

THE STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION
OFFICE OF TRANSPORTATION SOLUTIONS
PLANS AND SPECIFICATIONS FOR

CONTRACT NUMBER - T201806104
FEDERAL AID NUMBER - NONE

CANAL MAINTENANCE
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CONTRACT TITLE- PAVEMENT & REHABILITATION, NORTH IV, 2018

PLANS PREPARED BY George LeCates
DESIGN TECHNICIAN

DATE RECOMMENDED: 2/23/18

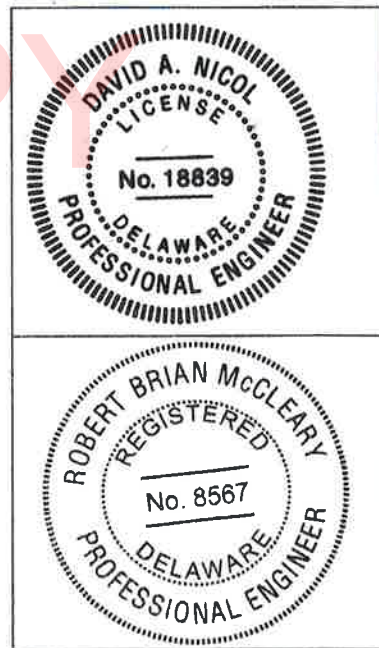
Christy Cates
GROUP ENGINEER, CONSTRUCTION - GROUP 1

DATE RECOMMENDED: 2-27-18

David A. Nicol
ASSIST. DIRECTOR, ENGINEERING SUPPORT

DATE RECOMMENDED: 2/28/18

Robert B. McCleary
CHIEF ENGINEER



DEPARTMENT OF TRANSPORTATION

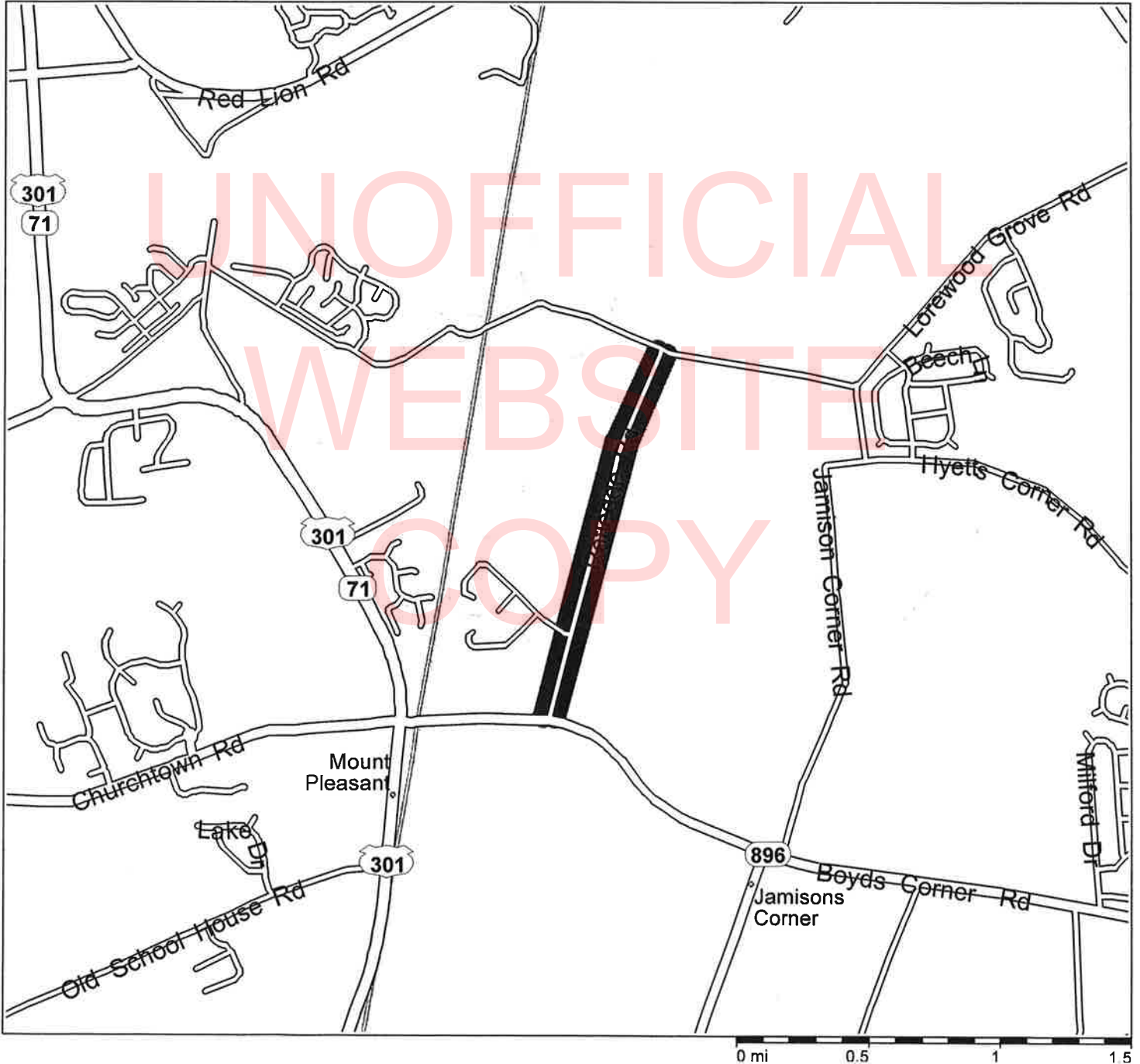
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CHURCHTOWN ROAD (RD432); RATLEDGE ROAD (RD414); OLD STATE ROAD (441); BAYVIEW ROAD (RD423)

LOCATION MAP

Location #1 - Ratledge Road from Lorewood Grove Road to Boyds Corner Road



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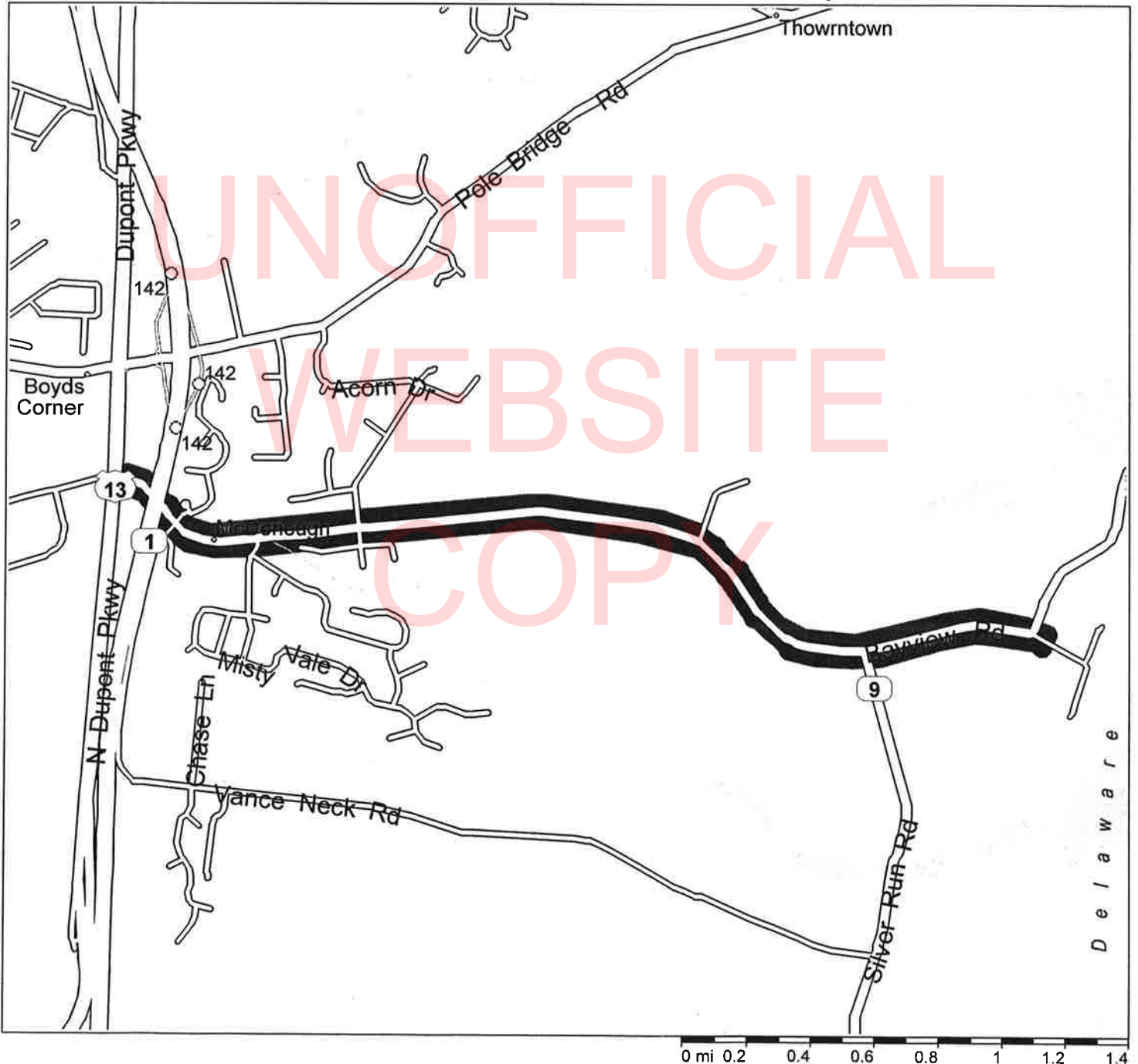
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CHURCHTOWN ROAD (RD432); RATLEDGE ROAD (RD414); OLD STATE ROAD (441); BAYVIEW ROAD (RD423)

LOCATION MAP

Location #2 - Bayview Road from 100' East of DuPont Parkway to 54' East of St. Au...



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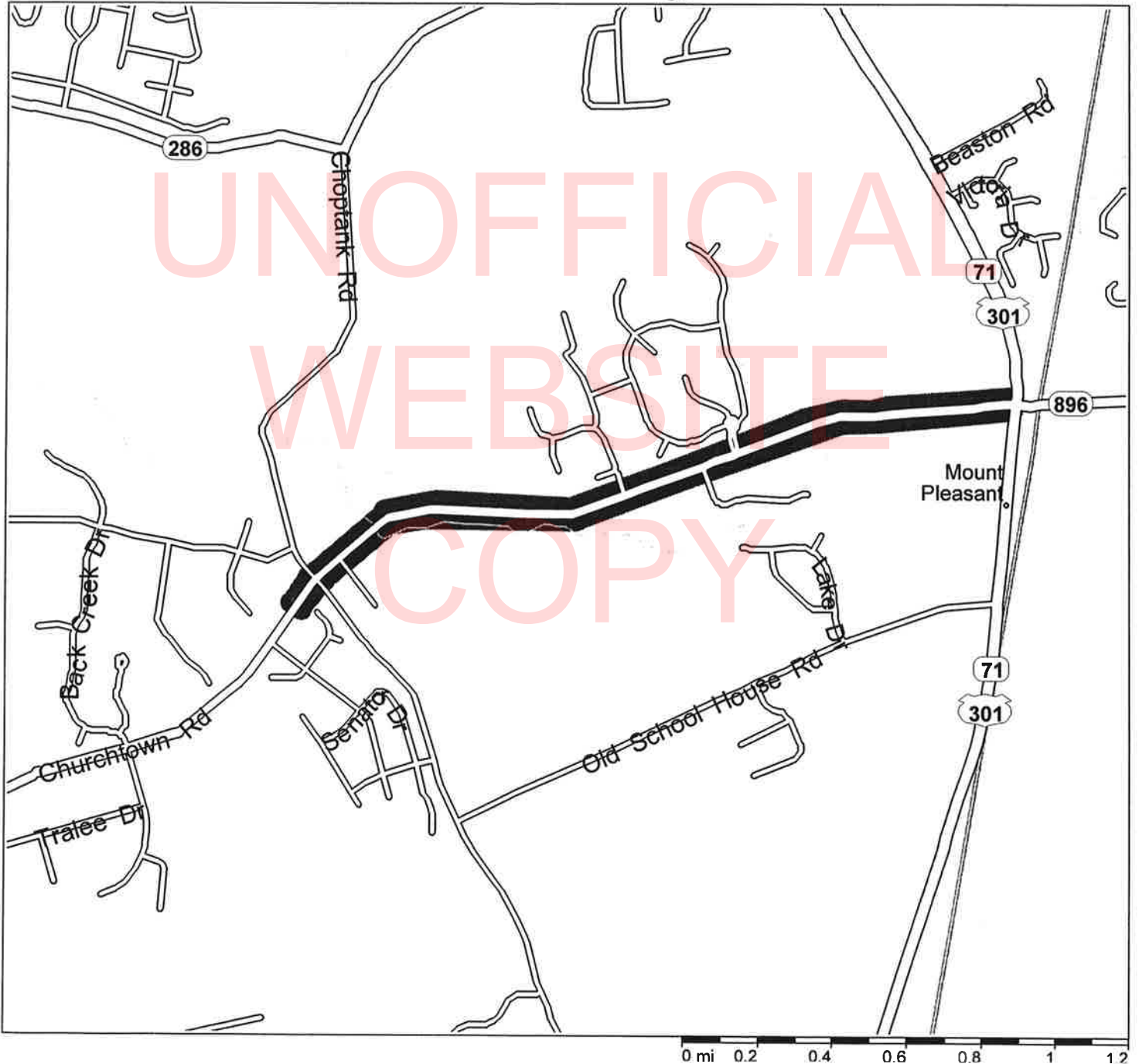
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CHURCHTOWN ROAD (RD432); RATLEDGE ROAD (RD414); OLD STATE ROAD (441); BAYVIEW ROAD (RD423)

LOCATION MAP

Location #3 - Churchtown Road from Summit Bridge Road to Hot-mix Joint West of ...



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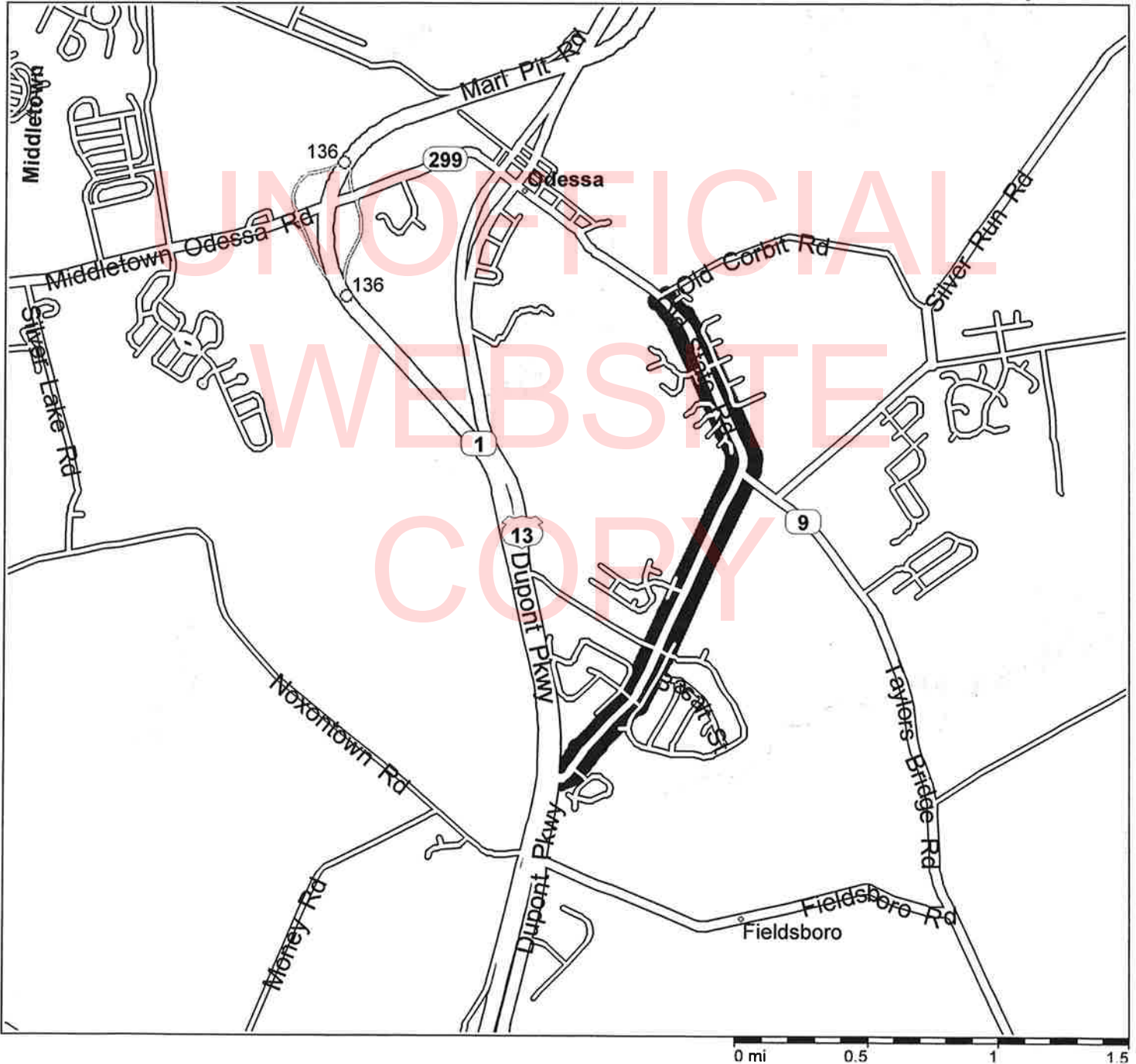
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CHURCHTOWN ROAD (RD432); RATLEDGE ROAD (RD414); OLD STATE ROAD (441); BAYVIEW ROAD (RD423)

LOCATION MAP

Location #4 - Old State Road from Old Corbitt Road to DuPont Parkway



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GENERAL CONTRACT PLAN NOTES

REVISED 10/2016

GENERAL

1. CONSTRUCTION OF THIS CONTRACT SHALL CONFORM TO DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED AUGUST 2016 AS AMENDED BY THE SUPPLEMENTAL SPECIFICATIONS, THE SPECIAL PROVISIONS, THE MOST RECENT STANDARD CONSTRUCTION DETAILS, DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THESE PLANS.

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

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

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

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GENERAL CONTRACT PLAN NOTES

FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

MAINTENANCE OF TRAFFIC

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

6. WITHIN THE MAINLINE WORK AREA, PERMANENT ADVANCE WARNING SIGNS WITH THE LEGENDS "ROAD WORK 1500 FT", "ROAD WORK 1000 FT", AND "ROAD WORK 500 FT" SHALL BE INSTALLED IN ADVANCE OF THE WORK AREA IN BOTH DIRECTIONS. AN "END ROAD WORK ZONE" SIGN SHALL BE LOCATED 500 FEET DOWNSTREAM FROM THE WORK AREA. ON INTERSECTING ROADWAYS WITHIN THE PROJECT LIMITS, A "ROAD WORK AHEAD" SIGN SHALL BE PLACED AT A DISTANCE NOT LESS THAN 500 FEET DOWNSTREAM OF THE WORK AREA. ALL PERMANENT ADVANCE WARNING SIGNS SHALL BE GROUND-MOUNTED ON TWO NCHRP-350 OR MASH APPROVED BREAKAWAY POSTS AND SHALL BE MOUNTED IN COMPLIANCE WITH THE DE-MUTCD. PERMANENT ADVANCE WARNING SIGNS SHALL BE MOUNTED AT A HEIGHT OF 7 FEET, MEASURED FROM THE ROADWAY TO THE BOTTOM OF THE SIGN. THE USE OF SKID-MOUNTED SIGN SUPPORTS IS NOT ALLOWED UNLESS THE CONTRACTOR CAN DEMONSTRATE THAT A UTILITY CONFLICT EXISTS, WHICH SHALL BE VERIFIED BY THE ENGINEER; OR CONCRETE MEDIANS PREVENT THE INSTALLATION OF THE PERMANENT SIGNS IN THE APPROPRIATE LOCATION.

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

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GENERAL CONTRACT PLAN NOTES

8. ALL WORK SHALL BE PERFORMED IN A MANNER THAT WILL REASONABLY PROVIDE THE LEAST PRACTICABLE OBSTRUCTION TO ALL ROAD USERS, INCLUDING VEHICULAR, PEDESTRIAN AND BICYCLE TRAFFIC, AND SHALL CONFORM TO THE REQUIREMENTS OF THE 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PART 6, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT FOR BIDS.

9. CURB RAMP AND/OR SIDEWALK CONSTRUCTION (NOT INCLUDING MEDIAN ISLANDS) SHALL BE COMPLETED DURING A SINGLE OPERATION. THE RAMP/SIDEWALK SHALL BE REMOVED AND PLACED BACK THE SAME NIGHT/DAY AND OPEN TO PEDESTRIAN TRAFFIC THE FOLLOWING DAY. THE USE OF A MONOLITHIC POUR SHALL BE PERMITTED WITH A BOND BREAKER TO BE PLACED AT THE BACK OF THE CURB AND EDGE OF SIDEWALK. IF THE CURB RAMP/SIDEWALK CANNOT BE COMPLETED IN A SINGLE OPERATION THE EXCAVATED AREA MUST BE BACKFILLED TO GRADE WITH COMPACTED MILLING MATERIAL ONLY. THIS MATERIAL WILL BE INCIDENTAL TO THE CURB RAMP ITEM. THE DRESSING UP OF THE AREA BEING PAID AS A CURB RAMP WITH TOPSOIL AND SEED WILL BE INCIDENTAL TO THE CURB RAMP ITEMS. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AND ALONG PEDESTRIAN FACILITIES AT ALL TIMES DURING CONSTRUCTION. EARTH, STONE AND GRAVEL SURFACES ARE NOT ACCEPTABLE FOR PROVIDING PEDESTRIAN ACCESS. IF CURB RAMP CANNOT BE COMPLETED IN A SINGLE OPERATION AND PEDESTRIAN ROUTES ARE CLOSED OR BLOCKED, ALTERNATE PEDESTRIAN ACCESS SHALL BE PROVIDED USING TA-28 AND/OR TA-29 OF THE 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR TO THE SATISFACTION OF THE ENGINEER. PEDESTRIAN DETOUR ROUTES OR ALTERNATE PEDESTRIAN FACILITIES SHALL CONSIST OF ADA COMPLIANT FACILITIES TO THE LEVEL OF WHICH EXISTS ON THE PEDESTRIAN ROUTE. THE COST FOR ANY PROVISIONS SHALL BE INCIDENTAL TO ITEM 801XXX - MAINTENANCE OF TRAFFIC - ALL INCLUSIVE.

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

THE CONTRACTOR SHALL BE REQUIRED TO REVIEW EACH CURB RAMP LOCATION AND SUBMIT THE APPROPRIATE MAINTENANCE OF TRAFFIC DETAIL AND DEVICES TO THE ENGINEER FOR EACH LOCATION AT LEAST 2 WEEKS BEFORE CONSTRUCTION FOR REVIEW, COMMENT, AND APPROVAL BY THE DISTRICT TRAFFIC SAFETY OFFICER

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THE FOLLOWING CONSIDERATIONS SHALL BE TAKEN INTO ACCOUNT WHEN ADDRESSING ACCESSIBLE PEDESTRIAN MAINTENANCE OF TRAFFIC:

ALL PEDESTRIANS, INCLUDING PERSONS WITH DISABILITIES, SHALL BE PROVIDED WITH A REASONABLY SAFE, CONVENIENT AND ACCESSIBLE PATH THAT REPLICATES AS MUCH AS PRACTICABLE THE EXISTING PEDESTRIAN FACILITIES.

MAINTAIN ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES.

PROVIDE PEDESTRIAN ACCESS THROUGH OR AROUND THE WORK ZONE. IF A DETOUR IS CHOSEN THE CONTRACTOR MUST SUBMIT THE DETOUR ROUTE TO THE ENGINEER FOR REVIEW AND APPROVAL. THE DETOUR ROUTE MUST MEET OR EXCEED THE CURRENT CONDITIONS.

WORK SHOULD BE PHASED SO THAT ALL AREAS OF AN INTERSECTION/SIDEWALK PATH ARE NOT UNDER CONSTRUCTION AT THE SAME TIME UNLESS A CLEAR PATH IS PROVIDED AND IDENTIFIED.

TRAFFIC CONTROL DEVICES AND OTHER CONSTRUCTION MATERIALS AND FEATURES SHALL NOT INTRUDE INTO THE USABLE WIDTH OF THE SIDEWALK, TEMPORARY PATHWAY OR OTHER PEDESTRIAN FACILITY.

SIGNS AND OTHER DEVICES MOUNTED LOWER THAN 7 FT ABOVE THE TEMPORARY PEDESTRIAN PATHWAY SHALL NOT PROJECT MORE THAN 4 IN. INTO ACCESSIBLE PEDESTRIAN ROUTE.

A SMOOTH, CONTINUOUS HARD SURFACE SHALL BE PROVIDED THROUGHOUT THE ENTIRE LENGTH AND WIDTH OF THE PEDESTRIAN ROUTE THROUGHOUT CONSTRUCTION. THERE SHALL BE NO CURBS OR VERTICAL ELEVATION CHANGES GREATER THAN ¼ IN. IN GRADE OR TERRAIN THAT COULD CAUSE TRIPPING OR BE A BARRIER TO WHEELCHAIR USE.

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10. AN AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR SHALL BE REQUIRED FOR ALL LOCATIONS SPECIFIED IN THE CONTRACT PLANS. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT OR ANOTHER ATSSA CERTIFIED MEMBER OF THE CONTRACTOR'S PROJECT STAFF MAY BE THE ATSSA SUPERVISOR. A COPY OF THE CERTIFICATION CARD FOR THE ATSSA TRAFFIC CONTROL SUPERVISOR SHALL BE SUBMITTED AT THE PRECONSTRUCTION MEETING. THE PAPER CERTIFICATE IS NOT ACCEPTABLE.

11. MESSAGE BOARDS SHALL BE PLACED 10 DAYS IN ADVANCE OF THE WORK AND SHALL REMAIN IN PLACE FOR 5 DAYS AFTER THE START OF WORK. LOCATIONS OF MESSAGE BOARDS AND MESSAGES DISPLAYED SHALL BE REVIEWED AND APPROVED BY THE DISTRICT SAFETY OFFICER.

12. **HOLIDAY AND SPECIAL EVENTS**

TRAVEL LANE AND RAMP CLOSINGS ON MULTILANE HIGHWAYS AND INTERSTATES SHALL NOT BE PERMITTED DURING THE FOLLOWING HOLIDAY/EVENT PERIODS:

- DECEMBER 24 THROUGH DECEMBER 27 (CHRISTMAS DAY)
- DECEMBER 31 THROUGH JANUARY 3 (NEW YEAR'S DAY)
- FRIDAY PRIOR TO EASTER THROUGH EASTER SUNDAY
- THURSDAY PRIOR TO MEMORIAL DAY THROUGH THE TUESDAY FOLLOWING MEMORIAL DAY
- DOVER INTERNATIONAL SPEEDWAY RACE WEEKENDS (THURSDAY PRIOR TO THE RACE EVENT THROUGH THE DAY AFTER THE RACE EVENT)
- JULY 3 THROUGH JULY 5 (INDEPENDENCE DAY)
- THURSDAY PRIOR TO LABOR DAY THROUGH THE TUESDAY FOLLOWING LABOR DAY
- WEDNESDAY PRIOR TO THANKSGIVING DAY THROUGH THE MONDAY FOLLOWING THANKSGIVING DAY

GENERAL CONTRACT PLAN NOTES

- FIREFLY MUSIC FESTIVAL – WEDNESDAY PRIOR TO THE EVENT THROUGH THE MONDAY FOLLOWING THE EVENT

ADDITIONAL TIME RESTRICTIONS MAY APPLY AS NOTED IN THE PROJECT PLANS OR AS DIRECTED BY THE ENGINEER. ANY REQUESTS TO WAIVE ANY RESTRICTIONS MUST BE MADE IN WRITING TO THE ENGINEER FOR REVIEW AND APPROVAL. A COPY OF THE REQUEST SHALL BE PROVIDED TO THE DISTRICT SAFETY OFFICER FOR REVIEW.

PAVEMENT MARKINGS

13. SIGNING AND STRIPING PLANS WILL BE PROVIDED AT THE PRECONSTRUCTION MEETING. THE CONTRACTOR WILL NOT BE REQUIRED TO SUBMIT DETAILED DRAWINGS OF THE EXISTING PAVEMENT MARKINGS.

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

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

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

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

TRAFFIC SIGNAL NOTES

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

18. TRAFFIC DETECTION LOOPS THAT ARE CURRENTLY 5'x7' SHALL BE REPLACED WITH LOOPS THAT ARE 6'x6' AT THE SAME LOCATION. STOP BAR DETECTION LOOPS SHALL BE THE SAME SIZE AS CURRENTLY EXISTING, AND SHOULD BE PLACED STARTING ONE FOOT BEHIND THE STOP BAR, BUT PLACEMENT MAY BE ADJUSTED TO ADDRESS FIELD REQUIREMENTS. IF SEPARATE SIGNAL PLANS HAVE BEEN DEVELOPED, THE PLANS SUPERSEDE THIS NOTE.

PROJECT

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

20. THE COST OF CLIPPING BACK THE EDGES OF THE ROADWAY, SHOULDERS, AND THE FIRST 3' OF UNPAVED DRIVEWAY ENTRANCES, PICKING UP AND DISPOSING OF WASTE AND EXCESS MATERIAL, AND CLEANING THE EXISTING PAVEMENT PRIOR TO OVERLAY SHALL BE INCIDENTAL TO SECTION 401(). PREPARING UNPAVED DRIVEWAY ENTRANCES BEYOND THE FIRST 3' SHALL BE PAID UNDER THE APPROPRIATE CONTRACT ITEMS: 202000 AND/OR 30200X.

21. BUTT JOINTS SHALL BE PLACED AT ALL INTERSECTING HOT MIX ROADS AND ANY OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. BUTT JOINTS AT DRAINAGE STRUCTURES NOT TO BE RESURFACED SHALL BE AS PER THE INCLUDED PLAN DETAIL OR LOCATION NOTES. BUTT JOINTS CUT PRIOR TO THE DAY OF THE PAVEMENT OVERLAY SHALL BE RAMPED WITH HOT MIX TRM. IN MILLING AREAS, THERE WILL BE NO SEPARATE PAYMENT FOR BUTT JOINTS. AFTER PAVEMENT MILLING, ALL

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GENERAL CONTRACT PLAN NOTES

TRANSVERSE VERTICAL DIFFERENCES, RAISED EDGES OF MANHOLES, CATCH BASINS, WATER VALVE BOXES, ETC...SHALL BE RAMPED WITH HOT-MIX TRM AT A 20:1 OR FLATTER SLOPE PRIOR TO OPENING THE ROADWAY TO TRAFFIC. PAVEMENT MILLINGS WILL NOT BE ALLOWED FOR USE AS RAMPING MATERIAL.

22. TAPER MILLING IS INTENDED FOR MILLING IN THE AREA OF FIXED STRUCTURES (I.E. CURBS GUARDRAIL, ETC.) THE MILLED DEPTH AT THE STRUCTURE SHALL BE THE DEPTH OF THE PROPOSED OVERLAY AND 0" AT A DISTANCE OF +/- 6½' FROM THE STRUCTURE. THE COMPUTED DEPTH FOR PAYMENT PURPOSES IS THE AVERAGE OF THE TWO DEPTHS.

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

24. EXCAVATION UP TO 1' IN FRONT OF CURB WILL BE INCIDENTAL TO ITEM 701XXX. HOT MIX PLACED IN FRONT OF CURB WILL BE PAID UNDER ITEM 401XXX. USE OF CONCRETE AS FILL IN FRONT OF CURB WILL NO LONGER BE ACCEPTED UNLESS DIRECTED BY THE ENGINEER. AT EACH LOCATION, BACKFILLING SHALL BE PERFORMED IMMEDIATELY UPON REMOVAL OF FORMS FOR CURB OR SIDEWALK. TOPSOIL, SEEDING, SEALING OF VALLEY GUTTERS, REMOVING OF FORMS, AND PARGING OF CATCH BASINS, SHALL BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS OF COMPLETION OF THE ITEM OF WORK. ITEM 908XXX, TOPSOIL, SHALL BE USED AS BACKFILL MATERIAL BEHIND CURB AND AROUND SIDEWALK OR/AS DIRECTED BY THE ENGINEER. TOPSOIL SHALL BE SCREENED/SIFTED SO AS NO MATERIAL GREATER THAN .5" IS PRESENT IN MATERIAL USED FOR BACKFILL. EXCAVATED MATERIAL, NOT NEEDED ON THE PROJECT, SHALL BE REMOVED FROM THE CONTRACT AT THE CONTRACTORS EXPENSE. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

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

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GENERAL CONTRACT PLAN NOTES

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

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

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

29. DRAINAGE INLETS, WHICH ARE 4' GREATER IN DEPTH AND ARE SLATED FOR REPAIR WILL HAVE STEPS INSTALLED IN ACCORDANCE WITH SECTION 602.03 OF THE STANDARD SPECIFICATIONS. PAYMENT SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR ITEM 602XXX.

30. THE PORTLAND CEMENT CONCRETE USED FOR ITEM 602130 - ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET, ITEM 602132 - ADJUST AND REPAIR EXISTING MAN HOLES AND ITEM 710002 - ADJUST WATER VALVE BOX SHALL CONFORM TO THE REQUIREMENTS OF CLASS A CONCRETE (6 HOUR ROADWAY MIX) AS STATED WITHIN SECTION 503.03.7 OF THE DEPARTMENT'S STANDARD SPECIFICATIONS. ALSO, THE PERIMETER OF THE UTILITY ADJUSTMENT WILL BE SEALED AND WILL BE CONSIDERED INCIDENTAL TO THE APPLICABLE ADJUSTMENT ITEM.

31. WHEN JACKHAMMERING OR THE USE OF A BREAKER IS NECESSARY ON CONTRACTS THAT OCCUR DURING THE NIGHTTIME HOURS THE JACKHAMMERING AND BREAKING MUST CEASE AT 12:00AM REGARDLESS OF ANY NOISE WAIVER THAT MAY EXIST.

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GENERAL CONTRACT PLAN NOTES

32. ANY MILLING MATERIAL REQUIRED TO MAKE AREAS ADA COMPLIANT IF NOT COMPLETED IN THE SAME SHIFT AT CURB, SIDEWALK, CURB RAMPS, ISLANDS, ETC. WILL BE INCIDENTAL TO THE PAY ITEM ASSOCIATED WITH THE WORK. MILLING MATERIAL IS THE ONLY APPROVED MATERIAL FOR THIS PRACTICE.

33. WHEN CONTRACT INCLUDES ITEMS 503001 AND 503002 PATCHES WILL BE PRESUMED TO BE STANDARD PATCH SIZES AND LOCATIONS WILL BE DETERMINED AT THE CONSTRUCTION PRE-WALK. THE USE OF STEEL PLATES WILL BE PROHIBITED. ROADWAY MUST BE RETURNED TO UNRESTRICTED USE AT THE END OF EACH WORK DAY. ALL PCC PAVEMENT WILL BE PRESUMED TO BE 9".

34. ITEM 763621 CONSTRUCTION ENGINEERING, REHABILITATION WILL COMPENSATE THE CONTRACTOR FOR THE FOLLOWING SURVEY ACTIVITIES. ANY LAYOUT ASSOCIATED WITH ADA IMPROVEMENTS, PROVIDING GRADES FOR UTILITY ADJUSTMENTS IF NECESSARY, THE LAYOUT OF LANE LINES FOR PAVING, GRADES FOR THE INSTALLATION OF DRAINAGE STRUCTURES OR OTHER ITEMS OF WORK AS DETERMINED BY THE ENGINEER OR PROGRAM MANAGER. THIS ITEM WILL NOT COMPENSATE THE CONTRACTOR FOR THE LAYOUT OF STRIPING AS THIS IS THE RESPONSIBILITY OF THE STRIPING SUBCONTRACTOR. THE HOURLY PAYMENT WILL BE BASED UPON ACTUAL HOURS OF SURVEYING PERFORMED IN THE FIELD. IT WILL NOT INCLUDE TIME SPENT IN VEHICLE OR OFFICE. THE SURVEY CREW WILL BE RESPONSIBLE UPON ARRIVAL AND DEPARTURE ON THE JOBSITE TO CONTACT A MEMBER OF THE INSPECTION STAFF SO THAT HOURS CAN BE TRACKED FOR PAYMENT. THE CONSEQUENCE FOR NOT DOING THIS WILL BE NON-PAYMENT FOR THE SURVEYING SERVICES.

35. UPON RECEIPT OF THE MONTHLY PAY ESTIMATE ANY ISSUES OR DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER/PROGRAM MANAGER IF POSSIBLE BEFORE THE ISSUANCE OF THE NEXT PAY ESTIMATE. TO ALLOW FOR INVOICES FROM SUBCONTRACTORS ETC., A 60 DAY TIME PERIOD TO REPORT DISCREPANCIES WILL BE PERMITTED. ANY DISCREPANCIES BEYOND THE 60 DAY TIME PERIOD WILL NOT BE ENTERTAINED.

36. FOR ITEM 806001 TRAFFIC OFFICERS, REQUIRED INVOICES WILL BE REVIEWED FOR ACCURACY. ANY MAJOR INACCURACIES WILL BE ADJUSTED ACCORDINGLY. FOR EXAMPLE, IF INVOICE SHOWS CHARGED HOURS ON A CERTAIN DATE AND WE HAVE DOCUMENTATION THAT NO WORK OCCURED THAT DATE OR NO OFFICERS WERE PRESENT THE INVOICE WILL BE ADJUSTED ACCORDINGLY.

37. PCC PATCHING: WHEN THE PATCH SURFACE WILL BE PART OF THE FINAL SURFACE OF THE ROADWAY, THE PATCH SURFACE SHALL BE FINISHED TO MATCH THE TEXTURE OF THE ADJACENT

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PAVEMENT. THE PATCH SURFACE CROSS SECTION SHALL MATCH THE PRECEDING AND FOLLOWING PAVEMENT SURFACES. THE ENGINEER MAY TEST FOR EXCESSIVE DEVIATIONS WITH A 10 FOOT STRAIGHTEDGE. WHEN TESTED WITH A STRAIGHTEDGE, EXCESSIVE DEVIATIONS ARE SURFACE DEVIATIONS GREATER THAN 1/8 INCH FROM A REFERENCE LINE BETWEEN POINTS NOT GREATER THAN 10 FEET APART ALONG THE DIRECTION OF TRAFFIC. THE CONTRACTOR SHALL CORRECT UNACCEPTABLE DEVIATIONS IN THE PATCH AREAS.

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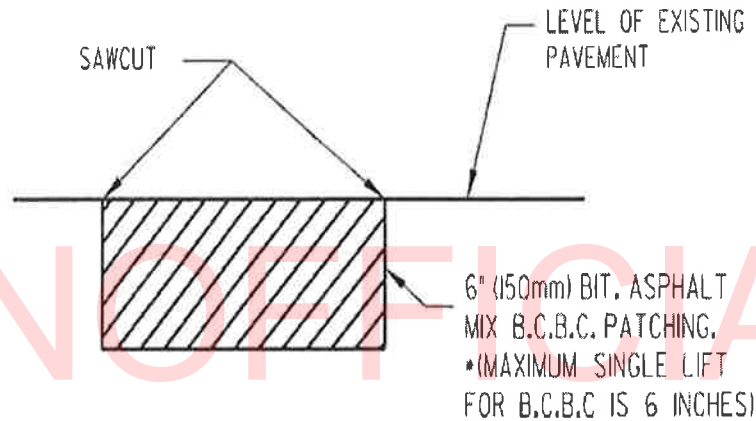
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CANAL

CHURCHTOWN ROAD (RD432); RATLEDGE ROAD (RD414); OLD STATE ROAD (441); BAYVIEW ROAD (RD423)

DETAILS SHEET



BITUMINOUS CONCRETE MIX PATCH DETAIL

N.T.S.

NOTE: ALL EDGES TO BE SAWCUT. CUTTING BY USE OF AIR HAMMERS MAY BE SUBSTITUTED FOR SAWCUTTING IF THE AREA IS TO BE OVERLAID UNDER THE SAME CONTRACT. THIS DETAIL SHALL BE USED FOR ALL HOT-MIX PATCHES UNLESS OTHERWISE SHOWN ON THE PLANS.

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT NUMBER- T201806104

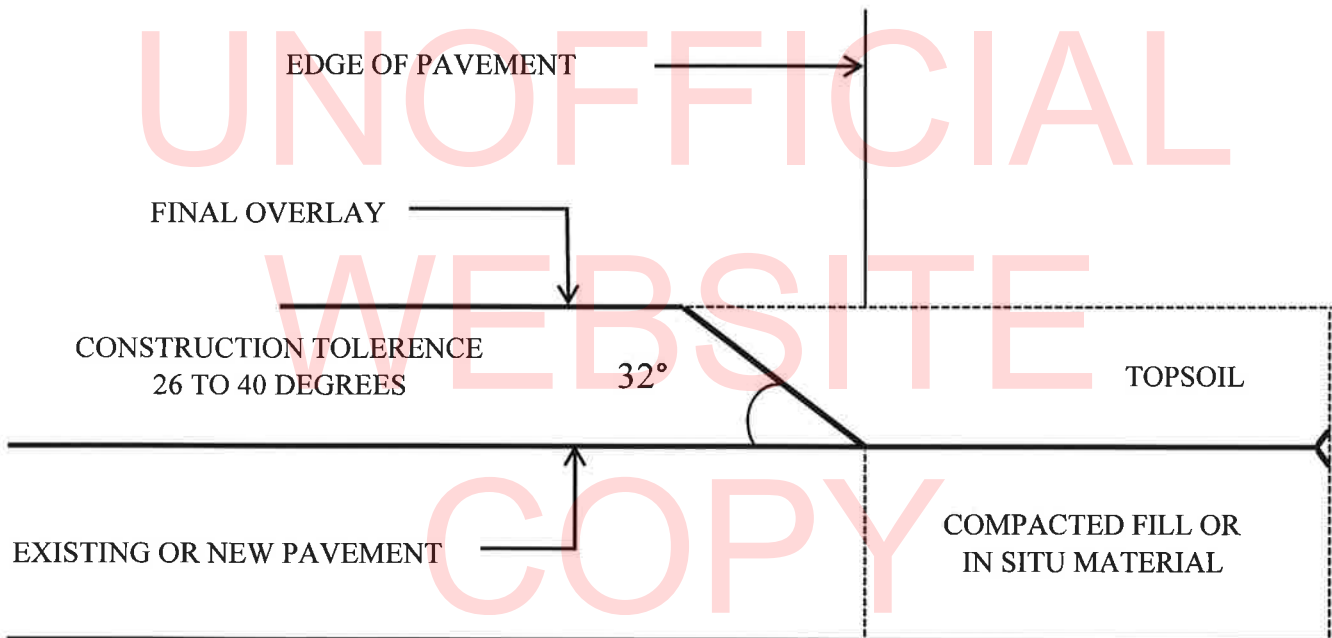
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CANAL CHURCHTOWN ROAD (RD432); RATLEDGE ROAD (RD414); OLD STATE ROAD (441); BAYVIEW ROAD (RD423)

DETAILS SHEET

SAFETY EDGE DETAIL

NOT TO SCALE



BITUMINOUS AND CONCRETE PAVEMENTS

NOT TO SCALE

IN P.C.C. PAVEMENT SECTIONS, THE PAVER SCREED SHALL BE MODIFIED TO PROVIDE A CHAMFER AT THE END OF THE P.C.C. PAVEMENT IN ACCORDANCE WITH THE DETAILS AND NOTES ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

DELAWARE DEPARTMENT OF TRANSPORTATION

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CANAL CHURCHTOWN ROAD (RD432); RATLEDGE ROAD (RD414); OLD STATE ROAD (441); BAYVIEW ROAD (RD423)

DETAILS SHEET

Construction TRM Specification Change to Maintenance of Traffic - All Inclusive

1). The use of Millings and GABC in the travel way, temporary travel way, high volume entrances and access ramp for the purpose of providing a temporary roadway surface, pothole repair, tapered edge for utilities, butt joints, 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. Taper mill bituminous concrete shall be paid under the bituminous concrete milling item.

2). 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 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 dropoff

Grading and maintaining base course that is being used for roadway wedge/fillet between travel lanes and pavement box, edge of travelway, driveway or entrance access shall be incidental to 801500 - Maintenance of Traffic All Inclusive. The base course material shall be placed at no greater than the slope specified in table 6G-1 and shall be compacted. Excess base course material shall be pushed ahead and used in the next segment and shall be incidental to the particular base course pay item. No separate payment shall be made for 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 Delaware MUTCD.

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT T201806104

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CANAL

PAVEMENT AND REHABILITATION, NORTH IV, 2018

LOCATION 1 414(RATLEDGE ROAD) FROM LOREWOOD GROVE ROAD (RD412) TO BOYDS CORNER ROAD (RD15)

LENGTH 2459.7360 m 8070.0000 L.F. AADT 1737

GENERAL IMPROVEMENTS

2" PAVEMENT MILLING BITUMINOUS CONCRETE PAVEMENT, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE SUPERPAVE TYPE C PG 64-22 CARBONATE STONE

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 1

202004	UNDERCUT EXCAVATION, PATCHING	220.00	C.Y.
301003	GRADED AGGREGATE BASE COURSE, TYPE B	250.00	TON
301008	RECYCLED ASPHALT PAVEMENT	700.00	TON
401005	SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)	2,100.00	TON
401031	SUPERPAVE TYPE BCBC, PG 64-22, PATCHING	1,500.00	TON
401696	ENTRANCE, DRIVEWAY, AND INTERSECTING STREET PAVING SURCHARGE	70.00	TON
402000	BITUMINOUS CONCRETE PATCHING	25,500.00	SY-IN
403000	BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS (TRM) CONCRETE	40.00	TON
760010	PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT	37,000.00	SY-IN
762000	SAW CUTTING, BITUMINOUS CONCRETE	280.00	L.F.
763621	CONSTRUCTION ENGINEERING, REHABILITATION	5.00	HOUR
803001	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	30.00	EA-DY
808002	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	25.00	EA-DY
811001	FLAGGER, NEW CASTLE COUNTY STATE	850.00	HOUR
811013	FLAGGER, NEW CASTLE COUNTY, STATE, OVERTIME	85.00	HOUR
817002	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC	52.00	S.F.
817003	TEMPORARY MARKINGS, PAINT, 4"	17,830.00	L.F.
817004	TEMPORARY MARKINGS, PAINT, SYMBOL/LEGEND	104.00	S.F.
817013	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	8,915.00	L.F.
817027	RAISED/RECESSED PAVEMENT MARKER	110.00	EACH
819018	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	9.00	EACH
819019	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS	38.00	S.F.
908001	TOPSOIL	220.00	TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	1,100.00	S.Y.

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CANAL

PAVEMENT AND REHABILITATION, NORTH IV, 2018

LOCATION 1 414(RATLEDGE ROAD) FROM LOREWOOD GROVE ROAD (RD412) TO BOYDS
CORNER ROAD (RD15)

COMMENTS:

Recommended Traffic Control: Road Closure with Detours - Typical application TA-10 to be utilized during closures for local traffic. General plan note #6 will not apply when road is closed and detour is being utilized.

Restricted Work Hours: 7:00 am to 7:00 pm

Curb Ramp/Triangular Channelizing Island Locations:

None Anticipated

Entrance and Driveway Locations:

Resident #427, #441, #445, #449, #509
Gray Trailer
Red Brick House
Boyds Corner Road
Lorewood Grove Road

Utility Adjustments:

None Anticipated

Notes:

FINAL PAVEMENT SHALL MEET THE SURFACE REQUIREMENTS, AS SPECIFIED IN ITEM 401580 - RIDE QUALITY OF BITUMINOUS CONCRETE PAVEMENT

DELAWARE DEPARTMENT OF TRANSPORTATION

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CANAL

PAVEMENT AND REHABILITATION, NORTH IV, 2018

LOCATION 2 423(BAYVIEW ROAD) FROM 100' EAST OF DUPONT PARKWAY (RD22) TO 54' EAST OF ST. AUGUSTINE ROAD (RD422)

LENGTH 4267.2000 m 14000.0000 L.F. AADT 1114

GENERAL IMPROVEMENTS

2" PAVEMENT MILLING BITUMINOUS CONCRETE PAVEMENT, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE SUPERPAVE TYPE C PG 64-22 CARBONATE STONE

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 2

202000	EXCAVATION AND EMBANKMENT	43.00	C.Y.
202004	UNDERCUT EXCAVATION, PATCHING	40.00	C.Y.
211000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	1.00	L.S.
211001	REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT, CURB AND SIDEWALK	80.00	S.Y.
301003	GRADED AGGREGATE BASE COURSE, TYPE B	150.00	TON
301008	RECYCLED ASPHALT PAVEMENT	850.00	TON
401005	SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)	3,560.00	TON
401030	SUPERPAVE TYPE B, PG 64-22, PATCHING	20.00	TON
401031	SUPERPAVE TYPE BCBC, PG 64-22, PATCHING	2,400.00	TON
401696	ENTRANCE, DRIVEWAY, AND INTERSECTING STREET PAVING SURCHARGE	150.00	TON
402000	BITUMINOUS CONCRETE PATCHING	41,000.00	SY-IN
403000	BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS (TRM) CONCRETE	100.00	TON
701011	PORTLAND CEMENT CONCRETE CURB, TYPE 1-4	527.00	L.F.
701015	INTERGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 1-2	50.00	L.F.
705002	PORTLAND CEMENT CONCRETE SIDEWALK, 6"	650.00	S.F.
720021	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1,125.00	L.F.
720028	CURVED GUARDRAIL SECTION	237.50	L.F.
720034	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-27	125.00	L.F.
721001	GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3	2.00	EACH
721014	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-27	4.00	EACH
721510	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-27	3.00	EACH
760010	PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT	60,000.00	SY-IN
762000	SAW CUTTING, BITUMINOUS CONCRETE	3,550.00	L.F.
762001	SAW CUTTING, CONCRETE, FULL DEPTH	80.00	L.F.
763621	CONSTRUCTION ENGINEERING, REHABILITATION	10.00	HOUR

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CANAL

PAVEMENT AND REHABILITATION, NORTH IV, 2018

LOCATION 2 423(BAYVIEW ROAD) FROM 100' EAST OF DUPONT PARKWAY (RD22) TO 54' EAST OF ST. AUGUSTINE ROAD (RD422)

LENGTH 4267.2000 m 14000.0000 L.F. AADT 1114

GENERAL IMPROVEMENTS

2" PAVEMENT MILLING BITUMINOUS CONCRETE PAVEMENT, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE SUPERPAVE TYPE C PG 64-22 CARBONATE STONE

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 2

803001	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	105.00	EA-DY
806001	TRAFFIC OFFICERS	480.00	HOURL
808002	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	37.00	EA-DY
811001	FLAGGER, NEW CASTLE COUNTY STATE	900.00	HOURL
811013	FLAGGER, NEW CASTLE COUNTY, STATE, OVERTIME	250.00	HOURL
817002	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC	290.00	S.F.
817003	TEMPORARY MARKINGS, PAINT, 4"	105,356.00	L.F.
817004	TEMPORARY MARKINGS, PAINT, SYMBOL/LEGEND	580.00	S.F.
817012	RETROREFLECTIVE PREFORMED PATTERNED MARKINGS, SYMBOL/LEGEND	6.00	S.F.
817013	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	52,678.00	L.F.
817014	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 10"	142.00	L.F.
817015	PREFORMED RETROREFLECTIVE THERMOPLASTIC MARKINGS, BIKE SYMBOL	3.00	EACH
817018	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 3"	755.00	L.F.
819018	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	67.00	EACH
819019	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS	26.00	S.F.
908001	TOPSOIL	350.00	TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	2,500.00	S.Y.
908020	EROSION CONTROL BLANKET MULCH	1,050.00	S.Y.

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CANAL

PAVEMENT AND REHABILITATION, NORTH IV, 2018

LOCATION 2 423(BAYVIEW ROAD) FROM 100' EAST OF DUPONT PARKWAY (RD22) TO 54'
EAST OF ST. AUGUSTINE ROAD (RD422)

COMMENTS:

Recommended Traffic Control: TA10, TA3

Restricted Work Hours: 7:00 am to 7:00 pm

Curb Ramp/Triangular Channelizing Island Locations:

None Anticipated

Entrance and Driveway Locations:

Resident #807, #771, #763
Silver Run Road
Betts Road
Vance Neck Road
Entrance Across from Walgreens
X-over to Walgreens

Utility Adjustments:

None Anticipated

Notes:

FINAL PAVEMENT SHALL MEET THE SURFACE REQUIREMENTS, AS SPECIFIED IN ITEM 401580 - RIDE
QUALITY OF BITUMINOUS CONCRETE PAVEMENT

DELAWARE DEPARTMENT OF TRANSPORTATION

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CANAL

PAVEMENT AND REHABILITATION, NORTH IV, 2018

LOCATION 3 432(CHURCHTOWN ROAD) FROM SUMMIT BRIDGE ROAD (RD39) TO HOT-MIX JOINT WEST OF CHOPTANK ROAD TRAFFIC CIRCLE

LENGTH 3362.5536 m 11032.0000 L.F. AADT 2335

GENERAL IMPROVEMENTS

2" PAVEMENT MILLING BITUMINOUS CONCRETE PAVEMENT, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE SUPERPAVE TYPE C PG 64-22 CARBONATE STONE

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 3

202004	UNDERCUT EXCAVATION, PATCHING	20.00	C.Y.
301003	GRADED AGGREGATE BASE COURSE, TYPE B	60.00	TON
301008	RECYCLED ASPHALT PAVEMENT	820.00	TON
401005	SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)	3,900.00	TON
401031	SUPERPAVE TYPE BCBC, PG 64-22, PATCHING	750.00	TON
401696	ENTRANCE, DRIVEWAY, AND INTERSECTING STREET PAVING SURCHARGE	60.00	TON
402000	BITUMINOUS CONCRETE PATCHING	13,000.00	SY-IN
403000	BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS (TRM) CONCRETE	80.00	TON
760010	PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT	66,500.00	SY-IN
762000	SAW CUTTING, BITUMINOUS CONCRETE	1,050.00	L.F.
763621	CONSTRUCTION ENGINEERING, REHABILITATION	5.00	HOUR
803001	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	45.00	EA-DY
808002	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	30.00	EA-DY
811001	FLAGGER, NEW CASTLE COUNTY STATE	800.00	HOUR
811013	FLAGGER, NEW CASTLE COUNTY, STATE, OVERTIME	80.00	HOUR
817002	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC	558.00	S.F.
817003	TEMPORARY MARKINGS, PAINT, 4"	97,230.00	L.F.
817004	TEMPORARY MARKINGS, PAINT, SYMBOL/LEGEND	1,116.00	S.F.
817013	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	48,615.00	L.F.
817014	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 10"	50.00	L.F.
817015	PREFORMED RETROREFLECTIVE THERMOPLASTIC MARKINGS, BIKE SYMBOL	2.00	EACH
817027	RAISED/RECESSED PAVEMENT MARKER	270.00	EACH
819016	INSTALLATION OF 4" DIAMETER HOLE, LESS THAN OR EQUAL TO 6" DEPTH	5.00	EACH
819018	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	67.00	EACH
819019	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS	9.00	S.F.

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CANAL

PAVEMENT AND REHABILITATION, NORTH IV, 2018

LOCATION 3 432(CHURCHTOWN ROAD) FROM SUMMIT BRIDGE ROAD (RD39) TO HOT-MIX JOINT WEST OF CHOPTANK ROAD TRAFFIC CIRCLE

LENGTH 3362.5536 m 11032.0000 L.F. AADT 2335

GENERAL IMPROVEMENTS

2" PAVEMENT MILLING BITUMINOUS CONCRETE PAVEMENT, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE SUPERPAVE TYPE C PG 64-22 CARBONATE STONE

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 3

905004	INLET SEDIMENT CONTROL, DRAINAGE INLET	9.00	EACH
908001	TOPSOIL	400.00	TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	1,950.00	S.Y.

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CANAL

PAVEMENT AND REHABILITATION, NORTH IV, 2018

LOCATION 3 432(CHURCHTOWN ROAD) FROM SUMMIT BRIDGE ROAD (RD39) TO HOT-MIX JOINT WEST OF CHOPTANK ROAD TRAFFIC CIRCLE

COMMENTS:

Recommended Traffic Control: TA10

Restricted Work Hours: 7:00 am to 7:00 pm

Curb Ramp/Triangular Channelizing Island Locations:

None Anticipated

Entrance and Driveway Locations:

Resident #838, #852, #995, #1013, #952
Tidewater Utilities
Summit Aviation North
Meadow Drive Entrances
Norva Drive

Utility Adjustments:

None Anticipated

Notes:

FINAL PAVEMENT SHALL MEET THE SURFACE REQUIREMENTS, AS SPECIFIED IN ITEM 401580 - RIDE QUALITY OF BITUMINOUS CONCRETE PAVEMENT

DELAWARE DEPARTMENT OF TRANSPORTATION

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CANAL

PAVEMENT AND REHABILITATION, NORTH IV, 2018

LOCATION 4 441(OLD STATE ROAD) FROM OLD CORBITT ROAD (RD424) TO DUPONT PARKWAY (RD10)

LENGTH 3162.9096 m 10377.0000 L.F. AADT 4365

GENERAL IMPROVEMENTS

2" PAVEMENT MILLING BITUMINOUS CONCRETE PAVEMENT, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE SUPERPAVE TYPE C PG 64-22 CARBONATE STONE, PCC CURB, ADA IMPROVEMENTS

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 4

202000	EXCAVATION AND EMBANKMENT	4.50	C.Y.
211000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	1.00	L.S.
211001	REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT, CURB AND SIDEWALK	60.00	S.Y.
301003	GRADED AGGREGATE BASE COURSE, TYPE B	40.00	TON
301008	RECYCLED ASPHALT PAVEMENT	1,042.00	TON
401005	SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)	3,510.00	TON
401031	SUPERPAVE TYPE BCBC, PG 64-22, PATCHING	1,320.00	TON
401696	ENTRANCE, DRIVEWAY, AND INTERSECTING STREET PAVING SURCHARGE	220.00	TON
402000	BITUMINOUS CONCRETE PATCHING	22,500.00	SY-IN
403000	BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS (TRM) CONCRETE	120.00	TON
701019	INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 2	170.00	L.F.
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	80.00	S.F.
705008	CURB RAMP, TYPE 1	600.00	S.F.
720021	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	2,887.50	L.F.
720028	CURVED GUARDRAIL SECTION	37.50	L.F.
720034	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-27	37.50	L.F.
721001	GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3	2.00	EACH
721007	ENTRANCE SPECIAL END ANCHORAGE	3.00	EACH
721014	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-27	4.00	EACH
721510	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-27	1.00	EACH
760010	PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT	60,000.00	SY-IN
762000	SAW CUTTING, BITUMINOUS CONCRETE	1,785.00	L.F.
762001	SAW CUTTING, CONCRETE, FULL DEPTH	60.00	L.F.
763621	CONSTRUCTION ENGINEERING, REHABILITATION	15.00	HOUR
803001	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	30.00	EA-DY

DELAWARE DEPARTMENT OF TRANSPORTATION

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CANAL

PAVEMENT AND REHABILITATION, NORTH IV, 2018

LOCATION 4 **441(OLD STATE ROAD) FROM OLD CORBITT ROAD (RD424) TO DUPONT PARKWAY (RD10)**

LENGTH 3162.9096 m 10377.0000 L.F. AADT 4365

GENERAL IMPROVEMENTS

2" PAVEMENT MILLING BITUMINOUS CONCRETE PAVEMENT, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE SUPERPAVE TYPE C PG 64-22 CARBONATE STONE, PCC CURB, ADA IMPROVEMENTS

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 4

808002	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	90.00	EA-DY
811001	FLAGGER, NEW CASTLE COUNTY STATE	1,000.00	HOUR
811013	FLAGGER, NEW CASTLE COUNTY, STATE, OVERTIME	350.00	HOUR
817002	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC	304.00	S.F.
817003	TEMPORARY MARKINGS, PAINT, 4"	97,280.00	L.F.
817004	TEMPORARY MARKINGS, PAINT, SYMBOL/LEGEND	608.00	S.F.
817013	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	48,640.00	L.F.
817027	RAISED/RECESSED PAVEMENT MARKER	90.00	EACH
819018	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	94.00	EACH
819019	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS	13.00	S.F.
905004	INLET SEDIMENT CONTROL, DRAINAGE INLET	8.00	EACH
908001	TOPSOIL	350.00	TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	1,500.00	S.Y.
908020	EROSION CONTROL BLANKET MULCH	100.00	S.Y.

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CANAL

PAVEMENT AND REHABILITATION, NORTH IV, 2018

LOCATION 4 441(OLD STATE ROAD) FROM OLD CORBITT ROAD (RD424) TO DUPONT PARKWAY (RD10)

COMMENTS:

Recommended Traffic Control: TA10, TA3

Restricted Work Hours: 7:00 am to 7:00 pm

Curb Ramp/Triangular Channelizing Island Locations:

Monastery Lane
Stonefield Drive
Olivine Circle
Kingfisher Court

Entrance and Driveway Locations:

Resident #153, #164, #269, #310, #309, #511, #579, #581, #585, #593 - #595, #603, #605, #607
Tidewater Utilities
Monastery Lane
Owensby Drive
Chestnut Lane
Spring Creek Drive
Kingfisher Court

Utility Adjustments:

None Anticipated

Notes:

FINAL PAVEMENT SHALL MEET THE SURFACE REQUIREMENTS, AS SPECIFIED IN ITEM 401580 - RIDE QUALITY OF BITUMINOUS CONCRETE PAVEMENT

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CANAL

PAVEMENT AND REHABILITATION, NORTH IV, 2018

CONTRACT QUANTITIES SUMMARY SHEET

202000	EXCAVATION AND EMBANKMENT	47.50	C.Y.
202004	UNDERCUT EXCAVATION, PATCHING	280.00	C.Y.
211000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	1.00	L.S.
211001	REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT, CURB AND SIDEWALK	140.00	S.Y.
301003	GRADED AGGREGATE BASE COURSE, TYPE B	500.00	TON
301008	RECYCLED ASPHALT PAVEMENT	3,412.00	TON
401005	SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)	13,070.00	TON
401030	SUPERPAVE TYPE B, PG 64-22, PATCHING	20.00	TON
401031	SUPERPAVE TYPE BCBC, PG 64-22, PATCHING	5,970.00	TON
401696	ENTRANCE, DRIVEWAY, AND INTERSECTING STREET PAVING SURCHARGE	500.00	TON
402000	BITUMINOUS CONCRETE PATCHING	102,000.00	SY-IN
403000	BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS (TRM) CONCRETE	340.00	TON
701011	PORTLAND CEMENT CONCRETE CURB, TYPE 1-4	527.00	L.F.
701015	INTERGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 1-2	50.00	L.F.
701019	INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 2	170.00	L.F.
705002	PORTLAND CEMENT CONCRETE SIDEWALK, 6"	650.00	S.F.
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	80.00	S.F.
705008	CURB RAMP, TYPE 1	600.00	S.F.
720021	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	4,012.50	L.F.
720028	CURVED GUARDRAIL SECTION	275.00	L.F.
720034	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-27	162.50	L.F.
721001	GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3	4.00	EACH
721007	ENTRANCE SPECIAL END ANCHORAGE	3.00	EACH
721014	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-27	8.00	EACH
721510	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-27	4.00	EACH
760010	PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT	223,500.00	SY-IN
762000	SAW CUTTING, BITUMINOUS CONCRETE	6,665.00	L.F.
762001	SAW CUTTING, CONCRETE, FULL DEPTH	140.00	L.F.

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763000	INITIAL EXPENSE/DE-MOBILIZATION	LUMP	SUM
763621	CONSTRUCTION ENGINEERING, REHABILITATION	35.00	hour
801500	MAINTENANCE OF TRAFFIC, ALL INCLUSIVE	LUMP	SUM
803001	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	210.00	EA-DY
806001	** TRAFFIC OFFICERS	480.00	hour
808002	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	182.00	EA-DY
811001	FLAGGER, NEW CASTLE COUNTY STATE	3,550.00	hour
811013	FLAGGER, NEW CASTLE COUNTY, STATE, OVERTIME	765.00	hour
817002	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC	1,204.00	S.F.
817003	TEMPORARY MARKINGS, PAINT, 4"	317,696.00	L.F.
817004	TEMPORARY MARKINGS, PAINT, SYMBOL/LEGEND	2,408.00	S.F.
817012	RETROREFLECTIVE PREFORMED PATTERNED MARKINGS, SYMBOL/LEGEND	6.00	S.F.
817013	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	158,848.00	L.F.
817014	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 10"	192.00	L.F.
817015	PREFORMED RETROREFLECTIVE THERMOPLASTIC MARKINGS, BIKE SYMBOL	5.00	EACH
817018	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 3"	755.00	L.F.
817027	RAISED/RECESSED PAVEMENT MARKER	470.00	EACH
819016	INSTALLATION OF 4" DIAMETER HOLE, LESS THAN OR EQUAL TO 6" DEPTH	5.00	EACH
819018	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	237.00	EACH
819019	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS	86.00	S.F.
905004	INLET SEDIMENT CONTROL, DRAINAGE INLET	17.00	EACH
908001	TOPSOIL	1,320.00	TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	7,050.00	S.Y.
908020	EROSION CONTROL BLANKET MULCH	1,150.00	S.Y.

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