Assessment Report for
Tennessee, SPS Experiment 6

Visit date: November 18, 2003

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1 Executive Summary

A visit was made to the Tennessee SPS-6 site on November 18, 2003 for the purposes of conducting an assessment of the WIM system located on US 40 at milepost 91.67.

This site is not recommended for a site validation.

The site is instrumented with a PAT America DAW-100 WIM controller. The in-road sensors were installed in the westbound outside lane but were removed during a milling and overlay operation conducted in summer of 2003. This site has an asphalt overlay over Portland cement concrete.

There is no data to support a Sheet 16 for classification verification. This will need to be a part of the next assessment or evaluation.

The pavement condition is satisfactory for conducting a performance evaluation if the WIM sensors are installed. The WIM index was not exceeded at any location except one. There were no distresses observed that would influence truck motions significantly.

A visual survey of truck movement over the site determined that there is no discernable vertical or horizontal movement of the trucks prior to, passing over, or beyond the WIM scale area. The movement of the trucks after the sensors are installed may or may not change.

A review of the speed information collected on-site indicates that the range of truck speeds that should be covered during an evaluation is 60 to 70 mph. With a posted speed limit of 65 the recommended speeds are 55, 60 and 65 mph.

This site has only 2 years of limited classification data and a 1-year sample of weight data. Based on available information and review of the data submitted through last year, this site still needs 5 years of data to meet the need for 5 years of research quality data. Without validation or calibration information due to the small data size and with the sensor removed this data cannot even be evaluated for nominal research quality. This site does not have validation information as of June 2003 upload in the LTPP traffic database.

2 Corrective Actions Recommended

It is recommended to replace the sensors. Also, it was noted by the Regional Support Contractor that the intention of the State is to replace the sensors.

Given the virtually unimodal partially loaded GVW curve, verification is needed that the 2001 weight data associated with the site is in fact applicable. This will require calibrated data to compare same month distribution.

3 Equipment inspection and diagnostics

Electrical checks of WIM system power and communication components including the solar panel, battery, telephone service and power regulator verified that they are appear to be working properly.

A visual inspection of all on-site equipment such as service masts, telephone pedestal, cabinet, conduit and solar panel verified that they are in good operational and physical condition.

4 Classification Verification with test truck recommendations

The agency uses the FHWA 13-bin classification scheme.

A sample of 1 hour of video data was collected at the site. Video was taken at the site to provide ground truth for the evaluation. Since there were no in-road sensors on site to record truck data the error percent in truck classification could not computed.

A review of the data collected on site indicated that Class 9's constitute 92 percent of the truck population. The data obtained from LTPP traffic database for a Tuesday in October 2002, the closest available comparison set indicated that Class 9 constitutes 85 percent of the truck population. Based on this information in addition to the air-suspension 3S2, the second vehicle used for evaluation should be a Class 9. Due to the length of the truck turn around one additional vehicle should be used. It is recommended that it also include a Class 9 vehicle. The GVW graph is inconclusive as to the loading required. The initial months show a loaded site, then a partially loaded truck. The second truck should therefore be loaded between 60,000 and 64,000 lbs. per the proposal. The third truck may be unloaded or a loaded vehicle with a different suspension and the same weight as either of the others.

5 Profile Evaluation

Profile data collected at the SPS WIM location by Fugro-BRE Inc. on October 23, 2003 was processed through the LTPP SPS WIM Index software. This WIM scale is installed on an asphalt concrete pavement. The results are shown in Table 1.

The WIM site is a section of pavement that is 305 meters long with the WIM scale located at 274.5 meters from the beginning of the test section. An ICC profiler was used

to collect longitudinal profiles of the test section with a sampling interval of 25 millimeters. The LRI incorporates the pavement profile starting 25.8 m prior to the scale and ending 3.2 m after the scale in the direction of travel. The SRI incorporates a shorter section of pavement profile beginning 2.7 m prior to the WIM scale and ending 0.5 m after the scale.

A total of 8 profiler passes were conducted over the WIM site. Since the issuance of LTPP Directive P-30 on collection of longitudinal profile data for SPS WIM sections on August 4, 2003, the requirements have been a minimum of 3 passes in the center of the lane and one shifted to each side of the lane. For this site, the RSC performed 4 passes at the center of the lane, 2 passes shifted to the left side of the lane, and 2 passes shifted to the right side of the lane. Shifts to the sides of the lanes were made such that data were collected as close to the lane edges as was safely possible. For each profiler pass, profiles were recorded under the left wheel path (LWP) and the right wheel path (RWP).

Table 1 shows the computed index values for all the 8 profiler passes for this WIM site. The average values over the four passes only at the center of the lane at each path were calculated, as shown in the right most column of the table. The average values over the two passes at the right side and left side of the lane are not calculated because of the lower reliability associated with the average of only two passes.

Table 1 Long Range Index (LRI) and Short Range Index (SRI)

Profiler Passes			**Pass 1**	**Pass 2**	**Pass 3**	**Pass 4**	**Ave.**
Center	LWP	LRI (m/km)	0.661	0.713	0.635	0.701	**0.678**
		SRI (m/km)	0.375	0.435	0.342	0.514	**0.417**
	RWP	LRI (m/km)	0.540	0.522	0.568	0.523	**0.538**
		SRI (m/km)	0.410	0.432	0.453	0.484	**0.445**
Left Shift	LWP	LRI (m/km)	*0.919*	0.789			
		SRI (m/km)	0.528	0.574			
	RWP	LRI (m/km)	0.645	0.595			
		SRI (m/km)	0.347	0.491			
Right Shift	LWP	LRI (m/km)	0.755	0.739			
		SRI (m/km)	0.501	0.546			
	RWP	LRI (m/km)	0.594	0.613			
		SRI (m/km)	0.453	0.433			

There is only one pass for which the WIM Index value of 0.789 m/km is exceeded as can be seen in Table 1. When all values are less than 0.789 it is presumed unlikely that pavement conditions will significantly influence sensor output. No pavement remediation is required at present for this site.

6 Distress survey and any applicable photos

The pavement is in an excellent condition since it was recently overlaid. Figure 13-1 shows the new overlay in the downstream direction and Figure 13-2 new overlay in the upstream direction.

7 Vehicle-pavement interaction discussion

Since the site was recently overlaid the vehicles appear to be traveling at the regular speed without any bouncing near the former WIM sensor location.

8 Speed data with speed range recommendations for evaluation

Based on the data collected on site the 15th and 85th percentile speeds for Class 9s are60 and 70 mph respectively. The upper end of the range exceeds the posted speed limit of 65 mph. This range does not vary significantly for other truck classes. As a result the recommended speeds for test trucks in an evaluation are 55, 60 and 65mph

The review of drive axle spacing for Class 9 vehicles could not be performed due to the absence of speed error data. From on-site observation, verified by video data, the predominant drive axles for Class 9 vehicles are a standard tandem. This indicates that the average drive axle spacing should be about 4.2 feet. However, the LTPP database indicates that the drive axle spacing for Class 9s averages 4.0 feet with a standard deviation of 0.1 feet. This indicates that the axle spacing may have been underestimated. The impacts on classification cannot be determined from the available data.

9 Traffic Data review: Overall Quantity and Sufficiency

As of November 25, 2003 this site does not have at least 5 years of research quality data. Research quality data is defined to be at least 210 days in a year of data of known calibration meeting LTPP's precision requirements. The precision requirements are shown in Table 2. This site does not have validation information in the LTPP database as of June 2003 upload.

Table 2 Precision and Bias Requirements for Weight Data

Pooled Fund Site	95 Percent Confidence Limit of Error
Single Axles	± 20 percent
Axle groups	± 15 percent
Gross Vehicle Weight	± 10 percent
Vehicle Speed	±1 mph (2 kph)
Axle Spacing	± 0.5 ft (150 mm)

The amount and coverage for the site is shown in Table 3. The value for months is a measure of the seasonal variation in the data. The indicator of coverage indicates whether day of week variation has been accounted for on an annual basis. As can be seen from the

table 2001 and 2002 have limited data. With the available information it can be seen that at least 5 additional years of research quality data are needed to meet the goal of a minimum of 5 years of classification and weight data.

Table 3 Amount of Traffic Data Available

Year	Classification Days	Months	Coverage	Weight Days	Months	Coverage
2001	90	4	Complete Week	90	4	Complete Week
2002	104	6	Complete Week	N/A	N/A	N/A

To evaluate the consistency of the existing data and determine its probable quality a series of reports and graphs have been generated. They include the SPS Summary report, vehicle distribution graphs, ESAL graphs, average daily steering axle weights for Class 9 vehicles, and GVW distributions both over all years and by month within years.

Data that has validation information available is reviewed in light of the patterns present in the two weeks immediately following the validation/calibration activity. A determination of research quality data is based on the consistency with the validation pattern. Data that follows consistent and rational patterns in the absence of calibration information may be considered nominally of research quality pending validation information with which to compare it. Data that is inconsistent with expected patterns and has no supporting validation information is not considered research quality.

9.1 SPS Summary Report

The overall report is the SPS Summary Report. This report using sets of benchmark data based on calibration information or consistent, rational data patterns shows the trend in some basic statistics at the site over time. It provides a numeric equivalent to the graphs typically run for the comparison evaluation process. It includes the number of days of data and statistics associated with Class 9 vehicles. They include the average numbers, average ESALs, the average steering axle weight and mean loaded and unloaded weight on a monthly basis. Class Days and Percent Class 9s are generated from classification data submissions. All other values come from the weight data submitted. Counts derived from weight data are available for all months. Loading statistics are only present when that data was loaded through LTPP's new traffic analysis software, since it is the only software that calculates them. The data is separated into blocks that depend on when the site was validated. Where there is no validation record an initial time point has been picked at which continuous data exists and that data is used as the basis for comparison.

Table 4 SPS Summary Report

Tennessee 0600

West Lane 1

Comparison Date Weight - 21-February-2001 Classification - 21-February-2001

Month-Year	Class Days	Percent Class 9s	Weight Days	Average No. Class 9s	Avg.ESALs Per Class 9	Average Class 9 Steering	Mean Loaded Weight	Mean Unloaded Weight
Comparison values		37.6		3814	1.46	10,311	69,882	36,597
FEB 2001	8	38.8	8	3941	1.46	10,300	73,882	37,027
MAR 2001	31	35.8	31	3804	1.44	10,310	73,845	37,037
APR 2001	30	33.4	30	3473	1.04	10,253	57,724	36,468
MAY 2001	21	33.7	21	3632	0.85	10,219	57,459	36,392
APR 2002	6	34.1						
MAY 2002	17	33.5						
JUL 2002	9	28.7						
AUG 2002	24	28.3						
SEP 2002	26	33.0						
OCT 2002	22	35.7						

The results shown in Table 4 demonstrate that the percent of Class 9 vehicles is fairly stable. In 2002 the percentage decreased after May and then increased in September. The loading information for 2001 shows that the average number of Class 9 and the average steering axle weights were consistent. The average ESALs per Class 9 and mean loaded weight suddenly dropped between March and April 2001. The mean unloaded weight remained the same. There was no loading information for 2002.

9.2 Vehicle Distribution

The vehicle distribution graphs indicate whether the fleet mix is stable over time and any day of week or seasonal patterns that may exist. The vehicle distribution graphs contain two types of comparisons, one between data types and one over time. The between types comparison is represented by the two columns for every time unit present. The column on the left generally labeled with a 4 is for classification data. The right hand column of the pair is for weight data. Whether or not the data is equivalent is perhaps more important than the variation over time.

Figure 14-1 shows a typical by week pattern for classification data. The individual weeks show essentially the same mix to the fleet. Every vehicle in Classes 6 through 13 that constitutes at least 10 percent of the population is expected to stay within plus or minus 5 percent of the value observed during the two weeks following calibration. This range is shown by the darker band inside the lighter band to the right of the weekly data. Weeks that go outside more than plus or minus 10 percent of the expected value will fall above or below the light gray areas of the band. These are weeks that should have been subjected to additional scrutiny prior to accepting the data as reasonable. For this site, the fleet mix is comparatively stable in 2001 and 2002. There was no significant difference in the mix stability graphed for the weight data as shown in

Figure 14-2.

Figure 14-3 shows the typical pattern for vehicle distribution by month by year for the data collected from the classifier versus the data collected by the WIM equipment. The graph shows that the data collected by the classifier and WIM equipment are essentially the same.

9.3 ESALs per year

Average ESALs for Class 9 vehicles are a very crude method of identifying loading shifts. Figure 14-4 shows the average Class 9 ESALs per month for this location. To remove the influence of changing pavement structure all ESAL values have been computed with and SN = 5 and a p_t of 2.5. Average ESALs per Class 9 are not used as an indicator of research quality data. The average ESALs dropped significantly between March and April. However, the accuracy of the data cannot be validated.

9.4 Average Daily Steering Axle Weight

A frequently used statistic for checking scale calibration and doing auto-calibration of WIM equipment is the weight of the front axle. This value is site specific and should be relatively constant particularly for loaded Class 9s (vehicles in excess of 60,000 lbs.). Typically when auto calibration is used this value either cycles repeatedly or with very large truck volumes results in an essentially straight line for the mean. As shown in Figure 14-5 the average daily steering axle weight was fairly stable for 2001.

9.5 GVW Distributions for Class 9s

The Class 9 GVW graph is a generally accepted way to evaluate loading data reported at a site. A typical graph has two peaks, one between 28,000 and 36,000 pounds and the other between 72,000 and 80,000 pounds. The first is the unloaded peak. The second, the loaded peak reflects the legal weight limit for a 5-axle tractor-trailer vehicle. Additionally, it is expected that less than 3 percent of the trucks will be excessively light (less than 12,000 pounds) and less than 5 percent will be significantly overweight (in excess of 96,000 pounds). Data that falls outside of the expected conditions needs a record of validation to verify that the pattern is in fact correct for the location. Data meeting the expected patterns is not automatically considered to be of research quality, merely rational as bias in scale measurements may shift the peaks in the data from their true values.

The overall assessment of loading patterns is done using a Class 9 GVW graph by year over the available years. Figure 14-6 shows this is a virtually unimodal distribution. Without validation information it should not be considered representative at the site.

To investigate any seasonal variations the Class 9 GVW distributions are graphed by month by year. As shown in Figure 14-7 and Figure 14-8, the curve shifts from loaded in February and March to unloaded from April to May. This inconsistency warrants the need to validate the 2001 data.

9.6 Axle Distributions

No axle distribution graphs are required as the GVW graphs are present for all years.

10 Updated handout guide and Sheet 17

A copy of the handout has been included following page 115. It includes a current Sheet 17 with all applicable maps and photographs. There are no significant changes in the information provided.

11 Updated Sheet 18

A current Sheet 18 indicating the contacts, conditions for assessments and evaluations has been attached following the updated handout guide.

12 Traffic Sheet 16(s) (Classification Verification) - Omitted

There is no information to complete a Sheet 16.

13 Distress Photographs

Figure 13-1 Pavement Condition at Site 470600 (Downstream)

Figure 13-2 Pavement Condition at Site 470600 (Upstream)

14 Traffic Graphs

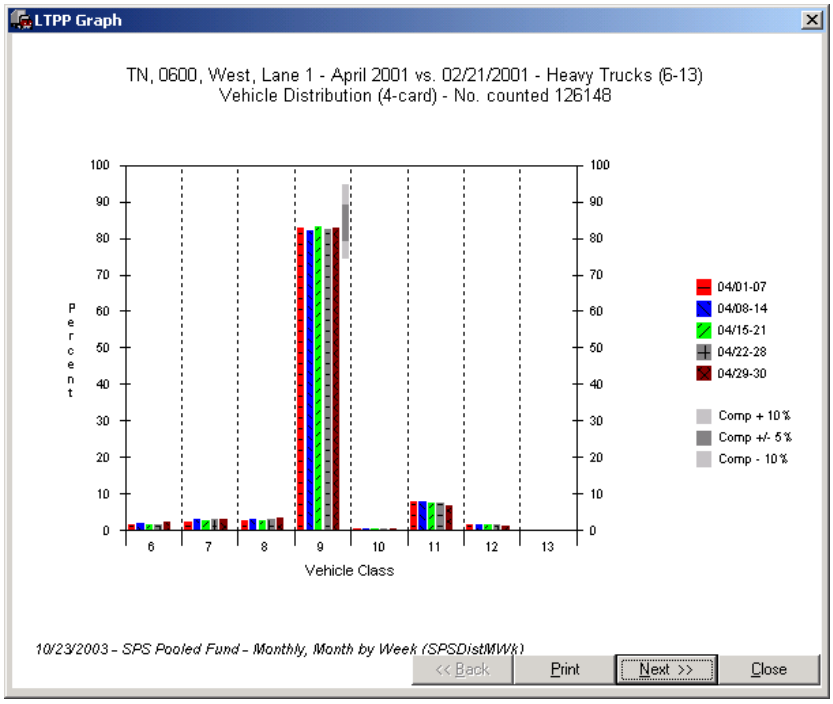

Figure 14-1 Typical Heavy Truck Distribution Pattern for Classification Data - 470600.

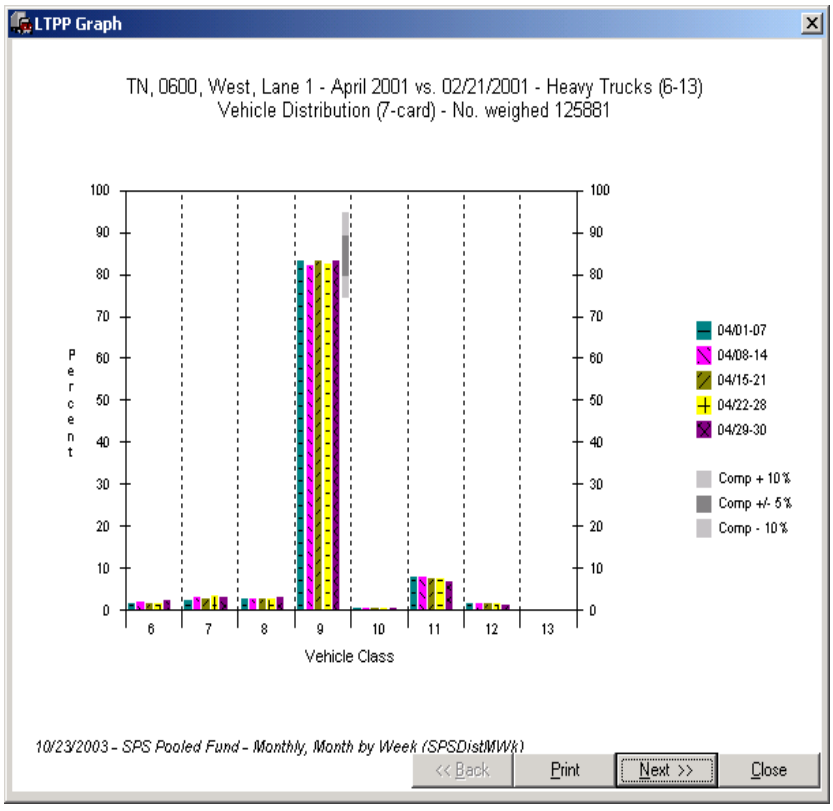

Figure 14-2 Typical Heavy Truck Distribution Pattern for Weight Data - 470600

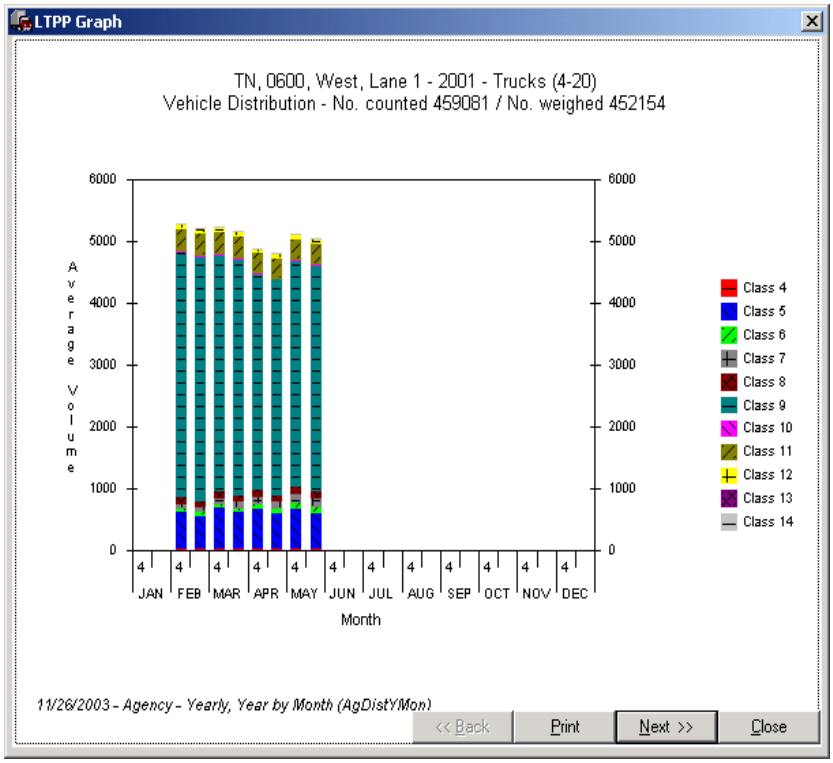

Figure 14-3 Vehicle Distribution by Month for the Year 2001 - 470600

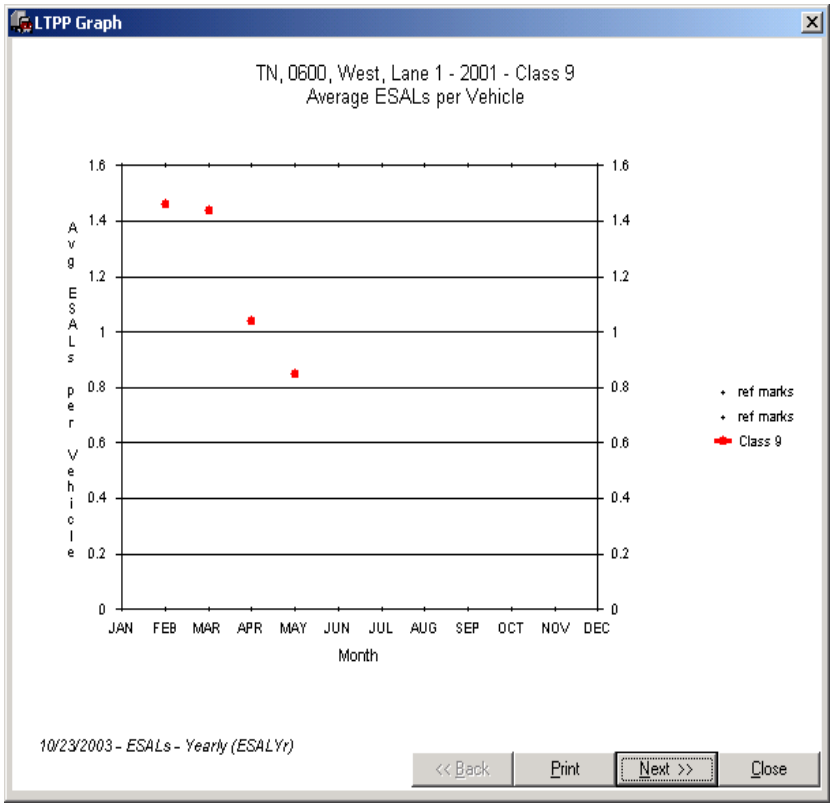

Figure 14-4 Average Class 9 ESALs for site for 2001 - 470600

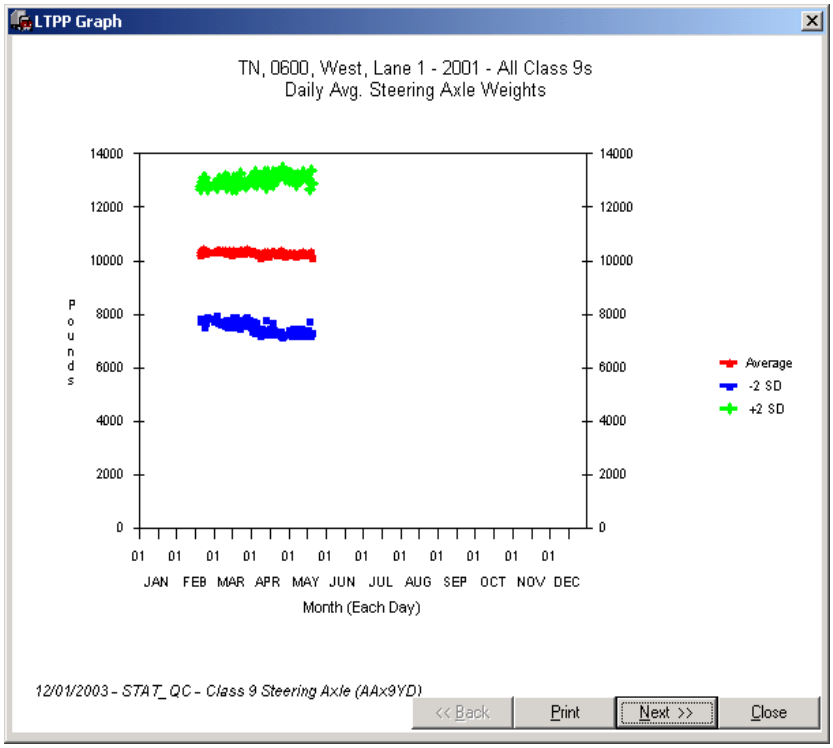

Figure 14-5 Average Daily Class 9 Steering Axle Weight - 2001 - 470600

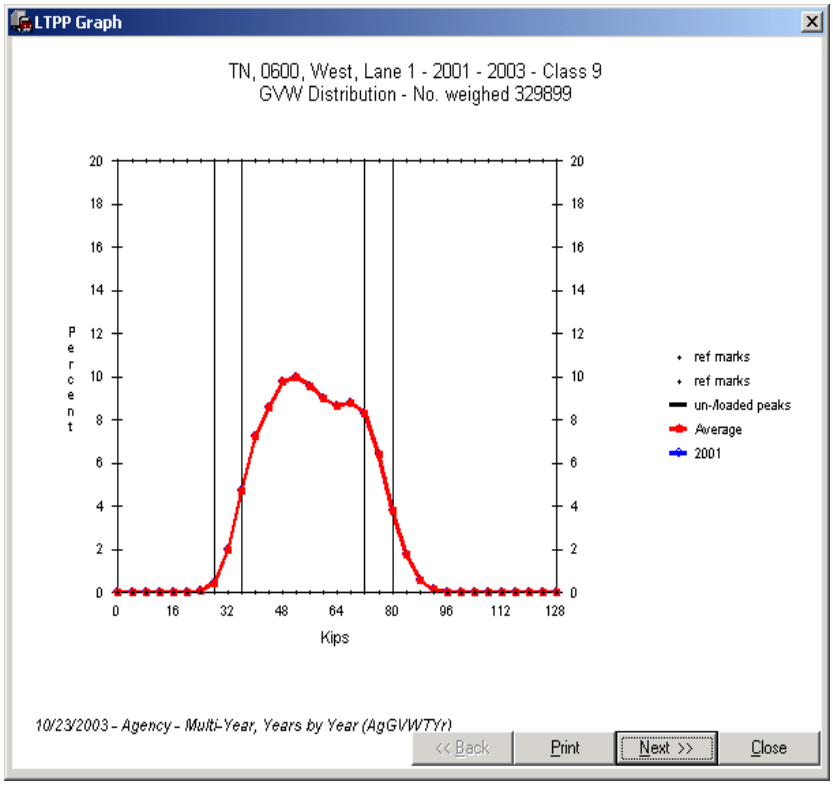

Figure 14-6 Class 9 GVW Distribution - 2001 - 470600

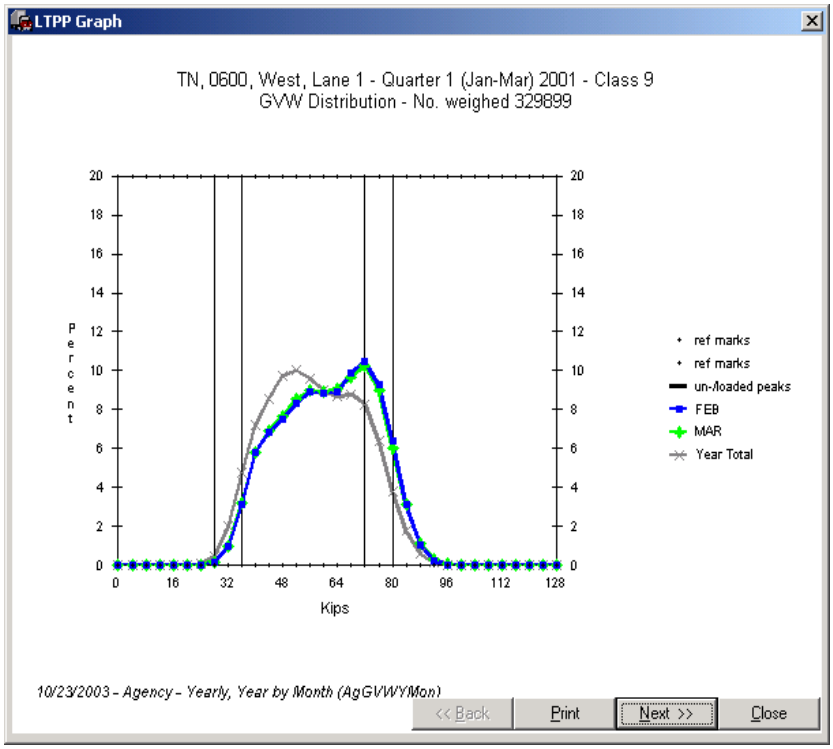

Figure 14-7 Class 9 GVW Distribution from Jan to Mar 2001 - 470600

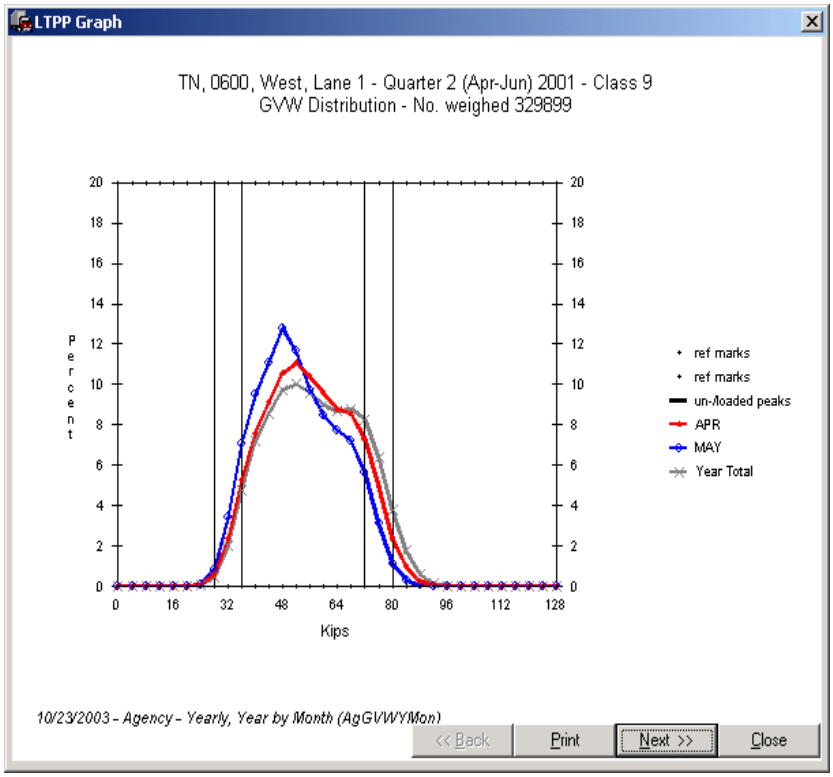

Figure 14-8 Class 9 GVW Distribution from April to May 2001 - 470600

HANDOUT GUIDE FOR SPS WIM ASSESSMENT

STATE: Tennessee

SHRP ID: 0600

Figures

1. General Information

SITE ID: *470600*

LOCATION: *I-40 West (Mile Post: 91.67)*

VISIT DATE: *November 18, 2003*

VISIT TYPE: *Assessment*

2. Contact Information

POINTS OF CONTACT:

Assessment Team: *Dean J. Wolf, 301-210-5105, djwolf@mactec.com*

Highway Agency: *Mark Gardner, 512-977-1800, MGardner@fugro.com*

Gary Wright, 512-977-1856, gwright@fugro.com

FHWA COTR: *Debbie Walker, 202-493-3068*, *deborah.walker@fhwa.dot.gov*

FHWA Division Office Liaison: *Harris Deere, 512-977-1800, harris.deere@fhwa.dot.gov*

LTPP SPS WIM WEB PAGE: *http://www.tfhrc.gov/pavement/ltpp/spstraffic/index.htm*

3. Agenda

BRIEFING DATE: *November 18, 2003 around 8:00 a.m. at Hampton Inn, 1890 Highway 45 By Pass, Jackson, TN 38305 Ph: 731-664-4312*

ONSITE PERIOD: *November 18, 2003 after the briefing*

TRUCK ROUTE CHECK: *Done (See Truck Route)*

4. Site Location/ Directions

NEAREST AIRPORT: *Memphis International Airport, Memphis, TN*

DIRECTIONS TO THE SITE: *1.8 miles W of exit 93, US 152/Low Road.*

MEETING LOCATION: *Same as Briefing Location*

WIM SITE LOCATION: *Westbound lane of IH-40, near Milepost 91.67, approximately 3 miles East of Jackson, TN (35^0 42' 555" North and 88^0 39' 800" West)*

WIM SITE LOCATION MAP: *See Figure 4.1*

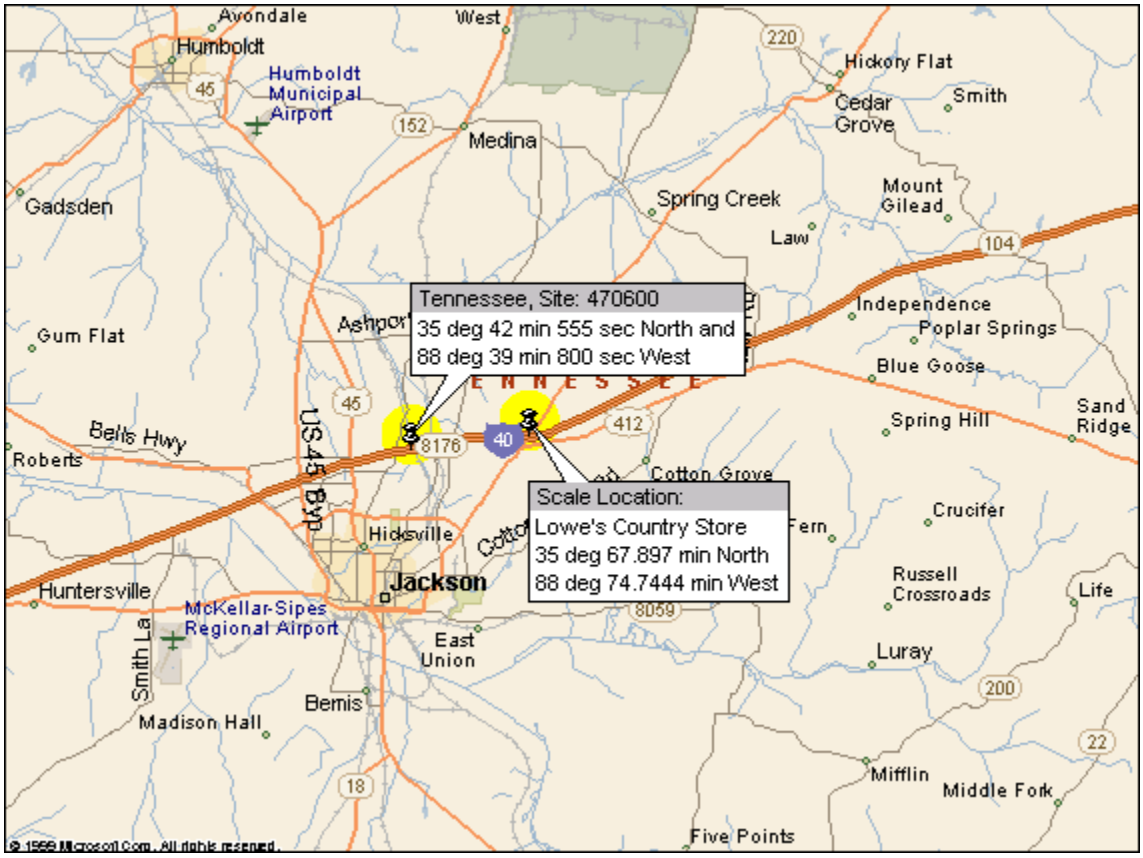

Figure 4.1: Section 470600 near Jackson, Tennessee

5. Truck Route Information

ROUTE RESTRICTIONS: *None*

SCALE LOCATION: *Lowe's Country Store, I-40 at Exit 87, Jackson, TN. Contact Carol Delane, Ph: 731-422-0901 (35^0 67. 897' North and 88^0 74. 7444' West)*

TRUCK ROUTE:

- *Westbound Turnaround – Route 70 (Exit 87) 4.96 miles from the site (35^0 40' 786" North and 88^0 44' 607").*
- *Eastbound Turnaround – Route 152/Law Road (Exit 93) 1.60 miles from the site (35^0 43' 105" North and 88^0 38' 099").*

6. Sheet 17 – Tennessee (470600)

1.* ROUTE ___I-40WB____ MILEPOST __91.67___LTPP DIRECTION - N S E W

2.* WIM SITE DESCRIPTION - Grade ___<_1____ % Sag vertical Y / N
Nearest SPS section upstream of the site _0__ _6__ _0__ _7__
Distance from sensor to nearest upstream SPS Section ___ _1__ __8_ _0__ ft

3.* LANE CONFIGURATION
Lanes in LTPP direction __2__ Lane width _1_ _2_ 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 _1__ _2__ ft

4.* PAVEMENT TYPE _____Asphalt Concrete over_Cement_Concrete___ ____

5.* PAVEMENT SURFACE CONDITION – Distress Survey
Date _____ Distress Map ~~Filename~~ Photo
Downstream_1_TO_1_47_5A_0600_11_18_03_____
Date _____ Distress Map ~~Filename~~ Photo
Upstream_1_TO_1_47_5A_0600_11_18_03.JPG _____
Date _____ Distress Map ~~Filename~~ Photo
Unavailable_____

6. * SENSOR SEQUENCE_____

7. * REPLACEMENT AND/OR GRINDING __ __ __ / __ __ / __ __ __ __
REPLACEMENT AND/OR GRINDING __ __ __ / __ __ / __ __ __ __
REPLACEMENT AND/OR GRINDING __ __ __ / __ __ / __ __ __ __

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

9. DRAINAGE (*Bending plate and load cell systems only)*
1 – Open to ground
2 – Pipe to culvert
3 – None

Clearance under plate ___ ___ . ___ in
Clearance/access to flush fines from under system Y / N

10. * CABINET LOCATION

Same side of road as LTPP lane Y / N Median Y/ N Behind barrier Y / N

Distance from edge of traveled lane _4_ _4_ ft

Distance from system __ __ __ ft

TYPE ____PAT_DAW_100_____

CABINET ACCESS controlled by LTPP / STATE / JOINT ?

Contact - name and phone number __

Mark Gardner_(Fugro Bre)_512-977-1800_____

Alternate - name and phone number

James Maxwell (TNDOT) 615-741-2641_____

11. * POWER

Distance to cabinet from drop ___ ___ _5__ ft Overhead / underground / solar / AC in cabinet?

Service provider _____ Phone number

_____

12. * TELEPHONE

Distance to cabinet from drop _1__ _0__ _0__ ft Overhead / under ground / cell?

Service provider _____ Phone Number

_____

13.* SYSTEM (software & version no.)- _____DAW 100_____

Computer connection – RS232 / Parallel port / USB / Other

_____

14. * TEST TRUCK TURNAROUND time __1_5___minutes DISTANCE _1_3_ mi.

15. PHOTOS FILENAME

Power source Cabinet_Service_Mast_1_TO_1_47_5A_0600_11_18_03.JPG __

Phone source Telephone_Pedestal_1_TO_1_47_5A_0600_11_18_03.JPG

Cabinet exterior Cabinet_Exterior_1_TO_1_47_5A_0600_11_18_03.JPG_

Cabinet interior Cabinet_Interior_1_TO_1_47_5A_0600_11_18_03.JPG__

Weight sensors Unavailable_____

Classification sensors Unavailable_____

Other sensors _____

Description _____

Downstream direction at sensors on LTPP lane

_Downstream_1_TO_1_47_5A_0600_11_18_03.JPG_____

Upstream direction at sensors on LTPP lane

Upstream_1_TO_1_47_5A_0600_11_18_03.JPG_____

COMMENTS GPS Coordinates for Site: *35^0 42' 555" North and 88^0 39' 800"*_____
_____No Sensors installed. Pavement was overlaid in Summer 2003.
_____
_____Amenities: _____Various Hotels, Restaurants, Gas Stations etc. can be found 6 to 11 miles west of the site in Jackson, TN. Exits 80 A & B, 82 A & B and 85.
_____
Posted Speed limit – 65 mph
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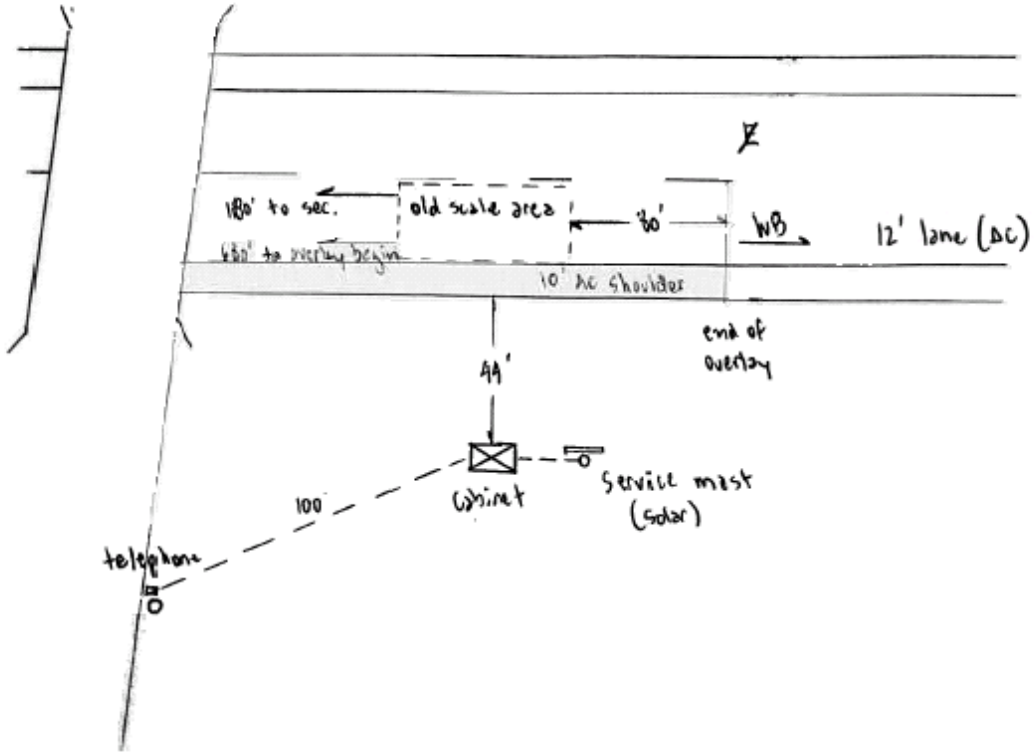
COMPLETED BY _____Dean J. Wolf_____

PHONE _301-210-5105____ DATE COMPLETED _1_ _1_ /_1_ _8_ / _2_ _0_ _0_ _3_

Sketch of equipment layout

No equipment installed in roadway

Site Map



Downstream_1_TO_1_47_5A_0600_11_18_03.JPG (Distress Photo 1)

Upstream_1_TO_1_47_5A_0600_11_18_03.JPG (Distress Photo 2)

Cabinet_Service_Mast_1_TO_1_47_5A_0600_11_18_03.JPG

Telephone_Pedestal_1_TO_1_47_5A_0600_11_18_03.JPG

Cabinet_Exterior_1_TO_1_47_5A_0600_11_18_03.JPG

Cabinet_Interior_1_TO_1_47_5A_0600_11_18_03.JPG

Downstream_1_TO_1_47_5A_0600_11_18_03.JPG

Upstream_1_TO_1_47_5A_0600_11_18_03.JPG

WIM SITE COORDINATION

SPS Project_ID _0_ _6_ 0 _0

1. Equipment –
   - Maintenance – contract with purchase / separate contract LTPP / separate contract State / state personnel

   Contact __(RSC) Mark Gardner_(512) 977-1800_(Contract Currently Expired)

   - Purchase by LTPP / State
     Constraints on specifications (sensor, electronics, warranties, maintenance, installation)

   - Installation – Included with purchase / separate contract by State / state personnel / LTPP contract

   - Calibration – Vendor / State / LTPP

   - Manuals and software – State / LTPP

   - Pavement * PCC/AC – always new / replacement as needed / grinding and maintenance as needed / maintenance only / no remediation * AC Overlay of PCC

   - Power - overhead / underground / solar billed to State / LTPP / N/A

   - Communication - Landline / Cellular / Other billed to State / LTPP / N/A

2. Site visits – Evaluation

   - WIM Validation Check - advance notice required _30__ days / weeks

   - Trucks – air suspension 3S2 State / LTPP
     2nd common – Class 5 State / LTPP
     3rd common State / LTPP
     4th common State / LTPP
     Loads State / LTPP
     Contact ____LTPP_____

     Drivers State / LTPP
     Contact _____

     * Post Cal. Activities – SHA has provided, but not generally what would be considered ideal vehicle

     Contractors with prior successful experience in WIM calibration in state:
     ____(RSC) Mark Gardner_(512) 977-1800_____
     Nearest static scale (commercial or enforcement)
     _Cat Scale just East of Jackson (exit 87); State Weigh Station ~ 25 mi. of Jackson

   - Profiling – short wave -- permanent / temporary site marking
     -- long wave – permanent / temporary site marking

WIM SITE COORDINATION SPS Project_ID _0_ _6_ 0 _0

- Pre-visit data
  - Classification and speed: Contact ___(RSC) Mark Gardner_(512) 977-1800__
  --Typical operating conditions (congestion, high truck volumes)
  Contact _____ (RSC) Mark Gardner_(512) 977-1800_____
  -- Equipment operational status: Contact _(RSC) Mark Gardner_(512) 977-1800_

- Access to cabinet
  State only / Joint / LTPP Key / Combination

- State personnel required on site Y / N – May be
Contact information ____(Agency) James Maxwell_(615) 741-2641_____

- Enforcement Coordination required Y / N
Contact information _____

- Traffic Control Required Y/ N
Contact information _____

- Maximum number of personnel on site ___;
  Invitees _____

- Authorization to calibrate site -- State only / LTPP

- Special conditions _____

3. Data Processing
- Down load State only / LTPP read only / LTPP download / LTPP download and copy to state
- Data Review State per LTPP guidelines / State weekly / LTPP
- Data submission for QC State - weekly; twice a month; monthly / LTPP

4. Site visits – Validation

- WIM Validation Check - advance notice required __2___ days / weeks
LTPP Semi-annually / Sate per LTPP protocol semi-annually / State other

- Trucks – air suspension 3S2 State / LTPP
  2nd common – Class 5 State / LTPP
  3rd common State / LTPP
  4th common State / LTPP
  Loads State / LTPP
  Contact _____

  Drivers State / LTPP

WIM SITE COORDINATION SPS Project_ID _0_ _6_ 0 _0

Contact _____

Contractors with prior successful experience in WIM calibration in state:
___(RSC) Mark Gardner_(512) 977-1800_____

- Profiling – short wave -- permanent / temporary site marking
  -- long wave – permanent / temporary site marking

- Pre-visit data
  – Classification and speed: Contact _____(RSC) Mark Gardner_(512) 977-1800_
  -- Equipment operational status: Contact _(RSC) Mark Gardner_(512) 977-1800_

- Access to cabinet
  State only / Joint / LTPP Key / Combination

- State personnel required on site Y / N – May be
Contact information ____ (Agency) James Maxwell_(615) 741-2641_____

- Enforcement Coordination required Y / N
Contact information ___ _____

- Traffic Control Required Y/ N
Contact information _____

- Authorization to calibrate site -- State only / LTPP

- Special conditions _____

5. Site visit – Construction

- Construction schedule and verification – Contact _James Maxwell_(615) 741-2641__

- Notice for straightedge and grinding check - __2___ days / weeks
On site lead to direct / accept grinding – State / LTPP

- WIM Calibration - advance notice required __2__ days / weeks
  Number of lanes -- _____
  LTPP / State per LTPP protocol / State Other _____

* There are two lanes in WB direction, but uncertain if intend to install in both

- Trucks – air suspension 3S2 State / LTPP
  2nd common – Class 5 State / LTPP
  Loads State / LTPP
  Drivers State / LTPP

Contractors with prior successful experience in WIM calibration in state:

WIM SITE COORDINATION SPS Project_ID _0_ _6_ 0 _0

_____(RSC) Mark Gardner_(512) 977-1800_____

- Profiling – straight edge -- permanent / temporary site marking
  -- long wave – permanent / temporary site marking

- Pre-visit data
  – Classification and speed: Contact ___(RSC) Mark Gardner_(512) 977-1800
  -- Equipment operational status: Contact __(RSC) Mark Gardner_(512) 977-1800

- Access to cabinet
  State only / Joint / LTPP Key / Combination

- State personnel required on site Y / N – May be
Contact information __(Agency) James Maxwell_(615) 741-2641_____

- Enforcement Coordination required Y / N
Contact information _____

- Traffic Control Required Y/ N
Contact information _____

- Authorization to calibrate site -- State only / LTPP

- Special conditions _____

6. Special conditions
   - Funds and accountability
   - Reports
   - Other