

THE STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION  
MAINTENANCE AND OPERATIONS  
CONSTRUCTION PLANS AND SPECIFICATIONS FOR

**OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26**

CONTRACT NUMBER - T202403601

PRIMAVERA ID – 2024-00092

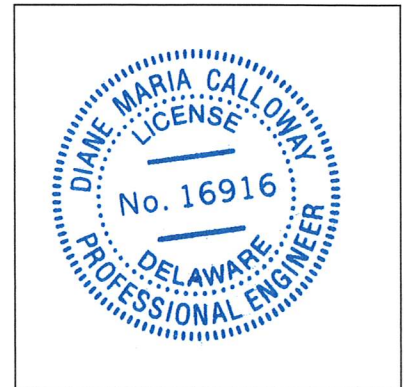
FEDERAL AID NUMBER - N/A

COUNTY: SUSSEX

PLANS PREPARED BY: Tim Phillips  
DESIGNER

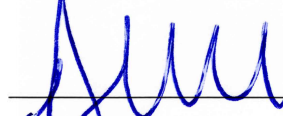
  
DELDOT – MAINT. CONTRACTS ENG/ PM II  
MAINTENACE AND OPERATIONS - (SOD)

06/20/2024  
DATE



THIS SEAL APPLIES TO ALL SHEETS  
BEARING THE "SOD" SECTION  
DESIGNATION

APPROVED FOR ADVERTISEMENT

  
For:  
DIRECTOR, MAINTENANCE AND OPERATIONS

06/25/24  
DATE

## DEPARTMENT OF TRANSPORTATION

CONTRACT T202403601

(SOD) PAGE 2 OF 17

SOUTH DISTRICT

OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

### CONTRACT DESCRIPTION

The purpose of this contract is to make drainage improvements to various locations throughout Sussex County. These drainage improvements will vary and may include, but not be limited to: replacing or installing new crossroad pipes of various types and sizes, installing new drainage systems, installing entrance pipes, installing or replacing manholes, drainage inlets, curbing and other drainage structures, ditching, and the restoration of roadways and surrounding areas by use of paving, grading, placing of topsoil and hydroseed, riprap, and any other work required to complete each work order. There may be peak hour restrictions for some locations, which will be addressed at the issuance of the work order. If a location(s) requires night work, the associated nightwork MOT items will be negotiated separately.

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

1. The DeIDOT 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.
2. It is anticipated that all work will occur within DeIDOT'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 DeIDOT project manager to contact DeIDOT's Railroad Program Coordinator to obtain written authorization from the Railroad Company prior to such work.

The contractor, however, shall be responsible for obtaining the required clearances and insurances for each railway company involved if the railroad property and/or facilities are located within or near the proposed limits of work and/or if the proposed work encroaches upon the railroad's right of way; in accordance with DeIDOT Maintenance of Railroad Traffic item 801501. The contractor must contact DeIDOT's railroad program manager at [DOT\\_Railroad@Delaware.gov](mailto:DOT_Railroad@Delaware.gov) prior to the start of any work to coordinate the execution of the appropriate agreements and authorizations required from any railway company involved, including coordination of railroad flagging, if necessary.

3. It is anticipated that all work will occur within DeIDOT's existing right of way or easement areas. Should the need occur to trespass onto private property; it will be the responsibility of the DeIDOT project manager to secure such trespass needs prior to the start of work.
4. There is an anticipated need for environmental permits for some of the locations that will be issued on this contract. The DeIDOT PM will work with DeIDOT's environmental section prior to issuance of each work order on permitting needs. If there is any question as to whether a water or wetland is jurisdictional, the contractor shall contact the DeIDOT environmental section at [DOT\\_EnvironmentalStudies@Delaware.gov](mailto:DOT_EnvironmentalStudies@Delaware.gov) prior to the start of work.
5. While no utility relocation is anticipated, it is likely that utilities will be encountered. Should any conflicts be encountered during construction requiring adjustment and/or relocation of the utility company's 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 utilities 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.
6. The DeIDOT project manager shall be responsible for coordinating with the traffic section relating to any impacts to traffic facilities (including, but not limited to, traffic loops, junction wells, high friction surface treatment applications, etc.) in advance of the start of the activity.
7. Prior to initiating any work on this contract, the contractor shall be responsible for preparing and submitting for approval of the Traffic Safety section a maintenance of traffic plan. Sufficient time shall be provided for the review and approval of the plan. However, where full road closures are required, DeIDOT shall provide signed and stamped detour plans to the contractor for each project that requires a road closure and detour.

## DEPARTMENT OF TRANSPORTATION

CONTRACT: T202403601

(SOD) PAGE 3 OF 17

SOUTH DISTRICT

OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

### GENERAL CONTRACT NOTES

1. This project is to be constructed in accordance with the Delaware Department of Transportation standard specifications dated January 2024, the latest Delaware Department of Transportation's standard construction details, and the Delaware Manual of Uniform Traffic Control Devices, including all revisions up to the date of advertisement.
2. The Department reserves the right to add or delete quantities to this contract. In lieu of section 104.2.B.4.b and 104.2.B.4.c, any quantity additions or deletions shall not be cause for an increase or decrease in any contract unit bid price.
3. The contract shall expire 730 calendar days from the date the Notice to Proceed is issued. The Department may request to extend the contract for 1 additional calendar year at new prices submitted by the contractor, but not to exceed the original contract bid prices plus the appropriate adjustments based on the CPI-U Index for All-Urban Consumers for that time frame. The CPI-U adjustment percentages allowed shall be from the CPI-U at bid to CPI-U at the time the extension is requested. The one-year extension must be approved by both parties in writing prior to the expiration of the existing contract. Item 760000, Initial Expense, shall only be paid once and shall not be paid a second time upon an extension of the contract. Any additional expenses related to the extension of the contract (to include bonding and insurance) must be documented and submitted for DelDOT's approval prior to contract extension. For any contract extension, item 401502, AC Cost Adjustment, shall be based on the Delaware Posted Asphalt Price on the first day of the contract extension and not the original contract NTP.
4. Work will be scheduled via work orders from South District. Work locations will vary in size. The work orders will indicate the work to be performed at each location and the time given for the completion of the work. The definitions of Contract Time and Work as set forth in Section 101 of the General Information, Definitions, and Terms of the DelDOT Standard Specifications as applicable to each individual work order are modified as follows:
  - Contract Time: The number of working days or calendar days provided for in the work order for completion of the work specified in the work order.
  - Work: Work is the furnishing of all labor, materials, equipment, services, and other incidentals necessary to complete the work order.

The above amended definitions of Contract Time and Work are applicable to Section 108.8, Failure to Complete on Time, and modify that provision to allow for the assessment of liquidated damages for any work which remains incomplete at the expiration of the time provided for completion of the work order.

5. Issuance of each work order constitutes the Notice to Proceed (NTP) with the work described on the work order. The contractor must begin work within 10 calendar days of the Work order / NTP being issued. Failure to comply with the work order NTP or the work order completion date will result in liquidated damages being assessed based on each work order and section 108.8 of the standard specifications. Liquidated damages will be assessed based on the value of the work order or the total contract award amount, whichever is less and based on the calendar days issued on each individual work order, not the entire contract length. Should work remain incomplete for multiple work orders, liquidated damages may be assessed cumulatively for each work order until work is substantially complete.
6. The contractor shall commence work indicated on the work order no later than the tenth (10<sup>th</sup>) calendar 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. 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 said materials.

## DEPARTMENT OF TRANSPORTATION

CONTRACT: T202403601

(SOD) PAGE 4 OF 17

SOUTH DISTRICT

OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

### GENERAL CONTRACT NOTES (cont.)

7. Each work order shall be considered a separate unit of work. The engineer will make payment monthly for the completed work as outlined in section 109.8 of the standard specifications. Upon the substantial completion of the work order, the engineer will pause time at those locations and perform an initial inspection for the work order locations in accordance with subsection 105.16 of the standard specifications. The engineer may also choose to perform the initial inspections at 6-month intervals. The engineer reserves the right to require the contractor to add work or make repairs to completed locations at the department'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 their own expense until the department performs a primary inspection and accepts the contract. A primary inspection will be completed on an annual basis for work orders completed in a calendar year. Upon satisfactory completion of the primary punch list, 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 primary inspection may be held upon the completion of that work order.
8. The Department reserves the right to prioritize, substitute, add, or delete locations at any time during the contract.
9. Upon issuance of each work order the contractor shall submit the required baseline bar chart schedule as outlined in standard specification 108.4.B.2 within 5 calendar days of the issuance of work order. During the contract, the contractor shall submit weekly, two-week look ahead bar chart schedules to the area engineer/ manager no later than noon of each Thursday. Details shall include all items in 108.4.B.3 as well as if multiple crews will be utilized. Failure to comply will result in a suspension of all contract work with time charges continuing to be assessed. The baseline bar chart must also be updated and submitted to the department as changes or delays occur in the contract. Failure to provide a schedule or schedule updates forfeits the contractor's right to ask for time extensions.
10. All work added shall be performed at contract unit prices. In the case where contract unit prices are not available the prices are to be negotiated prior to the commencement of work.
11. Construction engineering performed by the contractor to include layout of traffic islands, striping, curb ramps, replacement of drainage facilities, etc., shall be incidental to the contract. However, if a project is of the complexity that the Department and the Contractor agree that a Professional Surveyor is required for the layout, a price for CE will be requested for review for that project.
12. The contractor shall notify DART First State at [dot\\_detours@delaware.gov](mailto:dot_detours@delaware.gov) at least 14 days prior to the start of any detours or construction, and [dot\\_dtc\\_projectdevelopment@delaware.gov](mailto:dot_dtc_projectdevelopment@delaware.gov) at such time the facility is completed and operable for transit operations. For emergency detour information only, please contact DTC's chief scheduler at 302-576-6019.
13. The contractor shall notify [haulpermits@delaware.gov](mailto:haulpermits@delaware.gov) of any lane reduction or detours prior to the start of work. Notification shall include specific details on location, movement instructions/ detour for Oversized / overweight loads and proposed start and end date.
14. The contractor shall contact DeIDOT's HazMat Office if any noticeable staining or petroleum odor appears during excavation. Any sediment that is removed from the project limits may need to be sampled prior to removal. Any work related to contaminated materials shall be in accordance with item 202560. DeIDOT's HazMat Section can be reached at [DOT\\_Hazmat@delaware.gov](mailto:DOT_Hazmat@delaware.gov).

## DEPARTMENT OF TRANSPORTATION

CONTRACT: T202403601

(SOD) PAGE 5 OF 17

SOUTH DISTRICT

OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

### PROJECT NOTES

1. Removal and disposal of existing pipes that are to be replaced shall be paid under item 207000 – Pipe, Culvert, and Structural Excavation. No additional payment will be made to remove or dispose of existing pipes.
2. Removal and disposal of existing sacked riprap shall be paid under item 207000 – Pipe, Culvert, and Structural Excavation. No additional payment will be made to remove or dispose of existing sacked riprap.
3. In addition to meeting the standard specifications, all new thermoplastic pipe shall be compatible with existing thermoplastic pipe and shall be capable of providing a watertight seal to DelDOT's existing inventory manufactured by ADS. Pipe and fitting material shall be high-density polyethylene meeting ASTM D3350. The pipe shall be installed with gaskets pre-installed by the pipe manufacturer. Gaskets shall be located at the spigot end and meet the requirements of ASTM F477. The manufacturer shall provide certification that the gasket material showed no visible cracking when tested according to ASTM D1149 after 72-hour exposure to 50 pphm ozone at 104 degrees Fahrenheit. The pipe shall be supplied with the gaskets covered with a removable wrap to protect the gasket material from damage and debris during installation. Certification for the gaskets shall be produced by the pipe manufacturer.
4. The contractor is directed to Standard Specification Section 902 - Pumping or Dewatering Operations. Section 902 shall apply to the dewatering and stream by-pass pumping of all work sites, regardless of pump size required or gallons per day that needs to be pumped. This item is not measured or paid and shall be incidental to the associated work items. Pipe items shall be bid with the assumption that appropriately sized pumps will be required to pump water around the work zone and shall be included in the contractor's bid. No additional payment will be made for pumping operations.
5. All dewatering, sandbags, shoring, and other items necessary to complete the installation of the pipe shall be incidental to the associated pipe items. No additional payment shall be made for the use of these items and/or other materials and procedures used to safely and properly install the pipe.
6. Stream diversion shall be paid when it becomes necessary to divert running water around the work zone by use of a temporary waterway. This item shall be paid per Standard Specification Section 909 Waterway Construction Practices and shall be negotiated prior to the issuance of the work order. This item does not include dewatering the work site or stream by-pass pumping operations. Section 909 items shall only be paid when it is identified on the Work Order for an individual location.
7. The use of trench boxes and shoring for installation of pipe shall be incidental to the corresponding pipe item. If the contractor chooses to step-back the trench in lieu of using a trench box, all excavation and fill material shall be paid only to the 'neat line' indicated on the work order or as discussed with the project manager. If shoring and/or sheeting is needed due to a multiple (parallel) run of pipe then that item will be negotiated separately. Shoring and/or sheeting will only be paid for a parallel, multi-pipe installation as deemed required by the engineer.
8. Once the contractor has started a work order or project, the contractor is directed to stay on the project until it is completed. If the contractor abandons a project without approval from the Department and upon returning to the project, additional rework of the trench or additional dewatering efforts are required, that work will be the sole responsibility of the contractor and no additional payment will be made as the delay would be the fault of the contractor.
9. After pavement milling, all transverse vertical differences, raised edges of manholes, catch basins, water valve boxes, etc. shall be ramped with bituminous TRM at a 20:1 or flatter slope prior to opening the roadway to traffic. Pavement millings will not be allowed for this purpose. All TRM shall be incidental to the milling item.
10. All milled material shall remain the property of the contractor unless otherwise stated.

DEPARTMENT OF TRANSPORTATION

CONTRACT: T202403601

(SOD) PAGE 6 OF 17

SOUTH DISTRICT

OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

PROJECT NOTES (cont.)

11. The minimum and maximum single lift thicknesses of materials shall be as follows:

Pavement Material Lift Thicknesses			
Material Type	Binder Grade	Minimum Lift Thickness (in)	Maximum Lift Thickness (in)
Type C (4.75 mm mix)	All	0.5	1.0
Type C (9.5 mm mix)	All	1.25	2
Type C (12.5 mm mix)	All	1.5	2
Type B (19 mm mix)	76-22, 70-22	2.25"	4"
Type B (19 mm mix)	64-22	2.25"	6"
Type BCBC (25 mm mix)	64-22	3"	6"

- 12. The contractor shall take care in removing pavement around utilities, butt joints, curbs, etc., not disturbing the existing pavement beyond the specified depth. Any damage caused by the contractor’s operation may result in placing leveling courses at the contractor’s expense. The removal and cleanup of the bituminous residue wedge remaining after milling operations shall be incidental to the milling item.
- 13. All Portland cement concrete utilized on the project must be received from an approved production plant. Only approved calibrated volumetric concrete trucks will be permitted to provide on-site mixtures. This pertains to both work occurring during normal working hours and nighttime restricted work.
- 14. Drainage inlet grates within the project limits, which are not the approved type, shall be replaced. At locations where no patching or overlay is designated, these grates shall be replaced only when the drainage inlet is to be adjusted and/or repaired. The actual locations, the need for any grate modifications or for new frames shall be determined by the Engineer. The cost for the work shall be negotiated prior to the replacement of any drainage inlet grates.
- 15. Item 908001, Topsoil, shall be used as backfill material for curb and sidewalk as directed by the engineer. Topsoil material shall be screened so that no particles greater than 1/2" is present in material used for back fill. Backfilling shall be completed immediately after the formwork has been removed. All restoration, including topsoil, seeding, and sealing of curbs & gutters shall be completed within seven (7) calendar days.
- 16. The contractor shall give a two (2) weeks’ notice to the property owner when any fixture, shrub, irrigation head, or another object must be removed from the right of way or easement area. If the owner has not attempted to salvage this property, the contractor shall remove it without obligation. Compensation shall be incidental to the contract.
- 17. The department and the contractor shall inspect all existing pipes and drainage structures to be used in the final drainage system and agree to the condition prior to the start of construction. Existing pipes and drainage structures damaged due to contractor operations shall be repaired or replaced in-kind at the contractor’s expense.
- 18. The department will video-inspect new pipe runs to confirm condition prior to acceptance. Pipe cleaning prior to video inspection and maintenance of traffic during the video inspection is the responsibility of the contractor and incidental to the pipe item that is being video inspected.
- 19. A safety edge shall be used on all patches that extend to the edge of the riding surface of the shoulder and shall comply with Standard Construction Detail P-6 – Pavement Safety Edge.
- 20. Item 208000, Flowable Fill, when used as backfill, may require additional strength than stated in the standard specification. Hi-early admixture shall also be utilized. These items shall be included as part of the bid price for item 208000.
- 21. Any required clearing and grubbing, MOT Detours, or other items on a case-by-case basis shall be negotiated separately per location. Pricing shall be agreed upon prior to the commencement of work.

## DEPARTMENT OF TRANSPORTATION

CONTRACT: T202403601

(SOD) PAGE 7 OF 17

SOUTH DISTRICT

OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

### PROJECT NOTES (cont.)

22. All adjustments shall be made no more than seven (7) calendar days prior to the placement of the final course of bituminous pavement unless otherwise approved by the engineer. Failure to comply will result in a suspension of all other contract work with time charges continuing to be assessed.
23. The Portland cement concrete used within item 602132 - Adjusting and Repairing Existing Manhole and item 710002 - Adjust Water Valve Box shall conform to the requirements of class 'A' concrete as stated within section 503.2 of the Standard Specifications.
24. It is anticipated that utilities will be in the vicinity of the excavation for pipe trenches and the contractor shall bid items accordingly. Separate payment will not be made for digging or hand digging around utilities. Test holes will be paid under item 204000 – Test Holes. Prior to laying a run of drainage pipe or other involved construction, the contractor shall excavate within the alignment at points of possible conflict to determine if a conflict exists. Any conflicts shall be coordinated by the contractor with the engineer and a representative of the utility owner.
25. When new longitudinal piping is placed and as determined by the engineer, swales shall be constructed over newly installed piping to ensure positive flow to drainage inlets. This grading shall be incidental to the placement of topsoil and shall not be paid separately as ditching. Swales shall meet grades and slopes as required by DeIDOT Road Design Manual Figure 6-3. Note that the first 2' from the edge of pavement is required to be 10:1 or flatter. The ditch front slope is required to be 4:1 or flatter.
26. All bituminous and concrete joints shall be sealed with joint sealant per section 1042. This sealing shall be incidental to the corresponding paving or utility adjustment item.
27. It shall be the full responsibility of the contractor to restore all public and private staging areas used by the contractor. The department will not make payment to restore private property used for equipment and/or material staging.

## DEPARTMENT OF TRANSPORTATION

CONTRACT: T202403601

(SOD) PAGE 8 OF 17

SOUTH DISTRICT

OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

### MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS

1. Section 801, Maintenance of Traffic, applies to this contract. Payment shall be incidental to the contract unless otherwise noted. Individual MOT items shall be paid per the appropriate MOT bid items. If a location requires a vehicular or pedestrian detour that utilizes special signs or other specialty MOT, additional MOT costs shall be negotiated at that time.
2. Work shall be performed in a manner that will reasonably provide the least practicable obstruction to traffic, consistent with safety standards and shall comply with the latest edition of the manual titled "Delaware Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways" here after referred to as the DE MUTCD.
3. Per section 801.2.C. of the Standard Specifications the contractor shall submit verification that all required traffic control devices that will be used on the project are on DelDOT's current approved product list which can be found at <https://deldot.gov/Business/prodlists/index.shtml>.
4. The contractor shall submit to the South District Safety Officer their proposed lane closure time frames for approval. This shall be submitted a minimum of 2 weeks prior to the start of work. Detours will require additional time and must be submitted at least 6 weeks prior to the anticipated start of work.
5. An American Traffic Safety Services Association (ATSSA) certified traffic control supervisor shall be required for each location on this project. A copy of the certification card for the ATSSA traffic control supervisor shall be submitted at the preconstruction meeting. The paper certificate is not acceptable. Payment for ATSSA officer shall be incidental to the work being performed and shall not be paid separately.
6. Maintenance of traffic, unless otherwise noted in the approved plans, shall conform to the appropriate traffic control typical application found in the latest version of the DE MUTCD.
7. As required by the DE MUTCD, permanent advance warning signs shall be installed with the legends "ROAD WORK AHEAD" and "END ROAD WORK" located 500 feet upstream and downstream from the work area. On intersecting roadways within the project limits, a "ROAD WORK AHEAD" sign shall be placed at a distance not less than 500 feet in advance of the work area and an "END ROAD WORK" sign shall be located 500 feet downstream of the work area. The use of skid mounted sign supports is not allowed unless the contractor can demonstrate that a utility conflict exists, which shall be verified by the engineer; or concrete medians prevent the installation of the permanent signs in the appropriate location. All temporary and permanent warning signs shall be paid as item 810001, Temporary Warning Signs.
8. The contractor is responsible for ensuring that the Traffic Management Center (1-302-659-4600) is notified every day when work is being performed in State Right of Way. The contractor must identify the type of work, any lane(s) or shoulder(s) closed, the length of time for work when the lane restriction is in place and when the lane restriction is picked up, contact person/number and state inspector.
9. The contractor shall be responsible for notifying the local 911 center, local schools, and the DelDOT public information center of all roads and lanes to be closed a minimum of seven calendar days before the closure. If temporarily blocking access to a fire hydrant, notification must be given to Sussex County, the local firefighting authorities, and the 911 center.
10. The contractor shall be responsible for daily coordination efforts with his/her work with other contractors in the immediate area.

## DEPARTMENT OF TRANSPORTATION

CONTRACT: T202403601

(SOD) PAGE 9 OF 17

SOUTH DISTRICT

OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

### MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS (cont.)

11. The use of millings and GABC in the travel way, temporary travel way, high volume entrances and access ramps for the purpose of providing temporary roadway service, pothole repair, tapered edge for utilities, butt joints, and longitudinal drop-offs (milling and paving operations) is prohibited. Bituminous TRM, as approved by the Engineer, shall be used for this purpose. TRM shall be incidental to the work it protects and shall not be paid separately.

The use of millings or GABC may 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 TRM. All millings and GABC shall be rolled and compacted to prevent material from unraveling and shall be incidental to the work it protects.

- 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 the contract. The base course shall be placed at no greater than the slope specified in table 6G-1 and shall be compacted. Vertical differences shall be corrected in accordance with the table 6G-1 of the DE MUTCD.

12. The contractor shall provide all residents and businesses adjacent to the work zone a minimum 48 hr. prior written notice for the start of construction work. This notification shall include the scope of work, working hours, anticipated start and completion dates, contractor name, address, phone number, and DeIDOT contact number.
13. Prior to additional lifts, all drop offs shall be secured before the next lift per the DE MUTCD, even when a safety edge is present.
14. The contractor is responsible for the maintenance of existing pavement and shoulders within the project limits for the duration of the contract or as directed by the Engineer or his designee.
15. All roadways and entrances that are not open to traffic shall be closed using Type III Barricades and shall be placed per the DE MUTCD.
16. All roadway excavation in or adjacent to travel ways shall be properly backfilled at the end of each day prior to traffic returning to unrestricted travel per Section 6G.20 and Table 6G-1 of the DE MUTCD. This includes all utilities and/or obstacles within or adjacent to the travel ways as outlined in the DE MUTCD.
17. At the end of each day's operation and before traffic is returned to unrestricted roadway use, temporary striping shall be utilized at locations that require permanent striping. Temporary pavement striping must match permanent pavement striping in all regards. Temporary pavement markings shall be paid at the applicable contract unit price. The contractor is responsible for maintaining the temporary markings in good condition such that the pavement is always properly delineated. Any refreshing of the temporary markings will be at the contractor's expense, including the replacement of peeling temporary tape.
18. All double yellow centerlines shall be placed in a 6"-6"-6" configuration (2 each, 6" yellow stripes with a 6" gap between.)

## DEPARTMENT OF TRANSPORTATION

CONTRACT: T202403601

(SOD) PAGE 10 OF 17

SOUTH DISTRICT

OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

### MAINTENANCE OF TRAFFIC AND PAVEMENT MARKINGS (cont.)

19. Any erroneous markings will not be paid and shall be corrected immediately at the contractor's expense. Erroneous markings or shadows that exceed 1 inch in width shall be removed by either sand or water blasting as directed by the Engineer. No other removal methods will be allowed. A flat black paint or driveway sealer shall be applied over the removed marking area to mask the repair. Any damage to the pavement caused by removal of erroneous markings shall be repaired / replaced to the satisfaction of the Engineer at the contractor's expense.
20. Final pavement markings shall conform to all existing patterns unless otherwise directed by the Engineer. The final pavement markings shall be placed within five (5) calendar days after the completion of the paving. Failure to comply will result in suspension of all other contract work with time charges continuing to be assessed.
21. Traffic detection loops shall be placed in the final wearing surface unless otherwise directed by the Engineer.
22. Traffic detection loops that are currently 5'x7' shall be replaced with loops that are 6'x6' at the same location. Stop bar detection loops shall be the same size as currently existing and should be placed starting one foot behind the stop bar, unless otherwise directed by the Engineer. If separate signal plans have been developed, the plans supersede this note.
23. The contractor shall always maintain access to and along pedestrian facilities during construction. Earth, stone and gravel surfaces are not acceptable for providing pedestrian access. Where pedestrian routes are closed or blocked, alternate pedestrian access shall be provided using TA-28 or TA-29 of the DE MUTCD or to the satisfaction of the Engineer and shall be ADA compliant. The cost for any provisions on open end contracts shall be negotiated prior to the commencement of work.

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 1960 (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 practical the existing pedestrian facilities.
- Maintain access to all businesses and residences at all times.
- Provide pedestrian access through or around the work zone. If a detour is chosen the contractor must submit the detour route to the engineer for review and approval. The detour route must meet or exceed the current conditions.
- Work should be phased so that all areas of an intersection/sidewalk path are not under construction at the same time unless a clear path is provided and identified.
- Traffic control devices and other construction materials and features shall not protrude 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" into the 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 grade or terrain that could cause tripping or be a barrier to wheelchair use.

DEPARTMENT OF TRANSPORTATION

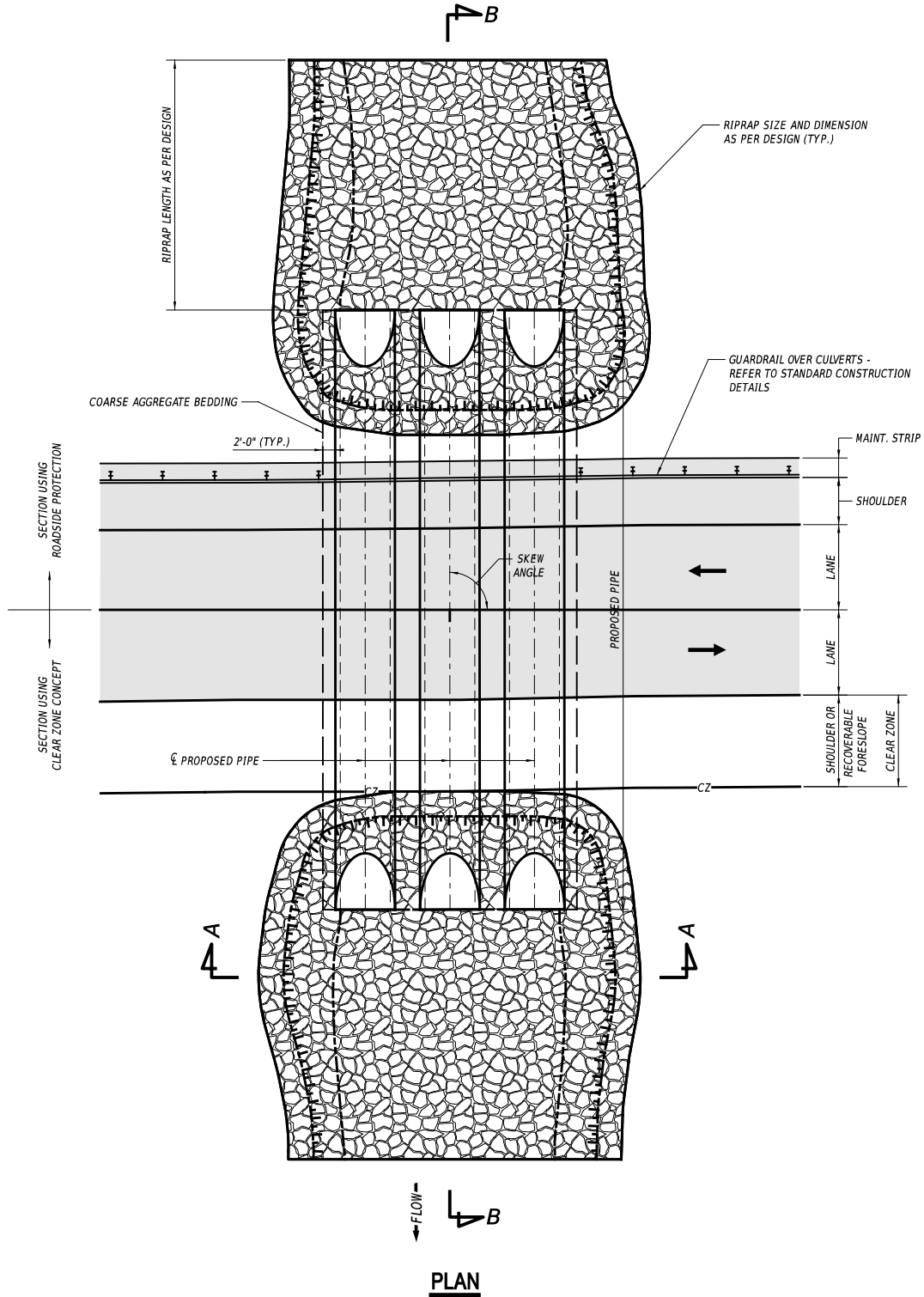
CONTRACT T202403601

(SOD) PAGE 11 OF 17

SOUTH DISTRICT

OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

TYPICAL PIPE REPLACEMENT DETAIL PG 1 OF 3





DEPARTMENT OF TRANSPORTATION

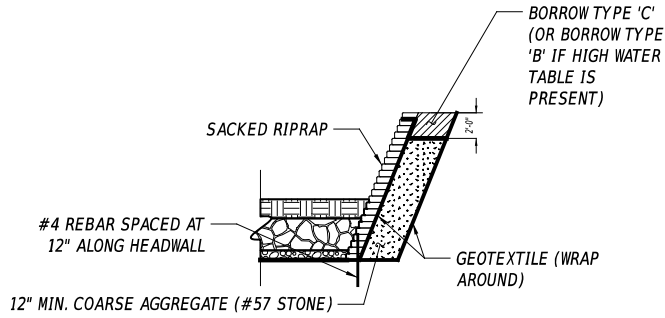
CONTRACT T202403601

(SOD) PAGE 13 OF 17

SOUTH DISTRICT

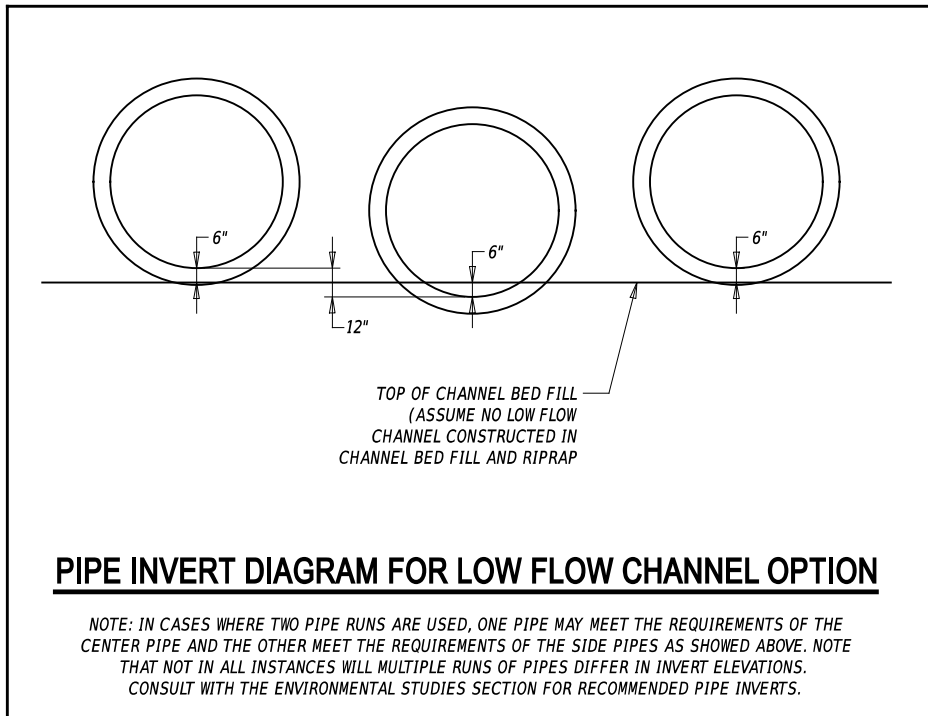
OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

TYPICAL PIPE REPLACEMENT DETAIL PG 3 OF 3



**SACKED RIPRAP HEADWALL**

NOTE: IF THE SLOPE IS GREATER THAN 1:3, IT SHALL BE REINFORCED WITH GEOGRID BETWEEN EVERY FOURTH ROW, EXTENDING A MINIMUM OF 3 FEET INTO THE STONE BACKFILL. (MATERIAL MUST MEET THE REQUIREMENTS OF SECTION 707020 AND 1030.)



DEPARTMENT OF TRANSPORTATION

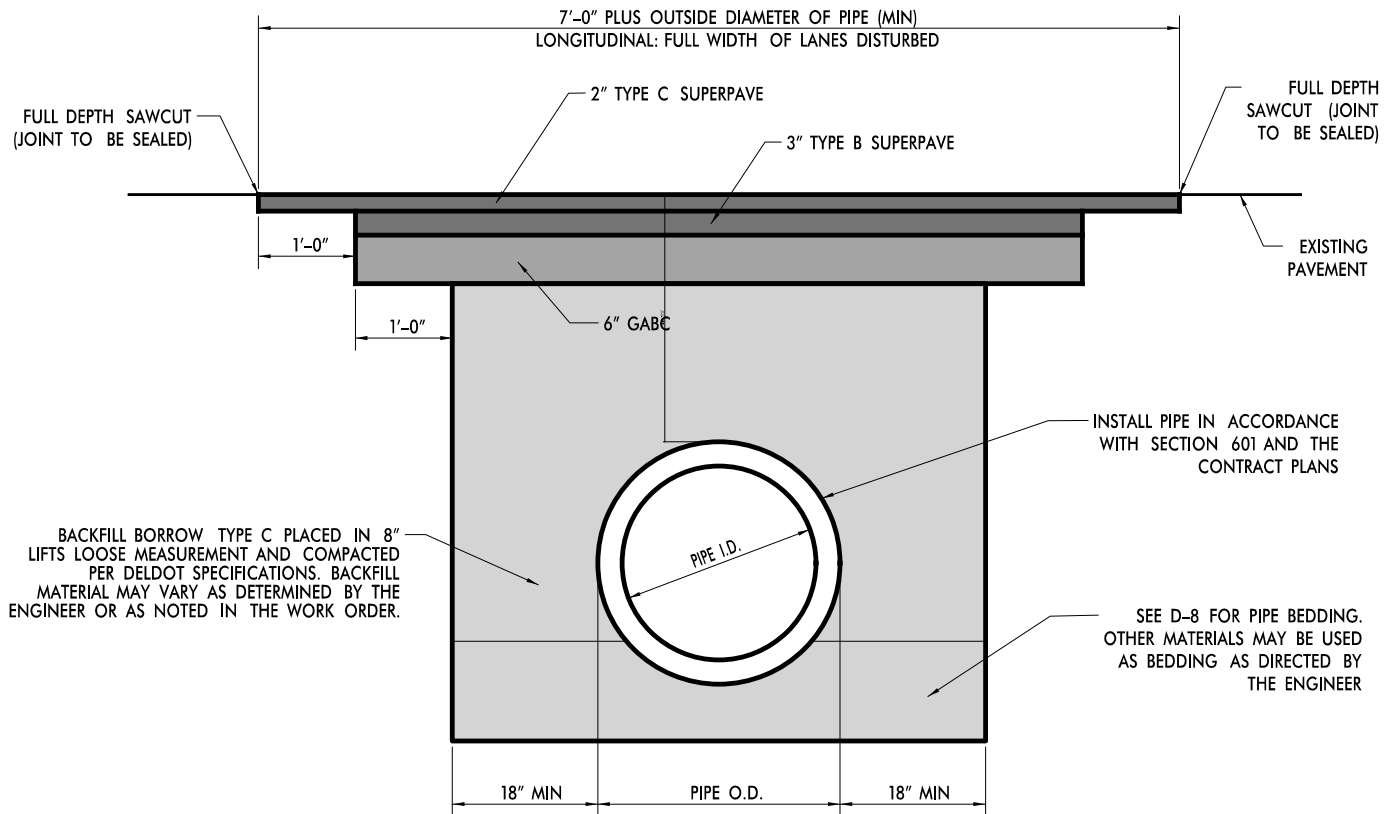
CONTRACT T202403601

(SOD) PAGE 14 OF 17

SOUTH DISTRICT

OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

TYPICAL PIPE REPLACEMENT DETAIL



NOTES:

- 1). PATCH WIDTHS ARE MEASURED ALONG THE ROADWAY CENTERLINE. CONSTRUCT PATCHES THE FULL WIDTH OF THE LANE OR LANES DISTURBED.
- 2). THIS IS A MINIMUM PATCH. IF THE EXISTING ROADWAY HAS A HEAVIER CROSS SECTION THAN SHOWN HERE, IT WILL BE REPLACED WITH THAT CROSS SECTION OR AS DIRECTED BY THE ENGINEER.
- 3). NOTE THAT THE PATCH SIZE FOR THE TYPE C WILL VARY IN SIZE FROM THE MINIMUM 1'-0" SHOWN TO 200' OR MORE DEPENDING ON THE SIZE OF THE PIPE, THE ANGLE OF THE PIPE, ROAD CONDITION, OR OTHER SITE CONDITIONS. PATCH SIZE SHALL BE DETERMINED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- 4). ANY DAMAGE TO PAVEMENT OUTSIDE OF THE PREDETERMINED PAVING LIMITS SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
- 5). THE USE OF A PAVER FOR PATCHES WILL BE REQUIRED.
- 6). SOME LOCATIONS MAY REQUIRE THE USE OF FLOWABLE FILL IN LIEU OF OTHER BACKFILL MATERIALS. THE DEPARTMENT WILL PROVIDE A LOCATION SPECIFIC DETAIL FOR THESE LOCATIONS. FLOWABLE FILL WILL BE PAID AT THE QUANTITY ACTUALLY USED WITHIN THE TEMPLATE.

---

**DELAWARE DEPARTMENT OF TRANSPORTATION**

CONTRACT T202403601

(SOD) PAGE 15 OF 17

SOUTH MAINTENANCE

OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

---

**CONTRACT QUANTITIES SUMMARY SHEET**

202003	UNDERCUT EXCAVATION	40.00	C.Y.
203500	DITCHING	400.00	L.F.
204000	TEST HOLE	100.00	C.Y.
207001	PIPE, CULVERT, AND STRUCTURAL BACKFILLING	4,000.00	C.Y.
207002	PIPE, CULVERT, AND STRUCTURAL EXCAVATION	5,000.00	C.Y.
208000	FLOWABLE FILL	200.00	C.Y.
209010	BORROW, TYPE F	200.00	TON
209012	BORROW, TYPE C, PROVIDING ONLY	2,500.00	TON
211001	REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT, CURB AND SIDEWALK	500.00	S.Y.
211002	REMOVAL OF GUARDRAIL AND FENCE	500.00	L.F.
301003	GABC	1,000.00	TON
302002	DELAWARE NO. 3 STONE	400.00	TON
302005	DELAWARE NO. 57 STONE	2,000.00	TON
401005	SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)	1,000.00	TON
401029	SUPERPAVE TYPE C, PG 64-22, PATCHING	1,000.00	TON
401030	SUPERPAVE TYPE B, PG 64-22, PATCHING	1,000.00	TON
601019	REINFORCED CONCRETE PIPE, 42", CLASS III	320.00	L.F.
601020	REINFORCED CONCRETE PIPE, 48", CLASS III	320.00	L.F.
601022	REINFORCED CONCRETE PIPE, 60", CLASS III	320.00	L.F.
601024	REINFORCED CONCRETE PIPE, 72", CLASS III	240.00	L.F.
601025	REINFORCED CONCRETE PIPE, 78", CLASS III	240.00	L.F.
601031	REINFORCED CONCRETE PIPE, 12" CLASS IV	320.00	L.F.
601032	REINFORCED CONCRETE PIPE, 15", CLASS IV	320.00	L.F.
601033	REINFORCED CONCRETE PIPE, 18", CLASS IV	320.00	L.F.
601035	REINFORCED CONCRETE PIPE, 24", CLASS IV	320.00	L.F.
601037	REINFORCED CONCRETE PIPE, 30", CLASS IV	320.00	L.F.
601039	REINFORCED CONCRETE PIPE, 36", CLASS IV	320.00	L.F.
601109	REINFORCED CONCRETE ELLIPTICAL PIPE, 43" X 68", CLASS III	320.00	L.F.
601111	REINFORCED CONCRETE ELLIPTICAL PIPE, 53" X 83", CLASS III	320.00	L.F.
601141	REINFORCED CONCRETE FLARED END SECTION, 15"	5.00	EACH

**DELAWARE DEPARTMENT OF TRANSPORTATION**

CONTRACT T202403601

(SOD) PAGE 16 OF 17

SOUTH MAINTENANCE

OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

**CONTRACT QUANTITIES SUMMARY SHEET**

601146	REINFORCED CONCRETE FLARED END SECTION, 30"	5.00	EACH
601219	CORRUGATED POLYETHYLENE PIPE, TYPE S, 12"	320.00	L.F.
601220	CORRUGATED POLYETHYLENE PIPE, TYPE S, 15"	320.00	L.F.
601221	CORRUGATED POLYETHYLENE PIPE, TYPE S, 18"	320.00	L.F.
601223	CORRUGATED POLYETHYLENE PIPE, TYPE S, 24"	320.00	L.F.
601225	CORRUGATED POLYETHYLENE PIPE, TYPE S, 36"	320.00	L.F.
601226	CORRUGATED POLYETHYLENE PIPE, TYPE S, 42"	320.00	L.F.
601227	CORRUGATED POLYETHYLENE PIPE, TYPE S, 48"	320.00	L.F.
601229	CORRUGATED POLYETHYLENE PIPE, TYPE S, 60"	320.00	L.F.
602002	DRAINAGE INLET, 34" X 18"	10.00	EACH
602003	DRAINAGE INLET, 34" X 24"	10.00	EACH
602004	DRAINAGE INLET, 48" X 30"	10.00	EACH
602031	MANHOLE, 48" X 48"	10.00	EACH
602035	MANHOLE, ROUND	10.00	EACH
602130	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	10.00	EACH
602132	ADJUSTING AND REPAIRING EXISTING MANHOLE	10.00	EACH
608000	STEEL SHEET PILES, PZ 22	3,000.00	S.F.
701013	PCC CURB, TYPE 1-8	300.00	L.F.
701018	I.PCC CURB AND GUTTER, TYPE 1-8	300.00	L.F.
705002	PCC SIDEWALK, 6"	400.00	S.F.
707015	RIPRAP, R-4	300.00	TON
707016	RIPRAP, R-5	300.00	TON
707017	RIPRAP, R-6	300.00	TON
707020	PRESACKED CONCRETE RIPRAP	300.00	C.Y.
707500	CHANNEL BED FILL	200.00	C.Y.
708003	GEOTEXTILES, RIPRAP	4,000.00	S.Y.
720021	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	300.00	L.F.
720025	GUARDRAIL OVER CULVERTS, TYPE 2-31	4.00	EACH
721001	GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3	4.00	EACH
760010	PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT	20,000.00	SY-IN

---

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT T202403601

(SOD) PAGE 17 OF 17

SOUTH MAINTENANCE

OPEN END, DRAINAGE IMPROVEMENTS, SOUTH, FY25-FY26

---

CONTRACT QUANTITIES SUMMARY SHEET

762000	SAW CUTTING, BITUMINOUS CONCRETE	3,000.00	L.F.
762001	SAW CUTTING, CONCRETE, FULL DEPTH	1,000.00	L.F.
763000	INITIAL EXPENSE/DE-MOBILIZATION	LUMP	SUM
803001	PROVIDE AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	300.00	EA-DY
805001	PLASTIC TRAFFIC CONTROL DRUMS	1,000.00	EA-DY
808002	PROVIDE AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	100.00	EA-DY
810001	TEMPORARY WARNING SIGNS AND PLAQUES	10,000.00	EA-DY
811003	FLAGGER, SUSSEX COUNTY	1,000.00	HOUR
811015	FLAGGER, SUSSEX COUNTY, OVERTIME	200.00	HOUR
813001	TEMPORARY BARRICADES, TYPE III	4,000.00	LFDY
817003	TEMPORARY MARKINGS, PAINT, 4"	2,500.00	L.F.
817012	RETROREFLECTIVE PREFORMED PATTERNED MARKINGS, SYMBOL/LEGEND	200.00	S.F.
817027	RAISED/RECESSED PAVEMENT MARKER	25.00	EACH
817042	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 6"	5,000.00	L.F.
905001	SILT FENCE	2,000.00	L.F.
906001	PORTABLE SEDIMENT TANK	10.00	EACH
906002	DEWATERING BAG	10.00	EACH
906003	SUMP PIT	10.00	EACH
908001	TOPSOIL	1,000.00	TON
908014	PERMANENT GRASS SEEDING, DRY GROUND	5,000.00	S.Y.
908019	PERMANENT GRASS SEEDING, STREAMBANK	5,000.00	S.Y.
908020	EROSION CONTROL BLANKET MULCH	5,000.00	S.Y.
908026	EROSION CONTROL MULCH	5,000.00	S.Y.