U.S. Department
of Transportation
Federal Highway
Administration

LTPP Seasonal Monitoring Program

Site Monitoring Suspension
Status Report
Section 331001, Concord
New Hampshire

Report No. FHWA-TS-95-33-01 **December 1995**

SMP SITE MONITORING SUSPENSION STATUS REPORT
NEW HAMPSHIRE SECTION 331001

I. INTRODUCTION

The seasonal site 331001 near Concord, New Hampshire was installed on October 13 - October 14, 1993. Seasonal data was collected continuously from October 14, 1993 to June 29, 1995. On June 29, 1995, all site suspension activities were completed at this site according to LTPP directive SM-8 "Suspension of SMP Site Monitoring Activities". The site will remain out of operation until the next round of testing which is tentatively scheduled for September 1996.

This report entitled "SMP Site Monitoring Suspension Status Report" details the suspension preparation activities, site specific conditions, and provides information pertinent to the seasonal site 331001.

II. SUSPENSION PREPARATION ACTIVITIES

The suspension preparation activities at 331001 were conducted during the final two site visits. A manual distress survey of the entire section and transverse Dipstick® surveys were conducted on the June 01, 1995 site visit. PK nails were reconfirmed and replaced as required. The site paint markings were refreshed at this time. June 29, 1995 was the last day of activity at the site. On this day three sets of FWD tests, one set of elevations, and a distress survey of the instrumentation area were conducted. The water table measurements and the manual resistivity measurements (2 and 4 point) were performed in the morning and once after noon. The onsite datalogger was downloaded before being dismantled. Two sets of TDR traces and resistance voltages were extracted by the mobile datalogger. The instrument hole, trench, and surface temperature probe slot areas were cleaned and sealed as needed.

The air temperature probe, tipping bucket, and the upper part of the support pole were dismantled. The lead wires from the air temperature probe and the tipping bucket were sprayed with an anti-corrosive compound and sealed in an air tight bag with desiccant packs. A galvanized wire fished through the pipe and conduit will be used to pull the instrumentation wires back on the re-initiation of data collection at the site. The bottom part of the support pole was cleaned and lubricated prior to installing the end cap.

After all the wires were disconnected from the control panel, the panel was detached from the equipment cabinet with the CR10 datalogger, terminal strip, and the battery pack attached to it. The TDR cables were checked to ensure that they were labeled. The TDR cables, resistivity cable, and the MRC lead wires were sprayed with anti-corrosion

compounds and sealed in air tight bags with desiccant packs. All cables were hung up high inside the equipment cabinet. After the last piezometer reading was recorded the pipe was cleaned and sealed with grease. The access cover and seat were cleaned and lubricated before being covered and brought up to grade with the native soil.

The Profilometer survey corresponding to the closeout was conducted on May 18, 1995.

All the necessary suspension activities were completed by June 29, 1995. The dismantled equipment was removed from the site. The suspended site contains all the under ground instrumentation and equipment, and an equipment cabinet with all the cables in it. The equipment cabinet was locked before leaving the site. The site was cleaned and left in a condition such that the instrumentation could be easily accessed when and if site monitoring activities should resume.

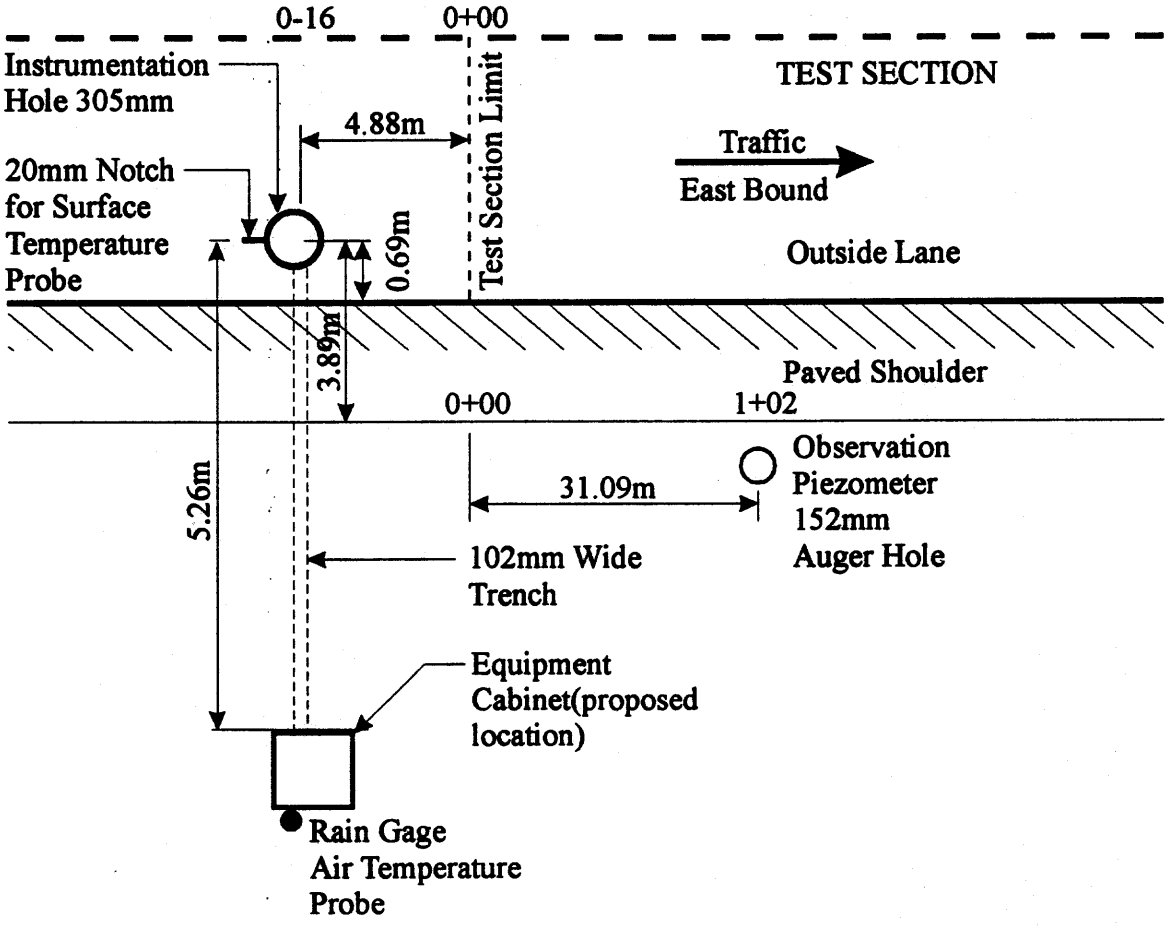
III. SPECIAL SITE CONDITIONS

The installation of site 331001 followed the "LTPP Seasonal Monitoring Program: Instrumentation Installation and Data Collection Guidelines" closely. There were no irregularities associated with the installation of this site.

IV. SUPPLEMENTAL INFORMATION

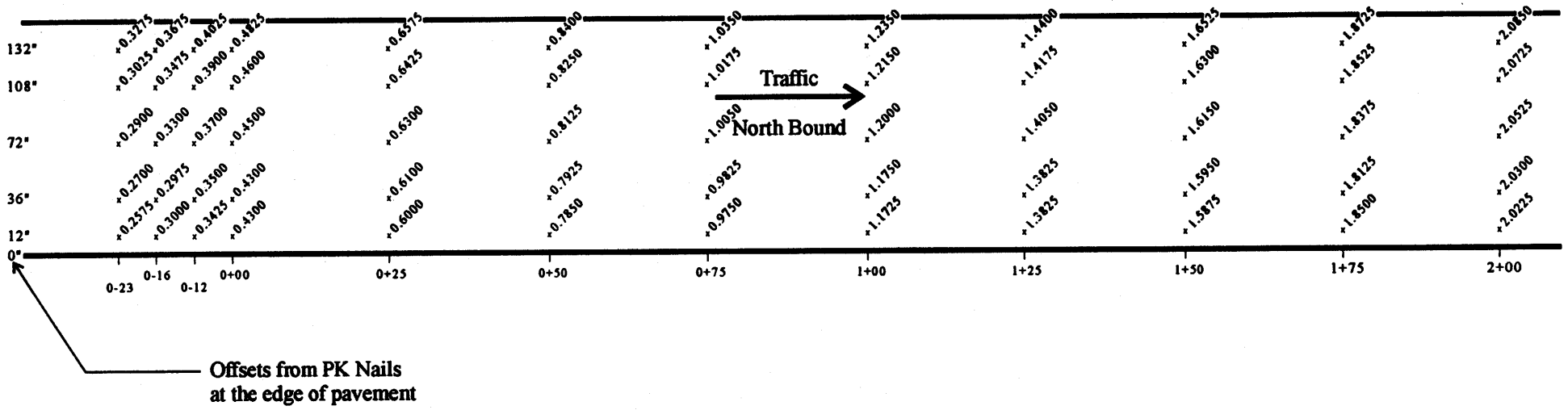
Figure 1 shows the locations of the installed instrumentation at the site. The instrumentation hole is at station 0-16 and the piezometer is at station 1+00. Figure 2 gives the plan view of the portion of test section 331001 that was used for elevation measurements. All offsets are measured from the PK nails found at the outside pavement edge.

At the time of suspension of the site there were no unresolved problems with any of the sensors. The plots from ONSFIELD, MOBFIELD, and SMPCHECK follow expected trends and produce expected values.



- Total Depth of Piezometer: 4.29m
- Distance of Piezometer Below Ground Level: 152mm

Figure 1.- Location for Seasonal Monitoring Instrumentation at GPS 331001



NOTE:

- All offsets are measured from the PK nails at the pavement edge.
- All elevations provided are from the June 29, 1995 survey with the top of the piezometer pipe set at 1.000m.
- Instrument hole is located at station 0-16

Figure 2. - Location for Elevation Measurements at GPS 331001

SUMMARY OF SMP DATA COLLECTION TO DATE

Agency Code [3 3]
LTPP Section I.D. [1 0 0 1]
Location Concord, New Hampshire

Test Date dd/mmm/yy	Visit Ident./ Code	ONSITE Data			MOBILE Data		Manual Data								FWD Data				Distress Data		Profile Data		Comments
																No. of Cycles/Visit							
		Pav Temp.	Ambient Temp.	Rainfall	Moisture (TDR)	Frost Depth (Resist.)	Backup Pav. Temp.	Backup Moisture (TDR)	Frost Depth 2 - point	Frost Depth 4 - point	Water Table	Surface Elev.	Joint Open.	Joint Fault.	Surface Layer Temp.	OWP	ML	PE	Manual	PASCO	Profiler	Dipstick	
14-Oct-93	A				X				X			X				3	3						
28-Dec-93	B	X	X	X					X		X												On-site data only
10-Feb-94	A	X	X	X																	20-Feb-94		On-site data only
03-Mar-94	B	X	X	X																			On-site data only
21-Mar-94	C	X	X	X	X	X		X			X				X	3	3						
14-Apr-94	D	X	X	X		X		X	X	X	X	X			X	3	3				14-Apr-94		Mobile TDR error
05-May-94	E	X	X	X				X	X		X				X	4	4						On-site data only
26-May-94	F	X	X	X							X				X	4	4		X			X	Mobile TDR error
23-Jun-94	G	X	X	X	X				X		X				X	4	4						
21-Jul-94	H	X	X	X	X				X	X	X	X			X	4	4						
16-Aug-94	I	X	X	X	X				X		X	X			X	3	3		X			X	
22-Sep-94	J	X	X	X	X				X		X				X	4	4				04-Aug-94		
20-Oct-94	K	X	X	X	X				X	X	X	X			X	3	3				23-Oct-94		
17-Nov-94	L	X	X	X	X	X					X				X	3	3						
15-Dec-94	M	X	X	X							X				X	2	2						Mobile TDR error
24-Jan-95	A	X	X	X	X	X			X	X	X	X			X	3	3				06-Jan-95		
21-Feb-95	B	X	X	X	X	X			X	X	X										22-Feb-95		
16-Mar-95	C	X	X	X	X	X					X				X	3	3						
30-Mar-95	D	X	X	X	X	X					X				X	2	2						
27-Apr-95	E	X	X	X	X	X					X												
11-May-95	F	X	X	X											X	4	4				18-May-95		On-site data only
01-Jun-95	G	X	X	X	X	X			X	X	X	X			X	3	3		X			X	problem with power source for TDR
29-Jun-95	H	X	X	X	X	X			X	X	X	X			X	?	?						close-out

Instrumentation Hole, Seasonal Site 331001 NH, June 1995, During Suspension Preparation Activities

Instrumentation Hole, Seasonal Site 331001 NH, June 1995, During Suspension Preparation Activities