

600.117 3.9.12

SHEET 10 LTPP TRAFFIC DATA TRAFFIC VOLUME AND LOAD ESTIMATE UPDATE - NO SITE COUNT	State Assigned ID _____
	State Code _____ 81
	SHRP Section ID _____ 500

1. ANNUAL TRAFFIC ESTIMATES

YEAR	ESTIMATED TOTAL VEHICLES AADT (TWO WAY)	ESTIMATED TOTAL TRUCK AADT (TWO WAY)	ESTIMATED TOTAL VEHICLES AADT GPS LANE	ESTIMATED TOTAL TRUCK AADT GPS LANE	ESTIMATED ESAL'S / YR GPS LANE (1000's)
2006	7690	2190	3090	1030	483

2. METHOD FOR ESTIMATING TOTAL VEHICLE AADT (TWO-WAY)

☐ Growth factored last year's estimates
☐ Estimated based on volume counts at nearby locations
☐ Used computerized network analysis
☒ Other WIM on Site

3. METHOD FOR ESTIMATING TOTAL TRUCK AADT (TWO-WAY)

☐ Used system average for counts taken this year
☐ Used count data from nearby sites
☐ Used count data from previous years at GPS site
☐ Used system averages from previous years counts
☐ Used computerized network analysis
☒ Other WIM on Site

4. METHOD FOR ESTIMATING TOTAL VEHICLES GPS LANE AADT

☐ System distribution factors
☒ Other WIM on Site

5. METHOD FOR ESTIMATING TOTAL TRUCKS, GPS LANE, AADT

☐ System distribution factors
☒ Other WIM on Site

6. METHOD FOR ESTIMATING ESAL / YEAR IN GPS LANE

☐ ESAL / Truck factor
☐ ESAL / vehicle class factors -
 Number of classes _____
☒ Other WIM on Site

7. ESAL ESTIMATES - SOURCE OF DATA

☐ Prior years data collected at GPS site
☐ Current year system average
☐ Prior year system average
☐ Historical W-4 tables
☒ Other WIM on Site

8. WEIGHT SCALE TYPE

☒ WIM Scale
☐ Static scale used for enforcement
☐ Static scale not used for enforcement
☐ Other _____

Name of Preparer:	Peter Kilburn	Phone #:	(780) 415-1359
Date Prepared	2007.03.07		

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SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

* State Assigned ID []
* State Code [81]
* SHRP Section ID [500]

SITE CALIBRATION INFORMATION

- 1 * DATE OF CALIBRATION (MONTH/DAY/YEAR) December 11, 2006
- 2 * TYPE OF EQUIPMENT CALIBRATED X WIM CLASSIFIER BOTH
- 3 * REASON FOR CALIBRATION
X REGULARLY SCHEDULED SITE VISIT RESEARCH
 EQUIPMENT REPLACEMENT TRAINING
 DATA TRIGGERED SYSTEM REVISION NEW EQUIPMENT INSTALLATION
 OTHER (SPECIFY)
- 4 * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY)
X BARE ROUND PIEZO CERAMIC BARE FLAT PIEZO BENDING PLATES
X CHANNELIZED ROUND PIEZO LOAD CELLS QUARTZ PIEZO
 CHANNELIZED FLAT PIEZO X INDUCTANCE LOOPS CAPACITANCE PADS
 OTHER (SPECIFY)
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS**

- 6 ** CALIBRATION TECHNIQUE USED:
 TRAFFIC STREAM -- Y STATIC SCALE (Y/N) X TEST TRUCKS
 NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- | | | 10 | PASSES PER TRUCK |
|-------|------|----|------------------|
| TRUCK | TYPE | | SUSPENSION |
| 1 | 9 | | 1 |
| 2 | | | |
| 3 | | | |
- TYPE PER FHWA 13 BIN SYSTEM
SUSPENSION: 1 - AIR; 2 - LEAF SPRING
3 - OTHER (DESCRIBE)
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN ---
DYNAMIC AND STATIC GVW 35.70% STANDARD DEVIATION +/- 19.19%
DYNAMIC AND STATIC SINGLE AXLES 54.78% STANDARD DEVIATION +/- 29.60%
DYNAMIC AND STATIC DOUBLE AXLES 33.04% STANDARD DEVIATION +/- 17.75%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.4 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 ** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:
Alberta Infrastructure and Transportation uses a typical 3000 lb - 8.8 foot wheel base passenger vehicle
as it is the only vehicle which occurs + 100 times daily

CLASSIFIER TEST SPECIFICS***

- 12 *** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS
 VIDEO MANUAL PARALLEL CLASSIFIERS NOT DONE
- 13 METHOD TO DETERMINE LENGTH OF COUNT TIME NUMBER OF TRUCKS
- 14 MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION
*** FHWA CLASS 9 FHWA CLASS
*** FHWA CLASS 8 FHWA CLASS
FHWA CLASS
FHWA CLASS
*** PERCENT "UNCLASSIFIED" VEHICLES:

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

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SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

* State Assigned ID []
* State Code [81]
* SHRP Section ID [500]

SITE CALIBRATION INFORMATION

- 1 * DATE OF CALIBRATION (MONTH/DAY/YEAR) November 20, 2006
- 2 * TYPE OF EQUIPMENT CALIBRATED ☒ WIM _____ CLASSIFIER _____ BOTH
- 3 * REASON FOR CALIBRATION
☒ REGULARLY SCHEDULED SITE VISIT _____ RESEARCH
_____ EQUIPMENT REPLACEMENT _____ TRAINING
_____ DATA TRIGGERED SYSTEM REVISION _____ NEW EQUIPMENT INSTALLATION
_____ OTHER (SPECIFY) _____
- 4 * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY)
_____ BARE ROUND PIEZO CERAMIC _____ BARE FLAT PIEZO _____ BENDING PLATES
☒ CHANNELIZED ROUND PIEZO _____ LOAD CELLS _____ QUARTZ PIEZO
_____ CHANNELIZED FLAT PIEZO ☒ INDUCTANCE LOOPS _____ CAPACITANCE PADS
_____ OTHER (SPECIFY) _____
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS**

- 6 ** CALIBRATION TECHNIQUE USED:
_____ TRAFFIC STREAM -- ☒ STATIC SCALE (Y/N) ☒ TEST TRUCKS
_____ NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- | TYPE PER FHWA 13 BIN SYSTEM | | <u>10</u> PASSES PER TRUCK | | |
|-----------------------------|--|----------------------------|----------|------------|
| SUSPENSION: | | TRUCK | TYPE | SUSPENSION |
| 1 - AIR: 2 - LEAF SPRING | | 1 | <u>9</u> | <u>1</u> |
| 3 - OTHER (DESCRIBE) | | 2 | | |
| | | 3 | | |
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN ---
DYNAMIC AND STATIC GVW -1.30% STANDARD DEVIATION +/- 2.84%
DYNAMIC AND STATIC SINGLE AXLES 4.62% STANDARD DEVIATION +/- 4.19%
DYNAMIC AND STATIC DOUBLE AXLES -2.21% STANDARD DEVIATION +/- 3.28%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.2 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 ** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) ☒
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:
Alberta Infrastructure and Transportation uses a typical 3000 lb - 8.8 foot wheel base passenger vehicle
as it is the only vehicle which occurs + 100 times daily

CLASSIFIER TEST SPECIFICS***

- 12 *** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS
_____ VIDEO _____ MANUAL _____ PARALLEL CLASSIFIERS **NOT DONE**
- 13 METHOD TO DETERMINE LENGTH OF COUNT _____ TIME _____ NUMBER OF TRUCKS
- 14 MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION
*** FHWA CLASS 9 _____ FHWA CLASS _____
*** FHWA CLASS 8 _____ FHWA CLASS _____
_____ FHWA CLASS _____
_____ FHWA CLASS _____
*** PERCENT "UNCLASSIFIED" VEHICLES: _____

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

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SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

* State Assigned ID []
* State Code [81]
* SHRP Section ID [500]

SITE CALIBRATION INFORMATION

- 1 * DATE OF CALIBRATION (MONTH/DAY/YEAR) September 18, 2006
- 2 * TYPE OF EQUIPMENT CALIBRATED X WIM CLASSIFIER BOTH
- 3 * REASON FOR CALIBRATION
X REGULARLY SCHEDULED SITE VISIT
 EQUIPMENT REPLACEMENT
 DATA TRIGGERED SYSTEM REVISION
 OTHER (SPECIFY) _____
 RESEARCH
 TRAINING
 NEW EQUIPMENT INSTALLATION
- 4 * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY)
 BARE ROUND PIEZO CERAMIC BARE FLAT PIEZO BENDING PLATES
X CHANNELIZED ROUND PIEZO LOAD CELLS QUARTZ PIEZO
 CHANNELIZED FLAT PIEZO X INDUCTANCE LOOPS CAPACITANCE PADS
 OTHER (SPECIFY) _____
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS**

- 6 ** CALIBRATION TECHNIQUE USED:
 TRAFFIC STREAM -- Y STATIC SCALE (Y/N) X TEST TRUCKS
 NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- | TYPE PER FHWA 13 BIN SYSTEM
SUSPENSION: 1 - AIR; 2 - LEAF SPRING
3 - OTHER (DESCRIBE) | 10 PASSES PER TRUCK | |
|---|---------------------|------------|
| | TRUCK TYPE | SUSPENSION |
| | 1 <u>9</u> | <u>1</u> |
| | 2 _____ | _____ |
| | 3 _____ | _____ |
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
 MEAN DIFFERENCE BETWEEN ---
 DYNAMIC AND STATIC GVW 7.29% STANDARD DEVIATION +/- 4.43%
 DYNAMIC AND STATIC SINGLE AXLES 21.57% STANDARD DEVIATION +/- 11.34%
 DYNAMIC AND STATIC DOUBLE AXLES 5.48% STANDARD DEVIATION +/- 3.98%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.7 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 ** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y
 IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:
Alberta Infrastructure and Transportation uses a typical 3000 lb - 8.8 foot wheel base passenger vehicle
as it is the only vehicle which occurs + 100 times daily

CLASSIFIER TEST SPECIFICS***

- 12 *** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS
 VIDEO MANUAL PARALLEL CLASSIFIERS NOT DONE
- 13 METHOD TO DETERMINE LENGTH OF COUNT TIME NUMBER OF TRUCKS
- 14 MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION
 *** FHWA CLASS 9 FHWA CLASS _____
 *** FHWA CLASS 8 FHWA CLASS _____
 FHWA CLASS _____
 FHWA CLASS _____
 *** PERCENT "UNCLASSIFIED" VEHICLES: _____

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation
 CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

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SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

* State Assigned ID []
* State Code [81]
* SHRP Section ID [500]

SITE CALIBRATION INFORMATION

- 1 * DATE OF CALIBRATION (MONTH/DAY/YEAR): August 14, 2006
- 2 * TYPE OF EQUIPMENT CALIBRATED ☒ WIM _____ CLASSIFIER _____ BOTH
- 3 * REASON FOR CALIBRATION
☒ REGULARLY SCHEDULED SITE VISIT _____ RESEARCH
_____ EQUIPMENT REPLACEMENT _____ TRAINING
_____ DATA TRIGGERED SYSTEM REVISION _____ NEW EQUIPMENT INSTALLATION
_____ OTHER (SPECIFY) _____
- 4 * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY)
_____ BARE ROUND PIEZO CERAMIC _____ BARE FLAT PIEZO _____ BENDING PLATES
☒ CHANNELIZED ROUND PIEZO _____ LOAD CELLS _____ QUARTZ PIEZO
_____ CHANNELIZED FLAT PIEZO ☒ INDUCTANCE LOOPS _____ CAPACITANCE PADS
_____ OTHER (SPECIFY) _____
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS**

- 6 ** CALIBRATION TECHNIQUE USED:
_____ TRAFFIC STREAM -- ☒ STATIC SCALE (Y/N) ☒ TEST TRUCKS
_____ NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- | | | 10 PASSES PER TRUCK | |
|-------|------|---------------------|--|
| TRUCK | TYPE | SUSPENSION | |
| 1 | 9 | 1 | |
| 2 | | | |
| 3 | | | |
- TYPE PER FHWA 13 BIN SYSTEM
SUSPENSION: 1 - AIR; 2 - LEAF SPRING
3 - OTHER (DESCRIBE)
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN ---
DYNAMIC AND STATIC GVW 4.02% STANDARD DEVIATION +/- 6.87%
DYNAMIC AND STATIC SINGLE AXLES 14.44% STANDARD DEVIATION +/- 11.25%
DYNAMIC AND STATIC DOUBLE AXLES 3.01% STANDARD DEVIATION +/- 6.59%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.8 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 ** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) ☒
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:
Alberta Infrastructure and Transportation uses a typical 3000 lb - 8.8 foot wheel base passenger vehicle
as it is the only vehicle which occurs + 100 times daily

CLASSIFIER TEST SPECIFICS***

- 12 *** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS
_____ VIDEO _____ MANUAL _____ PARALLEL CLASSIFIERS NOT DONE
- 13 METHOD TO DETERMINE LENGTH OF COUNT _____ TIME _____ NUMBER OF TRUCKS
- 14 MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION
*** FHWA CLASS 9 _____ FHWA CLASS _____
*** FHWA CLASS 8 _____ FHWA CLASS _____
FHWA CLASS _____
FHWA CLASS _____
*** PERCENT "UNCLASSIFIED" VEHICLES: _____

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation
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SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

* State Assigned ID []
* State Code [81]
* SHRP Section ID [500]

SITE CALIBRATION INFORMATION

- 1 * DATE OF CALIBRATION (MONTH/DAY/YEAR) July 17, 2006
- 2 * TYPE OF EQUIPMENT CALIBRATED X WIM _____ CLASSIFIER _____ BOTH
- 3 * REASON FOR CALIBRATION
X REGULARLY SCHEDULED SITE VISIT _____ RESEARCH
_____ EQUIPMENT REPLACEMENT _____ TRAINING
_____ DATA TRIGGERED SYSTEM REVISION _____ NEW EQUIPMENT INSTALLATION
_____ OTHER (SPECIFY) _____
- 4 * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY)
_____ BARE ROUND PIEZO CERAMIC _____ BARE FLAT PIEZO _____ BENDING PLATES
X CHANNELIZED ROUND PIEZO _____ LOAD CELLS _____ QUARTZ PIEZO
_____ CHANNELIZED FLAT PIEZO X INDUCTANCE LOOPS _____ CAPACITANCE PADS
_____ OTHER (SPECIFY) _____
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS**

- 6 ** CALIBRATION TECHNIQUE USED:
_____ TRAFFIC STREAM -- Y STATIC SCALE (Y/N) X TEST TRUCKS
_____ NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- | | <u>10</u> PASSES PER TRUCK |
|------------|----------------------------|
| TRUCK TYPE | SUSPENSION |
| 1 <u>9</u> | <u>1</u> |
| 2 _____ | _____ |
| 3 _____ | _____ |
- TYPE PER FHWA 13 BIN SYSTEM
SUSPENSION: 1 - AIR; 2 - LEAF SPRING
3 - OTHER (DESCRIBE)
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN ---
DYNAMIC AND STATIC GVW 6.35% STANDARD DEVIATION +/- 6.20%
DYNAMIC AND STATIC SINGLE AXLES 14.76% STANDARD DEVIATION +/- 11.03%
DYNAMIC AND STATIC DOUBLE AXLES 5.26% STANDARD DEVIATION +/- 5.85%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.5 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 ** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:
Alberta Infrastructure and Transportation uses a typical 3000 lb - 8.8 foot wheel base passenger vehicle
as it is the only vehicle which occurs + 100 times daily

CLASSIFIER TEST SPECIFICS***

- 12 *** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS
_____ VIDEO _____ MANUAL _____ PARALLEL CLASSIFIERS NOT DONE
- 13 METHOD TO DETERMINE LENGTH OF COUNT _____ TIME _____ NUMBER OF TRUCKS
- 14 MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION
*** FHWA CLASS 9 _____ FHWA CLASS _____
*** FHWA CLASS 8 _____ FHWA CLASS _____
_____ FHWA CLASS _____
_____ FHWA CLASS _____
*** PERCENT "UNCLASSIFIED" VEHICLES: _____

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

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SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

* State Assigned ID []
* State Code [81]
* SHRP Section ID [500]

SITE CALIBRATION INFORMATION

- 1 * DATE OF CALIBRATION (MONTH/DAY/YEAR) June 12, 2006
- 2 * TYPE OF EQUIPMENT CALIBRATED X WIM CLASSIFIER BOTH
- 3 * REASON FOR CALIBRATION
X REGULARLY SCHEDULED SITE VISIT RESEARCH
 EQUIPMENT REPLACEMENT TRAINING
 DATA TRIGGERED SYSTEM REVISION NEW EQUIPMENT INSTALLATION
 OTHER (SPECIFY)
- 4 * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY)
 BARE ROUND PIEZO CERAMIC BARE FLAT PIEZO BENDING PLATES
X CHANNELIZED ROUND PIEZO LOAD CELLS QUARTZ PIEZO
 CHANNELIZED FLAT PIEZO X INDUCTANCE LOOPS CAPACITANCE PADS
 OTHER (SPECIFY)
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS**

- 6 ** CALIBRATION TECHNIQUE USED:
 TRAFFIC STREAM -- Y STATIC SCALE (Y/N) X TEST TRUCKS
 NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- | | | <u>10</u> PASSES PER TRUCK | |
|-------|----------|----------------------------|--|
| TRUCK | TYPE | SUSPENSION | |
| 1 | <u>9</u> | <u>1</u> | |
| 2 | <u> </u> | <u> </u> | |
| 3 | <u> </u> | <u> </u> | |
- TYPE PER FHWA 13 BIN SYSTEM
 SUSPENSION: 1 - AIR; 2 - LEAF SPRING
 3 - OTHER (DESCRIBE)
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
 MEAN DIFFERENCE BETWEEN ---
 DYNAMIC AND STATIC GVW 23.74% STANDARD DEVIATION +/- 12.49%
 DYNAMIC AND STATIC SINGLE AXLES 34.28% STANDARD DEVIATION +/- 17.87%
 DYNAMIC AND STATIC DOUBLE AXLES 22.27% STANDARD DEVIATION +/- 12.05%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.2 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 ** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y
 IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:
Alberta Infrastructure and Transportation uses a typical 3000 lb - 8.8 foot wheel base passenger vehicle
as it is the only vehicle which occurs + 100 times daily

CLASSIFIER TEST SPECIFICS***

- 12 *** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS
 VIDEO MANUAL PARALLEL CLASSIFIERS NOT DONE
- 13 METHOD TO DETERMINE LENGTH OF COUNT TIME NUMBER OF TRUCKS
- 14 MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION
 *** FHWA CLASS 9 FHWA CLASS
 *** FHWA CLASS 8 FHWA CLASS
 FHWA CLASS
 FHWA CLASS
 *** PERCENT "UNCLASSIFIED" VEHICLES:

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation
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SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

* State Assigned ID []
* State Code [81]
* SHRP Section ID [500]

SITE CALIBRATION INFORMATION

- 1 * DATE OF CALIBRATION (MONTH/DAY/YEAR) May 16, 2006
- 2 * TYPE OF EQUIPMENT CALIBRATED ☒ WIM _____ CLASSIFIER _____ BOTH
- 3 * REASON FOR CALIBRATION
☒ REGULARLY SCHEDULED SITE VISIT _____ RESEARCH
_____ EQUIPMENT REPLACEMENT _____ TRAINING
_____ DATA TRIGGERED SYSTEM REVISION _____ NEW EQUIPMENT INSTALLATION
_____ OTHER (SPECIFY) _____
- 4 * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY)
_____ BARE ROUND PIEZO CERAMIC _____ BARE FLAT PIEZO _____ BENDING PLATES
☒ CHANNELIZED ROUND PIEZO _____ LOAD CELLS _____ QUARTZ PIEZO
_____ CHANNELIZED FLAT PIEZO ☒ INDUCTANCE LOOPS _____ CAPACITANCE PADS
_____ OTHER (SPECIFY) _____
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS**

- 6 ** CALIBRATION TECHNIQUE USED:
_____ TRAFFIC STREAM -- ☒ STATIC SCALE (Y/N) ☒ TEST TRUCKS
_____ NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- | TRUCK | TYPE | PASSES PER TRUCK | SUSPENSION |
|-------|----------|------------------|------------|
| 1 | <u>9</u> | <u>10</u> | <u>1</u> |
| 2 | _____ | _____ | _____ |
| 3 | _____ | _____ | _____ |
- TYPE PER FHWA 13 BIN SYSTEM
SUSPENSION: 1 - AIR; 2 - LEAF SPRING
3 - OTHER (DESCRIBE)
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN ---
DYNAMIC AND STATIC GVW -13.08% STANDARD DEVIATION +/- 7.18%
DYNAMIC AND STATIC SINGLE AXLES 1.12% STANDARD DEVIATION +/- 2.89%
DYNAMIC AND STATIC DOUBLE AXLES -14.51% STANDARD DEVIATION +/- 8.40%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.7 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 ** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:
Alberta Infrastructure and Transportation uses a typical 3000 lb - 8.8 foot wheel base passenger vehicle
as it is the only vehicle which occurs + 100 times daily

CLASSIFIER TEST SPECIFICS***

- 12 *** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS:
_____ VIDEO _____ MANUAL _____ PARALLEL CLASSIFIERS **NOT DONE**
- 13 METHOD TO DETERMINE LENGTH OF COUNT _____ TIME _____ NUMBER OF TRUCKS
- 14 MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION
*** FHWA CLASS 9 _____ FHWA CLASS _____
*** FHWA CLASS 8 _____ FHWA CLASS _____
_____ FHWA CLASS _____
_____ FHWA CLASS _____
*** PERCENT "UNCLASSIFIED" VEHICLES: _____

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

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SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

* State Assigned ID []
* State Code [81]
* SHRP Section ID [500]

SITE CALIBRATION INFORMATION

- 1 * DATE OF CALIBRATION (MONTH/DAY/YEAR) April 10, 2006
- 2 * TYPE OF EQUIPMENT CALIBRATED ☒ WIM CLASSIFIER BOTH
- 3 * REASON FOR CALIBRATION
☒ REGULARLY SCHEDULED SITE VISIT RESEARCH
☐ EQUIPMENT REPLACEMENT TRAINING
☐ DATA TRIGGERED SYSTEM REVISION NEW EQUIPMENT INSTALLATION
☐ OTHER (SPECIFY)
- 4 * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY)
BARE ROUND PIEZO CERAMIC BARE FLAT PIEZO BENDING PLATES
☒ CHANNELIZED ROUND PIEZO LOAD CELLS QUARTZ PIEZO
☐ CHANNELIZED FLAT PIEZO ☒ INDUCTANCE LOOPS CAPACITANCE PADS
☐ OTHER (SPECIFY)
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS**

- 6 ** CALIBRATION TECHNIQUE USED:
☐ TRAFFIC STREAM -- ☒ STATIC SCALE (Y/N) ☒ TEST TRUCKS
☐ NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- | TRUCK | 10 PASSES PER TRUCK | |
|-------|---------------------|------------|
| | TYPE | SUSPENSION |
| 1 | 9 | 1 |
| 2 | | |
| 3 | | |
- TYPE PER FHWA 13 BIN SYSTEM
SUSPENSION: 1 - AIR; 2 - LEAF SPRING
3 - OTHER (DESCRIBE)
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN ---
DYNAMIC AND STATIC GVW -6.69% STANDARD DEVIATION +/- 7.77%
DYNAMIC AND STATIC SINGLE AXLES 10.00% STANDARD DEVIATION +/- 8.70%
DYNAMIC AND STATIC DOUBLE AXLES -9.86% STANDARD DEVIATION +/- 9.20%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 67.7 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 ** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:
Alberta Infrastructure and Transportation uses a typical 3000 lb - 8.8 foot wheel base passenger vehicle
as it is the only vehicle which occurs + 100 times daily

CLASSIFIER TEST SPECIFICS***

- 12 *** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS
☐ VIDEO ☐ MANUAL ☐ PARALLEL CLASSIFIERS NOT DONE
- 13 METHOD TO DETERMINE LENGTH OF COUNT ☐ TIME ☐ NUMBER OF TRUCKS
- 14 MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION
*** FHWA CLASS 9 FHWA CLASS
*** FHWA CLASS 8 FHWA CLASS
FHWA CLASS
FHWA CLASS
*** PERCENT "UNCLASSIFIED" VEHICLES:

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

3/19/07
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SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

* State Assigned ID []
* State Code [81]
* SHRP Section ID [500]

SITE CALIBRATION INFORMATION

- 1 * DATE OF CALIBRATION (MONTH/DAY/YEAR) March 14, 2006
- 2 * TYPE OF EQUIPMENT CALIBRATED X WIM CLASSIFIER BOTH
- 3 * REASON FOR CALIBRATION
X REGULARLY SCHEDULED SITE VISIT RESEARCH
 EQUIPMENT REPLACEMENT TRAINING
 DATA TRIGGERED SYSTEM REVISION NEW EQUIPMENT INSTALLATION
 OTHER (SPECIFY)
- 4 * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY)
 BARE ROUND PIEZO CERAMIC BARE FLAT PIEZO BENDING PLATES
X CHANNELIZED ROUND PIEZO LOAD CELLS QUARTZ PIEZO
 CHANNELIZED FLAT PIEZO X INDUCTANCE LOOPS CAPACITANCE PADS
 OTHER (SPECIFY)
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS**

- 6 ** CALIBRATION TECHNIQUE USED:
 TRAFFIC STREAM -- X STATIC SCALE (Y/N) X TEST TRUCKS
 NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- | | 10 | PASSES PER TRUCK |
|-------|----------|------------------|
| TRUCK | TYPE | SUSPENSION |
| 1 | <u>9</u> | <u>1</u> |
| 2 | <u> </u> | <u> </u> |
| 3 | <u> </u> | <u> </u> |
- TYPE PER FHWA 13 BIN SYSTEM
SUSPENSION: 1 - AIR; 2 - LEAF SPRING
3 - OTHER (DESCRIBE)
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN ---
DYNAMIC AND STATIC GVW 3.40% STANDARD DEVIATION +/- 6.67%
DYNAMIC AND STATIC SINGLE AXLES 16.75% STANDARD DEVIATION +/- 11.63%
DYNAMIC AND STATIC DOUBLE AXLES 1.53% STANDARD DEVIATION +/- 7.18%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.5 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 ** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:
Alberta Infrastructure and Transportation uses a typical 3000 lb - 8.8 foot wheel base passenger vehicle
as it is the only vehicle which occurs + 100 times daily

CLASSIFIER TEST SPECIFICS***

- 12 *** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS
 VIDEO MANUAL PARALLEL CLASSIFIERS NOT DONE
- 13 METHOD TO DETERMINE LENGTH OF COUNT TIME NUMBER OF TRUCKS
- 14 MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION
*** FHWA CLASS 9 FHWA CLASS
*** FHWA CLASS 8 FHWA CLASS
FHWA CLASS
FHWA CLASS
FHWA CLASS
*** PERCENT "UNCLASSIFIED" VEHICLES:

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

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SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

* State Assigned ID []
* State Code [81]
* SHRP Section ID [500]

SITE CALIBRATION INFORMATION

- 1 * DATE OF CALIBRATION (MONTH/DAY/YEAR) February 13, 2006
- 2 * TYPE OF EQUIPMENT CALIBRATED ☒ WIM _____ CLASSIFIER _____ BOTH
- 3 * REASON FOR CALIBRATION
☒ REGULARLY SCHEDULED SITE VISIT _____ RESEARCH
_____ EQUIPMENT REPLACEMENT _____ TRAINING
_____ DATA TRIGGERED SYSTEM REVISION _____ NEW EQUIPMENT INSTALLATION
_____ OTHER (SPECIFY) _____
- 4 * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY)
_____ BARE ROUND PIEZO CERAMIC _____ BARE FLAT PIEZO _____ BENDING PLATES
☒ CHANNELIZED ROUND PIEZO _____ LOAD CELLS _____ QUARTZ PIEZO
_____ CHANNELIZED FLAT PIEZO ☒ INDUCTANCE LOOPS _____ CAPACITANCE PADS
_____ OTHER (SPECIFY) _____
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS**

- 6 ** CALIBRATION TECHNIQUE USED:
_____ TRAFFIC STREAM -- ☒ STATIC SCALE (Y/N) ☒ TEST TRUCKS
_____ NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- | 10 PASSES PER TRUCK | | |
|---------------------|----------|------------|
| TRUCK | TYPE | SUSPENSION |
| 1 | <u>9</u> | <u>1</u> |
| 2 | _____ | _____ |
| 3 | _____ | _____ |
- TYPE PER FHWA 13 BIN SYSTEM
SUSPENSION: 1 - AIR; 2 - LEAF SPRING
3 - OTHER (DESCRIBE)
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN ---
DYNAMIC AND STATIC GVW -10.65% STANDARD DEVIATION +/- 7.33%
DYNAMIC AND STATIC SINGLE AXLES 9.90% STANDARD DEVIATION +/- 6.52%
DYNAMIC AND STATIC DOUBLE AXLES -13.49% STANDARD DEVIATION +/- 8.68%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.7 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 ** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:
Alberta Infrastructure and Transportation uses a typical 3000 lb - 8.8 foot wheel base passenger vehicle
as it is the only vehicle which occurs + 100 times daily

CLASSIFIER TEST SPECIFICS***

- 12 *** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS
_____ VIDEO _____ MANUAL _____ PARALLEL CLASSIFIERS NOT DONE
- 13 METHOD TO DETERMINE LENGTH OF COUNT _____ TIME _____ NUMBER OF TRUCKS
- 14 MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION
*** FHWA CLASS 9 _____ FHWA CLASS _____
*** FHWA CLASS 8 _____ FHWA CLASS _____
FHWA CLASS _____
FHWA CLASS _____
*** PERCENT "UNCLASSIFIED" VEHICLES: _____

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

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SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

* State Assigned ID []
* State Code [81]
* SHRP Section ID [500]

SITE CALIBRATION INFORMATION

- 1 * DATE OF CALIBRATION (MONTH/DAY/YEAR) January 16, 2006
- 2 * TYPE OF EQUIPMENT CALIBRATED X WIM _____ CLASSIFIER _____ BOTH
- 3 * REASON FOR CALIBRATION
X REGULARLY SCHEDULED SITE VISIT _____ RESEARCH
_____ EQUIPMENT REPLACEMENT _____ TRAINING
_____ DATA TRIGGERED SYSTEM REVISION _____ NEW EQUIPMENT INSTALLATION
_____ OTHER (SPECIFY) _____
- 4 * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY)
_____ BARE ROUND PIEZO CERAMIC _____ BARE FLAT PIEZO _____ BENDING PLATES
X CHANNELIZED ROUND PIEZO _____ LOAD CELLS _____ QUARTZ PIEZO
_____ CHANNELIZED FLAT PIEZO X INDUCTANCE LOOPS _____ CAPACITANCE PADS
_____ OTHER (SPECIFY) _____
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS**

- 6 ** CALIBRATION TECHNIQUE USED:
_____ TRAFFIC STREAM -- Y STATIC SCALE (Y/N) X TEST TRUCKS
_____ NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- | | | 10 | PASSES PER TRUCK | |
|---|---|-------|------------------|------------|
| | | TRUCK | TYPE | SUSPENSION |
| TYPE PER FHWA 13 BIN SYSTEM
SUSPENSION: 1 - AIR; 2 - LEAF SPRING
3 - OTHER (DESCRIBE) | 1 | | <u>9</u> | <u>1</u> |
| | 2 | | | |
| | 3 | | | |
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN ---
DYNAMIC AND STATIC GVW 16.36% STANDARD DEVIATION +/- 8.83%
DYNAMIC AND STATIC SINGLE AXLES 31.03% STANDARD DEVIATION +/- 16.00%
DYNAMIC AND STATIC DOUBLE AXLES 14.61% STANDARD DEVIATION +/- 7.91%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 66.9 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 ** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:
Alberta Infrastructure and Transportation uses a typical 3000 lb - 8.8 foot wheel base passenger vehicle
as it is the only vehicle which occurs + 100 times daily

CLASSIFIER TEST SPECIFICS***

- 12 *** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS
_____ VIDEO _____ MANUAL _____ PARALLEL CLASSIFIERS NOT DONE
- 13 METHOD TO DETERMINE LENGTH OF COUNT _____ TIME _____ NUMBER OF TRUCKS
- 14 MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION
*** FHWA CLASS 9 _____ FHWA CLASS _____
*** FHWA CLASS 8 _____ FHWA CLASS _____
_____ FHWA CLASS _____
_____ FHWA CLASS _____
*** PERCENT "UNCLASSIFIED" VEHICLES: _____

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation
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