

# WIM System Field Calibration and Validation Handout Guide

Texas, SPS-1 and additional lane  
SHRP ID – 480100/480199

Validation Date: January 25, 2011



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## 1 Site Information

|                         |             |                        |                            |
|-------------------------|-------------|------------------------|----------------------------|
| <b>Site ID:</b>         | 480100      | <b>State:</b>          | Texas                      |
| <b>LTPP Region:</b>     | Southern    | <b>Configuration:</b>  | loop-2 bending plates-loop |
| <b>Controller Type:</b> | DAW-190     | <b>Sensor Type:</b>    | Bending Plate              |
| <b>Power:</b>           | AC          | <b>Communication:</b>  | Landline                   |
| <b>Class Scheme:</b>    | LTPP Mar 06 | <b>CPU type/setup:</b> |                            |

## 2 Contact Information

| Agency    | Contact         | Position        | Phone        | E-mail                  |
|-----------|-----------------|-----------------|--------------|-------------------------|
| FHWA      | Debbie Walker   | COTR            | 202-493-3068 | deborah.walker@dot.gov  |
| FHWA      | Darrin Grenfell | Division Office | 512-536-5922 | darrin.grenfell@dot.gov |
| RSC       | Mark Gardner    | Project Manager | 512-977-1800 | mgardner@fugro.com      |
| TXDOT     | Dar Hao Chen    | LTPP Contact    | 512-467-3963 | dchen@txdot.gov         |
| TXDOT     | Mike Murphy     | LTPP Contact    | 512-465-3686 | mmurphy@txdot.gov       |
| TXDOT     | Luis Peralez    | Pharr District  | 956-702-6162 | lperalez@txdot.gov      |
| TXDOT     | Glen Bates      | Traffic Contact |              | glen.bates@txdot.gov    |
| ARA       | Dean Wolf       | Task Leader     | 717-512-6638 | dwolf@ara.com           |
| ARA       | Olga Selezneva  | Project Manager | 410-540-9949 | oselezneva@ara.com      |
| Ainsworth | Grant Hilliard  | Truck Vendor    | 800-241-0616 |                         |

## 3 Schedule of Events

| Date    | Event                               | Location             | Start Time |
|---------|-------------------------------------|----------------------|------------|
| 1/24/11 | Travel                              | Edinburg, TX         | TBD        |
| 1/25/11 | Equipment Assessment                | WIM Site             | TBD        |
| 1/25/11 | Test Truck Weigh/Measure/Inspection | Love's Country Store | 6:30 am    |
| 1/25/11 | Initial Performance Evaluation      | WIM Site             | 8:00 am    |
| 1/25/11 | System Test/Class and Speed Study   | WIM Site             | TBD        |
| 1/26/11 | Validation                          | WIM Site             | TBD        |
| 1/27/11 | Travel                              | Camp Hill, PA        | TBD        |

## 4 Maps

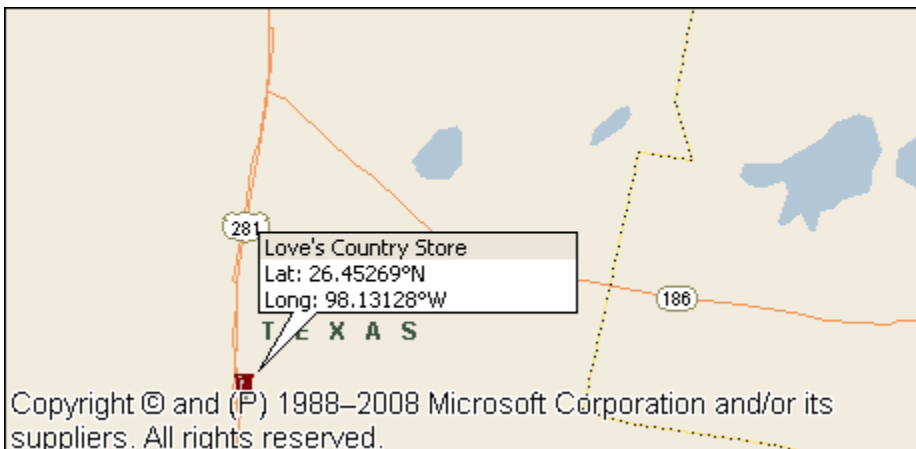
### 4.1 Site Location

|                  |                                         |                   |                   |    |
|------------------|-----------------------------------------|-------------------|-------------------|----|
| <b>Location:</b> | US-281 South, 9.2 miles north of SR 186 |                   | <b>Direction:</b> | SB |
| <b>Latitude:</b> | 26.68600°                               | <b>Longitude:</b> | -98.11470°        |    |



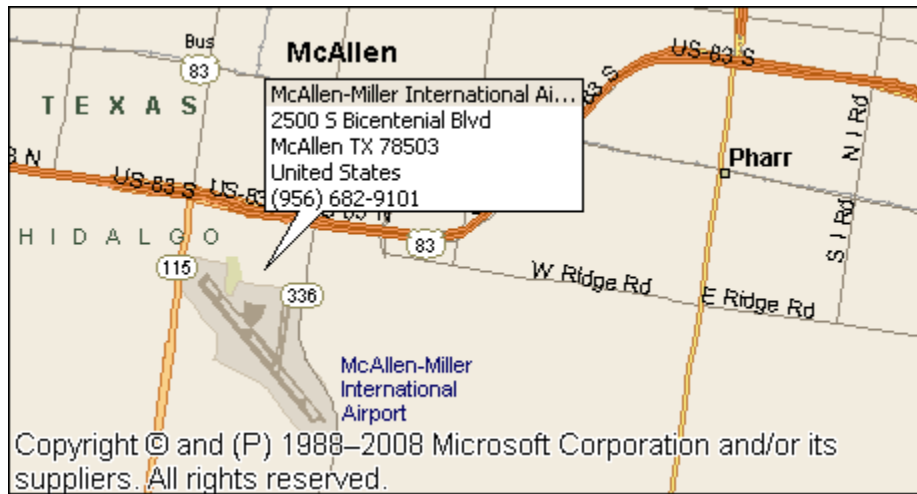
### 4.2 Truck Scale Location

|                  |                       |                   |                             |
|------------------|-----------------------|-------------------|-----------------------------|
| <b>Name:</b>     | Love's Country Stores | <b>Location:</b>  | Hwy 281 & FM 2812, Edinburg |
| <b>Latitude:</b> | 26.45269°             | <b>Longitude:</b> | -98.13128°                  |



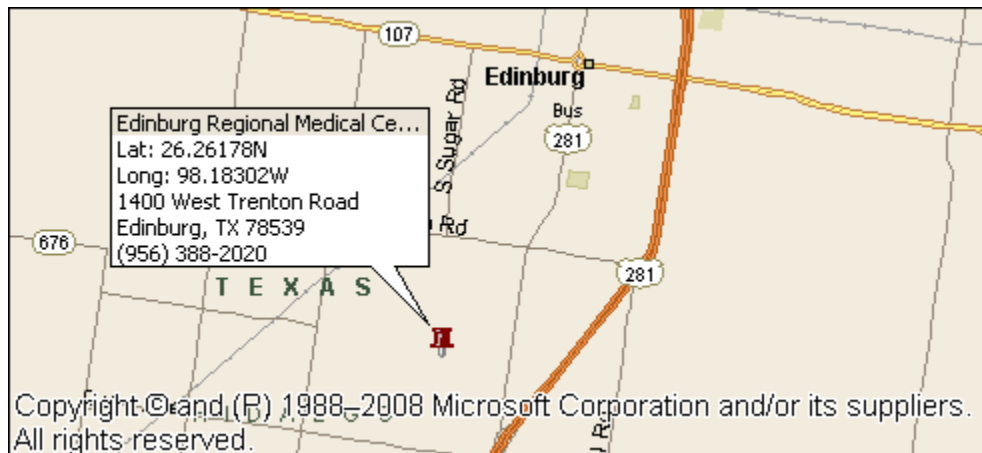
### 4.3 Airport Location

|                  |                               |                   |             |
|------------------|-------------------------------|-------------------|-------------|
| <b>Name:</b>     | McAllen International Airport | <b>Location:</b>  | McAllen, TX |
| <b>Latitude:</b> | 26.17640°                     | <b>Longitude:</b> | -98.23849°  |



### 4.4 Hospital Location

|               |                                 |                  |                                      |
|---------------|---------------------------------|------------------|--------------------------------------|
| <b>Name:</b>  | Edinburg Regional Hospital – ER |                  |                                      |
| <b>Phone:</b> | (956) 388-2020                  | <b>Location:</b> | 1400 West Trenton Road, Edinburg, TX |



## **5 Occupational Health and Safety Plan**

All fieldwork in the right-of-way will be carried out when the ground visibility is more than 3 km, and when there is no accumulation of water, snow, or ice is on the pavement.

To the extent possible, inspection work during extremely high and low temperatures will be avoided. If the work becomes necessary, workers will be reminded to make appropriate precautions (wear protective clothing, drink fluids, and avoid prolonged exposure to severe weather conditions).

All personnel present on the right-of-way will wear approved safety gear (boots, reflective safety vest, and helmet).

The following items will be available at the site: a standard first-aid kit, a cell phone, and the location of nearby hospital(s).

## **6 Contingency Plan**

If inclement weather is forecasted prior to mobilizing to the site, the Project Manager will make the final decision to postpone the Validation visit. The Task Leader is responsible for contacting all parties involved to inform them of the postponement. He is also responsible for rearranging travel.

Once the Validation team is on-site, the On-Site Task Leader is responsible for making decisions to delay or postpone the Validation. He will contact the Project Manager to make recommendations for completing the Validation, and the Project Manager will make the final decision to cancel or postpone. The On-Site Task Leader is responsible for contacting the COTR and all other participating parties to inform them of the delay or postponement.



|                                                                                            |                                                                     |
|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Traffic Sheet 17</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>WIM SITE INVENTORY</b> | STATE CODE: 48<br>SPS WIM ID: 480199<br>DATE (mm/dd/yyyy) 1/25/2011 |
|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------|

#### 10. CABINET LOCATION

Same side of road as LTPP lane: Y  
Distance from edge of traveled lane: 68 ft  
distance from system: 80 ft  
type: M

Cabinet access controlled by: Agency  
Contact name: Mike Lloyd Phone # 512-913-7236  
Alternate name: Glen Bates Phone # 512-465-7336

#### 11. POWER

Distance to cabinet from drop: 855 ft  
Type: AC  
AC in cabinet? Y  
Service provider: \_\_\_\_\_ Phone # \_\_\_\_\_

#### 12. TELEPHONE

Distance to cabinet from drop: 855 ft  
Type: landline  
Service provider: \_\_\_\_\_ Phone # \_\_\_\_\_

#### 13. SYSTEM

Software and version no. iSync  
Computer connection: RS-232

#### 14. TEST TRUCK TURNAROUND TIME

Duration: 10 minutes Distance: 7 miles

#### 15. PHOTOS

|                                       | Filename                                       |
|---------------------------------------|------------------------------------------------|
| Power source:                         | <u>480199_power_service_box_1_25_11.jpg</u>    |
| Phone source:                         | <u>480199_telephone_pedestal_1_25_11.jpg</u>   |
| Cabinet exterior:                     | <u>480199_cabinet_exterior_1_25_11.jpg</u>     |
| Cabinet interior:                     | <u>480199_cabinet_interior_1_25_11.jpg</u>     |
| Weight sensors:                       | <u>480199_leading_wim_sensor_1_25_11.jpg</u>   |
|                                       | <u>480199_trailing_wim_sensor_1_25_11.jpg</u>  |
| Other sensors:                        | <u>480199_leading_loop_sensor_1_25_11.jpg</u>  |
|                                       | <u>480199_trailing_loop_sensor_1_25_11.jpg</u> |
| Downstream from sensors on LTPP lane: | <u>480199_downstream_1_25_11.jpg</u>           |
| Upstream from sensors on LTPP lane:   | <u>480199_upstream_1_25_11.jpg</u>             |

|                                                                                               |                                                                     |
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| <b>Traffic Sheet 18</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>WIM SITE COORDINATION</b> | STATE CODE: 48<br>SPS WIM ID: 480199<br>DATE (mm/dd/yyyy) 1/25/2011 |
|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------|

### 1. DATA PROCESSING

- a. Download: State only
- b. Data review: State per LTPP guidelines  
If state, how often? Monthly
- c. Data submission LTPP  
If state how often? Quarterly

### 2. EQUIPMENT

- a. Purchase State
- b. Installation State personnel
- c. Maintenance State personnel  
Expiration Date
- d. Calibration State
- e. Manuals and software control: State
- f. Power  
i. Type Underground      ii. Payment State
- g. Communication  
i. Type Landline      ii. Payment State

### 3. PAVEMENT

- a. Type Portland Concrete Cement
- b. Allowable Rehabilitation activities Grinding and maintenance as needed
- c. Profile Site Markings Temporary

|                                                                                               |                                                                     |
|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Traffic Sheet 18</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>WIM SITE COORDINATION</b> | STATE CODE: 48<br>SPS WIM ID: 480199<br>DATE (mm/dd/yyyy) 1/25/2011 |
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#### 4. Onsite Activities

- a. WIM Validation Check advance notice required

\_\_\_\_\_ Days      2 Weeks

- b. Notice for straightedge and grinding check

\_\_\_\_\_ Days      6 Weeks

i. On site lead      State

ii. Accept grinding      State

- c. Authorization to calibrate site      State

- d. Calibration routine      State - other  
Other: 4 Times / Year

- e. Test Vehicle Responsibilities

- i. Trucks

|      |                           |              |
|------|---------------------------|--------------|
| 1st- | <u>Air suspension 3S2</u> | <u>LTPP</u>  |
| 2nd- | <u>Air Suspension 3S2</u> | <u>LTPP</u>  |
| 3rd- | <u>Air Suspension 3S2</u> | <u>State</u> |
| 4th- | _____                     | _____        |

ii. Loads      LTPP

iii. Drivers      LTPP

- f. Contractor(s) with prior experience in wim calibration in state:

\_\_\_\_\_

- g. Access to cabinet      State only

- h. State personel required on site      Yes

- i. Traffic control required      No

- J. Enforcement coordination required      No

|                                                                                               |                                                                     |
|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Traffic Sheet 18</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>WIM SITE COORDINATION</b> | STATE CODE: 48<br>SPS WIM ID: 480199<br>DATE (mm/dd/yyyy) 1/25/2011 |
|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------|

## 5. SITE SPECIFIC CONDITIONS

- a. Funds and accountability: State and Pooled Funds
- b. Reports: \_\_\_\_\_
- c. Other: \_\_\_\_\_
- c. Special Conditions \_\_\_\_\_

## 6. CONTACTS

- a. Equipment (operational status, access, etc.)  
Name Mike Lloyd Phone # 912-513-7236  
Agency TXDOT
- b. Maintenance (equipment)  
Name Mike Lloyd Phone # 912-513-7236  
Agency TXDOT
- c. Data Processing and pre-visit data  
Name Glen Bates Phone # 512-465-7336  
Agency TXDOT
- d. Construction schedule and verification  
Name Mike Lloyd Phone # 912-513-7236  
Agency TXDOT
- e. Test Vehicles ( trucks, loads, drivers)  
Name Mike Lloyd Phone # 912-513-7236  
Agency TXDOT
- f. Traffic control  
Name Mike Lloyd Phone # 912-513-7236  
Agency TXDOT
- g. Enforcement coordination  
Name Mike Lloyd Phone # 912-513-7236  
Agency TXDOT
- h. Nearest static scale  
Name Loves country store Location: Edinburg  
Phone: 956-316-1782

|                                                                                                    |                                                                     |
|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Traffic Sheet 19</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>CALIBRATION TEST TRUCK # 1</b> | STATE CODE: 48<br>SPS WIM ID: 480199<br>DATE (mm/dd/yyyy) 1/25/2011 |
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**CALIBRATION TEST TRUCK -** Primary

**PART A**

1. FHWA CLASS: 9                      2. Number of axles: 5

3. AXLE WEIGHTS (lbs)

|   | a. Empty Truck Avg.<br>Axle Weight | b. Pre-test Average<br>Axle Weight | c. Post-Test Avg.<br>Axle Weight | d. Direct or<br>Calculated? |
|---|------------------------------------|------------------------------------|----------------------------------|-----------------------------|
| A |                                    | 10580                              | 10300                            | Direct                      |
| B |                                    | 16645                              | 16590                            | Direct                      |
| C |                                    | 16645                              | 16590                            | Direct                      |
| D |                                    | 17085                              | 17080                            | Direct                      |
| E |                                    | 17085                              | 17080                            | Direct                      |
| F |                                    |                                    |                                  |                             |

**4. GVW (same units as axles)**

a. Empty GVW: \_\_\_\_\_  
b. Average Pre-Test Loaded weight: 78040  
c. Post Test Loaded Weight: 77640  
d. Difference Post Test - Pre-Tests: 400

**5. TRUCK DESCRIPTION**

a. Tractor Cab Style: Conventional                      Sleeper Cab: No  
photo: ☒

b. Make: Freightliner  
c. Model: FL113

d. Trailer Load Distribution Description:  

concrete block

photo: ☒

e. Tractor Tare weight - \_\_\_\_\_ - \_\_\_\_\_  
f. Trailer Tare weight - \_\_\_\_\_ - \_\_\_\_\_  
g. Axle Spacing - (feet and inches)

A to B 12.0    B to C 4.3    C to D 31.1    D to E 4.0    E to F \_\_\_\_\_

h. Wheelbase - ☐ Measured \_\_\_\_\_ ☒ Computed 51.4  
i. Kingpin offset from Axle B (units) 1.5                      photo: ☐  
j. Overall Length - ☒ Measured 58.2



|                                                                                                           |                                                                     |
|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Traffic Sheet 19</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>CALIBRATION TEST TRUCK # <u>1</u></b> | STATE CODE: 48<br>SPS WIM ID: 480199<br>DATE (mm/dd/yyyy) 1/25/2011 |
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**CALIBRATION TEST TRUCK -** Primary

## 6. SUSPENSION

|   | a. Tire size | b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.) | c. photo                            |
|---|--------------|----------------------------------------------------------------------------|-------------------------------------|
| A | 11R/22.5     | steel spring                                                               | <input checked="" type="checkbox"/> |
| B | 11R/22.5     | air                                                                        | <input checked="" type="checkbox"/> |
| C | 11R/22.5     | air                                                                        | <input checked="" type="checkbox"/> |
| D | 11R/22.5     | air                                                                        | <input checked="" type="checkbox"/> |
| E | 11R/22.5     | air                                                                        | <input checked="" type="checkbox"/> |
| F |              |                                                                            | <input type="checkbox"/>            |

d. Cold Tire Pressures (psi)- from right to left

| Steering Axle | Axle B | Axle C | AxleD | AxleE | Axle F |
|---------------|--------|--------|-------|-------|--------|
| 107.2         | 97.5   | 98.8   | 98.7  | 106.2 |        |
|               | 88.5   | 101.4  | 95    | 91.1  |        |
| 102.8         | 99.3   | 96.4   | 89.6  | 92.5  |        |
|               | 87.2   | 83.9   | 92.8  | 94.2  |        |

## PART B

**Table 1 - Raw Measurements -Platform Scale**

| Axles            | Meas. | Pre-test Weight | Instance | Instance | Post-test weight |
|------------------|-------|-----------------|----------|----------|------------------|
| A                | I     |                 |          |          |                  |
| A+B              | II    |                 |          |          |                  |
| A+B+C            | III   |                 |          |          |                  |
| A+B+C+D          | IV    |                 |          |          |                  |
| A+B+C+D+E(1)     | V     |                 |          |          |                  |
| A+B+C+D+E+(F)(1) | VI    |                 |          |          |                  |
| B+C+D+E+(F)      | VII   |                 |          |          |                  |
| C+D+E+(F)        | VIII  |                 |          |          |                  |
| D+E+(F)          | IX    |                 |          |          |                  |
| E+(F)            | X     |                 |          |          |                  |
| (F)              | XI    |                 |          |          |                  |
| A+B+C+D+E+(F)(2) | XII   |                 |          |          |                  |

|                                                                                                                                     |                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <p align="center"><b>Traffic Sheet 19</b><br/> <b>LTPP MONITORED TRAFFIC DATA</b><br/> <b>CALIBRATION TEST TRUCK # <u>1</u></b></p> | <p>STATE CODE: 48<br/> SPS WIM ID: 480199<br/> DATE (mm/dd/yyyy) 1/25/2011</p> |
|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|

**CALIBRATION TEST TRUCK -** Primary

**Table 2 - Axle and GVW Computations -Platform Scale Pre-test**

|               | <b>1</b> |   | <b>2</b> |   | <b>Avg.</b> |
|---------------|----------|---|----------|---|-------------|
| <b>Axle A</b> | I        | 0 | VI-VII   | 0 | 0           |
| <b>Axle B</b> | II-I     | 0 | VII-VIII | 0 | 0           |
| <b>Axle C</b> | III-II   | 0 | VIII-IX  | 0 | 0           |
| <b>Axle D</b> | IV-III   | 0 | IX-X     | 0 | 0           |
| <b>Axle E</b> | V-IV     | 0 | X-XI     | 0 | 0           |
| <b>Axle F</b> | VI-V     |   | XI       |   |             |
| <b>GVW</b>    | VI       | 0 | XII      | 0 | 0           |

**Table 3- Axle and GVW Computations - Platform Scale - Instance -**

|               | <b>1</b> |   | <b>2</b> |   | <b>Avg.</b> |
|---------------|----------|---|----------|---|-------------|
| <b>Axle A</b> | I        | 0 | VI-VII   | 0 | 0           |
| <b>Axle B</b> | II-I     | 0 | VII-VIII | 0 | 0           |
| <b>Axle C</b> | III-II   | 0 | VIII-IX  | 0 | 0           |
| <b>Axle D</b> | IV-III   | 0 | IX-X     | 0 | 0           |
| <b>Axle E</b> | V-IV     | 0 | X-XI     | 0 | 0           |
| <b>Axle F</b> | VI-V     |   | XI       |   |             |
| <b>GVW</b>    | VI       | 0 | XII      | 0 | 0           |

**Table 4- Axle and GVW Computations - Platform Scale - Instance -**

|               | <b>1</b> |   | <b>2</b> |   | <b>Avg.</b> |
|---------------|----------|---|----------|---|-------------|
| <b>Axle A</b> | I        | 0 | VI-VII   | 0 | 0           |
| <b>Axle B</b> | II-I     | 0 | VII-VIII | 0 | 0           |
| <b>Axle C</b> | III-II   | 0 | VIII-IX  | 0 | 0           |
| <b>Axle D</b> | IV-III   | 0 | IX-X     | 0 | 0           |
| <b>Axle E</b> | V-IV     | 0 | X-XI     | 0 | 0           |
| <b>Axle F</b> | VI-V     |   | XI       |   |             |
| <b>GVW</b>    | VI       | 0 | XII      | 0 | 0           |

**Table 5- Axle and GVW Computations - Platform Scale Post-Test**

|               | <b>1</b> |   | <b>2</b> |   | <b>Avg.</b> |
|---------------|----------|---|----------|---|-------------|
| <b>Axle A</b> | I        | 0 | VI-VII   | 0 | 0           |
| <b>Axle B</b> | II-I     | 0 | VII-VIII | 0 | 0           |
| <b>Axle C</b> | III-II   | 0 | VIII-IX  | 0 | 0           |
| <b>Axle D</b> | IV-III   | 0 | IX-X     | 0 | 0           |
| <b>Axle E</b> | V-IV     | 0 | X-XI     | 0 | 0           |
| <b>Axle F</b> | VI-V     |   | XI       |   |             |
| <b>GVW</b>    | VI       | 0 | XII      | 0 | 0           |

|                                                                                                                                     |                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <p align="center"><b>Traffic Sheet 19</b><br/> <b>LTPP MONITORED TRAFFIC DATA</b><br/> <b>CALIBRATION TEST TRUCK # <u>1</u></b></p> | <p align="right">STATE CODE: 48<br/> SPS WIM ID: 480199<br/> DATE (mm/dd/yyyy) 1/25/2011</p> |
|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|

**CALIBRATION TEST TRUCK -** Primary

**Table 6 - Raw Data -Axle Scales - Pre-test**

| Pass | Axle A | Axle B | Axle C | Axle D | Axle E | Axle F | GVW   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 1    | 10640  | 16610  | 16610  | 17090  | 17090  |        | 78040 |
| 2    | 10520  | 16680  | 16680  | 17080  | 17080  |        | 78040 |
| Avg. | 10580  | 16645  | 16645  | 17085  | 17085  |        | 78040 |

**Table 7- Raw Data- Axle scales -**

| Pass | Axle A | Axle B | Axle C | Axle D | Axle E | Axle F | GVW |
|------|--------|--------|--------|--------|--------|--------|-----|
| 1    |        |        |        |        |        |        |     |
| 2    |        |        |        |        |        |        |     |
| Avg. |        |        |        |        |        |        |     |

**Table 8- Raw Data- Axle scales -**

| Pass | Axle A | Axle B | Axle C | Axle D | Axle E | Axle F | GVW |
|------|--------|--------|--------|--------|--------|--------|-----|
| 1    |        |        |        |        |        |        |     |
| 2    |        |        |        |        |        |        |     |
| Avg. |        |        |        |        |        |        |     |

**Table 9 - Raw Data -Axle Scales - Post-test**

| Pass | Axle A | Axle B | Axle C | Axle D | Axle E | Axle F | GVW   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 1    | 10320  | 16590  | 16590  | 17070  | 17070  |        | 77640 |
| 2    | 10280  | 16590  | 16590  | 17090  | 17090  |        | 77640 |
| Avg. | 10300  | 16590  | 16590  | 17080  | 17080  |        | 77640 |

Validation Test Truck Run Set - Pre

**Measured By:** Kevin Trousdale

**Verified By:** \_\_\_\_\_

|                                                                                                    |                                                                     |
|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Traffic Sheet 19</b><br><b>LTTP MONITORED TRAFFIC DATA</b><br><b>CALIBRATION TEST TRUCK # 2</b> | STATE CODE: 48<br>SPS WIM ID: 480199<br>DATE (mm/dd/yyyy) 1/25/2011 |
|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|

**CALIBRATION TEST TRUCK -** Secondary

**PART A**

1. FHWA CLASS: 9                      2. Number of axles: 5
3. AXLE WEIGHTS (lbs)

|   | a. Empty Truck Avg.<br>Axle Weight | b. Pre-test Average<br>Axle Weight | c. Post-Test Avg.<br>Axle Weight | d. Direct or<br>Calculated? |
|---|------------------------------------|------------------------------------|----------------------------------|-----------------------------|
| A |                                    | 11500                              | 11210                            | Direct                      |
| B |                                    | 16720                              | 16665                            | Direct                      |
| C |                                    | 16720                              | 16665                            | Direct                      |
| D |                                    | 16570                              | 16550                            | Direct                      |
| E |                                    | 16570                              | 16550                            | Direct                      |
| F |                                    |                                    |                                  |                             |

**4. GVW (same units as axles)**

- a. Empty GVW: \_\_\_\_\_
- b. Average Pre-Test Loaded weight: 78080
- c. Post Test Loaded Weight: 77640
- d. Difference Post Test - Pre-Tests: 440

**5. TRUCK DESCRIPTION**

- a. Tractor Cab Style: Conventional                      Sleeper Cab: Yes  
photo: ☒

- b. Make: International  
c. Model: 9200i

d. Trailer Load Distribution Description:

Dry bulk sand

photo: ☒

- e. Tractor Tare weight - \_\_\_\_\_ - \_\_\_\_\_
- f. Trailer Tare weight - \_\_\_\_\_ - \_\_\_\_\_
- g. Axle Spacing - \_\_\_\_\_

A to B 15.1      B to C 4.4      C to D 32.0      D to E 4.1      E to F \_\_\_\_\_

- h. Wheelbase - ☐ Measured \_\_\_\_\_ ☒ Computed 55.6
- i. Kingpin offset from Axle B (units) 1.3 photo: ☐
- j. Overall Length - ☒ Measured 61.8



|                                                                                                           |                                                                     |
|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Traffic Sheet 19</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>CALIBRATION TEST TRUCK # <u>2</u></b> | STATE CODE: 48<br>SPS WIM ID: 480199<br>DATE (mm/dd/yyyy) 1/25/2011 |
|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|

**CALIBRATION TEST TRUCK -** Secondary

## 6. SUSPENSION

|   | a. Tire size | b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.) | c. photo                            |
|---|--------------|----------------------------------------------------------------------------|-------------------------------------|
| A | 11R 24.5     | steel spring                                                               | <input checked="" type="checkbox"/> |
| B | 11R 24.5     | air                                                                        | <input checked="" type="checkbox"/> |
| C | 11R 24.5     | air                                                                        | <input checked="" type="checkbox"/> |
| D | 11R 24.5     | air                                                                        | <input checked="" type="checkbox"/> |
| E | 11R 24.5     | air                                                                        | <input checked="" type="checkbox"/> |
| F |              |                                                                            | <input type="checkbox"/>            |

d. Cold Tire Pressures (psi)- from right to left

| Steering Axle | Axle B | Axle C | AxleD | AxleE | Axle F |
|---------------|--------|--------|-------|-------|--------|
| 90.9          | 88     | 85.5   |       |       |        |
|               | 94.3   | 93.6   |       |       |        |
| 93.6          | 90.7   | 88.7   |       |       |        |
|               |        |        |       |       |        |

## PART B

**Table 1 - Raw Measurements -Platform Scale**

| Axles            | Meas. | Pre-test Weight | Instance | Instance | Post-test weight |
|------------------|-------|-----------------|----------|----------|------------------|
| A                | I     |                 |          |          |                  |
| A+B              | II    |                 |          |          |                  |
| A+B+C            | III   |                 |          |          |                  |
| A+B+C+D          | IV    |                 |          |          |                  |
| A+B+C+D+E(1)     | V     |                 |          |          |                  |
| A+B+C+D+E+(F)(1) | VI    |                 |          |          |                  |
| B+C+D+E+(F)      | VII   |                 |          |          |                  |
| C+D+E+(F)        | VIII  |                 |          |          |                  |
| D+E+(F)          | IX    |                 |          |          |                  |
| E+(F)            | X     |                 |          |          |                  |
| (F)              | XI    |                 |          |          |                  |
| A+B+C+D+E+(F)(2) | XII   |                 |          |          |                  |

|                                                                                                                              |                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <p align="center"><b>Traffic Sheet 19</b><br/> <b>LTPP MONITORED TRAFFIC DATA</b><br/> <b>CALIBRATION TEST TRUCK # 2</b></p> | <p align="right">STATE CODE: 48<br/> SPS WIM ID: 480199<br/> DATE (mm/dd/yyyy) 1/25/2011</p> |
|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|

**CALIBRATION TEST TRUCK -** Secondary

**Table 2 - Axle and GVW Computations -Platform Scale Pre-test**

|               | 1      |   | 2        |   | Avg. |
|---------------|--------|---|----------|---|------|
| <b>Axle A</b> | I      | 0 | VI-VII   | 0 | 0    |
| <b>Axle B</b> | II-I   | 0 | VII-VIII | 0 | 0    |
| <b>Axle C</b> | III-II | 0 | VIII-IX  | 0 | 0    |
| <b>Axle D</b> | IV-III | 0 | IX-X     | 0 | 0    |
| <b>Axle E</b> | V-IV   | 0 | X-XI     | 0 | 0    |
| <b>Axle F</b> | VI-V   |   | XI       |   |      |
| <b>GVW</b>    | VI     | 0 | XII      | 0 | 0    |

**Table 3- Axle and GVW Computations - Platform Scale - Instance -**

|               | 1      |   | 2        |   | Avg. |
|---------------|--------|---|----------|---|------|
| <b>Axle A</b> | I      | 0 | VI-VII   | 0 | 0    |
| <b>Axle B</b> | II-I   | 0 | VII-VIII | 0 | 0    |
| <b>Axle C</b> | III-II | 0 | VIII-IX  | 0 | 0    |
| <b>Axle D</b> | IV-III | 0 | IX-X     | 0 | 0    |
| <b>Axle E</b> | V-IV   | 0 | X-XI     | 0 | 0    |
| <b>Axle F</b> | VI-V   |   | XI       |   |      |
| <b>GVW</b>    | VI     | 0 | XII      | 0 | 0    |

**Table 4- Axle and GVW Computations - Platform Scale - Instance -**

|               | 1      |   | 2        |   | Avg. |
|---------------|--------|---|----------|---|------|
| <b>Axle A</b> | I      | 0 | VI-VII   | 0 | 0    |
| <b>Axle B</b> | II-I   | 0 | VII-VIII | 0 | 0    |
| <b>Axle C</b> | III-II | 0 | VIII-IX  | 0 | 0    |
| <b>Axle D</b> | IV-III | 0 | IX-X     | 0 | 0    |
| <b>Axle E</b> | V-IV   | 0 | X-XI     | 0 | 0    |
| <b>Axle F</b> | VI-V   |   | XI       |   |      |
| <b>GVW</b>    | VI     | 0 | XII      | 0 | 0    |

**Table 5- Axle and GVW Computations - Platform Scale Post-Test**

|               | 1      |   | 2        |   | Avg. |
|---------------|--------|---|----------|---|------|
| <b>Axle A</b> | I      | 0 | VI-VII   | 0 | 0    |
| <b>Axle B</b> | II-I   | 0 | VII-VIII | 0 | 0    |
| <b>Axle C</b> | III-II | 0 | VIII-IX  | 0 | 0    |
| <b>Axle D</b> | IV-III | 0 | IX-X     | 0 | 0    |
| <b>Axle E</b> | V-IV   | 0 | X-XI     | 0 | 0    |
| <b>Axle F</b> | VI-V   |   | XI       |   |      |
| <b>GVW</b>    | VI     | 0 | XII      | 0 | 0    |

|                                                                                                                                     |                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <p align="center"><b>Traffic Sheet 19</b><br/> <b>LTPP MONITORED TRAFFIC DATA</b><br/> <b>CALIBRATION TEST TRUCK # <u>2</u></b></p> | <p align="right">STATE CODE: 48<br/> SPS WIM ID: 480199<br/> DATE (mm/dd/yyyy) 1/25/2011</p> |
|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|

**CALIBRATION TEST TRUCK -** Secondary

**Table 6 - Raw Data -Axle Scales - Pre-test**

| Pass | Axle A | Axle B | Axle C | Axle D | Axle E | Axle F | GVW   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 1    | 11520  | 16710  | 16710  | 16570  | 16570  |        | 78080 |
| 2    | 11480  | 16730  | 16730  | 16570  | 16570  |        | 78080 |
| Avg. | 11500  | 16720  | 16720  | 16570  | 16570  |        | 78080 |

**Table 7- Raw Data- Axle scales -**

| Pass | Axle A | Axle B | Axle C | Axle D | Axle E | Axle F | GVW |
|------|--------|--------|--------|--------|--------|--------|-----|
| 1    |        |        |        |        |        |        |     |
| 2    |        |        |        |        |        |        |     |
| Avg. |        |        |        |        |        |        |     |

**Table 8- Raw Data- Axle scales -**

| Pass | Axle A | Axle B | Axle C | Axle D | Axle E | Axle F | GVW |
|------|--------|--------|--------|--------|--------|--------|-----|
| 1    |        |        |        |        |        |        |     |
| 2    |        |        |        |        |        |        |     |
| Avg. |        |        |        |        |        |        |     |

**Table 9 - Raw Data -Axle Scales - Post-test**

| Pass | Axle A | Axle B | Axle C | Axle D | Axle E | Axle F | GVW   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 1    | 11220  | 16660  | 16660  | 16550  | 16550  |        | 77640 |
| 2    | 11200  | 16670  | 16670  | 16550  | 16550  |        | 77640 |
| Avg. | 11210  | 16665  | 16665  | 16550  | 16550  |        | 77640 |

Validation Test Truck Run Set - Pre

Measured By: \_\_\_\_\_

Verified By: \_\_\_\_\_

|                                                                                                           |                                                                                          |
|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <b>Traffic Sheet 19</b><br><b>LTTP MONITORED TRAFFIC DATA</b><br><b>CALIBRATION TEST TRUCK # <u>3</u></b> | STATE CODE: <u>48</u><br>SPS WIM ID: <u>480199</u><br>DATE (mm/dd/yyyy) <u>1/25/2011</u> |
|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|

**CALIBRATION TEST TRUCK - Third**

**PART A**

1. FHWA CLASS: 9                      2. Number of axles: 5

3. AXLE WEIGHTS (lbs)

|   | a. Empty Truck Avg.<br>Axle Weight | b. Pre-test Average<br>Axle Weight | c. Post-Test Avg.<br>Axle Weight | d. Direct or<br>Calculated? |
|---|------------------------------------|------------------------------------|----------------------------------|-----------------------------|
| A |                                    | 24940                              | 24640                            | Direct                      |
| B |                                    | 14150                              | 14080                            | Direct                      |
| C |                                    | 14150                              | 14080                            | Direct                      |
| D |                                    | 6175                               | 6160                             | Direct                      |
| E |                                    | 6175                               | 6160                             | Direct                      |
| F |                                    |                                    |                                  |                             |

**4. GVW (same units as axles)**

a. Empty GVW: \_\_\_\_\_  
b. Average Pre-Test Loaded weight: 65590  
c. Post Test Loaded Weight: 65120  
d. Difference Post Test - Pre-Tests: 470

**5. TRUCK DESCRIPTION**

a. Tractor Cab Style: Conventional                      Sleeper Cab: No  
photo: ☒

b. Make: Kenworth  
c. Model: t800

d. Trailer Load Distribution Description:  

Empty Flatbed trailer

photo: ☒

e. Tractor Tare weight - \_\_\_\_\_ - \_\_\_\_\_  
f. Trailer Tare weight - \_\_\_\_\_ - \_\_\_\_\_  
g. Axle Spacing - \_\_\_\_\_

A to B 23.8    B to C 4.5    C to D 33.0    D to E 10.2    E to F \_\_\_\_\_

h. Wheelbase - ☐ Measured \_\_\_\_\_ ☒ Computed 71.5  
i. Kingpin offset from Axle B (units) 3.8                      photo: ☐  
j. Overall Length - ☒ Measured 79.8



|                                                                                                           |                                                                     |
|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Traffic Sheet 19</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>CALIBRATION TEST TRUCK # <u>3</u></b> | STATE CODE: 48<br>SPS WIM ID: 480199<br>DATE (mm/dd/yyyy) 1/25/2011 |
|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|

CALIBRATION TEST TRUCK - Third

## 6. SUSPENSION

|   | a. Tire size | b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.) | c. photo                            |
|---|--------------|----------------------------------------------------------------------------|-------------------------------------|
| A | 425/65/R22.5 | steel spring                                                               | <input checked="" type="checkbox"/> |
| B | 11R 22.5     | air                                                                        | <input checked="" type="checkbox"/> |
| C | 11R 22.5     | air                                                                        | <input checked="" type="checkbox"/> |
| D | 255/70 R22.5 | air                                                                        | <input checked="" type="checkbox"/> |
| E | 255/70 R22.5 | air                                                                        | <input checked="" type="checkbox"/> |
| F |              |                                                                            | <input type="checkbox"/>            |

d. Cold Tire Pressures (psi)- from right to left

| Steering Axle | Axle B | Axle C | AxleD | AxleE | Axle F |
|---------------|--------|--------|-------|-------|--------|
| 71.7          | 95.5   | 95     | 84.1  |       |        |
|               | 96     | 95.2   | 84.6  |       |        |
| 75.6          | 92.8   | 93.6   | 89.8  |       |        |
|               | 90.7   | 93.8   | 87.4  |       |        |

## PART B

**Table 1 - Raw Measurements -Platform Scale**

| Axles            | Meas. | Pre-test Weight | Instance | Instance | Post-test weight |
|------------------|-------|-----------------|----------|----------|------------------|
| A                | I     |                 |          |          |                  |
| A+B              | II    |                 |          |          |                  |
| A+B+C            | III   |                 |          |          |                  |
| A+B+C+D          | IV    |                 |          |          |                  |
| A+B+C+D+E(1)     | V     |                 |          |          |                  |
| A+B+C+D+E+(F)(1) | VI    |                 |          |          |                  |
| B+C+D+E+(F)      | VII   |                 |          |          |                  |
| C+D+E+(F)        | VIII  |                 |          |          |                  |
| D+E+(F)          | IX    |                 |          |          |                  |
| E+(F)            | X     |                 |          |          |                  |
| (F)              | XI    |                 |          |          |                  |
| A+B+C+D+E+(F)(2) | XII   |                 |          |          |                  |

|                                                                                                                                     |                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <p align="center"><b>Traffic Sheet 19</b><br/> <b>LTPP MONITORED TRAFFIC DATA</b><br/> <b>CALIBRATION TEST TRUCK # <u>3</u></b></p> | <p align="right">STATE CODE: 48<br/> SPS WIM ID: 480199<br/> DATE (mm/dd/yyyy) 1/25/2011</p> |
|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|

**CALIBRATION TEST TRUCK -** Third

**Table 2 - Axle and GVW Computations -Platform Scale Pre-test**

|               | <b>1</b> |   | <b>2</b> |   | <b>Avg.</b> |
|---------------|----------|---|----------|---|-------------|
| <b>Axle A</b> | I        | 0 | VI-VII   | 0 | 0           |
| <b>Axle B</b> | II-I     | 0 | VII-VIII | 0 | 0           |
| <b>Axle C</b> | III-II   | 0 | VIII-IX  | 0 | 0           |
| <b>Axle D</b> | IV-III   | 0 | IX-X     | 0 | 0           |
| <b>Axle E</b> | V-IV     | 0 | X-XI     | 0 | 0           |
| <b>Axle F</b> | VI-V     |   | XI       |   |             |
| <b>GVW</b>    | VI       | 0 | XII      | 0 | 0           |

**Table 3- Axle and GVW Computations - Platform Scale - Instance -**

|               | <b>1</b> |   | <b>2</b> |   | <b>Avg.</b> |
|---------------|----------|---|----------|---|-------------|
| <b>Axle A</b> | I        | 0 | VI-VII   | 0 | 0           |
| <b>Axle B</b> | II-I     | 0 | VII-VIII | 0 | 0           |
| <b>Axle C</b> | III-II   | 0 | VIII-IX  | 0 | 0           |
| <b>Axle D</b> | IV-III   | 0 | IX-X     | 0 | 0           |
| <b>Axle E</b> | V-IV     | 0 | X-XI     | 0 | 0           |
| <b>Axle F</b> | VI-V     |   | XI       |   |             |
| <b>GVW</b>    | VI       | 0 | XII      | 0 | 0           |

**Table 4- Axle and GVW Computations - Platform Scale - Instance -**

|               | <b>1</b> |   | <b>2</b> |   | <b>Avg.</b> |
|---------------|----------|---|----------|---|-------------|
| <b>Axle A</b> | I        | 0 | VI-VII   | 0 | 0           |
| <b>Axle B</b> | II-I     | 0 | VII-VIII | 0 | 0           |
| <b>Axle C</b> | III-II   | 0 | VIII-IX  | 0 | 0           |
| <b>Axle D</b> | IV-III   | 0 | IX-X     | 0 | 0           |
| <b>Axle E</b> | V-IV     | 0 | X-XI     | 0 | 0           |
| <b>Axle F</b> | VI-V     |   | XI       |   |             |
| <b>GVW</b>    | VI       | 0 | XII      | 0 | 0           |

**Table 5- Axle and GVW Computations - Platform Scale Post-Test**

|               | <b>1</b> |   | <b>2</b> |   | <b>Avg.</b> |
|---------------|----------|---|----------|---|-------------|
| <b>Axle A</b> | I        | 0 | VI-VII   | 0 | 0           |
| <b>Axle B</b> | II-I     | 0 | VII-VIII | 0 | 0           |
| <b>Axle C</b> | III-II   | 0 | VIII-IX  | 0 | 0           |
| <b>Axle D</b> | IV-III   | 0 | IX-X     | 0 | 0           |
| <b>Axle E</b> | V-IV     | 0 | X-XI     | 0 | 0           |
| <b>Axle F</b> | VI-V     |   | XI       |   |             |
| <b>GVW</b>    | VI       | 0 | XII      | 0 | 0           |

|                                                                                                                                     |                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <p align="center"><b>Traffic Sheet 19</b><br/> <b>LTPP MONITORED TRAFFIC DATA</b><br/> <b>CALIBRATION TEST TRUCK # <u>3</u></b></p> | <p align="right">STATE CODE: 48<br/> SPS WIM ID: 480199<br/> DATE (mm/dd/yyyy) 1/25/2011</p> |
|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|

**CALIBRATION TEST TRUCK -** Third

**Table 6 - Raw Data -Axle Scales - Pre-test**

| Pass | Axle A | Axle B | Axle C | Axle D | Axle E | Axle F | GVW   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 1    | 24940  | 14150  | 14150  | 6180   | 6180   |        | 65600 |
| 2    | 24940  | 14150  | 14150  | 6170   | 6170   |        | 65580 |
| Avg. | 24940  | 14150  | 14150  | 6175   | 6175   |        | 65590 |

**Table 7- Raw Data- Axle scales -**

| Pass | Axle A | Axle B | Axle C | Axle D | Axle E | Axle F | GVW |
|------|--------|--------|--------|--------|--------|--------|-----|
| 1    |        |        |        |        |        |        |     |
| 2    |        |        |        |        |        |        |     |
| Avg. |        |        |        |        |        |        |     |

**Table 8- Raw Data- Axle scales -**

| Pass | Axle A | Axle B | Axle C | Axle D | Axle E | Axle F | GVW |
|------|--------|--------|--------|--------|--------|--------|-----|
| 1    |        |        |        |        |        |        |     |
| 2    |        |        |        |        |        |        |     |
| Avg. |        |        |        |        |        |        |     |

**Table 9 - Raw Data -Axle Scales - Post-test**

| Pass | Axle A | Axle B | Axle C | Axle D | Axle E | Axle F | GVW   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 1    | 24640  | 14080  | 14080  | 6160   | 6160   |        | 65120 |
| 2    | 24640  | 14080  | 14080  | 6160   | 6160   |        | 65120 |
| Avg. | 24640  | 14080  | 14080  | 6160   | 6160   |        | 65120 |

Validation Test Truck Run Set - Pre

Measured By: \_\_\_\_\_

Verified By: \_\_\_\_\_

|                                                                                                               |  |  |  |  |  |  |                                                                       |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|-----------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| <b>Traffic Sheet 21 (Wheel Load)</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>WIM SYSTEM TRUCK RECORDS</b> |  |  |  |  |  |  | STATE CODE: 48<br>SPS WIM ID: 480199<br>DATE: (mm/dd/yyyy): 1/25/2011 |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|-----------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|

| Pvmt Temp | Radar speed | Truck | Pass | Time     | Record No. | WIM Speed | Axle A | Axle B | Axle C | Axle D | Axle E | Axle F | GVW  | A-B space | B-C space | C-D space | D - E space | E - F space | Axle Length | Overall Length |
|-----------|-------------|-------|------|----------|------------|-----------|--------|--------|--------|--------|--------|--------|------|-----------|-----------|-----------|-------------|-------------|-------------|----------------|
| 49.2      | 59          | 1     | 1    | 9:26:00  | 44         | 60.0      | 10.9   | 16.7   | 16.3   | 17.7   | 18.5   |        | 80.2 | 12.2      | 4.2       | 31.2      | 4.0         |             | 51.6        | 59.0           |
| 55.5      | 59          | 1     | 2    | 10:09:00 | 184        | 59.0      | 11.0   | 16.6   | 16.6   | 17.9   | 18.9   |        | 81.0 | 12.2      | 4.3       | 31.3      | 4.1         |             | 51.9        | 60.0           |
| 55.5      | 58          | 2     | 1    | 10:09:00 | 185        | 59.0      | 11.9   | 16.9   | 15.4   | 16.2   | 16.1   |        | 76.5 | 15.0      | 4.3       | 32.0      | 4.1         |             | 55.4        | 62.0           |
| 55.5      | 58          | 3     | 1    | 10:09:00 | 186        | 59.0      | 25.2   | 14.2   | 14.6   | 5.9    | 5.7    |        | 65.5 | 23.7      | 4.4       | 33.3      | 10.2        |             | 71.6        | 80.0           |
| 55.6      | 63          | 1     | 3    | 10:21:00 | 225        | 64.0      | 10.1   | 17.8   | 17.6   | 16.9   | 17.5   |        | 79.8 | 12.1      | 4.2       | 31.2      | 4.0         |             | 51.5        | 60.0           |
| 55.6      | 63          | 2     | 2    | 10:21:00 | 226        | 63.0      | 11.5   | 18.1   | 17.9   | 18.0   | 17.9   |        | 83.5 | 15.0      | 4.3       | 32.1      | 4.1         |             | 55.5        | 63.0           |
| 55.6      | 63          | 3     | 2    | 10:21:00 | 227        | 65.0      | 24.9   | 14.0   | 14.2   | 6.0    | 5.8    |        | 65.0 | 23.8      | 4.5       | 33.5      | 10.1        |             | 71.9        | 80.0           |
| 59.1      | 58          | 1     | 4    | 10:40:00 | 281        | 59.0      | 11.1   | 17.3   | 16.8   | 18.4   | 18.8   |        | 82.5 | 12.1      | 4.3       | 31.2      | 4.1         |             | 51.7        | 60.0           |
| 59.1      | 57          | 2     | 3    | 10:40:00 | 282        | 59.0      | 11.9   | 17.1   | 15.5   | 16.4   | 16.3   |        | 77.1 | 15.2      | 4.3       | 32.2      | 4.1         |             | 55.8        | 64.0           |
| 68.5      | 63          | 1     | 5    | 11:36:00 | 438        | 64.0      | 10.8   | 17.6   | 17.4   | 17.9   | 18.4   |        | 82.1 | 12.2      | 4.3       | 31.3      | 4.1         |             | 51.9        | 60.0           |
| 68.5      | 66          | 2     | 4    | 11:36:00 | 439        | 68.0      | 11.2   | 15.4   | 16.3   | 15.4   | 16.3   |        | 74.5 | 15.1      | 4.3       | 32.0      | 4.0         |             | 55.4        | 62.0           |
| 68.5      | 62          | 3     | 3    | 11:36:00 | 440        | 64.0      | 25.2   | 14.1   | 15.0   | 5.1    | 6.3    |        | 65.7 | 23.6      | 4.4       | 33.2      | 10.1        |             | 71.3        | 79.0           |
| 68.5      | 67          | 1     | 6    | 11:48:00 | 488        | 69.0      | 10.2   | 17.8   | 17.6   | 17.9   | 18.4   |        | 81.9 | 12.3      | 4.3       | 31.5      | 4.1         |             | 52.2        | 60.0           |
| 68.5      | 58          | 2     | 5    | 11:48:00 | 490        | 59.0      | 11.1   | 14.9   | 15.3   | 16.7   | 16.1   |        | 74.1 | 15.0      | 4.3       | 32.0      | 4.1         |             | 55.4        | 62.0           |
| 68.5      | 56          | 3     | 4    | 11:48:00 | 491        | 59.0      | 25.4   | 14.0   | 13.6   | 5.7    | 6.1    |        | 64.8 | 23.8      | 4.5       | 33.3      | 10.2        |             | 71.8        | 80.0           |
| 68.3      | 61          | 1     | 7    | 11:58:00 | 522        | 64.0      | 10.5   | 17.8   | 17.3   | 16.9   | 17.9   |        | 80.3 | 12.2      | 4.3       | 31.2      | 4.1         |             | 51.8        | 60.0           |
| 68.3      | 59          | 2     | 6    | 11:58:00 | 523        | 63.0      | 11.5   | 15.2   | 15.2   | 15.6   | 16.4   |        | 79.9 | 15.0      | 4.3       | 32.2      | 4.1         |             | 55.6        | 63.0           |
| 68.3      | 61          | 3     | 5    | 11:58:00 | 524        | 64.0      | 25.5   | 14.6   | 14.6   | 5.0    | 5.8    |        | 65.4 | 23.7      | 4.5       | 33.3      | 10.2        |             | 71.7        | 80.0           |
| 69.5      | 65          | 1     | 8    | 12:09:00 | 553        | 68.0      | 10.8   | 16.7   | 16.2   | 17.0   | 18.6   |        | 79.3 | 12.2      | 4.3       | 31.4      | 4.1         |             | 52.0        | 60.0           |
| 69.5      | 65          | 2     | 7    | 12:09:00 | 554        | 68.0      | 10.5   | 16.9   | 16.2   | 15.4   | 16.6   |        | 75.8 | 15.1      | 4.3       | 32.1      | 4.0         |             | 55.5        | 63.0           |
| 69.5      | 66          | 3     | 6    | 12:09:00 | 555        | 69.0      | 25.6   | 14.2   | 13.9   | 5.1    | 5.7    |        | 64.5 | 23.7      | 4.5       | 33.4      | 10.2        |             | 71.8        | 80.0           |
| 72.0      | 59          | 1     | 9    | 13:00:00 | 84         | 59.0      | 10.7   | 18.1   | 17.5   | 17.5   | 18.2   |        | 82.0 | 12.2      | 4.3       | 31.2      | 4.1         |             | 51.8        | 60.0           |
| 72.0      | 59          | 2     | 8    | 13:00:00 | 85         | 59.0      | 11.7   | 16.3   | 15.3   | 16.3   | 16.6   |        | 76.2 | 15.0      | 4.3       | 32.2      | 4.1         |             | 55.6        | 64.0           |
| 72.0      | 60          | 3     | 7    | 13:00:00 | 86         | 60.0      | 25.5   | 14.4   | 14.6   | 6.2    | 6.2    |        | 66.9 | 23.6      | 4.4       | 33.2      | 10.1        |             | 71.3        | 80.0           |

|                       |  |  |  |  |  |  |                        |  |  |  |  |  |  |                         |  |  |  |  |  |  |
|-----------------------|--|--|--|--|--|--|------------------------|--|--|--|--|--|--|-------------------------|--|--|--|--|--|--|
| Recorded By: _____ kt |  |  |  |  |  |  | Verified By: _____ djw |  |  |  |  |  |  | Run Set _____ Pre _____ |  |  |  |  |  |  |
|-----------------------|--|--|--|--|--|--|------------------------|--|--|--|--|--|--|-------------------------|--|--|--|--|--|--|

|                                                                                                               |  |  |  |  |  |  |                                                                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|-----------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <b>Traffic Sheet 21 (Wheel Load)</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>WIM SYSTEM TRUCK RECORDS</b> |  |  |  |  |  |  | STATE CODE: 48<br>SPS WIM ID: 480199<br>DATE: (mm/dd/yyyy): 1/25/2011 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|-----------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

| Pvmt Temp | Radar speed | Truck | Pass | Time     | Record No. | WIM Speed | Axle A | Axle B | Axle C | Axle D | Axle E | Axle F | GVW  | A-B space | B-C space | C-D space | D - E space | E - F space | Axle Length | Overall Length |
|-----------|-------------|-------|------|----------|------------|-----------|--------|--------|--------|--------|--------|--------|------|-----------|-----------|-----------|-------------|-------------|-------------|----------------|
| 74.1      | 64          | 1     | 10   | 13:08:00 | 114        | 64.0      | 10.3   | 18.0   | 17.3   | 17.2   | 17.6   |        | 80.4 | 12.2      | 4.3       | 31.3      | 4.1         |             | 51.9        | 60.0           |
| 74.1      | 64          | 2     | 9    | 13:08:00 | 115        | 65.0      | 11.4   | 16.0   | 16.1   | 15.9   | 16.3   |        | 75.8 | 15.1      | 4.3       | 32.0      | 4.1         |             | 55.5        | 63.0           |
| 74.1      | 65          | 3     | 8    | 13:08:00 | 116        | 65.0      | 25.5   | 13.6   | 13.8   | 5.3    | 5.8    |        | 63.9 | 23.7      | 4.5       | 33.3      | 10.1        |             | 71.6        | 80.0           |
| 75.1      | 68          | 1     | 11   | 13:16:00 | 134        | 68.0      | 9.6    | 17.1   | 17.0   | 16.9   | 18.0   |        | 78.7 | 12.2      | 4.2       | 30.9      | 4.1         |             | 51.4        | 60.0           |
| 75.1      | 68          | 2     | 10   | 13:16:00 | 135        | 67.0      | 10.9   | 15.9   | 16.7   | 16.3   | 15.7   |        | 75.5 | 15.1      | 4.3       | 32.1      | 4.0         |             | 55.5        | 63.0           |
| 75.1      | 69          | 3     | 9    | 13:16:00 | 137        | 69.0      | 24.6   | 14.0   | 14.8   | 5.6    | 6.1    |        | 65.0 | 23.6      | 4.5       | 33.5      | 10.1        |             | 71.7        | 80.0           |
| 74.6      | 59          | 1     | 12   | 13:25:00 | 172        | 59.0      | 10.8   | 17.3   | 17.0   | 18.3   | 19.3   |        | 82.6 | 12.1      | 4.3       | 31.4      | 4.0         |             | 51.8        | 60.0           |
| 74.6      | 59          | 2     | 11   | 13:25:00 | 173        | 59.0      | 12.2   | 14.9   | 17.1   | 17.7   | 17.8   |        | 79.5 | 15.1      | 4.3       | 32.3      | 4.1         |             | 55.8        | 63.0           |
| 74.6      | 59          | 3     | 10   | 13:25:00 | 174        | 59.0      | 25.1   | 13.7   | 14.3   | 6.2    | 6.0    |        | 65.4 | 23.7      | 4.4       | 33.4      | 10.2        |             | 71.7        | 80.0           |
| 75.1      | 68          | 1     | 13   | 13:32:00 | 197        | 68.0      | 10.5   | 16.6   | 16.0   | 17.6   | 18.1   |        | 78.8 | 12.1      | 4.3       | 31.3      | 4.1         |             | 51.8        | 61.0           |
| 75.1      | 68          | 2     | 12   | 13:32:00 | 198        | 67.0      | 10.8   | 17.2   | 16.8   | 16.0   | 16.4   |        | 77.2 | 14.9      | 4.3       | 31.9      | 4.0         |             | 55.1        | 62.0           |
| 75.1      | 69          | 3     | 11   | 13:32:00 | 199        | 69.0      | 25.5   | 13.5   | 13.6   | 4.8    | 6.1    |        | 63.5 | 23.8      | 4.5       | 33.3      | 10.1        |             | 71.7        | 80.0           |
| 40.5      | 59          | 1     | 14   | 8:33:00  | 2700       | 59.0      | 10.4   | 17.3   | 16.6   | 17.4   | 18.1   |        | 80.1 | 12.1      | 4.3       | 31.1      | 4.1         |             | 51.6        | 60.0           |
| 41.5      | 64          | 1     | 15   | 8:46:00  | 2738       | 63.0      | 10.6   | 16.1   | 15.9   | 17.5   | 18.5   |        | 78.6 | 12.0      | 4.2       | 30.9      | 4.1         |             | 51.2        | 61.0           |
| 43.1      | 69          | 1     | 16   | 8:58:00  | 2771       | 68.0      | 10.7   | 15.6   | 15.6   | 17.8   | 17.7   |        | 77.3 | 12.2      | 4.2       | 31.2      | 4.1         |             | 51.7        | 60.0           |
| 44.5      | 69          | 1     | 17   | 9:11:00  | 2810       | 68.0      | 10.4   | 16.3   | 16.4   | 17.1   | 18.1   |        | 78.2 | 12.0      | 4.2       | 31.0      | 4.1         |             | 51.3        | 61.0           |
| 47.7      | 63          | 1     | 18   | 9:21:00  | 2835       | 63.0      | 10.2   | 16.5   | 15.9   | 16.8   | 17.8   |        | 77.1 | 12.1      | 4.2       | 31.1      | 4.1         |             | 51.5        | 61.0           |
|           |             |       |      |          |            |           |        |        |        |        |        |        |      |           |           |           |             |             |             |                |
|           |             |       |      |          |            |           |        |        |        |        |        |        |      |           |           |           |             |             |             |                |
|           |             |       |      |          |            |           |        |        |        |        |        |        |      |           |           |           |             |             |             |                |
|           |             |       |      |          |            |           |        |        |        |        |        |        |      |           |           |           |             |             |             |                |
|           |             |       |      |          |            |           |        |        |        |        |        |        |      |           |           |           |             |             |             |                |
|           |             |       |      |          |            |           |        |        |        |        |        |        |      |           |           |           |             |             |             |                |
|           |             |       |      |          |            |           |        |        |        |        |        |        |      |           |           |           |             |             |             |                |

|                       |                        |                   |
|-----------------------|------------------------|-------------------|
| Recorded By: _____ kt | Verified By: _____ djw | Run Set _____ Pre |
|-----------------------|------------------------|-------------------|

|                                                                                                                            |                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Traffic Sheet 22</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>SITE EQUIPMENT ASSESSMENT</b><br><b>LTPP LANE ONLY</b> | STATE CODE: 48<br>SPS WIM ID: 480199<br>STATE ASSIGNED ID 523<br>DATE (mm/dd/yyyy) 1/25/2011 |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|

SITE EQUIPMENT INFORMATION

1. TYPE OF EQUIPMENT BOTH
2. LANE NUMBER ON SITE 4      3. DIRECTION ON SITE south
4. VENDOR IRD      MODEL iSync      SERIAL# \_\_\_\_\_
5. WEIGHING SENSOR TYPE quartz
6. SYSTEM SOFTWARE VERSIONS:
- CPU \_\_\_\_\_
- LOOP \_\_\_\_\_
- PIEZO \_\_\_\_\_
- WEIGHTPAD/ LOADCELL \_\_\_\_\_
- COMMUNICATIONS \_\_\_\_\_
7. CLASSIFICATION VIDEO:
- TIME FROM: \_\_\_\_\_ TO: \_\_\_\_\_
- TIME FROM: \_\_\_\_\_ TO: \_\_\_\_\_

SITE CONDITIONS

**8. PAVEMENT:**

Indicate any deficiencies that may affect the performance of the WIM sytem. List all photos on Sheet 24 that support the evaluation.

There was Cracking in the pavement across both lanes in LTPP direction within the site sensors.

|                                                                                                                                                                                                           |                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <p align="center"><b>Traffic Sheet 22</b></p> <p align="center"><b>LTPP MONITORED TRAFFIC DATA</b></p> <p align="center"><b>SITE EQUIPMENT ASSESSMENT</b></p> <p align="center"><b>LTPP LANE ONLY</b></p> | <p>STATE CODE: 48</p> <p>SPS WIM ID: 480199</p> <p>STATE ASSIGNED ID 523</p> <p>DATE (mm/dd/yyyy) 1/25/2011</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|

**9. IN ROAD SENSORS:**

Describe any deficiencies regarding the sensor installation. Indicate sensors that show any signs of being broken, severely worn, missing, removed, or loose. List photos on Sheet 24 for

the equipment is operating within the manufacturer's tolerances.

TRUCK OBSERVATIONS

- 10.** Indicate any irregular truck behaviors such as bouncing, swerving, or braking near the weighing area (within 40 meters). Note the distance from the weighing sensors.

A visual observation of the trucks as they approach, traverse, and leave the sensor area indicate some bouncing in LTPP lane as they cross Transition from pavement surfaces. The Trucks appear to stop bouncing prior to the WIM scale sensors. Trucks appear to track down the center of the lane.

Minimum 15 minute or 35 truck sample video sample for pavement interaction deficiencies:

Tape Filename: \_\_\_\_\_

Time: \_\_\_\_\_

From: \_\_\_\_\_

To: \_\_\_\_\_

|                                                                                                                                                                                                           |                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <p align="center"><b>Traffic Sheet 22</b></p> <p align="center"><b>LTPP MONITORED TRAFFIC DATA</b></p> <p align="center"><b>SITE EQUIPMENT ASSESSMENT</b></p> <p align="center"><b>LTPP LANE ONLY</b></p> | <p>STATE CODE: 48</p> <p>SPS WIM ID: 480199</p> <p>STATE ASSIGNED ID 523</p> <p>DATE (mm/dd/yyyy) 1/25/2011</p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|

**11. CLASSIFICATION VERIFICATION VIDEO:**

TAPE 1- NAME: \_\_\_\_\_

| Interval | Filename | From  | To    |
|----------|----------|-------|-------|
| 1        | _____    | _____ | _____ |
| 2        | _____    | _____ | _____ |
| 3        | _____    | _____ | _____ |
| 4        | _____    | _____ | _____ |
| 5        | _____    | _____ | _____ |
| 6        | _____    | _____ | _____ |
| 7        | _____    | _____ | _____ |
| 8        | _____    | _____ | _____ |

TAPE 2- NAME: \_\_\_\_\_

| Interval | Filename | From  | To    |
|----------|----------|-------|-------|
| 1        | _____    | _____ | _____ |
| 2        | _____    | _____ | _____ |
| 3        | _____    | _____ | _____ |
| 4        | _____    | _____ | _____ |
| 5        | _____    | _____ | _____ |
| 6        | _____    | _____ | _____ |
| 7        | _____    | _____ | _____ |
| 8        | _____    | _____ | _____ |

TAPE 3- NAME: \_\_\_\_\_

| Interval | Filename | From  | To    |
|----------|----------|-------|-------|
| 1        | _____    | _____ | _____ |
| 2        | _____    | _____ | _____ |
| 3        | _____    | _____ | _____ |
| 4        | _____    | _____ | _____ |
| 5        | _____    | _____ | _____ |
| 6        | _____    | _____ | _____ |
| 7        | _____    | _____ | _____ |
| 8        | _____    | _____ | _____ |

|                                                                                                                            |                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Traffic Sheet 22</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>SITE EQUIPMENT ASSESSMENT</b><br><b>LTPP LANE ONLY</b> | STATE CODE: 48<br>SPS WIM ID: 480199<br>STATE ASSIGNED ID 523<br>DATE (mm/dd/yyyy) 1/25/2011 |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|

SYSTEM ACCURACY TESTS

**12. CONDUCT THE FOLLOWING SYSTEM ACCURACY TESTS EITHER ON- SITE OR IN OFFICE**

Speed Accuracy - Complete Sheet 20 and attach.

|                     |                                 |                   |                 |
|---------------------|---------------------------------|-------------------|-----------------|
| Average radar speed | <u>66.9</u> mph                 | Average WIM Speed | <u>66.6</u> mph |
| Mean Difference     | <u>-0.3</u> mph                 | SD of mean        | <u>4.0</u>      |
|                     |                                 |                   |                 |
| Posted Speed Limit  | <u>70</u> mph                   |                   |                 |
| Speed Range         | 15th percentile - <u>63</u> mph | 85th percentile-  | <u>71</u> mph   |

Spacing and Weight - Complete Sheet 21 and attach.

|                                                |    |                                     |
|------------------------------------------------|----|-------------------------------------|
| Average distance between axles of drive tandem |    | <u>          </u> feet              |
| % error from 4.25 ft (industry average)        | OR | <u>4.33</u> ft (WIM system average) |
| = <u>1.8</u> %                                 |    |                                     |
|                                                |    |                                     |
| Average front axle weight for Class 9 vehicles |    | <u>          </u> lbs               |
| % error from 10.3 kips (industry average) OR   |    | <u>14.7</u> lbs (known site value)  |
| = <u>43.1</u> %                                |    |                                     |

SUPPORT EQUIPMENT STRUCTURES

**17. Indicate any deficiencies with any site equipment other than the in-road sensors. List all photos on the Sheet 24 for each occurrence.**

Cabinet/Foundation None ☒

no cabinet or foundation deficiencies

Pull Boxes None ☒

no pull box deficiencies

Mast None ☒

no service mast deficiencies

Solar Panels None ☒

N/A

|                                                                                                                            |                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Traffic Sheet 22</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>SITE EQUIPMENT ASSESSMENT</b><br><b>LTPP LANE ONLY</b> | STATE CODE: 48<br>SPS WIM ID: 480199<br>STATE ASSIGNED ID 523<br>DATE (mm/dd/yyyy) 1/25/2011 |
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Telephone D-Mark Box None ☒

no telephone d-mark box deficiencies

Power Service Box None ☒

no power service box deficiencies

Grounding None ☒

no grounding deficiencies

Conduit None ☒

no conduit deficiencies

#### STATIC AND DYNAMIC ELECTRONIC EQUIPMENT TESTS

18. Complete and attach a Sheet 22 addendum applicable to the installed road equipment.

#### ADDITIONAL COMMENTS

All values for the WIM sensors and inductive loops were within tolerances. Electronic tests of the power and communication devices indicated that they were operating normally.

Assessor Kevin Trousdale

|                                                                                                                                                      |                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Traffic Sheet 22 Addendum - Kistler Quartz</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>SITE EQUIPMENT ASSESSMENT</b><br><b>LTPP LANE ONLY</b> | STATE CODE: 48<br>SPS WIM ID: 480199<br>STATE ASSIGNED ID 523<br>DATE (mm/dd/yyyy) 1/25/2011 |
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STATIC EQUIPMENT VALUES (SYSTEM OFF)

**1. POWER**

|                    |       |       |       |     |
|--------------------|-------|-------|-------|-----|
| a. Solar Panel     |       | WATTS |       | VDC |
| b. Equipment Power | 122.5 | VAC   | 11.79 | VDC |
| c. Battery 1       | 13.53 | VDC   |       |     |
| d. Battery 2       |       | VDC   |       |     |
| e. Regulated       | 11.76 | VDC   |       |     |
| f. Power Supply    | 13.53 | VDC   |       | VDC |
| g. System Input    |       | VAC   | 11.79 | VDC |
| h. Modem Power     |       | VAC   |       | VDC |
| i. Telephone       | 49.6  | VDC   |       |     |

**2. LOOP SENSORS**

|             |              |             |                |
|-------------|--------------|-------------|----------------|
|             | Resistance   | Inductance  | Shield         |
| a. Leading  | 0.9 $\Omega$ | 767 $\mu$ h | inf M $\Omega$ |
| b. Trailing | 0.9 $\Omega$ | 776 $\mu$ h | inf M $\Omega$ |

**3. KISTLER SENSORS**

|                         |                           |              |
|-------------------------|---------------------------|--------------|
|                         | Resistance                | Capacitance  |
| a. K1 (lead/left)       | 10 <sup>10</sup> $\Omega$ | 209 $\eta$ f |
| b. K2 (lead/middle)     | $\Omega$                  | $\eta$ f     |
| c. K3 (lead mid/right)  | $\Omega$                  | $\eta$ f     |
| d. K4 (lead/right)      | 10 <sup>10</sup> $\Omega$ | 209 $\eta$ f |
| e. K5 (trail/left)      | 10 <sup>10</sup> $\Omega$ | 233 $\eta$ f |
| f. K6 (trail/mid left)  | $\Omega$                  | $\eta$ f     |
| g. K7 (trail/mid right) | $\Omega$                  | $\eta$ f     |
| h. K8 (trail/right)     | 10 <sup>10</sup> $\Omega$ | 233 $\eta$ f |

DYNAMIC EQUIPMENT VALUES (SYSTEM ON)

**4. LOOP SENSORS**

|             |           |
|-------------|-----------|
|             | Frequency |
| a. Leading  | 10 KHz    |
| b. Trailing | 10.1 KHz  |

**5. KISTLER SENSORS**

Dynamic testing for the Kistler Quartz sensor is not recommended.

Assessor \_\_\_\_\_ Kevin Trousdale \_\_\_\_\_

|                                                                                                                               |                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <p align="center"><b>Traffic Sheet 24A</b><br/> <b>LTPP MONITORED TRAFFIC DATA</b><br/> <b>SITE PHOTO LOG - Equipment</b></p> | <p>STATE CODE: 48<br/> SPS WIM ID: 480199<br/> DATE (mm/dd/yyyy) 1/25/2011</p> |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|

| Item | Description                    | Filename                                 |
|------|--------------------------------|------------------------------------------|
| 1    | Power Source                   | 480199_power_service_box_1_25_11.jpg     |
| 2    | Telephone Source               | 480199_telephone_pedestal_1_25_11.jpg    |
| 3    | Cabinet Exterior               | 480199_cabinet_exterior_1_25_11.jpg      |
| 4    | Cabinet Interior               | 480199_cabinet_interior_1_25_11.jpg      |
| 5    | Leading weight sensor          | 480199_leading_WIM_sensor_1_25_11.jpg    |
| 6    | Trailing weight sensor         | 480199_trailing_wim_sensor_1_25_11.jpg   |
| 7    | Leading classification sensor  |                                          |
| 8    | Trailing classification sensor |                                          |
| 9    | Leading loop sensor            | 480199_leading_loop_sensor_1_25_11.jpg   |
| 10   | Trailing loop sensor           | 480199_trailing_loop_sensor_1_25_11.jpg  |
| 11   | Downstream from site           | 480199_downstream_1_25_11.jpg            |
| 12   | Upstream from site             | 480199_upstream_1_25_11.jpg              |
| 13   | Cabinet Interior - Rear        | 480199_Cabinet_interior_rear_1_25_11.jpg |
| 14   |                                |                                          |
| 15   |                                |                                          |
| 16   |                                |                                          |
| 17   |                                |                                          |
| 18   |                                |                                          |
| 19   |                                |                                          |
| 20   |                                |                                          |
| 21   |                                |                                          |
| 22   |                                |                                          |
| 23   |                                |                                          |
| 24   |                                |                                          |
| 25   |                                |                                          |
| 26   |                                |                                          |
| 27   |                                |                                          |
| 28   |                                |                                          |
| 29   |                                |                                          |
| 30   |                                |                                          |

RECORDED BY: \_\_\_\_\_ Dean J. Wolf

|                                                                                                       |                                                                     |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>Traffic Sheet 24B</b><br><b>LTPP MONITORED TRAFFIC DATA</b><br><b>SITE PHOTO LOG - Test Trucks</b> | STATE CODE: 48<br>SPS WIM ID: 480199<br>DATE (mm/dd/yyyy) 1/25/2011 |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|

| Item | Description              | Filename                                |
|------|--------------------------|-----------------------------------------|
| 1    | Tractor, Truck #1        | 480199_Truck_1_Tractor_1_25_11.jpg      |
| 2    | Trailer/Load, Truck #1   | 480199_Truck_1_Trailer_1_25_11.jpg      |
| 3    | Kingpin Offset, Truck #1 |                                         |
| 4    | Suspension A, Truck #1   | 480199_Truck_1_suspension_1_1_25_11.jpg |
| 5    | Suspension B, Truck #1   | 480199_Truck_1_suspension_2_1_25_11.jpg |
| 6    | Suspension C, Truck #1   | 480199_Truck_1_suspension_3_1_25_11.jpg |
| 7    | Suspension D, Truck #1   | 480199_Truck_1_suspension_4_1_25_11.jpg |
| 8    | Suspension E, Truck #1   | 480199_Truck_1_suspension_5_1_25_11.jpg |
| 9    | Suspension F, Truck #1   |                                         |
| 10   | Tractor, Truck #2        | 480199_Truck_2_Tractor_1_25_11.jpg      |
| 11   | Trailer/Load, Truck #2   | 480199_Truck_2_Trailer_1_25_11.jpg      |
| 12   | Kingpin Offset, Truck #2 |                                         |
| 13   | Suspension A, Truck #2   | 480199_Truck_2_suspension_1_1_25_11.jpg |
| 14   | Suspension B, Truck #2   | 480199_Truck_2_suspension_2_1_25_11.jpg |
| 15   | Suspension C, Truck #2   | 480199_Truck_2_suspension_3_1_25_11.jpg |
| 16   | Suspension D, Truck #2   | 480199_Truck_2_suspension_4_1_25_11.jpg |
| 17   | Suspension E, Truck #2   | 480199_Truck_2_suspension_5_1_25_11.jpg |
| 18   | Suspension F, Truck #2   |                                         |
| 19   | Tractor, Truck #3        | 480199_Truck_3_Tractor_1_25_11.jpg      |
| 20   | Trailer/Load, Truck #3   | 480199_Truck_3_Trailer_1_25_11.jpg      |
| 21   | Kingpin Offset, Truck #3 |                                         |
| 22   | Suspension A, Truck #3   | 480199_Truck_3_suspension_1_1_25_11.jpg |
| 23   | Suspension B, Truck #3   | 480199_Truck_3_suspension_2_1_25_11.jpg |
| 24   | Suspension C, Truck #3   | 480199_Truck_3_suspension_3_1_25_11.jpg |
| 25   | Suspension D, Truck #3   | 480199_Truck_3_suspension_4_1_25_11.jpg |
| 26   | Suspension E, Truck #3   | 480199_Truck_3_suspension_5_1_25_11.jpg |
| 27   | Suspension F, Truck #3   |                                         |
| 28   | Scale                    |                                         |
| 29   |                          |                                         |
| 30   |                          |                                         |

RECORDED BY: \_\_\_\_\_ Dean J Wolf