INTERNATIONAL ROAD DYNAMICS INC.

LTPP SPS PHASE II

WEIGH-IN-MOTION SITE ACCEPTABILITY ASSESSMENT REPORT

LOUISIANA SPS-1
LTPP ID 220100
SEPTEMBER 14, 2005
CLIN 1001 TASK ORDER 3

CONTRACT NO. DTFH61-05-D-00001

U.S. Department of Transportation
Federal Highway Administration

LONG TERM Pavement PERFORMANCE

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1.0 EXECUTIVE SUMMARY

The Louisiana SPS-1 flexible pavement test site, completed in 1997, was visited on August 28th, 2005, by the CLIN 1 team. The team performed a search for a suitable Weigh-in-Motion (WIM) site and a site acceptability assessment was performed at the selected location. The selected WIM site is located on US 171 at Mile Post 7.9 approximately 6.6 miles north of I-10 (Lake Charles) between Moss Bluff and Gillis in Calcasieu Parish. It is proposed to install a WIM system for the northbound outside lane approximately 506 feet upstream of the start of the first SPS-1 pavement test section (220119). The new WIM scales would be installed approximately 40 feet downstream of the existing bending plate scales installed by the State in 1996 which are no longer in use. Based upon our site evaluation and discussions with the State, it is recommended that a new WIM system utilizing Bending Plate technology be installed after corrective action has been taken to address pavement structural issues.

The selected WIM site is located within a tangent section of roadway with a relatively flat grade. Although there are numerous on/off facilities along the traveled way in the vicinity of the proposed WIM site, vehicles track smoothly through this section at speeds between 50 and 60 MPH. Traffic flow is light to medium on this four lane highway.

The existing roadway pavement at the proposed WIM site location, constructed in 1996, is 10.5 inch thick Asphalt Concrete (AC). Although there is some minor longitudinal cracking in the traveled way pavement adjacent to the shoulder stripe, the pavement appears to be in fair structural condition. This pavement approaching the selected WIM scale location is reasonably smooth except for a short pavement transition section causing a “bump” approximately 125 feet in advance of the proposed new scale location. There is also a pavement transition causing a “dip” at approximately 100 feet beyond the new scale location which will not affect WIM performance.

Power and phone lines run parallel to the northbound roadway’s right-of-way and feed existing power and phone service points for the existing WIM system. In that the proposed new WIM cabinet location is adjacent to the old cabinet, it is proposed that the old WIM cabinet act as the “service point” for both power and phone for the new WIM system. It will be necessary that the State 1)confirm that these services are either active or can be reactivated in the existing cabinet, and 2) install any interfaces in the existing cabinet necessary for extending services to the new cabinet.

The existing AC pavement is not suitable for the installation of WIM weighing sensors, and as such it will be necessary that the State replace 400 feet of the existing AC pavement with a PCC WIM slab with a minimum thickness of 12 inches to accommodate the new WIM system’s bending plate sensors. Following installation of the new PCC WIM slab, the slab’s surface as well as the PCC/AC transverse cold joints should be blanket ground to meet pavement smoothness

requirements for SPS WIM sites. Such pavement replacement will not only satisfy the structural needs for the new bending plates but will also, if the PCC slab is properly installed and blanket ground, eliminate the aforementioned existing pavement profile problem in advance of the proposed scale location.

Upon completion of these corrective actions, a follow-up evaluation of the pavement should be made. Such evaluation should include visual observation of the new PCC WIM slab's structural stability and visual observation of trucks passing through the site. In addition to these visual observations, an analysis of new profile data should be made by the team. Upon confirmation that the pavement is acceptable in terms of structural soundness and smoothness such that the pavement is adequate for the WIM system to meet accuracy requirements, this site can be instrumented with WIM.

2.0 EXISTING ROADWAY

2.1 PAVEMENT AND GEOMETRICS

The SPS-1 is a flexible pavement study. The existing US-171 roadway at the study location consists of 4 lanes, 2 northbound and 2 southbound. The pavement test sections are located in the outside northbound lane. The existing roadway pavement and shoulders approaching, through, and departing both the existing WIM system site as well as the proposed new WIM site are AC. The two northbound lanes are each 12 feet wide with a 10 foot wide outside shoulder and a 4 foot wide inside shoulder. The roadway alignment is tangent and the grade is relatively flat. In regard to cross slope, the two adjacent lanes slope +/- 2% toward the outside shoulder.

2.2 OBSERVED TRAFFIC OPERATING CHARACTERISTICS

The light to medium traffic flow exhibited good lane discipline, staying well within the lane and shoulder line markings. Traffic is free flowing at all times at speeds between 50 and 60 MPH (posted speed limit is 55 MPH). Trucks are “cruising” through the site at constant speeds. There are no signals in the vicinity of the proposed WIM site, however there are numerous at-grade intersections, median crossovers, and other on/off facilities. No disruption to traffic flow was observed resulting from these on-off points and, given these on-off points are used by local traffic, they have no significant impact on truck traffic composition traveling through the WIM site and the various pavement test sections.

3.0 SITE CONFORMANCE TO EVALUATION CRITERIA

3.1 PAVEMENT TYPE AND CONDITION- REQUIRES ATTENTION

The existing AC pavement approaching, through, and departing the selected WIM site is in fair condition but is not structurally adequate for the installation of a WIM system's weighing sensors. It is recommended that a section of the existing AC pavement between 325 feet in advance of and 75 feet following the proposed new scale location be removed and replaced with a blanket ground PCC WIM slab with a minimum thickness of 12 inches.

3.2 PAVEMENT SMOOTHNESS- WILL REQUIRE ATTENTION

Following installation of a 400 foot PCC WIM slab, experience dictates that the smoothness of the slab will need to be improved to facilitate the new WIM system's meeting SPS accuracy requirements. The new PCC WIM slab as well as the PCC/AC transverse cold joints on each end of the slab should be blanket ground. Following pavement grinding, a reassessment of the pavement's structural stability and smoothness should be made.

3.3 ANALYSIS OF PAVEMENT PROFILE DATA- TO BE PERFORMED

Following the installation of a blanket ground PCC WIM slab at the recommended new WIM site location, profile data should be provided to the CLIN 1 team for analysis to verify whether or not the smoothness of the pavement from 325 feet in advance of to 75 feet following the WIM scale location meets the smoothness requirements for installation of a WIM system.

3.4 ROADWAY GEOMETRICS- PASS

The selected WIM site is located within a long tangent section of the roadway, grade is minimal, and the lane in which the sensors are to be installed is 12 feet wide. The pavement cross slope is adequate for proper roadway drainage.

3.5 TRAFFIC OPERATING CHARACTERISTICS- PASS

Although there are numerous on/off facilities in the vicinity of the proposed WIM site, the general traffic pattern is free flowing with good lane discipline. The truck traffic is cruising through the site and staying within the lane lines.

3.6 TRUCK TRAFFIC COMPARISON BETWEEN WIM AND TEST SITE- PASS

There are no significant exit/entrance locations between the WIM site and the SPS-1 pavement test sections.

3.7 POTENTIAL WIM SYSTEM INTERFERENCE SOURCES- PASS

The nearest source of any potential interference, power lines paralleling the northbound roadway's right-of-way, are the standard "service" lines and will not interfere with system performance. No railroad tracks were observed in the vicinity of the site.

3.8 ACCESS TO POWER AND PHONE SERVICES- PASS

Power and phone lines run parallel and adjacent to the northbound roadway's right-of-way. Both a power service panel and a phone service point exist at the right-of-way line approximately 150 feet south of the proposed new WIM cabinet location. These service points feed the existing WIM cabinet which is immediately adjacent to the proposed new cabinet location. If the State can simply ensure that power and phone services are or can be made available in the existing cabinet and install any interfaces necessary to further extend these services, the existing cabinet can be utilized as the required "power and phone service points within 25 feet of the new WIM cabinet".

3.9 EQUIPMENT INSTALLATION CAPABILITY- PASS

There is an excellent location for the WIM controller cabinet behind and near the end of an existing metal beam guard rail. This would put the new cabinet north of and adjacent to the existing WIM cabinet at approximately 20 feet off of the edge of traveled way. This location affords easy and safe access to the cabinet and good visibility of the sensors and approaching vehicles from the cabinet. As noted above, the existing cabinet can be used as the service point for both power and phone. The roadway and overall site drainage is 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 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 site.

3.11 TRUCK CIRCUIT- PASS

The nearest usable northbound truck turnaround is a median crossover at Phil's Lane which is located 1.0 miles downstream of the WIM site. This location has a northbound left lane turn pocket.

The recommended southbound truck turnaround is Theriot Road which is located 2.7 miles upstream of the WIM site. This suggested turnaround would entail making a left turn at the signalized intersection from southbound US-171 onto Theriot Road, traveling 0.4 miles eastbound on Theriot Road and turning left onto "Old US-171", then traveling 0.8 miles northbound to return to northbound US-171. This route would take the test trucks through a residential area, but no other safe and convenient turnarounds could be located.

The test truck round trip circuit route is 7.6 miles with an estimated lap time of 15 minutes. There are no foreseen potential restrictions other than the possibility of complaints from residents along the southbound turnaround route and possible waits on traffic. Otherwise, the turnaround locations should be easily accessed and maneuvered.

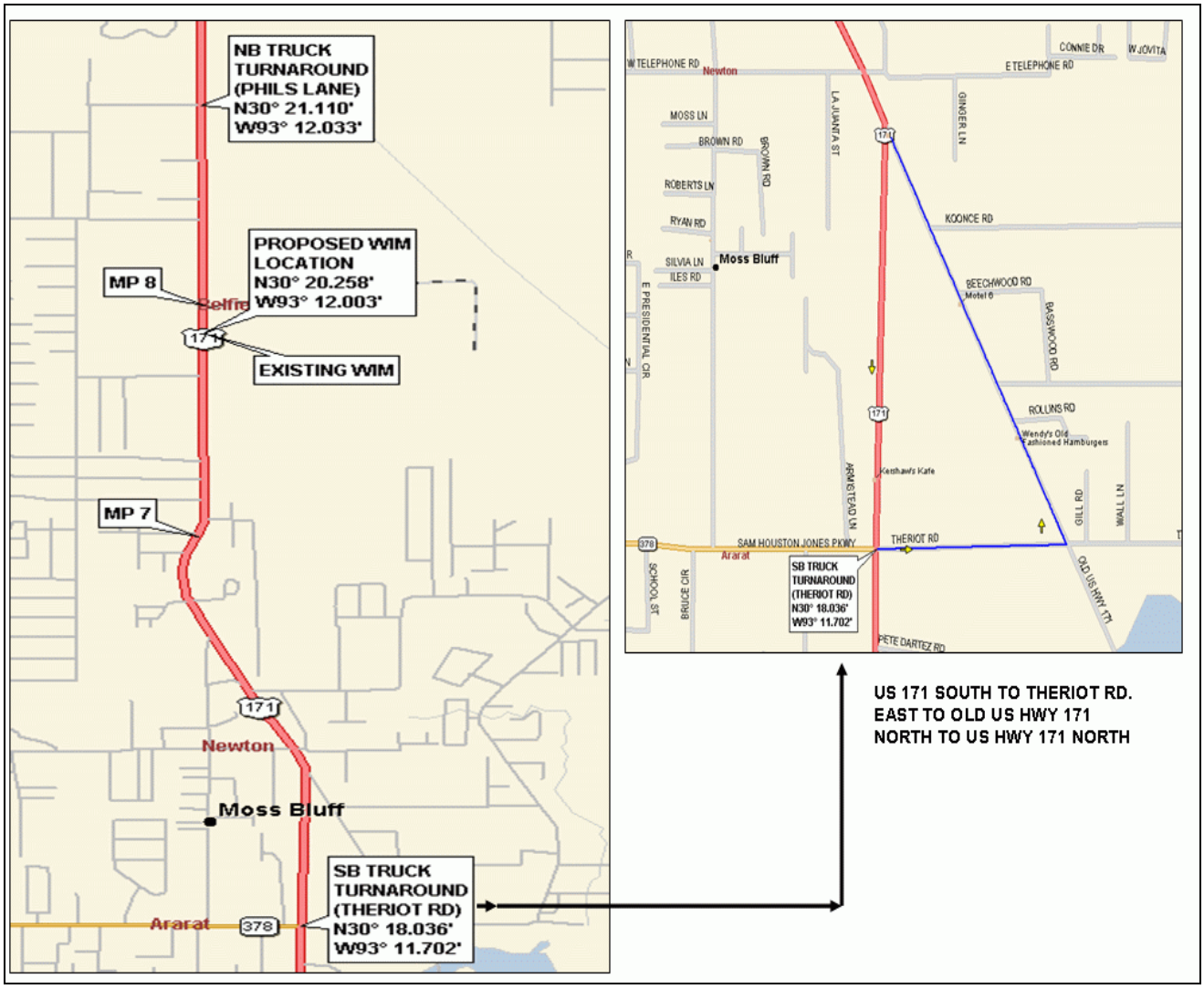


Figure 1: Truck Circuit Map

3.12 RECOMMENDATIONS ON SITE ACCEPTANCE / CORRECTIVE ACTIONS

The State will need to ensure that power and phone is accessible in the existing WIM cabinet such that these services can be extended to the new adjacent WIM cabinet. And, the State will need to install a 400 foot blanket ground PCC WIM slab with a minimum thickness of 12 inches. A follow-up assessment of the WIM site pavement will need to be made, including an analysis of new profile data.

4.0 TRAFFIC DATA REVIEW

Vehicle distributions of all trucks (FHWA Class 4 and higher)
(Not Available)

Vehicle distributions for heavy trucks (FHWA Class 6 and higher)
(Not Available)

Volume of trucks comprising of 10 % or more of truck population
(Not Available)

Volume of trucks comprising 10 % or more of heavy truck population
(Not Available)

After discussions with the State, it has been determined that current traffic data containing the above mentioned information is not available.

5.0 PAVEMENT EVALUATION

In determining WIM site acceptability, visual on-site observation of the existing AC pavement was made by the CLIN 1 Team.

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 new WIM scale location. Pictures were taken to document the surface condition, several of which are presented in Appendix E.

5.1.1 AC PAVEMENT 325 FEET IN ADVANCE OF AND 75 FEET FOLLOWING PROPOSED WIM SCALE LOCATION ("WIM PAVEMENT")

The existing AC pavement for the northbound lanes has a thickness of 10.5" (including a 1.5" Type 8F wearing course) and was constructed in 1996 (according to the State). Although the structural condition of the AC pavement and shoulder throughout the 400 ft section appear to be fair, this pavement does not provide a structurally suitable pavement for the installation of WIM sensors. A PCC WIM slab with a minimum 12 inch thickness should be installed.

5.1.2 AC PAVEMENT UPSTREAM AND DOWNSTREAM OF WIM PAVEMENT

As exists, 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 1996. Only minor longitudinal cracking in the traveled way adjacent to the shoulder stripe was noted. These pavements are in fair condition.

5.1.3 SHOULDER CONDITION

The roadway shoulders are AC throughout the study area and were constructed in 1996 in conjunction with the traveled way pavement. This pavement is in good condition.

5.2 SURFACE PROFILE

Observations of trucks and other vehicle types approaching the selected scale location area exhibited only minimal body motion, indicating that there are no existing significant "long wavelength" profile problems which might be built right back into the PCC WIM slab if, as is typical, the lane's outside shoulder and adjacent lane profiles are used as "forms" for construction of the new PCC slab. However, at approximately 125 feet in advance of and approximately 100 feet following the new scale location there are short pavement transitions associated with the pavement section in which the existing bending plates were installed. These pavement transitions result in a "bump" in advance of and a "dip" following the new scale location. Given the recommended new scale location, the "bump"

in advance of the scales would be eliminated with a 400 foot section of pavement replacement but the "dip" 100 feet beyond the scales would be left in place in that the dip would not affect WIM accuracy. It is the opinion of the CLIN 1 team that with proper attention given to the existing pavement conditions during the installation and blanket grinding of a new PCC WIM slab such conditions should not result in unsatisfactory PCC WIM slab smoothness.

Several automobile "drive throughs" by the CLIN 1 team members appeared to confirm the above noted observation. Only minor vehicle body motion could be felt other than the noted bump and dip at the existing scales location.

5.3 PAVEMENT EVALUATION SUMMARY

Based upon the team's on-site observations, it is recommended that WIM weighing sensors not be installed in the existing AC pavement. For a structurally secure installation of the WIM's weighing sensors, 400 feet of the existing AC pavement should be replaced with a blanket ground PCC WIM slab.

Upon completion of the new PCC WIM slab installation, the site's pavement will need to be re-evaluated for structural stability and smoothness and new profiling data provided to our team for analysis to confirm that the pavement's smoothness meets requirements for installation of an SPS WIM site.

It is noted that the team considered several options in regard to the section of existing AC to be replaced. The 400 foot replacement limits, as proposed, would afford the State the opportunity to remove the existing bending plates from the northbound outside lane without the need for "patching" the scale pits. These limits would also eliminate the profile problem in the existing pavement in advance of the new scale location. There are a couple other alternatives:

1. There is an existing culvert crossing under the northbound roadway at approximately 12 feet in advance of the recommended end of the 400 foot pavement replacement section. Visual observation indicated adequate clearance between the top of the culvert and the bottom of the 12" thick PCC WIM slab. However, if it is determined by the State that clearance is not adequate then the 400 foot PCC WIM slab (and scales) could be moved +/- 20 or 30 feet south of the recommended limits.

2. The end of the pavement replacement section was determined by locating the new scales at a reasonable distance from the cabinet location and going the minimum 75 feet beyond the scales to the end of the PCC WIM slab. By installing a 425 foot PCC WIM slab, the State could eliminate the "dip" in the existing pavement following the scales (assuming the clearance for the above noted culvert is not a problem). It is also feasible to move the limits of the 400 foot slab 25 feet to the north. This would also eliminate the pavement profile dip but would increase the WIM system's sensor leads to undesirably longer lengths.

6.0 PROPOSED WIM SITE- INFORMATION

LOCATION – US 171, MP 7.9

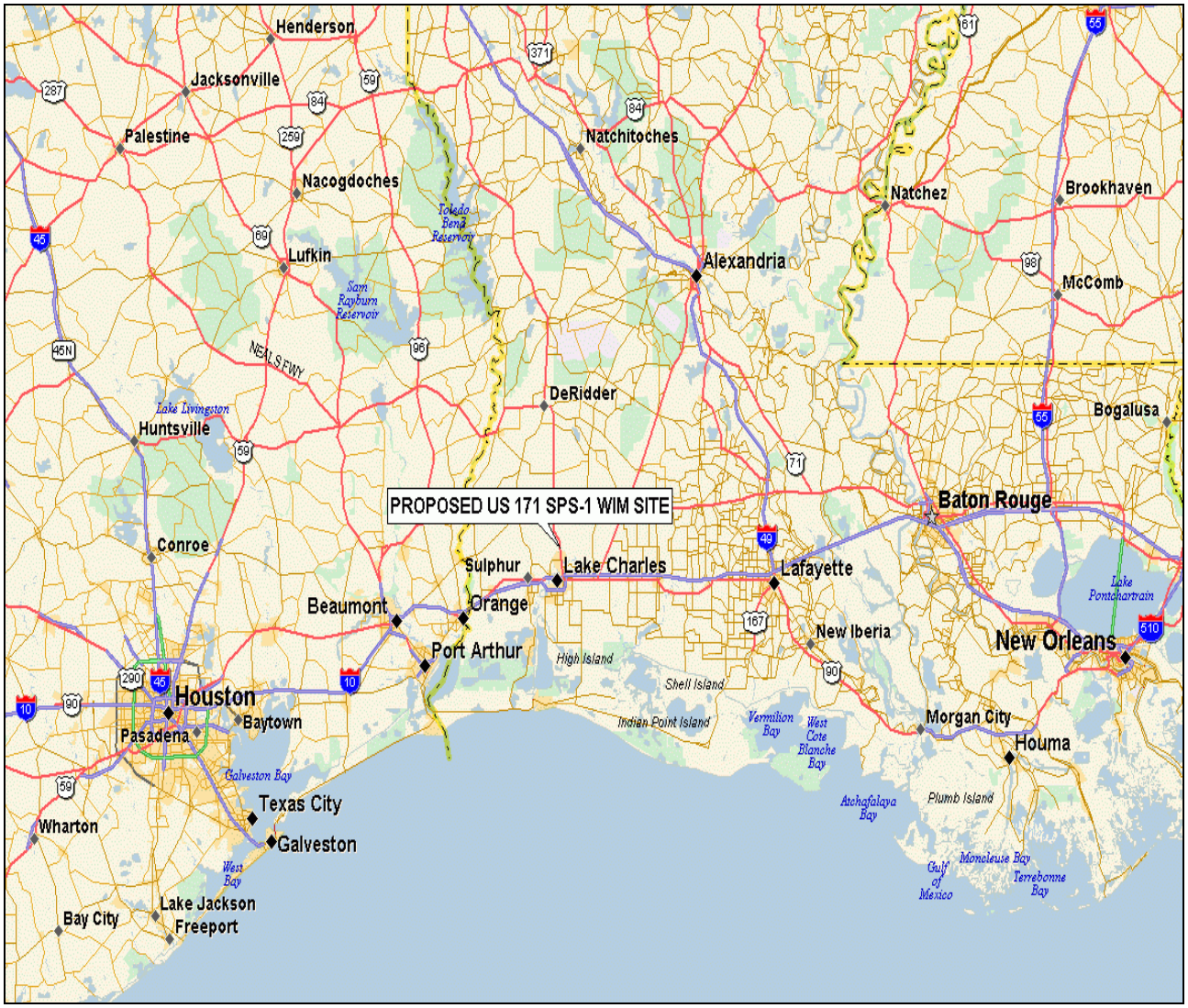


Figure 2: Map of the US 171 SPS-1 WIM Site

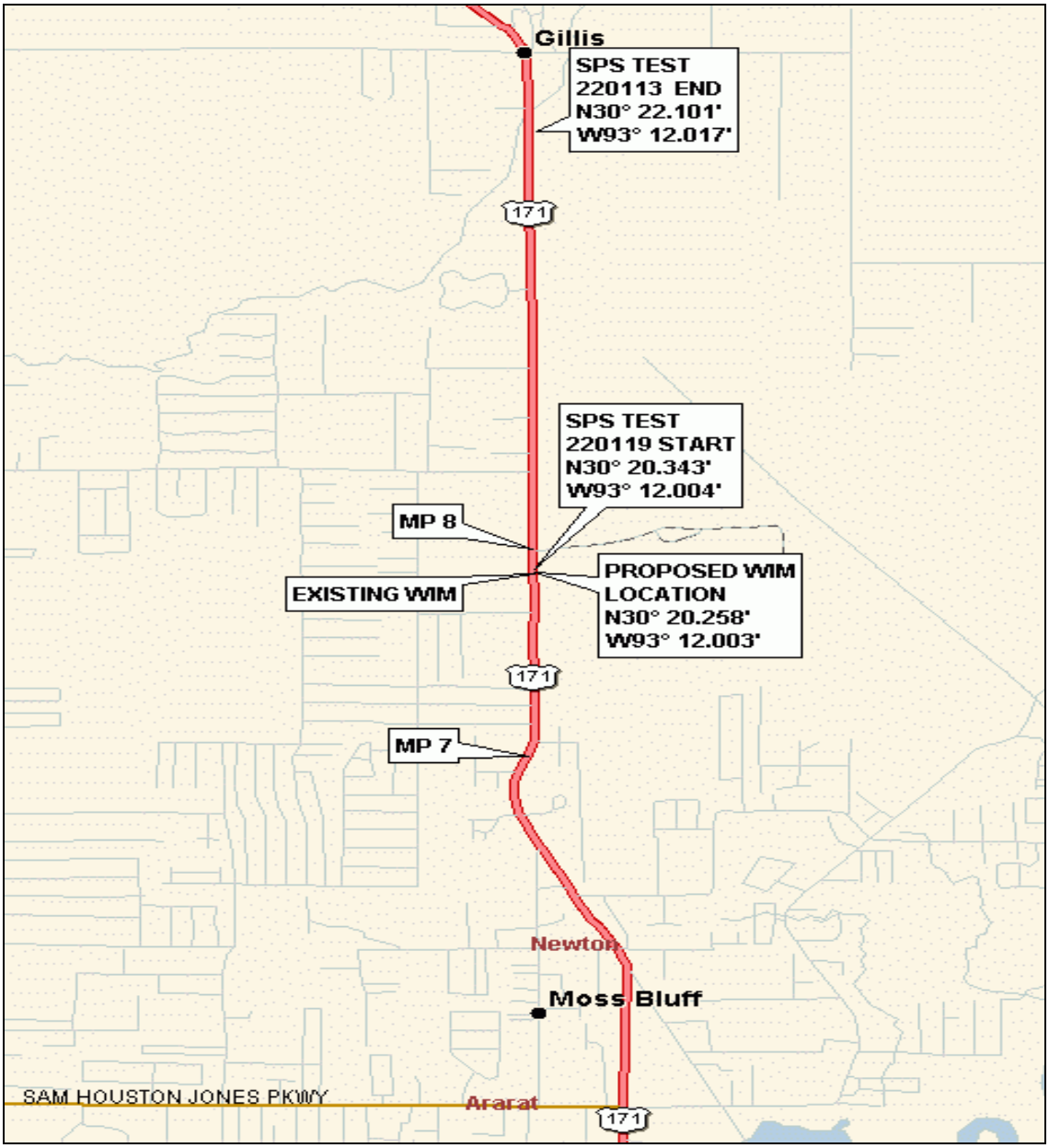


Figure 3: Map of the US 171 WIM Site at Milepost 7.9

The LTPP SPS-1 test sections are located approximately 7 miles north of I-10 (Lake Charles) in the northbound outside lane of US 171 between Moss Bluff and Gillis. The location selected for the proposed WIM system installation is the northbound outside lane at milepost 7.9, 500 feet upstream of the first test section and 40 feet downstream of the State's abandoned bending plate scales.

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 40 feet downstream of the existing WIM scales. This location has been marked with a “WIM” in white paint on the outside shoulder. During the CLIN 2 design stage, 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

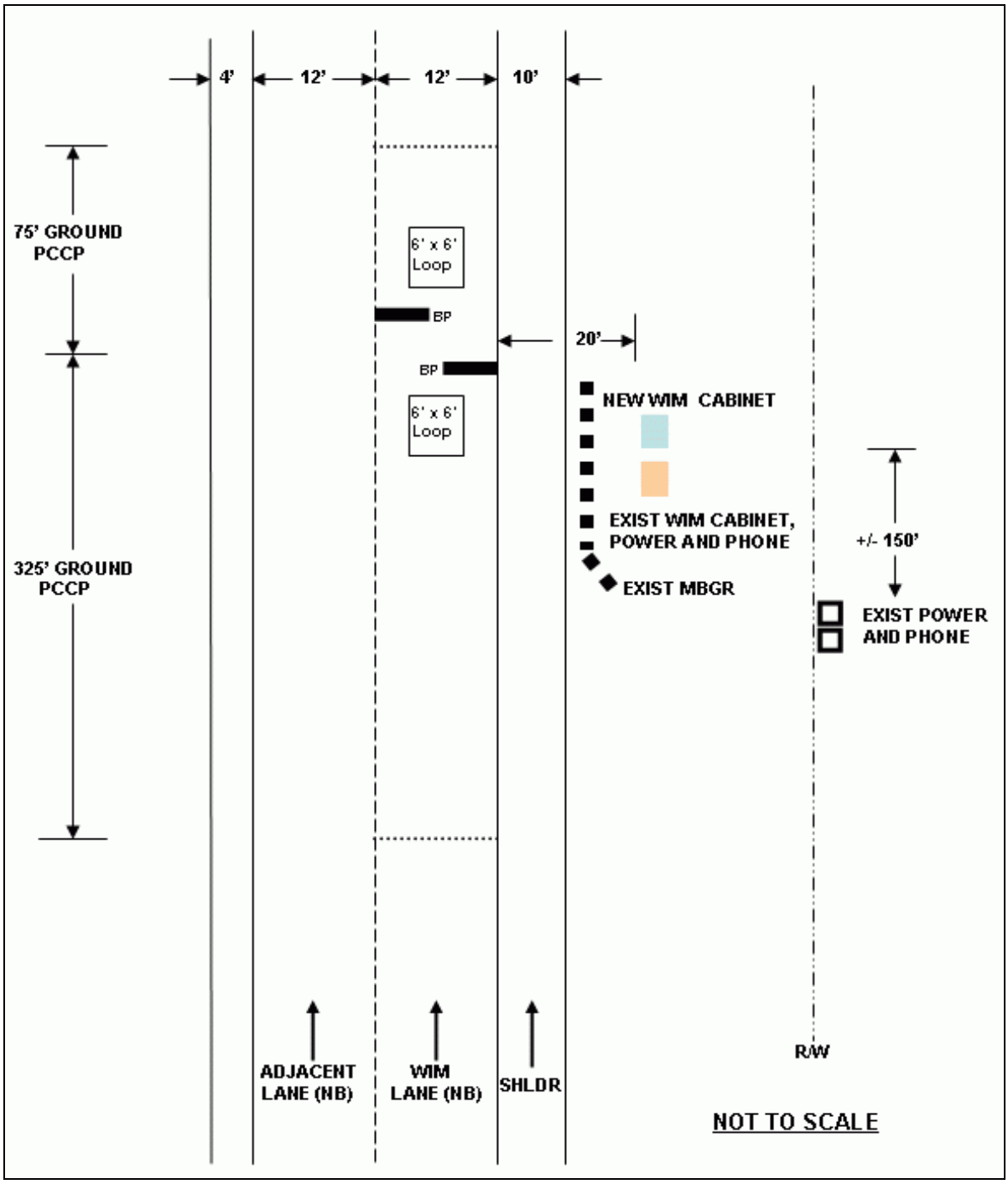


Figure 4: Proposed WIM Site Layout

GPS Coordinates for Scales: N30° 20.258', W93° 12.003'

A.0 COORDINATION DETAILS

Task Order #3, which authorized the CLIN 1001 "Determine Acceptability of Proposed Site" for the Louisiana SPS-1 Site (LTPP ID 220100), was issued on May 27, 2005.

Contacts were made with interested parties as follows:

- Contracting Officer's Technical Representative (COTR)
  - Debbie Walker – FHWA-LTPP ph: 202-493-3068
  - Initial contact made August 15, 2005

- State Highway Agency (SHA)
  - Masood Rasoulian – SHA/LADOT ph: 225-767-9112
  - Initial contact made August 15, 2005

- LTPP Regional Support Contractor (RSC)
  - Mark Gardner – RSC/Fugro ph: 512-977-1800
  - Initial contact made August 15, 2005

- FHWA Division Office
  - Philip Arena – FHWA Div Rep ph: 225-757-7612
  - Initial contact made August 15, 2005

The "Pre-Visit Handout Guide" was distributed on August 15, 2005, to the following individuals:

- Debbie Walker
- Masood Rasoulian
- Mark Gardner
- Phillip Arena

The site was visited on August 28, 2005, by Roy Czinku (IRD) and Rich Quinley (WIMTECH). The planned visit date was August 29 but the schedule was accelerated due to incoming Hurricane Katrina.

The briefing session scheduled for 10:00 a.m. August 30, 2005 at the Louisiana DOT in Baton Rouge had to be cancelled due to Hurricane Katrina. On September 13, 2005, Rich Quinley discussed the team's findings and recommendations with Masood Rasoulian by telephone. Mr. Rasoulian acknowledged the recommendations but advised that he has had a change in assignment and that the LADOT contact for this project is now:

- Kevin Gaspard – SHA/LADOT ph: 225-767-9104

Various e-mail communications between Mr. Gaspard and Mr. Quinley followed.

INTERNATIONAL ROAD DYNAMICS INC.

LTPP SPS PHASE II

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

LOUISIANA SPS-1
LTPP ID 220100

Date: August 15, 2005

CONTRACT NO. DTFH61-05-D-00001

U.S. Department of Transportation
Federal Highway Administration

LONG TERM PAVEMENT PERFORMANCE

B.0 PRE-VISIT HANDOUT GUIDE

B.1 SCHEDULE

a. Briefing session
   i. Meeting is scheduled for 10:00 a.m. August 30, 2005 at the Louisiana DOT in Baton Rouge
b. Site visit
   i. August 29, 2005

B.2 BRIEFING SESSION AUGUST 30, 2005, POINTS OF CONTACT

a. Contracting Officer's Technical Representative (COTR)
   i. Debbie Walker – FHWA-LTPP ph: 202-493-3068
b. State Highway Agency (SHA)
   i. Masood Rasoulian – SHA/LADOT ph: 225-767-9112
c. LTPP Regional Support Contractor (RSC)
   i. Mark Gardner – RSC/Fugro ph: 512-977-1800
d. FHWA Division Office
   i. Philip Arena – FHWA Div Rep ph: 225-757-7612

B.3 INFORMATION REQUESTS

a. From COTR
   i. FHWA Division contact person
   ii. New pavement profile from RSC if recent profile data unavailable
b. From RSC
   i. SHA contact person
   ii. SPS roadway section layouts (plan view and/or stationing or mileposts)
   iii. Recent pavement profile data (within the past year)
c. From SHA
   i. As-built info on roadway at proposed site
      1. Pavement cross section and structural section
      2. Alignment and grade
      3. Any utilities located in WIM install work area
   ii. Location and general availability of power and phone services, service providers, service provider contacts and phone numbers (may be beneficial if power and phone utility reps be requested to participate in briefing session and/or site visit)
   iii. Will SHA agree to extend power and phone services from existing available access points to demarcation points near planned controller cabinet location?
   iv. If existing roadway pavement is AC or inadequate PCC will SHA consider replacement with 400' PCC slab if recommended per site assessment?
   v. What permits will be needed to install equipment and what are procedures and time frames for obtainment?

vi. Required cabinet clear zone from edge of traveled way?
vii. If no detour routing available at proposed site (or three or more adjacent lanes), will SHA permit shifting inside lane traffic partially onto inside shoulder to provide safe clearance during installation in outside lane?
viii. Historic truck traffic data?

B.4 SITE LOCATION INFORMATION

a. Proposed WIM site
   i. US 171, NB outside lane vicinity Moss Bluff to Gillis
b. Briefing session location
   i. Louisiana DOT, Baton Rouge, Louisiana
c. Nearest major airports
   i. George Bush Intercontinental, Houston (160 miles)
   ii. Louis Armstrong New Orleans International (200 miles)

Distribution --- COTR, RSC, SHA, FHWA Division, Site Assessment Team

INTERNATIONAL ROAD DYNAMICS INC.

LTPP SPS PHASE II

WEIGH-IN-MOTION SITE ACCEPTABILITY

SITE VISIT EVALUATION FORM

LOUISIANA SPS-1
LTPP ID 220100

Date of Site Visit: August 28, 2005

CONTRACT NO. DTFH61-05-D-00001

U.S. Department of Transportation
Federal Highway Administration

LONG TERM Pavement PERFORMANCE

C.0 SITE EVALUATION FORM

C.1 PROPOSED WIM LOCATION

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

Route: US 171 Mile Post: 7.9 Direction: NB Lane: Outside
Proposed WIM Site is located between Moss Bluff and Gillis in Calcasieu Parish and is 506 feet upstream of the start of SPS Test Section 220119.

C.1.1 EXISTING ROADWAY SURROUNDING THE PROPOSED WIM SITE

Type Pavement: AC

Pavement Age: 9 years old

Lane Width: 12 feet

Thickness: 10.5 inches

Observed Structural Soundness: Fair

Observed Smoothness: Fair

Outside NB Shoulder Type: AC

Width: 10 feet

Outside NB Shoulder Condition: Fair

Inside NB Shoulder Type: AC

Width: 4 feet

Inside NB Shoulder Condition: Fair

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

Type: AC

Structural Soundness: Fair

Smoothness: See Notes

Thickness: 10.5 inches

Jointed or Continuous: N/A

Notes/Comments on Pavement:
The existing roadway is AC and is in fair condition. The 400' "WIM Pavement" section is the same as the approaching and departing pavement. The existing pavement will need to be replaced with a 400 foot PCC WIM slab. The mainline has minor longitudinal cracking adjacent inside edge shoulder striping. At +/- 125' in advance of the proposed WIM scales there is a +/- 12' long pavement transition causing a "bump". At +/- 97' beyond the new scale location there is another pavement transition causing a "dip". The "bump" should be easy to correct when installing and blanket grinding the 400' PCC slab. The "dip" is far enough past the new scale location that it will not affect WIM performance. However, the State may deem it desirable to eliminate the dip by either extending the PCC WIM slab another 25' or by moving the 400' slab 25' to the north..

C.1.3 ROADWAY GEOMETRICS

Horizontal Alignment: Tangent Grade: Minimal (Less than +0.5 %)

Cross-slope: +/- 2 % Lane width: 12 feet

C.1.4 OBSERVED TRAFFIC OPERATING CHARACTERISTICS

Passing, merging, not following lane lines? Good lane discipline –occasional passing

Stop and go traffic, congestion periods? Free flowing, see notes below

Traffic signals/interchanges affecting traffic? Many at grade un-signalized intersections

Other adverse traffic flow conditions? Traffic flow is light

Truck traffic at "cruising" speed (no lugging)? No lugging, smooth flow

Truck traffic staying within lane lines? Yes, trucks track within lane lines

Observed truck suspension or body motion dynamics? Minor except for at noted "bump" in pavement in advance of existing and new scale locations

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

Truck traffic on/off locations between WIM site and SPS site? No (see notes)

Posted Speed Limit: 55 MPH

Observed Truck Speeds: 50–60 MPH

Notes/Comments on Geometrics and/or Traffic Operating Characteristics:
There are various median crossovers, driveways, etc located within this semi-urban area. These on/off facilities do not appear to affect the free traffic flow. Again, this will have no detrimental effect on traffic based on our observations. Vehicles track smoothly through this area at speeds between 50 and 60 MPH (posted speed is 55 MPH for all traffic). There is very good lane discipline at this site. Traffic flow is light to medium on this four lane, two direction highway. There are several at grade unsignalized turnarounds and turn offs within the SPS Test Section limits and general vicinity of the proposed WIM system. These are used for local traffic and do not play a significant impact on truck traffic. Several drive throughs where performed and only minor body motion was observed other than at the "bump" and "dip" previously noted.

C.1.5 ACCESS TO UTILITY SERVICES

Potential source(s) for power: A power service panel and a telephone service point are located adjacent to the R/W +/- 150 feet from the new WIM Cabinet location. Power and telephone feeds then run into the existing WIM cabinet which is located adjacent to the proposed WIM cabinet location. The State will need to confirm that these services are available and that the feed lines are not damaged and are adequate to tap into for the proposed WIM system. Power and telephone will need to be turned on if it has been

disconnected. Alternately, overhead power lines and telephone lines run parallel to the NB roadway's R/W. If necessary, new services could be obtained from these lines and extended into the new WIM cabinet..

Potential source(s) for telephone: As noted above. The existing WIM cabinet can probably be used as a "service point" for both telephone and power for the proposed WIM system.

C.1.6 EQUIPMENT INSTALLATION CAPABILITY

Adequate location for controller cabinet? Yes, adjacent to existing cabinet behind existing guard rail.

Distance from edge of traveled way to cabinet? 20 feet

Visibility from cabinet of sensors and approaching vehicles? Very good

Adequate location for service facilities? Yes, service points are already established

Adequate drainage for scale pits? Yes

Adequate roadway and overall site drainage? Yes

Potential for ponding or flooding at cabinet or pullboxes? Minimal

Potential for traffic control problems during installation? Minimal

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 roadway may become moderately busy at certain times of the day. We will have to work closely with the State to coordinate lane closures. There is 4 feet available on inside lane shoulder to accommodate a traffic shift.

C.1.7 POTENTIAL WIM SENSOR/EQUIPMENT INTERFERENCE SOURCES

Overhead power lines? Parallel to NB roadway right of way. This will not be a source of interference in that these are relatively low voltage service lines.

Adjacent railroad? None

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

Direction NB - Nearest usable truck turnaround location:

Median cross-over at Phils Lane (left turn pocket) Distance from WIM: 1.0 Mile

Direction SB – Nearest usable truck turnaround location:

Left turn onto "Theriot Road" (SR378). Travel 0.4 mile to "Old US-171" and turn left. Travel 0.8 mile to reconnect with NB US-171

Distance from WIM: 2.7 Miles

Circuit travel distance: 7.6 Miles Estimated lap time: 15 Minutes

Potential circuit route restrictions? None

Identification and location of trucking firm and certified static scales:

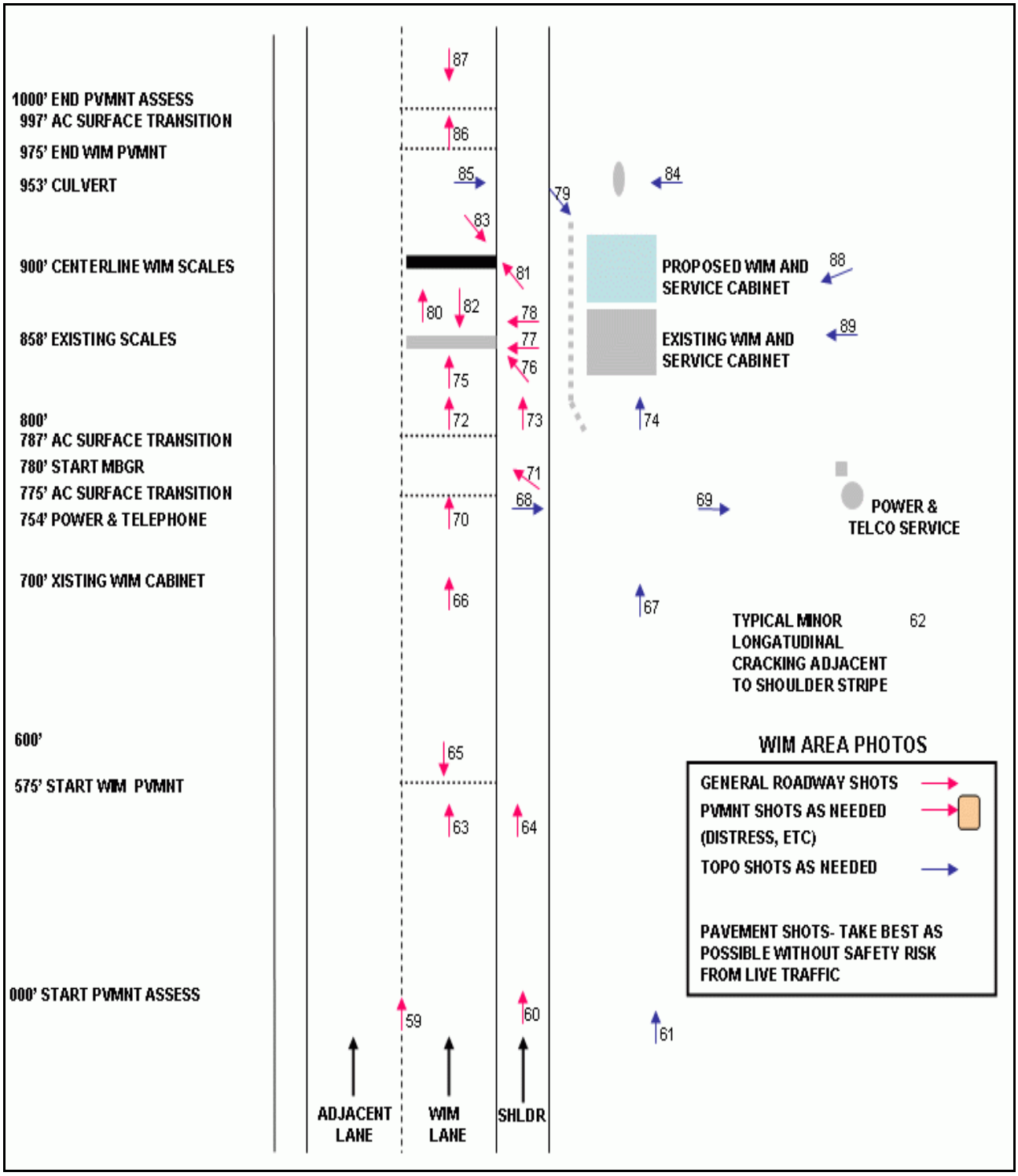
Name Deep South Crane & Rigging Contact Dub Fontenot

Address 3115 Petro Drive, Sulphur LA 70665

Phone 337-882-6037 Hours 8:00 a.m. – 5:00 p.m.

Notes/Comments on Test Truck Circuit and Static Weighing Facility:
Deep South Crane & Rigging is located approximately 17 miles from the Proposed WIM Site. They currently have 8 - 3S2 Tractor Trailer Air Ride vehicles and drivers available given 2-3 weeks notice. A certified static scale for weighing is located at Love's County Store on I-10 Exit 43 and Hwy 383, approximately 20 miles from the Proposed WIM Site.

C.2 LOCATION LOG OF PHOTOS



C.3 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	22
LTPP Traffic Data	*SPS PROJECT ID	220100
WIM SITE INVENTORY	*SPS WIM_ID	SPS-1

1.* ROUTE US 171 MILEPOST 7.9 LTPP DIRECTION N

2.* WIM SITE DESCRIPTION - Grade +/- 0 % Sag vertical N
Nearest SPS section ~~upstream of the site~~ Sect 220119 downstream of site
Distance from sensor to nearest ~~upstream~~ SPS Section 506 feet from sensors to start 220119

3.* LANE CONFIGURATION
Lanes in LTPP direction 2 Lane width 12 ft

Median - 1 – painted
2 – physical barrier
3 – grass
4 – none

Shoulder - 1 – curb and gutter
2 – paved AC
3 – paved PCC
4 – unpaved
5 – none

Shoulder width 10 ft

4.* PAVEMENT TYPE AC

8. RAMPS OR INTERSECTIONS
Intersection/driveway within 300 m upstream of sensor location N
Intersection/driveway within 300 m downstream of sensor location Y
Is shoulder routinely used for turns or passing? N

Form completed by: Roy Czinku - IRD Date: August 28, 2005

E.0 PHOTOGRAPHS

E.1.1 MARKER AT BEGINNING OF SPS TEST SECTIONS

E.1.2 FACING DOWNSTREAM 900 FEET IN ADVANCE OF WIM SCALE LOCATION

E.1.3 FACING DOWNSTREAM AT START OF 400 FOOT WIM PAVEMENT SECTION

E.1.4 FACING UPSTREAM AT START OF 400' WIM PAVEMENT SECTION

E.1.5 LONGITUDINAL CRACKING ADJACENT SHOULDER STRIPE, TYP.

E.1.6 AC PAVEMENT TRANSITION SECTION, 125' TO 113' IN ADVANCE NEW SCALES

E.1.7 EXISTING BENDING PLATES 40' IN ADVENCE NEW SCALE LOCATION

E.1.8 EXISTING BENDING PLATES 40' IN ADVENCE NEW SCALE LOCATION

E.1.9 RECOMMENDED SCALE LOCATION

E.1.10 CULVERT 12' FROM END OF 400' WIM PAVEMENT SECTION

E.1.11 FACING DOWNSTREAM AT END OF 400' WIM PAVEMENT SECTION

E.1.12 FACING UPSTREAM AT END OF 1000 FOOT PAVEMENT ASSESSMENT SECTION

E.1.13 RECOMMENDED CABINET LOCATION, ADJACENT TO EXISTING CABINET

E.1.14 OVERHEAD POWER LINES AND UNDERGROUND PHONE ADJACENT NB R/W

E.1.15 EXISTING POWER AND PHONE SERVICE POINTS