

ASPHALT SPECIFICATIONS (CONTINUED):

15. QUALITY CONTROL

ON THIS PROJECT, THE CONTRACTOR SHALL PROVIDE AN ASPHALT CONTENT NUCLEAR GAUGE (AC GAUGE) FOR USE IN CONTROLLING THE PRODUCTION OF ALL ASPHALT CONCRETE MIXES. THIS AC GAUGE SHALL BE A TROXLER 3241-C WITH A 100MCI +/- 10 PERCENT AM-241: BE NEUTRON SOURCE OR AN EQUIVALENT GAUGE WITH A 100MCI +/- 10 PERCENT SOURCE AND THE CAPABILITY OF TRANSFERRING ITS CALIBRATION DATA IN ACCORDANCE WITH SUPPLEMENT 1043 TO A TROXLER GAUGE MEETING THE ABOVE REQUIREMENTS. THE AC GAUGE SHALL BE CALIBRATED IN ACCORDANCE WITH SUPPLEMENT 1043 BY AN EMPLOYEE OF THE CONTRACTOR WITH A LEVEL 1 RATING (SUPPLEMENT 1041). THE QUALITY ASSURANCE REPRESENTATIVE SHALL BE PRESENT WHEN THE AC GAUGE IS CALIBRATED.

THE CONTRACTOR'S U.S. NUCLEAR REGULATORY COMMISSION MATERIALS LICENSE AND RADIATION SAFETY PROGRAM SHALL ALLOW THE USE OF THE CONTRACTOR'S AC GAUGE BY TESTING LABORATORY PERSONNEL AT THE CONTRACTOR'S PLANT SITE.

16. ASPHALT JOB MIX FORMULA REQUIREMENTS

a. THREE (3) COPIES OF THE FOLLOWING SHALL BE SUBMITTED TO THE DEPARTMENT'S QUALITY ASSURANCE REPRESENTATIVE A MINIMUM OF TWO (2) WEEKS PRIOR TO PRODUCTION:

1. PROPOSED JOB MIX FORMULAS, INCLUDING EFFECTIVE CEMENT CONTENT AND ABSORPTION.

2. PLANT OPERATIONS QUALITY CONTROL PLAN (POQCP), SUPPLEMENTAL 1056.

3. CURRENT PLANT CALIBRATION.

4. COMPUTER PRINTOUT IN ACCORDANCE WITH 402.07.

5. AGGREGATE PRODUCER'S QUALITY CONTROL PLAN (QCP), SUPPLEMENTAL 1069.

6. AGGREGATE PRODUCER'S CURRENT PRODUCTION TESTING (INCLUDING QUALITY DATA).

SHOULD ANY OF THE ABOVE ITEMS NOT BE APPROVED, NOTIFICATION WILL BE GIVEN TO THE CONTRACTOR AND HE WILL HAVE TWO (2) WEEKS TO RESUBMIT; ALLOWING TWO (2) WEEKS AFTER RESUBMITTING FOR APPROVAL. NO MIX SHALL BE PRODUCED UNTIL APPROVAL HAS BEEN GRANTED.

b. ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22, AS PER PLAN

IN DEVELOPING THE JOB MIX FORMULA(S), THE FOLLOWING SPECIAL TECHNICAL PROVISIONS ARE MADE. EXCEPT AS MODIFIED HEREIN, THE MIXES SHALL MEET ALL THE OTHER REQUIREMENTS OF 441.02-1.

1. THE USE OF RECLAIMED MATERIALS IN THIS ITEM ARE PROHIBITED.
2. THE MIX SHALL BE A BLEND OF LIMESTONE COARSE AND NATURAL SAND.
3. THE ASPHALT CEMENT CONTENT SHALL BE A MINIMUM OF 6.8% BY TOTAL MIX WEIGHT.
4. A MAXIMUM OF 10% MANUFACTURED SAND MAY BE USED.
5. THE PERCENTAGE PASSING THE NO. 4 SIEVE SHALL BE 60-65.
6. THE PERCENTAGE PASSING THE NO. 8 SIEVE SHALL BE 30-48.

c. ITEM 301, ASPHALT CONCRETE BASE, PG64-22, AS PER PLAN

1. A MAXIMUM OF 30% RECLAIMED MATERIALS MAY BE USED.
2. THE MIX SHALL BE A BLEND OF CRUSHED GRAVEL OR LIMESTONE COARSE AND NATURAL SAND.
3. THE ASPHALT CEMENT CONTENT SHALL BE A MINIMUM OF 5.5% BY TOTAL MIX WEIGHT.
4. THE PERCENTAGE PASSING THE NO. 4 SIEVE SHALL BE 42-52.

d. APPROVAL AND ACCEPTANCE

- a. ALL JOB MIX FORMULAS SHALL BE A F/A RATION (FINE TO ASPHALT RATIO) OF 1.0 OR LESS BY WASH TEST.
- b. THE USE OF MANUFACTURED SAND WITH RECLAIMED MATERIALS IS NOT ALLOWED. A MAXIMUM OF 10% WILL BE ALLOWED IN VIRGIN MIXES.
- c. JMF APPROVALS FOR VOIDS SHALL BE 3.0% TO 3.5%.
- d. FIELD ACCEPTANCE ON VOIDS SHALL BE 2.0% TO 4.0%.
- e. ALL OTHER TESTING ACCEPTED IN ACCORDANCE WITH 448 SPECIFICATIONS.

17. ITEM 644 - PAVEMENT MARKINGS

PRIOR TO THE COMMENCEMENT OF THIS WORK, THE CONTRACTOR SHALL LAYOUT THE LOCATIONS OF ALL 644 PAVEMENT MARKING ITEMS. THE ENGINEER IS TO APPROVE LAID OUT LOCATIONS PRIOR TO BEING PERFORMED. NO PAYMENT WILL BE MADE UNLESS PRIOR APPROVED BY THE ENGINEER.

19. ITEM 407 - NON-TRACKING TACK COAT, AS PER PLAN

DESCRIPTION: THIS WORK CONSISTS OF PREPARING AND TREATING A PAVED SURFACE WITH A TRACKLESS TACK ASPHALT EMULSION.

FURNISH MATERIALS ACCORDING TO THE ODOT'S APPROVED LIST. MEET ALL REQUIREMENTS OF ITEM 407-TACK COAT IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS REQUIRED BY THE CONTRACT, EXCEPT AS NOTED BELOW.

SURFACE PREPARATION: PRIOR TO PLACEMENT OF ANY TACK COAT THE EXISTING ASPHALT SURFACE SHALL BE CLEANED AS PER C&MS 407.05. ALL EXISTING DEBRIS, DIRT, MOSS, ETC. SHALL BE COMPLETEY REMOVED TO THE SATISFACTION OF THE ENGINEER TO ALLOW FOR PROPER APPLICATION AND ADHERENCE.

MATERIAL: MEET ALL PROPERTIES OF THE APPROVED MANUFACTURER'S TRACKLESS TACK SPECIFICATION REQUIREMENTS ON FILE WITH THE ODOT'S LABORATORY AT TIME OF PLACEMENT.

ACCEPTANCE AND SAMPLING OF MATERIALS: SUPPLY CERTIFIED TEST DATA TO THE DEPARTMENT'S ENGINEER AND TO DEPARTMENT'S QAR REPRESENTATIVE DEMONSTRATING THE TRACKLESS TACK SUPPLIED WAS TESTED FOR AND MEETS ALL MATERIAL PROPERTIES SHOWN ON THE DEPARTMENT'S APPROVED LIST.

DURING CONSTRUCTION, DEPARTMENT'S QAR REPRESENTATIVE PERSONNEL WILL SAMPLE FROM THE DISTRIBUTOR AND SUPPLY TO THE DISTRICT TEST LAB A MINIMUM OF ONE QUART OF TRACKLESS TACK FOR EVERY 25,000 GALLONS USED ON THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING THE PROPER PLASTIC QUART SAMPLING CONTAINER. CLEARLY MARK ON THE SAMPLE THE MANUFACTURER'S NAME, PROJECT NUMBER, AND THE WORDS "TRACKLESS TACK".

EQUIPMENT: FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR CORRECT DISTRIBUTOR SETTINGS. THOROUGHLY CLEAN ALL EQUIPMENT IF PREVIOUSLY USED MATERIAL CHARGE IS DIFFERENT THAN THE PROPOSED MATERIAL.

APPLICATION OF ASPHALT MATERIAL: UNIFORMLY APPLY THE TRACKLESS TACK WITH A DISTRIBUTOR PER MANUFACTURER'S INSTRUCTIONS. IF TRACKLESS TACK IS STORED FOR AN EXTENDED PERIOD OF TIME, PRIOR TO APPLICATION, AGITATE OR GENTLY CIRCULATE THE MATERIAL.

ENSURE ALL NOZZLES AND SPRAY PATTERNS ARE IDENTICAL TO ONE ANOTHER ALONG THE DISTRIBUTOR SPRAY BAR. PLACE THE ANGLE OF THE NOZZLE AT A 15 TO 30 DEGREE ANGLE TO THE SPRAY BAR AXIS TO MAXIMIZE OVERLAP, OR AS RECOMMENDED BY THE NOZZLE MANUFACTURER. CONTACT THE MANUFACTURER'S REPRESENTATIVE FOR REQUIRED SPRAY NOZZLE SIZE AND DISTRIBUTOR AND NOZZLE SETTINGS.

ITEM 407 - NON-TRACKING TACK COAT, AS PER PLAN (CONTINUED)

THE APPLICATION RATE FOR ITEM 407, NON-TRACKING TACK COAT, AS PER PLAN SHALL BE IN CONFORMANCE WITH C&MS TABLE 407.06-1. THE APPLICATION RATE SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. A COMPLETE PAVEMENT SURFACE COVERAGE SHALL BE REQUIRED.

DO NOT DILUTE TRACKLESS TACK. RECOMMENDED APPLICATION TEMPERATURE IS 160 DEGREES F TO 180 DEGREES F. DO NOT EXCEED 180 DEGREES F. THE ENGINEER WILL APPROVE THE QUANTITY, RATE OF APPLICATION, TEMPERATURE, DISTRIBUTOR SETTINGS, AND AREAS TO BE TREATED BEFORE APPLICATION OF THE TRACKLESS TACK COAT. THE ENGINEER WILL DETERMINE THE ACTUAL APPLICATION IN GALLONS PER SQUARE YARD BY A CHECK ON THE PROJECT.

REMOVAL OF DEBRIS, OVERGROWN VEGETATION AND/OR EXCESS BERM MATERIAL BY SWEEPING OR OTHER APPROVED METHOD SHALL BE REQUIRED PER 407.05 AND BE PAID FOR UNDER ITEM 407, NON-TRACKING TACK COAT, AS PER PLAN AND NO ADDITIONAL PAYMENT WILL BE MADE.

PERFORMANCE OF TRACKLESS TACK: DETERMINE THE TIME TO SET FOR THE MATERIAL TO BECOME TRACKLESS. THE ENGINEER WILL REPORT ANY ISSUES WITH EXCESSIVE TIME TO SET, OR AFTER SET ISSUES WITH STICKINESS, OR PICKUP OF THE TACK TO ODOT'S QAR REPRESENTATIVE AND ODOT'S PROJECT ENGINEER.

IF THE CERTIFIED TEST DATA FAILS TO MEET THE LAB TESTING CRITERIA, OR FIELD SAMPLES FAIL TO MEET THE LAB TEST CRITERIA, OR THE TRACKLESS TACK FAILS TO PERFORM SATISFACTORILY IN THE FIELD, AS NOTED ABOVE, THE CONTRACTOR WILL BE REQUIRED TO REPLACE AND SUPPLY ANOTHER APPROVED TRACKLESS TACK PRODUCT FOR THE REMAINDER OF THE PROJECT AT NO ADDITIONAL COST.

1 Addendum 1 - removed note restricting eligibility to binder price adjustments for Item 441, Asphalt Concrete Surface Course, Type 1, (448), PG64-22, As Per Plan and Item 3001, Asphalt Concrete Base, PG64-22.