



California 501 Park Way Mill Valley, California 94941 Telephone: (415) 383-0570 Facsimile: (415) 358-4340	Kansas 307 Plymate Lane Manhattan, Kansas 66502 Telephone: (785) 539-6305 Facsimile: (415) 358-4340
--	--

SURFACE SYSTEMS & INSTRUMENTS, INC.

www.smoothroad.com

Custom Test Equipment • Mobile Technology Solutions

CS8500 PROFILOGRAPH



HARDWARE FEATURES

SOFTWARE FEATURES

<ul style="list-style-type: none"> • The original and <i>only</i> true California type system. (CS8500 is the new/replacement system for Cox and McCracken branded systems). • Guaranteed compliance with agency and ASTM specifications. • Professionally engineered hardware refined over 50 years. 	<ul style="list-style-type: none"> • Easy to learn, easy to use Windows software programs. • Multiple profile Indexes supported (PRI, IRI, HRI, RN). • Computer instructed calibration and data collection routines. • Feature rich, mature data analysis software.
<ul style="list-style-type: none"> • One-person assembly and operation. • Aluminum frame and support wheels assemble in minutes. • Portable operator control housing with AC/DC power supplies. 	<ul style="list-style-type: none"> • Collect dual wheel paths from either direction or any starting point. • Dual wheel paths test results on one trace with results averaged. • Two trace reports allow assessment of profile across lane.
<ul style="list-style-type: none"> • Bi-directional frame operation (reversible steering hardware orients system to test adjacent wheel path without turn-around). 	<ul style="list-style-type: none"> • English or Metric data collection and reporting. • Display of test results, stationing, and profile trace during collection.
<ul style="list-style-type: none"> • Panasonic Toughbook computer with Touchscreen controls. • Toughbook computer is Mil-Spec (<1.5% annual failure rate). • Lightweight generator for AC power. • Optional DC battery. 	<ul style="list-style-type: none"> • Must-grind bumps/dips display in real time with audible alarm. • Customized localized roughness reports display dimensions and peak magnitude for each bump and dip.
<ul style="list-style-type: none"> • GPS subsystem displays of GPS position, integrates coordinates with profile stations, localized roughness, and Google Earth. 	<ul style="list-style-type: none"> • Profile reports and traces on-screen, in PDF images, or hard copy. • Raw data exports to multiple formats (Excel, ERD/PPF for ProVal).
<ul style="list-style-type: none"> • Adjustable hardware for over/under steering on curved surfaces. • Reversible brake for parking frame on sloped surfaces. • Optional enclosed cargo trailer with engineered hardware for secure storage and transit of CS8500 system. 	<ul style="list-style-type: none"> • Raw profile data encrypted for maximum security. • Profile data infinitely re-writable with different parameters. • Parameters adjust comply with all commonly used agency specifications (e.g. ASTM, DOT, Transport Ministry, FAA, and USACE).
<ul style="list-style-type: none"> • All major spare parts stocked and available by expedited delivery. • Warranty on all individual and integrated system components. 	<ul style="list-style-type: none"> • Add new data to existing profile data files for comparison of original and corrected surfaces. • Track ride improvement throughout project.
<ul style="list-style-type: none"> • Optional on-board printer for field printing traces and reports with power assisted paper take-up for auto-scrolling of profile traces. 	<ul style="list-style-type: none"> • Software license for field and desktop computers. • On-site operator training and certifications available worldwide.
<ul style="list-style-type: none"> • Bridge configuration available (e.g. CalTrans Test 547). • Buy or Rent (equipment only or with trained operator). 	<ul style="list-style-type: none"> • Software updates by internet download (self-extracting). • Worldwide customer support.



CS8500 Computerized Profilograph



SSI Profiler v1.71 - Dual

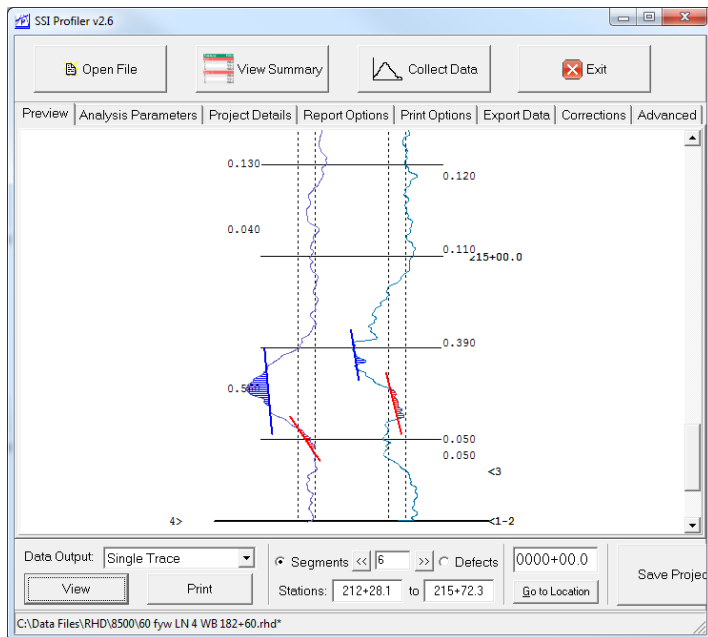
Open File Analyze Data Collect Data Exit

Active File: C:\DataFiles\HSP\FHWA\SD\Horse Thief Lake Rd.ptd

Match T1/T2 Data View Trace in Google Earth Print Report Print Selected Trace

Segment	Station		PRI			Defects		Notes
#	Start	End	Track 1	Track 2	Average	Track 1	Track 2	
Summary	0+00.0	452+68.8	6.5	11.2	8.9	34	96	
Sect 1.								
1	0+00.0	5+28.0	13.6	13.0	13.3	1	2	43 53' 34.01" N 103 35' 9.91" W
2	5+28.0	10+56.0	1.9	3.0	2.5	0	0	43 53' 38.41" N 103 35' 5.99" W
3	10+56.0	15+84.0	9.7	14.6	12.1	0	0	43 53' 41.27" N 103 35' 0.76" W
4	15+84.0	21+12.0	6.7	11.0	8.8	0	1	43 53' 44.35" N 103 34' 55.01" W
5	21+12.0	26+40.0	1.7	3.2	2.4	0	0	43 53' 48.08" N 103 34' 50.39" W
6	26+40.0	31+68.0	2.7	6.9	4.8	0	0	43 53' 50.11" N 103 34' 43.33" W
7	31+68.0	36+96.0	2.2	8.5	5.3	0	0	43 53' 48.29" N 103 34' 36.90" W
8	36+96.0	42+24.0	1.6	13.8	7.7	0	1	43 53' 46.09" N 103 34' 30.88" W
9	42+24.0	47+52.0	2.0	4.9	3.4	0	0	43 53' 43.72" N 103 34' 24.64" W
10	47+52.0	52+80.0	2.8	0.4	1.6	0	0	43 53' 41.05" N 103 34' 17.33" W

▲ Main -Screen Summary View of Test Results, Defects and GPS Coordinates ▲



▲ On-Screen View of Dual Wheel Path Profile Traces ▲

SSI Profiler v2.6

Open File View Summary Collect Data Exit

Preview | Analysis Parameters | Project Details | Report Options | Print Options | Export Data | Corrections | Advanced

Localized Roughness Settings
Simulated Profilograph Data Used for Defects Analysis
Defect Template Bump Height: 0.300 in
Defect Template Bump Width: 25.000 ft
Defect Template Dip Depth: 0.400 in
Defect Template Dip Width: 25.000 ft

DefectType	Track	Segment	Start	End	Peak Height (in)	Peak Station	Closest GPS Note
1	Bump	1	185+31.4	185+35.0	0.345	at 185+34.2	34 2' 9.59" N 118 10' 7.31" W
2	Dip	2	215+30.1	215+23.3	-0.411	at 215+29.7	34 2' 4.13" N 118 10' 42.02" W
3	Dip	1	215+30.9	215+42.5	-0.640	at 215+36.0	34 2' 4.43" N 118 10' 40.79" W
4	Bump	2	215+44.2	215+35.8	0.372	at 215+43.2	34 2' 4.13" N 118 10' 42.02" W
5	Bump	1	215+46.8	215+52.4	0.358	at 215+49.3	34 2' 4.43" N 118 10' 40.79" W
6	Bump	1	217+96.4	218+05.8	0.389	at 217+98.2	34 2' 3.57" N 118 10' 44.26" W
7	Dip	1	218+06.9	218+13.7	-0.528	at 218+07.8	34 2' 3.57" N 118 10' 44.26" W

Track 1 Defects: 5
Track 2 Defects: 2
Total Defects: 7

Data Output: Defects Report Segments: 6 Defects: 0000+00.0

View Print Stations: 212+28.1 to 215+72.3 Go to Location Save Project

C:\Data Files\RHD\8500\60 fyw LN 4 WB 182-60.rhd

▲ Bump Reports with Exact Dimensions and GPS Locations ▲



▲ Detachable Operator Housing with AC/DC Power Supplies ▲



▲ Toughbook 19 Rugged Computer with Touchscreen ▲

Surface Systems & Instruments, Inc.

California Division

501 Park Way, Mill Valley, California 94941
Tel: (415) 383-0570 • Facsimile: (415) 358-4340
www.smoothroad.com

Kansas Division

307 Plymate Lane, Manhattan, Kansas 66502
Tel: (785) 539-6305 • Facsimile: (415) 358-4340
Email: info@smoothroad.com

