

FURNISHING OF ASPHALT MATERIALS**SUPPLEMENTARY SPECIFICATIONS****INSTRUCTIONS TO BIDDERS**

The work performed under this Contract shall comply strictly with all the requirements of the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction for 2019, except as amended, modified or supplemented herein and which Specifications are made part of these Supplementary Specifications. The New Jersey Department of Transportation Standard Construction Details shall govern except insofar as same are modified or changed in detail drawings prepared especially for this particular Project.

MINIMUM WAGE RATES

The minimum wage rates for labor employed on this Contract shall be as specified in the "Prevailing Wage Rate Determination" of the New Jersey Department of Labor which is in effect on the date the Project is awarded.

The Contractor is put on notice that he must pay workmen the prevailing wage rate promulgated by the New Jersey Department of Labor for this Project, copies of which are on file in the Ocean County Engineer's Office and which will be updated to the date of award and will be made a part of this Contract, pursuant to Chapter 150, Laws of 1963 (N.J.S.A.34:11:-56.25 et seq.) as amended by Chapter 64 of the Laws of 1974.

In the event it is found that any workman employed by the Contractor or any Subcontractor covered by the Contract, has been paid a rate of wages less than the prevailing wage required to be paid by the Contract the County may terminate the Contractor's or Subcontractor's right to proceed with the work, or such part of the work as to which there has been a failure to pay required wages and to prosecute the work to completion or otherwise. The Contractor and his Sureties shall be liable to the County for any excess costs occasioned thereby.

SECTION 101 - GENERAL INFORMATION**101.01 Introduction.**

The following is added to this Subsection of the Standard Specifications:

Whenever any Section, Subsection, Subpart or Subheading is amended by such terms as changed to, deleted or added, it is construed to mean that it amends that Section, Subsection, Subpart or Subheading of the 2019 Standard Specifications.

Whenever any reference to page number is made, it is construed to refer to the 2019 Standard Specifications.

101.03 Terms.

All references to "Department" or "State" shall be interpreted to mean "County". All references to "Engineer", or "R.E." shall be interpreted to mean "County Engineer".

The following terms and their meanings are added to this Subsection of the Standard Specifications:

County business day, a calendar day, exclusive of Saturdays, Sundays, State recognized legal holidays, and such other holidays or County office closings as declared by the Board of Chosen Freeholders.

SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS**102.07 Preparation of the Bid.**

The following is added:

All figures entered in the "Unit Price" and "Total Price" columns shall be in ink or typed.

102.10 Submission of Bids

The first paragraph of the Subsection of the Standard Specifications is hereby deleted.

The second paragraph of the Subsection of the Standard Specification is amended to read as follows:

Enclosed in the sealed envelope with the Proposal shall be submitted the following documents:

- A Non-Collusion Affidavit on a form provided by the County properly filled out, signed and notarized.
- An Ownership Certificate in accordance with the following paragraph.

Every corporation and/or partnership submitting a bid, shall accompanying said bid, submit a statement setting forth the names and addresses of all stockholders in the corporation, or partners in the partnership, who own 10% or more of its stock, of any class, or of all individual partners in the partnership who own a 10% or greater interest therein, as the case may be. If one or more such stockholder, or partner is itself a corporation, or partnership, the stockholders holding 10% or more of that corporation's stock, or the individual partners owning 10% or greater interest in that partnership, as the case may be, shall also be listed. This disclosure shall be continued until the names and addresses of every no corporate stockholder, and individual partner, exceeding the 10% ownership criteria established by this Notice, shall have been listed.

The third paragraph of the Subsection of the Standard Specifications is hereby deleted.

102.15 Disqualification of Bidders.

The following is added to this Subsection of the Standard Specifications:

16. If the Proposal is not accompanied by an acceptable Ownership Certificate as specified in Subsection 102.10 of these Supplementary Specifications.

SECTION 103 - AWARD AND EXECUTION OF CONTRACT

103.01 Award of Contract.

The first paragraph of this Subsection of the Standard Specifications is changed to read as follows:

The Award of Contract, if it be awarded, will be to the lowest responsible bidders whose Proposals conform in all respects to the requirements set forth in the Contract Documents. Award will be made on a line item basis, and the County reserves the right to award multiple contracts. The County will award the Contract or reject all bids within 60 days after the bids are received. When the County cannot make an unconditional award, this time limit may be extended by mutual agreement for one (1) month interval.

The contract will be in effect for one (1) year from date of award or until delivery is complete, unless otherwise stated. The County reserves the right to extend the term of the contract pursuant to N.J.S.A. 40A:11-15.

SECTION 103 - AWARD AND EXECUTION OF CONTRACT (Cont'd)

If the governing body so desires, it may award a Contract on any one item at the lowest price bid or on the lump sum basis providing the work is so indicated in the Proposal. The foregoing sentence does not apply in the case of materials bid on a unit price basis F.O.B. Plant, Quarry or Dock. Material bid on a "picked-up" basis shall be awarded on F.O.B. unit price plus added costs and conditions as follows:

- (A) Price per ton as stated in the bid
- (B) Hauling costs to the County as determined by:

- 1) Distance computed at the round trip rate of \$0.82 per ton per mile round trip for each mile over the route selected from the point of pickup of the materials as stated in the bid to the job site of their intended use.

In order to ensure the County of Ocean the availability of bituminous asphaltic materials at the lowest possible cost to the public, multiple awards will be made. Before any purchase is authorized, the Road Department shall determine the lowest cost to the County, taking into consideration all awards and additional mileage charges from all asphalt plants to the job site, in accordance with the following sample:

	<u>ABC COMPANY</u>	<u>DEF PAVING</u>	<u>GHI ASPHALT</u>
Bid price per ton	\$26.75	\$28.25	\$30.05
Distance site to Plant to site	126	22	58
X 0.82	<u>\$103.32</u>	<u>\$18.04</u>	<u>\$47.56</u>
Total	\$130.07	\$46.29 (use)	\$77.61

In calculating the distance from the job site to the vendor's plant and back to the job site, the County will employ the most direct route, including the use of the Garden State Parkway, subject to traffic conditions.

For any given purchase authorization the vendor is required to deliver the bituminous material to the Road Department trucks at a rate of at least 200 tons per hour. Failure of the vendor to meet this delivery rate will result in diversion of the purchase to the next most eligible vendor.

SECTION 104 - SCOPE OF WORK

104.01 Intent.

The following is added to this Subsection of the Standard Specifications:

The material and work herein designated is to be supplied for a period of one (1) year from date of award or until Delivery is complete, unless an agreement is entered into by the contracting parties to continue the Contract in force until other contracts are entered into.

SECTION 105 - CONTROL OF WORK105.04 Plans and Specifications.

All references to copies of the Standard Specifications within this Subsection of the Standard Specifications are hereby deleted.

Copies of the Standard Specifications may be obtained from the New Jersey Department of Transportation.

SECTION 108 - PROSECUTION AND COMPLETION108.15 Termination of Contract.

The following is added after the first paragraph of this Subsection of the Standard Specifications:

The County also reserves the right to terminate the Contract or any portion thereof, at any time, upon a determination by the County Engineer, in his sole discretion, that such termination is in the best interest of the County.

SECTION 160-PRICE ADJUSTMENTS160.03.01 Fuel Price Adjustment

This subsection is deleted and there will be no fuel price adjustment included in this contract.

160.03.02 Asphalt Price Adjustment

Note 1 of the third paragraph is changed to:

1. The Department will determine the weight of asphalt binder for price adjustment by multiplying the percentage of new asphalt binder in the approved job mix formula by the weight of the item containing asphalt binder. If a Hot Mix Asphalt item has a payment unit other than ton, the Department will apply an appropriate conversion factor to determine the number of tons used.

The following is added to this Subsection of the Standard Specifications:

For quantities of hot mix asphalt below 1,000 tons, there will not be any asphalt price adjustment if the total hot mix asphalt used on the project remains under 1,000 tons.

For quantities of hot mix asphalt below 1,000 tons which, during construction, it is necessary to exceed 1,000 tons, an asphalt price adjustment will be applied to only that amount over 1,000 tons.

For projects with original contract bid quantities of hot mix asphalt over 1,000 tons, an asphalt price adjustment will be applied to the total amount of asphalt used on the job.

106.04 Measurement and Payment

If market conditions are such where an Asphalt Price Adjustment is necessary, payment will be made by Purchase Order.

SECTION 401 - HOT MIX ASPHALT (HMA) COURSES

401.01 Description.

The following is added to this Subsection of the Standard Specifications:

This work shall consist of the Furnishing of Hot Mix Asphalt 19 M64 Base Course; Hot Mix Asphalt 12.5 M64 Surface Course; Hot Mix Asphalt 9.5 M64 Surface Course; Hot Mix Asphalt 4.75 M64 Surface Course; Open Graded Friction Course; and High Performance Patch, UPM Permanent Pavement Repair Material as manufactured by Unique Paving Materials, or Approved Equal which shall conform to Section 902 of the Standard Specifications.

401.02.01 Materials.

The following is added to the materials listed in this Subsection of the Standard Specifications:

High Performance Patch.....902.16

401.04 Measurement and Payment

The following is added:

Asphalt price adjustments will not be made for High Performance Patch.

The following is added to the item listing in this Subsection of the Standard Specifications:

<u>Pay Item</u>	<u>Pay Unit</u>
Hot Mix Asphalt 19M64 Base Course	Ton
Hot Mix Asphalt 12.5 M64 Surface Course	Ton
Hot Mix Asphalt 9.5 M64 Surface Course	Ton
Hot Mix Asphalt 4.75 M64 Surface Course	Ton
High Performance Patch	Ton
Open Graded Friction Course	Ton

SECTION 901 - AGGREGATES

901.03.01 Broken Stone.

The following is added to this subsection:

Broken Stone used for hot mix asphalt surface courses shall contain no carbonate rock.

SECTION 902 - ASPHALT

902.02.02 Composition of Mixtures.

The first sentence of the fourth paragraph of this Subsection of the Standard Specifications is amended to read as follows:

The composition of the mixture for HMA surface course is coarse aggregate, fine aggregate, and asphalt binder, and may also include mineral filler and WMA additive.

The fifth paragraph of this Subsection of the Standard Specifications is amended to read as follows:

The composition of the mixture for HMA base or intermediate course is coarse aggregate, fine aggregate, and asphalt binder, and may also include mineral filler, WMA additive and up to 25 percent of recycled materials. For controlled asphalt foaming system WMA, the Department may require anti-stripping additive. The 25 percent of recycled materials may consist of a combination of RAP, CRCG, Ground Bituminous Shingle Material (GBSM), and RPCSA, with the individual limits listed in Table 902.02.02-1.

902.02.03 Mix Design.

The following is added to this subsection:

Unless otherwise approved by the engineer, only one source of supply for hot mix asphalt surface course may be used on the project.

The following is added to this Section:

SECTION 902 - ASPHALT

*****NOTE*****
**THE FOLLOWING SUBSECTION 902.02.04A AND TABLE 902-2A
MAY BE USED AS AN ALTERNATE TO THE SAMPLING AND
TESTING PROVISIONS LISTED IN SUBSECTION 902.02.04 TO
DETERMINE CONFORMANCE TO THE JOB MIX FORMULA**

902.02.04A Sampling and Testing (Alternate).

Any independent testing agency and/or laboratory performing the services necessary for sampling, testing and/or analysis by this alternate method shall have their procedures and equipment inspected at least every two years by the AASHTO Materials Reference Laboratory of the National Bureau of Standards. The two year inspection may be modified by the AASHTO Materials Reference Laboratory according to their tour schedules. Copies of the inspection reports shall be made available to the engineer upon request.

Along with the test results submitted to the engineer, the laboratory shall also submit the testing worksheets showing the test methods used, including the calculations. All results will be compared to the Job Mix Formula for the project. Adjustment calculations will be submitted to the engineer.

The technician who performs the acceptance testing for the testing agency and/or laboratory shall be certified by the Society of Asphalt Technologists of New Jersey, Inc. as an Asphalt Technologist.

All testing agencies and/or laboratories must be in possession of a Certificate of Accreditation from the AASHTO Materials Reference Laboratory in order to provide the required services for sampling, testing and/or analysis by this alternate method. A copy of a current Certificate of Accreditation shall be for, at least, the following test methods:

AASHTO T30 - Mechanical Analysis of Extracted Aggregate.

AASHTO T164 - Quantitative Extraction of Bitumen from Bituminous Paving Mixtures.

AASHTO T166 - Bulk Specific Gravity of Compacted Bituminous Mixtures.

AASHTO T209 - Maximum Specific Gravity of Bituminous.

(D) Acceptance Testing and Requirements:

Conformance to Job Mix Formula shall be determined on the basis of the average of five 8-inch diameter drilled cores taken from random locations in a lot. A lot should be a maximum of 10,000 square yards in area and will apply to all projects whether the project payment quantities for hot mix asphalt surface courses or hot mix asphalt base course are measured on a square yard or ton basis.

When a drill fails to procure a whole core, the drill shall be moved a distance of not more than 5 feet and an alternate core obtained. When a project involves the improvement of several individual streets, or several sections of the same street, the lot shall be determined by the area of each street and if less than the required lot area, the next street or section paved shall be added to complete the approximate area of the lot. All lots shall be approximately equal in size. The number of lots for the project shall be based on the next higher whole number derived by dividing the total pavement square yardage by 10,000.

Where more than one Job Mix Formula is used for a mixture, the contractor shall supply the engineer with a record of the location of mixture placement on the project by Job Mix Formula. This shall be supplied to the engineer daily.

A minimum of 5 cores shall be taken from the hot mix asphalt surface courses or hot mix asphalt base course from each project.

The average of the test results for the five samples of a lot shall conform to the Job Mix Formula within the applicable tolerances of Table 902-2A. Payment for any lot which does not comply with these requirements shall be reduced in accordance with Table 902-6A. The engineer may order removal of any lot subject to the maximum reduction. Reductions for non-conformance of range and stability requirements shall not apply if this drilled core alternate method is used to determine conformance to Job Mix Formula.

Table 902-2 is replaced by the following when the Alternate Subsection 902.02.04A method of sampling and testing is used.

Table 902-2A Tolerance from Job Mix Formula for Average of Five Samples

Sieve Size All Plants	Tolerance Percentage (Plus or Minus)			
	19M64	12.5M64	9.5M64	4.75M64
No. 8		5.0	5.0	5.0
No. 200	1.6	1.6	1.6	1.6
Asphalt	0.55	0.55	0.55	0.55

Table 902-3A Tolerances from Job Mix Formula for Average of N Samples from a Short Lot

Gradation Mix No.		19M64	12.5M64	9.5M64
Number of Samples	Sieve Size All Plants	Tolerance Percentage (Plus or Minus)		
4	No. 8	5.0	4.5	4.5
4	No. 200	1.6	1.6	1.6
HMA (Drum Mix Plants)		0.50	0.50	0.50
HMA (Fully Automated Batch Plants)		0.15	0.15	0.15
3	No. 8	6.0	5.0	5.0
3	No. 200	1.8	1.8	1.8
HMA (Drum Mix Plants)		0.60	0.60	0.60
HMA (Fully Automated Batch Plants)		0.20	0.20	0.20
2	No. 8	7.0	6.5	6.5
2	No. 200	2.2	2.2	2.2
HMA (Drum Mix Plants)		0.70	0.70	0.70
HMA (Fully Automated Batch Plants)		0.25	0.25	0.25

SECTION 902 - ASPHALT (Cont'd)

Table 902-4A Tolerances for Range of Five Samples or Less

Gradation Mix No.		19M64	12.5M64	9.5M64
Sieve Size-All Plants		Tolerance Percentage		
No. 8		16.0	13.0	13.0
No. 200	4.8	4.8	4.8	4.8
HMA (Drum Mix Plants)		1.5	1.5	1.5
HMA (Fully Automated Batch Plants)		0.4	0.4	0.4

For any one characteristic, the range is the absolute difference between the smallest and largest value in the lot.

Table 902-6A Reduction per Lot Due to Nonconformance to Job Mix Formula and Range in the Characteristics of Asphalt Content or Aggregate Passing No. 8 or No. 200 Sieve. (See Note 1)

Deviation of average of five samples or less From a lot beyond applicable tolerances In Tables 902-2A and 902-3A above. (Percent of tolerance in Table 902-2A Above for the applicable type plant)	Reduction per Lot
1 to 50.....	2%
51 to 100.....	5%
Over 100.....	10%

Deviation of sample range beyond applicable Tolerance in Table 902-4A above. (Percent of tolerance in Table 902-4A Above for the applicable type plant)	Reduction per Lot
Greater than 0.....	5%

Note 1: Where more than one reduction due to nonconformance to job mix formula is applicable to a lot, only The greatest single reduction will be used.

The following is added to Section 902:

902.16 High Performance Patch

A. General.

The High Performance Patch shall be the UPM Permanent Pavement Repair Material as manufactured by Unique Paving Materials or an approved equal.

These bituminous patching mixes are designed in various seasonal grades for use when the outside ambient temperature is in the range of -15°F (-26°C) to 100°F (38°C). Each grade shall be manufactured specifically to accommodate anticipated climatic conditions. These Grades shall consist of Winter Mix, Spring/Fall Mix and Summer Mix.

The bituminous patching mix shall consist of asphalt and aggregate within prescribed quantities to make a mixture, which will provide satisfactory coating, workability and adhesion characteristics. The patching mixture will be available in grades to function as a patch during cold and damp or during hot weather in bituminous and concrete pavement. The asphalt blend and aggregate shall conform to the following requirements.

No recycled concrete aggregate or reclaimed asphalt pavement (RAP) shall be permitted in the bituminous patching mix. Aggregate shall be clean and virgin.

The asphalt blend and aggregate shall conform to the following requirements:

B. Liquid Asphalt:

No reclaimed asphalt pavement (RAP) shall be allowed in the liquid asphalt blend.

The bituminous material blend shall meet the following requirements:

Kinematic Viscosity @ 140°F (60°C)	ASTM D 2170	350 to 4000 cent (mm ² /s)
Flash Point, Tag Open Cup	ASTM D 1310	200°F (93°C) minimum
Percentage of Water	ASTM D 95	Less Than 0.2%
Distillation to 680°F (360°C)	ASTM D 402	See Values Below

Temperature	Volume % Total Distillate		Volume % Original Sample	
	Minimum/Maximum		Minimum/Maximum	
To 437°F (225°C)	0	0	0	0
To 500°F (260°C)	0	0.5	0	0
To 600°F (316°C)	10	65	0	18
Residue from distillation to 680°F (360°C) % Volume by Difference			73	95

TESTS ON RESIDUE FROM DISTILLATION

Absolute viscosity @ 140°F (60°C)	ASTM D 2171	75 to 425 Poise (10 ⁻¹ Pa x s)
Penetration, Modified with Cone	ASTM D 5*	180 minimum
Ductility, 39°F (4°C), 1 cm/minute	ASTM D 113	100 minimum
Solubility in Trichloroethylene	ASTM D 2042	99.0% minimum

* Make this test in accordance with ASTM Method D 5, except utilize a penetration cone in place of the standard penetration needle. The cone shall conform to the requirements given in ASTM Method D 217, except that the interior construction may be modified as one desires. The total moving weight of the cone and attachments must be 150 ± 0.1 grams. Also the level of water in the transfer dish shall be lowered to less than the height of the sample and decant water from the top of the sample before transferring from the bath to the penetrometer.

SECTION 902 - ASPHALT (Cont'd)

C. Aggregate

The aggregate shall be clean and virgin crushed stone and shall meet the following requirements:

SIEVE ANALYSIS

ASTM C 136

Sieve	#9 ASTM D 448 Percent Passing	COMBINATION #9 & #89 Percent Passing	#89 ASTM D 448 Percent Passing
1/2" (12.5 mm)	-	100	100
3/8" (9.5 mm)	100	90 - 100	90 - 100
# 4 (4.75 mm)	85 - 100	55 - 85	20 - 55
# 8 (2.36 mm)	10 - 40	5 - 40	5 - 30
# 16 (1.18 mm)	0 - 10	0 - 10	0 - 10
# 50 (0.30 mm)	0 - 5	0 - 5	0 - 5

C. Aggregate (Cont'd)

Soundness Loss (Sodium, 5 cycles)	ASTM C 88	12.0 maximum
Los Angeles Abrasion Loss	ASTM C 131	45.0% maximum
Specific Gravity	ASTM C 127	2.45-2.85
Absorption	& 128	3.0% maximum
Minus 200 Sieve (0.075mm) Wash Loss	ASTM C 117	2.5% maximum

D. Preparation of Mixture:

The producer will provide a paved stockpile pad or an established material base of the same product as bid in the specifications. The pad or material base shall be solely committed to this product during the contract period.

The asphalt shall be heated to a temperature between 185° - 265°F (85° - 130° C).

The mixture shall consist of an aggregate and asphalt combined in a pug mill in the following proportions:

Asphalt	5.0 to 6.5%
Aggregate	95.0 to 93.5%

Under any of the above conditions the minimum amount of heat necessary to obtain coating or facilitate the operation of the plant may be utilized not to exceed under any circumstance 175°F (80°C).

When producing in a batch plant, wet mix time in the pug mill should be typically in the range of 30 to 45 seconds or until the aggregate is uniformly coated (greater than 95%) as outlined in ASTM D 2489.

E. Mixture:

The mix shall meet the following requirements:

Coating	ASTM D 2489	Greater than 95%
Stripping in distilled water ¹	Visual	Less than 5%
Extraction of Bituminous Material	ASTM D 2172	3.5 min. 9.0% max.
Sieve Analysis of Extracted Aggregate	ASTM C 136	See Aggregate Specification
Minus 200 (0.075mm) Of Extracted Aggregate ASTM C 117 &		
	ASTM C 136	4.0% Maximum ²
Shelf Life of 100 Tons or more	One-Year Minimum	

Note 1: Place approximately 100 grams in a 250 ml glass beaker and cover with distilled water for 24 hours before observation.

Note 2: This value shall not be confused with the 2.5% maximum allowed for the Minus 200 (0.075mm) Wash Loss on the raw aggregate before the production of the high performance patch. That value is necessary to minimize the effect of the plant when producing the finished high performance patch.

F. Performance Guarantee:

The supplier of the material shall guarantee the performance of the mix to meet the following requirements:

- A. The material shall remain workable to accommodate climatic conditions, in an uncovered stockpile of 100 tons or more, if applicable, for a period of not less than 12 months
- B. Smaller quantities must be reasonably covered.
- C. Repaired potholes shall not show any significant signs of shoving, rutting, tracking, kick-up or ravel-out within a period of 12 months from the time of repair.

In the event the material furnished does not meet all of the above requirements, the supplier shall replace the unsatisfactory with acceptable material. The acceptable material shall be provided and delivered at no extra charge to the Department.