

STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
MAINTENANCE AND OPERATIONS



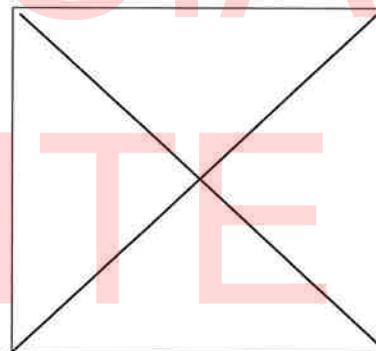
PLANS AND SPECIFICATIONS FOR
Contract Number: T201807702
Federal Aid Project Number: N/A
Structure Maintenance, North District, Open End, FY19-21

PLANS PREPARED BY: *He K*
NORTH DISTRICT CONTRACTS ENGINEER

DATE: 2/20/18

~~DATE RECOMMENDED: _____

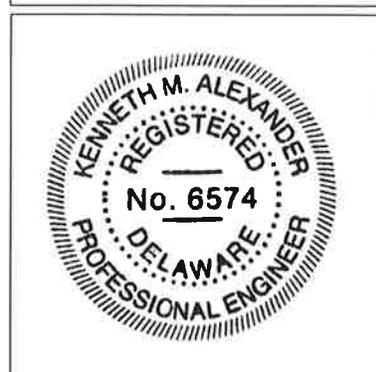
NORTH DISTRICT DESIGN ENGINEER~~



DATE RECOMMENDED: 20 February 2018
Maureen Elizabeth Malger
NORTH DISTRICT MAINTENANCE ENGINEER



DATE APPROVED: 2/23/18
Maureen Elizabeth Malger
NORTH DISTRICT ENGINEER



DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

CONTRACT DESCRIPTION

The purpose of this open-ended contract is to initiate repairs and preventative maintenance to bridges and culverts in DelDOT North District which includes bridges on I-95/295/495. Work shall include but not be limited to crack sealing decks, warm-mix repair, coating parapets and sidewalks, expansion joint replacement, riprap placement, and concrete repair. Some work may be in the channel including but not limited to placing riprap, installing sandbag dike diversions and channel excavation. All work shall be done as directed by the Engineer on the individual work orders.

The specific work sites are not listed herein, but will be assigned as available by the District Maintenance office via work orders.

The contract shall be for a period of three (3) years from the date of Initial Notice To Proceed with the option to extend the contract for one (1) additional one-year period. If it is determined that a contract extension is needed and agreed upon by both parties, unit prices for all pay items during the extension shall remain the same as bid in the original contract. The one-year extension must be approved by both parties in writing, at least 30 days prior to the expiration of the existing contract. The Performance Bond shall be submitted with the contract extension and shall be subject to any such agreed upon renewal for the extension period. Failure on the part of the Contractor to submit the Performance Bond for the extension period prior to the last working day before the end of the previous period shall result in the contract being cancelled. It shall be the contractor's responsibility to obtain the forms necessary to renew the Performance Bond each year the contract is in force.

GENERAL NOTES

1. All work shall be performed in accordance with the Delaware Department of Transportation Standard Specifications dated August 2016 (as amended by the Supplemental Specifications), the DelDOT Special Provisions, the Standard Construction Details, and these project notes.
2. An updated Performance Bond shall be submitted at the beginning of each fiscal year. Failure on the part of the Contractor to submit the Performance Bond shall result in the Contract being cancelled.
3. Whenever the word "Contractor" is used in this contract, it shall refer to the person or persons, company or corporation furnishing the services required.
4. Whenever the word "Department" or "Engineer" is used, it shall refer to the person or persons, representing the Delaware Department of Transportation (DelDOT).
5. Tasking of work is contingent upon authorization of State funding.

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

6. Delete Section 104.06 of the DelDOT Standard Specifications, and replace with the following:

The Department reserves the right to, at any time prior to completion of the contract, issue plan revisions, make adjustments in Contract item quantities, or make such alterations considered necessary to satisfactorily complete the Contract.

The Department reserves the right to increase or decrease the quantities of Pay Items specified in the Contract. Such additions or deletions shall not be cause for an increase or decrease in Contract unit bid prices. The "Change" threshold of plus or minus 25%, as described in Subsection 104.06 of the DelDOT Standard Specifications dated August 2016 shall not apply to this Contract. Quantity increases or decreases of plus or minus 25% or greater shall not be justification for adjustments to unit prices.

The plan revisions and quantity adjustments described above do not invalidate the Contract or release the Contract surety. Payment for these changes shall exclude any amount for loss of anticipated profits alleged to result from the change.

When payment for the Contract work cannot be agreed upon by the Contractor and the Department prior to starting such work ordered, the Department may direct the Contractor to perform the work under Force Account provisions of Subsection 109.04. The Contractor will proceed immediately with the work so ordered and such direction shall neither invalidate the Contract, nor release the surety.

7. It is anticipated that all work will occur within DelDOT's existing right of way or easement areas. Should the need occur to trespass onto private property; it will be the responsibility of the DelDOT Project Manager to secure such trespass needs.
8. It is anticipated that all work will occur within DelDOT's right of way. Should the need occur to trespass onto railroad property, including highway-rail crossings; please contact DelDOT's railroad coordinator.
9. No utility relocation involvement is anticipated. Should any conflicts be encountered during construction requiring adjustment and/or relocation of the agencies' existing facilities, the necessary relocation work shall be accomplished by the respective agencies' forces, as directed by the Engineer. Any adjustments and/or relocations of municipally owned facilities shall be done by the State's contractor in accordance with the respective agencies' standard specifications as directed by the Engineer.
10. Underground and aerial utilities may be present at all locations. Therefore, all standard practices and procedures regarding utilities shall be followed. The Contractor shall contact Miss Utility of Delaware prior to starting each work order. The Contractor is responsible for the support and protection of all utilities when excavating. 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 make arrangements directly with utility companies for field adjustments for adequate clearances if necessary.
11. Prosecution and Progress of Work:

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

The Contractor shall commence on work indicated on the work order no later than the third (3rd) business day after issuance unless required materials are not available. Non-availability of materials shall be verified by at least three (3) different sources. Verification shall be formal and supplied by the Contractor in writing.

Issuance of each work order constitutes the notice to proceed with the work described on the work order.

If there is a verified non-availability of materials, time charges shall commence on the first (1st) working day following the delivery date of materials.

Failure to start assigned work orders in the allowed time constitutes "Failure to Pursue the Work" and subjects the Contractor to Liquidated damages as outlined in Section 108.08 of the Standard Specifications. If work on a specific work order is not completed within the allotted time, Liquidated Damages will be assessed in accordance with Subsection 108.09 and based on the total value of that work order.

Each work order shall be considered a separate unit of work. The Engineer will make payment monthly for the completed invoices as outlined in Section 109.07. Upon the substantial completion of the work at an individual location, the Engineer will stop time at that location and perform a semi-final inspection for the work order location in accordance with Subsection 105.16. The Engineer reserves the right to require the Contractor to add Work or make repairs to completed locations at the Engineer's expense until such a location has been accepted by the Department. The Contractor must repair all defects in the work caused by poor workmanship or materials at his/her own expense until the Department accepts the Contract after the Final Inspection.

A Semi-Final and Final Inspection will be completed on an annual basis for work orders completed in a calendar year. Upon satisfactory completion of the Final Punchlist, the Department will accept the location and release the Contractor from responsibility for the Work at that location. If a work order is sufficiently large and complex as determined by the Engineer, a Final Inspection may be held upon the individual completion of that work order.

12. Section 101.03 "Working Day" definition is amended. There will not be a winter shutdown from December 16th to March 15th. The Department reserves the right to issue work and charge time between these dates.
13. Clearing and grubbing of trees, shrubs and other vegetation less than six (6) inches in diameter within ten (10) feet of the bridge structure shall be incidental to the applicable repair, replacement or excavation Pay Item. There shall be no separate payment for clearing and removal of trees, shrubs and vegetation less than six (6) inches in diameter within the area of the bridge structure. Grubbing activities performed in wetland areas require environmental permit approvals obtained by DelDOT prior to commencement of work.

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

14. No environmental permits are required for this work provided no jurisdictional wetlands or waters are impacted. If there is any question as to whether or not a water or wetland is jurisdictional, contact the DelDOT Environmental Section at (302) 760-2264.
15. Work within waters/wetlands shall not begin on locations requiring environmental permits until all applicable permits have been obtained by DelDOT. Confirm permit status with DelDOT Engineer prior to commencement of applicable work.
16. Excavated material not needed on the project shall be removed from the site at the Contractor's expense.
17. Proper disposal of construction related wastes shall be the sole responsibility of the Contractor. In the event there is suspicion of hazardous material, inform the Engineer as soon as possible.
18. Submittals for wet and dry applications are required for Item 628001 (Repair of Concrete Structure by Epoxy Injection).
19. Trash, rubbish, debris or brush that hampers repair / maintenance work in this Contract (as determined by the Engineer), shall be removed within the project limits and shall be incidental to Pay Item 763000 (Initial Expense).
20. Grass and soil areas within State right-of-way that have been damaged by equipment during this contract, shall be restored with topsoil, seed and mulch at Contractor's own expense to the satisfaction of the Engineer.
21. All costs for access beneath bridges (such as scaffolding, bucket trucks, ladders, etc.) shall be included in the bid price for each applicable maintenance and repair pay item. The Contractor is responsible for ensuring compliance with all applicable OSHA safety regulations related to access for maintenance and repair beneath all bridges.
22. Material specification for Pay Item 623004 (Clean and Lubricate Bridge Bearings) shall comply with the following:
 - For bridges with steel structural components painted green, the grease shall be coated with a matching coat of finish (green, Federal specification #24172, Standard 595B). The grease shall be applied to the entire steel bearing component for each bridge bearing.
23. Prior to application of concrete sealants under Pay Item 613001 (Silicone Acrylic Concrete Sealer), submit Federal color samples to DelDOT for approval.
24. Power washing of vertical and horizontal surfaces (pier caps and abutments) and faces:
 - Many structures will require sealing of vertical and horizontal surfaces on pier caps and abutments. Prior to application of sealant, the vertical and horizontal

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

surfaces must be prepared in accordance with the standard specifications. When using pressure wash, Contractor shall protect roadside drainage inlets and above ground drainage systems as necessary to comply with DelDOT NPDES Environmental Permit (National Pollutant Discharge Elimination System). All costs for this work shall be incidental to the existing applicable maintenance/repair pay item.

25. Epoxy or Methacrylate based crack sealer shall be applied to bridge decks under Pay Item 628011 (Crack Sealing Bridge Decks, Etc.) in locations directed by the Engineer. The Contractor shall submit the Product Data sheet for the proposed material for use prior to commencement of work. The Product Data Sheet shall specify drying time for crack sealer. The product drying time shall allow for lane opening to traffic within six (6) hours (or less) of application.
26. When performing spall repairs on vertical concrete surfaces under pay item 610517 (Rehabilitation of Concrete Structure), the Product Data Sheet for proposed material must state that the material is suitable for repairs on vertical surfaces.
27. Partial depth saw cutting will be done at the direction of the Engineer and is incidental to the applicable deck patching repair item.
28. All riding surface patches are required to be sealed with a super-low viscosity, moisture-tolerant epoxy resin crack healer/penetrating sealer, or as directed by the Engineer. Sealing the perimeter of new patches is incidental to the applicable patching item, no additional payment will be made for sealing the perimeter of new patches.
29. All concrete spall repair performed under Pay Item 628051, 628052, and 628053 shall be performed in accordance with the requirements as stated in the standard specifications, and in accordance with the following additional requirements:
 - Perform abrasive blasting of reinforcing steel as necessary to remove corrosion and other contaminants prior to placement of patching mortar or concrete. The Contractor is responsible for containing and cleaning up the abrasive material.
 - Prepared concrete surface shall be roughened by abrasive blasting prior to placement of patch mortar or concrete. This roughening improves the mechanical bond when patch material is applied. The Contractor will be responsible for containing and cleaning up the abrasive material which is incidental to the applicable patching item.
 - The cost of high early strength concrete, to get sufficient strength within the time allotted on the work order, is incidental to the applicable deck patching item.

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

30. Spall repairs to the riding surface of **approach slabs** and **back walls/joint headers** shall be paid for with items 628040 (Shallow Spall Repair) , 628041 (Deep Spall Repair), and 628042 (Rehabilitation Of P.C.C. Masonry) with the following additional requirements:

- The cost of high early strength concrete, to get sufficient strength within the time allotted on the work order, is incidental to the applicable repair item.

31. Culvert Repair Notes:

- Repair spalls in concrete culvert and wingwalls. Payment shall be under Items 628040, 628041, or 628042 as described above. Repairs shall be performed to culvert walls, ceiling and floor as required.
- Repair cracks in concrete culvert and wingwalls. Payment shall be under Item 628020 or 628001, as directed by the Engineer.

32. Asphaltic Plug Joint (Item 624009)

Installation of Asphaltic Plug Joint systems for bridge decks shall be performed in accordance with Item 624009 (Asphaltic Plug Joint). Payment shall be under item 624009. Payment for saw-cutting, removal and disposal of existing deck joint material and anchoring system shall be incidental to pay item 624009. If the Contractor must cut existing anchoring system at limits of deck removal, the costs of cutting shall be included in the bid price for Item 624009. Repairs to damage of existing concrete deck to remain in place shall also be included in the bid price for Item 624009.

The Contractor shall place rapid hardening, high early strength gaining mortar as leveling course to firm concrete prior to placement of 2" depth asphaltic material. Mortar shall be SikaQuick 2500 or Dayton Superior HD-25, or approved equal. The mortar shall have a minimum compressive strength of 2000 psi in 3 hours. Adhere to manufacturer's recommendations for use of aggregate based on depth of repair. Follow manufacturer's recommendations for lift thickness. Payment for mortar placement shall be incidental to pay item 624009.

Place bituminous concrete for Temporary Roadway Material (TRM) as required to maintain day time open lanes of traffic during construction. Placement and removal of Bituminous concrete for Temporary Roadway Material shall be incidental to Item 624009. TRM shall be placed in accordance with DelDOT standard specification 402. Contractor shall place TRM material in such a manner as to facilitate ease of removal of material, such as placement of fabric material beneath the TRM, or other method as approved by DelDOT. Payment for fabric or other materials required to facilitate removal of TRM shall be incidental to Item 624009.

33. Sizing of Deck Joint Seal Material:

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

Prior to replacing compression seals or strip seal gland material for bridge deck joints, the Contractor shall submit the following to DelDOT Engineer for approval:

- Documented measurements of gap width for each deck joint. Contractor shall document width, date, time, and temperature at time of recordation. Show measurements on rough plan view layout of bridge, showing joint locations and span lengths.
- Vendor's Product data sheet for each joint material proposed for use.
- Computations for joint widths, listed at increments ranging from zero degrees to 120 degrees Fahrenheit, in accordance with formula in DelDOT Bridge Design Manual, Figure 5-9b, Section 5, page 18.
- Proposed width of joint seal material.

Any widths listed in these Project Notes or pay item lists in this Contract are approximations, and must be verified and computed by Contractor prior to installation. Contractor is responsible for installing appropriately sized compression and strip seal material accordingly, with accommodation for anticipated expansion and contraction of joint width due to temperature changes.

34. The paint system used for the structural steel shall be applied in a three (3) coat system application.
35. All painted steel structures in this contract are assumed to contain lead based paint on all of the structural steel, unless noted otherwise by the Engineer. For bridges requiring spot painting, the Contractor shall use Pay Item 616502 (Cleaning Existing Steel Structures, Hazardous (S.F.)) for the paint removal on the structures.
36. Prior to applying new paint system, all existing coatings on the structural steel shall be completely removed, in accordance Items 616502. There shall be no overcoating of existing paint or sealant systems. This applies to zone painting and spot painting of steel, as well as bridges to be completely re-coated in entirety.
37. If any cleaning to be performed requires pre-cleaning by pressure washing as determined by the Engineer, then this pressure washing shall be incidental to Item 616502.
38. For bridges with existing steel structural components painted green, the color of paint shall be green (# 24172) as federal standard 595B. The color shall be submitted to DelDOT for approval prior to commencement of work.
39. For bridges with existing steel structural components painted tan (or taupe), no federal specification number is on file. Therefore, the Contractor shall match existing color, and

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

shall submit Federal Color samples to DelDOT for approval prior to commencement of work.

40. Bridge bearings shall be cleaned and painted as directed by the Engineer. Care shall be taken when cleaning "frozen" bearings, because the abrasive blasting operation sometimes causes the bearings to "unfreeze". Pitted areas of the structural steel shall be brush painted along with spraying when applying every coat of paint of the three-coat system. After bearings have been painted, and after the paint has cured, the Contractor shall apply grease to all the bearings.
41. Hazardous waste generated during steel cleaning operations shall be disposed of in accordance with requirements stated in Item 616502, and in accordance with all State, Federal and local regulations. Contractor shall submit copies of all hazardous waste manifests and tickets to DelDOT.
42. Concrete deck spalls shall be repaired in accordance with Items 628051 (Deck Repair, 1" to 3" Depth), 628052 (Deck Repair, 3" to < Full Depth) and 628053 (Deck Repair, Full Depth), unless directed otherwise by the Engineer. Sawcut a rectangular shape around the periphery of each spall, shaped to be 1" wider than the spall periphery. Remove existing concrete deck to a depth necessary to reach sound concrete. Apply an epoxy bonding coat to roughened concrete surface. Thoroughly clean the surface prior to application of bonding coat. Where existing concrete deck is covered with additional concrete overlay, saw cut to a depth necessary to penetrate the entire overlay depth (typically 2" to 3" deep). All work described in this project note shall be included in the bid price for the applicable concrete deck spall repair pay item.
43. Repair cracks on pier caps, pedestals and columns. Crack repair shall be performed under Pay Items 628001 or 628020. There will be no additional payment for scaffolding or other equipment necessary for access.
44. Repair cracks in concrete abutments and backwalls. Crack repair shall be performed under pay item 628020 or 628001, or as directed by the Engineer. There will be no additional payment for scaffolding or other equipment necessary for access.
45. Perform cleaning and painting of structural steel components of bridge. Painting operations may include zone painting, spot painting, or painting of all structural components, as directed by the Engineer. Payment shall be under Items 616502 and 616501. Locations to be painted shall be where corrosion or deterioration of the existing paint coating is visible, and as approved by the DelDOT Engineer. Locations to be painted will be reviewed with the DelDOT Inspector prior to commencement of cleaning / painting operations. Locations to be painted include over travel lanes, shoulders, embankment slopes, pier caps, abutments, and waterways beneath bridge. There will be no additional payment for scaffolding or other equipment necessary for access.

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

46. Repair spalls on underside (bottom) of bridge deck and haunches. Perform sounding for concrete delamination on underside of deck around visible spalls, cracks and deterioration (with DeDOT Inspector present). Repair delaminated and deteriorated concrete. Repairs over travel lanes, road shoulders, piers, bridge embankments and abutments will be required. Payment will fall under Items 628051, 628052, and 628053. There will be no additional payment for scaffolding or other equipment necessary to access the bottom of the bridge.
47. If required during the placement or repair of Portland Cement Concrete (PCC) Pay Items, half-inch cork expansion material shall be placed at designated locations as directed by the Engineer. Payment for furnishing and placing the half-inch cork expansion material shall be incidental to the PCC pay items
48. When applying concrete sealant to abutments and backwalls, Contractor shall apply temporary masking to surfaces as necessary to provide straight edge cut-off at locations where painting application ends. Payment for temporary masking shall be incidental to the sealant application pay item.
49. Removal of portions or all of existing PCC from concrete curbs, parapets, concrete beams, diaphragms, abutment backwalls, piers, etc shall be paid for with items 628040 (Shallow Spall Repair) , 628041 (Deep Spall Repair), and 628042 (Rehabilitation Of P.C.C. Masonry) with the following additional requirements:
- In the event that there is no mat reinforcement present:
 - 628040 (Shallow Spall Repair) - Use for spall repairs 2 inches or less in depth.
 - 628041 (Deep Spall Repair) – Use for spall repairs greater than 2 inches in depth but 1 CY or less in a single area.
 - 628042 (Rehabilitation Of P.C.C. Masonry) – Use for spall repairs greater than 2 inches in depth but exceeds 1 CY in a single area.

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

MAINTENANCE OF TRAFFIC

50. 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 of Uniform Traffic Control Devices (MUTCD), Part 6, including revisions up to the date of advertisement for bids.
51. All shoulder or travel lane closures shall be performed at times directed by the Engineer with direction from the North District Safety Officer. Any deviation from the time restriction must be approved by the North District Engineer and North District Safety Officer prior to the commencement of work.
52. No lane closures will be permitted on holidays or holiday weekends, unless approved by the Engineer with consultation with DelDOT Safety Section. This requirement applies to all roads impacted in this Contract.
53. Work could occur on Interstate I-95/295/495. There will be no additional payment for traffic control set ups on Interstate I-95/295/495 outside the applicable maintenance of traffic items.
54. There will no additional payment for the use of a subcontractor for traffic control outside the applicable maintenance of traffic items.
55. If a road/ramp closure is required, the Contractor shall be required to submit the proposed detour route to the DelDOT Safety Officer for approval. Payment for detour plan preparation shall be included in the bid price for Item 801000 (Maintenance Of Traffic). The Department will coordinate with the Safety Section and be responsible for the necessary notifications. The detour route requires approval by the Department prior to closure. A two week detour review lead time shall be required for any requested detour. The Contractor shall be responsible for furnishing and maintaining the Maintenance of Traffic apparatus at the closure (i.e. Type III Barricade, Road Closed signs, etc.) and all signs. The Contractor shall be responsible for placement of detour trailblazers. Payment will be under Item 810001 (Temporary Warning Signs and Plaques).
56. The Project Manager shall be responsible for coordinating with the Traffic Section relating to any impacts to Traffic Section facilities (including but not limited to traffic loops, junction wells, etc.) at least four weeks in advance of the start of the activity. Prior to initiating any work on this contract (or sites), the Project Manager shall be responsible for submitting for approval of the Safety Section, a Maintenance of Traffic Plan. A two week lead time shall be provided for the review and approval of the plan. The Maintenance of Traffic Plan shall include proposed time restrictions on the closure of travel lanes subject to the approval of the Safety Section.
57. Traffic control devices shall be provided and placed in accordance with the Delaware Manual on Uniform Traffic Control Devices (DE-MUTCD). The Contractor shall prepare

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

and submit a Temporary Traffic Control Plan for each site to DelDOT for approval. The Temporary Traffic Control Plan must clearly indicate orientation of traffic control devices to be used for each site. The plan must be approved by the DelDOT District Safety Officer and DelDOT Engineer prior to commencement of work on each site. Maintenance of Traffic Typical Applications are described in the Delaware MUTCD. The Contractor shall be responsible for determining the applicable Typical Application for each work application. The proposed Temporary Traffic Control Plan must be submitted to DelDOT a minimum of ten (10) working days prior to commencement of work at each location. Payment for the Temporary Traffic Control Plan shall be included in the bid price for Item 801 (Maintenance Of Traffic).

58. The Project Manager is responsible for ensuring any required documents and analysis as part of the adopted Work Zone Safety and Mobility Procedures and Guidelines has been completed prior to any work starting on this contract.
59. The safety measures outlined within this Contract and the Delaware MUTCD are not necessarily sufficient in every instance to guarantee the protection of the traveling public or the persons working on the project. Therefore, the provisions of this Contract do not relieve the Contractor of the sole responsibility for the safety of all persons working within or traveling through the work zone throughout the duration of the project. The Contractor shall implement any additional safety measures that are not expressly required by the Contract and are necessary to ensure the safety of all persons. The Contractor shall submit to the Engineer justification for deviations from the Traffic Control Plan or Traffic Management Plan. Final approval of the deviations or additions shall rest with the Engineer. All costs for this work shall be incidental to Item 763000 (Initial Expense).
60. Any deficiencies related to temporary traffic control that are reported to the Contractor in writing shall be corrected within 24 hours or as directed by the Engineer. Corrective actions on severe deficiencies as determined by the Engineer shall be taken immediately unless otherwise directed by the Engineer. Failure to comply will result in non-payment for those devices that are found to be deficient for the duration of the deficiency. Severe deficiencies that are not corrected immediately could result in possible suspension of work until items identified are brought back into compliance and/or the holding of the pay estimate until the severe deficiencies are corrected.
61. At the end of each workday, the Contractor shall correct all pavement edge drop-offs in accordance with the Delaware MUTCD. This corrective work shall be accomplished with Hot Mix Temporary Road Material. All ruts and potholes shall be filled with TRM as soon as possible, but no later than by the end of each workday. Placement of TRM shall be completed in accordance with the applicable sections of the Delaware Standard Specifications. If temporary elimination of a drop-off hazard cannot be accomplished, then the area shall be properly marked and protected with additional temporary barriers, barricades, warning signs, etc. as required by the Delaware MUTCD, and as approved by the Engineer. Payment for all work described in this Project Note shall be incidental to applicable Maintenance of Traffic Pay Items in the Contract. There shall be no additional compensation provided to the Contractor for this work.

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

62. The Department reserves the right to stop the Contractor's operations, if in the opinion of the Engineer the Contractor's operations are not in compliance with the Delaware MUTCD, the specifications, or the Plans. The Department also reserves the right to stop the Contractor's operations if the Engineer deems the operations to be unsafe.
63. All equipment shall be removed from the job sites on a daily basis, except when allowed by the Engineer.
64. The use of flaggers is prohibited on interstates, freeways, and expressways.
65. No separate payment shall be made for use of traffic cones. Traffic cones and/or work associated with their use, such as set up, removal, cleaning, etc, shall be incidental to the work for which they protect.
66. Immediately prior to the implementation of any lane or roadway closures, the Engineer shall notify the DelDOT TMC at (302) 659-4600. Notifications shall also be given to the TMC when the closure is lifted. The Engineer shall notify the TMC and the DelDOT Safety Officer if lane closures cannot be removed prior to the end of the allowable work hours.
67. All temporary traffic control devices used on all highways open to the public in this State shall be crashworthy in accordance with the National Cooperative Highway Research Program (NCHRP) Report 350 and the memorandum issued August 28, 1998 by The USDOT Federal Highway Administration Information: Crash Tested Work Zone Traffic Control Devices and/or MASH. It is the requirement of the Department that such certification be submitted for traffic control devices used on all projects, not just those involving the National Highway System.
68. The Department reserves the right to stop the Contractor's operations, if in the opinion of the Engineer the Contractor's operations are not in compliance with the Delaware MUTCD, the specifications, or the Contract Documents. The Department also reserves the right to stop the Contractor's operations if the Engineer deems the operation unsafe.
69. The Department will not make payment to the Contractor for any and all temporary traffic control devices where the Contractor sets up temporary traffic control to perform work, but fails to perform any work.
70. The use of millings and GABC in the travel way, temporary travel way, high volume entrances and access ramp for the purpose of providing a temporary roadway surface, pothole repair, tapered edge for utilities, butt joints, and longitudinal drop-offs (milling and paving operations) is prohibited unless it is otherwise designated to be used in the contract plans. Use cold patch, bituminous concrete, bituminous concrete wedge, or taper mill, as noted in the Contract Documents or approved by the Engineer. Payment for cold patch, bituminous concrete, or bituminous concrete shall be paid under the bituminous concrete milling item.

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

Millings or GABC shall be used at the following locations where access to a business residence, or edge drop off needs to be maintained unless otherwise noted in the plans or directed by the Engineer to use bitumionus concrete or cold patch. All milling and GABC will be rolled and compacted to help prevent the material from unraveling.

- a. Driveways
- b. Entrances
- c. Low volume access ramps (Identified in the contract documents)
- d. Edge drop-offs adjacent to live roadway (lane, shoulder, or turn lane) and the proposed road construction
- e. Edge of roadway dropoff

Grading and maintaining base course that is being used for roadway wedge/fillet between travel lanes and pavement box, edge of travel way, driveway or entrance access shall be incidental to Item No. 801000 - Maintenance of Traffic. The base course material shall be placed at no greater than the slope specified in table 6G-1 and shall be compacted. Excess base course material shall be pushed ahead and used in the next segment and shall be incidental to the particular base course pay item. No separate payment shall be made for Millings or GABC temporary roadway material (TRM) used to protect edge drop-offs, unless the material is eventually utilized as part of a permanent roadway at which time the material would be paid for under the respective contract material item. Vertical differences shall be corrected in accordance with table 6G-1 of the Delaware MUTCD.

71. If the Contractor does not complete the contract work within the contract completion time as listed on the Work Order (including approved time extensions), the Contractor shall be responsible for providing the necessary temporary traffic control devices that are required to complete any remaining work. The cost of such temporary traffic control shall be borne by the Contractor. No additional payment will be made to the Contractor to maintain traffic in accordance with the Delaware MUTCD, specifications, and these Project Notes. Temporary traffic control items shall include, but not be limited to, warning lights, warning signs, barricades, plastic drums, P.C.C. safety barrier, flaggers, traffic officers, arrow panels, message boards, portable light assemblies and portable impact attenuators.
72. 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:

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

- 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 deemed necessary the Contractor must submit the detour route to the Engineer for review and approval by the Traffic Safety Section. 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.

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY
202000	Excavation and Embankment	CY	200.00
209001	Borrow, Type A	CY	50.00
209006	Borrow, Type F	CY	50.00
211001	Removal Of Existing Portland Cement Concrete Pavement, Curb, Sidewalk, ETC	SY	25.00
211500	Tree Removal 6" to 14.9"	EACH	4.00
211501	Tree Removal 15" to 18.9"	EACH	2.00
211502	Tree Removal Greater than 25" to 37"	EACH	2.00
211503	Tree Removal Greater than 37" to 49"	EACH	2.00
211504	Tree Removal Greater than 49"	EACH	1.00
301002	Graded Aggregate Base Course, Type B Patching	CY	25.00
302002	Delaware No.3 Stone	TON	25.00
401029	Superpave Type C, PG 64-22, Patching	TON	25.00
401030	Superpave Type B, PG 64-22, Patching	TON	25.00
402000	Warm-Mix Patching	SY-IN	250.00
403000	Hot-Mix Bituminous Concrete and/or Cold-Laid Bituminous Concrete (TRM)	TON	50.00
504001	Crack And Joint Sealing Less Than 3/4" Wide	LF	100.00
504002	Crack And Joint Sealing 3/4" to 1 3/4" Wide	LF	100.00
601503	Cleaning Bridge Scupper	EA	5.00
610000	Portland Cement Concrete Masonry, Class A	CY	10.00
611004	Bar Reinforcement, Epoxy Coated	LB	7,500.00
613001	Silicone-Based Acrylic Concrete Sealer	SF	8,000.00
613002	Silane-Based Concrete Deck Sealer	SF	5,000.00
616501	Moisture Cured Urethane Paint System (Recoating)	SF	300.00
619000	Stone Masonry	SF	400.00
619002	Pointing Existing Masonry	SF	100.00
619500	Concrete Block Slope Paving Repair, 4"	SY	100.00
619501	Concrete Block Slope Paving Repair, 6"	SY	100.00
623004	Clean and lubricate Bridge Bearings	EACH	30.00
624000	Prefabricated Expansion Joint System, 3"	LF	200.00
624005	Strip Seal Expansion Joint, 3"	LF	200.00
624009	Asphaltic Plug Joint	LF	500.00
624010	Silicone Joint Seal 1"	LF	500.00
624011	Silicone Joint Seal 2"	LF	400.00

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

624011	Silicone Joint Seal 2"	LF	400.00
624012	Silicone Joint Seal 3"	LF	100.00
624500	Joint Repair With Elastomeric Concrete, 2"	LF	400.00
625001	Furnishing Latex-Modified Concrete Overlay	CY	10.00
628001	Repair Of Concrete Structures By Epoxy Injection	LF	400.00
628011	Crack Sealing Bridge Decks, Approach Slabs, Sidewalk, ETC.	LF	2,500.00
628020	Rout And Seal Cracks	LF	300.00
628040	Shallow Spall Repair	CF	300.00
628041	Deep Spall Repair	CF	650.00
628042	Rehabilitation of P.C.C Masonry	CY	25.00
628051	Deck Repair, 1" To 3" Depth	SF	1,800.00
628052	Deck Repair, 3" To < Full Depth	SF	1,800.00
628053	Deck Repair, Full Depth	SF	400.00
628070	Drilling Holes And Installing Dowels	EACH	150.00
628500	Embedded Galvanic Anodes	EACH	25.00
701013	Portland Cement Concrete Curb, Type 1-8	LF	25.00
701014	Portland Cement Concrete Curb, Type 2	LF	25.00
705001	P.C.C. Sidewalk, 4"	SF	50.00
705002	P.C.C. Sidewalk, 6"	SF	150.00
705007	Sidewalk Surface Detectable Warning System	SF	50.00
705008	Curb Ramp, Type 1	SF	50.00
705009	Curb Ramp, Type 2,3, And/Or 4	SF	50.00
707001	Riprap, R-4	SY	50.00
707002	Riprap, R-5	SY	150.00
707012	Riprap, R-6	TON	150.00
708003	Geotextiles, Riprap	SY	50.00
760010	Pavement Milling, Hot-Mix	SY-IN	1,500.00
760013	Pavement Milling, Concrete	SY-IN	1,000.00
762000	Saw Cutting, Hot Mix	LF	100.00
762001	Saw Cutting, Concrete, Full Depth	LF	1,000.00
763000	Initial Expense	LS	1.00
801000	Maintenance Of Traffic	LS	1.00
802003	Arrowpanels, Type C	EADY	400.00
803001	Furnish And Maintain Portable Changeable Message Sign	EADY	400.00
804001	Furnish And Maintain Portable Light Assembly	EADY	75.00
805001	Plastic Drums	EADY	25,000.00
806001	Traffic Officers	HR	250.00
807001	Furnish and Install Temporary PCC Safety Barrier, Unpinned	LF	500.00
807003	Furnish and Install Temporary PCC Safety Barrier, Pinned in Concrete	LF	150.00

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT No : T201807702 Structure Maintenance, North District, Open End, FY19-21

807004	Relocate Temporary PCC Safety Barrier, Unpinned	LF	500.00
807006	Relocate Temporary PCC Safety Barrier, Pinned in Concrete	LF	150.00
807007	Reflector Panels	EACH	25.00
807009	Remove Temporary PCC Safety Barrier, Unpinned	LF	500.00
807010	Remove Temporary PCC Safety Barrier, Pinned in Concrete	LF	150.00
808002	Furnish And Maintain Truck Mounted Attenuator, Type II	EADY	400.00
809001	Install Temporary Impact Attenuator	EA	3.00
809005	Furnish Temporary Impact Attenuator-Non-Gating, Redirective, Test Level 3	EA	3.00
809006	Relocate Temporary Impact Attenuator	EA	3.00
810001	Temporary Warning Signs and Plaques	EADY	7,000.00
811001	Flagger, New Castle County, State	HR	400.00
811013	Flagger, New Castle County, State, Overtime	HR	10.00
813001	Temporary Barricades, Type III	LFDY	5,000.00
817003	Temporary Markings, Paint, 4"	LF	5,000.00
817009	Temporary Markings, Tape, 4"	LF	500.00
817013	Permanent Pavement Striping, Epoxy Resin Paint, White/Yellow, 5"	LF	5,000.00
817014	Permanent Pavement Striping, Epoxy Resin Paint, White/Yellow, 10"	LF	500.00
817018	Permanent Pavment Striping, Epoxy Resin Paint, Black 3"	LF	500.00
817031	Removal Of Pavement Striping	SF	5,000.00
817034	Retroreflective Preformed Patterened Contrast Markings, 9"	LF	150.00
824503	Joint Repair W/ Elastomeric Concrete, 3"	LF	300.00
905001	Silt Fence	LF	100.00
908004	Topsoil, 6" Depth	SY	50.00
908014	Permanent Grass Seeding, Dry Ground	SY	50.00