

THE STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION
MAINTENANCE AND OPERATIONS
CONSTRUCTION PLANS AND SPECIFICATIONS FOR
IDIQ-Lighting Enhancements, Interstate, FY21-23

CONTRACT NUMBER – T202109001
FEDERAL AID NUMBER – ESTP-2021(03)

PRIMAVERA ID – 21-09003
COUNTY: NEW CASTLE

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NORTH DISTRICT DESIGN ENGINEER

8/31/21

DATE



APPROVED FOR ADVERTISEMENT

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DIRECTOR OF MAINTENANCE AND OPERATIONS

9/1/2021

DATE

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CONTRACT DESCRIPTION

The purpose of this open-end contract is to provide the material, equipment, and labor for the installation and/or modification of roadway lighting systems along interstates I 95, I 495, and I 295, including associated ramps in the State of Delaware. The work includes improvements to the lighting system which include, but are not limited to, the following:

- Install new lighting systems to replace existing, including relocation of existing poles and installation of new poles to meet current pole spacing requirements and lighting standards
- Install electric conduit and cable for lighting systems
- Install, replace, repair, or relocate poles, mast arms, luminaires, transformer bases, concrete pole bases, junction wells and other associated items related to lighting system
- Electrical Testing of lighting systems
- Install or modify Control Center panels serving electrical systems for lighting
- Other repairs and improvements to lighting systems along Interstate and ramps

The specific work sites are not listed herein, but will be scheduled by issuance of work orders from the District Maintenance office. The work orders will indicate the work to be performed at each site.

The duration of this open-end contract shall be for a period of three (3) years from the date of the initial "Notice to Proceed" letter.

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GENERAL NOTES

1. All work shall be performed in accordance with the Delaware Department of Transportation Standard Specifications dated June 2021, the DelDOT Special Provisions, the most recent Standard Construction Details, the current Delaware MUTCD (including revisions up to the day of contract advertising) and these plans.
2. Tasking of work is contingent upon authorization of State funding.
3. The Department reserves the right to prioritize, substitute, add, or delete work order locations at any time during the contract.
4. Payment will be monthly for the completed work as outlined in Section 109.8.
5. The Contract shall not expire upon reaching the award amount; it expires when the allotted amount of calendar days has been exhausted. Depending on fund availability, the Contract amount may be increased. Any increase shall not be cause for the contractor to discontinue work nor is the contractor owed the entire award amount if the entire award amount is not met.
6. Item 763000 (Initial Expense / Demobilization) shall only be paid once and shall not be paid again or increased if the value of the Contract exceeds the award amount.
7. Item 801000 (Maintenance of Traffic) shall be paid monthly starting from the date of notice to proceed (NTP). It shall not be paid in full until the contract time has been exhausted. It shall not be paid in full, nor is the contractor owed additional compensation, if the contract reaches or exceeds the award amount before contract time is exhausted.
8. No environmental permits are required for this work provided no jurisdictional wetlands or waters are impacted. If there is any question as to whether a water or wetland is jurisdictional, the contractor shall contact the DelDOT Environmental Section at (302) 760-2280 prior to the start of work.
9. 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 prior to commencement of applicable work.
10. 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 Engineer to secure such trespass needs.
11. The Contractor shall provide all residents and businesses adjacent to the work zone a minimum 48-hour prior written notice for all phases of construction work. This notice shall include the scope of work, work hours, anticipated start and completion dates, contractor name, contact numbers and

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address, and DelDOT contact numbers. Failure to give notice will result in suspension of work. This work is incidental to Item 763000 (Initial Expense / Demobilization).

12. It is anticipated that all work will occur within DelDOT's right of way. Should the need occur to trespass onto railroad property, including the highway-rail crossing; it will be the responsibility of the Project Manager to contact the DelDOT Railroad Coordinator and obtain written authorization before entering.
13. 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 District 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 District Engineer. Payment shall be made using contract unit pricing or where no pricing is available; it shall be negotiated prior to the commencement of work.
14. Underground 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 which shall be incidental to the respective excavation item(s). 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 their equipment and make arrangements directly with the utility companies for field adjustments for adequate clearances if necessary.
15. There will not be a winter shutdown on this contract. The Department reserves the right to issue work and charge time from October 16th to April 30th.
16. Upon issuance of each work order the contractor shall submit the required copies of a detailed Progress Schedule as outlined in standard specification 108.4 within 5 calendar days of the issuance of work order. During the contract, the contractor shall submit two-week (or as required) "look ahead" schedules to the Area Engineer no later than noon of each Thursday. Details shall include a description of each work activity, the planned days of work, multiple crews or shifts, and scheduled working hours. Failure to comply will result in a suspension of all contract work with time charges continuing to be assessed. The Progress Schedule must also be updated and submitted to the department as changes or delays occur in the contract.
17. Work Orders will vary in size. There will be no maximum or minimum item quantity per work order or work location. Work orders may include single repairs or large areas of repairs, utilizing any combination of repair items at each work location.
18. The Contractor will be advised of work to be performed or deleted via a Work Order. The Work Order will outline the work locations, planned items, quantities of work, and will indicate the

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allowable time to perform work. Once time (Calendar Days) has been assigned to a work order and issued, the Contractor has 2 business days, not including the day of issuance, to dispute the time quantity and provide additional backup documentation for why the time quantity is not sufficient. A detailed breakdown of labor/materials/equipment along with the Contractor's time estimate will be required; this information must be received by the Department by the end of the 2nd business day, or the Department will consider the Contractor in agreement with the time estimate. The Engineer will evaluate any request for modification to the time estimate and at his sole discretion determine if additional time is granted. Disputing a time quantity does not constitute a delay in commencement of a work order as described below.

19. Any and all construction engineering shall be incidental to the contract.
20. Prosecution and Progress of Work:

The Contractor shall commence on work indicated on the work order no later than the fifth (5th) business day after issuance unless required materials, railroad access, or railroad authorizations 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. Time charges commence from the date of the NTP and continue until substantial completion, as determined by the Engineer, of the individual 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.

The Contractor may have up to six (6) active work orders at any time until all assigned work has been completed. The Contractor is required to have a minimum of two working crews readily available to work on this contract simultaneously, with the ability to provide additional working crews if requested by the Engineer. Each crew is required to have a qualified superintendent as outlined in Section 105.7 of the Standard Specifications.

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 108.8 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 108.9 and based on the total value of that work order.

Each work order shall be considered a separate unit of work. Upon the substantial completion of the work at an individual location, the Engineer will stop time at that location and perform an initial 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 until such a location has been accepted by the Department. The Contractor must repair all defects in the

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work caused by poor workmanship or materials at his/her own expense until the Department accepts the Contract after the Primary Inspection.

A Primary 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.

21. Delete Section 104.2.B.4 of the DeIDOT 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 104.2.B.4 of the DeIDOT Standard Specifications dated August 2020 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 109.4. The Contractor will proceed immediately with the work so ordered and such direction shall neither invalidate the Contract, nor release the surety.

22. 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 / Demobilization).
23. Proper disposal of construction related wastes shall be the sole responsibility of the Contractor and shall be performed in accordance with all applicable State regulations. Payment shall be incidental to Pay Item 763000 (Initial Expense / Demobilization.)
24. Excavated material not needed on the project shall be removed from the site at Contractor's expense.
25. Clearing and grubbing of trees, shrubs, and other vegetation less than 6 inches in diameter shall be incidental to Item 763000 (Initial Expense / Demobilization). Grubbing activities performed in wetland areas requires environmental permit approvals.

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- 26. 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, and in accordance with the requirements for Items 908004 (Topsoil, 6" Depth) and 908014 (Permanent Grass Seeding, Dry Ground).
- 27. Portable Light Assemblies will be required for all nighttime operations and as directed by the Engineer. Payment for portable lighting shall be under pay item 804001 (Provide and Maintain Portable Light Assembly). Night work may be required in certain locations, no additional payment outside Item 804001 (Provide and Maintain Portable Light Assembly) is warranted or applicable.

PROJECT NOTES

- 28. Where the term "transformer base" is stated in this Contract, the term shall refer to any metal transformer base or metal anchor base requiring work in this Contract.
- 29. For this Contract, the terms "mast arm" and "davit arm" are used interchangeably and shall be considered the same.
- 30. The Contractor shall make final electrical connections of all electrical components installed as necessary to provide a fully functional lighting system. Payment for final connections shall be incidental to the bid price for applicable electrical cable pay items.
- 31. The following items removed from the work site shall remain property of DelDOT, and shall be carefully removed by the Contractor, and delivered to DelDOT Maintenance Yard located at 39 E. Regal Blvd, Newark, DE 19713:
 - a. Light pole standards and mast arms
 - b. Transformer bases (metal)
 - c. Metal Service Cabinets for electric service panels (including all panels and gear within cabinets)
 - d. Luminaires (with lamps)
 - e. Junction Wells
 - f. Lids and rings of Junction Wells

Each item listed above may be designated for re-use at another location along the Interstate, as directed by the Engineer, or as indicated on the Contract Plans.

The Contractor shall be responsible for any damages to the above listed material items during removal and transport process. The Contractor shall reimburse the Department or replace the item if damaged.

- 32. Existing junction wells that are designated for removal, but are not to be reinstalled in new position, shall be either returned to DelDOT for ownership and storage, or shall be properly

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disposed of by the Contractor, at the discretion of the Engineer. The DeIDOT Inspector shall determine the destination of each existing junction well removed. Payment for transport shall be incidental to the bid price for the applicable pay item for removal of junction wells.

33. Place additional Portland Cement Concrete Masonry, Class 'B' around newly installed concrete pole bases as required to backfill excavations to bottom of pole base (6 ft depth). The concrete backfill material is required for structural stabilization of the concrete pole base. Payment for additional concrete used as backfill material shall be incidental to Item 834006 - Pole Base Type 6.
34. All electrical work performed and all material provided and installed shall be in accordance with the National Electric Code of the National Fire Protection Association, and in accordance with the National Electric Safety Code. All electrical work shall also be performed in accordance with all local laws and ordinances governing such work. The applicable code shall be considered the minimum requirements for the electrical work. If there is a conflict between the requirements specified in the contract documents and the Code, the more stringent requirement shall apply as determined and approved by the Engineer.
35. The Contractor shall locate the conduit runs in a manner that avoids conflict with all existing and proposed features as approved by the Engineer.
36. Work includes furnishing labor, material, equipment, and services necessary and incidental to proper completion and final connections of the electrical lighting systems. Minor items, accessories, and devices necessary for completion and proper operation of any system, but not specifically listed in the specification, shall be considered incidental to each applicable pay item.
37. Luminaires installed in this contract shall comply with Title 7, Chapter 71a of the Delaware Code and current DeIDOT Traffic Lighting Policy.
38. All costs for removal and transport of existing luminaires shall be incidental to the applicable pay items for removal and/or installation of lighting poles or mast arms.
39. Terminate all conduits entering metal service cabinets, metal junction boxes with locknuts and bonding bushings. Costs shall be incidental to the applicable enclosure pay item (service panel, junction well, or other). All galvanized steel conduits shall be properly bonded with ground wire in accordance with National Electric Code and National Electric Safety Code requirements.
40. All fused connections shall be made in the transformer base. Splices in junction boxes or pull boxes shall not be fused.
41. All costs associated with connecting proposed conduit to existing junction wells or existing conduits shall be incidental to the Pay Item of the conduit being installed.

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42. Each work crew shall consist of a foreman who is a Journeyman Electrician and/or has a minimum of five years of experience in related work and sufficient personnel to complete the work.
43. The Contractor shall perform Electrical Testing at each location where work is performed. Electrical Testing shall be performed in accordance with the requirements of Section 843 of the Standard Specifications. All costs for electrical testing for each location shall be incidental to applicable pay items for electrical cable installation or associated work. There shall be no separate payment for electrical testing.
44. Master Electrician: The Contractor shall provide a Delaware-licensed Master Electrician, who shall be directly responsible for workmanship as provided in Title 24, Chapter 14 of the Delaware Code. The Master Electrician shall certify all of the work performed.
45. Color coding shall be provided throughout the entire network for service, feeder, branch, and control conductors. Each phase shall be an independent color. Conductors shall have factory impregnated color throughout their entire length. Phase taping is not permitted.
46. Unless otherwise noted, conductors shall run un-spliced, continuous from point of service to light pole base, and from light pole base to light pole base.
47. When performing new service installations under Item 835003 – Cabinet Base, Type P, all new electric service connections to Delmarva Power utilities shall be inspected and certified (with sticker of approval) by the authorized State of Delaware Inspection Agency.
48. Prior to commencement of work at each site, contact North District Electrical Staff for coordination of all work on lighting systems. Contact information will be provided.
49. Metal transformer bases and anchor bases installed for support of light poles shall conform to breakaway requirements of the most recent version of AASHTO Roadside Design Guide and all other applicable AASHTO publications.
50. When replacing metal transformer base (at base of pole), caps over mounting bolts shall be installed. Payment for the caps shall be incidental to the applicable pay item for replacement of the transformer base.
51. Metal transformer bases will be used for support of light poles at ground level. Anchor bases or other types of bases will be utilized on top of bridge parapet walls. Exceptions will be identified by the Department on a site-specific basis.
52. Lock-washers will be installed on metal transformer bases at connection bolts and anchor bolts, in addition to other connection hardware shown on drawing details for this Contract.

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53. Concrete pole bases shall be constructed in accordance with DeIDOT Standard Construction Detail T-5, and in accordance with Item 834006 – Pole Base, Type 6.
54. Existing joint sealant material at exterior surface of parapet joint openings shall be removed at locations on bridge structures as directed by the Engineer. Removal of sealant material is necessary for the Engineer to visually inspect the condition of the electrical conduit embedded in the parapet, and to determine if further repair work is required under separate pay items. Payment for installation of joint sealant material at parapet joint openings shall be paid under Item 624008 – Closed-Cell Joint Seal or the applicable silicone joint seal item, as directed by the Engineer. Removal of the existing joint sealant material shall be incidental to Items 624008 or the applicable joint seal item.
55. Installation of lighting poles, mast arms, metal transformer base, and entire lighting structure shall conform to wind load requirements and all other design criteria as stated in most recent version of AASHTO “Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals”. Prior to commencement of work, the Contractor shall submit computations demonstrating that all proposed lighting standard components meet the wind load requirements as stated in the AASHTO design criteria. The computations shall be signed and sealed by a structural engineer licensed in the State of Delaware.
56. All special provisions in the Contract relating to removal or relocation of existing lighting poles or mast arms shall apply to all lengths of poles and mast arms currently in place on the Interstate and ramps.
57. The Contractor is responsible for ensuring compatibility of connections for all components installed in the lighting standard system, including mast arms, davit arms, lighting poles, metal transformer bases, metal anchor bases, luminaires, concrete pole bases, hardware connection accessories and all incidentals.
58. When Lighting Davit Arms are designated to be furnished and installed by Contractor on poles furnished by DeIDOT, the davit arms furnished by the Contractor shall be compatible with the poles furnished by DeIDOT.

MAINTENANCE OF TRAFFIC

59. 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.
60. Traffic Officers are not required at each location unless specifically required by the MUTCD.

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61. The Contractor shall submit all traffic control devices expected to be used on the contract using the standard Source of Supply template prior to the preconstruction meeting. Written approval must be received prior to the commencement of work.
62. 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.
63. 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.
64. 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 763000 (Initial Expense / Demobilization). 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 providing 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). Signs that are required to be in place for longer than 72 consecutive hours need to be permanently mounted. Payment for mounting/take down of permanently mounted signs will be paid for under Item 819018 – Installation or Removal of Traffic Sign(s) on Single Post. 819018 will be paid once and it includes all costs associated with removal and take down of the detour/traffic sign. Signs on skids/windmasters or signs attached to existing infrastructure are not considered permanently mounted and shall not be eligible for payment under Item 819018.
65. The Engineer 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 Engineer shall be responsible for preparing and submitting for approval of the Safety Section, a Maintenance of Traffic Plan. Sufficient 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.
66. Traffic control devices shall be provided and placed in accordance with the Delaware Manual on Uniform Traffic Control Devices (MUTCD). The Contractor shall prepare and submit a Traffic Control Plan for each site to DelDOT for approval. The 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 Safety Officer and DelDOT Engineer prior to commencement of work on each location.

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Maintenance of Traffic Typical Applications is described in the Delaware MUTCD. The Contractor shall be responsible for determining the applicable Typical Application for each work application. The proposed Traffic Control Plan must be submitted to DelDOT a minimum of ten (10) working days prior to commencement of work at each location.

67. No lane closures or shoulder closures will be permitted unless applicable work activity is taking place.
68. All repair/maintenance equipment shall be removed from the job sites daily, except when approved by the Engineer. Contractor shall follow guidelines set forth by the Delaware MUTCD for storage of materials.
69. The Contractor shall be required to have an American Traffic Safety Services Association (ATSSA) certified Traffic Control Supervisor on the project. The ATSSA supervisor may be the Contractor's general superintendent for this project or another ATSSA certified member of the Contractor's project staff. The ATSSA certified Traffic Control Supervisor's responsibility shall be the maintenance of traffic throughout the project. This responsibility shall include, but is not limited to, the installation, operations, maintenance, and service of temporary traffic control devices. Also required is the daily maintenance of a log to record maintenance of traffic activities, i.e. number and location of temporary traffic control devices, and times of installation, changes, and repairs to temporary traffic control devices. He/she shall also serve as the liaison with the Department concerning the Contractor's maintenance of traffic. The name and contact information for the ATSSA certified Traffic Control Supervisor shall be provided to the Engineer at the Preconstruction Meeting. A copy of the certifications for the ATSSA certified Traffic Control Supervisors proposed for the project shall be submitted to the Department with the Contractor's bid package. The responsibilities of the ATSSA certified supervisor shall be for the duration of the Open-End Contract. Payment for the ATSSA certified traffic control supervisor shall be under Item 801000 (Maintenance of Traffic).
70. 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.
71. All open excavations shall be secured with plastic drums with retroreflective fluorescent orange and white prismatic sheeting. If the construction activity results in a vertical difference along, adjacent to, or across a travel way, the Contractor shall eliminate or remedy this hazard by the methods detailed in Table 6G-1 of the Delaware Manual on Uniform Traffic Control Devices (DEMUTCD), or as directed by the Engineer.
72. Payment for relocation and re-positioning of Traffic Control devices shall be incidental to the respective unit price Pay Items for Maintenance of Traffic included in this Contract. There shall be no additional compensation for relocation or re-positioning of traffic control devices.

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73. Costs for adjustment in position of traffic control devices due to variances from the standard Maintenance of Traffic (MOT) typical application numbers, or for any other reason, shall be included in the unit price for each respective MOT pay item.
74. 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 with guidance from the Traffic Safety Section. All costs for this work shall be incidental to the applicable maintenance of traffic pay items as listed in the original contract.
75. 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.
76. The use of flaggers is prohibited on interstates, freeways, expressways, and associated ramps.
77. 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.
78. Immediately prior to the implementation of any lane or roadway closures, the Engineer shall notify the DeIDOT 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 DeIDOT Safety Officer if lane closures cannot be removed prior to the end of the allowable work hours.
79. 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 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. Serious 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 serious deficiencies are corrected.
80. 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,

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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.

Millings or GABC shall be used at the following locations where access to a business residence, or edge drop off needs to be maintained unless otherwise noted in the plans or directed by the Engineer to use bituminous concrete or cold patch. All 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 drop-off

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.

- 81. 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.
- 82. 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.

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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 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.

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QUANTITY SUMMARY

ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY
202000	EXCAVATION AND EMBANKMENT	CY	10.00
202001	ROCK EXCAVATION FOR ROADWAY	CY	5.00
209001	BORROW, TYPE A	CY	10.00
209004	BORROW, TYPE C	CY	30.00
211001	REMOVAL OF PCC PAVEMENT, CURB AND SIDEWALK	SY	10.00
301001	GABC	CY	10.00
401029	SUPERPAVE, TYPE C, PG 64-22, PATCHING	TON	10.00
401030	SUPERPAVE, TYPE B, PG 64-22, PATCHING	TON	10.00
503001	PATCHING PCC PAVEMENT, 6' TO 15', TYPE A	SY	25.00
503006	DOWEL BARS	EA	20.00
504001	CRACK AND JOINT SEALING LESS THAN ¼-INCH WIDE	LF	200.00
624008	CLOSED CELL JOINT SEAL	LF	50.00
624010	SILICONE JOINT SEAL, 1"	LF	25.00
624011	SILICONE JOINT SEAL, 2"	LF	20.00
624012	SILICONE JOINT SEAL, 3"	LF	20.00
705002	PCC SIDEWALK, 6"	SF	150.00
762000	SAW CUTTING, BITUMINOUS CONCRETE	LF	50.00
762001	SAW CUTTING, CONCRETE FULL DEPTH	LF	50.00
763000	INITIAL EXPENSE / DEMOBILIZATION	LS	1.00
801000	MAINTENANCE OF TRAFFIC	LS	1.00
802003	ARROW PANELS, TYPE C	EA-DY	125.00
803001	PROVIDE AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	EA-DY	50.00
804001	PROVIDE AND MAINTAIN PORTABLE LIGHT ASSEMBLY	EA-DY	50.00
805001	PLASTIC TRAFFIC CONTROL DRUMS	EA-DY	1,000.00
806001	TRAFFIC OFFICERS	HOUR	25.00
808002	PROVIDE AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	EA-DY	250.00
810001	TEMPORARY WARNING SIGNS	EA-DY	500.00
813001	TEMPORARY BARRICADES, TYPE III	LF-DY	60.00
817013	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	LF	200.00
817019	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK, 5"	LF	200.00
819018	INSTALLATION OR REMOVAL OF TRAFFIC SIGN ON SINGLE SIGNPOST	EA	100.00
830001	CONDUIT JUNCTION WELL, TYPE 1, 20" X 20" PRECAST CONCRETE	EA	25.00
830002	CONDUIT JUNCTION WELL, TYPE 4, 20" X 42 ½" PRECAST CONCRETE	EA	15.00
830008	ADJUST OR REPAIR EXISTING CONDUIT JUNCTION WELL	EA	10.00

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830009	RELOCATION OF EXISTING JUNCTION WELL	EA	5.00
830011	PROVIDE AND INSTALL FRAME AND LID FOR JUNCTION WELL, TYPE 1	EA	5.00
830012	PROVIDE AND INSTALL FRAME AND LID FOR JUNCTION WELL, TYPE 4	EA	5.00
831001	PROVIDE AND INSTALL UP TO 3" FLEXIBLE METALLIC-LIQUID TIGHT CONDUIT	LF	350.00
831002	PROVIDE AND INSTALL UP TO 4" SCHEDULE 80 HDPE CONDUIT (BORE)	LF	850.00
831003	PROVIDE AND INSTALL UP TO 4" SCHEDULE 80 PVC CONDUIT (OPEN CUT)	LF	20.00
831004	PROVIDE AND INSTALL UP TO 4" SCHEDULE 80 PVC CONDUIT (TRENCH)	LF	4,000.00
831005	PROVIDE AND INSTALL UP TO 4" SCHEDULE 80 PVC CONDUIT (ON STRUCTURE)	LF	100.00
831006	PROVIDE AND INSTALL UP TO 4" GALVANIZED STEEL CONDUIT (TRENCH)	LF	600.00
831007	PROVIDE AND INSTALL UP TO 4" GALVANIZED STEEL CONDUIT (BORE)	LF	200.00
831008	PROVIDE AND INSTALL UP TO 4" GALVANIZED STEEL CONDUIT (OPEN CUT)	LF	150.00
831009	PROVIDE AND INSTALL UP TO 4" GALVANIZED STEEL CONDUIT (ON STRUCTURE)	LF	200.00
831010	PROVIDE AND INSTALL UP TO 4" NONMETALLIC POLE RISER SHIELD	LF	150.00
832006	PROVIDE AND INSTALL 1-CONDUCTOR #2 AWG STRANDED COPPER, TYPE USE-2	LF	50,000.00
832007	PROVIDE AND INSTALL 1-CONDUCTOR #4 AWG STRANDED COPPER, TYPE USE-2	LF	15,000.00
832008	PROVIDE AND INSTALL 1-CONDUCTOR #6 AWG STRANDED COPPER, TYPE USE-2	LF	30,000.00
832009	PROVIDE AND INSTALL 1-CONDUCTOR #8 AWG STRANDED COPPER, TYPE USE-2	LF	4,000.00
832010	PROVIDE AND INSTALL 1-CONDUCTOR #10 AWG STRANDED COPPER, TYPE USE-2	LF	15,000.00
832016	PROVIDE AND INSTALL STRANDED INSULATED COPPER GROUND WIRE, 1/#1/0 AWG	LF	200.00
832017	PROVIDE AND INSTALL STRANDED INSULATED COPPER GROUND WIRE, 1/#2 AWG	LF	1,500.00
832018	PROVIDE AND INSTALL STRANDED INSULATED COPPER GROUND WIRE, 1/#4 AWG	LF	1,000.00
832019	PROVIDE AND INSTALL STRANDED INSULATED COPPER GROUND WIRE, 1/#6 AWG	LF	4,000.00
832020	PROVIDE AND INSTALL STRANDED INSULATED COPPER GROUND WIRE, 1/#8 AWG	LF	500.00
832021	PROVIDE AND INSTALL STRANDED INSULATED COPPER GROUND WIRE, 1/#10 AWG	LF	500.00
832500	SPlicing OF ELECTRICAL CABLE, UNDERGROUND	EA	750.00
833001	BONDING AND GROUNDING EXISTING JUNCTION WELL	EA	30.00
833002	PROVIDE AND INSTALL GROUND ROD	EA	15.00
834006	POLE BASE, TYPE 6	EA	40.00
834007	POLE BASE EXTENSION	CF	50.00
834008	SHEETING FOR POLE BASE	EA	45.00
834500	ACCESS COVER FOR TRANSFORMER BASE	EA	5.00
834501	PARTIAL REMOVAL OF CONCRETE POLE BASES AND CABINET FOUNDATIONS	CY	15.00
834502	REMOVAL OF METAL TRANSFORMER BASE	EA	10.00
834503	INSTALLATION OF METAL TRANSFORMER BASE	EA	60.00
835003	CABINET BASE, TYPE P	EA	7.00
835004	CABINET BASE, TYPE R	EA	10.00
841001	PROVIDE AND INSTALL WEATHERHEAD, UP TO 3", ON STEEL POLE	EA	5.00
842007	PROVIDE AND INSTALL ELECTRICAL UTILITLY SERVICE EQUIPMENT 120/240	EA	15.00

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847003	LIGHTING CONTROL CABINET – 200 A, 277/480V	EA	2.00
847004	LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE (120/240; 100 AMP)	EA	5.00
847007	LIGHTING CONTROL CABINET – 200 A, 240/480V	EA	2.00
850004	LUMINAIRE (HPS), 250 WATT	EA	5.00
850011	REMOVAL OF LUMINAIRE	EA	50.00
850503	LUMINAIRE (LED), 160 WATTS	EA	10.00
850504	UNDERPASS LIGHT FIXTURE (LED)	EA	10.00
850517	INSTALLATION OF LUMINAIRE	EA	5.00
850519	LED LUMINAIRE, SPECIAL FIXTURE	EA	5.00
850520	LUMINAIRE (LED), 150 WATTS, HPS EQUIVALENT	EA	10.00
850521	LUMINAIRE (LED), 250 WATTS, HPS EQUIVALENT	EA	10.00
850522	LUMINAIRE (LED), 400 WATTS, HPS EQUIVALENT	EA	10.00
850523	LUMINAIRE (LED), 640 WATTS, HPS EQUIVALENT	EA	10.00
850527	LED WALL PACK, 150 WATTS, HPS EQUIVALENT	EA	10.00
851001	ALUMINUM LIGHTING STANDARD WITH SINGLE DAVIT ARM, 30' POLE	EA	5.00
851002	ALUMINIUM LIGHTING STANDARD WITH SINGLE DAVIT ARM, 35' POLE	EA	5.00
851003	ALUMINUM LIGHTING STANDARD WITH SINGLE DAVIT ARM, 40' POLE	EA	5.00
851007	RELOCATED EXISTING LIGHT STANDARD	EA	65.00
905001	SILT FENCE	LF	200.00
908004	TOPSOIL, 6" DEPTH	SY	100.00
908014	PERMANENT GRASS SEEDING, DRY GROUND	SY	100.00
908020	EROSION CONTROL BLANKET MULCH	SY	25.00