THE STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

OFFICE OF TRANSPORTATION SOLUTIONS

PLANS AND SPECIFICATIONS FOR

CONTRACT NUMBER- T201787801 CENTRAL MAINTENANCE

FEDERAL AID NUMBER- NONE

CONTRACT TITLE- GUARDRAIL CENTRAL OPEN-END, FY17-19

PLANS PREPARED BY: _____

CENTRAL DISTRICT DESIGN ENGINEER

DATE RECOMMENDED: _____

_____

CENTRAL DISTRICT CONTRACTS ENGINEER

DATE RECOMMENDED: 5/11/17

_____

For CENTRAL DISTRICT MAINTENANCE ENGINEER

DATE RECOMMENDED: 5/11/17

_____

CENTRAL DISTRICT ENGINEER

TIMOTHY R. STYNCHULA LICENSED No. 15871 DELAWARE PROFESSIONAL ENGINEER

THOMAS E. GREVE REGISTERED NO. 9247 DELAWARE PROFESSIONAL ENGINEER

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LOCATION MAP

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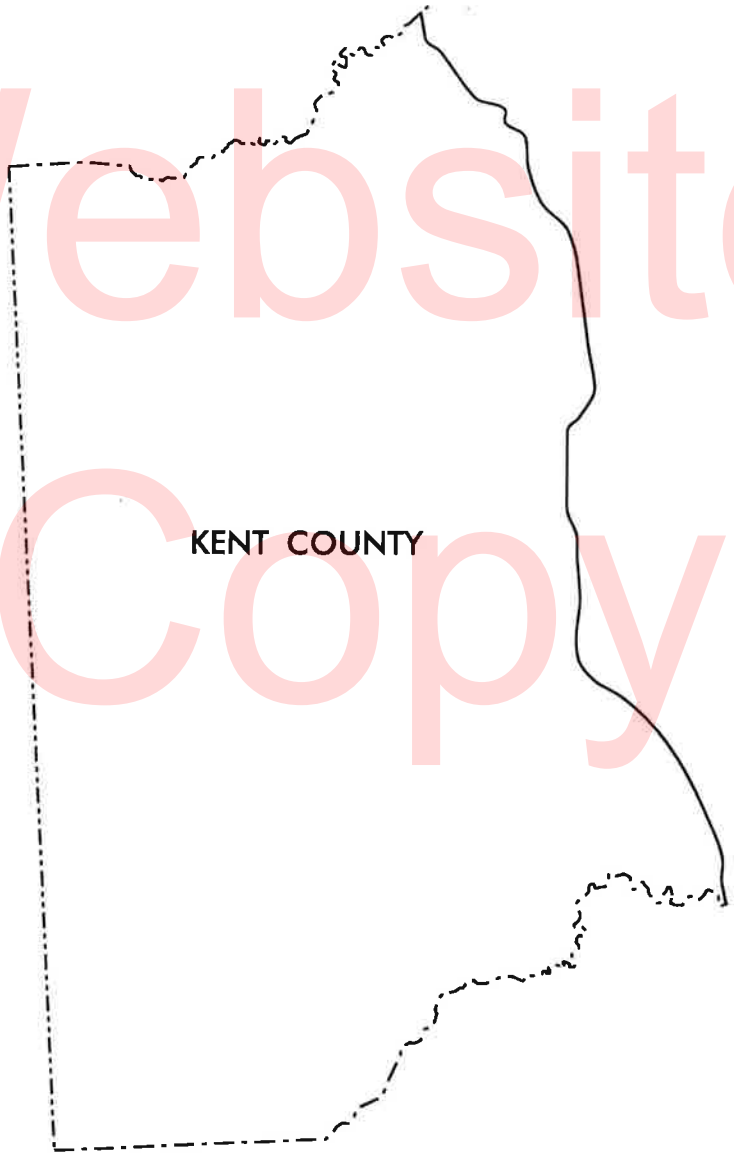

NOTES

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, AND THESE PLANS.

2. THIS IS AN OPEN-END WORK-ORDER DRIVEN CONTRACT TO INSTALL NEW OR REPAIR DAMAGED GUARDRAIL, GUARDRAIL COMPONENTS AND END TREATMENTS AS REQUIRED FOR ALL STATE MAINTAINED ROADS IN KENT COUNTY. THE WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, MAINTENANCE OF TRAFFIC, REMOVAL OF DAMAGED GUARDRAIL OR COMPONENTS AND END TREATMENTS, INSTALLATION OF NEW GUARDRAIL, REGRADING OF BACKSLOPES, TOPSOIL, SEEDING, MULCHING AND RIP-RAP PLACEMENT AS REQUIRED OR DIRECTED BY THE ENGINEER OR REPRESENTATIVE VIA INDIVIDUAL WORK-ORDERS. SUBSECTION 104.06 WILL NOT APPLY TO THIS CONTRACT. THERE WILL BE NO WINTER SHUTDOWN.

THE SPECIFIC SITES ARE NOT LISTED HERIN, BUT WILL BE ASSIGNED AS AVAILABLE BY CENTRAL DISTRICT MAINTENANCE PERSONNEL

DEPENDING ON FUNDING 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.

THE DISTRICT RESERVES THE RIGHT TO PRIORITIZE, SUBSTITUTE, ADD, OR DELETE LOCATIONS AT ANYTIME DURING THE CONTRACT.

LENGTH OF CONTRACT:

THE LOCATION LISTING INDICATES ESTIMATED QUANTITIES FOR THE ORIGINAL THREE-YEAR CONTRACT. DURING THE BIDDING PERIOD, ANY QUESTIONS PERTAINING TO LOCATIONS SHALL BE DIRECTED TO THE CONTRACT ADMINISTRATOR. AFTER THE AWARD, SUCH QUESTIONS SHALL BE REFERRED TO THE APPROPRIATE DISTRICT ENGINEER OR HIS REPRESENTATIVE.

THE PERIOD OF THIS CONTRACT IS FROM THE DATE OF THE "NOTICE TO PROCEED" FOR ONE CALENDAR YEAR. THE DOLLAR VALUE ESTIMATED TO BE UTILIZED IN EACH OF THE THREE YEARS SHALL BE APPROXIMATELY ONE THIRD OF THE ENTIRE CONTRACT AWARD VALUE WITH THE TWO SUBSEQUENT YEARS BEING AN ADDITIONAL ONE THIRD EACH.

CONTRACT EXTENSION: THE DEPARTMENT RESERVES THE RIGHT TO REQUEST TO EXTEND THIS CONTRACT FOR TWO ADDITIONAL ONE YEAR EXTENSIONS AT THE ORIGINAL UNIT BID PRICES SPECIFIED EXCEPT AS NOTED HERIN. THE ONE YEAR EXTENSIONS MUST BE APPROVED BY BOTH PARTIES IN WRITING, AT LEAST 90 DAYS PRIOR TO EXPIRATION OF THE EXISTING CONTRACT. THE SUCCESSFUL BIDDER MAY EXTEND THE CONTRACT PRICE TO ANY OTHER STATE OR LOCAL AGENCY DURING THE CONTRACT PERIOD IF IT IS AGREEABLE WITH BOTH PARTIES.

PRICE ADJUSTMENT: EXTENSION TO FUTURE YEARS IS DEPENDENT ON LEGISLATIVE FUNDING APPROPRIATIONS FOR THESE FISCAL YEARS AND AGREEMENT ON SUCCEEDING YEAR'S PRICING AS DESCRIBED HERIN. THE BID PRICES IN THE CONTRACT MUST BE GUARANTEED FOR THE FIRST YEAR OF THE CONTRACT. IN FUTURE YEAR CONTRACT EXTENSIONS, THE VENDOR MAY REQUEST AN INCREASE IN UNIT PRICES. THE VENDOR WILL BE REQUIRED TO REQUEST ANY PRICE INCREASES PRIOR TO THE EXTENSION OF THE CONTRACT. THE BID PRICES IN THE CONTRACT EXTENSION SHALL BE GUARANTEED FOR THE PERIOD OF THE CONTRACT EXTENSION. IF THE DIFFERENCE REQUESTED EXCEEDS THE CHANGE IN THE NATIONWIDE ALL URBAN CONSUMER PRICE INDEX (CPI-U),

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U.S. CITY AVERAGE FOR THE SAME PERIOD, APPROVAL OF ANY PRICE ADJUSTMENT OFFERED THE VENDOR ABOVE THE CPI-U WILL BE AT THE DISCRETION OF THE DISTRICT ENGINEER. THE DEPARTMENT RETAINS THE RIGHT TO CANCEL THE FUTURE YEAR EXTENSION IF ANY ACCEPTABLE AGREEMENT CANNOT BE REACHED WITH THE VENDOR ON THE PRICE ADJUSTMENT. THIS CONTRACT MAY BE EXTENDED FOR SUCH PERIOD, QUANTITIES, AND TIME, AS IS MUTUALLY AGREEABLE BETWEEN BOTH PARTIES.

THE CPI-U IS CALCULATED AS FOLLOWS:

CURRENT CPI-U - CPI-U AT PURCHASE ORDER DATE = CPI-U DIFFERENCE

DIVIDE THE CPI-U DIFFERENCE BY CPI-U AT PURCHASE ORDER DATE = CPI-U FACTOR

MOVE THE FACTOR DECIMAL POINT OVER TWO (2) SPACES TO THE RIGHT GIVES YOU THE % INCREASE FOR THE TIME PERIOD AND MAXIMUM ALLOWABLE PERCENTAGE INCREASE FOR THAT PURCHASE.

EXAMPLE: 173.2 - 165.4 = 7.8 (DIFFERENCE)
7.8 / 165.4 = .047158403 (FACTOR)
4.72% CPI-U FOR THAT PERIOD

3. PERFORMANCE AND PROGRESS OF WORK:

WORK TO BE PERFORMED UNDER THIS CONTRACT SHALL BE GENERATED THROUGH WORK-ORDERS ISSUED TO THE CONTRACTOR BY THE DEPARTMENT'S CENTRAL DISTRICT PROJECT MANAGER. WORK-ORDERS WILL BE ISSUED AS A GROUP TO ALLOW THE MOST EFFICIENT ALLOCATION OF THE CONTRACTOR'S WORK FORCE AS THE SITUATION ALLOWS.

EXECUTION OF EACH WORK-ORDER GROUP IS TO BEGIN WITHIN FOUR (4) DAYS OF IT'S BEING ISSUED TO THE CONTRACTOR, UNLESS REQUIRED MATERIALS ARE NOT AVAILABLE, AND WORK WILL BE COMPLETED WITHIN THE TIME FRAME ALLOCATED ON THE WORK-ORDER. NON-AVAILABILITY OF MATERIAL SHALL BE VERIFIED BY AT LEAST THREE (3) INDEPENDENT SOURCES, WITH THE VERIFICATION FORMALLY PRESENTED IN WRITING BY THE CONTRACTOR TO THE DEPARTMENT WITHIN FOUR (4) WORKING DAYS.

IF WORK DOES NOT COMMENCE, OR NON-AVAILABILITY OF MATERIALS IS NOT PRESENTED IN THE ALLOTTED TIME, TIME CHARGES EQUAL TO LIQUIDATED DAMAGES FOR THE WORK-ORDER GROUP SHALL COMMENCE. IF THERE IS A VERIFIED NON-AVAILABILITY OF MATERIALS, TIME CHARGES SHALL COMMENCE ON THE FOURTH (4) WORKING DAY FOLLOWING THE DELIVERY DATE.

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

FAILURE TO COMPLETE A WORK GROUP IN THE SPECIFIED TIME SHALL CONSTITUTE "FAILURE TO PURSUE THE WORK" AND SUBJECTS THE CONTRACTOR TO LIQUIDATED DAMAGES AS OUTLINED IN SUBSECTION 108.08 OF THE STANDARD SPECIFICATIONS. EACH WORK-ORDER OR GROUP OF WORK ORDERS IS TO BE COMPLETED WITHIN THE SPECIFIED TIME. ADDITIONAL ITEMS AND/OR WORKING DAYS MAY BE ADDED TO ANY WORK-ORDER AS NEEDED AT THE DISCRETION OF THE ENGINEER. IF THE WORK ON A SPECIFIC WORK-ORDER GROUP IS NOT COMPLETED WITHIN THE ALLOCATED TIME, LIQUIDATED DAMAGES WILL BE ASSESSED IN ACCORDANCE WITH SUBSECTION 108.09 OF THE STANDARD SPECIFICATIONS BASED ON THE TOTAL VALUE OF THAT PARTICULAR WORK-ORDER OR WORK-ORDER GROUP, WHICHEVER IS APPLICABLE.

A SEMI-FINAL INSPECTION WILL BE PERFORMED ON EACH WORK-ORDER OR WORK-ORDER GROUP AFTER THE DEPARTMENT RECEIVES COPIES OF THE COMPLETED WORK-ORDERS FROM THE CONTRACTOR. ALL WORK MUST MEET THE DEPARTMENT'S SPECIFICATIONS, THE REQUIREMENTS AS OUTLINED IN THESE NOTES, AND

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THOSE WORK-ORDERS PERTAINING TO GUARDRAIL END TREATMENTS MUST MEET THE MANUFACTURER'S SPECIFICATIONS BEFORE THEY CAN BE CONSIDERED COMPLETE. IF ALL THE WORK-ORDERS ARE SATISFACTORILY COMPLETED, THE WORK WILL BE ACCEPTED BY THE DEPARTMENT, AT WHICH TIME THE WORK-ORDER OR WORK-ORDER GROUP WILL BE CONSIDERED CLOSED. UPON CLOSURE, THE DEPARTMENT WILL PROCESS THE CONTRACTOR'S INVOICES FOR THE SPECIFIC WORK-ORDERS.

4. PAYMENTS SHALL BE ISSUED ON A MONTHLY BASIS FOR THE AMOUNT OF WORK COMPLETED, INVOICED AND ACCEPTED BY THE DEPARTMENT.

5. THE CONTRACTOR SHALL PROVIDE ALL RESIDENTS WHO LIVE ADJACENT TO THE WORK ZONE WITH 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.

6. 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 AND PAVEMENT MARKINGS:

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 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PART 6, INCLUDING REVISIONS UP TO THE DATE OF ADVERTISEMENT FOR BIDS.

LANE SHIFTS TO MAINTAIN ONE-LANE IN EACH DIRECTION SHOULD BE USED WHERE POSSIBLE. NO LANE CLOSURES SHALL BE ALLOWED ON MULTILANE ROADWAYS BETWEEN 6:00 AM AND 7:00 PM ON STANDARD WEEKDAYS, I.E. MONDAY THROUGH FRIDAY WITHOUT PRIOR PERMISSION FROM THE ENGINEER. CONSIDERATION MUST BE GIVEN TO THE DURATION OF THE CLOSURE, THE NUMBER OF LANES ON THE HIGHWAY, THE NUMBER OF LANES AFFECTED BY THE CLOSURE, AND THE CONDITIONS CREATED BY THE CLOSURE. WHEN PRIOR PERMISSION IS GRANTED, THE CONTRACTOR SHALL ENSURE THAT LANE CLOSURES ARE REMOVED PRIOR TO PEAK PERIODS. PEAK PERIODS ARE DEFINED AS 6:00 AM TO 9:00 AM; AND 3:00 PM TO 7:00 PM.

NO LANE CLOSURES ON TWO-LANE ROADWAYS WITH AADT GREATER THAN OR EQUAL TO 5,000 VEHICLES PER DAY SHALL OCCUR BETWEEN 6:00 AM TO 9:00 AM AND/OR 3:00 PM TO 7:00 PM ON A STANDARD WEEKDAY, I.E. MONDAY THROUGH FRIDAY WITHOUT PRIOR PERMISSION FROM THE ENGINEER.

FOR TWO-LANE ROADWAYS WITH AADT LESS THAN 5,000 VEHICLES PER DAY, LANE CLOSURES TYPICALLY WILL BE ALLOWED AT ANY TIME.

THE "MORE RESTRICTIVE AT DEPARTMENT'S DISCRETION" NOTE AT THE END OF THIS PARAGRAPH OVERRIDES THE GENERAL GUIDANCE. THE CONTRACTOR SHALL ENSURE THAT DISRUPTION TO TRAFFIC IS MINIMIZED AT ALL TIMES IN ALL CASES.

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SUMMER WEEKEND OPERATIONS MAY OCCUR ON NON-BEACH ROUTE ROADWAYS SUBJECT TO DETERMINATION BY THE ENGINEER, BUT NO SUMMER WEEKEND WORK SHALL TAKE PLACE ON MAJOR BEACH ROUTES. NIGHTTIME WORK MAY OCCUR ON CONGESTED MAJOR ROADWAY CORRIDORS AND/OR AT LOCATIONS AS DETERMINED BY THE ENGINEER WHERE DAYTIME LANE CLOSURES WILL CAUSE EXCESSIVE DISRUPTION TO TRAFFIC FLOW.

QUESTIONS REGARDING THE TIMING OF LANE CLOSURES ON A PARTICULAR ROADWAY SHALL BE DIRECTED TO THE DELDOT DISTRICT SAFETY OFFICER. IT SHALL BE NOTED THAT THE PROVISIONS ABOVE ARE FOR GENERAL GUIDANCES AND THAT THE DEPARTMENT CAN BE MORE RESTRICTIVE AT ITS DISCRETION.

THE TRAFFIC CONTROL SETUPS GENERALLY USED FOR THIS CONTRACT PER THE CURRENT DEMUTCD ARE, BUT NOT LIMITED TO, TYPICAL APPLICATIONS 3, 3A, 5A, 10, 11B, 33, AND 43.

8. THE CONTRACTOR SHALL SUBMIT THE NECESSARY NCHRP 350 AND/OR MASH CERTIFICATIONS FOR ALL DEVICES THAT WILL BE UTILIZED FOR EACH LOCATION BEFORE THE START OF THE PRE-CONSTRUCTION MEETING. WRITTEN APPROVAL BY THE DISTRICT SAFETY OFFICER MUST BE RECEIVED BEFORE THE START OF WORK.

THE CONTRACTOR WILL BE REQUIRED, UPON NOTICE FROM THE DISTRICT, TO SUBMIT A TRAFFIC CONTROL PLAN TO THE DISTRICT SAFETY OFFICER FOR A SPECIFIC WORK ORDER LOCATION WHEN THE DISTRICT BELIEVES THIS LOCATION PRESENTS SPECIAL TRAFFIC CONTROL CONCERNS. A TWO-WEEK LEAD TIME IS REQUIRED FOR THE DISTRICT SAFETY OFFICER'S REVIEW.

9. NO SEPARATE PAYMENTS WILL BE MADE FOR MAINTENANCE OF TRAFFIC COSTS. FOR THE PURPOSE OF THIS CONTRACT, THESE ARE CONSIDERED INCIDENTAL TO THE BID WORK-ORDERS.

10. NO WORK SHALL BE PERFORMED ALONG U.S. ROUTES 13 AND 113 OR S.R. 1 FROM FRIDAY THROUGH SUNDAY INCLUSIVE - SOUTHBOUND) AND SATURDAY THROUGH MONDAY (INCLUSIVE-NORTHBOUND) EXCEPT FOR EMERGENCIES AS DETERMINED BY THE DEPARTMENT.

11. 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.

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 BUSINESS AND RESIDENTS AT ALL TIMES.
- PROVIDE PEDESTRIAN ACCESS THRU 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.

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• 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.

PROJECT

12. THE CONTRACTOR IS REMINDED THAT SECTION 105.07 OF THE STANDARD SPECIFICATIONS REQUIRES THE GENERAL CONTRACTOR TO HAVE A COMPETENT SUPERINTENDENT OR FOREMAN ON THE PROJECT AT ALL TIMES.

13. FOR THE PURPOSE OF THIS CONTRACT, THE REPLACEMENT GUARDRAIL TYPE AND LOCATION SHALL BE IDENTICAL TO THE DAMAGED GUARDRAIL, EXCEPT IN THE INSTANCES WHEN AN UPGRADE TO THE CURRENT STANDARD OF GUARDRAIL IS DEEMED NECESSARY, OR WHEN OTHERWISE DIRECTED BY THE ENGINEER. THE ENGINEER SHALL DETERMINE FOR THE CONTRACTOR WHAT, IF ANY, GUARDRAIL ELEMENTS SHALL BE USED AT EACH LOCATION. ANY GUARDRAIL ELEMENTS NOT TO BE REUSED, AS DETERMINED BY THE ENGINEER, BECOME THE PROPERTY OF THE CONTRACTOR. REMOVAL AND LEGAL DISPOSAL OF THE UNUSED ELEMENTS, INCLUDING, BUT NOT LIMITED TO, RAILS, POSTS, END ATTACHMENTS, AND ANCHORS ARE THE CONTRACTOR'S RESPONSIBILITY. HOWEVER, CERTAIN TYPES OF GUARDRAIL HARDWARE WILL BECOME THE PROPERTY OF THE DEPARTMENT AT THE ENGINEERS DISCRETION AND SHALL BE TAKEN TO AREA 6 (MAGNOLIA YARD) BY THE CONTRACTOR.

14. BACKFILL OF HOLES CREATED BY POST REMOVAL, IN COMPACTED LIFTS, PROVIDING AND INSTALLING RAIL BACKUP PLATES, BOLTS, NUTS, WASHERS, AND REFLECTORIZED WASHERS, PROVIDING AND SETTING UP TRAFFIC CONES AND/OR PATTERNS ARE INCIDENTAL TO THE BID ITEMS. COST FOR PLACEMENT OF ONE THIRD (1/3) CUBIC YARD OF PORTLAND CEMENT CONCRETE AROUND THE BASE OF UNSTABLE POSTS, AS DIRECTED BY THE ENGINEER, IS INCIDENTAL TO THE UNIT PRICE BID FOR ITEM 720006, GALVANIZED STEEL POST. COST FOR EXCAVATING AND DISPOSING OF UP TO ONE (1) CUBIC YARD OF MATERIAL AND/OR GRADING (UP TO A SIX (6) INCH DEPTH) TO MEET THE MANUFACTURERS SLOPE REQUIREMENTS IS INCIDENTAL TO THE UNIT PRICE BID FOR ITEMS 721000, 721001, 721002, 721003, 721004 OR 721005. COST FOR EXCAVATING OVER ONE (1) CUBIC YARD OF MATERIAL TO MEET THE MANUFACTURERS SLOPE REQUIREMENTS WILL BE PAID UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT.

15. ALL ADDED WORK SHALL BE PERFORMED AT CONTRACT UNIT PRICES. IN THE CASE WHERE CONTRACT UNIT PRICES ARE NOT AVAILABLE, PRICES SHALL BE NEGOTIATED OR WORK WILL BE PERFORMED BY FORCE ACCOUNT.

16. ALL CONSTRUCTION DEBRIS, EXCAVATED MATERIAL, BRUSH, ROCKS, AND REFUSE INCIDENTAL TO SUCH WORK SHALL BE PLACED EITHER ON SHORE ABOVE THE INFLUENCE OF FLOOD WATERS OR ON SOME SUITABLE DUMPING GROUND.

17.THAT EFFORT SHALL BE MADE TO KEEP CONSTRUCTION DEBRIS FROM ENTERING ADJACENT WATERWAYS OR WETLANDS. ANY DEBRIS THAT ENTERS THOSE AREAS SHALL BE REMOVED IMMEDIATELY.

18. DISPOSAL OF TREES, BRUSH, AND OTHER DEBRIS IN ANY STREAM CORRIDOR, WETLAND, SURFACE WATER, OR DRAINAGE AREA IS PROHIBITED.

19. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 105.09 UTILITIES, DELAWARE STANDARD SPECIFICATIONS, AUGUST 2016. THE CONTRACTOR SHALL CONTACT MISS UTILITY (1-800-282-8555) TWO WORKING DAYS PRIOR TO ANY EXCAVATION. THE CONTRACTOR IS RESPONSIBLE FOR THE SUPPORT AND

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PROTECTION OF ALL UTILITIES FOR EXCAVATION AND/OR DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING PROPER CLEARANCES, INCLUDING SAFETY CLEARANCES, FROM OVERHEAD UTILITIES FOR CONSTRUCTION EQUIPMENT. THE CONTRACTOR IS ADVISED TO CHECK THE SITE FOR ACCESS PURPOSES FOR HIS EQUIPMENT AND, IF NECESSARY MAKE ARRANGEMENTS DIRECTLY WITH UTILITY COMPANIES FOR FIELD ADJUSTMENTS FOR ADEQUATE CLEARANCES.

20. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR HAS CONSIDERED IN HIS BID ALL PERMANENT AND TEMPORARY UTILITY APPURTENANCES IN THEIR PRESENT OR RELOCATED POSITIONS AS SHOWN ON THE PLANS OR DESCRIBED IN THE UTILITY STATEMENT OR ARE READILY DISCERNIBLE AND THAT NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY DELAYS, INCONVENIENCE, OR DAMAGE DUE TO ANY INTERFERENCE FROM THE UTILITY FACILITIES AND APPURTENANCES OR THE OPERATION OF MOVING THEM, EXCEPT THAT THE CONTRACTOR MAY BE GRANTED AN EQUITABLE EXTENSION OF TIME.

21. COORDINATION AND COOPERATION AMONG THE UTILITY COMPANIES AND THE STATE'S CONTRACTOR ARE OF PRIME IMPORTANCE. THEREFORE, THE CONTRACTOR IS DIRECTED TO CONTACT THE FOLLOWING UTILITY COMPANY REPRESENTATIVES WITH ANY QUESTIONS REGARDING THIS WORK PRIOR TO SUBMITTING BIDS AND WORK SCHEDULES. PROPOSED WORK SCHEDULES SHOULD REFLECT THE UTILITY COMPANIES' PROPOSED RELOCATIONS. THE UTILITY COMPANIES DO NOT WORK ON WEEKENDS OR LEGAL HOLIDAYS.

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INSTALLATION PROCESS FOR GUARDRAIL/ENDTREATMENTS:

22. GUARDRAIL/END TREATMENT, TYPE I

. ALL BOLTS, WASHERS AND NUTS SHALL BE INCIDENTAL TO REPAIRS.

A) LEVEL I REPAIR

WHEN THE ATTENUATOR IS DAMAGED UP TO, BUT NOT PAST THE THIRD POST, THE FOLLOWING ITEMS SHALL BE REUSED OR REPLACED AT THE DISCRETION OF THE ENGINEER OR REPRESENTATIVE. THE PARTS LISTED CAN ONLY BE REUSED IF THEY ARE COMPATIBLE WITH THE END TERMMINAL THAT IS BEING INSTALLED. PARTS CANNOT BE MIXED.

A LEVEL I REPAIR SHALL CONSIST OF THE FOLLOWING:

GUARDRAIL EXTRUDER	(REUSE)
BEARING PLATE	(REUSE)
ASSEMBLY CABLE	(REUSE) STRUT
	(REUSE) CABLE
ANCHOR	(REUSE) DEEP
BEAM GUARDRAIL	(REPLACE)
WOOD POST	(REPLACE)
IMPACT HEAD	(REUSE)
GROUND STRUT	(REUSE) W-
BEAM GUARDRAIL END	(REPLACE)

B) LEVEL II REPAIR

WHEN THE ATTENUATOR IS DAMAGED UP TO BUT NOT PAST THE FIFTH POST, THE FOLLOWING ITEMS SHALL BE REPLACED UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR REPRESENTATIVE:

ALL ITEMS SPECIFIED IN LEVEL I REPAIR PLUS THE FOLLOWING:

WOOD BLOCK

C) LEVEL III REPAIR

COMPLETE REPLACEMENT OF UNIT.

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23. GUARDRAIL/END TREATMENT, TYPE II

ALL BOLTS, WASHERS AND NUTS SHALL BE INCIDENTAL T0 REPAIRS.

A) LEVEL I REPAIR

WHEN THE ATTENUATOR IS DAMAGED TO BUT NOT PAST THE SECOND POST, THE FOLLOWING ITEMS SHALL BE REPLACED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE PARTS LISTED CAN ONLY BE REUSED IF THEY ARE COMPATIBLE WITH THE END TERMMINAL THAT IS BEING INSTALLED. PARTS CANNOT BE MIXED.

BARRIER (TERMINAL)
STRUT ASSEMBLY
CABLE
CABLE ANCHOR BRACKET
BACK UP PLATE
POST
BEARING PLATE
PIPE
GUARDRAIL

B) LEVEL II REPAIR

WHEN THE ATTENUATOR IS DAMAGED TO BUT NOT PAST THE THIRD POST, THE FOLLOWING ITEM SHALL BE REPLACED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER:

POSTS
BLOCK
BACK UP PLATE
GUARDRAIL

C) LEVEL III REPAIR

COMPLETE REPLACEMENT OF THE DAMAGED UNIT.

NOTE: IF DAMAGE TO 5' TUBE SLEEVE OCCURS THIS WILL BE CONSIDERED A LEVEL II REPAIR, SOIL PLATE MAY ALSO NEED TO BE REPLACED.

NOTES

24. GUARDRAIL/END TREATMENT, TYPE III

ALL BOLTS, WASHERS AND NUTS SHALL BE INCIDENTAL TO REPAIRS.

A) LEVEL I REPAIR

WHEN THE ATTENUATOR IS DAMAGED TO BUT NOT PAST THE SECOND POST, THE FOLLOWING ITEMS SHALL BE REPLACED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE PARTS LISTED CAN ONLY BE REUSED IF THEY ARE COMPATIBLE WITH THE END TERMMINAL THAT IS BEING INSTALLED. PARTS CANNOT BE MIXED.

NOSE PLATE/ROLLED
CHANNEL STRUT SIDE
PLATE BEARING PLATE
PIPE SLEEVE CABLE
ASSEMBLY
BENT PLATE SLEEVE
WOOD POST
WOOD BLOCK

B) LEVEL II REPAIR

WHEN THE ATTENUATOR IS DAMAGED TO BUT NOT PAST THE THIRD POST, THE FOLLOWING ITEM SHALL BE REPLACED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER:

ALL ITEMS IN LEVEL I PLUS THE FOLLOWING:

SPACER CHANNEL
GUARDRAIL
WOOD BLOCK
PIPE
* WOOD POST TUBE
SLEEVE SOIL
PLATE

*NOTE: TUBE SLEEVE AND SOIL PLATE MAY NEED TO BE REPLACED IN THIS LEVEL IF DAMAGED.

C) LEVEL III REPAIR - COMPLETE REPLACEMENT OF THE UNIT.

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