**STATE OF DELAWARE** DEPARTMENT OF TRANSPORTATION **MAINTENANCE AND OPERATIONS** 



PLANS AND SPECIFICATIONS FOR Contract Number: DOT1706-FENCE\_ND Federal Aid Project Number: N/A Right of Way Fence Replacement, North District, Open End, FY18-FY19 DATE: 4417 PLANS PREPARED BY: SPINIE SCH NORTH DISTRICT CONTRACTS ENGINEER DATE RECOMMENDED: \_4/12/17 THUR DAY 0. 1659 SIONAL WINNING NORTH DISTRICT DESIGN ENGINEER DATE RECOMMENDED: 12 APRIL 2017 9/10 0. 127. NORTH DISTRICT MAINTENANCE ENGINEER 4/12/17 DATE APPROVED:

NORTH DISTRICT ENGINEER

# **CONTRACT DESCRIPTION**

This purpose of this contract is to repair or replace damaged Right-of-Way Fence as required for all State maintained roads in the North District (depicted in the below maps), including I-95, I-295, I-495 and related ramps. The work shall include, but not be limited to, Maintenance of Traffic, removal of damaged fence and components, and repair/replacement of damaged fence and components, as required or directed by the Engineer on individual work orders.

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

The duration of this open-end contract shall be for a period of two years from the date of initial "Notice to Proceed" letter, with the option to extend the Contract for two additional one-year periods.

# **PROJECT 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, Standard Constructions 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. It is the Contractor's responsibility to assure that the Bond is current for the life of the Contract. Costs to be incidental to item 763000 (Initial Expense).
- 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.
- 6. 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.
- 7. 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.

- 8. 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.
- 9. Prosecution and Progress of Work:

The Contractor shall commence on work indicated on the work order no later than the tenth (10) 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 (1<sup>st</sup>) 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. 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 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 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.

- 10. Payment will be monthly for the completed work as outlined in Section 109.07.
- 11. Clearing and grubbing of trees, shrubs and other vegetation less than 6 inches in diameter shall be incidental to Item 763000 (Initial Expense/De-Mobilization). Grubbing activities performed in wetland areas requires environmental permit approvals.
- 12. The Contractor shall not trespass on private property unless the District has acquired a "Temporary Trespass Agreement" from the property owner. If the work is within a permanent easement, the work shall not begin until the adjacent property owners have been notified. Prior to starting work on private property, the Contractor shall notify affected property owners in writing of the proposed work dates, scope of work, proposed work hours, and DelDOT contact phone number. Compensation for notification shall be incidental to Item 763000 (Initial Expense/De-Mobilization).
- 13. The Contractor shall provide residents 24-hour prior written notice for all phases of Contract work. This notice shall be given to all residents whose property is adjacent to the street on which work is to be performed. Failure to give notice will result in a suspension of work.
- 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. 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. 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.
- Section 101.03 "Working Day" definition is amended. There will not be a winter shutdown from December 16<sup>th</sup> to March 15<sup>th</sup>. The Department reserves the right to issue work and charge time between these dates.
- 18. 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.

- 19. The contractor shall be equipped with a tripod/chain hoist or other similar equipment capable of removing damaged steel fence posts and footings at inaccessible places that will not permit the use of the post truck or would necessitate a lane closure if an auger truck were used. If approved by the Engineer, the Contractor may use an approved bagged concrete mix for concrete footings when they are in inaccessible locations or in too small a quantity for a certified plant mix delivery.
- 20. 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 railroad chief engineer and obtain written authorization before entering.
- 21. Work located within Municipalities requires a Town Agreement. Contact DelDOT Team Support section at (302) 760-2251 prior to commencing work within Municipalities to process a town agreement.
- 22. The Contractor shall protect all driveways from damage due to Contractor's equipment and shall be responsible for all such damage done by Contractor's equipment.
- 23. Excavated material not needed on the project shall be removed from the site at the Contractor's expense.
- 24. 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 Special Provisions 908004 (Topsoil, 6"Depth) and 908014 (Permanent Grass Seeding, Dry Ground).

- 25. 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.
- 26. The new fence type and positioning of new fence shall be identical to the existing fence to be replaced, except when directed otherwise by the Engineer. The Engineer shall determine for the Contractor if any fence components shall be reused on each work site. Any components not to be reused, as determined by the Engineer, become the property of the Contractor. Removal and legal disposal of the unused components are the Contractor's responsibility and all costs associated with this work are incidental to the applicable repair item.
- 27. The Contractor shall guarantee all work to be free from defects for a period of one year from time of owner acceptance. Any defects occurring during this period shall be corrected by the Contractor at no additional cost to the Department.

# Website Copy

# **MAINTENANCE OF TRAFFIC**

- 28. 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.
- 29. 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.
- 30. 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.
- 31. 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). 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).
- 32. 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 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.
- 33. 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.
- 34. 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 bridge 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

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by the DelDOT Safety Officer and DelDOT Engineer prior to commencement of work on each bridge. 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. All costs associated with preparing the Traffic Control Plan are included in the cost of bid item 763000 (Initial Expense).

- 35. No lane closures or shoulder closures will be permitted unless applicable work activity is taking place.
- 36. All repair/maintenance equipment shall be removed from the job sites on a daily basis, except when approved by the Engineer. Contractor shall follow guidelines set forth by the Delaware MUTCD for storage of materials.
- 37. 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 763000 (Initial Expense).
- 38. 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.
- 39. 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 travelway, 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.

- 40. 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.
- 41. All permanent warning signs shall be retroreflective, and constructed of rigid material complying with NCHRP 350 and/or MASH requirements.
- 42. 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.
- 43. 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.
- 44. 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.
- 45. 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.
- 46. 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.

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47. 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, bitumionous 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 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.

48. If the Contractor does not complete the contract work within the contract <u>completion time</u> 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.

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49. 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 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 <sup>1</sup>/<sub>4</sub> 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
206503	Rock Excavation For Post	LF	20.00
727001	Right Of Way Fence	LF	450.00
7 <mark>2</mark> 7011	Right Of Way Fence Gate	EA	2.00
7 <mark>2</mark> 7010	Chain Link Fence Gate	EA	2.00
727000	Chain Link Fence	LF	<b>4</b> 50.00
7 <mark>27</mark> 020	Fence Repair	LS	1.00
727021	Gate Repair	LS	1.00
727030	Fence Relocation	LF	50.00
727031	Gate Relocation	EA	2.00
727002	Wood Post And Rail Fence	LF	75.00
727005	Decorative Fence	LF	75.00
727003	Vinyl Post And Rail Fence	LF	75.00
727004	Wood Vertical Slat Fence	LF	75.00
802003	Arrow Panels, Type C	EA- DY	10.00
805001	Plastic Drums	EA- DY	100.00
808002	Furnish and Maintain Truck Mounted Attenuator, Type II	EA- DY	10.00
811001	Flagger, New Castle County, State	HOUR	70.00
810001	Temporary Warning Signs	EA- DY	100.00
763000	Initial Expense	LS	1.00
763507	Emergency Mobilization	EA	2.00



