Long-Term Pavement Performance

LTPP Southern Regional Office - 8240 Mopac, Suite 220 - Austin, Texas 78759 - Tel 512-346-0870 - Fax 512-346-8750

6 November 1998

Mr. Aramis Lopez
Pavement Performance Division - LTPP (HNR-40)
Federal Highway Administration
Turner-Fairbanks Highway Research Center
6300 Georgetown Pike, Room F-215
McLean, Virginia 22101

File

Subject: Final Report - SPS-5 Project (4005) on US-62 in Comanche County, Oklahoma

Dear Aramis,

Enclosed is the Final Report for the Specific Pavement Studies (SPS-5) project westbound on US-62 in Comanche County, Oklahoma. This report documents the construction of the Asphalt Rehabilitation Study test sections at this location, as well as the monitoring of the project to date.

Please feel free to contact me should you have any questions or comments regarding any of the information included in this report.

Sincerely,

Timothy J. Martin, M.S.
Graduate Engineer, SRO

TJM:dmj

Enclosure: As stated.

c.w/Enc: Kathleen Toney, OKDOT
Gonzalo Rado, PCS/LAW
Jerry Daleiden, SRO
David Ooten, OKDOT
Shiraz Tayabji, ERES-MD

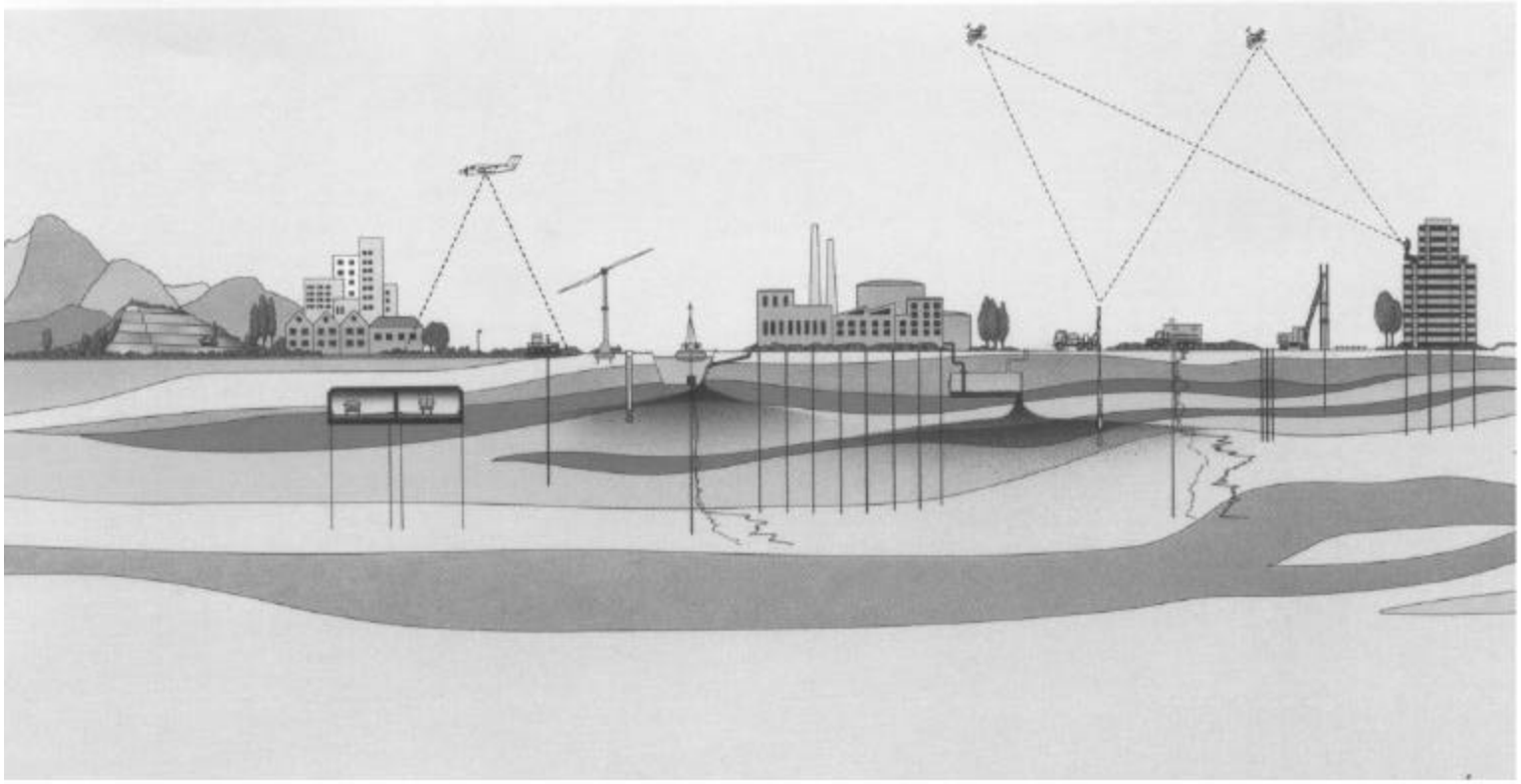
BRENT RAUHUT ENGINEERING, INC.

FINAL REPORT

SPS-5 PROJECT 4005
ASPHALT REHABILITATION STUDY
US-62 WESTBOUND - COMANCHE COUNTY, OKLAHOMA

FHWA/LTPP
SOUTHERN REGION COORDINATION OFFICE

October 1998



FINAL REPORT

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US-62 WESTBOUND - COMANCHE COUNTY, OKLAHOMA

FHWA/LTPP
SOUTHERN REGION COORDINATION OFFICE

October 1998

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FINAL REPORT - SPS-5 PROJECT 4005

ASPHALT REHABILITATION STUDY
US-62, WESTBOUND
COMANCHE COUNTY, OKLAHOMA

INTRODUCTION

As part of the Strategic Highway Research Program's (SHRP) Long Term pavement Performance (LTPP) Study, sections of highway are being selected to apply very specific treatments to study various facets of construction (both new and rehabilitated). These projects are referred to as Specific Pavement Studies (SPS). This particular project, on US-62 in Comanche County, Oklahoma, was identified as a potential candidate for inclusion in the evaluations of asphalt concrete rehabilitation (SPS-5).

SPS-5 General Experiment Design

The anticipated products of the SPS-5 experiment are included in table 1. The overall intent of the experiment is to evaluate some of the more common asphalt rehabilitation techniques currently used by State Highway Agencies (SHAs). This general evaluation is intended to include condition of the pavement prior to overlay (both structurally and functionally), the loading conditions the project is exposed to (including both environment and traffic) and finally, the various treatment applications. The standard SPS-5 experiment design consists of nine 500′ test sections (as shown in figure 1). The standard SPS-5 experiment includes four test sections which are subjected to intensive surface preparation (milling) prior to overlay vs. four test sections which will undergo minimal surface preparation, four test sections utilizing recycled mix vs. four with virgin mix and thin overlays (approximately 2″) vs. thick overlays (approximately 5″). The eight test sections represent combinations of the above mentioned features and are placed adjacent to the control section (which receives no rehabilitation) for comparison purposes. Minimal surface preparation will include patching only and/or crack sealing. Intensive surface preparation includes 2″ of milling to be conducted along with patching, if necessary.

As part of the experiment, it was designated that the recycled mixture contain 30% of the Recycled Asphalt Pavement (RAP) and that the RAP material shall be the millings from the intensive surface preparation sections.

Selection/Nomination of US-62, Westbound

The Oklahoma SPS-5 site location was identified through efforts of the personnel from the Oklahoma Department of Transportation (ODOT). The ODOT reviewed anticipated rehabilitation programs to determine potential candidates.

Table 1. Key Products of SPS-5

1. Comparisons and development of empirical prediction models for performance of AC pavements with different intensities of surface preparation, with thin and thick AC overlays, and with virgin and recycled AC overlay mixtures.

2. Evaluation and field verification of the AASHTO Guide design procedures for rehabilitation of existing AC pavements with AC overlays, and other analytical overlay design procedures for AC pavements.

3. Determination of appropriate timing to rehabilitate AC pavements in relation to existing condition and type of rehabilitation procedures.

4. Development of procedures to verify and update the pavement management and life-cycle cost concepts in the AASHTO Guide using the performance prediction models developed for rehabilitated AC pavements.

5. Development of a comprehensive database on the performance of rehabilitation AC pavements for use by state and provincial engineers and other researchers.

REHABILITATION PROCEDURES			FACTORS FOR MOISTURE, TEMPERATURE, AND PAVEMENT CONDITION													
			WET								DRY					
			FREEZE				NO FREEZE				FREEZE				NO FREEZE			
SURFACE PREP	OVERLAY MATERIAL	OVERLAY THICKNESS	FAIR		POOR		FAIR		POOR		FAIR		POOR		FAIR		POOR	
Routine Maint. (Control)		0"													X			
MINIMUM	Recycled	2"													X			
	AC	5"													X			
	Virgin	2"													X			
	AC	5"													X			
INTENSE	Recycled	2"													X			
	AC	5"													X			
	Virgin	2"													X			
	AC	5"													X			

Subgrade Soil: Fine

Traffic: > 280 KESAL/Year

X = Sections on 400500

Figure 1. SPS-5, Rehabilitation of Asphalt Concrete Pavements

As a result, an SPS-5 candidate project was nominated by the State of Oklahoma on 30 May 1996. Nomination forms, correspondence and site information is included in appendix A. The project site is located on US-62, approximately 0.5 miles west of SH-115. This particular project site was representative of generally fine-grained soils. Traffic levels for this particular site were estimated at approximately 280 KESALs/year in the design lane. The project was let for construction in July 1996 and construction began in June 1997.

Specific Experiment Design for US-62

The layout and typical sections are included in appendix A. The subgrade for this project is a silty clay corresponding to fine-grained soil. The site was considered in fair condition, even with transverse cracks of moderate severity. This project includes nine core experiment test sections along with one supplemental test section selected by the ODOT, to evaluate a varied overlay thickness for further use in future rehabilitation.

PRECONSTRUCTION MONITORING

A number of preconstruction monitoring measurements were performed on US-62 to establish the condition prior to rehabilitation. Each preconstruction monitoring endeavor will be discussed separately in the following text.

Pavement Surface Distress

Prior to rehabilitation, each test section was marked with paint and signs, etc., to allow for the collection of pavement surface distress data. Each test section was rated manually using the SHRP Distress ID Manual. The predominant distress throughout all test sections was bleeding in the wheel paths and moderate severity transverse cracking. Appendix B contains the preconstruction distress surveys. The severity of the transverse cracks gave rise to concerns about the effects on the overlay. The transverse crack width did not meet the ¾″ requirements for patching, but did have depressions along the crack. Initially a level-up was not deemed necessary; however, when paving began, it was the only method available to prevent bumps in the roadway for sections 400502 and 400505. It was decided to remove the SS-1 from the crack area and place and compact HMAC material along the crack to improve the ride quality for the two sections.

Structural Capacity

Deflection measurements were performed beginning on 16 June 1997, in conjunction with the distress surveys, and concluded 18 June 1997. Deflection measurements were obtained using the SHRP Falling Weight Deflectometer (FWD) to evaluate the structural capacity of each of these test sections. Deflection measurements were recorded from a series of varying weights in a set pattern at 25′ intervals to measure the subsurface response (deflection) of the structural layers in that highway segment. Results of the deflection testing are included in appendix C.

Surface Roughness

Profilometer testing was performed on 4 June 1997. Profilometer measurements were taken in m/km and the profile readings (see table 2) were taken for both the inside and outside wheel paths. The average for each section is indicated as well as an overall average for the project. This measurement is called the International Roughness Index (IRI) and is used widely by various agencies.

Materials Sampling and Testing

Materials sampling and testing was performed on 16 June 1997 by one of the subcontractors, following a Material Sampling and Testing Guide established specifically for this project (see appendix D). The subcontractors furnished a drill rig for completing the augering, shoulder probes, subgrade sampling and coring.

The cores extracted during the preconstruction sampling indicated that up to two distinct layers were present along the SPS-5 sections. The existing pavement contained 4″ HMAC over 8″ of hot sand. This appeared to be consistent throughout the project length. A set of the construction plans are included in appendix E. It should be noted that their layer thicknesses indicated in the MSTP incorrectly indicate 8″ of existing HMAC.

CONSTRUCTION MONITORING

Following are details of the construction event relating to the asphalt rehabilitation on US-62 in the westbound lane in Comanche County, Oklahoma. This SPS-5 rehabilitation project included ten 500′ test sections.

At the preconstruction meeting on 5 November 1996, the contractor noted that they wanted to start in February 1997. No significant concerns were expressed regarding the construction of these test sections.

One and one-half inches of cold-milling was performed on sections 06, 07, 08, 09 and 60 on 27 June 1997. The milling machine was a D1100 SMI with a 12′ cutting bit. The sections were open to traffic from the time of milling to the beginning of paving operations on 30 June 1997.

Paving operations always began with sweeping of the lanes and application of a tack coat at a rate of 0.03 gal./sq. yd. The mix was laid using a Blaw-Knox PF-510 paver. The material was compacted using a Hypac vibratory, a Ferguson pneumatic roller and a Caterpillar steel-wheel finishing roller.

The ODOT provided a surface and binder design for the HMAC layer. These were called BH and AH, respectively. The BH (surface mix) was laid as one final 1½″ lift. The AH (binder mix) was laid in sections receiving milling and/or a 5″ overlay. Lifts varying in thickness from 1.5 to 3 inches were laid, depending on the designs. Detailed information on the

Table 2. Profile Readings
International Roughness Index (IRI) in m/km

Preconstruction - Date Surveyed: 4 June 1997

Section	Left	Right	Average
400501	1.724	1.410	1.567
400502	2.857	2.12	2.535
400503	2.182	1.926	2.054
400504	1.800	1.733	1.766
400505	1.740	1.445	1.592
400506	2.461	1.686	2.073
400507	2.375	2.212	2.293
400508	2.315	1.888	2.102
400509	1.089	1.083	1.086
400560	Unknown	Unknown	Unknown
Average	2.060	1.733	1.896

Postconstruction - Date Surveyed: 14 January 1998

Section	Left	Right	Average
400501	1.294	1.340	1.317
400502	1.280	1.015	1.147
400503	1.131	0.866	0.998
400504	1.118	1.026	1.072
400505	1.153	0.878	1.016
400506	1.061	0.935	0.998
400507	0.938	0.825	0.882
400508	1.077	0.786	0.932
400509	1.074	0.756	0.915
400560	0.752	0.685	0.719
Average	1.088	0.911	1.000

laydown procedures can be located in Appendix E. The initial steel-wheel applied one coverage, the pneumatic applied two to three coverages and the finishing steel-wheel applied one to two coverages.

The plant was located at Station 990+00, approximately ¼ mile from the project, off US-62. The plant was an Aztec batch plant, which provided all of the virgin and recycled mix. The RAP contained 30% recycled. The initial batch of recycled laid on the test strip contained an AC content that was too high. This was reduced and met specifications.

Elevations were taken on the milled surface and every subsequent overlay. Thickness information and cross-profiles of each section is provided in appendix F.

Section 400501 received only minor maintenance (crack sealing) and will serve as the control section. The nine sections receiving minor and major rehabilitation did not receive crack sealing. As mentioned previously in this report, a level-up using the specified hot-mix (virgin or recycled) was applied along the few transverse cracks that existed in sections 400502 and 400505, to improve ride quality. The site will provide valuable information on the comparison of the different rehabilitation methods.

POSTCONSTRUCTION MONITORING

Following the completion of all rehabilitation applications, postconstruction sampling was initiated. These monitoring activities consisted of similar types of sampling activities that took place prior to construction, as well as manual surveys, FWD testing, and profilometer testing. LTPP directives indicate that the manual surveys and profilometer testing need to be performed biennially. FWD testing is to be performed annually. Postconstruction transverse profiles using Dipstick® and visual distress surveys were conducted Wednesday, 23 July 1997. Postconstruction FWD testing was conducted on 3 December 1997, and is included in appendix C. Profilometer testing was conducted on 14 January 1998, and will continue quarterly.

Materials Sampling and Testing

The postconstruction sampling and testing (coring of 4″ cores) was performed the day after construction of each section. Coring was performed 25′ from the approach and leave end of each test section according to the layout diagram in the Material Sampling Plan prepared for this experiment. Sampling was conducted by the subcontracted laboratory. Testing is currently under-way and near completion, utilizing SHRP test protocols.

SUMMARY

Having completed the observations of the construction for this SPS-5 project, located on US-62 west of Lawton, Oklahoma, it appears that this project will contribute significantly to the LTPP objectives by providing valuable information about the rehabilitation of asphalt pavements. The efforts of the ODOT, and their willingness to participate in this study, are greatly appreciated. Special thanks go to Kathleen Toney, David Ooten, and Don Farrow.

Monitoring is underway and we will continue noting changes in the surface distress, surface profile and structural capacity, and compare those data with other projects of this nature around the country in an attempt to improve on existing asphalt pavement rehabilitation design methods.

APPENDIX A

SITE NOMINATION FORMS, APPROVAL CORRESPONDENCE AND SITE INFORMATION

Brent Rauhut Engineering Inc.

24 May 1996

Mr. David Ooten
Engineering Manager, Research
Oklahoma Department of Transportation
200 N.E. 21st Street, Room 2A2
Oklahoma City, Oklahoma 73105-3204

Subject: Nomination of SPS Project

Dear David,

Enclosed are the nomination guidelines for Experiment SPS-1, "Strategic Study of Structural Factors for Flexible Pavements" and Experiment SPS-5, "Rehabilitation of Asphalt Concrete Pavements".

Please do not hesitate to call should you have any questions during the completion of the nomination forms. I will be certain to do everything in my power to get these nominations processed as quickly as possible to facilitate incorporation in the project you have underway. I look forward to hearing from you soon.

Sincerely,

Jerry F. Daleiden, P.E.
Project Engineer, SRCO

JFD:dmj

Enclosures: As stated.

c.w/o Enc: Morris Reinhardt, RE/SRCO
Mark Gardner, SRCO/File

dj RECEIVED JUN - 4 1996

OKLAHOMA DEPARTMENT OF TRANSPORTATION
200 N. E. 21st Street
Oklahoma City, OK 73105-3204

NAME	INFO	ACTN	COPY
BR			
MG			
MR			
JD		✓	
File:			

May 30, 1996

Mr. Jerry F. Daleiden, P.E.
Project Engineer, SRCO
Brent Rauhut Engineering Inc.
8240 Mopac, Suite 220
Austin, Texas 78759

Dear Mr. Daleiden:

Subject: Nomination of SPS Project for SHRP LTPP Program

The Oklahoma Department of Transportation is requesting that the project NH-215(60) on U.S. 62 west of Lawton be considered for SPS-1 and SPS-5 sites in the SHRP LTPP study. The plans have been submitted and this project is scheduled to be let in July 1996. In the interest of time, we will send the required information as it is collected so that you may begin processing the nominations. A set of plans is enclosed for your review. If I may be of further assistance please contact myself or Ginger McGovern at (405) 521-2671.

Sincerely,

J. D. Telford

Jack D. Telford
Materials Engineer

JDT:GM

Enclosures

cc: File - Item 2155

AN EQUAL OPPORTUNITY EMPLOYER

Brent Rauhut Engineering Inc.

5 June 1996

Mr. Monte Symons
Pavement Performance Division - LTPP (HNR-40)
Federal Highway Administration
Turner-Fairbanks Highway Research Center
6300 Georgetown Pike, Room F-215
McLean, Virginia 22101

Subject: Nomination of SPS Projects from the Oklahoma DOT

Dear Monte,

The Oklahoma DOT has expressed an interest in constructing test sections for incorporation in the SPS-1 and SPS-5 experiments (see attached letter and nomination forms). It is proposed that these test sections be built side-by-side. They have an existing portion of US-62 just west of Cache, Oklahoma that has an existing two-lane undivided facility. The planned construction will widen this facility to a four-lane divided highway. The SPS-1 sections would be incorporated in the new construction and the SPS-5 sections would be incorporated in the rehabilitation of the existing facility.

Although we have not yet collected soil samples at this particular location, it is our understanding that the subgrade here is a sandy clay (based on the information provided by the state and materials sampling conducted previously at LTPP test sections in Altus, Oklahoma on US-62 to the west of this particular location, and near Lawton, Oklahoma on US-62 just east of this particular location). These sections would, of course, be in the dry no-freeze environmental zone. From review of the plans for upcoming construction and the plans of original construction of the two-lane undivided facility, we believe that ample space will be available to satisfactorily locate all of the test sections in the same vicinity, with comparable traffic and earthwork.

It should be noted that this project is scheduled to be let for construction in six weeks. With this in mind, it is being asked that this section be given your earliest possible consideration. We believe that we can assist the Oklahoma DOT in incorporating these test sections in this project, and believe that these will be very desirable test sections. However, we will need a fairly prompt response to bring these sections to fruition.

Please feel free to contact me if you have any questions on the information provided, or if we can be of any further assistance in your review of these nominations. Thank you for your consideration.

Sincerely,

Jerry F. Daleiden, P.E.
Project Engineer, SRCO

JFD:dmj

Attachments: As stated.

c.w/Att: Ginger McGovern, OKDOT
John Stites, FHWA-OK Div.
John Miller, PCS/LAW
Morris Reinhardt, RE/SRCO

SHEET A. SPS-5 CANDIDATE PROJECT NOMINATION AND INFORMATION FORM

STATE OK

PROJECT LOCATION

ROUTE NUMBER U.S. 62

ROUTE SIGNING [] Interstate [X] U.S. [] State [] County

Other _____

PROJECT LOCATION Start Milepost _____ End Milepost _____

Start Station _____ End Station _____

PROJECT LOCATION DESCRIPTION Approx. 0.5 miles west of S.H. 115 and approx 7.0 miles east of S.H.-54

COUNTY Comanche

HIGHWAY AGENCY DISTRICT NUMBER 7

SHRP ENVIRONMENTAL ZONE

[] WET FREEZE [] WET NO-FREEZE [] DRY FREEZE [X] DRY NO-FREEZE

SIGNIFICANT DATES

LATEST DATE OF APPROVAL NOTIFICATION FROM SHRP _____

CONTRACT LETTING DATE 7-96

ESTIMATED CONSTRUCTION START DATE 9-96

PROJECT DESCRIPTION

YEAR OPENED TO TRAFFIC 1973

NUMBER OF LANES (One Direction) 2

[X] Divided-when completed [] Undivided

OUTSIDE LANE WIDTH (Feet) 12.0

OUTSIDE SHOULDER TYPE

[] Turf [] Granular [X] Asphalt Concrete [] Surface Treatment

[] PCC [] Curb and Gutter Other _____

OUTSIDE SHOULDER WIDTH (Feet) 10.0

SUBSURFACE EDGE DRAINS [] Placed at initial construction [X] Not Used

[] Retrofitted Retrofit Date _____

ASSESSMENT OF PRESENT PAVEMENT CONDITION [X] Fair [] Poor

PREDOMINATE DISTRESSES

[] Fatigue Cracking [X] Other Cracking [] Potholes/Patches [X] Rutting

Comments Transverse cracking is most prevalant distress; also have approx. 3/4" rutting.

SHEET B. SPS-5 CANDIDATE PROJECT NOMINATION AND INFORMATION FORM

STATE _____

PAVEMENT STRUCTURE LAYER DESCRIPTIONS

LAYER[1] NO.	LAYER[2] DESCRIPTION CODE	MATERIAL TYPE[3] CLASS CODE	THICKNESS[4] (INCHES)	STRUCTURAL[5] COEFFICIENT
1	SUBGRADE (7)	5 2		
2	0 6	4 2	.	0.
3	0 5	2 8	8.0	0.
4	0 4	0 1	3.0	0.
5	0 3	0 1	1.5	0.
6			.	0.
7			.	0.
8			.	0.
9			.	0.

NOTES

1. Layer 1 is the natural occurring subgrade soil. The existing surface will have the largest assigned layer number.

2. Layer description codes:

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

3. Refer to Tables 1 through 4 for material class codes.
4. If subgrade depth to a rigid layer is known, enter this depth for subgrade, otherwise leave blank for subgrade layer.
5. Enter AASHTO structural layer coefficient used in pavement design or typical coefficient used by agency for this material. For the subgrade, enter either AASHTO soil support value or estimated resilient modulus.

SHEET C. SPS-5 CANDIDATE PROJECT NOMINATION AND INFORMATION FORM

STATE OK

TRAFFIC DATA

ANNUAL AVERAGE DAILY TRAFFIC (TWO DIRECTION)	4000
% HEAVY TRUCKS AND COMBINATIONS (OF AADT)	13%
COUNT YEAR OF AADT ESTIMATE	1994
TRAFFIC GROWTH RATE SINCE PROJECT OPENED TO TRAFFIC (%/YR)	1.58%
18K ESAL RATE IN PROPOSED STUDY LANE (1,000 ESAL/YR)	280.617
YEAR OF ESAL RATE ESTIMATE	1994
ESTIMATED TOTAL 18K ESAL APPLICATIONS IN STUDY LANE[1]	8,418,511

REHABILITATION INFORMATION[2]

PRIMARY CAUSE FOR REHABILITATION Widening to 4 lane divided highway

OVERLAY	Thickness (Inches)	Material Type Class Code
Surface Course	2	01
Binder Course	1½	01

SURFACE PREPARATION PRIOR TO OVERLAY

[] Patching [] Crack Sealing [X] Milling Depth of Mill 1 inch

Other Fog Seal & Fabric Reinforcement

OTHER CONSTRUCTION ACTIVITIES TO BE PERFORMED DURING REHABILITATION

Remove 6' of the existing 10' left shoulder.

NOTES

1. Leave blank if estimate is not available.
2. This information concerns the planned rehabilitation work to be performed by the agency on the non-experimental portions of the project.

SHEET D. SPS-5 CANDIDATE PROJECT NOMINATION AND INFORMATION FORM

STATE _____

TEST SECTION LAYOUT

NUMBER OF TEST SECTIONS ENTIRELY ON: FILL _____ CUT _____

SHORTEST TRANSITION BETWEEN CONSECUTIVE TEST SECTIONS (Feet) _____

COMMENTS ON DEVIATIONS FROM DESIRED SITE LOCATION CRITERIA _____

OTHER SHRP TEST SECTIONS

DOES PROJECT CONFORM TO GPS-1 OR GPS-2 PROJECT CRITERIA? [] YES [] NO

DOES AGENCY APPLIED TREATMENT QUALIFY FOR GPS-6B? [] YES [] NO

IS PROJECT SUITABLE FOR SPS-3 TEST SECTIONS? [] YES [] NO

IS AGENCY INTERESTED IN USE OF PROJECT AS SPS-3 SITE? [] YES [] NO

DISTANCE TO NEAREST GPS TEST SECTION ON SAME ROUTE (Miles) 9.5

TEST SECTION NUMBER OF NEAREST GPS SECTION 404162

SUPPLEMENTAL TEST SECTIONS

IF SUPPLEMENTAL EXPERIMENTAL TEST SECTIONS ARE PROPOSED, COMPLETE THE FOLLOWING

TOTAL NUMBER OF SUPPLEMENTAL TEST SECTIONS _____

FACTORS TO BE INVESTIGATED _____

Brent Rauhut Engineering Inc.

27 August 1997

Mr. Monte Symons
Pavement Performance Division - LTPP
Federal Highway Administration
Turner-Fairbanks Highway Research Center
6300 Georgetown Pike, Room F-215
McLean, Virginia 22101

Subject: Addition of Oklahoma SPS-5 Test Section to the IMS

Dear Monte,

We were notified this morning, Wednesday, 27 August 1997, that the SPS-5 supplemental test section 400560 on US-62 in Comanche County, Oklahoma was not included in the original submission of Form 1s for this project. Attached is a Form 1 requesting that this test section be included in the IMS tables.

Thank you for your assistance in this matter. If you have any questions, please feel free to contact me.

Sincerely,

Timothy J. Martin
Graduate Engineer, SRCO

TJM:dmj

Attachment: As stated.

c.w/Att: Barbara Ostrom, FHWA/LTPP-PPD
Rick Cale, SAIC
John Brunken, SRCO
Jerry Daleiden, SRCO
Jonathan Groeger, PCS/LAW
Peter Jordahl, SRCO
Hank Usher, SRCO
Mark Gardner, SRCO/File: 5.1.10

8240 Mopac, Suite 220 • Austin, Texas A.10 *(512) 346-0870 • FAX (512) 346-8750*

CHANGE REQUEST FOR FHWA/LTPP IMS CRITICAL TABLES

Requester .... [Timothy J. Martin] Region .... [Southern]

Date Submitted ..... [0 8 / 2 7 / 9 7]

STATE CODE ..... [4 0]

SHRP ID ..... [0 5 6 0]

Type of Change Requested ..... [1]

1 - Add a section
2 - Change section status
3 - Change assign date
4 - Change experiment
5 - Delete section
6 - Other change

If adding a section, check that nomination forms are attached ..... [___]
Assign Date ..... [0 1 / 0 1 / 8 7]

If changing section status, proposed new status .. [___] O - Out of study
(Fill out comments below for explanation) R - Released
Deassign Date ..... [__ __ / __ __ / __ __]

If changing assignment date, proposed new date ... [__ __ / __ __ / __ __]
(Fill out comments below for explanation) old date ... [__ __ / __ __ / __ __]

If changing experiment, check that documentation is attached ..... [___]
Existing Experiment ..... [___]
Deassign Date ..... [__ __ / __ __ / __ __]
Proposed Experiment ..... [___]

If deleting a section, check that documentation is attached ..... [___]
(Fill out comments below for explanation)

If 'Other Change' is requested, check that documentation is attached. [___]
(Fill out comments below for explanation)

Comments:

Approved By: _____ Date: _____ (FHWA/LTPP)

_____ _____ (PCS/LAW)

IMS Form 1 Revised April 15, 1993

Oklahoma Department of Transportation

DATE: April 19, 1996

TO: Roadway Design Engineer

FROM: Pavement Engineer

SUBJ: Pavement Design for Project Nh-215(58), J/P 04040(04), Comanche Co., US-62, west of Cache

---

ADT (Present)	=	4000
ADT (30 year Future)	=	13,250
ADT (Design)	=	6625
Design PI	=	28
Design Rigid ESALs*	=	
Design Flex. ESALs*	=	8,418,511
Design Resilient Mod.	=	14,628,061
% Heavy Trucks	=	13

On this day, a review was made on the subject project to establish a pavement design based on a final subgrade soil survey.

* A four-lane factor of 0.8 has been used in the calculations.

Tim M. Borg

Tim M. Borg, P.E.
Pavement Engineer

cc: Rosemarie Case, Engineering Manager
Division File

TMB:CCMAR623

FINAL PAVEMENT RECOMMENDATION
COMANCHE COUNTY
Project Number NH-215(58)
J/P 04040(04)
US-62

Description: West of Cache, new construction eastbound; overlay westbound.

This final pavement recommendation is made from a final subgrade soil survey.

The previous data indicate that the following depth of Asphalt Concrete (Section 411) or depth of Portland Cement Concrete (Section 414) will be required.

I. Flexible Pavement:
- 2" Type 'BH' AC
- 6" Type 'AH' AC
- 4" Open Graded Base
- 6" Aggregate Base
- 8" Lime Treated Subgrade

II. Rigid Pavement:
- 10" Dowel Jointed PCCP
- 4" Open Graded Base
- 6" Aggregate Base
- 8" Lime Treated Subgrade

III. Flexible Overlay:
- 2" Type 'BH' AC
- 1½" Type 'BH' AC
- Reinforcing Fabric

Tim M. Borg, P.E.
Pavement Engineer

cc: Rosemarie Case, Engineering Manager
Division File

TMB:COMAN624

1986 AASHTO Pavement Design

DARWin(tm) Pavement Design System

A Proprietary AASHTOWARE(tm)
Computer Software Product

Flexible Structural Design Module

NH-215(58), J/P 04040(04), COMANCHE CO.
US-62 , west of Cache, westward, EB lane

Flexible Structural Design Module Data

18-kip ESALs Over Initial Performance Period:	8,418,511
Initial Serviceability:	4.5
Terminal Serviceability:	2.5
Reliability Level (%):	90
Overall Standard Deviation:	.45
Roadbed Soil Resilient Modulus (PSI):	5,000
Stage Construction:	1
Calculated Design Structural Number:	5.27

Specified Layer Design

Layer	Material Description	Struct. Coef. (Ai)	Drain. Coef. (Mi)	Thickness (Di) (in)	Width (ft)	Calculated SN
1	Poly. Mod. Type 'B' AC	.44	1	2	36	.88
2	Type 'A' AC	.44	1	6	36	2.64
3	Open Graded Bit. Base	.12	1	4	36	.48
4	Aggregate Base	.22	1	6	36	1.32
5	Lime/Flyash Treat. Subg.	.12	1	8	36	.96
Total	-	-	-	26.00	-	6.28

Simple ESAL Calculation

Performance Period (years):	30
Two-Way Daily Traffic (ADT):	4,000
Percent Heavy Trucks (of ADT) FHWA Class 5 or Greater:	13
Number of Lanes In Design Direction:	2
Percent of All Trucks In Design Lane (%):	80
Percent Trucks In Design Direction (%):	55
Average Initial Truck Factor (ESALs/truck):	2.34
Annual Truck Factor Growth Rate (%):	0
Annual Truck Volume Growth Rate (%):	3
Growth:	Simple
Total Calculated Cumulative Esals:	8,418,511

Brent Rauhut Engineering Inc.

(Please Call 512/346-0870 If You Have Any Trouble Receiving This Transmission Or If You Did Not Receive The Number Of Pages Shown Below.)

FAX TRANSMITTAL WITH MESSAGE

TO: MONTE SYMONS, FHWA/LTPP-PPD

INFO: JOHN MILLER, PCS/LAW

FROM: JERRY DALEIDEN
PROJECT ENGINEER, SRCO

DATE: 2 JULY 1996

TOTAL NO. OF PAGES: 2

MESSAGE: Subject: Weigh-in-Motion (WIM) Traffic Data Collected for SPS Site near Cache, Oklahoma

Monte -

As noted in the attached letter, the Oklahoma DOT would like to use an existing WIM location for collecting data for the SPS-1 and SPS-5 projects to be built next spring. In discussing this subject with John Miller, we could not identify any significant reason for opposing this request (considering the information provided in Mr. Telford's letter). John did suggested, however, that we check with you before responding to the Oklahoma DOT.

Please feel free to contact me should you have any questions or comments regarding the information provided.

Jerry

Jerry

Attachment: As stated.

JFD:dmj

8240 Mopac, Suite 220 • Austin, Texas 78759 • (512) 346-0870 • FAX (512) 346-8750

RECEIVED JUN 2 0 1996

OKLAHOMA DEPARTMENT OF TRANSPORTATION
200 N. E. 21st Street
Oklahoma City, OK 73105-3204

June 19, 1996

Mr. Jerry F. Daleiden, P.E.
Project Engineer, SRCO
Brent Rauhut Engineering Inc.
8240 Mopac, Suite 220
Austin, Texas 78759

Dear Mr. Daleiden:

Subject: Weigh-In-Motion (WIM) Traffic Data Collector for SPS Site near Cache, OK

To fulfill the requirement for a WIM data collector for the new SPS site, ODOT would like to use the existing WIM at GPS Site No. 404162. The existing WIM is approximately nine miles east of the new SPS site. There are four potential traffic generators between these locations: SH 115 into the Wildlife Refuge (estimated ADT of 900), exit and entrance ramps to a nearby subdivision, and three at-grade crossings: None of these routes have significant heavy truck volumes. Since the existing WIM is in the eastbound direction only, we are planning to instrument the westbound lanes. Please let us know if this would be acceptable to you. If further information is needed, please call Ginger McGovern at (405) 521-2671.

Sincerely,

Reynold H. Tomey

For J. D. Telford, P.E.
Materials and Research Engineer

JDT:GM:gm

cc: File - Item 2155

APPENDIX B

PRECONSTRUCTION DISTRESS SURVEYS

RECEIVED JUN 3 0 1997

Revised December 1, 1992

ENTERED OCT 2 1 1997 J B

REVIEWED JUL 2 1 1997 J D

REVIEWED JUL 1 7 1997 JP

SHEET 1

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID _ _ _ _

STATE CODE 40

SHRP SECTION ID 0501

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/16/97

SURVEYORS: TJM, MJD PHOTOS, VIDEO, OR BOTH WITH SURVEY (P, V, B) B

PAVEMENT SURFACE TEMP - BEFORE 34°C; AFTER 38°C

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
CRACKING			
1. FATIGUE CRACKING (Square Meters)	0	0	0
2. BLOCK CRACKING (Square Meters)	0	0	0
3. EDGE CRACKING (Meters)	0	0	0
4. LONGITUDINAL CRACKING (Meters)			
4a. Wheel Path	0	0	0
Length Sealed (Meters)	0	0	0
4b. Non-Wheel Path	145	0	0
Length Sealed (Meters)	0	0	0
5. REFLECTION CRACKING AT JOINTS Number of Transverse Cracks	0	0	0
Transverse Cracking (Meters)	1	1	1
Length Sealed (Meters)	0	0	0
Longitudinal Cracking (Meters)	1	1	1
Length Sealed (Meters)	0	0	0
6. TRANSVERSE CRACKING Number of Cracks	9	0	0
Length (Meters)	27.2	0	0
Length Sealed (Meters)	0	0	0
PATCHING AND POTHOLES			
7. PATCH/PATCH DETERIORATION (Number)	0	0	0
(Square Meters)	1	1	1
8. Potholes (Number)	1	1	1
(Square Meters)	1	1	1

Revised December 1, 1992

SHEET 2

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID ____

STATE CODE 40

SHRP SECTION ID 0501

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/16/97

SURVEYORS: TJM, MJD

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES (CONTINUED)

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
SURFACE DEFORMATION			
9. RUTTING - REFER TO SHEET 3 FOR SPS-3 OR Form S1 from Dipstick Manual			
10. SHOVING (Number)			0
(Square Meters)			0.0
SURFACE DEFECTS			
11. BLEEDING (Square Meters)	305.0	0.0	0.0
12. POLISHED AGGREGATE (Square Meters)			0.0
13. RAVELING (Square Meters)	0.0	0.0	0.0
MISCELLANEOUS DISTRESSES			
14. LANE-TO-SHOULDER DROPOFF - REFER TO SHEET 3			
15. WATER BLEEDING AND PUMPING (Number)			0
Length of Affected Pavement (Meters)			0.0

16. OTHER (Describe) _____

Revised May 29, 1992

ENTERED OCT 21 1997 J. B

SHEET 3

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID _ _ _ _

STATE CODE 40

SHRP SECTION ID 0501

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/16/97

SURVEYORS: TJM, MSD

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES (CONTINUED)

9. RUTTING (FOR SPS-3 SITE SURVEYS)

INNER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)	OUTER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)
1	0.	_ _ _.	1	0.	_ _ _.
2	15.25	_ _ _.	2	15.25	_ _ _.
3	30.5	_ _ _.	3	30.5	_ _ _.
4	45.75	_ _ _.	4	45.75	_ _ _.
5	61.	_ _ _.	5	61.	_ _ _.
6	76.25	_ _ _.	6	76.25	_ _ _.
7	91.5	_ _ _.	7	91.5	_ _ _.
8	106.75	_ _ _.	8	106.75	_ _ _.
9	122.	_ _ _.	9	122.	_ _ _.
10	137.25	_ _ _.	10	137.25	_ _ _.
11	152.5	_ _ _.	11	152.5	_ _ _.

SEE DIPSTICK DATA

14. LANE-TO-SHOULDER DROPOFF

Point No.	Point Distance[1] Meters	Lane-to-Shoulder Dropoff (mm)
1	0.	_ _ 0.
2	15.25	_ _ _.
3	30.5	_ _ _.
4	45.75	_ _ _.
5	61.	_ _ _.
6	76.25	_ _ _.
7	91.5	_ _ _.
8	106.75	_ _ _.
9	122.	_ _ _.
10	137.25	_ _ _.
11	152.5	_ _ _.

Note 1: "Point Distance" is the distance in meters from the start of the test section to the point where the measurement was made. The values shown are SI equivalents of the 50 ft spacing used in previous surveys.

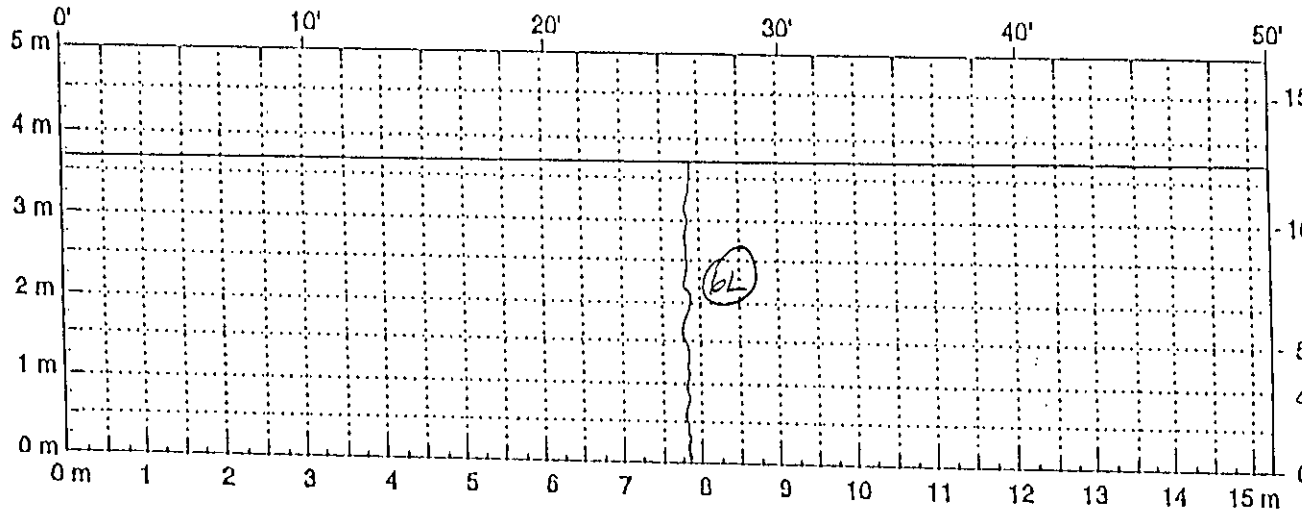
date: 6/16/97

surveyors: TJM, MJD

State Assigned ID _____

State Code 40

SHRP Section ID 0501



6L = 1, 3.7

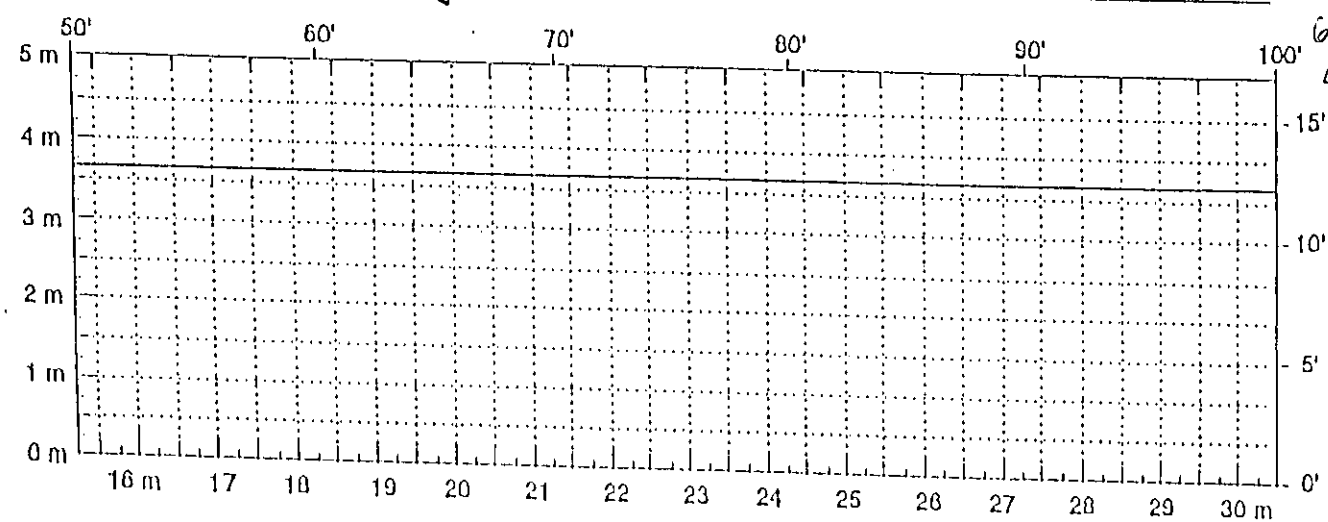
Totals:

11L - 305 sm

6L - 9, 27.2

4bL - 14.5 m

Comments: Bleeding throughout section in both wheel Paths

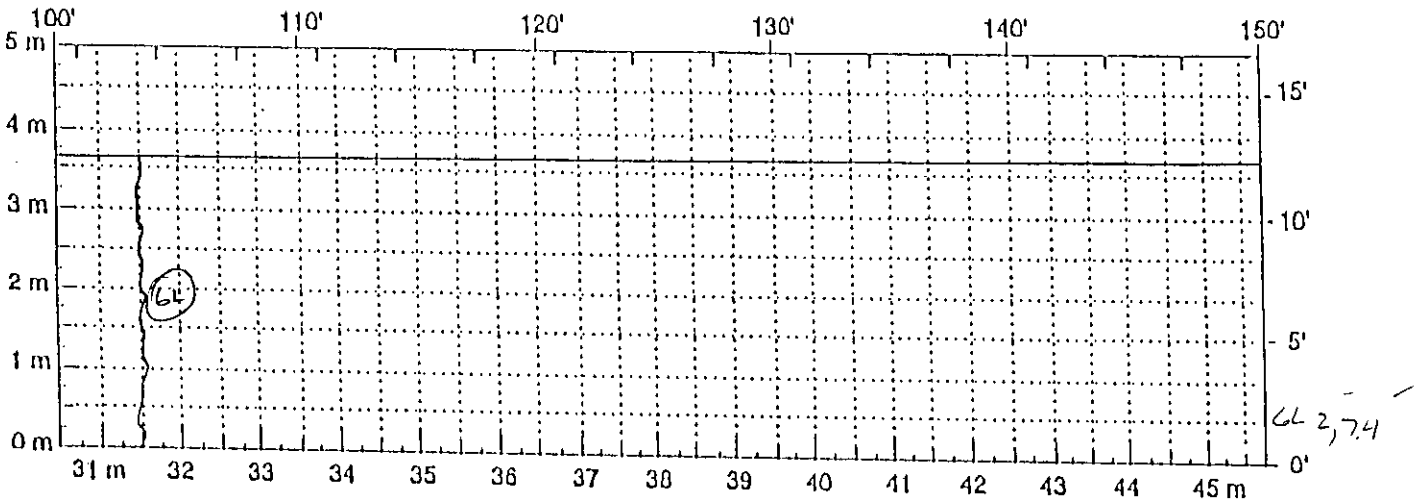


Comments: _____

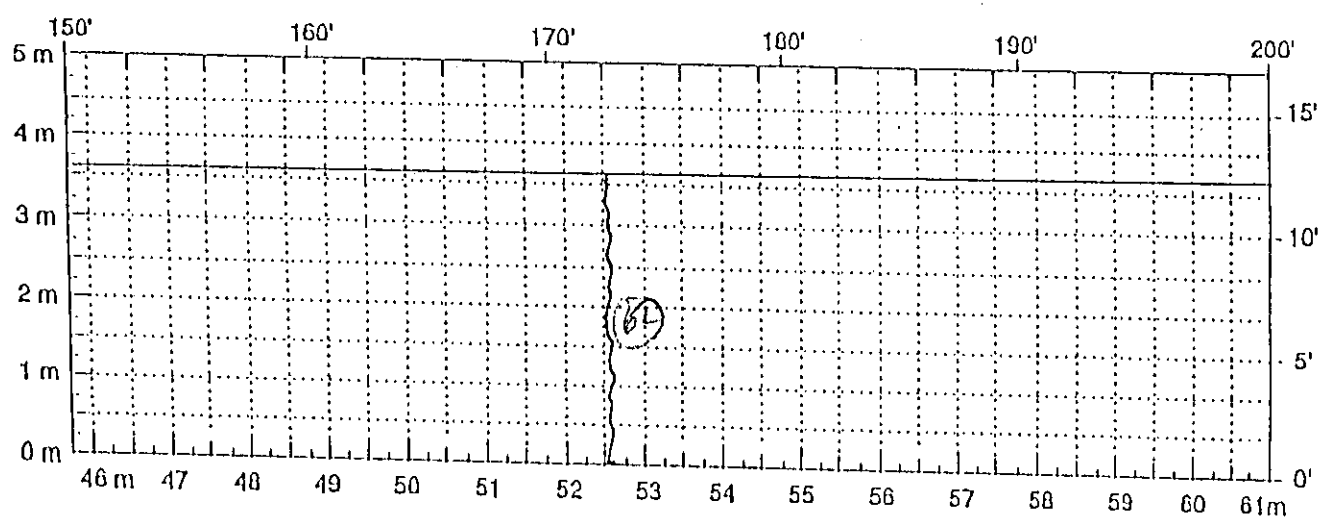
State Assigned ID _____

State Code 40

SHRP Section ID 0501



Comments: _____

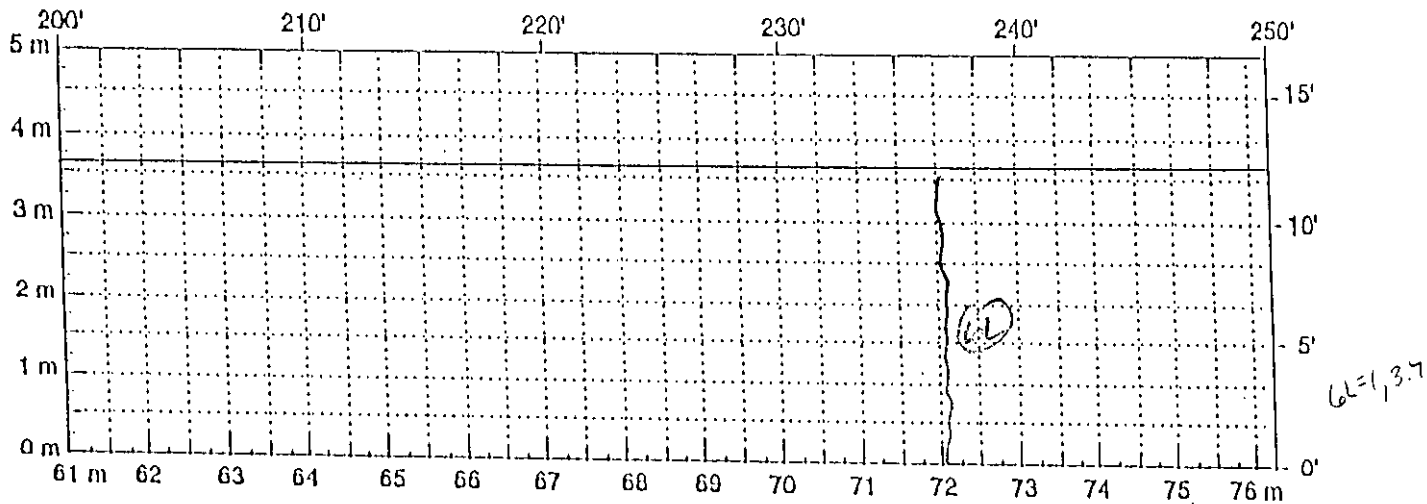


Comments: _____

State Assigned ID _____

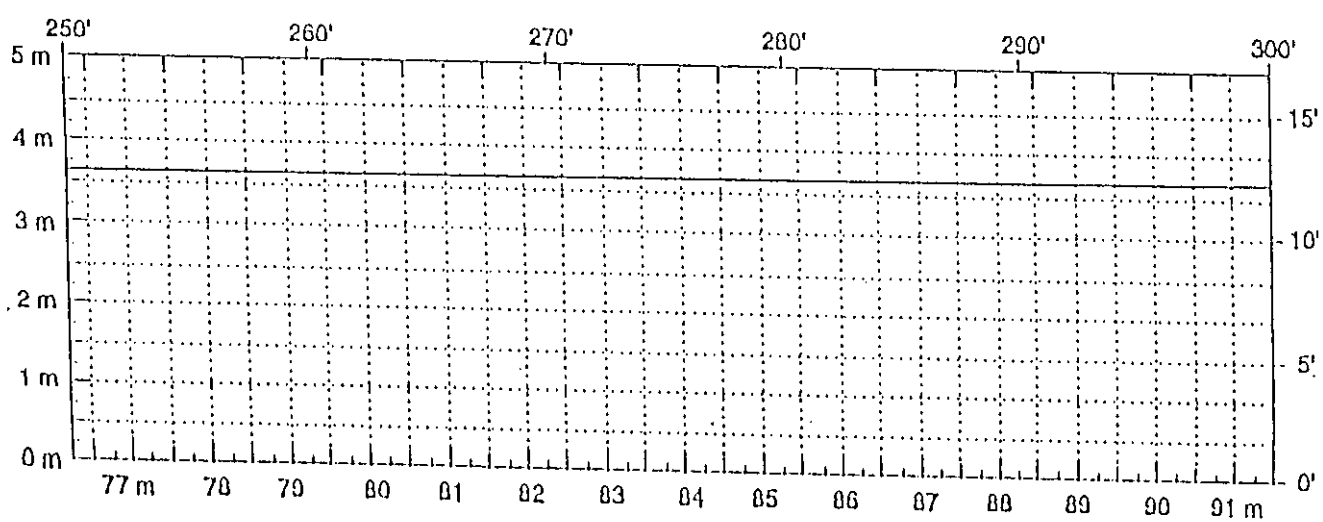
State Code 40

SIIRP Section ID 0501



GL=1,3.7

Comments: _____

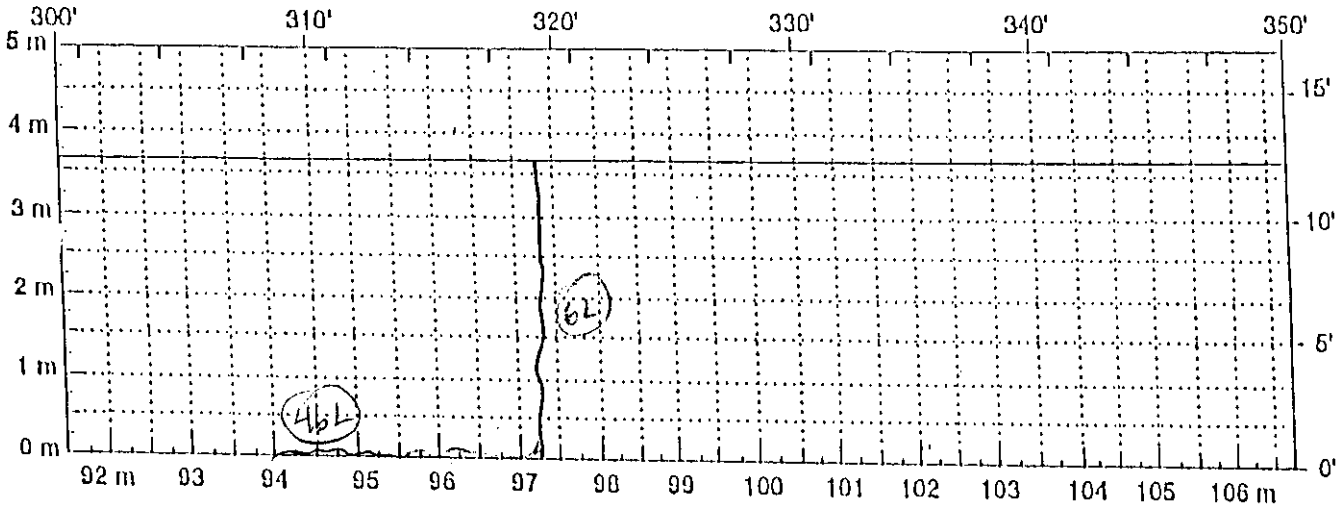


Comments: _____

State Assigned ID _____

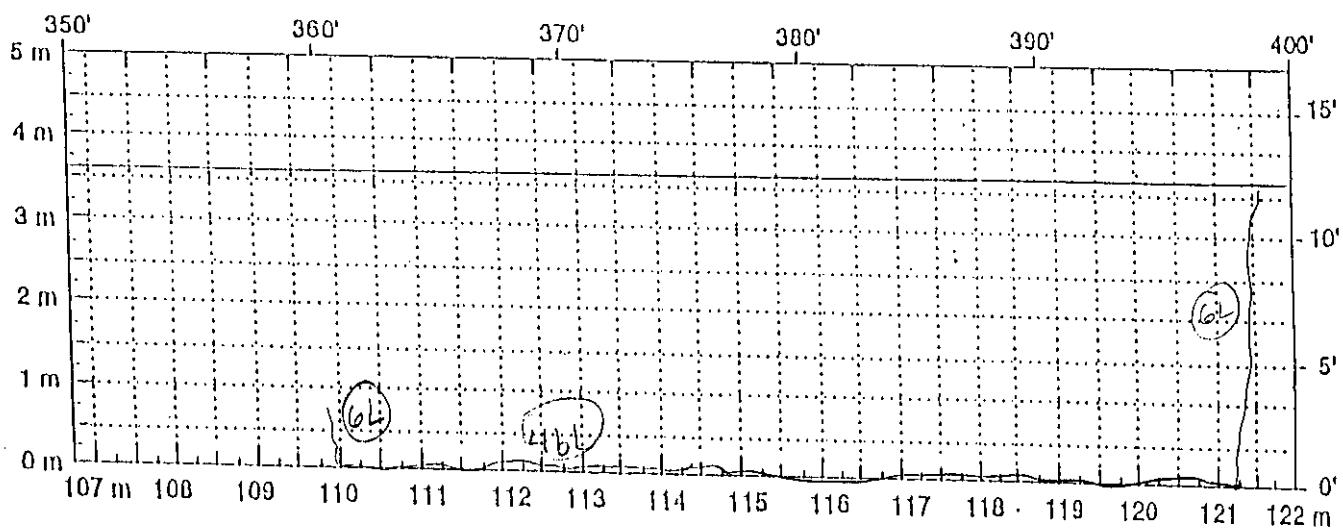
State Code 40

SHRP Section ID 0501



6L = 3/8.2
4bL = 14.5

Comments: _____

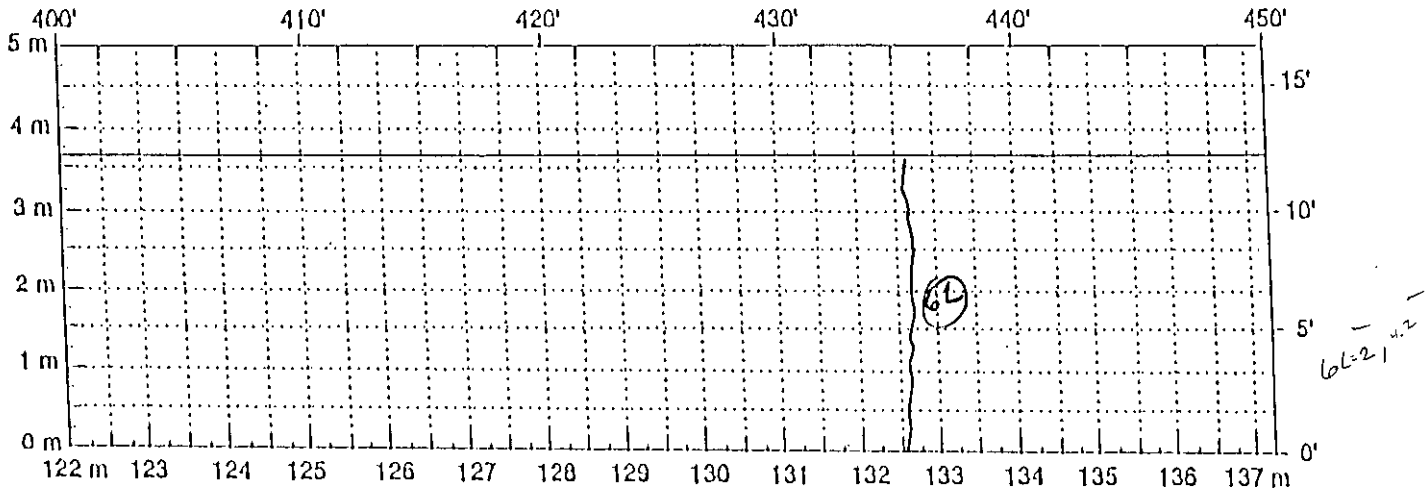


Comments: _____

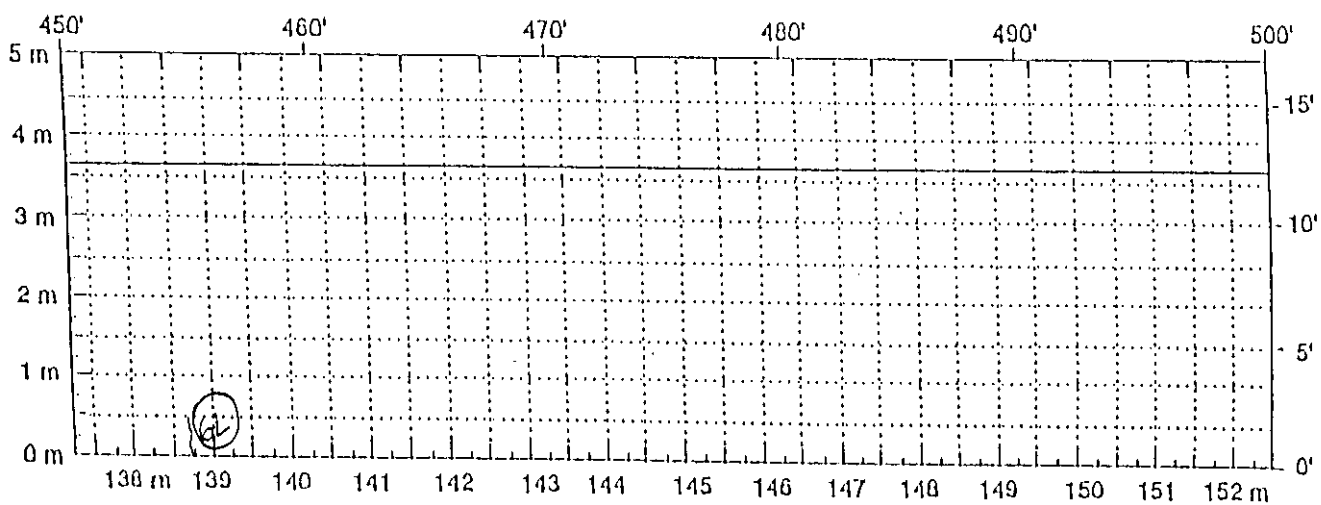
State Assigned ID _____

State Code 40

SHRP Section ID 0501



Comments: _____



Comments: _____

LTPP Automated Dipstick Data Collection Transverse Profile Form DS-11 Zero and Calibration Checks	State Code [4 0] LTPP Section ID [0 5 0 1] Date (dd/mmm/yy) [0 6 / 1 6 / 9 7]

Operator: Tim Martin Employer: BRE

Dipstick Serial Number: 30023

Pre Measurement Checks

Time (military): 1 0 : 3 0

Automatic Zero Performed: ____

Calibration

Calibration Check	
Measurement	Reading (inches)
First Reading	.443
Second Reading on Calibration Block	.568
Second Reading - 0.125 - First Reading	.443

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Post Measurement Checks

Time (military): 1 1 : 1 0

Zero Check Acceptable: ✓

Calibration Check	
Measurement	Reading (inches)
First Reading	.442
Second Reading on Calibration Block	.569
Second Reading - 0.125 - First Reading	.443

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Comments

DATE: [illegible] 97

OPERATOR: Tim Harris

RECORDER: Matt Duke

DIPSTICK SERIAL NUMBER: 30023

ENTERED JUL 1 0 1997 A H

STATE CODE: 40

SHRP SECTION I.D.: 0 5 0 1

DIPSTICK READING

LOCATION	1	2	3	4	5	6	7	8	9	10	11	12		TOTAL	SUM
0+00	-043	-104	106	255	131	047	.099	016	137	353	230	186			
	44 34	108 35	0.99 29	-250 22	.131 17	-42 17	104 17	-010 7	-137 1	-353 1	-227 1	-188 -2		.034	
0+50	-043	-112	103	360	161	008	-114	026	180	319	228	209			
(15m)	044 7	106 6	-113 12	-292 23	-150 13	-000 3	115 -5	-33 -6	-184 1	-308 5	-233 -4	-208 1		.007	
1+00	044	-086	147	408	282	126	062	-013	155	445	290	182			
(30M)	-044 7	089 7	-144 4	-405 1	-285 -2	-127 1	-064 2	015 4	-150 2	-446 -3	-291 -2	-183 -1		.007	
1+50	057	045	158	370	281	167	040	012	234	382	331	290			
(45m)	-57 15	-044 15	-148 14	-372 4	-281 6	-164 6	-037 3	-010 0	-233 -2	-382 -3	-335 -3	-289 1		.015	
(2+00)	-043	-50	095	311	313	189	025	-018	194	353	327	207			
(60m)	042 10	+53 17	-095 14	-310 18	-311 13	-188 11	.023 10	018 8	-191 8	-349 5	-326 1	-207 0		.016	
2+50	-011	-083	100	360	282	188	-071	-016	200	423	341	194			
(75m)	013 8	083 6	-101 6	-360 7	-277 7	-190 2	075 11	.017 0	-197 -1	-422 -4	-345 -5	-195 -1		.008	
3+00	-009	-053	146	424	310	116	-102	-020	216	475	317	294			
(90m)	009 4	054 4	-144 3	-423 1	-312 0	-118 2	.106 4	022 0	-215 -2	-475 -3	-321 -3	-293 1		.004	
3+50	102	-022	187	390	262	173	-041	.001	.187	.432	365	260			
(105m)	-101 7	022 6	-186 6	-386 5	-264 1	-171 3	042 1	-002 0	-182 1	-443 -1	-364 -3	-261 -1		.007	
4+00	115	-079	217	522	337	074	-202	042	340	544	354	289			
(120m)	-119 26	085 20	-211 24	-521 21	-335 11	-066 13	200 10	-033 12	-336 3	-540 -1	-358 -5	-290 -1		.026	
4+50	235	-016	191	415	280	208	-025	007	178	.424	296	194			
(135m)	-235 16	017 16	-190 15	-412 14	-288 11	-200 13	032 11	-008 9	-177 5	-419 11	-294 -1	-197 -3		.016	
5+00	167	001	212	361	312	136	037	054	196	375	293	212			
(150m)	-172 9	004 9	-212 9	-365 4	-303 8	-138 -1	-034 1	-054 -2	-196 -2	-376 -2	-292 -1	-214 -2		.004	

COMMENTS

RECEIVED JUN 3 0 1997

ENTERED OCT 2 1 1997 J B

REVIEWED JUL 1 7 1997 J P

REVIEWED JUL 1 1 1997 J D

SHEET 1

STATE ASSIGNED ID _ _ _ _

DISTRESS SURVEY

STATE CODE 40

LTPP PROGRAM

SHRP SECTION ID 0502

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/16/97

SURVEYORS: T J M, M J D PHOTOS, VIDEO, OR BOTH WITH SURVEY (P, V, B) B

PAVEMENT SURFACE TEMP - BEFORE 49 °C; AFTER 53 °C

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
CRACKING			
1. FATIGUE CRACKING (Square Meters)	0	0	0
2. BLOCK CRACKING (Square Meters)	0	0	0
3. EDGE CRACKING (Meters)	0	0	0
4. LONGITUDINAL CRACKING (Meters)			
4a. Wheel Path	0	0	0
Length Sealed (Meters)			
4b. Non-Wheel Path			
Length Sealed (Meters)			
5. REFLECTION CRACKING AT JOINTS Number of Transverse Cracks			
Transverse Cracking (Meters)			
Length Sealed (Meters)			
Longitudinal Cracking (Meters)			
Length Sealed (Meters)			
6. TRANSVERSE CRACKING Number of Cracks	4	3	0
Length (Meters)	11.9	11.1	0
Length Sealed (Meters)	0	0	0
PATCHING AND POTHOLES			
7. PATCH/PATCH DETERIORATION (Number)	0	0	0
(Square Meters)			
8. Potholes (Number)			
(Square Meters)			

Revised December 1, 1992

STATE ASSIGNED ID _ _ _ _

SHEET 2

DISTRESS SURVEY

LTPP PROGRAM

STATE CODE 40

SHRP SECTION ID 0502

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/16/97

SURVEYORS: TJM, MJO

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES
(CONTINUED)

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
SURFACE DEFORMATION			
9. RUTTING - REFER TO SHEET 3 FOR SPS-3 OR Form S1 from Dipstick Manual			
10. SHOVING (Number)			0
(Square Meters)			0.
SURFACE DEFECTS			
11. BLEEDING (Square Meters)	305.0	0.	0.
12. POLISHED AGGREGATE (Square Meters)			0.
13. RAVELING (Square Meters)	0.	0.	0.
MISCELLANEOUS DISTRESSES			
14. LANE-TO-SHOULDER DROPOFF - REFER TO SHEET 3			
15. WATER BLEEDING AND PUMPING (Number)			0
Length of Affected Pavement (Meters)			0.

16. OTHER (Describe) _____

Revised May 29, 1992

SHEET 3

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID _ _ _ _

STATE CODE 40

SHRP SECTION ID 0502

ENTERED OCT 21 1997 J. B

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/16/97

SURVEYORS: TJM, MJD

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES (CONTINUED)

9. RUTTING (FOR SPS-3 SITE SURVEYS)

INNER WHEEL PATH			OUTER WHEEL PATH		
Point No.	Point Distance[1] (Meters)	Rut Depth (mm)	Point No.	Point Distance[1] (Meters)	Rut Depth (mm)
1	0.	_ _ _.	1	0.	_ _ _.
2	15.25	_ _ _.	2	15.25	_ _ _.
3	30.5	_ _ _.	3	30.5	_ _ _.
4	45.75	_ _ _.	4	45.75	_ _ _.
5	61.	_ _ _.	5	61.	_ _ _.
6	76.25	_ _ _.	6	76.25	_ _ _.
7	91.5	_ _ _.	7	91.5	_ _ _.
8	106.75	_ _ _.	8	106.75	_ _ _.
9	122.	_ _ _.	9	122.	_ _ _.
10	137.25	_ _ _.	10	137.25	_ _ _.
11	152.5	_ _ _.	11	152.5	_ _ _.

SEE Dipstick Data

14. LANE-TO-SHOULDER DROPOFF

Point No.	Point Distance[1] Meters	Lane-to-Shoulder Dropoff (mm)
1	0.	_ _ 0.
2	15.25	_ _ _.
3	30.5	_ _ _.
4	45.75	_ _ _.
5	61.	_ _ _.
6	76.25	_ _ _.
7	91.5	_ _ _.
8	106.75	_ _ _.
9	122.	_ _ _.
10	137.25	_ _ _.
11	152.5	_ _ _.

Note 1: "Point Distance" is the distance in meters from the start of the test section to the point where the measurement was made. The values shown are SI equivalents of the 50 ft spacing used in previous surveys.

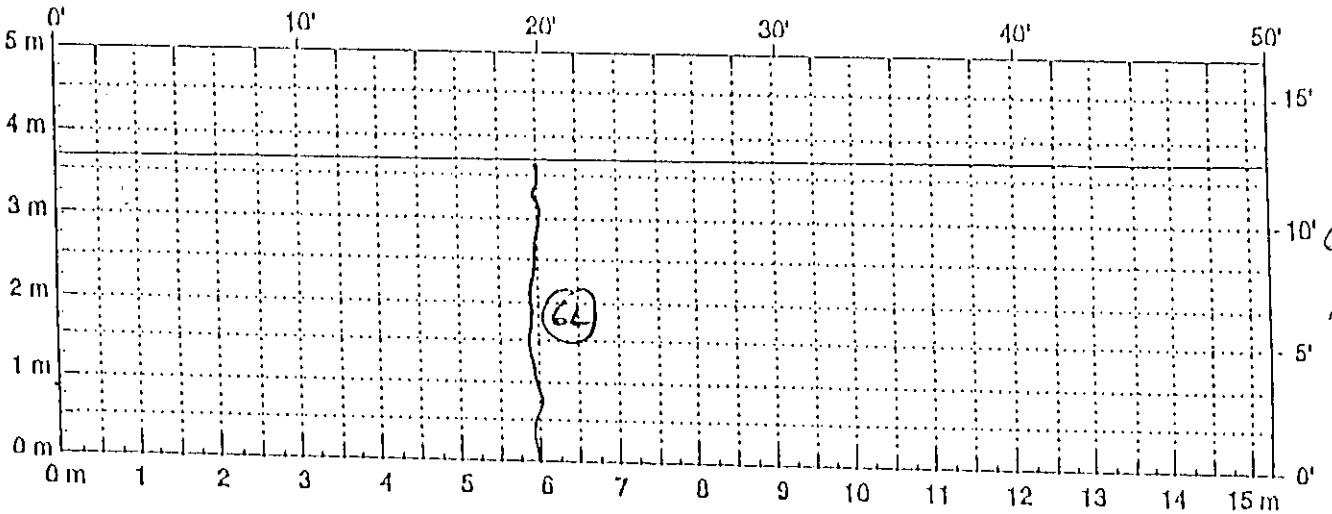
date: 6/16/97

surveyors: TJM. MJD

State Assigned ID _____

State Code 40

SHIP Section ID 0502



6L-2, 7.4m

11L-305 sm

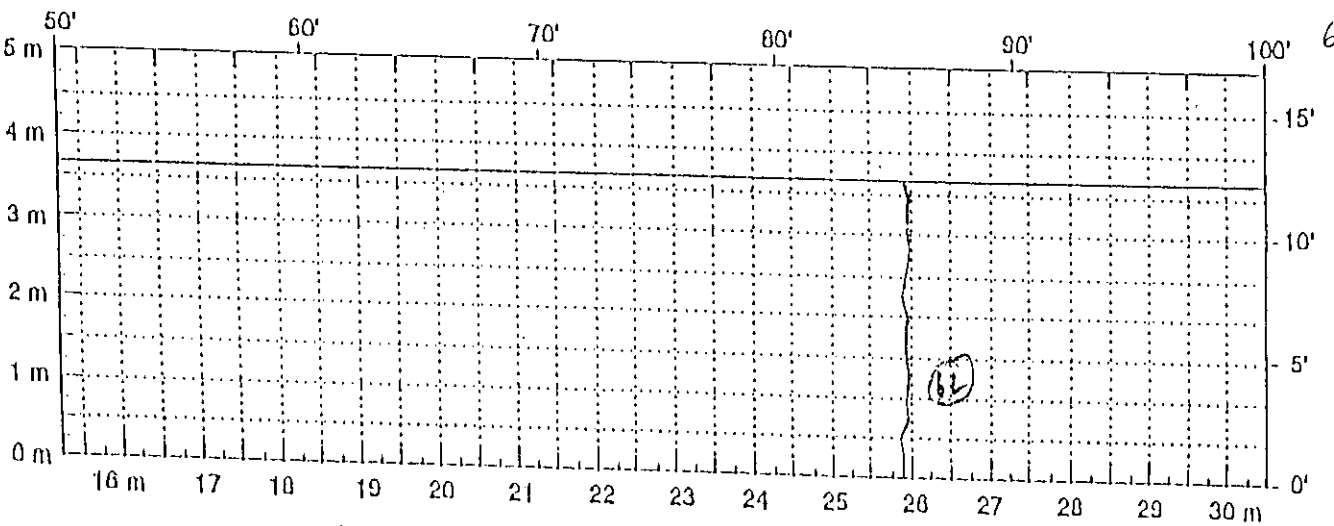
Totals:

6L-4, 11.9m

6M-3, 11.1m

11L-305m

Comments: _____

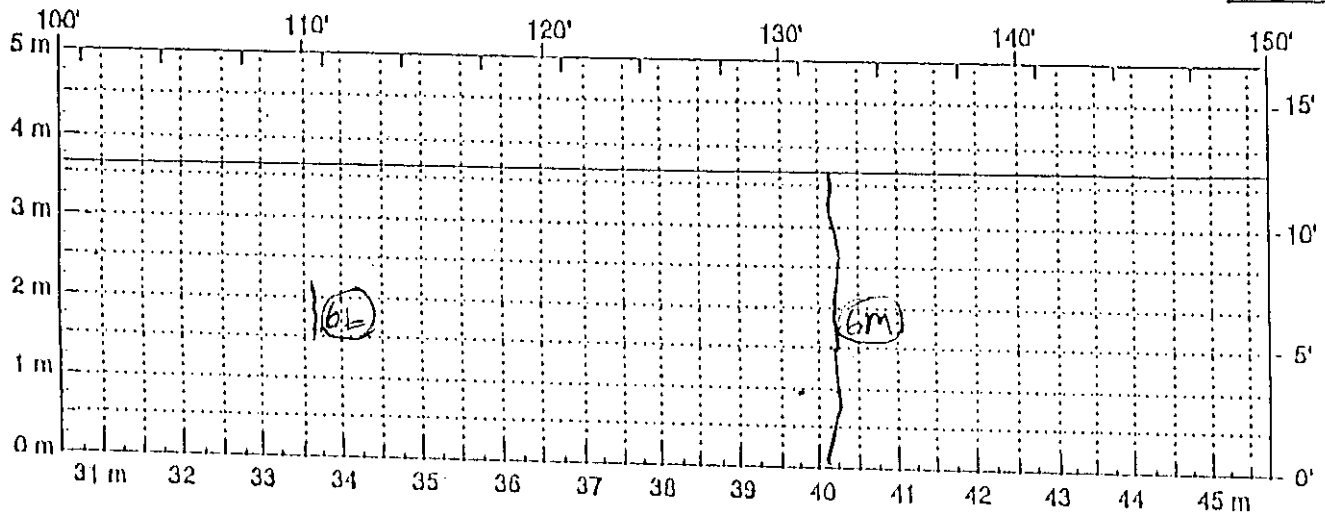


Comments: _____

State Assigned ID _____

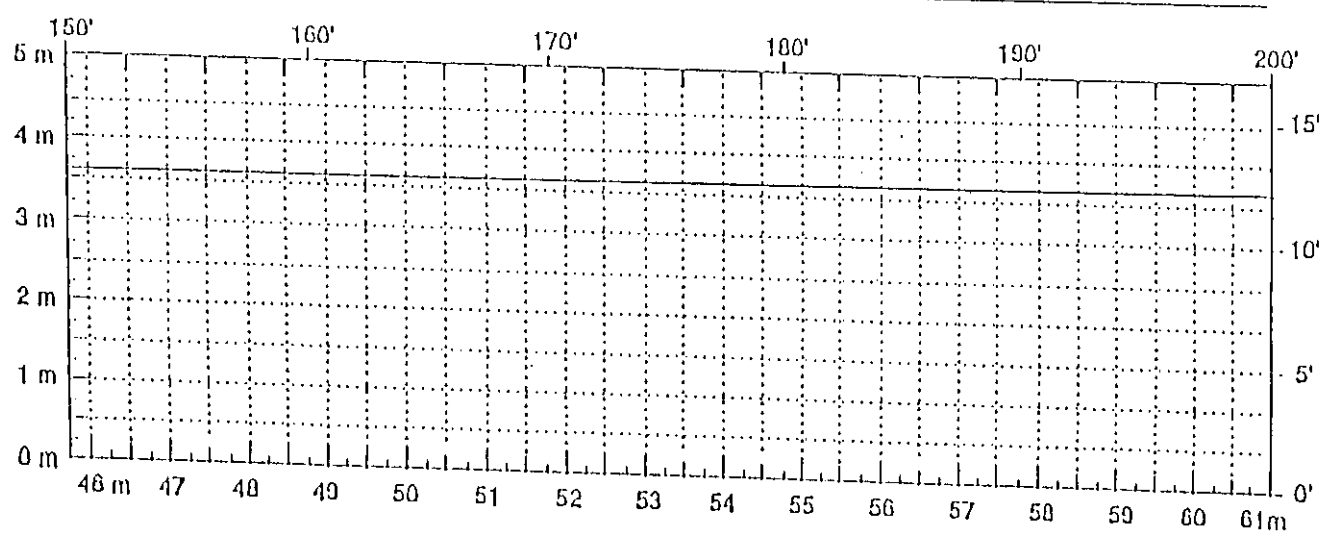
State Code 40

SHRP Section ID 0502



6L - 1, 0.8m
6m - 1, 3.7m

Comments: _____

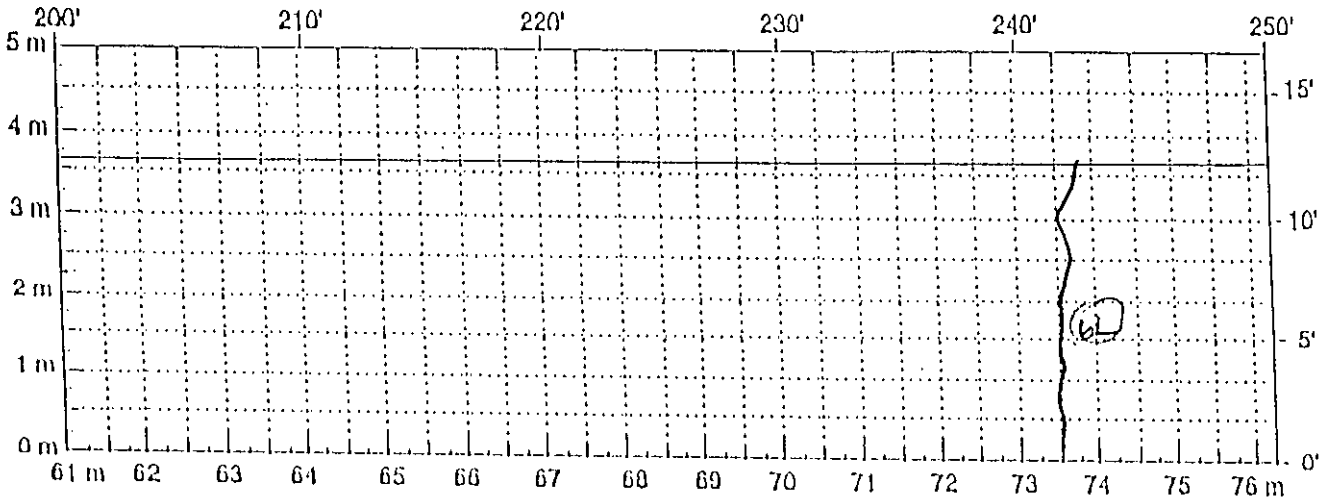


Comments: _____

State Assigned ID _____

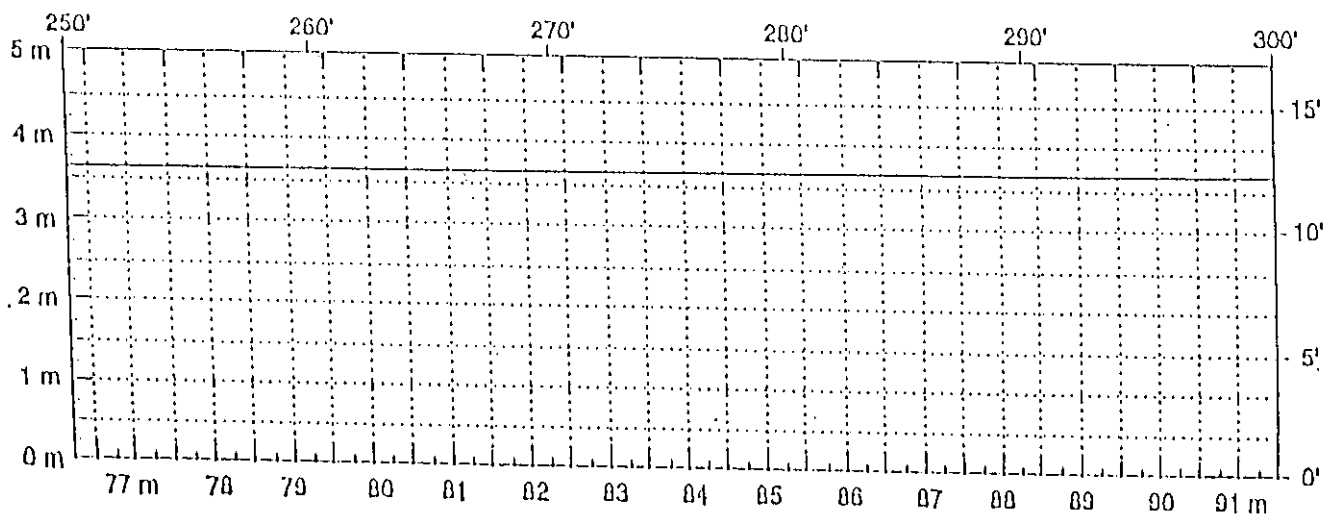
State Code 40

SHRP Section ID 0502



GL - 1,3.7m

Comments: _____

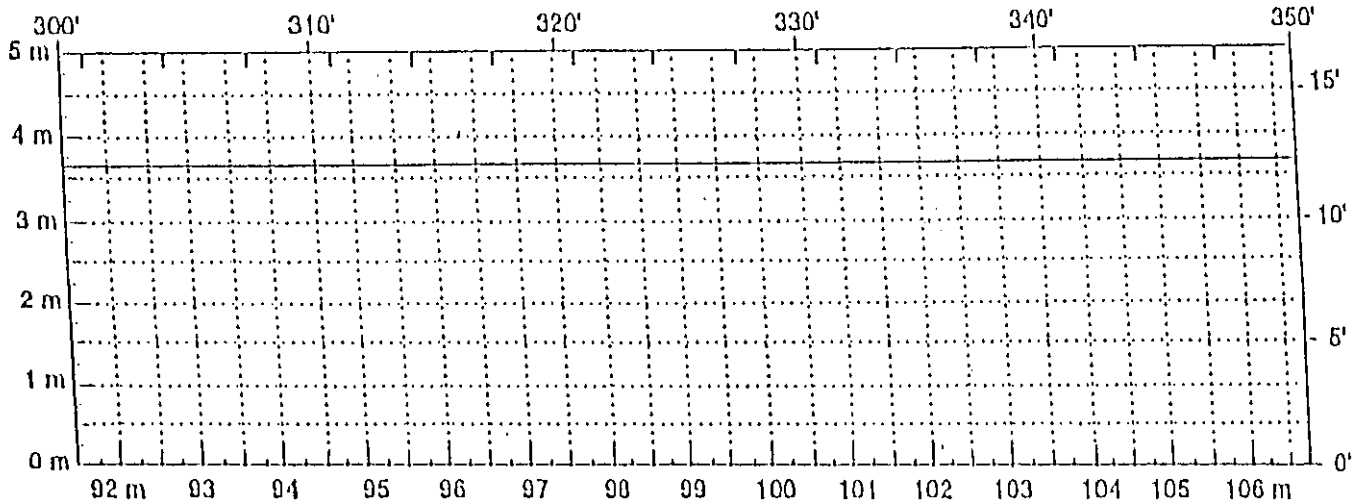


Comments: _____

State Assigned ID _____

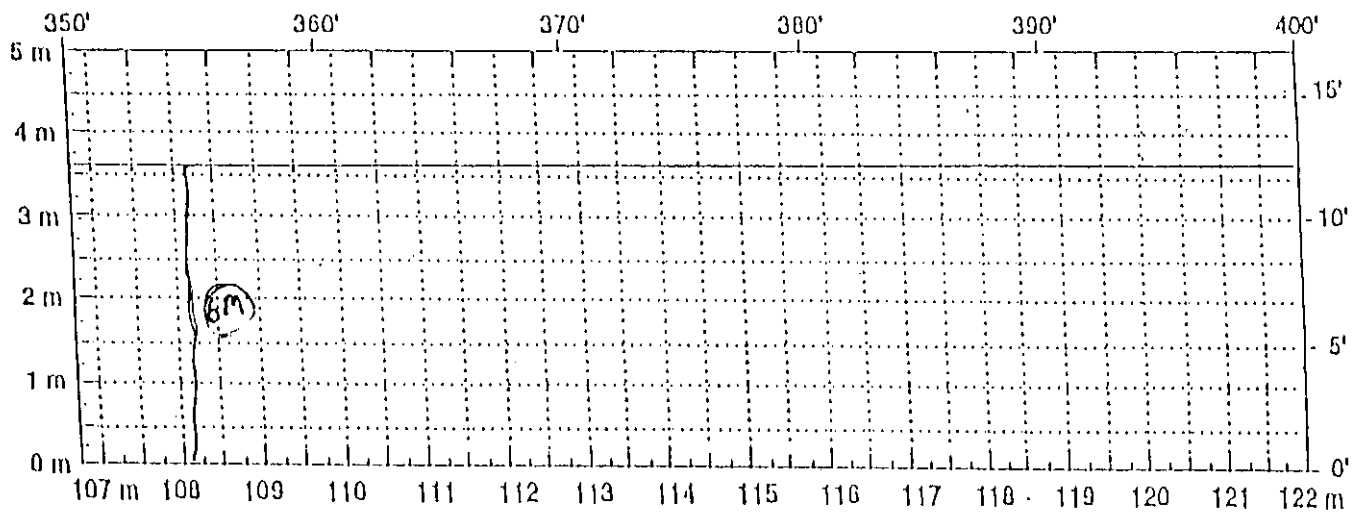
State Code 40

SHRP Section ID 0502



6M, 1, 3.7m

Comments: _____

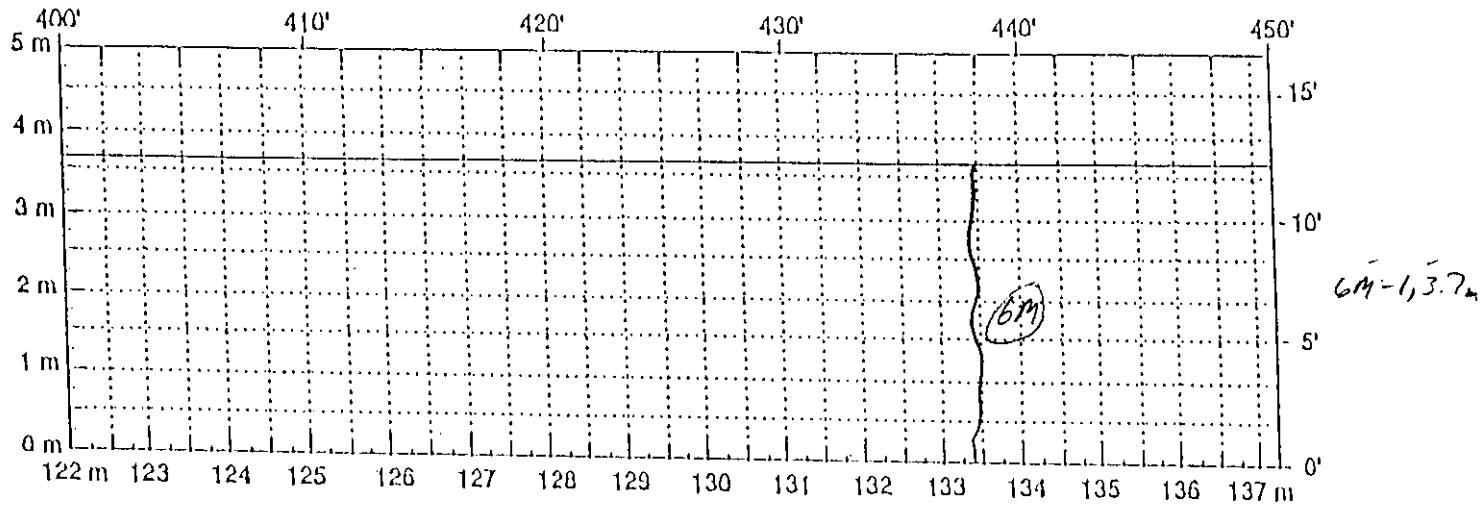


Comments: _____

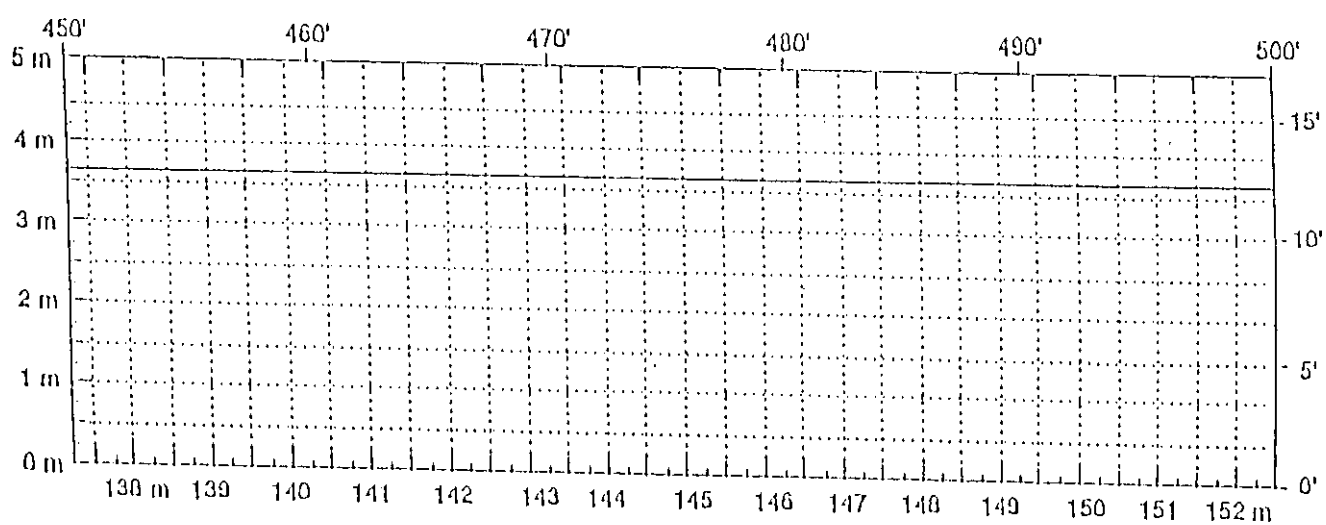
State Assigned ID _____

State Code 40

SHRP Section ID 0502



Comments: _____



Comments: _____

LTPP Automated Dipstick Data Collection Transverse Profile Form DS-11 Zero and Calibration Checks	State Code [4 0] LTPP Section ID [0 5 0 2] Date (dd/mmm/yy) [0 6 / 1 6 / 9 7]

Operator: Matt Duke Employer: BRE

Dipstick Serial Number: 30023

Pre Measurement Checks

Time (military): 1 4 : 1 0

Automatic Zero Performed: ____

Calibration

Calibration Check	
Measurement	Reading (inches)
First Reading	.192
Second Reading on Calibration Block	.318
Second Reading - 0.125 - First Reading	.126

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Post Measurement Checks

Time (military): 1 4 : 5 0

Zero Check Acceptable: ✓

Calibration Check	
Measurement	Reading (inches)
First Reading	.193
Second Reading on Calibration Block	.318
Second Reading - 0.125 - First Reading	.125

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Comments

DATE: 6/16/97

OPERATOR: Matt Duke

RECORDER: Tim Martin

DIPSTICK SERIAL NUMBER: 30023

ENTERED JUL 1 0 1997 A II

STATE CODE: 40

SHRP SECTION I.D.: 0502

DIPSTICK READING

LOCATION	1	2	3	4	5	6	7	8	9	10	11	12		TOTAL	SUM
0+00	.085	-.032	.159	.253	.178	.023	-.017	.030	.142	.317	.272	.193			
	-.084 24	+.003 23	-.157 22	-.259 20	-.169 26	-.017 17	+.018 11	-.032 10	-.141 12	-.310 11	-.267 4	-.194 -1			
0+50	.078	.049	.125	.238	.224	.136	.048	.031	.151	.331	.339	.375		.024	
(15m)	-.076 64	-.042 62	-.120 55	-.233 50	-.223 45	-.135 39	-.035 32	-.020 25	-.156 14	-.314 19	-.350 2	-.362 13			
1+00	.125	.026	.158	.312	.326	.129	.063	.049	.121	.223	.353	.360		.064	
(30M)	-.115 44	-.035 34	-.166 43	-.308 51	-.323 47	-.130 44	-.048 45	-.050 30	-.120 31	-.230 30	-.342 37	-.334 26			
1+50	.293	.052	.183	.311	.242	.141	.073	-.009	.189	.331	.335	.332		.044	
(45m)	-.302 52	-.049 61	-.182 55	-.316 57	-.228 62	-.127 48	-.066 34	+.010 32	-.190 31	-.310 32	-.335 11	-.321 11			
(2+00)	.102	.085	.205	.279	.262	.150	.037	.022	.154	.238	.263	.295		.052	
(60m)	-.97 -29	-.085 -31	-.195 -31	-.278 -44	-.271 -45	-.155 -36	-.043 -31	-.027 -23	-.156 -20	-.242 -18	-.274 -19	-.298 -3			
2+50	.051	.068	.172	.264	.253	.126	.131	.116	.222	.302	.346	.219		-.029	
(75m)	-.051 42	-.059 42	-.176 33	-.251 37	-.255 24	-.125 26	-.134 25	-.109 28	-.224 21	-.288 23	-.338 4	-.218 1			
3+00	.144	.055	.210	.265	.179	.074	.002	.056	.199	.268	.264	.216		.042	
(90m)	-.140 -17	-.052 -21	-.210 -24	-.263 -24	-.186 -26	-.081 -19	-.010 -12	-.058 -4	-.201 -2	-.261 0	-.268 -7	-.219 -3			
3+50	.187	.067	.259	.310	.237	.087	-.021	.084	.238	.306	.243	.188		-.017	
(105m)	-.183 35	-.072 21	-.248 36	-.327 25	-.232 42	-.081 37	+.029 31	-.081 23	-.231 20	-.302 13	-.236 9	-.186 2			
4+00	.087	.118	.208	.265	.146	.021	-.016	.067	.190	.255	.220	.230		.035	
(120m)	-.091 64	-.112 69	-.197 62	-.266 51	-.143 52	-.014 49	+.025 42	-.057 33	-.185 23	-.251 18	-.210 14	-.226 4			
4+50	.075	.101	.230	.292	.222	-.001	-.033	.071	.244	.296	.240	.186		.064	
(135m)	-.066 35	-.114 26	-.227 39	-.292 36	-.201 26	-.004 15	+.036 20	-.072 17	-.243 18	-.281 17	-.247 2	-.177 4			
5+00	.034	.047	.183	.241	.170	.066	-.023	.067	.169	.240	.191	.096		.035	
(150m)	-.029 26	-.049 21	-.172 23	-.250 12	-.162 21	-.073 15	+.041 20	-.082 2	-.167 17	-.237 15	-.193 12	-.082 14			

COMMENTS

RECEIVED JUN 30 1997

SHEET 1

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID ____

STATE CODE 40

SHRP SECTION ID 0503

ENTERED OCT 21 1997 J. B

REVIEWED JUL 17 1997 JP

REVIEWED JUL 1 1997

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/16/97

SURVEYORS: TJM, MJD PHOTOS, VIDEO, OR BOTH WITH SURVEY (P, V, B) B

PAVEMENT SURFACE TEMP - BEFORE 52°C; AFTER 51°C

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
CRACKING			
1. FATIGUE CRACKING (Square Meters)	0	0	0
2. BLOCK CRACKING (Square Meters)	0	0	0
3. EDGE CRACKING (Meters)	0	0	0
4. LONGITUDINAL CRACKING (Meters)			
4a. Wheel Path	0	0	0
Length Sealed (Meters)			
4b. Non-Wheel Path			
Length Sealed (Meters)			
5. REFLECTION CRACKING AT JOINTS Number of Transverse Cracks			
Transverse Cracking (Meters)			
Length Sealed (Meters)			
Longitudinal Cracking (Meters)			
Length Sealed (Meters)			
6. TRANSVERSE CRACKING Number of Cracks	0	3	2
Length (Meters)		11.1	7.4
Length Sealed (Meters)		0	0
PATCHING AND POTHOLES			
7. PATCH/PATCH DETERIORATION (Number)		0	0
(Square Meters)			
8. Potholes (Number)			
(Square Meters)			

Revised December 1, 1992

STATE ASSIGNED ID _ _ _ _

SHEET 2

DISTRESS SURVEY

LTPP PROGRAM

STATE CODE 40

SHRP SECTION ID 0503

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/18/97

SURVEYORS: TJM, MJD

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES
(CONTINUED)

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
SURFACE DEFORMATION			
9. RUTTING - REFER TO SHEET 3 FOR SPS-3 OR Form S1 from Dipstick Manual			
10. SHOVING (Number)			0
(Square Meters)			0.
SURFACE DEFECTS			
11. BLEEDING (Square Meters)	305.0	0.	0.
12. POLISHED AGGREGATE (Square Meters)			0.
13. RAVELING (Square Meters)	0.	0.	0.
MISCELLANEOUS DISTRESSES			
14. LANE-TO-SHOULDER DROPOFF - REFER TO SHEET 3			
15. WATER BLEEDING AND PUMPING (Number)			0
Length of Affected Pavement (Meters)			0.

16. OTHER (Describe) _____

Revised May 29, 1992

SHEET 3

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID _ _ _ _

STATE CODE 40

SHRP SECTION ID 0503

ENTERED OCT 21 1997 J. B

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/18/97

SURVEYORS: TJM, MJD

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES (CONTINUED)

9. RUTTING (FOR SPS-3 SITE SURVEYS)

INNER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)	OUTER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)
1	0.	_ _ _.	1	0.	_ _ _.
2	15.25	_ _ _.	2	15.25	_ _ _.
3	30.5	_ _ _.	3	30.5	_ _ _.
4	45.75	_ _ _.	4	45.75	_ _ _.
5	61.	_ _ _.	5	61.	_ _ _.
6	76.25	_ _ _.	6	76.25	_ _ _.
7	91.5	_ _ _.	7	91.5	_ _ _.
8	106.75	_ _ _.	8	106.75	_ _ _.
9	122.	_ _ _.	9	122.	_ _ _.
10	137.25	_ _ _.	10	137.25	_ _ _.
11	152.5	_ _ _.	11	152.5	_ _ _.

SEE DIPSTICK DATA

14. LANE-TO-SHOULDER DROPOFF

Point No.	Point Distance[1] Meters	Lane-to-Shoulder Dropoff (mm)
1	0.	_ _ 0.
2	15.25	_ _ _.
3	30.5	_ _ _.
4	45.75	_ _ _.
5	61.	_ _ _.
6	76.25	_ _ _.
7	91.5	_ _ _.
8	106.75	_ _ _.
9	122.	_ _ _.
10	137.25	_ _ _.
11	152.5	_ _ _.

Note 1: "Point Distance" is the distance in meters from the start of the test section to the point where the measurement was made. The values shown are SI equivalents of the 50 ft spacing used in previous surveys.

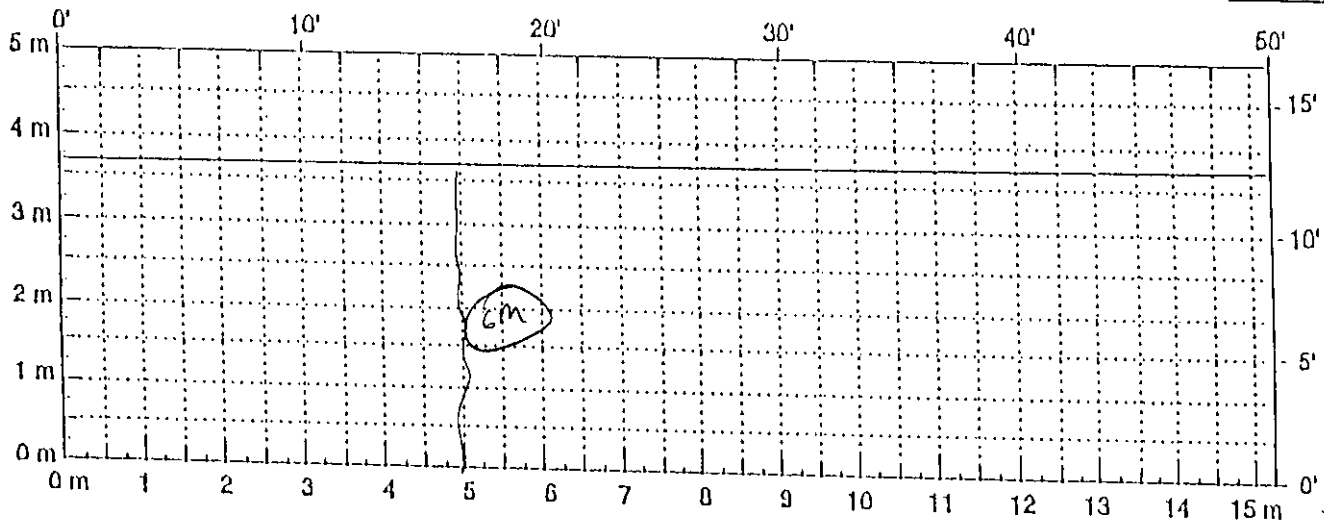
State Assigned ID _____

date: 6/16/97

State Code 40

surveyors: IJM, MJD

SHRP Section ID 0503

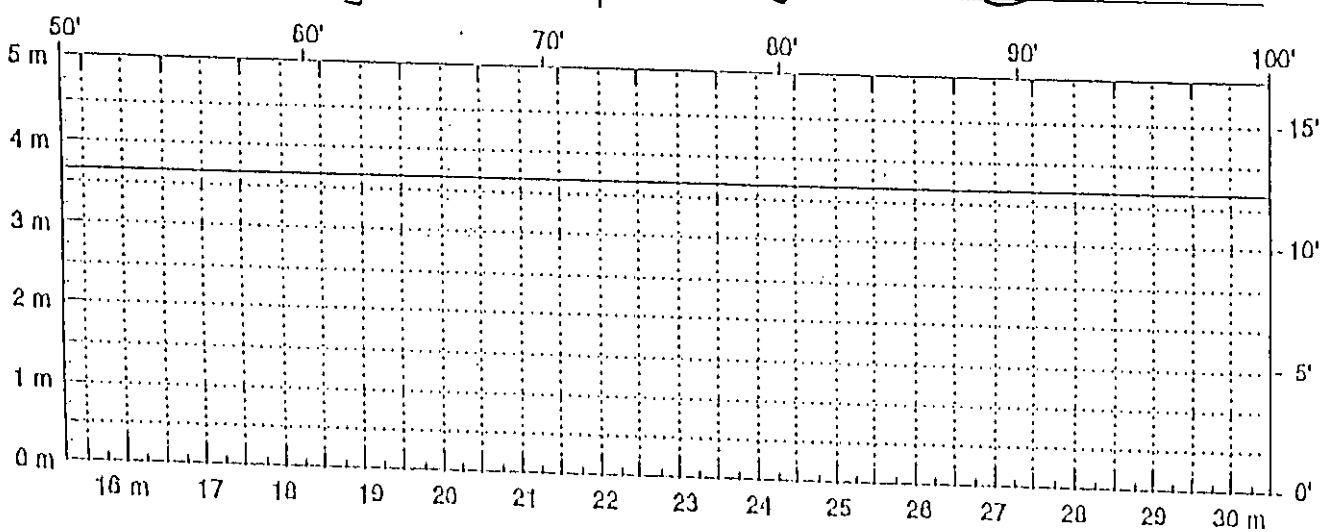


6M=1,37

Totals:

Comments: Bleeding in the wheel-paths throughout section 11L

6M - 311.1
4 - 2,7.4m
11L - 305 sm

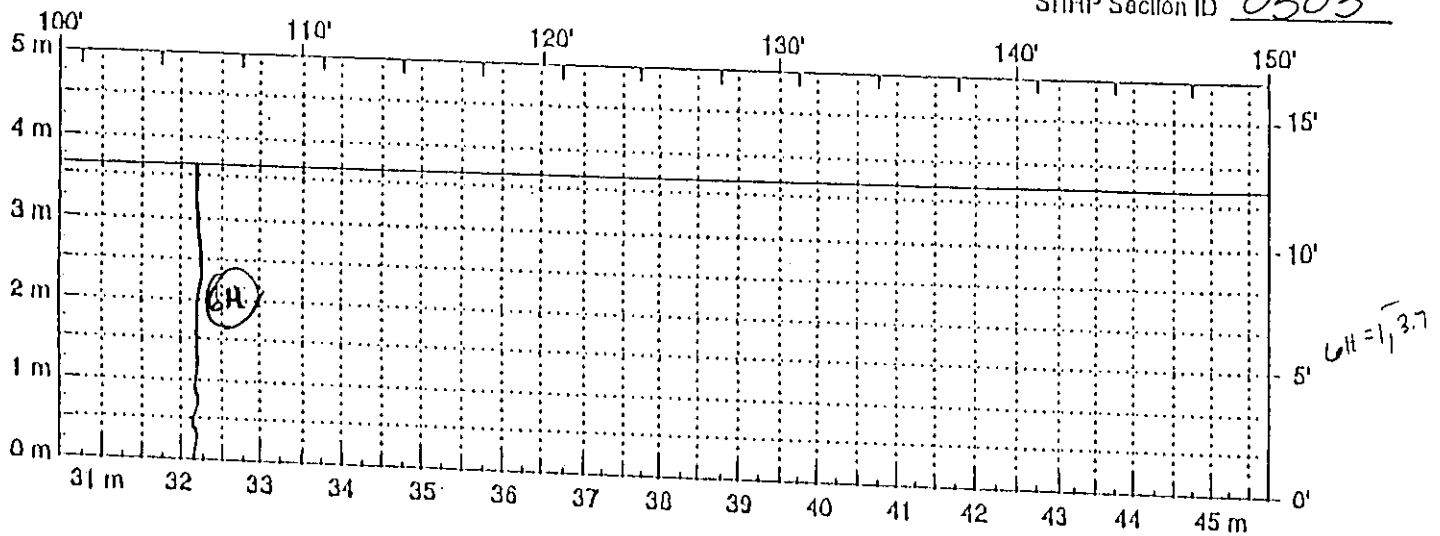


Comments: _____

State Assigned ID _____

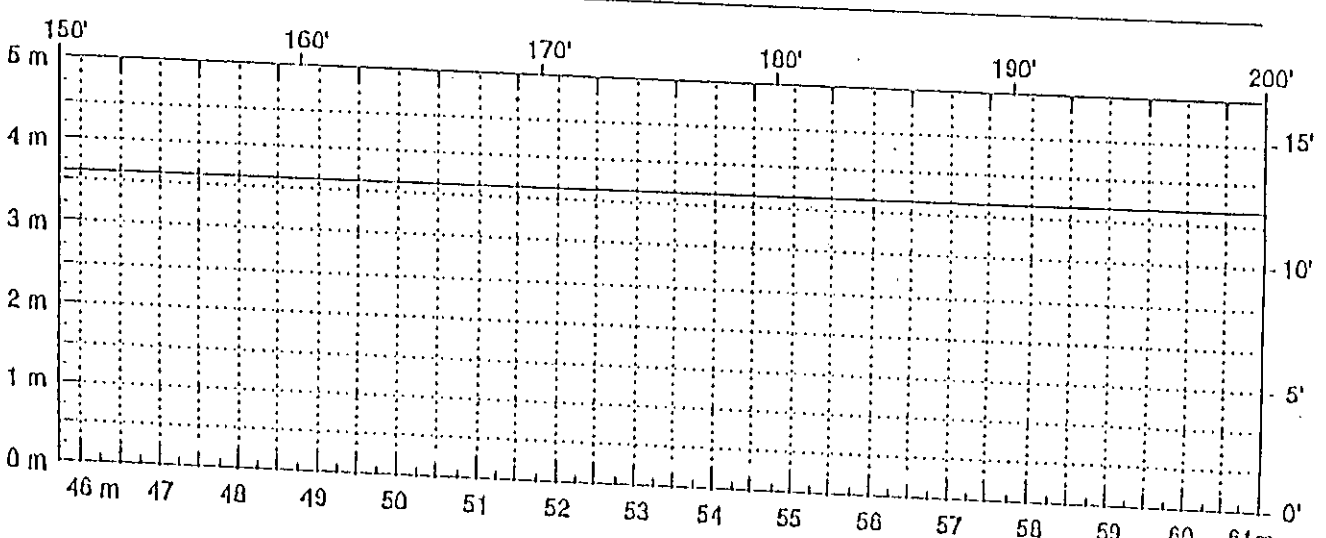
State Code 40

SHRP Section ID 0503



GH = 13.7

Comments: _____

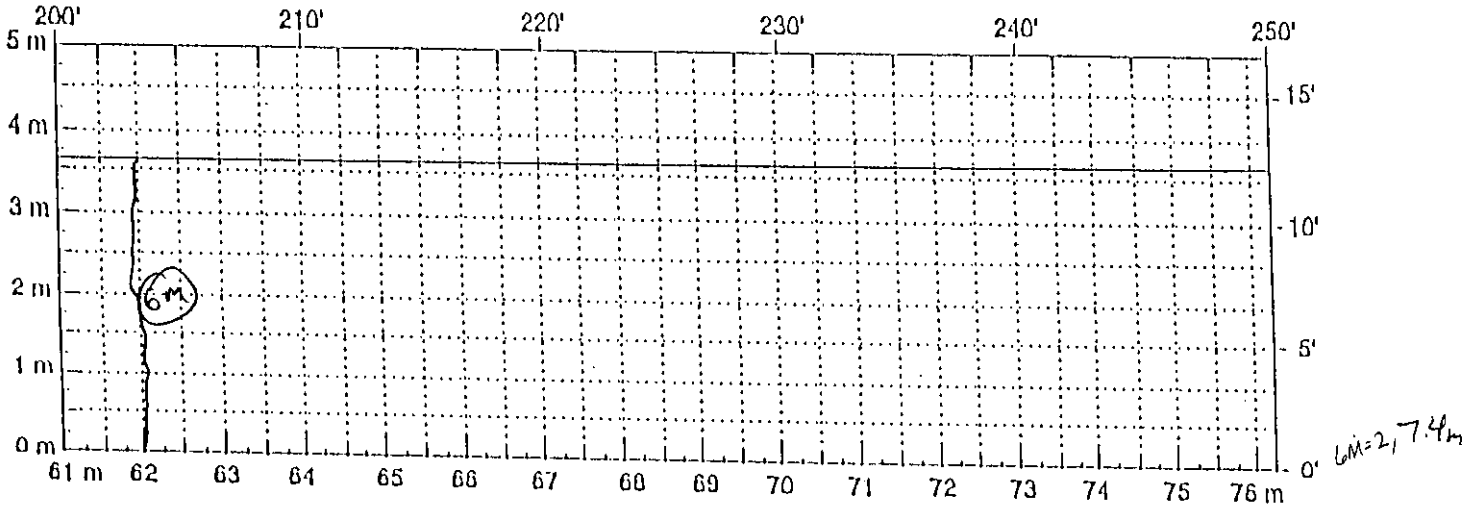


Comments: _____

State Assigned ID _____

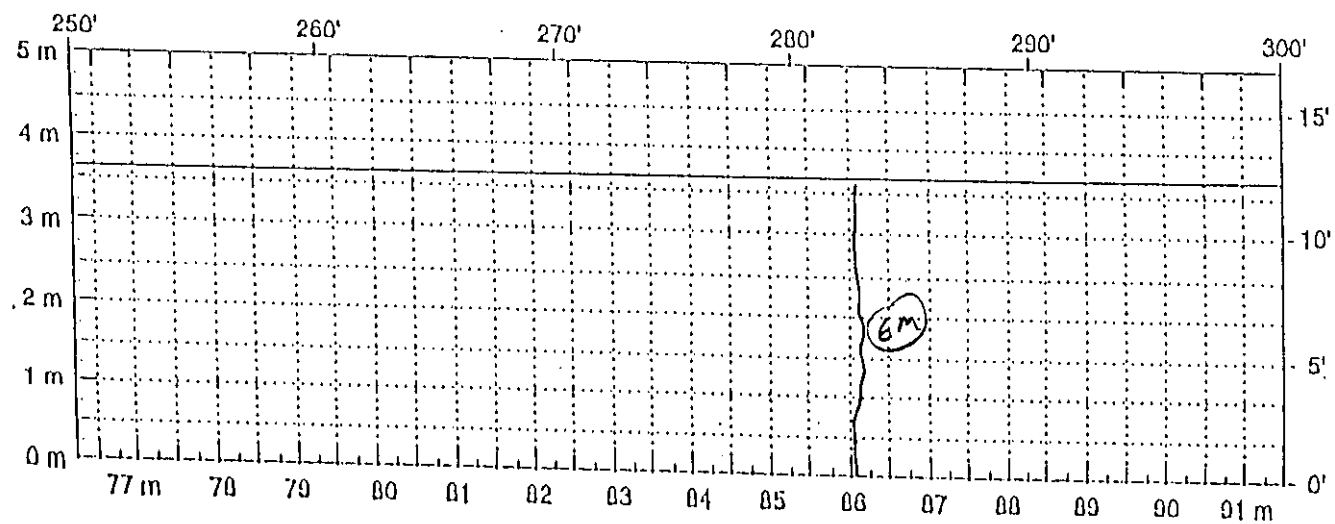
State Code 40

SHRP Section ID 0503



6M=27.4m

Comments: _____

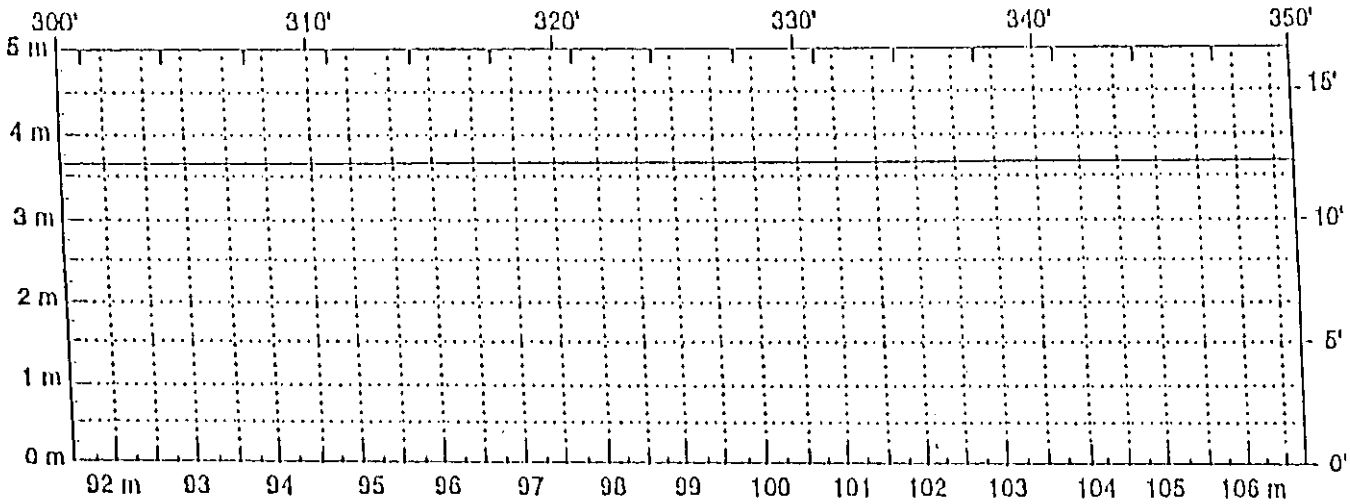


Comments: _____

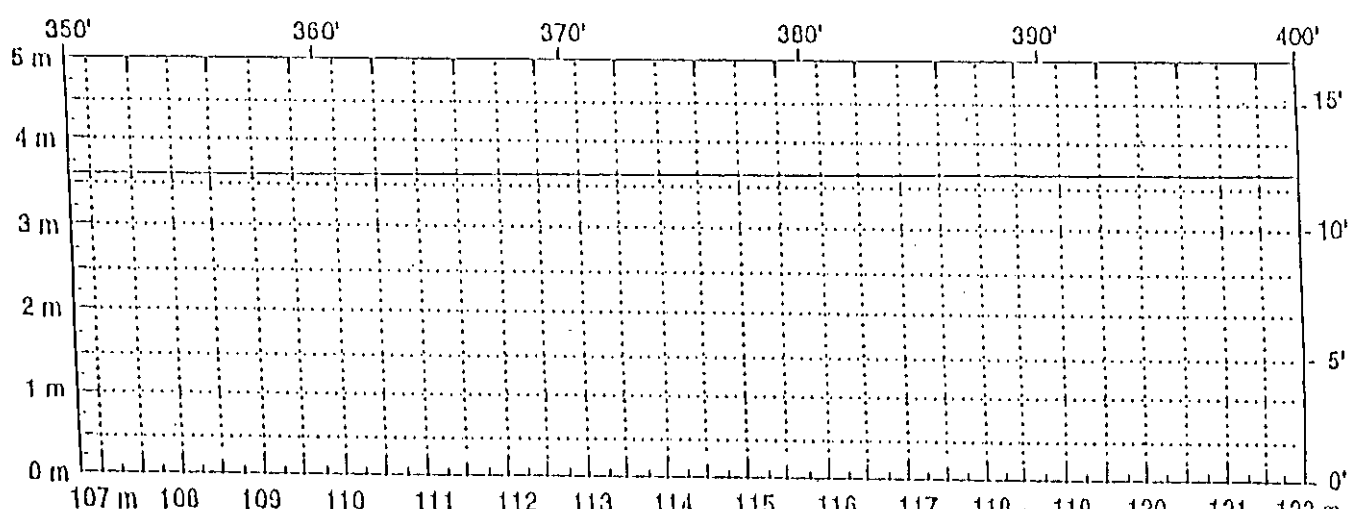
State Assigned ID _____

State Code 40

SHRP Section ID 0503



Comments: _____

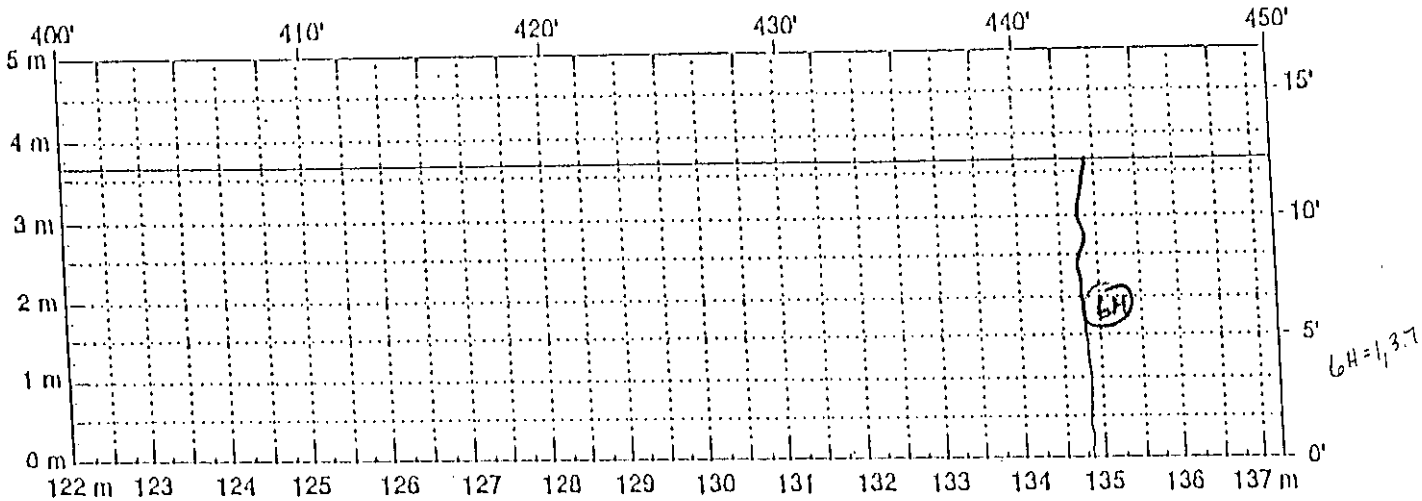


Comments: _____

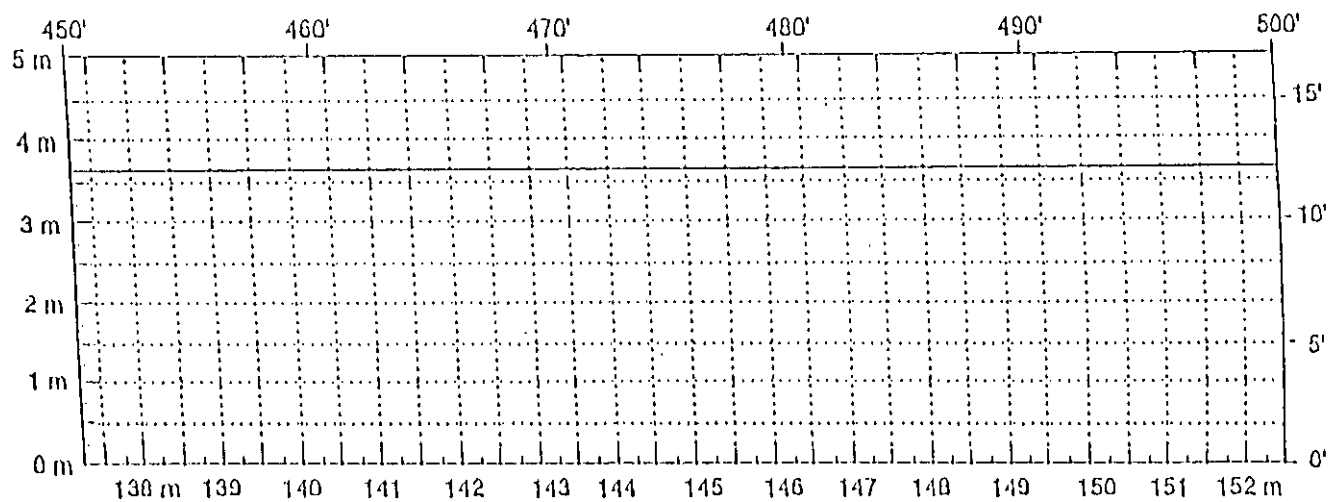
State Assigned ID _____

State Code 40

SHRP Section ID 0503



Comments: _____



Comments: _____

LTPP Automated Dipstick Data Collection Transverse Profile Form DS-11 Zero and Calibration Checks	State Code [4 0] LTPP Section ID [0 5 0 3] Date (dd/mmm/yy) [0 6 / 1 7 / 9 7]

Operator: Tim Martin Employer: BRE

Dipstick Serial Number: 30023

Pre Measurement Checks

Time (military): 0 9 : 4 5

Automatic Zero Performed: ____

Calibration

Calibration Check	
Measurement	Reading (inches)
First Reading	.214
Second Reading on Calibration Block	.339
Second Reading - 0.125 - First Reading	.214

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Post Measurement Checks

Time (military): 1 0 : 1 5

Zero Check Acceptable: ✓

Calibration Check	
Measurement	Reading (inches)
First Reading	-.221
Second Reading on Calibration Block	-.096
Second Reading - 0.125 - First Reading	-.221

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Comments

DATE: 6/17/97

OPERATOR: Tim Martin

RECORDER: Mike Duke

DIPSTICK SERIAL NUMBER: 30023

ENTERED JUL 1 0 1997

STATE CODE: 40

SHRP SECTION I.D.: 0 5 0 3

DIPSTICK READING

LOCATION	1	2	3	4	5	6	7	8	9	10	11	12		TOTAL	SUM
0+00	033	-032	071	198	150	-017	-062	-029	104	268	260	182			
	-052	[illegible]	-064	-198	-143	015	0106	033	-101	-268	-254	-186			
0+50	021	[illegible]	090	259	222	094	057	-029	103	343	[illegible]	263		.014	
(15m)	-025	[illegible]	-089	-259	-220	-048	-05	029	-103	-342	-215	-263			
1+00	033	-044	127	329	234	167	060	007	155	315	260	284		.005	
(30M)	-340	[illegible]	-122	-327	-233	-165	055	-003	-155	-315	-253	-284			
1+50	-011	058	123	240	161	056	-009	0460	167	285	219	147		.013	
(45m)	003	-058	-121	-240	-161	-057	010	-049	-168	-283	-219	-152			
(2+00)	-073	-005	115	256	182	100	-028	030	154	305	276	175		-.012	
(60m)	074	007	-111	-254	-1034	-098	030	-029	-150	-306	-275	-175			
2+50	021	046	116	246	174	060	-020	093	188	311	265	168		.017	
(75m)	-025	-044	-117	-247	-172	-054	019	-090	-182	-311	-266	-167			
3+00	090	055	141	273	203	074	000	084	185	308	311	216		.012	
(90m)	-087	-055	-139	-273	-203	-072	002	-083	-183	-311	-314	-213			
3+50	026	043	167	276	230	096	009	078	178	348	284	280		.003	
(105m)	-047	-054	-168	-300	-230	-099	-008	-077	-181	-341	-292	-285			
4+00	-006	000	123	232	150	032	-032	052	138	268	261	314		-.017	
(120m)	000	-007	-121	-229	161	-023	031	-048	-130	-268	-261	-313			
4+50	-096	000	106	185	123	-019	-064	-006	128	280	196	223		.024	
(135m)	088	000	-103	-184	-122	017	070	001	-131	-269	-195	-222			
5+00	-100	031	077	191	104	-004	-087	007	125	254	156	158		.012	
(150m)	096	-025	-076	-185	-106	002	093	-006	-125	-250	-160	153			

COMMENTS

RECEIVED JUN 3 0 1997

SHEET 1

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID

STATE CODE 40

SHRP SECTION ID 0 5 0 ~~8~~4

ENTERED OCT 2 1 1997

REVIEWED JUL 1 7 1997

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/17/97

SURVEYORS: T J M, M J O PHOTOS, VIDEO, OR BOTH WITH SURVEY (P, V, B) B

PAVEMENT SURFACE TEMP - BEFORE 21 °C; AFTER 23 °C

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
CRACKING			
1. FATIGUE CRACKING (Square Meters)	0	0	0
2. BLOCK CRACKING (Square Meters)	0	0	0
3. EDGE CRACKING (Meters)	0	0	0
4. LONGITUDINAL CRACKING (Meters)			
4a. Wheel Path	0.7	0	0
Length Sealed (Meters)	0	0	0
4b. Non-Wheel Path	0	0	0
Length Sealed (Meters)	0	0	0
5. REFLECTION CRACKING AT JOINTS Number of Transverse Cracks	0	0	0
Transverse Cracking (Meters)			
Length Sealed (Meters)			
Longitudinal Cracking (Meters)			
Length Sealed (Meters)			
6. TRANSVERSE CRACKING Number of Cracks	3	5	
Length (Meters)	1.9	18.5	
Length Sealed (Meters)	0.0	0.0	
PATCHING AND POTHOLES			
7. PATCH/PATCH DETERIORATION (Number)	0	0	
(Square Meters)	0	0	
8. Potholes (Number)	0	0	
(Square Meters)	0	0	

Revised December 1, 1992

SHEET 2

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID _ _ _ _

STATE CODE 40

SHRP SECTION ID 0 5 0 ~~8~~4

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 0 6/1 7/9 7

SURVEYORS: T J M, M J D

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES (CONTINUED)

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
SURFACE DEFORMATION			
9. RUTTING - REFER TO SHEET 3 FOR SPS-3 OR Form S1 from Dipstick Manual			
10. SHOVING (Number)			0
(Square Meters)			0.
SURFACE DEFECTS			
11. BLEEDING (Square Meters)	3 0 5.0	0.	0.
12. POLISHED AGGREGATE (Square Meters)			0.
13. RAVELING (Square Meters)	0.	0.	0.
MISCELLANEOUS DISTRESSES			
14. LANE-TO-SHOULDER DROPOFF - REFER TO SHEET 3			
15. WATER BLEEDING AND PUMPING (Number)			0
Length of Affected Pavement (Meters)			0.

16. OTHER (Describe) _____

Revised May 29, 1992

SHEET 3

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID _ _ _ _

STATE CODE 40

SHRP SECTION ID 0 5 0 ~~8~~ 4

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 0 6 / 1 7 / 9 7

SURVEYORS: T J M, M J D

ENTERED OCT 21 1997 J. B

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES (CONTINUED)

9. RUTTING (FOR SPS-3 SITE SURVEYS)

INNER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)	OUTER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)
1	0.	_ _ _.	1	0.	_ _ _.
2	15.25	_ _ _.	2	15.25	_ _ _.
3	30.5	_ _ _.	3	30.5	_ _ _.
4	45.75	_ _ _.	4	45.75	_ _ _.
5	61.	_ _ _.	5	61.	_ _ _.
6	76.25	_ _ _.	6	76.25	_ _ _.
7	91.5	_ _ _.	7	91.5	_ _ _.
8	106.75	_ _ _.	8	106.75	_ _ _.
9	122.	_ _ _.	9	122.	_ _ _.
10	137.25	_ _ _.	10	137.25	_ _ _.
11	152.5	_ _ _.	11	152.5	_ _ _.

SEE DIPSTICK DATA

14. LANE-TO-SHOULDER DROPOFF

Point No.	Point Distance[1] Meters	Lane-to-Shoulder Dropoff (mm)
1	0.	_ _ 0.
2	15.25	_ _ /.
3	30.5	_ _ /.
4	45.75	_ _ /.
5	61.	_ _ /.
6	76.25	_ _ /.
7	91.5	_ _ /.
8	106.75	_ _ /.
9	122.	_ _ /.
10	137.25	_ _ /.
11	152.5	_ _ /.

Note 1: "Point Distance" is the distance in meters from the start of the test section to the point where the measurement was made. The values shown are SI equivalents of the 50 ft spacing used in previous surveys.

State Assigned ID _____

date: 6/17/97

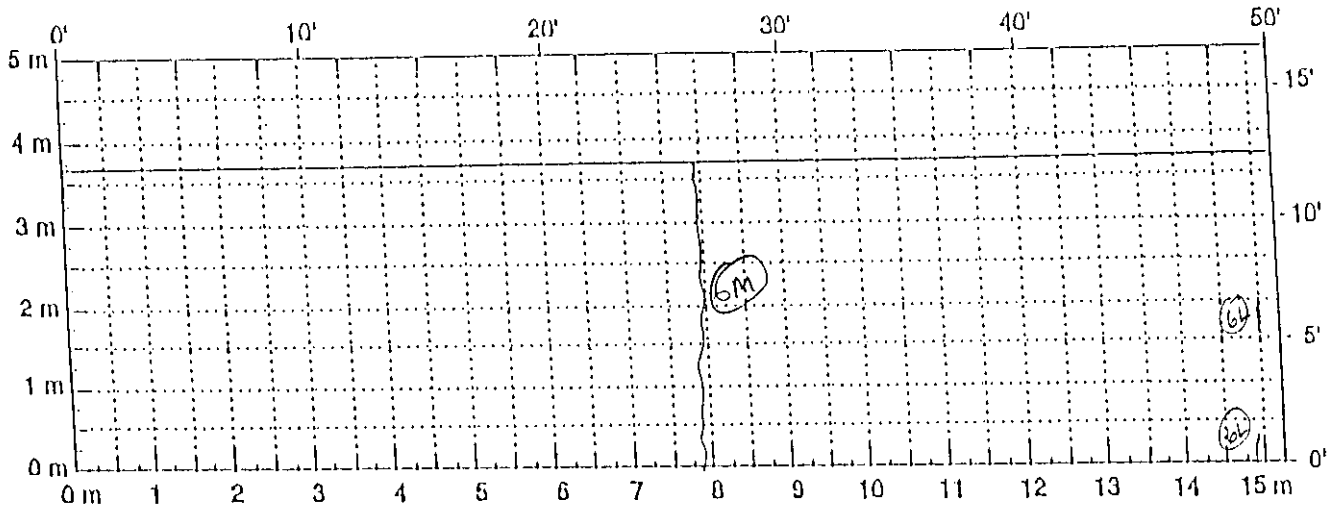
State Code 40

surveyors: TJM + MJD

SHRP Section ID 05084

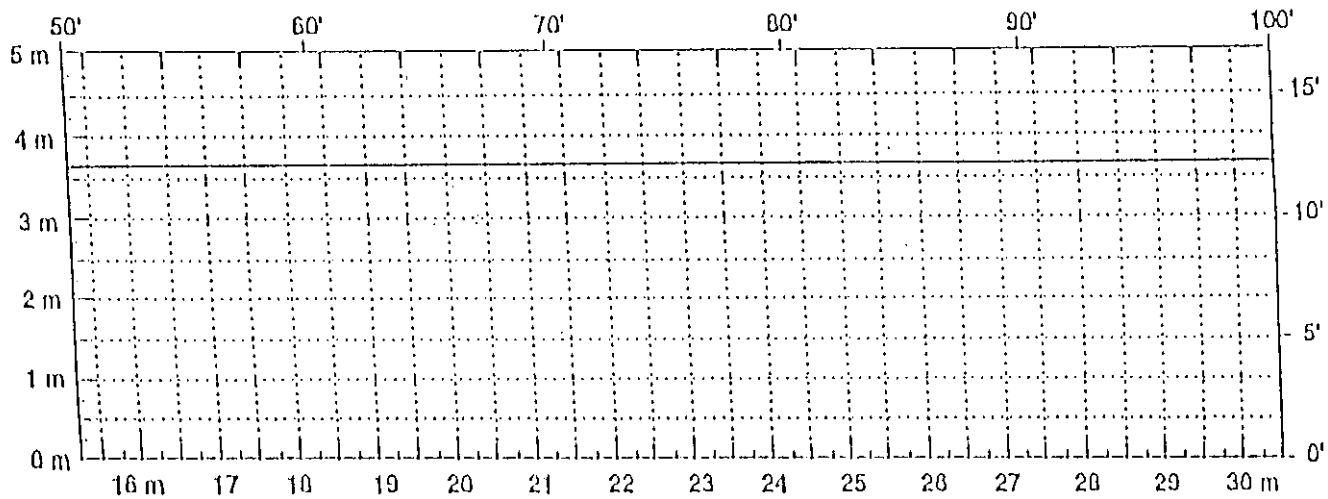
Totals

4bL - 0.7 m
6L - 3, 12
6M - 5, 18.5 m
11L - 305 sm



6L - 2, 0.9 m
6M - 1, 3.7 m

Comments: Bleeding throughout section in both wheel-paths.



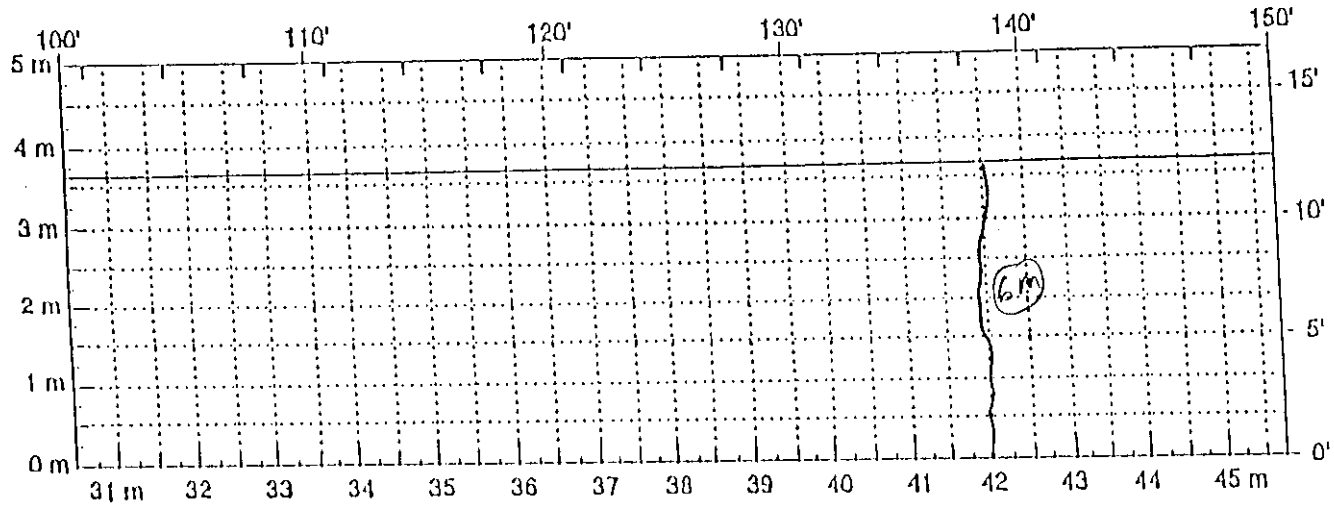
Comments: _____

State Assigned ID _____

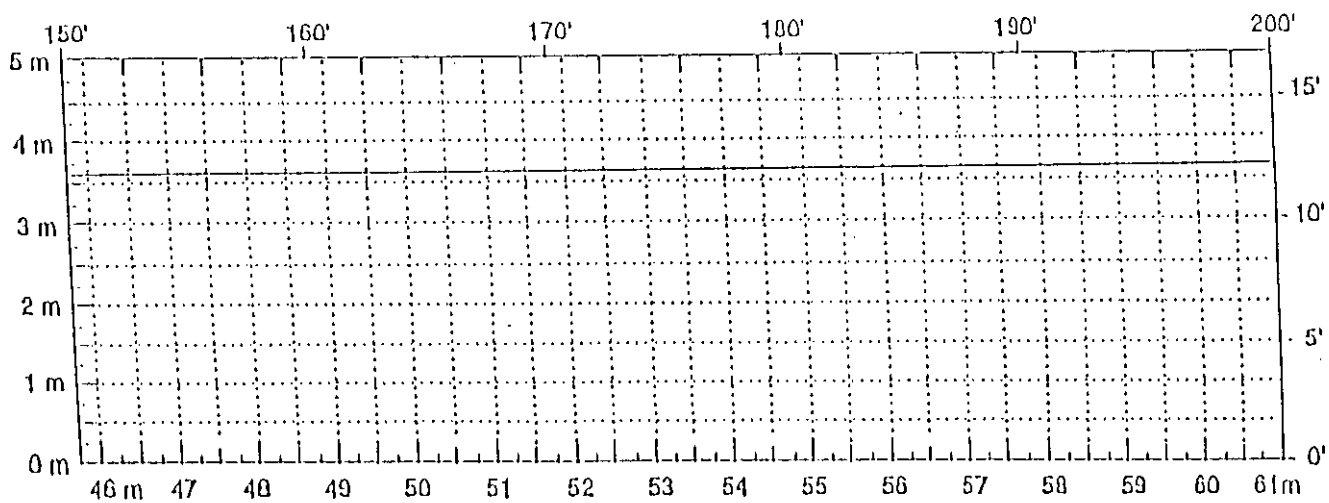
State Code 40

SHRP Section ID 05084

6M-1, 3.7m



Comments: _____



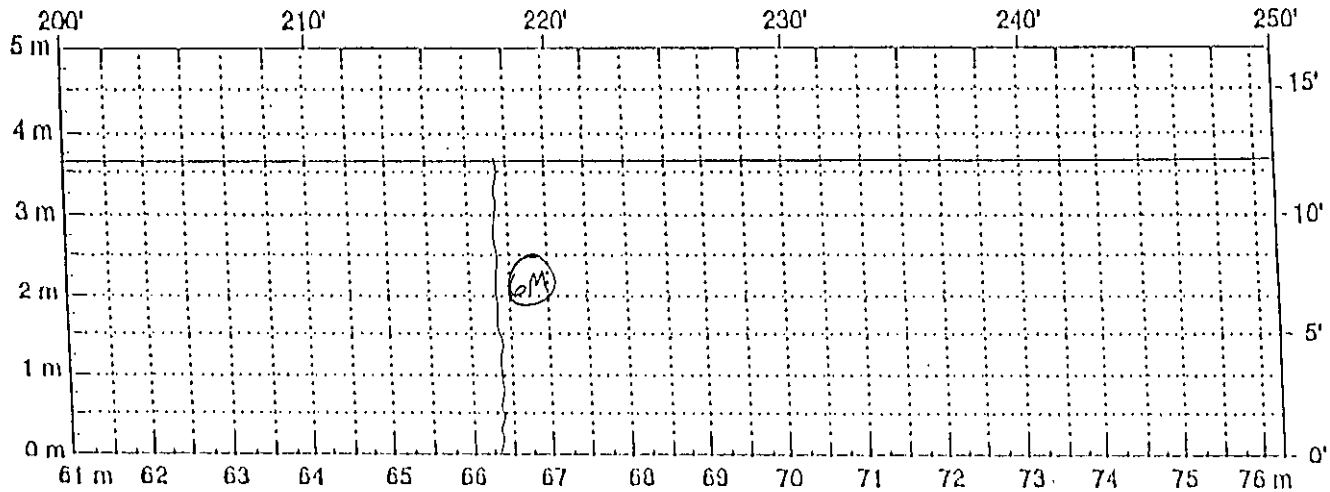
Comments: _____

State Assigned ID _____

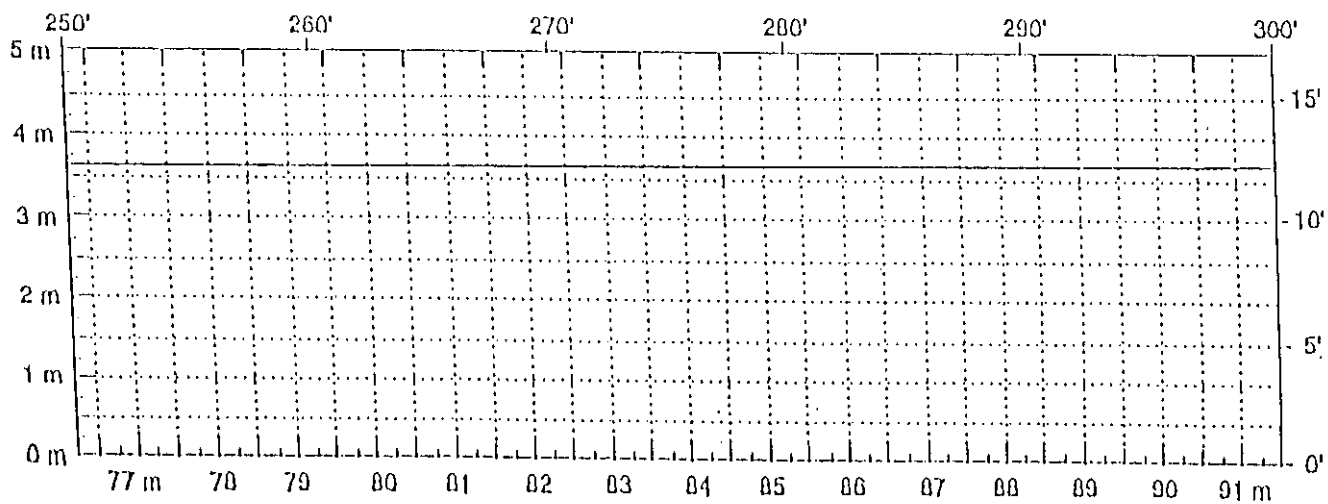
State Code 40

SHRP Section ID 05084

6M, 1, 3.7m



Comments: _____



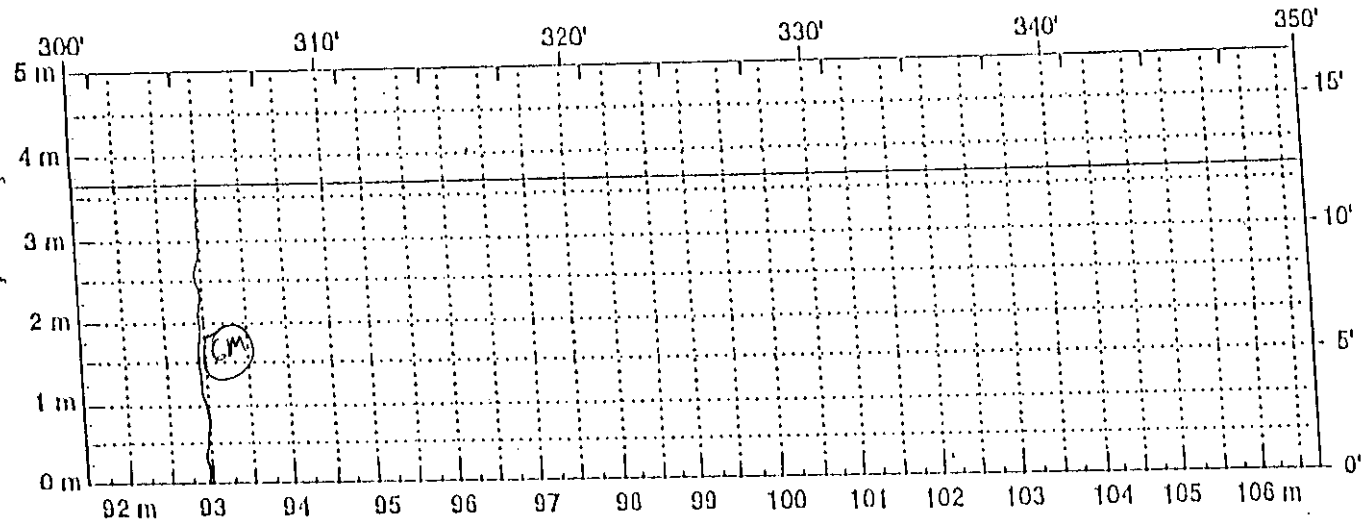
Comments: _____

State Assigned ID _____

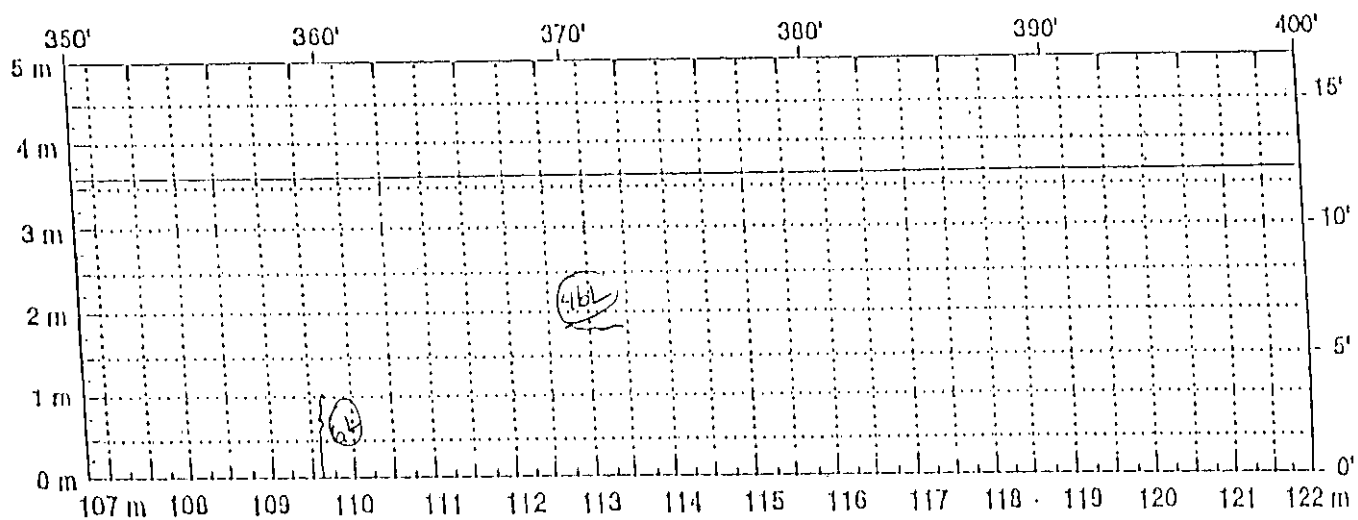
State Code 40.

SHRP Section ID 05084

4bL – 0.7m
6L – 1.1m
6M – 1.3.7m



Comments: _____



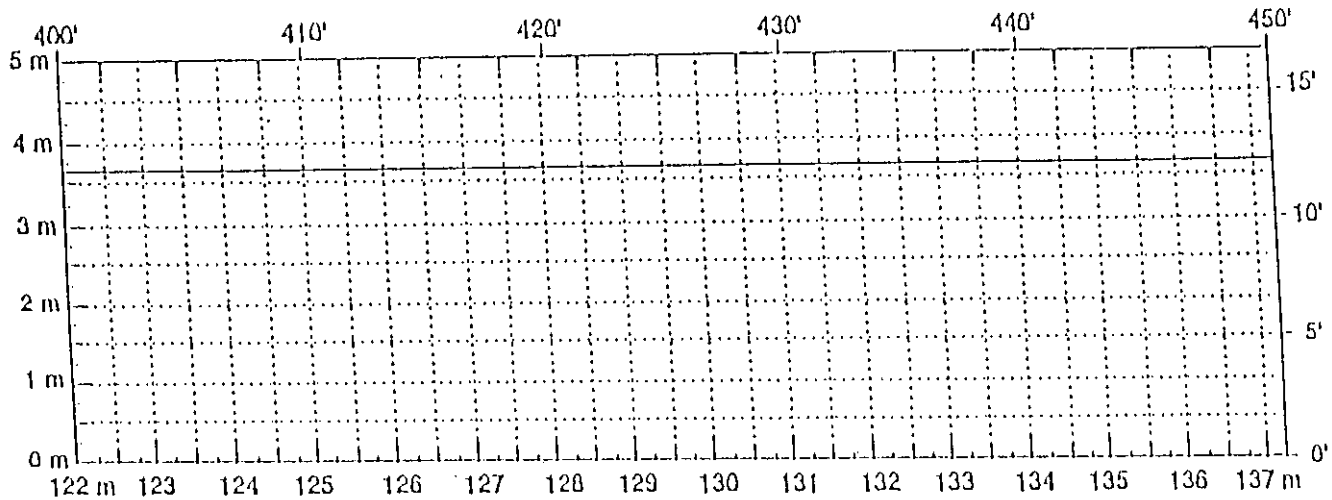
Comments: _____

State Assigned ID _____

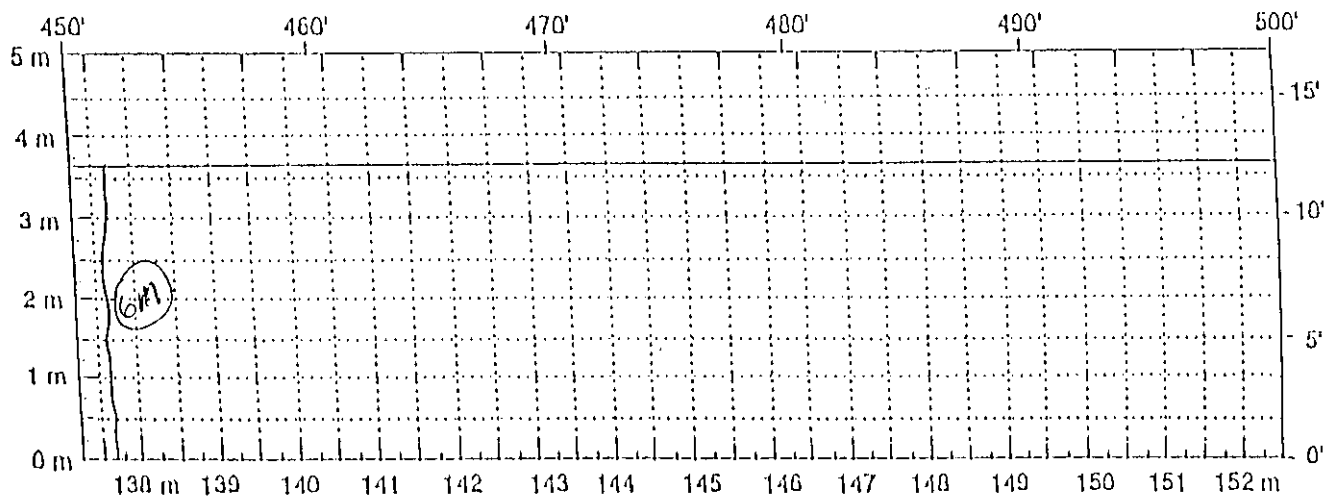
State Code 40

SHNP Section ID 05084

6M, 1-3.7m



Comments: _____



Comments: _____

LTPP Automated Dipstick Data Collection Transverse Profile Form DS-11 Zero and Calibration Checks	State Code [4 0] LTPP Section ID [0 5 0 7] Date (dd/mmm/yy) [6/ 1 7 /9 7]

Operator: Tim Martin Employer: BRE

Dipstick Serial Number: 30023

Pre Measurement Checks

Time (military): 1 7 : 5 0

Automatic Zero Performed: ____

Calibration

Calibration Check	
Measurement	Reading (inches)
First Reading	.080
Second Reading on Calibration Block	.206
Second Reading - 0.125 - First Reading	.125

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Post Measurement Checks

Time (military): 1 8 : 3 0

Zero Check Acceptable: ✓

Calibration Check	
Measurement	Reading (inches)
First Reading	.079
Second Reading on Calibration Block	.204
Second Reading - 0.125 - First Reading	.125

Note: *Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.*

Comments

DATE: 6/17/97

OPERATOR: Tim Martin

RECORDER: Matt Duke

DIPSTICK SERIAL NUMBER: 30023

EN. V.1268UN 8 9 1997

ENTERED JUL 1 0 1997 A II

STATE CODE: 4 0

SHRP SECTION I.D.: 0 5 0 4

DIPSTICK READING

LOCATION	1	2	3	4	5	6	7	8	9	10	11	12		TOTAL	SUM
0+00	.119	-019	004	221	240	156	025	-026	005	240	345	248			
	-119 [15]	025 [15]	-0039	-219 [8]	-236 [5]	-155 [1]	-022 [0]	030 [-3]	-003 [-7]	-233 [-9]	-356 [-10]	-253 [-5]		.015	
0+50	079	004	060	303	310	165	087	014	090	357	407	295			
(15m)	-083 [19]	-009 [11]	-051 [26]	-303 [17]	-308 [17]	-166 [15]	-082 [16]	+019 [11]	-083 [6]	-356 [-1]	403 [-2]	-301 [-6]		.017	
1+00	020	054	046	218	250	142	070	028	065	286	368	225			
(30M)	-020 [21]	-054 [21]	-041 [21]	-213 [16]	-248 [11]	-143 [9]	-070 [15]	-040 [15]	-053 [22]	-278 [10]	-366 [2]	-225 [0]		.021	
1+50	074	044	023	266	226	145	043	-083	090	360	351	269			
(45m)	-070	-047	-013	-263	-224	-138	-032 [24]	098 [27]	-087 [17]	-349 [19]	-347 [3]	-270 [-1]		.061	
(2+00)	026	055	050	245	226	160	022	-107	074	340	360	356			
(60m)	-034	-059 [41]	-042 [25]	-241 [27]	-221 [23]	-158 [29]	-008 [26]	110 [12]	-066 [9]	-334 [1]	-364 [-5]	-357 [-1]		.043	
2+50	-039	-109	035	254	250	086	-037	-088	090	308	306	238			
(75m)	044 [1]	110 [1]	-034 [1]	-252 [-2]	~~-244~~ [-2]	-081 [-5]	.043 [-2]	093 [11]	-085 [4]	-306 [-1]	-304 [2]	-238		.040	
3+00	003	000	130	331	319	122	-067	-075	126	361	322	190			
(90m)	-003 [17]	-010 [16]	-127 [-3]	-331 [-3]	-313 [-3]	-119 [-13]	014 [16]	077 [9]	-123 [7]	-336 [4]	-341 [-2]	-192 [-7]		-.018	
3+50	108	018	062	384	364	154	-049	-071	140	408	435	321			
(105m)	-111 [26]	-008 [29]	-056 [29]	-382 [33]	-363 [31]	-150 [26]	055 [26]	082 [30]	-135 [9]	-407 [4]	-435 [3]	-318 [3]		.046	
4+00	030	-017	082	325	306	116	-022	-049	130	334	304	165			
(120m)	-034 [34]	023 [7]	-076 [-2]	-321 [-4]	-309 [-3]	-109 [-3]	026 [18]	047 [15]	-120 [16]	-330 [6]	-302 [2]	-105 [-2]		.034	
4+50	024	049	081	312	255	092	045	-039	090	354	352	254			
(135m)	-026 [23]	053 [23]	-074 [21]	-318 [19]	-250 [20]	-90 [12]	-052 [19]	047 [20]	-090 [12]	-352 [12]	-342 [10]	-254 [0]		.023	
5+00	085	033	057	278	226	117	-018	-043	123	275	271	263			
(150m)	087 [13]	038 [15]	046 [2]	281 [9]	-222 [11]	-117 [8]	023 [8]	053 [3]	-122 [-1]	-270 [-4]	-284 [-15]	-263 [-5]		.013	

COMMENTS

RECEIVED JUN 30 1997

SHEET 1

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID

STATE CODE 40

SHRP SECTION ID 0505

ENTERED OCT 21 1997 J B

REVIEWED JUL 21 1997 J B

REVIEWED JUL 17 1997 JP

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/17/97

SURVEYORS: JJM, MJD PHOTOS, VIDEO, OR BOTH WITH SURVEY (P, V, B) B

PAVEMENT SURFACE TEMP - BEFORE 39 °C; AFTER 38 °C

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
CRACKING			
1. FATIGUE CRACKING (Square Meters)	0.3	0	0
2. BLOCK CRACKING (Square Meters)	0		
3. EDGE CRACKING (Meters)			
4. LONGITUDINAL CRACKING (Meters)			
4a. Wheel Path			
Length Sealed (Meters)			
4b. Non-Wheel Path	6.5	4.5	
Length Sealed (Meters)	0	0	
5. REFLECTION CRACKING AT JOINTS Number of Transverse Cracks	0	0	
Transverse Cracking (Meters)			
Length Sealed (Meters)			
Longitudinal Cracking (Meters)			
Length Sealed (Meters)			
6. TRANSVERSE CRACKING Number of Cracks	5	2	
Length (Meters)	12.8	7.4	
Length Sealed (Meters)	1.3	0	
PATCHING AND POTHOLES			
7. PATCH/PATCH DETERIORATION (Number)	0	0	
(Square Meters)			
8. Potholes (Number)			
(Square Meters)			

Revised December 1, 1992

SHEET 2

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID _ _ _ _

STATE CODE 40

SHRP SECTION ID 0505

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/17/97

SURVEYORS: TJM, MTD

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES (CONTINUED)

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
SURFACE DEFORMATION			
9. RUTTING - REFER TO SHEET 3 FOR SPS-3 OR Form S1 from Dipstick Manual			
10. SHOVING (Number)			0
(Square Meters)			_ _ _.__
SURFACE DEFECTS			
11. BLEEDING (Square Meters)	305.0	0	_ _ _.__
12. POLISHED AGGREGATE (Square Meters)			_ _ _.__
13. RAVELING (Square Meters)	0	0	_ _ _.__
MISCELLANEOUS DISTRESSES			
14. LANE-TO-SHOULDER DROPOFF - REFER TO SHEET 3			
15. WATER BLEEDING AND PUMPING (Number)			_ _ _
Length of Affected Pavement (Meters)			_ _ _.__

16. OTHER (Describe) _____

Revised May 29, 1992

ENTERED OCT 21 1997

SHEET 3

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID ____

STATE CODE 40

SHRP SECTION ID 0505

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/17/97

SURVEYORS: TJM, MJD

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES
(CONTINUED)

9. RUTTING (FOR SPS-3 SITE SURVEYS)

INNER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)	OUTER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)
1	0.	___.	1	0.	___.
2	15.25	___.	2	15.25	___.
3	30.5	___.	3	30.5	___.
4	45.75	___.	4	45.75	___.
5	61.	___.	5	61.	___.
6	76.25	___.	6	76.25	___.
7	91.5	___.	7	91.5	___.
8	106.75	___.	8	106.75	___.
9	122.	___.	9	122.	___.
10	137.25	___.	10	137.25	___.
11	152.5	___.	11	152.5	___.

SEE DIPSTICK DATA

14. LANE-TO-SHOULDER DROPOFF

Point No.	Point Distance[1] Meters	Lane-to-Shoulder Dropoff (mm)
1	0.	0.
2	15.25	___.
3	30.5	___.
4	45.75	___.
5	61.	___.
6	76.25	___.
7	91.5	___.
8	106.75	___.
9	122.	___.
10	137.25	___.
11	152.5	___.

Note 1: "Point Distance" is the distance in meters from the start of the test section to the point where the measurement was made. The values shown are SI equivalents of the 50 ft spacing used in previous surveys.

State Assigned ID _____

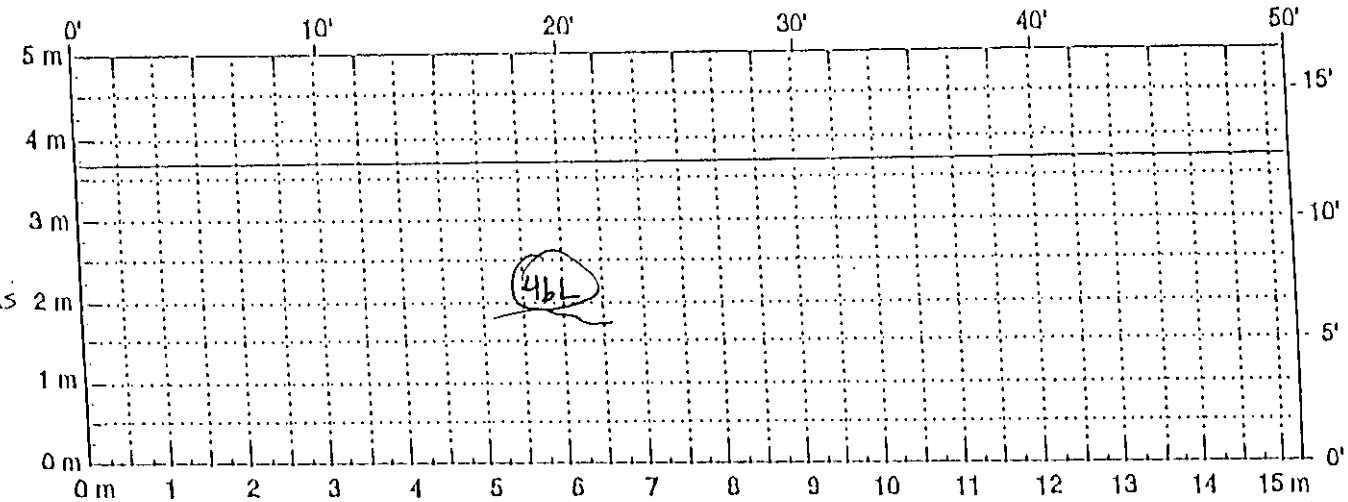
date: 6/17/97 State Code 40

surveyors: TJM + MJD SHRP Section ID 0505

$T_1 = 39\,°C$

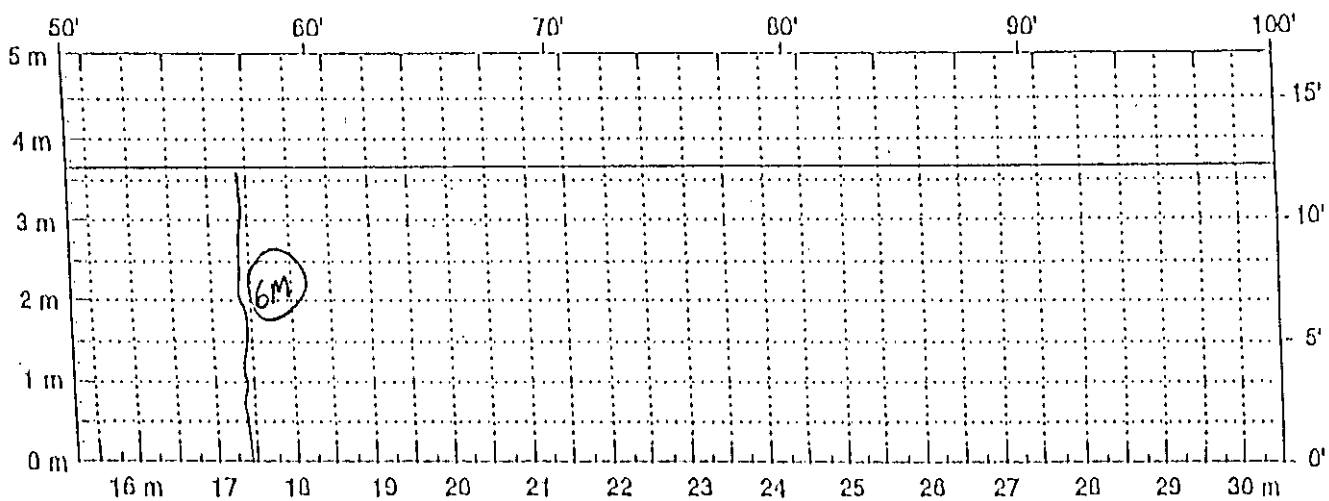
$T_2 = 38\,°C$

Totals:
1L - 0.3 m²
11L = 305 sm
4BL - 6.5 m
4BM - 4.5 m
6L - 5, 12.8 m, 1.3 m S
6M - 2, 7.4 m



4bL - 1.5 m
6M - 1, 3.7 m

Comments: Bleeding throughout section in both wheel-paths. 11L

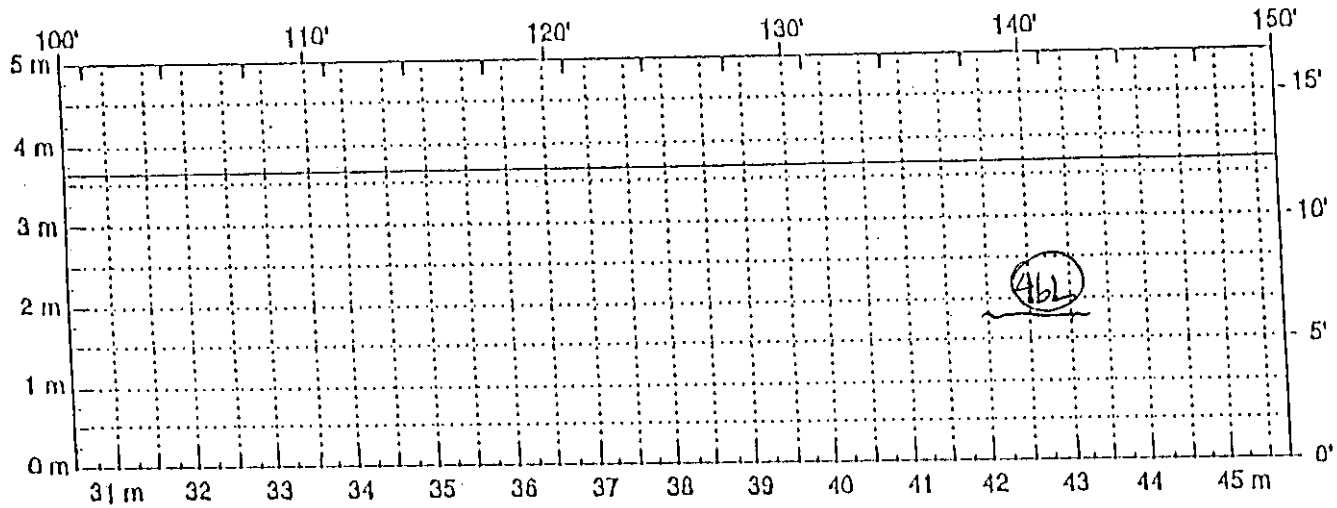


Comments: _____

State Assigned ID _____

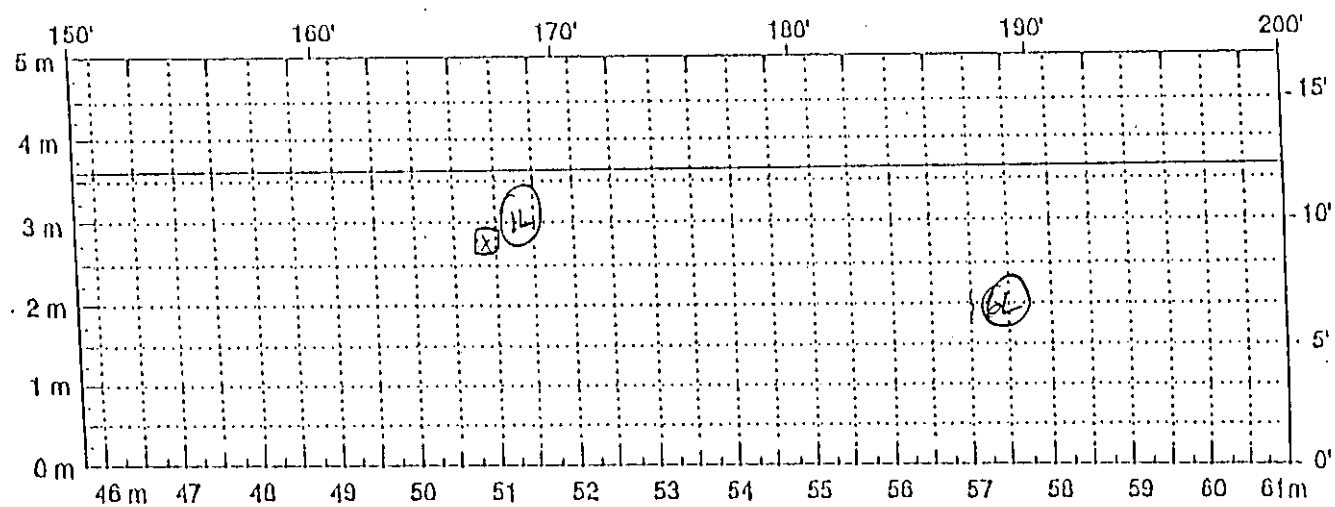
State Code 40

SHRP Section ID 0505



1L - 0.1 m²
46L - 1.3 m
6L - 1.0.4 m

Comments: _____

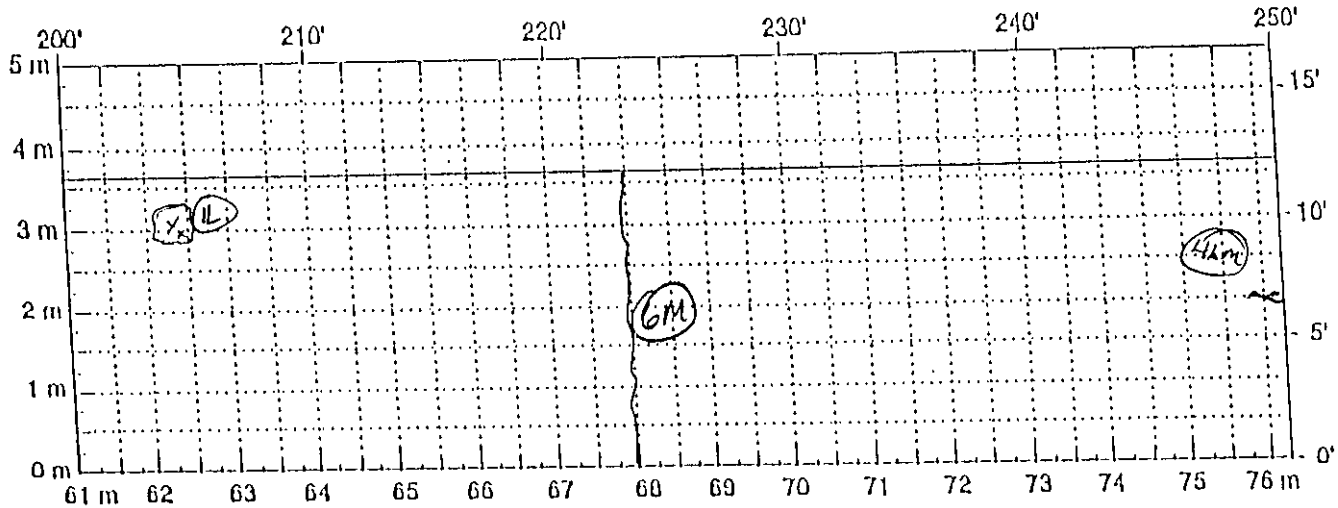


Comments: _____

State Assigned ID _____

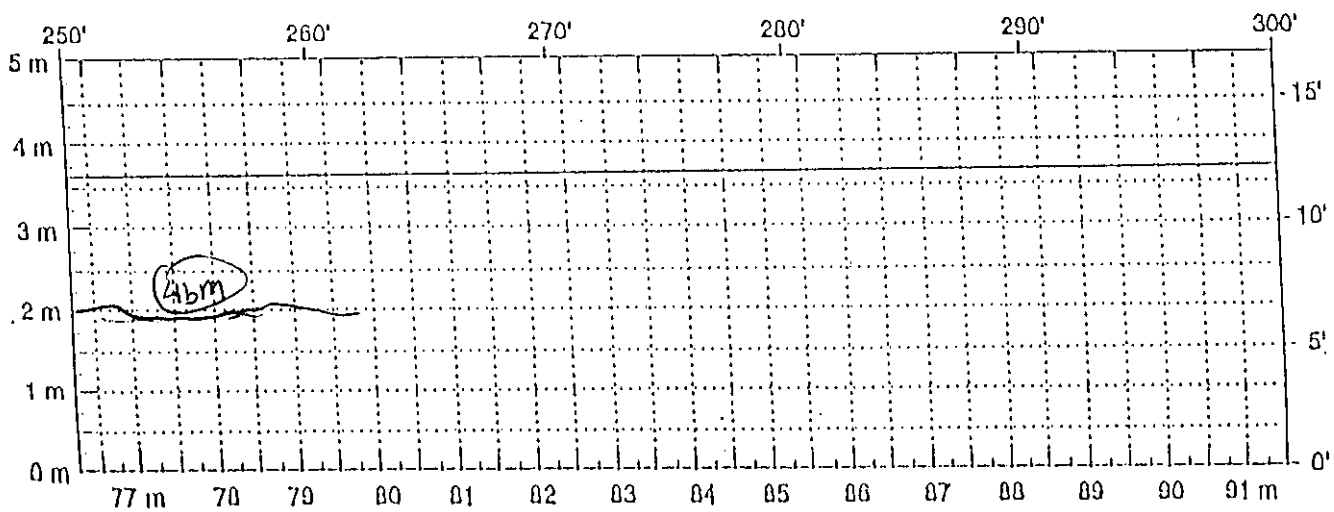
State Code 40

SHNP Section ID 0505



12 - 0.2m²
46m - 4.5m²
6M - 13.7m²

Comments: _____

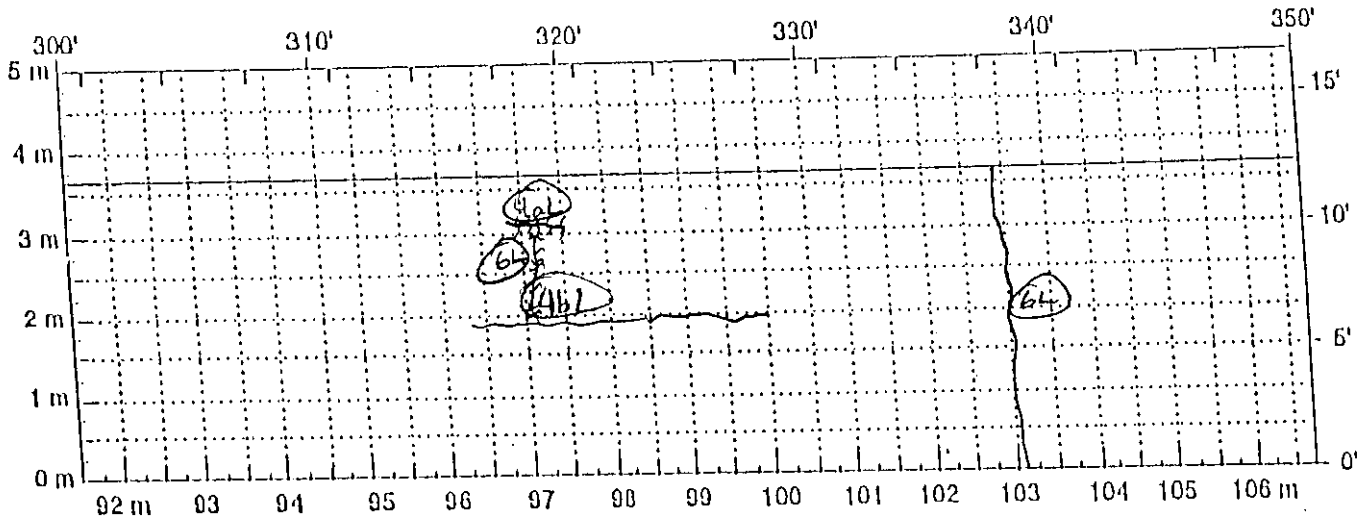


Comments: _____

State Assigned ID _____

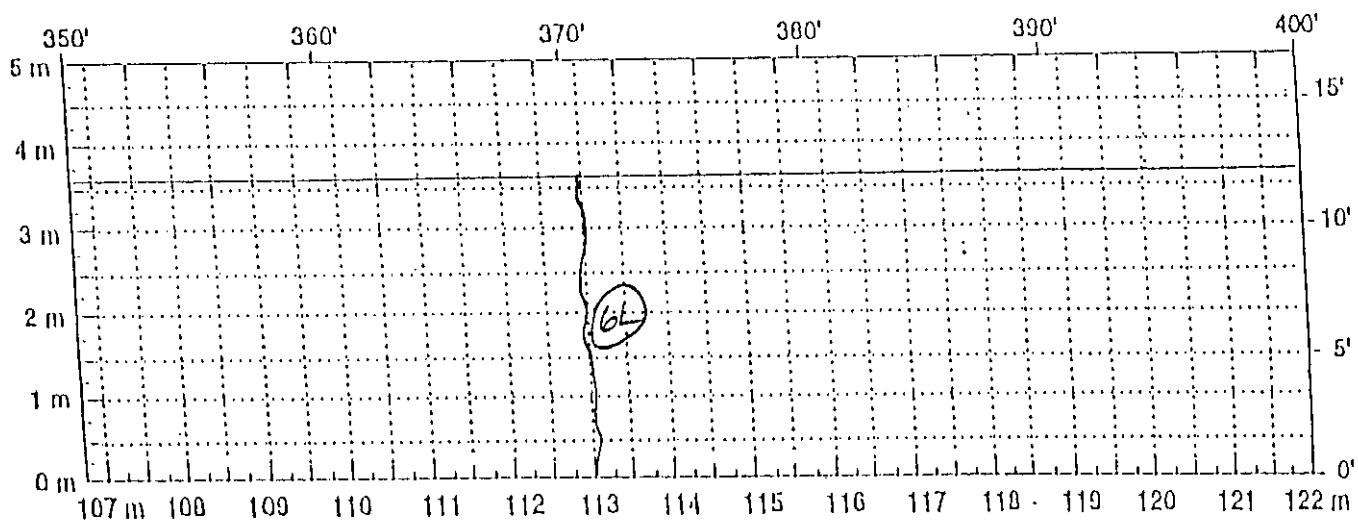
State Code 40

SHRP Section ID 0505



4aL - 0.7m
4bL - 3.7m
6L - 3, 8.7m, 13 m

Comments: _____

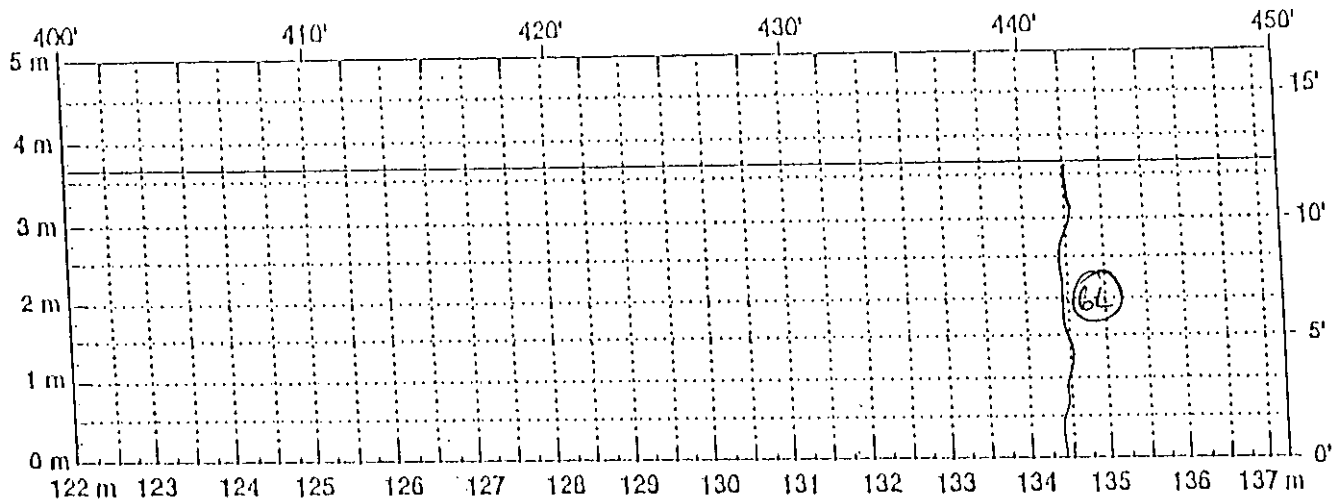


Comments: _____

State Assigned ID _____

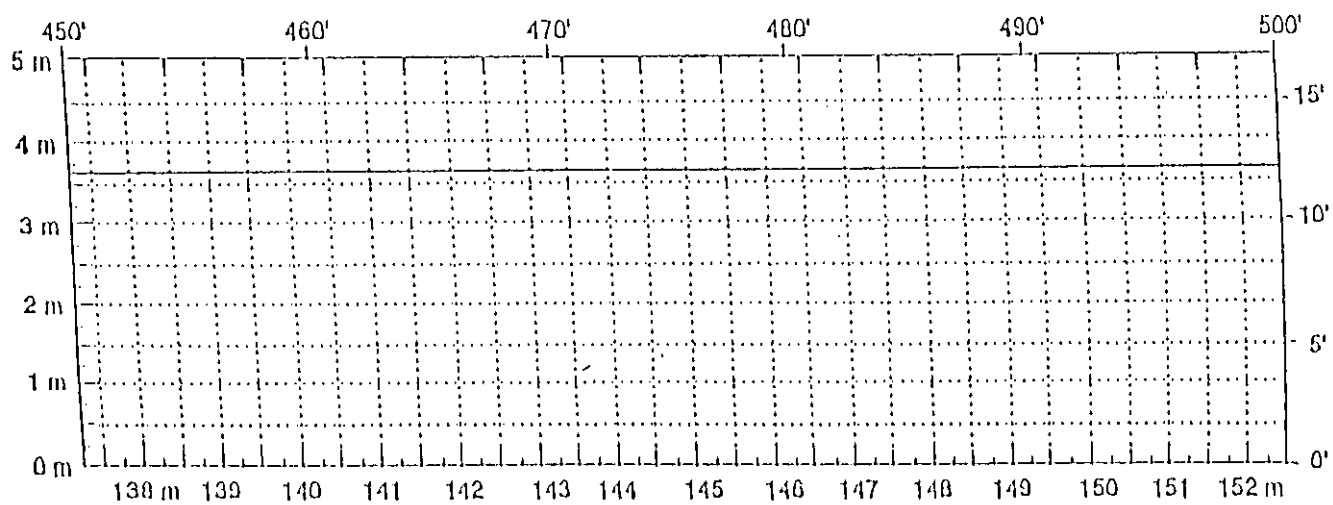
State Code 40

SHNP Section ID 0505



64 - 6, 3.7%

Comments: _____



Comments: _____

LTPP Automated Dipstick Data Collection Transverse Profile Form DS-11 Zero and Calibration Checks	State Code [4 0] LTPP Section ID [0 5 0 5] Date (dd/mmm/yy) [0 6 / 1 7 / 9 7]

Operator: TSM/MD Employer: BRE

Dipstick Serial Number: 30023

Pre Measurement Checks

Time (military): 1 8 : 5 5

Automatic Zero Performed: ____

Calibration

Calibration Check	
Measurement	Reading (inches)
First Reading	.068
Second Reading on Calibration Block	.194
Second Reading - 0.125 - First Reading	.125

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Post Measurement Checks

Time (military): 1 9 : 3 0

Zero Check Acceptable: ✓

Calibration Check	
Measurement	Reading (inches)
First Reading	.067
Second Reading on Calibration Block	.192
Second Reading - 0.125 - First Reading	.125

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Comments

DATE: 6/17/97

OPERATOR: JSH

RECORDER: MJS

DIPSTICK SERIAL NUMBER: 30023

ENTERED JUL 1 0 1997 A II

STATE CODE: 40

SHRP SECTION I.D.: 0505

DIPSTICK READING

LOCATION	1	2	3	4	5	6	7	8	9	10	11	12		TOTAL	SUM
0+00	283	024	258	352	227	133	004	123	320	426	261	245			
	-278	-017	-249	-351	-223	-121	-011	-115	319	-422	-277	-244		.064	
0+50	261	031	273	343	212	113	012	109	341	397	320	269			
(15m)	-260	-026	-268	-342	-206	-105	-012	-111	-336	-394	-317	-267		.037	
1+00	251	034	256	373	214	114	015	095	352	401	288	250			
(30M)	-250	-029	-250	-372	-205	-107	-024	-096	-349	-349	-290	-248		.024	
1+50	090	111	264	271	136	045	-013	139	308	321	207	190			
(45m)	-082	-108	-263	-269	-134	-043	018	-131	-340	-322	-203	-192		.030	
(2+00)	-015	098	262	273	122	008	-028	165	280	316	234	231			
(60m)	-012	-098	-258	-271	-119	-008	029	-160	-276	-319	-235	-235		.021	
2+50	-012	060	260	297	165	-006	022	117	293	343	213	233			
(75m)	014	-061	-249	-293	-168	010	-027	-114	-290	-341	-209	-246		.017	
3+00	032	012	217	317	219	122	004	054	277	407	314	227			
(90m)	-020	-011	-267	-309	-216	-118	-002	-060	-269	-402	-310	-229		.043	
3+50	180	106	272	352	297	075	050	160	287	440	283	268			
(105m)	-175	-105	-272	-345	-289	-071	-044	-154	-286	-436	-282	-266		.048	
4+00	211	062	260	370	325	193	075	061	232	430	400	341			
(120m)	-203	-058	-252	-368	-320	-190	-066	-052	-225	-458	-464	-334		.022	
4+50	155	089	246	322	261	122	060	062	255	365	317	188			
(135m)	-162	-081	-242	-316	-256	-116	-052	-060	-248	-360	-307	-189		.058	
5+00	194	009	180	360	278	141	-008	020	220	442	326	252			
(150m)	-145	-018	-168	-348	-267	-184	016	-012	-205	-457	-318	-255		.073	

COMMENTS

RECEIVED JUN 3 0 1997

SHEET 1

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID

STATE CODE 40

SHRP SECTION ID 0506

ENTERED OCT 2 1 1997 J B

REVIEWED JUL 2 1 1997 J

REVIEWED JUL 1 7 1997 JP

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/17/97

SURVEYORS: T J M, M J D PHOTOS, VIDEO, OR BOTH WITH SURVEY (P, V, B) B

PAVEMENT SURFACE TEMP - BEFORE 19 °C; AFTER 19 °C

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
CRACKING			
1. FATIGUE CRACKING (Square Meters)	0	0	0
2. BLOCK CRACKING (Square Meters)			
3. EDGE CRACKING (Meters)			
4. LONGITUDINAL CRACKING (Meters)			
4a. Wheel Path			
Length Sealed (Meters)			
4b. Non-Wheel Path			
Length Sealed (Meters)			
5. REFLECTION CRACKING AT JOINTS Number of Transverse Cracks			
Transverse Cracking (Meters)			
Length Sealed (Meters)			
Longitudinal Cracking (Meters)			
Length Sealed (Meters)			
6. TRANSVERSE CRACKING Number of Cracks	1	4	2
Length (Meters)	3.7	14.8	7.4
Length Sealed (Meters)	0	0	0
PATCHING AND POTHOLES			
7. PATCH/PATCH DETERIORATION (Number)	0	0	0
(Square Meters)			
8. Potholes (Number)			
(Square Meters)			

Revised December 1, 1992

STATE ASSIGNED ID _ _ _ _

SHEET 2

DISTRESS SURVEY

LTPP PROGRAM

STATE CODE 40

SHRP SECTION ID 0506

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/17/97

SURVEYORS: TJM, MJO

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES (CONTINUED)

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
SURFACE DEFORMATION			
9. RUTTING - REFER TO SHEET 3 FOR SPS-3 OR Form S1 from Dipstick Manual			
10. SHOVING (Number)			0
(Square Meters)			_ _ _ . _
SURFACE DEFECTS			
11. BLEEDING (Square Meters)	3050	0	_ _ _ . _
12. POLISHED AGGREGATE (Square Meters)			_ _ _ . _
13. RAVELING (Square Meters)	0	0	_ _ _ . _
MISCELLANEOUS DISTRESSES			
14. LANE-TO-SHOULDER DROPOFF - REFER TO SHEET 3			
15. WATER BLEEDING AND PUMPING (Number)			_ _ _
Length of Affected Pavement (Meters)			_ _ _ . _

16. OTHER (Describe) _____

Revised May 29, 1992

SHEET 3

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID ____

STATE CODE 40

SHRP SECTION ID 0506

ENTERED OCT 21 1997 J. B

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/17/97

SURVEYORS: TJM, MJO

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES (CONTINUED)

9. RUTTING (FOR SPS-3 SITE SURVEYS)

INNER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)	OUTER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)
1	0.	___.	1	0	___.
2	15.25	___.	2	15.25	___.
3	30.5	___.	3	30.5	___.
4	45.75	___.	4	45.75	___.
5	61.	___.	5	61.	___.
6	76.25	___.	6	76.25	___.
7	91.5	___.	7	91.5	___.
8	106.75	___.	8	106.75	___.
9	122.	___.	9	122.	___.
10	137.25	___.	10	137.25	___.
11	152.5	___.	11	152.5	___.

SEE DIPSTICK DATA

14. LANE-TO-SHOULDER DROPOFF

Point No.	Point Distance[1] Meters	Lane-to-Shoulder Dropoff (mm)
1	0.	0.
2	15.25	___.
3	30.5	___.
4	45.75	___.
5	61.	___.
6	76.25	___.
7	91.5	___.
8	106.75	___.
9	122.	___.
10	137.25	___.
11	152.5	___.

Note 1: "Point Distance" is the distance in meters from the start of the test section to the point where the measurement was made. The values shown are SI equivalents of the 50 ft spacing used in previous surveys.

State Assigned ID _____

date: 6/17/97

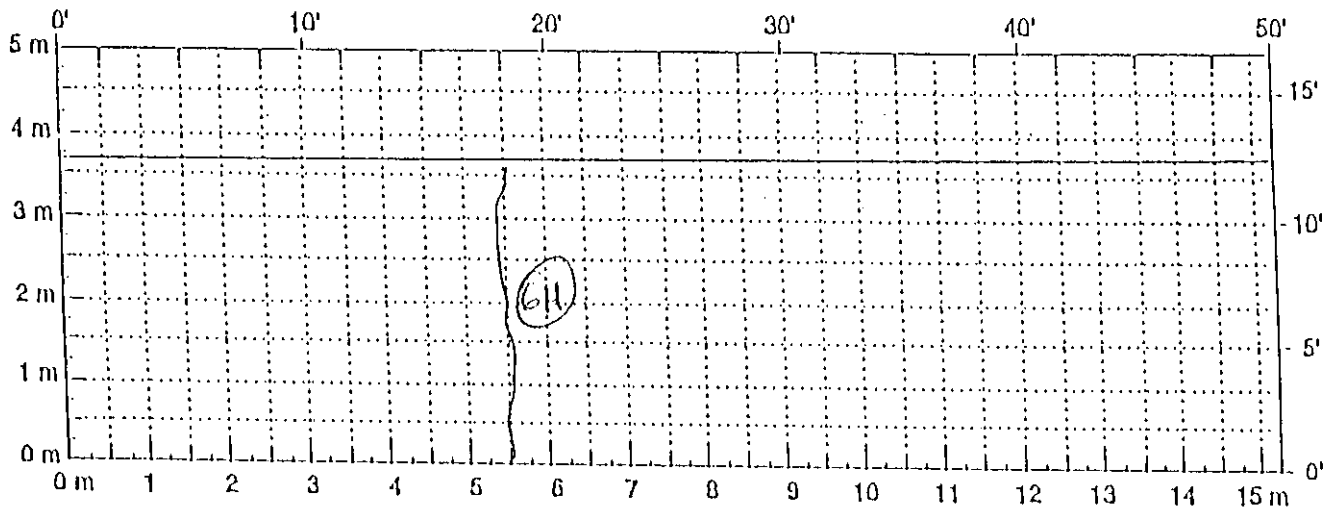
Surveyors: TJM + MJD

State Code 40

SHRP Section ID 0506

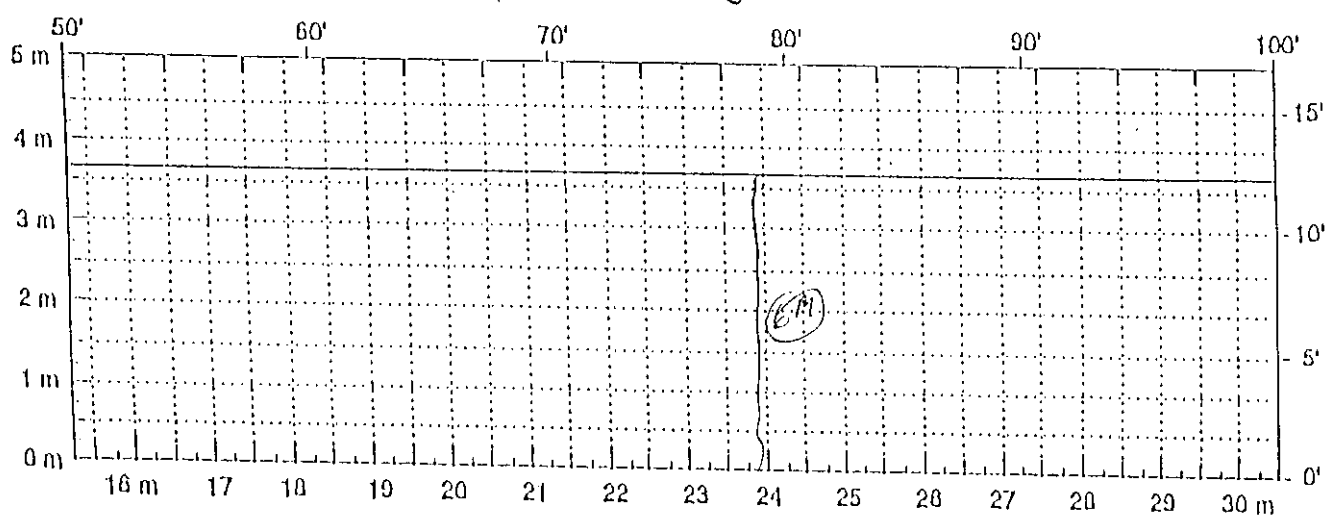
Totals:

6L - 1, 3.7m
6M - 4, 14.8m
6H - 2, 7.4m
11L - 305m²



6M = 1, 3.7
6H = 1, 3.7

Comments: 11L Light Severity Bleeding throughout section in both wheel-paths

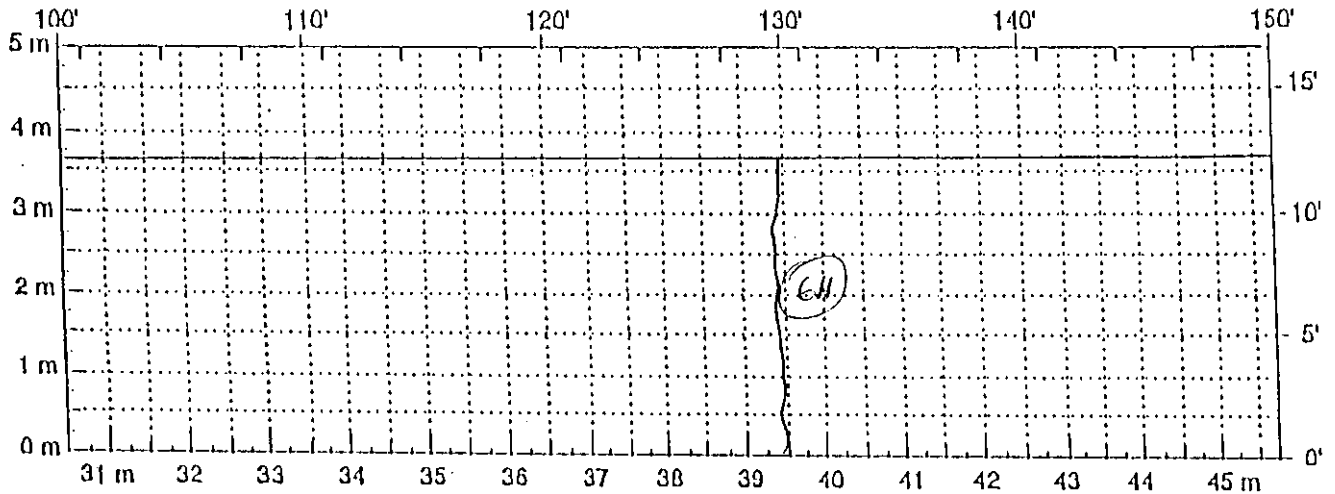


Comments: _____

State Assigned ID _____

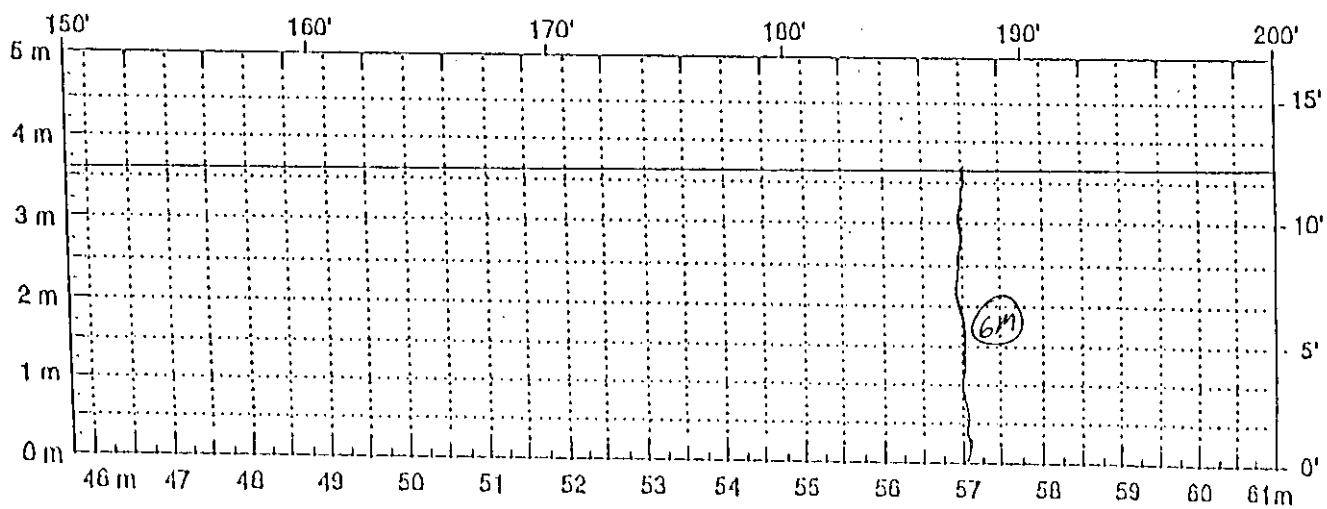
State Code 40

SHRP Section ID 0506



6HS=1,2.7
6H=1,3.7

Comments: _____

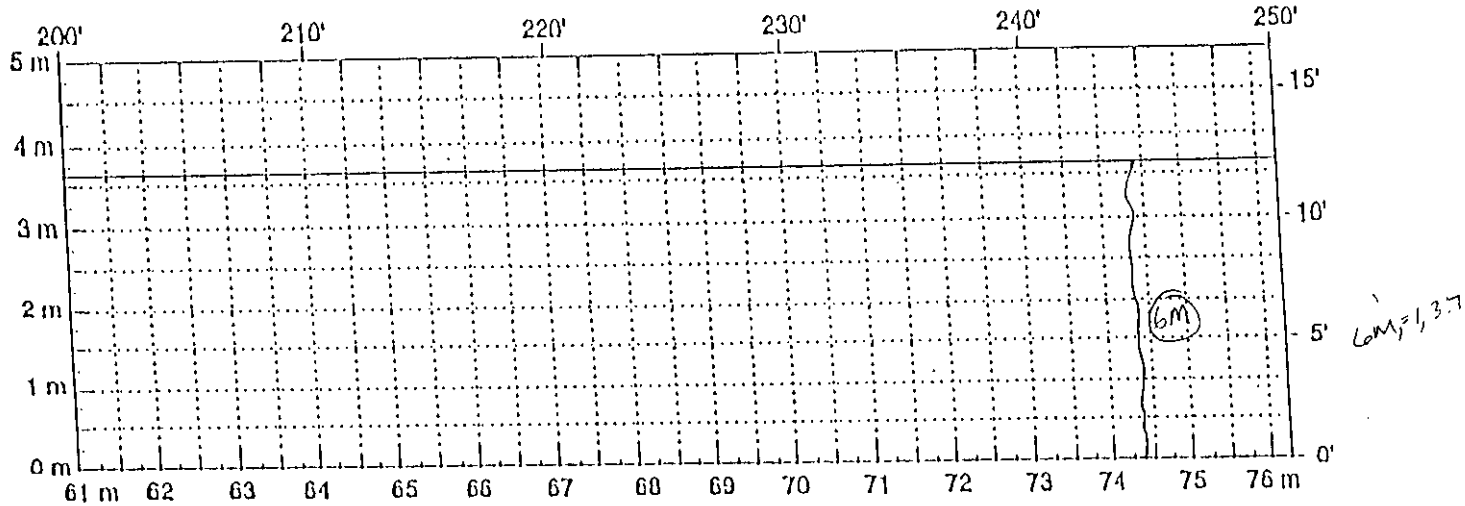


Comments: _____

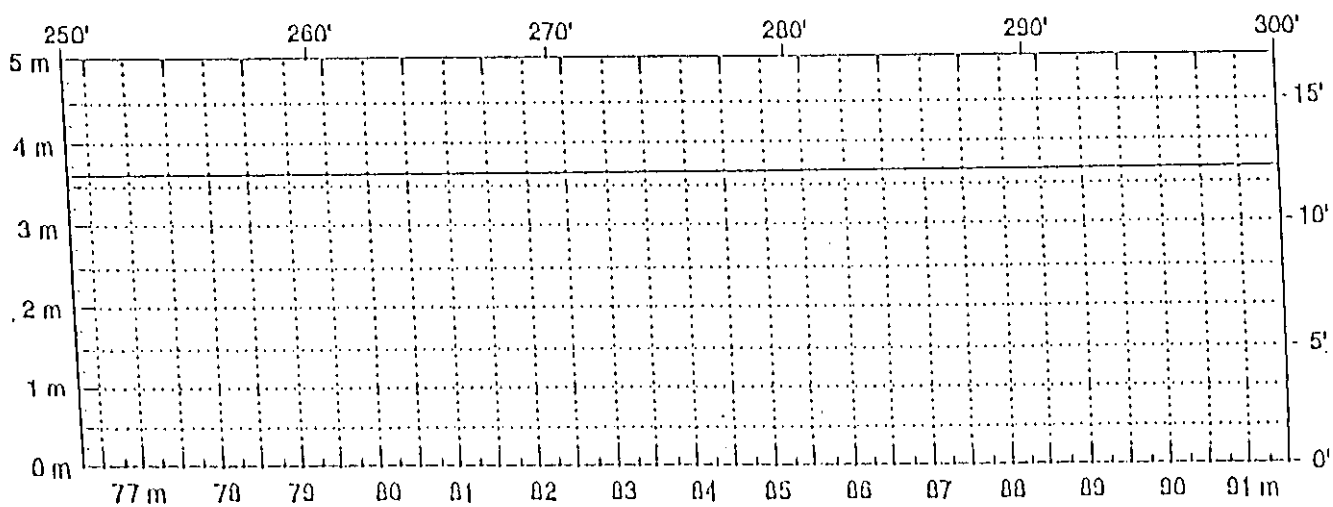
State Assigned ID _____

State Code 4a

SHNP Section ID 0506



Comments: _____

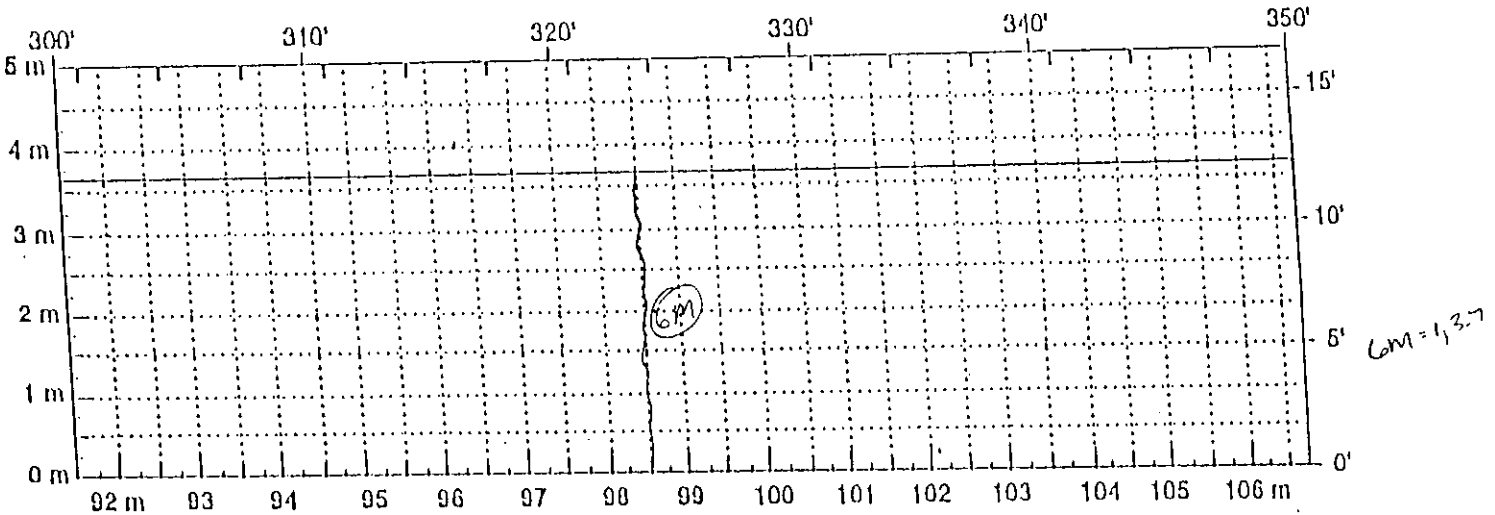


Comments: _____

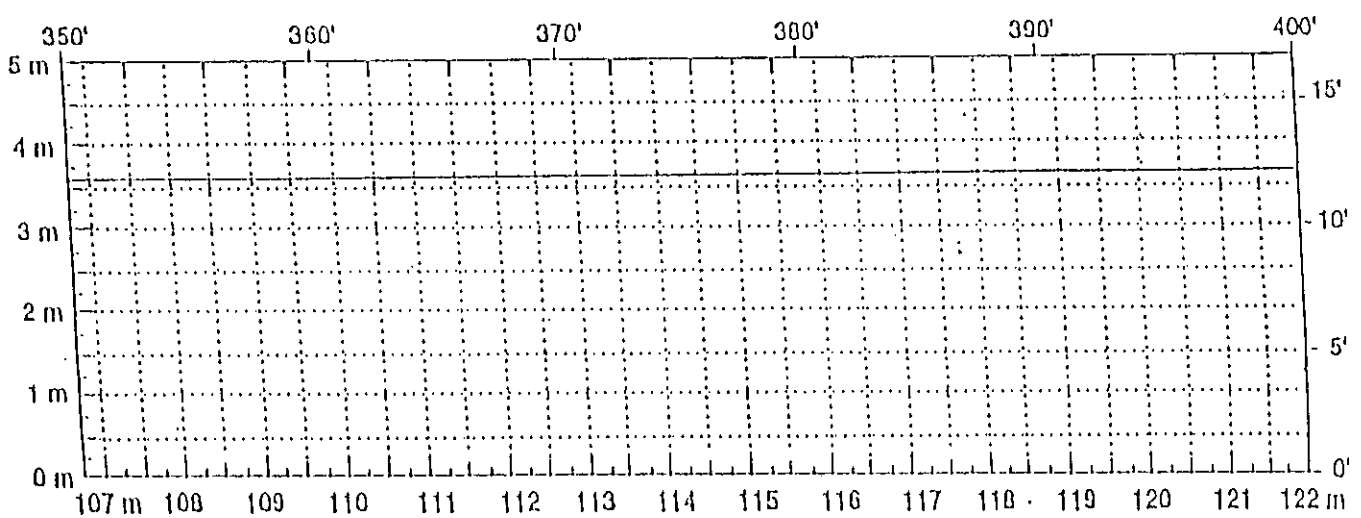
State Assigned ID _____

State Code 40

SHRP Section ID 0506



Comments: _____

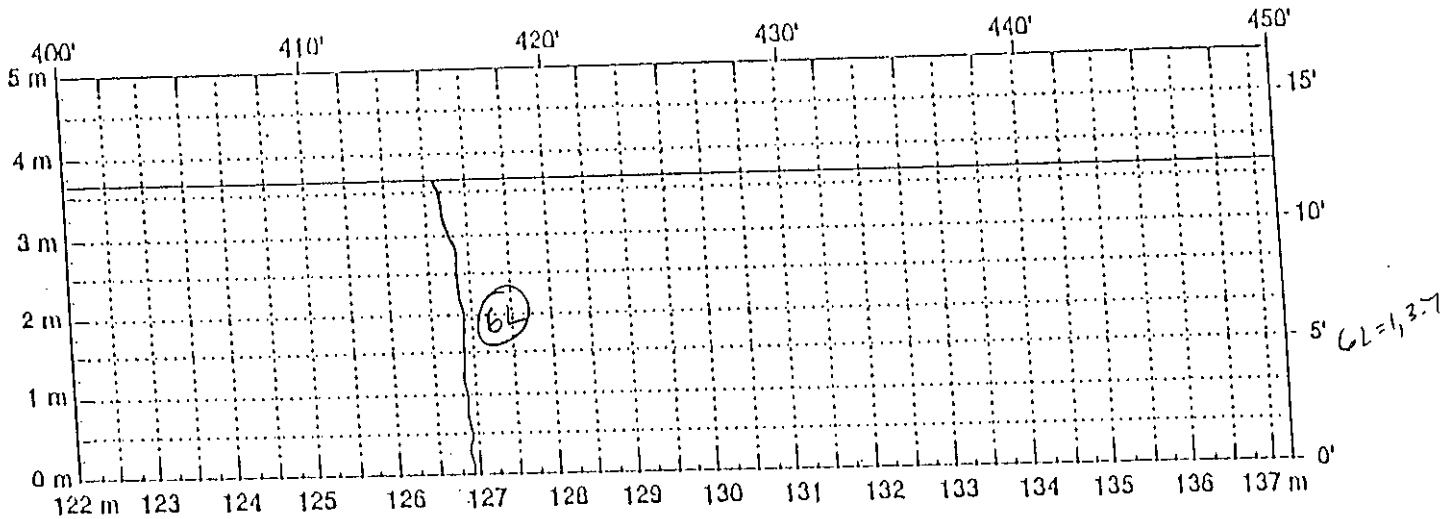


Comments: _____

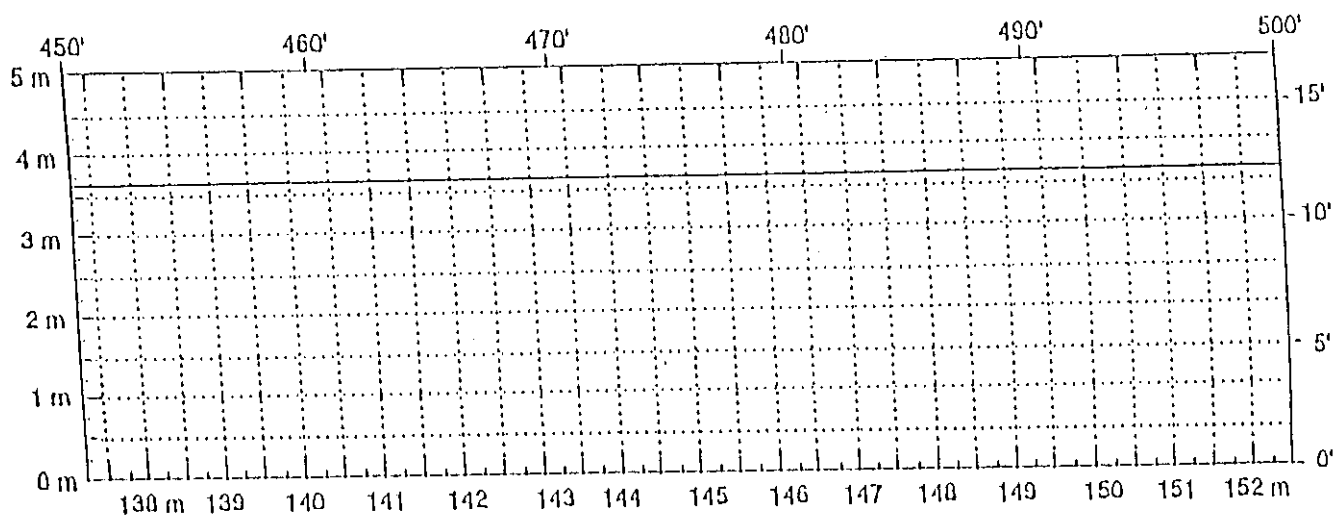
State Assigned ID _____

State Code 40

SHRP Section ID 0507



Comments: _____



Comments: _____

LTPP Automated Dipstick Data Collection Transverse Profile Form DS-11 Zero and Calibration Checks	State Code [4 0] LTPP Section ID [0 5 0 6] Date (dd/mmm/yy) [0 6/ 1 7/ 9 7]

Operator: Tim Martin Employer: BRE

Dipstick Serial Number: 30023

Pre Measurement Checks

Time (military): 1 4 : 4 0

Automatic Zero Performed: ✓

Calibration

Calibration Check	
Measurement	Reading (inches)
First Reading	-.039
Second Reading on Calibration Block	.085
Second Reading - 0.125 - First Reading	.124

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Post Measurement Checks

Time (military): 1 5 : 2 5

Zero Check Acceptable: ✓

Calibration Check	
Measurement	Reading (inches)
First Reading	-.040
Second Reading on Calibration Block	.084
Second Reading - 0.125 - First Reading	.124

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Comments

DATE: 6/11/96

OPERATOR: TM

RECORDER: MD

DIPSTICK SERIAL NUMBER: S 30073

ENTERED JUL 1 0 1997

STATE CODE: 40

SHRP SECTION I.D.: 0 5 0 6

DIPSTICK READING

LOCATION	1	2	3	4	5	6	7	8	9	10	11	12		TOTAL	SUM
0+00	-011	-065	060	.233	144	000	-123	-037	107	307	240	221		.003	
	015 3	071 7	-050 12	-233 11	-142 11	0060 7	127 3	043 7	-102 13	-302 8	-237 3	-221 0			
0+50	-027	-032	110	230	138	012	-084	-009	126	355	294	627		.011	
(15m)	028 11	040 12	-100 20	-228 10	-134 8	-008 4	086 0	017 2	-121 10	-350 0	-286 15	-630 -3			
1+00	-069	-039	052	178	176	-044	-072	-014	140	265	246	016		.003	
(30M)	068 -3	046 -2	-048 5	-173 1	-172 -4	047 -3	079 -3	019 2	-134 7	-265 1	-246 1	-015 1			
1+50	053	-015	066	301	243	136	013	-051	083	267	291	106		.031	
(45m)	-050 31	018 28	-058 31	-293 28	-242 15	-131 14	-005 9	059 1	-077 9	-285 3	-286 1	-108 -2			
(2+00)	064	075	117	266	307	174	066	003	100	261	323	126		.059	
(60m)	-061 -4	-072 56	-110 23	-261 116	-303 11	-169 37	-060 32	+001 26	-089 22	-259 11	-313 9	-127 1			
2+50	151	000	062	262	323	176	014	-047	085	278	320	160		.068	
(75m)	-152 68	007 69	-053 62	-261 53	-314 54	-175 13	-039 42	049 17	-080 14	-278 11	-315 4	-161 -1			
3+00	-085	-015	088	244	274	170	-034	-055	110	243	321	181		.047	
(90m)	082 17	016 14	-085 15	-243 12	-273 11	-165 10	037 5	057 5	-103 10	-241 3	-320 1	-181 0			
3+50	-008	-014	069	220	273	223	043	-035	116	293	415	371		.057	
(105m)	007 57	019 56	-065 61	-212 57	-266 49	-216 12	-078 36	038 21	-103 23	-289 12	-408 8	-370 1			
4+00	158	044	147	255	331	257	132	026	126	340	385	440		.064	
(120m)	144 24	034 56	-136 66	-247 55	-327 47	-251 43	-115 37	-016 30	-116 20	-338 10	-378 8	-454 1			
4+50	114	073	053	245	348	246	116	-006	105	305	363	482		.029	
(135m)	114 29	-068 29	-045 24	-241 16	-347 12	-244 11	-112 9	014 5	-099 13	-299 7	-361 1	-403 -1			
5+00	135	044	151	271	328	129	026	057	197	295	365	269		.047	
(150m)	-130 47	-046 42	-141 44	-272 34	-322 35	-124 31	-024 26	-054 22	-193 19	-287 15	-362 7	-265 4			

COMMENTS

RECEIVED JUN 3 0 1997

SHEET 1

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID ____

STATE CODE 40

SHRP SECTION ID 0507

ENTERED OCT 2 1 1997 J. B

REVIEWED JUL 2 1 1997 J. D.

REVIEWED JUL 1 7 1997 JP

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/17/97

SURVEYORS: TJM, MJD PHOTOS, VIDEO, OR BOTH WITH SURVEY (P, V, B) B

PAVEMENT SURFACE TEMP - BEFORE 19°C; AFTER 20°C

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
CRACKING			
1. FATIGUE CRACKING (Square Meters)	0	0	0
2. BLOCK CRACKING (Square Meters)			
3. EDGE CRACKING (Meters)			
4. LONGITUDINAL CRACKING (Meters)			
4a. Wheel Path			
Length Sealed (Meters)			
4b. Non-Wheel Path		263	
Length Sealed (Meters)		0	
5. REFLECTION CRACKING AT JOINTS Number of Transverse Cracks	0	0	0
Transverse Cracking (Meters)			
Length Sealed (Meters)			
Longitudinal Cracking (Meters)			
Length Sealed (Meters)			
6. TRANSVERSE CRACKING Number of Cracks	6	4	
Length (Meters)	9.6	148	
Length Sealed (Meters)	0	0	
PATCHING AND POTHOLES			
7. PATCH/PATCH DETERIORATION (Number)	0	0	0
(Square Meters)			
8. Potholes (Number)			
(Square Meters)			

Revised December 1, 1992

SHEET 2

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID ____

STATE CODE 40

SHRP SECTION ID 0507

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/17/97

SURVEYORS: IJM, MJD

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES (CONTINUED)

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
SURFACE DEFORMATION			
9. RUTTING - REFER TO SHEET 3 FOR SPS-3 OR Form S1 from Dipstick Manual			
10. SHOVING (Number)			0
(Square Meters)			
SURFACE DEFECTS			
11. BLEEDING (Square Meters)	3050	0	
12. POLISHED AGGREGATE (Square Meters)			
13. RAVELING (Square Meters)	0	0	
MISCELLANEOUS DISTRESSES			
14. LANE-TO-SHOULDER DROPOFF - REFER TO SHEET 3			
15. WATER BLEEDING AND PUMPING (Number)			
Length of Affected Pavement (Meters)			

16. OTHER (Describe) _____

Revised May 29, 1992

SHEET 3

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID _ _ _ _

STATE CODE 40

SHRP SECTION ID 0507

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/17/97

SURVEYORS: TJM, MJD

ENTERED OCT 21 1997 J. B

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES (CONTINUED)

9. RUTTING (FOR SPS-3 SITE SURVEYS)

INNER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)	OUTER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)
1	0.	_ _ _.	1	0.	_ _ _.
2	15.25	_ _ _.	2	15.25	_ _ _.
3	30.5	_ _ _.	3	30.5	_ _ _.
4	45.75	_ _ _.	4	45.75	_ _ _.
5	61.	_ _ _.	5	61.	_ _ _.
6	76.25	_ _ _.	6	76.25	_ _ _.
7	91.5	_ _ _.	7	91.5	_ _ _.
8	106.75	_ _ _.	8	106.75	_ _ _.
9	122.	_ _ _.	9	122.	_ _ _.
10	137.25	_ _ _.	10	137.25	_ _ _.
11	152.5	_ _ _.	11	152.5	_ _ _.

SEE DIPSTICK DATA

14. LANE-TO-SHOULDER DROPOFF

Point No.	Point Distance[1] Meters	Lane-to-Shoulder Dropoff (mm)
1	0.	_ _ 0.
2	15.25	_ _ _.
3	30.5	_ _ _.
4	45.75	_ _ _.
5	61.	_ _ _.
6	76.25	_ _ _.
7	91.5	_ _ _.
8	106.75	_ _ _.
9	122.	_ _ _.
10	137.25	_ _ _.
11	152.5	_ _ _.

Note 1: "Point Distance" is the distance in meters from the start of the test section to the point where the measurement was made. The values shown are SI equivalents of the 50 ft spacing used in previous surveys.

State Assigned ID _____

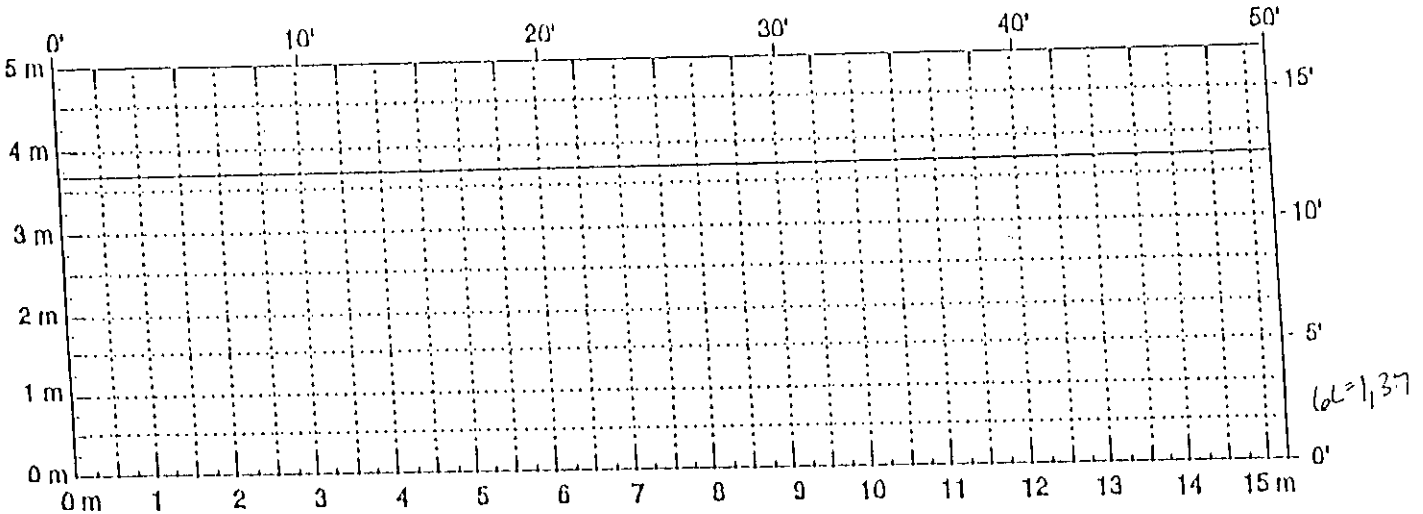
date: 6/17/97 State Code 40

surveyors: TJM + MJD SHRP Section ID 0507

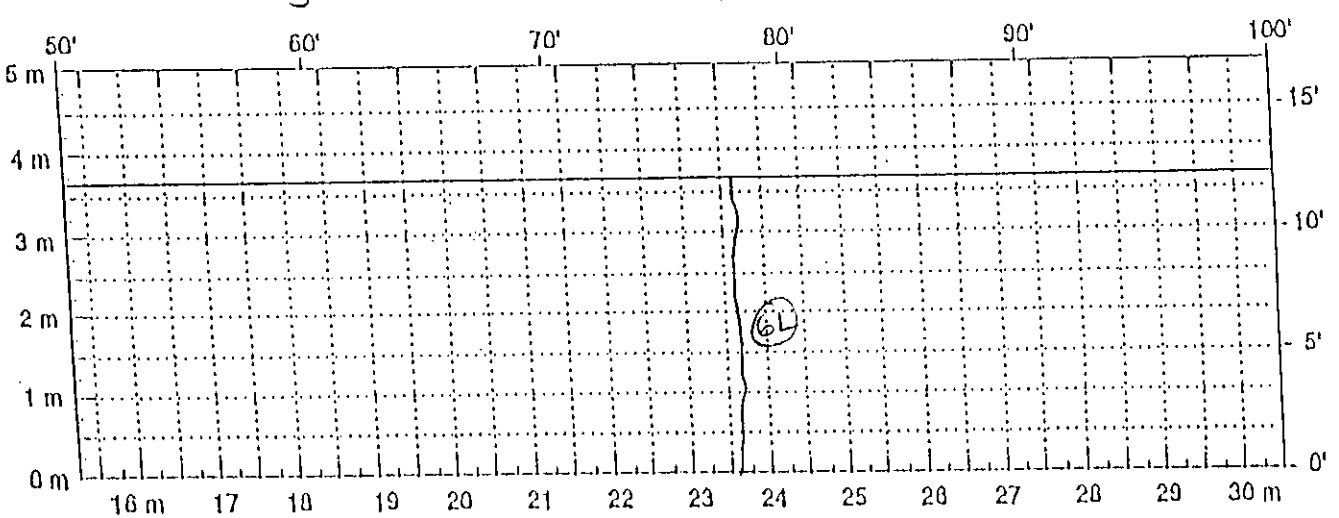
Totals:

4bm - 26.3m
6L - 6, 9.6m
6M - 4, 14.8m

11L - 305 m²



Comments: Bleeding in both wheel-paths throughout section. 11L

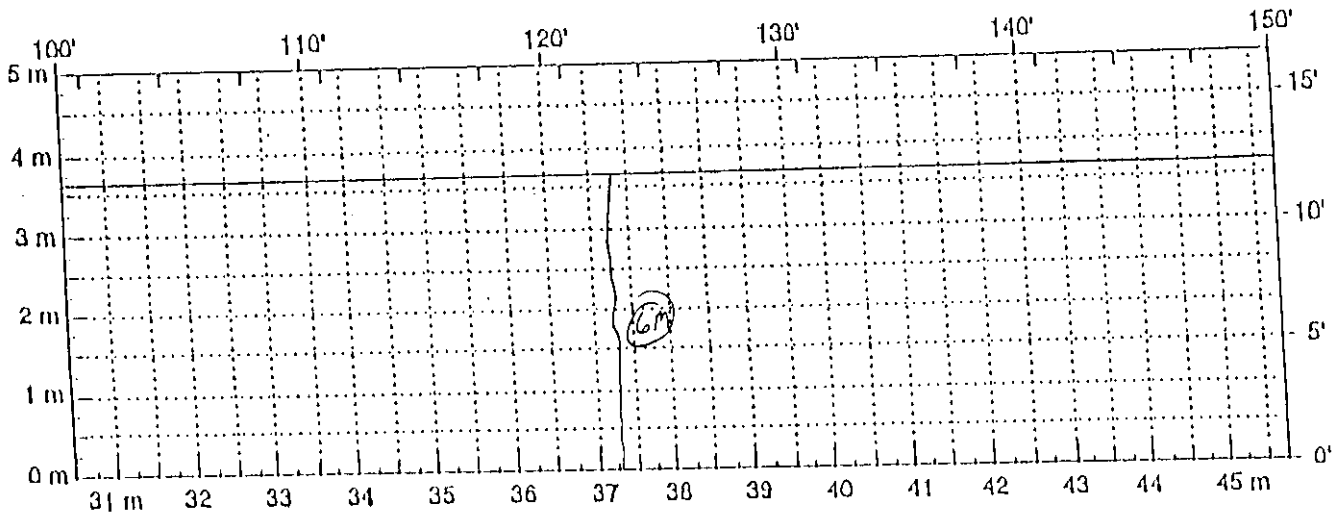


Comments: _____

State Assigned ID _____

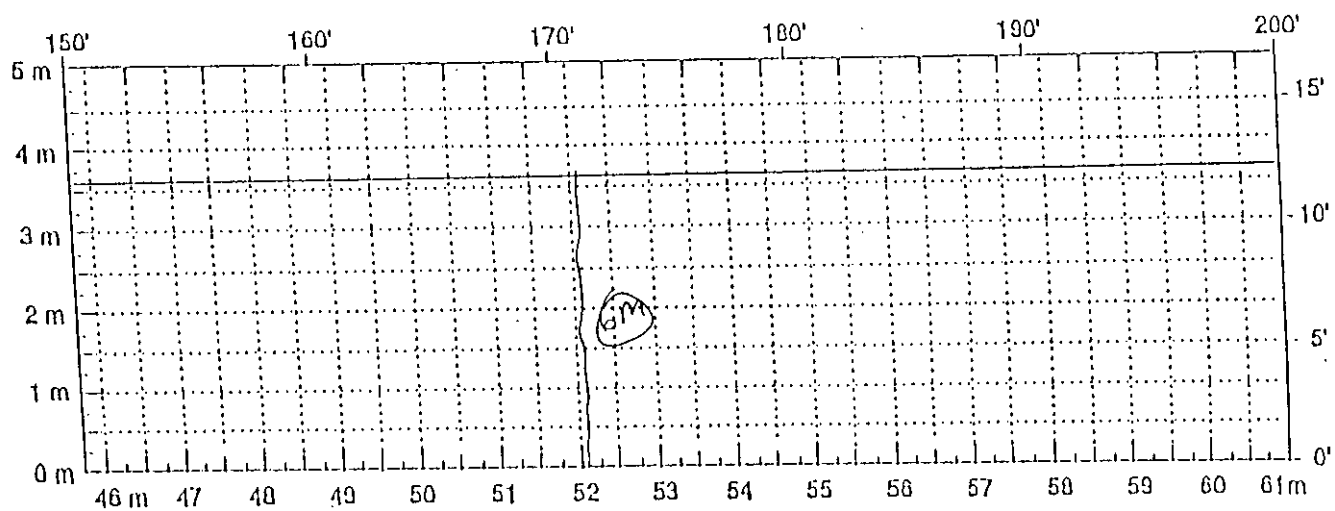
State Code 40

SIIRP Section ID 0507



6m = 2,74

Comments: _____

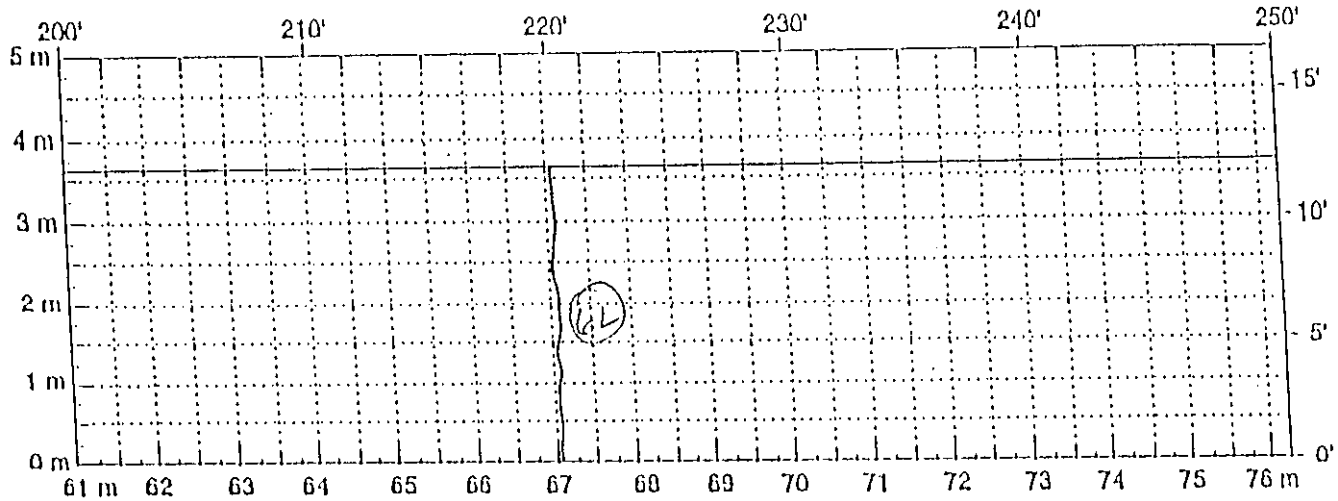


Comments: _____

State Assigned ID _____

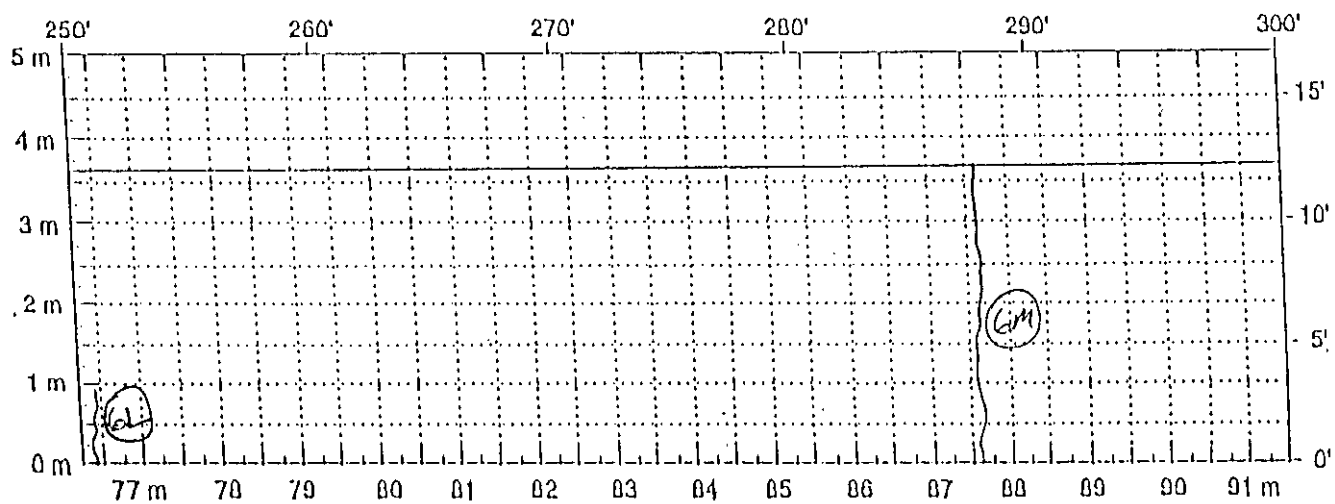
State Code 40

SHRP Section ID 0507



6L = 2, 4.7
6M = 1, 3.7

Comments: _____

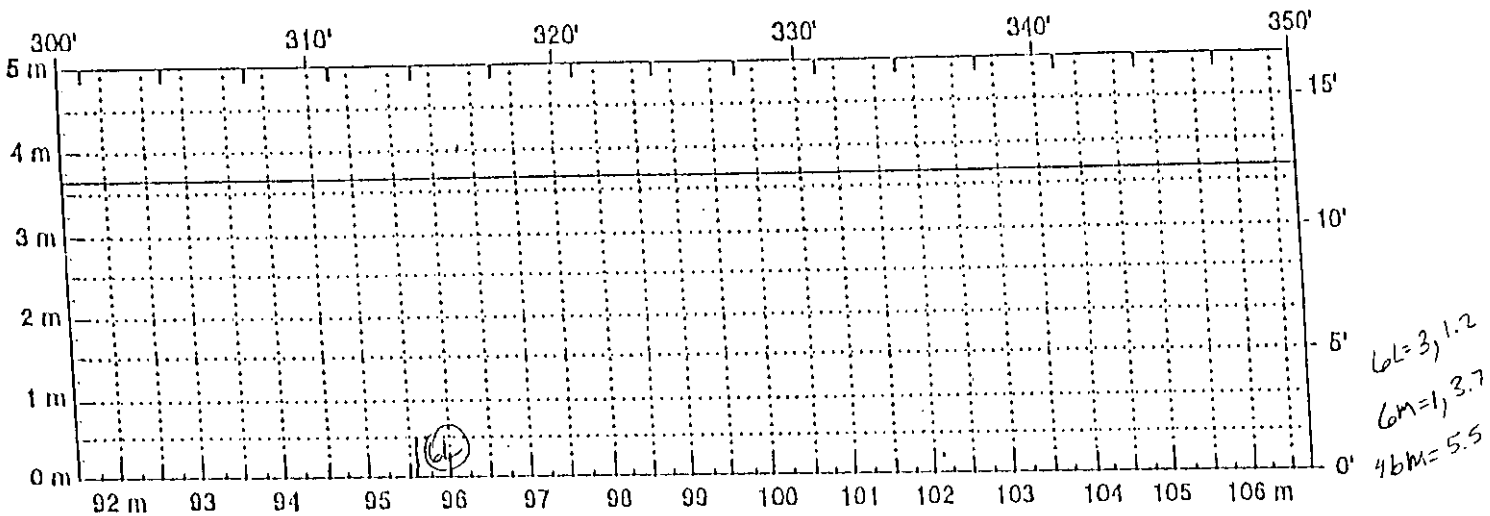


Comments: _____

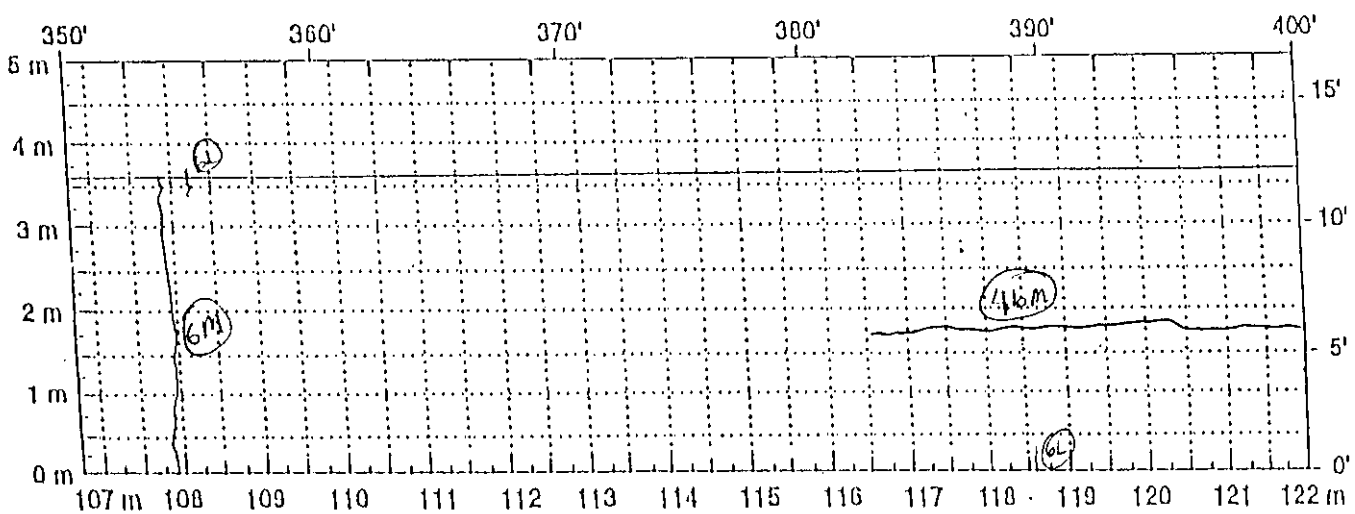
State Assigned ID _____

State Code 40

SHRP Section ID 0507



Comments: _____

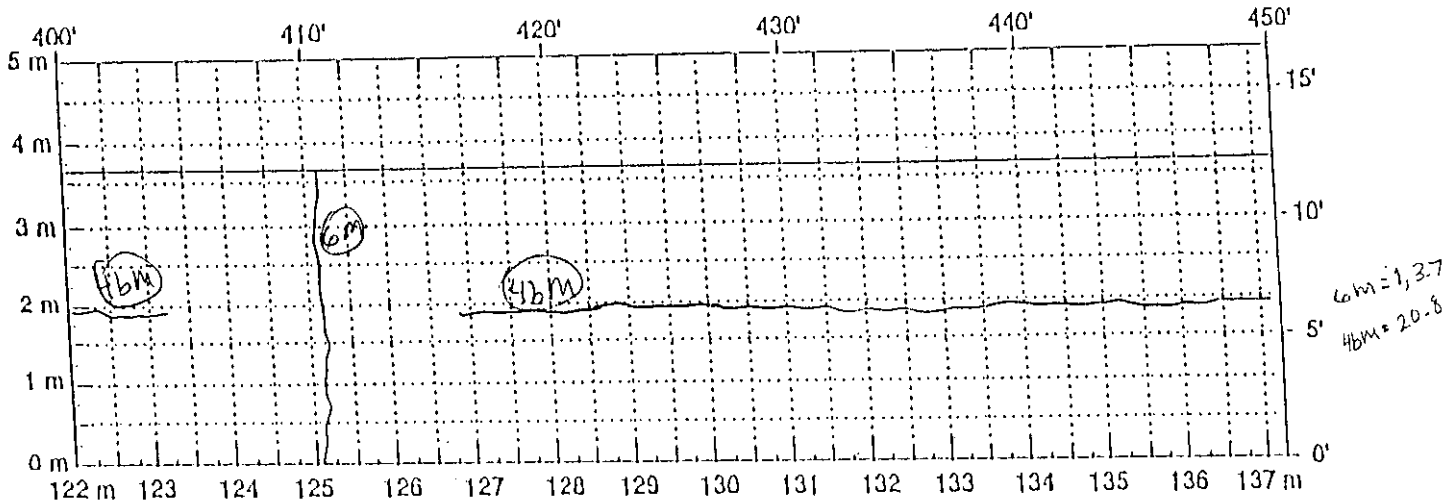


Comments: _____ _____

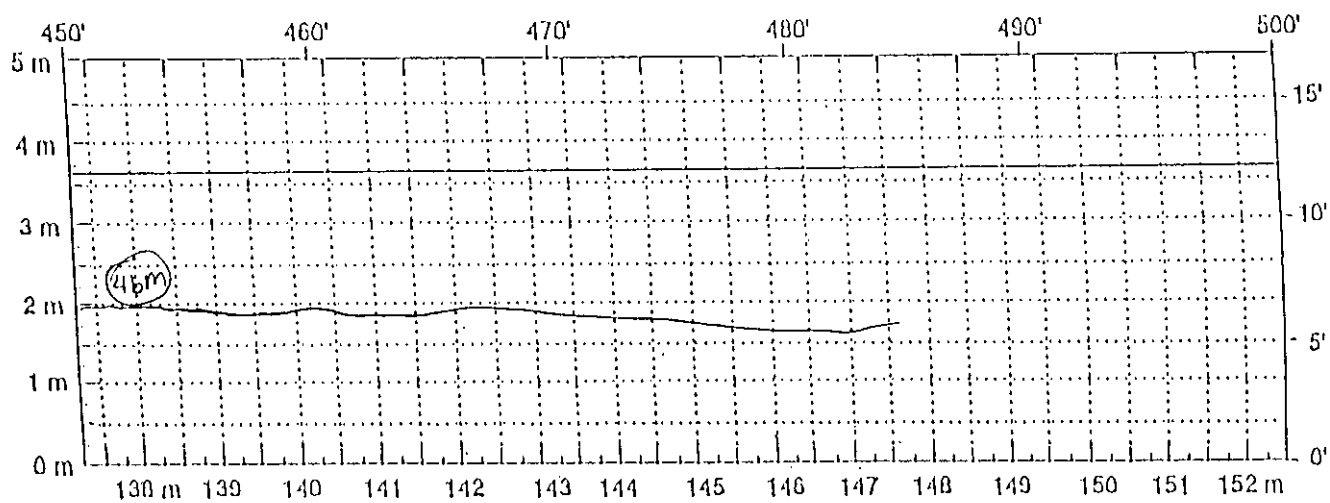
State Assigned ID _____

State Code 40

SHMP Section ID 0507



Comments: _____



Comments: _____

LTPP Automated Dipstick Data Collection Transverse Profile Form DS-11 Zero and Calibration Checks	State Code [4 0] LTPP Section ID [0 5 0 7] Date (dd/mmm/yy) [6 / 1 7 / 9 7]

Operator: TJM / MD Employer: BRE

Dipstick Serial Number: 30023

Pre Measurement Checks

Time (military): 1 7 : 0 5

Automatic Zero Performed: ____

Calibration

Calibration Check	
Measurement	Reading (inches)
First Reading	.035
Second Reading on Calibration Block	.161
Second Reading - 0.125 - First Reading	.126

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Post Measurement Checks

Time (military): 1 7 : 4 5

Zero Check Acceptable: ✓

Calibration Check	
Measurement	Reading (inches)
First Reading	.034
Second Reading on Calibration Block	.160
Second Reading - 0.125 - First Reading	.126

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Comments

DATE: 6/17/97

OPERATOR: TM

RECORDER: MS

DIPSTICK SERIAL NUMBER: 30023

ENTERED JUL 1 0 1997 A H

STATE CODE: 40

SHRP SECTION I.D.: 0 5 0 7

DIPSTICK READING

LOCATION	1	2	3	4	5	6	7	8	9	10	11	12		TOTAL	SUM
0+00	183	061	095	210	291	186	058	+004	070	257	334	302	--		
	-176 46	-031 30	-090 27	-204 24	-285 19	-183 12	-053 7	-013 9	-062 13	-255 5	-331 3	-302 0		.046	
0+50	118	050	026	206	348	230	020	-092	075	300	370	348			
(15m)	-117 40	-047 33	-019 36	-205 20	-344 18	-227 24	-010 21	097 11	-072 6	-294 3	-371 3	-350 2		.040	
1+00	032	013	086	239	242	133	064	-029	090	363	296	324			
(30M)	-034 28	-009 36	-083 26	-237 23	-241 21	-130 20	-055 17	+034 11	-088 16	-260 4	-293 1	-326 2		.028	
1+50	142	030	025	226	287	187	083	-048	088	278	327	280			
(45m)	-138 31	-026 37	-021 45	-222 37	-283 35	-181 31	-075 25	055 17	-085 15	-275 7	-324 5	-278 2		.051	
(2+00)	179	037	074	316	323	253	094	-036	106	340	355	276			
(60m)	-184 63	-029 66	-068 66	-314 54	-316 57	-250 45	-082 42	045 30	-097 21	-384 12	-349 6	-276 0		.063	
2+50	134	060	080	253	306	205	116	001	117	343	392	343			
(75m)	-133 35	-054 34	-075 38	-248 33	-302 19	-201 19	-114 10	-006 3	-112 12	-347 4	-387 8	-340 3		.035	
3+00	132	000	103	294	265	165	045	-060	078	413	384	316			
(90m)	-130 31	-003 21	-099 32	-288 22	-285 22	-167 21	-040 20	063 15	-075 12	-406 9	-381 6	-317 1		.031	
3+50	158	016	058	324	240	078	-049	142	-008	140	102	317			
(105m)	-147 45	-012 37	-055 30	-319 27	-239 22	-075 21	051 18	-134 16	012 3	-135 4	-104 1	-316 1		.045	
4+00	242	174	307	288	478	127	000	020	136	468	262	218			
(120m)	-234 18	-175 4	-302 5	-286 0	-480 -2	-125 0	-004 -2	-020 2	-135 2	-468 1	-260 1	-219 -1		.012	
4+50	071	176	259	241	365	225	093	016	098	029	146	206			
(135m)	-071 22	-175 22	-257 21	-237 15	-363 15	-225 13	-041 13	-015 11	-092 10	030 4	-141 5	-206		.022	
5+00	145	028	195	310	194	193	174	264	176	155	159	145			
(150m)	-145	-027 13	-189 22	-309 16	-194 15	-185 12	-170 12	-262 8	-177 6	-150 7	-160 2	-142 3		.023	

COMMENTS

RECEIVED JUN 3 0 1997

SHEET 1

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID

STATE CODE 40

SHRP SECTION ID 0509

ENTERED OCT 2 1 1997 J B

REVIEWED JUL 2 1 1997 J D

REVIEWED JUL 1 7 1997 JP

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/16/97

SURVEYORS: TJM, MJD PHOTOS, VIDEO, OR BOTH WITH SURVEY (P, V, B) B

PAVEMENT SURFACE TEMP - BEFORE 49 °C; AFTER 48 °C

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
CRACKING			
1. FATIGUE CRACKING (Square Meters)	0	0	0
2. BLOCK CRACKING (Square Meters)			
3. EDGE CRACKING (Meters)			
4. LONGITUDINAL CRACKING (Meters)			
4a. Wheel Path			
Length Sealed (Meters)			
4b. Non-Wheel Path			
Length Sealed (Meters)			
5. REFLECTION CRACKING AT JOINTS Number of Transverse Cracks			
Transverse Cracking (Meters)			
Length Sealed (Meters)			
Longitudinal Cracking (Meters)			
Length Sealed (Meters)			
6. TRANSVERSE CRACKING Number of Cracks	2		3
Length (Meters)	4.2		11.1
Length Sealed (Meters)	0		0
PATCHING AND POTHOLES			
7. PATCH/PATCH DETERIORATION (Number)	0		0
(Square Meters)			
8. Potholes (Number)			
(Square Meters)			

Revised December 1, 1992

SHEET 2

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID _ _ _ _

STATE CODE 40

SHRP SECTION ID 0508

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/16/97

SURVEYORS: TJM, MJO

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES
(CONTINUED)

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
SURFACE DEFORMATION			
9. RUTTING - REFER TO SHEET 3 FOR SPS-3 OR Form S1 from Dipstick Manual			
10. SHOVING (Number)			0
(Square Meters)			
SURFACE DEFECTS			
11. BLEEDING (Square Meters)	305.0	0	
12. POLISHED AGGREGATE (Square Meters)			
13. RAVELING (Square Meters)	0	0	
MISCELLANEOUS DISTRESSES			
14. LANE-TO-SHOULDER DROPOFF - REFER TO SHEET 3			
15. WATER BLEEDING AND PUMPING (Number)			
Length of Affected Pavement (Meters)			

16. OTHER (Describe) _____

Revised May 29, 1992

ENTERED OCT 21 1997 J. B.

SHEET 3

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID _ _ _ _

STATE CODE 40

SHRP SECTION ID 0508

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/16/97

SURVEYORS: TJM, MJD

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES
(CONTINUED)

9. RUTTING (FOR SPS-3 SITE SURVEYS)

INNER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)	OUTER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)
1	0.	_ _ _.	1	0.	_ _ _.
2	15.25	_ _ _.	2	15.25	_ _ _.
3	30.5	_ _ _.	3	30.5	_ _ _.
4	45.75	_ _ _.	4	45.75	_ _ _.
5	61.	_ _ _.	5	61.	_ _ _.
6	76.25	_ _ _.	6	76.25	_ _ _.
7	91.5	_ _ _.	7	91.5	_ _ _.
8	106.75	_ _ _.	8	106.75	_ _ _.
9	122.	_ _ _.	9	122.	_ _ _.
10	137.25	_ _ _.	10	137.25	_ _ _.
11	152.5	_ _ _.	11	152.5	_ _ _.

14. LANE-TO-SHOULDER DROPOFF

Point No.	Point Distance[1] Meters	Lane-to-Shoulder Dropoff (mm)
1	0.	_ _ 0.
2	15.25	_ _ _.
3	30.5	_ _ _.
4	45.75	_ _ _.
5	61.	_ _ _.
6	76.25	_ _ _.
7	91.5	_ _ _.
8	106.75	_ _ _.
9	122.	_ _ _.
10	137.25	_ _ _.
11	152.5	_ _ _.

Note 1: "Point Distance" is the distance in meters from the start of the test section to the point where the measurement was made. The values shown are SI equivalents of the 50 ft spacing used in previous surveys.

State Assigned ID _____

date: 6/16/97

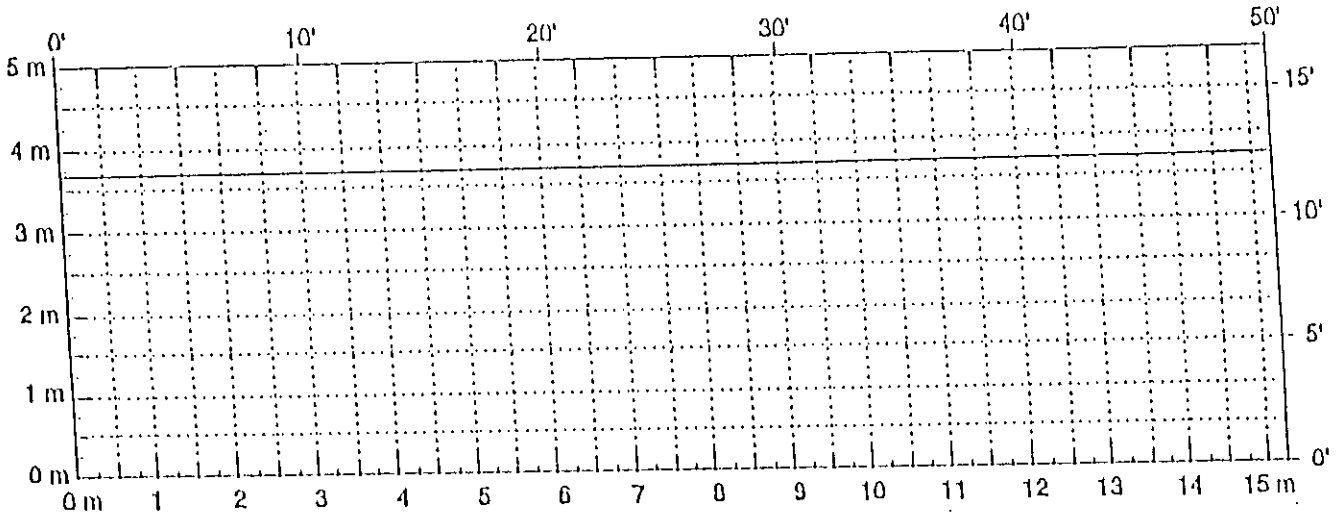
State Code 40

surveyors: TJM, MJO

SHRP Section ID 0508

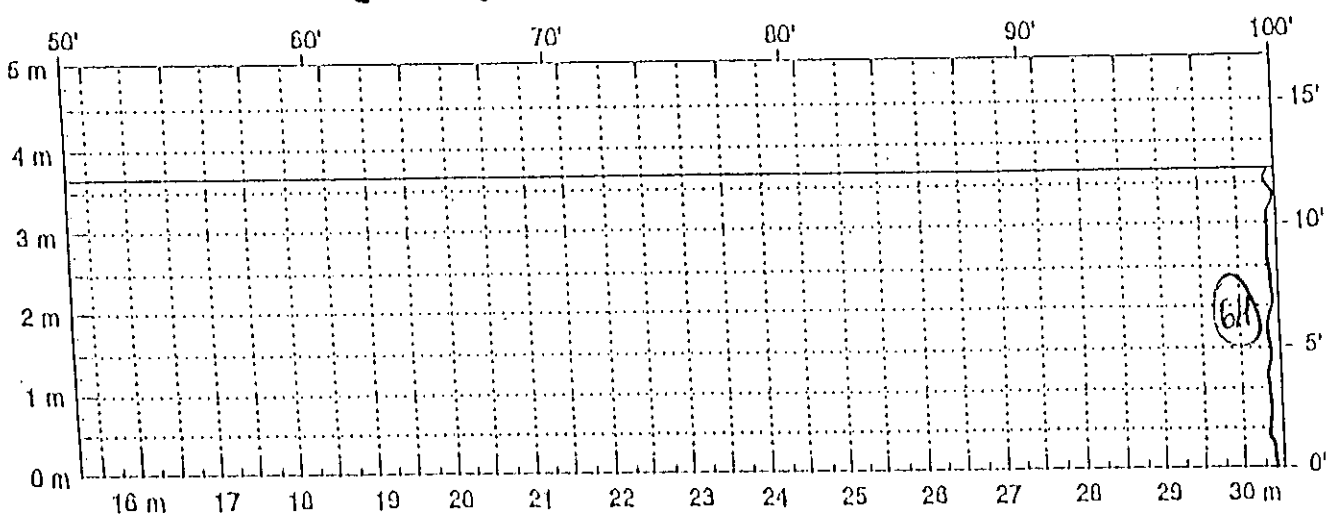
Totals:

6H - 2, 4.2 m
6H - 3, 11.1
112 - 305 m²



6H=1, 3.7

Comments: 112 Bleeding throughout section in both wheelpaths

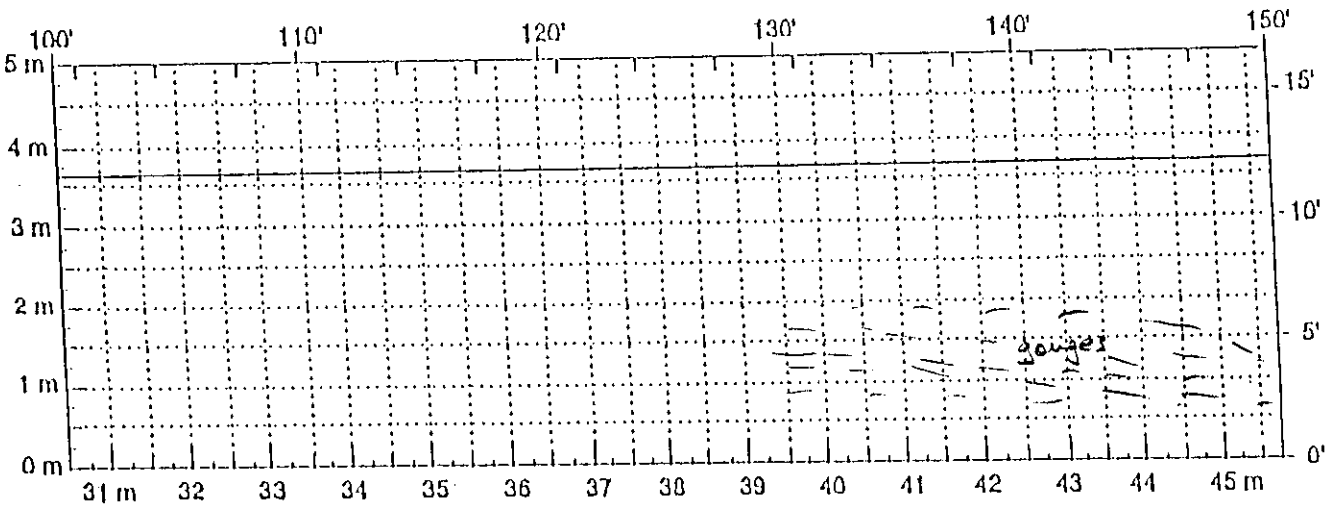


Comments: _____

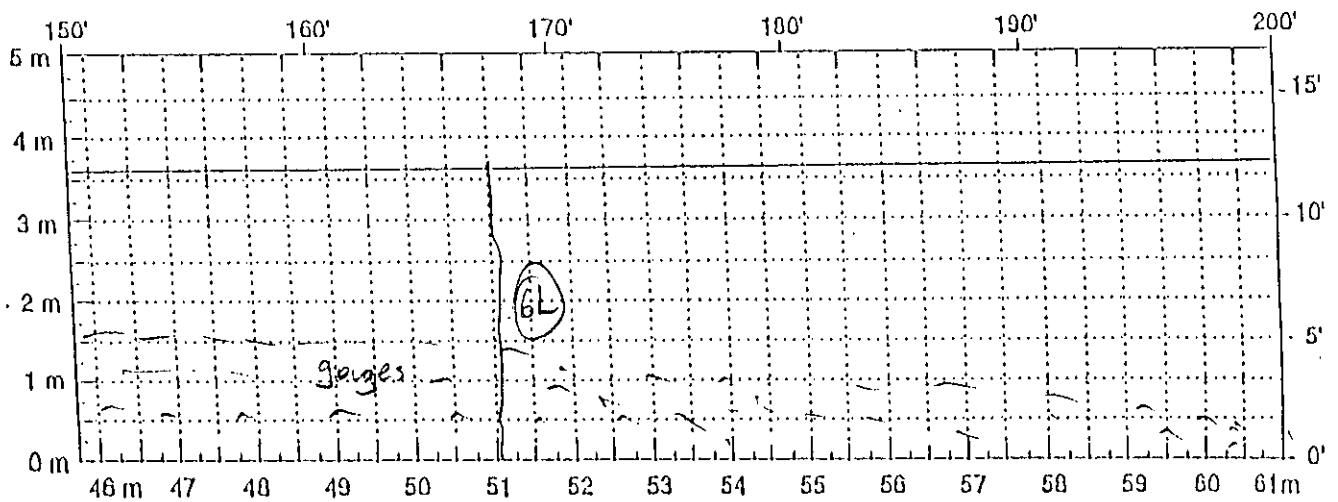
State Assigned ID _____

State Code 40

SHRP Section ID 0508



Comments: _____

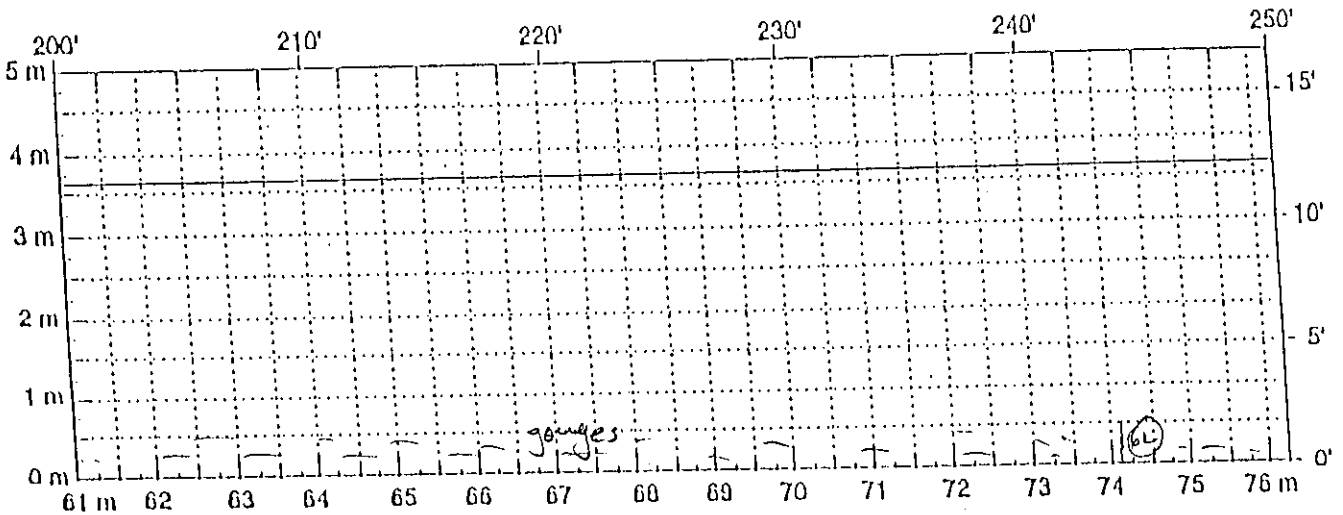


Comments: _____

State Assigned ID _____

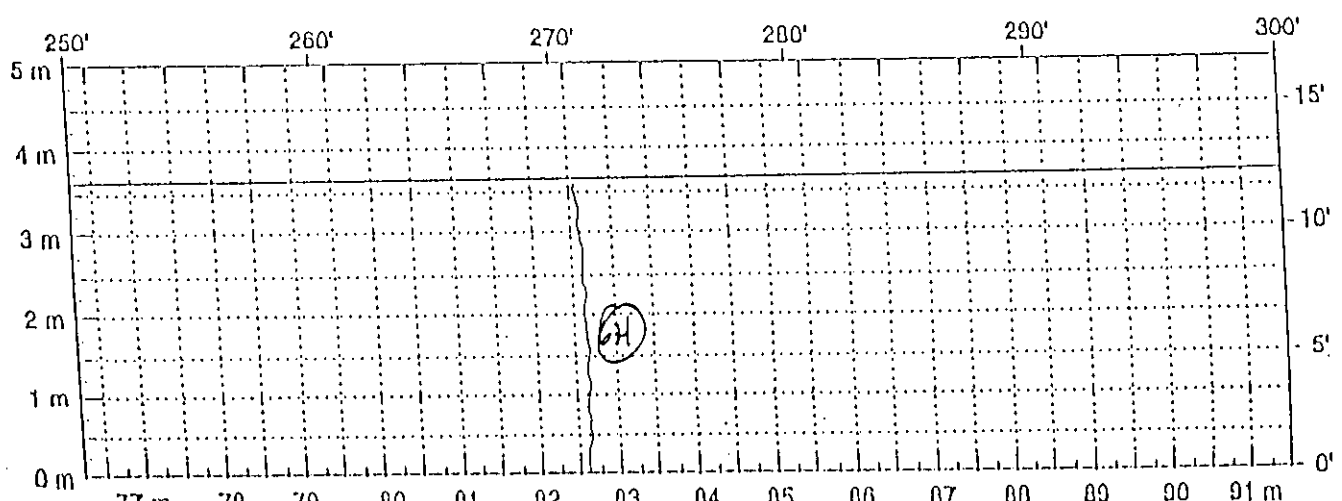
State Code 42

SHRP Section ID 0508



61L = 1, .5
61H = 1, 3.7

Comments: _____

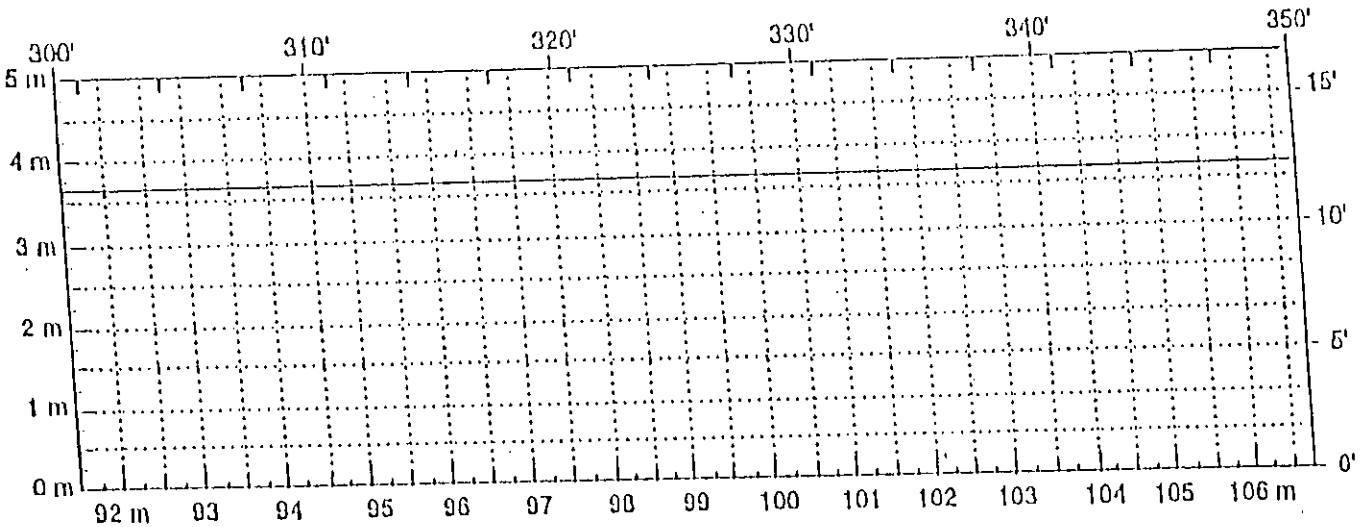


Comments: _____

State Assigned ID _____

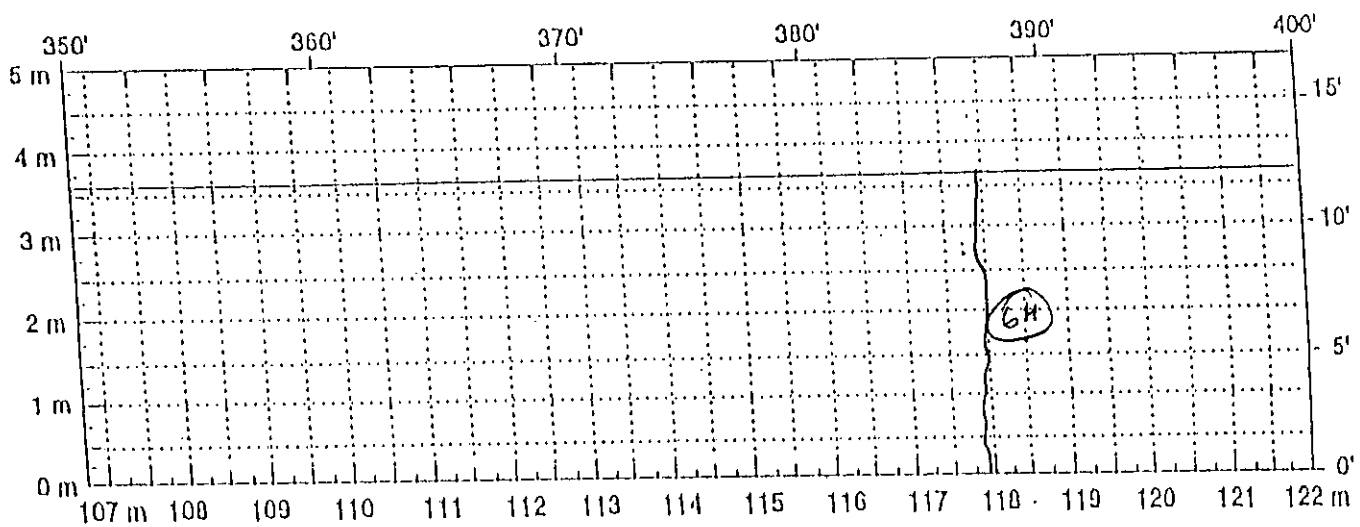
State Code 40

SHRP Section ID 0508



6H = 1,3,7

Comments: _____

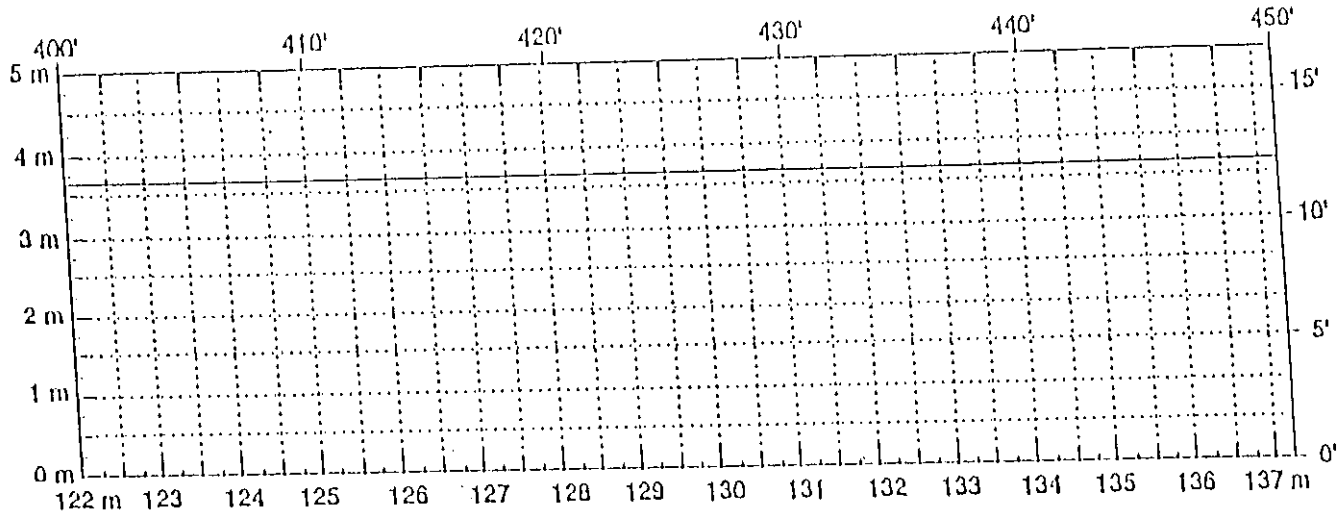


Comments: _____

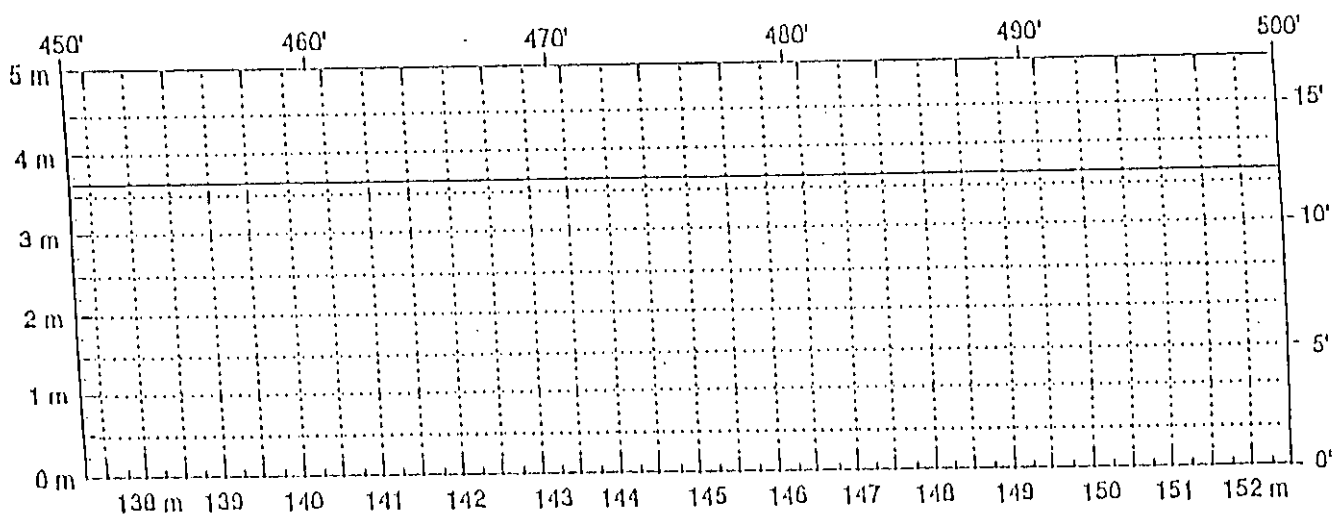
State Assigned ID _____

State Code 40

SHRP Section ID 0508



Comments: _____



Comments: _____

LTPP Automated Dipstick Data Collection Transverse Profile Form DS-11 Zero and Calibration Checks	State Code [4 0] LTPP Section ID [0 5 0 8] Date (dd/mmm/yy) [6 / 1 7 / 9 7]

Operator: Tim Martin Employer: BRE

Dipstick Serial Number: 30023

Pre Measurement Checks

Time (military): 1 1 : 0 0

Automatic Zero Performed: ____

Calibration

Calibration Check	
Measurement	Reading (inches)
First Reading	.404
Second Reading on Calibration Block	.529
Second Reading - 0.125 - First Reading	.125

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Post Measurement Checks

Time (military): 1 1 : 4 0

Zero Check Acceptable: ✓

Calibration Check	
Measurement	Reading (inches)
First Reading	.403
Second Reading on Calibration Block	.528
Second Reading - 0.125 - First Reading	.125

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Comments

DATE: 6/17/97

OPERATOR: Tim Moore

RECORDER: Mark Duke

DIPSTICK SERIAL NUMBER: 3022 3

EIU _ V.V66U 7 2 1997 A 11 E

ENTERED JUL 1 0 1997 A 11

STATE CODE: 40

SHIP SECTION I.D.: 0 5 0 8

LOCATION	1	2	3	4	5	6	7	8	9	10	11	12		TOTAL	SUM
	DIPSTICK READING														
0+00	139	035	101	232	095	-061	-106	-019	101	239	240	158			
	-140 [21]	-034 [2]	-097 [31]	-226 [21]	-095 [21]	003 [21]	112 [19]	019 [13]	-093 [13]	-235 [5]	-241 [1]	-156 [2]		.034	
0+50	090	041	131	254	208	091	-084	-049	063	234	295	326			
(15m)	-091 [7]	-042 [3]	-130 [9]	-255 [8]	-210 [9]	-089 [11]	090 [9]	050 [3]	-067 [2]	-227 [6]	-299 [4]	-323 [3]		.007	
1+00	-242	198	036	.410	373	164	127	103	082	395	453	534			
(30M)	242 [24]	.201 [29]	-029 [26]	-404 [19]	-374 [13]	-154 [16]	-126 [9]	-104 [8]	-076 [4]	-393 [2]	-454 [1]	-532 [2]		.029	
1+50	170	082	131	264	285	148	-016	-067	098	217	312	315			
(45m)	-170 [30]	-074 [31]	-134 [22]	-256 [28]	-283 [17]	-148 [15]	023 [15]	067 [5]	-099 [8]	-209 [9]	-309 [1]	-317 [1]		.030	
(2+00)	212	024	101	314	299	242	024	047	114	309	265	344			
(60m)	-212 [24]	-020 [23]	-095 [28]	-310 [15]	-298 [15]	-239 [19]	-022 [11]	-047 [9]	-107 [4]	-307 [2]	-266 [0]	-343 [1]		.029	
2+50	267	126	182	354	326	213	033	-024	118	271	323	301			
(75m)	-267 [31]	-127 [29]	-180 [25]	-350 [23]	-323 [19]	-212 [16]	-031 [15]	028 [13]	-117 [9]	-268 [4]	-322 [5]	-297 [4]		.027	
3+00	238	016	104	364	377	258	077	-011	152	410	396	420			
(90m)	-242 [34]	-012 [32]	-103 [28]	-362 [27]	-375 [23]	-257 [21]	-072 [20]	015 [15]	-154 [11]	-396 [13]	-397 [-1]	-420 [0]		.028	
3+50	128	004	121	267	272	255	054	014	102	316	284	259			
(105m)	-126 [11]	-003 [7]	-120 [8]	-268 [7]	-270 [3]	-254 [6]	-052 [5]	-022 [3]	-100 [11]	-311 [9]	-295 [4]	-246 [13]		.011	
4+00	116	022	116	233	188	103	-091	014	123	300	263	234			
(120m)	-115 [36]	-018 [35]	-115 [31]	-234 [30]	-189 [31]	-098 [32]	095 [27]	-005 [28]	-123 [14]	-290 [19]	-262 [4]	-231 [3]		.036	
4+50	060	047	130	213	172	090	-073	040	135	285	265	198			
(135m)	-055 [12]	-044 [27]	-125 [29]	-212 [19]	-172 [18]	-089 [18]	078 [19]	-036 [12]	-137 [8]	-276 [10]	-264 [1]	-198 [0]		.032	
5+00	126	072	187	293	214	057	-114	058	181	311	250	085			
(150m)	-125 [49]	-065 [49]	-179 [41]	-292 [33]	-210 [31]	-052 [29]	118 [23]	-052 [19]	-175 [12]	-306 [7]	-252 [2]	-081 [4]		.049	

COMMENTS

RECEIVED JUN 3 0 1997

SHEET 1

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID

STATE CODE 40

SHRP SECTION ID 0509

ENTERED OCT 2 1 1997 J. B

REVIEWED JUL 2 1 1997 J. D

REVIEWED JUL 1 7 1997 JP

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/17/97

SURVEYORS: TJM, MJD PHOTOS, VIDEO, OR BOTH WITH SURVEY (P, V, B) B

PAVEMENT SURFACE TEMP - BEFORE 18 °C; AFTER 19 °C

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
CRACKING			
1. FATIGUE CRACKING (Square Meters)	0	0	0
2. BLOCK CRACKING (Square Meters)			
3. EDGE CRACKING (Meters)			
4. LONGITUDINAL CRACKING (Meters)			
4a. Wheel Path			
Length Sealed (Meters)			
4b. Non-Wheel Path			
Length Sealed (Meters)			
5. REFLECTION CRACKING AT JOINTS Number of Transverse Cracks			
Transverse Cracking (Meters)			
Length Sealed (Meters)			
Longitudinal Cracking (Meters)			
Length Sealed (Meters)			
6. TRANSVERSE CRACKING Number of Cracks	5	3	
Length (Meters)	15.8	11.1	
Length Sealed (Meters)	0	0	
PATCHING AND POTHOLES			
7. PATCH/PATCH DETERIORATION (Number)	0	0	
(Square Meters)			
8. Potholes (Number)			
(Square Meters)			

Revised December 1, 1992

STATE ASSIGNED ID _ _ _ _

SHEET 2

DISTRESS SURVEY

LTPP PROGRAM

STATE CODE 40

SHRP SECTION ID 0509

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 06/17/97

SURVEYORS: TJM, MJD

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES (CONTINUED)

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
SURFACE DEFORMATION			
9. RUTTING - REFER TO SHEET 3 FOR SPS-3 OR Form S1 from Dipstick Manual			
10. SHOVING (Number)			0
(Square Meters)			
SURFACE DEFECTS			
11. BLEEDING (Square Meters)	305.0	0	
12. POLISHED AGGREGATE (Square Meters)			
13. RAVELING (Square Meters)	0	0	
MISCELLANEOUS DISTRESSES			
14. LANE-TO-SHOULDER DROPOFF - REFER TO SHEET 3			
15. WATER BLEEDING AND PUMPING (Number)			
Length of Affected Pavement (Meters)			

16. OTHER (Describe) _____

Revised May 29, 1992

ENTERED OCT 21 1997 J. B

SHEET 3

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID _ _ _ _

STATE CODE 4 0

SHRP SECTION ID 0 5 0 9

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 0 6 / 1 7 / 9 7

SURVEYORS: T J M, M J D

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES (CONTINUED)

9. RUTTING (FOR SPS-3 SITE SURVEYS)

INNER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)	OUTER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)
1	0.	_ _ _.	1	0.	_ _ _.
2	15.25	_ _ _.	2	15.25	_ _ _.
3	30.5	_ _ _.	3	30.5	_ _ _.
4	45.75	_ _ _.	4	45.75	_ _ _.
5	61.	_ _ _.	5	61.	_ _ _.
6	76.25	_ _ _.	6	76.25	_ _ _.
7	91.5	_ _ _.	7	91.5	_ _ _.
8	106.75	_ _ _.	8	106.75	_ _ _.
9	122.	_ _ _.	9	122.	_ _ _.
10	137.25	_ _ _.	10	137.25	_ _ _.
11	152.5	_ _ _.	11	152.5	_ _ _.

SEE DIPSTICK DATA

14. LANE-TO-SHOULDER DROPOFF

Point No.	Point Distance[1] Meters	Lane-to-Shoulder Dropoff (mm)
1	0.	_ _ 0.
2	15.25	_ _ _.
3	30.5	_ _ _.
4	45.75	_ _ _.
5	61.	_ _ _.
6	76.25	_ _ _.
7	91.5	_ _ _.
8	106.75	_ _ _.
9	122.	_ _ _.
10	137.25	_ _ _.
11	152.5	_ _ _.

Note 1: "Point Distance" is the distance in meters from the start of the test section to the point where the measurement was made. The values shown are SI equivalents of the 50 ft spacing used in previous surveys.

State Assigned ID _____

date: 6/17/97

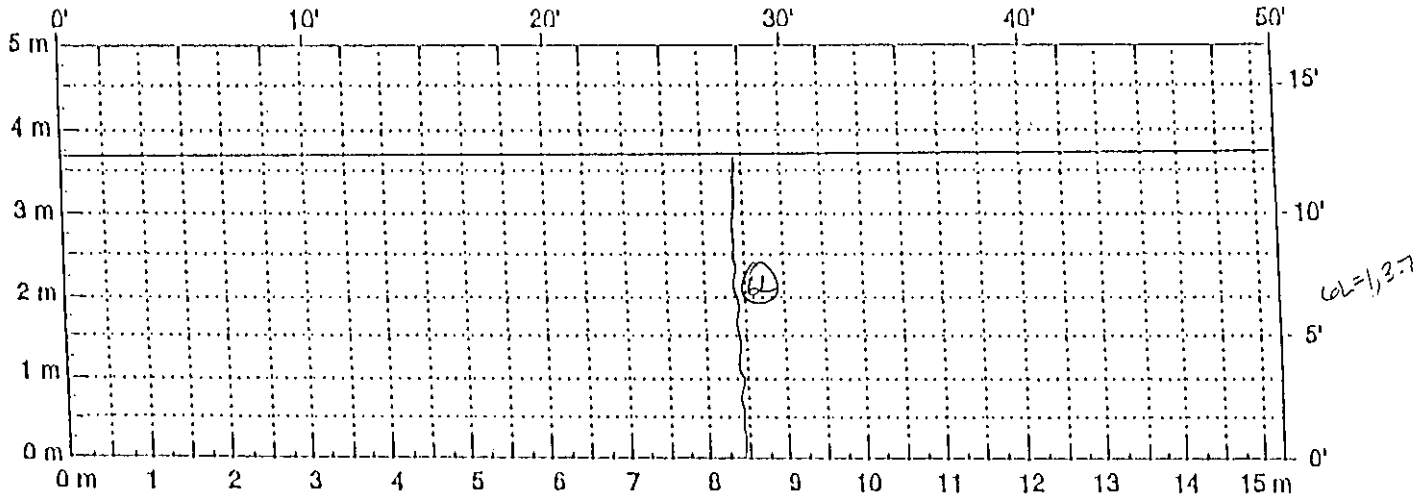
State Code 40

surveyors: TJM, MJD

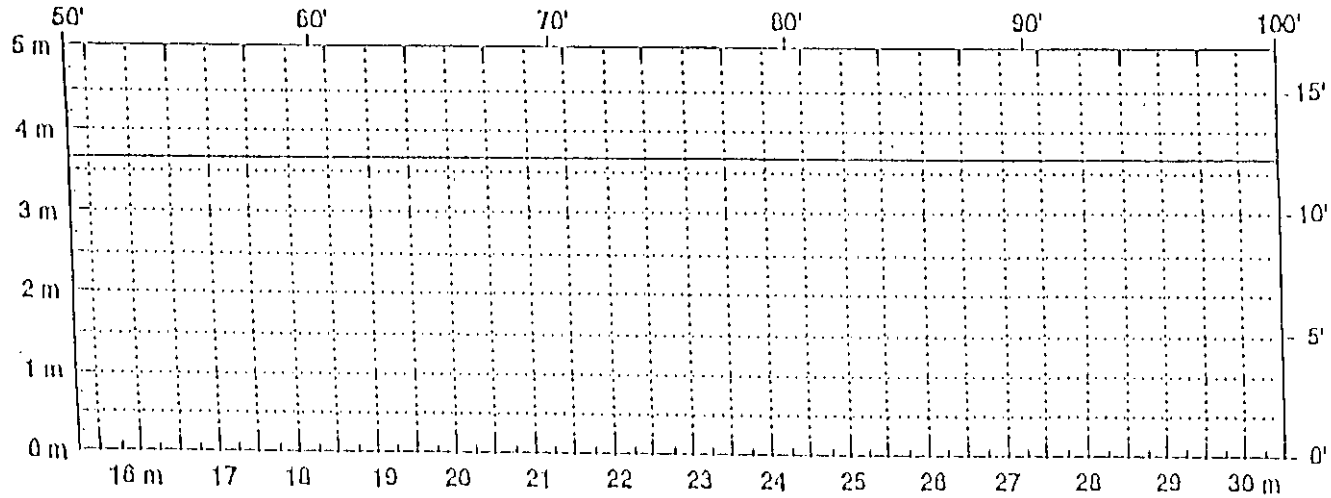
SHRP Section ID 0509

Totals:

6L – 5, 15.8 m
6M – 3, 11.1 m
11L – 305 sm



Comments: 11L Light Severity Bleeding throughout section in both wheelpaths

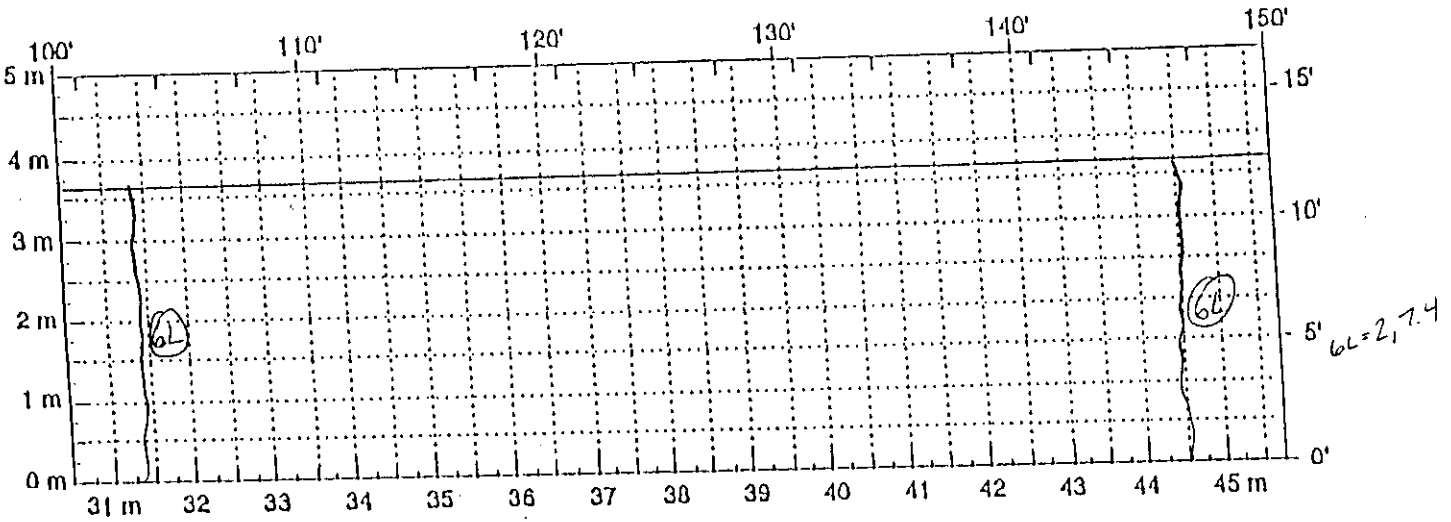


Comments: _____

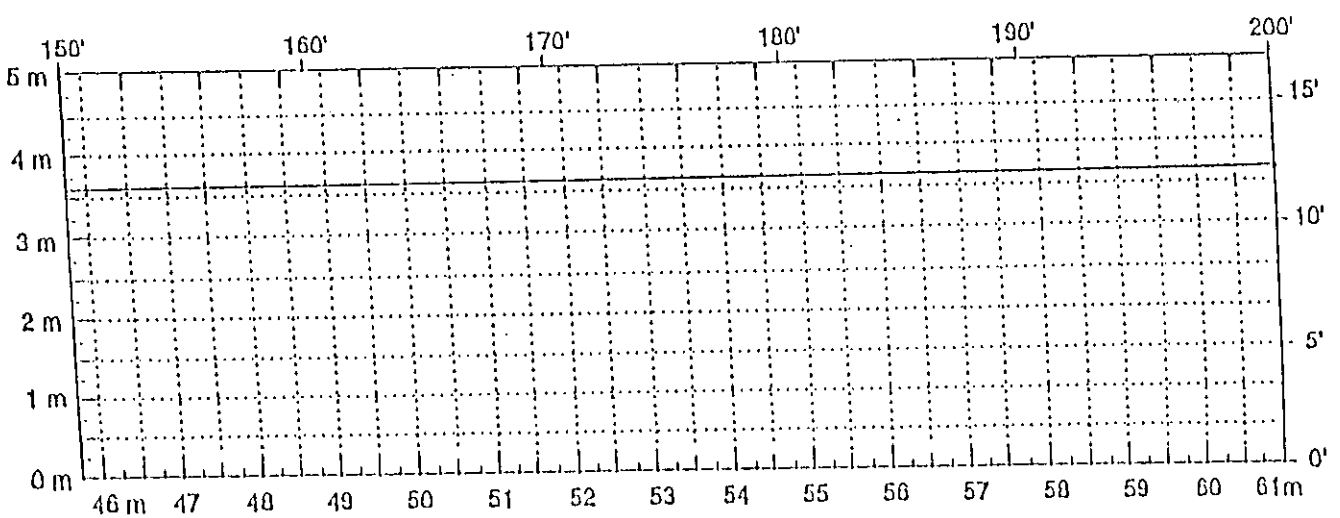
State Assigned ID _____

State Code 40

SHRP Section ID 0509



Comments: _____

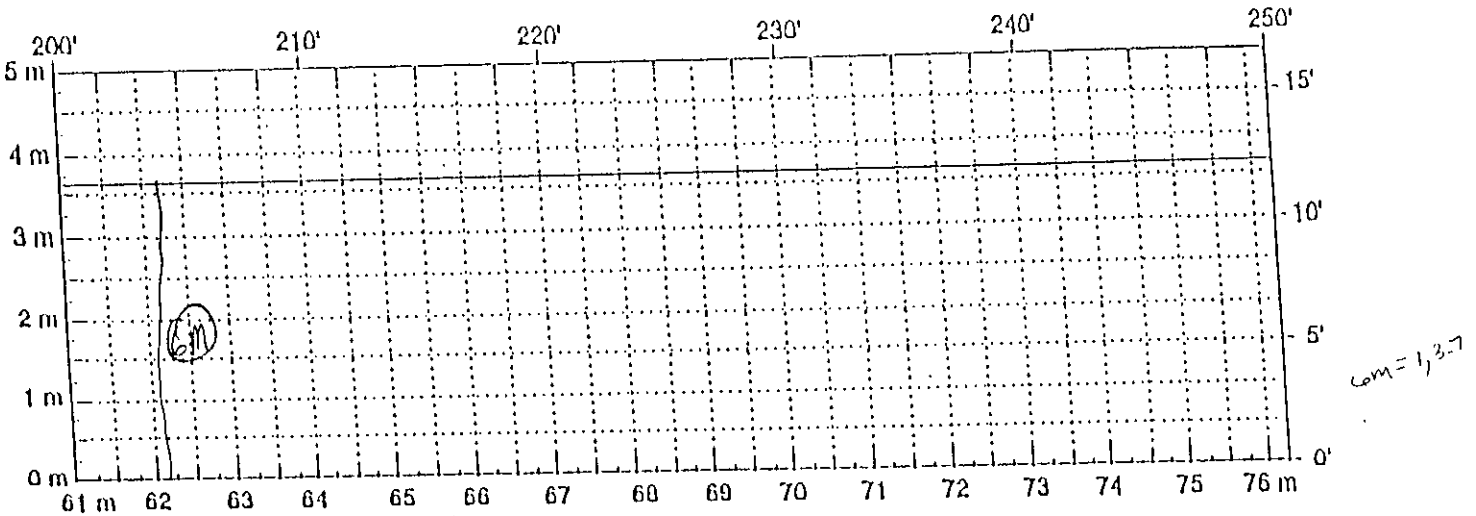


Comments: _____

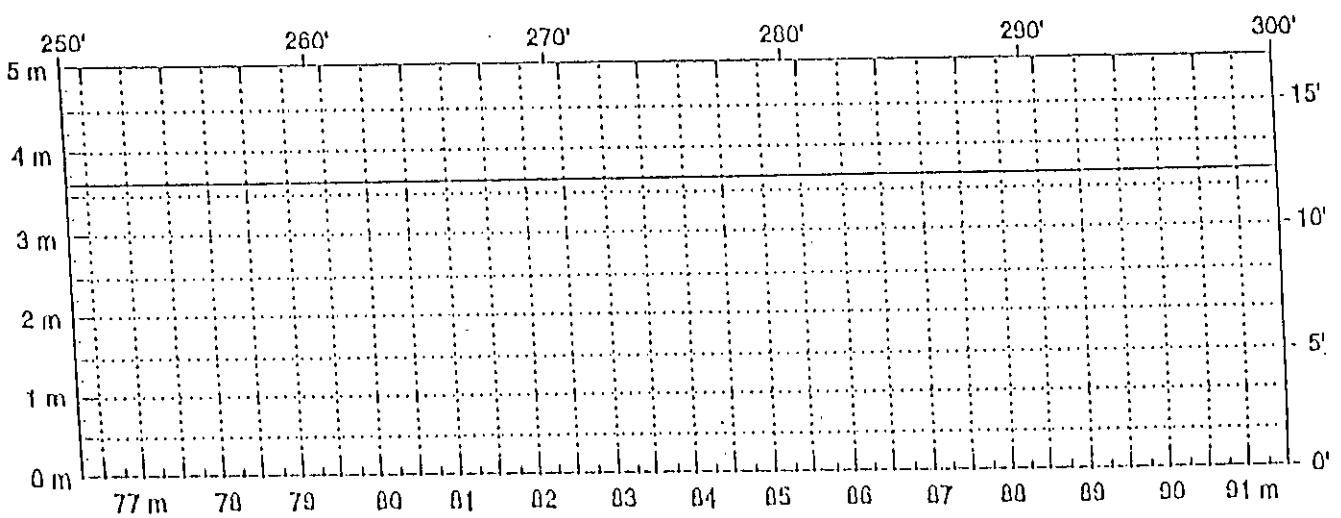
State Assigned ID _____

State Code 40

SHRP Section ID 0509



Comments: _____

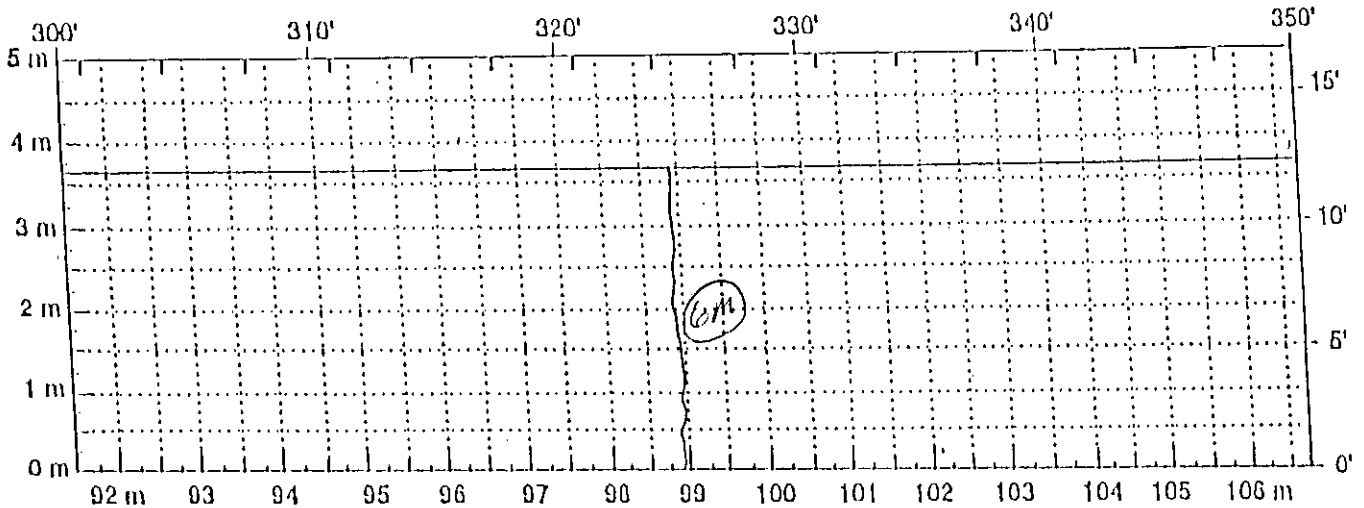


Comments: _____

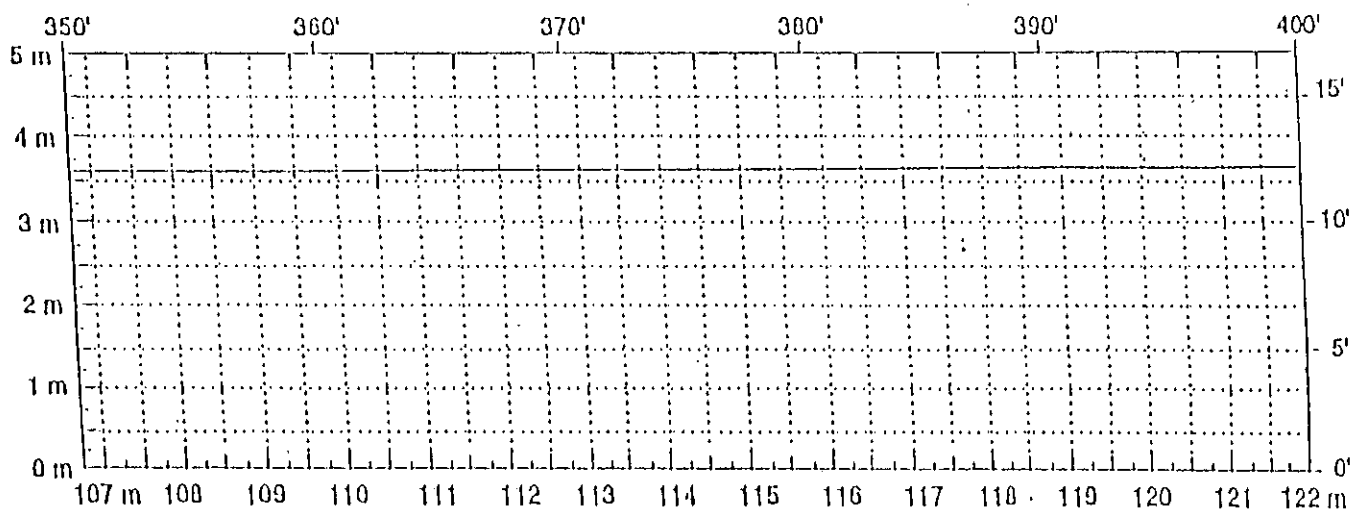
State Assigned ID _____

State Code 40

SHRP Section ID 0509



Comments: _____

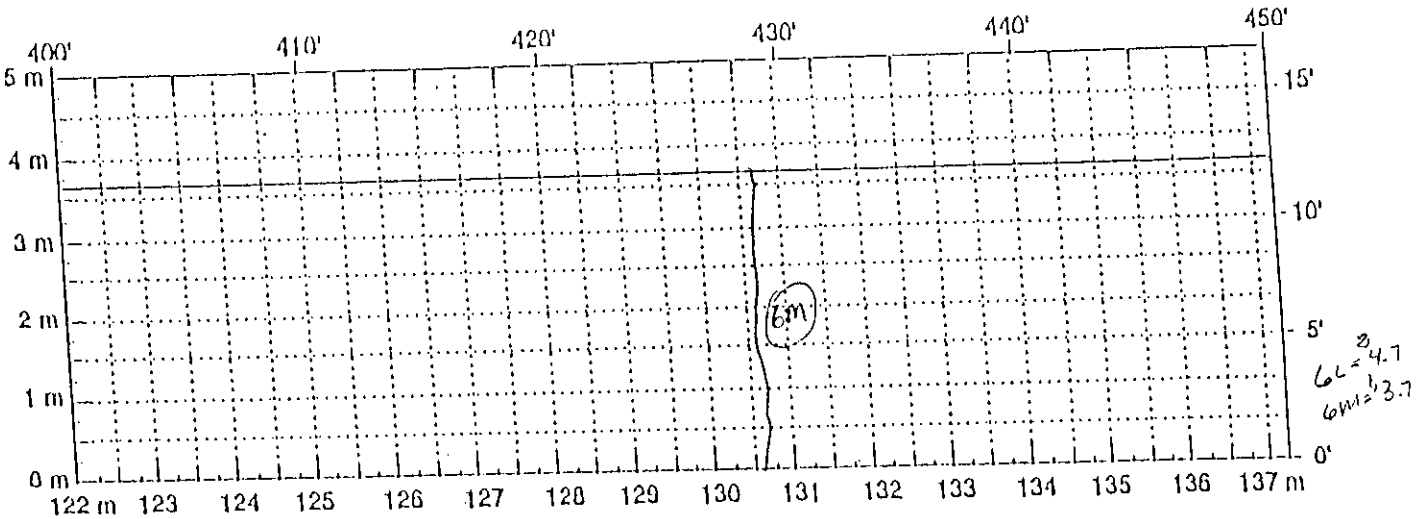


Comments: _____

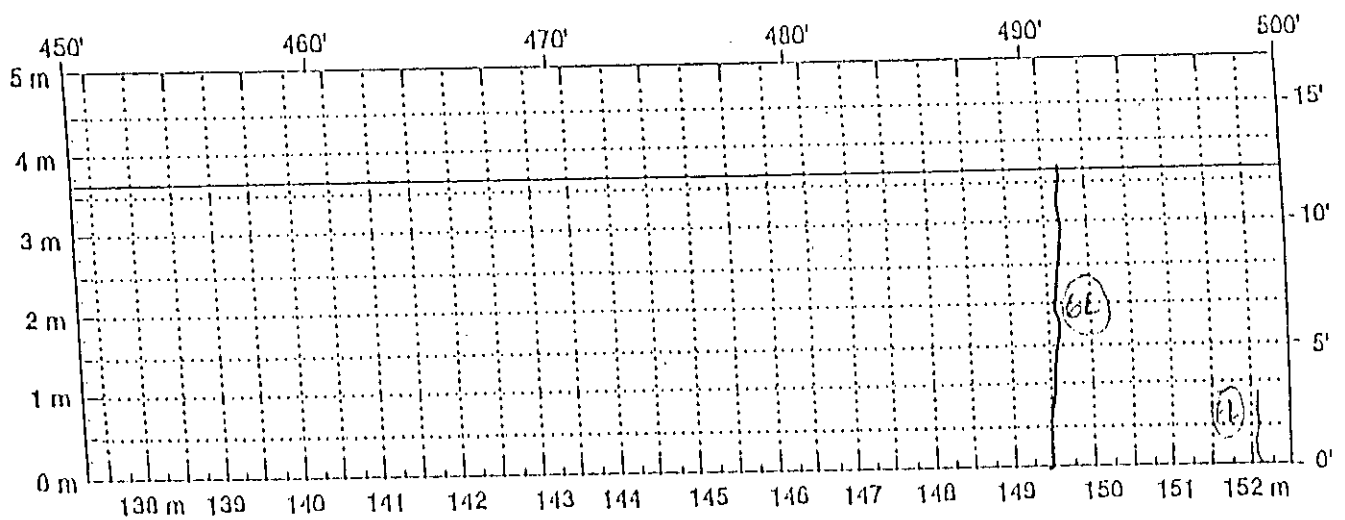
State Assigned ID _____

State Code 40

SHIP Section ID 0509



Comments: _____



Comments: _____

LTPP Automated Dipstick Data Collection Transverse Profile Form DS-11 Zero and Calibration Checks	State Code [4 0] LTPP Section ID [0 5 0 9] Date (dd/mmm/yy) [0 6 / 1 7 _ 1 9 7]

Operator: Tim Martin Employer: BRE

Dipstick Serial Number: 30023

Pre Measurement Checks

Time (military): 1 3 : 1 0

Automatic Zero Performed: ___

Calibration

Calibration Check	
Measurement	Reading (inches)
First Reading	.037
Second Reading on Calibration Block	.164
Second Reading - 0.125 - First Reading	.127

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Post Measurement Checks

Time (military): 1 3 : 5 0

Zero Check Acceptable: ✓

Calibration Check	
Measurement	Reading (inches)
First Reading	.039
Second Reading on Calibration Block	.165
Second Reading - 0.125 - First Reading	.126

Note: Reading 2 - Reading 1 must equal 0.125 with a tolerance of 0.003. If not, notify the RCOC office and contact Face Technologies for repair.

Comments

DATE: 6/17/97

OPERATOR: Tim Martin

RECORDER: Matt Hile

DIPSTICK SERIAL NUMBER: 30623

STATE CODE: 40

SHIP SECTION I.D.: 0509

DIPSTICK READING

LOCATION	1	2	3	4	5	6	7	8	9	10	11	12		TOTAL	SUM
0+00	-065	-030	095	199	140	-014	-117	-026	+125	219	242	188		.000	
	063	035 3	-092 3	-199 0	-134 0	014 -1	118 -1	028 0	-125 2	-216 2	-242 -1	-189 -1			
0+50	-045	-008	115	212	120	061	-089	-004	124	255	211	186		.010	
(15m)	044 16	014 11	-115 17	-210 17	-120 15	-057 15	092 11	001 14	-122 11	-248 4	-213 2	-182 4			
1+00	-076	026	172	242	153	026	-122	044	216	298	279	112		.041	
(30M)	075	-021	-168	-239	-139	-033	126	-035	-212	-295	-276	-112 0		~~.047~~	
1+50	-062	019	163	243	140	-032	-154	036	224	314	274	090		.014	
(45m)	061 14	-017 12	-160 11	-238 8	-138 3	036 1	157 3	-031 4	-219 3	-313 -2	-282 -3	-085 5			
(2+00)	-010	041	168	230	156	-018	-122	031	203	316	285	115		.019	
(60m)	009 19	-037 20	-166 16	-228 14	-152 12	020 8	125 10	-027 13	-199 4	-309 5	-287 -2	-115 0			
2+50	+001	034	185	276	158	007	-103	034 ~~-117~~	194 ~~-285~~	285 ~~243~~	243 ~~-135~~	135		.017	
(75m)	-003 11	-024 19	-186 9	-273 10	-157 7	-006	107 5	-035 4	-192 15	-277 8	-241 0	-137 -2			
3+00	-002	021	153	255	196	040	-085	037	178	308	260	232		.026	
(90m)	003 26	-018 27	-153 24	-248 24	-194 16	-038 11	088 12	-037 15	-176 15	-301 13	-252 16	-234 -2			
3+50	-012	023	174	270	193	095	044	055	169	300	275	092		.036	
(105m)	009 16	-015 28	-169 25	-264 20	-191 17	-089 12	-055 6	-052 16	-167 13	-290 11	-274 1	-092 0			
4+00	018	007	141	242	198	048	092	032	175	273	208	022		.008	
(120m)	-023 8	-005 18	-140 11	-241 10	-196 9	-045 7	-096 4	-029 8	-169 5	-276 1	-206 4	-020 2			
4+50	003	049	122	280	170	126	-136	001	180	341	239	015		.017	
(135m)	-000 17	-060 14	-114 23	-279 17	-169 16	-118 15	141 7	+003 12	-174 8	-338 2	-243 -1	-012 3			
5+00	-064	021	094	192	122	068	-075	-026	097	261	223	067		.004	
(150m)	060	-022 8	-091 9	-190 6	-123 4	-063 5	078 0	029 2	-098 5	-259 6	-221 4	-065 2			

COMMENTS

E... JUL 1 0 1997 A H

E... JUL 1 0 1997 A H

RECEIVED JUN 3 0 1997

Revised December 1, 1992

SHEET 1

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID

STATE CODE 4 0

SHRP SECTION ID 0 5 6 0

ENTERED OCT 2 1 1997

REVIEWED JUL 2 1 1997

REVIEWED JUL 1 7 1997

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 0 6/1 7/9 7

SURVEYORS: T J M, M J D PHOTOS, VIDEO, OR BOTH WITH SURVEY (P, V, B) B

PAVEMENT SURFACE TEMP - BEFORE 3 6°C; AFTER 3 5°C

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
CRACKING			
1. FATIGUE CRACKING (Square Meters)	0	0	0
2. BLOCK CRACKING (Square Meters)	0	0	0
3. EDGE CRACKING (Meters)	0	0	0
4. LONGITUDINAL CRACKING (Meters)			
4a. Wheel Path	0	0	0
Length Sealed (Meters)	0	0	0
4b. Non-Wheel Path	3.5	0	0
Length Sealed (Meters)	0	0	0
5. REFLECTION CRACKING AT JOINTS Number of Transverse Cracks	0	0	0
Transverse Cracking (Meters)			
Length Sealed (Meters)			
Longitudinal Cracking (Meters)			
Length Sealed (Meters)			
6. TRANSVERSE CRACKING Number of Cracks	4	6	0
Length (Meters)	5.4	22.2	
Length Sealed (Meters)	0	0	
PATCHING AND POTHOLES			
7. PATCH/PATCH DETERIORATION (Number)	0	0	
(Square Meters)			
8. Potholes (Number)			
(Square Meters)			

Revised December 1, 1992

STATE ASSIGNED ID _ _ _ _

SHEET 2

DISTRESS SURVEY

LTPP PROGRAM

STATE CODE 4 0

SHRP SECTION ID 0 5 6 0

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 0 6/1 7/9 7

SURVEYORS: T J M, M J D

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES (CONTINUED)

DISTRESS TYPE	SEVERITY LEVEL LOW	MODERATE	HIGH
SURFACE DEFORMATION			
9. RUTTING - REFER TO SHEET 3 FOR SPS-3 OR Form S1 from Dipstick Manual			
10. SHOVING (Number)			0
(Square Meters)			0.
SURFACE DEFECTS			
11. BLEEDING (Square Meters)	305.0	0.	0.
12. POLISHED AGGREGATE (Square Meters)			0.
13. RAVELING (Square Meters)	0.	0.	0.
MISCELLANEOUS DISTRESSES			
14. LANE-TO-SHOULDER DROPOFF - REFER TO SHEET 3			
15. WATER BLEEDING AND PUMPING (Number)			0
Length of Affected Pavement (Meters)			0.

16. OTHER (Describe) _____

Revised May 29, 1992

SHEET 3

DISTRESS SURVEY

LTPP PROGRAM

STATE ASSIGNED ID _ _ _ _

STATE CODE 4 0

SHRP SECTION ID 0 5 6 0

DATE OF DISTRESS SURVEY (MONTH/DAY/YEAR) 0 6 / 1 7 / 9 7

SURVEYORS: I J M, M J D

ENTERED OCT 21 1997 J. B

DISTRESS SURVEY FOR PAVEMENTS WITH ASPHALT CONCRETE SURFACES
(CONTINUED)

9. RUTTING (FOR SPS-3 SITE SURVEYS)

INNER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)	OUTER WHEEL PATH Point No.	Point Distance[1] (Meters)	Rut Depth (mm)
1	0.	_ _ _.	1	0	_ _ _.
2	15.25	_ _ _.	2	15.25	_ _ _.
3	30.5	_ _ _.	3	30.5	_ _ _.
4	45.75	_ _ _.	4	45.75	_ _ _.
5	61.	_ _ _.	5	61.	_ _ _.
6	76.25	_ _ _.	6	76.25	_ _ _.
7	91.5	_ _ _.	7	91.5	_ _ _.
8	106.75	_ _ _.	8	106.75	_ _ _.
9	122.	_ _ _.	9	122.	_ _ _.
10	137.25	_ _ _.	10	137.25	_ _ _.
11	152.5	_ _ _.	11	152.5	_ _ _.

SEE DIPSTICK DATA

14. LANE-TO-SHOULDER DROPOFF

Point No.	Point Distance[1] Meters	Lane-to-Shoulder Dropoff (mm)
1	0.	_ _ 0.
2	15.25	_ _ _.
3	30.5	_ _ _.
4	45.75	_ _ _.
5	61.	_ _ _.
6	76.25	_ _ _.
7	91.5	_ _ _.
8	106.75	_ _ _.
9	122.	_ _ _.
10	137.25	_ _ _.
11	152.5	_ _ _.

Note 1: "Point Distance" is the distance in meters from the start of the test section to the point where the measurement was made. The values shown are SI equivalents of the 50 ft spacing used in previous surveys.

State Assigned ID _____

State Code 40

SHRP Section ID 0560

Date 6/17/97

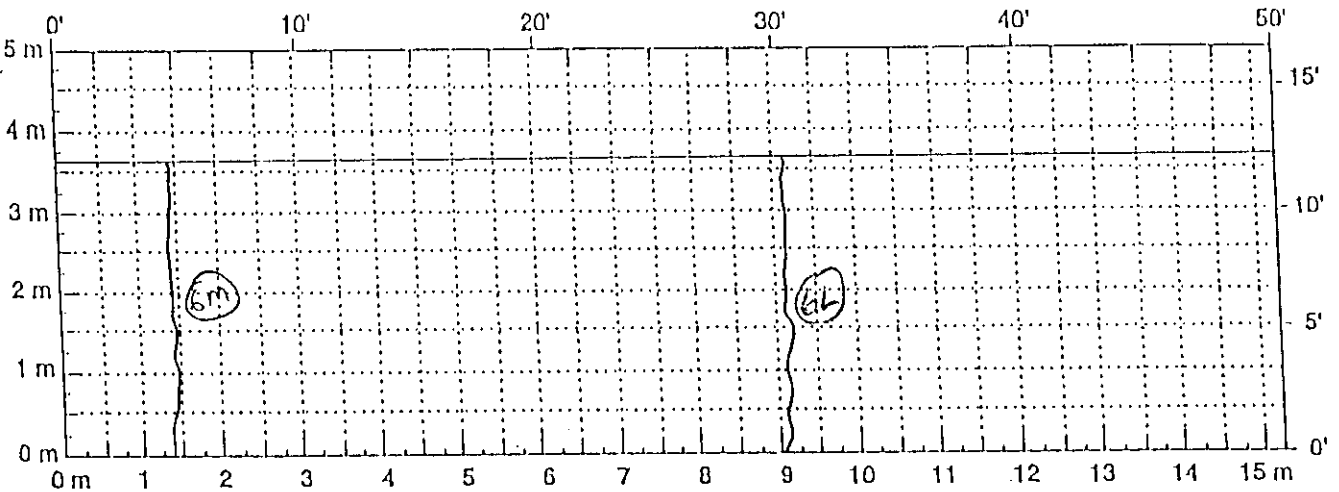
Surveyor TJM, MJD

$T_1 = 36°C$

$T_2 = 35°C$

6L - 1, 3.7m

6M - 1, 3.7m



Comments: Bleeding in both the wheel-paths throughout section.

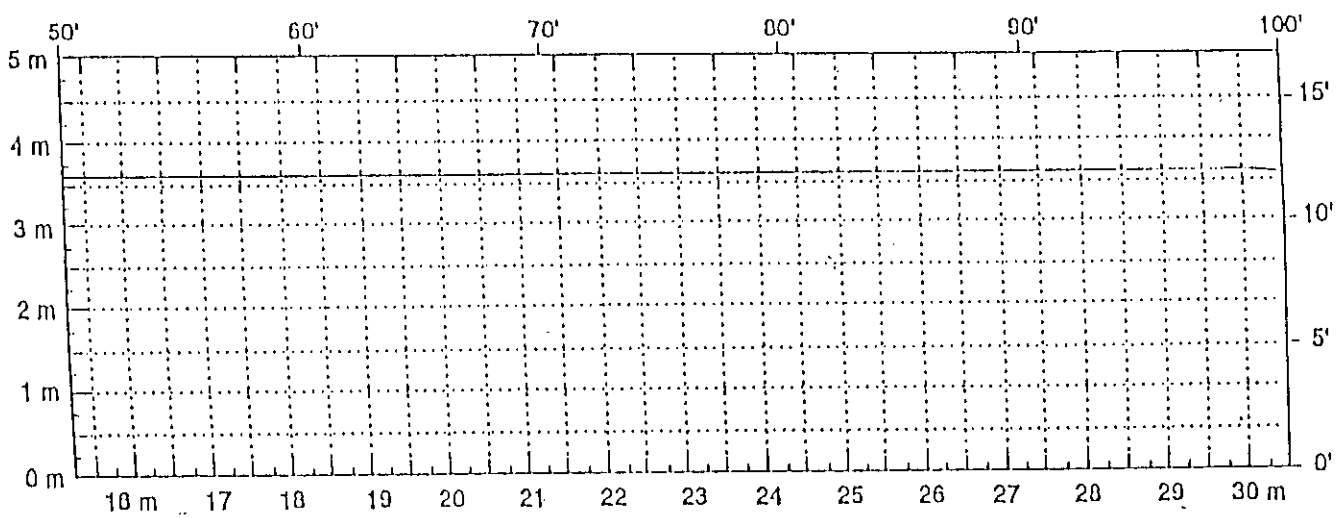
Totals:

11L - 305 sm

1bL - 3.5m

6L - 4, 5.4m

6M - 6, 22.2m

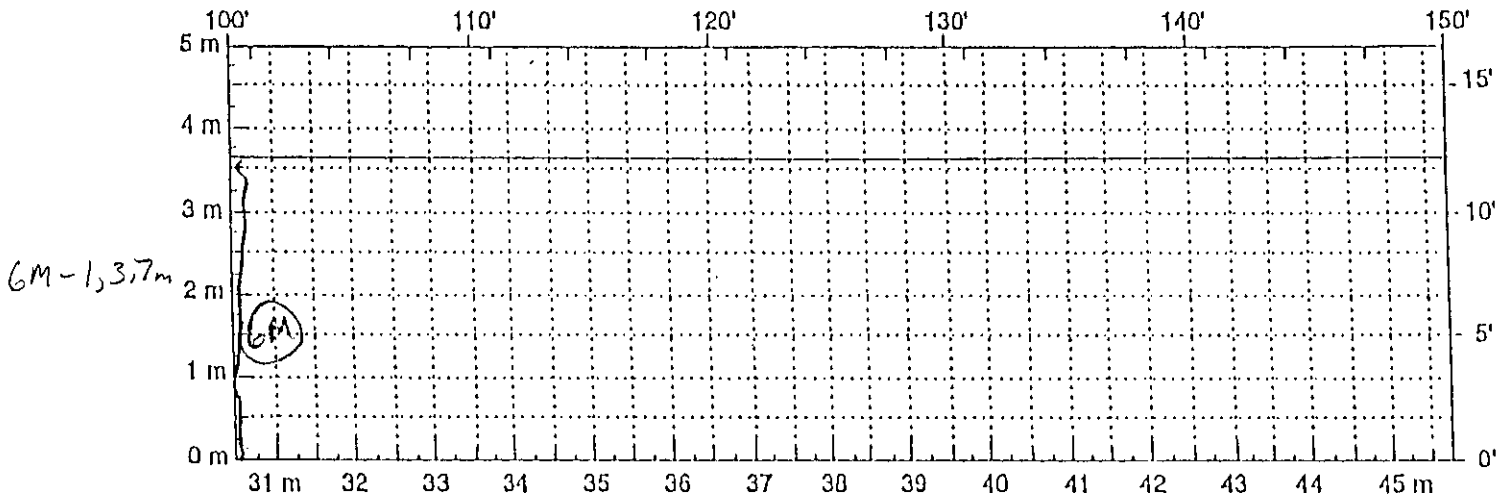


Comments: _____

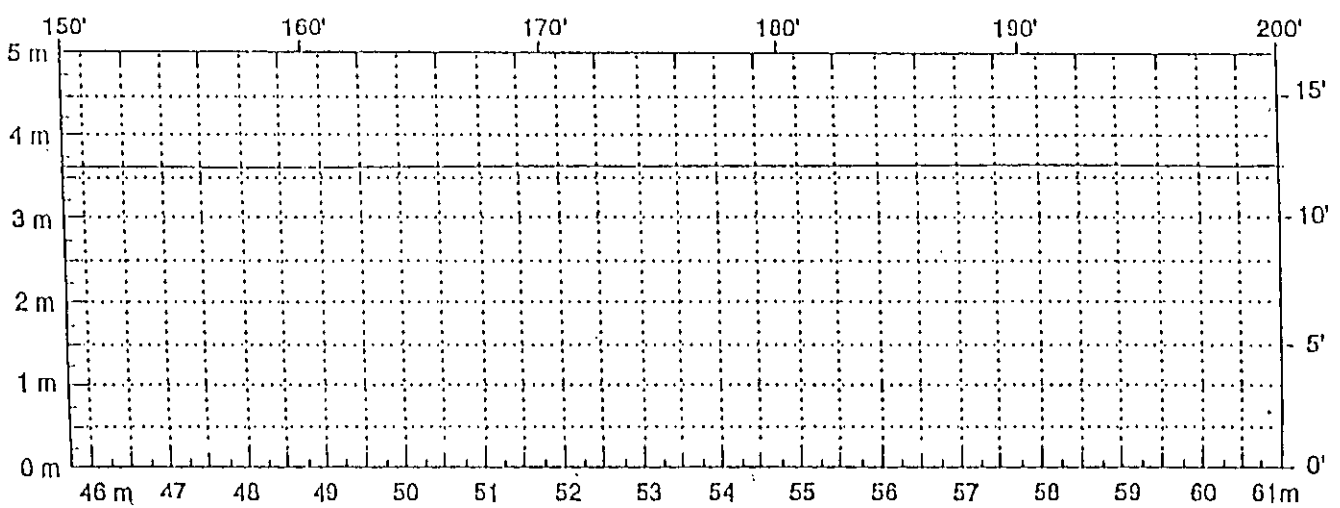
State Assigned ID _____

State Code 40

SHRP Section ID 0560



Comments: _____



Comments: _____

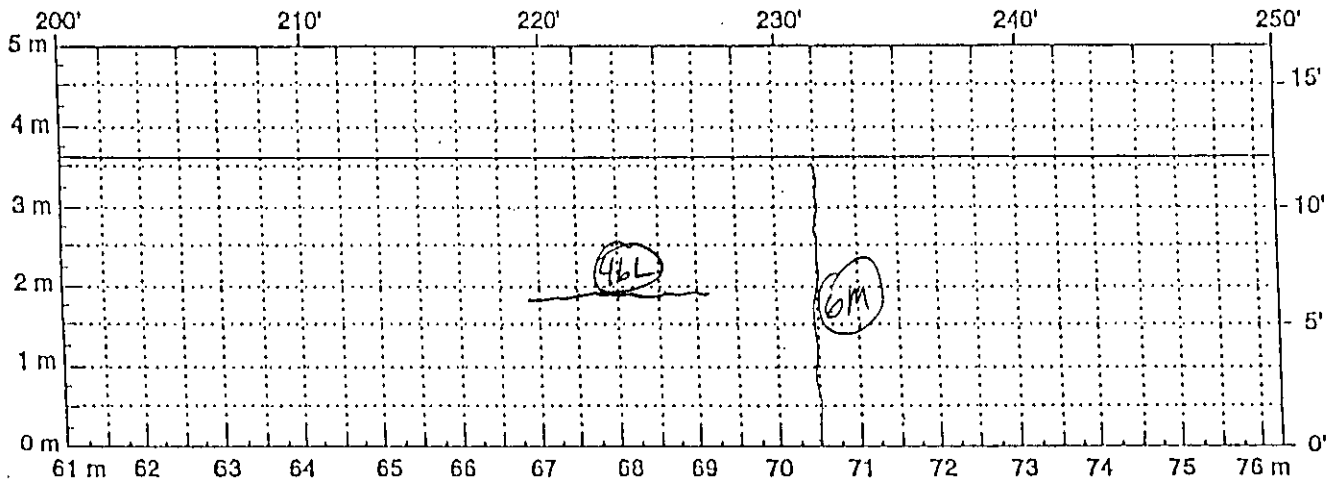
State Assigned ID _____

State Code 40

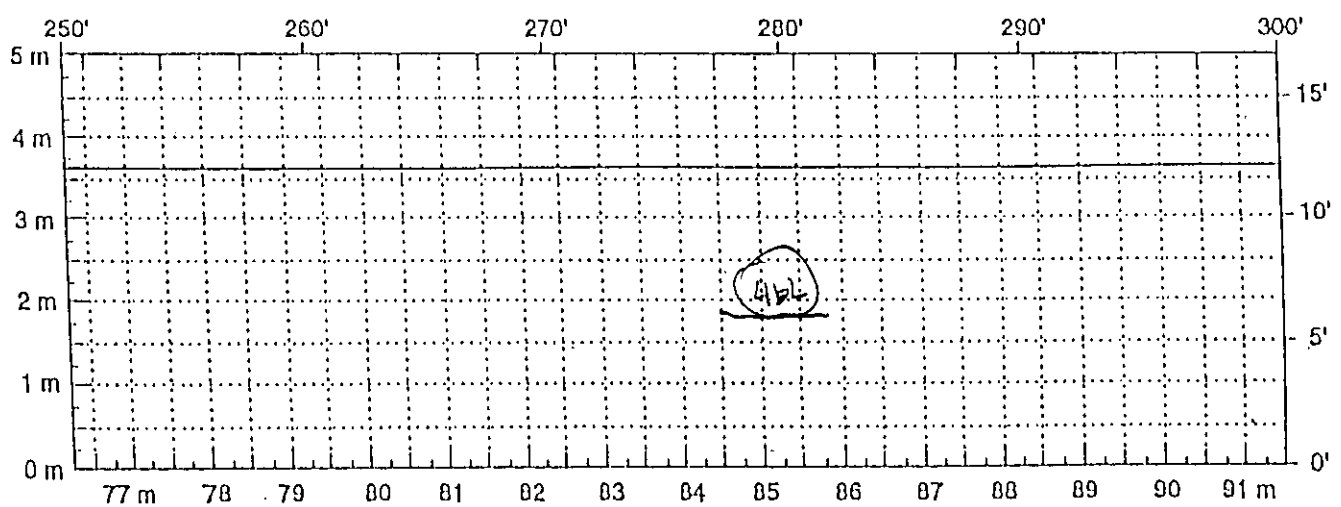
SHRP Section ID 0560

46L - 3.5m

6M - 1.37m



Comments: _____



Comments: _____

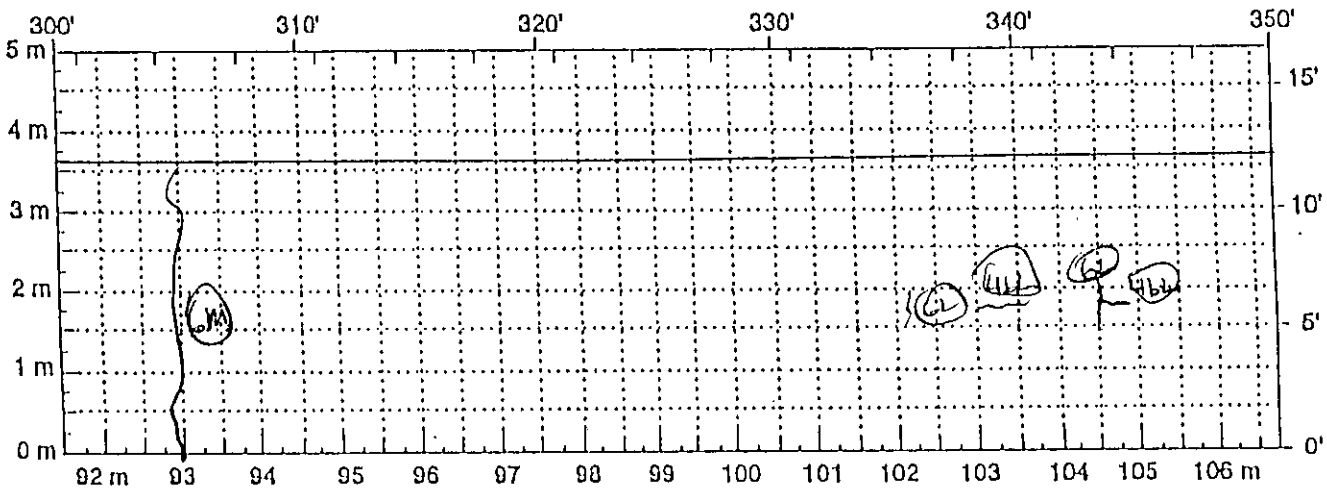
State Assigned ID _____

State Code 40

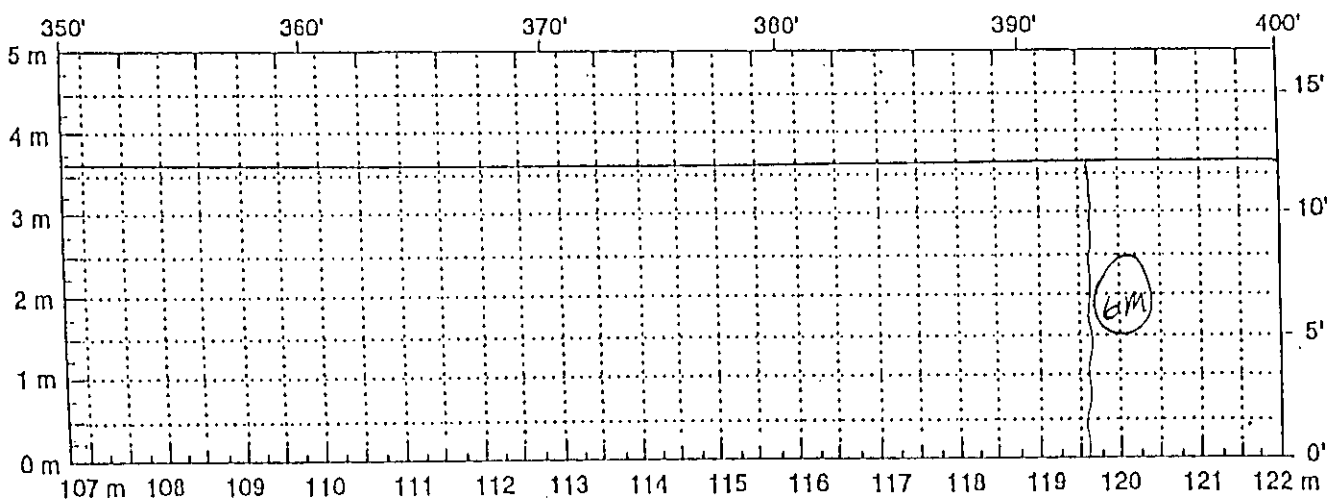
SHRP Section ID 0560

6L - 2, 1.3 m

6M - 2, 7.4 m



Comments: _____



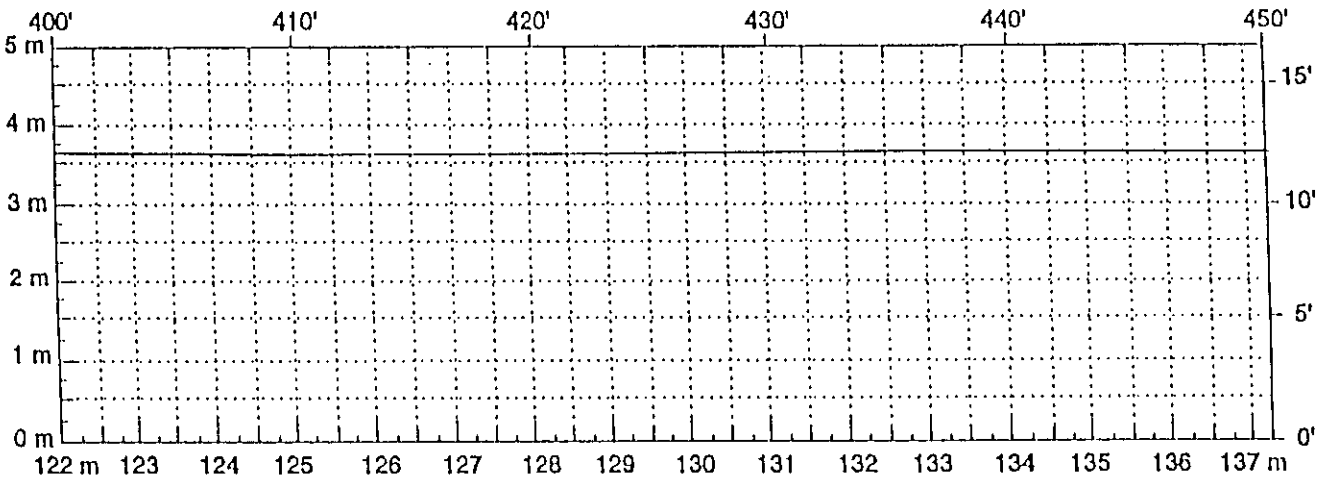
Comments: _____

State Assigned ID _____

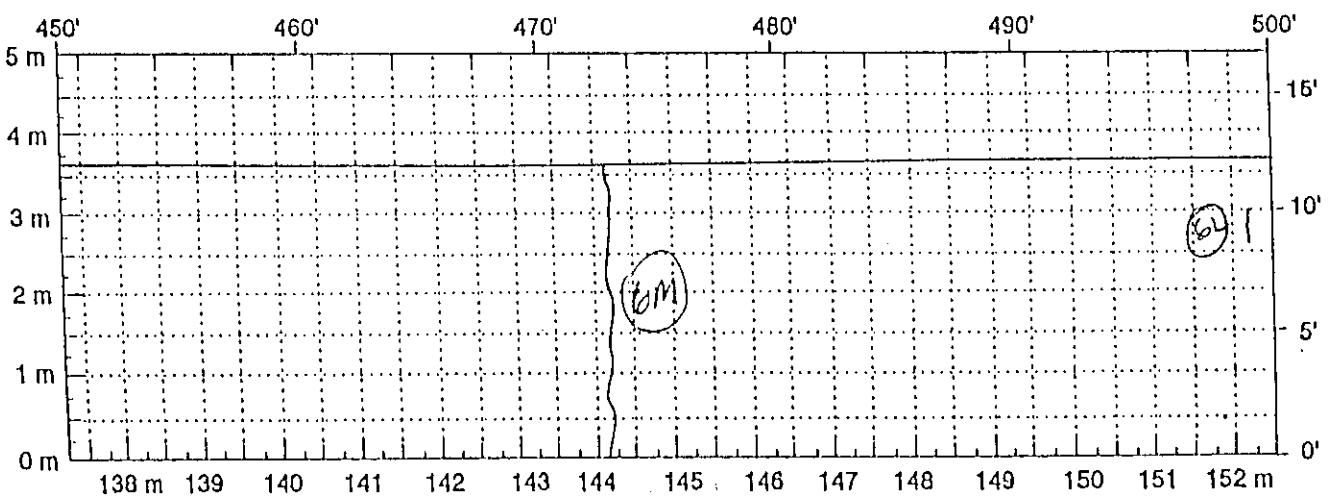
State Code 40

SHRP Section ID 0560

6L - 1,04m
6M - 1,37m



Comments: _____



Comments: _____

LTPP Automated Dipstick Data Collection Transverse Profile Form DS-11 Zero and Calibration Checks	State Code [4 0] LTPP Section ID [0 5 6 0] Date (dd/mmm/yy) [0 6 / 1 7 / 9 7]

Operator: Tim Martin Employer: BRE

Dipstick Serial Number: 30023

Pre Measurement Checks

Time (military): 2 0 : 0 0

Automatic Zero Performed: ____

Calibration

Calibration Check	(in)
Measurement	Reading (~~mm~~)
First Reading	.070
Second Reading on Calibration Block	.195
Second Reading - 3.2 - First Reading	.125

Note: Reading 2 - Reading 1 must equal ~~3.2 mm~~ with a tolerance of ~~0.1 mm~~. If not, notify the RCOC office and contact Face Technologies for repair.

Post Measurement Checks

Time (military): 2 0 : 3 5

Zero Check Acceptable: ✓

Calibration Check	in
Measurement	Reading (~~mm~~)
First Reading	.068
Second Reading on Calibration Block	.193
Second Reading - 3.2 - First Reading	.125

Note: Reading 2 - Reading 1 must equal ~~3.2 mm~~ with a tolerance of ~~0.1 mm~~ If not, notify the RCOC office and contact Face Technologies for repair.

Comments

DATE: 6/17/97
OPERATOR: Tim Martin
RECORDER: Matt Duke
DIPSTICK SERIAL NUMBER: 30023

STATE CODE: 40
SHRP SECTION I.D.: 0563

LOCATION	DIPSTICK READING 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTAL	SUM
0+00	085	-005	164	369	259	176	047	-033	214	398	282	191					
	-085 69	016 69	-157 58	-365 51	-255 47	-170 43	-035 37	043 23	-206 15	-394 7	-279 3	-191 0				.069	
0+50 (15 m)	102	028	226	290	206	050	001	046	283	346	308	144					
	-101 26	-028 25	-221 25	-286 20	-206 16	-040 16	-005 6	-037 10	-272 1	-348 0	-308 2	-142 2				.026	
1+00 (30 m)	-102	-010	173	334	333	027	-048	-010	216	438	364	197					
	113 67	006 56	-157 20	-336 41	-318 46	-030 31	056 34	020 26	-214 16	-436 11	-359 12	-190 7				.067	
1+50 (45 m)	065	098	198	336	296	098	085	050	220	387	384	245					
	-056 57	-094 48	-190 44	-337 36	-295 37	-101 36	-071 29	-043 25	-212 18	-382 10	-381 5	-243 2				.057	
2+00 (60 m)	044	068	204	338	348	108	051	042	254	367	365	285					
	-041 39	-065 36	-200 33	-335 29	-342 26	-118 20	-038 28	-034 15	-299 7	-365 2	-364 0	-286 -1				.039	
2+50 (75 m)	058	061	179	296	245	125	054	051	246	330	370	194					
	-061 29	-057 32	-167 28	-297 16	-243 17	-120 15	-051 10	-048 7	-244 4	-333 2	-375 5	-185 9				.029	
3+00 (90 m)	014	053	191	285	251	037	055	040	274	373	314	191					
	-016 27	-045 29	-183 21	-286 13	-243 14	-035 10	-058 4	-037 7	-274 4	-371 4	-313 2	-190 1				.027	
3+50 (105 m)	066	082	106	354	293	133	103	003	205	383	373	280					
	-061 36	-075 31	-104 24	-348 22	-292 16	-135 15	-098 17	-002 12	-196 11	-382 3	-378 1	-274 6				.036	
4+00 (120 m)	063	092	188	330	316	136	098	054	225	314	395	267					
	-051 34	-092 22	-194 22	-327 23	-314 25	-134 23	-093 21	-047 16	-220 9	-313 4	-392 3	-267 0				.034	
4+50 (135 m)	111	000	162	341	260	137	076	038	252	324	353	158					
	-111 26	-003 26	-157 29	-340 24	-256 23	-131 19	-065 18	-036 7	-255 5	-332 8	-348 6	-157 1				.026	
5+00 (150 m)	032	046	197	293	266	077	026	069	221	315	334	150					
	-023 31	-042 31	-194 27	-287 24	-271 18	-076 23	-022 22	-071 18	-210 20	-319 9	-321 13	-150 0				.040	

FORM S1/December 1

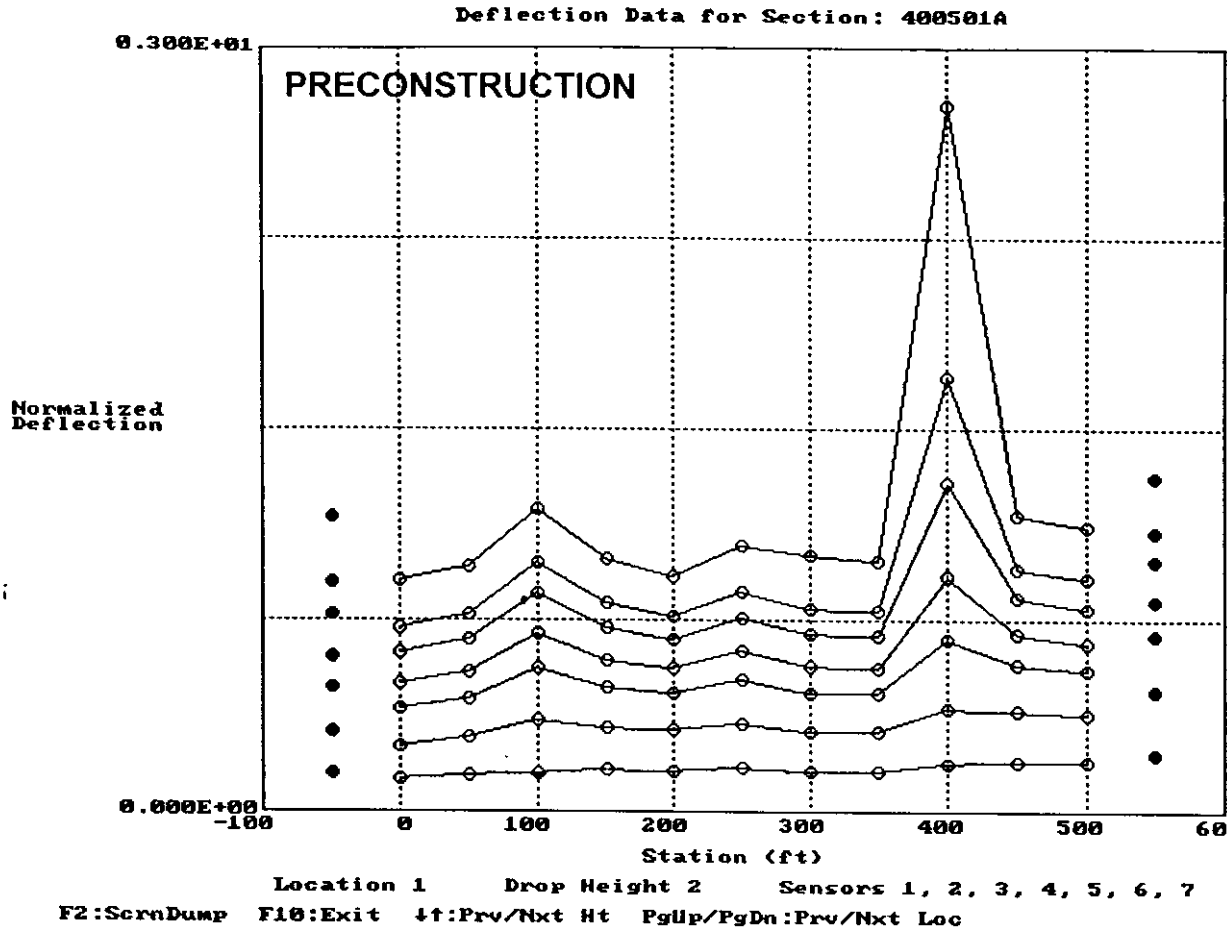
ENTERED JUL 10 1997 A H

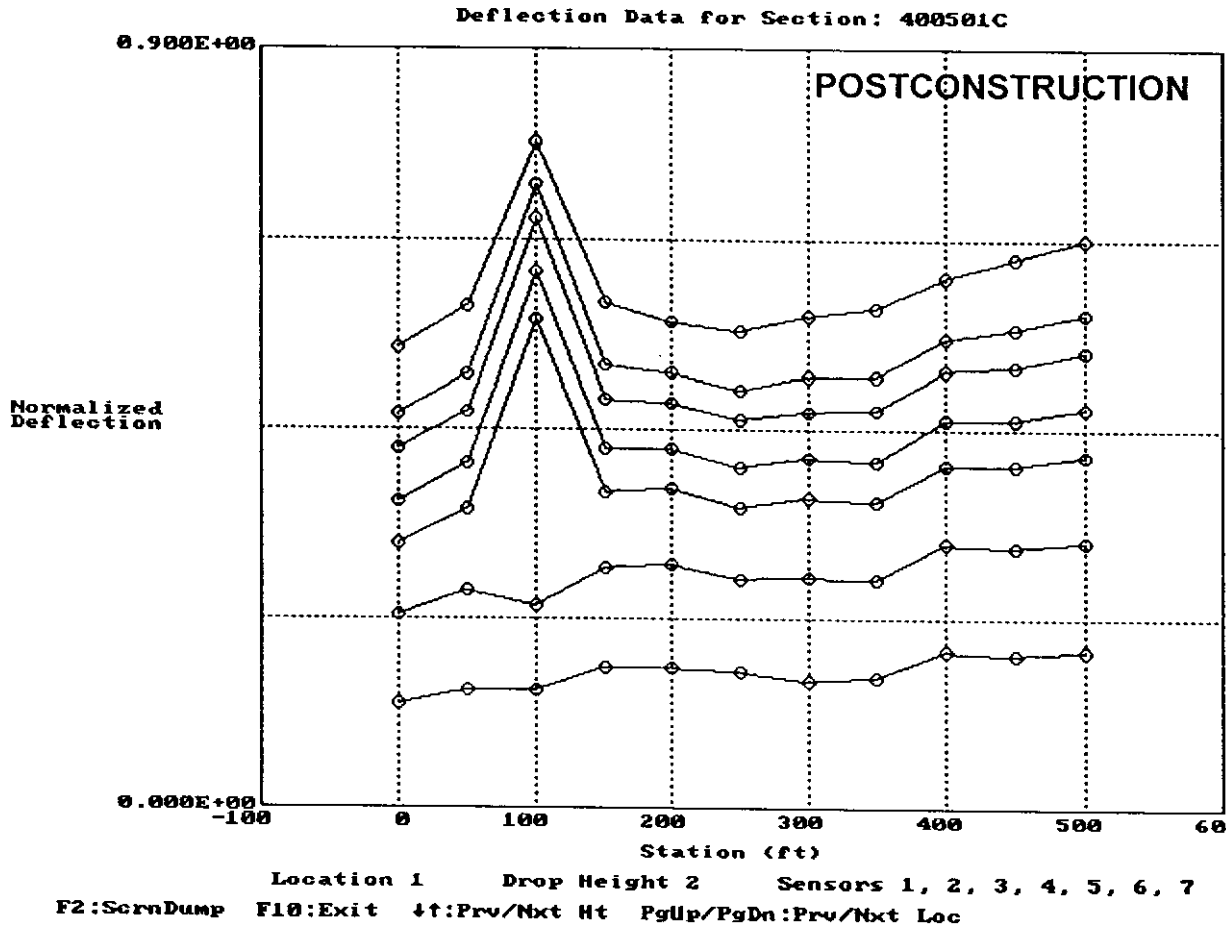
ENTERED JUL 10 1997 A H

APPENDIX C

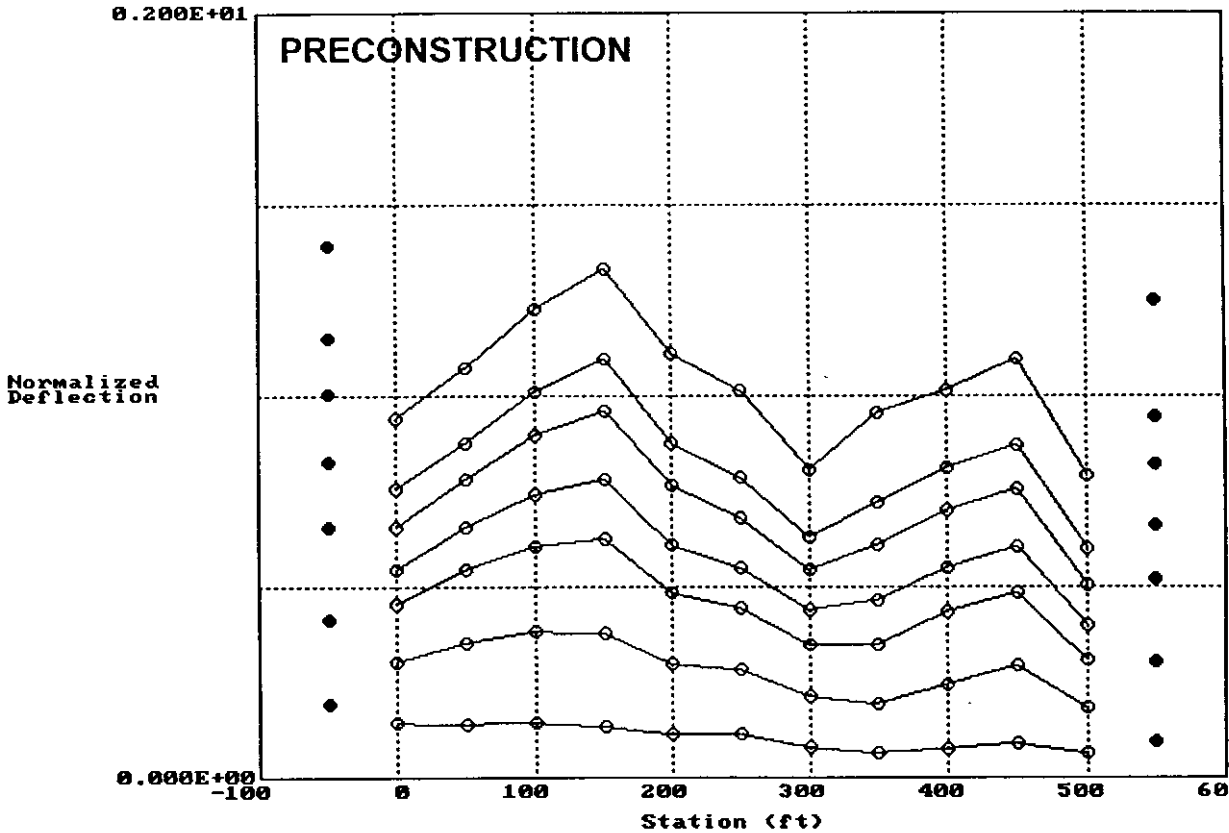
DEFLECTION PLOTS -

PRECONSTRUCTION AND POSTCONSTRUCTION


Deflection Data for Section: 400501A
PRECONSTRUCTION
0.300E+01
0.000E+00
Normalized Deflection
-100
0
100
200
300
400
500
600
Station (ft)
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc


Deflection Data for Section: 400501C
POSTCONSTRUCTION
0.900E+00
0.000E+00
Normalized Deflection
-100
0
100
200
300
400
500
600
Station (ft)
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc

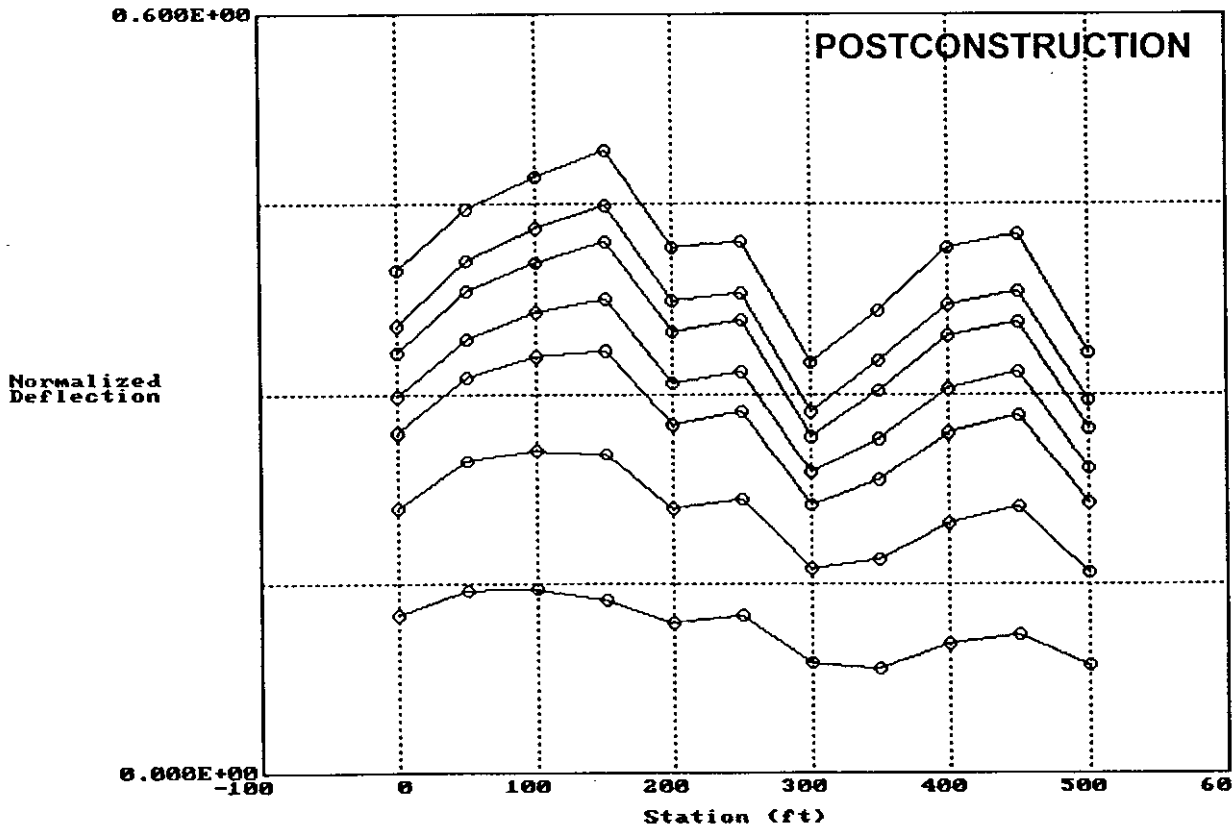
Deflection Data for Section: 400502A



Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7

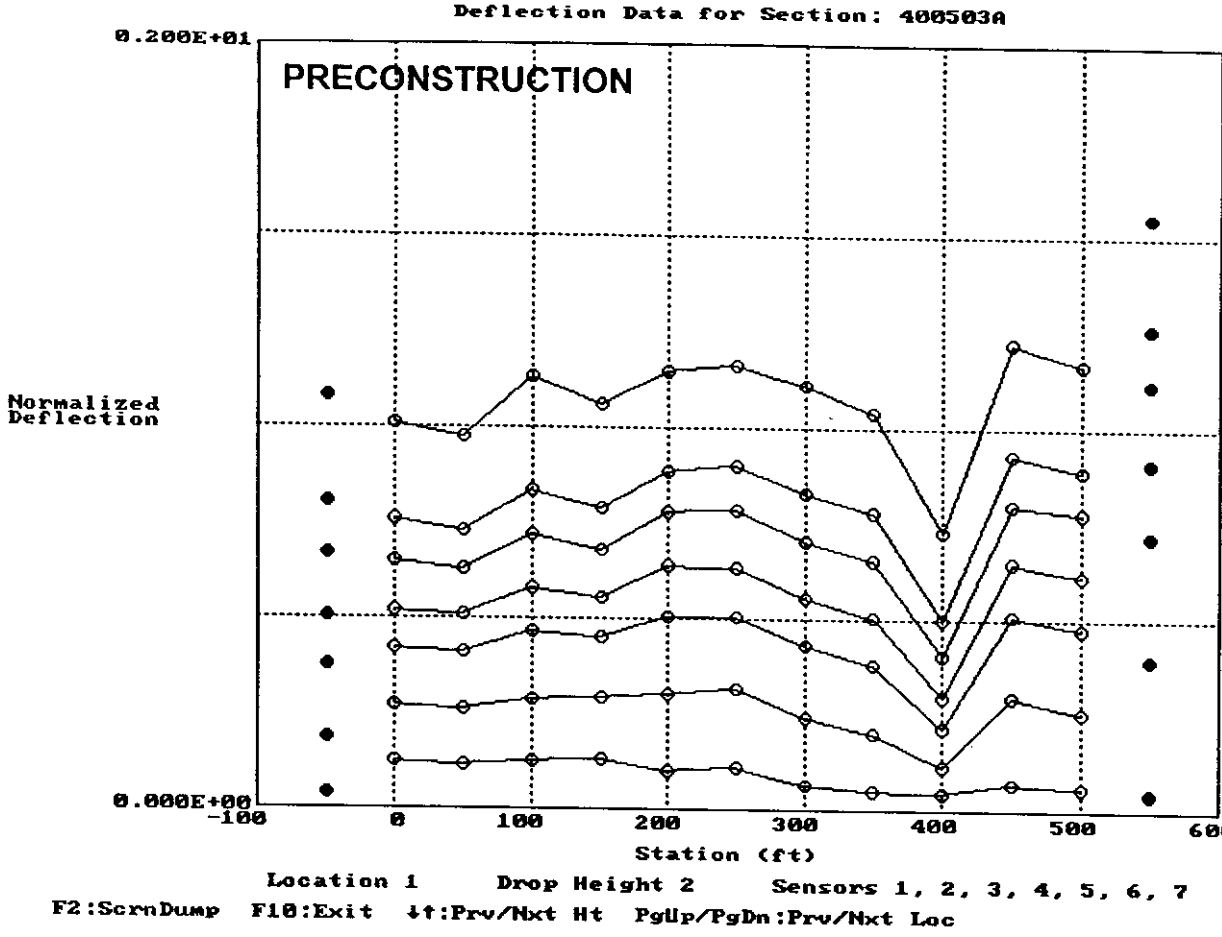
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc

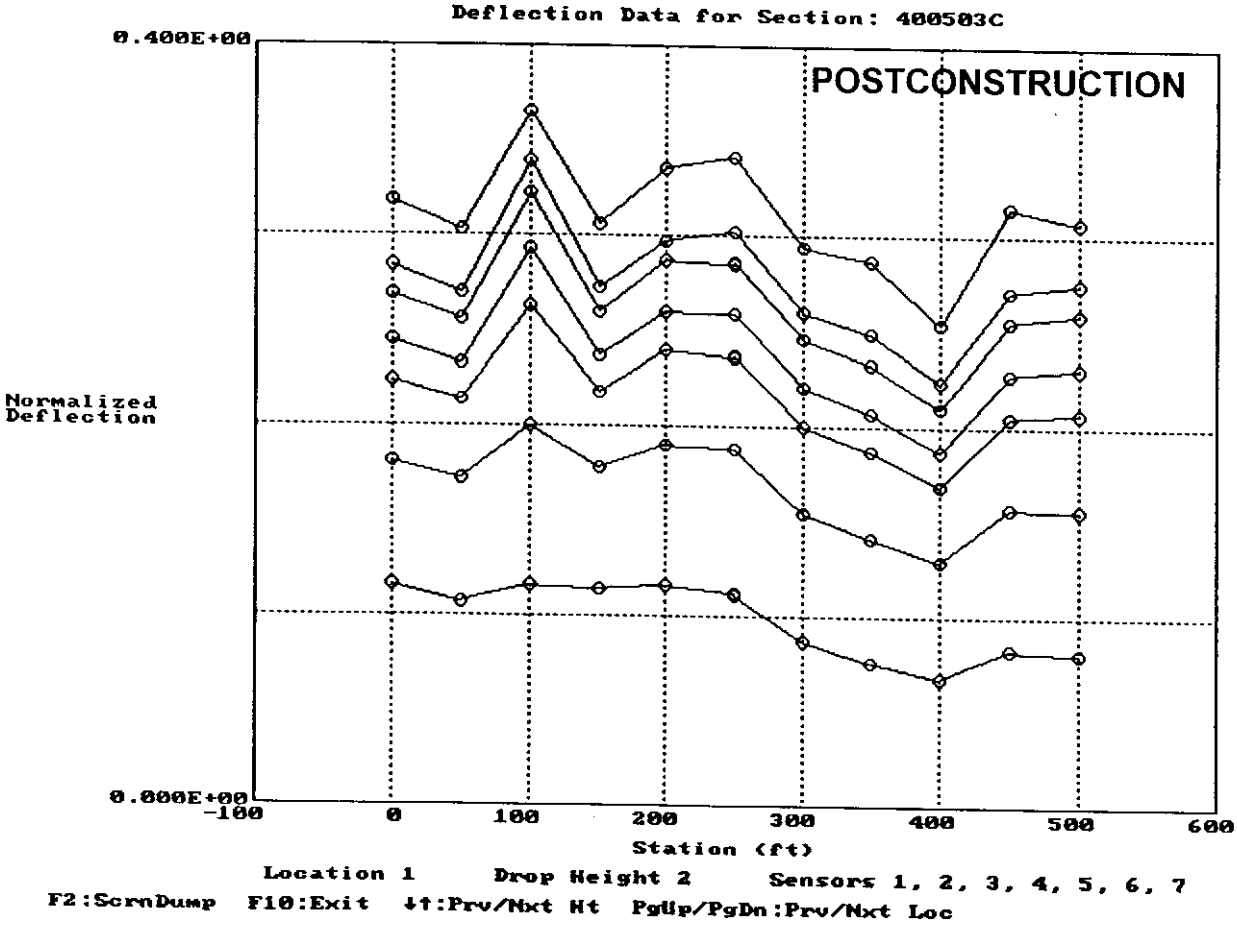
Deflection Data for Section: 400502C

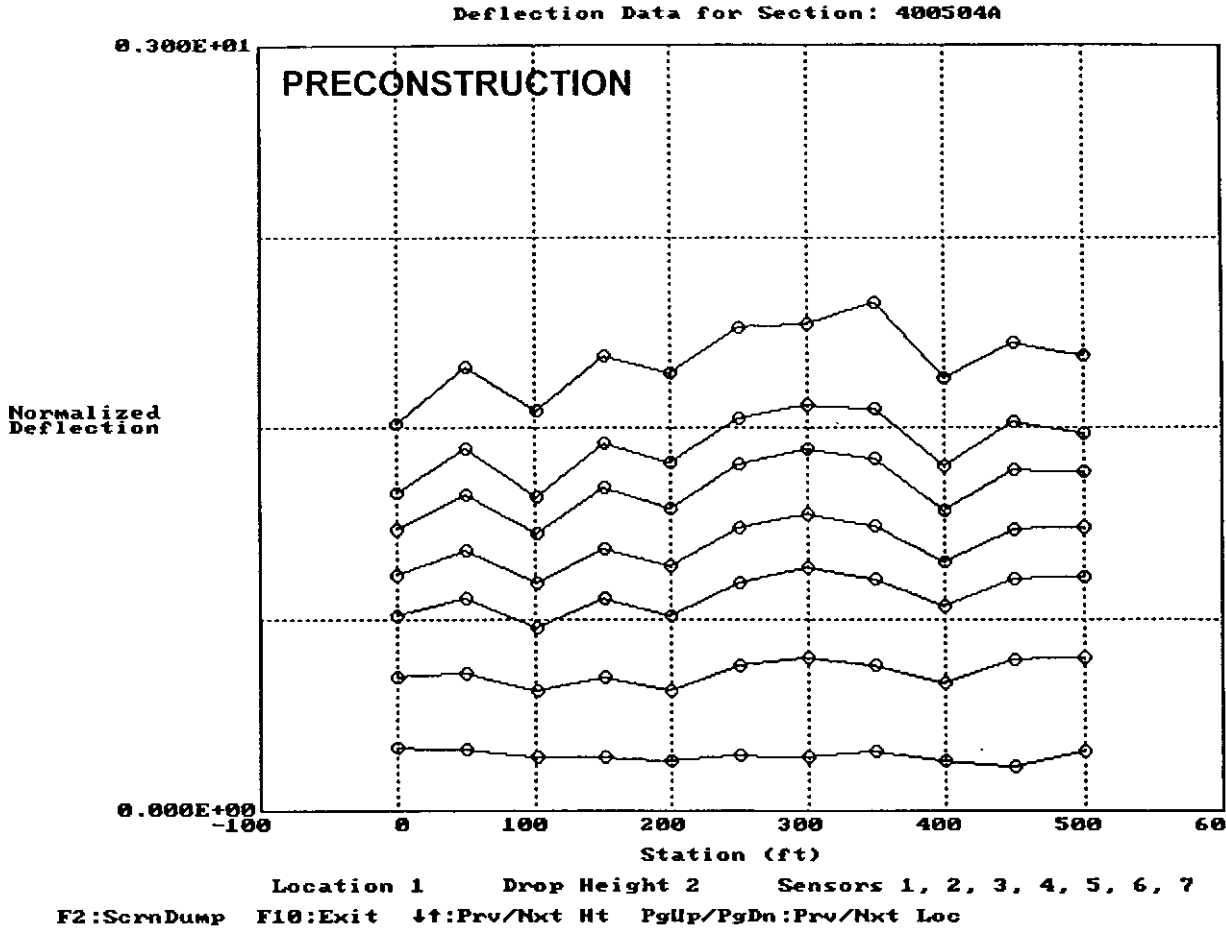


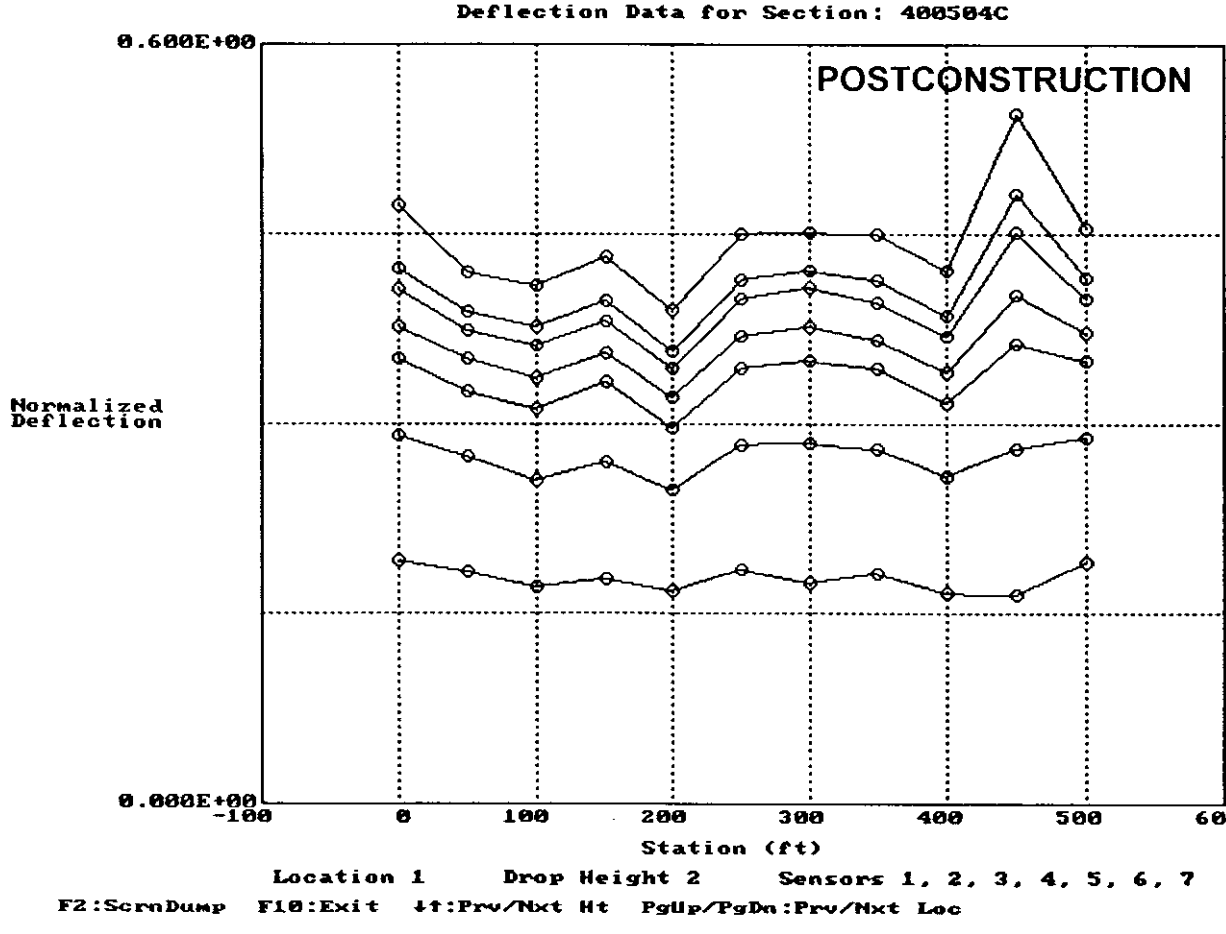
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7

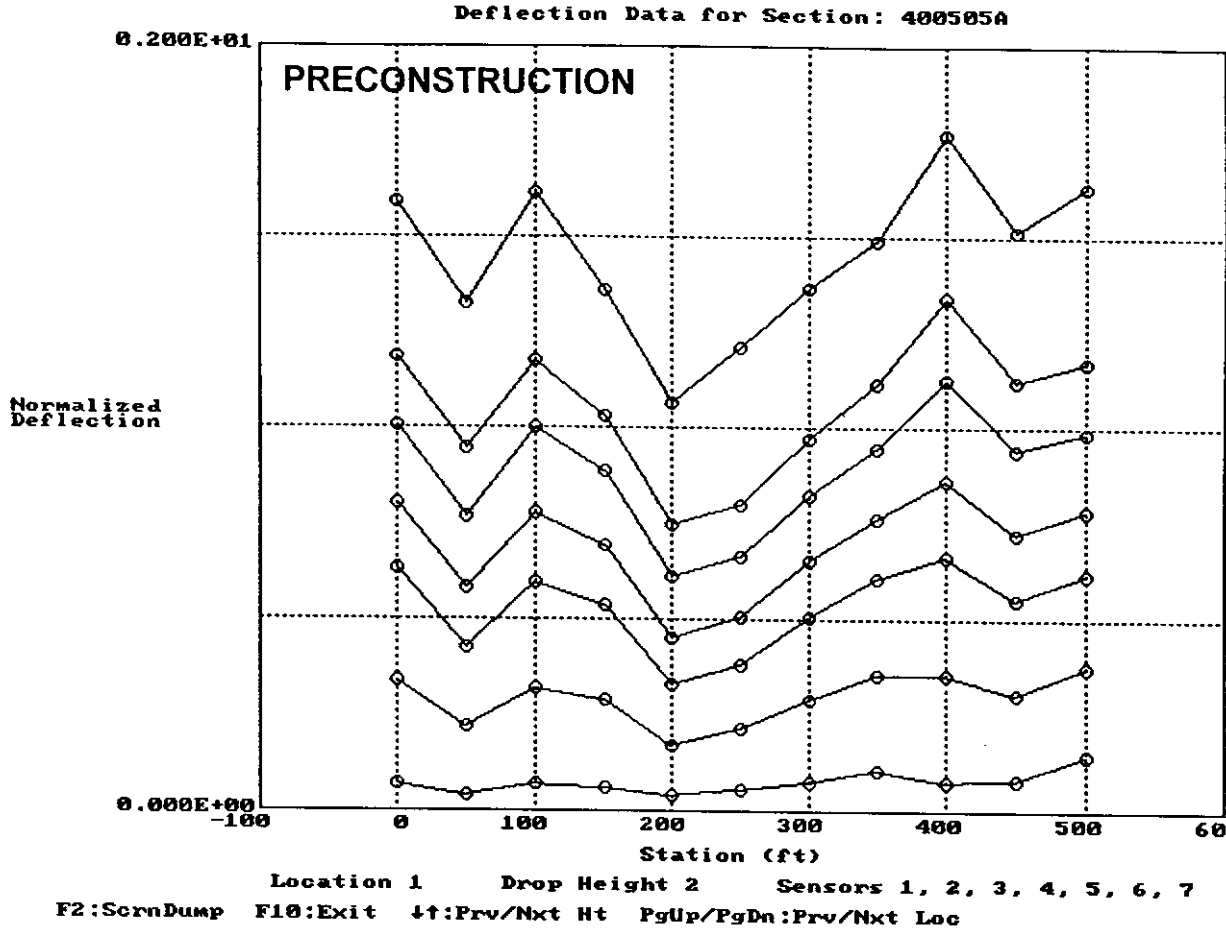
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc


Deflection Data for Section: 400503A
PRECONSTRUCTION
0.200E+01
0.000E+00
Normalized Deflection
-100
0
100
200
300
400
500
600
Station (ft)
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc


Deflection Data for Section: 400503C
POSTCONSTRUCTION
0.400E+00
0.000E+00
Normalized Deflection
-100
0
100
200
300
400
500
600
Station (ft)
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc


Deflection Data for Section: 400504A
PRECONSTRUCTION
0.300E+01
0.000E+00
Normalized Deflection
-100
0
100
200
300
400
500
600
Station (ft)
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc


Deflection Data for Section: 400504C
POSTCONSTRUCTION
0.600E+00
0.000E+00
Normalized Deflection
-100
0
100
200
300
400
500
600
Station (ft)
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc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PRECONSTRUCTION
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Normalized Deflection
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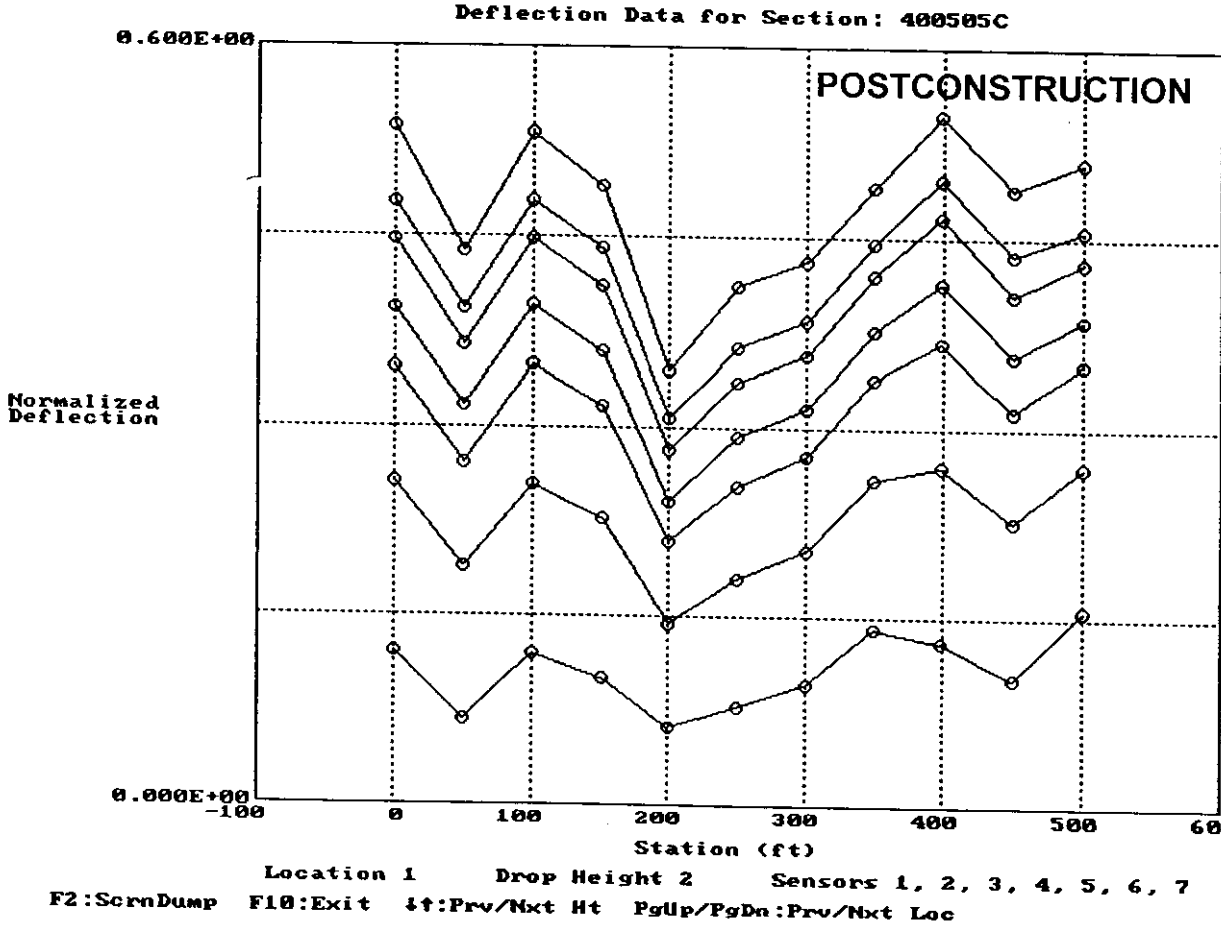
100
200
300
400
500
600
Station (ft)
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc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POSTCONSTRUCTION
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Normalized Deflection
-100
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100
200
300
400
500
600
Station (ft)
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7
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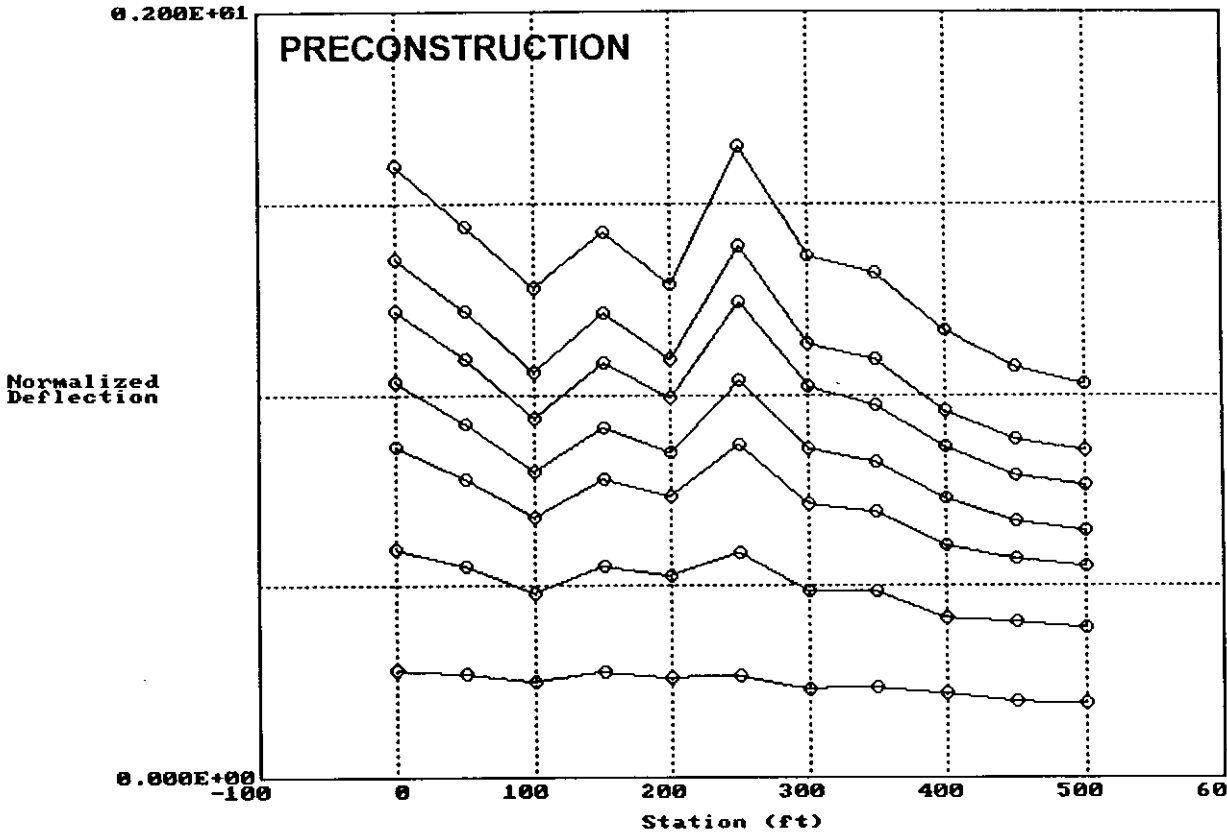
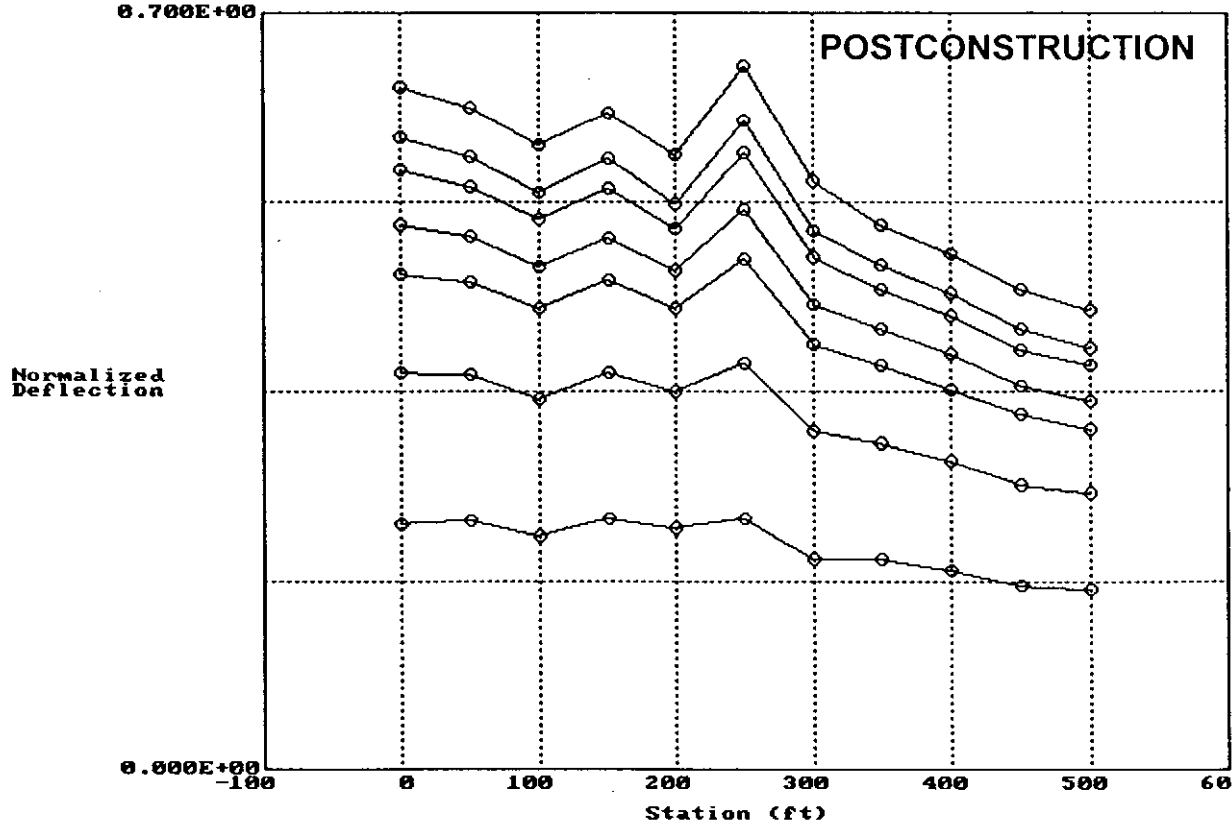
Deflection Data for Section: 400506A



Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7

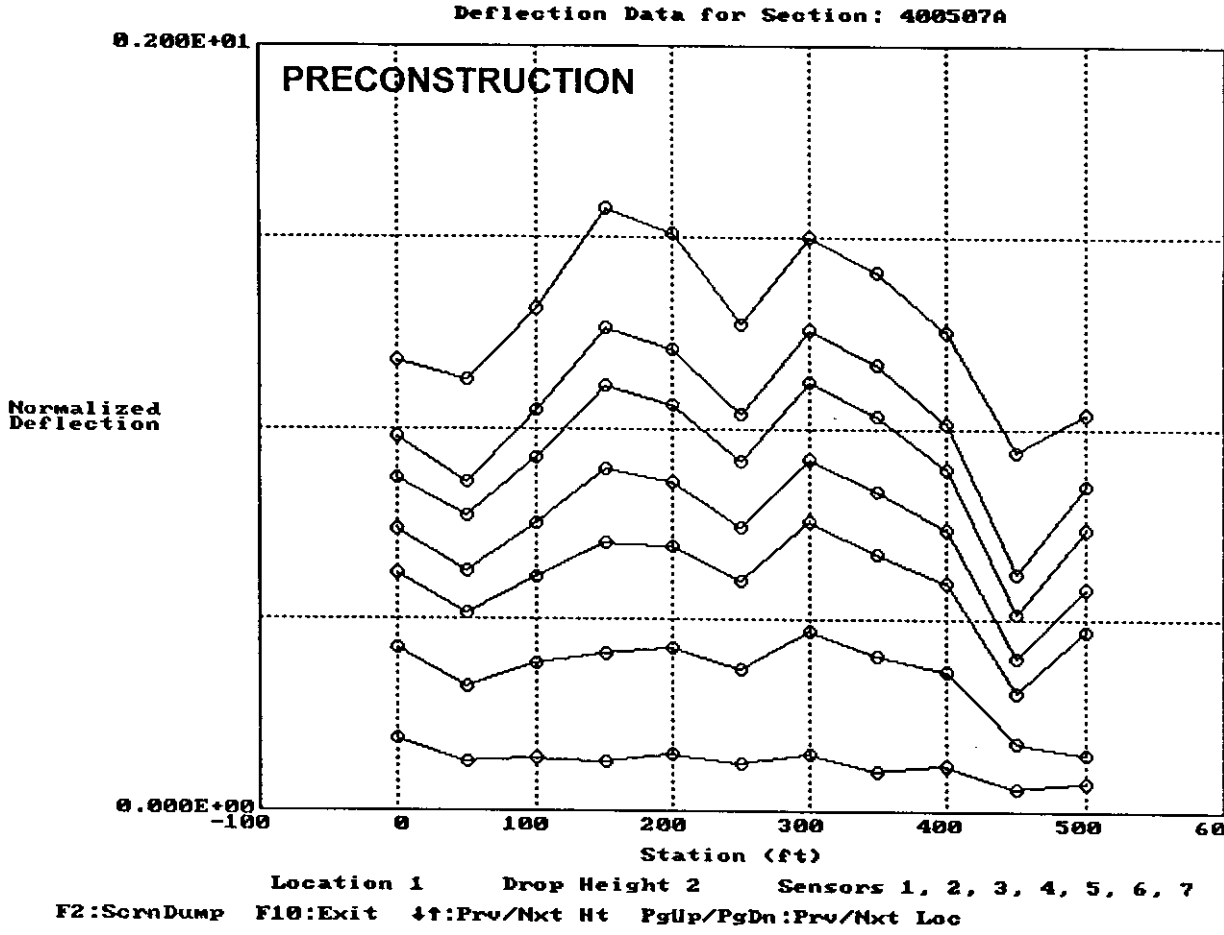
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc

Deflection Data for Section: 400506C



Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7

F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc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0.000E+00
Normalized Deflection
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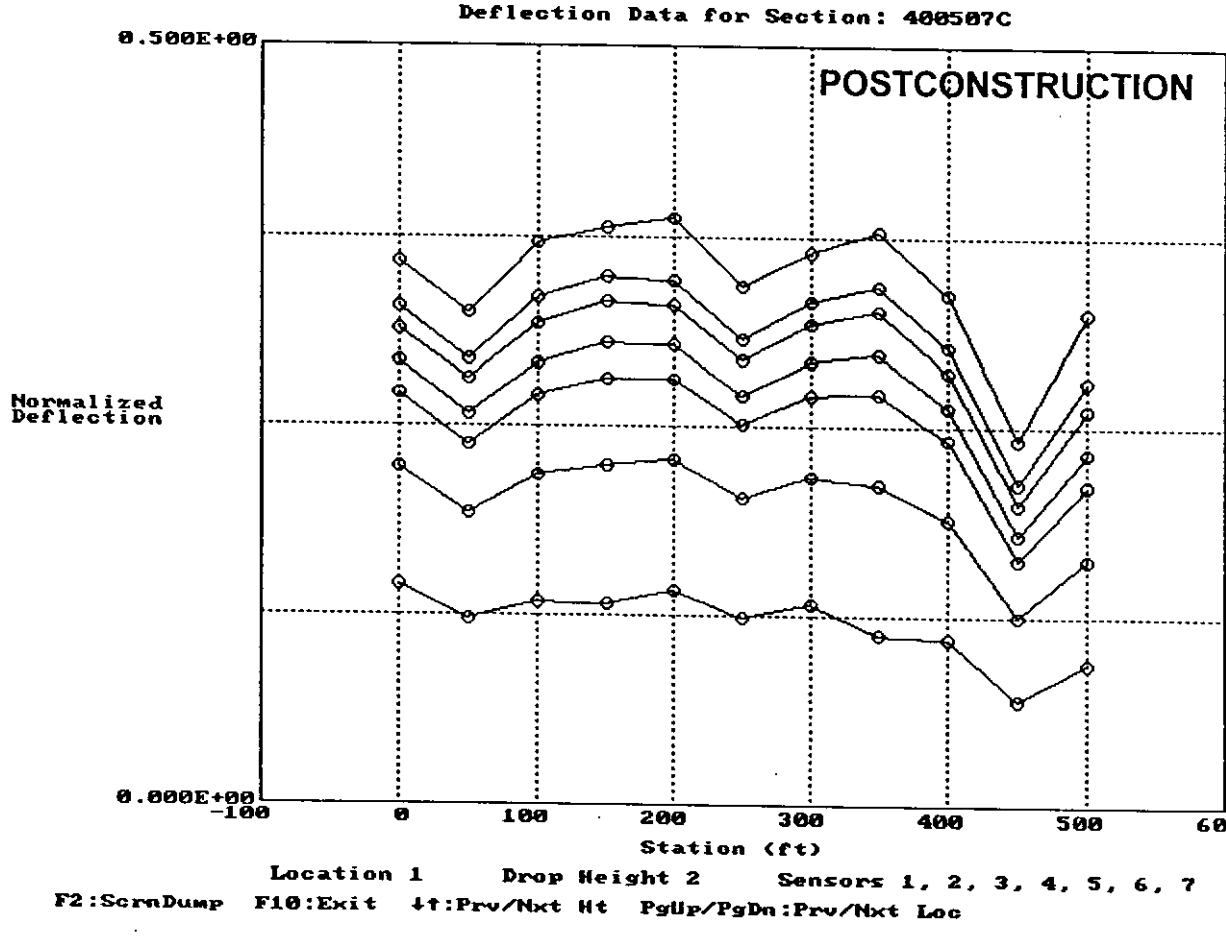
100
200
300
400
500
600
Station (ft)
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc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0.000E+00
Normalized Deflection
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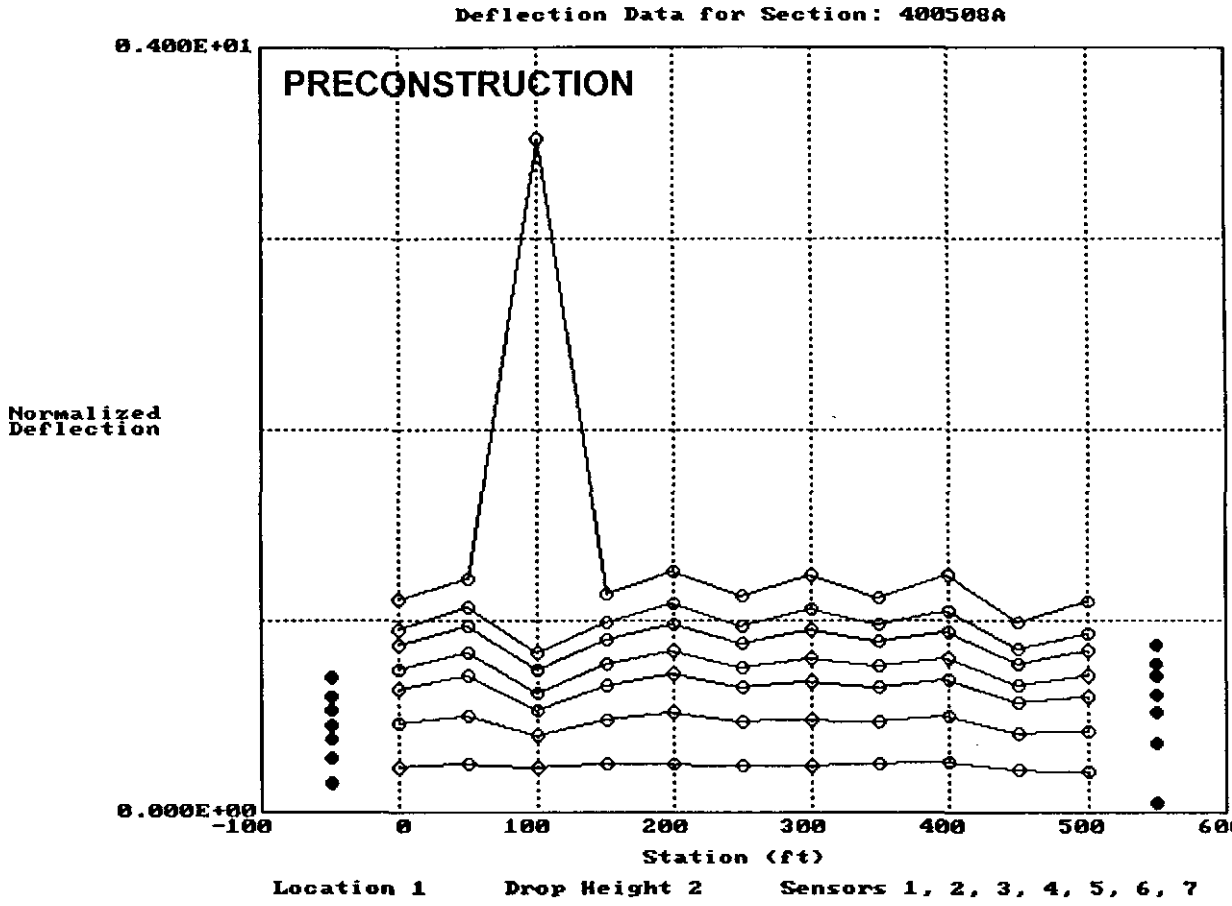
100
200
300
400
500
600
Station (ft)
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc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Normalized Deflection
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100
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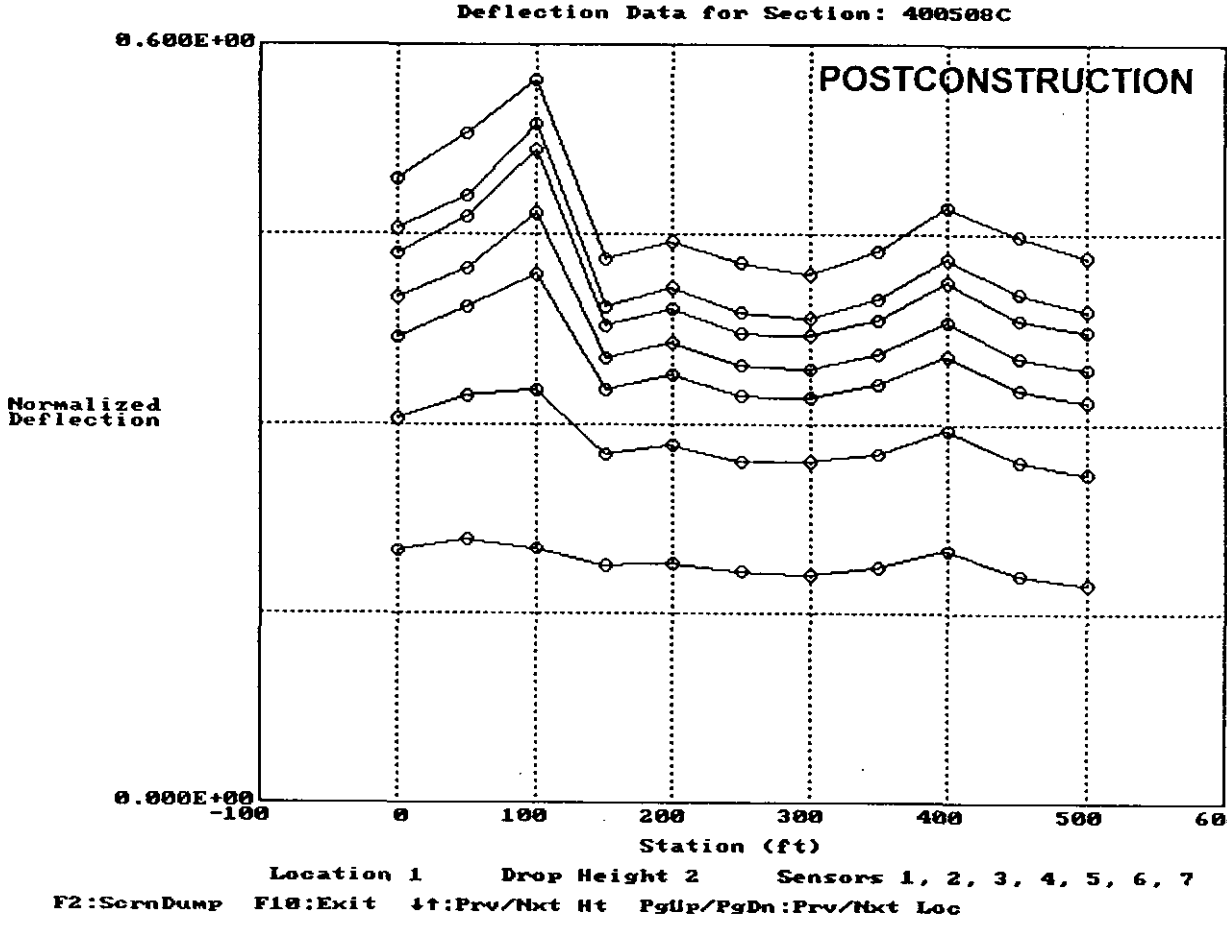
300
400
500
600
Station (ft)
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc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POSTCONSTRUCTION
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0.000E+00
Normalized Deflection
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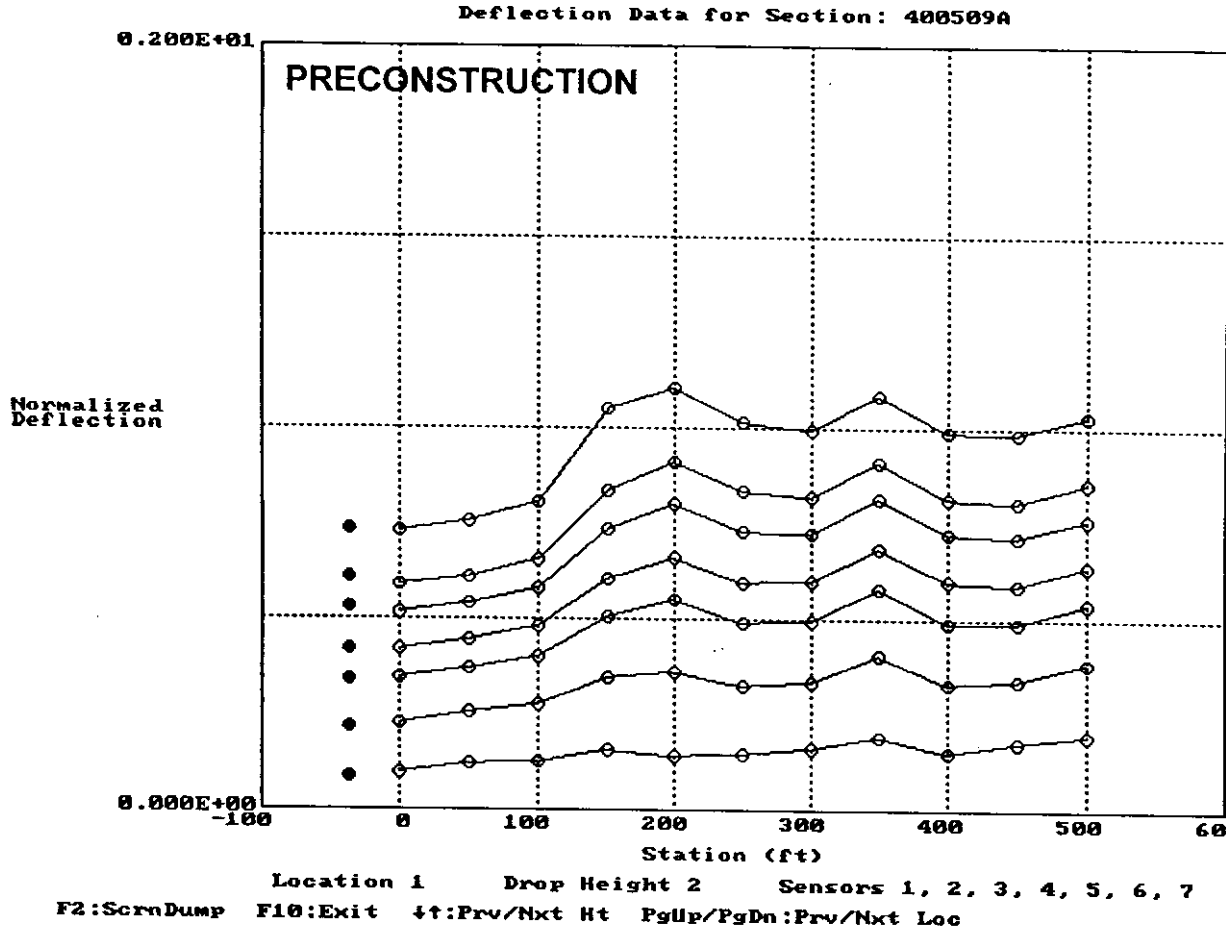
0
100
200
300
400
500
600
Station (ft)
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc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Normalized Deflection
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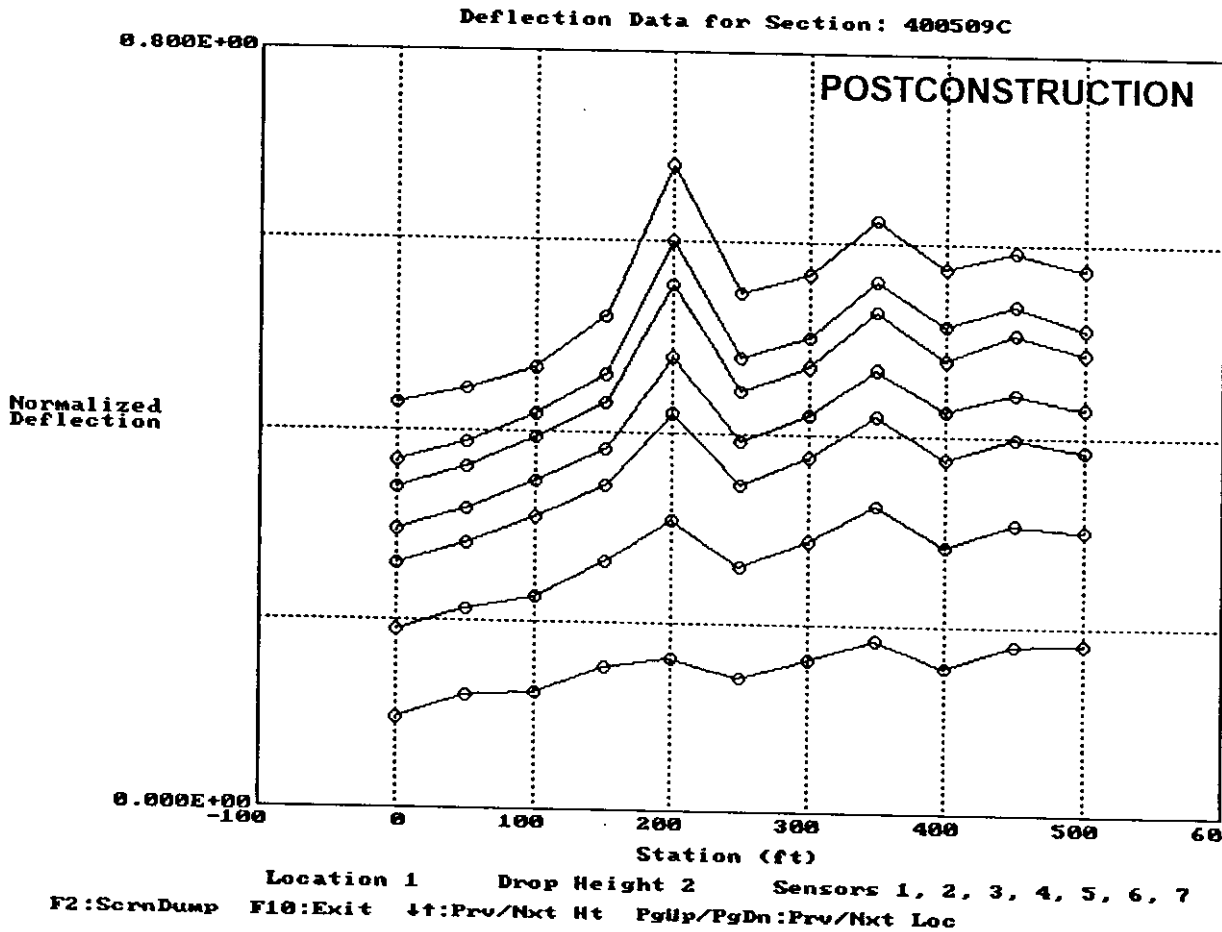
100
200
300
400
500
600
Station (ft)
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc


Deflection Data for Section: 400509C
POSTCONSTRUCTION
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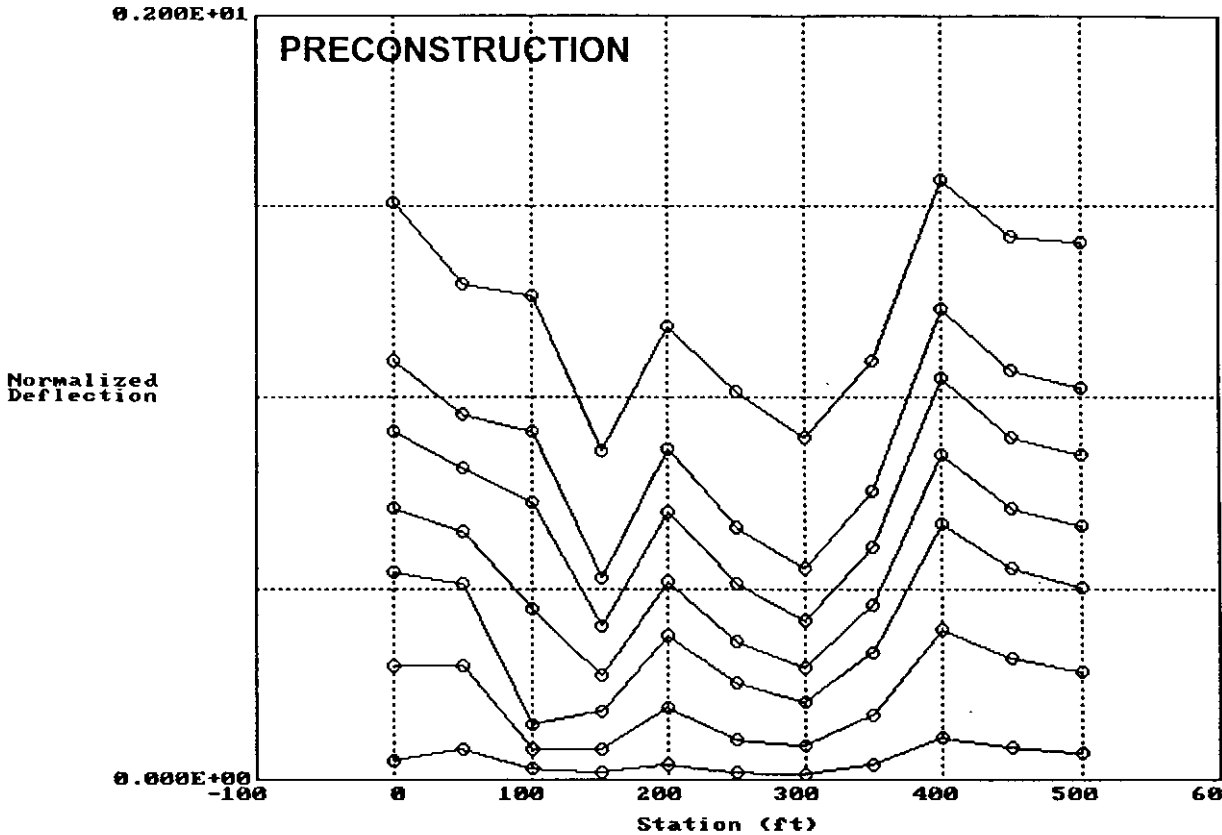
0.000E+00
Normalized Deflection
-100
0
100
200
300
400
500
600
Station (ft)
Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7
F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc

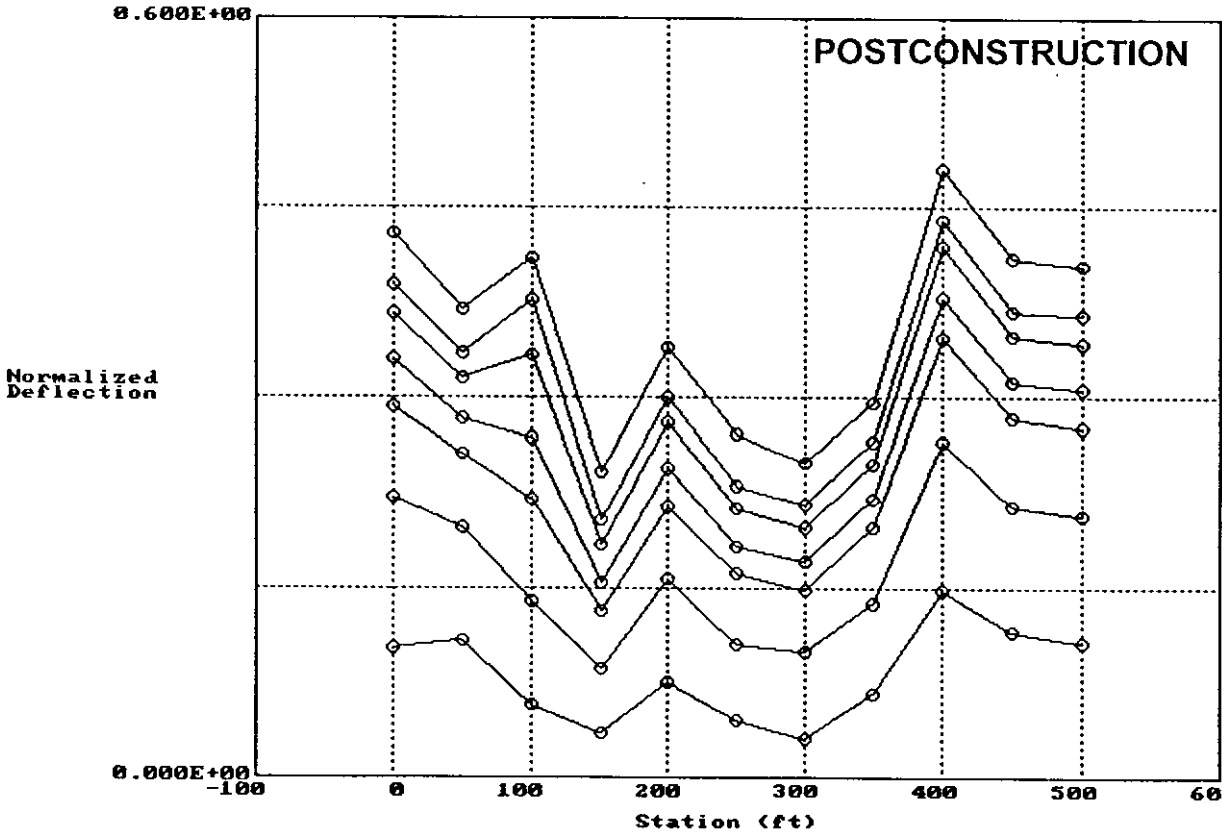
Deflection Data for Section: 400560A



Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7

F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc

Deflection Data for Section: 400560C



Location 1 Drop Height 2 Sensors 1, 2, 3, 4, 5, 6, 7

F2:ScrnDump F10:Exit ↓↑:Prv/Nxt Ht PgUp/PgDn:Prv/Nxt Loc

APPENDIX D

MATERIALS SAMPLING AND TESTING PLAN

Brent Rauhut Engineering Inc.

2 August 1996

Mr. Glenn Adams
Project Manager
Law Engineering & Environmental Services, Inc.
396 Plasters Avenue, N.E.
Atlanta, Georgia 30324

Subject: Materials Sampling and Testing Plan for SPS-1 and SPS-5 Projects (4001 and 4005) in Oklahoma

Dear Glenn,

Enclosed are the Materials Sampling and Testing Plans for the SPS-1 and SPS-5 projects in Cache, Oklahoma. We plan to begin collection of samples in the very near future. We will coordinate with Ginger McGovern, the Oklahoma DOT Coordinator, to minimize the number of shipments made, so that we can hopefully improve the accountability of the samples collected. We will also send Ginger another copy of the schematics for the assembly of shipping crates (by copy of this letter). I believe Ginger's office was responsible for the preparation of these crates for shipment of the samples from the maintenance effectiveness test sections and should therefore be familiar with these requirements.

Please feel free to contact me should you have any questions regarding these plans, or the projects in general. Thank you for your assistance.

Sincerely,

Jerry F. Daleiden, P.E.
Project Engineer, SRCO

JFD:dmj

Enclosures: As stated.

c.w/Enc: Ginger McGovern, OKDOT
John Miller, PCS/LAW

c.w/o Enc: Aramis Lopez, FHWA/LTPP-PPD
Rod Soule, MRL/Nichols Cons.
Amy Simpson, SRCO
Morris Reinhardt, RE/SRCO
Mark Gardner, SRCO

8240 Mopac, Suite 220 • Austin, Texas (512) 346-0870 • FAX (512) 346-8750

FROM THE DESK OF

Jerry Daleiden

6/22/96

GINGER

HERE IS THE REVISED MATERIALS SAMPLING & TESTING PLAN FOR THE SPS-5 PROJECT. EDITS HAVE BEEN MADE TO REFLECT THE REVISED LAYOUT OF 6/20/96.

PLEASE CALL IF I CAN BE OF FURTHER ASSISTANCE.

THANK YOU

JERRY

Brent Rauhut Engineering Inc.

12 July 1996

Ms. Ginger McGovern
Oklahoma Department of Transportation
200 N.E. 21st Street, Room 2A2
Oklahoma City, Oklahoma 73105-3204

Subject: Revised Materials Sampling and Testing Plans

Dear Ginger,

Enclosed are the revised Materials Sampling and Testing Plans incorporating the revisions and standard Oklahoma DOT sections per our discussions earlier this week.

Please let me know if we can be of any further assistance.

Sincerely,

Jerry F. Daleiden, P.E.
Project Engineer, SRCO

JFD:dmj

Enclosures: As stated.

c.w/Enc: Rosemarie Case, OKDOT
Tim Martin, SRCO

8240 Mopac, Suite 220 • Austin, Texas (512) 346-0870 • FAX (512) 346-8750

MATERIAL SAMPLING
AND
TESTING PLAN

OKLAHOMA SPS-5 PROJECT 400500
COMANCHE COUNTY, OKLAHOMA
US-62 WESTBOUND

PREPARED BY:

BRENT RAUHUT ENGINEERING INC.
FHWA/LTPP SOUTHERN REGION COORDINATION OFFICE
8240 MOPAC, SUITE 220
AUSTIN, TEXAS 78759

REVISED JULY 1996

MATERIAL SAMPLING AND TESTING PLAN
OKLAHOMA SPS-5 PROJECT (400500), US-62 WBL
COMANCHE COUNTY, OKLAHOMA

INTRODUCTION

As part of their participation in the FHWA/LTPP studies, the State of Oklahoma has elected to construct an SPS-5 project to study the rehabilitation of flexible pavements. This project will consist of multiple test sections with similar details and materials along US-62, in the westbound lane, in Comanche County, Oklahoma. It is the intent of this document to provide a complete plan for the material sampling, testing, and laboratory material testing that will occur as a part of this project.

This document has been prepared in accordance with guidelines provided by the Strategic Highway Research Program in Operational Memorandum Nº. SHRP-LTPP-OM-014, entitled "Specific Pavement Studies Material Sampling and Testing Requirements for Experiment SPS-5, Rehabilitation of Asphalt Concrete Pavements, October 1990". Recognizing the apparent variability in the construction of roadway projects, the goal of this effort is to develop a sampling and testing plan for the project materials that will be consistent with other projects in this experiment, and therefore make the information obtained suitable for analysis.

The objective of the SPS-5 study is to evaluate rehabilitation methods that can be used to restore the condition and extend the service life of flexible (asphalt concrete) pavements. The pavement type and condition, environment, traffic, intended pavement preparation, and type of asphalt concrete overlay are primary considerations in selecting an appropriate rehabilitation method. The standard SPS-5 experiment layout includes nine test sections. The in-service tests proposed in this experiment will help quantify the influence of these parameters on pavement performance and life expectancy, and improve current design procedures. Consequently, the experiment will help highway agencies select methods and strategies for rehabilitation of existing flexible pavements.

This sampling and testing plan has been developed by Brent Rauhut Engineering, Inc. the Southern Region Coordination Office under contract to the Federal Highway Administration. If, during the construction activities, any questions arise regarding the sampling and/or testing to be conducted, one should first coordinate these questions with the Oklahoma Department of Transportation, who may refer them to the Southern Region Coordination Office.

This document has been prepared in three distinct parts, each covering a particular area of this rather formidable exercise. The three sections are:

A. General Layout Information

B. Materials Sampling and Testing

C. Laboratory Material Testing

The General Layout section provides tables and figures of the layout showing the nine test sections along the roadway and the layer structure of each test section.

The Material Sampling and Testing section defines in detail all of the material samples to be obtained, testing to be performed in the field, and provides an itemized list showing where each sample is to be shipped for laboratory testing.

Finally, the Laboratory Material Testing section outlines the laboratory material test program to be conducted and provides tracking charts showing the testing to be performed on each sample of each material in each laboratory.

SECTION A

GENERAL LAYOUT INFORMATION

SECTION A

GENERAL LAYOUT INFORMATION

This section of the plan provides a description of the SPS-5 project in terms of the location of the test sections along the roadway. Table A-1 lists the test sections in order of increasing station, providing an indication of the cross-section of each test section. Table A-2 tracks the test sections from the beginning of the first section at Station 832 to the end of the last section at Station 948. This table indicates transition areas between sections and the variation of pavement layer materials within these transitions.

Finally, Figure A-1 depicts the layout of the test sections along the roadway and shows the variation of material type and layer thickness.

The referenced project stationing was provided by the Oklahoma DOT in the form of preliminary project plans. If there are significant changes in alignment or stationing, this plan should be reviewed closely to determine if revisions are warranted.

TABLE A-1. TEST SECTION LAYOUT

Section (Cell ID)	Cross Section	Begin Station	End Station
400501	Control Section Routine Maintenance	832	839
400502	Minimum Surface Prep. 2″ Recycled AC Overlay	841	848
400503	Minimum Surface Prep. 5″ Recycled AC Overlay	851	858
400508	Intensive Surface Prep. 5″ Recycled AC Overlay	864	871
400509	Intensive Surface Prep. 2″ Recycled AC Overlay	875	882
400506	Intensive Surface Prep. 2″ Virgin AC Overlay	897	904
400507	Intensive Surface Prep. 5″ Virgin AC Overlay	916	923
400504	Minimum Surface Prep. 5″ Virgin AC Overlay	925	932
400505	Minimum Surface Prep. 2″ Virgin AC Overlay	941	948
400560	Maximum ~~Minimum~~ Surface Prep. 3½″ Virgin AC Overlay	968	975

TABLE A-2. ORDERING OF SECTIONS ALONG CENTER LINE STATIONING

Begin Sta.	End Sta.	Section ID	Thickness (In.)		
			AC Overlay*	Material Type	Milled Depth
832	839	400501	0	N/A	0
839	841	Transition	0-2	Recycled	0
841	848	400502	2	Recycled	0
848	851	Transition	5	Recycled	0
851	858	400503	5	Recycled	0
858	864	Transition	5	Recycled	0-2 1½
864	871	400508	5	Recycled	2 1½
871	875	Transition	2	Recycled	2 1½
875	882	400509	2	Recycled	2 1½
882	897	Transition	2	Virgin-Recycled	2 1½
897	904	400506	2	Virgin	2 1½
904	916	Transition	2-5	Virgin	2 1½
916	923	400507	5	Virgin	2 1½
923	925	Transition	5	Virgin	1½ 2-0
925	932	400504	5	Virgin	0
932	941	Transition	5-2	Virgin	0
941	948	400505	2	Virgin	0
948	968	Transition	2-3½	Virgin	0-1½
968	975	400560	3½	Virgin	0 1½

* Combined Binder and Wearing Course Thickness

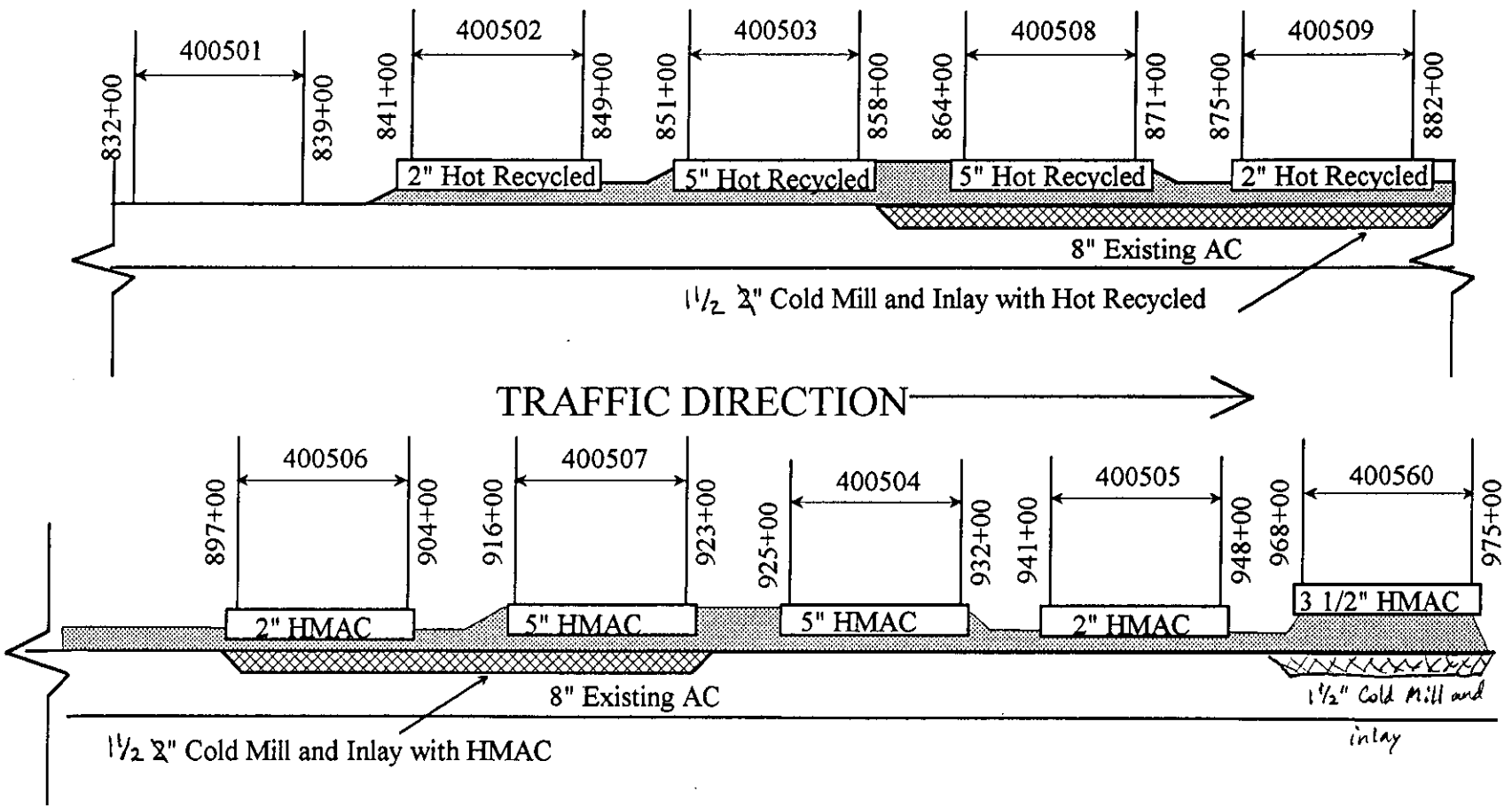


FIGURE A-1. LAYOUT OF TEST SECTIONS
OKLAHOMA SPS-5 (400500)

SECTION B

MATERIAL SAMPLING AND TESTING

SECTION B

MATERIAL SAMPLING AND TESTING

This section of the plan provides for the material sampling and testing activities that occur in the field. Table B-1 provides the project layer numbering schema, while Table B-2 provides the scope of the material sampling and testing activities. It is very important that the project layer numbering be consistent, to ensure that the resulting data is not misunderstood. Table B-3 describes special sampling needs for the Materials Reference Library and provides contact information to coordinate sample shipping arrangements.

Figures B-1 through B-12 show the locations and numbering scheme for the many samples and tests scheduled. Figures B-2 and B-3 show the sampling and testing to occur for each stage of the paving, while Figures B-4 through B-12 show all sampling and testing scheduled for each test section.

Finally, Tables B-4 and B-5 list samples to be shipped to the state laboratory (or their designee), and those samples to be shipped to the FHWA/LTPP testing contractor, respectively. Shipment of samples to the FHWA/LTPP testing contractor, LAW Engineering in Atlanta, Georgia, should be coordinated through the Southern Region Coordination Office.

TABLE B-1. PROJECT LAYER NUMBERING

Layer Nº.	LTPP Description	Oklahoma Description
1	Subgrade	Silty Clay
2	Asphalt Treated Base	Plant Mix Bituminous Base
3	Hot Mix Asphalt Concrete Binder (Existing)	Asphaltic Concrete, Type A
4	Hot Mix Asphalt Concrete Surface (Existing)	Asphaltic Concrete, Type C
5	Hot Mix Asphalt Concrete Overlay Virgin Binder	Asphaltic Concrete, Type AH
6	Hot Mix Asphalt Concrete Overlay Virgin Surface	Asphaltic Concrete, Type BH
7	Hot Mix Asphalt Concrete Overlay Recycled Binder	Asphaltic Concrete, Type AH
8	Hot Mix Asphalt Concrete Overlay Recycled Surface	Asphaltic Concrete, Type BH

TABLE B-2. SCOPE OF MATERIALS SAMPLING AND FIELD TESTING

MATERIAL & SAMPLING DESCRIPTION	Nº. OF MATERIAL SAMPLES	SAMPLE TYPE DESIGNATION
PRE-CONSTRUCTION SAMPLING		
1. Asphalt Concrete (Original Layer)		
Coring - 4" diam. cores	28	C1-C28
Coring - 6" diam. cores	3	A1-A3
Coring - 12" diam. cores	6	BA1-BA6
2. Unbound Base/Subbase Layers (Per Layer)		
Augering 6" diam. holes	3	A1-A3
Bulk Sampling in 12" diam. holes	6	BA1-BA6
Bulk Sampling in Test Pits	1	TP1
In Situ Density & Moisture Content (Nuclear Gauge)	1	TP1
Moisture Content Samples	7	TP1, BA1-BA6
3. Subgrade		
Thin-walled Tube Sampling *(Two tube samples per hole. If undisturbed tube sampling is not possible, splitspoon sampling will be conducted.)	6*	A1-A3
Bulk Sampling in 12" diam. holes	6	BA1-BA6
Bulk Sampling in Test Pits	1	TP1
In Situ Density & Moisture Content (Nuclear Gauge)	1	TP1
Moisture Content Samples	7	BA1-BA6, TP1
4. Shoulder Auger Probes	3	S1-S3
DURING CONSTRUCTION SAMPLING		
1. Virgin Asphalt Concrete - 100 lb/mix (Uncompacted Mix)	3 3	BV1-BV3 (BINDER) AH BV4-BV6 (Surface)-BH
2. Recycled Asphalt Concrete - 100 lb/mix (Uncompacted Mix)	3 3	BR1-BR3 (BINDER) AH BR4-BR6 (SURFACE) BH
POST-CONSTRUCTION SAMPLING		
1. Asphaltic Concrete (Overlay)		
Coring - 4" diam. cores	44	C29-C72

TABLE B-3. MATERIAL SAMPLING FOR THE MATERIALS REFERENCE LIBRARY (MRL)

Material And Sample Description	Nº. Of Samples	Sample Location
Asphalt Cement (5 Gallon Containers Each Type Used)	3	From Plant
Aggregate (55 Gallon Drum Each Blend)	1	From Plant
Finished Asphaltic Concrete Mix (5 Gallon Containers Each Mix)	3	From Paver

Note: Containers for this sampling will be provided by the LTPP Materials Reference Library (MRL). Scheduling information including (1) date containers needed, (2) state agency contact name, and (3) shipping address and telephone number should be provided to the MRL Contractor as soon as it is feasible to do so. The contact name, address and telephone number for the MRL Contractor are as follows:

Mr. Rod Soule
Nichols Consulting Engineers, Chtd.
1625 Crane Way
Reno, Nevada 89431
(702) 358-7574

These samples should be labeled according to applicable guidelines provided elsewhere and shipped to the MRL Contractor upon completion of sampling activities.

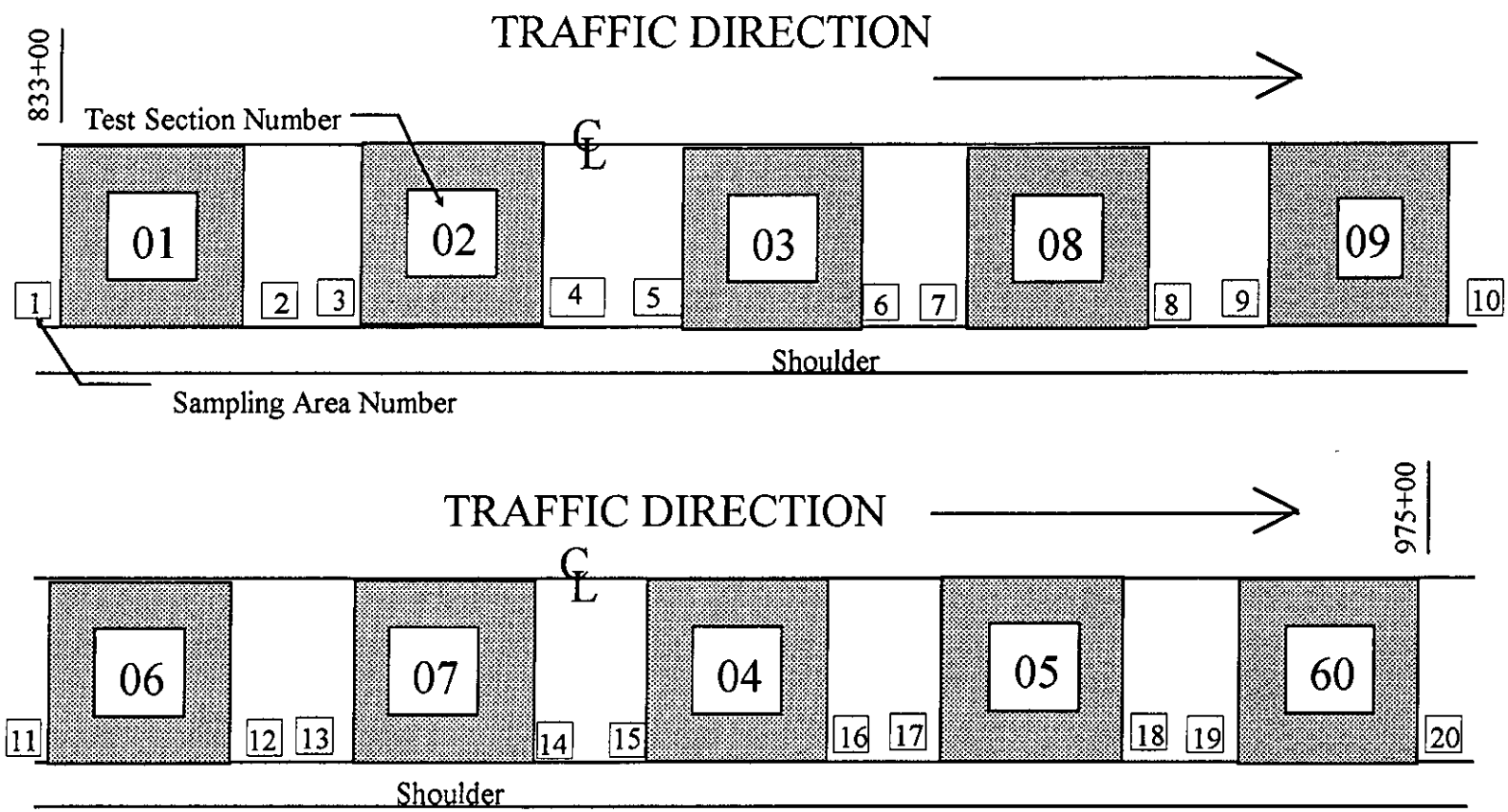
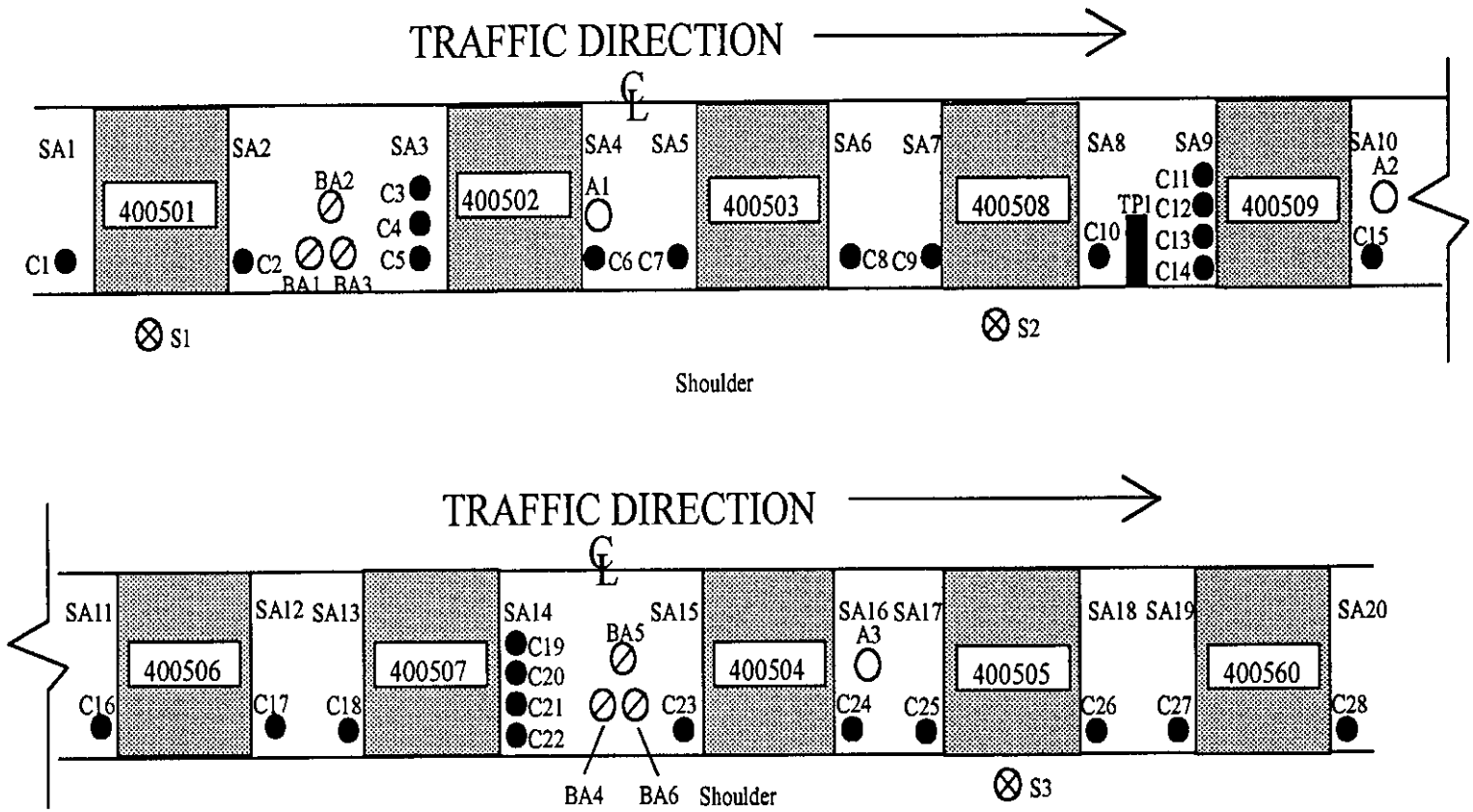


FIGURE B-1. SITE LAYOUT WITH SAMPLING AREAS
OKLAHOMA SPS-5 (400500)



SA Sampling Area

- ● 4" Core Existing Pavement
- ○ 6" Core Existing Pavement, Auger Base, thin-wall tube or split spoon subgrade sample to 4'
- ⊘ 12" Core, Auger base and subgrade
- ⊗ Auger Probe
- ▮ Test Pit - 4' x 6' removal of pavement, nuclear density and moisture content of base and subgrade, bulk sampling base and subgrade.

FIGURE B-2. PRECONSTRUCTION SAMPLING AND TESTING LOCATIONS OKLAHOMA SPS-5 (400500)

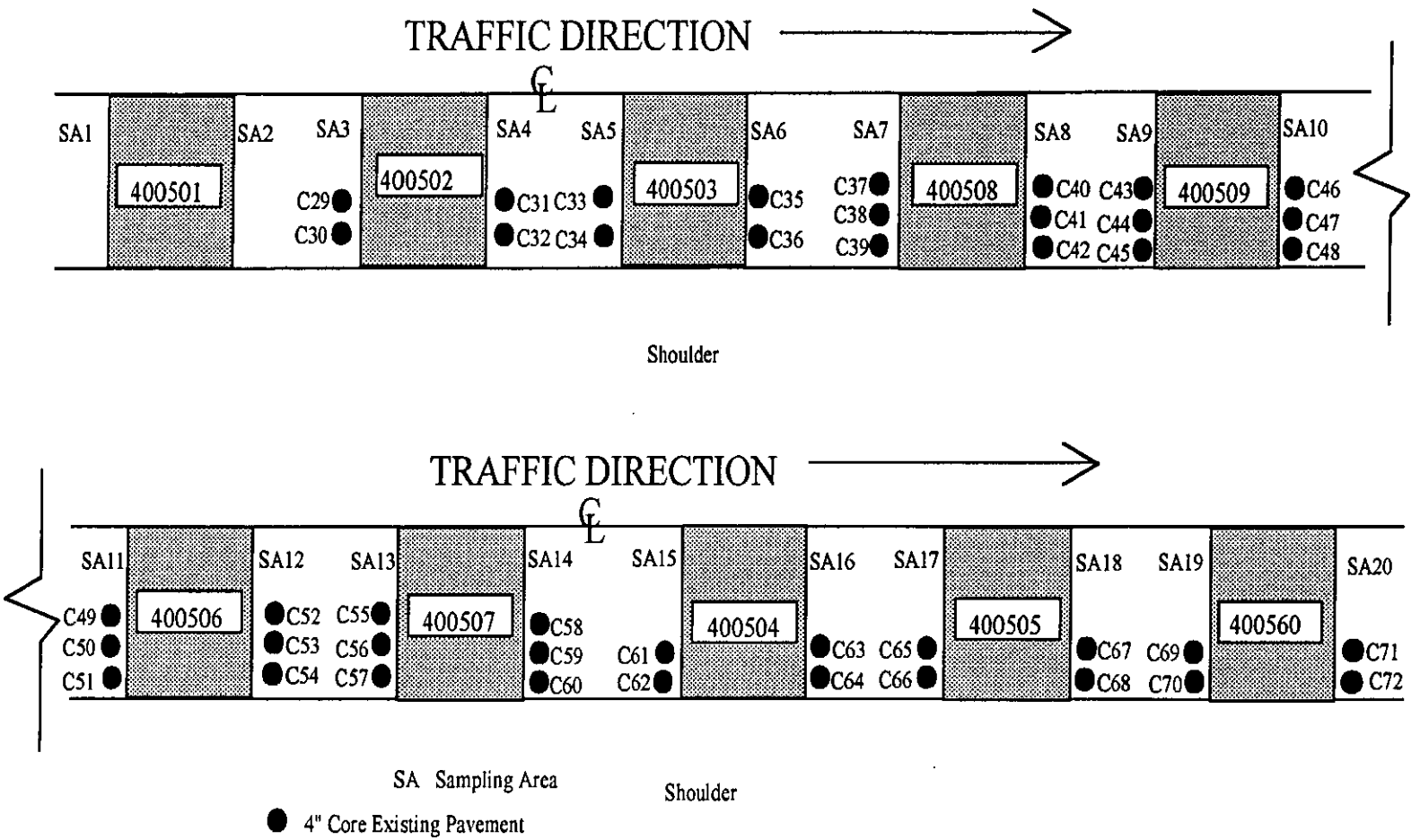
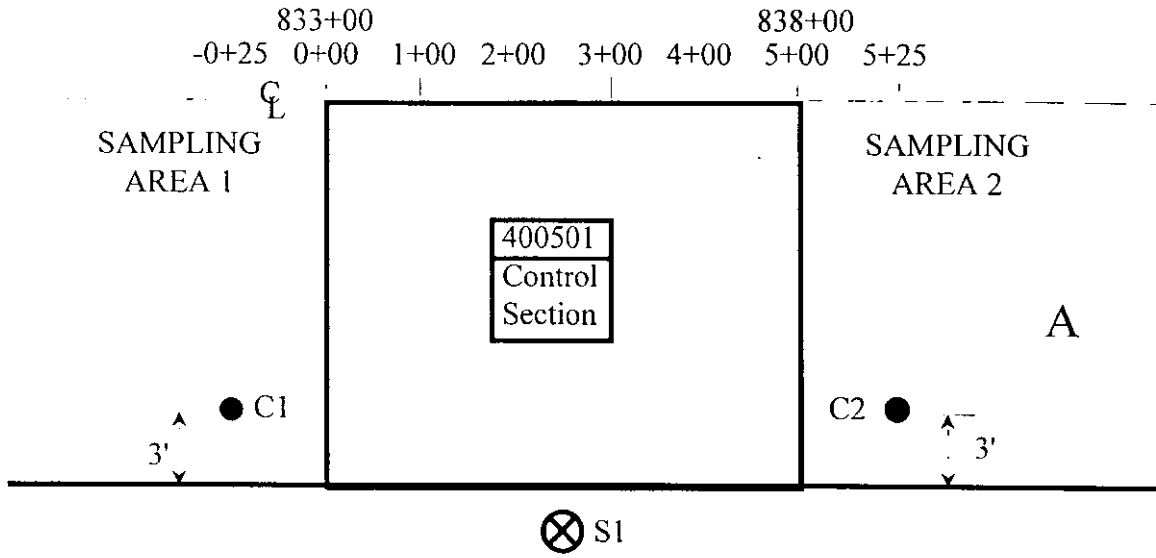
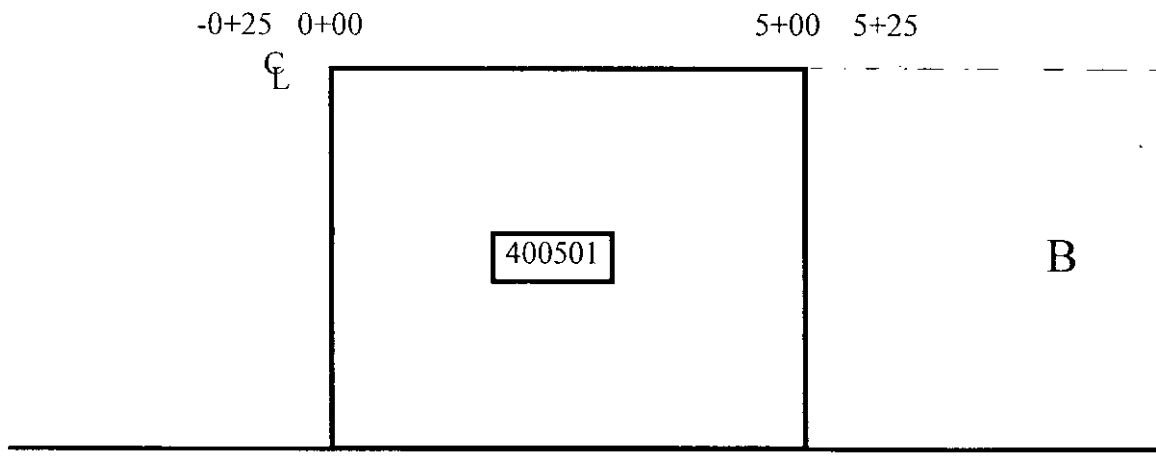


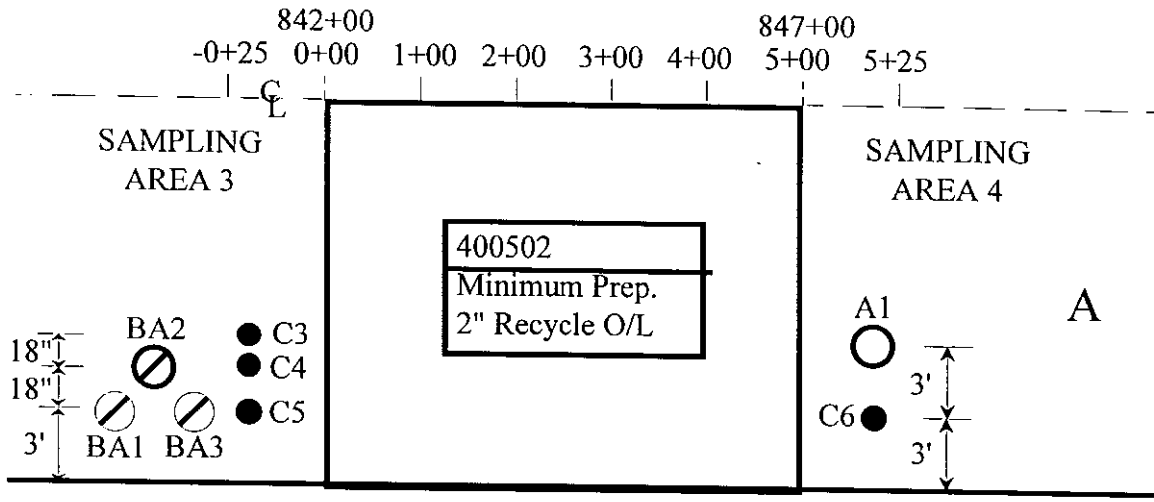
FIGURE B-3. POSTCONSTRUCTION SAMPLING AND TESTING LOCATIONS OKLAHOMA SPS-5 (400500)

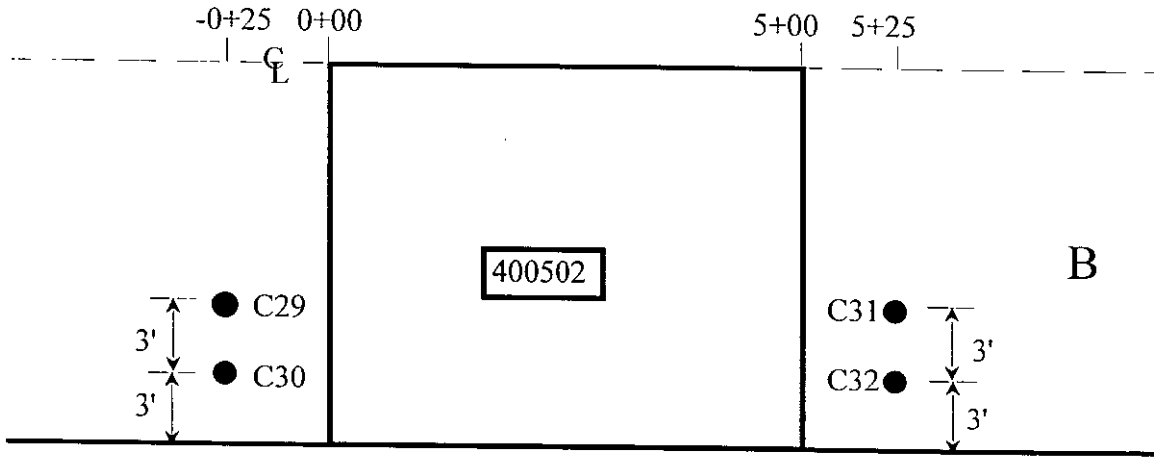




A Preconstruction Sampling (C1, C2, S1)
B Postconstruction Sampling (None)

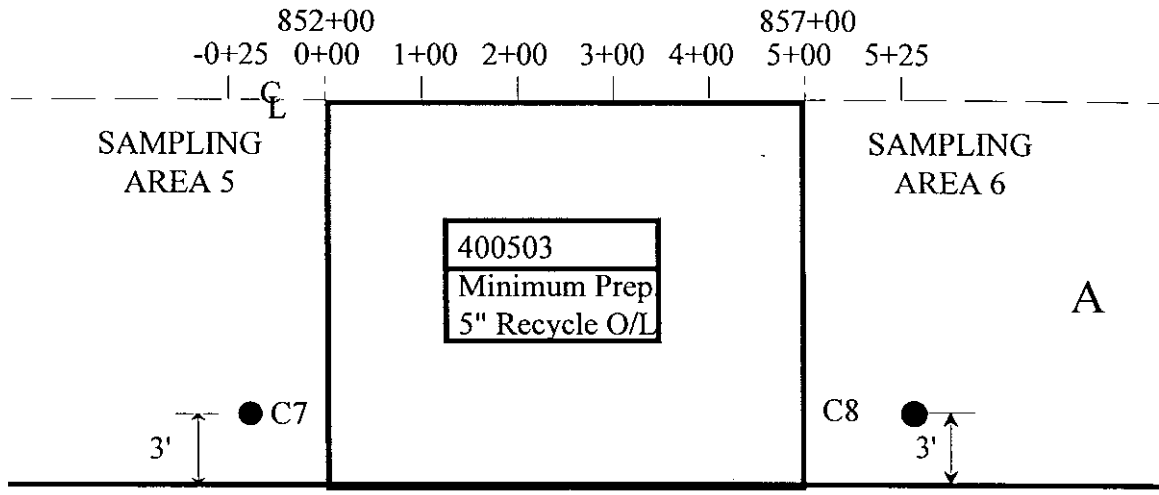
FIGURE B-4. SAMPLING AND TESTING PLAN FOR TEST SECTION 400501 OKLAHOMA SPS-5 (400500)

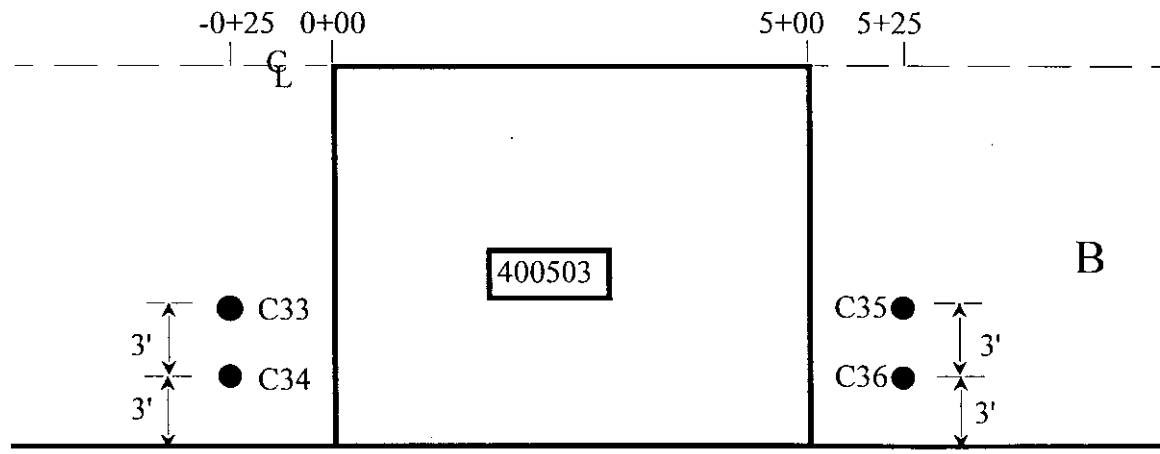




A Preconstruction Sampling (C3-C6, BA1-BA3, A1)
B Postconstruction Sampling (C29-C32)

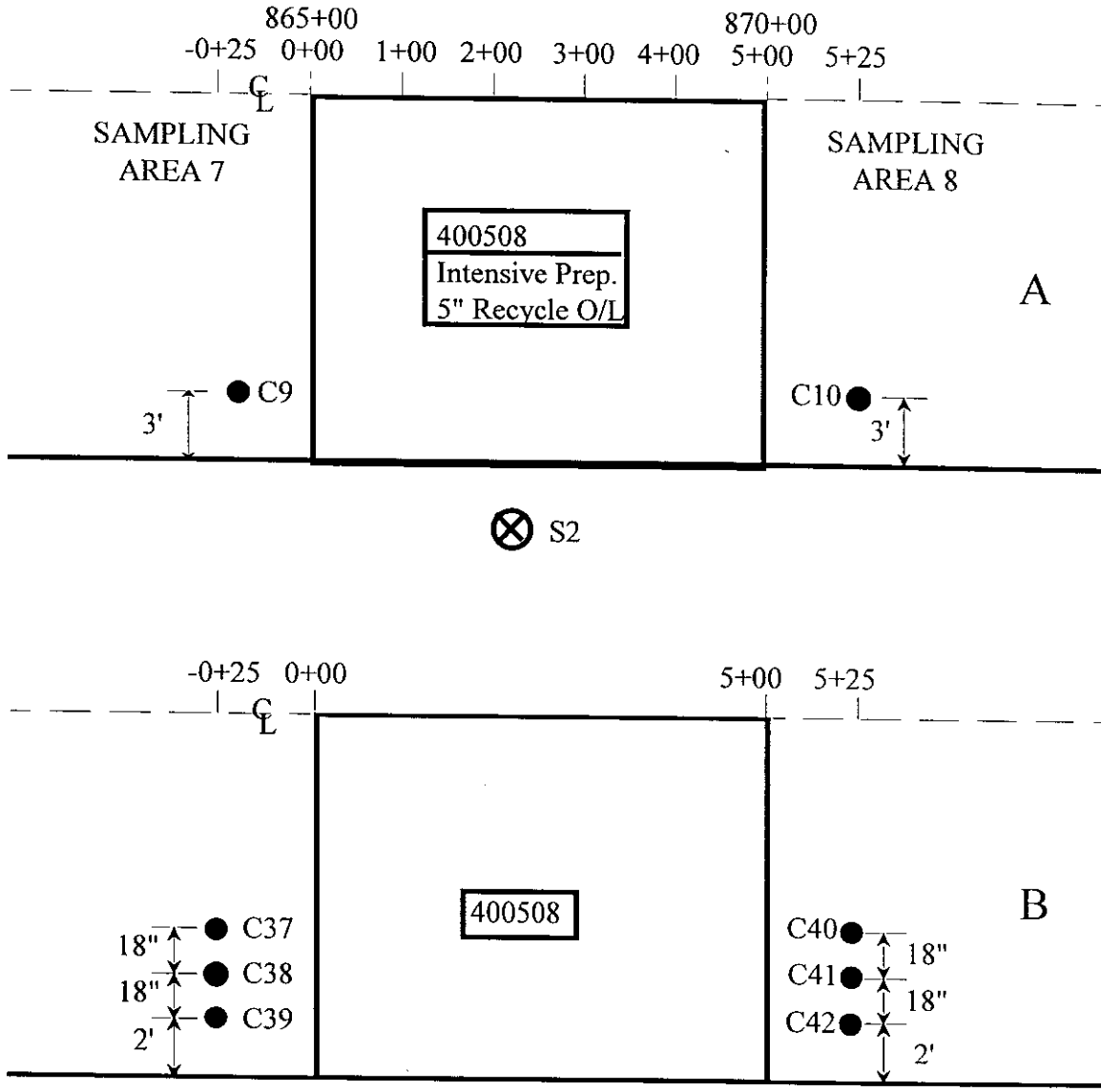
FIGURE B-5. SAMPLING AND TESTING PLAN FOR TEST SECTION 400502 OKLAHOMA SPS-5 (400500)





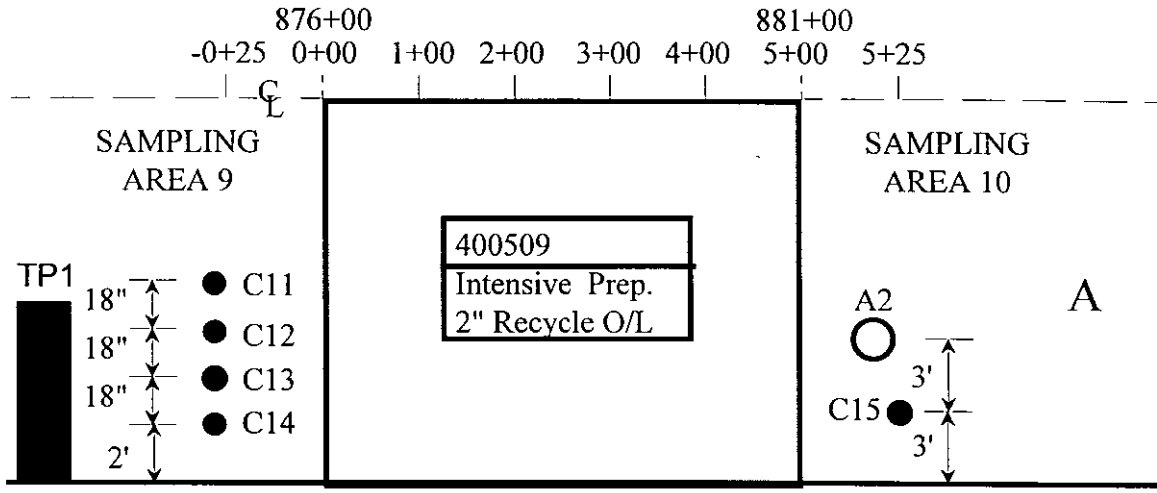
A Preconstruction Sampling (C7-C8)
B Postconstruction Sampling (C33-C36)

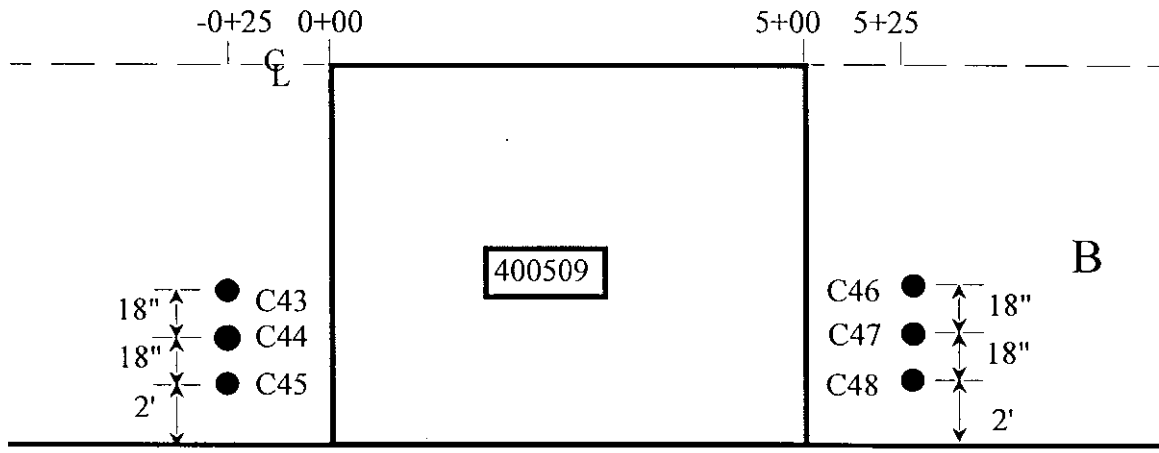
FIGURE B-6. SAMPLING AND TESTING PLAN FOR TEST SECTION 400503 OKLAHOMA SPS-5 (400500)



A Preconstruction Sampling (C9-C10,S2)
B Postconstruction Sampling (C37-C42)

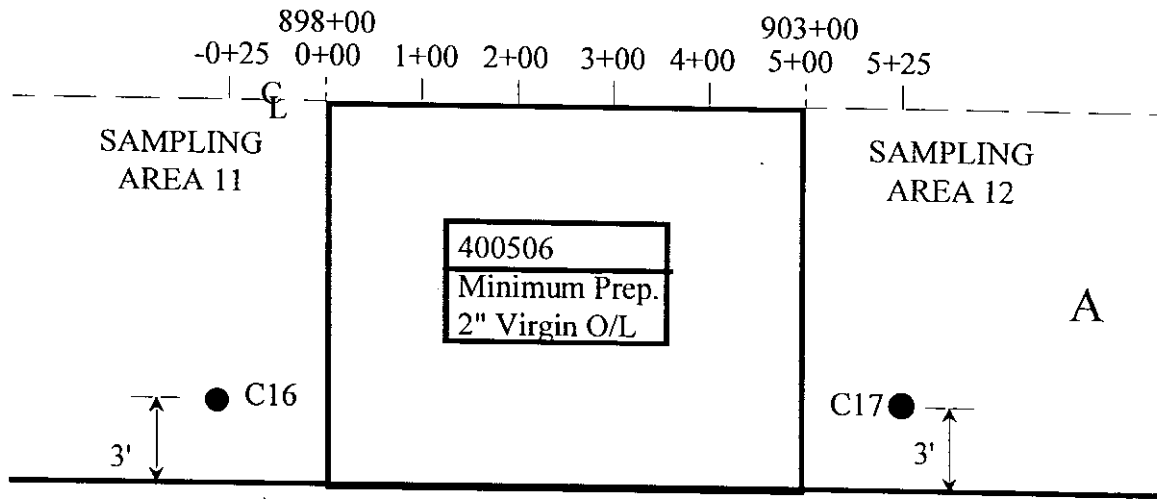
FIGURE B-7. SAMPLING AND TESTING PLAN FOR TEST SECTION 400508 OKLAHOMA SPS-5 (400500)

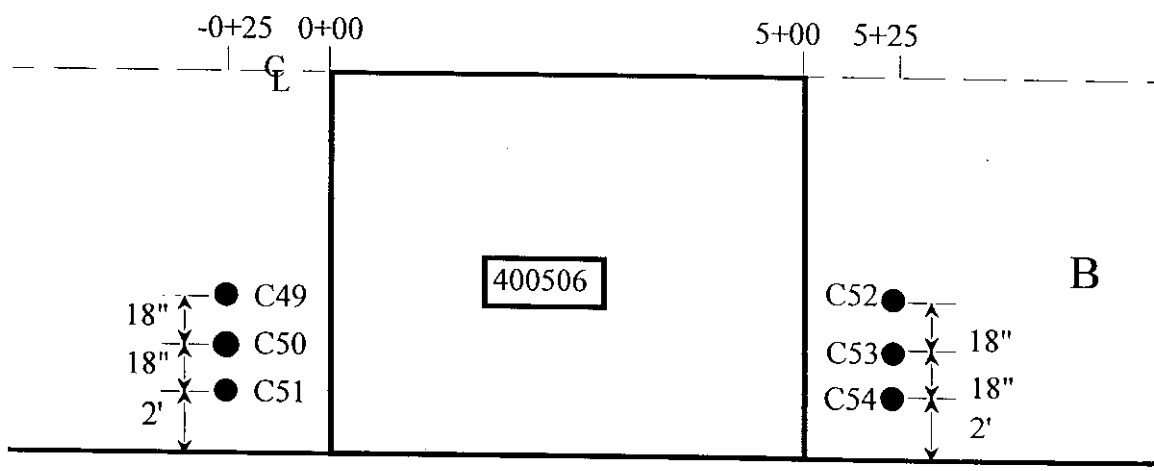




A Preconstruction Sampling (C11-C15,A2,TP1)
B Postconstruction Sampling (C43-C48)

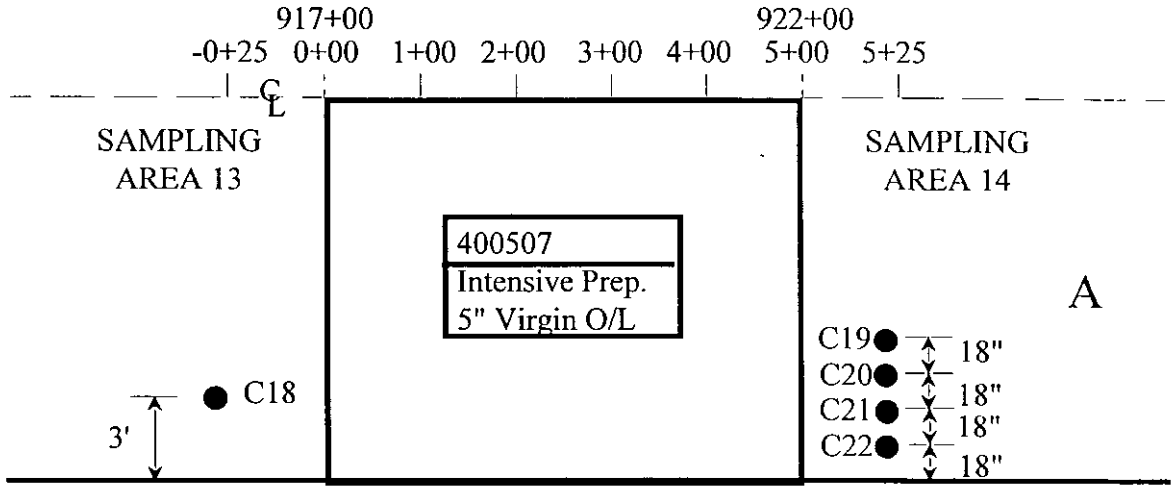
FIGURE B-8. SAMPLING AND TESTING PLAN FOR TEST SECTION 400509 OKLAHOMA SPS-5 (400500)

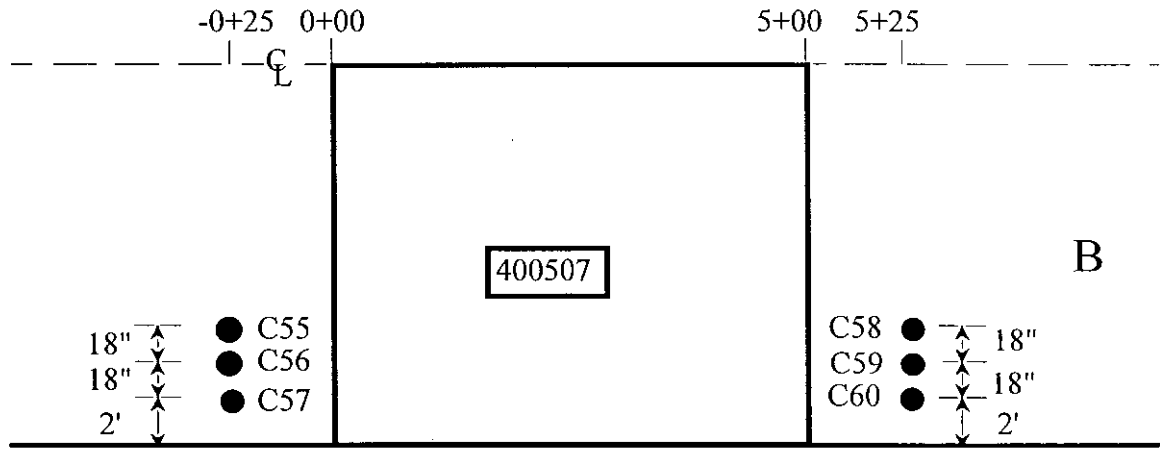




A Preconstruction Sampling (C16-C17)
B Postconstruction Sampling (C49-C54)

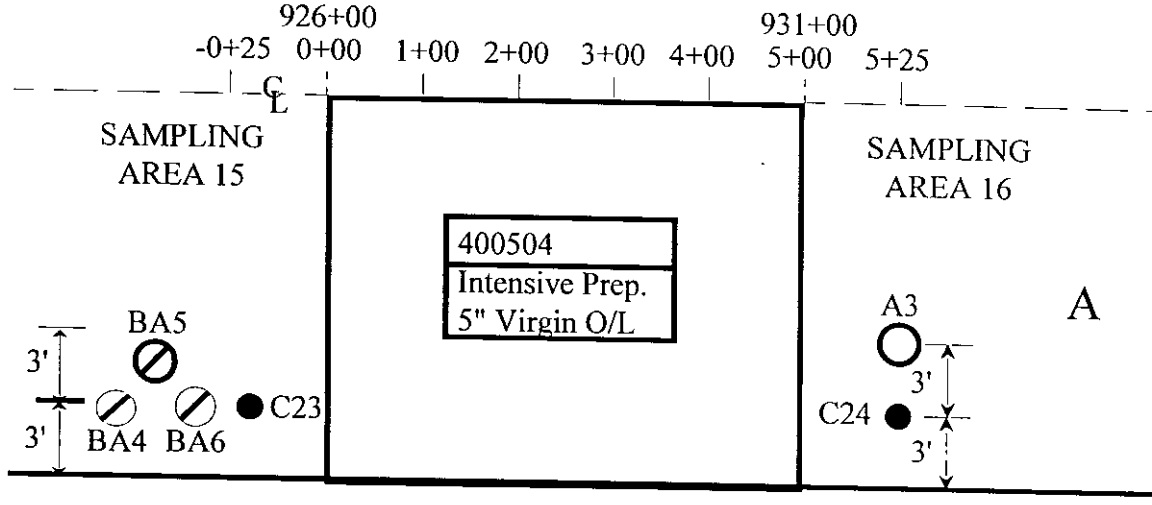
FIGURE B-9. SAMPLING AND TESTING PLAN FOR TEST SECTION 400506 OKLAHOMA SPS-5 (400500)

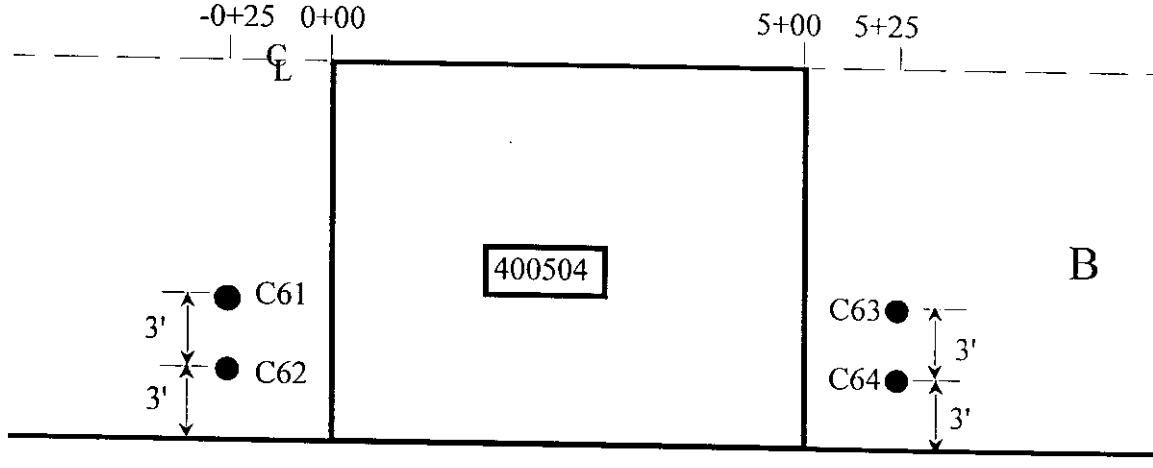




A Preconstruction Sampling (C18-C22)
B Postconstruction Sampling (C55-C60)

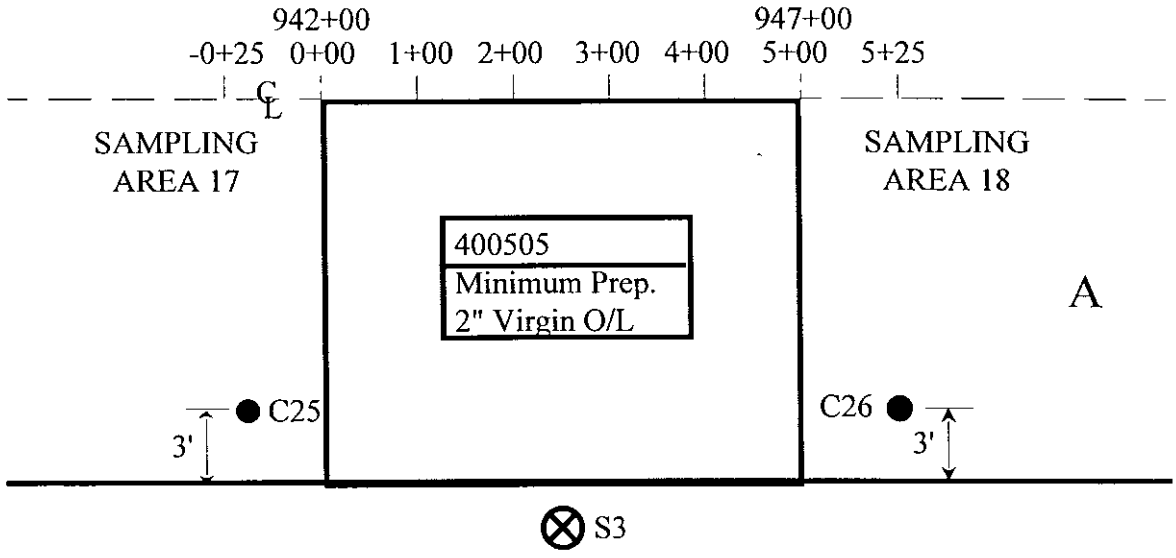
FIGURE B-10. SAMPLING AND TESTING PLAN FOR TEST SECTION 400507 OKLAHOMA SPS-5 (400500)

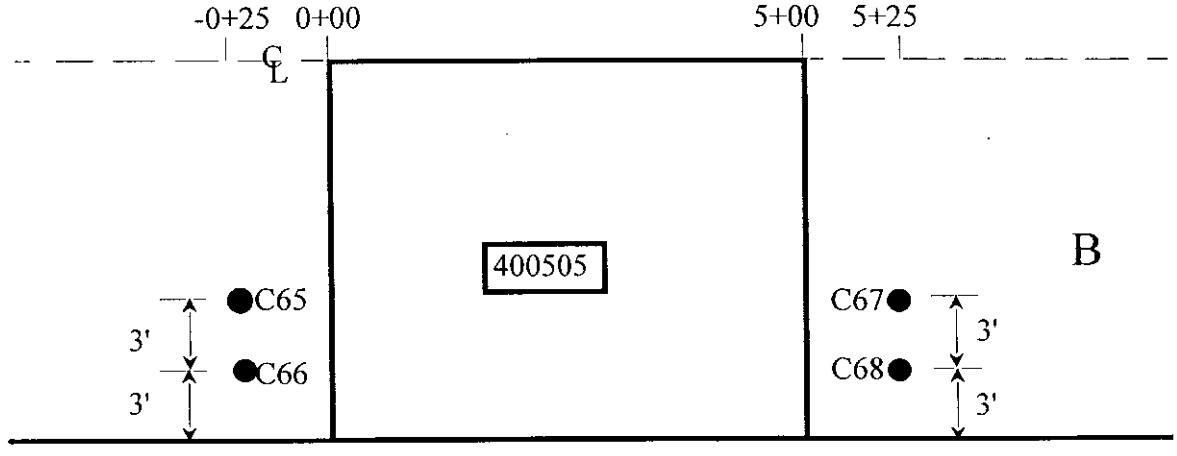




A Preconstruction Sampling (C23-C24, BA4-BA6, A3)
B Postconstruction Sampling (C61-C64)

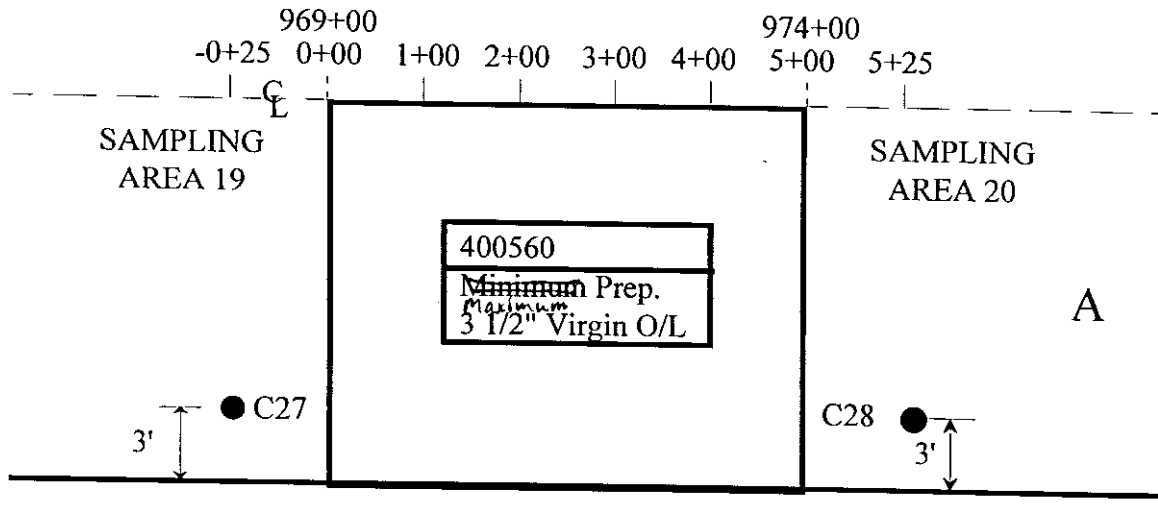
FIGURE B-11. SAMPLING AND TESTING PLAN FOR TEST SECTION 400504 OKLAHOMA SPS-5 (400500)

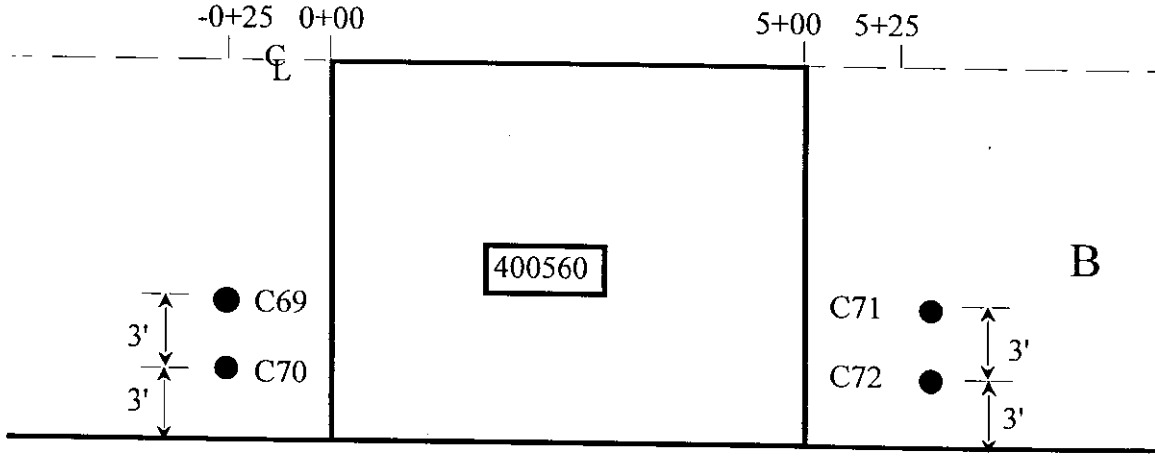




A Preconstruction Sampling (C25-C26,S3)
B Postconstruction Sampling (C65-C68)

FIGURE B-12. SAMPLING AND TESTING PLAN FOR TEST SECTION 400505 OKLAHOMA SPS-5 (400500)





A Preconstruction Sampling (C27-C28)
B Postconstruction Sampling (C69-C72)

FIGURE B-13. SAMPLING AND TESTING PLAN FOR TEST SECTION 400560 OKLAHOMA SPS-5 (400500)

TABLE B-4. SAMPLES TO BE SHIPPED TO THE STATE LABORATORY (OR THEIR DESIGNEE)

Sample Location	Sample Nº.	Lab Test Nº.	Type of Sample
Asphalt Concrete			
BA1	BA01	1	305 mm (12 in.) Core
BA2	BA02	1	305 mm (12 in.) Core
BA3	BA03	1	305 mm (12 in.) Core
BA4	BA04	1	305 mm (12 in.) Core
BA5	BA05	1	305 mm (12 in.) Core
BA6	BA06	1	305 mm (12 in.) Core
TP1	BA07	1	305 mm × 305 mm (12 in. × 12 in.) Block
A1	A1	2	152 mm (6 in.) Core
A2	A2	2	152 mm (6 in.) Core
A3	A3	2	152 mm (6 in.) Core
BV1	BV1	3	Virgin Bulk Sample Uncompacted Mix (Binder)
BV2	BV2	3	" Bulk Sample Uncompacted Mix "
BV3	BV3	3	" Bulk Sample Uncompacted Mix "
BR1	BR1	3	Recycled Bulk Sample Uncompacted Mix "
BR2	BR2	3	" Bulk Sample Uncompacted Mix "
BR3	BR3	3	" Bulk Sample Uncompacted Mix "
Line-Treated Subgrade Subbase			
All Samples Shipped to FHWA Laboratory			
Subgrade			
BA1	MS01	1	Moisture Content Jar Sample
BA2	MS02	1	Moisture Content Jar Sample
BA3	MS03	1	Moisture Content Jar Sample
BV4	BV4	3	Virgin Bulk Sample Uncompacted Mix (Surface)
BV5	BV5	"	" "
BV6	BV6	"	" "
BR4	BR4	"	Recycled "
BR5	BR5	"	" "
BR6	BR6	"	" "

TABLE B-4. SAMPLES TO BE SHIPPED TO THE STATE LABORATORY (OR THEIR DESIGNEE) (Continued)

Sample Location	Sample №.	Lab Test №.	Type of Sample
BA1	BS01	1	45 kg (100 lb) Bulk Sample
BA2	BS02	1	45 kg (100 lb) Bulk Sample
BA3	BS03	1	45 kg (100 lb) Bulk Sample
A1	TS01	3	Thin-wall Tube
A2	TS03	3	Thin-wall Tube
A3	TS05	3	Thin-wall Tube

TABLE B-5. SAMPLES TO BE SHIPPED TO THE FHWA-LTPP TESTING CONTRACTOR LABORATORY

Sample Location	Sample Nº.	Lab Test Nº.	Type of Sample
Asphalt Concrete			
C1	CA01	1	102 mm (4 in.) Core
C2	CA02	2	102 mm (4 in.) Core
C3	CA03	1	102 mm (4 in.) Core
C4	CA04	1	102 mm (4 in.) Core
C5	CA05	1	102 mm (4 in.) Core
C6	CA06	2	102 mm (4 in.) Core
C7	CA07	1	102 mm (4 in.) Core
C8	CA08	2	102 mm (4 in.) Core
C9	CA09	1	102 mm (4 in.) Core
C10	CA10	1	102 mm (4 in.) Core
C11	CA11	1	102 mm (4 in.) Core
C12	CA12	1	102 mm (4 in.) Core
C13	CA13	1	102 mm (4 in.) Core
C14	CA14	1	102 mm (4 in.) Core
C15	CA15	2	102 mm (4 in.) Core
C16	CA16	1	102 mm (4 in.) Core
C17	CA17	2	102 mm (4 in.) Core
C18	CA18	2	102 mm (4 in.) Core
C19	CA19	2	102 mm (4 in.) Core
C20	CA20	2	102 mm (4 in.) Core
C21	CA21	2	102 mm (4 in.) Core
C22	CA22	2	102 mm (4 in.) Core
C23	CA23	1	102 mm (4 in.) Core
C24	CA24	2	102 mm (4 in.) Core

TABLE B-5. SAMPLES TO BE SHIPPED TO THE FHWA-LTPP TESTING CONTRACTOR LABORATORY (Continued)

Sample Location	Sample №.	Lab Test №.	Type of Sample
C25	CA25	1	102 mm (4 in.) Core
C26	CA26	2	102 mm (4 in.) Core
C27	CA27	1	102 mm (4 in.) Core
C28	CA28	2	102 mm (4 in.) Core
C29	CA29	1	102 mm (4 in.) Core
C30	CA30	1	102 mm (4 in.) Core
C31	CA31	2	102 mm (4 in.) Core
C32	CA32	2	102 mm (4 in.) Core
C33	CA33	1	102 mm (4 in.) Core
C34	CA34	1	102 mm (4 in.) Core
C35	CA35	2	102 mm (4 in.) Core
C36	CA36	2	102 mm (4 in.) Core
C37	CA37	1	102 mm (4 in.) Core
C38	CA38	1	102 mm (4 in.) Core
C39	CA39	1	102 mm (4 in.) Core
C40	CA40	2	102 mm (4 in.) Core
C41	CA41	2	102 mm (4 in.) Core
C42	CA42	2	102 mm (4 in.) Core
C43	CA43	1	102 mm (4 in.) Core
C44	CA44	1	102 mm (4 in.) Core
C45	CA45	1	102 mm (4 in.) Core
C46	CA46	2	102 mm (4 in.) Core
C47	CA47	2	102 mm (4 in.) Core
C48	CA48	2	102 mm (4 in.) Core
C49	CA49	1	102 mm (4 in.) Core

TABLE B-5. SAMPLES TO BE SHIPPED TO THE FHWA-LTPP TESTING CONTRACTOR LABORATORY (Continued)

Sample Location	Sample №.	Lab Test №.	Type of Sample
C50	CA50	1	102 mm (4 in.) Core
C51	CA51	1	102 mm (4 in.) Core
C52	CA52	2	102 mm (4 in.) Core
C53	CA53	2	102 mm (4 in.) Core
C54	CA54	2	102 mm (4 in.) Core
C55	CA55	1	102 mm (4 in.) Core
C56	CA56	1	102 mm (4 in.) Core
C57	CA57	1	102 mm (4 in.) Core
C58	CA58	2	102 mm (4 in.) Core
C59	CA59	2	102 mm (4 in.) Core
C60	CA60	2	102 mm (4 in.) Core
C61	CA61	1	102 mm (4 in.) Core
C62	CA62	1	102 mm (4 in.) Core
C63	CA63	2	102 mm (4 in.) Core
C64	CA64	2	102 mm (4 in.) Core
C65	CA65	1	102 mm (4 in.) Core
C66	CA66	1	102 mm (4 in.) Core
C67	CA67	2	102 mm (4 in.) Core
C68	CA68	2	102 mm (4 in.) Core
C69	CA69	1	102 mm (4 in.) Core
C70	CA70	1	102 mm (4 in.) Core
C71	CA71	2	102 mm (4 in.) Core
C72	CA72	2	102 mm (4 in.) Core

TABLE B-5. SAMPLES TO BE SHIPPED TO THE FHWA-LTPP TESTING CONTRACTOR LABORATORY (Continued)

Sample Location	Sample Nº.	Lab Test Nº.	Type of Sample
Lime-Treated Subgrade Subbase			
BA1	BG01	1	136 kg (300 lb) Bulk Sample
BA2	BG02	1	136 kg (300 lb) Bulk Sample
BA3	BG03	1	136 kg (300 lb) Bulk Sample
BA4	BG04	2	136 kg (300 lb) Bulk Sample
BA5	BG05	2	136 kg (300 lb) Bulk Sample
BA6	BG06	2	136 kg (300 lb) Bulk Sample
TP1	BG07	1	136 kg (300 lb) Bulk Sample
BA1	MG01	1	Moisture Content Jar Sample
BA2	MG02	1	Moisture Content Jar Sample
BA3	MG03	1	Moisture Content Jar Sample
BA4	MG04	1	Moisture Content Jar Sample
BA5	MG05	1	Moisture Content Jar Sample
BA6	MG06	1	Moisture Content Jar Sample
TP1	MG07	1	Moisture Content Jar Sample
Subgrade			
BA1	BS01	1	136 kg (300 lb) Bulk Sample
BA2	BS02	1	136 kg (300 lb) Bulk Sample
BA3	BS03	1	136 kg (300 lb) Bulk Sample
BA4	BS04	1	136 kg (300 lb) Bulk Sample
BA5	BS05	1	136 kg (300 lb) Bulk Sample
BA6	BS06	1	136 kg (300 lb) Bulk Sample
TP1	BS07	1	136 kg (300 lb) Bulk Sample
A1	TS02	3	Thin-wall Tube Sample
A2	TS04	3	Thin-wall Tube Sample
A3	TS06	3	Thin-wall Tube Sample

SECTION C

LABORATORY MATERIAL TESTING

SECTION C

LABORATORY MATERIAL TESTING

It is the intent of this section of the sampling and testing plan to provide an outline for the laboratory testing that is planned for the Oklahoma SPS-5 project. The previous section ended with lists of samples to be shipped to each of two laboratories; the state designated laboratory and the FHWA/LTPP contracted laboratory. In this section, the tests to be performed on each sample are listed.

The reference project layer numbering scheme was provided in Table B-1. It is important that the two laboratories reference the same layer by number to ensure meaningful results.

Tables C-1 and C-2 provide listings of the preconstruction and postconstruction laboratory tests to be performed for each material type and pavement layer, and the associated laboratory testing protocol. It is imperative that the protocols listed be strictly followed during testing.

Tables C-3 through C-7 provide tracking tables for the testing to be conducted for each material type. These tables itemize the testing to occur on each sample and provide an indication of whether the sample is to be disposed of.

TABLE C-1. SPS-5 LABORATORY TESTING PLANS - PRECONSTRUCTION

MATERIAL TYPE AND PROPERTIES	LTPP DESIGNATION	LTPP PROTOCOL	Nº. OF TESTS PER LAYER	SAMPLING LOCATION	TEST CONDUCTED BY:	
					STATE	FHWA
A. ASPHALTIC CONCRETE:						
Core Examination/Thickness	AC01	P01	28	C1-C28		X
Bulk Specific Gravity	AC02	P02	12	C3-C6, C11-14, C19-C22		X
Maximum Specific Gravity	AC03	P03	3	BA1-BA3, TP1, BA4-BA6	X	
Asphalt Content (Extraction)	AC04	P04	3	BA1-BA3, TP1, BA4-BA6	X	
Creep Compliance	AC06	P06	3	C2, C16, C24		X
Resilient Modulus	AC07	P07	9	C3-C5, C12-C14, C20-C22		X
Tensile Strength	AC07	P07	12	C3-C6, C11-C14, C19-C22		X
Field Moisture Damage	ACO8	P08	3	A1, A2, A3	X	
B. EXTRACTED AGGREGATE:						
Type and Classification:						
Coarse Aggregate	AG03	P13	3	BA1-BA3, TP1, BA4-BA6	X	
Fine Aggregate	AG03	P13	3	BA1-BA3, TP1, BA4-BA6	X	
Gradation of Aggregate	AG04	P14	3	BA1-BA3, TP1, BA4-BA6	X	
NAA Test for Fine Aggregate Particle Shape	AG05	P14A	3	BA1-BA3, TP1, BA4-BA6	X	
C. ASPHALT CEMENT:						
Abson Recovery	AE01	P21	3	BA1-BA3, TP1, BA4-BA6	X	
Penetration at 77F & 115F	AE02	P22	3	BA1-BA3, TP1, BA4-BA6	X	
Specific Gravity (60F)	AE03	P23	3	BA1-BA3, TP1, BA4-BA6	X	
Viscosity at 77F	AE04	P24	3	BA1-BA3, TP1, BA4-BA6	X	
Viscosity at 140F & 275F	AE05	P25	3	BA1-BA3, TP1, BA4-BA6	X	
D. LIME-TREATED SUBGRADE SUBBASE						
Particle Size Analysis	UG01	P41	3	BA1-BA3, TP1, BA4-BA6		X
Sieve Analysis (Washed)	UG02	P41	3	BA1-BA3, TP1, BA4-BA6		X
Atterberg Limits	UG04	P43	3	BA1-BA3, TP1, BA4-BA6		X
Moisture-Density Relations	UG05	P44	3	BA1-BA3, TP1, BA4-BA6		X
Resilient Modulus	UG07	P46	3	BA1-BA3, TP1, BA4-BA6		X
Classification	UG08	P47	3	BA1-BA3, TP1, BA4-BA6		X
Permeability	UG09	P48	3	BA1-BA3, TP1, BA4-BA6		X
Natural Moisture Content	UG10	P49	3	BA1-BA3, TP1, BA4-BA6		X
E. SUBGRADE						
Sieve Analysis	SS01	P51	3	BA1-BA3, TP1, BA4-BA6		X
Hydrometer to 0.001 mm.	SS02	P42	3	BA1-BA3, TP1, BA4-BA6		X
Atterberg Limits	SS03	P43	3	BA1-BA3, TP1, BA4-BA6		X
Classification	SS04	P52	3	BA1-BA3, TP1, BA4-BA6		X
Moisture-Density Relations	SS05	P55	3	BA1-BA3, TP1, BA4-BA6		X
Resilient Modulus	SS07	P46	3	A1, A2, A3		X
Unit Weight	SS08	P56	3	A1, A2, A3	X	
Natural Moisture Content	SS09	P49	3	BA1-BA3	X	
Depth to Rigid Layer			3	S1, S2, S3	X	

TABLE C-2. SPS-5 LABORATORY TESTING PLANS - POSTCONSTRUCTION

MATERIAL TYPE AND PROPERTIES	LTPP DESIGNATION	LTPP PROTOCOL	Nº. OF TESTS PER LAYER	SAMPLING LOCATION	TEST CONDUCTED BY:	
					STATE	FHWA
A. ASPHALTIC CONCRETE:						
Core Examination/Thickness	AC01	P01	44	C29-C72		X
Bulk Specific Gravity	AC02	P02	44	C29-C72		X
Maximum Specific Gravity	AC03	P03	6	BV1-BV3, BR1-BR3	X	
Asphalt Content (Extraction)	AC04	P04	6	BV1-BV3, BR1-BR3	X	
Moisture Susceptibility	AC05	P05	6	BV1-BV3, BR1-BR3	X	
Creep Compliance	AC06	P06	4	C31, C36, C61, C67		X
Resilient Modulus	AC07	P07	12	C37-C39, C43-C45, C49-C51, C55-C57		X
Tensile Strength	AC07	P07	16	C37-C40, C43-C46, C49-C52, C55-C58		X
B. EXTRACTED AGGREGATE:						
Bulk Specific Gravity:						
Coarse Aggregate	AG01	P11	6	BV1-BV3, BR1-BR3	X	
Fine Aggregate	AG02	P12	6	BV1-BV3, BR1-BR3	X	
Type and Classification:						
Coarse Aggregate	AG03	P13	6	BV1-BV3, BR1-BR3	X	
Fine Aggregate	AG03	P13	6	BV1-BV3, BR1-BR3	X	
Gradation of Aggregate	AG04	P14	6	BV1-BV3, BR1-BR3	X	
NAA Test for Fine Aggregate Particle Shape	AG05	P14A	6	BV1-BV3, BR1-BR3	X	
C. ASPHALT CEMENT:						
Abson Recovery	AE01	P21	6	BV1-BV3, BR1-BR3	X	
Penetration at 77F & 115F	AE02	P22	6	BV1-BV3, BR1-BR3	X	
Specific Gravity (60F)	AE03	P23	6	BV1-BV3, BR1-BR3	X	
Viscosity at 77F	AE04	P24	6	BV1-BV3, BR1-BR3	X	
Viscosity at 140F & 275F	AE05	P25	6	BV1-BV3, BR1-BR3	X	

TABLE C-3. TRACKING TABLE OF ASPHALTIC CONCRETE TESTING IN THE STATE LABORATORY(OR THEIR DESIGNEE)

Sample Location	Sample №.	Lab Test №.	Steps Involved in Laboratory Handling and Testing Sequence							
			Required Laboratory Tests Per Layer					Extra Sample	Sample Storage[1]	Sample Disposed?[2]
			First	Second	Third	Fourth	Fifth			
Asphalt Concrete Mix										
BA1	BA01	1	AC03/P03	AC04/P04				Yes	(a)	No
BA2	BA02	1	AC03/P03	AC04/P04				Yes	(a)	No
BA3	BA03	1	AC03/P03	AC04/P04				Yes	(a)	No
BA4	BA04	1	AC03/P03	AC04/P04				Yes	(a)	No
BA5	BA05	1	AC03/P03	AC04/P04				Yes	(a)	No
BA6	BA06	1	AC03/P03	AC04/P04				Yes	(a)	No
TP1	BA07	1	AC03/P03	AC04/P04				Yes	(a)	No
A1	A1	2	AC08/P08					Yes	(a)	No
A2	A2	2	AC08/P08					Yes	(a)	No
A3	A3	2	AC08/P08					Yes	(a)	No
BV1	BV1	3	See Figure C-1					No	(a)	Yes
BV2	BV2	3	See Figure C-1					No	(a)	Yes
BV3	BV3	3	See Figure C-1					No	(a)	Yes
BR1	BR1	3	See Figure C-1					No	(a)	Yes
BR2	BR2	3	See Figure C-1					No	(a)	Yes
BR3	BR3	3	See Figure C-1					No	(a)	Yes
Extracted Aggregate										
BA1-3	BA01-03	1	AG03/P13	AG04/P14				No	(a)	Yes
BA4-6	BA04-06	1	AG03/P13	AG04/P14				No	(a)	Yes
TP1	BA07	1	AG03/P13	AG04/P14				No	(a)	Yes
Extracted Asphalt										
BA1-3	BA01-03	1	AE01/P21	AE02/P22	AE03/P23	AE04/P24	AE05/P25	No	(a)	Yes
BA4-6	BA04-06	1						No	(a)	Yes
TP1	BA07	1						No	(a)	Yes

TABLE C-3. TRACKING TABLE OF ASPHALTIC CONCRETE TESTING IN THE STATE LABORATORY(OR THEIR DESIGNEE)

(Continued)

1 Sample Storage

a. Environmentally protected and controlled storeroom at 5-21°C (40-70°F).

b. Environmentally protected and controlled storeroom at 5-38°C (40-100°F).

c. Thin-walled tube samples of the subgrade that should be stored in a fully supported condition and at temperatures between 5°C (40°F) and 21°C (70°F) in an environmentally protected storeroom. They shall be stored on their ends and shall alwyas be stored in a vertical position with respect to the longitudinal axis of the tube in the same orientation as that retrieved from the field.

2 Sample Disposal? - Indicates whether or not a sample can be disposed of after testing. Generally all samples, or portions of samples, that are not tested are saved until further notice.

Note: All of the core specimens noted herein shall be stored for possible future use. In the future, these specimens may be used to evaluate test procedures for the SUPERPAVE program.

TABLE C-4. TRACKING TABLE OF ASPHALTIC CONCRETE TESTING IN THE FHWA-LTPP TESTING CONTRACTOR LABORATORY

Sample Location	Sample №.	Lab Test №.	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth			
C1	CA01	1	AC01/P01				No	(a)	Yes
C2	CA02	2	AC01/P01	AC06/P06			No	(a)	Yes
C3	CA03	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C4	CA04	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C5	CA05	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C6	CA06	2	AC01/P01	AC02/P02	AC07/P07 (ITS)		No	(a)	Yes
C7	CA07	1	AC01/P01				No	(a)	Yes
C8	CA08	2	AC01/P01				No	(a)	Yes
C9	CA09	1	AC01/P01				No	(a)	Yes
C10	CA10	2	AC01/P01				No	(a)	Yes
C11	CA11	1	AC01/P01	AC02/P02	AC07/P07 (ITS)		No	(a)	Yes
C12	CA12	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C13	CA13	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C14	CA14	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C15	CA15	2	AC01/P01				No	(a)	Yes
C16	CA16	1	AC01/P01	AC06/P06			No	(a)	Yes
C17	CA17	2	AC01/P01				No	(a)	Yes
C18	CA18	1	AC01/P01				No	(a)	Yes
C19	CA19	2	AC01/P01	AC02/P02	AC07/P07 (ITS)		No	(a)	Yes
C20	CA20	2	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C21	CA21	2	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C22	CA22	2	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C23	CA23	1	AC01/P01				No	(a)	Yes
C24	CA24	2	AC01/P01	AC06/P06			No	(a)	Yes
C25	CA25	1	AC01/P01				No	(a)	Yes
C26	CA26	2	AC01/P01				No	(a)	Yes

TABLE C-4. TRACKING TABLE OF ASPHALTIC CONCRETE TESTING IN THE FHWA-LTPP TESTING CONTRACTOR LABORATORY (Continued)

Sample Location	Sample Nº.	Lab Test Nº.	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth			
C27	CA27	1	AC01/P01	AC02/P02			No	(a)	Yes
C28	CA28	2	AC01/P01	AC02/P02			No	(a)	Yes
C29	CA29	1	AC01/P01	AC02/P02			No	(a)	Yes
C30	CA30	1	AC01/P01	AC02/P02			No	(a)	Yes
C31	CA31	2	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
C32	CA32	2	AC01/P01	AC02/P02			No	(a)	Yes
C33	CA33	1	AC01/P01	AC02/P02			No	(a)	Yes
C34	CA34	1	AC01/P01	AC02/P02			No	(a)	Yes
C35	CA35	2	AC01/P01	AC02/P02			No	(a)	Yes
C36	CA36	2	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
C37	CA37	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C38	CA38	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C39	CA39	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C40	CA40	2	AC01/P01	AC02/P02	AC07/P07 (ITS)		No	(a)	Yes
C41	CA41	2	AC01/P01	AC02/P02			No	(a)	Yes
C42	CA42	2	AC01/P01	AC02/P02			No	(a)	Yes
C43	CA43	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C44	CA44	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C45	CA45	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C46	CA46	2	AC01/P01	AC02/P02	AC07/P07 (ITS)		No	(a)	Yes
C47	CA47	2	AC01/P01	AC02/P02			No	(a)	Yes
C48	CA48	2	AC01/P01	AC02/P02			No	(a)	Yes
C49	CA49	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C50	CA50	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C51	CA51	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes

TABLE C-4. TRACKING TABLE OF ASPHALTIC CONCRETE TESTING IN THE FHWA-LTPP TESTING CONTRACTOR LABORATORY (Continued)

Sample Location	Sample Nº.	Lab Test Nº.	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth			
C52	CA52	2	AC01/P01	AC02/P02	AC07/P07 (ITS)		No	(a)	Yes
C53	CA53	2	AC01/P01	AC02/P02			No	(a)	Yes
C54	CA54	2	AC01/P01	AC02/P02			No	(a)	Yes
C55	CA55	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C56	CA56	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C57	CA57	1	AC01/P01	AC02/P02	AC07/P07		No	(a)	Yes
C58	CA58	2	AC01/P01	AC02/P02	AC07/P07 (ITS)		No	(a)	Yes
C59	CA59	2	AC01/P01	AC02/P02			No	(a)	Yes
C60	CA60	2	AC01/P01	AC02/P02			No	(a)	Yes
C61	CA61	1	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
C62	CA62	1	AC01/P01	AC02/P02			No	(a)	Yes
C63	CA63	2	AC01/P01	AC02/P02			No	(a)	Yes
C64	CA64	2	AC01/P01	AC02/P02			No	(a)	Yes
C65	CA65	1	AC01/P01	AC02/P02			No	(a)	Yes
C66	CA66	1	AC01/P01	AC02/P02			No	(a)	Yes
C67	CA67	2	AC01/P01	AC02/P02	AC06/P06		No	(a)	Yes
C68	CA68	2	AC01/P01	AC02/P02			No	(a)	Yes
C69	CA69	1	AC01/P01	AC02/P02			No	(a)	Yes
C70	CA70	1	AC01/P01	AC02/P02			No	(a)	Yes
C71	CA71	2	AC01/P01	AC02/P02			No	(a)	Yes
C72	CA72	2	AC01/P01	AC02/P02			No	(a)	Yes

TABLE C-5. TRACKING TABLE OF LIME-TREATED SUBGRADE SUBBASE IN THE FHWA-LTPP TESTING CONTRACTOR LABORATORY

Sample Location	Sample Nº.	Lab Test Nº.	Steps Involved in Laboratory Handling and Testing Sequence									
			Required Laboratory Tests Per Layer							Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth	Fifth	Sixth	Seventh			
BA1	BG01	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG09/P48	UG07/P46	No	(b)	Yes
BA2	BG02	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG09/P48	UG07/P46	No	(b)	Yes
BA3	BG03	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG09/P48	UG07/P46	No	(b)	Yes
BA4	BG04	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG09/P48	UG07/P46	No	(b)	Yes
BA5	BG05	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG09/P48	UG07/P46	No	(b)	Yes
BA6	BG06	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG09/P48	UG07/P46	No	(b)	Yes
TP1	BG07	2	UG01/P41	UG02/P41	UG04/P43	UG08/P47	UG05/P44	UG09/P48	UG07/P46	No	(b)	Yes
BA1	MG01	2	UG10/P49							No	(b)	Yes
BA2	MG02	2	UG10/P49							No	(b)	Yes
BA3	MG03	2	UG10/P49							No	(b)	Yes
BA4	MG04	2	UG10/P49							No	(b)	Yes
BA5	MG05	2	UG10/P49							No	(b)	Yes
BA6	MG06	2	UG10/P49							No	(b)	Yes
TP1	MG07	2	UG10/P49							No	(b)	Yes

TABLE C-6. TRACKING TABLE OF SUBGRADE TESTING IN THE STATE LABORATORY (OR THEIR DESIGNEE)

Sample Location	Sample Nº.	Lab Test Nº.	Steps Involved in Laboratory Handling and Testing Sequence						
			Required Laboratory Tests Per Layer				Extra Sample	Sample Storage	Sample Disposed ?
			First	Second	Third	Fourth			
A1	TS01	3	SS08/P56				No	(c)	Yes
A2	TS03	3	SS08/P56				No	(c)	Yes
A3	TS05	3	SS08/P56				No	(c)	Yes
BA1	MS01	2	SS09/P49				No	(b)	Yes
BA2	MS02	2	SS09/P49				No	(b)	Yes
BA3	MS03	2	SS09/P49				No	(b)	Yes

TABLE C-7. TRACKING TABLE OF SUBGRADE TESTING IN THE FHWA-LTPP TESTING CONTRACTOR LABORATORY

Sample Location	Sample Nº.	Lab Test Nº.	Steps Involved in Laboratory Handling and Testing Sequence								
			Required Laboratory Tests Per Layer						Extra Sample	Sample Storage	Sample Disposed?
			First	Second	Third	Fourth	Fifth	Sixth			
BA1	BS01	1	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55		No	(b)	Yes
BA2	BS02	1	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55		No	(b)	Yes
BA3	BS03	1	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55		No	(b)	Yes
BA4	BS04	1	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55		No	(b)	Yes
BA5	BS05	1	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55		No	(b)	Yes
BA6	BS06	1	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55		No	(b)	Yes
TP1	BS07	1	SS01/P51	SS02/P42	SS03/P43	SS04/P52	SS05/P55		No	(b)	Yes
A1	TS02	3	SS04/P52	SS07/P46					No	(c)	Yes
A2	TS04	3	SS04/P52	SS07/P46					No	(c)	Yes
A3	TS06	3	SS04/P52	SS07/P46					No	(c)	Yes
BA1	MS01	1	SS09/P49						No	(b)	Yes
BA2	MS02	1	SS09/P49						No	(b)	Yes
BA3	MS03	1	SS09/P49						No	(b)	Yes
BA4	MS04	1	SS09/P49						No	(b)	Yes
BA5	MS05	1	SS09/P49						No	(b)	Yes
BA6	MS06	1	SS09/P49						No	(b)	Yes
TP1	MS07	1	SS09/P49						No	(b)	Yes

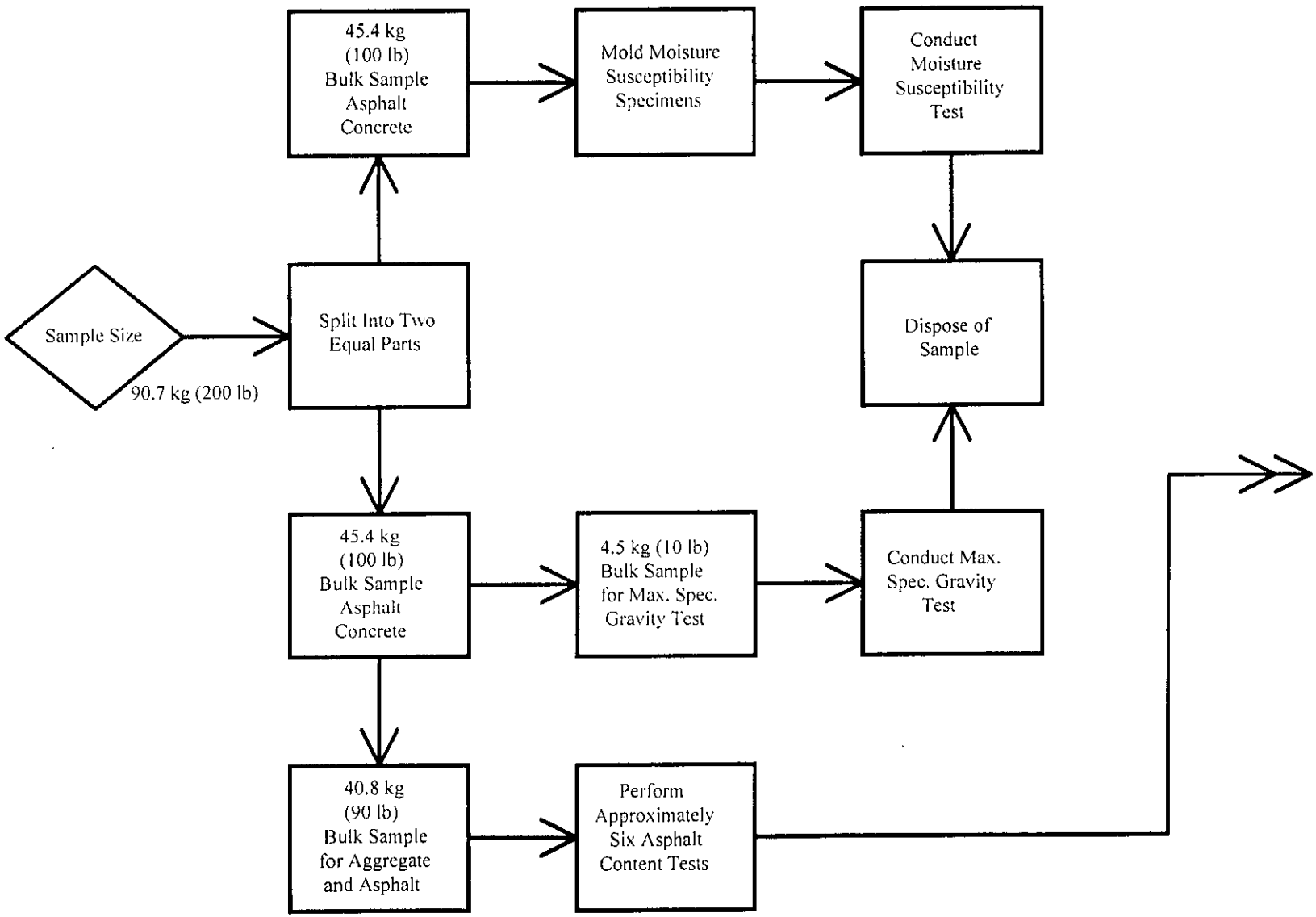


FIGURE C.1. FLOWCHART FOR ASPHALT CONCRETE BULK SAMPLES

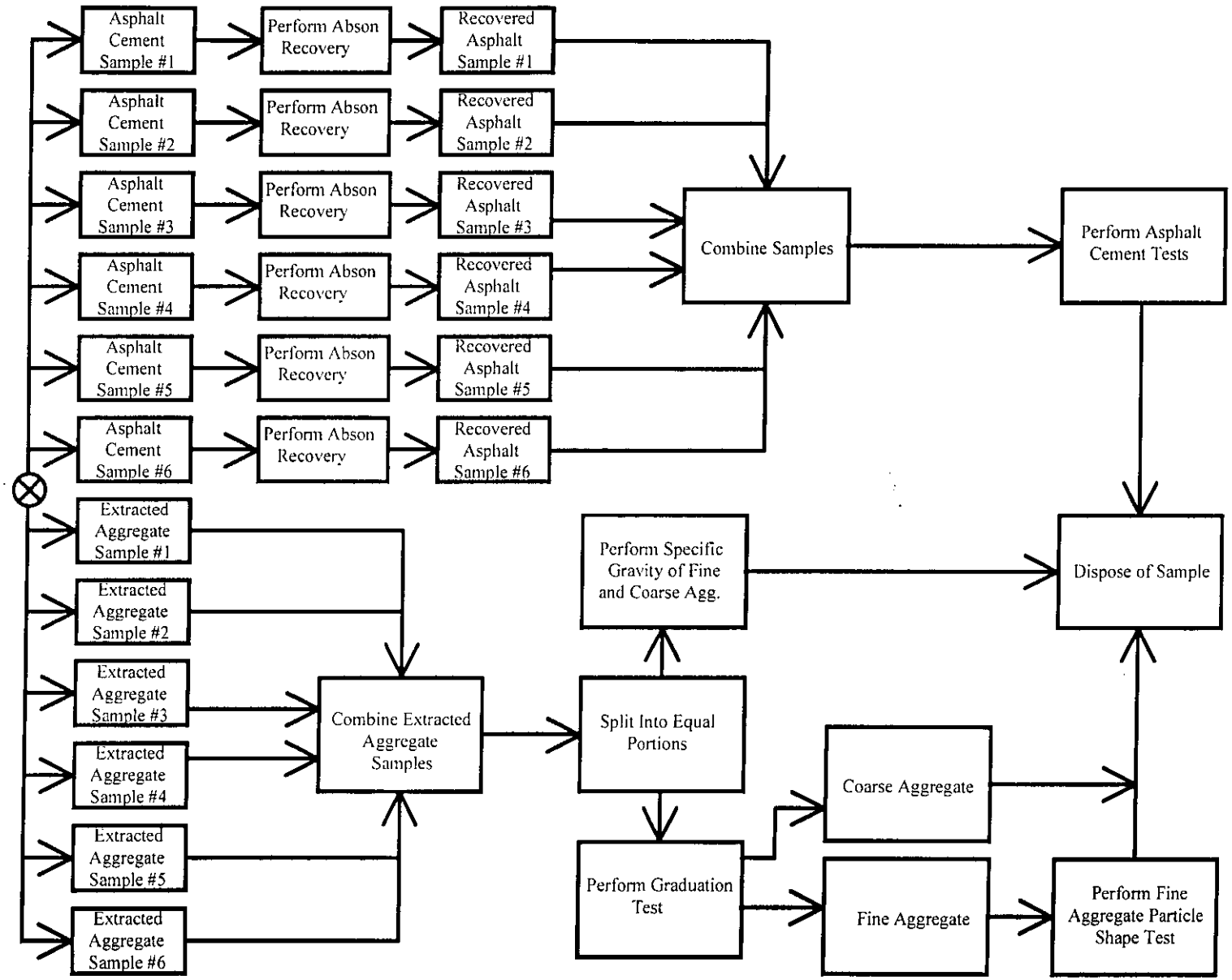


FIGURE C.1. FLOWCHART FOR ASPHALT CONCRETE BULK SAMPLES (Continued)

APPENDIX E

CONSTRUCTION AND REHABILITATION

DATA AND PLANS

Sub: July 11, 1996

SURVEY CONTROL DATA

1. HORIZONTAL CONTROL :

A. HORIZONTAL CONTROL FOR THIS SURVEY IS THE OKLAHOMA STATE DEPARTMENT OF TRANSPORTATION PLANE COORDINATE SYSTEM, LAMBERT PROJECTION (SOUTH ZONE). ALL COORDINATES SHOWN ARE OKLAHOMA STATE DEPARTMENT OF TRANSPORTATION PLANE COORDINATES WHICH WERE DERIVED BY MULTIPLYING THE USC&GS OKLAHOMA PLANE COORDINATES BY THE COMBINED ADJUSTMENT FACTOR OF 1.00010. THE OKLAHOMA STATE DEPARTMENT OF TRANSPORTATION COORDINATE SYSTEM PLANE IS 2350 FEET ABOVE THE OKLAHOMA USC&GS PLANE.

B. ACCURACY - 1ST ORDER OR BETTER

2. BEARINGS :

THE BEARINGS SHOWN HEREON OR HEREON ARE GRID BEARINGS DERIVED FROM THE USC&GS OKLAHOMA PLANE COORDINATE SYSTEM AND ARE NOT ASTRONOMICAL. THE ANGLE OF VARIANCE BETWEEN GRID NORTH (GN) AND THE ASTRONOMICAL TRUE NORTH (TN) IS DEPICTED DIAGRAMMATICALLY

3. VERTICAL CONTROLS :

A. LEVEL DATUM IS MEAN SEA LEVEL (USC&GS).

B. ACCURACY - 2ND ORDER OR BETTER

DESIGN DATA	
ADT 1994	= 4,350
ADT 2014	= 7,850
DHV(ONE WAY)	548
RDWY/ADT-TWO WAY	= 12%
D	= 55%
T (% OF DHV)	= 13%
T (% ADT)	= 12%
T3 (% OF ADT)	= 13%
V	= 70 MPH

SCALES

PLAN 1" = 100'

PROFILE HOR. 1" = 100'

VER. 1" = 10'

LAYOUT MAP 1" = 5,280'

STATE OF OKLAHOMA

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED

STATE HIGHWAY

SURFACING PLANS

FEDERAL AID PROJECT NO. NH-215(60)

U.S. HIGHWAY NO. 62

COMANCHE COUNTY

STATE JOB NO. 04040(06)

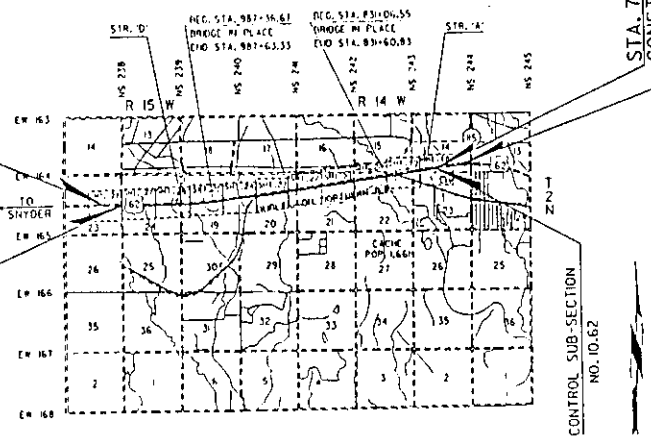
CONTROL SECTION NO. 62-16-03

STA. 1080+00 END INCIDENTAL CONST.

STA. 1072+50.00 END FEDERAL AID PROJECT NO. NH-215(60) BEGIN INCIDENTAL CONST.

STA. 775+00.00 END INCIDENTAL CONST. BEG. FED. AID PROJ. NO. NH-215(60)

STA. 771+00.00 BEG. INCIDENTAL CONST.



ROADWAY LENGTH ..... 29,064.78 FT. ..... 5.504 MI.

BRIDGE LENGTH ..... 0.00 FT. ..... 0.000 MI.

PROJECT LENGTH ..... 5.504 MI.

EQUATIONS : STA. 1016+43.63 BK. = STA. 1016+43.31 FWD.

BRIDGE EXCEPTION: STA. 792+19.17 - STA. 795+80.83 L=361.66
STA. 1018+53.98 - STA. 1021+77.32 L=323.34

INDEX OF SHEETS

1	Title Sheet
2-6	Typical Section
7	Transition Details
8-9	Summary of Pay Quantities (Roadway)
10-11	Summary of Pay Quantities (Traffic)
12-14	Summary Sheet
15	Drainage Area Map
16	Drainage Structure Design Record
17	Stormwater Pollution Prevention Plan
18	Culvert End Treatment Single Pipe Installation 6 to 1 Safety Slope
19	Details of Pavement Edge Drain
20-21	Rumble Strip
22-23	Erosion Control Detail Sheet
24	Guard Rail Extruder Terminal
25-26	Details of Drains At End of Bridge (Without Guardrail)
27	Automated Weather Station Details
28-38	Plan and Profile Sheet
39	Sign Summary Sheet
40-45	Signing and Striping Sheet
46-48	Cross Sections

THE FOLLOWING STANDARDS WILL BE REQUIRED FOR THIS PROJECT:

SMD-1-22	TCD-10-5	RSD-1-25
SPI-2-3	TCD-15-0	RSD-3-11
PCES-2-2	TCD-19-0	WSD-6-5
SUEL-4-0	RDSD-1-2	MOD-1-3
GPH-2-7	GMS-1-22	MSD-1-17
GRAU-3-4	GMS-2-20	MSD-3-11
TCD-1-11	SSA-1A-1	MSD-5A-1
TCD-1A-1	SSP-1-1	SBS-1A-1
TCD-3-5	PM-1-16	SBS-2A-1
TCD-5-9	PM-3-10	FHTMP-3-2
TCD-6-6	PM-4-12	FHTCP-1-1
TCD-7-6	RAF-6-4	

PREPARED BY:
OKLAHOMA DEPARTMENT OF TRANSPORTATION
RURAL DESIGN DIVISION

10 Apr 96 Rosemary Lynn Case
DATE ROSEMARY LYNN CASE
OKLA. REG. NO. 15868

OKLAHOMA DEPARTMENT OF TRANSPORTATION
DATE APPROVED
BY
CHIEF ENGINEER

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
DATE APPROVED
BY
DIVISION ADMINISTRATOR

SHEET NO. 1 F.A. PROJECT NO. NH-215(60) COMANCHE COUNTY

THE OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION GOVERN, APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, JANUARY 3, 1989. SUPPLEMENTAL SPECIFICATIONS TO THE 1988 STANDARD SPECIFICATIONS TO GOVERN OVER THE STANDARD SPECIFICATIONS.

BRIDGE DESIGN
UNDER ENGINEER
SQUAD SUPER. :

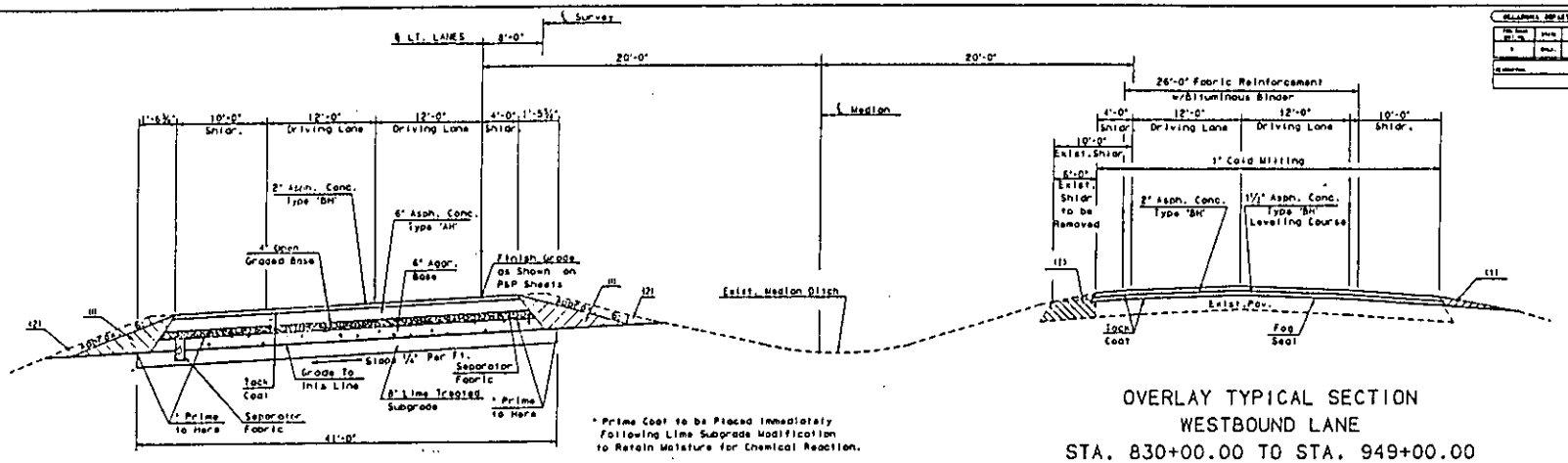
ASSISTANT : J. ARMSTRONG

RURAL DESIGN
SQUAD SUPERVISOR : D.R. STOUT
SQUAD MEMBERS : S. PRICE

ENGINEERING MANAGER : R. CASE
PROJ. ENGINEER :
CHECKED :

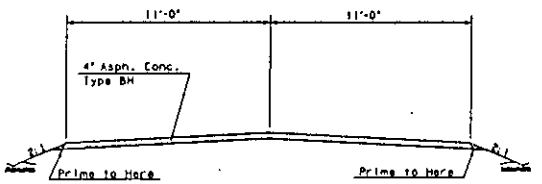
CASE / STOUT
P.E. NO. 04040 1011

E.2

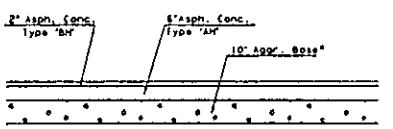


NEW CONSTRUCTION TYPICAL SECTION
EASTBOUND LANE
STA. 775+00.00 TO STA. 1072+50.00

OVERLAY TYPICAL SECTION
WESTBOUND LANE
STA. 830+00.00 TO STA. 949+00.00

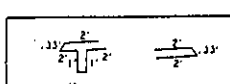


TYPICAL SECTION
COUNTY ROAD

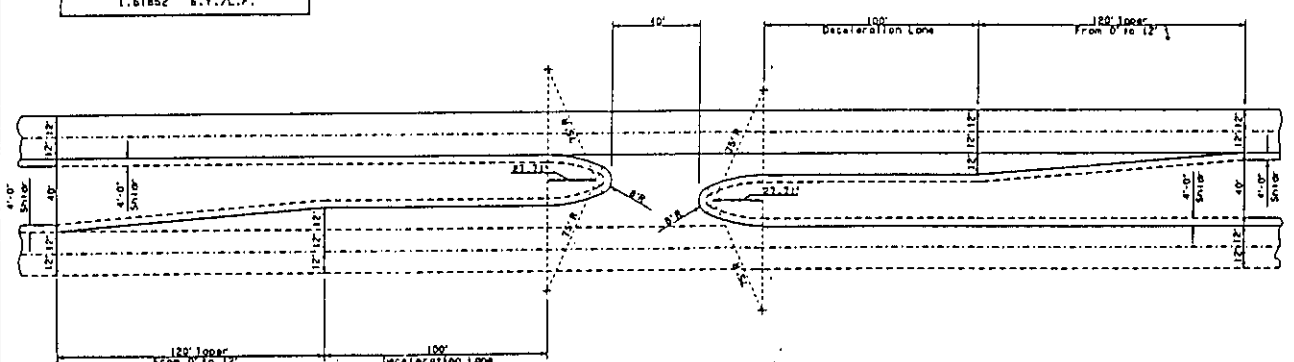


MEDIAN OPENING TYPICAL

* Vary Depth of Agg. Base In SHRP Section To Match Grade of Adjoining Pavement



1'
SEPARATOR FABRIC OVERLAP DETAIL
1.61852 S.Y./L.F.



40' MEDIAN OPENING DETAIL
AND LEFT TURN BAYS

① BACKFILL NOTE:

To Be Backfilled And Compacted As Part Of The Finishing Operations.

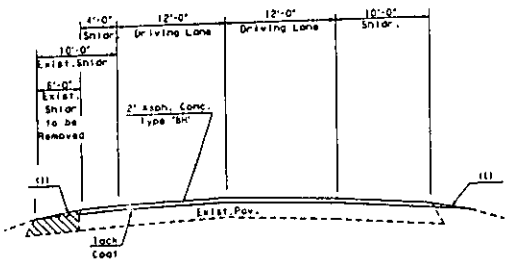
② TOPSOIL NOTE:

Topsoil Shall Be Spread Approx. 6" Thick, First On Completed Backfill Areas And The Remainder On Other Priority Areas Located By The Engineer.

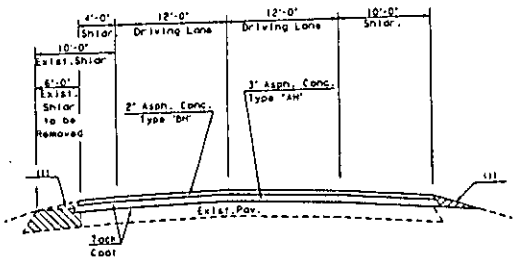
DESIGN		OKLAHOMA DEPARTMENT OF TRANSPORTATION DESIGN DIVISION
DRAWN		TYPICAL SECTION
CHECKED		
APPROVED		
SHEET	DR. Stout	STATE JOB NO. 04010(006) SHEET NO. 2

Comanche Co.

STA. 832+00 TO STA. 839+00 CONTROL SECTION
(NO OVERLAY)

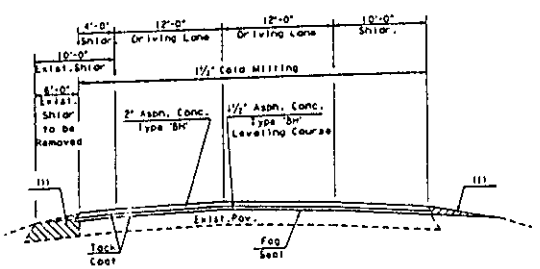


#2, #5
STA. 840+00.00 TO STA. 848+00.00 (RECYCLED AC)
STA. 941+00.00 TO STA. 948+00.00 (VIRGIN AC)

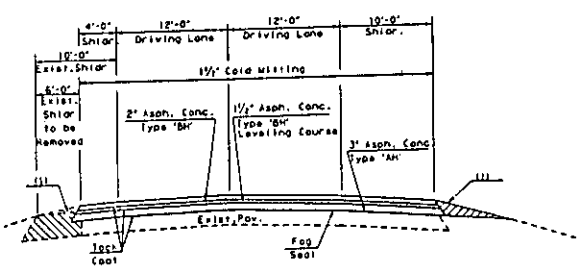


#3, #4
STA. 851+00.00 TO STA. 862+00.00 (RECYCLED AC)
STA. 924+00.00 TO STA. 939+00.00 (VIRGIN AC)

(1) BACKFILL NOTE:
· To Be Backfilled And Compacted As Part Of The Finishing Operations.

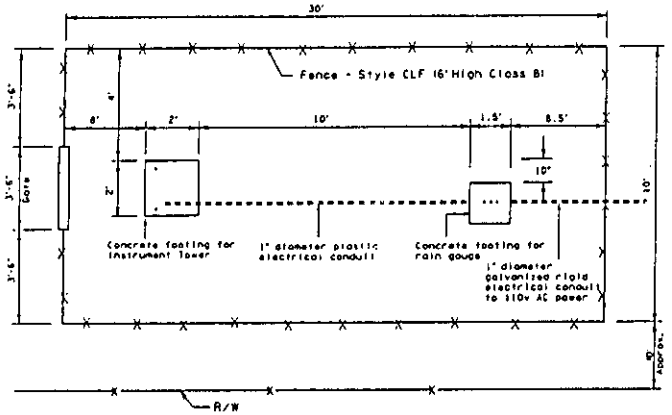


#6, #9
STA. 882+00.00 TO STA. 897+00.00 (EITHER VIRGIN OR RECYCLED AC)
STA. 897+00.00 TO STA. 914+00.00 (VIRGIN AC)
STA. 873+00.00 TO STA. 882+00.00 (RECYCLED AC)



#7, #8
STA. 864+00.00 TO STA. 871+00.00 (RECYCLED AC)
STA. 916+00.00 TO STA. 923+00.00 (VIRGIN AC)

DESIGN		OKLAHOMA DEPARTMENT OF TRANSPORTATION DESIGN DIVISION
DRAWN		TYPICAL SECTION
CHECKED		STATE JOB NO. 04040(06) SHEET NO. 4
APPROVED		
SEALED	Dr. Stout	Comanche Co.



AUTOMATED WEATHER STATION SITE LAYOUT

(LOCATION TO BE DETERMINED BY THE ENGINEER)

SUMMARY FOR AUTOMATED WEATHER STATION

CL "A" CONC	FOR CONTRACTORS INFORMATION CONDUIT (PVC(SCHD 40) AND IRON PIPE				CHAIN LINK SECURITY FENCE	PED GATE (PVC COATED (SINGLE) (6'X3'-6")
	1"	1 1/2"	(180° ELBOW)	1.5" IPS PIPE		
C.Y.	LF	LF	EA	LF	LF	EA
.61	27	2	4	3	77	1

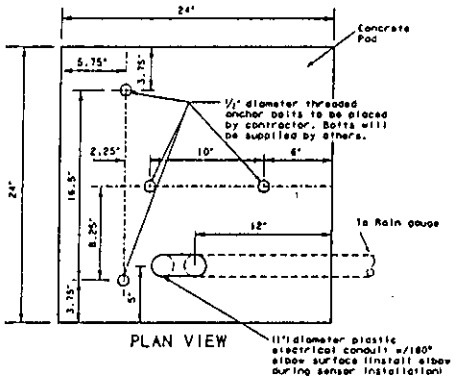
Materials will be approved by the engineer prior to use.

QUANTITY	MATERIALS SUPPLIED BY OTHERS
4	1/2" DIAMETER THREADED ANCHOR BOLTS
1	1.5" IPS PIPE

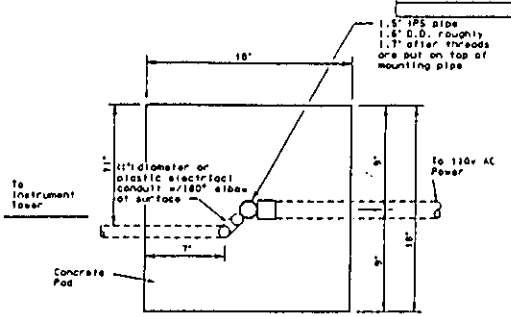
NOTE: ABOVE MATERIALS ALONG WITH A BOLT TEMPLATE PATTERN WILL BE PROVIDED BY BRENT RAINUT ENGINEERING INC. CONTRACTOR SHALL CONTACT JERRY DALEIDEN, P.E. AT (512) 346-0870 PRIOR TO CONSTRUCTION OF FOUNDATION.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
932.17	Automated Weather Station	L.Sum

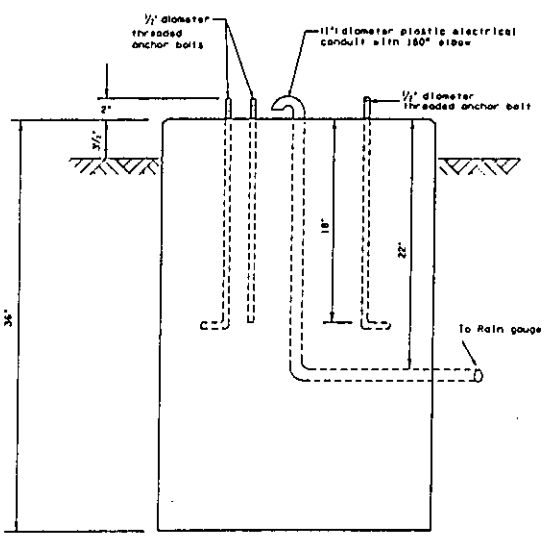
Price bid for Automated Weather Station shall be full compensation for furnishing all fence, footings, conduit, and all other materials, labor, equipment and incidentals to complete the work as specified.



PLAN VIEW

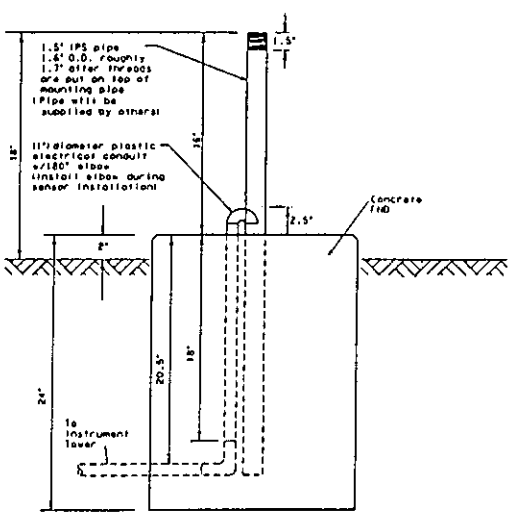


PLAN VIEW



SIDE VIEW

LAYOUT OF INSTRUMENT TOWER FOUNDATION

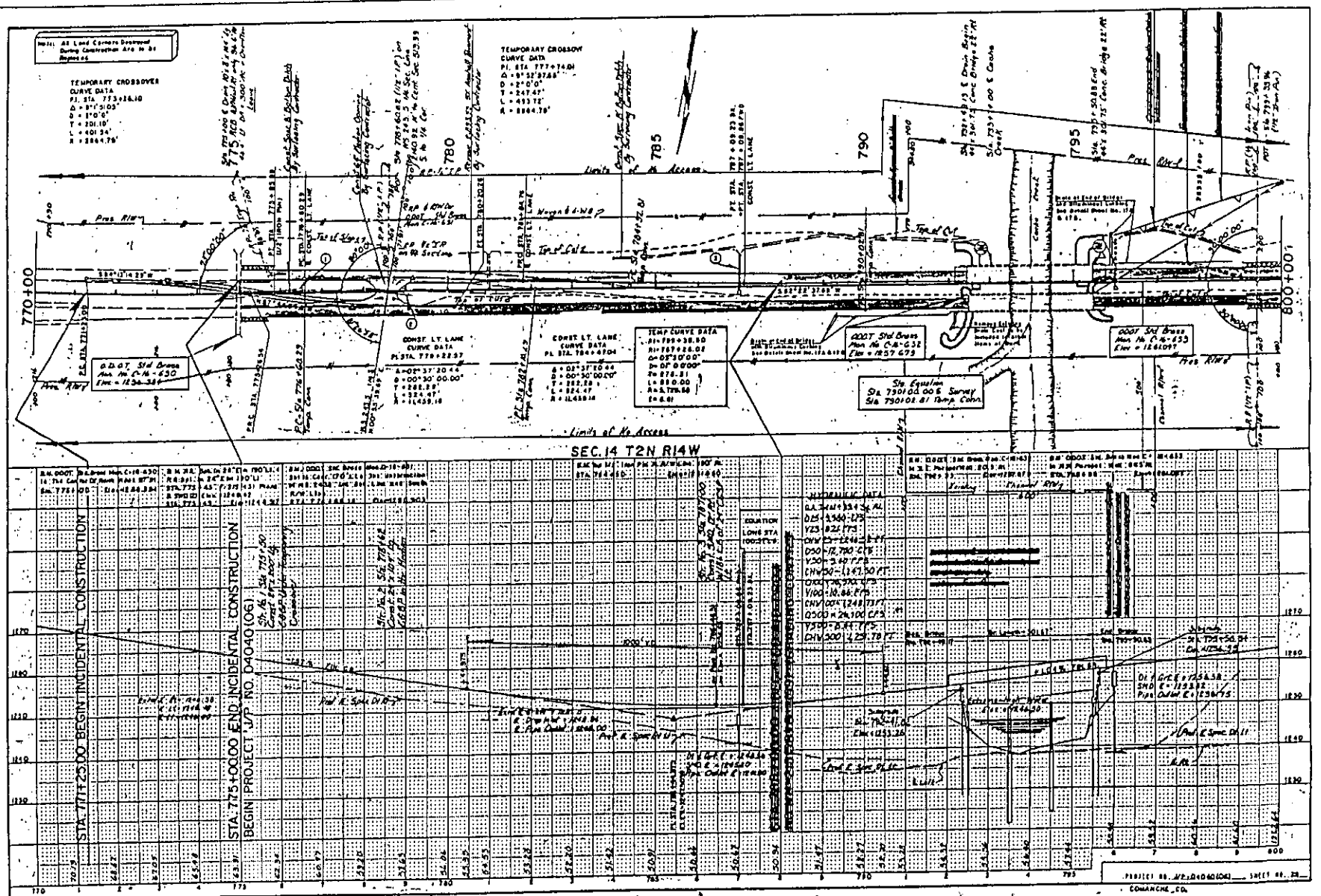


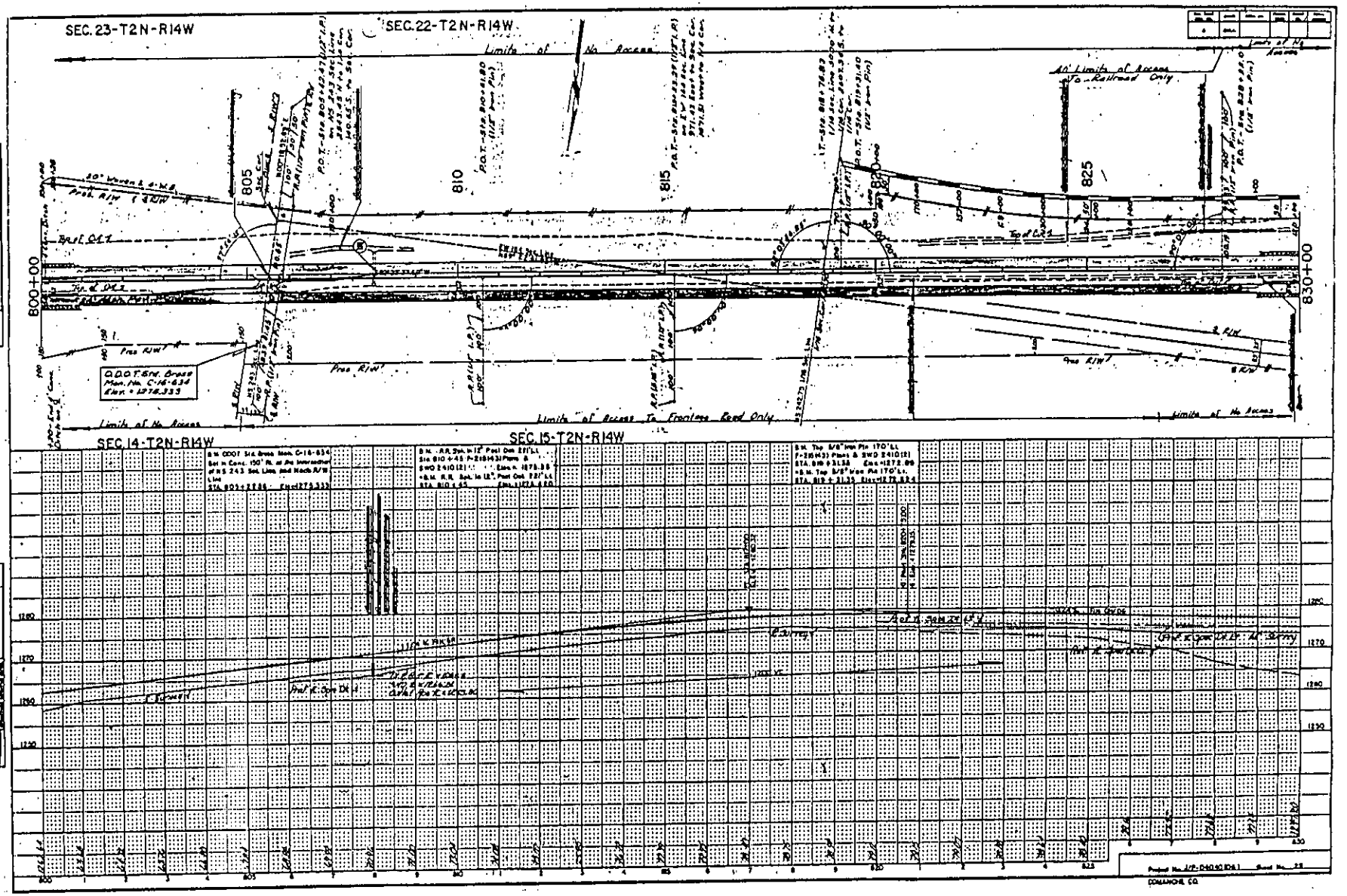
SIDE VIEW

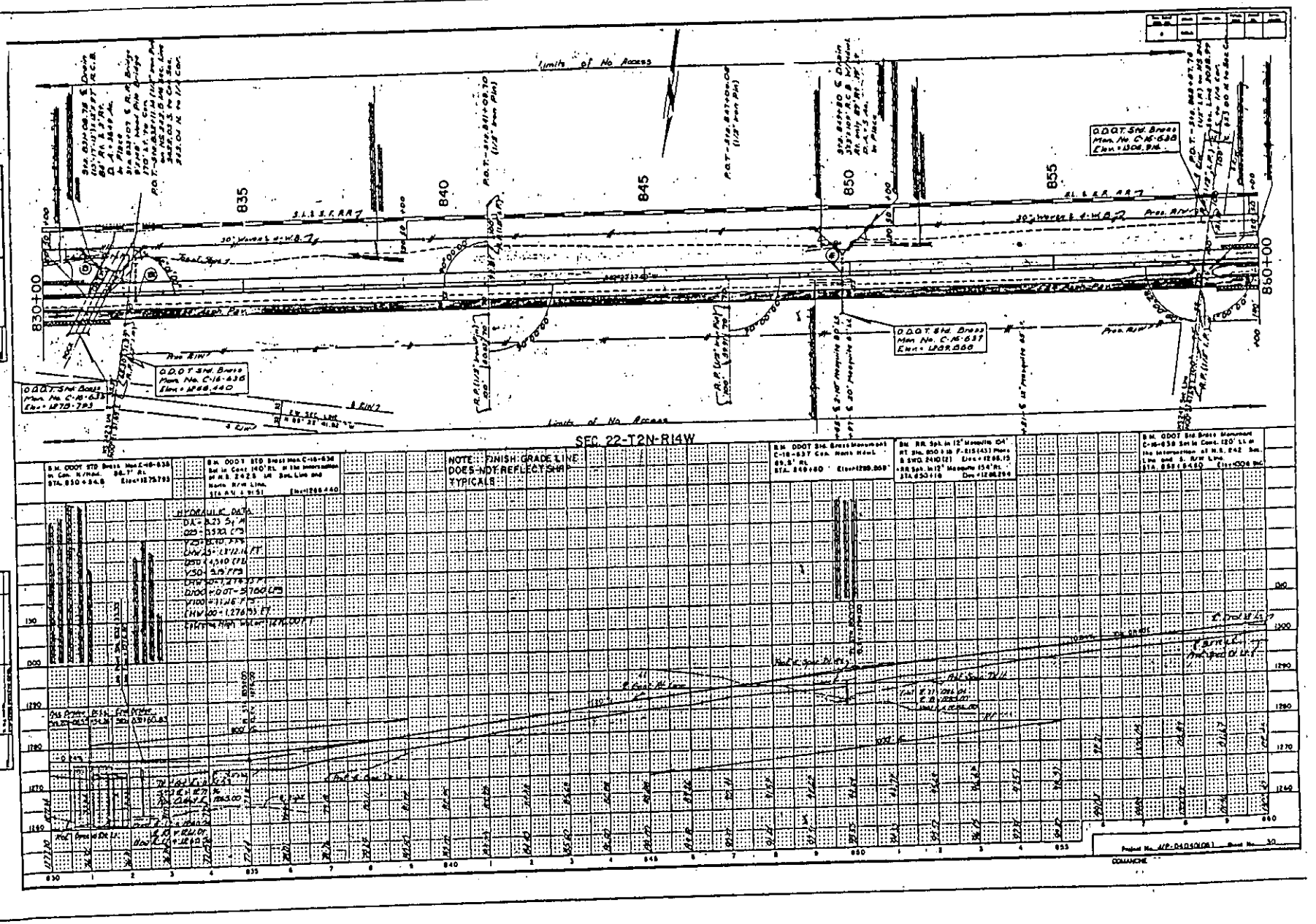
LAYOUT OF RAIN GAUGE FOUNDATION

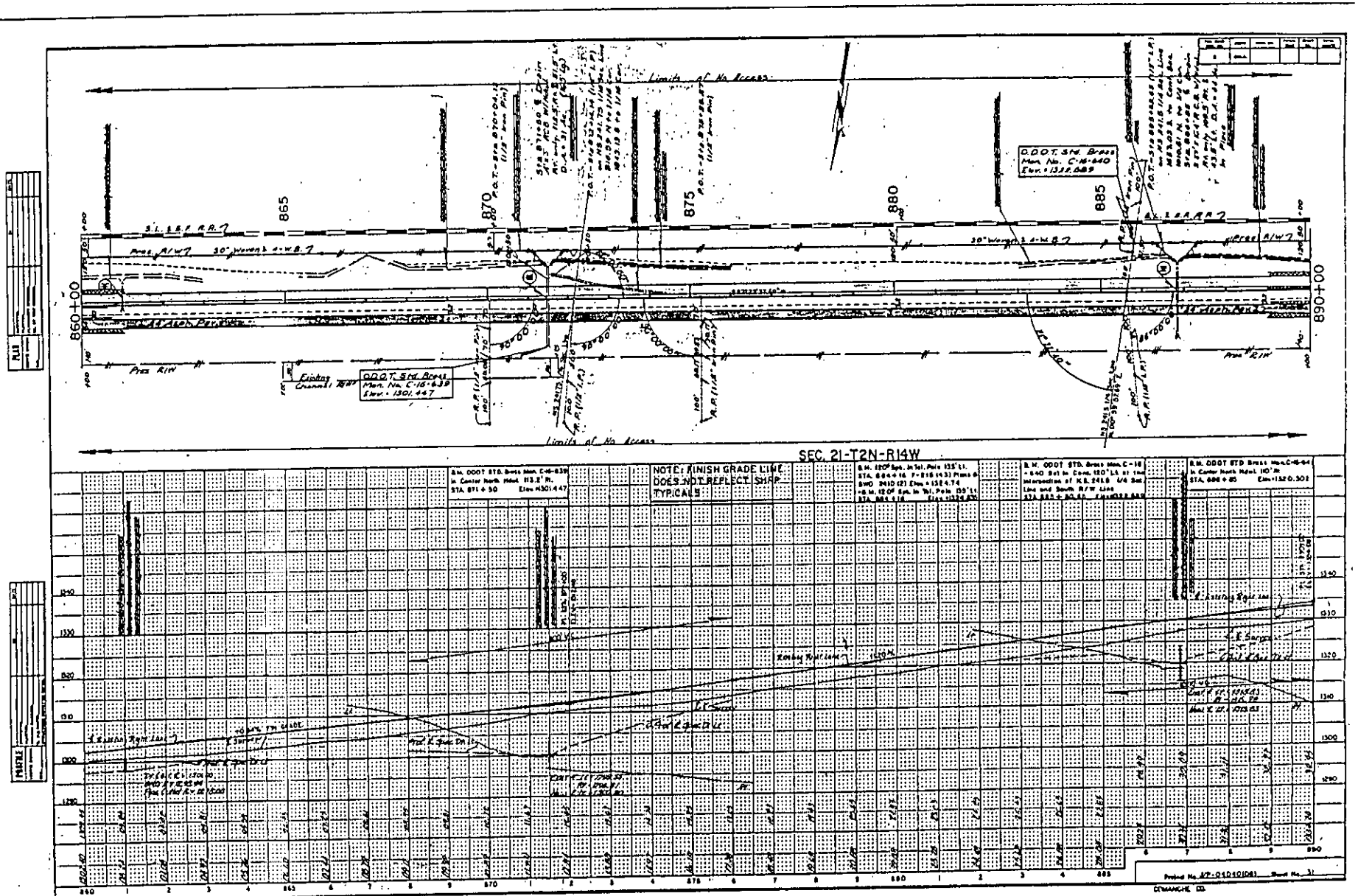
DESIGN			OKLAHOMA DEPARTMENT OF TRANSPORTATION DESIGN DIVISION
DRAWN			AUTOMATED WEATHER STATION DETAILS
CHECKED			
APPROVED			
SEALED	D.K. STOUT		PROJECT NO. STP 0404(006), SHEET NO. 27.

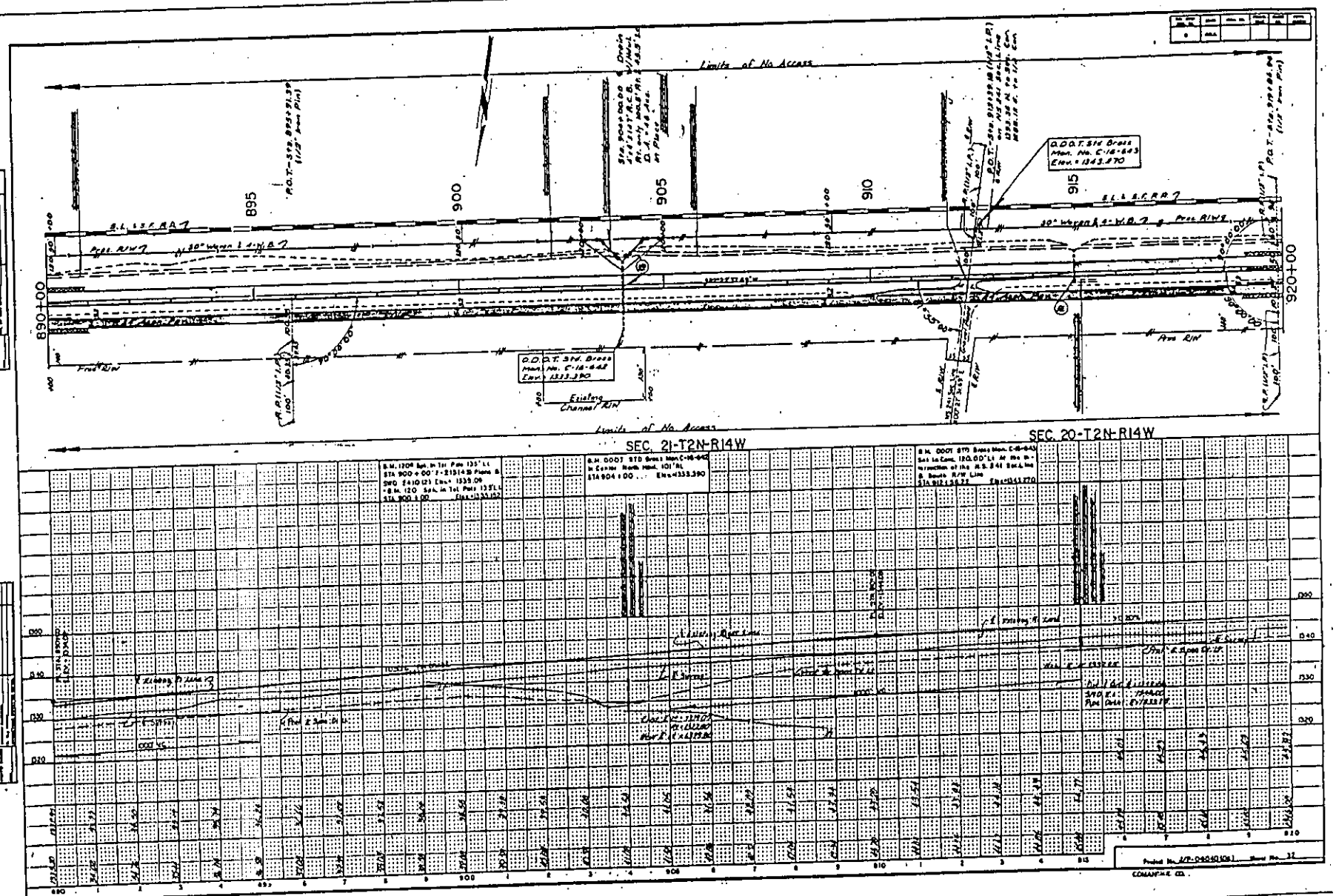
COMANCHE CO.

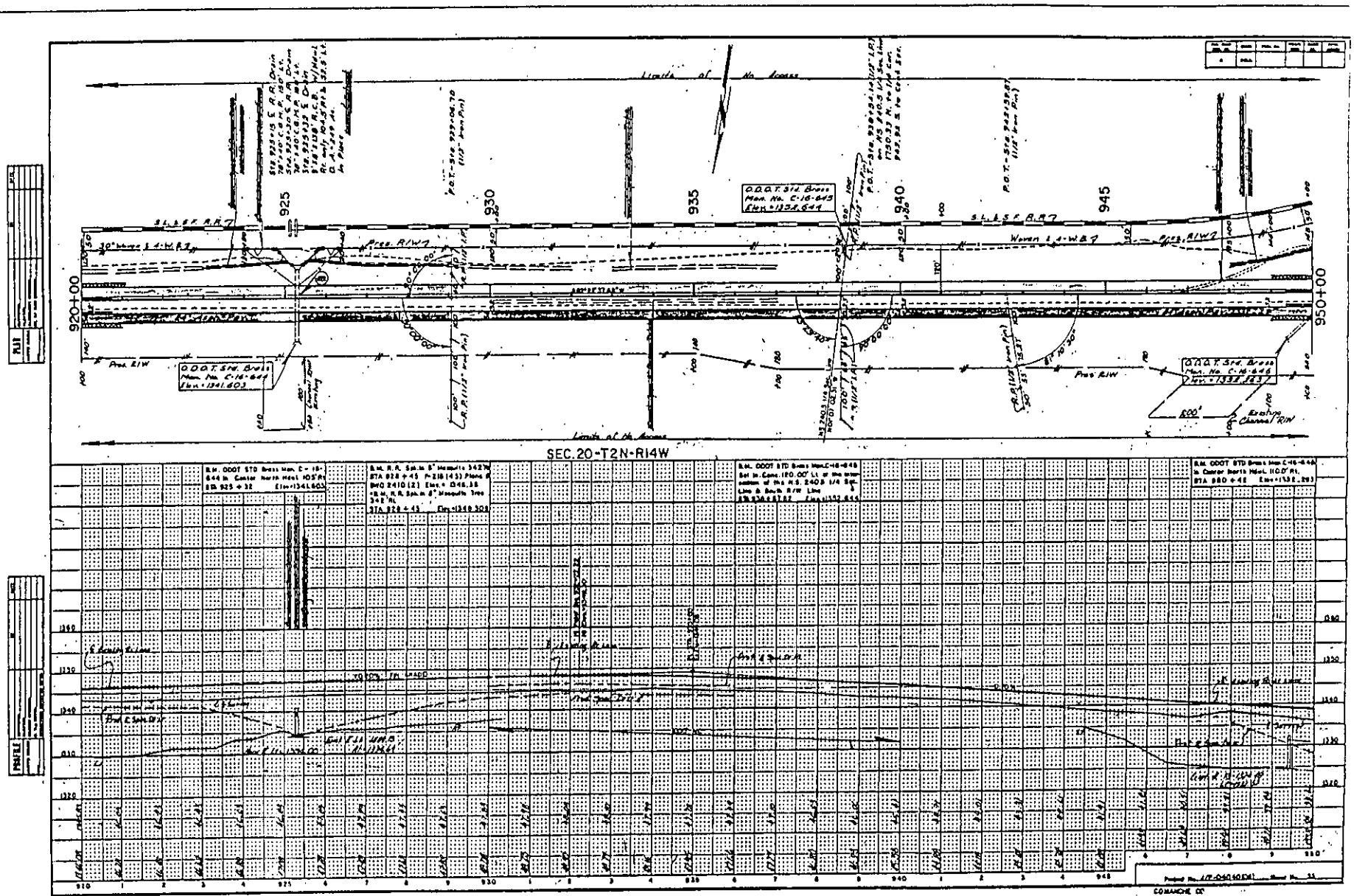

770+00
800+00
SEC. 14 T2N R14W
STA. 771+25.00 BEGIN INCIDENTAL CONSTRUCTION
STA. 775+00.00 END INCIDENTAL CONSTRUCTION
BEGIN PROJECT U.P. NO. D4040 (06)
TEMPORARY CROSSOVER CURVE DATA
CONST. LT. LANE CURVE DATA
TEMP CURVE DATA
Limits of Ho Access
Pres. R/W
Top of Cut
Top of Fill
Top of Slope
Toe of Slope
Sta. Equation
Sta. 790+00.00 E Survey
Sta. 790+02.81 Temp. Conn.
O.D.O.T. Std Brass
Elev = 1257.675
COMANCHE CO.

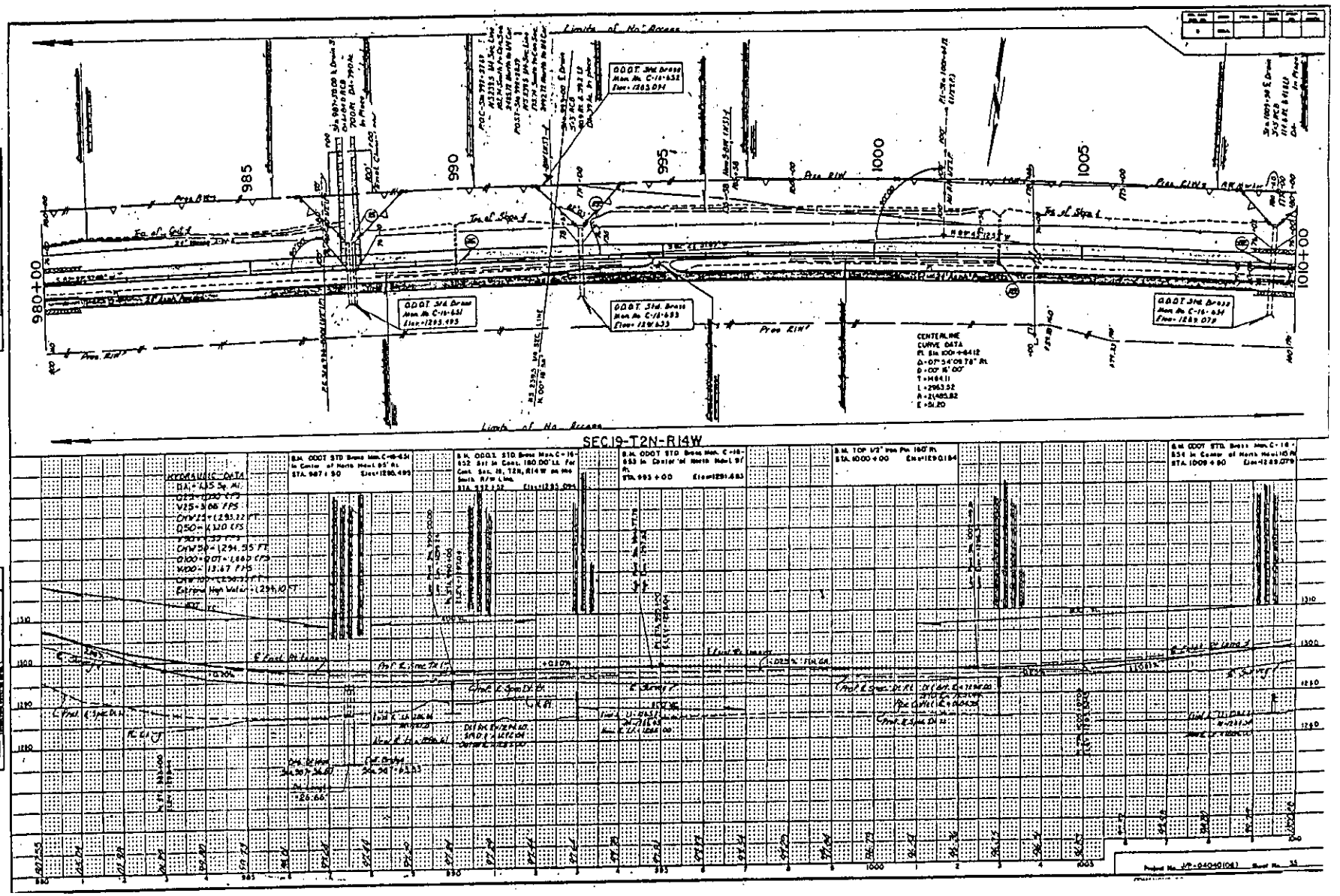

SEC. 23-T2N-R14W
SEC. 22-T2N-R14W
SEC. 14-T2N-R14W
SEC. 15-T2N-R14W
Limits of No Access
Limits of Access To Frontage Road Only
Limits of Access To Railroad Only
Free R/W
Top of CR 4
Profile
Plan
COMANCHE CO.

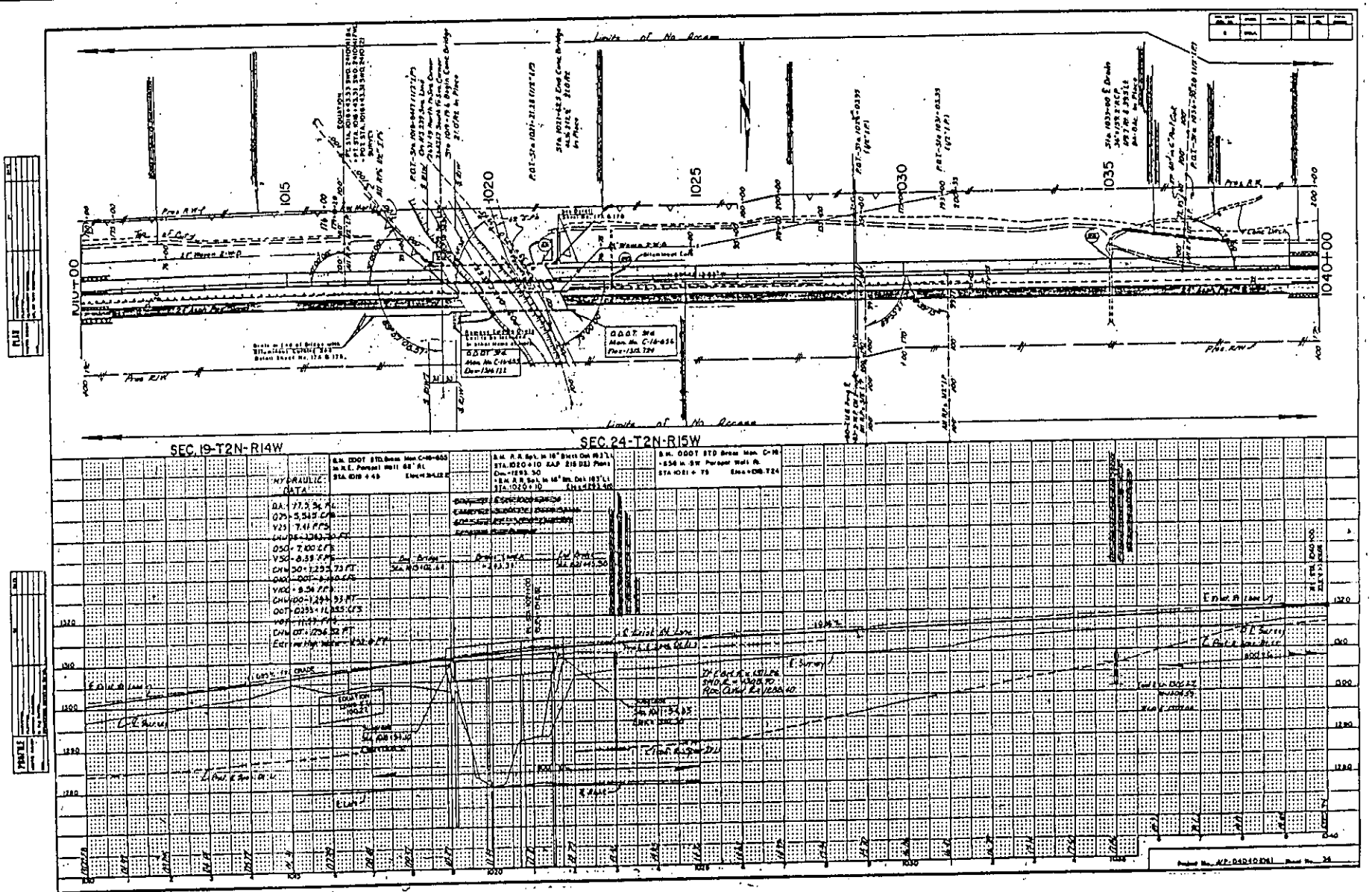

Limits of No Access
SEC. 22-T2N-R14W
NOTE: FINISH GRADE LINE DOES NOT REFLECT SHR TYPICALS
HYDRAULIC DATA
830+00
860+00
835
840
845
850
855
COMANCHE

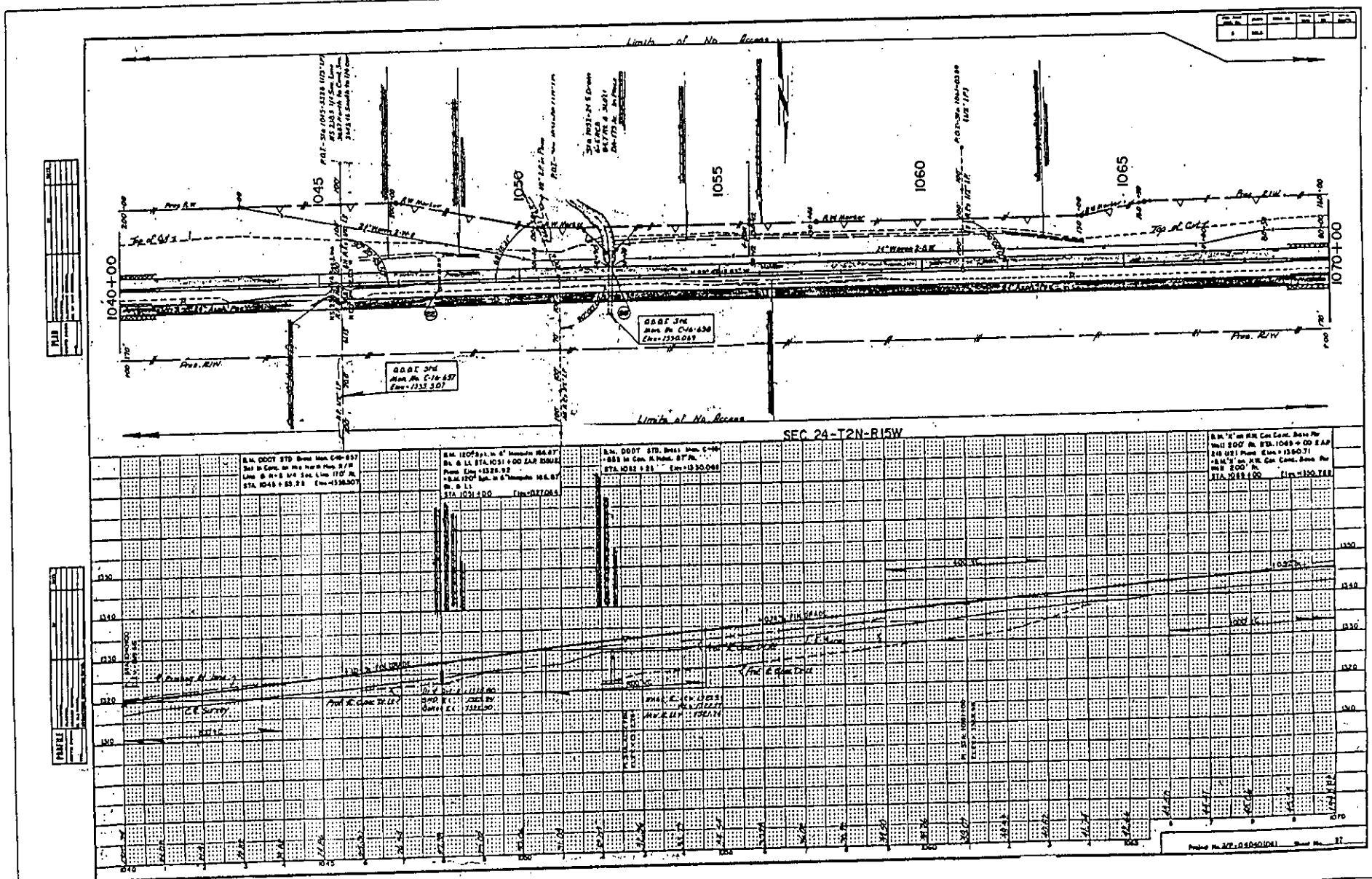

860+00
890+00
865
870
875
880
885
Limits of No Access
Existing Channel
O.D.O.T. Std. Brass Mon. No. C-16-639 Elev. = 1301.447
O.D.O.T. Std. Brass Mon. No. C-16-640 Elev. = 1332.689
SEC. 21-T2N-R14W
NOTE: FINISH GRADE LINE DOES NOT REFLECT SHAPE TYPICALLY
Project No. NT-0101(108) Sheet No. 31
COMANCHE CO.

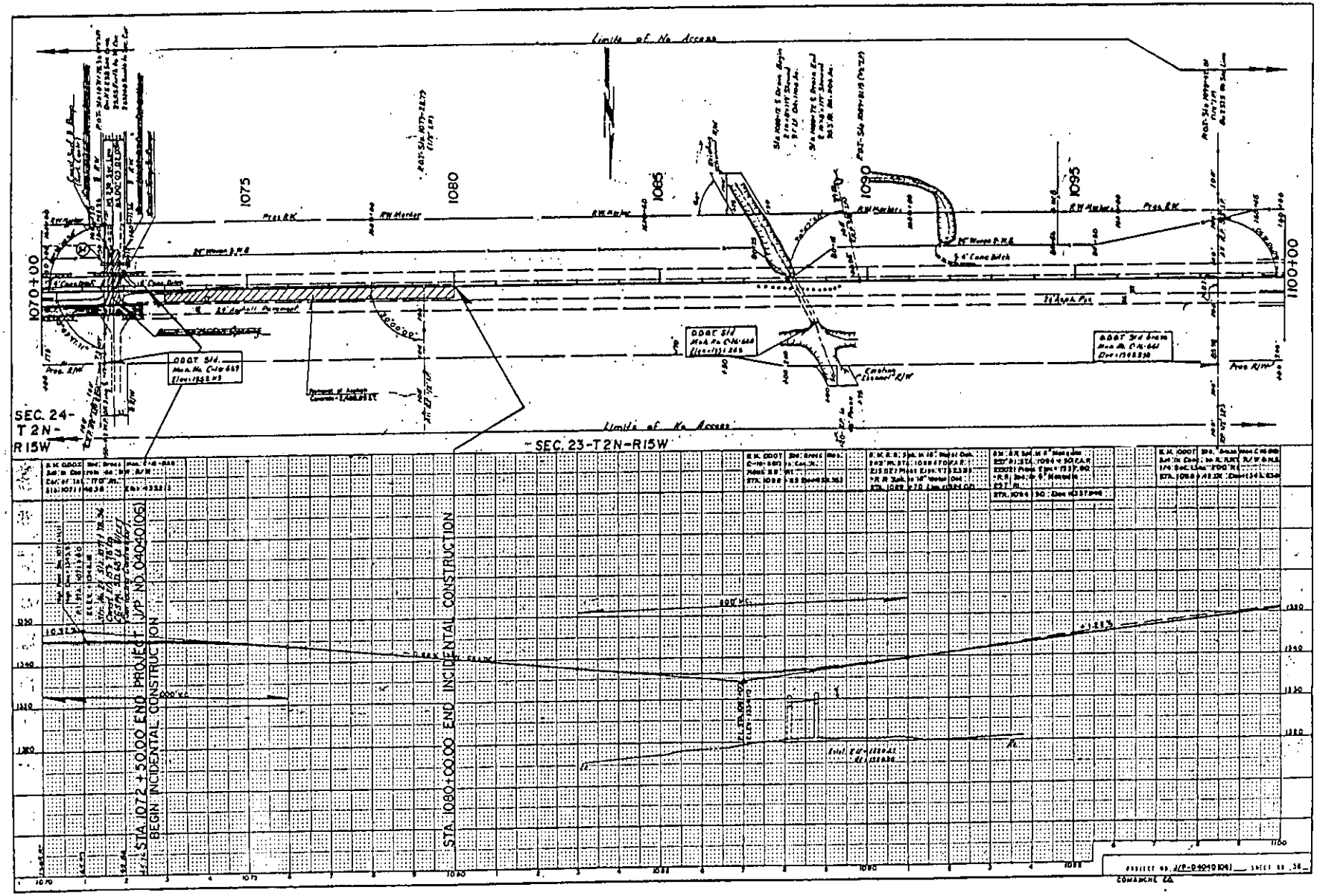

Limits of No Access
890+00
895
900
905
910
915
920+00
Existing Channel R/W
SEC. 21-T2N-R14W
SEC. 20-T2N-R14W


SEC.20-T2N-R14W
920+00
925
930
935
940
945
950+00
Limits of No Access
Proj. R/W
O.D.O.T. Std. Brass Mon. No. C-16-643 Elev.=1341.603
O.D.O.T. Std. Brass Mon. No. C-16-645 Elev.=1334.644
O.D.O.T. Std. Brass Mon. No. C-16-646 Elev.=1337.283
Existing Channel R/W
PLAN
PROFILE
COMANCHE CO.


Limits of No Access
980+00
985
990
995
1000
1005
1010+00
Prop. RW
Fg. of Slope
ODOT Std. Brass
CENTERLINE
CURVE DATA
SEC.19-T2N-R14W
HYDRAULIC DATA
Project No. JVP-040401(06)


Limits of No Access
1015
1020
1025
1030
1035
1040+00
SEC. 19-T2N-R14W
SEC. 24-T2N-R15W
HYDRAULIC DATA
Project No. NF-0404(0261) Sheet No. 26


Limits of No Access
1040+00
1045
1050
1055
1060
1065
1070+00
Top of Cut
Prop. R/W
Prop. R/W
Limits of No Access
SEC. 24-T2N-R15W


Limits of No Access
1070+00
1075
1080
1085
1090
1095
1100+00
SEC. 24-T2N-R15W
SEC. 23-T2N-R15W
STA. 1072+50.00 END PROJECT
BEGIN INCIDENTAL CONSTRUCTION
STA. 1080+00.00 END INCIDENTAL CONSTRUCTION

PLAN ESTIMATES

ITEM NO.	APPROXIMATE STATION LOCATION	TYPE OF SIGN	TYPE OF POSTS	ESTIMATED POST LENGTHS (LINEAR FEET) A	B	C	*LATERAL CLEARANCE	POST SPACE	FTG. DES. NO.	STRL. CONC. CU. YD.	REINF. STEEL LBS.	SIGN AREA SQUARE FEET SHEET	PANEL	OVERLAY	REMARKS
1 1775-25	LFT	R5-1a	2-1/4" SQ	13.000								6.000			
2 1778-00	LFT	R5-1	2-1/4" SQ	13.500								6.250			
3 1778-50	INEDIANT	R4-7	2-1/4" SQ	13.500								5.000			
4 1778-50	INEDIANT	R4-7	2-1/4" SQ	13.500								5.000			
5 1779-00	LFT	R5-1	2-1/4" SQ	13.500								6.250			
6 1782-50	LFT	R5-1a	2-1/4" SQ	13.000								6.000			
7 1787-00	LFT	ROUTE ASSEMBLY NO. 2	2-1/4" SQ	14.500								6.000			
8 1787-00	LFT	R2-1(70)	2-1/4" SQ	13.500								5.000			
9 1787-00	LFT	ROUTE ASSEMBLY NO. 2	2-1/4" SQ	14.000								6.000			
10 1787-00	LFT	R2-1(70)	2-1/4" SQ	13.500								5.000			
11 1792-13	LFT	OW-3(L) EXISTING													
12 1792-13	LFT	OW-3(R) EXISTING													
13 1795-93	LFT	OW-3(L)	2-1/4" SQ	13.000								3.000			
14 1795-93	LFT	OW-3(R)	2-1/4" SQ	13.000								3.000			
15 1802-75	LFT	R5-1a	2-1/4" SQ	13.000								6.000			
16 1805-00	LFT	R5-1	2-1/4" SQ	13.500								6.250			
17 1805-25	INEDIANT	R4-7	2-1/4" SQ	13.500								5.000			
18 1805-25	INEDIANT	R4-7	2-1/4" SQ	13.500								5.000			
19 1806-00	LFT	R5-1	2-1/4" SQ	13.500								6.250			
20 1808-25	LFT	R5-1a	2-1/4" SQ	13.000								6.000			
21 1814-00	LFT	R5-1a	2-1/4" SQ	13.000								6.000			
22 1814-50	LFT	R5-1	2-1/4" SQ	13.500								6.250			
23 1817-25	INEDIANT	R4-7	2-1/4" SQ	[illegible]								[illegible]			
24 1817-50	INEDIANT	R4-7	2-1/4" SQ	[illegible]								[illegible]			
25 1822-00	LFT	R5-1a	2-1/4" SQ	[illegible]								[illegible]			
26 1822-00	INEDIANT	R5-1	2-1/4" SQ	13.500								6.250			
27 1822-00	INEDIANT	R5-1a	2-1/4" SQ	13.000								6.000			
28 1822-25	INEDIANT	R4-7	2-1/4" SQ	12.000								3.000			
29 1822-25	INEDIANT	R4-7	2-1/4" SQ	12.000								3.000			
30 1822-25	LFT	R6-1(R)	2-1/4" SQ	12.000								3.000			
31 1822-25	LFT	R6-1(L)	2-1/4" SQ	12.000								3.000			
32 1822-50	LFT	R1-1, R6-1(L) & R6-1(R)	2-1/4" SQ	14.500								12.250			
33 1822-50	LFT	R6-1(L)	2-1/4" SQ	12.000								3.000			
34 1822-50	INEDIANT	R2-2	2-1/4" SQ	13.500								3.000			
35 1822-85	INEDIANT	R5-1	2-1/4" SQ	13.500								6.250			
36 1826-75	INEDIANT	R5-1a	2-1/4" SQ	13.000								6.000			
37 1863-00	LFT	R5-1a	2-1/4" SQ	13.000								6.000			
38 1865-25	LFT	R5-1	2-1/4" SQ	13.500								6.250			
39 1865-50	INEDIANT	R4-7	2-1/4" SQ	13.500								5.000			
40 1865-50	INEDIANT	R4-7	2-1/4" SQ	13.500								5.000			
41 1868-00	LFT	R5-1	2-1/4" SQ	13.500								6.250			
42 1868-50	LFT	R5-1a	2-1/4" SQ	13.000								6.000			
43 1882-25	LFT	R5-1a	2-1/4" SQ	13.000								6.000			
44 1884-50	LFT	R5-1	2-1/4" SQ	13.500								6.250			
45 1884-75	INEDIANT	R4-7	2-1/4" SQ	13.500								5.000			
46 1885-25	INEDIANT	R4-7	2-1/4" SQ	13.500								5.000			
47 1925-50	LFT	R5-1	2-1/4" SQ	13.500								6.250			
48 1927-75	LFT	R5-1a	2-1/4" SQ	13.000								6.000			
49 1928-50	LFT	OW-3(L) EXISTING													
50 1928-50	LFT	OW-3(R) EXISTING													
51 1942-50	LFT	OW-3(L)	2-1/4" SQ	13.000								3.000			
52 1942-50	LFT	OW-3(R)	2-1/4" SQ	13.000								3.000			
53 1942-50	LFT	R5-1a	2-1/4" SQ	13.000								6.000			
54 1945-00	LFT	R5-1	2-1/4" SQ	13.500								6.250			
55 1945-25	INEDIANT	R4-7	2-1/4" SQ	13.500								5.000			
56 1945-25	INEDIANT	R4-7	2-1/4" SQ	13.500								5.000			
57 1944-00	LFT	R5-1	2-1/4" SQ	13.500								6.250			
58 1944-25	LFT	R5-1a	2-1/4" SQ	13.000								6.000			
59 1960-00	LFT	ROUTE ASSEMBLY NO. 2	2-1/4" SQ	14.000								6.000			
60 1960-00	LFT	R2-1(70)	2-1/4" SQ	13.500								5.000			
61 1965-00	LFT	ROUTE ASSEMBLY NO. 2	2-1/4" SQ	14.000								6.000			
62 1965-00	LFT	R2-1(70)	2-1/4" SQ	13.500								5.000			
63 1968-00	INEDIANT	R5-1a	2-1/4" SQ	13.000								6.000			
64 1971-50	INEDIANT	R5-1	2-1/4" SQ	13.500								6.250			
65 1971-75	INEDIANT	R1-2 & R6-1(L)	2-1/4" SQ	14.500								6.500			
66 1971-75	LFT	R6-1(L)	2-1/4" SQ	12.000								3.000			
67 1972-50	LFT	R1-1, R6-1(L) & R6-1(R)	2-1/4" SQ	14.500								12.250			
68 1972-75	LFT	R1-1, R6-1(L) & R6-1(R)	2-1/4" SQ	14.500								12.250			
69 1972-75	LFT	R6-1(L)	2-1/4" SQ	12.000								3.000			
70 1972-50	INEDIANT	R1-2 & R6-1(L)	2-1/4" SQ	14.500								6.500			
71 1974-25	INEDIANT	R5-1	2-1/4" SQ	13.500								6.250			
72 1974-50	INEDIANT	R5-1a	2-1/4" SQ	13.000								6.000			

DESIGN	BDS	5-96
DRAWN	BDS	5-96
CHECKED	WMM	5-96
APPROVED	WMS	5-96
SIGNING	SIGNING	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING DIVISION

SIGN SUMMARY SHEET

J/P NO. 04210041 SHEET NO. 39

* LATERAL CLEARANCE SHALL BE THE DISTANCE FROM THE EDGE OF THE SHOULDER TO THE EDGE OF THE SIGN. LATERAL CLEARANCE NOT SHOWN SHALL BE ACCORDING TO STANDARD DRAWING G.M.S.-1 (LATEST REVISION).

REVISION DATE

RECEIVED NOV 2 0 1997

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 1 REFERENCE PROJECT STATION TABLE	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 0]

ORDER	TEST SECTION ID NO (1)	REFERENCE PROJECT STATION NUMBER (2) START	(3) END	(4) CUT-FILL[1] TYPE	STATION
1	4 0 0 5 0 1	0 + 0 0	5 + 0 0	2	+
2	4 0 0 5 0 2	9 + 0 0	14 + 0 0	2	+
3	4 0 0 5 0 3	19 + 0 0	24 + 0 0	2	+
4	4 0 0 5 0 8	32 + 0 0	37 + 0 0	2	+
5	4 0 0 5 0 9	43 + 0 0	48 + 0 0	2	+
6	4 0 0 5 0 6	64 + 0 0	69 + 0 0	2	+
7	4 0 0 5 0 7	84 + 0 0	89 + 0 0	2	+
8	4 0 0 5 0 4	93 + 0 0	98 + 0 0	2	+
9	4 0 0 5 0 5	109 + 0 0	114 + 0 0	2	+
10	4 0 0 5 6 0	136 + 0 0	141 + 0 0	2	+
11		+	+		+
12		+	+		+
13		+	+		+
14		+	+		+
15		+	+		+
16		+	+		+
17		+	+		+
18		+	+		+
19		+	+		+
20		+	+		+

ENTERED JUL 22 1997 J B

10/24/97

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
	+					
	+					
	+					

G.W. ENTERED JUN 17 1998

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 MRG EMPLOYER BME DATE 7/24/97

October 1990 (Heading revised October 1992)

RECEIVED NOV 2 0 1997

SPS-5 CONSTRUCTION DATA SHEET 2 REVISED LAYER DESCRIPTIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 2]

1. LAYER NUMBER	2. LAYER DESCRIPTION	3. MATERIAL TYPE CLASS	4. LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[8.0]	___.___	___.___	___.___
3	[0 4]	[0 1]	[3.0]	___.___	___.___	___.___
4	[0 3]	[0 1]	[1.5]	___.___	___.___	___.___
5	[0 2]	[7 3]	[___.___]	___.___	___.___	___.___
6	[0 1]	[1 3]	[1.8]	1.0	2.5	0.3
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 [signature] EMPLOYER BRE DATE 11/18/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 4 ASPHALT CONCRETE PATCHES	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 2]

1. DATE PATCHING OPERATIONS BEGAN (Month-Day-Year) [0 7-0 8-9 7]

2. DATE PATCHING OPERATIONS COMPLETED [0 7-0 8-9 7]

3. PRIMARY DISTRESS OCCURRENCE PATCHED (code from Table A.22) [0 6]
   Other (Specify) Transverse Cracking of moderate to high severity

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

5. SUMMARY OF PATCHING

	NUMBER	TOTAL AREA (SQ. FT.)
Surface Only	[0 3]	[_ 1 0 0]
Surface and partial base replacement	[0 0]	[_ _ _ 0]
Full depth	[0 0]	[_ _ _ 0]

PJ 98/7/2

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

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

8. COMPACTION EQUIPMENT [2]
   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 [1]
   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) [4 8]

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

12. AIR TEMPERATURE DURING PLACEMENT OPERATIONS
    High Temperature (°F) [8 5]
    Low Temperature (°F) [6 0]

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

PREPARER Timothy J. Martin EMPLOYER BRE DATE 11/4/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 7 OVERLAY PLACEMENT OPERATIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 2]

1. DATE SURFACE PREPARATION BEGAN (Month-Day-Year) [0 7-1 4-9 7]
2. DATE SURFACE PREPARATION COMPLETED [0 7-1 4-9 7]

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

4. TACK COAT
   Layer Numbers [0 5] [_ _]
   Material Type None..... 1 SS-1.... 2 SS-1H.... 3 CRS-1.... 4 [0 2]
   CRS-2.... 5 CMS-2.... 6 CMS-2H.. 7 CSS-1.... 8 CSS-1H... 9
   Other.... 10 (Specify) _____
5. TACK COAT DILUTION
   (Percent) [5 0]
   Mixing Rate Parts Diluent 1 TO Parts Asphalt 1
6. TACK COAT APPLICATION RATE (Gal/Sq. Yd.) [0 . 0 3]

7. ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	Aztec	[_ _ 7]	[1 0]	[6] [_] [_]
Plant 2	[_]		[_ _ _]	[_ _]	[_] [_] [_]
Plant 3	[_]		[_ _ _]	[_ _]	[_] [_] [_]

   Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

8. MANUFACTURER OF ASPHALT CONCRETE PAVER Blaw-Knox
9. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER PF-510
10. SINGLE PASS LAYDOWN WIDTH (Feet) [2 2.0]
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 [0 6]
    Nominal First Lift Placement Thickness (Inches) [2.5]
    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 [1]
    Between lanes.. 1 Within lane.. 2 (specify offset from O/S feet) [~~1~~ 2.0] 1/2 1/2/98
16. SIGNIFICANT EVENTS DURING CONSTRUCTION(disruptions, rain, equip. problems, etc.)

PREPARER [signature] EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 8 OVERLAY COMPACTION DATA	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 2]

1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [0 7-1 4-9 7]
2. DATE PAVING OPERATIONS COMPLETED [0 7-1 6-9 7]
3. LAYER NUMBER [6]
4. MIXING TEMPERATURE (°F) [3 1 5.]
5. LAYDOWN TEMPERATURES (°F)
   Mean..... 3 0 5.
   Minimum..... _ _ _.
   Standard Deviation... _ _.
   Number of Tests ..... _ _.
   Maximum..... _ _ _.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	1 2.0				
7	B	Steel-Whl Tandem	_ _._				
8	C	Steel-Whl Tandem	_ _._				
9	D	Steel-Whl Tandem	_ _._				
10	E	Pneumatic-Tired	1 8.0	1 2 0.			
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.	1 1.2		3 2 0 0.	0 2 _	_ _._
19	N	Double-Drum Vibr.	_ _._		_ _ _ _.	_ _ _	_ _._
20	O	Double-Drum Vibr.	_ _._		_ _ _ _.	_ _ _	_ _._
21	P	Double-Drum Vibr.	_ _._		_ _ _ _.	_ _ _	_ _._
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	M	_	_	_
24	Coverages	_ 1.	_ _.	_ _.	_ _.
	INTERMEDIATE				
25	Roller Code (A-Q)	E	_	_	_
26	Coverages	_ 2.	_ _.	_ _.	_ _.
	FINAL				
27	Roller Code (A-Q)	A	_	_	_
28	Coverages	_ 1.	_ _.	_ _.	_ _.
29	Air Temperature (°F)	_ 8 5.	_ _ _.	_ _ _.	_ _ _.
30	Compacted Thickness (In)	2.0	_._	_._	_._
31	Curing Period (Days)	_ _._	_ _._	_ _._	_ _._

PREPARER [signature] EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 2]

LAYER THICKNESS MEASUREMENTS (Inches)

SHEET 1 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
0+00	0				1.1	
	36				1.7	
	72				1.7	
	108				1.9	
	144				1.7	
0+50	0				1.0	
	36				1.4	
	72				1.3	
	108				1.6	
	144				1.1	
1+00	0				1.4	
	36				1.8	
	72				1.6	
	108				1.8	
	144				1.6	
1+50	0				1.7	
	36				1.7	
	72				1.8	
	108				1.9	
	144				1.4	
2+00	0				1.6	
	36				1.7	
	72				1.6	
	108				1.8	
	144				1.6	
2+50	0				1.6	
	36				1.8	
	72				1.8	
	108				1.9	
	144				1.8	
3+00	0				2.0	
	56				2.2	
	72				2.2	
	108				2.5	
	144				2.5	
LAYER NUMBER					06	

PREPARER Timothy J. Rotter EMPLOYER BRE DATE 10/27/97

ENTERED MAY 18 1999 J B

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 2]

ENTERED DEC 1 8 1999

LAYER THICKNESS MEASUREMENTS (Inches) SHEET 2 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
3+50	0				2.2	
	36				2.0	
	72				2.0	
	108				2.2	
	144				1.9	
4+00	0				1.6	
	36				1.9	
	72				2.0	
	108				2.0	
	144				1.9	
4+50	0				1.9	
	36				2.2	
	72				2.2	
	108				2.4	
	144				1.9	
5+00	0				1.6	
	36				1.9	
	72				2.2	
	108				2.3	
	144				2.2	
+						
+						
+						
LAYER NUMBER					06	

PREPARER [signature] EMPLOYER BRE DATE 10/27/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 11 MISCELLANEOUS CONSTRUCTION NOTES AND COMMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 2]

ENTERED MAY 13 1998 J B

Provide any miscellanious comments and notes concering 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 indicatetion of the basis for such measurements, such as an ASTM, AASHTO, or Agency standard test designation.

Patching was used to seal 6 large depressed transverse cracks. This was done using an HMAC level-up and rolling w/ pneumatic roller.

PREPARER Timothy [illegible] EMPLOYER BRE DATE 11/19/97

Revised December 15, 1989

SHEET 1

REHABILITATION DATA

LTPP PROGRAM

*STATE ASSIGNED ID [_ _ _ _]

*STATE CODE [4 0]

*SHRP SECTION ID [0 5 0 2]

G.W. ENTERED JUN 16 1998

IMPROVEMENT LISTING

* 1. DATE COMPLETED (MO/DAY/YR)	* 2. WORK[1] TYPE CODE (TABLE A.17)	* 3. WORK QUANTITY (UNITS FROM (TABLE A.17)	4. THICKNESS (INCHES)	5. COST[2] (THOUSANDS OF DOLLARS PER LANE-MILE)
[0 7/1 6/9 7]	[4 3]	[_ 2 2 0 0.]	_ 2.0	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.

NOTES:

1. For each specific work type, the appropriate set of sheets should be completed (as indexed in Table 7.1). It is recognized that parts of both Chapter 6 (Maintenance Data Collection) and Chapter 7 (Rehabilitation Data Collection) may be required to adequately record a given set of improvements for a test section.

2. Cost includes only pavement structure cost. Non-pavement costs such as cut and fill work, work on bridges, culverts, lighting, and guard rails are to be excluded.

Revised December 15, 1989

SHEET 2

REHABILITATION DATA

LTPP PROGRAM

*STATE ASSIGNED ID [_ _ _ _]

*STATE CODE [4 0]

*SHRP SECTION ID [0 5 0 2]

GW EDITED JUN 16 1993

REVISED LAYER DESCRIPTIONS

1.	*2.	*3.	*4.			
LAYER[1] NUMBER	LAYER[2] DESCRIP-TION	MATERIAL[3,4] TYPE CLASSIFICATION	<-------- LAYER THICKNESS (IN) --------> MEAN	MIN.	MAX.	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _8.0]	_ _ _._	_ _ _._	_ _ _._
3	[0 4]	[0 1]	[_ _3.0]	_ _ _._	_ _ _._	_ _ _._
4	[0 3]	[0 1]	[_ _1.5]	_ _ _._	_ _ _._	_ _ _._
5	[0 2]	[7 3]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
6	[0 1]	[1 3]	[_ _1.8]	_ _1.0	_ _2.5	_ _0.3
7	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
8	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
9	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._

NOTES:

1. Layer 1 is subgrade soil, last layer is existing 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 (Below Surface Layer)...04	Interlayer.....08	Recycled Layer.....12

3. The material type classification codes for surface, base or subbase, subgrade, and seal coat or interlayer materials appear in Tables A.5, A.6, A.7 and A.8, respectively.

4. If the materials or thicknesses of a layer has not changed during the rehabilitation, enter "99" as the material type classification and leave the layer thicknesses for that layer blank. If a layer has changed, enter the appropriate codes and thicknesses.

October 1990 (Heading revised October 1992)

RECEIVED NOV 2 0 1997

ENTERED MAY 1 8 1998

SPS-5 CONSTRUCTION DATA SHEET 2 REVISED LAYER DESCRIPTIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 3]

1. LAYER NUMBER	2. LAYER DESCRIPTION	3. MATERIAL TYPE CLASS	4. LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _ 8.0]	_ _ _.._	_ _ _.._	_ _ _.._
3	[0 4]	[0 1]	[_ _ 3.0]	_ _ _.._	_ _ _.._	_ _ _.._
4	[0 3]	[0 1]	[_ _ 1.5]	_ _ _.._	_ _ _.._	_ _ _.._
5	[0 2]	[7 3]	[_ _ _.._]	_ _ _.._	_ _ _.._	_ _ _.._
6	[0 4]	[1 3]	[_ _ 2.5]	_ _ 1.1	_ _ 3.7	_ _ 0.6
7	[0 1]	[1 3]	[_ _ 1.9]	_ _ 1.0	_ _ 2.6	_ _ 0.4
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 [signature] EMPLOYER BRE DATE 11/18/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 7 OVERLAY PLACEMENT OPERATIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 3]

1. DATE SURFACE PREPARATION BEGAN (Month-Day-Year) [0 7-1 0-9 7]
2. DATE SURFACE PREPARATION COMPLETED [0 7-1 0-9 7]
3. SURFACE PREPARATION PRIOR TO PLACEMENT OF OVERLAY Binder [3]
   None..... 1 Broomed..... 2 Broomed + Asphaltic Tack Coat.... 3
   Asphaltic Tack Coat (only).... 4
4. TACK COAT
   Layer Numbers [0 5] [_ _]
   Material Type None..... 1 SS-1.... 2 SS-1H.... 3 CRS-1.... 4 [0 2]
   CRS-2.... 5 CMS-2.... 6 CMS-2H.. 7 CSS-1.... 8 CSS-1H... 9
   Other.... 10 (Specify) _____
5. TACK COAT DILUTION
   (Percent) [5 0]
   Mixing Rate Parts Diluent 1 TO Parts Asphalt 1
6. TACK COAT APPLICATION RATE (Gal/Sq. Yd.) [0 . 0 3]
7. ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	Aztec	[_ _ 7]	[1 0]	[6] [7] [_]
Plant 2	[_]		[_ _ _]	[_ _]	[_] [_] [_]
Plant 3	[_]		[_ _ _]	[_ _]	[_] [_] [_]

   Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____
8. MANUFACTURER OF ASPHALT CONCRETE PAVER Blaw-knox
9. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER PF-510
10. SINGLE PASS LAYDOWN WIDTH (Feet) [2 2.0]
11. AC BINDER COURSE LIFT
    Layer Number [0 6]
    Nominal First Lift Placement Thickness (Inches) [3.5]
    Nominal Second Lift Placement Thickness (Inches) [_._]
12. AC SURFACE COURSE LIFT
    Layer Number [0 7]
    Nominal First Lift Placement Thickness (Inches) [2.5]
    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 [1]
    Between lanes.. 1 Within lane.. 2 (specify offset from O/S feet) [~~2~~ 2.0] 7/12/98
16. SIGNIFICANT EVENTS DURING CONSTRUCTION(disruptions, rain, equip. problems, etc.)

PREPARER [signature] EMPLOYER BRE DATE 11/19/97

ENTERED MAY 18 1998

October 1990 (Heading revised October 1992)

ENTERED DEC 1 9 1998

SPS-5 CONSTRUCTION DATA SHEET 8 OVERLAY COMPACTION DATA	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 3]

1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [0 7-1 0-9 7]
2. DATE PAVING OPERATIONS COMPLETED [0 7-1 1-9 7]
3. LAYER NUMBER Binder [6]
4. MIXING TEMPERATURE (°F) [3 1 5.]
5. LAYDOWN TEMPERATURES (°F)
   Mean..... 3 0 5.
   Minimum..... _ _ _.
   Standard Deviation... _ _.__
   Number of Tests ..... _ _.
   Maximum..... _ _ _.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	1 2.0				
7	B	Steel-Whl Tandem	_ _.__				
8	C	Steel-Whl Tandem	_ _.__				
9	D	Steel-Whl Tandem	_ _.__				
10	E	Pneumatic-Tired	1 8.0	_ 1 2 0.			
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.	1 1.2		3 2 0 0.	0 2 _	_ _.__
19	N	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
20	O	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
21	P	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	M	_	_	_
24	Coverages	_ 1.	_ _.	_ _.	_ _.
	INTERMEDIATE				
25	Roller Code (A-Q)	E	_	_	_
26	Coverages	_ 3.	_ _.	_ _.	_ _.
	FINAL				
27	Roller Code (A-Q)	A	_	_	_
28	Coverages	_ 1.	_ _.	_ _.	_ _.
29	Air Temperature (°F)	_ 8 5.	_ _ _.	_ _ _.	_ _ _.
30	Compacted Thickness (In)	3.0	_.__	_.__	_.__
31	Curing Period (Days)	_ 3.0	_ _.__	_ _.__	_ _.__

PREPARER [signature] EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

ENTERED MAY 18 1998 J B

SPS-5 CONSTRUCTION DATA SHEET 8 OVERLAY COMPACTION DATA	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 3]

1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [0 7-1 4-9 7]
2. DATE PAVING OPERATIONS COMPLETED [0 7-1 6-9 7]
3. LAYER NUMBER [7]
4. MIXING TEMPERATURE (°F) [3 1 5.]
5. LAYDOWN TEMPERATURES (°F)
   Mean..... 3 0 5.
   Minimum..... _ _ _.
   Standard Deviation... _ _.__
   Number of Tests ..... _ _.
   Maximum..... _ _ _.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	1 2.0				
7	B	Steel-Whl Tandem	_ _.__				
8	C	Steel-Whl Tandem	_ _.__				
9	D	Steel-Whl Tandem	_ _.__				
10	E	Pneumatic-Tired	1 8.0	1 2 0.			
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.	1 1.2		3 2 0 0.	0 2 _	_ _.__
19	N	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
20	O	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
21	P	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	M	_	_	_
24	Coverages	_ 1.	_ _.	_ _.	_ _.
	INTERMEDIATE				
25	Roller Code (A-Q)	E	_	_	_
26	Coverages	_ 2.	_ _.	_ _.	_ _.
	FINAL				
27	Roller Code (A-Q)	A	_	_	_
28	Coverages	_ 1.	_ _.	_ _.	_ _.
29	Air Temperature (°F)	_ 8 5.	_ _ _.	_ _ _.	_ _ _.
30	Compacted Thickness (In)	2.0	_.__	_.__	_.__
31	Curing Period (Days)	_ _.__	_ _.__	_ _.__	_ _.__

PREPARER Timothy J Martin EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 3]

LAYER THICKNESS MEASUREMENTS (Inches)

SHEET 1 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
0+00	0			2.4	1.0	
	36			2.9	1.2	
	72			3.0	1.3	
	108			3.7	1.2	
	144			3.6	1.0	
0+50	0			2.4	1.2	
	36			2.6	1.3	
	72			2.6	1.4	
	108			3.1	1.3	
	144			3.0	1.2	
1+00	0			2.8	1.3	
	36			2.9	1.7	
	72			3.1	1.8	
	108			3.7	1.7	
	144			3.1	1.4	
1+50	0			3.0	1.2	
	36			2.8	1.6	
	72			2.8	1.7	
	108			3.2	1.7	
	144			2.8	2.2	
2+00	0			1.7	1.9	
	36			2.3	1.9	
	72			2.4	2.0	
	108			2.8	2.0	
	144			2.8	1.9	
2+50	0			2.0	1.6	
	36			2.2	1.9	
	72			2.2	2.2	
	108			2.6	2.0	
	144			2.8	1.8	
3+00	0			2.0	2.2	
	36			2.4	2.2	
	72			2.4	2.3	
	108			3.0	1.9	
	144			2.9	1.9	
LAYER NUMBER				06	07	

PREPARER [signature] EMPLOYER BRE DATE 10/27/97

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October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 3]

LAYER THICKNESS MEASUREMENTS (Inches)

SHEET 2 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
3+50	0			2.3	2.3	
	36			2.6	2.3	
	72			2.6	2.5	
	108			3.2	2.3	
	144			3.2	1.9	
4+00	0			1.7	2.2	
	36			1.9	2.4	
	72			2.0	2.6	
	108			2.6	2.4	
	144			2.6	2.2	
4+50	0			1.1	2.0	
	36			1.4	2.2	
	72			1.7	2.4	
	108			2.4	2.2	
	144			2.4	2.3	
5+00	0			1.2	2.2	
	36			1.4	2.3	
	72			1.7	2.5	
	108			2.4	2.4	
	144			2.4	2.4	
+__						
+__						
+__						
LAYER NUMBER				06	07	

PREPARER Lindsay J. Marks EMPLOYER BRE DATE 10/27/97

Revised December 15, 1989

SHEET 1

REHABILITATION DATA

LTPP PROGRAM

*STATE ASSIGNED ID [_ _ _ _]

*STATE CODE [4 0]

*SHRP SECTION ID [0 5 0 3]

G.W. ENTERED JUN 16 1998

IMPROVEMENT LISTING

* 1. DATE COMPLETED (MO/DAY/YR)	* 2. WORK[1] TYPE CODE (TABLE A.17)	* 3. WORK QUANTITY (UNITS FROM (TABLE A.17)	4. THICKNESS (INCHES)	5. COST[2] (THOUSANDS OF DOLLARS PER LANE-MILE)
[0 7/1 6/9 7]	[4 3]	[_ 2 2 0 0.]	_ 5.0	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.

NOTES:

1. For each specific work type, the appropriate set of sheets should be completed (as indexed in Table 7.1). It is recognized that parts of both Chapter 6 (Maintenance Data Collection) and Chapter 7 (Rehabilitation Data Collection) may be required to adequately record a given set of improvements for a test section.

2. Cost includes only pavement structure cost. Non-pavement costs such as cut and fill work, work on bridges, culverts, lighting, and guard rails are to be excluded.

Revised December 15, 1989

SHEET 2

REHABILITATION DATA

LTPP PROGRAM

*STATE ASSIGNED ID [_ _ _ _]

*STATE CODE [4 0]

*SHRP SECTION ID [0 5 0 3]

G.W. ENTERED JUN 16 1998

REVISED LAYER DESCRIPTIONS

1.	*2.	*3.	*4.			
LAYER[1] NUMBER	LAYER[2] DESCRIPTION	MATERIAL[3,4] TYPE CLASSIFICATION	<-------- LAYER THICKNESS (IN) --------> MEAN	MIN.	MAX.	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _ 8.0]	_ _ _.._	_ _ _.._	_ _ _.._
3	[0 4]	[0 1]	[_ _ 3.0]	_ _ _.._	_ _ _.._	_ _ _.._
4	[0 3]	[0 1]	[_ _ 1.5]	_ _ _.._	_ _ _.._	_ _ _.._
5	[0 2]	[7 3]	[_ _ _._]	_ _ _.._	_ _ _.._	_ _ _.._
6	[0 4]	[1 3]	[_ _ 2.5]	_ _ 1.1	_ _ 3.7	_ _ 0.6
7	[0 1]	[1 3]	[_ _ 1.9]	_ _ 1.0	_ _ 2.6	_ _ 0.4
8	[_ _]	[_ _]	[_ _ _._]	_ _ _.._	_ _ _.._	_ _ _.._
9	[_ _]	[_ _]	[_ _ _._]	_ _ _.._	_ _ _.._	_ _ _.._

NOTES:

1. Layer 1 is subgrade soil, last layer is existing 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 (Below Surface Layer)...04	Interlayer.....08	Recycled Layer.....12

3. The material type classification codes for surface, base or subbase, subgrade, and seal coat or interlayer materials appear in Tables A.5, A.6, A.7 and A.8, respectively.

4. If the materials or thicknesses of a layer has not changed during the rehabilitation, enter "99" as the material type classification and leave the layer thicknesses for that layer blank. If a layer has changed, enter the appropriate codes and thicknesses.

October 1990 (Heading revised October 1992)

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ENTERED MAY 1 8 1998 J B

SPS-5 CONSTRUCTION DATA SHEET 2 REVISED LAYER DESCRIPTIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 4]

1. LAYER NUMBER	2. LAYER DESCRIPTION	3. MATERIAL TYPE CLASS	4. LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _8.0]	_ _ _._	_ _ _._	_ _ _._
3	[0 4]	[0 1]	[_ _3.0]	_ _ _._	_ _ _._	_ _ _._
4	[0 3]	[0 1]	[_ _1.5]	_ _ _._	_ _ _._	_ _ _._
5	[0 2]	[7 3]	[_ _._]	_ _ _._	_ _ _._	_ _ _._
6	[0 4]	[0 1]	[_ _2.9]	_ _1.7	_ _3.8	_ _0.4
7	[0 1]	[0 1]	[_ _1.8]	_ _1.0	_ _2.3	_ _0.4
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 Timothy J Martin EMPLOYER ERE DATE 11/18/97

October 1990 (Heading revised October 1992)

ENTERED MAY 13 1998 J B

SPS-5 CONSTRUCTION DATA SHEET 7 OVERLAY PLACEMENT OPERATIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 4]

1. DATE SURFACE PREPARATION BEGAN (Month-Day-Year) [0 7-0 2-9 7]
2. DATE SURFACE PREPARATION COMPLETED [0 7-0 2-9 7]

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

4. TACK COAT
   Layer Numbers [0 5] [_ _]
   Material Type None..... 1 SS-1.... 2 SS-1H.... 3 CRS-1.... 4 [0 2]
   CRS-2.... 5 CMS-2.... 6 CMS-2H.. 7 CSS-1.... 8 CSS-1H... 9
   Other.... 10 (Specify) _____
5. TACK COAT DILUTION
   (Percent) [5 0]
   Mixing Rate Parts Diluent 1 TO Parts Asphalt 1
6. TACK COAT APPLICATION RATE (Gal/Sq. Yd.) [0 .0 3]

7. ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	Aztec	[_ _ 7]	[1 0]	[6] [7] [_]
Plant 2	[_]		[_ _ _]	[_ _]	[_] [_] [_]
Plant 3	[_]		[_ _ _]	[_ _]	[_] [_] [_]

   Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

8. MANUFACTURER OF ASPHALT CONCRETE PAVER Blaw-know
9. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER PF-510

10. SINGLE PASS LAYDOWN WIDTH (Feet) [2 2.0]

11. AC BINDER COURSE LIFT
    Layer Number [0 6]
    Nominal First Lift Placement Thickness (Inches) [3.5]
    Nominal Second Lift Placement Thickness (Inches) [_._]
12. AC SURFACE COURSE LIFT
    Layer Number [0 7]
    Nominal First Lift Placement Thickness (Inches) [2.5]
    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) [1] [~~1~~ 2.0] JM 7/2/98

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

PREPARER Timothy J. Martin EMPLOYER BRE DATE 11/19/97

SPS-5 CONSTRUCTION DATA SHEET 8 OVERLAY COMPACTION DATA	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 4]

1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [0 7-0 2-9 7]
2. DATE PAVING OPERATIONS COMPLETED [0 7-0 3-9 7]

3. LAYER NUMBER Binder [6]

4. MIXING TEMPERATURE (°F) [3 2 8.]

5. LAYDOWN TEMPERATURES (°F)
   Mean..... 3 1 5.
   Minimum..... _ _ _.
   Standard Deviation... _ _.__
   Number of Tests ..... _ _.
   Maximum..... _ _ _.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	1 2.0				
7	B	Steel-Whl Tandem	_ _.__				
8	C	Steel-Whl Tandem	_ _.__				
9	D	Steel-Whl Tandem	_ _.__				
10	E	Pneumatic-Tired	1 8.0	1 2 0.			
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.	1 1.2		3 2 0 0.	.0 2 _	_ _.__
19	N	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
20	O	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
21	P	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	M	_	_	_
24	Coverages	_ 1.	_ _.	_ _.	_ _.
	INTERMEDIATE				
25	Roller Code (A-Q)	E	_	_	_
26	Coverages	_ 3.	_ _.	_ _.	_ _.
	FINAL				
27	Roller Code (A-Q)	A	_	_	_
28	Coverages	_ 1.	_ _.	_ _.	_ _.
29	Air Temperature (°F)	_ 8 5.	_ _ _.	_ _ _.	_ _ _.
30	Compacted Thickness (In)	3.0	_.__	_.__	_.__
31	Curing Period (Days)	_ 4.0	_ _.__	_ _.__	_ _.__

PREPARER [signature] EMPLOYER BRE DATE 11/18/97

RECEIVED NOV 18 1998 J B

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 8 OVERLAY COMPACTION DATA	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 4]

1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [0 7-0 7-9 7]
2. DATE PAVING OPERATIONS COMPLETED [0 7-0 8-9 7]
3. LAYER NUMBER Surface [7]
4. MIXING TEMPERATURE (°F) [3 2 8.]
5. LAYDOWN TEMPERATURES (°F)
   Mean..... 3 1 5.
   Minimum..... _ _ _.
   Standard Deviation... _ _.
   Number of Tests ..... _ _.
   Maximum..... _ _ _.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	1 2.0				
7	B	Steel-Whl Tandem	_ _._				
8	C	Steel-Whl Tandem	_ _._				
9	D	Steel-Whl Tandem	_ _._				
10	E	Pneumatic-Tired	1 8.0	1 2 0.			
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.	1 1.2		3 2 0 0.	.0 2 _	_ _._
19	N	Double-Drum Vibr.	_ _._		_ _ _ _.	. _ _ _	_ _._
20	O	Double-Drum Vibr.	_ _._		_ _ _ _.	. _ _ _	_ _._
21	P	Double-Drum Vibr.	_ _._		_ _ _ _.	. _ _ _	_ _._
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	M	_	_	_
24	Coverages	_ 1.	_ _.	_ _.	_ _.
	INTERMEDIATE				
25	Roller Code (A-Q)	E	_	_	_
26	Coverages	_ 2.	_ _.	_ _.	_ _.
	FINAL				
27	Roller Code (A-Q)	A	_	_	_
28	Coverages	_ 1.	_ _.	_ _.	_ _.
29	Air Temperature (°F)	_ 8 5.	_ _ _.	_ _ _.	_ _ _.
30	Compacted Thickness (In)	2 0	_._	_._	_._
31	Curing Period (Days)	_ _._	_ _._	_ _._	_ _._

PREPARER [signature] EMPLOYER BRE DATE 11/19/97

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 4]

ENTERED MAY 18 1998 J R

LAYER THICKNESS MEASUREMENTS (Inches) SHEET 1 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
0+00	0			1.7	1.4	
	36			2.5	1.1	
	72			3.0	1.2	
	108			2.8	1.3	
	144			2.2	1.7	
0+50	0			3.1	1.4	
	36			3.8	1.1	
	72			3.5	1.2	
	108			3.6	1.4	
	144			2.3	2.0	
1+00	0			2.4	1.4	
	36			2.6	1.8	
	72			3.1	1.1	
	108			3.2	1.4	
	144			2.4	1.9	
1+50	0			2.3	1.2	
	36			3.0	1.0	
	72			2.9	1.1	
	108			3.4	1.3	
	144			2.4	2.0	
2+00	0			2.8	2.2	
	36			3.5	2.0	
	72			3.5	1.9	
	108			3.6	2.0	
	144			3.2	2.2	
2+50	0			2.5	2.0	
	36			2.9	1.9	
	72			2.9	1.9	
	108			3.1	1.9	
	144			2.4	2.2	
3+00	0			2.5	2.0	
	36			3.1	1.9	
	72			3.1	1.7	
	108			3.5	1.8	
	144			2.4	2.2	
LAYER NUMBER				06	07	

PREPARER Timothy J. Martin EMPLOYER BRE DATE 10/31/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 4]

ENTERED MAY 1 9 1999

LAYER THICKNESS MEASUREMENTS (Inches) SHEET 2 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
3+50	0	.	.	2.6	2.0	.
	36	.	.	3.1	2.0	.
	72	.	.	2.9	1.8	.
	108	.	.	3.2	1.9	.
	144	.	.	2.9	2.0	.
4+00	0	.	.	2.3	2.3	.
	36	.	.	3.0	2.2	.
	72	.	.	2.9	2.0	.
	108	.	.	3.0	2.0	.
	144	.	.	2.5	2.2	.
4+50	0	.	.	2.5	2.2	.
	36	.	.	3.2	1.9	.
	72	.	.	3.2	1.8	.
	108	.	.	3.6	1.8	.
	144	.	.	2.6	2.2	.
5+00	0	.	.	2.3	2.3	.
	36	.	.	2.9	2.2	.
	72	.	.	3.0	2.0	.
	108	.	.	3.4	2.0	.
	144	.	.	2.6	2.2	.
+		.	.	.	.	.
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		.	.	.	.	.
LAYER NUMBER				06	07	

PREPARER Timothy J Martin EMPLOYER BRE DATE 10/31/97

Revised December 15, 1989

SHEET 1

REHABILITATION DATA

LTPP PROGRAM

*STATE ASSIGNED ID [_ _ _ _]

*STATE CODE [4 0]

*SHRP SECTION ID [0 5 0 4]

IMPROVEMENT LISTING

* 1. DATE COMPLETED (MO/DAY/YR)	* 2. WORK[1] TYPE CODE (TABLE A.17)	* 3. WORK QUANTITY (UNITS FROM (TABLE A.17)	4. THICKNESS (INCHES)	5. COST[2] (THOUSANDS OF DOLLARS PER LANE-MILE)
[0 7/0 8/9 7]	[1 9]	[_ 2 2 0 0.]	_ 5.0	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.

NOTES:

1. For each specific work type, the appropriate set of sheets should be completed (as indexed in Table 7.1). It is recognized that parts of both Chapter 6 (Maintenance Data Collection) and Chapter 7 (Rehabilitation Data Collection) may be required to adequately record a given set of *improvements for a test section.*

2. Cost includes only pavement structure cost. Non-pavement costs such as cut and fill work, work on bridges, culverts, lighting, and guard rails are to be excluded.

G.W. ENTERED JUN 16 1998

Revised December 15, 1989

*STATE ASSIGNED ID [_ _ _ _]

SHEET 2

*STATE CODE [4 0]

REHABILITATION DATA

*SHRP SECTION ID [0 5 0 4]

LTPP PROGRAM

G.W. ENTERED JUN 16 1998

REVISED LAYER DESCRIPTIONS

1.	*2.	*3.	*4.			
LAYER[1] NUMBER	LAYER[2] DESCRIPTION	MATERIAL[3,4] TYPE CLASSIFICATION	<-------- LAYER THICKNESS (IN) --------> MEAN	MIN.	MAX.	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _8.0]	_ _ _._	_ _ _._	_ _ _._
3	[0 4]	[0 1]	[_ _3.0]	_ _ _._	_ _ _._	_ _ _._
4	[0 3]	[0 1]	[_ _1.5]	_ _ _._	_ _ _._	_ _ _._
5	[0 2]	[7 3]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
6	[0 4]	[0 1]	[_ _2.9]	_ _1.7	_ _3.8	_ _0.4
7	[0 1]	[0 1]	[_ _1.8]	_ _1.0	_ _2.3	_ _0.4
8	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
9	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._

NOTES:

1. Layer 1 is subgrade soil, last layer is existing 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 (Below Surface Layer)...04	Interlayer.....08	Recycled Layer.....12

3. The material type classification codes for surface, base or subbase, subgrade, and seal coat or interlayer materials appear in Tables A.5, A.6, A.7 and A.8, respectively.

4. If the materials or thicknesses of a layer has not changed during the rehabilitation, enter "99" as the material type classification and leave the layer thicknesses for that layer blank. If a layer has changed, enter the appropriate codes and thicknesses.

October 1990 (Heading revised October 1992)

RECEIVED NOV 2 0 1997

SPS-5 CONSTRUCTION DATA SHEET 2 REVISED LAYER DESCRIPTIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 5]

1. LAYER NUMBER	2. LAYER DESCRIPTION	3. MATERIAL TYPE CLASS	4. LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _8.0]	_ _ _._	_ _ _._	_ _ _._
3	[0 4]	[0 1]	[_ _3.0]	_ _ _._	_ _ _._	_ _ _._
4	[0 3]	[0 1]	[_ _1.5]	_ _ _._	_ _ _._	_ _ _._
5	[0 2]	[7 3]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
6	[0 1]	[0 1]	[_ _1.7]	_ _0.8	_ _2.2	_ _0.3
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 [signature] EMPLOYER BRE DATE 11/18/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 4 ASPHALT CONCRETE PATCHES	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 5]

ENTERED MAY 18 1998 J. B

1. DATE PATCHING OPERATIONS BEGAN (Month-Day-Year) [0 7-0 8-9 7]

2. DATE PATCHING OPERATIONS COMPLETED [0 7-0 8-9 7]

3. PRIMARY DISTRESS OCCURRENCE PATCHED (code from Table A.22) [0 6]
   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	[0 3]	[1 0 0]
Surface and partial base replacement	[_ 0]	[_ _ _ 0]
Full depth	[_ 0]	[_ _ _ 0]

PJ 98/7/2

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

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

8. COMPACTION EQUIPMENT [2]
   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 [1]
   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) [4 8]

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

12. AIR TEMPERATURE DURING PLACEMENT OPERATIONS
    High Temperature (°F) [8 5]
    Low Temperature (°F) [6 0]

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

PREPARER Timothy J. Martin EMPLOYER BRE DATE 11/18/97

October 1990 (Heading revised October 1992)

ENTERED MAY 18 1998

SPS-5 CONSTRUCTION DATA SHEET 7 OVERLAY PLACEMENT OPERATIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 5]

1. DATE SURFACE PREPARATION BEGAN (Month-Day-Year) [0 7-0 7-9 7]
2. DATE SURFACE PREPARATION COMPLETED [0 7-0 7-9 7]

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

4. TACK COAT
   Layer Numbers [0 5] [_ _]
   Material Type None..... 1 SS-1.... 2 SS-1H.... 3 CRS-1.... 4 [0 2]
   CRS-2.... 5 CMS-2.... 6 CMS-2H.. 7 CSS-1.... 8 CSS-1H... 9
   Other.... 10 (Specify) _____
5. TACK COAT DILUTION
   (Percent) [5 0]
   Mixing Rate Parts Diluent 1 TO Parts Asphalt 1
6. TACK COAT APPLICATION RATE (Gal/Sq. Yd.) [0 . 0 3]

7. ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers		
Plant 1	[2]	Aztec	[_ _ 7]	[1 0]	[6]	[_]	[_]
Plant 2	[_]		[_ _ _]	[_ _]	[_]	[_]	[_]
Plant 3	[_]		[_ _ _]	[_ _]	[_]	[_]	[_]

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

8. MANUFACTURER OF ASPHALT CONCRETE PAVER Blaw-Knox
9. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER PF-510
10. SINGLE PASS LAYDOWN WIDTH (Feet) [2 2.0]
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 [0 6]
    Nominal First Lift Placement Thickness (Inches) [2.5]
    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 [1]
    Between lanes.. 1 Within lane.. 2 (specify offset from O/S feet) [2 2.0] 7/2/98
16. SIGNIFICANT EVENTS DURING CONSTRUCTION(disruptions, rain, equip. problems, etc.)

PREPARER [signature] EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 8 OVERLAY COMPACTION DATA	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 5]

1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [0 7-0 7-9 7]
2. DATE PAVING OPERATIONS COMPLETED [0 7-0 8-9 7]
3. LAYER NUMBER [6]
4. MIXING TEMPERATURE (°F) [3 2 2.]
5. LAYDOWN TEMPERATURES (°F)
   Mean..... 3 1 5.
   Minimum..... _ _ _.
   Standard Deviation... _ _.__
   Number of Tests ..... _ _.
   Maximum..... _ _ _.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	1 2.0				
7	B	Steel-Whl Tandem	_ _.__				
8	C	Steel-Whl Tandem	_ _.__				
9	D	Steel-Whl Tandem	_ _.__				
10	E	Pneumatic-Tired	1 8.0	1 2 0.			
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.	1 1.2		3 2 0 0.	. 0 2 _	_ _.__
19	N	Double-Drum Vibr.	_ _.__		_ _ _ _.	. _ _ _	_ _.__
20	O	Double-Drum Vibr.	_ _.__		_ _ _ _.	. _ _ _	_ _.__
21	P	Double-Drum Vibr.	_ _.__		_ _ _ _.	. _ _ _	_ _.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	M	_	_	_
24	Coverages	_ 1.	_ _.	_ _.	_ _.
	INTERMEDIATE				
25	Roller Code (A-Q)	E	_	_	_
26	Coverages	_ 2.	_ _.	_ _.	_ _.
	FINAL				
27	Roller Code (A-Q)	A	_	_	_
28	Coverages	_ 1.	_ _.	_ _.	_ _.
29	Air Temperature (°F)	_ 8 5.	_ _ _.	_ _ _.	_ _ _.
30	Compacted Thickness (In)	2.0	_.__	_.__	_.__
31	Curing Period (Days)	_ _.__	_ _.__	_ _.__	_ _.__

PREPARER [signature] EMPLOYER BRE DATE 11/19/97

MAY 13 1998

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 5]

ENTERED MAY 18 1998 J R

LAYER THICKNESS MEASUREMENTS (Inches) SHEET 1 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
0+00	0				1.7	
	36				2.2	
	72				1.8	
	108				1.9	
	144				1.6	
0+50	0				1.6	
	36				1.8	
	72				1.6	
	108				1.8	
	144				1.3	
1+00	0				1.7	
	36				2.0	
	72				1.7	
	108				2.0	
	144				1.8	
1+50	0				1.3	
	36				1.6	
	72				1.6	
	108				1.9	
	144				1.7	
2+00	0				1.0	
	36				1.3	
	72				1.4	
	108				1.7	
	144				1.6	
2+50	0				0.8	
	36				1.2	
	72				1.3	
	108				1.7	
	144				1.4	
3+00	0				1.3	
	36				1.6	
	72				1.7	
	108				1.8	
	144				1.6	
LAYER NUMBER					06	

PREPARER Timothy G. Phillips EMPLOYER BLE DATE 10/31/97

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 5]

ENTERED MAY 18 1998 J B

LAYER THICKNESS MEASUREMENTS (Inches)

SHEET 2 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
3+50	0				1.8	
	36				1.7	
	72				1.4	
	108				1.7	
	144				1.6	
4+00	0				1.9	
	36				2.0	
	72				1.9	
	108				2.0	
	144				1.8	
4+50	0				1.8	
	36				2.0	
	72				1.9	
	108				1.9	
	144				1.6	
5+00	0				1.9	
	36				2.2	
	72				1.9	
	108				1.9	
	144				2.2	
+						
+						
+						
LAYER NUMBER					06	

PREPARER Timothy J. Martin EMPLOYER BRE DATE 10/31/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 11 MISCELLANEOUS CONSTRUCTION NOTES AND COMMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 5]

ENTERED MAY 13 1998 J B

Provide any miscellanious comments and notes concering 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 indicatetion of the basis for such measurements, such as an ASTM, AASHTO, or Agency standard test designation.

Patching was used to seal & 6 large depressed transverse cracks. This was done using an HMAC level-up and rolling w/ pneumatic roller.

PREPARER Timothy J Mock EMPLOYER BRE DATE 11/19/97

Revised December 15, 1989

SHEET 1

REHABILITATION DATA

LTPP PROGRAM

*STATE ASSIGNED ID [_ _ _ _]

*STATE CODE [4 0]

*SHRP SECTION ID [0 5 0 5]

G.W. ENTERED JUN 16 1998

IMPROVEMENT LISTING

* 1. DATE COMPLETED (MO/DAY/YR)	* 2. WORK[1] TYPE CODE (TABLE A.17)	* 3. WORK QUANTITY (UNITS FROM (TABLE A.17)	4. THICKNESS (INCHES)	5. COST[2] (THOUSANDS OF DOLLARS PER LANE-MILE)
[0 7/0 8/9 7]	[1 9]	[_ 2 2 0 0.]	_ 2.0	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.

NOTES:

1. For each specific work type, the appropriate set of sheets should be completed (as indexed in Table 7.1). It is recognized that parts of both Chapter 6 (Maintenance Data Collection) and Chapter 7 (Rehabilitation Data Collection) may be required to adequately record a given set of improvements for a test section.

2. Cost includes only pavement structure cost. Non-pavement costs such as cut and fill work, work on bridges, culverts, lighting, and guard rails are to be excluded.

Revised December 15, 1989

*STATE ASSIGNED ID [_ _ _ _]

SHEET 2

*STATE CODE [4 0]

REHABILITATION DATA

*SHRP SECTION ID [0 5 0 5]

LTPP PROGRAM

G.W. ENTERED JUN 16 1998

REVISED LAYER DESCRIPTIONS

1.	*2.	*3.	*4.			
LAYER[1] NUMBER	LAYER[2] DESCRIP-TION	MATERIAL[3,4] TYPE CLASSIFICATION	<-------- LAYER THICKNESS (IN) --------> MEAN	MIN.	MAX.	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _ 8.0]	_ _ _._	_ _ _._	_ _ _._
3	[0 4]	[0 1]	[_ _ 3.0]	_ _ _._	_ _ _._	_ _ _._
4	[0 3]	[0 1]	[_ _ 1.5]	_ _ _._	_ _ _._	_ _ _._
5	[0 2]	[7 3]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
6	[0 1]	[0 1]	[_ _ 1.7]	_ _ 0.8	_ _ 2.2	_ _ 0.3
7	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
8	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
9	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._

NOTES:

1. Layer 1 is subgrade soil, last layer is existing 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 (Below Surface Layer)...04	Interlayer.....08	Recycled Layer.....12

3. The material type classification codes for surface, base or subbase, subgrade, and seal coat or interlayer materials appear in Tables A.5, A.6, A.7 and A.8, respectively.

4. If the materials or thicknesses of a layer has not changed during the rehabilitation, enter "99" as the material type classification and leave the layer thicknesses for that layer blank. If a layer has changed, enter the appropriate codes and thicknesses.

RECEIVED NOV 2 0 1997

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 2 REVISED LAYER DESCRIPTIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 6]

1. LAYER NUMBER	2. LAYER DESCRIPTION	3. MATERIAL TYPE CLASS	4. LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _8.0]	_ _ _._	_ _ _._	_ _ _._
3	[0 4]	[0 1]	[_ _3.0]	_ _ _._	_ _ _._	_ _ _._
4	[0 3]	[0 1]	[_ _0.0]	_ _ _._	_ _ _._	_ _ _._
5	[0 2]	[7 3]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
6	[0 1]	[0 1]	[_ _3.9]	_ _2.9	_ _4.9	_ _0.5
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 Timothy J. Martin EMPLOYER BRE DATE 11/18/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 6 PREPARATION OF MILLED TEST SECTIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 6]

1. DATE OF MILLING OPERATION [0 6-2 6-9 7]
2. MANUFACTURER OF MILLING MACHINE (Specify) Destrol, Inc. (Owner)
3. MILLING MACHINE MODEL DESIGNATION (Specify) D1100 SMI
4. WIDTH OF CUTTING HEAD (Inches) [1 4 4]
5. TOTAL MILLED DEPTH (Inches)

Location	No. Measrmnts	Maximum	Minimum	Std. Dev.	Average
Inside lane edge	1 1.	2.5	0.6	0.5	[1.6]
Outside lane edge	1 1.	2.5	0.6	0.5	[1.6]

MILLED SURFACE CHARACTERISTICS

6. Macro Texture [2]
   Fine Macro Texture (≤¼ inch)... 1 Coarse Macro Texture(>¼ inch)... 2
7. Estimate of extent of test section surface area delaminated (Percent) [0]
8. Height of Ridge Between Parallel Passes? (Inches) [.]
9. Other Comments? (Yes, No) [ ]
   Comments

10. WHERE PATCHES PLACED AFTER MILLING? (Yes, (No)) [No]
    (If yes complete Construction Data Sheet 3)
11. LENGTH OF TIME MILLED SURFACE WAS OPENED TO TRAFFIC? (Hrs.) 11 days [2 6 4]
12. WAS MILL REPLACEMENT LAYER THICKER THAN MILL DEPTH ((YES), NO) [Yes]
13. LAYER NUMBER OF MILL REPLACEMENT [6]
14. NOMINAL THICKNESS OF MILL REPLACEMENT MATERIAL (Inches) [4.0]
15. TYPE OF MILL REPLACEMENT LAYER MATERIAL [1]
    "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) [Yes]
    IF NO, WIDTH MILLED SAME DEPTH AS TEST LANE (Feet) [.]
17. COMMENTS

PREPARER Timothy J. Martin EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 7 OVERLAY PLACEMENT OPERATIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 6]

1. DATE SURFACE PREPARATION BEGAN (Month-Day-Year) [0 7-0 7-9 7]
2. DATE SURFACE PREPARATION COMPLETED [0 7-0 7-9 7]

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

4. TACK COAT
   Layer Numbers [0 5] [__ __]
   Material Type None..... 1 SS-1.... 2 SS-1H.... 3 CRS-1.... 4 [0 2]
   CRS-2.... 5 CMS-2.... 6 CMS-2H.. 7 CSS-1.... 8 CSS-1H... 9
   Other.... 10 (Specify) _____
5. TACK COAT DILUTION
   (Percent) [5 0]
   Mixing Rate Parts Diluent 1 TO Parts Asphalt 1
6. TACK COAT APPLICATION RATE (Gal/Sq. Yd.) [0 . 0 3]

7. ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers		
Plant 1	[2]	Aztec	[__ __ 7]	[1 0]	[6]	[__]	[__]
Plant 2	[__]		[__ __ __]	[__ __]	[__]	[__]	[__]
Plant 3	[__]		[__ __ __]	[__ __]	[__]	[__]	[__]

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

8. MANUFACTURER OF ASPHALT CONCRETE PAVER Blaw Knox
9. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER PF-510
10. SINGLE PASS LAYDOWN WIDTH (Feet) [2 2.0]

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 [0 6]
    Nominal First Lift Placement Thickness (Inches) [4.0]
    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 [1]
    Between lanes.. 1 Within lane.. 2 (specify offset from O/S feet) [~~1~~ 2.0] UM 6/2/98
16. SIGNIFICANT EVENTS DURING CONSTRUCTION(disruptions, rain, equip. problems, etc.)

PREPARER Timothy J Marks EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

ENTERED MAY 13 1998 J B

SPS-5 CONSTRUCTION DATA SHEET 8 OVERLAY COMPACTION DATA	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 6]

1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [0 7-0 7-9 7]
2. DATE PAVING OPERATIONS COMPLETED [0 7-0 8-9 7]
3. LAYER NUMBER overlay [6]
4. MIXING TEMPERATURE (°F) [3 2 8.]
5. LAYDOWN TEMPERATURES (°F)
   Mean..... 3 1 5.
   Minimum..... _ _ _.
   Standard Deviation... _ _.
   Number of Tests ..... _ _.
   Maximum..... _ _ _.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	1 2.0				
7	B	Steel-Whl Tandem	_ _.0				
8	C	Steel-Whl Tandem	_ _.0				
9	D	Steel-Whl Tandem	_ _.0				
10	E	Pneumatic-Tired	1 8.0	1 2 0.			
11	F	Pneumatic-Tired	_ _.0	_ _ _ _.			
12	G	Pneumatic-Tired	_ _.0	_ _ _ _.			
13	H	Pneumatic-Tired	_ _.0	_ _ _ _.			
14	I	Single-Drum Vibr.	_ _.0		_ _ _ _.	_ _ _	_ _.0
15	J	Single-Drum Vibr.	_ _.0		_ _ _ _.	_ _ _	_ _.0
16	K	Single-Drum Vibr.	_ _.0		_ _ _ _.	_ _ _	_ _.0
17	L	Single-Drum Vibr.	_ _.0		_ _ _ _.	_ _ _	_ _.0
18	M	Double-Drum Vibr.	1 1.2		3 2 0 0.	.0 2 _	_ _.0
19	N	Double-Drum Vibr.	_ _.0		_ _ _ _.	_ _ _	_ _.0
20	O	Double-Drum Vibr.	_ _.0		_ _ _ _.	_ _ _	_ _.0
21	P	Double-Drum Vibr.	_ _.0		_ _ _ _.	_ _ _	_ _.0
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	M	_	_	_
24	Coverages	_ 1.	_ _.	_ _.	_ _.
	INTERMEDIATE				
25	Roller Code (A-Q)	E	_	_	_
26	Coverages	_ 3.	_ _.	_ _.	_ _.
	FINAL				
27	Roller Code (A-Q)	A	_	_	_
28	Coverages	_ 2.	_ _.	_ _.	_ _.
29	Air Temperature (°F)	_ 8 5.	_ _ _.	_ _ _.	_ _ _.
30	Compacted Thickness (In)	3.5	_.0	_.0	_.0
31	Curing Period (Days)	_ _.0	_ _.0	_ _.0	_ _.0

PREPARER [signature] EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 6]

ENTERED MAY 18 1998

LAYER THICKNESS MEASUREMENTS (Inches)

SHEET 1 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
0+00	0				3.0	
	36				3.4	
	72				3.4	
	108				3.7	
	144				3.6	
0+50	0				3.0	
	36				3.1	
	72				2.9	
	108				3.4	
	144				3.7	
1+00	0				3.2	
	36				3.2	
	72				3.1	
	108				3.3	
	144				3.8	
1+50	0				4.0	
	36				3.7	
	72				3.5	
	108				3.7	
	144				4.1	
2+00	0				4.1	
	36				3.7	
	72				3.7	
	108				4.0	
	144				4.1	
2+50	0				3.7	
	36				3.6	
	72				3.5	
	108				3.7	
	144				4.0	
3+00	0				3.8	
	36				3.7	
	72				3.7	
	108				4.1	
	144				4.4	
LAYER NUMBER					06	

PREPARER Timothy J. Martin EMPLOYER BRE DATE 10/31/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 6]

LAYER THICKNESS MEASUREMENTS (Inches)

SHEET 2 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
3+50	0				4.0	
	36				4.1	
	72				4.0	
	108				4.2	
	144				4.3	
4+00	0				4.1	
	36				3.7	
	72				4.0	
	108				4.3	
	144				4.5	
4+50	0				4.7	
	36				4.6	
	72				4.4	
	108				4.6	
	144				4.7	
5+00	0				4.9	
	36				4.4	
	72				4.4	
	108				4.6	
	144				4.9	
+						
+						
+						
LAYER NUMBER					06	

PREPARER Timothy J. Martin EMPLOYER BRE DATE 10/31/97

Revised December 15, 1989

SHEET 1

REHABILITATION DATA

LTPP PROGRAM

*STATE ASSIGNED ID [_ _ _ _]

*STATE CODE [4 0]

*SHRP SECTION ID [0 5 0 6]

IMPROVEMENT LISTING

* 1. DATE COMPLETED (MO/DAY/YR)	* 2. WORK[1] TYPE CODE (TABLE A.17)	* 3. WORK QUANTITY (UNITS FROM (TABLE A.17)	4. THICKNESS (INCHES)	5. COST[2] (THOUSANDS OF DOLLARS PER LANE-MILE)
[0 7/0 8/9 7]	[5 1]	[_ 2 2 0 0.]	_ 3.5	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.

G.W. ENTERED JUN 17 1998

NOTES:

1. For each specific work type, the appropriate set of sheets should be completed (as indexed in Table 7.1). It is recognized that parts of both Chapter 6 (Maintenance Data Collection) and Chapter 7 (Rehabilitation Data Collection) may be required to adequately record a given set of improvements for a test section.

2. Cost includes only pavement structure cost. Non-pavement costs such as cut and fill work, work on bridges, culverts, lighting, and guard rails are to be excluded.

Revised December 15, 1989

*STATE ASSIGNED ID [_ _ _ _]

SHEET 2

*STATE CODE [4 0]

REHABILITATION DATA

*SHRP SECTION ID [0 5 0 6]

LTPP PROGRAM

G.W. ENTERED JUN 17 1998

REVISED LAYER DESCRIPTIONS

1.	*2.	*3.	*4.			
LAYER[1] NUMBER	LAYER[2] DESCRIPTION	MATERIAL[3,4] TYPE CLASSIFICATION	<-------- LAYER THICKNESS (IN) --------> MEAN	MIN.	MAX.	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _ 8.0]	_ _ _._	_ _ _._	_ _ _._
3	[0 4]	[0 1]	[_ _ 3.0]	_ _ _._	_ _ _._	_ _ _._
4	[0 3]	[0 1]	[_ _ 0.0]	_ _ _._	_ _ _._	_ _ _._
5	[0 2]	[7 3]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
6	[0 1]	[0 1]	[_ _ 3.9]	_ _ 2.9	_ _ 4.9	_ _ 0.5
7	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
8	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
9	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._

NOTES:

1. Layer 1 is subgrade soil, last layer is existing 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 (Below Surface Layer)...04	Interlayer.....08	Recycled Layer.....12

3. The material type classification codes for surface, base or subbase, subgrade, and seal coat or interlayer materials appear in Tables A.5, A.6, A.7 and A.8, respectively.

4. If the materials or thicknesses of a layer has not changed during the rehabilitation, enter "99" as the material type classification and leave the layer thicknesses for that layer blank. If a layer has changed, enter the appropriate codes and thicknesses.

October 1990 (Heading revised October 1992)

RECEIVED NOV 2 0 1997

SPS-5 CONSTRUCTION DATA SHEET 2 REVISED LAYER DESCRIPTIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 7]

1. LAYER NUMBER	2. LAYER DESCRIPTION	3. MATERIAL TYPE CLASS	4. LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _8.0]	_ _ _._	_ _ _._	_ _ _._
3	[0 4]	[0 1]	[_ _3.0]	_ _ _._	_ _ _._	_ _ _._
4	[0 3]	[0 1]	[_ _0.0]	_ _ _._	_ _ _._	_ _ _._
5	[0 2]	[7 3]	[_ _._]	_ _ _._	_ _ _._	_ _ _._
6	[0 4]	[0 1]	[_ _2.9]	_ _2.4	_ _3.8	_ _0.3
7	[0 1]	[0 1]	[_ _3.5]	_ _2.8	_ _4.3	_ _0.4
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 Timothy J. Martin EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 6 PREPARATION OF MILLED TEST SECTIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 7]

1. DATE OF MILLING OPERATION [0 6-2 6-9 7]
2. MANUFACTURER OF MILLING MACHINE (Specify) Destrol, Inc. (owner)
3. MILLING MACHINE MODEL DESIGNATION (Specify) D1100 SMI
4. WIDTH OF CUTTING HEAD (Inches) [1 4 4]
5. TOTAL MILLED DEPTH (Inches)

Location	No. Measrmnts	Maximum	Minimum	Std. Dev.	Average
Inside lane edge	11.	2.3	0.0	0.7	[1.2]
Outside lane edge	11.	2.3	0.0	0.7	[1.2]

MILLED SURFACE CHARACTERISTICS

6. Macro Texture [2]
   Fine Macro Texture (≤¼ inch)... 1 Coarse Macro Texture(>¼ inch)... 2
7. Estimate of extent of test section surface area delaminated (Percent) [0]
8. Height of Ridge Between Parallel Passes? (Inches) [.]
9. Other Comments? (Yes, No) [ ]
   Comments _____

10. WHERE PATCHES PLACED AFTER MILLING? (Yes, (No)) [No]
    (If yes complete Construction Data Sheet 3)
11. LENGTH OF TIME MILLED SURFACE WAS OPENED TO TRAFFIC? (Hrs.) 6 days [1 4 4]
12. WAS MILL REPLACEMENT LAYER THICKER THAN MILL DEPTH ((YES), NO) [Yes]
13. LAYER NUMBER OF MILL REPLACEMENT [6]
14. NOMINAL THICKNESS OF MILL REPLACEMENT MATERIAL (Inches) [3.5]
15. TYPE OF MILL REPLACEMENT LAYER MATERIAL [1]
    "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) [Yes]
    IF NO, WIDTH MILLED SAME DEPTH AS TEST LANE (Feet) [.]
17. COMMENTS _____

PREPARER Timothy J. Martin EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 7 OVERLAY PLACEMENT OPERATIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 7]

1. DATE SURFACE PREPARATION BEGAN (Month-Day-Year) [0 7-0 2-9 7]
2. DATE SURFACE PREPARATION COMPLETED [0 7-0 2-9 7]

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

4. TACK COAT
   Layer Numbers [0 5] [_ _]
   Material Type None..... 1 SS-1.... 2 SS-1H.... 3 CRS-1.... 4 [0 2]
   CRS-2.... 5 CMS-2.... 6 CMS-2H.. 7 CSS-1.... 8 CSS-1H... 9
   Other.... 10 (Specify) _____
5. TACK COAT DILUTION
   (Percent) [5 0]
   Mixing Rate Parts Diluent 1 TO Parts Asphalt 1
6. TACK COAT APPLICATION RATE (Gal/Sq. Yd.) [0 . 0 3]

7. ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers
Plant 1	[2]	Aztec	[_ _ 7]	[1 0]	[6] [7] [_]
Plant 2	[_]		[_ _ _]	[_ _]	[_] [_] [_]
Plant 3	[_]		[_ _ _]	[_ _]	[_] [_] [_]

   Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

8. MANUFACTURER OF ASPHALT CONCRETE PAVER Blaw-Knox
9. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER PF-510
10. SINGLE PASS LAYDOWN WIDTH (Feet) [2 2 0]

11. AC BINDER COURSE LIFT
    Layer Number [0 6]
    Nominal First Lift Placement Thickness (Inches) [3.5]
    Nominal Second Lift Placement Thickness (Inches) [_._]
12. AC SURFACE COURSE LIFT
    Layer Number [0 7]
    Nominal First Lift Placement Thickness (Inches) [4.0]
    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 [1]
    Between lanes.. 1 Within lane.. 2 (specify offset from O/S feet) [~~1~~ 2.0] 7/2/98
16. SIGNIFICANT EVENTS DURING CONSTRUCTION(disruptions, rain, equip. problems, etc.)

PREPARER Timothy J. Martin EMPLOYER BAE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 8 OVERLAY COMPACTION DATA	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 7]

1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [0 7-0 2-9 7]
2. DATE PAVING OPERATIONS COMPLETED [0 7-0 3-9 7]
3. LAYER NUMBER inlay [6]
4. MIXING TEMPERATURE (°F) [3 2 8.]
5. LAYDOWN TEMPERATURES (°F)
   Mean..... 3 1 5.
   Minimum..... _ _ _.
   Standard Deviation... _ _.__

   Number of Tests ..... _ _.
   Maximum..... _ _ _.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	1 2.0				
7	B	Steel-Whl Tandem	_ _.__				
8	C	Steel-Whl Tandem	_ _.__				
9	D	Steel-Whl Tandem	_ _.__				
10	E	Pneumatic-Tired	1 8.0	1 2 0.			
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.	1 1.2		3 2 0 0.	0 2 _	_ _.__
19	N	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
20	O	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
21	P	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	M	_	_	_
24	Coverages	_ 1.	_ _.	_ _.	_ _.
	INTERMEDIATE				
25	Roller Code (A-Q)	E	_	_	_
26	Coverages	_ 3.	_ _.	_ _.	_ _.
	FINAL				
27	Roller Code (A-Q)	A	_	_	_
28	Coverages	_ 2.	_ _.	_ _.	_ _.
29	Air Temperature (°F)	_ 8 5.	_ _ _.	_ _ _.	_ _ _.
30	Compacted Thickness (In)	3.0	_.__	_.__	_.__
31	Curing Period (Days)	_ 4.0	_ _.__	_ _.__	_ _.__

PREPARER Timothy J. Martin EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

ENTERED

SPS-5 CONSTRUCTION DATA SHEET 8 OVERLAY COMPACTION DATA	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 7]

1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [0 7-0 7-9 7]
2. DATE PAVING OPERATIONS COMPLETED [0 7-0 8-9 7]
3. LAYER NUMBER over-lay [7]
4. MIXING TEMPERATURE (°F) [3 2 8.]
5. LAYDOWN TEMPERATURES (°F)
   Mean..... 3 1 5.
   Minimum..... _ _ _.
   Standard Deviation... _ _.__
   Number of Tests ..... _ _.
   Maximum..... _ _ _.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	1 2.0				
7	B	Steel-Whl Tandem	_ _.__				
8	C	Steel-Whl Tandem	_ _.__				
9	D	Steel-Whl Tandem	_ _.__				
10	E	Pneumatic-Tired	1 8.0	1 2 0.			
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.	1 1.2		3 2 0 0.	0 2 _	_ _.__
19	N	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
20	O	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
21	P	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	M	_	_	_
24	Coverages	_ 1.	_ _.	_ _.	_ _.
	INTERMEDIATE				
25	Roller Code (A-Q)	E	_	_	_
26	Coverages	_ 3.	_ _.	_ _.	_ _.
	FINAL				
27	Roller Code (A-Q)	A	_	_	_
28	Coverages	_ 2.	_ _.	_ _.	_ _.
29	Air Temperature (°F)	_ 8 5.	_ _ _.	_ _ _.	_ _ _.
30	Compacted Thickness (In)	3.5	_.__	_.__	_.__
31	Curing Period (Days)	_ _.__	_ _.__	_ _.__	_ _.__

PREPARER [signature] EMPLOYER BRE DATE 11/19/97

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 7]

ENTERED MAY 13 1999 F R

LAYER THICKNESS MEASUREMENTS (Inches) SHEET 1 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
0+00	0			3.1	3.1	
	36			2.9	3.1	
	72			2.9	2.9	
	108			2.8	3.2	
	144			2.6	3.7	
0+50	0			2.5	3.6	
	36			2.6	3.4	
	72			2.8	3.1	
	108			2.4	3.7	
	144			2.6	3.7	
1+00	0			2.5	3.8	
	36			2.8	3.6	
	72			3.2	3.4	
	108			2.8	3.7	
	144			2.4	3.8	
1+50	0			3.0	3.6	
	36			2.6	3.1	
	72			2.8	3.1	
	108			2.6	3.2	
	144			2.5	3.7	
2+00	0			3.5	3.8	
	36			3.7	3.5	
	72			2.9	3.8	
	108			3.1	3.6	
	144			3.0	4.0	
2+50	0			3.6	3.3	
	36			3.1	3.6	
	72			3.1	3.4	
	108			3.0	3.7	
	144			2.8	4.2	
3+00	0			3.4	3.6	
	36			3.8	3.1	
	72			3.0	3.2	
	108			2.8	3.5	
	144			2.6	3.8	
LAYER NUMBER				06	07	

PREPARER Timothy J Martin EMPLOYER BRE DATE 10/31/97

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 7]

ENTERED MAY 13 1998 J B

LAYER THICKNESS MEASUREMENTS (Inches) SHEET 2 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
3+50	0			2.6	3.1	
	36			3.0	2.8	
	72			3.0	2.8	
	108			3.0	3.0	
	144			2.6	3.6	
4+00	0			2.6	3.7	
	36			2.8	3.4	
	72			3.1	3.0	
	108			3.0	3.4	
	144			2.6	4.1	
4+50	0			2.4	3.5	
	36			2.9	3.2	
	72			3.1	3.2	
	108			2.9	3.6	
	144			2.8	4.0	
5+00	0			2.9	3.8	
	36			3.5	3.4	
	72			3.2	3.4	
	108			2.8	4.1	
	144			2.8	4.3	
+						
+						
+						
LAYER NUMBER				06	07	

PREPARER Timothy J. Martin EMPLOYER BRE DATE 10/31/97

Revised December 15, 1989

SHEET 1

REHABILITATION DATA

LTPP PROGRAM

*STATE ASSIGNED ID [_ _ _ _]

*STATE CODE [4 0]

*SHRP SECTION ID [0 5 0 7]

G.W. ENTERED JUN 17 [illegible]

IMPROVEMENT LISTING

* 1. DATE COMPLETED (MO/DAY/YR)	* 2. WORK[1] TYPE CODE (TABLE A.17)	* 3. WORK QUANTITY (UNITS FROM (TABLE A.17)	4. THICKNESS (INCHES)	5. COST[2] (THOUSANDS OF DOLLARS PER LANE-MILE)
[0 7/0 8/9 7]	[5 1]	[_ 2 2 0 0.]	_ 6.5	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.

NOTES:

1. For each specific work type, the appropriate set of sheets should be completed (as indexed in Table 7.1). It is recognized that parts of both Chapter 6 (Maintenance Data Collection) and Chapter 7 (Rehabilitation Data Collection) may be required to adequately record a given set of improvements for a test section.

2. Cost includes only pavement structure cost. Non-pavement costs such as cut and fill work, work on bridges, culverts, lighting, and guard rails are to be excluded.

Revised December 15, 1989

SHEET 2

REHABILITATION DATA

LTPP PROGRAM

*STATE ASSIGNED ID [_ _ _ _]

*STATE CODE [4 0]

*SHRP SECTION ID [0 5 0 7]

G.W. ENTERPRISE JUN 17 1998

REVISED LAYER DESCRIPTIONS

1.	*2.	*3.	*4.			
LAYER[1] NUMBER	LAYER[2] DESCRIPTION	MATERIAL[3,4] TYPE CLASSIFICATION	<-------- LAYER THICKNESS (IN) --------> MEAN	MIN.	MAX.	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _ 8.0]	_ _ _.._	_ _ _.._	_ _ _.._
3	[0 4]	[0 1]	[_ _ 3.0]	_ _ _.._	_ _ _.._	_ _ _.._
4	[0 3]	[0 1]	[_ _ 0.0]	_ _ _.._	_ _ _.._	_ _ _.._
5	[0 2]	[7 3]	[_ _ _.._]	_ _ _.._	_ _ _.._	_ _ _.._
6	[0 4]	[0 1]	[_ _ 2.9]	_ _ 2.4	_ _ 3.8	_ _ 0.3
7	[0 1]	[0 1]	[_ _ 3.5]	_ _ 2.8	_ _ 4.3	_ _ 0.4
8	[_ _]	[_ _]	[_ _ _.._]	_ _ _.._	_ _ _.._	_ _ _.._
9	[_ _]	[_ _]	[_ _ _.._]	_ _ _.._	_ _ _.._	_ _ _.._

NOTES:

1. Layer 1 is subgrade soil, last layer is existing 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 (Below Surface Layer)...04	Interlayer.....08	Recycled Layer.....12

3. The material type classification codes for surface, base or subbase, subgrade, and seal coat or interlayer materials appear in Tables A.5, A.6, A.7 and A.8, respectively.

4. If the materials or thicknesses of a layer has not changed during the rehabilitation, enter "99" as the material type classification and leave the layer thicknesses for that layer blank. If a layer has changed, enter the appropriate codes and thicknesses.

RECEIVED NOV 2 0 1997 October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 2 REVISED LAYER DESCRIPTIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 8]

1. LAYER NUMBER	2. LAYER DESCRIPTION	3. MATERIAL TYPE CLASS	4. LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _8.0]	_ _ _._	_ _ _._	_ _ _._
3	[0 4]	[0 1]	[_ _3.0]	_ _ _._	_ _ _._	_ _ _._
4	[0 3]	[0 1]	[_ _0.0]	_ _ _._	_ _ _._	_ _ _._
5	[0 2]	[7 3]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
6	[0 4]	[1 3]	[_ _2.9]	_ _2.0	_ _3.5	_ _0.4
7	[0 1]	[1 3]	[_ _2.9]	_ _1.8	_ _3.5	_ _0.5
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 Dorothy J. Wirta EMPLOYER BRE DATE 11/18/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 6 PREPARATION OF MILLED TEST SECTIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 8]

1. DATE OF MILLING OPERATION [0 6-2 6-9 7]
2. MANUFACTURER OF MILLING MACHINE (Specify) Destrel, Inc (owner)
3. MILLING MACHINE MODEL DESIGNATION (Specify) D1100 SMI
4. WIDTH OF CUTTING HEAD (Inches) [1 4 4]
5. TOTAL MILLED DEPTH (Inches)

Location	No. Measrmnts	Maximum	Minimum	Std. Dev.	Average
Inside lane edge	1 1.	2.8	0.4	0.6	[1.4]
Outside lane edge	1 1.	2.8	0.4	0.6	[1.4]

MILLED SURFACE CHARACTERISTICS

6. Macro Texture [2]
   Fine Macro Texture (≤½ inch)... 1 Coarse Macro Texture(>½ inch)... 2
7. Estimate of extent of test section surface area delaminated (Percent) [0]
8. Height of Ridge Between Parallel Passes? (Inches) [.]
9. Other Comments? (Yes, No) [ ]
   Comments

10. WHERE PATCHES PLACED AFTER MILLING? (Yes, (No)) [No]
    (If yes complete Construction Data Sheet 3)
11. LENGTH OF TIME MILLED SURFACE WAS OPENED TO TRAFFIC? (Hrs.) 14 days [3 3 6]
12. WAS MILL REPLACEMENT LAYER THICKER THAN MILL DEPTH ((YES) NO) [Yes]
13. LAYER NUMBER OF MILL REPLACEMENT [6]
14. NOMINAL THICKNESS OF MILL REPLACEMENT MATERIAL (Inches) [3.5]
15. TYPE OF MILL REPLACEMENT LAYER MATERIAL [2]
    "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) [Yes]
    IF NO, WIDTH MILLED SAME DEPTH AS TEST LANE (Feet) [.]
17. COMMENTS

PREPARER [signature] EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 7 OVERLAY PLACEMENT OPERATIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 8]

1. DATE SURFACE PREPARATION BEGAN (Month-Day-Year) [0 7-1 0-9 7]
2. DATE SURFACE PREPARATION COMPLETED [0 7-1 0-9 7]

Inlay

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

4. TACK COAT
   Layer Numbers [0 5] [_ _]
   Material Type None..... 1 SS-1.... 2 SS-1H.... 3 CRS-1.... 4 [0 2]
   CRS-2.... 5 CMS-2.... 6 CMS-2H.. 7 CSS-1.... 8 CSS-1H... 9
   Other.... 10 (Specify) _____
5. TACK COAT DILUTION
   (Percent) [5 0]
   Mixing Rate Parts Diluent 1 TO Parts Asphalt 1
6. TACK COAT APPLICATION RATE (Gal/Sq. Yd.) [0 . 0 3]

7. ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers		
Plant 1	[2]	Aztec	[_ _ 7]	[1 0]	[6]	[7]	[_]
Plant 2	[_]		[_ _ _]	[_ _]	[_]	[_]	[_]
Plant 3	[_]		[_ _ _]	[_ _]	[_]	[_]	[_]

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

8. MANUFACTURER OF ASPHALT CONCRETE PAVER Blaw-Knox
9. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER PF-510
10. SINGLE PASS LAYDOWN WIDTH (Feet) [2 2.0]
11. AC BINDER COURSE LIFT
    Layer Number [0 6]
    Nominal First Lift Placement Thickness (Inches) [3.5]
    Nominal Second Lift Placement Thickness (Inches) [_._]
12. AC SURFACE COURSE LIFT
    Layer Number [0 7]
    Nominal First Lift Placement Thickness (Inches) [4.0]
    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 [1]
    Between lanes.. 1 Within lane.. 2 (specify offset from O/S feet) [~~2~~ 2.0] 1M 6/2/98
16. SIGNIFICANT EVENTS DURING CONSTRUCTION(disruptions, rain, equip. problems, etc.)

PREPARER [signature] EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 8 OVERLAY COMPACTION DATA	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 8]

1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [0 7-1 0-9 7]
2. DATE PAVING OPERATIONS COMPLETED [0 7-1 1-9 7]
3. LAYER NUMBER inlay [6]
4. MIXING TEMPERATURE (°F) [3 1 5.]
5. LAYDOWN TEMPERATURES (°F)
   Mean..... 3 1 0.
   Minimum..... _ _ _.
   Standard Deviation... _ _.__
   Number of Tests ..... _ _.
   Maximum..... _ _ _.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	1 2.0				
7	B	Steel-Whl Tandem	_ _.__				
8	C	Steel-Whl Tandem	_ _.__				
9	D	Steel-Whl Tandem	_ _.__				
10	E	Pneumatic-Tired	1 8.0	1 2 0.			
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.	1 1.2		3 2 0 0.	.0 2 _	_ _.__
19	N	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
20	O	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
21	P	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	M	_	_	_
24	Coverages	_ 1.	_ _.	_ _.	_ _.
	INTERMEDIATE				
25	Roller Code (A-Q)	E	_	_	_
26	Coverages	_ 3.	_ _.	_ _.	_ _.
	FINAL				
27	Roller Code (A-Q)	A	_	_	_
28	Coverages	_ 1.	_ _.	_ _.	_ _.
29	Air Temperature (°F)	_ 8 5.	_ _ _.	_ _ _.	_ _ _.
30	Compacted Thickness (In)	3.0	_.__	_.__	_.__
31	Curing Period (Days)	_ 3.0	_ _.__	_ _.__	_ _.__

PREPARER Timothy J Martin EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 8 OVERLAY COMPACTION DATA	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 8]

1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [0 7-1 4-9 7]
2. DATE PAVING OPERATIONS COMPLETED [0 7-1 6-9 7]
3. LAYER NUMBER overlay [7]
4. MIXING TEMPERATURE (°F) [3 1 5.]
5. LAYDOWN TEMPERATURES (°F)
   Mean..... 3 0 5.
   Minimum..... _ _ _.
   Standard Deviation... _ _.__
   Number of Tests ..... _ _.
   Maximum..... _ _ _.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	1 2.0				
7	B	Steel-Whl Tandem	_ _.__				
8	C	Steel-Whl Tandem	_ _.__				
9	D	Steel-Whl Tandem	_ _.__				
10	E	Pneumatic-Tired	1 8.0	1 2 0.			
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.	1 1.2		3 2 0 0.	.0 2 _	_ _.__
19	N	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
20	O	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
21	P	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	M	_	_	_
24	Coverages	_ 1.	_ _.	_ _.	_ _.
	INTERMEDIATE				
25	Roller Code (A-Q)	E	_	_	_
26	Coverages	_ 3.	_ _.	_ _.	_ _.
	FINAL				
27	Roller Code (A-Q)	A	_	_	_
28	Coverages	_ 1.	_ _.	_ _.	_ _.
29	Air Temperature (°F)	_ 8 5.	_ _ _.	_ _ _.	_ _ _.
30	Compacted Thickness (In)	3.5	_.__	_.__	_.__
31	Curing Period (Days)	_ _.__	_ _.__	_ _.__	_ _.__

PREPARER Timothy J. Martin EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 8]

LAYER THICKNESS MEASUREMENTS (Inches) SHEET 1 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
0+00	0			3.0	1.9	
	36			3.0	1.9	
	72			3.0	1.9	
	108			3.1	1.8	
	144			3.2	1.9	
0+50	0			3.5	2.4	
	36			2.9	2.3	
	72			2.9	2.2	
	108			3.4	2.0	
	144			3.5	2.2	
1+00	0			2.6	2.9	
	36			3.0	2.6	
	72			2.3	2.6	
	108			2.6	2.5	
	144			2.8	2.4	
1+50	0			2.9	3.4	
	36			3.4	2.9	
	72			2.9	2.9	
	108			3.1	2.8	
	144			3.4	2.6	
2+00	0			2.8	3.0	
	36			2.3	3.0	
	72			2.6	3.0	
	108			2.9	2.9	
	144			3.1	3.0	
2+50	0			3.5	3.2	
	36			3.0	3.2	
	72			2.9	3.2	
	108			3.1	3.1	
	144			3.4	3.1	
3+00	0			2.4	3.4	
	36			2.2	3.2	
	72			2.0	3.2	
	108			2.5	2.9	
	144			2.9	2.9	
LAYER NUMBER				06	07	

PREPARER Timothy J. Martin EMPLOYER BRE DATE 10/31/97

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 8]

LAYER THICKNESS MEASUREMENTS (Inches)

SHEET 2 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
3+50	0			2.0	3.4	
	36			2.5	3.2	
	72			2.2	3.4	
	108			2.6	3.2	
	144			2.9	3.4	
4+00	0			2.0	3.1	
	36			2.4	3.2	
	72			2.4	3.1	
	108			2.6	3.1	
	144			3.0	3.1	
4+50	0			2.5	3.4	
	36			3.1	3.0	
	72			3.0	2.9	
	108			3.0	3.0	
	144			3.4	2.9	
5+00	0			3.0	3.5	
	36			3.5	3.0	
	72			2.8	3.2	
	108			3.1	3.2	
	144			3.1	3.5	
+						
+						
+						
LAYER NUMBER				06	07	

PREPARER Timothy J. Martin EMPLOYER BRE DATE 10/31/97

Revised December 15, 1989

SHEET 1

REHABILITATION DATA

LTPP PROGRAM

*STATE ASSIGNED ID [_ _ _ _]

*STATE CODE [4 0]

*SHRP SECTION ID [0 5 0 8]

GMA ENTERED JUN 17 1998

IMPROVEMENT LISTING

* 1. DATE COMPLETED (MO/DAY/YR)	* 2. WORK[1] TYPE CODE (TABLE A.17)	* 3. WORK QUANTITY (UNITS FROM (TABLE A.17)	4. THICKNESS (INCHES)	5. COST[2] (THOUSANDS OF DOLLARS PER LANE-MILE)
[0 7/1 6/9 8]	[5 5]	[_ 2 2 0 0.]	_ 6.5	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.

NOTES:

1. For each specific work type, the appropriate set of sheets should be completed (as indexed in Table 7.1). It is recognized that parts of both Chapter 6 (Maintenance Data Collection) and Chapter 7 (Rehabilitation Data Collection) may be required to adequately record a given set of improvements for a test section.

2. Cost includes only pavement structure cost. Non-pavement costs such as cut and fill work, work on bridges, culverts, lighting, and guard rails are to be excluded.

Revised December 15, 1989

SHEET 2

REHABILITATION DATA

LTPP PROGRAM

*STATE ASSIGNED ID [_ _ _ _]

*STATE CODE [4 0]

*SHRP SECTION ID [0 5 0 8]

G.W. ENTERED JUN 17 1990

REVISED LAYER DESCRIPTIONS

1.	*2.	*3.	*4.			
LAYER[1] NUMBER	LAYER[2] DESCRIPTION	MATERIAL[3,4] TYPE CLASSIFICATION	<-------- LAYER THICKNESS (IN) -------> MEAN	MIN.	MAX.	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _8.0]	_ _ _.._	_ _ _.._	_ _ _.._
3	[0 4]	[0 1]	[_ _3.0]	_ _ _.._	_ _ _.._	_ _ _.._
4	[0 3]	[0 1]	[_ _0.0]	_ _ _.._	_ _ _.._	_ _ _.._
5	[0 2]	[7 3]	[_ _ _._]	_ _ _.._	_ _ _.._	_ _ _.._
6	[0 4]	[1 3]	[_ _2.9]	_ _2.0	_ _3.5	_ _0.4
7	[0 1]	[1 3]	[_ _2.9]	_ _1.8	_ _3.5	_ _0.5
8	[_ _]	[_ _]	[_ _ _._]	_ _ _.._	_ _ _.._	_ _ _.._
9	[_ _]	[_ _]	[_ _ _._]	_ _ _.._	_ _ _.._	_ _ _.._

NOTES:

1. Layer 1 is subgrade soil, last layer is existing 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 (Below Surface Layer)...04	Interlayer.....08	Recycled Layer.....12

3. The material type classification codes for surface, base or subbase, subgrade, and seal coat or interlayer materials appear in Tables A.5, A.6, A.7 and A.8, respectively.

4. If the materials or thicknesses of a layer has not changed during the rehabilitation, enter "99" as the material type classification and leave the layer thicknesses for that layer blank. If a layer has changed, enter the appropriate codes and thicknesses.

RECEIVED NOV 2 0 1997 October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 2 REVISED LAYER DESCRIPTIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 9]

1. LAYER NUMBER	2. LAYER DESCRIPTION	3. MATERIAL TYPE CLASS	4. LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _8.0]	_ _ _.-	_ _ _.-	_ _ _.-
3	[0 4]	[0 1]	[_ _3.0]	_ _ _.-	_ _ _.-	_ _ _.-
4	[0 3]	[0 1]	[_ _0.0]	_ _ _.-	_ _ _.-	_ _ _.-
5	[0 2]	[7 3]	[_ _ _.-]	_ _ _.-	_ _ _.-	_ _ _.-
6	[0 1]	[1 3]	[_ _3.1]	_ _2.2	_ _3.8	_ _0.4
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 [signature] EMPLOYER BRE DATE 11/18/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 6 PREPARATION OF MILLED TEST SECTIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 9]

1. DATE OF MILLING OPERATION [0 6 - 2 6 - 9 7]
2. MANUFACTURER OF MILLING MACHINE (Specify) Destrol, Inc. (Owner)
3. MILLING MACHINE MODEL DESIGNATION (Specify) D1100 SMI
4. WIDTH OF CUTTING HEAD (Inches) [1 4 4]
5. TOTAL MILLED DEPTH (Inches)

Location	No. Measrmnts	Maximum	Minimum	Std. Dev.	Average
Inside lane edge	11.	2.8	0.6	0.5	[1.7]
Outside lane edge	11.	2.8	0.6	0.5	[1.7]

MILLED SURFACE CHARACTERISTICS

6. Macro Texture [2]
   Fine Macro Texture (≤¼ inch)... 1 Coarse Macro Texture(>¼ inch)... 2
7. Estimate of extent of test section surface area delaminated (Percent) [0]
8. Height of Ridge Between Parallel Passes? (Inches) [.]
9. Other Comments? (Yes, No) [ ]
   Comments _____

10. WHERE PATCHES PLACED AFTER MILLING? (Yes, No) [No]
    (If yes complete Construction Data Sheet 3)
11. LENGTH OF TIME MILLED SURFACE WAS OPENED TO TRAFFIC? (Hrs.) 18 days [4 3 2]
12. WAS MILL REPLACEMENT LAYER THICKER THAN MILL DEPTH (YES NO) [Yes]
13. LAYER NUMBER OF MILL REPLACEMENT [6]
14. NOMINAL THICKNESS OF MILL REPLACEMENT MATERIAL (Inches) [4.0]
15. TYPE OF MILL REPLACEMENT LAYER MATERIAL [2]
    "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) [Yes]
    IF NO, WIDTH MILLED SAME DEPTH AS TEST LANE (Feet) [.]
17. COMMENTS _____

PREPARER Timothy J Martin EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 7 OVERLAY PLACEMENT OPERATIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 9]

1. DATE SURFACE PREPARATION BEGAN (Month-Day-Year) [0 7-1 4-9 7]
2. DATE SURFACE PREPARATION COMPLETED [0 7-1 4-9 7]

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

4. TACK COAT
   Layer Numbers [0 5] [_ _]
   Material Type None..... 1 SS-1.... 2 SS-1H.... 3 CRS-1.... 4 [0 2]
   CRS-2.... 5 CMS-2.... 6 CMS-2H.. 7 CSS-1.... 8 CSS-1H... 9
   Other.... 10 (Specify) _____
5. TACK COAT DILUTION
   (Percent) [5 0]
   Mixing Rate Parts Diluent 1 TO Parts Asphalt 1
6. TACK COAT APPLICATION RATE (Gal/Sq. Yd.) [0 . 0 3]

7. ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers		
Plant 1	[2]	Aztec	[_ _ 7]	[1 0]	[6]	[_]	[_]
Plant 2	[_]		[_ _ _]	[_ _]	[_]	[_]	[_]
Plant 3	[_]		[_ _ _]	[_ _]	[_]	[_]	[_]

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

8. MANUFACTURER OF ASPHALT CONCRETE PAVER Blaw-Knox
9. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER PF-510
10. SINGLE PASS LAYDOWN WIDTH (Feet) [2 2.0]

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 [0 6]
    Nominal First Lift Placement Thickness (Inches) [4.0]
    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 [1]
    Between lanes.. 1 Within lane.. 2 (specify offset from O/S feet) [~~3~~ 2.0] JM 7/12/98
16. SIGNIFICANT EVENTS DURING CONSTRUCTION(disruptions, rain, equip. problems, etc.)

PREPARER Timothy J. Marks EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 8 OVERLAY COMPACTION DATA	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 9]

1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [0 7-1 4-9 7]
2. DATE PAVING OPERATIONS COMPLETED [0 7-1 6-9 7]
3. LAYER NUMBER overlay [6]
4. MIXING TEMPERATURE (°F) [3 1 5.]
5. LAYDOWN TEMPERATURES (°F)
   Mean..... 3 0 5.
   Minimum..... _ _ _.
   Standard Deviation... _ _.__
   Number of Tests ..... _ _.
   Maximum..... _ _ _.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	1 2.0				
7	B	Steel-Whl Tandem	_ _.__				
8	C	Steel-Whl Tandem	_ _.__				
9	D	Steel-Whl Tandem	_ _.__				
10	E	Pneumatic-Tired	1 8.0	1 2 0.			
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.	1 1.2		3 2 0 0.	.0 2 _	_ _.__
19	N	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
20	O	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
21	P	Double-Drum Vibr.	_ _.__		_ _ _ _.	_ _ _	_ _.__
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	M	_	_	_
24	Coverages	_ 1.	_ _.	_ _.	_ _.
	INTERMEDIATE				
25	Roller Code (A-Q)	E	_	_	_
26	Coverages	_ 3.	_ _.	_ _.	_ _.
	FINAL				
27	Roller Code (A-Q)	A	_	_	_
28	Coverages	_ 2.	_ _.	_ _.	_ _.
29	Air Temperature (°F)	_ 8 5.	_ _ _.	_ _ _.	_ _ _.
30	Compacted Thickness (In)	3.5	_.__	_.__	_.__
31	Curing Period (Days)	_ _.__	_ _.__	_ _.__	_ _.__

PREPARER Timothy J. Martin EMPLOYER BRE DATE 11/19/97

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 9]

LAYER THICKNESS MEASUREMENTS (Inches) SHEET 1 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
0+00	0				2.9	
	36				2.6	
	72				2.6	
	108				2.9	
	144				3.2	
0+50	0				2.5	
	36				2.5	
	72				2.5	
	108				2.9	
	144				3.0	
1+00	0				2.2	
	36				2.3	
	72				2.3	
	108				2.6	
	144				3.0	
1+50	0				3.0	
	36				3.1	
	72				3.1	
	108				3.1	
	144				3.6	
2+00	0				3.1	
	36				3.2	
	72				3.1	
	108				3.2	
	144				3.6	
2+50	0				3.2	
	36				3.4	
	72				3.2	
	108				3.5	
	144				3.7	
3+00	0				3.0	
	56				2.9	
	72				2.9	
	108				3.1	
	144				3.5	
LAYER NUMBER					06	

PREPARER Timothy J. Nash EMPLOYER BRE DATE 10/31/97

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [0 9]

LAYER THICKNESS MEASUREMENTS (Inches) SHEET 2 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
3+50	0				2.9	
	36				3.0	
	72				2.9	
	108				3.1	
	144				3.4	
4+00	0				3.1	
	36				3.2	
	72				3.1	
	108				3.5	
	144				3.8	
4+50	0				3.1	
	36				3.4	
	72				3.2	
	108				3.5	
	144				3.7	
5+00	0				3.0	
	36				3.0	
	72				2.9	
	108				3.2	
	144				3.5	
+__						
+__						
+__						
LAYER NUMBER					6 6	

PREPARER Timothy J. Martin EMPLOYER BRE DATE 10/31/97

Revised December 15, 1989

SHEET 1

REHABILITATION DATA

LTPP PROGRAM

*STATE ASSIGNED ID [_ _ _ _]

*STATE CODE [4 0]

*SHRP SECTION ID [0 5 0 9]

G.W. ENTERED JUN 17 1998

IMPROVEMENT LISTING

* 1. DATE COMPLETED (MO/DAY/YR)	* 2. WORK[1] TYPE CODE (TABLE A.17)	* 3. WORK QUANTITY (UNITS FROM (TABLE A.17)	4. THICKNESS (INCHES)	5. COST[2] (THOUSANDS OF DOLLARS PER LANE-MILE)
[0 7/1 6/9 7]	[5 5]	[_ 2 2 0 0.]	_ 3.5	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.

NOTES:

1. For each specific work type, the appropriate set of sheets should be completed (as indexed in Table 7.1). It is recognized that parts of both Chapter 6 (Maintenance Data Collection) and Chapter 7 (Rehabilitation Data Collection) may be required to adequately record a given set of improvements for a test section.

2. Cost includes only pavement structure cost. Non-pavement costs such as cut and fill work, work on bridges, culverts, lighting, and guard rails are to be excluded.

Revised December 15, 1989

*STATE ASSIGNED ID [_ _ _ _]

SHEET 2

*STATE CODE [4 0]

REHABILITATION DATA

*SHRP SECTION ID [0 5 0 9]

LTPP PROGRAM

G.W. ENTERED JUN 17 1998

REVISED LAYER DESCRIPTIONS

1.	*2.	*3.	*4.			
LAYER[1] NUMBER	LAYER[2] DESCRIPTION	MATERIAL[3,4] TYPE CLASSIFICATION	<-------- LAYER THICKNESS (IN) --------> MEAN	MIN.	MAX.	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _8.0]	_ _ _._	_ _ _._	_ _ _._
3	[0 4]	[0 1]	[_ _3.0]	_ _ _._	_ _ _._	_ _ _._
4	[0 3]	[0 1]	[_ _0.0]	_ _ _._	_ _ _._	_ _ _._
5	[0 2]	[7 3]	[_ _._]	_ _ _._	_ _ _._	_ _ _._
6	[0 1]	[1 3]	[_ _3.1]	_ _2.2	_ _3.8	_ _0.4
7	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
8	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
9	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._

NOTES:

1. Layer 1 is subgrade soil, last layer is existing 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 (Below Surface Layer)...04	Interlayer.....08	Recycled Layer.....12

3. The material type classification codes for surface, base or subbase, subgrade, and seal coat or interlayer materials appear in Tables A.5, A.6, A.7 and A.8, respectively.

4. If the materials or thicknesses of a layer has not changed during the rehabilitation, enter "99" as the material type classification and leave the layer thicknesses for that layer blank. If a layer has changed, enter the appropriate codes and thicknesses.

RECEIVED NOV 2 0 1997 October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 2 REVISED LAYER DESCRIPTIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [6 0]

1. LAYER NUMBER	2. LAYER DESCRIPTION	3. MATERIAL TYPE CLASS	4. LAYER THICKNESSES (Inches)			
			AVERAGE	MINIMUM	MAXIMUM	STD. DEV.
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _8.0]	_ _ _._	_ _ _._	_ _ _._
3	[0 4]	[0 1]	[_ _3.0]	_ _ _._	_ _ _._	_ _ _._
4	[0 3]	[0 1]	[_ _0.5]	_ _ _._	_ _ _._	_ _ _._
5	[0 2]	[7 3]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
6	[0 1]	[0 1]	[_ _4.0]	_ _2.8	_ _5.3	_ _0.6
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 Timothy J. Mesta EMPLOYER BRE DATE 11/18/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 7 OVERLAY PLACEMENT OPERATIONS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [6 0]

1. DATE SURFACE PREPARATION BEGAN (Month-Day-Year) [0 7-0 7-9 7]
2. DATE SURFACE PREPARATION COMPLETED [0 7-0 7-9 7]

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

4. TACK COAT
   Layer Numbers [0 5] [_ _]
   Material Type None..... 1 SS-1.... 2 SS-1H.... 3 CRS-1.... 4 [0 2]
   CRS-2.... 5 CMS-2.... 6 CMS-2H.. 7 CSS-1.... 8 CSS-1H... 9
   Other.... 10 (Specify) _____
5. TACK COAT DILUTION
   (Percent) [5 0]
   Mixing Rate Parts Diluent 1 TO Parts Asphalt 1
6. TACK COAT APPLICATION RATE (Gal/Sq. Yd.) [0 . 0 3]

7. ASPHALT CONCRETE PLANT AND HAUL

	Type	Name	Haul Distance (Mi)	Time (Min)	Layer Numbers		
Plant 1	[2]	Aztec	[_ _ 7]	[1 0]	[6]	[_]	[_]
Plant 2	[_]		[_ _ _]	[_ _]	[_]	[_]	[_]
Plant 3	[_]		[_ _ _]	[_ _]	[_]	[_]	[_]

   Plant Type: Batch..... 1 Drum Mix.... 2 Other...3 Specify_____

8. MANUFACTURER OF ASPHALT CONCRETE PAVER Blaw-Knox
9. MODEL DESIGNATION OF ASPHALT CONCRETE PAVER PF-510
10. SINGLE PASS LAYDOWN WIDTH (Feet) [2 2.0]
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 [0 6]
    Nominal First Lift Placement Thickness (Inches) [4.0]
    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) [1] [~~2~~ 2.0] 7/2/98
16. SIGNIFICANT EVENTS DURING CONSTRUCTION(disruptions, rain, equip. problems, etc.)

PREPARER Timothy J Martin EMPLOYER BRE DATE 11/19/97

October 1990 (Heading revised October 1992)

ENTERED MAY 18 1998 J B

SPS-5 CONSTRUCTION DATA SHEET 8 OVERLAY COMPACTION DATA	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [6 0]

1. DATE PAVING OPERATIONS BEGAN (Month-Day-Year) [0 7-0 7-9 7]
2. DATE PAVING OPERATIONS COMPLETED [0 7-0 8-9 7]
3. LAYER NUMBER [6]
4. MIXING TEMPERATURE (°F) [3 2 8.]
5. LAYDOWN TEMPERATURES (°F)
   Mean..... 3 1 5.
   Minimum..... _ _ _.
   Standard Deviation... _ _.
   Number of Tests ..... _ _.
   Maximum..... _ _ _.

ROLLER DATA

	Roller Code #	Roller Description	Gross Wt (Tons)	Tire Press. (psi)	Frequency (Vibr./Min)	Amplitude (Inches)	Speed (mph)
6	A	Steel-Whl Tandem	1 2.0				
7	B	Steel-Whl Tandem	_ _.0				
8	C	Steel-Whl Tandem	_ _.0				
9	D	Steel-Whl Tandem	_ _.0				
10	E	Pneumatic-Tired	1 8.0	1 2 0.			
11	F	Pneumatic-Tired	_ _.0	_ _ _ _.			
12	G	Pneumatic-Tired	_ _.0	_ _ _ _.			
13	H	Pneumatic-Tired	_ _.0	_ _ _ _.			
14	I	Single-Drum Vibr.	_ _.0		_ _ _ _.	_ _ _	_ _.0
15	J	Single-Drum Vibr.	_ _.0		_ _ _ _.	_ _ _	_ _.0
16	K	Single-Drum Vibr.	_ _.0		_ _ _ _.	_ _ _	_ _.0
17	L	Single-Drum Vibr.	_ _.0		_ _ _ _.	_ _ _	_ _.0
18	M	Double-Drum Vibr.	1 1.2		3 2 0 0.	.0 2 _	_ _.0
19	N	Double-Drum Vibr.	_ _.0		_ _ _ _.	_ _ _	_ _.0
20	O	Double-Drum Vibr.	_ _.0		_ _ _ _.	_ _ _	_ _.0
21	P	Double-Drum Vibr.	_ _.0		_ _ _ _.	_ _ _	_ _.0
22	Q	Other					

	COMPACTION DATA	First Lift	Second Lift	Third Lift	Fourth Lift
	BREAKDOWN				
23	Roller Code (A-Q)	M	_	_	_
24	Coverages	_ 1.	_ _.	_ _.	_ _.
	INTERMEDIATE				
25	Roller Code (A-Q)	E	_	_	_
26	Coverages	_ 3.	_ _.	_ _.	_ _.
	FINAL				
27	Roller Code (A-Q)	A	_	_	_
28	Coverages	_ 2.	_ _.	_ _.	_ _.
29	Air Temperature (°F)	_ 8 5.	_ _ _.	_ _ _.	_ _ _.
30	Compacted Thickness (In)	3.5	_.0	_.0	_.0
31	Curing Period (Days)	_ _.0	_ _.0	_ _.0	_ _.0

PREPARER [signature] EMPLOYER BRE DATE 11/19/97

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [6 0]

ENTERED MAY 13 1998 J B

LAYER THICKNESS MEASUREMENTS (Inches) SHEET 1 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
0+00	0				2.8	
	36				2.9	
	72				3.1	
	108				3.2	
	144				3.7	
0+50	0				4.0	
	36				3.8	
	72				4.0	
	108				4.0	
	144				4.2	
1+00	0				3.5	
	36				3.4	
	72				3.5	
	108				3.9	
	144				4.2	
1+50	0					
	36					
	72					
	108					
	144					
2+00	0					
	36					
	72					
	108					
	144					
2+50	0					
	36					
	72					
	108					
	144					
3+00	0				4.1	
	36				3.8	
	72				4.0	
	108				4.3	
	144				4.8	
LAYER NUMBER					06	

PREPARER Timothy J. Martin EMPLOYER BRE DATE 10/31/97

October 1990 (Heading revised October 1992)

SPS-5 CONSTRUCTION DATA SHEET 10 LAYER THICKNESS MEASUREMENTS	* STATE CODE [4 0] * SPS PROJECT CODE [0 5] * TEST SECTION NO. [6 0]

ENTERED MAY 13 1998 J B

LAYER THICKNESS MEASUREMENTS (Inches)

SHEET 2 OF 2

STATION NUMBER	OFFSET (Inches)	RUT LEVEL-UP	MILL REPLACEMENT	BINDER COURSE	SURFACE COURSE	SURFACE FRCTION LAYER
3+50	0				4.2	
	36				4.4	
	72				4.2	
	108				4.4	
	144				4.8	
4+00	0				3.5	
	36				3.7	
	72				3.7	
	108				4.1	
	144				4.5	
4+50	0				3.7	
	36				3.7	
	72				3.6	
	108				4.1	
	144				4.7	
5+00	0				4.4	
	36				4.4	
	72				4.9	
	108				4.9	
	144				5.3	
+						
+						
+						
LAYER NUMBER					06	

PREPARER [signature] EMPLOYER BRE DATE 10/31/97

Revised December 15, 1989

SHEET 1

REHABILITATION DATA

LTPP PROGRAM

*STATE ASSIGNED ID [_ _ _ _]

*STATE CODE [4 0]

*SHRP SECTION ID [0 5 6 0]

IMPROVEMENT LISTING

* 1. DATE COMPLETED (MO/DAY/YR)	* 2. WORK[1] TYPE CODE (TABLE A.17)	* 3. WORK QUANTITY (UNITS FROM (TABLE A.17)	4. THICKNESS (INCHES)	5. COST[2] (THOUSANDS OF DOLLARS PER LANE-MILE)
[0 7/0 8/9 7]	[1 9]	[_ 2 2 0 0.]	_ 3.5	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.
[_ _/_ _/_ _]	[_ _]	[_ _ _ _ _.]	_ _._	_ _ _.

NOTES:

1. For each specific work type, the appropriate set of sheets should be completed (as indexed in Table 7.1). It is recognized that parts of both Chapter 6 (Maintenance Data Collection) and Chapter 7 (Rehabilitation Data Collection) may be required to adequately record a given set of improvements for a test section.

2. Cost includes only pavement structure cost. Non-pavement costs such as cut and fill work, work on bridges, culverts, lighting, and guard rails are to be excluded.

G.W. ENTERED JUN 17 1998

Revised December 15, 1989

*STATE ASSIGNED ID [_ _ _ _]

SHEET 2

*STATE CODE [4 0]

REHABILITATION DATA

*SHRP SECTION ID [0 5 6 0]

LTPP PROGRAM

G.W. ENTERED JUN 17 1998

REVISED LAYER DESCRIPTIONS

1.	*2.	*3.	*4.			
LAYER[1] NUMBER	LAYER[2] DESCRIP-TION	MATERIAL[3,4] TYPE CLASSIFICATION	<-------- LAYER THICKNESS (IN) MEAN	MIN.	MAX.	STD. DEV. -------->
1	SUBGRADE(7)	[5 6]				
2	[0 5]	[4 6]	[_ _8.0]	_ _ _._	_ _ _._	_ _ _._
3	[0 4]	[0 1]	[_ _3.0]	_ _ _._	_ _ _._	_ _ _._
4	[0 3]	[0 1]	[_ _0.5]	_ _ _._	_ _ _._	_ _ _._
5	[0 2]	[7 3]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
6	[0 1]	[0 1]	[_ _4.0]	_ _2.8	_ _5.3	_ _0.6
7	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
8	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._
9	[_ _]	[_ _]	[_ _ _._]	_ _ _._	_ _ _._	_ _ _._

NOTES:

1. Layer 1 is subgrade soil, last layer is existing 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 (Below Surface Layer)...04	Interlayer.....08	Recycled Layer.....12

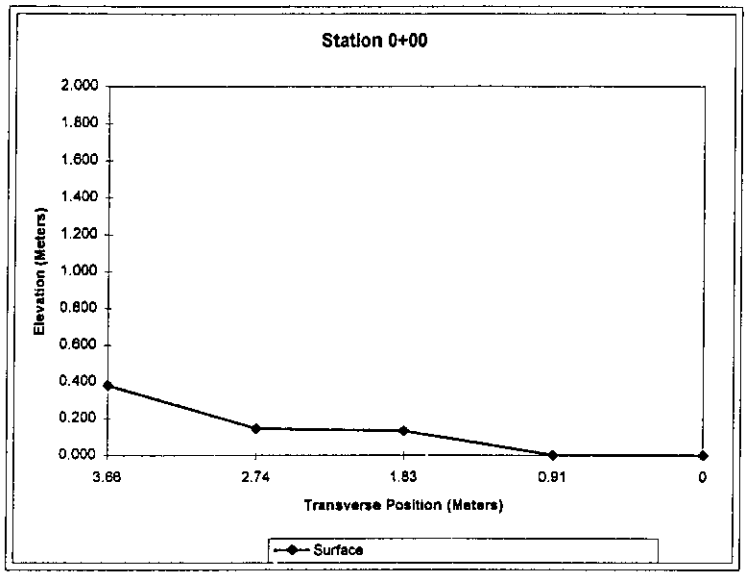
3. The material type classification codes for surface, base or subbase, subgrade, and seal coat or interlayer materials appear in Tables A.5, A.6, A.7 and A.8, respectively.

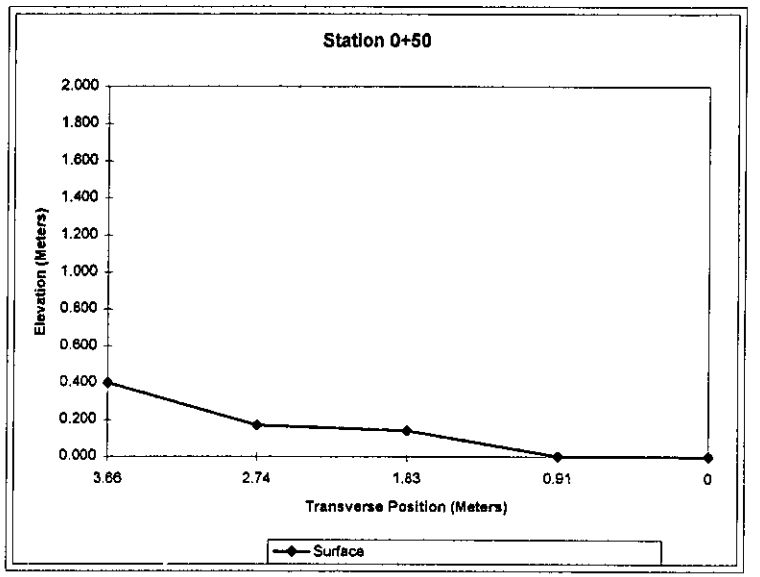
4. If the materials or thicknesses of a layer has not changed during the rehabilitation, enter "99" as the material type classification and leave the layer thicknesses for that layer blank. If a layer has changed, enter the appropriate codes and thicknesses.

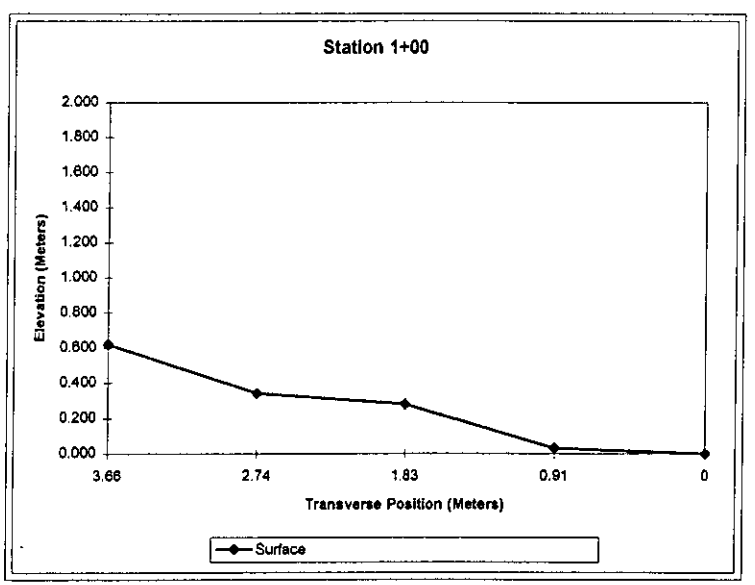
APPENDIX F

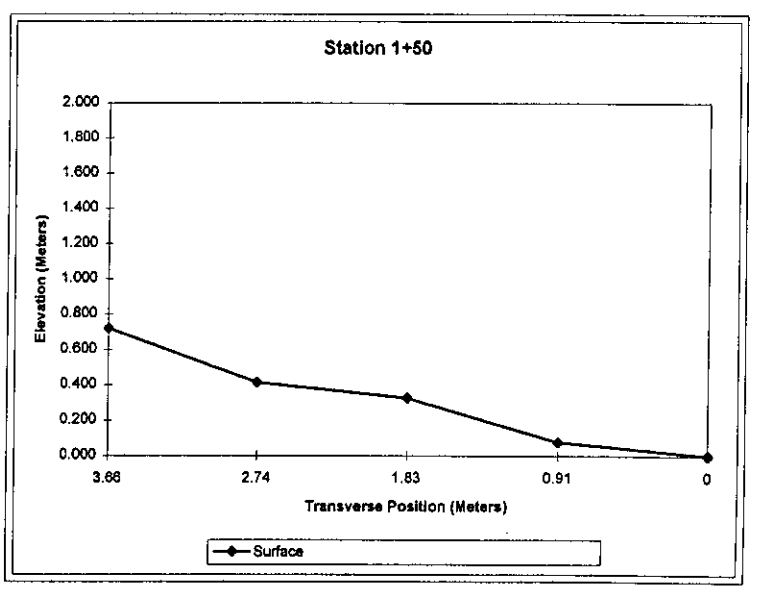
TRANSVERSE PROFILE DATA

Oklahoma SPS-5 (400501)

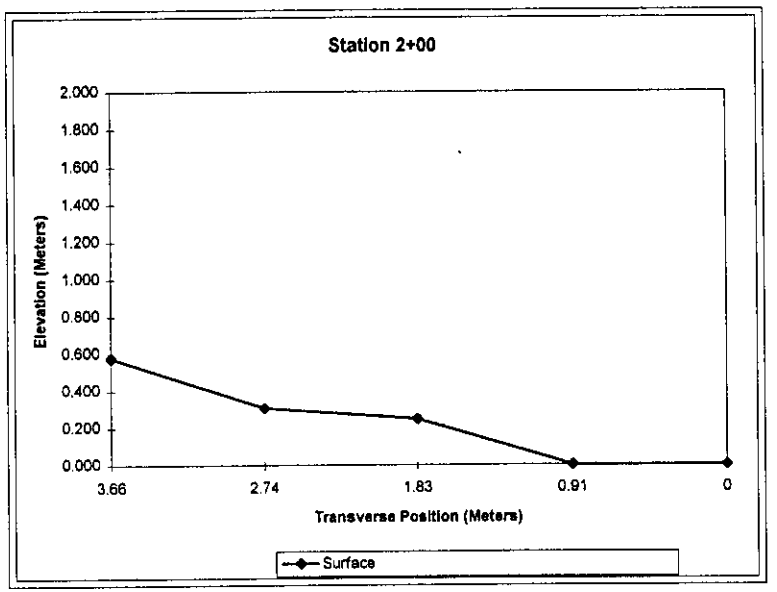


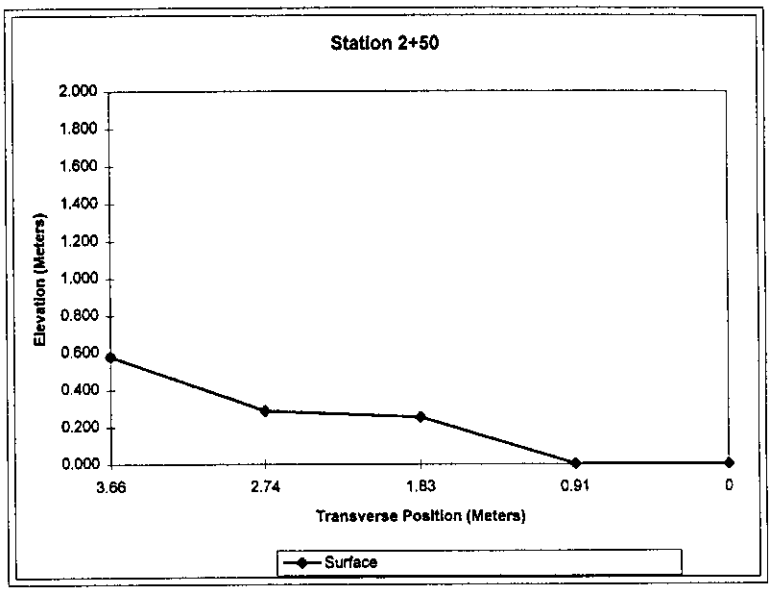


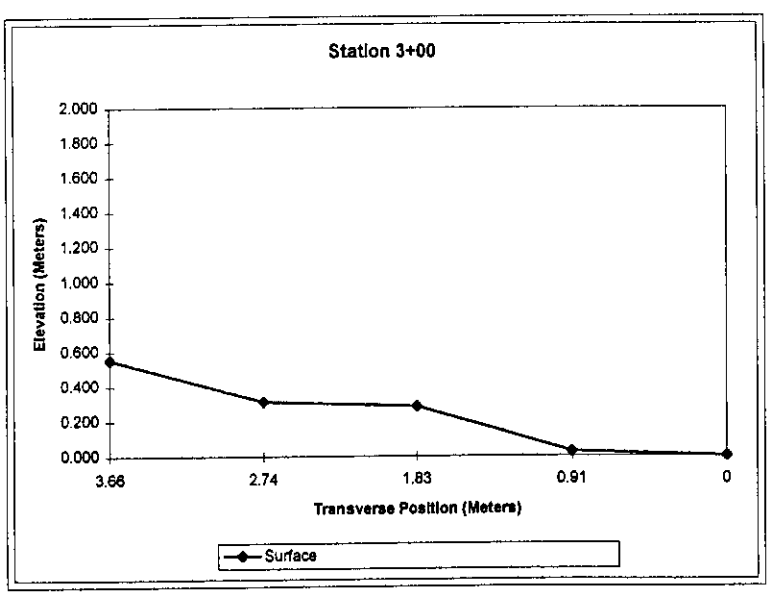


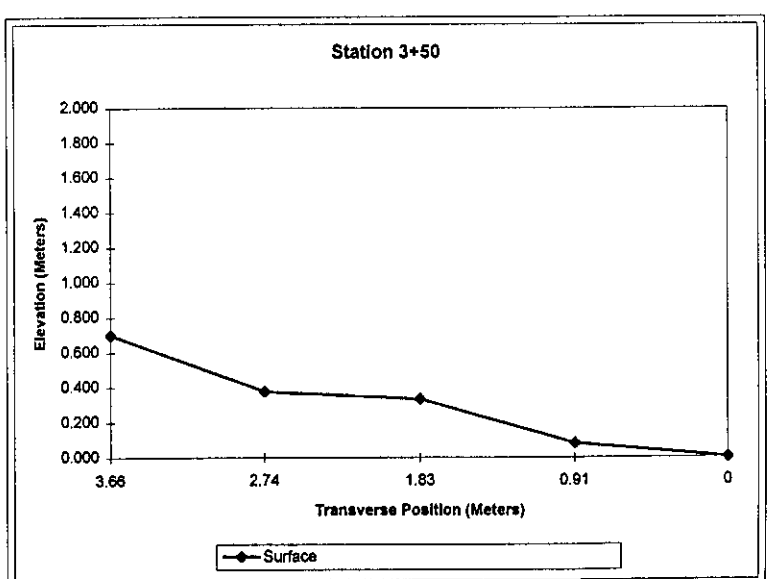


Oklahoma SPS-5 (400501)

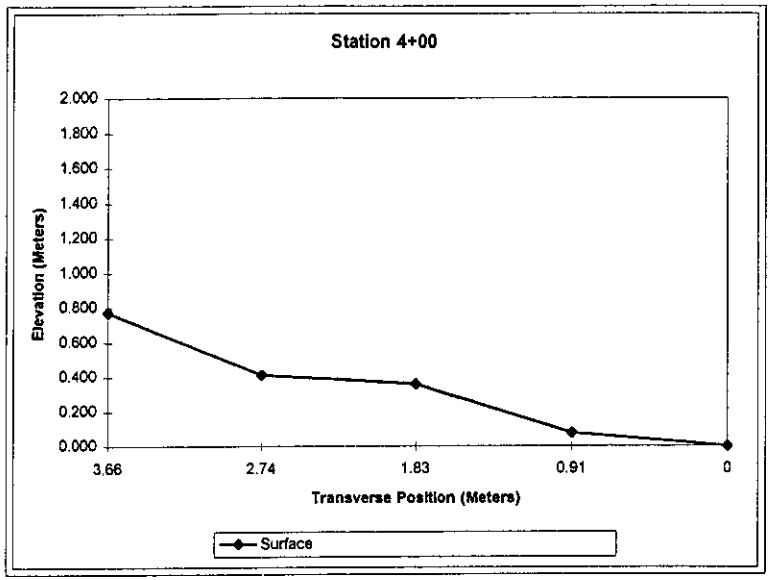


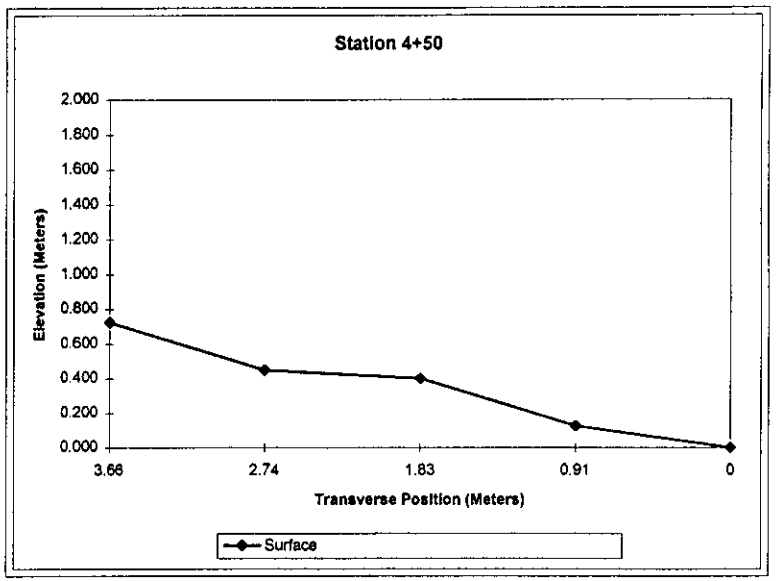


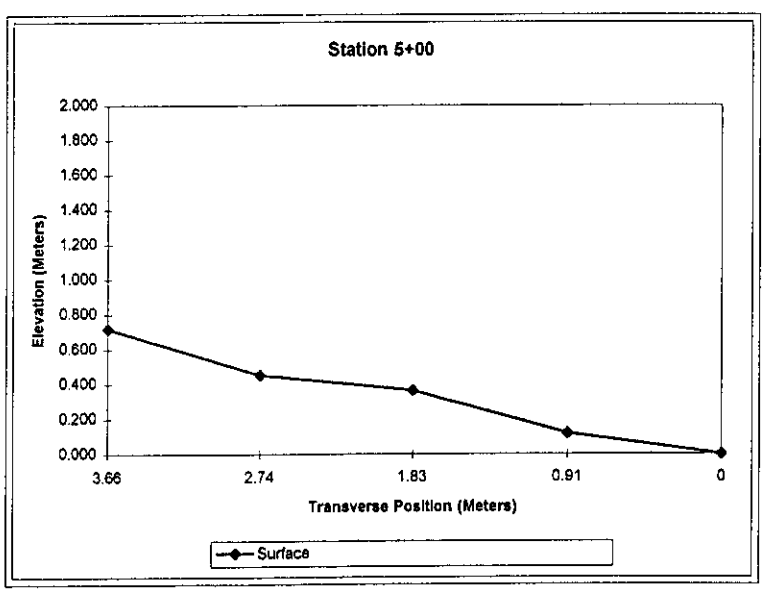




Oklahoma SPS-5 (400501)





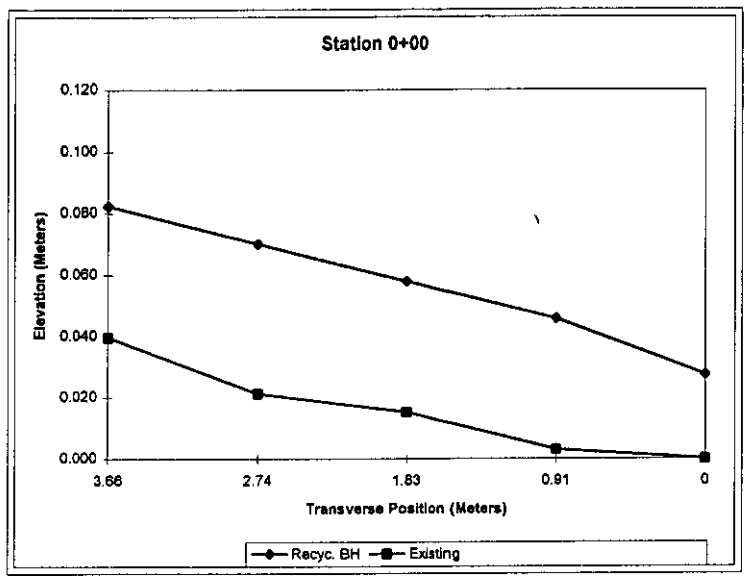


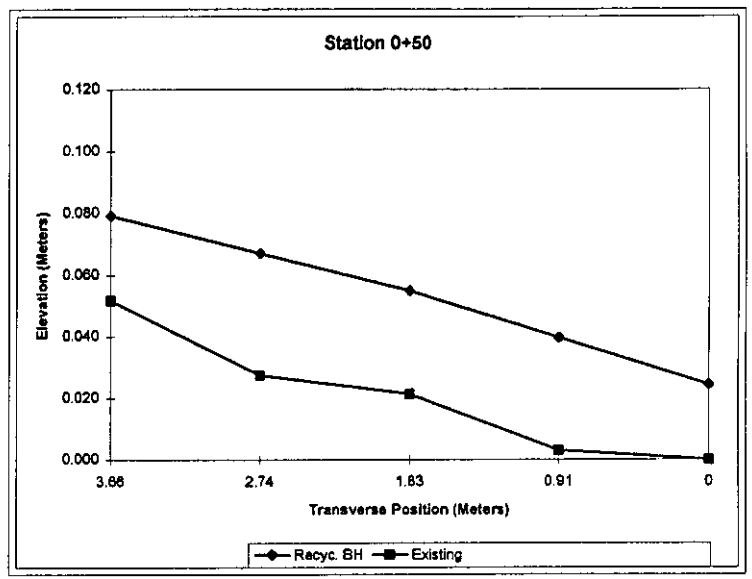
Oklahoma SPS-5 (400502)

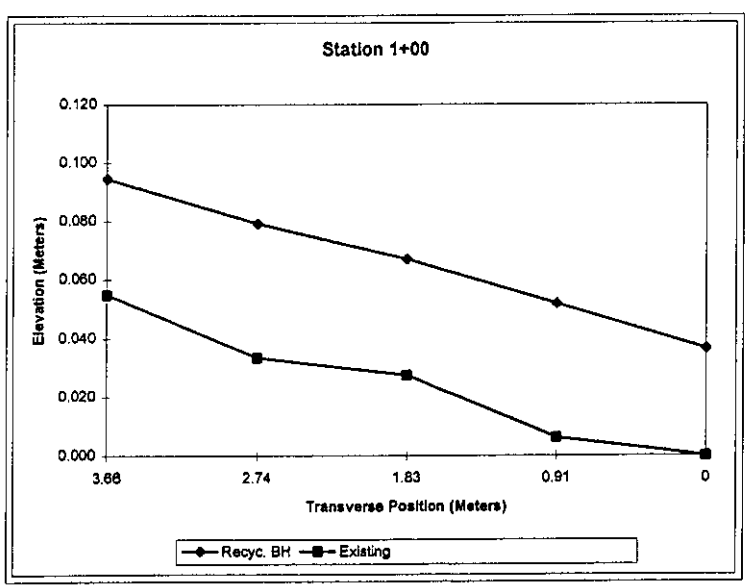
Transverse Offset	2 LAYERS	ELEVATION 0 Meters	Recyc. BH THICKNESS Meters	ELEVATION 0.91 Meters	Recyc. BH THICKNESS Meters	ELEVATION 1.83 Meters	Recyc. BH THICKNESS Meters	ELEVATION 2.74 Meters	Recyc. BH THICKNESS Meters	ELEVATION 3.66 Meters	Recyc. BH THICKNESS Meters
0+00	Recyc. BH	1.366	0.027	1.384	0.043	1.396	0.043	1.408	0.049	1.420	0.043
	Existing	1.338		1.341		1.353		1.359		1.378	
0+50	Recyc. BH	1.561	0.024	1.576	0.037	1.591	0.034	1.603	0.040	1.615	0.027
	Existing	1.536		1.539		1.558		1.564		1.588	
1+00	Recyc. BH	1.743	0.037	1.759	0.046	1.774	0.040	1.786	0.046	1.801	0.040
	Existing	1.707		1.713		1.734		1.740		1.762	
1+50	Recyc. BH	1.920	0.043	1.935	0.043	1.954	0.046	1.966	0.049	1.978	0.037
	Existing	1.878		1.893		1.908		1.917		1.942	
2+00	Recyc. BH	2.124	0.040	2.137	0.043	2.152	0.040	2.164	0.046	2.179	0.040
	Existing	2.085		2.094		2.112		2.118		2.140	
2+50	Recyc. BH	2.304	0.040	2.320	0.046	2.335	0.046	2.350	0.049	2.368	0.046
	Existing	2.265		2.274		2.289		2.301		2.323	
3+00	Recyc. BH	2.460	0.052	2.472	0.055	2.487	0.055	2.496	0.058	2.512	0.064
	Existing	2.408		2.417		2.432		2.438		2.448	
3+50	Recyc. BH	2.618	0.055	2.630	0.052	2.646	0.052	2.658	0.055	2.670	0.049
	Existing	2.563		2.579		2.594		2.603		2.621	
4+00	Recyc. BH	2.780	0.040	2.798	0.049	2.813	0.052	2.822	0.052	2.835	0.049
	Existing	2.740		2.749		2.761		2.771		2.786	
4+50	Recyc. BH	2.963	0.049	2.981	0.055	2.993	0.055	3.005	0.061	3.018	0.049
	Existing	2.914		2.926		2.938		2.944		2.969	
5+00	Recyc. BH	3.161	0.040	3.176	0.049	3.188	0.055	3.197	0.058	3.210	0.055
	Existing	3.121		3.127		3.133		3.139		3.155	
	AVG		0.040		0.047		0.048		0.052		0.046
	MAX		0.055		0.055		0.055		0.061		0.064
	MIN		0.024		0.037		0.034		0.040		0.027
	STD		0.009		0.005		0.007		0.006		0.010

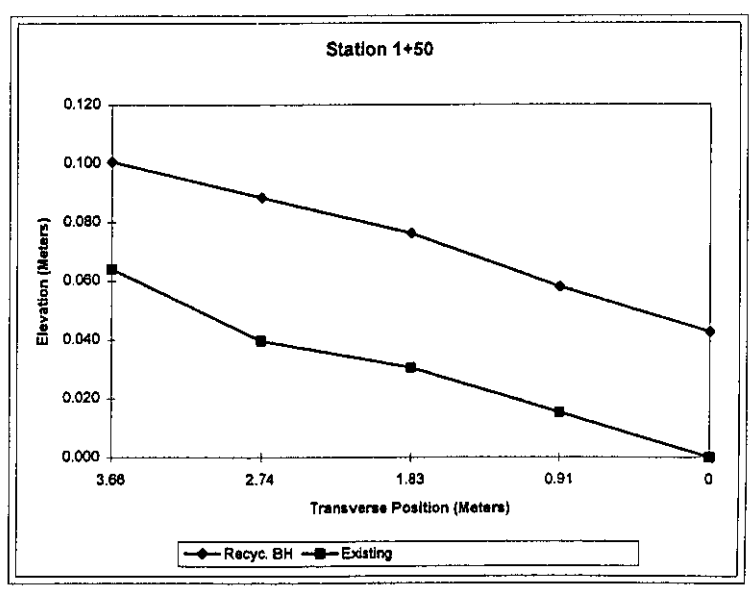
	Recyc. BH
SECTION AVG	0.046
SECTION MAX	0.064
SECTION MIN	0.024
SECTION STD	0.008

Oklahoma SPS-5 (400502)

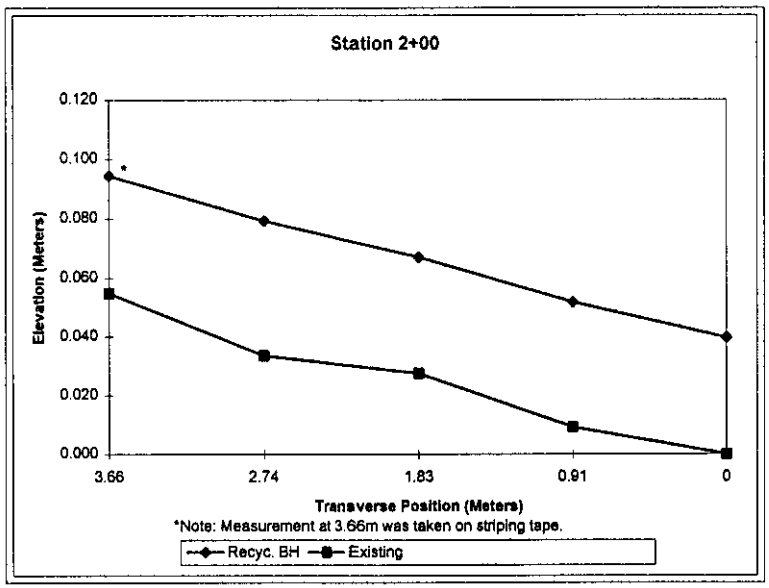


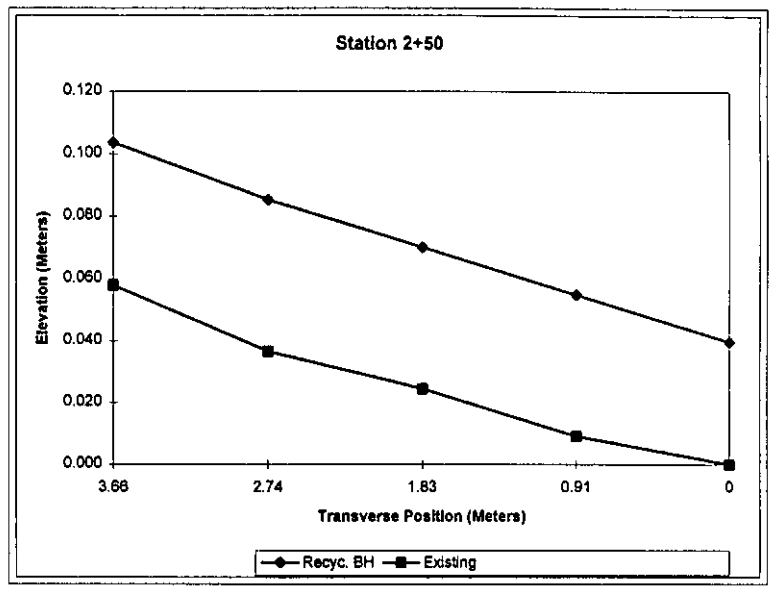


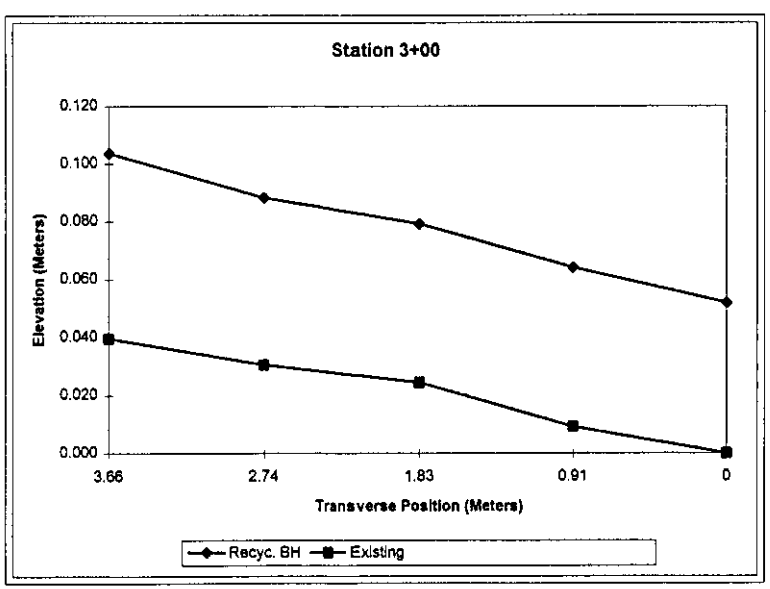


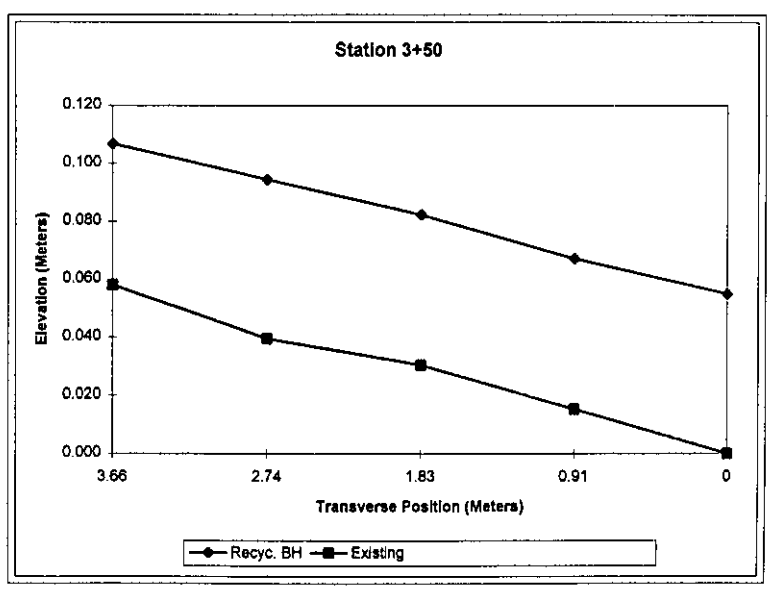


Oklahoma SPS-5 (400502)

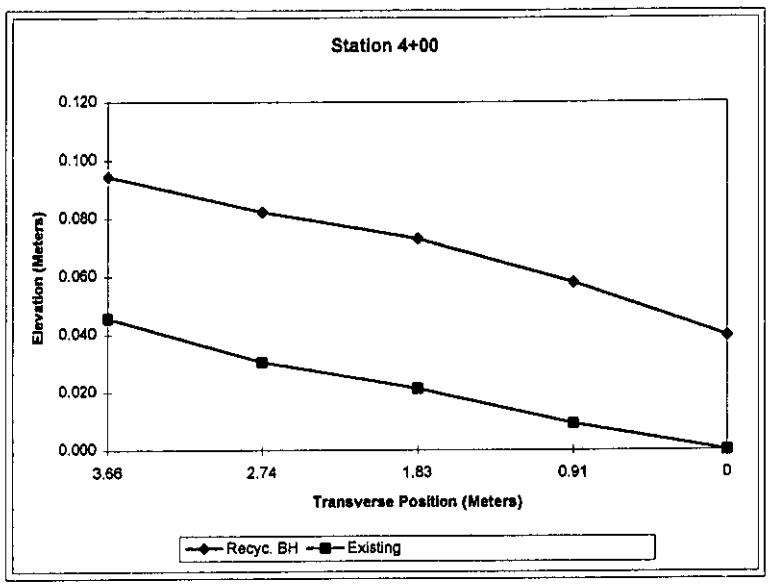


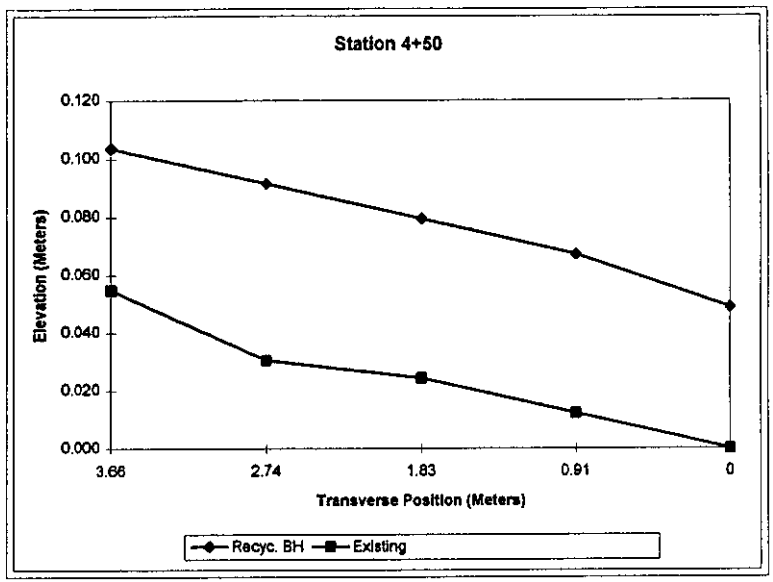


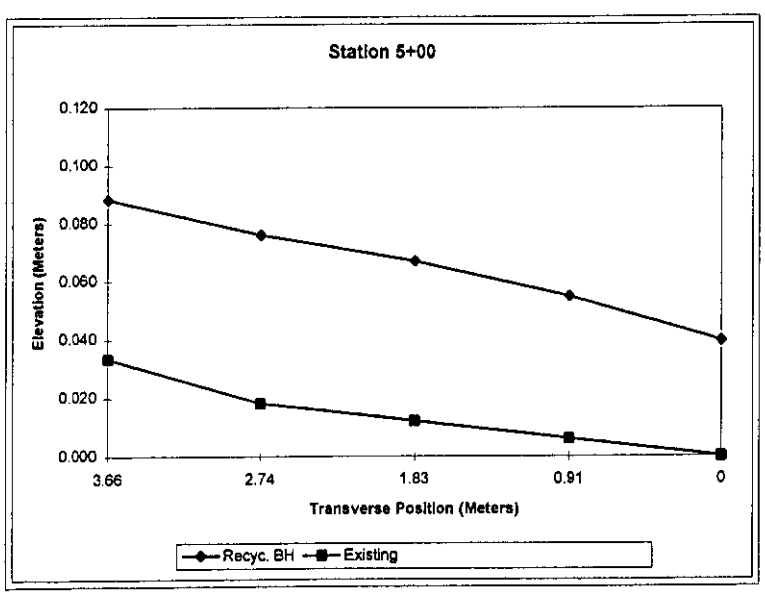




Oklahoma SPS-5 (400502)





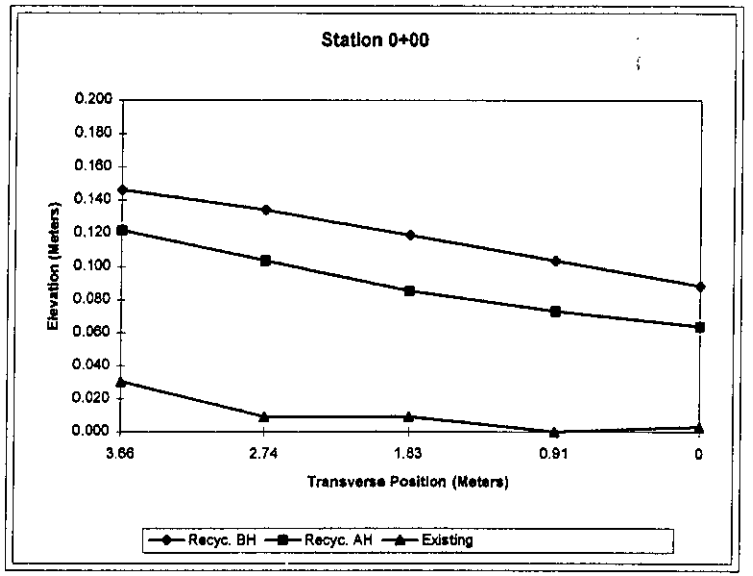


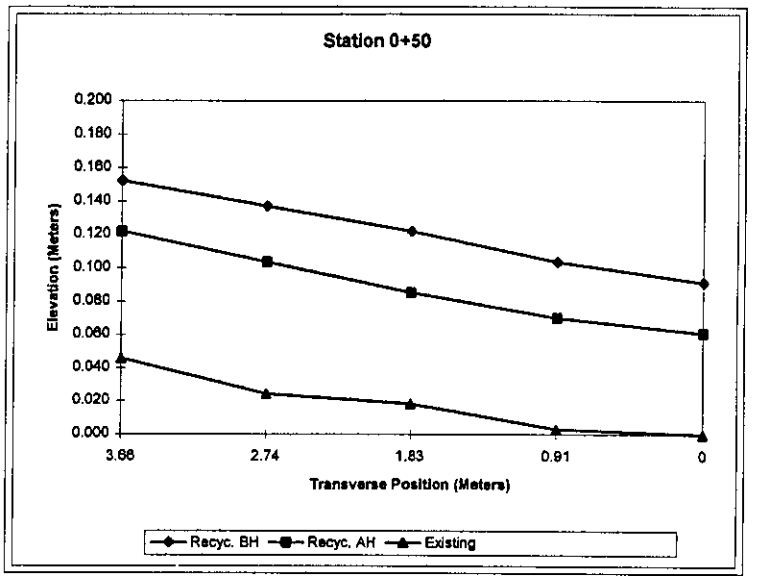
Oklahoma SPS-5 (400503)

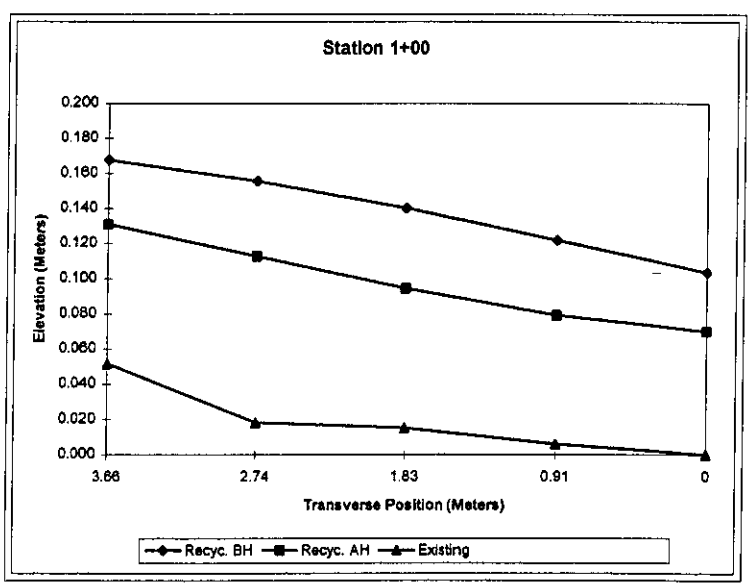
Transverse Offset	3 LAYERS	ELEVATION 0 Meters	Recyc. BH THICKNESS Meters	Recyc. AH THICKNESS Meters	ELEVATION 0.91 Meters	Recyc. BH THICKNESS Meters	Recyc. AH THICKNESS Meters	ELEVATION 1.83 Meters	Recyc. BH THICKNESS Meters	Recyc. AH THICKNESS Meters	ELEVATION 2.74 Meters	Recyc. BH THICKNESS Meters	Recyc. AH THICKNESS Meters	ELEVATION 3.66 Meters	Recyc. BH THICKNESS Meters	Recyc. AH THICKNESS Meters
0+00	Recyc. BH	1.765	0.024	0.061	1.780	0.030	0.073	1.795	0.034	0.076	1.811	0.030	0.094	1.823	0.024	0.091
	Recyc. AH	1.740			1.750			1.762			1.780			1.798		
	Existing	1.679			1.676			1.686			1.686			1.707		
0+50	Recyc. BH	1.908	0.030	0.061	1.920	0.034	0.067	1.939	0.037	0.067	1.954	0.034	0.079	1.969	0.030	0.076
	Recyc. AH	1.878			1.887			1.902			1.920			1.939		
	Existing	1.817			1.820			1.835			1.841			1.862		
1+00	Recyc. BH	2.045	0.034	0.070	2.063	0.043	0.073	2.082	0.046	0.079	2.097	0.043	0.094	2.109	0.037	0.079
	Recyc. AH	2.012			2.021			2.036			2.054			2.073		
	Existing	1.942			1.948			1.957			1.960			1.993		
1+50	Recyc. BH	2.188	0.030	0.076	2.207	0.040	0.070	2.225	0.043	0.070	2.240	0.043	0.082	2.259	0.055	0.070
	Recyc. AH	2.158			2.167			2.182			2.198			2.204		
	Existing	2.082			2.097			2.112			2.115			2.134		
2+00	Recyc. BH	2.362	0.049	0.043	2.377	0.049	0.058	2.396	0.052	0.061	2.411	0.052	0.070	2.426	0.049	0.070
	Recyc. AH	2.313			2.329			2.344			2.359			2.377		
	Existing	2.271			2.271			2.283			2.289			2.307		
2+50	Recyc. BH	2.521	0.040	0.052	2.539	0.049	0.055	2.557	0.055	0.055	2.573	0.052	0.067	2.588	0.046	0.070
	Recyc. AH	2.481			2.490			2.502			2.521			2.542		
	Existing	2.429			2.435			2.448			2.454			2.472		
3+00	Recyc. BH	2.637	0.055	0.052	2.652	0.055	0.061	2.670	0.058	0.061	2.682	0.049	0.076	2.701	0.049	0.073
	Recyc. AH	2.582			2.597			2.612			2.633			2.652		
	Existing	2.530			2.536			2.551			2.557			2.579		
3+50	Recyc. BH	2.719	0.058	0.058	2.737	0.058	0.067	2.758	0.064	0.067	2.774	0.058	0.082	2.786	0.049	0.082
	Recyc. AH	2.661			2.679			2.694			2.716			2.737		
	Existing	2.603			2.612			2.627			2.633			2.655		
4+00	Recyc. BH	2.835	0.055	0.043	2.850	0.061	0.049	2.871	0.067	0.052	2.883	0.061	0.067	2.899	0.055	0.067
	Recyc. AH	2.780			2.789			2.804			2.822			2.844		
	Existing	2.737			2.740			2.752			2.755			2.777		
4+50	Recyc. BH	2.966	0.052	0.027	2.981	0.055	0.037	2.999	0.061	0.043	3.014	0.055	0.061	3.033	0.058	0.061
	Recyc. AH	2.914			2.926			2.938			2.960			2.975		
	Existing	2.886			2.890			2.896			2.899			2.914		
5+00	Recyc. BH	3.100	0.055	0.030	3.112	0.058	0.037	3.130	0.064	0.043	3.146	0.061	0.061	3.161	0.061	0.061
	Recyc. AH	3.045			3.054			3.066			3.085			3.100		
	Existing	3.014			3.018			3.024			3.024			3.039		
	AVG		0.044	0.053		0.048	0.059		0.053	0.061		0.048	0.077		0.046	0.073
	MAX		0.058	0.076		0.061	0.073		0.067	0.079		0.061	0.094		0.061	0.091
	MIN		0.024	0.027		0.030	0.037		0.034	0.043		0.030	0.061		0.024	0.061
	STD		0.012	0.015		0.010	0.013		0.012	0.012		0.010	0.012		0.012	0.009

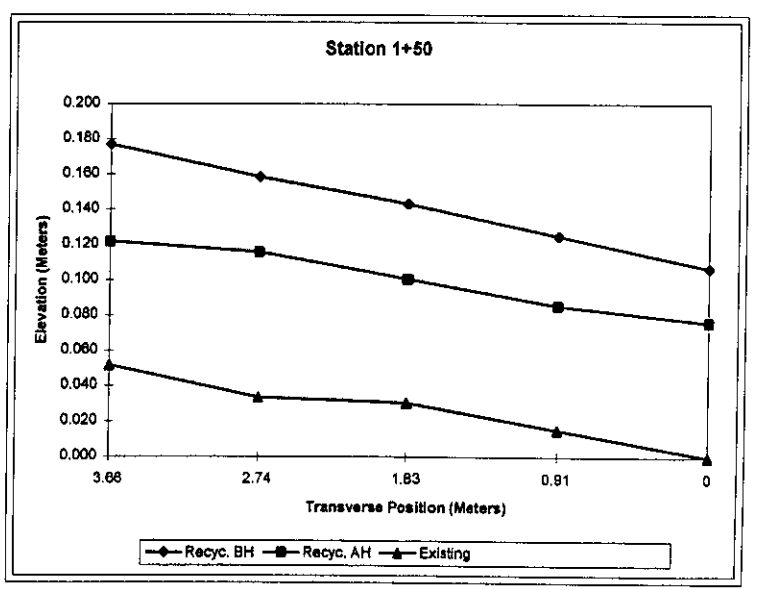
	Recyc. BH	Recyc. AH
SECTION AVG	0.048	0.064
SECTION MAX	0.067	0.094
SECTION MIN	0.024	0.027
SECTION STD	0.011	0.015

Oklahoma SPS-5 (400503)

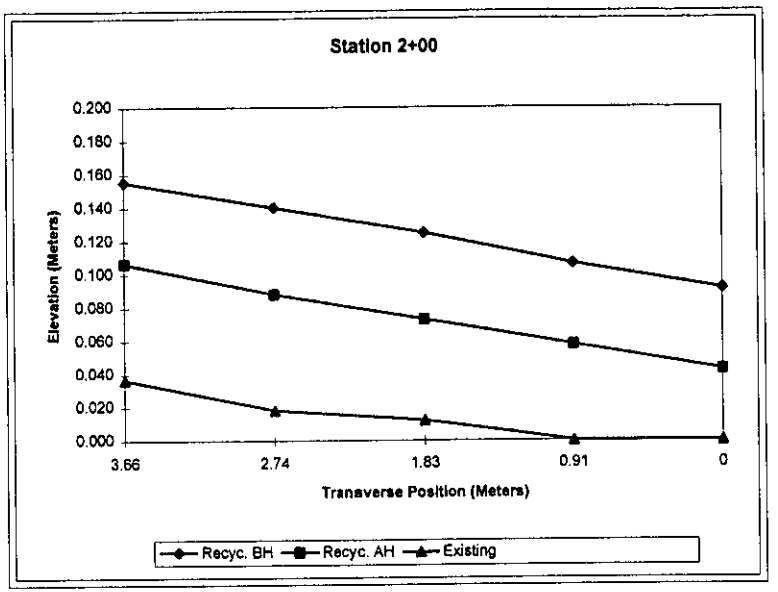


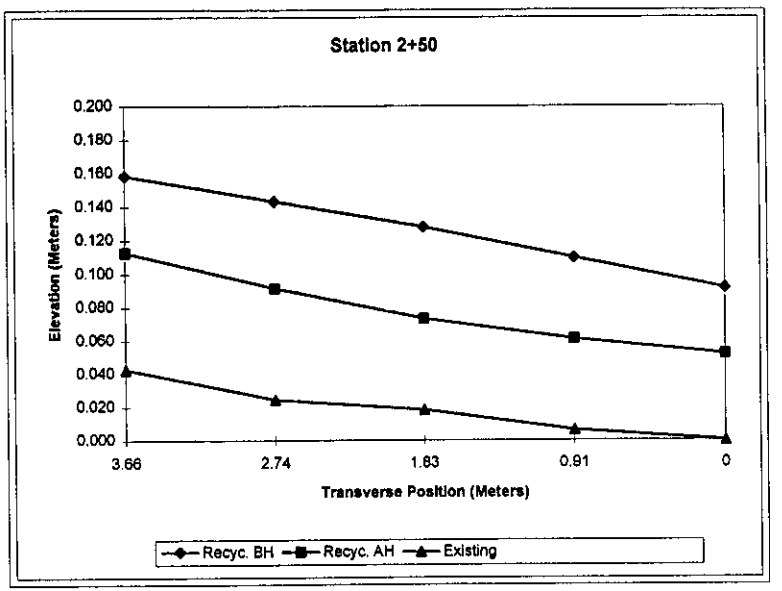


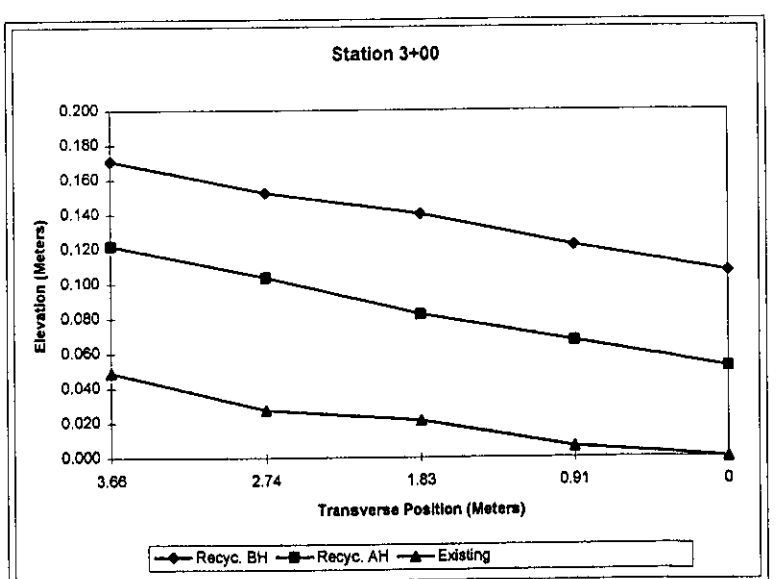


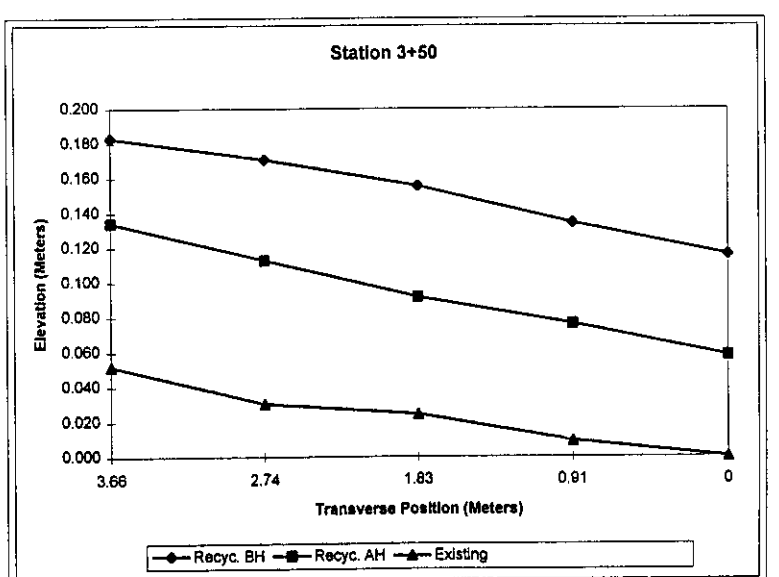


Oklahoma SPS-5 (400503)

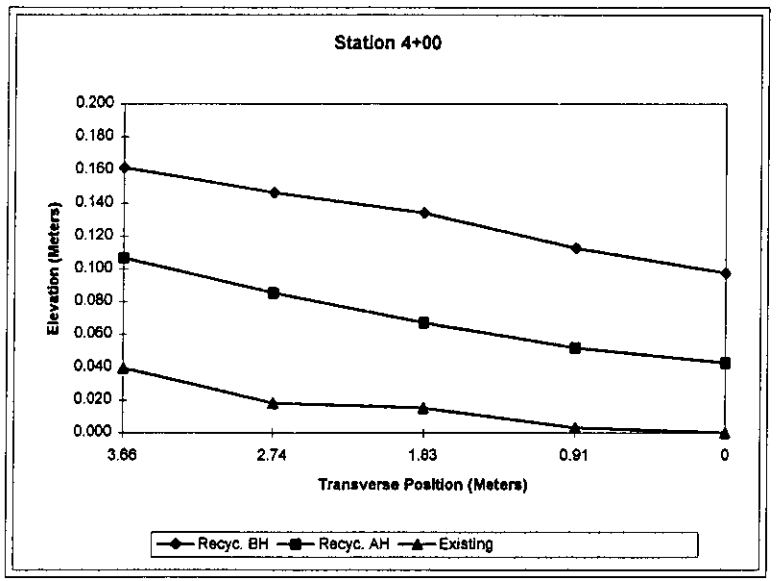


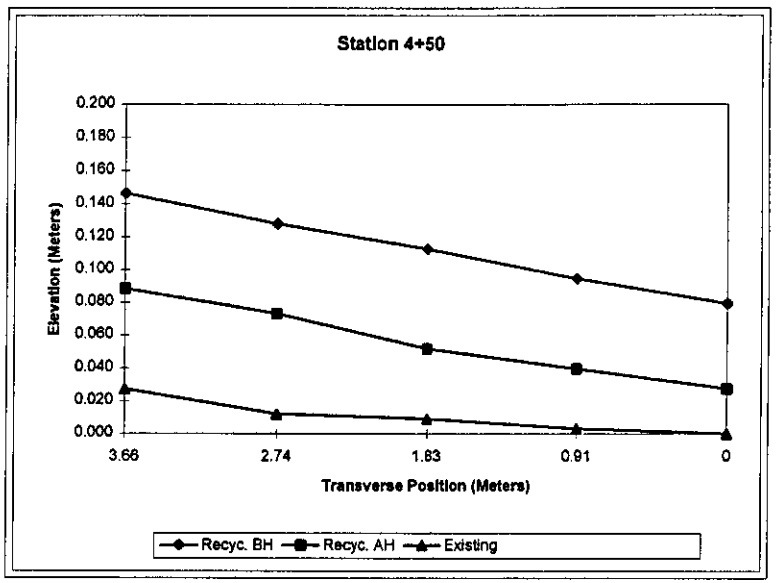


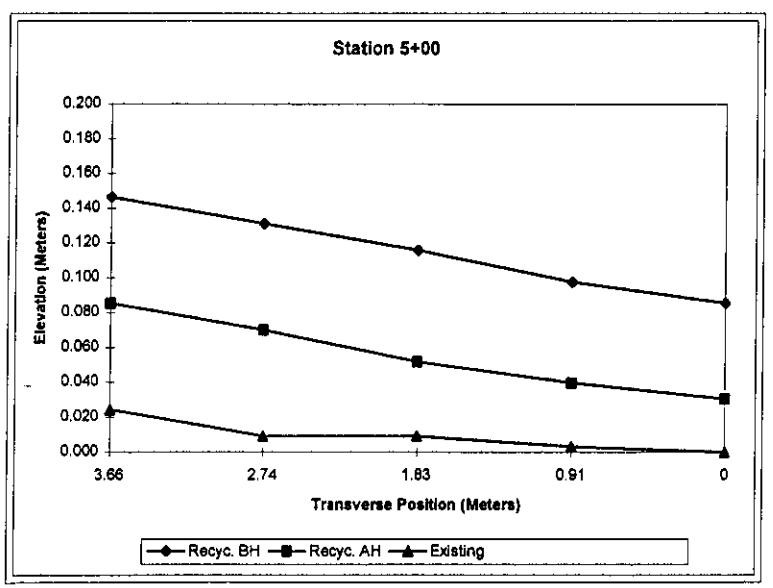




Oklahoma SPS-5 (400503)





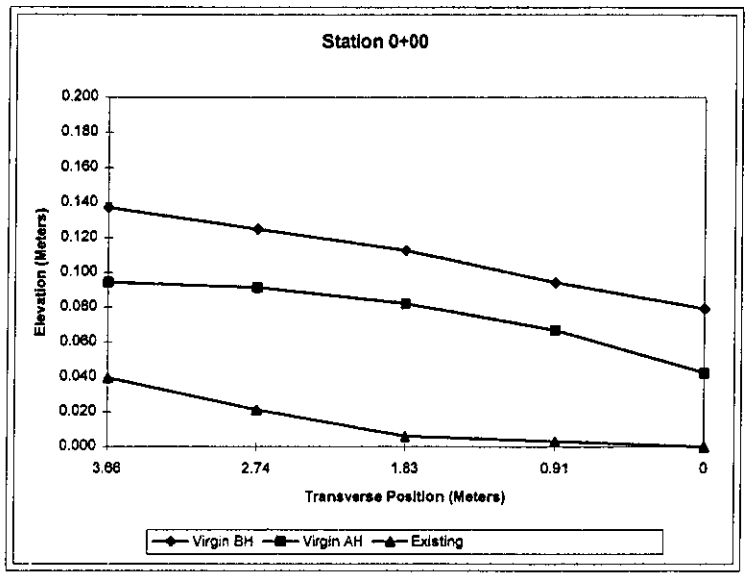


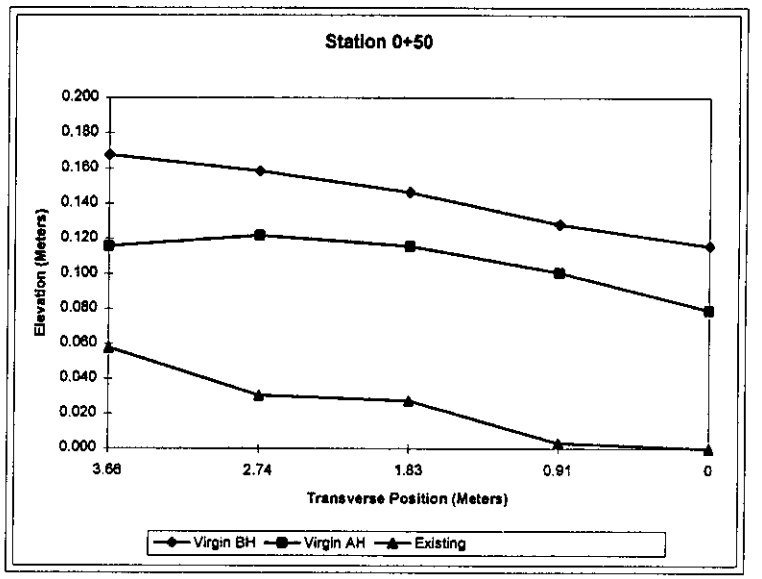
Oklahoma SPS-5 (400504)

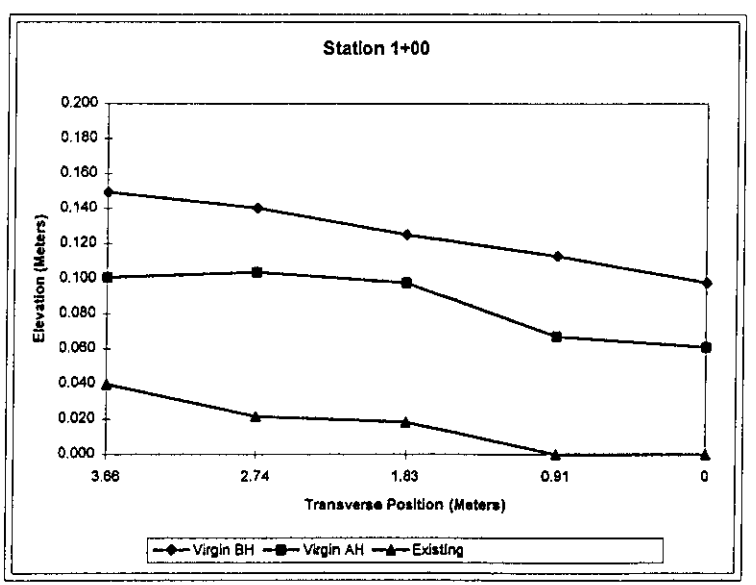
Transverse Offset	3 LAYERS	ELEVATION 0 Meters	Virgin BH THICKNESS Meters	Virgin AH THICKNESS Meters	ELEVATION 0.91 Meters	Virgin BH THICKNESS Meters	Virgin AH THICKNESS Meters	ELEVATION 1.83 Meters	Virgin BH THICKNESS Meters	Virgin AH THICKNESS Meters	ELEVATION 2.74 Meters	Virgin BH THICKNESS Meters	Virgin AH THICKNESS Meters	ELEVATION 3.66 Meters	Virgin BH THICKNESS Meters	Virgin AH THICKNESS Meters
0+00	Virgin BH	2.374	0.037	0.043	2.390	0.027	0.064	2.408	0.030	0.076	2.420	0.034	0.070	2.432	0.043	0.055
	Virgin AH	2.338			2.362			2.377			2.387			2.390		
	Existing	2.295			2.298			2.301			2.316			2.335		
0+50	Virgin BH	2.420	0.037	0.079	2.432	0.027	0.098	2.451	0.030	0.088	2.463	0.037	0.091	2.472	0.052	0.058
	Virgin AH	2.384			2.405			2.420			2.426			2.420		
	Existing	2.304			2.307			2.332			2.335			2.362		
1+00	Virgin BH	2.448	0.037	0.061	2.463	0.046	0.067	2.475	0.027	0.079	2.490	0.037	0.082	2.499	0.049	0.061
	Virgin AH	2.411			2.417			2.448			2.454			2.451		
	Existing	2.350			2.350			2.368			2.371			2.390		
1+50	Virgin BH	2.466	0.030	0.058	2.481	0.024	0.076	2.496	0.027	0.073	2.515	0.034	0.085	2.533	0.052	0.061
	Virgin AH	2.435			2.457			2.469			2.481			2.481		
	Existing	2.377			2.380			2.396			2.396			2.420		
2+00	Virgin BH	2.515	0.055	0.070	2.530	0.052	0.088	2.542	0.049	0.088	2.551	0.052	0.091	2.554	0.055	0.082
	Virgin AH	2.460			2.478			2.493			2.499			2.499		
	Existing	2.390			2.390			2.405			2.408			2.417		
2+50	Virgin BH	2.536	0.052	0.064	2.551	0.049	0.073	2.566	0.049	0.073	2.573	0.049	0.079	2.579	0.055	0.061
	Virgin AH	2.484			2.502			2.518			2.524			2.524		
	Existing	2.420			2.429			2.444			2.444			2.463		
3+00	Virgin BH	2.548	0.052	0.064	2.566	0.049	0.079	2.579	0.043	0.079	2.591	0.046	0.088	2.597	0.055	0.061
	Virgin AH	2.496			2.518			2.536			2.545			2.542		
	Existing	2.432			2.438			2.457			2.457			2.481		
3+50	Virgin BH	2.582	0.052	0.067	2.597	0.052	0.079	2.609	0.046	0.073	2.621	0.049	0.082	2.630	0.052	0.073
	Virgin AH	2.530			2.545			2.563			2.573			2.579		
	Existing	2.463			2.466			2.490			2.490			2.505		
4+00	Virgin BH	2.609	0.058	0.058	2.627	0.055	0.076	2.640	0.052	0.073	2.646	0.052	0.076	2.655	0.055	0.064
	Virgin AH	2.551			2.573			2.588			2.594			2.600		
	Existing	2.493			2.496			2.515			2.518			2.536		
4+50	Virgin BH	2.633	0.055	0.064	2.652	0.049	0.082	2.664	0.046	0.082	2.673	0.046	0.091	2.682	0.055	0.067
	Virgin AH	2.579			2.603			2.618			2.627			2.627		
	Existing	2.515			2.521			2.536			2.536			2.560		
5+00	Virgin BH	2.658	0.058	0.058	2.676	0.055	0.073	2.688	0.052	0.076	2.701	0.052	0.085	2.707	0.055	0.067
	Virgin AH	2.600			2.621			2.637			2.649			2.652		
	Existing	2.542			2.548			2.560			2.563			2.585		
	AVG		0.047	0.062		0.043	0.077		0.040	0.077		0.043	0.083		0.052	0.063
	MAX		0.058	0.079		0.055	0.098		0.052	0.088		0.052	0.091		0.055	0.073
	MIN		0.030	0.043		0.024	0.064		0.027	0.073		0.034	0.070		0.043	0.055
	STD		0.010	0.009		0.011	0.009		0.010	0.005		0.007	0.006		0.004	0.005

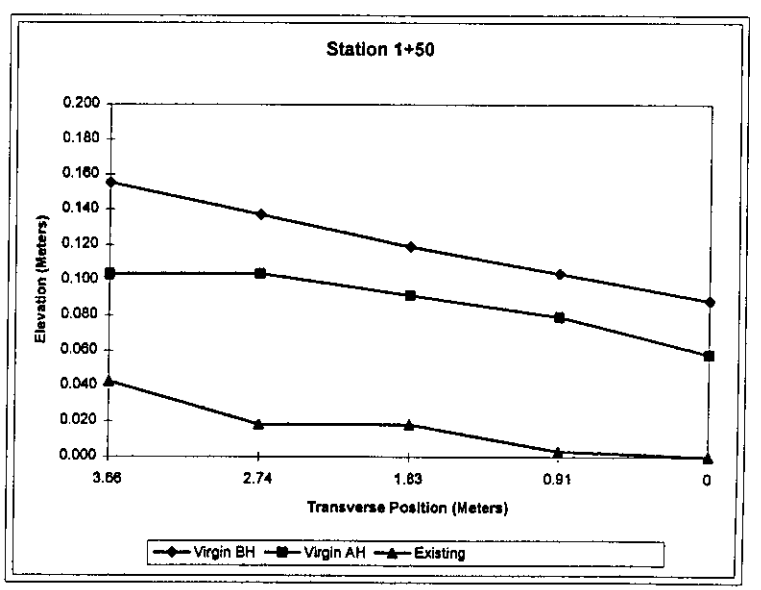
	Virgin BH	Virgin AH
SECTION AVG	0.046	0.073
SECTION MAX	0.058	0.098
SECTION MIN	0.024	0.043
SECTION STD	0.009	0.011

Oklahoma SPS-5 (400504)

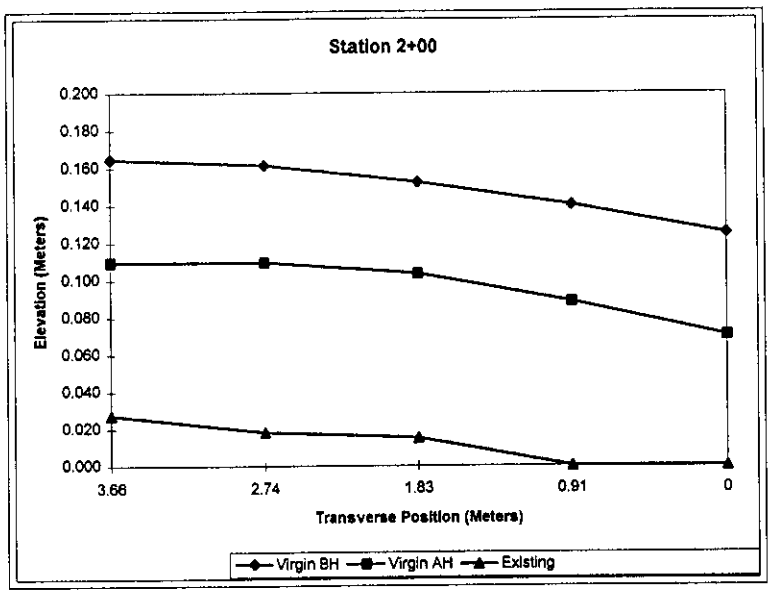


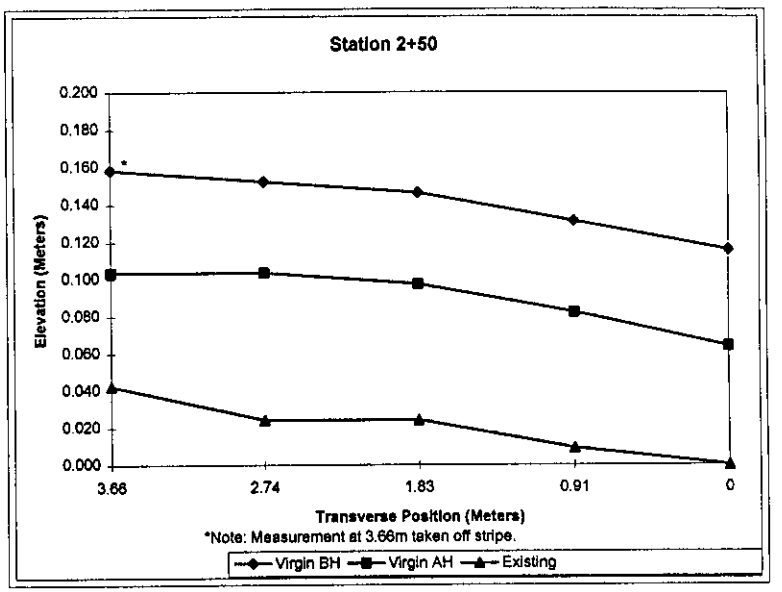


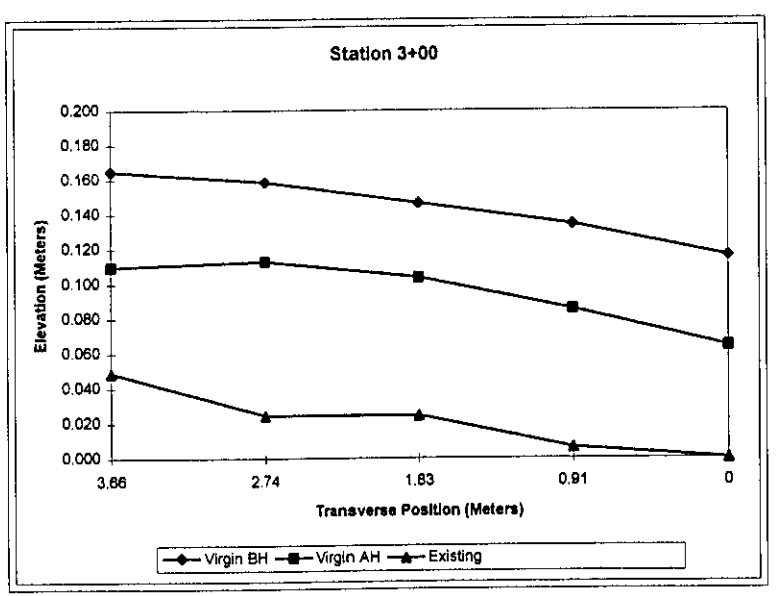


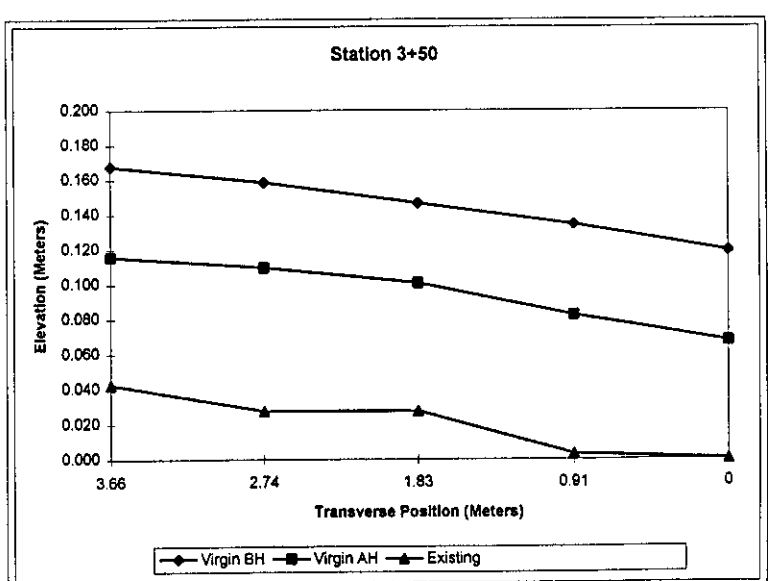


Oklahoma SPS-5 (400504)

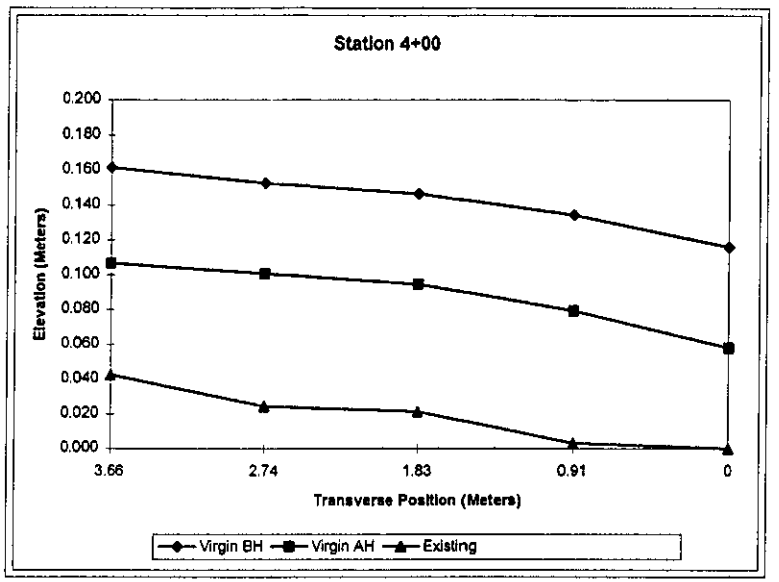


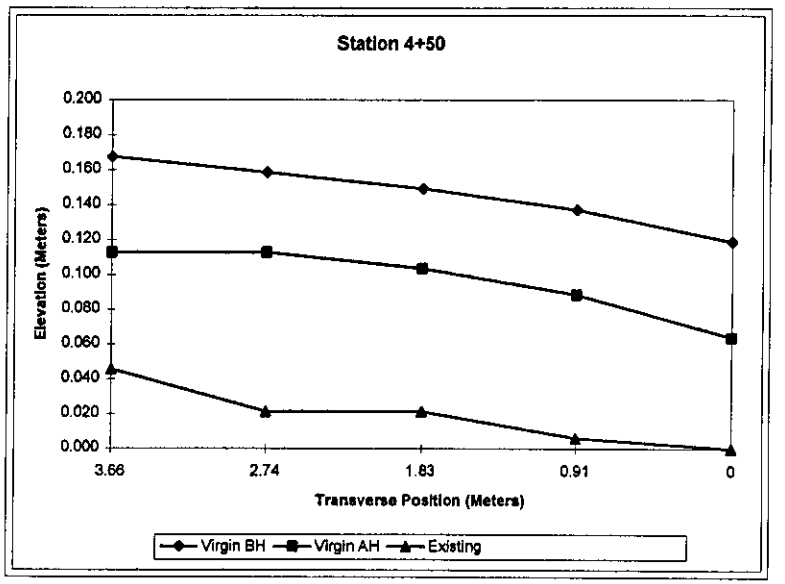


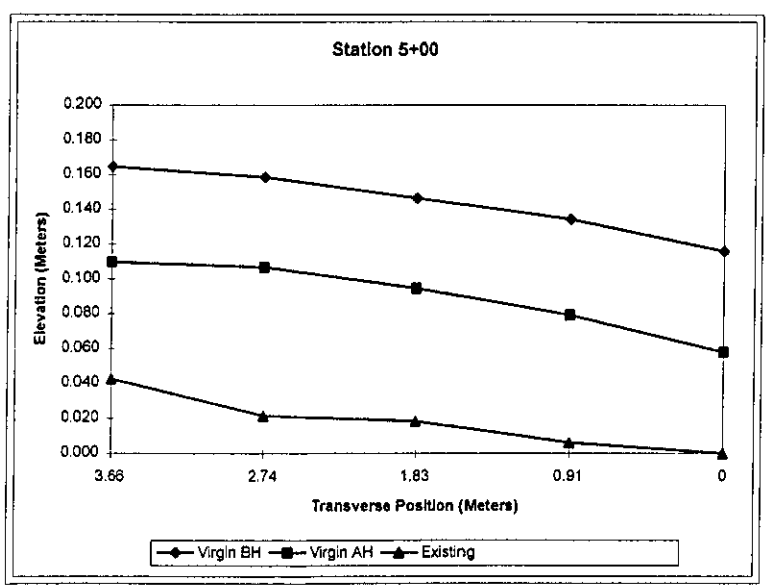




Oklahoma SPS-5 (400504)





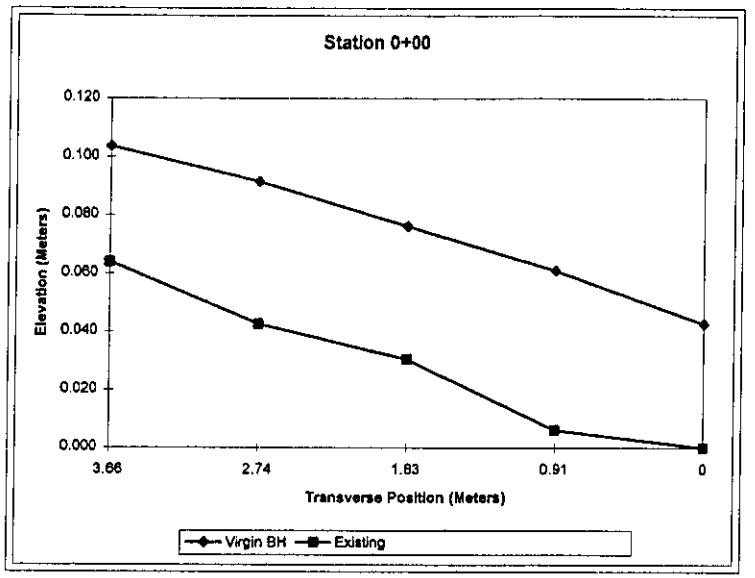


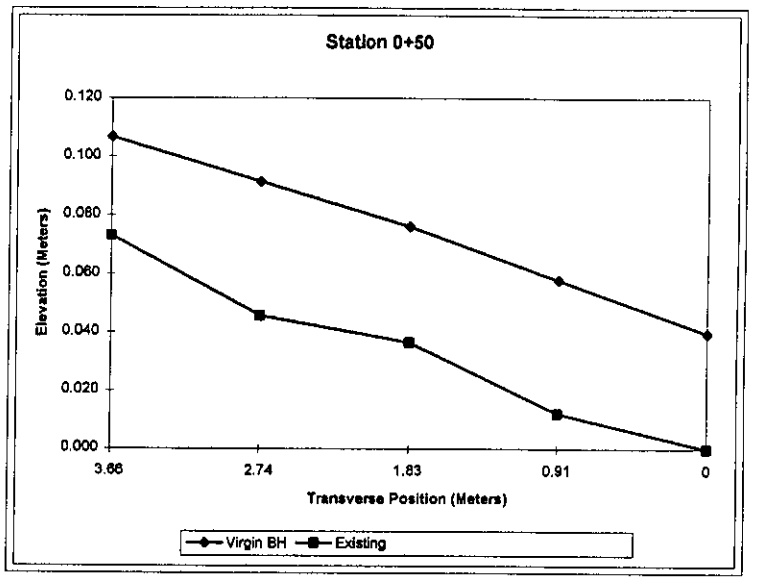
Oklahoma SPS-5 (400505)

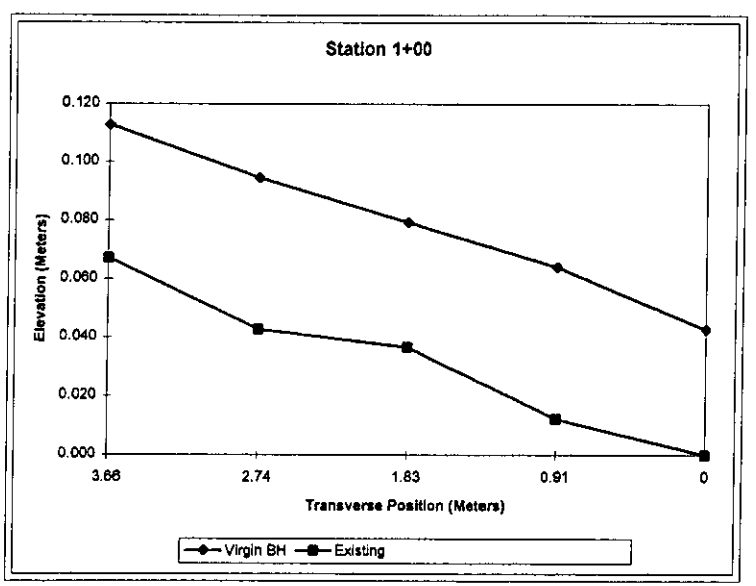
Transverse Offset	2 LAYERS	ELEVATION 0 Meters	Virgin BH THICKNESS Meters	ELEVATION 0.91 Meters	Virgin BH THICKNESS Meters	ELEVATION 1.83 Meters	Virgin BH THICKNESS Meters	ELEVATION 2.74 Meters	Virgin BH THICKNESS Meters	ELEVATION 3.66 Meters	Virgin BH THICKNESS Meters
0+00	Virgin BH	1.274	0.043	1.292	0.055	1.308	0.046	1.323	0.049	1.335	0.040
	Existing	1.231		1.237		1.262		1.274		1.295	
0+50	Virgin BH	1.149	0.040	1.167	0.046	1.186	0.040	1.201	0.046	1.216	0.034
	Existing	1.109		1.122		1.146		1.155		1.183	
1+00	Virgin BH	1.049	0.043	1.070	0.052	1.085	0.043	1.100	0.052	1.119	0.046
	Existing	1.006		1.018		1.042		1.049		1.073	
1+50	Virgin BH	0.981	0.034	1.000	0.040	1.012	0.040	1.030	0.049	1.047	0.044
	Existing	0.948		0.960		0.972		0.981		1.003	
2+00	Virgin BH	0.902	0.024	0.920	0.034	0.933	0.037	0.951	0.043	0.966	0.040
	Existing	0.878		0.887		0.896		0.908		0.927	
2+50	Virgin BH	0.796	0.021	0.811	0.030	0.826	0.034	0.841	0.043	0.860	0.037
	Existing	0.774		0.780		0.792		0.799		0.823	
3+00	Virgin BH	0.655	0.034	0.671	0.040	0.689	0.043	0.704	0.046	0.719	0.040
	Existing	0.622		0.631		0.646		0.658		0.680	
3+50	Virgin BH	0.521	0.046	0.536	0.043	0.549	0.037	0.567	0.043	0.585	0.040
	Existing	0.475		0.494		0.512		0.524		0.546	
4+00	Virgin BH	0.402	0.049	0.421	0.052	0.439	0.049	0.454	0.052	0.472	0.046
	Existing	0.354		0.369		0.390		0.402		0.427	
4+50	Virgin BH	0.311	0.046	0.329	0.052	0.344	0.049	0.354	0.049	0.366	0.040
	Existing	0.265		0.277		0.296		0.305		0.326	
5+00	Virgin BH	0.223	0.049	0.238	0.055	0.250	0.049	0.259	0.049	0.274	0.055
	Existing	0.174		0.183		0.201		0.210		0.219	
	AVG		0.039		0.046		0.043		0.048		0.042
	MAX		0.049		0.055		0.049		0.052		0.055
	MIN		0.021		0.030		0.034		0.043		0.034
	STD		0.009		0.008		0.005		0.003		0.006

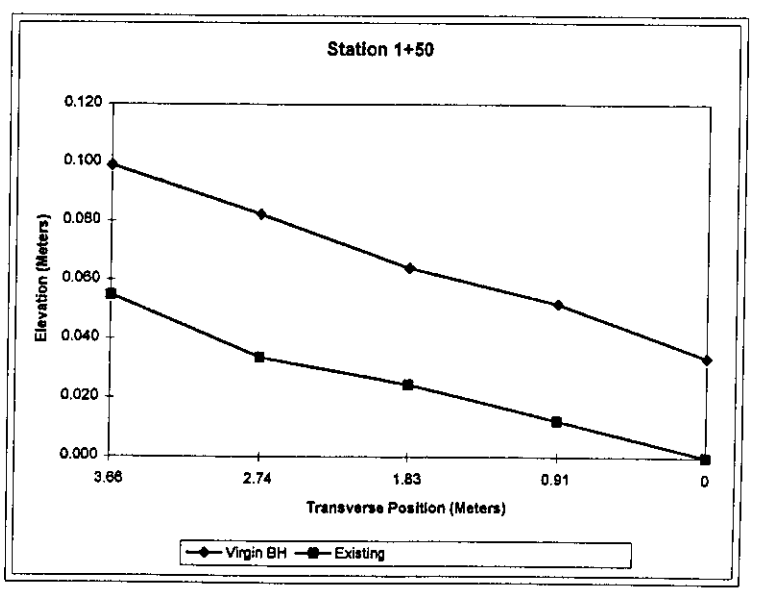
	Virgin BH
SECTION AVG	0.043
SECTION MAX	0.055
SECTION MIN	0.021
SECTION STD	0.007

Oklahoma SPS-5 (400505)

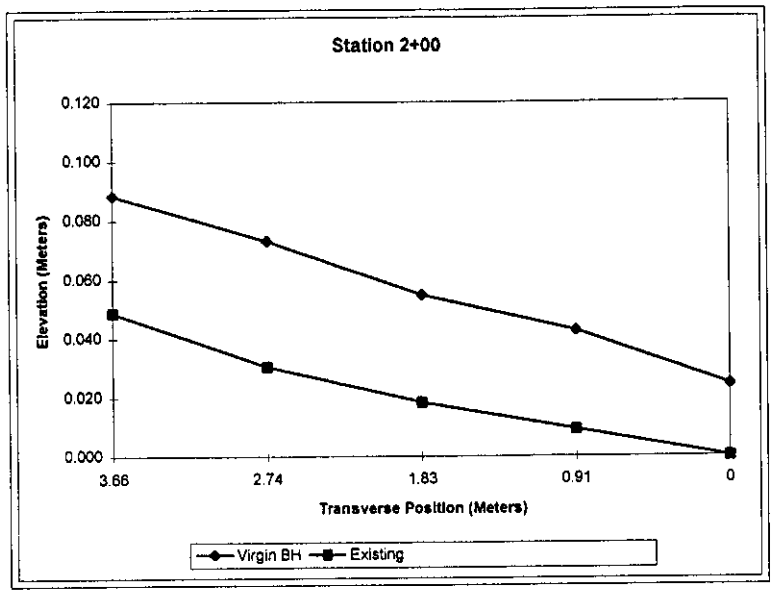


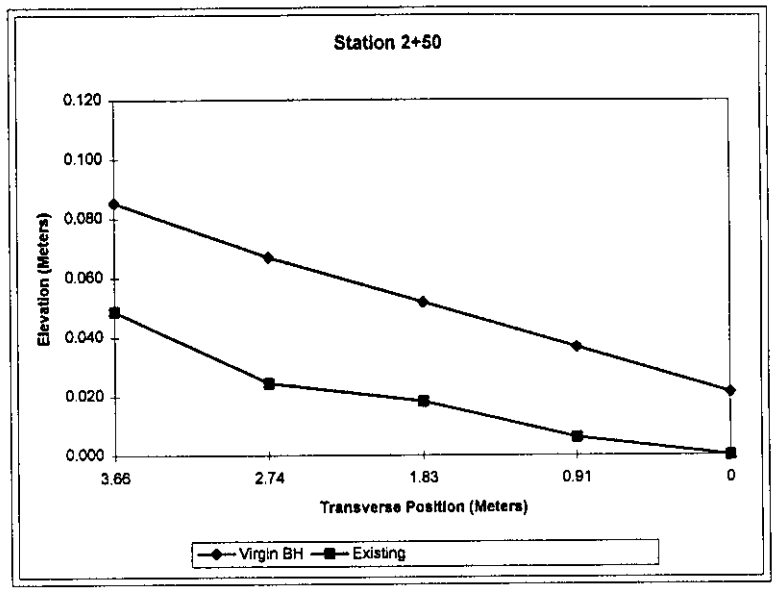


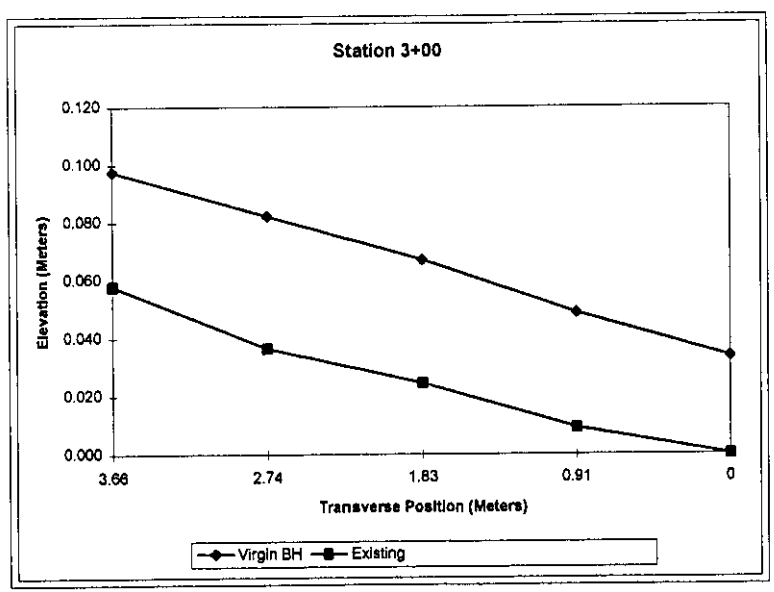


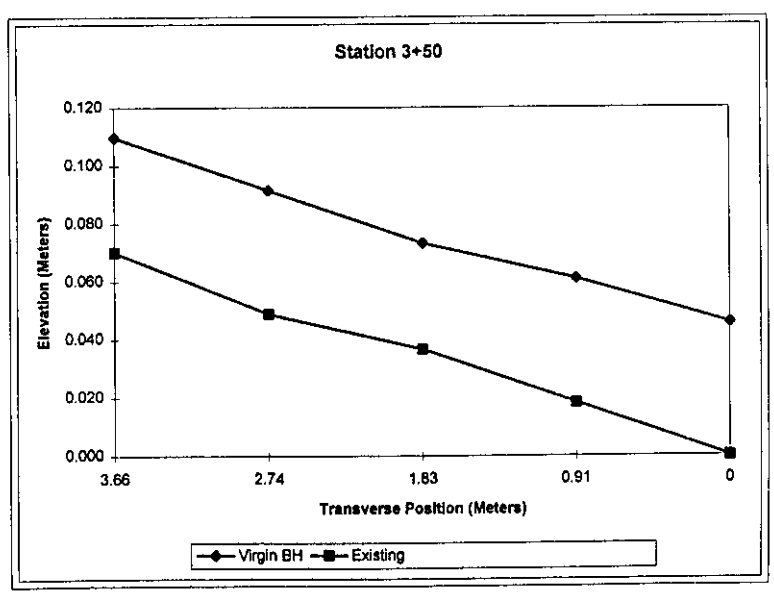


Oklahoma SPS-5 (400505)

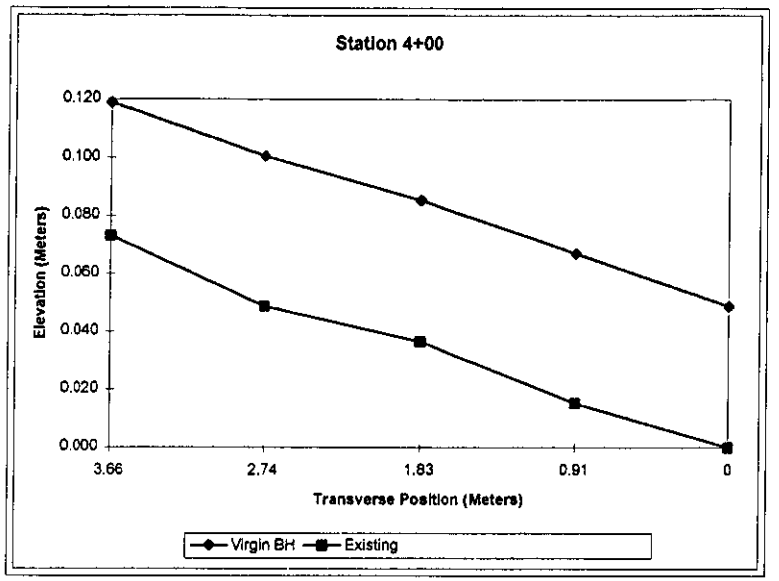


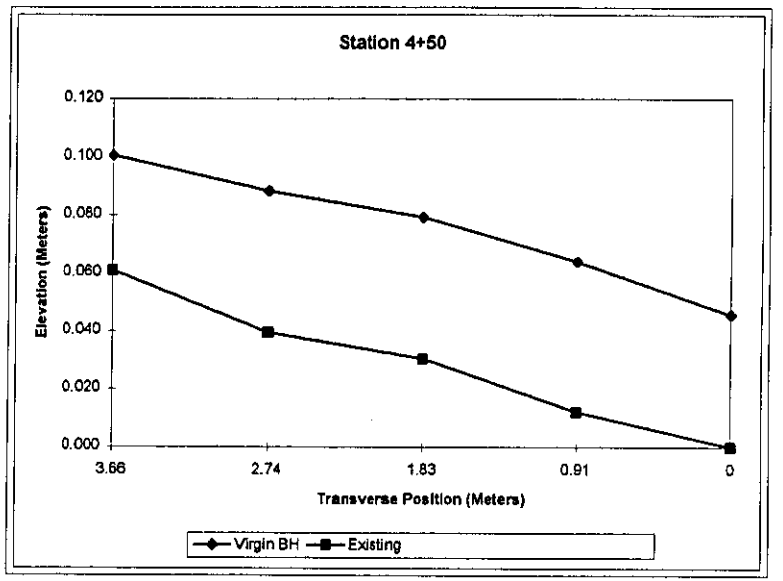


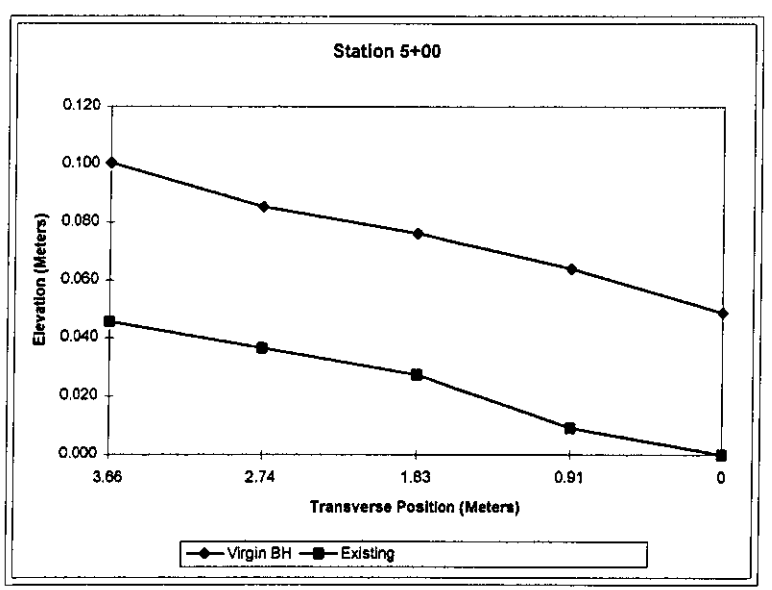




Oklahoma SPS-5 (400505)





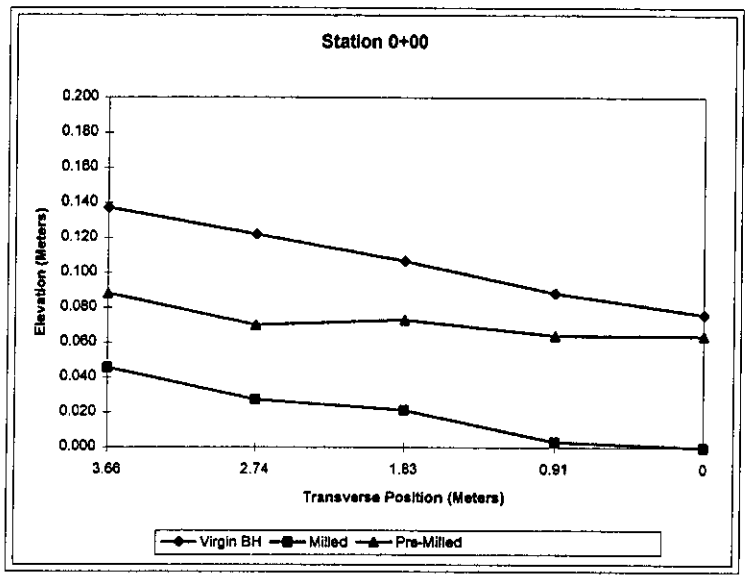


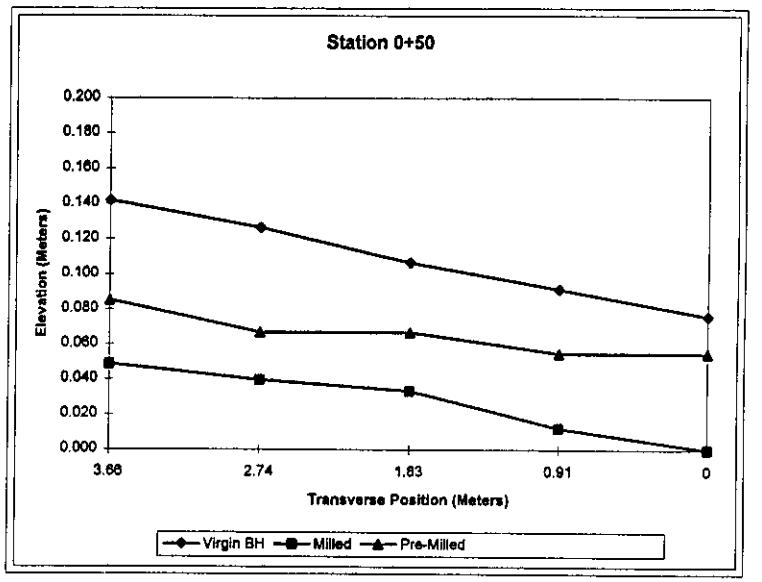
Oklahoma SPS-5 (400506)

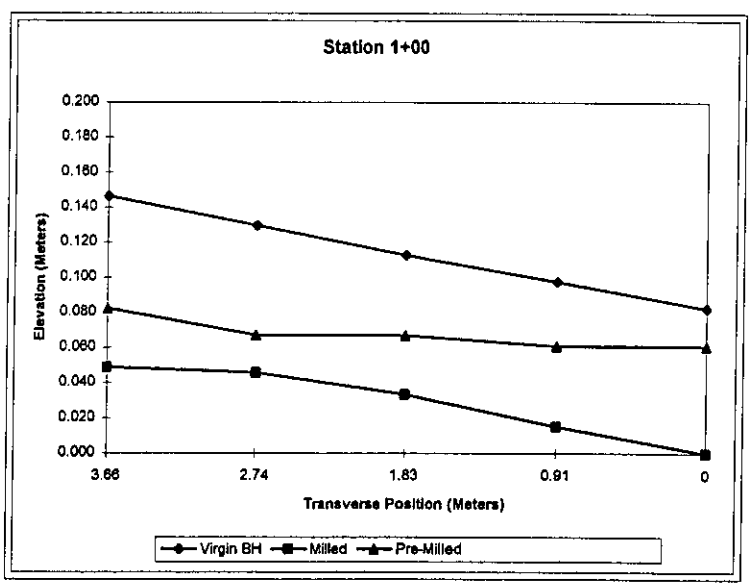
Transverse Offset	3 LAYERS	ELEVATION 0 Meters	Virgin BH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 0.91 Meters	Virgin BH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 1.83 Meters	Virgin BH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 2.74 Meters	Virgin BH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 3.66 Meters	Virgin BH THICKNESS Meters	Milled THICKNESS Meters
0+00	Virgin BH	2.499	0.076	-0.064	2.512	0.085	-0.061	2.530	0.085	-0.052	2.545	0.094	-0.043	2.560	0.091	-0.043
	Milled	2.423			2.426			2.444			2.451			2.469		
	Pre-Milled	2.487			2.487			2.496			2.493			2.512		
0+50	Virgin BH	2.588	0.076	-0.055	2.603	0.079	-0.043	2.618	0.073	-0.034	2.638	0.087	-0.027	2.653	0.093	-0.037
	Milled	2.512			2.524			2.545			2.551			2.560		
	Pre-Milled	2.566			2.566			2.579			2.579			2.597		
1+00	Virgin BH	2.670	0.082	-0.061	2.685	0.082	-0.046	2.701	0.079	-0.034	2.717	0.084	-0.021	2.734	0.098	-0.034
	Milled	2.588			2.603			2.621			2.633			2.637		
	Pre-Milled	2.649			2.649			2.655			2.655			2.670		
1+50	Virgin BH	2.749	0.101	-0.061	2.766	0.093	-0.040	2.783	0.088	-0.034	2.801	0.094	-0.021	2.816	0.104	-0.037
	Milled	2.649			2.673			2.694			2.707			2.713		
	Pre-Milled	2.710			2.713			2.728			2.728			2.749		
2+00	Virgin BH	2.841	0.104	-0.055	2.854	0.093	-0.037	2.871	0.094	-0.040	2.890	0.101	-0.034	2.903	0.105	-0.043
	Milled	2.737			2.761			2.777			2.789			2.798		
	Pre-Milled	2.792			2.798			2.816			2.822			2.841		
2+50	Virgin BH	2.923	0.094	-0.061	2.938	0.091	-0.046	2.955	0.090	-0.049	2.972	0.094	-0.037	2.987	0.101	-0.049
	Milled	2.829			2.847			2.865			2.877			2.886		
	Pre-Milled	2.890			2.893			2.914			2.914			2.935		
3+00	Virgin BH	2.999	0.098	-0.061	3.011	0.094	-0.046	3.030	0.094	-0.046	3.048	0.104	-0.037	3.066	0.113	-0.049
	Milled	2.902			2.917			2.935			2.944			2.954		
	Pre-Milled	2.963			2.963			2.981			2.981			3.002		
3+50	Virgin BH	3.075	0.101	-0.049	3.091	0.104	-0.037	3.106	0.101	-0.037	3.124	0.107	-0.027	3.139	0.110	-0.043
	Milled	2.975			2.987			3.005			3.018			3.030		
	Pre-Milled	3.024			3.024			3.042			3.045			3.072		
4+00	Virgin BH	3.146	0.104	-0.030	3.161	0.094	-0.015	3.179	0.101	-0.024	3.197	0.110	-0.024	3.211	0.114	-0.043
	Milled	3.042			3.066			3.078			3.088			3.097		
	Pre-Milled	3.072			3.082			3.103			3.112			3.139		
4+50	Virgin BH	3.216	0.119	-0.043	3.231	0.116	-0.030	3.246	0.113	-0.034	3.266	0.117	-0.021	3.277	0.119	-0.040
	Milled	3.097			3.115			3.133			3.149			3.158		
	Pre-Milled	3.139			3.146			3.167			3.170			3.197		
5+00	Virgin BH	3.277	0.125	-0.046	3.292	0.113	-0.024	3.310	0.113	-0.021	3.325	0.116	-0.021	3.341	0.125	-0.040
	Milled	3.152			3.179			3.197			3.210			3.216		
	Pre-Milled	3.197			3.203			3.219			3.231			3.255		
	AVG		0.098	-0.053		0.095	-0.039		0.094	-0.036		0.101	-0.028		0.107	-0.041
	MAX		0.125	-0.030		0.116	-0.015		0.113	-0.021		0.117	-0.021		0.125	-0.034
	MIN		0.076	-0.064		0.079	-0.061		0.073	-0.052		0.084	-0.043		0.091	-0.049
	STD		0.015	0.010		0.012	0.012		0.013	0.009		0.011	0.007		0.011	0.005

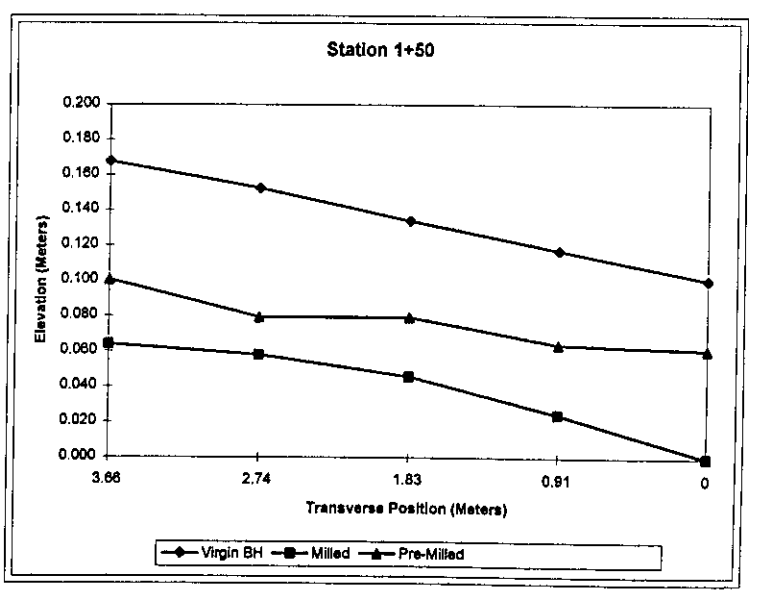
	Virgin BH	Milled
SECTION AVG	0.099	-0.040
SECTION MAX	0.125	-0.015
SECTION MIN	0.073	-0.064
SECTION STD	0.013	0.012

Oklahoma SPS-5 (400506)









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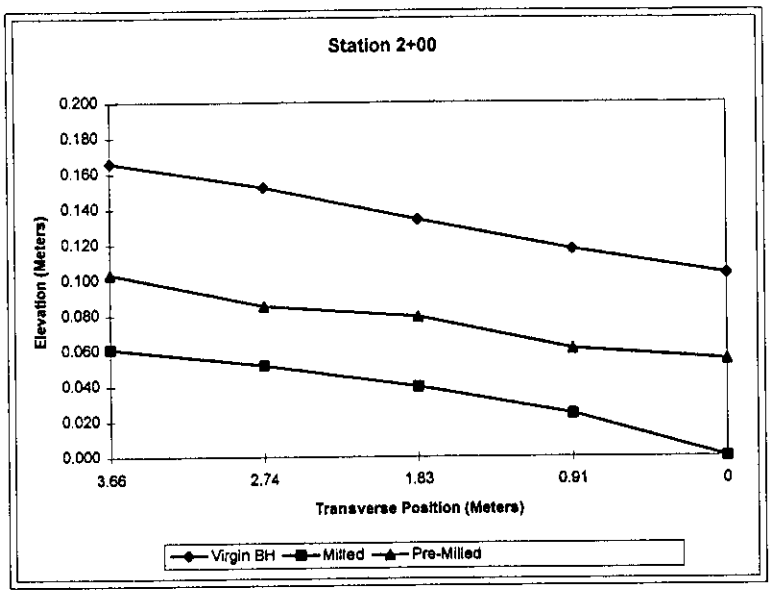

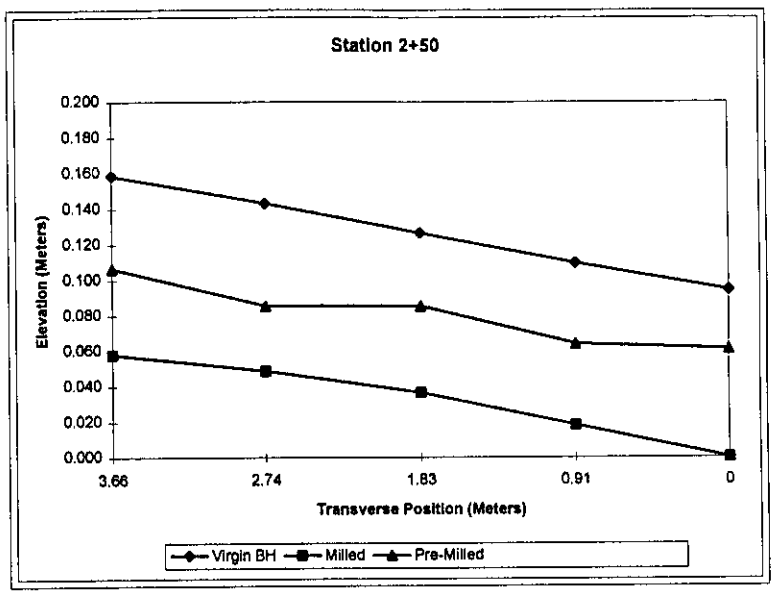

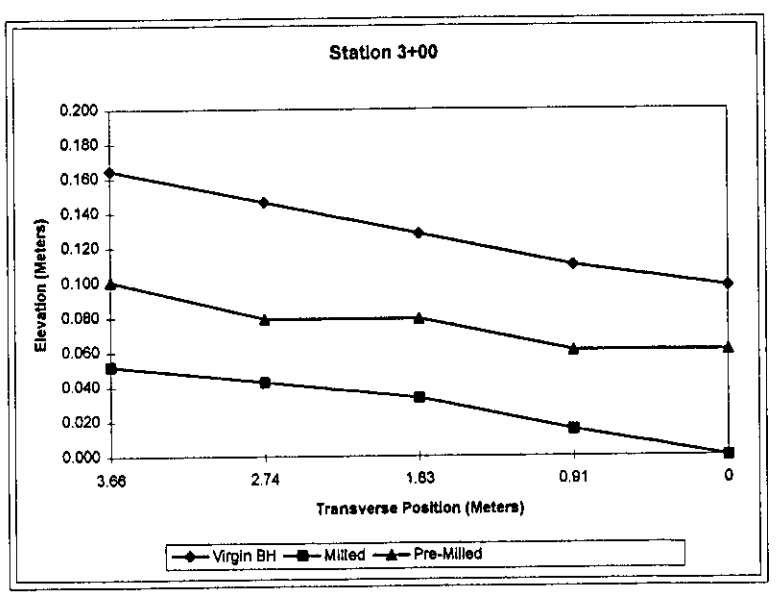

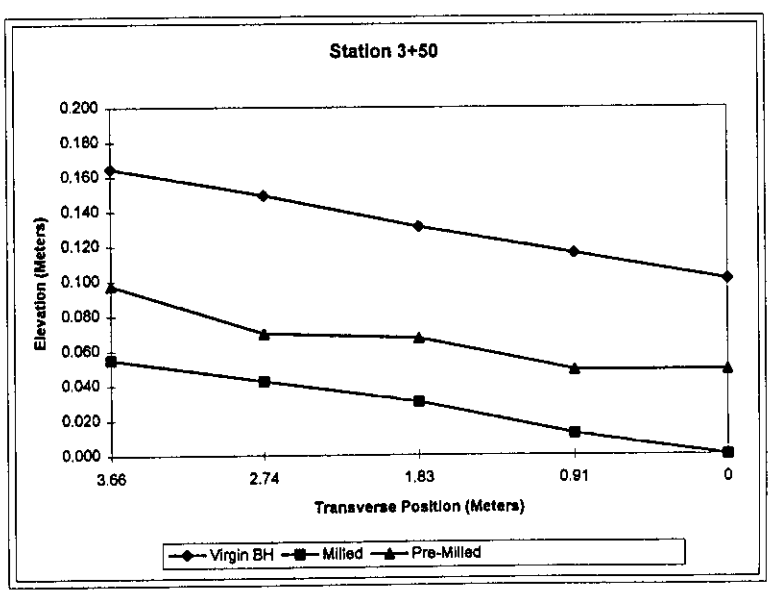

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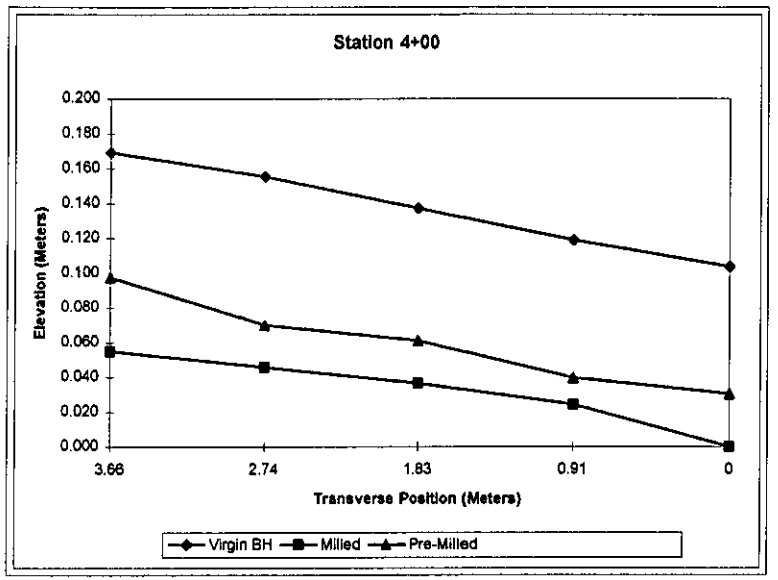
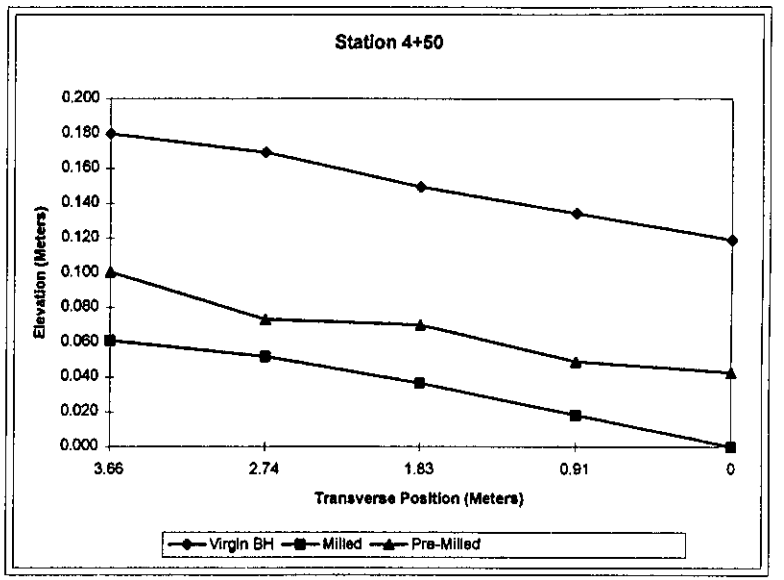
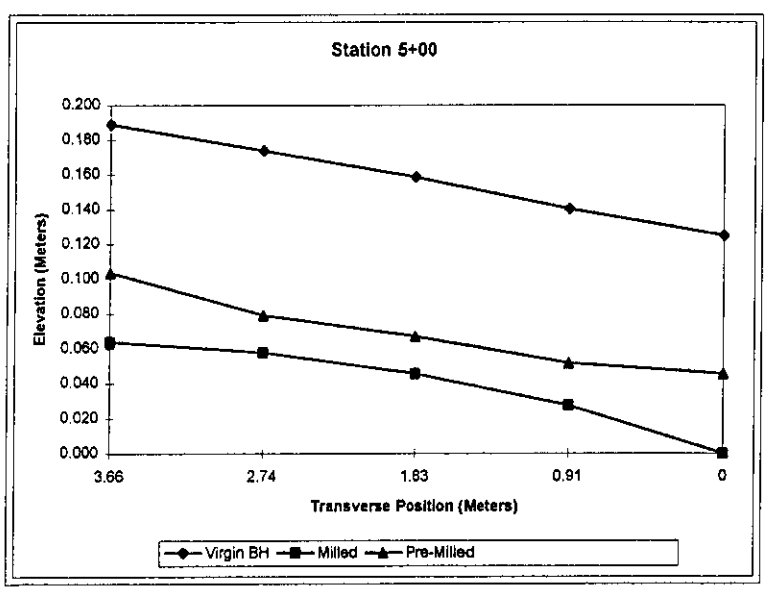




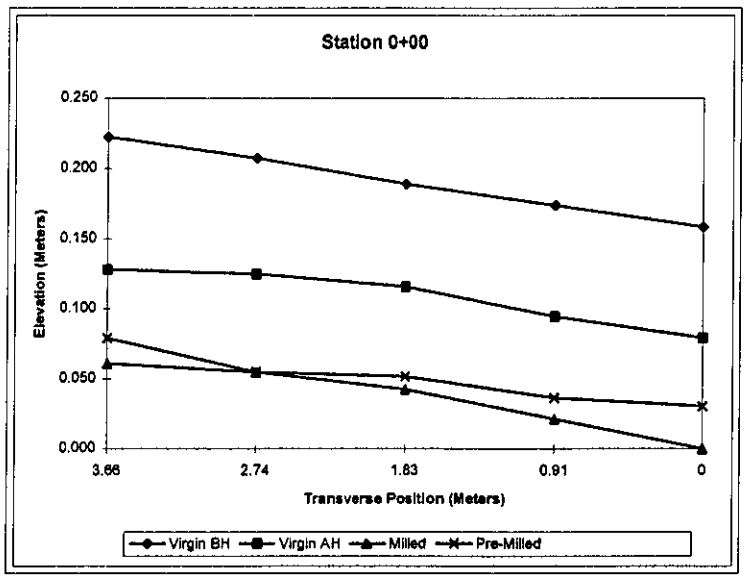


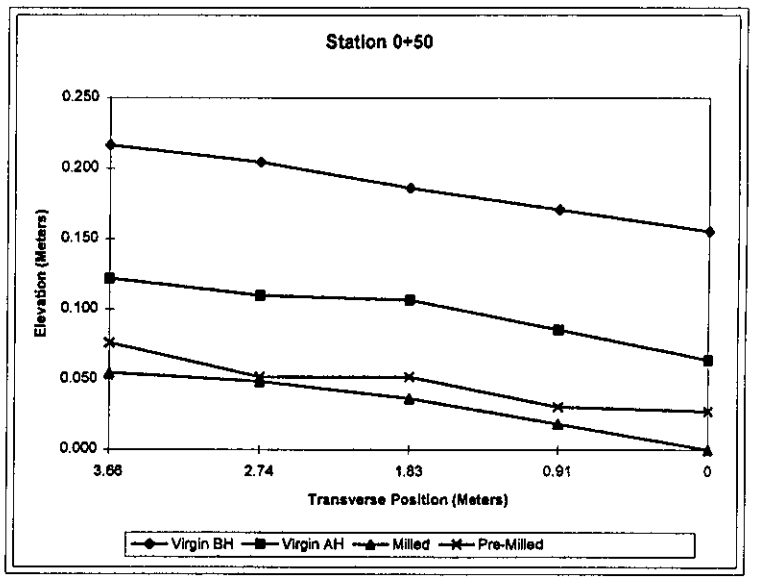
Oklahoma SPS-5 (400507)

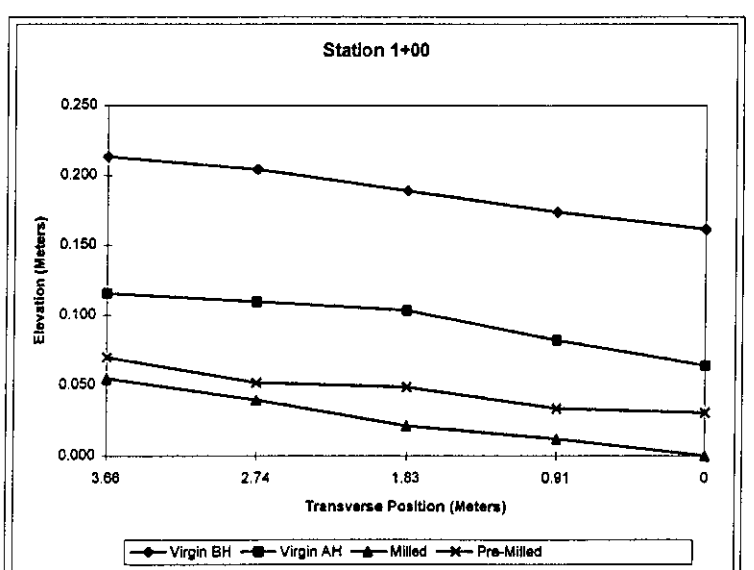
Transverse Offset	LAYERS	ELEVATION 0 Meters	Virgin BH THICKNESS Meters	Virgin AH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 0.91 Meters	Virgin BH THICKNESS Meters	Virgin AH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 1.83 Meters	Virgin BH THICKNESS Meters	Virgin AH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 2.74 Meters	Virgin BH THICKNESS Meters	Virgin AH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 3.66 Meters	Virgin BH THICKNESS Meters	Virgin AH THICKNESS Meters	Milled THICKNESS Meters
0+00	Virgin BH	1.792	0.079	0.079	-0.030	1.807	0.079	0.073	-0.015	1.823	0.073	0.073	-0.009	1.841	0.082	0.070	0.000	1.856	0.094	0.067	-0.018
	Virgin AH	1.713				1.728				1.750				1.759				1.762			
	Milled	1.634				1.655				1.676				1.689				1.695			
	Pre-Milled	1.664				1.670				1.686				1.689				1.713			
0+50	Virgin BH	1.814	0.091	0.084	-0.027	1.829	0.085	0.067	-0.012	1.844	0.079	0.070	-0.015	1.862	0.094	0.061	-0.003	1.875	0.094	0.067	-0.021
	Virgin AH	1.722				1.743				1.765				1.768				1.780			
	Milled	1.658				1.676				1.695				1.707				1.713			
	Pre-Milled	1.686				1.689				1.710				1.710				1.734			
1+00	Virgin BH	1.844	0.098	0.064	-0.030	1.856	0.091	0.070	-0.021	1.871	0.085	0.082	-0.027	1.887	0.094	0.070	-0.012	1.896	0.098	0.061	-0.015
	Virgin AH	1.747				1.765				1.788				1.792				1.798			
	Milled	1.682				1.695				1.704				1.722				1.737			
	Pre-Milled	1.713				1.716				1.731				1.734				1.753			
1+50	Virgin BH	1.868	0.091	0.076	-0.037	1.878	0.079	0.067	-0.009	1.896	0.079	0.070	-0.012	1.911	0.082	0.067	0.000	1.926	0.094	0.064	-0.015
	Virgin AH	1.777				1.798				1.817				1.829				1.832			
	Milled	1.701				1.731				1.747				1.762				1.768			
	Pre-Milled	1.737				1.740				1.759				1.762				1.783			
2+00	Virgin BH	1.905	0.098	0.088	-0.043	1.917	0.088	0.094	-0.034	1.935	0.098	0.073	-0.024	1.951	0.091	0.079	-0.012	1.963	0.101	0.076	-0.030
	Virgin AH	1.807				1.829				1.838				1.859				1.862			
	Milled	1.719				1.734				1.765				1.780				1.786			
	Pre-Milled	1.762				1.768				1.789				1.792				1.817			
2+50	Virgin BH	1.957	0.098	0.091	-0.040	1.969	0.091	0.079	-0.015	1.984	0.085	0.079	-0.015	1.999	0.094	0.076	-0.009	2.015	0.107	0.070	-0.027
	Virgin AH	1.859				1.878				1.899				1.905				1.908			
	Milled	1.768				1.798				1.820				1.829				1.838			
	Pre-Milled	1.807				1.814				1.835				1.838				1.865			
3+00	Virgin BH	2.030	0.091	0.085	-0.043	2.039	0.079	0.098	-0.037	2.057	0.082	0.076	-0.021	2.073	0.088	0.070	-0.009	2.085	0.098	0.067	-0.015
	Virgin AH	1.939				1.960				1.975				1.984				1.987			
	Milled	1.853				1.862				1.899				1.914				1.920			
	Pre-Milled	1.896				1.899				1.920				1.923				1.935			
3+50	Virgin BH	2.094	0.079	0.067	-0.058	2.106	0.070	0.076	-0.052	2.124	0.070	0.076	-0.052	2.140	0.076	0.076	-0.046	2.155	0.091	0.067	-0.046
	Virgin AH	2.015				2.036				2.054				2.063				2.063			
	Milled	1.948				1.960				1.978				1.987				1.996			
	Pre-Milled	2.006				2.012				2.030				2.033				2.042			
4+00	Virgin BH	2.124	0.094	0.067	-0.043	2.137	0.085	0.070	-0.040	2.155	0.076	0.079	-0.046	2.170	0.085	0.076	-0.043	2.188	0.104	0.067	-0.055
	Virgin AH	2.030				2.051				2.079				2.085				2.085			
	Milled	1.963				1.981				1.999				2.009				2.018			
	Pre-Milled	2.006				2.021				2.045				2.051				2.073			
4+50	Virgin BH	2.134	0.088	0.061	-0.040	2.149	0.082	0.073	-0.043	2.167	0.082	0.079	-0.052	2.182	0.091	0.073	-0.046	2.195	0.101	0.070	-0.046
	Virgin AH	2.045				2.067				2.085				2.091				2.094			
	Milled	1.984				1.993				2.006				2.018				2.024			
	Pre-Milled	2.024				2.036				2.057				2.063				2.070			
5+00	Virgin BH	2.146	0.098	0.073	-0.055	2.156	0.085	0.088	-0.052	2.176	0.085	0.082	-0.049	2.195	0.104	0.070	-0.049	2.207	0.110	0.070	-0.055
	Virgin AH	2.048				2.073				2.091				2.091				2.097			
	Milled	1.975				1.984				2.009				2.021				2.027			
	Pre-Milled	2.030				2.036				2.057				2.070				2.082			
	AVG		0.091	0.073	-0.040		0.083	0.076	-0.030		0.080	0.077	-0.030		0.089	0.071	-0.022		0.099	0.067	-0.031
	MAX		0.098	0.091	-0.027		0.091	0.098	-0.009		0.085	0.082	-0.009		0.104	0.076	0.000		0.110	0.070	-0.015
	MIN		0.079	0.061	-0.058		0.070	0.067	-0.052		0.070	0.070	-0.052		0.076	0.061	-0.049		0.091	0.061	-0.055
	STD		0.006	0.010	0.010		0.006	0.009	0.016		0.005	0.004	0.017		0.008	0.005	0.020		0.006	0.003	0.016

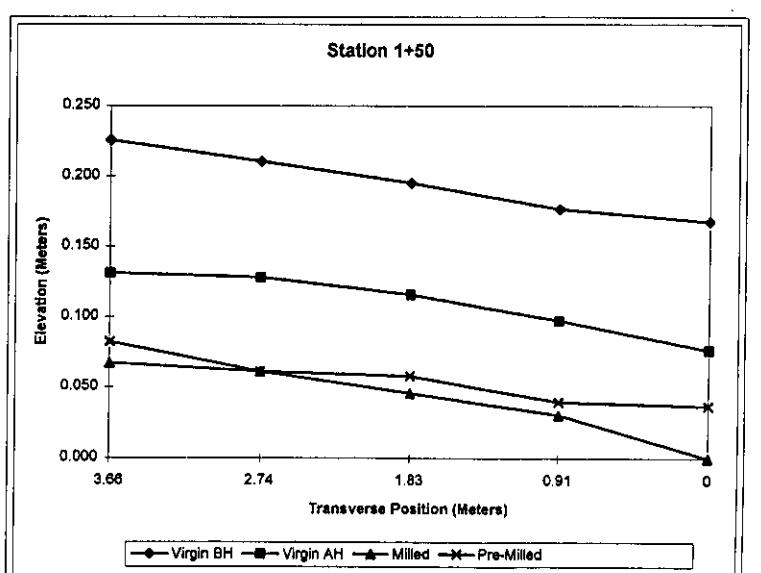
	Virgin BH	Virgin AH	Milled
SECTION AVG	0.089	0.074	-0.030
SECTION MAX	0.110	0.098	0.000
SECTION MIN	0.070	0.061	-0.058
SECTION STD	0.009	0.008	0.017

Oklahoma SPS-5 (400507)

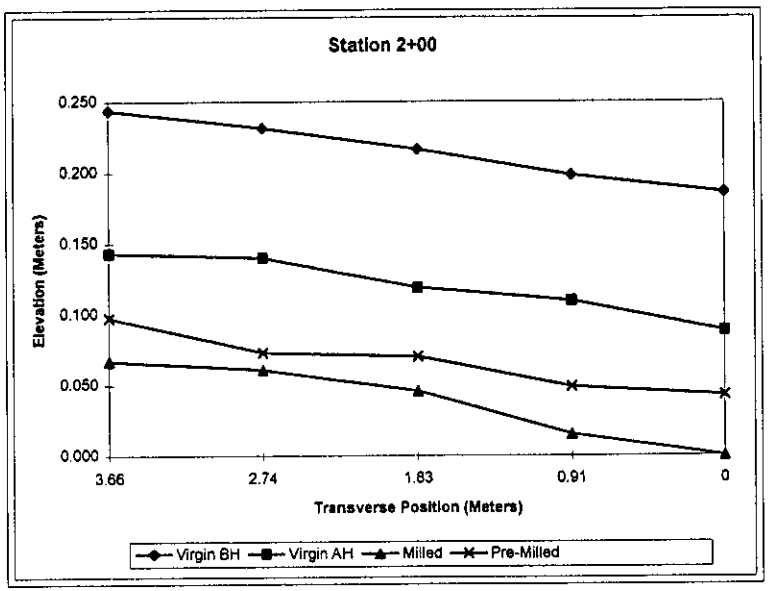


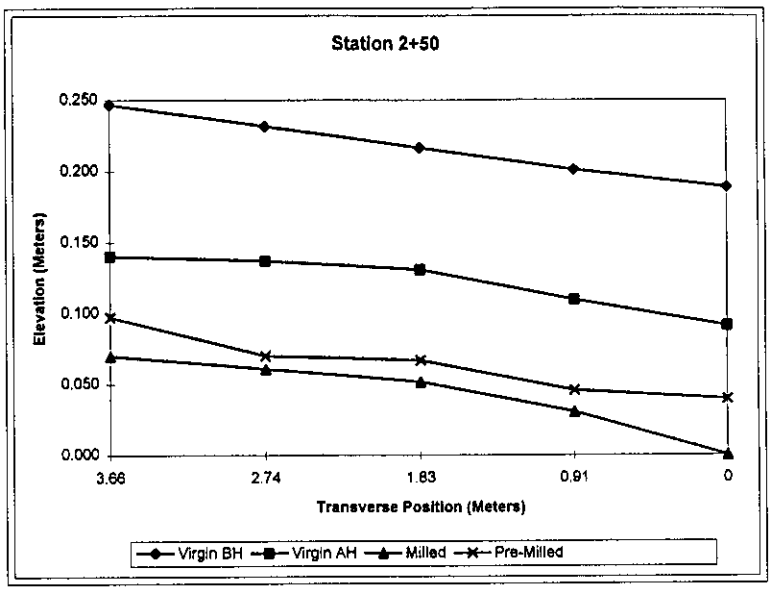


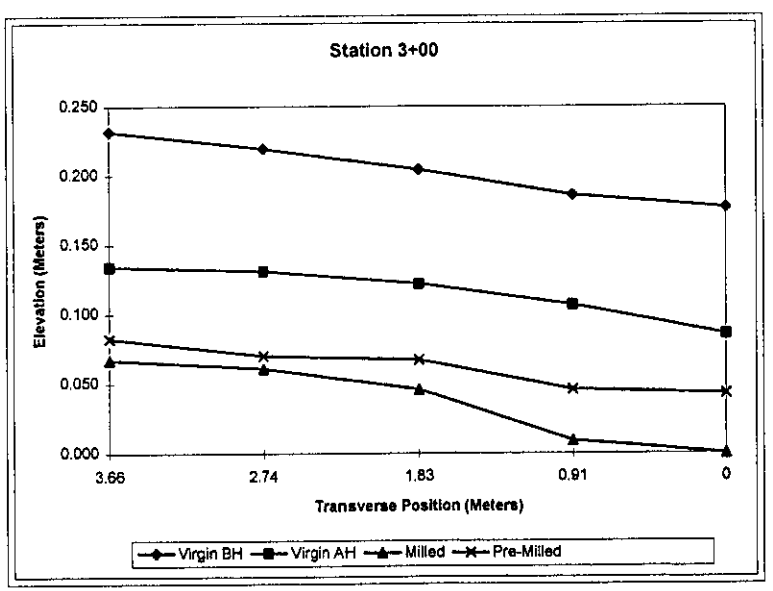


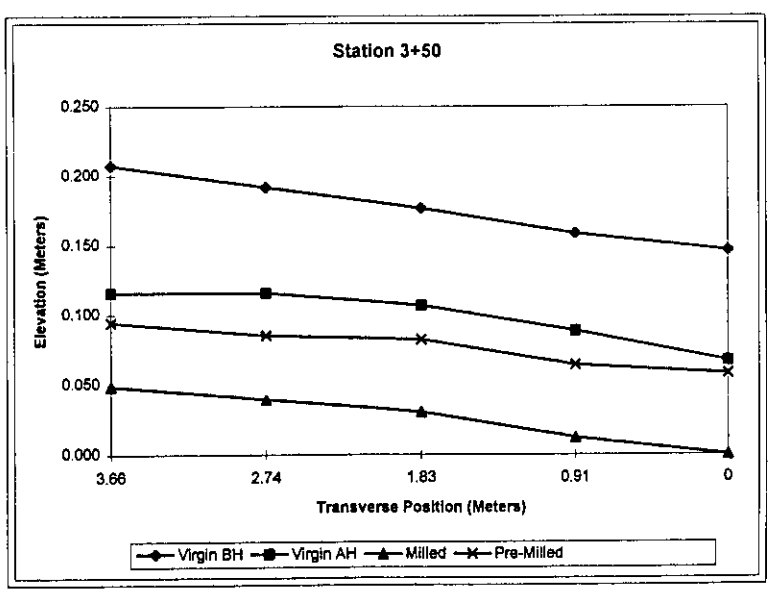


Oklahoma SPS-5 (400507)

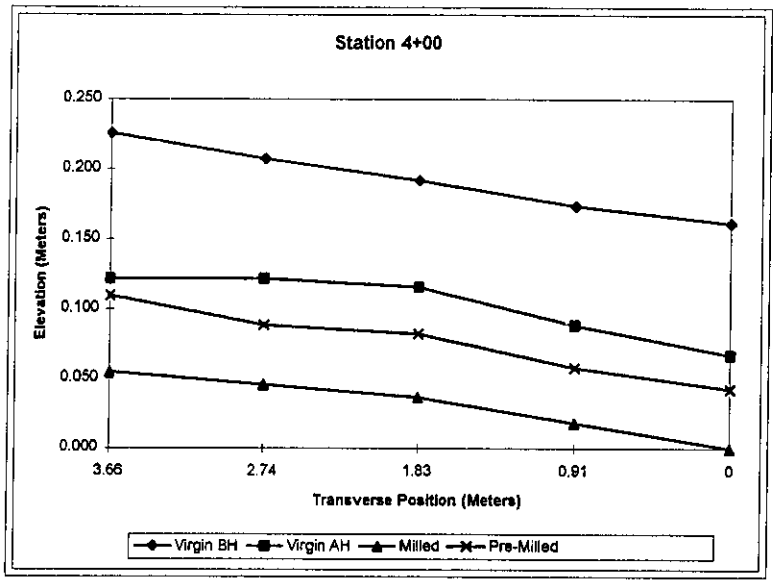


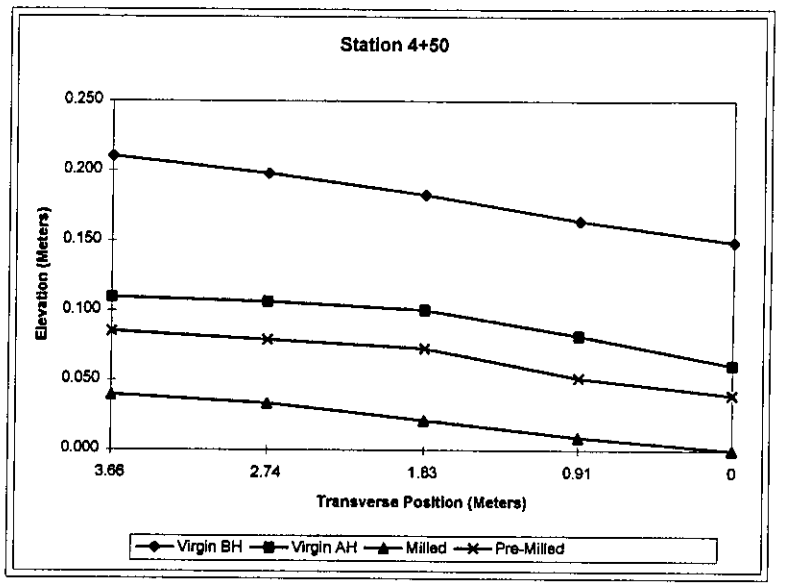


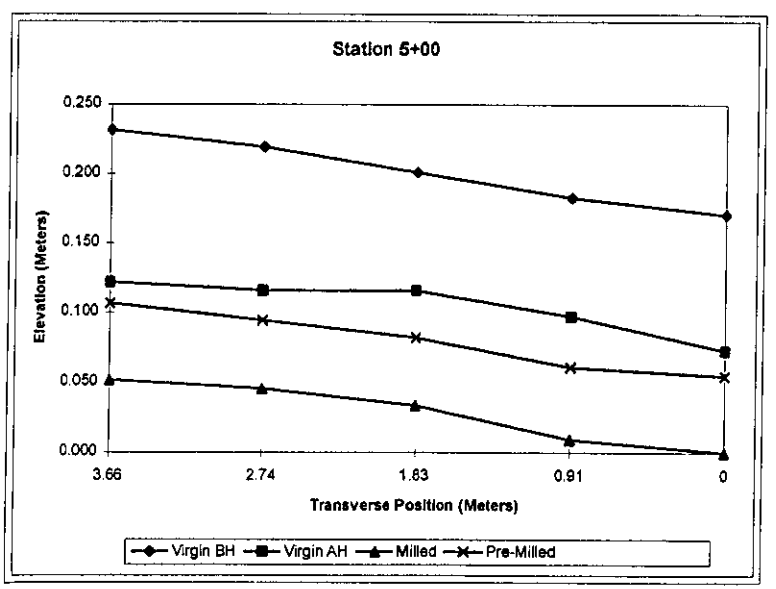




Oklahoma SPS-5 (400507)





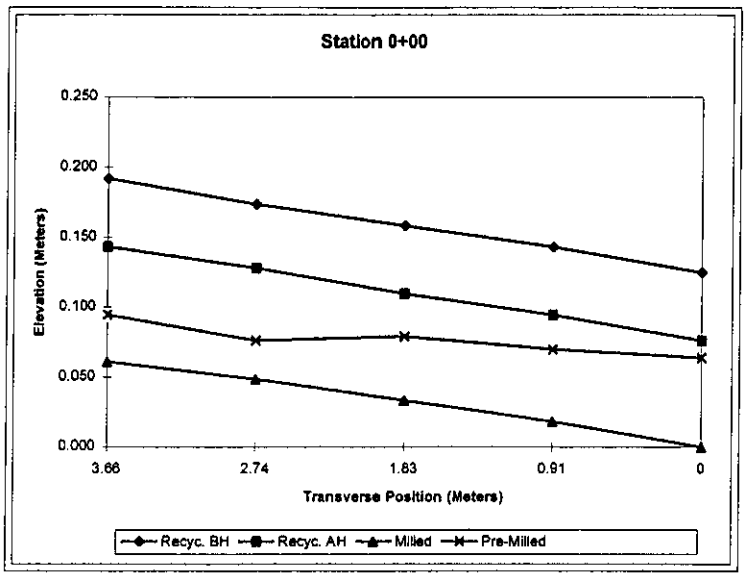


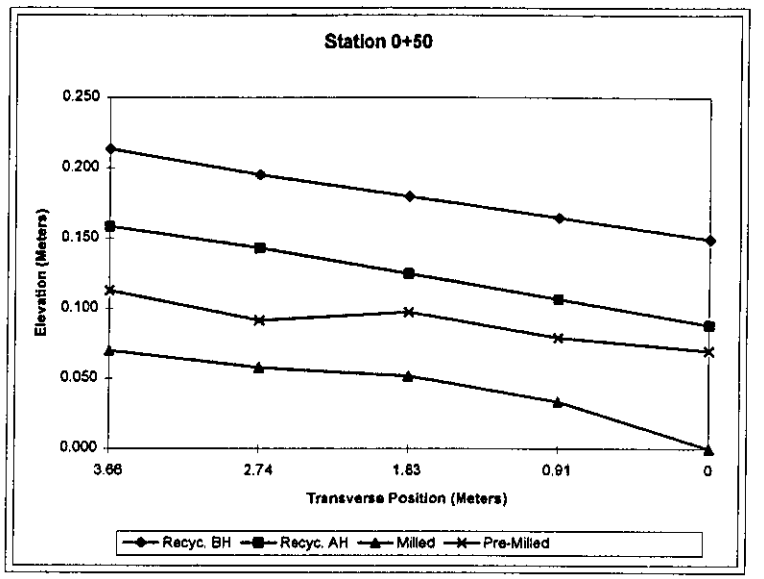
Oklahoma SPS-5 (400508)

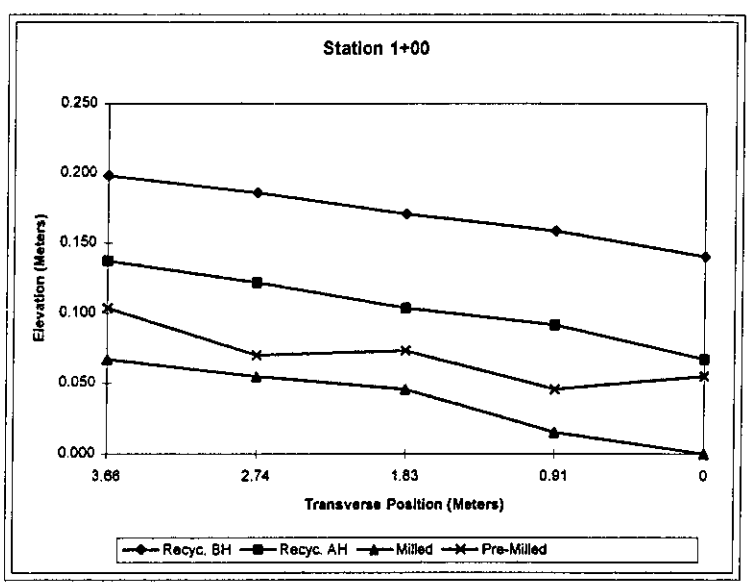
Transverse Offset	4 LAYERS	ELEVATION 0 Meters	Recyc. BH THICKNESS Meters	Recyc. AH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 0.91 Meters	Recyc. BH THICKNESS Meters	Recyc. AH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 1.83 Meters	Recyc. BH THICKNESS Meters	Recyc. AH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 2.74 Meters	Recyc. BH THICKNESS Meters	Recyc. AH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 3.66 Meters	Recyc. BH THICKNESS Meters	Recyc. AH THICKNESS Meters	Milled THICKNESS Meters
0+00	Recyc. BH	2.121	0.049	0.078	-0.064	2.140	0.049	0.076	-0.052	2.155	0.049	0.076	-0.046	2.170	0.046	0.079	-0.027	2.188	0.049	0.082	-0.034
	Recyc. AH	2.073				2.091				2.106				2.124				2.140			
	Milled	1.996				2.015				2.030				2.045				2.057			
	Pre-Milled	2.060				2.067				2.076				2.073				2.091			
0+50	Recyc. BH	2.280	0.061	0.088	-0.070	2.295	0.058	0.073	-0.046	2.310	0.055	0.073	-0.046	2.326	0.052	0.085	-0.034	2.344	0.055	0.088	-0.043
	Recyc. AH	2.219				2.237				2.256				2.274				2.289			
	Milled	2.131				2.164				2.182				2.188				2.201			
	Pre-Milled	2.201				2.210				2.228				2.222				2.243			
1+00	Recyc. BH	2.429	0.073	0.067	-0.055	2.448	0.067	0.076	-0.030	2.460	0.067	0.058	-0.027	2.475	0.064	0.067	-0.015	2.487	0.061	0.070	-0.037
	Recyc. AH	2.356				2.380				2.393				2.411				2.426			
	Milled	2.289				2.304				2.335				2.344				2.356			
	Pre-Milled	2.344				2.335				2.362				2.359				2.393			
1+50	Recyc. BH	2.557	0.065	0.073	-0.046	2.573	0.073	0.085	-0.043	2.588	0.073	0.073	-0.034	2.603	0.070	0.079	-0.021	2.615	0.067	0.085	-0.030
	Recyc. AH	2.472				2.499				2.515				2.533				2.548			
	Milled	2.399				2.414				2.441				2.454				2.463			
	Pre-Milled	2.444				2.457				2.475				2.476				2.493			
2+00	Recyc. BH	2.673	0.076	0.070	-0.034	2.688	0.076	0.058	-0.015	2.704	0.076	0.067	-0.030	2.719	0.073	0.073	-0.021	2.734	0.076	0.079	-0.037
	Recyc. AH	2.597				2.612				2.627				2.646				2.658			
	Milled	2.527				2.554				2.560				2.573				2.579			
	Pre-Milled	2.560				2.569				2.591				2.594				2.615			
2+50	Recyc. BH	2.795	0.082	0.088	-0.034	2.810	0.082	0.076	-0.024	2.825	0.082	0.073	-0.027	2.841	0.079	0.079	-0.018	2.853	0.079	0.085	-0.037
	Recyc. AH	2.713				2.728				2.743				2.761				2.774			
	Milled	2.624				2.652				2.670				2.682				2.688			
	Pre-Milled	2.658				2.676				2.697				2.701				2.725			
3+00	Recyc. BH	2.905	0.085	0.061	-0.024	2.920	0.082	0.056	-0.009	2.935	0.082	0.052	-0.015	2.950	0.073	0.064	-0.009	2.969	0.073	0.073	-0.030
	Recyc. AH	2.819				2.838				2.853				2.877				2.896			
	Milled	2.758				2.783				2.801				2.813				2.822			
	Pre-Milled	2.783				2.792				2.816				2.822				2.853			
3+50	Recyc. BH	3.036	0.085	0.052	-0.027	3.048	0.082	0.064	-0.030	3.063	0.085	0.055	-0.030	3.082	0.082	0.067	-0.024	3.100	0.085	0.073	-0.037
	Recyc. AH	2.950				2.966				2.978				2.999				3.014			
	Milled	2.899				2.902				2.923				2.932				2.941			
	Pre-Milled	2.926				2.932				2.954				2.957				2.978			
4+00	Recyc. BH	3.158	0.079	0.052	-0.040	3.173	0.082	0.061	-0.046	3.188	0.079	0.061	-0.037	3.206	0.079	0.067	-0.027	3.225	0.079	0.076	-0.037
	Recyc. AH	3.076				3.091				3.109				3.127				3.146			
	Milled	3.027				3.030				3.048				3.060				3.069			
	Pre-Milled	3.056				3.076				3.085				3.088				3.106			
4+50	Recyc. BH	3.292	0.085	0.064	-0.058	3.304	0.076	0.079	-0.058	3.319	0.073	0.076	-0.049	3.338	0.076	0.076	-0.037	3.353	0.073	0.085	-0.043
	Recyc. AH	3.206				3.228				3.248				3.261				3.280			
	Milled	3.142				3.149				3.170				3.185				3.194			
	Pre-Milled	3.200				3.206				3.219				3.222				3.237			
5+00	Recyc. BH	3.423	0.088	0.076	-0.070	3.438	0.076	0.088	-0.061	3.456	0.082	0.070	-0.046	3.475	0.082	0.079	-0.040	3.490	0.088	0.079	-0.049
	Recyc. AH	3.335				3.362				3.374				3.392				3.402			
	Milled	3.258				3.274				3.304				3.313				3.322			
	Pre-Milled	3.328				3.335				3.350				3.353				3.371			
	AVG		0.077	0.070	-0.049		0.073	0.073	-0.040		0.073	0.067	-0.036		0.070	0.074	-0.025		0.071	0.080	-0.037
	MAX		0.088	0.088	-0.024		0.082	0.088	-0.009		0.085	0.076	-0.015		0.082	0.085	-0.009		0.088	0.088	-0.030
	MIN		0.049	0.052	-0.070		0.049	0.055	-0.061		0.049	0.052	-0.049		0.046	0.064	-0.040		0.049	0.070	-0.049
	STD		0.012	0.012	0.016		0.011	0.010	0.015		0.012	0.009	0.010		0.012	0.007	0.009		0.012	0.006	0.005

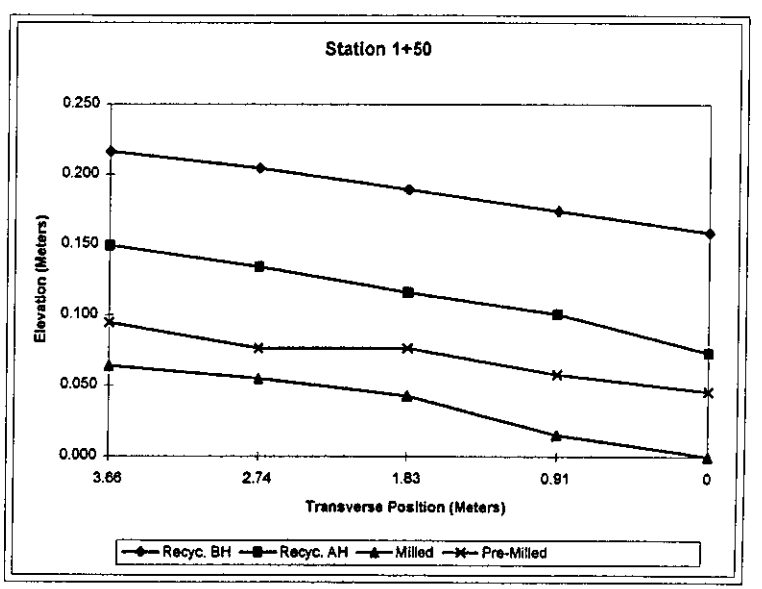
	Recyc. BH	Recyc. AH	Milled
SECTION AVG	0.073	0.073	-0.037
SECTION MAX	0.088	0.088	-0.009
SECTION MIN	0.046	0.052	-0.070
SECTION STD	0.012	0.010	0.014

Oklahoma SPS-5 (400508)

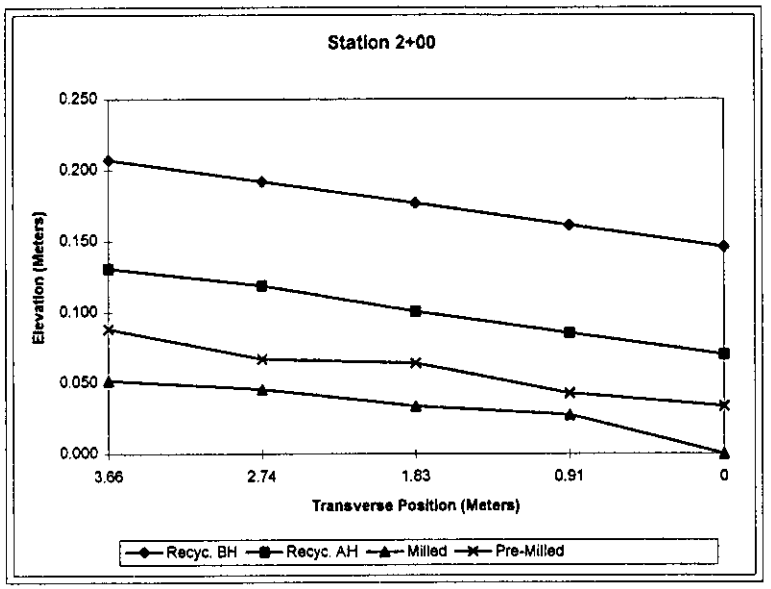


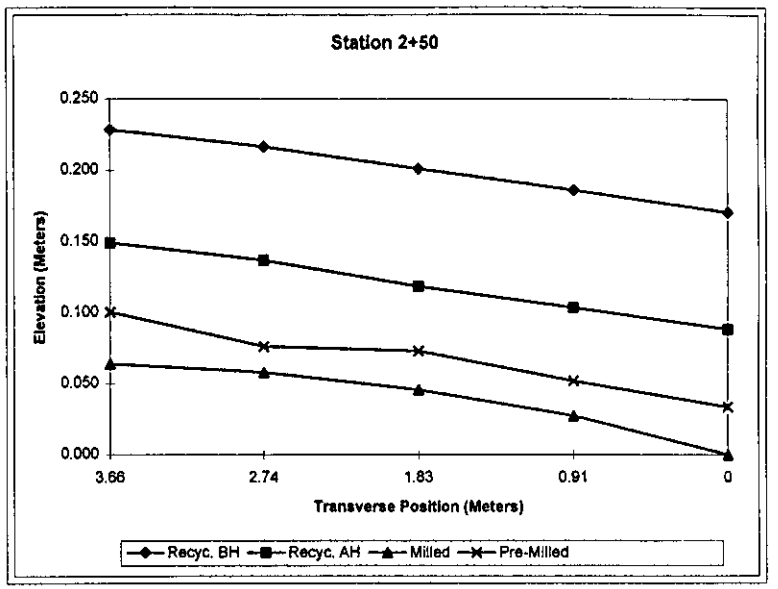


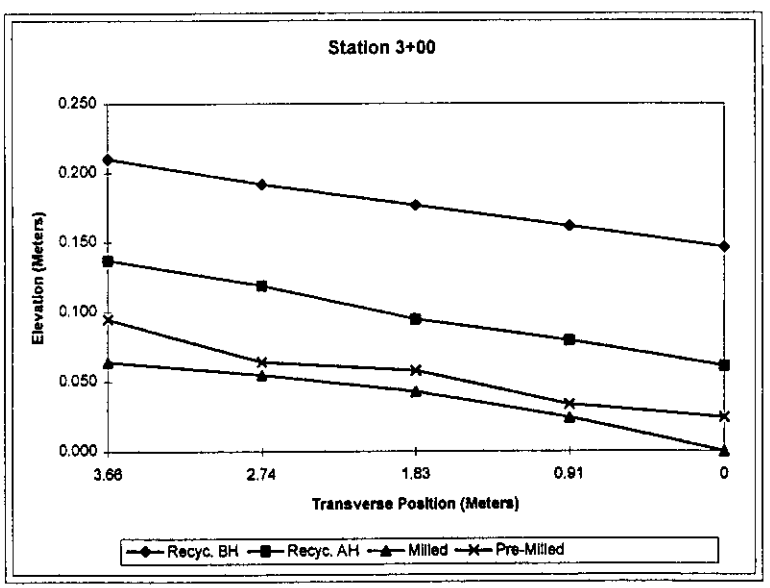


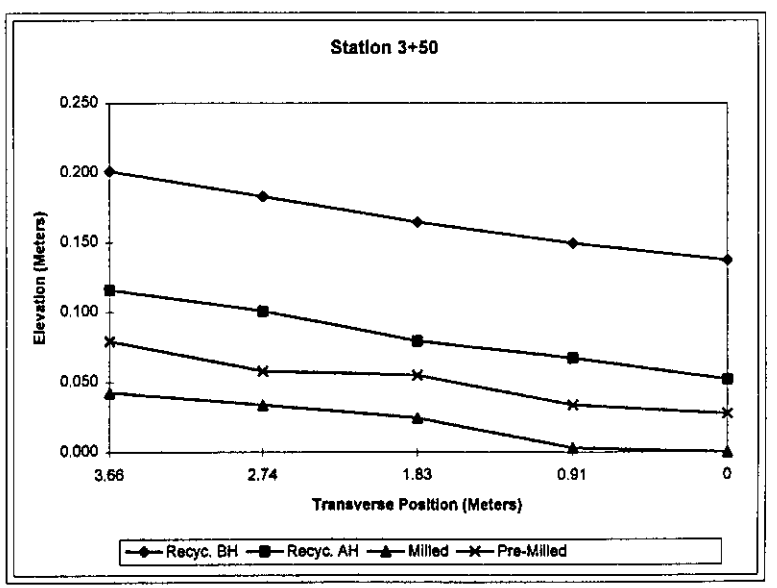


Oklahoma SPS-5 (400508)









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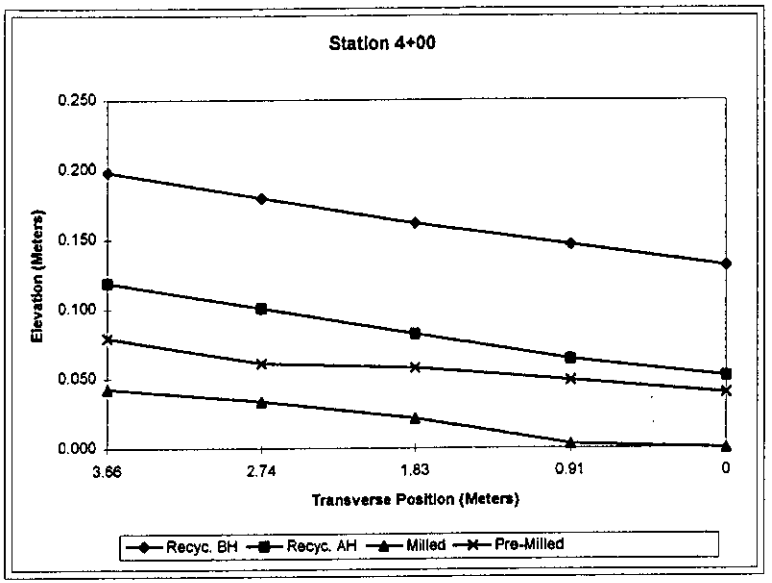
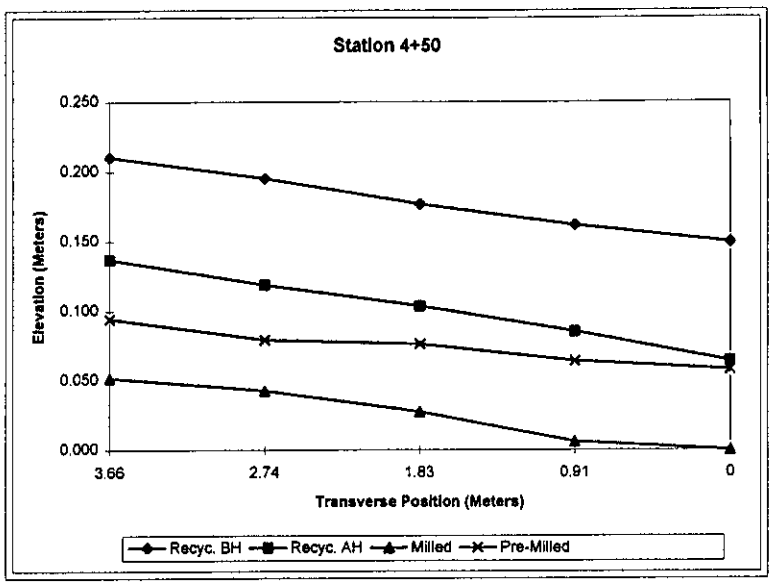
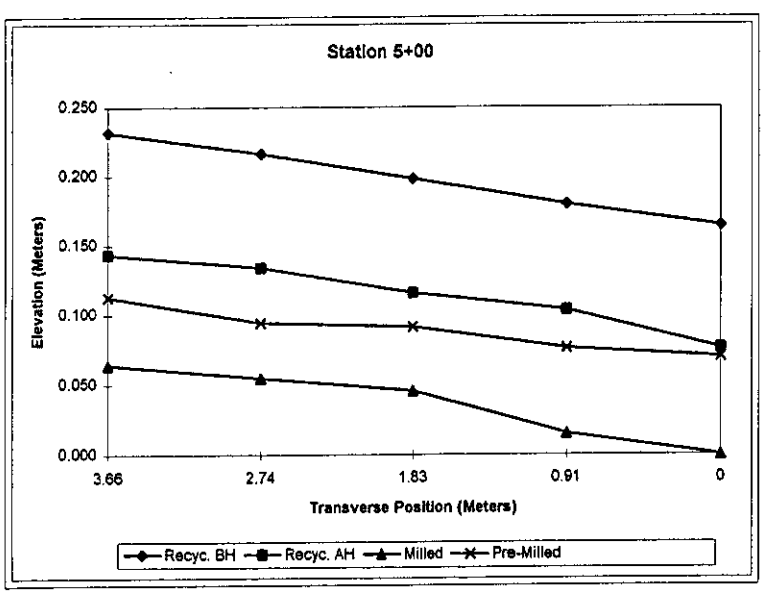




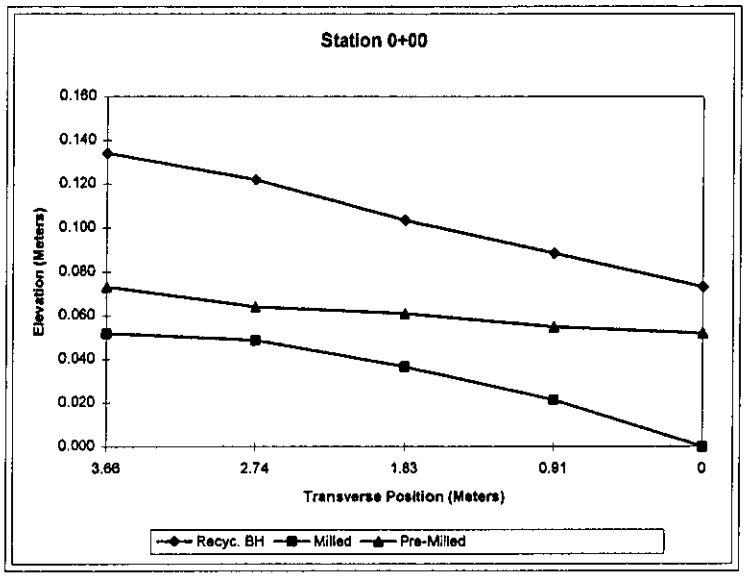


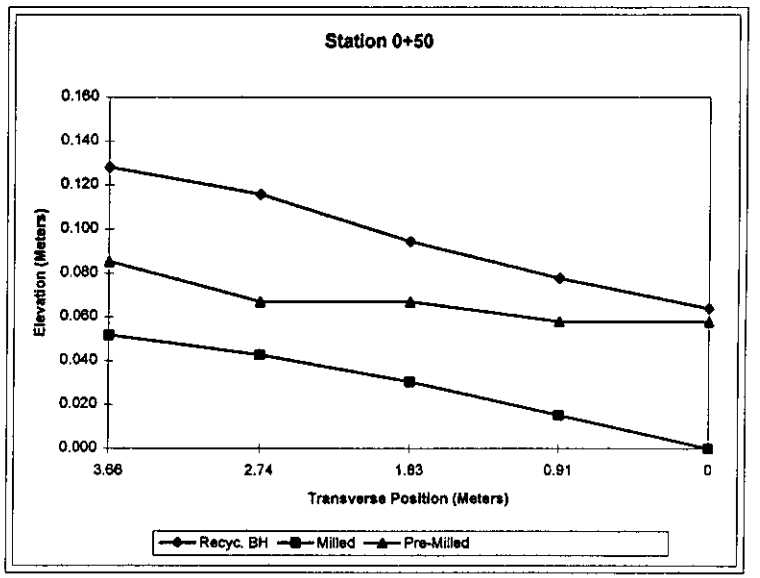
Oklahoma SPS-5 (400509)

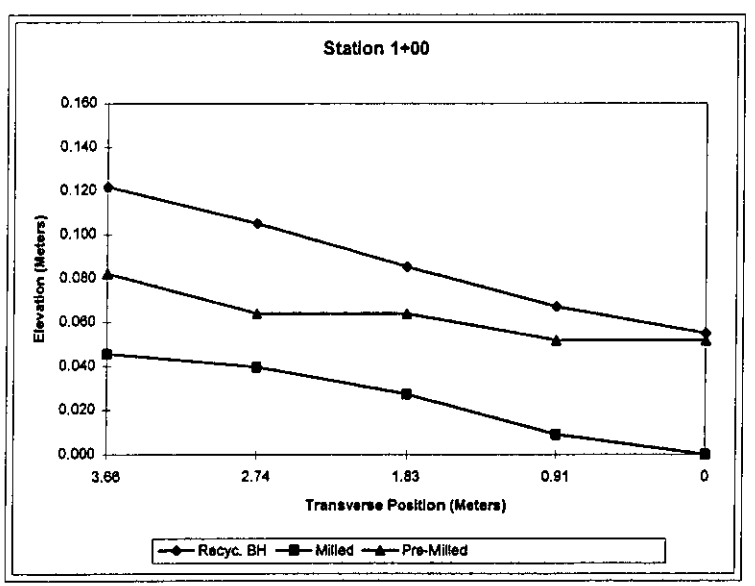
Transverse Offset 3 LAYERS		ELEVATION 0 Meters	Recyc. BH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 0.91 Meters	Recyc. BH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 1.83 Meters	Recyc. BH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 2.74 Meters	Recyc. BH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 3.66 Meters	Recyc. BH THICKNESS Meters	Milled THICKNESS Meters
0+00	Recyc. BH	2.259	0.073	-0.052	2.274	0.067	-0.034	2.289	0.067	-0.024	2.307	0.073	-0.015	2.320	0.082	-0.021
	Milled	2.185			2.207			2.222			2.234			2.237		
	Pre-Milled	2.237			2.240			2.246			2.249			2.259		
0+50	Recyc. BH	2.457	0.064	-0.058	2.470	0.062	-0.043	2.487	0.064	-0.037	2.509	0.073	-0.024	2.521	0.076	-0.034
	Milled	2.393			2.408			2.423			2.435			2.444		
	Pre-Milled	2.451			2.451			2.460			2.460			2.478		
1+00	Recyc. BH	2.643	0.055	-0.052	2.655	0.058	-0.043	2.673	0.058	-0.037	2.693	0.066	-0.024	2.710	0.076	-0.037
	Milled	2.588			2.597			2.615			2.627			2.633		
	Pre-Milled	2.640			2.640			2.652			2.652			2.670		
1+50	Recyc. BH	2.810	0.076	-0.061	2.825	0.079	-0.052	2.844	0.079	-0.040	2.859	0.079	-0.024	2.874	0.091	-0.043
	Milled	2.734			2.746			2.765			2.780			2.783		
	Pre-Milled	2.795			2.798			2.804			2.804			2.825		
2+00	Recyc. BH	2.987	0.079	-0.052	2.999	0.082	-0.049	3.014	0.079	-0.040	3.030	0.082	-0.034	3.045	0.091	-0.043
	Milled	2.908			2.917			2.935			2.947			2.954		
	Pre-Milled	2.960			2.966			2.975			2.981			2.996		
2+50	Recyc. BH	3.176	0.082	-0.052	3.191	0.085	-0.046	3.206	0.082	-0.040	3.225	0.088	-0.027	3.240	0.094	-0.037
	Milled	3.094			3.106			3.124			3.136			3.146		
	Pre-Milled	3.146			3.152			3.164			3.164			3.182		
3+00	Recyc. BH	3.365	0.076	-0.058	3.380	0.073	-0.043	3.395	0.073	-0.043	3.417	0.079	-0.027	3.432	0.088	-0.040
	Milled	3.289			3.307			3.322			3.338			3.344		
	Pre-Milled	3.347			3.350			3.365			3.365			3.383		
3+50	Recyc. BH	3.548	0.073	-0.061	3.563	0.076	-0.052	3.578	0.073	-0.049	3.597	0.079	-0.043	3.612	0.085	-0.052
	Milled	3.475			3.487			3.505			3.517			3.527		
	Pre-Milled	3.536			3.539			3.554			3.560			3.578		
4+00	Recyc. BH	3.719	0.079	-0.064	3.731	0.082	-0.058	3.749	0.079	-0.049	3.767	0.088	-0.040	3.786	0.098	-0.049
	Milled	3.639			3.648			3.670			3.679			3.688		
	Pre-Milled	3.703			3.706			3.719			3.719			3.737		
4+50	Recyc. BH	3.908	0.079	-0.061	3.920	0.085	-0.055	3.938	0.082	-0.052	3.953	0.088	-0.043	3.968	0.094	-0.052
	Milled	3.828			3.834			3.856			3.865			3.874		
	Pre-Milled	3.889			3.889			3.908			3.908			3.926		
5+00	Recyc. BH	4.103	0.076	-0.070	4.118	0.076	-0.055	4.133	0.073	-0.049	4.151	0.082	-0.037	4.167	0.088	-0.046
	Milled	4.026			4.042			4.060			4.069			4.078		
	Pre-Milled	4.097			4.097			4.109			4.106			4.124		
		AVG	0.074	-0.059		0.075	-0.048		0.073	-0.042		0.080	-0.030		0.087	-0.041
		MAX	0.082	-0.052		0.085	-0.034		0.082	-0.024		0.088	-0.015		0.098	-0.021
		MIN	0.055	-0.070		0.058	-0.058		0.058	-0.052		0.066	-0.043		0.076	-0.052
		STD	0.008	0.006		0.009	0.007		0.008	0.008		0.007	0.009		0.007	0.009

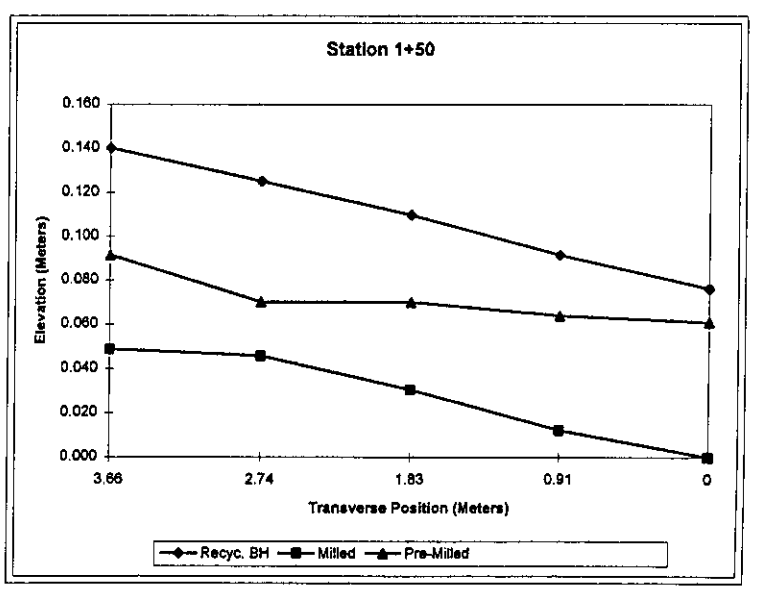
	Recyc. BH	Milled
SECTION AVG	0.078	-0.044
SECTION MAX	0.098	-0.015
SECTION MIN	0.055	-0.070
SECTION STD	0.009	0.012

Oklahoma SPS-5 (400509)









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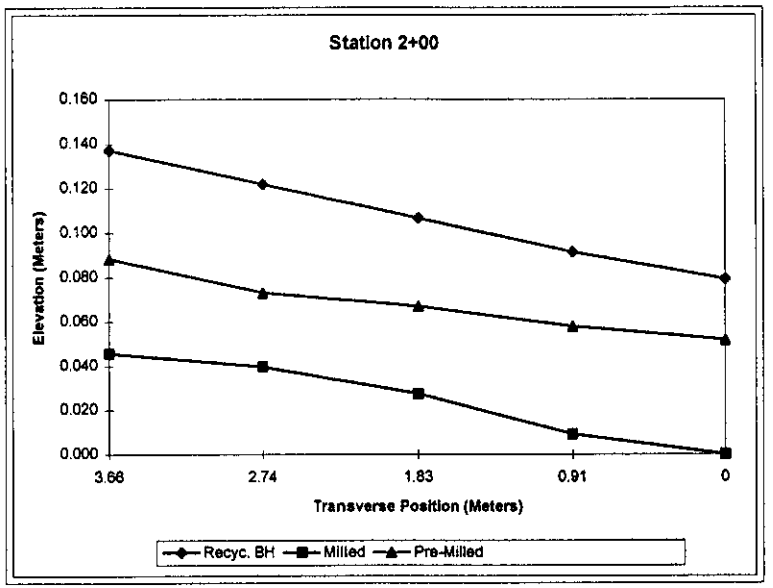
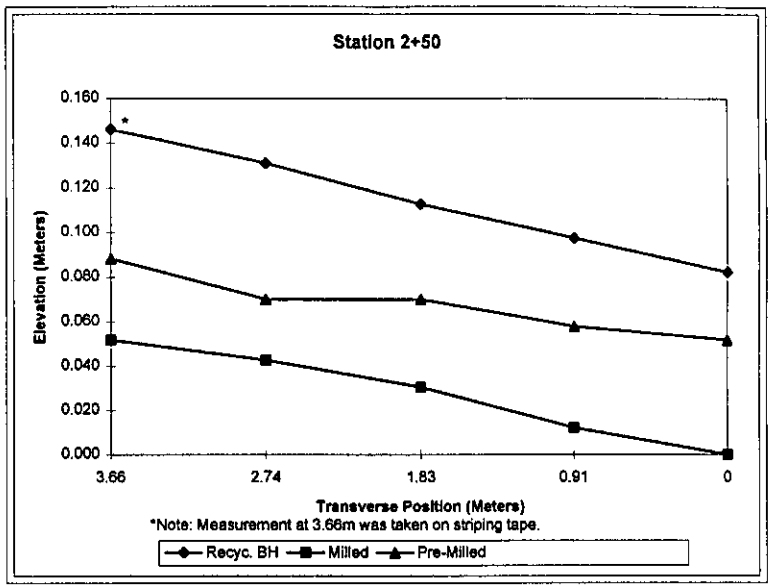
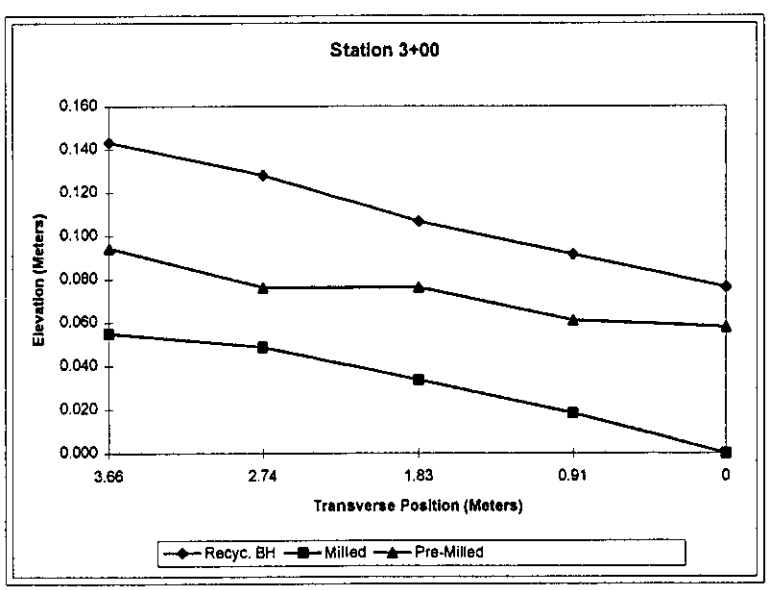
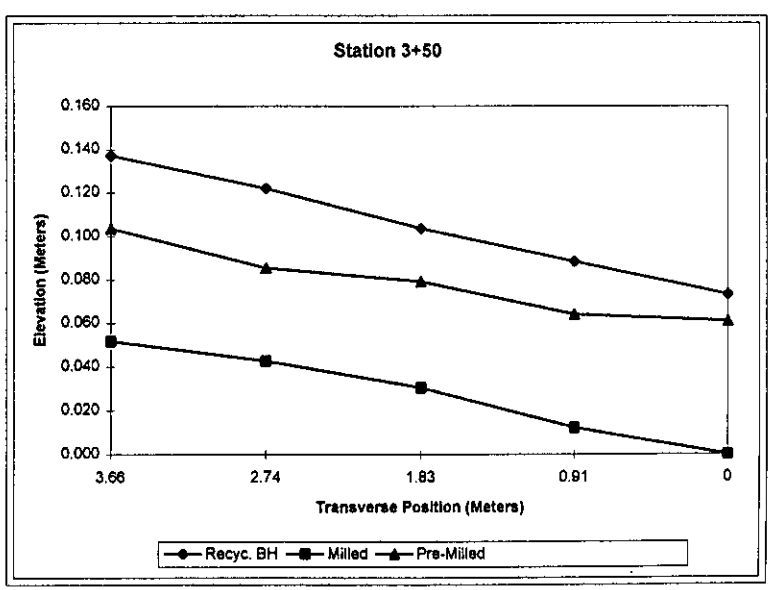
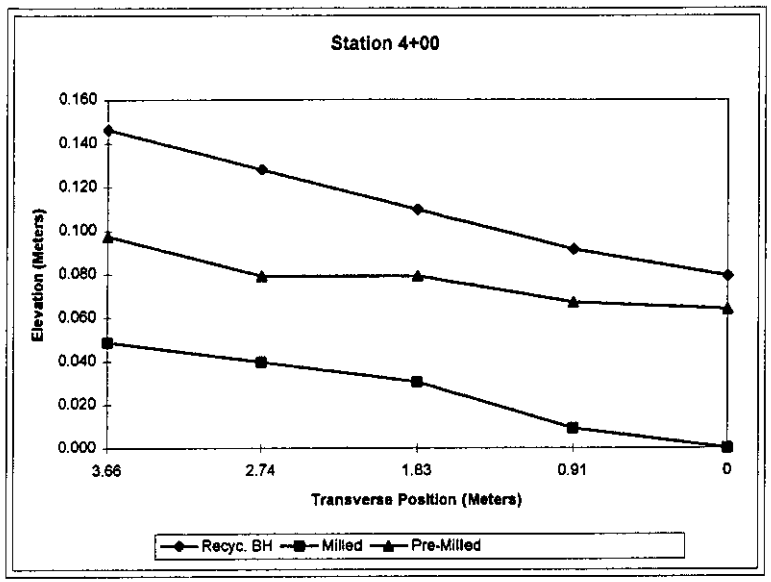


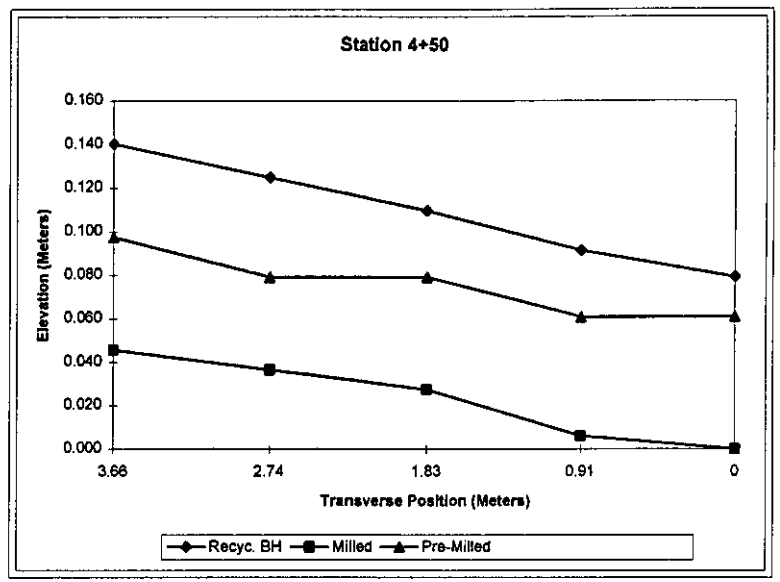


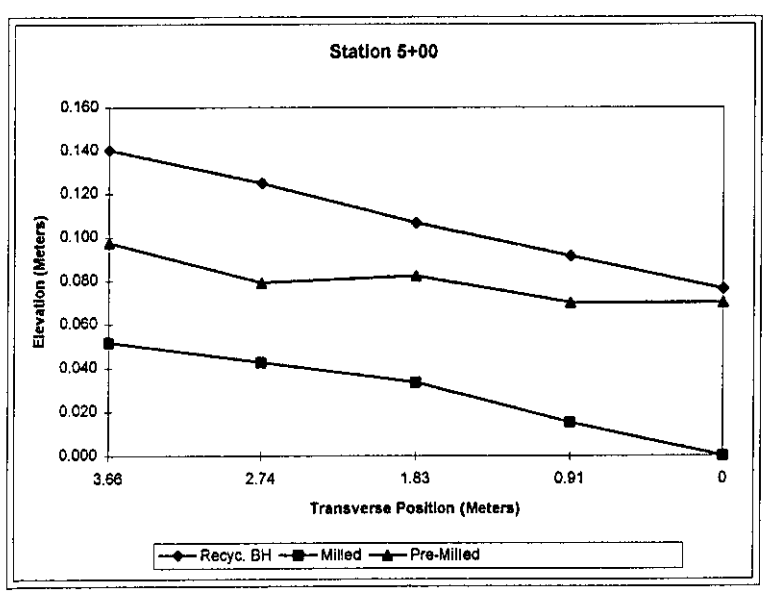




Oklahoma SPS-5 (400509)





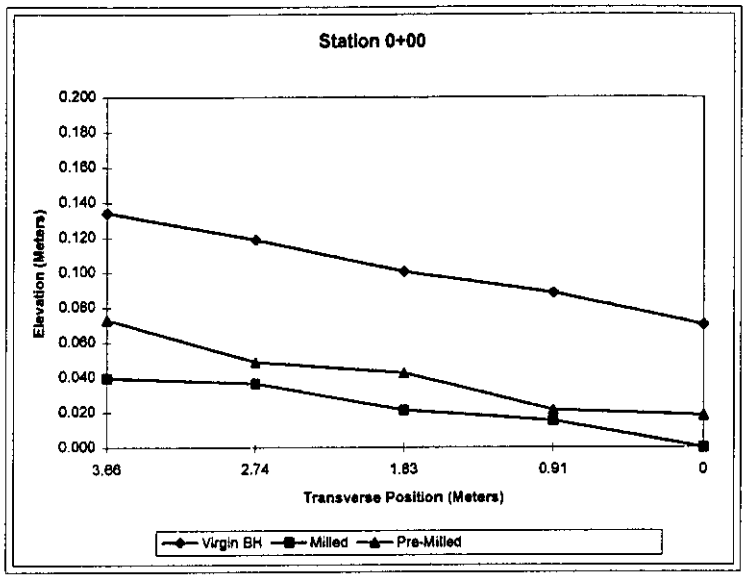


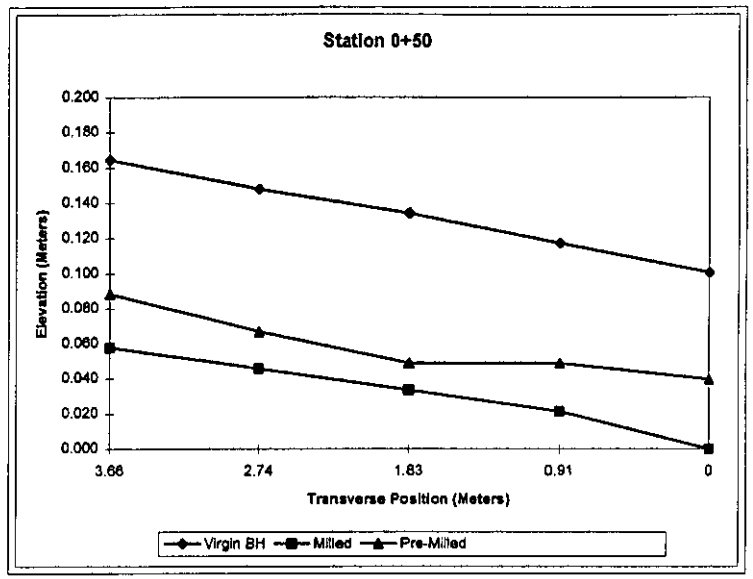
Oklahoma SPS-5 (400560)

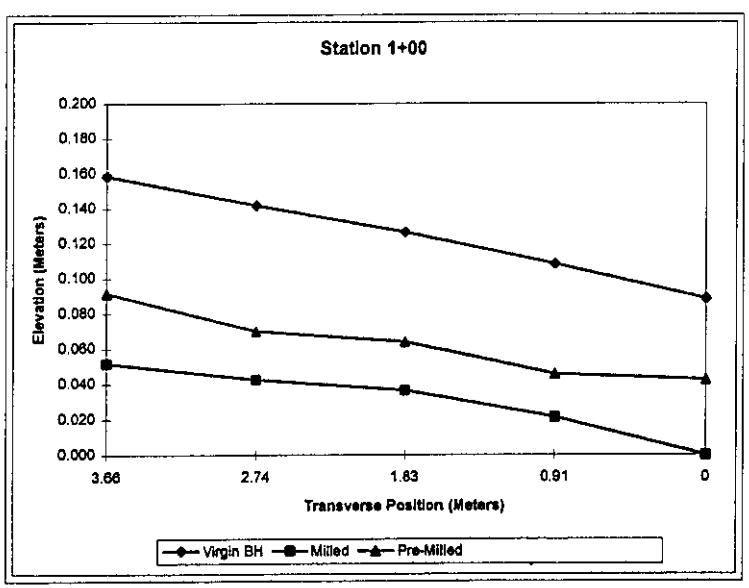
Transverse Offset	3 LAYERS	ELEVATION 0 Meters	Virgin BH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 0.91 Meters	Virgin BH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 1.83 Meters	Virgin BH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 2.74 Meters	Virgin BH THICKNESS Meters	Milled THICKNESS Meters	ELEVATION 3.66 Meters	Virgin BH THICKNESS Meters	Milled THICKNESS Meters
0+00	Virgin BH	4.666	0.070	-0.018	4.685	0.073	-0.006	4.697	0.079	-0.021	4.715	0.082	-0.012	4.730	0.094	-0.034
	Milled	4.596			4.612			4.618			4.633			4.636		
	Pre-Milled	4.615			4.618			4.639			4.645			4.670		
0+50	Virgin BH	4.502	0.101	-0.040	4.519	0.096	-0.027	4.535	0.101	-0.015	4.549	0.102	-0.021	4.566	0.107	-0.030
	Milled	4.401			4.423			4.435			4.447			4.459		
	Pre-Milled	4.441			4.450			4.450			4.468			4.490		
1+00	Virgin BH	4.304	0.088	-0.043	4.324	0.087	-0.024	4.342	0.090	-0.027	4.357	0.099	-0.027	4.374	0.107	-0.040
	Milled	4.215			4.237			4.252			4.258			4.267		
	Pre-Milled	4.258			4.261			4.279			4.285			4.307		
1+50	Virgin BH	4.078	Unknown	Unknown	4.098	Unknown	Unknown	4.115	Unknown	Unknown	4.130	Unknown	Unknown	4.144	Unknown	Unknown
	Milled	0.000			0.000			0.000			0.000			0.000		
	Pre-Milled	3.996			4.005			4.023			4.029			4.054		
2+00	Virgin BH	3.821	Unknown	Unknown	3.840	Unknown	Unknown	3.856	Unknown	Unknown	3.872	Unknown	Unknown	3.889	Unknown	Unknown
	Milled	0.000			0.000			0.000			0.000			0.000		
	Pre-Milled	3.743			3.749			3.773			3.780			3.804		
2+50	Virgin BH	3.533	Unknown	Unknown	3.554	Unknown	Unknown	3.566	Unknown	Unknown	3.583	Unknown	Unknown	3.600	Unknown	Unknown
	Milled	0.000			0.000			0.000			0.000			0.000		
	Pre-Milled	3.463			3.469			3.484			3.493			3.514		
3+00	Virgin BH	3.231	0.104	-0.034	3.249	0.098	-0.015	3.264	0.101	-0.018	3.281	0.108	-0.015	3.298	0.122	-0.034
	Milled	3.127			3.152			3.164			3.173			3.176		
	Pre-Milled	3.161			3.167			3.182			3.188			3.210		
3+50	Virgin BH	2.896	0.107	-0.034	2.914	0.113	-0.027	2.929	0.107	-0.021	2.947	0.113	-0.018	2.963	0.122	-0.037
	Milled	2.789			2.801			2.822			2.835			2.841		
	Pre-Milled	2.822			2.829			2.844			2.853			2.877		
4+00	Virgin BH	2.533	0.088	-0.012	2.551	0.094	-0.009	2.568	0.093	-0.015	2.585	0.104	-0.018	2.601	0.114	-0.034
	Milled	2.444			2.457			2.475			2.481			2.487		
	Pre-Milled	2.457			2.466			2.490			2.499			2.521		
4+50	Virgin BH	2.170	0.094	-0.018	2.188	0.094	-0.003	2.204	0.091	-0.006	2.222	0.104	-0.009	2.237	0.119	-0.034
	Milled	2.076			2.094			2.112			2.118			2.118		
	Pre-Milled	2.094			2.097			2.118			2.128			2.152		
5+00	Virgin BH	1.771	0.113	-0.040	1.792	0.113	-0.024	1.807	0.125	-0.040	1.826	0.125	-0.030	1.841	0.134	-0.043
	Milled	1.658			1.679			1.682			1.701			1.707		
	Pre-Milled	1.698			1.704			1.722			1.731			1.750		
	AVG		0.096	-0.030		0.096	-0.017		0.098	-0.021		0.105	-0.019		0.115	-0.035
	MAX		0.113	-0.012		0.113	-0.003		0.125	-0.006		0.125	-0.009		0.134	-0.030
	MIN		0.070	-0.043		0.073	-0.027		0.079	-0.040		0.082	-0.030		0.094	-0.043
	STD		0.013	0.011		0.012	0.009		0.013	0.009		0.011	0.007		0.011	0.004

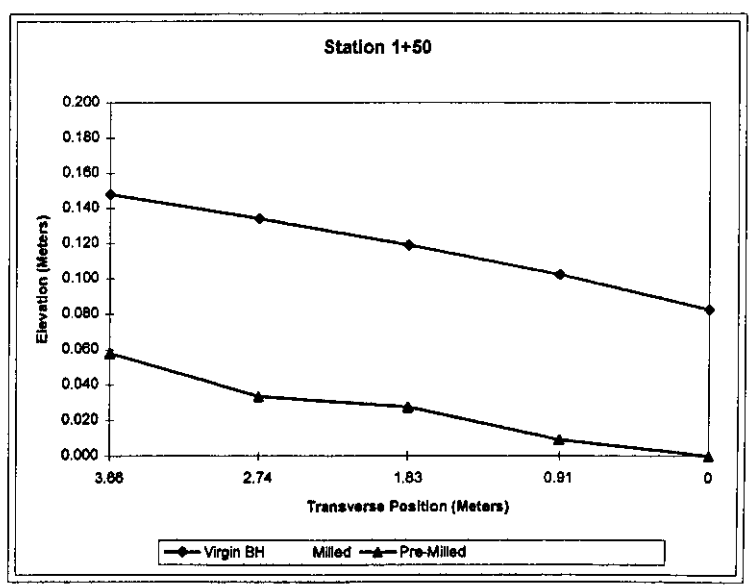
	Virgin BH	Milled
SECTION AVG	0.102	-0.024
SECTION MAX	0.134	-0.003
SECTION MIN	0.070	-0.043
SECTION STD	0.014	0.011

Oklahoma SPS-5 (400560)









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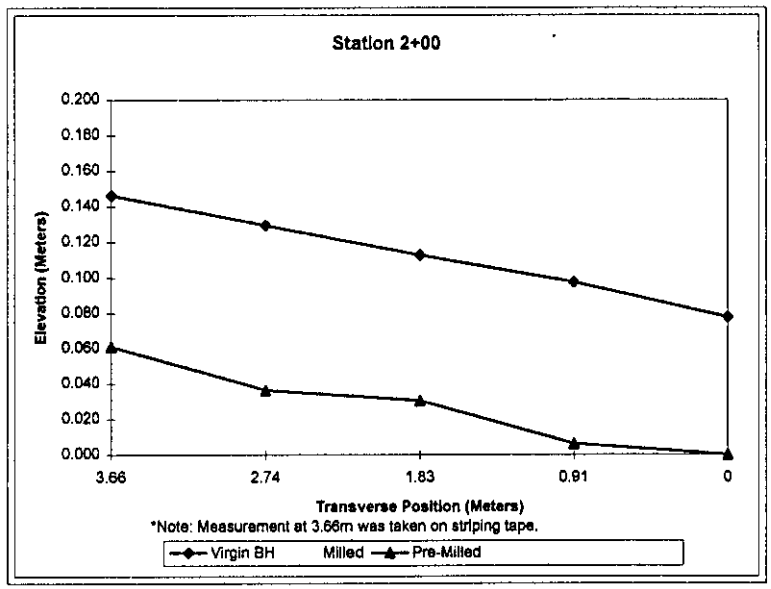

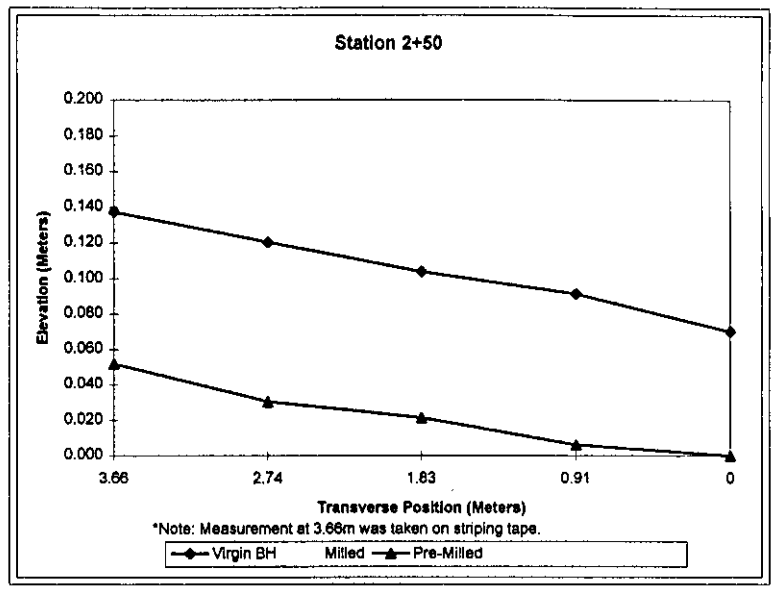

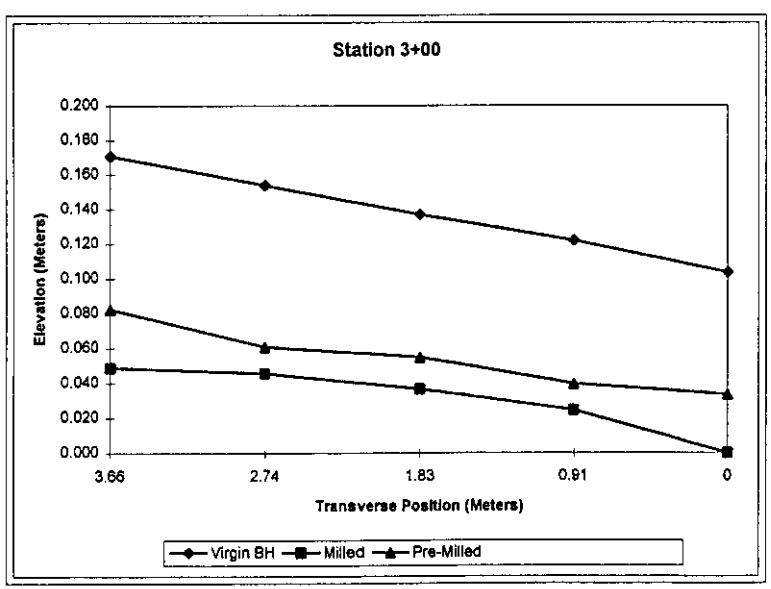

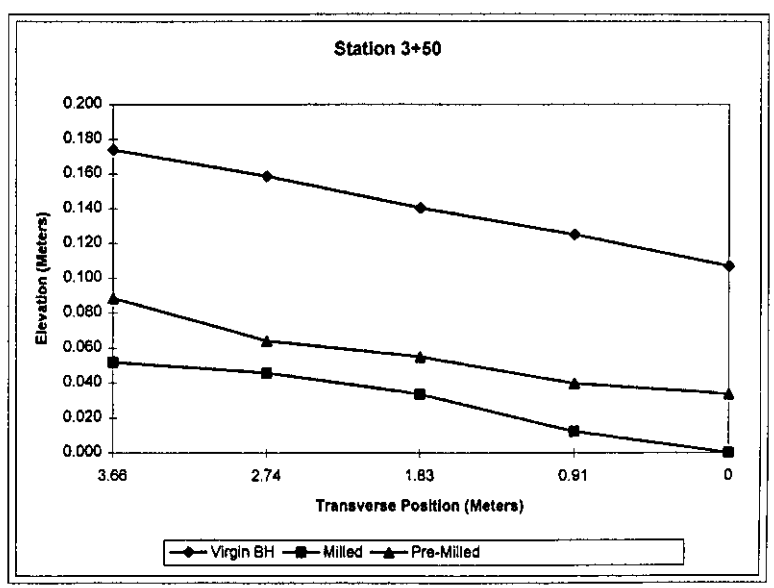

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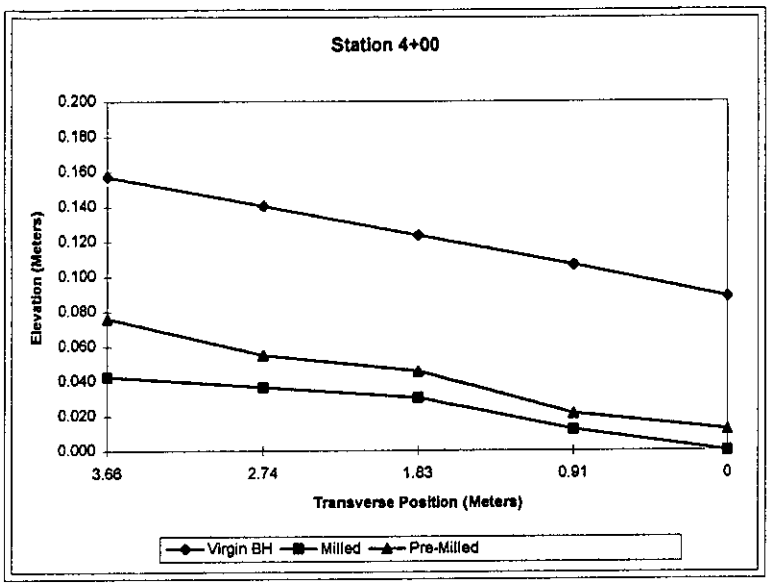

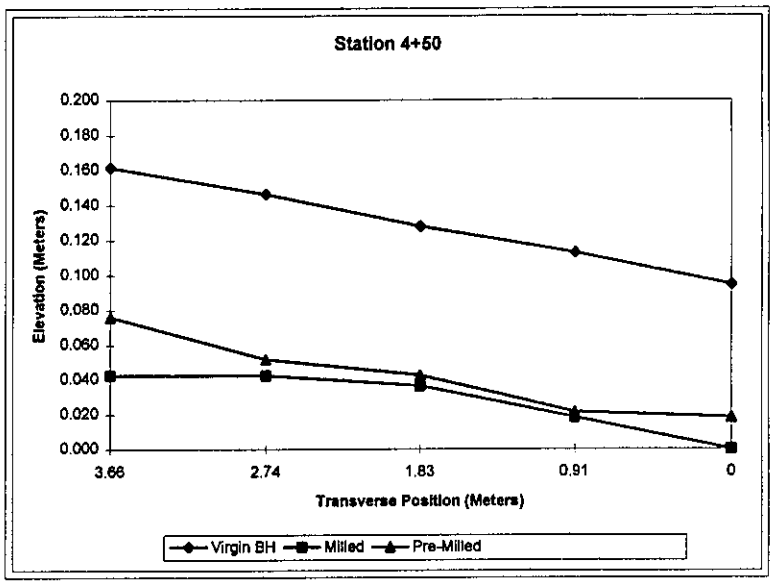

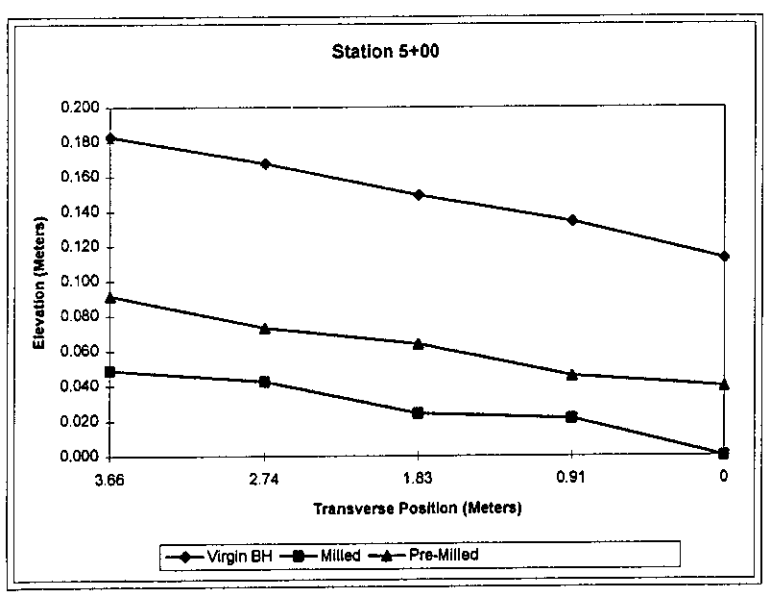

APPENDIX G

PHOTOGRAPHS

		Page Nº.
1	Preconstruction Sampling	G.2
2	Core Representing Existing Layer Thicknesses	G.2
3	Split-Spoon Sampling	G.3
4	Split-Spoon Sample	G.3
5	Transverse Crack	G.4
6	Milled Surface, Section 400508	G.4
7	Paving Operations	G.5
8	Compaction of 4005 Project	G.5

Photo 1. Preconstruction Sampling

Photo 2. Core Representing Existing Layer Thicknesses

Photo 3. Split-Spoon Sampling

Photo 4. Split-Spoon Sample

Photo 5. Transverse Crack

Photo 6. Milled Surface, Section 400508

Photo 7. Paving Operations

Photo 8. Compaction of 4005 Project