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ITEM 448 - SUPERPAVE ASPHALT CONCRETE FOR HIGH TRAFFIC VOLUME

MIX DESIGN (CONTINUED)

DESCRIPTION

441 SHALL APPLY WITH THE FOLLOWING EXCEPTIONS. THIS WORK SHALL CONSIST OF CONSTRUCTING AN ASPHALT CONCRETE PAVEMENT SURFACE, CONSISTING OF AGGREGATE AND PERFORMANCE GRADED BINDER OR MODIFIED BINDER MIXED IN A CENTRAL PLANT AND SPREAD AND COMPACTED ON A PREPARED SURFACE IN ACCORDANCE WITH THESE SPECIFICATIONS AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES AND TYPICAL SECTIONS SHOWN ON THE PLAN OR ESTABLISHED BY THE ENGINEER.

MIX DESIGN

441.02 COMPOSITION SHALL USE THE MOST RECENT ASPHALT INSTITUTE SUPERPAVE MIX DESIGN MANUAL SP-2 FOR DESIGN PROCEDURES AND MIX PROPERTIES EXCEPT AS MODIFIED BELOW. JMF SUBMITTALS SHALL INCLUDE THE STANDARD DEPARTMENT SUMMARY PAGE, ALL PRINTOUTS FROM THE COMPACTOR (ALL GYRATORY POINTS NOT NECESSARY) AND ANALYSIS COVERING THE REQUIRED MIX PROPERTIES. ONE COMPACTED SAMPLE AND LOOSE MIX FOR COMPACTION OF ANOTHER SAMPLE IN ADDITION TO A 2000 GRAM LOOSE SAMPLE SHALL BE SUBMITTED FOR EACH JMF.

FOR 500-5000 AVERAGE DAILY TRUCK TRAFFIC (B&C TRUCKS) NDES=109
FOR >5000 ADTT USE NDES=126

ALL VIRGIN AGGREGATE USED SHALL MEET COARSE AGGREGATE ANGULARITY, SAND EQUIVALENT, AND FLAT AND ELONGATED PARTICLES REQUIREMENTS OF THE MOST RECENT ASPHALT INSTITUTE SP-2 AND BE CLEARLY REPORTED IN THE JMF SUBMITTAL. FINE AGGREGATE ANGULARITY SHALL BE 44. TEST RESULTS SUPPORTING THE ABOVE PROPERTIES SHALL BE INCLUDED IN THE MIX DESIGN. ALL OTHER ODOT AGGREGATE REQUIREMENTS WILL APPLY EXCEPT GRADATION FOR FINE AGGREGATE. AGGREGATE TO BE USED MUST BE SUBMITTED TO THE LABORATORY WITH SUFFICIENT LEAD TIME TO PERFORM TESTING FOR JMF APPROVAL.

CONTROL POINTS PER SP-2 MODIFIED AS FOLLOWS:

19.0MM
2.36MM SIEVE UPPER POINT 40%; 19MM, 85-100%; 37.5MM, 100%

12.5MM
2.36MM SIEVE UPPER POINT 43%; 12.5MM, 95-100%

GRADATIONS MUST GO THRU OR END AT THE NOMINAL MAXIMUM SIEVE.

THE DESIGN CAN PASS THRU THE RESTRICTED ZONE PROVIDED A LOADED WHEEL TEST (LWT) IS PERFORMED ACCORDING TO ODOT PROCEDURE (ON FILE AT LABORATORY), IS SUBMITTED WITH THE MIX DESIGN, RUN DURING INITIAL PRODUCTION AS A QUALITY CONTROL FUNCTION AND PROVIDED NO EXCESS TENDERNESS IS EXHIBITED DURING LAYDOWN. FOR ESTIMATING MIX VOLUME THE BULK DENSITY FROM GYRATORY SPECIMENS AT NDES IS REQUIRED. RESULTS LESS THAN 5.0MM (0.20 IN) AT 46C (115F) ARE CONSIDERED PASSING. ROLLERS KEEPING FAR BACK ON A MIX AT NORMAL COMPACTION TEMPERATURE IS AN INDICATION OF A TENDER, RUT PRONE MIX AND WILL BE JUSTIFICATION FOR REQUIRING A REDESIGN.

SURFACE COURSE BINDER SHALL BE ACCORDING TO ODOT SS 1055. OTHER SHALL BE PG 64-28.

RECYCLED ASPHALT PAVEMENT (RAP) CAN BE USED PER SS 1055 IN SURFACE COURSES OR UP TO 20% IN INTERMEDIATE COURSES PER 441.03. RAP STOCKPILES SHALL BE VISUALLY INSPECTED AND APPROVED BY THE DISTRICT PRIOR TO PRODUCTION. FINAL RAP GRADATION AND ASPHALT CONTENT IS TO BE BASED ON FOUR SEPARATE STOCKPILE (OR ROADWAY FOR CONCURRENT GRINDING) SAMPLES ALL AGREEING WITHIN 0.4% FOR ASPHALT CONTENT AND 5% PASSING THE 4.75MM SIEVE. ALL FOUR TEST RESULTS AND AN AVERAGE SHALL BE REPORTED IN THE JMF.

TABLE 5.2 VMA SHALL BE: 9.5MM - 15 PERCENT VMA MIN.
12.5MM - 14
19.0MM - 13

AASHTO T-283 WITH FREEZE CYCLES AND A TSR OF 80 ARE REQUIRED PER SP-2. RESULTS AND CERTIFIED DATA ON ANTISTRIP TO BE USED MUST BE INCLUDED IN THE JMF SUBMITTAL. TESTING OF MIX AND STORAGE OF ANTISTRIP SHALL BE PER SUPPLEMENTS 1051 AND 1052.

QUALITY CONTROL

441.10 SHALL BE FOLLOWED WITH THE FOLLOWING EXCEPTIONS. A CONTRACTOR'S REPRESENTATIVE HOLDING A LEVEL 2 QUALIFICATION IS REQUIRED TO BE ON THE PROJECT THE FIRST TWO PRODUCTION DAYS. PLANT OPERATION AND QUALITY CONTROL TESTING SHALL CONFORM TO THE CONTRACTOR'S PLANT OPERATION QUALITY CONTROL PROGRAM.

A GYRATORY COMPACTOR MEETING THE REQUIREMENTS OF SUPERPAVE AND VERIFIED BY FHWA OR ODOT IS REQUIRED. IF THE GYRATORY WAS MOVED TO THE PLANT PRIOR TO PRODUCTION IT MUST BE CALIBRATED AND/OR CHECKED AND HAVE RESULTS PRESENTED TO THE DISTRICT. SAMPLES FOR AIR VOIDS SHALL BE CONDITIONED ONE HOUR. WHEN HIGH ABSORPTION AGGREGATE IS USED AND AIR VOIDS ARE CONSISTENTLY MORE THAN 0.5% LOW, TWO HOUR CONDITIONING SHALL BE USED. OTHER USES OF TWO HOUR CONDITIONING IS AT THE DISCRETION OF THE CONTRACTOR BUT SHALL BE REPORTED.

QUALITY CONTROL (CONTINUED)

IF THE DESIGN GRADATION IS IN THE RESTRICTED ZONE, A SAMPLE SUFFICIENT TO COMPACT ONE LWT TEST BEAM MUST BE TAKEN ONCE EACH DAY FOR THE FIRST THREE DAYS AND TESTED ACCORDING TO ODOT PROCEDURE. IF A JMF ADJUSTMENT MOVES INTO THE RESTRICTED ZONE THE LWT TEST SHALL BE PERFORMED AS ABOVE. THE LWT CAN BE IN THE CONTRACTOR'S LEVEL 2 LAB BUT THE SAMPLE BEAM MUST BE COMPACTED THE SAME DAY THE SAMPLE WAS TAKEN, CURED OVERNIGHT AND TESTED THE FOLLOWING DAY. THE TEST RESULT AND BEAM DENSITY MUST BE GIVEN TO THE DET THE DAY OF THE LWT TEST. THE LWT DATA SHALL BE REPORTED ON THE TE 199.

ONCE IN EVERY FIVE HOT MIX PRODUCTION DAYS AN ODOT MONITOR WILL INSTRUCT THE CONTRACTOR TO TAKE A 1 QUART BINDER SAMPLE FROM BETWEEN THE LAST PIPING TEE IN THE LINE AND INLET INTO THE ASPHALT PLANT. TWO SAMPLES WILL BE TAKEN, ONE FOR ODOT, THE OTHER FOR THE CONTRACTOR. THE CONTRACTOR'S SAMPLE SHALL BE TESTED BY AN INDEPENDENT ODOT APPROVED TESTING LAB CAPABLE OF PERFORMING ALL THE TESTS IN THE MOST RECENT AASHTO MPI SPECIFICATION, EXCEPT FOR DIRECT TENSION (TP3), AND OTHER TESTS AS OUTLINED IN ODOT SS 1055. THE INDEPENDENT LAB WILL PERFORM TESTS PER MPI AND SS 1055. TEST RESULTS WILL BE REPORTED DIRECTLY BY THE INDEPENDENT LAB TO ODOT AND THE CONTRACTOR. DATA IS CONSIDERED INFORMATIONAL BUT MAY LEAD TO FURTHER INVESTIGATION.

BASIS OF PAYMENT

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE, WILL BE MADE AT THE CONTRACT PRICE OR AT THE CONTRACT PRICE AS CONCURRENTLY MODIFIED IN 446.05 FOR:

ITEM	UNIT	DESCRIPTION
448	CUBIC METER	ASPHALT CONCRETE SURFACE COURSE, 9.5MM, PG 64-22

ITEM 614 - MAINTAINING TRAFFIC

GENERALLY THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AS TO MAKE THE PROPOSED REPAIR WITH A MINIMUM OF HAZARD, DELAY AND INCONVENIENCE TO THE MOTORISTS USING THE HIGHWAY AFFECTED BY THE WORK DONE UNDER THIS CONTRACT; FURTHERMORE, IN ADDITION TO THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE FOLLOWING SPECIFIC PROVISIONS ARE MANDATORY.

GENERAL NOTES

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