

<b>SHEET 1</b> <b>LTPP TRAFFIC DATA</b> <b>SUMMARY TRANSMITTAL FORM</b>	*STATE ASSIGNED ID [4 0 2 4] *STATE CODE [2 2] *SHRP SECTION ID [4 0 6 9]
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STATE OR PROVINCE Missouri COUNTY Platte  
 HIGHWAY ROUTE NO. I-635 MILEPOST# \_\_\_\_\_  
 NEAREST CITY/TOWN 0.4 mi. north of MO River Bridge in Riverside NEAREST INTERSECTION 0.5 mi. south of Rte. 169  
 FUNCTIONAL CLASS 11 NO. LANES EACH DIRECTION 2 TOTAL NO. LANES 4  
 DIRECTION OF TRAVEL GPS LANE S DATE OPENED TO TRAF. 12-10-75  
 FIPS COUNTY CODE 165 FHWA STATION IDENTIFICATION NO. \_\_\_\_\_  
 HPMS SAMPLE NO. 083635000000 HPMS SUBDIVISION NO. 0  
 TYPE OF PAVEMENT: AC \_\_\_\_\_ PCC X OTHER \_\_\_\_\_  
 CONTROL OF ACCESS: YES X NO \_\_\_\_\_ MEDIAN: YES X NO \_\_\_\_\_  
 CURRENT SURROUNDING DEVELOPMENT:  
 URBAN \_\_\_\_\_ SUBURBAN X RURAL \_\_\_\_\_  
 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>	PHONE # <u>(314) 751-3980</u>
DATE PREPARED <u>12-90</u>	

<b>SHEET 2</b> <b>LTPP TRAFFIC DATA</b> <b>TRAFFIC VOLUMES</b> <b>AND LOAD ESTIMATES</b>	*STATE ASSIGNED ID [ 4 0 2 4 ] *STATE CODE [ 2 9 ] *SHRP SECTION ID [ 4 0 6 9 ]
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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	34,274	1,760	11,699	644	347
1988	33,008	1,697	11,113	633	341
1987	31,287	1,608	10,774	612	330
1986	35,093	1,804	11,831	654	353
1985	34,038	1,750	11,611	641	346
1984	33,701	1,732	11,496	634	342
1983	32,783	1,685	11,312	623	336
1982	23,260	1,196	9,006	481	260
1981	27,113	1,394	10,660	530	286
1980	26,581	1,366	10,684	530	286
1979	27,463	1,412	10,059	553	298
1978	27,862	1,432	10,096	556	300
1977	9,490	488	4,113	223	120
1976	9,038	465	3,917	213	115
1975	6,281	323	2,933	152	82
1974					
1973					
1972					
1971					
1970					
1969					
1968					
1967					
1966					
1965					

NAME OF PREPARER <u>Fred Trippensee</u>	PHONE # <u>(314) 751-3980</u>
DATE PREPARED <u>12-90</u>	

## SHEET 3

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

\*STATE ASSIGNED ID [ 4 0 2 4 ]

\*STATE CODE [ 2 9 ]

\*SHRP SECTION ID [ 4 0 6 9 ]

1. Year Applicable 1988-1975

## 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, '82, '80, '78, '76, '75. Growth trends 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. (1989 AVC)  
☐ 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.  
☐ 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: Weight data collected at GPS site in 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 12-90

## SHEET 3

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

\*STATE ASSIGNED ID [ 4 0 2 4 ]

\*STATE CODE [ 2 9 ]

\*SHRP SECTION ID [ 4 0 6 9 ]

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. (AVC)
- ☐ 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.
- ☐ 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 12-90

<b>SHEET 4</b> <b>LTPP TRAFFIC DATA</b> <b>TRAFFIC VOLUME COUNTS</b>	*STATE ASSIGNED ID [ 4 0 2 4 ] *STATE CODE [ 2 9 ] *SHRP SECTION ID [ 4 0 6 9 ]
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HIGHWAY ROUTE NO. (THIS COUNT) I-635  
 MILEPOST# OR LOCATION (THIS COUNT) at Missouri River Bridge - Riverside  
 BEGINNING DATE 8-28-89 ENDING DATE 8-30-89  
 BEGINNING TIME 2:00 p.m. ENDING TIME 10:00 a.m.  
 COUNT DURATION 2 [ ] HOURS [ x ] DAYS [ ] MONTHS  
 TYPE OF COUNTER Streeter NAME/MODEL # 241  
 TYPE OF COUNT: TWO-WAY x ONE DIRECTION ONLY\_\_\_ GPS TEST LANE ONLY\_\_\_

<u>ITEM</u>	<u>ACTUAL COUNTS</u>	<u>UNITS</u>
1. TOTAL NO. OF VEHICLES (RAW COUNT)	___ 51,088	
2. ADJUSTMENT FACTORS (FILL IN AS APPLICABLE):		
A. ADJUSTMENT TO 24-HOUR COUNT	___ .7704	
B. AXLE CORRECTION FACTOR	___ .886	
C. DAY OF WEEK FACTOR	___ 1.032	
D. MONTH FACTOR	___ .9524	
E. OTHER FACTOR (_____)	___ .__	
3. ANNUAL AVERAGE DAILY TRAFFIC (AADT) (TWO-WAY)	___ 34,274	
4. DIRECTIONAL DISTRIBUTION FACTOR	___ .50	
5. GPS LANE DISTRIBUTION FACTOR	___ .6827	
6. AADT GPS LANE	___ 11,699	

**NOTE: COMPLETE ONE SHEET FOR EACH COUNTING SESSION.**

NAME OF PREPARER <u>Fred Trippensee</u> DATE PREPARED <u>12-90</u>	PHONE # <u>(314) 751-3980</u>
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<b>SHEET 5</b>  <b>LTPP TRAFFIC DATA</b>  <b>VEHICLE CLASSIFICATION DATA</b> <b>FHWA 13-CLASS SYSTEM</b>	*STATE ASSIGNED ID [ 4 0 2 4 ]  *STATE CODE [ 2 9 ]  *SHRP SECTION ID [ 4 0 6 9 ]
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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.

VEHICLE CLASSES	TOTAL NUMBER OF VEHICLES TWO-WAY	TOTAL NUMBER OF VEHICLES GPS DIRECTION	TOTAL NUMBER OF VEHICLES GPS LANE
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	_____	_____	_____
<b>GRAND TOTAL</b>	_____	_____	_____

NAME OF PREPARER <u>Fred Trippensee</u>	PHONE # <u>(314) 751-3980</u>
DATE PREPARED <u>12-90</u>	

SHEET 14 LTPP TRAFFIC DATA EQUIPMENT INSTALLATION LOG	*STATE ASSIGNED ID	[0440]	LOCATION	IS 635 I.O. mi. N/O Kansas St
	*STATE CODE	[29]	INSTALLATION DATE	_____
	*SHRP SECTION ID	[4069]		

	TYPE	BRAND NAME	SERIAL NUMBER
Control Unit(s) and peripheral equipment	IRD Model 1067 WIM	I.R.D.	9906-5711
Control Unit	IRD Model 1067	IRD	9906-5711
Interface	-	-	
Modem	56K V.92	U.S. Robotics	
Loop Amplifiers	N/A		
Other _____	N/A		
Sensor(s) / Platform(s)	PIEZO	Measurement Specialties	
LTPP Lane Sensor	PIEZO Class 1	" "	
Sensor Next Adjacent Lane (1)	PIEZO Class 2	" "	
Senor Next Adjacent Lane (2)	-	-	
Sensor Next Adjacent Lane (3)	-	-	
Diagonal Sensor	N/A		
Offscale Sensor	N/A		
Right Platform	N/A		
Left Platform	N/A		
Other _____	N/A		
Software	IRD R 7.50	IRD Software	
Complete Package	-	-	
Axle Spacing Algorithm Only	72 Inches		
Other _____	-		
Loops	Electro Magnetic	18 ga. Wire 4 turns 6'x6'	
Upstream - Lane 1	" "	" " " "	
Downstream - Lane 1	-	-	
Upstream - Other Lanes	Electro Magnetic	18ga. Wire 4 turns 6'x6'	
Downstream - Other Lanes	Electro Magnetic	18ga Wire 4 turns 6'x6'	

**SHEET 14  
LTPP TRAFFIC DATA  
EQUIPMENT INSTALLATION LOG**

\*STATE ASSIGNED ID  
\*STATE CODE  
\*SHRP SECTION ID

[0440]  
[ ]  
[ ]

LOCATION \_\_\_\_\_

INSTALLATION DATE \_\_\_\_\_

	TYPE	BRAND NAME	SERIAL NUMBER
Control Unit(s) and peripheral equipment			
Control Unit			
Interface			
Modem	out of service		
Loop Amplifiers			
Other _____			
Sensor(s) / Platform(s)			
LTPP Lane Sensor			
Sensor Next Adjacent Lane (1)			
Senor Next Adjacent Lane (2)			
Sensor Next Adjacent Lane (3)			
Diagonal Sensor			
Offscale Sensor			
Right Platform			
Left Platform			
Other _____			
Software			
Complete Package			
Axle Spacing Algorithm Only			
Other _____			
Loops			
Upstream - Lane 1			
Downstream - Lane 1			
Upstream - Other Lanes			
Downstream - Other Lanes			



**SHEET 14**  
**LTPP TRAFFIC DATA**  
**EQUIPMENT INSTALLATION LOG**

\*STATE ASSIGNED ID  
 \*STATE CODE  
 \*SHRP SECTION ID

0440  
 [ ]  
 [ ]

LOCATION \_\_\_\_\_  
 INSTALLATION DATE \_\_\_\_\_

	TYPE	BRAND NAME	SERIAL NUMBER
Control Unit(s) and peripheral equipment			
Control Unit			
Interface			
Modem			
Loop Amplifiers			
Other _____			
Sensor(s) / Platform(s)			
LTPP Lane Sensor			
Sensor Next Adjacent Lane (1)			
Senor Next Adjacent Lane (2)			
Sensor Next Adjacent Lane (3)			
Diagonal Sensor			
Offscale Sensor			
Right Platform			
Left Platform			
Other _____			
Software			
Complete Package			
Axle Spacing Algorithm Only			
Other _____			
Loops			
Upstream - Lane 1			
Downstream - Lane 1			
Upstream - Other Lanes			
Downstream - Other Lanes			

OUT OF SERVICE

SHEET 15 LTPP TRAFFIC DATA  LOG OF CHANGE AT LTPP TEST LOCATIONS WITH PERM. AVC OR WIM	*STATE ASSIGNED ID	0449
	*STATE CODE	29
	*SHRP SECTION ID	4069

SB

LOCATION IS 63 TYPE EQUIP. Peek  
 MP# \_\_\_\_\_ MODEL # AD R 3000

DATE OF CHANGE	TIME OF CHANGE	DESCRIPTION OF CHANGE	PERSON MAKING CHANGE	PHONE #	NEW EQUIP. SERIAL #
		Out of Service	Field Crew		
		May Newer Put			
		Back In Service			

revised November 11, 1999

<b>SHEET 15</b> <b>LTPP TRAFFIC DATA</b> <b>LOG OF CHANGE AT LTPP TEST</b> <b>LOCATIONS WITH PERM. AVC OR WIM</b>	*STATE ASSIGNED ID	[0440]
	*STATE CODE	[29]
	*SHRP SECTION ID	[4069]

LOCATION IS 635 TYPE EQUIP. Peek  
 MP# \_\_\_\_\_ MODEL # ADR 3000

DATE OF CHANGE	TIME OF CHANGE	DESCRIPTION OF CHANGE	PERSON MAKING CHANGE	PHONE #	NEW EQUIP. SERIAL #
		out of service			

<b>SHEET 15</b> <b>LTPP TRAFFIC DATA</b>  <b>LOG OF CHANGE AT LTPP TEST</b> <b>LOCATIONS WITH PERM. AVC OR WIM</b>	*STATE ASSIGNED ID	[0440] sb
	*STATE CODE	[29]
	*SHRP SECTION ID	[4069]

LOCATION IS 635 1 mile n/o Kansas S/L TYPE EQUIP. Peek  
 MP# 2.55 MODEL # ADR 3000

DATE OF CHANGE	TIME OF CHANGE	DESCRIPTION OF CHANGE	PERSON MAKING CHANGE	PHONE #	NEW EQUIP. SERIAL #
		no class/wim			
		for complete year			
		construction			
		site will not be			
		replaced			

revised November 11, 1999

SHEET 15 LTPP TRAFFIC DATA  LOG OF CHANGE AT LTPP TEST LOCATIONS WITH PERM. AVC OR WIM	*STATE ASSIGNED ID	104401 sb
	*STATE CODE	091
	*SHRP SECTION ID	40691

LOCATION IS 635 1 mile n/w Kansas St  
 TYPE EQUIP. Peek  
 MP# 2.55 MODEL # ADR 3000

DATE OF CHANGE	TIME OF CHANGE	DESCRIPTION OF CHANGE	PERSON MAKING CHANGE	PHONE #	NEW EQUIP. SERIAL #
		no class/wim			
		for complete year			
		construction			
		site will not be			
		replaced			

revised November 11, 1999

SHEET 15 LTPP TRAFFIC DATA  LOG OF CHANGE AT LTPP TEST LOCATIONS WITH PERM. AVC OR WIM	*STATE ASSIGNED ID	[0440]
	*STATE CODE	[29]
	*SHRP SECTION ID	[4069]

LOCATION IS 63 TYPE EQUIP. PEEK  
 MP# \_\_\_\_\_ MODEL # ADR 3000

DATE OF CHANGE	TIME OF CHANGE	DESCRIPTION OF CHANGE	PERSON MAKING CHANGE	PHONE #	NEW EQUIP. SERIAL #
		OUT OF SERVICE			
		NO DATA			

revised November 11, 1999