

STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION



BID PROPOSAL

CONTRACT T202206004

OPEN END, ROADWAY FOG SEALING, SOUTH, FY23-FY24

Advertisement Date: July 29, 2022

INCLUDED IN THIS DOCUMENT:

BID PROPOSAL:

GENERAL DESCRIPTION

PROSPECTIVE BIDDERS NOTES

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QUANTITY SHEET SUMMARY

ADDITIONAL BID PROPOSAL ITEMS:

ATTACHED OR POSTED DOCUMENTS:

PROJECT PLANS

QUESTIONS & ANSWERS (if posted)

**PAPER BIDDERS CONTACT DELDOT
FOR BID SUBMITTAL DOCUMENTS:**

DRUG TESTING AFFIDAVIT;

CERTIFICATION FORM;

BID BOND FORM;

CD FOR BID PRICE ENTRY & PRINTING

This Bid Proposal and related documents can be viewed on bids.delaware.gov and, for subscribers bidx.com/de/
Internet Bids for Bidders with Bid Express® accounts can be submitted at BIDX.com/de; **OR**;
Paper Bids With CD will be received at the DelDOT Administration Building, Dover, DE;
ALL BIDS DUE PRIOR TO 2:00 P.M. Local Time, AUGUST 30, 2022

GENERAL DESCRIPTION

A. BIDS DUE: AUGUST 30, 2022 PRIOR TO 2:00 P.M. Local Time – unless changed via Addendum.

BIDS MUST BE SUBMITTED VIA:

(a) **Internet** - Bidders with DelDOT Bid Express® accounts can submit bids at www.bidx.com/de/.
OR:

(b) **Paper Bid Delivered To:** Delaware Department of Transportation, Administration Building
North Entrance, Bidders Room, 800 Bay Road, Dover, DE 19901

For paper bids, contact DelDOT at dot-ask@delaware.gov or (302) 760-2031 to request a CD for bidding, required forms, and instructions. Bidders enter their Bid Item prices onto the supplied CD then print the form and deliver in a sealed envelope; the Bid Form, completed CD, and required documents prior to the Bid due date and time. (CD's cannot be used to submit bids to bidx.com)

Do not submit both Internet and Paper Bids. If so, the Internet bid and documents will be rejected.

BID OPENING: Bids will be publicly opened and read aloud at the Date and Time of the Bid Opening. The Bid Opening will be held at the 'Paper Bid Delivered To' address shown above. Bidder bears the risk of late delivery, bids received after the stated time will be returned unopened.

Attendance is not required. DelDOT offers a call-in number to hear the Bid Opening telephonically. The telephone number to call is (408) 418-9388.

When prompted, enter Meeting number (access code): 173 970 0618#

It is anticipated the telephone access information will remain the same for all Bid Openings.

B. PRE-BID MEETING: No

C. LOCATION: Sussex County

These improvements are more specifically shown on the Location Map(s) of the attached Plans.

D. DESCRIPTION: The improvements consist of furnishing all labor and materials for this project which involves sealing roadways with fog seal. Follow other incidental construction in accordance with the location, notes and details shown on the plans, and as directed by the Engineer.

E. COMPLETION TIME: All work on this contract must be complete within 730 Calendar Days.

Extensions of contract time due to weather are specified in the Standard Specifications Section 108.7F, weather days. It is estimated a Notice to Proceed is issued such that work starts on or about October 31, 2022.

F. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DELAWARE DEPARTMENT OF TRANSPORTATION, JUNE 2021 apply to this Bid Proposal and Project. The Contractor shall make himself aware of any revisions and corrections (Supplemental Specifications, if any) and apply them to the applicable item(s) of this contract. The Standard and Supplemental Specifications can be viewed [here](#). Units of Measure can be found at 101.4.

G. ATTACHMENTS: Included as part of this Bid Proposal are; *Project Plans; Questions & Answers* (if posted); *Addenda* (if issued), *Referenced Documents, Documents Posted with this Bid Proposal*; and *Bid documents mailed to contractors*.

H. ADDENDA: All Addenda are posted on the internet at bids.delaware.gov, and bidx.com/de/ and are included as part of the Bid Proposal. The Bidder is responsible to check the Website as needed to ensure that the Bidder is aware of Addenda that are included in the Bid Proposal. If Addenda are issued, the final Addendum will be posted no later than the end of the day two business days prior to the bid date. Each Addendum number and issue date must be entered on the submitted Certification Form. This original Bid Proposal will not be updated, you must refer to each Addendum.

I. QUESTIONS: E-MAIL TO: dot-ask@delaware.gov

Questions regarding this project are to be e-mailed to the above address no less than **six business days** prior to the bid opening date in order to receive a posted response. Please include the Contract number in the subject line. Questions and responses are posted at bids.delaware.gov, and bidx.com/de/. The date of the final posted Questions and Answers document must be entered on the submitted Certification Form.

J. PROSPECTIVE BIDDERS NOTES:

1. CRAFT TRAINING (29 Del. C. § 6962(c)(13)), § 6962(d)(13))

The Craft Training Regulations relating to Public Works Contracting, signed into law on June 7, 2019 are now in effect. These regulations require certain contractors and subcontractors on public works projects to commit to provide craft training for journeyman and apprentice levels at the time of contract execution.

Refer to the full requirements at the following link: <https://delcode.delaware.gov/sessionlaws/ga150/chp036.pdf>

Note a few of the requirements;

- If there is a craft training program for a craft in this project, the awarded contractor must commit to provide (and commit that subcontractors must provide) craft training for journeyman and apprentice levels at the time the contractor executes the public works contract if all of the following apply:
 1. This project meets the prevailing wage requirement under § 6960 of this title.
 2. The contractor (or subcontractor) employs 10 or more total employees.
 3. The project is not a federal highway project, except for the US 301 project from the MD/DE state line to RT 1.
- The craft training required may be provided by any of the following: The contractor; The subcontractor; A program registered under § 1101-4.0 of Title 19 of the Delaware Administrative Code.
- Any contractor who fails to perform a public works contract or complete a public works project within the time schedule established by the agency in the invitation to bid, may be subject to suspension or debarment for 1 or more of the following reasons: Failure to supply the adequate labor supply ratio for the project; Inadequate financial resources; Poor performance on the project; Failure to provide required craft training.
- Any subcontractor who fails to provide required craft training may be subject to suspension or debarment.
- The public works contract must include a requirement that the contractor provide, and the subcontractor provide, craft training for journeyman and apprentice levels if all the above subparagraphs 1, 2, and 3 apply.
- An Affidavit Of Craft Training Compliance form will be provided for signature at contract execution (sample attached).

2. BIDDERS MUST BE REGISTERED with DelDOT in order to submit a bid. E-Mail dot-ask@delaware.gov or call (302) 760-2031 to request registration information.

3. SURETY BOND - Each proposal must be accompanied by a deposit of either surety bond or security for a sum equal to at least 10% of the amount bid.

4. DELAWARE'S CONTRACTOR REGISTRATION ACT - 19 Del.C. §§ 3601 *et seq*, requires all contractors and subcontractors to register with the Delaware Department of Labor before performing construction services or maintenance. Refer to the GENERAL NOTICES section for further information.

5. DRUG TESTING - Regulation 4104; The state Office of Management and Budget has developed regulations that require Contractors and Subcontractors to implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds pursuant to 29 Del.C. §6908(a)(6). **Refer to the full requirements at the following link:**

<http://regulations.delaware.gov/register/december2017/final/21%20DE%20Reg%20503%2012-01-17.htm>

Note a few of the requirements;

- * At bid submission - Each bidder must submit with the bid a single signed affidavit certifying that the bidder and its subcontractors has in place or will implement during the entire term of the contract a Mandatory Drug Testing Program that complies with the regulation (*a blank affidavit form is attached*);
- * At least two business days prior to contract execution - The awarded Contractor shall provide to DelDOT copies of the Employee Drug Testing Program for the Contractor, each participating DBE firm, and all other listed Subcontractors;
- * Subcontractors - Contractors that employ Subcontractors on the job site may do so only after submitting a copy of the Subcontractor's Employee Drug Testing Program along with the standard required subcontractor information. A Subcontractor shall not commence work until **DelDOT** has approved the program in writing.

6. PERFORMANCE-BASED RATING SYSTEM - 29 Del.C. §6962 (c)(12)(a) requires DelDOT to include a performance-based rating system for contractors. The Performance Rating for each Contractor shall be used as a prequalification to bid at the time of bid. Refer to 'General Notices' for details.

- 7. NO RETAINAGE** will be withheld on this contract unless through the Performance-Based Rating System.
- 8. EXTERNAL COMPLAINT PROCEDURE** can be viewed on DelDOT's Website, https://deldot.gov/Business/cr/index.shtml?dc=civil_rights_eeo or request a copy by calling (302) 760-2555.
- 9. DELAWARE BUSINESS LICENSE;** a copy of your firm's Business License must be submitted with your bid.
- 10. FLATWORK CONCRETE TECHNICIAN CERTIFICATION TRAINING:** Section 501.3, 503.3, 505.3, 610.3, 701.3 and 702.3 of the 2021 Standard Specifications require contractors to provide an American Concrete Institute (ACI) or National Ready-Mix Concrete Association (NRMCA) certified concrete flatwork technician to supervise all finishing of flatwork concrete.

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GENERAL NOTICES

CONTRACTOR REGISTRATION ACT

On July 1, 2021, the Contractor Registration Act, as codified in 19 Del.C. §§ 3601 *et seq.*, took effect. This law requires all contractors to register with the Delaware Department of Labor before performing construction services or maintenance. The Contractor Registration Act applies to all contractors that engage in construction and maintenance within the State of Delaware. Additionally, it requires contractors to have Delaware workers' compensation insurance where required, compliance with labor laws, and proof of a state business license. The Delaware Department of Labor's Office of Contractor Registration is responsible for enforcement of the requirements of the Contractor Registration Act. If you have any questions about the contractor registration process, please call 302-430-7739 or email Contract.Registry@delaware.gov. Registration at <https://onestop.delaware.gov/>.

SPECIFICATIONS :

The Delaware specifications entitled "*Standard Specifications for Road and Bridge Construction June, 2021*", hereinafter referred to as the *Standard Specifications*; the *Supplemental Specifications* to the Standard Specifications effective as of the advertisement date of this Bid Proposal and hereby included by reference; the *Special Provisions*; *Notes on the Plans*; this *Bid Proposal* including referenced documents; any *Addenda* thereto; and any posted *Questions and Answers*; shall govern the work to be performed under this contract. The Contractor shall make itself aware of these specifications, revisions and corrections, and apply them to the applicable item(s) of this contract.

CLARIFICATIONS :

Under any Section or Item included in the Contract, the Contractor shall be aware that when requirements, responsibilities, and furnishing of materials are outlined in the details and notes on the Plans and in the paragraphs preceding the " Basis of Payment" paragraph in the Standard Specifications or Special Provisions, no interpretation shall be made that such stipulations are excluded because reiteration is not made in the "Basis of Payment" paragraph.

The Department requires the use of various electronic applications for various documentation processes. **NEW** 
These processes will be identified, and the Contractor's required use will be detailed during the Preconstruction Meeting. No additional payments will be made to the contractor to use or interface with the applications.

ATTESTING TO NON-COLLUSION :

The Department requires as a condition precedent to acceptance of bids a sworn statement executed by, or on behalf of, the person, firm, association, or corporation to whom such contract is to be awarded, certifying that such person, firm, association, or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such contract. The form for this sworn statement is included in the proposal and must be properly executed in order to have the bid considered.

QUANTITIES :

The quantities shown are for comparison of bids only. The Department may increase or decrease any quantity or quantities without penalty or change in the bid price.

PERFORMANCE-BASED RATING SYSTEM

29 Del.C. §6962 (c)(12)(a) requires a Department of Transportation project, excluding a Community Transportation Fund or municipal street aid contract, to include a performance-based rating system. At the time of bid, the Performance Rating for each Contractor shall be used as a prequalification to bid.

Bidders with Performance Rating scores equal to or greater than 85% shall be permitted to bid. Bidders with scores of less than 85% who comply with the retainage requirements of 29 Del.C. §6962 shall be permitted to bid provided the *Agreement to Accept Retainage* (located on the Certification Page) is executed and submitted with the bid. Lack of an executed *Agreement to Accept Retainage* will result in the rejection of the bid by the Department. Successful bidders awarded

Department contracts who have no performance history within the last five (5) years will be assigned a provisional Performance Rating of 85% at the date of advertisement.

Notification of Performance Rating. The Department shall post publicly the Performance Rating for all Contractors on the Department's [website](#). DelDOT will complete performance-based evaluations on the construction company contracted by the Department to build the project (the "Contractor"). Provisions to appeal Performance Ratings are described in the regulations. The regulations are set forth in Section 2408 of Title 2, Delaware Administrative Code, found [here](#).

PREFERENCE FOR DELAWARE LABOR:

Delaware Code, Title 29, Chapter 69, Section 6962, Paragraph (d), Subsection (4)b: "In the construction of all public works for the State or any political subdivision thereof, or by firms contracting with the State or any political subdivision thereof, preference in employment of laborers, workmen or mechanics shall be given to bona fide legal citizens of the State who have established citizenship by residence of at least 90 days in the State. Each public works contract for the construction of public works for the State or any political subdivision thereof shall contain a stipulation that any person, company or corporation who violates this section shall pay a penalty to the Secretary of Finance equal to the amount of compensation paid to any person in violation of this section."

EQUALITY OF EMPLOYMENT OPPORTUNITY ON PUBLIC WORKS :

Delaware Code, Title 29, Chapter 69, Section 6962, Paragraph (d), Subsection (7) states;

- a. As a condition of the awarding of any contract for public works financed in whole or in part by State appropriation, such contracts shall include the following provisions:

During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, sexual orientation, gender identity or national origin. The contractor will take positive steps to ensure that applicants are employed and that employees are treated during employment without regard to their race, creed, color, sex, sexual orientation, gender identity or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places available to employees and applicants for employment notices to be provided by the contracting agency setting forth this nondiscrimination clause.
2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, sex, sexual orientation, gender identity or national origin.
3. The contractor will ensure employees receive equal pay for equal work, without regard to sex. Employee pay differential is acceptable if pursuant to a seniority system, a merit system, a system which measures earnings by quantity or quality of production, or if the differential is based on any other factor other than sex.

TAX CLEARANCE :

As payments to each vendor or contractor aggregate \$2,000, the Division of Accounting will report such vendor or contractor to the Division of Revenue, who will then check the vendor or contractor's compliance with tax requirements and take such further action as may be necessary to ensure compliance.

LICENSE :

A person desiring to engage in business in this State as a contractor shall obtain a license upon making application to the Division of Revenue.

CONTRACTOR / SUBCONTRACTOR LICENSE: 29 DEL. C. §6967:

- (b) No agency shall accept a proposal for a public works contract unless such contractor has provided a proper and current copy of its occupational and/or business license, as required by Title 30, to such agency.
- (c) Any contractor that enters a public works contract must provide to the agency to which it is contracting, within 30 days of entering such public works contract, copies of all occupational and business licenses of subcontractors and/or independent contractors that will perform work for such public works contract. However, if a subcontractor or independent contractor is hired or contracted more than 20 days after the contractor entered the public works contract the occupational or business license of such subcontractor or independent contractor shall be provided to the agency within 10 days of being contracted or hired.

DIFFERING SITE CONDITIONS:

SUSPENSIONS OF WORK and SIGNIFICANT CHANGES IN THE CHARACTER OF WORK:

Differing site conditions: During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and before the affected work is performed.

Upon written notification, the engineer will investigate the conditions, and if he/she determines that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding loss of anticipated profits, will be made and the contract modified in writing accordingly. The engineer will notify the contractor of his/her determination whether or not an adjustment of the contract is warranted.

No contract adjustment which results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice. No contract adjustment will be allowed under their clause for any effects caused on unchanged work.

Suspensions of work ordered by the engineer: If the performance of all or any portion of the work is suspended or delayed by the engineer in writing for an unreasonable period of time (not originally anticipated, customary or inherent to the construction industry) and the contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the contractor shall submit to the engineer in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.

Upon receipt, the engineer will evaluate the contractor's request. If the engineer agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. The engineer will notify the contractor of his/her determination whether or not an adjustment of the contract is warranted.

No contract adjustment will be allowed unless the contractor has submitted the request for adjustment within the time prescribed. No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided for or excluded under any other term or condition of this contract.

Significant changes in the character of work: The engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the contractor agrees to perform the work as altered.

If the alterations or changes in quantities significantly change the character of the work under the contract, whether or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be

agreed upon, then an adjustment will be made either for or against the contractor in such amount as the engineer may determine to be fair and equitable.

The term "significant change" shall be construed to apply only to the following circumstance:

- (A) When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction.

RIGHT TO AUDIT

The Department shall have the right to audit the books and records of the contractor or any subcontractor under this contract or subcontract to the extent that the books and records relate to the performance of the contract or subcontract. The books and records shall be maintained by the contractor for a period of 3 years from the date of final payment under the prime contract and by the subcontractor for a period of 3 years from the date of final payment under the subcontract (29 Del.C. §6930)

PREVAILING WAGES

Included in this proposal are the minimum wages to be paid various classes of laborers and mechanics as determined by the Department of Labor of the State of Delaware in accordance with Title 29 Del.C. §6960, relating to wages and the regulations implementing that Section.

REQUIREMENT BY DELAWARE DEPARTMENT OF LABOR FOR SWORN PAYROLL INFORMATION

Title 29 Del.C. §6960 stipulates;

(b) Every contract based upon these specifications shall contain a stipulation that the employer shall pay all mechanics and laborers employed directly upon the site of the work, unconditionally and not less often than once a week and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the specifications, regardless of any contractual relationship which may be alleged to exist between the employer and such laborers and mechanics. The specifications shall further stipulate that the scale of wages to be paid shall be posted by the employer in a prominent and easily accessible place at the site of the work, and that there may be withheld from the employer so much of accrued payments as may be considered necessary by the Department of Labor to pay to laborers and mechanics employed by the employer the difference between the rates of wages required by the contract to be paid laborers and mechanics on the work and rates of wages received by such laborers and mechanics to be remitted to the Department of Labor for distribution upon resolution of any claims.

(c) Every contract based upon these specifications shall contain a stipulation that sworn payroll information, as required by the [Delaware] Department of Labor, be furnished weekly. The Department of Labor shall keep and maintain the sworn payroll information for a period of 6 months from the last day of the work week covered by the payroll.

Bidders are specifically directed to note the Department of Labor's prevailing wage regulations implementing §6960 relating to the effective date of the wage rates, at Part VI., Section C., which in relevant part states:

"Public agencies (covered by the provisions of 29 Del.C. §6960) are required to use the rates which are in effect on the date of the publication of specifications for a given project. In the event that a contract is not executed within one hundred twenty (120) days from the date the specifications were published, the rates in effect at the time of the execution of the contract shall be the applicable rates for the project."

Contractors with questions may contact:

Department of Labor, Division of Industrial Affairs,
4425 N. Market Street, Wilmington, DE 19802
Telephone (302) 761-8200
<https://dia.delawareworks.com/labor-law/>

STATE OF DELAWARE
 DEPARTMENT OF LABOR
 DIVISION OF INDUSTRIAL AFFAIRS
 OFFICE OF LABOR LAW ENFORCEMENT
 PHONE: (302) 761-8327

Mailing Address:
 4425 North Market Street
 3rd Floor
 Wilmington, DE 19802

Located at:
 4425 North Market Street
 3rd Floor
 Wilmington, DE 19802

PREVAILING WAGES FOR HIGHWAY CONSTRUCTION EFFECTIVE MARCH 15, 2022

CLASSIFICATION	NEW CASTLE	KENT	SUSSEX
BRICKLAYERS	61.64	61.64	61.41
CARPENTERS	60.48	58.31	46.55
CEMENT FINISHERS	62.82	38.53	30.63
ELECTRICAL LINE WORKERS	31.72	51.25	25.08
ELECTRICIANS	76.72	76.72	76.72
IRON WORKERS	77.20	28.16	29.91
LABORERS	48.88	44.99	44.16
MILLRIGHTS	19.01	18.45	15.94
PAINTERS	77.29	77.29	77.29
PILEDRIVERS	84.93	28.04	31.80
POWER EQUIPMENT OPERATORS	73.20	46.74	42.82
SHEET METAL WORKERS	26.86	23.97	21.70
TRUCK DRIVERS	46.00	33.33	40.59

CERTIFIED:

07/28/2022

BY:

Jay L. Lee
 ADMINISTRATOR, OFFICE OF LABOR LAW ENFORCEMENT

NOTE: THESE RATES ARE PROMULGATED AND ENFORCED PURSUANT TO THE PREVAILING WAGE REGULATIONS ADOPTED BY THE DEPARTMENT OF LABOR ON APRIL 3, 1992.

CLASSIFICATIONS OF WORKERS ARE DETERMINED BY THE DEPARTMENT OF LABOR. FOR ASSISTANCE IN CLASSIFYING WORKERS, OR FOR A COPY OF THE REGULATIONS OR CLASSIFICATIONS, PHONE (302) 761-8327.

NON-REGISTERED APPRENTICES MUST BE PAID THE MECHANIC'S RATE.

PROJECT: T202206004 Roadway Fog Sealing South, Sussex County



SPECIAL PROVISIONS

S.P. Code	SPECIAL PROVISION DESCRIPTION
401500-20	FOG SEAL
763556-20	ROAD LOCATION MOBILIZATION, ZONE 13
763557-20	ROAD LOCATION MOBILIZATION, ZONE 14

401500 – FOG SEAL

DESCRIPTION:

This work consists of preparing the surface, providing, and applying an emulsified asphalt and water mixture as a surface seal.

MATERIALS:

A. Emulsified Asphalt Section 1016 (CQS-1hP)

1. The CQS-1hP must meet the chart below.

Emulsion Tests	Method	Specification
Saybolt Viscosity, 25°C, sfs	AASHTO T59	20-100
Saybolt Viscosity, 50°C, sfs	AASHTO T59	NA
Quick Sieve Test	AEITM 4	Pass/Fail
Sieve Test, % by weight	AASHTO T59	max. 0.1
Particle Charge	AASHTO T59	Positive
Demulsibility, %	AASHTO T59	NA
Residue by Hot Plate Evaporation	AEITM 2,3	min. 62
Residue by Oven Evaporation	AASHTO T59	

Residue Tests	Method	Specification
Penetration, 25°C, 100g, 5 sec	AASHTO T49	40-90
Softening Point, R&B, °C	AASHTO T53	min. 60°C/140°F
Ductility, 25°C, 5cm/min, cm	AASHTO 51	NA
Elastic Recovery, 10°C, %	AASHTO T301	NA

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2. The contractor/supplier shall submit a Certificate of Analysis for each lot of CQS-1hP for approval.
3. The manufacturer shall dilute the emulsion no more than 24 hours before its intended use. This is to avoid settlement of the diluted emulsion. The dilution shall be completed at the manufacturer's facility.
4. The emulsion may be circulated using a centrifugal or other suitable pump to ensure uniformity.

B. Water Section 1021

CONSTRUCTION METHODS:

A. Construction

1. Surface Preparation.
 - a. Thoroughly clean the surface upon which the fog seal is to be placed to the satisfaction of the engineer.
 - b. Remove all vegetation and debris prior to placing material.
 - c. Blow off the surface using an approved industrial jet blower or with an approved vacuum broom truck.
 - d. All preparation work shall be performed just prior to the application of the fog seal and be approved by the engineer.
2. Application Rate & Conditions
 - a. Apply fog seal at a rate of 0.05 to 0.17 gal/yd² at ambient temperature.
 - b. The engineer shall determine the appropriate application rate for the surface being sealed. This rate will be determined by test strip.
 - c. The rate of application of the distributor shall be calibrated by an approved method determined by the engineer.
 - d. Apply the fog seal when the air and surface temperature is 60°F and above. Measure the air and surface temperature in the shade away from artificial heat.
 - e. The application shall not begin if rain or high winds are eminent. The engineer will determine when weather conditions are suitable for application.
 - f. The fog seal should be a thin, uniform coating that is sufficient to seal the underlying pavement.
 - g. Care must be taken to prevent splattering of adjacent pavement, curb and gutter, and structures during application.

B. Equipment:

1. Apply the fog seal using pressurized distributing equipment with a spray bar or other approved distribution system.
2. Distributors. The distributors used shall be capable of uniformly applying the bituminous material in liquid form. Devices to control the pressure, volume, and temperature shall be provided. Each distributor shall have an approved calibration chart, be equipped with an approved sampling device, and conform to the following:
 - a. *Pressure.* The pressure shall be supplied by a positive displacement pump or air compressor. The pressure shall be uniform throughout the entire width of spray. If pressure is supplied by an air compressor, automatic controls must be provided to maintain sufficient and even pressure throughout the application of an entire load.
 - b. *Temperature.* The distributor shall be equipped with a heating system that applies heat uniformly across the width of the tank. Provisions shall be made for circulating or agitating the material whenever necessary while heating. The distributor shall be equipped with a thermometer marked in degrees Fahrenheit of sufficient range to determine the actual temperature of the material.
 - c. *Tachometer.* All distributors shall be provided with an approved tachometer recording feet per minute with a tabulation of feet per load with adjustments. Each load tabulation shall start at zero. There shall also be a totaling tabulation of this instrument.
 - d. *Volume.* A tachometer shall give correct readings of the speed, and the volumetric efficiency of the distributor shall ensure the correct volume at various speeds. Tests shall be required to prove the volumetric efficiency of the distributor at various speeds as directed by the engineer.
 - e. *Circulating System.* All pump distributors shall be equipped with a circulating system designed to maintain a homogenous liquid while circulating in the distributor tank. This circulating system shall also be arranged to circulate the material in the tank truck before application.

Air distributors shall be equipped with a device for agitating the bituminous material in the tank trucks when necessary.

- f. *Tests.* Necessary tests shall be made to determine the accuracy of all pressure gauges, tachometers, and pump efficiencies. The tests shall be made by the Contractor when and as required by the engineer.
- g. *Spray Bars.* Each distributor shall be equipped with spray bars capable of applying material uniformly throughout the entire length of the spray bars when they are extended. Spray bar extensions shall be provided for applying up to a 12' width in one operation. Spray bars shall be equipped with a cleaning device and a shut-off valve to prevent dribbling, dripping, or streaking.
- h. *Tank Capacity Gauge.* A float or other approved type tank capacity gauge shall be furnished to indicate the volume in the tank in not less than 25-gallon units. The gauge shall have adjustments for correction.

3. Tanks shall have a minimum capacity of 750 gallons.
4. If the engineer deems that the equipment applying the material is inadequate or fails to comply with all regulations, the engineer will order the equipment to be removed from the job and require that another unit be placed on the work.

C. Application of Fog Seal Material:

1. Apply the fog seal in one application at the rates specified using the pressure distributor for the full width of the sealing operation, unless otherwise directed. Apply at the temperature that is recommended by the manufacturer.
2. The contractor must always keep the nozzles of the spray bar clean. If one or more nozzles becomes blocked during the application of bituminous materials, the distributor shall be stopped immediately, and the nozzles shall be cleaned. The streaked areas shall be made uniform using a hand hose or other approved method.
3. If the Contractor is unable to keep the application uniform, the operation shall be discontinued until a more experienced operator or a better distributor, or both, can be provided; or, the Contractor shall take such other precautions as may be necessary to keep the application within specified limits.
4. The Contractor shall provide effective means of protecting the structures or curbs from discoloration when applying bituminous materials adjacent to structures or curbs.

METHOD OF MEASUREMENT:

- A. The Department will measure the quantity of Fog Seal in Gallons. The actual number of gallons of fog seal applied will be measured and paid. The quantity will be determined by any or all of the following methods and verified for accuracy by computations based on field measurements taken on and along the completed finished surfaces. Multiple layers will not be measured separately.
 1. **Truck Measurement:** If bituminous materials are delivered to the Project in tank trucks, distributor tanks, or drums, the Contractor shall not remove any bituminous material from the transporting vehicle or container until necessary measurements have been made, nor shall the transporting vehicle or container be released until final outage has been measured. If weighing is not convenient, the Contractor shall furnish the engineer with a certified chart showing the dimensions and volume of each container together with a gauge or calibrated measuring rod which will permit the volume of the material to be determined by vertical measurement.
 2. **Metering:** The volume may be determined by metering, in which case the metering device used and the method of using it shall be subject to the approval of the engineer.

Contract No. T202206004

3. **Time of Deliveries:** The arrival and departure of vehicles delivering bituminous materials to the Project site shall be so scheduled that the engineer is afforded proper time for the measurements of delivered volume and final outage. The engineer will make the necessary measurements only during the Contractor's normal daily working hours.

BASIS OF PAYMENT:

A. The quantity of fog seal will be paid for at the contract unit price per gallon (GAL) of diluted CQS-1hP. Price and payment will constitute full compensation for:

1. preparing the surface
2. mobilization
3. furnishing all equipment, materials, and labor
4. placing the material
5. all labor, equipment, tools, and incidentals necessary to complete the work.

4/1/2021

Contract No. T202206004

763544 - ROAD LOCATION MOBILIZATION, ZONE 1
763545 - ROAD LOCATION MOBILIZATION, ZONE 2
763546 - ROAD LOCATION MOBILIZATION, ZONE 3
763547 - ROAD LOCATION MOBILIZATION, ZONE 4
763548 - ROAD LOCATION MOBILIZATION, ZONE 5
763549 - ROAD LOCATION MOBILIZATION, ZONE 6
763550 - ROAD LOCATION MOBILIZATION, ZONE 7
763551 - ROAD LOCATION MOBILIZATION, ZONE 8
763552 - ROAD LOCATION MOBILIZATION, ZONE 9
763553 - ROAD LOCATION MOBILIZATION, ZONE 10
763554 - ROAD LOCATION MOBILIZATION, ZONE 11
763555 - ROAD LOCATION MOBILIZATION, ZONE 12
763556 - ROAD LOCATION MOBILIZATION, ZONE 13
763557 - ROAD LOCATION MOBILIZATION, ZONE 14
763558 - ROAD LOCATION MOBILIZATION, ZONE 15
763559 - ROAD LOCATION MOBILIZATION, ZONE 16
763560 - ROAD LOCATION MOBILIZATION, ZONE 17
763561 - ROAD LOCATION MOBILIZATION, ZONE 18
763562 - ROAD LOCATION MOBILIZATION, ZONE 19

Description:

This Pay Item consists of compensating the contractor for each re-mobilization of all equipment and accessories between work locations.

Method of Measurement:

A. The Department will measure the quantity of 763566 & 763557 in EACH.

Basis of Payment:

A. The number of Road Location Mobilizations shall be paid at the contract unit price per EACH. Price and payment shall constitute full compensation for:

1. material
2. labor
3. equipment
4. tools
5. incidentals required to complete the work
6. each move into a mobilization zone, which shall cover:
 - i. all locations within that mobilization zone
 - ii. all work orders issued within that zone

B. A separate mobilization fee **will not** be paid for each individual location

C. No mobilization fee will be paid if a new work order is issued while work on a previous work order is ongoing in that zone

D. This item is only payable for work related to patching and associated material removal operations

1. Mobilization for all other work shall be incidental to their respective pay items

E. The Department will pay for:

1. A separate mobilization fee **only** if the Contractor is directed by the Department to move from the mobilization zone in which he is presently working, or inclement weather causes a substantial delay in work
 - i. A substantial delay due to inclement weather shall be defined as fourteen or more calendar days
 - ii. Payment of any mobilization fees shall be agreed upon between the contractor and the Department, in writing, prior to commencement of work

11/15/21

SAMPLE AFFIDAVIT OF CRAFT TRAINING COMPLIANCE

(Actual form for signature will be provided to the awarded contractor)

AFFIDAVIT OF CRAFT TRAINING COMPLIANCE

We, the contractor, hereby certify that we and all applicable subcontractors will abide by the contractor and subcontractor craft training requirements outlined below for the duration of the contract. Craft training is defined as "an apprenticeship program approved by and registered with any State apprenticeship agency or the United States Department of Labor."¹ A list of crafts for which there are approved and registered training programs is maintained by the Delaware Department of Labor and can be found at <https://det.delawareworks.com/documents/Apprenticeship/Apprenticeship%20Occupations.pdf?20190215>. Prime Contractors are reminded they commit that all subcontractors will abide by the craft training requirements, and include the requirement in their subcontracts.

In accordance with Title 29, Chapter 69, Section 6962(d)(13) of the Delaware Code, contractors and subcontractors must provide craft training for journeyman and apprentice levels if all of the following apply:

- A. A project meets the prevailing wage requirement under Title 29, Chapter 69, Section 6960 of the Delaware Code.
- B. The contractor employs 10 or more total employees.
- C. The project is not a federal highway project

Failure to provide required craft training on the project may subject the successful contractor and/or subcontractor(s) to penalties as outlined in Title 29, Chapter 69, Section 6962(d)(13) of the Delaware Code.

Craft(s)

Contractor Name:

Contractor Address:

Contractor/Subcontractor Program

Registration Number

On this line also indicate whether DE, Other State (specify) or US Registration Number

Authorized Representative (type or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED.

¹ Title 29, Chapter 69, Section 6902(7) of the Delaware Code.



Proposal ID: T202206004

Project Description: OPEN END, ROADWAY FOG SEALING, SOUTH, FY23-FY24

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
301003	GABC	TON	200
401500	FOG SEAL	GAL	400000
763000	INITIAL EXPENSE/DE-MOBILIZATION	LS	1
763556	ROAD LOCATION MOBILIZATION, ZONE 13	EACH	4
763557	ROAD LOCATION MOBILIZATION, ZONE 14	EACH	4
801000	MAINTENANCE OF TRAFFIC	LS	1
803001	PROVIDE AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	EADY	200
805001	PLASTIC TRAFFIC CONTROL DRUMS	EADY	2000
808002	PROVIDE AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	EADY	200
810001	TEMPORARY WARNING SIGNS AND PLAQUES	EADY	12000
811003	FLAGGER, SUSSEX COUNTY	HOUR	12000
811015	FLAGGER, SUSSEX COUNTY, OVERTIME	HOUR	1000
813001	TEMPORARY BARRICADES, TYPE III	LFDY	1000
817002	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLASTIC	SF	10000
817003	TEMPORARY MARKINGS, PAINT, 4"	LF	1000000
817004	TEMPORARY MARKINGS, PAINT, SYMBOL/LEGEND	SF	10000
817015	PREFORMED RETROREFLECTIVE THERMOPLASTIC MARKINGS, BIKE SYMBOL	EACH	50

Page: 1 of 2

This page is for information only. Do not use this page to submit a Bid.

Delaware Department of Transportation
Quantity Sheet Summary

Proposal ID: T202206004

Project Description: OPEN END, ROADWAY FOG SEALING, SOUTH, FY23-FY24

NOT TO BE USED FOR BIDDING

Item Number	Description	Unit	Quantity
817031	REMOVAL OF PAVEMENT STRIPING	SF	10000
817042	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 6"	LF	1000000
817047	PAINTING OF WHITE OR YELLOW, 6" LINE	LF	500000
908001	TOPSOIL	TON	200
908014	PERMANENT GRASS SEEDING, DRY GROUND	SY	1000