

SHEET 1 LTPP TRAFFIC DATA SUMMARY TRANSMITTAL FORM	*STATE ASSIGNED ID [1 0 0 5] *STATE CODE [2 9] *SHRP SECTION ID [1 0 0 5]
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STATE OR PROVINCE Missouri COUNTY Miller
 HIGHWAY ROUTE NO. 54 MILEPOST# _____
 NEAREST CITY/TOWN 7 mi. s/o Eldon NEAREST INTERSECTION 1.75 mi. w/o Route 52
 FUNCTIONAL CLASS 02 NO. LANES EACH DIRECTION 2 TOTAL NO. LANES 4
 DIRECTION OF TRAVEL GPS LANE W DATE OPENED TO TRAF. 05 - 27 - 74
 FIPS COUNTY CODE 131 FHWA STATION IDENTIFICATION NO. _____
 HPMS SAMPLE NO. 066036808568 HPMS SUBDIVISION NO. 0
 TYPE OF PAVEMENT: AC X PCC _____ OTHER _____
 CONTROL OF ACCESS: YES _____ NO X MEDIAN: YES X NO _____
 CURRENT SURROUNDING DEVELOPMENT:
 URBAN _____ SUBURBAN _____ RURAL X
 HAS INTENSITY OF ROADSIDE DEVELOPMENT INCREASED OVER PAST 10 YEARS?
 YES _____ NO X
 IF YES, DESCRIBE CHANGES _____

The Federal Highway Administration has been provided the No. 7 format truck weight records.

NOTE: ATTACH ALL RELATED FORMS AND COUNT DATA AND SUBMIT TO THE
SHRP REGIONAL OFFICE. ATTACH MAP INDICATING THE LOCATION OF
EACH TRAFFIC COUNT, VEHICLE CLASSIFICATION COUNT, OR WEIGHT
STATION RELATIVE TO THIS GPS TEST SECTION.

Sheets included: 1, 2, 3, 4, 5

NAME OF PREPARER <u>Fred Trippensee</u> DATE PREPARED <u>10-90</u>	PHONE # <u>(314) 751-3980</u>
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SHEET 2 LTPP TRAFFIC DATA TRAFFIC VOLUMES AND LOAD ESTIMATES	*STATE ASSIGNED ID [1 0 0 5]
	*STATE CODE [2 9]
	*SHRP SECTION ID [1 0 0 5]

YEAR	1. ESTIMATED TOTAL VEHICLES AADT (TWO-WAY)	2. ESTIMATED TOTAL TRUCK AADT (TWO-WAY)	3. ESTIMATED TOTAL VEHICLES AADT GPS LANE	4. ESTIMATED TOTAL TRUCKS AADT GPS LANE	5. ESTIMATED ESAL'S / YR GPS LANE (1000's)
1989	12,611	900	5,456	398	150
1988	11,124	825	4,830	371	118
1987	10,768	750	4,675	337	108
1986	7,892	675	3,332	311	99
1985	7,170	600	3,453	277	89
1984	6,835	614	3,321	285	97
1983	7,223	627	3,314	292	99
1982	6,879	640	3,156	297	101
1981	6,679	590	3,064	274	78
1980	6,610	540	3,102	251	72
1979	5,636	490	2,602	229	66
1978	5,644	476	2,607	223	60
1977	7,440	463	3,368	216	58
1976	7,223	450	3,269	209	57
1975	5,574	436	2,531	204	54
1974	5,360	423	2,458	200	53
1973					
1972					
1971					
1970					
1969					
1968					
1967					
1966					
1965					

NAME OF PREPARER	Fred Trippensee	PHONE #	(314) 751-3980
DATE PREPARED	10-90		

SHEET 3**LTPP TRAFFIC DATA
PROCEDURES FOR ESTIMATING
ANNUAL AVERAGE VOLUMES AND
TOTAL ANNUAL ESALS**

*STATE ASSIGNED ID [1 0 0 5]

*STATE CODE [2 9]

*SHRP SECTION ID [1 0 0 5]

1. Year Applicable 1989**2. METHOD FOR ESTIMATING AADT**

- ☒ Factored a single count taken this year at the GPS site.
- ☐ Averaged multiple counts taken this year at the GPS site.
- ☐ Averaged and factored multiple counts taken this year at the GPS site.
- ☐ Growth factored last year's estimate.
- ☐ Estimated based on volume counts at nearby locations.
- ☐ Used flow maps.
- ☐ Used computerized network analyses.
- ☐ Other: _____

**3. METHOD FOR ESTIMATING TRUCK
VOLUMES OR PERCENTAGES**

- ☐ Used a single count taken this year at the GPS site.
- ☐ Factored a single count taken this year at the GPS site.
- ☐ Averaged multiple counts taken this year at the GPS site.
- ☐ Used system averages from counts taken this year.
- ☒ Used count data from nearby sites. (AVC)
- ☐ Used count data taken in earlier years at the GPS site.
- ☐ Used system averages taken in earlier years at the GPS site.
- ☐ Used computerized network analyses.
- ☐ Other: _____

**4. METHOD FOR ESTIMATING AADT
BY GPS LANE**

- ☒ Based on actual lane count data.
- ☐ System distribution factors.
- ☐ Other: _____

**5. METHOD FOR ESTIMATING TRUCK AADT
IN GPS LANES**

- ☒ Based on actual lane count data.
- ☐ System distribution factors.
- ☐ Other: _____

6. METHOD FOR ESTIMATING ESAL/VEHICLE

- ☐ ESAL/Truck.
- ☒ ESAL/Vehicle class. (no. of classes) 13
- ☐ Other: _____

7. ESAL ESTIMATES**(A) Source of Data**

- ☐ Weight data collected at GPS site this year.
- ☐ Weight data collected at GPS site prior years.
- ☒ Weight data from system averages this year.
- ☐ Weight data from system averages prior years.
- ☐ Weight data from historic W-4 Tables used.
- ☐ Other: _____

(B) Weight Scale Type

- ☒ WIM scale.
- ☐ Static scale used for enforcement.
- ☐ Static scale not used for enforcement.
- ☐ Other: _____

NAME OF PREPARER Fred TrippenseePHONE # (314) 751-3980DATE PREPARED 9-90

SHEET 3

LTPP TRAFFIC DATA PROCEDURES FOR ESTIMATING ANNUAL AVERAGE VOLUMES AND TOTAL ANNUAL ESALS

*STATE ASSIGNED ID [1005]

*STATE CODE [29]

*SHRP SECTION ID [1005]

1. Year Applicable 1988-1974

2. METHOD FOR ESTIMATING AADT

- ☐ Factored a single count taken this year at the GPS site.
☐ Averaged multiple counts taken this year at the GPS site.
☐ Averaged and factored multiple counts taken this year at the GPS site.
☐ Growth factored last year's estimate.
☐ Estimated based on volume counts at nearby locations.
☐ Used flow maps.
☐ Used computerized network analyses.
☒ Other: Actual machine counts in '87, '86, '84, '81, '80, '78, '76, '74.
Growth trend on estimated years.
Counts not available.

3. METHOD FOR ESTIMATING TRUCK VOLUMES OR PERCENTAGES

- ☐ Used a single count taken this year at the GPS site.
☐ Factored a single count taken this year at the GPS site.
☐ Averaged multiple counts taken this year at the GPS site.
☐ Used system averages from counts taken this year.
☐ Used count data from nearby sites.
☒ Used count data taken in earlier years at the GPS site. (1)
☐ Used system averages taken in earlier years at the GPS site.
☐ Used computerized network analyses.
☒ (1) Other: Commercial vehicle map truck data for years '89, '85, '82, '79, '76, '73. Growth trend on estimated years

4. METHOD FOR ESTIMATING AADT BY GPS LANE

- ☒ Based on actual lane count data.
☐ System distribution factors.
☐ Other: _____

5. METHOD FOR ESTIMATING TRUCK AADT IN GPS LANES

- ☒ Based on actual lane count data.
☐ System distribution factors.
☐ Other: _____

6. METHOD FOR ESTIMATING ESAL/VEHICLE

- ☐ ESAL/Truck.
☒ ESAL/Vehicle class. (no. of classes) 13
☐ Other: _____

7. ESAL ESTIMATES

(A) Source of Data

- ☐ Weight data collected at GPS site this year.
☐ Weight data collected at GPS site prior years.
☐ Weight data from system averages this year.
☐ Weight data from system averages prior years.
☐ Weight data from historic W-4 Tables used.
☒ Other: Weight data from system averages - 1989.

(B) Weight Scale Type

- ☒ WIM scale.
☐ Static scale used for enforcement.
☐ Static scale not used for enforcement.
☐ Other: _____

NAME OF PREPARER Fred TrippenseePHONE # (314) 751-3980DATE PREPARED 9-90

SHEET 4 LTPP TRAFFIC DATA TRAFFIC VOLUME COUNTS	*STATE ASSIGNED ID [1 0 0 5] *STATE CODE [2 9] *SHRP SECTION ID [1 0 0 5]
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HIGHWAY ROUTE NO. (THIS COUNT) Route 54

MILEPOST# OR LOCATION (THIS COUNT) n/o Route V

BEGINNING DATE 11-6-89 ENDING DATE 11-9-89

BEGINNING TIME 7:00 a.m. ENDING TIME 2:00 p.m.

COUNT DURATION 3 [] HOURS [X] DAYS [] MONTHS

TYPE OF COUNTER Streeter NAME/MODEL # 241

TYPE OF COUNT: TWO-WAY ONE DIRECTION ONLY X GPS TEST LANE ONLY

ACTUAL COUNTS	
ITEM	UNITS
1. TOTAL NO. OF VEHICLES (RAW COUNT)	<u>15,195</u>
2. ADJUSTMENT FACTORS (FILL IN AS APPLICABLE):	
A. ADJUSTMENT TO ⁷² 24 -HOUR COUNT	<u>.3327</u>
B. AXLE CORRECTION FACTOR	<u>0.876</u>
C. DAY OF WEEK FACTOR (3 day count)	<u>1.008</u> (AVG)
D. MONTH FACTOR	<u>1.434</u>
E. OTHER FACTOR (<u>2-way</u>)	<u>1.9702</u>
3. ANNUAL AVERAGE DAILY TRAFFIC (AADT) (TWO-WAY)	<u>12,611</u>
4. DIRECTIONAL DISTRIBUTION FACTOR	<u>0.5076</u>
5. GPS LANE DISTRIBUTION FACTOR	<u>0.8523</u>
6. AADT GPS LANE	<u>5,456</u>

NOTE: COMPLETE ONE SHEET FOR EACH COUNTING SESSION.

NAME OF PREPARER <u>Fred Trippensee</u>	PHONE # <u>(314) 751-3980</u>
DATE PREPARED <u>9-90</u>	

SHEET 5 LTPP TRAFFIC DATA VEHICLE CLASSIFICATION DATA FHWA 13-CLASS SYSTEM	*STATE ASSIGNED ID [1 0 0 5] *STATE CODE [2 9] *SHRP SECTION ID [1 0 0 5]
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HIGHWAY RT. NO. (THIS COUNT) _____ MILEPOST# (THIS COUNT) _____

LOCATION (THIS COUNT) _____ FUNCTIONAL CLASS _____

BEGINNING DATE _____ ENDING DATE _____

BEGINNING TIME _____ ENDING TIME _____ DURATION (HRS) _____

TYPE OF COUNT: MANUAL _____ AUTOMATED _____ NO. OF LANES COUNTED _____

TYPE OF EQUIP.: AVC PERM. _____ AVC PORT. _____ WIM PERM. _____ WIM PORT. _____

EQUIPMENT NAME / MODEL # _____

TOTAL NO. OF VEHICLES CLASSIFIED _____ # TRUCKS _____ % TRUCKS _____

NO. OF TRUCKS IN GPS LANE _____ % OF TRUCKS IN GPS LANE _____

VEHICLE CLASSIFICATION METHOD: FHWA _____ OTHER _____ # BINS _____

NOTE: IF THIS COUNT DOES NOT USE THE FHWA 13-BIN CLASSIFICATION SYSTEM USE SHEET 6. PLEASE DESCRIBE ON AN ATTACHED PAGE THE VEHICLE CLASSIFICATION SYSTEM USED BY THE AGENCY AND COMPLETE SHEET 7 DESCRIBING HOW THE SHA WOULD EXPAND OR COLLAPSE THE USER CLASSIFICATION SYSTEM TO CORRESPOND WITH THE FHWA 13 CLASSES.

<u>VEHICLE CLASSES</u>	<u>TOTAL NUMBER OF VEHICLES TWO-WAY</u>	<u>TOTAL NUMBER OF VEHICLES GPS DIRECTION</u>	<u>TOTAL NUMBER OF VEHICLES GPS LANE</u>
1. FHWA CLASSES 1-3 (Cars, Motorcycles, Vans)	_____	_____	_____
2. FHWA CLASS 4 (Buses)	_____	_____	_____
3. FHWA CLASS 5 (Two Axle, 6-Tire, SU Truck)	_____	_____	_____
4. FHWA CLASS 6 (3 AXLE SU TRUCK)	_____	_____	_____
5. FHWA CLASS 7 (4 or more Axle SU Truck)	_____	_____	_____
6. FHWA CLASS 8 (4 or less axle 1-Trlr.Truck)	_____	_____	_____
7. FHWA CLASS 9 (5 Axle, 1-Trlr.Truck)	_____	_____	_____
8. FHWA CLASS 10 (6 or more Axle, 1-Trlr.Truck)	_____	_____	_____
9. FHWA CLASS 11 (5 or less Axle, Multi-Trlr.Truck)	_____	_____	_____
10. FHWA CLASS 12 (6 Axle, Multi-Trlr.Truck)	_____	_____	_____
11. FHWA CLASS 13 (7 or more Axle, Multi-Trlr.Truck)	_____	_____	_____
12. OTHER VEHICLES	_____	_____	_____
GRAND TOTAL	_____	_____	_____

NAME OF PREPARER <u>Fred Trippensee</u>	PHONE # <u>(314) 751-3980</u>
DATE PREPARED <u>9-90</u>	

SHEET 14 LTPP TRAFFIC DATA EQUIPMENT INSTALLATION LOG		*STATE ASSIGNED ID [0555] *STATE CODE [29] *SHRP SECTION ID [1005]	LOCATION <u>US 54</u> INSTALLATION DATE
Control Unit(s) and peripheral equipment			
Control Unit	ADR 3000	PEEK	02800022 08021761
Interface			
Modem	LDN-14-E		
Loop Amplifiers			
Other			
Sensor(s) / Platform(s)			
LTPP Lane Sensor	Piezo Class 2	Measurement Specialties	
Sensor Next Adjacent Lane (1)	"	"	
Sensor Next Adjacent Lane (2)			
Sensor Next Adjacent Lane (3)			
Diagonal Sensor			
Offscale Sensor			
Right Platform			
Left Platform			
Other			
Software			
Complete Package	ADR 4.70	PEEK	
Axle Spacing Algorithm Only	72"		
Other			
Loops			
Upstream - Lane 1	Electromagnetic	18 ga. wire 4 turn	6' x 6'
Downstream - Lane 1	"	"	"
Upstream - Other Lanes	"	"	"
Downstream - Other Lanes	"	"	"

SHEET 15 LTPP TRAFFIC DATA LOG OF CHANGE AT LTPP TEST LOCATIONS WITH PERM. AVC OR WIM	*STATE ASSIGNED ID	[0555]
	*STATE CODE	[29]
	*SHRP SECTION ID	[1005]

WB

LOCATION US 54 TYPE EQUIP. Peek
 MP# 6.64 MODEL # ADR 3000

DATE OF CHANGE	TIME OF CHANGE	DESCRIPTION OF CHANGE	PERSON MAKING CHANGE	PHONE #	NEW EQUIP. SERIAL #
		Equipment Failure	Field Acquisition Crew		
		No Class or Volume			
		for following dates,			
		1/1, 1/14, 2/4, 5/6, 6/24,			
		7/20, 8/21, 9/1, 9/15 thru			
		9/29, 10/1			

revised November 11, 1999

SHEET 15 LTPP TRAFFIC DATA LOG OF CHANGE AT LTPP TEST LOCATIONS WITH PERM. AVC OR WIM	*STATE ASSIGNED ID	[0555]
	*STATE CODE	[29]
	*SHRP SECTION ID	[1005]

LOCATION VS54 1.0 mile E of RTV TYPE EQUIP. Peek
 MP# _____ MODEL # APR 2000

DATE OF CHANGE	TIME OF CHANGE	DESCRIPTION OF CHANGE	PERSON MAKING CHANGE	PHONE #	NEW EQUIP. SERIAL #
3/8, 23		No Class / Equipment Problem	Field Arguscher Crew		
5/21-23					
7/1-4					

SHEET 15 LTPP TRAFFIC DATA LOG OF CHANGE AT LTPP TEST LOCATIONS WITH PERM. AVC OR WIM	*STATE ASSIGNED ID	[0555]
	*STATE CODE	[09]
	*SHRP SECTION ID	[1005]

LOCATION _____ TYPE EQUIP. Peek
 MP# _____ MODEL # ADR 3000

DATE OF CHANGE	TIME OF CHANGE	DESCRIPTION OF CHANGE	PERSON MAKING CHANGE	PHONE #	NEW EQUIP. SERIAL #
1/19-20	all day	no class/wim equipment	Field Acquisition crew		
4/2	↓	problems	↓		
9/28-30	↓	↓	↓		
10/1-2	↓	↓	↓		

revised November 11, 1999

SHEET 15 LTPP TRAFFIC DATA LOG OF CHANGE AT LTPP TEST LOCATIONS WITH PERM. AVC OR WIM	*STATE ASSIGNED ID	[0555]
	*STATE CODE	[09]
	*SHRP SECTION ID	[1005]

LOCATION US 54 1.0 miles e/o Rt. V TYPE EQUIP. Peek
 MP# 6.04 MODEL # ADR 3000

DATE OF CHANGE	TIME OF CHANGE	DESCRIPTION OF CHANGE	PERSON MAKING CHANGE	PHONE #	NEW EQUIP. SERIAL #
1/31	all day	no class/wim, equipment	Field Acquisition crew		
2/25	↓	↓ problem	↓		
3/11	↓	↓	↓		
7/3-5	↓	↓	↓		

revised November 11, 1999

SHEET 15 LTPP TRAFFIC DATA LOG OF CHANGE AT LTPP TEST LOCATIONS WITH PERM. AVC OR WIM	*STATE ASSIGNED ID	[0555]
	*STATE CODE	[29]
	*SHRP SECTION ID	[1005]

LOCATION US 54 TYPE EQUIP. PEEK
 MP# 6.64 MODEL # ADR 3000

DATE OF CHANGE	TIME OF CHANGE	DESCRIPTION OF CHANGE	PERSON MAKING CHANGE	PHONE #	NEW EQUIP. SERIAL #
		EQUIPMENT FAILURE	FIELD ACQ CREW		
		NO VOLUME OR CLASS:			
		1/10, 2/1 - 2/13, 3/9 - 3/26			
		5/10, 5/11, 5/31, 7/18 - 7/27,			
		7/31, 8/1, 8/2			
		NO CLASS DATA ONLY:			
		1/11 - 1/31, 2/1 - 5/30,			

revised November 11, 1999

SHEET 15 LTPP TRAFFIC DATA LOG OF CHANGE AT LTPP TEST LOCATIONS WITH PERM. AVC OR WIM	**STATE ASSIGNED ID	[0555]
	*STATE CODE	[29]
	*SHRP SECTION ID	[1005]

LOCATION US 54 TYPE EQUIP. PEEK
 MP# 6.64 MODEL # ADR 3000

DATE OF CHANGE	TIME OF CHANGE	DESCRIPTION OF CHANGE	PERSON MAKING CHANGE	PHONE #	NEW EQUIP. SERIAL #
		<i>No volume and class:</i>			
		<i>2/13</i>			

revised November 11, 1999