

THE STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION
OFFICE OF TRANSPORTATION SOLUTIONS
PLANS AND SPECIFICATIONS FOR

CONTRACT NUMBER- T201206115

CANAL

FEDERAL AID NUMBER- ESTP-2014(12)

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CONTRACT TITLE- PAVEMENT & REHABILITATION – NORTH XV, 2012

PLANS PREPARED BY:

George L. Gates

DESIGN TECHNICIAN

DATE RECOMMENDED:

11/15/13

[Signature]

GROUP ENGINEER, CONSTRUCTION – NORTH II

DATE RECOMMENDED:

11.15.13

James T. Pappas III

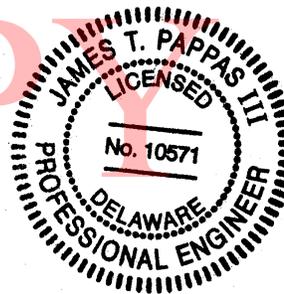
ASSIST. DIRECTOR, DESIGN

DATE RECOMMENDED:

11/18/13

Robert B. McCleary

CHIEF ENGINEER



DEPARTMENT OF TRANSPORTATION

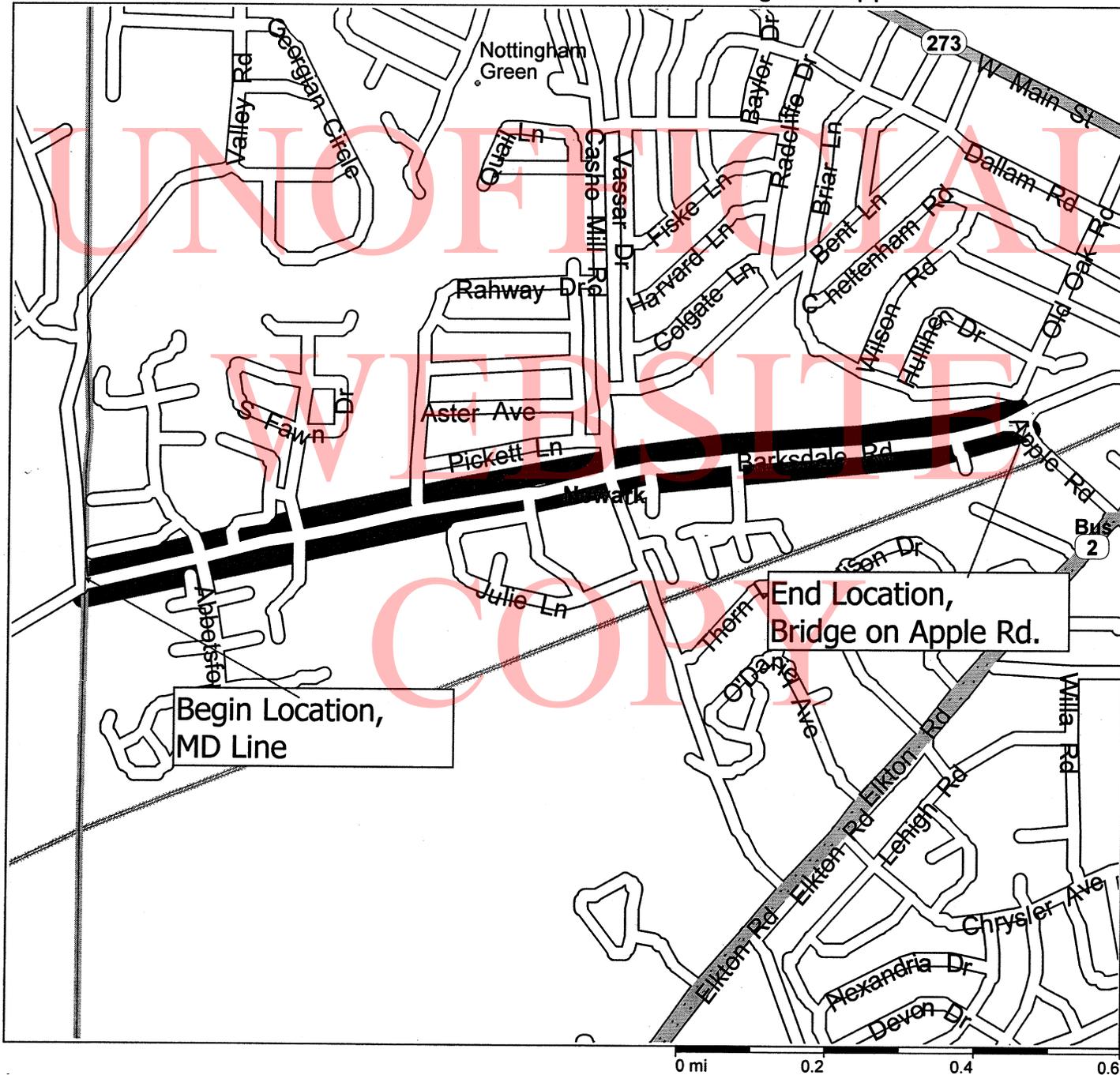
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CHESTNUT HILL ROAD FROM ARBOUR DRIVE TO SOUTH COLLEGE AVENUE; CASHO MILL ROAD FROM 500' NORTH OF ELKTON ROAD TO NOTTINGHAM ROAD; BARKSDALE ROAD FROM MARYLAND LINE TO BRIDGE ON APPLE ROAD

LOCATION MAP

Loc. #1 - Barksdale Rd. from MD Line to bridge on Apple Rd.



DEPARTMENT OF TRANSPORTATION

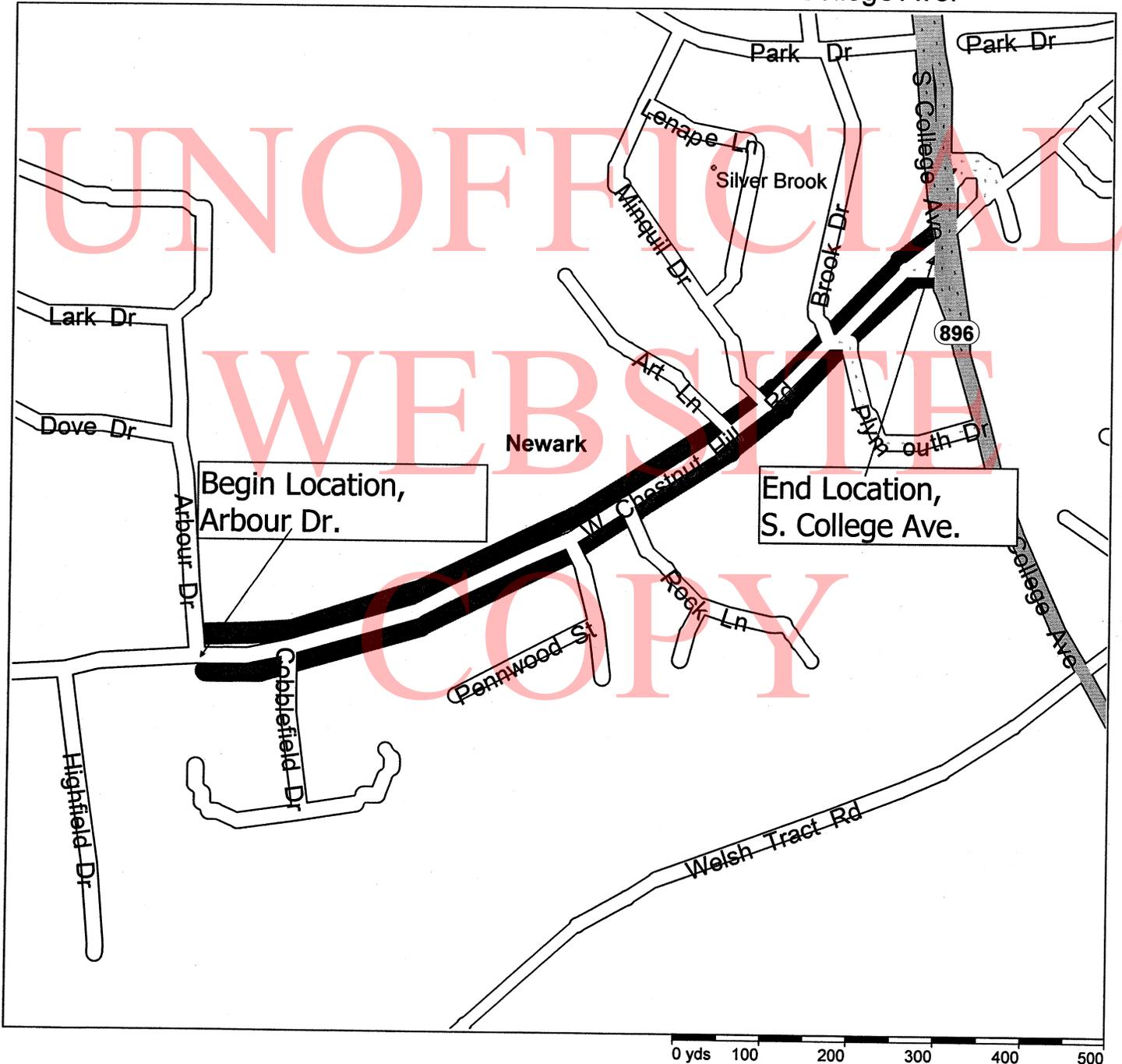
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CHESTNUT HILL ROAD FROM ARBOUR DRIVE TO SOUTH COLLEGE AVENUE; CASHO MILL ROAD FROM 500' NORTH OF ELKTON ROAD TO NOTTINGHAM ROAD; BARKSDALE ROAD FROM MARYLAND LINE TO BRIDGE ON APPLE ROAD

LOCATION MAP

Loc. #3 - Chestnut Hill Rd. from Arbour Dr. to S. College Ave.



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GENERAL CONTRACT PLAN NOTES

REVISED 9/2013

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, DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THESE PLANS.

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

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

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

MAINTENANCE OF TRAFFIC

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GENERAL CONTRACT PLAN NOTES

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. 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.

7. 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.

8. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AND ALONG PEDESTRIAN FACILITIES AT ALL TIMES DURING CONSTRUCTION. EARTH, STONE AND GRAVEL SURFACES ARE NOT ACCEPTABLE FOR PROVIDING PEDESTRIAN ACCESS. WHERE PEDESTRIAN ROUTES ARE CLOSED OR BLOCKED, ALTERNATE PEDESTRIAN ACCESS SHALL BE PROVIDED USING TA-28 AND/OR TA-29 OF THE 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR TO THE SATISFACTION OF THE ENGINEER. PEDESTRIAN DETOUR ROUTES OR ALTERNATE PEDESTRIAN FACILITIES SHALL CONSIST OF ADA COMPLIANT FACILITIES TO THE LEVEL OF WHICH EXISTS ON THE PEDESTRIAN ROUTE. THE COST FOR ANY PROVISIONS SHALL BE INCIDENTAL TO ITEM 763XXX - MAINTENANCE OF TRAFFIC.

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

GENERAL CONTRACT PLAN NOTES

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.

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

PAVEMENT MARKINGS

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GENERAL CONTRACT PLAN NOTES

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

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).
CONTRACT.

11. 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.

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

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

TRAFFIC SIGNAL NOTES

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

GENERAL CONTRACT PLAN NOTES

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

PROJECT

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

17. 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.

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

19. 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.

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

21. 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

GENERAL CONTRACT PLAN NOTES

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 732XXX, 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.

22. 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.

23. 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.

24. 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.

25. 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.

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

27. THE PORTLAND CEMENT CONCRETE USED WITHIN ITEM 701002 - ADJUST AND REPAIR EXISTING MAN HOLES AND ITEM 750000 - ADJUST WATER VALVE BOX SHALL CONFORM TO

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GENERAL CONTRACT PLAN NOTES

THE REQUIREMENTS OF CLASS A CONCRETE AS STATED WITHIN SECTION 503.02 OF THE DEPARTMENT'S STANDARD SPECIFICATIONS.

28. 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.

29. 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.

30. 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.

31. 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".

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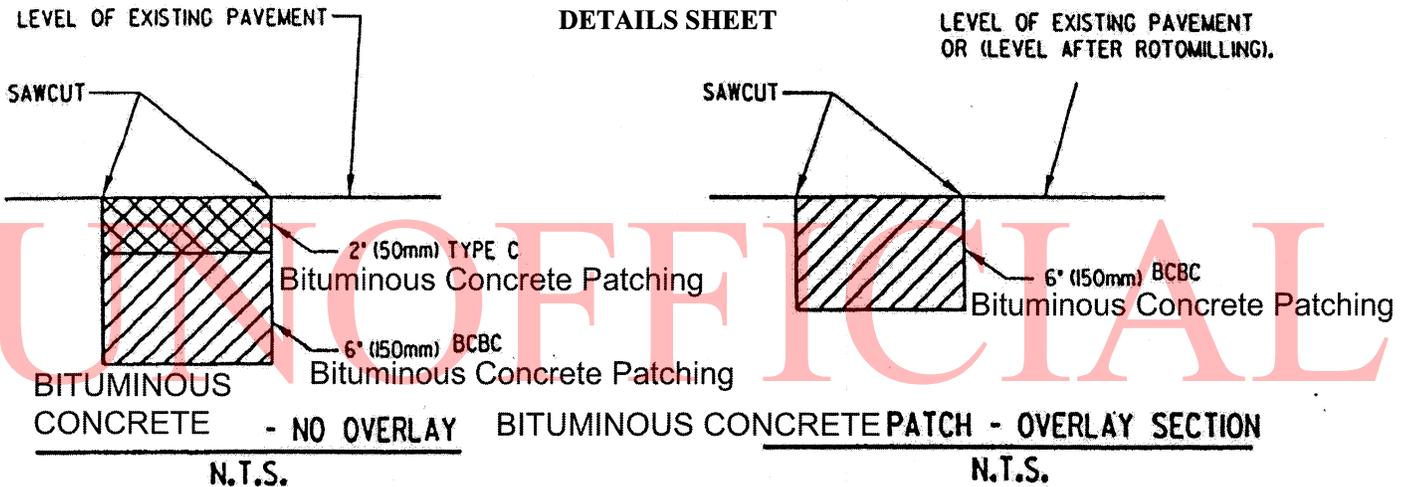
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CHESTNUT HILL ROAD FROM ARBOUR DRIVE TO SOUTH COLLEGE AVENUE; CASHO MILL ROAD FROM 500' NORTH OF ELKTON ROAD TO NOTTINGHAM ROAD; BARKSDALE ROAD FROM MARYLAND LINE TO BRIDGE ON APPLE ROAD

DETAILS SHEET



•UNDERCUT EXCAVATION PATCHING TO BE UTILIZED BELOW 8" (200mm) WHEN DIRECTED BY THE ENGINEER.

•UNDERCUT EXCAVATION PATCHING TO BE UTILIZED BELOW 6" (150mm) WHEN DIRECTED BY THE ENGINEER.

NOTE: PREFERRED EXCAVATION METHOD TO BE BY ROTOMILLING. SAWCUTTING EDGES SHALL BE AS DIRECTED BY ENGINEER AND DEPENDENT ON THE CONDITION LEFT BY THE ROTOMILLING OPERATION. BACKFILL FOR UNDERCUT EXCAVATION SHALL BE SUPERPAVE BCBC PATCH (SEPERATE LIFT). MINIMUM WIDTH OF PATCHING 6' (1.8M). THIS DETAIL SHALL BE USED FOR ALL HOT MIX PATCHES UNLESS OTHERWISE SHOWN ON THE PLANS. ALL HOT MIX TO BE PLACED USING A PAVER.

WHEN PCC PATCHING IS REQUIRED ON A COMPOSITE PAVEMENT(HOT-MIX OVER CONCRETE), THE CONTRACTOR MAY ELECT TO ELIMINATE ANY GRADE DIFFERENCE BETWEEN THE TOP OF THE CONCRETE PATCH AND THE TOP OF THE EXISTING HOT-MIX PAVEMENT BY EITHER PLACING HOT-MIX TRM MATERIAL(PAYMENT UNDER ITEM 402000) OR PLACING CONCRETE FLUSH WITH EXISTING HOT-MIX PAVEMENT(ADDITIONAL CONCRETE PAID AS ITEM 503503). IF CONCRETE IS PLACED FLUSH WITH EXISTING HOT-MIX, THE ROTOMILLING OF THE CONCRETE WILL BE PAID FOR AS ROTOMILLING HOT-MIX.

P.C.C. PATCHING NOTES

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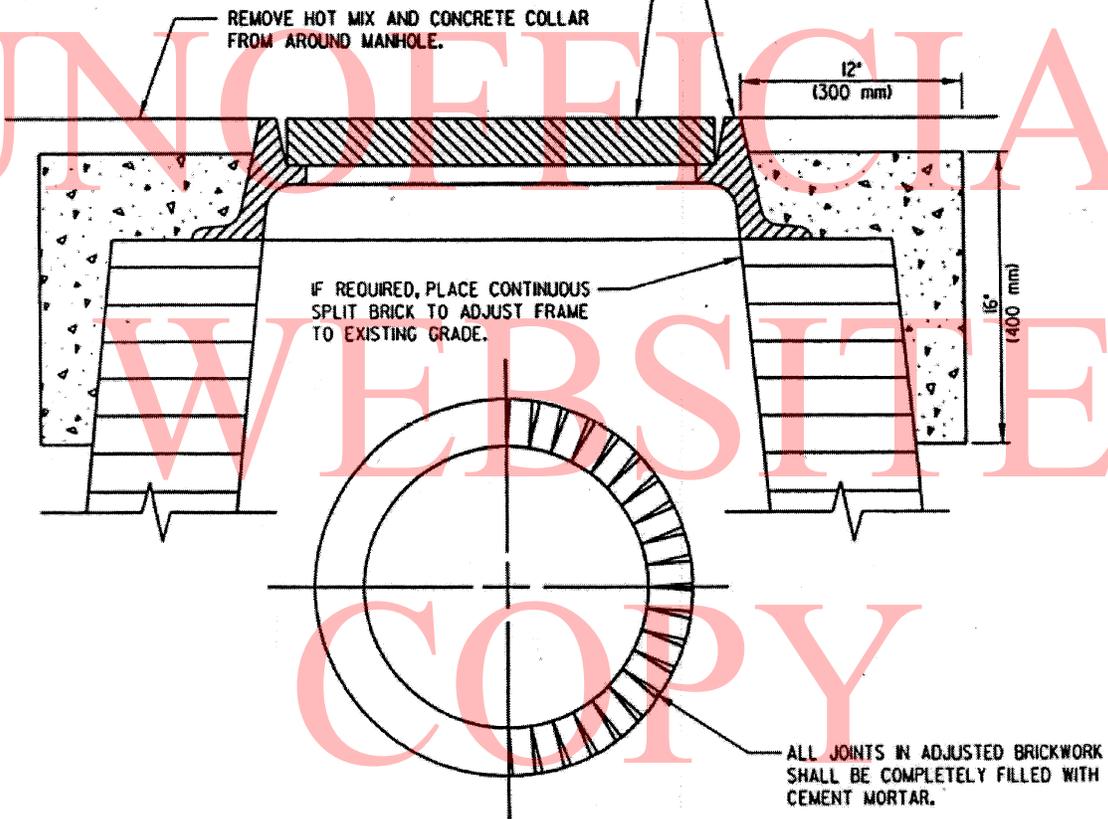
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CHESTNUT HILL ROAD FROM ARBOUR DRIVE TO SOUTH COLLEGE AVENUE; CASHO MILL ROAD FROM 500' NORTH OF ELKTON ROAD TO NOTTINGHAM ROAD; BARKSDALE ROAD FROM MARYLAND LINE TO BRIDGE ON APPLE ROAD

DETAILS SHEET

REMOVE AND DISPOSE OF EXISTING FRAME AND COVER AS DIRECTED BY OWNER IF NOT UTILIZED IN THE ADJUSTMENT. PLACE NEW OR EXISTING FRAME AND COVER (AS REQUIRED), TO CORRECT ELEVATION AND RECOLLAR. NEW FRAME AND COVER (IF REQUIRED) TO BE PROVIDED BY OWNER.



ADJUSTING AND REPAIRING MANHOLE

N.T.S.

NOTE: MANHOLES IN CONCRETE ROADWAYS SHALL BE SAWCUT FULL DEPTH TO THE SPECIFIED DIMENSION PRIOR TO ANY ADJUSTMENT BEING MADE. THE SAWCUTTING SHALL BE INCIDENTAL TO ITEM 710002.

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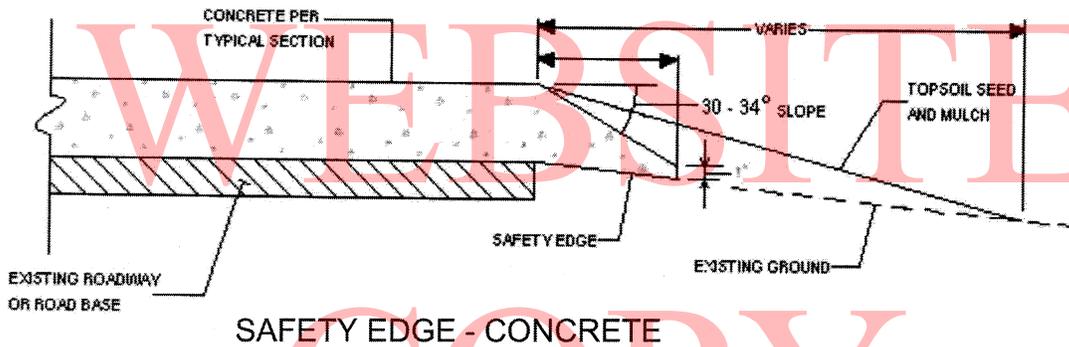
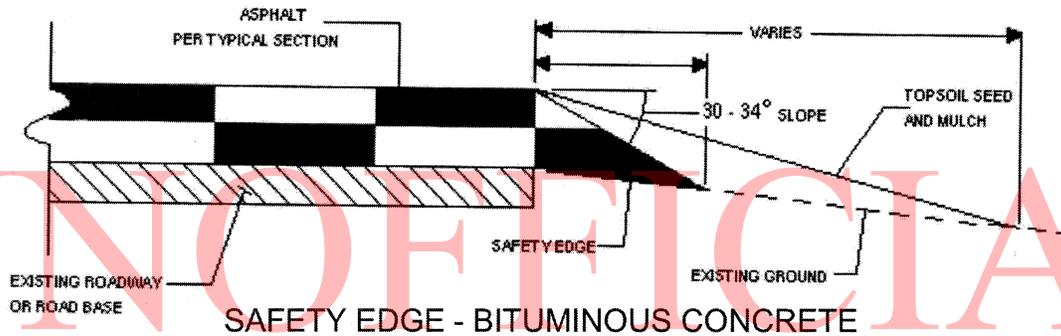
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CHESTNUT HILL ROAD FROM ARBOUR DRIVE TO SOUTH COLLEGE AVENUE; CASHO MILL ROAD FROM 500' NORTH OF ELKTON ROAD TO NOTTINGHAM ROAD; BARKSDALE ROAD FROM MARYLAND LINE TO BRIDGE ON APPLE ROAD

DETAILS SHEET



GENERAL NOTES

1. THE SAFETY EDGE WILL BE CONSTRUCTED AS PART OF THE ROADWAY PAVEMENT. A SHOULDER WEDGE DEVICE WILL BE ADDED TO THE SCREED OF THE PAVING MACHINE.
2. SHORT SECTIONS OF HANDWORK WILL BE ALLOWED WHEN NECESSARY FOR TRANSITION AND TURNOUTS.
3. SITE PREPARATION AND ADDITIONAL EARTHWORK REQUIRED TO CONSTRUCT THE SAFETY EDGE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.

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PAVEMENT & REHABILITATION, NORTH XV, 2012

LOCATION 1 360(BARKSDALE RD) FROM MARYLAND LINE TO BRIDGE ON APPLE RD

LENGTH 2206.7520 m 7240.0000 L.F. AADT 4224

GENERAL IMPROVEMENTS

2" PROFILE MILL, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE, SUPERPAVE, TYPE C 64-22

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 1

202000	EXCAVATION AND EMBANKMENT	5.00	C.Y.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	50.00	TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	250.00	TON
401823	BITUMINOUS CONCRETE, SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22, PATCHING	600.00	TON
401827	BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (NON-CARBONATE STONE)	4,000.00	TON
402000	HOT-MIX BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	75.00	TON
406001	BITUMINOUS CONCRETE PATCHING	11,000.00	SY-IN
612022	REINFORCED CONCRETE PIPE, 18", CLASS IV	80.00	L.F.
701011	PORTLAND CEMENT CONCRETE CURB, TYPE 2	100.00	L.F.
701020	INTEGRAL PORTLAND CEMENT CONCRETE CURB & GUTTER, TYPE 1-8	2,000.00	L.F.
705001	P.C.C. SIDEWALK, 4"	2,200.00	S.F.
705002	P.C.C. SIDEWALK, 6"	640.00	S.F.
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	575.00	S.F.
705008	CURB RAMP, TYPE 1	820.00	S.F.
705009	CURB RAMP, TYPE 2, 3, AND/OR 4	6,460.00	S.F.
705530	TRIANGULAR CHANNELIZING ISLANDS	1,240.00	S.F.
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	40.00	EACH
710002	ADJUSTING AND REPAIRING EXISTING MANHOLE	13.00	EACH
732004	TOPSOIL (TON)	14.00	TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	70.00	S.Y.
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	25.00	EA-DY
743007	** TRAFFIC OFFICERS	800.00	HOUR
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	50.00	EA-DY
743056	** FLAGGER, NEW CASTLE COUNTY, FEDERAL	1,500.00	HOUR

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PAVEMENT & REHABILITATION, NORTH XV, 2012

LOCATION 1 360(BARKSDALE RD) FROM MARYLAND LINE TO BRIDGE ON APPLE RD

LENGTH 2206.7520 m 7240.0000 L.F. AADT 4224

GENERAL IMPROVEMENTS

2" PROFILE MILL, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE, SUPERPAVE, TYPE C 64-22

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 1

743065	** FLAGGER, NEW CASTLE COUNTY, FEDERAL, OVERTIME	150.00	HR
744530	CONDUIT JUNCTION WELL, TYPE 11, PRECAST CONCRETE/ POLYMER LID-FRAME	10.00	EACH
744531	CONDUIT JUNCTION WELL, TYPE 14, PRECAST CONCRETE/ POLYMER LID-FRAME	4.00	EACH
744541	FURNISH & INSTALL FRAME AND LID FOR JUNCTION WELL, TYPE 11	2.00	EACH
744544	ADJUST OR REPAIR EXISTING CONDUIT JUNCTION WELL	1.00	EACH
745602	FURNISH & INSTALL UP TO 4" SCHEDULE 80 HDPE CONDUIT (BORE)	360.00	L.F.
745604	FURNISH & INSTALL UP TO 4" SCHEDULE 80 PVC CONDUIT (TRENCH)	325.00	L.F.
745606	FURNISH & INSTALL UP TO 4" GALVANIZED STEEL CONDUIT (TRENCH)	95.00	L.F.
745609	FURNISH & INSTALL UP TO 4" GALVANIZED STEEL CONDUIT (ON STRUCTURE)	30.00	L.F.
746847	POLE BASE, TYPE 3	4.00	EACH
746850	POLE BASE, TYPE 4	7.00	EACH
746924	FURNISH & INSTALL LOOP WIRE 1-CONDUCTOR #14 AWG ENCASED IN 1/4" FLEXIBLE TUBING IN A LOOP SAWCUT	1,790.00	L.F.
747516	CABINET BASE, TYPE P	1.00	EACH
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	2,900.00	S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	66,200.00	L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	5,800.00	S.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	33,100.00	L.F.
748553	PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, BIKE SYMBOL	20.00	EACH
749687	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	42.00	EACH
749688	INSTALLATION OF 4" DIAMETER HOLE, LESS THAN OR EQUAL TO 6" DEPTH	4.00	EACH
750000	ADJUST WATER VALVE BOXES	14.00	EACH
758000	REMOVAL OF EXISTING PORTLAND CEMENTCONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	1,000.00	S.Y.
760507	PROFILE MILLING, HOT-MIX	72,730.00	SY-IN
762001	SAW CUTTING, HOT MIX	600.00	L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	400.00	L.F.

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CANAL

PAVEMENT & REHABILITATION, NORTH XV, 2012

LOCATION 1 360(BARKSDALE RD) FROM MARYLAND LINE TO BRIDGE ON APPLE RD

LENGTH 2206.7520 m 7240.0000 L.F. AADT 4224

GENERAL IMPROVEMENTS

2" PROFILE MILL, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE,
SUPERPAVE, TYPE C 64-22

COMMENTS:

Please see attached sheets for comments

UNOFFICIAL

MATERIAL ESTIMATE FOR LOCATION 1

763621

CONSTRUCTION ENGINEERING, REHABILITATION

18.00 HOUR

** DENOTES FIXED PRICE ITEM

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PAVEMENT & REHABILITATION, NORTH XV, 2012

LOCATION 1

360(BARKSDALE RD) FROM MARYLAND LINE TO BRIDGE ON APPLE RD

COMMENTS:

Restricted Work Hours: 8:00 AM to 4:00 PM

Recommended traffic Control: Case #TA10 - roadway
Case #TA3 - shoulders

Curb Ramp Locations:

Bluehen Ridge - 3
King Williams Court - 2
Rahway Dr. - 2
Sawmill Court - 2
Colonial Court - 3
Apple Rd. - 4 - signalized
Chickory Way - 2
Abbotsford Way - 2
Country Hills Dr. - 2
Gore entrance - 2
Valley Rd. - 3
Casho Mill Rd. - 4 - signalized
Newark Day Nursery - 3
Sutton Way - 2

Entrance and Driveway Locations:

Rahway Dr. 25'
Sue Lane 25'
Sutton Court 25'
Valley Rd. 25'
Colonial Court n 25'
Country Hills Dr. 25'
Abbotsford Lane 25'
KingWilliam Court 25'
Bluehen Ridge Rd. 25'

Manhole Adjustments:

3 - DelDOT storm
10 - City of Newark sanitary sewer - 2 need new castings
14 - City of Newark water valves - 3 need new boxes
1 - Delmarva Gas by others

General Notes:

Daycare at this location, University of Delaware in the vicinity of this location

Item 612022 to be used at the intersection of Barksdale Road and Casho Mill Road to correct a drainage issue.

DELAWARE DEPARTMENT OF TRANSPORTATION

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CANAL

PAVEMENT & REHABILITATION, NORTH XV, 2012

LOCATION 2 361(CASHO MILL RD) FROM 500' NORTH OF ELKTON RD (RD11) TO NOTTINGHAM RD - ROUTE 273 (RD41)

LENGTH 2115.3120 m 6940.0000 L.F. AADT 14431

GENERAL IMPROVEMENTS

2" PROFILE MILL, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE, SUPERPAVE, TYPE C 64-22

COMMENTS:

Please see attached sheets for comments

UNOFFICIAL

MATERIAL ESTIMATE FOR LOCATION 2

302005	GRADED AGGREGATE BASE COURSE, TYPE B	50.00	TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	250.00	TON
401823	BITUMINOUS CONCRETE, SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22, PATCHING	2,000.00	TON
401827	BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (NON-CARBONATE STONE)	3,200.00	TON
402000	HOT-MIX BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	75.00	TON
406001	BITUMINOUS CONCRETE PATCHING	36,400.00	SY-IN
701020	INTEGRAL PORTLAND CEMENT CONCRETE CURB & GUTTER, TYPE 1-8	500.00	L.F.
705001	P.C.C. SIDEWALK, 4"	2,200.00	S.F.
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	320.00	S.F.
705008	CURB RAMP, TYPE 1	300.00	S.F.
705009	CURB RAMP, TYPE 2, 3, AND/OR 4	4,900.00	S.F.
708060	REPLACE DRAINAGE INLET GRATE(S)	1.00	EACH
708061	REPLACE DRAINAGE INLET FRAME(S)	1.00	EACH
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	25.00	EACH
710002	ADJUSTING AND REPAIRING EXISTING MANHOLE	12.00	EACH
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	10.00	EA-DY
743007	** TRAFFIC OFFICERS	800.00	HOURLY
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	50.00	EA-DY
743056	** FLAGGER, NEW CASTLE COUNTY, FEDERAL	2,500.00	HOURLY
743065	** FLAGGER, NEW CASTLE COUNTY, FEDERAL, OVERTIME	250.00	HOURLY
746924	FURNISH & INSTALL LOOP WIRE 1-CONDUCTOR #14 AWG ENCASED IN 1/4" FLEXIBLE TUBING IN A LOOP SAWCUT	400.00	L.F.
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	3,500.00	S.F.

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CANAL

PAVEMENT & REHABILITATION, NORTH XV, 2012

LOCATION 2 361(CASHO MILL RD) FROM 500' NORTH OF ELKTON RD (RD11) TO NOTTINGHAM RD - ROUTE 273 (RD41)

LENGTH 2115.3120 m 6940.0000 L.F. AADT 14431

GENERAL IMPROVEMENTS

2" PROFILE MILL, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE, SUPERPAVE, TYPE C 64-22

COMMENTS:

Please see attached sheets for comments

UNOFFICIAL

MATERIAL ESTIMATE FOR LOCATION 2

748019	TEMPORARY MARKINGS, PAINT, 4"	56,000.00	L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	7,000.00	S.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	2,800.00	L.F.
748553	PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, BIKE SYMBOL	32.00	EACH
749687	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	33.00	EACH
750000	ADJUST WATER VALVE BOXES	5.00	EACH
758000	REMOVAL OF EXISTING PORTLAND CEMENTCONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	340.00	S.Y.
760507	PROFILE MILLING, HOT-MIX	58,200.00	SY-IN
762001	SAW CUTTING, HOT MIX	700.00	L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	100.00	L.F.
763621	CONSTRUCTION ENGINEERING, REHABILITATION	16.00	HOURL

** DENOTES FIXED PRICE ITEM

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PAVEMENT & REHABILITATION, NORTH XV, 2012

LOCATION 2 361(CASHO MILL RD) FROM 500' NORTH OF ELKTON RD (RD11) TO NOTTINGHAM RD - ROUTE 273 (RD41)

COMMENTS:

Restricted Work Hours: 8:00 AM to 4:00 PM

Recommended Traffic Control: Case #TA10 - roadway
Case #TA3 - shoulders

Curb Ramp Locations:

Julie Lane - 3
Blair Circle - 2
Pickett Lane - 3
Bent Lane - 2
Rahway Dr. - 2
Pheasant Run - 2
Lafayette Rd. - 3
Timber Creek Lane - 3
Church Rd. - 4
Barksdale Rd. - 8 - signalized

Entrance and Driveway Locations:

#1301 10'
#1303 10'
#103 5'
Thorn Lane 20'
Julie Lane 20'
Blair Circle 20'
Park entrance 10'
Pickett Lne 15'
Bent Lane 15'
Rahway Dr. 40'
School entrance 2 @ 20' each
Pheasant Run 30'
Lafayette Rd. 30'
Timber Creek Lane 40'
Timber Creek Lane 15'
Church Rd. 2 @ 30' each
Barksdale Rd. 2 @ 40' each

Manhole Adjustments:

2 - DelDOT storm
10 - City of Newark saitary sewer
5 - City of Newark water valves
1 - Delmarva Gas by others

General Notes:

School at this location
Low bridge clearance 8'9" at Amtrak overpass

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PAVEMENT & REHABILITATION, NORTH XV, 2012

LOCATION 3 364(CHESTNUT HILL RD) FROM ARBOUR DR TO S. COLLEGE AVE - ROUTE 896 (RD387)

LENGTH 963.1680 m 3160.0000 L.F. AADT 8685

GENERAL IMPROVEMENTS

2" PROFILE MILL, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE, SUPERPAVE, TYPE C 64-22

COMMENTS:

Please see attached sheets for comments

UNOFFICIAL

MATERIAL ESTIMATE FOR LOCATION 3

302005	GRADED AGGREGATE BASE COURSE, TYPE B	50.00	TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	70.00	TON
401823	BITUMINOUS CONCRETE, SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22, PATCHING	300.00	TON
401827	BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (NON-CARBONATE STONE)	1,400.00	TON
402000	HOT-MIX BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	75.00	TON
406001	BITUMINOUS CONCRETE PATCHING	5,500.00	SY-IN
701021	INTEGRAL PORTLAND CEMENT CONCRETE CURB & GUTTER, TYPE 2	400.00	L.F.
701022	INTEGRAL PORTLAND CEMENT CONCRETE CURB & GUTTER, TYPE 3-8	200.00	L.F.
705001	P.C.C. SIDEWALK, 4"	650.00	S.F.
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	200.00	S.F.
705008	CURB RAMP, TYPE 1	300.00	S.F.
705009	CURB RAMP, TYPE 2, 3, AND/OR 4	1,930.00	S.F.
705010	CURB RAMP, TYPE 5	260.00	S.F.
708060	REPLACE DRAINAGE INLET GRATE(S)	1.00	EACH
708061	REPLACE DRAINAGE INLET FRAME(S)	1.00	EACH
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	20.00	EACH
710002	ADJUSTING AND REPAIRING EXISTING MANHOLE	16.00	EACH
716502	CONVERTING EXISTING CATCH BASIN TO DRAINAGE INLET	10.00	EACH
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	10.00	EA-DY
743007	** TRAFFIC OFFICERS	480.00	HOUR
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	30.00	EA-DY
743056	** FLAGGER, NEW CASTLE COUNTY, FEDERAL	1,000.00	HOUR
743065	** FLAGGER, NEW CASTLE COUNTY, FEDERAL, OVERTIME	100.00	HOUR

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PAVEMENT & REHABILITATION, NORTH XV, 2012

LOCATION 3 **364(CHESTNUT HILL RD) FROM ARBOUR DR TO S. COLLEGE AVE - ROUTE 896 (RD387)**

LENGTH 963.1680 m 3160.0000 L.F. AADT 8685

GENERAL IMPROVEMENTS

2" PROFILE MILL, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE, SUPERPAVE, TYPE C 64-22

COMMENTS:

Please see attached sheets for comments

UNOFFICIAL

MATERIAL ESTIMATE FOR LOCATION 3

746924	FURNISH & INSTALL LOOP WIRE 1-CONDUCTOR #14 AWG ENCASED IN 1/4" FLEXIBLE TUBING IN A LOOP SAWCUT	250.00	L.F.
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	600.00	S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	18,000.00	L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	1,200.00	S.F.
748027	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 12"	120.00	L.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	9,000.00	L.F.
749687	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	19.00	EACH
750000	ADJUST WATER VALVE BOXES	17.00	EACH
758000	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	200.00	S.Y.
760507	PROFILE MILLING, HOT-MIX	25,500.00	SY-IN
762001	SAW CUTTING, HOT MIX	500.00	L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	100.00	L.F.
763621	CONSTRUCTION ENGINEERING, REHABILITATION	9.00	HOUR

** DENOTES FIXED PRICE ITEM

DELAWARE DEPARTMENT OF TRANSPORTATION

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PAVEMENT & REHABILITATION, NORTH XV, 2012

LOCATION 3 364(CHESTNUT HILL RD) FROM ARBOUR DR TO S. COLLEGE AVE - ROUTE
896 (RD387)

COMMENTS:

Restricted Work Hours: 8:00 AM to 4:00 PM

Recommended Traffic Control: Case #TA10 - roadway
Case #TA3 - shoulders

Curb Ramp Locations:

S. College Ave. - 4 - signalized
Art Lane - 2
East side of bridge - 2
West side of bridge - 2
Rock Lane - 2
Delgrove Ave. - 2
Cobblefield - 2
Arbour Dr. - 1

Entrance and Driveway Locations:

Art Lane 25'
Rock Lane 25'
Delgrove Ave. 25'
Cobblefield Dr. 25'
#297 25'

Manhole Adjustments:

3 - DelDOT storm
13 - City of Newark sanitary sewer
17 - City of Newark water valves - 5 need new boxes
1 - Delmarva Gas by others

General Notes:

10 PWBD basins to be converted
University of Delaware in close proximity of this location

DELAWARE DEPARTMENT OF TRANSPORTATION

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PAVEMENT & REHABILITATION, NORTH XV, 2012

CONTRACT QUANTITIES SUMMARY SHEET

202000	EXCAVATION AND EMBANKMENT	5.00	C.Y.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	150.00	TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	570.00	TON
401823	BITUMINOUS CONCRETE, SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22, PATCHING	2,900.00	TON
401827	BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (NON-CARBONATE STONE)	8,600.00	TON
402000	HOT-MIX BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	225.00	TON
406001	BITUMINOUS CONCRETE PATCHING	52,900.00	SY-IN
612022	REINFORCED CONCRETE PIPE, 18", CLASS IV	80.00	L.F.
701011	PORTLAND CEMENT CONCRETE CURB, TYPE 2	100.00	L.F.
701020	INTEGRAL PORTLAND CEMENT CONCRETE CURB & GUTTER, TYPE 1-8	2,500.00	L.F.
701021	INTEGRAL PORTLAND CEMENT CONCRETE CURB & GUTTER, TYPE 2	400.00	L.F.
701022	INTEGRAL PORTLAND CEMENT CONCRETE CURB & GUTTER, TYPE 3-8	200.00	L.F.
705001	P.C.C. SIDEWALK, 4"	5,050.00	S.F.
705002	P.C.C. SIDEWALK, 6"	640.00	S.F.
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	1,095.00	S.F.
705008	CURB RAMP, TYPE 1	1,420.00	S.F.
705009	CURB RAMP, TYPE 2, 3, AND/OR 4	13,290.00	S.F.
705010	CURB RAMP, TYPE 5	260.00	S.F.
705530	TRIANGULAR CHANNELIZING ISLANDS	1,240.00	S.F.
708060	REPLACE DRAINAGE INLET GRATE(S)	2.00	EACH
708061	REPLACE DRAINAGE INLET FRAME(S)	2.00	EACH
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	85.00	EACH
710002	ADJUSTING AND REPAIRING EXISTING MANHOLE	41.00	EACH
716502	CONVERTING EXISTING CATCH BASIN TO DRAINAGE INLET	10.00	EACH
732004	TOPSOIL (TON)	14.00	TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	70.00	S.Y.

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PAVEMENT & REHABILITATION, NORTH XV, 2012

CONTRACT QUANTITIES SUMMARY SHEET

743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	45.00	EA-DY
743007	** TRAFFIC OFFICERS	2,080.00	HOURL
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	130.00	EA-DY
743056	** FLAGGER, NEW CASTLE COUNTY, FEDERAL	5,000.00	HOURL
743065	** FLAGGER, NEW CASTLE COUNTY, FEDERAL, OVERTIME	500.00	HOURL
744530	CONDUIT JUNCTION WELL, TYPE 11, PRECAST CONCRETE/ POLYMER LID-FRAME	10.00	EACH
744531	CONDUIT JUNCTION WELL, TYPE 14, PRECAST CONCRETE/ POLYMER LID-FRAME	4.00	EACH
744541	FURNISH & INSTALL FRAME AND LID FOR JUNCTION WELL, TYPE 11	2.00	EACH
744544	ADJUST OR REPAIR EXISTING CONDUIT JUNCTION WELL	1.00	EACH
745602	FURNISH & INSTALL UP TO 4" SCHEDULE 80 HDPE CONDUIT (BORE)	360.00	L.F.
745604	FURNISH & INSTALL UP TO 4" SCHEDULE 80 PVC CONDUIT (TRENCH)	325.00	L.F.
745606	FURNISH & INSTALL UP TO 4" GALVANIZED STEEL CONDUIT (TRENCH)	95.00	L.F.
745609	FURNISH & INSTALL UP TO 4" GALVANIZED STEEL CONDUIT (ON STRUCTURE)	30.00	L.F.
746847	POLE BASE, TYPE 3	4.00	EACH
746850	POLE BASE, TYPE 4	7.00	EACH
746924	FURNISH & INSTALL LOOP WIRE 1-CONDUCTOR #14 AWG ENCASED IN 1/4" FLEXIBLE TUBING IN A LOOP SAWCUT	2,440.00	L.F.
747516	CABINET BASE, TYPE P	1.00	EACH
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	7,000.00	S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	140,200.00	L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	14,000.00	S.F.
748027	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 12"	120.00	L.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	44,900.00	L.F.
748553	PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, BIKE SYMBOL	52.00	EACH
749687	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	94.00	EACH
749688	INSTALLATION OF 4" DIAMETER HOLE, LESS THAN OR EQUAL TO 6" DEPTH	4.00	EACH
750000	ADJUST WATER VALVE BOXES	36.00	EACH
758000	REMOVAL OF EXISTING PORTLAND CEMENTCONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	1,540.00	S.Y.

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PAVEMENT & REHABILITATION, NORTH XV, 2012

CONTRACT QUANTITIES SUMMARY SHEET

760507	PROFILE MILLING, HOT-MIX	156,430.00	SY-IN
762001	SAW CUTTING, HOT MIX	1,800.00	L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	600.00	L.F.
763000	INITIAL EXPENSE	LUMP	SUM
763621	CONSTRUCTION ENGINEERING, REHABILITATION	43.00	HOUR
763643	MAINTENANCE OF TRAFFIC, ALL INCLUSIVE	LUMP	SUM

** DENOTES FIXED PRICE ITEM