

INSPECTOR'S REFERENCE

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105.01 Authority of the Engineer. The Engineer is the administrator of the Contract and not a supervisor of the Work. Perform all Work to the satisfaction of the Engineer, but maintain complete responsibility for the Work. The Engineer will decide all questions which may arise as to the quality and acceptability of Materials furnished and Work performed and as to the manner of performance and rate of progress of the Work; all questions which may arise as to the interpretation of the Plans and Specifications; all questions as to the acceptable fulfillment of the Contract on the part of the Contractor; all disputes and mutual rights between contractors; and all questions as to compensation. At the preconstruction meeting, the Engineer will determine and communicate to the Contractor the chain of command and the extent of authority Department personnel will have to make changes to the Contract during the life of the Contract.

The Engineer has the authority to suspend the Work, wholly or in part, due to the failure of the Contractor to correct conditions unsafe for the general public; for failure to carry out provisions of the Contract; for failure to carry out orders; for such periods as may be deemed necessary due to conditions the Engineer considered unsuitable for the prosecution of the Work; or for any other condition or reason deemed to be in the public interest.

The Engineer's authority to impose any Contract sanction, including suspension of the Work, withholding payments, or the like, will not relieve the Contractor of sole and absolute responsibility for the Project, performance of the Work, and the safety of workers and the general public. The Contractor saves the Department harmless pursuant to Section 107.10 for any violation, breach, or omission of the above Contract provision.

105.02 Authority and Duties of Inspectors. Inspectors acting under the authority of the Engineer are administrators of the Contract and not supervisors of the Work. Inspectors employed by or designated by the Department are authorized to inspect all Work performed and all Material furnished by the Contractor. Such inspection may extend to all or any part of the Work and to the preparation, fabrication, or manufacture of the Materials to be used. The Inspector is not authorized to revoke, alter, or waive any requirements of the Plans or Specifications. The Inspector may call the attention of the Contractor to any failure of the Work or Materials to conform to the requirements of the Contract and will have the authority to reject Materials or suspend the Work until any questions at issue can be referred to and decided by the Engineer. Such inspection will not relieve the Contractor from the obligation to perform the Work in accordance with the requirements of the Contract.

The Inspector will in no case act as foreman or perform other duties for the Contractor, nor interfere with the management of the Work by the Contractor. Any advice which the Inspector may give the Contractor shall in no way be construed as binding the Engineer in any way or releasing the Contractor from fulfilling all of the terms of the Contract.

The Engineer may issue a written order to the Contractor to stop Work giving the reason for shutting down the Work. After placing the order in the hands of the Contractor's representative in charge at the Project Site or sending an electronic copy of such an order to a responsible party in the Contractor's organization, the Inspector will immediately leave the job, and in such cases Work performed by the Contractor during the absence of the Inspector will not be paid for and may not be accepted. The Engineer will identify the person(s) within the Department who have the authority to issue a stop work order at the preconstruction meeting for the Contract.

105.03 Inspection of the Work. Allow the Engineer access to all parts of the Work at all times for inspection. Furnish information and assist the Engineer as required to make complete and detailed inspections. Inspection may include mill, plant, or shop inspection; and/or any Material furnished under these Specifications. If the Engineer fails to reject defective Work or Materials, whether from lack of discovery of such defect or for any other reason, such initial failure to reject in no way prevents the later rejection of the Materials or Work when such defect is discovered, or obligates the Engineer to final acceptance. The Engineer is not responsible for losses suffered by the Contractor due to removals or repairs of such defects.

Remove or uncover portions of the finished Work as directed at any time before acceptance of the Work. After examination, restore those portions of the Work to the standard required by the Contract. If the exposed Work proves to be acceptable, the uncovering or removal and restoration will be paid as Extra Work. If the exposed Work proves to be unacceptable, the uncovering or removal and restoration shall be at the Contractor's expense.

Any Work performed or Materials used without supervision or inspection by the Department representative may be ordered removed and replaced at the Contractor's expense.

When any unit of government or political subdivision, utility company, or any railroad corporation pays a portion of the cost of the Work performed on this Contract, its respective representatives have the right to inspect the Work. Such inspection shall not make any unit of government or political subdivision, utility company, or any railroad corporation a party to this Contract, and shall in no way interfere with the rights of either party hereunder.

105.04 Plans and Working Drawings. The Department will furnish Plans of sufficient detail to convey a comprehensive understanding of the Work specified. Furnish working drawings as required by the Engineer. Do not incorporate any changes from the requirements of the Contract in the working drawings unless the changes are specifically denoted, together with justification, and approved in writing by the Engineer. Any change from the requirements of the Contract shall be signed and sealed by a Professional Engineer registered in Delaware. Identify working drawings and submittals by the Contract number. Identify Items or component Materials by the specific Contract Item Number and Specification reference in the Contract.

The Contractor is responsible for the preparation of all working drawings. However, drawings submitted directly by the supplier or the Contractor's representative will be accepted by the Department, if the letter of submittal indicates that the Contractor has been notified of the submission.

Working drawings for metal Structures shall consist of shop detail, erection, and other working drawings showing details, dimensions, sizes of units, and other information necessary for the fabrication and erection of metal work.

Provide such details on working drawings as are required for successful prosecution of the Work. Include plans for items such as falsework, bracing, sheeting, shoring, cofferdams, formwork, masonry layout diagrams, and bending diagrams for reinforcing steel.

Submit copies of the manufacturer's catalog cuts, drawings, wiring diagrams, etc. with working drawings for electrical and mechanical equipment. After all items of a particular system have been reviewed, prepare an "Instruction Book" especially for the system. Include in the "Instruction Book" an equipment list, a complete description of the equipment, the sequence of operation including inter-locking and protective features, the use of by-pass switches, and a detailed description of all wiring circuits. Also include in the book a recommended spare parts list, renewal parts bulletins, and instruction bulletins for the equipment furnished. Use diagrams and drawings of reduced size suitable for binding. Include a proper index listing all items. Properly fasten and bind in a suitable leather or heavy plastic cover book with a title clearly shown.

Prior to Final Inspection, supply five copies of the book to the Engineer. The books must be available during the period when electrical and mechanical systems are being connected and energized, and the final bound copies must reflect any changes or Adjustments made during this period.

Submit electronic copies of working drawings to the Engineer following the procedure set forth at the preconstruction meeting. Should any questions arise as to the proper procedure for submitting working drawings, contact the Engineer for clarification. Returned drawings will be stamped as follows:

- A. "Returned for Resubmission". In this case, revisions or corrections must be made, and the drawings resubmitted for review.
- B. "Reviewed for General Conformity with Plans and Specifications". In this case, if the Contractor agrees with the comments incorporate the comments and do not resubmit the drawings. If the Contractor does not agree with the comments, state the reason for disagreeing with the comments in writing and submit the reasons to the Department within ten Working Days after receipt of the Department's comments.

The Department does not review every detail of every working drawing or other submittal made by the Contractor. Consequently, responsibility for the completeness, accuracy, and conformance to Contract requirements of all submittals rests with the Contractor. The Department accepts no responsibility for the completeness and accuracy of approved submittals or the failure of approved submittals to conform to the requirements of the Contract.

Reviewed working drawings, submittals, or resubmittals will be transmitted to the Contractor within 45 Days from the date of receipt by the Department. If a railroad, the U.S. Coast Guard, Municipality, or other entity as specified in the Contract is required to review the working drawings, the reviewed working drawings will be returned within 60 Days from the date of receipt by the Department. If the working drawings are not returned by the time specified, no additional compensation will be allowed except that an extension of time in accordance with Section 108.07 will be considered.

105.05 Conformity with the Plans and Specifications. Perform all Work and furnish all Materials in reasonably close conformity with the lines, grades, cross-section, dimensions, and Material requirements, including tolerances, shown on the Plans or indicated in the Specifications.

If the Engineer finds that the Materials or the finished product in which the Materials used are not within reasonably close conformity with the Plans and Specifications, but that reasonably acceptable Work has been produced, the Engineer will then make a determination if the Work will be accepted and remain in place.

In this event, the Engineer will document the basis of acceptance which will provide for an appropriate Adjustment in the Contract price for such Work or Materials if deemed necessary by the Engineer. In the event the Engineer finds the Materials or the finished product in which the Materials are used or the Work performed are not in reasonably close conformity with the Plans and Specifications, and the result is an inferior or unsatisfactory product, remove and replace or otherwise correct the Work or Materials at the expense of the Contractor. If provisions are included in the Contract for the acceptance of Materials or Work that are not in full compliance with the minimum requirements stated, adjust the pay per those provisions.

105.06 Coordination of the Contract Documents; Duty to Report Errors to the Engineer; Use of Dimensions over Scaled Measurements. Each individual Contract Document is an essential part of the Contract and a requirement occurring in one is binding as though occurring in all. All of the Contract Documents are intended to be complementary and to describe and provide for a complete Contract. In the case of a discrepancy between the Contract Documents the governing ranking will be:

- 1. General Description
- 2. General Notices
- 3. Plans

- 4. Special Provisions
- 5. Supplemental Specifications
- 6. Standard Construction Details
- 7. Standard Specifications

Do not take advantage of any apparent error or omission in the Contract. If the Contractor discovers an error or omission, promptly notify the Engineer. The Engineer will make corrections and interpretations as necessary to fulfill the intent of the Contract. Do not use scaled measurements when the dimensions on the Plans are given or can be computed from the information given.

105.07 Copies of the Plans; Contractor's Supervision. The Contractor will be supplied with two copies of the Plans and the Bid Proposal. Keep one copy at the Project site at all times. Give the Work the constant attention necessary to facilitate progress and cooperate with the Engineer in every way possible.

Furnish (a) a competent Superintendent or supervisor who is employed by the firm, has full authority to direct performance of the Work in accordance with the Contract requirements, and is in charge of all construction operations, regardless of who performs the Work and (b) such other organizational resources, including supervision, management and engineering services, as the Engineer determines is necessary to assure the performance of the Contract. The Superintendent or supervisor must be present on site while Work is being performed and must be competent, capable of reading and understanding the Contract and experienced in the type of Work being performed. The Superintendent or supervisor shall be the point of contact for the Engineer, be authorized to act for the Contractor, and have full authority to execute orders or the directions of the Engineer without delay.

105.08 Cooperation between Contractors. The Department reserves the right to contract for and perform other or Additional Work on or near the Limits of Construction covered by the Contract.

Contractors performing work on the same Project shall coordinate their Work and cooperate with each other. In case of a dispute, the Engineer will be the referee, and the Engineer's decision will be final and binding on all. When separate Contracts are let within the limits of any one Project, each Contractor shall conduct the Work without interfering or hindering the progress or Completion of the Work by other Contractors.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with its respective Contract. Each Contractor shall protect and save harmless the Department from any and all damages or claims that may arise because of inconvenience, delays, or loss experienced because of the presence and operations of other Contractors Working within the Limits of Construction of the same Project.

Coordinate and sequence the Work with other contractors. Arrange, place, and dispose of Materials without interfering with the operations of other contractors on the same Project.

105.09 Utilities within the Project Limits; Miss Utility One-Calls. Bidders are hereby notified that within the limits of the Work under this Contract, several utility facilities and/or appurtenances may be encountered. The locations of all utilities shown on the Plans or mentioned in the Contract Documents are approximate locations only.

The Department will notify all utility companies, pipeline owners, railroads, or other parties known to be affected by the Work, and endeavor to have all necessary Adjustments of the public or private utility fixtures, pipelines, and other facilities and appurtenances within or adjacent to the Limits of Construction made as soon as practicable. Notwithstanding any other provision of this Contract, do not proceed with the Work before conferring with the Engineer, the utility companies, and the municipal or county authorities in an effort to secure the most accurate and most recent

information as to utility locations. As required by Chapter 8, Title 26 of the Delaware Code, do not begin any construction around or adjacent to utilities without notifying the Utilities Service Protection (Miss Utility) of Delmarva, Inc. at least two Working Days, but not more than ten Working Days in advance of starting the Work. Miss Utility is a report center system that enables the public, contractors, utilities, and other excavators to notify participating member utilities of planned digging activities by making one call.

Water lines, gas lines, wire lines, services connections, water and gas meter boxes, water and gas valve boxes, light standards, cable ways, signals, and all other utility facilities and appurtenances within the limits of the proposed construction that require moving, including the Work involved in relocating or otherwise altering such utilities, are to be moved by others at no expense to the Contractor, except as otherwise provided in the Contract. Allow utility contractors performing Work within the limits of the Contract to use the Contractor's maintenance of traffic (MOT) devices that are already in place as a result of the Work, such as "Road Work Ahead" signs and MOT related to the Project's construction phasing. Utility contractors performing Work within the workzone shall use their own MOT devices at their own expense for daily construction activities such as lane and shoulder closures. Utility contractors shall provide their own flaggers. The Engineer reserves the right to order the Contractor to provide MOT for utility companies working within the Workzone. When the Engineer issues such an order, the Engineer will pay for the work under the Unit Prices in the Contract. If Unit Prices for MOT ordered by the Engineer do not exist on the Contract, the Contractor and the Engineer shall negotiate a new price for the work or follow the Force Account procedure for reimbursement. If the Contractor provides MOT at the request of a utility company, the Engineer will not make payments under the Contract. The Utility company will pay the Contractor.

The Engineer will not pay for any relocation or rearrangement of utility facilities or appurtenances made for the Contractor's sole convenience.

Consider in the bid all the permanent and temporary utility appurtenances in their present or relocated positions as shown on the Plans or as readily discernible. No additional compensation will be allowed for any delays, inconvenience, or damage due to any interference from such utility facilities and appurtenances or the operation of moving them, except that the Contractor may be granted an extension of Contract Time.

The relocation of existing utilities that will interfere with the proposed construction, the construction of new utility facilities, and/or the reconstruction of existing utility facilities may also be in operation simultaneously with the Work to be performed under this Contract.

Any damage to utility services caused by the Contractor must be repaired at the Contractor's expense. Repair such damage immediately.

Prior to performing any Work on the Project, Contact all utility companies, pipeline owners, railroads, or other known parties affected and "Miss Utility" of DELMARVA in

order to ensure that all such utilities have received notice and in order that all utility adjustments may be made.

The following Utilities are members of Utilities Service Protection Center of DELMARVA (USPCD):

24/7 Mid-Atlantic Network, LLC MCI

AboveNet Communications Mediacomm of Lower MD/DE

Aero Energy Moore Grant Sanitation

AIRCO Municipal Utility Commission

Angola Crest, LLC Neon Optica, Inc

Artesian Water Company New Castle County Special

AT&T of Delaware Services

Atlantic Broadband NUI Elkton Gas Paradee Gas Co.

Bethel Township Sewer Dept Pep-Up, Inc.

Camden-Wyoming Sewer & Water Peninsula Oil and Propane Cavalier Telephone P.F. Net Network Corporation

Chesapeake Utilities Poores Propane

Choptank Electric Qwest Communications
City of Delaware City Savannah's Landing HOA
City of Dover Schagrin Gas Company

City of Harrington Sharp Energy

City of Lewes Public Works
City of Milford
Steeplechase Waterworks
Sunoco Pipeline, LP

City of Newark Sussex County Engineering Dept.

City of New Castle Sussex Shores Water Co.

City of Pocomoke Texas Eastern Transmission, LP

City of Rehoboth Beach Tidewater Utilities
City of Seaford Town of Bethany beach

City of Wilmington Town of Blades
Colonial Pipeline Co. Town of Bridgeville
Columbia Gas Transmission Town of Chesapeake City

Comcast Cable Communications Town of Clayton Town of Dagsboro Connexion Technologies County Propane of Delaware Town of Felton **Dept.of Transportation** Town of Georgetown Delaware Electric Cooperative Town of Laurel Delaware Pipeline Company Town of Middletown Delaware State Highway Delaware Town of Millsboro Storage and Pipeline Com Town of Milton Delmarva Power Town of Selbyville Town of Smyrna **Direct Propane**

Eastern Shore Gas Tunnel Companies, Inc.

Eastern Shore Natural Gas United Water Eastern Utilities Commission United Water

G4S Technology, LLC University of Delaware
Gull Point Condominium Verizon Communications
Association Wastewater Utilities, Inc.

Kent County Public Works Williams Gas Transmission

(Engineering)

Kent County Sanitary District

Kitts Hummock Improvement

Association

Level 3 Communications

Long Neck Water Co.

Magellan Midstream Partners, L.P.

Magellan Terminals Holding, LP

The report center is essentially a message center, to which all participating parties are connected by a private line teletype network. The work location report is called in over two primary numbers, toll free, 1-800-441-8355 and 1-800-282-8555 in Delaware only. The area covered is the entire DELMARVA Peninsula.

A minimum of two but not more than ten Working Days advance notice of starting time is required. The Day of the call is not counted as one of these Days. This assures the person calling of having the underground facility located prior to excavation.

The party reporting a digging operation is asked a standard format of questions to provide the utilities with the necessary information required to ensure an adequate location of the activity. The caller is given a ticket number for reference purposes. The center specifically locates reported areas of activity on a master map and determines the spot by grid coordinates. This information is then transmitted to the participating parties via high speed teletype network. The ticket life is for 10 business Days after the call.

Messages received are sent out immediately during normal work hours (7:00 AM to 5:00 PM, Monday through Friday). Messages received after normal working hours, Saturdays, Sundays, or Holidays are taken, logged, and transmitted within one hour the next normal Work Day.

The Work location report is received by the participating utility which immediately locates the Work area by the information transmitted from the message center. The utility must then respond to the person originating the call by 1) stating it has no underground facilities at the designated location or 2) stating there are facilities in the area and dispatching a locating crew to the site and marking their underground facility with stakes, flags, and/or paint horizontally over the ground.

APWA recommended safety color codes will be used: White for proposed excavation, pink for temporary survey marking, orange for communications, red for electric, blue for potable water, green for sewer and drain lines, yellow for gas and petroleum products, purple for reclaimed water. This will enable the reporting party to visually see if the utility has responded.

Overhead High-Voltage Line Safety requires notification to and mutually agreeable measures from the utility from any person intending to carry on any function, activity, Work or operation within 20' of any high voltage overhead line.

105.10 Construction Stakes, Lines, and Grades Provided by the Engineer. The Engineer will furnish and set control points and construction stakes unless otherwise specified in the Contract Documents.

The Engineer will establish Right-Of-Way lines, Limits of Construction, and easements if needed, and will provide and set construction stakes establishing Right-Of-Way lines, easement lines, slopes, Profile Grades, centerline or off-set lines, and benchmarks. The Department may furnish the Contractor with information relating the lines, slopes, and grades. The Engineer will establish Structure working points, elevations, and all the necessary points and off-sets to complete the Structure. Use these stakes and marks as the field control to establish other necessary controls and perform the Work. Before beginning the Work, determine the meaning of all stakes, indicated measurements, and marks provided by the Department.

The Engineer will also perform preliminary and final cross-sections of borrow pit sites and cross-sections for bedrock and undercut excavation.

Protect and preserve of all stakes and marks. The labor cost of the survey crew replacing disturbed stakes and marks will be deducted from the payment due for the Work.

The Department is responsible for the accuracy of lines, slopes, grades, and other engineering work set forth under this Section. The Department will not be responsible for staking delays unless the Contractor provides the Engineer ten Calendar Days notice prior to beginning Work for which layout is needed and thereafter gives at least two business Days notice that stakes are needed.

105.11 Removal of Defective and Unauthorized Work. All Work that fails to meet the Contract requirements will be deemed unacceptable by the Engineer. Removed and disposed of all unacceptable Work at the Contractor's expense immediately upon rejection by the Engineer. Work performed without adequate layout, Work performed beyond the lines and grades shown on the Plans, or any Extra Work performed without written direction by the Engineer will be considered unauthorized Work and will not be measured or paid by the Department. The Engineer may direct the Contractor to remove and replace

measured or paid by the Department. The Engineer may direct the Contractor to remove and replace unauthorized Work at the Contractor's expense.

Failure of the Contractor to remove and properly dispose of rejected Work immediately after receiving written notice to do so from the Engineer shall be sufficient cause for the termination of the Contract. Furthermore, the Engineer will have the authority to cause unacceptable Work to be removed and replaced, and unauthorized Work to be removed. The costs incurred by the Engineer for correcting unacceptable or unauthorized Work will be deducted from the amount due or to become due the Contractor.

105.12 Load Restrictions. Comply with all legal and Contractual load restrictions in the hauling of Materials or Equipment on public roads. A hauling permit or other special permit will not relieve the Contractor of liability for damage to public or private property that may result from the movement of such loads or Equipment.

Vehicles transporting construction Materials to Department Projects shall not exceed the gross vehicle weight (GVW) or licensed weight, if less, as specified in the Delaware Code. Materials inspection weigh tickets will not be issued by Department personnel for GVWs in excess of the allowable maximum. The allowable GVW for the delivery truck must be shown on each material ticket submitted to the Engineer.

Payment for Materials delivered to the Project will not exceed the allowable GVW minus the truck tare weight. An average tare weight may be established on a basis approved by the Engineer so that empty weighing is not necessary before every load. No payment will be made for any excess Material weight.

Notify Subcontractors, vendors, and suppliers of this requirement.

The maximum GVW for different vehicle axle configurations is as follows; provided that in the case of three-axle vehicles the extra weight fee has been paid and is so noted on the registration card:

Customary Values

Single Unit Values	GVW, Maximum
2-axle vehicle (e.g., 2-axle dump truck)	40,000 lb.
3-axle vehicle (e.g., 3-axle dump truck)	65,000 lb.
	*70,000 lb.
4-axle vehicle (e.g., 4-axle dump truck)	73,280 lb.

Tractor-Semi-Trailer Combinations

3-axle combination unit	60,000 lb.
4-axle combination unit	70,000 lb.
5-axle combination unit	80,000 lb.

* When extra weight fee has been paid and is so noted on registration card.

Metric Values

Single	Unit Valu		GVW, Maximum				
2-axle	vehicle	(e.g.,	2-axle	dump	18 144 kg		
truck)							
3-axle	vehicle	(e.g.,	3-axle	dump	29 484 kg		
truck)					*31 752 kg		
4-axle	vehicle	(e.g.,	4-axle	dump	33 240 kg		
truck)							
Tractor	r-Semi-Tr	ailer C	ombinat	ions			
3-axle combination unit 27 216 kg							
4-axle combination unit 31 752 kg							
5-axle	5-axle combination unit 36 288 kg						

^{*} When extra weight fee has been paid and is so noted on registration card.

Assume responsibility for all damage caused by hauling Equipment, whether the damage occurs within or outside of the Project limits.

105.13 Maintenance during Construction. Maintain the Work during construction and until the Project is accepted. Perform this maintenance every Day in a continuous and effective manner with adequate Equipment and forces to keep the roadway and Structures in a satisfactory condition. All snow removal will be performed by DelDOT Maintenance, unless the Contract Documents specifically assign these responsibilities to the Contractor. All mowing of grass outside of the LOC will be performed by DelDOT Maintenance.

The Engineer will notify the Contractor if there is a failure to comply with these provisions. If the Contractor fails to remedy unsatisfactory maintenance within 24 hours after receipt of the notice, the Engineer may proceed to maintain the Project. The entire cost of this maintenance will be deducted from monies due or to become due the Contractor. Failure to adequately and safely maintain the Project will be sufficient cause to terminate the Contract for default.

If the Contract involves the placement of Material on or the use of a previously constructed subgrade, base course, pavement or Structure, maintain the previously constructed Work during construction operations.

The cost of maintenance Work during construction and before the completion of the Final Inspection punchlist is incidental to the Contract, unless otherwise stated in the Contract Documents. The cost of maintenance Work occurring after the Final Inspection punch list is complete will be paid by the Engineer, except that the cost of maintenance Work required for landscaping and vegetative growth shall be borne by the Contractor until Final Acceptance.

In the event that the Contractor's Work is ordered shut down for failure to comply with the provisions of the Contract, maintain traffic, protect and maintain the roadway and Structures, and provide ingress and egress for local residents as may be necessary during the period of suspended Work or until the Contract has been declared in default.

Mow all grass and weeds within the Limits of Construction, as directed by the Engineer, to a height in compliance with Section 107.01. If the Engineer directs the Contractor to mow grass more than 4 times in a calendar year, the Engineer will pay for all mowing beyond the fourth mowing operation.

105.14 Opening Sections of the Project to Traffic. The Engineer may order certain sections of the Work to be opened to traffic or other use prior to Completion or acceptance of the Work. Opening these sections will not constitute acceptance of the Work or waiver of any Contract provisions. For sections of the Work that are open to traffic, the cost of repairing damage to the Work caused by vehicular traffic will be paid by the Engineer unless such section of roadway is open due to the fault or inactivity of the Contractor or the Contractor caused the damage. All other maintenance costs including, but not limited to, mowing grass, general cleanup and/or the repair of Work damaged by vandalism shall be borne by the Contractor until the Final Inspection punch list is complete, except that maintenance costs for Work involving landscaping and vegetative growth shall be borne by the Contractor until Final Acceptance. Prior to opening a section of the Work to Traffic, confer with the Engineer to ensure that all traffic control devices are in place and functioning. Do not open any section of roadway to Traffic without the approval of the Engineer.

105.15 Claims for Adjustments and Resolution of Disputes. All disputes between the Contractor and the Engineer arising under or related to this Contract that are not resolved by mutual agreement shall be resolved by following the Claim procedure established in this Section. "Claim" means a written demand or assertion by the Contractor or the Department seeking, as a legal or equitable right: payment of money, Adjustment or interpretation of Contract terms, or other relief.

A. Contractor Notification of Claims.

Notify the Engineer orally or in writing of the intention to make a Claim for relief before beginning the affected Work. Within five Working Days of declaring the intention to make a Claim, provide written notification of the Claim to the Engineer that includes the following:

- 1. The date of the occurrence and the nature and circumstances of the occurrence that constitute a change to the Contract or the need for an interpretation of the Contract's terms;
- 2. The name and title of Department representatives knowledgeable of the conditions on which the Claim is based; and
- 3. The particular elements of Contract performance for which relief is sought under this Section.

When a Claim is based solely upon the need for a Contract interpretation, provide written notice of the intent to Claim as prescribed above within five Working Days of the discovery by the Contractor of the alleged misinterpretation of the Contract by the Engineer.

If the Contractor's written notification is not given to the Engineer within five Working Days as prescribed above or the Engineer is not afforded proper facilities by the Contractor for keeping strict account of the actual costs incurred by the Contractor as a result of the alleged change or alleged misinterpretation of the Contract, then the Contractor waives the Claim. Such notice by the Contractor, and the fact that the Engineer has kept account of the cost as aforesaid, shall not in any way be construed as proving the validity of the Claim. Nothing contained in this Section shall be construed as establishing any Claim contrary to the terms of Section 104.05 or any other provision of the Contract Documents.

B. Engineer's Response to the Contractor's Notice.

Within ten Calendar Days after receipt of the Contractor's written notice of a Claim, the Engineer will respond in writing to the Contractor to:

- 1. Confirm that a change has occurred and that relief is due as provided herein; or
- 2. Confirm that the Engineer agrees with the Contractor's interpretation of the Contract and that relief is due as provided herein; or
- 3. Deny that relief is due and direct the Contractor to follow the formal Claim submittal procedure as described below; or
- 4. Advise the Contractor that adequate information has not been submitted to decide whether B.1., B.2. or B.3. above applies, and indicate the need for more information for further review. The Department will respond to such additional information within ten Calendar Days of receipt from the Contractor; or
- 5. Advise the Contractor that the District will review the Claim after obtaining the formal Claim submittal as described below.

Any Adjustments made to the Contract will not include increased costs or time extensions for delay resulting from the Contractor's failure to provide requested additional information in accordance with this Section.

C. Claim Submittal.

Submit a formal Claim in writing within 60 Calendar Days after Work on the Item Claimed has been completed. The Contractor can only recover, and the formal Claim shall only consist of, those items allowed under Section 105.15(H). The formal Claim submittal must contain:

- 1. A description of the precise nature and basis for the Claim;
- 2. Each fact upon which the Contractor relies to support the claim;
- 3. The precise reason the Contractor believes that relief should be granted;
- 4. The language in the Contract upon which the Contractor relies in support of the Claim;
- 5. The amount of money or nature and extent of relief to which the Contractor believes it is entitled; and
- 6. Any other factors which the Contractor believes support the Claim.

When requesting a time extension or relief due to a constructive acceleration, include an as-built Project Schedule that conforms to the requirements of the Contract. Failure to submit such a Schedule constitutes a waiver of the Contractor's right to receive a time extension or other relief due to a delay or a constructive acceleration.

In complying with the Claim submittal requirements listed above, the Contractor must certify the Claim using the following form:

The undersigned is duly authorized to certify this claim on behalf of (the Contractor).

(The Contractor) certifies that this claim is made in good faith, that the supporting data are accurate and complete to the best of the Contractor's knowledge and belief, and that the amount requested accurately reflects the Contract Adjustment for which (the Contractor) believes that the Department is liable.

(THE CONTRACTOR)		
By:		
	(NI ₂ ma)	
	(Name)	
	(Title)	
	Date	of
	Execution:	

The Contractor agrees to follow the procedure described in this Section for all Claims. The Contractor further agrees that any claimed dollar amount and/or relief sought that is not made pursuant to this Section and within the time limits prescribed by this Section shall be forever waived and not raised at any subsequent meeting or hearing dealing with the Claim. The Department will establish a claims procedure to be followed that is

consistent with these Specifications and provides the means and methods by which the Contractor and the Department shall process the Contractor's formal Claim.

D. District Review.

Formal Claims submitted in accordance with this Section will be reviewed fully at the District level. Within 30 Calendar Days after receiving the formal Claim submittal, the District Engineer will respond, in writing, with the District's decision. If additional time is required by the District to review the Claim, the District Engineer will notify the Contractor. Upon mutual agreement, the parties may engage in non-binding alternate dispute resolution proceedings in order to try and induce a settlement of the dispute prior to the District's decision. These proceedings may include, but are not limited to, non-binding arbitration or mediation.

E. Contractor's Appeal to the Claims Committee.

The Contractor may appeal the District's decision to DelDOT's Claims Committee for review. Give notice of the appeal to the District in writing within ten Calendar Days of the District's Decision. Failure to provide timely notice of an appeal constitutes a waiver of the Contractor's right to appeal.

The Claims Committee will conduct a claim review meeting attended by representatives of the Contractor and the District. The Claims Committee will conduct the Claim Review Meeting within 60 Calendar Days after the District receives the Contractor's notice of appeal. The proceedings of the Claim Review Meeting will be recorded by a Court Reporter. The cost associated with the Court Reporter will be shared equally by the Department and the Contractor. A copy of the record of the Claim Review Meeting will be made available to the Contractor. Within 15 Calendar Days of the Claim Review Meeting, the Committee's Chairperson will notify the Contractor, in writing, of the Committee's decision.

F. Decision of the Secretary.

Either party may appeal the Claims Committee's decision to the Secretary requesting to proceed with the arbitration process as outlined in Section 105.15(G). The appellant

shall give notice of the appeal to the Claims Committee's Chairperson, in writing, within ten Calendar Days after receiving the Claims Committee's decision. Failure by either party to provide timely notice of an appeal constitutes a waiver of that party's right to appeal. After receiving the written notification, the Secretary or the Secretary's designee (usually the Chief Engineer) will notify the parties, in writing, within 30 Calendar Days of the receipt of the notice regarding the Claim. The Secretary or the Secretary's designee will review the record and may schedule a meeting or hearing with the parties to discuss the Claim. The Secretary or the Secretary's designee will then issue a written decision that will serve as the final decision of the Department concerning the Claim.

G. Arbitration.

Any Claim, properly presented and processed through the Claim procedure outlined above, and finally decided by the Secretary or the Secretary's designee pursuant to Section 105.15(F), in the absence of agreement by the Contractor and the Department as to the resolution thereof, and upon the demand of either party delivered in writing to the other within 30 Calendar Days from the date of the written decision by the Secretary or the Secretary's designee, as provided in Section 105.15(F); shall be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then in effect; except as otherwise modified by these Specifications. Failure by either party to provide a timely notice of appeal to the other constitutes a waiver of that party's right to appeal.

The arbitration proceeding may involve presentation of facts or such portions thereof as have previously been presented at prior administrative hearings held pursuant to Section 105.15 herein or may be based entirely upon the record, as established therein. The record established at prior administrative hearings pursuant to Section 105.15 shall be specifically admissible at such arbitration proceedings and such facts as have been established shall be specifically binding upon the parties; with the exclusion of opinions and conclusions thereon. Such arbitration shall be specifically based upon the claim presented at prior administrative hearings and no material, information, fact, and/or Claim not presented at such hearings held pursuant to said Section 105.15 shall be admissible at any arbitration conducted pursuant to this Section. The arbitrators shall furnish a written decision to both parties that includes the findings of the panel and an explanation of the basis for the findings. This agreement to arbitrate shall be strictly enforceable as provided under Chapter 57, Title 10 of the Delaware Code, as amended. The Contractor and DelDOT shall each pay half of the arbitration fee and the cost of the court reporter.

H. Recoverable Costs.

The Contractor shall not be entitled to recover any costs in a Claim other than those allowed by this Section. As described below, A. through E. identify all recoverable direct and indirect costs and F. identifies all non-recoverable costs.

- A. Labor. In accordance with Section 109.04 D.1.
- B. Bond, Insurance, and Tax. In accordance with Section 109.04 D.2.
- C. Materials. In accordance with Section 109.04 D.3.
- D. Equipment. In accordance with Section 109.04 D.4.
- E. Percentage Markups. In accordance with Section 109.04 D.6. and 109.04 D.7.
- F. Non-recoverable Damages or Expenses. The expenses listed above as A. through E. shall constitute the sole cost(s) and expense(s) to which the Contractor shall be entitled on any claim submitted for additional compensation or settlement of any claim made under these Specifications, except as further provided in Section 105.15(J). The parties agree that the Department will have no liability for the following items of damage or expense:
 - 1. Profit in excess of that provided herein;
 - 2. Loss of profit;
 - 3. The costs of lost productivity for labor and Equipment either on this Contract or any other;
 - 4. Home office overhead in excess of that provided herein;
 - 5. Consequential damages, including but not limited to loss of Bonding capacity, loss of bidding opportunities and insolvency;
 - 6. Indirect costs or expenses of any nature;
 - 7. Attorneys fees, claim preparation expenses or costs of litigation; and 8. Interest on any claimed amounts.

Submit any Claim on behalf of a Subcontractor according to Section 105.15. Recoverable damages for Claims submitted on behalf of Subcontractors shall be solely limited to the list of all direct or indirect costs permitted by A. through D. above. For Work approved by the Department, the Subcontractor will be allowed a percentage markup as permitted by Section 109.04 D.6. and 109.04 D.7. The Contractor will be allowed an additional percentage markup as permitted by Section 109.04 D.8. to be computed on the final sum total of such

Subcontractor cost Claimed under A. through D. above for portions of Subcontractor Work approved by the Department.

I. Liquidated Damages.

A Claim, not for additional costs, but for a waiver by the Department of an assessment of Liquidated Damages, in whole or in part, may also be made by the Contractor as part of this Section. Any Claim submitted shall not affect in any manner the imposition or waiver of Liquidated Damages, except that any Liquidated Damages shall be waived for any delay for which a time extension is granted in accordance with Section 108.07.

J. Claims for Delays.

In order to receive an extension of Contract Time or to receive monetary compensation for delays to the Contract Schedule, the Contractor must request an extension of Contract Time in accordance with Section 108.07. Base all requests for extensions of Contract Time on the Contract's progress Schedule. Failure to properly update and maintain the progress Schedule in accordance with the terms of the Contract shall constitute a waiver of the Contractor's rights to claim for a time extension and/or monetary damages due to a delay.

The Department may grant time extensions in the performance of Work for delays caused by acts of God, acts of the public enemy, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, or other causes, only when these delays are not the fault or responsibility of the Contractor, are beyond the Contractor's control, and could not have been anticipated by the Contractor. For such delays that are also beyond the control and not the fault of the Department, the Contractor shall be entitled to a time extension, but shall not be entitled to recover any other damages resulting from such delays.

In the event that a delay is not caused by the Contractor's fault or negligence but is caused wholly by actions of the Department, or determined by an arbitrator to be the Department's sole responsibility, an extension of time will be granted in an amount equivalent to the actual critical delay caused by the Department, and the Contractor shall not be entitled to any additional compensation except as allowed herein. In the event that a delay that is the Department's sole responsibility is concurrent with a delay that was not the sole responsibility of the Department, the Contractor shall be entitled to a time extension, but shall not be entitled to recover any other damages resulting from the concurrent delay.

All recoverable direct and indirect costs for compensable delays are identified in A. below, and all non-recoverable costs for compensable delays are identified in B. below. Compensation provided by A. below shall not be duplicative of compensation already provided as part of Section 105.15(H) or 109.04.

A. **Allowable Direct and Indirect Expenses.** Only the additional costs associated with the following items will be recoverable by the Contractor for delay compensation:

- 1. Extended Field Overhead. Field overhead costs necessary for the prosecution of the Work during the delay period, as follows:
 - a. General Field Supervision. Such costs include but are not limited to general field supervision, assistants, watchman, clerical and other field support staff that are physically located on the jobsite. Compute these labor costs in accordance with Section 109.04 D.1. For salaried personnel, calculate the rate of wage (or scale) actually paid by dividing the weekly salary by seven Days per week.

- b. Field Office Facilities and Supplies. Such costs include but are not limited to field office trailers, tool trailers, office equipment rental, temporary toilets, and other incidental facilities and supplies that are physically located on the jobsite. Compute these costs on the basis of the actual added costs incurred by the Contractor to provide these services as a result of the delay.
- c. Maintenance of Field Operations. Such costs include but are not limited to expenses for telephone, electric, water, and other similar services that are provided at the jobsite. Compute these costs on the basis of the actual added costs incurred to maintain these services as a result of the delay. These extended field overhead costs are not duplicative of those compensated in Section 109.04 D.7.
- 2. Labor. For all necessary, non-salaried, idle labor that must remain on the Project during such periods of delay due to collective bargaining contracts or other reasons approved by the Engineer. Compute the labor costs in accordance with Section 109.04 D.1.
- 3. Bond, Insurance, and Tax. In accordance with Section 109.04 D.2.
- 4. Equipment. For any idle Equipment other than small tools that must remain on the Project site during delays, the Contractor is to receive compensation at the rate calculated in Section 109.04 D.4. Should it not be necessary for machinery or Equipment to remain on the Project during delays, the Contractor is to receive transportation costs to remove the machinery or Equipment and return it to the Project at the end of the delay period. No compensation is recoverable for idle Equipment unless the Equipment has been held on the Project site on a standby basis at the request of the Engineer and, but for this request, would have left the Project site.
- 5. Materials. Costs for material escalation due to the delay or the cost of storage of Materials due to the delay are recoverable. Obtain the Engineer's approval prior to storing any Material due to a delay.
- 6. Percentage Markups. An additional 10% markup of the total of 1., 2., 3., and 4. above will provide full compensation for home office overhead and any other costs attributed to the delay for which no specific allowance is herein provided. This is the sole markup that is recoverable for a compensable delay. Markups from Sections 105.15(H)(E), 109.04 D.6. and 109.04 D.7. shall not apply.
- 7. Records. Payment will not be made for delays until the Contractor has furnished the Engineer with duplicate itemized statements of the cost as herein above specified and detailed as follows:
 - a. Name, classification, date, daily hours, total hours, rate, and extension for each worker and foreman.
 - b. Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and Equipment.
 - c. Transportation costs.
 - d. Cost of Bonds, property damage, liability, and workers compensation insurance premiums; unemployment insurance contributions; and social security taxes.

The Engineer will compare the Department's records with those furnished by the Contractor and make any necessary Adjustments. When these records are agreed upon and signed by both parties, the records become

the basis of payment for the expenses incurred, but do not preclude subsequent Adjustment based on a later audits or inspections of the Contractor's records by the Department.

The Contractor's cost records pertaining to expenses under this Section shall be open to inspection or audit by representatives of the Department as provided in Section 105.19 K.

B. Non-Allowable Damages or Expenses. The expenses listed in A. above shall constitute the sole cost(s) and expense(s) to which the Contractor shall be entitled on any delay Claim submitted for additional compensation or settlement of any Claim made under these Specifications. The parties agree that the Department will have no liability for the items listed in Section 105.15(H) F.1 through F.8.

K. Review of Contractor's Records by the Engineer.

The Contractor agrees to make its accounting records and cost information available at the time of submission of the Claim and such other records as the Department may require in order to determine the validity and amount of each item Claimed. Ensure that such records are open to inspection or audit by representatives of the Department during the life of the Contract and for a period of not less than three years after the Contractor's acceptance of Final Payment as set forth in Section 109.10. Retain such records for that period.

Where payment for Materials, Equipment, or labor is based on the cost of forces other than the Contractor's, make every reasonable effort to ensure that the cost records of such other forces are open to inspection and audit by representatives of the Department on the same terms and conditions as the cost records of the Contractor. Payment for the cost of such forces may be deleted if the records of such third parties are not made available to the Department's representatives.

If an audit or inspection is to be commenced, the Engineer will provide the Contractor with a reasonable notice of the time when such an audit or inspection is to begin. In cases where all or a part of such records are not made available, the Contractor understands and agrees that any items not supported by records because the records are not made available will not be recoverable. If payment has already been made in such a case, refund to the Department the amount so recovered.

L. Contractor and Subcontractor/Supplier Disputes.

Resolve any dispute arising between the Contractor and its Subcontractor/supplier concerning payments held in trust, as required by Chapter 8, Title 17 of the Delaware Code by arbitration. The Department shall not serve as the arbiter of such disputes, but shall, in the absence of agreement between the parties, designate the American Arbitration Association to resolve the matter.

105.16 Project Acceptance; Partial Acceptance. Final acceptance will not occur until Completion of the Project in accordance with Section 101.16. The Contract Time will be stopped at Substantial Completion as defined in Section 101.79.

When the Contract Time is stopped, expeditiously provide the exempted documents, certificates, or proofs of compliance. Final acceptance and final payment will not be made until all documents, certificates, or proofs of compliance have been executed and delivered to the Engineer.

Upon receiving notice from the Contractor of Substantial Completion, the District will conduct a semi-final inspection. During this inspection, the District will note by stations and in detail all Work or conditions

requiring correction. Immediately prosecute the corrective Work. When the noted corrections are completed to the satisfaction of the District, the Department will conduct a Final Inspection to certify that the Project can be used, occupied, or operated for its intended use and that the Work has been satisfactorily completed in accordance with the Contract Documents. The Engineer will note any further corrective measures as deemed necessary. Prosecute corrective measures immediately. When the corrective Work is satisfactorily completed, together with receipt of proper documentation as noted herein, the Engineer will immediately accept the Project and notify the Contractor in writing of the date of acceptance of the Project. If the Contractor fails to complete the corrective Work identified by the Engineer within a reasonable period of time, usually two weeks, after the semi-final and Final Inspections, time charges will resume until such Work is complete. For each and every Calendar Day or Working Day charged beyond Substantial Completion that exceeds the allowable contract time, the Contractor will be assessed Liquidated Damages in the amount of 10% of the value shown in Section 108.09.

When a unit or portion of the Project, such as a Structure, interchange, or section of road or pavement is Substantially Completed, the Contractor may request a Final Inspection of that unit or portion of the Work. If the unit or portion of the Work has been completed in accordance with the Contract, the Engineer may accept it as completed. The decision to make a partial acceptance of a unit of Work is solely at the discretion of the Engineer. Partial acceptance will not void or alter any of the terms of the Contract.

Responsibilities of the Field Staff

A.2.04 – Project Supervisors: The role of a Project Supervisor is to supervise, schedule, coordinate the day to day field activities of construction inspectors, and perform an overall management of highway construction projects. A Project Supervisor can be classified as an EPS Tech III, IV, V, Civil Engineer I, II, III, or IV. Their duties mostly consist of, but may not be limited to the following:

Pre-Construction:

- Review the project plans and documents.
- Attend the Preconstruction Meeting.
- Set up the estimate books and construction diary.
- Document the preconstruction signing along the project limits.
- Coordinate with the Surveyor, Certified Construction Reviewer (CCR), and Safety Officer.
- Review the preconstruction site video from the contractor.
- Set up the Emergency Contact List.
- Obtain the plans and special provisions for the inspection staff.
- Ensure that the pre-work documentation is in place, i.e. Environmental Permits, Material Submittals,
 Subcontractor Agreements and Approvals, and Shop Drawings.
- Attend the preconstruction erosion control walk through with the site CCR.

During Construction:

Assign and manage the inspection staff to the various activities.

- Prepare Change Orders and Estimates.
- Perform a daily review of the project.
- Assist in working with the Design Engineer for plan revisions.
- Submit the weekly report documents such as the Traffic Report, Project Weekly Report, and Secretary's Weekly Report.
- Interact and provide project status updates to the FHWA representative as necessary.
- Conduct Progress Meetings.
- Coordinate the Contractor's work activities with any proposed Utility relocations.
- Review the CPM Schedule updates.
- Document weather impacted delays to the CPM critical path.
- If a CCR is not assigned to a project, perform a CCR inspection each week and after each rain event.
- Inform the Area Engineer of the project progress, design issues, etc.
- Review any project related issues with the public as necessary.
- Verify that the subcontractors, materials, and shop drawings are approved prior to use in the field.
- Discuss with the contractor any erosion and sediment control issues and work toward compliance.
- Monitor inspectors work/hand out disciplinary action/adjust the staffing if necessary.
- Assist the Area Engineer with determining the monthly spend estimates.
- Coordinate activities between the different DelDOT sections (i.e. Safety, Utility, Environmental, Audit, etc.).

Post-Construction:

- Attend the Semi-Final and Final Inspection and provide a list or outstanding contract items to be placed on the punch list.
- Verify the final punch list items are complete and provide a letter of recommendation to the Area Engineer for final project acceptance.
- Close out the quantity books and review the final source document to issue a final change order.
- Secure the final project documents by placing them in an acid-free box in accordance with the public records storage protocols.
- Contact the DelDOT Audit Section for a final review of the books.
- Prepare the final As-Builds.

A.2.05 – **Inspectors:** The Inspector is responsible for ensuring the executed work is in accordance with the Contract Documents (Plans, Standard and Supplemental Specifications and the Standard Details). He or She shall report to a Project Supervisor and/or Area Engineer and is responsible for inspecting and documenting work activities on an assigned contract. The Inspectors role on the project is very important and shall require initiative and effort. An Inspector can be classified as an EPS Tech II, III and/ or IV and Civil Engineer I. Their duties/ roles consist of, but may not be limited to the following:

Pre-Construction:

- Review Project Plans and Documents.
- Assist with documenting site conditions prior to starting the contract.
- Review site/ project location.

During Construction:

- Enforce all applicable plans, specifications and other contract provisions.
- Inspect contract/ utility work operations assigned by the Project Supervisor. The Project Supervisor will assign/ manage the inspection staff to various contract activities and/ or needs.
- Document activities assigned by the Project Supervisor. This includes Inspector Daily Reports, Source Documents, Ticket/ Material Tabulations and other related forms.
- Communicate with the Project Supervisor. Keep the Project Supervisor informed of all changes within the scope of the project including but not limited to contract items, site conditions, deviations from plans and specifications, contractor requests, schedule of work and unusual situations.
- Track delays and/ or costs for additional work.
- Understand the contractual responsibilities, authorities and requirements for handling specification violations.
- Understand and have a working knowledge of safety regulations which pertain to highway and job site safety.
- Ensure and document that the project is in compliance with the contracts environmental permits and specifications.
- Notify TMC of proposed lane closures.
- Verify Material and Subcontractor approval.
- Release Materials for use in the contract. Communicate to Del DOT's Material and Research section prior to material placement.

Post-Construction:

- Assist with creating a list of outstanding contract items/ issues.
- Attend Semi-Final and Final Inspection.
- Inspect Semi-Final and Final punch list items assigned by the Project Supervisor.
- Assist with As-Builts.
- Assist with project close-out.

Note: The Department may require the Inspector to assist with miscellaneous book work and record keeping to help facilitate the contract. These duties/roles assigned by the Project Supervisor, will allow the department to better manage the contract when issues or situations arise. Please view Section A.2.06 Office Engineer/Book Person for a list of possible roles and responsibilities.

A.2.06 – Office Engineer/ Book Person: Under the direction of the Project Supervisor the Office Engineer/ Book Person will responsible for compiling and documenting the project records. An Officer Engineer/ Book Person can be classified as an EPS Tech II, III/ or IV and Civil Engineer I. Roles and responsibilities for this position are as follows.

Pre-Construction:

- Review project plans and documentation including bid tab.
- Attend the Preconstruction Meeting.
- Assist with setting up estimate books, daily accumulation books and dairy.
- Assist with setting up field office.
- Set up filing system.

During Construction:

- Verify field documents accuracy. Including Inspectors Daily Reports, Source Documents, Material Tickets and other related forms.
- Maintain a Project Diary and Daily Accumulation Book/ Ledger. Contract progress shall be entered on a daily basis and the Project Diary shall be kept up to date.
- Maintain the Estimate Book and complete the Monthly Estimates within 5 business days of the cut-off date.
- Maintain a list of Material and Subcontractor Approvals.
- Maintain an orderly file of all construction records, letters, test reports and other pertinent contract information.
- Assist with Change Orders. Compile necessary information for backup support and changes in bid quantity.
- Check weekly payrolls.

Post-Construction:

- Assist with As-Builts.
- Assist with project close-out.
- Summarize Contract Bid Items, compile source documents and ticket quantities.
- Assist with Final Change Order and Estimate.

Note: The Department may require the Office Engineer/ Book Person to occasionally perform inspection duties in the field. These duties/ roles, assigned by the Project Supervisor, will allow the department to better manage the contract when issues or situations arise. Please view Section A.2.05 – Inspectors for a list of roles and responsibilities.

Inspector's Daily Reports (IDRs)

> Filled out every day and turned into the office by the next morning before noon.

- ➤ On the **front** side of the report, all relevant information should be documented i.e. weather, contractors, subcontractors, personnel, work performed, and location.
 - <u>Weather</u> This should be documented accurately, three times a day. Weather should be documented even when the contractor is not working if time charges are being assessed. (For the 301 projects weather will be tracked daily by the office engineer. Please note unusual weather conditions as they apply to your operation.)
 - Personnel& Equipment Any equipment &persons working at each location should be documented. You must show the foreman's name for each operation. Delivery equipment should not be documented. Equipment on site but not used (Idle Equipment) should be listed and circled.
 - o Contractor/Subcontractor These should be listed at the top on the designated line.
 - O Location & Description Location means Station, offset and the name of the Base Line. Description means what work the contractor performed for that day. Each description must start with the words "Began", "Continued", or "Completed". If the contractor did not work, a reason must be noted i.e. contractor did not work due to inclement weather, contractor performing private work, worked on another contract, etc. In case there is a claim by a contractor for time compensation, a reason MUST be given.
 - O Item Numbers & Quantities Item numbers need to be filled in daily, write the item description next to the item number. These can be found on your bid tab sheets (which will be provided). Quantities are to be filled out daily. If a contractor does not complete an operation for whatever reason just write "incomplete". If a work item is incidental to another item (i.e. #57 stone to Underdrain etc.) list the work item it is under and put "Incidental" in the quantity box. (The box marked "code" is for office use only.) If an item is additional to the original contract, this needs to be noted on the IDR AND Source Document.
 - o All quantities are to be agreed upon with the foreman at the close of each shift.
 - o Do not use highlighters on your report (highlighting is needed for office use only)
- The **back** of the IDRcan be used as an overflow from the front; it will also include relevant information such as Materials Received, Inspector names and hours, Official visitors, Special instructions, Remarks, etc.
 - Materials Received This should include all materials received on that day for your project.
 Where it was received from should also be included and if it was inspected by someone else.
 - o <u>Inspector's Name/Hours</u> This means your signature and charged time. Other inspectors may sign off on your report if they are assisting you with the same work items. Note, if you work through lunch (working through lunch must be preapproved by supervisor).
 - Official Visitors List allimportant visitors to the project on that day. Such as state survey,
 Jonathan Ledger DelDOT Group 2 Engineer, Dan Montag FHWA, Jim Pappas Materials &
 Research, etc. Also note who they work for and their title.

- <u>Remarks</u> This section should include allimportant directives to the contractor. For example, I informed Joe Blow (ABC Inc. Superintendent) that concrete would not be released until all the proper signs are up and in place. REMEMBER YOU CAN NEVER WRITE TOO MUCH. When making notes, express the facts clearly and concise so that whoever reads it can understand what took place. It is important to include FACTS only and not OPINIONS. This section should also include any notes pertaining to erosion & sediment control issues, safety and/or material testing. This will help if we ever have a claim. GIVE ALL DETAILS!!! DON'T BE AFRAID TO WRITE.
- o It is the inspector's responsibility to have the most up to date revisions, show drawings, specifications, etc. pertaining to the operation they are covering.



State of Delaware Department of Transportation Division of Highways North I District

INSPECTORS DAILY REPORT DATE 4-27-11 DAY WED Contractor Number: T201009004 SR 1/I-95 Interchange - Christiana Mall Road Bridge Weather & Temp: AM 7:00 67° Sowny NOON 86° PTCLDY PM3:00 87° PTCLDY ctive Contractors/Utilities: MUM FORD + MILLER; B+B MASONS.; HIGHWAY SEALANTS Personnel and Equipment (Contractors, subcontractors, and Utilities) Active Contractors/Utilities: Person Broon Curb Machin Compressor **Fruck Driver** Willing Mach E. Loader **3enerator** Excavator Unskilled B-Dozer Rollers Pavers Flag Per ATSSA Crane Power Jan Contractor/Utility MUMFORD+Miller (HOGH) RAMPS 1 4 (LARRY) VARIES (RONS VARIES SURVEY - VARIES (TOM) MAIL RY HIGHWAYSEALANTS (JEHT) B+B MASONS Location and Description of Work Section No. Qty MUMFORN + MILLER NPQ 202000 STA# 13+50 TO 14+50 RTE (MALL RD) (LARRY) - DRESSED + SHAPED SLOPE W GRADAIL 2) GRADALL BACKFILLED CB#127; #129, #130 (MAII RD) W TYPE C'BORROW AND EXCAVATED FOOTING FOR CB#133A (MALL RD - ADDED AS PER BOD MUIR 202000 NPQ 3 STA# 43+50 TO STA# 46+50 L+ +RTE (ROADA) -COMPLETED FINEGRADING OF SUBGRADE IN PREP OF TYPE'A' BORROW. STA# 20100 To 28100 (RAMP P) 1ST Lift. 934.670 20900/ STA# 43+50 TO 45+00 RT& (ROADA) /STLIFT. - PLACED AND COMPACTED TYPE'A' SELECTBORROW FOR ROAD BOX (76 LOADS (RAMP'P') = 934.67CY. 209001 10 LOADS (RAMP'A') = 123,15 CY VIDEO 1) STA#51+75 TO 54+50 (ROADA'-TNGUDING STOPE + RT (RON) ABUTEMENTHZ STA+9+75 TO 23+00 LT+RTE (RAMPG-ROadWAY+S/OPE) - PLACED ONE LIFT OF FILL FROM MITIGATION AREA ONROADWAY AND BUILT UPSLOPE W SUCCESSIVE LISTS SEE BRIAN ASTER IPR FOR QUANTITIES STA 19+50 TO 20+50, L+& (MALL ROAD) NPQ 202000 STA 25+00 TO 27+50 Rt& (RAMP D) - DRESSED UP AND SHAPED SLOPES WITH BACKHOE 26,700% BACKFILLED THE FOLLOWING CATCH BASINS: WITH BONTOW'C' 210000 (Tom) CB#69(TYPE PW)[58.45-50.12)-4.387(1.52) = 5.70C4)(59.10-50.95)-3.087(1.52) = 7.71 CY CB#125 (159.92-51.34)-4.687(1.52) = 5,17-CY. CB#127 () [60.75-58.00)-4.587(1.52) = 4.41cV 1560.75-58.23)-3.087(1.52) = 3.7164. NOTE: Some TYPEC' FROM CARNEY STOCKPILE AT MAILRD/RAMPA'IN FOR SECTION WITH GEOTEXTILE FABRIC IS AROUND PERIMETER)

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STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS NORTH DISTRICT 1



Contract No. T201009004.01 FAP: STP-2010 (39)

INSPECTORS DAILY REPORT

SR-1/1-95 INTERCHANGE CHRISTIANA MALL ROAD BRIDGE

INSPECTOR: JOHN DOE

Date/Day of Week: WED 4-27-11

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	RECOMP	ACTED BE	FORE A	1' 1	-IFT	WAS PLA	CED			-	
		AFTERNOO				6 20 CH	· EACH)	7.	25.07	1 0 1	4-5.
		SURTON (GRADE	450	SER_				3503		
	ATION AR					contra		20	2000	131.72	
	BACKHOE	LOADED DI	IMP TRI	· 6.7	WITH	SIDURE	5000	_		1	
		AND PLAC				SENCY	· LACH)			1	
RON) 1)	51A 16+00	0 - STA 21+	-00	PLLAP	021			-		1	
		0 - STA 49			3						
		RT (RAINP		CO PAIN	-					1.	
4) -IA	(0119) 575	PLACING	PIPEAR	F48	01175	411- 2195		.70	2006	170	OSE
		SLOPE.			00.0					1	
	7		1	,							
				,						1.00	
LARRY) 1) STA 301+52- STA 304-50 ART (ET 7-5BR) CUT FILL MATERIAL WITH PANS AND PLACED AT :						-	20	1300	11,30	0 4	
- 6	UT FILL N	KTERIAL W	ITH PAR	S ANI	PPLA	KED AT	:			1	
		07-49+5		(RO	AP A	- SLEPE	A-			-	
		EMENT #1			,	_				+	
-	5TA 377	+00 - STA	301+5	0 4 21	ET.	1 - MED	ANI			<u> </u>	
		0- STA 37				MP U)	-	-		+	
		LOADS @				=10:-1	-	2/3	3503	51	05
#PAINT	F-6 : LISA	BURTON (-		503	191	
TRAINE								100	100	-	-
	TAMA	Y LABEL =		TEUCK	- 500	LEE	-				
2) STA 16:	TAMA +00 - STA	18+00 (R)	IMP 5)				5/7			274	I CY
2) STA 16	TAMA +00 - STA CASTINULED F		COMPA	CTING-	TYP	E A - SEL	.E4T		1001	274.	I CY

(JEFF) 1) STA 19+75 - STA 23-50 + LT (RAMP P - SLOPE & FLAT) A740006 195,069 STA (3-5) - STA 21-00 + RT (RAMP S - SLOPE) STA 18+30 - STA 19+30 + LT (RAMP 5 - SLOPE) ETA 378 - 50 - STA 380 + 0 - (8- 7 - 50 = 5 FLAT) STA 20+30 - STA 2 +00 + RT (RAMP 92 - SLOPE) STA 21+50 - STA 25+50 + LT (RAMP 9 - SLOPE) STA 13-50 - STA 18+00 + RT (RAMP M - FLAT) STA 11-00 - STA 12-00 & LT (RAMP M - SLOPE & DITCH) STA 13-00 - STA 14-00 & LT (RHAP M - SLOPE) STA 350+30 - STA 353+00 + LT (RT. 7 - SBR SL-PE) STA 390 +00 - STA 393 +00 + RT (21 7- NBR SLIDE & FLAT) (SEE =D AT40006 DATED T (9/91)

ETA 313+00 - STA 376+00 & F F RT (RT.7 - EAGLE RUN BRIDE)

- PLACED TEMPORARY EXISTAN CANTROL SEEDING

3) STA 19+75 - STA 23-50 & LT (RAMP P - FLAT)

A740000 STA 375+50-5TA 350 +00 + LT (RT. 7 - SBR FLAT) 42,450 5 A740000 STA 20+50 - STA 21+00 + RT (RAMP QZ - SLOPE) STA 13+56- STA 18+00 PRT (RAMP IN -FLAT) STA 352+00 - STA 363+00 & RT (RT. 7- NBR FLAT) STA 21+50 - STA 25+50 + LT (RAMP 9 - SLOPE) - PLACED TEINPORARY STRAW, MULCH .. (SEE SD A740006 PATED 7/9/91) (JOE) 1) STA 18+50 - STA 19+50 + LT (RAMP S - SLOPE) STA 19+75-STA 23+50 + LT (RAMP P-SLAPE) A7400021 4,720 S.Y. STA 379+50 - STA 340+00 & LT (RT. 7 - SBR SLODE) STA 13+03-STA 14+00 + LT (RAMP M - SLOPE) STA 11+00 - STA 12+00 + LT (RAMP M - SLOPE & DITCH) STA 350+50- STA 53+00 +LT (RT. 7- SBR SLOPE) STA 300+00 - STA 302+00 + RT (RT. 7 - NBR SLIPE) - PLACED TEMPORARY EROSION CONTROL EXCELSIOR BLANKET. (59 ROLLS @ 80 S.Y. EACH)

MATERIALS RECEIVED: 274.11 C.Y. OF TYPE 1- SELECT (GREGGO & FERRARA)
(19 LOADS)

42.59 TONS OF PLAN RIPRAP (GREGGO & FERRARA)

VISITORS: UNIVERSITY OF PELAWARE ARCH. CREW (12)

HERE WOLFE (NEWPORT LAB)
JIM REYNOLDS (NEWPORT LAB)

Joe Sacker. 7:00 Am _ 3:30 Am

1

Source Documents

- ➤ All payments must have an accompanying Source Document (SD) or ticket(s) for payment.
- ➤ Edited photocopies of plans maybe be used as a SD in certain cases (i.e. striping, signage), ask project staff if acceptable.
- ➤ All SDs must have a drawing/sketch showing location and shape of payment item
 - o Payment items with unit payment of each can be shown as a list of stations and offsets in lieu of a drawing/sketch. i.e. DI, MH
 - o Payment items with unit payment of LF can be shown with starting and ending stations and offsets. i.e. silt fence, curb, fence
- Fill out SD header, item number, description, scale (use 'NTS' if not drawn to scale), initial and date.
- ➤ Location of payment item should show Station and approximate offset, add any comments if it helps to clarify location, i.e. Pond No XXX, Bridge No, and Abutment No.
- ➤ Show identifying call outs on SD, curb run #'s, DI & MH #'s Light poles etc.
- > ONLY PAY FOR COMPLETE FULL RUNS OF AN ITEM (i.e. pipe, curbing, conduit)
- > Use calculations and formulas from construction manual.
- ➤ If you don't have enough room to make your drawing clear, put calculation on a second page and mark them pages 1 and 2 of 2.
- Measurement unit and calculation should be kept in small units -- LF, SF, CF
- ➤ Page total should also show small units -- LF, SF, CF only convert to final units (SY, CY) for payment on IDR.
- ➤ Show front and side views for volume drawings or depths. You must show one or the other for volume payments.
- ➤ Show adjacent objects if it helps to locate payment item i.e. show and label a flared end or pipe if you are paying for the accompanying rip-rap
- For SD that can be used for payment of multiple items for the same location, i.e. seeding and mulch, make copies of drawing prior to labeling with payment item or page total. Complete calculation for the item, then label each SD with the correct payment item and page total for the item the SD is for.

TICKETS

- **<u>ALL</u>** ticket(s) will have a totaling adding machine tape stapled to the front.
- Follow the guide sheet for details to what information belongs on the ticket tape
- ➤ If the ticket(s) are for Source of Supply (i.e. incidental to another item) and not a pay item write "No Pay" on the ticket.
- All payment ticket(s) will be signed not just the top ticket if there is a bundle.

A.P. NO.: IM-N056(35)		Dave	Aggregate	Sh	eet No. awing No.	302007 _l_of_l
R 1/I-95 Interchange		Damiani 1	Date 1/29/09 Ch			Date
EIDOT GROUP 2 CONSTRUCTION			+OO		2"	017
2101	7 700	70 155	,	Depth -	0 00	0.67
Sta 450+00			Sta	455 +00)	100
			,′			11
	For					EXAMPLE
- 1 A €	- 500'-	— — — — — — — — — — — — — — — — — — —	DO → -		Çe d	
1			B:			
			2.			
A) 500' x 24'	X 0.67	, = 80	40 CF			
B) 1/2 × 12 × 1	00' v 61	5'- LI	22 (5			
B) /3 × 10 × 1	00 X 90	710	0 01-			
	1 1 1 .					
8040 + 4	102= 8	3442 4	F			
	. _					
8442 64	27 = [312.67	CY			
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			Page	Total:	312.	67 64



Department of transportains	210mm Carrell Reserve	1
CONTRACT NUMBER: Taproception, 01	TEM Desc. 21000 POROST COLOR, INSTITUTE. 210000	104
FAP. NO.: STP-2010(29)	TYPE-C, UTICITY TROUGH AND Sheet No. of STRUCTURE BACKFILL HW-522 Drawing No.	
BRIANG INTERCHANGE - CHRISTIANA MALL		-
ROAD BRIDGE	Computed by J. Coam Date Statu Chacked by DLC Date 5-1 FIELD ** 2-6: (Tex.)	6- 11
DelDOT NORTH 1 CONSTRUCTION		-
	P (TP) 8° (TP) 8° (TP) 8° (TP)	
	11.	
	46 (- "-) (- "-)	
		-
		1
	8.33+7	25"
		4D
EACKFILLE	Ave.	
	D= 7.79	
	The state of the s	
i		1 ! !
	25.42+(1.5+1.5) X 2.0+(1.5) X 4.75	
	25.42+(1.5+1.5) x 2.0+(1.5) x 4.75 28.42' x 3.5' x H.75' = 4D.	48 FT
	PAGE TOTAL = 472, 48 x 1.3 (COMPACTION) = 614.22 C.F.	
	GIV. 22 + 27 - 22.75 C.Y.	
		,
		111
		++++
		ITEM#
		210000
		22.750
		GIN 22
		1017.46



Department of Teamsportning	Item Desc. PCC MA	SONRY ABUT.	Item No.	602004 101
CONTRACT NUMBER: T201009004.01	FOOTING O	LASS B.	Sheet No.	/ oi /
F.A.P. ND.: STP-2010(39)		MALLROBRIDGE		
SR1995 INTERCHANGE - CHRISTIANA MALL ROAD BRIDGE	Computed by 4.5.L.	Date 5/5/1/ Checked by		Darte_ S - 10 - (1
DelDOT NORTH 1 CONSTRUCTION	FIELD MEASUREMEN	TS & CALCULATIONS	With the second	
A TYPRIDATE OF STATE	31'-2%	40' - 5%'	***	PROMIT FACE OF
	# F			$\langle \cdot \mid \times \cdot]$
-74/	26'-634'	417-8%	100	
		es20%, /5	\$5:10%	1 1 1
		 	+	X 16/6
10 y				1 18/2 1
3.00				1300
ABUT. FTG. (71.	78 + 68, 74) X	16.50' = 1159.	29 501	7
WW TI (51.	07 +40.92) X	13.00' = 597.	94 SQF	7-
	2			
WW JV (33	25 X 44.42) x 13.00 = 50= TOTAL 22	1.86 50	FT.
	2	70TAL 22	62.09 \$	iQ/-T.
22420950	FT X B.00 =	6786.27 CU.F	7	
6786.27 cui	7 251.34	cu. YD5.		
27			+ + + +	
				
			36 77/	7
	1 1 1 1 1		G 70+a	
			786.27	CO.F.
	1-			



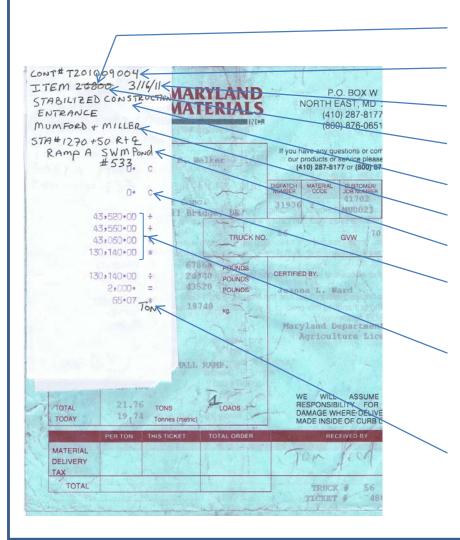
DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS FIELD MEASUREMENTS PRELIMINARY CALCULATIONS OF QUANTITIES

PRELIMINARY CALCULATIONS OF QUANTITIES
CONTRACT #: T201009004.01 SOURCE DOC #: 208000 / CONT. NAME: SR1/195 Interchange-Christiana Mall Rd Bridge BY: Voc Croww DATE: 3/18/2011 ITEM DES GRANATION AND BACKIC FOR ENTERED: DATE: PIPE TRENCHES
AREA K-4.0' A (2) TEST PITS TO LOCATE VERIZON FIOS CONDUIT AND H ² O LINES
2 (4.0' x 3.0' x 4.0) AT S.W.M. FAGLITY # 534
AREA (1) TEST PIT
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
(4.0' x 3.0' x 4.5) (4.0' x 3.0' x 3.0') 36.0 FT.3
S4.0 FT.3 AREA $A' = 96.0 \text{ FT}^3$ $B' = 54.0 \text{ FT}^3$ $C' = 36.0 \text{ FT}^3$ $C' = 36.0 \text{ FT}^3$ 186.0 FT^3 186.0 FT^3 186.0 FT^3

208000 186.0

SUBMISSION OF TICKETS

ALL SUBMITTED TICKETS MUST HAVE AN ACCOMPANYING SUMMARY TAPE WITH THE FOLLOWING INFORMATION:



STAPLE AT TOP OF TICKET

CONTRACT NUMBER

DATE MATERIAL IS RECEIVED

ITEM NUMBER

ITEM DESCRIPTION

CONTRACTOR OR SUB-CONTRACTOR
BRIEF LOCATION OF USE OR STOCKPILE

TICKET MUST BE CLEARED (C) PRIOR TO START OF CALCULATIONS

TICKET QUANTITIES ADDED IN SMALLEST FORM THEN CONVERTED THIS IS REQUIRED TO DOUBLE CHECK COMPUTER

MUST CORRESPOND WITH QUANTITY AND ITEM ON YOUR REPORT