

SHRP

IOWA SHRP UPDATE No. 6

Iowa Department of Transportation
Highway Division
Office of Materials
April 1991

GPS - General Pavement Study Activity

Most sampling and testing (soil samples, test pits, etc.) has been completed at Iowa's GPS sites. Site activity is now limited to periodic repeat data collection by PASCO, Falling Weight Deflectometer and GM Profilometer. All GPS sites need repainting after the winter months. PASCO will be in Iowa on May 2 and May 6 to test certain GPS sites. Long Term Pavement Performance test information is now available on GPS sites. SHRP activity at present is shifting from GPS sites to SPS activity.

SPS - Specific Pavement Study Activity

SPS-1 - Strategic Study of Structural Factors for Flexible Pavements

Iowa does not presently have a SPS-1 candidate.

SPS-2 - Strategic Study of Structural Factors for Rigid Pavements

Iowa will nominate new US 65 around the east side of Des Moines which will be built in 1993.

SPS-3 - Preventive Maintenance Effectiveness of Flexible Pavements

The slurry seal section on IA 196 in Sac County failed due to rainy conditions and was replaced in August 1990. There is no new or recent activity concerning SPS-3. SHRP contractor will periodically monitor performance of the test sections compared to the control section.

SPS-4 - Preventive Maintenance Effectiveness of Rigid Pavements

One SPS-4 site on US 20 in Hamilton County was laid out by SHRP on April 15, 1991 and the SPS-4 site on I-380 in Linn County was laid out on April 16, 1991. SPS-4 involves cleaning and sealing joints with a silicone sealer and a control section.

SPS-5 - Rehabilitation of Asphalt Concrete Pavements

Iowa does not presently have a SPS-5 candidate.

SPS-6 - Rehabilitation of Jointed Portland Cement Concrete Pavements

There is no new or recent activity concerning SPS-6. Future maintenance work will be reported on SHRP data collection sheets by the RME. The SHRP Regional Contractor will periodically monitor performance of the test sections compared to the control sections.

SPS-7 - Bonded Portland Cement Concrete Overlays of Concrete Pavements

Iowa's candidate on US 20 in Hamilton County has been accepted by SHRP and will be built in 1992.

SPS-8 - Study of Environmental Effects in the Absence of Heavy Loads

Iowa does not have a SPS-8 candidate and is mostly interested in heavy loads.

H-106 Study Activity on Determining Maintenance Effectiveness

H-106 (various sealers) are to be placed on the 1985 p.c.c. inlay on I-80 EB in Poweshiek County from Grinnell to Malcom. All cells are filled. Ten or eleven sealers will be used with plugs in every joint to measure movement. ERES (SHRP contractor) will select locations where the work will be done on May 2. Iowa DOT will do the sawing. Work begins May 28.

The other H-106 location is on I-35 NB from First Avenue in Ankeny north. Hot pour and higher type sealers with emulsions will be used.

C-103 - Bridges for Rehabilitation Trials

A 255' x 24' open spandrel concrete arch bridge on US 65 over the Iowa River in Iowa Falls was nominated by the Maintenance and Bridge Design Offices as a candidate for C-103 rehabilitation trials. Substructure work (only) consists of patching spalls with concrete containing corrosion inhibitor and seal. This work will be performed by a SHRP contractor in 1992.

SHRP GPS Sites

<u>SHRP#</u>	<u>DIST</u>	<u>COUNTY</u>	<u>ROUTE</u>	<u>DIR</u>	<u>MILEPOST</u>	
JOINTED PAVEMENTS						
193055	1	Hamilton	US 20	WB	152.04	151.95
193033	6	Johnson	US 218	NB	86.35	86.45
193006	6	Clinton	US 30	EB	317.30	317.40
193028	6	Johnson	US 218	NB	95.23	95.33
193009	6	Linn	I-380	NB	18.89	18.99
CONTINUOUS REINFORCED PAVEMENTS						
195046	2	Franklin	I-35	NB	155.40	155.50
195042	2	Wright	I-35	NB	152.20	152.30
ASPHALT PAVEMENTS						
196049	6	Cedar	I-80	WB	261.48	261.38
191044	6	Buchanan	US 20	EB	266.76	266.86
196150	3	Sac	IA 196	NB	Sta. 646	651
ASPHALT OVERLAY OF PC PAVEMENT						
199126	6	Scott	I-80	WB	303.38	303.29
199116	2	Worth	I-35	NB	216.75	216.84

SHRP SPS Sites

SPS-3	3	Sac	IA 196	NB	Sta. 657	710
SPS-4	1	Poweshiek	I-80	Not known as yet		
SPS-4	6	Linn	I-380	Not known as yet		
SPS-6	1	Polk	I-35	SB	98.82	94.75

Acronyms

CPR - Concrete Pavement Repair
 FWD - Falling Weight Deflectometer
 GPS - General Pavement Study
 LTPP - Long Term Pavement Performance
 SHRP - Strategic Highway Research Program
 SPS - Specific Pavement Study
 WIM - Weigh-in-Motion

Numbers

SHRP Function Code - 777
 Project Control Number for
 all SHRP Activity except SPS-3 72-00-1054-000
 Project Control Number for SPS-3 72-00-1056-000

Traffic Data Collection Status

The Iowa DOT now has a position paper to present to SHRP concerning traffic data collection status. Weigh-in-Motion piezo cable will be used for traffic classification, traffic monitoring and vehicle weights. Traffic data collection is to be installed by June 1991 with weight backcasting done to last February.

Iowa has agreed to install WIM equipment to operate 365 days per year at each site. Raw weigh data is what SHRP wants.

ASCE Specialty Conference on SHRP Products

Bernie Brown, Vern Marks and Lee Smithson attended the ASCE Specialty Conference on SHRP products held April 8-10, 1991 in Denver, Colorado. The purpose of the conference was to review all SHRP activities to date. This includes the research being done on asphalt, concrete, structures and highway operations.

SHRP Cost Accounting Emphasis

All SHRP costs should be charged to function code 777. This includes time and expenses associated with traffic control, painting SHRP site lines, pavement testing activity, project history research, construction inspection, materials sampling and inspection, etc. Project Control No. 72-00-1054-000 should be used for all SHRP work except work pertaining to the SPS-3 in Sac County. SPS-3 related work should be charged to Project Control No. 72-00-1056-000. It is important that all SHRP-related time and expenses be recorded so that an accurate cost of the program can be obtained.

If you have any questions concerning this SHRP update or SHRP in general, please contact one of the following:

Bernie Brown - 515-239-1452
Charlie Potter - 515-239-1309

IOWA

STATE HIGHWAY MAP

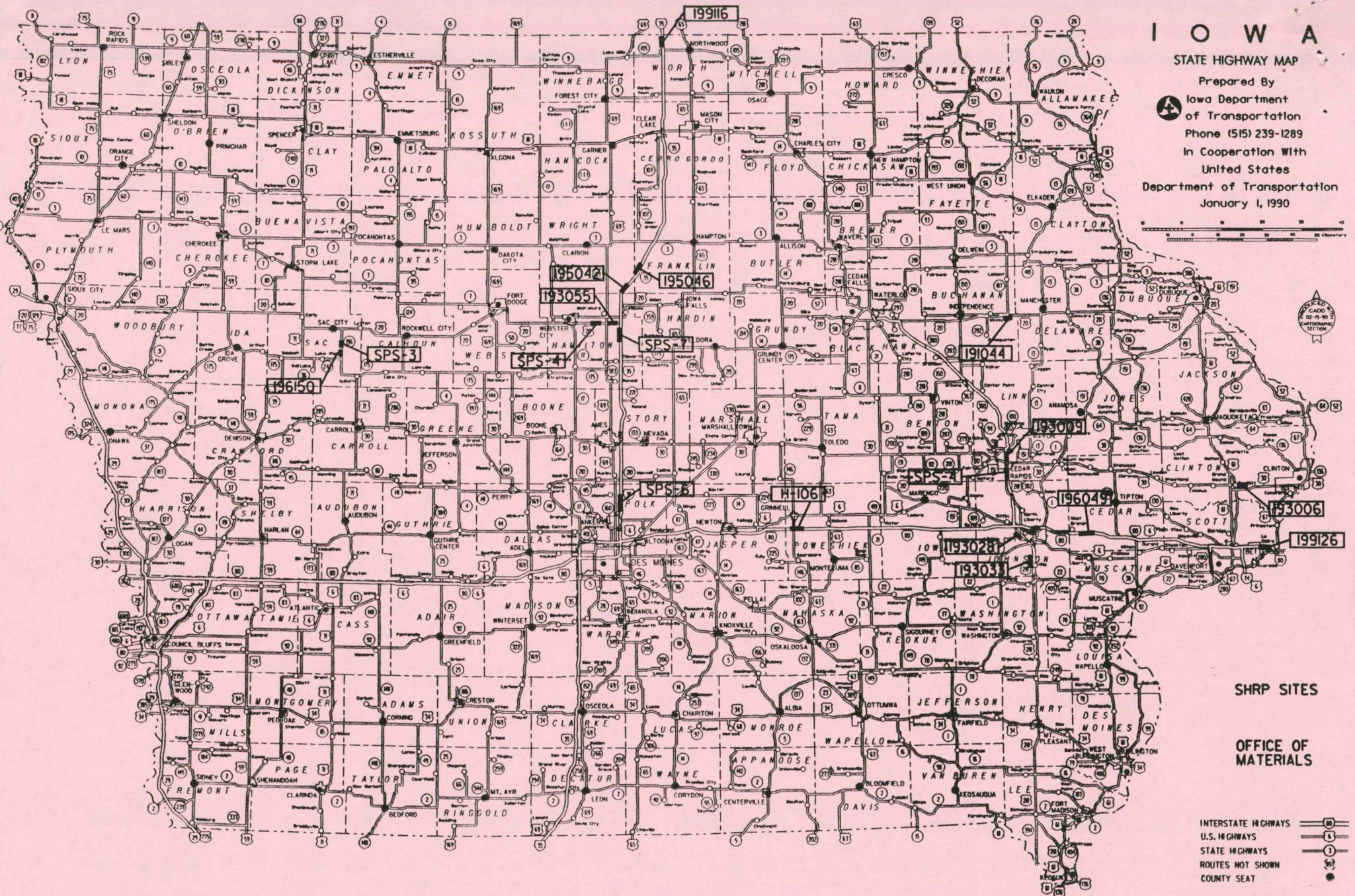
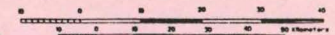
Prepared By



Iowa Department
of Transportation
Phone (515) 239-1289

In Cooperation With
United States

Department of Transportation
January 1, 1990



SRP SITES

OFFICE OF
MATERIALS

- INTERSTATE HIGHWAYS
- U.S. HIGHWAYS
- STATE HIGHWAYS
- ROUTES NOT SHOWN
- COUNTY SEAT

