PAVEMENT
MANAGEMENT
SYSTEMS

CT
SPS 9A

May 10, 1996
50451110-13.07.9

Dr. Charles Dougan
Director of Research and Materials
Connecticut Department of Transportation
280 West Street
Rocky Hill, Connecticut 06067-3522

RE: REVISED SPS-9A Materials Sampling and Testing Plans

Dear Dr. Dougan:

Forwarded enclosed are revised Materials Sampling and Testing Plans for the SPS-9A project 090900, SR 2, East and Westbound, Colchester, CT.

There are no changes in Figures 1 through 8.

The revisions are essentially to the preparations of the Gyratory Compaction Specimen. The mix design testing results are not included except as a record of the job mix formula during construction. GC specimen for performance testing and materials characterization of the Superpave mix are prepared at 3% and 7% Air Voids.

Some notes on splitting off samples of mix in the field are really suggestions to promote an even treatment of plant mix sample prior to compaction i.e., minimize differences in exposure to heating given the need for sequential compaction.

Tables 2 through 12 are lists of sampling and of tests which need to be carried out on identified materials and specimen.

Tables 13 through 26 are laboratory tracking tables for the Agency Laboratory, the LTPP Contractor Laboratory, and the Superpave Regional Test Center. These tracking tables indicate the sequences of testing to be conducted on each sample or prepared specimen.

These revised materials sampling and testing plans are prepared in accordance with the updated SPS-9A Materials Sampling and Testing Requirements, February, 1996, copies of which were recently distributed. Please discard previous MS & T plans.

415 LAWRENCE BELL DRIVE
UNIT #3
AMHERST, N Y 14221
TEL (716) 632-0804
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Should you have any questions about these plans, please do not hesitate to contact me at (716) 632-0804.

Yours Sincerely,

William A. Phang
Principal Investigator
Pavement Management Systems Limited

WAP/tf

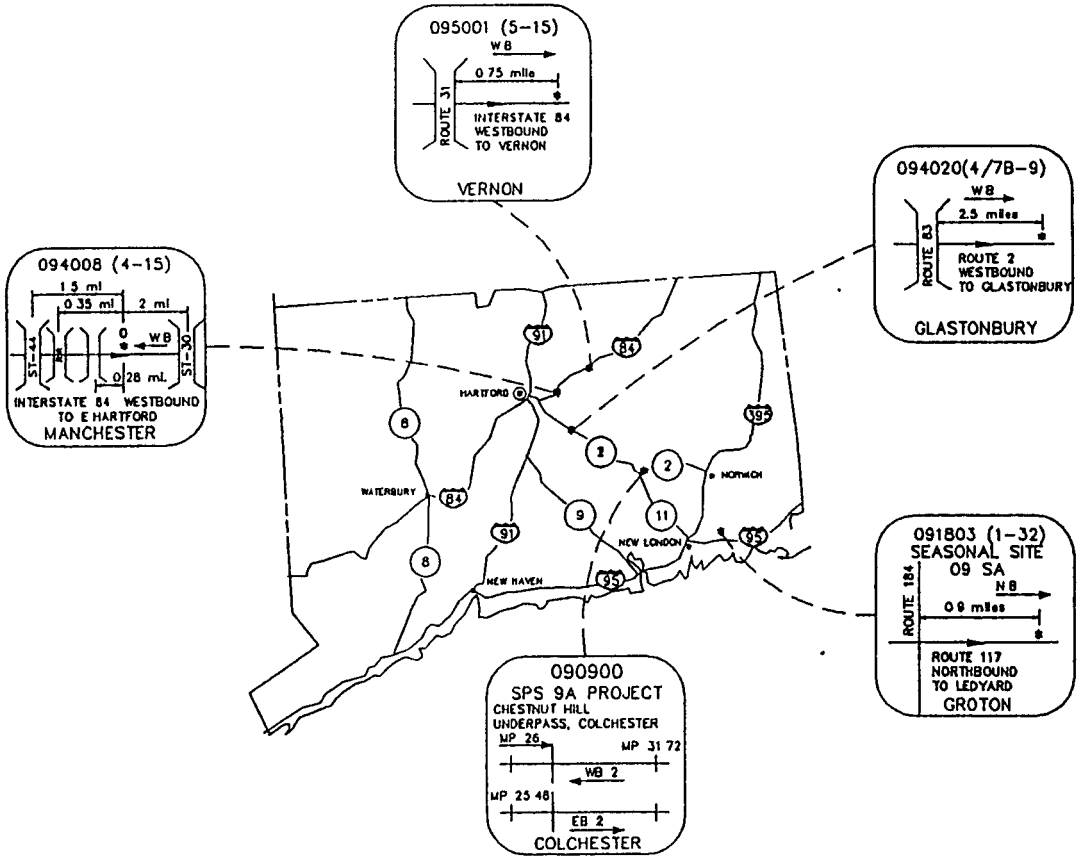
enclosures

C.C. I.J. Pecnik, P.E., RE NARO, w/enclosures
A. Rutka, NARO, w/enclosures
E. Lesswing, NARO, w/enclosures
M. Symons, FHWA-LTPP, w/enclosures
G. Rada, PCS/Law, w/enclosures

shrp

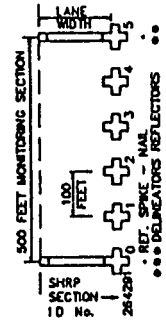
FHWA–LTPP CONNECTICUT TEST SITE LOCATIONS
GPS–SPS PAVEMENT STUDIES

PMS PAVEMENT MANAGEMENT SYSTEMS LIMITED



CAPITAL CITIES
MAJOR CENTRES
INTERSTATE
U S HIGHWAYS
STATE HIGHWAY
AGENCY BORDER

TYPICAL SITE SIGNING & MARKING



SPS 3 CHIPSEAL 36B350

ROAD TEST 264291

CONNECTICUT

SCALE: 1:30

CONN-F1

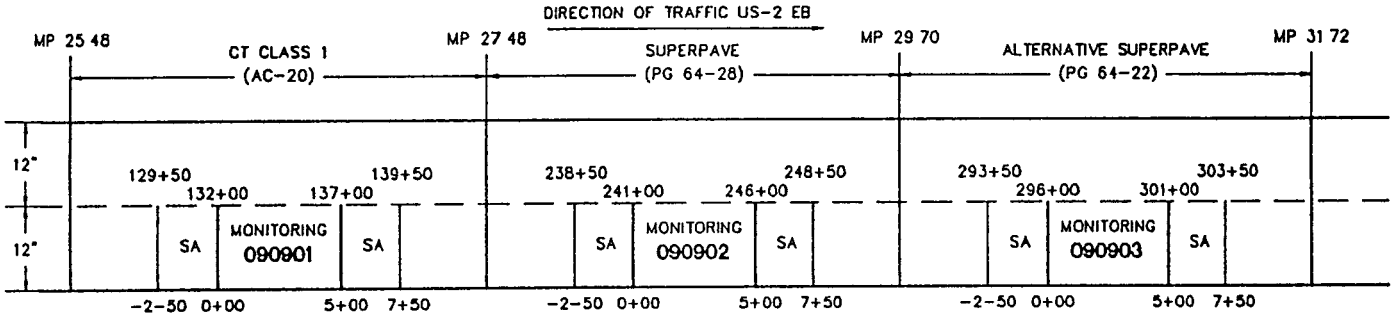
FIGURE 1 SITE LOCATION MAP - SECTION 090900

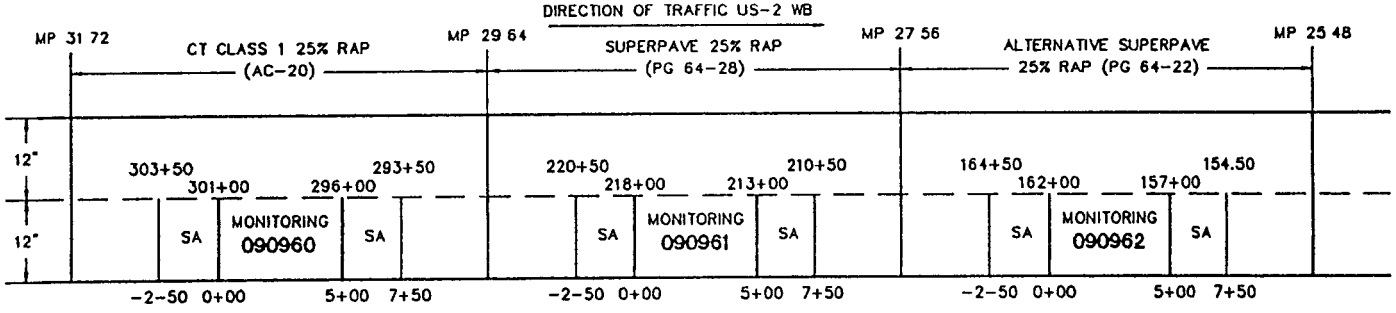
PLOTDATE OCT 10/95

FHWA-LTPP SPS-9A SR2, COLCHESTER,CT. DESIGN SCHEMATIC

VALIDATION OF SHRP ASPHALT SPECIFICATIONS AND MIX DESIGN AND INNOVATIONS IN ASPHALT PAVEMENTS

PAVEMENT MANAGEMENT SYSTEMS LIMITED





LAYER No	LAYER THICKNESS	MATERIAL DESCRIPTION	MATERIAL CODE	LAYER CODE
7	2 1/2"	HMAC CLASS 1 OVERLAY	01	03
6	1"	MILL 2" OF HMAC CLASS 14, REPLACE WITH A LEVELLING COURSE	01	04
5	4"	HMAC CLASS 1	01	05
4	6"	PREMIXED BASE	327	05
3	4"	CALCIUM STABLIZED GRANULAR BASE	304	06
2	10"	GRANULAR SUBBASE	302	06
1	N/A	COARSE SAND SUBGRADE	203	07

SPS 9
240961

ROAD TEST

LAYOUT OF TEST SECTIONS
HIGHWAY 2 EAST and WEST BOUND

CT DOT SPS-9A
SR 2 EB/WB, COLCHESTER, CT.

SPS-9-COL

FHWA SPS-9A TEST SECTIONS ONLY
DIMENSIONAL DETAILS ONLY
DRAWING NOT TO SCALE

FIGURE 2. LAYOUT OF SPS-9A TEST SECTIONS

SPS9-COL

FHWA-LTPP SPS-9A SR2, COLCHESTER,CT. DESIGN SCHEMATIC

VALIDATION OF SHRP ASPHALT SPECIFICATIONS AND MIX DESIGN AND INNOVATIONS IN ASPHALT PAVEMENTS

shrp

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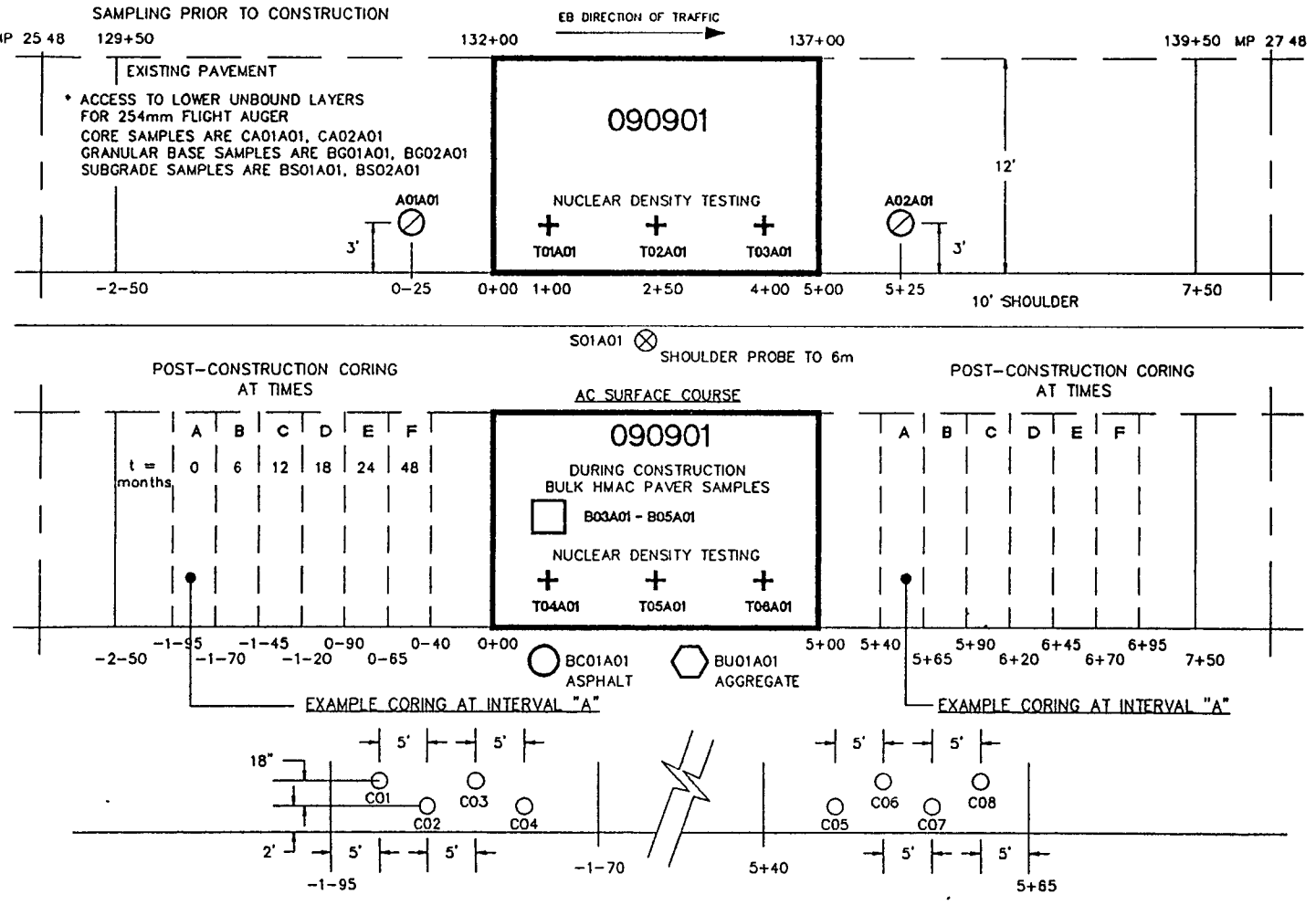


FIGURE 3-MATERIALS SAMPLING AND TESTING PLAN SPS-9A SECTION 090901

PRE CONSTRUCTION

- A TYPE 305mm CORE* LOCATIONS A01A01, A02A01
- NUCLEAR DENSITY TESTS T01A01-T03A01
- SHOULDER AUGER PROBE TO 6m S01A01

DURING & POST CONSTRUCTION

- AC SURFACE COURSE SAMPLE LOCATIONS B03A01-B05A01
- NUCLEAR DENSITY TESTS T04A01-T06A01
- ASPHALT CEMENT SAMPLE BC01A01
- COMBINED AGGREGATE PLANT SAMPLE BU01A01

POST CONSTRUCTION

- 152mm CORE SPECIMEN
  CA01A01-CA08A01
  CA01B01-CA08B01
  CA01C01-CA08C01
  CA01D01-CA08D01
  CA01E01-CD08E01
  CA01F01-CA08F01

CT DOT STANDARD MIX WITH AC-20

CT DOT SPS-9A
SR 2 EB, COLCHESTER, CT.

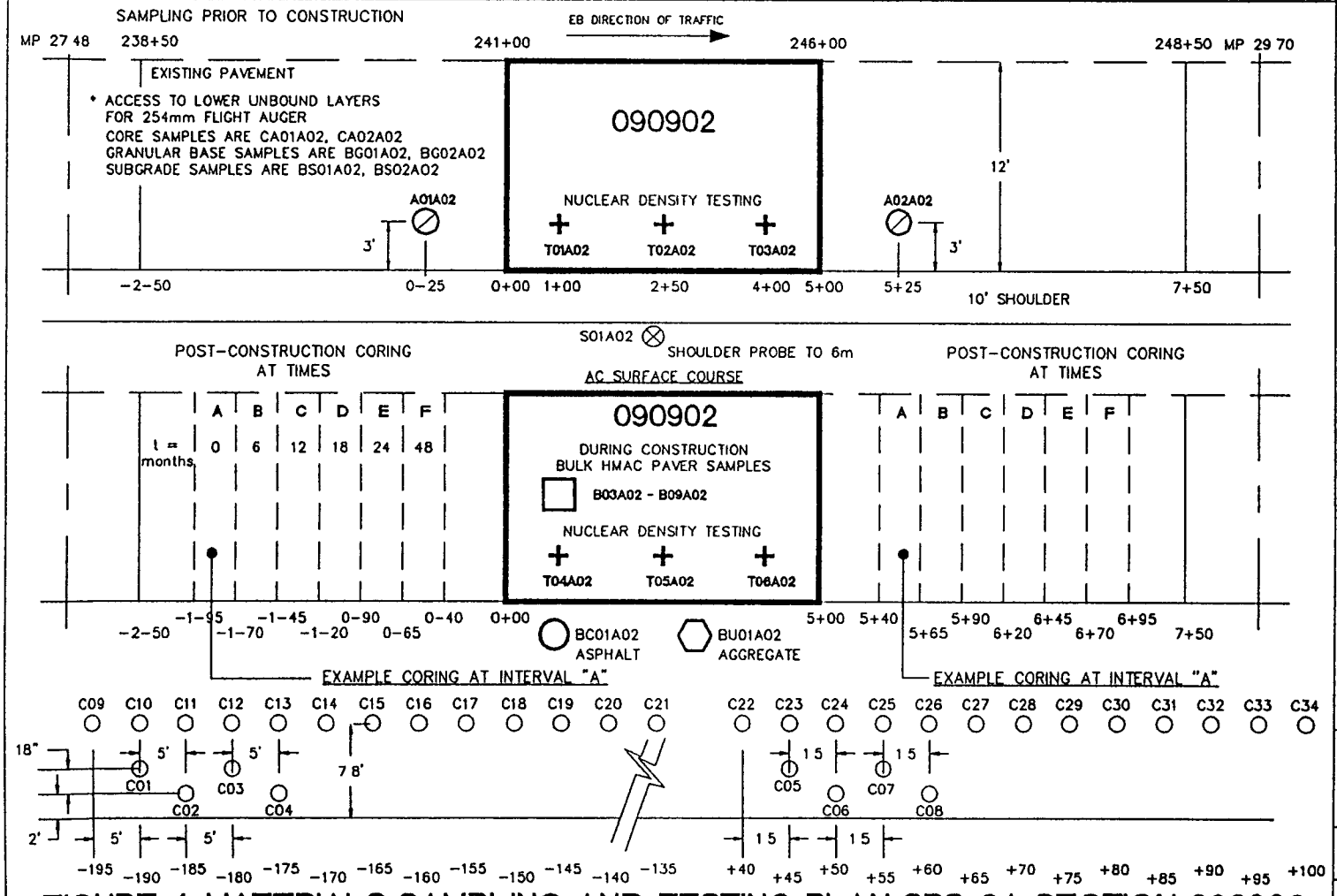
PLOTDATE: OCT 30/93	FHWA SPS-9A TEST SECTIONS ONLY DIMENSIONAL DETAILS ONLY
SPS-9A-090901	DRAWING NOT TO SCALE

FHWA-LTPP SPS-9A SR2, COLCHESTER;CT. DESIGN SCHEMATIC

VALIDATION OF SHRP ASPHALT SPECIFICATIONS AND MIX DESIGN AND INNOVATIONS IN ASPHALT PAVEMENTS

shrp

PMS — PAVEMENT MANAGEMENT SYSTEMS LIMITED



PRE CONSTRUCTION

- ⊘ A TYPE 305mm CORE* LOCATIONS A01A02, A02A02
- + NUCLEAR DENSITY TESTS T01A02-T03A02
- ⊗ SHOULDER AUGER PROBE TO 6m S01A02

DURING & POST CONSTRUCTION

- □ AC SURFACE COURSE SAMPLE LOCATIONS B03A02-B09A02
- + NUCLEAR DENSITY TESTS T04A02-T06A02
- ○ ASPHALT CEMENT SAMPLE BC01A02
- ⬡ COMBINED AGGREGATE PLANT SAMPLE BU01A02

POST CONSTRUCTION

- ○ 152mm CORE SPECIMEN CA01A02-CA08A02, CA01B02-CA08B02, CA01C02-CA08C02, CA01D02-CA08D02, CA01E02-CD08E02, CA01F02-CA08F02

SUPERPAVE MIX WITH PG 64-28

CT DOT SPS-9A
SR 2 EB, COLCHESTER, CT.

PLOTDATE: OCT 30/96	FHWA SPS-9A TEST SECTIONS ONLY DIMENSIONAL DETAILS ONLY
SPS-9A-090902	DRAWING NOT TO SCALE

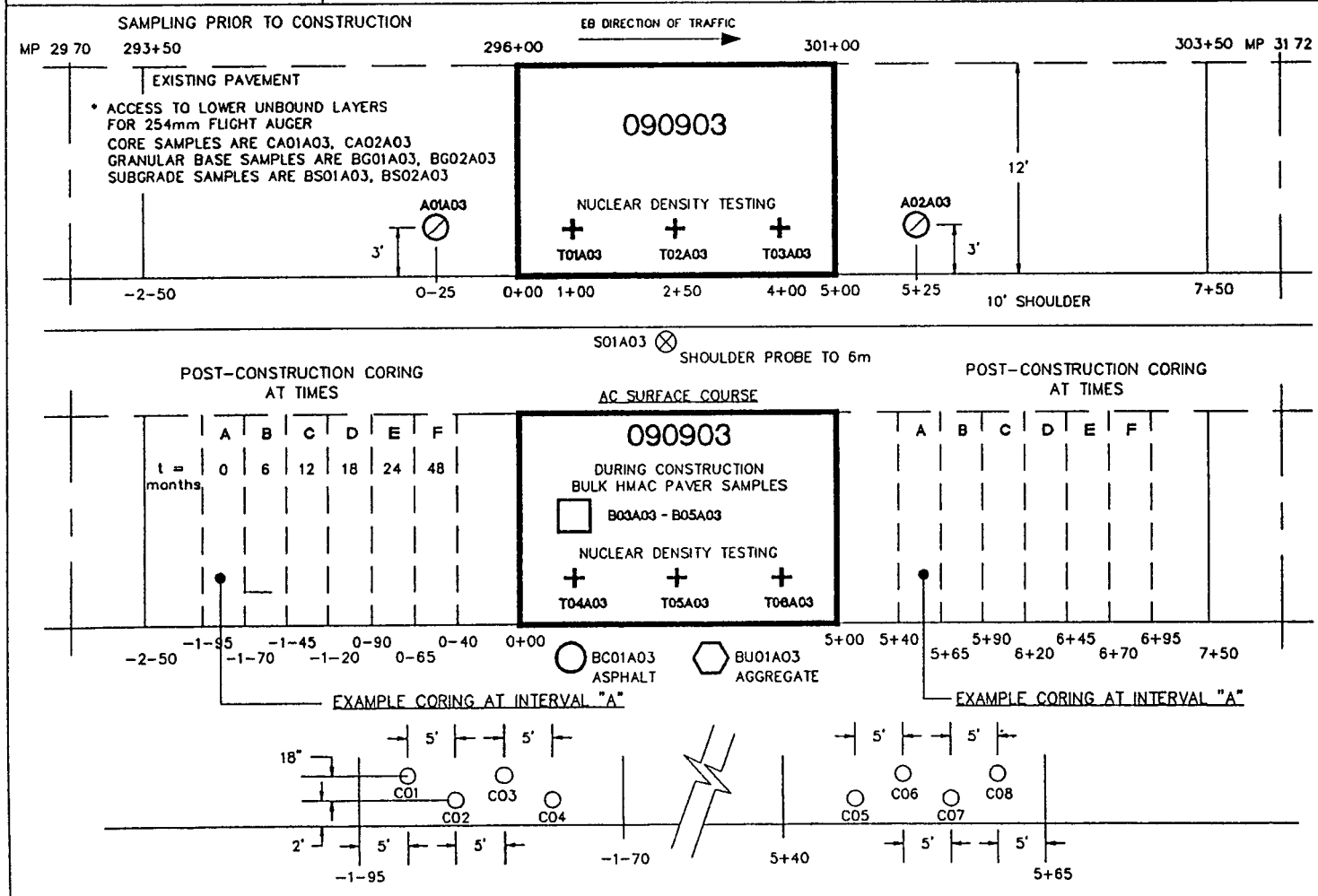
FIGURE 4-MATERIALS SAMPLING AND TESTING PLAN SPS-9A SECTION 090902

090902

FHWA-LTPP SPS-9A SR2, COLCHESTER,CT. DESIGN SCHEMATIC

VALIDATION OF SHRP ASPHALT SPECIFICATIONS AND MIX DESIGN AND INNOVATIONS IN ASPHALT PAVEMENTS

PAVEMENT MANAGEMENT SYSTEMS LIMITED



PRE CONSTRUCTION

- A TYPE 305mm CORE* LOCATIONS A01A03, A02A03
- NUCLEAR DENSITY TESTS T01A03-T03A03
- SHOULDER AUGER PROBE TO 6m S01A03

DURING & POST CONSTRUCTION

- AC SURFACE COURSE SAMPLE LOCATIONS B03A03-B05A03
- NUCLEAR DENSITY TESTS T04A03-T06A03
- ASPHALT CEMENT SAMPLE BC01A03
- COMBINED AGGREGATE PLANT SAMPLE BU01A03

POST CONSTRUCTION

- 152mm CORE SPECIMEN
  CA01A03-CA08A03
  CA01B03-CA08B03
  CA01C03-CA08C03
  CA01D03-CA08D03
  CA01E03-CD08E03
  CA01F03-CA08F03

ALTERNATIVE SUPERPAVE MIX WITH PG 64-22

CT DOT SPS-9A
SR 2 EB, COLCHESTER, CT

PLOTDATE: OCT 30/95	FHWA SPS-9A TEST SECTIONS ONLY DIMENSIONAL DETAILS ONLY
SPS-9A-090903	DRAWING NOT TO SCALE

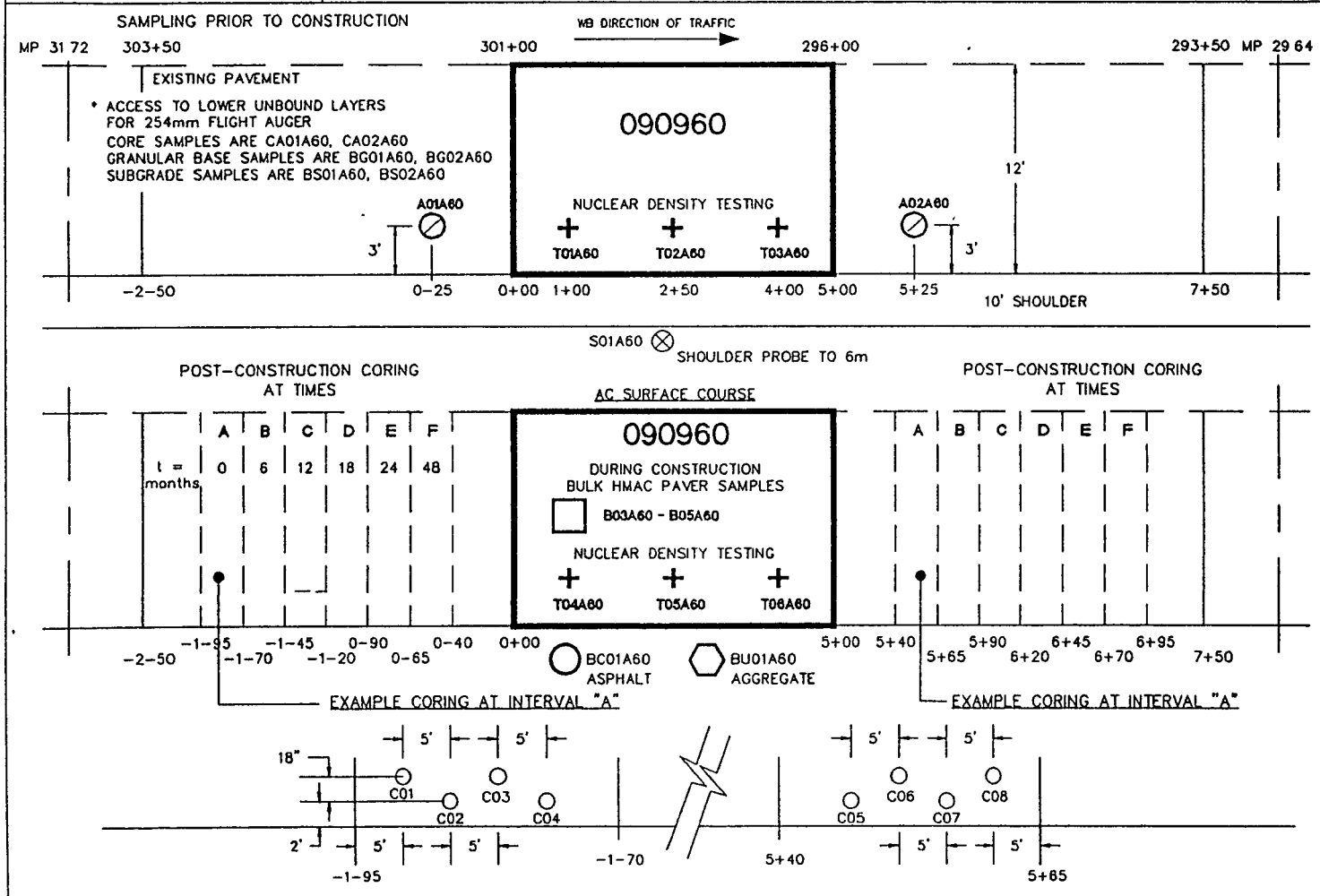
FIGURE 5-MATERIALS SAMPLING AND TESTING PLAN SPS-9A SECTION 090903

090903

FHWA-LTPP SPS-9A SR2, COLCHESTER,CT. DESIGN SCHEMATIC

VALIDATION OF SHRP ASPHALT SPECIFICATIONS AND MIX DESIGN AND INNOVATIONS IN ASPHALT PAVEMENTS

PAVEMENT MANAGEMENT SYSTEMS LIMITED



PRE CONSTRUCTION

- ⊘ A TYPE 305mm CORE* LOCATIONS A01A60, A02A60
- + NUCLEAR DENSITY TESTS T01A60-T03A60
- ⊗ SHOULDER AUGER PROBE TO 6m S01A60

DURING & POST CONSTRUCTION

- □ AC SURFACE COURSE SAMPLE LOCATIONS B03A60-B05A60
- + NUCLEAR DENSITY TESTS T04A60-T06A60
- ○ ASPHALT CEMENT SAMPLE BC01A60
- ⬡ COMBINED AGGREGATE PLANT SAMPLE BU01A60

POST CONSTRUCTION

- ○ 152mm CORE SPECIMEN
  CA01A60-CA08A60
  CA01B60-CA08B60
  CA01C60-CA08C60
  CA01D60-CA08D60
  CA01E60-CD08E60
  CA01F60-CA08F60

CT DOT CLASS 1 WITH AC-20 25% RAP

CT DOT SPS-9A
SR 2 WB, COLCHESTER, CT

PLOTDATE: OCT 30/96	FHWA SPS-9A TEST SECTIONS ONLY DIMENSIONAL DETAILS ONLY
SPS-9A-090960	DRAWING NOT TO SCALE

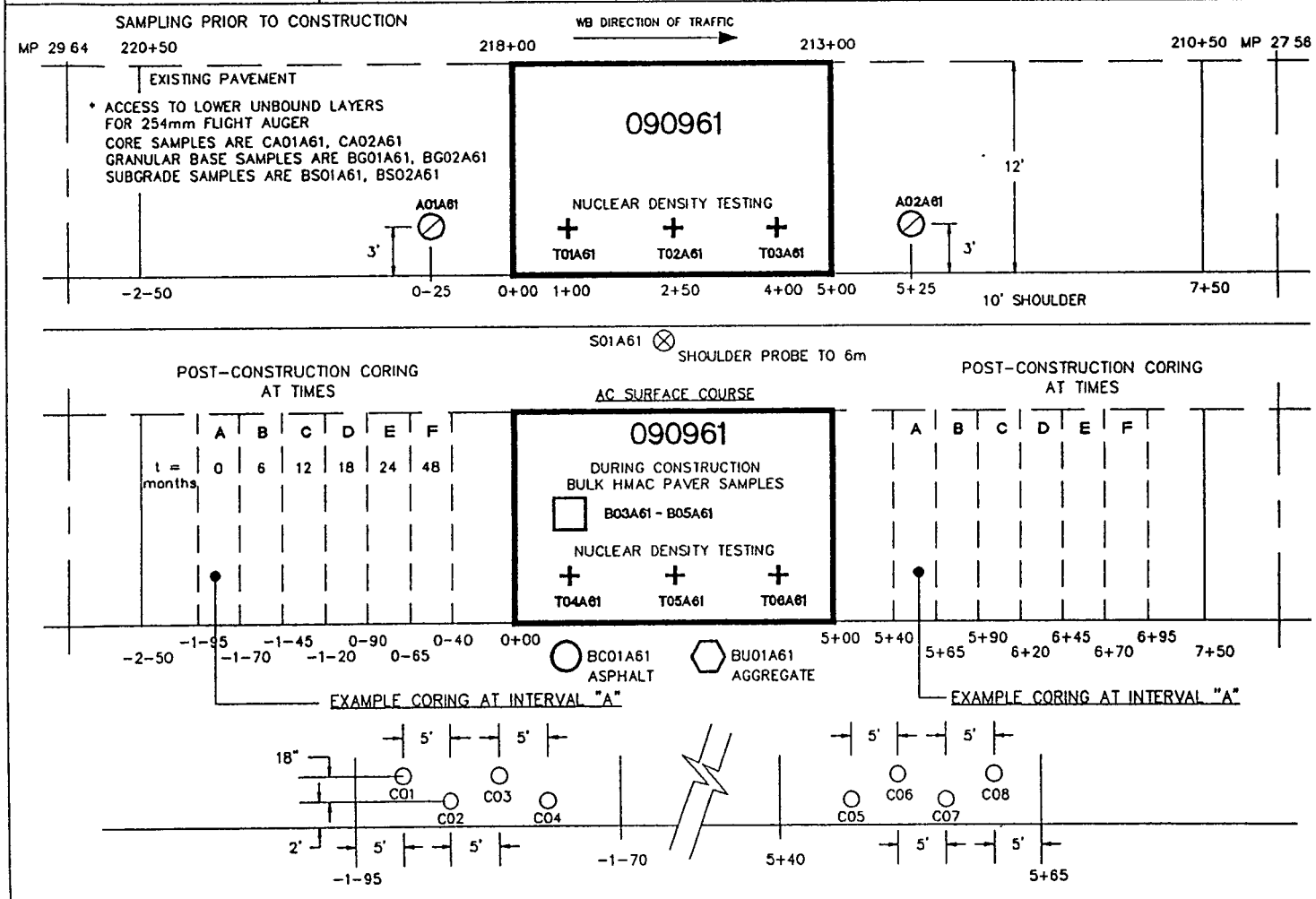
FIGURE 6-MATERIALS SAMPLING AND TESTING PLAN SPS-9A SECTION 090960

shrp

FHWA-LTPP SPS-9A SR2, COLCHESTER,CT. DESIGN SCHEMATIC

VALIDATION OF SHRP ASPHALT SPECIFICATIONS AND MIX DESIGN AND INNOVATIONS IN ASPHALT PAVEMENTS

PMS — PAVEMENT MANAGEMENT SYSTEMS LIMITED



PRE CONSTRUCTION

- ⊘ A TYPE 305mm CORE* LOCATIONS A01A61, A02A61
- + NUCLEAR DENSITY TESTS T01A61–T03A61
- ⊗ SHOULDER AUGER PROBE TO 6m S01A61

DURING & POST CONSTRUCTION

- □ AC SURFACE COURSE SAMPLE LOCATIONS B03A61–B05A61
- + NUCLEAR DENSITY TESTS T04A61–T06A61
- ○ ASPHALT CEMENT SAMPLE BC01A61
- ⬡ COMBINED AGGREGATE PLANT SAMPLE BU01A61

POST CONSTRUCTION

- ○ 152mm CORE SPECIMEN
  CA01A61–CA08A61
  CA01B61–CA08B61
  CA01C61–CA08C61
  CA01D61–CA08D61
  CA01E61–CD08E61
  CA01F61–CA08F61

SUPERPAVE DESIGN WITH RAP (25%) AND PG 64-28

CT DOT SPS-9A
SR 2 WB, COLCHESTER, CT.

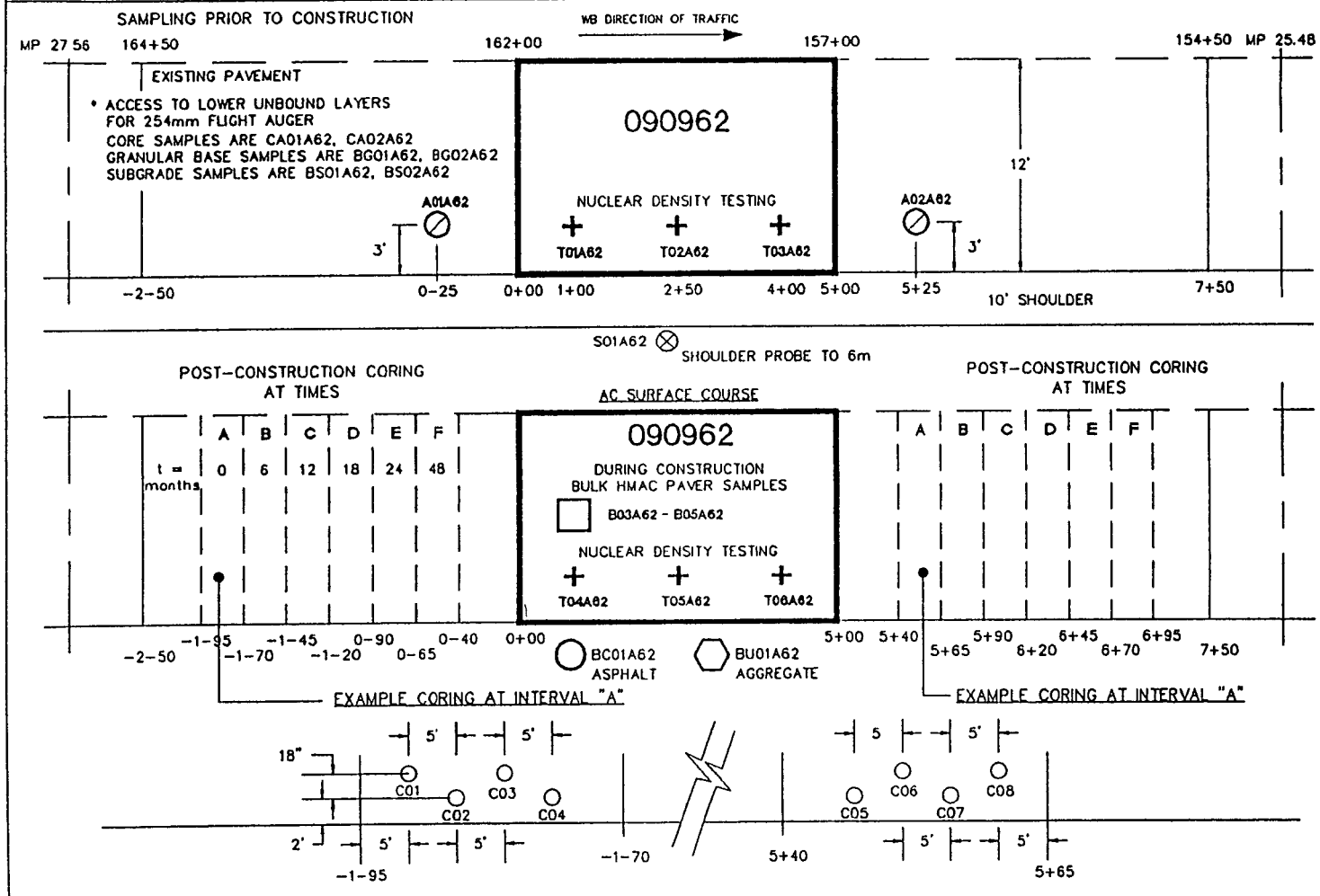
PLOTDATE: OCT 30/98	FHWA SPS-9A TEST SECTIONS ONLY DIMENSIONAL DETAILS ONLY
SPS-9A-090961	DRAWING NOT TO SCALE

FIGURE 7-MATERIALS SAMPLING AND TESTING PLAN SPS-9A SECTION 090961

FHWA-LTPP SPS-9A SR2, COLCHESTER,CT. DESIGN SCHEMATIC

VALIDATION OF SHRP ASPHALT SPECIFICATIONS AND MIX DESIGN AND INNOVATIONS IN ASPHALT PAVEMENTS

PAVEMENT MANAGEMENT SYSTEMS LIMITED



PRE CONSTRUCTION

- ⊘ A TYPE 305mm CORE* LOCATIONS A01A62, A02A62
- + NUCLEAR DENSITY TESTS T01A62–T03A62
- ⊗ SHOULDER AUGER PROBE TO 6m S01A62

DURING & POST CONSTRUCTION

- □ AC SURFACE COURSE SAMPLE LOCATIONS B03A62–B05A62
- + NUCLEAR DENSITY TESTS T04A62–T06A62
- ○ ASPHALT CEMENT SAMPLE BC01A62
- ⬡ COMBINED AGGREGATE PLANT SAMPLE BU01A62

POST CONSTRUCTION

- ○ 152mm CORE SPECIMEN
  CA01A62–CA08A62
  CA01B62–CA08B62
  CA01C62–CA08C62
  CA01D62–CA08D62
  CA01E62–CD08E62
  CA01F62–CA08F62

ALTERNATIVE SUPERPAVE WITH 25% RAP WITH PG 64-22

CT DOT SPS-9A
SR 2 WB, COLCHESTER, CT.

PLOTDATE: OCT 30/98 | FHWA SPS-9A TEST SECTIONS ONLY DIMENSIONAL DETAILS ONLY
SPS-9A-090962 | DRAWING NOT TO SCALE

FIGURE 8-MATERIALS SAMPLING AND TESTING PLAN SPS-9A SECTION 090962

090962

TABLE 1
SPS-9A PROJECT 090900, HIGHWAY SR 2, COLCHESTER, CT
Pavement Structure

Layer No.	Project Layer Code	Layer Thickness ins. (mm)	Material Code	Material Description/Comments	Depth to Rock m
1	A	N/A	203	Subgrade - fine sand with traces of silt and gravel	
2	B	10 (254)	302	Embankment - select borrow	
3	C	4 (101)	304	Subbase - calcium chloride stabilized base	
4	D	6 (152)	327	Base - premixed	
5	E	4 (101)	01	AC Binder - class 1	
6*	F	3 (75)	01	AC Wearing - class 14	
7	G				

*** Note:** Existing 2" (50mm) AC Wearing Course milled off and replaced with one 3" (75mm) AC Wearing Course - class 14

TABLE 2
SPS-9A PROJECT 090900, HIGHWAY SR 2, COLCHESTER, CT
Agency Field Testing

Field Tests	Test	No. of Tests	Test Location (Identifier)
Pre-Construction			
Depth to Rigid Layer	shoulder auger probe to 6m or refusal	1 per section	Sta 2+50 at edge of shoulder (S01AXX)
Field Examination of Cores for Stripping	LTPP	1 per section	Sta 0-25, 3' offset - 12" (305mm) cores for access to underlying layers
Nuclear Density Tests Existing Pavement Surface	AASHTO T238-86 backscatter	3 per section	Sta 1+00, 2+50, and 4+00, 3' from pavement edge (T01AXX-T03AXX)
Establish TBM's and Baseline Levels	rod and level	55 per section	5 transverse locations (pavement edges, mid-lane, wheel tracks) at 50' intervals
Post-Construction			
Nuclear Density Tests Finished Surfaces	AASHTO T238-86 backscatter	3 per section	Sta 1+00, 2+50, and 4+00, 3' from pavement edge (T04AXX00-T06AXX00)
Finished Surface Levels and on Top of Intermediate Layers where Desired	rod and level	55 per section	Above points located in baseline survey

Note: XX Last two digits of location identifiers is the section number (01, 02, 03, 60, 61, and 62)
Stationing is in feet

TABLE 3
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Agency Laboratory Testing Summary

Laboratory Test	LTPP Test	LTPP Protocol	No. of Tests	Source of Material
EXISTING PAVEMENT				
Subgrage				**10kg Bulk Samples and Jar Samples**
Sieve Analysis	SS01	P51	12	BS01A01, BS02A01, BS01A02, BS02A02, BS01A03, BS02A03 BS01A60, BS02A60, BS01A61, BS02A61, BS01A62, BS02A62
Atterberg Limits	SS03	P43	12	BS01A01, BS02A01, BS01A02, BS02A02, BS01A03, BS02A03 BS01A60, BS02A60, BS01A61, BS02A61, BS01A62, BS02A62
Classification	SS04	P52	12	BS01A01, BS02A01, BS01A02, BS02A02, BS01A03, BS02A03 BS01A60, BS02A60, BS01A61, BS02A61, BS01A62, BS02A62
Natural Moisture Content	SS09	P49	12	MS01A01, MS02A01, MS01A02, MS02A02, MS01A03, MS02A03 MS01A60, MS02A60, MS01A61, MS02A61, MS01A62, MS02A62
Embankment				**10 kg Bulk Samples and Jar Samples**
Sieve Analysis	SS01	P51	12	BG03A01, BG04A01, BG03A02, BG04A02, BG03A03, BG04A03 BG03A60, BG04A60, BG03A61, BG04A61, BG03A62, BG04A62
Atterberg Limits	SS03	P43	12	BG03A01, BG04A01, BG03A02, BG04A02, BG03A03, BG04A03 BG03A60, BG04A60, BG03A61, BG04A61, BG03A62, BG04A62
Classification	SS04	P52	12	BG03A01, BG04A01, BG03A02, BG04A02, BG03A03, BG04A03 BG03A60, BG04A60, BG03A61, BG04A61, BG03A62, BG04A62
Natural Moisture Content	SS09	P49	12	BG03A01, BG04A01, BG03A02, BG04A02, BG03A03, BG04A03 BG03A60, BG04A60, BG03A61, BG04A61, BG03A62, BG04A62
Unbound Subbase and Base				**25kg Bulk Samples**
Particle Size Analysis	UG01	P41	12	BG01A01, BG02A01, BG01A02, BG02A02, BG01A03, BG02A03 BG01A60, BG02A60, BG01A61, BG02A61, BG01A62, BG02A62
Sieve Analysis (washed)	UG02	P41	12	BG01A01, BG02A01, BG01A02, BG02A02, BG01A03, BG02A03 BG01A60, BG02A60, BG01A61, BG02A61, BG01A62, BG02A62
Atterberg Limits	UG04	P43	12	BG01A01, BG02A01, BG01A02, BG02A02, BG01A03, BG02A03 BG01A60, BG02A60, BG01A61, BG02A61, BG01A62, BG02A62
Classification	UG08	P47	12	BG01A01, BG02A01, BG01A02, BG02A02, BG01A03, BG02A03 BG01A60, BG02A60, BG01A61, BG02A61, BG01A62, BG02A62
Natural Moisture Content	UG10	P49	12	MG01A01, MG02A01, MG01A02, MG02A02, MG01A03, MG02A03 MG01A60, MG02A60, MG01A61, MG02A61, MG01A62, MG02A62
Asphalt Bound Layers				**12" Diameter Cores**
Core Examination	AC01	P01	12	CA01A01, CA02A01, CA01A02, CA02A02, CA01A03, CA02A03 CA01A60, CA02A60, CA01A61, CA02A61, CA01A62, CA02A62

TABLE 4
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Agency Laboratory Tests on Mix Components

Laboratory Test	LTPP Test	LTPP Protocol	No. of Tests	Source of Material			
Aggregates				**VIRGIN**		**RAP**	
Combined Aggregate Gradation	AG04	P14	4	BU01A01	BU01A02	BU01A60	BU01A61
Specific Gravity of Co Agg	AG01	P11	4	BU01A01	BU01A02	BU01A60	BU01A61
Specific Gravity of Fine Agg	AG02	P12	4	BU01A01	BU01A02	BU01A60	BU01A61
Specific Gravity of Pass 200		AASHTO T100	4	BU01A01	BU01A02	BU01A60	BU01A61
Coarse Agg Angularity		PA DOT TM621	4	BU01A01	BU01A02	BU01A60	BU01A61
Fine Agg Angularity		ASTM C1252	4	BU01A01	BU01A02	BU01A60	BU01A61
Toughness		AASHTO T96	4	BU01A01	BU01A02	BU01A60	BU01A61
Soundness		AASHTO T104	4	BU01A01	BU01A02	BU01A60	BU01A61
Deleterious Material		AASHTO T112	4	BU01A01	BU01A02	BU01A60	BU01A61
Clay Content		AASHTO T176	4	BU01A01	BU01A02	BU01A60	BU01A61
Thin, Elongated Particles		ASTM D4791	4	BU01A01	BU01A02	BU01A60	BU01A61
Asphalt Cement*				**AC-20**	**PG64-28**	**PG64-22**	
Penetration @ 5 deg C		AASHTO T49	3	BC01A01	BC01A02	BC01A03	
Penetration @ 25 deg , 46 deg C	AE02	P22	6	BC01A01	BC01A02	BC01A03	
Viscosity @ 60 deg , 135 deg. C	AE05	P25	6	BC01A01	BC01A02	BC01A03	
Specific Gravity @ 16 deg C	AE03	P23	3	BC01A01	BC01A02	BC01A03	
Dynamic Shear @ 3 Temps		AASHTO TP5	9	BC01A01	BC01A02	BC01A03	
Brookfield Viscosity 135 deg , 165 deg C		ASTM D4402	6	BC01A01	BC01A02	BC01A03	
Rolling Thin Film (RTFOT)*		AASHTO T240	6	BC01A01	BC01A02	BC01A03	
Dynamic Shear on RTFOT Residue @ 3 Temps		AASHTO TP5	9	BC01A01	BC01A02	BC01A03	
Pressure Aging (PAV) of RTFOT Residue*		AASHTO PP1	9	BC01A01	BC01A02	BC01A03	
Creep Stiffness of PAV Residue - 24h Conditioning		AASHTO TP1	3	BC01A01	BC01A02	BC01A03	
Creep Stiffness of PAV Residue (2 Temps)		AASHTO TP1	6	BC01A01	BC01A02	BC01A03	
Dynamic Shear on PAV Residue (3 Temps)		AASHTO TP5	9	BC01A01	BC01A02	BC01A03	
Direct Tension on PAV Residue (2 Temps.)		AASHTO TP3	6	BC01A01	BC01A02	BC01A03	

* Consult SPS-9A Sampling & Testing Guidelines, February 1996 for Quantities and Temperatures

TABLE 5
CT DOT SPS-9A PROJECT 090900, SR 2 EB and WB, COLCHESTER, CT
Level 1 Agency Laboratory Testing for Laboratory Prepared DOT and Alternative Superpave Mixes

Laboratory Test	LTPP Test	LTPP Protocol	No. of Tests	Source of Material (Specimen)
Compacted HMAC:090901 and 090903				
Gyratory Compaction @ Design Asphalt Content @ N_{Max} (150mm dia x 115mm height specimen)		AASHTO M-002	6	BC 01A01 and BC01A03 with aggregate stockpile samples (LA01A01-LA03A01), (LA01A03-LA03A03)
Gyratory Compaction @ 7% Air Voids (150mm dia x 140mm height specimen)		AASHTO M-002	12	(LA04A01-LA09A01), (LA04A03-LA09A03)
Moisture Susceptibility	AC05	AASHTO T238	2	(LA04A01-LA09A01), (LA04A03-LA09A03)
Bulk Specific Gravity	AC02	P02	18	(LA01A01-LA09A01), (LA01A03-LA09A03)
Maximum Specific Gravity	AC03	P03	2	NA03A01, NA03A03
Volumetrics*				
Volume Percent of Air Voids		AASHTO PP19	6	(LA01A01-LA03A01), (LA01A03-LA03A03)
Percent Voids in Mineral Agg		AASHTO PP19	6	(LA01A01-LA03A01), (LA01A03-LA03A03)
Voids Filled with Asphalt		AASHTO PP19	6	(LA01A01-LA03A01), (LA01A03-LA03A03)
090962 - Mix Design Testing for Superpave Gradation with 25% RAP and Alternative PG 64-22				
Repeat Above Procedures				Produce Specimen: (LA01A62-LA03A62) and Specimen (LA04A62-LA09A62), (NA03A62)
090961 - Mix Design Testing for Superpave Gradation with 25% RAP and PG 64-28				
Repeat Above Procedures				Produce Specimen: (LA01A61-LA03A61) and Specimen (LA04A61-LA09A61), (NA03A61)
090960 - Mix Design Testing for DOT Class 1 with 25% RAP and AC-20				Produce Specimen (LA01A60-LA03A60) and Specimen (LA04A60-LA09A60), (NA03A60)
Repeat Above Procedures				

* Use bulk specific gravity @ N_{Design} estimated from Density vs Gyrations curves @ N_{Max}

TABLE 6
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Quality Control Field Laboratory Testing of Paver Samples

Laboratory Test	LTPP Test	LTPP Protocol	No. of Tests	Source of Material (Specimen)
Gyratory Compaction @ N_{Max}		AASHTO M-002	6 per test section	B03A01-B05A01 (DA01A01-DA06A01) B03A02, B09A02 (DA02A02-DA04A02, DA31A02-DA33A02) B03A03-B05A03 (DA01A03-DA06A03) B03A60-B05A60 (DA01A60-DA06A60) B03A61-B05A61 (DA01A61-DA06A61) B03A62-B05A62 (DA01A62-DA06A62)
Bulk Specific Gravity	AC02	P02	1 per test section	DA03A01, DA37A02, DA03A03 DA03A60, DA03A61, DA03A62
Asphalt Content (Extraction)	AC04	P04	2 per test section	B03A02, B09A02 B03A01, B05A01, B03A03, B05A03 B03A60, B05A60, B03A61, B05A61 B03A62, B05A62
Aggregate Gradation (Extracted Aggregate)	AG04	P14	2 per test section	B03A02, B09A02 B03A01, B05A01, B03A03, B05A03 B03A60, B05A60, B03A61, B05A61 B03A62, B05A62
Maximum Specific Gravity	AC03	P03	1 per test section	B03A01, B09A02, B03A03 B03A60, B03A61, B03A62
Volumetrics*				
Volume Percent of Air Voids		AASHTO PP19	1 per test section	DA03A01, DA37A02, DA03A03 DA03A60, DA03A61, DA03A62
Percent Voids in Mineral Agg		AASHTO PP19		
Voids Filled with Asphalt		AASHTO PP19		

* Use bulk specific gravity @ N_{Design} estimated from Density vs Gyrations curves @ N_{Max}

TABLE 7
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Superpave Level 3 Mix Testing, Agency Laboratory

Laboratory Test	LTPP Test	LTPP Protocol	No. of Tests	Source of Material (Specimen)
Gyratory Compactor @ N_{Max} (Lab Samples)		AASHTO M-002	6 6	NA01A02-NA06A02 (LA01A02-LA06A02) NA51A02-NA56A02 (LA51A02-LA56A02)
Gyratory Compactor @ 3% AV (Lab Samples)		AASHTO M-002	2 2	NA07A02-NA08A02 (LA07A02-LA08A02) NA57A02-NA58A02 (LA57A02-LA58A02)
Gyratory Compactor @ 7% AV (Lab Samples)		AASHTO M-002	32 32	NA09A02-NA40A02 (LA09A02-LA40A02) NA59A02-NA90A02 (LA59A02-LA90A02)
Gyratory Compactor @ 3% AV (Field Samples)		AASHTO M-002	2+2	BA04A02, BA01A02 (DA01A02, DA34A02, DA51A02, DA84A02)
Gyratory Compactor @ 7% AV (Field Samples)		AASHTO M-002	26 26	BA04A02-BA08A02 (DA05A02-DA30A02) BA01A02-BA03A02 (DA55A02-DA80A02)
Gyratory Compactor @ N_{Max} (Field Samples)		AASHTO M-002	6 6	BA04A02-BA08A02 (DA02A02-DA04A02, DA31A02-DA33A02) BA01A02-BA03A02 (DA52A02-DA54A02, DA81A02-DA83A02)
Bulk Specific Gravity *	AC02	P02		LA01A02-LA07A02, LA15A02, LA38A02
Asphalt Content (Extraction)	AC04	P04	6	BA01A02-BA03A02, BA04A02-BA06A02
Aggregate Gradation (Extracted Aggregate)	AG04	P14	2	BA01A02 , BA04A02
Maximum Specific Gravity	AC03	P03	6	NA15A02, BA04A02, BA06A02, NA65A02, BA01A02, BA03A02
Moisture Susceptibility	AC05	P05	2	LA09A02-LA14A02, LA59A02-LA64A02
Volumetrics**				Same Specimen for all Volumetrics
Volume Percent of Air Voids		AASHTO PP19	12	LA01A02-LA06A02, LA51A02-LA56A02
Percent Voids in Mineral Aggregate		AASHTO PP19	12	Same
Voids Filled with Asphalt		AASHTO PP19	12	Same

Bulk Paver Samples in 340902 are approximately 70kg. (12 or more compacted specimen from each sample)
See Notes on Preparation of Gyratory Compacted Test Specimen attached N_{Max} = 204

* These specimen are then included in the shipment with other gyratory compacted samples to the LTPP Contractor Laboratory, PCS/Law Engineering, Atlanta, GA and the Superpave Regional Test Center

** The corrected bulk density at N_{Design} shall be estimated from the gyratory compaction curves, Density vs. Gyrations to N_{Max} for calculation of the volumetric properties

TABLE 8
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Superpave Level 3 Mix Testing, LTPP Contractor Laboratory

Laboratory Test	LTPP Test	LTPP Protocol	No. of Tests	Source of Material
Creep Compliance	AC06	P06	12	LA19A02-LA22A02 DA15A02, DA16A02, DA18A02, DA30A02 CA03A02, CA14A02, CA23A02, CA32A02
Indirect Tensile Strength	AC07	P07	12	LA15A02-LA18A02 DA05A02, DA09A02, DA17A02, DA29A02 CA07A02, CA16A02, CA21A02, CA31A02
Resilient Modulus	AC07	P07	3	LA16A02-LA18A02 DA09A02, DA17A02, DA20A02 CA16A02, CA21A02, CA31A02

Note: 100mm dia test specimen will be cored from the 152mm dia specimen and cores

TABLE 9
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Superpave Level 3 Mix Testing, Superpave Regional Test Center

Laboratory Test	LTPP Protocol	No. of Tests	Source of Material/Product
Frequency Sweep at Constant Height	AASHTO M-003, P-005 SST-1	10	LA23A02-LA26A02 DA06A02, DA10A02, DA24A02, DA28A02 CA04A02, CA30A02
Simple Shear at Constant Height	AASHTO M-003, P-005 SST-1		
Uniaxial Strain	AASHTO M-003, P-005 SST-2	10	LA27A02-LA30A02 DA07A02, DA11A02, DA23A02, DA27A02 CA12A02, CA22A02
Volumetric Test	AASHTO M-003, P-005 SST-2		
Repeated Shear at Constant Stress Ratio	AASHTO M-003, P-005 SST-3	6	LA07A02, LA08A02 DA01A02, DA34A02 CA09A02, CA26A02
Indirect Tensile Creep Compliance	AASHTO M-005 SP-1T	30	LA31A02-LA40A02 DA08A02, DA12A02-DA22A02 DA25A02-DA26A02 CA01A02, CA08A02, CA10A02, CA13A02 CA17A02-CA18A02, CA20A02 CA27A02, CA29A02, CA34A02
Indirect Tensile Strength	AASHTO M-005 SP-1T		

TABLE 10
Bulk Material Samples to be Shipped to the LTPP Materials Reference Library (MRL) 1625 Crane Way, Sparks, NV, 89431 from Project 340900

Material	Number
Asphalt cement collected from the plant in 20-litre pails	1 for each type of binder
Combined coarse and fine aggregate obtained from the plant and stored in 20-litre pails	10 for each aggregate combination

Notes:

The MRL will provide containers and will pay for shipping costs

Contact the MRL @ (702) 358-7574 prior to construction to make arrangements for sample containers and to receive specific shipping instructions Contacts are Mr. Jim Nichols/Rodney Soule or Mr Cal Berge

Only one sample of each unique asphalt binder used in the SPS-9A mixes is needed. If the same binder is used in more than one mix, then only one sample of that binder should be obtained

A copy of LTPP Field Operations Information Form 1 should be completed and attached to all MRL shipments A copy of the form should be mailed separately to the MRL. Mail other completed copy to Mr. Alfred Lip at the LTPP Regional office, 415 Lawrence Bell Drive, Suite 3, Amherst, NY, 14221 - telephone (716) 632-0804

TABLE 11
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Agency Laboratory Tests on Cores Taken at Time A=O

Laboratory Test	LTPP Test	LTPP Protocol	No. of Tests/ Per Layer	Source of Material
Core Examination/Thickness	AC01	P01	66	All Cores
Bulk Specific Gravity	AC02	P02	66	All Cores*
Max Specific Gravity	AC03	P03	10	CA11A02, CA24A02, CA01AXX, CA08AXX
Asphalt Content (Extraction)	AC04	P04	40	CA02A02, CA06A02, CA11A02, CA15A02 CA19A02, CA24A02, CA28A02, CA33A02 and All A Cores from Sections 01, 03, 60, 61
Aggregate Gradation (Extracted Agg)	AG04	P14	10	CA11A02, CA24A02 and CA01AXX, CA08AXX
Volumetrics				
Volume Percent of Air Voids		AASHTO PP19	10	CA11A02, CA24A02 and CA01AXX, CA08AXX
Percent Voids in Mineral Aggregate		AASHTO PP19	10	CA11A02, CA24A02 and CA01AXX, CA08AXX
Voids Filled with Asphalt		AASHTO PP19	10	CA11A02, CA24A02 and CA01AXX, CA08AXX
Recovered Asphalt Cement				
Abson Recovery	AE01	P21	40	CA02A02, CA06A02, CA11A02, CA15A02 CA19A02, CA24A02, CA28A02, CA33A02 CA01AXX-CA08AXX
Penetration @ 5 deg C		AASHTO T49	5	Combined Sample from Each Test Section
Penetration @ 25 deg C and 46 deg C	AE02	P22	5	Combined Sample from Each Test Section
Viscosity @ 60 deg C and 135 deg C	AE05	P25	10	Combined Sample from Each Test Section
Specific Gravity @ 16 deg C	AE03	P23	5	Combined Sample from Each Test Section
Dynamic Shear @ 3 Temperatures		AASHTO TP5	5	Combined Sample from Each Test Section
Creep Stiffness @ 2 Temperatures		AASHTO TP1	10	Combined Sample from Each Test Section
Direct Tension @ 2 Temperatures		AASHTO TP3	10	Combined Sample from Each Test Section

XX are for test sections 01, 03, 60, 61 and 62

* Cores CA01A02, CA04A02, CA08A02-CA10A02, CA12A02, CA13A02, CA17A02, CA18A02, CA20A02, CA22A02, CA26A02, CA27A02, CA29A02, CA30A02, CA34A02 are packaged and sent to the Superpave Regional Test Center

Cores CA03A02, CA07A02, CA14A02, CA16A02, CA21A02, CA23A02, CA31A02, CA32A02 are sent to the LTPP Contractor Laboratory

TABLE 12
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Post Construction Monitoring Tests on All Sections - Agency Laboratory
Cores at Time Intervals B Through F (6, 12, 18, 24, 48 Months)

Laboratory Test	LTPP Test	LTPP Protocol	No. of Tests	Source of Material
Core Examination/Thickness	AC01	P01	48 per time interval	All Cores from All Sections
Bulk Specific Gravity	AC02	P02	48	All Cores from All Sections
Maximum Specific Gravity	AC03	P03	12	(CA01tXX, CA08tXX) All Sections
Asphalt Content (Extraction)	AC04	P04	48	All Cores from All Sections
Aggregate Gradation (Extracted Agg)	AG04	P14	12	CA01t01) CA08t01), (CA01t02, CA08t02), (CA01t03, CA08t03), (CA01t60, CA08t60) (CA01t61, CA08t61), (CA01t62, CA08t62)
Volumetrics				
Volume Percent of Air Voids		AASHTO PP19	48	All Cores
Percent Voids in Mineral Aggregate		AASHTO PP19	48	All Cores
Voids Filled with Asphalt		AASHTO PP19	48	All Cores
Recovered Asphalt Cement				
Abson Recovery	AE01	P21	48	All Cores
Penetration @ 5 deg C		AASHTO T49	6	Combined Recovered AC from Each Section
Penetration @ 25 deg C and 46 deg C	AE02	P22	12	Combined Recovered AC from Each Section
Viscosity @ 60 deg C and 135 deg. C	AE05	P25	12	Combined Recovered AC from Each Section
Specific Gravity @ 16 deg C	AE03	P23	6	Combined Recovered AC from Each Section
Dynamic Shear @ 3 Temperatures**		AASHTO TP5	18	Combined Recovered AC from Each Section
Creep Stiffness @ 2 Temperatures**		AASHTO TP1	12	Combined Recovered AC from Each Section
Direct Tension @ 2 Temperatures**		AASHTO TP3	12	Combined Recovered AC from Each Section

** The test temperatures should be the same as those used for the tests on the RTFOT-PAV conditioned samples performed during the initial binder grading

TABLE 13
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for Subgrade
Laboratory: Agency

Sample Location No.	Constr. Sta.	Offset Ft.	Sample No.	Lab Test No.	Description of Sample	Laboratory Handling & Test Sequencing					
						First	Second	Third	Fourth	Fifth	Sixth
Subgrade											
A01A01	131+75	3	BS01A01	1	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A02A01	137+25	3	BS02A01	2	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A01A02	240+75	3	BS01A02	1	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A02A02	246+25	3	BS02A02	2	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A01A03	295+75	3	BS01A03	1	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A02A03	301+25	3	BS02A03	2	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A01A60	301+25	3	BS01A60	1	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A02A60	295+75	3	BS02A60	2	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A01A61	218+25	3	BS01A61	1	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A02A61	212+75	3	BS02A61	2	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A01A62	162+25	3	BS01A62	1	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A02A62	156+75	3	BS02A62	2	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A01A01	131+75	3	MS01A01	1	Moisture Jar Sample	SS09/P49					
A02A01	137+75	3	MS02A01	2	Moisture Jar Sample	SS09/P49					
A01A02	240+75	3	MS01A02	1	Moisture Jar Sample	SS09/P49					
A02A02	246+25	3	MS02A02	2	Moisture Jar Sample	SS09/P49					
A01A03	295+75	3	MS01A03	1	Moisture Jar Sample	SS09/P49					
A02A03	301+25	3	MS02A03	2	Moisture Jar Sample	SS09/P49					
A01A60	301+25	3	MS01A60	1	Moisture Jar Sample	SS09/P49					
A02A60	295+75	3	MS02A60	2	Moisture Jar Sample	SS09/P49					
A01A61	218+25	3	MS01A61	1	Moisture Jar Sample	SS09/P49					
A02A61	212+75	3	MS02A61	2	Moisture Jar Sample	SS09/P49					
A01A62	162+25	3	MS01A62	1	Moisture Jar Sample	SS09/P49					
A02A62	156+75	3	MS02A62	2	Moisture Jar Sample	SS09/P49					

TABLE 14
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for Embankment
Laboratory: Agency

Sample Location No.	Constr. Sta.	Offset Ft.	Sample No.	Lab Test No.	Description of Sample	Laboratory Handling & Test Sequencing					
						First	Second	Third	Fourth	Fifth	Sixth
Embankment											
A01A01	131+75	3	BG03A01	1	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A02A01	137+25	3	BG04A01	2	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A01A02	240+75	3	BG03A02	1	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A02A02	246+25	3	BG04A02	2	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A01A03	295+75	3	BG03A03	1	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A02A03	301+25	3	BG04A03	2	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A01A60	301+25	3	BG03A60	1	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A02A60	295+75	3	BG04A60	2	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A01A61	218+25	3	BG03A61	1	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A02A61	212+75	3	BG04A61	2	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A01A62	162+25	3	BG03A62	1	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A02A62	156+75	3	BG04A62	2	7kg Bulk Sample	SS01/P51	SS03/P43	SS04/P52			
A01A01	131+75	3	MG03A01	1	Moisture Jar Sample	SS09/P49					
A02A01	137+75	3	MG04A01	2	Moisture Jar Sample	SS09/P49					
A01A02	240+75	3	MG03A02	1	Moisture Jar Sample	SS09/P49					
A02A02	246+25	3	MG04A02	2	Moisture Jar Sample	SS09/P49					
A01A03	295+75	3	MG03A03	1	Moisture Jar Sample	SS09/P49					
A02A03	301+25	3	MG04A03	2	Moisture Jar Sample	SS09/P49					
A01A60	301+25	3	MG03A60	1	Moisture Jar Sample	SS09/P49					
A02A60	295+75	3	MG04A60	2	Moisture Jar Sample	SS09/P49					
A01A61	218+25	3	MG03A61	1	Moisture Jar Sample	SS09/P49					
A02A61	212+75	3	MG04A61	2	Moisture Jar Sample	SS09/P49					
A01A62	162+25	3	MG03A62	1	Moisture Jar Sample	SS09/P49					
A02A62	156+75	3	MG04A62	2	Moisture Jar Sample	SS09/P49					

TABLE 15
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for Subbase
Laboratory: Agency

Sample Location No.	Constr. Sta.	Offset Ft.	Sample No.	Lab Test No.	Description of Sample	Laboratory Handling & Test Sequencing					
						First	Second	Third	Fourth	Fifth	Sixth
A01A01	131+75	3	BG01A01	1	22kg Bulk Sample	UG01/P41	UG02/P41	UG04/P43	UG08/P47		
A02A01	137+25	3	BG02A01	2	22kg Bulk Sample	UG01/P41	UG02/P41	UG04/P43	UG08/P47		
A01A02	240+75	3	BG01A02	1	22kg Bulk Sample	UG01/P41	UG02/P41	UG04/P43	UG08/P47		
A02A02	246+25	3	BG02A02	2	22kg Bulk Sample	UG01/P41	UG02/P41	UG04/P43	UG08/P47		
A01A03	295+75	3	BG01A03	1	22kg Bulk Sample	UG01/P41	UG02/P41	UG04/P43	UG08/P47		
A02A03	301+25	3	BG02A03	2	22kg Bulk Sample	UG01/P41	UG02/P41	UG04/P43	UG08/P47		
A01A60	301+25	3	BG01A60	1	22kg Bulk Sample	UG01/P41	UG02/P41	UG04/P43	UG08/P47		
A02A60	295+75	3	BG02A60	2	22kg Bulk Sample	UG01/P41	UG02/P41	UG04/P43	UG08/P47		
A01A61	218+25	3	BG01A61	1	22kg Bulk Sample	UG01/P41	UG02/P41	UG04/P43	UG08/P47		
A02A61	212+75	3	BG02A61	2	22kg Bulk Sample	UG01/P41	UG02/P41	UG04/P43	UG08/P47		
A01A62	162+25	3	BG01A62	1	22kg Bulk Sample	UG01/P41	UG02/P41	UG04/P43	UG08/P47		
A02A62	156+75	3	BG02A62	2	22kg Bulk Sample	UG01/P41	UG02/P41	UG04/P43	UG08/P47		
A01A01	131+75	3	MG01A01	1	Moisture Jar Sample	UG10/P49					
A02A01	137+75	3	MG02A01	2	Moisture Jar Sample	UG10/P49					
A01A02	240+75	3	MG01A02	1	Moisture Jar Sample	UG10/P49					
A02A02	246+25	3	MG02A02	2	Moisture Jar Sample	UG10/P49					
A01A03	295+75	3	MG01A03	1	Moisture Jar Sample	UG10/P49					
A02A03	301+25	3	MG02A03	2	Moisture Jar Sample	UG10/P49					
A01A60	301+25	3	MG01A60	1	Moisture Jar Sample	UG10/P49					
A02A60	295+75	3	MG02A60	2	Moisture Jar Sample	UG10/P49					
A01A61	218+25	3	MG01A61	1	Moisture Jar Sample	UG10/P49					
A02A61	212+75	3	MG02A61	2	Moisture Jar Sample	UG10/P49					
A01A62	162+25	3	MG01A62	1	Moisture Jar Sample	UG10/P49					
A02A62	156+75	3	MG02A62	2	Moisture Jar Sample	UG10/P49					

TABLE 16
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for Combined Aggregate Samples
Laboratory: Agency

Sample Location No.	Constr. Sta.	Offset Ft.	Sample No.	Lab Test No.	Description of Sample	Laboratory Handling & Test Sequencing					
						First	Second	Third	Fourth	Fifth	Sixth
	Plant		BU01A01	3	400kg. Combined Agg. Sample DOT Class 1	AG04/P14	AG01/P11 AG02/P12 AASHTO T100	PA DOT T621 ASTM C1252	AASHTO T96 AASHTO T104	AASHTO T112 AASHTO T176 ASTM D4791	
	Plant		BU01A02	3	400kg. Combined Agg. Sample Superpave	AG04/P14	AG01/P11 AG02/P12 AASHTO T100	PA DOT T621 ASTM C1252	AASHTO T96 AASHTO T104	AASHTO T112 AASHTO T176 ASTM D4791	
	Plant		BU01A61	3	400kg. Combined Agg. Sample Superpave with RAP	AG04/P14	AG01/P11 AG02/P12 AASHTO T100	PA DOT T621 ASTM C1252	AASHTO T96 AASHTO T104	AASHTO T112 AASHTO T176 ASTM D4791	

TABLE 17
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for Asphalt Binder Samples
Laboratory: Agency

Sample Location No.	Constr. Sta.	Offset Ft.	Sample No.	Lab Test No.	Description of Sample	Laboratory Handling & Test Sequencing					
						First	Second	Third	Fourth	Fifth	Sixth
	Plant		BC01A01	3	20 Litre Sample of AC-20	AASHTO T49 AE02/P22 AE05/P25 AE03/P23	ASTM D4402 AASHTO TP5	ASTM T240 AASHTO TP5	AASHTO PP1 AASHTO TP5 AASHTO TP1 AASHTO TP1	AASHTO TP3	
	Plant		BC01A02	3	20 Litre Sample of PG 64-28	AASHTO T49 AE02/P22 AE05/P25 AE03/P23	ASTM D4402 AASHTO TP5	ASTM T240 AASHTO TP5	AASHTO PP1 AASHTO TP5 AASHTO TP1 AASHTO TP1	AASHTO TP3	
	Plant		BC01A03	3	20 Litre Sample of PG 64-22	AASHTO T49 AE02/P22 AE05/P25 AE03/P23	ASTM D4402 AASHTO TP5	ASTM T240 AASHTO TP5	AASHTO PP1 AASHTO TP5 AASHTO TP1 AASHTO TP1	AASHTO TP3	

TABLE 18
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for Other Than Superpave Laboratory Prepared Mixes
Laboratory: Agency
Surface Course Mixes at Design % AC

Sample Preparation No.	Gyratory Compaction At	Specimen Height mm.	Approx. Batch g.	Compacted Sample No.	Laboratory Handling & Test Sequencing First	Second	Third	Fourth
NA01A01	N_{Max}	115	4700	LA01A01	AC02/P02	PP-19*		
NA02A01	N_{Max}	115	4700	LA02A01	AC02/P02	PP-19*		
NA03A01	N_{Max}	115	4700	LA03A01	AC02/P02	PP-19*		
NA03A01	---	---	2000	---	AC03/P03			
NA04A01	7 % AV	140	5700	LA04A01	AC02/P02	AC05/P05		
NA05A01	7 % AV	140	5700	LA05A01	AC02/P02	AC05/P05		
NA06A01	7 % AV	140	5700	LA06A01	AC02/P02	AC05/P05		
NA07A01	7 % AV	140	5700	LA07A01	AC02/P02	AC05/P05		
NA08A01	7 % AV	140	5700	LA08A01	AC02/P02	AC05/P05		
NA09A01	7 % AV	140	5700	LA09A01	AC02/P02	AC05/P05		
NA01A03	N_{Max}	115	4700	LA01A03	AC02/P02	PP-19*		
NA02A03	N_{Max}	115	4700	LA02A03	AC02/P02	PP-19*		
NA03A03	N_{Max}	115	4700	LA03A03	AC02/P02	PP-19*		
NA03A03	---	---	2000	---	AC03/P03			
NA04A03	7 % AV	140	5700	LA04A03	AC02/P02	AC05/P05		
NA05A03	7 % AV	140	5700	LA05A03	AC02/P02	AC05/P05		
NA06A03	7 % AV	140	5700	LA06A03	AC02/P02	AC05/P05		
NA07A03	7 % AV	140	5700	LA07A03	AC02/P02	AC05/P05		
NA08A03	7 % AV	140	5700	LA08A03	AC02/P02	AC05/P05		
NA09A03	7 % AV	140	5700	LA09A03	AC02/P02	AC05/P05		

* Use bulk specific gravity N_{Design} estimated from gyrations vs density plots. Mark the top of GC specimen with a 'T', label the specimen.

TABLE 18 (Cont.)
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for Other Than Superpave Laboratory Prepared Mixes
Laboratory: Agency
Surface Course Mixes at Design % AC

Sample Preparation No.	Gyratory Compaction At	Specimen Height mm.	Approx. Batch g.	Compacted Sample No.	Laboratory Handling & Test Sequencing First	Second	Third	Fourth
NA01A60	N_{Max}	115	4700	LA01A60	AC02/P02	PP-19*		
NA02A60	N_{Max}	115	4700	LA02A60	AC02/P02	PP-19*		
NA03A60	N_{Max}	115	4700	LA03A60	AC02/P02	PP-19*		
NA03A60	---	---	2000	---	AC03/P03			
NA04A60	7 % AV	140	5700	LA04A60	AC02/P02	AC05/P05		
NA05A60	7 % AV	140	5700	LA05A60	AC02/P02	AC05/P05		
NA06A60	7 % AV	140	5700	LA06A60	AC02/P02	AC05/P05		
NA07A60	7 % AV	140	5700	LA07A60	AC02/P02	AC05/P05		
NA08A60	7 % AV	140	5700	LA08A60	AC02/P02	AC05/P05		
NA09A60	7 % AV	140	5700	LA09A60	AC02/P02	AC05/P05		
NA01A61	N_{Max}	115	4700	LA01A61	AC02/P02	PP-19*		
NA02A61	N_{Max}	115	4700	LA02A61	AC02/P02	PP-19*		
NA03A61	N_{Max}	115	4700	LA03A61	AC02/P02	PP-19*		
NA03A61	---	---	2000	---	AC03/P03			
NA04A61	7 % AV	140	5700	LA04A61	AC02/P02	AC05/P05		
NA05A61	7 % AV	140	5700	LA05A61	AC02/P02	AC05/P05		
NA06A61	7 % AV	140	5700	LA06A61	AC02/P02	AC05/P05		
NA07A61	7 % AV	140	5700	LA07A61	AC02/P02	AC05/P05		
NA08A61	7 % AV	140	5700	LA08A61	AC02/P02	AC05/P05		
NA09A61	7 % AV	140	5700	LA09A61	AC02/P02	AC05/P05		
NA01A62	N_{Max}	115	4700	LA01A62	AC02/P02	PP-19		
NA02A62	N_{Max}	115	4700	LA02A62	AC02/P02	PP-19		
NA03A62	N_{Max}	115	4700	LA03A62	AC02/P02	PP-19		
NA03A62	---	---	2000	---	AC03/P03			
NA04A62	7 % AV	140	5700	LA04A62	AC02/P02	AC05/P05		
NA05A62	7 % AV	140	5700	LA05A62	AC02/P02	AC05/P05		
NA06A62	7 % AV	140	5700	LA06A62	AC02/P02	AC05/P05		
NA07A62	7 % AV	140	5700	LA07A632	AC02/P02	AC05/P05		
NA08A62	7 % AV	140	5700	LA08A62	AC02/P02	AC05/P05		
NA09A62	7 % AV	140	5700	LA09A62	AC02/P02	AC05/P05		

* Use bulk specific gravity N_{Design} estimated from gyrations vs density plots Mark the top of GC specimen with a 'T', label the specimen

TABLE 19
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for Superpave Laboratory Prepared Mixes
Laboratory: Agency
Surface Course Mixes at Design % AC

Sample Preparation No.	Gyratory Compaction At	Specimen Height mm.	Approx. Batch g.	Compacted Sample No.	Laboratory Handling & Test Sequencing First	Second	Third	Fourth
NA01A02	N_{Max}	115	4700	LA01A02	AC02/P02	PP-19		
NA02A02	N_{Max}	115	4700	LA02A02	AC02/P02	PP-19		
NA03A02	N_{Max}	115	4700	LA03A02	AC02/P02	PP-19		
NA04A02	N_{Max}	115	4700	LA04A02	AC02/P02	PP-19		
NA05A02	N_{Max}	115	4700	LA05A02	AC02/P02	PP-19		
NA06A02	N_{Max}	115	4700	LA06A02	AC02/P02	PP-19		
NA07A02	3 % AV	140	5700	LA07A02	AC02/P02	SRTC		
NA08A02	3 % AV	140	5700	LA08A02	SRTC			
NA09A02	7 % AV	140	5700	LA09A02	AC02/P02	AC05/P05		
NA10A02	7 % AV	140	5700	LA10A02	AC02/P02	AC05/P05		
NA11A02	7 % AV	140	5700	LA11A02	AC02/P02	AC05/P05		
NA12A02	7 % AV	140	5700	LA12A02	AC02/P02	AC05/P05		
NA13A02	7 % AV	140	5700	LA13A02	AC02/P02	AC05/P05		
NA14A02	7 % AV	140	5700	LA14A02	AC02/P02	AC05/05		
NA15A02	7 % AV	140	5700	LA15A02	AC02/P02	LCL		
NA15A02	---	---	2000	---	AC03/P03			
NA16A02	7 % AV	140	5700	LA16A02	LCL			
NA17A02	7 % AV	140	5700	LA17A02	LCL			
NA18A02	7 % AV	140	5700	LA18A02	LCL			
NA19A02	7 % AV	140	5700	LA19A02	LCL			
NA20A02	7 % AV	140	5700	LA20A02	LCL			
NA21A02	7 % AV	140	5700	LA21A02	LCL			
NA22A02	7 % AV	140	5700	LA22A02	LCL			
NA23A02	7 % AV	140	5700	LA23A02	SRTC			
NA24A02	7 % AV	140	5700	LA24A02	SRTC			
NA25A02	7 % AV	140	5700	LA25A02	SRTC			
NA26A02	7 % AV	140	5700	LA26A02	SRTC			

AL - Agency Laboratory
LCL - LTPP Contractor Laboratory
SRTC - Superpave Regional Test Center

TABLE 19 (Cont.)
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for Superpave Laboratory Prepared Mixes
Laboratory: Agency
Surface Course Mixes at Design % AC

Sample Preparation No.	Gyratory Compaction At	Specimen Height mm.	Approx. Batch g.	Compacted Sample No.	Laboratory Handling & Test Sequencing First	Second	Third	Fourth
NA27A02	7 % AV	140	5700	LA27A02	SRTC			
NA28A02	7 % AV	140	5700	LA28A02	SRTC			
NA29A02	7 % AV	140	5700	LA29A02	SRTC			
NA30A02	7 % AV	140	5700	LA30A02	SRTC			
NA31A02	7 % AV	140	5700	LA31A02	SRTC			
NA32A02	7 % AV	140	5700	LA32A02	SRTC			
NA33A02	7 % AV	140	5700	LA33A02	SRTC			
NA34A02	7 % AV	140	5700	LA34A02	SRTC			
NA35A02	7 % AV	140	5700	LA35A02	SRTC			
NA36A02	7 % AV	140	5700	LA36A02	SRTC			
NA37A02	7 % AV	140	5700	LA37A02	SRTC			
NA38A02	7 % AV	140	5700	LA38A02	AC02/P02	SRTC		
NA39A02	7 % AV	140	5700	LA39A02	SRTC			
NA40A02	7 % AV	140	5700	LA40A02	SRTC			

TABLE 20
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for Superpave Mixes (Field Samples)
Laboratory: Agency

SURFACE COURSE MIX

Sample Location No.	Constr. Sta.	Offset m	Sample No.	Lab Test No.	Description of Sample	Laboratory Handling & Test Sequencing					
						Specimen Height mm.	Approx. Batch g.	First	Second	Third	Fourth
B01A02	242+00	N/A	DA01A02	3	GCS field sample @ 3% AV	140	5700	AASHTO-M002	SRTC		
B02A02			DA02A02	3	GCS field sample @ N_{Max}	115	4700	AASHTO-M002	AC02/P02	PP-19	
B03A02			DA03A02	3	GCS field sample @ N_{Max}	115	4700	AASHTO-M002	AC02/P02		
B04A02			DA04A02	3	GCS field sample @ N_{Max}	115	4700	AASHTO-M002	AC02/P02		
B05A02			DA05A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	LCL		
B06A02			DA06A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	AC02/P02	LCL	
B07A02			DA07A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B08A02			DA08A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B09A02			DA09A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	LCL		
B04A02			BA04A02	3	Uncompacted Plant Mix	---	2000	AC03/P03	AC04/P04	AG04/P14	LCL (P14A)
B05A02	243+00	N/A	BA05A02	3	Uncompacted Plant Mix	---	2000	AC03/P03	AC04/P04	AG04/P14	LCL (P14A)
B10A02			DA10A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B11A02			DA11A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B12A02			DA12A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B13A02			DA13A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B14A02			DA14A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B15A02			DA15A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	LCL		
B16A02	243+50	N/A	DA16A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	AC02/P02	LCL	
B17A02			DA17A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	LCL		
B18A02			DA18A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	LCL		

TABLE 20 (Cont.)
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for Superpave Mixes (Field Samples)
Laboratory: Agency

SURFACE COURSE MIX

Sample Location No.	Constr. Sta.	Offset m	Sample No.	Lab Test No.	Description of Sample	Laboratory Handling & Test Sequencing					
						Specimen Height mm.	Approx. Batch g.	First	Second	Third	Fourth
B19A02	243+50	N/A	DA19A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B20A02			DA20A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B21A02			DA21A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B22A02			DA22A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B23A02	244+00	N/A	DA23A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B24A02			DA24A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B25A02			DA25A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B26A02			DA26A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B27A02			DA27A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B28A02			DA28A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	SRTC		
B29A02	245+00	N/A	DA29A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	LCL		
B30A02			DA30A02	3	GCS field sample @ 7% AV	140	5700	AASHTO-M002	LCL		
B31A02			DA31A02	3	GCS field sample @ N_{Max}	115	4700	AASHTO-M002	AC02/P02	PP-19	
B32A02			DA32A02	3	GCS field sample @ N_{Max}	115	4700	AASHTO-M002	AC02/P02	PP-19	
B33A02			DA33A02	3	GCS field sample @ N_{Max}	115	4700	AASHTO-M002	AC02/P02	PP-19	
B34A02			DA34A02	3	GCS field sample @ 3% AV	140	5700	AASHTO-M002	SRTC		
B34A02			BA34A02	3	Uncompacted Plant Mix	---	2000	AC03/P03	AC04/P04	AG04/P14	LCL (P14A)

Note: QC/QA specimen DA52A02-DA54A02, DA81A02-DA83A02, DA02A02-DA04A02, DA31A02-DA33A02 are compacted in the field from field samples stored in insulated containers
Other specimen are plit off to size in the field while still hot They are reheated as needed for compaction

GCS - Gyratory Compacted Specimen
SRTC - Superpave Regional Test Center
LCL - LTPP Contractor Laboratory

TABLE 21
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Superpave Regional Test Center - Tracking Table
Laboratory Prepared Specimen

GCS #	Test Sequence	
	First	Second
LA07A02	AC02/P02	SST-3, Repeated Shear @ Constant Stress Ratio
LA08A02	AC02/P02	SST-3, Repeated Shear @ Constant Stress Ratio
LA23A02	AC02/P02	SST-1, Frequency Sweep and Simple Shear
LA24A02	AC02/P02	SST-1, Frequency Sweep and Simple Shear
LA25A02	AC02/P02	SST-1, Frequency Sweep and Simple Shear
LA26A02	AC02/P02	SST-1*
LA27A02	AC02/P02	SST-2, Volumetric and Uniaxial Strain
LA28A02	AC02/P02	SST-2, Volumetric and Uniaxial Strain
LA29A02	AC02/P02	SST-2, Volumetric and Uniaxial Strain
LA30A02	AC02/P02	SST-2*
LA31A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
LA32A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
LA33A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
LA34A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
LA35A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
LA36A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
LA37A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
LA38A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
LA39A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
LA40A02	AC02/P02	SP-IT*

* Extra Sample, DO NOT DISCARD

Note: The 140mm SPECIMEN are to be cut into two replicate specimen and labeled 'A' for the top and 'B' for the bottom of the specimen Mount the bottom of A and the top of B to the moveable top platen of the Shear Tester

TABLE 21 (Cont.)
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Superpave Regional Test Center - Tracking Table
Plant Mix Specimen

GCS #	Test Sequence	
	First	Second
DA01A02	AC02/P02	SST-3, Repeated Shear @ Constant Stress Ratio
DA34A02	AC02/P02	SST-3, Repeated Shear @ Constant Stress Ratio
DA06A02	AC02/P02	SST-1, Frequency Sweep and Simple Shear
DA10A02	AC02/P02	SST-1, Frequency Sweep and Simple Shear
DA24A02	AC02/P02	SST-1, Frequency Sweep and Simple Shear
DA07A02	AC02/P02	SST-2, Volumetric and Uniaxial Strain
DA11A02	AC02/P02	SST-2, Volumetric and Uniaxial Strain
DA23A02	AC02/P02	SST-2, Volumetric and Uniaxial Strain
DA27A02	AC02/P02	SST-2, Volumetric and Uniaxial Strain
DA08A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
DA12A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
DA13A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
DA14A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
DA19A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
DA20A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
DA21A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
DA22A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
DA25A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance
DA26A02	AC02/P02	SP-IT, Indirect Tensile Strength & Creep Compliance

TABLE 21 (Cont.)
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Superpave Regional Test Center - Tracking Table
Core At Time A=O

Core Location #	Core Sample #	Lab Test #	Handling and Testing Sequence			
			First	Second	Third	Disposal
C01A02	CA01A02	1	AC01/P01	AC02/P02	SP-IT	No
C08A02	CA08A02	2	AC01/P01	AC02/P02	SP-IT	No
C10A02	CA10A02	1	AC01/P01	AC02/P02	SP-IT	No
C13A02	CA13A02	1	AC01/P01	AC02/P02	SP-IT	No
C17A02	CA17A02	1	AC01/P01	AC02/P02	SP-IT	No
C18A02	CA18A02	1	AC01/P01	AC02/P02	SP-IT	No
C20A02	CA20A02	1	AC01/P01	AC02/P02	SP-IT	No
C27A02	CA27A02	2	AC01/P01	AC02/P02	SP-IT	No
C29A02	CA29A02	2	AC01/P01	AC02/P02	SP-IT	No
C34A02	CA34A02	2	AC01/P01	AC02/P02	SP-IT	No
C04A02	CA04A02	1	AC01/P01	AC02/P02	SST-1	No
C30A02	CA30A02	2	AC01/P01	AC02/P02	SST-1	No
C12A02	CA12A02	1	AC01/P01	AC02/P02	SST-2	No
C22A02	CA22A02	2	AC01/P01	AC02/P02	SST-2	No
C09A02	CA09A02	1	AC01/P01	AC02/P02	SST-3	No
C26A02	CA26A02	2	AC01/P01	AC02/P02	SST-3	No

Notes: The core specimen shall be tested in the following order:-
- core examination and thickness measurements
- trim and cut core to testing geometry
- determine bulk density
- prepare and mount the sized specimen for noted test

SP-IT - Superpave Indirect Tensile Strength and Creep Compliance
SST-1 - Frequency Sweep and Simple Shear
SST-2 - Volumetric and Uniaxial Strain
SST-3 - Repeated Shear @ Constant Stress Ratio

TABLE 22.1
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
LTPP Contractor Laboratory Tracking Table for
Gyratory Compacted Laboratory & Field Superpave Mixes

GCS #	Test Sequence		
	First	Second	
LA15A02	AC02/P02	AC07/P07	**Note:** Trim the 150mm dia. x 140mm height specimen to 100mm diameter x 65mm height (central portion of specimen)
LA16A02	AC02/P02	AC07/P07	
LA17A02	AC02/P02	AC07/P07	
LA18A02	AC02/P02	AC07/P07	
LA19A02	AC02/P02	AC06/P06	
LA20A02	AC02/P02	AC06/P06	
LA21A02	AC02/P02	AC06/P06	
LA22A02	AC02/P02	AC06/P06	
DA05A02	AC02/P02	AC07/P07	
DA09A02	AC02/P02	AC07/P07	
DA15A02	AC02/P02	AC06/P06	
DA16A02	AC02/P02	AC06/P06	
DA17A02	AC02/P02	AC07/P07	
DA18A02	AC02/P02	AC06/P06	
DA29A02	AC02/P02	AC07/P07	
DA30A02	AC02/P02	AC06/P06	

TABLE 22.2
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
LTPP Contractor Laboratory - Tracking Table for Cores
Core At Time A=O

Core Location #	Core Sample #	Lab Test #	Test Sequence First	Second	Third
C03A02	CA03A02		AC01/P01	AC02/P02	AC06/P06
C07A02	CA07A02		AC01/P01	AC02/P02	AC07/P07
C14A02	CA14A02		AC01/P01	AC02/P02	AC06/P06
C16A02	CA16A02		AC01/P01	AC02/P02	AC07/P07 1DT
C21A02	CA21A02		AC01/P01	AC02/P02	AC07/P07
C23A02	CA23A02		AC01/P01	AC02/P02	AC06/P06
C31A02	CA31A02		AC01/P01	AC02/P02	AC07/P07
C32A02	CA32A02		AC01/P01	AC02/P02	AC06/P06

* The visual examination and thickness measurement and bulk density determinations are included in the LTPP Contractor Laboratory Procedures for ACO6/P06 and AC07/P07 Only the top surface layer is tested for Creep Compliance, Resilient Modulus and Indirect Tensile Strength

TRIM CORES TO FORM TEST SPECIMEN 100mm dia x 65mm HEIGHT

TABLE 23
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for AC Cores (Mixes other than Superpave)
Laboratory: Agency - at Interval A

Sample Location No.	Constr. Sta.	Offset Ft.	Sample No.	Lab Test No.	Description of Sample	Laboratory Handling & Testing Sequencing						
						First	Second	Third	Fourth	Fifth	Sixth	Seventh
C01A01	130+10	3 5	CA01A01	1	152mm Diameter Core	AC01/P01	AC02/P02	AC03/P03	AC04/P04	AE01/P21	AG04/P14	PP19
C02A01	130+15	2 0	CA02A01	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Blend	T49	
C03A01	130+20	3 5	CA03A01	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Recovered	AE02/P22	
C04A01	130+25	2 0	CA04A01	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Asphalt	AE05/P25	
C05A01	137+45	2 0	CA05A01	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	For	TP5	
C06A01	137+50	3 5	CA06A01	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Binder	TP1, TP3	
C07A01	137+55	2 0	CA07A01	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Testing	AE03/P23	
C08A01	137+60	3.5	CA08A01	2	152mm Diameter Core	AC01/P01	AC02/P02	AC03/P03	AC04/P04	AE01/P21	AG04/P14	PP19
C01A03	294+10	3 5	CA01A03	1	152mm Diameter Core	AC01/P01	AC02/P02	AC03/P03	AC04/P04	AE01/P21	AG04/P14	PP19
C02A03	294+15	2 0	CA02A03	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Blend	T49	
C03A03	294+20	3 5	CA03A03	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Recovered	AE02/P22	
C04A03	294+25	2 0	CA04A03	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Asphalt	AE05/P25	
C05A03	301+45	2 0	CA05A03	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	For	TP5	
C06A03	301+50	3 5	CA06A03	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Binder	TP1, TP3	
C07A03	301+55	2 0	CA07A03	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Testing	AE03/P23	
C08A03	301+60	3.5	CA08A03	2	152mm Diameter Core	AC01/P01	AC02/P02	AC03/P03	AC04/P04	AE01/P21	AG04/P14	PP19
C01A60	302+90	3 5	CA01A60	1	152mm Diameter Core	AC01/P01	AC02/P02	AC03/P03	AC04/P04	AE01/P21	AG04/P14	PP19
C02A60	302+85	2 0	CA02A60	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Blend	T49	
C03A60	302+80	3 5	CA03A60	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Recovered	AE02/P22	
C04A60	302+75	2 0	CA04A60	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Asphalt	AE05/P25	
C05A60	295+55	2.0	CA05A60	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	For	TP5	
C06A60	295+50	3 5	CA06A60	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Binder	TP1, TP3	
C07A60	295+45	2 0	CA07A60	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Testing	AE03/P23	
C08A60	295+40	3 5	CA08A60	2	152mm Diameter Core	AC01/P01	AC02/P02	AC03/P03	AC04/P04	AE01/P21	AG04/P14	PP19

TABLE 23 (Cont.)
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for AC Cores (Mixes other than Superpave)
Laboratory: Agency - at Interval A

Sample Location No.	Constr. Sta.	Offset Ft.	Sample No.	Lab Test No.	Description of Sample	Laboratory Handling & Testing Sequencing						
						First	Second	Third	Fourth	Fifth	Sixth	Seventh
C01A61	219+90	3 5	CA01A61	1	152mm Diameter Core	AC01/P01	AC02/P02		AC04/P04	AE01/P21	AG04/P14	PP19
C02A61	219+85	2 0	CA02A61	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Blend	T49	
C03A61	219+80	3 5	CA03A61	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Recovered	AE02/P22	
C04A61	219+75	2.0	CA04A61	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Asphalt	AE05/P25	
C05A61	312+55	2 0	CA05A61	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	For	TP5	
C06A61	312+50	3 5	CA06A61	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Binder	TP1, TP3	
C07A61	312+45	2 0	CA07A61	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Testing	AE03/P23	
C08A61	312+40	3 5	CA08A61	2	152mm Diameter Core	AC01/P01	AC02/P02		AC04/P04	AE01/P21	AG04/P14	PP19
C01A62	163+90	3 5	CA01A62	1	152mm Diameter Core	AC01/P01	AC02/P02		AC04/P04	AE01/P21	AG04/P14	PP19
C02A62	163+85	2 0	CA02A62	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Blend	T49	
C03A62	163+80	3.5	CA03A62	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Recovered	AE02/P22	
C04A62	163+75	2 0	CA04A62	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Asphalt	AE05/P25	
C05A62	156+55	2 0	CA05A62	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	For	TP5	
C06A62	156+50	3 5	CA06A62	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Binder	TP1, TP3	
C07A62	156+45	2.0	CA07A62	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Testing	AE03/P23	
C08A62	156+40	3 5	CA08A62	2	152mm Diameter Core	AC01/P01	AC02/P02		AC04/P04	AE01/P21	AG04/P14	PP19

TABLE 24
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for AC Cores (Superpave)
Laboratory: Agency - at Interval A

Sample Location No.	Constr. Sta.	Offset Ft.	Sample No.	Lab Test No.	Description of Sample	Laboratory Handling & Testing Sequencing					
						First	Second	Third	Fourth	Fifth	Sixth
C02A02	239+15	2 0	CA02A02	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	Blend	Run Following Tests	
C06A02	240+50	2 0	CA06A02	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	Recovered	T49	TP5
C15A02	239+35	7 8	CA15A02	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	Asphalt	P22	TP1
C19A02	239+55	7 8	CA19A02	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	From	P25	TP3
C28A02	246+70	7 8	CA28A02	2	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	Cores	P23	
C33A02	246+95	7 8	CA33A02	1	152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04			
C11A02	239+15	7.8	CA11A02	1	152mm Diameter Core	AC01/P01	AC02/P02	AC03/P03	AC04/P04	P21	P14
C24A02	246+50	7 8	CA24A02	2	152mm Diameter Core	AC01/P01	AC02/P02	AC03/P03	AC04/P04	P21	P14
C05A02	246+45	3 5	CA05A02	2	Spare						
C25A02	245+55	7 8	CA25A02	2	Spare						

TABLE 25
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for AC Cores at Intervals t (B through F)
Laboratory: Agency

Sample Location No.	Constr. Sta.	Offset Ft.	Sample No.	Lab Test No.	Description of Sample	Laboratory Handling & Testing Sequencing						
						First	Second	Third	Fourth	Fifth	Sixth	Seventh
C01tXX	Varies	3 5	CA01tXX		152mm Diameter Core	AC01/P01	AC02/P02	AC03/P03	AC04/P04	AE01/P21	P14	PP19
C02tXX	with	2 0	CA02tXX		152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Blend	T49	
C03tXX	t = B	3 5	CA03tXX		152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Recovered	AE02/P22	
C04tXX	C	2 0	CA04tXX		152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Asphalt	AE05/P25	
C05tXX	D	2 0	CA05tXX		152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	For	TP5	
C06tXX	E	3 5	CA06tXX		152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Binder	TP1, TP3	
C07tXX	F	2 0	CA07tXX		152mm Diameter Core	AC01/P01	AC02/P02	AC04/P04	AE01/P21	Testing	AE03/P23	
C08tXX		3 5	CA08tXX		152mm Diameter Core	AC01/P01	AC02/P02	AC03/P03	AC04/P04	AE01/P21	P14	PP19

Monitoring Stations, ft.

@ t =	B	C	D	E	F
C01	-165	-140	-115	-85	-60
C02	-160	-135	-110	-80	-55
C03	-155	-130	-105	-75	-50
C04	-150	-125	-100	-70	-45
C05	+570	+600	+625	+650	+675
C06	+575	+605	+630	+655	+680
C07	+580	+610	+635	+660	+685
C08	+585	+615	+640	+665	+690

Note: XX - Test Section Numbers 01, 02, 03, 60, 61, and 62

TABLE 26
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for Quality Control - AC Mixes
Laboratory: Agency/Contractor (Field)

Sample Location No.	Constr. Sta.	Offset Ft.	Sample No.	Lab Test No.	Description of Sample	Laboratory Handling & Testing Sequencing					
						First	Second	Third	Fourth	Fifth	Sixth
B03A01	N/A	N/A	BA03A01	3	Paver Samples	AC03/P03	AC04/P04	AG04/P14			
B05A01			BA05A01	3	Paver Samples	AC04/P04	AG04/P14				
B03A01			DA01A01	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA02A01	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA03A01	3	Compacted at N_{Max}	M-002	AC02/P02	PP19			
B05A01			DA04A01	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA05A01	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA06A01	3	Compacted at N_{Max}	M-002	AC02/P02				
B09A02	N/A	N/A	BA09A02	3	Paver Samples	AC03/P03	AC04/P04	AG04/P14			
			DA35A02	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA36A02	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA37A02	3	Compacted at N_{Max}	M-002	AC02/P02	PP19			
			DA38A02	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA39A02	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA40A02	3	Compacted at N_{Max}	M-002	AC02/P02				
B03A03	N/A	N/A	BA03A03	3	Paver Samples	AC03/P03	AC04/P04	AG04/P14			
B05A03			BA05A03	3	Paver Samples	AC04/P04	AG04/P14				
B03A03			DA01A03	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA02A03	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA03A03	3	Compacted at N_{Max}	M-002	AC02/P02	PP19			
B05A03			DA04A03	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA05A03	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA06A03	3	Compacted at N_{Max}	M-002	AC02/P02				

TABLE 26 (Cont.)
CT DOT SPS-9A PROJECT 090900, SR 2, COLCHESTER, CT
Laboratory Tracking Table for Quality Control - AC Mixes
Laboratory: Agency/Contractor (Field)

Sample Location No.	Constr. Sta.	Offset Ft.	Sample No.	Lab Test No.	Description of Sample	Laboratory Handling & Testing Sequencing					
						First	Second	Third	Fourth	Fifth	Sixth
B03A60	N/A	N/A	BA03A60	3	Paver Samples	AC03/P03	AC04/P04	AG04/P14			
B05A60			BA05A60	3	Paver Samples	AC04/P04	AG04/P14				
B03A60			DA01A60	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA02A60	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA03A60	3	Compacted at N_{Max}	M-002	AC02/P02	PP19			
B05A60			DA04A60	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA05A60	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA06A60	3	Compacted at N_{Max}	M-002	AC02/P02				
B03A61	N/A	N/A	BA03A61	3	Paver Samples	AC03/P03	AC04/P04	AG04/P14			
B05A61			BA05A61	3	Paver Samples	AC04/P04	AG04/P14				
B03A61			DA01A61	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA02A61	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA03A61	3	Compacted at N_{Max}	M-002	AC02/P02	PP19			
B05A61			DA04A61	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA05A61	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA06A61	3	Compacted at N_{Max}	M-002	AC02/P02				
B03A62	N/A	N/A	BA03A62	3	Paver Samples	AC03/P03	AC04/P04	AG04/P14			
B05A62			BA05A62	3	Paver Samples	AC04/P04	AG04/P14				
B03A62			DA01A62	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA02A62	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA03A62	3	Compacted at N_{Max}	M-002	AC02/P02	PP19			
B05A62			DA04A62	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA05A62	3	Compacted at N_{Max}	M-002	AC02/P02				
			DA06A62	3	Compacted at N_{Max}	M-002	AC02/P02				

SPS-9A Notes

Suggestions for Bulk Field HMA Mix Sampling

The sampling of hot mix in the field from plant or paver and the subsequent handling and preparation of gyratory compacted specimen at the required compaction temperature can pose problems. There is a need for consistency in the temperature regime experienced by the mix until compaction, particularly for the 34 Gyratory Compacted Specimen (GCS) which are intended for performance testing.

It is suggested that for simplicity and consistency that sampling containers can be the same shallow flat pan about (9" x 12" x 2") used in the laboratory to short-term age and to bring the mix to compaction temperature. The tare weight of each pan should be known before the hot mix sample is placed in the pan. A sample of about 6 to 6.5 kilograms should be placed in each pan. (The truck that is used to collect the sample for conveyance to the field laboratory may be equipped with a field balance and pre-determined counterweight).

The 6 samples for QC purposes should be immediately placed into an insulated container and delivered to the field laboratory for GCS compaction. At the laboratory, the weight of mix in the pan can be adjusted to the quantity needed to manufacture the 150mm diameter by 115mm height specimen. The amount of mix removed from the pan is available for maximum specific gravity testing and asphalt content determination.

The 34 samples for gyratory compaction and performance testing can be transported to the laboratory (field or designated agency laboratory) for the immediate compaction. The samples likely need to be re-heated. The weight of material in the pan should be adjusted for the GC specimen which are 150mm diameter x 140mm height. Each sample should be treated in the same way as the next with respect to time and temperature while being brought up to compaction temperature. An interval of about 20 minutes should be allowed between treatment of samples to permit completion of compaction of the previous sample.

Five (5) additional samples should be obtained for maximum specific gravity, asphalt content and aggregate gradation determinations.

April 22, 1996

Notes on Preparation of Gyratory Compacted Test Specimen (AASHTO M-002)

1) Number of Gyrations - (Table V-1 pg. 70, FHWA-SA-95-003, Feb. 1995)

NARO Project Location	Highest/Mean 7-day	Design ESAL's	N_{ini}	$N_{Des.}$	N_{Max}
Colchester CT -	34 deg. C / 30 deg. C	0.185×10^6	7	68	104
Petawawa ON -	34 deg. C / 30 deg. C	2.65×10^6	7	86	134
Moncure NC -	39 deg. C / 36 deg. C	3.32×10^6	8	96	152
Allentown NJ -	37 deg. C / 33 deg. C	39.0×10^6	9	126	204

2) Densification Criteria - G_{mm} is measured AC03/P03

N_{ini} Observed % G_{mm} < 89 0%

N_{Des} Observed % G_{mm} approx. 96 0%

N_{Max} Observed % G_{mm} < 98.0%