INTERNATIONAL ROAD DYNAMICS INC.

LTPP SPS PHASE II

WEIGH-IN-MOTION SITE ACCEPTABILITY ASSESSMENT REPORT

LOUISIANA SPS-1
LTPP ID 220100
JUNE 01, 2007
CLIN 3001 TASK ORDER 20

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 pavement test sections for the Louisiana SPS-1 (Strategic Study of Structural Factors for Flexible Pavements) site were completed in 1997. These Asphalt Concrete (AC) pavement sections are located in the Northbound outside lane on US-171 between Mile Posts (MP) 7.3 and 9.3 approximately 6.6 miles north of I-10 (Lake Charles) between Moss Bluff and Gillis in Calcasieu Parish.

This site was first visited by the CLIN 1 Team on August 28th, 2005, and a Weigh-in-Motion (WIM) site acceptability assessment was performed. The outcome of that site assessment was the recommendation that a new bending plate WIM system should be installed approximately 40 feet downstream of the existing bending plate sensors installed by the State in 1996 which are no longer in use. It was also recommended that that the State replace 400 feet of the existing AC pavement (including the existing WIM in-pavement sensors) with a blanket ground PCC WIM slab.

The purpose of this second site visit, which was performed by a CLIN 1 Team member on May 15th and 16th, 2007, was to locate and perform an assessment for an alternative site for which pavement preparation would not be necessary and with the intent that quartz piezo sensors would be utilized instead of bending plates.

Three different locations on US-171 were checked for WIM site suitability:

1. The SHA had advised that a US-171 PCC pavement section had been installed north of the test sections. This pavement section was located at approximately MP 25 and appeared to be in very good structural condition. However, this location was immediately excluded from further consideration due to a US-171 interchange with US-190/State Route 12 situated between this PCC pavement section and the test sections. It appeared, from visual observation, that this interchange could result in significantly different truck traffic through the location in question than that through the test sections.

2. The second location checked for suitability was a recently constructed section of US-171 between MP 10, at Gillis, and MP 19.8, at the aforementioned interchange with US-190 and SR 12. This new roadway's pavement consists of 9 inch thick AC with a dense grade wearing course. Although this newly constructed pavement appeared to be in excellent structural condition, the entire length exhibited long wavelength profile problems. The SHA's local project manager advised that construction of this roadway had been complicated due to unstable subgrade conditions and that additional future settlement could be anticipated. It may have been possible to locate a 400 foot segment of this roadway with suitable pavement profile conditions, but it would simply be too risky to install a WIM system in such a pavement.

3. The third location was the segment within the limits of the SPS-1 test sections and particularly the "transition" sections of roadway between the test sections themselves. Although this pavement was constructed in 1997, it appeared to be structurally sound and smooth riding. It was within this roadway segment that a site was selected and an assessment performed.

The selected site for the alternative installation of a new WIM system is in the Northbound outside lane of US-171 at MP 8.1, 0.9 mile north of the existing WIM site. The WIM sensors would be installed between the end of the 220123 test section and beginning of the 220124 test section. According to the *SPS-1 Project 2201 Final Report* (May 1998), the AC thickness at this location is 7 inches thick. This AC pavement exhibits, based upon visual observation, good structural soundness with no evidence of rutting, raveling, or cracking. This pavement section is extremely smooth. This site is located on a tangent section of the roadway and the grade is relatively flat (<0.5%). All vehicles track smoothly through this area at speeds between 55 and 65 MPH. The posted speed limit is 65 MPH for all vehicles. The traffic flow at this four lane highway location is light with a low percentage of trucks. The entire length of roadway in which the pavement test sections as well as the proposed WIM site location are located has numerous median crossovers and driveways. A median crossover is located just beyond the WIM site location, however it has a left lane turning pocket and as such the free flow movement of traffic is not affected by any traffic that might use this crossover. There is also a driveway into a small church off of the outside lane just beyond the WIM site which could conceivably create interruption to free traffic flow on Sundays.

Both power (overhead) and phone (buried) lines parallel the northbound roadway immediately adjacent to the right-of-way. There is an existing phone service point approximately 150 feet north of the proposed WIM cabinet location and a power pole with an existing transformer approximately 100 feet south of the cabinet location. Both power and phone company representatives had previously indicated that services could be easily extended to a roadside cabinet as was done for the existing WIM cabinet.

Due to the close proximity of the drainage ditch paralleling the northbound roadway to the edge of shoulder and advisement by the SHA that this ditch does fill with water during rainy periods, it will be necessary to install the WIM controller cabinet within a few feet of the outside edge of shoulder. This will require installation of a metal beam guard rail adjacent to the shoulder as was done for the existing WIM system cabinet. The SHA's local Project Manager felt this should not pose a problem. This location would provide easy access, safe parking adjacent to the cabinet behind the guard railing, and facilitate relatively easy extensions of existing power and phone services to the cabinet by the State.

Based upon the CLIN 1 Team member's site evaluation, the selected WIM site is deemed acceptable for the installation of quartz piezo sensors in the existing AC pavement without pavement preparation work as an alternative to the previously recommended installation of bending plate sensors in a PCC WIM slab. However, it is the opinion of the CLIN 1 Team that there is the risk that any WIM weighing sensor installed in an AC pavement may not maintain performance requirements or its structural stability for a five year period of time.

2.0 EXISTING ROADWAY

2.1 PAVEMENT AND GEOMETRICS

The proposed WIM site is located in the transition pavement section between test sections 220123 and 220124 in the Northbound outside lane of US-171 which consists of two northbound lanes and two southbound lanes.

The Northbound AC pavement approaching, through, and departing the proposed WIM site was installed in 1997 in conjunction with the SPS-1 project. The outside lane's AC pavement is a dense grade with a thickness of 7 inches including a top wearing course lift of 1.5 inches (according to the SPS-1 Project Report). The structural condition appears to be good with no visual indication of rutting, raveling, or cracking.

At the WIM site location, the outside lane and shoulder are striped at 12 foot and 10 foot widths, respectively. The inside lane and shoulder are striped at 11.2 foot and 3 foot widths, respectively. There is also a 13 foot wide left turn pocket lane adjacent to the WIM sensor location. The alignment is tangent with very little grade. The cross slope is 2.5% (according to the SPS-1 Project Report) towards 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 speeds between 55 and 65 MPH (posted speed limit is 65 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 median crossovers and driveways. Although no disruption to traffic flow was observed during the site assessment, it is conceivable that a driveway to a small church just downstream of the WIM site could affect the flow of traffic on Sundays.

3.0 SITE CONFORMANCE TO EVALUATION CRITERIA

3.1 PAVEMENT TYPE AND CONDITION- PASS

The existing AC pavement and shoulders approaching, through, and departing the selected WIM site visually display good structural soundness. Although it is the opinion of the CLIN 1 Team that there is always some risk installing WIM weighing sensors in AC pavement, this pavement would appear to be structurally adequate for the installation of quartz piezo sensors.

3.2 OBSERVED PAVEMENT SMOOTHNESS- PASS

Based upon the CLIN 1 Team member's on-site observations the 400 foot WIM pavement section is extremely smooth, exhibiting virtually no short wavelength profile problems and no noticeable long wavelength profile problems. This determination is based upon the observation of trucks and other vehicles approaching and passing through the proposed WIM sensor location as well as several automobile drive-throughs by the team member.

3.3 ANALYSIS OF PAVEMENT PROFILE DATA- PENDING

The LTPP Regional Support Contractor (RSC) advises that the test sections were last profiled August 7th, 2006. Although it is probable that the transition section of pavement in which it is proposed to locate the WIM site was included in the profile runs, the RSC is not at this time positive that this is the case.

3.4 ROADWAY GEOMETRICS- PASS

The WIM site is located within a 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 median crossovers and driveways 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. A driveway into a small church's parking area could conceivably affect traffic flow on Sunday's.

3.6 TRUCK TRAFFIC COMPARISON BETWEEN WIM AND TEST SITE- PASS

The proposed WIM site location is in a transition section between two pavement test sections and as such the truck traffic composition is identical.

3.7 POTENTIAL WIM INTERFERENCE SOURCES- PASS

The nearest source of any potential interference are power lines paralleling the northbound roadway's right-of-way. These 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

Both power (overhead) and phone (buried) lines parallel the northbound roadway immediately adjacent to the right-of-way. There is an existing phone service point approximately 150 feet north of the proposed WIM cabinet location and a power pole with an existing transformer approximately 100 feet south of the cabinet location. Both power and phone company representatives had previously indicated that services could be easily extended to a roadside cabinet as was done for the existing WIM cabinet.

3.9 EQUIPMENT INSTALLATION CAPABILITY- PASS

Due to the close proximity of the drainage ditch paralleling the northbound roadway to the edge of shoulder and advisement by the SHA that this ditch does fill with water during rainy periods, it will be necessary to install the WIM controller cabinet within a few feet of the outside edge of shoulder. This will require installation of a metal beam guard rail adjacent to the shoulder as was done for the existing WIM system cabinet. The SHA's local Project Manager felt this should not pose a problem. This location would provide easy access, safe parking adjacent to the cabinet behind the guard railing, good visibility of the sensors and approaching traffic, and facilitate relatively easy extensions of existing power and phone services to the cabinet by the State.

3.10 POTENTIAL TRAFFIC CONTROL / WORK ZONE SAFETY ISSUES- PASS

No significant traffic control problems are foreseen. Although it will probably be deemed necessary by the SHA to close off the median crossover and its left turn pocket lane, inconvenience to the public would be minimal due to nearby alternate crossovers. Traffic is generally light and traveling at moderate speeds. Sight distance is very good. It should also be possible to move traffic's left wheels onto the adjacent lane's median shoulder in advance of the start of the left turn pocket lane transition to provide the WIM installation crew a safe work zone.

3.11 TRUCK CIRCUIT – PASS

The nearest usable Northbound truck turnaround is a median crossover at Cob Cr which is located 0.4 miles downstream of the WIM site.

The nearest useable Southbound truck turnaround is a median crossover at Clyde Dulaney Dr which is located 1.4 miles upstream of the WIM site.

The test truck round trip circuit route is approximately 1.8 miles and the estimated lap time is 4 minutes. There are no foreseen potential restrictions. Both of these turnaround locations have left turn pockets, however, the test trucks may have to wait for gaps in oncoming traffic to make safe U-turns.

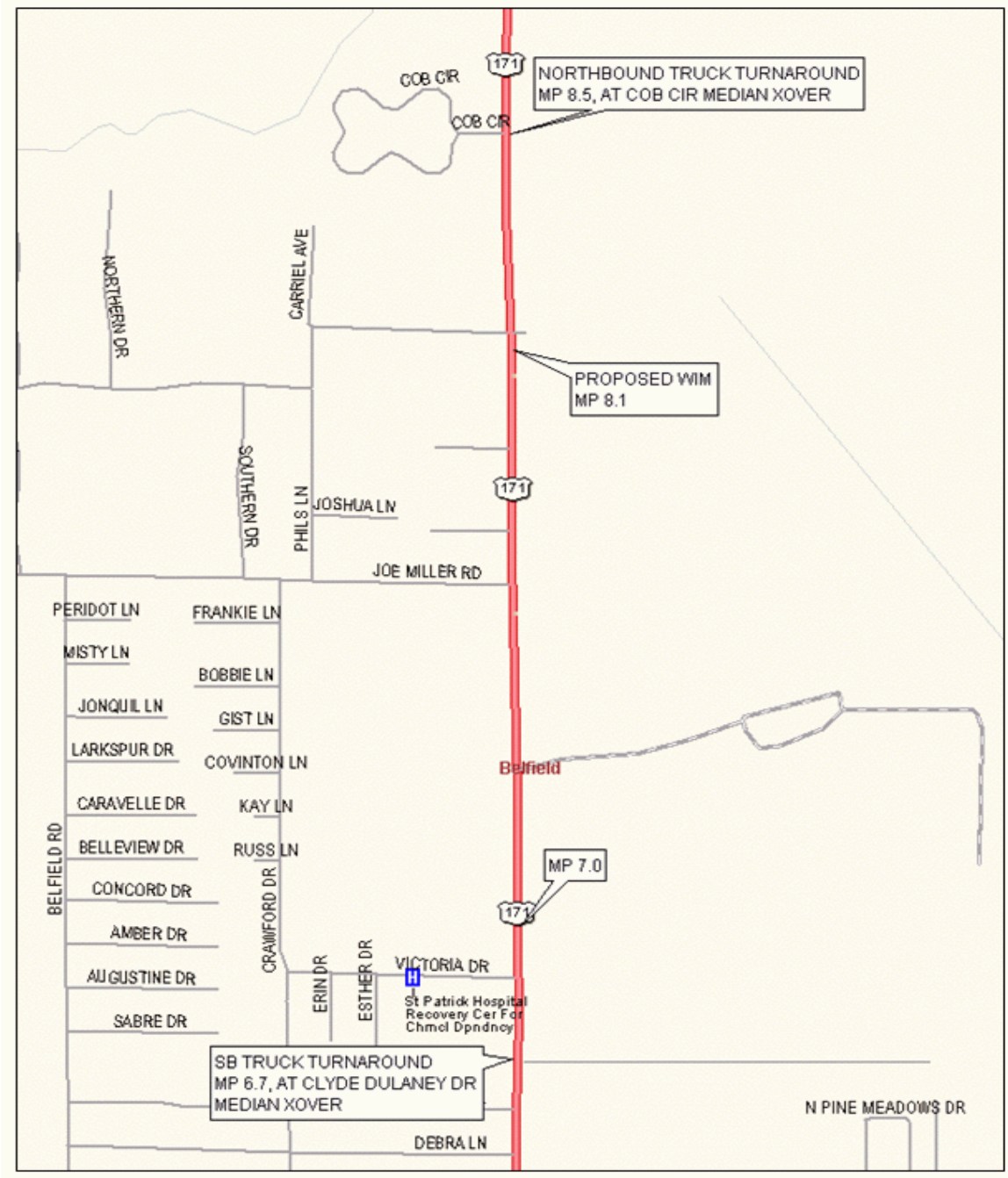


Figure 1: Truck Circuit Map, SPS-1 WIM Site on US-171

3.12 RECOMMENDATIONS ON SITE ACCEPTANCE / CORRECTIVE ACTIONS

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

Based upon on-site visual observations, this site is ready for installation of a WIM system utilizing quartz piezo sensor technology as an alternative to the prior recommendation that a 400 foot PCC WIM slab be constructed and that a bending plate WIM be installed. However, it is the opinion of the CLIN 1 team that there is the risk that any WIM weighing sensor installed in an AC pavement may not maintain performance requirements or its structural stability for a five year period of time.

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 approaching, through, and following the selected WIM site location was made by the CLIN 1 Team member. Additionally, the *SPS-1 Project 2201 Final Report* (May 1998) was reviewed in preparation for and during the site 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 THE PROPOSED WIM SCALE LOCATION ("WIM PAVEMENT")

The existing AC pavement is dense grade with a thickness of 7 inches, including a 1.5 inch wearing course, and was constructed in 1997 (per the SPS Construction Report). This pavement appears to be in good structural condition, with no evidence of rutting, raveling, or cracking.

5.1.2 PCC PAVEMENT UPSTREAM AND DOWNSTREAM OF "WIM PAVEMENT" SECTION

As exists, there are no discernable differences between the 400 foot "WIM Pavement" section and its approach and departure pavements included in the 1000 foot evaluation section. This entire section was constructed in 1997 as part of the SPS-1 construction project.

5.1.3 SHOULDER CONDITION

The roadway shoulders are AC throughout the study area and were constructed in conjunction with the traveled way pavement. The outside shoulder pavements are in good condition and the inside shoulder pavements are in fair condition.

5.1.4 SURFACE PROFILE

Observations of trucks and other vehicle types approaching and passing through the selected "WIM Pavement" section displayed almost no discernable body motion. Automobile "drive throughs" by the Team member confirmed the lack of body motion in advance of and through the "WIM Pavement" section.

5.2 PAVEMENT EVALUATION SUMMARY

Based upon the on-site observations of the CLIN 1 Team member, the existing AC pavement at the selected WIM site is suitable for the installation of quartz piezo sensors.

6.0 PROPOSED WIM SITE- INFORMATION

6.1 LOCATION – US-171, MP 8.1

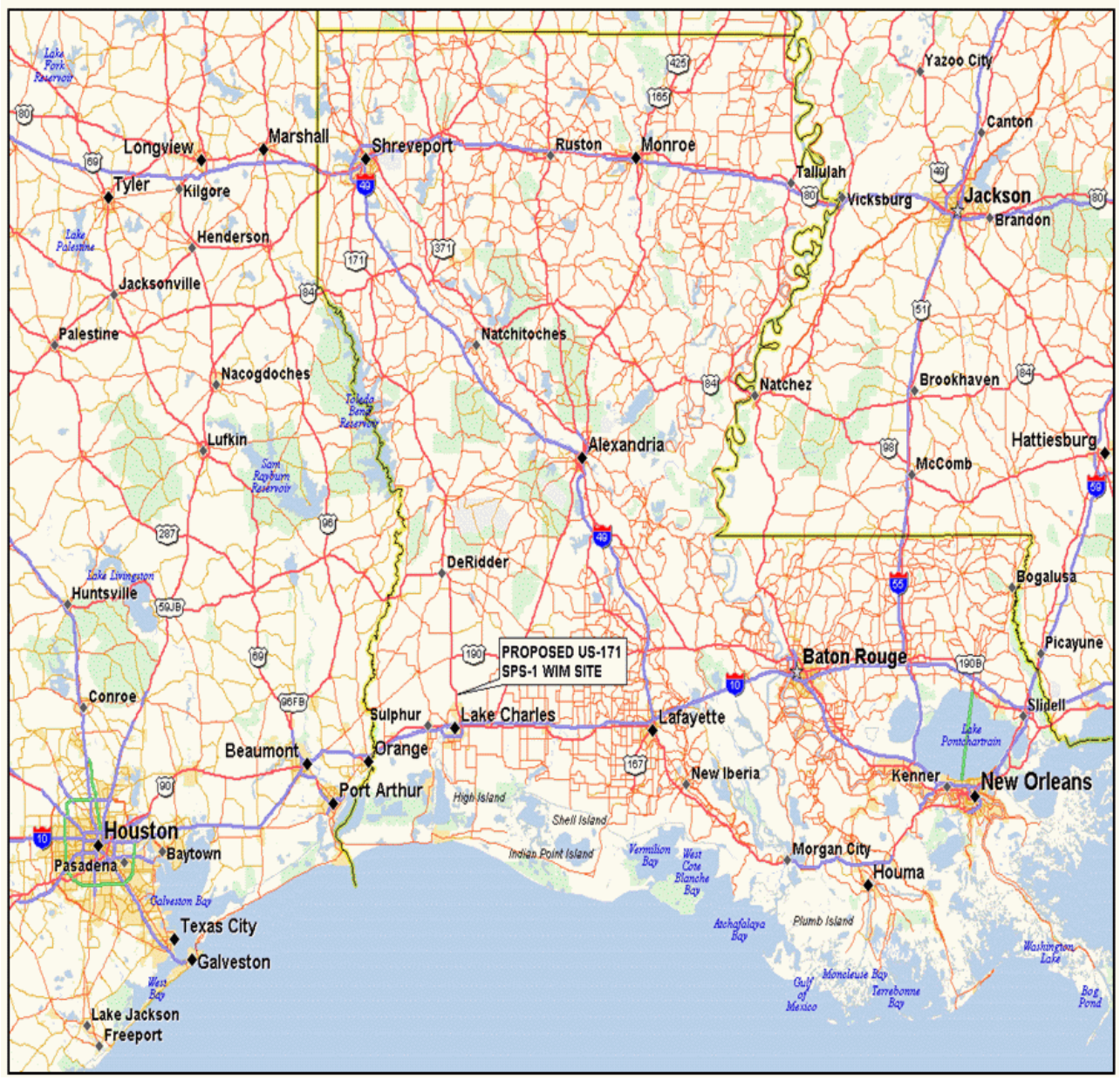


Figure 2: Location of the US-171 SPS-1 WIM Site

Figure 3: US-171 SPS-1 WIM Site at Milepost 8.1 (Northbound)

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 8.1 between test sections 220123 and 220124.

7.0 RECOMMENDED WIM TECHNOLOGY

Based upon long term experience with bending plate technology, it is the CLIN 1 Team's opinion that bending plates installed in a 400 foot blanket ground PCC WIM slab would best meet the accuracy expectations of the State and provide the best value in terms of performance with minimal down time. However, if it is desired by the State that WIM weigh sensors be installed in existing AC pavement, then the alternative recommendation is that a WIM system utilizing quartz piezo sensors be installed at the site selected and described in this report.

The proposed scale location has been marked with a "WIM" in white paint on the outside shoulder.

7.1 RECOMMENDED LOCATION AND LAYOUT FOR THE WIM SYSTEM

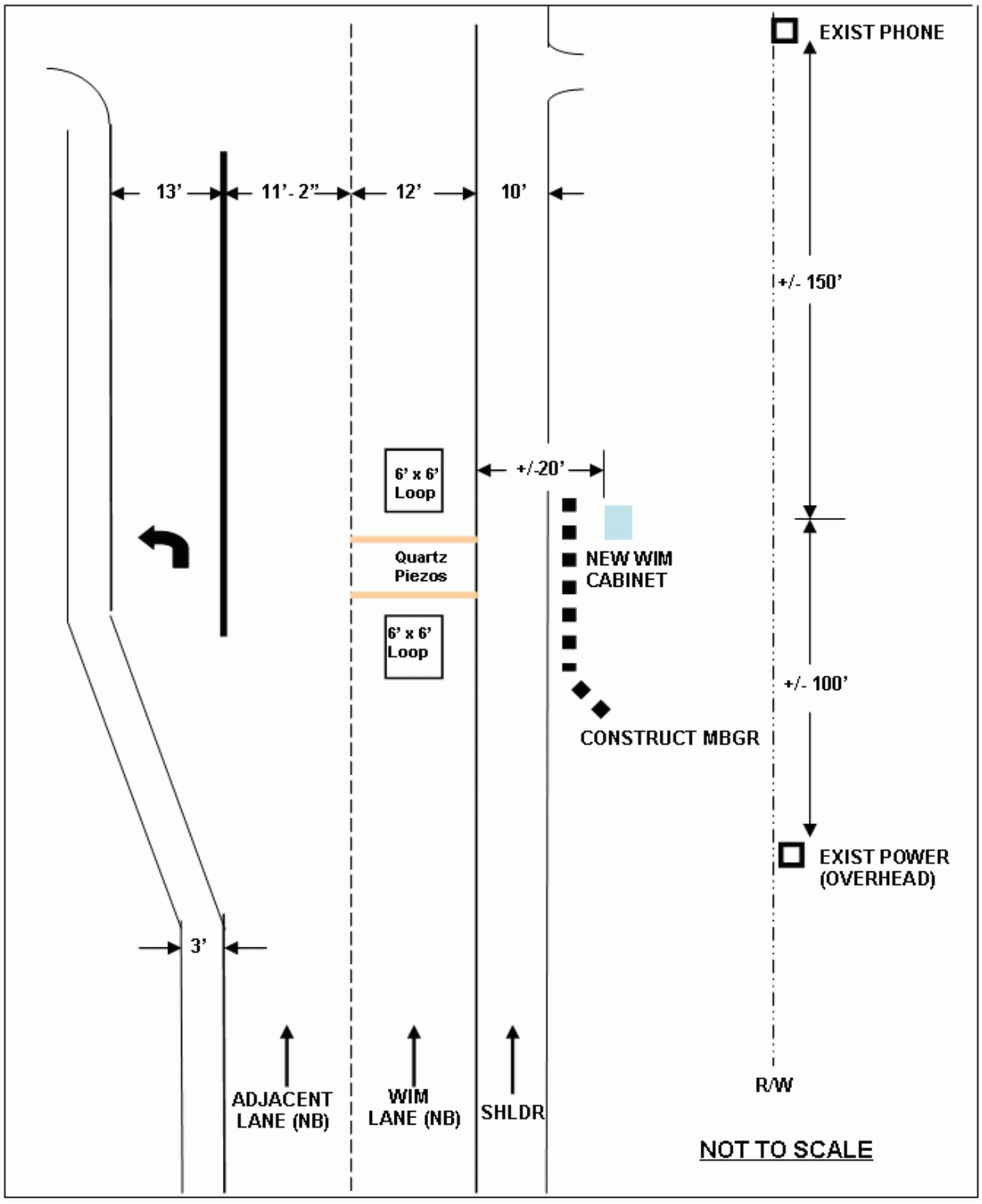


Figure 4: Proposed US-171 SPS-1 WIM Site Layout at Mile Post 8.1

GPS Coordinates for Scales: N30° 19.799', W93° 11.723'

A.0 COORDINATION DETAILS

Task Order #20, which authorized the CLIN 3001 "Determine Acceptability of Proposed Site" for the Louisiana SPS-1 Site (LTPP ID 220100), was effective June 5, 2007.

Contacts were made with interested parties as follows:

- Contracting Officer's Technical Representative (COTR)
  - Debbie Walker – FHWA-LTPP ph: 202-493-3068
- State Highway Agency (SHA)
  - Zhongjie "Doc" Zhang – Louisiana Transportation Research Center ph: 225-767-9162
- LTPP Regional Support Contractor (RSC)
  - Mark Gardner – Fugro Consultants LP ph: 512-977-1800
- FHWA Division Office
  - Philip Arena – FHWA Div Rep ph: 225-757-7612

The "Pre-Visit Handout Guide" was distributed on April 30, 2007, to the above noted parties and also the following LA DOT individuals:

- Don Duberville
- Jim Porter
- Kevin Gaspard
- Robert Smith

A briefing session meeting was held at 9:00 AM on May 15th, 2007, in Baton Rouge in the LTRC TTEC conference room (Room 101) at 4101 Gourier Ave.

The site was visited on the same and following days by Rich Quinley (WIMTECH), a CLIN 1 Team member. At 8:00 AM on May 16th Rich Quinley met on-site with Don Duberville, LA DOT's resident Project Manager, and representatives from the local power and phone companies.

INTERNATIONAL ROAD DYNAMICS INC.

LTPP SPS PHASE II

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

LOUISIANA SPS-1
LTPP ID 220100

Date: April 30, 2007

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 9:00 a.m. Tuesday, May 15, 2007 in Baton Rouge in the LTRC TTEC conference room (Room 101) at 4101 Gourier Ave.
b. Site visit
   i. May 16, 2007, 8:00 am, meet SHA local Project Manager Don Duberville at existing WIM site on US 171..

B.2 POINTS OF CONTACT, PHONE NO

a. Contracting Officer's Technical Representative (COTR)
   i. Debbie Walker – FHWA-LTPP ph: 202-493-3068
b. State Highway Agency (SHA)
   i. Doc Zhang – SHA/LADOT ph: 225-767-9162
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- DONE
   ii. New pavement profile from RSC if recent profile data unavailable
b. From RSC
   i. SHA contact person- DONE
   ii. SPS roadway section layouts (plan view and/or stationing or mileposts)-DONE
   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?-NA; NOW PROPOSED TO INSTALL KISTLER QUARTZ PIEZOS IN EXISTING AC PAVEMENT

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- BEST CANDIDATE SITE APPEARS TO BE NEWLY CONSTRUCTED ROADWAY SECTION NORTH OF LTPP TEST SECTIONS.
b. Briefing session location
   i. Louisiana DOT, Baton Rouge, Louisiana (140 miles from proposed WIM site)
c. Nearest major airports
   i. George Bush Intercontinental, Houston (145 miles)
   ii. Baton Rouge Metro, Baton Rouge (143 miles)
   iii. Louis Armstrong New Orleans International (210 miles)

Distribution --- COTR, RSC, SHA, FHWA Division, CLIN 1 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: May 15 and 16, 2007

CONTRACT NO. DTFH61-05-D-00001

U.S. Department of Transportation
Federal Highway Administration

LONG TERM Pavement PERFORMANCE

C.0 SITE EVALUATION FORM SITE VISIT DATE MAY 16, 2007

C.1 PROPOSED WIM LOCATION

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

Parish: Calcasieu Rte: US-171 Direction: NB MP: 8.1 Ln: Outside

Proposed WIM Scale location is +/-485' downstream from the end of test section 220123 and +/-490 upstream from the end of test section 220124.

C.1.1 EXISTING ROADWAY APPROACHING AND DEPARTING PROPOSED WIM SITE

Type Pvmnt: AC Yr Const: 1997 Ln Width: Striped 11'-10" Thick: 7"
Dense grade; 1.5" wearing course lift; good condition

Observed Structural Soundness: Good

Observed Smoothness: Very smooth

Outside Shldr Type: AC Width: Striped 10'-8" Cond: Good

Inside Shldr Type: AC Width: Striped 2'-8" Cond: Fair

C.1.2 PAVEMENT 325' PRIOR AND 75' FOLLOWING WIM SCALES ("WIM PAVEMENT")

Type Pvmnt: AC Yr Const: 1997 Ln Width: Striped 12' Thick: 7"
Dense grade; 1.5" wearing course lift; good condition- no rutting, raveling, or cracking

Observed Structural Soundness: Good

Observed Smoothness: Very good

Outside Shldr Type: AC Width: Striped 10 ' Cond: Good

Inside Shldr Type: AC Width: Striped 3 ' Cond: Fair

Notes/Comments on Pavement:

C.1.3 OTHER ROADWAY GEOMETRICS

Horizontal Align: Tangent Grade: Minimal, <0.5% Cross-slope: - 2.5%

Striping: NB outside lane: 4" solid white stripe delineates 12' lane and 10' shldr.; NB inside lane: 8" solid white stripe delineates 11'-2" lane and 13' wide left turn pocket to median crossover; 4" solid yellow stripe delineates 3' inside shoulder.

C.1.4 OBSERVED TRAFFIC OPERATING CHARACTERISTICS

Posted Speed Limit, MPH: Autos _65_ Trucks _65_

Observed Speed Range, MPH: Autos 55 – 65 Trucks _55 -- 65_

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

Stop and go traffic, congestion periods? Free flowing at all times during assessment

Traffic signals or interchanges affecting traffic flow? Many median crossovers and driveways, but no affect on traffic flow observed. A driveway to a small church just downstream of the proposed WIM site may have some affect on traffic flow on Sundays.

Other adverse traffic flow conditions? None observed

Truck traffic at "cruising" speed and no lugging? Yes, as observed

Truck traffic staying within lane lines? Yes

Observed truck suspension or body motion dynamics? Virtually negligible

Drive-thru noted suspension or body motion dynamics? Absolutely smooth

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

Truck traffic on/off locations between WIM site and SPS site? No; WIM site in transition zone between test sections

Notes/Comments on Geometrics and/or Traffic Operating Characteristics:
Immediately beyond the proposed WIM site there is a paved median crossover to and from "Phil's Lane" road. This crossover has a Northbound inside lane turning pocket which allows any vehicles using this crossover to do so without interrupting traffic flow. Also immediately beyond the WIM site there is a driveway to a small church's parking area . Vehicles turning into this driveway would have no affect on traffic flow under the traffic conditions observed during the assessment. However, conceivably, if traffic flow is heavier on Sundays vehicles turning into this driveway could result in trailing traffic moving to the inside lane.

C.1.5 ACCESS TO UTILITY SERVICES

Potential source(s) for power: Overhead power poles parallel the NB R/W and there is a pole with an existing transformer +/- 100' South of the proposed cabinet location.

Potential source(s) for telephone: Underground telephone lines parallel the NB R/W and there is an existing service point located +/- 150' North of the proposed cabinet location.

C.1.6 EQUIPMENT INSTALLATION CAPABILITY

Adequate location for controller cabinet? Yes, adjacent to NB outside lane's shoulder in line with the WIM sensors. Due to close proximity of ditch paralleling the roadway and advisement by the SHA that the ditch runs full during rains, it will be necessary to install a metal beam guard railing adjacent to the shoulder (as was done for the existing WIM cabinet) so that the cabinet can be installed on the higher ground near the top of the roadway's embankment. This will provide easy access and safe off-shoulder parking.

Distance from edge of traveled way to R/W? +/-50'

Distance from edge of traveled way to cabinet? +/-20' (behind MBGR)

Visibility from cabinet of sensors and approaching vehicles? Excellent

Adequate location for service facilities? Yes, adjacent planned cabinet location

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. It will probably be deemed necessary by the SHA to close off the median crossover and its left turn pocket lane. Inconvenience to the public would be minimal due to nearby alternate crossovers. Traffic is generally light and traveling at moderate speeds. Sight distance is very good. It should also be possible to move traffic's left wheels onto the adjacent lane's median shoulder to provide the WIM installation crew a safe work zone.

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:
Lane closures will have to be well coordinated with the State.

C.1.7 POTENTIAL WIM SENSOR/EQUIPMENT INTERFERENCE SOURCES

Overhead power lines? Service type lines parallel the Northbound R/W- not a problem.

Adjacent railroad? None

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

Direction NB - Nearest usable truck turnaround location: Median crossover (with NB left turn pocket) to Cob Cr (at MP 8.5) Distance from WIM Site: 0.4 Mi

Direction SB - Nearest usable truck turnaround location: Median crossover (with SB left turn pocket) to Clyde Dulaney Dr. (at MP 6.7) Distance from WIM Site: 4.2 Mi

Circuit travel distance: 1.8 Miles Estimated lap time: 4 Minutes

Potential circuit route restrictions? None foreseen. Although the test trucks should have no problem maneuvering U-turns at these median crossover locations, there will need to be gaps in both lanes of oncoming traffic to safely make these turning movements.

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.

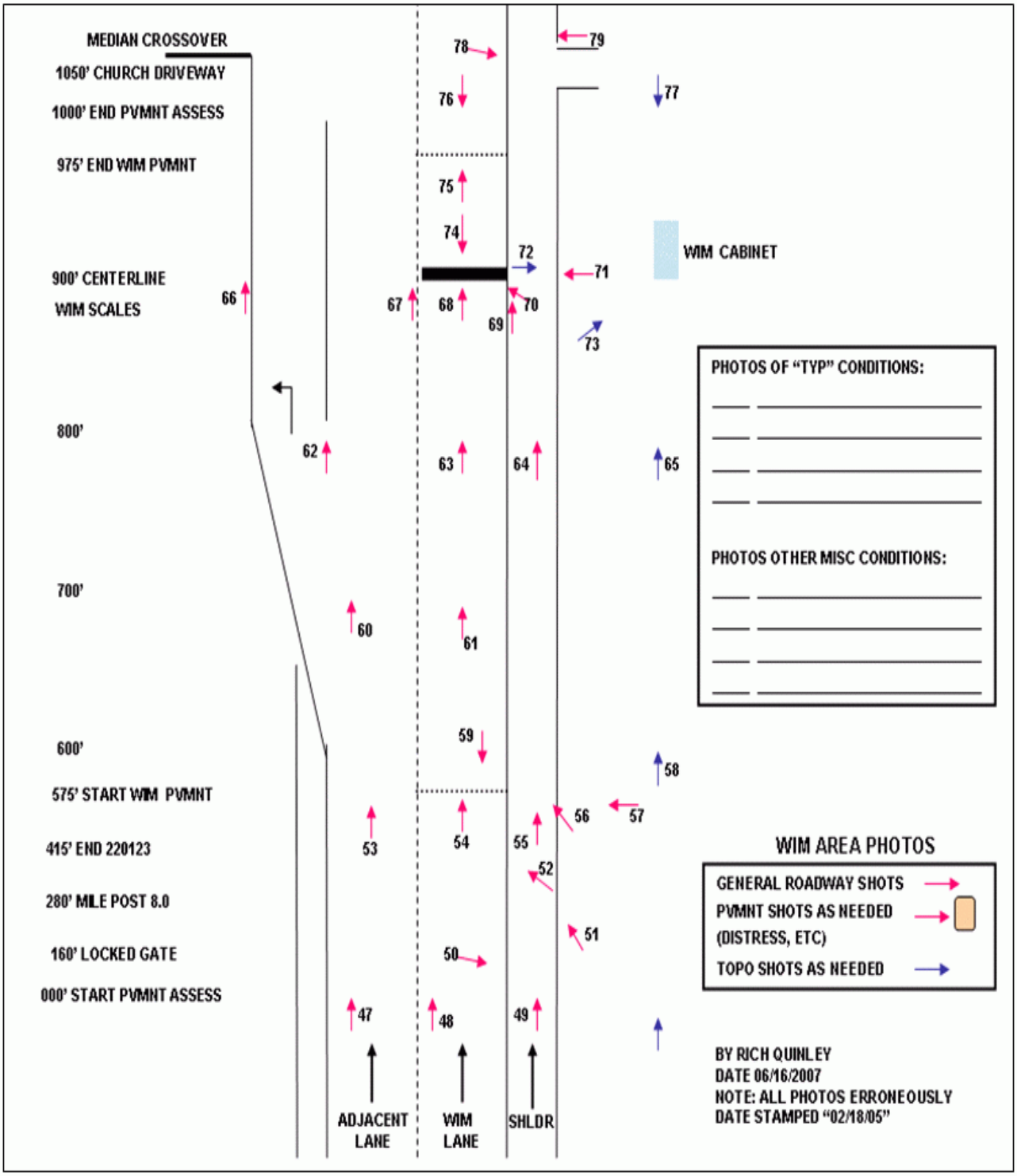
Notes/Comments on Test Truck Circuit and Static Weighing Facility:
Deep South Crane & Rigging is located approximately 17 miles from the Proposed WIM Site. They currently have 8 - 3S2 Tractor Trailer Air Ride vehicles and drivers available given 2-3 weeks notice. A certified static scale for weighing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

C.1.9 GPS RECORDINGS

ROADWAY LOCATION (WB)		GPS RECORDINGS	
WIM Scales			
New scale location		N30° 19.799’	W93° 11.723’
Exist scale location		N30° 20.281’	W93° 11.983’
Roadway Mile Posts			
MP 7.0 NB		N30° 20.091’	W93° 12.004’
MP 8.0 NB		N30° 20.932’	W93° 11.934’
MP 9.0 NB		N30° 21.880’	W93° 12.000’
SPS Pavement Test Sections			
220119	Start	N30° 20.351’	W93° 12.003’
220123	End	N30° 20.992’	W93° 12.009’
220124	Start	N30° 21.247’	W93° 11.772’
220113	End	N30° 22.063’	W93° 12.008’
Test Truck Turnaround Locations			
NB, Cob Cr		N30° 21.437’	W93° 12.025’
SB, Clyde Dulaney Dr		N30° 19.86’	W93° 12.02’

BY Rich Quinley 05/16/2007

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 8.1 LTPP DIRECTION - N

2.* WIM SITE DESCRIPTION - Grade >0.5 % Sag vertical N
Nearest SPS section upstream of the site 220124
Distance from sensor to nearest upstream SPS Section 490 feet from start of 220124

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

COMPLETED BY Rich Quinley DATE COMPLETED 05/16/2007

E.0 PHOTOGRAPHS

E.1.1 MARKER AT START OF SPS-1 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 FOOT WIM PAVEMENT SECTION

E.1.5 WIM PAVEMENT, FACING DOWNSTREAM 100 FEET IN ADVANCE OF SCALES

E.1.6 RECOMMENDED SCALES LOCATION

E.1.7 SHOULDER STRIPING DETAIL AT WIM SCALE LOCATION

E.1.8 FACING UPSTREAM FROM RECOMMENDED SCALES LOCATION

E.1.9 END WIM PAVEMENT SECTION, FACING DOWNSTREAM

E.1.10 RECOMMENDED LOCATION FOR NEW CABINET

E.1.11 POWER AND PHONE SOURCES

E.1.12 EXISTING WIM SYSTEM