



INTERNATIONAL ROAD DYNAMICS INC.

LTPP SPS PHASE II

WEIGH-IN-MOTION SITE ACCEPTABILITY ASSESSMENT REPORT

KANSAS SPS-2
LTPP ID 200200
MAY 31, 2006
CLIN 2001 TASK ORDER 13



CONTRACT NO. DTFH61-05-D-00001



LONG TERM
pavement
PERFORMANCE

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1.0 EXECUTIVE SUMMARY

On May 31st, 2006, a Weigh-in-Motion (WIM) site acceptability assessment was performed for the Kansas SPS-2 site. This assessment was the second performed at this site. The first assessment was performed on May 31st and June 1st, 2005 by the CLIN 1 Team. This first assessment entailed a search for a suitable SPS WIM site location and, upon locating a suitable site, the CLIN 1 Team recommended that 400 feet of the existing PCC pavement be blanket ground to meet smoothness requirements for an SPS "WIM Pavement" (LTPP Phase II Weigh-In-Motion Site Acceptability Assessment Report, June 6, 2005). It was also a recommendation of the report that another pavement evaluation be performed following pavement corrective action. On May 19th, 2006, the State performed a blanket grind of the designated 400 foot "WIM Pavement".

The selected WIM site is located on I-70 near the town of Junction City in Dickinson County in the WB outside lane at Mile Post 287.5 approximately 1500 feet downstream of the SPS-2 pavement test section 200212. As previously noted, this site was selected during the first site assessment. Based upon our site evaluations and discussions with the State, it is recommended that a new WIM system utilizing Bending Plate technology be installed at this location.

The planned WIM scale location is located within a tangent section of roadway immediately following a large radius curve and the grade is relatively flat. Vehicles track smoothly through this area at speeds between 65 and 75 MPH. Traffic flow is light to medium on this four lane Interstate.

The existing roadway pavement at this location consists of structurally sound 12 inch thick Portland Cement Concrete (PCC). As such, it not necessary that the State replace the existing pavement with a 400 foot PCC slab to accommodate the WIM system's in-pavement sensors. Additionally, the 400 foot section of pavement 325 feet in advance of to 75 feet following the planned WIM scale location has been blanket ground to conform to smoothness requirements for SPS WIM sites.

There are power and telephone services available at the existing WIM cabinet. The State will need to extend these services approximately 400 feet from this existing cabinet to within 25 feet of the proposed new WIM cabinet location.

This site meets all selection criteria and can be instrumented with a bending plate WIM system.

2.0 EXISTING ROADWAY

2.1 PAVEMENT AND GEOMETRICS

The SPS-2 is a rigid pavement study. The existing roadway pavement as well as the outside and inside (median) shoulders approaching, through, and departing the proposed WIM site are PCC. The two westbound lanes are each 12 feet wide with a 10 foot wide outside shoulder and a 5 foot wide inside (median) shoulder. The grade is relatively flat. A Mettler-Toledo load cell WIM system is currently situated in the PCCP roadway between the 200212 and 200211 SPS test sections. These existing scales are located in a tangent section of roadway. However, the recommended location for the new scales (395 feet upstream of the existing scales) is immediately preceded by a large radius (11,460 ft. as per the State) horizontal curvature. In observing traffic movement through the site, this curvature has no apparent detrimental effect on the trucks or other vehicles passing through the proposed scale location. Additionally, this curve's radius is much greater than the 5700 ft. minimum specification set forth under ASTM E 1318-02 (6.1.1, Horizontal Alignment). In regard to cross slope, the two adjacent lanes slope approximately 1.5% toward the outside shoulder.

2.2 OBSERVED TRAFFIC OPERATING CHARACTERISTICS

The light to medium traffic flow exhibited good lane discipline. Although in general the trucks are staying within the lane and shoulder line markings, a few trucks were observed traveling with their right wheels traveling on or immediately adjacent to the shoulder stripe (shoulder stripe is within 12 foot lane). Traffic is free flowing at all times at speeds between 65 and 75 MPH (posted speed limits are a maximum 70 MPH and a minimum 40 MPH for all traffic). There are no signals or merging in the WIM site vicinity. Trucks are "cruising" through the site at constant speeds. In that there are no on/off locations between the WIM site and SPS site, the truck traffic composition at the WIM site is the same as that at the SPS site.

3.0 SITE CONFORMANCE TO EVALUATION CRITERIA

3.1 PAVEMENT TYPE AND CONDITION- PASS

The PCC approach, WIM, and departure pavements are in very good condition.

3.2 OBSERVED PAVEMENT SMOOTHNESS- PASS

The existing pavement, 325 feet in advance of and 75 feet following the proposed WIM scale location ("WIM Pavement"), was blanket ground on May 19th, 2006. No "holes" were noted during a visual observation of this pavement. The grinding ridges were evident throughout this pavement's surface area.

3.3 ANALYSIS OF PAVEMENT PROFILE DATA

Profile data was collected by the NRSC on March 12, 2004 with the LTPP Profiler and a profile data analysis was performed by the Phase I contractor (Phase 1 Contractor Assessment Report 4/13/2004). The results of this analysis indicate that this pavement did not meet the smoothness requirements for an SPS WIM site. However, in conformance to the recommendation contained in the first LTPP SPS Phase II site assessment report (June 6, 2005), the State has performed a blanket grind of the 400 foot WIM pavement. Based upon visual observation of the pavement's surface, extremely smooth drive-through checks, and the observing of trucks and other vehicles approaching and passing over the WIM scale location, an analysis of pavement profile data prior to WIM system installation is not deemed necessary.

3.4 ROADWAY GEOMETRICS- PASS

The grade is minimal and the lane in which the sensors are to be installed is 12 feet wide. Although there is a horizontal curvature immediately in advance of the proposed WIM scale location, such curvature in the roadway alignment should have no noticeable detrimental effect on the accuracy of the WIM system. The pavement cross slope is adequate for proper roadway drainage.

3.5 TRAFFIC OPERATING CHARACTERISTICS- PASS

The general traffic pattern is free flowing with good lane discipline. There are no interchanges or signals affecting traffic flow. The truck traffic is cruising through the site and, except for an occasional truck hugging the shoulder stripe, staying within the lane lines.

3.6 TRUCK TRAFFIC COMPARISON BETWEEN WIM AND TEST SITE- PASS

There are no exit/entrance locations between the WIM site and the SPS-2 pavement test sections.

3.7 POTENTIAL WIM INTERFERENCE SOURCES- PASS

The nearest source of any potential interference, overhead power lines, is 450 feet away from the proposed WIM system location. This will not interfere with system performance.

3.8 ACCESS TO POWER AND PHONE SERVICES- PASS

Power and phone service should be readily accessible at either the existing weather station, 50 feet upstream from the proposed WIM cabinet location, or the existing WIM cabinet, 400 feet downstream from the proposed WIM cabinet location. The State will need to extend existing power and phone services to service points within 25 feet of the proposed WIM cabinet location.

3.9 EQUIPMENT INSTALLATION CAPABILITY- PASS

There is an adequate location for the WIM controller cabinet at the site near the highway right-of-way fence (in-line with the existing weather station equipment enclosure). This location would provide over 70 feet clearance from the roadway. There is good visibility from the cabinet location of the sensors and approaching vehicles. There is adequate room adjacent to the cabinet location for service facilities. Roadway and overall site drainage is very good. There is no foreseen potential for ponding or flooding at the cabinet or pullbox locations. There is adequate topography for scale pit drainage. The width and structural stability of the adjacent lane and median shoulder allow a lane closure and traffic shift which will provide safe clearance in the work zone from live traffic during installation of the WIM system.

3.10 POTENTIAL TRAFFIC CONTROL / WORK ZONE SAFETY ISSUES- PASS

The traffic control should go smoothly, given the good approach sight distance, the lack of nearby intersections or interchanges, and the ability to move traffic's left wheels onto the adjacent lane's median shoulder. No other work zone safety issues are foreseen at this rural site.

3.11 TRUCK CIRCUIT- PASS

The nearest usable EB truck turnaround is I-70 Exit 290 (Milford Lake Road), which is located 3.0 miles upstream of the WIM site.

The nearest useable WB truck turnaround is I-70 Exit 286 (Chapman), which is located 1.3 miles downstream of the WIM site.

The test truck round trip circuit route is 8.6 miles. There are no foreseen potential restrictions and the turnaround locations are easily accessed and maneuvered. The estimated lap time is 10 minutes.

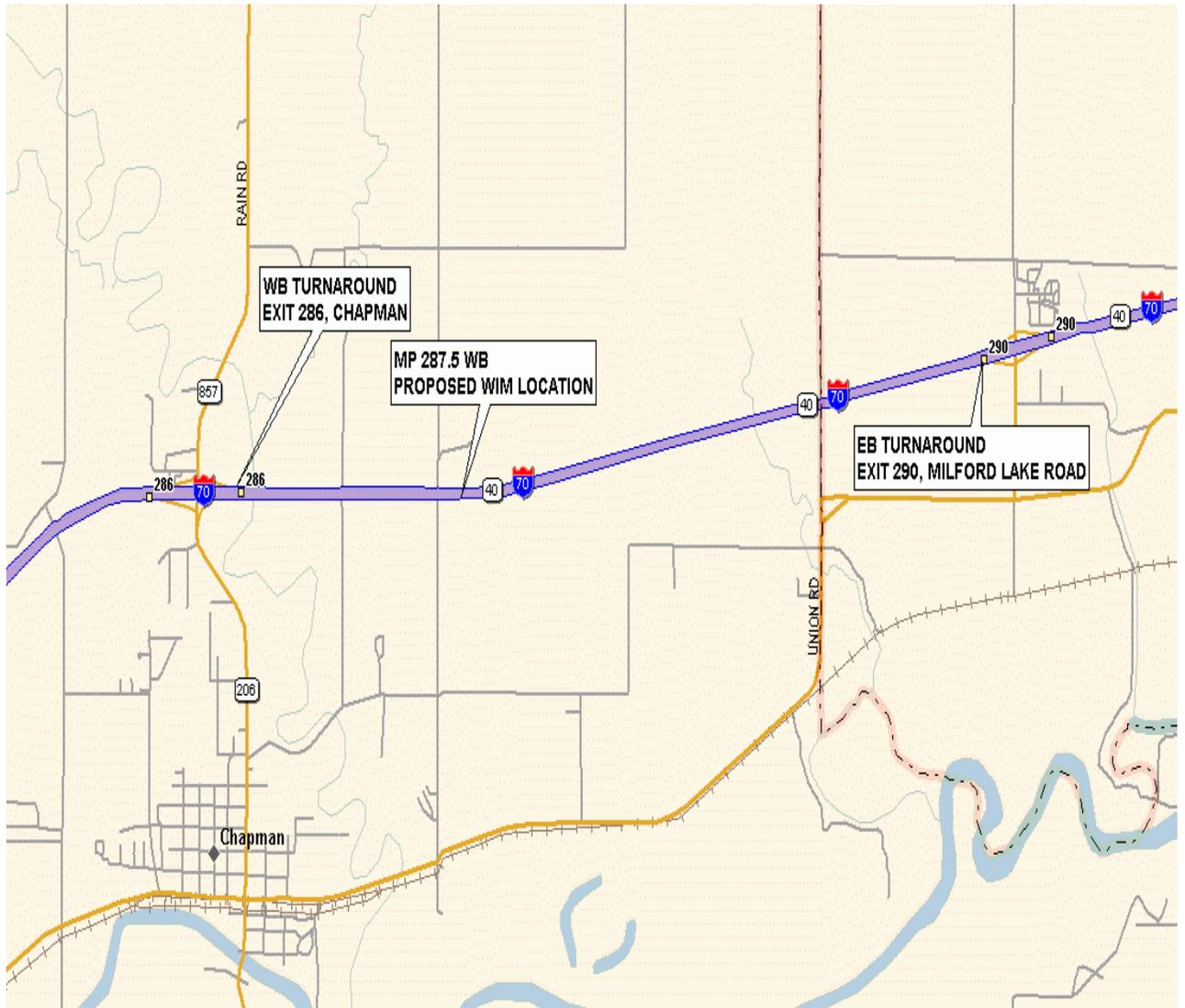


Figure 1: Truck Circuit Map, SPS-2 WIM Site on I-70

3.12 RECOMMENDATIONS ON SITE ACCEPTANCE / CORRECTIVE ACTIONS

The State will need to extend existing power and phone services to service points within 25 feet of the proposed WIM cabinet location.

The recommended WIM site location conforms to FHWA's recommendation and preference that the WIM system's scales be installed in PCC pavement with such pavement being structurally sound and smooth 325 ft. prior to and 75 ft. following the scales.

It is recommended that a bending plate WIM system be installed at the selected WIM site location.

4.0 TRAFFIC DATA REVIEW

Vehicle distributions of all trucks (FHWA Class 4 and higher) – 25.3%

Vehicle distributions for heavy trucks (FHWA Class 6 and higher) – 24.6%

Volume of trucks comprising of 10 % or more of truck population

Class 9 vehicles – 69.0%

Volume of heavy trucks comprising 10 % or more of heavy truck population

Class 9 vehicles – 78.1%

The 2004 Traffic Volumes provided indicate the ADT to be 16,000

The data as noted has been collected by Kansas Department of Transportation as supplied from existing 2001 through 2003 traffic studies.

5.0 PAVEMENT EVALUATION

In determining WIM site acceptability, a visual on-site observation of the existing PCC pavement was made. Additionally, the analysis of the profile data performed by the Phase I contractor (Phase 1 Contractor Assessment Report 4/13/2004) was reviewed in preparation for the first CLIN 1 assessment.

5.1 SURFACE CONDITION

The site evaluation concentrated efforts on the range of pavement from 900 feet prior to and 100 feet following the proposed WIM scale location. Pictures were taken to document the surface condition, several of which are presented in Appendix E.

5.1.1 PCC PAVEMENT 325 FEET IN ADVANCE OF AND 75 FEET FOLLOWING PROPOSED WIM SCALE LOCATION (“WIM PAVEMENT”)

The PCC pavement was constructed in 1992 (according to the SPS-2 Construction Report). The structural condition of the PCC pavement and shoulder throughout the 400 foot section appear to be very good. Only minimal transverse and longitudinal joint spalling was noted. Only minimal minor hairline surface cracking was observed. This existing pavement has perpendicular transverse weakened plane joints with spacings of approximately 15 feet. The joints have foam-like material inserts and are sealed. The State advises that the pavement is 12 inch thick and that the joints are dowelled. This is supported by the SPS-2 Construction Report.

5.1.2 PCC PAVEMENT UPSTREAM AND DOWNSTREAM OF WIM PAVEMENT

Other than the blanket grinding of the 400 foot “WIM Pavement” section, there are no discernable differences between the 400 foot “WIM Pavement” section and the “WIM Pavement” approach and departure pavements included in the 1000 foot evaluation section. The entire 1000 foot section was constructed in 1992. There are minor or no distress conditions. These pavements are in very good condition and the joints are well maintained.

Some potential long wavelength profile problems were observed at approximately 220 feet and 305 feet downstream of the proposed WIM system (85 feet and 175 feet upstream of the existing WIM system). These potential profile problem areas are well beyond the 400 foot WIM Pavement section for which FHWA recommends and prefers that the pavement be sound and smooth. As was noted in the first assessment report, when large trucks cross the existing load cell plates in both westbound lanes a “banging” can be heard even at several hundred feet upstream and downstream from the scales. This would indicate that the plates are loose in their frames, although movement could not be verified by visual observation.

5.1.3 SHOULDER CONDITION

The roadway shoulders are PCC throughout the study area and were constructed in 1992 in conjunction with the traveled way pavement. With the exception of cracking in one 15 foot panel well upstream of the “WIM Pavement” section, little or no distress was observed in the shoulder pavement. This pavement is in very good condition and the joints are well maintained.

5.2 SURFACE PROFILE

The “WIM Pavement” section, 325 feet in advance of and 75 feet following the planned scale location, was blanket ground on May 19th, 2006. The State used an 8 foot long straightedge to check smoothness.

Observations of trucks and other vehicle types approaching and passing through the selected scale location area indicated only minimal body motion. Several automobile “drive throughs” by the CLIN 1 team member appeared to confirm the above noted observations. Only minimal vehicle body motion could be felt.

Profile data was collected by the NRSC on March 12, 2004 with the LTPP Profiler. Based on the profile evaluation performed by the Phase I contractor, (Assessment Report 4/13/2004), the Kansas SPS-2 WIM site pavement smoothness did not meet the requirements for SPS WIM site locations. The recent blanket grinding performed by the State should have eliminated any previously existing short wavelength conditions.

5.3 PAVEMENT EVALUATION SUMMARY

Based upon on-site observations by our Team member, the structure and the smoothness of the existing PCC pavement are both deemed adequate for the installation of a bending plate WIM system.

6.0 PROPOSED WIM SITE- INFORMATION

6.1 LOCATION – I-70 MP 287.5

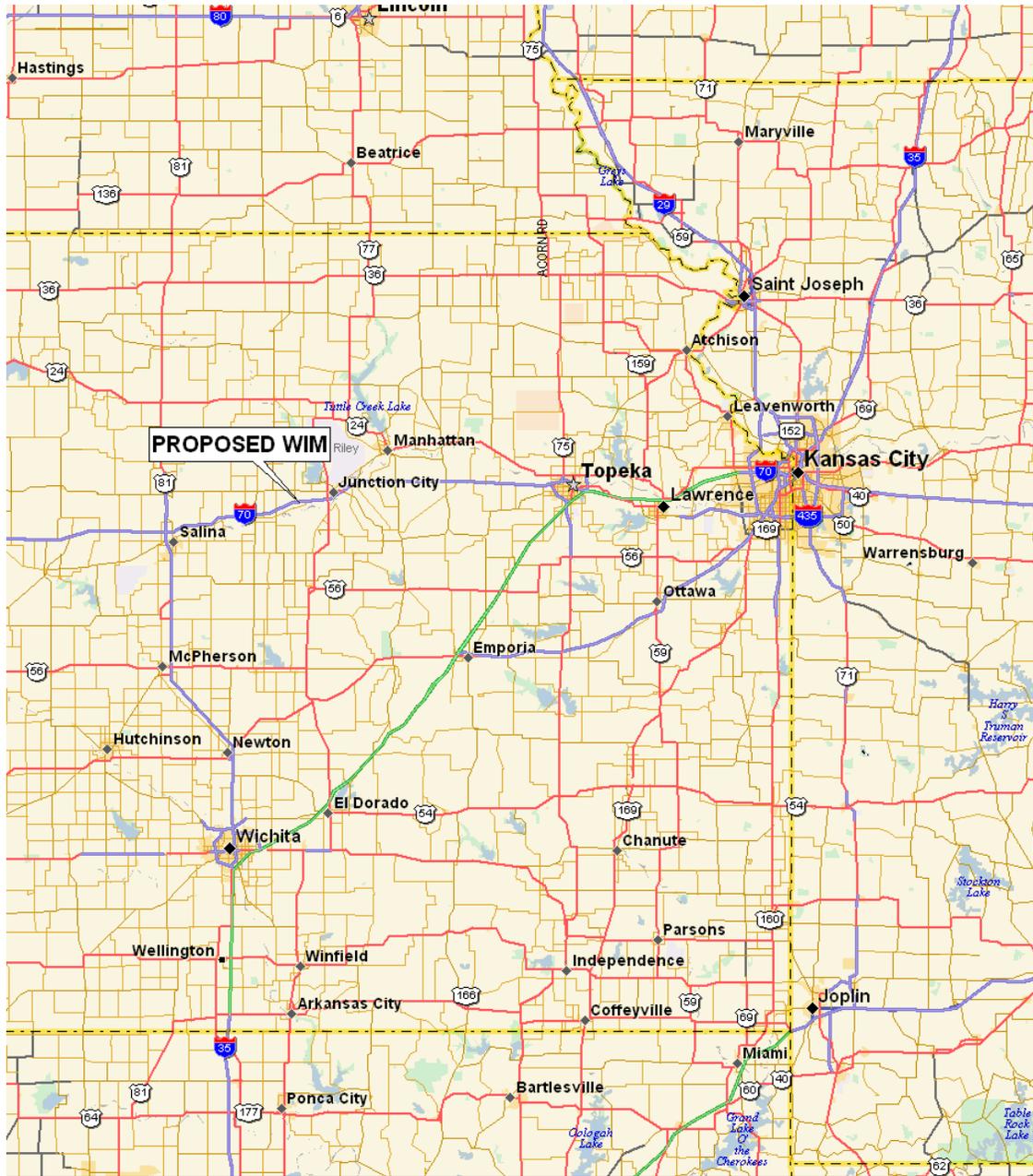


Figure 2: Map of the I-70 WIM Site

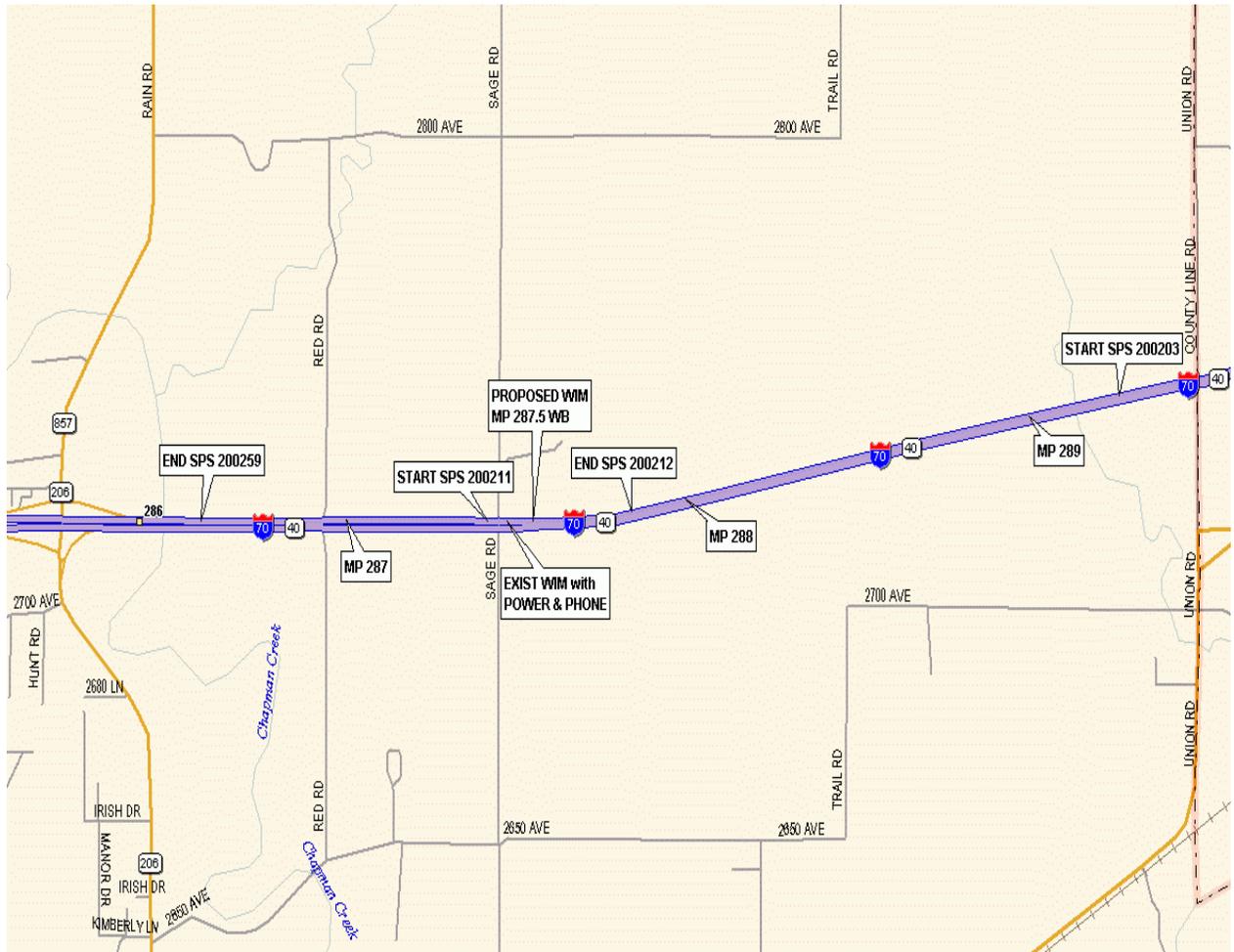


Figure 3: Map of the I-70 WIM Site at Milepost 287.5

The LTPP SPS-2 test sections, approximately 140 miles west of Kansas City, are located in the westbound outside lane of Interstate 70 between exits 286 and 290 just west of Junction City.

The location for the proposed WIM site is the westbound outside lane at milepost 287.5 which is between test sections 200211 and 200212 and 395 feet east (upstream) of the existing WIM scales. The proposed WIM controller cabinet will be located approximately 50 feet west of an existing Weather Station at approximately 70 feet off the edge of traveled way.

7.0 RECOMMENDED WIM TECHNOLOGY

Based upon the site conditions and discussions with the State, the bending plate technology is recommended for use at this site. It will meet the accuracy expectations of the State and provide the best value in terms of performance with minimal down time.

The centerline of the Bending Plate weigh pads should be installed approximately 395 feet in advance of the existing in-road WIM scales. This would put the new WIM cabinet approximately 50 feet downstream of the existing weather station. During the installation, the layout of the existing transverse weakened plane joints will be analyzed to best fit the in-road sensors among the joints to optimize constructability and structural stability.

7.1 RECOMMENDED LOCATION AND LAYOUT FOR THE WIM SYSTEM

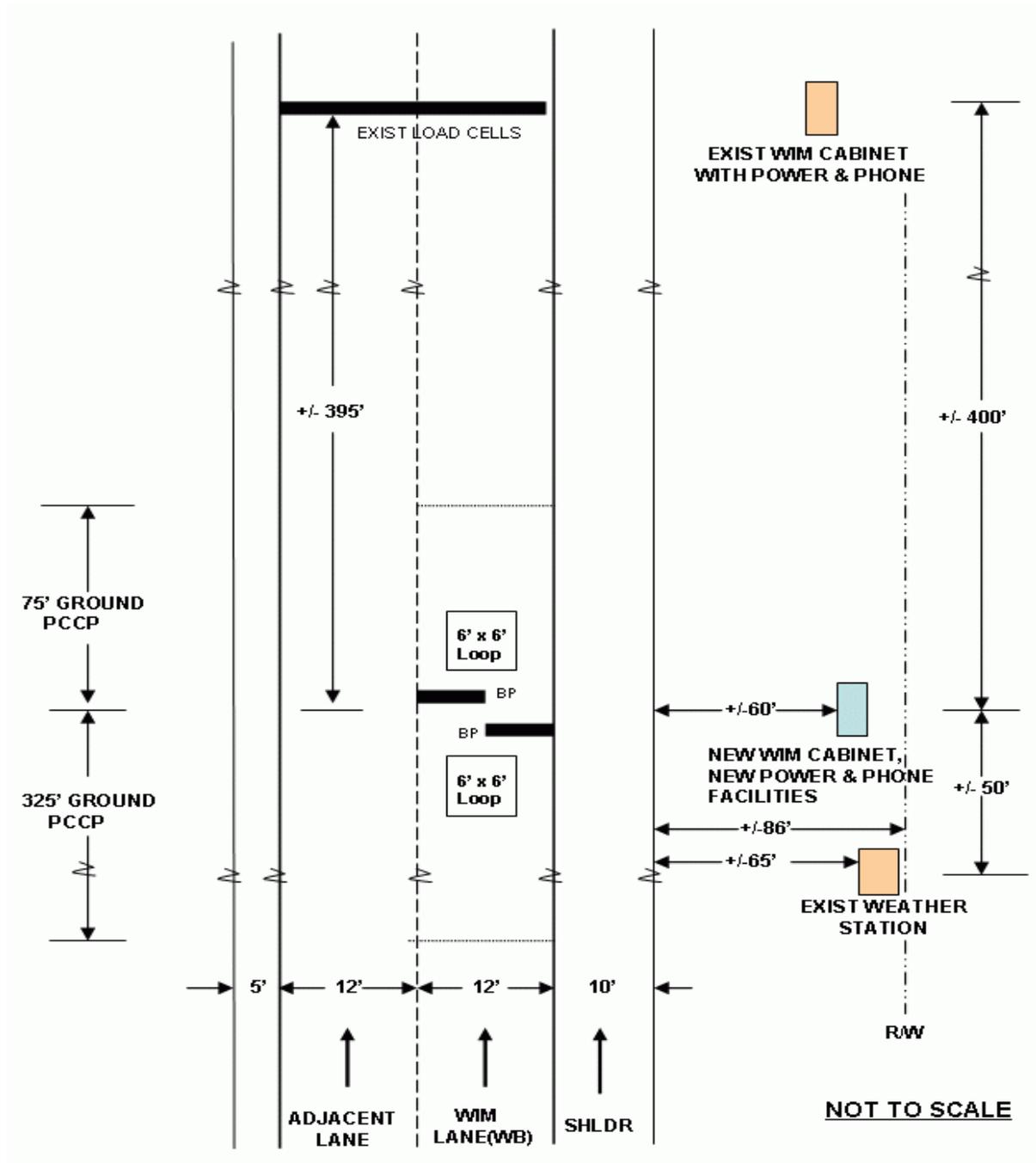


Figure 4: Proposed WIM Site Layout

GPS Coordinates for WIM Scales
 N38° 59.4004'
 W96° 59.9356'

A.0 COORDINATION DETAILS

Task Order #13, which authorized the CLIN 2001 “Determine Acceptability of Proposed Site” for the Kansas SPS-2 Site (LTPP ID 200200), was issued on May 26, 2006. This Site Acceptability Assessment was a follow up to our original assessment performed on May 31st and June 1st, 2005, at which time it was determined that corrective action to the smoothness of the existing PCC pavement would be necessary.

For the first assessment, contacts were made on May 27, 2005, with interested parties as follows:

- Contracting Officer’s Technical Representative (COTR)
 - Debbie Walker – FHWA-LTPP ph: 202-493-3068
- State Highway Agency (SHA)
 - Bill Hughes – SHA/KSDOT ph: 785-296-6863
- LTPP Regional Support Contractor (RSC)
 - Basel Abukhater – RSC/Stantec ph: 716-632-0804
- FHWA Division Office
 - Kirk Fredrichs – FHWA Div Rep ph: 785-267-7299 x326

For this current assessment, various telephone and e-mail contacts were made with SHA representative Rick Miller by both Roy Czinku (IRD) and Rich Quinley (WIM TECH) to coordinate the date of the assessment in conjunction with the State’s blanket grinding of the existing PCC pavement. Debbie Walker was made aware of this coordination via “cc” e-mails. Upon receiving notice from Rick Miller that the pavement grinding would be performed on May 19th, 2006, the CLIN 2001 assessment was scheduled for May 31st and a brief “Pre-Visit Handout Guide” was e-mailed to the following interested parties:

Contracting Officer’s Technical Representative Deborah.Walker@fhwa.dot.gov
Debbie Walker – FHWA-LTPP Ph: 202-493-3068

State Highway Agency (SHA) Rick@ksdot.org
Rick Miller – SHA/KSDOT Ph: 785-291-3842
Cell 785-221-8235

LTPP Regional Support Contractor (RSC) babukhater@stantec.com
Basel Abukhater – RSC/Stantec Ph: 716-632-0804

FHWA Division Office kirk.fredrichs@fhwa.dot.gov
Kirk Fredrichs – FHWA Div Rep ph: 785-271-2448 x212



INTERNATIONAL ROAD DYNAMICS INC.

LTPP SPS PHASE II

WEIGH-IN-MOTION SITE ACCEPTABILITY PRE-VISIT HANDOUT GUIDE

**KANSAS SPS-2
LTPP ID 200200**

Date: May 17, 2006



CONTRACT NO. DTFH61-05-D-00001



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B.0 PRE-VISIT HANDOUT GUIDE

B.1 SCHEDULE

- a. Briefing session
 - i. A formal briefing session was not deemed necessary for this second site assessment. For the first assessment, a briefing session was held on May 31, 2005.
- b. Site visit
 - i. May 31, 2006

B.2 POINTS OF CONTACT

Contracting Officer's Technical Representative Deborah.Walker@fhwa.dot.gov
Debbie Walker – FHWA-LTPP Ph: 202-493-3068

State Highway Agency (SHA) Rick@ksdot.org
Rick Miller – SHA/KSDOT Ph: 785-291-3842
Cell 785-221-8235

LTPP Regional Support Contractor (RSC) babukhater@stantec.com
Basel Abukhater – RSC/Stantec Ph: 716-632-0804

FHWA Division Office kirk.fredrichs@fhwa.dot.gov
Kirk Fredrichs – FHWA Div Rep ph: 785-271-2448 x212

B.3 INFORMATION REQUESTS

All information needed for this site accessibility assessment has been received previously.

B.4 SITE LOCATION INFORMATION

- a. Proposed WIM site
 - i. I-70 Mile Post 287.5 WB Outside Lane
- b. Nearest major airport
 - i. Kansas City International



INTERNATIONAL ROAD DYNAMICS INC.

LTPP SPS PHASE II

WEIGH-IN-MOTION SITE ACCEPTABILITY

SITE VISIT EVALUATION FORM

**KANSAS SPS-2
LTPP ID 200200**

Date of Site Visit: May 31, 2006



CONTRACT NO. DTFH61-05-D-00001



**LONG TERM
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C.0 SITE EVALUATION FORM

C.1 PROPOSED WIM LOCATION

Proposed WIM Site Location – 4 Lane Roadway (2 Lanes each Direction)

Route: I-70 Mile Post: 287.5 Direction: WB Lane: Outside

County: Dickinson

Proposed WIM Site is 1500 feet downstream of SPS Test Section 200212 and 700 feet upstream of SPS Test Section 200211

C.1.1 EXISTING ROADWAY SURROUNDING THE PROPOSED WIM SITE

Type Pavement: PCC

Pavement Age: 14 years old

Lane Width: 12 feet

Thickness: 12 inches

Observed Structural Soundness: Very Good

Observed Smoothness: Good

Outside WB Shoulder Type: PCC

Width: 10 feet

Outside WB Shoulder Condition: Very Good

Inside WB Shoulder Type: PCC

Width: 5 feet

Inside WB Shoulder Condition: Very Good

C.1.2 PAVEMENT 325' PRIOR AND 75' FOLLOWING WIM SCALE LOCATION

Type: PCC

Structural Soundness: Very Good

Smoothness: Very Good
(Blanket Ground)

Thickness: 12 inches

Jointed or Continuous: Jointed (+/- 15' O.C.) – dowelled

Notes/Comments on Pavement:

The existing roadway pavement is PCC and is in very good condition. A 400' section of this pavement was blanket ground by the State on May 19, 2006, to meet SPS WIM pavement smoothness criteria.

C.1.3 ROADWAY GEOMETRICS

Horizontal Alignment: Follows Large Radius Curve Grade: Minimal (Less than 0.5 %)

Cross-slope: 1.5%

Lane width: 12 feet

C.1.4 OBSERVED TRAFFIC OPERATING CHARACTERISTICS

Passing, merging, not following lane lines? Good Lane Discipline

Stop and go traffic, congestion periods? Free Flowing at all Times

Traffic signals/interchanges affecting traffic? No Signals or Merging

Other adverse traffic flow conditions? Traffic Flow is Light/Medium

Truck traffic at "cruising" speed (no lugging)? No Lugging, Smooth Flow

Truck traffic staying within lane lines? See Notes below

Observed truck suspension or body motion dynamics? Very minor

Truck traffic composition same at WIM site and SPS site? Yes

Truck traffic on/off locations between WIM site and SPS site? None

Posted Speed Limits: Maximum 70 MPH, Minimum 40 MPH

Observed Truck Speeds: 65 – 75 MPH

Notes/Comments on Geometrics and/or Traffic Operating Characteristics:

The proposed WIM site is located immediately downstream of a large radius curve. The grade is less than 0.5% in the vicinity of the site. Vehicles track smoothly through this area at speeds between 65 and 75 MPH. Noted an occasional truck traveling with right wheels on or immediately adjacent to shoulder stripe.

C.1.5 ACCESS TO UTILITY SERVICES

Potential source(s) for power: An existing Weather Station is located 50 feet upstream of the proposed WIM location. This would appear to be the nearest spot from which to obtain power. Alternately, there is a power available 400 feet downstream of the proposed WIM site if the Weather Station cannot be utilized.

Potential source(s) for telephone: Phone service may be accessible at the existing Weather Station, located 50 feet upstream of the proposed WIM location. Or, if phone service cannot be extended from the Weather Station, phone service is available 400 feet downstream of the proposed WIM site in the existing WIM cabinet.

C.1.6 EQUIPMENT INSTALLATION CAPABILITY

Adequate location for controller cabinet? Yes, Large area near Right of Way fence

Distance from edge of traveled way to cabinet? +/- 70 feet

Distance from edge of traveled way to R/W? +/- 96 feet

Visibility from cabinet of sensors and approaching vehicles? Very Good

Adequate location for service facilities? Yes, Large area adjacent Right of Way fence

Adequate drainage for scale pits? Yes

Adequate roadway and overall site drainage? Yes

Potential for ponding or flooding at cabinet or pullboxes? No

Potential for traffic control problems during installation? No

Ability to provide safe clearance in work zone from live traffic via:

- OK from State Agency to use opposite shoulder for traffic shift
- Multiple Adjacent Lanes

Notes/Comments on Equipment Installation Capability:

The State will need to provide power and phone service points within 25 feet of the proposed WIM cabinet location. The roadway is moderately busy. The WIM installation crew will have to work closely with the State to coordinate closures lane. There are 5 feet available on inside lane shoulder to accommodate a traffic shift.

C.1.7 POTENTIAL WIM SENSOR/EQUIPMENT INTERFERENCE SOURCES

Overhead power lines? 450 feet downstream of WIM Adjacent railroad? None

C.1.8 CONDITIONS FOR USE OF TEST TRUCKS FOR CALIBRATION AND EVALUATIONS

Direction WB - Nearest usable truck turnaround location:

Exit 286 – Chapman Distance from WIM: 1.3 Miles

Direction EB - Nearest usable truck turnaround location:

Exit 290 – Milford Lake Road Distance from WIM: 3.0 Miles

Circuit travel distance: 8.6 Miles Estimated lap time: 12 Minutes

Potential circuit route restrictions? None

Identification and location of trucking firm and certified static scales:

Name De Bruce Grain Contact Brent Martin

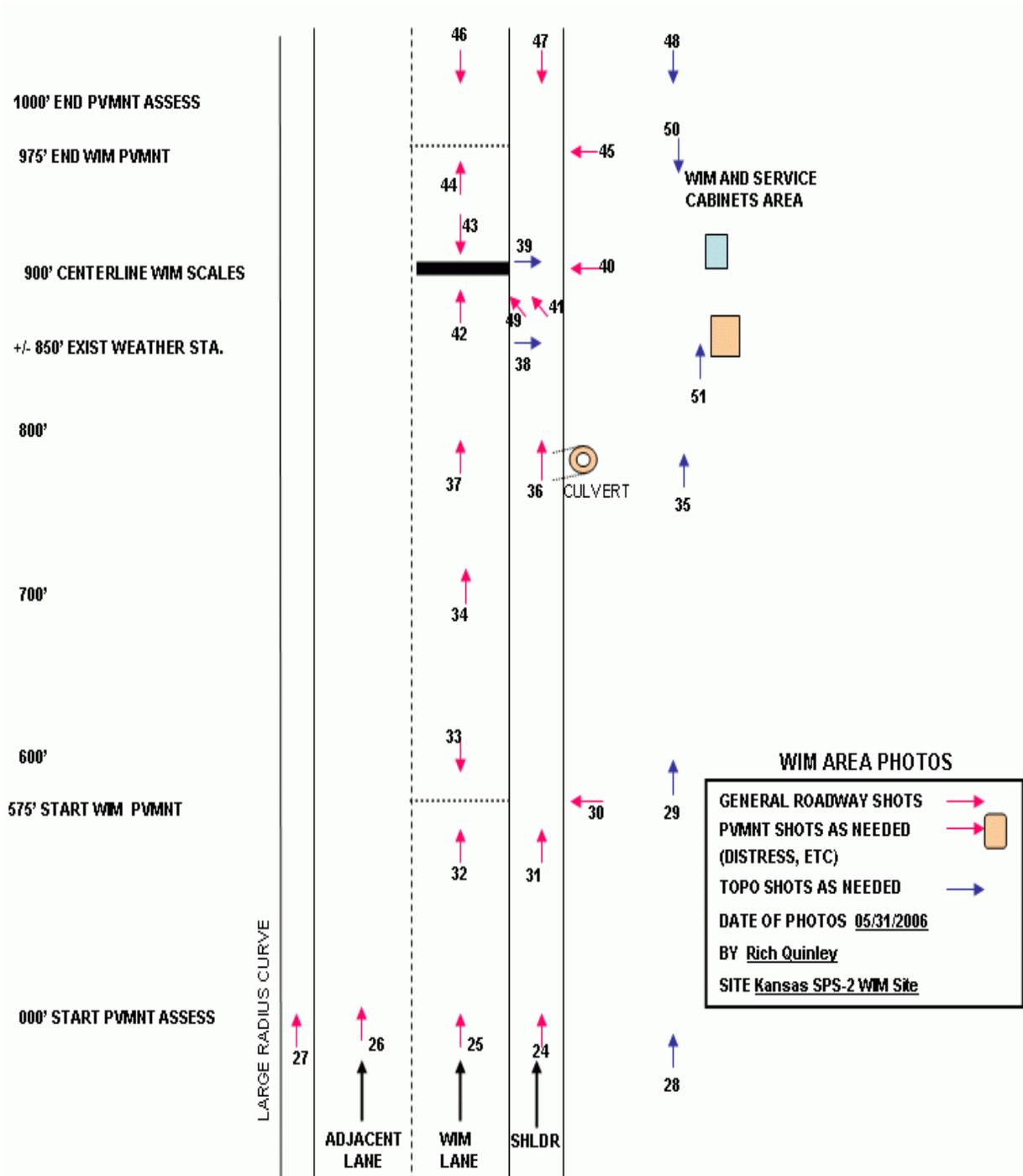
Address 513 W. First Street, Abilene, Kansas

Phone 785-263-7275 Hours 7:30 a.m. – 5:00 p.m.

Notes/Comments on Test Truck Circuit and Static Weighing Facility

De Bruce Grain is located approximately 14 miles from the Proposed WIM Site. They are a grain hauling company that has access to Tractor Trailer Air Ride vehicles and drivers available given 2-3 weeks notice. They have access to a certified scale weighing facility.

C.1.9 LOCATION LOG OF PHOTOS



C.2 EQUIPMENT AND MATERIALS

- Site Evaluation Forms
- Graph paper and note paper
- Clipboard
- Pens & pencils
- Small stapler
- Digital camera, with PC cable
- GPS receiver
- Notebook PC
- Calculator
- Cell phone
- Site Pre-visit Handout Guide
- Metal tape measure (25 ft.)
- Measuring wheel (ft.) and/or 100 ft. rag tape
- Folding rule (6 foot)
- Hand level
- Small torpedo level
- Keel markers
- Spray can white paint
- String Line
- Line Level
- Hammer and Concrete Nails
- _____

Request furnish on-site by Highway Agency:

- Spray can white paint
 - Lath, 4 ft.
 - Hammer
 - Misc. small tools
 - Keys for known Agency service cabinets
- Note: Key for existing cabinet is a standard Type II

Proper attire for field work and expected weather:

- Durable shoes
- Cold weather layering
- Rain gear
- _____

Safety equipment per State Highway Agency requirements:

- Hard hat
- Safety vest – type Hi-Vis Safety Yellow
- Steel toe shoes
- Other required equipment _____

D.0 SHEET 17

Sheet 17	*STATE_CODE	20
LTPP Traffic Data	*SPS PROJECT ID	200200
WIM SITE INVENTORY	*SPS WIM_ID	SPS-2

1.* ROUTE I-70 MILEPOST 287.5 LTPP DIRECTION - W

2.* WIM SITE DESCRIPTION - Grade <0.5% Sag vertical N
Nearest SPS section upstream of the site 200212
Distance from sensor to nearest upstream SPS Section 1500 ft

3.* LANE CONFIGURATION

Lanes in LTPP direction 2 (WE) Lane width 12 ft

Median -	1 - painted	Shoulder -	1 - curb and gutter
	2 - physical barrier		2 - paved AC
	3 - <u>grass</u>		3 - <u>paved PCC</u>
	4 - none		4 - unpaved
			5 - none

Shoulder width 10 ft

4.* PAVEMENT TYPE 12 inch thick jointed (doweled) PCC

8. RAMPS OR INTERSECTIONS

Intersection/driveway within 300 m upstream of sensor location N
Intersection/driveway within 300 m downstream of sensor location N
Is shoulder routinely used for turns or passing? N

Form completed by: Rich Quinlev - WIM TECH

Date: June 01, 2006

E.0 PHOTOGRAPHS

E.1.1 SPS TEST SECTION MARKER



E.1.2 GENERAL SITE VIEW OF THE ROADWAY APPROACHING WIM SITE



E.1.3 DOWNSTREAM VIEW OF ROADWAY AT START OF WIM PAVEMENT SECTION



E.1.4 UPSTREAM VIEW OF ROADWAY APPROACHING WIM PAVEMENT SECTION



E.1.5 NEW SCALE LOCATION



E.1.6 GROUND PAVEMENT SURFACE DETAIL AT NEW SCALE LOCATION



E.1.7 RECOMMENDED CABINET LOCATION BESIDE EXISTING WEATHER STATION



E.1.8 EXISTING POWER AND PHONE IN EXISTING WIM CABINET



E.1.9 EXISTING POWER SERVICE POINT



E.1.10 EXISTING TELEPHONE SERVICE POINT



E.1.11 EXISTING WIM CABINET



