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16. Abstract <p>Current and projected growth in the I-35 corridor between Austin and San Antonio (Figure 1) are expected to result in traffic volumes that may cause severe congestion on existing transportation facilities in this corridor. As a result, the Texas State Department of Highways and Public Transportation (SDHPT) is undertaking an analysis of alternative corridor improvements. Included in this analysis is a feasibility study of an alternative highway route between Austin and San Antonio. The possibility of an alternate route to the east of I-35 (Figure 1) has received considerable attention in recent months. However, other alternatives, such as an I-35 east by-pass around Austin and an alternate route to the west of I-35, have not been eliminated from consideration at this date.</p> <p>This research project is intended to assist the SDHPT in assessing the need for an alternate route in the Austin-San Antonio corridor. The results of the study are presented in a two-volume report. The results of an origin-Destination (O-D) survey conducted to identify current travel patterns in the study corridor, and the use of that survey data to estimate the diversion potentials of a proposed alternate route (Figure 1) are summarized in Volume I (Summary Report) of the research report. This report (Volume II) describes the study design and data analysis phases of the study in detail and presents expanded listings of the data summarized in Volume I.</p>					
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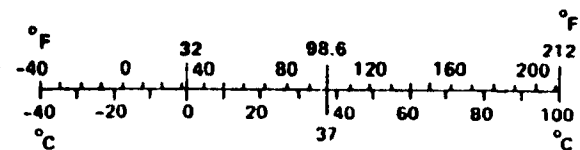
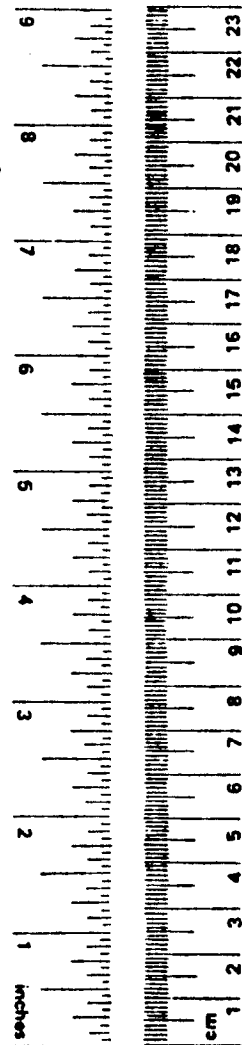
METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



* 1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price \$2.25, SD Catalog No. C13.10:286.

AUSTIN/SAN ANTONIO ORIGIN-DESTINATION STUDY
VOLUME II: TECHNICAL APPENDICES

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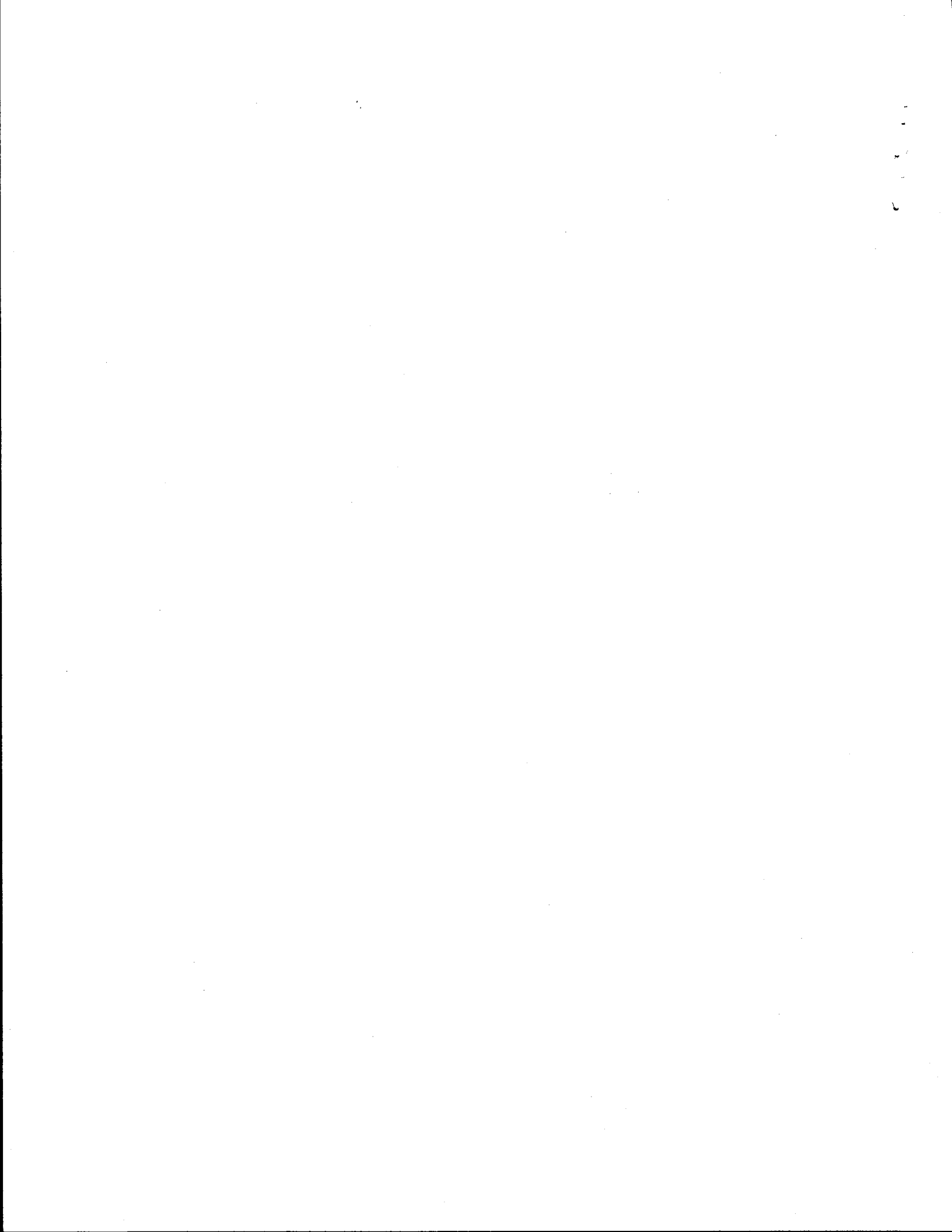
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IMPLEMENTATION STATEMENT

The goal of Research Study 2-10-87-1186 is to assist the Texas State Department of Highways and Public Transportation (SDHPT) in estimating current and design year traffic that might divert from I-35 between Austin and San Antonio to an alternate route in the corridor. The results of this research should be useful to transportation planners in conducting a feasibility study for an alternate route between Austin and San Antonio. Additionally, the research procedures developed should be useful in similar studies which may be conducted in the future.

DISCLAIMER

The contents of this report reflect the views of the authors who are responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Texas State Department of Highways and Public Transportation. This report does not constitute a standard, specification, or regulation.



BACKGROUND

Current and projected growth in the I-35 corridor between Austin and San Antonio (Figure 1) are expected to result in traffic volumes that may cause severe congestion on existing transportation facilities in this corridor. As a result, the Texas State Department of Highways and Public Transportation (SDHPT) is undertaking an analysis of alternative corridor improvements. Included in this analysis is a feasibility study of an alternate highway route between Austin and San Antonio. The possibility of an alternate route to the east of I-35 (Figure 1) has received considerable attention in recent months. However, other alternatives, such as an I-35 east by-pass around Austin and an alternate route to the west of I-35, have not been eliminated from consideration at this date.

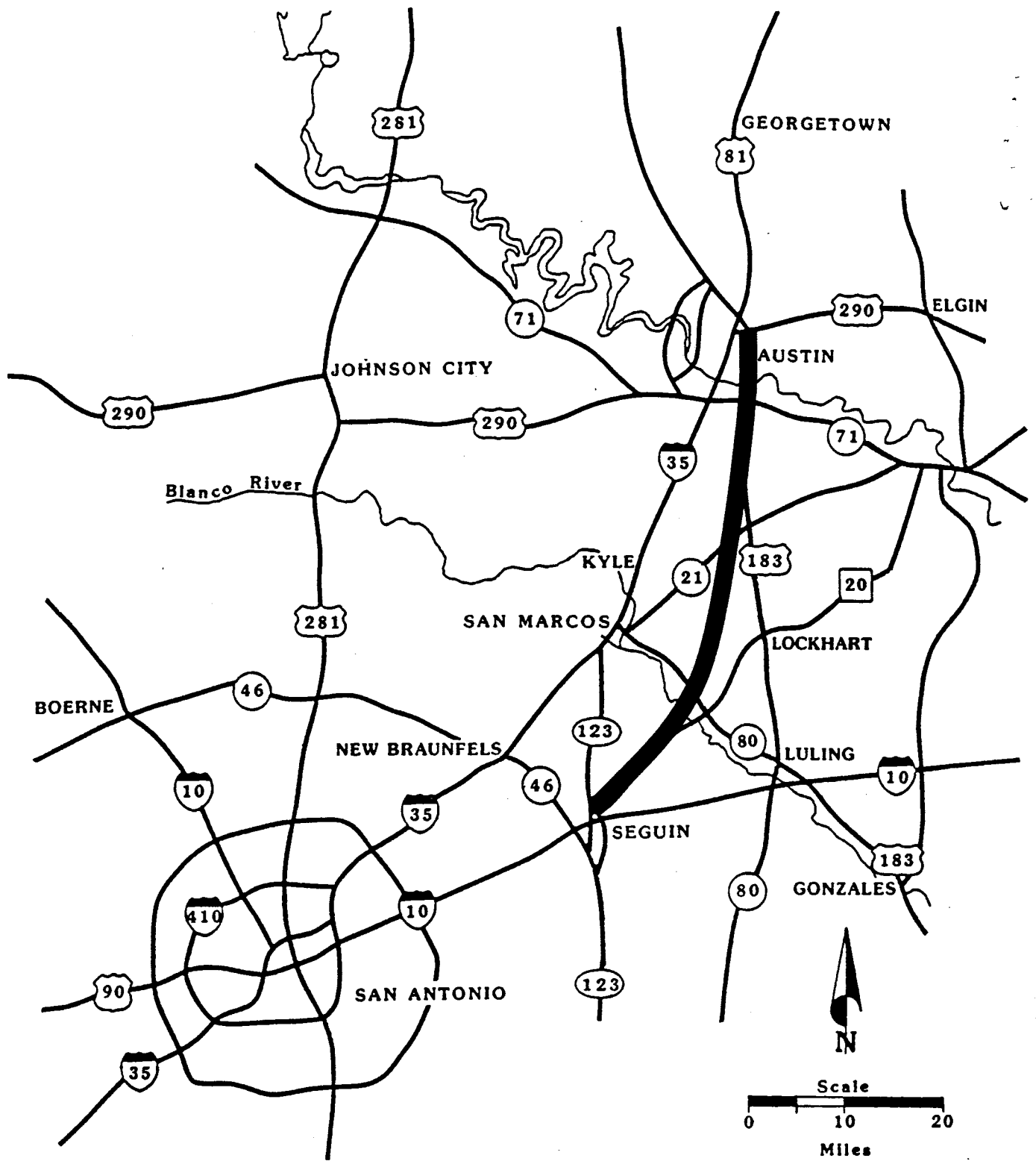
This research project is intended to assist the SDHPT in assessing the need for an alternate route in the Austin-San Antonio corridor. The results of the study are presented in a two-volume report. The results of an origin-destination (O-D) survey conducted to identify current travel patterns in the study corridor, and the use of that survey data to estimate the diversion potentials of a proposed alternate route (Figure 1) are summarized in Volume I (Summary Report) of the research report. This report (Volume II) describes the study design and data analysis phases of the study in detail and presents expanded listings of the data summarized in Volume I.

OBJECTIVES

The overall goal of this research effort is to assist the SDHPT in assessing the need for an alternate route between Austin and San Antonio. Specific study objectives were:

- 1) Conduct a review of O-D survey methods and assess their potential applicability to the Austin-San Antonio corridor in terms of manpower needs, cost, time frame, and statistical reliability.

- 2) Review available data for the corridor as developed in previous SDHPT and Texas Transportation Institute (TTI) studies.



**█ General Location of Proposed
Austin/San Antonio Alternate Route**

Figure 1. Austin/San Antonio Study Corridor

- 3) Based on the review of current practice, develop a detailed study plan for the O-D survey to address the following elements:
 - a) Identification of an origin-destination survey method, or methods (depending upon the number of roadways to be surveyed, more than one method may be appropriate);
 - b) Identification of the number and location of survey sites;
 - c) Estimation of sample size requirements for various levels of statistical reliability;
 - d) Manpower requirements;
 - e) Recommended survey schedule;
 - f) A proposed survey instrument; and
 - g) Estimated study costs.
- 4) Conduct the O-D survey.
- 5) Based on the results of the survey, develop estimates of current and design year traffic which may divert from I-35 to a proposed alternate route in the corridor.

SCOPE

As indicated earlier, the SDHPT is considering a number of alternative improvements for the Austin-San Antonio corridor. This study, however is limited to assessing potential traffic volumes which may divert from I-35 to an alternate route located to the east of I-35 (see Figure 1). The general alignment of this proposed alternate route was provided by SDHPT. The analyses use data on current travel patterns in the corridor (i.e., O-D data) to estimate how the route selection process associated with these patterns might change as a result of an alternate route in the corridor. As a result,

the effects of the induced and latent travel demand components of current and future traffic are not explicitly addressed in the analyses.

ORGANIZATION OF THE APPENDICES

This report consists of the following two technical appendices.

Appendix A. Origin-Destination Survey. This appendix contains technical documentation for the O-D survey that was conducted to identify current travel patterns in the study corridor. The O-D survey study design, accuracy checks performed on the survey data, and the statistical methods employed in the analyses of the sample data are described in detail. Extensive summaries of the O-D data are also presented.

Appendix B. Traffic Diversion Methodology. Appendix B describes the development, validation, and application of the methodology used to estimate current traffic that might divert from I-35 to the proposed alternate route. Appendix B also documents the analyses of corridor traffic and population data that were used to develop the procedure for forecasting future traffic on the proposed alternate route. The results of the analyses and a general discussion of the overall accuracy of the estimates of current and future traffic on the proposed alternate route are also presented.

A. ORIGIN-DESTINATION SURVEY

A.1 STUDY DESIGN

A.1.1 Survey Method (1)

A number of traditional and "synthetic" O-D survey methods were evaluated for possible use in the study corridor. These methods were evaluated in terms of cost, accuracy, and adaptability to the study corridor.

In the context of the current corridor study, synthetic O-D estimation approaches are not suitable. The results generated by these methods will be questionable in the absence of an instrument to test for their accuracy. The present knowledge of trip-making behavior and processes is not sufficiently advanced to enable the conceptualization of a synthetic O-D model that does not require at least accuracy checking against actual O-D data before being applied to forecasting.

Table A-1 presents a summary of the traditional O-D survey methods that were considered for use in the study corridor. The methods shown in Table A-1 have been arranged in descending order in terms of cost and accuracy.

Neither the license-plate "trace" method nor the tag-on-vehicle/lights-on surveys are applicable to a large intercity traffic corridor, such as the Austin/San Antonio corridor, due to the extreme difficulties in planning and implementing the survey. The manpower requirements to implement either one of these methods on a corridor of this size would be unrealistic and the analysis of the field data would be extremely cumbersome.

The license-plate "mail-out" survey, which can be implemented without interrupting the flow of traffic, has a number of shortcomings if applied to this study. The most notable problem is that after the vehicles passing a station are selected and their license-plate numbers read, it is difficult to send questionnaires to drivers of trucks or out-of-state vehicles and it is almost impossible to reach drivers of leased vehicles. This survey method

Table A-1. Summary of O-D Survey Methods

Survey Method	Advantages	Disadvantages	Manpower Requirements per Survey Station	Recommend Sample Size ^b	Typical Response Rates
1. Roadside Interview	<ul style="list-style-type: none"> ● Complete information ● High Response Rate ● Better Sampling Control 	<ul style="list-style-type: none"> ● Relatively expensive ● Traffic delays ● Hazardous 	<ul style="list-style-type: none"> ● 10-20 persons/station^a ● 2-4 police officers 	20%-50%	100%
2. Postcard Surveys	<ul style="list-style-type: none"> ● Can be completed quickly ● Less traffic delay ● Relatively inexpensive ● Good population coverage 	<ul style="list-style-type: none"> ● Possible bias due to better response by some drivers ● Low response by thru and out-of-state traffic ● Requires stopping traffic ● No provision for follow-up of non-responses 	<ul style="list-style-type: none"> ● 5-9 persons/station ● 1-2 police officers 	60%-80%	25%-35%
3. License Plate Surveys					
a) "Trace: Method	<ul style="list-style-type: none"> ● Simplicity of field organization ● No interference with traffic ● Unbiased Sample 	<ul style="list-style-type: none"> ● Data Analysis is difficult ● Large number of stations required ● Possible recording errors ● Survey stations must operate simultaneously 	<ul style="list-style-type: none"> ● 2-3 persons/station 	35%-50%	60% ^c
b) "Mail-out"	<ul style="list-style-type: none"> ● Similar to Method No. 2, except follow-up of non-responses is possible ● Stations need not operate simultaneously 	<ul style="list-style-type: none"> ● Same as Method No. 2, except does not require stopping traffic ● Requires access to vehicle registration files 	<ul style="list-style-type: none"> ● 2-3 persons/station 	60%-80% ^d	20%-35% ^d
4. Tag-on-vehicle/Lights-on Surveys	<ul style="list-style-type: none"> ● Same as Method 3a, except may result in minor traffic delays 	<ul style="list-style-type: none"> ● Same as Method 3a, except less recording errors 	<ul style="list-style-type: none"> ● 2-3 persons/station 	100%	-

^a Number of interviewers varies with traffic volume but on the average is about 3-4 times the number of persons required to hand out postcards. The above estimate is for relatively low hourly traffic volumes.

^b Sample sizes have been adjusted for typical response rates to insure at least 20% sample.

^c Response rate is estimate of percentage of license plates which can be traced.

^d Response rate can be increased by follow-up of non-responses.

would therefore result in non-coverage of many sub-groups within the population which could result in biases and errors in the survey that cannot be easily corrected for. This is a particularly serious problem if a substantial proportion of traffic in the corridor is made up of trucks, leased and out-of-state vehicles. Furthermore, in reading license-plate numbers in the field, reading/recording errors are likely to exist which reduces the size of the usable sample of vehicles.

The "controlled postcard survey" method, which utilizes vehicle-ownership or licensed-driver information, suffers the same shortcomings as the license-plate "mail-out" method in its inability to effectively survey trucks, leased and out-of-state vehicles. This method was therefore considered unsuitable for this study.

Given the importance of the current corridor study, the roadside-interview and the postcard-distribution methods are both justified in terms of costs and accuracy. Indeed, both are very similar in providing good coverage of the vehicle population and in the amount of information that can be effectively sought from the drivers. In terms of costs and manpower requirements, the roadside interview method, on the average, requires 3-4 times more field personnel than the postcard-distribution method, and this estimate can be much higher for very high-volume facilities. A trained interviewer can complete about 30-40 interviews in an hour while postcards can be handed out to drivers every 4-5 seconds. The response rate of the roadside interview method, however, may be up to 3 times as high as that of the roadside-distribution postcard method. Despite its higher response rate, the interview crew would need to work at least as long as the postcard-distribution crew in order to obtain a sufficient number of responses. The lower response rate of the roadside-distribution postcard method can be compensated for by designing for a larger sample size.

In terms of adaptability, the postcard-distribution method is more desirable in terms of traffic delays, station set-up, traffic control plans, survey management, and safety to the survey crew and motorists. On a high-volume facility, such as Interstate 35, it would not be practical to stop traffic to complete interviews with drivers on-site because traffic

congestion and delays could become excessive, even with a large interview crew. Furthermore, as the number of interviewers increases, so does the complexity of setting up the site and managing the survey in order to maintain safety and to minimize traffic delays and confusion. Previous TTI experiences with the roadside-distribution postcard method have shown that with a good traffic control plan, well-trained survey personnel, and the use of an appropriate vehicle selection technique, this survey method can be safely implemented without causing any substantial delays to traffic.

It had been suggested that a combination "roadside-distribution postcard survey and roadside interview survey" might be used. Past TTI experience suggests that such a combination would not enhance the amount of information obtainable; not would it improve the quality of the survey results. The suggested combination approach would involve distributing postcards to drivers during high-volume time periods and conducting on-site interviews during low-volume time periods. However, even during "low-volume" periods on Interstate 35, the time required to conduct on-site interviews could cause considerable traffic delays, unless the interviews could be conducted off the roadway. If the on-site interviews were to be conducted on the roadway, it appears unlikely that a substantial percentage of the traffic could be sampled without causing excessive delays.

Based on these considerations, the roadside-distribution postcard survey method was selected for the study corridor. A sample of the postcard questionnaire used in the study is shown in Figure A-1. The survey form was designed to solicit information concerning vehicle type, trip purpose, trip origin and destination, vehicle occupancy and trip frequency. The survey form requested street address, city, and zip code of the trip origin and destination. This information made it possible to code origin-destination zones with sufficient detail to evaluate the range of improvements being considered for the corridor. The questionnaire portion of the form was printed on the back of a prepaid, preaddressed postcard. Also, each questionnaire was individually numbered to facilitate recording the time and location of distribution.

AUSTIN/SAN ANTONIO ORIGIN-DESTINATION STUDY

Dear Motorist:

Your help is needed in a special study being conducted on roadways in the Austin and San Antonio areas to determine which improvements, if any, are the most feasible and most economical to implement.

The study has the objective of providing the traveling public with a safer and more efficient transportation system. However, in order to develop a better transportation system, it is first necessary to gain information on existing travel patterns. The results of this study will have direct application to any improvements considered on roadways near Austin and San Antonio.

Your cooperation and timely return of the completed questionnaire will be appreciated. Information provided by you will be kept confidential. Only a summary of the results will be available for review.

The following questions concern the trip being made at the time you received this questionnaire. If you have received more than one questionnaire, **please complete and return each questionnaire**. Please accept our apology for any inconvenience our survey may have caused you.

-BLANK-

A-5

Survey Station:
Southbound US 281 Near San Antonio N^o 99059

1. Type of vehicle?
Passenger Car Pickup Van Other Truck
2. Purpose of trip today?
Work School Shopping Recreation Other
3. Where were you coming from when you received this questionnaire?

Street Address (or nearest intersection) City Zip Code
4. Where were you going when you received this questionnaire?

Street Address (or nearest intersection) City Zip Code
5. How many people in vehicle (including driver)? _____
6. How many days per week do you make this trip?
1 2 more than 2 Other (please specify) _____
7. Any additional information on your trip that you think might be helpful to us would be appreciated. _____

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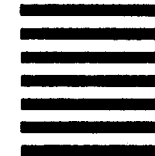
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-FRONT-

-BACK-

Figure A-1. Sample Postcard Questionnaire

In addition to the general survey of traffic in the study corridor, SDHPT requested a special nighttime survey of truck traffic on I-35 between Austin and San Antonio. Given the relatively low volumes of nighttime truck traffic, and based on the assumption that the survey could be conducted at the I-35 weigh stations, the roadside interview method was selected as the most appropriate survey procedure. A sample of the interview form used is shown in Figure A-2.

**AUSTIN/SAN ANTONIO ORIGIN-DESTINATION SURVEY.
COMMERCIAL VEHICLE SURVEY FORM**

:00 - :30	8	9	10	11	12	01	02	03	04	05
:30 - :59	8	9	10	11	12	01	02	03	04	05

1. Origin: _____
Stop in Austin? No Yes, where: _____
2. Destination: _____
Stop in San Antonio? No Yes, where: _____
3. Any intermediate stops? No Yes, where: _____
4. Trip frequency 1 2 3 4 5 6 7 day/week/month Other: _____
5. Occupants: _____
6. Vehicle Classification: Single Unit Single Unit With Trailer
Tractor Only Tractor With Trailer Tractor With Double Trailer
Placarded Tanker

Location: Southbound I-35

Carrier Name: _____

Figure A-2. Sample Truck Traffic Interview Form

A.1.2 Survey Stations

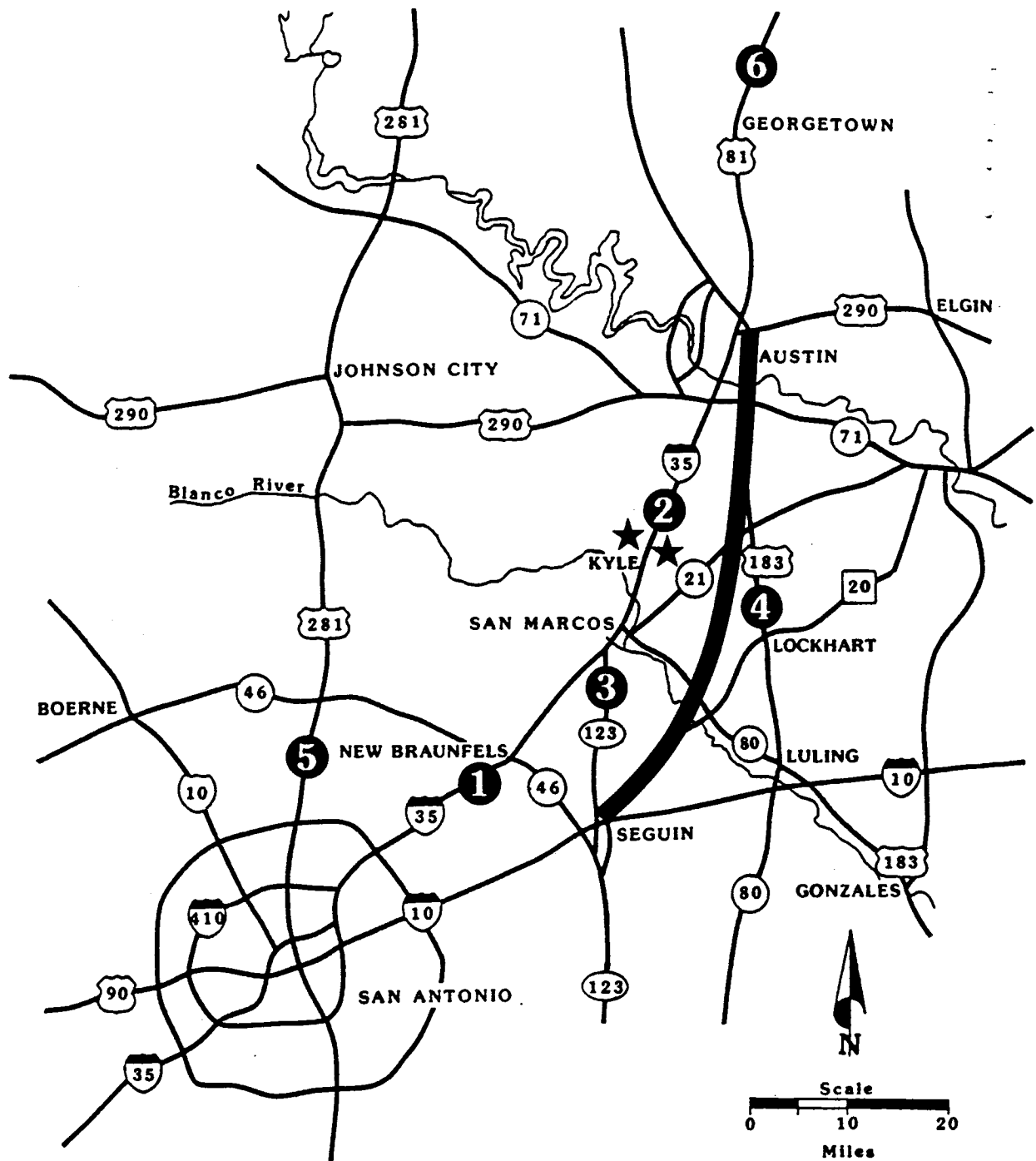
Based on discussions with SDHPT personnel, and a review of the objectives of the corridor study, the following survey station locations were identified (Figure A-3):

1. I-35, Between San Marcos and San Antonio, South of SH-46 (New Braunfels Station);
2. I-35, Between Austin and San Marcos (Kyle Station);
3. SH-123, Between I-35 and I-10 (Seguin Station);
4. US-183, Between SH-21 and I-10 (Lockhart Station);
5. US-281, North of San Antonio between FM 1604 and SH-46 (San Antonio Station); and
6. I-35, North of Georgetown (Georgetown Station).

These survey station locations were selected to obtain a comprehensive and representative sample of travel patterns in the study corridor. The I-35 stations between Austin and San Antonio, and the stations on SH-123 and US-183 were chosen to provide samples of intercity and through-traffic, as well as traffic with origin-destinations at key intermediate points. These stations were considered to be particularly important in terms of assessing the potential feasibility of an alternate Austin/San Antonio route to the east of I-35.

The US-281 station was selected to sample potential traffic for an alternate route between Austin and San Antonio to the west of I-35. The I-35 station north of Georgetown was identified to obtain a sample of traffic that might use an I-35 Austin by-pass.

The following criteria were used to identify precise survey station locations.



1	Location of Survey Stations	
	1. New Braunfels Station	
	2. Kyle Station	
	3. Seguin Station	
	4. Lockhart Station	
	5. San Antonio Station	
	6. Georgetown Station	
		Proposed Alternate Route
		Truck Weigh Station

Figure A-3. General Locations of Survey Stations

1) Sight-Distance. The primary consideration in selecting survey stations was safety. Survey stations were located on flat, straight roadway sections, which were clear of structures or other obstructions that could reduce sight-distances. Level and straight sections of highways with an unrestricted sight distance of 800 feet or more in each direction from the station were sought (2). Stations at or near intersections were avoided. Care was also taken to avoid possibilities of traffic bypassing the stations.

2) Roadway Cross-Section. Wherever possible, survey stations were located where roadway width was at its maximum. On I-35, survey stations were located on sections with inside and outside shoulders. By using the freeway shoulders it would be possible to set-up four-channel service areas for postcard distribution. On non-interstate roadways, survey stations were established on four-lane sections.

3) Traffic Catchment Area. Survey stations were located to intercept a representative sample of inter-city traffic. As a general guide, survey stations were located near the midpoints of the roadway links surveyed.

A.1.3 Scheduling the Survey

The following issues were considered in scheduling the O-D survey.

1) Month and Day-of-Week Considerations. The choice of the month and day-of-week of the survey depended upon whether "typical" or "peak" O-D data were desired. An examination of monthly, daily, and seasonal traffic volumes as a percent of average annual daily traffic (AADT) from several permanent traffic recorders in the corridor revealed that the summer months of June-August generally account for the highest percentages of AADT (Table A-2). The fall months of September-November on the other hand, appear to be more representative of the AADT.

In terms of average variations in the AADT, Mondays-Thursdays appear to be "typical" days. Fridays, with their high percentages of "pre-weekend" traffic, tend to be higher-than-average traffic days.

Table A-2. Percent 1985 Average Annual Daily Traffic (AADT) by Month, Day and Season, Austin/San Antonio Corridor

Month and Season	Percent AADT											
	I-35 (S. of Austin)			US 183 (S. of Austin)			US 281 (N. of San Antonio)			SH 123 (N. of Seguin)		
	Sun-Sat	Mon-Thur	Mon-Fri	Sun-Sat	Mon-Thur	Mon-Fri	Sun-Sat	Mon-Thur	Mon-Fri	Sun-Sat	Mon-Thur	Mon-Fri
Dec	98.9	96.9	100.0	96.1	98.9	101.2	98.3	108.1	110.5	99.4	89.1	93.7
Jan	79.4	81.2	85.3	84.3	89.1	92.5	83.4	93.5	97.4	72.2	69.1	74.4
Feb	87.5	89.9	91.4	92.0	98.6	99.1	95.7	109.0	109.1	79.1	72.6	77.4
(Winter)	(88.6)	(89.3)	(92.2)	(90.8)	(95.5)	(97.6)	(92.5)	(103.6)	(105.7)	(83.6)	(77.0)	(81.8)
Mar	100.4	96.8	101.1	101.6	103.6	106.2	102.6	114.4	115.7	104.4	89.2	97.9
April	102.0	97.8	102.8	104.9	106.2	110.0	104.8	117.3	117.8	100.1	84.1	93.9
May	102.6	97.3	102.4	105.9	107.0	111.3	103.9	114.8	116.9	109.6	94.6	104.2
(Spring)	(101.6)	(97.3)	(102.1)	(104.2)	(105.6)	(109.2)	(103.8)	(115.5)	(116.8)	(104.7)	(89.3)	(98.6)
June	105.8	101.1	106.0	105.4	107.0	111.2	103.8	115.9	117.9	112.4	93.9	104.1
July	107.4	103.1	106.9	104.3	107.3	110.5	99.8	112.2	113.1	117.1	99.7	108.4
Aug	110.7	105.7	110.6	105.4	108.3	111.9	102.8	115.7	117.2	117.9	99.8	109.9
(Summer)	(108.0)	(103.3)	(107.8)	(105.0)	(107.6)	(111.2)	(102.1)	(114.6)	(116.1)	(115.8)	(97.8)	(107.4)
Sept.	102.2	99.2	103.7	101.1	105.0	107.9	102.0	114.2	116.6	92.7	81.3	89.0
Oct.	100.6	98.1	103.2	102.0	104.7	107.2	103.2	116.3	118.3	95.8	80.3	90.0
Nov.	102.6	101.9	104.9	97.0	101.7	103.8	99.6	112.7	113.6	99.4	91.7	97.4
(Fall)	(101.8)	(99.7)	(103.9)	(100.0)	(103.8)	(106.3)	(101.6)	(114.4)	(116.2)	(96.0)	(84.4)	(92.1)
Total	100.0	97.4	101.5	100.0	103.1	106.1	100.0	112.0	113.7	100.0	87.1	95.0

Source: SDHPT

Based on these considerations, it was recommended that the Austin/San Antonio O-D survey be conducted during the summer months (June-August) during the typical weekdays of Monday-Thursday.

2) Time-of-Day Considerations. The O-D survey may be conducted over a 24-hour period, or more typically, during daylight hours. Given the hazards associated with nighttime operations, it was recommended that, with the exception of the special truck study, survey operations be restricted to daylight hours.

3) One-Directional vs. Two-Directional Station Operations. In scheduling the survey and estimating manpower needs, the issue of whether each direction of travel was to be surveyed separately or simultaneously needed to be resolved. The Federal Highway Administration's guidelines on conducting origin-destination surveys (2) state "... two-directional surveying is necessary if hourly data describing origins and destinations by direction are needed. It is generally assumed that although inbound traffic patterns are similar to outbound traffic patterns for a 24-hour period, the differences are significant enough on an hourly basis to warrant two-directional surveys. Some serious problems could arise in the analysis of the data if two-directional data are not available. Where sufficient personnel are available, it is desirable to survey traffic in both directions simultaneously".

Harmelink (3) suggests that one-directional surveys would produce larger errors than would two-directional surveys. Hajek (4) found from actual O-D data that the errors for a 50% two-directional survey were very similar to the errors for a 100% one-directional survey. Hajek attributed this similarity in the errors to the daily variation in traffic which might have obscured the expected difference between the two-directional and the one-directional surveys.

In 1952, Miller, et al. (5) conducted an O-D survey in Richmond, Indiana for the State Highway Commission of Indiana. The survey was operated for 16-hours a day at most stations. Both directions of traffic were surveyed at any one location. The station arrangement was exactly the same as if both

directions would have been surveyed at the same time, except that the stop sign for the direction not being surveyed was covered during the 15-minute periods when traffic could proceed without stopping.

Based on results of another survey at Lebanon, Indiana, Miller et al. (5) reported that the universe tabulation of origin-destination trip frequencies indicated that the inbound and the outbound frequencies were not exact mirror images of one another but that some differences between the two directions existed. The percent differences were found to be higher for small trip interchange volumes than for larger trip interchange volumes.

Based on these past studies, and to maximize the usefulness of the resulting O-D data, it was recommended that two-directional surveys be conducted.

A.1.4 Sample Sizes

Sample design of an intercity origin-destination study consists of many tasks, including the following:

- 1) Defining the corridor of interest and the origin/destination points within the corridor.
- 2) Identification of survey stations in the corridor,
- 3) Selection of an appropriate survey method,
- 4) Design of sample sizes to ensure statistical validity and reliability of the results,
- 5) Selection of vehicles to be sampled, and
- 6) Independent checking of the accuracy of the survey results.

In origin-destination studies, there are two main sources of errors: sampling errors and non-sampling errors. In order to ensure the accuracy of

the results, sampling errors have to be minimized. To ensure that the survey results are representative of the corridor traffic, non-sampling errors also have to be minimized.

Sampling errors or sampling variance are measures of statistical accuracy of the O-D estimates obtained from the survey. Sampling variance arises because it is highly unlikely that drivers of all vehicles in the corridor will be surveyed. Sampling variance can be controlled at the sample-design stage by planning for a sufficient number of vehicles to be included in the sample. As a rule, sampling variance decreases as the sample size is increased. Sampling variance is random in nature (i.e., it falls on either side of the estimates). As sample size increases, sampling variance becomes less and less of an issue and the problem of sample size is almost negligible for a sample of 10,000 cases or more. The number of vehicles (or the sample size) required at any one station is a function of the desired accuracy of the O-D estimates, and the variability within the population studied. For an intercity origin-destination survey, such variability depends on the numbers of origin-destination pairs within the corridor for which travel estimates are needed and on the distribution of all travel among these origin-destination pairs.

Non-sampling errors are not likely to be random in occurrence and they do not usually decrease in magnitude with larger samples. Non-sampling errors are made-up of at least 2 components:

- 1) Biases due to non-coverage and non-response, and
- 2) Errors associated with data collection and data processing procedures.

Biases due to non-coverage and non-response can be minimized by selecting a survey method that will ensure (1) sufficient response rate and (2) as complete a coverage of all different subgroups of the population as possible. Errors associated with data collection and data processing procedures can be minimized with tight quality control and good management of the survey team.

Sample size determination for roadside interview, postcard distribution, and license-plate reading follows the same procedure. A minimum sample size required at a given survey station is the number of vehicles sampled at the station whose drivers successfully complete the postcards or the interview. A minimum sample size required for an origin-destination survey of vehicles passing through a survey station is usually expressed as a sampling rate (i.e., a ratio of the number of vehicles sampled to the total number of vehicles passing through). The sampling rate is a function of the following:

- (a) p: proportion of traffic volume at the survey station with a particular O-D,
- (b) w: desired accuracy (% error) of p,
- (c) N: traffic volume at the survey station, and
- (d) Z: normal variate which is associated with a specified level of confidence in estimating the O-D interchange volume.

The sample size formula is given by (4):

$$r = (Z^2pq)/((N-1)w^2 + Z^2pq)$$

where r is the required sampling rate, and q is (1-p).

To apply the sample size formula, some estimate of the traffic volume, N, at the survey station must be known. A desired accuracy of the proportion p must be specified; as must a level of confidence in estimating p. One other quantity that must be specified is p, the proportion of the traffic volume at the survey station with a particular O-D. This proportion is usually not known during sample size determination. What must be specified, instead, is a minimum O-D trip interchange volume to be obtained from the survey with the desired accuracy level. In the context of this study, this minimum O-D trip interchange volume was assumed to be in the range of 2 to 10 percent of the traffic volume at the survey station.

Table A-3 presents approximate sampling rates (r) for a range of ADT's (N) and accuracy levels (error rates) from $\pm 5\%$ to $\pm 15\%$. All calculations assume a 95% confidence interval. Lower confidence intervals will result in lower sampling rates for a given ADT and accuracy level. The sampling rates shown in Table A-3 assume a 100% response and must be adjusted for non-responses as follows:

$$\text{Number of Vehicles Sampled} = (\text{sampling rate} \times \text{traffic volume}) / \text{response rate}$$

Table A-4 summarizes recommended sample sizes for each of the survey stations in the study corridor. The sample sizes are given in terms of the number of postcards to be distributed at each station. The sample sizes were estimated from rates given in Table A-3 and have been adjusted on the basis of an assumed postcard response rate of 30%. The recommended sample sizes are restricted by operational practicality that constrains the maximum number of postcard handouts to be within 60% of the traffic passing through each station for facilities with ADT over 8,000 vph in one direction. General remarks regarding the expected error limits of the O-D estimates obtained from the samples are also given in the table.

Table A-3. Approximate Sampling Rates for Errors Within $\pm 5\%$, $\pm 10\%$, and $\pm 15\%$ at 95% Confidence Interval

N	p = 0.03			p = 0.05			p = .10		
	+5%	+10%	+15%	+5%	+10%	+15%	+5%	+10%	+15%
3,000	.94	.81	.65	.91	.71	.52	.82	.54	.34
5,000	.91	.72	.53	.86	.59	.40	.74	.41	.24
10,000	.84	.56	.36	.75	.42	.25	.58	.26	.14
20,000	.71	.39	.22	.59	.27	.14	.41	.15	.07
30,000	.63	.30	.16	.50	.20	.10	.32	.11	.05
40,000	.56	.24	.12	.42	.16	.08	.26	.08	.04
50,000	.50	.20	.10	.37	.13	.06	.22	.07	.03
60,000	.45	.17	.09	.33	.11	.05	.19	.06	.02
70,000	.42	.16	-	.30	.10	-	.17	.05	-
100,000	.33	.11	-	.23	.07	-	.12	.04	-

Notes: N = Traffic Volume at Survey Station; P = Minimum O-D trip interchange volume to be estimated from the survey with the desired accuracy level (expressed as proportion of N). Sampling rates assume 100% response and must be adjusted for non-responses as follows: Number of vehicles Sampled = (Sampling Rate x Traffic Volume)/Response Rate.

Table A-4. Recommended Sample Sizes for Austin/San Antonio O-D Study

Survey Station and Direction ^a	1985 ADT ^b	n ^c	Expected Error (approximate) ^d
1. I-35, South of SH-46			
NB	19,000	9,500	+15% Error (95% confidence), p = 0.05
SB	19,000	9,500	+15% Error (95% confidence), p = 0.05
2. I-35, Between Austin & San Marcos			
NB	20,000	10,000	+15% Error (95% confidence), p = 0.05
SB	20,000	10,000	+15% Error (95% confidence), p = 0.05
3. SH 123, Between I-35 & I-10			
NB	4,000	4,000	+15% Error (95% confidence), p = 0.10
SB	4,000	4,000	+15% Error (95% confidence), p = 0.10
4. US 183, Between SH-21 & I-10			
NB	3,300	3,300	+15% Error (95% confidence), p = 0.10
SB	3,300	3,300	+15% Error (95% confidence), p = 0.10
5. US 281, North of San Antonio			
NB	9,650	5,800	+15% Error (95% confidence), 0.05 < p < 0.10
SB	9,650	5,800	+15% Error (95% confidence), 0.05 < p < 0.10
6. I-35, North of Georgetown			
NB	13,500	8,100	+15% Error (95% confidence), 0.05 < p < 0.10
SB	13,500	8,100	+15% Error (95% confidence), 0.05 < p < 0.10
Total		81,400	

^a NB = Northbound, SB = Southbound.

^b Directional ADT assumes 50/50 split. Source: District Highway Maps, SDHPT.

^c n = No. of postcards to be distributed.

^d p = minimum O-D trip interchange volume which can be estimated from survey results with desired accuracy level (expressed as proportion of ADT).

A.2 CONDUCTING THE SURVEY

A.2.1 Survey Schedule

The daytime O-D survey was conducted the week of July 13, 1987 as summarized below.

Day 1 (7/14): New Braunfels and Lockhart Stations

Day 2 (7/15): Kyle and San Antonio Stations

Day 3 (7/16): Seguin and Georgetown Stations

The daytime survey stations were in operation from 6:30 a.m. to 8:30 p.m. each day.

The roadside interviews of nighttime truck traffic were conducted on July 13-14 (6:30 p.m.-3:00 a.m.) for northbound traffic, and on August 12, 1987 (7:30 p.m.-10:30 p.m.) for southbound traffic. This schedule was due to the need to coordinate survey activities with the Department of Public Safety's schedule of I-35 truck station operations.

A.2.2 Survey Station Set-up and Traffic Control

With the high traffic volumes encountered on many of the roadways surveyed, great care was taken to insure that the surveys were conducted in a safe, efficient, and professional manner. The actual distribution of the postcard questionnaires did not result in any substantial delay to individual motorists. The overall efficiency of the survey stations, therefore, was determined by the vehicle entry and exit set-up at the survey station (i.e., the physical lay-out of the survey stations). Figures A-4 and A-5 show the basic setups used at the interstate and non-interstate survey stations, respectively. All survey stations had law enforcement officers on duty to insure safety and to enhance motorist cooperation.

As noted above, the survey stations were in operation from 6:30 a.m.-8:30 p.m. each day. However, survey operations were occasionally suspended in order to minimize motorist delays. As a general rule, if traffic queues

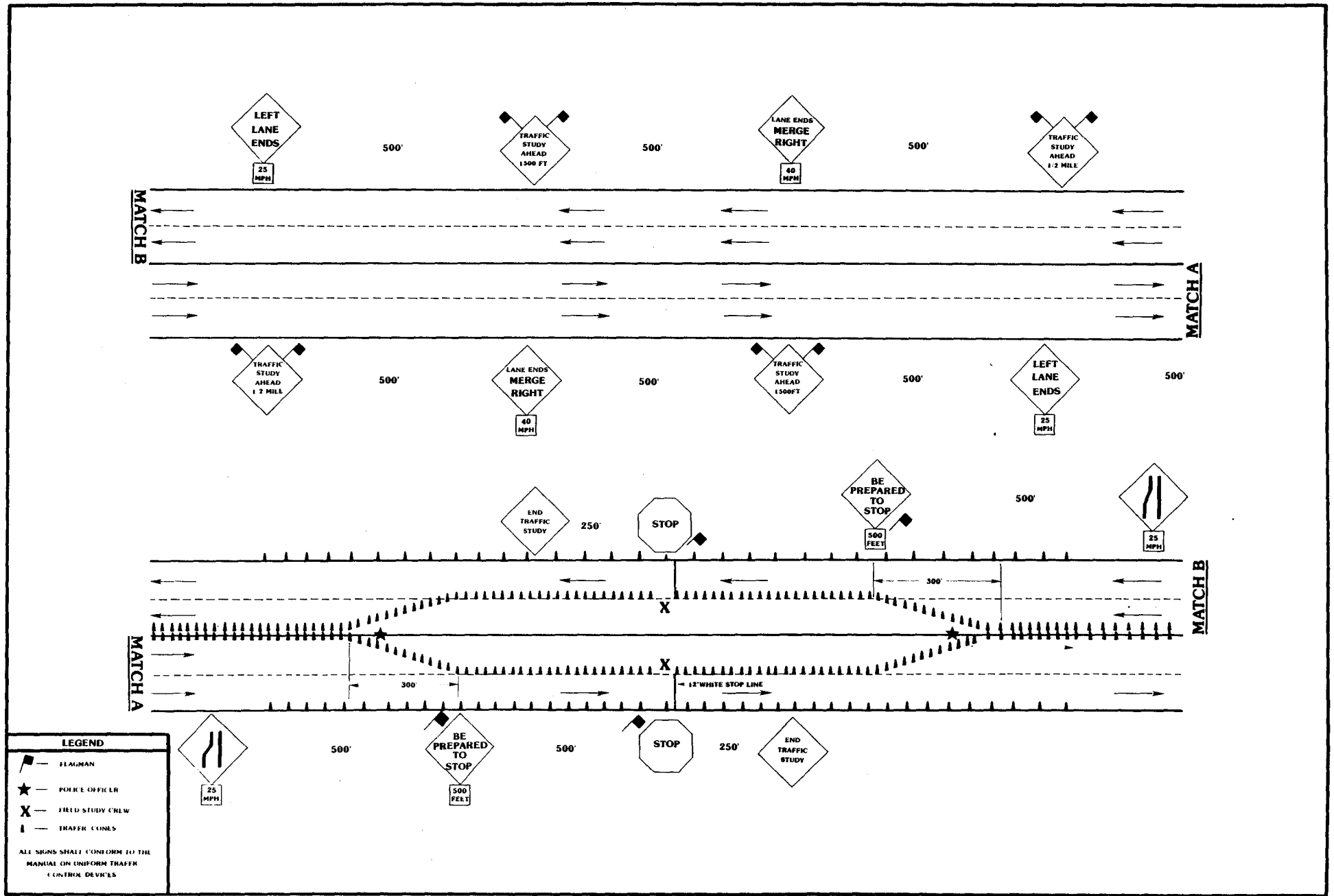


Figure A-4. Austin/San Antonio O-D Study: Interstate Highway Traffic Control Plan

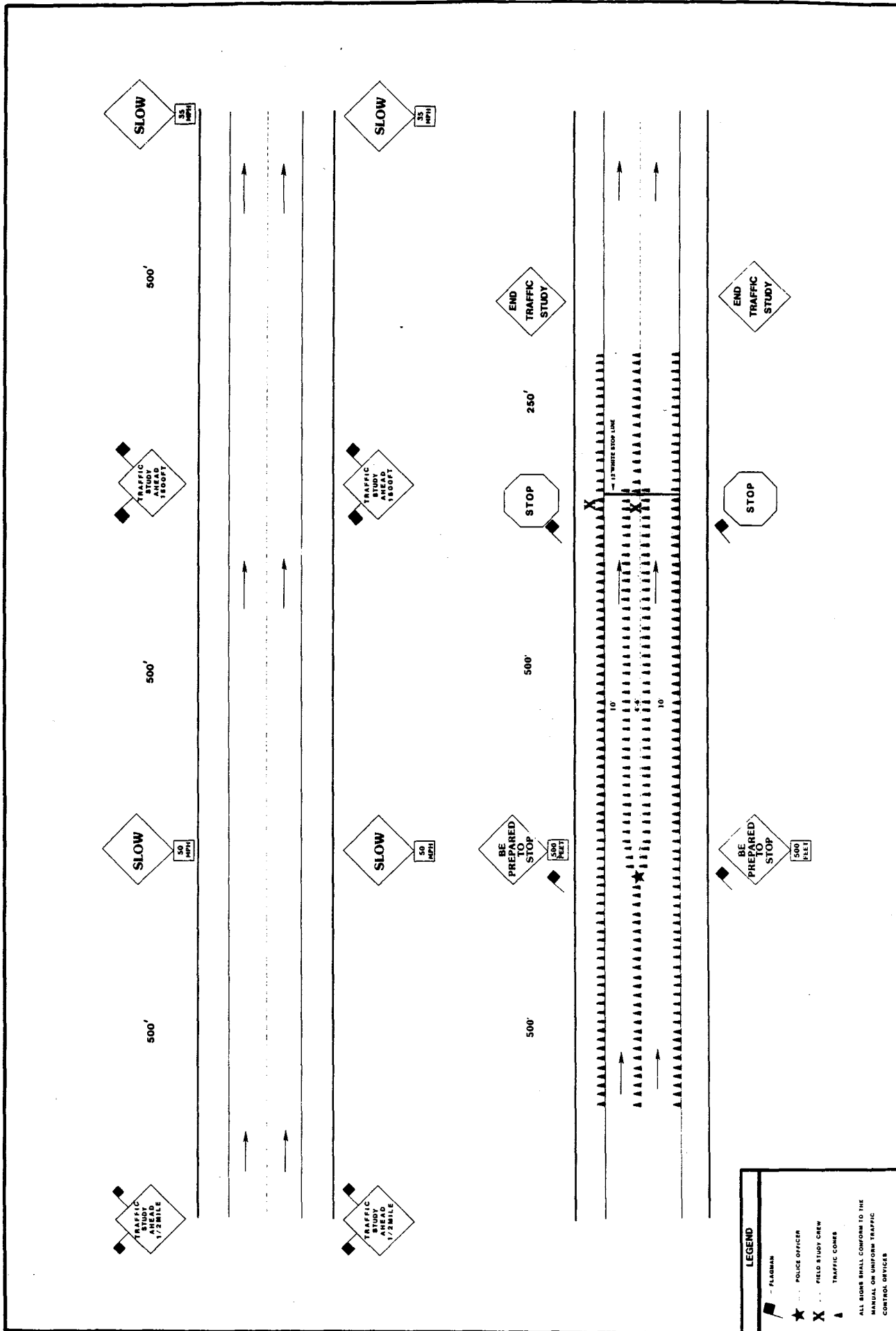


Figure A-5. Austin/San Antonio O-D Study: Non-Interstate Highway Traffic Control Plan

extended to the advance signing of the survey stations, survey operations were temporarily suspended until the queue was reduced.

The nighttime truck surveys were conducted at the two weigh-stations on I-35 and required no special traffic control measures.

A.2.3 Questionnaire Distribution and Data Collection

Four persons per interstate site and two persons per non-interstate site were required to distribute the postcard questionnaires. The questionnaire forms were bundled according to the 15-minute time period during which they were to be distributed. The number of questionnaires per bundle was based on the sample sizes shown in Table A-4. Additionally, postcard questionnaire identification numbers were recorded at the beginning and end of each 15-minute survey period to insure that the time and location of distribution could be identified when tabulating the survey responses.

In addition to distributing postcards, the survey crews also conducted manual counts of traffic volumes, vehicle classifications, and vehicle occupancies. At the Kyle Station, a nighttime vehicle classification study was conducted. Survey crews also recorded samples of vehicle license plate numbers at each of the survey stations. At the Kyle Station, postcard survey form numbers were recorded along with the license plate numbers of a sample of the vehicles surveyed. Samples of the forms used to record these data are shown in Figures A-6 and A-7.

The volume counts were used to expand the sample data to represent the entire vehicle population for the corridor, and the license plate data were collected to evaluate the representativeness of the sample data. The use of these data is discussed in Sections A.3 and A.4 of this report.

A.3 DATA PROCESSING AND ANALYSIS

To facilitate data analysis, the survey results and the volume/classification and license plate data were coded for computer processing. The data files were checked for coding errors and erroneous zip codes. Additionally,

Facility : _____
Direction : _____
Location : _____
Cross-Section : _____

Time Period : _____
Date : _____
Weather : _____
Recorder : _____

Passenger Vehicles			Commercial Vehicles					Buses		
Persons	Auto & Pickup	Van	Persons	Pickup & Panel	Single Unit	Tractor Only	Combinations	Persons	School	Intercity
1			1					Empty		
2			2					1/4 Full		
3			3+					1/2 Full		
4								3/4 Full		
5+								Full		

Motorcycles (Total)	
---------------------	--

Figure A-6. Vehicle Classification and Occupancy Report

vehicle registration information obtained from the license data was used to assess the representativeness of the sample data. Specifically, the Kyle Station (the high-volume station) was used as a "control" to perform the following accuracy checks on the survey data. The large sample size, and the results of the accuracy checks, indicate that a representative, reliable sample of travel patterns in the corridor was obtained.

1) "Key-Punch" Errors. Tight quality control procedures were established for the data processing phases of the study. However, given the enormous amount of data that needed to be processed, it was recognized that coding and input ("key-punching") errors would be unavoidable. In order to assess the magnitude and nature of these errors, approximately 1000 of the survey responses from the Kyle Station were processed a second time. These 1000 responses were manually checked to insure they had been input correctly. Once this data set was "clean", it was merged with the initial entries and any "mis-matches" were identified and evaluated. The results of this accuracy check indicated that the error in computer processing of the survey data was about 4%. However, the majority of the errors were for information not directly related to the primary objectives of the study (e.g., errors/inconsistencies in categorizing and coding "comments" or trip frequency).

2) Zip Code Reporting Errors. A zip code atlas and street address information provided by the respondents were used to compare the actual and reported zip codes of origins and destinations for 10% of the responses received from the Kyle Station. Approximately 5% of the responses examined were found to have errors in the zip codes reported for the origins or destinations. However, the errors were predominantly in the last two digits of the zip code. Since the zip code data were aggregated into large zones in the final data tabulations, these reporting errors should have little effect on the overall accuracy of the results.

3) Geographic Distribution of Responses. A comparison of the geographic areas (zip codes) of vehicle registrations for respondents and non-respondents was performed to identify any bias in the survey results due to the over- or under- representation of one or more geographic areas in the responses. This evaluation was performed using data from the Kyle Station,

where it was possible to identify respondents and non-respondents from the subset of vehicles whose license plate numbers had been matched with survey postcard numbers. The analyses revealed no significant geographic bias in the survey results.

4) Travel Patterns of Non-Respondents. In an effort to assess whether the travel patterns of the survey respondents represent the travel patterns of all travelers in the corridor, a follow-up survey of non-respondents was conducted. Approximately 80 non-respondents, as identified from the subset of vehicles at the Kyle Station, were interviewed in a telephone survey. The overall results of the telephone survey are summarized below.

Completed Interviews	79
Refusals:	
Did not recall trip	19
Did not want to participate	18
Business firm	8
Disconnects (invalid phone number)	34
No Contact (no answer)	37
Other (survey form already mailed)	<u>1</u>
Total	196

At least 3 contact efforts were made for each working phone number. The interviews were conducted in Spanish when necessary (5 Spanish speaking individuals were contacted, 3 of these completed the interview). While the sample size was too small to draw any definite conclusions, the analyses indicate that there was no substantial differences in the travel patterns of respondents and non-respondents.

Following these accuracy checks, the origin and destination data were tabulated at three levels of detail; by zip code, by traffic analysis zone and by major origins/destinations. Figure A-8 shows the traffic analysis zones used in this study. Table A-5 shows the traffic analysis zones that were aggregated to form the larger, major O-D zones. The individual zip codes included in the traffic analysis zones are given in the data listings at the end of this appendix.

Table A-5. Traffic and Major O-D Zone Equivalencies

Major O-D Zone	Corresponding Traffic Zones ^a
San Antonio	S1-S5
Austin	2, 3, 5, A1-A5
New Braunfels/San Marcos	4, 6, 1
Seguin/Lockhart	7, 9, 11
South of San Antonio	8, 10
North of Austin	12

^a See Figure A-8.

The results reported in this report are for the traffic analysis zones (Figure A-8) and the major O-D pairs. The individual zip code data have been retained for any additional analyses or studies that might require this type of data.

A.4 SUMMARY OF THE SAMPLE DATA

A.4.1 Overview

Table A-6 presents a summary of the daytime O-D sample by survey station. As shown in Table A-6, nearly 83,000 survey forms were distributed during the three-day survey period. Over 28,000 (35%) of the postcard questionnaires were returned. This response rate represents over one-fourth of the total traffic observed during the survey period. That is, over one-in-four (29%) of the vehicles observed responded to the survey. The aggregate summary in Table A-6 shows that roughly 90% of the vehicles observed were passenger vehicles. Trucks and other commercial vehicles accounted for the remaining 10%.

Tables A-7 through A-11 present additional aggregate summaries of the daytime survey responses. As shown in Table A-7, vehicles in the passenger auto, pickup, and van classifications accounted for over 90% of the survey responses, a rate comparable to that observed in the population sampled (Table A-6). Work trips accounted for nearly 56% of the trips reported; followed by "other" (19%) and recreational (14%) trips (Table A-8).

Table A-6. Summary of Austin/San Antonio O-D Sample

SURVEY STATION	TRAFFIC VOLUME (7:00 a.m. - 8:00 p.m.)						SURVEY DISTRIBUTION		SURVEY RESPONSE		
	Passenger Vehicles	Commercial Vehicles				Total Vehicles	Number Distributed	% Traffic Surveyed	Number	Return Rate	% Tot. Veh Responding
		Single Unit	Combination	Tractor Only	Buses						
1. New Braunfels (I-35)											
NB	12322	612	1130	40	25	14129	12009	85%	4152	35%	29%
SB	12335	704	1116	20	18	14193	12484	88	4560	36	32
Total	24657	1316	2246	60	43	28322	24493	86	8712	36	31
2. Kyle (I-35)											
NB	12498	396	939	19	19	13871	12461	90	4128	33	30
SB	12931	566	1025	8	23	14553	12583	86	4119	33	28
Total	25429	962	1964	27	42	28424	25044	88	8247	33	29
3. Seguin (SH 123)											
NB	1933	108	81	3	2	2127	1914	90	698	36	33
SB	2098	116	97	4	1	2316	1919	83	638	33	28
Total	4031	224	178	7	3	4443	3833	86	1336	35	30
4. Lockhart (US 183)											
NB	2014	303	74	5	5	2401	2178	91	778	36	32
SB	2559	99	89	3	3	2753	1898	70	822	43	30
Total	4573	402	163	8	8	5154	4076	79	1600	39	31
5. San Antonio (US 281)											
NB	4485	207	59	1	3	4755	3858	81	1617	42	34
SB	4252	165	71	1	2	4491	3335	74	1481	44	33
Total	8737	372	130	2	5	9246	7193	78	3098	43	34
6. Georgetown (I-35)											
NB	8198	500	956	18	13	9685	9000	93	2510	28	26
SB	8608	430	899	13	19	9969	9000	90	2561	28	26
Total	16806	930	1855	31	32	19654	18000	92	5071	28	26
TOTAL	84,233	4,206	6,536	135	133	95,243	82,639	87	28,064	34	29

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Table A-7. Summary of Survey Responses by Vehicle Type, All Stations

Vehicle Type	Number	Percent
Passenger Auto	19163	68.3%
Pickup	5190	18.5
Van	1895	6.8
Truck	1777	6.3
Not Reported	39	0.1
Total	28,064	100.0%

Table A-8. Summary of Survey Responses by Trip Purpose, All Stations

Trip Purpose	Number	Percent
Work	15668	55.8%
Recreation	3937	14.0
Shopping	1546	5.5
School	1508	5.4
Other	5262	18.8
Not Reported	143	0.5
Total	28,064	100.0%

The most commonly reported trip frequency was "more than 2 times per week", accounting for nearly 41% of the responses (Table A-9). Interestingly, over one-third (36.0%) of the respondents reported their trip frequency as "less than once per week" (Table A-9). The majority of the responses (61%) were for single occupant vehicles (Table A-10).

Table A-9. Summary of Survey Responses by Trip Frequency, All Stations

Trip Frequency	Number	Percent
More Than 2/Week	11531	41.1%
2/Week	2114	7.5
1/Week	3529	12.6
Less Than 1/Week	10092	36.0
Not Reported	798	2.8
Total	28,064	100.0%

Table A-10. Summary of Survey Responses by Vehicle Occupancy, All Stations

Vehicle Occupancy	Number	Percent
1	17053	60.8%
2	6902	24.6
3	2128	7.6
4	1151	4.1
5 or more	797	2.8
Not Reported	33	0.1
Total	28,064	100.0%

Although less than 10% of the respondents provided "Comments", nearly one-half of the comments received referred to the speed limit; e.g., confusion concerning the 65 MPH speed limit and the need for improved signing (Table A-11).

Table A-11. Summary of Survey Comments, All Stations

Comment Category	Number	Percent
Speed Limit	1443	49.4%
Need for Added Capacity	614	21.0
Traffic Congestion	217	7.4
Safety	183	6.3
Negative to Survey	155	5.3
Mass Transit	116	4.0
Positive to Survey	110	3.8
Truck Traffic	81	2.8
Total	2,919	100.0%

Table A-12 summarizes the nighttime truck traffic sample. As shown in Table A-12, over 20% of the northbound truck traffic was interviewed. Due to the shorter interview period for the southbound traffic, only 6% of these vehicles were sampled. However, since the roadside interview method was used in the survey, respondents could be questioned in detail to obtain precise O-D information. As a result, the overall accuracy of the sample data should be comparable to the daytime survey results.

Table A-12. Summary of NightTime I-35 Truck O-D Sample

Truck Type	Traffic Volume ^a		No. Interviewed ^b	
	NB	SB	NB	SB
Combination	939 (69%)	1025 (64%)	234 (25%) ^d	78 (8%)
Single Unit	396 (29%)	566 (35%)	10 (3%)	10 (2%)
Tractor Only	19 (2%)	8 (1%)	2 (11%)	1 (13%)
Dual Trailer	- ^c	-	31 (-)	11 (-)
Total	1354 (100%)	1599 (100%)	277 (21%)	100 (6%)

^a Kyle Station (8:00 p.m.-7:00 a.m. July 14-15, 1987).

^b NB interviews conducted July 13-14, 6:30 p.m.-3:00 a.m.; SB interviews conducted August 12, 7:30 p.m.-10:30 p.m.

^c Counted as "combination" in nighttime vehicle classification study.

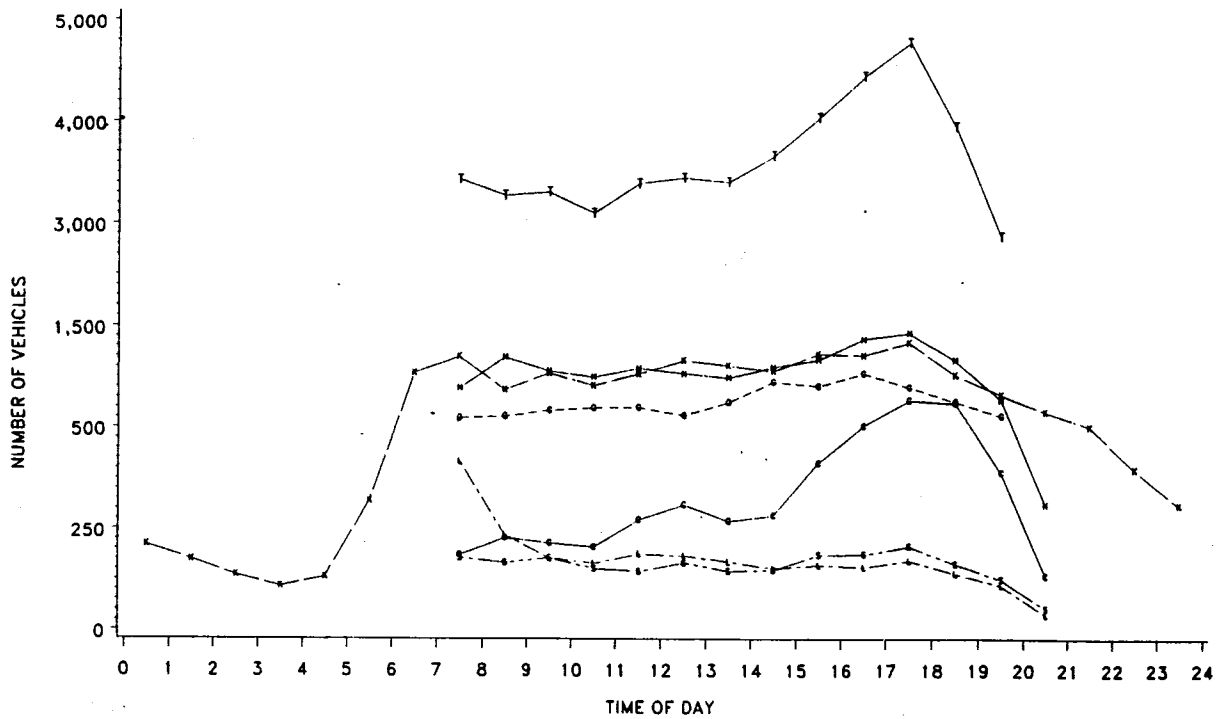
^d (XX%) denotes percent of nighttime traffic interviewed.

A.4.2 Traffic Characteristics

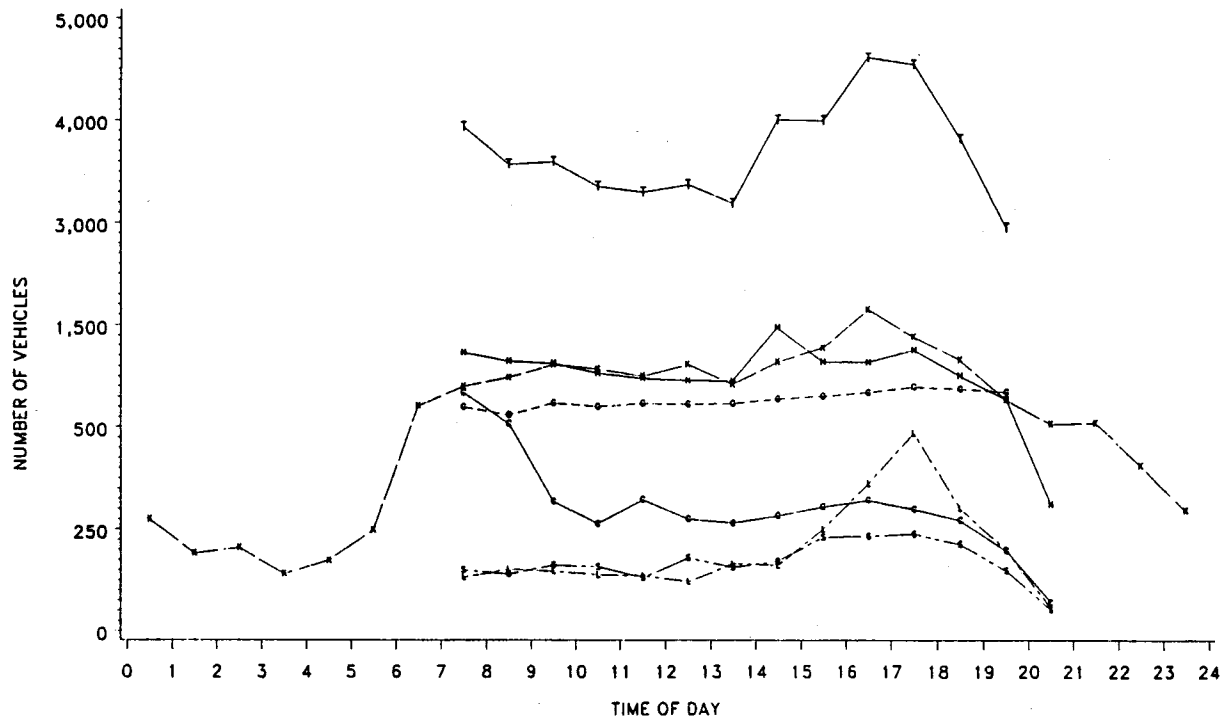
Figure A-9 shows plots of observed hourly traffic volumes for each of the survey stations within the corridor. Figure A-10 shows plots of observed hourly traffic volumes by vehicle type (passenger and commercial) for the Kyle Station (the only station for which 24-hour data are available). Detailed hourly listings by survey station and vehicle type are given in Section A-7.

The daytime volume plots (Figure A-9) show some interesting relationships in the hourly variations in traffic volumes. Traffic volumes at the interstate survey stations were fairly evenly distributed throughout the daylight hours of the survey. Traffic volumes at the US 281 and US 183 sites, on the other hand, exhibit definite peaks in the AM and PM periods. The proximity of these two sites to urban areas (San Antonio and Lockhart, respectively) is probably a contributing factor in the observed peaking.

The vehicle classification plots (Figure A-10) indicate that the hourly commercial vehicle volumes at the Kyle Station were nearly constant throughout the 24-hour study period. As shown in Figure A-10, commercial vehicle volumes were typically on the order of 100 to 125 vehicles per hour (vph) per direction.



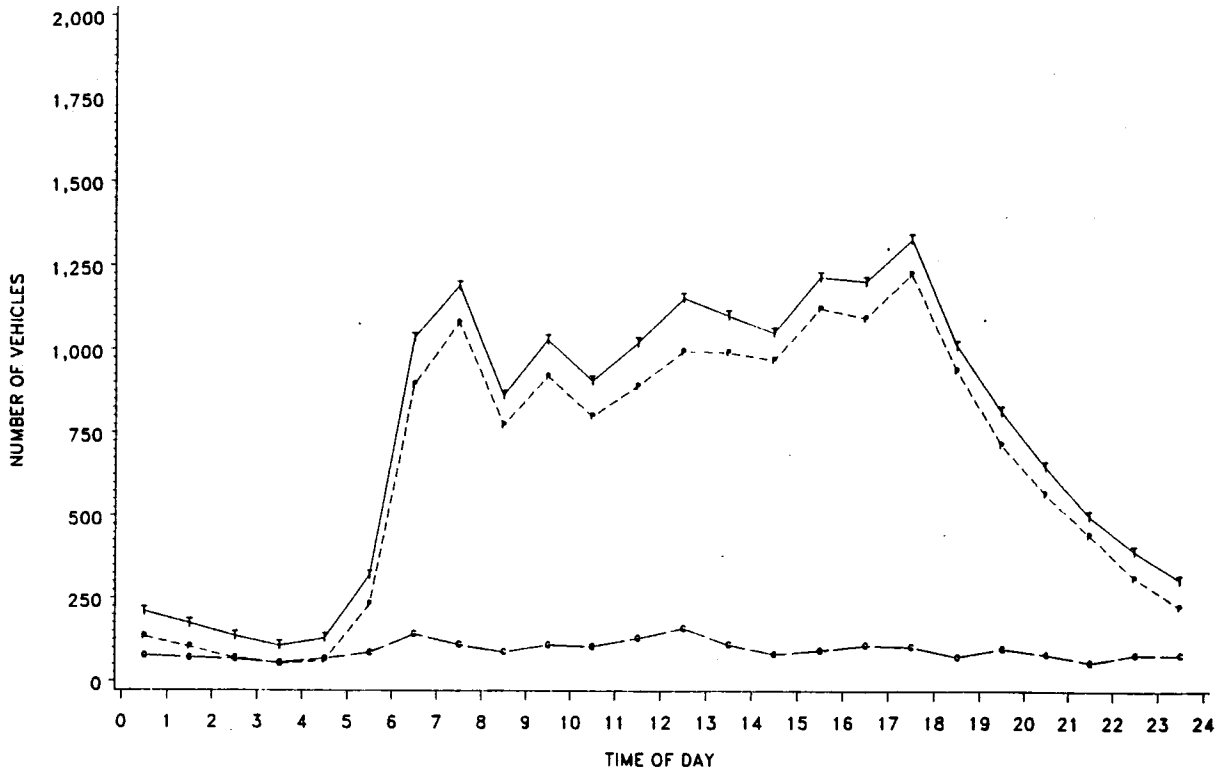
a) Northbound



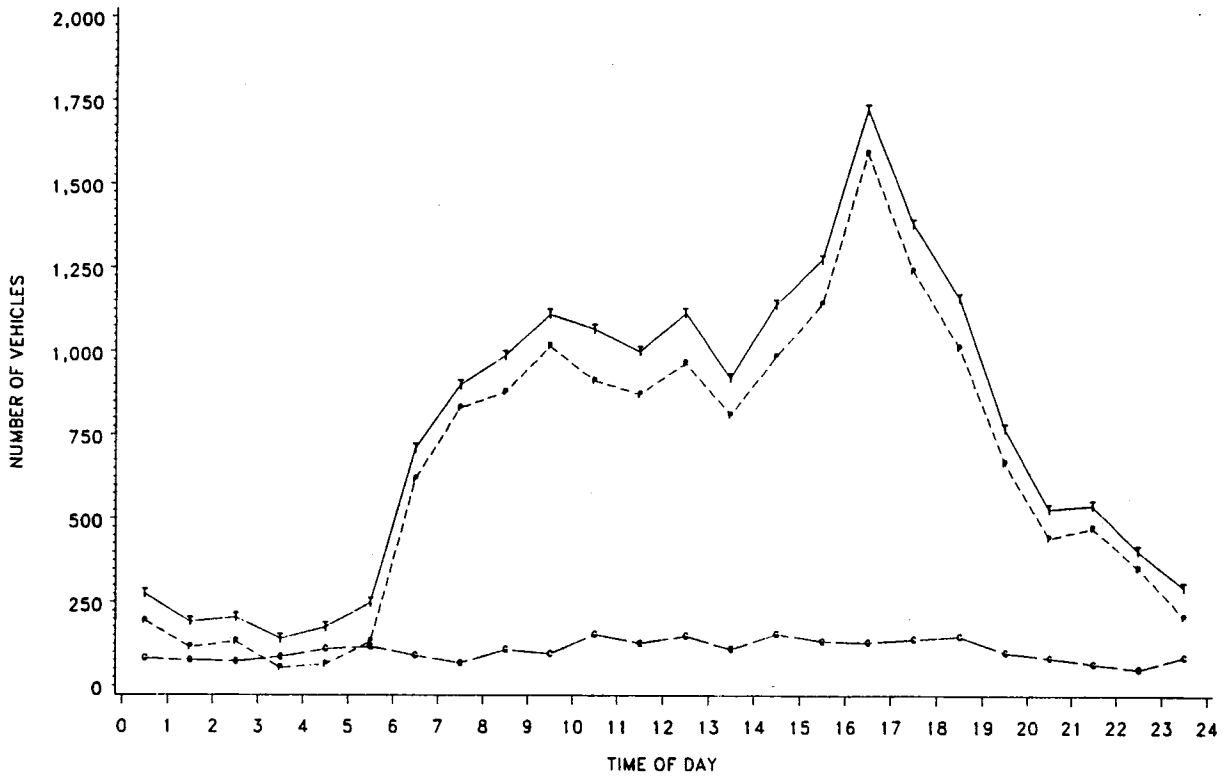
b) Southbound

LEGEND : T = TOTAL CORRIDOR VOLUME
 C = US 281 ● CIBOLO CREEK
 L = US 183 ● LOCKHART
 S = SH 123 ● FM 758
 N = IH 35 ● FM 1103
 K = IH 35 ● KYLE
 G = IH 35 ● GEORGETOWN

Figure A-9. Observed Hourly Traffic Volumes, All Stations



a) Northbound



b) Southbound

LEGEND : T = TOTAL VEHICLES
 P = PASSENGER VEHICLES
 C = COMMERCIAL VEHICLES

Figure A-10. Observed 24-Hour Traffic Volumes by Vehicle Type, Kyle Station

A.5 EXPANDING THE SAMPLE DATA

Once the O-D survey data were tabulated, the sample results were expanded to obtain estimates of O-D volumes for the entire vehicle population of the study corridor. The observed traffic volumes (see Section A.7) were used to expand the sample data.

The sample data were expanded by survey station and direction for each of the following three time periods: 1) morning (7:00 a.m.-11:00 a.m.); 2) midday (11:00 a.m.-3:00 p.m.); and 3) afternoon (3:00 p.m.-8:00 p.m.). The data were expanded by time period to account for possible differences in travel patterns by time of day. Additional aggregate summaries of the estimates of O-D volumes for the vehicle population were obtained by simply summing over site and direction of travel.

The basic formulas used to obtain the estimates of the population O-D volumes, and their standard errors, are as follows.

$$p = t/n$$

$$T = pN$$

$$S_p = [p(1-p)/n]^{\frac{1}{2}}$$

$$S_T = N [p(1-p)/n]^{\frac{1}{2}}$$

where:

p = proportion of the reported trips having a particular O-D (for each site and direction);

t = Number of trips reported for a particular O-D (for each site and direction);

n = Total number of trips reported for each site and direction;

T = Estimate of O-D volumes for the entire vehicle population;

N = Observed traffic volume for each site and direction;

S_p = Standard error of p ; and

S_T = Standard error of T .

The standard errors can be used to calculate confidence intervals for the estimated O-D volumes. A 95% confidence interval, for example, is given by: estimated O-D volume \pm 1.96 X standard error. This formulation is based on the normal approximation, which is valid in this case due to the large sample size obtained.

The estimates of the population O-D volumes were calculated by site and travel direction and summed to obtain various aggregate summaries. As a result of the "rounding-errors" incurred in this process, the marginal (row and column) totals of the individual, aggregate trip tables do not balance exactly.

A.6 RESULTS

A.6.1 Day-Time Travel Patterns

Tables A-13 through A-15 summarize the estimated 1987 vehicle trip interchanges for the major O-D zones in the corridor. The estimated interchange volumes are given for all vehicles (Table A-13), passenger vehicles (Table A-14), and commercial vehicles (Table A-15). Also shown in the Tables are the cell percentages and the standard errors of the estimates. With regards to the overall accuracy of Table A-13, the 95% confidence interval ($1.96 \times$ standard error) is within $\pm 1\%$ of the estimate of total vehicle trips (95,245 trips).

As shown in Table A-13, the Austin, San Antonio, and San Marcos areas account for over 75% of the origins and destinations in the corridor. The relatively high percentage of O-Ds observed for the San Marcos area (23%) is particularly significant in terms of the need for an alternate route in the corridor. Since nearly one-quarter of the trips in the corridor have origins and destinations on or north of I-35 between Austin and San Antonio, it seems unlikely that a substantial percentage of these trips would find an alternate route south of I-35 particularly attractive.

Tables A-14 and A-15 show the 1987 survey period vehicle trip interchanges for passenger and commercial vehicles, respectively. The passenger vehicle trip interchanges (Table A-14) are virtually identical to those of all vehicle types. The commercial vehicle travel patterns (Table A-15), when compared with those of passenger vehicles, show a much lower percentage of O-Ds in the San Marcos/New Braunfels areas, and a much higher percentage of O-Ds to the north of Austin. These travel patterns indicate that much of the commercial vehicle travel in the corridor can be characterized as "through-traffic".

The diagonals of the trip tables represent round-trips in the corridor. Since the survey questionnaire (see Figure A-1) requested information concerning origins and destinations on a directional basis (i.e., one-way trip information), the information in the diagonals of the trip tables

Table A-13. Estimated 1987 Vehicle Trips by Major O-D Zones (7:00 a.m.-8:00 p.m.):
All Vehicles

ORIGINS	DESTINATIONS						TOTAL
	M1	M2	M3	M4	M5	M6	
M1	586 44.9 0.6	8686 152.6 9.1	10768 138.6 11.3	698 48.9 0.7	76 16.4 0.1	3483 107.7 3.7	24297 242.4 25.5
M2	8867 153.6 9.3	2304 80.0 2.4	5611 120.6 5.9	3774 82.8 4.0	767 51.3 0.8	5554 105.9 5.8	26877 258.7 28.2
M3	11448 136.9 12.0	5630 117.9 5.9	2356 88.6 2.5	1362 60.3 1.4	266 30.4 0.3	760 53.0 0.8	21822 218.8 22.9
M4	671 46.0 0.7	3625 80.3 3.8	1426 58.3 1.5	567 43.3 0.6	51 13.4 0.1	939 57.8 1.0	7278 131.8 7.6
M5	81 16.9 0.1	678 48.8 0.7	229 28.9 0.2	25 9.6 0.0	27 10.1 0.0	963 59.5 1.0	2002 85.1 2.1
M6	3881 115.1 4.1	5885 108.7 6.2	956 60.6 1.0	1082 63.6 1.1	974 60.2 1.0	189 27.6 0.2	12967 192.8 13.6
TOTAL	25533 245.0 26.8	26808 256.8 28.1	21346 222.5 22.4	7509 137.5 7.9	2161 87.9 2.3	11887 182.4 12.5	95243 485.1 100.0

Table A-14. Estimated 1987 Vehicle Trips by Major O-D Zones (7:00 a.m.-8:00 p.m.):
Passenger Vehicles

ORIGINS	DESTINATIONS						TOTAL
	M1	M2	M3	M4	M5	M6	
M1	518 41.4 0.6	7655 139.4 9.1	9847 127.0 11.7	618 44.8 0.7	62 14.3 0.1	2833 94.1 3.4	21533 219.9 25.6
M2	7793 140.0 9.3	2053 81.9 2.4	5072 111.3 6.0	3456 76.9 4.1	663 46.3 0.8	4832 94.1 5.7	23869 235.8 28.3
M3	10438 125.8 12.4	5159 109.8 6.1	2147 82.5 2.5	1256 56.6 1.5	239 28.3 0.3	631 46.7 0.7	19870 202.2 23.6
M4	614 42.7 0.7	3147 74.2 3.7	1297 54.6 1.5	508 40.6 0.6	43 12.1 0.1	770 50.7 0.9	6379 121.2 7.6
M5	69 15.2 0.1	584 44.2 0.7	187 25.4 0.2	24 9.1 0.0	25 9.6 0.0	760 51.3 0.9	1649 75.1 2.0
M6	3158 101.5 3.7	5181 98.0 6.2	819 54.5 1.0	869 55.7 1.0	753 51.6 0.9	155 24.3 0.2	10935 170.9 13.0
TOTAL	22591 222.4 26.8	23778 235.1 28.2	19369 204.8 23.0	6731 126.3 8.0	1785 77.8 2.1	9980 160.3 11.8	84233 440.8 100.0

MAJOR (M) INTERCHANGE ZONES :
M1 = SAN ANTONIO.
M2 = AUSTIN
M3 = NEW BRAUNFELS/SAN MARCOS
M4 = SEGUIN/LOCKHART
M5 = SOUTH OF SAN ANTONIO
M6 = NORTH OF AUSTIN

LEGEND : XXX - VOLUMES
XX.X - STANDARD ERROR
XX.X - CELL PERCENT

NOTE : 95 % CONFIDENCE INTERVAL FOR TRIP INTERCHANGE
VOLUMES = VOLUME +/- 1.96 * STANDARD ERROR

Table A-15. Estimated 1987 Vehicle Trips by Major O-D Zones (7:00 a.m.-8:00 p.m.):
Commercial Vehicles

ORIGINS	DESTINATIONS						TOTAL
	M1	M2	M3	M4	M5	M6	
M1	84 23.3 0.8	1056 72.1 9.6	828 60.6 7.5	83 23.5 0.8	21 12.0 0.2	826 70.3 7.5	2897 122.7 26.3
M2	1067 72.3 9.7	178 35.8 1.6	448 48.7 4.1	312 36.2 2.8	114 27.7 1.0	562 54.5 5.1	2682 118.0 24.4
M3	841 57.7 7.6	404 46.2 3.7	164 31.5 1.5	89 21.2 0.8	26 11.5 0.2	162 34.1 1.5	1686 90.5 15.3
M4	23 11.6 0.2	456 40.7 4.1	115 20.8 1.0	57 17.5 0.5	12 8.3 0.1	232 41.2 2.1	895 65.5 8.1
M5	15 10.5 0.1	105 25.0 1.0	42 15.0 0.4	0 0.0 0.0	0 0.0 0.0	281 43.0 2.6	443 53.0 4.0
M6	981 74.2 8.9	620 51.2 5.6	153 32.1 1.4	294 42.9 2.7	319 45.2 2.9	42 17.0 0.4	2408 115.4 21.9
TOTAL	3011 121.8 27.3	2818 116.2 25.6	1750 93.4 15.9	836 66.8 7.6	491 56.2 4.5	2104 113.6 19.1	11010 240.0 100.0

MAJOR (M) INTERCHANGE ZONES :
M1 = SAN ANTONIO
M2 = AUSTIN
M3 = NEW BRAUNFELS/SAN MARCOS
M4 = SEGUIN/LOCKHART
M5 = SOUTH OF SAN ANTONIO
M6 = NORTH OF AUSTIN

LEGEND :
XXX - VOLUMES
XX.X - STANDARD ERROR
XX.X - CELL PERCENT

NOTE : 95 % CONFIDENCE INTERVAL FOR TRIP INTERCHANGE
VOLUMES = VOLUME +/- 1.96 * STANDARD ERROR

probably stem from "reporting errors". However, the diagonal elements account for only about 6% of the total vehicle trips (Table A-13) and the resulting error is not considered to be substantial. Any bias resulting from the non-zero values in the diagonals would be in the form of slightly over-estimating "long" trips. This possible over-estimation of long trips could slightly increase the attractiveness of an alternate route in the corridor.

Additional summaries of the 1987 trip tables are presented in Section A.7.

A.6.2 Nighttime Truck Travel Patterns

Table A-16 summarizes the estimated 1987 trip interchanges for the night time truck traffic in the corridor. As shown in Table A-16, origins and destinations north of Austin each account for over 40% of all origins and

destinations. Origins and destinations in San Antonio account for the next highest share of the origins and destinations, representing roughly 25%-30% of the estimated origins and destinations, respectively.

Trip origins and destinations in the New Braunfels/San Marcos and Seguin areas account for only 4%-5% of all destinations and origins, respectively. The general patterns shown in Table A-16 indicate that nighttime truck travel in the I-35 corridor between Austin and San Antonio is predominantly through-traffic. Similar patterns were observed in the daytime commercial vehicle trip interchanges (see Table A-15).

Table A-16. Estimated 1987 Major Trip Interchanges for I-35 Nighttime Truck Survey (8:00 p.m.-7:00 a.m.)

ORIGINS	DESTINATIONS						TOTAL
	T1	T2	T3	T4	T5	T6	
T1	-	63	-	-	3	372	437
	-	3.9	-	-	0.2	23.3	27.4
T2	120	-	17	-	20	10	167
	7.5	-	1.1	-	1.2	0.7	10.5
T3	-	5	-	-	-	47	52
	-	0.3	-	-	-	3.0	3.3
T4	-	8	-	-	-	18	26
	-	0.5	-	-	-	1.1	1.6
T5	-	13	-	-	-	199	212
	-	0.8	-	-	-	12.5	13.3
T6	393	-	26	26	248	8	700
	24.6	-	1.6	1.6	15.5	0.5	43.9
TOTAL	513	89	43	26	270	655	1595
	32.1	5.6	2.7	1.6	16.9	41.0	-

TRUCK (T) INTERCHANGE ZONES :

- T1 = SAN ANTONIO
- T2 = AUSTIN
- T3 = NEW BRAUNFELS & SAN MARCOS
- T4 = SEGUIN
- T5 = SOUTH OF SAN ANTONIO
- T6 = NORTH OF AUSTIN

LEGEND :

- XXX - VOLUME
- XX.X - CELL PERCENT

A.7 DATA SUMMARIES

This section of the appendix contains the following data listings.

<u>Data</u>	<u>Page</u>
Observed Hourly Traffic Volumes by Vehicle Type	A-40
Zip Code Equivalencies for Traffic Analysis Zones	A-56
Daytime Person Trips by Major O-D Zone and Vehicle Type	A-80
Daytime Vehicle and Person Trips by Traffic Zone and Vehicle Type	A-87
Daytime Vehicle Trips by Survey Station and Vehicle Type	A-105
Nighttime I-35 Truck Origins-Destinations by Direction	A-106
Summary of Nighttime Commercial Vehicles Surveyed by Name of Carrier and Truck Type	A-110

FACILITY : IH 35
 LOCATION : SOUTH OF NEW BRAUNFELS
 DIRECTION : NORTHBOUND
 DATE : JULY 14, 1987

OBSERVED HOURLY TRAFFIC VOLUMES

TIME OF DAY	PASSENGER VEHICLES	VEHICLES PERSONS	COMMERCIAL VEHICLES								TOTAL		
			SINGLE VEHICLES	UNIT PERSONS	COMBINATIONS VEHICLES	PERSONS	TRACTOR ONLY VEHICLES	PERSONS	BUSES VEHICLES	PERSONS	VEHICLES	PERSONS	
7:00 - 8:00	735 83.62 5.20	995 84.90 4.54	50 5.69 0.35	83 7.08 0.38	94 10.69 0.67	94 8.02 0.43	-	-	-	-	-	879	1172
8:00 - 9:00	1029 87.06 7.28	1312 87.70 5.99	83 7.02 0.59	113 7.55 0.52	66 5.58 0.47	67 4.48 0.31	2 0.17 0.01	2 0.13 0.01	2 0.17 0.01	2 0.13 0.01	2 0.13 0.01	1182	1496
9:00 - 10:00	900 85.96 6.37	1322 86.35 6.03	40 3.82 0.28	47 3.07 0.21	101 9.65 0.71	108 7.05 0.49	4 0.38 0.03	4 0.26 0.02	2 0.19 0.01	50 3.27 0.23	50 3.27 0.23	1047	1531
10:00 - 11:00	823 83.13 5.82	1383 83.16 6.31	35 3.54 0.25	40 2.41 0.18	125 12.63 0.88	125 7.52 0.57	4 0.40 0.03	5 0.30 0.02	3 0.30 0.02	110 6.61 0.50	110 6.61 0.50	990	1663
11:00 - 12:00	869 80.91 6.15	1615 87.39 7.37	84 7.82 0.59	103 5.57 0.47	114 10.61 0.81	114 6.17 0.52	5 0.47 0.04	5 0.27 0.02	2 0.19 0.01	11 0.60 0.05	11 0.60 0.05	1074	1848
12:00 - 13:00	883 86.40 6.25	1455 90.82 6.64	44 4.31 0.31	50 3.12 0.23	92 9.00 0.65	94 5.87 0.43	3 0.29 0.02	3 0.19 0.01	-	-	-	1022	1602
13:00 - 14:00	875 89.10 6.19	1536 92.64 7.01	22 2.24 0.16	26 1.57 0.12	81 8.25 0.57	83 5.01 0.38	3 0.31 0.02	3 0.18 0.01	1 0.10 0.01	10 0.60 0.05	10 0.60 0.05	982	1658
14:00 - 15:00	940 86.56 6.65	1620 89.85 7.39	31 2.85 0.22	34 1.89 0.16	108 9.94 0.76	114 6.32 0.52	4 0.37 0.03	4 0.22 0.02	3 0.28 0.02	31 1.72 0.14	31 1.72 0.14	1086	1803
15:00 - 16:00	1000 86.21 7.08	1668 88.72 7.61	50 4.31 0.35	59 3.14 0.27	97 8.36 0.69	102 5.43 0.47	6 0.52 0.04	7 0.37 0.03	7 0.60 0.05	44 2.34 0.20	44 2.34 0.20	1160	1880
16:00 - 17:00	1222 89.66 8.65	1914 91.58 8.73	73 5.36 0.52	98 4.69 0.45	67 4.92 0.47	68 3.25 0.31	-	-	1 0.07 0.01	10 0.48 0.05	10 0.48 0.05	1363	2090
17:00 - 18:00	1298 91.09 9.19	1879 92.33 8.57	69 4.84 0.49	83 4.08 0.38	53 3.72 0.38	59 2.90 0.27	4 0.28 0.03	4 0.20 0.02	1 0.07 0.01	10 0.49 0.05	10 0.49 0.05	1425	2035
18:00 - 19:00	1062 92.03 7.52	1743 93.81 7.95	19 1.65 0.13	28 1.51 0.13	68 5.89 0.48	73 3.93 0.33	4 0.35 0.03	4 0.22 0.02	1 0.09 0.01	10 0.54 0.05	10 0.54 0.05	1154	1858
19:00 - 20:00	686 89.67 4.86	1154 90.30 5.27	12 1.57 0.08	20 1.56 0.09	64 8.37 0.45	73 5.71 0.33	1 0.13 0.01	1 0.08 0.00	2 0.26 0.01	30 2.35 0.14	30 2.35 0.14	765	1278
TOTAL	12322 87.21	19596 89.42	612 4.33	784 3.58	1130 8.00	1174 5.36	40 0.28	42 0.19	25 0.18	318 1.45	318 1.45	14129	21914

NOTE : PASSENGER VEHICLES INCLUDE AUTOS, PICKUPS, VANS AND MOTORCYCLES
 BUSES INCLUDE BOTH SCHOOL AND INTERCITY BUSES
 SINGLE UNITS INCLUDE COMMERCIAL PICKUPS, PANELS AND SINGLE UNITS

LEGEND : XXX = VOLUME
 XX.XX = ROW PERCENT
 XX.XX = COLUMN PERCENT

A-40

FACILITY : IH 35
 LOCATION : SOUTH OF NEW BRAUNFELS
 DIRECTION : SOUTHBOUND
 DATE : JULY 14, 1987

OBSERVED HOURLY TRAFFIC VOLUMES

TIME OF DAY	PASSENGER VEHICLES	VEHICLES PERSONS	COMMERCIAL VEHICLES								TOTAL	
			SINGLE VEHICLES	UNIT PERSONS	COMBINATIONS VEHICLES	PERSONS	TRACTOR ONLY VEHICLES	PERSONS	BUSES VEHICLES	PERSONS	VEHICLES	PERSONS
7:00 - 8:00	1101 89.73 7.76	1371 91.58 6.25	26 2.12 0.18	26 1.74 0.12	95 7.74 0.67	95 6.35 0.43	2 0.16 0.01	2 0.13 0.01	3 0.24 0.02	3 0.20 0.01	1227	1497
8:00 - 9:00	982 85.84 6.92	1310 87.92 5.97	81 7.08 0.57	97 6.51 0.44	79 6.91 0.56	80 5.37 0.36	2 0.17 0.01	3 0.20 0.01	-	-	1144	1490
9:00 - 10:00	901 80.30 6.35	1349 82.71 6.15	95 8.47 0.67	107 6.56 0.49	121 10.78 0.85	122 7.48 0.56	3 0.27 0.02	3 0.18 0.01	2 0.18 0.01	50 3.07 0.23	1122	1631
10:00 - 11:00	859 83.48 6.05	1368 86.86 6.24	62 6.03 0.44	69 4.38 0.31	101 9.82 0.71	103 6.54 0.47	4 0.39 0.03	4 0.25 0.02	3 0.29 0.02	31 1.97 0.14	1029	1575
11:00 - 12:00	854 87.32 6.02	1400 91.15 6.38	52 5.32 0.37	64 4.17 0.29	70 7.16 0.49	70 4.56 0.32	2 0.20 0.01	2 0.13 0.01	-	-	978	1536
12:00 - 13:00	849 88.62 5.98	1419 92.32 6.47	30 3.13 0.21	35 2.28 0.16	79 8.25 0.56	83 5.40 0.38	-	-	-	-	958	1537
13:00 - 14:00	826 86.58 5.82	1411 91.33 6.43	44 4.61 0.31	46 2.98 0.21	84 8.81 0.59	88 5.70 0.40	-	-	-	-	954	1545
14:00 - 15:00	1312 88.89 9.24	2265 89.56 10.33	40 2.71 0.28	44 1.74 0.20	120 8.13 0.85	120 4.74 0.55	-	-	4 0.27 0.03	100 3.95 0.46	1476	2529
15:00 - 16:00	973 85.50 6.86	1544 89.66 7.04	72 6.33 0.51	85 4.94 0.39	89 7.82 0.63	89 5.17 0.41	4 0.35 0.03	4 0.23 0.02	-	-	1138	1722
16:00 - 17:00	1030 90.59 7.26	1616 93.41 7.37	36 3.17 0.25	41 2.37 0.17	71 6.24 0.50	73 4.22 0.33	-	-	-	-	1137	1730
17:00 - 18:00	1116 89.07 7.86	1783 89.28 8.13	58 4.63 0.41	67 3.36 0.31	76 6.07 0.54	76 3.81 0.35	1 0.08 0.01	1 0.05 0.00	2 0.16 0.01	70 3.51 0.32	1253	1997
18:00 - 19:00	860 85.57 6.06	1523 86.88 6.94	66 6.57 0.47	93 5.31 0.42	76 7.56 0.54	76 4.34 0.35	1 0.10 0.01	1 0.06 0.00	2 0.20 0.01	60 3.42 0.27	1005	1753
19:00 - 20:00	672 87.05 4.73	1227 88.27 5.59	42 5.44 0.30	64 4.60 0.29	55 7.12 0.39	58 4.17 0.26	1 0.13 0.01	1 0.07 0.00	2 0.26 0.01	40 2.88 0.18	772	1390
TOTAL	12335 86.91	19586 89.30	704 4.96	838 3.82	1116 7.86	1133 5.17	20 0.14	21 0.10	18 0.13	354 1.61	14193	21932

NOTE : PASSENGER VEHICLES INCLUDE AUTOS, PICKUPS, VANS AND MOTORCYCLES
 BUSES INCLUDE BOTH SCHOOL AND INTERCITY BUSES
 SINGLE UNITS INCLUDE COMMERCIAL PICKUPS, PANELS AND SINGLE UNITS

LEGEND : XXX = VOLUME
 XX.XX = ROW PERCENT
 XX.XX = COLUMN PERCENT

A-41

OBSERVED HOURLY TRAFFIC VOLUMES

FACILITY : IH 35
 LOCATION : SOUTH OF KYLE
 DIRECTION : NORTHBOUND
 DATE : JULY 15, 1987

TIME OF DAY	PASSENGER VEHICLES	PERSONS	COMMERCIAL VEHICLES								TOTAL	
			SINGLE VEHICLES	UNIT PERSONS	COMBINATIONS VEHICLES	PERSONS	TRACTOR ONLY VEHICLES	PERSONS	BUSES VEHICLES	PERSONS	VEHICLES	PERSONS
7:00 - 8:00	1080 90.76 7.28	1412 92.53 6.24	54 4.54 0.36	58 3.80 0.26	54 4.54 0.36	54 3.54 0.24	1 0.08 0.01	1 0.07 0.00	1 0.08 0.01	1 0.07 0.00	1190	1526
8:00 - 9:00	772 89.66 5.21	1125 92.67 4.97	30 3.48 0.20	30 2.47 0.13	53 6.16 0.36	53 4.37 0.23	3 0.35 0.02	3 0.25 0.01	3 0.35 0.02	3 0.25 0.01	861	1214
9:00 - 10:00	918 89.39 6.19	1365 90.16 6.03	36 3.51 0.24	37 2.44 0.16	72 7.01 0.49	72 4.75 0.32	- - -	- - -	1 0.10 0.01	40 2.64 0.18	1027	1514
10:00 - 11:00	799 88.38 5.39	1063 89.40 4.69	40 4.42 0.27	51 4.29 0.23	63 6.97 0.42	64 5.38 0.28	- - -	- - -	2 0.22 0.01	11 0.93 0.05	904	1189
11:00 - 12:00	889 87.24 5.99	1325 89.83 5.85	38 3.73 0.26	43 2.92 0.19	90 8.83 0.61	95 6.44 0.42	1 0.10 0.01	2 0.14 0.01	1 0.10 0.01	10 0.68 0.04	1019	1475
12:00 - 13:00	993 86.20 6.70	1511 89.41 6.67	61 5.30 0.41	72 4.26 0.32	96 8.33 0.65	96 5.68 0.42	1 0.09 0.01	1 0.06 0.00	1 0.09 0.01	10 0.59 0.04	1152	1690
13:00 - 14:00	990 90.00 6.68	1525 89.03 6.73	35 3.18 0.24	35 2.04 0.15	72 6.55 0.49	72 4.20 0.32	1 0.09 0.01	1 0.06 0.00	2 0.18 0.01	80 4.67 0.35	1100	1713
14:00 - 15:00	967 92.18 6.52	1583 92.68 6.99	16 1.53 0.11	18 1.05 0.08	65 6.20 0.44	67 3.92 0.30	- - -	- - -	1 0.10 0.01	40 2.34 0.18	1049	1708
15:00 - 16:00	1121 92.26 7.56	1728 90.66 7.63	15 1.23 0.10	18 0.94 0.08	77 6.34 0.52	80 4.20 0.35	- - -	- - -	2 0.16 0.01	80 4.20 0.35	1215	1906
16:00 - 17:00	1092 90.92 7.36	1842 93.50 8.13	19 1.58 0.13	19 0.96 0.08	87 7.24 0.59	87 4.42 0.38	2 0.17 0.01	2 0.10 0.01	1 0.08 0.01	20 1.02 0.09	1201	1970
17:00 - 18:00	1223 92.16 8.25	2017 94.52 8.91	22 1.56 0.15	22 1.03 0.10	78 5.88 0.53	80 3.75 0.35	3 0.23 0.02	5 0.23 0.02	1 0.08 0.01	10 0.47 0.04	1327	2134
18:00 - 19:00	937 92.77 6.32	1622 92.00 7.16	12 1.19 0.08	12 0.68 0.05	58 5.74 0.39	58 3.29 0.26	1 0.10 0.01	1 0.06 0.00	2 0.20 0.01	70 3.97 0.31	1010	1763
19:00 - 20:00	717 87.87 4.83	1141 89.21 5.04	18 2.21 0.12	32 2.50 0.14	74 9.07 0.50	80 6.25 0.35	6 0.74 0.04	6 0.47 0.03	1 0.12 0.01	20 1.56 0.09	816	1279
SUBTOTAL	12498 90.10	19259 91.36	396 2.85	447 2.12	939 6.77	958 4.54	19 0.14	22 0.10	19 0.14	395 1.87	13871	21081

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OBSERVED HOURLY TRAFFIC VOLUMES

FACILITY : IH 35
 LOCATION : SOUTH OF KYLE
 DIRECTION : NORTHBOUND
 DATE : JULY 15, 1987

TIME OF DAY	PASSENGER VEHICLES		SINGLE UNIT		COMBINATIONS		TRACTOR ONLY		BUSES		TOTAL	
	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS
20:00 - 21:00	302		14		29		-		5		350	
	86.29		4.00		8.29		-		1.43			
	2.04		0.09		0.20		-		0.03			
21:00 - 22:00	447		11		47		-		-		505	
	88.51		2.18		9.31		-		-			
	19.58		0.48		2.06		-		-			
22:00 - 23:00	315		12		68		2		-		397	
	79.35		3.02		17.13		0.50		-			
	13.80		0.53		2.98		0.09		-			
23:00 - 24:00	228		11		69		-		1		309	
	73.79		3.56		22.33		-		0.32			
	9.99		0.48		3.02		-		0.04			
0:00 - 1:00	133		9		66		-		1		209	
	63.64		4.31		31.58		-		0.48			
	5.83		0.39		2.89		-		0.04			
1:00 - 2:00	103		4		62		3		1		173	
	59.54		2.31		35.84		1.73		0.58			
	4.51		0.18		2.72		0.13		0.04			
2:00 - 3:00	69		5		56		5		-		135	
	51.11		3.70		41.48		3.70		-			
	3.02		0.22		2.45		0.22		-			
3:00 - 4:00	53		10		43		-		1		107	
	49.53		9.35		40.19		-		0.93			
	2.32		0.44		1.88		-		0.04			
4:00 - 5:00	62		5		59		4		-		130	
	47.69		3.85		45.38		3.08		-			
	2.72		0.22		2.58		0.18		-			
5:00 - 6:00	231		19		64		3		1		318	
	72.64		5.97		20.13		0.94		0.31			
	10.12		0.83		2.80		0.13		0.04			
6:00 - 7:00	526		31		49		2		1		609	
	86.37		5.09		8.05		0.33		0.16			
	3.55		0.21		0.33		0.01		0.01			
TOTAL	14967		38		1551		38		30		17113	
	87.46		3.08		9.06		0.22		0.18			

NOTE : PASSENGER VEHICLES INCLUDE AUTOS, PICKUPS, VANS AND MOTORCYCLES
 BUSES INCLUDE BOTH SCHOOL AND INTERCITY BUSES
 SINGLE UNITS INCLUDE COMMERCIAL PICKUPS, PANELS AND SINGLE UNITS
 VEHICLE OCCUPANCY NOT RECORDED FROM 8 P.M. TO 7 A.M.

LEGEND : XXX = VOLUME
 XX.XX = ROW PERCENT
 XX.XX = COLUMN PERCENT

OBSERVED HOURLY TRAFFIC VOLUMES

FACILITY : IH 35
 LOCATION : SOUTH OF KYLE
 DIRECTION : SOUTHBOUND
 DATE : JULY 15, 1987

TIME OF DAY	PASSENGER VEHICLES		COMMERCIAL VEHICLES						TOTAL			
	VEHICLES	PERSONS	SINGLE VEHICLES	UNIT PERSONS	COMBINATIONS VEHICLES	PERSONS	TRACTOR ONLY VEHICLES	PERSONS	BUSES VEHICLES	PERSONS	VEHICLES	PERSONS
7:00 - 8:00	831 92.44 5.44	1109 93.74 4.71	18 2.00 0.12	22 1.86 0.09	50 5.56 0.33	52 4.40 0.22	-	-	-	-	899	1183
8:00 - 9:00	878 88.96 5.74	1201 90.30 5.10	26 2.63 0.17	43 3.23 0.18	82 8.31 0.54	85 6.39 0.36	-	-	1 0.10 0.01	1 0.08 0.00	987	1330
9:00 - 10:00	1015 91.36 6.64	1480 86.91 6.28	15 1.35 0.10	18 1.06 0.08	75 6.75 0.49	83 4.87 0.35	2 0.18 0.01	2 0.12 0.01	4 0.36 0.03	120 7.05 0.51	1111	1703
10:00 - 11:00	913 85.57 5.97	1600 90.24 6.79	61 5.72 0.40	77 4.34 0.33	92 8.62 0.60	95 5.36 0.40	1 0.09 0.01	1 0.06 0.00	-	-	1067	1773
11:00 - 12:00	872 87.20 5.71	1505 91.49 6.39	53 5.30 0.35	65 3.95 0.28	75 7.50 0.49	75 4.56 0.32	-	-	-	-	1000	1645
12:00 - 13:00	966 86.64 6.32	1469 87.08 6.23	46 4.13 0.30	46 2.73 0.20	98 8.79 0.64	100 5.93 0.42	-	-	5 0.45 0.03	72 4.27 0.31	1115	1687
13:00 - 14:00	810 88.04 5.30	1347 88.68 5.72	21 2.28 0.14	23 1.51 0.10	83 9.02 0.54	85 5.60 0.36	2 0.22 0.01	3 0.20 0.01	4 0.43 0.03	61 4.02 0.26	920	1519
14:00 - 15:00	985 86.40 6.44	1611 88.57 6.84	46 4.04 0.30	58 3.19 0.25	107 9.39 0.70	109 5.99 0.46	1 0.09 0.01	1 0.05 0.00	1 0.09 0.01	40 2.20 0.17	1140	1819
15:00 - 16:00	1142 89.50 7.47	1848 92.82 7.84	55 4.31 0.36	62 3.11 0.26	79 6.19 0.52	81 4.07 0.34	-	-	-	-	1276	1991
16:00 - 17:00	1595 92.41 10.44	2650 93.94 11.25	58 3.36 0.38	78 2.76 0.33	69 4.00 0.45	69 2.45 0.29	1 0.06 0.01	2 0.07 0.01	3 0.17 0.02	22 0.78 0.09	1726	2821
17:00 - 18:00	1244 89.95 8.14	1905 91.85 8.08	79 5.71 0.52	109 5.26 0.46	59 4.27 0.39	59 2.84 0.25	-	-	1 0.07 0.01	1 0.05 0.00	1383	2074
18:00 - 19:00	1012 87.24 6.62	1590 89.68 6.75	65 5.60 0.43	81 4.57 0.34	81 6.98 0.53	81 4.57 0.34	1 0.09 0.01	1 0.06 0.00	1 0.09 0.01	20 1.13 0.08	1160	1773
19:00 - 20:00	668 86.87 4.37	1113 89.69 4.72	23 2.99 0.15	32 2.58 0.14	75 9.75 0.49	75 6.04 0.32	-	-	3 0.39 0.02	21 1.69 0.09	769	1241
SUBTOTAL	12931 88.85	20428 90.55	566 3.89	714 3.17	1025 7.04	1049 4.65	8 0.05	10 0.04	23 0.16	358 1.59	14553	22559

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OBSERVED HOURLY TRAFFIC VOLUMES

FACILITY : IH 35
 LOCATION : SOUTH OF KYLE
 DIRECTION : SOUTHBOUND
 DATE : JULY 15, 1987

TIME OF DAY	PASSENGER VEHICLES		COMMERCIAL VEHICLES				TOTAL			
	VEHICLES	PERSONS	SINGLE UNIT VEHICLES	PERSONS	COMBINATIONS VEHICLES	PERSONS	TRACTOR ONLY VEHICLES	PERSONS	VEHICLES	PERSONS
20:00 - 21:00	203 83.20 1.33		7 2.87 0.05		33 13.52 0.22		1 0.41 0.01		244	
21:00 - 22:00	474 87.78 19.17		14 2.59 0.57		50 9.26 2.02		2 0.37 0.08		540	
22:00 - 23:00	354 87.41 14.32		13 3.21 0.53		37 9.14 1.50		1 0.25 0.04		405	
23:00 - 24:00	208 70.27 8.41		13 4.39 0.53		70 23.65 2.83		4 1.35 0.16	1 0.34 0.04	296	
0:00 - 1:00	193 70.44 7.81		8 2.92 0.32		67 24.45 2.71		2 0.73 0.08	4 1.46 0.16	274	
1:00 - 2:00	115 60.53 4.65		5 2.63 0.20		68 35.79 2.75		1 0.53 0.04	1 0.53 0.04	190	
2:00 - 3:00	132 64.71 5.34		5 2.45 0.20		66 32.35 2.67		- - -	1 0.49 0.04	204	
3:00 - 4:00	53 37.86 2.14		3 2.14 0.12		83 59.29 3.36		- - -	1 0.71 0.04	140	
4:00 - 5:00	64 36.78 2.59		17 9.77 0.69		92 52.87 3.72		1 0.57 0.04	- - -	174	
5:00 - 6:00	132 53.01 5.34		16 6.43 0.65		101 40.56 4.09		- - -	- - -	249	
6:00 - 7:00	454 93.22 2.97		6 1.23 0.04		26 5.34 0.17		- - -	1 0.21 0.01	487	
TOTAL	15313 86.24		20 3.79		1718 9.68		20 0.11	32 0.18	17756	

NOTE : PASSENGER VEHICLES INCLUDE AUTOS, PICKUPS, VANS AND MOTORCYCLES
 BUSES INCLUDE BOTH SCHOOL AND INTERCITY BUSES
 SINGLE UNITS INCLUDE COMMERCIAL PICKUPS, PANELS AND SINGLE UNITS
 VEHICLE OCCUPANCY NOT RECORDED FROM 8 P.M. TO 7 A.M.

LEGEND : XXX = VOLUME
 XX.XX = ROW PERCENT
 XX.XX = COLUMN PERCENT

OBSERVED HOURLY TRAFFIC VOLUMES

FACILITY : SH 123
 LOCATION : BETWEEN SAN MARCOS AND SEGUIN
 DIRECTION : NORTHBOUND
 DATE : JULY 16, 1987

TIME OF DAY	PASSENGER VEHICLES		SINGLE UNIT		COMBINATIONS		TRACTOR ONLY		BUSES		TOTAL VEHICLES	TOTAL PERSONS
	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS		
7:00 - 8:00	157 88.70 7.38	223 88.49 6.46	8 4.52 0.38	13 5.16 0.38	11 6.21 0.52	15 5.95 0.43	1 0.56 0.05	1 0.40 0.03	-	-	177	252
8:00 - 9:00	141 85.45 6.63	178 87.25 5.15	18 10.91 0.85	20 9.80 0.58	6 3.64 0.28	6 2.94 0.17	-	-	-	-	165	204
9:00 - 10:00	152 85.88 7.15	203 89.04 5.88	13 7.34 0.61	13 5.70 0.38	11 6.21 0.52	11 4.82 0.32	1 0.56 0.05	1 0.44 0.03	-	-	177	228
10:00 - 11:00	130 86.67 6.11	203 91.03 5.88	13 8.67 0.61	13 5.83 0.38	7 4.67 0.33	7 3.14 0.20	-	-	-	-	150	223
11:00 - 12:00	129 90.21 6.06	208 92.86 6.02	7 4.90 0.33	9 4.02 0.26	7 4.90 0.33	7 3.13 0.20	-	-	-	-	143	224
12:00 - 13:00	150 91.46 7.05	275 89.29 7.96	6 3.66 0.28	6 1.95 0.17	7 4.27 0.33	7 2.27 0.20	-	-	1 0.61 0.05	20 6.49 0.58	164	308
13:00 - 14:00	131 90.97 6.16	242 94.53 7.01	8 5.56 0.38	9 3.52 0.26	5 3.47 0.24	5 1.95 0.14	-	-	-	-	144	256
14:00 - 15:00	136 92.52 6.39	236 95.55 6.83	4 2.72 0.19	4 1.62 0.12	7 4.76 0.33	7 2.83 0.20	-	-	-	-	147	247
15:00 - 16:00	172 93.48 8.09	309 95.96 8.95	7 3.80 0.33	8 2.48 0.23	5 2.72 0.24	5 1.55 0.14	-	-	-	-	184	322
16:00 - 17:00	174 94.05 8.18	293 95.44 8.48	8 4.32 0.38	9 2.93 0.26	2 1.08 0.09	3 0.98 0.09	1 0.54 0.05	2 0.65 0.06	-	-	185	307
17:00 - 18:00	191 93.17 8.98	314 94.01 9.09	8 3.90 0.38	13 3.89 0.38	6 2.93 0.28	7 2.10 0.20	-	-	-	-	205	334
18:00 - 19:00	153 94.44 7.19	280 90.32 8.11	6 3.70 0.28	8 2.58 0.23	2 1.23 0.09	2 0.65 0.06	-	-	1 0.62 0.05	20 6.45 0.58	162	310
19:00 - 20:00	117 94.35 5.50	231 96.65 6.69	2 1.61 0.09	2 0.84 0.06	5 4.03 0.24	6 2.51 0.17	-	-	-	-	124	239
TOTAL	1933 90.88	3195 92.50	108 5.08	127 3.68	81 3.81	88 2.55	3 0.14	4 0.12	2 0.09	40 1.16	2127	3454

NOTE : PASSENGER VEHICLES INCLUDE AUTOS, PICKUPS, VANS AND MOTORCYCLES
 BUSES INCLUDE BOTH SCHOOL AND INTERCITY BUSES
 SINGLE UNITS INCLUDE COMMERCIAL PICKUPS, PANELS AND SINGLE UNITS

LEGEND : XXX = VOLUME
 XX.XX = ROW PERCENT
 XX.XX = COLUMN PERCENT

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OBSERVED HOURLY TRAFFIC VOLUMES

FACILITY : SH 123
 LOCATION : BETWEEN SAN MARCOS AND SEGUIN
 DIRECTION : SOUTHBOUND
 DATE : JULY 16, 1987

TIME OF DAY	PASSENGER VEHICLES		SINGLE UNIT		COMBINATIONS		TRACTOR ONLY		BUSES		TOTAL	
	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS
7:00 - 8:00	128	169	16	21	5	5	1	1	-	-	150	196
	85.33	86.22	10.67	10.71	3.33	2.55	0.67	0.51	-	-		
	5.53	4.37	0.69	0.54	0.22	0.13	0.04	0.03	-	-		
8:00 - 9:00	124	186	12	13	4	4	-	-	-	-	140	203
	88.57	91.63	8.57	6.40	2.86	1.97	-	-	-	-		
	5.35	4.81	0.52	0.34	0.17	0.10	-	-	-	-		
9:00 - 10:00	148	258	8	12	6	7	-	-	-	-	162	277
	91.36	93.14	4.94	4.33	3.70	2.53	-	-	-	-		
	6.39	6.68	0.35	0.31	0.26	0.18	-	-	-	-		
10:00 - 11:00	140	270	7	8	11	14	-	-	-	-	158	292
	88.61	92.47	4.43	2.74	6.96	4.79	-	-	-	-		
	6.04	6.99	0.30	0.21	0.47	0.36	-	-	-	-		
11:00 - 12:00	110	204	14	18	7	8	-	-	-	-	131	230
	83.97	88.70	10.69	7.83	5.34	3.48	-	-	-	-		
	4.75	5.28	0.60	0.47	0.30	0.21	-	-	-	-		
12:00 - 13:00	155	260	16	20	9	9	-	-	-	-	180	289
	86.11	89.97	8.89	6.92	5.00	3.11	-	-	-	-		
	6.69	6.73	0.69	0.52	0.39	0.23	-	-	-	-		
13:00 - 14:00	148	263	2	2	6	6	1	2	-	-	157	273
	94.27	96.34	1.27	0.73	3.82	2.20	0.64	0.73	-	-		
	6.39	6.80	0.09	0.05	0.26	0.16	0.04	0.05	-	-		
14:00 - 15:00	158	255	2	2	12	13	-	-	-	-	172	270
	91.86	94.44	1.16	0.74	6.98	4.81	-	-	-	-		
	6.82	6.60	0.09	0.05	0.52	0.34	-	-	-	-		
15:00 - 16:00	215	355	13	17	3	3	-	-	-	-	231	375
	93.07	94.67	5.63	4.53	1.30	0.80	-	-	-	-		
	9.28	9.18	0.56	0.44	0.13	0.08	-	-	-	-		
16:00 - 17:00	214	355	8	14	11	12	1	1	-	-	234	382
	91.45	92.93	3.42	3.66	4.70	3.14	0.43	0.26	-	-		
	9.24	9.18	0.35	0.36	0.47	0.31	0.04	0.03	-	-		
17:00 - 18:00	217	356	11	16	11	11	-	-	-	-	239	383
	90.79	92.95	4.60	4.18	4.60	2.87	-	-	-	-		
	9.37	9.21	0.47	0.41	0.47	0.28	-	-	-	-		
18:00 - 19:00	199	376	3	3	10	10	1	1	-	-	213	390
	93.43	96.41	1.41	0.77	4.69	2.56	0.47	0.26	-	-		
	8.59	9.73	0.13	0.08	0.43	0.26	0.04	0.03	-	-		
19:00 - 20:00	142	259	4	4	2	2	-	-	1	40	149	305
	95.30	84.92	2.68	1.31	1.34	0.66	-	-	0.67	13.11		
	6.13	6.70	0.17	0.10	0.09	0.05	-	-	0.04	1.03		
TOTAL	2098	3566	116	150	97	104	4	5	1	40	2316	3865
	90.59	92.26	5.01	3.88	4.19	2.69	0.17	0.13	0.04	1.03		

NOTE : PASSENGER VEHICLES INCLUDE AUTOS, PICKUPS, VANS AND MOTORCYCLES
 BUSES INCLUDE BOTH SCHOOL AND INTERCITY BUSES
 SINGLE UNITS INCLUDE COMMERCIAL PICKUPS, PANELS AND SINGLE UNITS

LEGEND : XXX = VOLUME
 XX.XX = ROW PERCENT
 XX.XX = COLUMN PERCENT

OBSERVED HOURLY TRAFFIC VOLUMES

FACILITY : US 183
 LOCATION : NORTH OF LOCKHART
 DIRECTION : NORTHBOUND
 DATE : JULY 14, 1987

TIME OF DAY	PASSENGER VEHICLES		SINGLE UNIT		COMBINATIONS		TRACTOR ONLY		BUSES		TOTAL	
	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS
7:00 - 8:00	259 62.56 10.79	362 64.18 9.16	148 35.75 6.16	196 34.57 4.93	6 1.45 0.25	6 1.06 0.15	1 0.24 0.04	1 0.18 0.03	-	-	414	564
8:00 - 9:00	188 80.34 7.83	283 81.09 7.16	43 18.38 1.79	63 18.05 1.59	3 1.28 0.12	3 0.86 0.08	-	-	-	-	234	349
9:00 - 10:00	161 91.48 6.71	275 94.18 6.96	8 4.55 0.33	10 3.42 0.25	7 3.98 0.29	7 2.40 0.18	-	-	-	-	176	292
10:00 - 11:00	150 92.02 6.25	251 91.27 6.35	8 4.91 0.33	8 2.91 0.20	2 1.23 0.08	2 0.73 0.05	2 1.23 0.08	4 1.45 0.10	1 0.61 0.04	10 3.64 0.25	163	275
11:00 - 12:00	164 88.17 6.83	281 83.63 7.11	11 5.91 0.46	15 4.46 0.38	8 4.30 0.33	8 2.38 0.20	1 0.54 0.04	1 0.30 0.03	2 1.08 0.08	31 9.23 0.78	186	336
12:00 - 13:00	164 90.61 6.83	273 90.40 6.91	3 1.66 0.12	5 1.66 0.13	13 7.18 0.54	14 4.64 0.35	-	-	1 0.55 0.04	10 3.31 0.25	181	302
13:00 - 14:00	152 91.02 6.33	265 92.98 6.71	8 4.79 0.33	11 3.86 0.28	7 4.19 0.29	9 3.16 0.23	-	-	-	-	167	285
14:00 - 15:00	132 87.42 5.50	236 91.12 5.97	14 9.27 0.58	18 6.95 0.46	5 3.31 0.21	5 1.93 0.13	-	-	-	-	151	259
15:00 - 16:00	127 79.87 5.29	217 85.43 5.49	25 15.72 1.04	30 11.81 0.76	7 4.40 0.29	7 2.76 0.18	-	-	-	-	159	254
16:00 - 17:00	135 88.24 5.62	248 90.18 6.28	13 8.50 0.54	22 8.00 0.66	5 3.27 0.21	5 1.82 0.13	-	-	-	-	153	275
17:00 - 18:00	151 88.82 6.29	295 90.77 7.46	13 7.65 0.54	24 7.38 0.61	6 3.53 0.25	6 1.85 0.15	-	-	-	-	170	325
18:00 - 19:00	128 92.75 5.33	230 95.83 5.82	6 4.35 0.25	6 2.50 0.15	3 2.17 0.12	3 1.25 0.08	1 0.72 0.04	1 0.42 0.03	-	-	138	240
19:00 - 20:00	103 94.50 4.29	179 91.33 4.53	3 2.75 0.12	5 2.55 0.13	2 1.83 0.08	2 1.02 0.05	-	-	1 0.92 0.04	10 5.10 0.25	109	196
TOTAL	2014 83.88	3395 85.91	303 12.62	412 10.43	74 3.08	77 1.95	5 0.21	7 0.18	5 0.21	61 1.54	2401	3952

NOTE : PASSENGER VEHICLES INCLUDE AUTOS, PICKUPS, VANS AND MOTORCYCLES
 BUSES INCLUDE BOTH SCHOOL AND INTERCITY BUSES
 SINGLE UNITS INCLUDE COMMERCIAL PICKUPS, PANELS AND SINGLE UNITS

LEGEND : XXX = VOLUME
 XX.XX = ROW PERCENT
 XX.XX = COLUMN PERCENT

A-48

OBSERVED HOURLY TRAFFIC VOLUMES

FACILITY : US 183
 LOCATION : NORTH OF LOCKHART
 DIRECTION : SOUTHBOUND
 DATE : JULY 14, 1987

TIME OF DAY	PASSENGER VEHICLES		COMMERCIAL VEHICLES				TRACTOR ONLY		BUSES		TOTAL	
	VEHICLES	PERSONS	SINGLE VEHICLES	UNIT PERSONS	COMBINATIONS VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS
7:00 - 8:00	113 85.61 4.10	170 84.58 3.94	11 8.33 0.40	14 6.97 0.32	4 3.03 0.15	4 1.99 0.09	2 1.52 0.07	2 1.00 0.05	2 1.52 0.07	11 5.47 0.26	132	201
8:00 - 9:00	137 90.13 4.98	199 92.13 4.62	3 1.97 0.11	3 1.39 0.07	12 7.89 0.44	14 6.48 0.32	-	-	-	-	152	216
9:00 - 10:00	132 89.80 4.79	199 91.28 4.62	10 6.80 0.36	13 5.96 0.30	5 3.40 0.18	6 2.75 0.14	-	-	-	-	147	218
10:00 - 11:00	119 86.23 4.32	207 89.61 4.80	11 7.97 0.40	16 6.93 0.37	8 5.80 0.29	8 3.46 0.19	-	-	-	-	138	231
11:00 - 12:00	122 89.71 4.43	208 92.86 4.82	7 5.15 0.25	9 4.02 0.21	6 4.41 0.22	6 2.68 0.14	1 0.74 0.04	1 0.45 0.02	-	-	136	224
12:00 - 13:00	108 89.26 3.92	172 90.53 3.99	2 1.65 0.07	4 2.11 0.09	11 9.09 0.40	14 7.37 0.32	-	-	-	-	121	190
13:00 - 14:00	153 92.17 5.56	247 87.28 5.73	3 1.81 0.11	6 2.12 0.14	9 5.42 0.33	10 3.53 0.23	-	-	1 0.60 0.04	20 7.07 0.46	166	283
14:00 - 15:00	149 91.98 5.41	254 95.13 5.89	5 3.09 0.18	5 1.87 0.12	8 4.94 0.29	8 3.00 0.19	-	-	-	-	162	267
15:00 - 16:00	234 93.23 8.50	387 94.39 8.97	11 4.38 0.40	16 3.90 0.37	6 2.39 0.22	7 1.71 0.16	-	-	-	-	251	410
16:00 - 17:00	344 95.03 12.50	540 95.91 12.52	12 3.31 0.44	16 2.84 0.37	6 1.66 0.22	7 1.24 0.16	-	-	-	-	362	563
17:00 - 18:00	469 96.70 17.04	695 97.34 16.12	12 2.47 0.44	15 2.10 0.35	4 0.82 0.15	4 0.56 0.09	-	-	-	-	485	714
18:00 - 19:00	291 96.68 10.57	436 96.89 10.11	5 1.66 0.18	9 2.00 0.21	5 1.66 0.18	5 1.11 0.12	-	-	-	-	301	450
19:00 - 20:00	188 94.00 6.83	333 96.52 7.72	7 3.50 0.25	7 2.03 0.16	5 2.50 0.18	5 1.45 0.12	-	-	-	-	200	345
TOTAL	2559 92.95	4047 93.85	99 3.60	133 3.08	89 3.23	98 2.27	3 0.11	3 0.07	3 0.11	31 0.72	2753	4312

NOTE : PASSENGER VEHICLES INCLUDE AUTOS, PICKUPS, VANS AND MOTORCYCLES
 BUSES INCLUDE BOTH SCHOOL AND INTERCITY BUSES
 SINGLE UNITS INCLUDE COMMERCIAL PICKUPS, PANELS AND SINGLE UNITS

LEGEND : XXX = VOLUME
 XX.XX = ROW PERCENT
 XX.XX = COLUMN PERCENT

A-49

OBSERVED HOURLY TRAFFIC VOLUMES

FACILITY : US 281
 LOCATION : NORTH OF SAN ANTONIO
 DIRECTION : NORTHBOUND
 DATE : JULY 15, 1987

TIME OF DAY	PASSENGER VEHICLES		SINGLE UNIT		COMBINATIONS		TRACTOR ONLY		BUSES		TOTAL	
	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS
7:00 - 8:00	163 88.59 3.43	230 69.91 3.06	15 8.15 0.32	25 7.60 0.33	4 2.17 0.08	4 1.22 0.05	-	-	2 1.09 0.04	70 21.28 0.93	184	329
8:00 - 9:00	204 89.87 4.29	302 92.35 4.01	17 7.49 0.36	19 5.81 0.25	6 2.64 0.13	6 1.83 0.08	-	-	-	-	227	327
9:00 - 10:00	191 89.67 4.02	290 92.65 3.85	18 8.45 0.38	19 6.07 0.25	4 1.88 0.08	4 1.28 0.05	-	-	-	-	213	313
10:00 - 11:00	181 89.16 3.81	306 91.34 4.06	16 7.88 0.34	22 6.57 0.29	6 2.96 0.13	7 2.09 0.09	-	-	-	-	203	335
11:00 - 12:00	252 92.99 5.30	458 94.82 6.08	14 5.17 0.29	20 4.14 0.27	4 1.48 0.08	4 0.83 0.05	1 0.37 0.02	1 0.21 0.01	-	-	271	483
12:00 - 13:00	291 94.48 6.12	496 95.57 6.59	11 3.57 0.23	17 3.28 0.23	6 1.95 0.13	6 1.16 0.08	-	-	-	-	308	519
13:00 - 14:00	254 94.78 5.34	444 96.31 5.90	7 2.61 0.15	8 1.74 0.11	7 2.61 0.15	9 1.95 0.12	-	-	-	-	268	461
14:00 - 15:00	266 94.33 5.59	451 90.20 5.99	7 2.48 0.15	10 2.00 0.13	8 2.84 0.17	9 1.80 0.12	-	-	1 0.35 0.02	30 6.00 0.40	282	500
15:00 - 16:00	380 92.46 7.99	638 94.52 8.48	28 6.81 0.59	34 5.04 0.45	3 0.73 0.06	3 0.44 0.04	-	-	-	-	411	675
16:00 - 17:00	489 96.26 10.28	741 96.86 9.84	15 2.95 0.32	20 2.61 0.27	4 0.79 0.08	4 0.52 0.05	-	-	-	-	508	765
17:00 - 18:00	718 94.60 15.10	1026 95.44 13.63	37 4.87 0.78	45 4.19 0.60	4 0.53 0.08	4 0.37 0.05	-	-	-	-	759	1075
18:00 - 19:00	725 98.91 15.25	1112 99.29 14.77	6 0.82 0.13	6 0.54 0.08	2 0.27 0.04	2 0.18 0.03	-	-	-	-	733	1120
19:00 - 20:00	371 95.62 7.80	603 96.33 8.01	16 4.12 0.34	22 3.51 0.29	1 0.26 0.02	1 0.16 0.01	-	-	-	-	388	626
TOTAL	4485 94.32	7097 94.27	207 4.35	267 3.55	59 1.24	63 0.84	1 0.02	1 0.01	3 0.06	100 1.33	4755	7528

NOTE : PASSENGER VEHICLES INCLUDE AUTOS, PICKUPS, VANS AND MOTORCYCLES
 BUSES INCLUDE BOTH SCHOOL AND INTERCITY BUSES
 SINGLE UNITS INCLUDE COMMERCIAL PICKUPS, PANELS AND SINGLE UNITS

LEGEND : XXX = VOLUME
 XX.XX = ROW PERCENT
 XX.XX = COLUMN PERCENT

A-50

FACILITY : US 281
 LOCATION : NORTH OF SAN ANTONIO
 DIRECTION : SOUTHBOUND
 DATE : JULY 15, 1987

OBSERVED HOURLY TRAFFIC VOLUMES

TIME OF DAY	PASSENGER VEHICLES	VEHICLES PERSONS	COMMERCIAL VEHICLES								TOTAL	
			SINGLE VEHICLES	UNIT PERSONS	COMBINATIONS VEHICLES	PERSONS	TRACTOR ONLY VEHICLES	PERSONS	BUSES VEHICLES	PERSONS	VEHICLES	PERSONS
7:00 - 8:00	812 97.13 18.08	992 97.64 14.47	22 2.63 0.49	22 2.17 0.32	2 0.24 0.04	2 0.20 0.03	-	-	-	-	836	1016
8:00 - 9:00	515 96.99 11.47	663 97.64 9.67	14 2.64 0.31	14 2.06 0.20	2 0.38 0.04	2 0.29 0.03	-	-	-	-	531	679
9:00 - 10:00	299 94.03 6.66	432 95.79 6.30	14 4.40 0.31	14 3.10 0.20	5 1.57 0.11	5 1.11 0.07	-	-	-	-	318	451
10:00 - 11:00	242 91.67 5.39	383 94.10 5.59	16 6.06 0.36	18 4.42 0.26	6 2.27 0.13	6 1.47 0.09	-	-	-	-	264	407
11:00 - 12:00	299 92.57 6.66	524 94.76 7.64	15 4.64 0.33	20 3.62 0.29	9 2.79 0.20	9 1.63 0.13	-	-	-	-	323	553
12:00 - 13:00	247 89.82 5.50	409 91.29 5.96	20 7.27 0.45	31 6.92 0.45	7 2.56 0.16	7 1.56 0.10	1 0.36 0.02	1 0.22 0.01	-	-	275	448
13:00 - 14:00	243 91.35 5.41	441 94.43 6.43	14 5.26 0.31	16 3.43 0.23	9 3.38 0.20	10 2.14 0.15	-	-	-	-	266	467
14:00 - 15:00	273 96.47 6.08	437 97.54 6.37	6 2.12 0.13	7 1.56 0.10	4 1.41 0.09	4 0.89 0.06	-	-	-	-	283	448
15:00 - 16:00	279 91.48 6.21	444 86.38 6.48	15 4.92 0.33	18 3.50 0.26	10 3.28 0.22	12 2.33 0.18	-	-	1 0.33 0.02	40 7.78 0.58	305	514
16:00 - 17:00	305 94.72 6.79	491 95.34 7.16	15 4.66 0.33	22 4.27 0.32	2 0.62 0.04	2 0.39 0.03	-	-	-	-	322	515
17:00 - 18:00	286 95.65 6.37	478 96.76 6.97	8 2.68 0.18	11 2.23 0.16	5 1.67 0.11	5 1.01 0.07	-	-	-	-	299	494
18:00 - 19:00	263 96.69 5.86	492 97.43 7.18	4 1.47 0.09	5 0.99 0.07	5 1.84 0.11	8 1.58 0.12	-	-	-	-	272	505
19:00 - 20:00	189 95.94 4.21	347 96.39 5.06	2 1.02 0.04	5 1.39 0.07	5 2.54 0.11	7 1.94 0.10	-	-	1 0.51 0.02	1 0.28 0.01	197	360
TOTAL	4252 94.68	6533 95.27	165 3.67	203 2.96	71 1.58	79 1.15	1 0.02	1 0.01	2 0.04	41 0.60	4491	6857

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NOTE : PASSENGER VEHICLES INCLUDE AUTOS, PICKUPS, VANS AND MOTORCYCLES
 BUSES INCLUDE BOTH SCHOOL AND INTERCITY BUSES
 SINGLE UNITS INCLUDE COMMERCIAL PICKUPS, PANELS AND SINGLE UNITS

LEGEND : XXX = VOLUME
 XX.XX = ROW PERCENT
 XX.XX = COLUMN PERCENT

OBSERVED HOURLY TRAFFIC VOLUMES

FACILITY : IH 35
 LOCATION : NORTH OF GEORGETOWN
 DIRECTION : NORTHBOUND
 DATE : JULY 16, 1987

TIME OF DAY	PASSENGER VEHICLES		COMMERCIAL VEHICLES				TRACTOR ONLY		BUSES		TOTAL	
	VEHICLES	PERSONS	SINGLE VEHICLES	UNIT PERSONS	COMBINATIONS VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS
7:00 - 8:00	486 82.65 5.02	720 85.71 4.58	47 7.99 0.49	64 7.62 0.41	54 9.18 0.56	55 6.55 0.35	-	-	1 0.17 0.01	1 0.12 0.01	588	840
8:00 - 9:00	500 83.19 5.16	806 86.95 5.13	49 8.15 0.51	66 7.12 0.42	51 8.49 0.53	54 5.83 0.34	1 0.17 0.01	1 0.11 0.01	-	-	601	927
9:00 - 10:00	543 82.15 5.61	948 88.02 6.03	48 7.26 0.50	59 5.48 0.38	69 10.44 0.71	69 6.41 0.44	1 0.15 0.01	1 0.09 0.01	-	-	661	1077
10:00 - 11:00	556 80.93 5.74	963 87.07 6.12	44 6.40 0.45	56 5.06 0.36	87 12.66 0.90	87 7.87 0.55	-	-	-	-	687	1106
11:00 - 12:00	571 82.99 5.90	976 89.05 6.21	28 4.07 0.29	31 2.83 0.20	88 12.79 0.91	88 8.03 0.56	1 0.15 0.01	1 0.09 0.01	-	-	688	1096
12:00 - 13:00	505 82.65 5.21	919 84.70 5.84	27 4.42 0.28	29 2.67 0.18	75 12.27 0.77	75 6.91 0.48	2 0.33 0.02	2 0.18 0.01	2 0.33 0.02	60 5.53 0.38	611	1085
13:00 - 14:00	632 85.52 6.53	1130 90.04 7.19	28 3.79 0.29	34 2.71 0.22	78 10.55 0.81	81 6.45 0.52	-	-	1 0.14 0.01	10 0.80 0.06	739	1255
14:00 - 15:00	811 86.18 8.37	1407 83.35 8.95	43 4.57 0.44	48 2.84 0.31	82 8.71 0.85	82 4.85 0.52	1 0.11 0.01	1 0.06 0.01	4 0.43 0.04	150 8.89 0.95	941	1688
15:00 - 16:00	772 85.78 7.97	1240 87.69 7.89	44 4.89 0.45	63 4.46 0.40	80 8.89 0.83	89 6.29 0.57	2 0.22 0.02	2 0.14 0.01	2 0.22 0.02	20 1.41 0.13	900	1414
16:00 - 17:00	894 87.22 9.23	1457 88.84 9.26	56 5.46 0.58	79 4.82 0.50	70 6.83 0.72	78 4.76 0.50	4 0.39 0.04	6 0.37 0.04	1 0.10 0.01	20 1.22 0.13	1025	1640
17:00 - 18:00	759 85.57 7.84	1190 89.07 7.57	42 4.74 0.43	57 4.27 0.36	85 9.58 0.88	88 6.59 0.56	1 0.11 0.01	1 0.07 0.01	-	-	887	1336
18:00 - 19:00	646 86.48 6.67	1121 90.84 7.13	26 3.48 0.27	32 2.59 0.20	75 10.04 0.77	81 6.56 0.52	-	-	-	-	747	1234
19:00 - 20:00	523 85.74 5.40	915 89.01 5.82	18 2.95 0.19	29 2.82 0.18	62 10.16 0.64	67 6.52 0.43	5 0.82 0.05	6 0.58 0.04	2 0.33 0.02	11 1.07 0.07	610	1028
TOTAL	8198 84.65	13792 87.70	500 5.16	647 4.11	956 9.87	994 6.32	18 0.19	21 0.13	13 0.13	272 1.73	9685	15726

NOTE : PASSENGER VEHICLES INCLUDE AUTOS, PICKUPS, VANS AND MOTORCYCLES
 BUSES INCLUDE BOTH SCHOOL AND INTERCITY BUSES
 SINGLE UNITS INCLUDE COMMERCIAL PICKUPS, PANELS AND SINGLE UNITS

LEGEND : XXX = VOLUME
 XX.XX = ROW PERCENT
 XX.XX = COLUMN PERCENT

OBSERVED HOURLY TRAFFIC VOLUMES

FACILITY : IH 35
 LOCATION : NORTH OF GEORGETOWN
 DIRECTION : SOUTHBOUND
 DATE : JULY 16, 1987

TIME OF DAY	PASSENGER VEHICLES		COMMERCIAL VEHICLES				TRACTOR ONLY		BUSES		TOTAL	
	VEHICLES	PERSONS	SINGLE VEHICLES	UNIT PERSONS	COMBINATIONS VEHICLES	COMBINATIONS PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS	VEHICLES	PERSONS
7:00 - 8:00	600 86.33 6.02	848 89.08 5.15	14 2.01 0.14	20 2.10 0.12	80 11.51 0.80	83 8.72 0.60	1 0.14 0.01	1 0.11 0.01	- - -	- - -	695	952
8:00 - 9:00	534 86.27 5.36	872 89.62 5.29	22 3.55 0.22	26 2.67 0.16	62 10.02 0.62	65 6.68 0.39	- - -	- - -	1 0.16 0.01	10 1.03 0.06	619	973
9:00 - 10:00	578 78.53 5.80	1023 83.92 6.21	67 9.10 0.67	81 6.64 0.49	90 12.23 0.90	95 7.79 0.58	- - -	- - -	1 0.14 0.01	20 1.64 0.12	736	1219
10:00 - 11:00	589 84.26 5.91	1113 90.19 6.76	39 5.58 0.39	48 3.89 0.29	67 9.59 0.67	69 5.59 0.42	3 0.43 0.03	3 0.24 0.02	1 0.14 0.01	1 0.08 0.01	699	1234
11:00 - 12:00	620 84.70 6.22	1178 87.19 7.15	34 4.64 0.34	37 2.74 0.22	76 10.38 0.76	76 5.63 0.46	- - -	- - -	2 0.27 0.02	60 4.44 0.36	732	1351
12:00 - 13:00	593 81.91 5.95	1033 85.73 6.27	50 6.91 0.50	67 5.56 0.41	77 10.64 0.77	83 6.89 0.50	1 0.14 0.01	1 0.08 0.01	3 0.41 0.03	21 1.74 0.13	724	1206
13:00 - 14:00	616 84.04 6.18	1146 88.02 6.96	46 6.28 0.46	53 4.07 0.32	67 9.14 0.67	71 5.45 0.43	1 0.14 0.01	1 0.08 0.01	3 0.41 0.03	31 2.38 0.19	733	1302
14:00 - 15:00	656 84.43 6.58	1129 85.47 6.86	50 6.44 0.50	59 4.47 0.36	65 8.37 0.65	70 5.30 0.43	2 0.26 0.02	2 0.15 0.01	4 0.51 0.04	61 4.62 0.37	777	1321
15:00 - 16:00	709 88.18 7.11	1184 91.71 7.19	26 3.23 0.26	32 2.48 0.19	68 8.46 0.68	73 5.65 0.44	1 0.12 0.01	2 0.15 0.01	- - -	- - -	804	1291
16:00 - 17:00	729 86.68 7.31	1279 90.39 7.77	30 3.57 0.30	34 2.40 0.21	79 9.39 0.79	80 5.65 0.49	2 0.24 0.02	2 0.14 0.01	1 0.12 0.01	20 1.41 0.12	841	1415
17:00 - 18:00	817 91.49 8.20	1409 94.25 8.56	16 1.79 0.16	17 1.14 0.10	59 6.61 0.59	59 3.95 0.36	- - -	- - -	1 0.11 0.01	10 0.67 0.06	893	1495
18:00 - 19:00	802 91.76 8.04	1374 93.79 8.34	15 1.72 0.15	15 1.02 0.09	56 6.41 0.56	56 3.82 0.34	- - -	- - -	1 0.11 0.01	20 1.37 0.12	874	1465
19:00 - 20:00	765 90.86 7.67	1143 91.73 6.94	21 2.49 0.21	28 2.25 0.17	53 6.29 0.53	53 4.25 0.32	2 0.24 0.02	2 0.16 0.01	1 0.12 0.01	20 1.61 0.12	842	1246
TOTAL	8608 86.35	14731 89.45	430 4.31	517 3.14	899 9.02	933 5.67	13 0.13	14 0.09	19 0.19	274 1.66	9969	16469

NOTE : PASSENGER VEHICLES INCLUDE AUTOS, PICKUPS, VANS AND MOTORCYCLES
 BUSES INCLUDE BOTH SCHOOL AND INTERCITY BUSES
 SINGLE UNITS INCLUDE COMMERCIAL PICKUPS, PANELS AND SINGLE UNITS

LEGEND : XXX = VOLUME
 XX.XX = ROW PERCENT
 XX.XX = COLUMN PERCENT

DIRECTION : NORTHBOUND

OBSERVED HOURLY TRAFFIC VOLUMES : ALL STATIONS

TIME OF DAY	PASSENGER VEHICLES	VEHICLES PERSONS	COMMERCIAL VEHICLES								TOTAL	
			SINGLE VEHICLES	UNIT PERSONS	COMBINATIONS VEHICLES	PERSONS	TRACTOR VEHICLES	ONLY PERSONS	BUSES VEHICLES	PERSONS	VEHICLES	PERSONS
7:00 - 8:00	2880 83.92 6.13	3942 84.18 5.35	322 9.38 0.69	438 9.35 0.59	223 6.50 0.47	228 4.87 0.31	3 0.09 0.01	3 0.06 0.00	4 0.12 0.01	72 1.54 0.10	3432	4683
8:00 - 9:00	2834 86.67 6.03	4006 88.69 5.44	240 7.34 0.51	311 6.89 0.42	185 5.66 0.39	189 4.18 0.26	6 0.18 0.01	6 0.13 0.01	5 0.15 0.01	5 0.11 0.01	3270	4517
9:00 - 10:00	2865 86.79 6.10	4403 88.86 5.98	163 4.94 0.35	185 3.73 0.25	264 8.00 0.56	271 5.47 0.37	6 0.18 0.01	6 0.12 0.01	3 0.09 0.01	90 1.82 0.12	3301	4955
10:00 - 11:00	2639 85.21 5.62	4169 87.02 5.66	156 5.04 0.33	190 3.97 0.26	290 9.36 0.62	292 6.09 0.40	6 0.19 0.01	9 0.19 0.01	6 0.19 0.01	131 2.73 0.18	3097	4791
11:00 - 12:00	2874 85.00 6.12	4863 89.03 6.60	182 5.38 0.39	221 4.05 0.30	311 9.20 0.66	316 5.79 0.43	9 0.27 0.02	10 0.18 0.01	5 0.15 0.01	52 0.95 0.07	3381	5462
12:00 - 13:00	2986 86.85 6.36	4929 89.52 6.69	152 4.42 0.32	179 3.25 0.24	289 8.41 0.62	292 5.30 0.40	6 0.17 0.01	6 0.11 0.01	5 0.15 0.01	100 1.82 0.14	3438	5506
13:00 - 14:00	3034 89.24 6.46	5142 91.36 6.98	108 3.18 0.23	123 2.19 0.17	250 7.35 0.53	259 4.60 0.35	4 0.12 0.01	4 0.07 0.01	4 0.12 0.01	100 1.78 0.14	3400	5628
14:00 - 15:00	3252 88.95 6.92	5533 89.17 7.51	115 3.15 0.24	132 2.13 0.18	275 7.52 0.59	284 4.58 0.39	5 0.14 0.01	5 0.08 0.01	9 0.25 0.02	251 4.05 0.34	3656	6205
15:00 - 16:00	3572 88.66 7.61	5800 89.91 7.87	169 4.19 0.36	212 3.29 0.29	269 6.68 0.57	286 4.43 0.39	8 0.20 0.02	9 0.14 0.01	11 0.27 0.02	144 2.23 0.20	4029	6451
16:00 - 17:00	4006 90.33 8.53	6495 92.17 8.82	184 4.15 0.39	247 3.51 0.34	235 5.30 0.50	245 3.48 0.33	7 0.16 0.01	10 0.14 0.01	3 0.07 0.01	50 0.71 0.07	4435	7047
17:00 - 18:00	4340 90.93 9.24	6721 92.84 9.12	191 4.00 0.41	244 3.37 0.33	232 4.86 0.49	244 3.37 0.33	8 0.17 0.02	10 0.14 0.01	2 0.04 0.00	20 0.28 0.03	4773	7239
18:00 - 19:00	3651 92.57 7.77	6108 93.61 8.29	75 1.90 0.16	92 1.41 0.12	208 5.27 0.44	219 3.36 0.30	6 0.15 0.01	6 0.09 0.01	4 0.10 0.01	100 1.53 0.14	3944	6525
19:00 - 20:00	2517 89.51 5.36	4223 90.90 5.73	69 2.45 0.15	110 2.37 0.15	208 7.40 0.44	229 4.93 0.31	12 0.43 0.03	13 0.28 0.02	6 0.21 0.01	71 1.53 0.10	2812	4646
TOTAL	41450 88.25	66334 90.06	2126 4.53	2684 3.64	3239 6.90	3354 4.55	86 0.18	97 0.13	67 0.14	1186 1.61	46968	73655

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NOTE : PASSENGER VEHICLES INCLUDE AUTOS, PICKUPS, VANS AND MOTORCYCLES
 BUSES INCLUDE BOTH SCHOOL AND INTERCITY BUSES
 SINGLE UNITS INCLUDE COMMERCIAL PICKUPS, PANELS AND SINGLE UNITS

LEGEND : XXX = VOLUME
 XX.XX = ROW PERCENT
 XX.XX = COLUMN PERCENT

DIRECTION : SOUTHBOUND

OBSERVED HOURLY TRAFFIC VOLUMES : ALL STATIONS

TIME OF DAY	PASSENGER VEHICLES	VEHICLES PERSONS	COMMERCIAL VEHICLES								TOTAL	
			SINGLE UNIT VEHICLES	PERSONS	COMBINATIONS VEHICLES	PERSONS	TRACTOR ONLY VEHICLES	PERSONS	BUSES VEHICLES	PERSONS	VEHICLES	PERSONS
7:00 - 8:00	3585	4659	107	125	236	241	6	6	6	14	3939	5045
	91.01	92.35	2.72	2.48	5.99	4.78	0.15	0.12	0.13	0.28		
	7.43	6.13	0.22	0.16	0.49	0.32	0.01	0.01	0.01	0.02		
8:00 - 9:00	3170	4431	158	196	241	250	2	3	2	11	3573	4891
	88.72	90.59	4.42	4.01	6.75	5.11	0.06	0.06	0.06	0.22		
	6.57	5.83	0.33	0.26	0.50	0.33	0.00	0.00	0.00	0.01		
9:00 - 10:00	3073	4741	209	245	302	318	5	5	7	190	3596	5499
	85.46	86.22	5.81	4.46	8.40	5.78	0.14	0.09	0.19	3.46		
	6.37	6.24	0.43	0.32	0.63	0.42	0.01	0.01	0.01	0.25		
10:00 - 11:00	2862	4941	196	236	285	295	8	8	4	32	3355	5512
	85.31	89.64	5.84	4.28	8.49	5.35	0.24	0.15	0.12	0.58		
	5.93	6.50	0.41	0.31	0.59	0.39	0.02	0.01	0.01	0.04		
11:00 - 12:00	2877	5019	175	213	243	244	3	3	2	60	3300	5539
	87.18	90.61	5.30	3.85	7.36	4.41	0.09	0.05	0.06	1.08		
	5.96	6.60	0.36	0.28	0.50	0.32	0.01	0.00	0.00	0.08		
12:00 - 13:00	2918	4762	164	203	281	296	2	2	8	93	3373	5356
	86.51	88.91	4.86	3.79	8.33	5.53	0.06	0.04	0.24	1.74		
	6.04	6.27	0.34	0.27	0.58	0.39	0.00	0.00	0.02	0.12		
13:00 - 14:00	2796	4855	130	146	258	270	4	6	8	112	3196	5389
	87.48	90.09	4.07	2.71	8.07	5.01	0.13	0.11	0.25	2.08		
	5.79	6.39	0.27	0.19	0.53	0.36	0.01	0.01	0.02	0.15		
14:00 - 15:00	3533	5951	149	175	316	324	3	3	9	201	4010	6654
	88.10	89.43	3.72	2.63	7.88	4.87	0.07	0.05	0.22	3.02		
	7.32	7.83	0.31	0.23	0.65	0.43	0.01	0.00	0.02	0.26		
15:00 - 16:00	3552	5762	192	230	255	265	5	6	1	40	4005	6303
	88.69	91.42	4.79	3.65	6.37	4.20	0.12	0.10	0.02	0.63		
	7.36	7.58	0.40	0.30	0.53	0.35	0.01	0.01	0.00	0.05		
16:00 - 17:00	4217	6931	159	205	238	243	4	5	4	42	4622	7426
	91.24	93.33	3.44	2.76	5.15	3.27	0.09	0.07	0.09	0.57		
	8.74	9.12	0.33	0.27	0.49	0.32	0.01	0.01	0.01	0.06		
17:00 - 18:00	4149	6626	184	235	214	214	1	1	4	81	4552	7157
	91.15	92.58	4.04	3.28	4.70	2.99	0.02	0.01	0.09	1.13		
	8.59	8.72	0.38	0.31	0.44	0.28	0.00	0.00	0.01	0.11		
18:00 - 19:00	3427	5791	158	206	233	236	3	3	4	100	3825	6336
	89.59	91.40	4.13	3.25	6.09	3.72	0.08	0.05	0.10	1.58		
	7.10	7.62	0.33	0.27	0.48	0.31	0.01	0.00	0.01	0.13		
19:00 - 20:00	2624	4422	99	140	195	200	3	3	8	122	2929	4887
	89.59	90.48	3.38	2.86	6.66	4.09	0.10	0.06	0.27	2.50		
	5.44	5.82	0.21	0.18	0.40	0.26	0.01	0.00	0.02	0.16		
TOTAL	42783	68891	2080	2555	3297	3396	49	54	66	1098	48275	75994
	88.62	90.65	4.31	3.36	6.83	4.47	0.10	0.07	0.14	1.44		

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LEGEND : XXX = VOLUME
 XX.XX = ROW PERCENT
 XX.XX = COLUMN PERCENT

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ZIP CODE EQUIVALENCIES FOR TRAFFIC ANALYSIS ZONES

ZONE 1

ZIP CODE	POSTAL STATION NAME
76801	BROWNWOOD
76802	BROWNWOOD
76825	BRADY
76832	CHEROKEE
76844	GOLDTHWAITE
76858	MELVIN
76877	SAN SABA
76888	VOSS
76890	ZEPHYR
76901	SAN ANGELO
76904	SAN ANGELO
76906	SAN ANGELO
76950	SONORA
76954	TEXON
78004	BERGHEIM
78006	BOERNE
78013	COMFORT
78024	HUNT
78025	INGRAM
78027	KENDALIA
78028	KERRVILLE
78029	KERRVILLE
78070	SPRING BRANCH
78074	WARING
78163	BULVERDE
78601	ALBERT
78606	BLANCO
78607	BLUFFTON
78609	BUCHANAN DAM
78624	FREDERICKSBURG
78631	HARPER
78635	HYE
78636	JOHNSON CITY
78639	KINGSLAND
78643	LLANO
78646	LONE GROVE
78654	GRANITE SHOALS
78663	ROUND MOUNTAIN
78665	SANDY
78671	STONEWALL
78672	TOW
78675	WILLOW CITY
79005	BOOKER
79015	CANYON
79016	CANYON
79051	KERRICK
79064	OLTON
79100	AMARILLO
79101	AMARILLO
79109	AMARILLO
79110	AMARILLO
79364	SLATON
79368	SOUTHLAND
79400	LUBBOCK
79413	LUBBOCK
79423	LUBBOCK
79501	ANSON
79521	HASKELL
79556	SWEETWATER
79600	ABILENE
79601	ABILENE
79605	ABILENE
79705	MIDLAND
79707	MIDLAND
79735	FORT STOCKTON
79763	ODESSA
79766	ODESSA
79772	PECOS

ZONE 2

ZIP CODE	POSTAL STATION NAME
78605	BERTRAM
78611	BURNET
78641	JONESTOWN
78642	LIBERTY HILL
78645	LEANDER
78669	SPICEWOOD

ZONE 3

ZIP CODE	POSTAL STATION NAME
76520	CAMERON
76556	MILANO
76567	ROCKDALE
76570	ROSEBUD
76574	TAYLOR
76577	THORNDALE
76578	THRALL
77859	HEARNE
78615	COUPLAND
78626	GEORGETOWN
78627	GEORGETOWN
78628	GEORGETOWN
78634	HUTTO
78660	PFLUGERVILLE
78664	ROUND ROCK
78680	ROUND ROCK
78681	ROUND ROCK

ZONE 4

ZIP CODE	POSTAL STATION NAME
78610	BUDA
78619	DRIFTWOOD
78620	DRIPPING SPRINGS
78640	KYLE
78666	SAN MARCOS
78667	SAN MARCOS
78676	WIMBERLEY

ZONE 5

ZIP CODE	POSTAL STATION NAME
77801	BRYAN
77802	BRYAN
77803	BRYAN
77806	BRYAN
77833	BRENHAM
77835	BURTON
77836	CALDWELL
77837	CALVERT
77840	COLLEGE STATION
77841	COLLEGE STATION
77843	COLLEGE STATION
77853	DIME BOX
77861	IOLA
77871	NORMANGEE
77879	SOMERVILLE
78602	BASTROP
78612	CEDAR CREEK
78621	ELGIN
78650	MC DADE
78653	MANOR
78659	PAIGE
78947	LEXINGTON

ZONE 6

ZIP CODE	POSTAL STATION NAME
78130	NEW BRAUNFELS
78131	NEW BRAUNFELS
78132	NEW BRAUNFELS
78133	CANYON LAKE AREA
78623	FISCHER

ZONE 7

ZIP CODE	POSTAL STATION NAME
77000	HOUSTON
77002	HOUSTON
77005	HOUSTON
77019	HOUSTON
77021	HOUSTON
77024	HOUSTON
77025	HOUSTON
77031	HOUSTON
77032	HOUSTON
77035	HOUSTON
77038	HOUSTON
77040	HOUSTON
77041	HOUSTON
77042	HOUSTON
77058	HOUSTON
77064	HOUSTON
77072	HOUSTON
77074	HOUSTON
77077	HOUSTON
77083	HOUSTON
77090	HOUSTON
77093	HOUSTON
77098	HOUSTON
77206	HOUSTON
77220	HOUSTON
77230	HOUSTON
77298	HOUSTON
77301	CONROE
77304	CONROE
77339	HUMBLE
77340	HUNTSVILLE
77341	HUNTSVILLE
77355	MAGNOLIA
77356	MONTGOMERY
77375	TOMBALL
77378	WILLIS
77379	SPRING
77380	SPRING
77388	SPRING
77414	BAY CITY
77429	CYPRESS
77449	KATY
77462	NEWGULF
77488	WHARTON
77501	PASADENA
77502	PASADENA
77515	ANGLETON
77520	BAYTOWN
77536	DEER PARK
77541	FREEPORT
77550	GALVESTON
77566	LAKE JACKSON
77571	LA PORTE
77573	LEAGUE CITY
77580	MONT BELVIEU
77598	WEBSTER
77613	CHINA
77630	ORANGE
77700	BEAUMONT

ZONE 7 (CONT.)

ZIP CODE	POSTAL STATION NAME
77707	BEAUMONT
77708	BEAUMONT
77710	BEAUMONT
78616	DALE
78622	FENTRESS
78632	HARWOOD
78644	LOCKHART
78648	LULING
78655	MARTINDALE
78656	MAXWELL
78661	PRAIRIE LEA
78662	RED ROCK
78670	STAPLES
78934	COLUMBUS
78942	GIDDINGS
78945	LA GRANGE
78952	PLUM
78953	ROSANKY
78954	ROUND TOP
78956	SCHULENBURG
78957	SMITHVILLE
78959	WAELEDER
78961	WARRENTON
78963	WEST POINT

ZONE 8

ZIP CODE	POSTAL STATION NAME
78002	ATASCOSA
78003	BANDERA
78010	CENTER POINT
78014	COTULLA
78016	DEVINE
78017	DILLEY
78023	HELOTES
78040	LAREDO
78041	LAREDO
78043	LAREDO
78050	LEMING
78052	LYTLE
78054	MACDONA
78056	MICO
78057	MOORE
78059	NATALIA
78063	PIPE CREEK
78066	RIOMEDINA
78073	VON ORMY
78801	UVALDE
78802	UVALDE
78827	ASHERTON
78830	BIG WELLS
78832	BRACKETTVILLE
78833	CAMP WOOD
78834	CARRIZO SPRINGS
78838	CONCAN
78839	CRYSTAL CITY
78840	DEL RIO
78841	DEL RIO
78843	DEL RIO
78850	DHANIS
78852	EAGLE PASS
78853	EAGLE PASS
78861	HONDO
78870	KNIPPA
78872	LA PRYOR
78873	LEAKEY
78877	QUEMADO
78879	RIO FRIO
78881	SABINAL
78882	SPOFFORD
78884	UTOPIA
78885	VANDERPOOL

ZONE 8 (CONT.)

ZIP CODE	POSTAL STATION NAME
78886	YANCEY
79834	BIG BEND NATIONAL PARK
79854	VALENTINE
79900	EL PASO
79901	EL PASO

ZONE 9

ZIP CODE	POSTAL STATION NAME
78115	GERONIMO
78123	MC QUEENEY
78124	MARION
78155	SEGUIN
78156	SEGUIN
78638	KINGSBURY

ZONE 10

ZIP CODE	POSTAL STATION NAME
78001	ARTESIA WELLS
78005	BIGFOOT
78007	CALLIHAM
78008	CAMPBELLTON
78009	CASTROVILLE
78011	CHARLOTTE
78019	ENCINAL
78020	FASHING
78021	FOWLERTON
78022	GEORGE WEST
78026	JOURDANTON
78053	MC COY
78060	OAKVILLE
78061	PEARSALL
78062	PEGGY
78064	PLEASANTON
78065	POTEET
78069	SOMERSET
78071	THREE RIVERS
78072	TILDEN
78075	WHITSETT
78076	ZAPATA
78101	ADKINS
78330	AGUA DULCE
78332	ALICE
78333	ALICE
78339	BANQUETE
78341	BENAVIDES
78343	BISHOP
78351	DRISCOLL
78353	ENCINO
78355	FALFURRIAS
78357	FREER
78361	HEBBRONVILLE
78363	KINGSVILLE
78368	MATHIS
78370	ODEM
78372	ORANGE GROVE
78375	PREMONT
78376	REALITOS
78379	RIVIERA
78383	SANDIA
78384	SAN DIEGO
78391	TYNAN
78500	MC ALLEN
78501	MC ALLEN
78502	MC ALLEN
78503	MC ALLEN
78504	MC ALLEN
78516	ALAMO
78520	BROWNSVILLE
78521	BROWNSVILLE

ZONE 10 (CONT.)

ZIP CODE	POSTAL STATION NAME
78523	BROWNSVILLE
78537	DONNA
78538	EDCOUCH
78539	EDINBURG
78540	EDINBURG
78543	ELSA
78544	EL SAUZ
78545	FALCON HEIGHTS
78550	HARLINGEN
78551	HARLINGEN
78552	HARLINGEN
78557	HIDALGO
78559	LA FERIA
78560	LA JOYA
78566	LOS FRESNOS
78567	LOS INDIOS
78569	LYFORD
78570	MERCEDES
78572	MISSION
78576	PENITAS
78577	PHARR
78578	PORT ISABEL
78580	RAYMONDVILLE
78582	RIO GRANDE CITY
78583	RIO HONDO
78586	SAN BENITO
78593	SANTA ROSA
78596	WESLACO
78597	SOUTH PADRE ISLAND
78598	PORT MANSFIELD

ZONE 11

ZIP CODE	POSTAL STATION NAME
77901	VICTORIA
77902	VICTORIA
77903	VICTORIA
77904	VICTORIA
77954	CUERO
77957	EDNA
77962	GANADO
77963	GOLIAD
77964	HALLETTSVILLE
77975	MOULTON
77978	POINT COMFORT
77979	PORT LAVACA
77982	PORT OCONNOR
77984	SHINER
77987	SWEET HOME
77990	TIVOLI
77994	WESTHOFF
77995	YOAKUM
78102	BEEVILLE
78103	BEEVILLE
78104	BEEVILLE
78107	BERCLAIR
78111	ECLETO
78112	ELMENDORF
78113	FALLS CITY
78114	FLORESVILLE
78116	GILLETT
78117	HOBSON
78118	KARNES CITY
78119	KENEDY
78121	LA VERNIA
78122	LEESVILLE
78140	NIXON
78142	NORMANNA
78145	PAWNEE
78146	PETTUS
78147	POTH
78151	RUNGE

ZONE 11 (CONT.)

ZIP CODE	POSTAL STATION NAME
78152	SAINT HEDWIG
78153	SASPAMCO
78159	SMILEY
78160	STOCKDALE
78161	SUTHERLAND SPRINGS
78162	TULETA
78164	YORKTOWN
78336	ARANSAS PASS
78358	FULTON
78359	GREGORY
78362	INGLESIDE
78373	PORT ARANSAS
78374	PORTLAND
78377	REFUGIO
78380	ROBSTOWN
78382	ROCKPORT
78387	SINTON
78389	SKIDMORE
78390	TAFT
78393	WOODSBORO
78400	CORPUS CHRISTI
78401	CORPUS CHRISTI
78402	CORPUS CHRISTI
78403	CORPUS CHRISTI
78404	CORPUS CHRISTI
78405	CORPUS CHRISTI
78408	CORPUS CHRISTI
78410	CORPUS CHRISTI
78411	CORPUS CHRISTI
78412	CORPUS CHRISTI
78413	CORPUS CHRISTI
78414	CORPUS CHRISTI
78415	CORPUS CHRISTI
78416	CORPUS CHRISTI
78418	CORPUS CHRISTI
78428	CORPUS CHRISTI
78429	CORPUS CHRISTI
78432	CORPUS CHRISTI
78437	CORPUS CHRISTI
78440	CORPUS CHRISTI
78445	CORPUS CHRISTI
78451	CORPUS CHRISTI
78453	CORPUS CHRISTI
78460	CORPUS CHRISTI
78466	CORPUS CHRISTI
78469	CORPUS CHRISTI
78482	CORPUS CHRISTI
78603	BEBE
78604	BELMONT
78614	COST
78629	GONZALES
78658	OTTINE
78941	FLATONIA

ZONE 12

ZIP CODE	POSTAL STATION NAME
75002	ALLEN
75003	ANNA
75004	BLUE RIDGE
75005	CADDO MILLS
75006	CARROLLTON
75007	CARROLLTON
75009	CELINA
75010	CARROLLTON
75015	IRVING
75016	IRVING
75019	COPPELL
75020	DENISON
75023	PLANO
75028	LEWISVILLE
75031	FARMERSVILLE

ZONE 12 (CONT.)

ZIP CODE	POSTAL STATION NAME
75032	FATE
75034	FRISCO
75038	IRVING
75039	IRVING
75040	GARLAND
75041	GARLAND
75042	GARLAND
75043	GARLAND
75046	GARLAND
75050	GRAND PRAIRIE
75051	GRAND PRAIRIE
75052	GRAND PRAIRIE
75053	GRAND PRAIRIE
75056	LEWISVILLE
75060	IRVING
75061	IRVING
75062	IRVING
75063	IRVING
75065	LAKE DALLAS
75067	LEWISVILLE
75068	LITTLE ELM
75069	MC KINNEY
75071	MELISSA
75074	PLANO
75075	PLANO
75078	PROSPER
75080	RICHARDSON
75081	RICHARDSON
75083	RICHARDSON
75087	ROCKWALL
75088	ROWLETT
75089	ROYSE CITY
75090	SHERMAN
75098	WYLIE
75101	BARDWELL
75102	BARRY
75103	CANTON
75104	CEDAR HILL
75110	CORSICANA
75115	DE SOTO
75116	DUNCANVILLE
75119	ENNIS
75124	EUSTACE
75125	FERRIS
75126	FORNEY
75134	LANCASTER
75137	DUNCANVILLE
75140	GRAND SALINE
75142	KAUFMAN
75143	SEVEN POINTS
75144	KERENS
75146	LANCASTER
75147	MABANK
75148	MALAKOFF
75149	MESQUITE
75150	MESQUITE
75151	NAVARRO
75154	RED OAK
75159	SEAGOVILLE
75160	TERRELL
75163	TRINIDAD
75165	WAXAHACHIE
75169	WILLS POINT
75172	WILMER
75180	MESQUITE
75182	MESQUITE
75200	DALLAS
75201	DALLAS
75202	DALLAS
75203	DALLAS
75204	DALLAS
75205	DALLAS
75206	DALLAS

ZONE 12 (CONT.)

ZIP CODE	POSTAL STATION NAME
75207	DALLAS
75208	DALLAS
75209	DALLAS
75210	DALLAS
75211	DALLAS
75212	DALLAS
75213	DALLAS
75214	DALLAS
75215	DALLAS
75216	DALLAS
75217	DALLAS
75218	DALLAS
75219	DALLAS
75220	DALLAS
75221	DALLAS
75222	DALLAS
75223	DALLAS
75224	DALLAS
75225	DALLAS
75226	DALLAS
75227	DALLAS
75228	DALLAS
75229	DALLAS
75230	DALLAS
75231	DALLAS
75232	DALLAS
75233	DALLAS
75234	DALLAS
75235	DALLAS
75236	DALLAS
75237	DALLAS
75238	DALLAS
75239	DALLAS
75240	DALLAS
75243	DALLAS
75244	DALLAS
75246	DALLAS
75247	DALLAS
75248	DALLAS
75249	DALLAS
75252	DALLAS
75254	DALLAS
75258	DALLAS
75261	DALLAS
75275	DALLAS
75284	DALLAS
75374	DALLAS
75400	GREENVILLE
75401	GREENVILLE
75410	ALBA
75418	BONHAM
75426	CLARKSVILLE
75428	COMMERCE
75432	COOPER
75453	LONE OAK
75455	MOUNT PLEASANT
75460	PARIS
75469	PECAN GAP
75472	POINT
75474	QUINLAN
75476	RAVENNA
75479	SAVOY
75482	SULPHUR SPRINGS
75487	TALCO
75491	WHITEWRIGHT
75494	WINNSBORO
75497	YANTIS
75501	TEXARKANA
75503	TEXARKANA
75551	ATLANTA
75559	DE KALB
75561	HOOKS
75563	LINDEN

ZONE 12 (CONT.)

ZIP CODE	POSTAL STATION NAME
75569	NASH
75570	NEW BOSTON
75571	OMAHA
75601	LONGVIEW
75602	LONGVIEW
75603	LONGVIEW
75604	LONGVIEW
75605	LONGVIEW
75608	LONGVIEW
75630	AVINGER
75633	CARTHAGE
75638	DAINGERFIELD
75644	GILMER
75647	GLADEWATER
75652	HENDERSON
75656	HUGHES SPRINGS
75660	JUDSON
75662	KILGORE
75667	LANEVILLE
75668	LONE STAR
75669	LONG BRANCH
75670	MARSHALL
75671	MARSHALL
75681	MOUNT ENTERPRISE
75684	OVERTON
75700	TYLER
75701	TYLER
75702	TYLER
75703	TYLER
75704	TYLER
75706	TYLER
75707	TYLER
75710	TYLER
75751	ATHENS
75754	BEN WHEELER
75755	BIG SANDY
75758	CHANDLER
75762	FLINT
75765	HAWKINS
75766	JACKSONVILLE
75771	LINDALE
75773	MINEOLA
75778	MURCHISON
75783	QUITMAN
75785	RUSK
75789	TROUP
75790	VAN
75791	WHITEHOUSE
75800	PALESTINE
75801	PALESTINE
75831	BUFFALO
75835	CROCKETT
75840	FAIRFIELD
75844	GRAPELAND
75846	JEWETT
75850	LEONA
75851	LOVELADY
75860	TEAGUE
75901	LUFKIN
75903	LUFKIN
75935	CENTER
75951	JASPER
75956	KIRBYVILLE
75961	NACOGDOCHES
75972	SAN AUGUSTINE
76006	ARLINGTON
76008	ALEDO
76009	ALVARADO
76010	ARLINGTON
76011	ARLINGTON
76012	ARLINGTON
76013	ARLINGTON
76014	ARLINGTON

ZONE 12 (CONT.)

ZIP CODE	POSTAL STATION NAME
76015	ARLINGTON
76016	ARLINGTON
76017	ARLINGTON
76018	ARLINGTON
76020	AZLE
76021	BEDFORD
76022	BEDFORD
76023	BOYD
76024	BRECKENRIDGE
76026	BRIDGEPORT
76028	BURLESON
76029	CADDO
76031	CLEBURNE
76033	CLEBURNE
76034	COLLEYVILLE
76036	CROWLEY
76039	EULESS
76040	EULESS
76043	GLEN ROSE
76045	GRAFORD
76048	GRANBURY
76050	GRANDVIEW
76051	GRAPEVINE
76053	HURST
76054	HURST
76055	ITASCA
76059	KEENE
76063	MANSFIELD
76065	MIDLOTHIAN
76067	MINERAL WELLS
76071	NEWARK
76075	PERRIN
76082	SPRINGTOWN
76084	VENUS
76086	WEATHERFORD
76092	GRAPEVINE
76100	FORT WORTH
76101	FORT WORTH
76102	FORT WORTH
76103	FORT WORTH
76104	FORT WORTH
76106	FORT WORTH
76107	FORT WORTH
76108	FORT WORTH
76109	FORT WORTH
76110	FORT WORTH
76111	FORT WORTH
76112	FORT WORTH
76114	FORT WORTH
76115	FORT WORTH
76116	FORT WORTH
76117	FORT WORTH
76118	FORT WORTH
76119	FORT WORTH
76123	FORT WORTH
76125	FORT WORTH
76126	FORT WORTH
76127	FORT WORTH
76129	FORT WORTH
76130	FORT WORTH
76131	FORT WORTH
76132	FORT WORTH
76133	FORT WORTH
76134	FORT WORTH
76135	FORT WORTH
76137	FORT WORTH
76140	FORT WORTH
76148	FORT WORTH
76150	FORT WORTH
76155	FORT WORTH
76179	FORT WORTH
76180	FORT WORTH
76184	FORT WORTH

ZONE 12 (CONT.)

ZIP CODE	POSTAL STATION NAME
76200	DENTON
76201	DENTON
76202	DENTON
76203	DENTON
76205	DENTON
76206	DENTON
76226	ARGYLE
76227	AUBREY
76230	BOWIE
76234	DECATUR
76239	FORESTBURG
76240	GAINESVILLE
76248	KELLER
76252	MUENSTER
76255	NOCONA
76258	PILOT POINT
76259	PONDER
76262	ROANOK
76266	SANGER
76273	WHITESBORO
76301	WICHITA FALLS
76302	WICHITA FALLS
76305	WICHITA FALLS
76306	WICHITA FALLS
76308	WICHITA FALLS
76309	WICHITA FALLS
76310	WICHITA FALLS
76354	BURKBURNETT
76365	HENRIETTA
76367	IOWA PARK
76374	OLNEY
76384	VERNON
76401	STEPHENVILLE
76430	ALBANY
76436	CARLTON
76442	COMANCHE
76444	DE LEON
76445	DESDEMONA
76446	DUBLIN
76448	EASTLAND
76472	SANTO
76500	TEMPLE
76501	TEMPLE
76502	TEMPLE
76503	TEMPLE
76504	TEMPLE
76508	TEMPLE
76511	BARTLETT
76513	BELTON
76517	BEN ARNOLD
76518	BUCKHOLTS
76519	BURLINGTON
76522	COPPERAS COVE
76524	EDDY
76527	FLORENCE
76528	GATESVILLE
76530	GRANGER
76531	HAMILTON
76533	HEIDENHEIMER
76534	HOLLAND
76537	JARRELL
76538	JONESBORO
76539	KEMPNER
76540	KILLEEN
76541	KILLEEN
76542	KILLEEN
76543	KILLEEN
76544	KILLEEN
76545	KILLEEN
76546	KILLEEN
76550	LAMPASAS
76552	LEON JUNCTION
76554	LITTLE RIVER

ZONE 12 (CONT.)

ZIP CODE	POSTAL STATION NAME
76557	MOODY
76559	NOLANVILLE
76561	OGLESBY
76564	PENDLETON
76569	ROGERS
76571	SALADO
76573	SCHWERTNER
76579	TROY
76599	GATESVILLE
76621	ABBOTT
76622	AQUILLA
76627	BLUM
76629	BREMOND
76630	BRUCEVILLE
76632	CHILTON
76633	CHINA SPRING
76634	CLIFTON
76636	COVINGTON
76637	CRANFILLS GAP
76638	CRAWFORD
76640	ELM MOTT
76641	FROST
76642	GROESBECK
76643	HEWITT
76645	HILLSBORO
76648	HUBBARD
76652	KOPPERL
76654	LEROY
76655	LORENA
76656	LOTT
76657	MC GREGOR
76660	MALONE
76661	MARLIN
76664	MART
76665	MERIDIAN
76666	MERTENS
76667	MEXIA
76675	OTTO
76680	REAGAN
76682	RIESEL
76685	SATIN
76689	VALLEY MILLS
76690	WALNUT SPRINGS
76691	WEST
76692	WHITNEY
76693	WORTHAM
76700	WACO
76701	WACO
76702	WACO
76703	WACO
76704	WACO
76705	WACO
76706	WACO
76707	WACO
76708	WACO
76710	WACO
76711	WACO
76714	WACO
76718	WACO
76723	WACO
76727	WACO
76741	WACO
76758	WACO
76770	WACO
76798	WACO
76799	WACO
78673	WALBURG
78674	WEIR

SAN ANTONIO

ZIP CODE	POSTAL STATION NAME
78108	CIBOLO
78109	CONVERSE
78148	UNIVERSAL CITY/RANDOLPH A F B
78150	UNIVERSAL CITY/RANDOLPH A F B
78154	SCHERTZ
78200	SAN ANTONIO PO
78201	BEACON HILL
78202	B AREA 2
78203	HACKBERRY AREA 2
78204	GUILBEAU
78205	SAN ANTONIO PO
78206	SAN ANTONIO PO
78207	STATION 'A'
78208	ALAMO HEIGHTS AREA 2
78209	ALAMO HEIGHTS
78210	HACKBERRY
78211	SOUTH SAN ANTONIO
78212	LAUREL HEIGHTS
78213	CRESTHAVEN
78214	HARLANDALE
78215	B AREA 3
78216	NIMITZ
78217	NORTH BROADWAY
78218	NATURAL BRIDGE CAVERNS
78219	J. FRANK DOBIE AREA 2
78220	J. FRANK DOBIE
78221	TERRELL WELLS
78222	J. FRANK DOBIE AREA 3
78223	HIGHLAND HILLS
78224	TERRELL WELLS AREA 2
78225	SOUTH SAN ANTONIO AREA 2
78226	SOUTH SAN ANTONIO AREA 3
78227	VALLEY HI
78228	UNIVERSITY PARK
78229	SOUTH TEXAS MEDICAL CENTER
78230	BEACON HILL AREA 2
78231	CEDAR ELM
78232	THOUSAND OAKS
78233	GMF
78234	FORT SAM HOUSTON
78235	BROOKS A F B
78236	LACKLAND A F B
78237	LOS JARDINES
78238	UNIVERSITY PARK AREA 2
78239	SERNA AREA 3
78240	SOUTH TEXAS MED CTR AREA 2
78241	KELLY A F B
78242	VALLEY HI AREA 2
78244	J. FRANK DOBIE AREA 4
78245	VALLEY HI AREA 3
78247	NORTH BROADWAY AREA 2
78248	NIMITZ AREA 3
78249	SOUTH TEXAS MED CTR AREA 3
78250	UNIVERSITY PARK AREA 3
78251	UNIVERSITY PARK AREA 4
78252	VALLEY HI AREA 4
78253	UNIVERSITY PARK AREA 5
78254	UNIVERSITY PARK AREA 6
78255	SOUTH TEXAS MED CTR AREA 4
78256	SOUTH TEXAS MED CTR AREA 5
78257	SOUTH TEXAS MED CTR AREA 6
78258	NIMITZ AREA 4
78259	NORTH BROADWAY AREA 3
78260	NIMITZ AREA 5
78261	NORTH BROADWAY AREA 4
78262	J. FRANK DOBIE AREA 6
78263	J. FRANK DOBIE AREA 5
78264	TERRELL WELLS AREA 3
78265	GMF
78268	UNIVERSITY PARK AREA 2
78269	CEDAR ELM
78270	THOUSAND OAKS
78275	B AREA 2

SAN ANTONIO (CONT.)

ZIP CODE	POSTAL STATION NAME
78284	SAN ANTONIO PO
78285	SAN ANTONIO PO
78286	SAN ANTONIO PO
78287	SAN ANTONIO PO
78288	SOUTH TEXAS MED CTR AREA 2
78290	SAN ANTONIO PO
78291	SAN ANTONIO PO
78292	SAN ANTONIO PO
78293	SAN ANTONIO PO
78294	SAN ANTONIO PO
78295	SAN ANTONIO PO
78296	SAN ANTONIO PO
78297	SAN ANTONIO PO
78298	SAN ANTONIO PO
78299	SAN ANTONIO PO

AUSTIN

ZIP CODE	POSTAL STATION NAME
78613	CEDAR PARK
78617	DEL VALLE
78651	MC NEIL
78652	MANCHACA/SAN LEANNA
78700	AUSTIN PO
78701	AUSTIN PO
78702	EAST AUSTIN
78703	WEST AUSTIN
78704	SOUTH AUSTIN
78705	NORTH AUSTIN AREA 2
78710	AUSTIN PO
78711	AUSTIN PO
78712	NORTH AUSTIN AREA 2
78713	NORTH AUSTIN AREA 2
78716	AUSTIN PO
78717	BRUSHY CREEK
78718	AUSTIN PO
78719	BERGSTROM A F B
78720	BALCONES
78721	EAST AUSTIN AREA 2
78722	EAST AUSTIN AREA 3
78723	NORTHEAST AREA 2
78724	NORTHEAST AREA 3
78725	NORTHEAST AREA 4
78726	BALCONES AREA 2
78727	KINGS VILLAGE
78728	MC NEIL
78729	JOLLYVILLE
78730	CHIMNEY CORNERS
78731	NORTHWEST AREA 2
78732	NORTHWEST AREA 3
78733	BEE CAVES
78734	LAKEWAY
78735	CAK HILL
78736	SOUTH AUSTIN AREA 4
78737	SOUTH AUSTIN AREA 5
78738	LAKEWAY
78739	WEST LAKE
78741	SOUTHEAST AREA 2
78742	SOUTHEAST AREA 3
78743	BERGSTROM A F B
78744	SOUTHEAST
78745	SOUTHEAST AREA 5
78746	SOUTH AUSTIN AREA 6
78747	CREEDMOOR
78748	MANCHACA/SAN LEANNA
78749	SOUTH AUSTIN AREA 7
78750	NORTHWEST AREA 4
78751	NORTH AUSTIN
78752	NORTHEAST AREA 1
78753	NORTHEAST
78754	NORTHEAST AREA 6
78755	BALCONES

AUSTIN (CONT.)

ZIP CODE	POSTAL STATION NAME
78756	NORTH AUSTIN AREA 3
78757	NORTHWEST AREA 1
78758	NORTHWEST AREA 5
78759	BALCONES
78760	SOUTHEAST
78761	NORTHEAST
78762	EAST AUSTIN
78763	WEST AUSTIN
78764	SOUTH AUSTIN
78765	NORTH AUSTIN
78766	NORTHWEST AREA 5
78767	AUSTIN PO
78768	AUSTIN PO
78769	AUSTIN PO
78772	SOUTHEAST AREA 2
78773	NORTH AUSTIN
78774	AUSTIN PO
78776	AUSTIN PO
78777	AUSTIN PO
78778	AUSTIN PO
78780	AUSTIN PO
78781	AUSTIN PO
78782	SOUTHEAST AREA 2
78786	AUSTIN PO
78787	NORTHEAST
78788	SOUTHEAST AREA 2
78789	AUSTIN PO

OUT OF STATE

ZIP CODE	POSTAL STATION NAME
1845	NORTH ANDOVER, MASSACHUSETTS
2026	DEDHAM, MASSACHUSETTS
2100	BOSTON, MASSACHUSETTS
4751	LIMESTONE, MAINE
6000	CONNECTICUT
7008	CARTERET, NEW JERSEY
7755	OAKHURST, NEW JERSEY
8069	PENNS GROVE, NEW JERSEY
8226	OCEAN CITY, NEW JERSEY
10956	NEW CITY, NEW YORK
10965	PEARL RIVER, NEW YORK
11710	BELLMORE, NEW YORK
11789	SOUND BEACH, NEW YORK
12114	LEBANON SPRINGS, NEW YORK
12901	PLATTSBURGH, NEW YORK
13501	UTICA, NEW YORK
13676	POTSDAM, NEW YORK
14201	BUFFALO, NEW YORK
14301	NIAGARA FALLS, NEW YORK
14432	CLIFTON SPRINGS, NEW YORK
14519	ONTARIO, NEW YORK
14601	ROCHESTER, NEW YORK
14901	ELMIRA, NEW YORK
15219	PITTSBURGH, PENNSYLVANIA
15419	CALIFORNIA, PENNSYLVANIA
15461	MASONTOWN, PENNSYLVANIA
15728	CLYMER, PENNSYLVANIA
16248	RIMERSBURG, PENNSYLVANIA
16314	COCHRANTON, PENNSYLVANIA
16950	WESTFIELD, PENNSYLVANIA
17315	DOVER, PENNSYLVANIA
18102	ALLENTOWN, PENNSYLVANIA
18234	LATTIMER MINES, PENNSYLVANIA
19020	BENSALEM, PENNSYLVANIA
19087	WAYNE, PENNSYLVANIA
19330	COCHRANVILLE, PENNSYLVANIA
19803	WILMINGTON, DELAWARE
19901	DOVER, DELAWARE
20000	WASHINGTON, DC
20001	WASHINGTON, DC
20418	WASHINGTON, DC

OUT OF STATE (CONT.)

ZIP CODE	POSTAL STATION NAME
21270	BALTIMORE, MARYLAND
21502	CUMBERLAND, MARYLAND
22003	ANNANDALE, VIRGINIA
22032	FAIRFAX, VIRGINIA
22060	FORT BELVOIR, VIRGINIA
22070	HERNDON, VIRGINIA
22071	HERNDON, VIRGINIA
22102	MC LEAN, VIRGINIA
22193	WOODBRIIDGE, VIRGINIA-
22207	ARLINGTON, VIRGINIA
22417	VIRGINIA
23201	RICHMOND, VIRGINIA
24200	VIRGINIA
24301	PULASKI, VIRGINIA
24401	STAUNTON, VIRGINIA
24554	GLADYS, VIRGINIA
25000	WEST VIRGINIA
25130	MADISON, WEST VIRGINIA
25201	TAD, WEST VIRGINIA
25301	CHARLESTON, WEST VIRGINIA
25507	CEREDO, WEST VIRGINIA
25880	MOUNT HOPE, WEST VIRGINIA
26062	WEIRTON, WEST VIRGINIA
27330	SANFORD, NORTH CAROLINA
27403	GREENSBORO, NORTH CAROLINA
28130	PAW CREEK, NORTH CAROLINA
28139	RUTHERFORDTON, NORTH CAROLINA
28214	CHARLOTTE, NORTH CAROLINA
28217	CHARLOTTE, NORTH CAROLINA
28240	NORTH CAROLINA
28260	CHARLOTTE, NORTH CAROLINA
29072	LEXINGTON, SOUTH CAROLINA
32301	TALLAHASSEE, FLORIDA
33000	FLORIDA
33040	KEY WEST, FLORIDA
33069	POMPANO BEACH, FLORIDA
33476	PAHOKEE, FLORIDA
33570	RUSKIN, FLORIDA
33950	PUNTA GORDA, FLORIDA
37000	TENNESSEE
37072	GOODLETTSVILLE, TENNESSEE
37200	NASHVILLE, TENNESSEE
37201	NASHVILLE, TENNESSEE
37401	CHATTANOOGA, TENNESSEE
37548	TENNESSEE
37601	JOHNSON CITY, TENNESSEE
37654	TENNESSEE
37738	GATLINBURG, TENNESSEE
37801	MARYVILLE, TENNESSEE
37901	KNOXVILLE, TENNESSEE
38017	COLLIERVILLE, TENNESSEE
38081	TENNESSEE
38101	MEMPHIS, TENNESSEE
38112	MEMPHIS, TENNESSEE
38116	MEMPHIS, TENNESSEE
38127	MEMPHIS, TENNESSEE
38134	MEMPHIS, TENNESSEE
38138	MEMPHIS, TENNESSEE
38242	PARIS, TENNESSEE
38372	SAVANNAH, TENNESSEE
38375	SELMER, TENNESSEE
38478	PULASKI, TENNESSEE
38501	COOKEVILLE, TENNESSEE
38701	GREENVILLE, MISSISSIPPI
39000	MISSISSIPPI
39042	BRANDON, MISSISSIPPI
39180	VICKSBURG, MISSISSIPPI
39208	JACKSON, MISSISSIPPI
39211	JACKSON, MISSISSIPPI
39440	LAUREL, MISSISSIPPI
40100	KENTUCKY
40130	KENTUCKY
40206	LOUISVILLE, KENTUCKY

OUT OF STATE (CONT.)

ZIP CODE	POSTAL STATION NAME
40222	LOUISVILLE, KENTUCKY
40353	MOUNT STERLING, KENTUCKY
40475	RICHMOND, KENTUCKY
40501	LEXINGTON, KENTUCKY
40502	LEXINGTON, KENTUCKY
41000	KENTUCKY
41858	WHITESBURG, KENTUCKY
42001	PADUCAH, KENTUCKY
42420	HENDERSON, KENTUCKY
42743	GREENSBURG, KENTUCKY
43130	LANCASTER, OHIO
43201	COLUMBUS, OHIO
43210	COLUMBUS, OHIO
43302	MARION, OHIO
43616	TOLEDO, OHIO
44000	OHIO
44054	LORAIN, OHIO
44077	PAINESVILLE, OHIO
44101	CLEVELAND, OHIO
44133	CLEVELAND, OHIO
44145	CLEVELAND, OHIO
44473	VIENNA, OHIO
44481	WARREN, OHIO
44483	WARREN, OHIO
44720	CANTON, OHIO
44805	ASHLAND, OHIO
44901	MANSFIELD, OHIO
45201	CINCINNATI, OHIO
45318	COVINGTON, OHIO
45324	FAIRBORN, OHIO
45401	DAYTON, OHIO
45431	DAYTON, OHIO
45817	BLUFFTON, OHIO
45833	DELPHOS, OHIO
45869	NEW BREMEN, OHIO
46200	INDIANAPOLIS, INDIANA
46201	INDIANAPOLIS, INDIANA
46219	INDIANAPOLIS, INDIANA
46400	GARY, INDIANA
46543	MILLERSBURG, INDIANA
46619	SOUTH BEND, INDIANA
46643	INDIANA
46701	ALBION, INDIANA
46706	AUBURN, INDIANA
46794	WAWAKA, INDIANA
46801	FORT WAYNE, INDIANA
46901	KOKOMO, INDIANA
47353	LIBERTY, INDIANA
47567	PETERSBURG, INDIANA
47715	EVANSVILLE, INDIANA
47866	PIMENTO, INDIANA
48048	NEW HAVEN, MICHIGAN
48053	PONTIAC, MICHIGAN
48054	PONTIAC, MICHIGAN
48100	MICHIGAN
48150	LIVONIA, MICHIGAN
48170	PLYMOUTH, MICHIGAN
48501	FLINT, MICHIGAN
48901	LANSING, MICHIGAN
49047	DOWAGIAC, MICHIGAN
49423	HOLLAND, MICHIGAN
49449	PENTWATER, MICHIGAN
49700	MICHIGAN
49801	IRON MOUNTAIN, MICHIGAN
49938	IRONWOOD, MICHIGAN
50000	IOWA
50010	AMES, IOWA
50022	ATLANTIC, IOWA
50036	BOONE, IOWA
50125	INDIANOLA, IOWA
50273	WINTERSET, IOWA
50428	CLEAR LAKE, IOWA
50484	WODEN, IOWA

OUT OF STATE (CONT.)

ZIP CODE	POSTAL STATION NAME
50501	FORT DODGE, IOWA
50604	APLINGTON, IOWA
50638	GRUNDY CENTER, IOWA
50707	WATERLOO, IOWA
51003	ALTON, IOWA
51101	SIOUX CITY, IOWA
51102	SIOUX CITY, IOWA
51106	SIOUX CITY, IOWA
51510	OMAHA, IOWA
51537	HARLAN, IOWA
51640	HAMBURG, IOWA
52040	DYERSVILLE, IOWA
52057	MANCHESTER, IOWA
52240	IOWA CITY, IOWA
52241	IOWA CITY, IOWA
52404	CEDAR RAPIDS, IOWA
52627	FORT MADISON, IOWA
52722	BETTENDORF, IOWA
52754	LETTS, IOWA
52761	MUSCATINE, IOWA
53006	BROWNSVILLE, WISCONSIN
53089	SUSSEX, WISCONSIN
53132	HALES CORNERS, WISCONSIN
53201	MILWAUKEE, WISCONSIN
53209	MILWAUKEE, WISCONSIN
53504	ARGYLE, WISCONSIN
53545	JANESVILLE, WISCONSIN
53597	WAUNAKEE, WISCONSIN
53701	MADISON, WISCONSIN
54401	WAUSAU, WISCONSIN
54601	LA CROSSE, WISCONSIN
54701	EAU CLAIRE, WISCONSIN
54759	PEPIN, WISCONSIN
54840	GRANTSBURG, WISCONSIN
54880	SUPERIOR, WISCONSIN
54956	NEENAH, WISCONSIN
55008	CAMBRIDGE, MINNESOTA
55019	DUNDAS, MINNESOTA
55082	STILLWATER, MINNESOTA
55101	SAINT PAUL, MINNESOTA
55116	SAINT PAUL, MINNESOTA
55351	MINNESOTA
55401	MINNEAPOLIS, MINNESOTA
55407	MINNEAPOLIS, MINNESOTA
55435	MINNEAPOLIS, MINNESOTA
55720	CLOQUET, MINNESOTA
55981	WABASHA, MINNESOTA
56097	WELLS, MINNESOTA
56187	WORTHINGTON, MINNESOTA
56264	MINNEOTA, MINNESOTA
56601	BEMIDJI, MINNESOTA
57026	ELKTON, SOUTH DAKOTA
57067	UTICA, SOUTH DAKOTA
57101	SIOUX FALLS, SOUTH DAKOTA
57105	SIOUX FALLS, SOUTH DAKOTA
57106	SIOUX FALLS, SOUTH DAKOTA
58027	ENDERLIN, NORTH DAKOTA
58102	FARGO, NORTH DAKOTA
58110	NORTH DAKOTA
58249	LANGDON, NORTH DAKOTA
58501	BISMARCK, NORTH DAKOTA
53801	MISSOULA, MONTANA
60030	GRAYSLAKE, ILLINOIS
60037	HIGHLAND PARK, ILLINOIS
60045	LAKE FOREST, ILLINOIS
60050	MC HENRY, ILLINOIS
60056	MOUNT PROSPECT, ILLINOIS
60101	ADDISON, ILLINOIS
60137	GLEN ELLYN, ILLINOIS
60148	LOMBARD, ILLINOIS
60188	WHEATON, ILLINOIS
60190	WINFIELD, ILLINOIS
60201	EVANSTON, ILLINOIS

OUT OF STATE (CONT.)

ZIP CODE	POSTAL STATION NAME
60411	CHICAGO HEIGHTS, ILLINOIS
60448	MOKENA, ILLINOIS
60521	HINSDALE, ILLINOIS
60601	CHICAGO, ILLINOIS
60605	CHICAGO, ILLINOIS
60617	CHICAGO, ILLINOIS
60634	CHICAGO, ILLINOIS
60914	BOURBONNAIS, ILLINOIS
61020	DAVIS JUNCTION, ILLINOIS
61261	LYNDON, ILLINOIS
61443	KEWANEE, ILLINOIS
61542	LEWISTOWN, ILLINOIS
61568	TREMONT, ILLINOIS
61613	PEORIA, ILLINOIS
61701	BLOOMINGTON, ILLINOIS
61866	RANTOUL, ILLINOIS
61868	RANTOUL, ILLINOIS
62040	GRANITE CITY, ILLINOIS
62208	EAST SAINT LOUIS, ILLINOIS
62225	BELLEVILLE, ILLINOIS
62401	EFFINGHAM, ILLINOIS
62526	DECATUR, ILLINOIS
62618	BEARDSTOWN, ILLINOIS
62814	BLUFORD, ILLINOIS
62864	MOUNT VERNON, ILLINOIS
62901	CARBONDALE, ILLINOIS
63010	ARNOLD, MISSOURI
63025	EUREKA, MISSOURI
63069	PACIFIC, MISSOURI
63074	SAINT ANN, MISSOURI
63101	SAINT LOUIS, MISSOURI
63105	SAINT LOUIS, MISSOURI
63122	SAINT LOUIS, MISSOURI
63123	SAINT LOUIS, MISSOURI
63124	SAINT LOUIS, MISSOURI
63701	CAPE GIRARDEAU, MISSOURI
63736	BENTON, MISSOURI
63775	PERRYVILLE, MISSOURI
63801	SIKESTON, MISSOURI
63834	CHARLESTON, MISSOURI
63873	PORTAGEVILLE, MISSOURI
63901	POPLAR BLUFF, MISSOURI
63935	DONIPHAN, MISSOURI
64030	GRANDVIEW, MISSOURI
64056	INDEPENDENCE, MISSOURI
64063	LEES SUMMIT, MISSOURI
64080	PLEASANT HILL, MISSOURI
64093	WARRENSBURG, MISSOURI
64100	KANSAS CITY, MISSOURI
64101	KANSAS CITY, MISSOURI
64145	KANSAS CITY, MISSOURI
64152	KANSAS CITY, MISSOURI
64400	MISSOURI
64485	SAVANNAH, MISSOURI
64502	SAINT JOSEPH, MISSOURI
64640	GALLATIN, MISSOURI
64701	HARRISONVILLE, MISSOURI
64759	LAMAR, MISSOURI
64801	JOPLIN, MISSOURI
64836	CARTHAGE, MISSOURI
65200	MISSOURI
65201	COLUMBIA, MISSOURI
65324	CLIMAX SPRINGS, MISSOURI
65711	MOUNTAIN GROVE, MISSOURI
65793	WILLOW SPRINGS, MISSOURI
65801	SPRINGFIELD, MISSOURI
65803	SPRINGFIELD, MISSOURI
66027	LEAVENWORTH, KANSAS
66044	LAWRENCE, KANSAS
66061	OLATHE, KANSAS
66215	SHAWNEE MISSION, KANSAS
66502	MANHATTAN, KANSAS
66514	MILFORD, KANSAS

OUT OF STATE (CONT.)

ZIP CODE	POSTAL STATION NAME
66524	OVERBROOK, KANSAS
66534	SABETHA, KANSAS
66605	TOPEKA, KANSAS
66701	FORT SCOTT, KANSAS
66725	COLUMBUS, KANSAS
66800	KANSAS
66801	EMPORIA, KANSAS
66861	MARION, KANSAS
67010	AUGUSTA, KANSAS
67012	BEAUMONT, KANSAS
67042	EL DORADO, KANSAS
67072	LATHAM, KANSAS
67135	SEDGWICK, KANSAS
67201	WICHITA, KANSAS
67203	WICHITA, KANSAS
67204	WICHITA, KANSAS
67212	WICHITA, KANSAS
67213	WICHITA, KANSAS
67214	WICHITA, KANSAS
67219	WICHITA, KANSAS
67336	CHETOPA, KANSAS
67401	SALINA, KANSAS
67404	KANSAS
67431	CHAPMAN, KANSAS
67432	CLAY CENTER, KANSAS
67454	KANOPOLIS, KANSAS
67601	HAYS, KANSAS
67648	LUCAS, KANSAS
67806	KANSAS
67846	GARDEN CITY, KANSAS
68025	FREMONT, NEBRASKA
68100	OMAHA, NEBRASKA
68101	OMAHA, NEBRASKA
68106	OMAHA, NEBRASKA
68123	OMAHA, NEBRASKA
68134	OMAHA, NEBRASKA
68434	SEWARD, NEBRASKA
68501	LINCOLN, NEBRASKA
68512	LINCOLN, NEBRASKA
69022	CAMBRIDGE, NEBRASKA
70068	LA PLACE, LOUISIANA
70204	LOUISIANA
70500	LOUISIANA
70526	CROWLEY, LOUISIANA
70669	WESTLAKE, LOUISIANA
70705	LOUISIANA
70808	BATON ROUGE, LOUISIANA
71075	SPRINGHILL, LOUISIANA
71101	SHREVEPORT, LOUISIANA
71103	SHREVEPORT, LOUISIANA
71105	SHREVEPORT, LOUISIANA
71107	SHREVEPORT, LOUISIANA
71108	SHREVEPORT, LOUISIANA
71111	BOSSIER CITY, LOUISIANA
71112	BOSSIER CITY, LOUISIANA
71118	SHREVEPORT, LOUISIANA
71129	SHREVEPORT, LOUISIANA
71233	DELTA, LOUISIANA
71241	FARMERVILLE, LOUISIANA
71261	MER ROUGE, LOUISIANA
71270	RUSTON, LOUISIANA
71295	WINNSBORO, LOUISIANA
71350	MANSURA, LOUISIANA
71378	WISNER, LOUISIANA
71426	FISHER, LOUISIANA
71701	CAMDEN, ARKANSAS
71730	EL DORADO, ARKANSAS
71753	MAGNOLIA, ARKANSAS
71801	HOPE, ARKANSAS
71822	ASHDOWN, ARKANSAS
71830	ARKANSAS
71831	COLUMBUS, ARKANSAS
71863	ARKANSAS

OUT OF STATE (CONT.)

ZIP CODE	POSTAL STATION NAME
71901	HOT SPRINGS NATIONAL PARK, ARKANSAS
71909	HOT SPRINGS NATIONAL PARK, ARKANSAS
71913	HOT SPRINGS NATIONAL PARK, ARKANSAS
71923	ARKADELPHIA, ARKANSAS
71953	MENA, ARKANSAS
71957	MOUNT IDA, ARKANSAS
72000	ARKANSAS
72021	BRINKLEY, ARKANSAS
72023	CABOT, ARKANSAS
72031	CLINTON, ARKANSAS
72032	CONWAY, ARKANSAS
72042	DE WITT, ARKANSAS
72045	EL PASO, ARKANSAS
72076	JACKSONVILLE, ARKANSAS
72116	NORTH LITTLE ROCK, ARKANSAS
72130	PRIM, ARKANSAS
72143	SEARCY, ARKANSAS
72200	LITTLE ROCK, ARKANSAS
72201	LITTLE ROCK, ARKANSAS
72204	LITTLE ROCK, ARKANSAS
72205	LITTLE ROCK, ARKANSAS
72209	LITTLE ROCK, ARKANSAS
72211	LITTLE ROCK, ARKANSAS
72218	ARKANSAS
72244	ARKANSAS
72315	BLYTHEVILLE, ARKANSAS
72400	ARKANSAS
72401	JONESBORO, ARKANSAS
72501	BATESVILLE, ARKANSAS
72543	HEBER SPRINGS, ARKANSAS
72560	MOUNTAIN VIEW, ARKANSAS
72601	HARRISON, ARKANSAS
72619	BULL SHOALS, ARKANSAS
72703	FAYETTEVILLE, ARKANSAS
72714	BENTONVILLE, ARKANSAS
72756	ROGERS, ARKANSAS
72761	SILAM SPRINGS, ARKANSAS
72764	SPRINGDALE, ARKANSAS
72801	RUSSELLVILLE, ARKANSAS
72901	FORT SMITH, ARKANSAS
72903	FORT SMITH, ARKANSAS
73000	OKLAHOMA
73008	BETHANY, OKLAHOMA
73010	BLANCHARD, OKLAHOMA
73018	CHICKASHA, OKLAHOMA
73059	MINCO, OKLAHOMA
73065	NEWCASTLE, OKLAHOMA
73069	NORMAN, OKLAHOMA
73071	NORMAN, OKLAHOMA
73072	NORMAN, OKLAHOMA
73080	PURCELL, OKLAHOMA
73083	EDMOND, OKLAHOMA
73084	SPENCER, OKLAHOMA
73089	TUTTLE, OKLAHOMA
73096	WEATHERFORD, OKLAHOMA
73099	YUKON, OKLAHOMA
73100	OKLAHOMA CITY, OKLAHOMA
73101	OKLAHOMA CITY, OKLAHOMA
73107	OKLAHOMA CITY, OKLAHOMA
73109	OKLAHOMA CITY, OKLAHOMA
73110	OKLAHOMA CITY, OKLAHOMA
73112	OKLAHOMA CITY, OKLAHOMA
73115	OKLAHOMA CITY, OKLAHOMA
73116	OKLAHOMA CITY, OKLAHOMA
73118	OKLAHOMA CITY, OKLAHOMA
73120	OKLAHOMA CITY, OKLAHOMA
73122	OKLAHOMA CITY, OKLAHOMA
73125	OKLAHOMA CITY, OKLAHOMA
73127	OKLAHOMA CITY, OKLAHOMA
73131	OKLAHOMA CITY, OKLAHOMA
73132	OKLAHOMA CITY, OKLAHOMA
73135	OKLAHOMA CITY, OKLAHOMA
73139	OKLAHOMA CITY, OKLAHOMA

OUT OF STATE (CONT.)

ZIP CODE	POSTAL STATION NAME
73145	OKLAHOMA CITY, OKLAHOMA
73159	OKLAHOMA CITY, OKLAHOMA
73165	OKLAHOMA CITY, OKLAHOMA
73170	OKLAHOMA CITY, OKLAHOMA
73215	OKLAHOMA
73301	AUSTIN, OKLAHOMA
73401	ARDMORE, OKLAHOMA
73439	KINGSTON, OKLAHOMA
73448	MARIETTA, OKLAHOMA
73500	OKLAHOMA
73501	LAWTON, OKLAHOMA
73503	LAWTON, OKLAHOMA
73505	LAWTON, OKLAHOMA
73521	ALTUS, OKLAHOMA
73533	DUNCAN, OKLAHOMA
73701	ENID, OKLAHOMA
73702	ENID, OKLAHOMA
73763	OKEENE, OKLAHOMA
73772	WATONGA, OKLAHOMA
73773	WAUKOMIS, OKLAHOMA
74003	BARTLESVILLE, OKLAHOMA
74006	BARTLESVILLE, OKLAHOMA
74011	BROKEN ARROW, OKLAHOMA
74012	BROKEN ARROW, OKLAHOMA
74016	CHELSEA, OKLAHOMA
74017	CLAREMORE, OKLAHOMA
74023	CUSHING, OKLAHOMA
74053	OOLOGAH, OKLAHOMA
74101	TULSA, OKLAHOMA
74105	TULSA, OKLAHOMA
74112	TULSA, OKLAHOMA
74119	TULSA, OKLAHOMA
74135	TULSA, OKLAHOMA
74145	TULSA, OKLAHOMA
74156	TULSA, OKLAHOMA
74166	OKLAHOMA
74281	OKLAHOMA
74359	OAKS, OKLAHOMA
74360	PICHER, OKLAHOMA
74365	SALINA, OKLAHOMA
74403	MUSKOGEE, OKLAHOMA
74428	COUNCIL HILL, OKLAHOMA
74447	OKMULGEE, OKLAHOMA
74501	MC ALESTER, OKLAHOMA
74525	ATOKA, OKLAHOMA
74601	PONCA CITY, OKLAHOMA
74631	BLACKWELL, OKLAHOMA
74637	FAIRFAX, OKLAHOMA
74701	DURANT, OKLAHOMA
74704	OKLAHOMA
74705	OKLAHOMA
74710	OKLAHOMA
74726	BOKCHITO, OKLAHOMA
74729	CADDO, OKLAHOMA
74801	SHAWNEE, OKLAHOMA
74820	ADA, OKLAHOMA
74827	ATWOOD, OKLAHOMA
74873	TECUMSEH, OKLAHOMA
74881	WELLSTON, OKLAHOMA
74955	SALLISAW, OKLAHOMA
80100	COLORADO
80124	LITTLETON, COLORADO
80217	DENVER, COLORADO
80901	COLORADO SPRINGS, COLORADO
80908	COLORADO SPRINGS, COLORADO
80919	COLORADO SPRINGS, COLORADO
81230	GUNNISON, COLORADO
83001	JACKSON, WYOMING
84126	SALT LAKE CITY, UTAH
85201	MESA, ARIZONA
85614	GREEN VALLEY, ARIZONA
87666	NEW MEXICO
88101	CLOVIS, NEW MEXICO

OUT OF STATE (CONT.)

ZIP CODE	POSTAL STATION NAME
90001	LOS ANGELES, CALIFORNIA
90363	CALIFORNIA
92032	IMPERIAL BEACH, CALIFORNIA
92227	BRAWLEY, CALIFORNIA
95682	SHINGLE SPRINGS, CALIFORNIA
95932	COLUSA, CALIFORNIA
98037	LYNNWOOD, WASHINGTON
98133	SEATTLE, WASHINGTON
99501	ANCHORAGE, ALASKA
99701	FAIRBANKS, ALASKA

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY MAJOR TRAFFIC ZONES : ALL VEHICLES (PERSON TRIPS)

		DESTINATIONS						
ORIGINS	M1	M2	M3	M4	M5	M6	TOTAL	
M1	1081 0.7	13012 8.1	17010 10.6	1031 0.6	168 0.1	6960 4.3	39263 24.5	
M2	14519 9.1	3547 2.2	8440 5.3	6504 4.1	1631 1.0	9328 5.8	43969 27.4	
M3	17759 11.1	8124 5.1	3859 2.4	2141 1.3	540 0.3	1539 1.0	33962 21.2	
M4	1107 0.7	6034 3.8	2275 1.4	937 0.6	92 0.1	2272 1.4	12715 7.9	
M5	147 0.1	1459 0.9	477 0.3	32 0.0	82 0.1	2428 1.5	4625 2.9	
M6	8273 5.2	10096 6.3	2172 1.4	2576 1.6	2240 1.4	287 0.2	25644 16.0	
TOTAL	42886 26.8	42272 26.4	34233 21.4	13221 8.3	4753 3.0	22814 14.2	160178 100.0	

MAJOR (M) INTERCHANGE ZONES :

M1 = SAN ANTONIO
M2 = AUSTIN
M3 = NEW BRAUNFELS/SAN MARCOS
M4 = SEGUIN/LOCKHART
M5 = SOUTH OF SAN ANTONIO
M6 = NORTH OF AUSTIN

LEGEND : XXX - VOLUMES
XX.X - CELL PERCENT

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY MAJOR TRAFFIC ZONES : PASSENGER VEHICLES (PERSON TRIPS)

		DESTINATIONS						
ORIGINS	M1	M2	M3	M4	M5	M6	TOTAL	
M1	970 0.7	11564 8.2	15399 10.9	926 0.7	145 0.1	5899 4.2	34902 24.6	
M2	12891 9.1	3196 2.3	7555 5.3	5928 4.2	1402 1.0	8070 5.7	39041 27.5	
M3	16197 11.4	7354 5.2	3530 2.5	1950 1.4	496 0.4	1274 0.9	30802 21.7	
M4	1022 0.7	5248 3.7	2070 1.5	848 0.6	79 0.1	1921 1.4	11189 7.9	
M5	116 0.1	1268 0.9	383 0.3	30 0.0	78 0.1	2045 1.4	3921 2.8	
M6	6888 4.9	8906 6.3	1873 1.3	2120 1.5	1873 1.3	221 0.2	21882 15.4	
TOTAL	38085 26.9	37536 26.5	30809 21.7	11803 8.3	4074 2.9	19430 13.7	141736 100.0	

MAJOR (M) INTERCHANGE ZONES :

M1 = SAN ANTONIO
M2 = AUSTIN
M3 = NEW BRAUNFELS/SAN MARCOS
M4 = SEGUIN/LOCKHART
M5 = SOUTH OF SAN ANTONIO
M6 = NORTH OF AUSTIN

LEGEND : XXX - VOLUMES
XX.X - CELL PERCENT

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY MAJOR TRAFFIC ZONES : COMMERCIAL VEHICLES (PERSON TRIPS)

ORIGINS	DESTINATIONS						TOTAL
	M1	M2	M3	M4	M5	M6	
M1	131 0.7	1382 7.5	1714 9.3	97 0.5	28 0.2	1174 6.4	4526 24.5
M2	1520 8.2	239 1.3	830 4.5	533 2.9	269 1.5	992 5.4	4383 23.7
M3	1308 7.1	739 4.0	245 1.3	169 0.9	32 0.2	352 1.9	2845 15.4
M4	30 0.2	821 4.4	190 1.0	87 0.5	18 0.1	430 2.3	1575 8.5
M5	45 0.2	207 1.1	131 0.7	- -	- -	457 2.5	841 4.6
M6	1783 9.7	1034 5.6	311 1.7	598 3.2	475 2.6	86 0.5	4286 23.2
TOTAL	4817 26.1	4422 24.0	3421 18.5	1483 8.0	821 4.4	3491 18.9	18456 100.0

MAJOR (M) INTERCHANGE ZONES :

- M1 = SAN ANTONIO
- M2 = AUSTIN
- M3 = NEW BRAUNFELS/SAN MARCOS
- M4 = SEGUIN/LOCKHART
- M5 = SOUTH OF SAN ANTONIO
- M6 = NORTH OF AUSTIN

LEGEND : XXX - VOLUMES
 XX.X - CELL PERCENT

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : ALL VEHICLES (VEHICLE TRIPS)

ORIGINS	DESTINATIONS																									TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3	S4	S5	A1	A2	A3	A4	A5				
1	144 0.2	3 0.0	24 0.0	27 0.0	0 0.0	43 0.0	25 0.0	7 0.0	13 0.0	26 0.0	30 0.0	214 1.7	1592 12.0	120 0.1	41 0.0	423 0.4	593 0.6	5 0.0	12 0.0	16 0.0	14 0.0	53 0.1	3425 3.6			
2	5 0.0	7 0.0	32 0.0	20 0.0	0 0.0	17 0.0	15 0.0	0 0.0	7 0.0	6 0.0	14 0.0	113 0.1	34 0.0	18 0.0	0 0.0	13 0.0	29 0.0	0 0.0	0 0.0	0 0.0	0 0.0	4 0.0	334 0.4			
3	12 0.0	16 0.0	768 0.8	117 0.1	0 0.0	40 0.0	40 0.0	16 0.0	35 0.0	43 0.0	51 0.1	1038 1.1	151 0.2	33 0.0	8 0.0	70 0.1	220 0.2	63 0.1	24 0.0	32 0.0	211 0.2	169 0.2	3157 3.3			
4	23 0.0	11 0.0	112 0.1	1803 1.9	15 0.0	75 0.1	113 0.1	57 0.1	819 0.9	87 0.1	153 0.2	304 0.3	740 0.8	322 0.3	38 0.0	265 0.3	423 0.4	236 0.2	558 0.6	1167 1.2	618 0.6	1766 1.9	9705 10.2			
5	7 0.0	0 0.0	5 0.0	22 0.0	0 0.0	4 0.0	21 0.0	8 0.0	18 0.0	4 0.0	4 0.0	28 0.0	94 0.1	19 0.0	4 0.0	33 0.0	81 0.1	0 0.0	4 0.0	0 0.0	0 0.0	11 0.0	367 0.4			
6	41 0.0	19 0.0	43 0.0	112 0.1	20 0.0	91 0.1	31 0.0	42 0.0	124 0.1	50 0.1	57 0.1	242 0.3	3275 3.4	1063 1.1	128 0.1	746 0.8	1614 1.7	50 0.1	114 0.1	164 0.2	158 0.2	462 0.5	8646 9.1			
7	10 0.0	9 0.0	51 0.1	104 0.1	28 0.0	18 0.0	160 0.2	10 0.0	28 0.0	17 0.0	14 0.0	101 0.1	56 0.1	15 0.0	4 0.0	19 0.0	83 0.1	77 0.1	379 0.4	366 0.4	304 0.3	690 0.7	2543 2.7			
8	49 0.1	6 0.0	27 0.0	50 0.1	30 0.0	44 0.0	8 0.0	4 0.0	4 0.0	7 0.0	0 0.0	362 0.4	15 0.0	0 0.0	0 0.0	0 0.0	6 0.0	22 0.0	22 0.0	27 0.0	43 0.0	117 0.1	843 0.9			
9	17 0.0	4 0.0	37 0.0	940 1.0	5 0.0	108 0.1	39 0.0	7 0.0	278 0.3	8 0.0	14 0.0	159 0.2	258 0.3	29 0.0	3 0.0	59 0.1	76 0.1	19 0.0	73 0.1	169 0.2	122 0.1	328 0.3	2752 2.9			
10	13 0.0	5 0.0	38 0.0	37 0.0	3 0.0	37 0.0	4 0.0	9 0.0	6 0.0	7 0.0	4 0.0	601 0.6	20 0.0	0 0.0	8 0.0	12 0.0	22 0.0	8 0.0	53 0.1	40 0.0	71 0.1	168 0.2	1166 1.2			
11	75 0.1	10 0.0	46 0.0	132 0.1	5 0.0	28 0.0	11 0.0	7 0.0	4 0.0	4 0.0	21 0.0	678 0.7	31 0.0	11 0.0	0 0.0	8 0.0	24 0.0	61 0.1	107 0.1	152 0.2	193 0.2	400 0.4	2008 2.1			
12	282 0.3	78 0.1	1143 1.2	381 0.4	24 0.0	298 0.3	114 0.1	414 0.4	188 0.2	559 0.6	781 0.8	189 0.2	1134 1.2	349 0.4	71 0.1	638 0.7	1667 1.7	345 0.4	732 0.8	543 0.6	1182 1.2	1836 1.9	12948 13.6			
S1	1447 1.5	60 0.1	171 0.2	768 0.8	98 0.1	3288 3.5	89 0.1	13 0.0	258 0.3	23 0.0	14 0.0	1208 1.3	158 0.2	29 0.0	4 0.0	41 0.0	43 0.0	257 0.3	0 0.0	612 0.6	702 0.7	1442 1.5	10725 11.3			
S2	138 0.1	7 0.0	47 0.0	326 0.3	24 0.0	1127 1.2	17 0.0	4 0.0	44 0.0	0 0.0	13 0.0	363 0.4	24 0.0	23 0.0	0 0.0	12 0.0	35 0.0	75 0.1	943 1.0	163 0.2	99 0.1	331 0.3	3815 4.0			
S3	61 0.1	6 0.0	10 0.0	68 0.1	3 0.0	134 0.1	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	105 0.1	7 0.0	4 0.0	0 0.0	11 0.0	4 0.0	14 0.0	0 0.0	48 0.1	29 0.0	85 0.1	589 0.6			
S4	373 0.4	13 0.0	48 0.1	326 0.3	42 0.0	892 0.9	32 0.0	4 0.0	85 0.1	9 0.0	9 0.0	595 0.6	38 0.0	4 0.0	3 0.0	26 0.0	26 0.0	113 0.1	0 0.0	231 0.2	333 0.3	526 0.6	3728 3.9			
S5	519 0.5	22 0.0	143 0.2	281 0.3	67 0.1	1030 1.1	82 0.1	17 0.0	40 0.0	11 0.0	20 0.0	1215 1.3	35 0.0	15 0.0	0 0.0	18 0.0	37 0.0	102 0.1	0 0.0	250 0.3	327 0.3	1264 1.3	5495 5.8			
A1	11 0.0	0 0.0	59 0.1	183 0.2	0 0.0	88 0.1	124 0.1	36 0.0	68 0.1	36 0.0	84 0.1	418 0.4	218 0.2	61 0.1	8 0.0	85 0.1	148 0.2	0 0.0	0 0.0	0 0.0	7 0.0	8 0.0	1642 1.7			
A2	14 0.0	0 0.0	34 0.0	652 0.7	4 0.0	135 0.1	555 0.6	59 0.1	96 0.1	29 0.0	121 0.1	610 0.6	330 0.3	100 0.1	47 0.0	189 0.2	195 0.2	0 0.0	99 0.1	0 0.0	15 0.0	17 0.0	3301 3.5			
A3	32 0.0	3 0.0	33 0.0	1312 1.4	0 0.0	226 0.2	404 0.4	59 0.1	127 0.1	55 0.1	157 0.2	630 0.7	640 0.7	198 0.2	69 0.1	239 0.3	424 0.4	0 0.0	0 0.0	11 0.0	24 0.0	37 0.0	4680 4.9			
A4	25 0.0	0 0.0	263 0.3	783 0.8	4 0.0	215 0.2	323 0.3	61 0.1	135 0.1	92 0.1	268 0.3	1227 1.3	749 0.8	180 0.2	44 0.0	287 0.3	539 0.6	0 0.0	0 0.0	5 0.0	52 0.1	25 0.0	5277 5.5			
A5	45 0.0	13 0.0	175 0.2	1264 1.3	4 0.0	393 0.4	560 0.6	114 0.1	219 0.2	160 0.2	334 0.4	1489 1.6	1000 1.0	208 0.2	78 0.1	488 0.5	1506 1.6	5 0.0	0 0.0	4 0.0	34 0.0	38 0.0	8131 8.5			
TOTALS	3343 3.5	292 0.3	3309 3.5	8708 10.2	376 0.4	8331 8.7	2767 2.9	948 1.0	2596 2.7	1233 1.3	2163 2.3	11889 12.5	10599 11.1	2801 2.9	558 0.6	3682 3.9	7795 8.2	1452 1.5	3120 3.3	4000 4.2	4538 4.8	9777 10.3	95277			

LEGEND : XXXX - VEHICLE TRIPS
XX.X - CELL PERCENT

A-82

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : PASSENGER VEHICLES (VEHICLE TRIPS)

ORIGINS	DESTINATIONS																									TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3	S4	S5	A1	A2	A3	A4	A5				
1	127 0.2	3 0.0	22 0.0	24 0.0	0 0.0	33 0.0	24 0.0	4 0.0	13 0.0	21 0.0	23 0.0	177 0.2	1499 1.8	115 0.1	33 0.0	409 0.5	570 0.7	5 0.0	11 0.0	11 0.0	14 0.0	47 0.1	3185 3.8			
2	4 0.0	7 0.0	30 0.0	19 0.0	0 0.0	10 0.0	15 0.0	0 0.0	7 0.0	6 0.0	14 0.0	101 0.1	32 0.0	1 0.0	0 0.0	12 0.0	26 0.0	0 0.0	0 0.0	0 0.0	0 0.0	3 0.0	299 0.4			
3	11 0.0	15 0.0	675 0.8	100 0.1	0 0.0	38 0.0	38 0.0	15 0.0	25 0.0	24 0.0	49 0.1	895 1.1	134 0.2	31 0.0	7 0.0	63 0.1	194 0.2	56 0.1	22 0.0	27 0.0	190 0.2	151 0.2	2760 3.3			
4	21 0.0	11 0.0	103 0.1	1665 2.0	14 0.0	63 0.1	102 0.1	52 0.1	769 0.9	83 0.1	146 0.2	252 0.3	662 0.8	289 0.3	36 0.0	239 0.3	374 0.4	217 0.3	508 0.6	1086 1.3	584 0.7	1616 1.9	8892 10.6			
5	4 0.0	0 0.0	5 0.0	18 0.0	0 0.0	3 0.0	13 0.0	3 0.0	18 0.0	3 0.0	4 0.0	23 0.0	88 0.1	17 0.0	3 0.0	28 0.0	65 0.1	0 0.0	3 0.0	0 0.0	0 0.0	8 0.0	307 0.4			
6	32 0.0	15 0.0	30 0.0	100 0.1	8 0.0	82 0.1	24 0.0	36 0.0	116 0.1	45 0.1	44 0.1	204 0.2	2950 3.5	943 1.1	118 0.1	697 0.8	1441 1.7	48 0.1	105 0.1	155 0.2	143 0.2	407 0.5	7743 9.2			
7	10 0.0	7 0.0	46 0.1	94 0.1	26 0.0	18 0.0	145 0.2	9 0.0	27 0.0	12 0.0	8 0.0	87 0.1	47 0.1	12 0.0	3 0.0	17 0.0	74 0.1	69 0.1	320 0.4	298 0.4	255 0.3	593 0.7	2177 2.6			
8	27 0.0	6 0.0	22 0.0	47 0.1	25 0.0	38 0.0	7 0.0	4 0.0	4 0.0	7 0.0	0 0.0	286 0.3	11 0.0	0 0.0	0 0.0	0 0.0	6 0.0	21 0.0	22 0.0	22 0.0	32 0.0	107 0.1	694 0.8			
9	9 0.0	4 0.0	31 0.0	862 1.0	5 0.0	101 0.1	37 0.0	7 0.0	253 0.3	7 0.0	11 0.0	122 0.1	240 0.3	27 0.0	2 0.0	56 0.1	69 0.1	17 0.0	64 0.1	156 0.2	114 0.1	301 0.4	2495 3.0			
10	10 0.0	3 0.0	33 0.0	33 0.0	3 0.0	32 0.0	4 0.0	8 0.0	6 0.0	6 0.0	4 0.0	475 0.6	15 0.0	0 0.0	8 0.0	10 0.0	20 0.0	7 0.0	47 0.1	35 0.0	58 0.1	145 0.2	962 1.1			
11	61 0.1	6 0.0	44 0.1	119 0.1	4 0.0	26 0.0	6 0.0	4 0.0	4 0.0	4 0.0	20 0.0	561 0.7	29 0.0	10 0.0	0 0.0	8 0.0	22 0.0	54 0.1	93 0.1	126 0.1	170 0.2	356 0.4	1727 2.0			
12	239 0.3	69 0.1	1038 1.2	328 0.4	20 0.0	252 0.3	107 0.1	306 0.4	133 0.2	446 0.5	631 0.7	156 0.2	963 1.1	299 0.4	60 0.1	547 0.6	1283 1.5	310 0.4	639 0.8	483 0.6	1038 1.2	1589 1.9	10936 13.0			
S1	1393 1.7	51 0.1	149 0.2	690 0.8	86 0.1	2962 3.5	84 0.1	7 0.0	235 0.3	21 0.0	13 0.0	1008 1.2	138 0.2	29 0.0	4 0.0	38 0.0	40 0.0	229 0.3	0 0.0	564 0.7	621 0.7	1278 1.5	9640 11.4			
S2	126 0.1	7 0.0	38 0.0	284 0.3	23 0.0	1020 1.2	13 0.0	4 0.0	44 0.1	0 0.0	10 0.0	294 0.3	22 0.0	22 0.0	0 0.0	12 0.0	25 0.0	62 0.1	830 1.0	149 0.2	88 0.1	263 0.3	3336 4.0			
S3	56 0.1	0 0.0	6 0.0	63 0.1	3 0.0	120 0.1	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	95 0.1	6 0.0	4 0.0	0 0.0	10 0.0	4 0.0	13 0.0	0 0.0	40 0.0	29 0.0	69 0.1	518 0.6			
S4	356 0.4	13 0.0	44 0.1	295 0.4	38 0.0	835 1.0	29 0.0	4 0.0	77 0.1	9 0.0	9 0.0	494 0.6	35 0.0	4 0.0	3 0.0	25 0.0	22 0.0	99 0.1	0 0.0	196 0.2	301 0.4	472 0.6	3360 4.0			
S5	488 0.6	18 0.0	130 0.2	241 0.3	60 0.1	922 1.1	62 0.1	10 0.0	31 0.0	11 0.0	19 0.0	942 1.1	30 0.0	15 0.0	0 0.0	17 0.0	26 0.0	89 0.1	0 0.0	212 0.3	289 0.3	1112 1.3	4724 5.6			
A1	10 0.0	0 0.0	52 0.1	163 0.2	0 0.0	79 0.1	122 0.1	34 0.0	64 0.1	34 0.0	72 0.1	375 0.4	185 0.2	55 0.1	7 0.0	73 0.1	125 0.1	0 0.0	0 0.0	0 0.0	6 0.0	7 0.0	1463 1.7			
A2	14 0.0	0 0.0	31 0.0	589 0.7	4 0.0	125 0.1	525 0.6	55 0.1	91 0.1	26 0.0	113 0.1	521 0.6	302 0.4	86 0.1	40 0.0	177 0.2	178 0.2	0 0.0	89 0.1	0 0.0	14 0.0	16 0.0	2996 3.6			
A3	29 0.0	3 0.0	30 0.0	1202 1.4	0 0.0	212 0.3	358 0.4	48 0.1	120 0.1	52 0.1	137 0.2	551 0.7	568 0.7	174 0.2	58 0.1	222 0.3	366 0.4	0 0.0	0 0.0	10 0.0	21 0.0	30 0.0	4191 5.0			
A4	22 0.0	0 0.0	236 0.3	707 0.8	3 0.0	185 0.2	306 0.4	48 0.1	123 0.1	83 0.1	242 0.3	1077 1.3	671 0.8	159 0.2	37 0.0	271 0.3	479 0.6	0 0.0	0 0.0	5 0.0	51 0.1	18 0.0	4724 5.6			
A5	41 0.0	13 0.0	157 0.2	1130 1.3	4 0.0	359 0.4	515 0.6	92 0.1	196 0.2	144 0.2	294 0.3	1282 1.5	905 1.1	177 0.2	66 0.1	444 0.5	1238 1.5	4 0.0	0 0.0	4 0.0	32 0.0	32 0.0	7139 8.5			
TOTALS	3090 3.7	251 0.3	2952 3.5	8773 10.4	326 0.4	7515 8.8	2536 3.0	750 0.9	2356 2.8	1044 1.2	1863 2.2	9988 11.9	8532 11.3	2481 2.9	485 0.6	3375 4.0	6647 7.9	1300 1.5	2753 3.3	3579 4.2	4050 4.8	8622 10.2	84268			

LEGEND : XXXX - VEHICLE TRIPS
XX.X - CELL PERCENT

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE - COMMERCIAL VEHICLES (VEHICLE TRIPS)

ORIGINS	DESTINATIONS																									TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3	S4	S5	A1	A2	A3	A4	A5				
1	10 0.1	0 0.0	0 0.0	7 0.1	0 0.0	11 0.1	0 0.0	4 0.0	0 0.0	4 0.0	8 0.1	46 0.4	87 0.8	7 0.1	7 0.1	18 0.2	19 0.2	0 0.0	0 0.0	5 0.0	0 0.0	13 0.1	246 2.2			
2	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	13 0.1	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	8 0.1	0 0.0	3 0.0	0 0.0	0 0.0	2 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	26 0.2			
3	0 0.0	0 0.0	81 0.7	21 0.2	0 0.0	0 0.0	0 0.0	0 0.0	7 0.1	35 0.3	0 0.0	130 1.2	13 0.1	0 0.0	0 0.0	6 0.1	20 0.2	6 0.1	0 0.0	0 0.0	8 0.1	13 0.1	340 3.1			
4	0 0.0	0 0.0	8 0.1	97 0.9	0 0.0	13 0.1	10 0.1	6 0.1	38 0.3	0 0.0	0 0.0	70 0.6	55 0.5	27 0.2	0 0.0	18 0.2	43 0.4	14 0.1	46 0.4	53 0.5	11 0.1	127 1.1	636 5.8			
5	3 0.0	0 0.0	0 0.0	6 0.1	0 0.0	0 0.0	9 0.1	8 0.1	0 0.0	0 0.0	0 0.0	9 0.1	0 0.0	0 0.0	0 0.0	8 0.1	17 0.2	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	60 0.5			
6	13 0.1	6 0.1	19 0.2	8 0.1	23 0.2	7 0.1	10 0.1	6 0.1	6 0.1	6 0.1	19 0.2	49 0.4	268 2.4	102 0.9	6 0.1	21 0.2	160 1.4	0 0.0	5 0.0	0 0.0	16 0.1	62 0.6	812 7.3			
7	0 0.0	0 0.0	0 0.0	4 0.0	0 0.0	0 0.0	13 0.1	0 0.0	0 0.0	6 0.1	15 0.1	18 0.2	12 0.1	0 0.0	0 0.0	0 0.0	6 0.1	0 0.0	52 0.5	94 0.9	51 0.5	55 0.5	326 2.9			
8	23 0.2	0 0.0	8 0.1	0 0.0	7 0.1	7 0.1	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	103 0.9	8 0.1	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	8 0.1	19 0.2	6 0.1	189 1.7			
9	6 0.1	0 0.0	10 0.1	70 0.6	0 0.0	6 0.1	6 0.1	0 0.0	14 0.1	0 0.0	5 0.0	54 0.5	0 0.0	0 0.0	0 0.0	0 0.0	6 0.1	0 0.0	10 0.1	10 0.1	5 0.0	22 0.2	224 2.0			
10	3 0.0	2 0.0	9 0.1	3 0.0	0 0.0	7 0.1	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	181 1.6	7 0.1	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	6 0.1	6 0.1	17 0.2	19 0.2	260 2.4			
11	14 0.1	5 0.0	0 0.0	16 0.1	0 0.0	0 0.0	5 0.0	6 0.1	0 0.0	0 0.0	0 0.0	161 1.5	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	8 0.1	18 0.2	25 0.2	39 0.4	55 0.5	352 3.2			
12	49 0.4	8 0.1	66 0.6	58 0.5	7 0.1	47 0.4	8 0.1	177 1.6	76 0.7	145 1.3	212 1.9	43 0.4	214 1.9	66 0.6	15 0.1	93 0.8	574 5.2	27 0.2	88 0.8	56 0.5	125 1.1	247 2.2	2401 21.7			
S1	57 0.5	8 0.1	27 0.2	56 0.5	14 0.1	320 2.9	0 0.0	8 0.1	21 0.2	0 0.0	0 0.0	228 2.1	21 0.2	0 0.0	0 0.0	7 0.1	7 0.1	28 0.3	0 0.0	30 0.3	73 0.7	148 1.3	1053 9.5			
S2	10 0.1	0 0.0	17 0.2	41 0.4	0 0.0	84 0.8	7 0.1	0 0.0	0 0.0	0 0.0	7 0.1	91 0.8	0 0.0	0 0.0	0 0.0	0 0.0	13 0.1	16 0.1	112 1.0	14 0.1	12 0.1	106 1.0	530 4.8			
S3	5 0.0	8 0.1	7 0.1	0 0.0	0 0.0	14 0.1	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	8 0.1	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	14 0.1	0 0.0	21 0.2	77 0.7			
S4	20 0.2	0 0.0	0 0.0	21 0.2	7 0.1	28 0.3	0 0.0	0 0.0	7 0.1	0 0.0	0 0.0	106 1.0	0 0.0	0 0.0	0 0.0	0 0.0	8 0.1	13 0.1	0 0.0	30 0.3	19 0.2	39 0.4	298 2.7			
S5	32 0.3	4 0.0	20 0.2	38 0.3	5 0.0	106 1.0	30 0.3	13 0.1	13 0.1	0 0.0	0 0.0	398 3.6	7 0.1	0 0.0	0 0.0	0 0.0	22 0.2	21 0.2	0 0.0	49 0.4	46 0.4	160 1.4	964 8.7			
A1	0 0.0	0 0.0	6 0.1	15 0.1	0 0.0	7 0.1	0 0.0	0 0.0	0 0.0	0 0.0	12 0.1	25 0.2	43 0.4	6 0.1	0 0.0	13 0.1	32 0.3	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	159 1.4			
A2	0 0.0	0 0.0	0 0.0	56 0.5	0 0.0	6 0.1	25 0.2	0 0.0	4 0.0	0 0.0	5 0.0	73 0.7	17 0.2	17 0.2	6 0.1	0 0.0	12 0.1	0 0.0	14 0.1	0 0.0	0 0.0	0 0.0	235 2.1			
A3	0 0.0	0 0.0	0 0.0	82 0.7	0 0.0	0 0.0	4 0.0	12 0.1	0 0.0	0 0.0	19 0.2	59 0.5	69 0.6	23 0.2	6 0.1	12 0.1	68 0.6	0 0.0	0 0.0	0 0.0	0 0.0	6 0.1	402 3.6			
A4	0 0.0	0 0.0	16 0.1	64 0.6	0 0.0	17 0.2	13 0.1	22 0.2	12 0.1	6 0.1	32 0.3	98 0.9	73 0.7	18 0.2	6 0.1	0 0.0	53 0.5	0 0.0	0 0.0	0 0.0	0 0.0	8 0.1	438 4.0			
A5	0 0.0	0 0.0	16 0.1	135 1.2	0 0.0	23 0.2	60 0.5	21 0.2	27 0.2	11 0.1	42 0.4	162 1.5	86 0.8	41 0.4	14 0.1	34 0.3	346 3.1	0 0.0	0 0.0	0 0.0	0 0.0	8 0.1	1026 9.3			
TOTALS	245 2.2	41 0.4	310 2.8	798 7.2	63 0.6	716 6.5	242 2.2	283 2.6	225 2.0	213 1.9	376 3.4	2120 19.2	980 8.9	310 2.8	60 0.5	230 2.1	1408 12.7	133 1.2	351 3.2	394 3.6	441 4.0	1115 10.1	11054			

LEGEND : XXXX - VEHICLE TRIPS
XX.X - CELL PERCENT

A-84

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : ALL VEHICLES (PERSON TRIPS)

ORIGINS	ORIGINS										DESTINATIONS					DESTINATIONS					TOTAL		
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3	S4	S5	A1	A2	A3		A4	A5
1	265 0.2	9 0.0	42 0.0	61 0.0	-	60 0.0	35 0.0	7 0.0	20 0.0	44 0.0	36 0.0	428 0.3	2498 1.6	194 0.1	62 0.0	576 0.4	1140 0.7	19 0.0	11 0.0	25 0.0	18 0.0	64 0.0	5614 3.5
2	5 0.0	8 0.0	54 0.0	31 0.0	-	44 0.0	30 0.0	-	14 0.0	6 0.0	26 0.0	225 0.1	58 0.0	31 0.0	-	22 0.0	78 0.0	-	-	-	-	7 0.0	641 0.4
3	31 0.0	20 0.0	1087 0.7	255 0.2	-	114 0.1	50 0.0	34 0.0	95 0.1	72 0.0	156 0.1	1640 1.0	249 0.2	63 0.0	7 0.0	114 0.1	425 0.3	111 0.1	53 0.0	51 0.0	320 0.2	236 0.1	5182 3.2
4	35 0.0	10 0.0	170 0.1	2892 1.8	18 0.0	162 0.1	184 0.1	98 0.1	1177 0.7	173 0.1	318 0.2	628 0.4	1183 0.7	410 0.3	44 0.0	361 0.2	722 0.5	305 0.2	812 0.5	1501 0.9	785 0.5	2609 1.6	14598 9.1
5	14 0.0	-	5 0.0	32 0.0	-	7 0.0	27 0.0	18 0.0	57 0.0	4 0.0	4 0.0	48 0.0	154 0.1	32 0.0	4 0.0	51 0.0	191 0.1	-	4 0.0	-	-	14 0.0	665 0.4
6	68 0.0	61 0.0	116 0.1	165 0.1	33 0.0	152 0.1	48 0.0	122 0.1	193 0.1	97 0.1	131 0.1	483 0.3	4977 3.1	1598 1.0	207 0.1	1081 0.7	2628 1.6	80 0.1	160 0.1	290 0.2	243 0.2	742 0.5	13673 8.5
7	18 0.0	11 0.0	89 0.1	189 0.1	30 0.0	54 0.0	273 0.2	10 0.0	52 0.0	22 0.0	31 0.0	196 0.1	118 0.1	14 0.0	4 0.0	40 0.0	195 0.1	93 0.1	589 0.4	567 0.4	464 0.3	1176 0.7	4233 2.6
8	75 0.0	12 0.0	37 0.0	73 0.0	89 0.1	87 0.1	8 0.0	16 0.0	4 0.0	14 0.0	-	857 0.5	37 0.0	-	-	-	9 0.0	22 0.0	27 0.0	54 0.0	103 0.1	240 0.1	1762 1.1
9	26 0.0	8 0.0	78 0.0	1396 0.9	8 0.0	164 0.1	59 0.0	7 0.0	415 0.3	8 0.0	34 0.0	292 0.2	361 0.2	39 0.0	5 0.0	89 0.1	131 0.1	35 0.0	109 0.1	237 0.1	235 0.1	523 0.3	4260 2.7
10	21 0.0	20 0.0	113 0.1	118 0.1	10 0.0	102 0.1	7 0.0	31 0.0	10 0.0	21 0.0	4 0.0	1571 1.0	36 0.0	-	16 0.0	15 0.0	35 0.0	8 0.0	101 0.1	70 0.0	142 0.1	411 0.3	2863 1.8
11	150 0.1	37 0.0	113 0.1	226 0.1	13 0.0	52 0.0	18 0.0	23 0.0	4 0.0	22 0.0	52 0.0	1784 1.1	41 0.0	18 0.0	-	11 0.0	41 0.0	107 0.1	138 0.1	276 0.2	351 0.2	746 0.5	4222 2.6
12	570 0.4	101 0.1	1807 1.1	798 0.5	47 0.0	804 0.5	205 0.1	913 0.6	400 0.2	1327 0.8	1971 1.2	287 0.2	2317 1.4	693 0.4	189 0.1	1185 0.7	3852 2.4	526 0.3	1470 0.9	938 0.6	1915 1.2	3293 2.1	25605 16.0
S1	2270 1.4	116 0.1	258 0.2	1078 0.7	156 0.1	5052 3.2	131 0.1	12 0.0	387 0.2	52 0.0	14 0.0	2334 1.5	293 0.2	52 0.0	4 0.0	85 0.1	77 0.0	362 0.2	-	912 0.6	1010 0.6	2094 1.3	16748 10.5
S2	234 0.1	6 0.0	63 0.0	452 0.3	27 0.0	1952 1.2	20 0.0	4 0.0	49 0.0	-	15 0.0	798 0.5	41 0.0	41 0.0	-	15 0.0	49 0.0	95 0.1	1303 0.8	251 0.2	120 0.1	533 0.3	6069 3.8
S3	106 0.1	12 0.0	9 0.0	97 0.1	9 0.0	232 0.1	-	-	-	-	-	189 0.1	6 0.0	4 0.0	-	25 0.0	7 0.0	33 0.0	-	84 0.1	39 0.0	135 0.1	987 0.6
S4	583 0.4	21 0.0	77 0.0	514 0.3	78 0.0	1468 0.9	68 0.0	4 0.0	117 0.1	15 0.0	17 0.0	1175 0.7	70 0.0	4 0.0	3 0.0	55 0.0	49 0.0	152 0.1	-	355 0.2	451 0.3	858 0.5	6133 3.8
S5	859 0.5	49 0.0	271 0.2	512 0.3	126 0.1	1601 1.0	116 0.1	45 0.0	51 0.0	36 0.0	47 0.0	2464 1.5	64 0.0	23 0.0	-	45 0.0	69 0.0	137 0.1	-	393 0.2	494 0.3	1923 1.2	9326 5.8
A1	16 0.0	-	100 0.1	205 0.1	-	176 0.1	157 0.1	54 0.0	93 0.1	77 0.0	155 0.1	615 0.4	311 0.2	98 0.1	19 0.0	106 0.1	253 0.2	-	-	-	7 0.0	8 0.0	2449 1.5
A2	13 0.0	-	54 0.0	900 0.6	7 0.0	238 0.1	917 0.6	106 0.1	128 0.1	71 0.0	228 0.1	1048 0.7	491 0.3	144 0.1	71 0.0	333 0.2	365 0.2	-	175 0.1	-	22 0.0	20 0.0	5329 3.3
A3	68 0.0	3 0.0	49 0.0	1835 1.1	-	471 0.3	564 0.4	95 0.1	199 0.1	123 0.1	322 0.2	1100 0.7	1043 0.7	287 0.2	112 0.1	401 0.3	740 0.5	-	-	25 0.0	27 0.0	40 0.0	7504 4.7
A4	32 0.0	-	330 0.2	973 0.6	4 0.0	385 0.2	476 0.3	157 0.1	241 0.2	184 0.1	507 0.3	2036 1.3	1110 0.7	267 0.2	54 0.0	395 0.2	950 0.6	-	-	8 0.0	71 0.0	31 0.0	8210 5.1
A5	90 0.1	22 0.0	266 0.2	1845 1.2	4 0.0	659 0.4	1006 0.6	262 0.2	407 0.3	370 0.2	645 0.4	2616 1.6	1464 0.9	336 0.2	143 0.1	1022 0.6	2460 1.5	5 0.0	-	4 0.0	259 0.2	40 0.0	13924 8.7
TOTALS	5547 3.5	527 0.3	5188 3.2	14649 9.2	659 0.4	14036 8.8	4397 2.7	2015 1.3	4111 2.6	2738 1.7	4712 2.9	22814 14.3	16920 10.6	4347 2.7	943 0.6	6028 3.8	14467 9.0	2090 1.3	4951 3.1	6040 3.8	7075 4.4	15742 9.8	159998

LEGEND : XXXX - PERSON TRIPS
XX.X - CELL PERCENT

A-85

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : COMMERCIAL VEHICLES (PERSON TRIPS)

ORIGINS	DESTINATIONS																									TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3	S4	S5	A1	A2	A3	A4	A5				
1	26 0.1	-	-	7 0.0	-	10 0.1	-	4 0.0	-	4 0.0	11 0.1	111 0.6	147 0.8	12 0.1	14 0.1	24 0.1	27 0.1	-	-	10 0.1	-	13 0.1	419 2.3			
2	-	-	-	-	-	47 0.3	-	-	-	-	-	16 0.1	-	3 0.0	-	-	2 0.0	-	-	-	-	-	68 0.4			
3	-	-	94 0.5	46 0.3	-	-	-	-	7 0.0	83 0.5	-	185 1.0	13 0.1	-	-	6 0.0	47 0.3	6 0.0	-	-	8 0.0	20 0.1	514 2.8			
4	-	-	8 0.0	128 0.7	-	28 0.2	14 0.1	12 0.1	90 0.5	-	-	141 0.8	77 0.4	32 0.2	-	31 0.2	70 0.4	14 0.1	70 0.4	84 0.5	11 0.1	179 1.0	990 5.4			
5	3 0.0	-	-	6 0.0	-	-	9 0.0	16 0.1	-	-	-	9 0.0	-	-	-	8 0.0	61 0.3	-	-	-	-	-	111 0.6			
6	15 0.1	41 0.2	73 0.4	24 0.1	47 0.3	7 0.0	25 0.1	6 0.0	6 0.0	6 0.0	22 0.1	101 0.5	488 2.6	130 0.7	6 0.0	31 0.2	213 1.2	-	5 0.0	-	16 0.1	171 0.9	1431 7.8			
7	-	-	-	12 0.1	-	-	13 0.1	-	-	6 0.0	30 0.2	18 0.1	12 0.1	-	-	-	6 0.0	-	90 0.5	119 0.6	100 0.5	68 0.4	474 2.6			
8	23 0.1	-	8 0.0	-	21 0.1	56 0.3	-	-	-	-	-	129 0.7	30 0.2	-	-	-	-	-	-	16 0.1	46 0.2	12 0.1	341 1.8			
9	6 0.0	-	31 0.2	104 0.6	-	6 0.0	6 0.0	-	14 0.1	-	15 0.1	91 0.5	-	-	-	-	12 0.1	-	10 0.1	22 0.1	20 0.1	32 0.2	368 2.0			
10	3 0.0	9 0.0	9 0.0	8 0.0	-	42 0.2	-	-	-	-	-	328 1.8	15 0.1	-	-	-	-	-	12 0.1	12 0.1	40 0.2	24 0.1	500 2.7			
11	41 0.2	37 0.2	-	21 0.1	-	-	10 0.1	11 0.1	-	-	-	321 1.7	-	-	-	-	-	16 0.1	17 0.1	41 0.2	49 0.3	169 0.9	733 4.0			
12	137 0.7	8 0.0	126 0.7	73 0.4	7 0.0	101 0.5	8 0.0	280 1.5	76 0.4	195 1.1	514 2.8	86 0.5	410 2.2	81 0.4	15 0.1	131 0.7	1125 6.1	100 0.5	120 0.7	115 0.6	176 1.0	382 2.1	4264 23.1			
S1	85 0.5	8 0.0	48 0.3	85 0.5	14 0.1	508 2.8	-	8 0.0	21 0.1	-	-	349 1.9	33 0.2	-	-	14 0.1	7 0.0	34 0.2	-	29 0.2	79 0.4	214 1.2	1535 8.3			
S2	17 0.1	-	17 0.1	76 0.4	-	553 3.0	14 0.1	-	-	-	7 0.0	152 0.8	-	-	-	-	13 0.1	32 0.2	141 0.8	34 0.2	12 0.1	112 0.6	1179 6.4			
S3	5 0.0	15 0.1	7 0.0	-	-	20 0.1	-	-	-	-	-	8 0.0	-	-	-	-	-	-	-	35 0.2	-	21 0.1	111 0.6			
S4	25 0.1	-	-	21 0.1	14 0.1	71 0.4	-	-	14 0.1	-	-	137 0.7	-	-	-	-	8 0.0	18 0.1	-	42 0.2	19 0.1	48 0.3	415 2.3			
S5	42 0.2	4 0.0	20 0.1	75 0.4	5 0.0	132 0.7	29 0.2	20 0.1	12 0.1	-	-	528 2.9	35 0.2	-	-	-	21 0.1	21 0.1	-	72 0.4	59 0.3	210 1.1	1285 7.0			
A1	-	-	6 0.0	16 0.1	-	29 0.2	-	-	-	-	75 0.4	33 0.2	43 0.2	6 0.0	-	21 0.1	58 0.3	-	-	-	-	-	286 1.6			
A2	-	-	-	75 0.4	-	6 0.0	50 0.3	-	4 0.0	-	5 0.0	129 0.7	17 0.1	17 0.1	6 0.0	-	19 0.1	-	22 0.1	-	-	-	349 1.9			
A3	-	-	-	166 0.9	-	-	63 0.3	23 0.1	-	-	24 0.1	110 0.6	118 0.6	23 0.1	6 0.0	12 0.1	114 0.6	-	-	-	-	6 0.0	664 3.6			
A4	-	-	24 0.1	85 0.5	-	22 0.1	23 0.1	70 0.4	12 0.1	11 0.1	67 0.4	258 1.4	95 0.5	24 0.1	6 0.0	-	60 0.3	-	-	-	-	8 0.0	763 4.1			
A5	-	-	40 0.2	210 1.1	-	120 0.7	90 0.5	38 0.2	25 0.1	28 0.2	79 0.4	252 1.4	106 0.6	41 0.2	30 0.2	47 0.3	507 2.8	-	-	-	-	8 0.0	1622 8.8			
TOTALS	427 2.3	120 0.7	509 2.8	1237 6.7	107 0.6	1757 9.5	353 1.9	487 2.6	281 1.5	333 1.8	849 4.6	3491 19.0	1639 8.8	369 2.0	82 0.4	325 1.8	2369 12.9	240 1.3	488 2.6	630 3.4	633 3.4	1695 9.2	18422			

LEGEND : XXXX - PERSON TRIPS
XX.X - CELL PERCENT

A-86

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : PASSENGER VEHICLES (PERSON TRIPS)

ORIGINS	DESTINATIONS																									TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3	S4	S5	A1	A2	A3	A4	A5				
1	229 0.2	9 0.0	38 0.0	54 0.0	-	50 0.0	34 0.0	4 0.0	19 0.0	39 0.0	25 0.0	346 0.2	2352 1.7	181 0.1	50 0.0	559 0.4	1109 0.8	18 0.0	11 0.0	14 0.0	17 0.0	58 0.0	5217 3.7			
2	4 0.0	7 0.0	49 0.0	30 0.0	-	18 0.0	29 0.0	-	14 0.0	6 0.0	26 0.0	200 0.1	57 0.0	26 0.0	-	21 0.0	73 0.1	-	-	-	-	6 0.0	568 0.4			
3	29 0.0	19 0.0	962 0.7	219 0.2	-	107 0.1	48 0.0	32 0.0	72 0.1	31 0.0	148 0.1	1423 1.0	225 0.2	59 0.0	7 0.0	104 0.1	375 0.3	103 0.1	49 0.0	45 0.0	295 0.2	209 0.1	4561 3.2			
4	33 0.0	10 0.0	158 0.1	2686 1.9	17 0.0	139 0.1	165 0.1	87 0.1	1080 0.8	165 0.1	304 0.2	522 0.4	1065 0.8	368 0.3	41 0.0	323 0.2	642 0.5	283 0.2	738 0.5	1392 1.0	744 0.5	2392 1.7	13356 9.4			
5	11 0.0	-	5 0.0	27 0.0	-	7 0.0	20 0.0	10 0.0	55 0.0	3 0.0	4 0.0	41 0.0	145 0.1	30 0.0	3 0.0	44 0.0	152 0.1	-	3 0.0	-	-	13 0.0	572 0.4			
6	56 0.0	32 0.0	67 0.0	143 0.1	7 0.0	140 0.1	28 0.0	111 0.1	183 0.1	90 0.1	111 0.1	406 0.3	4451 3.1	1425 1.0	191 0.1	1007 0.7	2363 1.7	76 0.1	150 0.1	277 0.2	223 0.2	623 0.4	12159 8.6			
7	17 0.0	10 0.0	83 0.1	168 0.1	29 0.0	51 0.0	254 0.2	9 0.0	50 0.0	18 0.0	18 0.0	173 0.1	105 0.1	13 0.0	3 0.0	37 0.0	180 0.1	81 0.1	504 0.4	462 0.3	383 0.3	1044 0.7	3694 2.6			
8	54 0.0	11 0.0	30 0.0	69 0.0	76 0.1	58 0.0	7 0.0	15 0.0	4 0.0	13 0.0	-	738 0.5	19 0.0	-	-	-	8 0.0	21 0.0	25 0.0	42 0.0	74 0.1	219 0.2	1482 1.0			
9	19 0.0	7 0.0	56 0.0	1292 0.9	7 0.0	156 0.1	55 0.0	7 0.0	383 0.3	7 0.0	25 0.0	228 0.2	335 0.2	37 0.0	5 0.0	85 0.1	119 0.1	33 0.0	97 0.1	212 0.1	212 0.1	481 0.3	3858 2.7			
10	18 0.0	10 0.0	105 0.1	105 0.1	10 0.0	79 0.1	7 0.0	30 0.0	9 0.0	20 0.0	4 0.0	1308 0.9	27 0.0	-	15 0.0	14 0.0	33 0.0	7 0.0	92 0.1	60 0.0	112 0.1	374 0.3	2439 1.7			
11	114 0.1	9 0.0	107 0.1	205 0.1	11 0.0	48 0.0	9 0.0	16 0.0	4 0.0	21 0.0	50 0.0	1520 1.1	38 0.0	17 0.0	-	11 0.0	39 0.0	94 0.1	123 0.1	238 0.2	312 0.2	650 0.5	3636 2.6			
12	466 0.3	90 0.1	1627 1.1	718 0.5	40 0.0	689 0.5	193 0.1	729 0.5	335 0.2	1144 0.8	1592 1.1	221 0.2	1975 1.4	619 0.4	173 0.1	1036 0.7	3060 2.2	440 0.3	1312 0.9	821 0.6	1687 1.2	2879 2.0	21856 15.4			
S1	2190 1.5	105 0.1	218 0.2	967 0.7	138 0.1	4541 3.2	124 0.1	7 0.0	356 0.3	50 0.0	13 0.0	1995 1.4	260 0.2	49 0.0	4 0.0	78 0.1	72 0.1	325 0.2	-	851 0.6	911 0.6	1850 1.3	15101 10.7			
S2	215 0.2	6 0.0	52 0.0	387 0.3	25 0.0	1600 1.1	13 0.0	4 0.0	46 0.0	-	12 0.0	669 0.5	39 0.0	39 0.0	-	14 0.0	39 0.0	75 0.1	1155 0.8	221 0.2	108 0.1	447 0.3	5164 3.6			
S3	101 0.1	-	6 0.0	91 0.1	8 0.0	208 0.1	-	-	-	-	-	172 0.1	6 0.0	4 0.0	-	24 0.0	7 0.0	30 0.0	-	63 0.0	36 0.0	117 0.1	874 0.6			
S4	561 0.4	21 0.0	72 0.1	474 0.3	68 0.0	1360 1.0	63 0.0	4 0.0	103 0.1	15 0.0	16 0.0	1013 0.7	67 0.0	4 0.0	3 0.0	52 0.0	42 0.0	135 0.1	-	310 0.2	415 0.3	780 0.6	5576 3.9			
S5	818 0.6	45 0.0	249 0.2	437 0.3	116 0.1	1450 1.0	95 0.1	32 0.0	41 0.0	34 0.0	45 0.0	2050 1.4	47 0.0	22 0.0	-	43 0.0	57 0.0	121 0.1	-	335 0.2	439 0.3	1711 1.2	8187 5.8			
A1	15 0.0	-	89 0.1	184 0.1	-	153 0.1	154 0.1	51 0.0	88 0.1	72 0.1	98 0.1	551 0.4	271 0.2	89 0.1	18 0.0	80 0.1	212 0.1	-	-	-	6 0.0	7 0.0	2148 1.5			
A2	13 0.0	-	50 0.0	816 0.6	7 0.0	223 0.2	859 0.6	99 0.1	120 0.1	67 0.0	215 0.2	877 0.6	452 0.3	126 0.1	64 0.0	312 0.2	335 0.2	-	157 0.1	-	20 0.0	19 0.0	4829 3.4			
A3	64 0.0	3 0.0	45 0.0	1656 1.2	-	445 0.3	500 0.4	78 0.1	189 0.1	117 0.1	293 0.2	962 0.7	924 0.7	258 0.2	87 0.1	374 0.3	642 0.5	-	-	23 0.0	26 0.0	34 0.0	6719 4.7			
A4	30 0.0	-	294 0.2	876 0.6	3 0.0	337 0.2	448 0.3	116 0.1	224 0.2	167 0.1	452 0.3	1729 1.2	998 0.7	239 0.2	48 0.0	371 0.3	859 0.6	-	-	8 0.0	67 0.0	25 0.0	7291 5.1			
A5	84 0.1	20 0.0	228 0.2	1642 1.2	4 0.0	565 0.4	931 0.7	220 0.2	374 0.3	334 0.2	568 0.4	2285 1.6	1331 0.9	297 0.2	122 0.1	837 0.7	2058 1.5	4 0.0	-	4 0.0	253 0.2	33 0.0	12295 8.7			
TOTALS	5140 3.6	415 0.3	4590 3.2	13245 9.4	567 0.4	12424 8.8	4037 2.9	1660 1.2	3747 2.6	2414 1.7	4019 2.8	19430 13.7	15187 10.7	3900 2.8	833 0.6	5535 3.9	12476 8.8	1847 1.3	4418 3.1	5378 3.8	6351 4.5	13971 9.9	141584			

LEGEND : XXXX - PERSON TRIPS
XX.X - CELL PERCENT

A-87

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : ALL VEHICLES
 LOCATION : SOUTH OF NEW BRAUNFELS

ORIGINS	DESTINATIONS															TOTAL							
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3		S4	S5	A1	A2	A3	A4	A5
1	-	-	-	10	-	-	11	4	-	-	-	6	7	-	4	8	12	-	-	-	-	-	77
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28
3	-	-	3	-	-	7	-	8	-	5	3	-	85	20	4	41	84	-	-	-	-	-	262
4	-	-	-	3	-	14	4	44	-	32	10	-	665	290	38	223	345	-	-	-	-	-	1678
5	-	-	-	-	-	-	-	8	-	4	-	-	85	19	4	29	73	-	-	-	-	-	230
6	12	-	4	15	4	77	10	39	15	39	47	19	2539	1004	110	528	1370	-	14	3	7	30	
7	0.0	-	0.0	0.1	0.0	0.3	0.0	0.1	0.1	0.1	0.2	0.1	9.0	3.5	0.4	1.9	4.8	-	0.0	0.0	0.0	5866	
8	-	-	-	8	-	11	4	4	-	11	-	-	53	11	4	19	70	-	-	-	-	216	
9	-	-	-	10	0.0	0.1	0.0	0.0	-	0.0	-	-	0.2	0.0	0.0	0.1	0.2	-	-	-	-	0.8	
10	-	-	22	11	0.0	-	27	4	4	-	-	-	119	0.0	-	-	-	-	-	-	-	457	
11	-	-	4	22	-	20	4	4	-	4	4	86	21	8	-	4	10	-	3	14	7	243	
12	7	-	-	10	3	7	85	4	112	80	14	348	144	24	166	442	-	-	-	-	-	1456	
S1	20	27	85	685	94	2502	68	8	244	16	14	405	27	22	-	22	21	121	-	250	305	5624	
S2	-	-	4	26	291	21	1079	17	4	32	88	18	17	-	-	8	27	31	509	81	54	2502	
S3	0.0	-	0.0	0.1	1.0	0.1	3.8	0.1	0.0	0.1	-	0.0	0.3	0.1	0.1	0.0	0.1	1.8	0.3	0.2	0.7	8.8	
S4	4	-	3	57	3	108	-	-	-	-	-	34	3	4	-	8	4	11	-	37	10	327	
S5	4	-	17	268	42	636	32	4	72	4	-	202	20	4	-	11	14	42	-	109	184	1846	
A1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9	
A2	-	-	-	6	4	15	4	39	4	4	7	3	161	51	14	88	104	-	26	-	-	534	
A3	3	0.0	-	-	-	9	-	13	3	16	7	-	310	116	29	116	167	-	-	-	-	802	
A4	8	-	-	4	-	4	-	32	4	33	16	-	406	97	19	147	208	-	-	-	-	985	
A5	4	-	-	-	-	4	19	4	34	-	45	18	3	418	113	42	231	713	-	-	-	1662	
TOTAL	72	34	234	1626	261	8431	245	353	432	328	216	1387	8665	2004	285	1791	3860	263	602	623	773	28304	
	0.3	0.1	0.8	5.7	0.8	19.2	0.9	1.2	1.5	1.2	0.8	4.8	19.7	7.1	1.0	6.3	13.6	0.9	2.1	2.2	2.7	6.8	

LEGEND : XXXX - VEHICLE TRIPS
 XX.X - CELL PERCENT

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : PASSENGER VEHICLES
 LOCATION : SOUTH OF NEW BRAUNFELS

ORIGINS	DESTINATIONS															TOTAL								
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3		S4	S5	A1	A2	A3	A4	A5	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	227
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1507
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	194
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8
6	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5203
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.1
7	3	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	179
	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7
8	-	3	10	35	21	0.1	0.2	0.0	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	323
	-	0.0	0.0	0.1	0.1	0.2	0.0	0.0	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3
9	3	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	410
	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7
10	-	-	21	10	-	-	22	4	3	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	287
	-	-	0.1	0.0	-	-	0.1	0.0	0.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	1.2
11	-	-	4	18	-	-	19	4	-	0.0	-	3	63	19	7	-	-	-	-	-	-	-	-	197
	-	-	0.0	0.1	-	-	0.1	0.0	-	0.0	-	0.0	0.3	0.1	0.0	-	-	-	-	-	-	-	-	0.6
12	5	0.0	-	-	9	3	7	6	61	-	85	62	11	294	114	19	136	340	-	-	-	-	-	1155
	0.0	-	-	-	0.0	0.0	0.0	0.0	0.2	-	0.3	0.3	0.0	1.2	0.5	0.1	0.6	1.4	-	-	-	-	-	4.7
S1	19	26	81	617	82	2194	63	7	221	14	13	336	25	22	-	19	18	96	-	-	-	-	-	4844
	0.1	0.1	0.3	2.5	0.3	8.9	0.3	0.0	0.9	0.1	0.1	1.4	0.1	0.1	-	0.1	0.1	0.4	-	-	-	-	-	20.1
S2	-	4	24	249	20	972	13	4	32	-	-	74	16	16	-	8	21	28	434	70	48	144	2177	
	-	0.0	0.1	1.0	0.1	3.8	0.1	0.0	0.1	-	-	0.3	0.1	0.1	-	0.0	0.1	0.1	1.8	0.3	0.2	0.6	8.8	
S3	4	-	-	52	3	94	-	-	-	-	-	32	2	4	-	7	4	10	-	-	-	-	279	
	0.0	-	-	0.2	0.0	0.4	-	-	-	-	-	0.1	0.0	0.0	-	0.0	0.0	0.0	-	-	-	-	1.1	
S4	4	-	15	239	38	588	29	4	64	4	174	17	17	17	4	-	10	14	39	-	-	-	1749	
	0.0	-	0.1	1.0	0.2	2.4	0.1	0.0	0.3	0.0	0.7	0.1	0.0	0.0	-	0.0	0.1	0.2	-	-	-	-	7.1	
S5	-	-	54	168	56	719	59	3	24	4	2	193	12	11	-	6	14	28	-	-	-	-	1866	
	-	-	0.2	0.7	0.2	2.8	0.2	0.0	0.1	0.0	0.0	0.8	0.0	0.0	-	0.0	0.1	0.1	-	-	-	-	8.0	
A1	-	-	-	-	-	-	-	-	8	2	-	4	-	104	33	-	58	72	-	-	-	-	-	281
	-	-	-	-	-	-	-	-	0.0	0.0	-	0.0	-	0.4	0.1	-	0.2	0.3	-	-	-	-	-	1.1
A2	-	-	-	5	4	14	3	37	4	3	7	3	142	39	9	82	91	-	-	-	-	-	-	470
	-	-	-	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.6	0.2	0.0	0.3	0.4	-	-	-	-	-	-	1.9
A3	2	0.0	-	-	-	-	8	-	0.0	0.0	0.1	0.0	-	277	97	25	107	136	-	-	-	-	-	693
	0.0	-	-	-	-	-	0.0	-	0.0	0.0	0.1	0.0	-	1.1	0.4	0.1	0.4	0.6	-	-	-	-	-	2.8
A4	5	0.0	-	3	-	0.0	3	29	3	29	15	-	367	88	14	138	161	-	-	-	-	-	-	877
	0.0	-	-	0.0	-	0.0	0.1	0.0	0.1	0.0	0.1	-	1.8	0.3	0.1	0.6	0.7	-	-	-	-	-	-	3.6
A5	3	-	-	-	4	17	3	31	-	36	18	-	378	90	33	210	268	-	-	-	-	-	-	1401
	0.0	-	-	-	0.0	0.1	0.0	0.1	-	0.1	0.1	-	1.8	0.4	0.1	0.9	2.3	-	-	-	-	-	-	5.7
TOTAL	58	33	214	1440	235	4818	210	286	377	265	174	1086	4842	1780	280	1617	3264	220	514	531	684	1640	24608	
	0.2	0.1	0.9	5.9	1.0	19.6	0.9	1.2	1.5	1.1	0.7	4.4	20.1	7.1	1.0	6.6	13.3	0.9	2.1	2.2	2.8	2.8	6.7	

LEGEND : XXXX - VEHICLE TRIPS
 XX.X - CELL PERCENT

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : COMMERCIAL VEHICLES
 LOCATION : SOUTH OF NEW BRAUNFELS

ORIGINS	DESTINATIONS															TOTAL							
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3		S4	S5	A1	A2	A3	A4	A5
1	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
2	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	0.4
3	-	-	-	-	-	-	-	-	12	-	-	-	6	-	-	-	-	-	-	-	-	-	0.8
4	-	-	-	-	-	6	-	0.2	-	-	-	43	18	-	11	30	0.8	-	-	-	-	-	7
5	-	-	-	-	-	8	-	0.2	-	-	-	-	-	-	8	17	-	-	-	-	-	-	33
6	6	-	-	-	-	7	7	0.2	6	6	15	7	241	98	6	18	148	-	-	-	-	-	578
7	0.2	-	-	-	-	0.2	0.2	0.2	0.2	0.4	0.2	6.6	2.7	0.2	0.5	4.0	-	-	-	-	-	-	15.7
8	-	-	-	-	-	-	-	-	6	-	-	12	-	-	-	6	-	-	-	-	-	-	35
9	6	-	-	-	-	7	7	-	0.2	-	-	0.3	-	-	-	0.2	-	-	-	-	-	-	1.0
10	0.2	-	-	-	-	-	0.2	-	-	-	34	0.8	-	-	-	-	-	-	-	-	-	-	62
11	-	-	-	-	-	7	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	1.7
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
S1	-	-	-	-	-	47	8	-	-	36	28	6	65	45	8	30	164	-	-	-	-	-	437
S2	-	-	-	-	-	1.3	0.2	1.0	-	1.3	0.8	0.2	1.8	1.2	0.2	0.8	4.5	-	-	-	-	-	11.9
S3	-	-	-	-	-	1.1	0.4	0.3	-	0.6	-	83	-	-	-	7	28	-	-	-	-	-	648
S4	-	-	-	-	-	84	7	-	-	-	7	14	-	-	-	0.2	0.2	0.8	-	-	-	-	17.6
S5	-	-	-	-	-	2.3	0.2	-	-	-	0.2	0.4	-	-	-	0.2	2.1	0.4	-	-	-	-	343
A1	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.3
A2	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55
A3	-	-	-	-	-	21	21	-	-	7	-	27	-	-	-	-	-	-	-	-	-	-	126
A4	-	-	-	-	-	0.6	0.2	0.6	-	0.2	-	0.7	-	-	-	-	-	-	-	-	-	-	3.4
A5	-	-	-	-	-	7	21	103	21	13	-	88	7	-	-	-	-	-	-	-	-	-	443
TOTAL	12	21	138	28	547	28	92	55	71	50	387	813	283	46	103	705	48	94	87	76	2.1	341	3676
	0.3	-	0.6	3.8	0.8	14.9	0.8	2.5	1.8	1.4	8.7	14.0	6.9	1.3	2.8	18.2	1.3	2.6	2.6	2.1	0.6	8.2	

LEGEND : XXXX - VEHICLE TRIPS
 XX.X - CELL PERCENT

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : ALL VEHICLES
 LOCATION : SOUTH OF KYLE

ORIGINS	DESTINATIONS																				TOTAL		
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3	S4	S5	A1	A2	A3		A4	A5
1	-	-	-	14	-	-	-	-	-	4	4	21	3	4	-	4	-	-	4	16	7	28	109
	-	-	-	0.0	-	-	-	-	-	0.0	0.0	0.1	0.0	0.0	-	0.0	-	-	0.0	0.1	0.0	0.1	0.4
2	-	-	-	20	-	17	-	-	-	-	-	-	8	3	-	7	7	-	-	-	-	-	62
	-	-	-	0.1	-	0.1	-	-	-	-	-	-	0.0	0.0	-	0.0	0.0	-	-	-	-	-	0.2
3	12	-	-	104	-	26	-	7	20	18	8	3	98	13	4	28	126	4	-	-	-	6	438
	0.0	-	-	0.4	-	0.1	-	0.0	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.1	0.4	0.0	-	-	-	0.0	1.5
4	23	11	87	1782	15	61	84	10	38	16	27	106	41	21	-	28	65	232	550	1164	607	1741	6697
	0.1	0.0	0.3	6.3	0.1	0.2	0.2	0.0	0.1	0.1	0.1	0.4	0.1	0.1	-	0.1	0.2	0.8	1.9	4.1	2.1	6.1	23.5
5	4	-	-	22	-	-	-	-	-	-	-	-	8	-	-	4	8	-	-	-	-	4	51
	0.0	-	-	0.1	-	-	-	-	-	-	-	-	0.0	-	-	0.0	0.0	-	-	-	-	0.0	0.2
6	-	19	39	91	16	4	4	-	-	4	-	85	-	5	-	-	-	50	100	158	151	426	1162
	-	0.1	0.1	0.3	0.1	0.0	0.0	-	-	0.0	-	0.3	-	0.0	-	-	-	0.2	0.4	0.6	0.5	1.5	4.1
7	-	-	-	40	-	7	4	3	-	-	4	7	3	-	-	-	3	5	8	37	25	55	201
	-	-	-	0.1	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	0.0	0.1	0.1	0.2	0.7
8	-	-	12	12	4	-	-	4	-	4	-	130	4	-	-	-	-	8	4	8	13	58	261
	-	-	0.0	0.0	0.0	-	-	0.0	-	0.0	-	0.5	0.0	-	-	-	-	0.0	0.0	0.0	0.0	0.2	0.9
9	7	4	8	38	3	-	-	-	-	-	7	36	4	-	-	-	-	8	37	102	66	165	487
	0.0	0.0	0.0	0.1	0.0	-	-	-	-	-	0.0	0.1	0.0	-	-	-	-	0.0	0.1	0.4	0.2	0.6	1.7
10	-	-	7	7	-	4	-	-	-	-	4	157	10	-	4	-	7	-	19	20	38	66	343
	-	-	0.0	0.0	-	0.0	-	-	-	-	0.0	0.6	0.0	-	0.0	-	0.0	-	0.1	0.1	0.1	0.2	1.2
11	8	-	8	14	-	4	-	7	-	-	-	181	3	3	-	4	8	15	16	33	36	141	481
	0.0	-	0.0	0.0	-	0.0	-	0.0	-	-	-	0.6	0.0	0.0	-	0.0	0.0	0.1	0.1	0.1	0.1	0.5	1.7
12	28	-	-	171	-	142	3	169	42	181	174	11	285	89	24	172	512	-	-	4	-	10	2017
	0.1	-	-	0.6	-	0.5	0.0	0.6	0.1	0.6	0.6	0.0	1.0	0.3	0.1	0.6	1.8	-	-	0.0	-	0.0	7.1
S1	4	12	73	38	4	-	7	-	4	4	-	277	17	4	4	-	7	136	-	328	382	716	2018
	0.0	0.0	0.3	0.1	0.0	-	0.0	-	0.0	0.0	-	1.0	0.1	0.0	0.0	-	0.0	0.5	-	1.2	1.3	2.5	7.1
S2	3	3	18	18	3	-	-	-	4	-	3	85	-	3	-	4	8	40	430	79	40	137	890
	0.0	0.0	0.1	0.1	0.0	-	-	-	0.0	-	0.0	0.3	-	0.0	-	0.0	0.0	0.1	1.5	0.3	0.1	0.5	3.1
S3	-	-	3	8	-	4	-	-	-	-	-	34	-	-	-	-	-	3	-	11	16	44	123
	-	-	0.0	0.0	-	0.0	-	-	-	-	-	0.1	-	-	-	-	-	0.0	-	0.0	0.1	0.2	0.4
S4	-	7	24	35	-	-	-	-	4	5	6	158	7	-	3	12	12	67	-	107	145	217	810
	-	0.0	0.1	0.1	-	-	-	-	0.0	0.0	0.0	0.6	0.0	-	0.0	0.0	0.0	0.2	-	0.4	0.5	0.8	2.8
S5	4	11	76	68	7	7	-	4	-	3	14	362	4	4	-	8	-	63	-	145	178	748	1708
	0.0	0.0	0.3	0.2	0.0	0.0	-	0.0	-	0.0	0.0	1.3	0.0	0.0	-	0.0	-	0.2	-	0.5	0.6	2.6	6.0
A1	4	-	3	183	-	88	-	27	31	26	36	-	80	24	8	20	59	-	-	-	-	-	589
	0.0	-	0.0	0.6	-	0.3	-	0.1	0.1	0.1	0.1	-	0.3	0.1	0.0	0.1	0.2	-	-	-	-	-	2.1
A2	14	-	-	638	-	120	21	20	41	18	21	-	168	49	29	101	81	-	50	-	15	6	1404
	0.0	-	-	2.2	-	0.4	0.1	0.1	0.1	0.1	0.1	-	0.6	0.2	0.1	0.4	0.3	-	0.2	-	0.1	0.0	4.8
A3	22	3	4	1308	-	211	28	46	81	20	42	3	284	82	37	102	254	-	-	4	15	28	2584
	0.1	0.0	0.0	4.6	-	0.7	0.1	0.2	0.3	0.1	0.1	0.0	1.0	0.3	0.1	0.4	0.9	-	-	0.0	0.1	0.1	8.1
A4	12	-	3	775	-	208	21	25	73	40	41	-	328	80	25	133	331	-	-	5	35	11	2147
	0.0	-	0.0	2.7	-	0.7	0.1	0.1	0.3	0.1	0.1	-	1.2	0.3	0.1	0.5	1.2	-	-	0.0	0.1	0.0	7.5
A5	26	-	12	1258	-	368	58	74	108	88	117	4	863	85	36	248	771	-	-	4	11	15	3861
	0.1	-	0.0	4.4	-	1.3	0.2	0.3	0.4	0.3	0.4	0.0	2.0	0.3	0.1	0.8	2.7	-	-	0.0	0.0	0.1	13.6
TOTAL	171	70	389	6680	52	1272	201	386	444	432	508	1681	1901	478	174	877	2268	631	1218	2226	1781	4623	28455
	0.6	0.2	1.4	23.4	0.2	4.5	0.7	1.4	1.6	1.5	1.8	5.8	6.7	1.7	0.8	3.1	8.0	2.2	4.3	7.8	6.3	16.2	

LEGEND : XXXX - VEHICLE TRIPS
 XX.X - CELL PERCENT

A-91

AUSTIN/SAM ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : PASSENGER VEHICLES
 LOCATION : SOUTH OF KYLE

ORIGINS	DESTINATIONS															TOTAL							
	1	2	3	4	5	6	7	8	9	10	11	12	51	52	53		54	55	A1	A2	A3	A4	A5
1	-	-	-	14	-	-	-	-	-	4	4	20	3	4	4	4	-	-	-	4	11	7	27
	-	-	-	0.1	-	-	-	-	-	0.0	0.0	0.1	0.0	0.0	-	0.0	-	-	-	0.0	0.0	0.0	
2	-	-	-	19	-	10	-	-	-	-	-	-	8	3	-	7	7	-	-	-	-	-	
	-	-	-	0.1	-	0.0	-	-	-	-	-	-	0.0	0.0	-	0.0	0.0	-	-	-	-	-	
3	11	-	-	86	-	26	-	7	15	10	7	3	51	12	4	25	112	-	-	-	-	6	
	0.0	-	-	0.3	-	0.1	-	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.4	-	-	-	-	0.0	
4	21	11	89	1656	14	51	52	10	34	15	26	92	31	19	-	24	54	213	505	1084	573	1897	
	0.1	0.0	0.3	6.5	0.1	0.2	0.2	0.0	0.1	0.1	0.1	0.4	0.1	0.1	-	0.1	0.2	0.8	2.0	4.3	2.2	6.3	
5	4	-	-	18	-	-	-	-	-	-	-	-	8	-	-	4	7	-	-	-	-	4	
	0.0	-	-	0.1	-	-	-	-	-	-	-	-	0.0	-	-	0.0	0.0	-	-	-	-	0.0	
6	-	15	27	79	4	4	4	-	-	4	-	82	-	5	-	-	-	48	93	150	137	383	
	-	0.1	0.1	0.3	0.0	0.0	0.0	-	-	0.0	-	0.3	-	0.0	-	-	-	0.2	0.4	0.6	0.5	1.5	
7	-	-	-	38	-	7	4	3	-	-	4	7	3	-	-	3	3	5	8	31	25	52	
	-	-	-	0.1	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.1	0.1	0.2	
8	-	-	12	12	4	-	-	4	-	4	-	100	4	-	-	-	-	8	4	8	10	52	
	-	-	0.0	0.0	0.0	-	-	0.0	-	0.0	-	0.4	0.0	-	-	-	-	0.0	0.0	0.0	0.0	0.2	
9	3	4	8	37	3	-	-	-	-	4	21	4	-	-	-	-	-	7	33	94	62	148	
	0.0	0.0	0.0	0.1	0.0	-	-	-	-	0.0	0.1	0.0	-	-	-	-	-	0.0	0.1	0.4	0.3	0.6	
10	-	-	7	7	-	4	-	-	-	4	122	6	-	-	4	-	7	-	18	16	27	54	
	-	-	0.0	0.0	-	0.0	-	-	-	0.0	0.5	0.0	-	-	0.0	-	0.0	-	0.1	0.1	0.1	0.2	
11	4	-	7	14	-	4	-	4	-	-	-	189	3	3	-	4	7	10	12	27	28	133	
	0.0	-	0.0	0.1	-	0.0	-	0.0	-	-	-	0.6	0.0	0.0	-	0.0	0.0	0.0	0.0	0.1	0.1	0.5	
12	23	-	-	180	-	120	3	116	36	150	198	7	251	74	32	195	386	-	-	-	-	10	
	0.1	-	-	0.6	-	0.5	0.0	0.5	0.1	0.6	0.5	0.0	1.0	0.3	0.1	0.6	1.6	-	-	-	-	0.0	
51	4	11	60	30	4	-	7	-	4	4	-	240	13	4	4	-	7	131	-	308	341	646	
	0.0	0.0	0.2	0.1	0.0	-	0.0	-	0.0	0.0	-	0.9	0.1	0.0	0.0	-	0.0	0.5	-	1.2	1.3	2.5	
52	3	3	14	19	3	-	-	4	-	-	3	84	-	3	-	4	4	34	392	76	35	116	
	0.0	0.0	0.1	0.1	0.0	-	-	0.0	-	0.0	0.3	-	-	0.0	-	0.0	0.0	0.1	1.5	0.3	0.1	0.5	
53	-	-	3	8	-	4	-	-	-	-	-	33	-	-	-	-	-	3	-	-	11	41	
	-	-	0.0	0.0	-	0.0	-	-	-	-	-	0.1	-	-	-	-	-	0.0	-	0.0	0.1	0.2	
54	-	7	23	33	-	-	-	4	5	6	140	7	-	-	3	12	8	55	-	94	128	203	
	-	0.0	0.1	0.1	-	-	-	0.0	0.0	0.0	0.5	0.0	-	-	0.0	0.0	0.0	0.2	-	0.4	0.5	0.8	
55	4	10	67	58	4	7	-	4	-	3	14	287	4	4	-	8	-	61	-	131	160	670	
	0.0	0.0	0.3	0.2	0.0	0.0	-	0.0	-	0.0	0.1	1.1	0.0	0.0	-	0.0	-	0.2	-	0.5	0.6	2.6	
A1	4	-	-	163	-	78	-	26	28	24	28	-	77	22	7	15	93	-	-	-	-	-	
	0.0	-	-	0.6	-	0.3	-	0.1	0.1	0.1	0.1	-	0.3	0.1	0.0	0.1	0.2	-	-	-	-	-	
A2	14	-	-	576	-	111	20	18	40	15	19	-	160	47	27	95	87	-	45	-	14	6	
	0.1	-	-	2.3	-	0.4	0.1	0.1	0.2	0.1	0.1	-	0.6	0.2	0.1	0.4	0.3	-	0.2	-	0.1	0.0	
A3	21	3	4	1198	-	198	25	40	77	19	36	3	262	77	30	94	227	-	4	14	14	22	
	0.1	0.0	0.0	4.7	-	0.8	0.1	0.2	0.3	0.1	0.1	0.0	1.0	0.3	0.1	0.4	0.8	-	0.0	0.1	0.1	0.1	
A4	12	-	3	700	-	182	20	21	63	35	37	-	284	71	33	126	298	-	8	34	7	1932	
	0.0	-	0.0	2.7	-	0.7	0.1	0.1	0.2	0.1	0.1	-	1.2	0.3	0.1	0.5	1.2	-	0.0	0.1	0.0	7.6	
A5	25	-	12	1125	-	337	46	58	100	83	108	4	908	87	33	225	660	-	4	11	14	3438	
	0.1	-	0.0	4.4	-	1.3	0.2	0.2	0.4	0.3	0.4	0.0	2.0	0.3	0.1	0.9	2.6	-	0.0	0.0	0.0	13.5	
TOTAL	183	64	337	6042	36	1144	182	311	408	377	437	1404	1697	435	157	602	1937	576	1114	2084	1622	4191	
	0.6	0.3	1.3	23.7	0.1	4.5	0.7	1.2	1.6	1.5	1.7	5.8	6.7	1.7	0.6	3.1	7.6	2.3	4.4	8.1	6.4	16.4	

LEGEND : XXXX - VEHICLE TRIPS
 XX.X - CELL PERCENT

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : ALL VEHICLES
 LOCATION : BETWEEN SAN MARCOS AND SEGUIN

ORIGINS	DESTINATIONS															TOTAL							
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3		S4	S5	A1	A2	A3	A4	A5
1	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	13
2	-	-	-	-	-	-	-	-	-	-	7	3	4	-	-	-	-	-	-	-	-	-	14
3	-	-	-	-	-	-	-	-	-	-	15	21	-	-	-	-	-	-	-	-	-	-	36
4	-	-	-	-	-	7	7	784	39	109	4	8	8	-	-	-	10	-	-	-	7	3	876
5	-	-	-	-	-	0.2	0.2	17.8	0.9	2.5	0.1	0.1	0.2	-	-	-	0.2	-	-	-	0.2	0.1	22.1
6	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	11
7	-	-	-	-	-	6	0.1	108	0.1	0.2	0.1	0.1	0.1	-	-	-	-	-	-	3	-	2	180
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	3.4
9	3	0.1	28	897	2	94	36	-	268	5	7	44	8	4	-	4	-	7	26	67	53	183	
10	-	-	5	16	3	3	3	-	6	3	-	76	-	-	-	-	-	-	9	8	7	80	
11	5	0.1	3	14	89	-	-	-	-	-	-	-	13	88	-	-	-	15	26	52	40	410	
12	-	-	-	-	-	-	-	5	53	47	122	-	-	-	-	-	-	0.3	0.6	1.2	0.9	9.3	
S1	-	-	-	-	-	-	-	0.1	1.2	1.1	2.8	-	-	-	3	4	0.1	-	-	-	-	24	
S2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-	-	-	-	-	0.8	
S3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
S4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	15	
S5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	
A1	-	-	-	-	-	-	-	-	34	6	13	-	-	-	-	-	-	-	-	-	-	83	
A2	-	-	-	-	-	-	-	-	0.8	0.1	0.3	-	-	-	-	-	-	-	-	-	-	1.2	
A3	-	-	-	-	-	-	-	-	37	4	30	-	-	-	-	-	-	-	-	-	-	71	
A4	-	-	-	-	-	-	-	-	0.8	0.1	0.7	-	-	-	-	-	-	-	-	-	-	1.6	
A5	-	-	-	-	-	-	-	-	43	12	46	-	-	-	-	-	-	-	-	-	-	108	
TOTAL	0.2	0.1	47	1034	5	105	64	8	1893	158	541	216	10	13	0.3	0.1	0.2	0.8	0.7	28	61	130	4418
			1.1	23.4	0.1	2.4	1.4	0.2	38.1	3.6	12.3	4.9	0.2	0.3	0.1	0.2	0.5	0.7	1.4	2.8	2.4	5.6	

LEGEND : XXXX - VEHICLE TRIPS
 XX.X - CELL PERCENT

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : PASSENGER VEHICLES
 LOCATION : BETWEEN SAN MARCOS AND SEGUIN

ORIGINS	DESTINATIONS																								TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3	S4	S5	A1	A2	A3	A4	A5			
1	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	
2	-	-	-	-	-	-	-	-	7	3	4	-	-	-	-	-	-	-	-	-	-	-	-	14	
3	-	-	-	-	-	-	-	-	10	-	21	-	-	-	-	-	-	-	-	-	-	-	-	31	
4	-	-	-	-	-	-	-	-	735	39	104	4	5	3	-	-	10	-	-	-	-	7	3	910	
5	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	
6	-	-	-	6	-	-	10	-	105	3	7	3	-	-	-	-	-	-	-	-	3	-	-	137	
7	-	-	-	7	-	-	-	3	23	3	-	-	-	-	-	-	4	-	-	-	-	-	3	43	
8	-	-	-	0.2	-	-	-	0.1	0.6	0.1	-	-	-	-	-	-	0.1	-	-	-	-	-	0.1	1.1	
9	3	-	22	822	2	88	34	-	247	5	7	40	5	4	-	4	7	7	23	62	50	145	1577		
10	0.1	-	0.5	20.3	0.0	2.2	0.8	-	6.1	0.1	0.2	1.0	0.1	0.1	-	0.1	0.2	0.2	0.6	1.5	1.2	3.6	39.0		
11	-	-	5	16	3	3	-	-	6	3	-	60	-	-	-	-	-	-	7	8	7	20	138		
12	-	-	0.1	0.4	0.1	0.1	-	-	0.1	0.1	-	1.5	-	-	-	-	-	-	0.2	0.2	0.2	0.5	3.4		
S1	5	-	14	77	-	-	-	-	-	4	13	82	-	-	-	-	-	15	22	47	39	60	378		
S2	0.1	-	0.3	1.9	-	-	-	-	-	0.1	0.3	2.0	-	-	-	-	-	0.4	0.5	1.2	1.0	1.5	8.4		
S3	-	-	-	4	-	-	-	5	43	38	95	-	-	-	3	4	3	-	-	-	-	-	195		
S4	-	-	-	0.1	-	-	-	0.1	1.1	0.9	2.4	-	-	-	0.1	0.1	0.1	-	-	-	-	-	4.8		
S5	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	7		
A1	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2		
A2	-	-	-	13	-	-	-	-	8	-	-	3	-	-	-	-	-	-	-	-	-	-	24		
A3	-	-	-	0.3	-	-	-	-	0.2	-	-	0.1	-	-	-	-	-	-	-	-	-	-	0.6		
A4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
A5	-	-	-	2	-	-	-	-	9	-	-	-	-	-	-	-	-	4	-	-	-	-	15		
A1	-	-	-	0.0	-	-	-	-	0.2	-	-	-	-	-	-	-	-	0.1	-	-	-	-	0.4		
A2	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	7		
A3	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2		
A4	-	-	-	-	-	-	-	-	33	6	12	-	-	-	-	-	-	-	-	-	-	-	51		
A5	-	-	-	-	-	-	-	-	0.8	0.1	0.3	-	-	-	-	-	-	-	-	-	-	-	1.3		
A1	-	-	-	-	-	-	-	-	33	4	30	-	-	-	-	-	-	-	-	-	-	-	67		
A2	-	-	-	-	-	-	-	-	0.8	0.1	0.7	-	-	-	-	-	-	-	-	-	-	-	1.7		
A3	-	-	-	4	-	3	-	-	41	12	42	-	-	-	-	-	-	-	-	-	-	-	102		
A4	-	-	-	0.1	-	0.1	-	-	1.0	0.3	1.0	-	-	-	-	-	-	-	-	-	-	-	2.5		
A5	-	-	-	-	-	-	-	-	50	15	80	-	-	-	-	-	-	-	-	-	-	-	145		
A1	-	-	-	-	-	-	-	-	1.2	0.4	2.0	-	-	-	-	-	-	-	-	-	-	-	3.6		
A2	-	-	-	-	-	-	-	-	93	14	60	-	-	-	-	-	-	-	-	-	-	-	173		
A3	-	-	-	-	-	0.0	4	-	2.3	0.3	1.5	-	-	-	-	-	-	-	-	-	-	-	4.3		
TOTAL	8	-	41	951	5	96	48	8	1481	149	475	192	10	7	3	8	24	29	52	120	103	231	4041		
	0.2	-	1.0	23.5	0.1	2.4	1.2	0.2	36.6	3.7	11.8	4.8	0.2	0.2	0.1	0.2	0.6	0.7	1.3	3.0	2.8	5.7			

LEGEND : XXXX - VEHICLE TRIPS
 XX.X - CELL PERCENT

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : PASSENGER VEHICLES
 LOCATION : NORTH OF LOCKHART

ORIGINS	DESTINATIONS															TOTAL								
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3		S4	S5	A1	A2	A3	A4	A5	
1	-	-	-	-	-	-	18	-	-	-	-	6	-	-	-	-	-	-	-	3	-	-	-	27
2	-	4	-	-	-	-	0.4	-	-	-	-	0.1	-	-	-	-	-	-	-	0.1	-	-	-	0.6
3	-	0.1	-	-	-	-	0.3	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	23
4	-	-	-	-	-	-	29	-	-	-	16	-	-	-	-	-	-	4	-	-	-	4	-	53
5	-	-	-	-	-	-	0.6	-	-	-	0.3	-	-	-	-	-	-	0.1	-	-	-	-	-	1.2
6	-	-	-	-	-	-	47	-	-	-	4	-	-	-	-	-	-	-	-	-	2	4	2	59
7	-	-	-	-	-	-	1.0	-	-	-	0.1	-	-	-	-	-	-	-	-	-	0.0	0.1	0.0	1.3
8	-	-	-	-	-	-	13	-	7	-	4	-	-	-	-	-	-	-	-	3	-	-	-	28
9	-	-	-	-	-	-	0.3	-	0.2	-	0.1	-	-	-	-	-	-	-	-	0.1	-	-	-	0.6
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	4	7	35	42	23	138	4	2	4	19	2	64	312	267	227	531	2	64	1.4	6.8	5.8	5.0	11.6	1684
12	0.1	0.2	0.8	0.9	0.6	3.0	0.1	0.0	0.1	0.4	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	36.7
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	16
16	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	0.1	0.1	-	-	-	-	0.3
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	3	-	-	9
19	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	0.1	-	-	0.2
20	28	3	15	7	4	2	2	-	-	4	22	-	4	22	-	140	-	29	59	39	86	140	-	448
21	0.6	0.1	0.3	0.2	0.1	0.0	0.0	-	-	0.1	0.5	-	0.1	0.5	-	2.1	-	0.6	1.3	0.9	2.1	3.1	-	9.8
22	-	-	-	-	-	-	28	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	63
23	-	-	-	-	-	-	0.6	-	-	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	1.4
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
26	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2
27	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	3
28	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	0.1
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	2	-	11	-	-	-	462	3	8	108	-	-	-	-	-	-	-	-	-	-	-	-	-	801
TOTAL	34	14	68	56	30	205	43.7	0.1	0.7	0.3	8.5	1.1	0.1	0.1	0.1	4	0.1	0.1	2.2	8.6	6.7	7.3	14.6	4883

LEGEND : XXXX - VEHICLE TRIPS
 XX.X - CELL PERCENT

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : ALL VEHICLES
 LOCATION : NORTH OF SAN ANTONIO

ORIGINS	DESTINATIONS												TOTAL					
	1	2	3	4	5	6	7	8	9	10	11	12						
1	140 1.5	3 0.0	-	-	-	32 0.3	3 0.0	7 0.1	-	13 0.1	16 0.2	3 0.0	1882 17.1	116 1.3	37 0.4	411 4.4	877 6.2	2840 31.7
2	-	-	-	-	-	-	-	-	-	3 0.0	6 0.1	-	18 0.2	4 0.0	-	3 0.0	15 0.2	50 0.5
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	3 0.0	-	-	-	3 0.0	-	28 0.3	3 0.0	-	13 0.1	3 0.0	54 0.6
5	3 0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3 0.0
6	29 0.3	-	-	-	-	10 0.1	3 0.0	-	4 0.0	3 0.0	3 0.0	-	736 7.8	84 0.6	18 0.2	218 2.4	244 2.6	1319 14.2
7	3 0.0	-	-	-	3 0.0	-	-	-	-	-	-	-	-	-	-	-	3 0.0	9 0.1
8	44 0.5	3 0.0	-	-	-	-	-	-	-	-	-	-	3 0.0	-	-	-	-	50 0.5
9	-	-	-	-	-	-	-	-	-	-	-	-	3 0.0	-	-	-	-	3 0.0
10	13 0.1	5 0.1	-	3 0.0	-	-	-	-	-	-	-	12 0.1	6 0.1	-	-	-	6 0.1	51 0.6
11	23 0.2	3 0.0	-	3 0.0	-	-	-	-	-	-	-	-	3 0.0	-	-	-	3 0.0	46 0.5
12	-	-	-	-	-	-	3 0.0	-	10 0.1	7 0.1	-	-	56 0.6	12 0.1	-	41 0.4	33 0.4	162 1.7
S1	1423 15.4	21 0.2	3 0.0	44 0.5	-	782 8.4	6 0.1	-	3 0.0	3 0.0	-	70 0.8	109 1.2	3 0.0	-	19 0.2	12 0.1	2372 27.8
S2	135 1.5	-	-	3 0.0	-	48 0.5	-	-	-	-	-	11 0.1	6 0.1	3 0.0	-	-	-	213 2.3
S3	87 0.6	6 0.1	-	3 0.0	-	22 0.2	-	-	-	-	-	6 0.1	4 0.0	-	-	3 0.0	-	104 1.1
S4	369 4.0	6 0.1	-	21 0.2	-	251 2.7	-	-	-	-	3 0.0	38 0.4	11 0.1	-	-	3 0.0	-	742 8.0
S5	506 5.5	11 0.1	-	18 0.2	-	200 2.2	3 0.0	3 0.0	-	-	3 0.0	15 0.2	9 0.1	-	-	3 0.0	12 0.1	918 9.8
A1	3 0.0	-	-	-	-	-	-	-	-	-	-	-	4 0.0	-	-	-	-	7 0.1
A2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A3	3 0.0	-	-	-	-	-	-	-	-	-	-	-	28 0.3	-	3 0.0	21 0.2	3 0.0	58 0.6
A4	-	-	-	-	-	-	-	-	-	-	-	-	10 0.1	3 0.0	-	7 0.1	-	20 0.2
A5	3 0.0	-	-	-	-	3 0.0	-	-	-	-	-	3 0.0	18 0.2	-	-	4 0.0	10 0.1	42 0.5
TOTAL	2764 28.7	58 0.6	3 0.0	85 1.0	3 0.0	1351 14.6	12 0.1	19 0.2	3 0.0	33 0.4	41 0.4	170 1.8	2637 28.5	198 2.1	88 0.6	745 8.1	821 9.9	9269 104.8

LEGEND : XXXX - VEHICLE TRIPS
 XX.X - CELL PERCENT

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : PASSENGER VEHICLES
 LOCATION : NORTH OF SAN ANTONIO

ORIGINS	DESTINATIONS																				TOTAL		
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3	S4	S5	A1	A2	A3		A4	A5
1	123 1.4	3 0.0	-	-	-	22 0.3	3 0.0	4 0.0	-	13 0.1	13 0.1	-	1481 17.1	111 1.3	30 0.3	400 4.6	554 6.3	-	-	-	-	-	2767 31.7
2	-	-	-	-	-	-	-	-	-	3 0.0	6 0.1	-	19 0.2	-	-	3 0.0	13 0.1	-	-	-	-	44 0.5	
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	-	-	-	-	-	-	-	3 0.0	-	-	3 0.0	-	28 0.3	3 0.0	-	13 0.1	3 0.0	-	-	-	-	54 0.6	
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	23 0.3	-	-	-	-	10 0.1	-	3 0.0	-	4 0.0	-	-	701 8.0	52 0.6	18 0.2	215 2.5	234 2.7	-	-	-	-	1260 14.4	
7	3 0.0	-	-	-	3 0.0	-	-	-	-	-	-	-	-	-	-	-	3 0.0	-	-	-	-	9 0.1	
8	23 0.3	3 0.0	-	-	-	-	-	-	-	-	-	-	3 0.0	-	-	-	-	-	-	-	-	29 0.3	
9	-	-	-	-	-	-	-	-	-	-	-	-	3 0.0	-	-	-	-	-	-	-	-	3 0.0	
10	10 0.1	3 0.0	-	-	-	3 0.0	-	-	-	-	-	12 0.1	6 0.1	-	-	-	6 0.1	-	-	-	-	40 0.5	
11	20 0.2	3 0.0	-	3 0.0	-	-	-	-	-	-	-	11 0.1	3 0.0	-	-	-	3 0.0	-	-	-	-	43 0.5	
12	-	-	-	-	-	-	-	3 0.0	-	10 0.1	7 0.1	-	80 0.6	12 0.1	-	37 0.4	30 0.3	-	-	-	-	149 1.7	
S1	1370 18.7	14 0.2	3 0.0	43 0.5	-	764 8.7	6 0.1	-	3 0.0	3 0.0	-	54 0.6	100 1.1	3 0.0	18 0.2	12 0.1	-	-	32 0.4	12 0.1	25 0.3	2463 28.2	
S2	123 1.4	-	-	3 0.0	-	48 0.5	-	-	-	-	-	11 0.1	6 0.1	3 0.0	-	-	-	-	4 0.0	3 0.0	-	201 2.3	
S3	52 0.6	-	-	3 0.0	-	22 0.3	-	-	-	-	-	6 0.1	4 0.0	-	-	3 0.0	-	-	-	-	3 0.0	93 1.1	
S4	352 4.0	6 0.1	-	21 0.2	-	242 2.8	-	-	-	-	3 0.0	19 0.2	11 0.1	-	-	3 0.0	-	-	12 0.1	-	18 0.2	687 7.9	
S5	476 6.4	8 0.1	-	15 0.2	-	196 2.2	3 0.0	3 0.0	-	-	3 0.0	15 0.2	9 0.1	-	-	3 0.0	12 0.1	-	-	6 0.1	6 0.1	778 8.8	
A1	3 0.0	-	-	-	-	-	-	-	-	-	-	-	-	4 0.0	-	-	-	-	-	-	-	7 0.1	
A2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A3	3 0.0	-	-	-	-	-	-	-	-	-	-	-	-	22 0.3	-	5 0.0	21 0.2	3 0.0	-	-	-	52 0.6	
A4	-	-	-	-	-	-	-	-	-	-	-	-	-	10 0.1	3 0.0	-	7 0.1	-	-	-	-	20 0.2	
A5	3 0.0	-	-	-	-	3 0.0	-	-	-	-	-	3 0.0	19 0.2	-	-	4 0.0	7 0.1	-	-	-	-	39 0.4	
TOTAL	2584 29.6	40 0.5	3 0.0	88 1.0	3 0.0	1310 15.0	12 0.1	16 0.2	3 0.0	33 0.4	35 0.4	131 1.5	2490 28.5	187 2.1	51 0.6	728 8.3	880 10.1	-	4 0.0	53 0.6	21 0.2	66 0.8	8738

LEGEND : XXXX - VEHICLE TRIPS
 XX.X - CELL PERCENT

A-101

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : COMMERCIAL VEHICLES
 LOCATION : NORTH OF SAN ANTONIO

ORIGINS	DESTINATIONS															TOTAL							
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3		S4	S5	A1	A2	A3	A4	A5
1	10	-	-	-	-	11	-	4	-	-	3	4	87	7	7	12	19	-	-	-	-	-	164
	1.9	-	-	-	-	2.1	-	0.8	-	-	0.6	0.8	16.8	1.4	1.4	2.3	3.7	-	-	-	-	31.7	
2	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	2	-	-	-	-	5	
	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	0.4	-	-	-	-	1.0	
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	
6	7	-	-	-	-	-	-	-	-	-	4	-	27	4	-	3	12	-	-	-	-	57	
	1.4	-	-	-	-	-	-	-	-	-	0.8	-	6.2	0.8	-	0.6	2.3	-	-	-	-	11.0	
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	
	4.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.4	
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	3	2	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
	0.6	0.4	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	
11	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	3	4	-	-	-	-	14	
	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-	0.6	0.8	-	-	-	-	2.7	
S1	57	8	-	-	-	16	-	-	-	-	15	7	-	-	-	-	-	-	-	-	-	107	
	11.0	1.5	-	-	-	3.1	-	-	-	-	2.8	1.4	-	-	-	-	-	-	-	-	-	20.7	
S2	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	
	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	
S3	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	
	1.0	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	
S4	20	-	-	-	-	7	-	-	-	-	19	-	-	-	-	-	-	-	-	-	-	54	
	3.9	-	-	-	-	1.4	-	-	-	-	3.7	-	-	-	-	-	-	-	-	-	-	10.4	
S5	32	4	-	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	
	6.2	0.8	-	0.6	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.1	
A1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A3	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	7	
	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	-	-	-	1.4	
A4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	4	
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-	-	-	-	0.8	
TOTAL	173	22	-	5	-	97	-	4	-	-	7	36	138	14	7	18	41	-	-	-	3	8	
	33.5	4.3	-	1.2	-	7.2	-	0.8	-	-	1.4	7.4	26.1	2.7	1.4	3.5	7.9	-	-	-	0.6	1.5	

LEGEND : XXXX - VEHICLE TRIPS
 XX.X - CELL PERCENT

AUSTIN/SAM ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : ALL VEHICLES
 LOCATION : NORTH OF GEORGETOWN

ORIGINS	DESTINATIONS															TOTAL							
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3		S4	S5	A1	A2	A3	A4	A5
1	4	0.0	24	0.1	0.0	-	-	-	-	5	0.0	184	-	-	-	-	4	5	-	-	-	4	14
2	5	0.0	3	32	0.2	-	-	-	-	-	112	0.6	-	-	-	-	-	-	-	-	-	-	4
3	-	16	765	13	-	7	9	-	-	20	3	1035	7	-	-	-	10	55	24	32	207	163	
4	-	0.1	3.9	0.1	-	0.0	0.0	-	-	0.1	0.0	8.3	0.0	-	-	-	0.1	0.3	0.1	0.2	1.1	0.8	
5	-	-	15	0.1	0.0	-	-	-	-	-	-	194	-	-	-	-	-	4	-	-	-	-	12
6	-	-	0.0	-	-	-	-	-	-	-	-	28	0.1	-	-	-	-	-	-	-	-	-	0.1
7	-	-	13	0.1	-	-	-	-	-	-	-	67	0.3	-	-	-	-	-	-	-	-	-	3
8	5	0.0	0.0	-	-	-	-	-	-	3	0.0	118	4	-	-	-	-	-	-	5	13	-	153
9	-	-	-	-	-	-	-	-	-	-	-	71	0.4	0.0	-	-	-	-	-	-	-	-	0.8
10	-	-	4	-	-	-	-	5	0.0	4	233	1.2	-	-	0.0	-	5	-	-	-	-	-	7
11	5	0.0	0.0	-	-	4	-	-	-	-	278	1.4	0.0	-	-	-	3	-	-	-	-	-	299
12	247	78	1143	196	21	149	76	152	89	208	353	164	445	104	20	255	677	345	732	538	1182	1823	
S1	-	-	0.4	5.8	1.0	0.1	0.8	0.4	0.5	1.1	1.6	2.3	0.5	0.1	1.3	3.4	1.8	3.7	2.7	6.0	9.3	45.8	
S2	-	-	10	0.1	-	0.0	-	5	0.0	-	-	456	5	-	-	-	3	-	-	-	-	-	8
S3	-	-	4	-	-	-	-	-	-	-	-	2.2	0.0	-	-	-	0.0	-	-	-	-	-	2.5
S4	-	-	-	-	-	-	-	-	-	-	4	166	-	-	-	-	-	4	-	-	-	-	183
S5	-	-	7	-	-	-	-	-	-	-	0.0	0.8	-	-	-	-	-	0.0	-	-	-	-	0.8
A1	-	-	4	-	-	-	-	-	-	-	31	-	-	-	-	-	-	-	-	-	-	-	35
A2	-	-	0.0	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	0.2
A3	-	-	7	-	-	5	-	-	-	-	195	1.0	-	-	-	-	-	-	-	-	-	-	215
A4	9	0.0	0.0	-	-	0.0	-	-	-	4	578	5	-	-	-	-	4	-	-	-	-	-	618
A5	4	0.0	56	0.3	-	-	-	-	-	4	418	2.1	-	-	-	-	-	-	-	-	-	-	3.1
TOTAL	297	110	2564	228	21	172	89	169	92	261	365	8392	482	104	24	260	718	418	771	579	1456	2091	
	1.5	0.6	13.0	1.2	0.1	0.9	0.5	0.9	0.5	1.3	1.9	42.7	2.5	0.5	0.1	1.3	3.6	2.1	3.9	2.9	7.4	10.6	

LEGEND : XXXX - VEHICLE TRIPS
 XX.X - CELL PERCENT

AUSTIN/SAN ANTONIO ORIGINS/DESTINATIONS BY TRAFFIC ZONE : PASSENGER VEHICLES
 LOCATION : NORTH OF GEORGETOWN

ORIGINS	DESTINATIONS															TOTAL							
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3		S4	S5	A1	A2	A3	A4	A5
1	4	0.0	22	3	-	-	-	-	-	4	-	151	-	-	-	-	4	5	-	-	-	4	13
2	4	0.0	30	-	-	-	-	-	-	-	-	101	-	-	-	-	-	-	-	-	-	-	3
3	-	18	673	12	-	7	9	-	-	14	3	892	6	-	-	9	52	22	27	186	145	145	
4	-	-	14	7	-	-	-	-	-	-	-	156	-	-	-	-	4	-	-	-	-	10	
5	-	-	5	-	-	-	-	-	-	-	-	23	-	-	-	-	-	-	-	-	-	-	
6	-	-	0.0	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	
7	-	-	11	-	-	-	-	-	-	-	-	108	-	-	-	-	-	-	-	-	-	3	
8	4	0.0	0.1	-	-	-	-	-	-	3	-	61	-	-	-	-	-	-	-	-	-	0.0	
9	-	-	-	-	-	-	-	-	-	0.0	0.6	98	-	-	-	-	-	-	-	-	12	0.7	
10	-	-	-	-	-	-	5	-	-	3	-	188	3	-	-	4	-	-	-	-	-	7	
11	4	0.0	4	-	-	3	-	-	-	-	-	224	4	-	-	-	3	-	-	-	-	242	
12	211	69	1038	165	17	125	70	121	54	163	294	138	368	99	16	215	514	310	639	483	1038	1876	
51	-	-	5	-	-	4	-	-	-	-	-	378	-	-	-	-	3	-	-	-	-	397	
52	-	-	-	-	-	-	-	-	-	-	-	2.2	-	-	-	-	0.0	-	-	-	-	2.4	
53	-	-	3	-	-	-	-	-	-	-	-	4	122	-	-	-	-	-	-	-	-	134	
54	-	-	0.0	-	-	0.0	-	-	-	-	-	0.0	0.7	-	-	-	-	-	-	-	-	0.8	
55	8	0.0	0.1	-	-	-	-	-	-	4	-	443	8	-	-	-	-	-	-	-	-	180	
A1	3	0.0	52	-	-	-	-	-	-	4	-	378	-	-	-	-	-	-	-	-	-	37	
A2	-	-	31	-	-	-	-	-	-	-	-	151	-	-	-	-	-	-	-	-	-	0.2	
A3	3	0.0	26	-	-	3	-	-	-	3	-	848	2	-	-	-	-	-	-	-	-	134	
A4	4	0.0	226	4	-	-	-	-	-	3	-	1077	-	-	-	-	-	-	-	-	-	37	
A5	8	0.0	134	5	-	-	-	-	-	3	8	1288	-	-	-	-	5	4	-	-	-	180	
TOTAL	253	100	2289	195	17	147	78	126	87	204	306	7123	368	99	20	230	837	375	675	513	1285	1810	
	1.8	0.6	13.6	1.2	0.1	0.9	0.5	0.7	0.3	1.2	1.8	42.3	2.3	0.5	0.1	1.3	3.2	2.2	4.0	3.0	7.6	10.8	

LEGEND : XXXX - VEHICLE TRIPS
 XX.X - CELL PERCENT

SUMMARY OF MAJOR TRIP INTERCHANGES FOR IH 35 NIGHT-TIME TRUCK SURVEY (8 PM - 7 AM)

NORTHBOUND AT KYLE

DESTINATIONS

ORIGINS	T1	T2	T3	T4	T5	T6	TOTAL
T1	-	63	-	-	3	372	437
	-	8.4	-	-	0.3	49.7	58.4
T2	-	-	-	-	3	10	13
	-	-	-	-	0.3	1.4	1.7
T3	-	5	-	-	-	47	52
	-	0.7	-	-	-	6.3	7.0
T4	-	8	-	-	-	18	26
	-	1.0	-	-	-	2.4	3.5
T5	-	13	-	-	-	199	212
	-	1.7	-	-	-	26.6	28.3
T6	-	-	-	-	-	8	8
	-	-	-	-	-	1.0	1.0
TOTAL	-	89	-	-	5	655	749
	-	11.9	-	-	0.7	87.4	-

SUMMARY OF MAJOR TRIP INTERCHANGES FOR IH 35 NIGHT-TIME TRUCK SURVEY (8 PM - 7 AM)

SOUTHBOUND AT KYLE

DESTINATIONS

ORIGINS	T1	T2	T3	T4	T5	T6	TOTAL
T1	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
T2	120	-	17	-	17	-	154
	14.1	-	2.0	-	2.0	-	18.2
T3	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
T4	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
T5	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
T6	393	-	26	26	248	-	692
	46.5	-	3.0	3.0	29.3	-	81.8
TOTAL	513	-	43	26	265	-	846
	60.6	-	5.1	3.0	31.3	-	-

TRUCK (T) INTERCHANGE ZONES :

- T1 = SAN ANTONIO
- T2 = AUSTIN
- T3 = NEW BRAUNFELS & SAN MARCOS
- T4 = SEGUIN
- T5 = SOUTH OF SAN ANTONIO
- T6 = NORTH OF AUSTIN

LEGEND :

- XXX - VOLUME
- XX.X - CELL PERCENT

IH 35 COMMERCIAL TRUCK SURVEY
SUMMARY OF CARRIERS SURVEYED

NAME OF CARRIER	TRUCKS	TYPE OF VEHICLE
MARTIN FLOORING	1	COMBINATION
MARTIN LINEN	1	SINGLE UNIT
MARY LEE	1	COMBINATION
MAVERICK	1	COMBINATION
MCCLAIN	1	COMBINATION
MCDIST.	1	COMBINATION
MELCHANTS	1	COMBINATION
MERCHANTS	1	SINGLE UNIT
MILLER	1	COMBINATION
MILLERS OUTPOST	1	COMBINATION
MIRACLE CANDLE CO.	1	SINGLE UNIT
MISILETOE EXPRESS	1	COMBINATION
MJ LONG	1	COMBINATION
MONFORT OF COLORADO	1	COMBINATION
MONTGOMERY WARD	1	COMBINATION
N & W TRANSFER	1	COMBINATION
N. ARKANSAS PRODUCE	1	COMBINATION
NATIONAL STEEL SVC.	1	SINGLE UNIT
NATIONWIDE	1	COMBINATION
NEWELL	1	COMBINATION
NORSACH STEEL	1	COMBINATION
OJ RISS	1	COMBINATION
OLMOS	1	SINGLE UNIT
PARAMOUNT MOVERS	1	COMBINATION
PHOENIX MOTOR EXPRESS	1	TRACTOR ONLY
PIE	1	TRACTOR WITH DOUBLE TRAILER
PMT	1	TRACTOR WITH DOUBLE TRAILER
QUALITY SERVICES	1	COMBINATION
RAILTON	1	COMBINATION
REVCO DRUGS	1	COMBINATION
ROACHEAY	1	COMBINATION
ROBERT HEATH TRUCKING	1	COMBINATION
ROSS	1	COMBINATION
RPS PACKERS	1	COMBINATION
RUSSELL TRANSPORT	1	COMBINATION
SANDERS	1	COMBINATION
SCHEPPS	1	COMBINATION
SEARS	1	COMBINATION
SEMTO	1	SINGLE UNIT
SENECA TRANSPORT CO.	1	SINGLE UNIT
SERVICE STEEL & PIPE	1	COMBINATION
SILICA SAND	1	COMBINATION
SILVER BULLET CARRIER CO.	1	COMBINATION
SIRON	1	COMBINATION
SMITHS	1	COMBINATION
SOUTHERN MAIL INC	1	COMBINATION
SOUTHERN TRUCKING & SHIPPING	1	COMBINATION
SOUTHWESTERN MOTOR CO.	1	COMBINATION
STS	1	COMBINATION
SUGAR FOOD CO.	1	COMBINATION
SUNBELT DIST.	1	COMBINATION
SW BELL	1	SINGLE UNIT
SW MOTOR TRANSPORT	1	COMBINATION
TEX BEN PACKERS	1	COMBINATION
TEX WIL CONCRETE	1	COMBINATION
TEXAS CORRUGATORS	1	COMBINATION
TEXAS TANK LINES	1	COMBINATION
THT	1	COMBINATION
TORONE VAN LINES	1	COMBINATION
TPI	1	COMBINATION
TRANCO	1	COMBINATION
TRANSP. CO. INC.	1	COMBINATION
TRIANGLE TRANS.	1	COMBINATION
TXI CEMENT	1	COMBINATION
UNITED VAN	1	COMBINATION
US EXPRESS	1	TRACTOR WITH DOUBLE TRAILER
US RENTALS	1	COMBINATION
USA WESTERN AMERICAN	1	TRACTOR WITH DOUBLE TRAILER
VALLEY TRANSPORT INC.	1	COMBINATION
VEG PAK	1	COMBINATION
W AND R TRUCKING	1	COMBINATION
WALES	1	COMBINATION
WAYNE'S MOBILE HOME SERVICE	1	SINGLE UNIT
WEST POINT PEPPEREL	1	TRACTOR WITH DOUBLE TRAILER

IH 35 COMMERCIAL TRUCK SURVEY
SUMMARY OF CARRIERS SURVEYED

NAME OF CARRIER	TRUCKS	TYPE OF VEHICLE
BARRETT MOBILE	1	COMBINATION
BARTON	1	COMBINATION
BESTA	1	COMBINATION
BIG STATE	1	COMBINATION
BPI	1	COMBINATION
BRIDGESTONE	1	SINGLE UNIT
BRIGHT LEASING	1	COMBINATION
BUR-COLD TRANSPORT	1	COMBINATION
BURLINGTON AIR EXPRESS	1	COMBINATION
BURNHAM	1	COMBINATION
CAL-ARK TRUCKING	1	COMBINATION
CARROLL	1	SINGLE UNIT
CC BAKERY	1	COMBINATION
CFG	1	COMBINATION
CFI	1	COMBINATION
CHURCHILL	1	COMBINATION
CMT	1	COMBINATION
COIN'S COFFEE CO.	1	COMBINATION
COMMERCIAL BODY	1	COMBINATION
CONSOLIDATED PRODUCE CO.	1	SINGLE UNIT
CONTRACT FREIGHT	1	COMBINATION
COOSA BAKING	1	COMBINATION
CRAIN	1	COMBINATION
CRETE CARRIER	1	COMBINATION
CYI	1	COMBINATION
DAGELS	1	COMBINATION
DAL CRP	1	COMBINATION
DANNY COFFMAN	1	COMBINATION
DAVIS TRANSPORT CO.	1	COMBINATION
DICKIES	1	COMBINATION
DOLLY MADISON	1	COMBINATION
DONCO INC.	1	COMBINATION
DPM	1	COMBINATION
E. A. HOLDER	1	COMBINATION
E-L MAIL SERVICE	1	COMBINATION
ED & MARY	1	COMBINATION
EGLEE	1	TRACTOR ONLY
ETC TRANSIT	1	COMBINATION
FIGHT FREIGHT	1	COMBINATION
FIRESTONE	1	COMBINATION
FLEMING FOODS	1	COMBINATION
FORRESTVILLE INDUSTRIES	1	COMBINATION
FORT WORTH TRANSPORT	1	TRACTOR WITH DOUBLE TRAILER
FRONTIER AUTO SALES	1	TRACTOR WITH DOUBLE TRAILER
FT WORTH CARRIER CORP.	1	TRACTOR WITH DOUBLE TRAILER
FUTURE FOAM	1	COMBINATION
GELCO	1	COMBINATION
GELLS	1	COMBINATION
GERALD LEFEUNE	1	COMBINATION
HARDEES	1	COMBINATION
HAROLD IVES	1	COMBINATION
HEALTH CARE SUPPLIERS	1	SINGLE UNIT
HEARTLAND EXPRESS	1	COMBINATION
HERTZ	1	SINGLE UNIT
HIGHWAY PIPELINE	1	COMBINATION
HODGE	1	COMBINATION
HOLT CATEPILLAR	1	SINGLE UNIT
HOT TAMATO EXPRESS	1	COMBINATION
ILCOR	1	COMBINATION
IMPERIAL CUP CO.	1	COMBINATION
INTERMODAL CARRIER	1	COMBINATION
ISI	1	COMBINATION
JACK COOPER TRANSPORT	1	COMBINATION
JACK HOLT	1	COMBINATION
JEWETT SCOTT TRUCK LINES	1	COMBINATION
JOHNSON FARMS	1	COMBINATION
JTL	1	COMBINATION
KENDULL	1	COMBINATION
KLLM	1	COMBINATION
KMART	1	COMBINATION
KOREMEH	1	COMBINATION
LAND AIR	1	COMBINATION
LUXURY CONVERSIONS	1	COMBINATION
MAHON CO	1	COMBINATION

IH 35 COMMERCIAL TRUCK SURVEY
SUMMARY OF CARRIERS SURVEYED

NAME OF CARRIER	TRUCKS	TYPE OF VEHICLE
CENTRAL	20	COMBINATION
CENTRAL	7	TRACTOR WITH DOUBLE TRAILER
HEB	13	COMBINATION
HEB	1	SINGLE UNIT
CELADON	12	COMBINATION
ROADWAY	6	TRACTOR WITH DOUBLE TRAILER
ROADWAY	4	COMBINATION
BROWN	8	COMBINATION
RYDER	8	COMBINATION
RED ARROW	5	COMBINATION
RED ARROW	3	TRACTOR WITH DOUBLE TRAILER
US MAIL	7	COMBINATION
SMT	6	COMBINATION
SMT	1	TRACTOR WITH DOUBLE TRAILER
ALBERTSONS	6	COMBINATION
UPS	5	TRACTOR WITH DOUBLE TRAILER
UPS	1	SINGLE UNIT WITH TRAILER
ABF	3	TRACTOR WITH DOUBLE TRAILER
ABF	2	COMBINATION
MELTON TRUCK LINES	4	COMBINATION
TERMINAL FREIGHT	3	COMBINATION
YELLOW	3	TRACTOR WITH DOUBLE TRAILER
TERMINAL FREIGHT	1	TRACTOR WITH DOUBLE TRAILER
YELLOW	1	COMBINATION
ALLIED	3	COMBINATION
BUDA	3	COMBINATION
GLOBAL	3	COMBINATION
KROGER	3	COMBINATION
PIONEER FLOUR	3	COMBINATION
LABATT	2	TRACTOR WITH DOUBLE TRAILER
LABATT	1	SINGLE UNIT
BORDEN	2	COMBINATION
CAPITOL CITY CONTAINER	2	COMBINATION
CARAVAN	2	COMBINATION
FTV	2	COMBINATION
HAGGAR APPARAL	2	COMBINATION
INTERNATIONAL TRUCK CO.	2	COMBINATION
J AND B TRANSPORT	2	COMBINATION
JOE BROWN CO.	2	COMBINATION
LAWSON TRUCKING	2	COMBINATION
LEONARD PACKING CO.	2	COMBINATION
MODERN PIPE INC.	2	COMBINATION
MOORE TRUCKING	2	COMBINATION
NATIONAL FREIGHT	2	COMBINATION
PEARL	2	COMBINATION
RAINBO BREAD	2	COMBINATION
RKF LINES	2	COMBINATION
ROLLINS	2	COMBINATION
SCRIVENER	2	COMBINATION
TERMINAL HANDLING CO.	2	COMBINATION
TEXWIDE INC	2	COMBINATION
TOLLIE FREIGHTWAYS	2	COMBINATION
TRANS. SERVICES INC.	2	COMBINATION
W.H. FROH	2	COMBINATION
WALMART	2	COMBINATION
WHITE & LASSATER	2	COMBINATION
WILLIAMSON DICKIE	2	COMBINATION
OROWHEAT	1	COMBINATION
OROWHEAT	1	TRACTOR WITH DOUBLE TRAILER
A & P MOTORS	1	COMBINATION
ABC MATERIALS	1	COMBINATION
ADW	1	COMBINATION
AIRBORNE	1	COMBINATION
ALAMO EXPRESS	1	COMBINATION
ALEMAN	1	COMBINATION
ALLPOINTS	1	COMBINATION
AMERICAN DELIVERY SERVICE	1	COMBINATION
AMERICAN GLASS DIST.	1	COMBINATION
AMERICAN RED BALL	1	COMBINATION
ANDRUS	1	COMBINATION
ARA SERVICES	1	COMBINATION
ARNITAGE SHANKS-KILGORE	1	COMBINATION
ARROW INDUSTRIES	1	COMBINATION
ARTHUR MARKS	1	COMBINATION

IH 35 COMMERCIAL TRUCK SURVEY
SUMMARY OF CARRIERS SURVEYED

NAME OF CARRIER	TRUCKS	TYPE OF VEHICLE
WHITLEY TRUCKS	1	COMBINATION
WILEY SANDERS	1	COMBINATION
WILLIAMS INSTRUCTION	1	TRACTOR ONLY
YOUNGER	1	COMBINATION
ZENITH	1	TRACTOR WITH DOUBLE TRAILER
ZERO MOTOR FTR.	1	COMBINATION

B. TRAFFIC DIVERSION METHODOLOGY

B.1 INTRODUCTION

The procedures used to estimate traffic diversion to the proposed alternate route are based on zone-to-zone travel times for basic highway networks with and without the proposed alternate route. The base year (1987) zone-to-zone travel paths of the origin-destination data were determined using a simplified highway network for the study area and the travel time between traffic zones. The travel time between zones was determined based upon the average travel speed and segment distance on the travel paths between the zones. The travel path between zones was selected as the path with the minimum travel time.

After travel times were determined for the existing network, the alternate route was inserted into the network. Once the alternate route was installed in the base year network, all traffic between zones was diverted to the alternate route. The travel time between zones was then determined with the alternate route in the network. The travel time between zones using the alternate route was then compared to that without the alternate route. If there was a reduction in travel time, then the traffic with a shorter travel time was diverted to the appropriate segment(s) of the alternate route. The sums of zone-to-zone travel on the individual segments of the alternate route were then determined to obtain the total number of vehicles on the alternate route.

B.2 ASSUMPTIONS

The development of the procedure used to determine alternate route traffic required several simplifying assumptions. This was necessary in order to develop a procedure that was manageable yet responsive to the problem being studied. The assumptions used in developing the traffic diversion methodology are discussed below.

1. The highway network for the study was simplified in order to eliminate the large number of the possible routes. With the exception of FM

20 from Bastrop to Lockhart, only major (State, U.S., Interstate) highways were included in the model. All zone-to-zone traffic was assumed to travel only on the highways in the simplified highway network of the model.

2. Traffic volumes used in the analysis are 24-hour volumes obtained from SDHPT district traffic maps for 1985.

3. All traffic between any two zones was assumed to use the same travel path. This path is the one with the shortest travel time as determined in the model. The travel time was determined from the speed and length of the individual segments of each highway.

4. Travel speed was determined using the 1985 Highway Capacity Manual procedure for multilane and two-lane highways. The number of lanes for each segment was determined from SDHPT information and other sources. Speed calculations were based on the following assumptions:

- a. For the study period, the one direction hourly volume is 3.5% of the total 24-hour volume.
- b. Directional distribution is 50/50.
- c. All lanes are 12 feet wide.
- d. All highways have 8 foot wide shoulders on each side of the roadway.
- e. Trucks make up 11% of the total traffic (a typical mixture of trucks).
- f. Peak hour factor is 0.90.
- g. Level terrain is assumed.
- h. Drivers are assumed to be familiar with the roadway.

- i. On two-lane highways, no-passing zones are assumed to be 40% of the total roadway length.
5. Travel speeds over the speed limit were not permitted.
6. Traffic volumes were averaged over the length of the individual segments to give an average travel speed over that segment.
7. Traffic was rerouted to the alternate route if any travel time savings was possible.
8. Major improvements to the highway network in 20 years include widening IH 35 to 6 lanes, freeway widening in the cities of Austin and San Antonio, and widening portions of US 90 to 4 lanes.

B.3 ANALYSIS ZONES AND HIGHWAY NETWORK

In order to provide a framework for the model, the study area and highway network had to be defined. The study area was divided into 14 study zones. The zones used in this diversion model are the same traffic zones used to report the results of the origin/destination study (Figure B-1). The centroid (or major traffic generator/attractor) of each zone was then determined. This centroid was assumed to be a city in the zone, except in the cases of Austin and San Antonio. Austin and San Antonio were divided into five subzones, located at the intersections of freeways. Table B-1 shows the zones and centroids used for each zone and subzone.

A highway network connecting the zone centroids was defined using only the major highways in the area (Figure B-2). Table B-2 lists the highways in the simplified network. The selected highways were then split into individual segments for analysis. The segments were selected based upon the location of cities and the number of lanes on that segment of the highway. Table B-2 also lists the segments for each highway in the network, along with the length of each segment. Possible travel paths between zones were determined using this simplified highway network.

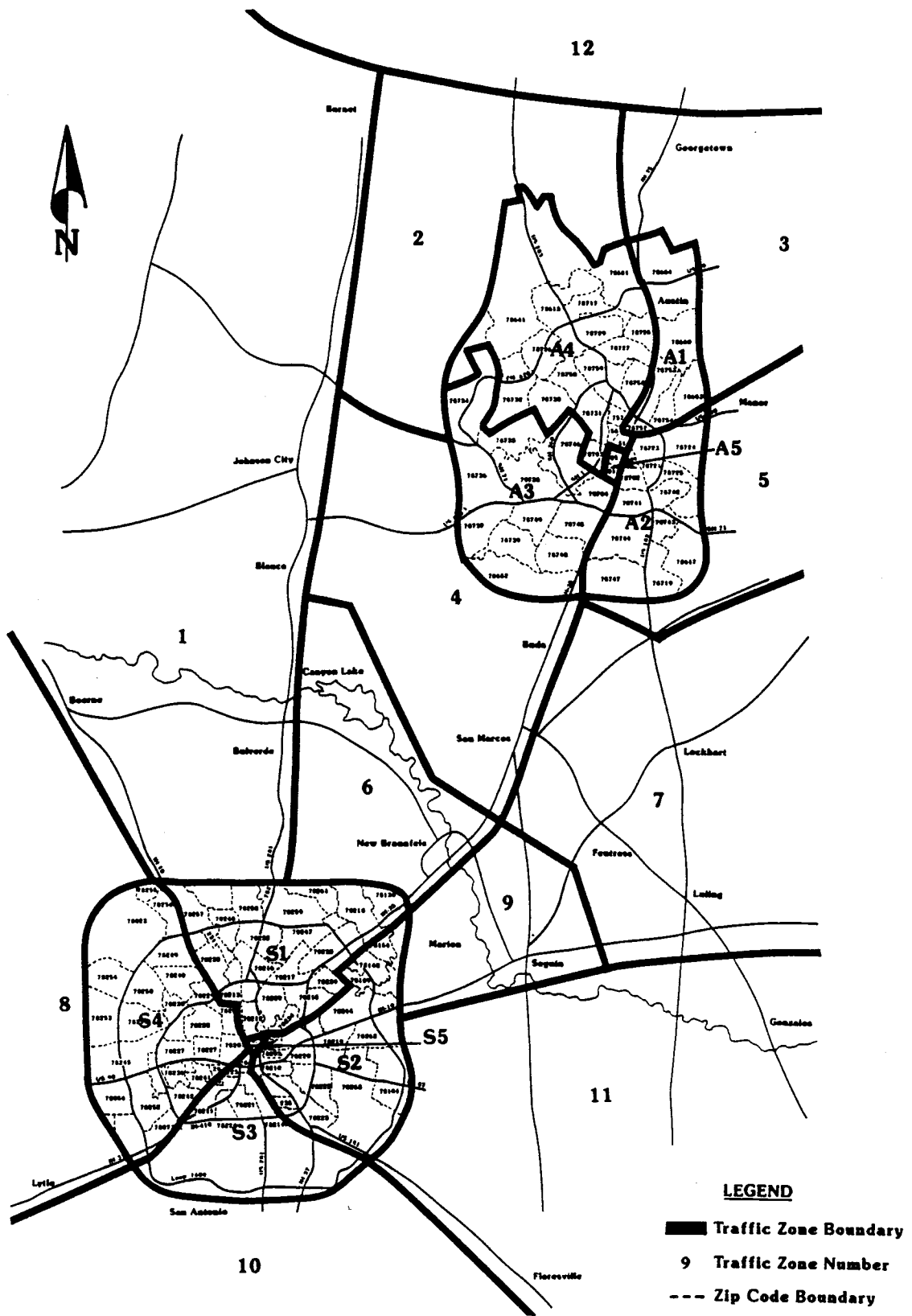


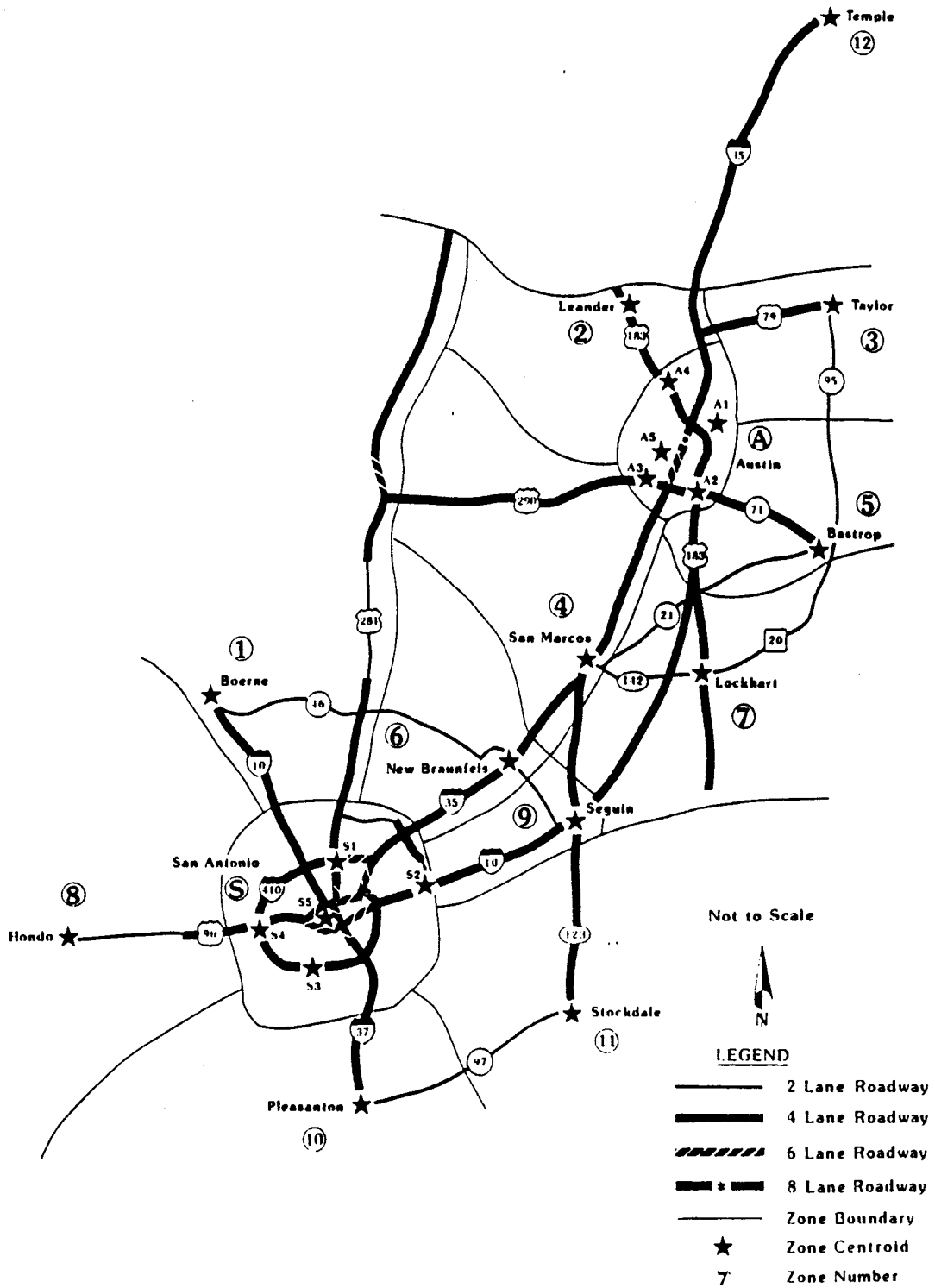
Figure B-1. Austin/San Antonio Traffic Analysis Zones

Table B-1. Zone Centroids Used in Traffic Diversion Analysis

Zone	Location	Centroid
1	NNW of San Antonio	Boerne
2	NW of Austin	Leander
3	NE of Austin	Taylor
4	SW of Austin	San Marcos
5	SE of Austin	Bastrop
6	NNE of San Antonio	New Braunfels
7	S of Austin	Lockhart
8	W of San Antonio	
9	ENE of San Antonio	Seguin
10	S of San Antonio	Pleasanton
11	E of San Antonio	Stockdale
12	N of Austin	Temple
13	San Antonio	
	Subzone 1	IH 410 North and US 281
	2	IH 10 East and Loop 1604
	3	IH 410 South and US 281
	4	IH 410 West and US 90
	5	San Antonio CBD
14	Austin	
	Subzone 1	US 183 and US 290
	2	US 183 and SH 71
	3	US 290 and Loop 360
	4	Jollyville
	5	Austin CBD

B.4 SPEED AND TRAVEL TIME DETERMINATION

The travel time between zone centroids was determined based upon the average travel speed over the highway segments. Travel speed was determined based upon volumes and highway geometrics. Several AADT volumes were obtained from SDHPT traffic maps for each segment of highway. The volumes on



Note: See Table B-2 for network description.

Figure B-2. "Simplified" Highway Network Used in Traffic Diversion Analysis

Table B-2. Description of Simplified Highway Network Used in Traffic Diversion Analysis

Highway and Segment No.	Location	Length (miles)
I-35		
1	San Antonio CBD to North Loop 410	15
2	North Loop 410 to Loop 1604	5
3	Loop 1604 to New Braunfels	13
4	New Braunfels to San Marcos	17
5	San Marcos to SH 71	25
6	SH 71 to Austin CBD	5
7	Austin CBD to US 183	7
8	US 183 to US 79	11
9	US 79 to SH 53	41
I-10		
1	Boerne to West Loop 410	20
2	West Loop 410 to San Antonio CBD	8
3	San Antonio CBD to East Loop 410	12
4	East Loop 410 to Loop 1604	14
5	Loop 1604 to Seguin	9
US 281		
1	San Antonio CBD to FM 537	10
2	FM 537 to Loop 410	4
3	Loop 410 to Loop 1604	1
4	Loop 1604 to SH 46	15
5	SH 46 to FM 311	6
6	FM 311 to FM 165	16
7	FM 165 to US 290	8
8	US 290 to Johnson City	6
9	Johnson City to SH 29	37

Table B-2. Description of Simplified Highway Network Used in Traffic Diversion Analysis (Cont.)

Highway and Segment No.	Location	Length (miles)
SH 46		
1	Boerne to US 281	21
2	US 281 to IH 35	21
3	IH 35 to IH 10	13
US 290		
1	US 281 to SH 71	31
2	SH 71 to IH 35	10
US 183		
1	IH 10 to FM 20	16
2	FM 20 to SH 21	11
3	SH 21 to SH 71	10
4	IH 35 to Jollyville	8
5	Jollyville to Leander	8
6	Leander to SH 29	6
7	SH 71 to IH 35	9
SH 21		
1	Bastrop to US 183	27
2	US 183 to San Marcos	18
SH 123		
1	San Marcos to Seguin	21
2	Seguin to Stockdale	24
Loop 1604		
1	US 281 to FM 2252	8
2	FM 2252 to IH 35	2
3	IH 35 to FM 78	2
4	FM 78 to IH 10	6

Table B-2. Description of Simplified Highway Network Used in Traffic Diversion Analysis (Cont.)

Highway and Segment No.	Location	Length (miles)
Loop 410		
1	US 90 to US 281 North	14
2	US 281 North to IH 35 North	6
3	IH 35 North to IH 10 East	6
4	IH 10 East to US 281 South	12
5	US 281 South to US 90	19
FM 20		
1	Bastrop to Lockhart	29
SH 97		
1	Pleasanton to Stockdale	41
SH 142		
1	Lockhart to IH 35	18
SH 71		
1	IH 35 to US 183	10
2	US 183 to Bastrop	27
US 90		
1	Hondo to Loop 410	29
2	Loop 410 to IH 10	10
IH 37		
1	SH 97 to Loop 410	23
2	Loop 410 to San Antonio CBD	9
SH 79		
1	Taylor to IH 35	17

Table B-2. Description of Simplified Highway Network Used in Traffic Diversion Analysis (Cont.)

Highway and Segment No.	Location	Length (miles)
SH 95 1	Taylor to Bastrop	33
Alternate Route		
1	US 71 to SH 21	20
2	SH 21 to FM 20	5
3	FM 20 to SH 80	11
4	SH 80 to Seguin	16
5	Seguin to Loop 1604	10

each segment were averaged to obtain a representative volume for that segment. This volume was used to calculate the average speed over the segment. These calculations were based on the Highway Capacity Manual procedure, using the assumptions listed in Section B.2. From the length and speed on each segment, a travel time for that segment was determined. Vehicles were assigned to a particular path if it had the shortest zone-to-zone travel time.

Travel times for alternative paths between zones were compared to determine the path with the shortest travel time. Some paths between zones were eliminated from consideration because building the proposed alternate route would have no possibility of reducing the travel time between the two zones. The travel paths which were not considered in the analyses are listed in Table B-3.

B.5 APPLICATION/VALIDATION

Application of the methodology involved "installing" the alternate route in the simplified network and assigning the appropriate trip interchange volumes to the network. The travel speed on the new alignment of the

Table B-3. Trip Interchanges Not Evaluated in Application of Traffic Diversion Methodology

Zones	Corresponding Centroids	
3 to/from 1	Taylor	Boerne
8 to/from 1	Hondo	Boerne
10 to/from 1	Pleasanton	Boerne
10 to/from 8	Pleasanton	Hondo
11 to/from 1	Stockdale	Boerne
11 to/from 8	Stockdale	Hondo
12 to/from 2	Temple	Leander
12 to/from 3	Temple	Taylor
12 to/from 5	Temple	Bastrop
13 to/from 1	San Antonio	Boerne
13 to/from 6	San Antonio	New Braunfels
13 to/from 8	San Antonio	Hondo
13 to/from 10	San Antonio	Pleasanton
13 to/from 11	San Antonio	Stockdale
14 to/from 2	Austin	Leander
14 to/from 3	Austin	Taylor
14 to/from 12	Austin	Temple

alternate route was assumed to be 55 mph. The travel time between zones was then determined using the appropriate sections of the alternate route. The travel time between zones using the alternate route was then compared to that without the alternate route. If there was any reduction in the travel time by using the alternate route, then that traffic with a shorter travel time was diverted to the appropriate segment(s) of the alternate route. After the traffic volumes on the alternate route were determined, the travel speed was reevaluated to insure the 55 mph assumption was correct.

The volume of traffic which would divert to the alternate route was determined from the vehicle trip table obtained from the O-D study. The trip table used in the analyses is shown in Table B-4. If it was decided that traffic would divert to the alternate route because of a shorter travel time, then the volume in the table for that particular origin and destination was

Table B-4. 1987 Vehicle Trips by Traffic Zone (7:00 a.m.-8:00 p.m.): All Vehicles

ORIGINS	DESTINATIONS																									TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	S1	S2	S3	S4	S5	A1	A2	A3	A4	A5				
1	144 0.2	3 0.0	24 0.0	27 0.0	0 0.0	43 0.0	25 0.0	7 0.0	13 0.0	26 0.0	30 0.0	214 0.2	1592 1.7	120 0.1	41 0.0	423 0.4	593 0.6	5 0.0	12 0.0	16 0.0	14 0.0	53 0.1	3425 3.6			
2	5 0.0	7 0.0	32 0.0	20 0.0	0 0.0	17 0.0	15 0.0	0 0.0	7 0.0	6 0.0	14 0.0	113 0.1	34 0.0	18 0.0	0 0.0	13 0.0	29 0.0	0 0.0	0 0.0	0 0.0	0 0.0	4 0.0	334 0.4			
3	12 0.0	16 0.0	768 0.8	117 0.1	0 0.0	40 0.0	40 0.0	16 0.0	35 0.0	43 0.0	51 0.1	1038 1.1	151 0.2	33 0.0	8 0.0	70 0.1	220 0.2	63 0.1	24 0.0	32 0.0	211 0.2	169 0.2	3157 3.3			
4	23 0.0	11 0.0	112 0.1	1803 1.9	15 0.0	75 0.1	113 0.1	57 0.1	819 0.9	87 0.1	153 0.2	304 0.3	740 0.8	322 0.3	38 0.0	265 0.3	423 0.4	236 0.2	558 0.6	1167 1.2	618 0.6	1766 1.9	8705 10.2			
5	7 0.0	0 0.0	5 0.0	22 0.0	0 0.0	4 0.0	21 0.0	8 0.0	18 0.0	4 0.0	4 0.0	28 0.0	94 0.1	19 0.0	4 0.0	33 0.0	81 0.1	0 0.0	4 0.0	0 0.0	0 0.0	11 0.0	367 0.4			
6	41 0.0	19 0.0	43 0.0	112 0.1	20 0.0	91 0.1	31 0.0	42 0.0	124 0.1	50 0.1	57 0.1	242 0.3	3275 3.4	1063 1.1	128 0.1	746 0.8	1614 1.7	50 0.1	114 0.1	164 0.2	158 0.2	462 0.5	8646 9.1			
7	10 0.0	9 0.0	51 0.1	104 0.1	28 0.0	18 0.0	160 0.2	10 0.0	28 0.0	17 0.0	14 0.0	101 0.1	56 0.1	15 0.0	4 0.0	19 0.0	83 0.1	77 0.1	379 0.4	366 0.4	304 0.3	680 0.7	2543 2.7			
8	49 0.1	6 0.0	27 0.0	50 0.1	30 0.0	44 0.0	8 0.0	4 0.0	4 0.0	7 0.0	0 0.0	362 0.4	15 0.0	0 0.0	0 0.0	0 0.0	6 0.0	22 0.0	22 0.0	27 0.0	43 0.0	117 0.1	843 0.9			
9	17 0.0	4 0.0	37 0.0	940 1.0	5 0.0	108 0.1	39 0.0	7 0.0	278 0.3	8 0.0	14 0.0	159 0.2	258 0.3	29 0.0	3 0.0	59 0.1	76 0.1	19 0.0	73 0.1	169 0.2	122 0.1	328 0.3	2752 2.9			
10	13 0.0	5 0.0	38 0.0	37 0.0	3 0.0	37 0.0	4 0.0	9 0.0	6 0.0	7 0.0	4 0.0	601 0.6	20 0.0	0 0.0	8 0.0	12 0.0	22 0.0	8 0.0	53 0.1	40 0.0	71 0.1	168 0.2	1166 1.2			
11	75 0.1	10 0.0	46 0.0	132 0.1	5 0.0	28 0.0	11 0.0	7 0.0	4 0.0	4 0.0	21 0.0	678 0.7	31 0.0	11 0.0	0 0.0	8 0.0	24 0.0	61 0.1	107 0.1	152 0.2	193 0.2	400 0.4	2008 2.1			
12	282 0.3	78 0.1	1143 1.2	381 0.4	24 0.0	298 0.3	114 0.1	414 0.4	188 0.2	559 0.6	781 0.8	189 0.2	1134 1.2	349 0.4	71 0.1	638 0.7	1667 1.7	345 0.4	732 0.8	543 0.6	1182 1.2	1836 1.9	12948 13.6			
S1	1447 1.5	60 0.1	171 0.2	768 0.8	98 0.1	3288 3.5	89 0.1	13 0.0	258 0.3	23 0.0	14 0.0	1208 1.3	158 0.2	29 0.0	4 0.0	41 0.0	43 0.0	257 0.3	0 0.0	612 0.6	702 0.7	1442 1.5	10725 11.3			
S2	138 0.1	7 0.0	47 0.0	326 0.3	24 0.0	1127 1.2	17 0.0	4 0.0	44 0.0	0 0.0	13 0.0	363 0.4	24 0.0	23 0.0	0 0.0	12 0.0	35 0.0	75 0.1	943 1.0	163 0.2	89 0.1	331 0.3	3815 4.0			
S3	61 0.1	6 0.0	10 0.0	68 0.1	3 0.0	134 0.1	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	105 0.1	7 0.0	4 0.0	0 0.0	11 0.0	4 0.0	14 0.0	0 0.0	48 0.1	29 0.0	85 0.1	589 0.6			
S4	373 0.4	1 0.0	48 0.1	326 0.3	42 0.0	892 0.9	32 0.0	4 0.0	85 0.1	9 0.0	9 0.0	595 0.6	38 0.0	4 0.0	3 0.0	26 0.0	26 0.0	113 0.1	0 0.0	231 0.2	333 0.3	526 0.6	3728 3.9			
S5	519 0.5	22 0.0	143 0.2	281 0.3	67 0.1	1030 1.1	82 0.1	17 0.0	40 0.0	11 0.0	20 0.0	1215 1.3	35 0.0	15 0.0	0 0.0	18 0.0	37 0.0	102 0.1	0 0.0	250 0.3	327 0.3	1264 1.3	5495 5.8			
A1	11 0.0	0 0.0	59 0.1	183 0.2	0 0.0	88 0.1	124 0.1	36 0.0	68 0.1	36 0.0	84 0.1	418 0.4	218 0.2	61 0.1	8 0.0	85 0.1	148 0.2	0 0.0	0 0.0	0 0.0	7 0.0	8 0.0	1642 1.7			
A2	14 0.0	0 0.0	34 0.0	652 0.7	4 0.0	135 0.1	555 0.6	59 0.1	96 0.1	29 0.0	121 0.1	610 0.6	330 0.3	100 0.1	47 0.0	189 0.2	195 0.2	0 0.0	99 0.1	0 0.0	15 0.0	17 0.0	3301 3.5			
A3	31 0.0	3 0.0	33 0.0	1312 1.4	0 0.0	226 0.2	404 0.4	59 0.1	127 0.1	55 0.1	157 0.2	630 0.7	640 0.7	198 0.2	69 0.1	239 0.3	424 0.4	0 0.0	0 0.0	11 0.0	24 0.0	37 0.0	4680 4.9			
A4	25 0.0	0 0.0	263 0.3	783 0.8	4 0.0	215 0.2	323 0.3	61 0.1	135 0.1	92 0.1	268 0.3	1227 1.3	749 0.8	180 0.2	44 0.0	287 0.3	539 0.6	0 0.0	0 0.0	5 0.0	52 0.1	25 0.0	5277 5.5			
A5	45 0.0	13 0.0	175 0.2	1264 1.3	4 0.0	393 0.4	560 0.6	114 0.1	219 0.2	160 0.2	334 0.4	1489 1.6	1000 1.0	208 0.2	78 0.1	488 0.5	1506 1.6	5 0.0	0 0.0	4 0.0	34 0.0	38 0.0	8131 8.5			
TOTALS	3343 3.5	292 0.3	3309 3.5	9708 10.2	376 0.4	8331 8.7	2767 2.9	948 1.0	2596 2.7	1233 1.3	2163 2.3	11889 12.5	10599 11.1	2801 2.9	558 0.6	3682 3.9	7795 8.2	1452 1.5	3120 3.3	4000 4.2	4538 4.8	9777 10.3	95277			

LEGEND : XXXX - VEHICLE TRIPS
XX.X - CELL PERCENT

assigned to the appropriate segment of the alternate route. The sums of the traffic volumes on each of the segments of the alternate route were then determined. This sum represents the traffic added to the alternate route and does not account for traffic already on existing segments of the route. For example, traffic already on US 183 and IH 10 was not included in the alternate route traffic assignments.

The diversion model was validated to determine its accuracy by calculating the study period volumes at three locations (two on IH-35 and one on US 183). The volumes on three segments, corresponding to three survey stations, were tabulated by hand. These volumes were determined from the model of existing conditions without the Alternate Route. When expanded to represent a 24-hour volume, the model volumes were approximately 10 percent higher than the observed volumes.

The higher volumes can be accounted for in two ways. First, the highway network in the model has fewer roads for the vehicles to travel on, therefore forcing the vehicles which would normally travel on a highway not in the network to use one of the major highways. In addition, the volumes in the model were based on a the trip table developed from the results of the O-D study. The single table used in the model was derived from a trip table at each of the six survey stations. There is likely some repetition in vehicle trips, thereby increasing the total number of vehicles in the highway network.

Since the methodology over-estimated volumes on IH-35 and US 183 by nearly identical percentages, the procedure was considered to be sufficiently accurate for use in estimating base year (1987) traffic on the proposed alternate route. The procedure used to forecast design year (year 2006) traffic volumes on the alternate involved applying growth rates to the base year volumes. The development of these growth rates, and justification for their use, is discussed below.

B.6 TRAFFIC FORECASTING PROCEDURES

Table B-5 summarizes historical and projected traffic volumes in the vicinity of the six O-D survey stations. The projected volumes are given in

Table B-5. Historical and Projected Traffic Volumes, Austin/San Antonio Study Corridor

Year	Average Annual Daily Traffic (AADT)						Totals		
	Station 1 (IH-35)	Station 2 (IH-35)	Station 3 (SH-123)	Station 4 (US-183)	Station 5 (US-281)	Station 6 (IH-35)	IH	Non-IH	All Stations
	1977	24,500	22,700	5,100	4,700	5,700	17,100	64,300	15,500
1978	25,600	24,800	5,500	4,900	6,500	17,700	68,100	16,900	85,000
1979	25,800	24,100	5,400	4,900	5,900	18,300	68,200	16,200	84,400
1980	24,000	23,000	5,900	4,400	5,300	17,600	64,600	15,600	80,200
1981	24,000	20,000	5,200	4,100	5,400	17,500	61,500	14,700	76,200
1982	25,000	27,000	5,400	4,600	6,000	19,000	71,000	16,000	87,000
1983	28,000	33,000	5,500	5,000	6,700	21,000	82,000	17,200	99,200
1984	36,000	34,000	5,100	5,600	8,100	24,000	94,000	18,800	112,800
1985	37,000	37,000	7,300	6,500	11,600	27,000	101,000	25,400	126,400
1986	34,000	38,000	7,200	6,800	11,400	28,000	100,000	25,400	125,400
Annual Growth (1977-1986)	(3.7%)	(5.9%)	(4.0%)	(4.2%)	(8.0%)	(5.6%)	(5.0%)	(5.6%)	(5.2%)
1991									
Low	40,600 (3.6%) ^a	44,900 (3.4%)	7,300 (0.3%)	7,100 (0.9%)	12,700 (2.2%)	31,700 (2.5%)	117,200 (3.2%)	27,100 (1.3%)	144,300 (2.9%)
Medium	41,600 (4.1)	46,200 (4.0)	7,500 (0.8)	7,200 (1.2)	13,200 (3.0)	32,400 (3.0)	120,200 (3.8)	27,900 (1.9)	148,100 (3.4)
High	42,500 (4.6)	47,400 (4.5)	7,600 (1.1)	7,400 (1.7)	13,600 (3.6)	33,200 (3.5)	123,100 (4.2)	28,600 (2.4)	151,700 (3.9)
1996									
Low	42,800 (2.3)	48,300 (2.4)	7,400 (0.3)	7,300 (0.7)	13,700 (1.9)	34,000 (2.0)	125,100 (2.3)	28,400 (1.1)	153,500 (2.9)
Medium	48,500 (3.6)	55,500 (3.9)	8,400 (1.6)	8,300 (2.0)	16,300 (3.6)	38,600 (3.3)	142,600 (3.6)	33,000 (2.7)	175,600 (3.4)
High	54,300 (4.8)	62,800 (5.2)	9,300 (2.6)	9,300 (3.2)	18,900 (5.2)	43,200 (4.4)	160,300 (4.8)	37,500 (4.0)	197,800 (4.7)
2001									
Low	44,900 (1.9)	51,600 (2.1)	7,600 (0.4)	7,600 (0.7)	14,600 (1.7)	36,300 (1.8)	132,800 (1.9)	29,800 (1.1)	162,600 (1.8)
Medium	55,500 (3.3)	64,900 (3.6)	9,300 (1.7)	9,400 (2.2)	19,400 (3.6)	44,800 (3.2)	165,200 (3.4)	38,100 (2.7)	203,300 (3.3)
High	66,000 (4.5)	78,200 (4.9)	10,900 (2.8)	11,200 (3.4)	24,200 (5.2)	53,200 (4.4)	197,400 (4.6)	46,300 (4.1)	243,700 (4.5)
2006									
Low	47,000 (1.6)	55,000 (1.9)	7,700 (0.3)	7,900 (0.8)	15,500 (1.6)	38,700 (1.6)	140,700 (1.7)	31,100 (1.0)	171,800 (1.6)
Medium	62,400 (3.1)	74,300 (3.4)	10,200 (1.8)	10,500 (2.2)	22,500 (3.5)	50,900 (3.0)	187,600 (3.2)	43,200 (2.7)	230,800 (3.1)
High	77,800 (4.2)	93,600 (4.6)	12,600 (2.8)	13,100 (3.3)	29,600 (4.9)	63,200 (4.2)	234,600 (4.4)	55,300 (4.0)	289,900 (4.3)

Source: Transportation Planning Division SDHPT (October 1987)

^a(X.X%) Denotes compound annual growth rate since 1986.

terms of low, medium, and high growth rates, as developed by SDHPT from regression analyses of the historical data. The historical data indicate that, with the exception of US 281, traffic on all types of roadways in the corridor has grown at a compound annual rate of 4%-6%. If the high-growth years of 1985-86 are removed from consideration, the US 281 growth rate of 8% per year becomes more consistent with the other roadways in the corridor, with a compound annual growth rate of 5.2% for the period 1977-84.

The projected year 2006 growth rates are also fairly consistent by roadway type. The interstate growth rates, for example, range from a low of about 2% per year to a high of 4%-5% per year. With the exception of US 281, the projections for the non-interstate roadways range from a low of about 1%, to a high of about 3% per year.

The I-35 traffic data in Table B-5 were compared with corridor population projections (Table B-6) to investigate the relationships between I-35 traffic and corridor population. The following simple linear regression model was used in the analyses.

$$\text{AADT} = B_0 + B_1 \text{POP}$$

where:

AADT = Average Annual Daily Traffic (I-35)

B_0 , B_1 = Regression Coefficients

POP = Corridor Population

Table B-7 summarizes the results of the analyses of the projected data. The regression analyses of the traffic and population projections indicated that for every 1% increase in projected corridor population, traffic on I-35 has been projected to increase by 3%-4%.

Similar analyses of historical I-35 traffic data (Table B-8) and historical corridor population data (Table B-9) showed the projected relationships to be consistent with observed trends (Table B-10). The results of these analyses, then, indicate that the projections of I-35

Table B-6. Historical and Projected County Populations, Austin/San Antonio Study Corridor

County	Population by Year and Source							
	1980 Census	1990			Capital Area Planning Commission ^b	2000		
		Texas Department of Water Resources ^a	Texas Department of Health ^a	National Planning Association ^a		Texas Department of Water Resources	Texas Department of Health	National Planning Association
Willamson	76,500	130,900 (5.5%) ^e	152,600 (7.2%)	109,800 (3.7%)	169,000 (8.3%)	201,600 (5.0%)	310,600 (7.3%)	147,200 (3.3%)
Travis	419,800 ^c	583,700 (3.4)	576,600 (3.2)	512,400 (2.0)	640,200 (4.3)	760,900 (3.0)	819,700 (3.4)	614,400 (1.9)
Bastrop	24,700	35,000 (3.6)	36,400 (4.0)	29,800 (1.9)	44,400 (6.0)	47,000 (3.3)	59,100 (4.5)	35,400 (1.8)
Hays	40,600	61,100 (4.2)	48,700 (1.8)	49,600 (2.0)	82,400 (7.3)	90,900 (4.1)	65,200 (2.4)	59,400 (1.9)
Caldwell	23,600	27,900 (1.7)	28,900 (2.1)	25,600 (0.8)	30,600 (2.6)	30,300 (1.3)	38,200 (2.4)	28,300 (0.9)
Comal	36,400	51,900 (3.6)	55,900 (4.4)	46,500 (2.5)	-	66,800 (3.1)	85,200 (4.3)	56,500 (2.2)
Guadalupe	46,700	61,200 (2.7)	66,900 (3.7)	58,200 (2.2)	-	71,100 (2.1)	97,100 (3.7)	69,600 (2.0)
Baxar	988,800 ^d	1,222,200 (2.1)	1,226,200 (2.2)	1,138,500 (1.4)	-	1,484,200 (2.1)	1,570,300 (2.3)	1,288,100 (1.3)
Total	1,657,100	2,173,900 (2.8)	2,192,200 (2.8)	1,970,400 (1.8)	-	2,752,800 (2.6)	3,045,400 (3.1)	2,298,900 (1.7)

^a Source: (6)

^b Source: (7)

^c Austin population = 345,500

^d San Antonio population = 785,000

^e (X.X%) denotes compound annual growth rate since 1980.

Table B-7. Summary of Regression Analyses of Projected I-35 Traffic and Corridor Population

Survey Station (I-35)	Estimate of B_1	p-value
1. New Braunfels		
Low ^a	0.032	0.22
Medium	0.029	0.06
High	0.030	0.04
2. Kyle		
Low	0.044	0.20
Medium	0.038	0.06
High	0.039	0.04

^a Low, medium, high refers to range of projections given in Tables C1 and C2.

Table B-8. Historical I-35 Traffic Volumes (AADT)

Year	New Braunfels Station (Station 1)	Kyle Station (Station 2)
1970	16,100	14,700
1971	18,600	16,400
1972	19,100	18,400
1973	21,700	20,500
1974	20,700	19,100
1975	21,600	20,600
1976	23,800	21,200

Table B-9. Historical Corridor Population Data

County	Year								
	1960	1970	1971	1972	1973	1974	1975	1976	1977
Bastrop	16,900	17,300	18,100	18,800	19,300	19,700	19,600	19,900	20,200
Bexar	687,100	830,500	860,400	874,300	896,300	909,700	913,400	935,500	952,100
Caldwell	17,200	21,200	21,400	22,100	21,700	21,800	21,600	22,000	22,000
Comal	19,800	24,200	25,300	27,300	27,900	28,300	28,900	29,900	31,100
Guadalupe	19,900	33,600	34,400	35,400	37,400	38,400	38,700	39,500	39,800
Hays	29,000	27,600	28,900	30,700	33,200	34,500	34,100	34,600	34,300
Travis	212,130	295,500	307,900	318,400	339,400	350,100	360,800	375,400	380,200
Williamson	35,000	37,300	38,700	40,500	44,300	45,600	47,000	49,400	53,300
Total	1,037,000	1,287,200	1,335,100	1,367,500	1,419,500	1,448,100	1,464,100	1,506,200	1,533,000
County	1978	1980	1981	1982	1983	1984	1985	1986	
Bastrop	20,100	24,700	26,300	28,000	29,500	31,100	34,200	36,500	
Bexar	965,700	988,800	1,024,300	1,045,500	1,074,500	1,092,100	1,134,900	1,170,000	
Caldwell	22,300	23,600	24,800	24,800	25,800	26,400	27,400	29,200	
Comal	31,900	36,400	37,900	39,500	41,500	43,200	46,200	49,300	
Guadalupe	40,100	40,600	48,200	49,600	51,300	53,200	54,600	57,100	
Hays	35,000	46,700	43,100	43,900	47,400	49,500	56,000	60,800	
Travis	384,700	419,600	430,000	452,700	472,700	499,100	533,200	551,000	
Williamson	58,200	76,500	81,200	86,800	86,800	96,800	106,300	114,600	
Total	1,558,000	1,656,900	1,715,500	1,770,800	1,770,800	1,891,400	1,992,800	2,068,500	

Source: U.S. Department of Commerce, Bureau of the Census.

traffic (Table B-5) inherently take into account the population growth projected for the corridor; at least for the medium and high range of forecasts.

Table B-10. Summary of Regression Analyses of Historical I-35 Traffic and Corridor Population

Survey Station (I-35)	Estimate of B_1	p-value
1. New Braunfels	0.023	0.0001
2. Kyle	0.028	0.0001

Based on these considerations, compound annual growth rates of 2% (low), 3% (medium), and 5% (high) would appear to be reasonable values for projecting design year traffic volumes on the proposed alternate route. While it is recognized that this approach is somewhat simplistic, the lack of detailed and consistent sociodemographic data at the urban-area level prevented the direct development of more refined (e.g., gravity model) types of analyses.

B.7 LEVEL-OF-SERVICE ANALYSES

In order to provide a general point of reference for assessing the reasonableness of the diversion potential of the proposed alternate route, peak-hour level-of-service analyses were performed for the major roadways in the study corridor. The analyses take into account current and projected traffic volumes and improvements that have been proposed in the corridor. Table B-11 summarizes the results of the analyses. The analyses indicate that, if I-35 is upgraded to a 6-lane facility, the level-of-service provided by the interstate 20-years from now will not be substantially lower than current levels-of-service.

Also shown in Table B-11 is the projected year 2006 level-of-service with the 1986 (4 lane) cross section. The analyses indicate substantial reductions in levels-of-service (typically "C" or worse) for those segments of I-35 between Austin and San Antonio if the current cross section is maintained.

Table B-11. Current and Projected Levels-of-Service, Austin/San Antonio Study Corridor

Roadway	Cross-Section		Directional Peak-Hour Volume ^b (VPH)				Peak-Hour Speed (MPH)				Peak-Hour Level-of-Service			
			1986	2006 ^c			1986	2006			1986	2006		
	1986	2006 ^a		Low	Medium	High		Low	Medium	High		Low	Medium	High
I-35 (New Braunfels)	4 Lanes Divided	6 Lanes Divided	1190	1650	2180	2720	56	56	54	52	A	A/B ^d	B/C	B/D
I-35 (Kyle)	4 Lanes Divided	6 Lanes Divided	1330	1925	2600	3275	55	55	53	50	B	B/C	B/D	C/E
SH 123 (Seguin)	4 Lanes Undivided	4 Lanes Undivided	250	270	360	440	59	59	59	58	A	A	A	A
US 183 (Lockhart)	4 Lanes Undivided	4 Lanes Undivided	240	280	370	460	59	59	59	58	A	A	A	A
US 281 (San Antonio)	4 Lanes Divided	4 Lanes Divided	400	540	790	1035	59	58	57	56	A	A	A	A
I-35 (Georgetown)	4 Lanes Divided	6 Lanes Divided	980	1360	1780	2210	56	57	56	54	A	A/B	A/B	B/C

^aSource: SDHPT Project Development Plans.

^bAssumes directional peak-hour = 3.5% of AADT.

^cSource: Table B-5.

^dDenotes year 2006 level-of-service with 1986 cross-section.

B.8 RESULTS

B.8.1 Summary

Table B-12 summarizes the estimates of 1987 and year 2006 alternate route traffic. The estimates distinguish between survey period (7:00 a.m.-8:00 p.m.) traffic that could divert to the alternate route, 24-hour diverted traffic volumes, and estimated total daily traffic. The estimates of 24-hour diverted traffic volumes were developed by assuming that traffic during the period 7:00 a.m. to 8:00 p.m. constitutes 70% of the daily traffic (Table B-13). The estimates of total daily traffic take into account current and projected traffic on existing segments of the proposed alternate route.

The analyses suggest that, if the proposed alternate route was in-place today, at its maximum load-point approximately 7300 vehicles per day (vpd) would divert to the facility (Figure B-3). This estimate represents approximately 20% of the current ADT on I-35 between Austin and San Antonio. The corresponding year 2006 projections indicate that approximately 11,000 (low estimate) to 18,000 (high estimate) vpd would divert to the alternate route. Estimates of total daily traffic for the year 2006 range from a low of just over 23,000 vpd to a high of nearly 51,000 vpd. This considerable range in the year 2006 estimates is due to the wide range of ADTs currently on existing segments of the proposed route.

B.8.2 Discussion

There are several factors that should be taken into account when assessing the reasonableness of the estimates of alternate route traffic shown in Table B-12. For example, the level-of-service analyses (Table B-11) indicate that, if proposed I-35 improvements are implemented, the level-of-service on the interstate will not be reduced substantially over the next 20 years. This would suggest that congestion on I-35 will not become a more significant factor in the route selection process. Additionally, the traffic diversion methodology assumes that the proposed alternate route is a limited access type of facility (i.e., comparable to I-35). Furthermore, the diversion methodology does not explicitly account for the different speed

Table B-12. Estimated 1987 and Year 2006 Alternate Route Traffic

Segment	Estimated 1987 ADT ^a	Diverted Traffic				Estimated Total Daily Traffic ^e			
		1987	2006 ^d			1987	2006		
			Low	Medium	High		Low	Medium	High
1. SH 71 to SH 21	13,900	4,400 ^b /6,300 ^c	6,400/9,200	7,700/11,000	11,100/15,900	20,200	33,600	35,400	40,300
2. SH 21 to FM 20	7,600	4,700/6,700	6,800/9,800	8,200/11,700	11,900/16,900	14,300	23,100	25,000	30,200
3. FM 20 to SH 123	7,600 ^f	5,100/7,300	7,400/10,600	8,900/12,800	12,900/18,400	14,900	23,900	26,100	31,700
4. SH 123 to Loop 1604	21,200	3,700/5,300	5,400/7,700	6,500/9,300	9,300/13,400	26,500	44,900	46,500	50,600

^aCurrent traffic on existing segments of proposed alternate route. Estimated from 1985 average segment ADT (assumes 3% compound annual growth).

^b7:00 a.m.-8:00 p.m.

^c24-hour volume. Assumes survey period (7:00 a.m.-8:00 p.m.) volume = 70% of ADT (See Table B-13).

^dAssumes following compound annual growth rates: Low = 2%, Medium = 3%, High = 5%.

^eEstimated 24-hour diverted traffic + 1987 ADT (at 3% per year for year 2006).

^fSegment 3 is proposed new segment. 1987 ADT on this segment assumed equal to ADT on segment 2.

Table B-13. Survey Period Traffic Volumes as Percent of 24-Hour Volumes

Survey Station and Direction	Survey Period		
	24-Hour Traffic Volume	Traffic Volume (7:00 a.m.-8:00 p.m.)	Percent Daily Traffic in Survey Period
1. New Braunfels (I-35)			
NB	19,456	14,129	73%
SB	<u>19,653</u>	<u>14,193</u>	<u>72</u>
Total	39,109	28,322	72
2. Kyle (I-35)			
NB	21,044	13,871	66
SB	<u>20,899</u>	<u>14,553</u>	<u>70</u>
Total	41,943	28,424	68
3. Seguin (SH 123)			
NB	3,072	2,127	69
SB	<u>3,239</u>	<u>2,316</u>	<u>72</u>
Total	6,311	4,443	70
4. Lockhart (US 183)			
NB	3,530	2,401	68
SB	<u>3,857</u>	<u>2,753</u>	<u>71</u>
Total	7,387	5,154	70
5. San Antonio (US 281)			
NB	5,954	4,755	80
SB	<u>5,980</u>	<u>4,491</u>	<u>75</u>
Total	11,934	9,246	77
6. Georgetown (I-35)			
NB	13,987	9,685	69
SB	<u>13,724</u>	<u>9,969</u>	<u>73</u>
Total	27,711	19,654	71
Total All Stations	134,395	95,243	71

drivers are indifferent when choosing among the alternative routes available to them. This is, drivers may need to perceive that they would save at least a specified, minimum amount of time (or percent of their total travel time) before they would consider switching (diverting) to another route. Probabilistic traffic assignment procedures, for example, attempt to account for this by allowing more than one "minimum" path in the highway network. The point of this discussion is that some drivers may not perceive the travel time savings offered by the proposed alternate route to be sufficient to justify diverting from I-35.

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