

THE STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION  
OFFICE OF TRANSPORTATION SOLUTIONS  
PLANS AND SPECIFICATIONS FOR

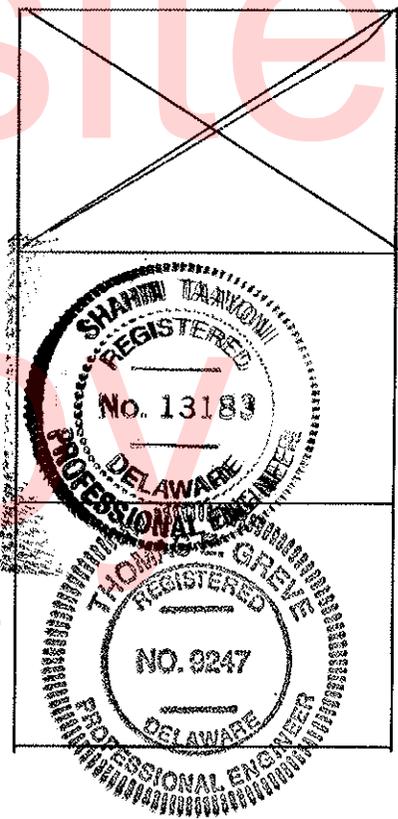
CONTRACT NUMBER- T201680208 CENTRAL MAINTENANCE  
FEDERAL AID NUMBER- NONE PAGE 1 OF 13  
CONTRACT TITLE- DRAINAGE IMPROVEMENTS OPEN-END, CENTRAL DISTRICT,  
FY 17-19

PLANS PREPARED BY: Matthew J. Scho  
CENTRAL DISTRICT DESIGN ENGINEER

DATE RECOMMENDED: \_\_\_\_\_  
\_\_\_\_\_  
CENTRAL DISTRICT CONTRACTS ENGINEER

DATE RECOMMENDED: 5/18/16  
S. Lawton  
CENTRAL DISTRICT MAINTENANCE ENGINEER

DATE APPROVED: 5/18/16  
[Signature]  
CENTRAL DISTRICT ENGINEER



SHAPINI TAAVONI  
REGISTERED  
No. 13183  
DELAWARE  
PROFESSIONAL ENGINEER

THOMAS GREVE  
REGISTERED  
NO. 9247  
DELAWARE  
PROFESSIONAL ENGINEER

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DEPARTMENT OF TRANSPORTATION

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CENTRAL MAINTENANCE

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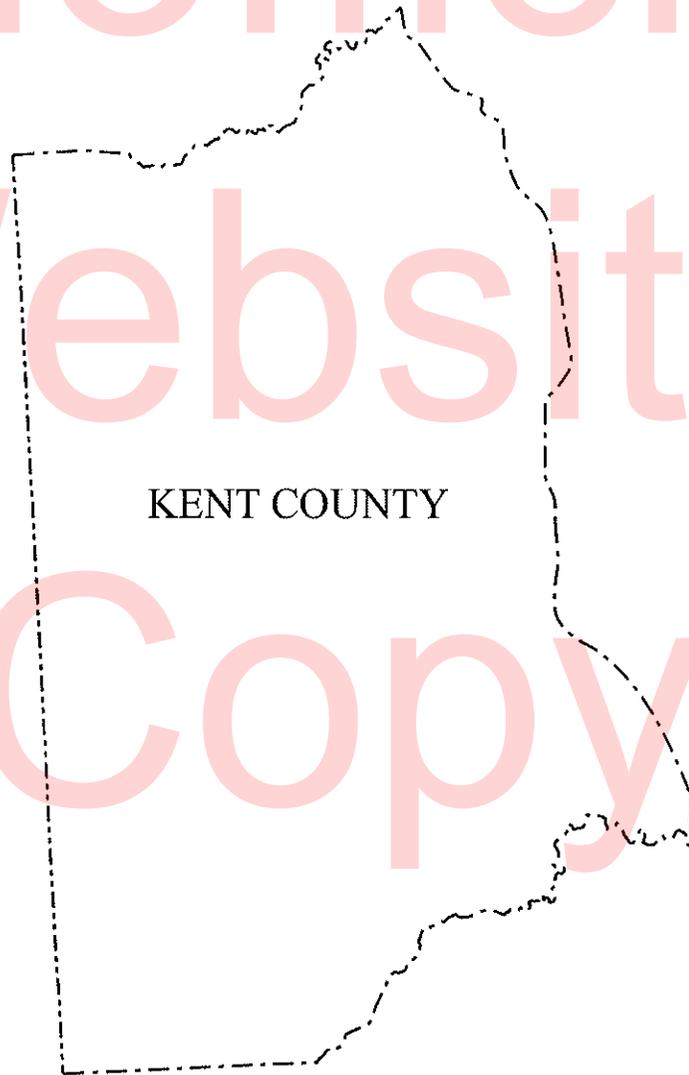
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DRAINAGE IMPROVEMENTS OPEN-END, CENTRAL DISTRICT, FY 17-

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LOCATION MAP

**LOCATION 1- Open End Location - Actual Locations to be determined**



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DEPARTMENT OF TRANSPORTATION

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DRAINAGE IMPROVEMENTS OPEN-END, CENTRAL DISTRICT, FY 17-19

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NOTES

THE NOTES CONTAIN FOUR SECTION HEADINGS: GENERAL, MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS, PROJECT SPECIFICS, AND PAY ITEMS' PARAMETERS.

**GENERAL:**

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

2. THIS IS WORK-ORDER DRIVEN CONTRACT WITH NO KNOWN LOCATIONS. THEREFORE, THIS CONTRACT ENTIRELY IDENTIFIES OPEN-END LOCATIONS FOR THE GENERAL PURPOSE MAKE DRAINAGE IMPROVEMENTS ALONG OR ACROSS ROADS AND/OR STREETS LOCATED WITHIN THE BOUNDARIES OF KENT COUNTY. THE WORK SHALL BE AS THE ENGINEER OR REPRESENTATIVE REQUIRES OR DIRECTS VIA INDIVIDUAL WORK-ORDERS. SUBSECTION 104.05 WILL NOT APPLY TO THIS CONTRACT.

DEPENDING ON FUND AVAILABILITY, THE DEPARTMENT RESERVES THE RIGHT TO PRIORITIZE, SUBSTITUTE, ADD, OR DELETE LOCATIONS AND/OR QUANTITIES AT ANY TIME DURING THIS CONTRACT. SUCH LOCATION OR QUANTITY ADDITIONS OR DELETIONS SHALL NOT BE CAUSE FOR AN INCREASE OR DECREASE IN ANY CONTRACT UNIT BID PRICES. THE CONTRACTOR CANNOT RENEGOTIATE ANY ITEM PRICES DUE TO EITHER AN INCREASE OR DECREASE IN QUANTITY USAGE RESULTING FROM ADDITION OR DELETION OF LOCATIONS DURING THE FIRST TWO YEARS. THE CONTRACTOR CAN ESTIMATE THAT THE DEPARTMENT WILL SPEND APPROXIMATELY 1/3 OF THE CONTRACT BID EACH YEAR.

THE LENGTH OF THIS CONTRACT IS THREE CALENDAR YEARS (1,095 CALENDAR DAYS) FROM THE DATE OF THE "NOTICE TO PROCEED."

3. PERFORMANCE AND PROGRESS OF WORK:

THE DEPARTMENT'S CENTRAL DISTRICT WILL GENERATE THE WORK AND ISSUE THE WORK-ORDERS THAT THE CONTRACTOR IS TO PERFORM UNDER THIS CONTRACT.

EXECUTION OF EACH WORK-ORDER IS TO BEGIN WITHIN FOURTEEN (14) CALENDAR DAYS OF THE DISTRICT'S ISSUANCE TO THE CONTRACTOR. IN ADDITION, THE CONTRACTOR MUST COMPLETE THE WORK WITHIN THE TIME FRAME THAT THE WORK-ORDER ALLOCATES, UNLESS THE NECESSARY MATERIALS ARE NOT AVAILABLE. THE CONTRACTOR SHALL VERIFY THE MATERIAL'S NON-AVAILABILITY BY AT LEAST THREE (3) INDEPENDENT SOURCES. AFTER WHICH, THE CONTRACTOR SHALL PROVIDE THE DEPARTMENT WITH THE VERIFICATION FORMALLY PRESENTED IN WRITING WITHIN FOUR (4) DAYS OF THE WORK-ORDER ISSUANCE.

IF THE CONTRACTOR DOES NOT COMMENCE THE WORK OR DOES NOT PRESENT THE NON-AVAILABILITY OF MATERIALS WITHIN THE ALLOTTED TIME, TIME CHARGES EQUAL TO LIQUIDATED DAMAGES FOR THE WORK-ORDER SHALL COMMENCE. IF THE CONTRACTOR VERIFIES WITH THE DEPARTMENT THAT NON-AVAILABILITY OF MATERIALS IS THE SITUATION, TIME CHARGES SHALL COMMENCE ON THE FIFTEENTH (15) CALENDAR DAY FOLLOWING THE DELIVERY DATE.

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NOTES

SHOULD THE CONTRACTOR FAIL TO COMPLETE A WORK-ORDER IN THE SPECIFIED TIME, THIS SHALL CONSTITUTE THE "FAILURE TO PURSUE THE WORK" AND SUBJECTS THE CONTRACTOR TO LIQUIDATED DAMAGES AS OUTLINED IN SUBSECTION 108.08 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR IS TO COMPLETE EACH WORK-ORDER (OR GROUP OF WORK-ORDERS) WITHIN THE SPECIFIED TIME. AT THE DISCRETION OF THE ENGINEER, THE DISTRICT MAY ADD ADDITIONAL ITEMS AND/OR DAYS TO ANY WORK-ORDER AS NECESSARY. IF THE CONTRACTOR DOES NOT COMPLETE THE WORK ON A SPECIFIC WORK-ORDER ON TIME, THE DISTRICT WILL ASSESS LIQUIDATED DAMAGES IN ACCORDANCE WITH SUBSECTION 108.09 OF THE STANDARD SPECIFICATIONS, WHICH BASES THIS AMOUNT ON THE TOTAL VALUE OF THAT PARTICULAR WORK-ORDER OR WORK-ORDER GROUP, WHICHEVER IS APPLICABLE.

THE DEPARTMENT WILL ATTEMPT TO ASSIGN WORK-ORDERS IN A MANNER THAT WILL KEEP THE DISTANCE BETWEEN JOB ORDER LOCATIONS TO A MINIMUM AND IN A LOGICAL CONSTRUCTION SEQUENCE.

THE DISTRICT WILL PERFORM A SEMI-FINAL INSPECTION FOR EACH WORK-ORDER OR WORK-ORDER GROUP AFTER THE CONTRACTOR PROVIDES THE DEPARTMENT WITH COPIES OF THE COMPLETE WORK-ORDERS. THE CONTRACTOR'S WORK MUST MEET THE DEPARTMENT'S SPECIFICATIONS AND THE REQUIREMENTS AS THESE NOTES DEFINE. THE CONTRACTOR MUST COMPLETE ANY PUNCHLIST WORK WITHIN THIRTY (30) CALENDAR DAYS OF THE EACH SEMI-FINAL INSPECTION, UNLESS THE ENGINEER APPROVES OTHERWISE.

THE CONTRACTOR'S WORK IS SUBJECT TO A FINAL INSPECTION UPON CONTRACT COMPLETION. THE CONTRACTOR WILL HAVE FORTY-FIVE (45) DAYS TO COMPLETE ALL PUNCHLIST WORK FROM THE FINAL INSPECTION DATE, UNLESS THE ENGINEER APPROVES OTHERWISE.

4. THIS CONTRACT INDICATES THE GENERAL LIMITS OF CONSTRUCTION, MAJOR TYPES OF IMPROVEMENTS, AND ESTIMATED QUANTITIES. DURING THE BIDDING PERIOD, THE CONTRACTOR SHALL ADDRESS ANY QUESTIONS PERTAINING TO THIS CONTRACT TO THE CONTRACT ADMINISTRATOR. AFTER THE AWARD, THE CONTRACTOR SHALL REFER SUCH QUESTIONS TO THE APPROPRIATE DISTRICT ENGINEER OR REPRESENTATIVE.

5. THE CONTRACTOR SHALL SUBMIT THE REQUIRED COPIES OF A DETAILED PROGRESS SCHEDULE (PSC) AS OUTLINED IN STANDARD SPECIFICATION 108.04 PRIOR TO OR AT THE PRECONSTRUCTION MEETING. WHEN THE DISTRICT ADDS SPECIFIC LOCATIONS TO THE CONTRACT, THE CONTRACTOR SHALL SUBMIT THE NECESSARY COPIES OF A DETAILED PSC WITHIN FOURTEEN (14) CALENDAR DAYS. THE PSC SHALL INCLUDE A DESCRIPTION OF EACH WORK ACTIVITY, THE DAYS THE CONTRACTOR PLANS TO WORK, INDICATE MULTIPLE CREWS OR SHIFTS, AND WORKING HOURS DURATION. DURING EACH WORK-ORDER, THE CONTRACTOR SHALL SUBMIT TWO-WEEK (OR AS THE DISTRICT REQUIRES) "LOOK AHEAD" SCHEDULES TO THE AREA ENGINEER/REPRESENTATIVE NO LATER THAN NOON OF EACH TUESDAY. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF CURRENT AND FUTURE CONTRACT WORK; HOWEVER, THE CONTRACTOR WILL CONTINUE TO INCUR TIME CHARGES.

6. THE CONTRACTOR SHALL PROVIDE ALL RESIDENTS WHO LIVE ADJACENT TO THE WORK ZONE WITH A MINIMUM 48-HOUR PRIOR WRITTEN NOTICE FOR THE START OF CONSTRUCTION WORK. THIS NOTIFICATION SHALL INCLUDE THE SCOPE OF WORK, LOCATION LIMITS, WORKING HOURS, ANTICIPATED START AND COMPLETION DATES, CONTRACTOR NAME & ADDRESS, AND DELDOT COMMUNITY RELATIONS' CONTACT NUMBER 1-800-652-5600. FAILURE TO GIVE PROPER

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DRAINAGE IMPROVEMENTS OPEN-END, CENTRAL DISTRICT, FY 17-19

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NOTICE WILL RESULT IN A SUSPENSION OF WORK REQUIRING NOTICE, UNTIL THE CONTRACTOR PROVIDES THE PROPER NOTICE. THE CONTRACTOR WILL RECEIVE THE REQUIRED NOTICE AT THE PRECONSTRUCTION MEETING. CONTRACTOR CANNOT PLACE THE NOTICES IN MAILBOXES.

**MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS**

7. THE CONTRACTOR SHALL SUBMIT, A MINIMUM OF TWO WEEKS PRIOR OF THE START OF WORK AT EACH LOCATION, DRAWINGS IN DETAIL (INCLUDING BUT NOT LIMITED TO LANE AND SHOULDER WIDTHS, TURN LANE LENGTHS, LOCATIONS OF STOP BARS, TURN ARROWS, AND RAILROAD CROSSINGS) THAT DEPICT THE EXISTING PAVEMENT MARKINGS FOR EACH PROJECT LOCATION. FINAL PAVEMENT MARKINGS SHALL CONFORM TO ALL EXISTING PATTERNS UNLESS THE ENGINEER DIRECTS OTHERWISE. THE CONTRACTOR SHALL PLACE THE FINAL PAVEMENT MARKINGS WITHIN FIVE (5) CALENDAR DAYS AFTER THE PLACEMENT OF THE FINAL COURSE OF BITUMINOUS PAVEMENT. FAILURE TO COMPLY WILL RESULT IN SUSPENSION OF ALL OTHER CONTRACT WORK; HOWEVER, THE CONTRACTOR WILL CONTINUE TO INCUR TIME CHARGES. THE DEPARTMENT WILL PROVIDE THE STRIPING LAYOUT AT LOCATIONS WHERE NO PAVEMENT MARKINGS PREVIOUSLY EXIST. IF THE DEPARTMENT FORCES PROVIDE THE STRIPING LAYOUT ON LOCATIONS WHERE MARKINGS PREVIOUSLY EXISTED, THEN THE CONTRACTOR SHALL REIMBURSE THE DEPARTMENT FOR THE LAYOUT COSTS. UNLESS THE ENGINEER DIRECTS OTHERWISE, WHITE EDGE LINES SHALL WRAP AROUND THE RADIUS OF ALL SIDE STREETS AND MAJOR COMMERCIAL ENTRANCES TO A TANGENT POINT. YELLOW CENTERLINES SHALL BE CONTINUOUS AROUND MEDIAN ISLANDS. THE DISTRICT SHALL REQUIRE THE CONTRACTOR TO SHOW PROOF THAT THERE IS SUFFICIENT APPROVED STRIPING MATERIALS ON HAND TO ENSURE THE CONTRACTOR COMPLETES THE STRIPING PRIOR TO OPENING THE ROADWAY FULLY TO TRAFFIC.

8. THE CONTRACTOR SHALL SUBMIT A TEMPORARY TRAFFIC CONTROL PLAN, INCLUDING THE NECESSARY NCHRP 350 AND/OR MASH CERTIFICATIONS FOR ALL DEVICES FOR EACH LOCATION, BEFORE THE START OF THE PRECONSTRUCTION MEETING. THE SUBMITTAL MUST CONTAIN THE CLEAR IDENTIFICATION OF ALL APPLICABLE DEVICES AND INFORMATION AS TO EXACTLY WHAT THE CONTRACTOR WILL USE. THE TECHNIQUE OF EITHER CROSSING OUT NON-APPLICABLE INFORMATION OR CIRCLING APPLICABLE INFORMATION IS PREFERABLE. THE CONTRACTOR MUST RECEIVE WRITTEN APPROVAL BEFORE THE START OF WORK AT EACH LOCATION. THE ENGINEER AND DISTRICT SAFETY OFFICER WILL DETERMINE THE TIME RESTRICTIONS FOR EACH LOCATION. TRAFFIC SAFETY OFFICER REQUIRES A TWO-WEEK LEAD TIME PRIOR TO THE START OF WORK AT EACH LOCATION FOR TEMPORARY TRAFFIC CONTROL PLAN AND TIME RESTRICTION REVIEW.

9. THE CONTRACTOR SHALL PERFORM ALL WORK IN A MANNER THAT WILL REASONABLY PROVIDE THE LEAST PRACTICABLE OBSTRUCTION TO ALL ROAD USERS, TO INCLUDE VEHICULAR, PEDESTRIAN, AND BICYCLE TRAFFIC, AND SHALL CONFORM TO THE REQUIREMENTS OF THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PART 6, THAT INCLUDES ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT FOR BIDS.

10. THE DISTRICT WILL NOT PAY FOR ANY ERRONEOUS MARKINGS. THE CONTRACTOR SHALL IMMEDIATELY CORRECT APPLICABLE MARKINGS AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL REMOVE ERRONEOUS MARKINGS OR SHADOWS THAT EXCEED ONE (1)

**DRAINAGE IMPROVEMENTS OPEN-END, CENTRAL DISTRICT, FY 17-19**

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**NOTES**

INCH IN WIDTH BY SAND- OR WATER-BLASTING. THE ENGINEER SHALL APPROVE ANY STRIPING REMOVAL OR CORRECTION METHODS IN ADDITION TO REMOVAL. THE CONTRACTOR SHALL APPLY A FLAT BLACK PAINT OR DRIVEWAY SEALER IN THE AREA OF THE REMOVED MARKING TO MASK THE REPAIR. ANY DAMAGE TO THE PAVEMENT CAUSED BY REMOVAL OF ERRONEOUS MARKINGS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

11. PER THE LATEST VERSION OF THE PERMANENT MARKING SECTION OF THE TRAFFIC CONTROL MANUAL, THE CONTRACTOR SHALL UTILIZE TEMPORARY STRIPING AT LOCATIONS THAT REQUIRE PERMANENT STRIPING, AT THE END OF EACH DAY'S OPERATION, AND PRIOR TO THE REMOVING THE ROAD RESTRICTIONS. CONTRACTOR WILL RECEIVE PAYMENT FOR TEMPORARY PAVMENT MARKINGS AT THE APPLICABLE CONTRACT UNIT PRICE.

12. THE CONTRACTOR SHALL PLACE INTERNATIONAL CROSSWALK SYMBOLS AT ALL EXISTING CROSSWALK LOCATIONS OR OTHER LOCATIONS AS THE ENGINEER DIRECTS. PAYMENT WILL BE PER THE APPLICABLE STRIPING ITEMS.

13. ALL TRAFFIC CONTROL DEVICES SHALL BE IN NEW OR REFURBISHED CONDITION AND SHALL BE IN COMPLIANCE WITH THE TRAFFIC CONTROL MANUAL, NCHRP REPORT 350, AND/OR MASH AS DEFINED IN PART 6 OF THE MANUAL. THE ENGINEER SHALL APPROVE THE DEVICES PRIOR TO USE AND THE CONTRACTOR SHALL MAINTAIN ALL DEVICES TO BE IN GOOD CONDITION FOR THE DURATION OF THE CONTRACT.

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

THE CONTRACTOR SHALL TAKE INTO ACCOUNT THE FOLLOWING CONSIDERATIONS WHEN ADDRESSING ACCESSIBLE PEDESTRIAN MAINTENANCE OF TRAFFIC:

- PROVIDE ALL PEDESTRIANS, INCLUDING PERSONS WITH DISABILITIES, WITH A REASONABLY SAFE, CONVENIENT AND ACCESSIBLE PATH THAT REPLICATES AS MUCH AS PRACTICABLE THE EXISTING PEDESTRIAN FACILITIES.
- MAINTAIN ACCESS TO ALL BUSINESS AND RESIDENTS AT ALL TIMES.
- PROVIDE PEDESTRIAN ACCESS THROUGH OR AROUND THE WORK ZONE. IF THE ENGINEER CHOOSES A DETOUR, THE CONTRACTOR MUST SUBMIT THE DETOUR ROUTE TO THE ENGINEER FOR REVIEW AND APPROVAL. THE DETOUR ROUTE MUST MEET OR EXCEED THE CURRENT CONDITIONS.
- PHASE THE WORK, SO THAT NOT ALL INTERSECTION/SIDEWALK PATH AREAS ARE NOT UNDER CONSTRUCTION AT THE SAME TIME UNLESS A CLEAR PATH IS PROVIDED AND IDENTIFIED.
- TRAFFIC CONTROL DEVICES AND OTHER CONSTRUCTION MATERIALS AND FEATURES SHALL NOT INTRUDE INTO THE USABLE WIDTH OF THE SIDEWALK, TEMPORARY PATHWAY OR OTHER PEDESTRIAN FACILITY.
- DO NOT MOUNT SIGNS AND OTHER DEVICES LOWER THAN SEVEN (7) FT ABOVE THE TEMPORARY PEDESTRIAN PATHWAY AND SHALL NOT PROJECT MORE THAN FOUR (4) INCHES INTO ACCESSIBLE PEDESTRIAN ROUTE.

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NOTES

- PROVIDE A SMOOTH, CONTINUOUS HARD SURFACE THROUGHOUT THE ENTIRE LENGTH AND WIDTH OF THE PEDESTRIAN ROUTE THROUGHOUT CONSTRUCTION. NO CURBS OR VERTICAL ELEVATION CHANGES SHALL BE GREATER THAN 1/4-INCH IN GRADE OR TERRAIN THAT COULD CAUSE TRIPPING OR BE A BARRIER TO WHEELCHAIR USE.

**PROJECT SPECIFICS**

15. A REMINDER TO THE CONTRACTOR THAT SECTION 105.07 OF THE STANDARD SPECIFICATIONS REQUIRES THE GENERAL CONTRACTOR TO HAVE A COMPETENT SUPERINTENDENT OR SUPERVISOR ON THE PROJECT AT ALL TIMES. IF THE ENGINEER OR REPRESENTATIVE FINDS THIS NOT TO BE SO, THE CONTRACTOR IS TO REPLACE THE SUPERINTENDENT OR SUPERVISOR IMMEDIATELY OR RISK PROJECT SUSPENSION.

16. CROSSROAD PIPE LOCATIONS MUST REMAIN OPEN TO ONE-LANE OF TRAFFIC AT ALL TIMES, UNLESS THE CONTRACTOR RECEIVES A DETOUR THAT HAS DEPARTMENT APPROVAL.

17. AN APPROVED PRODUCTION PLANT MUST PROVIDE THE CONTRACTOR WITH ALL PORTLAND CEMENT CONCRETE, UNLESS THE ENGINEER APPROVES OTHERWISE. CONCRETE TRUCKS MUST ONLY USE VOLUMETRIC CALIBRATION TO PROVIDE ON-SITE MIXTURES. THIS REQUIREMENT PERTAINS TO BOTH WORK OCCURRING DURING NORMAL WORK HOURS AND NIGHTTIME WORK RESTRICTIONS.

18. WHERE THE WORK DOES NOT IMPACT ANY JURISDICTIONAL WETLANDS OR WATERS, THEN, NO ENVIRONMENTAL PERMITS ARE NECESSARY. HOWEVER, IF THE CONTRACTOR HAS ANY QUESTIONS AS TO WHETHER A WATER OR WETLAND IS JURISDICTIONAL, CONTACT THE DELDOT ENVIRONMENTAL STUDIES SECTION AT 302-760-2264.

19. CONTRACTOR CAN ANTICIPATE APPROXIMATELY 30 OPEN-END LOCATIONS IN THIS CONTRACT.

20. THE CONTRACTOR SHALL RECEIVE MONTHLY PAYMENTS FOR THE WORK COMPLETED DURING THE LAST MONTH DURING ACTIVE WORK-ORDERS, AS INVOICED AND ACCEPTED BY THE DEPARTMENT.

21. THE CONTRACTOR'S USE OF STEEL PLATES SHALL HAVE THE ENGINEER'S APPROVAL PRIOR TO USE.

22. THE CONTRACTOR SHALL MATCH THE EXISTING MATERIAL AT THE ROAD'S EDGE.

23. ANY WORK THAT IS TO OCCUR ON SATURDAYS AND SUNDAYS, IN ADDITION TO HOLIDAYS AND SPECIAL EVENTS NEEDS APPROVAL FROM THE ENGINEER.

**PAY ITEMS' PARAMETERS**

24. UNLESS OTHERWISE NOTED IN THE PLANS OR DETAILS, SAWCUTTING HOT-MIX SHALL BE PAID UNDER ITEM 762001.

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**DRAINAGE IMPROVEMENTS OPEN-END, CENTRAL DISTRICT, FY 17-19**

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**NOTES**

25. REMOVAL OF HOT-MIX OVER A PIPE TRENCH SHALL BE INCIDENTAL TO THE UNIT COST BID FOR REMOVAL OF STRUCTURES AND OBSTRUCTIONS (PIPE).

26. DRAINAGE INLETS, WHICH ARE 4 FOOT OR GREATER IN DEPTH AND ARE SLATED FOR REPAIR WILL HAVE STEPS INSTALLED IN ACCORDANCE WITH SECTION 708000 OF THE STANDARD SPECIFICATIONS. PAYMENT SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR ITEM 710001.

27. THE COST OF CLIPPING THE ROAD EDGES BACK, PICKING UP AND DISPOSING OF EXCESS SOD AND SWEEPING, AND CLEANING EXISTING PAVEMENT PRIOR TO PATCHING SHALL BE INCIDENTAL TO ALL ITEMS IN SECTION 401.

28. THE CONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF CLASS A CONCRETE, AS STATED WITHIN SECTION 503.02 OF THE DEPARTMENT'S STANDARD SPECIFICATIONS, FOR THE FOLLOWING PORTLAND CEMENT CONCRETE ITEMS: ITEM 710002 - *ADJUST AND REPAIR EXISTING MANHOLES*; ITEM 750000 - *ADJUST WATER VALVE BOX*; AND ITEM 710001 - *ADJUST EXISTING DRAINAGE INLET*.

29. THE CONTRACTOR IS TO COORDINATE 743007 *TRAFFIC OFFICER* NEEDS BY CALLING THE AUTHORITY HAVING JURISDICTION WHETHER IT BE THE LOCAL POLICE DEPARTMENT OR DELAWARE STATE POLICE "COVER YOUR ASSETS" (CYA) PROGRAM AT 302-300-7449 OR 1-800-391-3776 MONDAY THROUGH FRIDAY, 8 A.M. TO 4 P.M. UNLESS AN EMERGENT SITUATION EXISTS, PLEASE PROVIDE AT LEAST TWO WEEKS OF NOTICE. FURTHER COORDINATION CAN OCCUR, AS THE WORK GETS CLOSER. SOMEONE FROM THE LOCAL POLICE DEPARTMENT OR CYA PROGRAM WILL LET THE CONTRACTOR KNOW HOW TO COORDINATE.

30. THE *INITIAL EXPENSE* ITEM 763000, AS BID, IS FOR THE TOTAL VALUE OF THE CONTRACT. USE THE FOLLOWING FORMULA FOR CALCULATING 763000 FOR EACH PAY ESTIMATE:

**Z = TOTAL CONTRACT BID**

**X = COMPLETED WORK FOR ONE PAY ESTIMATE**

**Y = ITEM 763000 BID PRICE**

**$(Y / Z) * X = \text{PAYMENT FOR ITEM 763000 FOR EACH PAY ESTIMATE}$**

THE FINAL ESTIMATE VALUE FOR ITEM 763000 MAY BE HIGHER OR LOWER THAN THE BID PRICE BASED ON WORK COMPLETED DURING THE CONTRACT, PER THE ABOVE FORMULA.

NOTE THAT MOBILIZATION FOR ALL LOCATIONS IS INCIDENTAL TO ITEM 763000 *INITIAL EXPENSE*.

ALSO NOTE THAT THE CONTRACTOR WILL NOT RECEIVE ANY ADDITIONAL PAYMENT FOR ANY ADDITIONAL MOBILIZATIONS THAT THE DISTRICT REQUESTS, NO MATTER IF THE TOTAL COST OF THE ALREADY PERFORMED WORK PLUS INCREASED/DECREASED LOCATIONS STILL DOES NOT EXCEED THE TOTAL AWARD PRICE OF THE CONTRACT.

31. THE DEPARTMENT ANTICIPATES WORK FOR PAY ITEM 763501, *CONSTRUCTION ENGINEERING*, TO BE THE CONTRACTOR TO DETERMINE DITCH INVERTS. THE BASIS FOR THE LUMP SUM FORMULA BID IS OPEN-END LOCATIONS FOR SIXTY (60) DITCH INVERTS. USE THE FOLLOWING FORMULA FOR CALCULATING 763501 FOR EACH APPLICABLE PAY ESTIMATE:

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NOTES

**Z = TOTAL LUMP SUM**

**A = DITCH INVERTS PER LOCATION**

**60 (A) = Z**

32. THE DISTRICT WILL PAY THE CONTRACTOR FOR *MAINTENANCE OF TRAFFIC* (MOT) TA-10 MAINTENANCE OF TRAFFIC SINGLE LANE CLOSURE ON A TWO-LANE, TWO-WAY ROAD USING FLAGGERS OR A SHOULDER CLOSURE ON A ROAD WITH A LESS THAN 40 MPH SPEED LIMIT ONCE PER ROADWAY LOCATION, REGARDLESS OF WHETHER OR NOT BOTH LANES WILL HAVE TO BE SEQUENCED FOR CLOSURE. FOR APPLICABLE LOCATIONS, THE DISTRICT WILL PROCESS THE COST EACH WORK-ORDER'S MOT PAYMENT ON THE NEXT PAY ESTIMATE AFTER THE WORK IS 100% COMPLETE. USE THE FOLLOWING FORMULA FOR CALCULATING 763643 FOR EACH PAY ESTIMATE

**Z = TOTAL CONTRACT BID**

**X = COMPLETED WORK FOR ONE PAY ESTIMATE**

**Y = ITEM 763643 BID PRICE**

**$(Y / Z) * X =$  PAYMENT FOR ITEM 763643 FOR EACH PAY ESTIMATE**

END OF NOTES

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CENTRAL  
MAINTENANCE

DRAINAGE IMPROVEMENTS OPEN-END, CENTRAL DISTRICT, FY 17-19

**LOCATION 1**                      **Open(DRAINAGE OPEN END, VARIOUS LOCATIONS) FROM DRAINAGE OPEN  
END, VARIOUS LOCATIONS TO DRAINAGE OPEN END, VARIOUS LOCATIONS**

LENGTH                      m                                      L.F.

GENERAL IMPROVEMENTS  
DRAINAGE

COMMENTS:

Unofficial  
Website  
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**MATERIAL ESTIMATE FOR LOCATION 1**

208000	EXCAVATION AND BACKFILLING FOR PIPE TRENCHES	1,400.00 C.Y.
210000	FURNISHING BORROW TYPE "C" FOR PIPE, UTILITY TRENCH, AND STRUCTURE BACKFILL	1,050.00 C.Y.
211000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	1.00 L.S.
211004	REMOVAL OF STRUCTURES AND OBSTRUCTIONS (PIPE)	800.00 L.F.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	335.00 TON
302012	DELAWARE NO. 57 STONE	44.00 TON
401821	BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22, PATCHING	120.00 TON
401822	BITUMINOUS CONCRETE, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, PATCHING	120.00 TON
612021	REINFORCED CONCRETE PIPE, 15", CLASS IV	100.00 L.F.
612022	REINFORCED CONCRETE PIPE, 18", CLASS IV	100.00 L.F.
612023	REINFORCED CONCRETE PIPE, 24", CLASS IV	150.00 L.F.
612025	REINFORCED CONCRETE PIPE, 30", CLASS IV	100.00 L.F.
612027	REINFORCED CONCRETE PIPE, 42", CLASS IV	100.00 L.F.
612028	REINFORCED CONCRETE PIPE, 48", CLASS IV	100.00 L.F.
612029	REINFORCED CONCRETE PIPE, 54", CLASS IV	80.00 L.F.
612034	REINFORCED CONCRETE PIPE, 36", CLASS IV	550.00 L.F.
612038	REINFORCED CONCRETE PIPE, 60", CLASS IV	80.00 L.F.
612200	REINFORCED CONCRETE ELLIPTICAL PIPE, 14"X23", CLASS III	100.00 L.F.
612205	REINFORCED CONCRETE ELLIPTICAL PIPE, 19"X30", CLASS IV	100.00 L.F.
612520	CORRUGATED POLYETHYLENE PIPE, TYPE S, 15"	100.00 L.F.
612522	CORRUGATED POLYETHYLENE PIPE, TYPE S, 12"	50.00 L.F.
612523	CORRUGATED POLYETHYLENE PIPE, TYPE S, 18"	50.00 L.F.
612524	CORRUGATED POLYETHYLENE PIPE, TYPE S, 24"	200.00 L.F.
612526	CORRUGATED POLYETHYLENE PIPE, TYPE S, 36"	200.00 L.F.
708050	DRAINAGE INLET, 34" X 18"	3.00 EACH
708051	DRAINAGE INLET, 34" X 24"	3.00 EACH
708052	DRAINAGE INLET, 48" X 30"	3.00 EACH

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CENTRAL  
MAINTENANCE

DRAINAGE IMPROVEMENTS OPEN-END, CENTRAL DISTRICT, FY 17-19

LOCATION 1                      Open(DRAINAGE OPEN END, VARIOUS LOCATIONS) FROM DRAINAGE OPEN  
END, VARIOUS LOCATIONS TO DRAINAGE OPEN END, VARIOUS LOCATIONS

LENGTH                      m    L.F.

GENERAL IMPROVEMENTS  
DRAINAGE

COMMENTS:

MATERIAL ESTIMATE FOR LOCATION 1

708053	DRAINAGE INLET, 48" X 48"	4.00 EACH
708583	PERSONNEL GRATE FOR PIPE INLET	9.00 EACH
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	4.00 EACH
712005	RIPRAP, R-4	200.00 S.Y.
712006	RIPRAP, R-5	20.00 S.Y.
712030	PRESACKED CONCRETE RIPRAP	20.00 C.Y.
712506	GABION ROCK MATTRESS	200.00 C.Y.
713003	GEOTEXTILES, RIPRAP	175.00 S.Y.
714000	LATERAL OR LONGITUDINAL DITCHING	200.00 L.F.
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	32.00 EA-DY
743005	FURNISH AND MAINTAIN PORTABLE LIGHT ASSEMBLY	8.00 EA-DY
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	4.00 EA-DY
743051	FLAGGER, KENT COUNTY, STATE	1,750.00 HOUR
743063	FLAGGER, KENT COUNTY, STATE, OVERTIME	120.00 HOUR
762001	SAW CUTTING, BITUMINOUS CONCRETE	1,500.00 L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	100.00 L.F.
908001	TOPSOIL (TON)	200.00 TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	1,000.00 S.Y.

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CONTRACT QUANTITIES SUMMARY SHEET

208000	EXCAVATION AND BACKFILLING FOR PIPE TRENCHES	1,400.00 C.Y.
210000	FURNISHING BORROW TYPE "C" FOR PIPE, UTILITY TRENCH, AND STRUCTURE BACKFILL	1,050.00 C.Y.
211000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	1.00 L.S.
211004	REMOVAL OF STRUCTURES AND OBSTRUCTIONS (PIPE)	800.00 L.F.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	335.00 TON
302012	DELAWARE NO. 57 STONE	44.00 TON
401821	BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22, PATCHING	120.00 TON
401822	BITUMINOUS CONCRETE, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, PATCHING	120.00 TON
612021	REINFORCED CONCRETE PIPE, 15", CLASS IV	100.00 L.F.
612022	REINFORCED CONCRETE PIPE, 18", CLASS IV	100.00 L.F.
612023	REINFORCED CONCRETE PIPE, 24", CLASS IV	150.00 L.F.
612025	REINFORCED CONCRETE PIPE, 30", CLASS IV	100.00 L.F.
612027	REINFORCED CONCRETE PIPE, 42", CLASS IV	100.00 L.F.
612028	REINFORCED CONCRETE PIPE, 48", CLASS IV	100.00 L.F.
612029	REINFORCED CONCRETE PIPE, 54", CLASS IV	80.00 L.F.
612034	REINFORCED CONCRETE PIPE, 36", CLASS IV	550.00 L.F.
612038	REINFORCED CONCRETE PIPE, 60", CLASS IV	80.00 L.F.
612200	REINFORCED CONCRETE ELLIPTICAL PIPE, 14"X23", CLASS III	100.00 L.F.
612205	REINFORCED CONCRETE ELLIPTICAL PIPE, 19"X30", CLASS IV	100.00 L.F.
612520	CORRUGATED POLYETHYLENE PIPE, TYPE S, 15"	100.00 L.F.
612522	CORRUGATED POLYETHYLENE PIPE, TYPE S, 12"	50.00 L.F.
612523	CORRUGATED POLYETHYLENE PIPE, TYPE S, 18"	50.00 L.F.
612524	CORRUGATED POLYETHYLENE PIPE, TYPE S, 24"	200.00 L.F.
612526	CORRUGATED POLYETHYLENE PIPE, TYPE S, 36"	200.00 L.F.
708050	DRAINAGE INLET, 34" X 18"	3.00 EACH
708051	DRAINAGE INLET, 34" X 24"	3.00 EACH
708052	DRAINAGE INLET, 48" X 30"	3.00 EACH
708053	DRAINAGE INLET, 48" X 48"	4.00 EACH
708583	PERSONNEL GRATE FOR PIPE INLET	9.00 EACH

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CONTRACT QUANTITIES SUMMARY SHEET

710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	4.00 EACH
712005	RIPRAP, R-4	200.00 S.Y.
712006	RIPRAP, R-5	20.00 S.Y.
712030	PRESACKED CONCRETE RIPRAP	20.00 C.Y.
712506	GABION ROCK MATTRESS	200.00 C.Y.
713003	GEOTEXTILES, RIPRAP	175.00 S.Y.
714000	LATERAL OR LONGITUDINAL DITCHING	200.00 L.F.
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	32.00 EA-DY
743005	FURNISH AND MAINTAIN PORTABLE LIGHT ASSEMBLY	8.00 EA-DY
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	4.00 EA-DY
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743063	FLAGGER, KENT COUNTY, STATE, OVERTIME	120.00 HOUR
762001	SAW CUTTING, BITUMINOUS CONCRETE	1,500.00 L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	100.00 L.F.
763000	INITIAL EXPENSE	LUMP SUM
763643	MAINTENANCE OF TRAFFIC, ALL INCLUSIVE	LUMP SUM
908001	TOPSOIL (TON)	200.00 TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	1,000.00 S.Y.