THE STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

OFFICE OF TRANSPORTATION SOLUTIONS

PLANS AND SPECIFICATIONS FOR

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CONTRACT NUMBER - T201606109 | **CANAL MAINTENANCE**

FEDERAL AID NUMBER - NONE | **PAGE 1 OF 22**

CONTRACT TITLE- PAVEMENT & REHABILITATION, NORTH IX, 2016

PLANS PREPARED BY George LeCates

DESIGN TECHNICIAN

DATE RECOMMENDED: 11/23/15

Christopher Costello

GROUP ENGINEER, CONSTRUCTION – GROUP 1

DATE RECOMMENDED: 11-19-15

David A. Nicol

ASSIST. DIRECTOR, ENGINEERING SUPPORT

DATE RECOMMENDED: 11/30/15

Robert Brian McCleary

CHIEF ENGINEER

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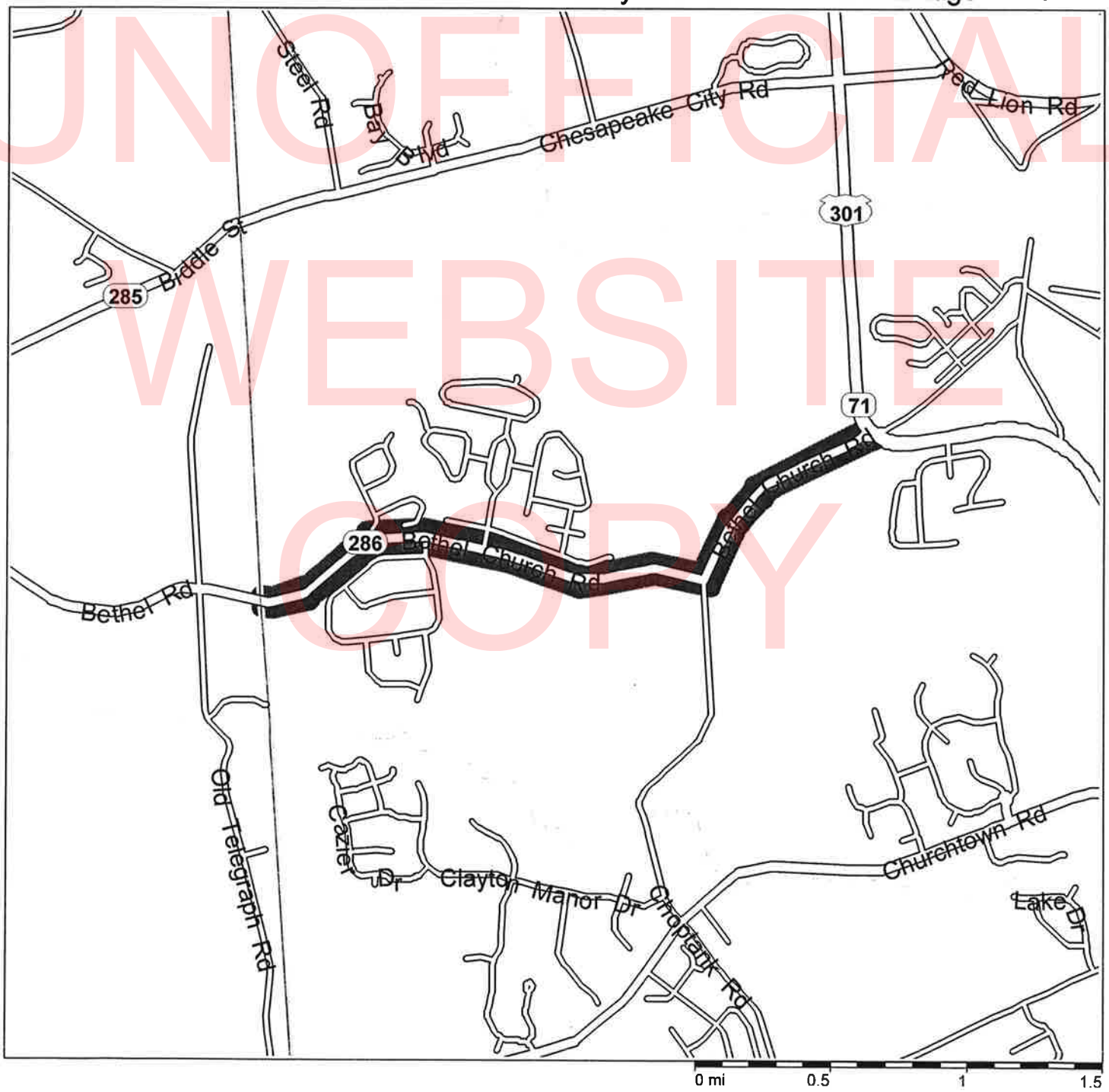
ROBERT BRIAN McCLEARY REGISTERED No. 8567 DELAWARE PROFESSIONAL ENGINEER

BETHEL CHURCH ROAD (RD433) FROM MARYLAND LINE TO SUMMIT BRIDGE ROAD (SR896); BUNKER HILL ROAD (RD437) FROM MARYLAND LINE TO 300' WEST OF TRAFFIC CIRCLE @ CHOPTANK ROAD

LOCATION MAP

Location #1 - Bethel Church Road from Maryland Line to Summit Bridge Road



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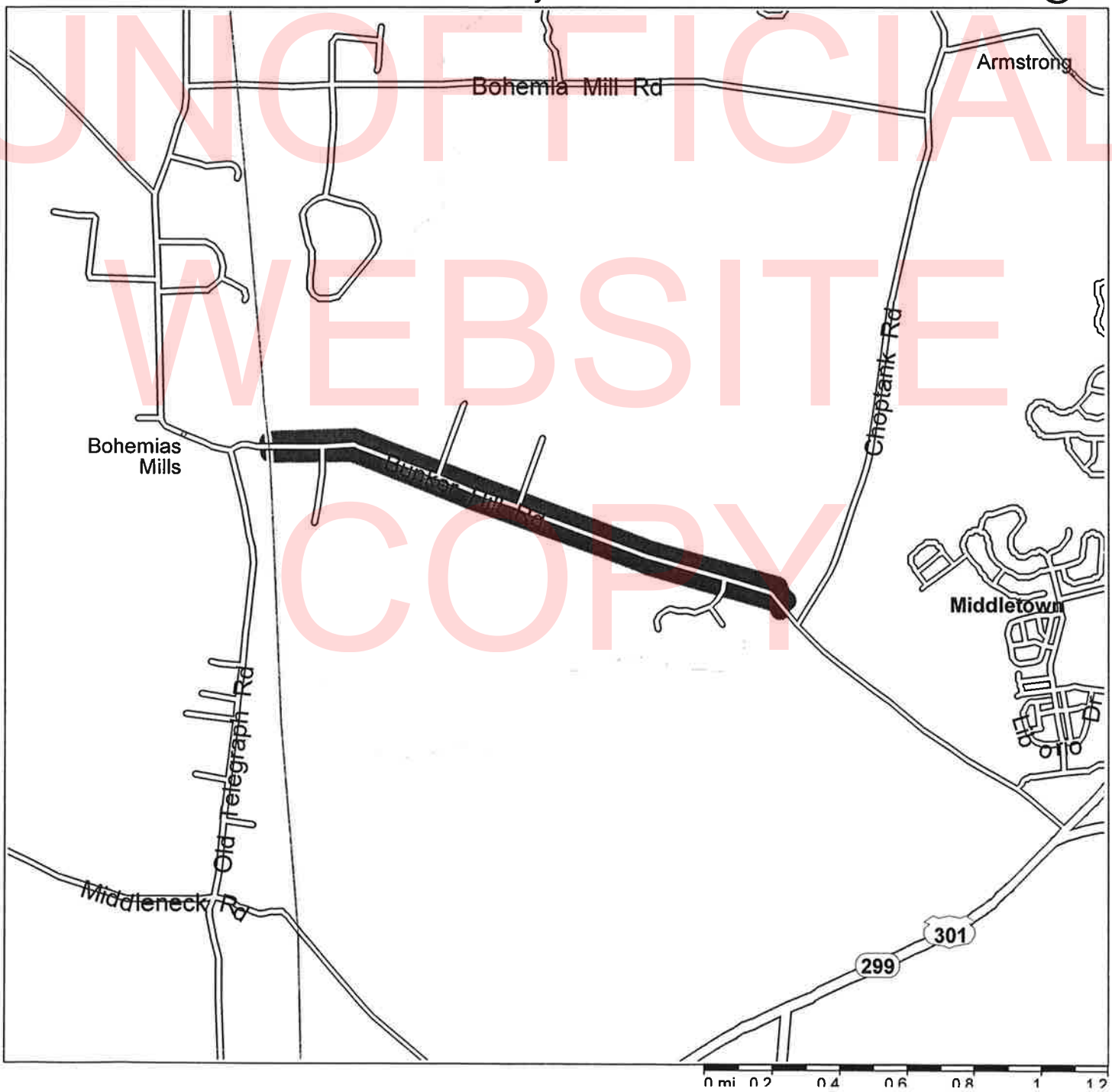
BETHEL CHURCH ROAD (RD433) FROM MARYLAND LINE TO SUMMIT BRIDGE ROAD (SR896); BUNKER HILL ROAD (RD437) FROM MARYLAND LINE TO 300' WEST OF TRAFFIC CIRCLE @ CHOPTANK ROAD

LOCATION MAP

Location #2 - Bunker Hill Road from Maryland Line to 300' West of Traffic Circle @ ...



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GENERAL CONTRACT PLAN NOTES

REVISED 9/2015

GENERAL

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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 CONTRACT SHALL SUBMIT TWO-WEEK (OR AS REQUIRED) "LOOK AHEAD" SCHEDULES TO THE AREA ENGINEER/ MANAGER NO LATER THAN NOON OF EACH THURSDAY.

GENERAL CONTRACT PLAN NOTES

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

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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" 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.

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 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

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GENERAL CONTRACT PLAN NOTES

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

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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.

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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.

COPY

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.

GENERAL CONTRACT PLAN NOTES

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 ATTSA 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.

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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.

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PAVEMENT MARKINGS

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

COPY

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

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

GENERAL CONTRACT PLAN NOTES

TO THE PAVEMENT CAUSED BY REMOVAL OF ERRONEOUS MARKINGS SHALL BE REPAIRED / REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTORS EXPENSE.

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

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

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TRAFFIC SIGNAL NOTES

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

COPY

17. TRAFFIC DETECTION LOOPS THAT ARE CURRENTLY 5'x7' SHALL BE REPLACED WITH LOOPS THAT ARE 6'x6' AT THE SAME LOCATION. STOP BAR DETECTION LOOPS SHALL BE THE SAME SIZE AS CURRENTLY EXISTING, AND SHOULD BE PLACED STARTING 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

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

19. THE COST OF CLIPPING BACK THE EDGES OF THE ROADWAY, SHOULDERS, AND THE FIRST 3' OF UNPAVED DRIVEWAY ENTRANCES, PICKING UP AND DISPOSING OF WASTE AND EXCESS MATERIAL, AND CLEANING THE EXISTING PAVEMENT PRIOR TO OVERLAY SHALL BE INCIDENTAL TO SECTION

GENERAL CONTRACT PLAN NOTES

401( ). PREPARING UNPAVED DRIVEWAY ENTRANCES BEYOND THE FIRST 3' SHALL BE PAID UNDER THE APPROPRIATE CONTRACT ITEMS: 202000 AND/OR 30200X.

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

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

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

23. EXCAVATION 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 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.

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GENERAL CONTRACT PLAN NOTES

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

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

26. THE CONTRACTOR SHALL TAKE CARE IN REMOVING PAVEMENT AROUND UTILITIES, BUTT JOINTS, 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.

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

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

29. THE PORTLAND CEMENT CONCRETE USED FOR ITEM 710001 - ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET, ITEM 710002 - ADJUST AND REPAIR EXISTING MAN HOLES AND ITEM 750000 - ADJUST WATER VALVE BOX SHALL CONFORM TO THE REQUIREMENTS OF CLASS A

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GENERAL CONTRACT PLAN NOTES

CONCRETE (6 HOUR ROADWAY MIX) AS STATED WITHIN SECTION 503.02 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.

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30. 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.

31. 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.

32. 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".

33. 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.

34. UPON RECEIPT OF THE MONTHLY PAY ESTIMATE ANY ISSUES OR DESCREPENCIES 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 DESCREPENCIES WILL BE PERMITTED. ANY DESCREPENCIES

GENERAL CONTRACT PLAN NOTES

BEYOND THE 60 DAY TIME PERIOD WILL NOT BE ENTERTAINED.

35. FOR ITEM 743007 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 WLL BE ADJUSTED ACCORDINGLY.

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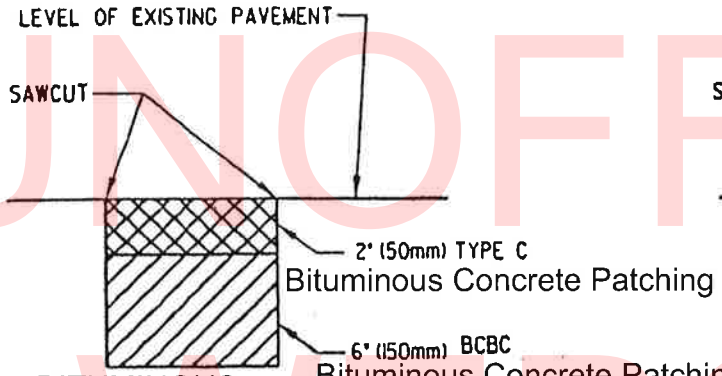
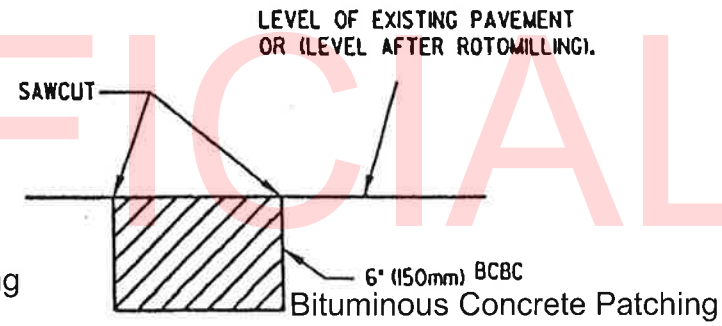
DETAILS SHEET



BITUMINOUS CONCRETE - NO OVERLAY

N.T.S.

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



BITUMINOUS CONCRETE PATCH - OVERLAY SECTION

N.T.S.

•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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DETAILS SHEET

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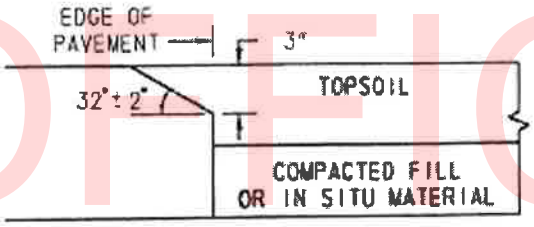
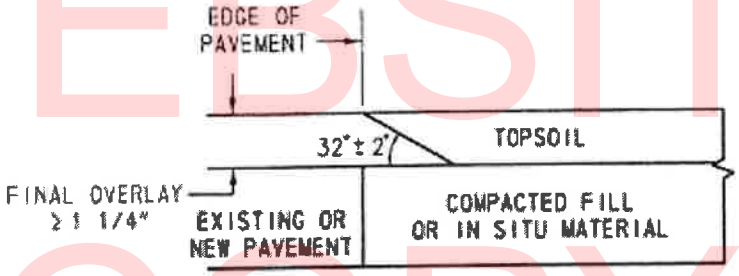


CONCRETE PAVEMENTS
N. T. S.



BITUMINOUS CONCRETE PAVEMENTS AND OVERLAYS
N. T. S.

Prior to placing concrete or bituminous concrete pavement, prepare the shoulder material where the Safety Edge will be placed to provide a foundation that will support its placement.

The Safety Edge is installed during a bituminous concrete resurfacing project using a special, removable wedge shape compaction device attached to and extending below the screed strike-off plate of the paver. This device is used to construct a pre-compacted, long lasting, low angle wedge fillet on the outside edge of the paved mat. The device has a self-adjusting internal spring that allows it to follow the surface independent of other paver components. The device has an angled surface that compacts the asphalt as it enters the device while another fixed-angle surface forms the tapered edge. As the asphalt continues under the wedge-forming surface, the asphalt is smoothed to create a finished surface on the tapered edge. Two wedge shape compaction devices that are commercially available are TransTech's Shoulder Wedge Maker and Advant-Edge Paving Equipment's Advant-Edger. The use of a single plate strike off is not allowed. Compaction of the edge should not be done with the first pass of the roller in order to give the Safety Edge a chance to harden some.

For concrete pavement or overlay, modify the paver screed to create the shoulder wedge as per the Safety Edge cross section.

LOCATION 1 **433(BETHEL CHURCH ROAD) FROM MARYLAND LINE TO SUMMIT BRIDGE ROAD (SR896)**

LENGTH 4023.3600 m 13200.0000 L.F. AADT 3979

GENERAL IMPROVEMENTS

2" PROFILE MILL, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE TYPE C PG 64-22, ADA IMPROVEMENTS, PAVEMENT MARKINGS

UNOFFICIAL

COMMENTS:

Please see attached sheets for comments

WEBSITE COPY

MATERIAL ESTIMATE FOR LOCATION 1

302005	GRADED AGGREGATE BASE COURSE, TYPE B	40.00	TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTINGSTREET PAVING SURCHARGE	40.00	TON
401801	BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GYRATIONS PG 64-22 (CARBONATE STONE)	4,950.00	TON
401823	BITUMINOUS CONCRETE, SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22, PATCHING	520.00	TON
402000	BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	40.00	TON
406001	BITUMINOUS CONCRETE PATCHING	8,850.00	SY-IN
705001	P.C.C. SIDEWALK, 4"	50.00	S.F.
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	10.00	S.F.
705009	CURB RAMP, TYPE 2, 3, AND/OR 4	175.00	S.F.
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	30.00	EA-DY
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	25.00	EA-DY
743050	FLAGGER, NEW CASTLE COUNTY, STATE	1,040.00	HOUR
743062	FLAGGER, NEW CASTLE COUNTY, STATE, OVERTIME	104.00	HOUR
746924	FURNISH & INSTALL LOOP WIRE 1-CONDUCTOR #14 AWG ENCASED IN 1/4" FLEXIBLE TUBING IN A LOOP SAWCUT	200.00	L.F.
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	297.00	S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	101,076.00	L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	594.00	S.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	50,538.00	L.F.
748549	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 10"	34.00	L.F.
748553	PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, BIKE SYMBOL	5.00	EACH
749687	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	17.00	EACH
758000	REMOVAL OF EXISTING PORTLAND CEMENTCONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	20.00	S.Y.
760507	PROFILE MILLING, BITUMINOUS CONCRETE	85,100.00	SY-IN

LOCATION 1 **433(BETHEL CHURCH ROAD) FROM MARYLAND LINE TO SUMMIT BRIDGE ROAD (SR896)**

LENGTH 4023.3600 m 13200.0000 L.F. AADT 3979

GENERAL IMPROVEMENTS

2" PROFILE MILL, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE TYPE C PG 64-22, ADA IMPROVEMENTS, PAVEMENT MARKINGS

UNOFFICIAL

COMMENTS:

Please see attached sheets for comments

WEBSITE

MATERIAL ESTIMATE FOR LOCATION 1

762001	SAW CUTTING, BITUMINOUS CONCRETE	175.00	L.F.
763621	CONSTRUCTION ENGINEERING, REHABILITATION	5.00	HOUR
905004	INLET SEDIMENT CONTROL, DRAINAGE INLET	9.00	EACH
908001	TOPSOIL (TON)	100.00	TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	750.00	S.Y.

COPY

LOCATION 1 433(BETHEL CHURCH ROAD) FROM MARYLAND LINE TO SUMMIT BRIDGE ROAD (SR896)

COMMENTS:

Recommended Traffic Control: TA10

Restricted Work Hours: 8:00 am to 4:00 pm

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

Curb Ramp/Triangular Channelizing Island Locations:

Choptank & Bethel Church Road

Entrance and Driveway Locations:

Millwood Road

Utility Adjustments:

None Anticipated

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LOCATION 2 **437(BUNKER HILL ROAD) FROM MARYLAND LINE TO 300' WEST OF TRAFFIC CIRCLE @ CHOPTANK ROAD**

LENGTH 2578.6080 m 8460.0000 L.F. AADT 1464

GENERAL IMPROVEMENTS

2" PROFILE MILL, BITUMINOUS CONCRETE PATCHING, 2" BITUMINOUS CONCRETE TYPE C PG 64-22, PAVEMENT MARKINGS

UNOFFICIAL

COMMENTS:

Please see attached sheets for comments

WEBSITE COPY

MATERIAL ESTIMATE FOR LOCATION 2

302005	GRADED AGGREGATE BASE COURSE, TYPE B	50.00	TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTINGSTREET PAVING SURCHARGE	40.00	TON
401801	BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GYRATIONS PG 64-22 (CARBONATE STONE)	2,500.00	TON
401823	BITUMINOUS CONCRETE, SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22, PATCHING	750.00	TON
402000	BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	40.00	TON
406001	BITUMINOUS CONCRETE PATCHING	12,950.00	SY-IN
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	30.00	EA-DY
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	15.00	EA-DY
743050	FLAGGER, NEW CASTLE COUNTY, STATE	650.00	HOUR
743062	FLAGGER, NEW CASTLE COUNTY, STATE, OVERTIME	65.00	HOUR
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	90.00	S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	62,874.00	L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	180.00	S.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	31,437.00	L.F.
749687	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	25.00	EACH
760507	PROFILE MILLING, BITUMINOUS CONCRETE	42,050.00	SY-IN
762001	SAW CUTTING, BITUMINOUS CONCRETE	550.00	L.F.
763621	CONSTRUCTION ENGINEERING, REHABILITATION	5.00	HOUR
908001	TOPSOIL (TON)	150.00	TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	1,100.00	S.Y.

LOCATION 2 437(BUNKER HILL ROAD) FROM MARYLAND LINE TO 300' WEST OF TRAFFIC CIRCLE @ CHOPTANK ROAD

COMMENTS:

Recommended Traffic Control: TA10

Restricted Work Hours: 8:00 am to 4:00 pm

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

Curb Ramp/Triangular Channelizing Island Locations:

None Anticipated

Entrance and Driveway Locations:

Winfield Knoll
Manor Drive

Utility Adjustments:

None Anticipated

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CONTRACT QUANTITIES SUMMARY SHEET

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302005	GRADED AGGREGATE BASE COURSE, TYPE B	90.00	TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTINGSTREET PAVING SURCHARGE	80.00	TON
401801	BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GYRATIONS PG 64-22 (CARBONATE STONE)	7,450.00	TON
401823	BITUMINOUS CONCRETE, SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22, PATCHING	1,270.00	TON
402000	BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	80.00	TON
406001	BITUMINOUS CONCRETE PATCHING	21,800.00	SY-IN
705001	P.C.C. SIDEWALK, 4"	50.00	S.F.
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	10.00	S.F.
705009	CURB RAMP, TYPE 2, 3, AND/OR 4	175.00	S.F.
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	60.00	EA-DY
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	40.00	EA-DY
743050	FLAGGER, NEW CASTLE COUNTY, STATE	1,690.00	HOUR
743062	FLAGGER, NEW CASTLE COUNTY, STATE, OVERTIME	169.00	HOUR
746924	FURNISH & INSTALL LOOP WIRE 1-CONDUCTOR #14 AWG ENCASED IN 1/4" FLEXIBLE TUBING IN A LOOP SAWCUT	200.00	L.F.
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	387.00	S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	163,950.00	L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	774.00	S.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	81,975.00	L.F.
748549	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 10"	34.00	L.F.
748553	PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, BIKE SYMBOL	5.00	EACH
749687	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	42.00	EACH
758000	REMOVAL OF EXISTING PORTLAND CEMENTCONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	20.00	S.Y.
760507	PROFILE MILLING, BITUMINOUS CONCRETE	127,150.00	SY-IN
762001	SAW CUTTING, BITUMINOUS CONCRETE	725.00	L.F.
763000	INITIAL EXPENSE	LUMP	SUM
763621	CONSTRUCTION ENGINEERING, REHABILITATION	10.00	HOUR

CONTRACT QUANTITIES SUMMARY SHEET

763643	MAINTENANCE OF TRAFFIC, ALL INCLUSIVE	LUMP	SUM
905004	INLET SEDIMENT CONTROL, DRAINAGE INLET	9.00	EACH
908001	TOPSOIL (TON)	250.00	TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	1,850.00	S.Y.

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