WIM System Field Calibration and Validation Handout Guide

Kansas, SPS-2
SHRP ID – 200200

Validation Date: August 27, 2013

Table of Contents

1 Site Information

Site ID:	200200	**State:**	Kansas
LTPP Region:	North Central	**Configuration:**	Loop-2 Bending Plates-Loop
Controller Type:	iSINC	**Sensor Type:**	Bending Plate
Power:	AC	**Communication:**	Landline
Class Scheme:	LTPP	**CPU type/setup:**	iSINC

2 Contact Information

Agency	Contact	Position	Phone	E-Mail
FHWA	Debbie Walker	COTR	202 493-3068	deborah.walker@dot.gov
FHWA	Tom Deddens	FHWA Division	785-271-2448 ext 214	tom.deddens@dot.gov
RSC	Frank Meyer	Project Manager	716-632-0804	fmeyer@stantec.com
KS DOT	Bill Parcells	LTPP Coord.	785-291-3846	billp@ksdot.org
KS DOT	Rick Kreider	Bureau Chief	785-296-3711	rickk@ksdot.org
KS DOT	Bill Hughes	Traffic Contact	785-296-6863	bhughes@ksdot.org
ARA	Dean Wolf	Task Leader	717-512-6638	dwolf@ara.com
ARA	Olga Selezneva	Project Manager	410-540-9949	oselezneva@ara.com

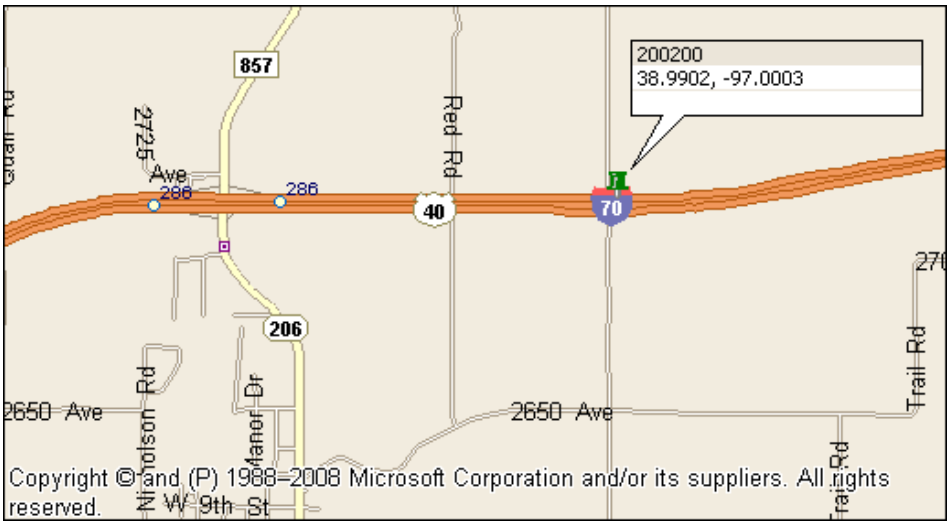
3 Schedule of Events

Date	Event	Location	Start Time
8/26/13	Travel	Abilene, KS	TBD
8/27/13	Equipment Assessment	WIM Site	8:00am
8/27/13	Test Truck Weigh/Measure/Inspection	DeBruce Grain	6:30 am
8/27/13	Initial Performance Evaluation	WIM Site	8:30 am
8/27/13	System Test/Class and Speed Study	WIM Site	TBD
8/28/13	Test Truck Weigh	DeBruce Grain	6:30 am
8/28/13	Calibration/Validation (if required)	WIM Site	8:00 am
8/29/13	Travel	Camp Hill, PA	TBD

4 Maps

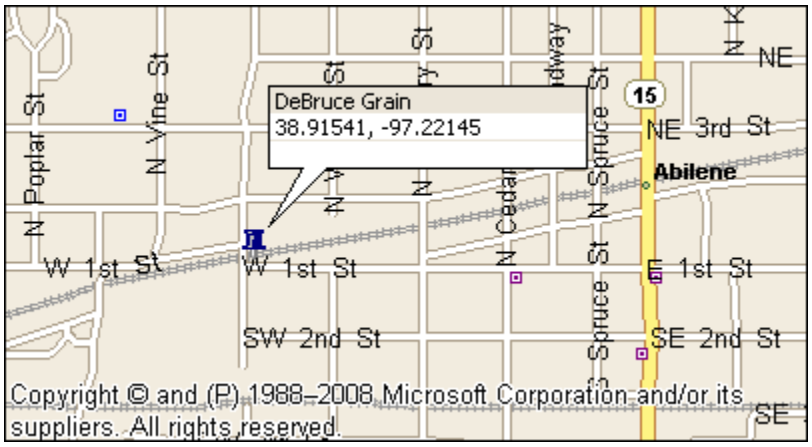
4.1 Site Location

Location:	I-70 West at M.P. 287.48, 7.6 miles west of US 77			**Dir:**	WB
Latitude:	38.9902°	**Longitude:**	-97.0003°		



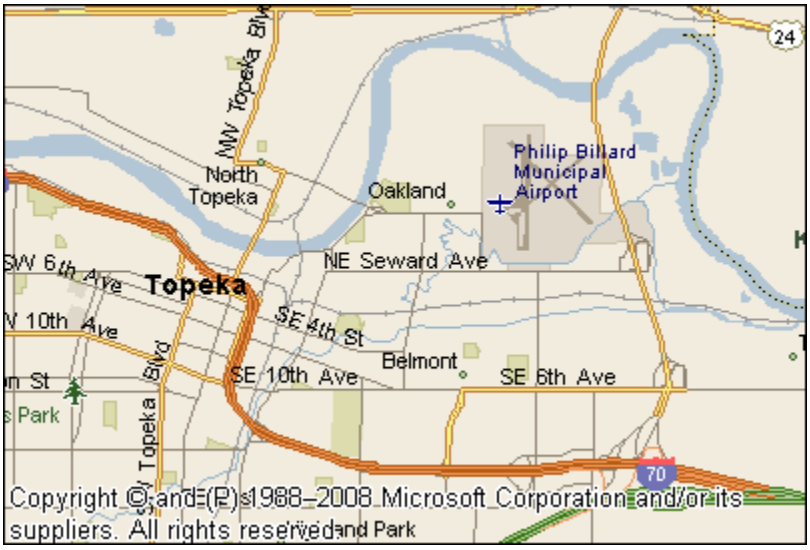
4.2 Truck Scale Location

Name:	DeBruce Grain	**Location:**	513 W. First St.
Latitude:	38.9154°	**Longitude:**	-97.2215°



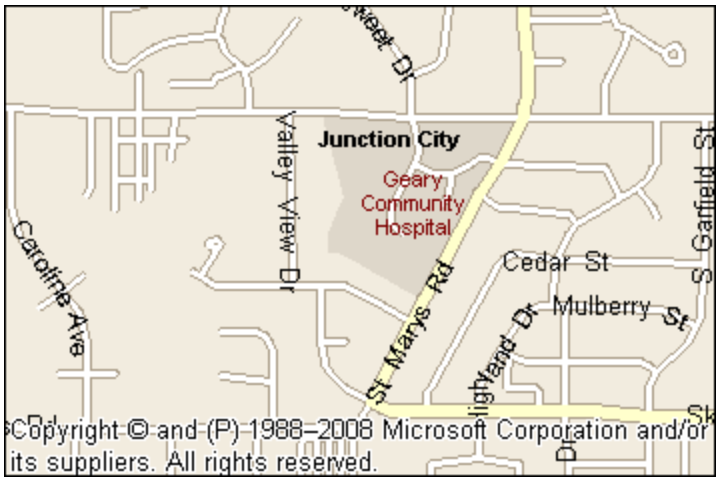
4.3 Airport Location

Name:	Phillip Billard Municipal Airport	**Location:**	Topeka, KS
Latitude:	39.06803°	**Longitude:**	-95.61986°



4.4 Hospital Location

Name:	Geary Community Hospital ER		
Phone:	(785) 238-4131	**Location:**	1106 Saint Marys Rd, Junction City, KS



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.

Traffic Sheet 17	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
WIM SITE INVENTORY	DATE (mm/dd/yyyy)	8/27/2013

1. ROUTE: I-70 **MILEPOST:** 287.48 **LTPP DIRECTION:** west

2. WIM SITE DESCRIPTION

Grade: <1% Sag Vertical: N
Nearest Upstream SPS Section: 200212
Distance from sensors to SPS Section: 780 feet

3. LANE CONFIGURATION

Lanes in LTPP direction: 2 Median: 3 - grass
Lane width: 12' Shoulder: 3 - paved PCC
Shoulder width: 10'

4. PAVEMENT TYPE PCC

5. PAVEMENT SURFACE CONDITION - Distress Survey

Date: 8/27/13 Photo Filename: 200200_downstream_8_27_13.jpg
Date: 8/27/13 Photo Filename: 200200_trailing_loop_8_27_13.jpg
Date: Photo Filename:

6. SENSOR SEQUENCE

Loop - 2 Bending Plate - Loop

7. REPLACEMENT AND/OR GRINDING

Date:
Date:
Date:

8. RAMPS OR INTERSECTIONS

Intersection within 300' upstream of site: N
Intersection within 300' downstream of site: N
Is shoulder routinely used for turning? N

9. DRAINAGE

Drainage *(bending plate and load cell)* : 1 - Open to Ground
Clearance under plate (in.): 6"
Clearance /access to flush fines from under system: N

Traffic Sheet 17	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
WIM SITE INVENTORY	DATE (mm/dd/yyyy)	8/27/2013

10. CABINET LOCATION

Same side of road as LTPP lane: Y
Distance from edge of traveled lane: 72 ft
distance from system: 78 ft
type: M

Cabinet access controlled by: Agency and LTPP
Contact name: Roy Czinku Phone # 306-653-6627
Alternate name: Bill Hughes Phone # 785-296-6863

11. POWER

Distance to cabinet from drop: 440 ft
Type: AC
AC in cabinet? Y
Service provider: Phone #

12. TELEPHONE

Distance to cabinet from drop: 1 ft
Type: landline
Service provider: Phone #

13. SYSTEM

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

14. TEST TRUCK TURNAROUND TIME

Duration: 12 minutes Distance: 7.6 miles

15. PHOTOS

	Filename
Power source:	200200_power_box_8_27_13.jpg
Phone source:	200200_telephone_service_8_27_13.jpg
Cabinet exterior:	200200_cabinet_exterior_8_27_13.jpg
Cabinet interior:	200200_cabinet_interior_front_8_27_13.jpg
Weight sensors:	200200_leading_WIM_sensor_8_27_13.jpg
	200200_trailing_WIM_sensor_8_27_13.jpg
Other sensors:	200200_leading_loop_8_27_13.jpg
	200200_trailing_loop_8_27_13.jpg
Downstream from sensors on LTPP lane:	200200_downstream_8_27_13.jpg
Upstream from sensors on LTPP lane:	200200_upstream_8_27_13.jpg

Traffic Sheet 18 LTPP MONITORED TRAFFIC DATA WIM SITE COORDINATION	STATE CODE: 20 SPS WIM ID: 200200 DATE (mm/dd/yyyy) 8/27/2013

1. DATA PROCESSING

a. Download: LTPP download

b. Data review: LTPP
If state, how often?

c. Data submission LTPP
If state how often?

2. EQUIPMENT

a. Purchase LTPP

b. Installation LTPP contract

c. Maintenance Separate contract LTPP
Expiration Date

d. Calibration LTPP

e. Manuals and software control: LTPP

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 Always new

c. Profile Site Markings Temporary

Traffic Sheet 18	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
WIM SITE COORDINATION	DATE (mm/dd/yyyy)	8/27/2013

4. Onsite Activities

a. WIM Validation Check advance notice required

_____ Days 2 Weeks

b. Notice for straightedge and grinding check

_____ Days 2 Weeks

i. On site lead LTPP

ii. Accept grinding LTPP

c. Authorization to calibrate site LTPP

d. Calibration routine LTPP annually

Other: _____

e. Test Vehicle Responsibilities

i. Trucks

1st-	Air suspension 3S2	LTPP
2nd-	Air Suspension 3S2	LTPP
3rd-		
4th-		

ii. Loads LTPP

iii. Drivers LTPP

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

g. Access to cabinet Joint

h. State personel required on site No

i. Traffic control required No

J. Enforcement coordination required No

Traffic Sheet 18 LTPP MONITORED TRAFFIC DATA WIM SITE COORDINATION	STATE CODE: 20 SPS WIM ID: 200200 DATE (mm/dd/yyyy) 8/27/2013

5. SITE SPECIFIC CONDITIONS

a. Funds and accountability: _____
b. Reports: _____
c. Other: _____
c. Special Conditions _____

6. CONTACTS

a. Equipment (operational status, access, etc.)
Name Roy Czinku Phone # 306-270-9492
Agency IRD

b. Maintenance (equipment)
Name Roy Czinku Phone # 306-270-9492
Agency IRD

c. Data Processing and pre-visit data
Name Basel Abukhater Phone # 716-632-0804
Agency Stantec

d. Construction schedule and verification
Name Bill Hughes Phone # 785-296-6863
Agency KS DOT

e. Test Vehicles (trucks, loads, drivers)
Name _____ Phone # _____
Agency _____

f. Traffic control
Name _____ Phone # _____
Agency _____

g. Enforcement coordination
Name _____ Phone # _____
Agency _____

h. Nearest static scale
Name _____ Location: _____
Phone: _____

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 1	STATE CODE: 20 SPS WIM ID: 200200 DATE (mm/dd/yyyy) 8/27/2013

CALIBRATION TEST TRUCK - Primary

PART A

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

3. **AXLE WEIGHTS** (lbs)

	a. Empty Truck Avg. Axle Weight	b. Pre-test Average Axle Weight	c. Post-Test Avg. Axle Weight	d. Direct or Calculated?
A		11770	11600	Direct
B		16155	16005	Direct
C		16155	16005	Direct
D		16230	16250	Direct
E		16230	16250	Direct
F				

4. **GVW (same units as axles)**
   - a. Empty GVW:
   - b. Average Pre-Test Loaded weight: 76540
   - c. Post Test Loaded Weight: 76110
   - d. Difference Post Test - Pre-Tests: -430

5. **TRUCK DESCRIPTION**
   - a. Tractor Cab Style: Conventional Sleeper Cab: Yes
     photo: ☑
   - b. Make: Kenworth
   - c. Model: W900L
   - d. Trailer Load Distribution Description:
     grain
     photo: ☑
   - e. Tractor Tare weight - -
   - f. Trailer Tare weight - -
   - g. Axle Spacing - (feet and tenths)

A to B 18.5 B to C 4.3 C to D 31.2 D to E 4.1 E to F

- h. Wheelbase - ☐ Measured ☑ Computed 58.1
- i. Kingpin offset from Axle B (units) -1'2" photo: ☐
- j. Overall Length - ☑ Measured 62.5

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 1	STATE CODE: 20 SPS WIM ID: 200200 DATE (mm/dd/yyyy) 8/27/2013

CALIBRATION TEST TRUCK - Primary

6. SUSPENSION

	a. Tire size	b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.)	c. photo
A	285/75R24.5	steel spring	☑
B	285/75R24.5	air	☑
C	445/50R22.5	air	☑
D	445/50R22.5	air	☑
E	445/50R22.5	air	☑
F			☐

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

Steering Axle	Axle B	Axle C	AxleD	AxleE	Axle F

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				

Traffic Sheet 19	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	8/27/2013

CALIBRATION TEST TRUCK - Primary

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

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

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

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

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

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

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

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

Traffic Sheet 19	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	8/27/2013

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	11700	16170	16170	16230	16230		76500
2	11840	16140	16140	16230	16230		76580
Avg.	11770	16155	16155	16230	16230		76540

Table 7- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 8- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

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

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	11600	16020	16020	16220	16220		76080
2	11600	15990	15990	16280	16280		76140
Avg.	11600	16005	16005	16250	16250		76110

Validation Test Truck Run Set - Pre

Measured By: Greg Helman

Verified By: Aditya R.

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 2	STATE CODE: 20 SPS WIM ID: 200200 DATE (mm/dd/yyyy) 8/27/2013

CALIBRATION TEST TRUCK - Secondary

PART A

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

3. **AXLE WEIGHTS** (lbs)

	a. Empty Truck Avg. Axle Weight	b. Pre-test Average Axle Weight	c. Post-Test Avg. Axle Weight	d. Direct or Calculated?
A		10970	10830	Direct
B		13845	13690	Direct
C		13845	13690	Direct
D		13645	13685	Direct
E		13645	13685	Direct
F				

4. **GVW (same units as axles)**
   a. Empty GVW:
   b. Average Pre-Test Loaded weight: 65950
   c. Post Test Loaded Weight: 65580
   d. Difference Post Test - Pre-Tests: -370

5. **TRUCK DESCRIPTION**
   a. Tractor Cab Style: Conventional Sleeper Cab: Yes
   photo: ☐

   b. Make: Kenworth
   c. Model: W900L

   d. Trailer Load Distribution Description:
   grain
   photo: ☐

   e. Tractor Tare weight - -
   f. Trailer Tare weight - -
   g. Axle Spacing - (feet and tenths)

A to B 18.5 B to C 4.4 C to D 31.7 D to E 4.2 E to F

   h. Wheelbase - ☐ Measured ☑ Computed 58.8
   i. Kingpin offset from Axle B (units) -1'8" photo: ☐
   j. Overall Length - ☑ Measured 62.9

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 2	STATE CODE: 20 SPS WIM ID: 200200 DATE (mm/dd/yyyy) 8/27/2013

CALIBRATION TEST TRUCK - Secondary

6. SUSPENSION

	a. Tire size	b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.)	c. photo
A	285/75R24.5	steel spring	☑
B	285/75R24.5	air	☑
C	385/65R22.5	air	☑
D	385/65R22.5	air	☑
E	385/65R22.5	air	☑
F			☐

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

Steering Axle	Axle B	Axle C	AxleD	AxleE	Axle F

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				

Traffic Sheet 19	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	8/27/2013

CALIBRATION TEST TRUCK - Secondary

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

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

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

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

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

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

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

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

Traffic Sheet 19	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	8/27/2013

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	10960	13860	13860	13640	13640		65960
2	10980	13830	13830	13650	13650		65940
Avg.	10970	13845	13845	13645	13645		65950

Table 7- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 8- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

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

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	10840	13690	13690	13690	13690		65600
2	10820	13690	13690	13680	13680		65560
Avg.	10830	13690	13690	13685	13685		65580

Validation Test Truck Run Set - Pre

Measured By: Greg Helman

Verified By: Aditya R.

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 1	STATE CODE: 20 SPS WIM ID: 200200 DATE (mm/dd/yyyy) 8/28/2013

CALIBRATION TEST TRUCK - Primary

PART A

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

3. AXLE WEIGHTS (lbs)

	a. Empty Truck Avg. Axle Weight	b. Pre-test Average Axle Weight	c. Post-Test Avg. Axle Weight	d. Direct or Calculated?
A		11750	0	Direct
B		16110	0	Direct
C		16110	0	Direct
D		16245	0	Direct
E		16245	0	Direct
F				

4. GVW (same units as axles)

a. Empty GVW:
b. Average Pre-Test Loaded weight: 76460
c. Post Test Loaded Weight: 0
d. Difference Post Test - Pre-Tests: -76460

5. TRUCK DESCRIPTION

a. Tractor Cab Style: Conventional Sleeper Cab: Yes
photo: ☑

b. Make: Kenworth
c. Model: W900L

d. Trailer Load Distribution Description:
grain
photo: ☑

e. Tractor Tare weight - -
f. Trailer Tare weight - -
g. Axle Spacing - (feet and tenths)

A to B 18.5 B to C 4.3 C to D 31.2 D to E 4.1 E to F

h. Wheelbase - ☐ Measured ☑ Computed 58.1
i. Kingpin offset from Axle B (units) -1'2" photo: ☐
j. Overall Length - ☑ Measured 62.5

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 1	STATE CODE: 20 SPS WIM ID: 200200 DATE (mm/dd/yyyy) 8/28/2013

CALIBRATION TEST TRUCK - Primary

6. SUSPENSION

	a. Tire size	b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.)	c. photo
A	285/75R24.5	steel spring	☑
B	285/75R24.5	air	☑
C	445/50R22.5	air	☑
D	445/50R22.5	air	☑
E	445/50R22.5	air	☑
F			☐

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

Steering Axle	Axle B	Axle C	AxleD	AxleE	Axle F

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				

Traffic Sheet 19	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	8/28/2013

CALIBRATION TEST TRUCK - Primary

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

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

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

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

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

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

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

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

Traffic Sheet 19	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	8/28/2013

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	11660	16120	16120	16240	16240		76380
2	11840	16100	16100	16250	16250		76540
Avg.	11750	16110	16110	16245	16245		76460

Table 7- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 8- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

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

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Validation Test Truck Run Set - Cal 1

Measured By: Greg Helman

Verified By: Aditya R.

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 2	STATE CODE: 20 SPS WIM ID: 200200 DATE (mm/dd/yyyy) 8/28/2013

CALIBRATION TEST TRUCK - Secondary

PART A

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

3. **AXLE WEIGHTS** (lbs)

	a. Empty Truck Avg. Axle Weight	b. Pre-test Average Axle Weight	c. Post-Test Avg. Axle Weight	d. Direct or Calculated?
A		10950	0	Direct
B		13815	0	Direct
C		13815	0	Direct
D		13675	0	Direct
E		13675	0	Direct
F				

4. **GVW (same units as axles)**
   - a. Empty GVW:
   - b. Average Pre-Test Loaded weight: 65930
   - c. Post Test Loaded Weight: 0
   - d. Difference Post Test - Pre-Tests: -65930

5. **TRUCK DESCRIPTION**
   - a. Tractor Cab Style: Conventional Sleeper Cab: Yes
     photo: ☐
   - b. Make: Kenworth
   - c. Model: W900L
   - d. Trailer Load Distribution Description:

     grain

     photo: ☐
   - e. Tractor Tare weight - -
   - f. Trailer Tare weight - -
   - g. Axle Spacing - (feet and tenths)

A to B 18.5 B to C 4.4 C to D 31.7 D to E 4.2 E to F

   - h. Wheelbase - ☐ Measured ☑ Computed 58.8
   - i. Kingpin offset from Axle B (units) -1'8" photo: ☐
   - j. Overall Length - ☑ Measured 62.9

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 2	STATE CODE: 20 SPS WIM ID: 200200 DATE (mm/dd/yyyy) 8/28/2013

CALIBRATION TEST TRUCK - Secondary

6. SUSPENSION

	a. Tire size	b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.)	c. photo
A	285/75R24.5	steel spring	☑
B	285/75R24.5	air	☑
C	385/65R22.5	air	☑
D	385/65R22.5	air	☑
E	385/65R22.5	air	☑
F			☐

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

Steering Axle	Axle B	Axle C	AxleD	AxleE	Axle F

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				

Traffic Sheet 19	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	8/28/2013

CALIBRATION TEST TRUCK - Secondary

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

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

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

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

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

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

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

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

Traffic Sheet 19	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	8/28/2013

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	10900	13850	13850	13660	13660		65920
2	11000	13780	13780	13690	13690		65940
Avg.	10950	13815	13815	13675	13675		65930

Table 7- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 8- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

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

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Validation Test Truck Run Set - Cal 1

Measured By: Greg Helman

Verified By: Aditya R.

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 1	STATE CODE: 20 SPS WIM ID: 200200 DATE (mm/dd/yyyy) 8/28/2013

CALIBRATION TEST TRUCK - Primary

PART A

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

3. AXLE WEIGHTS (lbs)

	a. Empty Truck Avg. Axle Weight	b. Pre-test Average Axle Weight	c. Post-Test Avg. Axle Weight	d. Direct or Calculated?
A		11750	11620	Direct
B		16110	16000	Direct
C		16110	16000	Direct
D		16245	16235	Direct
E		16245	16235	Direct
F				

4. GVW (same units as axles)

a. Empty GVW:
b. Average Pre-Test Loaded weight: 76460
c. Post Test Loaded Weight: 76090
d. Difference Post Test - Pre-Tests: -370

5. TRUCK DESCRIPTION

a. Tractor Cab Style: Conventional Sleeper Cab: Yes
photo: ☑

b. Make: Kenworth
c. Model: W900L

d. Trailer Load Distribution Description:

grain

photo: ☑

e. Tractor Tare weight - -
f. Trailer Tare weight - -
g. Axle Spacing - (feet and tenths)

A to B 18.5 B to C 4.3 C to D 31.2 D to E 4.1 E to F

h. Wheelbase - ☐ Measured ☑ Computed 58.1
i. Kingpin offset from Axle B (units) -1'2" photo: ☐
j. Overall Length - ☑ Measured 62.5

Traffic Sheet 19	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	8/28/2013

CALIBRATION TEST TRUCK - Primary

6. SUSPENSION

	a. Tire size	b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.)	c. photo
A	285/75R24.5	steel spring	☑
B	285/75R24.5	air	☑
C	445/50R22.5	air	☑
D	445/50R22.5	air	☑
E	445/50R22.5	air	☑
F			☐

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

Steering Axle	Axle B	Axle C	AxleD	AxleE	Axle F

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				

Traffic Sheet 19	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	8/28/2013

CALIBRATION TEST TRUCK - Primary

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

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

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

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

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

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

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

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

Traffic Sheet 19	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	8/28/2013

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	11660	16120	16120	16240	16240		76380
2	11840	16100	16100	16250	16250		76540
Avg.	11750	16110	16110	16245	16245		76460

Table 7- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 8- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

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

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	11660	16000	16000	16260	16260		76180
2	11580	16000	16000	16210	16210		76000
Avg.	11620	16000	16000	16235	16235		76090

Validation Test Truck Run Set - Post

Measured By: Greg Helman

Verified By: Aditya R.

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 2	STATE CODE: 20 SPS WIM ID: 200200 DATE (mm/dd/yyyy) 8/28/2013

CALIBRATION TEST TRUCK - Secondary

PART A

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

3. **AXLE WEIGHTS** (lbs)

	a. Empty Truck Avg. Axle Weight	b. Pre-test Average Axle Weight	c. Post-Test Avg. Axle Weight	d. Direct or Calculated?
A		10950	10840	Direct
B		13815	13670	Direct
C		13815	13670	Direct
D		13675	13690	Direct
E		13675	13690	Direct
F				

4. **GVW (same units as axles)**
   - a. Empty GVW:
   - b. Average Pre-Test Loaded weight: 65930
   - c. Post Test Loaded Weight: 65560
   - d. Difference Post Test - Pre-Tests: -370

5. **TRUCK DESCRIPTION**
   - a. Tractor Cab Style: Conventional Sleeper Cab: Yes
     photo: ☐
   - b. Make: Kenworth
   - c. Model: W900L
   - d. Trailer Load Distribution Description:

     grain

     photo: ☐
   - e. Tractor Tare weight - -
   - f. Trailer Tare weight - -
   - g. Axle Spacing - (feet and tenths)

A to B 18.5 B to C 4.4 C to D 31.7 D to E 4.2 E to F

   - h. Wheelbase - ☐ Measured ☑ Computed 58.8
   - i. Kingpin offset from Axle B (units) -1'8" photo: ☐
   - j. Overall Length - ☑ Measured 62.9

Traffic Sheet 19	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	8/28/2013

CALIBRATION TEST TRUCK - Secondary

6. SUSPENSION

	a. Tire size	b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.)	c. photo
A	285/75R24.5	steel spring	☑
B	285/75R24.5	air	☑
C	385/65R22.5	air	☑
D	385/65R22.5	air	☑
E	385/65R22.5	air	☑
F			☐

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

Steering Axle	Axle B	Axle C	AxleD	AxleE	Axle F

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				

Traffic Sheet 19	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	8/28/2013

CALIBRATION TEST TRUCK - Secondary

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

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

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

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

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

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

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

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

Traffic Sheet 19	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	8/28/2013

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	10900	13850	13850	13660	13660		65920
2	11000	13780	13780	13690	13690		65940
Avg.	10950	13815	13815	13675	13675		65930

Table 7- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 8- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

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

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	10820	13660	13660	13690	13690		65520
2	10860	13680	13680	13690	13690		65600
Avg.	10840	13670	13670	13690	13690		65560

Validation Test Truck Run Set - Post

Measured By: Greg Helman

Verified By: Aditya R.

Traffic Sheet 21 (Wheel Load) LTPP MONITORED TRAFFIC DATA WIM SYSTEM TRUCK RECORDS	STATE CODE: 20 SPS WIM ID: 200200 DATE: (mm/dd/yyyy): 8/27/2013

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
84.4	60	1	1	9:20:11	24919	60.0	12.7	17.2	17.0	17.3	17.6		81.7	18.4	4.3	31.0	4.1		57.8	62.0
84.4	60	2	1	9:20:21	24921	60.0	12.0	14.9	14.9	14.0	14.6		70.4	18.5	4.3	31.5	4.1		58.4	62.0
86.0	64	1	2	9:31:15	24977	64.0	12.5	17.2	16.6	17.1	17.3		80.7	18.4	4.3	31.0	4.1		57.8	62.0
86.0	64	2	2	9:31:21	24978	64.0	11.7	14.5	14.5	14.1	14.5		69.5	18.5	4.3	31.4	4.1		58.3	62.0
88.4	72	1	3	9:41:55	25029	70.0	11.9	17.5	16.9	17.1	17.5		80.9	18.4	4.3	31.0	4.0		57.7	62.0
88.4	72	2	3	9:42:03	25030	70.0	11.2	14.9	15.1	15.0	14.3		70.5	18.6	4.3	31.5	4.1		58.5	63.0
90.5	64	1	4	9:56:06	25092	60.0	12.7	17.4	17.0	17.5	17.5		82.0	18.5	4.4	31.1	4.1		58.1	62.0
90.5	64	2	4	9:56:08	25093	59.0	11.8	15.2	14.5	14.1	14.3		69.8	18.6	4.3	31.5	4.1		58.5	62.0
91.3	65	1	5	10:07:11	25145	65.0	12.4	17.2	17.2	16.9	17.0		80.7	18.6	4.3	31.2	4.1		58.2	62.0
91.3	65	2	5	10:07:20	25146	64.0	11.6	14.9	14.7	13.8	14.3		69.3	18.5	4.3	31.4	4.1		58.3	62.0
94.9	64	1	6	10:28:47	25265	64.0	12.2	16.9	16.9	16.8	17.0		79.8	18.5	4.3	31.1	4.1		58.0	62.0
94.9	60	2	6	10:29:04	25268	59.0	11.7	14.9	14.4	14.1	14.6		70.0	18.5	4.3	31.5	4.1		58.4	62.0
95.9	59	1	7	10:39:36	25323	59.0	12.6	17.0	16.4	17.3	17.5		80.8	18.4	4.3	31.0	4.0		57.7	62.0
95.9	59	2	7	10:39:39	25324	59.0	11.7	14.8	14.5	13.7	14.3		69.0	18.5	4.3	31.4	4.1		58.3	62.0
97.7	65	1	8	10:50:18	25386	64.0	12.6	16.9	16.6	16.3	16.8		79.2	18.4	4.3	31.1	4.0		57.8	62.0
97.7	66	2	8	10:50:22	25387	65.0	11.3	14.5	14.1	13.6	14.1		67.5	18.5	4.3	31.5	4.1		58.4	62.0
98.7	70	1	9	11:01:03	25444	69.0	12.1	17.0	16.6	16.9	17.3		79.9	18.5	4.3	31.1	4.1		58.0	62.0
98.7	72	2	9	11:01:13	25445	70.0	11.1	14.5	14.2	14.9	14.6		69.4	18.5	4.4	31.5	4.1		58.5	62.0
108.4	56	1	10	12:34:54	25957	54.0	11.7	16.1	15.5	16.3	16.3		75.9	18.5	4.3	31.0	4.0		57.8	62.0
108.4	60	2	10	12:34:58	25958	60.0	11.6	14.5	14.3	13.9	14.4		68.8	18.6	4.3	31.5	4.1		58.5	62.0
109.2	66	1	11	12:45:42	26019	64.0	12.2	17.3	16.7	17.0	17.0		80.1	18.6	4.4	31.1	4.1		58.2	62.0
109.2	66	2	11	12:45:46	26020	65.0	11.5	14.4	14.2	14.2	14.2		68.4	18.5	4.3	31.5	4.1		58.4	63.0
109.1	73	1	12	12:56:10	26079	69.0	12.2	17.0	16.6	17.4	17.9		81.0	18.5	4.3	31.0	4.1		57.9	62.0
109.1	70	2	12	12:56:17	26081	69.0	11.2	14.5	14.6	14.2	14.6		69.0	18.5	4.3	31.7	4.1		58.6	63.0

Recorded By: gah Verified By: ar Run Set Pre

Traffic Sheet 21 (Wheel Load) LTPP MONITORED TRAFFIC DATA WIM SYSTEM TRUCK RECORDS	STATE CODE: 20 SPS WIM ID: 200200 DATE: (mm/dd/yyyy): 8/27/2013

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
111.2	61	1	13	13:06:53	26147	60.0	12.3	17.1	16.5	16.7	17.2		79.8	18.5	4.3	31.1	4.1		58.0	62.0
111.2	60	2	13	13:06:57	26148	59.0	11.7	14.7	14.4	14.0	14.7		69.6	18.5	4.3	31.5	4.1		58.4	62.0
112.2	64	1	14	13:17:42	26209	64.0	12.0	16.8	16.4	17.0	17.2		79.3	18.5	4.3	31.0	4.0		57.8	62.0
112.2	64	2	14	13:17:46	26210	65.0	11.6	14.4	14.1	13.9	14.2		68.3	18.5	4.4	31.6	4.1		58.6	63.0
113.5	70	1	15	13:28:37	26267	69.0	12.1	16.9	16.7	16.7	17.8		80.1	18.4	4.3	31.0	4.1		57.8	61.0
113.5	70	2	15	13:28:46	26268	70.0	11.1	14.8	14.6	14.3	14.3		69.2	18.5	4.3	31.5	4.1		58.4	62.0
113.4	65	1	16	13:39:21	26327	64.0	12.2	16.9	16.8	16.8	17.2		79.8	18.5	4.3	31.1	4.0		57.9	62.0
113.4	65	2	16	13:39:27	26328	65.0	11.4	14.7	14.4	14.4	14.2		69.2	18.4	4.3	31.6	4.1		58.4	62.0
113.8	71	1	17	13:50:27	26390	69.0	12.2	17.2	16.8	17.5	17.2		80.9	18.5	4.3	31.1	4.1		58.0	62.0
113.8	68	2	17	13:50:30	26391	70.0	11.2	14.6	14.6	14.7	14.2		69.4	18.5	4.4	31.6	4.1		58.6	62.0
113.9	61	1	18	14:01:05	26454	60.0	12.5	16.9	16.5	17.2	17.4		80.6	18.5	4.3	31.0	4.1		57.9	62.0
113.9	60	2	18	14:01:09	26455	60.0	11.6	14.5	13.9	13.8	14.4		68.1	18.5	4.3	31.5	4.1		58.4	63.0
113.9	65	1	19	14:11:45	26525	64.0	12.2	16.6	16.5	16.6	16.6		78.4	18.5	4.3	31.0	4.1		57.9	62.0
113.9	68	2	19	14:11:48	26526	65.0	11.3	15.1	14.3	13.6	14.4		68.5	18.5	4.3	31.5	4.1		58.4	63.0
114.5	71	1	20	14:50:44	26757	72.0	11.9	17.0	17.4	17.3	17.1		80.4	18.6	4.3	31.1	4.1		58.1	62.0
114.5	71	2	20	14:50:47	26758	72.0	11.2	14.8	14.1	14.1	14.6		68.8	18.5	4.3	31.6	4.1		58.5	63.0

Recorded By: gah Verified By: ar Run Set Pre

Traffic Sheet 21 (Wheel Load) LTPP MONITORED TRAFFIC DATA WIM SYSTEM TRUCK RECORDS	STATE CODE: 20 SPS WIM ID: 200200 DATE: (mm/dd/yyyy): 8/28/2013

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
75.0	65	1	1	8:23:14	30450	65.0	12.0	16.5	15.9	16.5	16.4		77.4	18.4	4.3	31.0	4.0		57.7	62.0
75.0	64	2	1	8:23:20	30451	64.0	11.2	13.8	13.8	13.6	13.7		66.1	18.5	4.4	31.5	4.1		58.5	63.0
78.5	65	1	2	8:55:46	30641	64.0	11.8	16.1	15.9	16.6	16.3		76.8	18.5	4.4	31.2	4.1		58.2	62.0
78.5	65	2	2	8:55:48	30642	65.0	11.2	14.1	14.0	13.6	13.6		66.6	18.5	4.3	31.6	4.1		58.5	63.0
82.3	66	1	3	9:06:57	30706	64.0	11.9	16.3	16.0	16.2	16.7		77.1	18.5	4.3	31.1	4.0		57.9	62.0
82.3	66	2	3	9:06:59	30707	65.0	11.2	14.5	14.1	13.3	14.0		67.2	18.5	4.3	31.6	4.1		58.5	63.0
85.4	60	1	4	9:18:19	30769	59.0	12.0	16.3	15.7	16.5	16.6		77.0	18.5	4.3	31.1	4.1		58.0	62.0
85.4	59	2	4	9:18:22	30770	59.0	11.1	14.2	13.4	13.4	13.9		66.0	18.4	4.4	31.4	4.1		58.3	63.0
87.9	70	1	5	9:29:09	30828	72.0	11.7	16.5	16.1	16.3	16.9		77.5	18.5	4.3	31.1	4.1		58.0	62.0
87.9	71	2	5	9:29:18	30829	72.0	10.8	13.9	14.5	14.2	13.8		67.2	18.5	4.4	31.7	4.1		58.7	63.0
86.2	58	1	6	9:44:10	30901	59.0	12.1	16.3	16.1	16.5	16.8		77.8	18.5	4.3	31.0	4.1		57.9	62.0
86.2	60	2	6	9:44:13	30902	59.0	11.3	14.1	13.9	13.3	13.8		66.4	18.5	4.3	31.4	4.1		58.3	63.0

Recorded By: gah Verified By: ar Run Set Cal 1

Traffic Sheet 21 (Wheel Load) LTPP MONITORED TRAFFIC DATA WIM SYSTEM TRUCK RECORDS	STATE CODE: 20 SPS WIM ID: 200200 DATE: (mm/dd/yyyy): 8/28/2013

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
75.0	65	1	1	8:23:14	30450	65.0	12.0	16.5	15.9	16.5	16.4		77.4	18.4	4.3	31.0	4.0		57.7	62.0
75.0	64	2	1	8:23:20	30451	64.0	11.2	13.8	13.8	13.6	13.7		66.1	18.5	4.4	31.5	4.1		58.5	63.0
78.5	65	1	2	8:55:46	30641	64.0	11.8	16.1	15.9	16.6	16.3		76.8	18.5	4.4	31.2	4.1		58.2	62.0
78.5	65	2	2	8:55:48	30642	65.0	11.2	14.1	14.0	13.6	13.6		66.6	18.5	4.3	31.6	4.1		58.5	63.0
82.3	66	1	3	9:06:57	30706	64.0	11.9	16.3	16.0	16.2	16.7		77.1	18.5	4.3	31.1	4.0		57.9	62.0
82.3	66	2	3	9:06:59	30707	65.0	11.2	14.5	14.1	13.3	14.0		67.2	18.5	4.3	31.6	4.1		58.5	63.0
85.4	60	1	4	9:18:19	30769	59.0	12.0	16.3	15.7	16.5	16.6		77.0	18.5	4.3	31.1	4.1		58.0	62.0
85.4	59	2	4	9:18:22	30770	59.0	11.1	14.2	13.4	13.4	13.9		66.0	18.4	4.4	31.4	4.1		58.3	63.0
87.9	70	1	5	9:29:09	30828	72.0	11.7	16.5	16.1	16.3	16.9		77.5	18.5	4.3	31.1	4.1		58.0	62.0
87.9	71	2	5	9:29:18	30829	72.0	10.8	13.9	14.5	14.2	13.8		67.2	18.5	4.4	31.7	4.1		58.7	63.0
86.2	58	1	6	9:44:10	30901	59.0	12.1	16.3	16.1	16.5	16.8		77.8	18.5	4.3	31.0	4.1		57.9	62.0
86.2	60	2	6	9:44:13	30902	59.0	11.3	14.1	13.9	13.3	13.8		66.4	18.5	4.3	31.4	4.1		58.3	63.0
90.7	65	1	7	9:54:50	30947	64.0	12.1	16.1	15.8	16.3	16.4		76.7	18.5	4.3	31.1	4.1		58.0	62.0
90.7	64	2	7	9:54:51	30948	64.0	11.0	14.4	13.4	13.8	13.6		66.3	18.5	4.4	31.6	4.1		58.6	65.0
91.5	71	1	8	10:05:15	31001	71.0	11.9	16.3	16.3	16.1	16.5		77.1	18.4	4.3	31.0	4.0		57.7	62.0
91.5	71	2	8	10:05:18	31003	72.0	11.0	13.8	14.1	13.8	14.1		66.9	18.6	4.4	31.6	4.1		58.7	63.0
92.0	60	1	9	10:15:59	31063	60.0	12.0	16.3	16.0	16.4	16.6		77.2	18.5	4.3	31.1	4.1		58.0	63.0
92.0	60	2	9	10:16:06	31064	60.0	11.1	14.1	13.7	13.3	13.9		66.1	18.5	4.3	31.4	4.1		58.3	63.0
92.3	65	1	10	10:26:59	31126	64.0	11.9	16.4	15.9	16.3	16.2		76.7	18.4	4.3	31.1	4.1		57.9	62.0
92.3	65	2	10	10:27:06	31127	64.0	11.0	13.9	14.0	13.2	13.7		65.8	18.5	4.3	31.5	4.1		58.4	63.0
108.0	72	1	11	12:00:57	31675	72.0	11.6	16.2	16.2	15.9	15.7		75.6	18.5	4.3	31.1	4.1		58.0	63.0
108.0	72	2	11	12:01:00	31676	72.0	10.9	13.7	14.3	13.8	14.5		67.1	18.5	4.3	31.6	4.1		58.5	63.0
110.5	59	1	12	12:11:16	31735	59.0	11.9	15.9	15.4	16.1	16.1		75.5	18.5	4.3	31.0	4.1		57.9	62.0
110.5	60	2	12	12:11:28	31737	60.0	11.0	13.8	13.4	13.4	13.6		65.2	18.5	4.3	31.5	4.1		58.4	63.0

Recorded By: gah Verified By: ar Run Set Post

Traffic Sheet 21 (Wheel Load) LTPP MONITORED TRAFFIC DATA WIM SYSTEM TRUCK RECORDS	STATE CODE: 20 SPS WIM ID: 200200 DATE: (mm/dd/yyyy): 8/28/2013

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
108.5	59	1	13	12:22:08	31811	60.0	11.8	16.2	16.0	16.3	16.6		76.9	18.4	4.3	31.0	4.1		57.8	62.0
108.5	61	2	13	12:22:13	31812	60.0	11.0	14.1	13.6	13.2	13.6		65.4	18.5	4.3	31.5	4.1		58.4	63.0
104.1	65	1	14	12:32:55	31869	64.0	11.8	16.3	16.0	16.4	16.2		76.6	18.4	4.3	31.1	4.0		57.8	62.0
104.1	65	2	14	12:32:57	31870	64.0	10.9	14.4	13.3	13.6	13.9		66.1	18.5	4.4	31.5	4.1		58.5	63.0
112.8	60	1	15	12:53:52	31990	59.0	11.9	15.9	15.6	16.3	16.4		76.0	18.4	4.3	30.9	4.1		57.7	62.0
112.8	60	2	15	12:54:00	31991	60.0	11.1	14.1	13.1	13.8	13.9		66.0	18.4	4.3	31.4	4.1		58.2	63.0
113.0	66	1	16	13:10:47	32082	65.0	11.5	15.9	15.9	16.3	16.5		76.0	18.4	4.3	31.0	4.1		57.8	62.0
113.0	66	2	16	13:10:52	32083	65.0	10.9	13.9	13.5	13.4	13.7		65.4	18.4	4.3	31.4	4.1		58.2	63.0
114.1	65	1	17	13:21:14	32152	71.0	11.6	16.0	16.0	15.6	16.0		75.1	18.5	4.3	31.0	4.1		57.9	62.0
114.1	65	2	17	13:21:16	32153	72.0	11.0	13.9	13.8	14.2	13.4		66.2	18.6	4.3	31.6	4.1		58.6	63.0
116.2	59	1	18	13:31:35	32206	59.0	11.8	16.1	16.1	16.4	16.4		77.0	18.5	4.3	31.0	4.1		57.9	62.0
116.2	59	2	18	13:31:40	32207	59.0	11.1	13.7	13.7	13.1	13.8		65.3	18.5	4.4	31.5	4.1		58.5	63.0
111.7	72	1	19	13:52:33	32337	72.0	11.5	16.1	16.5	16.4	16.1		76.6	18.6	4.3	31.1	4.1		58.1	63.0
111.7	70	2	19	13:52:42	32339	72.0	10.6	13.9	14.2	13.7	13.9		66.3	18.5	4.3	31.6	4.1		58.5	64.0
112.0	59	1	20	14:02:59	32392	59.0	11.7	16.4	15.7	16.6	16.5		77.1	18.4	4.3	31.0	4.1		57.8	63.0
112.0	60	2	20	14:03:06	32394	60.0	11.0	14.1	13.9	13.2	13.6		66.0	18.5	4.3	31.5	4.1		58.4	63.0

Recorded By: gah Verified By: ar Run Set Post

Traffic Sheet 22 LTPP MONITORED TRAFFIC DATA SITE EQUIPMENT ASSESSSMENT LTPP LANE ONLY	STATE CODE: 20 SPS WIM ID: 200200 STATE ASSIGNED ID N/A DATE (mm/dd/yyy) 8/27/2013

SITE EQUIPMENT INFORMATION

1. **TYPE OF EQUIPMENT** BOTH

2. **LANE NUMBER ON SITE** 1 **3. DIRECTION ON SITE** west

4. **VENDOR** IRD **MODEL** iSINC **SERIAL#** 51202225

5. **WEIGHING SENSOR TYPE** bending plate

6. **SYSTEM SOFTWARE VERSIONS:**

CPU

LOOP

PIEZO

WEIGHPAD/ 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 were no pavement distresses noted that may affect the accuracies of the WIM system.

Traffic Sheet 22	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
SITE EQUIPMENT ASSESSSMENT	STATE ASSIGNED ID	N/A
LTPP LANE ONLY	DATE (mm/dd/yyy)	8/27/2013

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. None of the in-road sensors show signs of damage or excessive wear and appear to be fully secured in the pavement.

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 did not indicate any adverse dynamics that would affect the accuracy of the WIM system. The 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: _____

Traffic Sheet 22	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
SITE EQUIPMENT ASSESSSMENT	STATE ASSIGNED ID	N/A
LTPP LANE ONLY	DATE (mm/dd/yyy)	8/27/2013

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			

Traffic Sheet 22	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
SITE EQUIPMENT ASSESSSMENT	STATE ASSIGNED ID	N/A
LTPP LANE ONLY	DATE (mm/dd/yyy)	8/27/2013

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 67.3 mph Average WIM Speed 66.6 mph
Mean Difference -0.7 mph SD of mean 2.0

Posted Speed Limit 75 mph
Speed Range 15th percentile - 67 mph 85th percentile- 80 mph

Spacing and Weight - Complete Sheet 21 and attach.

Average distance between axles of drive tandem _____ feet
% error from 4.25 ft (industry average) OR 4.31 ft (WIM system average)
= 1.5 %

Average front axle weight for Class 9 vehicles _____ lbs
% error from 10.3 kips (industry average) OR 11.9 lbs (known site value)
= 15.2 %

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 occurance.

Cabinet/Foundation None ☑
no cabinet or foundation deficiencies

Pull Boxes None ☑
no pull box deficiencies

Mast None ☑
no service mast deficiencies

Solar Panels None ☑
no solar panel deficiencies

Traffic Sheet 22 LTPP MONITORED TRAFFIC DATA SITE EQUIPMENT ASSESSSMENT LTPP LANE ONLY	STATE CODE: 20 SPS WIM ID: 200200 STATE ASSIGNED ID N/A DATE (mm/dd/yyy) 8/27/2013

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 Greg Helman

Traffic Sheet 22 Addendum - Weighpad	STATE CODE:	20
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	200200
SITE EQUIPMENT ASSESSSMENT	STATE ASSIGNED ID	N/A
LTPP LANE ONLY	DATE (mm/dd/yyy)	8/27/2013

STATIC EQUIPMENT VALUES (SYSTEM OFF)

1. POWER

a. Solar Panel		WATTS		VDC
b. Equipment Power	122.4	VAC		VDC
c. Battery 1	13.47	VDC		
d. Battery 2		VDC		
e. Regulated	13.46	VDC		
f. Power Supply	13.47	VDC		VDC
g. System Input		VAC	11.6	VDC
h. Modem Power		VAC	11.6	VDC
i. Telephone	49.1	VDC		

2. LOOP SENSORS

	Resistance		Inductance		Shield	
a. Leading	0.5	Ω	132.0	µh	inf	MΩ
b. Trailing	0.4	Ω	164	µh	inf	MΩ

3. WEIGHPAD SENSORS

	Input		Output		Shield	
a. Leading	976	Ω	845	Ω	inf	Ω
b. Trailing	973	Ω	847	Ω	inf	Ω

DYNAMIC EQUIPMENT VALUES (SYSTEM ON)

4. LOOP SENSORS

	Frequency	
a. Leading	26.4	KHz
b. Trailing	26.2	KHz

5. WEIGHPAD SENSORS

	Zero Point	
a. Leading	0.1	mV
b. Trailing	-0.1	mV

Assessor Greg Helman

Traffic Sheet 24A LTPP MONITORED TRAFFIC DATA SITE PHOTO LOG - Equipment	STATE CODE: 20 SPS WIM ID: 200200 DATE (mm/dd/yyy) 8/27/2013

Item	Description	Filename
1	Power Source	200200_power_box_8_27_13.jpg
2	Telephone Source	200200_telephone_service_8_27_13.jpg
3	Cabinet Exterior	200200_cabinet_exterior_8_27_13.jpg
4	Cabinet Interior - Front	200200_cabinet_interior_front_8_27_13.jpg
5	Cabinet Interior - Rear	
6	Leading weight sensor	200200_leading_WIM_sensor_8_27_13.jpg
7	Trailing weight sensor	200200_trailing_WIM_sensor_8_27_13.jpg
8	Leading classification sensor	
9	Trailing classification sensor	
10	Leading loop sensor	200200_leading_loop_8_27_13.jpg
11	Trailing loop sensor	200200_trailing_loop_8_27_13.jpg
12	Downstream from site	200200_downstream_8_27_13.jpg
13	Upstream from site	200200_upstream_8_27_13.jpg
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Traffic Sheet 24B LTPP MONITORED TRAFFIC DATA SITE PHOTO LOG - Test Trucks	STATE CODE: 20 SPS WIM ID: 200200 DATE (mm/dd/yyy) 8/27/2013

Item	Description	Filename
1	Tractor, Truck #1	200200_Truck_1_Tractor_8_27_13.jpg
2	Trailer/Load, Truck #1	200200_Truck_1_Trailer_8_27_13.jpg
3	Kingpin Offset, Truck #1	
4	Suspension A, Truck #1	200200_Truck_1_Suspension_1_8_27_13.jpg
5	Suspension B, Truck #1	200200_Truck_1_Suspension_2_8_27_13.jpg
6	Suspension C, Truck #1	200200_Truck_1_Suspension_3_8_27_13.jpg
7	Suspension D, Truck #1	200200_Truck_1_Suspension_4_8_27_13.jpg
8	Suspension E, Truck #1	200200_Truck_1_Suspension_5_8_27_13.jpg
9	Suspension F, Truck #1	
10	Tractor, Truck #2	200200_Truck_2_Tractor_8_27_13.jpg
11	Trailer/Load, Truck #2	200200_Truck_2_Trailer_8_27_13.jpg
12	Kingpin Offset, Truck #2	
13	Suspension A, Truck #2	200200_Truck_2_Suspension_1_8_27_13.jpg
14	Suspension B, Truck #2	200200_Truck_2_Suspension_2_8_27_13.jpg
15	Suspension C, Truck #2	200200_Truck_2_Suspension_3_8_27_13.jpg
16	Suspension D, Truck #2	200200_Truck_2_Suspension_4_8_27_13.jpg
17	Suspension E, Truck #2	200200_Truck_2_Suspension_5_8_27_13.jpg
18	Suspension F, Truck #2	
19	Tractor, Truck #3	
20	Trailer/Load, Truck #3	
21	Kingpin Offset, Truck #3	
22	Suspension A, Truck #3	
23	Suspension B, Truck #3	
24	Suspension C, Truck #3	
25	Suspension D, Truck #3	
26	Suspension E, Truck #3	
27	Suspension F, Truck #3	
28	Scale	
29		
30		