LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE

For The Technical Direction Of The LTPP Program

Program Area: SPS

Directive Number: S-5

Date: April 19, 1993

Supersedes: None

Subject: Supplemental Section Designation

Attached is the procedure to be used for assignment of section numbers for supplement SPS Sections. All new experiments shall conform to these conventions immediately. All existing supplemental sections shall be changed upon next addition or update of monitoring information.

Please note that a "00" section has been added to allow for information that pertains to all section within the experiment.

Approved: Paul Teng

Date: April 19, 1993

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MEMORANDUM

February 26, 1993 File: WO4-Task2-IMS Issues

To: Monte Symons

From: John Miller

Subject: LTPP Section Identification Number Assignment

The proliferation of supplemental test sections in the SPS has resulted in numerous issues with regard to data collection and storage. Certain numbers have been reserved for use as section identifiers but no uniform approach to numbering supplemental sections has been in use to date within LTPP. To alleviate any potential problems associated with numbering, test section numbers should be assigned according to the following rules:

1. Use the state code for the first two digits

2. Use the experiment number for the middle two digits

3. Agency design Auxiliary sections use "59" for the last two digits

4. Agency supplemental sections use consecutive numbers beginning with "60" for the last two digits (except for SPS-3 and SPS-4 where the second digit of the section number is "1" or higher to identify supplemental sections)

5. Each SPS project will be assigned "00" as a means to link individual test sections to data that applies to all sections within the project

6 Individual test sections within a project will be assigned numbers conforming to those in the construction guidelines which are based on the treatment/cross section parameters

The section numbering scheme is summarized as follows:

SPS Experiment	Valid Test Section Numbers			
	Core Experiment	SHRP Supplemental	Auxiliary	Agency Supplemental
1	00-24	n/a	59	60+
2	00-24	25-52	59	60+
3	00, 10, 20, 30 ...	n/a	n/a	?1, ?2, ?3 ...
4	00, 10, 20, 30 ...	n/a	n/a	?1, ?2, ?3 ...
5	00-09	n/a	59	60+
6	00-08	n/a	59	60+
7	00-09	n/a	59	60+
8	00-12	n/a	59	60+

Core Experiment - the factorial contained in the experiment design, also includes the project global identification number "00"

SHRP Supplemental - is an identified supplemental experiment (this includes only SPS-2A and -2B at this time)

Auxiliary - the "agency practice" section built in conjunction with an SPS project

Agency Supplemental - any additional supplemental sections desired by the participating agency

Notes:

The numbering in the Agency Supplemental column is defined as follows:

- "60+" means section numbers 60 and greater may be used
- "?1" means that any state supplemental section built using a similar treatment type (chip seal, slurry seal, thin overlay, undersealing, etc.) will use the first character of the section number for that treatment followed by a number greater than 0. The "?0" section number is reserved for the core experiment sections.

The RCOCs shall provide input in those cases where numbers have been assigned other than those listed above. It will be necessary to change numbers in the IMS where they conflict with the requirements described above.

NOTICE OF CHANGE(S) TO SHRP SPS REPORT		
Report Title: **Report Date:** **SHRP Operational Memo No.:**	Data Collection Guidelines for SPS-5 October 1990 SHRP-LTPP-OM-015	
Change Number: **Change Date:**	1 October 30, 1992	Page 1 of 1

The following change should be incorporated in the document:

Construction Data Sheets (All Sheets)

The title and the numbering of the data sheets were revised to conform to the scheme used for the development of Construction Data Sheets for SPS-1 and SPS-2 experiments.
The revised Sheets 1 to 11 are attached.

Changes in the IMS will be implemented to incorporate the revisions.

SPS-5 CONSTRUCTION DATA SHEET 1 REFERENCE PROJECT STATION TABLE	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO [0 0]

ORDER	TEST SECTION ID NO (1)	REFERENCE PROJECT STATION NUMBER		(4) CUT-FILL[1]	
		(2) START	(3) END	TYPE	STATION
1	__ __ __ __ __ __	0 + 0 0	__ __ __ __ + __ __	___	__ + __ __
2	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
3	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
4	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
5	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
6	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
7	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
8	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
9	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
10	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
11	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
12	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
13	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
14	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
15	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
16	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
17	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
18	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
19	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __
20	__ __ __ __ __ __	__ __ __ __ + __ __	__ __ __ __ + __ __	___	__ + __ __

5. SPS - GPS TEST SECTION EQUALITIES
   GPS section __ __ __ __ __ __ is the same as SPS section __ __ __ __ __ __
   GPS section __ __ __ __ __ __ is the same as SPS section __ __ __ __ __ __

6. INTERSECTIONS BETWEEN TEST SECTION ON THE PROJECT

ROUTE	PROJECT STATION NO.	RAMPS EXIT	RAMPS ENT	INTERSECTION STOP	INTERSECTION SIGNAL	INTERSECTION UNSIG
_____	__ __ __ __ + __ __	____	____	____	____	_____
_____	__ __ __ __ + __ __	____	____	____	____	_____
_____	__ __ __ __ + __ __	____	____	____	____	_____

Note 1. Indicate the type of subgrade section the test section is located on:
Cut ..... 1 Fill ..... 2 At-Grade ..... 3 Cut and Fill 4
If cut-fill transition is located in a test section, enter test section station of the cut-fill transition location.

PREPARER_____ EMPLOYER _____ DATE _____

SPS-5 CONSTRUCTION DATA SHEET 2 REVISED LAYER DESCRIPTIONS	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO [__ __]

1. LAYER NUMBER	2. LAYER DESCRIPTION	3. MATERIAL TYPE CLASS	4. LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE (7)	[___ ___]				
2	[___ ___]	[___ ___]		_ _ _ . _	_ _ _ . _	_ _ _ . _
3	[___ ___]	[___ ___]	[_ _ _ . _]	_ _ _ . _	_ _ _ . _	_ _ _ . _
4	[___ ___]	[___ ___]	[_ _ _ . _]	_ _ _ . _	_ _ _ . _	_ _ _ . _
5	[___ ___]	[___ ___]	[_ _ _ . _]	_ _ _ . _	_ _ _ . _	_ _ _ . _
6	[___ ___]	[___ ___]	[_ _ _ . _]	_ _ _ . _	_ _ _ . _	_ _ _ . _
7	[___ ___]	[___ ___]	[_ _ _ . _]	_ _ _ . _	_ _ _ . _	_ _ _ . _
8	[___ ___]	[___ ___]	[_ _ _ . _]	_ _ _ . _	_ _ _ . _	_ _ _ . _
9	[___ ___]	[___ ___]	[_ _ _ . _]	_ _ _ . _	_ _ _ . _	_ _ _ . _
10	[___ ___]	[___ ___]	[_ _ _ . _]	_ _ _ . _	_ _ _ . _	_ _ _ . _
11	[___ ___]	[___ ___]	[_ _ _ . _]	_ _ _ . _	_ _ _ . _	_ _ _ . _
12	[___ ___]	[___ ___]	[_ _ _ . _]	_ _ _ . _	_ _ _ . _	_ _ _ . _
13	[___ ___]	[___ ___]	[_ _ _ . _]	_ _ _ . _	_ _ _ . _	_ _ _ . _
14	[___ ___]	[___ ___]	[_ _ _ . _]	_ _ _ . _	_ _ _ . _	_ _ _ . _
15	[___ ___]	[___ ___]	[_ _ _ . _]	_ _ _ . _	_ _ _ . _	_ _ _ . _
			[_ _ _ . _]			

NOTES:

1. Layer 1 is subgrade soil, the highest numbered layer is the pavement surface.
2. Layer description codes:

Overlay 01	Base Layer 05	Porous Friction Course 09
Seal/Tack Coat 02	Subbase Layer 06	Surface Treatment 10
Original Surface 03	Subgrade 07	Embankment {Fill) 11
HMAC Layer (Subsurface) . . 04	Interlayer 08	

   If milling was performed, the layers which were milled shall be assigned their previous layer number and material type. If the layer was completely removed by milling, it shall still be shown as a layer with a zero thickness.
3. Enter the material type classification codes from Tables A.5, A.6, A.7 and A.8 which best describes the material in each layer. If the layer was milled, enter the material classification code corresponding to the type material which was removed.
4. Enter the average thickness of each layer and the maximum, minimum, and standard deviation of the thickness measurements, if known. If a layer was partially milled, the remaining thickness of the layer shall be indicated.

PREPARER_____ EMPLOYER _____ DATE _____

SPS-5 CONSTRUCTION DATA SHEET 3 PRE-OVERLAY SURFACE PREPARATION SKETCH	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO [__ __]

SPS-5 CONSTRUCTION DATA SHEET 4 ASPHALT CONCRETE PATCHES	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO [__ __]

1. DATE PATCHING OPERATIONS BEGAN (Month - Day - Year) [__ __ - __ __ - __ __]

2. DATE PATCHING OPERATIONS COMPLETED [__ __ - __ __ - __ __]

3. PRIMARY DISTRESS OCCURRENCE PATCHED (code from Table A.22) [__ __]
   Other (Specify) _____
   _____

4. SECONDARY DISTRESS OCCURRENCE PATCHED (code from Table A.22) [__ __]
   Other (Specify)_____
   _____

5. SUMMARY Of PATCHING

	NUMBER	TOTAL AREA (SQ. FT.)
Surface Only	[__ __]	[__ __ __ __]
Surface and partial base replacement	[__ __]	[__ __ __ __]
Full depth	[__ __]	[__ __ __ __]

6. METHOD USED TO DETERMINE LOCATION AND SIZES Of PATCHES [___]
   Deflection ..... 1 Coring ..... 2 Visual 3
   Other ..... 4 (specify) _____
   _____

7. METHOD USED TO FORM PATCH BOUNDARIES [___]
   None ..... 1 Saw Cut ..... 2 Air Hammer ..... 3 Cold Milling 4
   Other ..... 5 (Specify) _____
   _____

8. COMPACTION EQUIPMENT [___]
   None ..... 1 Pneumatic roller ..... 2 Vibratory Plate Compactor ..... 3 [___]
   Vibratory Roller ..... 4 Steel Wheel Roller ..... 5 Truck Tire 6
   Hand Tools ..... 7 Other ..... 8 (Specify) _____
   _____

9. PATCH MATERIAL [___]
   Hot Mix Asphalt Concrete ..... 1 Plant Mix with Cutback Asphalt, Cold Laid 2
   Plant Mix with Emulsified Asphalt, Cold Laid ..... 3 Road Mix with Cutback Asphalt 4
   Road Mix with Emulsified Asphalt ..... 5 Portland Cement Concrete 6
   Other ..... 7 (Specify) _____
   _____

10. MINIMUM TIME FROM MATERIAL PLACEMENT TO OPENING TO TRAFFIC (Hrs) [__ __]

11. MAXIMUM MATERIAL TEMPERATURE FOR TRAFFIC OPENING (if used) (°F) [__ __ __]

12. AIR TEMPERATURE DURING PLACEMENT OPERATIONS
    High Temperature (°F) [__ __]
    Low Temperature (°F) [__ __]

13. PREDOMINATE ROAD SURFACE MOISTURE CONDITION DURING PLACEMENT OPERATIONS [__]
    Dry ..... 1 Moist ..... 2 Wet 3

PREPARER_____ EMPLOYER _____ DATE _____

SPS-5 CONSTRUCTION DATA SHEET 5 RUT LEVEL-UP TREATMENT	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO [__ __]

1. DATE LEVEL-UP LAYER APPLIED [__ __ - __ __ - __ __]

2. PLACEMENT LOCATION OF LEVEL-UP LAYER [__]
   Outside Rut ..... 1 Inside Rut ..... 2 Both Ruts ..... 3 Full Lane Width 4

3. LENGTH Of TEST SECTION COVERED [__]
   Full Length of Test Section 1
   Partial Length of Test Section ..... 2 (enter start and end station numbers)
   Outside Wheel Path Rut: Start Station __ + __ __ End Station __ + __ __
   Inside Wheel Path Rut: Start Station __ + __ __ End Station __ + __ __

4. AVERAGE RUT DIMENSIONS (Inches) DEPTH WIDTH
   Outside Wheel Path Rut [__ . __] [__ __ . __]
   Inside Wheel Path Rut [__ . __] [__ __ . __]

5. RUT PREPARATION PRIOR TO APPLICATION OF LEVEL-UP [__]
   None ..... 1 Broomed ..... 2 Broomed + Asphaltic Tack Coat 3
   Asphaltic Tack Coat (only) 4
   Wheel Path Milling ..... 5 (specify, inches) DEPTH __ . __ WIDTH __ . __
   Other ..... 6 (Specify) _____
   _____

6. COMPACTION EQUIPMENT [__]
   None ..... 1 Pneumatic roller ..... 2 Vibratory Plate Compactor ..... 3 [__]
   Vibratory Roller ..... 4 Steel Wheel Roller ..... 5 Truck Tire 6
   Hand Tools ..... 7 Other ..... 8 (Specify) _____
   _____

7. TYPE OF LEVEL- UP MATERIAL [__]
   Hot Mix Asphalt Concrete ..... 1 Plant Mix with Cutback Asphalt, Cold Laid 2
   Plant Mix with Emulsified Asphalt, Cold Laid ..... 3 Road Mix with Cutback Asphalt 4
   Road Mix with Emulsified Asphalt 5
   Other ..... 6 (Specify) _____
   _____

8. MAXIMUM TOP SIZE AGGREGATE (Inches) [__ . __ __]

9. MINIMUM TIME FROM MATERIAL PLACEMENT TO OPENING TO TRAFFIC (Hrs) [__ __]

10. MAXIMUM MATERIAL TEMPERATURE FOR TRAFFIC OPENING (if used) (°F) [__ __ __]

11. AIR TEMPERATURE DURING PLACEMENT OPERATIONS
    High Temperature (°F) [__ __]
    Low Temperature (°F) [__ __]

12. PREDOMINATE ROAD SURFACE MOISTURE CONDITION DURING PLACEMENT OPERATIONS [__]
    Dry ..... 1 Moist ..... 2 Wet 3

PREPARER_____ EMPLOYER _____ DATE _____

SPS-5 CONSTRUCTION DATA SHEET 6 PREPARATION OF MILLED TEST SECTIONS	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO [__ __]

1. DATE OF MILLING OPERATION [__ __ - __ __ - __ __]

2. MANUFACTURER OF MILLING MACHINE (Specify) _____

3. MILLING MACHINE MODEL DESIGNATION (Specify) _____

4. WIDTH OF CUTTING HEAD (Inches) [__ __ __]

5. TOTAL MILLED DEPTH (Inches)

Location	No. Measrmnts	Maximum	Minimum	Std. Dev.	Average
Inside lane edge	__ __ .	__ __ . __	__ __ . __	__ __ . __	[__ . __]
Outside lane edge	__ __ .	__ __ . __	__ __ . __	__ __ . __	[__ . __]

MILLED SURFACE CHARACTERISTICS

6. Macro Texture [__]
   Fine Macro Texture (#1/4 inch) ..... 1 Coarse Macro Texture(>1/4 inch) 2

7. Estimate of extent of test section surface area delaminated (Percent) [__ __]

8. Height of Ridge Between Parallel Passes? (Inches) [__ . __]

9. Other Comments? (Yes, No) [___]
   Comments _____
   _____

10. WHERE PATCHES PLACED AFTER MILLING? (Yes, No) [_____]
    (If yes complete Construction Data Sheet 3)

11. LENGTH OF TIME MILLED SURFACE WAS OPENED TO TRAFFIC? (Hrs.) [__ __ __]
12. WAS MILL REPLACEMENT LAYER THICKER THAN MILL DEPTH (YES, NO) [_____]
13. LAYER NUMBER OF MILL REPLACEMENT [__]
14. NOMINAL THICKNESS OF MILL REPLACEMENT MATERIAL (Inches) [__ __ . __]

15. TYPE OF MILL REPLACEMENT LAYER MATERIAL [__]
    "Virgin" Asphalt Concrete ..... 1 Recycled Asphalt Concrete 2
    Other ..... 3 (Specify) _____

16. WAS ADJACENT TRAVEL LANE MILLED TO SAME DEPTH AS TEST LANE? (Yes, No) [_____]
    IF NO, WIDTH MILLED SAME DEPTH AS TEST LANE (Feet) [__ __ . __]

17. COMMENTS _____

PREPARER_____ EMPLOYER _____ DATE _____

SPS-5 CONSTRUCTION DATA SHEET 7 OVERLAY PLACEMENT OPERATIONS	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO [__ __]

1. DATE SURFACE PREPARATION BEGAN (Month-Day-Year) [__ __ - __ __ - __ __]
2. DATE SURFACE PREPARATION COMPLETED [__ __ - __ __ - __ __]

3. SURFACE PREPARATION PRIOR TO PLACEMENT OF OVERLAY [__]
   None ..... 1 Broomed ..... 2 Broomed + Asphaltic Tack Coat 3
   Asphaltic Tack Coat (only) 4

4. TACK COAT
   Layer Numbers [__ __] [__ __]
   Material Type None ..... 1 SS-l ..... 2 SS-lH ..... 3 CRS-l ..... 4 [__ __]
   CRS-2 ..... 5 CMS-2 ..... 6 CMS-2H ... 7 CSS-l 8 CSS-1H 9
   Other ..... 10 (Specify) _____
5. TACK COAT DILUTION
   (Percent) [__ __]
   Mixing Rate Parts Diluent _____ TO Parts Asphalt _____
6. TACK COAT APPLICATION RATE (Gal/Sq. Yd.) [__ . __ __]

7. ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]
Plant 2	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]
Plant 3	[__]	_____	[__ __ __]	[__ __]	[__] [__] [__]

   Plant Type: Batch ..... 1 Drum Mix ..... 2 Other ..... 3 Specify _____

8. MANUFACTURER OF ASPHALT CONCRETE PAVE _____

9. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER _____

10. SINGLE PASS LAYDOWN WIDTH (Feet) [__ __ . __]

11. AC BINDER COURSE LIFT
    Layer Number [__ __]
    Nominal First Lift Placement Thickness (Inches) [__ . __]
    Nominal Second Lift Placement Thickness (Inches) [__ . __]
12. AC SURFACE COURSE LIFT
    Layer Number [__ __]
    Nominal First Lift Placement Thickness (Inches) [__ . __]
    Nominal Second Lift Placement Thickness (Inches) [__ . __]
13. SURFACE FRICTION COURSE
    Layer Number [__ __]
    Nominal Placement Thickness (Inches) [__ . __]
14. TEST SECTION STATION OF TRANSVERSE JOINTS (within test section)
    Binder Course [__ + __ __]
    Surface Course [__ + __ __]
    Surface Friction Course [__ + __ __]
15. LOCATION OF LONGITUDINAL SURFACE JOINT [__]
    Between lanes ..... 1 Within lane ..... 2 (specify offset from O/S feet) [__ __ . __]

16. SIGNIFICANT EVENTS DURING CONSTRUCTION (disruptions, rain, equip. problems, etc.)

_____

_____

PREPARER_____ EMPLOYER _____ DATE _____

SPS-5 CONSTRUCTION DATA SHEET 8 OVERLAY COMPACTION DATA	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO [__ __]

1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [__ __ - __ __ - __ __]
2. DATE PAVING OPERATIONS COMPLETED [__ __ - __ __ - __ __]

3. LAYER NUMBER [__]

4. MIXING TEMPERATURE (°F) [__ __ __ .]

5. LAYDOWN TEMPERATURES (°F)
   Mean . . . . __ __ __ . Number of Tests . . . . __ __ .
   Minimum . . . . __ __ __ . Maximum . . . . __ __ __ .
   Standard Deviation . . . . __ __ . __

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	__ __ . __	$$$$$$$$$$	$$$$$$$$$$	$$$$$$$$$$	$$$$$$$$
7	B	Steel-Whl Tandem	__ __ . __	$$$	$$$$	$$$	$$
8	C	Steel-Whl Tandem	__ __ . __	$$$$$$$$$$	$$$$$$$$$$	$$$$$$$$$$	$$$$$$$$
9	D	Steel-Whl Tandem	__ __ . __	$$$	$$$$	$$$	$$
10	E	Pneumatic-Tired	__ __ . __	$$$$$$$$$$	$$$$$$$$$$	$$$$$$$$$$	$$$$$$$$
11	F	Pneumatic-Tired	__ __ . __	$$$	$$$$	$$$	$$
12	G	Pneumatic-Tired	__ __ . __	$$$$$$$$$$	$$$$$$$$$$	$$$$$$$$$$	$$$$$$$$
13	H	Pneumatic-Tired	__ __ . __	$$$	$$$$	$$$	$$
14	I	Single-Drum Vibr.	__ __ . __	__ __ __ __ .	$$$$$$$$$$	$$$$$$$$$$	$$$$$$$$
15	J	Single-Drum Vibr.	__ __ . __	__ __ __ __ .	$$$$	$$$	$$
16	K	Single-Drum Vibr.	__ __ . __	__ __ __ __ .	$$$$$$$$$$	$$$$$$$$$$	$$$$$$$$
17	L	Single-Drum Vibr.	__ __ . __	__ __ __ __ .	$$$$	$$$	$$
18	M	Double-Drum Vibr.	__ __ . __	$$$$$$$$$$	$$$$$$$$$$	$$$$$$$$$$	$$$$$$$$
19	N	Double-Drum Vibr.	__ __ . __	$$$	$$$$	$$$	$$
20	O	Double-Drum Vibr.	__ __ . __	$$$$$$$$$$	$$$$$$$$$$	$$$$$$$$$$	$$$$$$$$
21	P	Double-Drum Vibr.	__ __ . __	$$$	$$$$	$$$	$$
				$$$$$$$$$$	__ __ __ __ .	. __ __ __ __	__ __ . __
				$$$	__ __ __ __ .	. __ __ __ __	__ __ . __
				$$$$$$$$$$	__ __ __ __ .	. __ __ __ __	__ __ . __
				$$$	__ __ __ __ .	. __ __ __ __	__ __ . __
				$$$$$$$$$$	__ __ __ __ .	. __ __ __ __	__ __ . __
				$$$	__ __ __ __ .	. __ __ __ __	__ __ . __
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				$$$	__ __ __ __ .	. __ __ __ __	__ __ . __
				$$$$$$$$$$			
				$$$			
				$$$$$$$$$$			
				$$$			
22	Q	Other	________________________________				

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	__	__	__	__
24	Coverages	__ __ .	__ __ .	__ __ .	__ __ .
	INTERMEDIATE				
25	Roller Code (A-Q)	__	__	__	__
26	Coverages	__ __ .	__ __ .	__ __ .	__ __ .

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
27 28	FINAL Roller Code (A-Q) Coverages	__ __ __ .	__ __ __ .	__ __ __ .	__ __ __ .
29 30 31	Air Temperature (°F) Compacted Thickness (In) Curing Period (Days)	__ __ __ . __ . __ __ __ . __	__ __ __ . __ . __ __ __ . __	__ __ __ . __ . __ __ __ . __	__ __ __ . __ . __ __ __ . __

PREPARER_____ EMPLOYER _____ DATE _____

SPS-5 CONSTRUCTION DATA SHEET 9 CONSTRUCTION QUALITY CONTROL MEASUREMENTS	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO [__ __]

1. NUCLEAR DENSITY MEASUREMENTS

LAYER TYPE	Rut Level-Up	Mill Replacement	Binder Course	Surface Course	Surface Friction Layer
Measurement Method (A, B, C) [1]	___	___	___	___	___
Rod Depth (Inches)	___ ___	___ ___	___ ___	___ ___	___ ___
Number of Measurements	___ ___	___ ___	___ ___	___ ___	___ ___
Average (pcf)	__ __ __ . __	__ __ __ . __	__ __ __ . __	__ __ __ . __	__ __ __ . __
Maximum (pcf)	__ __ __ . __	__ __ __ . __	__ __ __ . __	__ __ __ . __	__ __ __ . __
Minimum (pcf)	__ __ __ . __	__ __ __ . __	__ __ __ . __	__ __ __ . __	__ __ __ . __
Standard Deviation (pcf)	__ __ __ . __	__ __ __ . __	__ __ __ . __	__ __ __ . __	__ __ __ . __
Layer Number	__ __	__ __	__ __	__ __	__ __

[1] Measurement Method Backscatter ..... A Direct Transmission ..... B Air Gap C

2. MANUFACURER OF NUCLEAR DENSITY GAUGE _____

3. NUCLEAR DENS ITY GAUGE MODEL NUMBER _____

4. NUCLEAR DENSITY GAUGE IDENTIFICATION NUMBER _____

5. NUCLEAR GAUGE COUNT RATE FOR STANDARDIZATION __ __ __ __ __

6. PROFILOGRAPH MEASUREMENTS

Profilograph Type California ..... 1 Rainhart ..... 2 ___
Profile Index (Inches/Mile) ___ ___
Interpretation Method Manual ..... 1 Mechanical ..... 2 Computer ..... 3 ___
Height of Blanking Band (Inches) ___ . ___ ___
Cutoff Height (Inches) ___ . ___ ___

7. SURFACE PROFILE USED AS BASIS OF INCENTIVE PAYMENT? (YES, NO) ___

PREPARER_____ EMPLOYER _____ DATE _____

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO [__ __]

LAYER THICKNESS MEASUREMENTS (Inches) SHEET ___ OF ___

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRICTION LAYER
__ + __ __	__ __ __	__ __ . __	__ __ . __	__ __ . __	__ __ . __	__ __ . __
	__ __ __	__ __ . __	__ __ . __	__ __ . __	__ __ . __	__ __ . __
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SPS-5 CONSTRUCTION DATA SHEET 11 MISCELLANEOUS CONSTRUCTION NOTES AND COMMENTS	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO [__ __]

Provide any miscellaneous comments and notes concerning construction operations which may have an influence on the ultimate performance of the test sections or which may cause undesired performance differences to occur between test sections. Also include any quality control measurements or data for which space is not provided on other forms. Provide an indication of the basis for such measurements, such as an ASTM, AASHTO, or Agency standard test designation.

PREPARER_____ EMPLOYER _____ DATE _____