48.91	404114.46	620676.20

GABION WORKING POINTS

POINT NO.	NORTHING	EASTING
WP 1	404082.90	620430.53
WP 2	404159.26	620431.95
WP 3	404173.17	620590.61
WP 4	404133.25	620598.49
WP 5	404130.02	620607.96
WP 6	404156.81	620638.59

POND DESIGN SUMMARY

DESIGN STORM	FACILITY INFLOW	FACILITY DISCHARGE	WATER SURFACE EL.	STORAGE VOL. (AC-FT)
RPv	1.80	0.00	37.54	0.023
Cv	4.47	0.00	37.70	0.108
Fv	11.75	0.00	38.26	0.427

HAZARD CLASSIFICATION: *CLASS A PER POND CODE 378*
DRAINAGE AREA TO FACILITY: *2.36 AC.*
MANAGEMENT PROVIDED BY FACILITY: *WATER QUALITY FOR RPv STORM EVENT BY INFILTRATION*
WATER QUANTITY FOR Cv AND Fv STORM EVENTS

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ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

STORMWATER MANAGEMENT PLAN

SECTION
CEN
SHEET NO.
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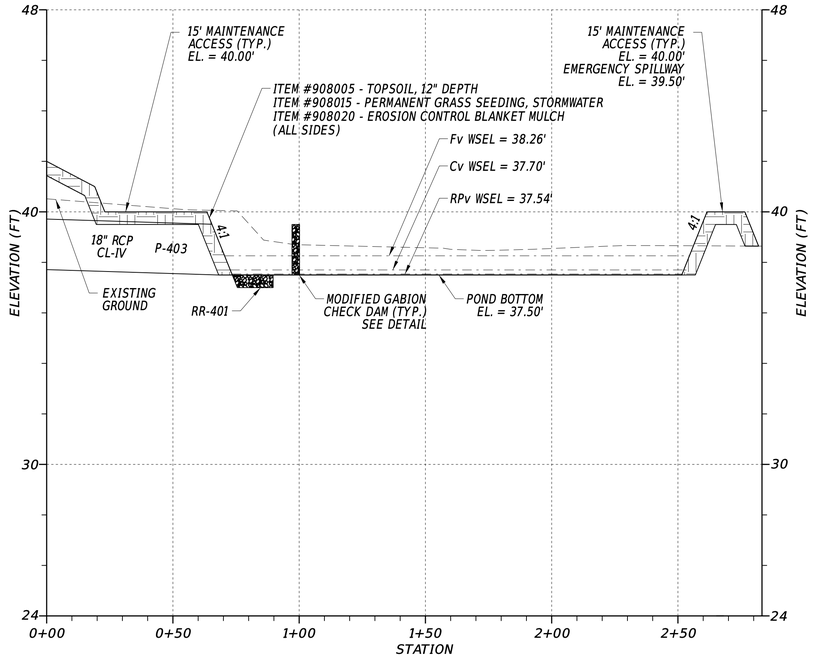
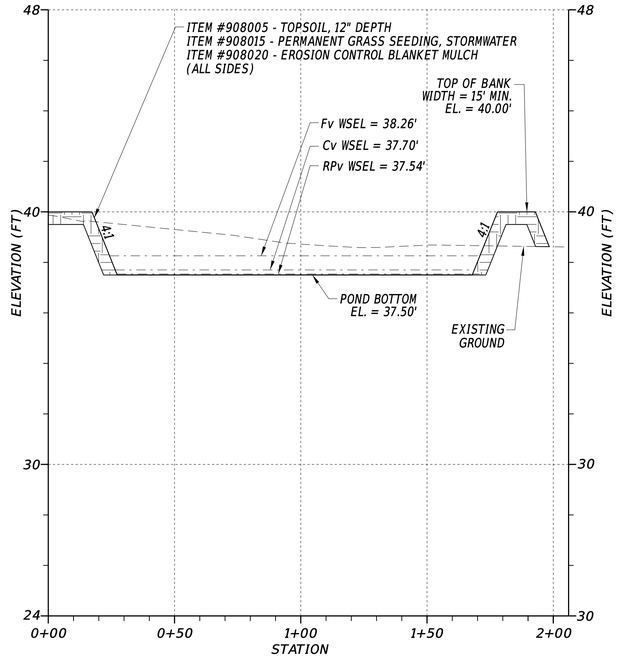


SWM FACILITY #01119 SPILLWAY PROFILE



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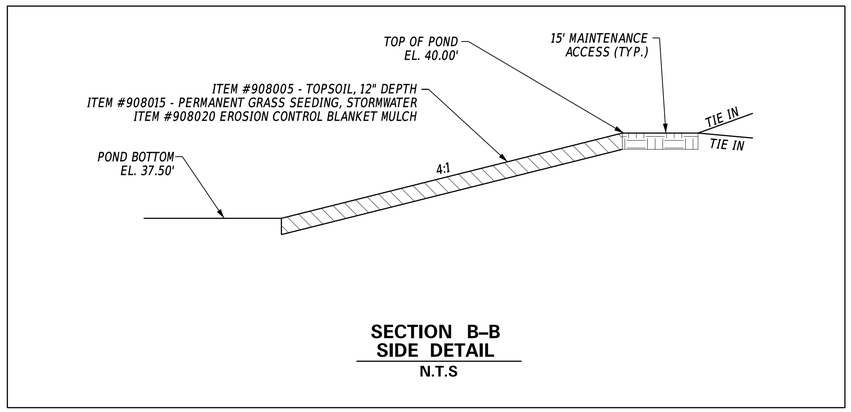

SECTION B–B
SIDE DETAIL
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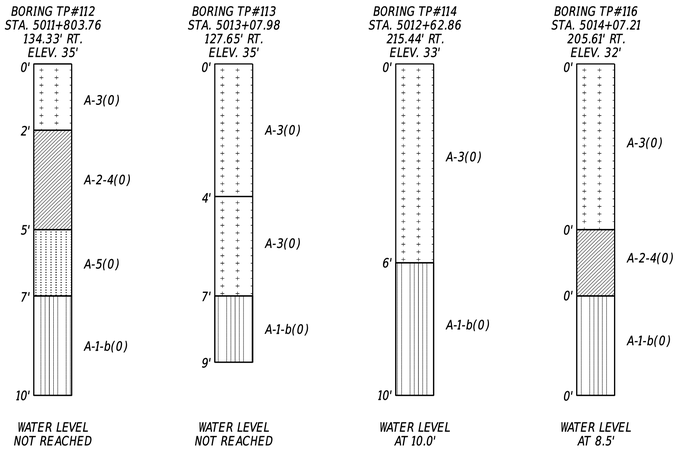

VERTICAL SCALE FEET
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ADDENDA / REVISIONS	SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	STORMWATER MANAGEMENT PLAN	SECTION
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			COUNTY	CHECKED BY: J. FREY		SHEET NO.
			KENT			107

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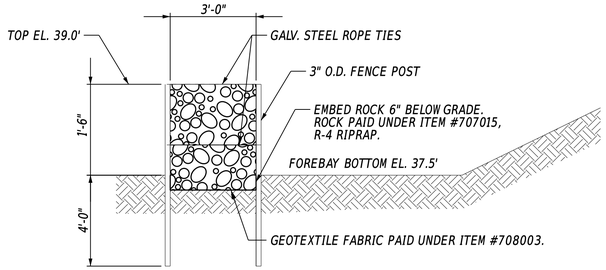
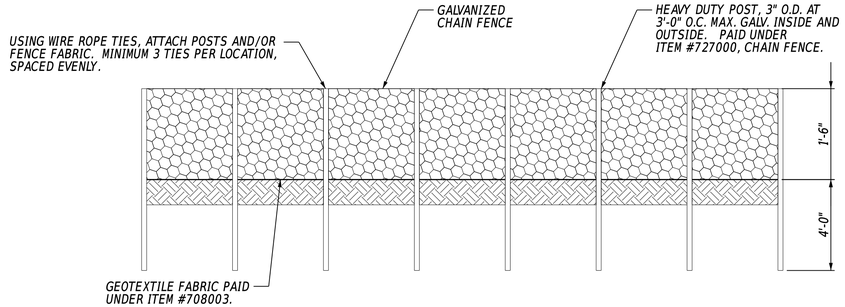
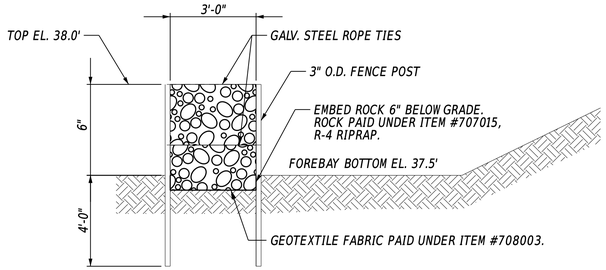


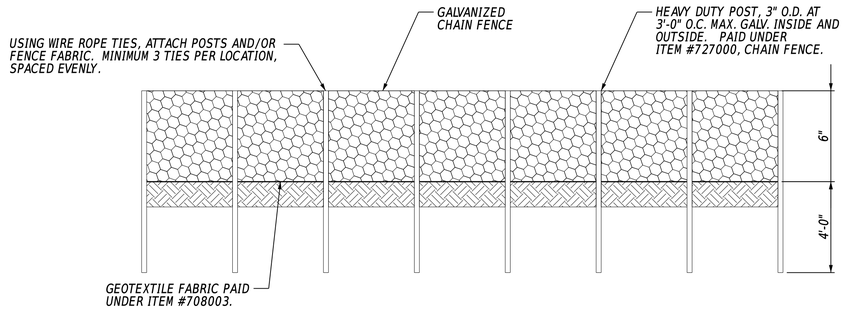
MODIFIED GABION CHECK DAM SECTION (SWALE)



MODIFIED GABION CHECK DAM ELEVATION



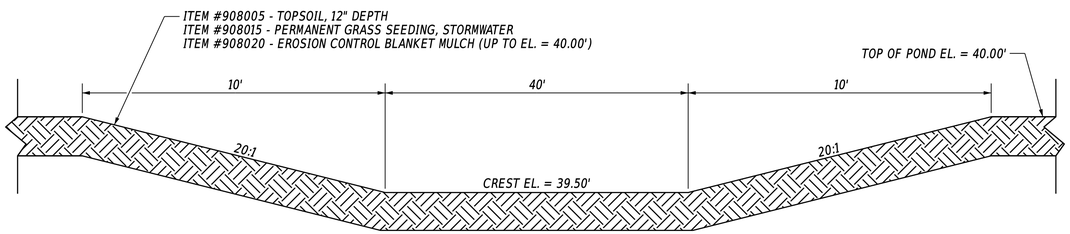
MODIFIED GABION CHECK DAM SECTION (FES-401)



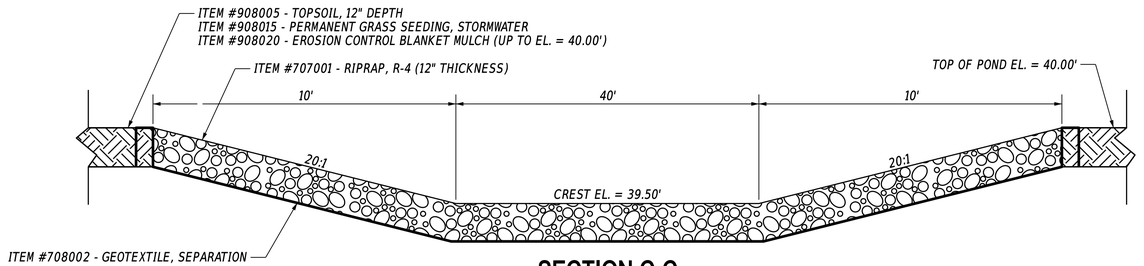
MODIFIED GABION CHECK DAM ELEVATION

MODIFIED GABION CHECK DAM GENERAL NOTES:

1. *FENCE POST SHALL BE TIED TOGETHER USING 1/4" GALVANIZED STEEL ROPE. THREE TIES PER FENCE POST PAIR. FENCE POST AND TIES SHALL BE PAID UNDER ITEM #727000, CHAIN FENCE.*
2. *GALVANIZED CHAIN LINK FENCE SHALL BE TIED TOGETHER USING 1/4" GALVANIZED STEEL ROPE. TIES SHALL BE SPACED 1'-6" O.C. ALONG LENGTH. TIES SHALL BE PLACED AT TOP, MIDDLE, AND BOTTOM OF EACH SECTION. WHERE TIES FALL ON A FENCE POST THE SAME TIE MAY BE USED TO TIE THE FENCE POSTS AS IS USED TO TIE THE FENCE. CHAIN LINK FENCE AND TIES SHALL BE PAID UNDER ITEM #727000, CHAIN FENCE.*
3. *THE STONE PLACED INSIDE MODIFIED GABION SHALL BE R-4 RIPRAP. SPECIAL CARE SHALL BE TAKEN WHEN PLACING THE ROCK TO ENSURE THAT THE COATING ON THE FENCE IS NOT DAMAGED. RIPRAP SHALL BE PAID UNDER ITEM #707015, R-4 RIPRAP.*
4. *GEOTEXTILE BENEATH THE MODIFIED GABION CHECKDAM SHALL BE PAID UNDER ITEM #708003.*
5. *EXCAVATION REQUIRED TO INSTALL THE MODIFIED GABION CHECK DAM SHALL BE PAID UNDER ITEM #910008 - STORMWATER MANAGEMENT POND.*
6. *EXTEND MODIFIED GABION CHECKDAM ENDS 5' INTO EMBANKMENT.*



SECTION C-C
EMERGENCY SPILLWAY
N.T.S.



SECTION C-C
TEMPORARY STONE OUTLET
N.T.S.

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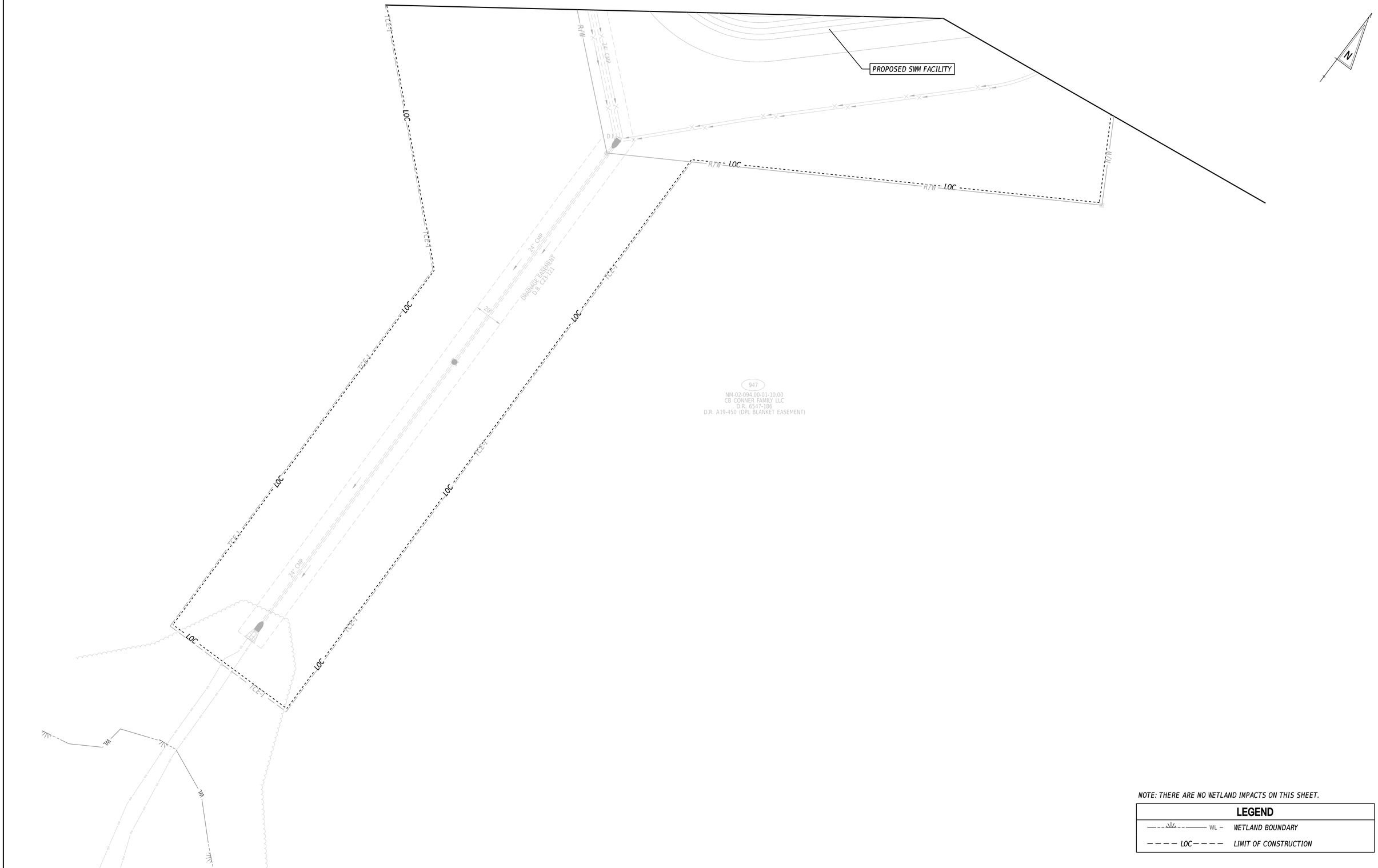
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	STORMWATER MANAGEMENT DETAIL	SECTION
				T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY			SHEET NO.
				KENT	CHECKED BY: J. FREY		108



NOTE: THERE ARE NO WETLAND IMPACTS ON THIS SHEET.

LEGEND

WL	*WETLAND BOUNDARY*
LOC	*LIMIT OF CONSTRUCTION*

ADDENDA / REVISIONS	SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	ENVIRONMENTAL COMPLIANCE PLAN	SECTION
	0 30 60 90 FEET		T201709502	DESIGNED BY: L. HAXTON		CEN
			COUNTY KENT	CHECKED BY: J. FREY		SHEET NO. 109

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GENERAL MOT NOTES

1. AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR REQUIREMENT FOR THIS PROJECT.

( )	THE CONTRACTOR SHALL NOT BE REQUIRED TO HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT.
(X)	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 801000.

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

3. THE USE OF MILLINGS AND GABC IN THE TRAVEL WAY, TEMPORARY TRAVEL WAY, HIGH VOLUME ENTRANCES AND ACCESS RAMPS FOR THE PURPOSE OF PROVIDING A TEMPORARY ROADWAY SURFACE, POTHOLE REPAIR, TAPERED EDGE FOR UTILITIES, BUTTJOINTS AND LONGITUDINAL DROP-OFFS (MILLING AND PAVING OPERATIONS) IS PROHIBITED UNLESS IT IS OTHERWISE DESIGNATED TO BE USED IN THE CONTRACT PLANS. USE COLD PATCH, BITUMINOUS CONCRETE, BITUMINOUS CONCRETE WEDGE OR TAPER MILL AS NOTED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE ENGINEER. PAYMENT FOR COLD PATCH, BITUMINOUS CONCRETE OR BITUMINOUS CONCRETE WEDGE SHALL BE PAID AS NOTED IN THE CONTRACT DOCUMENTS.

   MILLINGS OR GABC SHALL BE USED AT THE FOLLOWING LOCATIONS WHERE ACCESS TO A BUSINESS, RESIDENCE OR EDGE DROP-OFF NEEDS TO BE MAINTAINED UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE ENGINEER TO USE BITUMINOUS CONCRETE OR COLD PATCH. ALL MILLINGS AND GABC WILL BE ROLLED AND COMPACTED TO HELP PREVENT THE MATERIAL FROM UNRAVELLING:

   A. DRIVEWAYS.
   B. ENTRANCES.
   C. LOW VOLUME ENTRANCES AND ACCESS RAMPS (IDENTIFIED IN THE CONTRACT DOCUMENTS).
   D. EDGE DROP-OFFS ADJACENT TO LIVE ROADWAY (LANE, SHOULDER OR TURN LANE) AND THE PROPOSED ROAD CONSTRUCTION.
   E. EDGE OF ROADWAY DROP-OFF.

   GRADING AND MAINTAINING BASE COURSE THAT IS BEING USED FOR THE ROADWAY WEDGE/FILLET BETWEEN TRAVEL LANES AND PAVEMENT BOX, EDGE OF TRAVELWAY, DRIVEWAY OR ENTRANCE ACCESS SHALL BE INCIDENTAL TO ITEM NO. 801000 - MAINTENANCE OF TRAFFIC. THE BASE COURSE MATERIAL SHALL BE PLACED AT NO GREATER THAN THE SLOPE SPECIFIED IN TABLE 6G-1 OF THE DE MUTCD AND SHALL BE COMPACTED. EXCESS BASE COURSE MATERIAL SHALL BE PUSHED AHEAD AND USED IN THE NEXT SEGMENT OR REMOVED, AND SHALL BE INCIDENTAL TO THE PARTICULAR BASE COURSE PAY ITEM. NO SEPARATE PAYMENT SHALL BE MADE FOR MILLINGS OR GABC TEMPORARY ROADWAY MATERIAL (TRM) USED TO PROTECT EDGE DROP-OFFS, UNLESS THE MATERIAL IS EVENTUALLY UTILIZED AS PART OF A PERMANENT ROADWAY AT WHICH TIME THE MATERIAL WOULD BE PAID FOR UNDER THE RESPECTIVE CONTRACT MATERIAL ITEM.

   VERTICAL DIFFERENCES SHALL BE CORRECTED IN ACCORDANCE WITH TABLE 6G-1 OF THE DE MUTCD.

4. ADDITIONAL LANE RESTRICTIONS WILL BE ENFORCED BY THE ENGINEER, IN CONSULTATION WITH THE DISTRICT SAFETY OFFICER, TO ACCOMMODATE PERMITTED PLANNED SPECIAL EVENTS THROUGH THE WORK ZONE.

   THE ENGINEER WILL NOTIFY THE CONTRACTOR OF ADDITIONAL LANE RESTRICTIONS TWO WEEKS PRIOR TO THE START OF THE RESTRICTION.

5. USE TA-3, TA-3A, TA-10, TA-11B, TA-21A AND TA-33 TO SET-UP NEW STAGE TRAFFIC CONTROLS AND EROSION AND SEDIMENT CONTROLS.

6. THE CONSTRUCTION PHASING PLANS ARE A SUGGESTED SEQUENCE FOR BUILDING THE PROJECT WITHIN THE MAINTENANCE OF TRAFFIC AND SCHEDULING CONSTRAINTS PROVIDED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR MAY SUBMIT AN ALTERNATE PHASING PLAN FOR APPROVAL. HOWEVER, ANY ALTERNATE PLAN MUST COMPLY WITH THE SCHEDULE CONSTRAINTS, TRAFFIC CONTROL AND LANE RESTRICTION NOTES, UTILITY RELOCATIONS, AND ANY OTHER APPLICABLE PROJECT NOTES OR CONTRACT RESTRICTIONS INCLUDED WITHIN THE CONTRACT DOCUMENTS. UNLESS APPROVED OTHERWISE, THE ALTERNATE PHASING PLAN MAY NOT ADD COST OR TIME TO THE CONTRACT AND RECEIVE APPROVAL BY THE ENGINEER PRIOR TO IMPLEMENTING.

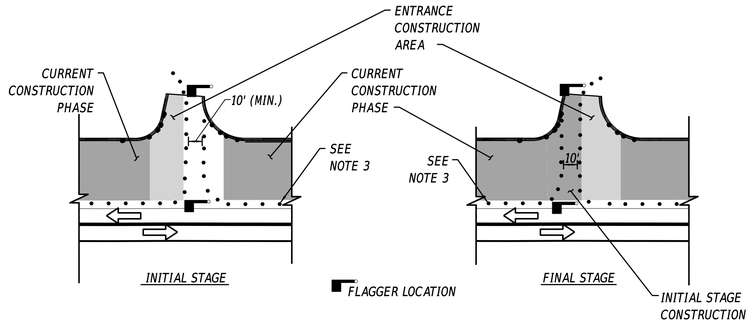
7. THE CONTRACTOR SHALL COORDINATE THE PLACEMENT OF THE FINAL SIGNAGE WITH THE ENGINEER IN THE FIELD. THE CONTRACTOR SHALL NOT REMOVE ANY TEMPORARY SIGNAGE UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

8. THE CONTRACTOR SHALL NOT PROCEED TO PHASE 4 UNTIL PHASES 1-3 HAVE BEEN ACCEPTED BY DELDOT CONSTRUCTION AND A TRAFFIC SAFETY INSPECTION HAS BEEN PERFORMED. PHASES 4, 5 AND 6 UTILIZE NEWLY BUILT ROADWAYS AS DETOUR ROUTES.

GENERAL MOT NOTES CONT.

9. THE USE OF FLAGGERS (TA-14) TO ALLOW CONSTRUCTION VEHICLES TO CROSS UPPER KING ROAD BETWEEN STICKPILE AREAS IS PHOHIBITED FROM 7 AM TO 9 AM AND 2 PM TO 4PM UNLESS DIRECTED BY THE ENGINEER.

10. THE CONTRACTOR SHALL COMPLETE ALL WORK WITHIN CURRENT PHASE PRIOR TO PROCEEDING TO THE NEXT PHASE. THE VEHICULAR DETOUR CANNOT BE REMOVED UNTIL ALL ITEMS THAT REQUIRE LANE CLOSURES ARE COMPLETE OR AS DIRECTED BY THE ENGINEER.



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 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.

ALLOWABLE TRAVEL LANE AND TURN LANE CLOSURE HOURS

UPPER KING ROAD/SOUTH MAIN STREET

	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SUNDAY																								
MONDAY																								
TUESDAY																								
WEDNESDAY																								
THURSDAY																								
FRIDAY																								
SATURDAY																								

SOUTH STREET AND WEST STREET

	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SUNDAY																								
MONDAY																								
TUESDAY																								
WEDNESDAY																								
THURSDAY																								
FRIDAY																								
SATURDAY																								

KING BLVD

	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
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MONDAY																								
TUESDAY																								
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THURSDAY																								
FRIDAY																								
SATURDAY																								

NOTE:

1. TRAVEL LANES ON US13 SHALL NOT BE CLOSED DURING CONSTRUCTION.
2. SOUTH STREET AND MAIN STREET DO NOT HAVE LANE CLOSURE RESTRICTIONS DURING PHASE 4 STAGE 2. ALL OTHER PHASES ARE SUBJECT TO LANE CLOSURES SHOWN.

ONE LANE CLOSURE
ALL LANES OPEN

CONSTRUCTION PHASING & M.O.T

	BARRICADE, TYPE 3
	CONCRETE SAFETY BARRIER - PORTABLE
CSF XXX	CONSTRUCTION SAFETY FENCE / LENGTH
CSF	CONSTRUCTION SAFETY FENCE
	CONSTRUCTION WARNING SIGN LOCATION
END ROAD WORK	CONSTRUCTION WARNING SIGN
	CRASH CUSHION ARRAY
	DRUM - TRAFFIC CONTROL
	FLAGGER LOCATION
	PHASING TRAFFIC FLOW ARROW
	TEMPORARY CONSTRUCTION
	TEMPORARY PAVEMENT MARKING ARROW
	TRUCK WITH MOUNTED ATTENUATOR
	CONSTRUCTED WORK - PREVIOUS PHASE
	WORK AREA - ACTIVE PHASE
	PAVEMENT REMOVAL - ACTIVE PHASE

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ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN	SECTION
				T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY			SHEET NO.
				KENT	CHECKED BY: J. FREY		110

EROSION AND SEDIMENT CONTROL NOTES

1.

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

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

DELDOT STORMWATER ENGINEER — DATE: 8/29/2024

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

AMOUNT OF DISTURBED AREA FOR THE PROJECT	77.09 AC
ADDED IMPERVIOUS FOR THE PROJECT	12.43 AC
HUC-10 WATERSHED	ST. JONES RIVER

3. ASSIGN A RESPONSIBLE PERSON TO BE ON SITE DURING ALL EARTH DISTURBING ACTIVITIES AND BE AN ACTIVE DNREC BLUE CARD HOLDER AS DEFINED IN SECTION 6.2 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS (DSSR). BE FAMILIAR WITH AND COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION GENERAL PERMIT.

4. FILE AS A CO-PERMITTEE IN ACCORDANCE WITH SECTION 901 OF THE STANDARD SPECIFICATIONS. POSTING AND MAINTENANCE OF THE NOI PERMIT COVERAGE IS INCIDENTAL TO THE CONTRACT.

5. REVISIONS TO THE SWPPP OR ENVIRONMENTAL COMPLIANCE PLAN SHEET(S) SHALL BE APPROVED PRIOR TO INITIATION IN THE FIELD. THE ENGINEER IS RESPONSIBLE FOR APPROVING ALL REDLINES AND REVISIONS TO THE SWPPP.

6. IMPLEMENTING AND MAINTAINING POLLUTION PREVENTION DEVICES AND PRACTICES IS REQUIRED UNDER THE DELAWARE CONSTRUCTION GENERAL PERMIT AND THE DSSR AND ARE INCIDENTAL TO THE CONTRACT.

7. A SOIL STOCKPILE, AS DESCRIBED IN DELDOT STANDARD SPECIFICATIONS AND DEFINED IN THE DELAWARE EROSION & SEDIMENT CONTROL HANDBOOK, IS ANY LOCATION WITHIN THE LIMITS OF CONSTRUCTION WHERE A TEMPORARY DEPOSIT OF EXCAVATED SOIL IS BEING RESERVED FOR FUTURE USE. A SOIL STOCKPILE SHALL BE LOCATED A MINIMUM OF 50 FEET FROM A STORM DRAIN INLET, OPEN CHANNEL, WETLAND, OR WATERBODY. A REQUEST MAY BE MADE MAY BE MADE TO THE ENGINEER TO PERMIT LOCATING A SOIL STOCKPILE LESS THAN 50 FEET FROM A STORM DRAIN INLET OR OPEN CHANNEL. UPON APPROVAL, IF ANY PART OF A SOIL STOCKPILE IS LESS THAN 50 FEET FROM A STORM DRAIN INLET OR OPEN CHANNEL, INSTALL A SUPER SILT FENCE PERIMETER TO PROTECT THE SOIL STOCKPILE. THE SUPER SILT FENCE MUST BE CONSTRUCTED IN ACCORDANCE WITH 905.3.B.3 OF THE STANDARD SPECIFICATIONS. THE COST FOR INSTALLATION AND MAINTENANCE OF THE STOCKPILE SUPER SILT FENCE IS INCIDENTAL TO THE CONTRACT.

8. PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF FROM LEAVING THE SITE. CHECK PERIMETER CONTROLS DAILY AND ADJUST OR REPAIR TO FULLY CONTAIN AND CONTROL SEDIMENT FROM LEAVING THE SITE. REMOVE ACCUMULATED SEDIMENT BEFORE IT HAS REACHED HALF OF THE EFFECTIVE CAPACITY OF THE CONTROL. ADJUST OR ALTER MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE ENGINEER.

9. ANY SEDIMENT LADEN DISCHARGE LEAVING THE LIMIT OF CONSTRUCTION SHALL IMMEDIATELY BE ADDRESSED THROUGH BEST AVAILABLE TECHNOLOGIES TO CONTROL ANY FURTHER SEDIMENT LADEN DISCHARGE. REMEDIATION MAY INCLUDE STANDARD E&S PRACTICES OR OTHER METHODS AS APPROVED BY THE ENGINEER.

10. ALL TEMPORARY CONCENTRATED FLOW AREAS INCLUDING CHANNEL SIDE SLOPES SHALL HAVE EROSION CONTROL BLANKET MULCH AS DIRECTED BY THE ENGINEER. INSTALL WITHIN SEVEN CALENDAR DAYS UPON CONSTRUCTION INITIATION. A TEMPORARY CONCENTRATED FLOW AREA MAY INCLUDE DITCHES, SWALES, BERMS, CONCENTRATED RUNOFF AREAS, ETC.

11. FOR ANY PERMANENT STORMWATER MANAGEMENT FACILITY, FOLLOW THAT FACILITY'S SEQUENCE OF CONSTRUCTION AS NOTED ON THE STORMWATER MANAGEMENT SHEETS.

12. NO MORE THAN 20 ACRES MAY BE DISTURBED AT ANY TIME. DISTURBANCE OF A SECOND 20 ACRE SECTION MAY NOT PROCEED UNTIL TEMPORARY OR PERMANENT STABILIZATION OF THE FIRST 20 ACRE SECTION IS ACCOMPLISHED AS APPROVED BY THE ENGINEER.

13. MAINTAIN POSITIVE DRAINAGE IN EXISTING AND PROPOSED DRAINAGE SYSTEMS BY EXECUTING CONSTRUCTION, CLEANING EXISTING DRAINAGE SYSTEMS, AND PROPERLY DISPOSING OF SEDIMENT THROUGHOUT THE DURATION OF THE PROJECT.

14. ALL EXISTING INLETS AND PIPES WITHIN THE PROJECT LIMITS TO REMAIN SHALL BE CLEANED OUT. ALL COSTS ARE INCIDENTAL TO ITEM 201000.

GENERAL E&S SEQUENCE NOTES (FOR ALL PHASES)

1. POST NOI PERMIT COVERAGE SO THAT IT IS VISIBLE IN CLOSE PROXIMITY TO THE CONSTRUCTION SITE AS DIRECTED BY THE ENGINEER. THE NOTICE MUST BE IN ACCORDANCE WITH DELDOT GUIDANCE.
2. INSTALL ALL PERIMETER E&S ITEMS AND SENSITIVE AREA PROTECTIONS PRIOR TO ANY LAND DISTURBING ACTIVITIES. THE ONLY LAND DISTURBANCE ALLOWABLE IS WHAT IS NECESSARY TO INSTALL THE PERIMETER E&S ITEMS.
3. ESTABLISH CONSTRUCTION STAGING AREAS AND INSTALL E&S CONTROLS.
4. ONCE PERIMETER E&S CONTROLS ARE INSTALLED, THEY SHALL BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE ANY OTHER LAND DISTURBING ACTIVITIES CAN BEGIN.
5. INTERIOR EROSION AND SEDIMENT CONTROL ITEMS SHALL BE PLACED AS PER PLAN.
6. NOTIFY THE ENGINEER 48 HOURS BEFORE CONSTRUCTION OF ALL STORMWATER MANAGEMENT FACILITY COMPONENTS IN ACCORDANCE WITH THE STORMWATER MANAGEMENT SHEET FACILITY CONSTRUCTION SEQUENCE.
7. PRIOR TO COMMENCING A NEW PHASE OF CONSTRUCTION, APPROVAL IS REQUIRED FROM THE ENGINEER THAT THE AREAS WITHIN THE PREVIOUS PHASE HAVE BEEN SUFFICIENTLY STABILIZED.
8. COMPLETE PERMANENT STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS UPON REACHING FINAL GRADE.
9. DO NOT REMOVE E&S DEVICES UNLESS DIRECTED BY THE ENGINEER.

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

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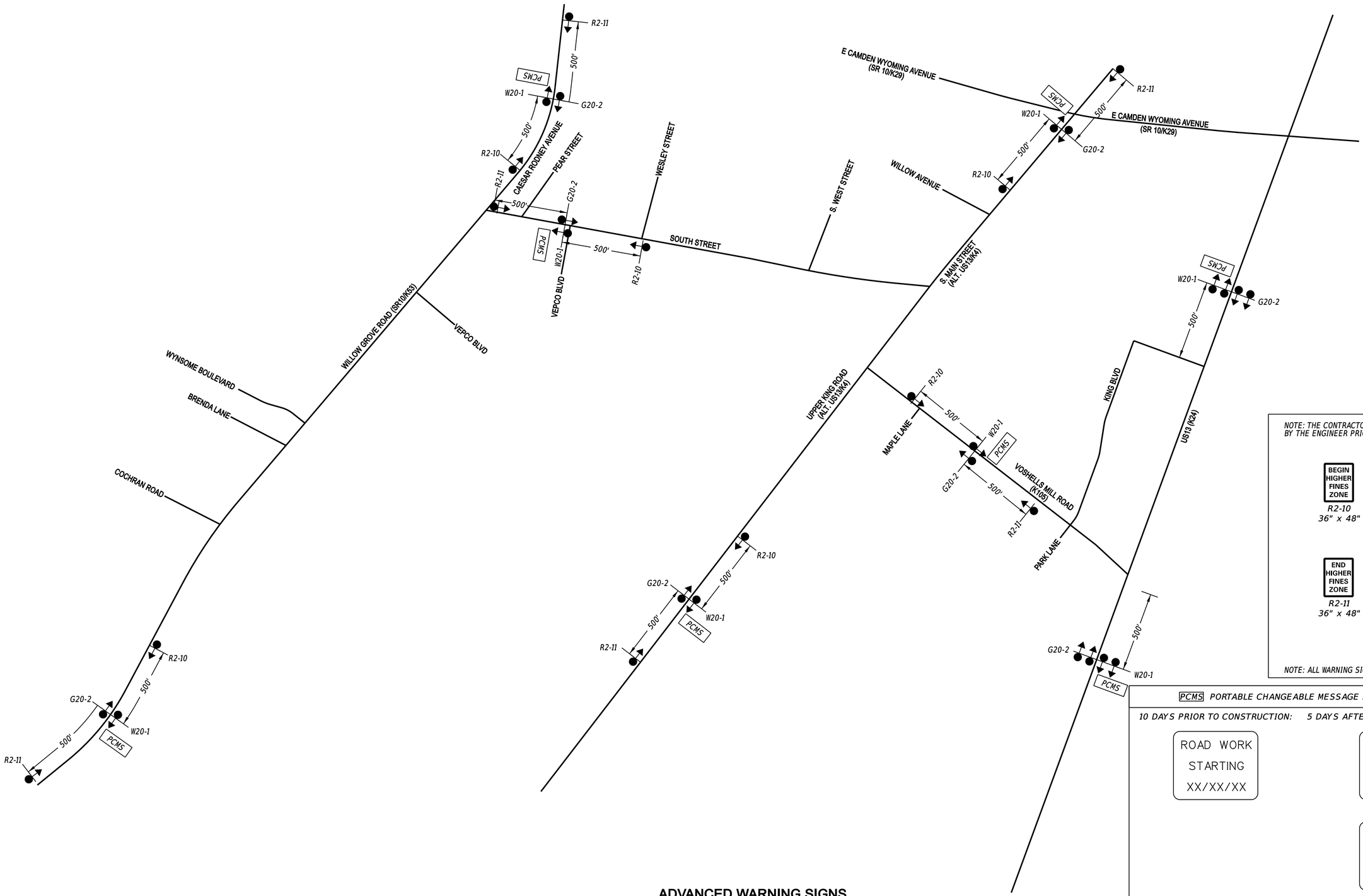
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN	SECTION
				T201709502			CEN
				COUNTY	DESIGNED BY: L. HAXTON		SHEET NO.
				KENT	CHECKED BY: J. FREY		111



ADVANCED WARNING SIGNS

NOTE: THE CONTRACTOR SHALL LAYOUT SIGNS FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION.

BEGIN HIGHER FINES ZONE
R2-10
36" x 48"

END ROAD WORK
G20-2
48" x 24"

END HIGHER FINES ZONE
R2-11
36" x 48"

ROAD WORK AHEAD
W20-1
48" x 48"

NOTE: ALL WARNING SIGNS PAID UNDER ITEM #810001

PCMS PORTABLE CHANGEABLE MESSAGE SIGN LOCATIONS

10 DAYS PRIOR TO CONSTRUCTION: ROAD WORK STARTING XX/XX/XX

5 DAYS AFTER CONSTRUCTION HAS BEGUN: ROAD WORK AHEAD

USE CAUTION

NOTES:
1. PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE PLACED 10 DAYS PRIOR TO AND 5 DAYS AFTER CONSTRUCTION BEGINS AND ANY TRAFFIC PATTERN CHANGES.
2. MESSAGE BOARD MESSAGE AND LOCATIONS SHALL BE COORDINATED WITH AND APPROVED BY THE DISTRICT TRAFFIC SAFETY OFFICER.

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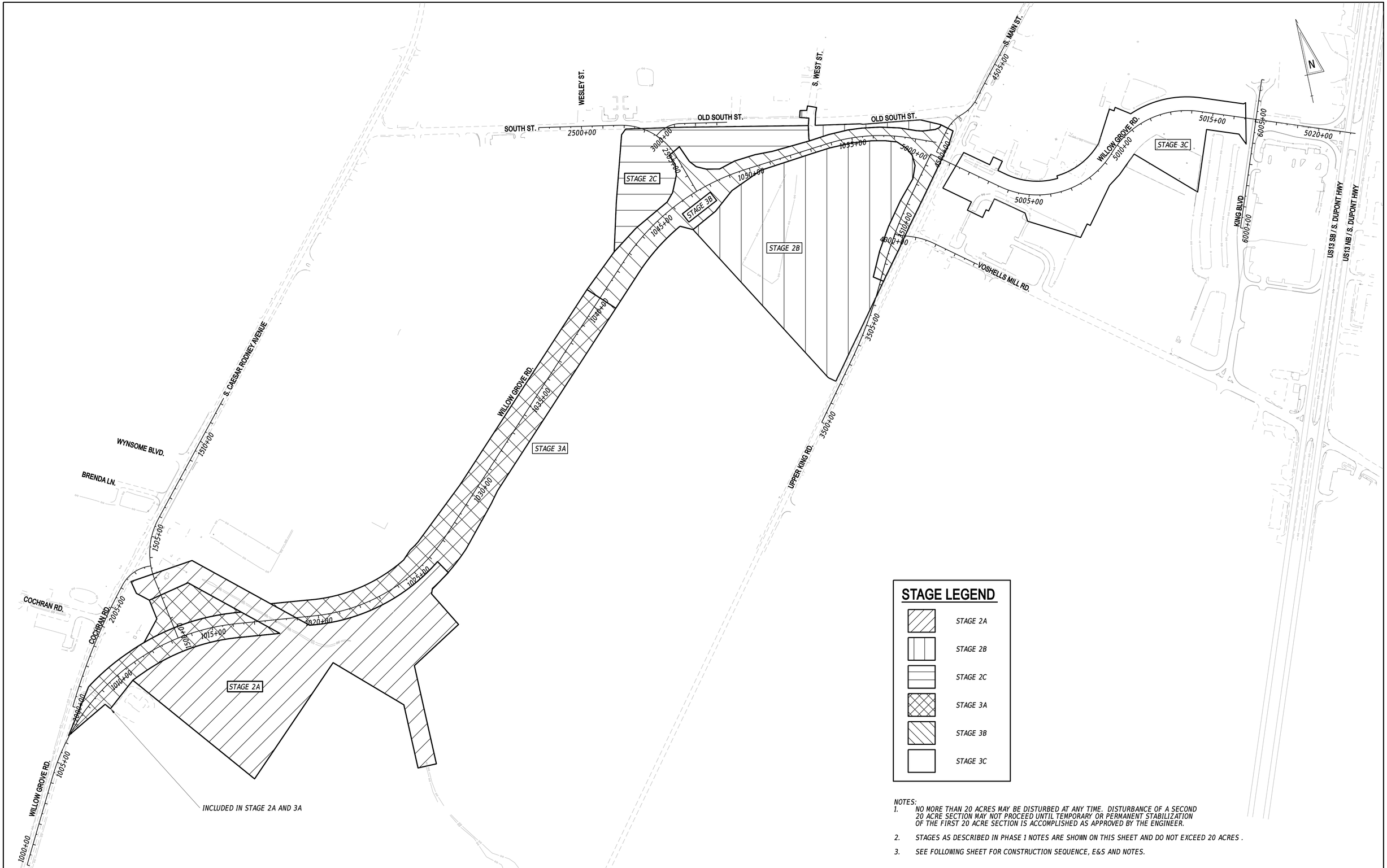
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN	SECTION
				T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY	CHECKED BY: J. FREY		SHEET NO.
				KENT			112



STAGE LEGEND

- STAGE 2A
- STAGE 2B
- STAGE 2C
- STAGE 3A
- STAGE 3B
- STAGE 3C

NOTES:

1. NO MORE THAN 20 ACRES MAY BE DISTURBED AT ANY TIME. DISTURBANCE OF A SECOND 20 ACRE SECTION MAY NOT PROCEED UNTIL TEMPORARY OR PERMANENT STABILIZATION OF THE FIRST 20 ACRE SECTION IS ACCOMPLISHED AS APPROVED BY THE ENGINEER.
2. STAGES AS DESCRIBED IN PHASE 1 NOTES ARE SHOWN ON THIS SHEET AND DO NOT EXCEED 20 ACRES .
3. SEE FOLLOWING SHEET FOR CONSTRUCTION SEQUENCE, E&S AND NOTES.

ADDENDA / REVISIONS

SCALE
0 200 400 600
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 1 - STAGE OVERVIEW

SECTION
CEN
SHEET NO.
113

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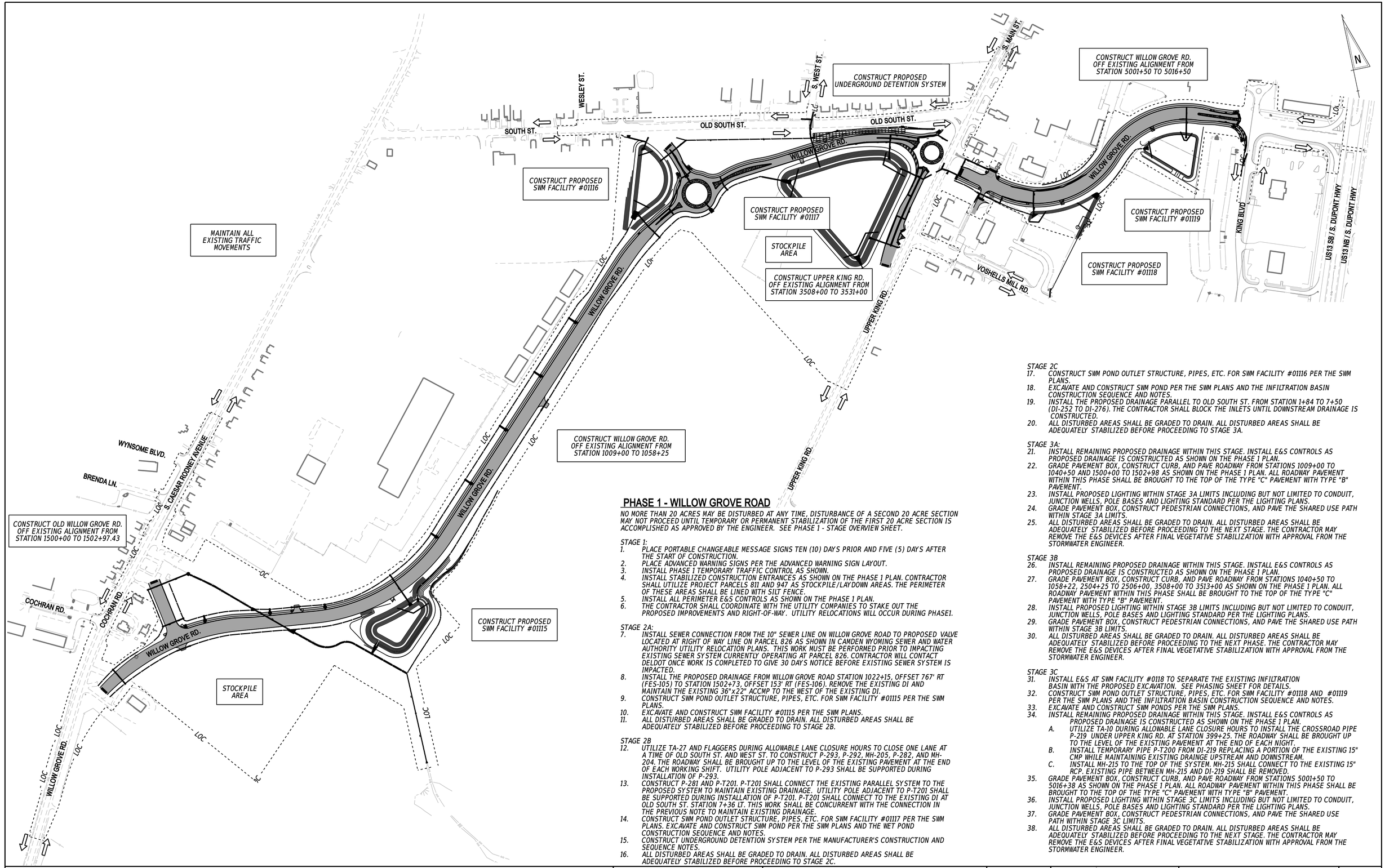

PHASE 1 - WILLOW GROVE ROAD

NO MORE THAN 20 ACRES MAY BE DISTURBED AT ANY TIME, DISTURBANCE OF A SECOND 20 ACRE SECTION MAY NOT PROCEED UNTIL TEMPORARY OR PERMANENT STABILIZATION OF THE FIRST 20 ACRE SECTION IS ACCOMPLISHED AS APPROVED BY THE ENGINEER. SEE PHASE 1 - STAGE OVERVIEW SHEET.

STAGE 1:

1. PLACE PORTABLE CHANGEABLE MESSAGE SIGNS TEN (10) DAYS PRIOR AND FIVE (5) DAYS AFTER THE START OF CONSTRUCTION.
2. PLACE ADVANCED WARNING SIGNS PER THE ADVANCED WARNING SIGN LAYOUT.
3. INSTALL PHASE 1 TEMPORARY TRAFFIC CONTROL AS SHOWN.
4. INSTALL STABILIZED CONSTRUCTION ENTRANCES AS SHOWN ON THE PHASE 1 PLAN. CONTRACTOR SHALL UTILIZE PROJECT PARCELS 811 AND 947 AS STOCKPILE/LAYDOWN AREAS. THE PERIMETER OF THESE AREAS SHALL BE LINED WITH SILT FENCE.
5. INSTALL ALL PERIMETER E&S CONTROLS AS SHOWN ON THE PHASE 1 PLAN.
6. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO STAKE OUT THE PROPOSED IMPROVEMENTS AND RIGHT-OF-WAY. UTILITY RELOCATIONS WILL OCCUR DURING PHASE1.

STAGE 2A:

7. INSTALL SEWER CONNECTION FROM THE 10" SEWER LINE ON WILLOW GROVE ROAD TO PROPOSED VALVE LOCATED AT RIGHT OF WAY LINE ON PARCEL 826 AS SHOWN IN CAMDEN WYOMING SEWER AND WATER AUTHORITY UTILITY RELOCATION PLANS. THIS WORK MUST BE PERFORMED PRIOR TO IMPACTING EXISTING SEWER SYSTEM CURRENTLY OPERATING AT PARCEL 826. CONTRACTOR WILL CONTACT DELDOT ONCE WORK IS COMPLETED TO GIVE 30 DAYS NOTICE BEFORE EXISTING SEWER SYSTEM IS IMPACTED.
8. INSTALL THE PROPOSED DRAINAGE FROM WILLOW GROVE ROAD STATION 1022+15, OFFSET 767' RT (FES-105) TO STATION 1502+73, OFFSET 153' RT (FES-106). REMOVE THE EXISTING DI AND MAINTAIN THE EXISTING 36"x22" ACCMP TO THE WEST OF THE EXISTING DI.
9. CONSTRUCT SWM POND OUTLET STRUCTURE, PIPES, ETC. FOR SWM FACILITY #01115 PER THE SWM PLANS.
10. EXCAVATE AND CONSTRUCT SWM FACILITY #01115 PER THE SWM PLANS.
11. ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO STAGE 2B.

STAGE 2B

12. UTILIZE TA-27 AND FLAGGERS DURING ALLOWABLE LANE CLOSURE HOURS TO CLOSE ONE LANE AT A TIME OF OLD SOUTH ST. AND WEST ST. TO CONSTRUCT P-293, P-292, MH-205, P-282, AND MH-204. THE ROADWAY SHALL BE BROUGHT UP TO THE LEVEL OF THE EXISTING PAVEMENT AT THE END OF EACH WORKING SHIFT. UTILITY POLE ADJACENT TO P-293 SHALL BE SUPPORTED DURING INSTALLATION OF P-293.
13. CONSTRUCT P-281 AND P-T201. P-T201 SHALL CONNECT THE EXISTING PARALLEL SYSTEM TO THE PROPOSED SYSTEM TO MAINTAIN EXISTING DRAINAGE. UTILITY POLE ADJACENT TO P-T201 SHALL BE SUPPORTED DURING INSTALLATION OF P-T201. P-T201 SHALL CONNECT TO THE EXISTING DI AT OLD SOUTH ST. STATION 7+36 LT. THIS WORK SHALL BE CONCURRENT WITH THE CONNECTION IN THE PREVIOUS NOTE TO MAINTAIN EXISTING DRAINAGE.
14. CONSTRUCT SWM POND OUTLET STRUCTURE, PIPES, ETC. FOR SWM FACILITY #01117 PER THE SWM PLANS. EXCAVATE AND CONSTRUCT SWM POND PER THE SWM PLANS AND THE WET POND CONSTRUCTION SEQUENCE AND NOTES.
15. CONSTRUCT UNDERGROUND DETENTION SYSTEM PER THE MANUFACTURER'S CONSTRUCTION AND SEQUENCE NOTES.
16. ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO STAGE 2C.

STAGE 2C

17. CONSTRUCT SWM POND OUTLET STRUCTURE, PIPES, ETC. FOR SWM FACILITY #01116 PER THE SWM PLANS.
18. EXCAVATE AND CONSTRUCT SWM POND PER THE SWM PLANS AND THE INFILTRATION BASIN CONSTRUCTION SEQUENCE AND NOTES.
19. INSTALL THE PROPOSED DRAINAGE PARALLEL TO OLD SOUTH ST. FROM STATION 1+84 TO 7+50 (DI-252 TO DI-276). THE CONTRACTOR SHALL BLOCK THE INLETS UNTIL DOWNSTREAM DRAINAGE IS CONSTRUCTED.
20. ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO STAGE 3A.

STAGE 3A:

21. INSTALL REMAINING PROPOSED DRAINAGE WITHIN THIS STAGE. INSTALL E&S CONTROLS AS PROPOSED DRAINAGE IS CONSTRUCTED AS SHOWN ON THE PHASE 1 PLAN.
22. GRADE PAVEMENT BOX, CONSTRUCT CURB, AND PAVE ROADWAY FROM STATIONS 1009+00 TO 1040+50 AND 1500+00 TO 1502+98 AS SHOWN ON THE PHASE 1 PLAN. ALL ROADWAY PAVEMENT WITHIN THIS PHASE SHALL BE BROUGHT TO THE TOP OF THE TYPE "C" PAVEMENT WITH TYPE "B" PAVEMENT.
23. INSTALL PROPOSED LIGHTING WITHIN STAGE 3A LIMITS INCLUDING BUT NOT LIMITED TO CONDUIT, JUNCTION WELLS, POLE BASES AND LIGHTING STANDARD PER THE LIGHTING PLANS.
24. GRADE PAVEMENT BOX, CONSTRUCT PEDESTRIAN CONNECTIONS, AND PAVE THE SHARED USE PATH WITHIN STAGE 3A LIMITS.
25. ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO THE NEXT STAGE. THE CONTRACTOR MAY REMOVE THE E&S DEVICES AFTER FINAL VEGETATIVE STABILIZATION WITH APPROVAL FROM THE STORMWATER ENGINEER.

STAGE 3B

26. INSTALL REMAINING PROPOSED DRAINAGE WITHIN THIS STAGE. INSTALL E&S CONTROLS AS PROPOSED DRAINAGE IS CONSTRUCTED AS SHOWN ON THE PHASE 1 PLAN.
27. GRADE PAVEMENT BOX, CONSTRUCT CURB, AND PAVE ROADWAY FROM STATIONS 1040+50 TO 1058+22, 2504+25 TO 2506+00, 3508+00 TO 3513+00 AS SHOWN ON THE PHASE 1 PLAN. ALL ROADWAY PAVEMENT WITHIN THIS PHASE SHALL BE BROUGHT TO THE TOP OF THE TYPE "C" PAVEMENT WITH TYPE "B" PAVEMENT.
28. INSTALL PROPOSED LIGHTING WITHIN STAGE 3B LIMITS INCLUDING BUT NOT LIMITED TO CONDUIT, JUNCTION WELLS, POLE BASES AND LIGHTING STANDARD PER THE LIGHTING PLANS.
29. GRADE PAVEMENT BOX, CONSTRUCT PEDESTRIAN CONNECTIONS, AND PAVE THE SHARED USE PATH WITHIN STAGE 3B LIMITS.
30. ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO THE NEXT PHASE. THE CONTRACTOR MAY REMOVE THE E&S DEVICES AFTER FINAL VEGETATIVE STABILIZATION WITH APPROVAL FROM THE STORMWATER ENGINEER.

STAGE 3C

31. INSTALL E&S AT SWM FACILITY #0118 TO SEPARATE THE EXISTING INFILTRATION BASIN WITH THE PROPOSED EXCAVATION. SEE PHASING SHEET FOR DETAILS.
32. CONSTRUCT SWM POND OUTLET STRUCTURE, PIPES, ETC. FOR SWM FACILITY #01118 AND #01119 PER THE SWM PLANS AND THE INFILTRATION BASIN CONSTRUCTION SEQUENCE AND NOTES.
33. EXCAVATE AND CONSTRUCT SWM PONDS PER THE SWM PLANS.
34. INSTALL REMAINING PROPOSED DRAINAGE WITHIN THIS STAGE. INSTALL E&S CONTROLS AS PROPOSED DRAINAGE IS CONSTRUCTED AS SHOWN ON THE PHASE 1 PLAN.
    A. UTILIZE TA-10 DURING ALLOWABLE LANE CLOSURE HOURS TO INSTALL THE CROSSROAD PIPE P-219 UNDER UPPER KING RD. AT STATION 399+25. THE ROADWAY SHALL BE BROUGHT UP TO THE LEVEL OF THE EXISTING PAVEMENT AT THE END OF EACH NIGHT.
    B. INSTALL TEMPORARY PIPE P-T200 FROM DI-219 REPLACING A PORTION OF THE EXISTING 15" CMP WHILE MAINTAINING EXISTING DRAINGE UPSTREAM AND DOWNSTREAM.
    C. INSTALL MH-215 TO THE TOP OF THE SYSTEM. MH-215 SHALL CONNECT TO THE EXISTING 15" RCP. EXISTING PIPE BETWEEN MH-215 AND DI-219 SHALL BE REMOVED.
35. GRADE PAVEMENT BOX, CONSTRUCT CURB, AND PAVE ROADWAY FROM STATIONS 5001+50 TO 5016+38 AS SHOWN ON THE PHASE 1 PLAN. ALL ROADWAY PAVEMENT WITHIN THIS PHASE SHALL BE BROUGHT TO THE TOP OF THE TYPE "C" PAVEMENT WITH TYPE "B" PAVEMENT.
36. INSTALL PROPOSED LIGHTING WITHIN STAGE 3C LIMITS INCLUDING BUT NOT LIMITED TO CONDUIT, JUNCTION WELLS, POLE BASES AND LIGHTING STANDARD PER THE LIGHTING PLANS.
37. GRADE PAVEMENT BOX, CONSTRUCT PEDESTRIAN CONNECTIONS, AND PAVE THE SHARED USE PATH WITHIN STAGE 3C LIMITS.
38. ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO THE NEXT STAGE. THE CONTRACTOR MAY REMOVE THE E&S DEVICES AFTER FINAL VEGETATIVE STABILIZATION WITH APPROVAL FROM THE STORMWATER ENGINEER.

ADDENDA / REVISIONS

SCALE
0 200 400 600
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 1 - OVERVIEW

SECTION
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PLACE CONSTRUCTION SAFETY FENCE ON THE PERIMETER OF PARCELS 814, 815, 816, 817, AND 826 BEFORE CONSTRUCTION AND LEAVE FOR ENTIRE PROJECT DURATION

INSTALL SEWER CONNECTION FROM THE 10" SEWER LINE ON WILLOW GROVE ROAD TO PROPOSED VALVE LOCATED AT RIGHT OF WAY LINE ON PARCEL 826 AS SHOWN IN CAMDEN WYOMING SEWER AND WATER AUTHORITY UTILITY RELOCATION PLANS. THIS WORK MUST BE PERFORMED PRIOR TO IMPACTING EXISTING SEWER SYSTEM CURRENTLY OPERATING AT PARCEL 826. CONTRACTOR WILL CONTACT DELDOT ONCE WORK IS COMPLETED TO GIVE 30 DAYS NOTICE BEFORE EXISTING SEWER SYSTEM IS IMPACTED.

W11-10

ROAD CLOSED
R11-2

W11-10

COCHRAN RD.

WILLOW GROVE RD.

S. CAESAR RODNEY AVE.

INSTALL CULVERT INLET PROTECTION

INSTALL CULVERT INLET PROTECTION

LAYDOWN AREA SEE NOTE 4

ROAD CLOSED
R11-2
SEE NOTE 7

SIDEWALK CLOSED
R9-9

MATCHLINE WILLOW GROVE ROAD STA. 1015+00

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	0 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	SECTION
T201709502	DESIGNED BY: L. HAXTON		CEN
COUNTY	CHECKED BY: J. FREY		SHEET NO.
KENT			115

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 1

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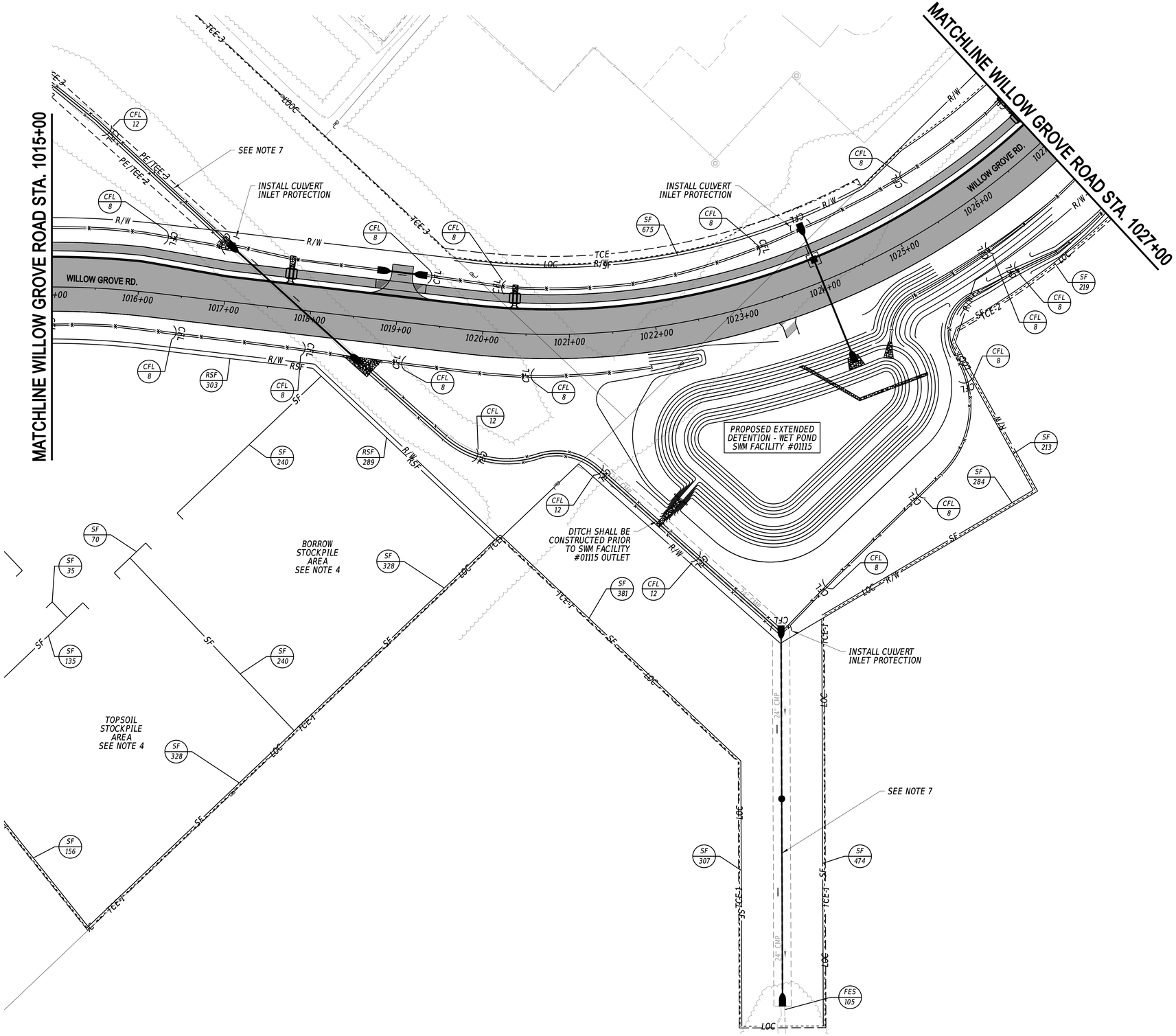

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	0 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 1

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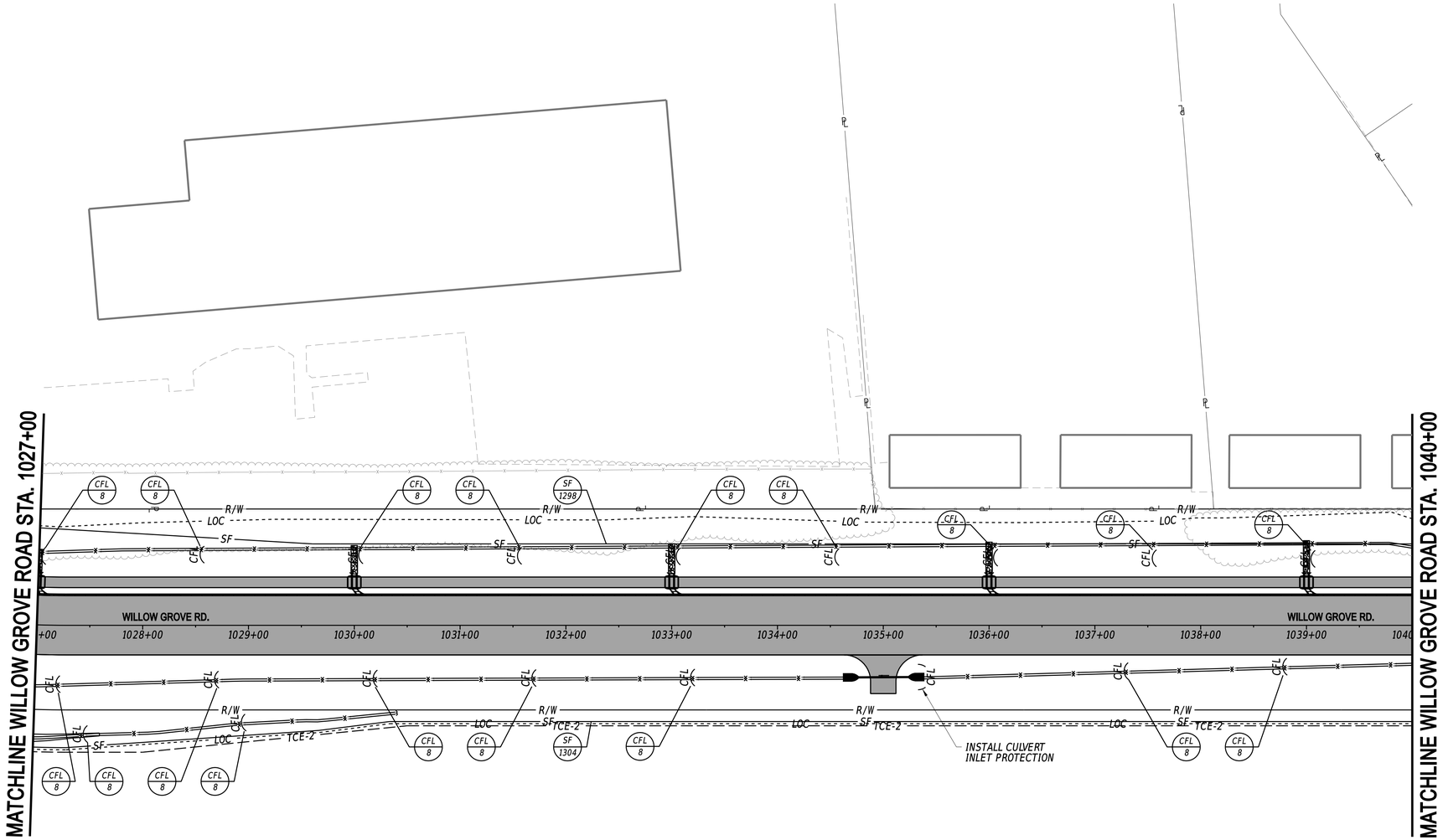

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
B	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	0 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
H	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
J	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
K	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
M	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

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ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 1

SECTION
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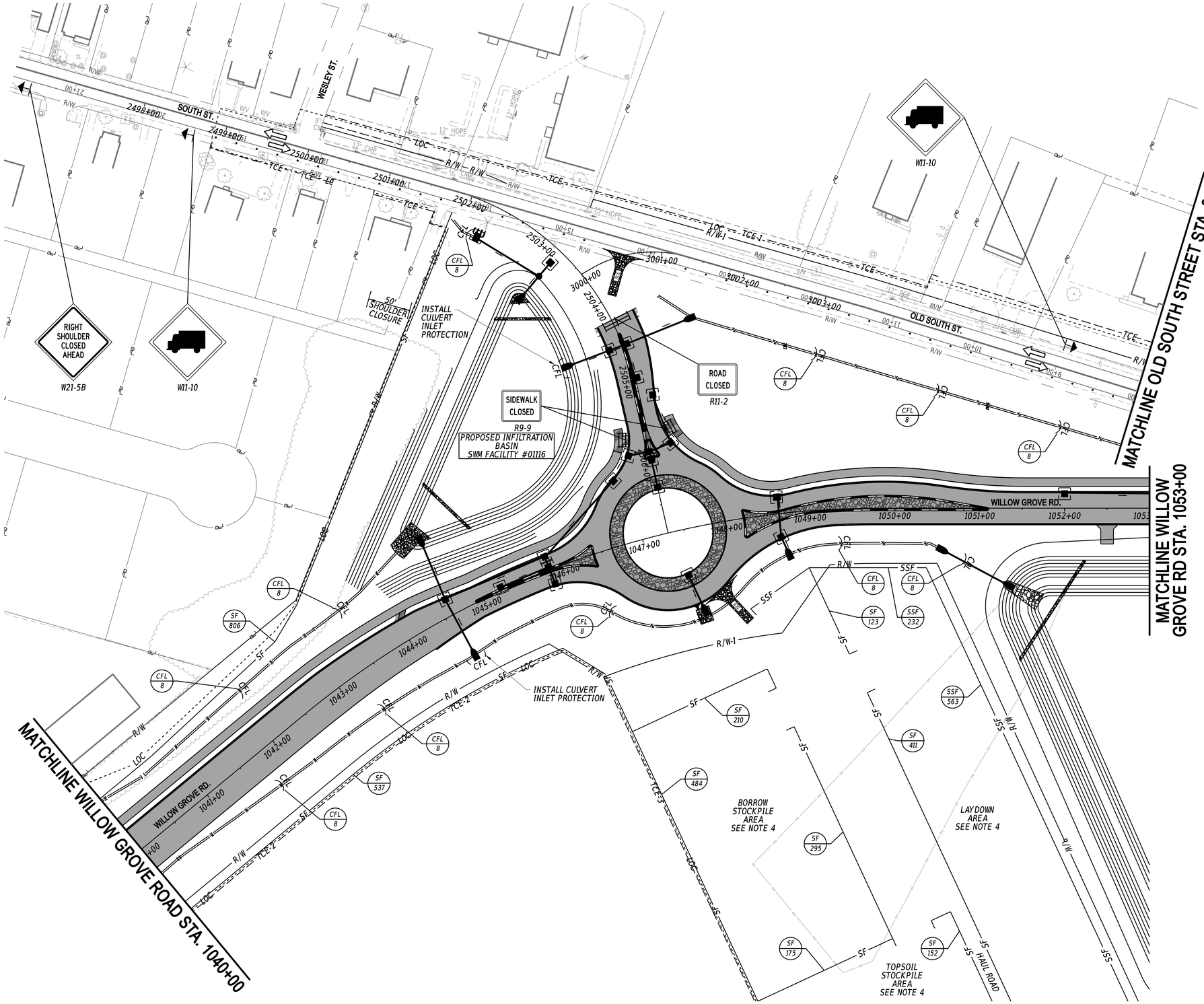

SHOULDER CLOSURE CALCULATION:
*L (min.) = W*S^2/60*
*L (min.) = 4*25^2/60 = 13.9'*
L (min.) < 50'

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	0 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 1

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MATCHLINE OLD SOUTH STREET STA. 8+00

MATCHLINE WILLOW GROVE RD STA. 1053+00

MATCHLINE WILLOW GROVE RD STA. 5008+50

MATCHLINE UPPER KING ROAD STA. 3510+50

SEE NOTES 12 & 13

SEE NOTE 10

OLD SOUTH ST.

WILLOW GROVE RD.

S. MAIN ST.

UPPER KING RD.

W11-10

SIDEWALK CLOSED R9-9

ROAD CLOSED R11-2

SEE NOTE 33C

SEE NOTE 33B

SEE NOTE 33A

INSTALL CULVERT INLET PROTECTION

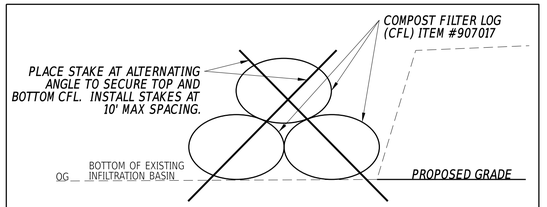
PROPOSED EXTENDED DETENTION - WET POND SWM FACILITY #01117

PROPOSED INFILTRATION BASIN SWM FACILITY #01118

DO NOT DISTURB EXISTING INFILTRATION BASIN BEYOND CFL

EXISTING INFILTRATION BASIN

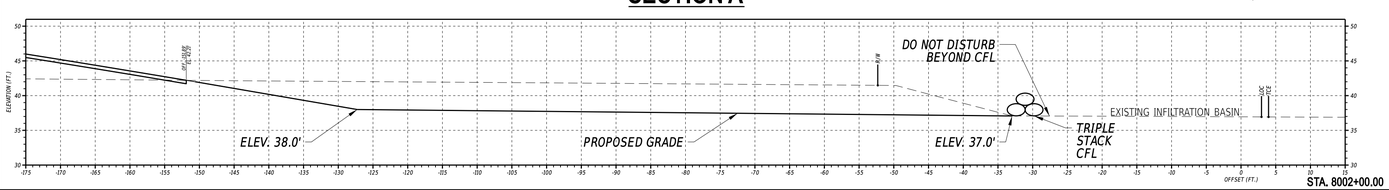
TRIPLE STACK CFL. SEE DETAIL



TRIPLE STACK CFL DETAIL
NOT TO SCALE

NOTES:
1. INSTALL 18" DIAMETER CFL ALONG TOE OF SLOPE WITHIN EXISTING INFILTRATION BASIN AS SHOWN ON THE E&S PLANS.
2. THE LINE SHOWN ON THE PLAN IS COMPRISED OF THREE (3) CFL. THE CONTRACTOR SHALL BE PAID FOR 3X THE LENGTH SHOWN IN THE IDENTIFIER.
3. MINIMUM STAKE EMBEDMENT SHALL BE PER THE MANUFACTURER'S SPECIFICATION.

SECTION A



DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
T200	15" RCP	IV	24.00	**	**	37.18

** MATCH EXISTING PIPE BEING REPLACED

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	0 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE 0 60 120 180 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 1

SECTION
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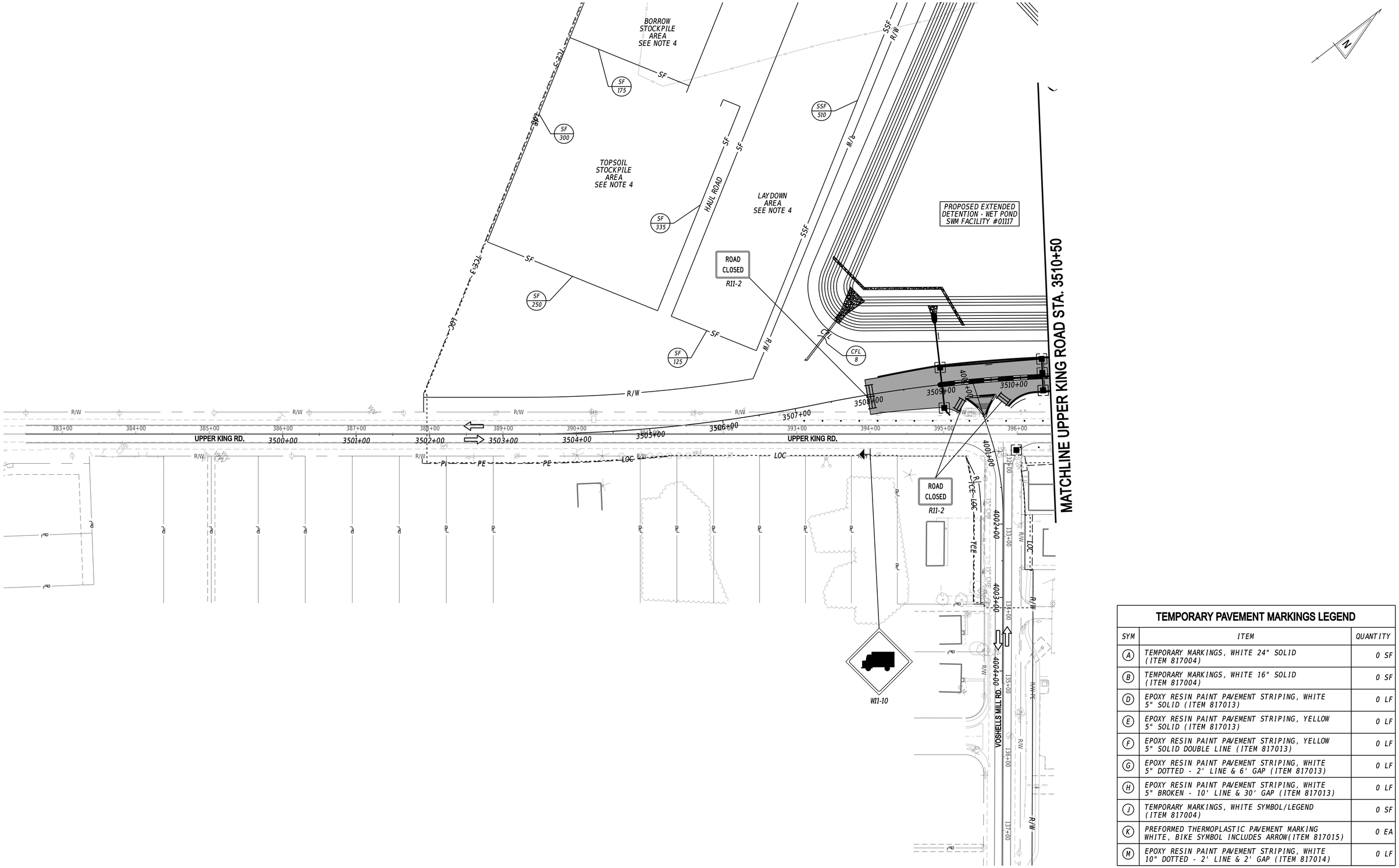

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	0 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

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ADDENDA / REVISIONS

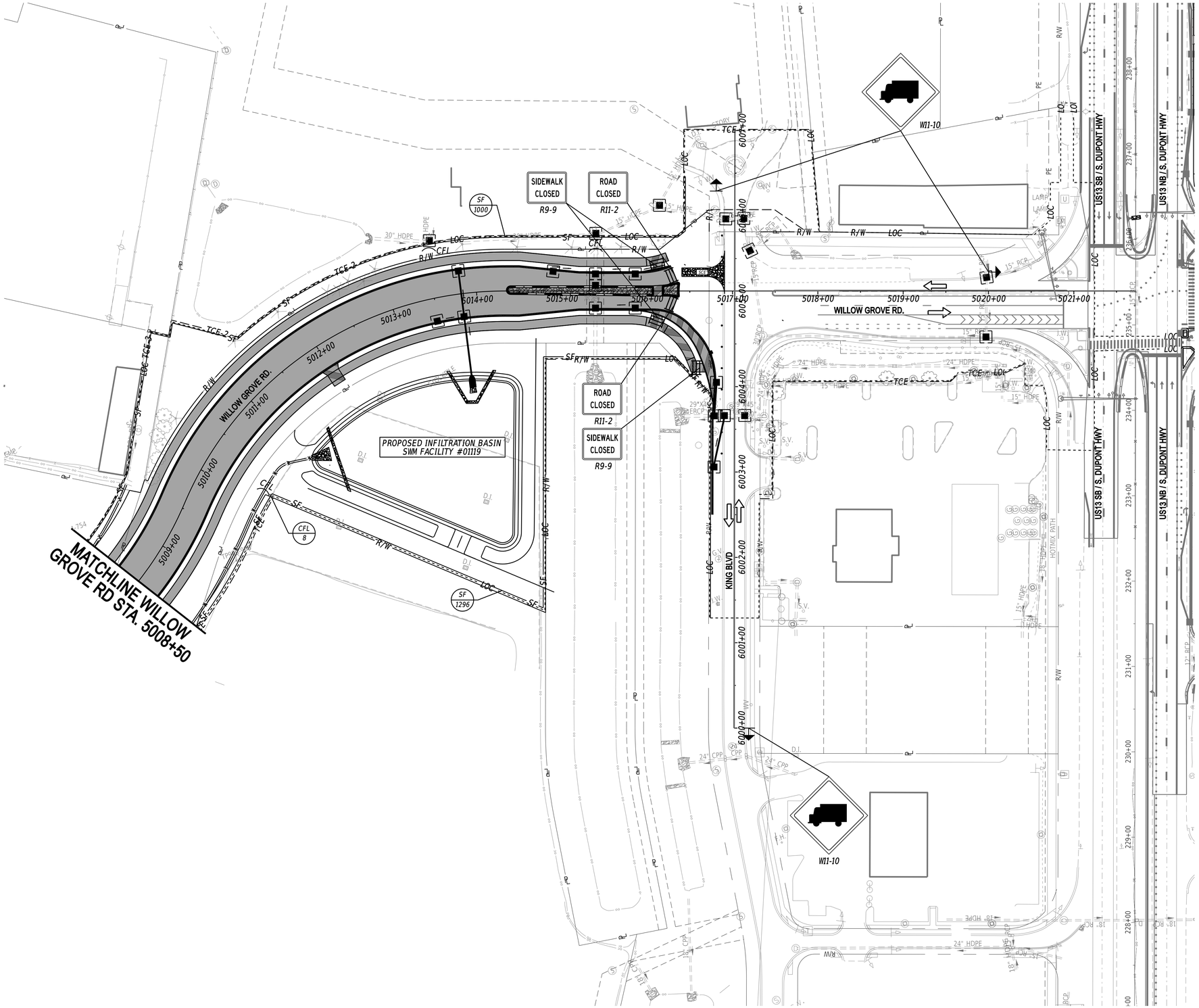
SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 1

SECTION	CEN
SHEET NO.	120



TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	0 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

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ADDENDA / REVISIONS

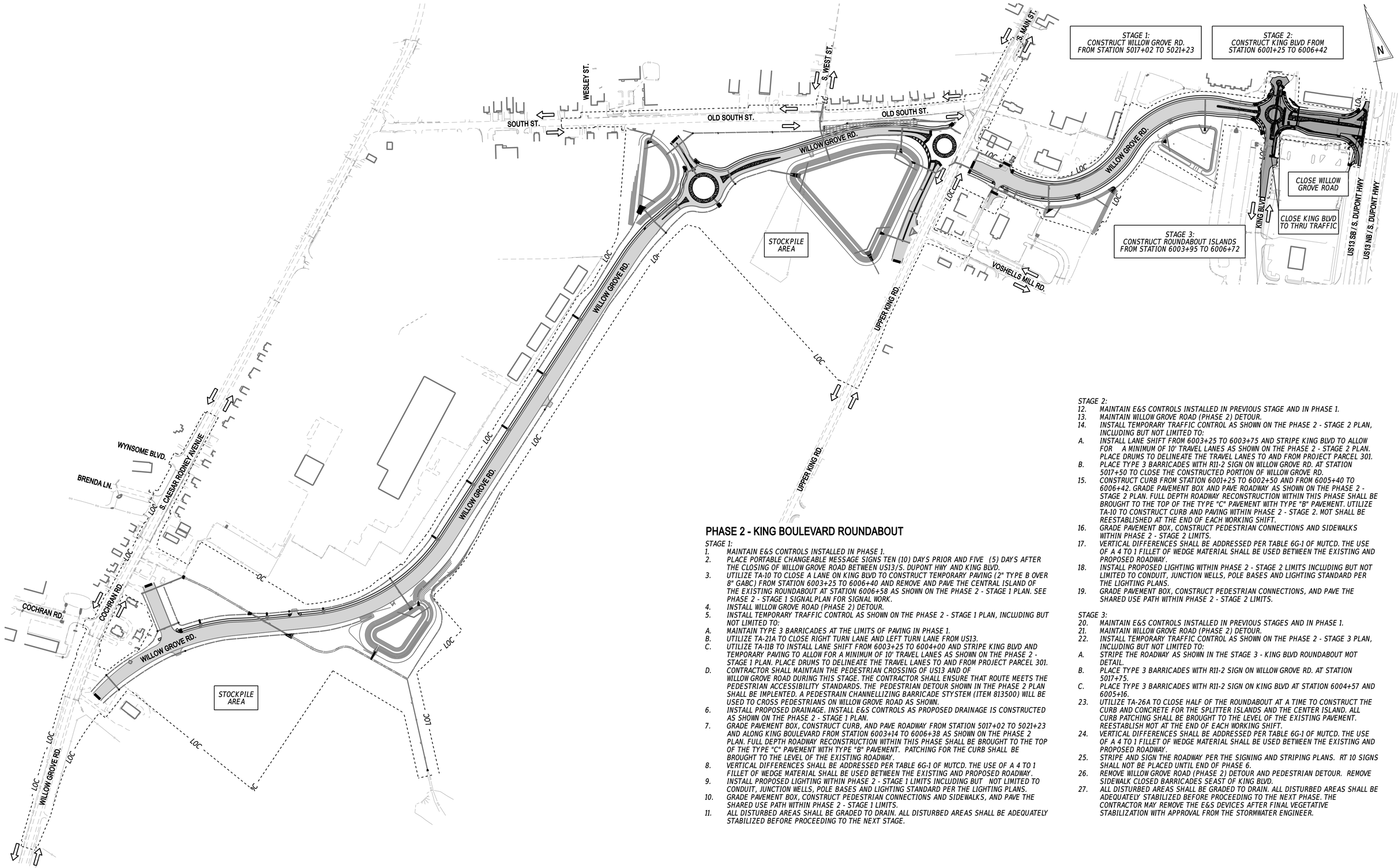
SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 1

SECTION
CEN
SHEET NO.
121



PHASE 2 - KING BOULEVARD ROUNDABOUT

STAGE 1:

1. *MAINTAIN E&S CONTROLS INSTALLED IN PHASE 1.*
2. *PLACE PORTABLE CHANGEABLE MESSAGE SIGNS TEN (10) DAYS PRIOR AND FIVE (5) DAYS AFTER THE CLOSING OF WILLOW GROVE ROAD BETWEEN US13/S. DUPONT HWY AND KING BLVD.*
3. *UTILIZE TA-10 TO CLOSE A LANE ON KING BLVD TO CONSTRUCT TEMPORARY PAVING (2" TYPE B OVER 8" GABC) FROM STATION 6003+25 TO 6006+40 AND REMOVE AND PAVE THE CENTRAL ISLAND OF THE EXISTING ROUNDABOUT AT STATION 6006+58 AS SHOWN ON THE PHASE 2 - STAGE 1 PLAN. SEE PHASE 2 - STAGE 1 SIGNAL PLAN FOR SIGNAL WORK.*
4. *INSTALL WILLOW GROVE ROAD (PHASE 2) DETOUR.*
5. *INSTALL TEMPORARY TRAFFIC CONTROL AS SHOWN ON THE PHASE 2 - STAGE 1 PLAN, INCLUDING BUT NOT LIMITED TO:*

A. *MAINTAIN TYPE 3 BARRICADES AT THE LIMITS OF PAVING IN PHASE 1.*
B. *UTILIZE TA-21A TO CLOSE RIGHT TURN LANE AND LEFT TURN LANE FROM US13.*
C. *UTILIZE TA-11B TO INSTALL LANE SHIFT FROM 6003+25 TO 6004+00 AND STRIPE KING BLVD AND TEMPORARY PAVING TO ALLOW FOR A MINIMUM OF 10' TRAVEL LANES AS SHOWN ON THE PHASE 2 - STAGE 1 PLAN. PLACE DRUMS TO DELINEATE THE TRAVEL LANES TO AND FROM PROJECT PARCEL 301.*
D. *CONTRACTOR SHALL MAINTAIN THE PEDESTRIAN CROSSING OF US13 AND OF WILLOW GROVE ROAD DURING THIS STAGE. THE CONTRACTOR SHALL ENSURE THAT ROUTE MEETS THE PEDESTRIAN ACCESSIBILITY STANDARDS. THE PEDESTRIAN DETOUR SHOWN IN THE PHASE 2 PLAN SHALL BE IMPLENTED. A PEDESTRAIN CHANNELLIZING BARRICADE STYSTEM (ITEM 813500) WILL BE USED TO CROSS PEDESTRIANS ON WILLOW GROVE ROAD AS SHOWN.*

6. *INSTALL PROPOSED DRAINAGE. INSTALL E&S CONTROLS AS PROPOSED DRAINAGE IS CONSTRUCTED AS SHOWN ON THE PHASE 2 - STAGE 1 PLAN.*
7. *GRADE PAVEMENT BOX, CONSTRUCT CURB, AND PAVE ROADWAY FROM STATION 5017+02 TO 5021+23 AND ALONG KING BOULEVARD FROM STATION 6003+14 TO 6006+38 AS SHOWN ON THE PHASE 2 PLAN. FULL DEPTH ROADWAY RECONSTRUCTION WITHIN THIS PHASE SHALL BE BROUGHT TO THE TOP OF THE TYPE "C" PAVEMENT WITH TYPE "B" PAVEMENT. PATCHING FOR THE CURB SHALL BE BROUGHT TO THE LEVEL OF THE EXISTING ROADWAY.*
8. *VERTICAL DIFFERENCES SHALL BE ADDRESSED PER TABLE 6G-1 OF MUTCD. THE USE OF A 4 TO 1 FILLET OF WEDGE MATERIAL SHALL BE USED BETWEEN THE EXISTING AND PROPOSED ROADWAY.*
9. *INSTALL PROPOSED LIGHTING WITHIN PHASE 2 - STAGE 1 LIMITS INCLUDING BUT NOT LIMITED TO CONDUIT, JUNCTION WELLS, POLE BASES AND LIGHTING STANDARD PER THE LIGHTING PLANS.*
10. *GRADE PAVEMENT BOX, CONSTRUCT PEDESTRIAN CONNECTIONS AND SIDEWALKS, AND PAVE THE SHARED USE PATH WITHIN PHASE 2 - STAGE 1 LIMITS.*
11. *ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO THE NEXT STAGE.*

STAGE 2:

12. *MAINTAIN E&S CONTROLS INSTALLED IN PREVIOUS STAGE AND IN PHASE 1.*
13. *MAINTAIN WILLOW GROVE ROAD (PHASE 2) DETOUR.*
14. *INSTALL TEMPORARY TRAFFIC CONTROL AS SHOWN ON THE PHASE 2 - STAGE 2 PLAN, INCLUDING BUT NOT LIMITED TO:*

A. *INSTALL LANE SHIFT FROM 6003+25 TO 6003+75 AND STRIPE KING BLVD TO ALLOW FOR A MINIMUM OF 10' TRAVEL LANES AS SHOWN ON THE PHASE 2 - STAGE 2 PLAN. PLACE DRUMS TO DELINEATE THE TRAVEL LANES TO AND FROM PROJECT PARCEL 301.*
B. *PLACE TYPE 3 BARRICADES WITH R11-2 SIGN ON WILLOW GROVE RD. AT STATION 5017+50 TO CLOSE THE CONSTRUCTED PORTION OF WILLOW GROVE RD.*

15. *CONSTRUCT CURB FROM STATION 6001+25 TO 6002+50 AND FROM 6005+40 TO 6006+42. GRADE PAVEMENT BOX AND PAVE ROADWAY AS SHOWN ON THE PHASE 2 - STAGE 2 PLAN. FULL DEPTH ROADWAY RECONSTRUCTION WITHIN THIS PHASE SHALL BE BROUGHT TO THE TOP OF THE TYPE "C" PAVEMENT WITH TYPE "B" PAVEMENT. UTILIZE TA-10 TO CONSTRUCT CURB AND PAVING WITHIN PHASE 2 - STAGE 2. MOT SHALL BE REESTABLISHED AT THE END OF EACH WORKING SHIFT.*
16. *GRADE PAVEMENT BOX, CONSTRUCT PEDESTRIAN CONNECTIONS AND SIDEWALKS WITHIN PHASE 2 - STAGE 2 LIMITS.*
17. *VERTICAL DIFFERENCES SHALL BE ADDRESSED PER TABLE 6G-1 OF MUTCD. THE USE OF A 4 TO 1 FILLET OF WEDGE MATERIAL SHALL BE USED BETWEEN THE EXISTING AND PROPOSED ROADWAY.*
18. *INSTALL PROPOSED LIGHTING WITHIN PHASE 2 - STAGE 2 LIMITS INCLUDING BUT NOT LIMITED TO CONDUIT, JUNCTION WELLS, POLE BASES AND LIGHTING STANDARD PER THE LIGHTING PLANS.*
19. *GRADE PAVEMENT BOX, CONSTRUCT PEDESTRIAN CONNECTIONS, AND PAVE THE SHARED USE PATH WITHIN PHASE 2 - STAGE 2 LIMITS.*

STAGE 3:

20. *MAINTAIN E&S CONTROLS INSTALLED IN PREVIOUS STAGES AND IN PHASE 1.*
21. *MAINTAIN WILLOW GROVE ROAD (PHASE 2) DETOUR.*
22. *INSTALL TEMPORARY TRAFFIC CONTROL AS SHOWN ON THE PHASE 2 - STAGE 3 PLAN, INCLUDING BUT NOT LIMITED TO:*

A. *STRIPE THE ROADWAY AS SHOWN IN THE STAGE 3 - KING BLVD ROUNDABOUT MOT DETAIL.*
B. *PLACE TYPE 3 BARRICADES WITH R11-2 SIGN ON WILLOW GROVE RD. AT STATION 5017+75.*
C. *PLACE TYPE 3 BARRICADES WITH R11-2 SIGN ON KING BLVD AT STATION 6004+57 AND 6005+16.*

23. *UTILIZE TA-26A TO CLOSE HALF OF THE ROUNDABOUT AT A TIME TO CONSTRUCT THE CURB AND CONCRETE FOR THE SPLITTER ISLANDS AND THE CENTER ISLAND. ALL CURB PATCHING SHALL BE BROUGHT TO THE LEVEL OF THE EXISTING PAVEMENT. REESTABLISH MOT AT THE END OF EACH WORKING SHIFT.*
24. *VERTICAL DIFFERENCES SHALL BE ADDRESSED PER TABLE 6G-1 OF MUTCD. THE USE OF A 4 TO 1 FILLET OF WEDGE MATERIAL SHALL BE USED BETWEEN THE EXISTING AND PROPOSED ROADWAY.*
25. *STRIPE AND SIGN THE ROADWAY PER THE SIGNING AND STRIPING PLANS. RT 10 SIGNS SHALL NOT BE PLACED UNTIL END OF PHASE 6.*
26. *REMOVE WILLOW GROVE ROAD (PHASE 2) DETOUR AND PEDESTRIAN DETOUR. REMOVE SIDEWALK CLOSED BARRICADES SEAST OF KING BLVD.*
27. *ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO THE NEXT PHASE. THE CONTRACTOR MAY REMOVE THE E&S DEVICES AFTER FINAL VEGETATIVE STABILIZATION WITH APPROVAL FROM THE STORMWATER ENGINEER.*

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ADDENDA / REVISIONS	

SCALE
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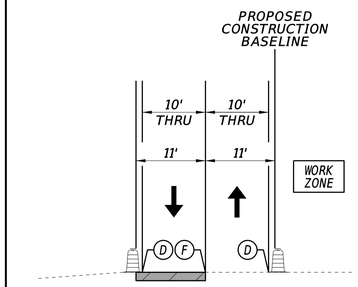
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 2 - OVERVIEW

SECTION
CEN
SHEET NO.
122



KING BLVD
STATION 6004+00 TO 6006+40

LANE SHIFT CALCULATION:
L/2 (min.) = W*S /60
L/2 (min.) = 11*25 /60 = 57.3'
L/2 (min.) < 75'

W1-4-DE
LANE SHIFT AHEAD
W1-4 L
STOP
R1-1 (48X48)
SEE NOTE 3
SIDEWALK CLOSED R9-9
CONNECT EXISTING 15" HDPE
ROAD CLOSED R11-2
SIDEWALK CLOSED R9-9
M4-9b-DE_R
CONNECT EXISTING 15" RCP
SEE NOTE 5B
SIDEWALK CLOSED R9-9
CFL 8
SEE NOTE 3
ROAD CLOSED R11-2
WILLOW GROVE ROAD
WILLOW GROVE RD.
CONNECT EXISTING 30" RCP
CONNECT EXISTING 15" RCP
ROAD CLOSED R11-2
SIDEWALK CLOSED R9-9
SIDEWALK CLOSED R9-9
ROAD CLOSED TO THRU TRAFFIC R11-4
M4-9b-DE_L
CROSSWALK CLOSED R9-9 (MOD)
R03-04
PROPOSED INFILTRATION BASIN SWM FACILITY #01119
PLACE BARRIER FOR TEMPORARY PEDESTRIAN ACCESS TO RESERVE ON EAST COMMUNITY
PLACE TEMPORARY CURB RAMP
SEE NOTE 5C
MATCH EXISTING STRIPING
LANE SHIFT AHEAD
W1-4-DE
KING BLVD
US13 SB / S. DUPONT HWY
US13 NB / S. DUPONT HWY
CENTER LANE CLOSED AHEAD
W9-3
W20-5
LANE CLOSED
IMPROVEMENTS ASSOCIATED WITH DELDOT PROJECT T201709503 EAST CAMDEN BYPASS
M4-9b-DE_L
M4-9b-DE_R
M4-9b-DE_R
N

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
B	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	700 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	645 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
H	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
J	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
K	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
M	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 2 - STAGE 1

SECTION
CEN
SHEET NO.
123

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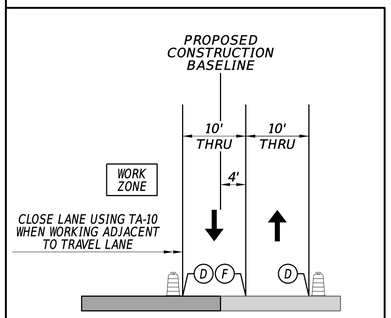
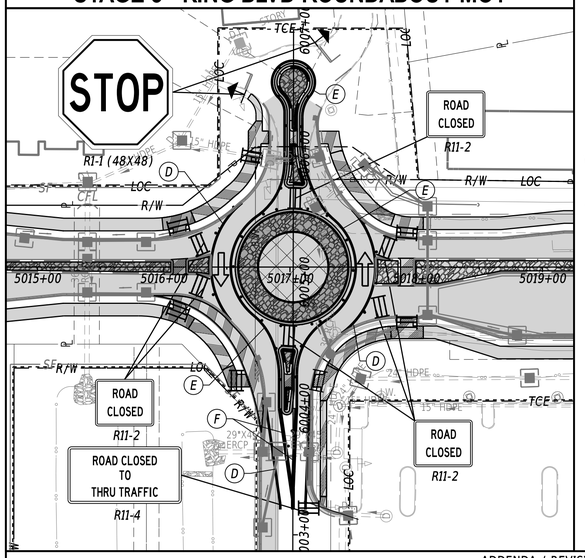
TEMPORARY PAVEMENT MARKINGS LEGEND

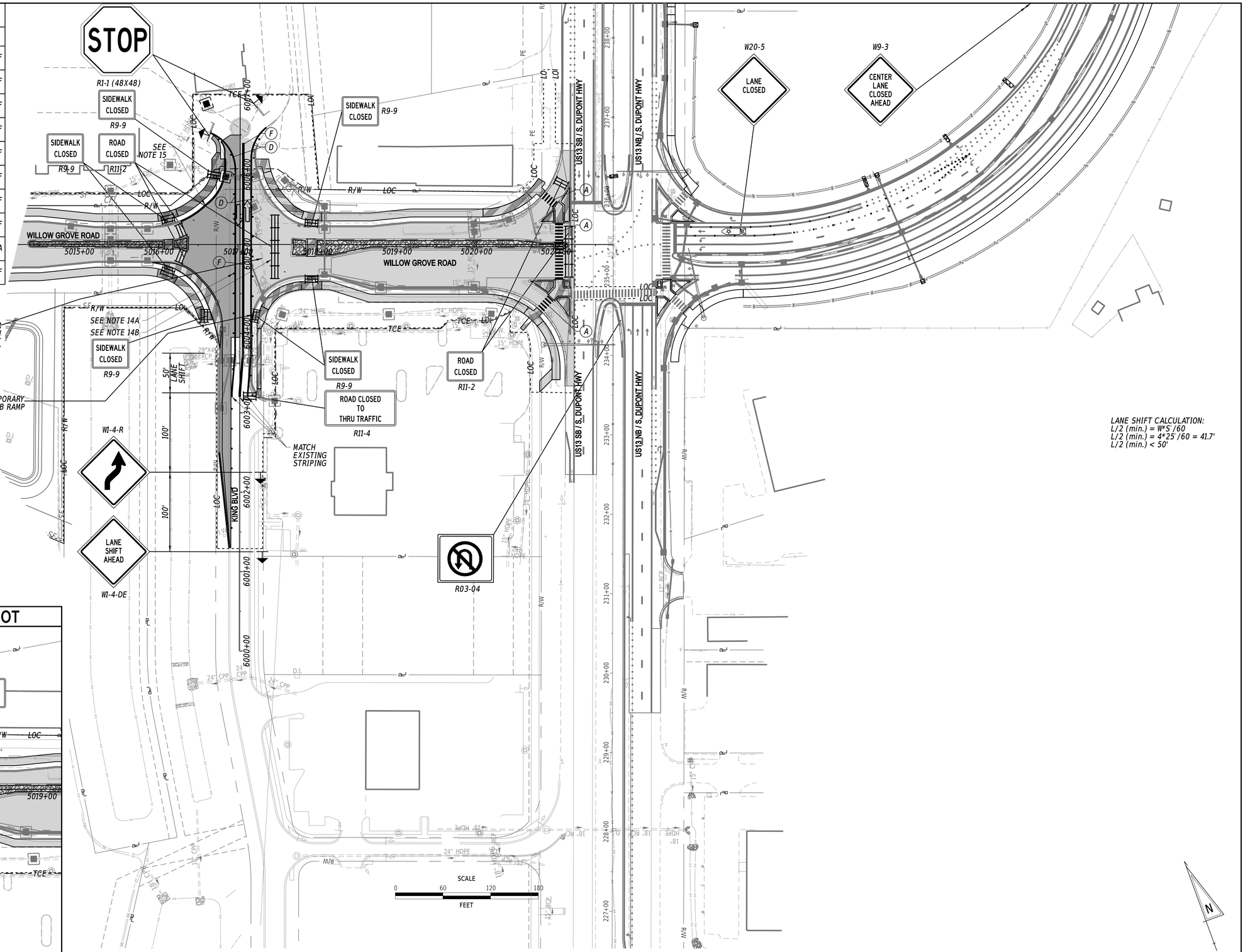
SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	560 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	1,080 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	580 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	930 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF



KING BLVD
STATION 6003+75 TO 6006+40

STAGE 3 - KING BLVD ROUNDABOUT MOT





LANE SHIFT CALCULATION:
*L/2 (min.) = W*S^2/60*
*L/2 (min.) = 4*25^2/60 = 41.7'*
L/2 (min.) < 50'

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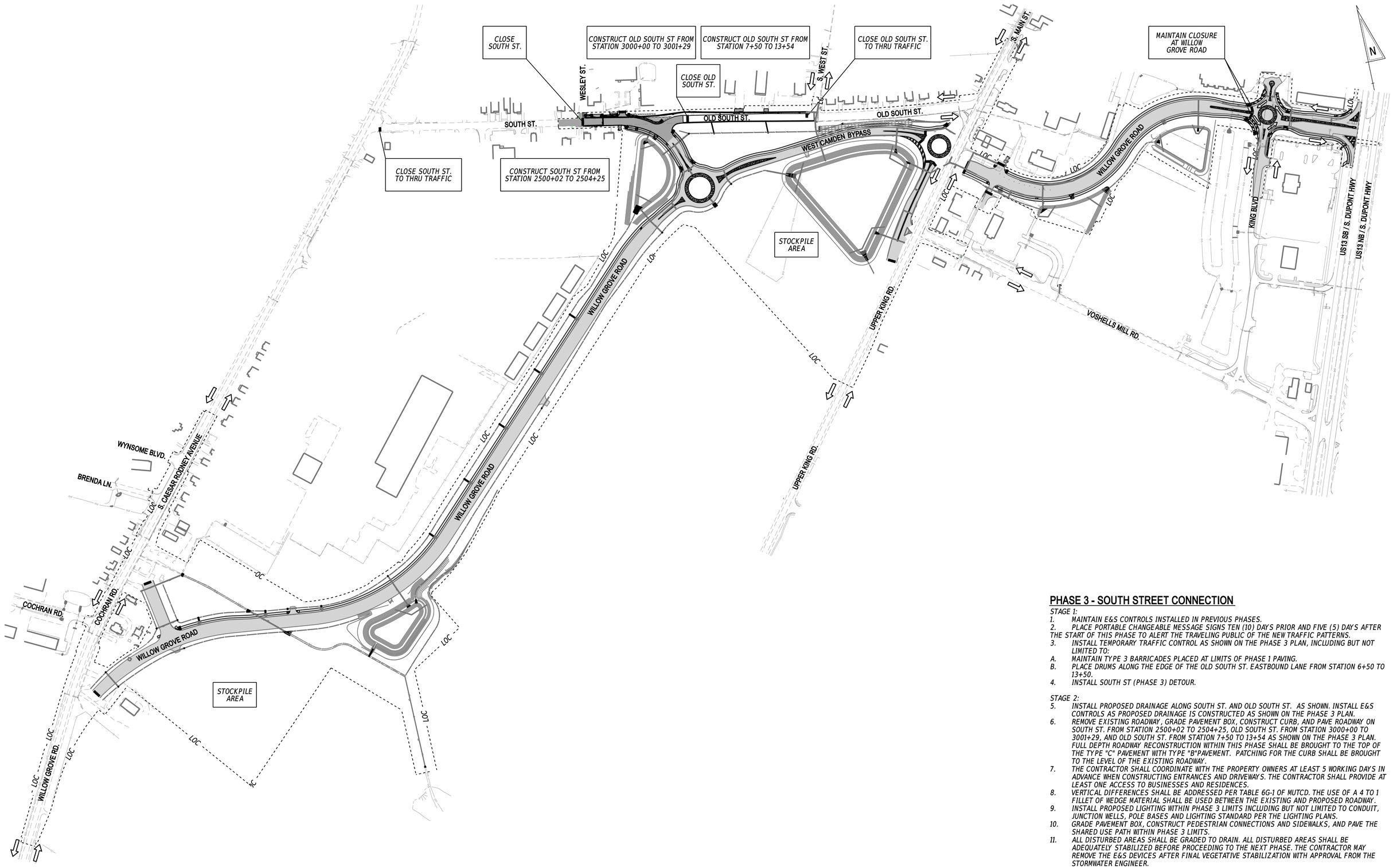
ADDENDA / REVISIONS					
			WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A
				COUNTY KENT	DESIGNED BY: L. HAXTON
					CHECKED BY: J. FREY

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 2 - STAGE 2

SECTION
CEN
SHEET NO.
124



PHASE 3 - SOUTH STREET CONNECTION

STAGE 1:

1. MAINTAIN E&S CONTROLS INSTALLED IN PREVIOUS PHASES.
2. PLACE PORTABLE CHANGEABLE MESSAGE SIGNS TEN (10) DAYS PRIOR AND FIVE (5) DAYS AFTER THE START OF THIS PHASE TO ALERT THE TRAVELING PUBLIC OF THE NEW TRAFFIC PATTERNS.
3. INSTALL TEMPORARY TRAFFIC CONTROL AS SHOWN ON THE PHASE 3 PLAN, INCLUDING BUT NOT LIMITED TO:

A. MAINTAIN TYPE 3 BARRICADES PLACED AT LIMITS OF PHASE 1 PAVING.
B. PLACE DRUMS ALONG THE EDGE OF THE OLD SOUTH ST. EASTBOUND LANE FROM STATION 6+50 TO 13+50.

4. INSTALL SOUTH ST (PHASE 3) DETOUR.

STAGE 2:

5. INSTALL PROPOSED DRAINAGE ALONG SOUTH ST. AND OLD SOUTH ST. AS SHOWN. INSTALL E&S CONTROLS AS PROPOSED DRAINAGE IS CONSTRUCTED AS SHOWN ON THE PHASE 3 PLAN.
6. REMOVE EXISTING ROADWAY, GRADE PAVEMENT BOX, CONSTRUCT CURB, AND PAVE ROADWAY ON SOUTH ST. FROM STATION 2500+02 TO 2504+25, OLD SOUTH ST. FROM STATION 3000+00 TO 3001+29, AND OLD SOUTH ST. FROM STATION 7+50 TO 13+54 AS SHOWN ON THE PHASE 3 PLAN. FULL DEPTH ROADWAY RECONSTRUCTION WITHIN THIS PHASE SHALL BE BROUGHT TO THE TOP OF THE TYPE "C" PAVEMENT WITH TYPE "B"PAVEMENT. PATCHING FOR THE CURB SHALL BE BROUGHT TO THE LEVEL OF THE EXISTING ROADWAY.
7. THE CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNERS AT LEAST 5 WORKING DAYS IN ADVANCE WHEN CONSTRUCTING ENTRANCES AND DRIVEWAYS. THE CONTRACTOR SHALL PROVIDE AT LEAST ONE ACCESS TO BUSINESSES AND RESIDENCES.
8. VERTICAL DIFFERENCES SHALL BE ADDRESSED PER TABLE 6G-1 OF MUTCD. THE USE OF A 4 TO 1 FILLET OF WEDGE MATERIAL SHALL BE USED BETWEEN THE EXISTING AND PROPOSED ROADWAY.
9. INSTALL PROPOSED LIGHTING WITHIN PHASE 3 LIMITS INCLUDING BUT NOT LIMITED TO CONDUIT, JUNCTION WELLS, POLE BASES AND LIGHTING STANDARD PER THE LIGHTING PLANS.
10. GRADE PAVEMENT BOX, CONSTRUCT PEDESTRIAN CONNECTIONS AND SIDEWALKS, AND PAVE THE SHARED USE PATH WITHIN PHASE 3 LIMITS.
11. ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO THE NEXT PHASE. THE CONTRACTOR MAY REMOVE THE E&S DEVICES AFTER FINAL VEGETATIVE STABILIZATION WITH APPROVAL FROM THE STORMWATER ENGINEER.

ADDENDA / REVISIONS

SCALE
0 200 400 600
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 3 - OVERVIEW

SECTION
CEN
SHEET NO.
125

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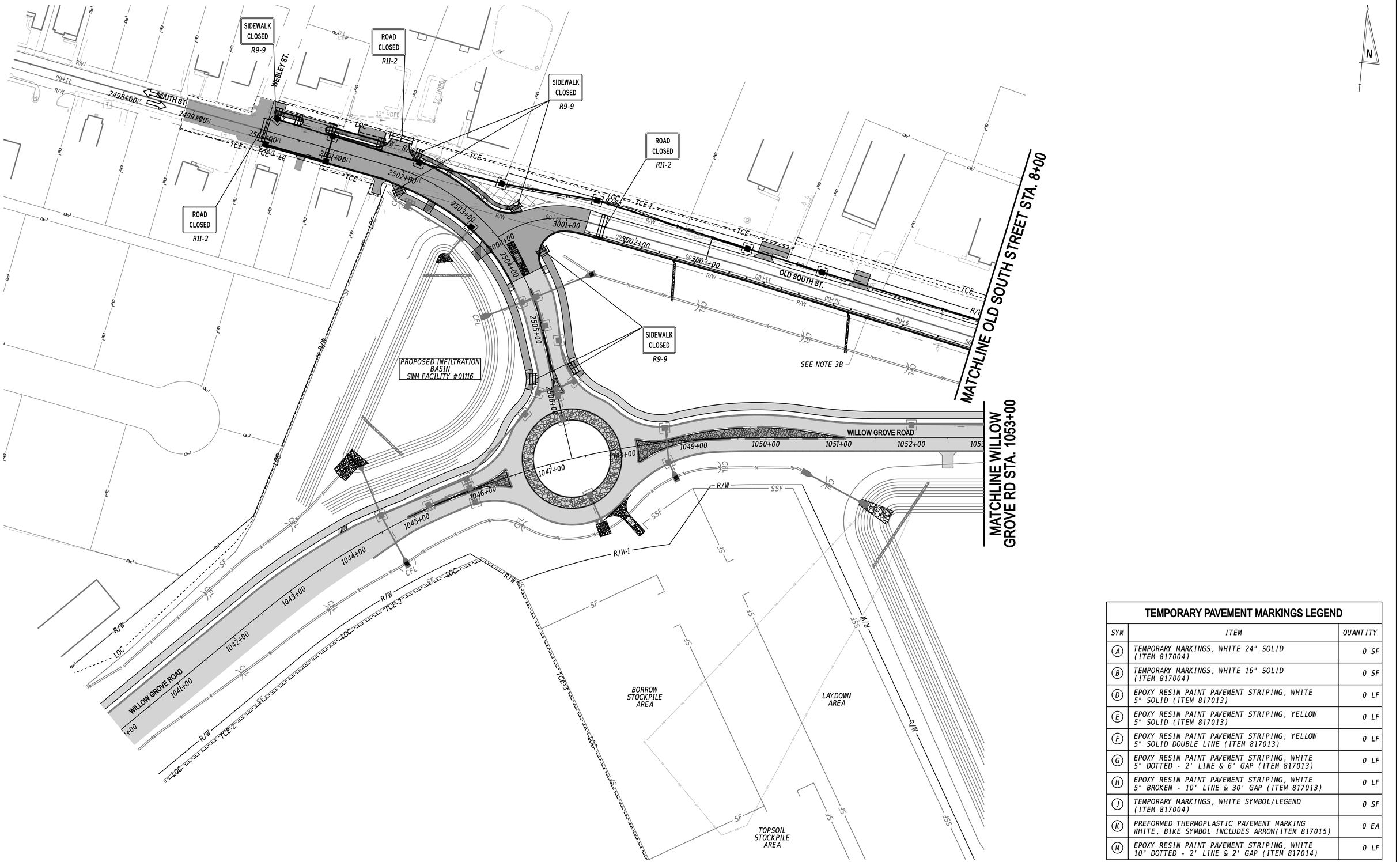

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	0 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 3

SECTION
CEN
SHEET NO.
126

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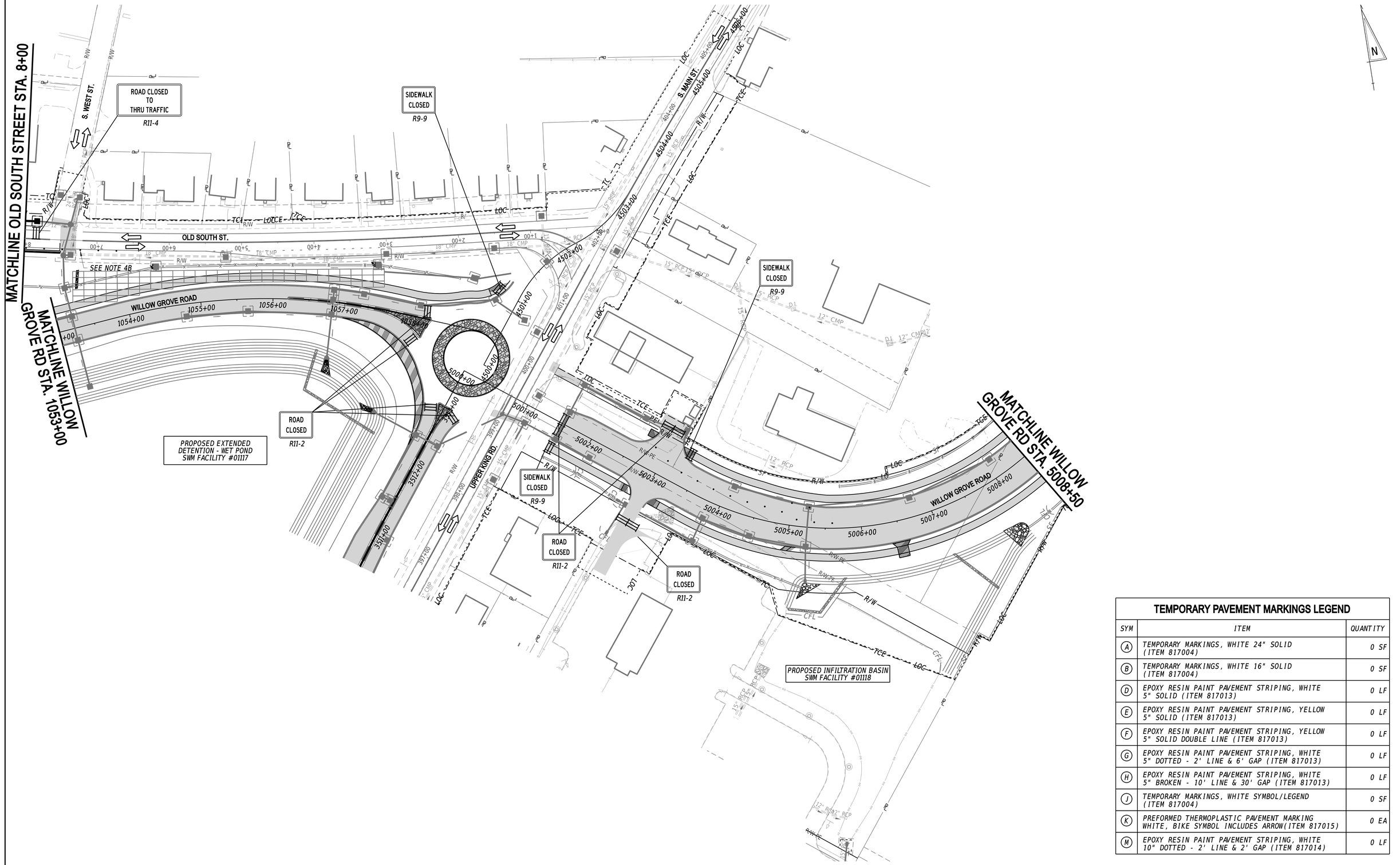

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	0 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502	BRIDGE NO.	N/A
COUNTY	KENT	DESIGNED BY:	L. HAXTON
		CHECKED BY:	J. FREY

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 3

SECTION: CEN
SHEET NO.: 127

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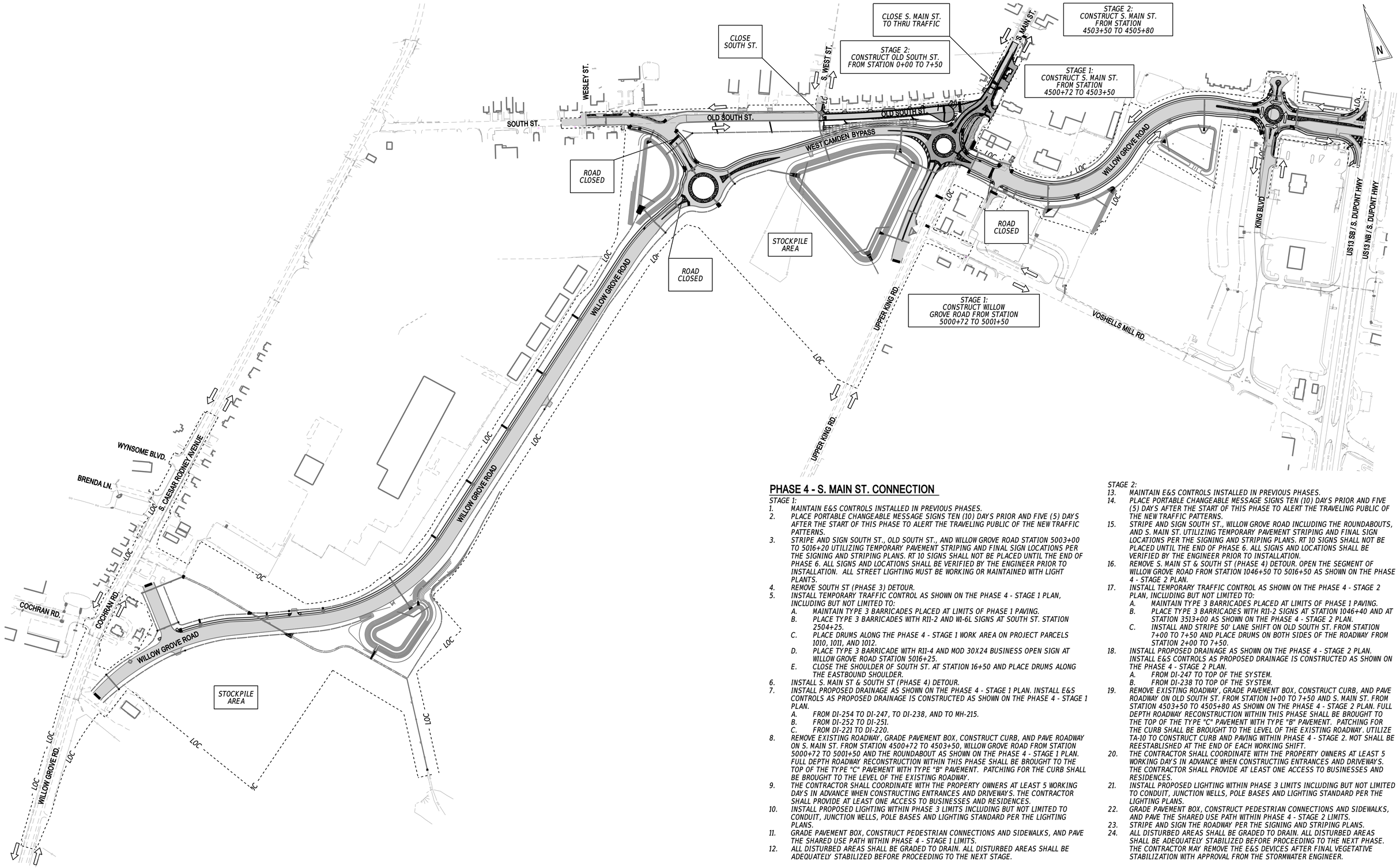

PHASE 4 - S. MAIN ST. CONNECTION

STAGE 1:

1. MAINTAIN E&S CONTROLS INSTALLED IN PREVIOUS PHASES.
2. PLACE PORTABLE CHANGEABLE MESSAGE SIGNS TEN (10) DAYS PRIOR AND FIVE (5) DAYS AFTER THE START OF THIS PHASE TO ALERT THE TRAVELING PUBLIC OF THE NEW TRAFFIC PATTERNS.
3. STRIPE AND SIGN SOUTH ST., OLD SOUTH ST., AND WILLOW GROVE ROAD STATION 5003+00 TO 5016+20 UTILIZING TEMPORARY PAVEMENT STRIPING AND FINAL SIGN LOCATIONS PER THE SIGNING AND STRIPING PLANS. RT 10 SIGNS SHALL NOT BE PLACED UNTIL THE END OF PHASE 6. ALL SIGNS AND LOCATIONS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION. ALL STREET LIGHTING MUST BE WORKING OR MAINTAINED WITH LIGHT PLANTS.
4. REMOVE SOUTH ST (PHASE 3) DETOUR.
5. INSTALL TEMPORARY TRAFFIC CONTROL AS SHOWN ON THE PHASE 4 - STAGE 1 PLAN, INCLUDING BUT NOT LIMITED TO:
   - A. MAINTAIN TYPE 3 BARRICADES PLACED AT LIMITS OF PHASE 1 PAVING.
   - B. PLACE TYPE 3 BARRICADES WITH R11-2 AND W1-6L SIGNS AT SOUTH ST. STATION 2504+25.
   - C. PLACE DRUMS ALONG THE PHASE 4 - STAGE 1 WORK AREA ON PROJECT PARCELS 1010, 1011, AND 1012.
   - D. PLACE TYPE 3 BARRICADE WITH R11-4 AND MOD 30X24 BUSINESS OPEN SIGN AT WILLOW GROVE ROAD STATION 5016+25.
   - E. CLOSE THE SHOULDER OF SOUTH ST. AT STATION 16+50 AND PLACE DRUMS ALONG THE EASTBOUND SHOULDER.
6. INSTALL S. MAIN ST & SOUTH ST (PHASE 4) DETOUR.
7. INSTALL PROPOSED DRAINAGE AS SHOWN ON THE PHASE 4 - STAGE 1 PLAN. INSTALL E&S CONTROLS AS PROPOSED DRAINAGE IS CONSTRUCTED AS SHOWN ON THE PHASE 4 - STAGE 1 PLAN.
   - A. FROM DI-254 TO DI-247, TO DI-238, AND TO MH-215.
   - B. FROM DI-252 TO DI-251.
   - C. FROM DI-221 TO DI-220.
8. REMOVE EXISTING ROADWAY, GRADE PAVEMENT BOX, CONSTRUCT CURB, AND PAVE ROADWAY ON S. MAIN ST. FROM STATION 4500+72 TO 4503+50, WILLOW GROVE ROAD FROM STATION 5000+72 TO 5001+50 AND THE ROUNDABOUT AS SHOWN ON THE PHASE 4 - STAGE 1 PLAN. FULL DEPTH ROADWAY RECONSTRUCTION WITHIN THIS PHASE SHALL BE BROUGHT TO THE TOP OF THE TYPE "C" PAVEMENT WITH TYPE "B" PAVEMENT. PATCHING FOR THE CURB SHALL BE BROUGHT TO THE LEVEL OF THE EXISTING ROADWAY.
9. THE CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNERS AT LEAST 5 WORKING DAYS IN ADVANCE WHEN CONSTRUCTING ENTRANCES AND DRIVEWAYS. THE CONTRACTOR SHALL PROVIDE AT LEAST ONE ACCESS TO BUSINESSES AND RESIDENCES.
10. INSTALL PROPOSED LIGHTING WITHIN PHASE 3 LIMITS INCLUDING BUT NOT LIMITED TO CONDUIT, JUNCTION WELLS, POLE BASES AND LIGHTING STANDARD PER THE LIGHTING PLANS.
11. GRADE PAVEMENT BOX, CONSTRUCT PEDESTRIAN CONNECTIONS AND SIDEWALKS, AND PAVE THE SHARED USE PATH WITHIN PHASE 4 - STAGE 1 LIMITS.
12. ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO THE NEXT STAGE.

STAGE 2:

13. MAINTAIN E&S CONTROLS INSTALLED IN PREVIOUS PHASES.
14. PLACE PORTABLE CHANGEABLE MESSAGE SIGNS TEN (10) DAYS PRIOR AND FIVE (5) DAYS AFTER THE START OF THIS PHASE TO ALERT THE TRAVELING PUBLIC OF THE NEW TRAFFIC PATTERNS.
15. STRIPE AND SIGN SOUTH ST., WILLOW GROVE ROAD INCLUDING THE ROUNDABOUTS, AND S. MAIN ST. UTILIZING TEMPORARY PAVEMENT STRIPING AND FINAL SIGN LOCATIONS PER THE SIGNING AND STRIPING PLANS. RT 10 SIGNS SHALL NOT BE PLACED UNTIL THE END OF PHASE 6. ALL SIGNS AND LOCATIONS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.
16. REMOVE S. MAIN ST & SOUTH ST (PHASE 4) DETOUR. OPEN THE SEGMENT OF WILLOW GROVE ROAD FROM STATION 1046+50 TO 5016+50 AS SHOWN ON THE PHASE 4 - STAGE 2 PLAN.
17. INSTALL TEMPORARY TRAFFIC CONTROL AS SHOWN ON THE PHASE 4 - STAGE 2 PLAN, INCLUDING BUT NOT LIMITED TO:
   - A. MAINTAIN TYPE 3 BARRICADES PLACED AT LIMITS OF PHASE 1 PAVING.
   - B. PLACE TYPE 3 BARRICADES WITH R11-2 SIGNS AT STATION 1046+40 AND AT STATION 3513+00 AS SHOWN ON THE PHASE 4 - STAGE 2 PLAN.
   - C. INSTALL AND STRIPE 50' LANE SHIFT ON OLD SOUTH ST. FROM STATION 7+00 TO 7+50 AND PLACE DRUMS ON BOTH SIDES OF THE ROADWAY FROM STATION 2+00 TO 7+50.
18. INSTALL PROPOSED DRAINAGE AS SHOWN ON THE PHASE 4 - STAGE 2 PLAN. INSTALL E&S CONTROLS AS PROPOSED DRAINAGE IS CONSTRUCTED AS SHOWN ON THE PHASE 4 - STAGE 2 PLAN.
   - A. FROM DI-247 TO TOP OF THE SYSTEM.
   - B. FROM DI-238 TO TOP OF THE SYSTEM.
19. REMOVE EXISTING ROADWAY, GRADE PAVEMENT BOX, CONSTRUCT CURB, AND PAVE ROADWAY ON OLD SOUTH ST. FROM STATION 1+00 TO 7+50 AND S. MAIN ST. FROM STATION 4503+50 TO 4505+80 AS SHOWN ON THE PHASE 4 - STAGE 2 PLAN. FULL DEPTH ROADWAY RECONSTRUCTION WITHIN THIS PHASE SHALL BE BROUGHT TO THE TOP OF THE TYPE "C" PAVEMENT WITH TYPE "B" PAVEMENT. PATCHING FOR THE CURB SHALL BE BROUGHT TO THE LEVEL OF THE EXISTING ROADWAY. UTILIZE TA-10 TO CONSTRUCT CURB AND PAVING WITHIN PHASE 4 - STAGE 2. MOT SHALL BE REESTABLISHED AT THE END OF EACH WORKING SHIFT.
20. THE CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNERS AT LEAST 5 WORKING DAYS IN ADVANCE WHEN CONSTRUCTING ENTRANCES AND DRIVEWAYS. THE CONTRACTOR SHALL PROVIDE AT LEAST ONE ACCESS TO BUSINESSES AND RESIDENCES.
21. INSTALL PROPOSED LIGHTING WITHIN PHASE 3 LIMITS INCLUDING BUT NOT LIMITED TO CONDUIT, JUNCTION WELLS, POLE BASES AND LIGHTING STANDARD PER THE LIGHTING PLANS.
22. GRADE PAVEMENT BOX, CONSTRUCT PEDESTRIAN CONNECTIONS AND SIDEWALKS, AND PAVE THE SHARED USE PATH WITHIN PHASE 4 - STAGE 2 LIMITS.
23. STRIPE AND SIGN THE ROADWAY PER THE SIGNING AND STRIPING PLANS.
24. ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO THE NEXT PHASE. THE CONTRACTOR MAY REMOVE THE E&S DEVICES AFTER FINAL VEGETATIVE STABILIZATION WITH APPROVAL FROM THE STORMWATER ENGINEER.

ADDENDA / REVISIONS

SCALE
0 200 400 600
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 4 - OVERVIEW

SECTION
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SHEET NO.
128

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SHOULDER CLOSURE CALCULATION:
L (min.) = W*S²/60/3
L (min.) = 4*25²/60/3 = 13.9'
L (min.) < 50'

MATCH EXISTING STRIPING

SOUTH ST.

WESLEY ST.

SIDEWALK CLOSED
R9-9

STOP
R1-1 (48X48)

MATCH EXISTING STRIPING

SEE NOTE 5E

50' SHOULDER CLOSURE

RIGHT SHOULDER CLOSED AHEAD
W21-5B

W1-1L

ROAD CLOSED
R11-2

PROPOSED INFILTRATION BASIN
SWM FACILITY #01116

SEE NOTE 5B

SIDEWALK CLOSED
R9-9

OLD SOUTH ST.

MATCHLINE OLD SOUTH STREET STA. 8+00

WILLOW GROVE ROAD

MATCHLINE WILLOW GROVE RD STA. 1053+00

BORROW STOCKPILE AREA

LAYDOWN AREA

TOPSOIL STOCKPILE AREA

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	14 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	1,077 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	824 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	24 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

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ADDENDA / REVISIONS

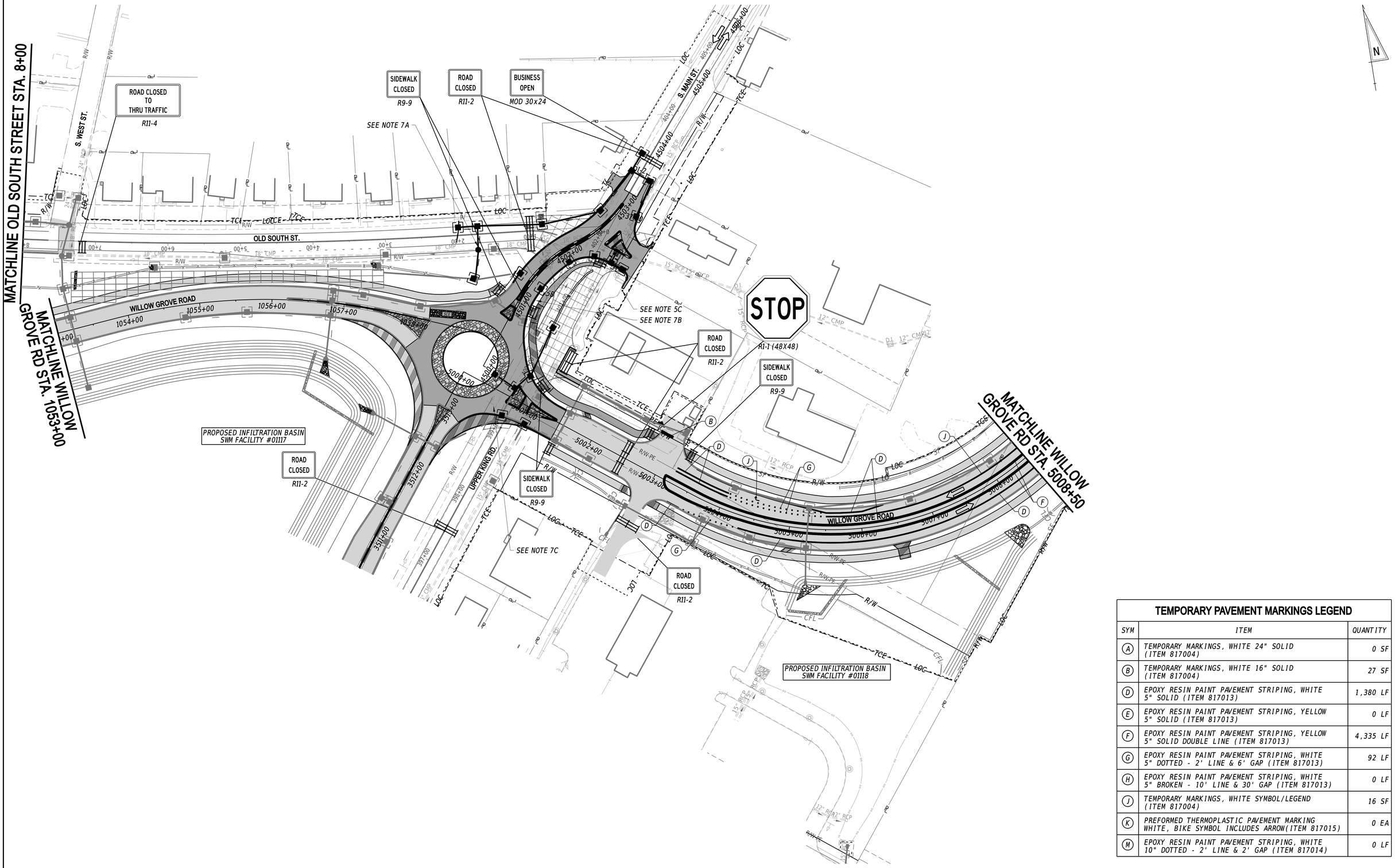
SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 4 - STAGE 1

SECTION: CEN
SHEET NO.: 129



TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	27 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	1,380 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	4,335 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	92 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	16 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 4 - STAGE 1

SECTION: CEN
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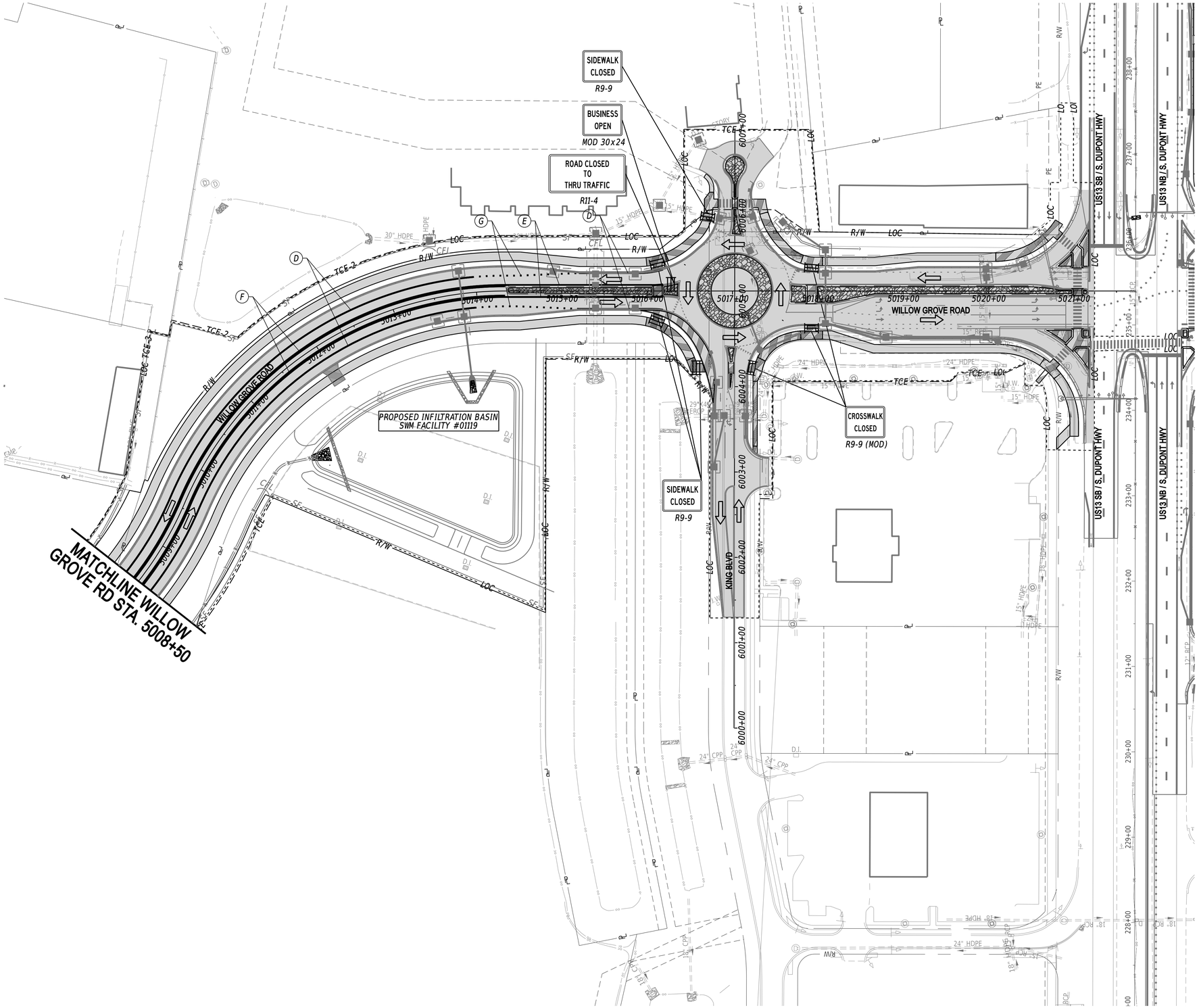

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	1,311 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	544 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	2,334 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	60 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 4 - STAGE 1

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131

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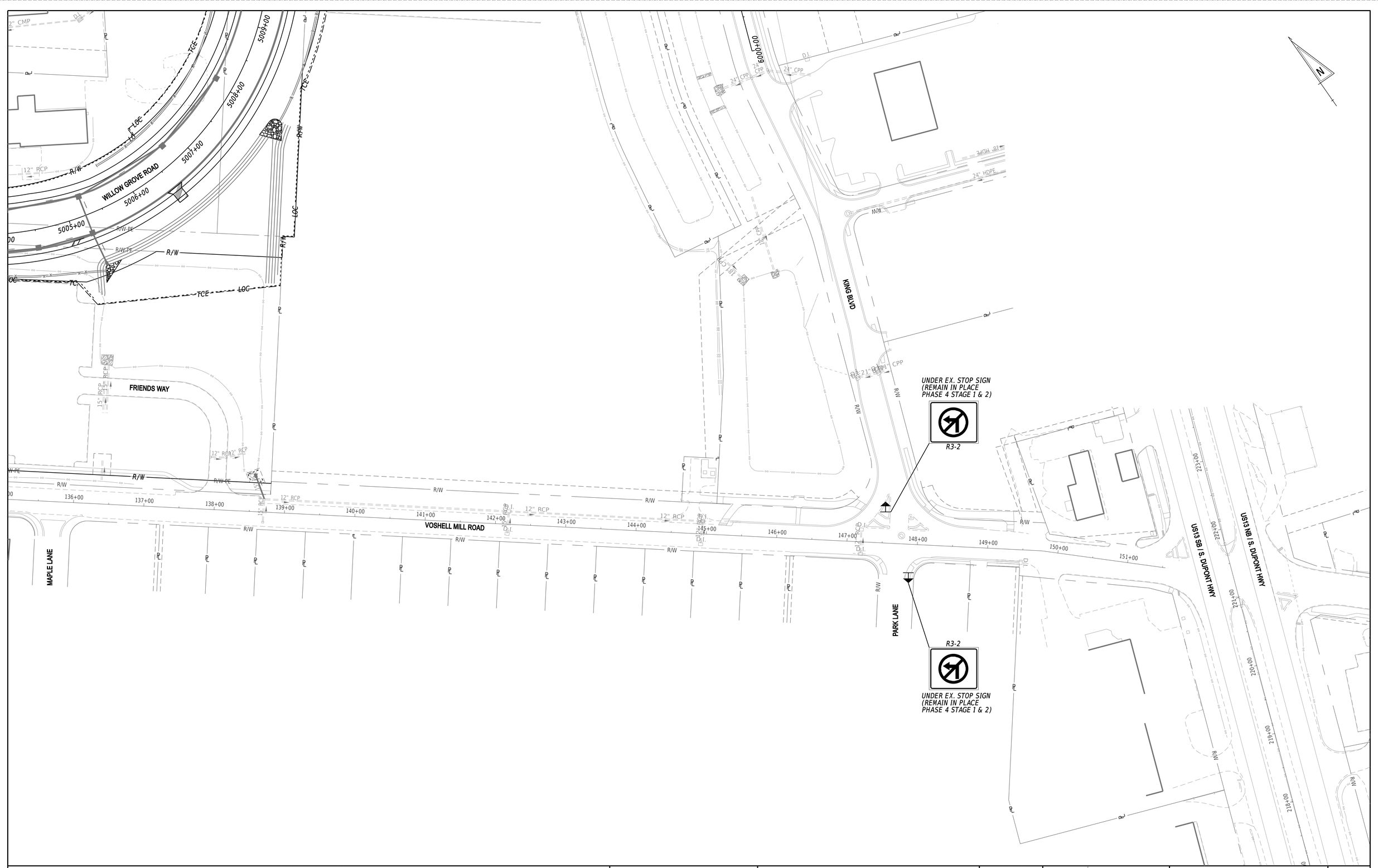

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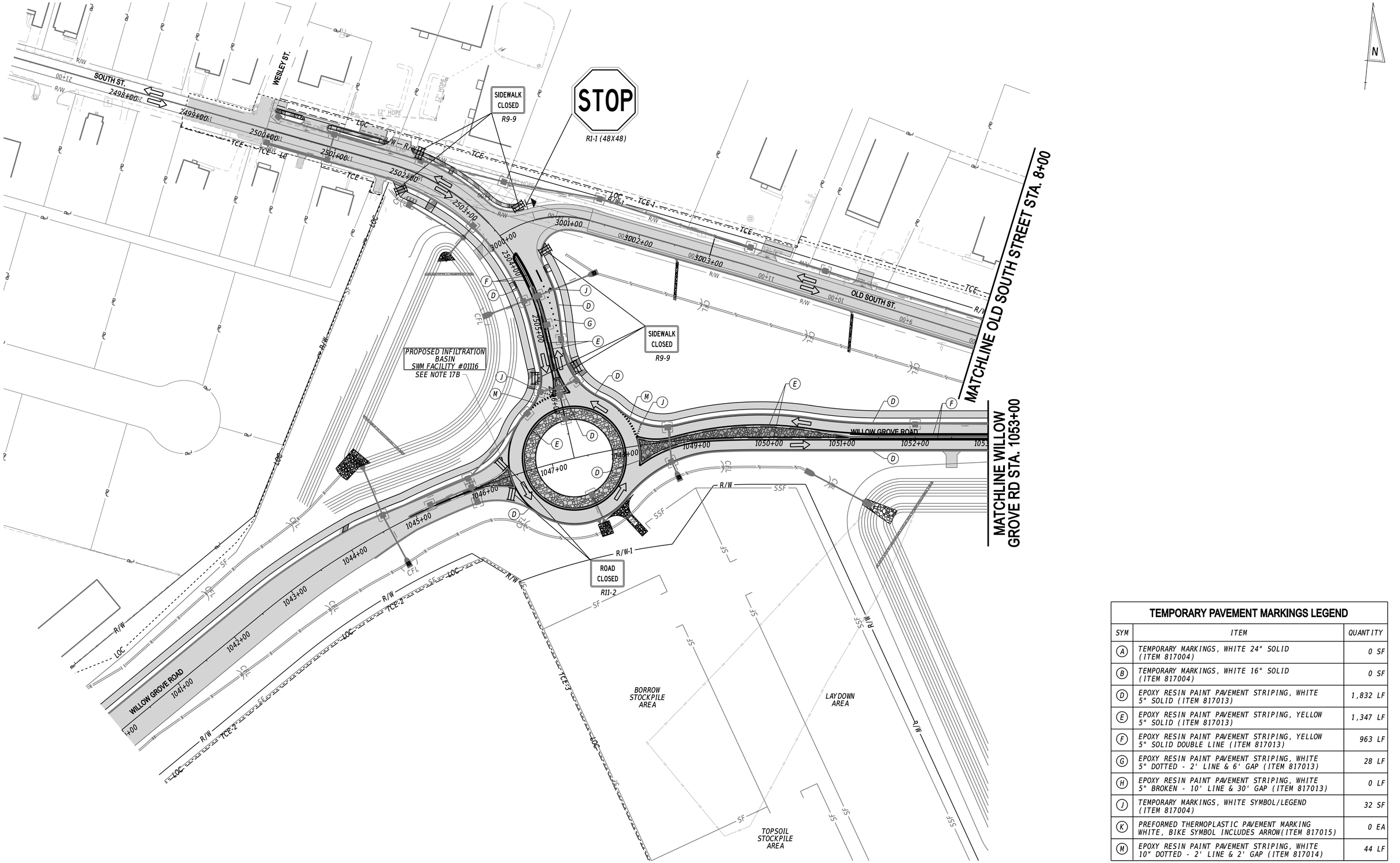
ADDENDA / REVISIONS		SCALE 0 60 120 180 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN - PHASE 4	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 132
					CHECKED BY: J. FREY		



TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	1,832 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	1,347 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	963 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	28 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	32 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	44 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 4 - STAGE 2

SECTION: CEN
SHEET NO.: 133

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MATCHLINE OLD SOUTH STREET STA. 8+00

MATCHLINE WILLOW GROVE RD STA. 1053+00

MATCH EXISTING STRIPING

ROAD CLOSED TO THRU TRAFFIC
R11-4

50' LANE SHIFT (C)

SEE NOTE 17C

ROAD CLOSED
R11-2

SEE NOTE 18A

SEE NOTE 18B

SIDEWALK CLOSED
R9-9

OLD SOUTH ST

WILLOW GROVE ROAD

S. MAIN ST

STOP
R1-1 (48X48)

PROPOSED EXTENDED DETENTION - WET POND SWM FACILITY #01117

SEE NOTE 17B

UPPER KING RD.

PROPOSED INFILTRATION BASIN SWM FACILITY #01118

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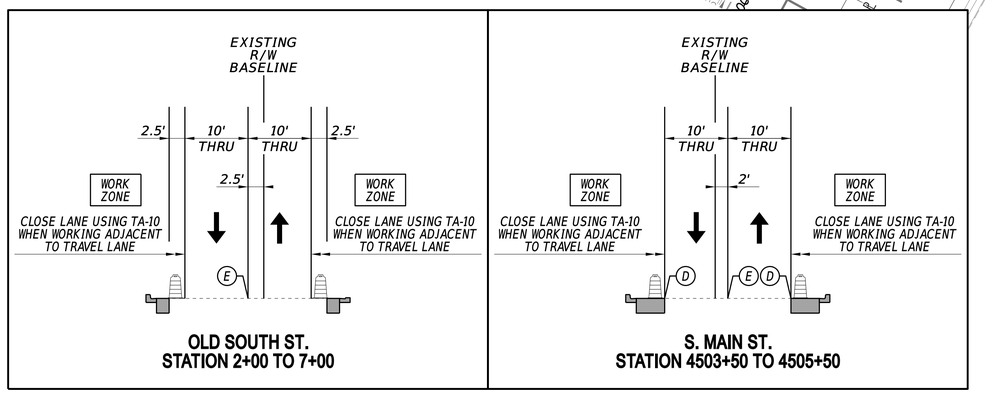

OLD SOUTH ST.
STATION 2+00 TO 7+00

S. MAIN ST.
STATION 4503+50 TO 4505+50

LANE SHIFT (A) CALCULATION:
*L (min.) = W*S /60/2*
*L (min.) = 6*25 /60/2 = 31.3'*
L (min.) < 50'

LANE SHIFT (B) CALCULATION:
*L = W*S /60*
*L = 2*25 /60 = 20.8'*
L < 50'

LANE SHIFT (C) CALCULATION:
*L = W*S /60*
*L = 2.5*25 /60 = 26.0'*
L < 50'

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	24 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	2,983 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	1,466 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	3,375 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	68 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	29 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	62 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 4 - STAGE 2

SECTION	CEN
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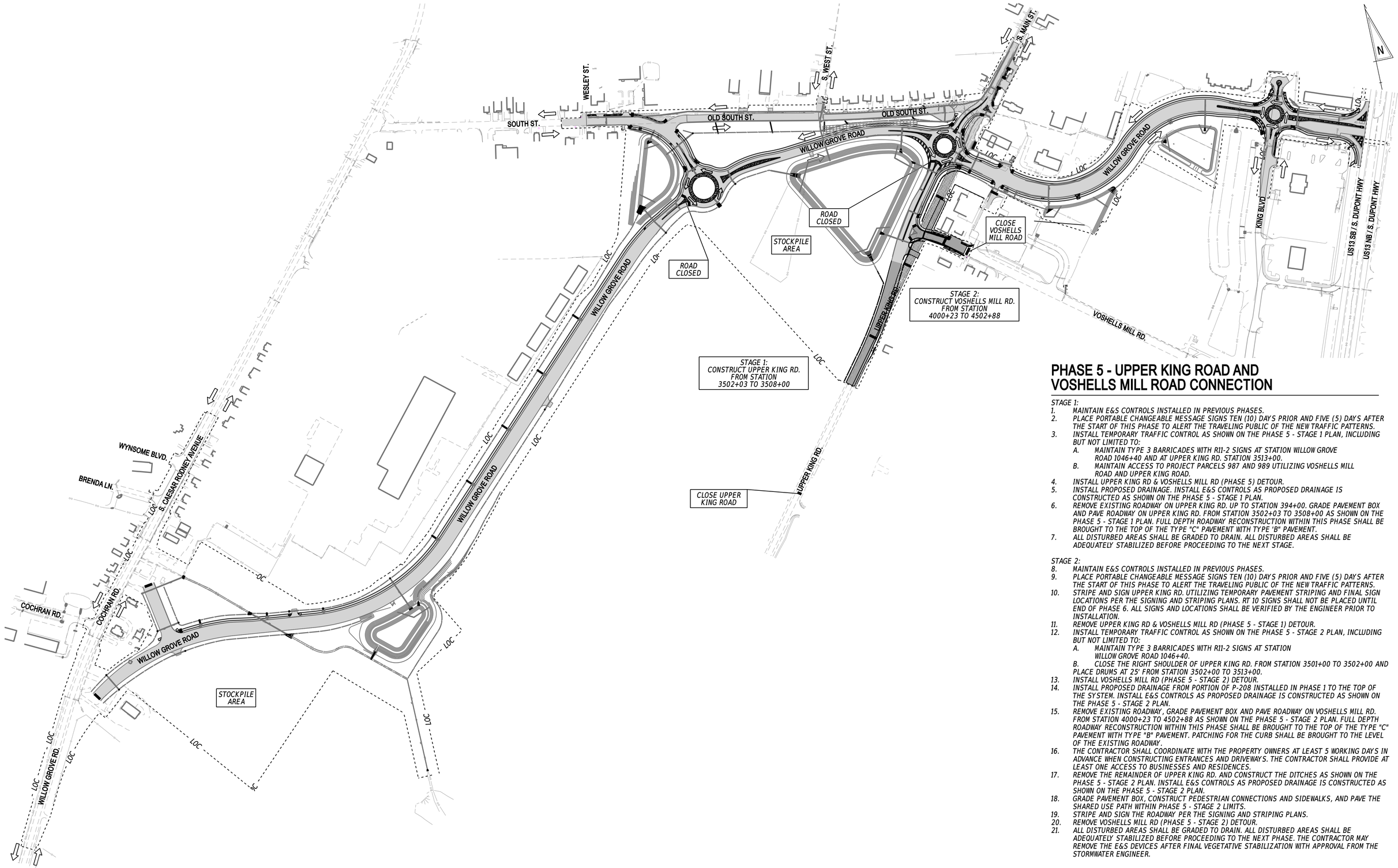

PHASE 5 - UPPER KING ROAD AND VOSHELLS MILL ROAD CONNECTION

STAGE 1:

1. *MAINTAIN E&S CONTROLS INSTALLED IN PREVIOUS PHASES.*
2. *PLACE PORTABLE CHANGEABLE MESSAGE SIGNS TEN (10) DAYS PRIOR AND FIVE (5) DAYS AFTER THE START OF THIS PHASE TO ALERT THE TRAVELING PUBLIC OF THE NEW TRAFFIC PATTERNS.*
3. *INSTALL TEMPORARY TRAFFIC CONTROL AS SHOWN ON THE PHASE 5 - STAGE 1 PLAN, INCLUDING BUT NOT LIMITED TO:*
   - A. *MAINTAIN TYPE 3 BARRICADES WITH R11-2 SIGNS AT STATION WILLOW GROVE ROAD 1046+40 AND AT UPPER KING RD. STATION 3513+00.*
   - B. *MAINTAIN ACCESS TO PROJECT PARCELS 987 AND 989 UTILIZING VOSHELLS MILL ROAD AND UPPER KING ROAD.*
4. *INSTALL UPPER KING RD & VOSHELLS MILL RD (PHASE 5) DETOUR.*
5. *INSTALL PROPOSED DRAINAGE. INSTALL E&S CONTROLS AS PROPOSED DRAINAGE IS CONSTRUCTED AS SHOWN ON THE PHASE 5 - STAGE 1 PLAN.*
6. *REMOVE EXISTING ROADWAY ON UPPER KING RD. UP TO STATION 394+00. GRADE PAVEMENT BOX AND PAVE ROADWAY ON UPPER KING RD. FROM STATION 3502+03 TO 3508+00 AS SHOWN ON THE PHASE 5 - STAGE 1 PLAN. FULL DEPTH ROADWAY RECONSTRUCTION WITHIN THIS PHASE SHALL BE BROUGHT TO THE TOP OF THE TYPE "C" PAVEMENT WITH TYPE 'B" PAVEMENT.*
7. *ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO THE NEXT STAGE.*

STAGE 2:

8. *MAINTAIN E&S CONTROLS INSTALLED IN PREVIOUS PHASES.*
9. *PLACE PORTABLE CHANGEABLE MESSAGE SIGNS TEN (10) DAYS PRIOR AND FIVE (5) DAYS AFTER THE START OF THIS PHASE TO ALERT THE TRAVELING PUBLIC OF THE NEW TRAFFIC PATTERNS.*
10. *STRIPE AND SIGN UPPER KING RD. UTILIZING TEMPORARY PAVEMENT STRIPING AND FINAL SIGN LOCATIONS PER THE SIGNING AND STRIPING PLANS. RT 10 SIGNS SHALL NOT BE PLACED UNTIL END OF PHASE 6. ALL SIGNS AND LOCATIONS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.*
11. *REMOVE UPPER KING RD & VOSHELLS MILL RD (PHASE 5 - STAGE 1) DETOUR.*
12. *INSTALL TEMPORARY TRAFFIC CONTROL AS SHOWN ON THE PHASE 5 - STAGE 2 PLAN, INCLUDING BUT NOT LIMITED TO:*
    - A. *MAINTAIN TYPE 3 BARRICADES WITH R11-2 SIGNS AT STATION WILLOW GROVE ROAD 1046+40.*
    - B. *CLOSE THE RIGHT SHOULDER OF UPPER KING RD. FROM STATION 3501+00 TO 3502+00 AND PLACE DRUMS AT 25' FROM STATION 3502+00 TO 3513+00.*
13. *INSTALL VOSHELLS MILL RD (PHASE 5 - STAGE 2) DETOUR.*
14. *INSTALL PROPOSED DRAINAGE FROM PORTION OF P-208 INSTALLED IN PHASE 1 TO THE TOP OF THE SYSTEM. INSTALL E&S CONTROLS AS PROPOSED DRAINAGE IS CONSTRUCTED AS SHOWN ON THE PHASE 5 - STAGE 2 PLAN.*
15. *REMOVE EXISTING ROADWAY, GRADE PAVEMENT BOX AND PAVE ROADWAY ON VOSHELLS MILL RD. FROM STATION 4000+23 TO 4502+88 AS SHOWN ON THE PHASE 5 - STAGE 2 PLAN. FULL DEPTH ROADWAY RECONSTRUCTION WITHIN THIS PHASE SHALL BE BROUGHT TO THE TOP OF THE TYPE "C" PAVEMENT WITH TYPE "B" PAVEMENT. PATCHING FOR THE CURB SHALL BE BROUGHT TO THE LEVEL OF THE EXISTING ROADWAY.*
16. *THE CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNERS AT LEAST 5 WORKING DAYS IN ADVANCE WHEN CONSTRUCTING ENTRANCES AND DRIVEWAYS. THE CONTRACTOR SHALL PROVIDE AT LEAST ONE ACCESS TO BUSINESSES AND RESIDENCES.*
17. *REMOVE THE REMAINDER OF UPPER KING RD. AND CONSTRUCT THE DITCHES AS SHOWN ON THE PHASE 5 - STAGE 2 PLAN. INSTALL E&S CONTROLS AS PROPOSED DRAINAGE IS CONSTRUCTED AS SHOWN ON THE PHASE 5 - STAGE 2 PLAN.*
18. *GRADE PAVEMENT BOX, CONSTRUCT PEDESTRIAN CONNECTIONS AND SIDEWALKS, AND PAVE THE SHARED USE PATH WITHIN PHASE 5 - STAGE 2 LIMITS.*
19. *STRIPE AND SIGN THE ROADWAY PER THE SIGNING AND STRIPING PLANS.*
20. *REMOVE VOSHELLS MILL RD (PHASE 5 - STAGE 2) DETOUR.*
21. *ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO THE NEXT PHASE. THE CONTRACTOR MAY REMOVE THE E&S DEVICES AFTER FINAL VEGETATIVE STABILIZATION WITH APPROVAL FROM THE STORMWATER ENGINEER.*

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ADDENDA / REVISIONS	

SCALE
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WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 5 - OVERVIEW

SECTION
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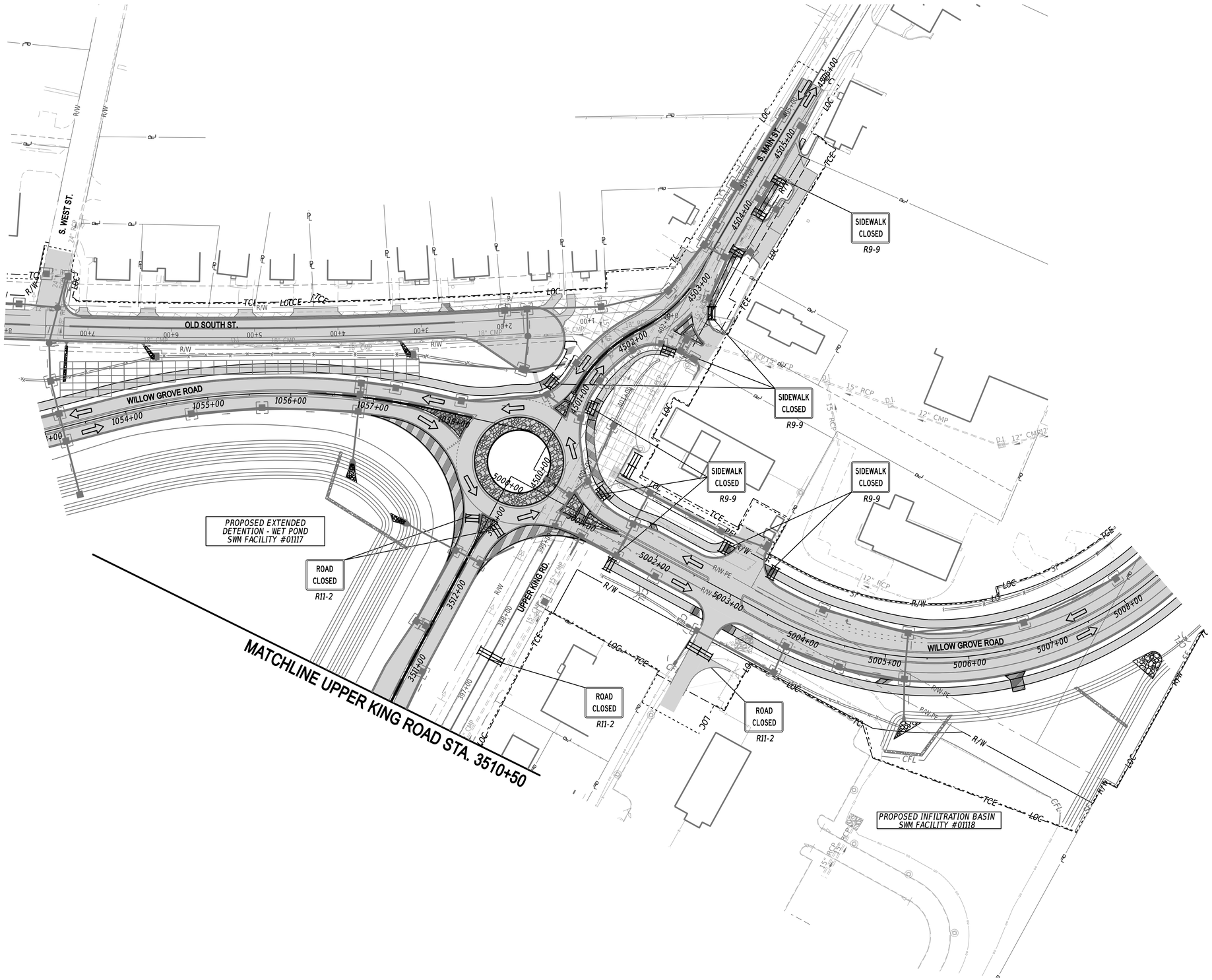
SHEET NO.
135



TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	0 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
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WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	SECTION
T201709502	DESIGNED BY:	L. HAXTON	CEN
COUNTY	CHECKED BY:	J. FREY	SHEET NO.
KENT			136

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 5 - STAGE 1

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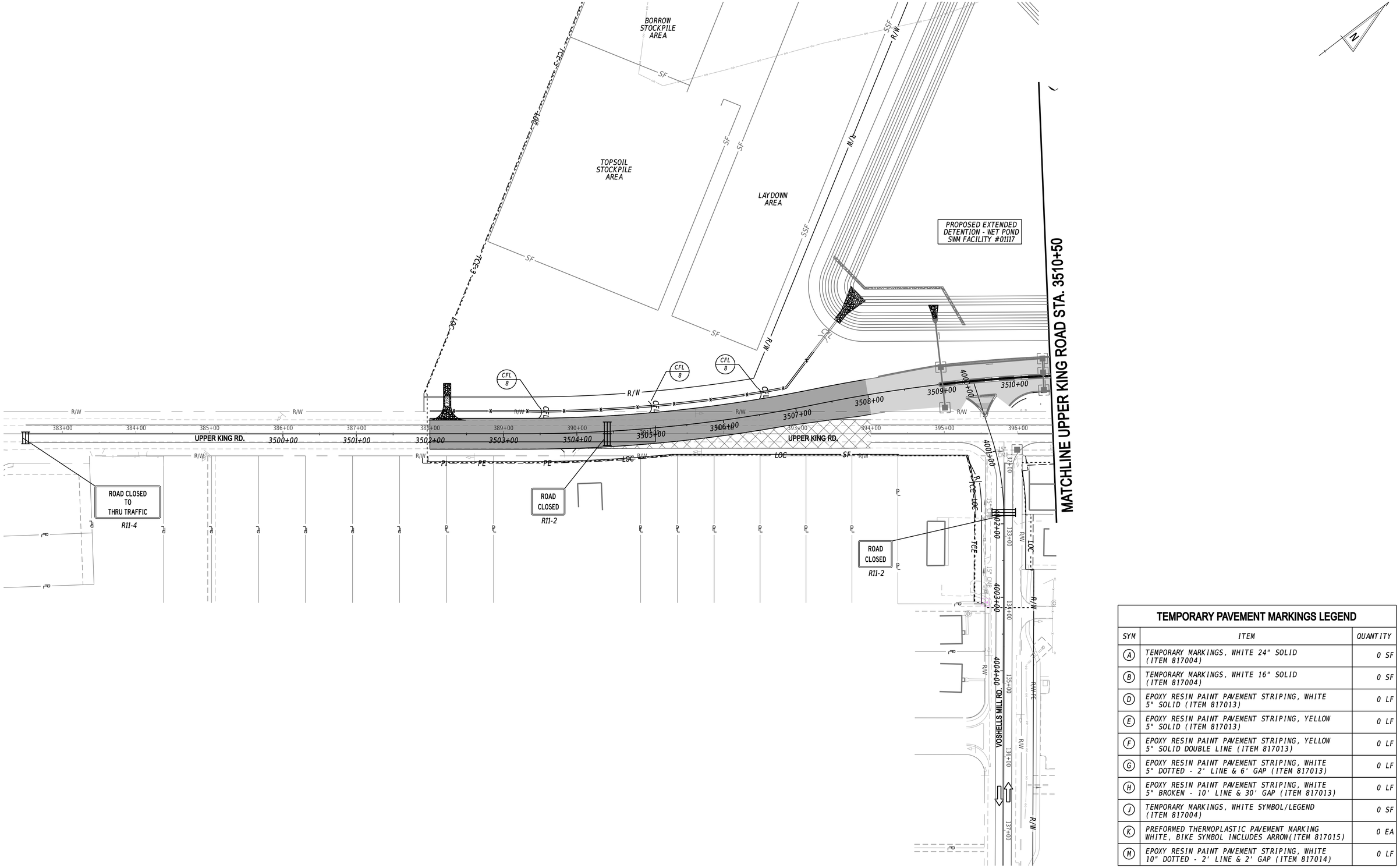

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	0 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

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ADDENDA / REVISIONS

SCALE
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WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 5 - STAGE 1

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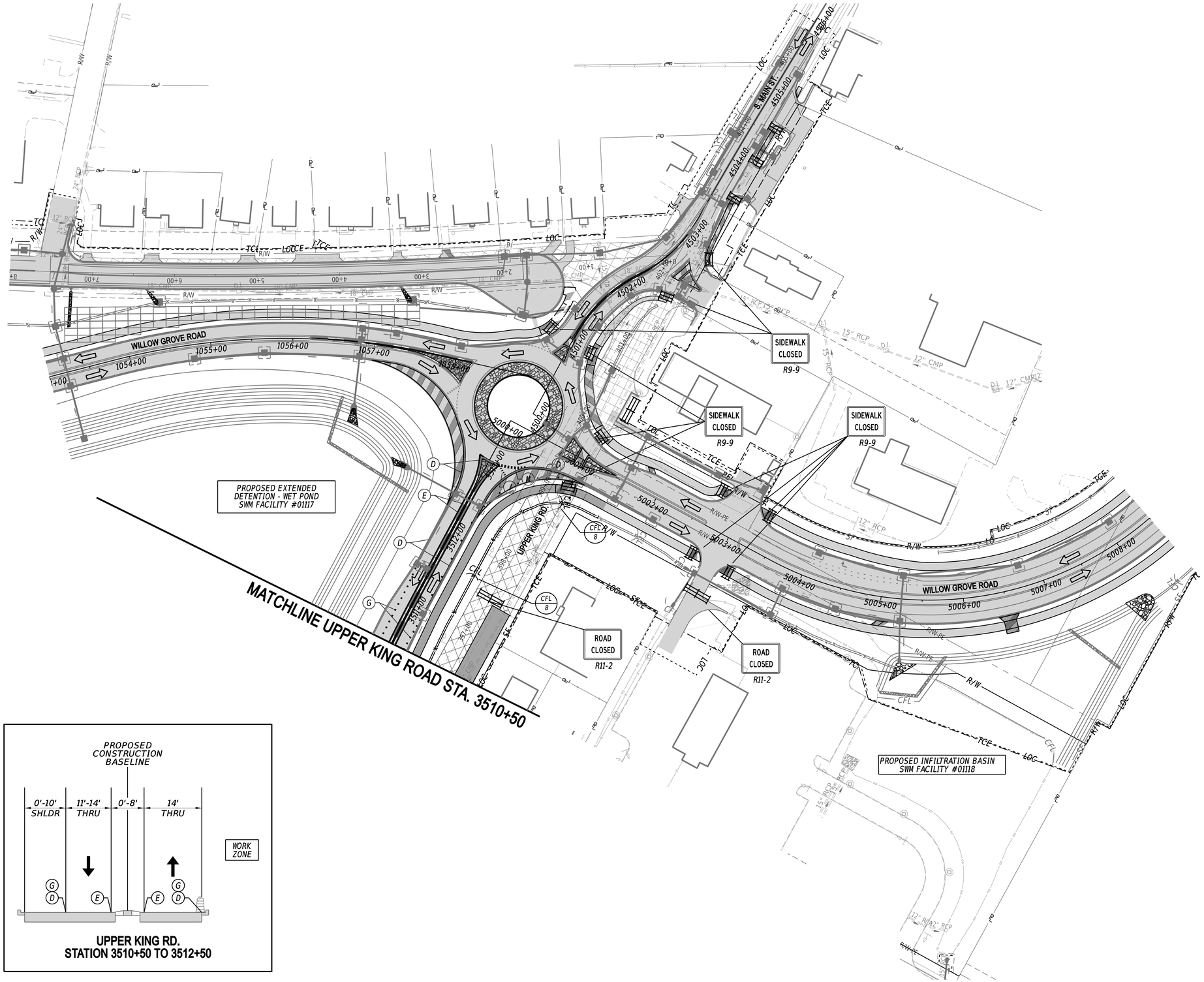
137



UPPER KING RD.
STATION 3510+50 TO 3512+50

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	484 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	509 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	44 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
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FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 5 - STAGE 2

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BORROW STOCKPILE AREA

TOPSOIL STOCKPILE AREA

LAYDOWN AREA

PROPOSED EXTENDED DETENTION - WET POND SWM FACILITY #01117

INSTALL CULVERT INLET PROTECTION

MATCH EXISTING STRIPING

W11-10

W11-10

UPPER KING RD.

UPPER KING RD.

RIGHT SHOULDER CLOSED AHEAD

W21-5B

ROAD CLOSED

R11-2

MATCHLINE UPPER KING ROAD STA. 3510+50

VOSHELLS MILL RD.

PROPOSED CONSTRUCTION BASELINE

10' SHLDR | 11' THRU | 0'-8' | 11' THRU | 5'-16'

WORK ZONE

UPPER KING RD.
STATION 3502+00 TO 3510+50

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
B	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	1,404 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	301 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	1,504 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	72 LF
H	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
J	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
K	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
M	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
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WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 5 - STAGE 2

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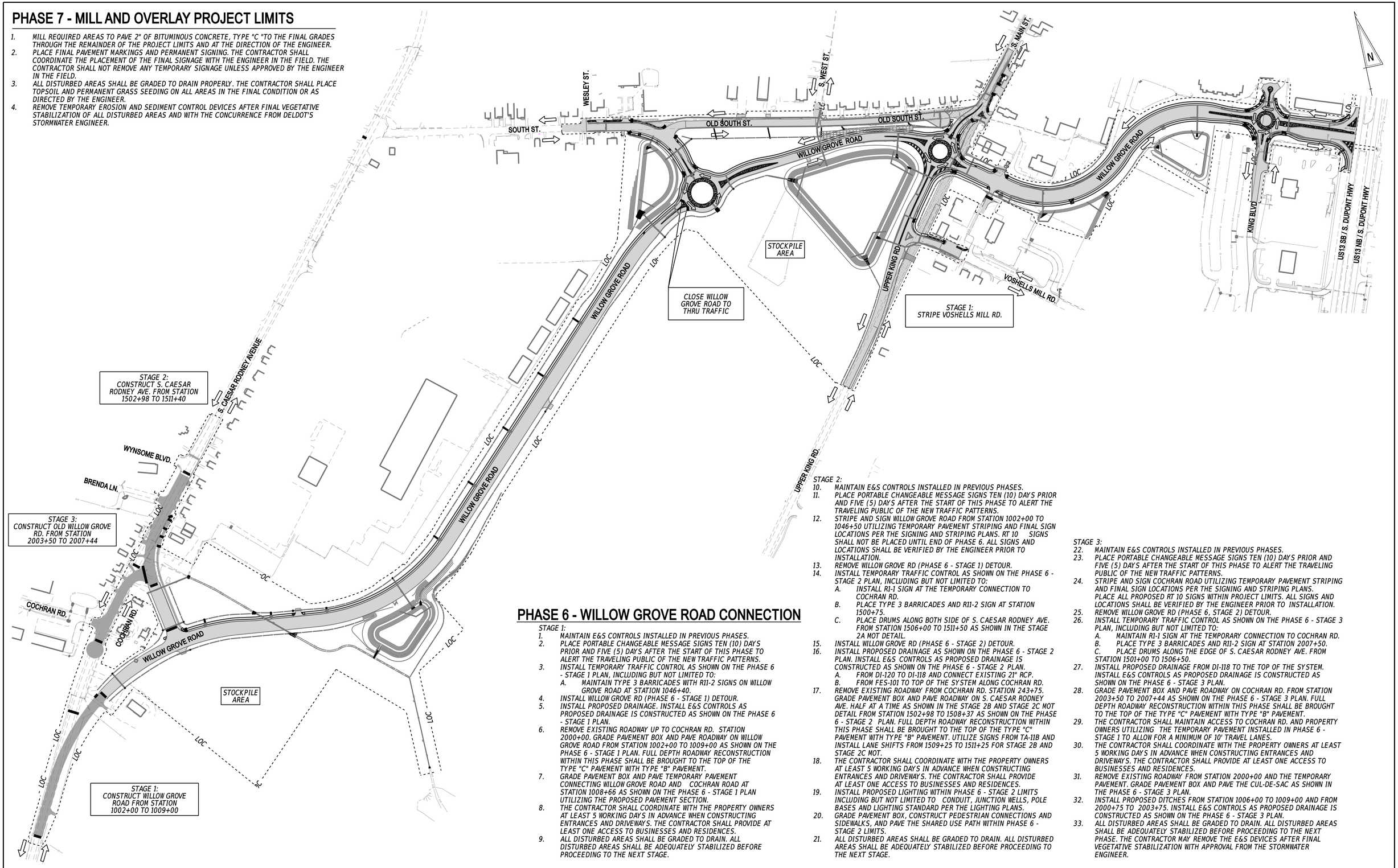
PHASE 7 - MILL AND OVERLAY PROJECT LIMITS

1. MILL REQUIRED AREAS TO PAVE 2" OF BITUMINOUS CONCRETE, TYPE "C "TO THE FINAL GRADES THROUGH THE REMAINDER OF THE PROJECT LIMITS AND AT THE DIRECTION OF THE ENGINEER.
2. PLACE FINAL PAVEMENT MARKINGS AND PERMANENT SIGNING. THE CONTRACTOR SHALL COORDINATE THE PLACEMENT OF THE FINAL SIGNAGE WITH THE ENGINEER IN THE FIELD. THE CONTRACTOR SHALL NOT REMOVE ANY TEMPORARY SIGNAGE UNLESS APPROVED BY THE ENGINEER IN THE FIELD.
3. ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN PROPERLY. THE CONTRACTOR SHALL PLACE TOPSOIL AND PERMANENT GRASS SEEDING ON ALL AREAS IN THE FINAL CONDITION OR AS DIRECTED BY THE ENGINEER.
4. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER FINAL VEGETATIVE STABILIZATION OF ALL DISTURBED AREAS AND WITH THE CONCURRENCE FROM DELDOT'S STORMWATER ENGINEER.



PHASE 6 - WILLOW GROVE ROAD CONNECTION

STAGE 1:

1. MAINTAIN E&S CONTROLS INSTALLED IN PREVIOUS PHASES.
2. PLACE PORTABLE CHANGEABLE MESSAGE SIGNS TEN (10) DAYS PRIOR AND FIVE (5) DAYS AFTER THE START OF THIS PHASE TO ALERT THE TRAVELING PUBLIC OF THE NEW TRAFFIC PATTERNS.
3. INSTALL TEMPORARY TRAFFIC CONTROL AS SHOWN ON THE PHASE 6 - STAGE 1 PLAN, INCLUDING BUT NOT LIMITED TO:
   A. MAINTAIN TYPE 3 BARRICADES WITH R11-2 SIGNS ON WILLOW GROVE ROAD AT STATION 1046+40.
4. INSTALL WILLOW GROVE RD (PHASE 6 - STAGE 1) DETOUR.
5. INSTALL PROPOSED DRAINAGE. INSTALL E&S CONTROLS AS PROPOSED DRAINAGE IS CONSTRUCTED AS SHOWN ON THE PHASE 6 - STAGE 1 PLAN.
6. REMOVE EXISTING ROADWAY UP TO COCHRAN RD. STATION 2000+00. GRADE PAVEMENT BOX AND PAVE ROADWAY ON WILLOW GROVE ROAD FROM STATION 1002+00 TO 1009+00 AS SHOWN ON THE PHASE 6 - STAGE 1 PLAN. FULL DEPTH ROADWAY RECONSTRUCTION WITHIN THIS PHASE SHALL BE BROUGHT TO THE TOP OF THE TYPE "C" PAVEMENT WITH TYPE "B" PAVEMENT.
7. GRADE PAVEMENT BOX AND PAVE TEMPORARY PAVEMENT CONNECTING WILLOW GROVE ROAD AND COCHRAN ROAD AT STATION 1008+66 AS SHOWN ON THE PHASE 6 - STAGE 1 PLAN UTILIZING THE PROPOSED PAVEMENT SECTION.
8. THE CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNERS AT LEAST 5 WORKING DAYS IN ADVANCE WHEN CONSTRUCTING ENTRANCES AND DRIVEWAYS. THE CONTRACTOR SHALL PROVIDE AT LEAST ONE ACCESS TO BUSINESSES AND RESIDENCES.
9. ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO THE NEXT STAGE.

STAGE 2:

10. MAINTAIN E&S CONTROLS INSTALLED IN PREVIOUS PHASES.
11. PLACE PORTABLE CHANGEABLE MESSAGE SIGNS TEN (10) DAYS PRIOR AND FIVE (5) DAYS AFTER THE START OF THIS PHASE TO ALERT THE TRAVELING PUBLIC OF THE NEW TRAFFIC PATTERNS.
12. STRIPE AND SIGN WILLOW GROVE ROAD FROM STATION 1002+00 TO 1046+50 UTILIZING TEMPORARY PAVEMENT STRIPING AND FINAL SIGN LOCATIONS PER THE SIGNING AND STRIPING PLANS. RT 10 SIGNS SHALL NOT BE PLACED UNTIL END OF PHASE 6. ALL SIGNS AND LOCATIONS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.
13. REMOVE WILLOW GROVE RD (PHASE 6 - STAGE 1) DETOUR.
14. INSTALL TEMPORARY TRAFFIC CONTROL AS SHOWN ON THE PHASE 6 - STAGE 2 PLAN, INCLUDING BUT NOT LIMITED TO:
   A. INSTALL R1-1 SIGN AT THE TEMPORARY CONNECTION TO COCHRAN RD.
   B. PLACE TYPE 3 BARRICADES AND R11-2 SIGN AT STATION 1500+75.
   C. PLACE DRUMS ALONG BOTH SIDE OF S. CAESAR RODNEY AVE. FROM STATION 1506+00 TO 1511+50 AS SHOWN IN THE STAGE 2A MOT DETAIL.
15. INSTALL WILLOW GROVE RD (PHASE 6 - STAGE 2) DETOUR.
16. INSTALL PROPOSED DRAINAGE AS SHOWN ON THE PHASE 6 - STAGE 2 PLAN. INSTALL E&S CONTROLS AS PROPOSED DRAINAGE IS CONSTRUCTED AS SHOWN ON THE PHASE 6 - STAGE 2 PLAN.
   A. FROM DI-120 TO DI-118 AND CONNECT EXISTING 21" RCP.
   B. FROM FES-101 TO TOP OF THE SYSTEM ALONG COCHRAN RD.
17. REMOVE EXISTING ROADWAY FROM COCHRAN RD. STATION 243+75. GRADE PAVEMENT BOX AND PAVE ROADWAY ON S. CAESAR RODNEY AVE. HALF AT A TIME AS SHOWN IN THE STAGE 2B AND STAGE 2C MOT DETAIL FROM STATION 1502+98 TO 1508+37 AS SHOWN ON THE PHASE 6 - STAGE 2 PLAN. FULL DEPTH ROADWAY RECONSTRUCTION WITHIN THIS PHASE SHALL BE BROUGHT TO THE TOP OF THE TYPE "C" PAVEMENT WITH TYPE "B" PAVEMENT. UTILIZE SIGNS FROM TA-31B AND INSTALL LANE SHIFTS FROM 1509+25 TO 1511+25 FOR STAGE 2B AND STAGE 2C MOT.
18. THE CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNERS AT LEAST 5 WORKING DAYS IN ADVANCE WHEN CONSTRUCTING ENTRANCES AND DRIVEWAYS. THE CONTRACTOR SHALL PROVIDE AT LEAST ONE ACCESS TO BUSINESSES AND RESIDENCES.
19. INSTALL PROPOSED LIGHTING WITHIN PHASE 6 - STAGE 2 LIMITS INCLUDING BUT NOT LIMITED TO CONDUIT, JUNCTION WELLS, POLE BASES AND LIGHTING STANDARD PER THE LIGHTING PLANS.
20. GRADE PAVEMENT BOX, CONSTRUCT PEDESTRIAN CONNECTIONS AND SIDEWALKS, AND PAVE THE SHARED USE PATH WITHIN PHASE 6 - STAGE 2 LIMITS.
21. ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO THE NEXT STAGE.

STAGE 3:

22. MAINTAIN E&S CONTROLS INSTALLED IN PREVIOUS PHASES.
23. PLACE PORTABLE CHANGEABLE MESSAGE SIGNS TEN (10) DAYS PRIOR AND FIVE (5) DAYS AFTER THE START OF THIS PHASE TO ALERT THE TRAVELING PUBLIC OF THE NEW TRAFFIC PATTERNS.
24. STRIPE AND SIGN COCHRAN ROAD UTILIZING TEMPORARY PAVEMENT STRIPING AND FINAL SIGN LOCATIONS PER THE SIGNING AND STRIPING PLANS. PLACE ALL PROPOSED RT 10 SIGNS WITHIN PROJECT LIMITS. ALL SIGNS AND LOCATIONS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.
25. REMOVE WILLOW GROVE RD (PHASE 6, STAGE 2) DETOUR.
26. INSTALL TEMPORARY TRAFFIC CONTROL AS SHOWN ON THE PHASE 6 - STAGE 3 PLAN, INCLUDING BUT NOT LIMITED TO:
   A. MAINTAIN R1-1 SIGN AT THE TEMPORARY CONNECTION TO COCHRAN RD.
   B. PLACE TYPE 3 BARRICADES AND R11-2 SIGN AT STATION 2007+50.
   C. PLACE DRUMS ALONG THE EDGE OF S. CAESAR RODNEY AVE. FROM STATION 1501+00 TO 1506+50.
27. INSTALL PROPOSED DRAINAGE FROM DI-118 TO THE TOP OF THE SYSTEM. INSTALL E&S CONTROLS AS PROPOSED DRAINAGE IS CONSTRUCTED AS SHOWN ON THE PHASE 6 - STAGE 3 PLAN.
28. GRADE PAVEMENT BOX AND PAVE ROADWAY ON COCHRAN RD. FROM STATION 2003+50 TO 2007+44 AS SHOWN ON THE PHASE 6 - STAGE 3 PLAN. FULL DEPTH ROADWAY RECONSTRUCTION WITHIN THIS PHASE SHALL BE BROUGHT TO THE TOP OF THE TYPE "C" PAVEMENT WITH TYPE "B" PAVEMENT.
29. THE CONTRACTOR SHALL MAINTAIN ACCESS TO COCHRAN RD. AND PROPERTY OWNERS UTILIZING THE TEMPORARY PAVEMENT INSTALLED IN PHASE 6 - STAGE 1 TO ALLOW FOR A MINIMUM OF 10' TRAVEL LANES.
30. THE CONTRACTOR SHALL COORDINATE WITH THE PROPERTY OWNERS AT LEAST 5 WORKING DAYS IN ADVANCE WHEN CONSTRUCTING ENTRANCES AND DRIVEWAYS. THE CONTRACTOR SHALL PROVIDE AT LEAST ONE ACCESS TO BUSINESSES AND RESIDENCES.
31. REMOVE EXISTING ROADWAY FROM STATION 2000+00 AND THE TEMPORARY PAVEMENT, GRADE PAVEMENT BOX AND PAVE THE CUL-DE-SAC AS SHOWN IN THE PHASE 6 - STAGE 3 PLAN.
32. INSTALL PROPOSED DITCHES FROM STATION 1006+00 TO 1009+00 AND FROM 2000+75 TO 2003+75. INSTALL E&S CONTROLS AS PROPOSED DRAINAGE IS CONSTRUCTED AS SHOWN ON THE PHASE 6 - STAGE 3 PLAN.
33. ALL DISTURBED AREAS SHALL BE GRADED TO DRAIN. ALL DISTURBED AREAS SHALL BE ADEQUATELY STABILIZED BEFORE PROCEEDING TO THE NEXT PHASE. THE CONTRACTOR MAY REMOVE THE E&S DEVICES AFTER FINAL VEGETATIVE STABILIZATION WITH APPROVAL FROM THE STORMWATER ENGINEER.

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ADDENDA / REVISIONS	SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 6/7 - OVERVIEW	SECTION
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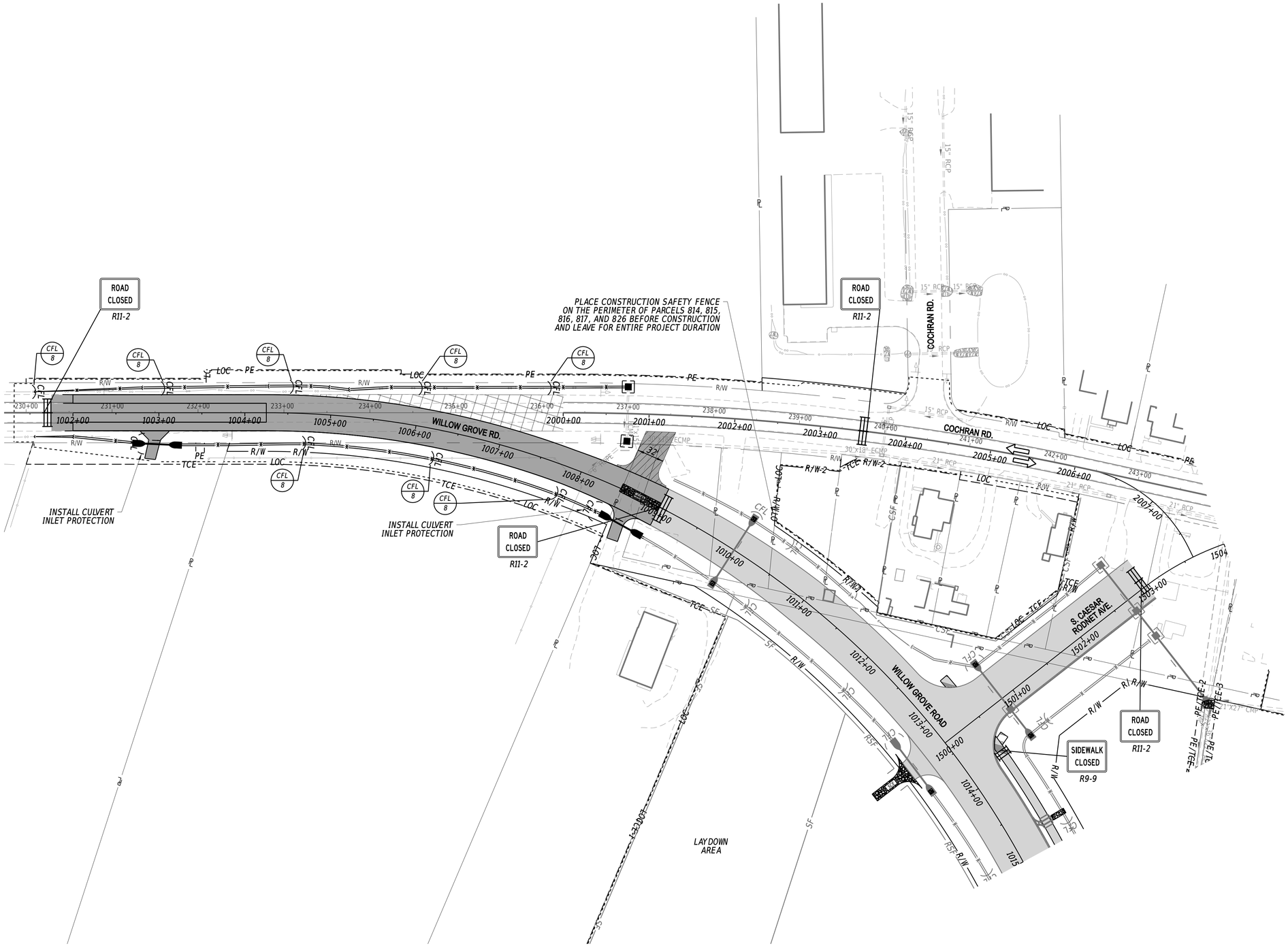
			COUNTY	CHECKED BY: J. FREY		SHEET NO.
			KENT			140



TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	0 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
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WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 6 - STAGE 1

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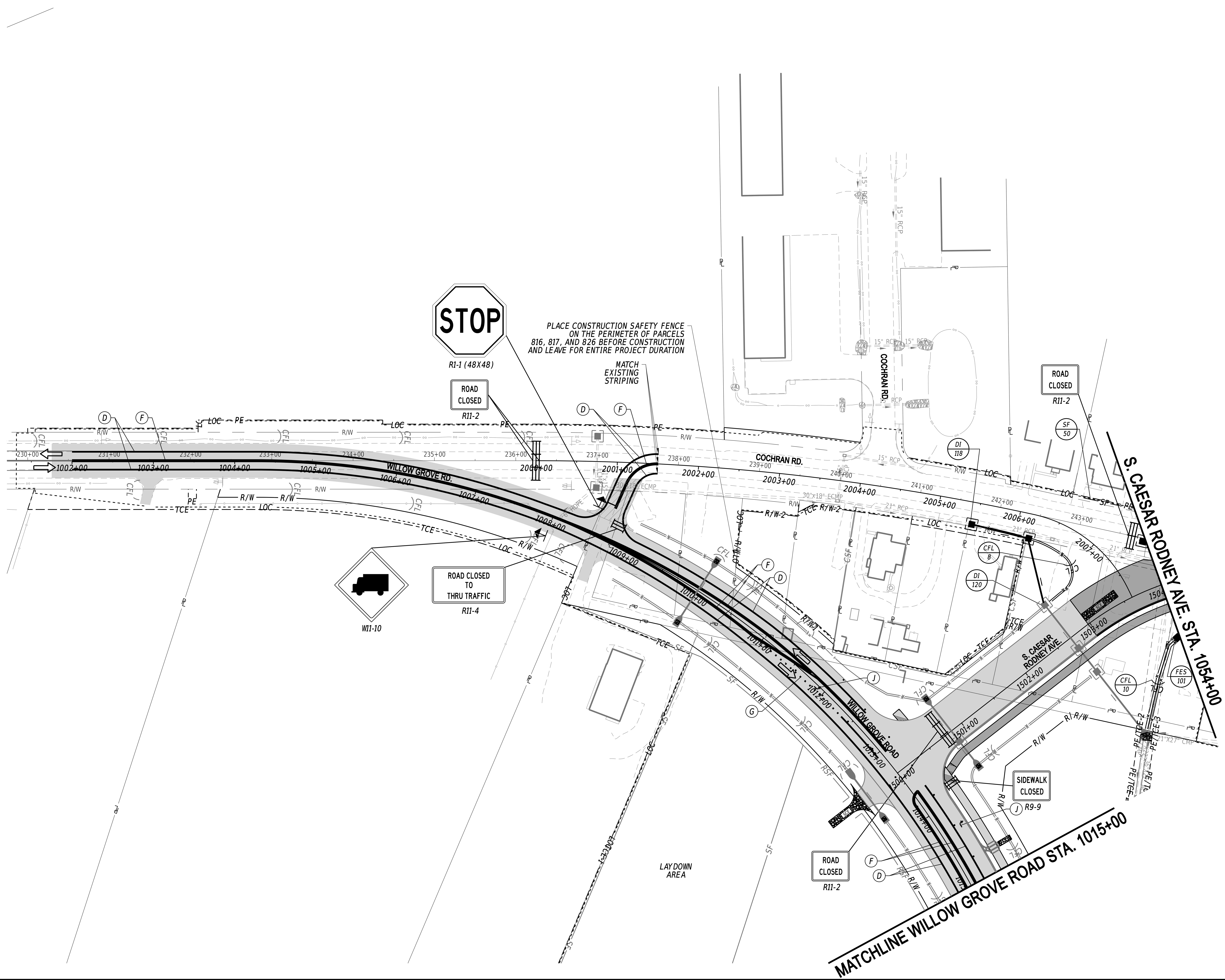

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
B	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	2,724 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	3,564 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	38 LF
H	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
J	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	31 SF
K	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
M	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

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ADDENDA / REVISIONS

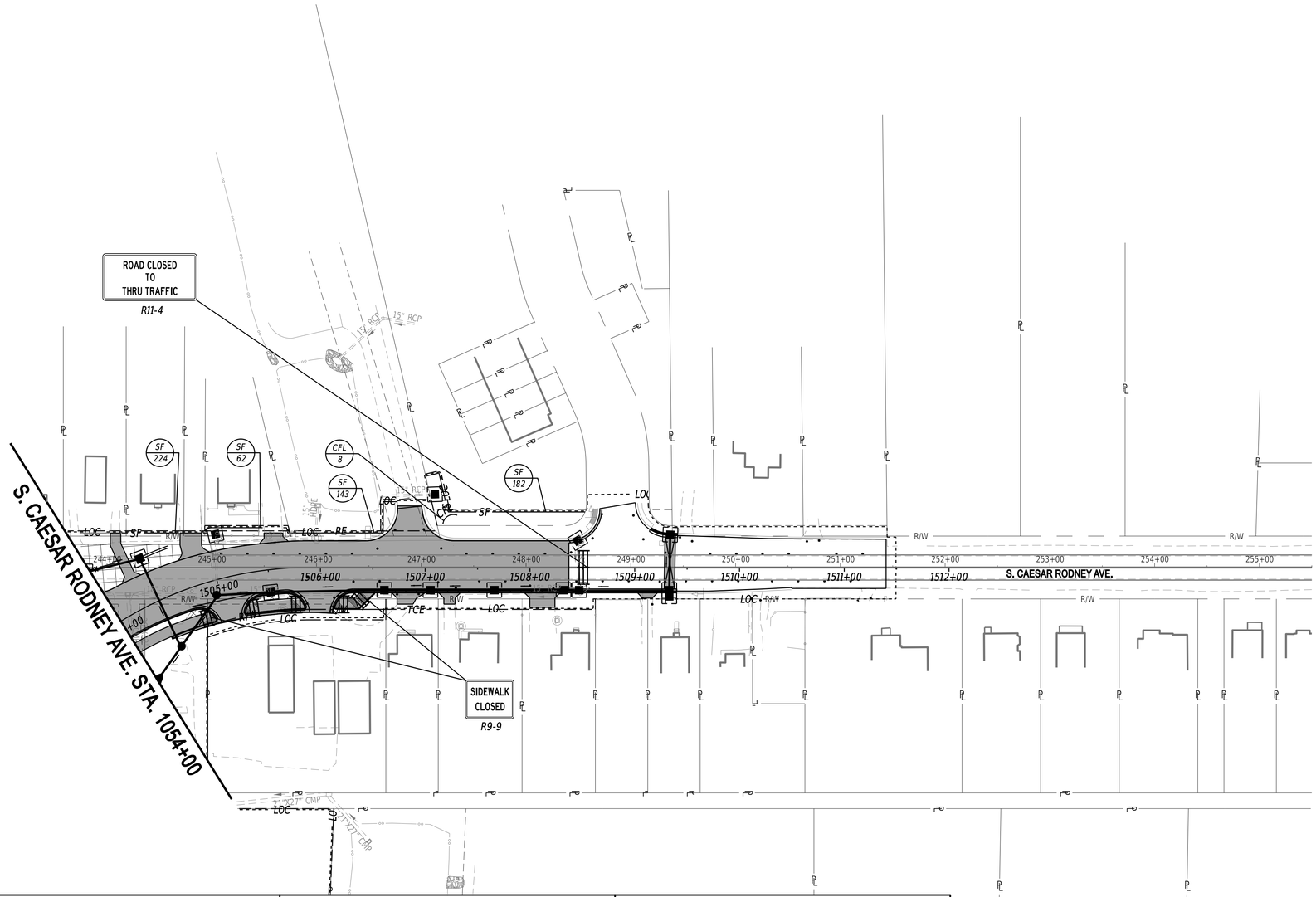
SCALE 0 60 120 180 FEET

WEST CAMDEN BYPASS

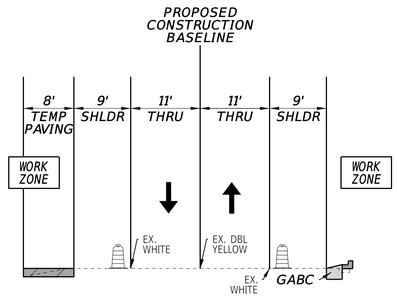
CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY		
KENT	CHECKED BY:	J. FREY

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 6 - STAGE 2

SECTION: CEN
SHEET NO.: 142

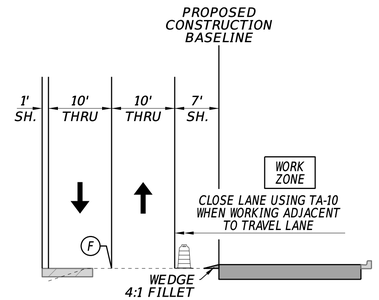


STAGE 2A MOT



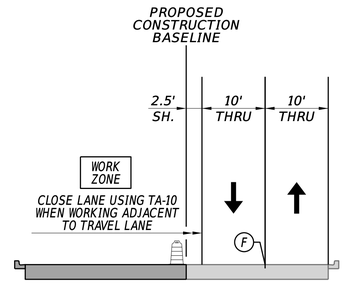
S. CAESAR RODNEY AVE.
STATION 1505+00 TO 1508+50

STAGE 2B MOT



S. CAESAR RODNEY AVE.
STATION 1505+00 TO 1508+50

STAGE 2C MOT



S. CAESAR RODNEY AVE.
STATION 1505+00 TO 1508+50

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	0 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 6 - STAGE 2

SECTION: CEN
SHEET NO.: 143

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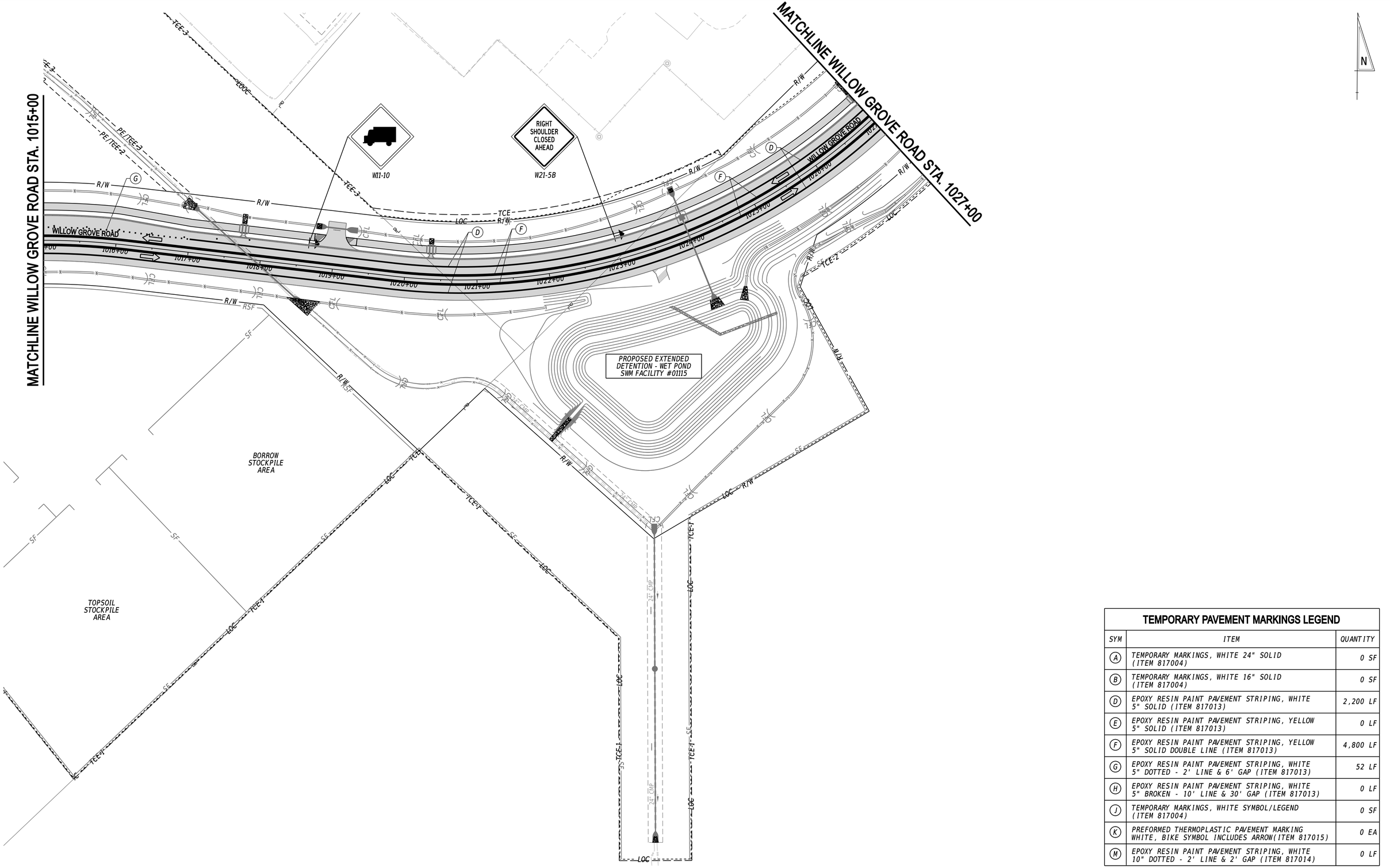

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	2,200 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	4,800 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	52 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 6 - STAGE 2

SECTION: CEN
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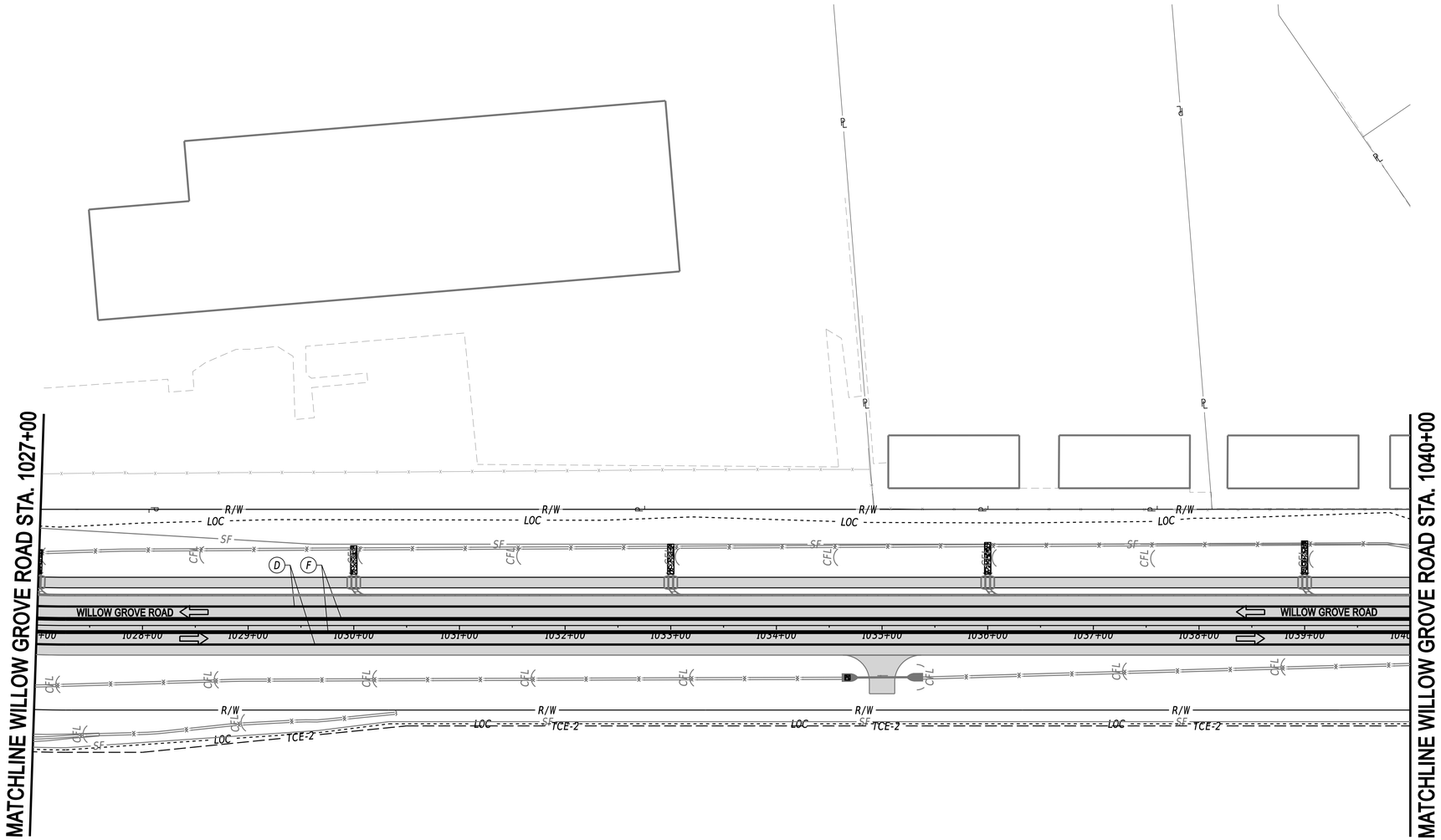

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	2,600 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	5,200 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

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ADDENDA / REVISIONS

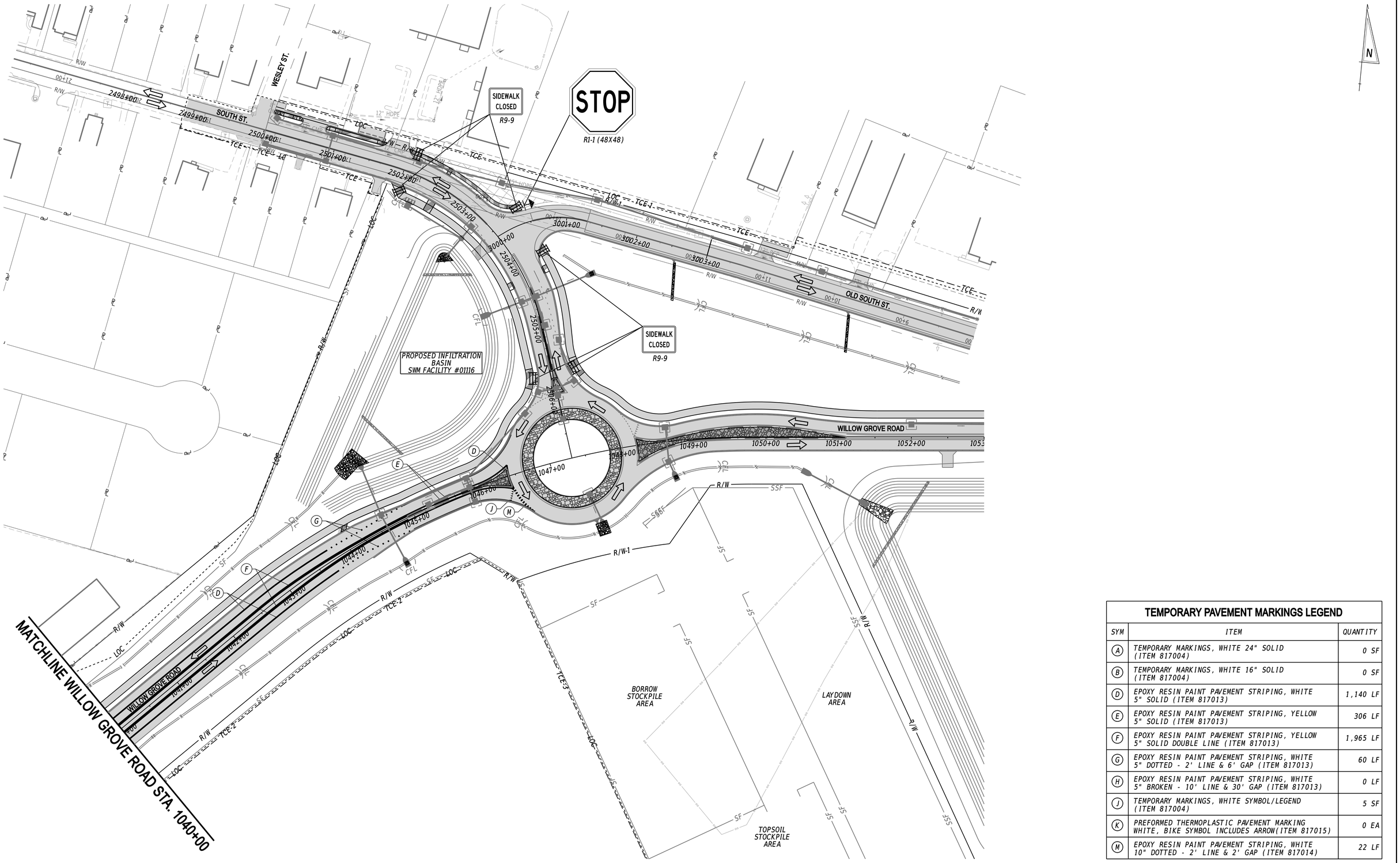
SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 6 - STAGE 2

SECTION	CEN
SHEET NO.	145



TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	1,140 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	306 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	1,965 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	60 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	5 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	22 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 6 - STAGE 2

SECTION: CEN
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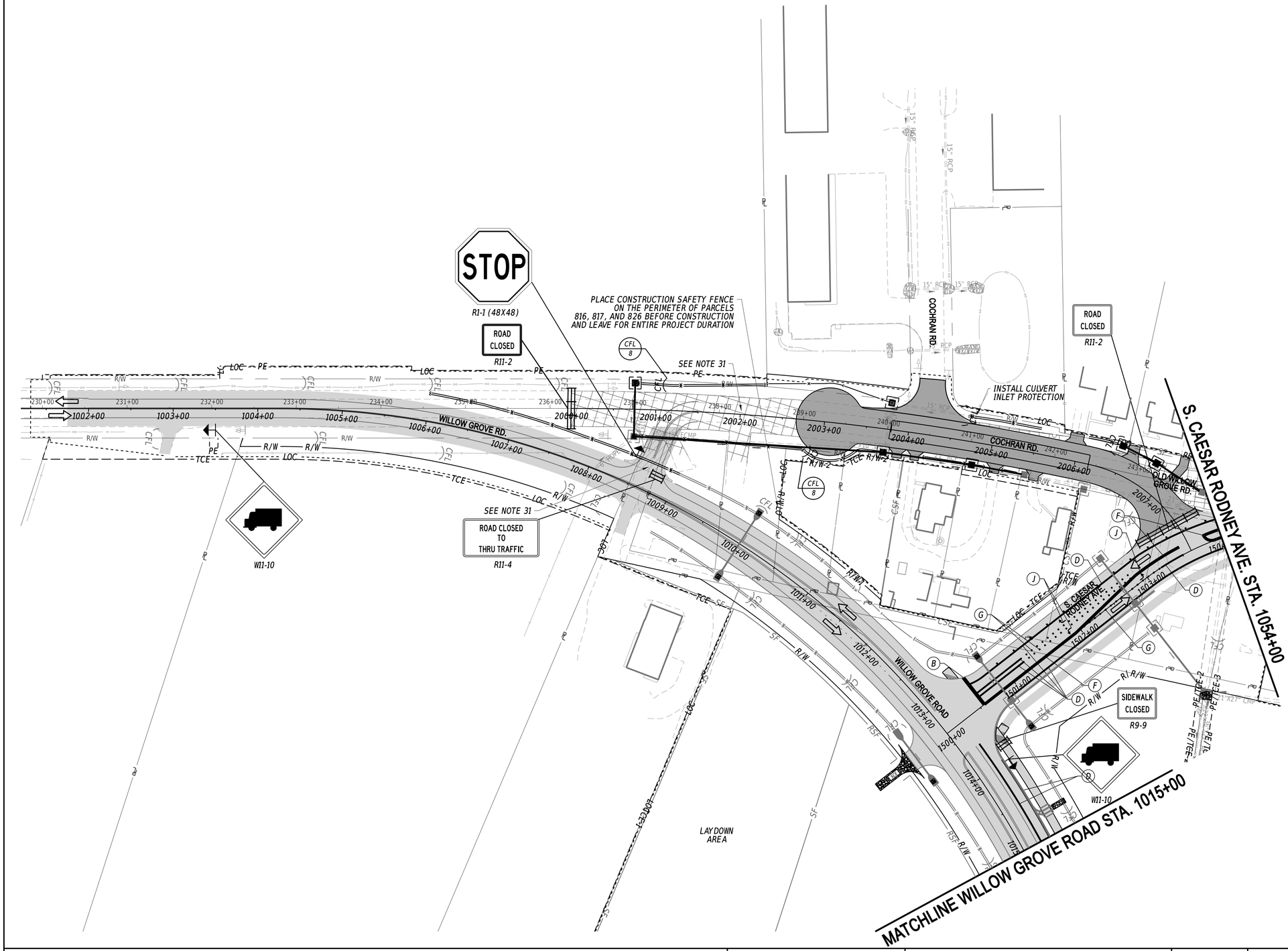

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	54 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	1,080 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	680 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	116 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	47 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	SECTION
T201709502	DESIGNED BY:	L. HAXTON	CEN
COUNTY	CHECKED BY:	J. FREY	SHEET NO.
KENT			147

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 6 - STAGE 3

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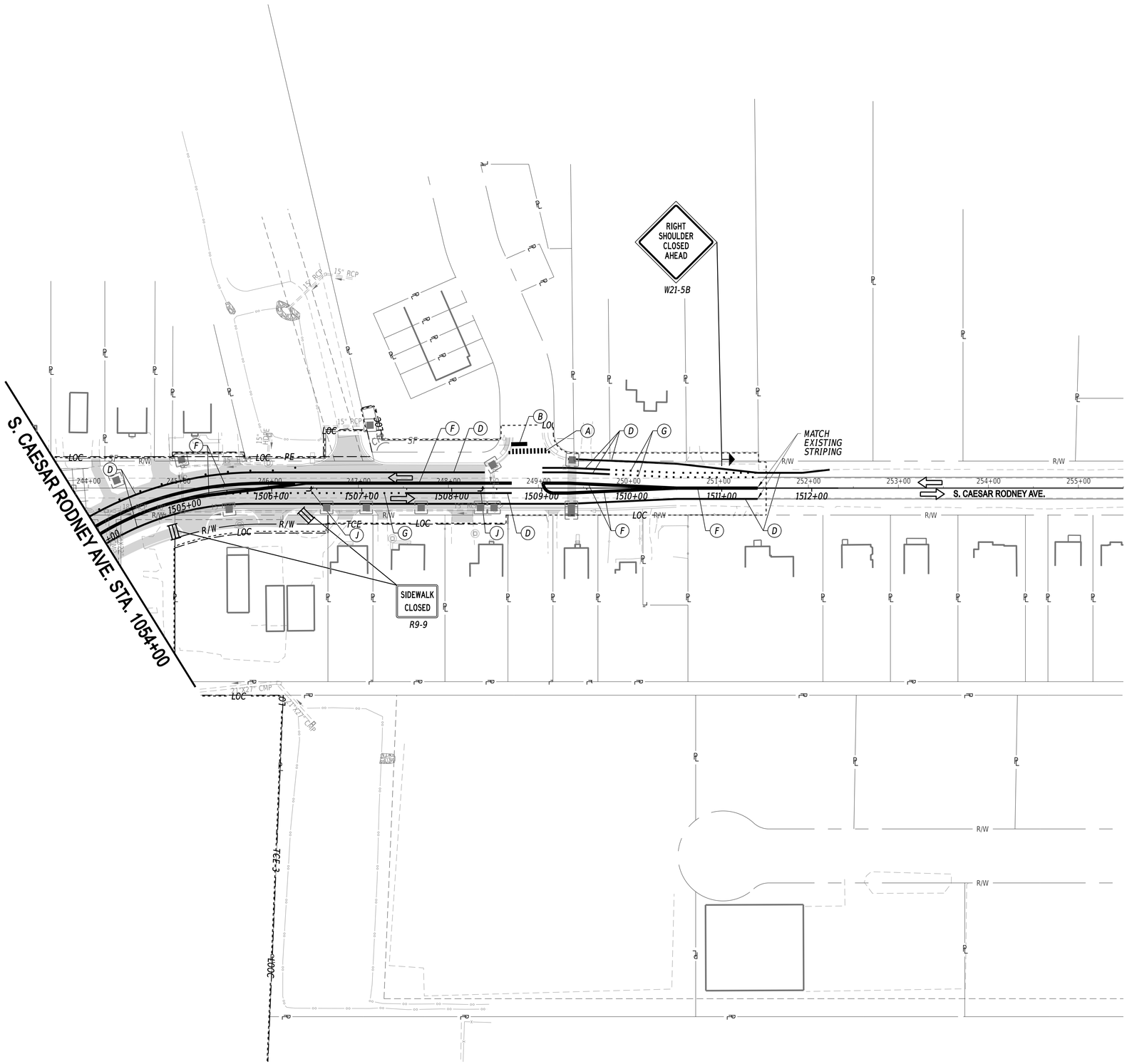

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	134 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	24 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	1,740 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	2,147 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	136 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	31 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 6 - STAGE 3

SECTION
CEN
SHEET NO.
148

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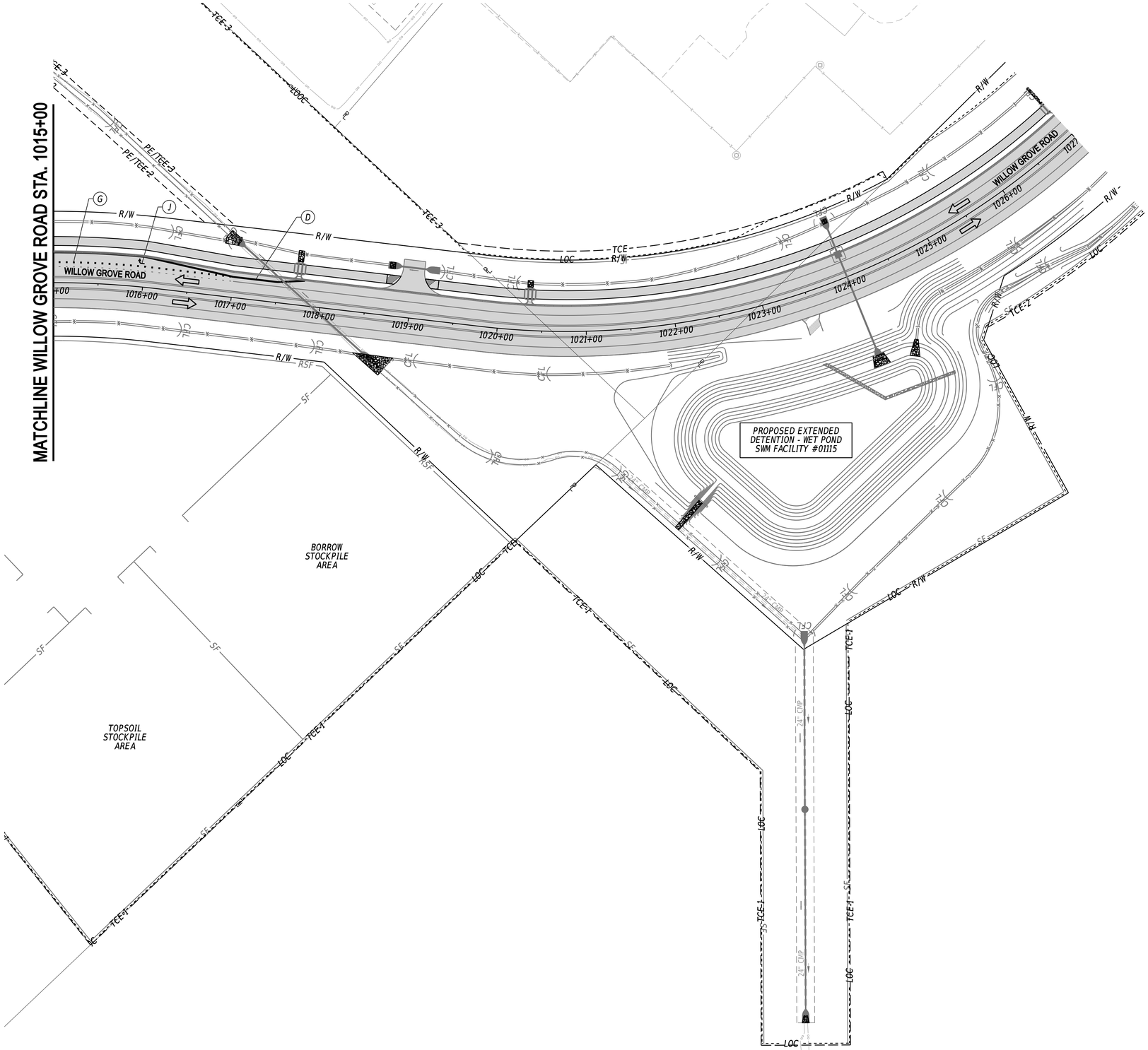

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	TEMPORARY MARKINGS, WHITE 24" SOLID (ITEM 817004)	0 SF
(B)	TEMPORARY MARKINGS, WHITE 16" SOLID (ITEM 817004)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 817013)	285 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 817013)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 817013)	0 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 817013)	50 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 817013)	0 LF
(J)	TEMPORARY MARKINGS, WHITE SYMBOL/LEGEND (ITEM 817004)	16 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW(ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 2' GAP (ITEM 817014)	0 LF

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN PHASE 6 - STAGE 3

SECTION: CEN
SHEET NO.: 149

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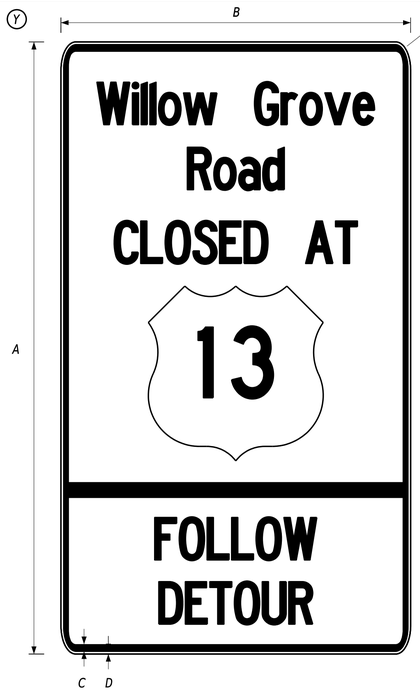
PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

WILLOW GROVE RD TO CLOSE	AT US 13 STARTING XX/XX/XX

SPECIAL SIGNS



SIGN SIZE	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	I
STD	78"	48"	.625"	.375"	2"	6"C	3"	24"	2.5"

COLORS - LEGEND, BORDER - BLACK
BACKGROUND - PRISMATIC RETROREFLECTIVE FLUORESCENT ORANGE
ROUTE SHIELD - WHITE BACKGROUND, BLACK LEGEND

SPECIAL NOTES

5. THE CLOSURE OF WILLOW GROVE ROAD WILL BE PERMITTED FOR A MAXIMUM PERIOD OF 55 CONTINUOUS CALENDAR DAYS, INCLUSIVE OF WEATHER DAYS. FAILURE TO REOPEN WILLOW GROVE RD WITHIN THE 55 CALENDAR DAY DETOUR DURATION WILL RESULT IN THE ASSESSMENT OF LIQUIDATED DAMAGES AS OUTLINED IN THE DELDOT STANDARD SPECIFCATIONS.

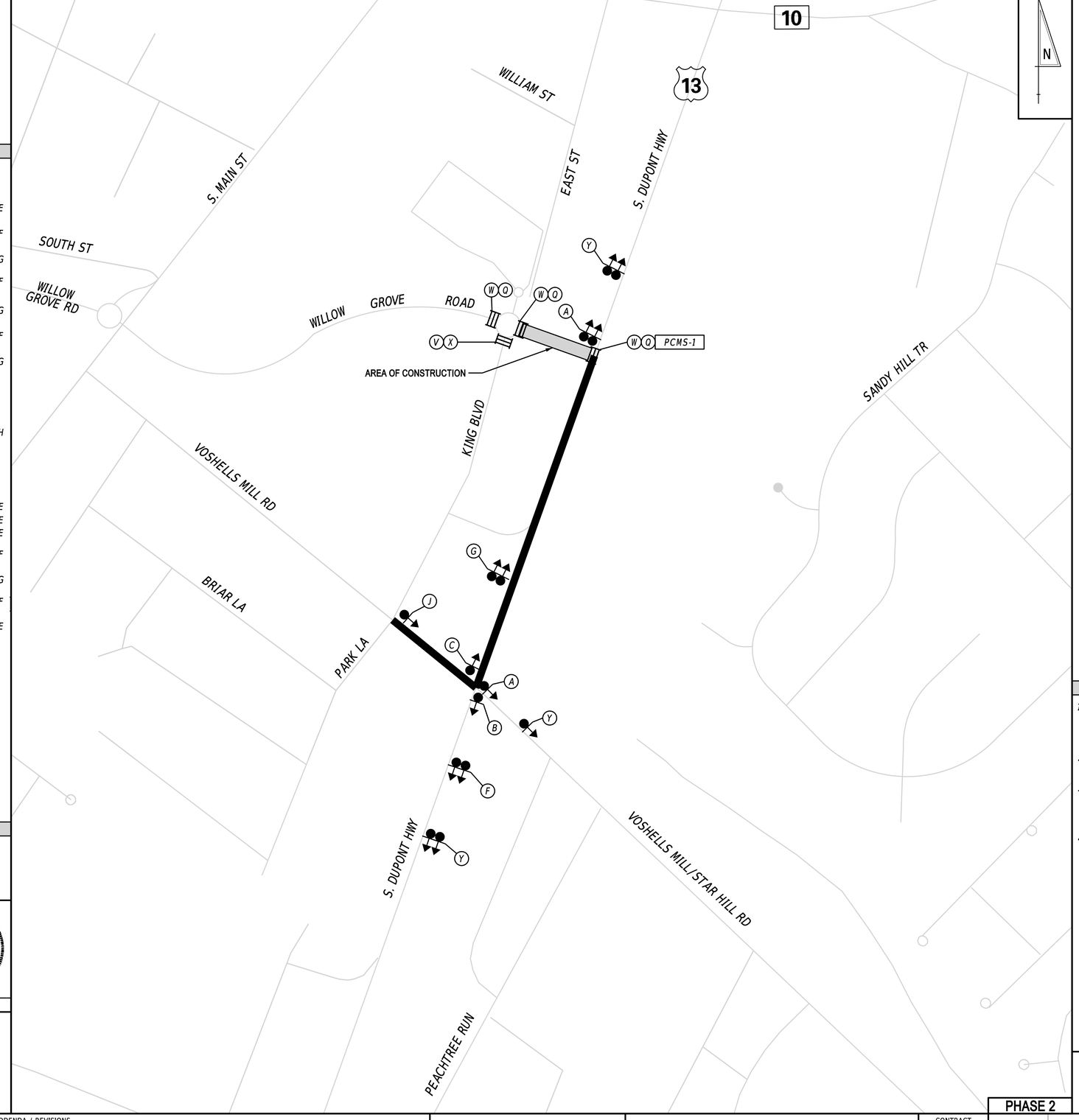
PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company

Tyler Hartman — 8/30/2023
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "CEN" SECTION DESIGNATION.
DATE

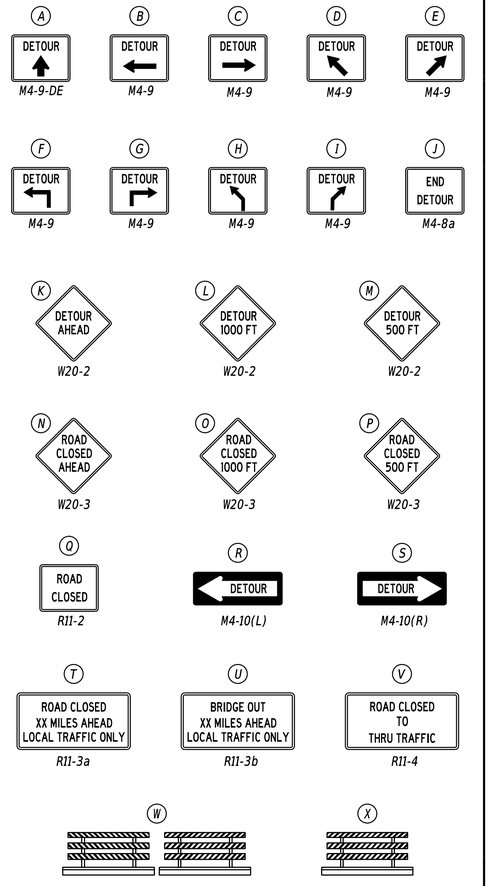
TYLER DANE HARTMAN — LICENSE — No. 25884 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

B. Martine — 08/30/2023
QA/QC — DATE

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



LEGEND



GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL DEVICES ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR AND SHALL BE IN COMPLIANCE WITH THIS PLAN AND THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE MUTCD) LATEST EDITION.
2. SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHALL BE CHANGED TO "RAMP", "RR XING" OR "BRIDGE" WHERE APPLICABLE.
3. "W" TYPE 3 BARRICADES AT A ROAD CLOSURE SHALL BE PLACED COMPLETELY ACROSS THE ROADWAY, FROM CURB TO CURB, OR FROM EDGE OF ROAD TO EDGE OF ROAD, WITH THE STRIPES POSITIONED DOWNWARD TOWARD THE CENTER OF THE ROADWAY.
4. BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

CONCURRENCE FOR IMPLEMENTATION

Gerald A. Hoggatt Jr. — 9/8/23
TRAFFIC SAFETY — DATE

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT T201709502	PHASE 2	DETOUR PLAN VEHICULAR WILLOW GROVE ROAD	SECTION CEN
				COUNTY KENT	ROAD NO. LOCAL		SHEET NO. 150
					DESIGNED BY: D. SPENCE		
					CHECKED BY: B. MARTINE		

LAST REVISED: 9/11/2018
08:30, AUG-2023
07:12
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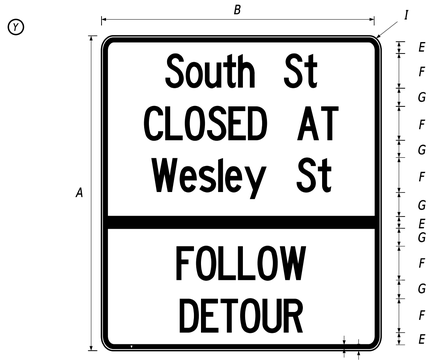
PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

SOUTH ST TO CLOSE	STARTING XX/XX/XX

SPECIAL SIGNS

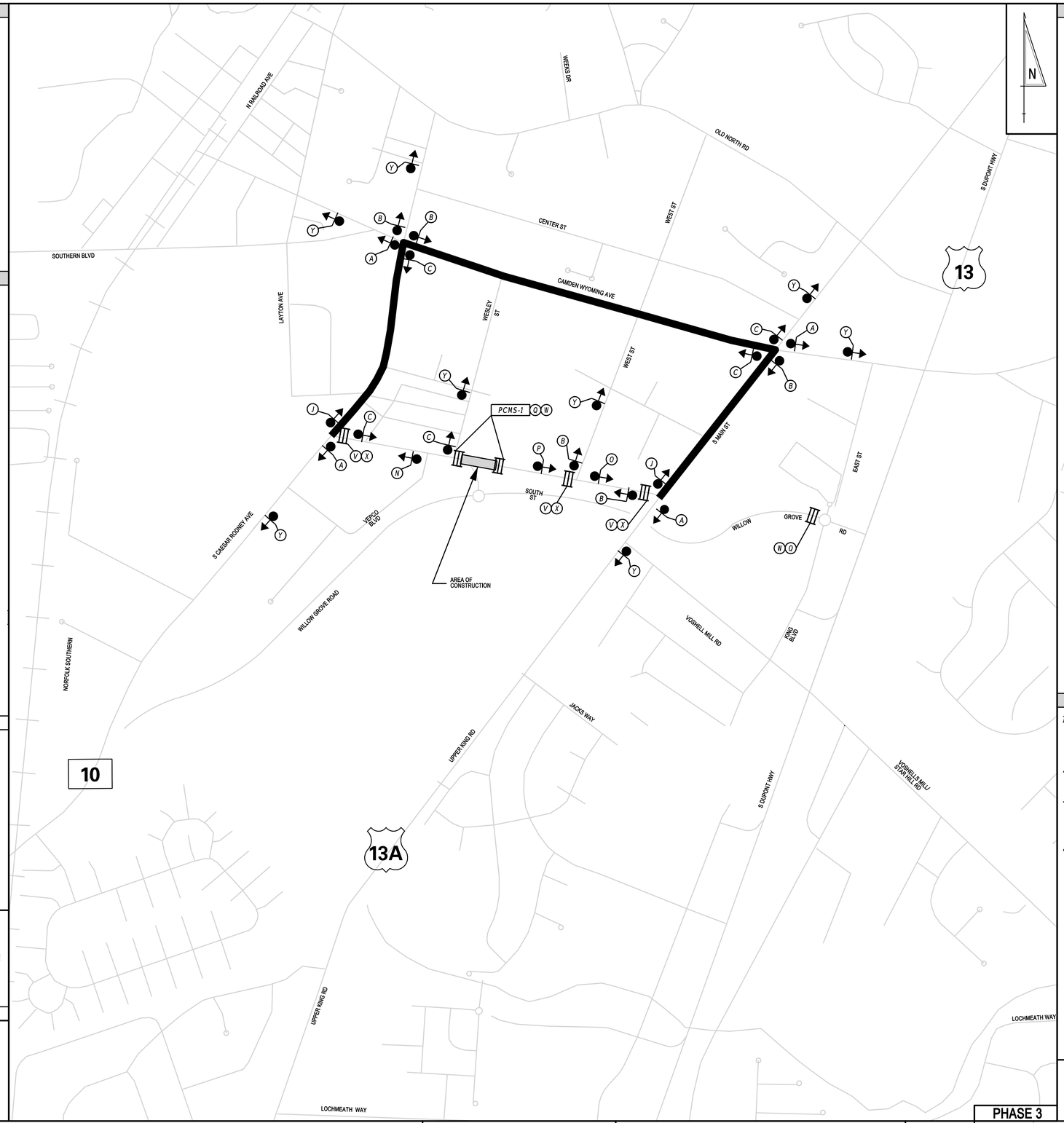


COLORS - LEGEND, BORDER - BLACK
BACKGROUND - PRISMATIC RETROREFLECTIVE FLUORESCENT ORANGE

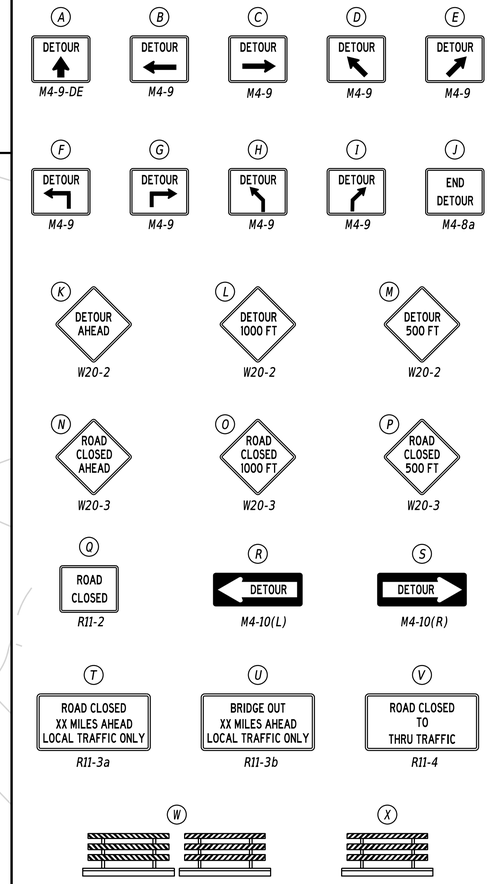
SIGN SIZE	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
STD	54"	48"	.625"	.375"	2"	6"C	3"	2.5"

SPECIAL NOTES

5. VEHICULAR AND TRUCK DETOURS SHALL BOTH OPERATE CONCURRENTLY.
6. VEHICULAR AND TRUCK DETOUR SIGNS IN THE SAME LOCATION SHALL BE POSTED SIDE BY SIDE.
7. THE CLOSURE OF SOUTH ST WILL BE PERMITTED FOR A MAXIMUM PERIOD OF 36 CONTINUOUS CALENDAR DAYS, INCLUSIVE OF WEATHER DAYS. FAILURE TO REOPEN SOUTH ST WITHIN THE 36 CALENDAR DAY DETOUR DURATION WILL RESULT IN THE ASSESSMENT OF LIQUIDATED DAMAGES AS OUTLINED IN THE DELDOT STANDARD SPECIFICATIONS.



LEGEND



GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL DEVICES ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR AND SHALL BE IN COMPLIANCE WITH THIS PLAN AND THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE MUTCD) LATEST EDITION.
2. SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHALL BE CHANGED TO "RAMP", "RR XING" OR "BRIDGE" WHERE APPLICABLE.
3. "W" TYPE 3 BARRICADES AT A ROAD CLOSURE SHALL BE PLACED COMPLETELY ACROSS THE ROADWAY, FROM CURB TO CURB, OR FROM EDGE OF ROAD TO EDGE OF ROAD, WITH THE STRIPES POSITIONED DOWNWARD TOWARD THE CENTER OF THE ROADWAY.
4. BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company

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

8/30/2023
DATE

TYLER DANE HARTMAN LICENSE No. 25884 DELAWARE PROFESSIONAL ENGINEER
SEAL

08/30/2023
QA/QC DATE

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

CONCURRENCE FOR IMPLEMENTATION

9/8/23
TRAFFIC SAFETY DATE

PHASE 3

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	ROAD NO.	LOCAL	VEHICULAR DETOUR PLAN SOUTH ST	SECTION
				T201709502	DESIGNED BY: D. SPENCE			CEN
				COUNTY	CHECKED BY: B. MARTINE			SHEET NO.
				KENT				151

LAST REVISED: 9/11/2018
30-AUG-2023 07:09
pw://deldot-pw.bentley.com:deldot-pw-01/Documents/01_Active_Projects/DelDOT_Capital_Projects/T201709502_CEI/400_CADD/440_TRAFFIC/443_SHEET_DGN/DP01_TRSF_T201709502_CEI_P03

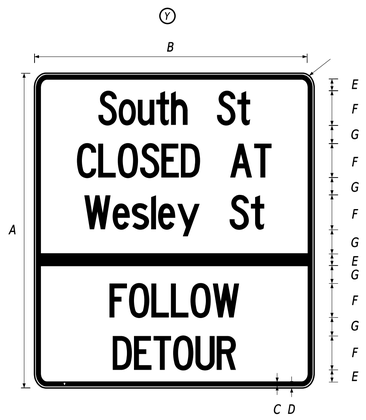
PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

SOUTH ST TO CLOSE	STARTING XX/XX/XX

SPECIAL SIGNS



SIGN SIZE	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
STD	54"	48"	.625"	.375"	2"	6"C	3"	2.5"

COLORS - LEGEND, BORDER - BLACK
BACKGROUND - PRISMATIC RETROREFLECTIVE FLUORESCENT ORANGE

SPECIAL NOTES

5. VEHICULAR AND TRUCK DETOURS SHALL BOTH OPERATE CONCURRENTLY.
6. VEHICULAR AND TRUCK DETOUR SIGNS IN THE SAME LOCATION SHALL BE POSTED SIDE BY SIDE.
7. DETOUR SIGNAGE THROUGH A ROUNDABOUT SHALL BE INSTALLED ON THE RIGHT SIDE OF TRAVEL, AND SHALL NOT BE PLACED WITHIN THE CENTER ISALND OR TRUCK APRON OF THE ROUNDABOUT.
8. THE CLOSURE OF SOUTH ST WILL BE PERMITTED FOR A MAXIMUM PERIOD OF 36 CONTINUOUS CALENDAR DAYS, INCLUSIVE OF WEATHER DAYS, FAILURE TO REOPEN SOUTH ST WITHIN THE 36 DAY CALENDAR DAY DETOUR DURATION WILL RESULT IN THE ASSESSMENT OF LIQUIDATED DAMAGES AS OUTLINED IN THE DELDOT STANDARD SPECIFICATIONS.

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company

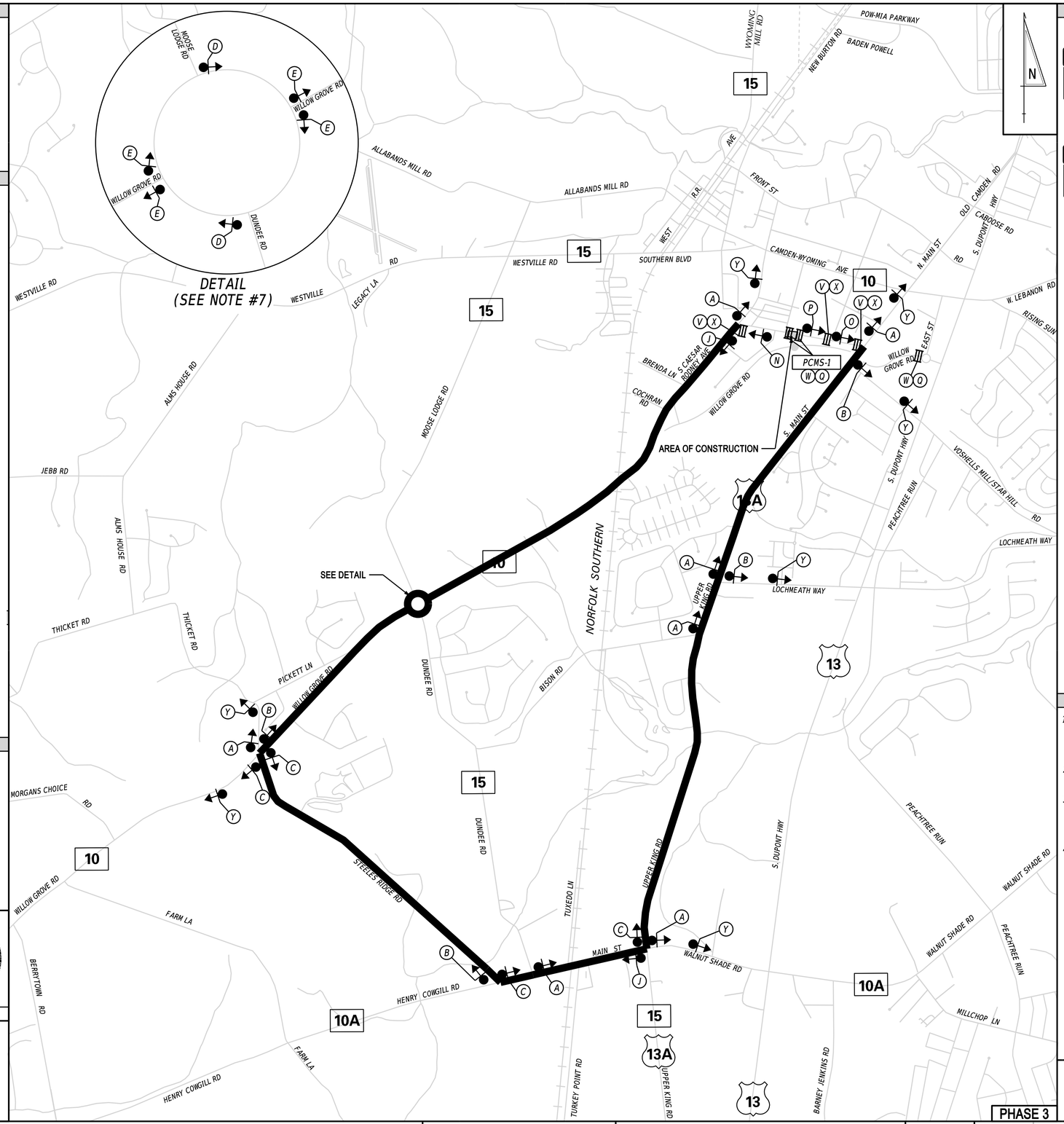
Tyler Hartman — 8/30/2023
DATE

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

TYLER DANE HARTMAN LICENSE No. 25884 DELAWARE PROFESSIONAL ENGINEER
SEAL

B. Martine — 08/30/2023
QA/QC — DATE

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



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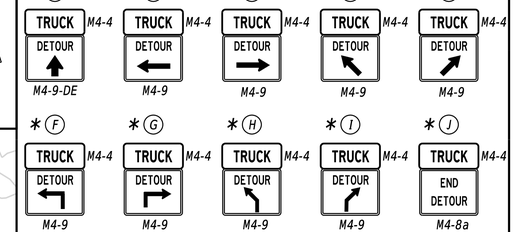


* - TO BE PAID AS ONE SIGN

GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL DEVICES ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR AND SHALL BE IN COMPLIANCE WITH THIS PLAN AND THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE MUTCD) LATEST EDITION.
2. SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHALL BE CHANGED TO "RAMP", "RR XING" OR "BRIDGE" WHERE APPLICABLE.
3. "W" TYPE 3 BARRICADES AT A ROAD CLOSURE SHALL BE PLACED COMPLETELY ACROSS THE ROADWAY, FROM CURB TO CURB, OR FROM EDGE OF ROAD TO EDGE OF ROAD, WITH THE STRIPES POSITIONED DOWNWARD TOWARD THE CENTER OF THE ROADWAY.
4. BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

CONCURRENCE FOR IMPLEMENTATION

Gerald A Angelucci Jr. — 9/8/23
TRAFFIC SAFETY — DATE

PHASE 3

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	ROAD NO.	LOCAL	DETOUR PLAN TRUCK SOUTH ST	SECTION
				T201709502	DESIGNED BY: D. SPENCE			CEN
				COUNTY	CHECKED BY: B. MARTINE			SHEET NO.
				KENT				152

LAST REVISED: 9/11/2018
25 AUG 2023
25:57
pw://deldot-pw.bentley.com:deldot-pw-01\Documents\01_Active_Projects\DelDOT_Capital_Projects\T201709502_CEI\400_CADD\440_TRAFFIC\443_SHEET_DGN\DP01_TRSF_T201709502_CEI_P03_TRUCK

PORTABLE CHANGEABLE MESSAGE SIGNS

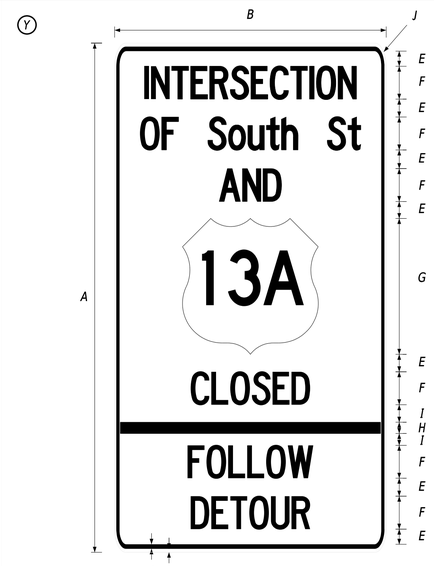
PRIOR TO DETOUR
(10 DAYS PRIOR TO BEGINNING OF DETOUR)

PCMS-1

US 13A TO CLOSE AT SOUTH

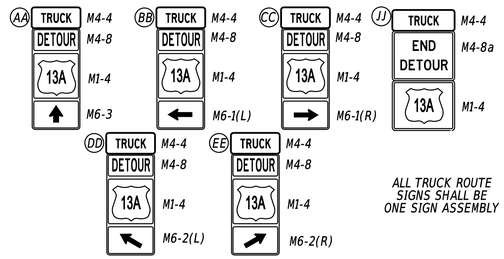
STREET STARTING XX/XX/XX

SPECIAL SIGNS



SIGN SIZE	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	I	J
STD	90"	48"	625"	375"	3"	6"C	24"	2"	2.5"	2.5"

COLORS - LEGEND, BORDER - BLACK
BACKGROUND - PRISMATIC RETROREFLECTIVE FLUORESCENT ORANGE
ROUTE SHIELD - WHITE BACKGROUND, BLACK LEGEND



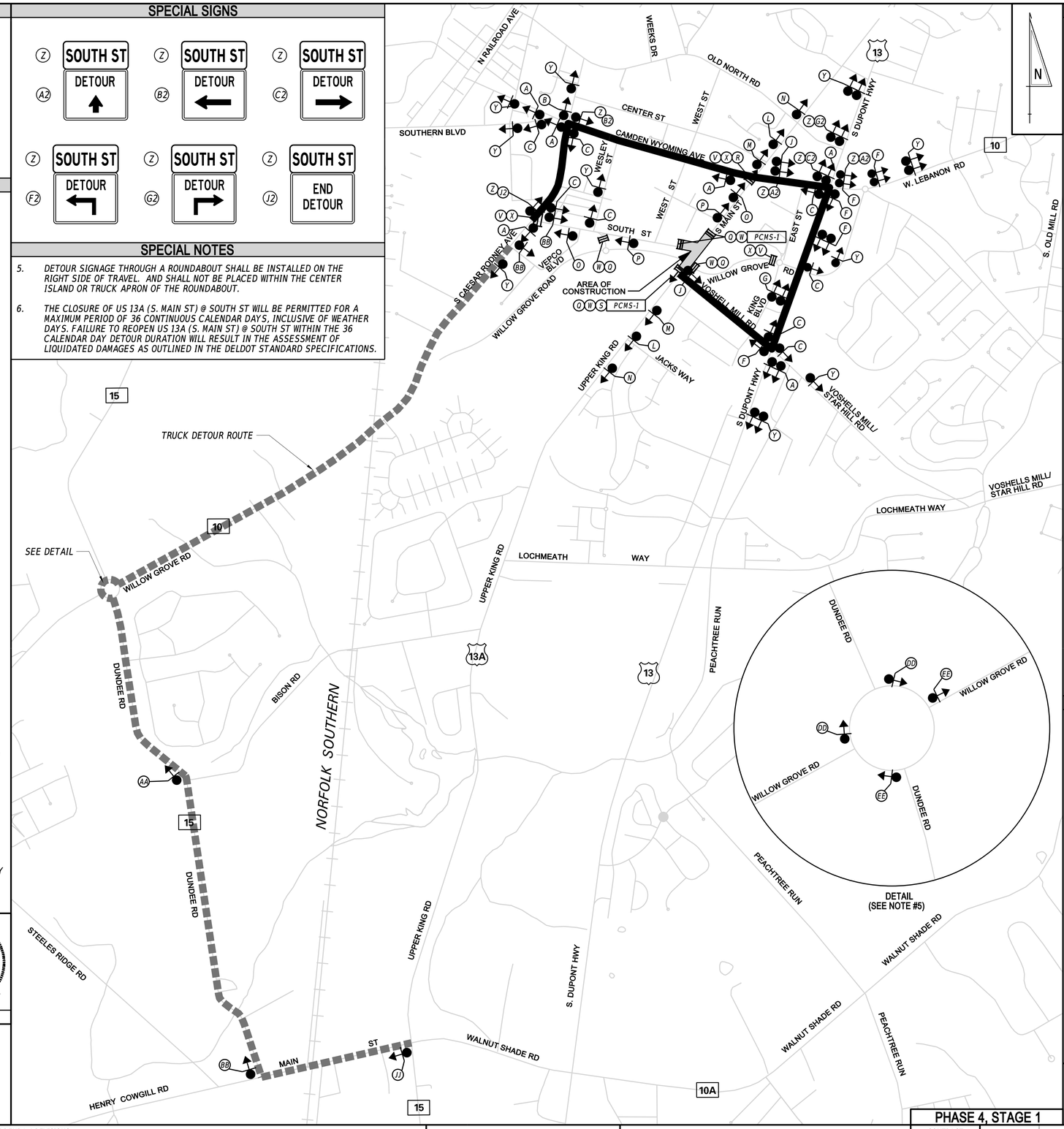
ALL TRUCK ROUTE SIGNS SHALL BE ONE SIGN ASSEMBLY

SPECIAL SIGNS

SPECIAL NOTES

5. *DETOUR SIGNAGE THROUGH A ROUNDABOUT SHALL BE INSTALLED ON THE RIGHT SIDE OF TRAVEL. AND SHALL NOT BE PLACED WITHIN THE CENTER ISLAND OR TRUCK APRON OF THE ROUNDABOUT.*

6. *THE CLOSURE OF US 13A (S. MAIN ST) @ SOUTH ST WILL BE PERMITTED FOR A MAXIMUM PERIOD OF 36 CONTINUOUS CALENDAR DAYS, INCLUSIVE OF WEATHER DAYS. FAILURE TO REOPEN US 13A (S. MAIN ST) @ SOUTH ST WITHIN THE 36 CALENDAR DAY DETOUR DURATION WILL RESULT IN THE ASSESSMENT OF LIQUIDATED DAMAGES AS OUTLINED IN THE DELDOT STANDARD SPECIFICATIONS.*



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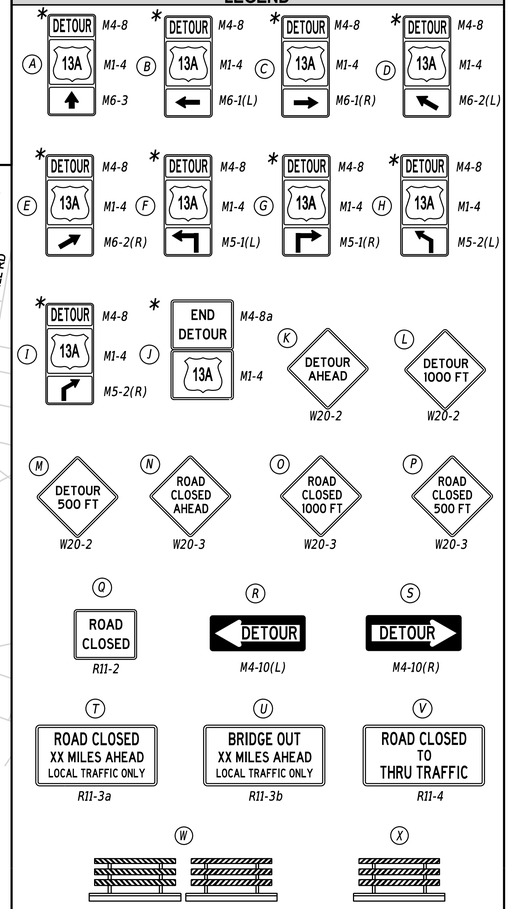


** TO BE PAID AS ONE SIGN*

GENERAL NOTES

1. *ALL TEMPORARY TRAFFIC CONTROL DEVICES ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR AND SHALL BE IN COMPLIANCE WITH THIS PLAN AND THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE MUTCD) LATEST EDITION.*
2. *SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHALL BE CHANGED TO "RAMP", "RR XING" OR "BRIDGE" WHERE APPLICABLE.*
3. *"W" TYPE 3 BARRICADES AT A ROAD CLOSURE SHALL BE PLACED COMPLETELY ACROSS THE ROADWAY, FROM CURB TO CURB, OR FROM EDGE OF ROAD TO EDGE OF ROAD, WITH THE STRIPES POSITIONED DOWNWARD TOWARD THE CENTER OF THE ROADWAY.*
4. *BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.*

CONCURRENCE FOR IMPLEMENTATION

Gerald A. Reppert Jr. — 9/8/23
TRAFFIC SAFETY — DATE

PREPARED BY

CENTURY ENGINEERING
A Kleinfelder Company

Tyler Hartman — 8/30/2023
THIS SEAL APPLIES TO ALL SHEETS BEARING THE "CEN" SECTION DESIGNATION. — DATE

TYLER DANE HARTMAN LICENSE No. 25884 DELAWARE PROFESSIONAL ENGINEER
SEAL

B. Martine — 08/30/2023
QA/QC — DATE

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

ADDENDA / REVISIONS	

NOT TO SCALE

WEST CAMDEN BYPASS

PHASE 4, STAGE 1

CONTRACT	ROAD NO.	K004
T201709502	DESIGNED BY:	D. SPENCE
COUNTY	CHECKED BY:	B. MARTINE
KENT		

VEHICULAR DETOUR PLAN US 13A (S. MAIN ST) & SOUTH ST

SECTION	CEN
SHEET NO.	153

LAST REVISED: 9/11/2018
25-AUG-2023
13:46
pw://deldot-pw.bentley.com:deldot-pw-01/Documents/01_Active_Projects/DelDOT_Capital_Projects/T201709502_CEI/400_CADD/440_TRAFFIC/443_SHEET_DGN/DP01_TRSF_T201709502_CEI_P04_S1

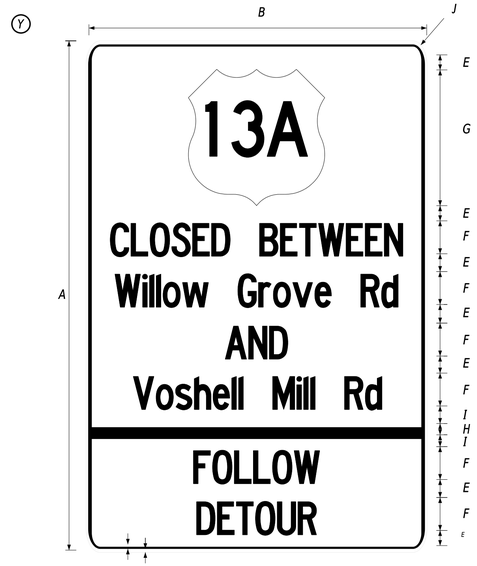
PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

US 13A TO CLOSE AT	WILLOW GROVE RD XX/XX/XX

SPECIAL SIGNS



SIGN SIZE	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	I	J
STD	90"	60"	625"	375"	3"	6"C	24"	2"	2.5"	2.5"

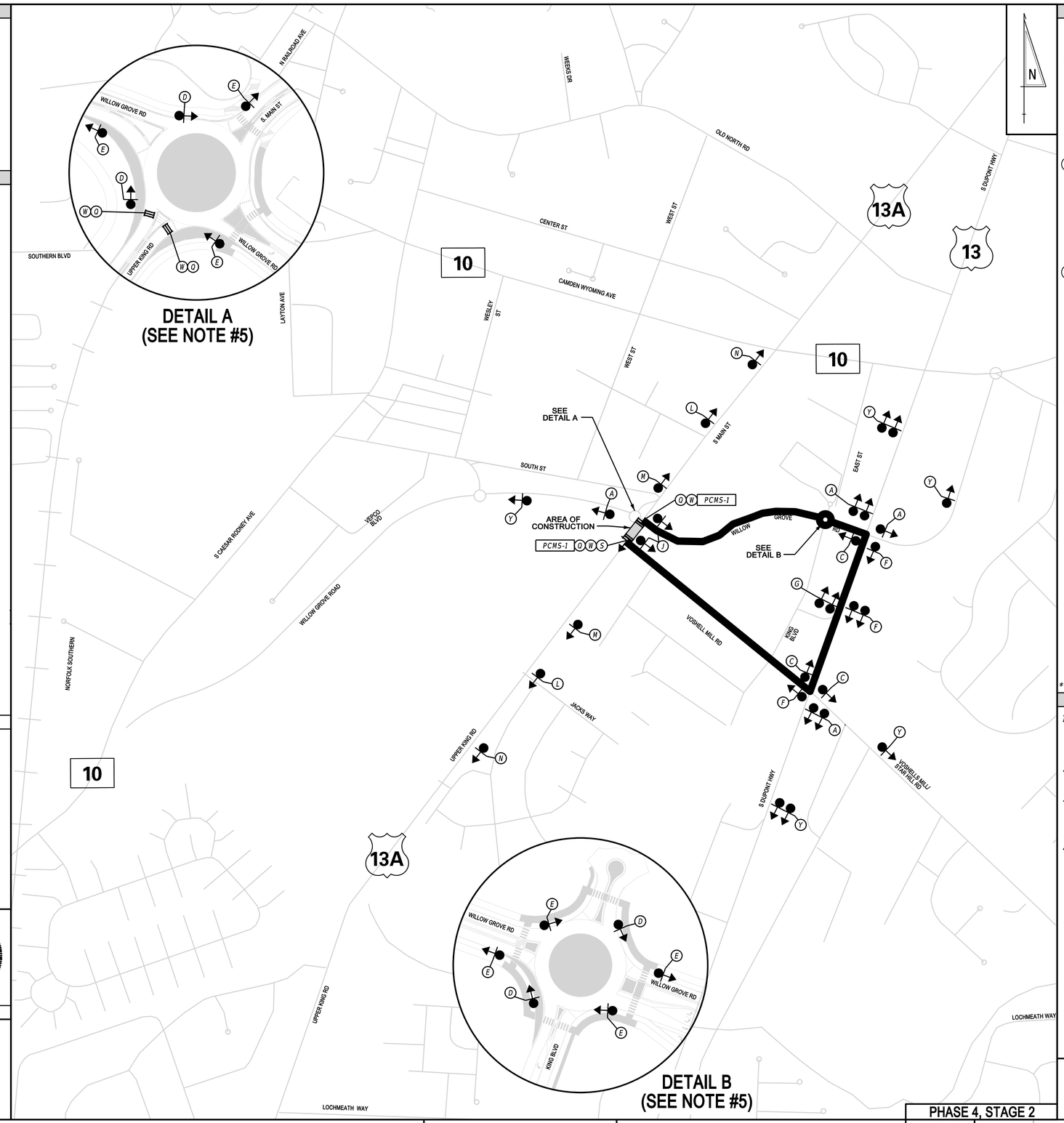
COLORS - LEGEND, BORDER - BLACK
BACKGROUND - PRISMATIC RETROREFLECTIVE FLUORESCENT ORANGE
ROUTE SHIELD - WHITE BACKGROUND, BLACK LEGEND

SPECIAL NOTES

5. DETOUR SIGNAGE THROUGH A ROUNDABOUT SHALL BE INSTALLED ON THE RIGHT SIDE OF THE TRAVEL, AND SHALL NOT BE PLACED WITH IN THE CENTER ISLAND OR TRUCK APRON OF THE ROUNDABOUT.

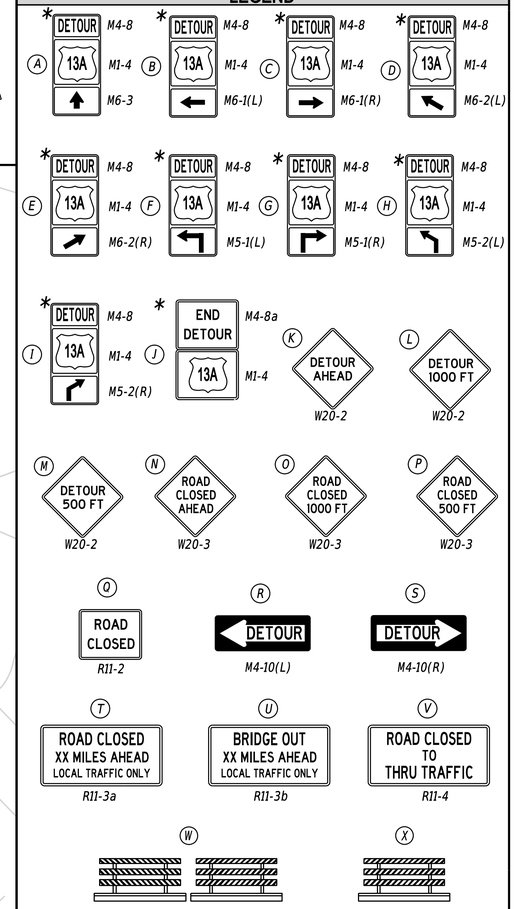
6. THE CLOSURE OF US 13A (UPPER KING RD) WILL BE PERMITTED FOR A MAXIMUM PERIOD OF 35 CONTINUOUS CALENDAR DAYS, INCLUSIVE OF WEATHER DAYS. FAILURE TO REOPEN US 13A (UPPER KING RD) WITHIN THE 35 CALENDAR DAY DETOUR DURATION WILL RESULT IN THE ASSESSMENT OF LIQUIDATED DAMAGES AS OUTLINED IN THE DELDOT STANDARD SPECIFICATIONS.

DETAIL A
(SEE NOTE #5)



DETAIL B
(SEE NOTE #5)

LEGEND



* TO BE PAID AS ONE SIGN

GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL DEVICES ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR AND SHALL BE IN COMPLIANCE WITH THIS PLAN AND THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE MUTCD) LATEST EDITION.
2. SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHALL BE CHANGED TO "RAMP", "RR XING" OR "BRIDGE" WHERE APPLICABLE.
3. "W" TYPE 3 BARRICADES AT A ROAD CLOSURE SHALL BE PLACED COMPLETELY ACROSS THE ROADWAY, FROM CURB TO CURB, OR FROM EDGE OF ROAD TO EDGE OF ROAD, WITH THE STRIPES POSITIONED DOWNWARD TOWARD THE CENTER OF THE ROADWAY.
4. BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

CONCURRENCE FOR IMPLEMENTATION

TRAFFIC SAFETY — DATE: 9/8/23

PREPARED BY

CENTURY ENGINEERING
A Kleinfelder Company

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

8/30/2023
DATE

TYLER DANE HARTMAN — LICENSE — No. 25884 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

QA/QC

08/30/2023
DATE

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

ADDENDA / REVISIONS

NOT TO SCALE

WEST CAMDEN BYPASS

PHASE 4, STAGE 2

CONTRACT	ROAD NO.	K004	SECTION
T201709502	DESIGNED BY: D. SPENCE		CEN
COUNTY	CHECKED BY: B. MARTINE		SHEET NO.
KENT			154

VEHICULAR DETOUR PLAN
US 13A (UPPER KING RD)

LAST REVISED: 9/11/2018
LAST SAVED: 8/30/2023 15:37
pw://deldot-pw.bentley.com:deldot-pw-01/Documents/01_Active_Projects/DelDOT_Capital_Projects/T201709502_CEI/400_CADD/440_TRAFFIC/443_SHEET_DGN/DP01_TRSF_T201709502_CEI_P04_S2

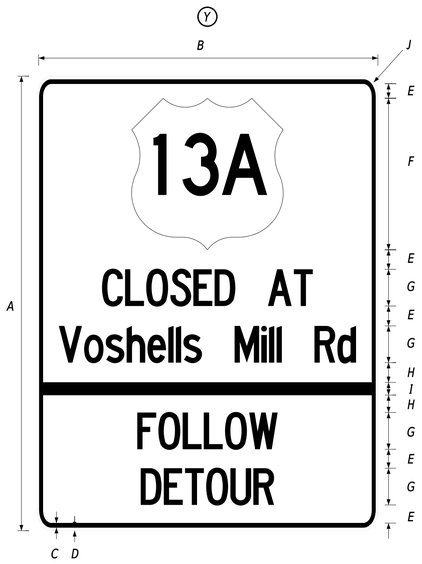
PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

US 13A TO CLOSE	STARTING XX/XX/XX

SPECIAL SIGNS



SIGN SIZE	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	I	J
STD	72"	54"	.625"	.375"	3"	24"	6"C	2.5"	2"	2.5"

COLORS - LEGEND, BORDER - BLACK
BACKGROUND - PRISMATIC RETROREFLECTIVE FLUORESCENT ORANGE
ROUTE SHIELD - WHITE BACKGROUND, BLACK LEGEND

SPECIAL NOTES

5. DETOUR SIGNAGE THROUGH A ROUNDABOUT SHALL BE INSTALLED ON THE RIGHT SIDE OF TRAVEL, AND SHALL NOT BE PLACED WITHIN THE CENTER ISLAND OR TRUCK APRON OF THE ROUNDABOUT.

6. THE CLOSURE OF US 13A (UPPER KING RD) @ VOSHELLS MILL RD WILL BE PERMITTED FOR A MAXIMUM PERIOD OF 12 CONTINUOUS CALENDAR DAYS, INCLUSIVE OF WEATHER DAYS. FAILURE TO REOPEN US 13A (UPPER KING RD) @ VOSHELLS MILL RD WITHIN THE 12 CALENDAR DAY DETOUR DURATION WILL RESULT IN THE ASSESSMENT OF LIQUIDATED DAMAGES AS OUTLINED IN THE DELDOT STANDARD SPECIFICATIONS.

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company

TYLER DANE HARTMAN LICENSE No. 25884 DELAWARE PROFESSIONAL ENGINEER

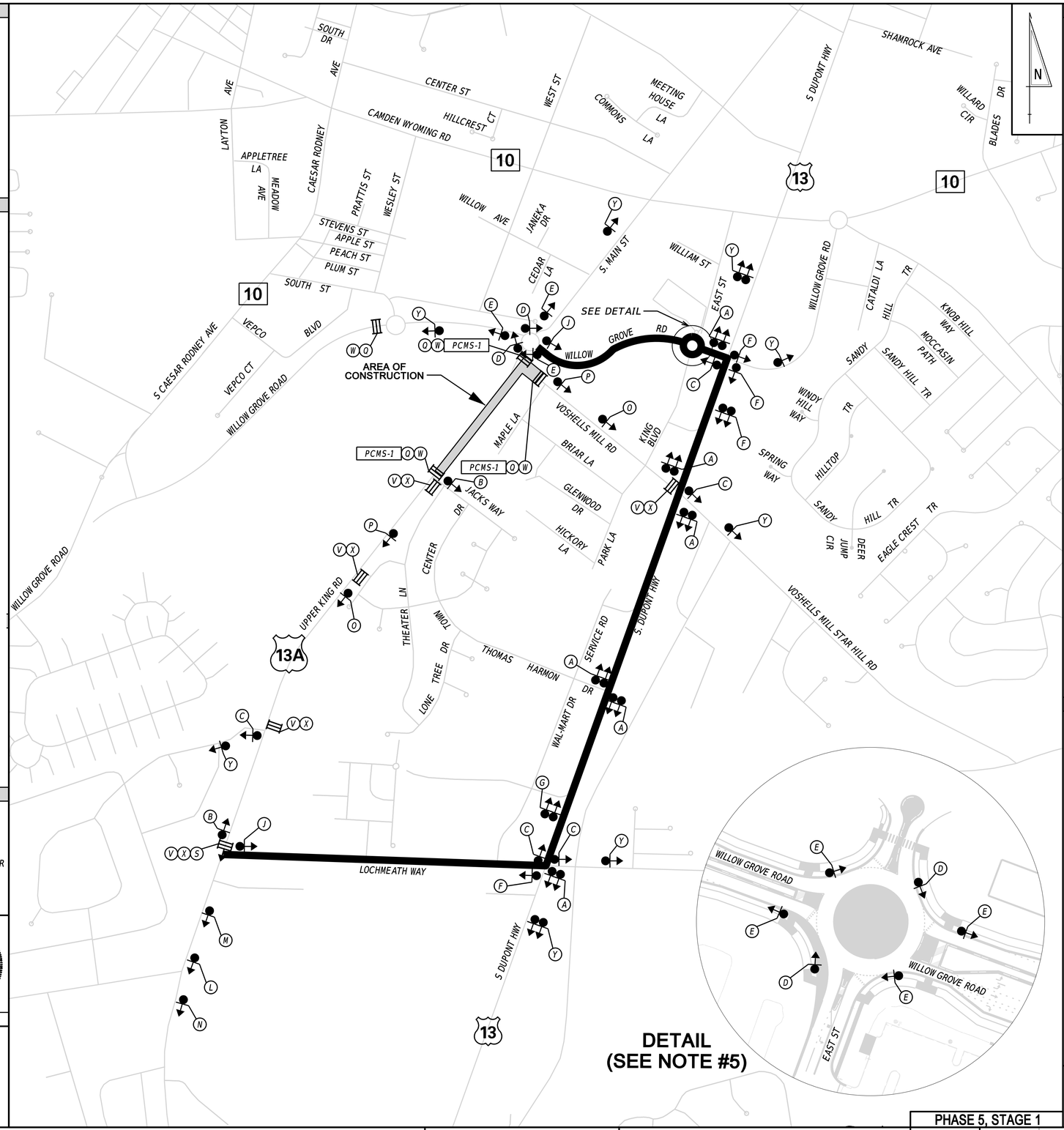
8/30/2023
DATE

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

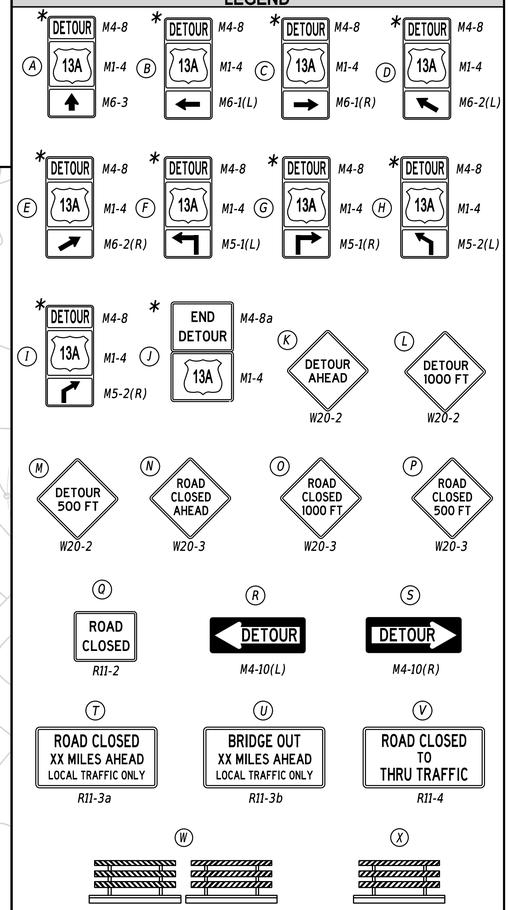
SEAL

08/30/2023
QA/QC DATE

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



LEGEND



* TO BE PAID AS ONE SIGN

GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL DEVICES ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR AND SHALL BE IN COMPLIANCE WITH THIS PLAN AND THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE MUTCD) LATEST EDITION.
2. SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHALL BE CHANGED TO "RAMP", "RR XING" OR "BRIDGE" WHERE APPLICABLE.
3. "W" TYPE 3 BARRICADES AT A ROAD CLOSURE SHALL BE PLACED COMPLETELY ACROSS THE ROADWAY, FROM CURB TO CURB, OR FROM EDGE OF ROAD TO EDGE OF ROAD, WITH THE STRIPES POSITIONED DOWNWARD TOWARD THE CENTER OF THE ROADWAY.
4. BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

CONCURRENCE FOR IMPLEMENTATION

TRAFFIC SAFETY

9/8/23
DATE

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	PHASE 5, STAGE 1			
				CONTRACT	ROAD NO.	K004	SECTION
				T201709502	DESIGNED BY: D. SPENCE		CEN
				COUNTY			SHEET NO.
				KENT	CHECKED BY: B. MARTINE		155

VEHICULAR DETOUR PLAN
US 13A (UPPER KING RD) &
VOSHELLS MILL RD

LAST REVISED: 9/11/2018
PLOT DATE: 8/30/2023
15:26
pw://deldot-pw.bentley.com:deldot-pw-01/Documents/01_Active_Projects/DelDOT_Capital_Projects/T201709502_CEI/400_CADD/440_TRAFFIC/443_SHEET_DGN/DP01_TRSF_T201709502_CEI_P05

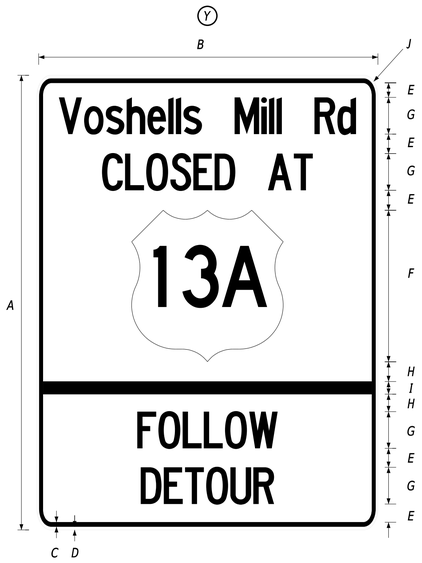
PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

VOSHELLS MILL RD TO CLOSE	AT US13A STARTING XX/XX/XX

SPECIAL SIGNS



SIGN SIZE	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	I	J
STD	72"	54"	.625"	.375"	3"	24"	6"C	2.5"	2"	2.5"

COLORS - LEGEND, BORDER - BLACK
BACKGROUND - PRISMATIC RETROREFLECTIVE FLUORESCENT ORANGE
ROUTE SHIELD - WHITE BACKGROUND, BLACK LEGEND

SPECIAL NOTES

5. DETOUR SIGNAGE THROUGH A ROUNDABOUT SHALL BE INSTALLED ON THE RIGHT SIDE OF TRAVEL, AND SHALL NOT BE PLACED WITHIN THE CENTER ISLAND OR TRUCK APRON OF THE ROUNDABOUT.

6. THE CLOSURE OF VOSHELLS MILL RD WILL BE PERMITTED FOR A MAXIMUM PERIOD OF 39 CONTINUOUS CALENDAR DAYS, INCLUSIVE OF WEATHER DAYS. FAILURE TO REOPEN VOSHELLS MILL RD WITHIN THE 39 CALENDAR DAY DETOUR DURATION WILL RESULT IN THE ASSESSMENT OF LIQUIDATED DAMAGES AS OUTLINED IN THE DELDOT STANDARD SPECIFICATIONS.

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company

TYLER DANE HARTMAN LICENSE No. 25884 DELAWARE PROFESSIONAL ENGINEER

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

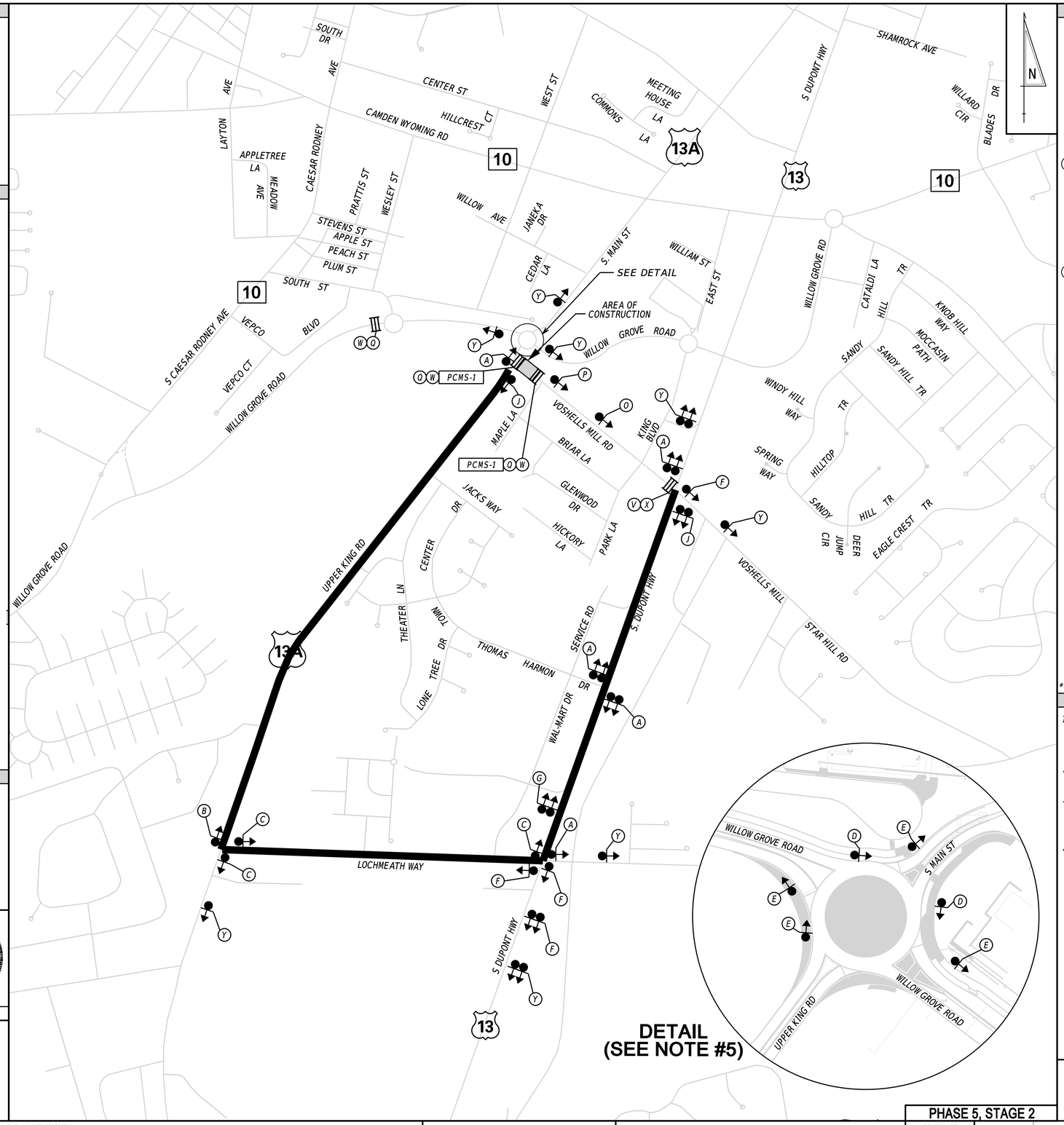
8/30/2023
DATE

SEAL

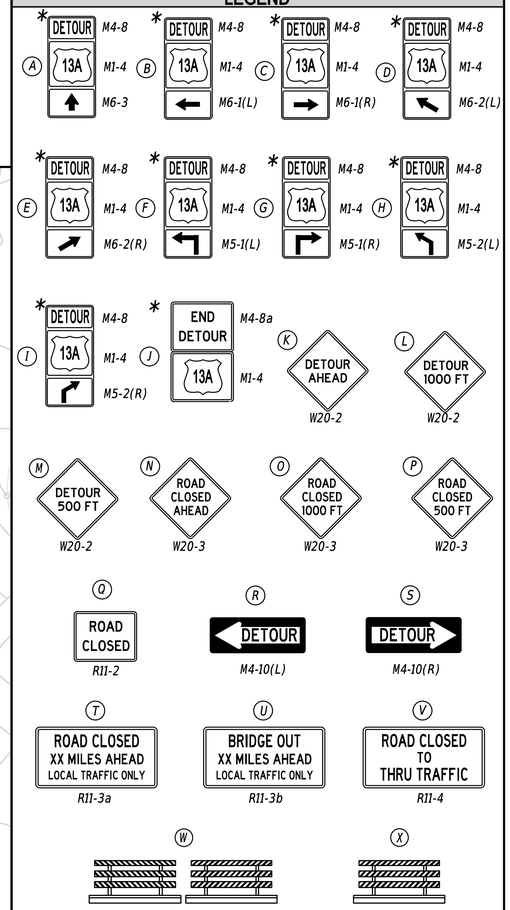
QA/QC

08/30/2023
DATE

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



LEGEND



* TO BE PAID AS ONE SIGN

GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL DEVICES ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR AND SHALL BE IN COMPLIANCE WITH THIS PLAN AND THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE MUTCD) LATEST EDITION.

2. SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHALL BE CHANGED TO "RAMP", "RR XING" OR "BRIDGE" WHERE APPLICABLE.

3. "W" TYPE 3 BARRICADES AT A ROAD CLOSURE SHALL BE PLACED COMPLETELY ACROSS THE ROADWAY, FROM CURB TO CURB, OR FROM EDGE OF ROAD TO EDGE OF ROAD, WITH THE STRIPES POSITIONED DOWNWARD TOWARD THE CENTER OF THE ROADWAY.

4. BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

CONCURRENCE FOR IMPLEMENTATION

TRAFFIC SAFETY

9/8/23
DATE

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	PHASE 5, STAGE 2		VEHICULAR DETOUR PLAN VOSHELLS MILL RD	
				CONTRACT T201709502	ROAD NO. K004		SECTION CEN
				COUNTY KENT	DESIGNED BY: D. SPENCE		SHEET NO. 156
					CHECKED BY: B. MARTINE		

LAST REVISED: 9/11/2018
24 X 36 (1:2)
15:08
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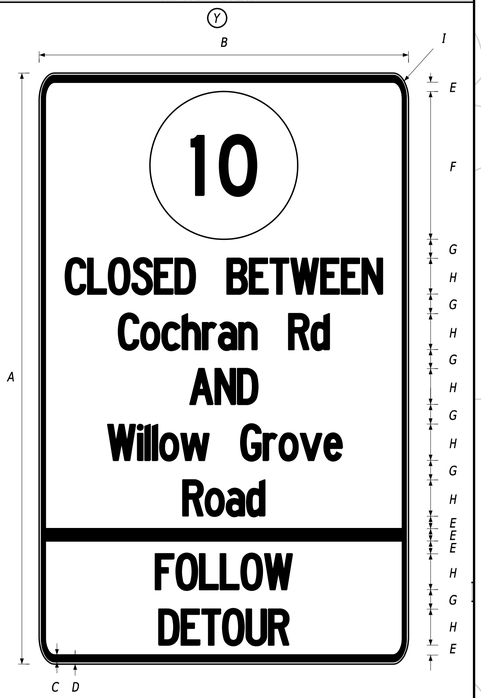
PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

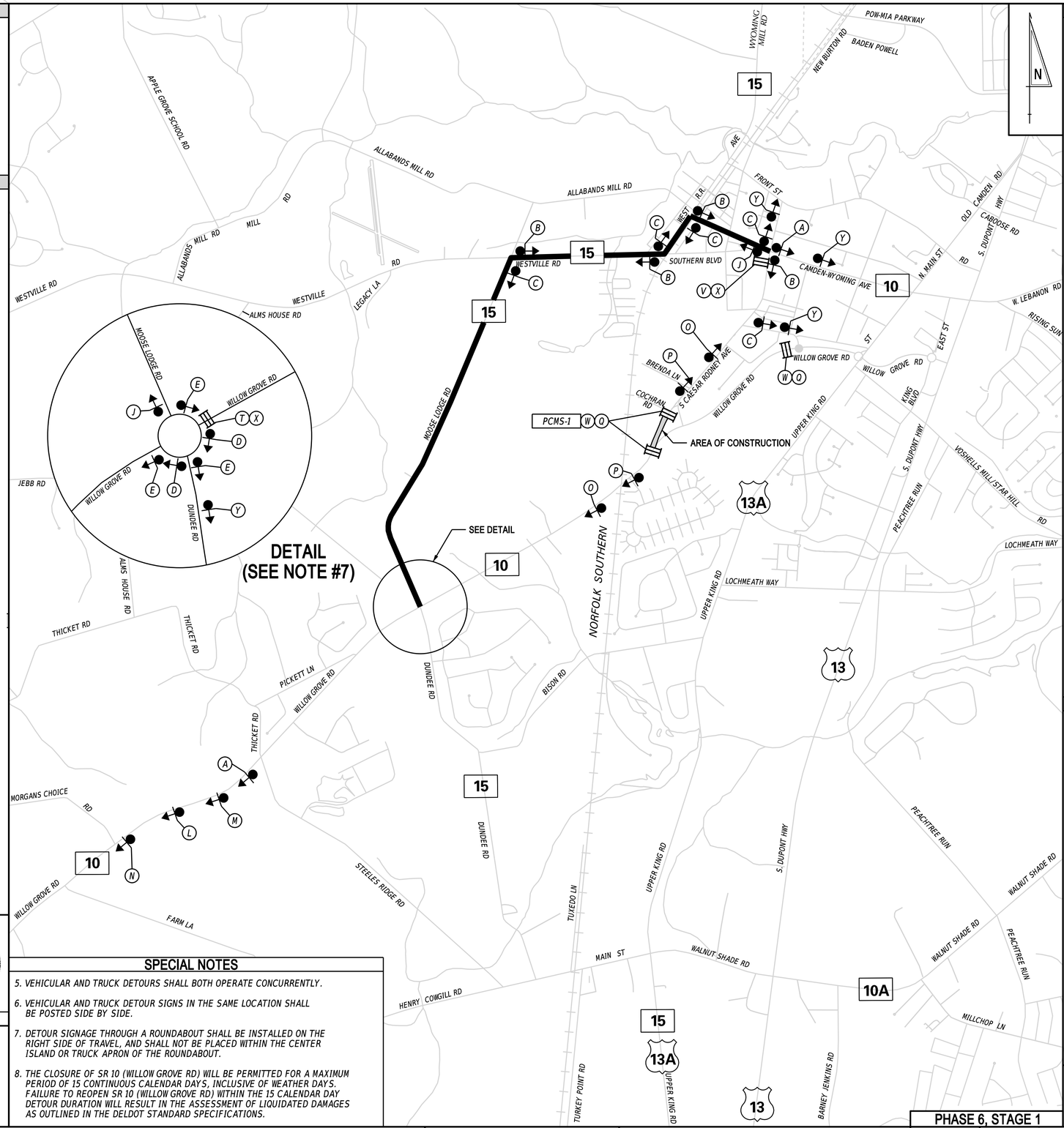
SR10 TO CLOSE AT	WILLOW GROVE RD XX/XX/XX

SPECIAL SIGNS



COLORS - LEGEND, BORDER - BLACK
BACKGROUND - PRISMATIC RETROREFLECTIVE FLUORESCENT ORANGE
ROUTE SHIELD - WHITE BACKGROUND; BLACK LEGEND

SIGN SIZE	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	I
STD	96"	60"	625	375	2"	24"	3"	6"C	2.5"



LEGEND

* A DETOUR M4-8 / 10 / M1-5 / M6-3	* B DETOUR M4-8 / 10 / M1-5 / M6-1(L)	* C DETOUR M4-8 / 10 / M1-5 / M6-1(R)	* D DETOUR M4-8 / 10 / M1-5 / M6-2(L)
* E DETOUR M4-8 / 10 / M1-5 / M6-2(R)	* F DETOUR M4-8 / 10 / M1-5 / M5-1(L)	* G DETOUR M4-8 / 10 / M1-5 / M5-1(R)	* H DETOUR M4-8 / 10 / M1-5 / M5-2(L)
* I DETOUR M4-8 / 10 / M1-5 / M5-2(R)	* J END DETOUR M4-8a / 10 / M1-5	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 1 MILE 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

** TO BE PAID AS ONE SIGN*

GENERAL NOTES

1. *ALL TEMPORARY TRAFFIC CONTROL DEVICES ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR AND SHALL BE IN COMPLIANCE WITH THIS PLAN AND THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE MUTCD) LATEST EDITION.*
2. *SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHALL BE CHANGED TO "RAMP", "RR XING" OR "BRIDGE" WHERE APPLICABLE.*
3. *"W" TYPE 3 BARRICADES AT A ROAD CLOSURE SHALL BE PLACED COMPLETELY ACROSS THE ROADWAY, FROM CURB TO CURB, OR FROM EDGE OF ROAD TO EDGE OF ROAD, WITH THE STRIPES POSITIONED DOWNWARD TOWARD THE CENTER OF THE ROADWAY.*
4. *BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.*

SPECIAL NOTES

5. *VEHICULAR AND TRUCK DETOURS SHALL BOTH OPERATE CONCURRENTLY.*
6. *VEHICULAR AND TRUCK DETOUR SIGNS IN THE SAME LOCATION SHALL BE POSTED SIDE BY SIDE.*
7. *DETOUR SIGNAGE THROUGH A ROUNDABOUT SHALL BE INSTALLED ON THE RIGHT SIDE OF TRAVEL, AND SHALL NOT BE PLACED WITHIN THE CENTER ISLAND OR TRUCK APRON OF THE ROUNDABOUT.*
8. *THE CLOSURE OF SR 10 (WILLOW GROVE RD) WILL BE PERMITTED FOR A MAXIMUM PERIOD OF 15 CONTINUOUS CALENDAR DAYS, INCLUSIVE OF WEATHER DAYS. FAILURE TO REOPEN SR 10 (WILLOW GROVE RD) WITHIN THE 15 CALENDAR DAY DETOUR DURATION WILL RESULT IN THE ASSESSMENT OF LIQUIDATED DAMAGES AS OUTLINED IN THE DELDOT STANDARD SPECIFICATIONS.*

CONCURRENCE FOR IMPLEMENTATION

TRAFFIC SAFETY — DATE: 9/8/23

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company

THIS SEAL APPLIES TO ALL SHEETS BEARING THE *CEN* SECTION DESIGNATION. — 8/30/2023 DATE

TYLER DANE HARTMAN — LICENSE — No. 25884 — DELAWARE — PROFESSIONAL ENGINEER — SEAL

QA/QC — 08/30/2023 DATE

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

ADDENDA / REVISIONS

NOT TO SCALE

WEST CAMDEN BYPASS

PHASE 6, STAGE 1

CONTRACT	ROAD NO.	K053	SECTION
T201709502	DESIGNED BY: D.SPENCE		CEN
COUNTY	CHECKED BY: B.MARTINE		SHEET NO.
KENT			157

DETOUR PLAN VEHICULAR SR 10 (WILLOW GROVE RD)

LAST REVISED: 9/11/2018
24 AUG 2023
14:45
pw://deldot-pw.bentley.com:deldot-pw-01/Documents/01_Active_Projects/DelDOT_Capital_Projects/T201709502_CEI/400_CADD/440_TRAFFIC/443_SHEET_DGN/DP01_TRSF_T201709502_CEI_P06_S01

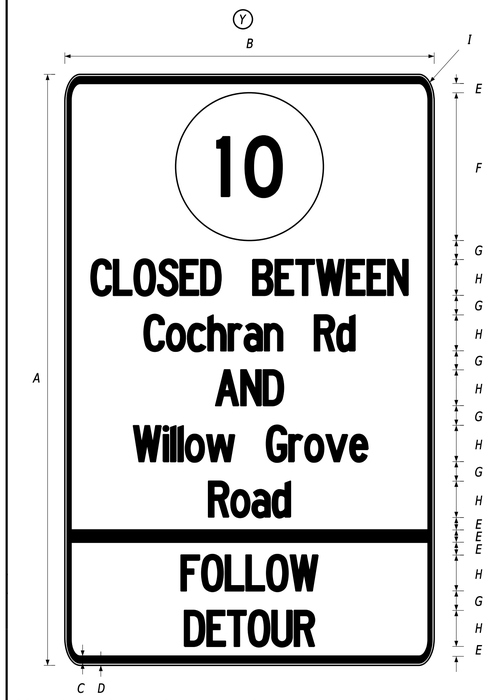
PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

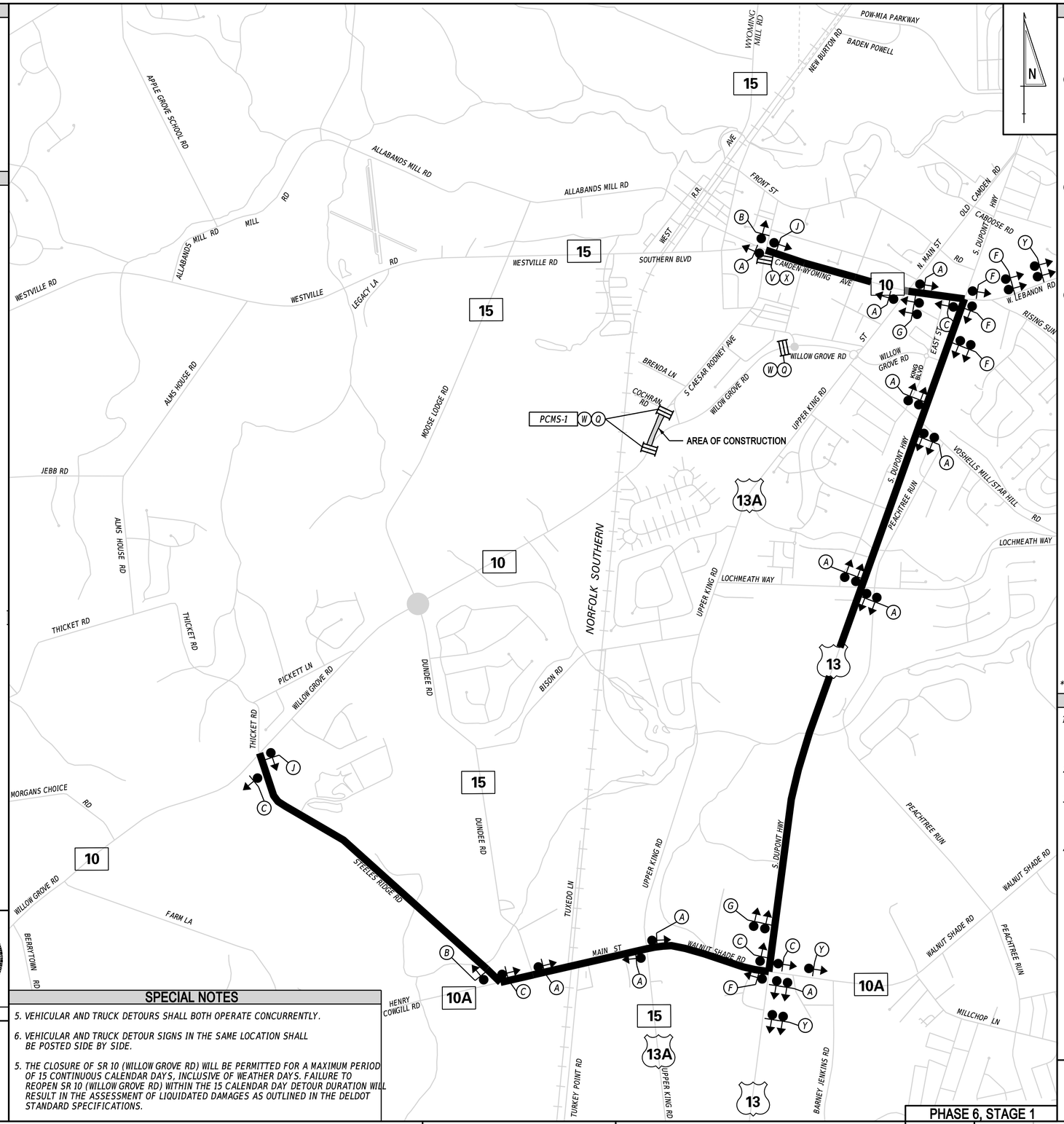
SR10 TO CLOSE AT	WILLOW GROVE RD XX/XX/XX

SPECIAL SIGNS



COLORS - LEGEND, BORDER - BLACK
BACKGROUND - PRISMATIC RETROREFLECTIVE FLUORESCENT ORANGE
ROUTE SHIELD - WHITE BACKGROUND; BLACK LEGEND

SIGN SIZE	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H	I
STD	96"	60"	6.25	3.75	2"	24"	3"	6"C	2.5"



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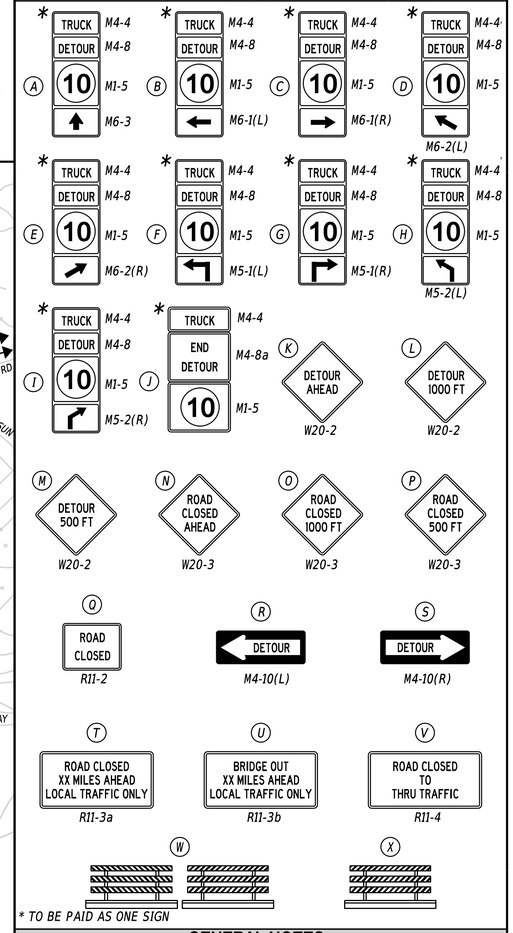
LEGEND



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CONCURRENCE FOR IMPLEMENTATION

TRAFFIC SAFETY — DATE 9/8/23

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company

8/30/2023
DATE

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

TYLER DANE HARTMAN — LICENSE No. 25884 — DELAWARE PROFESSIONAL ENGINEER
SEAL

08/30/2023
QA/QC — DATE

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

LAST REVISED: 9/11/2018
24 AUG 2023
24:42
pw://deldot-pw.bentley.com:deldot-pw-01/Documents/01_Active_Projects/DelDOT_Capital_Projects/T201709502_CEI/400_CADD/440_TRAFFIC/443_SHEET_DGN/DP01_TRSF_T201709502_CEI_P06_S01_TRUCK

ADDENDA / REVISIONS

NOT TO SCALE

WEST CAMDEN BYPASS

PHASE 6, STAGE 1

CONTRACT	ROAD NO.	K053
T201709502	DESIGNED BY:	D.SPENCE
COUNTY	CHECKED BY:	B.MARTINE
KENT		

DETOUR PLAN TRUCK
SR 10 (WILLOW GROVE RD)

SECTION
CEN
SHEET NO.
158

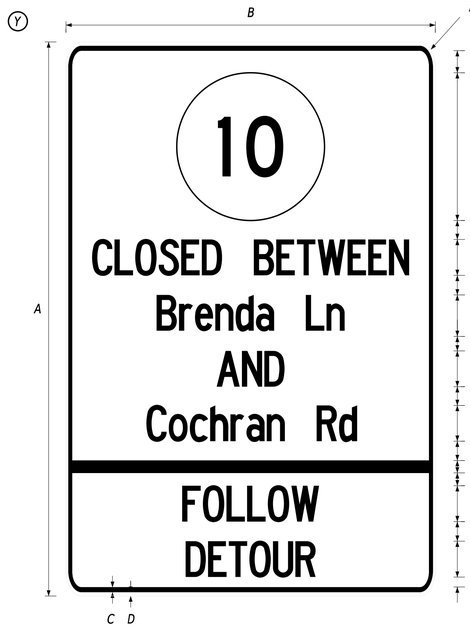
PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

SR 10 TO CLOSE AT WEST	CAMDEN BYPASS XX/XX/XX

SPECIAL SIGNS



SIGN SIZE	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	I
STD	90"	60"	.625"	.375"	2"	24"	3"	6"C	2.5"

COLORS - LEGEND, BORDER - BLACK
BACKGROUND - PRISMATIC RETROREFLECTIVE FLUORESCENT ORANGE
ROUTE SHIELD - WHITE BACKGROUND, BLACK LEGEND

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PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company

8/30/2023
DATE

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TYLER DANE HARTMAN — LICENSE — No. 25884 — DELAWARE — PROFESSIONAL ENGINEER

SEAL

08/30/2023
QA/QC DATE

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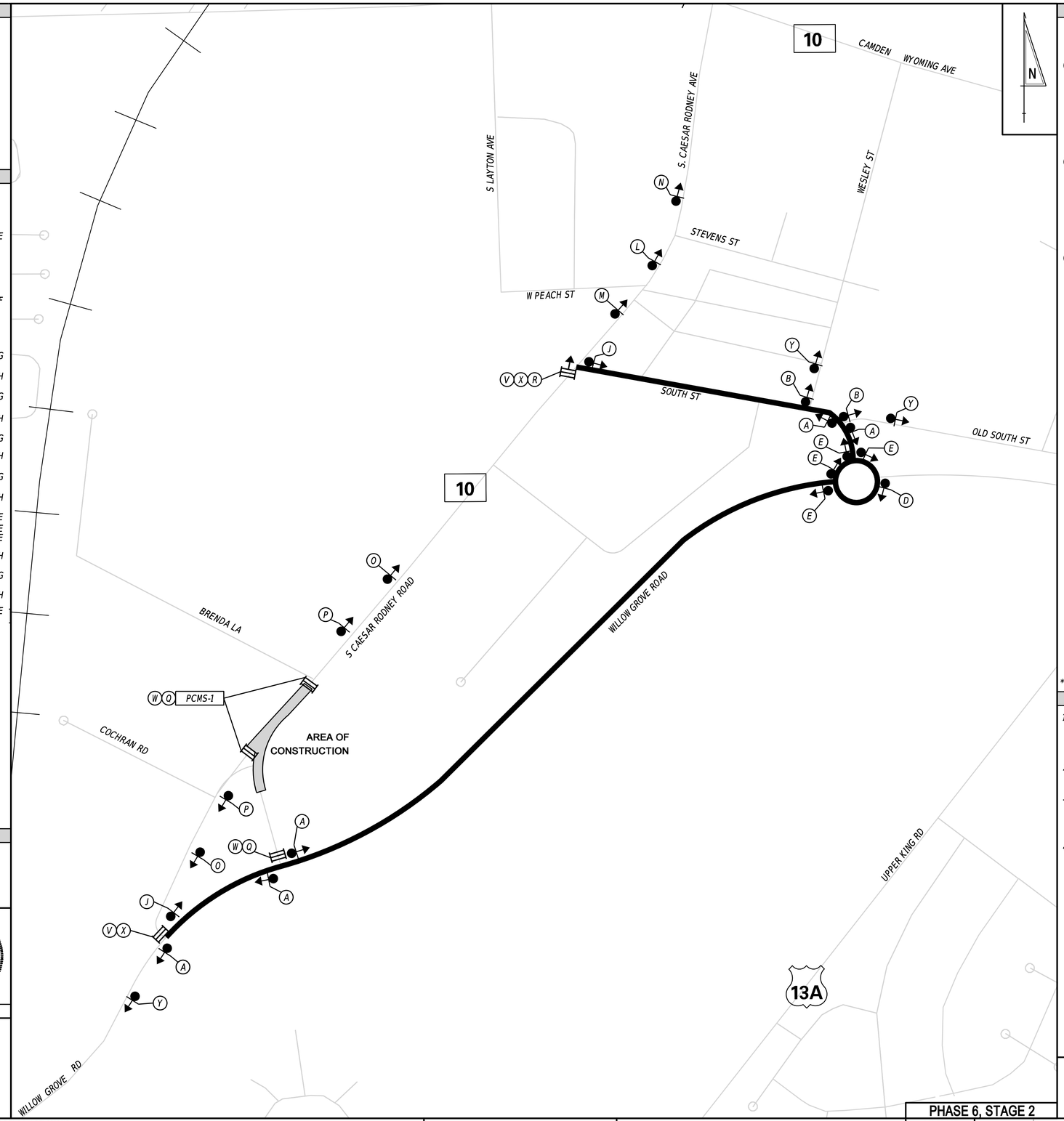
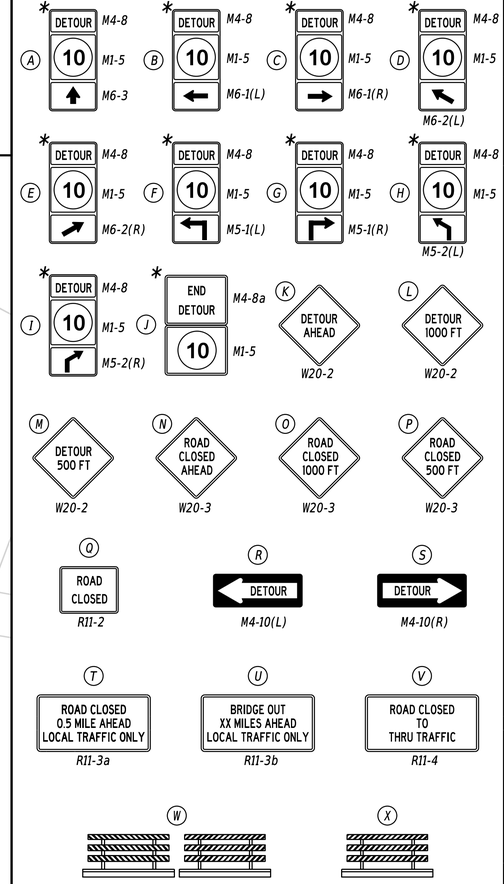


LEGEND



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CONCURRENCE FOR IMPLEMENTATION

TRAFFIC SAFETY

9/8/23
DATE

LAST REVISED: 9/11/2018
PLOT: 31-AUG-2023 13:02
pw://deldot-pw.bentley.com:deldot-pw-01/Documents/01_Active_Projects/DelDOT_Capital_Projects/T201709502_CEI/400_CADD/440_TRAFFIC/443_SHEET_DGN/DP01_TRSF_T201709502_CEL_P06_S02

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	PHASE 6, STAGE 2			SECTION
				CONTRACT T201709502	ROAD NO. K053	VEHICULAR DETOUR PLAN SR 10 (S. CAESAR RODNEY RD)	CEN
				COUNTY KENT	DESIGNED BY: D.SPENCE		SHEET NO. 159
					CHECKED BY: B.MARTINE		

LIGHTING PROJECT NOTES

1) CENTER OF CONDUIT TRENCH SHALL BE RUN IN STRAIGHT LINE BETWEEN THE LIGHTING STANDARDS, WHERE POSSIBLE.

2) AT ALL LOCATIONS WHERE THE INSTALLATION OF CONDUITS REQUIRES CROSSING OF EXISTING UNDERDRAINS. THE CONTRACTOR SHALL HAND EXCAVATE. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO AVOID EXISTING UNDERDRAINS WHERE POSSIBLE.

3) THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IN CASE OF INADVERTENT DAMAGE TO AN EXISTING UNDERDRAIN LINE OR STRUCTURE. ALL REPAIRS SHALL BE MADE TO THE SATISFACTION OF THE ENGINEER. REPAIR COSTS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEMS.

4) THE CONTRACTOR SHALL BOND ALL METALLIC BOXES, CONDUITS, POLES, JUNCTION WELL COVERS & GROUND RODS TO FEEDER GROUND CABLES. ALL GROUND WIRE CONNECTIONS TO GROUND RODS SHALL BE COMPLETED USING EXOTHERMIC WELDS. COSTS INCIDENTAL TO ITEMS BEING INSTALLED.

5) CONDUCTORS SHALL NOT BE SPLICED EXCEPT IN THE POLE BASE, CABINET, OR JUNCTION WELLS. THE CONTRACTOR SHALL INCLUDE 10' OF SLACK CABLE FOR JUNCTION WELLS AND 4' OF SLACK CABLE FOR POLE-JUNCTION BOXES, NEATLY COILED AND BOUND FOR FUTURE USE.

6) ALL CONDUITS, JUNCTION WELLS, LIGHTING STANDARDS ETC., SHALL BE STAKED OUT BY THE CONTRACTOR AND EVERY LOCATION APPROVED BY THE ENGINEER BEFORE ANY WORK IS DONE. ALL TEMPORARY BYPASSES OF CIRCUITS SHALL BE ESTABLISHED PRIOR TO EXCAVATION.

7) CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING THE DELAWARE DEPARTMENT OF TRANSPORTATION SIGNAL CONSTRUCTION TO INITIATE SERVICE APPLICATION AT LEAST 90 DAYS BEFORE POWER IS REQUIRED ON THE PROJECT. ALL POWER COSTS DURING CONSTRUCTION WILL BE AT THE CONTRACTOR'S EXPENSE.

8) MOUNTING HEIGHT SHALL BE MEASURED FROM THE CENTER LINE OF THE LUMINAIRE TO THE TOP OF THE ROADWAY AT THE SHOULDER LINE.

9) ALL LIGHTING STANDARDS NOT PROTECTED BY A GUARDRAIL SHALL BE ON AASHTO-APPROVED BREAKAWAY TRANSFORMER BASES.

10) BURIED ELECTRICAL CABLE, CONDUIT, AND UTILITY PIPES ARE SHOWN THROUGHOUT THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT MISS UTILITY TO VERIFY THE EXACT LOCATIONS OF THESE CABLES, CONDUITS, AND PIPES PRIOR TO ANY EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PREVENTING DAMAGE TO THEM, AND MAINTAINING THEM IN SERVICE WHEN AND WHERE REQUIRED.

11) ANY GUARDRAIL OR FENCE MATERIAL REMOVED FOR EASE OF CONSTRUCTION SHALL BE REPLACED THE SAME DAY. GUARDRAIL AND FENCE MATERIAL REMOVAL AND REPLACEMENT WILL BE CONSIDERED INCIDENTAL TO THE BID ITEMS.

12) WHERE CONDUIT HAS PREVIOUSLY BEEN INSTALLED, THE CONNECTION TO THE CONDUIT IN THE BASE WILL BE MADE BEFORE POURING CONCRETE.

13) ALL LIGHTING BASES WILL CONTAIN TWO 3" PVC CONDUIT SWEEPS WHICH SHALL BE INCLUDED IN THE COST OF THE BASE. THIS INCLUDES POLES AT THE END OF A CONDUIT RUN. ANY SWEEP NOT USED WILL BE CAPPED IN THE GROUND. AN ARROW SHALL BE PLACED IN THE BASE SURFACE INDICATING WHERE CONDUITS LEAVE THE BASE. COST FOR CAPS ARE INCIDENTAL TO ITEM 834006, POLE BASE, TYPE 6.

14) USE A 90° ELBOW WITH A 24" RADIUS FOR CONDUIT SWEEPS INTO POLE FOUNDATIONS. CONDUIT SWEEPS INTO LIGHTING CONTROL PANELS SHALL BE 4" DIA. WITH A 90° BEND AND 30" RADIUS. ALL 90° CONDUIT SWEEPS SHALL BE MANUFACTURED, FIELD BENDS ARE NOT ACCEPTABLE.

15) IN STABLE SOIL, FORMS BELOW 12" FROM THE SURFACE ARE NOT REQUIRED. ALL BASES SHALL BE EDGED AND HAVE A BROOM FINISH.

16) ALL CONDUIT JUNCTION WELLS CONSTRUCTED WITHIN PAVEMENTS, SIDEWALKS, ETC. WILL BE CONSTRUCTED FLUSH WITH THE SURFACE OF THE SAME. INSTALLATIONS IN UNPAVED AREAS WILL BE CONSTRUCTED SUCH THAT THE TOP OF THE COVER IS ONE INCH ABOVE FINAL GRADE. SURROUNDING AREA SHALL BE GRADED TO DRAIN AWAY FROM CONDUIT JUNCTION WELL.

17) CAST IRON FRAMES AND/OR COVERS WILL CONFORM TO STANDARD SPECIFICATIONS SECTION 1039.07, CASTINGS, AND SHALL BE INCLUDED IN UNIT PRICE BID FOR CONDUIT JUNCTIONS WELLS.

18) IN ALL JUNCTION WELLS AND POLE BASES, THE CONTRACTOR SHALL LABEL ALL BRANCH CIRCUIT CONDUCTORS WITH THEIR RESPECTIVE BRANCH CIRCUIT NUMBERS AND LIGHTING PANELS: 3(ON), 7(AS), ETC. INCIDENTAL TO ALL LIGHTING ITEMS.

19) POLES AND TRANSFORMER BASES SHALL HAVE STRUCTURAL CAPABILITIES EQUAL TO OR EXCEEDING THOSE INTENDED BY THE LATEST EDITION OF A.A.S.H.T.O.'S "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGN, LUMINARIES, AND TRAFFIC SIGNALS".

20) HANDHOLES SHALL BE INSTALLED ON THE SIDE OF THE LIGHTING POLE SUCH THAT THE HANDHOLE COVER WILL BE PLACED SUCH THAT THE MAINTAINER FACES ONCOMING TRAFFIC.

21) THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ANY EXISTING LIGHTING POLE BASES, CABINET FOUNDATIONS, JUNCTION WELLS, AND CONDUITS LOCATED INSIDE THE LIMITS OF CONSTRUCTION UNLESS NOTED OTHERWISE. THE DELDOT TRAFFIC CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF LIGHTING POLES, LUMINAIRES, CABLES, AND CABINETS UNLESS NOTED OTHERWISE. COORDINATE WITH THE DELDOT TRAFFIC CONTRACTOR TO REMOVE CABLES FROM CONDUITS AND JUNCTION WELLS PRIOR TO CONSTRUCTION ACTIVITIES. CAP ALL UNUSED OR IMPACTED CONDUITS.

22) LIGHTING GROUND MOUNTED CABINET FOUNDATIONS, POLE BASES, CONDUITS, AND JUNCTION WELLS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. LIGHT POLES, LUMINAIRES, AND ELECTRICAL CABLES SHALL BE FURNISHED AND INSTALLED BY THE TRAFFIC CONTRACTOR.

23) CONDUIT RUNS AND JUNCTION WELLS ARE SHOWN IN APPROXIMATE LOCATIONS AND ARE NOT TO SCALE. INSTALL CONDUIT RUNS AND JUNCTION WELLS IN A MANNER THAT AVOIDS CONFLICTS WITH EXISTING FIELD CONDITIONS AND PROPOSED FEATURES, AND PREVENTS DAMAGE TO CABLES DURING INSTALLATION, AS APPROVED BY THE REPRESENTATIVE.

24) ALL FUSED CONNECTIONS SHALL BE MADE IN THE POLE BASE. SPLICES IN JUNCTION WELLS SHALL NOT BE FUSED. DO NOT SPLICE CABLES IN JUNCTION WELLS UNLESS REQUIRED FOR BRANCH CIRCUITRY.

25) IDENTIFICATION TAG SHALL BE LOCATED ON THE QUADRANT OF THE SURFACE OF THE POLE THAT FACES ONCOMING TRAFFIC, SO THAT A VEHICLE DRIVING BY CAN EASILY VIEW THE TAG.

26) CONDUIT FIELD BENDS ARE ACCEPTABLE ONLY FOR NECESSARY NON-STANDARD BENDS OR OFFSETS OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

27) ALL THE TRENCHING, BACKFILL, AND COMPACTION SHALL BE CONSIDERED INCIDENTAL TO THE PROVISION OF THE CONDUIT.

28) ALL FOUNDATION EXCAVATIONS SHALL BE POURED IN THE SAME DAY OR THE HOLE SHALL BE COVERED AND DEWATERED BEFORE POURING. THE CONTRACTOR SHALL MAKE ANY AND ALL ADJUSTMENTS AS NECESSARY IN THE EVENT THAT HIGH GROUNDWATER OR UNSTABLE SOIL IS ENCOUNTERED. CONTRACTOR SHALL DIRECT ALL SEDIMENT LADEN WATER TO AN APPROVED SEDIMENT TRAPPING DEVICE PRIOR TO RELEASING IT TO ANY DRAINAGE INLET, STORM DRAIN, OR WATER COURSE.

29) AT LOCATIONS WHERE CONTRACTOR IS WORKING AT OR NEAR EXISTING LIGHTING SERVICES, THERE SHALL BE NO OVERNIGHT LIGHTING OUTAGES.

30) THE CONTRACTOR SHALL ESTABLISH ALL TEMPORARY BYPASSES OF CIRCUITS PRIOR TO EXCAVATION.

31) COPPER COATED GROUND RODS (3/4" X 10' MIN.) SHALL BE PLACED FOR ALL EXISTING AND PROPOSED LIGHT ASSEMBLIES AND CONTROL BOXES AS SHOWN ON PLANS WITH 6'-0" MINIMUM OF THE ROD IN UNDISTURBED EARTH OR AS DIRECTED BY ENGINEER IN THE FIELD. COST FOR GROUND RODS TO BE INCIDENTAL TO THE ITEM BEING GROUNDED.

32) ALL LIGHTING STANDARD STATION, OFFSET, NORTHINGS, AND EASTINGS REFER TO THE CENTER OF POLE BASE.

33) THE PROPOSED LIGHTING CIRCUIT AND PANEL DESIGNS ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL SUBMIT A CIRCUIT, PANEL AND WIRING DIAGRAM FOR APPROVAL BY THE ENGINEER, PRIOR TO CONSTRUCTION. THE DIAGRAMS SHALL BE SEALED BY AN ELECTRICAL ENGINEER AND MEET ALL DELDOT AND ELECTRIC CODE REQUIREMENTS. ALL COSTS FOR SHOP DRAWINGS AND WIRING DIAGRAMS ARE INCIDENTAL TO THE LIGHTING ITEMS.

34) THE CABINET COMPONENTS SHALL BE SQUARE D. THE CONTRACTOR SHALL CONTACT ALASTAIR PROBERT, SOUTH DISTRICT ENGINEER, AT (302) 853-1300 TO GO OVER FINAL CABINET WIRING AND CONFIGURATION.

35) EXISTING LIGHTING SYSTEMS SHALL BE MAINTAINED AS LONG AS CONSTRUCTION PHASING ALLOWS.

20-DEC-2024
07:09:09
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ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	LIGHTING NOTES	SECTION
				T201709502			CEN
				COUNTY	DESIGNED BY: L. HAXTON		SHEET NO.
				KENT	CHECKED BY: J. FREY		160

804
NM-02-094.00-01-22.00
SAVANNAH FARMS II, LLC
D.R. 640-110
D.R. 17-429 (DPL BLANKET EASEMENT)

CULTIVATED FIELD

48051
20017
21

TP-805
(CAP PIN)

DPL 48067
20043
UA657
UA39/20

WILLOW GROVE RD.

227+00 | 228+00 | 229+00 | 230+00 | 231+00 | 232+00 | 233+00

1000+00 | 1001+00 | 1002+00 | 1003+00 | 1004+00

HOTMIX OVER CONCRETE

HOTMIX

VER-C (B)

COM-C (B)

COM-C

VER-C

CZ

LOC

TCE

PE

R/W

35'

45'

TCW-W 10"(B)

CU-G 2"(B)

32" | 60" | 2" | 60" | 2" | 36" | 12" | 36" | 12"

4' WOOD RAIL FENCE

METAL GATE

LANDSCAPE AREA

GRASS

809
NM-02-094.00-01-05.01
JANICE L. SOSNOWSKI-NICHOL AND
SCOTT G. NICHOL, WIFE AND HUSBAND
D.R. 5290-338

808
NM-02-094.00-01-05.00
JANICE L. SOSNOWSKI-NICHOL AND
SCOTT G. NICHOL, WIFE AND HUSBAND
D.R. 5290-338

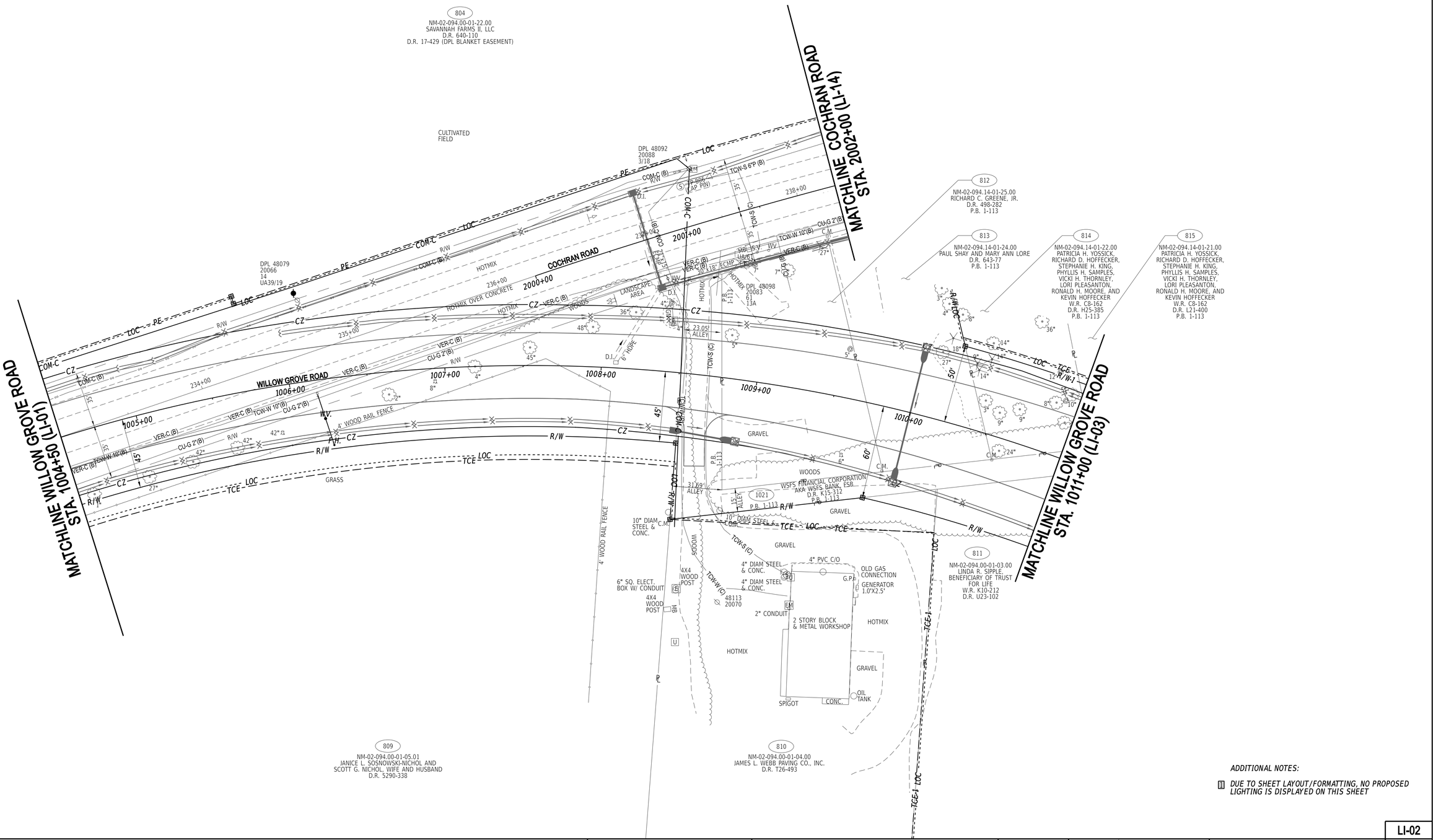
MATCHLINE WILLOW GROVE ROAD
STA. 1004+50 (LI-02)

ADDITIONAL NOTES:

1 *DUE TO SHEET LAYOUT/FORMATTING, NO PROPOSED LIGHTING IS DISPLAYED ON THIS SHEET*

20-DEC-2024
07:08
\\kysh-eeldotpw21\ICS_pdf_work_dir\14401385\7_29\LI01_TRSF_T201709502_CEI.dgn

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING PLAN	LI-01 SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 161
					CHECKED BY: J. FREY		



ADDITIONAL NOTES:

1 *DUE TO SHEET LAYOUT/FORMATTING, NO PROPOSED LIGHTING IS DISPLAYED ON THIS SHEET*

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING PLAN	LI-02
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 162

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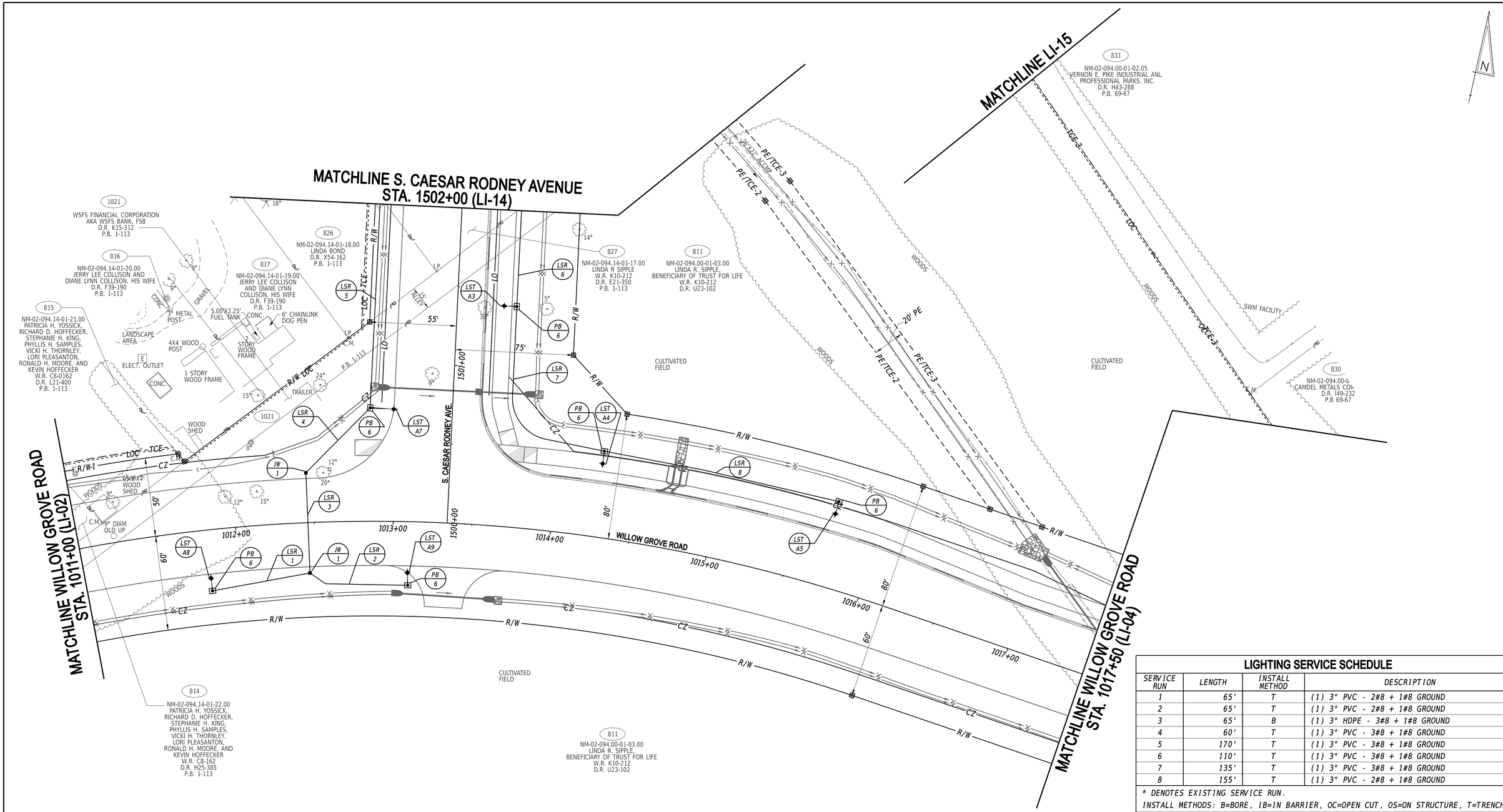

LIGHTING SERVICE SCHEDULE

SERVICE RUN	LENGTH	INSTALL METHOD	DESCRIPTION
1	65'	T	(1) 3" PVC - 2#8 + 1#8 GROUND
2	65'	T	(1) 3" PVC - 2#8 + 1#8 GROUND
3	65'	B	(1) 3" HDPE - 3#8 + 1#8 GROUND
4	60'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
5	170'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
6	110'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
7	135'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
8	155'	T	(1) 3" PVC - 2#8 + 1#8 GROUND

* DENOTES EXISTING SERVICE RUN.
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	NORTHING	EASTING	ARM	LIGHT STANDARD
A3	1	1501+39.16	37.67'R	402966.4188	615519.0964	8'	81W TYPE III LED LUMINAIRE
A4	3	1014+26.79	54.67'L	402889.0345	615593.2943	8'	81W TYPE III LED LUMINAIRE
A5	1	1015+71.08	54.67'L	402890.2966	615745.3419	8'	81W TYPE III LED LUMINAIRE
A7	1	1500+70.64	52.17'L	402883.4684	615442.3823	15'	81W TYPE III LED LUMINAIRE
A8	1	1011+81.21	42.72'R	402744.6314	615371.4543	8'	81W TYPE III LED LUMINAIRE
A9	3	1013+10.13	40.37'R	402778.8255	615490.1278	8'	81W TYPE III LED LUMINAIRE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

LIGHTING PLAN

LI-03
SECTION CEN
SHEET NO. 163

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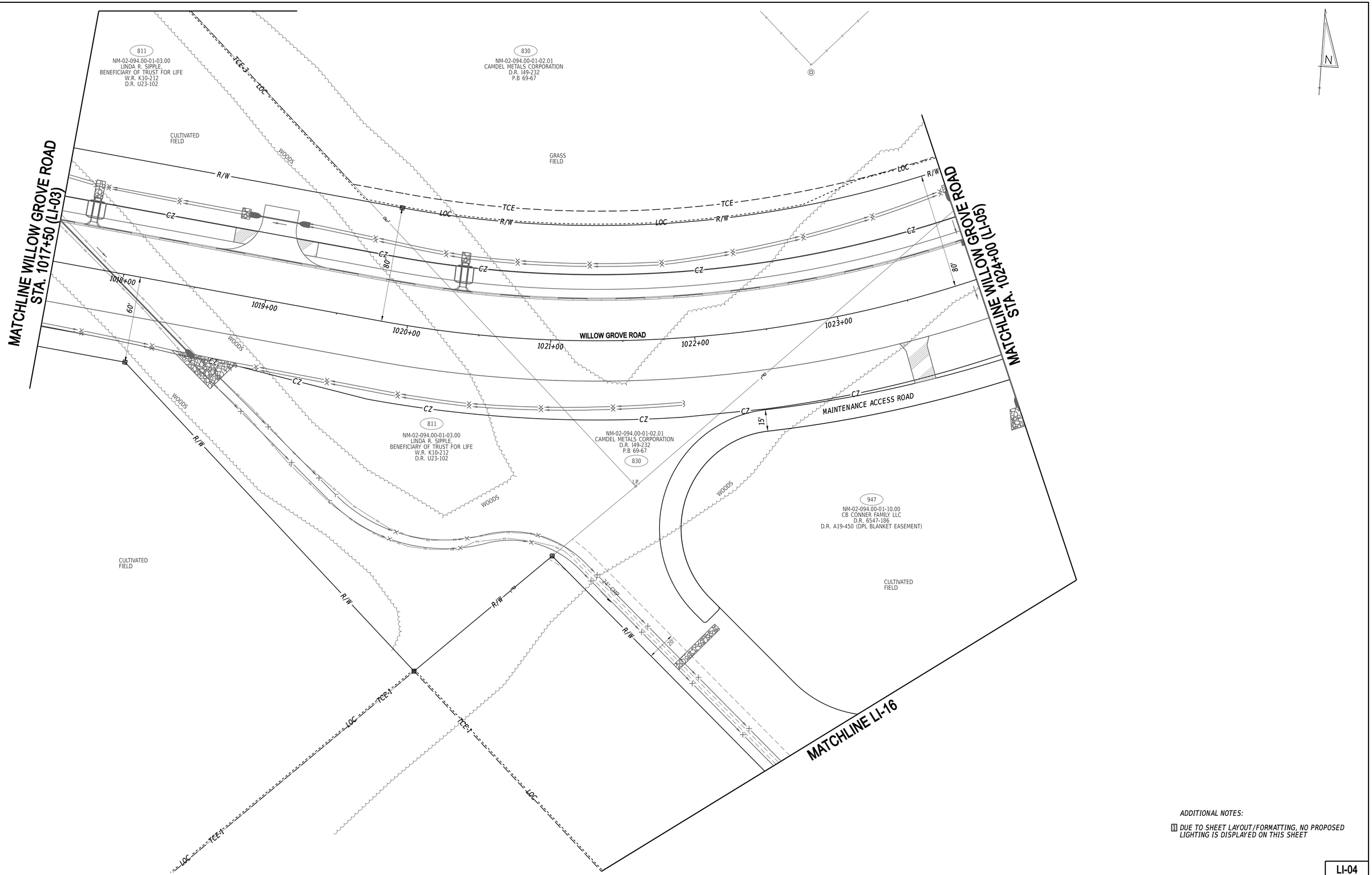

ADDITIONAL NOTES:

1. *DUE TO SHEET LAYOUT/FORMATTING, NO PROPOSED LIGHTING IS DISPLAYED ON THIS SHEET*

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING PLAN	LI-04
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 164

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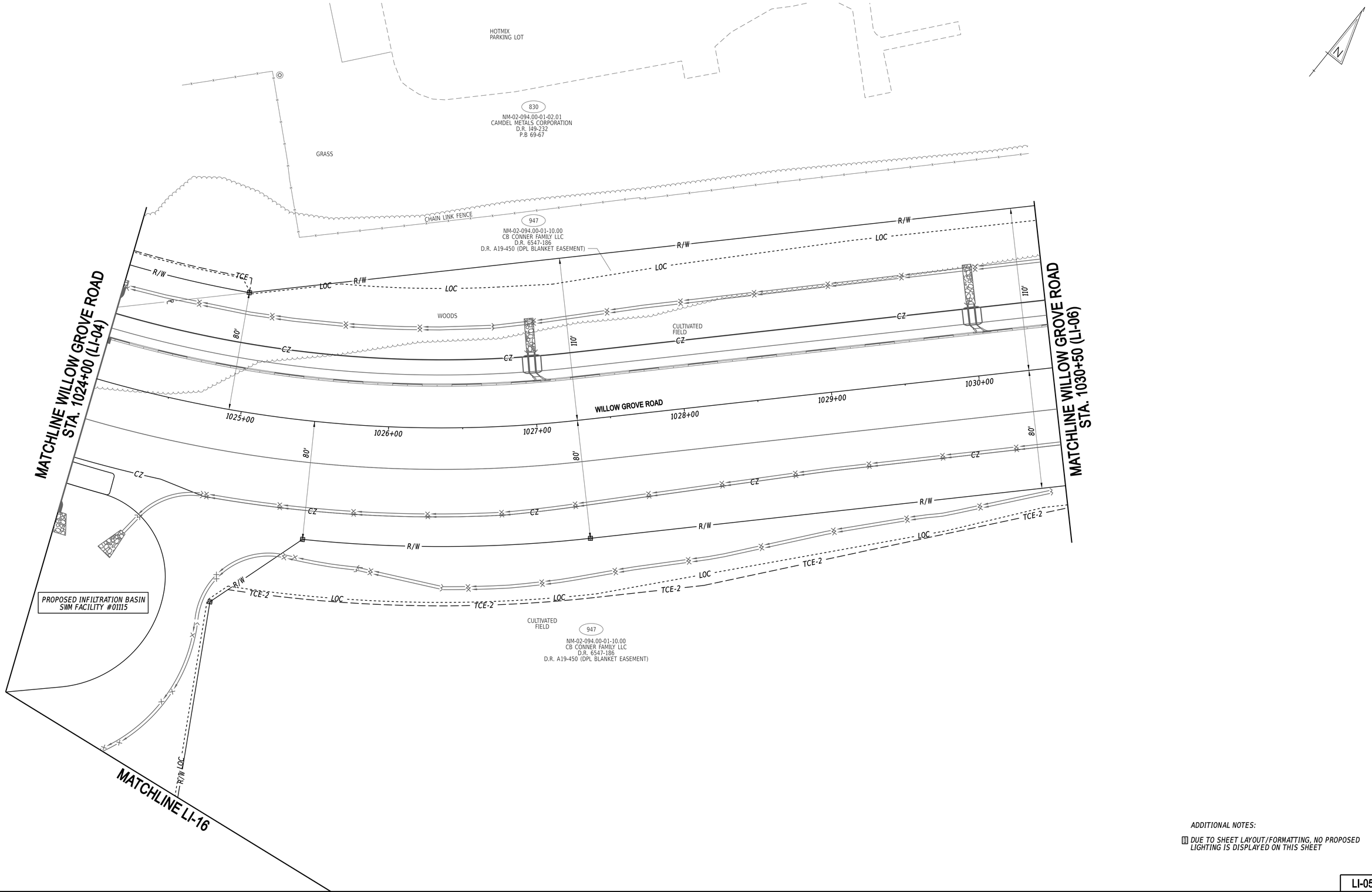

ADDITIONAL NOTES:

1. *DUE TO SHEET LAYOUT/FORMATTING, NO PROPOSED LIGHTING IS DISPLAYED ON THIS SHEET*

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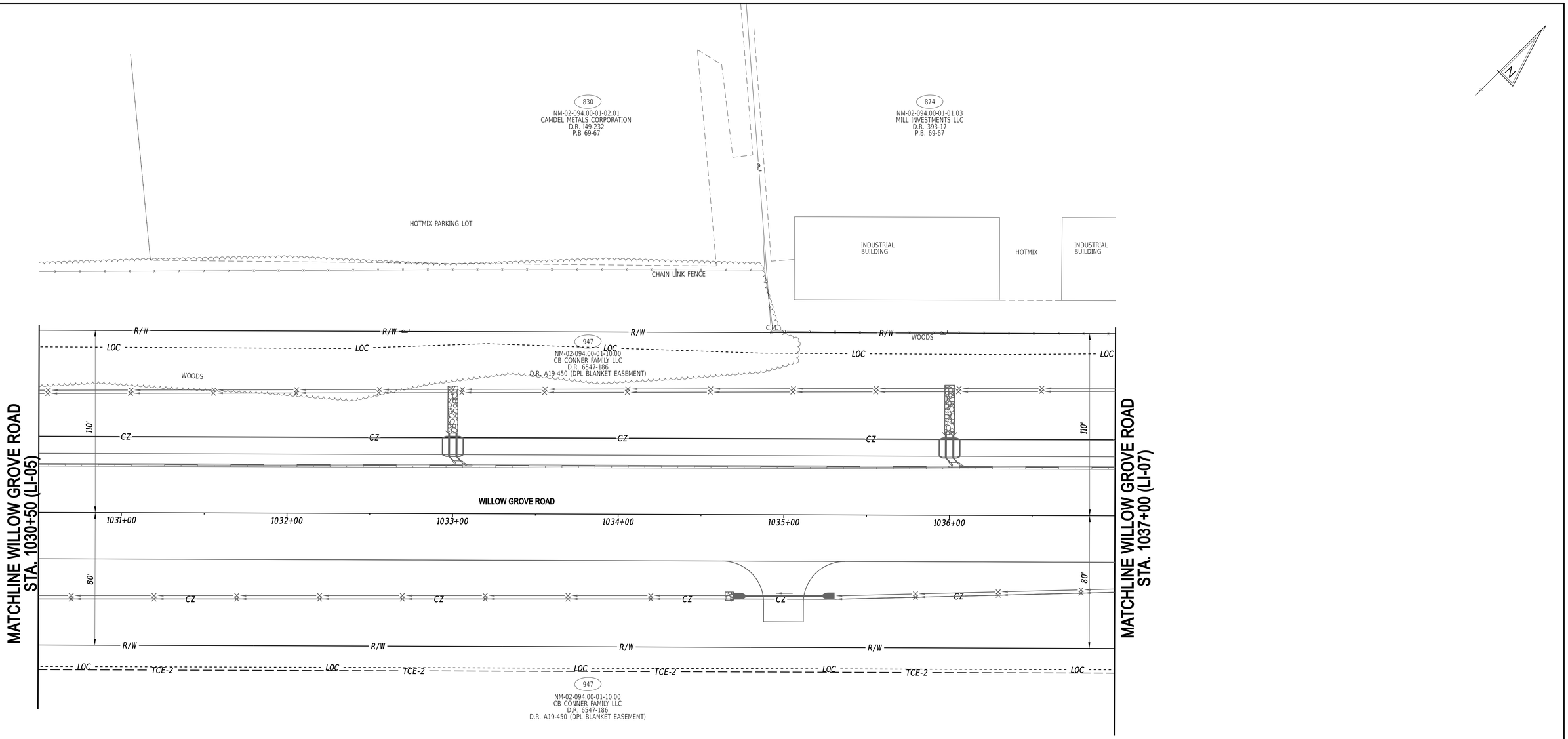
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING PLAN	LI-05
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 165



ADDITIONAL NOTES:

1. *DUE TO SHEET LAYOUT/FORMATTING, NO PROPOSED LIGHTING IS DISPLAYED ON THIS SHEET*

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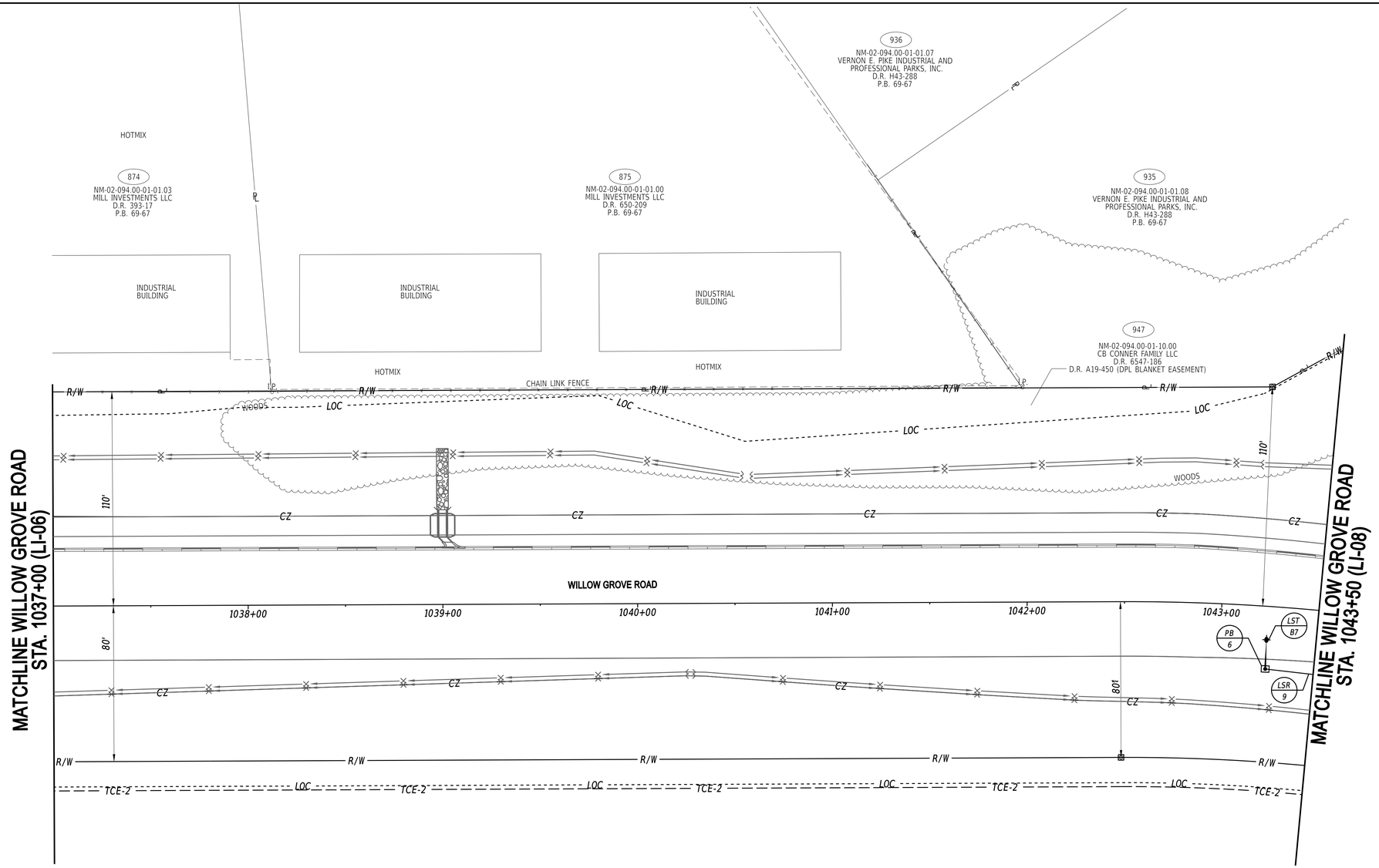
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING PLAN	LI-06 SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 166
					CHECKED BY: J. FREY		



LIGHTING SERVICE SCHEDULE

SERVICE RUN	LENGTH	INSTALL METHOD	DESCRIPTION
9	119'	T	(1) 3" PVC - 2#8 + 1#8 GROUND

* DENOTES EXISTING SERVICE RUN.
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	NORTHING	EASTING	ARM	LIGHT STANDARD
B7	2	1043+24.45	32.20'R	404135.7110	617981.3996	15'	81W TYPE III LED LUMINAIRE

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ADDENDA / REVISIONS

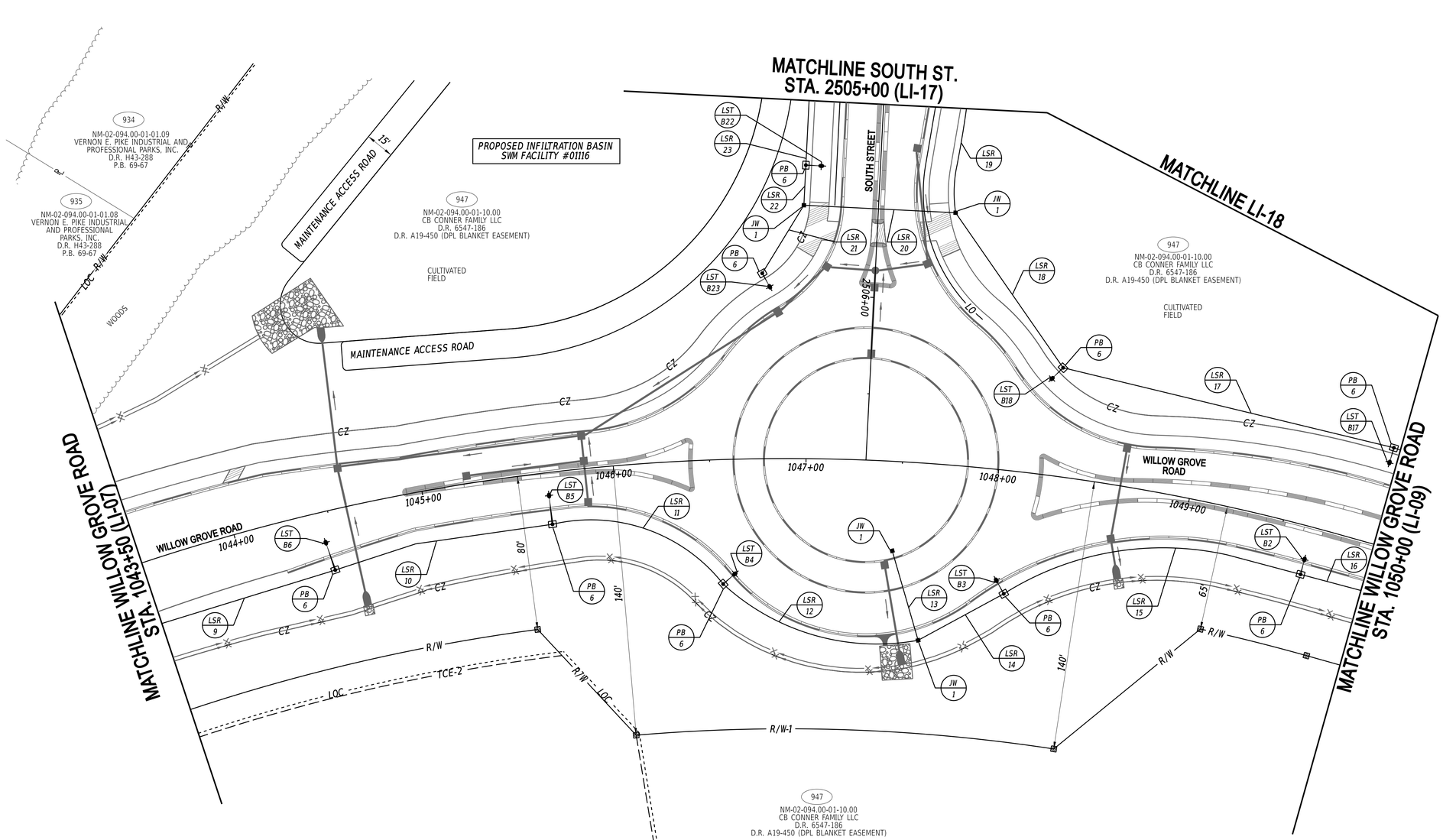
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

LIGHTING PLAN

LI-07	
SECTION	CEN
SHEET NO.	167



LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	NORTHING	EASTING	ARM	LIGHT STANDARD
B2	4	1049+65.68	35.60'R	404384.3222	618542.1463	8'	81W TYPE III LED LUMINAIRE
B3	2	1048+15.23	69.64'R	404322.4220	618402.7388	8'	81W TYPE III LED LUMINAIRE
B4	4	1046+49.10	68.87'R	404275.0732	618264.7062	8'	81W TYPE III LED LUMINAIRE
B5	2	1045+65.32	32.98'R	404266.7266	618174.0584	15'	81W TYPE III LED LUMINAIRE
B6	4	1044+46.96	30.81'R	404209.3063	618074.6650	15'	81W TYPE III LED LUMINAIRE
B17	3	1049+94.98	50.94'L	404466.3523	618563.3449	8'	81W TYPE III LED LUMINAIRE
B18	1	1048+26.37	56.25'L	404443.1461	618388.5366	8'	81W TYPE III LED LUMINAIRE
B22	3	2505+33.27	38.67'R	404492.9359	618226.3551	8'	81W TYPE III LED LUMINAIRE
B23	3	2505+90.36	58.47'R	404432.5221	618225.4971	8'	81W TYPE III LED LUMINAIRE

LIGHTING SERVICE SCHEDULE

SERVICE RUN	LENGTH	INSTALL METHOD	DESCRIPTION
10	115'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
11	97'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
12	110'	T	(1) 3" PVC - 2#8 + 1#8 GROUND
13	51'	B	(1) 3" HDPE - SPARE CONDUIT
14	52'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
15	158'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
16	333'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
17	176'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
18	98'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
19	91'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
20	79'	B	(1) 3" HDPE - 3#8 + 1#8 GROUND
21	41'	T	(1) 3" PVC - 2#8 + 1#8 GROUND
22	21'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
23	145'	T	(1) 3" PVC - 2#8 + 1#8 GROUND

* DENOTES EXISTING SERVICE RUN.
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

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ADDENDA / REVISIONS

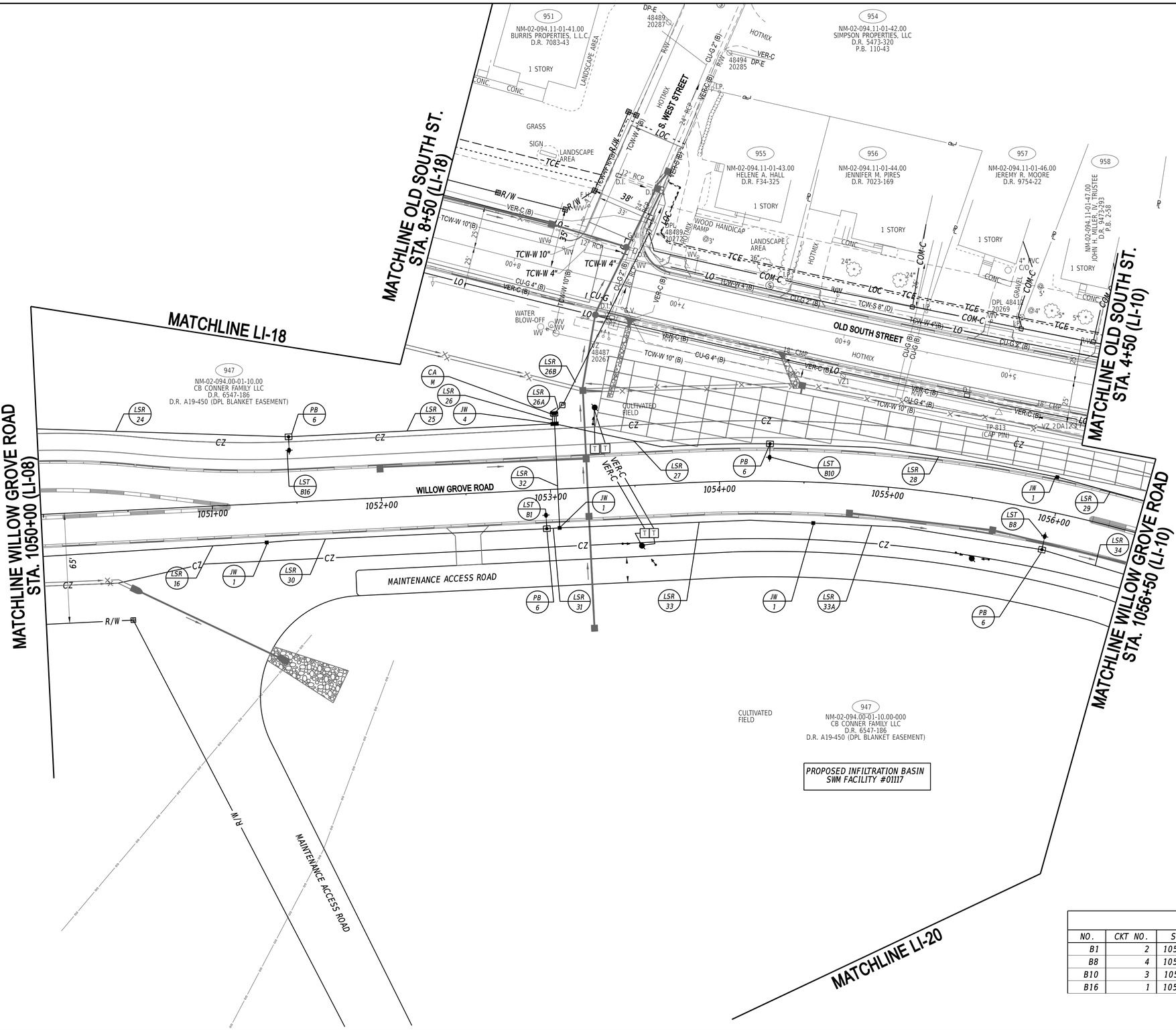
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT T201709502
COUNTY KENT
BRIDGE NO. N/A
DESIGNED BY: L. HAXTON
CHECKED BY: J. FREY

LIGHTING PLAN

LI-08
SECTION CEN
SHEET NO. 168



LIGHTING SERVICE SCHEDULE

SERVICE RUN	LENGTH	INSTALL METHOD	DESCRIPTION
24	155'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
25	155'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
26	10'	T	(3) 4" PVC - 6#8 + 3#8 GROUND
26A	5'	T	(1) 3" PVC - 3#2 + 1#2 GROUND
26B	45'	T	(1) 3" PVC - 3#2 + 1#2 GROUND
27	129'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
28	170'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
29	174'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
30	170'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
31	10'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
32	65'	B	(1) 3" HDPE - 3#8 + 1#8 GROUND
33	150'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
33A	137'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
34	140'	T	(1) 3" PVC - 3#8 + 1#8 GROUND

* DENOTES EXISTING SERVICE RUN.
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	NORTHING	EASTING	ARM	LIGHT STANDARD
B1	2	1052+96.64	30.03'R	404421.4231	618870.7787	8'	81W TYPE III LED LUMINAIRE
B8	4	1055+96.60	29.91'R	404422.5601	619163.6228	8'	81W TYPE III LED LUMINAIRE
B10	3	1054+29.71	22.04'L	404477.6328	619000.2205	8'	137W TYPE III LED LUMINAIRE
B16	1	1051+46.93	39.69'L	404468.6189	618715.7736	8'	137W TYPE III LED LUMINAIRE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

LIGHTING PLAN

LI-09
SECTION CEN
SHEET NO. 169

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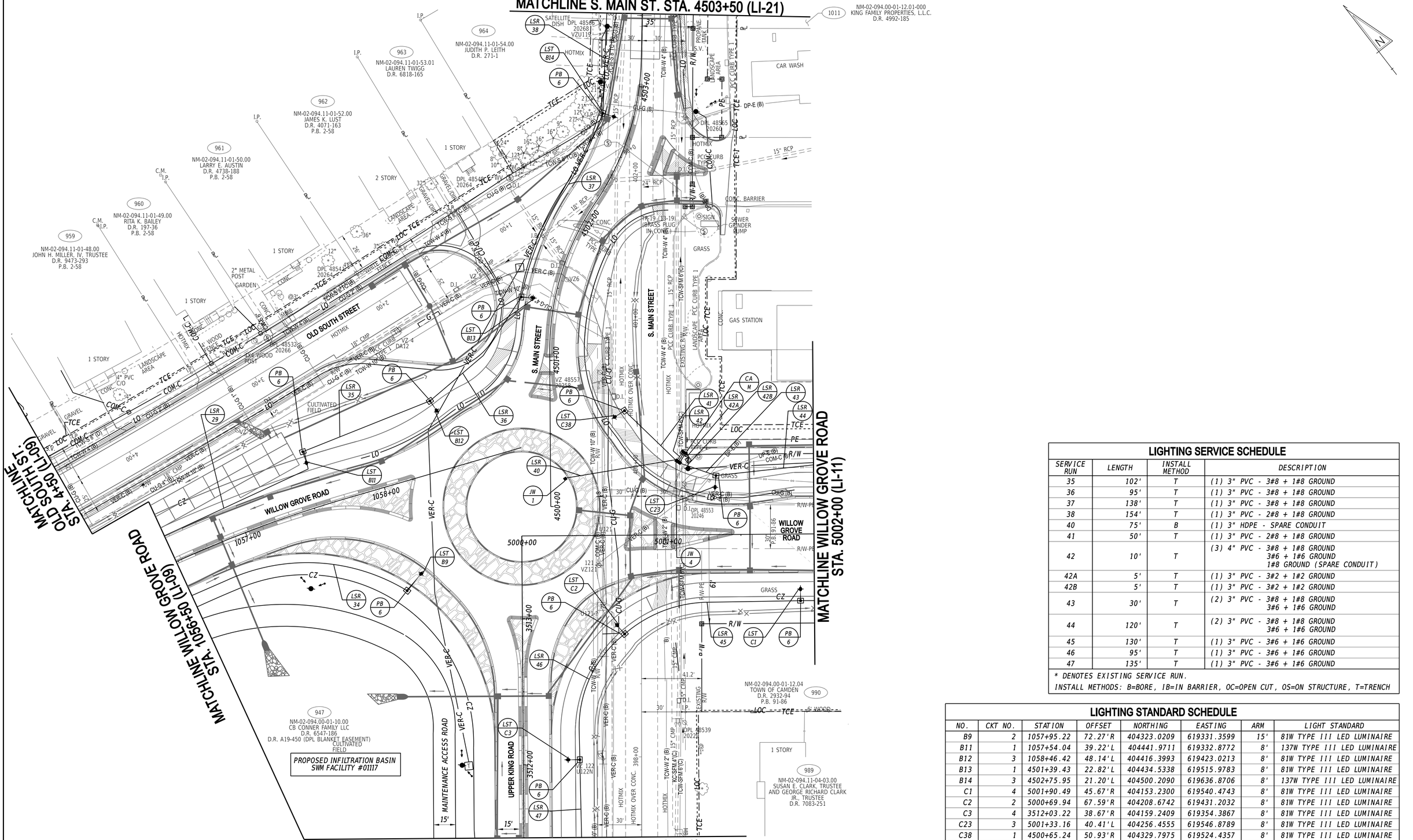

LIGHTING SERVICE SCHEDULE

SERVICE RUN	LENGTH	INSTALL METHOD	DESCRIPTION
35	102'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
36	95'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
37	138'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
38	154'	T	(1) 3" PVC - 2#8 + 1#8 GROUND
40	75'	B	(1) 3" HDPE - SPARE CONDUIT
41	50'	T	(1) 3" PVC - 2#8 + 1#8 GROUND
42	10'	T	(3) 4" PVC - 3#8 + 1#8 GROUND 3#6 + 1#6 GROUND 1#8 GROUND (SPARE CONDUIT)
42A	5'	T	(1) 3" PVC - 3#2 + 1#2 GROUND
42B	5'	T	(1) 3" PVC - 3#2 + 1#2 GROUND
43	30'	T	(2) 3" PVC - 3#8 + 1#8 GROUND 3#6 + 1#6 GROUND
44	120'	T	(2) 3" PVC - 3#8 + 1#8 GROUND 3#6 + 1#6 GROUND
45	130'	T	(1) 3" PVC - 3#6 + 1#6 GROUND
46	95'	T	(1) 3" PVC - 3#6 + 1#6 GROUND
47	135'	T	(1) 3" PVC - 3#6 + 1#6 GROUND

* DENOTES EXISTING SERVICE RUN.

INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	NORTHING	EASTING	ARM	LIGHT STANDARD
B9	2	1057+95.22	72.27'R	404323.0209	619331.3599	15'	81W TYPE III LED LUMINAIRE
B11	1	1057+54.04	39.22'L	404441.9711	619332.8772	8'	137W TYPE III LED LUMINAIRE
B12	3	1058+46.42	48.14'L	404416.3993	619423.0213	8'	81W TYPE III LED LUMINAIRE
B13	1	4501+39.43	22.82'L	404434.5338	619515.9783	8'	81W TYPE III LED LUMINAIRE
B14	3	4502+75.95	21.20'L	404500.2090	619636.8706	8'	137W TYPE III LED LUMINAIRE
C1	4	5001+90.49	45.67'R	404153.2300	619540.4743	8'	81W TYPE III LED LUMINAIRE
C2	2	5000+69.94	67.59'R	404208.6742	619431.2032	8'	81W TYPE III LED LUMINAIRE
C3	4	3512+03.22	38.67'R	404159.2409	619354.3867	8'	81W TYPE III LED LUMINAIRE
C23	3	5001+33.16	40.41'L	404256.4555	619546.8789	8'	81W TYPE III LED LUMINAIRE
C38	1	4500+65.24	50.93'R	404329.7975	619524.4357	8'	81W TYPE III LED LUMINAIRE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

LIGHTING PLAN

LI-10
SECTION
CEN
SHEET NO.
170

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LIGHTING STANDARD SCHEDULE

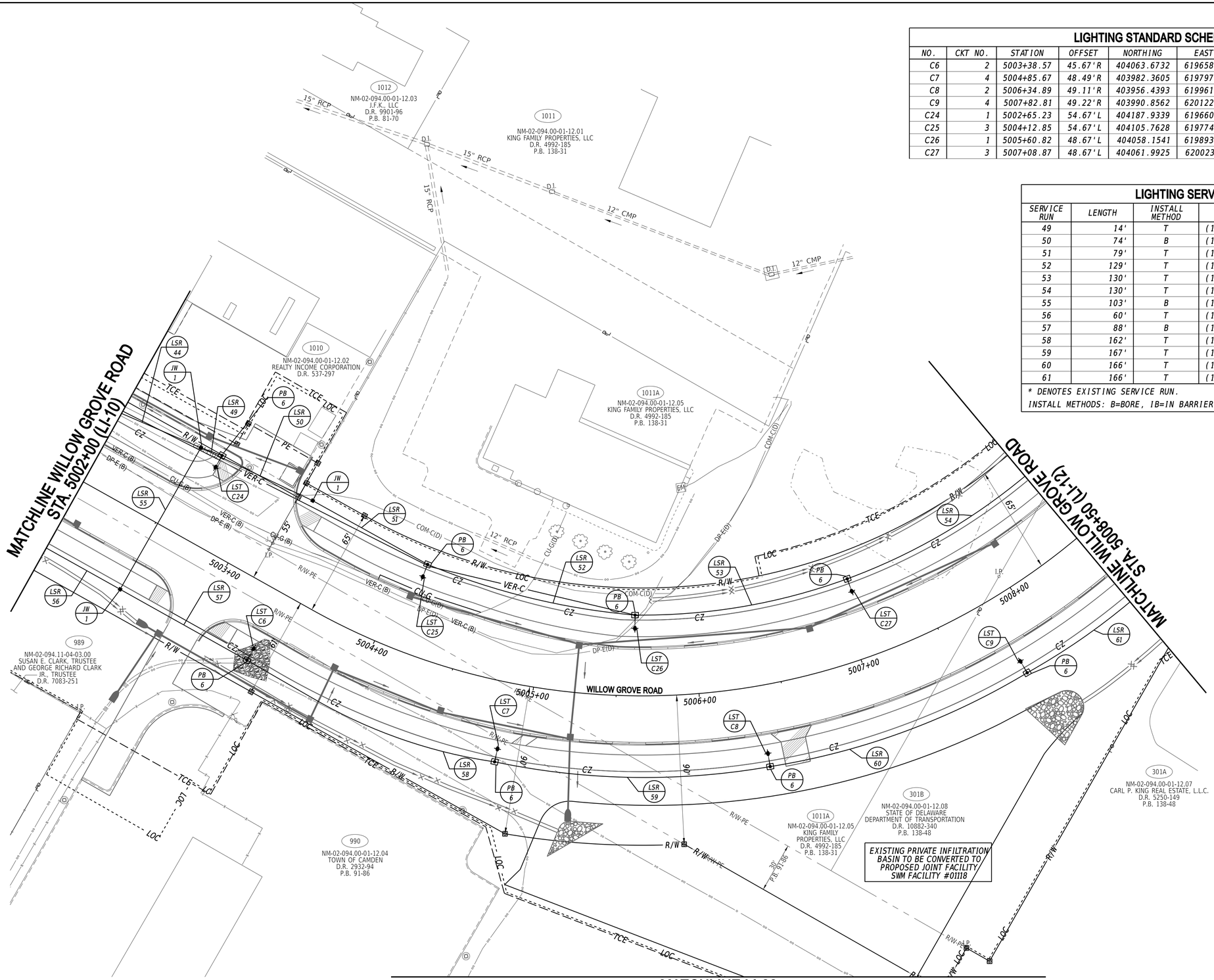
NO.	CKT NO.	STATION	OFFSET	NORTHING	EASTING	ARM	LIGHT STANDARD
C6	2	5003+38.57	45.67'R	404063.6732	619658.3982	8'	81W TYPE III LED LUMINAIRE
C7	4	5004+85.67	48.49'R	403982.3605	619797.6360	8'	81W TYPE III LED LUMINAIRE
C8	2	5006+34.89	49.11'R	403956.4393	619961.6465	8'	81W TYPE III LED LUMINAIRE
C9	4	5007+82.81	49.22'R	403990.8562	620122.8509	8'	81W TYPE III LED LUMINAIRE
C24	1	5002+65.23	54.67'L	404187.9339	619660.6717	8'	81W TYPE III LED LUMINAIRE
C25	3	5004+12.85	54.67'L	404105.7628	619774.1886	8'	81W TYPE III LED LUMINAIRE
C26	1	5005+60.82	48.67'L	404058.1541	619893.7179	8'	81W TYPE III LED LUMINAIRE
C27	3	5007+08.87	48.67'L	404061.9925	620023.3301	8'	81W TYPE III LED LUMINAIRE

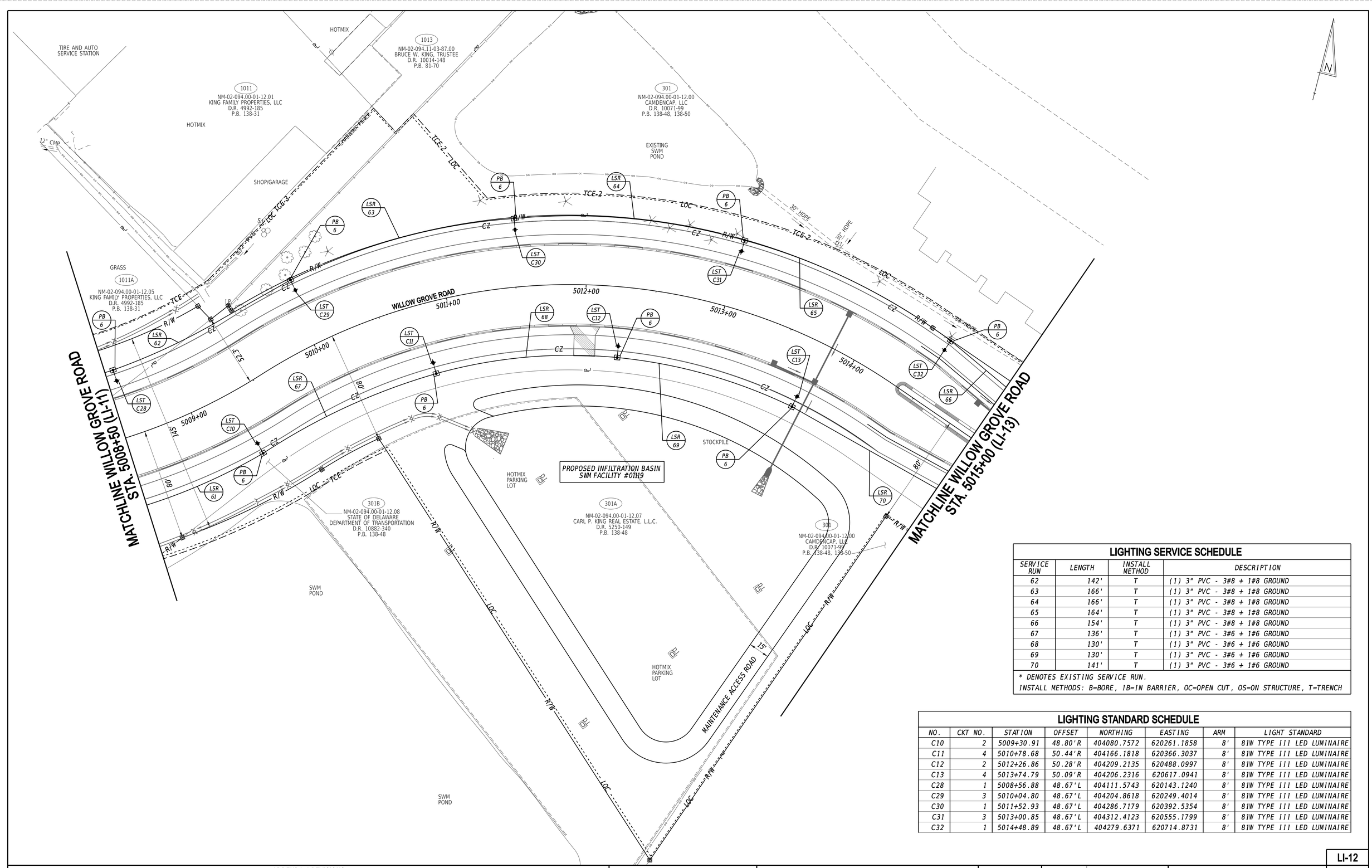
LIGHTING SERVICE SCHEDULE

SERVICE RUN	LENGTH	INSTALL METHOD	DESCRIPTION
49	14'	T	(1) 3" PVC - 2#8 + 1#8 GROUND
50	74'	B	(1) 3" HDPE - 3#8 + 1#8 GROUND
51	79'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
52	129'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
53	130'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
54	130'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
55	103'	B	(1) 3" HDPE - 3#6 + 1#6 GROUND
56	60'	T	(1) 3" PVC - 3#6 + 1#6 GROUND
57	88'	B	(1) 3" HDPE - 3#6 + 1#6 GROUND
58	162'	T	(1) 3" PVC - 3#6 + 1#6 GROUND
59	167'	T	(1) 3" PVC - 3#6 + 1#6 GROUND
60	166'	T	(1) 3" PVC - 3#6 + 1#6 GROUND
61	166'	T	(1) 3" PVC - 3#6 + 1#6 GROUND

* DENOTES EXISTING SERVICE RUN.

INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH





LIGHTING SERVICE SCHEDULE

SERVICE RUN	LENGTH	INSTALL METHOD	DESCRIPTION
62	142'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
63	166'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
64	166'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
65	164'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
66	154'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
67	136'	T	(1) 3" PVC - 3#6 + 1#6 GROUND
68	130'	T	(1) 3" PVC - 3#6 + 1#6 GROUND
69	130'	T	(1) 3" PVC - 3#6 + 1#6 GROUND
70	141'	T	(1) 3" PVC - 3#6 + 1#6 GROUND

* DENOTES EXISTING SERVICE RUN.
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	NORTHING	EASTING	ARM	LIGHT STANDARD
C10	2	5009+30.91	48.80'R	404080.7572	620261.1858	8'	81W TYPE III LED LUMINAIRE
C11	4	5010+78.68	50.44'R	404166.1818	620366.3037	8'	81W TYPE III LED LUMINAIRE
C12	2	5012+26.86	50.28'R	404209.2135	620488.0997	8'	81W TYPE III LED LUMINAIRE
C13	4	5013+74.79	50.09'R	404206.2316	620617.0941	8'	81W TYPE III LED LUMINAIRE
C28	1	5008+56.88	48.67'L	404111.5743	620143.1240	8'	81W TYPE III LED LUMINAIRE
C29	3	5010+04.80	48.67'L	404204.8618	620249.4014	8'	81W TYPE III LED LUMINAIRE
C30	1	5011+52.93	48.67'L	404286.7179	620392.5354	8'	81W TYPE III LED LUMINAIRE
C31	3	5013+00.85	48.67'L	404312.4123	620555.1799	8'	81W TYPE III LED LUMINAIRE
C32	1	5014+48.89	48.67'L	404279.6371	620714.8731	8'	81W TYPE III LED LUMINAIRE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING PLAN
COUNTY KENT	DESIGNED BY: L. HAXTON	
	CHECKED BY: J. FREY	

LI-12
SECTION CEN
SHEET NO. 172

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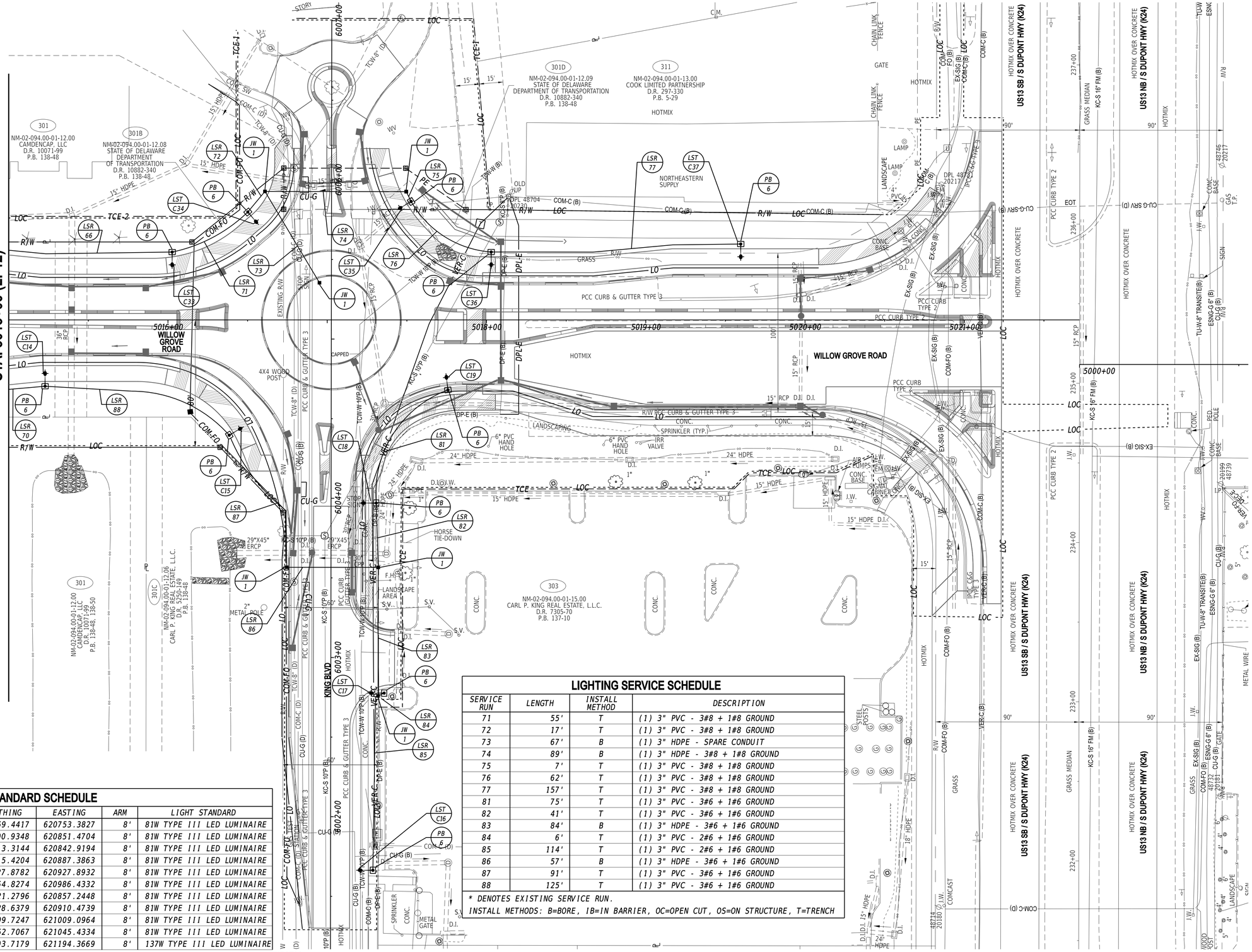
MATCHLINE WILLOW GROVE ROAD STA. 5015+00 (LI-12)



LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	NORTHING	EASTING	ARM	LIGHT STANDARD
C14	2	5015+22.82	41.66'R	404169.4417	620753.3827	8'	81W TYPE III LED LUMINAIRE
C15	4	6004+40.58	64.03'L	404100.9348	620851.4704	8'	81W TYPE III LED LUMINAIRE
C16	2	6002+66.40	25.60'R	403813.3144	620842.9194	8'	81W TYPE III LED LUMINAIRE
C17	4	6002+77.67	33.51'R	403915.4204	620887.3863	8'	81W TYPE III LED LUMINAIRE
C18	2	6003+97.20	32.86'R	404027.8782	620927.8932	8'	81W TYPE III LED LUMINAIRE
C19	4	5017+77.61	60.10'R	404064.8274	620986.4332	8'	81W TYPE III LED LUMINAIRE
C33	3	5016+02.64	42.61'L	404221.2796	620857.2448	8'	81W TYPE III LED LUMINAIRE
C34	1	6005+79.72	52.54'L	404228.6379	620910.4739	8'	81W TYPE III LED LUMINAIRE
C35	3	6005+86.49	50.00'R	404199.7247	621009.0964	8'	81W TYPE III LED LUMINAIRE
C36	1	5018+02.93	42.66'L	404152.7067	621045.4334	8'	81W TYPE III LED LUMINAIRE
C37	3	5019+59.64	47.66'L	404103.7179	621194.3669	8'	137W TYPE III LED LUMINAIRE

NOTE: LIMITS OF PROJECT IN COORDINATION WITH FUTURE DELDOT PROJECT T201500202 - HEP KC, LOCHMEATH WAY TO PUNCHEON RUN CONNECTOR.

LIGHTING SERVICE SCHEDULE

SERVICE RUN	LENGTH	INSTALL METHOD	DESCRIPTION
71	55'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
72	17'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
73	67'	B	(1) 3" HDPE - SPARE CONDUIT
74	89'	B	(1) 3" HDPE - 3#8 + 1#8 GROUND
75	7'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
76	62'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
77	157'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
81	75'	T	(1) 3" PVC - 3#6 + 1#6 GROUND
82	41'	T	(1) 3" PVC - 3#6 + 1#6 GROUND
83	84'	B	(1) 3" HDPE - 3#6 + 1#6 GROUND
84	6'	T	(1) 3" PVC - 2#6 + 1#6 GROUND
85	114'	T	(1) 3" PVC - 2#6 + 1#6 GROUND
86	57'	B	(1) 3" HDPE - 3#6 + 1#6 GROUND
87	91'	T	(1) 3" PVC - 3#6 + 1#6 GROUND
88	125'	T	(1) 3" PVC - 3#6 + 1#6 GROUND

* DENOTES EXISTING SERVICE RUN.
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

LIGHTING PLAN

LI-13
SECTION CEN
SHEET NO. 173

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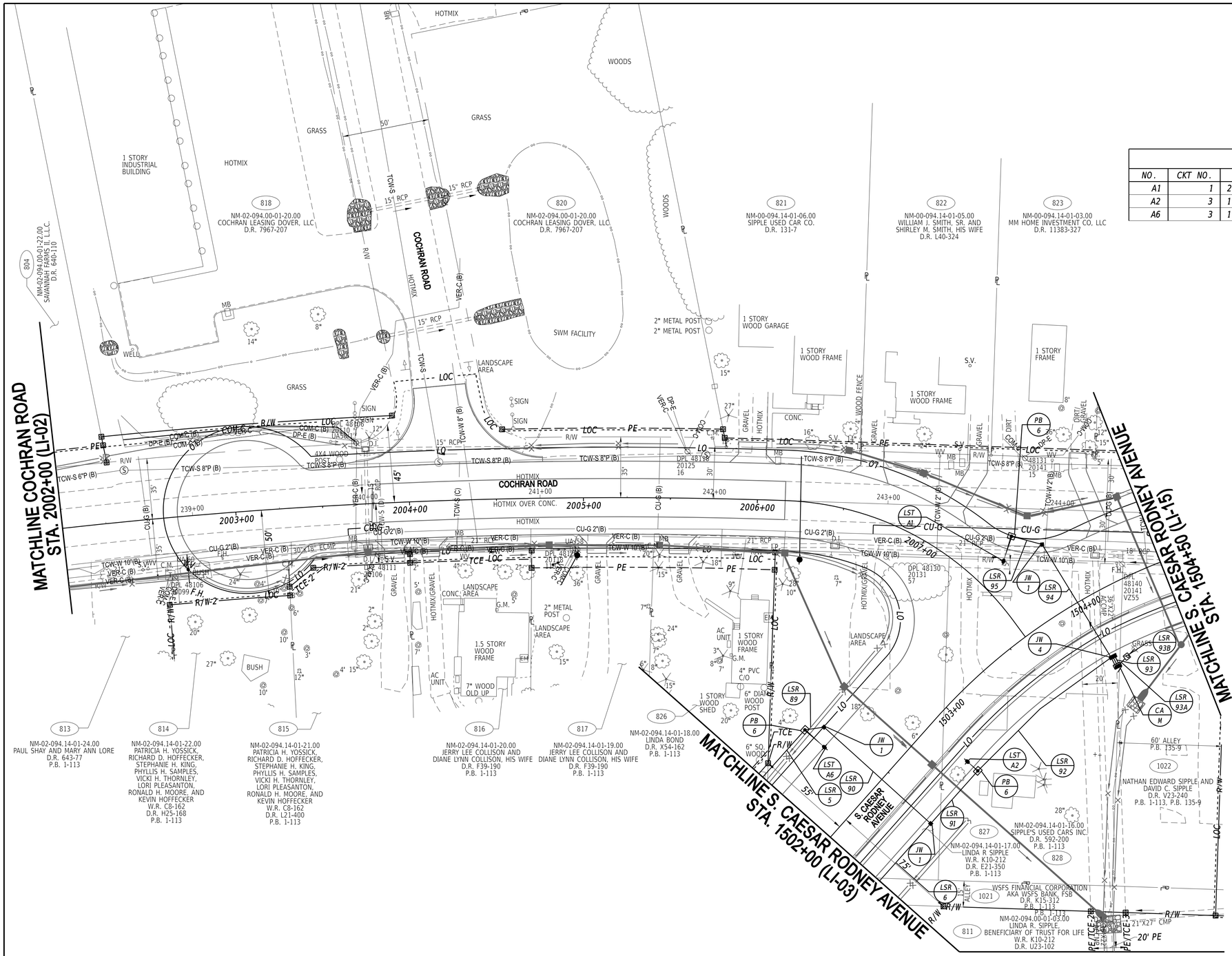

LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	NORTHING	EASTING	ARM	LIGHT STANDARD
A1	1	2007+35.66	31.85'L	403208.9837	615400.7781	15'	81W TYPE III LED LUMINAIRE
A2	3	1502+84.79	37.98'R	403109.9372	615494.3687	8'	81W TYPE III LED LUMINAIRE
A6	3	1502+36.38	51.96'L	403046.7781	615414.0781	15'	81W TYPE III LED LUMINAIRE

LIGHTING SERVICE SCHEDULE

SERVICE RUN	LENGTH	INSTALL METHOD	DESCRIPTION
89	11'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
90	83'	B	(1) 3" HDPE - 3#8 + 1#8 GROUND
91	41'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
92	101'	T	(1) 3" PVC - 3#8 + 1#8 GROUND
93	10'	T	(3) 4" PVC - 3#8 + 3#8 GROUND
93A	6'	T	(1) 3" PVC - 3#2 + 1#2 GROUND
93B	5'	T	(1) 3" PVC - 3#2 + 1#2 GROUND
94	80'	B	(1) 3" HDPE - 2#8 + 1#8 GROUND
95	20'	T	(1) 3" PVC - 2#8 + 1#8 GROUND

* DENOTES EXISTING SERVICE RUN.

INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

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ADDENDA / REVISIONS

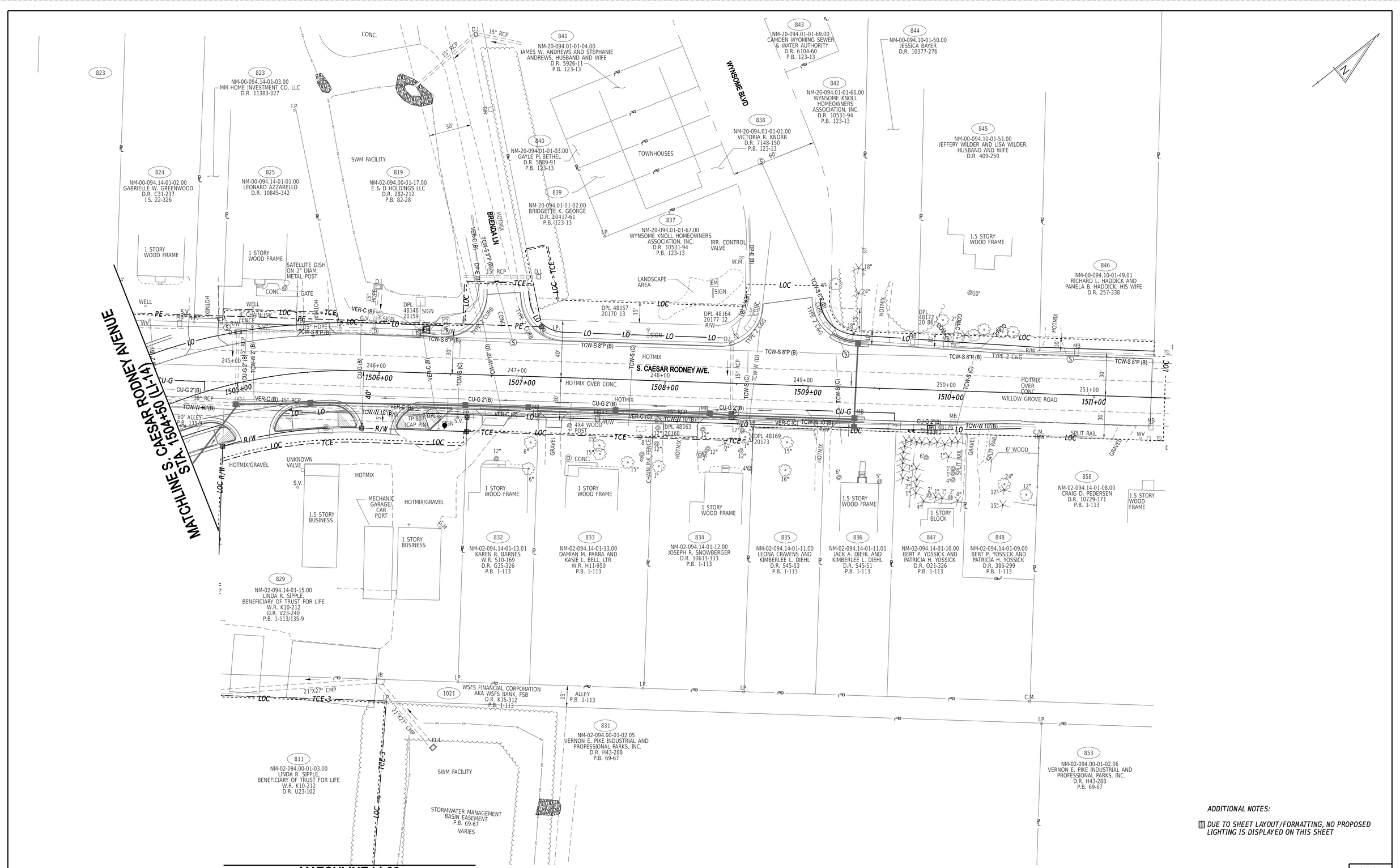
SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

LIGHTING PLAN

LI-14
SECTION
CEN
SHEET NO.
174



ADDITIONAL NOTES:

1. *DUE TO SHEET LAYOUT/FORMATTING, NO PROPOSED LIGHTING IS DISPLAYED ON THIS SHEET*

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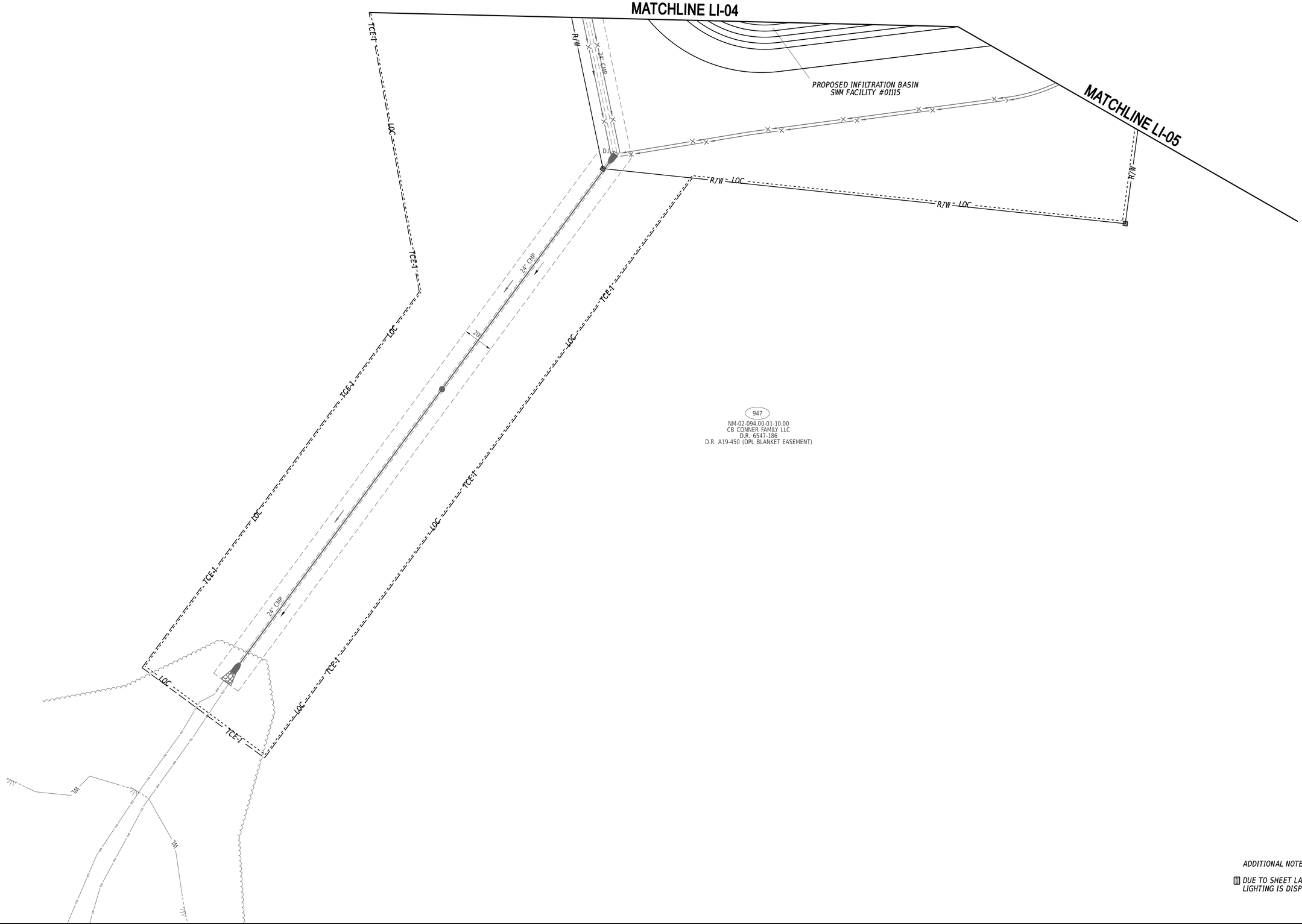
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING PLAN	LI-15
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 175



ADDITIONAL NOTES:

1. *DUE TO SHEET LAYOUT/FORMATTING, NO PROPOSED LIGHTING IS DISPLAYED ON THIS SHEET*

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING PLAN	LI-16
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 176

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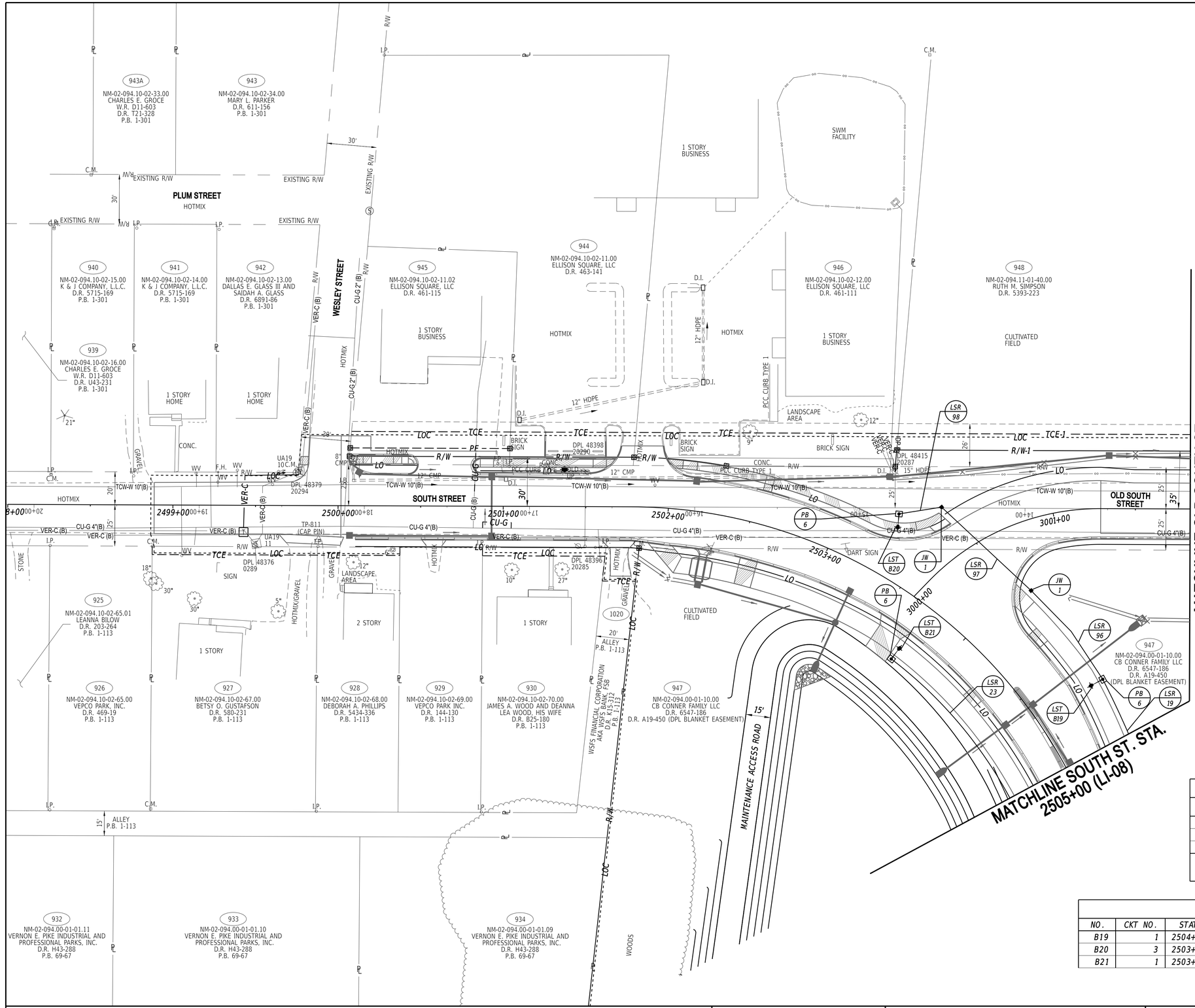

LIGHTING SERVICE SCHEDULE

SERVICE RUN	LENGTH	INSTALL METHOD	DESCRIPTION
96	69'	T	(1) 3" PVC - 2#8 + 1#8 GROUND
97	74'	B	(1) 3" HDPE - 2#8 + 1#8 GROUND
98	26'	T	(1) 3" PVC - 2#8 + 1#8 GROUND

* DENOTES EXISTING SERVICE RUN.
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	NORTHING	EASTING	ARM	LIGHT STANDARD
B19	1	2504+68.07	46.81'L	404585.6152	618283.8123	8'	81W TYPE III LED LUMINAIRE
B20	3	2503+27.57	37.67'L	404705.9109	618180.0409	8'	81W TYPE III LED LUMINAIRE
B21	1	2503+71.87	38.66'R	404620.3071	618159.9392	8'	81W TYPE III LED LUMINAIRE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	
T201709502	DESIGNED BY:	L. HAXTON	
COUNTY	CHECKED BY:	J. FREY	
KENT			

LIGHTING PLAN

LI-17	
SECTION	CEN
SHEET NO.	177

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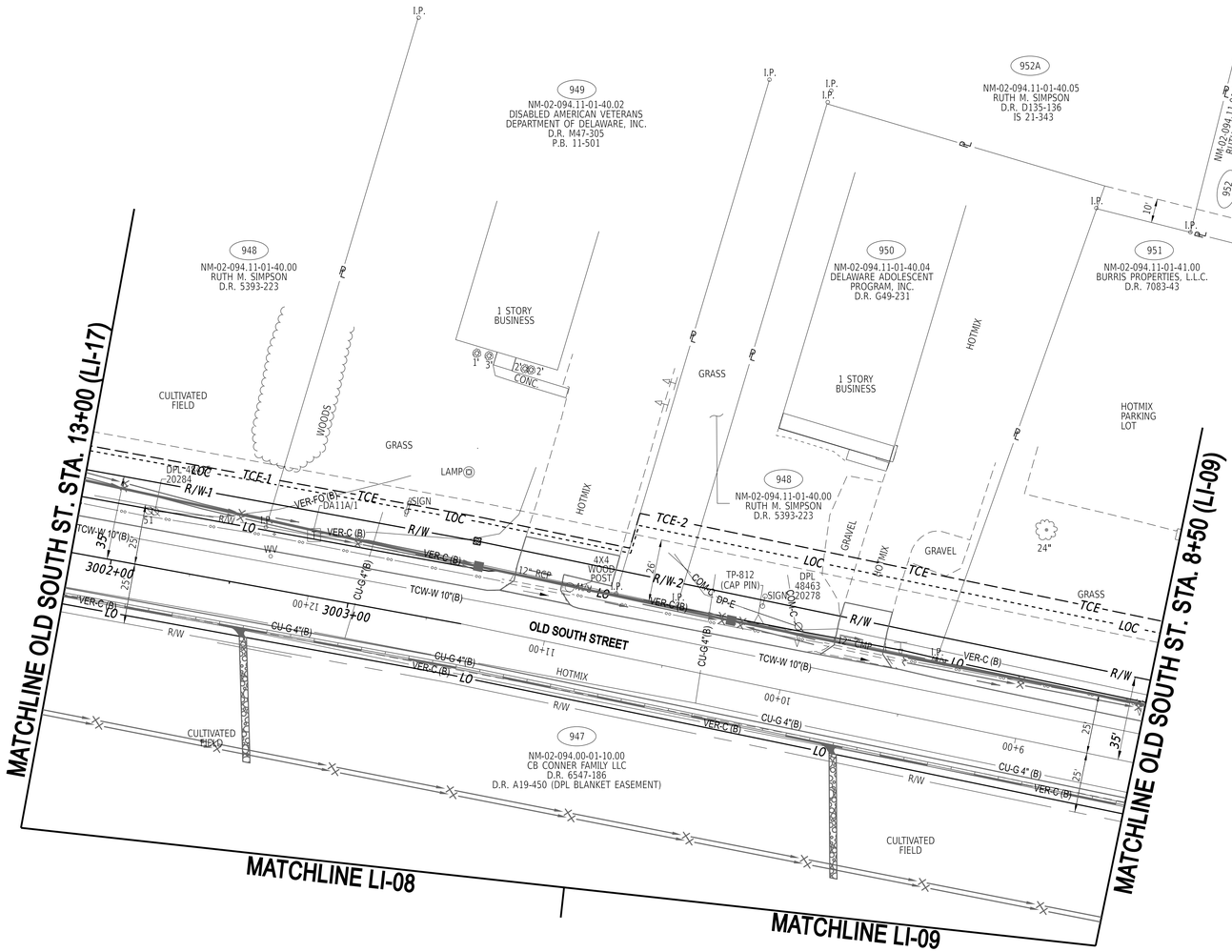

ADDITIONAL NOTES:

1 *DUE TO SHEET LAYOUT/FORMATTING, NO PROPOSED LIGHTING IS DISPLAYED ON THIS SHEET*

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING PLAN	LI-18
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 178

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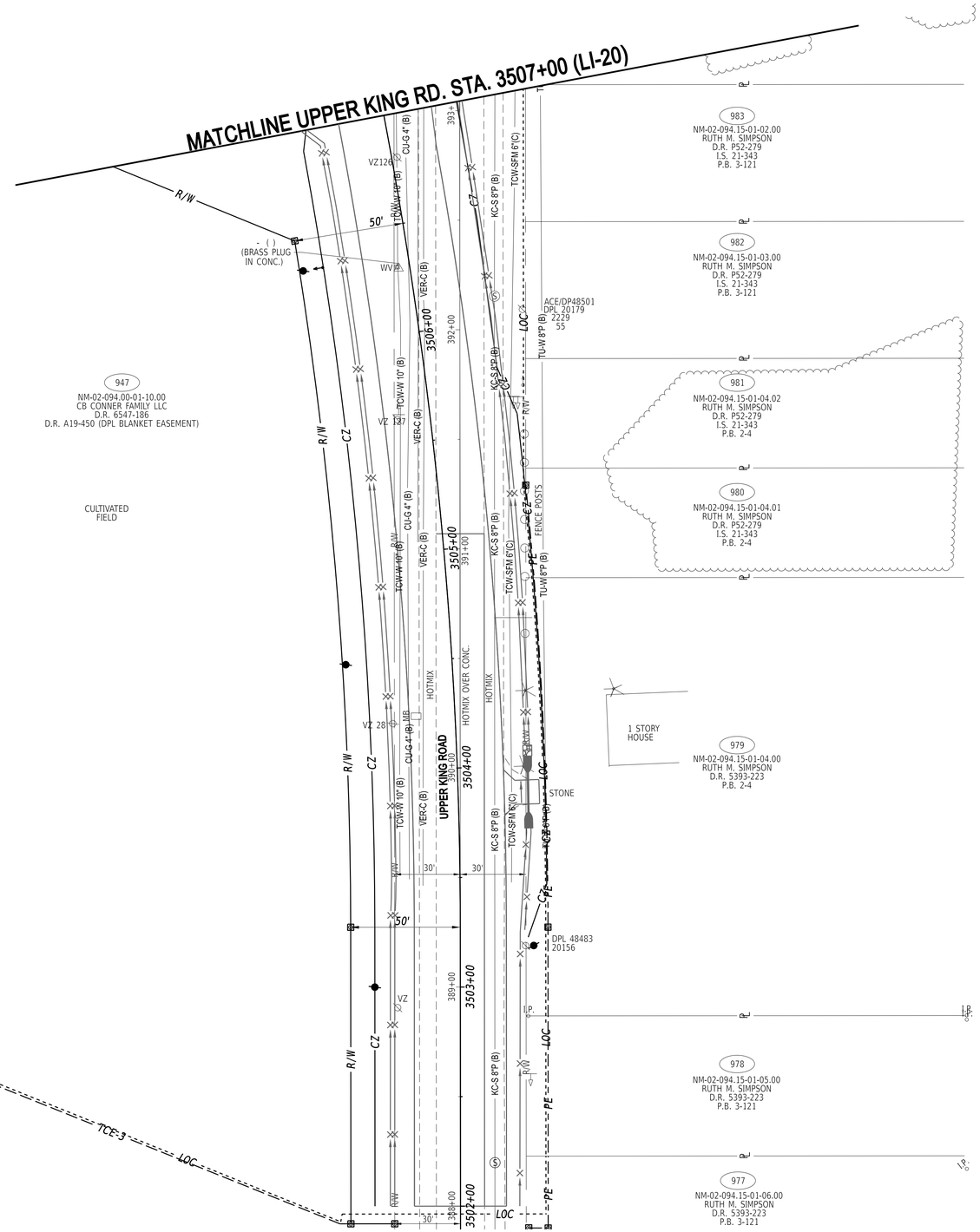

ADDITIONAL NOTES:

1 *DUE TO SHEET LAYOUT/FORMATTING, NO PROPOSED LIGHTING IS DISPLAYED ON THIS SHEET*

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING PLAN	LI-19
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 179

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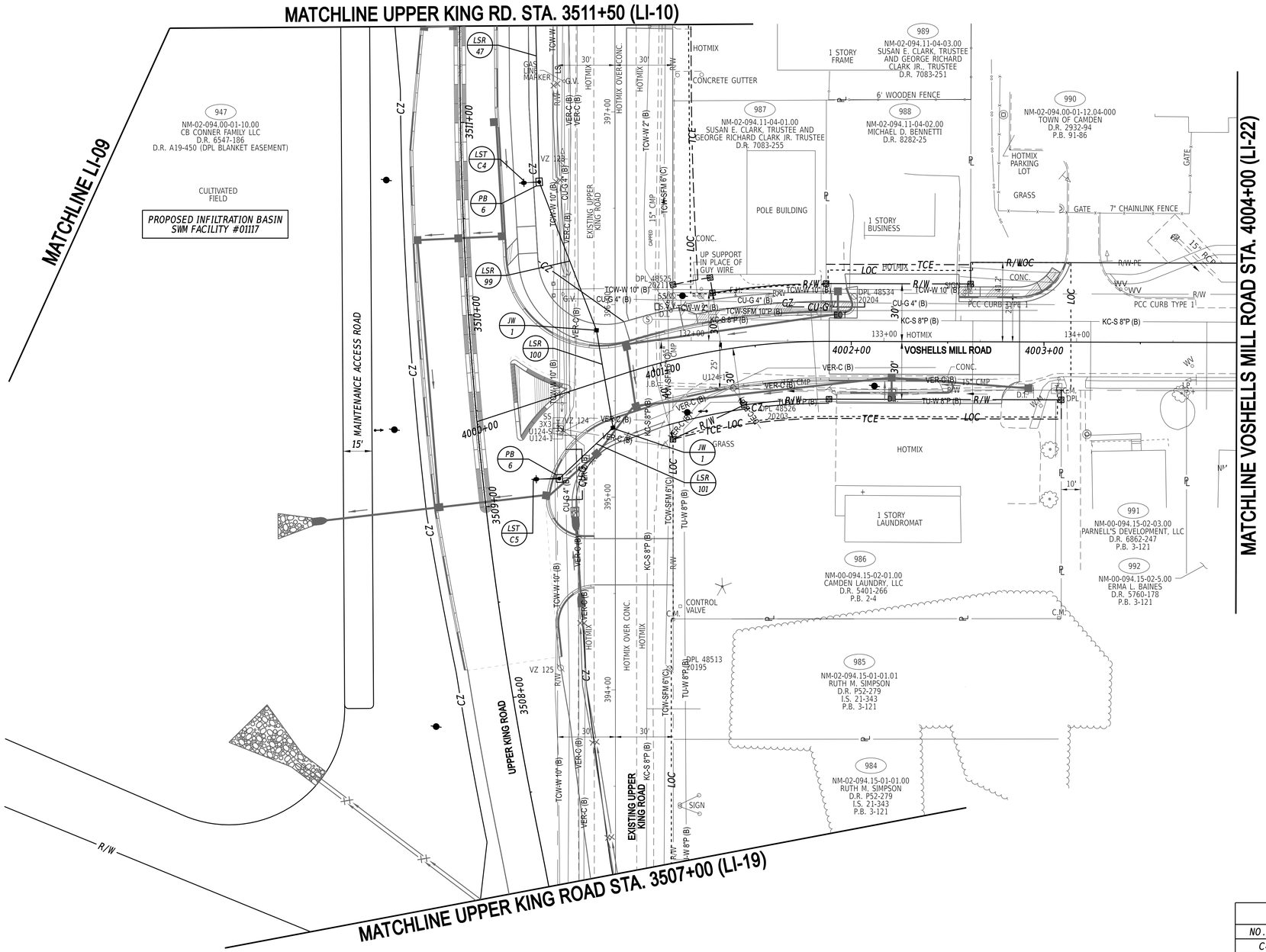

LIGHTING SERVICE SCHEDULE

SERVICE RUN	LENGTH	INSTALL METHOD	DESCRIPTION
99	83'	T	(1) 3" PVC - 2#6 + 1#6 GROUND
100	52'	B	(1) 3" HDPE - 2#6 + 1#6 GROUND
101	42'	T	(1) 3" PVC - 2#6 + 1#6 GROUND

* DENOTES EXISTING SERVICE RUN.
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	NORTHING	EASTING	ARM	LIGHT STANDARD
C4	2	3510+67.81	40.09'R	404050.9745	619274.7404	8'	81W TYPE III LED LUMINAIRE
C5	4	3509+05.89	37.34'R	403920.0498	619184.9280	12'	81W TYPE III LED LUMINAIRE

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ADDENDA / REVISIONS

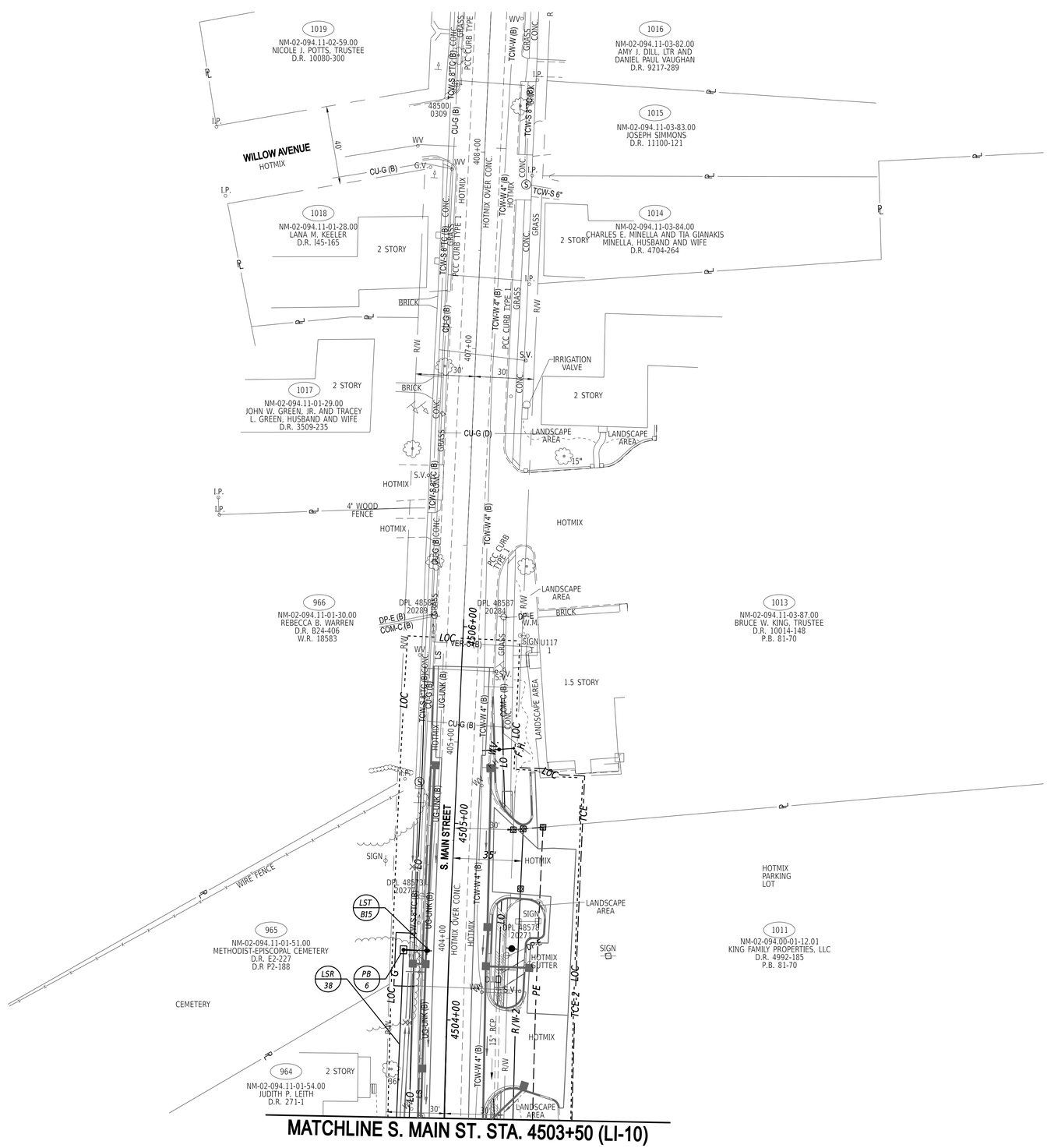
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

LIGHTING PLAN

	LI-20
SECTION	CEN
SHEET NO.	180



LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	NORTHING	EASTING	ARM	LIGHT STANDARD
B15	1	4504+34.78	23.17'L	404618.0926	619735.8056	12'	81W TYPE III LED LUMINAIRE

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ADDENDA / REVISIONS

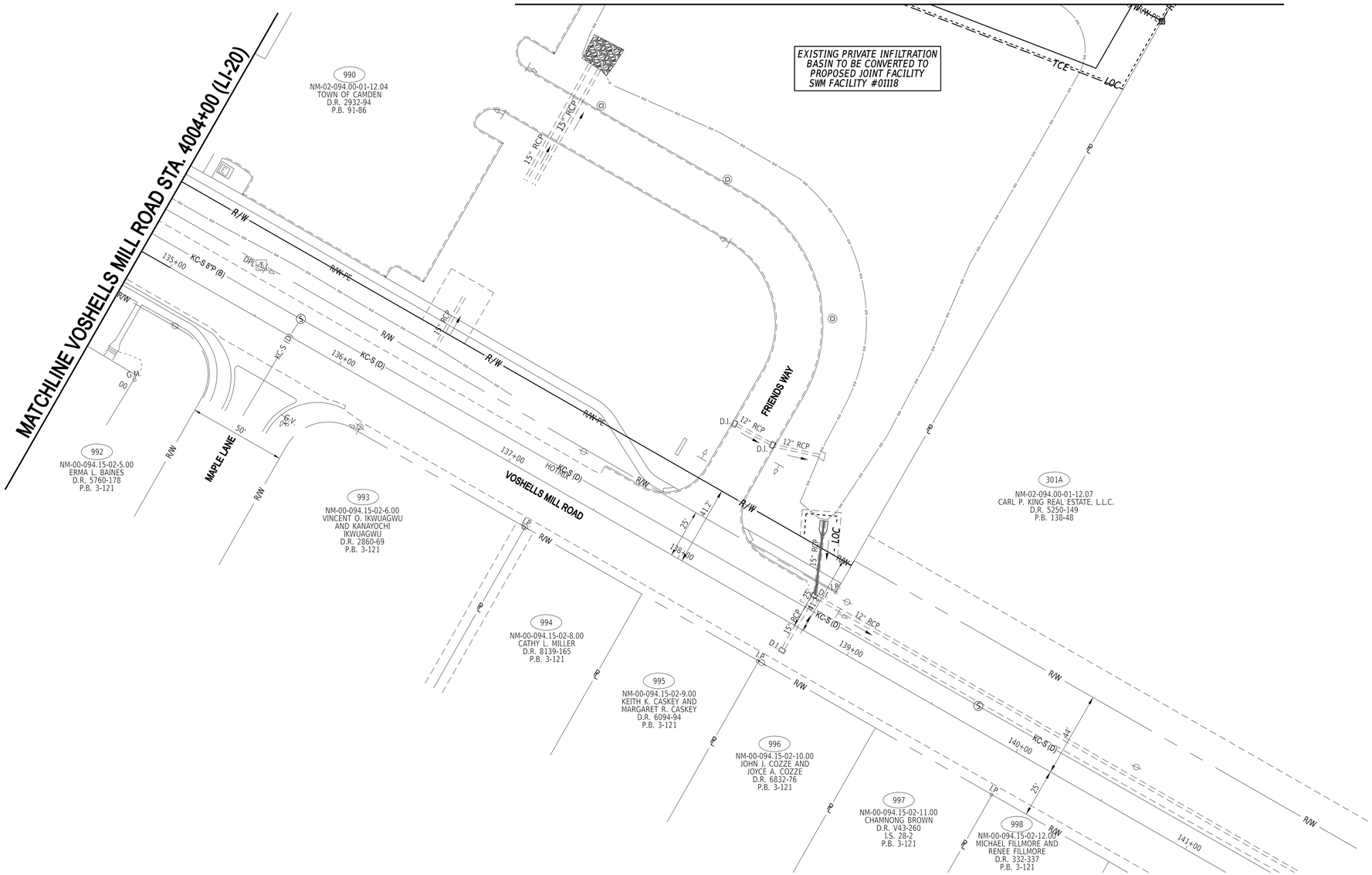
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

LIGHTING PLAN

LI-21
SECTION CEN
SHEET NO. 181



ADDITIONAL NOTES:

1. DUE TO SHEET LAYOUT/FORMATTING, NO PROPOSED LIGHTING IS DISPLAYED ON THIS SHEET

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ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING PLAN	LI-22
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 182

POLE SCHEDULE

POLE NO.	TYPE OF POLE	MAST ARM LENGTH	LUMINAIRE WATTAGE	TYPE OF BASE	STATION LOCATION		NOTES
					STATION	OFFSET	
A1	30' ROUND ALUMINUM	15'	81W LED	TYPE 6 (BREAKAWAY)	2007+35.66	31.85'L	-
A2	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	1502+84.79	37.98'R	
A3	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	1501+39.16	37.67'R	
A4	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	1014+26.79	54.67'L	
A5	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	1015+71.08	54.67'L	
A6	30' ROUND ALUMINUM	15'	81W LED	TYPE 6 (BREAKAWAY)	1502+36.38	51.96'L	
A7	30' ROUND ALUMINUM	15'	81W LED	TYPE 6 (BREAKAWAY)	1500+70.64	52.17'L	
A8	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	1011+81.21	42.72'R	
A9	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	1013+10.13	40.37'R	
B1	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	1052+96.64	30.03'R	
B2	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	1049+65.68	35.60'R	
B3	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	1048+15.23	69.64'R	
B4	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	1046+49.10	68.87'R	
B5	30' ROUND ALUMINUM	15'	81W LED	TYPE 6 (BREAKAWAY)	1045+65.32	32.98'R	
B6	30' ROUND ALUMINUM	15'	81W LED	TYPE 6 (BREAKAWAY)	1044+46.96	30.81'R	
B7	30' ROUND ALUMINUM	15'	81W LED	TYPE 6 (BREAKAWAY)	1043+24.45	32.20'R	
B8	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	1055+96.60	29.91'R	
B9	30' ROUND ALUMINUM	15'	81W LED	TYPE 6 (BREAKAWAY)	1057+95.22	72.27'R	
B10	30' ROUND ALUMINUM	8'	137W LED	TYPE 6 (BREAKAWAY)	1054+29.71	22.04'L	
B11	30' ROUND ALUMINUM	8'	137W LED	TYPE 6 (BREAKAWAY)	1057+54.04	39.22'L	
B12	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	1058+46.42	48.14'L	
B13	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	4501+39.43	22.82'L	
B14	30' ROUND ALUMINUM	8'	137W LED	TYPE 6 (BREAKAWAY)	4502+75.95	21.20'L	
B15	30' ROUND ALUMINUM	12	81W LED	TYPE 6 (BREAKAWAY)	4504+34.78	23.17'L	
B16	30' ROUND ALUMINUM	8'	137W LED	TYPE 6 (BREAKAWAY)	1051+46.93	39.69'L	
B17	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	1049+94.98	50.94'L	
B18	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	1048+26.37	56.25'L	
B19	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	2504+68.07	46.81'L	
B20	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	2503+27.57	37.67'L	
B21	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	2503+71.87	38.66'R	
B22	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	2505+33.27	38.67'R	
B23	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	2505+90.36	58.47'R	
C1	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5001+90.49	45.67'R	
C2	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5000+69.94	67.59'R	
C3	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	3512+03.22	38.67'R	
C4	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	3510+67.81	40.09'R	
C5	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	3509+05.89	37.34'R	
C6	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5003+38.57	45.67'R	
C7	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5004+85.67	48.49'R	
C8	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5006+34.89	49.11'R	
C9	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5007+82.81	49.22'R	
C10	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5009+30.91	48.80'R	
C11	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5010+78.68	50.44'R	
C12	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5012+26.86	50.28'R	
C13	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5013+74.79	50.09'R	
C14	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5015+22.82	41.66'R	
C15	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	6004+40.58	64.03'L	
C16	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	6002+66.40	25.60'R	
C17	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	6002+77.67	33.51'R	
C18	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	6003+97.20	32.86'R	
C19	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5017+77.61	60.10'R	

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ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	LIGHTING DETAILS & SCHEDULE	SECTION
				T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY			SHEET NO.
				KENT	CHECKED BY: J. FREY		183

POLE SCHEDULE

POLE NO.	TYPE OF POLE	MAST ARM LENGTH	LUMINAIRE WATTAGE	TYPE OF BASE	STATION LOCATION		NOTES
					STATION	OFFSET	
C23	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5001+33.16	40.41'L	-
C24	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5002+65.23	54.67'L	
C25	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5004+12.85	54.67'L	
C26	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5005+60.82	48.67'L	
C27	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5007+08.87	48.67'L	
C28	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5008+56.88	48.67'L	
C29	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5010+04.80	48.67'L	
C30	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5011+52.93	48.67'L	
C31	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5013+00.85	48.67'L	
C32	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5014+48.89	48.67'L	
C33	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5016+02.64	42.61'L	
C34	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	6005+79.72	52.54'L	
C35	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	6005+86.49	50.00'R	
C36	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	5018+02.93	42.66'L	
C37	30' ROUND ALUMINUM	8'	137W LED	TYPE 6 (BREAKAWAY)	5019+59.64	47.66'L	
C38	30' ROUND ALUMINUM	8'	81W LED	TYPE 6 (BREAKAWAY)	4500+65.24	50.93'R	

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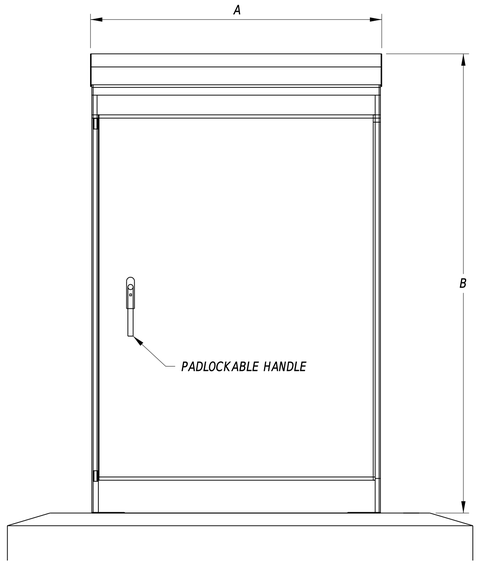
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	LIGHTING DETAILS & SCHEDULE	SECTION
				T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY			SHEET NO.
				KENT	CHECKED BY: J. FREY		184

CABINET TYPE		
DIM.	TYPE R	TYPE M
A	44"	36"
B	77"	51"
C	25.5"	16.88"

NOTES:

1. PHOTOCELL SHALL BE MOUNTED ON BACK OR SIDE OF CABINET ON 90 DEGREE CONDUIT FITTING TO AVOID VEHICLE HEADLIGHT GLARE. PHOTOCELLS CAN ALSO BE INSTALLED INSIDE OF THE CABINET, BEHIND A PLEXI-GLASS SHIELD.
2. REFER TO STANDARD DETAILS T-4-1 (2021) AND T-4-2 (2021) FOR CABINET BASE DETAILS.
3. CABINET SHALL BE NEMA 4X AND SHALL BE FABRICATED FROM 0.125 5052-H32 ALUMINUM.
4. METER AND LOAD-SIDE DISCONNECT SWITCH TO BE MOUNTED SEPARATELY FROM CABINET. REFER TO STANDARD DETAIL FOR PEDESTAL DETAILS. WORK TO BE PAID UNDER ITEM 842007 - PROVIDE AND INSTALL ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240.
5. REFER TO LIGHTING CABINET LAYOUT SHEET AND WIRING DIAGRAM SHEET.
6. LIGHTING SERVICE TO BE 120 / 240 V, SINGLE PHASE, 3-WIRE. CONTRACTOR TO COORDINATE WITH POWER COMPANY FOR CABLE AND SERVICE CONNECTION REQUIREMENTS PER ITEM 842007 - PROVIDE AND INSTALL ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240.



LIGHTING CABINET - FRONT VIEW

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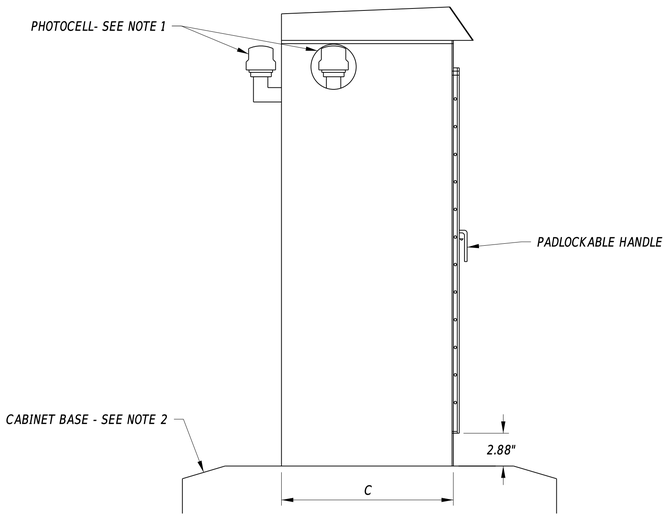

LIGHTING CABINET - SIDE VIEW

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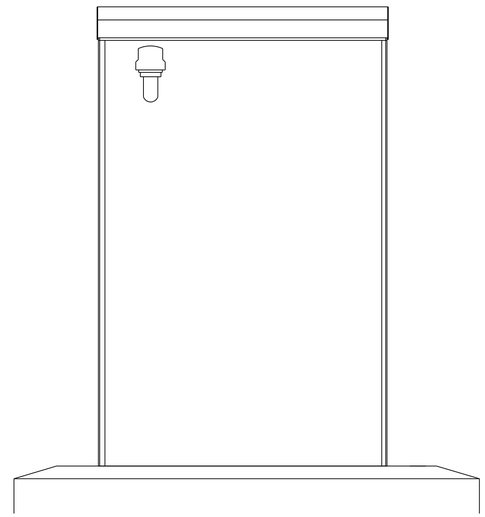

LIGHTING CABINET - BACK VIEW

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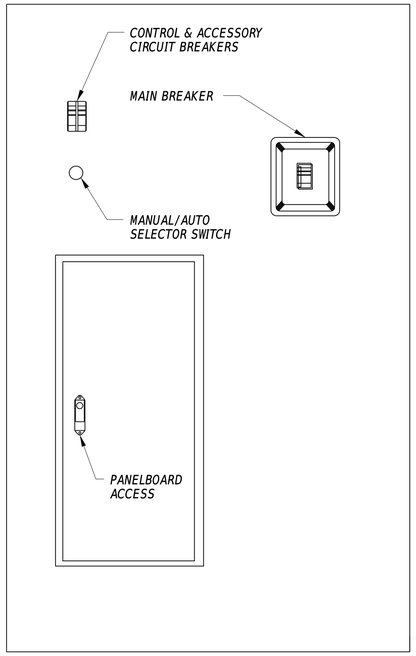
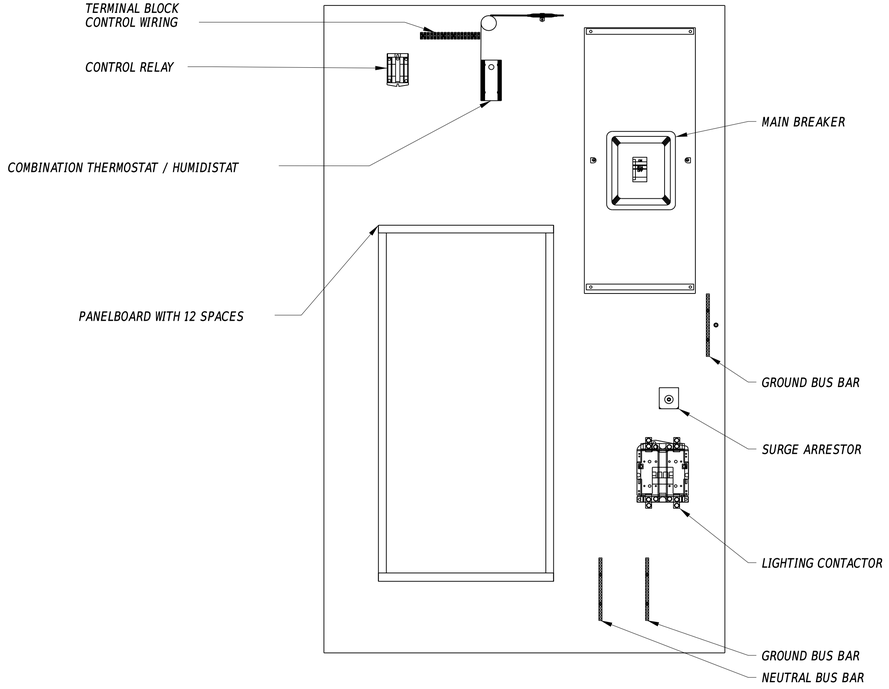
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	LIGHTING DETAILS	SECTION
				T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY			SHEET NO.
				KENT	CHECKED BY: J. FREY		185



DEAD FRONT PANEL LAYOUT



BACK PANEL LAYOUT

LIGHTING CABINET LAYOUT

N.T.S.

NOTES:

1. *SINGLE PHASE LIGHTING CABINET COMPONENTS SHALL BE RATED AS FOLLOWS:*

   CONTROL & ACCESSORY CIRCUIT BREAKERS - 15 AMP, 120 VAC
   MAIN BREAKER - 100 A, 120 VAC, 1PH, 2-POLE
   CONTROL RELAY - 120 VAC
   SURGE ARRESTOR - 1PH, 3W, 120/240 VAC
   LIGHTING CONTACTOR - 100 A, 120 VAC, 2-POLE
   PANELBOARD - 120/240 VAC, 1PH, 3W, 100 A
   PHOTOCELL - 120 VAC
   THERMOSTAT/HUMIDISTAT - 120 VAC
   FAN - 120 VAC

2. *BRANCH CIRCUIT BREAKERS SHALL BE BOLT-IN COMMERCIAL GRADE CAPABLE OF ACCEPTING UP TO A #2 AWG CONDUCTOR WIRE. TERMINAL BLOCKS SHALL BE USED IF CONDUCTOR WIRES ARE LARGER THAN #2 AWG.*

3. *REFER TO LIGHTING CABINET WIRING DIAGRAMS SHEETS FOR LIGHTING CONTROL CENTER WIRING DIAGRAM.*

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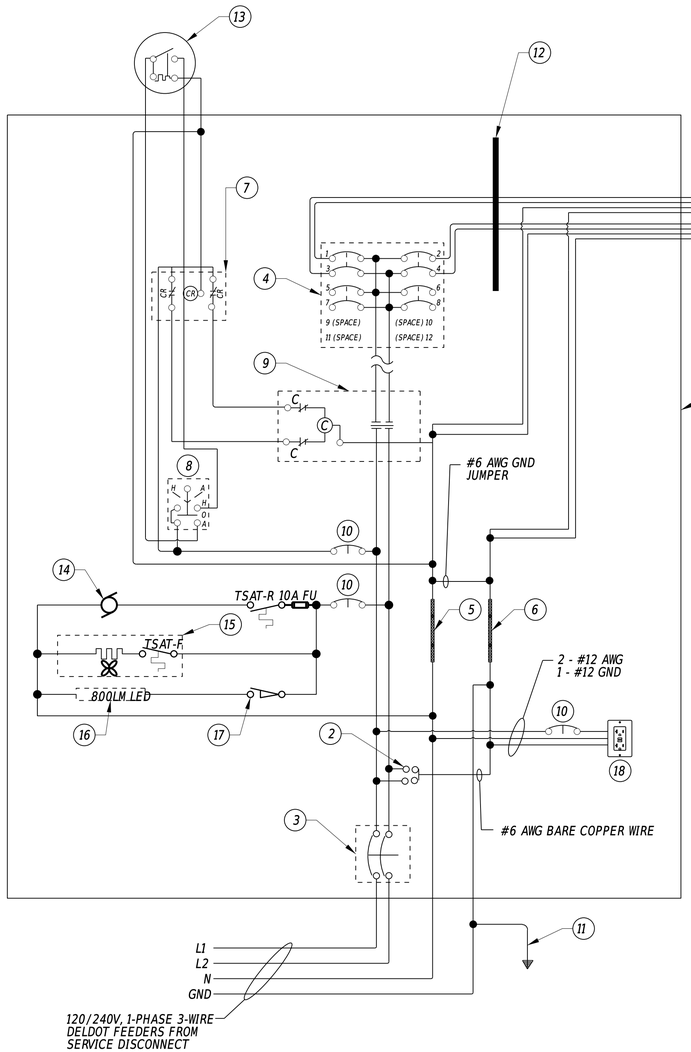
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO.	N/A	LIGHTING DETAILS	SECTION
				T201709502	DESIGNED BY:	L. HAXTON		CEN
				COUNTY	CHECKED BY:	J. FREY		SHEET NO.
				KENT				186



120/240 VOLT
LIGHTING CONTROL CENTER
WIRING DIAGRAM

NOTES:

1. NO CONDUCTORS MAY ENTER OR EXIT THROUGH THE REAR OF ANY PANEL.
2. THE LIGHTING CONTACTOR SHALL BE IN A PROPERLY SIZED ENCLOSURE.
3. ALL CONDUCTORS NOT IN CONDUIT SHALL BE BUNDLED OR WRAPPED AND SECURED IN CABINET AWAY FROM SHARP EDGES.
4. BONDING BUSHINGS SHALL BE USED FOR ALL CONCENTRIC KNOCKOUTS.
5. ALL CABLES SHALL MEET AMPACITY REQUIREMENTS OF THE NATIONAL ELECTRIC CODE. THE MINIMUM CABLE SIZE WITHIN THE CONTROL CENTER SHALL BE NO. 12 AWG.
6. 20A, 2-P CIRCUIT BREAKERS SHALL BE USED IN PANEL FOR ROADWAY LIGHTING FEEDERS AND SPARES.
7. REFER TO THE 2022 DELDOT STANDARD SPECIFICATIONS, SECTIONS 847 AND 1080 FOR ADDITIONAL LIGHTING CONTROL CABINET REQUIREMENTS NOT SHOWN ON THIS DETAIL.

LIGHTING CONTROL DIAGRAM LEGEND:

CONTRACTOR SHALL SUPPLY AND INSTALL ALL MISCELLANEOUS ITEMS REQUIRED FOR A COMPLETE INSTALLATION. COMPLY WITH DELDOT STANDARD FOR ALL COMPONENTS PROVIDED. THE FOLLOWING ITEMS ARE TYPICAL FOR EACH LIGHTING CONTROL CABINET:

1. LIGHTING CABINET ENCLOSURE (REFER TO LIGHTING DETAIL & SCHEDULE SHEET FOR MORE INFORMATION)
2. SQUARE D SECONDARY SURGE ARRESTOR
3. SQUARE D HDL26100 HDI50 100 AMP ENCLOSED MAIN CIRCUIT BREAKER
4. SQUARE D NQ PANEL, 100A, 120/240V, 1 PHASE, 3-WIRE (12 SPACES) WITH FOUR SQUARE D, 20A 2P CIRCUIT BREAKERS
5. SQUARE D SN100FA NEUTRAL BAR
6. SQUARE D PKOGTA2 GROUND BAR (OR AS APPROPRIATE BASED ON # OF CIRCUITS)
7. SQUARE D 9001KY1 CONTROL STATION
8. SQUARE D 9001KS43BH13 HOA SELECTOR SWITCH MOUNTED ON DOOR OF LIGHTING CONTACTOR
9. SQUARE D 8903SOG1V02C CONTACTOR
10. SQUARE D QOU120 CIRCUIT BREAKER, DIN RAIL MOUNTED
11. 3/4" DIA. X 10' LONG GROUND ROD (OUTSIDE CABINET BASE)
12. TERMINAL BLOCKS (ONLY USE WHEN CABLE SIZE IS LARGER THAN #2 AWG)
13. INTERMATIC C4536LAC PHOTOCELL WITH TWIST-LOCK RECEPTACLE
14. APX COOLING FAN KIT WITH THERMOSTAT AND INTAKE WASHABLE FILTER
15. HOFFMAN PANEL HEATER DAH4001B, FAN BLOWER TYPE WITH INTEGRAL THERMOSTAT
16. HOFFMAN 800 LUMENS LED ENCLOSURE LIGHT KIT
17. APX DOOR SWITCH FOR CABINET LIGHTING
18. 20A GFCI SINGLE GANG RECEPTACLE,PHOENIX CONTACT EM-DUO 120/20/GFI-5602519

MISCELLANEOUS ITEMS NOT SHOWN ON DIAGRAM:

19. DIN RAILS.
20. NON-METALLIC WIREWAYS AND COVERS
21. BUSSMANN FUSES AND CH MODULAR, IP20, DIN RAIL MOUNTED FUSE HOLDERS

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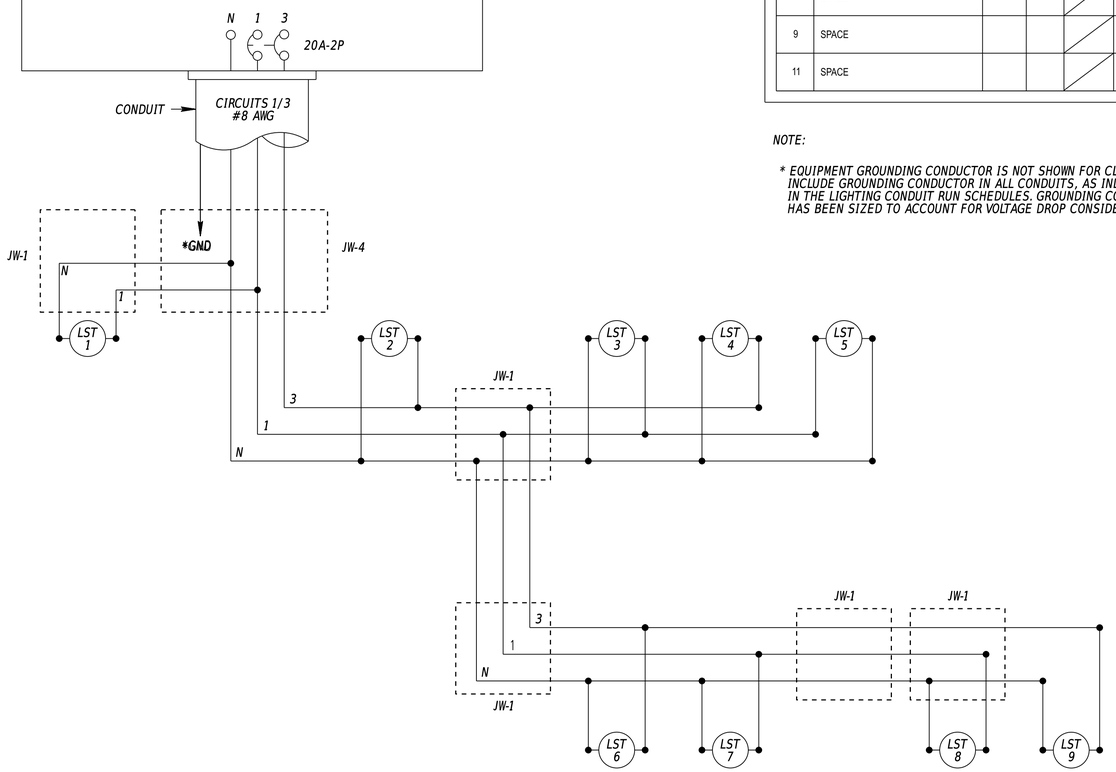
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO.	N/A	LIGHTING CABINET WIRING DIAGRAMS	SECTION
				T201709502	DESIGNED BY:	L. HAXTON		CEN
				COUNTY	CHECKED BY:	J. FREY		SHEET NO.
				KENT				187

CIRCUIT SCHEMATIC FOR LIGHTING CONTROL CABINET A (1503+98, 43.24' R)

LIGHTING CONTROL CABINET A

(REFER TO DELDOT CONSTRUCTION STANDARD T4-2 (2022), SHEET 2 OF 2 FOR MORE INFORMATION)



SCHEDULE OF PANEL A (1503+98)

120/240V
1 PHASE, 3-WIRE + GND
100 AMP MLO

CKT. NO.	EQUIPMENT SERVED	CONNECTED LOAD KW	CONNECTED LOAD AMPS	PHASE AND VOLTS	BRANCH CIRCUIT BREAKERS NO. OF POLES	BRANCH CIRCUIT BREAKERS FRAME SIZE	BRANCH CIRCUIT BREAKERS TRIP SIZE	REMARKS
1	PHASE A - 1, 3, 5, 7, 8	0.41	3.4	1 / 120	2	100	20	5 - 81 WATT LED
3	PHASE B - 2, 4, 6, 9	0.33	2.7	1 / 120		100	20	4 - 81 WATT LED
5	SPACE							
7	SPACE							
9	SPACE							
11	SPACE							

CKT. NO.	EQUIPMENT SERVED	CONNECTED LOAD KW	CONNECTED LOAD AMPS	PHASE AND VOLTS	BRANCH CIRCUIT BREAKERS NO. OF POLES	BRANCH CIRCUIT BREAKERS FRAME SIZE	BRANCH CIRCUIT BREAKERS TRIP SIZE	REMARKS
2	SPARE	-	-	1 / 120	2	100	20	
4	SPARE	-	-	1 / 120		100	20	
6	SPACE							
8	SPACE							
10	SPACE							
12	SPACE							

NOTE:

** EQUIPMENT GROUNDING CONDUCTOR IS NOT SHOWN FOR CLARITY. INCLUDE GROUNDING CONDUCTOR IN ALL CONDUITS, AS INDICATED IN THE LIGHTING CONDUIT RUN SCHEDULES. GROUNDING CONDUCTOR HAS BEEN SIZED TO ACCOUNT FOR VOLTAGE DROP CONSIDERATIONS.*

LEGEND:

LST ## — *LIGHT STANDARD WITH 150W HPS EQUIVALENT (81 WATTS)*

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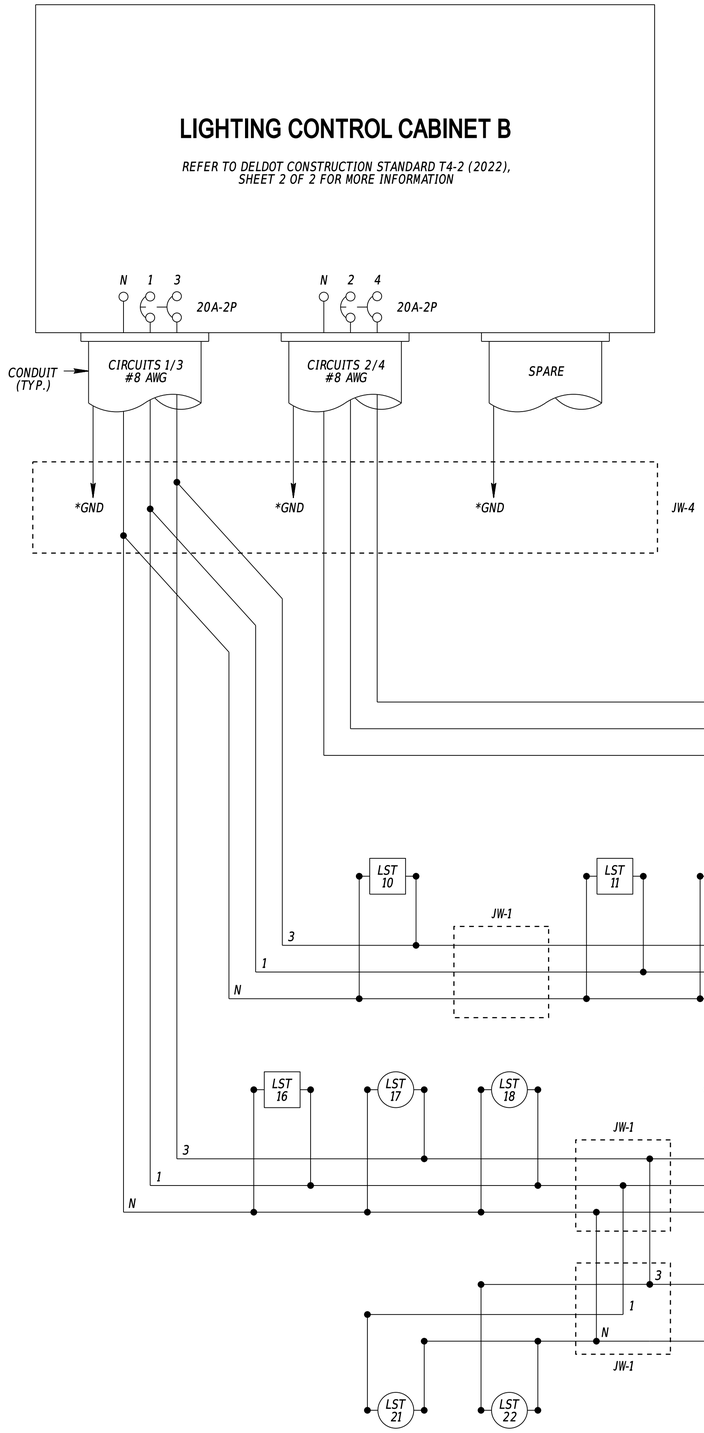
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING CABINET WIRING DIAGRAMS	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 188
					CHECKED BY: J. FREY		

CIRCUIT SCHEMATIC FOR LIGHTING CONTROL CABINET B (1053+04, 44.75' L)



SCHEDULE OF PANEL B (1053+04)

120/240V
1 PHASE, 3-WIRE + GND
100 AMP MLO

CKT. NO.	EQUIPMENT SERVED	CONNECTED LOAD KW	CONNECTED LOAD AMPS	PHASE AND VOLTS	BRANCH CIRCUIT BREAKERS NO. OF POLES	BRANCH CIRCUIT BREAKERS FRAME SIZE	BRANCH CIRCUIT BREAKERS TRIP SIZE	REMARKS
1	PHASE A - 11, 13, 15, 16, 18, 19, 21	0.68	5.7	1 / 120	2	100	20	5 - 81 WATT LED 2 - 137 WATT LED
3	PHASE B - 10, 12, 14, 17, 20, 22, 23	0.68	5.7	1 / 120	2	100	20	5 - 81 WATT LED 2 - 137 WATT LED
5	SPARE	-	-	1 / 120	2	100	20	
7	SPARE	-	-	1 / 120	2	100	20	
9	SPACE							
11	SPACE							

CKT. NO.	EQUIPMENT SERVED	CONNECTED LOAD KW	CONNECTED LOAD AMPS	PHASE AND VOLTS	BRANCH CIRCUIT BREAKERS NO. OF POLES	BRANCH CIRCUIT BREAKERS FRAME SIZE	BRANCH CIRCUIT BREAKERS TRIP SIZE	REMARKS
2	PHASE A - 1, 3, 5, 7, 9	0.41	3.4	1 / 120	2	100	20	5 - 81 WATT LED
4	PHASE B - 2, 4, 6, 8	0.33	2.7	1 / 120	2	100	20	4 - 81 WATT LED
6	SPARE	-	-	1 / 120	2	100	20	
8	SPARE	-	-	1 / 120	2	100	20	
10	SPACE							
12	SPACE							

NOTE:

** EQUIPMENT GROUNDING CONDUCTOR IS NOT SHOWN FOR CLARITY. INCLUDE GROUNDING CONDUCTOR IN ALL CONDUITS, AS INDICATED IN THE LIGHTING CONDUIT RUN SCHEDULES. GROUNDING CONDUCTOR HAS BEEN SIZED TO ACCOUNT FOR VOLTAGE DROP CONSIDERATIONS.*

LEGEND:

LST ## — *LIGHT STANDARD WITH 150W HPS EQUIVALENT (81 WATTS)*

LST ## — *LIGHT STANDARD WITH 250W HPS EQUIVALENT (137 WATTS)*

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	LIGHTING CABINET WIRING DIAGRAMS	SECTION
				T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY	CHECKED BY: J. FREY		SHEET NO.
				KENT			189

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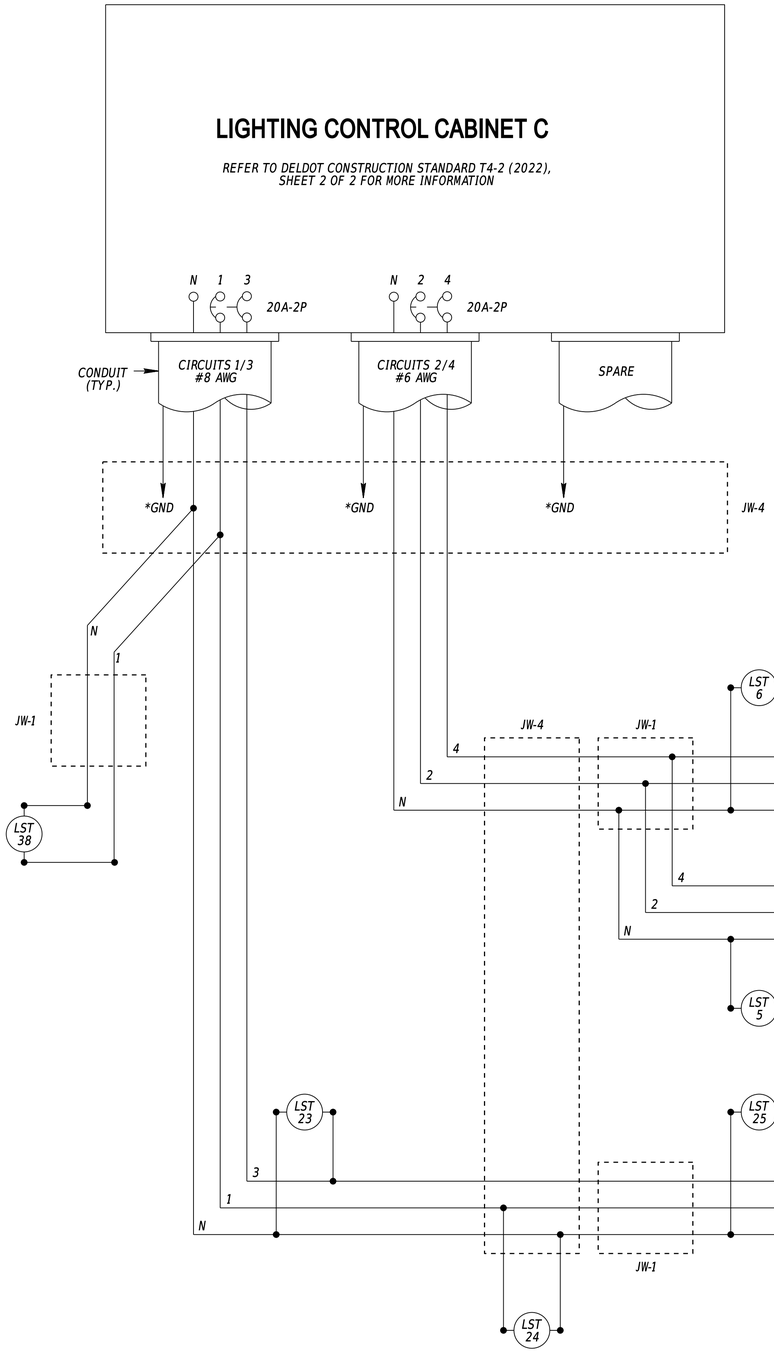
CIRCUIT SCHEMATIC FOR LIGHTING CONTROL CABINET C (5001+07, 49.74' L)



SCHEDULE OF PANEL C (5001+07)

120/240V
1 PHASE, 3-WIRE + GND
100 AMP MLO

CKT. NO.	EQUIPMENT SERVED	CONNECTED LOAD KW	CONNECTED LOAD AMPS	PHASE AND VOLTS	BRANCH CIRCUIT BREAKERS NO. OF POLES	BRANCH CIRCUIT BREAKERS FRAME SIZE	BRANCH CIRCUIT BREAKERS TRIP SIZE	REMARKS
1	PHASE A - 24, 26, 28, 30, 32, 34, 36, 38	0.66	5.4	1 / 120	2	100	20	8 - 81 WATT LED
3	PHASE B - 23, 25, 27, 29, 31, 33, 35, 37	0.71	5.9	1 / 120	2	100	20	7 - 81 WATT LED 1 - 137 WATT LED
5	SPARE	-	-	1 / 120	2	100	20	
7	SPARE	-	-	1 / 120	2	100	20	
9	SPACE							
11	SPACE							

CKT. NO.	EQUIPMENT SERVED	CONNECTED LOAD KW	CONNECTED LOAD AMPS	PHASE AND VOLTS	BRANCH CIRCUIT BREAKERS NO. OF POLES	BRANCH CIRCUIT BREAKERS FRAME SIZE	BRANCH CIRCUIT BREAKERS TRIP SIZE	REMARKS
2	PHASE A - 2, 4, 6, 8, 10, 12, 14, 16, 18	0.74	6.1	1 / 120	2	100	20	9 - 81 WATT LED
4	PHASE B - 1, 3, 5, 7, 9, 11, 13, 15, 17, 19	0.83	6.8	1 / 120	2	100	20	10 - 81 WATT LED
6	SPARE	-	-	1 / 120	2	100	20	
8	SPARE	-	-	1 / 120	2	100	20	
10	SPACE							
12	SPACE							

NOTES:

* EQUIPMENT GROUNDING CONDUCTOR IS NOT SHOWN FOR CLARITY. INCLUDE GROUNDING CONDUCTOR IN ALL CONDUITS, AS INDICATED IN THE LIGHTING CONDUIT RUN SCHEDULES. GROUNDING CONDUCTOR HAS BEEN SIZED TO ACCOUNT FOR VOLTAGE DROP CONSIDERATIONS.

LEGEND:

- LST ## — LIGHT STANDARD WITH 150W HPS EQUIVALENT (81 WATTS)
- LST ## — LIGHT STANDARD WITH 250W HPS EQUIVALENT (137 WATTS)

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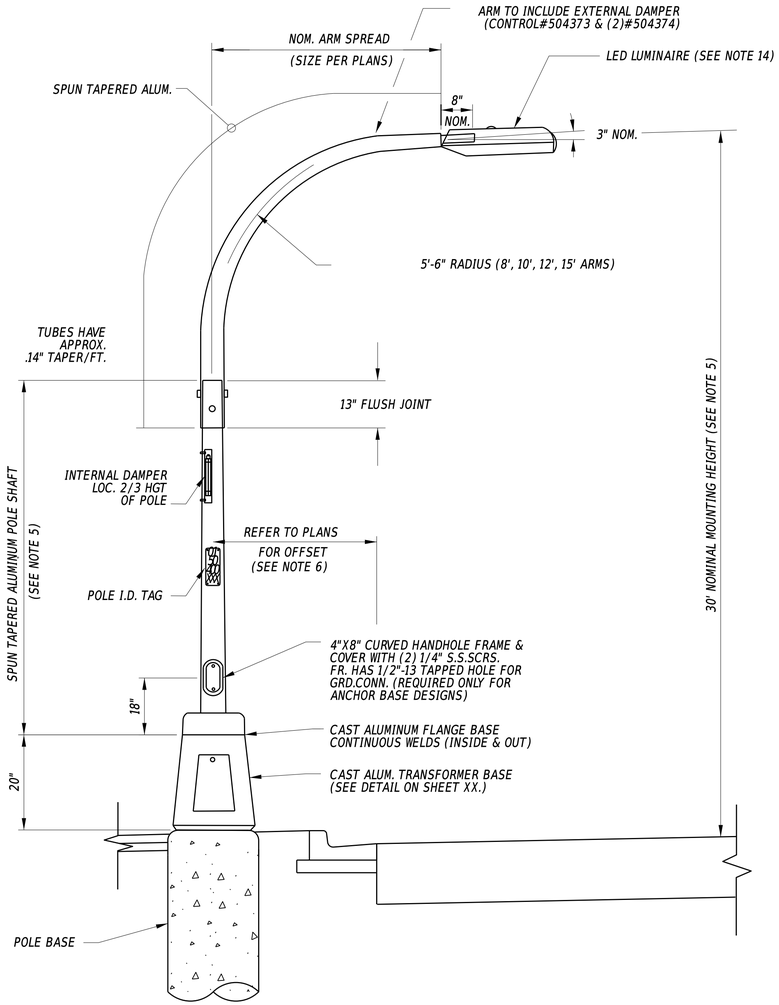
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING CABINET WIRING DIAGRAMS	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 190
					CHECKED BY: J. FREY		



ALUMINUM LIGHTING STANDARD WITH SINGLE DAVIT ARM

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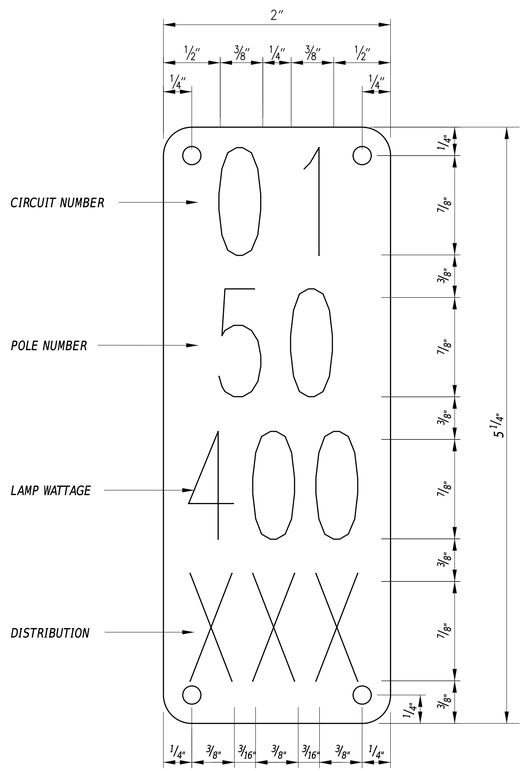

TYPICAL POLE IDENTIFICATION TAG

MATERIAL SPECIFICATION	
POLE & DAVIT TUBES	6063-T6
ANCHOR BASE	AA356-T6
BOLT COVERS	AA356
ANCHOR BOLT NUTS	ASTM-A563 GR.A
ANCHOR BOLTS	ASTM-F1554 GR55
STN.STL.HARDWARE	AISI-300 SERIES SST
TRANSFORMER BASE	AA356-T6
T-BASE HARDWARE	ASTM-A325 GALV.

NOTES:

1. HEAT TREAT POLE & DAVIT TO -T6, TEMPER AFTER WELDING.
2. FINISH - POLE & DAVIT SHALL BE SATIN FINISHED POLISHED AND WRAPPED.
3. DESIGNED IN ACCORDANCE WITH STANDARDS ESTABLISHED BY THE LATEST EDITION OF AASHTO REQUIREMENTS.
4. TRANSFORMER SHALL MEET THE STANDARDS ESTABLISHED BY THE LATEST EDITION OF AASHTO BREAKAWAY REQUIREMENTS.
5. DUE TO VARYING ELEVATIONS OF ROADWAY, IT MAY BE NECESSARY TO MAINTAIN A NOMINAL FIXTURE MOUNTING HEIGHT OF 30' ABOVE THE ROADWAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THESE MEASUREMENTS. THE DIFFERENCE IN HEIGHT SHALL NOT EXCEED 12" BETWEEN TWO ADJACENT LUMINAIRES.
6. STATION AND OFFSET NOTED IN LIGHTING STANDARD SCHEDULE IS GIVEN TO THE CENTER OF THE POLE BASE.
7. GROUND WIRE TO BE BONDED TO CONDUIT BUSHING.
8. CONDUCTORS SHALL ALWAYS BE SPLICED IN THE POLE BASE.
9. IDENTIFICATION TAG SHALL BE INSTALLED ON THE SIDE OF THE POLE FACING AWAY FROM TRAFFIC.
10. POLE ARMS SHALL BE ALIGNED PERPENDICULAR TO THE EDGE OF TRAVELED WAY, UNLESS OTHERWISE DIRECTED.
11. THE OUTER SLEEVE MEMBER AT THE LIGHT STANDARD FLUSH JOINT SHALL BE FURNISHED WITH PREDRILLED THROUGH HOLES AT 90 DEGREES APART (MIN. 6" DISTANCE BETWEEN HOLES). THE INNER MEMBER SHALL BE DRILLED IN THE FIELD AFTER THE POLE SHAFT IS INSTALLED AND THE DAVIT ARM IS ALIGNED.
12. LAMP TYPE, WATTAGE AND HORIZONTAL DISTRIBUTION TYPE SHALL BE AS SPECIFIED ON THE PLANS. ALL LUMINAIRES SHALL BE MOUNTED AT A ZERO DEGREE TILT ANGLE. PHOTO CONTROL SHALL BE LOCATED AT THE LIGHTING CONTROL CENTER ENCLOSURE, UNLESS OTHERWISE NOTED
13. PAYMENT FOR LIGHT POLE AND ALL AMENITIES SHOWN IN THE ALUMINUM LIGHTING STANDARD DETAIL AND TYPICAL TRANSFORMER BASE WIRE SPLICE DETAIL ON SHEET XX (EXCEPT POLE BASE, CONDUIT, LUMINAIRE, AND CABLES) SHALL BE MADE UNDER ITEM 851001 - ALUMINUM LIGHTING STANDARD WITH SINGLE DAVIT ARM, 30' POLE. REFER TO THE 2020 DELDOT STANDARD SPECIFICATIONS, SECTION 851 FOR ADDITIONAL LIGHT STANDARD REQUIREMENTS NOT SHOWN ON THIS DETAIL.
14. DETAIL OF LUMINAIRE IS FOR VISUALIZATION PURPOSES ONLY. SEE MANUFACTURER'S CUT SHEET FOR ACTUAL SIZE. LABEL LUMINAIRES WITH AN IDENTIFICATION STICKER IN ACCORDANCE WITH NEMA CONVENTIONS. REFER TO THE 2020 DELDOT STANDARD SPECIFICATIONS, SECTION 850 FOR ADDITIONAL LUMINAIRE REQUIREMENTS. LUMINAIRES TO BE FURNISHED AND INSTALLED ARE AS FOLLOWS:

LED FIXTURE ID. (HPS EQUIVLANET)	MANUFACTURER	WATTAGE	CATALOG ORDER INFORMATION
150 WATT	LUMEC	81 WATT	RFM-80W48LED-4K-G2-R3M-UNV
250 WATT	LUMEC	137 WATT	RFL-145W64LED-4K-G2-R3M-UNV
400 WATT	LUMEC	207 WATT	RFL-215W96LED-4K-G2-R3M-UNV

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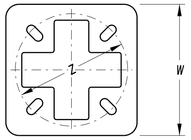
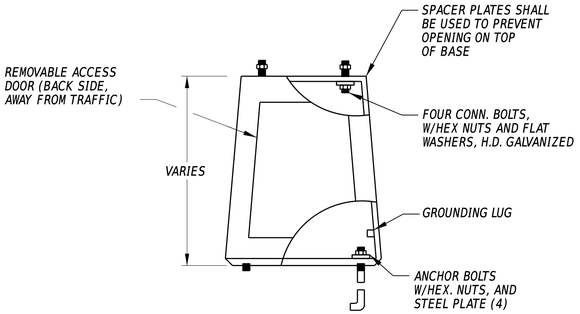
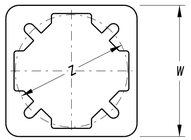
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	LIGHTING DETAILS AND SCHEDULE	SECTION
				T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY	CHECKED BY: J. FREY		SHEET NO.
				KENT			191

MOUNTING HEIGHT	ARM LENGTH	MIN WIDTH 'W'	BOLT DIA.	BOLT CIRCLE 'Z'
LESS THAN 40'	LESS THAN 30'	13"	1"	$13^{59}/_{64}$"

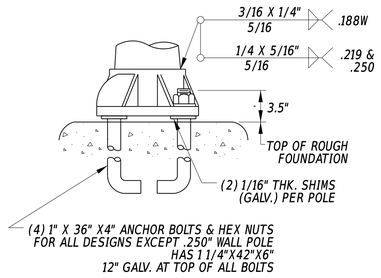


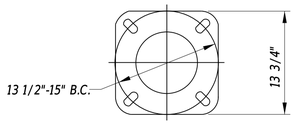
TOP VIEW





BOTTOM VIEW





ANCHOR BASE DETAIL
N.T.S.

CONSTRUCTION NOTES:

1. ALUMINUM TRANSFORMER BASE SHALL MEET THE CURRENT AASHTO BREAKAWAY REQUIREMENTS.
2. BREAKAWAY TRANSFORMER BASES SHALL BE INSTALLED WITH ALL POLES, UNLESS OTHERWISE NOTED.
3. OPENING OF TRANSFORMER BASE ACCESS DOOR SHALL BE INSTALLED ON THE SIDE OF THE POLE FACING AWAY FROM TRAFFIC.
4. PROVIDE ACCESSIBLE GROUNDING NUT OR LUG INSIDE TRANSFORMER BASE.
5. PROVIDE WASHERS, SHIMS AND BOLTS AS REQUIRED BY TRANSFORMER BASE MANUFACTURER.
6. THE CONTACT AREA BETWEEN THE TRANSFORMER BASE AND CONCRETE FOUNDATION SHALL BE SHOP COATED WITH COAL TAR EPOXY MEETING SSPC-PAINT 16 SPECIFICATIONS. THE THICKNESS OF THE COATING SHALL BE BETWEEN 6 AND 8 MILS. THE COATING SHALL BE COMPLETELY DRY BEFORE INSTALLATION. THE TOP OF THE FOUNDATION SHALL NOT BE PAINTED.
7. TOP AND BOTTOM OF BASE MAY BE SLOTTED FOR BOLT CIRCLE. SLOT MUST ACCOMMODATE DIMENSION SHOWN.
8. TRANSFORMER BASE AND ASSOCIATED COMPONENTS SHALL MEET THE FOLLOWING MATERIAL REQUIREMENTS:

MATERIAL SPECIFICATION	
POLE & DAVIT TUBES	6063-T6
ANCHOR BASE	AA356-T6
BOLT COVERS	AA356
ANCHOR BOLT NUTS	ASTM-A563 GR.A
ANCHOR BOLTS	ASTM-F1554 GR55
STN.STL.HARDWARE	AISI-300 SERIES SST
TRANSFORMER BASE	AA356-T6
T-BASE HARDWARE	ASTM-A325 GALV.

LIGHTING STANDARD ON BREAKAWAY TRANSFORMER BASE

N.T.S.

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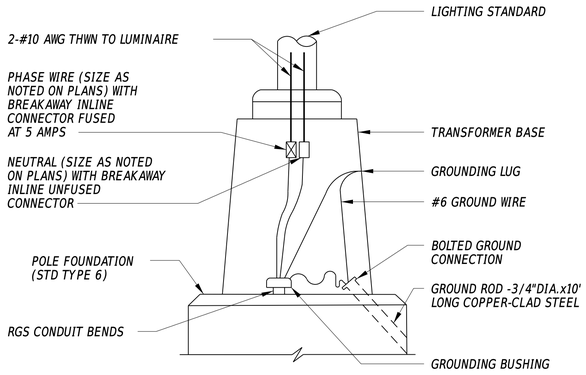
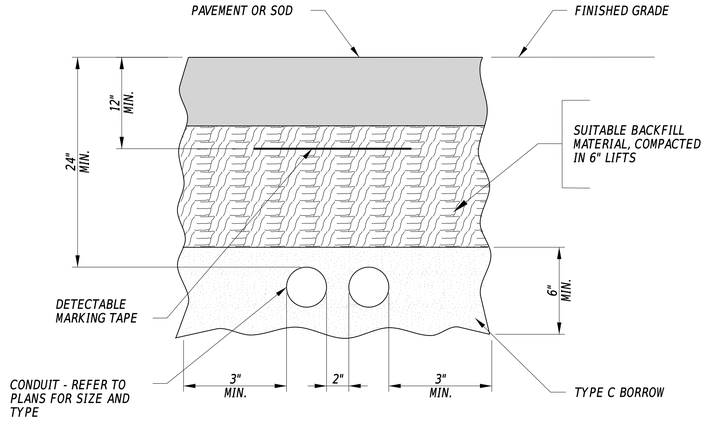
ADDENDA / REVISIONS	NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING DETAILS AND SCHEDULE	SECTION CEN
			COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 192
				CHECKED BY: J. FREY		



TYPICAL LUMINAIRE CONNECTION END OF CABLE RUN 120/240 VOLT

N.T.S.

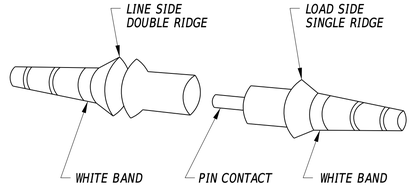


BURIED CONDUIT DETAIL

N.T.S.

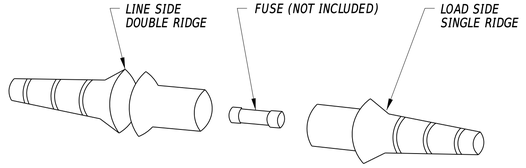
NOTES:

1. QUICK DISCONNECT CONNECTOR KITS SHALL HAVE BUILT-IN BREAKAWAY DESIGN TO ELIMINATE DE-ENERGIZATION OF COMPLETE CIRCUITS AND EXPOSED WIRES IN THE EVENT OF A KNOCKDOWN.
2. CONNECTOR KITS SHALL BE USED IN THE TRANSFORMER BASE OF LIGHTING STANDARDS TO SPLICE BRANCH CIRCUIT CONDUCTORS WITH THE LUMINAIRE CONDUCTORS.
3. IF NECESSARY, TYPE IV KITS MAY BE USED IN JUNCTION WELLS TO Y-SPLICE BRANCH CIRCUIT CONDUCTORS WHEN LIGHTING CIRCUIT DESIGN DICTATES A NEED FOR SUCH A SPLICE.
4. NEUTRAL WIRES SHALL NOT BE FUSED AND SHALL ONLY BE SPLICED USING TYPE I AND TYPE IV CONNECTOR KITS .
5. FUSES SHALL BE ORDERED SEPARATELY AND WILL BE INCIDENTAL TO CONNECTOR KITS. FUSES SHALL BE SIZED ACCORDING TO SPECIFIED LIGHTING FIXTURES.
6. REFER TO THE 2022 DELDOT STANDARD SPECIFICATIONS, SECTION 832 FOR ADDITIONAL CONNECTOR KIT REQUIREMENTS.



TYPE I - INLINE NON-FUSED CONNECTOR KIT

N.T.S.



TYPE II - INLINE-FUSED CONNECTOR KIT

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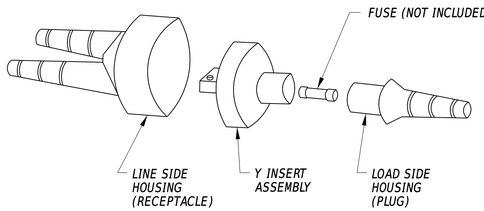

TYPE III - Y-FUSED CONNECTOR KIT

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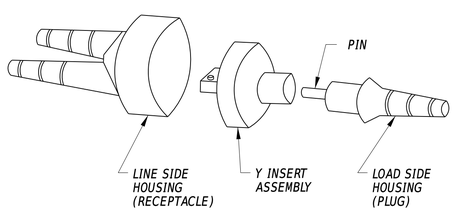

TYPE IV - NON-FUSED CONNECTOR KIT

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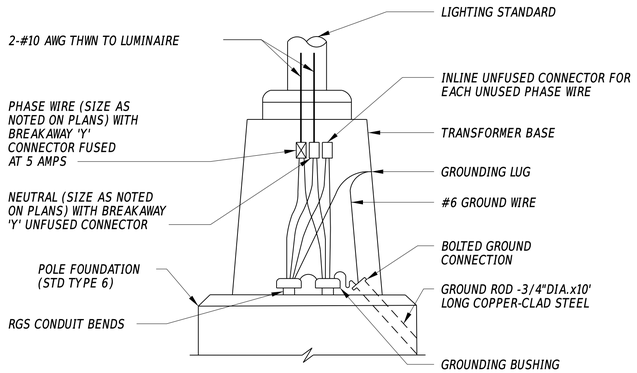

TYPICAL LUMINAIRE CONNECTION CONTINUOUS CABLE RUN 120/240 VOLT

N.T.S.

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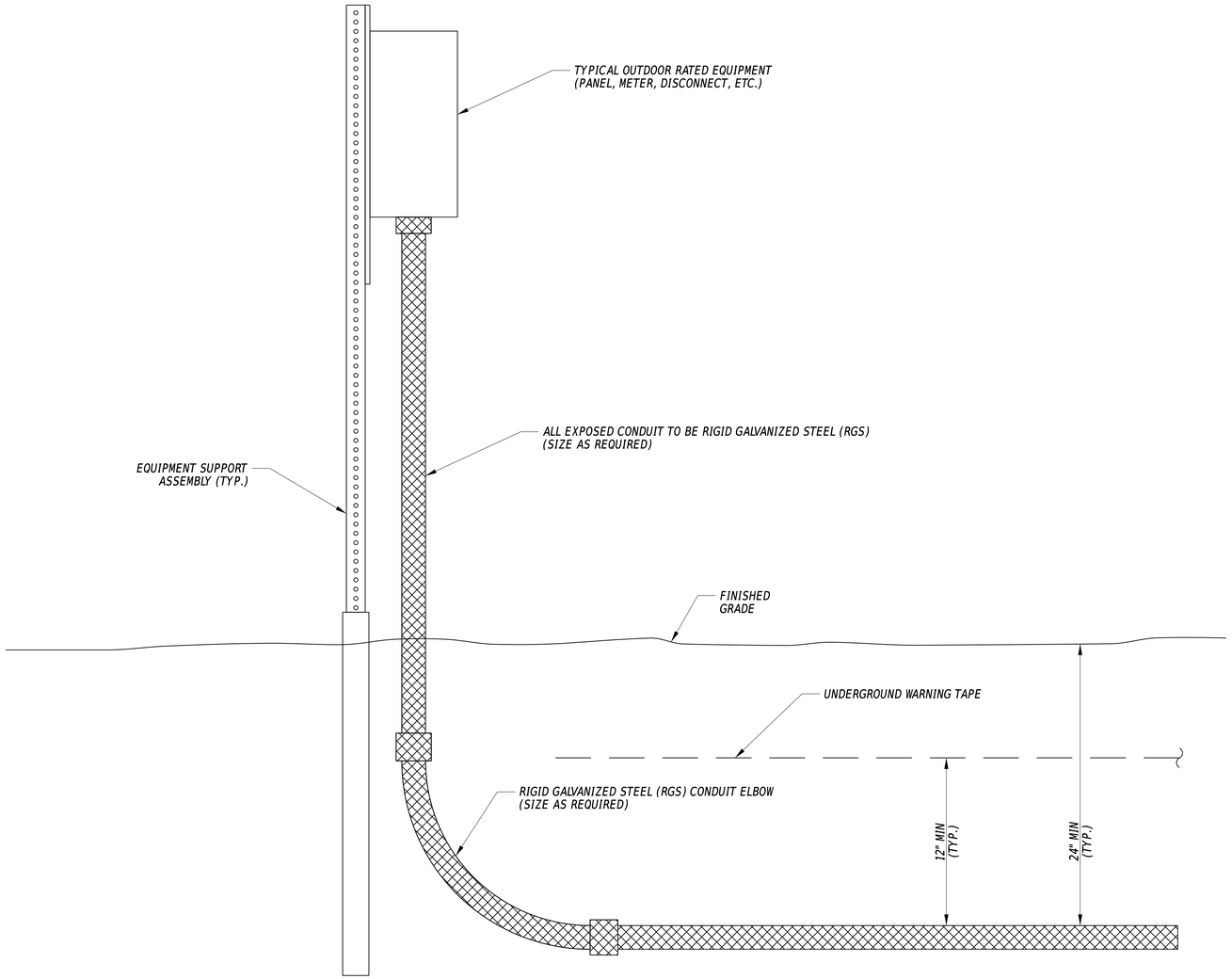
ADDENDA / REVISIONS	NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	LIGHTING DETAILS AND SCHEDULE	SECTION CEN
			COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 193
				CHECKED BY: J. FREY		



RGS CONDUIT DETAIL

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ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	LIGHTING DETAILS AND SCHEDULE	SECTION
				T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY			SHEET NO.
				KENT	CHECKED BY: J. FREY		194

804
NM-02-094.00-01-22.00
SAVANNAH FARMS II, LLC
D.R. 640-110
D.R. 17-429 (DPL BLANKET EASEMENT)

CULTIVATED FIELD

RL O U.P.

DPL 48080 20043 UA657 UA658

LOC PE

TP-805 (CAP PIN)

R/W COM-C (B) COM-C (B) R/W LOC TCE COM-C VER-C COM-C (B) R/W COM-C VER-C COM-C (B)

35' 35'

227+00 WILLOW GROVE RD. 228+00 229+00 230+00 231+00 232+00 233+00

1000+00 1001+00 1002+00 1003+00 1004+00

HOTMIX HOTMIX OVER CONCRETE

11' 21' 11' 21'

VER-C (B) TCW-W 10"(B) VER-C (B) TCW-W 10"(B) VER-C (B) VER-C (B) TCW-W 10"(B) VER-C (B) CU-G 2"(B) CU-G 2"(B) CU-G 2"(B) TH1 TH113D & E TH113B & C TH113A TH113 G.V. VER-C (B) TCW-W 10"(B) VER-C (B) VER-C (B) TCW-W 10"(B) CU-G 2"(B) R/W R/W R/W R/W R/W R/W

LS W.V. F.H. DND W.V. DND F.H. G(B) T LB(S) 45' 35'

TCE LOC LOC TCE TCE LOC

4' WOOD RAIL FENCE METAL GATE LANDSCAPE AREA WOOD RAIL FENCE

GRASS

809
NM-02-094.00-01-05.01
JANICE L. SOSNOWSKI-NICHOL AND
SCOTT G. NICHOL, WIFE AND HUSBAND
D.R. 5290-338

808
NM-02-094.00-01-05.00
JANICE L. SOSNOWSKI-NICHOL AND
SCOTT G. NICHOL, WIFE AND HUSBAND
D.R. 5290-338

809
NM-02-094.00-01-05.01
JANICE L. SOSNOWSKI-NICHOL AND
SCOTT G. NICHOL, WIFE AND HUSBAND
D.R. 5290-338

RL O U.T. BOX

RL O U.P.

A O G.V.

P P

MATCHLINE WILLOW GROVE ROAD STA. 1004+50 (UT-02)

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
1	CHESAPEAKE	1002+67.26	-25.65	51.47	4.23	2.25" PLASTIC
113	VERIZON	1003+52.85	-35.83	51.70	0.66	1/4" BLACK CABLE
113A	VERIZON	1003+42.80	-33.46	51.75	0.66	1/4" BLACK CABLE
113B	VERIZON	1003+48.21	-30.84	51.38	1.62	1.5" BLACK CABLE
113C	VERIZON	1003+48.21	-30.84	51.38	1.78	1.5" BLACK CABLE
113D	VERIZON	1003+46.04	-30.05	51.40	2.24	1.5" BLACK CABLE
113E	VERIZON	1003+46.04	-30.05	51.40	0.80	1/4" BLACK CABLE

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ADDENDA / REVISIONS

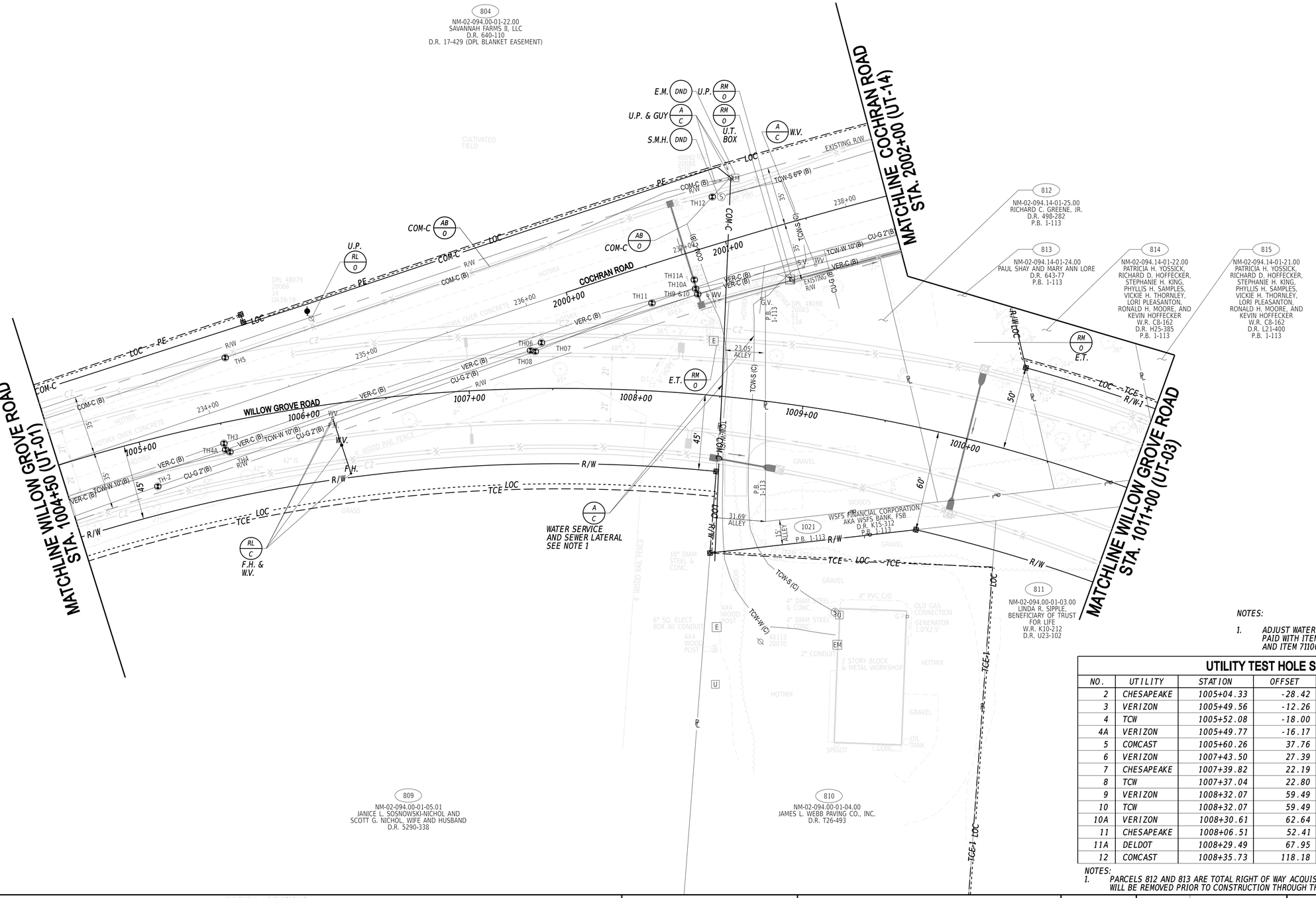
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

UTILITY RELOCATION PLAN

	UT-01
SECTION	CEN
SHEET NO.	195



NOTES:

1. *ADJUST WATER SERVICE AND SEWER LATERALS AS NECESSARY. PAID WITH ITEM 710505 ADJUSTING WATER SERVICE, UP TO 2 INCH AND ITEM 711001 ADJUST SANITARY SEWER LATERALS.*

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
2	CHESAPEAKE	1005+04.33	-28.42	50.26	6.32	2" PLASTIC
3	VERIZON	1005+49.56	-12.26	50.25	2.48	2.25" BLACK CABLE
4	TCW	1005+52.08	-18.00	49.67	3.64	10" PLASTIC
4A	VERIZON	1005+49.77	-16.17	49.97	2.54	1.5" BLACK CABLE
5	COMCAST	1005+60.26	37.76	49.17	2.09	1.5" BLACK CABLE
6	VERIZON	1007+43.50	27.39	49.00	2.52	2" BLACK CABLE
7	CHESAPEAKE	1007+39.82	22.19	48.10	4.08	3" PLASTIC
8	TCW	1007+37.04	22.80	48.44	2.96	10" PLASTIC
9	VERIZON	1008+32.07	59.49	48.27	2.88	2" BLACK CABLE
10	TCW	1008+32.07	59.49	48.27	2.23	10" PLASTIC
10A	VERIZON	1008+30.61	62.64	48.65	2.18	3" BLACK CABLE
11	CHESAPEAKE	1008+06.51	52.41	48.97	7.10	3" PLASTIC
11A	DELDOT	1008+29.49	67.95	49.07	5.39	36" CMP
12	COMCAST	1008+35.73	118.18	49.58	0.64	1/4" BLACK CABLE

NOTES:

1. *PARCELS 812 AND 813 ARE TOTAL RIGHT OF WAY ACQUISITIONS. ALL STRUCTURES AND FEATURES WILL BE REMOVED PRIOR TO CONSTRUCTION THROUGH THE REAL ESTATE DEPARTMENT PROCESS.*

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

UTILITY RELOCATION PLAN

UT-02

SECTION	SHEET NO.
CEN	196

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NOTE:
NEW SEWER CONNECTION FROM THE 10" SEWER LINE ON EXISTING WILLOW GROVE ROAD TO THE PROPOSED VALVE LOCATED AT RIGHT OF WAY LINE ON PARCEL 826 MUST BE INSTALLED PRIOR TO IMPACTING EXISTING SEWER SYSTEM FOR PARCEL 826. CONTRACTOR SHALL WORK WITH PROPERTY OWNER TO LOCATE EXISTING SEWER SYSTEM PRIOR TO START OF WORK. AFTER NEW SEWER CONNECTION IS ESTABLISHED CONTRACTOR WILL CONTACT DELDOT REAL ESTATE TO GIVE 30 DAYS NOTICE BEFORE EXISTING SEWER SYSTEM IS IMPACTED.

MATCHLINE S. CAESAR RODNEY AVENUE
STA. 1502+00 (UT-14)

MATCHLINE UT-15

MATCHLINE WILLOW GROVE ROAD
STA. 1011+00 (UT-02)

MATCHLINE WILLOW GROVE ROAD
STA. 1017+50 (UT-04)

WILLOW GROVE ROAD

S. CAESAR RODNEY AVE.

WSFS FINANCIAL CORPORATION
AKA WSFS BANK, FSB
D.R. K15-312
P.B. 1-113

1021

NM-02-094.14-01-20.00
JERRY LEE COLLISON AND
DIANE LYNN COLLISON, HIS WIFE
D.R. F39-190
P.B. 1-113

816

NM-02-094.00-01-03.00
LINDA R. SIPPLE,
BENEFICIARY OF TRUST
FOR LIFE
W.R. K10-212
D.R. U23-102

811

815

NM-02-094.14-01-21.00
PATRICIA H. YOSSICK,
RICHARD D. HOFFECKER,
STEPHANIE H. KING,
PHYLLIS H. SAMPLES,
VICKI H. THORNLEY,
LORI PLEASANTON,
RONALD H. MOORE, AND
KEVIN HOFFECKER
W.R. C8-162
D.R. L21-400
P.B. 1-113

826

NM-02-094.14-01-18.00
LINDA BOND
D.R. X54-162
P.B. 1-113

817

NM-02-094.14-01-19.00
JERRY LEE COLLISON
AND DIANE LYNN
COLLISON, HIS WIFE
D.R. F39-190
P.B. 1-113

827

NM-02-094.14-01-17.00
LINDA R SIPPLE
W.R. K10-212
D.R. E21-350
P.B. 1-113

811

NM-02-094.00-01-03.00
LINDA R. SIPPLE
BENEFICIARY OF TRUST FOR LIFE
W.R. K10-212
D.R. U23-102

831

NM-02-094.00-01-02.05
VERNON E. PIKE INDUSTRIAL ANL
PROFESSIONAL PARKS, INC.
D.R. H43-288
P.B. 69-67

830

NM-02-094.00-01-02.01
CAMDEL METALS CORPORATION
D.R. 149-232
P.B 69-67

814

NM-02-094.14-01-22.00
PATRICIA H. YOSSICK,
RICHARD D. HOFFECKER,
STEPHANIE H. KING,
PHYLLIS H. SAMPLES,
VICKI H. THORNLEY,
LORI PLEASANTON,
RONALD H. MOORE, AND
KEVIN HOFFECKER
W.R. C8-162
D.R. H25-385
P.B. 1-113

811

NM-02-094.00-01-03.00
LINDA R. SIPPLE,
BENEFICIARY OF TRUST FOR LIFE
W.R. K10-212
D.R. U23-102

PE/TCE-3
PE/TCE-2
20' PE
LOC
TCE-3
R/W
R/W-1
TCE
LOC TCE
R/W LOC
P.B. 1-113
55'
75'
80'
50'
60'
1501+00
1012+00
1013+00
1014+00
1015+00
1016+00
1017+00
1504+00
1004+00
IS ALLEY
CULTIVATED FIELD
WOODS
SWM FACILITY
CZ
C2

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ADDENDA / REVISIONS	

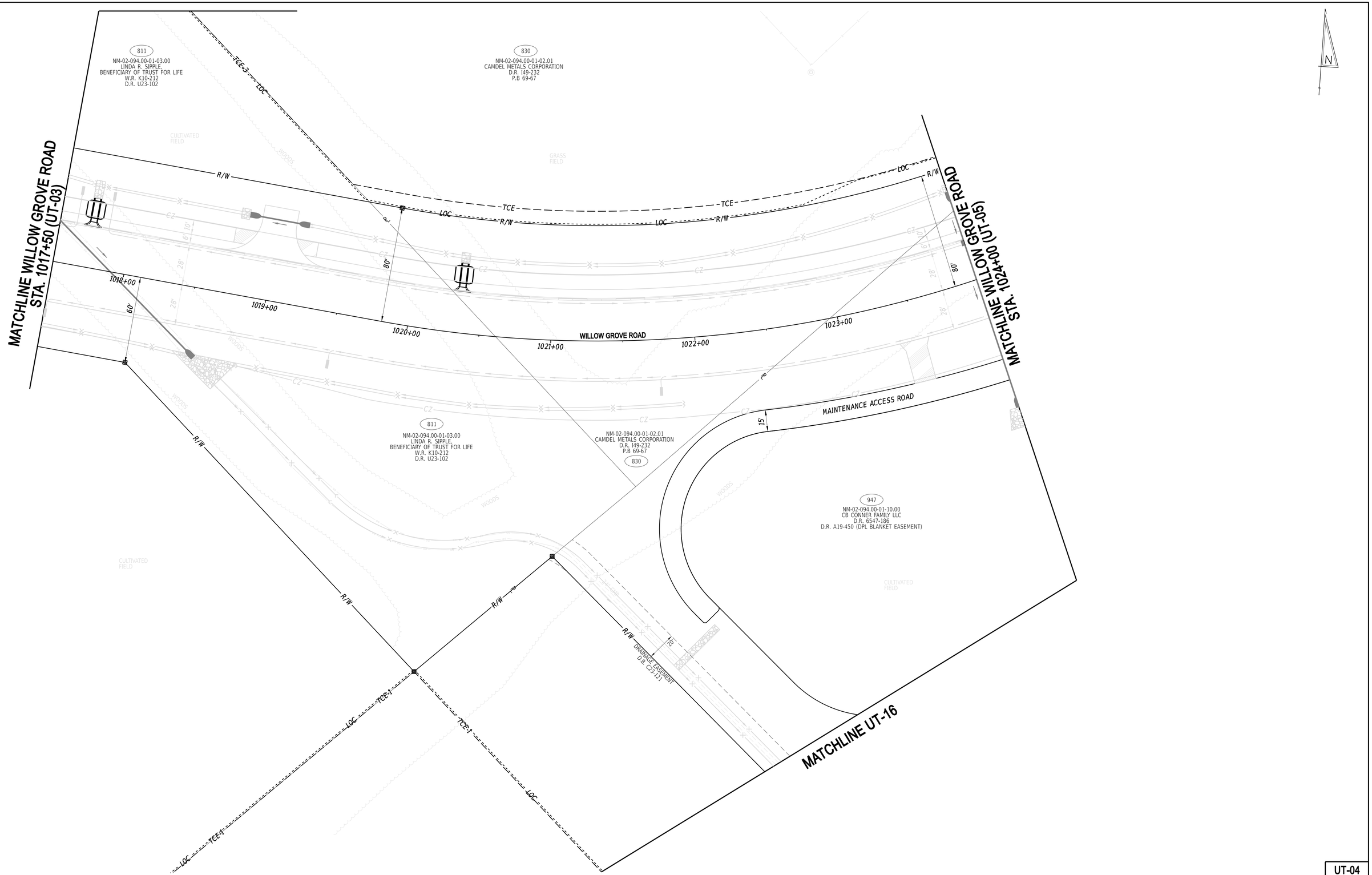
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

UTILITY RELOCATION PLAN

UT-03
SECTION
CEN
SHEET NO.
197



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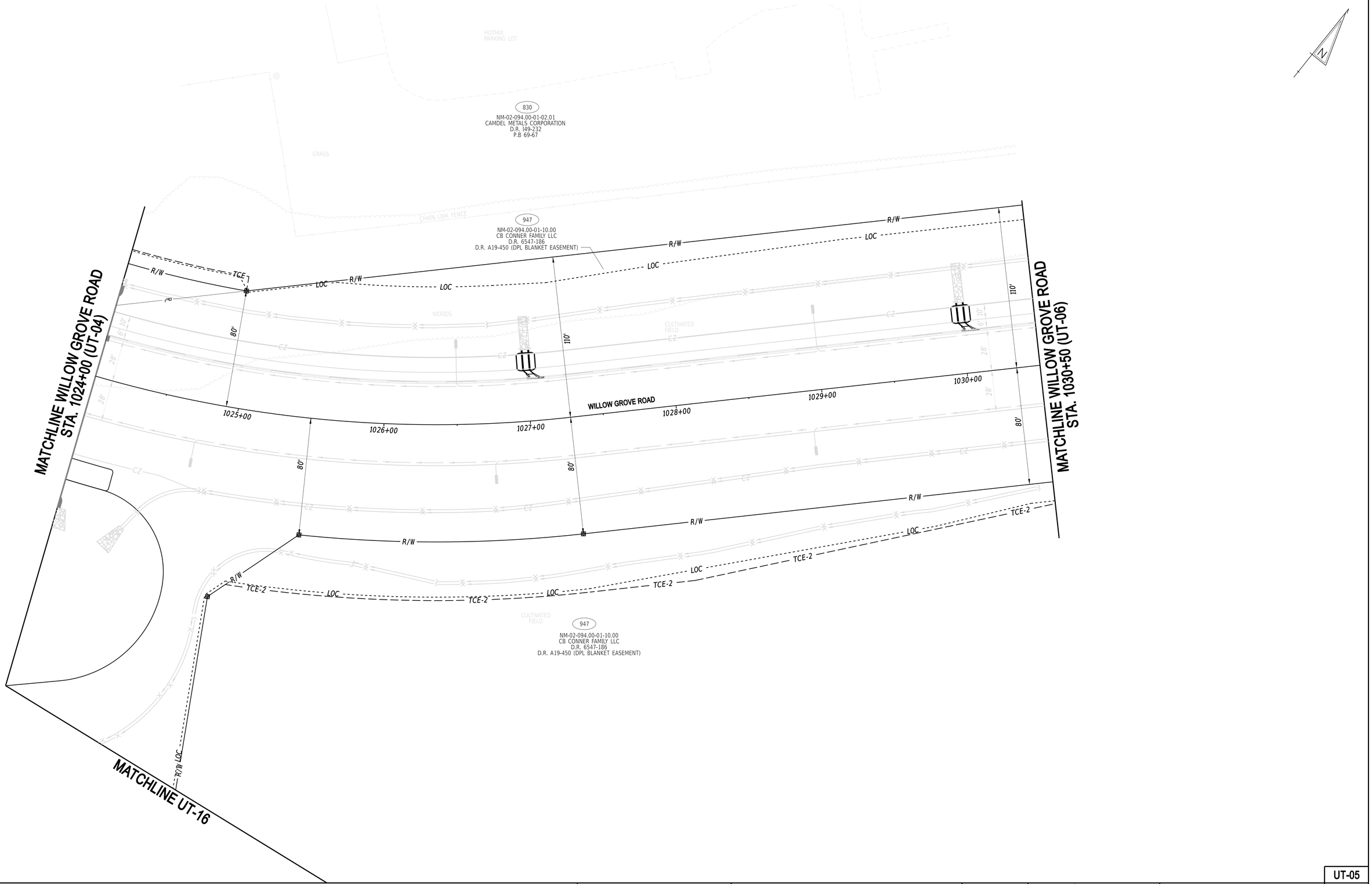
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	UT-04
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 198



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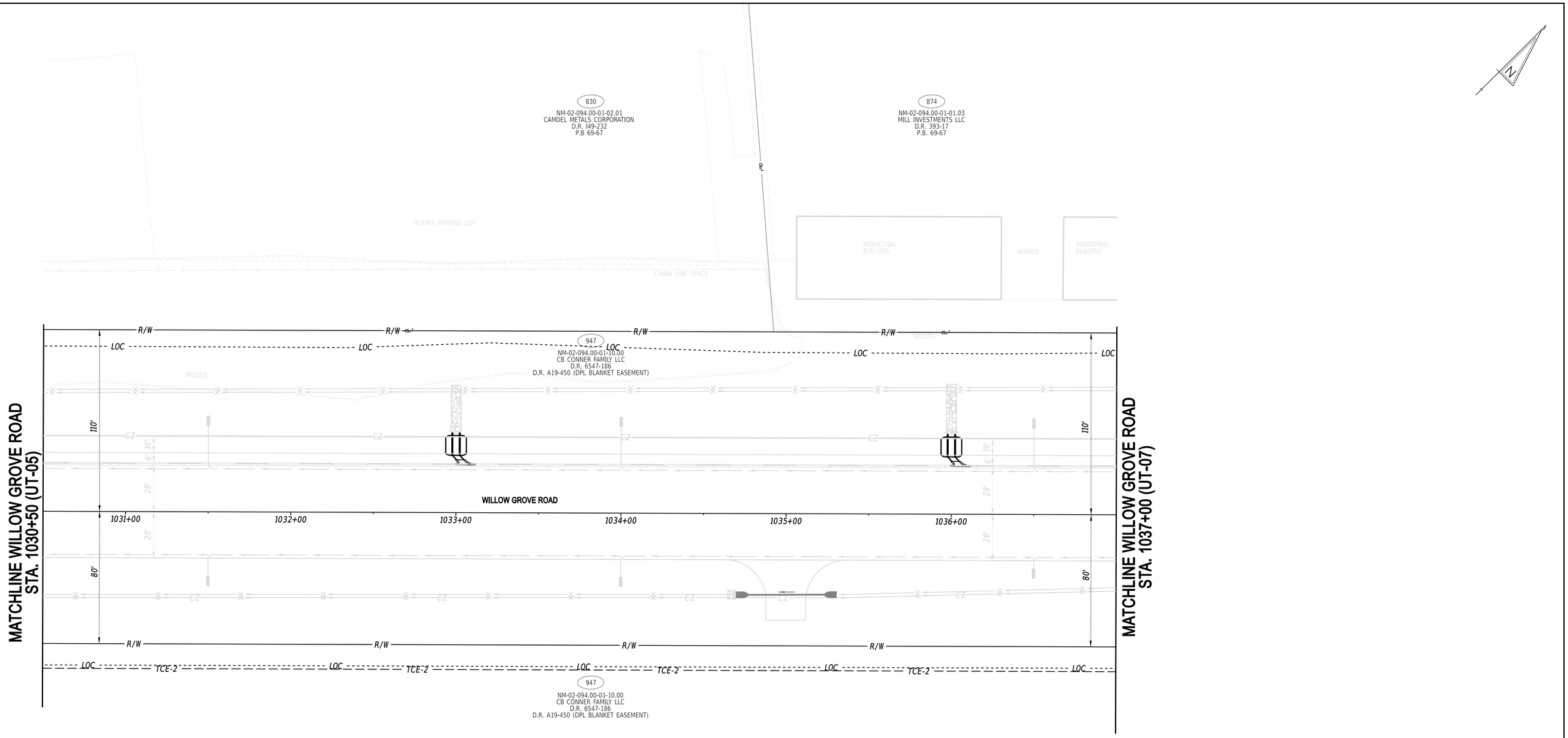
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	UT-05
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 199



ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	UT-06
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 200

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936
NM-02-094.00-01-01.07
VERNON E. PIKE INDUSTRIAL AND PROFESSIONAL PARKS, INC.
D.R. H43-288
P.B. 69-67

874
NM-02-094.00-01-01.03
MILL INVESTMENTS LLC
D.R. 393-17
P.B. 69-67

875
NM-02-094.00-01-01.00
MILL INVESTMENTS LLC
D.R. 650-209
P.B. 69-67

935
NM-02-094.00-01-01.08
VERNON E. PIKE INDUSTRIAL AND PROFESSIONAL PARKS, INC.
D.R. H43-288
P.B. 69-67

947
NM-02-094.00-01-10.00
CB CONNER FAMILY LLC
D.R. 6547-186
D.R. A19-450 (DPL BLANKET EASEMENT)

HOTMIX
INDUSTRIAL BUILDING
CHAIN LINK FENCE
WOODS
CZ
R/W
LOC
TCE-2
110'
80'
28'
10'
6'

MATCHLINE WILLOW GROVE ROAD STA. 1037+00 (UT-06)

WILLOW GROVE ROAD

1038+00 1039+00 1040+00 1041+00 1042+00 1043+00

MATCHLINE WILLOW GROVE ROAD STA. 1043+50 (UT-08)

947
NM-02-094.00-01-10.00
CB CONNER FAMILY LLC
D.R. 6547-186
D.R. A19-450 (DPL BLANKET EASEMENT)

CULTIVATED FIELD

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ADDENDA / REVISIONS	SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	UT-07
			COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
				CHECKED BY: J. FREY		SHEET NO. 201

ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

UTILITY RELOCATION PLAN

UT-08
SECTION
CEN
SHEET NO.
202

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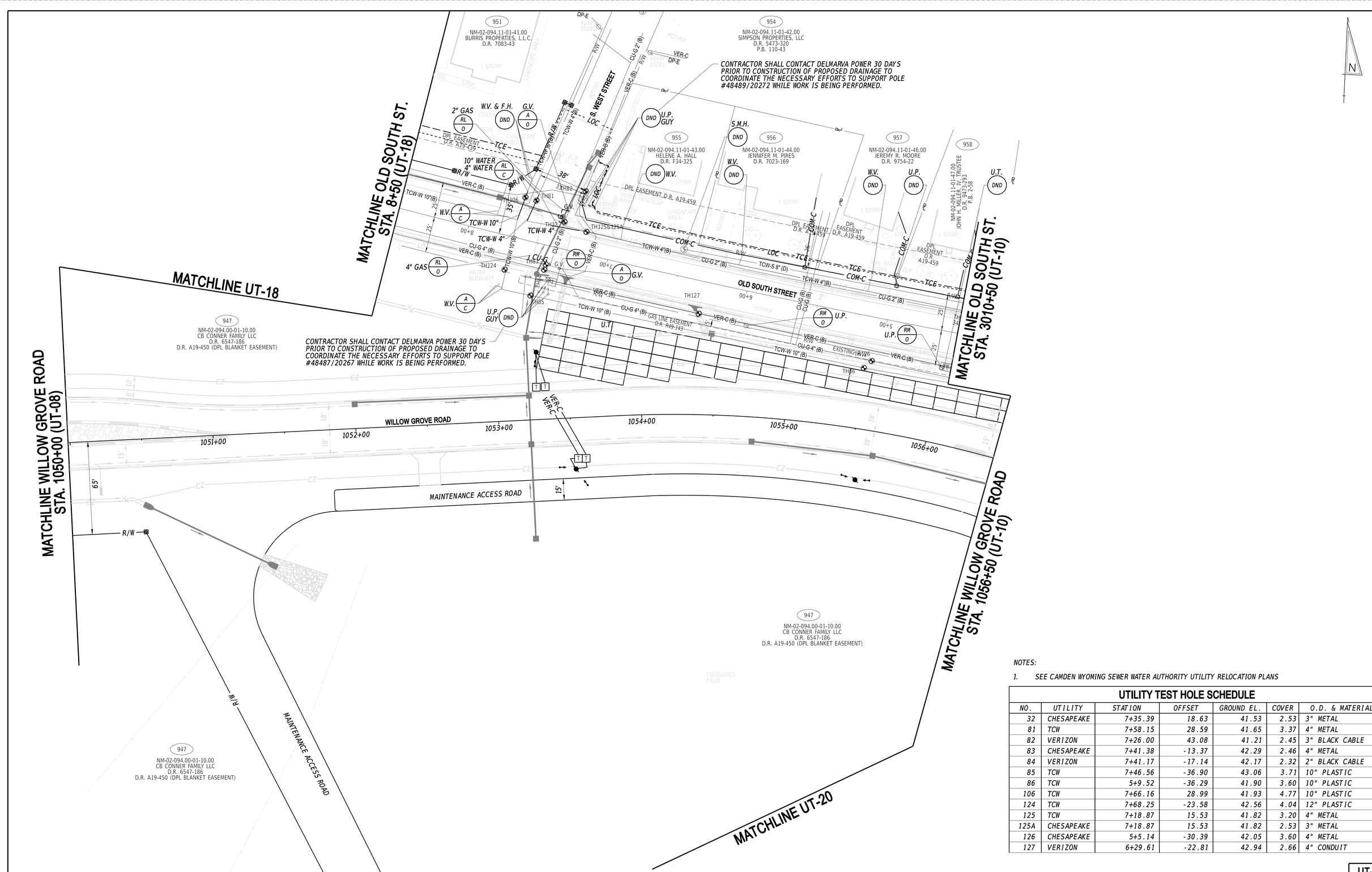

NOTES:

1. SEE CAMDEN WYOMING SEWER WATER AUTHORITY UTILITY RELOCATION PLANS

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
32	CHESAPEAKE	7+35.39	18.63	41.53	2.53	3" METAL
81	TCW	7+58.15	28.59	41.65	3.37	4" METAL
82	VERIZON	7+26.00	43.08	41.21	2.45	3" BLACK CABLE
83	CHESAPEAKE	7+41.38	-13.37	42.29	2.46	4" METAL
84	VERIZON	7+41.17	-17.14	42.17	2.32	2" BLACK CABLE
85	TCW	7+46.56	-36.90	43.06	3.71	10" PLASTIC
86	TCW	5+9.52	-36.29	41.90	3.60	10" PLASTIC
106	TCW	7+66.16	28.99	41.93	4.77	10" PLASTIC
124	TCW	7+68.25	-23.58	42.56	4.04	12" PLASTIC
125	TCW	7+18.87	15.53	41.82	3.20	4" METAL
125A	CHESAPEAKE	7+18.87	15.53	41.82	2.53	3" METAL
126	CHESAPEAKE	5+5.14	-30.39	42.05	3.60	4" METAL
127	VERIZON	6+29.61	-22.81	42.94	2.66	4" CONDUIT

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502	BRIDGE NO.	N/A
COUNTY	KENT	DESIGNED BY:	L. HAXTON
		CHECKED BY:	J. FREY

UTILITY RELOCATION PLAN

	UT-09
SECTION	CEN
SHEET NO.	203

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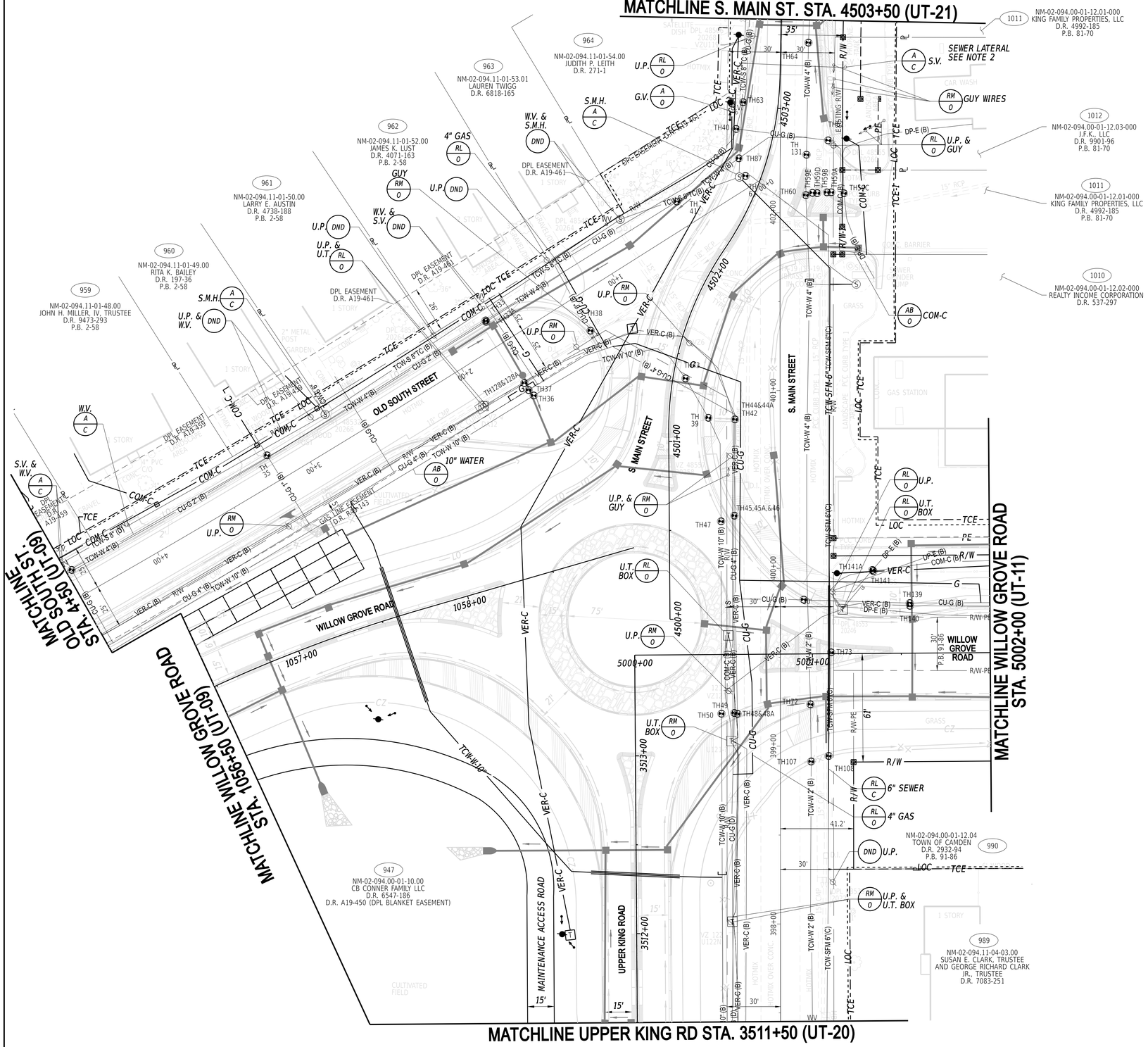

NOTES:

1. ADJUST WATER SERVICE AND SEWER LATERALS AS NECESSARY. PAID WITH ITEM 710505 ADJUSTING WATER SERVICE, UP TO 2 INCH AND ITEM 711001 ADJUST SANITARY SEWER LATERALS.
2. SEE CAMDEN WYOMING SEWER WATER AUTHORITY UTILITY RELOCATION PLANS.

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
33	TCW	1+74.15	15.75	40.64	3.38	4" METAL
33A	CHESAPEAKE	1+74.33	14.95	40.66	2.70	2" METAL
34	CHESAPEAKE	4+46.77	15.60	41.11	2.25	1" PLASTIC
35	CHESAPEAKE	3+19.05	15.71	40.90	2.03	1" PLASTIC
36	TCW	1+73.16	-34.43	41.57	3.19	10" PLASTIC
37	CHESAPEAKE	1+74.59	-30.29	41.63	4.27	4" METAL
38	CHESAPEAKE	1+27.32	-20.62	40.41	4.24	6" PLASTIC
39	TCW	400+84.70	40.37	42.69	3.20	10" PLASTIC
40	CHESAPEAKE	402+46.89	24.89	40.66	3.26	3" PLASTIC
41	TCW	0+47.44	14.80	40.56	3.08	4" METAL
42	CHESAPEAKE	400+83.79	25.39	42.57	4.19	4" METAL
43	TCW	401+6.84	53.19	42.66	3.04	10" PLASTIC
44	VERIZON	400+83.79	25.39	42.57	2.52	9" CONDUIT
44A	VERIZON	400+83.79	25.39	42.57	2.52	3" BLACK CABLE
45	VERIZON	400+29.64	25.78	42.82	2.47	9" CONDUIT
45A	VERIZON	400+29.64	25.78	42.82	2.47	3" BLACK CABLE
46	CHESAPEAKE	400+29.64	25.78	42.82	2.85	4" METAL
47	TCW	400+26.46	33.25	42.74	3.32	10" PLASTIC
48	VERIZON	399+18.21	24.13	42.68	1.98	9" CONDUIT
48A	VERIZON	399+18.21	24.13	42.68	1.98	3" BLACK CABLE
49	CHESAPEAKE	399+18.67	25.87	42.92	2.67	4" METAL
50	TCW	399+18.27	33.11	43.17	3.60	10" PLASTIC
59A	N/A	402+11.57	-28.81	N/A	N/A	N/A
59B	N/A	402+11.53	-26.40	N/A	N/A	N/A
59C	DELMARVA	402+11.05	-35.95	40.33	3.93	4" CONDUIT
59D	N/A	402+11.09	-20.93	N/A	N/A	N/A
59E	N/A	402+11.25	-18.24	N/A	N/A	N/A
60	TCW	402+9.93	-14.52	40.78	3.63	3" METAL
61	TCW	402+20.62	19.48	40.78	5.58	6" PLASTIC
62	CHESAPEAKE	402+40.91	-26.92	40.99	2.01	1" PLASTIC
63	CHESAPEAKE	402+61.92	21.11	40.78	3.26	4" PLASTIC
64	TCW	402+95.91	-15.14	40.06	3.22	4" METAL
72	TCW	399+23.52	-16.96	42.81	3.50	3" METAL
73	TCW	399+52.75	-28.62	42.14	3.33	6" PLASTIC
87	TCW	402+30.45	23.25	40.68	6.19	4" METAL
107	TCW	398+1.34	-17.35	42.99	3.35	3" METAL
108	TCW	398+4.47	-27.18	42.36	3.65	6" PLASTIC
128	VERIZON	1+74.51	-25.63	41.47	2.01	7" CONDUIT
128A	VERIZON	2+25.49	-25.63	41.47	2.01	3" BLACK CABLE
131	TCW	402+32.70	-14.80	40.52	2.85	4" METAL
139	CHESAPEAKE	399+80.42	-72.84	42.53	1.99	1" PLASTIC
140	VERIZON	399+78.89	-72.94	42.60	1.73	1" CONDUIT
141	COMCAST	399+98.40	-52.40	42.92	0.95	1.5" CONDUIT
141A	DELMARVA	399+99.08	-51.88	42.93	3.89	3" CONDUIT

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ADDENDA / REVISIONS

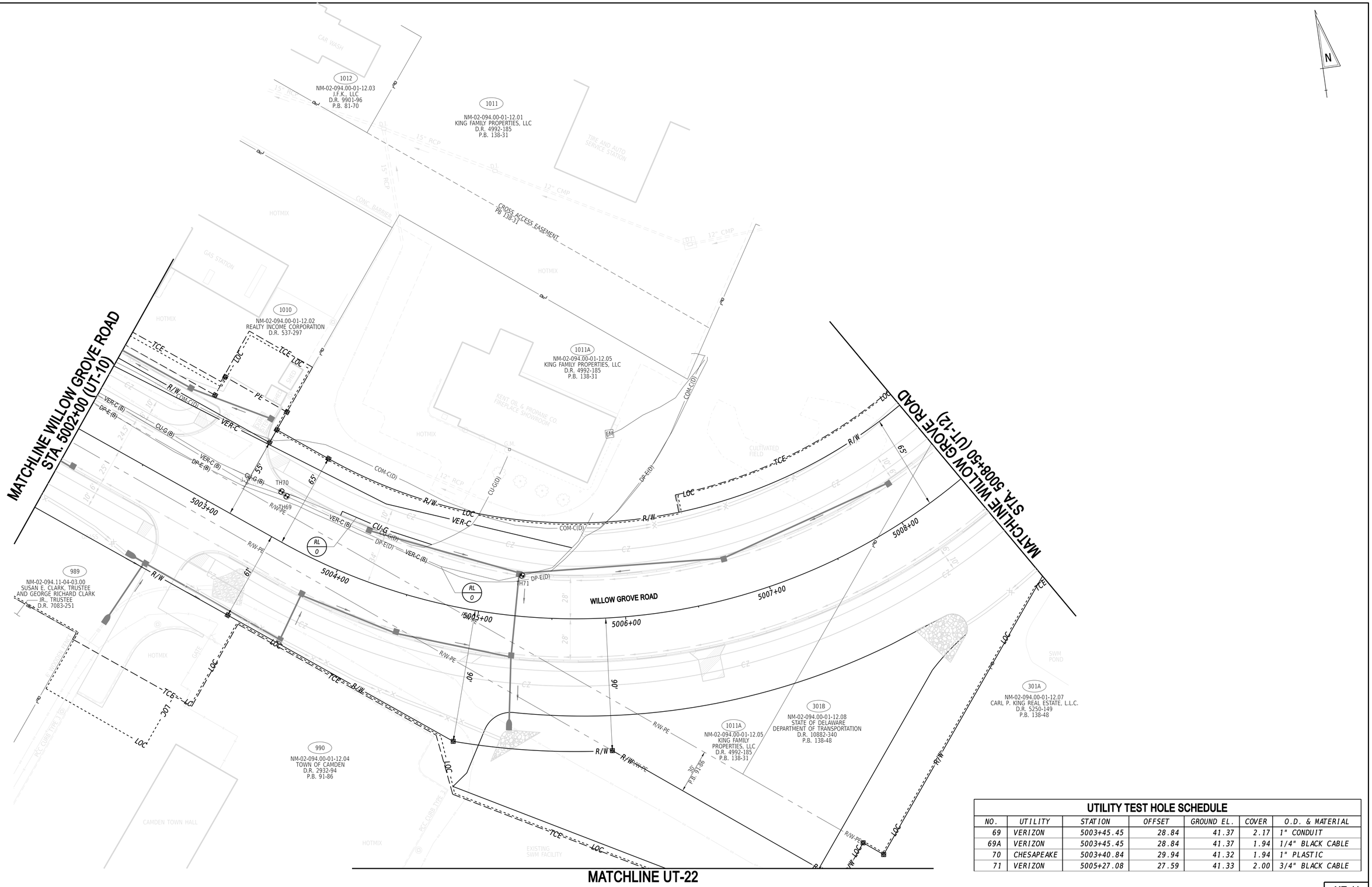
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

UTILITY RELOCATION PLAN

UT-10
SECTION
CEN
SHEET NO.
204



UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
69	VERIZON	5003+45.45	28.84	41.37	2.17	1" CONDUIT
69A	VERIZON	5003+45.45	28.84	41.37	1.94	1/4" BLACK CABLE
70	CHESAPEAKE	5003+40.84	29.94	41.32	1.94	1" PLASTIC
71	VERIZON	5005+27.08	27.59	41.33	2.00	3/4" BLACK CABLE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

UTILITY RELOCATION PLAN

UT-11

SECTION CEN

SHEET NO. 205

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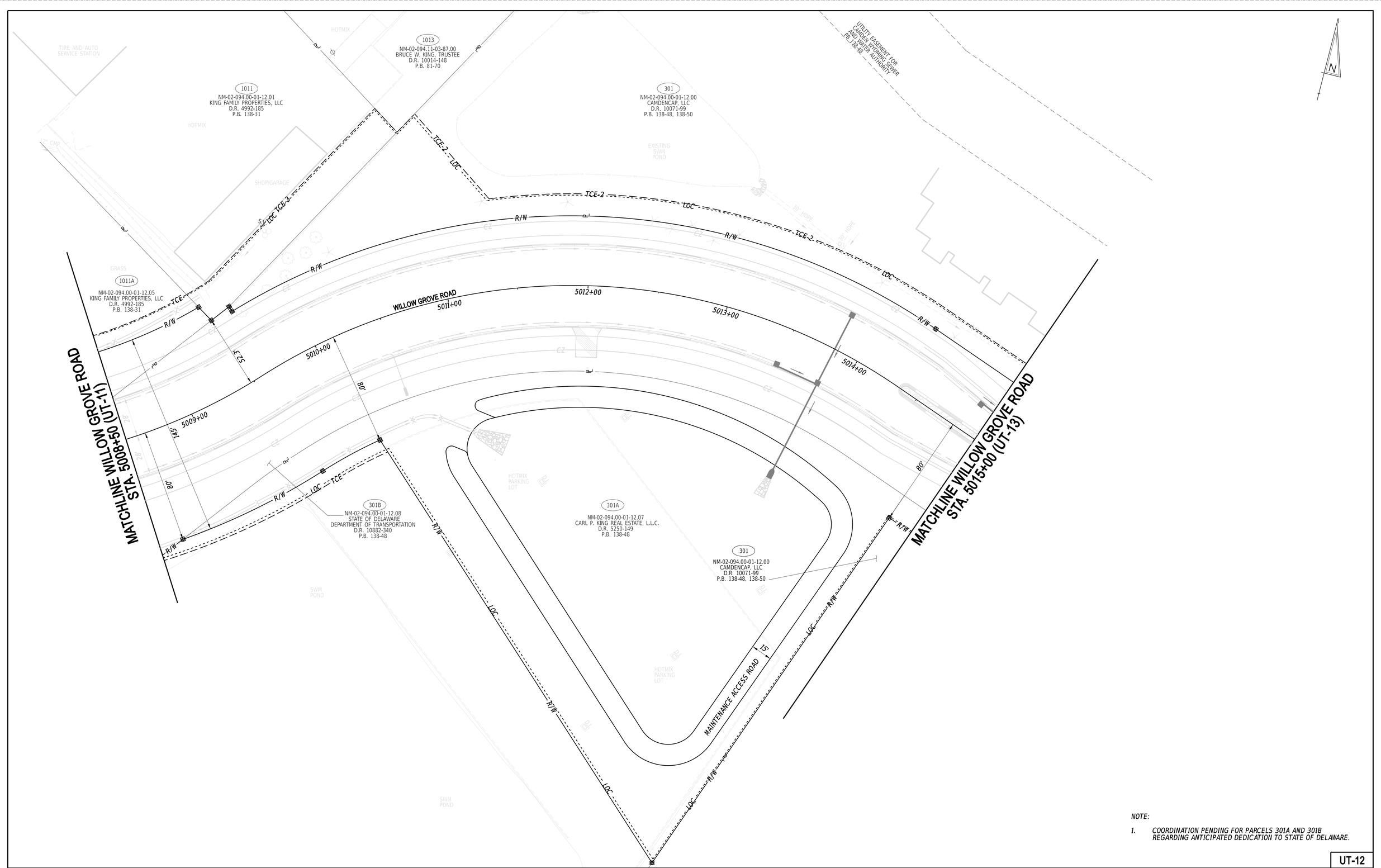

NOTE:

1. *COORDINATION PENDING FOR PARCELS 301A AND 301B REGARDING ANTICIPATED DEDICATION TO STATE OF DELAWARE.*

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	UT-12
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 206

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MATCHLINE WILLOW GROVE ROAD STA. 5015+00 (UT-12)

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
88	COMCAST	6003+79.38	-17.20	40.47	1.99	3" CONDUIT
89	TCW	6003+83.85	-21.52	40.44	6.16	10" PLASTIC
90	DELMARVA	6003+82.44	-27.78	40.51	3.24	12" CONDUIT
91	TCW	6005+70.78	-87.09	41.38	4.69	10" PLASTIC
92	DELMARVA	6005+63.53	-109.23	41.29	2.94	4" CONDUITS
142	COMCAST	6005+85.65	-68.12	41.14	3.07	3" CONDUIT
143	DELMARVA	5018+9.29	-48.91	41.65	3.96	4" CONDUIT

NOTE: ALL UTILITIES ARE TO BE IN COORDINATION WITH FUTURE DELDOT PROJECT T201500202 - HEP KC, LOCHMEATH WAY TO PUNCHEON RUN CONNECTOR.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

UTILITY RELOCATION PLAN

UT-13
SECTION: CEN
SHEET NO.: 207

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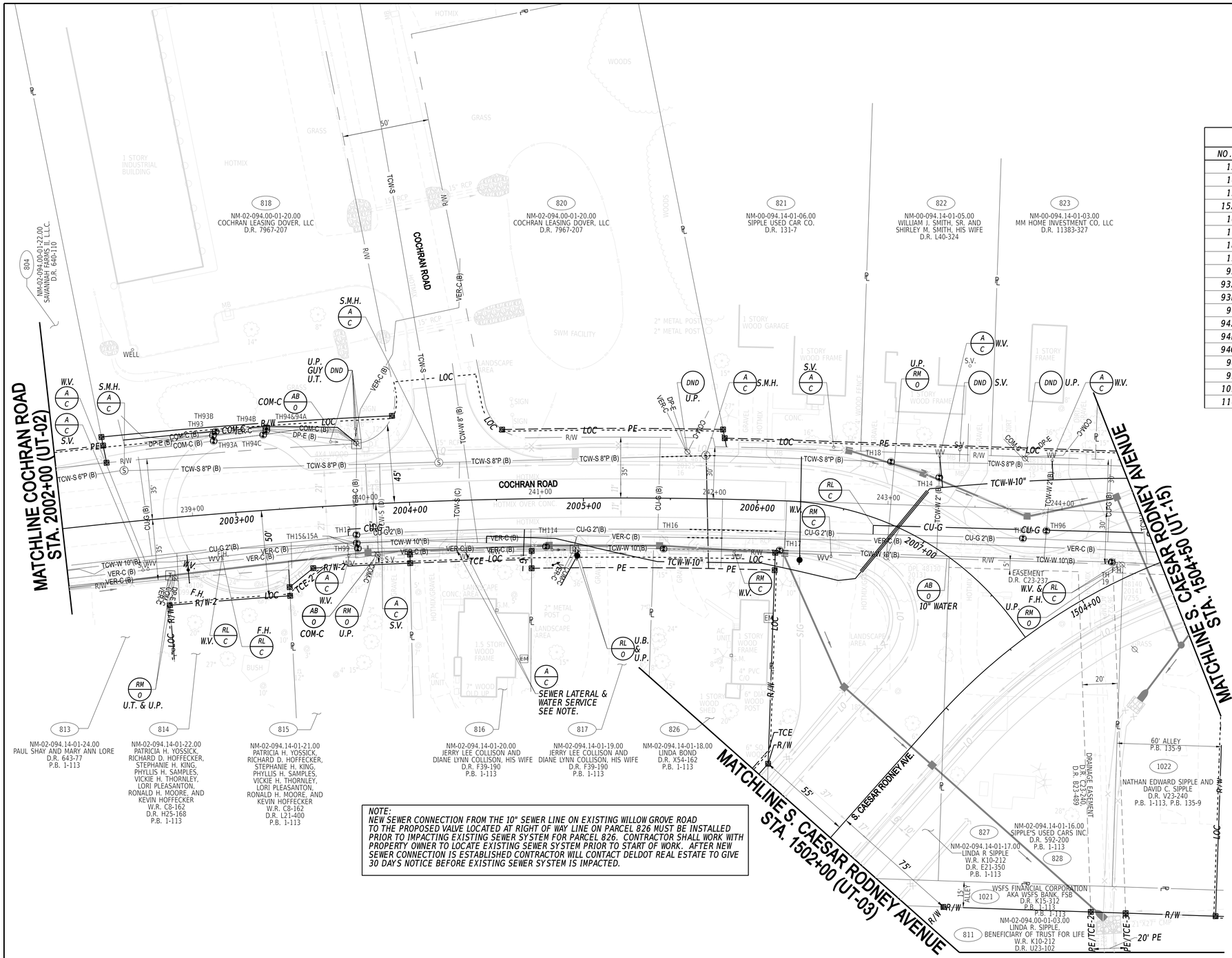

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
13	CHESAPEAKE	239+93.47	-17.29	48.23	4.27	3" METAL
14	TCW	243+28.93	16.41	48.14	3.74	2" PLASTIC
15	TCW	239+93.41	-22.05	47.95	4.39	10" PLASTIC
15A	VERIZON	239+93.41	-22.05	47.95	2.24	3" BLACK CABLE
16	TCW	241+71.26	-29.07	48.26	3.21	10" PLASTIC
17	TCW	242+38.62	-28.52	48.27	3.40	10" PLASTIC
18	TCW	243+0.89	24.45	48.48	4.18	8" PLASTIC
19	TCW	244+29.65	-28.79	47.06	4.59	10" METAL
93	DEC	239+15.29	45.10	49.97	2.83	1.5" BLACK CABLE
93A	COMCAST	239+15.48	41.90	50.16	0.56	1/4" BLACK CABLE
93B	COMCAST	239+17.07	47.26	50.12	0.43	1/4" BLACK CABLE
94	DEC	239+45.66	45.84	50.31	2.98	1.5" BLACK CABLE
94A	VERIZON	239+45.66	45.84	50.31	2.98	1" BLACK CABLE
94B	COMCAST	239+45.74	47.37	50.48	0.39	1/4" BLACK CABLE
94C	COMCAST	239+43.68	43.32	50.49	0.47	1/4" BLACK CABLE
96	TCW	243+91.46	-12.09	47.90	3.36	2" PLASTIC
99	VERIZON	239+93.90	-25.16	48.36	2.99	1" BLACK CABLE
109	CHESAPEAKE	243+78.13	-16.94	47.71	5.45	3" METAL
114	VERIZON	241+2.99	-27.63	48.53	2.55	1" BLACK CABLE

NOTE:
NEW SEWER CONNECTION FROM THE 10" SEWER LINE ON EXISTING WILLOW GROVE ROAD TO THE PROPOSED VAUVE LOCATED AT RIGHT OF WAY LINE ON PARCEL 826 MUST BE INSTALLED PRIOR TO IMPACTING EXISTING SEWER SYSTEM FOR PARCEL 826. CONTRACTOR SHALL WORK WITH PROPERTY OWNER TO LOCATE EXISTING SEWER SYSTEM PRIOR TO START OF WORK. AFTER NEW SEWER CONNECTION IS ESTABLISHED CONTRACTOR WILL CONTACT DELDOT REAL ESTATE TO GIVE 30 DAYS NOTICE BEFORE EXISTING SEWER SYSTEM IS IMPACTED.

NOTES:

1. *PARCELS 827 AND 828 ARE TOTAL RIGHT OF WAY ACQUISITIONS. ALL STRUCTURES AND FEATURES WILL BE REMOVED PRIOR TO CONSTRUCTION THROUGH THE REAL ESTATE DEPARTMENT PROCESS.*
2. *ADJUST WATER SERVICE AND SEWER LATERALS AS NECESSARY. PAID WITH ITEM 710505 ADJUSTING WATER SERVICE, UP TO 2 INCH AND ITEM 711001 ADJUST SANITARY SEWER LATERALS.*
3. *SEE CAMDEN WYOMING SEWER WATER AUTHORITY UTILITY RELOCATION PLANS.*

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ADDENDA / REVISIONS

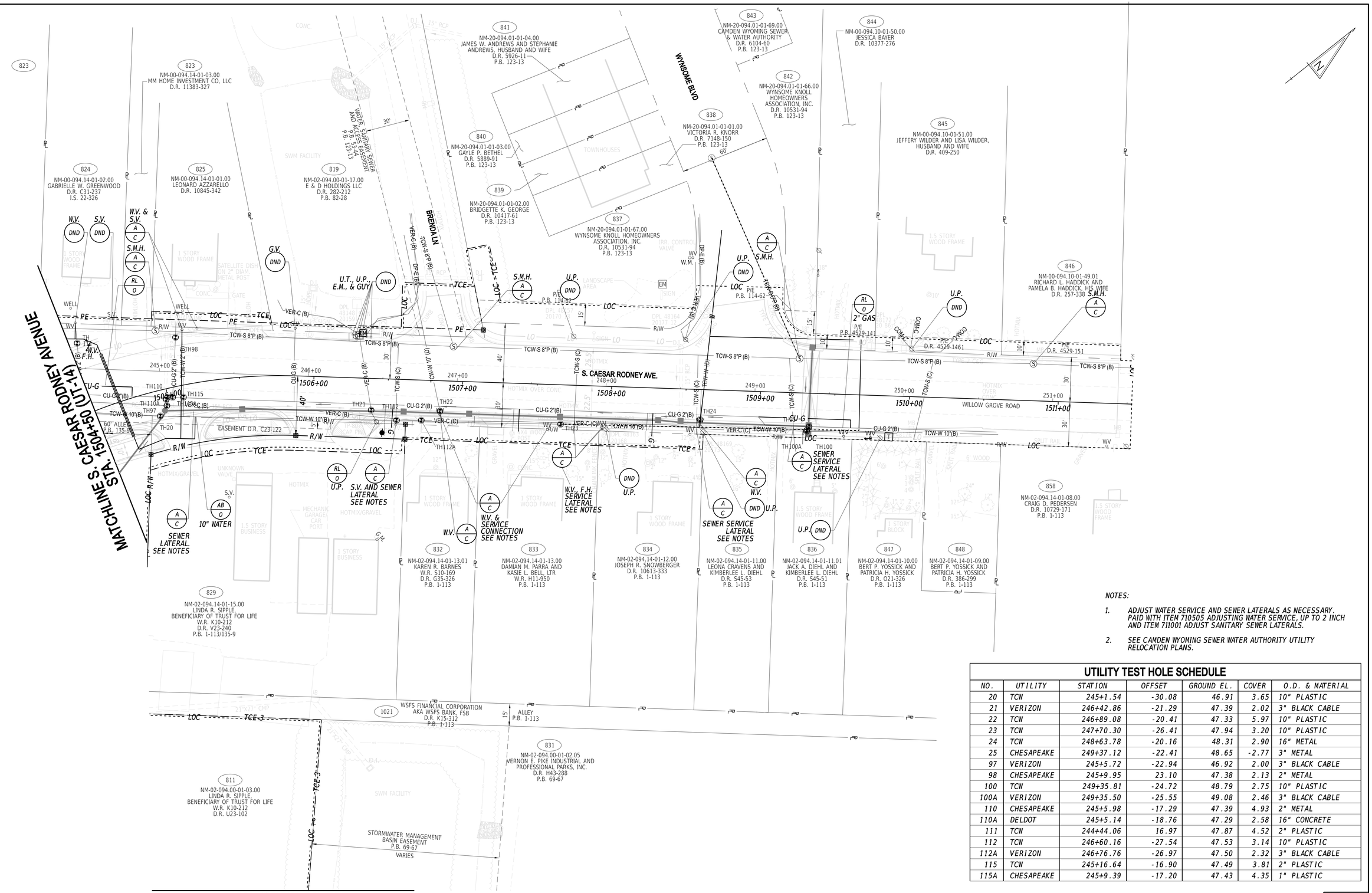
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

UTILITY RELOCATION PLAN

UT-14
SECTION
CEN
SHEET NO.
208



UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
20	TCW	245+1.54	-30.08	46.91	3.65	10" PLASTIC
21	VERIZON	246+42.86	-21.29	47.39	2.02	3" BLACK CABLE
22	TCW	246+89.08	-20.41	47.33	5.97	10" PLASTIC
23	TCW	247+70.30	-26.41	47.94	3.20	10" PLASTIC
24	TCW	248+63.78	-20.16	48.31	2.90	16" METAL
25	CHESAPEAKE	249+37.12	-22.41	48.65	-2.77	3" METAL
97	VERIZON	245+5.72	-22.94	46.92	2.00	3" BLACK CABLE
98	CHESAPEAKE	245+9.95	23.10	47.38	2.13	2" METAL
100	TCW	249+35.81	-24.72	48.79	2.75	10" PLASTIC
100A	VERIZON	249+35.50	-25.55	49.08	2.46	3" BLACK CABLE
110	CHESAPEAKE	245+5.98	-17.29	47.39	4.93	2" METAL
110A	DELDOT	245+5.14	-18.76	47.29	2.58	16" CONCRETE
111	TCW	244+44.06	16.97	47.87	4.52	2" PLASTIC
112	TCW	246+60.16	-27.54	47.53	3.14	10" PLASTIC
112A	VERIZON	246+76.76	-26.97	47.50	2.32	3" BLACK CABLE
115	TCW	245+16.64	-16.90	47.49	3.81	2" PLASTIC
115A	CHESAPEAKE	245+9.39	-17.20	47.43	4.35	1" PLASTIC

MATCHLINE UT-03

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

UTILITY RELOCATION PLAN

UT-15	
SECTION	CEN
SHEET NO.	209

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MATCHLINE UT-04

MATCHLINE UT-05

N

R/W

R/W - LOC

TCE-T

LOC

947

NM-02-094.00-01-10.00
CB CONNER FAMILY LLC
D.R. 6547-186
D.R. A19-450 (DPL BLANKET EASEMENT)

DRAINAGE EASEMENT
D.B. C33-121

25'

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ADDENDA / REVISIONS	

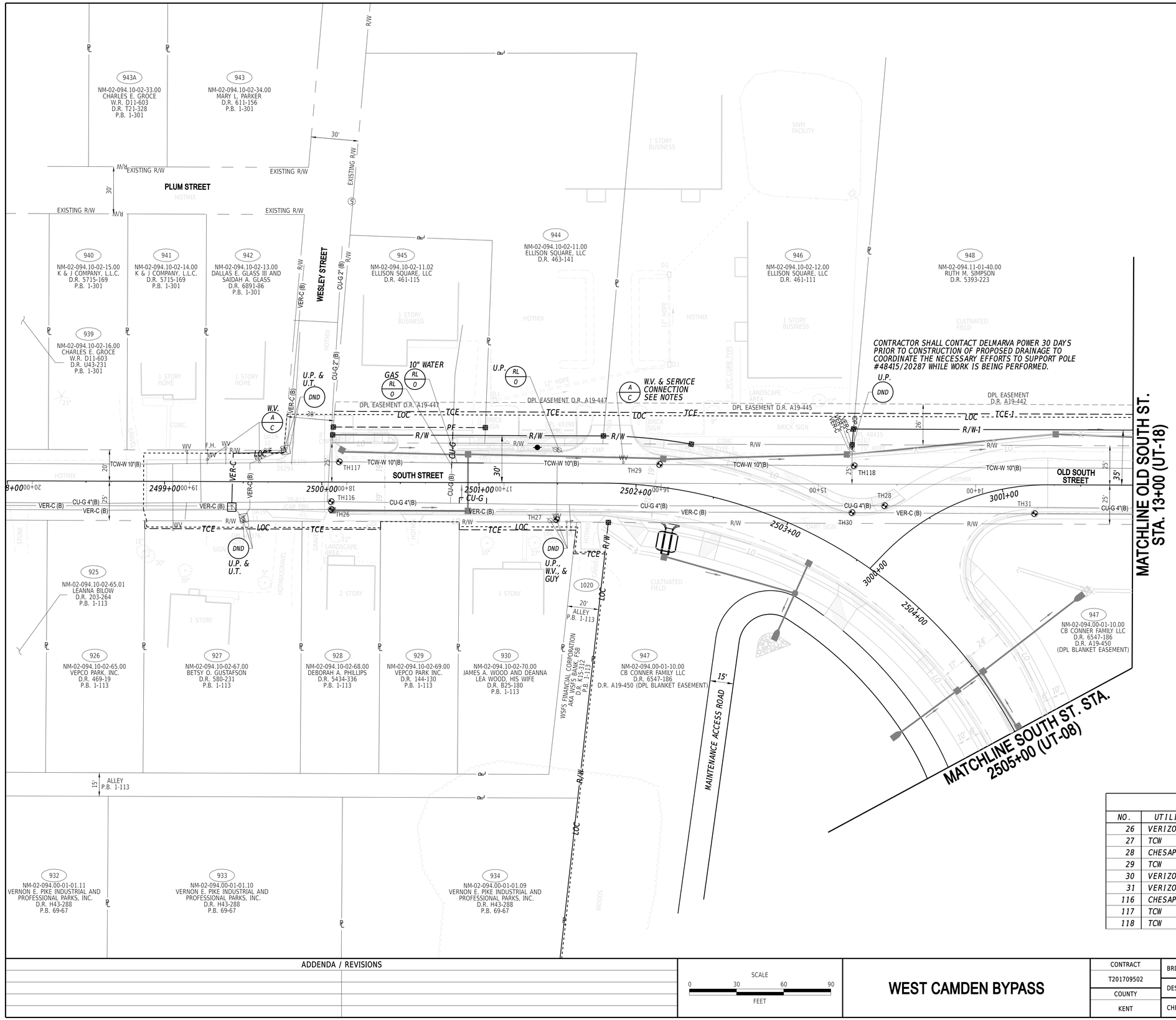
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

UTILITY RELOCATION PLAN

	UT-16
SECTION	CEN
SHEET NO.	210



NOTES:

1. ADJUST WATER SERVICE AND SEWER LATERALS AS NECESSARY. PAID WITH ITEM 710505 ADJUSTING WATER SERVICE, UP TO 2 INCH AND ITEM 711001 ADJUST SANITARY SEWER LATERALS.

2. SEE CAMDEN WYOMING SEWER WATER AUTHORITY UTILITY RELOCATION PLANS.

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
26	VERIZON	18+9.80	-17.46	45.79	2.14	3" BLACK CABLE
27	TCW	16+66.44	-23.39	45.62	2.70	1" PLASTIC
28	CHESAPEAKE	14+57.79	-13.72	44.90	2.69	4" METAL
29	TCW	16+1.07	11.99	45.31	3.18	10" PLASTIC
30	VERIZON	14+78.56	-18.19	44.85	2.45	3" BLACK CABLE
31	VERIZON	13+62.41	-18.37	44.41	2.36	3" BLACK CABLE
116	CHESAPEAKE	18+9.88	-12.47	45.91	2.86	4" METAL
117	TCW	18+4.80	12.89	45.60	3.52	10" PLASTIC
118	TCW	14+77.27	11.59	44.88	3.06	10" PLASTIC

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502	BRIDGE NO.	N/A
COUNTY	KENT	DESIGNED BY:	L. HAXTON
		CHECKED BY:	J. FREY

UTILITY RELOCATION PLAN

UT-17
SECTION CEN
SHEET NO. 211

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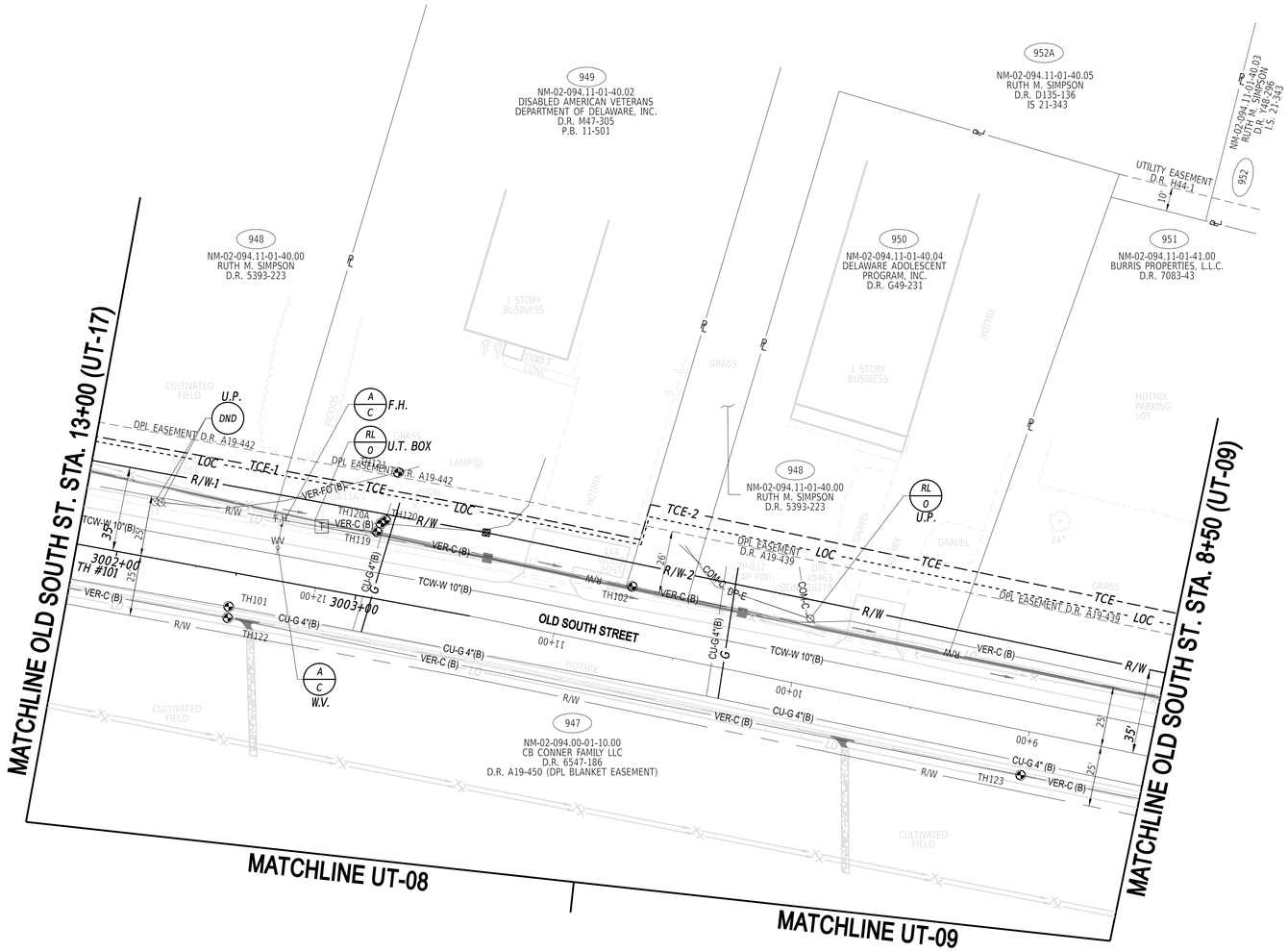

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
101	CHESAPEAKE	12+33.83	-14.11	44.11	2.71	4" METAL
102	VERIZON	10+72.30	25.44	43.62	2.52	1" BLACK CABLE
119	VERIZON	11+79.21	27.27	44.20	1.60	1.5" BLACK CABLE
120	CHESAPEAKE	11+76.55	32.55	44.37	2.56	2" PLASTIC
120A	VERIZON	11+78.53	30.85	44.36	1.19	1/4" BLACK CABLE
121	VERIZON	11+75.05	52.84	44.74	4.34	3" CONDUIT
122	VERIZON	12+33.39	-18.74	44.14	2.62	3" BLACK CABLE
123	VERIZON	8+99.89	-18.28	42.89	2.68	3" BLACK CABLE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	
T201709502	DESIGNED BY:	L. HAXTON	
COUNTY	CHECKED BY:	J. FREY	
KENT			

UTILITY RELOCATION PLAN

UT-18
SECTION CEN
SHEET NO. 212

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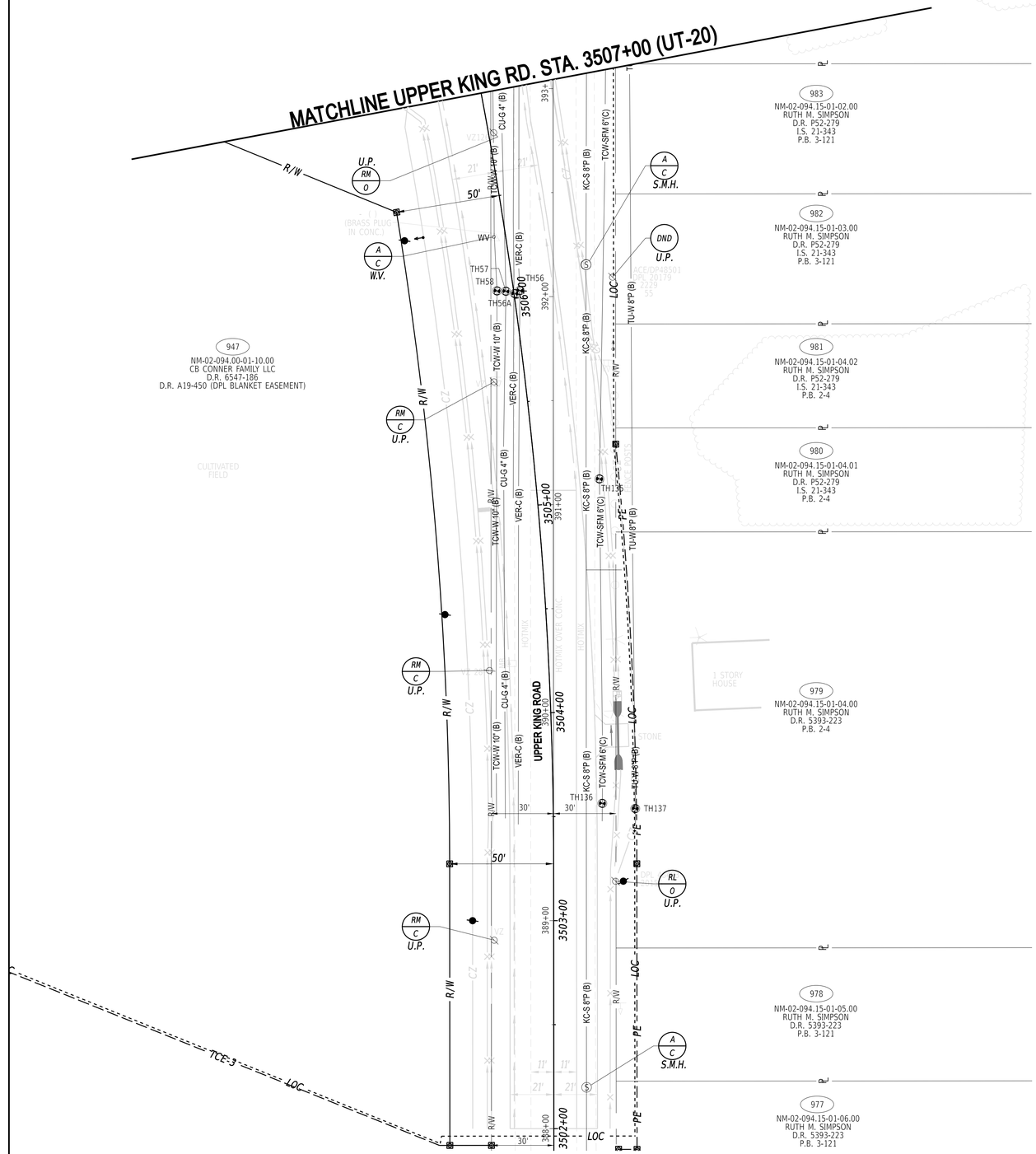

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
56	VERIZON	392+2.91	16.06	46.90	2.63	3" BLACK CABLE
56A	VERIZON	392+1.49	18.52	46.76	2.58	3" BLACK CABLE
57	CHESAPEAKE	392+2.58	22.76	46.72	2.56	4" PLASTIC
58	TCW	392+2.75	27.05	47.28	2.59	10" PLASTIC
135	TCW	391+12.34	-22.15	47.70	3.42	6" PLASTIC
136	TCW	389+56.36	-23.43	48.53	3.56	6" PLASTIC
137	TIDEWATER	389+53.86	-39.26	49.01	4.00	8" PLASTIC

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ADDENDA / REVISIONS

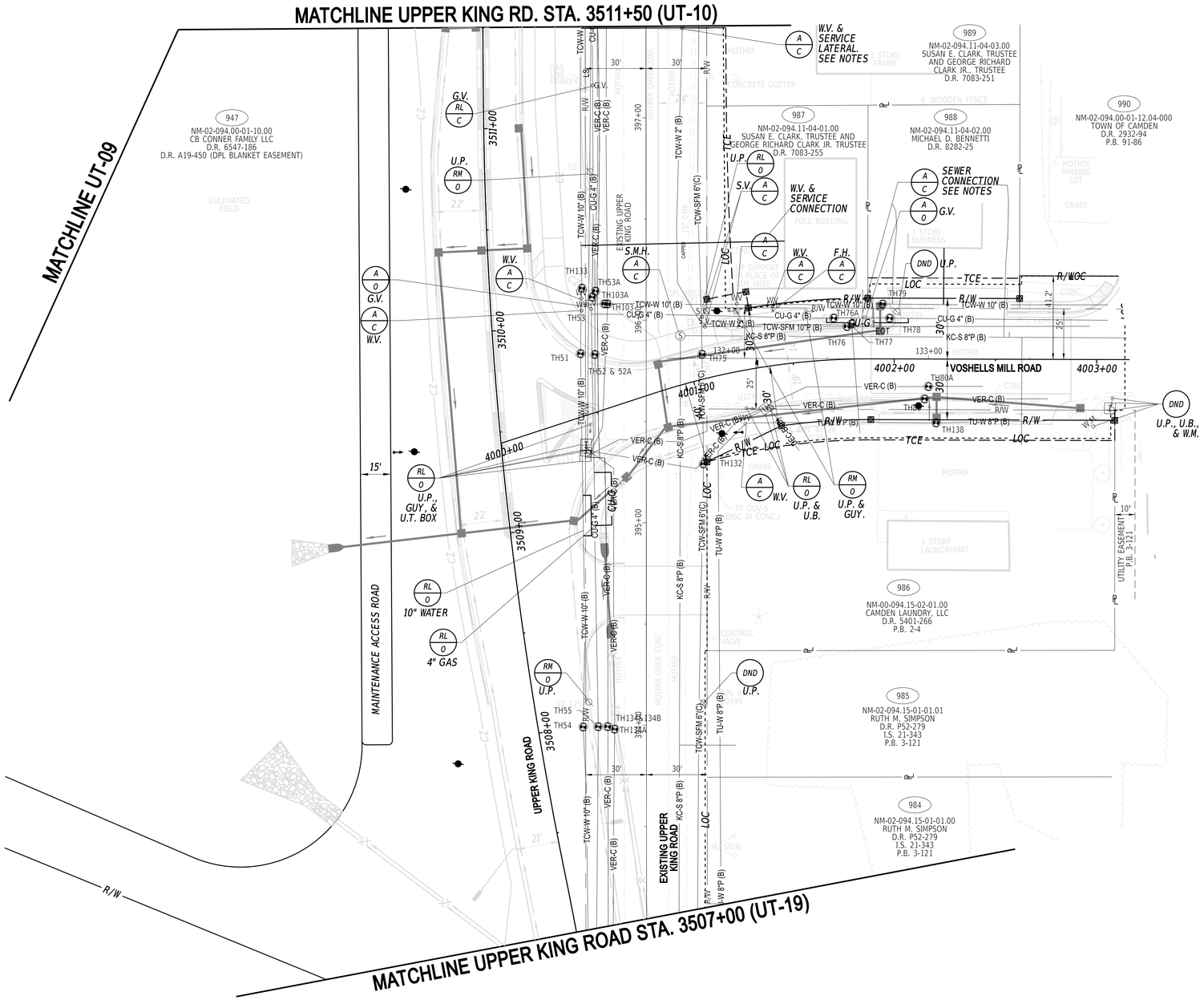
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

UTILITY RELOCATION PLAN

UT-19
SECTION CEN
SHEET NO. 213



NOTES:

1. *ADJUST WATER SERVICE AND SEWER LATERALS AS NECESSARY. PAID WITH ITEM 710505 ADJUSTING WATER SERVICE, UP TO 2 INCH AND ITEM 711001 ADJUST SANITARY SEWER LATERALS.*

2. *SEE CAMDEN WYOMING SEWER WATER AUTHORITY UTILITY RELOCATION PLANS.*

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
51	TCW	395+83.52	32.40	43.03	2.74	10" PLASTIC
52	VERIZON	395+83.11	25.32	43.98	2.08	9" CONDUIT
52A	VERIZON	395+83.11	25.32	43.98	2.08	3" BLACK CABLE
53	CHESAPEAKE	396+11.45	26.65	43.78	4.27	4" METAL
53A	VERIZON	396+14.39	24.99	43.96	2.51	9" CONDUIT
54	TCW	393+99.18	31.26	43.57	2.49	10" PLASTIC
55	CHESAPEAKE	393+99.31	23.79	44.34	2.42	4" METAL
75	TCW	131+88.10	1.99	44.46	3.25	12" METAL
76	TCW	132+59.73	15.91	43.90	3.26	10" PLASTIC
76A	CHESAPEAKE	132+53.12	20.07	44.07	2.68	4" METAL
77	CHESAPEAKE	132+12.00	17.22	43.93	4.09	1.5" PLASTIC
78	CHESAPEAKE	132+30.74	20.10	43.76	2.71	4" METAL
79	TCW	132+27.32	27.08	43.91	3.12	10" PLASTIC
80	VERIZON	132+98.15	-19.72	43.10	2.13	3" BLACK CABLE
80A	VERIZON	133+0.01	-13.59	42.97	3.07	1/4" BLACK CABLE
103	VERIZON	396+8.04	19.07	44.27	2.62	3" BLACK CABLE
103A	TCW	396+8.08	20.51	44.22	3.69	16" METAL
132	TCW	395+29.02	-28.31	44.87	4.03	6" PLASTIC
133	TCW	396+15.87	31.71	43.19	3.20	10" PLASTIC
134	VERIZON	393+99.37	19.16	45.17	2.50	4" CONDUIT
134A	VERIZON	393+98.11	15.67	45.51	2.80	3" BLACK CABLE
134B	VERIZON	393+99.37	19.16	45.17	2.50	3" BLACK CABLE
138	TCW	133+3.86	-31.54	43.06	3.66	8" PLASTIC

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ADDENDA / REVISIONS			

SCALE
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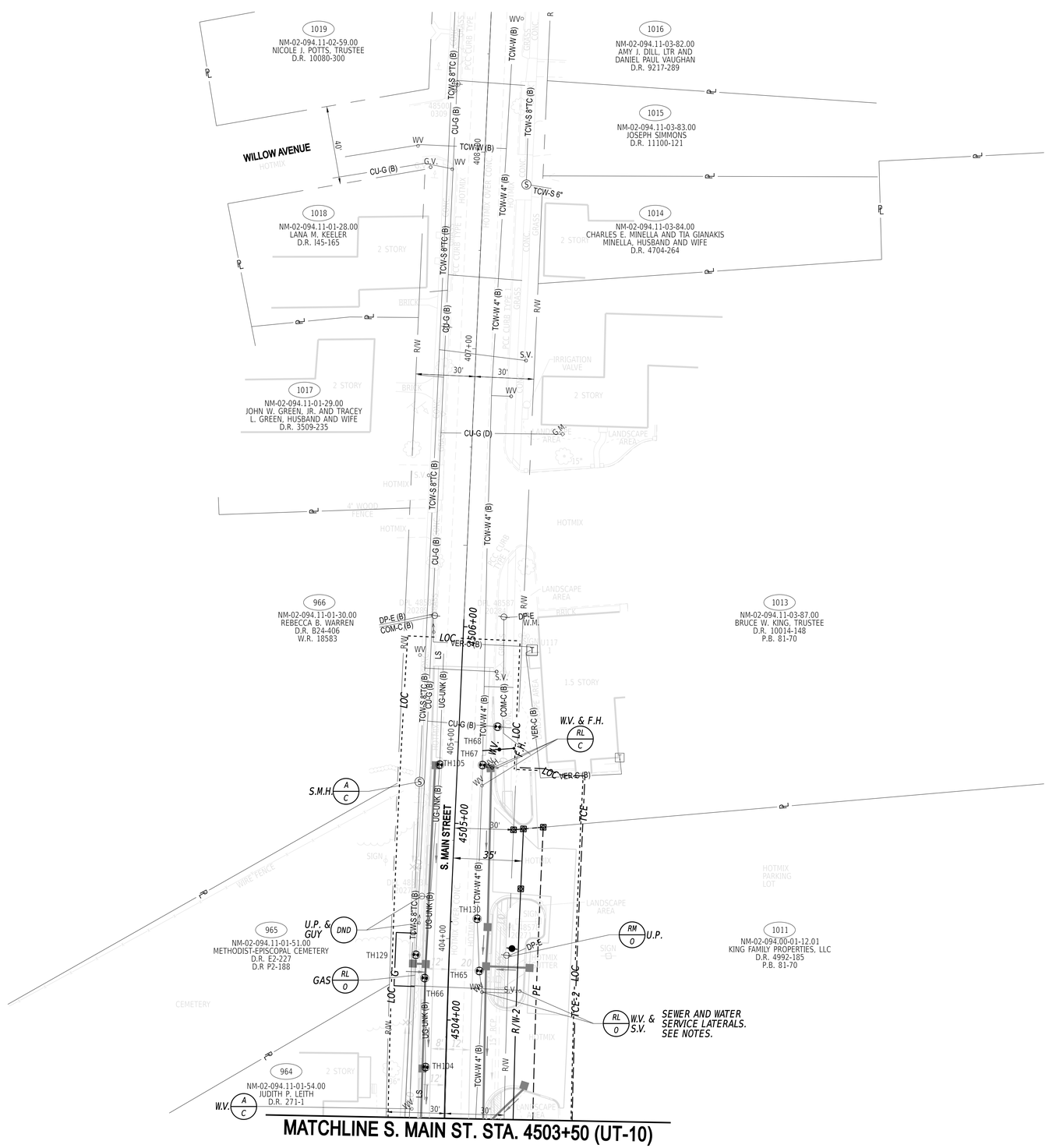
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

UTILITY RELOCATION PLAN

UT-20
SECTION
CEN
SHEET NO.
214



NOTES:

1. *ADJUST WATER SERVICE AND SEWER LATERALS AS NECESSARY. PAID WITH ITEM 710505 ADJUSTING WATER SERVICE, UP TO 2 INCH AND ITEM 711001 ADJUST SANITARY SEWER LATERALS.*

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
65	TCW	403+84.10	-15.39	39.96	2.68	3" METAL
66	UNKNOWN	403+79.59	12.25	40.09	3.15	2" METAL
67	TCW	404+88.87	-12.76	40.50	3.51	4" METAL
68	CHESAPEAKE	405+8.67	-19.55	41.03	1.86	1" PLASTIC
104	UNKNOWN	403+34.50	10.54	39.95	3.38	2" METAL
105	UNKNOWN	404+88.13	8.95	40.64	2.66	2" METAL
129	CHESAPEAKE	403+91.25	17.08	40.62	2.88	4" PLASTIC
130	TCW	404+10.63	-13.40	40.08	3.12	4" METAL

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

UTILITY RELOCATION PLAN

UT-21
SECTION CEN
SHEET NO. 215

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MATCHLINE UT-11

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990
NM-02-094.00-01-12.04
TOWN OF CAMDEN
D.R. 2932-94
P.B. 91-86

993
NM-00-094.15-02-6.00
VINCENT O. IKWUAGWU
AND KANAYOCHI
IKWUAGWU
D.R. 2860-69
P.B. 3-121

994
NM-00-094.15-02-8.00
CATHY L. MILLER
D.R. 8139-165
P.B. 3-121

995
NM-00-094.15-02-9.00
KEITH K. CASKEY AND
MARGARET R. CASKEY
D.R. 6094-94
P.B. 3-121

996
NM-00-094.15-02-10.00
JOHN J. COZZE AND
JOYCE A. COZZE
D.R. 6832-76
P.B. 3-121

997
NM-00-094.15-02-11.00
CHAMNONG BROWN
D.R. V43-260
I.S. 28-2
P.B. 3-121

998
NM-00-094.15-02-12.00
MICHAEL FILLMORE AND
RENEE FILLMORE
D.R. 332-337
P.B. 3-121

301A
NM-02-094.00-01-12.07
CARL P. KING REAL ESTATE, L.L.C.
D.R. 5250-149
P.B. 138-48

MAPLE LANE
VOSHELLS MILL ROAD
FRIENDS WAY
DRAINAGE EASEMENT P.B. 91-86
10' WIDE UTILITY EASEMENT P.B. 3-121
15' EASEMENT P.B. 132-36
TCE
LOC
R/W
R/W-FE
P
KC-S 8"P (B)
KC-S (D)
KC-S
136+00
137+00
138+00
139+00
140+00
141+00
15" RCP
12" RCP
50'
25'
44'

ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

UTILITY RELOCATION PLAN

UT-22	
SECTION	CEN
SHEET NO.	216

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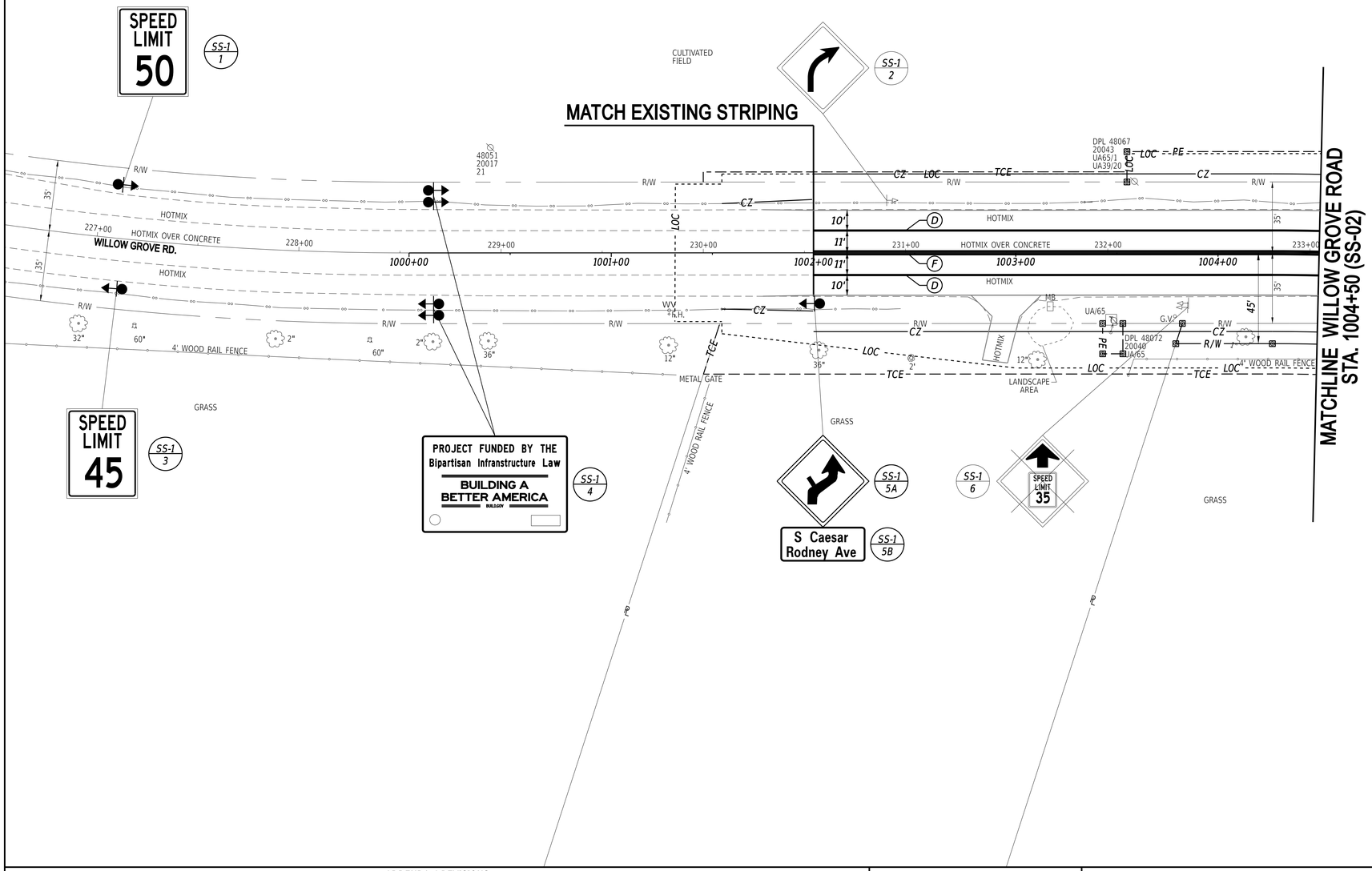

TRAFFIC	
JW / X ■	PROPOSED JUNCTION WELL & TYPE
CO / X	PROPOSED ITMS CONDUIT RUN & IDENTIFIER
PB / X	PROPOSED POLE BASE IDENTIFIER
PL / X	PROPOSED POLE IDENTIFIER
CA / X ■	PROPOSED ITMS/LIGHTING CABINET & TYPE
LST / X	PROPOSED LIGHTING STANDARD IDENTIFIER
LSR / X	PROPOSED LIGHTING SERVICE IDENTIFIER
	PROPOSED LED COBRA-HEAD LUMINAIRE
	PROPOSED SIGNAL/ITMS POLE BASE
P	PROPOSED SERVICE PEDESTAL
	PROPOSED VIDEO MONITORING CAMERA (CCTV) ON 75' POLE WITH LOWERING DEVICE
———	PROPOSED 4" MULTIDUCT, SDR-13.5 HDPE (BORE) WITH (4) 1" RIBBED INNER DUCT
———	PROPOSED 4" MULTIDUCT, PVC (TRENCH) WITH (4) 1" RIBBED INNER DUCT
- - - - -	LIGHTING SERVICE RUN UNDER NEW PAVEMENT OR SODDED TRENCH, 24" MIN. BELOW FINISHED GRADE

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 817002)	0 SF
B	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	0 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	500 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	0 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	500 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	0 LF
H	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
J	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	0 SF
K	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	0 EA
M	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

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ADDENDA / REVISIONS

SCALE
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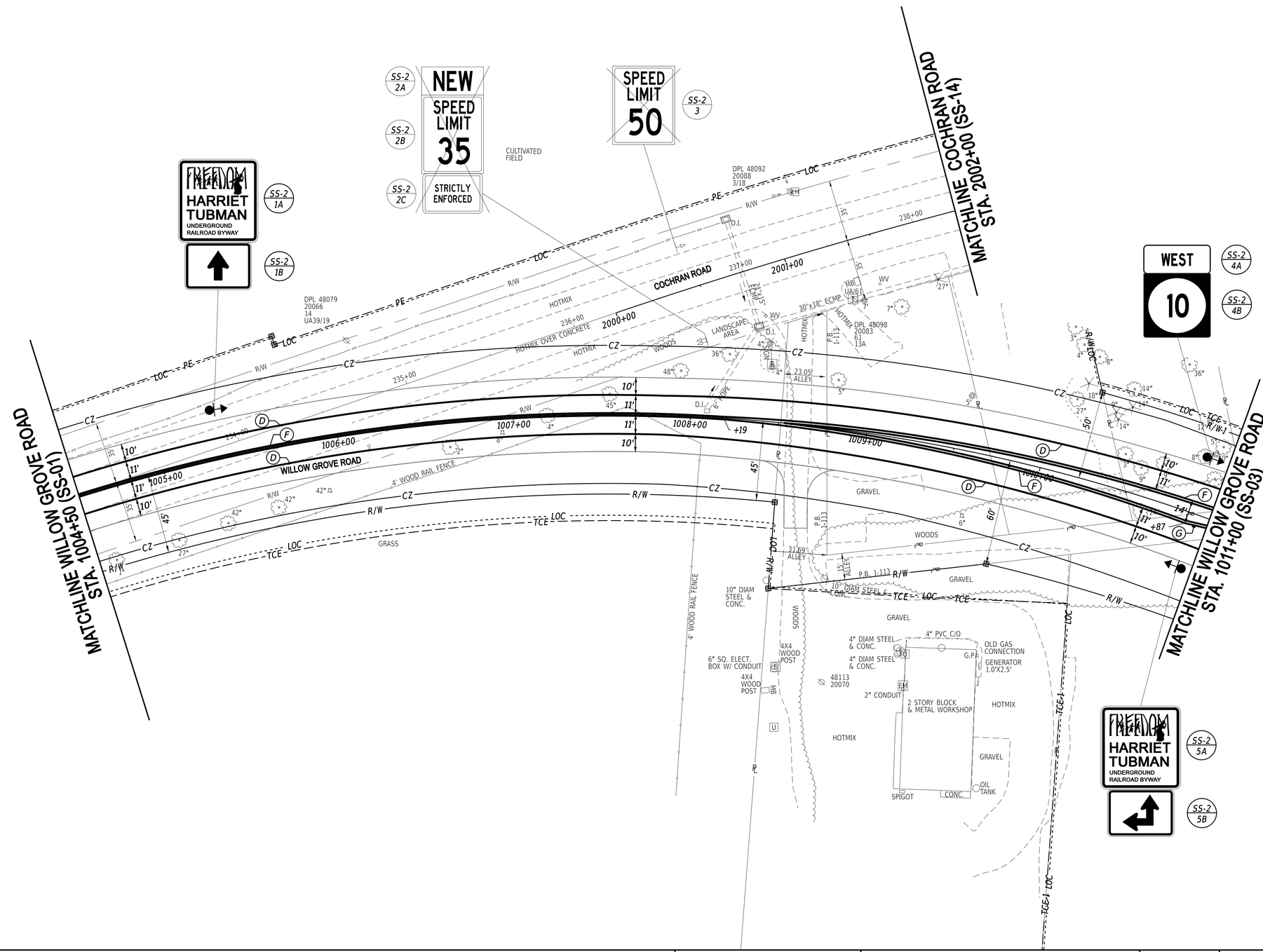
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

SIGNING, STRIPING AND CONDUIT PLAN

SS-01
SECTION
CEN
SHEET NO.
217



PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 817002)	0 SF
(B)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,300 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	1,795 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	2 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
(J)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

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ADDENDA / REVISIONS

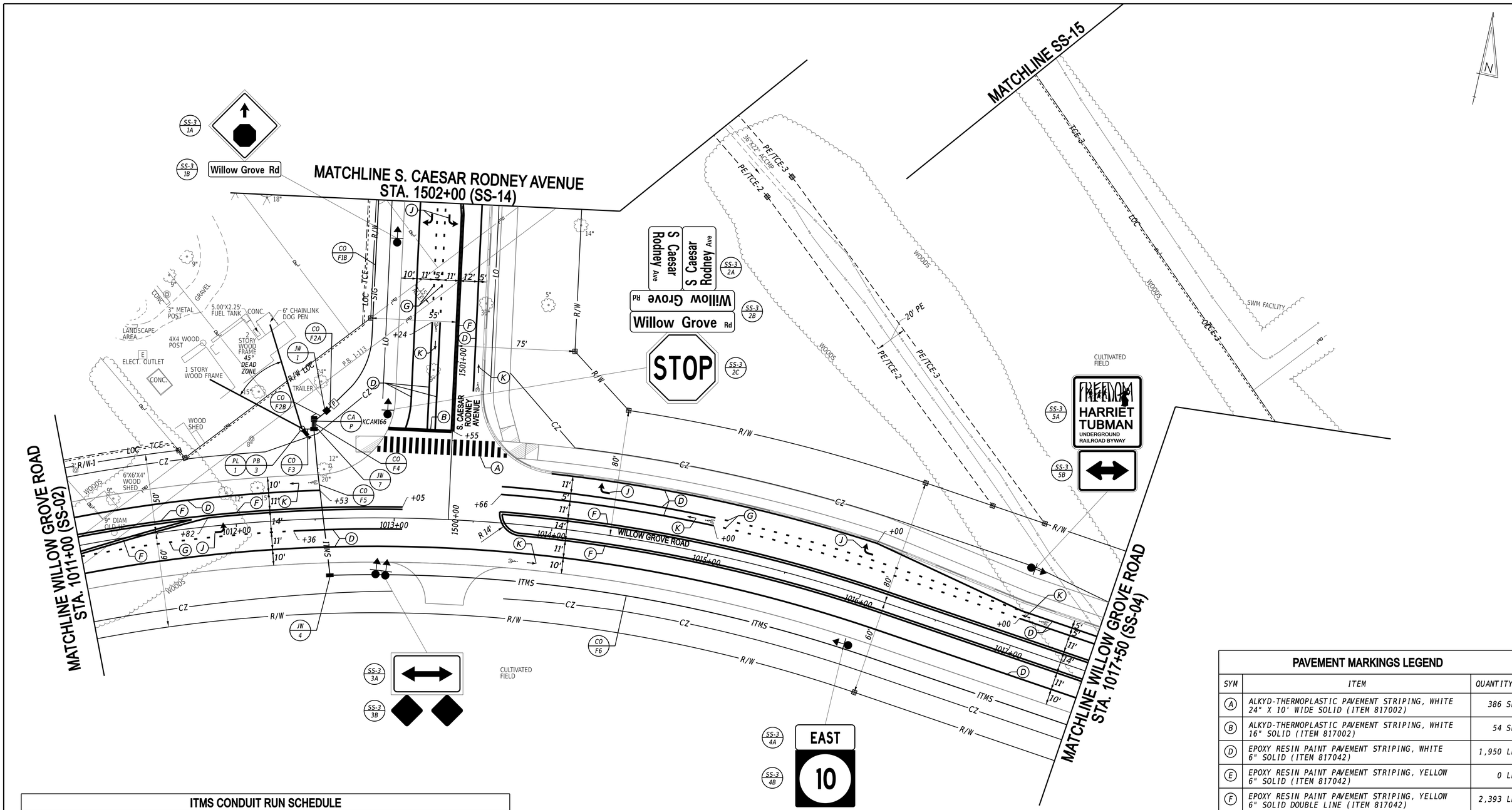
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

SIGNING, STRIPING AND CONDUIT PLAN

SS-02	
SECTION	CEN
SHEET NO.	218



ITMS CONDUIT RUN SCHEDULE

CO#	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
F2A	1	2"	GALV	5'	T	NEW (1)2/#8 U.F.W/GROUND - LOAD SIDE
F2B	1	2"	GALV	5'	T	NEW (1)2/#8 U.F.W/GROUND - LOAD SIDE
F3	1	3"	PVC	5'	T	NEW (1)CAT5E COMM CABLE (1)#6 SC
F4	4	4"	PVC	5'	T	NEW (1)24 CNT SM (1)CAT5E COMM CABLE (1)#6 SC
F5	1	4"	HDPE	95'	B	NEW (1)48 CNT SM
F6	1	4"	PVC	530'	T	NEW (1)48 CNT SM

LEGEND

X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN

B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
1	CAMERA	75'	STEEL

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" X 10' WIDE SOLID (ITEM 817002)	386 SF
(B)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	54 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,950 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	2,393 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	174 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
(J)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	78 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	6 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	CAM NO.	KCAM166
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

SIGNING, STRIPING AND CONDUIT PLAN

SS-03 | SECTION: CEN | SHEET NO.: 219

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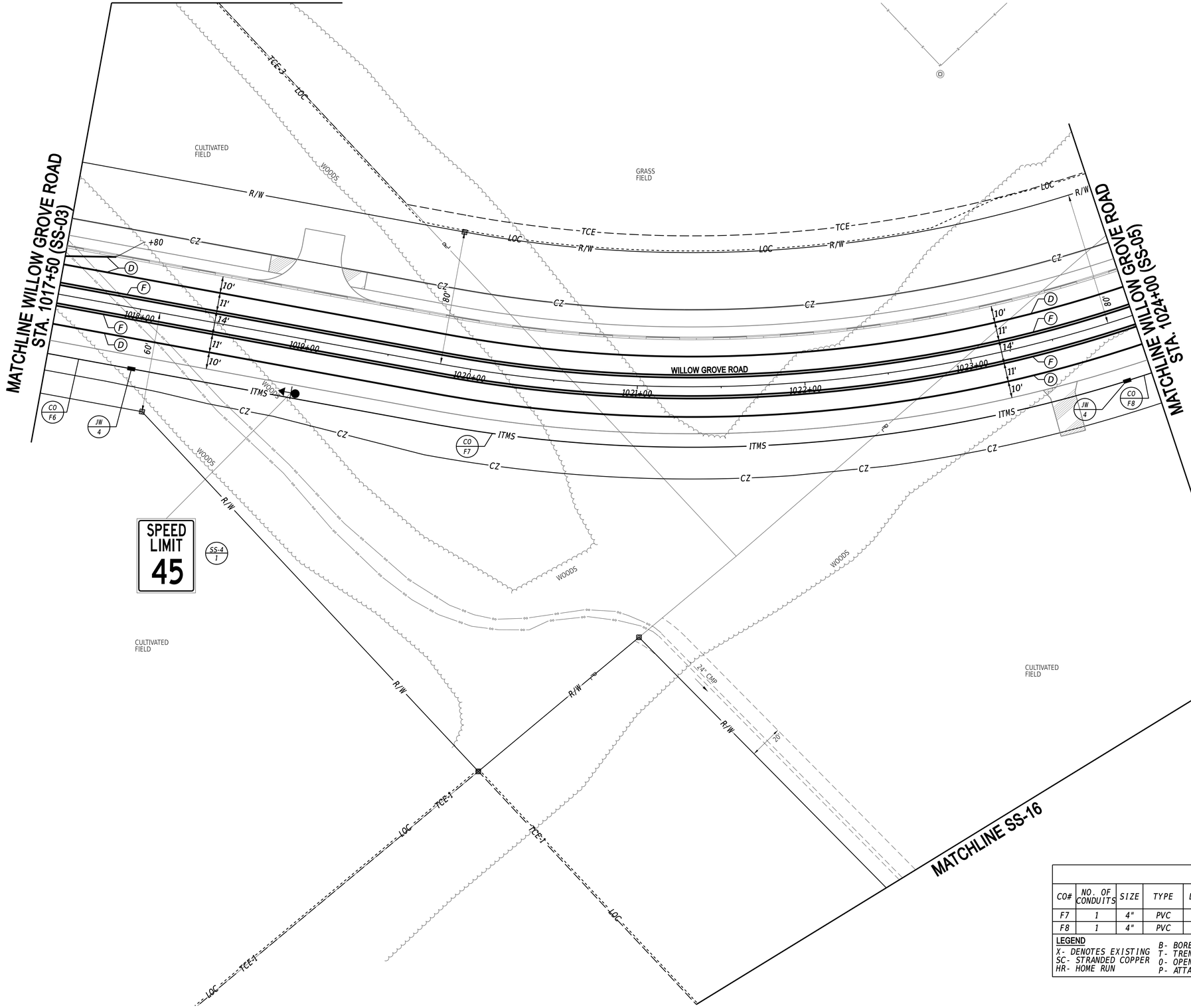

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 817002)	0 SF
(B)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,330 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	2,600 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
(J)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

ITMS CONDUIT RUN SCHEDULE

CO#	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
F7	1	4"	PVC	600'	T	NEW (1)48 CNT SM
F8	1	4"	PVC	600'	T	NEW (1)48 CNT SM

LEGEND

X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN

B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

SIGNING, STRIPING AND CONDUIT PLAN

SS-04	
SECTION	CEN
SHEET NO.	220

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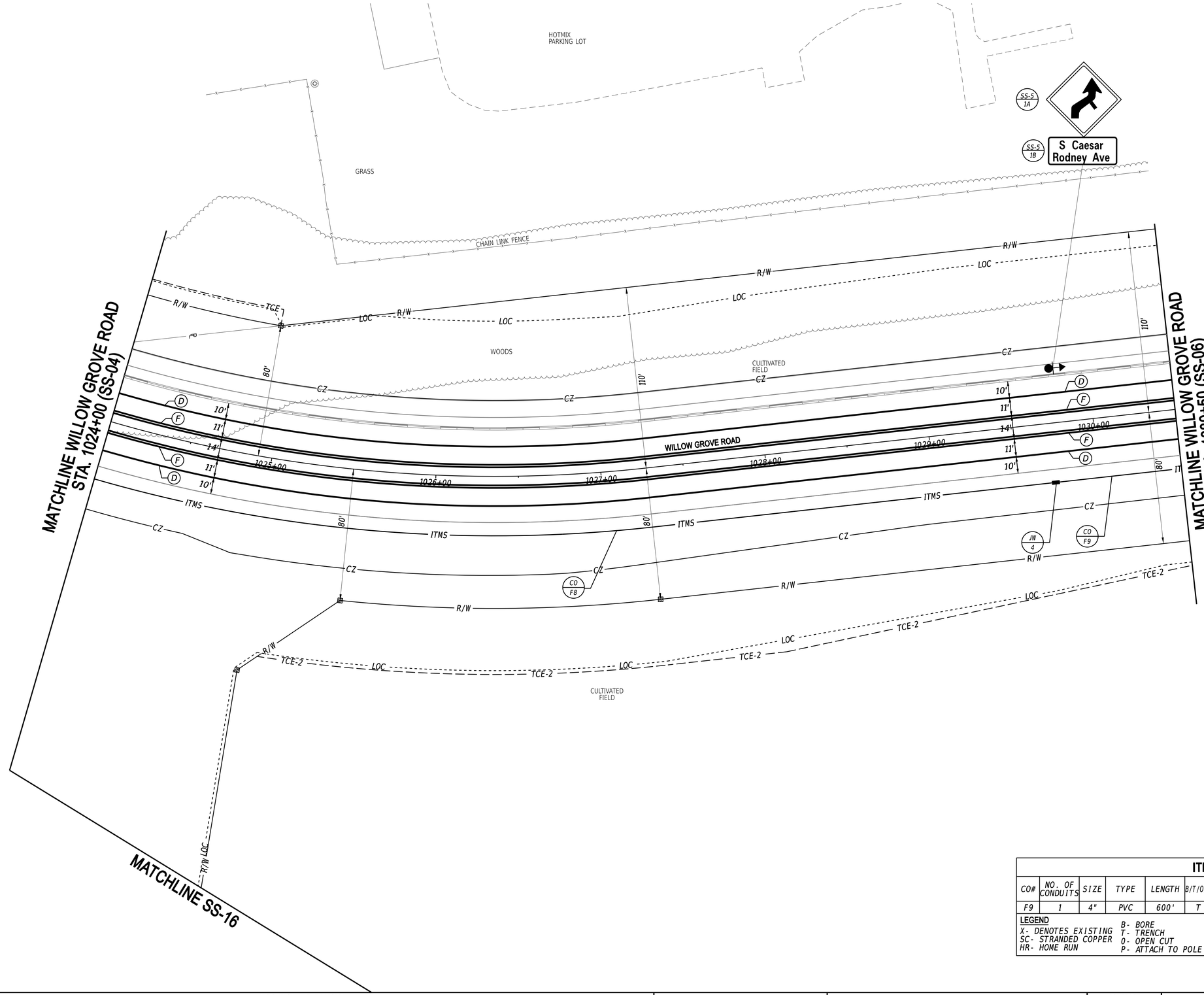

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 817002)	0 SF
(B)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,300 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	2,600 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
(J)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

ITMS CONDUIT RUN SCHEDULE

CO#	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
F9	1	4"	PVC	600'	T	NEW (1)48 CNT SM

LEGEND
X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN
B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE
SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS

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ADDENDA / REVISIONS

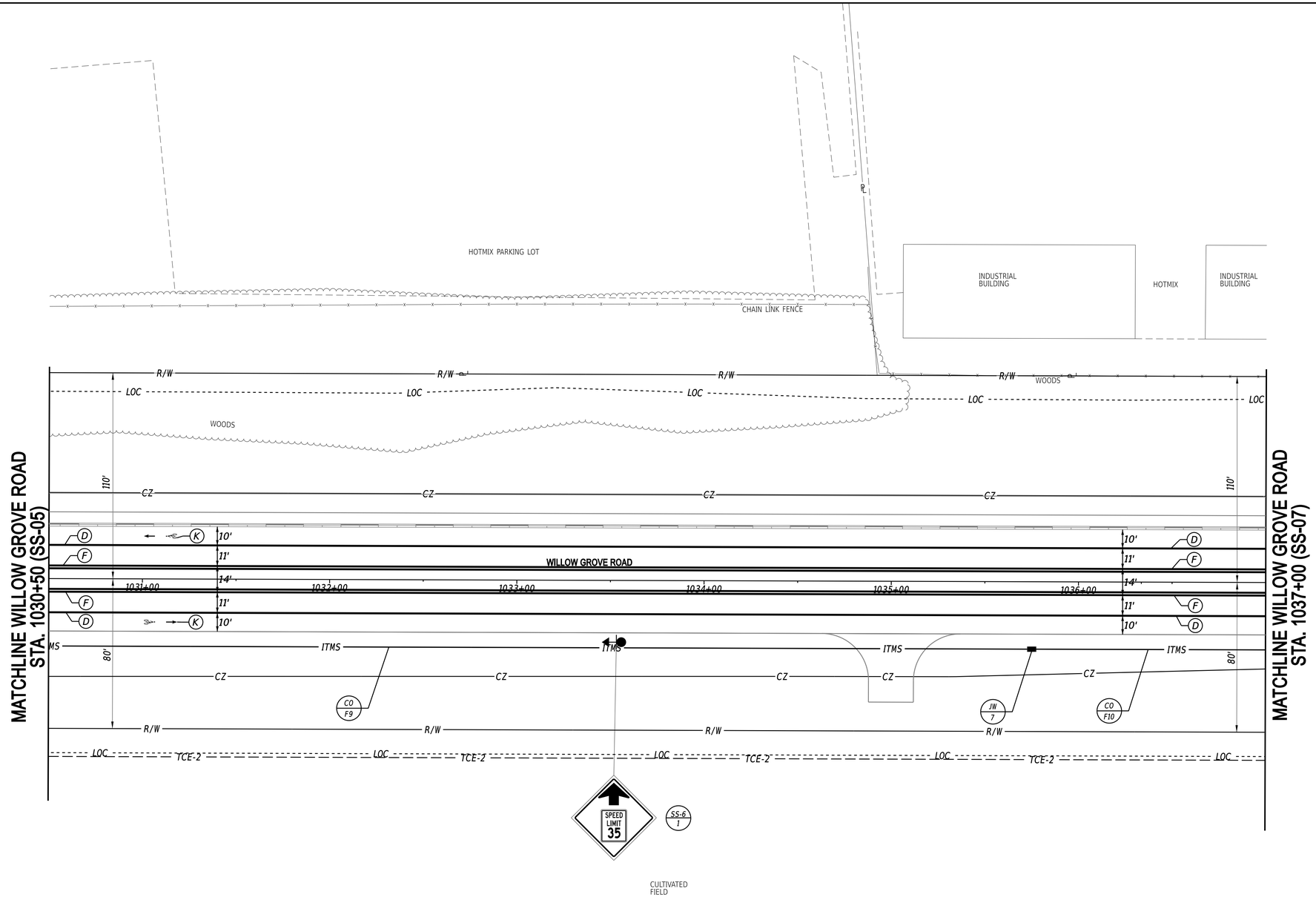
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

SIGNING, STRIPING AND CONDUIT PLAN

SECTION	SS-05
SHEET NO.	CEN
	221



PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 817002)	0 SF
(B)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,300 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	2,600 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
(J)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	2 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

ITMS CONDUIT RUN SCHEDULE

CO#	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
F10	1	4"	PVC	600'	T	NEW (1)48 CNT SM

LEGEND

X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN

B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS

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ADDENDA / REVISIONS

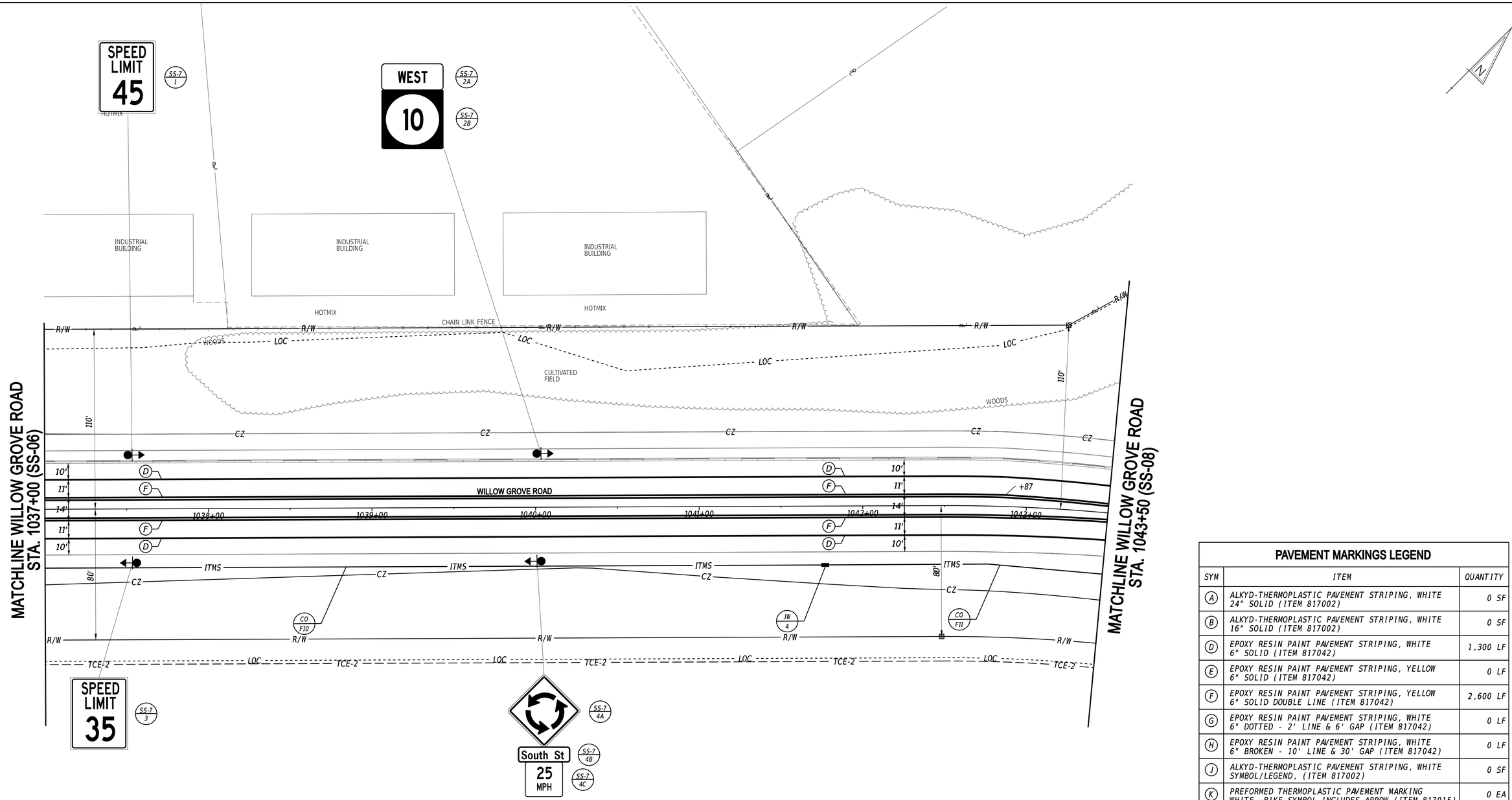
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

SIGNING, STRIPING AND CONDUIT PLAN

SS-06	
SECTION	CEN
SHEET NO.	222



PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 817002)	0 SF
B	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	0 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,300 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	0 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	2,600 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	0 LF
H	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
J	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	0 SF
K	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	0 EA
M	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

ITMS CONDUIT RUN SCHEDULE

CO#	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
F11	1	4"	PVC	600'	T	NEW (1)48 CNT SM

LEGEND

X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN

B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

SIGNING, STRIPING AND CONDUIT PLAN

SECTION	SS-07
SHEET NO.	CEN
	223

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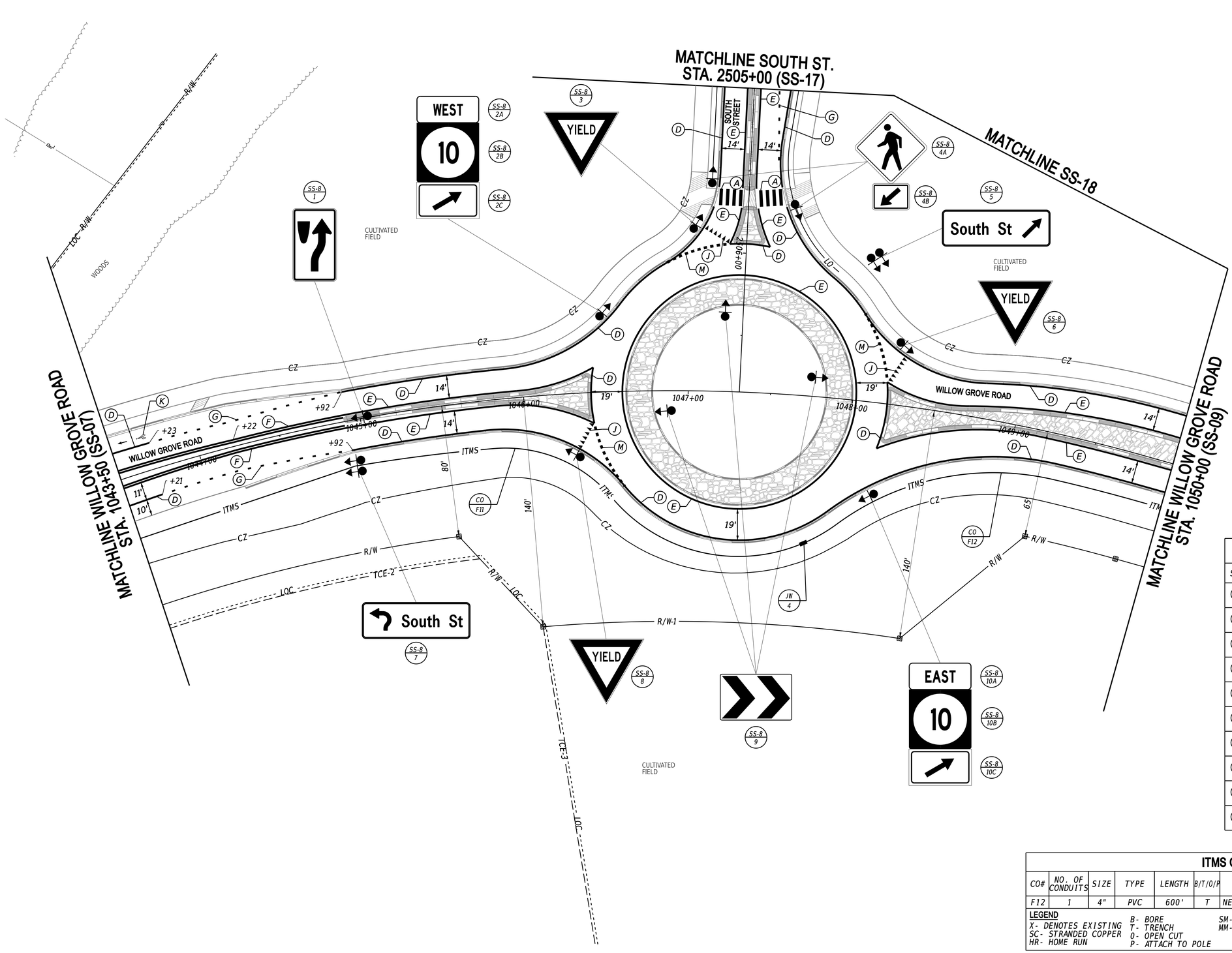

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" X 10' WIDE SOLID (ITEM 817002)	160 SF
(B)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,352 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,287 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	564 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	72 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
(J)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	14 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	1 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	64 LF

ITMS CONDUIT RUN SCHEDULE

CO#	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
F12	1	4"	PVC	600'	T	NEW (1)48 CNT SM

LEGEND

X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN

B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

SIGNING, STRIPING AND CONDUIT PLAN

SS-08
SECTION
CEN
SHEET NO.
224

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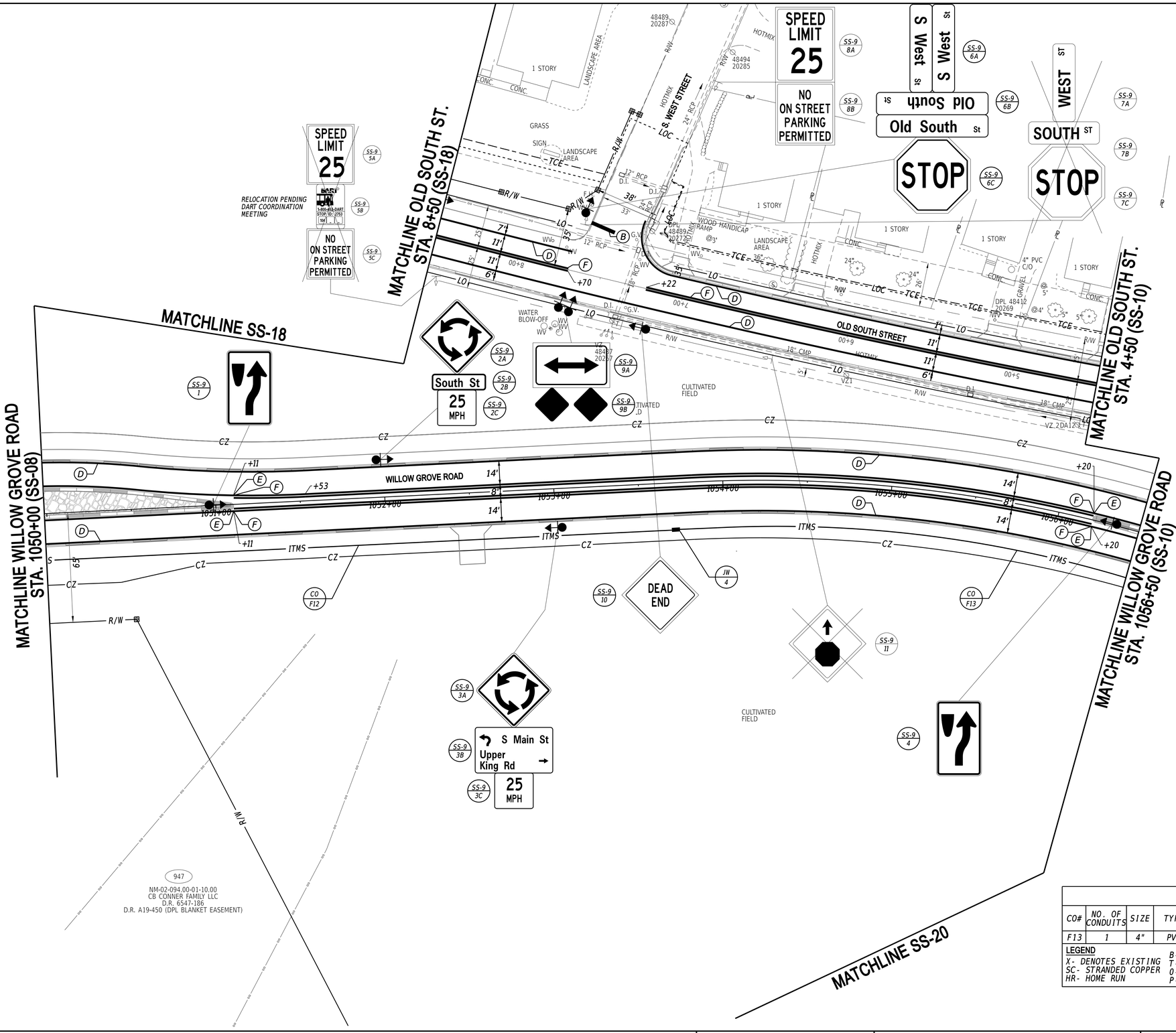

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 817002)	0 SF
B	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	20 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	2,055 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	282 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	2,744 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	0 LF
H	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
J	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	0 SF
K	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	0 EA
M	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

ITMS CONDUIT RUN SCHEDULE

CO#	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
F13	1	4"	PVC	420'	T	NEW (1)48 CNT SM

LEGEND

X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN
B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE
SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

SIGNING, STRIPING AND CONDUIT PLAN

SS-09	
SECTION	CEN
SHEET NO.	225

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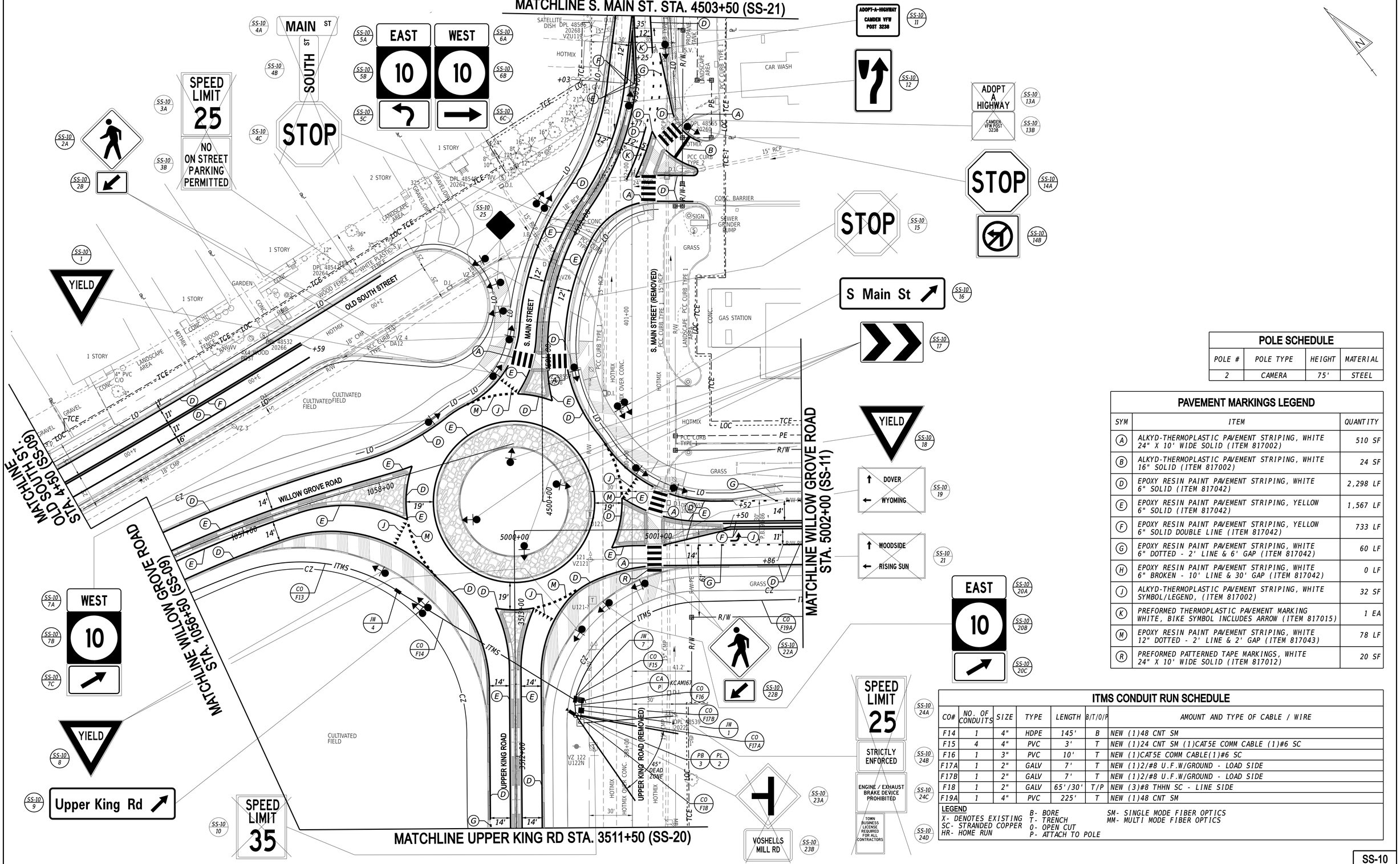

POLE SCHEDULE			
POLE #	POLE TYPE	HEIGHT	MATERIAL
2	CAMERA	75'	STEEL

PAVEMENT MARKINGS LEGEND		
SYM	ITEM	QUANTITY
(A)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" X 10' WIDE SOLID (ITEM 817002)	510 SF
(B)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	24 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	2,298 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,567 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	733 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	60 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
(J)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	32 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	1 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	78 LF
(R)	PREFORMED PATTERNED TAPE MARKINGS, WHITE 24" X 10' WIDE SOLID (ITEM 817012)	20 SF

ITMS CONDUIT RUN SCHEDULE						
CO#	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
F14	1	4"	HDPE	145'	B	NEW (1)48 CNT SM
F15	4	4"	PVC	3'	T	NEW (1)24 CNT SM (1)CAT5E COMM CABLE (1)#6 SC
F16	1	3"	PVC	10'	T	NEW (1)CAT5E COMM CABLE(1)#6 SC
F17A	1	2"	GALV	7'	T	NEW (1)2/#8 U.F.W/GROUND - LOAD SIDE
F17B	1	2"	GALV	7'	T	NEW (1)2/#8 U.F.W/GROUND - LOAD SIDE
F18	1	2"	GALV	65'/30'	T/P	NEW (3)#8 THHN SC - LINE SIDE
F19A	1	4"	PVC	225'	T	NEW (1)48 CNT SM

LEGEND
X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN
B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE
SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	CAM NO.	K-CAM167
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

SIGNING, STRIPING AND CONDUIT PLAN

SS-10	
SECTION	CEN
SHEET NO.	226

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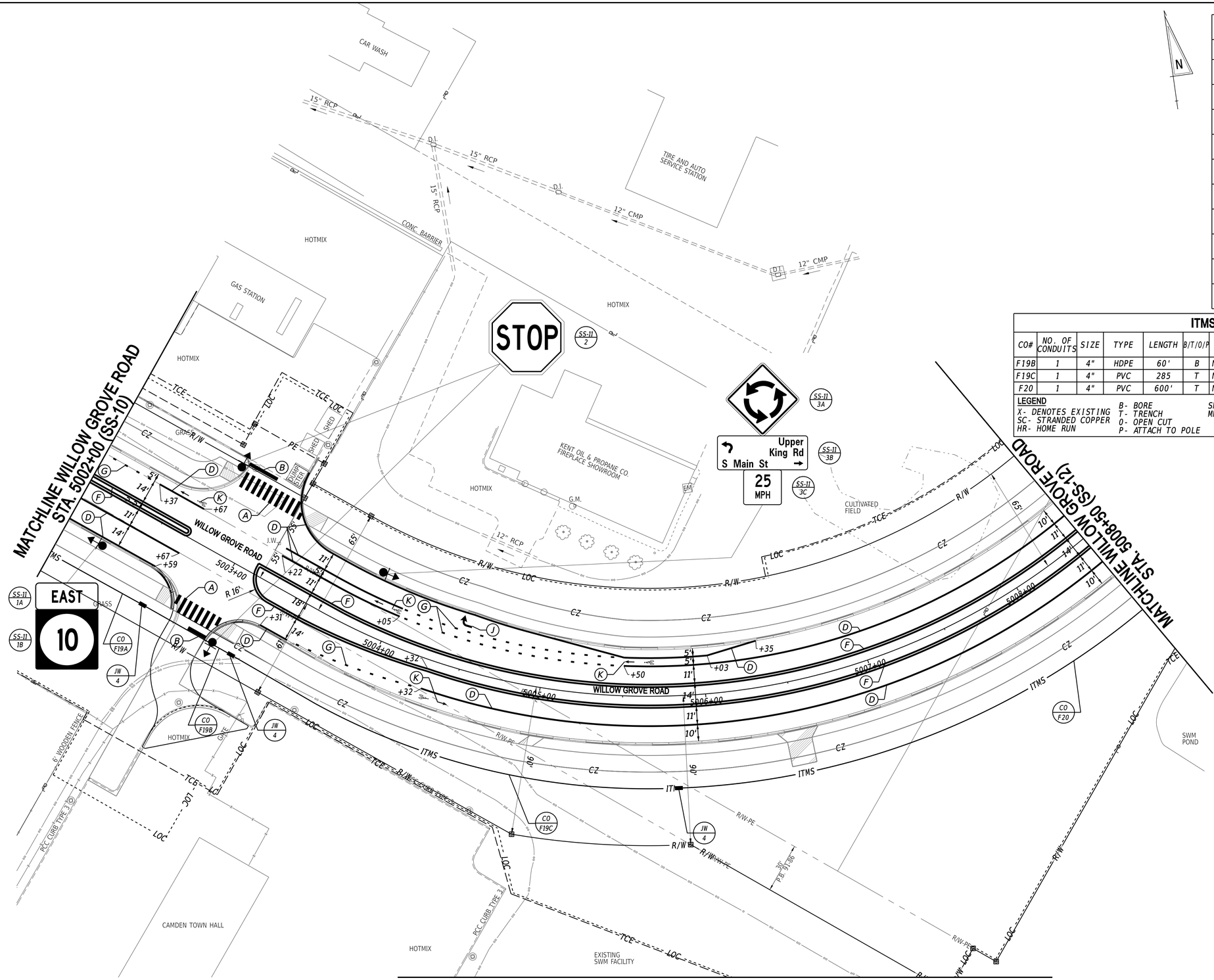

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PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" x 10' WIDE SOLID (ITEM 817002)	352 SF
B	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	42 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,379 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	0 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	2,440 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	100 LF
H	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
J	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	16 SF
K	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	4 EA
M	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

ITMS CONDUIT RUN SCHEDULE

CO#	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
F19B	1	4"	HDPE	60'	B	NEW (1)48 CNT SM
F19C	1	4"	PVC	285	T	NEW (1)48 CNT SM
F20	1	4"	PVC	600'	T	NEW (1)48 CNT SM

LEGEND

X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN

B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

SIGNING, STRIPING AND CONDUIT PLAN

SS-11
SECTION
CEN
SHEET NO.
227

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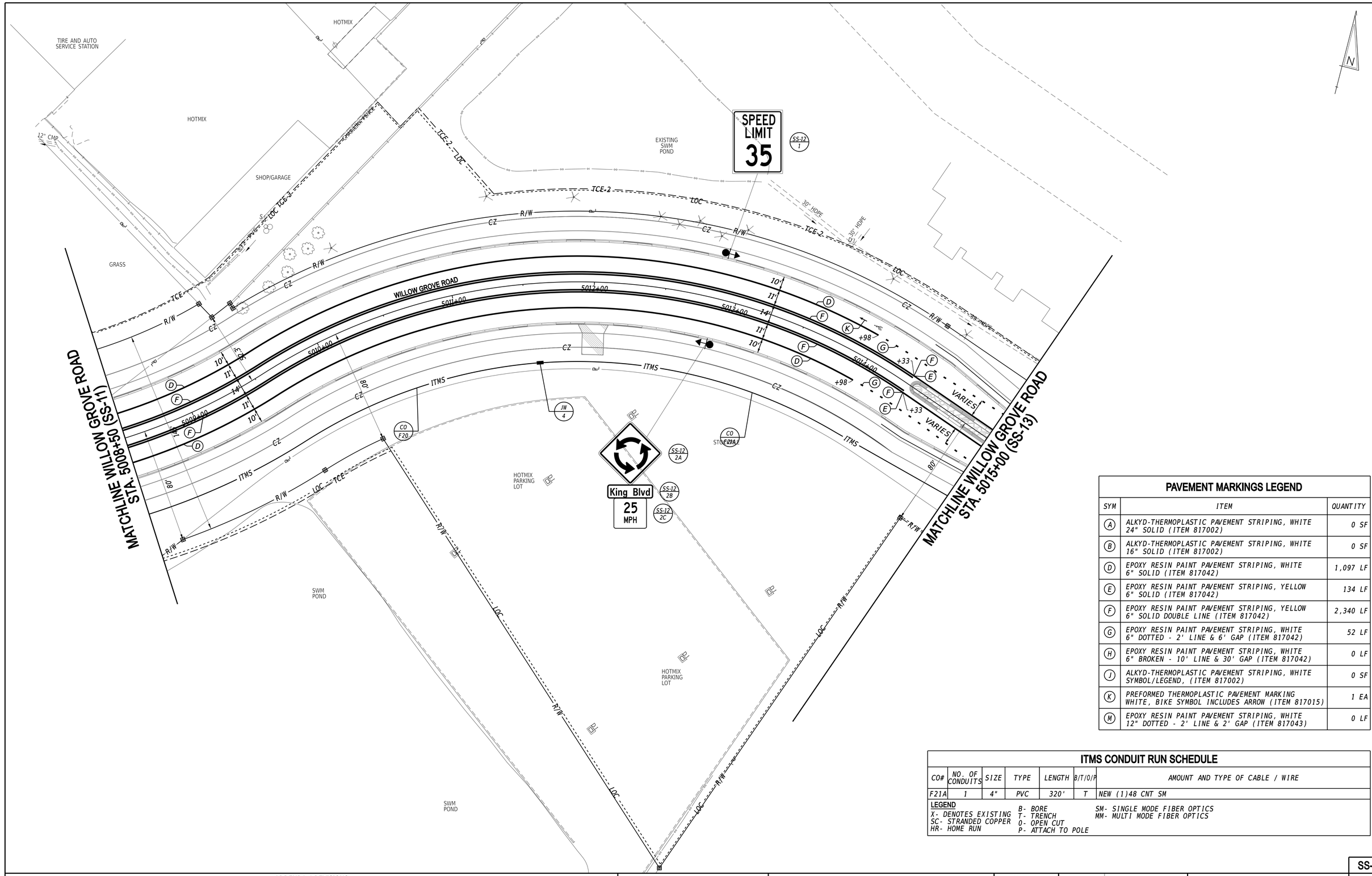

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 817002)	0 SF
B	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	0 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,097 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	134 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	2,340 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	52 LF
H	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
J	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	0 SF
K	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	1 EA
M	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

ITMS CONDUIT RUN SCHEDULE

CO#	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
F21A	1	4"	PVC	320'	T	NEW (1)48 CNT SM

LEGEND

X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN

B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS

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ADDENDA / REVISIONS

SCALE
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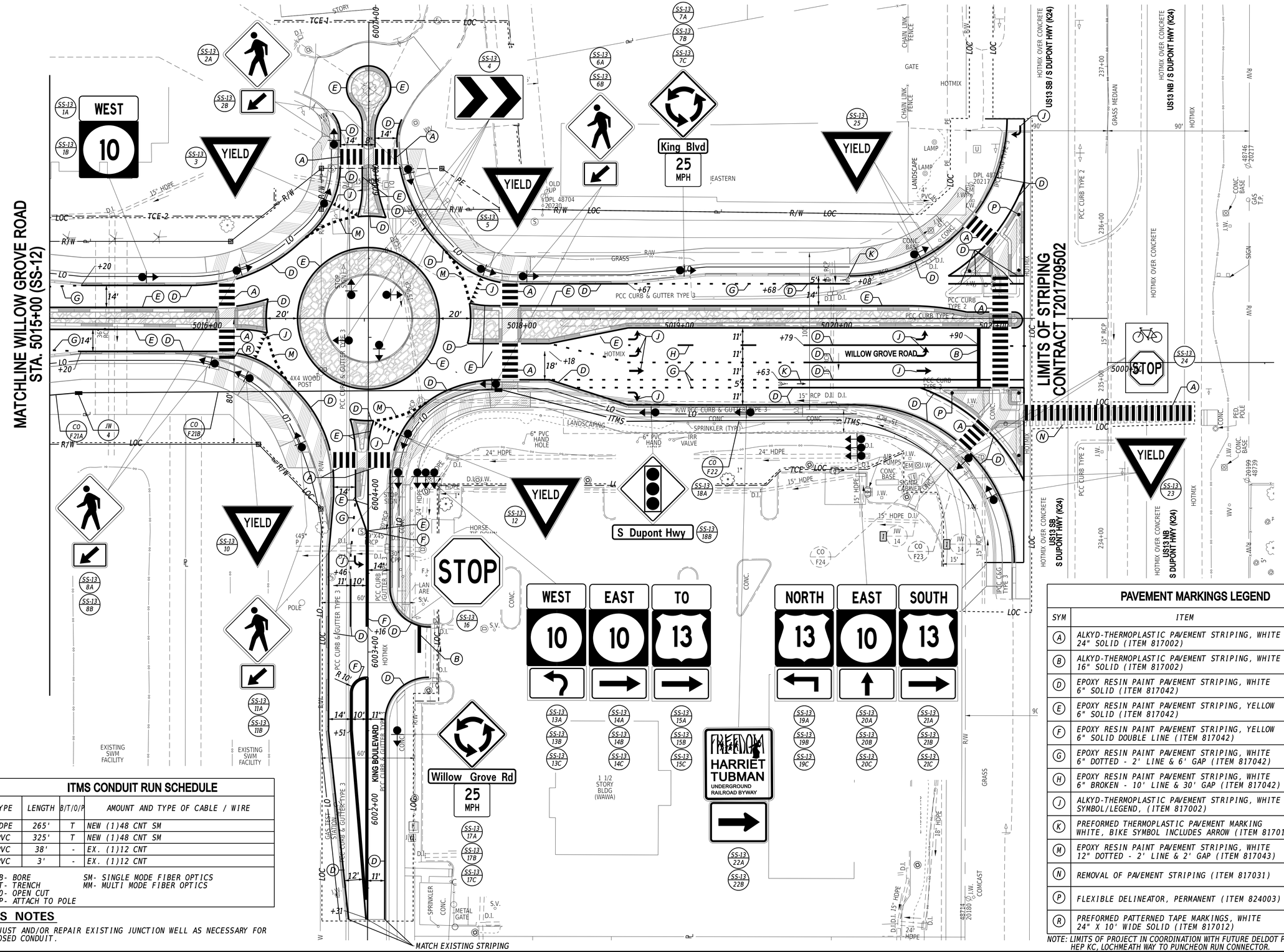
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

SIGNING, STRIPING AND CONDUIT PLAN

SS-12	
SECTION	CEN
SHEET NO.	228



ITMS CONDUIT RUN SCHEDULE

CO#	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
F21B	1	4"	HDPE	265'	T	NEW (1)48 CNT SM
F22	1	4"	PVC	325'	T	NEW (1)48 CNT SM
XF23	1	4"	PVC	38'	-	EX. (1)12 CNT
XF24	1	4"	PVC	3'	-	EX. (1)12 CNT

LEGEND
X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN
B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE
SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS

ADDITIONAL ITMS NOTES

1. CONTRACTOR SHALL ADJUST AND/OR REPAIR EXISTING JUNCTION WELL AS NECESSARY FOR INTEGRATION OF PROPOSED CONDUIT.

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 817002)	1,780 SF
B	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	75 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	2,615 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,490 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	725 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	158 LF
H	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	20 LF
J	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	136 SF
K	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	2 EA
M	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	76 LF
N	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	540 SF
P	FLEXIBLE DELINEATOR, PERMANENT (ITEM 824003)	6 EA
R	PREFORMED PATTERNED TAPE MARKINGS, WHITE 24" X 10' WIDE SOLID (ITEM 817012)	20 SF

NOTE: LIMITS OF PROJECT IN COORDINATION WITH FUTURE DELDOT PROJECT T201500202 - HEP KC, LOCHMEATH WAY TO PUNCHEON RUN CONNECTOR.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

SIGNING, STRIPING AND CONDUIT PLAN

SS-13 | SECTION: CEN | SHEET NO.: 229

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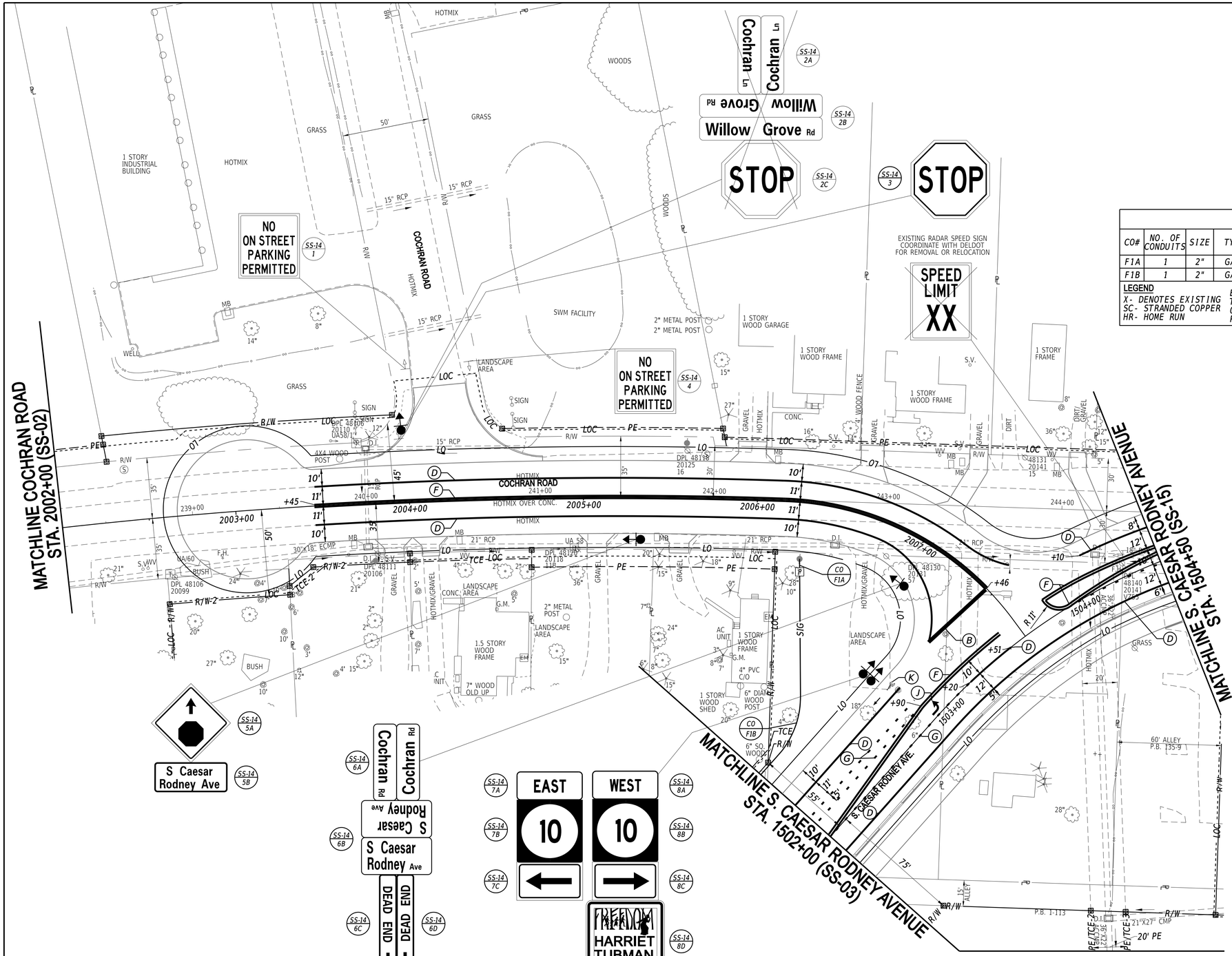

ITMS CONDUIT RUN SCHEDULE

CO#	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
F1A	1	2"	GALV	30'/10'	P/T	NEW (3)#8 THHN SC - LINE SIDE
F1B	1	2"	GALV	260'	T	NEW (3)#8 THHN SC - LINE SIDE

LEGEND

X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN

B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 817002)	0 SF
(B)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	60 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,219 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	1,394 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	76 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
(J)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	16 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	1 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

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ADDENDA / REVISIONS

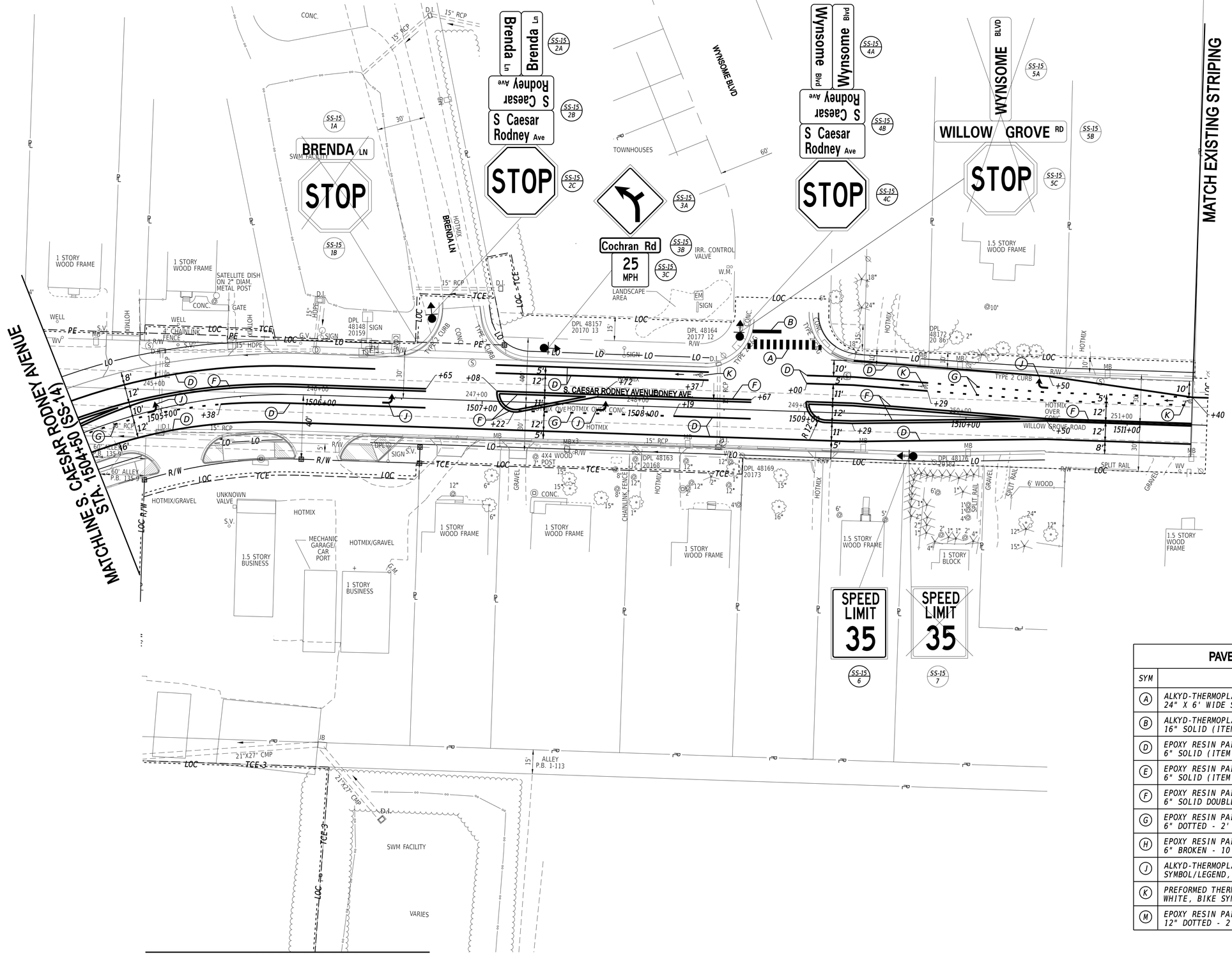
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

SIGNING, STRIPING AND CONDUIT PLAN

SS-14	
SECTION	CEN
SHEET NO.	230



PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" X 6' WIDE SOLID (ITEM 817002)	134 SF
(B)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	24 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,658 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	2,093 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	136 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
(J)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	47 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	3 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

SIGNING, STRIPING AND CONDUIT PLAN

SS-15 | SECTION: CEN | SHEET NO.: 231

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MATCHLINE SS-04

MATCHLINE SS-04

N

R/W

24" CMP

D.I.

R/W - LOC

R/W - LOC

R/W

TCE-1

LOC

TCE-1

LOC

TCE-1

LOC

TCE-1

LOC

TCE-1

LOC

TCE-1

20'

24" CMP

24" CMP

W

W

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT T201709502
COUNTY KENT

BRIDGE NO. N/A
DESIGNED BY: L. HAXTON
CHECKED BY: J. FREY

SIGNING, STRIPING AND CONDUIT PLAN

SS-16
SECTION CEN
SHEET NO. 232

20-DEC-2024
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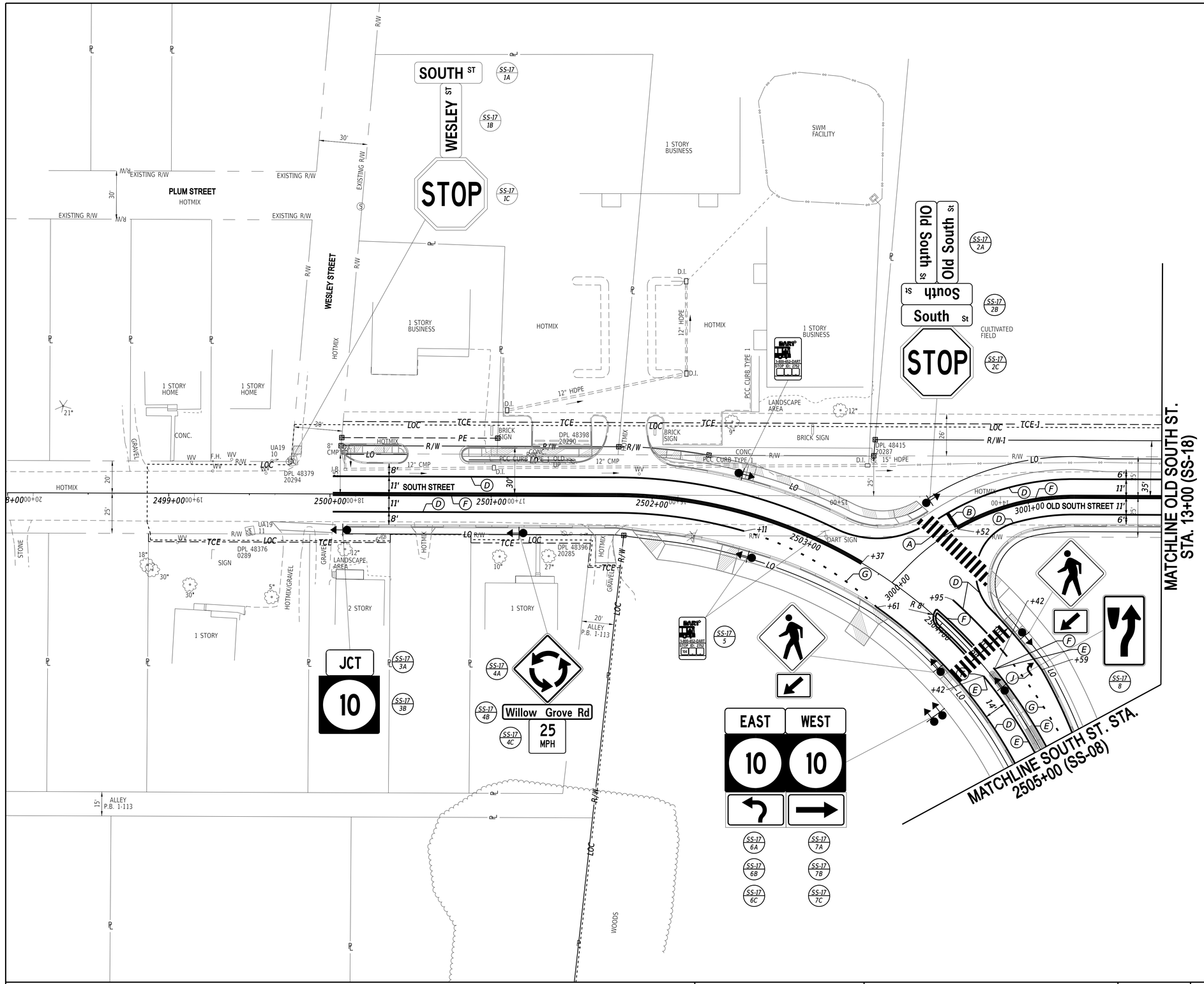

PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" X 10' WIDE SOLID (ITEM 817002)	268 SF
(B)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	14 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,188 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	115 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	1,141 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	40 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
(J)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	16 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

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ADDENDA / REVISIONS

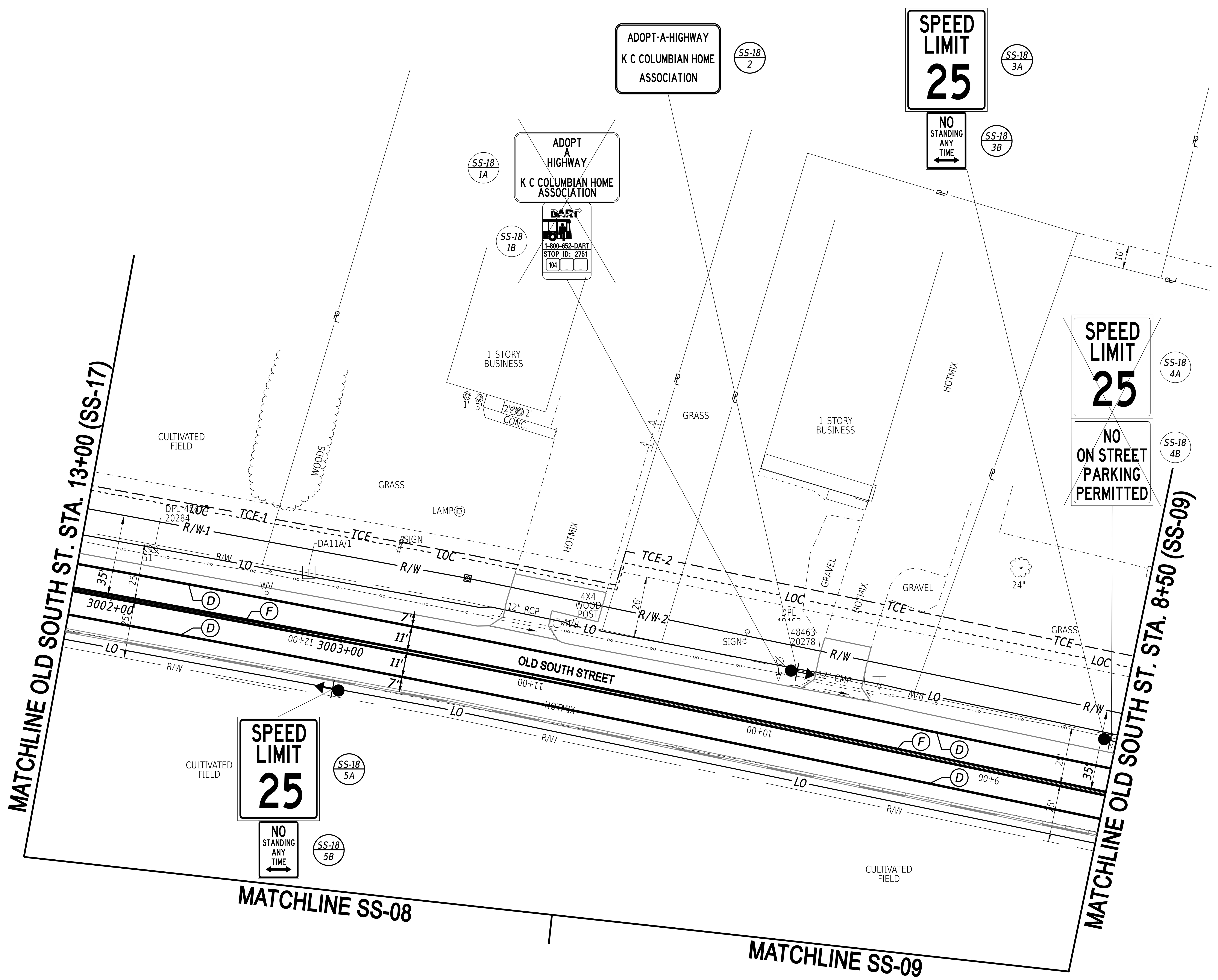
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

SIGNING, STRIPING AND CONDUIT PLAN

SS-17	
SECTION	CEN
SHEET NO.	233



PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 817002)	0 SF
B	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	0 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	938 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	0 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	900 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	0 LF
H	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
J	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	0 SF
K	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	0 EA
M	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

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ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

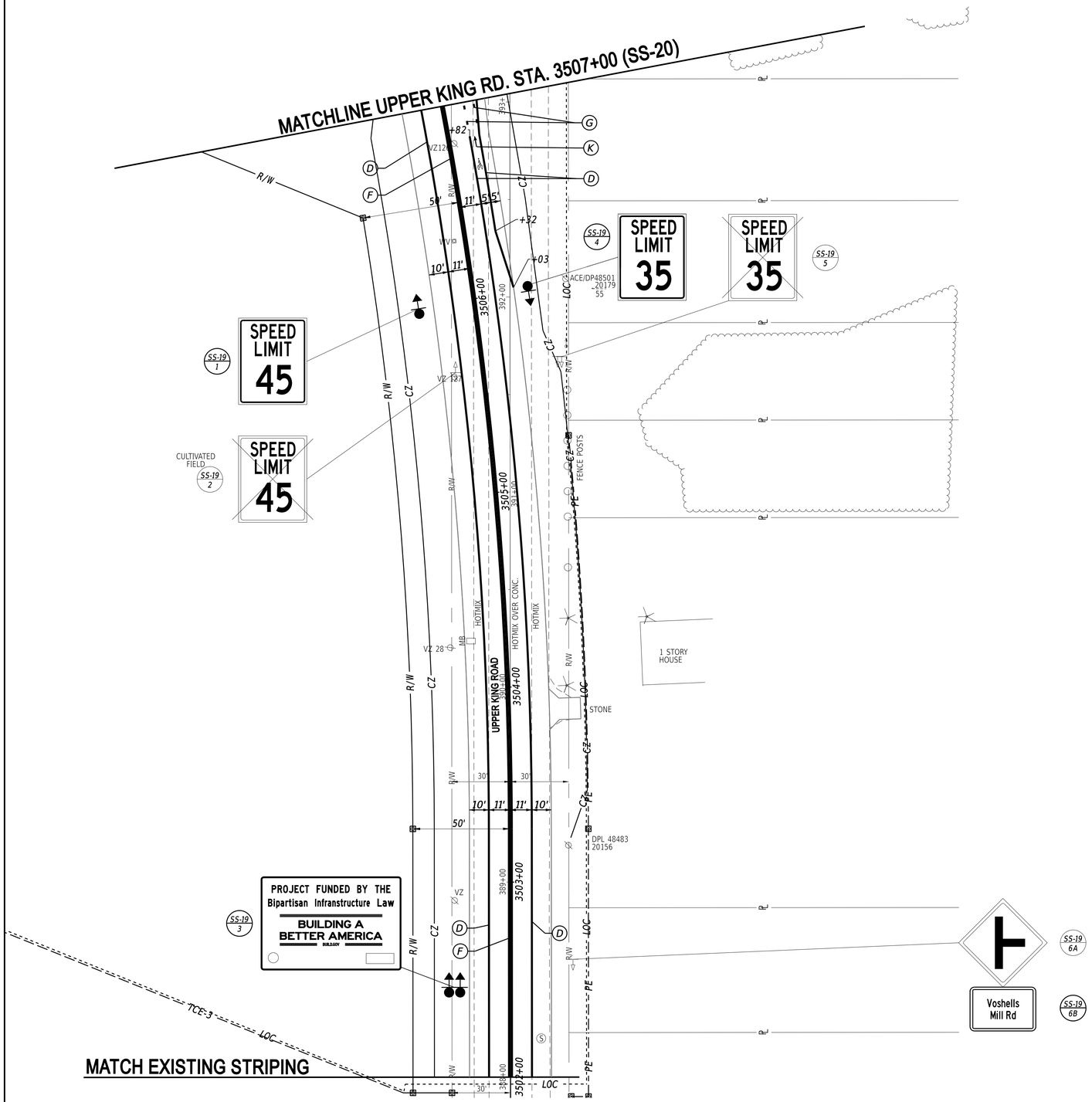
CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

SIGNING, STRIPING AND CONDUIT PLAN

SS-18

SECTION CEN

SHEET NO. 234



PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 817002)	0 SF
B	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	0 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,081 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	0 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	1,000 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	8 LF
H	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
J	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	0 SF
K	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	1 EA
M	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

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ADDENDA / REVISIONS

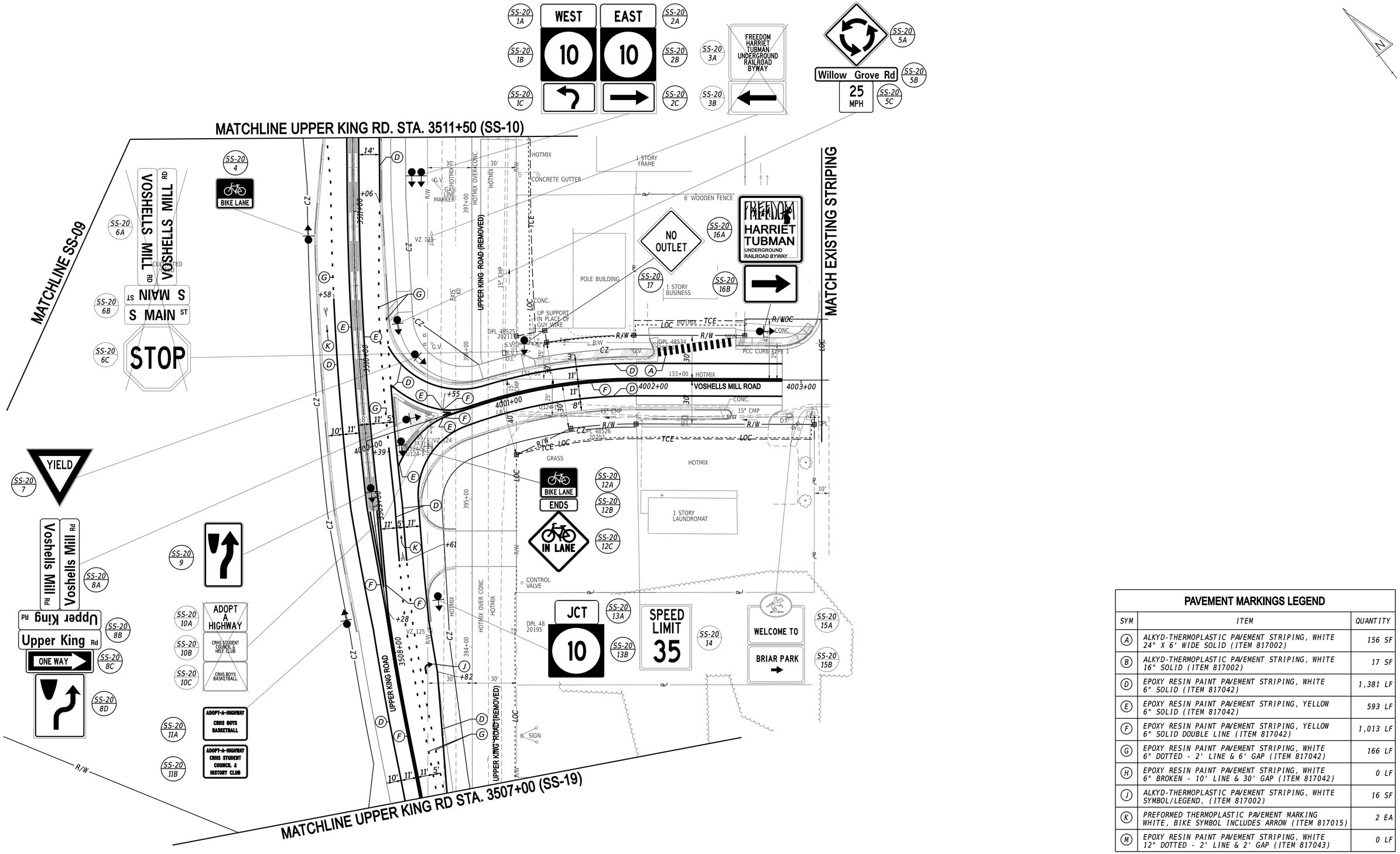
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502	BRIDGE NO.	N/A
COUNTY	KENT	DESIGNED BY:	L. HAXTON
		CHECKED BY:	J. FREY

SIGNING, STRIPING AND CONDUIT PLAN

	SS-19
SECTION	CEN
SHEET NO.	235



PAVEMENT MARKINGS LEGEND		
SYM	ITEM	QUANTITY
(A)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" X 6' WIDE SOLID (ITEM 817002)	156 SF
(B)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	17 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,381 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	593 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	1,013 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	166 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
(J)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	16 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	2 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

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ADDENDA / REVISIONS

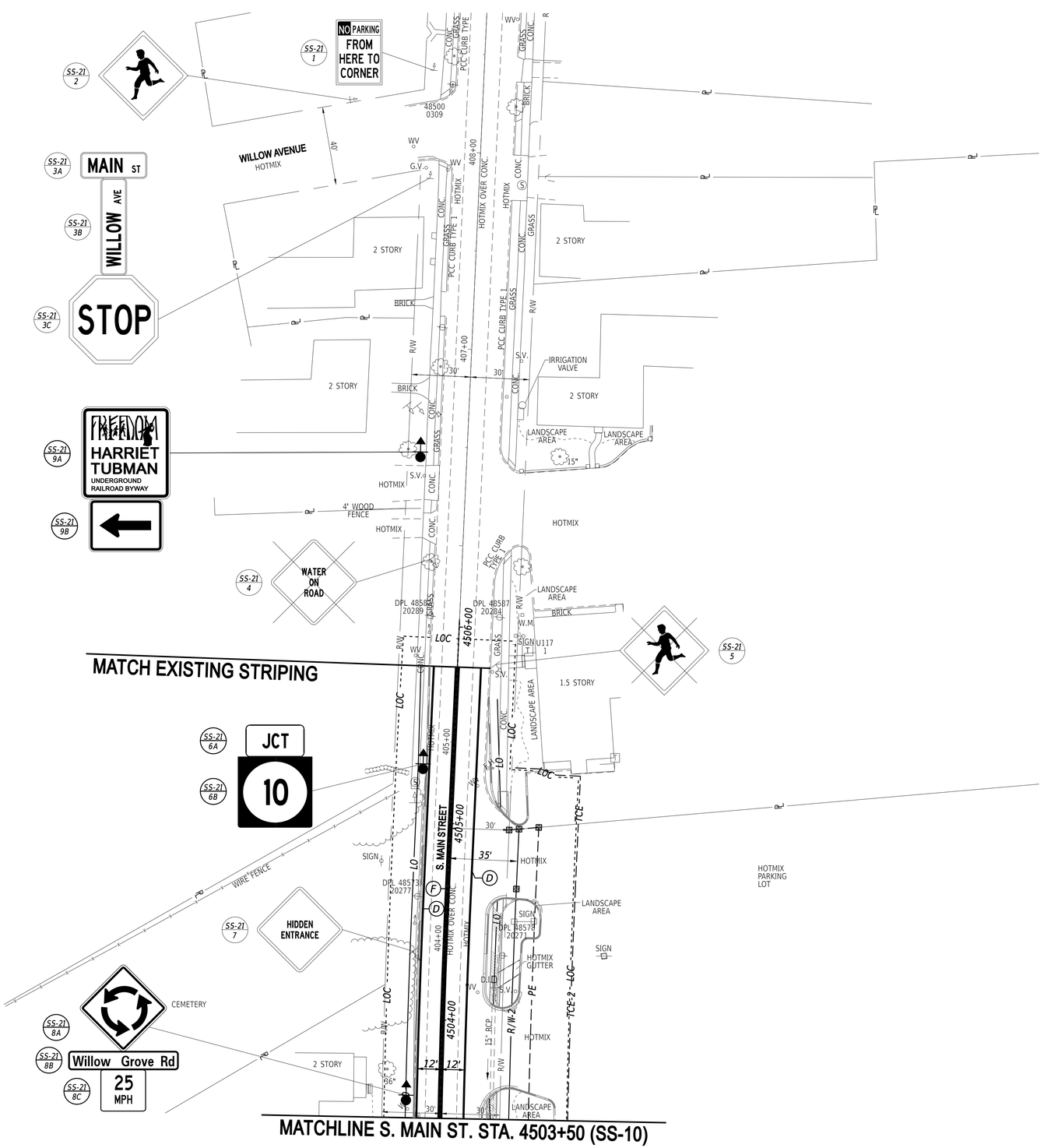
SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

SIGNING, STRIPING AND CONDUIT PLAN

SS-20	
SECTION	CEN
SHEET NO.	236



PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 817002)	0 SF
(B)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 817002)	0 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	430 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	0 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	430 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	0 LF
(H)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	0 LF
(J)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 817002)	0 SF
(K)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL INCLUDES ARROW (ITEM 817015)	0 EA
(M)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 2' GAP (ITEM 817043)	0 LF

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ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502	BRIDGE NO.	N/A
COUNTY	KENT	DESIGNED BY:	L. HAXTON
		CHECKED BY:	J. FREY

SIGNING, STRIPING AND CONDUIT PLAN

SS-21
SECTION CEN
SHEET NO. 237

MATCHLINE SS-11

N

HARRIET TUBMAN UNDERGROUND RAILROAD BYWAY
SS-22 1A
SS-22 1B

FRIEND'S WAY
SS-22 2A

VOSHELLS MILL RD
SS-22 2B

STOP
SS-22 2C

R/W
R/W-TYP
DPA
136+00
137+00
HOTMIX
138+00
139+00
140+00
141+00
50'
25'
41.2'
15" RCP
12" RCP
D.I.
LOC
TCE
P

MAPLE LANE
SS-22 5A

VOSHELLS MILL RD
SS-22 5B

STOP
SS-22 5C

DART
1-800-652-DART
STOP ID: 2754
104
SS-22 6

FRIENDS WAY

NO PARKING
FIRE LANE
SS-22 3A

TOW-AWAY ZONE
SS-22 3B

SS-22 4

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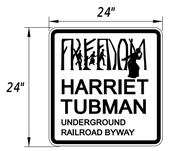
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	SIGNING, STRIPING AND CONDUIT PLAN	SS-22
				COUNTY KENT	DESIGNED BY: L. HAXTON		SECTION CEN
					CHECKED BY: J. FREY		SHEET NO. 238

PERMANENT SIGN SCHEDULE - ROADWAY

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	X13 / ITEM 818001 SUPPLY OF FLAT SHEET ALUMINUM, TYPE IV, RETROREFLECTIVE SHEETING (SF)	X14 / ITEM 818003 SUPPLY OF FLAT SHEET ALUMINUM, TYPE XI, RETROREFLECTIVE SHEETING (SF)	X15 / ITEM 819512 SIGN POST REFLECTIVE PANEL (EA)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	X16 / ITEM 819011 12' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	X17 / ITEM 819023 15' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	REMARKS
										SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL						
SS-01	1	R2-1-50(24)	1	SPEED LIMIT (50 MPH - 24x30)	24	30	5.0			NEW		1				SOIL	1				
SS-01	2	W1-2_R_FY(30)	1	CURVE (Right) - 30x30 (Fluorescent Yellow)	30	30				REMAIN											
SS-01	3	R2-1-45(24)	1	SPEED LIMIT (45 MPH - 24x30)	24	30	5.0			NEW		1				SOIL	1				
SS-01	4	MOD	2	BUILDING A BETTER AMERICA	72	48	24.0						NEW		48.0		4				
SS-01	5A	W1-10d_R_FY(36)	1	COMBINATION HORIZONTAL ALIGNMENT/INTERSECTION (Right) - 36x36 (Fluorescent Yellow)	36	36		9.0		NEW		1				SOIL	1				
SS-01	5B	W16-8aP	1	ADVANCE STREET NAME (2 - line plaque)	30	18	3.8			ADD TO ASSEMBLY		1									S Caesar Rodney Ave Hwy C, 4"
SS-01	6	W3-5(48)	1	SPEED REDUCTION (Symbol) - 48x48	48	48				REMOVE	1										35 MPH
SS-02	1A	MOD	1	FREEDOM - HARRIET TUBMAN - UNDERGROUND RAILROAD BYWAY	24	24	4.0			NEW		1				SOIL	1				Sign supplied by DelDOT sign shop (See detail below)
SS-02	1B	M6-3(21)	1	DIRECTIONAL ARROW (Up) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									Brown sign with white arrow
SS-02	2A	W16-15P	1	NEW (plaque)	24	12							REMOVE	2.0							
SS-02	2B	R2-1-35(36)	1	SPEED LIMIT (35 MPH - 36x48)	36	48							REMOVE	12.0							
SS-02	2C	W21-12P-DE	1	STRICTLY ENFORCED (plaque)	36	24							REMOVE	6.0							
SS-02	3	R2-1-50(24)	1	SPEED LIMIT (50 MPH - 24x30)	24	30				REMOVE	1										
SS-02	4A	M3-4(24)	1	CARDINAL DIRECTION - WEST - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-02	4B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-02	5A	MOD	1	FREEDOM - HARRIET TUBMAN - UNDERGROUND RAILROAD BYWAY	24	24	4.0			NEW		1				SOIL	1				Sign supplied by DelDOT sign shop
SS-02	5B	M6-6_L(21)	1	DIRECTIONAL ARROW AUXILIARY (Up - Left) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									Brown sign with white arrow
SS-03	1A	W3-1(36)	1	STOP AHEAD (Symbol) - 36x36	36	36	9.0			NEW		1				SOIL	1				
SS-03	1B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	36	9	2.3			ADD TO ASSEMBLY		1									Willow Grove Rd Hwy C, 4"
SS-03	2A	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	36	18	9.0			ADD TO ASSEMBLY		2									S Caesar Rodney Ave Hwy C, 5"/3" (Left Justify)
SS-03	2B	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	48	18	12.0			ADD TO ASSEMBLY		2									Willow Grove Rd Hwy B, 7"/5"
SS-03	2C	R1-1(36)	1	STOP	36	36		7.5		NEW		1				SOIL		1			
SS-03	3A	W1-7(48)	1	TWO DIRECTIONAL LARGE ARROW - 48x24	48	24	8.0						NEW		8.0	SOIL	2				
SS-03	3B	OM4-3	2	END OF ROAD OBJECT MARKER	18	18	4.5						ADD TO ASSEMBLY		4.5						
SS-03	4A	M3-2(24)	1	CARDINAL DIRECTION - EAST - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-03	4B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-03	5A	MOD	1	FREEDOM - HARRIET TUBMAN - UNDERGROUND RAILROAD BYWAY	24	24	4.0			NEW		1				SOIL	1				Sign supplied by DelDOT sign shop (See detail below)
SS-03	5B	M6-4(21)	1	DIRECTIONAL ARROW AUXILIARY (Left and Right) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									Brown sign with white arrow
SS-04	1	R2-1-45(24)	1	SPEED LIMIT (45 MPH - 24x30)	24	30	5.0			NEW		1				SOIL	1				
SS-05	1A	W1-10d_R_FY(36)	1	COMBINATION HORIZONTAL ALIGNMENT/INTERSECTION (Right) - 36x36 (Fluorescent Yellow)	36	36		9.0		NEW		1				SOIL	1				
SS-05	5B	W16-8aP	1	ADVANCE STREET NAME (2 - line plaque)	30	18	3.8			ADD TO ASSEMBLY		1									S Caesar Rodney Ave Hwy C, 4"
SS-06	1	W3-5(36)	1	SPEED REDUCTION (Symbol) - 36x36	36	36	9.0			NEW		1				SOIL	1				35 MPH
SS-07	1	R2-1-45(24)	1	SPEED LIMIT (45 MPH - 24x30)	24	30	5.0			NEW		1				SOIL	1				
SS-07	2A	M3-4(24)	1	CARDINAL DIRECTION - WEST - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-07	2B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-07	3	R2-1-35(24)	1	SPEED LIMIT (35 MPH - 24x30)	24	30	5.0			NEW		1				SOIL	1				
SS-07	4A	W2-6(36)	1	CIRCULAR INTERSECTION - 36x36	36	36	9.0			NEW		1				SOIL	1				
SS-07	4B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	24	9	1.5			ADD TO ASSEMBLY		1									South St Hwy C, 4"
SS-07	4C	W13-1P-25(18)	1	ADVISORY SPEED (25 MPH) 18x18	18	18	2.3			ADD TO ASSEMBLY		1									
SS-08	1	R4-7c	1	NARROW KEEP RIGHT	18	30	3.8			NEW		1				NEW CONCRETE	1				
SS-08	2A	M3-4(24)	1	CARDINAL DIRECTION - WEST - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-08	2B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-08	2C	M6-2_R(21)	1	DIRECTIONAL ARROW (Right - upward 45) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-08	3	R1-2(36)	1	YIELD	36	36		3.9		NEW		1				SOIL	1				
SS-08	4A	W11-2(30)	2	PEDESTRIAN (Symbol) - 30x30	30	30	12.5			NEW		2				SOIL	2				
SS-08	4B	W16-7P_L(24)	2	LEFT DOWNWARD DIAGONAL ARROW (plaque) - 24x12	24	12	4.0			ADD TO ASSEMBLY		2									
SS-08	5	D1-1	1	DESTINATION (1 Line)	60	18	7.5						NEW		7.5	SOIL	2				South St (45 deg Upward Arrow) Hwy D, 6" - 9X6 Type D Arrow
SS-08	6	R1-2(36)	1	YIELD	36	36		3.9		NEW		1				SOIL	1				
SS-08	7	D1-1	1	DESTINATION (1 Line)	60	18	7.5						NEW		7.5	SOIL	2				South St (Curved Stem Arrow) Hwy D, 6" - Type D Arrow
SS-08	8	R1-2(36)	1	YIELD	36	36		3.9		NEW		1				SOIL	1				
SS-08	9	R6-4	3	ROUNDABOUT DIRECTIONAL (2 chevrons)	30	24	15.0			NEW		3				SOIL	3				
SS-08	10A	M3-2(24)	1	CARDINAL DIRECTION - EAST - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-08	10B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-08	10C	M6-2_R(21)	1	DIRECTIONAL ARROW (Right - upward 45) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-09	1	R4-7c	1	NARROW KEEP RIGHT	18	30	3.8			NEW		1				NEW CONCRETE	1				
SS-09	2A	W2-6(36)	1	CIRCULAR INTERSECTION - 36x36	36	36	9.0			NEW		1				SOIL	1				
SS-09	2B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	24	9	1.5			ADD TO ASSEMBLY		1									South St Hwy C, 4"
SS-09	2C	W13-1P-25(18)	1	ADVISORY SPEED (25 MPH) 18x18	18	18	2.3			ADD TO ASSEMBLY		1									
SS-09	3A	W2-6(36)	1	CIRCULAR INTERSECTION - 36x36	36	36	9.0			NEW		1				SOIL		1			
SS-09	3B	W16-8aP	1	ADVANCE STREET NAME (4 - line plaque)	30	24	5.0			ADD TO ASSEMBLY		1									(Left Fish-hook Arrow) S Main St Upper King Rd (Right Arrow) Hwy C, 4"
SS-09	3C	W13-1P-25(18)	1	ADVISORY SPEED (25 MPH) 18x18	18	18	2.3			ADD TO ASSEMBLY		1									
SS-09	4	R4-7c	1	NARROW KEEP RIGHT	18	30	3.8			NEW		1				SOIL	1				
SS-09	5A	R2-1-25(24)	1	SPEED LIMIT (25 MPH - 24x30)	24	30				REMOVE	1										
SS-09	5B	D4-3-DE	1	BUS STOP (REQUESTS FOR FABRICATION THRU DART TRANSIT AT 302-576-6132)	12	18				REMOVE	1										Stop ID 2759, Route 104
SS-09	5C	MOD	1	NO ON STREET PARKING PERMITTED	18	18				REMOVE	1										
PAGE TOTALS							263	37	0		5	57		20	76		40	2	0	0	



MOFIFIED VERSION OF DELAWARE BYWAYS SIGN (D14-4-DE)
IMAGE FROM DELAWARE.GOV - DELAWARE BYWAYS WEBPAGE

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	SIGNING, STRIPING AND CONDUIT PLAN	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 239
					CHECKED BY: J. FREY		

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PERMANENT SIGN SCHEDULE - ROADWAY

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	X13 / ITEM 818001 FLAT SHEET ALUMINUM, TYPE IV, RETROREFLECTIVE SHEETING (SF)	X14 / ITEM 818003 FLAT SHEET ALUMINUM, TYPE XI, RETROREFLECTIVE SHEETING (SF)	X15 / ITEM 819512 SIGN POST REFLECTIVE PANEL (EA)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	X16 / ITEM 819011 12' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	X17 / ITEM 819023 15' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	REMARKS
										SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL						
SS-09	6A	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	36	12	6.0			ADD TO ASSEMBLY		2									S West St Hwy C, 6"/4"
SS-09	6B	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	42	12	7.0			ADD TO ASSEMBLY		2									Old South St Hwy C, 6"/4"
SS-09	6C	R1-1(36)	1	STOP	36	36		7.5		NEW		1				SOIL	1				
SS-09	7A	D3-1(6)	1	STREET NAME (1 Line)	18	6				REMOVE	1										WEST ST
SS-09	7B	D3-1(6)	1	STREET NAME (1 Line)	24	6				REMOVE	1										SOUTH ST
SS-09	7C	R1-1(30)	1	STOP	30	30				REMOVE	1										
SS-09	8A	R2-1-25(24)	1	SPEED LIMIT (25 MPH - 24x30)	24	30				REMAIN											
SS-09	8B	MOD	1	NO ON STREET PARKING PERMITTED	18	18				REMAIN											Non-DE MUTCD sign
SS-09	9A	W1-7(48)	1	TWO DIRECTIONAL LARGE ARROW - 48x24	48	24	8.0						NEW		8.0	SOIL	2				
SS-09	9B	OM4-3	2	END OF ROAD OBJECT MARKER	18	18	4.5						ADD TO ASSEMBLY		4.5						
SS-09	10	W14-1(36)	1	DEAD END - 36x36	36	36	9.0			NEW		1				SOIL	1				
SS-09	11	W3-1(36)	1	STOP AHEAD (Symbol) - 36x36	36	36				REMOVE	1										
SS-10	1	R1-2(36)	1	YIELD	36	36		3.9		NEW		1				SOIL	1				
SS-10	2A	W11-2(30)	1	PEDESTRIAN (Symbol) - 30x30	30	30	6.3			NEW		1				SOIL	1				
SS-10	2B	W16-7P_L(24)	1	LEFT DOWNWARD DIAGONAL ARROW (plaque) - 24x12	24	12	2.0			ADD TO ASSEMBLY		1									
SS-10	3A	R2-1-25(24)	1	SPEED LIMIT (25 MPH - 24x30)	24	30				REMOVE	1										
SS-10	3B	MOD	1	NO ON STREET PARKING PERMITTED	18	18				REMOVE	1										Non-DE MUTCD sign
SS-10	4A	D3-1(6)	1	STREET NAME (1 Line)	18	6				REMOVE	1										MAIN ST
SS-10	4B	D3-1(6)	1	STREET NAME (1 Line)	18	6				REMOVE	1										SOUTH ST
SS-10	4C	R1-1(30)	1	STOP	30	30				REMOVE	1										
SS-10	5A	M3-2(24)	1	CARDINAL DIRECTION - EAST - 24x12	24	12	2.0			ADD TO ASSEMBLY		1									
SS-10	5B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			NEW		1				SOIL	1				10
SS-10	5C	M5-3_L	1	ADVANCE TURN ARROW (Left - curved-stem)	21	15	2.2			ADD TO ASSEMBLY		1									
SS-10	6A	M3-4(24)	1	CARDINAL DIRECTION - WEST - 24x12	24	12	2.0			ADD TO ASSEMBLY		1									
SS-10	6B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			NEW		1				SOIL	1				10
SS-10	6C	M6-1_R(21)	1	DIRECTIONAL ARROW (Right) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-10	7A	M3-4(24)	1	CARDINAL DIRECTION - WEST - 24x12	24	12	2.0			ADD TO ASSEMBLY		1									
SS-10	7B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			NEW		1				SOIL	1				10
SS-10	7C	M6-2_R(21)	1	DIRECTIONAL ARROW (Right - upward 45) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-10	8	R1-2(36)	2	YIELD	36	36		7.8		NEW		2				SOIL	2				
SS-10	9	D1-1	1	DESTINATION (1 Line)	66	18	8.3						NEW		8.3	SOIL	2				Upper King Rd (45 deg Upward Arrow) Hwy D, 6" - 9X6 Type D Arrow
SS-10	10	R2-1-35(24)	1	SPEED LIMIT (35 MPH - 24x30)	24	30				REMOVE	1										
SS-10	11	D14-3-DE	1	ADOPT A HIGHWAY	24	18	3.0			NEW		1				SOIL	1				CAMDEN VFW POST 3238
SS-10	12	R4-7c	1	NARROW KEEP RIGHT	18	30	3.8			NEW		1				NEW CONCRETE	1				
SS-10	13A	AAH-1-DE	1	ADOPT-A-HIGHWAY (2010 DE-MUTCD)	18	12				REMOVE	1										
SS-10	13B	AAH-2-DE	1	ADOPT-A-HIGHWAY NAME (2010 DE-MUTCD)	18	12				REMOVE	1										CAMDEN VFW POST 3238
SS-10	14A	R1-1(36)	1	STOP	36	36		7.5		NEW		1				SOIL	1				
SS-10	14B	R3-2(24)	1	LEFT TURN PROHIBITION (Symbol) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									
SS-10	15	R1-1(30)	1	STOP	30	30				REMOVE	1										
SS-10	16	D1-1	1	DESTINATION (1 Line)	60	18	7.5						NEW		7.5	SOIL	2				S Main St (45 deg Upward Arrow) Hwy D, 6" - 9X6 Type D Arrow
SS-10	17	R6-4	4	ROUNDABOUT DIRECTIONAL (2 chevrons)	30	24	20.0			NEW		4				SOIL	4				
SS-10	18	R1-2(36)	1	YIELD	36	36		3.9		NEW		1				SOIL	1				
SS-10	19	D1-2	1	DESTINATION (2 Line)	60	30							REMOVE	12.5							(Up Arrow) DOVER (Left Arrow) WYOMING
SS-10	20A	M3-2(24)	1	CARDINAL DIRECTION - EAST - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-10	20B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-10	20C	M6-2_R(21)	1	DIRECTIONAL ARROW (Right - upward 45) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-10	21	D1-2	1	DESTINATION (2 Line)	66	30							REMOVE	13.8							(Up Arrow) WOODSIDE (Left Arrow) RISING SUN
SS-10	22A	W11-2(30)	2	PEDESTRIAN (Symbol) - 30x30	30	30	12.5			NEW		2				SOIL	2				
SS-10	22B	W16-7P_L(24)	2	LEFT DOWNWARD DIAGONAL ARROW (plaque) - 24x12	24	12	4.0			ADD TO ASSEMBLY		2									
SS-10	23A	W2-2_L(30)	1	SIDE ROAD (Perpendicular - Left) - 30x30	30	30				REMOVE	1										
SS-10	23B	W16-8aP	1	ADVANCE STREET NAME (2 - line plaque)	24	18				REMOVE	1										Voshells Mill Rd
SS-10	24A	R2-1-25(24)	1	SPEED LIMIT (25 MPH - 24x30)	24	30				REMOVE	1										
SS-10	24B	W21-12P-DE	1	STRICTLY ENFORCED (plaque)	36	24				REMOVE	1										
SS-10	24C	MOD	1	ENGINE / EXHAUST BRAKE DEVICE PROHIBITED	36	18				REMOVE	1										
SS-10	24D	MOD	1	TOWN BUSINESS LICENSE REQUIRED FOR ALL CONTRACTORS	12	18				REMOVE	1										
SS-10	25	OM4-3	3	END OF ROAD OBJECT MARKER	18	18	6.8			NEW		3				SOIL	3				
SS-11	1A	M3-2(24)	1	CARDINAL DIRECTION - EAST - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-11	1B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-11	2	R1-1(36)	2	STOP	36	36		14.9		NEW		2				SOIL	2				
SS-11	3A	W2-6(36)	1	CIRCULAR INTERSECTION - 36x36	36	36	9.0			NEW		1				SOIL		1			
SS-11	3B	W16-8aP	1	ADVANCE STREET NAME (3 - line plaque)	42	18	5.3			ADD TO ASSEMBLY		1									(Left Fish-hook Arrow) Upper King Rd S Main St (Right Arrow) Hwy C, 4"
SS-11	3C	W13-1P-25(18)	1	ADVISORY SPEED (25 MPH) 18x18	18	18	2.3			ADD TO ASSEMBLY		1									
				PAGE TOTALS			168	45	0		19	46		26	28		32	1	0	0	

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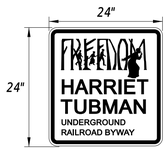
PERMANENT SIGN SCHEDULE - ROADWAY

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	X13 / ITEM 818001 FLAT SHEET ALUMINUM, TYPE IV, RETROREFLECTIVE SHEETING (SF)	X14 / ITEM 818003 FLAT SHEET ALUMINUM, TYPE XI, RETROREFLECTIVE SHEETING (SF)	X15 / ITEM 819512 SIGN POST REFLECTIVE PANEL (EA)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	X16 / ITEM 819011 12' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	X17 / ITEM 819023 15' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	REMARKS
										SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL						
SS-12	1	R2-1-35(24)	1	SPEED LIMIT (35 MPH - 24x30)	24	30	5.0			NEW		1				SOIL	1				
SS-12	2A	W2-6(36)	1	CIRCULAR INTERSECTION - 36x36	36	36	9.0			NEW		1				SOIL	1				
SS-12	2B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	24	9	1.5			ADD TO ASSEMBLY		1									King Blvd Hwy C, 4"
SS-12	2C	W13-1P-25(18)	1	ADVISORY SPEED (25 MPH) 18x18	18	18	2.3			ADD TO ASSEMBLY		1									
SS-13	1A	M3-4(24)	1	CARDINAL DIRECTION - WEST - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-13	1B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-13	2A	W11-2(30)	2	PEDESTRIAN (Symbol) - 30x30	30	30	12.5			NEW		2				SOIL	2				
SS-13	2B	W16-7P_L(24)	2	LEFT DOWNWARD DIAGONAL ARROW (plaque) - 24x12	24	12	4.0			ADD TO ASSEMBLY		2									
SS-13	3	R1-2(48)	1	YIELD	48	48		6.9		NEW		1				SOIL	1				
SS-13	4	R6-4	4	ROUNDABOUT DIRECTIONAL (2 chevrons)	30	24	20.0			NEW		4				SOIL	4				
SS-13	5	R1-2(48)	1	YIELD	48	48		6.9		NEW		1				SOIL	1				
SS-13	6A	W11-2(30)	2	PEDESTRIAN (Symbol) - 30x30	30	30	12.5			NEW		2				SOIL	2				
SS-13	6B	W16-7P_L(24)	2	LEFT DOWNWARD DIAGONAL ARROW (plaque) - 24x12	24	12	4.0			ADD TO ASSEMBLY		2									
SS-13	7A	W2-6(36)	1	CIRCULAR INTERSECTION - 36x36	36	36	9.0			NEW		1				SOIL	1				
SS-13	7B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	24	9	1.5			ADD TO ASSEMBLY		1									King Blvd Hwy C, 4"
SS-13	7C	W13-1P-25(18)	1	ADVISORY SPEED (25 MPH) 18x18	18	18	2.3			ADD TO ASSEMBLY		1									
SS-13	8A	W11-2(30)	2	PEDESTRIAN (Symbol) - 30x30	30	30	12.5			NEW		2				SOIL	2				
SS-13	8B	W16-7P_L(24)	2	LEFT DOWNWARD DIAGONAL ARROW (plaque) - 24x12	24	12	4.0			ADD TO ASSEMBLY		2									
SS-13	10	R1-2(48)	1	YIELD	48	48		6.9		NEW		1				SOIL	1				
SS-13	11A	W11-2(30)	2	PEDESTRIAN (Symbol) - 30x30	30	30	12.5			NEW		2				SOIL	2				
SS-13	11B	W16-7P_L(24)	2	LEFT DOWNWARD DIAGONAL ARROW (plaque) - 24x12	24	12	4.0			ADD TO ASSEMBLY		2									
SS-13	12	R1-2(48)	1	YIELD	48	48		6.9		NEW		1				SOIL	1				
SS-13	13A	M3-4(24)	1	CARDINAL DIRECTION - WEST - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-13	13B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-13	13C	M5-3_L	1	ADVANCE TURN ARROW (Left - curved-stem)	21	15	2.2			ADD TO ASSEMBLY		1									
SS-13	14A	M3-2(24)	1	CARDINAL DIRECTION - EAST - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-13	14B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-13	14C	M6-1_R(21)	1	DIRECTIONAL ARROW (Right) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-13	15A	M4-5(24)	1	TO - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-13	15B	M1-4(24)	1	US ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									13
SS-13	15C	M6-1_R(21)	1	DIRECTIONAL ARROW (Right) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-13	16	R1-1(36)	1	STOP	36	36		7.5		RENEW	1	1				SOIL	1				Install on new 12' sign post
SS-13	17A	W2-6(36)	1	CIRCULAR INTERSECTION - 36x36	36	36	9.0			NEW		1				SOIL	1				
SS-13	17B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	36	9	2.3			ADD TO ASSEMBLY		1									Willow Grove Rd Hwy C, 4"
SS-13	17C	W13-1P-25(18)	1	ADVISORY SPEED (25 MPH) 18x18	18	18	2.3			ADD TO ASSEMBLY		1									
SS-13	18A	W3-3(36)	1	SIGNAL AHEAD (Symbol) - 36x36	36	36	9.0			NEW		1				SOIL	1				
SS-13	18B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	36	9	2.3			ADD TO ASSEMBLY		1									S DuPont Hwy Hwy C, 4"
SS-13	19A	M3-1(24)	1	CARDINAL DIRECTION - NORTH - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-13	19B	M1-4(24)	1	US ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									13
SS-13	19C	M5-1_L	1	ADVANCE TURN ARROW (Left - 90)	21	15	2.2			ADD TO ASSEMBLY		1									
SS-13	20A	M3-2(24)	1	CARDINAL DIRECTION - EAST - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-13	20B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-13	20C	M6-3(21)	1	DIRECTIONAL ARROW (Up) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-13	21A	M3-3(24)	1	CARDINAL DIRECTION - SOUTH - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-13	21B	M1-4(24)	1	US ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									13
SS-13	21C	M6-1_R(21)	1	DIRECTIONAL ARROW (Right) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-13	22A	MOD	1	FREEDOM - HARRIET TUBMAN - UNDERGROUND RAILROAD BYWAY	24	24	4.0			NEW		1				SOIL	1				Sign supplied by DelDOT sign shop (See detail below)
SS-13	22B	M6-1_R(21)	1	DIRECTIONAL ARROW (Right) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									Brown sign with white arrow
SS-13	23	R1-2(48)	1	YIELD	48	48		6.9		RENEW	1	1				SOIL	1				
SS-13	24	SR1-16-DE	1	STOP (shared-use path only)	24	42	7.0			NEW		1				SOIL	1				
SS-13	25	R1-2(48)	1	YIELD	48	48		6.9		RENEW	1	1				SOIL	1				
SS-14	1	MOD	1	NO ON STREET PARKING PERMITTED	18	18				REMAIN											
SS-14	2A	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	42	12				REMOVE	2										Cochran Ln
SS-14	2B	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	42	12				REMOVE	2										Willow Grove Rd
SS-14	2C	R1-1(36)	1	STOP	36	36				REMOVE	1										
SS-14	3	R1-1(36)	1	STOP	36	36		7.5		NEW		1				SOIL	1				
SS-14	4	MOD	1	NO ON STREET PARKING PERMITTED	18	18				REMAIN											
SS-14	5A	W3-1(36)	1	STOP AHEAD (Symbol) - 36x36	36	36	9.0			NEW		1				SOIL		1			
SS-14	5B	W16-8aP	1	ADVANCE STREET NAME (2 - line plaque)	30	18	3.8			ADD TO ASSEMBLY		1									S Caesar Rodney Ave Hwy C, 4"
SS-14	6A	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	36	12	6.0			ADD TO ASSEMBLY		2									Cochran Ln Hwy C, 6"/4"
SS-14	6B	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	36	18	9.0			ADD TO ASSEMBLY		2									S Caesar Rodney Ave Hwy C, 5"/3" (Left Justify)
SS-14	6C	W14-1a_R	1	DEAD END (Arrow right)	36	8	2.0			ADD TO ASSEMBLY		1									
SS-14	6D	W14-1a_L	1	DEAD END (Arrow left)	36	8	2.0			ADD TO ASSEMBLY		1									
SS-14	6E	R1-1(36)	1	STOP	36	36		7.5		NEW		1				SOIL		1			
SS-14	7A	M3-2(24)	1	CARDINAL DIRECTION - EAST - 24x12	24	12	2.0			NEW		1				SOIL		1			
SS-14	7B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-14	7C	M6-1_L(21)	1	DIRECTIONAL ARROW (Left) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-14	8A	M3-4(24)	1	CARDINAL DIRECTION - WEST - 24x12	24	12	2.0			NEW		1				SOIL		1			
SS-14	8B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-14	8C	M6-1_R(21)	1	DIRECTIONAL ARROW (Right) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-14	8D	MOD	1	FREEDOM - HARRIET TUBMAN - UNDERGROUND RAILROAD BYWAY	24	24	4.0			ADD TO ASSEMBLY		1									Sign supplied by DelDOT sign shop (See detail below)
SS-14	8E	M6-6_R(21)	1	DIRECTIONAL ARROW AUXILIARY (Up - Right) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									Brown sign with white arrow
PAGE TOTALS							264	64	0		8	80		0	0		34	4	0	0	



MOFIFIED VERSION OF DELAWARE BYWAYS SIGN (D14-4-DE)
IMAGE FROM DELAWARE.GOV - DELAWARE BYWAYS WEBPAGE

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ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	SIGNING, STRIPING AND CONDUIT PLAN	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 241
					CHECKED BY: J. FREY		

PERMANENT SIGN SCHEDULE - ROADWAY

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	X13 / ITEM 818001 FLAT SHEET ALUMINUM, TYPE IV, RETROREFLECTIVE SHEETING (SF)	X14 / ITEM 818003 FLAT SHEET ALUMINUM, TYPE XI, RETROREFLECTIVE SHEETING (SF)	X15 / ITEM 819512 SIGN POST REFLECTIVE PANEL (EA)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	X16 / ITEM 819011 12' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	X17 / ITEM 819023 15' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	REMARKS
										SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL						
SS-15	1A	D3-1(6)	1	STREET NAME (1 Line)	24	6				REMOVE	1										BRENDA LN
SS-15	1B	R1-1(30)	1	STOP	30	30				REMOVE	1										
SS-15	2A	D3-1(12)	1	STREET NAME (1 Line) Posted speed ≤ 40 MPH	24	12	2.0			ADD TO ASSEMBLY		1									Brenda Ln Hwy C, 6"/4"
SS-15	2B	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	36	18	9.0			ADD TO ASSEMBLY		2									S Caesar Rodney Ave Hwy C, 5"/3" (Left Justify)
SS-15	2C	R1-1(36)	1	STOP	36	36		7.5		NEW		1				SOIL	1				
SS-15	3A	W1-10_L_FY(36)	1	COMBINATION HORIZONTAL ALIGNMENT/INTERSECTION (Left) - 36x36 (Fluorescent Yellow)	36	36		9.0		NEW		1				SOIL		1			
SS-15	3B	W16-8aP	1	ADVANCE STREET NAME (2 - line plaque)	30	18	3.8			ADD TO ASSEMBLY		1									Old Willow Grove Rd Hwy C, 4"
SS-15	3C	W13-1P-25(18)	1	ADVISORY SPEED (25 MPH) 18x18	18	18	2.3			ADD TO ASSEMBLY		1									
SS-15	4A	D3-1(12)	1	STREET NAME (1 Line) Posted speed ≤ 40 MPH	24	12	2.0			ADD TO ASSEMBLY		1									Wynsome Blvd Hwy C, 6"/4"
SS-15	4B	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	36	18	9.0			ADD TO ASSEMBLY		2									S Caesar Rodney Ave Hwy C, 5"/3" (Left Justify)
SS-15	4C	R1-1(36)	1	STOP	36	36		7.5		NEW		1				SOIL	1				
SS-15	5A	D3-1(6)	1	STREET NAME (1 Line)	24	6				REMOVE	1										WYNSOME BLVD
SS-15	5B	D3-1(6)	1	STREET NAME (1 Line)	24	6				REMOVE	1										WILLOW GROVE RD
SS-15	5C	R1-1(30)	1	STOP	30	30				REMOVE	1										
SS-15	6	R2-1-35(24)	1	SPEED LIMIT (35 MPH - 24x30)	24	30	5.0			NEW		1				SOIL	1				
SS-15	7	R2-1-35(24)	1	SPEED LIMIT (35 MPH - 24x30)	24	30				REMOVE	1										
SS-17	1A	D3-1(6)	1	STREET NAME (1 Line)	24	6				REMAIN											SOUTH ST
SS-17	1B	D3-1(6)	1	STREET NAME (1 Line)	24	6				REMAIN											WESLEY ST
SS-17	1C	R1-1(30)	1	STOP	30	30				REMAIN											
SS-17	2A	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	42	12	7.0			ADD TO ASSEMBLY		2									Old South St Hwy C 6"/4"
SS-17	2B	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	30	12	5.0			ADD TO ASSEMBLY		2									South St Hwy C, 6"/4"
SS-17	2C	R1-1(36)	1	STOP	36	36		7.5		NEW		1				SOIL	1				
SS-17	3A	M2-1(21)	1	JUNCTION - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-17	3B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			NEW		1				SOIL	1				10
SS-17	4A	W2-6(36)	1	CIRCULAR INTERSECTION - 36x36	36	36	9.0			NEW		1				SOIL	1				
SS-17	4B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	36	9	2.3			ADD TO ASSEMBLY		1									Willow Grove Rd Hwy C, 4"
SS-17	4C	W13-1P-25(18)	1	ADVISORY SPEED (25 MPH) 18x18	18	18	2.3			ADD TO ASSEMBLY		1									
SS-17	5	D4-3-DE	1	BUS STOP (REQUESTS FOR FABRICATION THRU DART TRANSIT AT 302-576-6132)	12	18				RENEW	1	1				SOIL					Stop ID 2752, Route 104
SS-17	6A	M3-2(24)	1	CARDINAL DIRECTION - EAST - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-17	6B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-17	6C	M5-3_L	1	ADVANCE TURN ARROW (Left - curved-stem)	21	15	2.2			ADD TO ASSEMBLY		1									
SS-17	7A	M3-4(24)	1	CARDINAL DIRECTION - WEST - 24x12	24	12	2.0			NEW		1				SOIL	1				
SS-17	7B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			ADD TO ASSEMBLY		1									10
SS-17	7C	M6-1_R(21)	1	DIRECTIONAL ARROW (Right) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-17	8	R4-7c	1	NARROW KEEP RIGHT	18	30	3.8			NEW		1				NEW CONCRETE	1				
SS-18	1A	D14-3-DE	1	ADOPT A HIGHWAY	24	36				REMOVE	1										
SS-18	1B	D4-3-DE	1	BUS STOP (REQUESTS FOR FABRICATION THRU DART TRANSIT AT 302-576-6132)	12	18				REMOVE	1										Stop ID 2751, Route 104
SS-18	2	D14-3-DE	1	ADOPT A HIGHWAY	24	18	3.0			NEW		1				SOIL	1				K C COLUMBIAN HOME ASSOCIATION Hwy D, 2"
SS-18	3A	R2-1-25(24)	1	SPEED LIMIT (25 MPH - 24x30)	24	30	5.0			NEW		1				SOIL	1				
SS-18	3B	R7-4	1	NO STANDING ANY TIME	12	18	1.5			ADD TO ASSEMBLY		1									
SS-18	4A	R2-1-25(24)	1	SPEED LIMIT (25 MPH - 24x30)	24	30				REMOVE	1										
SS-18	4B		1							REMOVE	1										
SS-18	5A	R2-1-25(24)	1	SPEED LIMIT (25 MPH - 24x30)	24	30	5.0			NEW		1				SOIL	1				
SS-18	5B	R7-4	1	NO STANDING ANY TIME	12	18	1.5			ADD TO ASSEMBLY		1									
SS-19	1	R2-1-45(24)	1	SPEED LIMIT (45 MPH - 24x30)	24	30	5.0			NEW		1				SOIL	1				
SS-19	2	R2-1-45(24)	1	SPEED LIMIT (45 MPH - 24x30)	24	30				REMOVE	1										
SS-19	3	MOD	1	BUILDING A BETTER AMERICA	72	48	24.0						NEW		24.0		2				
SS-19	4	R2-1-35(24)	1	SPEED LIMIT (35 MPH - 24x30)	24	30	5.0			NEW		1				SOIL	1				
SS-19	5	R2-1-35(24)	1	SPEED LIMIT (35 MPH - 24x30)	24	30				REMOVE	1										
SS-19	6A	W2-2_R(30)	1	SIDE ROAD (Perpendicular - Right) - 30x30	30	30				REMAIN											
SS-19	6B	W16-8aP	1	ADVANCE STREET NAME (2 - line plaque)	24	18				REMAIN											Voshells Mill Rd
SS-20	1A	M3-4(24)	1	CARDINAL DIRECTION - WEST - 24x12	24	12	2.0			ADD TO ASSEMBLY		1									
SS-20	1B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			NEW		1				SOIL	1				10
SS-20	1C	M5-3_L	1	ADVANCE TURN ARROW (Left - curved-stem)	21	15	2.2			ADD TO ASSEMBLY		1									
SS-20	2A	M3-2(24)	1	CARDINAL DIRECTION - EAST - 24x12	24	12	2.0			ADD TO ASSEMBLY		1									
SS-20	2B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			NEW		1				SOIL	1				10
SS-20	2C	M6-1_R(21)	1	DIRECTIONAL ARROW (Right) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-20	3A	D14-4-DE	1	DELAWARE BYWAYS	24	24				REMOVE	1										Freedom Harriet Tubman Underground Railroad Byway
SS-20	3B	M6-1_L(21)	1	DIRECTIONAL ARROW (Left) - 21x15	21	15				REMOVE	1										
SS-20	4	R3-17	1	BIKE LANE (Symbol)	24	18	3.0			NEW		1				SOIL	1				
SS-20	5A	W2-6(36)	1	CIRCULAR INTERSECTION - 36x36	36	36	9.0			NEW		1				SOIL	1				
SS-20	5B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	36	9	2.3			ADD TO ASSEMBLY		1									Willow Grove Rd Hwy C, 4"
SS-20	5C	W13-1P-25(18)	1	ADVISORY SPEED (25 MPH) 18x18	18	18	2.3			ADD TO ASSEMBLY		1									
SS-20	6A	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	48	12				REMOVE	2										VOSHELLS MILL RD
SS-20	6B	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	30	12				REMOVE	2										S MAIN ST
SS-20	6C	R1-1(30)	1	STOP	30	30				REMOVE	1										
PAGE TOTALS							168	31	0		20	47		0	24		20	1	0	0	

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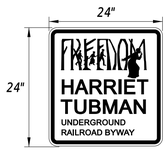
ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO. N/A	SIGNING, STRIPING AND CONDUIT PLAN	SECTION
				T201709502	DESIGNED BY: L. HAXTON		CEN
				COUNTY	CHECKED BY: J. FREY		SHEET NO.
				KENT			242

PERMANENT SIGN SCHEDULE - ROADWAY

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	X13 / ITEM 818001 FLAT SHEET ALUMINUM, TYPE IV, RETROREFLECTIVE SHEETING (SF)	X14 / ITEM 818003 FLAT SHEET ALUMINUM, TYPE XI, RETROREFLECTIVE SHEETING (SF)	X15 / ITEM 819512 SIGN POST REFLECTIVE PANEL (EA)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	X16 / ITEM 819011 12' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	X17 / ITEM 819023 15' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	REMARKS
										SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL						
SS-20	7	R1-2(48)	1	YIELD	48	48		6.9		NEW		1				NEW CONCRETE	1				
SS-20	8A	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	48	12	8.0			ADD TO ASSEMBLY		2									Voshells Mill Rd Hwy C, 6"/4"
SS-20	8B	D3-1(12)	2	STREET NAME (1 Line) Posted speed ≤ 40 MPH	48	12	8.0			ADD TO ASSEMBLY		2									Upper King Rd Hwy C, 6"/4"
SS-20	8C	R6-1_R(36)	1	ONE WAY (ENCLOSED IN RIGHT ARROW) - 36x12	36	12	3.0			ADD TO ASSEMBLY		1									
SS-20	8D	R4-7(24)	1	KEEP RIGHT (Symbol) - 24x30	24	30	5.0			NEW		1				NEW CONCRETE		1			
SS-20	9	R4-7c	1	NARROW KEEP RIGHT	18	30	3.8			NEW		1				NEW CONCRETE	1				
SS-20	10A	AAH-1-DE	1	ADOPT-A-HIGHWAY (2010 DE-MUTCD)	18	12				REMOVE	1										
SS-20	10B	AAH-2-DE	1	ADOPT-A-HIGHWAY NAME (2010 DE-MUTCD)	18	12				REMOVE	1										CRHS STUDENT COUNCIL & HIST. CLUB
SS-20	10C	AAH-2-DE	1	ADOPT-A-HIGHWAY NAME (2010 DE-MUTCD)	18	12				REMOVE	1										CRHS BOYS BASKETBALL
SS-20	11A	D14-3-DE	1	ADOPT A HIGHWAY	24	18	3.0			NEW		1				SOIL	1				CRHS STUDENT COUNCIL & HISTORY CLUB
SS-20	11B	D14-3-DE	1	ADOPT A HIGHWAY	24	18	3.0			ADD TO ASSEMBLY		1									CRHS BOYS BASKETBALL
SS-20	12A	R3-17	1	BIKE LANE (Symbol)	24	18	3.0			NEW		1				SOIL	1				
SS-20	12B	R3-17bP	1	ENDS (plaque)	24	8	1.3			ADD TO ASSEMBLY		1									
SS-20	12C	W11-1-DE(30)	1	BICYCLE (Symbol) IN LANE - 30x30	30	30	6.3			ADD TO ASSEMBLY		1									
SS-20	13A	M2-1(21)	1	JUNCTION - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-20	13B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			NEW		1				SOIL	1				10
SS-20	14	R2-1-30(24)	1	SPEED LIMIT (30 MPH - 24x30)	24	30				REMAIN											
SS-20	15A	D3-2-DE1	1	WELCOME TO	36	32				REMAIN											
SS-20	15B	D3-2-DE2	1	DEVELOPMENT NAME	36	32				REMAIN											BRIAR PARK -->
SS-20	16A	MOD	1	FREEDOM - HARRIET TUBMAN - UNDERGROUND RAILROAD BYWAY	24	24	4.0			NEW		1				SOIL	1				Sign supplied by DelDOT sign shop (See detail below)
SS-20	16B	M6-1_R(21)	1	DIRECTIONAL ARROW (Right) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									Brown sign with white arrow
SS-20	17	W14-2(30)	1	NO OUTLET - 30x30	30	30	6.3			NEW		1				SOIL	1				
SS-21	1	R7-107-DE(12)	1	NO PARKING (Blank) - 12"x18"	12	18				REMAIN											FROM HERE TO CORNER
SS-21	2	W21-11-DE	1	WATCH CHILDREN (Symbol)	30	30				REMAIN											
SS-21	3A	D3-1(6)	1	STREET NAME (1 Line)	18	6				REMAIN											MAIN ST
SS-21	3B	D3-1(6)	1	STREET NAME (1 Line)	36	6				REMAIN											WILLOW AVE
SS-21	3C	R1-1(30)	1	STOP	30	30				REMAIN											
SS-21	4	W21-7-DE(30)	1	WATER ON ROAD - 30x30	30	30				REMOVE	1										
SS-21	5	W21-11-DE	1	WATCH CHILDREN (Symbol)	30	30				REMOVE	1										
SS-21	6A	M2-1(21)	1	JUNCTION - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									
SS-21	6B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24	24	4.0			NEW		1				SOIL	1				10
SS-21	7		1							REMAIN											
SS-21	8A	W2-6(36)	1	CIRCULAR INTERSECTION - 36x36	36	36	9.0			NEW		1				SOIL	1				
SS-21	8B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	36	9	2.3			ADD TO ASSEMBLY		1									Willow Grove Rd Hwy C, 4"
SS-21	8C	W13-1P-25(18)	1	ADVISORY SPEED (25 MPH) 18x18	18	18	2.3			ADD TO ASSEMBLY		1									
SS-21	9A	MOD	1	FREEDOM - HARRIET TUBMAN - UNDERGROUND RAILROAD BYWAY	24	24	4.0			NEW		1				SOIL	1				Sign supplied by DelDOT sign shop (See detail below)
SS-21	9B	M6-1_L(21)	1	DIRECTIONAL ARROW (Left) - 21x15	21	15	2.2			ADD TO ASSEMBLY		1									Brown sign with white arrow
SS-22	1A	MOD	1	FREEDOM - HARRIET TUBMAN - UNDERGROUND RAILROAD BYWAY	24	24	4.0			RENEW	1	1				SOIL	1				Sign supplied by DelDOT sign shop (See detail below)
SS-22	1B	M6-1_R(21)	1	DIRECTIONAL ARROW (Right) - 21x15	21	15	2.2			RENEW	1	1									Brown sign with white arrow
SS-22	2A	D3-1(6)	1	STREET NAME (1 Line)	18	6				REMAIN											FRIENDS WAY
SS-22	2B	D3-1(6)	1	STREET NAME (1 Line)	36	6				REMAIN											VOSHELLS MILL RD
SS-22	2C	R1-1(30)	1	STOP	30	30				REMAIN											
SS-22	3A	R7-107-DE(12)	1	NO PARKING (Blank) - 12"x18"	12	18				REMAIN											FIRE LANE
SS-22	3B	R7-201P_R	1	TOW AWAY ZONE (plaque - red)	12	6				REMAIN											
SS-22	4	W3-1(36)	1	STOP AHEAD (Symbol) - 36x36	36	36				REMOVE	1										
SS-22	5A	D3-1(6)	1	STREET NAME (1 Line)	30	6				REMAIN											MAPLE LN
SS-22	5B	D3-1(6)	1	STREET NAME (1 Line)	30	6				REMAIN											VOSHELLS MILL RD
SS-22	5C	R1-1(30)	1	STOP	30	30				REMAIN											
SS-22	6	D4-3-DE	1	BUS STOP (REQUESTS FOR FABRICATION THRU DART TRANSIT AT 302-576-6132)	12	18				NEW		1				SOIL	1				Stop ID 2754, Route 104
				PAGE TOTALS			95	7	0		8	28		0	0		12	1	0	0	
				JOB TOTALS			957	185	0		60	258		46	128		138	9	0	0	



MOFIFIED VERSION OF DELAWARE BYWAYS SIGN (D14-4-DE)
IMAGE FROM DELAWARE.GOV - DELAWARE BYWAYS WEBPAGE

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO.	N/A	SIGNING, STRIPING AND CONDUIT PLAN	SECTION
				T201709502	DESIGNED BY:	L. HAXTON		CEN
				COUNTY	CHECKED BY:	J. FREY		SHEET NO.
				KENT				243

20-DEC-2024
22:15
\\cdsm.deldotpw21\IC5_pdf_work_dir\1440\38557_109\SS01_TRSF_T201709502_CEL_schedules.dgn

ADDITIONAL SIGNAL NOTES

PHASE 2, STAGE 1

3. ALL PROPOSED PEDESTRIAN SIGNAL HEADS FOR WILL GROVE ROAD LANE SHALL BE UNCOVERED AND ACTIVATED ONCE THE FINAL WILLOW GROVE ROAD LANE CONFIGURATIONS HAVE BEEN IMPLEMENTED.
4. CONTRACTOR SHALL CAREFULLY REMOVE ALL EXISTING HOME RUN DETECTOR CABLES FROM CONDUITS IN WHICH NEW HOME RUN CABLES ARE TO BE INSTALLED AS NOT TO DAMAGE LOOP DETECTOR CABLES. CONTRACTOR SHALL SPLICE NEW DETECTOR HR CABLES INTO THE EXISTING LOOP WIRES.
5. NEW CABLES SHALL BE RUN TO SIGNAL HEADS (13, 14, 15 & 16) AND OPTICOM ON MA-2 DUE TO RECONFIGURATION OF CONCRETE ISLAND.
6. CONTRACTOR SHALL BURLAP BAG SIGNAL HEADS #1, #2, #9, #10, #11, #12, #15 AND #16 DURING PHASE 2, STAGE 1 AND 2.
7. ALL EXISTING SIGNAL COMPONENTS CALLED OUT FOR REMOVAL OR ABANDONMENT SHALL REMAIN INTACT AND FULLY FUNCTIONAL UNTIL ALL PROPOSED SIGNAL INSTALLATIONS ARE READY TO BE COMMISSIONED. CONTRACTOR SHALL ENSURE THAT SIGNAL DOWNTIME DURING DECOMMISSIONING OF THE EXISTING AND COMMISSIONING OF THE PROPOSED SIGNAL INSTALLATION IS MINIMAL.
8. CONTRACTOR SHALL ADJUST AND/OR REPAIR EXISTING JUNCTION WELL AS NECCESARY FOR INTEGRATION OF PROPOSED CONDUIT.

US13 (N. DUPONT HWY) IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

US 13 (S DUPONT HWY) SB

US 13 (S DUPONT HWY) NB

WILLOW GROVE RD

HOTMIX PATH

EASEMENT TO THE STATE OF DELAWARE PER PB 132-56

EASEMENT F1 P.B. 132-56

NM-02-094.00-01-15.00-000 CARL P. KING REAL ESTATE, L.L.C. D.R. 7305-70 P.B. 137-10

NM-02-094.00-02-07.00-000 POSITIVE OUTCOMES CHARTER SCHOOL, INC. D.R. 8532-30

NM-02-094.00-01-13.00-000 COOK LIMITED PARTNERSHIP D.R. 297-330 P.B. 5-29

NM-02-094.11-03-61.00-000 THE STATE OF DELAWARE D.R. M-51-200

NM-02-094.12-02-16.00-000 THE STATE OF DELAWARE DEPT. OF TRANSPORTATION D.R. H-45-77

NM-00-094.12-01-16.00-000 THE STATE OF DELAWARE D.R. H-45-77

EXISTING OVERHEAD SIGNING

A

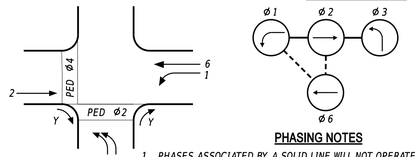
D3-1 (72"X18") — S DuPont Hwy

B

D3-1 (108"X18") — 10 Willow Grove Rd

SIGNAL PHASING

NEMA PHASING



PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	*OH #*	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	*PB X*	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	*PL X*	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	*RM C*	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	*RM O*	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	*RM TC*	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	*PROPOSED SYMBOL*
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		*R/W*
SERVICE PEDESTAL	P	*P*
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

CONSTRUCTION PHASING & M.O.T

	BARRICADE, TYPE 3
	CONCRETE SAFETY BARRIER - PORTABLE
	DRUM - TRAFFIC CONTROL
	TEMPORARY CONSTRUCTION
	TEMPORARY PAVEMENT MARKING ARROW
	WORK AREA - ACTIVE PHASE
	CONSTRUCTED AREA - PRIOR PHASE
	PAVEMENT REMOVAL - ACTIVE PHASE

PREPARED BY

CENTURY ENGINEERING
A Kleinfelder Company

THIS SEAL APPLIES TO THIS SHEET ONLY.

6/22/2023
DATE

TYLER DANE HARTMAN — LICENSE — No. 25884 — DELAWARE — PROFESSIONAL ENGINEER

SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING

8/4/2023
DATE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502	PERMIT NO.	K317
COUNTY	KENT	DESIGNED BY:	M. GALIPO
		CHECKED BY:	T. HARTMAN

SIGNAL PLAN
US 13 (S DUPONT HWY)
& WILLOW GROVE RD

SECTION	CEN
SHEET NO.	244

LAST REVISED: 9/11/2018
DATE PLOTTED: 26-JUN-2023
TIME PLOTTED: 08:41
pw://deldot-pw.bentley.com:deldot-pw-01/Documents/01_Active_Projects/DelDOT_Capital_Projects/T201709502_CEI/400_CADD/440_TRAFFIC/443_SHEET_DGN/CS_SG01_TRSF_T201709502_CEI_signal

PHASE 2, STAGE 1

CONDUIT RUN SCHEDULE

CO#	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
X1A	1	2"	GALV	3'/30'	-	(3)#8 THHN SC - LINE SIDE
X1B	1	2"	GALV	1'	-	(1)2/#8 U.F. W/ GROUND - LOAD SIDE
X1C	1	4"	HDPE	170'	-	(1)2/#8 U.F. W/ GROUND - LOAD SIDE
X1D	1	2"	-	3'	-	(1)2/#8 U.F. W/ GROUND - LOAD SIDE
X1E	1	2"	-	4'	-	(1)2/#8 U.F. W/ GROUND - LOAD SIDE
X2	3	4"	-	5'	-	(10)2/#14 (3)5/#14 (3)9/#14 (3)4/#18 (2)WHC (3)#6 SC REMOVE [(2)2/#14 (3)5/#14 (1)9/#14 (1)4/#18] NEW [(4)2/#14 (3)5/#14 (1)9/#14 (1)4/#18]
X3	1	3"	PVC	38'	-	(1)9/#14 (1)4/#18 (1)WHC (1)#6 SC
X4	1	4"	-	53'	-	(8)2/#14 (3)5/#14 (2)9/#14 (2)4/#18 (1)WHC (1)#6 SC REMOVE [(2)2/#14 (3)5/#14 (1)9/#14 (1)4/#18] NEW [(4)2/#14 (2)5/#14]
X5	1	4"	PVC	23'	-	REMOVE [(1)5/#14 (1)#6 SC] ABANDON
X6	1	2.5"	PVC	7'	-	REMOVE [(1)5/#14 (1)#6 SC] ABANDON
X7	1	3"	PVC	75'	-	REMOVE [(2)2/#14 (1)5/#14 (1)9/#14 (1)4/#18 (1)#6 SC] ABANDON
X8	1	2.5"	PVC	5'	-	REMOVE [(1)5/#14 (1)#6 SC] ABANDON
X9	1	4"	PVC	34'	-	REMOVE [(2)2/#14 (1)#6 SC] ABANDON
X10	1	4"	PVC	54'	-	REMOVE [(1)9/#14 (1)4/#18 (1)#6 SC] ABANDON
X11	1	3"	PVC	3'	-	(1)#6 SC REMOVE [(1)9/#14 (1)4/#18] NEW [(1)9/#14 (1)4/#18]
X12	1	4"	HDPE	86'	-	(8)2/#14 (3)5/#14 (2)9/#14 (2)4/#18 (1)WHC (1) #6 SC
X13	1	2.5"	PVC	130'	-	(2)2/#14 (1)#6 SC
X14	1	3"	PVC	176'	-	REMOVE [(2)2/#14 (1)#6 SC] ABANDON
X15	1	3"	PVC	127'	-	(1)#6 SC REMOVE (2)2/#14 NEW (2)2/#14
X16	1	4"	HDPE	108'	-	(8)2/#14 (3)5/#14 (2)9/#14 (2)4/#18 (1)WHC (1)#6 SC
X17	1	4"	PVC	143'	-	(2)2/#14 (1)#6 SC
X18	1	3"	PVC	11'	-	(1)9/#14 (1)4/#18 (1)#6 SC
X19	1	4"	PVC	56'	-	(6)2/#14 (3)5/#14 (1)9/#14 (1)4/#18 (1)WHC (1)#6 SC
X20	1	2.5"	PVC	12'	-	(2)5/#14 (1)#6 SC
X21	1	4"	PVC	80'	-	(4)2/#14 (1)5/#14 (1)9/#14 (1)4/#18 (1)WHC (1)#6 SC
X22	1	2.5"	PVC	12'	-	(1)5/#14 (1)#6 SC
X23	1	4"	PVC	54'	-	(1)9/#14 (1)4/#18 (1)WHC (1)#6 SC
X24	1	3"	PVC	16'	-	(1)9/#14 (1)4/#18 (1)WHC (1)#6 SC
25	1	2.5"	PVC	29'	T	NEW [(1)5/#14 (1)#6 SC]
26	1	2.5"	PVC	15'	T	NEW [(1)5/#14 (1)#6 SC]
27	1	2.5"	PVC	15'	T	NEW [(1)5/#14 (1)#6 SC]
28	1	4"	HDPE	45'	B	NEW [(1)5/#14 (1)#6 SC]
29	1	4"	HDPE	170'	B	NEW [(2)2/#14 (1)5/#14 (1)9/#14 (1)4/#18 (1)#6 SC]
30	1	4"	HDPE	155'	B	NEW [(2)2/#14 (1)#6 SC]
XF1	1	4"	PVC	38'	-	(1)12 CNT SM
XF2	1	3"	PVC	192'	-	(1)48 CNT SM
XF3	1	3"	PVC	6'	-	(1)48 CNT SM
F22	1	4"	PVC	290'	T	(1)48 CNT SM

LEGEND

X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN

B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS
WHC - WAVETRONICS HOMERUN CABLE

MAST ARM SCHEDULE

MA#	LENGTH OF ARM	# OF SIGNAL HEADS	# OF OPTICOM RECEIVERS	# OF VEHICULAR DETECTORS	S.F. OF SIGNING	ARM MOUNT HEIGHT
X1	90'	4	1	1	6	20'-0"
X2	80'	4	1	-	9	20'-0"
X3	90'	4	1	1	6	20'-0"
X4	90'	4	1	-	9	20'-0"

X-DENOTES EXISTING

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
X1	MAST	21'-6"	STEEL
X2	STRAIN	32'	STEEL
*X3	PEDESTAL	10'	ALUMINUM
*X4	PEDESTAL	10'	ALUMINUM
*X5	PEDESTAL	10'	ALUMINUM
X6	STRAIN	32'	STEEL
X7	MAST	21'-6"	STEEL
X8	MAST	21'-6"	STEEL
X10	PEDESTAL	10'	ALUMINUM
X11	PEDESTAL	10'	ALUMINUM
X12	MAST	21'-6"	STEEL
13	PEDESTAL	10'	ALUMINUM
14	PEDESTAL	10'	ALUMINUM
15	PEDESTAL	10'	ALUMINUM

* TO BE REMOVED
X-DENOTES EXISTING

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

CENTURY ENGINEERING
A Kleinfelder Company

THIS SEAL APPLIES TO THIS SHEET ONLY.

6/22/2023
DATE

TYLER DANE HARTMAN LICENSE No. 25884 DELAWARE PROFESSIONAL ENGINEER

SEAL

CONCURRENCE FOR INSTALLATION

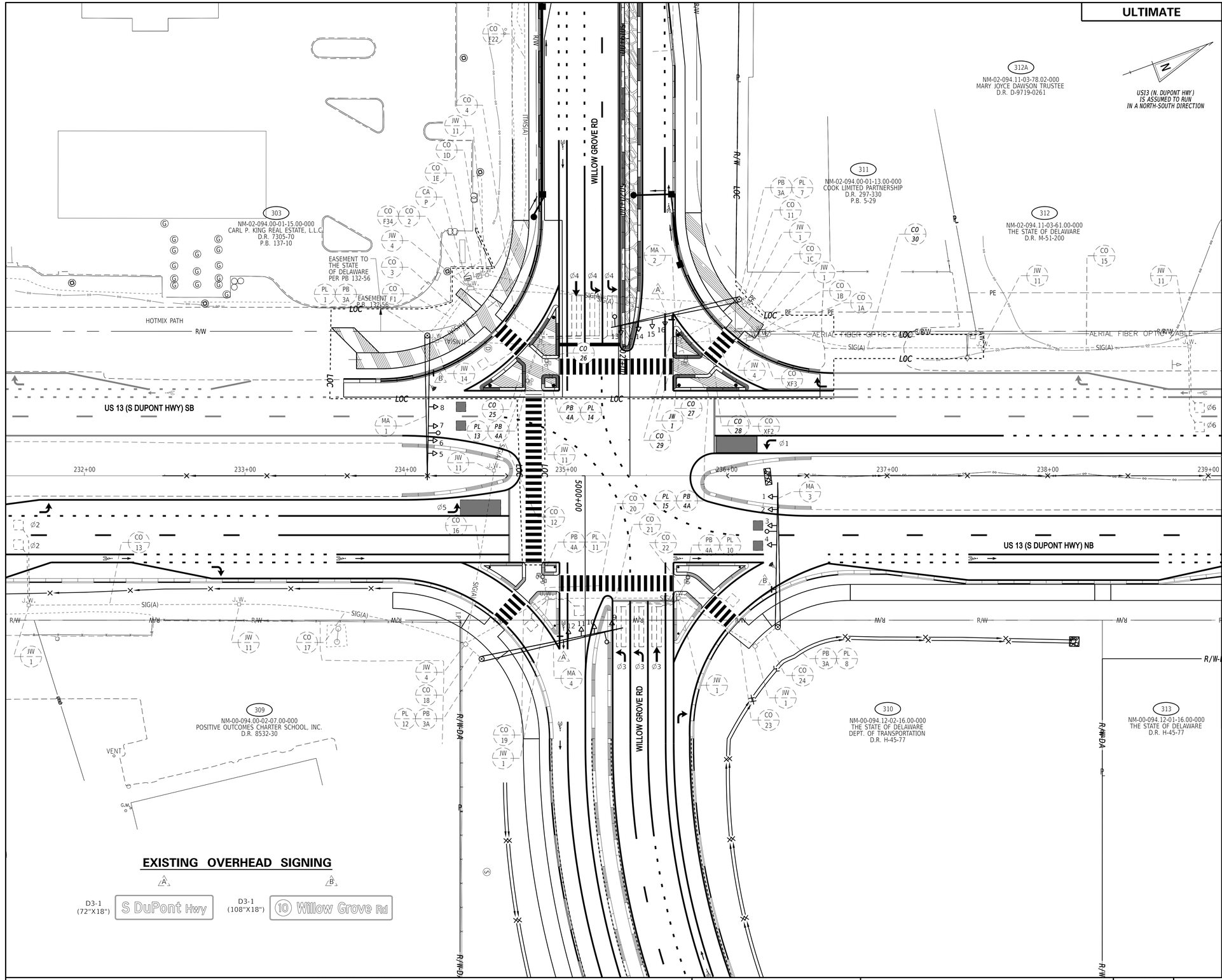
CHIEF OF TRAFFIC ENGINEERING

8/4/2023
DATE

LAST REVISED: 9/11/2018
21 JUN 2023
06:45
pw://deldot-pw.bentley.com:deldot-pw-01/Documents/01_Active_Projects/DelDOT_Capital_Projects/T201709502_CEI/400_CADD/440_TRAFFIC/443_SHEET_DGN/CS_SG01_TRSF_T201709502_CEI_signal

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	PERMIT NO.	K317	SIGNAL PLAN US 13 (S DUPONT HWY) & WILLOW GROVE RD	SECTION
				T201709502	DESIGNED BY: M. GALIPO			CEN
				COUNTY	CHECKED BY: T. HARTMAN			SHEET NO.
				KENT				245

ULTIMATE



EXISTING OVERHEAD SIGNING

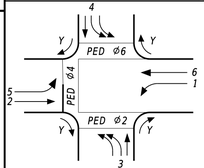
A

D3-1 (72"X18") S DuPont Hwy

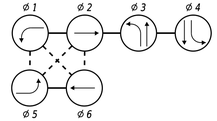
B

D3-1 (108"X18") 10 Willow Grove Rd

SIGNAL PHASING



NEMA PHASING



PHASING NOTES

1. *PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.*
2. *PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.*

SIGNAL HEAD DIAGRAM

3,4,7,8,11,12,15,16

1,2,5,6,9,10,13,14

LEGEND

AB	*ABANDON*	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	*OH #*	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	*PB X*	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	*PL X*	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	*RM C*	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	*RM O*	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	*RM TC*	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	*PROPOSED SYMBOL*
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	*P*
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION	VDE	VDE

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

CENTURY ENGINEERING
A Kleinfelder Company

09/12/2023
DATE

THIS SEAL APPLIES TO THIS SHEET ONLY.

TYLER DANE HARTMAN LICENSE No. 25884 DELAWARE PROFESSIONAL ENGINEER

SEAL

CONCURRENCE FOR INSTALLATION

9/14/2023
DATE

CHIEF OF TRAFFIC ENGINEERING

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	PERMIT NO.	K317	SECTION
T201709502	DESIGNED BY:	M. GALIPO	CEN
COUNTY	CHECKED BY:	T. HARTMAN	SHEET NO.
KENT			246

SIGNAL PLAN US 13 (S DUPONT HWY) & WILLOW GROVE RD

LAST REVISED: 9/11/2018
12:34PM
15-SEP-2023
\\deldotpw11\cs01\ICS_pdf_work_dln\15730\38557_140\ICS_SG02_TRSF_T201709502_CEI_signal_ULT.dgn

ULTIMATE

CONDUIT RUN SCHEDULE

CO#	NO. OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE / WIRE
X1A	1	2"	GALV	3'/30'	-	(3)#8 THHN SC - LINE SIDE
X1B	1	2"	GALV	1'	-	(1)2/#8 U.F. W/ GROUND - LOAD SIDE
X1C	1	4"	HDPE	170'	-	(1)2/#8 U.F. W/ GROUND - LOAD SIDE
X1D	1	2"	-	3'	-	(1)2/#8 U.F. W/ GROUND - LOAD SIDE
X1E	1	2"	-	4'	-	(1)2/#8 U.F. W/ GROUND - LOAD SIDE
X2	3	4"	-	5'	-	(14)2/#14 (6)5/#14 (4)9/#14 (4)4/#18 (2)WHC (3)#6 SC
X3	1	3"	PVC	38'	-	(1)9/#14 (1)4/#18 (1)WHC (1)#6 SC
X4	1	4"	-	53'	-	(12)2/#14 (5)5/#14 (2)9/#14 (2)4/#18 (1)WHC (1)#6 SC
X11	1	3"	PVC	3'	-	(1)9/#14 (1)4/#18 (1)#6 SC
X12	1	4"	HDPE	86'	-	(8)2/#14 (3)5/#14 (2)9/#14 (2)4/#18 (1)WHC (1) #6 SC
X13	1	2.5"	PVC	130'	-	(2)2/#14 (1)#6 SC
X15	1	3"	PVC	127'	-	(1)#6 SC (2)2/#14
X16	1	4"	HDPE	108'	-	(8)2/#14 (3)5/#14 (2)9/#14 (2)4/#18 (1)WHC (1)#6 SC
X17	1	4"	PVC	143'	-	(2)2/#14 (1)#6 SC
X18	1	3"	PVC	11'	-	(1)9/#14 (1)4/#18 (1)#6 SC
X19	1	4"	PVC	56'	-	(6)2/#14 (3)5/#14 (1)9/#14 (1)4/#18 (1)WHC (1)#6 SC
X20	1	2.5"	PVC	12'	-	(2)5/#14 (1)#6 SC
X21	1	4"	PVC	80'	-	(4)2/#14 (1)5/#14 (1)9/#14 (1)4/#18 (1)WHC (1)#6 SC
X22	1	2.5"	PVC	12'	-	(1)5/#14 (1)#6 SC
X23	1	4"	PVC	54'	-	(1)9/#14 (1)4/#18 (1)WHC (1)#6 SC
X24	1	3"	PVC	16'	-	(1)9/#14 (1)4/#18 (1)WHC (1)#6 SC
X25	1	2.5"	PVC	29'	-	(1)5/#14 (1)#6 SC
X26	1	2.5"	PVC	15'	-	(1)5/#14 (1)#6 SC
X27	1	2.5"	PVC	15'	-	(1)5/#14 (1)#6 SC
X28	1	4"	HDPE	45'	-	(1)5/#14 (1)#6 SC
X29	1	4"	HDPE	170'	-	(2)2/#14 (1)5/#14 (1)9/#14 (1)4/#18 (1)#6 SC
X30	1	4"	HDPE	155'	-	(2)2/#14 (1)#6 SC
XF1	1	4"	PVC	38'	-	(1)12 CNT SM
XF2	1	3"	PVC	192'	-	(1)48 CNT SM
XF3	1	3"	PVC	6'	-	(1)48 CNT SM
XF22	1	4"	PVC	290'	-	(1)48 CNT SM

LEGEND

X- DENOTES EXISTING
SC- STRANDED COPPER
HR- HOME RUN

B- BORE
T- TRENCH
O- OPEN CUT
P- ATTACH TO POLE

SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS
WHC - WAVETRONICS HOMERUN CABLE

MAST ARM SCHEDULE

MA#	LENGTH OF ARM	# OF SIGNAL HEADS	# OF OPTICOM RECEIVERS	# OF VEHICULAR DETECTORS	S.F. OF SIGNING	ARM MOUNT HEIGHT
X1	90'	4	1	1	6	20'-0"
X2	80'	4	1	-	9	20'-0"
X3	90'	4	1	1	6	20'-0"
X4	90'	4	1	-	9	20'-0"

X-DENOTES EXISTING

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
X1	MAST	21'-6"	STEEL
X2	STRAIN	32'	STEEL
X6	STRAIN	32'	STEEL
X7	MAST	21'-6"	STEEL
X8	MAST	21'-6"	STEEL
X10	PEDESTAL	10'	ALUMINUM
X11	PEDESTAL	10'	ALUMINUM
X12	MAST	21'-6"	STEEL
X13	PEDESTAL	10'	ALUMINUM
X14	PEDESTAL	10'	ALUMINUM
X15	PEDESTAL	10'	ALUMINUM

* TO BE REMOVED
X-DENOTES EXISTING

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company

THIS SEAL APPLIES TO THIS SHEET ONLY.
09/12/2023
DATE

TYLER DANE HARTMAN
LICENSE
No. 25884
DELAWARE
PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING
9/14/2023
DATE

LAST REVISED: 9/11/2018
15-SEP-2023
15:51:
\\deldotpw11lcs01\ICS_pdf_work_dlr\15730\38557_140\CS_SG02_TRSF_T201709502_CEI_signal_ULT.dgn

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	PERMIT NO.	K317	SIGNAL PLAN US 13 (S DUPONT HWY) & WILLOW GROVE RD	SECTION
				T201709502				CEN
				COUNTY	DESIGNED BY:	M. GALIPO		SHEET NO.
				KENT	CHECKED BY:	T. HARTMAN		247

ADDITIONAL SIGNAL NOTES

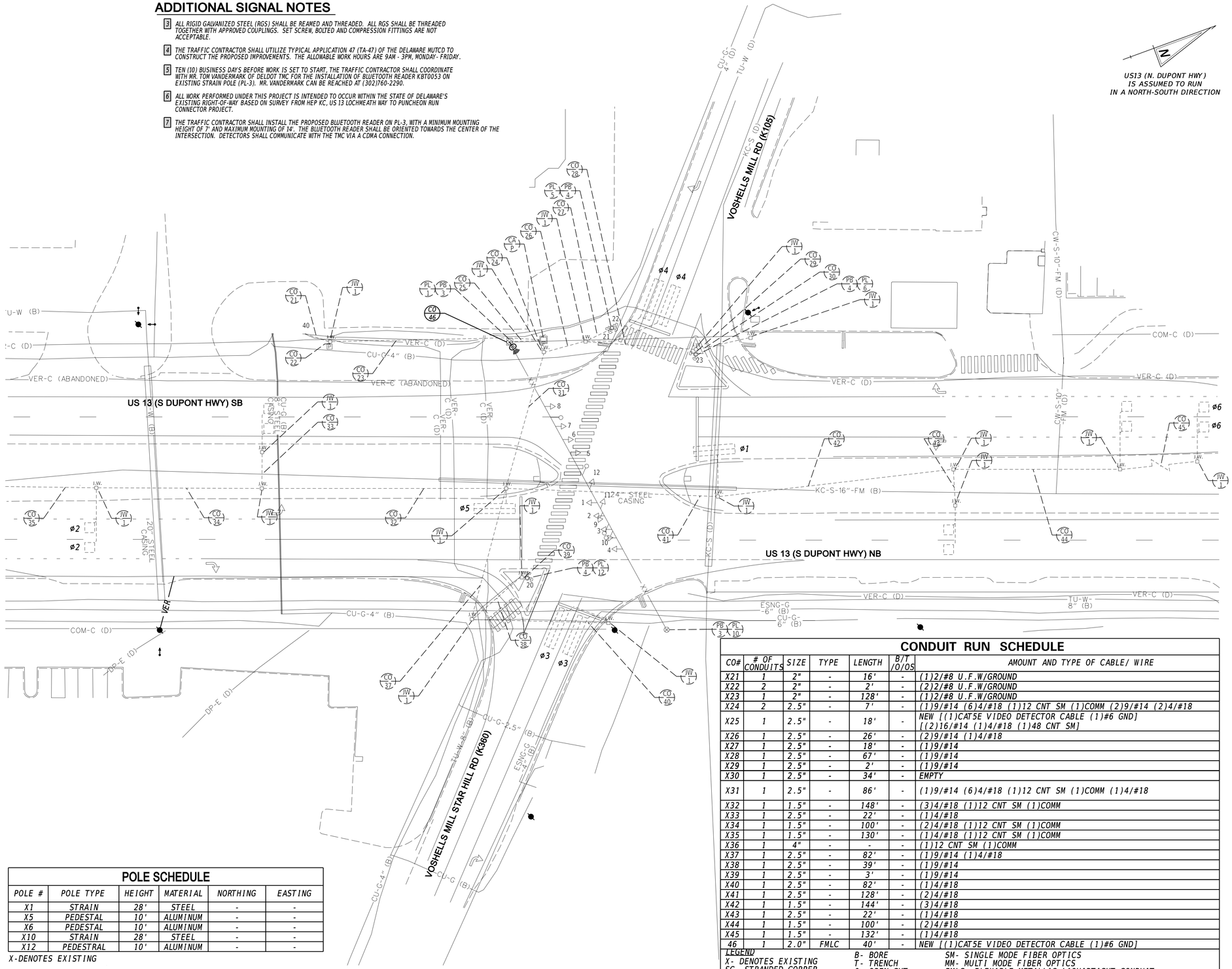
3. ALL RIGID GALVANIZED STEEL (RGS) SHALL BE REAMED AND THREADED. ALL RGS SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.

4. THE TRAFFIC CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 47 (TA-47) OF THE DELAWARE MUTCD TO CONSTRUCT THE PROPOSED IMPROVEMENTS. THE ALLOWABLE WORK HOURS ARE 9AM - 3PM, MONDAY- FRIDAY.

5. TEN (10) BUSINESS DAYS BEFORE WORK IS SET TO START, THE TRAFFIC CONTRACTOR SHALL COORDINATE WITH MR. TOM VANDERMARK OF DELDOT TMC FOR THE INSTALLATION OF BLUETOOTH READER KBT0053 ON EXISTING STRAIN POLE (PL-3). MR. VANDERMARK CAN BE REACHED AT (302)760-2290.

6. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN THE STATE OF DELAWARE'S EXISTING RIGHT-OF-WAY BASED ON SURVEY FROM HEP KC, US 13 LOCHMEATH WAY TO PUNCHEON RUN CONNECTOR PROJECT.

7. THE TRAFFIC CONTRACTOR SHALL INSTALL THE PROPOSED BLUETOOTH READER ON PL-3, WITH A MINIMUM MOUNTING HEIGHT OF 7' AND MAXIMUM MOUNTING OF 14'. THE BLUETOOTH READER SHALL BE ORIENTED TOWARDS THE CENTER OF THE INTERSECTION. DETECTORS SHALL COMMUNICATE WITH THE TMC VIA A CDMA CONNECTION.



POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL	NORTHING	EASTING
X1	STRAIN	28'	STEEL	-	-
X5	PEDESTAL	10'	ALUMINUM	-	-
X6	PEDESTAL	10'	ALUMINUM	-	-
X10	STRAIN	28'	STEEL	-	-
X12	PEDESTRAL	10'	ALUMINUM	-	-

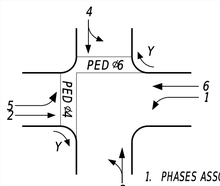
X-DENOTES EXISTING

CONDUIT RUN SCHEDULE

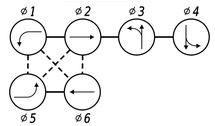
CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T /O/OS	AMOUNT AND TYPE OF CABLE/ WIRE
X21	1	2"	-	16'	-	(1)2/#8 U.F.W/GROUND
X22	2	2"	-	2'	-	(2)2/#8 U.F.W/GROUND
X23	1	2"	-	128'	-	(1)2/#8 U.F.W/GROUND
X24	2	2.5"	-	7'	-	(1)9/#14 (6)4/#18 (1)12 CNT SM (1)COMM (2)9/#14 (2)4/#18
X25	1	2.5"	-	18'	-	NEW [(1)CAT5E VIDEO DETECTOR CABLE (1)#6 GND] [(2)16/#14 (1)4/#18 (1)48 CNT SM]
X26	1	2.5"	-	26'	-	(2)9/#14 (1)4/#18
X27	1	2.5"	-	18'	-	(1)9/#14
X28	1	2.5"	-	67'	-	(1)9/#14
X29	1	2.5"	-	2'	-	(1)9/#14
X30	1	2.5"	-	34'	-	EMPTY
X31	1	2.5"	-	86'	-	(1)9/#14 (6)4/#18 (1)12 CNT SM (1)COMM (1)4/#18
X32	1	1.5"	-	148'	-	(3)4/#18 (1)12 CNT SM (1)COMM
X33	1	2.5"	-	22'	-	(1)4/#18
X34	1	1.5"	-	100'	-	(2)4/#18 (1)12 CNT SM (1)COMM
X35	1	1.5"	-	130'	-	(1)4/#18 (1)12 CNT SM (1)COMM
X36	1	4"	-	-	-	(1)12 CNT SM (1)COMM
X37	1	2.5"	-	82'	-	(1)9/#14 (1)4/#18
X38	1	2.5"	-	39'	-	(1)9/#14
X39	1	2.5"	-	3'	-	(1)9/#14
X40	1	2.5"	-	82'	-	(1)4/#18
X41	1	2.5"	-	128'	-	(2)4/#18
X42	1	1.5"	-	144'	-	(3)4/#18
X43	1	2.5"	-	22'	-	(1)4/#18
X44	1	1.5"	-	100'	-	(2)4/#18
X45	1	1.5"	-	132'	-	(1)4/#18
46	1	2.0"	FMLC	40'	-	NEW [(1)CAT5E VIDEO DETECTOR CABLE (1)#6 GND]

LEGEND
X- DENOTES EXISTING
SC- STRANDED COPPER
WHC- WAVETRONIX HOME CABLE
B- BORE
T- TRENCH
O- OPEN CUT
OS- ON STRUCTURE
SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS
FMLC- FLEXIBLE METALLIC LIQUIDTIGHT CONDUIT

SIGNAL PHASING



NEMA PHASING



PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (# OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (# OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	X
UTILITY POLE		
BLUETOOTH DETECTOR		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company

THIS SEAL APPLIES TO THIS SHEET ONLY.

12/19/2024
DATE

BRET A. MARTINE
No. 11947
DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING

12/19/2024
DATE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

WEST CAMDEN BYPASS

CONTRACT	PERMIT NO.	K151	SECTION
T201709502	DESIGNED BY: M. GALIPO		CEN
COUNTY	CHECKED BY: B. MARTINE		SHEET NO.
KENT			248

SIGNAL PLAN
US 13 (S DUPONT HWY) &
VOSHELLS MILL ROAD/
VOSHELLS MILL STAR HILL ROAD
BLUETOOTH READER

16-DEC-2024
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08:42

pw://deldot-pw.bentley.com:deldot-pw-01/Documents/01_Active_Projects/DelDOT_Capital_Projects/T201709502_CEI/400_CADD/440_TRAFFIC/443_SHEET_DGN/CS04_TRSF_T201709502_CEI_K151_Voshells MillRd.DGN

ADDITIONAL SIGNAL NOTES

3 *ALL RIGID GALVANIZED STEEL (RGS) SHALL BE REAMED AND THREADED. ALL RGS SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.*

4 *THE TRAFFIC CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 47B (TA-47B) OF THE DELAWARE MUTCD TO CONSTRUCT THE PROPOSED IMPROVEMENTS. THE ALLOWABLE WORK HOURS ARE 9AM - 3PM, MONDAY- FRIDAY.*

5 *TEN (10) BUSINESS DAYS BEFORE WORK IS SET TO START, THE TRAFFIC CONTRACTOR SHALL COORDINATE WITH MR. TOM VANDERMARK OF DELDOT TMC FOR THE INSTALLATION OF BLUETOOTH READER KBT0054 ON EXISTING STRAIN POLE (PL-3). MR. VANDERMARK CAN BE REACHED AT (302)760-2290.*

6 *THE TRAFFIC CONTRACTOR SHALL INSTALL THE PROPOSED BLUETOOTH READER ON PL-3, WITH A MINIMUM MOUNTING HEIGHT OF 7' AND MAXIMUM MOUNTING OF 14'. THE BLUETOOTH READER SHALL BE ORIENTED TOWARDS THE CENTER OF THE INTERSECTION. DETECTORS SHALL COMMUNICATE WITH THE TMC VIA A CDMA CONNECTION.*

7 *RIGHT OF WAY SHOWN ON THIS PLAN TAKEN FROM:*
-SIGNAL ARCHIVE PLAN:
1) CONTRACT NO. 98-093-03, DATED JUNE 1999

CONDUIT RUN SCHEDULE

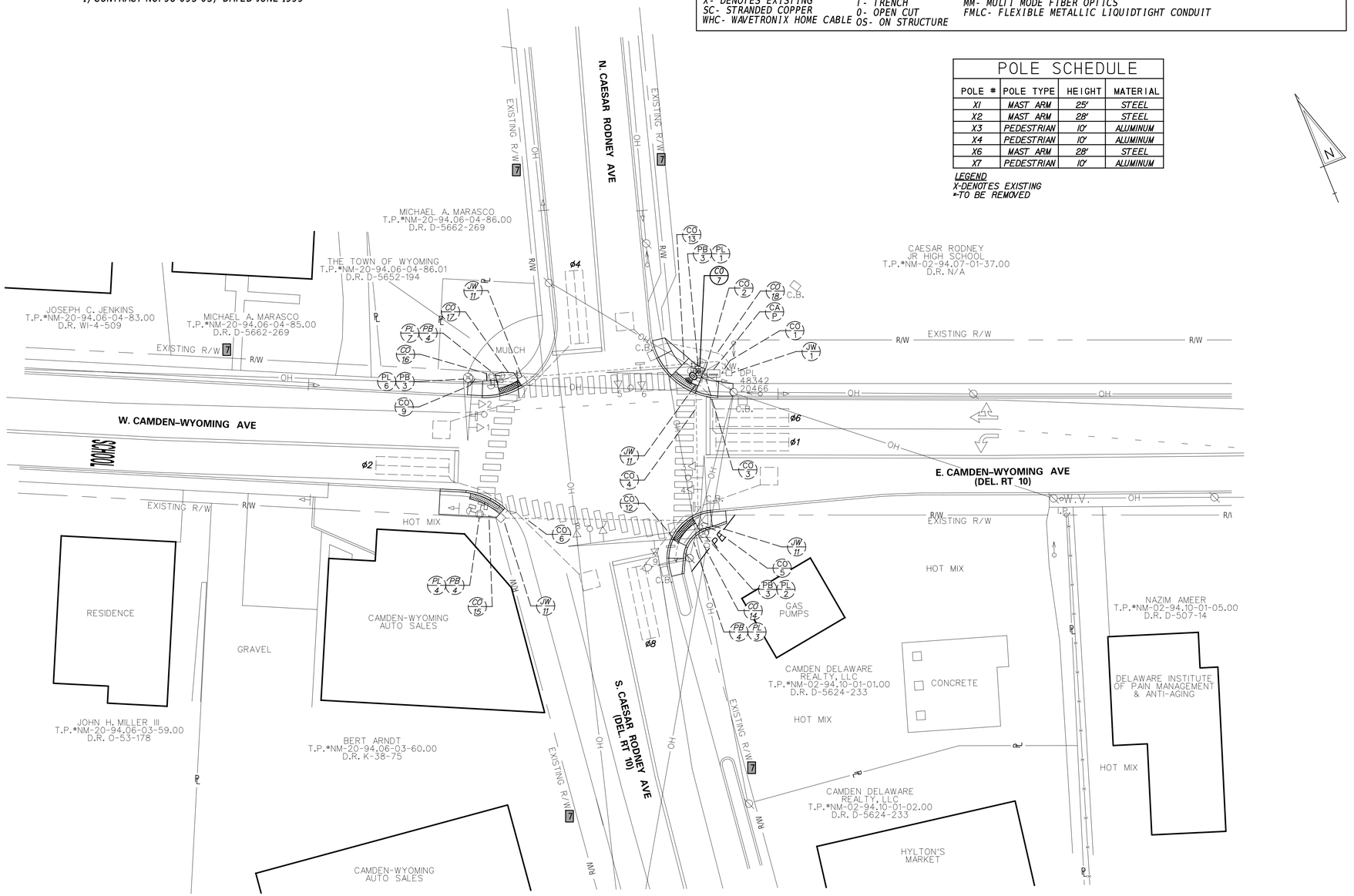
CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/ O/OS	AMOUNT AND TYPE OF CABLE/ WIRE
X1	1	2.5"	RGS	5'	-	(3)#4/*18 (4)#8/*14 (1)#6/*14 (3)#2/*14 (2)#5/*14 (1)*6 GND
X2	1	2.5"	RGS	5'	-	NEW [(1)CAT5E VIDEO DETECTOR CABLE] [(2)#2/*14 (1)#4/*18 (2)#9/*14 (1)#6/*14 (1)#2/*8 U.F.W./GRND (2)#5/*14 (1)*6 GND]
X3	2	2.5"	RGS	7'	-	(3)#4/*18 (2)#9/*14 (1)#6/*14 (6)#2/*14 (4)#5/*14 (1)*6 GND
X4	1	2"	RGS	48'	-	(3)#4/*18 (2)#9/*14 (1)#6/*14 #2/*14 (4)#5/*14 (1)*6 GND
X5	1	2.5"	RGS	5'	-	(2)#4/*18 (2)#9/*14 (1)#6/*14 (1)*6 GND
X6	1	2"	RGS	68'	-	(2)#2/*14 (2)#5/*14 (1)*6 GND
7	1	2"	FMLC	30'	OS	NEW [(1)CAT5E VIDEO DETECTOR CABLE (1)*6 GND]
X9	1	2.5"	RGS	3'	-	(1)#4/*18 (2)#9/*14 (1)#6/*14
X12	1	1.5"	RGS	-	-	EMPTY
X13	1	2.5"	RGS	85'	-	(3)#4/*18 (4)#8/*14 (1)#6/*14 (2)#2/*14 (2)#5/*14 (1)*6 GND
X14	1	2.5"	PVC	10'	-	(2)#5/*14 (1)*6 GND
X15	1	2.5"	PVC	10'	-	(2)#5/*14 (1)*6 GND
X16	1	2.5"	RGS	15'	-	(1)#4/*18 (1)#6/*14 (1)*6 GND
X17	1	2.5"	PVC	20'	-	(2)#5/*14 (1)*6 GND
X18	1	1.5"	RGS	30'	-	(2)#/*14

LEGEND
X- DENOTES EXISTING
SC- STRANDED COPPER
WHC- WAVETRONIX HOME CABLE
B- BORE
T- TRENCH
O- OPEN CUT
OS- ON STRUCTURE
SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS
FMLC- FLEXIBLE METALLIC LIQUIDTIGHT CONDUIT

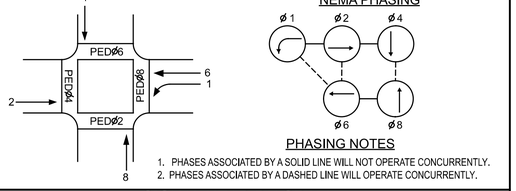
POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
X1	MAST ARM	25'	STEEL
X2	MAST ARM	28'	STEEL
X3	PEDESTRIAN	10'	ALUMINUM
X4	PEDESTRIAN	10'	ALUMINUM
X6	MAST ARM	28'	STEEL
X7	PEDESTRIAN	10'	ALUMINUM

LEGEND
X-DENOTES EXISTING
←TO BE REMOVED



SIGNAL PHASING



PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	*PROPOSED SYMBOL*
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
BLUETOOTH DETECTOR		

GENERAL SIGNAL NOTES

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2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company

THIS SEAL APPLIES TO THIS SHEET ONLY. 12/19/2024 DATE

BRET A. MARTINE — No. 11947 — DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING 12/19/2024 DATE

ADDENDA / REVISIONS			

WEST CAMDEN BYPASS

CONTRACT	T201709502	PERMIT NO.	K237
COUNTY	KC	DESIGNED BY:	M. GALIPO
		CHECKED BY:	B. MARTINE

SIGNAL PLAN
DE 10 (CAMDEN-WYOMING AVE) & CAESAR RODNEY AVE BLUETOOTH READER

SECTION	
CEI	
SHEET NO.	
249	

LAST REVISED: 9/11/2018
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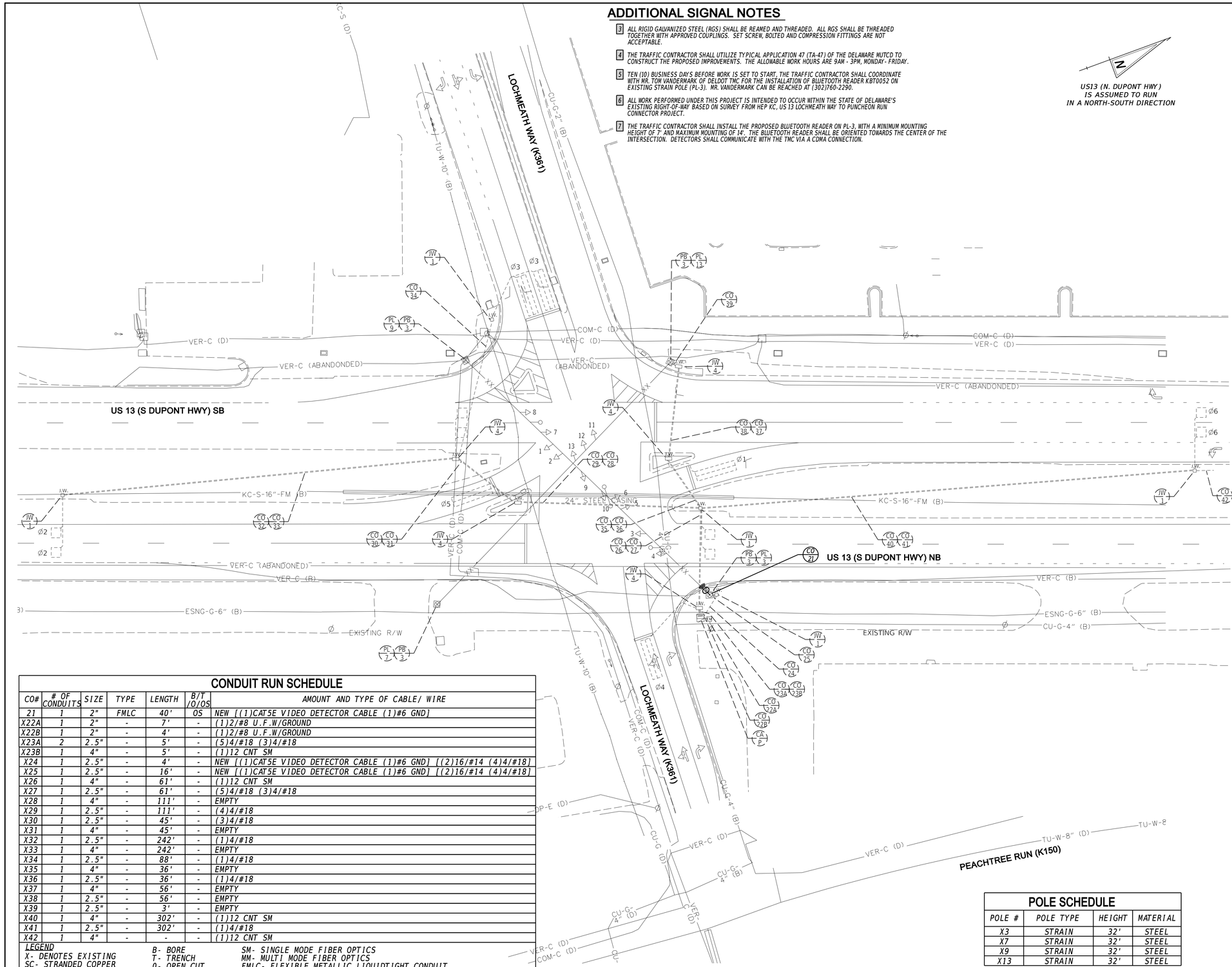
ADDITIONAL SIGNAL NOTES

3. ALL RIGID GALVANIZED STEEL (RGS) SHALL BE REAMED AND THREADED. ALL RGS SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
4. THE TRAFFIC CONTRACTOR SHALL UTILIZE TYPICAL APPLICATION 47 (TA-47) OF THE DELAWARE MUTCD TO CONSTRUCT THE PROPOSED IMPROVEMENTS. THE ALLOWABLE WORK HOURS ARE 9AM - 3PM, MONDAY - FRIDAY.
5. TEN (10) BUSINESS DAY'S BEFORE WORK IS SET TO START, THE TRAFFIC CONTRACTOR SHALL COORDINATE WITH MR. TOM VANDERMARK OF DELDOT TMC FOR THE INSTALLATION OF BLUETOOTH READER KBT0052 ON EXISTING STRAIN POLE (PL-3). MR. VANDERMARK CAN BE REACHED AT (302)760-2290.
6. ALL WORK PERFORMED UNDER THIS PROJECT IS INTENDED TO OCCUR WITHIN THE STATE OF DELAWARE'S EXISTING RIGHT-OF-WAY BASED ON SURVEY FROM HEP KC, US 13 LOCHMEATH WAY TO PUNCHEON RUN CONNECTOR PROJECT.
7. THE TRAFFIC CONTRACTOR SHALL INSTALL THE PROPOSED BLUETOOTH READER ON PL-3, WITH A MINIMUM MOUNTING HEIGHT OF 7' AND MAXIMUM MOUNTING OF 14'. THE BLUETOOTH READER SHALL BE ORIENTED TOWARDS THE CENTER OF THE INTERSECTION. DETECTORS SHALL COMMUNICATE WITH THE TMC VIA A CDMA CONNECTION.



CONDUIT RUN SCHEDULE

CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T /O/OS	AMOUNT AND TYPE OF CABLE/ WIRE
21	1	2"	FMLC	40'	OS	NEW [(1)CAT5E VIDEO DETECTOR CABLE (1)#6 GND]
X22A	1	2"	-	7'	-	(1)2/#8 U.F.W/GROUND
X22B	1	2"	-	4'	-	(1)2/#8 U.F.W/GROUND
X23A	2	2.5"	-	5'	-	(5)4/#18 (3)4/#18
X23B	1	4"	-	5'	-	(1)12 CNT SM
X24	1	2.5"	-	4'	-	NEW [(1)CAT5E VIDEO DETECTOR CABLE (1)#6 GND] [(2)16/#14 (4)4/#18]
X25	1	2.5"	-	16'	-	NEW [(1)CAT5E VIDEO DETECTOR CABLE (1)#6 GND] [(2)16/#14 (4)4/#18]
X26	1	4"	-	61'	-	(1)12 CNT SM
X27	1	2.5"	-	61'	-	(5)4/#18 (3)4/#18
X28	1	4"	-	111'	-	EMPTY
X29	1	2.5"	-	111'	-	(4)4/#18
X30	1	2.5"	-	45'	-	(3)4/#18
X31	1	4"	-	45'	-	EMPTY
X32	1	2.5"	-	242'	-	(1)4/#18
X33	1	4"	-	242'	-	EMPTY
X34	1	2.5"	-	88'	-	(1)4/#18
X35	1	4"	-	36'	-	EMPTY
X36	1	2.5"	-	36'	-	(1)4/#18
X37	1	4"	-	56'	-	EMPTY
X38	1	2.5"	-	56'	-	EMPTY
X39	1	2.5"	-	3'	-	EMPTY
X40	1	4"	-	302'	-	(1)12 CNT SM
X41	1	2.5"	-	302'	-	(1)4/#18
X42	1	4"	-	-	-	(1)12 CNT SM

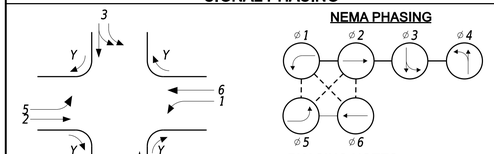
LEGEND
X- DENOTES EXISTING
SC- STRANDED COPPER
WHC- WAVETRONIX HOME CABLE
B- BORE
T- TRENCH
O- OPEN CUT
OS- ON STRUCTURE
SM- SINGLE MODE FIBER OPTICS
MM- MULTI MODE FIBER OPTICS
FMLC- FLEXIBLE METALLIC LIQUIDTIGHT CONDUIT

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
X3	STRAIN	32'	STEEL
X7	STRAIN	32'	STEEL
X9	STRAIN	32'	STEEL
X13	STRAIN	32'	STEEL

X-DENOTES EXISTING

SIGNAL PHASING



SIGNAL HEAD DIAGRAM

LEGEND

AB	ABANDON	OR #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (# OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (# OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	X
UTILITY POLE		
BLUETOOTH DETECTOR		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company

THIS SEAL APPLIES TO THIS SHEET ONLY. 12/19/2024 DATE

BRET A. MARTINE — No. 11947 — DELAWARE PROFESSIONAL ENGINEER — SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING 12/19/2024 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT T201709502	PERMIT NO.	K284 & KCAM165	SECTION CEN
COUNTY KENT	DESIGNED BY: M. GALIPO		SHEET NO. 250
	CHECKED BY: B. MARTINE		

SIGNAL PLAN US 13 (S DUPONT HWY) & LOCHMEATH WAY BLUETOOTH READER

GENERAL NOTES

1. THESE DRAWINGS DO NOT INCLUDE NECESSARY ELEMENTS OF CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE COMPLETED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT, AND ALL FEDERAL, STATE AND LOCAL REQUIREMENTS.

2. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST INFORMATION CURRENTLY AVAILABLE. LOCATIONS ARE NOT BASED ON A FIELD SURVEY. THE CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.

3. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION. ANY UTILITY DAMAGED SHALL BE PROMPTLY AND FULLY RESTORED TO THE SATISFACTION OF THE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.

4. THE CONTRACTOR SHALL PLAN AND IMPLEMENT ALL NECESSARY REQUIREMENTS OF THE DELAWARE UNDERGROUND UTILITY DAMAGE PREVENTION AND SAFETY ACT.

5. THE CONTRACTOR SHALL PROVIDE EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH THE SEDIMENT CONTROL ACT. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK OR DELDOT'S REQUIREMENTS, WHICHEVER IS MORE RESTRICTIVE, AND ALL APPLICABLE LOCAL REQUIREMENTS.

6. TRAFFIC AND SAFETY CONTROL SHALL BE MAINTAINED DURING CONSTRUCTION IN CONFORMANCE WITH THE CURRENT VERSION OF THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL (MUTCD).

7. ALL WORK WITHIN STATE RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH STATE OF DELAWARE STANDARDS.

8. FOR ROAD CROSSING WITH STEEL CASING, THE CASING SHALL EXTEND A MINIMUM 5 FEET BEYOND EDGE OF PAVEMENT.

9. ROAD PLATING IS NOT PERMITTED FROM NOVEMBER 1 THROUGH APRIL 15, UNLESS APPROVED BY THE ENGINEER.

10. ALL OPEN CUT ROAD AND DRIVEWAY CROSSINGS THAT ARE WITHIN 4 FEET OF AN EXISTING PAVEMENT/ CONCRETE SEAM SHALL BE RESTORED TO THE SEAM.

11. ALL DRIVEWAYS SHALL BE RESTORED "IN KIND".

12. ALL FIRE LANES, FIRE HYDRANTS, STAND PIPES, SPRINKLER CONNECTIONS, EXITS, ETC., SHALL BE MARKED AND/OR PROTECTED IN ACCORDANCE WITH STATE FIRE PROTECTION REGULATIONS AS EVIDENCED IN PART III, CHAPTER 1, SECTION 1-1.4.1 AND PART V, CHAPTER 5, STANDARD FOR THE MARKING, IDENTIFICATION, AND ACCESSIBILITY OF FIRE LANES, EXITS, FIRE HYDRANTS, SPRINKLER, AND STANDPIPE CONNECTIONS.

13. THE LOCATION OF ALL FIRE PROTECTION FEATURES, LANE MARKINGS, SIGNAGE, ETC., SHALL BE STRICTLY ADHERED TO BY THE CONTRACTOR.

14. WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SANITARY SEWER. WATER MAINS CROSSING SANITARY SEWER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE WATER MAIN AND THE SEWER. CROSSINGS SHALL BE ARRANGED SO THAT THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM SEWER MAIN JOINTS. WHERE MINIMUM SEPARATION DISTANCES CANNOT BE MAINTAINED, THE OFFICE OF DRINKING WATER MUST APPROVE ANY VARIANCE SUPPORTED BY DATA FROM THE DESIGN ENGINEER

15. WATER MAINS SHALL HAVE A MINIMUM 4' OF COVER.

16. IF PIPE DEFLECTION IS NEEDED: MAX 1° AXIAL JOINT DEFLECTION IS PERMITTED AS WELL AS 1° MAX LONGITUDINAL PIPE DEFLECTION FOR A TOTAL OF 2° MAX DEFLECTION. THE JOINT MUST BE RESTRAINED IF THE PIPE IS TO BE LONGITUDINALLY DEFLECTED.

17. NOTIFY MISS UTILITY 1-800-282-8555 THREE WORKING DAYS, BUT NO MORE THAN 10 WORKING DAYS, PRIOR TO ANY EXCAVATION OR DEMOLITION ACTIVITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONFER WITH THE UTILITY COMPANIES INVOLVED IN ORDER TO SECURE THE MOST ACCURATE INFORMATION AVAILABLE AS TO UTILITY LOCATION. NO CONSTRUCTION AROUND OR ADJACENT TO UTILITIES SHALL BEGIN WITHOUT NOTIFYING THEIR OWNERS AT LEAST 48 HOURS IN ADVANCE. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE AND ANY DAMAGE DONE TO THEM DUE TO HIS/HER NEGLIGENCE SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT THE CONTRACTOR'S EXPENSE.

18. ALL WORK MUST BE COORDINATED WITH CWSWA PRIOR TO EXECUTION OF WORK.

19. ADJUST ALL VALVE BOXES TO FINAL GRADE.

20. CURB STOPS SHALL BE LOCATED JUST BEHIND THE RIGHT OF WAY LINE.

21. ALL GATE VALVES SHALL BE PROVIDED WITH A ROADWAY SCREW-TYPE CAST-IRON VALVE BOX. BOX FOR VALVES 3" AND SMALLER SHALL HAVE AN ARCH BASE.

22. VALVES LARGER THAN 2" SHALL BE CAST IRON AMERICAN FLOW CONTROL RESILIENT SEATED GATE VALVES OR APPROVED EQUAL. VALVES SHALL HAVE MECHANICAL JOINT END AND NON-RISING STEM WITH SQUARE OPERATING NUTS.

23. PLACE NEW VALVES NEXT TO TEES, BENDS, ETC., SUPPORT ALL VALVES ON A SOLID 4"X8" CONCRETE MASONRY UNIT.

24. ALL ABANDONED WATER MAIN IS TO BE FLOWABLE FILLED, PLUGGED AND CAPPED IN PLACE (GROUTING IS REQUIRED PER OWNERS REQUEST), VALVES SHUT AND VALVE BOXES AND HYDRANTS REMOVED.

25. ALL EXISTING WATER MAIN SHALL REMAIN ACTIVE UNTIL SUCH TIME AS NEW WATER MAIN IS APPROVED FOR OPERATION BY DHSS-OFFICE OF DRINKING WATER, THE NEW WATER MAIN IS PUT INTO SERVICE AND NEW SERVICES CAN BE ACTIVATED.

26. CONTRACTOR SHALL MARK ALL EASEMENTS AND RIGHTS OF WAY PRIOR TO WORK.

27. PROPOSED WORK AT CONNECTION POINTS TO STAY WITHIN EASEMENTS AND RIGHTS OF WAY.

28. PIPE FITTINGS SHOWN IN THIS PLAN ARE APPROXIMATE, ADDITIONAL FITTINGS MAY BE REQUIRED DURING CONSTRUCTION SHALL BE FURNISHED AND INSTALLED, INCIDENTAL TO ITEM 710600.

29. A PRECONSTRUCTION MEETING MUST BE SCHEDULED WITH THE CWSWA AT LEAST SEVEN DAYS PRIOR TO THE COMMENCEMENT OF ANY SANITARY SEWER OR WATER CONSTRUCTION BY THE PROJECT CONTRACTOR. SHOP DRAWINGS FOR THE PIPE AND APPURTENANCES INTENDED TO BE UTILIZED BY THE CONTRACTOR AS WELL AS A DETAILED CONSTRUCTION SCHEDULE SHALL BE SUBMITTED BY THE PROJECT CONTRACTOR TO THE CWSWA. THE PROJECT CONTRACTOR WILL ALSO IDENTIFY A QUALIFIED FOREMAN AT THE PRECONSTRUCTION MEETING. THE CWSWA SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

EXISTING UNDERGROUND UTILITIES COORDINATION NOTES:

1. THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON PLANS HAS BEEN OBTAINED FROM INFORMATION SUPPLIED BY DELDOT. NEITHER THE OWNER OR THE ARCHITECT/ENGINEER ASSUMES ANY RESPONSIBILITY IN RESPECT TO ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION SHOWN. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIALS OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED DURING CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH UTILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE OWNER OF HIS OPERATIONAL PLANS. IN THE EVENT OF AN UNEXPECTED UTILITY INTERFERENCE DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER. ANY SUCH MAINS AND/OR SERVICES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.

2. PRIOR TO PERFORMING ANY EXCAVATION GREATER THAN 6 INCHES, THE CONTRACTOR SHALL COORDINATE WITH CWSWA AND ALL OTHER UTILITY COMPANIES TO DETERMINE THE LOCATION OF UNDERGROUND UTILITY LINES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL ORGANIZATIONS THAT CONTROL EXISTING UNDERGROUND UTILITIES IN THE CONSTRUCTION AREA OR WOULD BE AFFECTED BY CONSTRUCTION WORK AROUND THE EXISTING UTILITIES.

3. THE CONTRACTOR SHALL NOT START EXCAVATION UNTIL ALL UTILITY LINE LOCATIONS HAVE BEEN STAKED OR OTHERWISE CLEARLY MARKED AND DOCUMENTATION FURNISHED TO THE OWNER. ALL MARKINGS SHALL BE CONSIDERED APPROXIMATE, AND UTILITIES OTHER THAN THOSE SHOWN SHALL BE CONSIDERED TO EXIST.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEFINITE LOCATION OF EACH UTILITY WITHIN THE WORK AREA. CARE SHALL BE EXERCISED DURING EXCAVATION WORK TO AVOID DAMAGING OR DISRUPTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF REPAIR FOR DAMAGE TO ANY UTILITY CAUSED BY THE CONTRACTOR'S WORK.

5. WHERE EXISTING UNDERGROUND UTILITIES OR OTHER CONSTRUCTION ARE EXPECTED TO BE IN PROXIMITY TO PROPOSED CONSTRUCTION, OR WHEN APPROACHING EXISTING UTILITIES OR STRUCTURES FOR CONNECTIONS, THE CONTRACTOR SHALL DIG TEST PITS TO DETERMINE THE EXACT LOCATION AND INVERTS OF THE EXISTING UTILITY TO ALLOW FOR POSSIBLE CHANGES TO THE PROPOSED UTILITY IN LINE AND/OR GRADE. THE CONTRACTOR SHALL ALSO DIG TEST PITS IN THE LOCATION OF THE PROPOSED CONNECTIONS TO EXISTING UTILITIES AND SHALL MAKE ALL MEASUREMENTS NECESSARY TO ENSURE PROPER CONNECTION. WHEN TEST PITS SHOW THE UTILITY LOCATION AS SHOWN TO BE IN ERROR, THE CONTRACTOR SHALL SO NOTIFY CWSWA AND DELDOT. ANY NECESSARY CHANGES IN LINE OR GRADE OF WORK CAUSED BY FAILURE TO TAKE SUCH PRECAUTIONS SHALL BE AT THE EXPENSE OF THE CONTRACTOR. ALL COSTS ARE INCIDENTAL TO 710600.

6. WHEN IT IS NECESSARY TO EXCAVATE NEAR OR INTERFERE WITH ANY UTILITY, SEWER LINE, WATER SERVICES, DRAINAGE PIPE, CATCH BASIN, CULVERT, OR OTHER STRUCTURES, THE CONTRACTOR SHALL MAINTAIN THE SAME IN WORKING ORDER AND SHALL REPAIR AND MAKE GOOD ANY DAMAGE DONE DURING THE PROGRESS OF THE WORK AT THE EXPENSE OF THE CONTRACTOR.

7. WHERE EXISTING UTILITIES CROSS THE TRENCH EXCAVATION, THEY SHALL BE ADEQUATELY SUPPORTED AND PROTECTED FROM DAMAGE DUE TO CONSTRUCTION. ALL METHODS FOR SUPPORTING AND MAINTAINING THESE UTILITIES SHALL BE SUBJECT TO REVIEW BY THE UTILITY OWNER. CARE SHALL BE TAKEN TO ENSURE THAT THE EXISTING UTILITY GRADES AND ALIGNMENT ARE MAINTAINED AND ANY PIPE JOINTS ARE NOT DISTURBED. BACKFILL SHALL BE CAREFULLY PLACED AND TAMPED TO PREVENT DAMAGE OR FUTURE SETTLEMENT. ANY DAMAGE OR MISALIGNMENT OF THE UTILITIES DUE TO CONSTRUCTION OR SETTLEMENT SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. ALL COSTS FOR SUPPORTING OR BRACING UTILITIES UNDERGROUND OR AERIAL ARE INCIDENTAL TO ITEM 710600.

8. ANY UNPROTECTED CABLE (DIRECT BURIED) ENCOUNTERED THAT IS VERIFIED AS NOT ABANDONED IN PLACE SHALL BE PROTECTED. THE UTILITY OWNER MAY DIRECT THE CABLE BE PLACED IN SPLIT DUCT OF APPROPRIATE SIZE AND CONCRETE ENCASED THROUGH THE AREA OF CONSTRUCTION. CONTRACTOR SHALL TAKE ALL REASONABLE MEASURES TO AVOID HAVING TO CUT AND SPLICE DIRECT BURIED CABLE. THE CONTRACTOR SHALL NOTE SPLIT DUCT PORTIONS ON AS-BUILTS. ALL COSTS ARE INCIDENTAL TO THE ITEM BEING PLACED THAT NECESSITATED THE UTILITY PROTECTION.

9. ALL SUITABLE EXCESS EXCAVATED MATERIALS SHALL BE USED AS TRENCH BACKFILL AND ANY EXCESS SHALL BE DISPOSED OF OFFSITE. ALL COSTS FOR EXCAVATION, BACKFILL, BACKFILLING AND DISPOSAL ARE INCIDENTAL TO ITEM 710600. USE ONLY SUITABLE GRANULAR MATERIAL APPROVED BY THE CWSWA ENGINEER FOR BACKFILLING TRENCHES.

10. INTERRUPTION OF EXISTING UTILITIES SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND/OR AT THE DIRECTION OF THE UTILITY OWNER(S). PROPER NOTIFICATION SHALL BE PROVIDED BY THE CONTRACTOR AND APPROVAL RECEIVED FROM THE UTILITY OWNER, PRIOR TO INTERRUPTION OF ANY UTILITIES.

LEGEND	
⊕	UTILITY TEST HOLE LOCATION
F.H.	EXISTING FIRE HYDRANT
W.M.	EXISTING WATER METER
W.V.	EXISTING WATER VALVE
F.H.	PROPOSED FIRE HYDRANT
W.M.	PROPOSED WATER METER
W.V.	PROPOSED WATER VALVE

INDEX OF SHEETS

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CEN	TABULATION AND SUMMARY SHEET	249
CEN	HORIZONTAL AND VERTICAL CONTROL	250
CEN	PLANS	251-256
CEN	DETAILS	257-260
CEN	SEQUENCE OF CONSTRUCTION AND SCHEDULES	261

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE: 3/1/2024

PREPARED BY

CENTURY ENGINEERING
A Kleinfelder Company
550 BAY ROAD
DOVER, DE 19901
(302) 734-9188

ANDREW JAKUBOWITCH — LICENSE — NO. 13906 — DELAWARE — PROFESSIONAL ENGINEER

SEAL

RECOMMENDED — DATE: 2/6/2024

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ADDENDA / REVISIONS	

NOT TO SCALE

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CAMDEN-WYOMING SEWER AND WATER AUTHORITY WATER RELOCATION NOTES

SECTION
CEN
SHEET NO.
251

CAMDEN-WYOMING SEWER AND WATER AUTHORITY GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED JUNE 2022 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED DECEMBER 2022, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.

2. ALL EXCAVATED AREAS FOR STRUCTURES AND PIPE TRENCHES SHALL BE KEPT FREE OF WATER UNTIL BACKFILL IS PROPERLY TAMPED IN PLACE TO FINISHED GRADES.

3. ALL AREAS DISTURBED DUE TO CONSTRUCTION ACTIVITIES SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

CAMDEN-WYOMING SEWER AND WATER AUTHORITY WATER RELOCATION PROJECT NOTES:

1. CONSTRUCTION DEWATERING
   A. ALL DEWATERING EQUIPMENT SUCH AS PUMPS, AIR COMPRESSORS, GENERATORS, ETC. PROPOSED FOR USE DURING CONSTRUCTION IN RESIDENTIAL AREAS SHALL BE PROVIDED WITH NOISE ENCLOSURES. ALL COSTS INCIDENTAL TO ITEM 710600.

   B. THERE IS NO DEWATERING PERMIT FOR THIS PROJECT. IF THE CONTRACTOR CONSIDERS THAT, AS PART OF ITS MEANS AND METHODS OF CONSTRUCTION, A DEWATERING PERMIT IS REQUIRED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SECURE THE REQUIRED PERMIT IN ORDER TO PROCEED WITH THE EXECUTION OF THE CONSTRUCTION. CONTRACTORS REQUIRED TO SUBMIT DEWATERING PLAN. ALL COSTS INCIDENTAL TO ITEM 710600.

2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND IMPROVEMENTS NOT DESIGNATED FOR REMOVAL AND SHALL RESTORE DAMAGED OR TEMPORARILY RELOCATED UTILITIES AND IMPROVEMENTS TO A CONDITION EQUAL TO OR BETTER THAN THEY WERE PRIOR TO SUCH DAMAGE OR TEMPORARY RELOCATION, ALL IN ACCORDANCE WITH REQUIREMENTS OF THE CONTRACT DOCUMENTS.

3. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS AND DEPTHS OF ALL UTILITIES SHOWN AND THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS OF ALL UTILITIES THAT MAY INTERFERE WITH THE WORK. ALL SUCH EXPLORATORY EXCAVATIONS SHALL BE PERFORMED AS SOON AS PRACTICABLE AFTER AWARD OF CONTRACT AND, IN ANY EVENT, A SUFFICIENT TIME IN ADVANCE OF CONSTRUCTION TO AVOID POSSIBLE DELAYS TO THE CONTRACTOR'S WORK. WHEN SUCH EXPLORATORY EXCAVATIONS SHOW THE UTILITY LOCATION AS SHOWN TO BE IN ERROR, THE CONTRACTOR SHALL SO NOTIFY CWSWA AND DELDOT. ALL COSTS INCIDENTAL TO 710600.

4. THE CONTRACTOR MAY BE REQUIRED TO COORDINATE THE BRACING OF UTILITY POLES WITH THE UTILITY OWNER. ANY REQUIRED ELECTRICAL OUTAGES SHALL BE INCLUDED IN THE CONTRACTOR'S CPM SCHEDULE AND ARE INCIDENTAL TO THE WORK BEING PERFORMED. THE CONTRACTOR WILL BE WORKING IN CLOSE PROXIMITY TO EXISTING OVERHEAD UTILITIES AND PROPER EQUIPMENT SHALL BE UTILIZED TO AVOID IMPACTS TO THE EXISTING FACILITY. ALL COSTS ARE INCIDENTAL TO THE CONTRACT AND WILL NOT BE CONSIDERED FOR ADDITIONAL TIME EXTENSIONS OR CAUSE FOR CONTRACT DELAY OR ADDITIONAL COMPENSATION.

5. CONTRACTOR SHALL INSTALL THRUST BLOCKS PER CWSWA STANDARDS AND ALL COSTS ARE INCIDENTAL TO ITEM 710600. THRUST BLOCKS FOR WATER MAINS SHALL BE PROVIDED AT ALL BENDS, TEES, PLUGS, CAPS, AND FIRE HYDRANTS ON PROPOSED WATER MAINS PER DETAILS. ANCHOR AND ROD ALL HYDRANTS USING MEGA LUG RESTRAINTS ON ALL JOINTS AND FITTINGS.

6. CONTRACTOR MAY BE REQUIRED TO MODIFY THRUST BLOCKS AS DETERMINED BY THE ENGINEER AND OWNER IN THE FIELD.

7. REMOVAL OF EXISTING CONCRETE THRUST BLOCKS ARE INCIDENTAL TO ITEM 710600.

8. CONTRACTOR SHALL STAKE ELEVATION AND LOCATION OF PROPOSED WATER LINE FOR APPROVAL BY ENGINEER PRIOR TO INSTALLATION. CONTRACTOR SHALL AS-BUILT INSTALLED WATER LINE AT THE END OF EACH WORK DAY. ALL COSTS ARE INCIDENTAL TO ITEM 710600.

9. THE CONTRACTOR SHALL FOLLOW THE APPROVED PLAN FOR LAYOUT OF THE PROPOSED FACILITIES. IF THE CONTRACTOR DEVIATES FROM THE PLAN AND A CONFLICT IS PRODUCED, NO ADDITIONAL COMPENSATION OR TIME EXTENSIONS SHALL BE PROVIDED TO RESOLVE.

10. WATER DISTRIBUTION SYSTEM SHALL BE IN ACCORDANCE WITH THE MOST CURRENT CWSWA REGULATIONS CONCERNING WATER SUPPLY AND DISTRIBUTION OF WATER SUPPLY. MAINS SHALL BE INSTALLED WITH A MINIMUM OF 48" COVER.

11. CONTRACTORS SHALL EXTEND WATER LINES BELOW ANY CONFLICTS OR OBSTRUCTIONS TO PROVIDE REQUIRED CLEARANCES.

12. THROUGHOUT THE PROJECT, WHERE WATER MAINS ARE LOCATED IN, ACROSS OR ADJACENT TO DRAINAGE DITCHES AND SWALES, THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION AND STABILIZE AND VEGETATE AS REQUIRED.

13. PROPOSED WATER MAINS SHALL BE PVC PIPE, AWWA C-900, UNLESS NOTED OTHERWISE. WATER SERVICES SHALL BE 1 INCH P.E., SDR-9 PIPE.

14. FIRE HYDRANTS SHALL BE AMERICAN DARLING B-62-B (OR APPROVED EQUAL) WITH CWSWA STANDARD THREADS. ALL FIRE HYDRANTS SHALL BE PROVIDED WITH A RESILIENT SEATED GATE VALVE.

15. ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED BEFORE ACCEPTANCE.

16. DIMENSIONS SHOWN ARE TO THE CENTERLINE OF PIPE OR FITTING.

17. FIRE HYDRANTS SHALL BE COLOR CODED IN ACCORDANCE WITH THE DELAWARE STATE FIRE PREVENTION REGULATIONS PART III, SECTION 3-4. THIS INCLUDES BOTH COLOR CODING THE BONNET IN ACCORDANCE WITH THE CWSWA REGULATIONS AND 2.5" X 28" REFLECTIVE TAPE AROUND THE BARREL UNDER THE TOP FLANGE. NUMBERS FOR HYDRANTS WILL BE PROVIDED BY THE CWSWA.

18. ALL PROPOSED WATER MAINS AND SERVICES SHALL BE INSTALLED WITH A TRACER WIRE CONTINUOUSLY ALONG AND DIRECTLY ADHERED TO THE PIPE. ALL WATER MAINS SHALL ALSO HAVE MAGNETIC PIPE DETECTION TAPE INSTALLED DIRECTLY 2' ABOVE AND CONTINUOUSLY ALONG THE PIPE.

19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING REDLINE DRAWINGS DURING CONSTRUCTION AND PROVIDE CAD AS-BUILT DRAWINGS UPON COMPLETION OF THE PROJECT PRIOR TO ACCEPTANCE.

CAMDEN-WYOMING SEWER AND WATER AUTHORITY STERILIZATION OF WATER MAINS NOTES:

1. THE CONTRACTOR SHALL DISINFECT ALL WATER MAINS IN ACCORDANCE WITH AWWA STANDARD C601, LATEST EDITION.

CAMDEN-WYOMING SEWER AND WATER AUTHORITY TESTING OF WATER MAINS:

1. THE CONTRACTOR SHALL FURNISH ALL LABOR, TOOLS, MATERIALS, INCLUDING WATER AND EQUIPMENT, PUMPS, COMPRESSORS, STOPWATCH, GAUGES, AND METERS SUBJECT TO THE APPROVAL OF THE CWSWA FOR TESTING IN ACCORDANCE WITH THESE SPECIFICATIONS. ALL WORK ASSOCIATED WITH WATER TESTING SHALL BE INCIDENTAL TO ITEM 710600 - WATERMAIN AND ACCESSORIES, CWSWA.

2. THE CWSWA SHALL BE NOTIFIED IN ADVANCE OF ALL TESTS, AND ALL TESTS SHALL BE CONDUCTED TO ITS ENTIRE SATISFACTION.

3. PRESSURE TEST- UPON COMPLETION OF PIPE INSTALLATION AND BACKFILLING, ALL NEWLY LAID PIPE IN ANY VALVED SECTION THEREOF SHALL BE SUBJECTED TO A HYDROSTATIC PRESSURE TEST EQUAL TO 3 TIMES THE NORMAL OPERATING PRESSURE FOR DURATION OF 2 HOURS WITH THE PRESSURE MEASURED AT THE HIGHEST ELEVATION ALONG THE PIPE ALIGNMENT. THE PROCEDURE FOR THE TEST SHALL BE AS FOLLOWS:

   A. EACH VALVED SECTION OF PIPE SHALL BE SLOWLY FILLED WITH WATER AND THE SPECIFIED PRESSURE SHALL BE APPLIED BY MEANS OF A PUMP CONNECTION TO THE PIPE.

   B. BEFORE APPLYING THE SPECIFIED PRESSURE, ALL AIR SHALL BE EXPELLED FROM THE PIPE. IF PERMANENT AIR VENTS ARE NOT LOCATED AT HIGH POINTS, FIRE HYDRANTS OR CORPORATION STOPS SHALL BE USED SO THAT AIR CAN BE EXPELLED.

4. LEAKAGE TEST- AFTER SATISFACTORY COMPLETION OF A PRESSURE TEST, THE CONTRACTOR SHALL CONDUCT A LEAKAGE TEST. THE CONTRACTOR SHALL FURNISH ALL NECESSARY TOOLS AND MATERIALS. LEAKAGE SHALL BE DEFINED AS THE QUANTITY OF WATER THAT MUST BE SUPPLIED INTO A NEWLY LAID PIPE OR ANY VALVED SECTION, TO MAINTAIN THE SPECIFIED LEAK PRESSURE. AFTER AIR IN THE PIPELINE HAS BEEN EXPELLED AND THE PIPE HAS BEEN FILLED WITH WATER, THE ALLOWABLE LEAKAGE SHALL NOT BE MORE THAN 25 GALLONS OF WATER PER INCH OF DIAMETER OF PIPE PER MILE OF PIPE TESTED PER 24 HOURS AT A PRESSURE OF 100 P.S.I, MEASURED AT THE HIGHEST LINE ELEVATION. LEAKAGE TEST SHALL BE CARRIED OUT NOT LESS THAN 8 HOURS DURATION AND THE ALLOWABLE LEAKAGE PRORATED ACCORDINGLY.

5. BACTERIA TEST- AFTER SATISFACTORY COMPLETION OF A LEAKAGE/PRESSURE TEST, THE CONTRACTOR MUST CONTACT A DELAWARE STATE APPROVED LABORATORY TO GATHER A SAMPLE OF THE WATER FOR TESTING PURPOSES. FINAL APPROVAL WILL NOT BE GIVEN FOR THE PROJECT UNTIL A CERTIFICATE TO OPERATE HAS BEEN DELIVERED TO THE CWSWA BY THE OFFICE OF DRINKING WATER.

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE: 3/1/2024

PREPARED BY
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ANDREW JAKUBOWICH — LICENSE NO. 13906 — DELAWARE PROFESSIONAL ENGINEER
SEAL

RECOMMENDED — DATE: 2/6/2024

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO.	N/A	CAMDEN-WYOMING SEWER AND WATER AUTHORITY WATER RELOCATION NOTES	SECTION
				T201709502	DESIGNED BY:	L. HAXTON		CEN
				COUNTY	CHECKED BY:	J. FREY		SHEET NO.
				KENT				252

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CAMDEN-WYOMING SEWER AND WATER AUTHORITY SEWER RELOCATION PROJECT NOTES:

1. SANITARY SEWER CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT CWS&WA STANDARDS. WHERE SUCH STANDARDS DO NOT EXIST FOR APPLICABLE WORK TO BE PERFORMED, THEN THE CONTRACTOR SHALL USE THE MOST CURRENT KENT COUNTY STANDARD SPECIFICATIONS AND DETAILS.

2. INSTALLATION OF THE SANITARY SEWER SHALL FOLLOW THE MOST RECENT RECOMMENDED 10 STATE STANDARDS FOR SEWERAGE WORK. SEWERS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM WATER MAINS AND SEWERS CROSSING WATER MAINS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 18" TO OUTSIDE OF PIPES. NO LATERAL DROPS WILL BE ALLOWED. IF A 18" CLEARANCE CANNOT BE OBTAINED, A 10 L.F. CONCRETE ENCASEMENT SHALL BE USED.

3. USE ONLY SUITABLE GRANULAR MATERIAL APPROVED BY THE CWS&WA INSPECTOR FOR BACKFILLING TRENCHES.

4. SANITARY SEWER LATERALS SHALL BE 6". SEWER LATERALS SHALL INCLUDE A 6" CLEANOUT, WYE, AND CAP JUST BEHIND THE RIGHT OF WAY LINE. CLEANOUTS IN DRIVEWAYS SHALL BE AVOIDED, BUT IF NECESSARY, THEY MUST HAVE A TRAFFIC BEARING COVER THAT READS "SEWER" ON THE LID.

5. FITTINGS SHOWN ON THE PLANS ILLUSTRATE ANTICIPATED SIZE AND ANGLE OF DEFLECTION. THIS INFORMATION IS SHOWN FOR GENERAL INFORMATION ONLY AND IS NOT GUARANTEED. ACTUAL SIZE AND ANGLE MAY VARY DUE TO FIELD CONDITIONS. THE CONTRACTOR WILL NOT BE ENTITLED TO ADDITIONAL COMPENSATION FOR CHANGES RESULTING FROM SUCH CONDITIONS.

6. UNLESS OTHERWISE SPECIFIED, PROPOSED SANITARY SEWER LINES SHALL BE POLYVINYLCHLORIDE (PVC), SDR-35, IN ACCORDANCE WITH ASTM DESIGNATION D-3034 WITH PUSH ON JOINTS IN ACCORDANCE WITH ASTM DESIGNATION D-3212. SANITARY SEWER MAINS MORE THAN 14' DEEP SHALL BE SDR-26 OR OTHER MATERIAL APPROVED BY THE CWS&WA.

7. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.

8. TOP OF MANHOLE ELEVATIONS ARE TOP OF MANHOLE FRAME AND COVER.

9. PIPE SPAN LENGTHS ARE MEASURED FROM CENTERLINE OF STRUCTURE TO CENTERLINE OF STRUCTURE AND WHERE APPLICABLE ARE ROUNDED TO THE NEAREST FOOT.

10. THE CONTRACTOR SHALL FIELD VERIFY INVERTS AND LOCATION OF EXISTING SANITARY SEWER MAINS OR MANHOLES TO WHICH NEW CONSTRUCTION WILL CONNECT.

11. PRIOR TO THE ACCEPTANCE OF THE SANITARY SEWER, ALL LINES SHALL BE TESTED AS REQUIRED BY THE CWS&WA WHICH INCLUDES BUT IS NOT LIMITED TO A PRESSURE TEST, MANDRILL TEST AND A VIDEO INSPECTION OF THE MAINS. ALL TESTING IS INCIDENTAL TO ITEM 711008 - INSTALLING SANITARY SEWER, PVC 6".

12. THE LOWEST ELEVATION TO BE SERVED WITH PLUMBING FIXTURES FOR EACH HOUSE IS THE FINISHED FLOOR ELEVATION (F.F.) INDICATED ON THE PLAN. THE LOWEST FLOOR ELEVATION TO BE SERVED SHALL BE NO LESS THAN 5' ABOVE THE SANITARY SEWER MAIN FROM WHICH SERVICE IS PROVIDED.

13. SANITARY SEWER FORCE MAIN SHALL BE INSTALLED WITH A TRACER WIRE CONTINUOUSLY ALONG AND DIRECTLY ADHERED TO THE PIPE. MAGNETIC PIPE DETECTION TAPE SHALL ALSO BE INSTALLED CONTINUOUSLY ALONG AND 2' DIRECTLY ABOVE THE TOP OF THE PIPE.

14. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND ACCEPTANCE OF THE SANITARY SEWERS BY THE CWS&WA FOLLOWING ALL TEST COMPLIANCE.

15. WATER TIGHT MANHOLE INSERTS SHALL BE INSTALLED IN ALL SANITARY SEWER MANHOLES. NO INSIDE DROPS WILL BE PERMITTED FOR SANITARY MANHOLE INSTALLATION.

16. PAYMENT FOR PVC GRAVITY SEWER PIPE SHALL BE UNDER ITEM 711008 - INSTALLING SANITARY SEWER, PVC, 6".

17. ALL MANHOLES SHALL CONFORM TO CWSWA STANDARD DETAILS. PAYMENT, INCLUDING DE 57 STONE FOR FOUNDATION, SHALL BE UNDER ITEM 602035 - MANHOLE, ROUND.

CAMDEN-WYOMING SEWER AND WATER AUTHORITY TESTING OF GRAVITY SEWERS

1. PRIOR TO THE REQUEST FOR INSPECTION BY THE CWSWA INSPECTOR, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL COMPLETED PIPELINES TO INSURE THAT THEY ARE LAID TO PROPER ALIGNMENT AND ARE FREE FROM FOREIGN MATERIAL. AFTER THIS HAS BEEN COMPLETED TO THE SATISFACTION OF THE CWSWA INSPECTOR, TESTS SHALL BE MADE ON ALL PORTIONS OF THE SEWERS BUILT UNDER THE CONTRACT. THE CONTRACTOR SHALL COOPERATE AND FURNISH ALL ASSISTANCE NECESSARY TO PERFORM THE TESTS AS SPECIFIED HEREIN AND TO THE SATISFACTION OF THE CWSWA INSPECTOR.

2. GRAVITY SEWERS SHALL BE TESTED FOR DEFLECTION (REDUCTION IN VERTICAL INSIDE DIAMETER AND MISALIGNMENT). TESTING SHALL BE PERFORMED BY PASSING A 5 PERCENT UNDERSIZED MANDREL OR SEWER BALL THROUGH THE PIPELINE. MAXIMUM DEFLECTION SHALL BE 5 PERCENT.

3. A LOW PRESSURE AIR TEST SHALL BE PERFORMED TO INSURE THE PIPING IS FREE OF LEAKS. THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT AND PERSONNEL TO CONDUCT THE TEST IN ACCORDANCE WITH THE FOLLOWING PROCEDURE: 1. ALL BRANCH FITTINGS AND ENDS OF LATERAL STUBS SHALL BE PLUGGED SECURELY TO WITHSTAND THE INTERNAL TEST PRESSURE. THE SECTION OF LINE BEING TESTED SHALL ALSO BE SECURELY PLUGGED AT EACH MANHOLE. ALL STOPPERS SHALL BE ADEQUATELY BRACED WHEN REQUIRED.
2. AIR SHALL BE SLOWLY SUPPLIED TO THE PLUGGED LINE UNTIL THE INTERNAL AIR PRESSURE REACHES 5 P.S.I. THIS PRESSURE MUST HOLD FOR A MINIMUM OF 5 MINUTES WITH NO MORE THAN 2/10 OF A POND DROP IN PRESSURE. IF THE TEST FAILS, THE CONTRACTOR MUST FURNISH ALL PERSONNEL AND EQUIPMENT NECESSARY TO REPAIR THE DAMAGED PIPE LINE AND COMPLETE ANOTHER PRESSURE TEST UNTIL IT PASSES THE REQUIRED TEST.

4. A COMPLETE VIDEO INSPECTION OF ALL SANITARY SEWER MAINS WILL BE COMPLETED BEFORE FINAL ACCEPTANCE CAN BE GRANTED. THE DEVELOPER/CONTRACTOR MAY CHOOSE AN INSPECTION COMPANY AT HIS/HER DISCRETION. HOWEVER, THE SELECTED VIDEO INSPECTION COMPANY MUST FIRST BE APPROVED BY THE CWSWA SUPERINTENDENT PRIOR TO THE COMMENCEMENT OF ANY INSPECTION ACTIVITIES. THE CWSWA CURRENTLY CHARGES $1.28/L.F. OF PIPE. ANY OUTSIDE SOURCES OF VIDEO INSPECTION SHALL BE REQUIRED TO PROVIDE ALL RECORDS OF INSPECTION TO THE CWSWA. THE INSPECTION RESULTS SHALL BE REVIEWED BY THE CWSWA INSPECTOR AND ANY DEFECTS FOUND SHALL BE REPAIRED BY THE CONTRACTOR AT HIS/HER EXPENSE AND A NEW VIDEO INSPECTION OF THE DEFECTIVE MAIN SHALL BE PERFORMED AND RESUBMITTED TO THE CWSWA. ANY VIDEO INSPECTION PERFORMED BY AN OUTSIDE SOURCE WILL BE REQUIRED TO PROVIDE A NOTICE OF NO LESS THAN 48 HOURS TO THE CWSWA BEFORE INSPECTION CAN BEGIN.

NOTE: FINAL APPROVAL FOR CONSTRUCTED FACILITIES WILL NOT BE GRANTED UNTIL ALL CONSTRUCTION HAS BEEN COMPLETED AND TESTED IN ACCORDANCE WITH THE ABOVE. ANY RE-INSPECTION/RE-VIDEO INSPECTION, AND/OR RE-TESTING THAT, AT THE SOLE DISCRETION OF THE CWSWA, NEED TO BE PERFORMED (DUE TO THE PASSAGE OF TIME SINCE THE COMPLETION OF THE CONSTRUCTION, FOR EXAMPLE). MUST BE COMPLETED PRIOR TO FINAL APPROVAL OF THE CONSTRUCTED FACILITIES.

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE 3/1/2024

PREPARED BY

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ANDREW JAKUBOWITCH — LICENSE — NO. 13906 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

RECOMMENDED — DATE 2/6/2024

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT	BRIDGE NO.	N/A	CAMDEN-WYOMING SEWER AND WATER AUTHORITY SEWER RELOCATION NOTES	SECTION
				T201709502	DESIGNED BY: L. HAXTON			CEN
				COUNTY				SHEET NO.
				KENT	CHECKED BY: J. FREY			253

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LUMP SUM BREAKDOWN FOR ITEM 710600; INSTALLATION OF WATER MAIN AND ACCESSORIES, CWSWA; WEST CAMDEN BYPASS; DELDOT CONTRACT T201709502

SECTION DESIGNATION	ITEM NUMBER	PIPE SIZE AND TYPE	LENGTH	CASING	TOP OF PIPE EL IN	TOP OF PIPE EL OUT	REQUIRED VALVES
TCW-W-1 STATION 8000+00.00 TO STATION 8005+49.72 (ALL BENDS AND FITTINGS SHALL BE INCIDENTAL TO THE LINEAR FEET OF PIPE BEING INSTALLED)	710600	10" PVC	576 LF	(2) 18" STEEL @ 60'	44.19'	43.43'	2 EA, TIE-IN TO EXISTING 10" MAIN 4 EA, SERVICE CONNECTIONS 1 EA, ISOLATION VALVE 1 EA, FIRE HYDRANT ASSEMBLY
TCW-W-2 STATION 8100+00.00 TO STATION 8100+20.00 (ALL BENDS AND FITTINGS SHALL BE INCIDENTAL TO THE LINEAR FEET OF PIPE BEING INSTALLED)	710600	10" PVC	41 LF	N/A	42.10'	42.10'	2 EA, TIE-IN TO EXISTING 10" MAIN
TCW-W-3 STATION 8700+00.00 TO STATION 8700+21.09 (ALL BENDS AND FITTINGS SHALL BE INCIDENTAL TO THE LINEAR FEET OF PIPE BEING INSTALLED)	710600	10" PVC	43 LF	N/A	37.20'	37.53'	1 EA, TIE-IN TO EXISTING 10" MAIN 1 EA, TIE-IN TO EXISTING 4" MAIN
TCW-W-4 STATION 8200+00.00 TO STATION 8200+20.00 (ALL BENDS AND FITTINGS SHALL BE INCIDENTAL TO THE LINEAR FEET OF PIPE BEING INSTALLED)	710600	4" PVC	50 LF	N/A	38.22'	38.35'	2 EA, TIE-IN TO EXISTING 4" MAIN
TCW-W-5 STATION 8300+00.00 TO STATION 8300+20.00 (ALL BENDS AND FITTINGS SHALL BE INCIDENTAL TO THE LINEAR FEET OF PIPE BEING INSTALLED)	710600	4" PVC	52 LF	N/A	38.07'	38.51'	2 EA, TIE-IN TO EXISTING 4" MAIN
TCW-W-6 STATION 8400+00.00 TO STATION 8403+34.78 (ALL BENDS AND FITTINGS SHALL BE INCIDENTAL TO THE LINEAR FEET OF PIPE BEING INSTALLED)	710600	10" PVC	335 LF	(2) 18" STEEL @ 50'	38.38'	39.70'	2 EA, TIE-IN TO EXISTING 10" MAIN 3 EA, SERVICE CONNECTIONS
TCW-W-7 STATION 8500+00.00 TO STATION 8500+28.00 (ALL BENDS AND FITTINGS SHALL BE INCIDENTAL TO THE LINEAR FEET OF PIPE BEING INSTALLED)	710600	10" PVC	52 LF	N/A	40.68'	40.59'	2 EA, TIE-IN TO EXISTING 10" MAIN

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE 3/1/2024

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ANDREW JAKUBOWITCH — LICENSE NO. 13906 — DELAWARE PROFESSIONAL ENGINEER
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RECOMMENDED — DATE 2/6/2024

ADDENDA / REVISIONS

NOT TO SCALE

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A	SECTION
T201709502	DESIGNED BY:	L. HAXTON	CEN
COUNTY	CHECKED BY:	J. FREY	SHEET NO.
KENT			254

CAMDEN-WYOMING SEWER AND WATER AUTHORITY WATER AND SEWER RELOCATION TABULATION SHEET

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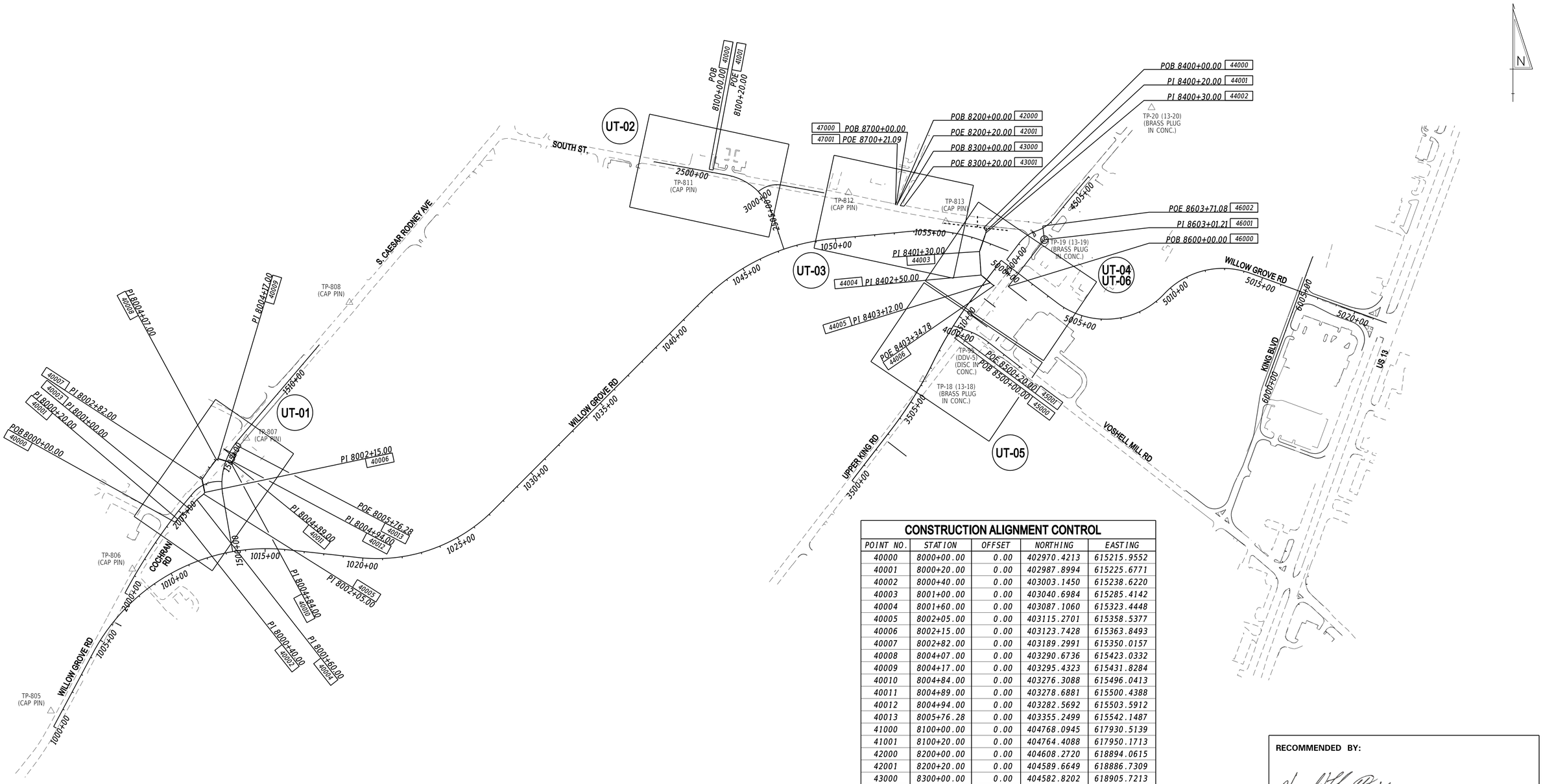

CONSTRUCTION ALIGNMENT CONTROL

POINT NO.	STATION	OFFSET	NORTHING	EASTING
40000	8000+00.00	0.00	402970.4213	615215.9552
40001	8000+20.00	0.00	402987.8994	615225.6771
40002	8000+40.00	0.00	403003.1450	615238.6220
40003	8001+00.00	0.00	403040.6984	615285.4142
40004	8001+60.00	0.00	403087.1060	615323.4448
40005	8002+05.00	0.00	403115.2701	615358.5377
40006	8002+15.00	0.00	403123.7428	615363.8493
40007	8002+82.00	0.00	403189.2991	615350.0157
40008	8004+07.00	0.00	403290.6736	615423.0332
40009	8004+17.00	0.00	403295.4323	615431.8284
40010	8004+84.00	0.00	403276.3088	615496.0413
40011	8004+89.00	0.00	403278.6881	615500.4388
40012	8004+94.00	0.00	403282.5692	615503.5912
40013	8005+76.28	0.00	403355.2499	615542.1487
41000	8100+00.00	0.00	404768.0945	617930.5139
41001	8100+20.00	0.00	404764.4088	617950.1713
42000	8200+00.00	0.00	404608.2720	618894.0615
42001	8200+20.00	0.00	404589.6649	618886.7309
43000	8300+00.00	0.00	404582.8202	618905.7213
43001	8300+20.00	0.00	404580.1847	618925.5469
44000	8400+00.00	0.00	404470.0867	619326.8278
44001	8400+20.00	0.00	404454.4251	619339.2663
44002	8400+30.00	0.00	404444.4903	619338.1267
44003	8401+30.00	0.00	404349.8216	619305.9112
44004	8402+50.00	0.00	404230.0982	619314.0172
44005	8403+12.00	0.00	404190.0028	619361.3073
44006	8403+34.78	0.00	404175.7823	619379.1056
45000	8500+00.00	0.00	403911.0728	619177.5535
45001	8500+20.00	0.00	403927.1033	619189.5127
46000	8600+00.00	0.00	404172.0548	619451.7678
46001	8603+01.21	0.00	404410.1787	619636.2197
46002	8603+71.08	0.00	404479.4981	619627.4153
47000	8700+00.00	0.00	404606.5710	618884.6840
47001	8700+21.09	0.00	404586.4627	618878.3208

HORIZONTAL / VERTICAL CONTROL DATA

POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEV.
TP-805	229+18.09	-49.79	402011.7711	614580.8895	55.28
TP-806	237+49.40	-27.05	402734.0988	614995.4415	49.45
TP-807	246+30.11	25.34	403399.9384	615575.3774	47.65
TP-808	254+96.06	-22.93	404090.6770	616099.8575	49.37
TP-811	18+27.65	-20.52	404752.6256	617831.3778	46.23
TP-812	10+14.61	26.28	404649.4485	618639.6205	43.16
13-18	392+28.04	-27.93	403698.7382	619018.0977	46.80
13-19	401+69.50	29.41	404409.8821	619637.7033	41.27
13-20	410+35.09	17.78	405081.9421	620181.2149	40.91
DDV-5	131+86.61	54.60	403902.5053	619242.8108	44.59
TP-813	5+01.59	-26.47	404502.3845	619134.4148	42.05

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE 3/1/2024

PREPARED BY

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ANDREW JAKUBOWITCH — LICENSE NO. 13906 — DELAWARE PROFESSIONAL ENGINEER — SEAL

RECOMMENDED — DATE 2/6/2024

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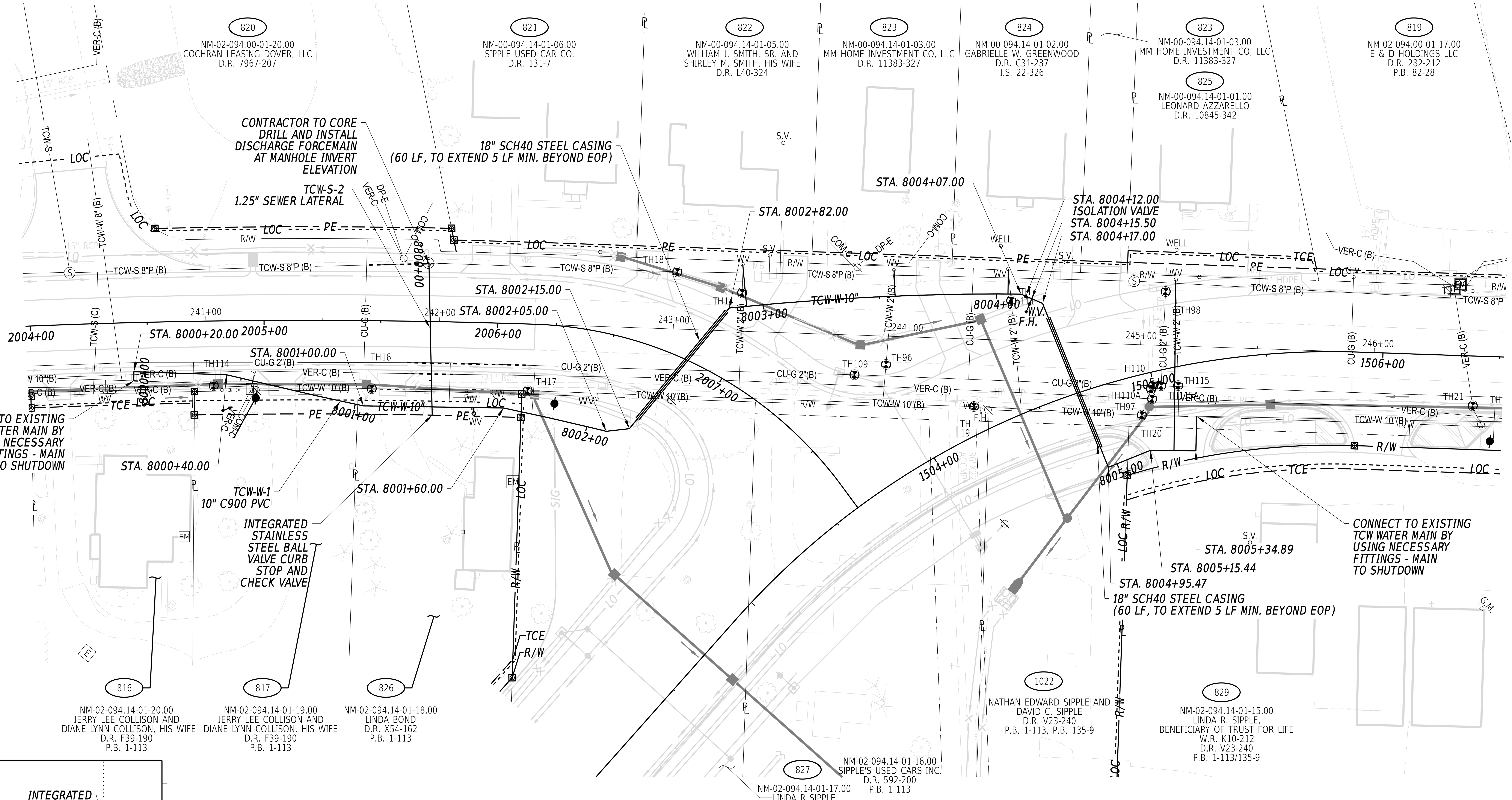
ADDENDA / REVISIONS

SCALE 0 250 500 750 FEET

WEST CAMDEN BYPASS

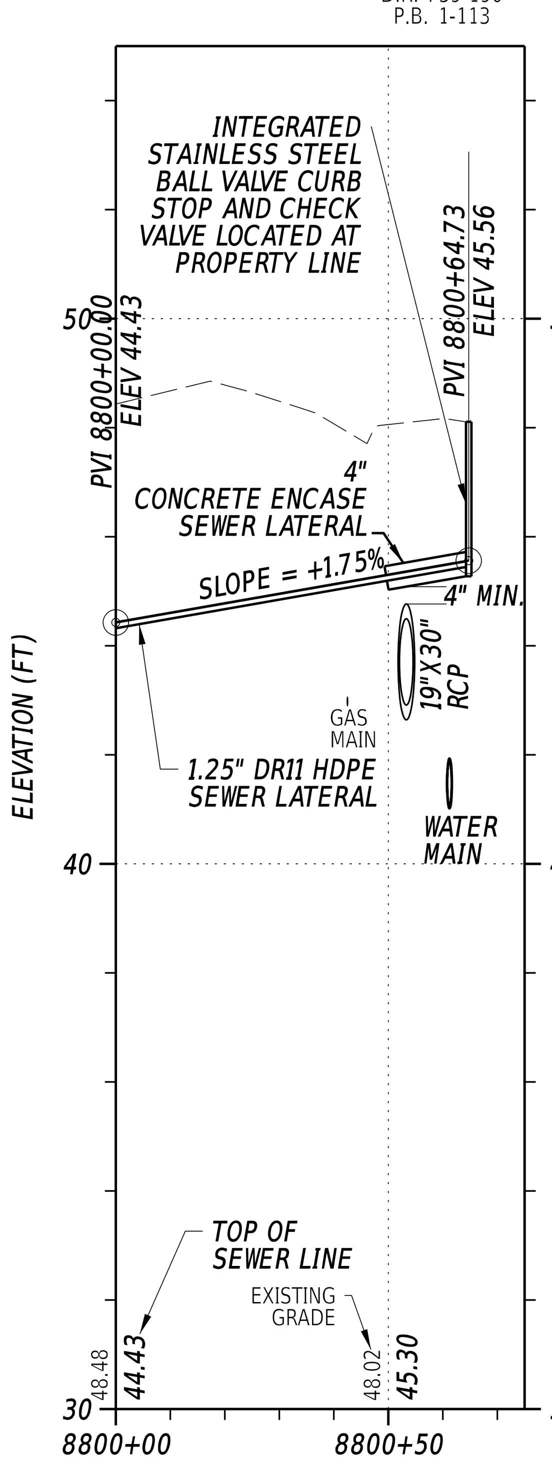
CONTRACT	BRIDGE NO.	N/A	SECTION
T201709502	DESIGNED BY:	L. HAXTON	CEN
COUNTY	CHECKED BY:	J. FREY	SHEET NO.
KENT			255

CAMDEN-WYOMING SEWER AND WATER AUTHORITY WATER/SEWER HORIZONTAL AND VERTICAL CONTROL

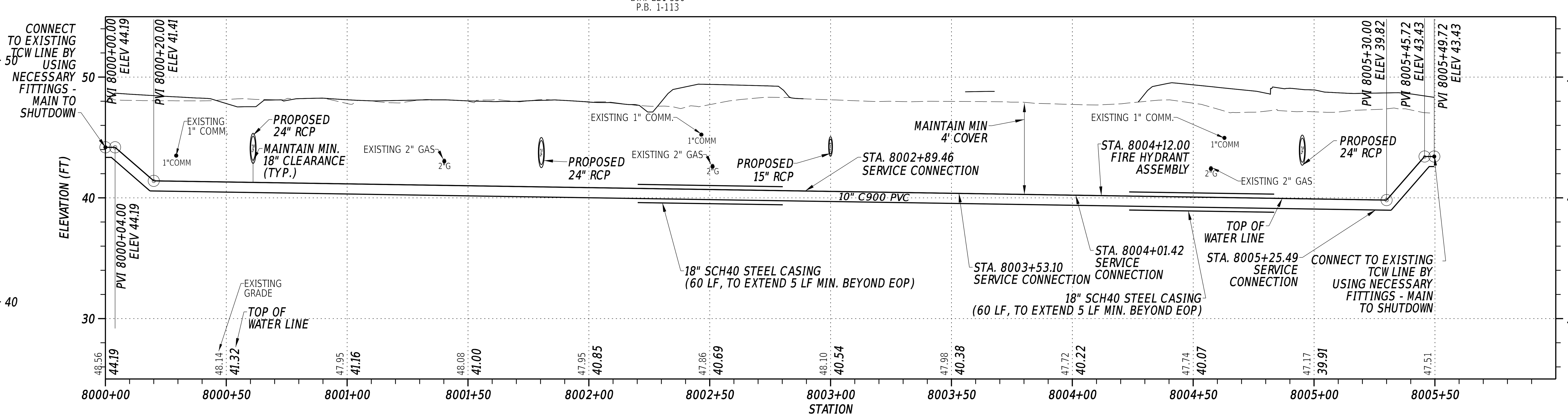


UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
14	TCW	243+28.93	16.41	48.14	3.74	2" PLASTIC
16	TCW	241+71.26	-29.07	48.26	3.21	10" PLASTIC
17	TCW	242+38.62	-28.52	48.27	3.40	10" PLASTIC
18	TCW	243+0.89	24.45	48.48	4.18	8" PLASTIC
19	TCW	244+29.65	-28.79	47.06	4.59	10" METAL
20	TCW	245+1.54	-30.08	46.91	3.65	10" PLASTIC
21	VERIZON	246+42.86	-21.29	47.39	2.02	3" BLACK CABLE
96	TCW	243+91.46	-12.09	47.90	3.36	2" PLASTIC
97	VERIZON	245+5.72	-22.94	46.92	2.00	3" BLACK CABLE
98	CHESAPEAKE	245+9.95	23.10	47.38	2.13	2" METAL
109	CHESAPEAKE	243+78.13	-16.94	47.71	5.45	3" METAL
110	CHESAPEAKE	245+5.98	-17.29	47.39	4.93	2" METAL
110A	DELDOT	245+5.14	-18.76	47.29	2.58	16" CONCRETE
111	TCW	244+44.06	16.97	47.87	4.52	2" PLASTIC
114	VERIZON	241+2.99	-27.63	48.53	2.55	1" BLACK CABLE
115	TCW	245+16.64	-16.90	47.49	3.81	2" PLASTIC
115A	CHESAPEAKE	245+9.39	-17.20	47.43	4.35	1" PLASTIC



TCW-S-2



TCW-W-1

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE: APR 18 2024

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company
550 BAY ROAD
DOVER, DE 19901
(302) 734-9188

ANDREW JAKUBOWITCH — LICENSE NO. 13906 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

RECOMMENDED — DATE: 3/27/2024

VERTICAL SCALE FEET: 0, 6, 12, 18

UT-01

26-MAR-2024 13:31
pw://deldot-pw.bentley.com:deldot-pw-01/Documents/01_Active_Projects/DelDOT_Capital_Projects/T201709502_CEI/400_CADD/420_ROAD/423_SHEET_DGN/UT01_RDSF_T201709502_CEI_CWSWA

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

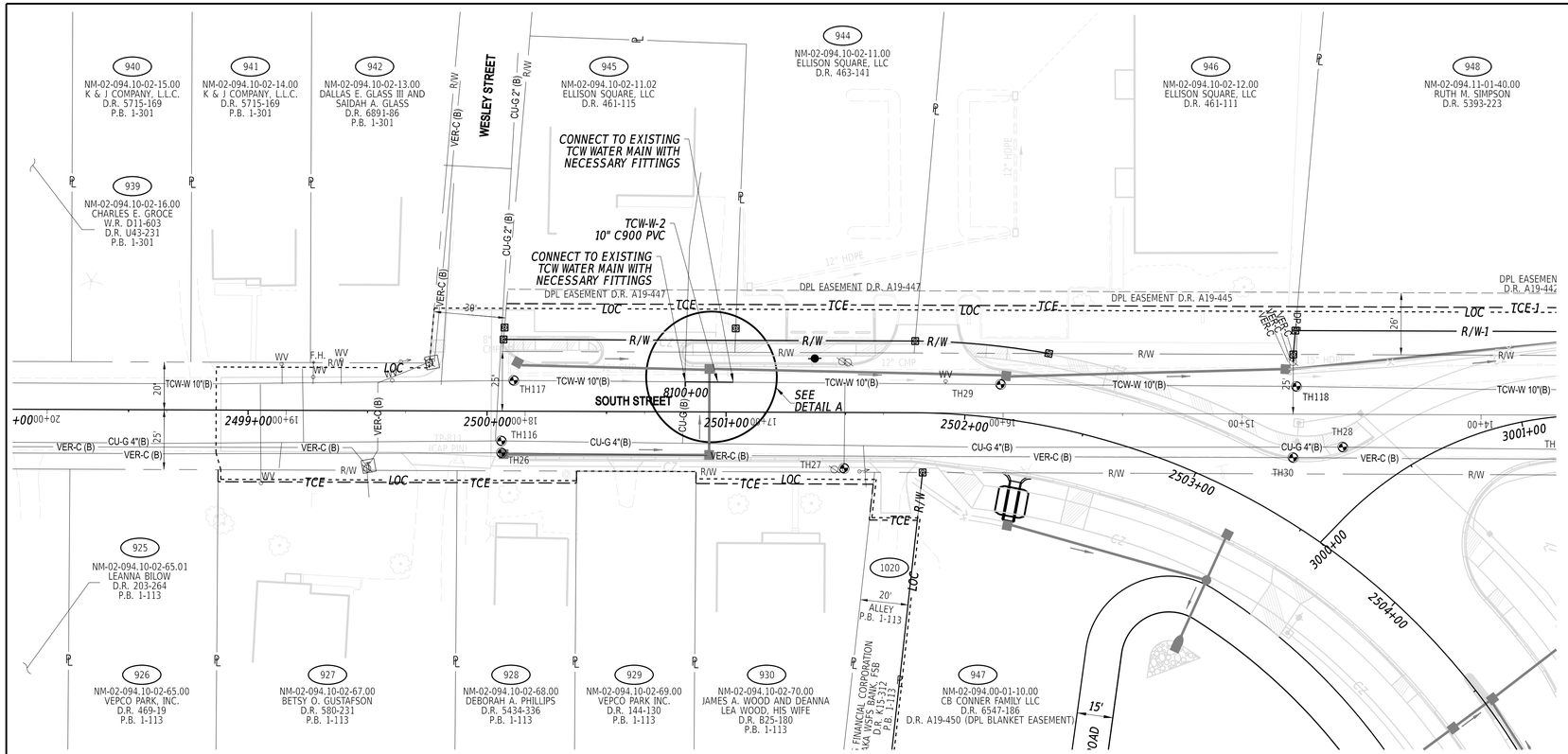
WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CAMDEN-WYOMING SEWER AND WATER AUTHORITY WATER RELOCATION PLAN 10" WATER MAIN

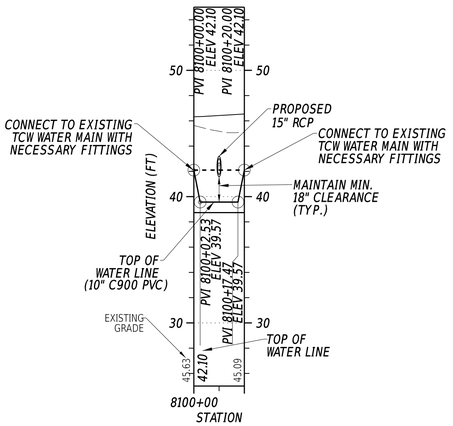
SECTION: CEN

SHEET NO. 256



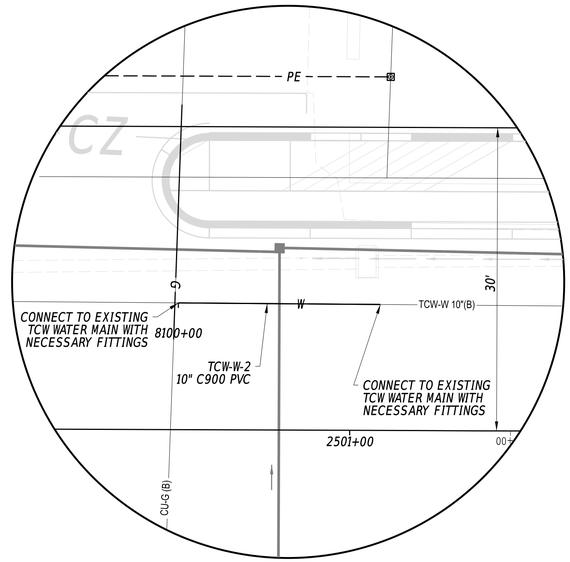
UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
26	VERIZON	18+9.80	-17.46	45.79	2.14	3" BLACK CABLE
27	TCW	16+66.44	-23.39	45.62	2.70	1" PLASTIC
28	CHESAPEAKE	14+57.79	-13.72	44.90	2.69	4" METAL
29	TCW	16+1.07	11.99	45.31	3.18	10" PLASTIC
30	VERIZON	14+78.56	-18.19	44.85	2.45	3" BLACK CABLE
116	CHESAPEAKE	18+9.88	-12.47	45.91	2.86	4" METAL
117	TCW	18+4.80	12.89	45.60	3.52	10" PLASTIC
118	TCW	14+77.27	11.59	44.88	3.06	10" PLASTIC



TCW-W-2 *

*NOTE: CONTRACTOR TO USE RESTRAINED PIPE FITTINGS



DETAIL A

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE 3/1/2024

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company
550 BAY ROAD
DOVER, DE 19901
(302) 734-9188

ANDREW JAKUBOWITCH LICENSE NO. 13906 DELAWARE PROFESSIONAL ENGINEER
SEAL

RECOMMENDED — DATE 2/6/2024

VERTICAL SCALE FEET 0 6 12 18

ADDENDA / REVISIONS	

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CAMDEN-WYOMING SEWER AND WATER AUTHORITY WATER RELOCATION PLAN 10" WATER MAIN

UT-02
SECTION CEN
SHEET NO. 257

5-FEB-2024
15:12
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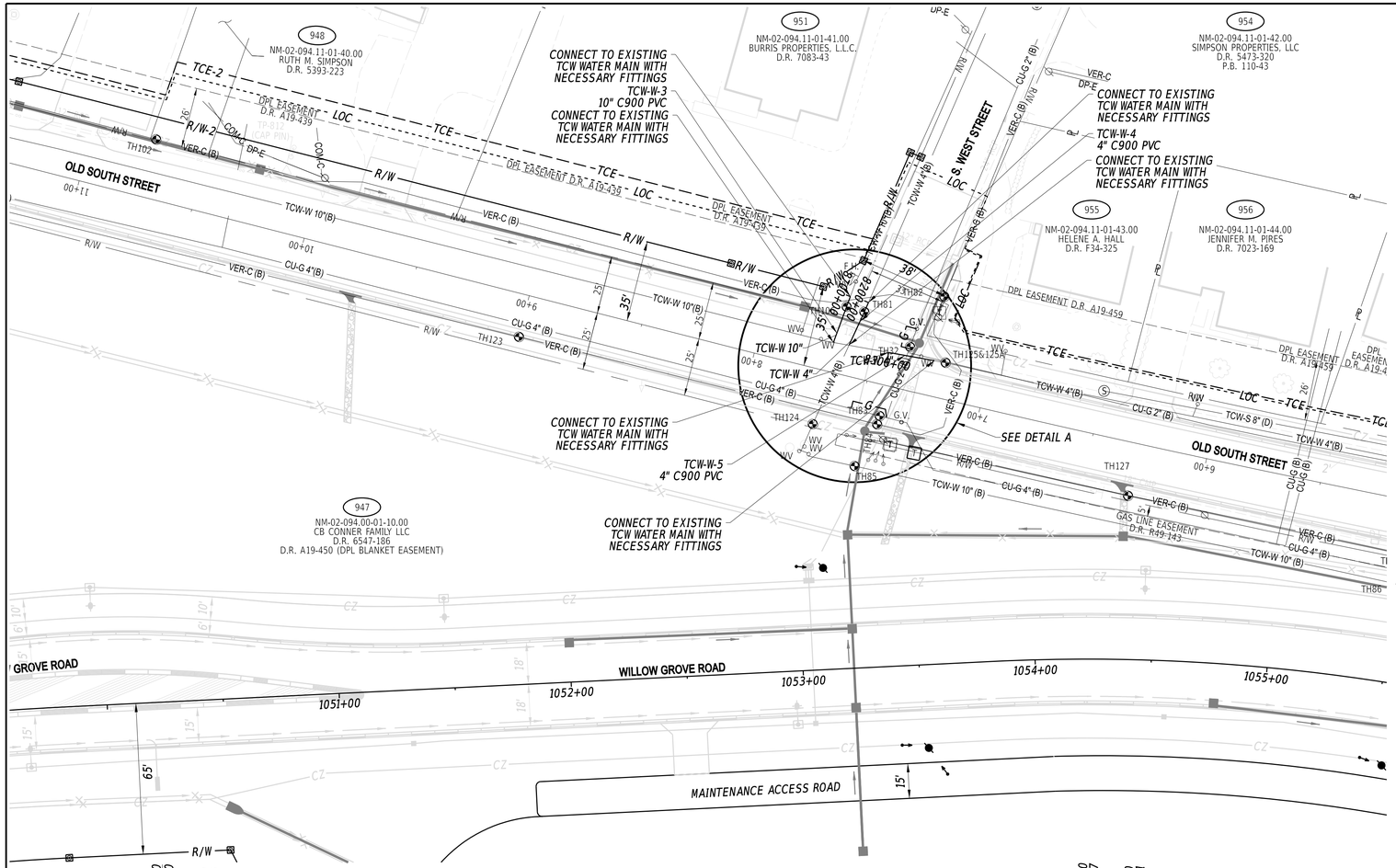
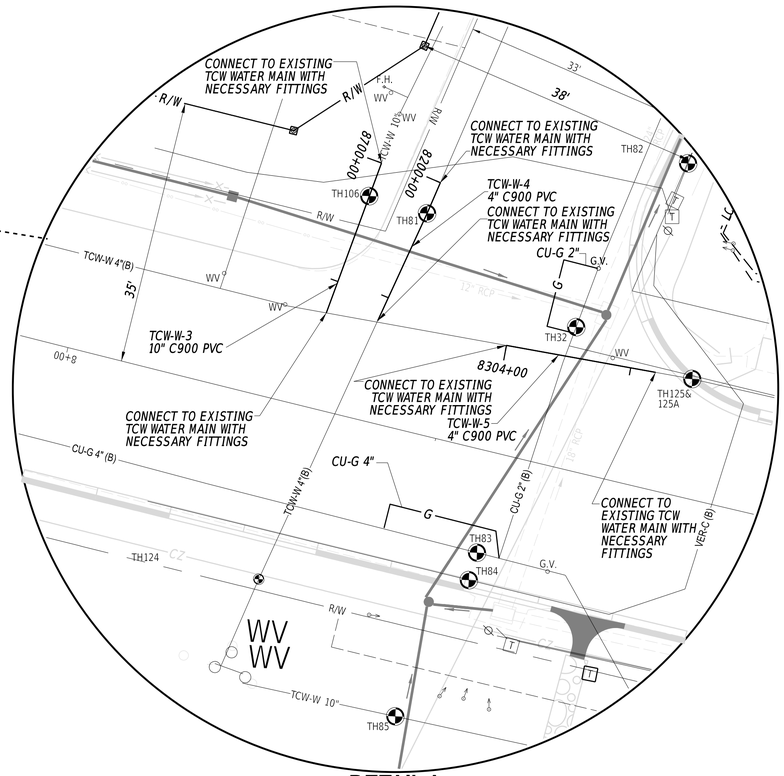
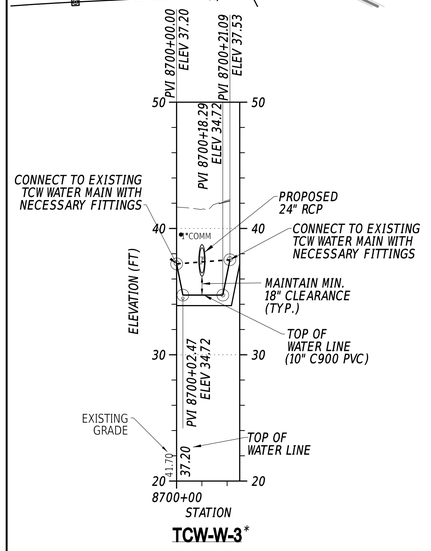
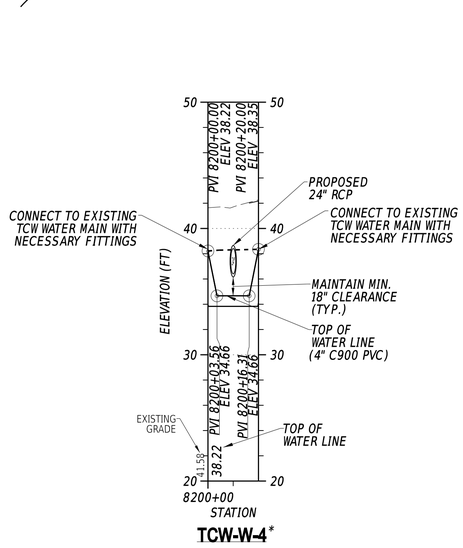
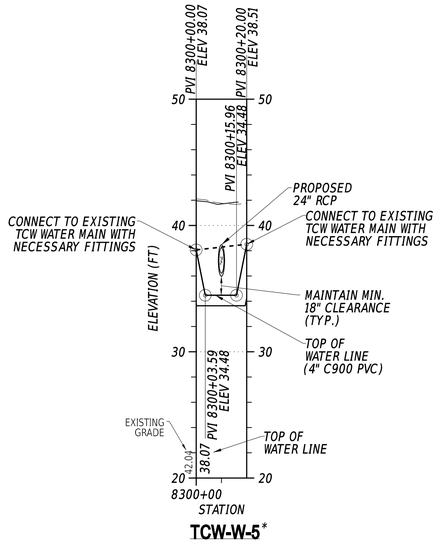




DETAIL A







*NOTE: CONTRACTOR TO USE RESTRAINED PIPE FITTINGS

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
32	CHESAPEAKE	7+35.39	18.63	41.53	2.53	3" METAL
81	TCW	7+58.15	28.59	41.65	3.37	4" METAL
82	VERIZON	7+26.00	43.08	41.21	2.45	3" BLACK CABLE
83	CHESAPEAKE	7+41.38	-13.37	42.29	2.46	4" METAL
84	VERIZON	7+41.17	-17.14	42.17	2.32	2" BLACK CABLE
85	TCW	7+46.56	-36.90	43.06	3.71	10" PLASTIC
86	TCW	5+9.52	-36.29	41.90	3.60	10" PLASTIC
102	VERIZON	10+72.30	25.44	43.62	2.52	1" BLACK CABLE
106	TCW	7+66.16	28.99	41.93	4.77	10" PLASTIC
123	VERIZON	8+99.89	-18.28	42.89	2.68	3" BLACK CABLE
124	TCW	7+68.25	-23.58	42.56	4.04	12" PLASTIC
125	TCW	7+18.87	15.53	41.82	3.20	4" METAL
125A	CHESAPEAKE	7+18.87	15.53	41.82	2.53	3" METAL
126	CHESAPEAKE	5+5.14	-30.39	42.05	3.60	4" METAL
127	VERIZON	6+29.61	-22.81	42.94	2.66	4" CONDUIT

NOTES:
THIS WORK SHOULD BE PERFORMED AT NIGHT TO AVOID SERVICE INTERRUPTION TO THE DENTIST OFFICE

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE 3/1/2024

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company
550 BAY ROAD
DOVER, DE 19901
(302) 734-9188

ANDREW JAKUBOWITCH LICENSE NO. 13906 DELAWARE PROFESSIONAL ENGINEER
SEAL

RECOMMENDED — DATE 2/6/2024

VERTICAL SCALE FEET 18 12 6 0

UT-03

ADDENDA / REVISIONS	

SCALE 0 30 60 90 FEET

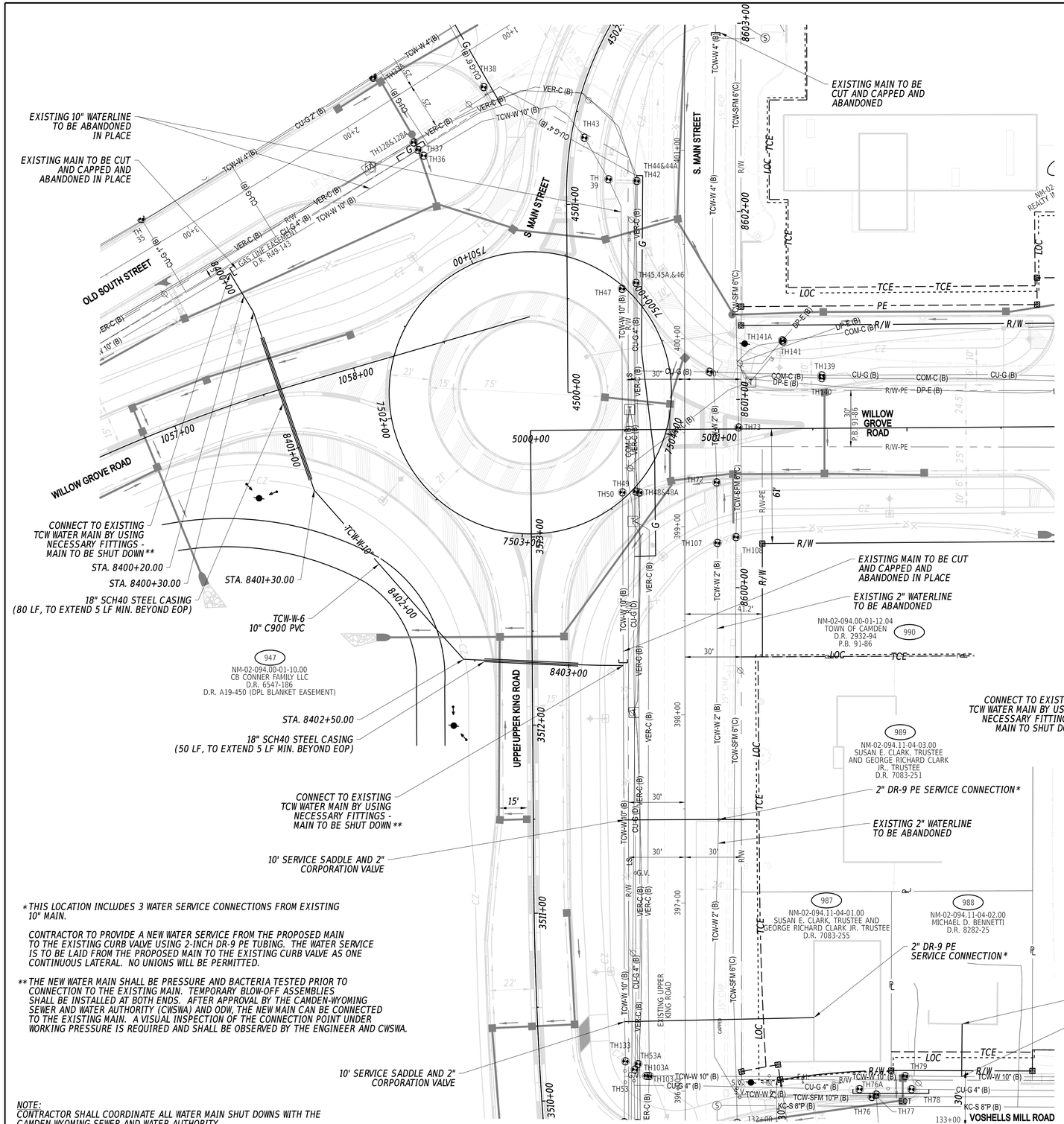
WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CAMDEN-WYOMING SEWER AND WATER AUTHORITY
WATER RELOCATION PLAN
4" & 10" WATER MAIN

SECTION CEN
SHEET NO. 258

5-FEB-2024
15:55
pw://deldot-pw.bentley.com:deldot-pw-01/Documents/01_Active_Projects/DelDOT_Capital_Projects/T201709502_CEI/400_CADD/420_ROAD/423_SHEET_DGN/UT03_RDSF_T201709502_CEI_CWSWA



*THIS LOCATION INCLUDES 3 WATER SERVICE CONNECTIONS FROM EXISTING 10" MAIN.

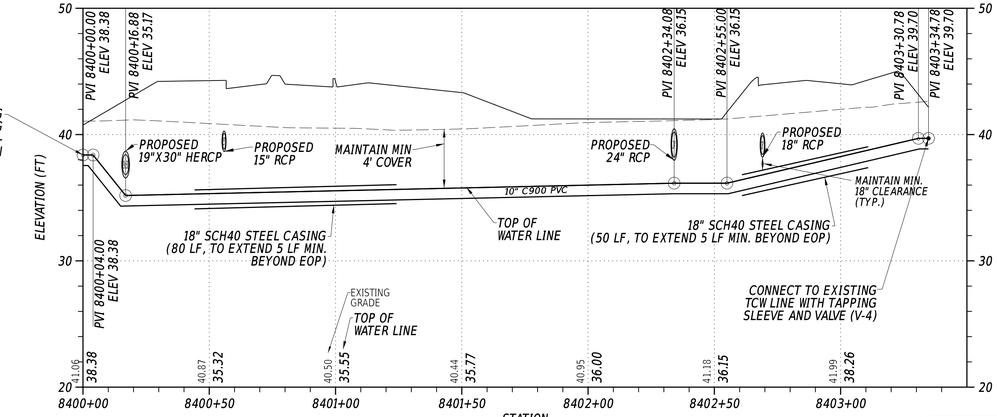
CONTRACTOR TO PROVIDE A NEW WATER SERVICE FROM THE PROPOSED MAIN TO THE EXISTING CURB VALVE USING 2-INCH DR-9 PE TUBING. THE WATER SERVICE IS TO BE LAID FROM THE PROPOSED MAIN TO THE EXISTING CURB VALVE AS ONE CONTINUOUS LATERAL. NO UNIONS WILL BE PERMITTED.

**THE NEW WATER MAIN SHALL BE PRESSURE AND BACTERIA TESTED PRIOR TO CONNECTION TO THE EXISTING MAIN. TEMPORARY BLOW-OFF ASSEMBLIES SHALL BE INSTALLED AT BOTH ENDS. AFTER APPROVAL BY THE CAMDEN-WYOMING SEWER AND WATER AUTHORITY (CWSWA) AND ODW, THE NEW MAIN CAN BE CONNECTED TO THE EXISTING MAIN. A VISUAL INSPECTION OF THE CONNECTION POINT UNDER WORKING PRESSURE IS REQUIRED AND SHALL BE OBSERVED BY THE ENGINEER AND CWSWA.

NOTE:
CONTRACTOR SHALL COORDINATE ALL WATER MAIN SHUT DOWNS WITH THE CAMDEN-WYOMING SEWER AND WATER AUTHORITY.

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
33	TCW	1+74.15	15.75	40.64	3.38	4" METAL
33A	CHESAPEAKE	1+74.33	14.95	40.66	2.70	2" METAL
34	CHESAPEAKE	4+46.77	15.60	41.11	2.25	1" PLASTIC
35	CHESAPEAKE	3+19.05	15.71	40.90	2.03	1" PLASTIC
36	TCW	1+73.16	-34.43	41.57	3.19	10" PLASTIC
37	CHESAPEAKE	1+74.59	-30.29	41.63	4.27	4" METAL
38	CHESAPEAKE	1+27.32	-20.62	40.41	4.24	6" PLASTIC
39	TCW	400+84.70	40.37	42.69	3.20	10" PLASTIC
42	CHESAPEAKE	400+83.79	25.39	42.57	4.19	4" METAL
43	TCW	401+6.84	53.19	42.66	3.04	10" PLASTIC
44	VERIZON	400+83.79	25.39	42.57	2.52	9" CONDUIT
44A	VERIZON	400+83.79	25.39	42.57	2.52	3" BLACK CABLE
45	VERIZON	400+29.64	25.78	42.82	2.47	9" CONDUIT
45A	VERIZON	400+29.64	25.78	42.82	2.47	3" BLACK CABLE
46	CHESAPEAKE	400+29.64	25.78	42.82	2.85	4" METAL
47	TCW	400+26.46	33.25	42.74	3.32	10" PLASTIC
48	VERIZON	399+18.21	24.13	42.68	1.98	9" CONDUIT
48A	VERIZON	399+18.21	24.13	42.68	1.98	3" BLACK CABLE
49	CHESAPEAKE	399+18.67	25.87	42.92	2.67	4" METAL
50	TCW	399+18.27	33.11	43.17	3.60	10" PLASTIC
53	CHESAPEAKE	3510+14.09	51.18	39.51	4.27	4" METAL
53A	VERIZON	3510+16.72	52.27	41.45	2.51	9" PLASTIC
73	TCW	399+52.75	-28.62	42.14	3.33	6" PLASTIC
76	KENT COUNTY	4001+77.49	33.11	40.64	3.26	10" PLASTIC
76A	CHESAPEAKE	4001+71.10	-20.45	41.39	2.68	4" METAL
77	CHESAPEAKE	4001+77.49	-16.00	39.84	4.09	1.5" PLASTIC
78	CHESAPEAKE	4001+99.84	-21.08	41.05	2.71	4" METAL
79	CWSWA	4001+97.75	-26.82	40.79	3.12	10" PLASTIC
103	VERIZON	3510+09.21	56.71	41.65	2.62	3" BLACK CABLE
103A	CWSWA	399+18.27	33.11	43.17	3.60	10" PLASTIC
107	TCW	398+1.34	-17.35	42.99	3.35	3" METAL
108	TCW	398+4.47	-27.18	42.36	3.65	6" PLASTIC
128	VERIZON	1+74.51	-25.63	41.47	2.01	7" CONDUIT
128A	VERIZON	2+25.49	-25.63	41.47	2.01	3" BLACK CABLE
133	VERIZON	3510+19.28	45.26	39.99	3.20	10" PLASTIC
139	CHESAPEAKE	399+80.42	-72.84	42.53	1.99	1" PLASTIC
140	VERIZON	399+78.89	-72.94	42.60	1.73	1" CONDUIT
141	COMCAST	399+98.40	-52.40	42.92	0.95	1.5" CONDUIT
141A	DELMARVA	399+99.08	-51.88	42.93	3.89	3" CONDUIT



TCW-W-6

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE 3/1/2024

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company
550 BAY ROAD
DOVER, DE 19901
(302) 734-9188

ANDREW JAKUBOWITCH LICENSE NO. 13906 DELAWARE PROFESSIONAL ENGINEER
SEAL

RECOMMENDED — DATE 2/6/2024

VERTICAL SCALE FEET 0 6 12 18

UT-04

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

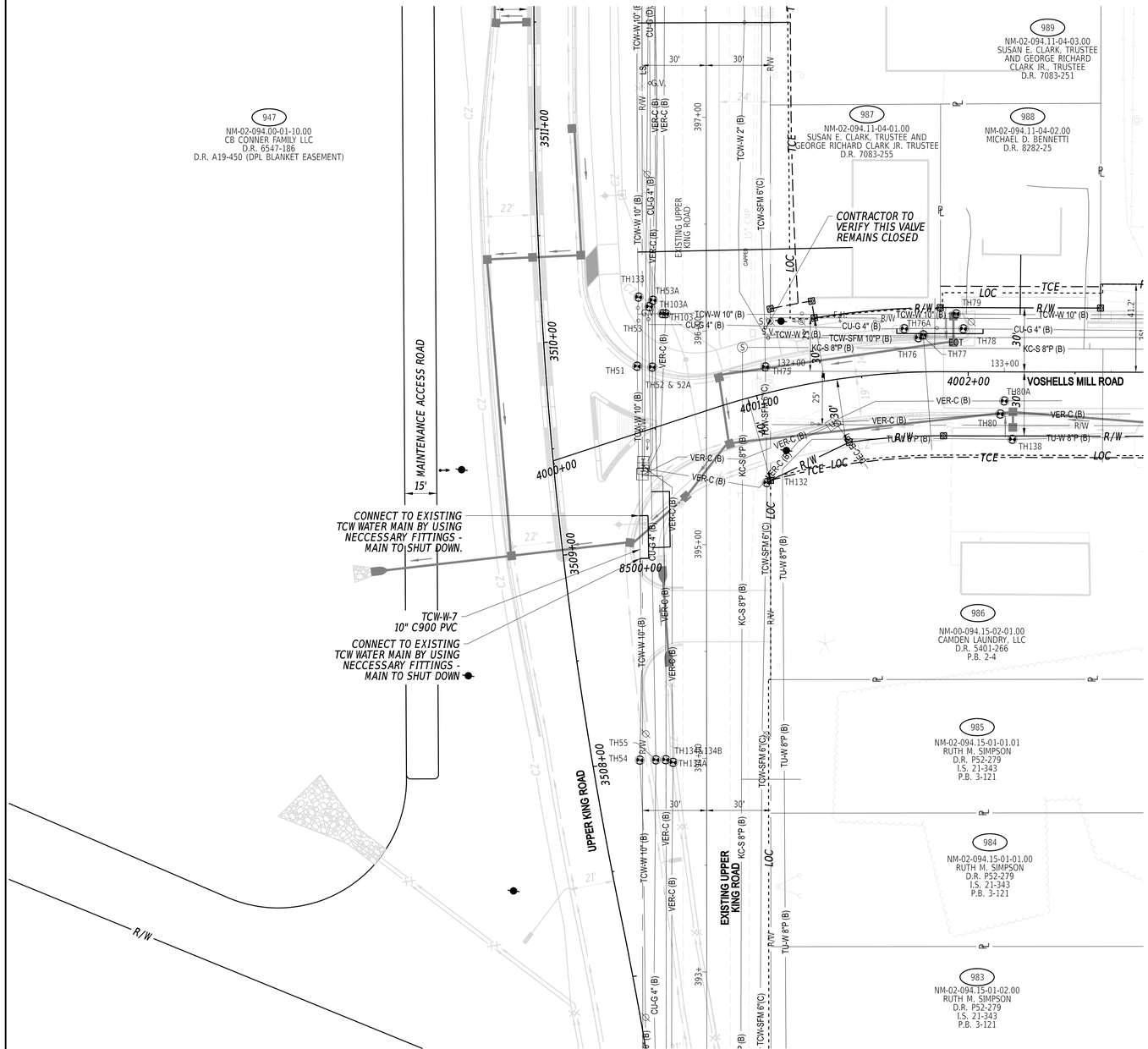
WEST CAMDEN BYPASS

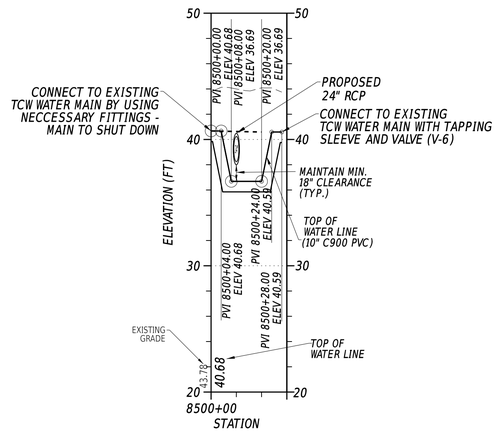
CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CAMDEN-WYOMING SEWER AND WATER AUTHORITY WATER RELOCATION PLAN 10" WATER MAIN

SECTION	CEN
SHEET NO.	259

5-FEB-2024
15:09:00
pw://deldot-pw.bentley.com:deldot-pw-01/Documents/01_Active_Projects/DelDOT_Capital_Projects/T201709502_CEI\400_CADD\420_ROAD\423_SHEET_DGN\UT04_ROSF_T201709502_CEI_CWSWA





UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
51	TCW	395+83.52	32.40	43.03	2.74	10" PLASTIC
52	VERIZON	395+83.11	25.32	43.98	2.08	9" CONDUIT
52A	VERIZON	395+83.11	25.32	43.98	2.08	3" BLACK CABLE
53	CHESAPEAKE	396+11.45	26.65	43.78	4.27	4" METAL
53A	VERIZON	396+14.39	24.99	43.96	2.51	9" CONDUIT
54	TCW	393+99.18	31.26	43.57	2.49	10" PLASTIC
55	CHESAPEAKE	393+99.31	23.79	44.34	2.42	4" METAL
75	KENT COUNTY	131+88.10	1.99	44.46	3.25	12" METAL
76	TCW	132+59.73	15.91	43.90	3.26	10" PLASTIC
76A	CHESAPEAKE	132+53.12	20.07	44.07	2.68	4" METAL
77	CHESAPEAKE	132+12.00	17.22	43.93	4.09	1.5" PLASTIC
78	CHESAPEAKE	132+30.74	20.10	43.76	2.71	4" METAL
80	VERIZON	132+98.15	-19.72	43.10	2.13	3" BLACK CABLE
80A	VERIZON	133+0.01	-13.59	42.97	3.07	1/4" BLACK CABLE
103	VERIZON	396+8.04	19.07	44.27	2.62	3" BLACK CABLE
103A	TCW	396+8.08	20.51	44.22	3.69	16" METAL
132	KENT COUNTY	395+29.02	-28.31	44.87	4.03	6" PLASTIC
133	TCW	396+15.87	31.71	43.19	3.20	10" PLASTIC
134	VERIZON	393+99.37	19.16	45.17	2.50	4" CONDUIT
134A	VERIZON	393+98.11	15.67	45.51	2.80	3" BLACK CABLE
134B	VERIZON	393+99.37	19.16	45.17	2.50	3" BLACK CABLE
138	TCW	133+3.86	-31.54	43.06	3.66	8" PLASTIC

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE 3/1/2024

PREPARED BY

CENTURY ENGINEERING
A Kleinfelder Company
550 BAY ROAD
DOVER, DE 19901
(302) 734-9188

ANDREW JAKUBOWITCH — LICENSE NO. 13906 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

RECOMMENDED — DATE 2/6/2024

VERTICAL SCALE FEET: 18, 12, 6, 0

UT-05
SECTION
CEN
SHEET NO.
260

ADDENDA / REVISIONS

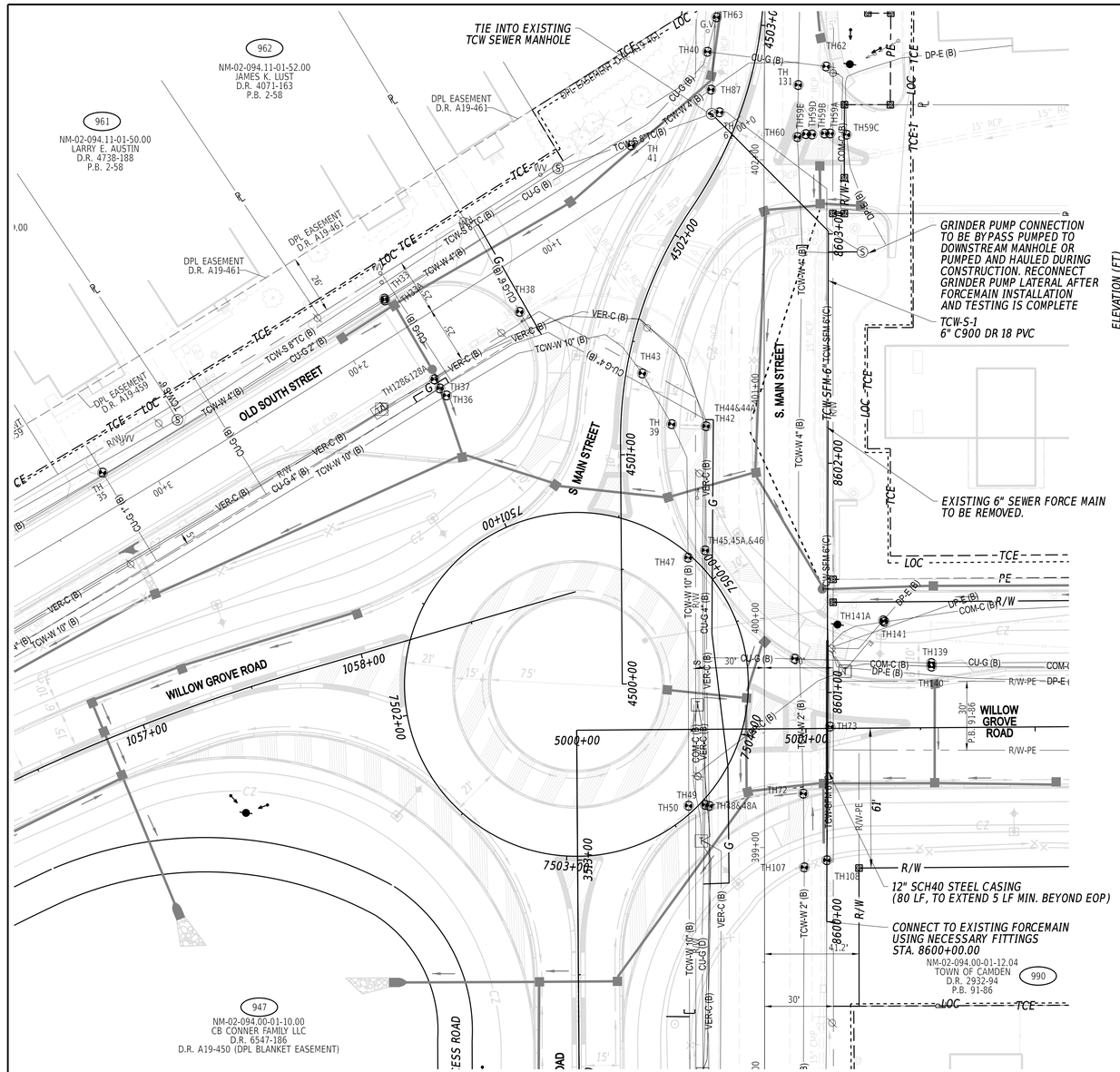
SCALE
0 30 60 90
FEET

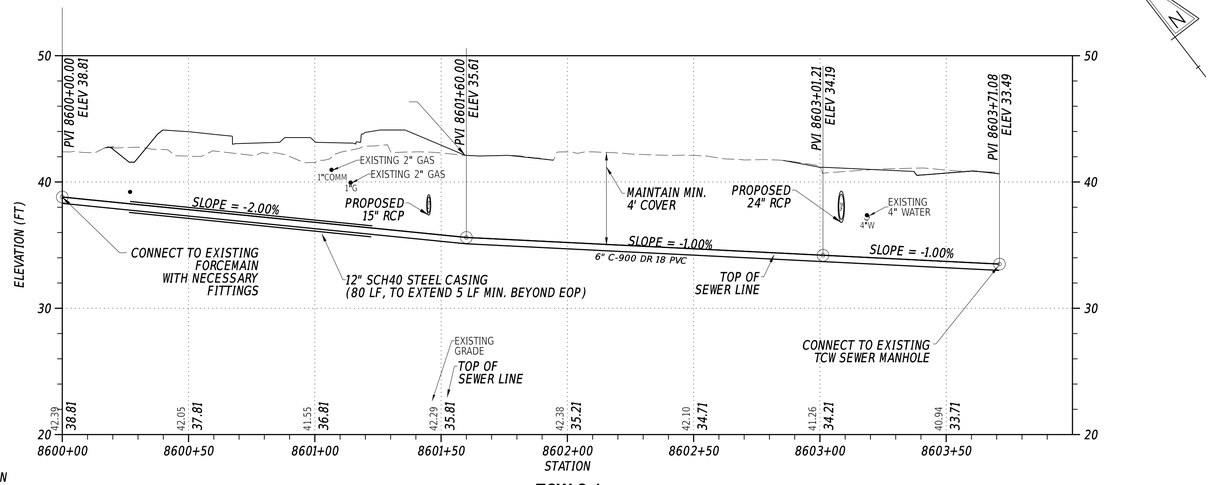
WEST CAMDEN BYPASS

CONTRACT	T201709502	BRIDGE NO.	N/A
COUNTY	KENT	DESIGNED BY:	L. HAXTON
		CHECKED BY:	J. FREY

CAMDEN-WYOMING SEWER AND WATER AUTHORITY WATER RELOCATION PLAN 10" WATER MAIN

7-FEB-2024
15:39:32
pw://deldot-pw.bentley.com:deldot-pw-01/Documents/01_Active_Projects/DelDOT_Capital_Projects/T201709502_CEI/400_CADD/420_ROAD/423_SHEET_DGN/UT05_ROSF_T201709502_CEI_CWSWA





TCW-S-1

NOTE:
WORK FOR THIS LOCATION TO BE PAID FOR UNDER ITEM
711035 INSTALLING SANITARY SEWER (FORCE MAIN), PVC, 6"

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
33	TCW	1+74.15	15.75	40.64	3.38	4" METAL
33A	CHESAPEAKE	1+74.33	14.95	40.66	2.70	2" METAL
35	CHESAPEAKE	3+19.05	15.71	40.90	2.03	1" PLASTIC
36	TCW	1+73.16	-34.43	41.57	3.19	10" PLASTIC
37	CHESAPEAKE	1+74.59	-30.29	41.63	4.27	4" METAL
38	CHESAPEAKE	1+27.32	-20.62	40.41	4.24	6" PLASTIC
39	TCW	400+84.70	40.37	42.69	3.20	10" PLASTIC
40	CHESAPEAKE	402+46.89	24.89	40.66	3.26	3" PLASTIC
41	TCW	0+47.44	14.80	40.56	3.08	4" METAL
42	CHESAPEAKE	400+83.79	25.39	42.57	4.19	4" METAL
43	TCW	401+6.84	53.19	42.66	3.04	10" PLASTIC
44	VERIZON	400+83.79	25.39	42.57	2.52	9" CONDUIT
44A	VERIZON	400+83.79	25.39	42.57	2.52	3" BLACK CABLE
45	VERIZON	400+29.64	25.78	42.82	2.47	9" CONDUIT
45A	VERIZON	400+29.64	25.78	42.82	2.47	3" BLACK CABLE
46	CHESAPEAKE	400+29.64	25.78	42.82	2.85	4" METAL
47	TCW	400+26.46	33.25	42.74	3.32	10" PLASTIC
48	VERIZON	399+18.21	24.13	42.68	1.98	9" CONDUIT
48A	VERIZON	399+18.21	24.13	42.68	1.98	3" BLACK CABLE
49	CHESAPEAKE	399+18.67	25.87	42.92	2.67	4" METAL
50	TCW	399+18.27	33.11	43.17	3.60	10" PLASTIC
59A	N/A	402+11.57	-28.81	N/A	N/A	N/A
59B	N/A	402+11.53	-26.40	N/A	N/A	N/A
59C	DELMARVA	402+11.05	-35.95	40.33	3.93	4" CONDUIT
59D	N/A	402+11.09	-20.93	N/A	N/A	N/A
59E	N/A	402+11.25	-18.24	N/A	N/A	N/A
61	TCW	402+20.62	19.48	40.78	5.58	6" PLASTIC
62	CHESAPEAKE	402+40.91	-26.92	40.99	2.01	1" PLASTIC
63	CHESAPEAKE	402+61.92	21.11	40.78	3.26	4" PLASTIC
72	TCW	399+23.52	-16.96	42.81	3.50	3" METAL
73	TCW	399+52.75	-28.62	42.14	3.33	6" PLASTIC
87	TCW	402+30.45	23.25	40.68	6.19	4" METAL
107	TCW	398+1.34	-17.35	42.99	3.35	3" METAL
108	TCW	398+4.47	-27.18	42.36	3.65	6" PLASTIC
128	VERIZON	1+74.51	-25.63	41.47	2.01	7" CONDUIT
128A	VERIZON	2+25.49	-25.63	41.47	2.01	3" BLACK CABLE
131	TCW	402+32.70	-14.80	40.52	2.85	4" METAL
139	CHESAPEAKE	399+80.42	-72.84	42.53	1.99	1" PLASTIC
140	VERIZON	399+78.89	-72.94	42.60	1.73	1" CONDUIT
141	COMCAST	399+98.40	-52.40	42.92	0.95	1.5" CONDUIT
141A	DELMARVA	399+99.08	-51.88	42.93	3.89	3" CONDUIT

VERTICAL SCALE FEET 0 6 12 18

UT-06

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company
550 BAY ROAD
DOVER, DE 19901
(302) 734-9188

ANDREW JAKUBOWITH LICENSE NO. 13906 DELAWARE PROFESSIONAL ENGINEER
SEAL

RECOMMENDED — DATE 2/6/2024

RECOMMENDED BY:
CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE 3/1/2024

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502
COUNTY	KENT
BRIDGE NO.	N/A
DESIGNED BY:	L. HAXTON
CHECKED BY:	J. FREY

CAMDEN-WYOMING SEWER AND WATER AUTHORITY SEWER RELOCATION PLAN 6" FORCEMAIN

SECTION CEN
SHEET NO. 261

5-FEB-2024
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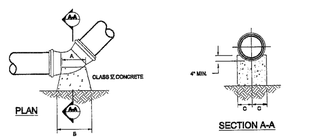
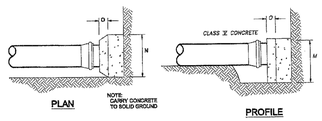
NOTES

1. PORTLAND CEMENT CONCRETE FOR BUTRESSES SHALL BE 3000 P.S.I. MINIMUM.
2. BUTTRESS DIMENSIONS SHOWN ARE MINIMUM DIMENSIONS BASED UPON A SOIL BEARING CAPACITY OF 3000 P.S.F. AND STATIC WATER PRESSURE OF 150 P.S.I.
3. MODIFICATIONS TO BUTTRESS DIMENSIONS IS TO BE AT THE SOLE DISCRETION OF CWSWA AND ANY CHANGES TO BUTTRESS DIMENSIONS SHALL BE APPROVED BY CWSWA BEFORE ANY CHANGE IS PERFORMED.
4. ALL CONCRETE TO MEET UNDISTURBED EARTH.
5. FITTINGS TO BE WRAPPED IN 3 MIL. PLASTIC WHERE CONCRETE IS PRESENT.

SIZE		4"	6"	8"	10"	12"
45°	A	6"	6"	6"	6"	6"
	B	14"	17"	22"	27"	2'-10"
	C	6"	6"	6"	11"	1'-3"
22 1/2°	A	6"	6"	6"	6"	6"
	B	9"	11"	14"	18"	22"
	C	4"	4"	5"	5"	10"
11 1/4°	A	*	*	*	6"	6"
	B	*	*	*	14"	17"
	C	*	*	*	7"	9"





SIZE	4"	6"	8"	10"	12"
M	10"	13"	18"	19"	21"
N	10"	19"	2'-3"	2'-8"	3'-2"
O	6"	7"	9"	11"	13"

CAMDEN WYOMING
SEWER AND WATER AUTHORITY
P.O. BOX 405 CAMDEN, DE 19934

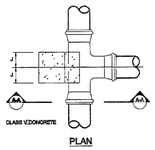
CONSTRUCTION DETAILS
BUTTRESS DETAIL 2 BENDS AND PLUGS
W-5

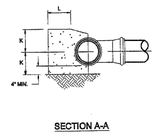
NO.	DATE	INITIAL RELEASE	CM	REVIEW
		DESCRIPTION	BY	CHK

NOTES

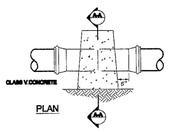
1. PORTLAND CEMENT CONCRETE FOR BUTRESSES SHALL BE 3000 P.S.I. MINIMUM.
2. BUTTRESS DIMENSIONS SHOWN ARE MINIMUM DIMENSIONS BASED UPON A SOIL BEARING CAPACITY OF 3000 P.S.F. AND STATIC WATER PRESSURE OF 150 P.S.I.
3. MODIFICATIONS TO BUTTRESS DIMENSIONS IS TO BE AT THE SOLE DISCRETION OF CWSWA AND ANY CHANGES TO BUTTRESS DIMENSIONS SHALL BE APPROVED BY CWSWA BEFORE ANY CHANGE IS PERFORMED.
4. ALL CONCRETE TO MEET UNDISTURBED EARTH.
5. FITTINGS TO BE WRAPPED IN 3 MIL. PLASTIC WHERE CONCRETE IS PRESENT.

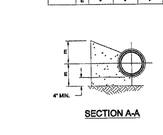
SIZE	4"	6"	8"	10"	12"
J	4"	6"	8"	11"	13"
K	8"	10"	13"	16"	19"
L	6"	8"	8"	10"	12"





SIZE		4"	6"	8"	10"	12"
90°	D	1'-6"	2'-0"	2'-9"	3'-4"	3'-4"
	S	3"	7"	9"	1' 1/2"	1'-3"
45°	D		1'-3"	1'-10"	2'-4"	2'-9"
	E	4"	6"	8"	10"	12"
22 1/2°	D	3"	11"	1'-2"	1'-5"	1'-10"
	E	4"	4"	5"	7"	9"
11 1/4°	D	*	*	*	1'-0"	1'-2"
	E	*	*	*	6"	7"

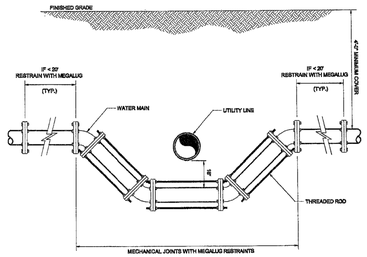




CAMDEN WYOMING
SEWER AND WATER AUTHORITY
P.O. BOX 405 CAMDEN, DE 19934

CONSTRUCTION DETAILS
BUTTRESS DETAIL 2 HORIZ. BENDS AND TEES
W-6

NO.	DATE	INITIAL RELEASE	CM	REVIEW
		DESCRIPTION	BY	CHK



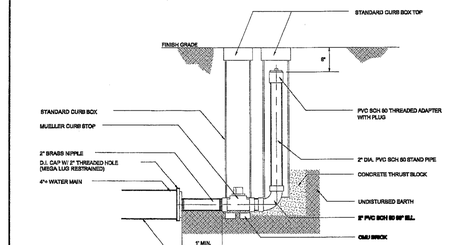
NOTE:

WHERE POSSIBLE, WATER MAINS ARE TO BE INSTALLED ABOVE SANITARY SEWER MAINS

CAMDEN WYOMING
SEWER AND WATER AUTHORITY
P.O. BOX 405 CAMDEN, DE 19934

CONSTRUCTION DETAILS
UTILITY CROSSING DETAIL
W-7

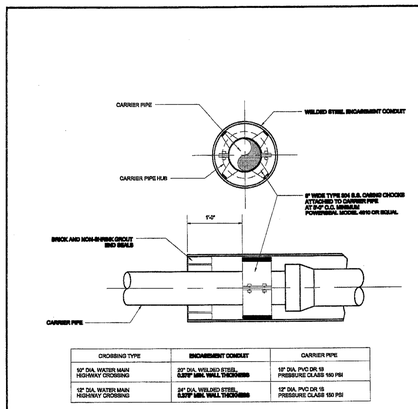
NO.	DATE	INITIAL RELEASE	CM	REVIEW
		DESCRIPTION	BY	CHK



CAMDEN WYOMING
SEWER AND WATER AUTHORITY
P.O. BOX 405 CAMDEN, DE 19934

CONSTRUCTION DETAILS
BLOW OFF DETAIL
W-8

NO.	DATE	INITIAL RELEASE	CM	REVIEW
		DESCRIPTION	BY	CHK



CROSSING TYPE	ENCASEMENT CONDUIT	CARRIER PIPE
10" DIA. WATER MAIN HIGHWAY CROSSING	20" DIA. WELDED STEEL 0.250" MIN. WALL THICKNESS	18" DIA. PVC DR 18 PRESSURE CLASS 150 PSI
12" DIA. WATER MAIN HIGHWAY CROSSING	24" DIA. WELDED STEEL 0.250" MIN. WALL THICKNESS	12" DIA. PVC DR 18 PRESSURE CLASS 150 PSI

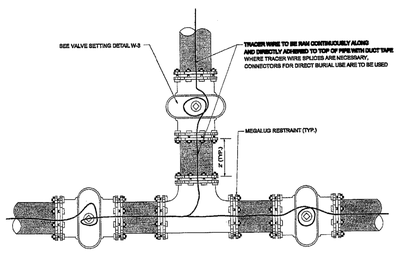
CAMDEN WYOMING
SEWER AND WATER AUTHORITY
P.O. BOX 405 CAMDEN, DE 19934

CONSTRUCTION DETAILS
ENCASEMENT CONDUIT DETAIL
W-9

NO.	DATE	INITIAL RELEASE	CM	REVIEW
		DESCRIPTION	BY	CHK

NOTES :

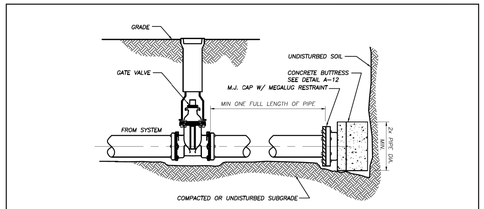
1. ALL VALVES SHALL BE AMERICAN FLOW CONTROL RESILIANT SEATED GATE VALVES OR APPROVED EQUAL.
2. ALL FITTINGS TO BE MEGALUG RESTRAINED.
3. VALVES TO BE SPACED AT 3' OFF TEE AS SHOWN FOR ALL INTERSECTIONS
4. ALL INTERSECTIONS TO BE VALVED ON EACH BRANCH END UNLESS OTHERWISE DIRECTED BY THE CWSWA.
5. ALL FITTINGS TO BE DUCTILE IRON APPROVED BY THE CWSWA.



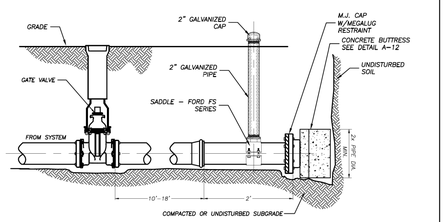
CAMDEN WYOMING
SEWER AND WATER AUTHORITY
P.O. BOX 405 CAMDEN, DE 19934

CONSTRUCTION DETAILS
VALVE INTERSECTION DETAIL
W-10

NO.	DATE	INITIAL RELEASE	CM	REVIEW
		DESCRIPTION	BY	CHK



DETAIL WITHOUT TEMPORARY BLOW-OFF



DETAIL WITH TEMPORARY BLOW-OFF

TYPICAL DESIGN DETAILS
END CAP DETAIL

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY

3/1/2024
DATE

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company
550 BAY ROAD
DOVER, DE 19901
(302) 734-9188

ANDREW JAKUBOWICH
LICENSE
NO. 13906
DELAWARE
PROFESSIONAL ENGINEER
SEAL

RECOMMENDED

2/6/2024
DATE

ADDENDA / REVISIONS

NOT TO SCALE

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CAMDEN-WYOMING SEWER AND WATER AUTHORITY WATER RELOCATION DETAIL SHEET

SECTION
CEN
SHEET NO.
262

2-FEB-2024
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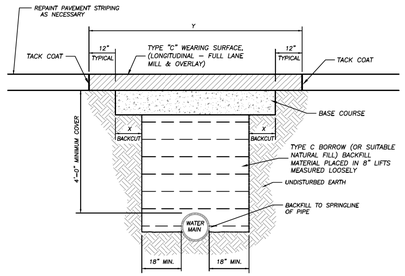
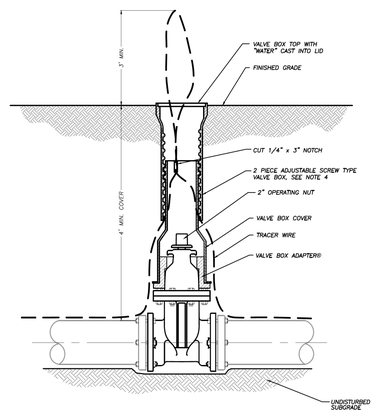


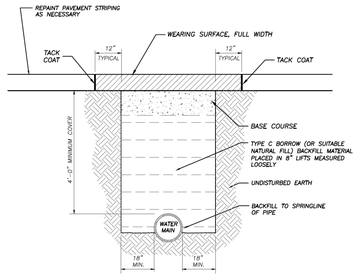
RESTORATION	BASE COURSE	BACKCUT	PATCH WIDTH	WEARING SURFACE/OVERLAY	REFERENCE
HOT-MIX TRENCH REPAVING	12" BCBC (2) 6" LIFTS	X=12"	7' PLUS OUTSIDE PIPE DIAMETER	2" TYPE "C" HOT-MIX	DELDOT STANDARD DETAILS P-4
CONCRETE WITH HOT-MIX OVERLAY TRENCH REPAIR	8" PORTLAND CEMENT CONCRETE	X=24" (WEARING SURFACE)	9' PLUS OUTSIDE PIPE DIAMETER	2" TYPE "C" HOT-MIX	DELDOT STANDARD DETAIL P-4

GENERAL NOTE: IF GREATER CROSS SECTION EXISTS, MATCH EXISTING

TYPICAL DESIGN DETAILS
ROAD CROSSING /LONGITUDINAL REPAIR DETAIL



TYPICAL DESIGN DETAILS
TRACER WIRE & VALVE BOX DETAIL

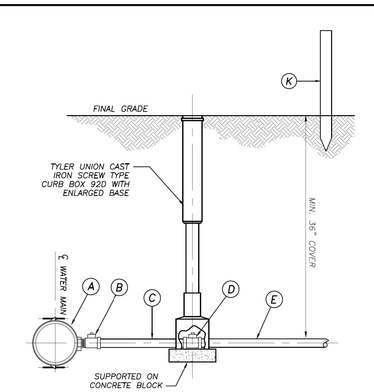


NOTE:
IN UNPAVED AREAS PROVIDE 4" OF TOPSOIL AND MULCH

RESTORATION	BASE COURSE	WEARING SURFACE/OVERLAY
* CONCRETE DRIVEWAY REPAVING	6" GRADED AGGREGATE	6" CLASS B CONRETE
* HOT-MIX DRIVEWAY REPAVING	6" GRADED AGGREGATE	2" INCHES HOT-MIX, HOT-LAID BITUMINOUS CONCRETE, TYPE C
TEMPORARY REPAVING	8" INCHES GRADED AGGREGATE	2" INCHES HOT-MIX, HOT-LAID BITUMINOUS CONCRETE, TYPE B OR C, OR 2" COLD LAID, BITUMINOUS CONCRETE
LANDSCAPED/UNPAVED AREAS	COMPACTED SUBGRADE	SEEDING AND MULCHING OR STRAW AS REQUIRED

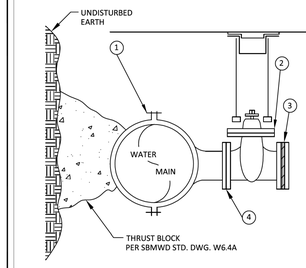
*IF A GREATER CROSS SECTION EXISTS, MATCH EXISTING.

TYPICAL DESIGN DETAILS
TEMPORARY PAVEMENT, DRIVEWAY AND TRENCH DETAIL



DESIGNATION	DESCRIPTION	MANUFACTURER	SERVICE TYPE	MODEL NUMBER	SIZE
A	SERVICE SADDLE	FORD	SINGLE	FC202-XXX x CC7	
B	CORP. STOP	FORD	SINGLE	FB1000-7NL	
C	2" x 4" SDR-9 PE TUBING				
D	CURB STOP	FORD	SINGLE	B44-777NL	
E	2" SDR-9 PE TUBING		SINGLE		
K	GROUND MARKER DEPICTING THE LOCATION OF THE END OF EACH STUB. THE GROUND MARKER IS TO BE A WOOD OR STEEL STAKE/SPIKE PAINTED BLUE TO CLEARLY MARK THE LOCATION OF THE STUB				

TYPICAL DESIGN DETAILS
2" INSIDE SERVICE CONNECTION DETAIL (OUTSIDE BUILDING)

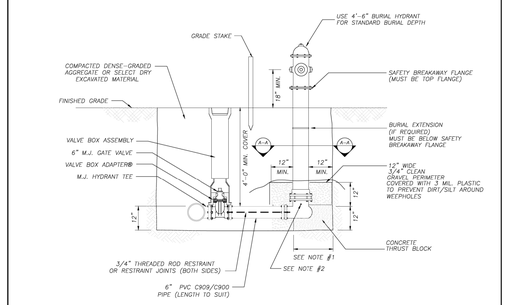


ITEM	QTY	DESCRIPTION
①	1 EA	*8" STAINLESS STEEL TAPPING SADDLE
②	1 EA	*8" FLG GATE VALVE PER SBMWD STD. DWG. W3.1
③	1 EA	*8" TEST PLATE
④	1 EA	*8" PIPELINE SEAL AND INSULATOR, INC INSULATING KIT TO BE USED BETWEEN THE TAPPING SADDLE AND VALVE WHEN DISSIMILAR METALS (DUCTILE IRON AND STEEL) ARE INVOLVED

** SIZES WILL VARY. MATCH WATER MAIN SIZE BEING INSTALLED.*

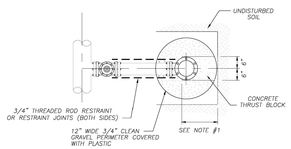
REVISION	DATE
SCALE: NONE	

TAPPING DETAIL FOR 4" AND LARGER CONTRACTOR-INSTALLED MAINS



NOTES

1. THE CONCRETE THRUST BLOCK IS TO BE EXTENDED HORIZONTALLY UNTIL IT COMES IN CONTACT WITH THE UNDISTURBED SIDES OF THE TRENCH.
2. ALL WEEP/DRAIN HOLES ON THE FIRE HYDRANT MUST BE LOCATED AT LEAST 3" FROM TIE TOP OF TIE CONCRETE THRUST BLOCK TO MAINTAIN FREE DRAINAGE.
3. ALL FIRE HYDRANTS TO BE AMERICAN DARLING MODEL B-62-B. SEE PLAN NOTES FOR NOZZLE AND OPENING INFORMATION.



SECTION A–A

TYPICAL DESIGN DETAILS
FIRE HYDRANT ASSEMBLY DETAIL

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY

3/1/2024
DATE

PREPARED BY
CENTURY ENGINEERING
A Kleinfelder Company
550 BAY ROAD
DOVER, DE 19901
(302) 734-9188

ANDREW JAKUBOWITCH — LICENSE — NO. 13906 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

RECOMMENDED

2/6/2024
DATE

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	CAMDEN-WYOMING SEWER AND WATER AUTHORITY WATER RELOCATION DETAIL SHEET	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 263
					CHECKED BY: J. FREY		

2-FEB-2024
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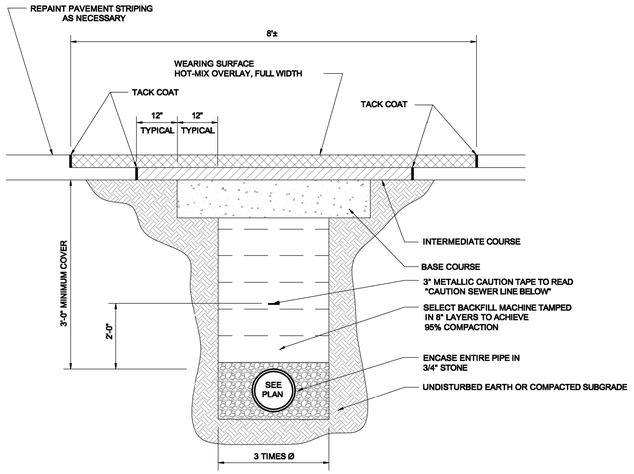

NOTE:
IN UNPAVED AREAS PROVIDE 4" OF TOPSOIL AND MULCH

RESTORATION	BASE COURSE	INTERMEDIATE COURSE	WEARING SURFACE/OVERLAY
CONCRETE PATCH REPAVING	8" INCHES HIGH EARLY STRENGTH PORTLAND CEMENT CONCRETE		2" INCHES HOT-MIX, HOT-LAID BITUMINOUS CONCRETE, TYPE C
HOT-MIX TRENCH REPAVING	8" INCHES GRADED AGGREGATE TYPE B	2" INCHES HOT-MIX, HOT-LAID BITUMINOUS CONCRETE, TYPE B OR C	2" INCHES HOT-MIX, HOT-LAID BITUMINOUS CONCRETE, TYPE C
TEMPORARY REPAVING	8" INCHES GRADED AGGREGATE TYPE B	2" INCHES HOT-MIX, HOT-LAID BITUMINOUS CONCRETE, TYPE B OR C OR 2" COLD LAID, BITUMINOUS CONCRETE	
LANDSCAPED/UNPAVED AREAS	COMPACTED SUBGRADE	4" GRADED TOPSOIL	SEEDING AND MULCHING OR STRAW AS REQUIRED

CAMDEN WYOMING
SEWER AND WATER AUTHORITY
P.O. BOX 405 CAMDEN, DE 19934

CONSTRUCTION DETAILS

TRENCH REPAIR DETAIL

S-6

REV.	DATE	DESCRIPTION	BY	CHK
0	11/1/07	INITIAL RELEASE	CBA	BG/HB

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE 3/1/2024

PREPARED BY

CENTURY ENGINEERING
A Kleinfelder Company
550 BAY ROAD
DOVER, DE 19901
(302) 734-9188

ANDREW JAKUBOWICH · LICENSE · NO. 13906 · DELAWARE · PROFESSIONAL ENGINEER

SEAL

RECOMMENDED — DATE 2/6/2024

ADDENDA / REVISIONS

NOT TO SCALE

WEST CAMDEN BYPASS

CONTRACT	BRIDGE NO.	N/A
T201709502	DESIGNED BY:	L. HAXTON
COUNTY	CHECKED BY:	J. FREY
KENT		

CAMDEN-WYOMING SEWER AND WATER AUTHORITY SEWER RELOCATION DETAIL SHEET

SECTION
CEN
SHEET NO.
264

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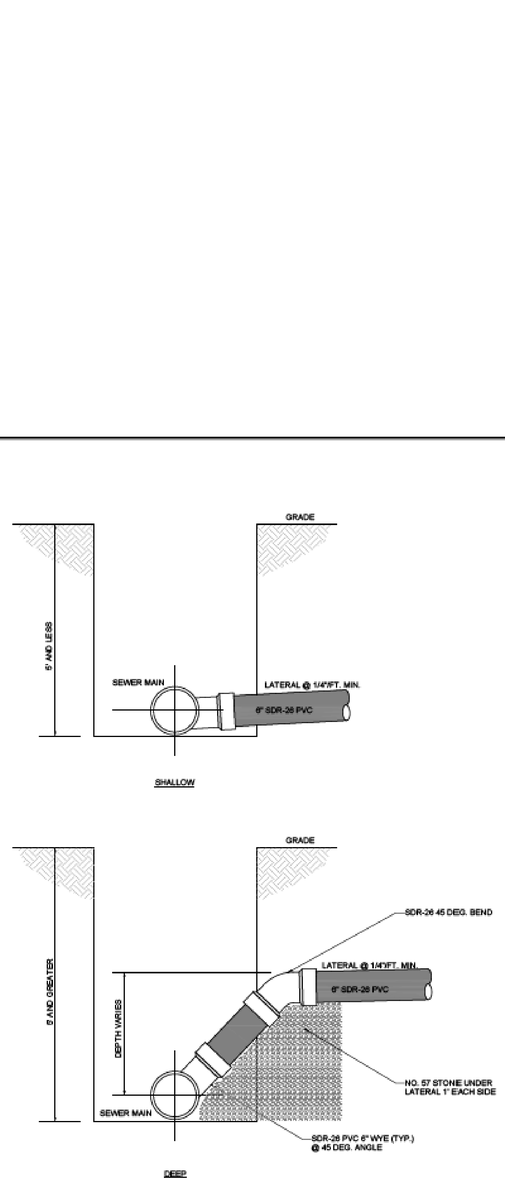
SHALLOW

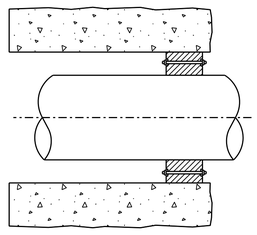


DEEP

CAMDEN WYOMING
SEWER AND WATER AUTHORITY
P.O. BOX 405 CAMDEN, DE 19934

CONSTRUCTION DETAILS
MAIN LATERAL CONNECTION DETAIL
S-12

REV.	DATE	DESCRIPTION	BY	CHK
1	2/2/22	CHANGED PIPE FROM SDR 35 TO SDR 26	CSA	SGH/C
0	1/31/07	INITIAL RELEASE	CSA	SGH/C



1. *CORE DRILL THE EXISTING MANHOLE TO MEET THE DESIGN PIPE INVERT SHOWN ON THE PLANS.*
2. *INSTALL LINK SEAL AND PIPE AND VERIFY THE DESIGN PIPE INVERT IS MET.*
3. *TIGHTEN BOLTS AROUND THE LINK SEAL.*
4. *GROUT THE ANNULAR SPACE ON THE INSIDE AND OUTSIDE OF THE MANHOLE WITH BENTONITE, NON-SHRINK GROUT.*

CONNECTING TO EXISTING MANHOLE DETAIL

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE 3/1/2024

PREPARED BY
CENTURY ENGINEERING
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550 BAY ROAD
DOVER, DE 19901
(302) 734-9188

ANDREW JAKUBOWITCH — LICENSE NO. 13906 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

RECOMMENDED — DATE 2/6/2024

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	CAMDEN-WYOMING SEWER AND WATER AUTHORITY SEWER RELOCATION DETAIL SHEET	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 265
					CHECKED BY: J. FREY		

2-FEB-2024
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SEQUENCE OF CONSTRUCTION

1. BEFORE COMMENCING WORK INVOLVING REMOVING OR PLACING IN OPERATION EXISTING OR NEW FACILITIES OR TIE-INS TO EXISTING FACILITIES, THE CONTRACTOR SHALL NOTIFY CWSWA AT LEAST FIVE (5) BUSINESS DAYS IN ADVANCE IN WRITING. CWSWA SHALL BE RESPONSIBLE FOR REMOVING FACILITIES FROM OPERATION AS DEEMED NECESSARY.

2. WORK UNDER THE CONTRACT SHALL BE SCHEDULED AND PERFORMED IN SUCH A MANNER AS TO RESULT IN THE LEAST POSSIBLE DISRUPTION TO THE PUBLIC'S USE OF ROADWAYS, SIDEWALKS, DRIVEWAYS, PARKING AREAS, AND UTILITIES. UTILITIES SHALL INCLUDE, BUT NOT BE LIMITED TO WATER (POTABLE, RECLAIMED OR RAW) TRANSMISSION AND DISTRIBUTION, SANITARY SEWERAGE COLLECTION AND TRANSMISSION, IRRIGATION, STORM DRAINAGE SEWERAGE AND STRUCTURES, GAS, ELECTRICAL DISTRIBUTION AND TRANSMISSION, CABLE TV, FIBER OPTIC CABLES, DATA/TELEPHONE AND TELECOMMUNICATIONS. PRIOR TO COMMENCING WITH THE WORK, CONTRACTOR SHALL PERFORM A LOCATION INVESTIGATION OF ALL EXISTING UNDERGROUND AND ABOVE GROUND UTILITIES AND FACILITIES. UTILITIES THAT PRESENT POTENTIAL CONFLICT WITH THE PROPOSED PIPING SHALL BE FIELD VERIFIED WITH UTILITY TEST PITS.

3. THE OUTLINED SEQUENCE OF CONSTRUCTION DOES NOT INCLUDE ALL ITEMS NECESSARY TO COMPLETE THE WORK BUT IS INTENDED TO IDENTIFY THE SEQUENCE OF CRITICAL EVENTS NECESSARY TO MINIMIZE ANY DISRUPTIONS AND TO AVOID ANY IMPACT TO CONTINUED SYSTEM SERVICE. IT SHALL BE UNDERSTOOD BY THE CONTRACTOR THAT THE CRITICAL EVENTS IDENTIFIED ARE NOT ALL INCLUSIVE AND THAT ADDITIONAL ITEMS OF WORK NOT SHOWN MAY BE REQUIRED. THE SEQUENCE OF CONSTRUCTION IS A PRECEDENCE REQUIREMENT AND DOES NOT ATTEMPT TO SCHEDULE THE CONTRACTOR'S WORK. IT IS INTENDED ONLY TO INDICATE WHICH ACTIVITIES MUST PRECEDE OTHER ACTIVITIES IN ORDER TO MINIMIZE INTERFERENCES AND DISRUPTIONS.

4. AT NO TIME WILL THE CONTRACTOR BE ALLOWED TO DEACTIVATE ANY PORTION OF THE EXISTING WATER SYSTEM BY OPERATING SYSTEM VALVES, PLUGGING OR REMOVING ANY PIPELINES, OR TAKE ANY OTHER ACTION WHICH WOULD AFFECT THE OPERATION OF THE EXISTING SYSTEM, EXCEPT WHEN REQUIRED BY THE CONTRACT DOCUMENTS, AND SPECIFICALLY AUTHORIZED BY CWSWA AFTER PROPER NOTIFICATION.

DETAILED SEQUENCE OF CONSTRUCTION AND OPERATION REQUIREMENTS

1. MOBILIZATION / SITE PREPARATION: MOBILIZE FOR WORK, VIDEO WORKING AREAS, SET UP STAGING AND STORAGE AREAS, OBTAIN PERMITS, DEVELOP AND SUBMIT CONSTRUCTION SCHEDULE, SUBMIT SHOP DRAWING SCHEDULE, SURVEY, LOCATE EXISTING UTILITIES AND ELEVATIONS WITH TEST PITS, VERIFY EXISTING FITTINGS TO BE CONNECTED, SHOP DRAWING SUBMITTALS, AND PROCURE MATERIALS.

2. CONSTRUCTION OF THE WATER SYSTEM: TASKS CONSIST OF THE INSTALLATION OF PROPOSED IMPROVEMENTS AS DESCRIBED IN THE APPROVED CONSTRUCTION DOCUMENTS.

3. PHASING OF THE WORK IS OF PARTICULAR IMPORTANCE. CONSTRUCTION SHALL BE COMPLETED IN SECTIONS, WITH EACH SECTION OF CONSTRUCTION TO BE COMPLETED BEFORE PERFORMING WORK IN ANOTHER SECTION, INCLUDING BUT NOT LIMITED TO:

WATER
- A. INSTALLATION OF WATER MAINS, HYDRANTS, SERVICES AND APPURTENANCES
- B. BACKFILL, COMPACTION AND TRENCH RESTORATION
- C. WATER MAIN TESTING AND DISINFECTION
- D. WATER MAIN AND FIRE HYDRANTS ACCEPTANCE, PLACING IN SERVICE AND ESTABLISHING ALL SERVICE CONNECTIONS
- E. REMOVAL AND ABANDONMENT OF EXISTING FACILITIES, AS NEEDED.

SEWER
- A. INSTALLATION OF SANITARY SEWER FORCEMAIN
- B. BACKFILL, COMPACTION AND TRENCH RESTORATION
- C. FORCEMAIN TESTING
- D. PUT PARCEL 1010 LATERAL BACK INTO SERVICE
- E. REMOVAL AND ABANDONMENT OF EXISTING FACILITIES, AS NEEDED

SEQUENCE OF CONSTRUCTION (CONT.)

COMPLETION OF THE WORK IN A GIVEN PHASE COULD OVERLAP WITH COMMENCEMENT OF WORK ON SUBSEQUENT PHASES. HOWEVER, THE WORK ON THE CURRENT SECTION MUST CONTINUE FROM BEGINNING TO END WITHOUT DELAY OR INTERRUPTION, INCLUDING THE ITEMS LISTED ABOVE.

1. SPECIFIC PHASING SCHEME WILL NOT BE DICTATED BY THE CONTRACT. HOWEVER, PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A PLAN FOR SEQUENCING THE PROJECT SECTIONS.

2. CONSTRUCTION CONSTRAINTS: CONTRACTOR SHALL COMPLY WITH THE FOLLOWING CONSTRAINTS DURING CONSTRUCTION AND UTILIZE CONSTRAINTS IN DETERMINING A SEQUENCE OF CONSTRUCTION:

   A. CONSTRUCTION WORK DURING THE INSTALLATION OF THE PROPOSED WORK SHALL BE LIMITED TO THE PUBLIC RIGHT-OF-WAY. HOMEOWNERS SHALL HAVE ACCESS TO THEIR DRIVEWAYS AND PROPERTIES AT ALL TIMES.

   B. WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPROVED MAINTENANCE OF TRAFFIC PLANS.

   C. FINAL RESTORATION OF ROADS, DRIVEWAYS, SIDEWALKS AND ALL OTHER PAVED AREAS SHALL BE COMPLETED AS DIRECTED BY DELDOT.

   D. CONTRACTOR IS EXPECTED TO WORK ON THE WATERLINE DURING THE REGULAR HOURS OF CWSWA INSPECTORS UNLESS SPECIFIC REQUIREMENTS IN THE CONTRACT DOCUMENTS REQUIRE WORK OUTSIDE OF THOSE HOURS. REQUESTS FOR APPROVAL TO WORK DURING OTHER THAN REGULAR HOURS MUST BE SUBMITTED TO DELDOT AT LEAST 72 HOURS IN ADVANCE OF THE PERIOD PROPOSED FOR SUCH OVERTIME WORK AND SHALL SET FORTH THE PROPOSED SCHEDULE FOR OVERTIME.

THE OUTLINED SEQUENCE OF CONSTRUCTION DOES NOT INCLUDE ALL ITEMS NECESSARY TO COMPLETE THE WORK BUT IS INTENDED TO IDENTIFY THE SEQUENCE OF CRITICAL EVENTS NECESSARY TO MINIMIZE ANY DISRUPTIONS AND TO AVOID ANY IMPACT TO CONTINUED SYSTEM SERVICE.

TCW-W-1

1. INSTALL 10" WATER MAIN FROM STATION 8000+00 TO STATION 8002+20. DO NOT CONNECT THE NEW WATER MAIN TO THE EXISTING MAIN AT STATION 8000+00.
2. INSTALL TEMPORARY BLOW-OFF ASSEMBLY AT STATION 8000+00.
3. INSTALL 60 LF OF 18" CASING PIPE FROM STATION 8002+20 TO STATION 8002+80.
   A. INSTALL 10" WATER MAIN THROUGH THE CASING PIPE.
4. INSTALL 10" WATER MAIN FROM STATION 8002+80 TO STATION 8004+07.
   A. INSTALL ISOLATION VALVE AT STATION 8004+07.
   B. INSTALL FIRE HYDRANT ASSEMBLY AT STATION 8004+12.
5. INSTALL 10" WATER MAIN FROM STATION 8004+12 TO STATION 8004+23.
6. INSTALL 60 LF OF 18" CASING PIPE FROM STATION 8004+23 TO STATION 8004+83.
   A. INSTALL 10" WATER MAIN THROUGH THE CASING PIPE.
7. INSTALL WATER MAIN FROM STATION 8004+83 TO STATION 8005+34.89. DO NOT CONNECT NEW WATER MAIN TO EXISTING WATER MAIN.
8. FILL, PRESSURE TEST AND BACTERIA TEST THE NEW WATER MAIN PER THE STANDARD SPECIFICATIONS IN THE PRESENCE OF CWSWA INSPECTOR.
9. ONCE PRESSURE TESTING HAS PASSED AND BACTERIA TESTING IS APPROVED BY ODW, REMOVE THE TEMPORARY BLOW-OFF AT STATION 8000+00 AND CONNECT THE NEW MAIN TO THE EXISTING MAIN AT BOTH LOCATIONS.
   A. COORDINATE THE SHUT DOWN OF THE WATER MAIN WITH CWSWA.
10. INSTALL NEW WATER SERVICES TO LOTS 822, 823, 824 AND 825.
11. CAP THE ABANDONED WATER MAIN.

TCW-W-2. TCW-W-3, TCW-W-4, TCW-W-5, TCW-W-7

1. COORDINATE SHUT DOWN OF EXISTING WATER MAIN WITH CWSWA.
2. INSTALL NEW WATER MAIN, CONNECTING TO THE EXISTING MAIN BUT DO NOT BACKFILL.
3. RE-ENERGIZE THE WATER MAIN AND VISUALLY INSPECT FOR LEAKS IN THE PRESENCE OF CSWSA INSPECTORS.
4. CONCURRENT WITH INSPECTING THE WATER MAIN, FLUSH THE WATER MAIN AT THE NEAREST HYDRANT USING APPROVED ENERGY DIFFUSERS.
5. BACKFILL TRENCH IF NO LEAKS ARE OBSERVED.

TCW-W-6

1. INSTALL 10" WATER MAIN FROM STATION 8400+00 TO 8400+38.
2. INSTALL 80 LF OF CASING PIPE FROM STATION 8400+38 TO STATION 8401+18.
A. INSTALL 10" WATER MAIN THROUGH THE CASING PIPE.
3. INSTALL 10" WATER MAIN FROM STATION 8401+18 TO STATION 8402+61.
   A. INSTALL WATER MAIN THROUGH THE CASING PIPE.
4. INSTALL 10" WATER MAIN FROM STATION 8402+60 TO 8403+34.78.
   A. INSTALL TEMPORARY BLOW-OFF ASSEMBLY.
5. FILL, PRESSURE TEST AND BACTERIA TEST THE NEW WATER MAIN PER THE STANDARD SPECIFICATIONS IN THE PRESENCE OF CWSWA INSPECTOR.
6. ONCE PRESSURE TESTING HAS PASSED AND BACTERIA TESTING IS APPROVED BY ODW, REMOVE THE TEMPORARY BLOW-OFF AT STATION 8403+34.78, AND CONNECT THE NEW MAIN TO THE EXISTING MAIN AT BOTH LOCATIONS.
7. COORDINATE THE SHUT DOWN OF THE WATER MAIN WITH CWSWA.
8. INSTALL NEW WATER SERVICE CONNECTIONS FOR LOTS 989, 987, AND 988.
9. CAP THE ABANDONED WATER MAIN.

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE 3/1/2024

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ANDREW JAKUBOWITCH · LICENSED · NO. 13906 · DELAWARE · PROFESSIONAL ENGINEER
SEAL

RECOMMENDED — DATE 2/6/2024

ADDENDA / REVISIONS		NOT TO SCALE	WEST CAMDEN BYPASS	CONTRACT T201709502	BRIDGE NO. N/A	CAMDEN-WYOMING SEWER AND WATER AUTHORITY WATER RELOCATION SEQUENCE OF CONSTRUCTION	SECTION CEN
				COUNTY KENT	DESIGNED BY: L. HAXTON		SHEET NO. 266
					CHECKED BY: J. FREY		

7-FEB-2024
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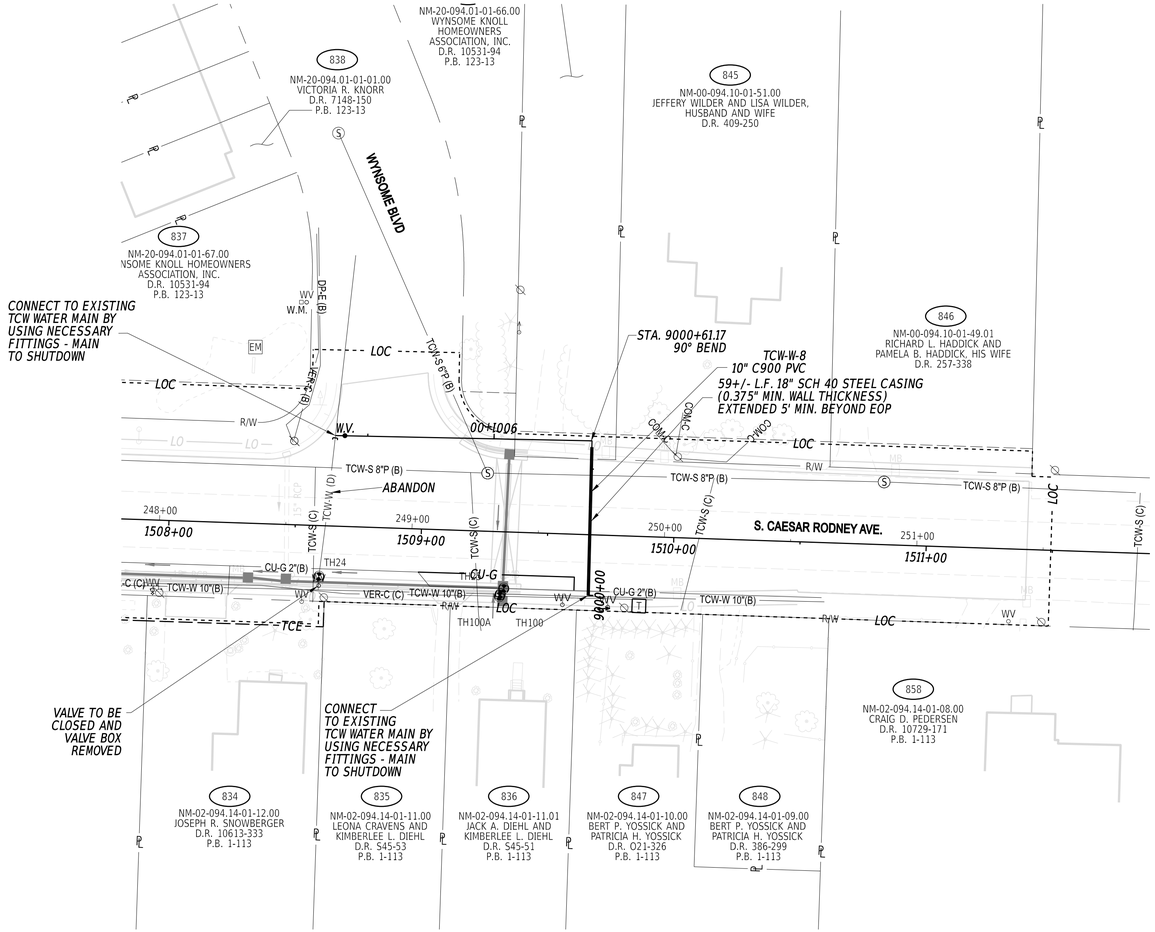

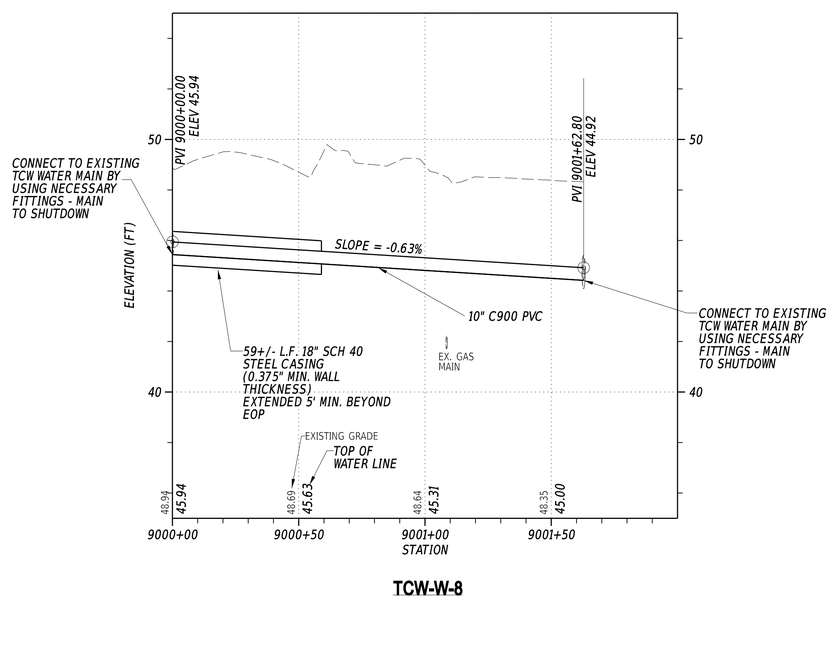

TCW-W-8

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GROUND EL.	COVER	O.D. & MATERIAL
24	TCW	248+63.78	-20.16	48.31	2.90	16" METAL
25	CHESAPEAKE	249+37.12	-22.41	48.65	-2.77	3" METAL
100	TCW	249+35.81	-24.72	48.79	2.75	10" PLASTIC
110A	DELDOT	245+5.14	-18.76	47.29	2.58	16" CONCRETE

RECOMMENDED BY:

CAMDEN-WYOMING SEWER & WATER AUTHORITY — DATE: APR 17 2024

PREPARED BY

CENTURY ENGINEERING
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SEAL

RECOMMENDED — DATE: 4/3/2024

VERTICAL SCALE FEET: 0, 6, 12, 18

UT-07

SECTION: CEN

SHEET NO.: 267

ADDENDA / REVISIONS	
	1/20/23

SCALE: 0, 30, 60, 90 FEET

WEST CAMDEN BYPASS

CONTRACT	T201709502	BRIDGE NO.	N/A
COUNTY	KENT	DESIGNED BY:	L. HAXTON
		CHECKED BY:	J. FREY

CAMDEN-WYOMING SEWER AND WATER AUTHORITY WATER RELOCATION PLAN 6" WATER MAIN

3-APR-2024
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