## Project No. 271

## ITEMS 441, 446 AND 448 - ASPHALT CONCRETE MIX DESIGN AND QUALITY CONTROL

On this project, the following requirements shall be added:

 The following JMF Limits shall be used in lieu of the limits established in 441.02 Table A on all Type 1 surface courses with Heavy Traffic Volumes (Type 1H):

Sieve	Type 1H
1"	100
1/2"	85-99
3/8"	70-90
No. 4	45-65
No. 8	27-50
No. 16	17-36
No. 30	12-26
No. 50	8-20
No. 100	5-14
Bitumen	5.0-10.0
F/A Ratio	0.5-1.1

- 2. In 441.02 Table B the VMA for a Type 1H mix shall be 15%.
- 3. In 441.04, the Contractor will be allowed to make an adjustment on the 1/2 inch sieve for Type 1H mixes.
- 4. In 448.05, the 1/2 inch sieve shall be used in acceptance calculations for Type 1H mixes.
- 5. In 448.07, the 1/2 inch sieve shall be included in outlier calculations for Type 1H mixes.

## **401 AND 441 QUALITY CONTROL**

All asphalt concrete produced on January 1, 1992 and thereafter shall be produced in a plant with a computerized Plant System approved by the Laboratory. The device the Computerized Plant System uses to monitor the bitumen content shall be capable of being locked or sealed. After initial calibration of the plant, this monitoring device shall be locked or sealed by a representative of the Laboratory.

For batch plants the following information shall be printed on each weight ticket ( when the batch plant's asphalt concrete is directly loaded into the truck) or on a separate printout for every 16 tons or less of production (when the batch plant's asphalt concrete is loaded into a storage silo):

- a. date
- b. time
- c. pounds of virgin bitumen
- d. pounds of virgin aggregate
- e. pounds of reclaimed pavement measured by a batch scale (if used)
- f. tons/hour of reclaimed pavement measured by a belt scale (if used)
- g. percent total bitumen calculated to the nearest 0.01 percent

For drum mix plants the following information shall be printed every five (5) minutes of production:

- a. date
- b. time
- c. tons/hour of virgin bitumen
- d. tons/hour of virgin aggregate
- e. tons/hour of reclaimed pavement (if used)
- f. moisture content of the virgin aggregate
- g. moisture content of the reclaimed pavement
- h. percent bitumen to the nearest 0.01 percent

All printouts shall be preapproved by the Laboratory and shall be turned over to the DET at the end of the project or the end of the production year.

The Computerized Plant System shall print "SIMULATE" on the ticket or printout whenever the Computerized Plant System is only simulating asphalt concrete production.