5-4-99
AGENDA 18

TO: City Council

FROM: James L. App, City Manager

SUBJECT: **Measure D-98 Project - Senior/Veteran's Center**

DATE: May 4, 1999

NEEDS: For the City Council to confirm the site for, and primary building characteristics of, a new Senior/Veteran's Center.

FACTS:

1. Measure D-98 authorized $1,500,000 for a new "Senior/Veteran's Center."
2. A number of sites and facility alternatives for a Senior/Veteran's Center have been considered over the past twelve months.
3. Recently, the Council directed evaluation of an option to construct a new facility on City owned property in the vicinity of Sherwood & Oak Creek Parks.
4. The City owns nearly 27 acres of open space in and around Sherwood and Oak Creek Parks.
5. Early in the evaluation, Council determined it prudent to "master plan" the 27 acre site to ensure optimal placement of a Senior/Veteran's Center, as well as long-term park improvement options.
6. Mr. Fred Sweeney, of Phillips, Metsch, Sweeney & Moore, was retained to assist in the evaluation.
7. The proposed Master Plan includes a Senior Center & Veteran's War Memorial Building, two full size softball fields (also suitable for little league play), a full size soccer field, a second soccer field sized to accommodate regulation football, a future youth center, basketball and volleyball courts, new play structures and picnic areas, and space for an aquatic center (Exhibits A & B).
8. Optimal and safe use of available open space for the Senior Center & Veteran's War Memorial Building, and redesigned and enlarged softball and soccer fields, indicates a need to close Scott Street from Via Ramona to Creston Road.
9. A traffic study has been completed to determine the traffic impacts of such a closure (Exhibit C). Traffic diverted from Scott Street can be safely handled by other area traffic ways including Commerce Way to Sherwood Road, Via Ramona to Creston Road via Santa Ynez, and Driftwood to Creston Road via Cedarwood.

ANALYSIS & CONCLUSION: The Sherwood & Oak Creek Parks Master Plan would provide a blueprint for the long-term improvement of a major park facility. The resulting 27 acre park would offer attractions for users of all ages. The first phase of the Master Plan can be

accomplished within two years with the development and construction of a Senior Center & Veteran's War Memorial Building.

As proposed, the Senior Center & Veteran's War Memorial Building site allows easy access from Creston Road via public transportation, the existing Sherwood Park parking lot, and the existing (and planned for expansion) Cedarwood Street Oak Creek Park parking lot. For users of the future Senior Center & Veteran's War Memorial Building, ready and safe access from the Sherwood Park lot, and to other Master Plan Park attractions, would be facilitated by the partial closure of Scott Street.

POLICY REFERENCE: Measure D-98; Fiscal Year 1999-2002 City Financial Plan.

FISCAL IMPACT: $1,500,000 for design and construction of a "Senior/Veteran's Center" from Measure D-98 bond proceeds.

OPTIONS:

A. **Authorize the Design of a New Senior Center & Veteran's War Memorial Building by Taking the Following Actions:**

- **Approve the Site & Building Concept as in Exhibits A & B;**
- **Endorse the Closure of Scott Street from Via Ramona west to Creston Road;**
- **Endorse the Sherwood/Oak Creek Park Master Plan; and**
- **Direct Building Architect Selection.**

B. **Modify Site, Building Concept, Street Closure and/or Master Plan Features and Then Approve (as above).**

C. **Amend, Modify or Reject Options Above.**

Attachments: Exhibit A - Sherwood/Oak Creek Park Master Plan
Exhibit B - Senior Center & Veteran's War Memorial Building Concept
Exhibit C - Traffic Study re: Partial Closure of Scott Street

EXHIBIT C

ASSOCIATED TRANSPORTATION ENGINEERS

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March 18, 1999 99023L01.LTR

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City of Paso Robles
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TRAFFIC & CIRCULATION STUDY
FOR THE SCOTT STREET CLOSURE PROJECT, CITY OF PASO ROBLES

Associated Transportation Engineers (ATE) has prepared the following traffic and circulation study for the Scott Street Closure Project. The traffic study presents existing traffic conditions within the area based on collection of traffic counts and patterns. The traffic effects of the closure are defined based on the existing volumes and patterns, including quantifying traffic volume diversions to alternative routes. The ability of area roadways to accommodate the traffic diversions was then determined.

PROJECT DESCRIPTION

The project would close the first block of Scott Street between Creston Road and Via Ramona. Scott Street is a 2-lane east-west collector road that extends from Creston Road on the west to Eastview Place on the east (just east of Airport Road). Sherwood Park, a park developed with recreational facilities such as ball fields and play equipment, is located on the north side of the road within the first block. Oak Creek Park, a passive park with picnic facilities, is located on the south side of the road within the first block. The first block of Scott Street has curb, gutter and sidewalk on the north side of the road fronting Sherwood Park, and a paved shoulder on the south side of the road fronting Oak Creek Park. The pavement width is 36 feet within the first block, with a 22-foot westbound lane and an 11-foot eastbound lane + a 3-foot shoulder. East of Commerce Way the roadway winds through a residential area. This segment is fully constructed to collector road standards, containing a 44-foot curb-to-curb width. Sidewalks are provided on both sides of the street in the residential area.

AREA STREET NETWORK

The street network potentially affected by the closure is made up of arterials, collectors and local streets, as illustrated in Figure 1 (attached). The following text provides a brief discussion of key components of the area street network.

Niblick Road-Sherwood Road, located north of Scott Street, is an east-west arterial roadway that extends east and west of Creston Road. West of Creston Road, the roadway is named Niblick Road and extends across the Salinas River. East of Creston Road, the roadway is named Sherwood Road and extends to Fontana Road, which turns southerly and extends to Linne Road. Linne extends easterly from this point.

Creston Road is a north-south 4-lane arterial in the study area. The Creston Road/Niblick Road-Sherwood Road intersection is controlled by traffic signals, the Creston Road/Santa Ynez intersection is controlled by an all-way stop, the Creston Road/Scott Street intersection is controlled by a 1-way stop (Scott Street stopped), and the Creston Road/Cedarwood intersection is controlled by traffic signals.

Santa Ynez Avenue is a 2-lane local street that extends easterly from Creston Road to Camino Lobo. This roadway serves residential uses on the north and east, and Sherwood Park on the south.

Via Ramona and Camino Lobo are 2-lane local streets that extend between Santa Bella and Scott Street, serving single family residences. Both of these streets are 40 feet in width with curb, gutter and sidewalk.

Commerce Way is an industrial streets that runs north-south between Scott Street and Sherwood Road. Commerce Way contains curb, gutter and sidewalk, and is 85 feet in width. The street is heavily parked during working hours by employees of the adjacent businesses as well as some semi-tractor trucks.

Cedarwood Drive is a 2-lane local street that extends east of Creston Road to Redwood Drive. This roadway serves Oak Creek Park and commercial uses near Creston Road, and the residential neighborhood to the east of the park. The Creston Road/Cedarwood Drive intersection is controlled by traffic signals.

Airport Road is a 2-lane collector road that runs north-south between Meadowlark Road and Linne Road.

Meadowlark Lane is a 2-lane collector road that extends east of Creston Road to beyond Airport Road. The Creston Road/Meadowlark Road intersection is controlled by an all-way stop.

TRAFFIC PATTERNS AND AREA OF INFLUENCE

Traffic volumes and patterns were collected for the first block of Scott Street to determine traffic that would be affected if the street were closed. 3,050 average daily trips (ADT) currently use the first block of Scott Street. Traffic volumes are fairly consistent throughout the day between 7:00 A.M. and 6:00 P.M. The hourly volumes range between 80 and 135 vehicles eastbound and 65 to 140 vehicles westbound during the 7:00 A.M. to 6:00 P.M. period. The traffic patterns indicate that about 70% of the traffic is oriented to the north on Creston and 30% to the south on Creston. Based on the volumes and patterns, the "area of influence" was determined to be primarily the residential uses east of Commerce Way; and to a lesser degree the southern portions of Via Ramona, Camino Lobo and Commerce Way, and the northern portion of the Driftwood Drive neighborhood. This area of influence is depicted on Figure 2.

EXISTING VOLUMES AND LEVELS OF SERVICE

Existing ADT volumes were collected for the key area streets that would be affected by traffic diversions resulting from the proposed street closures. A.M. and P.M. peak hour turning volumes were also collected at the key intersections that would be affected. Figure 3 shows the existing volumes and Tables 1 and 2 show the roadway and intersection levels of service. LOS A through LOS F are used to rate roadway and intersection operations, with LOS A indicating very good operations and LOS F indicating poor operations with heavy congestion.

Table 1
Existing Roadway Operations

Roadway	Type	Volume	LOS
Scott Street w/o Creston Road	Collector	3,050 ADT	LOS A-B
Creston Road n/o Sherwood Road	Arterial	14,500 ADT	LOS A-B
Creston Road s/o Sherwood Road	Arterial	13,500 ADT	LOS A-B
Sherwood Road e/o Creston Road	Arterial	8,500 ADT	LOS A-B
Niblick Road w/o Creston Road	Arterial	13,300 ADT	LOS A-B
Santa Ynez Avenue e/o Creston Road	Local	950 ADT	LOS A-B
Via Ramona n/o Scott Street	Local	260 ADT	LOS A-B
Commerce Way n/o Scott Street	Industrial	4,300 ADT	LOS A-B

All of the key roadways currently operate at LOS A-B. The roadway segment levels of service are provided in ranges (e.g. LOS A-B) because volumes and operations fluctuate throughout the day. A transportation system's ability to accommodate traffic is typically

measured during peak demand periods at intersections, as they are the major constraint in the system. Table 2 shows the operation of the key intersections during the A.M. and P.M. peak commuter periods. Levels of service for the intersections were calculated using the Highway Capacity Manual operations methodology.[1] As shown, the signalized Creston Rd/Sherwood Rd-Niblick Rd intersection operates at LOS C during the morning and evening peak commuter periods, while the unsignalized intersections of Creston Rd/Santa Ynez Ave and Creston Rd/Scott St operate at LOS B during the peak commuter periods.

Table 2
Existing Intersection Operations

Intersection	Control	Delay / LOS	
		A.M. Peak	P.M. Peak
Creston Rd/Sherwood Rd-Niblick Rd	Signal	16.7 Sec / LOS C	18.5 Sec / LOS C
Creston Rd/Santa Ynez Ave	All-Way Stop	8.1 Sec / LOS B	6.7 Sec / LOS B
Creston Rd/Scott St	1-Way Stop	7.4 Sec / LOS B	7.8 Sec / LOS B

LOS based on average delay per vehicle.

TRAFFIC DIVERSIONS

Figure 4 shows the traffic diversions that were modeled assuming that the first block of Scott Street were closed. The diversions were modeled based on the existing traffic patterns observed, which show that the diverted traffic is primarily oriented to/from the residential uses east of Commerce Way, and to a lesser degree the southern portions of Via Ramona, Camino Lobo and Commerce Way, as well as the northern portion of the Driftwood Drive neighborhood. The existing patterns also shows that about 70% of the traffic is oriented to the north on Creston and 30% to the south on Creston. Most of the 3,050 ADT that currently uses the first block of Scott Street would divert to Commerce Way when entering and existing the neighborhood (1,700 ADT). 525 ADT are expected to enter and exit the neighborhood via Santa Ynez Avenue, with about 615 ADT are expected to use Cedarwood Drive. Most of the diversions on Santa Ynez Avenue and Cedarwood Drive are trips oriented to the south on Creston. About 200 ADT are expected to use Airport Road to enter and exit the eastern portion of the neighborhood and access uses to the south (e.g. Peterson Elementary School).

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[1] Highway Capacity Manual, Special Report 209, Transportation Research Board, National Research Council, Washington, D.C. 1994.

Table 3 shows the roadway levels of service assuming the street closure. Most of the key roadways are forecast to continue to operate at LOS A-B. Commerce Way would receive about 1,700 ADT and operate at LOS B-C. One of the issues that needs to be considered is the additional traffic on local residential streets. Santa Bella, Via Ramona, Camino Lobo and the north end of Driftwood Drive would receive some of the diverted traffic. These local street do, however, have ample capacity to accommodate the additional volumes.

Table 3
Roadway Operations with Scott Street Closed

Roadway	Type	Volume	LOS
Scott Street w/o Creston Road	NA - Closed	NA - Closed	NA - Closed
Creston Road n/o Sherwood Road	Arterial	14,500 ADT	LOS A-B
Creston Road s/o Sherwood Road	Arterial	11,800 ADT	LOS A-B
Sherwood Road e/o Creston Road	Arterial	10,200 ADT	LOS A-B
Niblick Road w/o Creston Road	Arterial	13,300 ADT	LOS A-B
Santa Ynez Avenue e/o Creston Road	Local	1,475 ADT	LOS A-B
Via Ramona n/o Scott Street	Local	510 ADT	LOS A-B
Commerce Way n/o Scott Street	Industrial	6,000 ADT	LOS B-C

Table 4 shows that levels of service the key intersections would operate at LOS B or LOS C during the A.M. and P.M. peak commuter periods. These service levels would not change as a result of the street closure (compare to Table 2).

Table 4
Intersection Operations with Scott Street Closed

Intersection	Control	Delay / LOS	
		A.M. Peak	P.M. Peak
Creston Rd/Sherwood Rd-Niblick Rd	Signal	16.9 Sec / LOS C	18.2 Sec / LOS C
Creston Rd/Santa Ynez Ave	All-Way Stop	7.3 Sec / LOS B	5.9 Sec / LOS B
Creston Rd/Scott St	NA - Closed	NA - Closed	NA - Closed

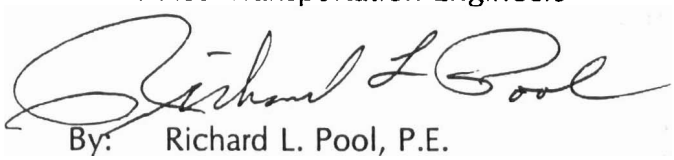
LOS based on average delay per vehicle.

CIRCULATION ELEMENT CONSIDERATIONS

Although the effects of the diversions would not significantly change levels of service on the affected roadways and intersections, there must be some consideration of the City's future circulation needs in this area. The Circulation Element identifies Scott Street as a collector road (see Figure 5). Ultimately the roadway is to extend easterly and connect with a north-south collector road (which is unnamed and unconstructed). Collector roads such as Scott Street are intended to move traffic between arterial and local streets as well as link neighborhoods and commercial uses. Closing the first block of Scott Street would withdraw some of Scott Street's intended use. If the City chooses to close the first block of Scott Street, parallel surface streets such as Linne Road and Meadowlark Road would have to carry the some of the future traffic generated to the east (see Figure 5). The alternate routes have the capacity to accommodate the relatively low volume of diverted trips without significantly changing levels of service.

Consideration was also given to providing a new roadway link between Scott Street and Cedarwood Drive in the vicinity of the street closure. The most logical place from a traffic flow standpoint, would be to extend the roadway link from the south end of Via Ramona across Oak Creek Park and connect with Cedarwood Drive at the north end of Beachwood. This link would carry about 800 to 1,200 ADT and serve as a local street, linking the neighborhood with the commercial uses adjacent to Creston/Cedarwood as well as providing additional access to Creston. However, much of the traffic diversion resulting from closing the first block of Scott Street is traffic oriented to and from the north via Creston. Thus, a link to the south would be expected to carry relatively low traffic volumes.

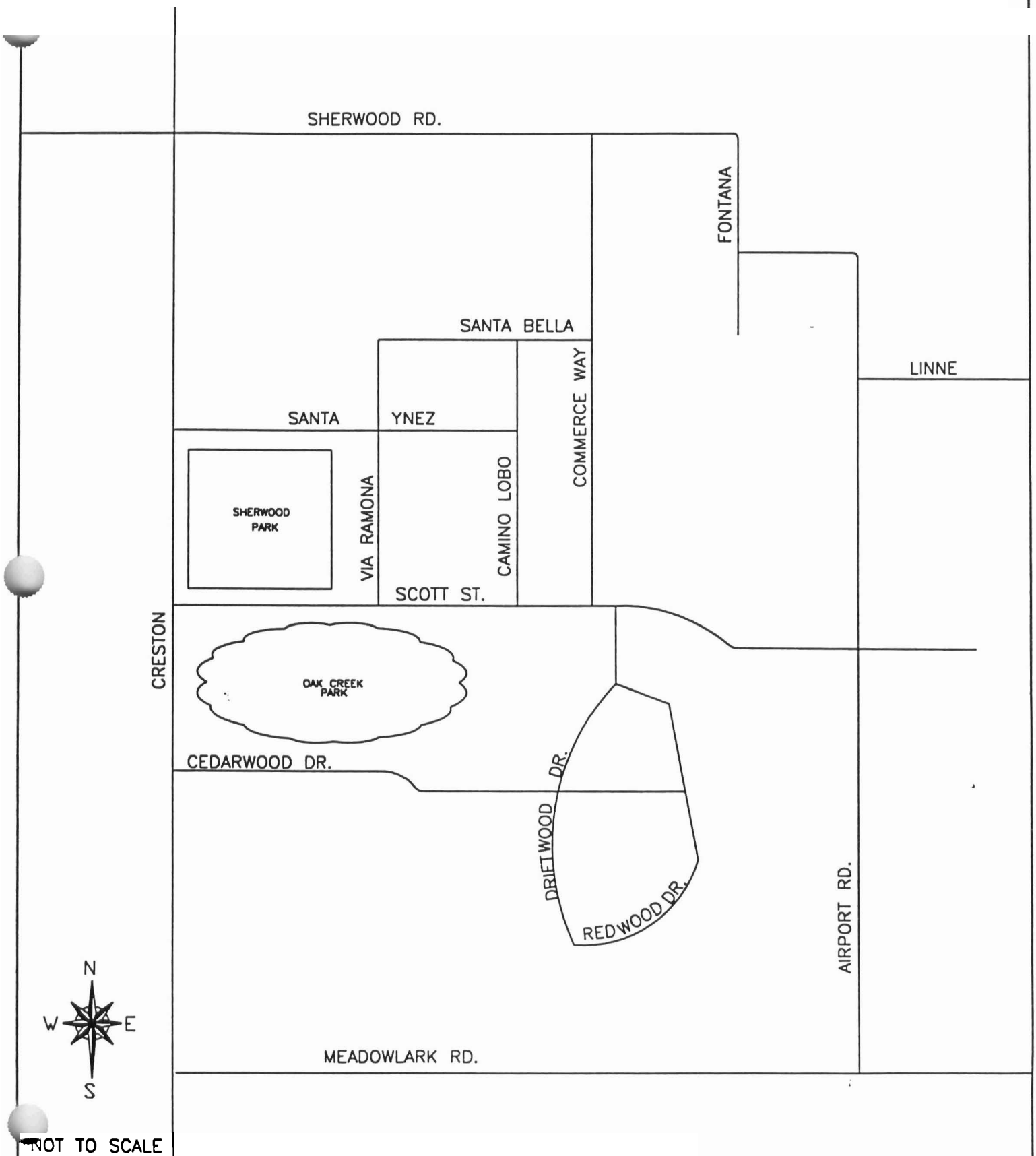
Associated Transportation Engineers



By: Richard L. Pool, P.E.
President

RLP/DLD

attachments

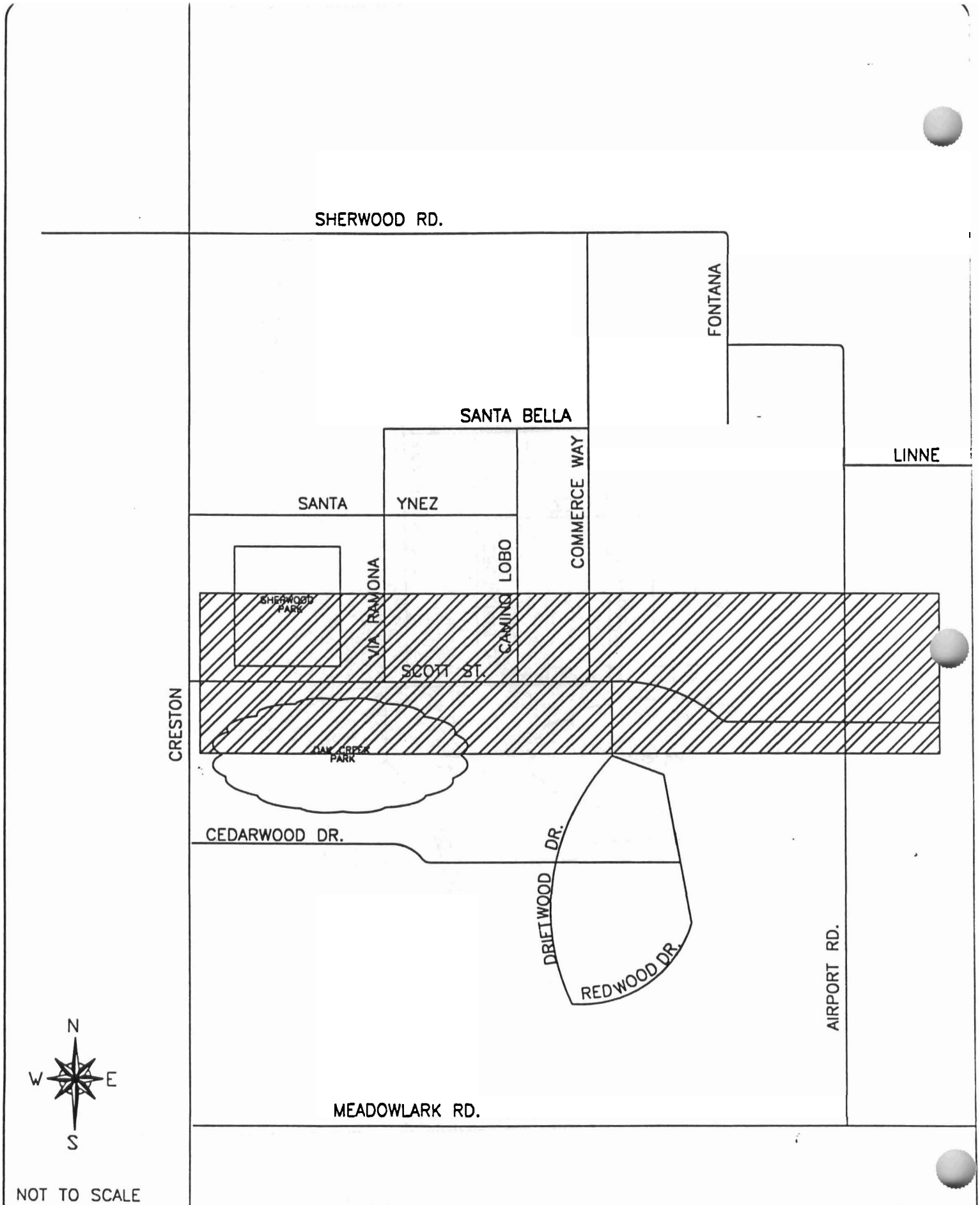


ASSOCIATED TRANSPORTATION ENGINEERS

AREA STREET NETWORK

FIGURE 1

18-9



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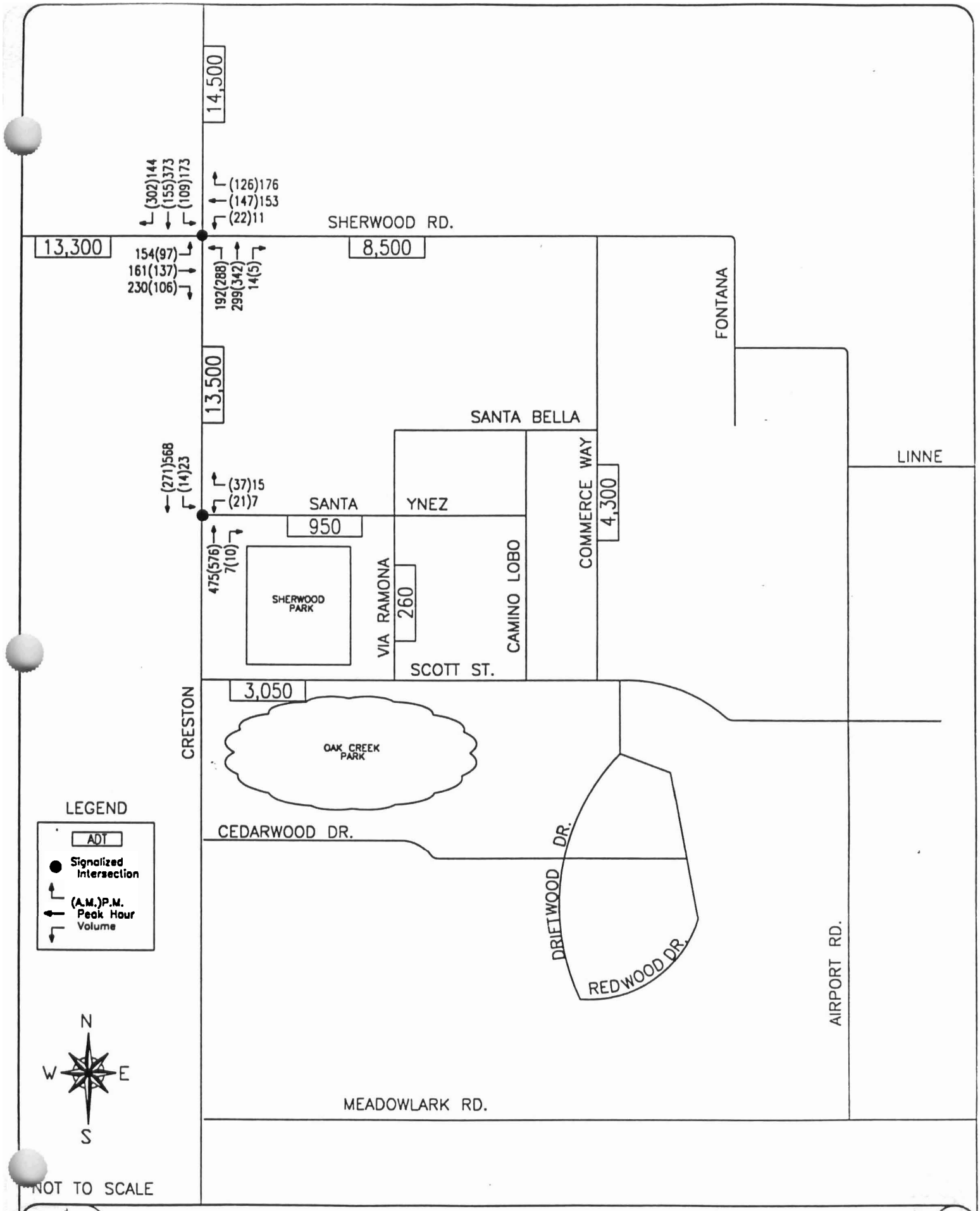
AREA OF INFLUENCE

FIGURE 2

18-10



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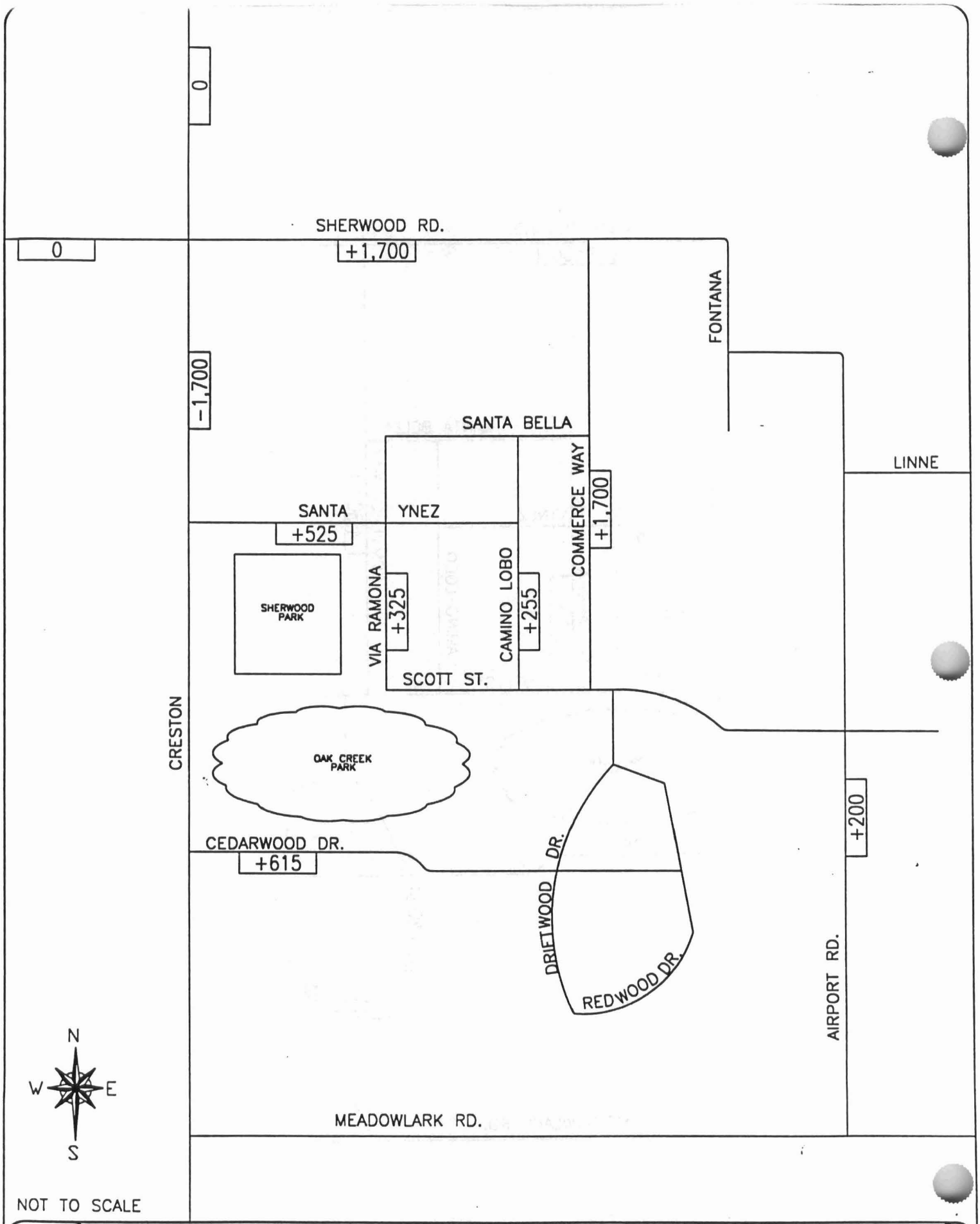
EXISTING TRAFFIC VOLUMES

FIGURE 3

18-11



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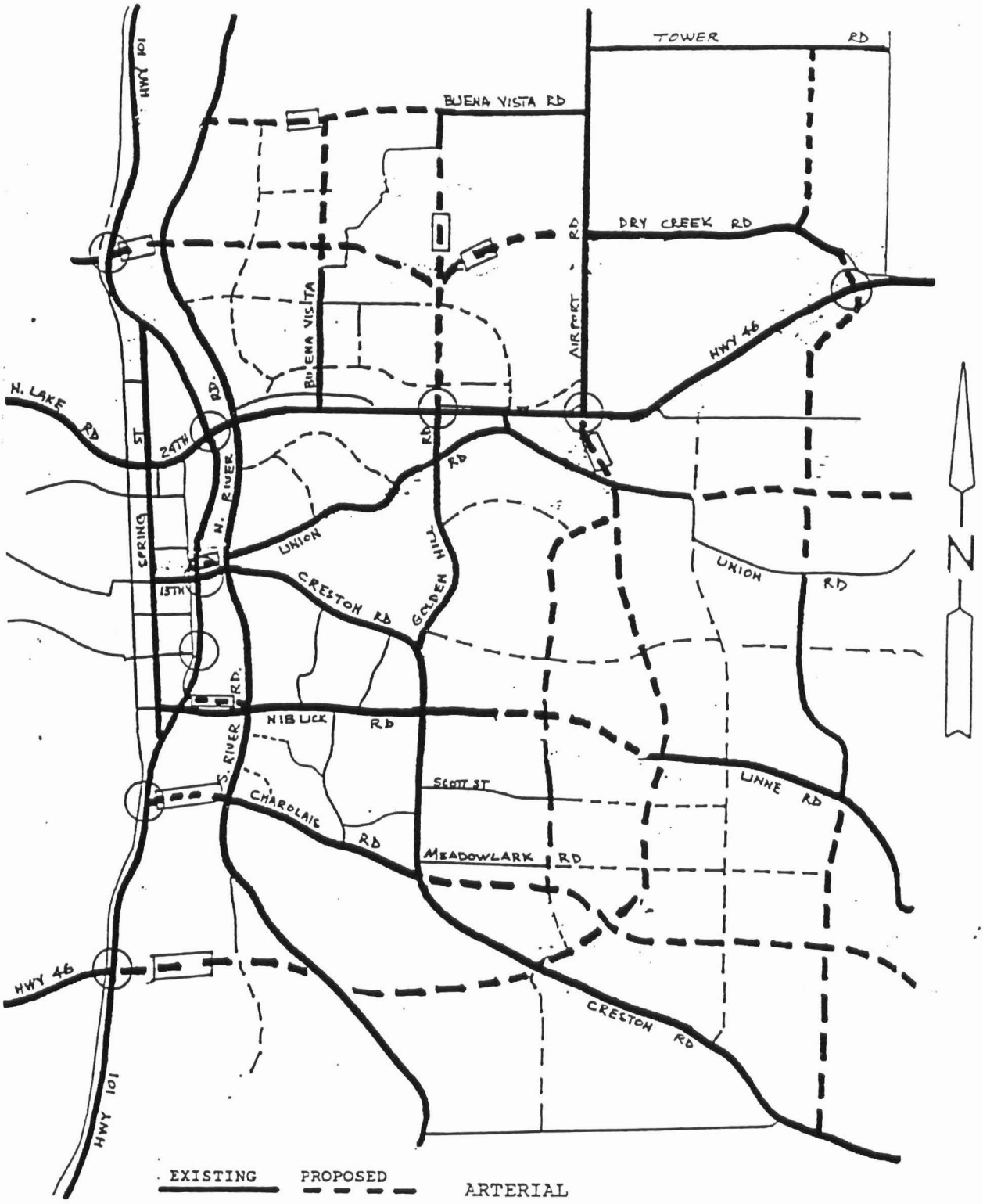
TRAFFIC DIVERSIONS

FIGURE 4

18-17



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CIRCULATION MASTER PLAN

FIGURE 5

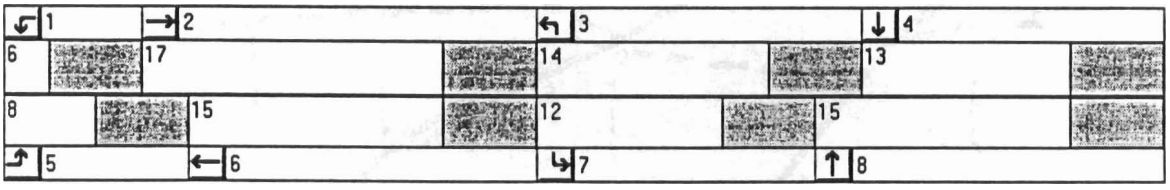
18-13

Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Satd. Flow (prot)	1770	1740	0	1770	1734	0	1770	3718	0	1770	3357	0
Flt Perm.	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1740	0	1770	1734	0	1770	3718	0	1770	3357	0
Volume (vph)	97	137	106	22	147	126	288	342	5	109	155	302
Lane Group Flow (vph)	108	270	0	24	303	0	320	405	0	121	534	0
Perm or Prot?	Prot			Prot			Prot			Prot		
Phase Number	5	2		1	6		3	8		7	4	
Maximum Split (s)	8	17		6	15		14	15		12	13	
Lost Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
g/c Ratio	0.10	0.28		0.06	0.24		0.22	0.24		0.18	0.20	
Lane Grp Cap (vph)	177	487		106	416		389	892		319	671	
V/C Ratio	0.61	0.55		0.23	0.73		0.82	0.45		0.38	1.11dr	
V/S Ratio Prot	0.06			0.01			0.18			0.07		
V/S Ratio Perm		0.16			0.17			0.11			0.16	
Critical LG?	Yes				Yes		Yes				Yes	
Uniform Delay, d1	16.4	11.7		17.0	13.3		14.1	12.3		13.7	14.4	
Platoon Factor	1.00	0.69		1.00	1.00		1.00	1.00		1.00	1.00	
Incr. Delay, d2	4.2	1.1		0.2	4.3		9.1	0.3		0.4	4.6	
Webster's St Delay	20.6	9.2		17.2	17.6		23.2	12.6		14.1	19.0	
LOS	C	B		C	C		C	B		B	C	

Cycle Length: 50
Control Type: Actuated-Coordinated
Lost Time: 12
Sum of Critical V/S Ratios: 0.58
Intersection V/C Ratio: 0.76
Intersection Webster Stopped Delay: 16.7
Intersection LOS: C
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: Niblick & Creston



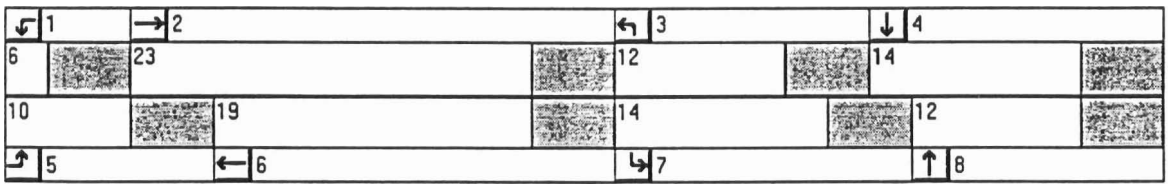
18-14

Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Satd. Flow (prot)	1770	1699	0	1770	1714	0	1770	3699	0	1770	3569	0
Flt Perm.	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1699	0	1770	1714	0	1770	3699	0	1770	3569	0
Volume (vph)	154	161	230	11	153	176	192	299	14	173	373	144
Lane Group Flow (vph)	171	435	0	12	366	0	213	366	0	192	603	0
Perm or Prot?	Prot			Prot			Prot			Prot		
Phase Number	5	2		1	6		3	8		7	4	
Maximum Split (s)	10	23		6	19		12	12		14	14	
Lost Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
g/c Ratio	0.13	0.36		0.05	0.29		0.16	0.16		0.20	0.20	
Lane Grp Cap (vph)	225	618		97	499		290	605		354	714	
V/C Ratio	0.76	0.70		0.12	0.73		0.74	0.60		0.54	0.84	
V/S Ratio Prot	0.10			0.01			0.12			0.11		
V/S Ratio Perm		0.26			0.21			0.10			0.17	
Critical LG?	Yes				Yes		Yes				Yes	
Uniform Delay, d1	17.6	11.4		18.8	13.3		16.6	16.2		15.0	16.1	
Platoon Factor	1.00	0.69		1.00	1.00		1.00	1.00		1.00	1.00	
Incr. Delay, d2	9.3	2.5		0.0	3.8		6.4	1.2		1.3	6.4	
Webster's St Delay	26.9	10.3		18.8	17.2		23.0	17.5		16.3	22.5	
LOS	D	B		C	C		C	C		C	C	

Cycle Length: 55
Control Type: Actuated-Coordinated
Lost Time: 12
Sum of Critical V/S Ratios: 0.60
Intersection V/C Ratio: 0.77
Intersection Webster Stopped Delay: 18.5
Intersection LOS: C

Splits and Phases: Niblick & Creston



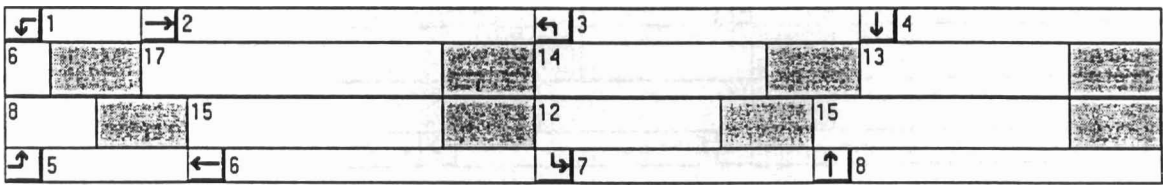
18-12

Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Satd. Flow (prot)	1770	1820	0	1770	1753	0	1770	3718	0	1770	3357	0
Flt Perm.	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1820	0	1770	1753	0	1770	3718	0	1770	3357	0
Volume (vph)	97	206	37	22	197	126	238	342	5	109	155	302
Lane Group Flow (vph)	108	270	0	24	359	0	264	405	0	121	534	0
Perm or Prot?	Prot			Prot			Prot			Prot		
Phase Number	5	2		1	6		3	8		7	4	
Maximum Split (s)	8	17		6	15		14	15		12	13	
Lost Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
g/c Ratio	0.10	0.28		0.06	0.24		0.22	0.24		0.18	0.20	
Lane Grp Cap (vph)	177	510		106	421		389	892		319	671	
V/C Ratio	0.61	0.53		0.23	0.85		0.68	0.45		0.38	1.11dr	
V/S Ratio Prot	0.06			0.01			0.15			0.07		
V/S Ratio Perm		0.15			0.20			0.11			0.16	
Critical LG?	Yes				Yes		Yes				Yes	
Uniform Delay, d1	16.4	11.5		17.0	13.8		13.6	12.3		13.7	14.4	
Platoon Factor	1.00	0.70		1.00	1.00		1.00	1.00		1.00	1.00	
Incr. Delay, d2	4.2	0.8		0.2	10.8		3.2	0.3		0.4	4.6	
Webster's St Delay	20.6	8.9		17.2	24.6		16.8	12.6		14.1	19.0	
LOS	C	B		C	C		C	B		B	C	

Cycle Length: 50
Control Type: Actuated-Coordinated
Lost Time: 12
Sum of Critical V/S Ratios: 0.57
Intersection V/C Ratio: 0.76
Intersection Webster Stopped Delay: 16.9
Intersection LOS: C
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: Niblick & Creston



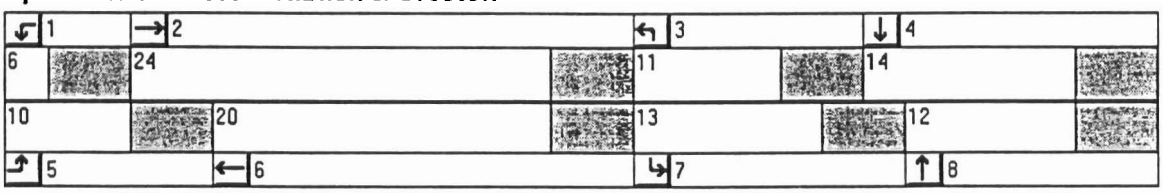
18-16

Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR		WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Satd. Flow (prot)	1770	1727	0	1770	1727	0	1770	3699	0	1770	3569	0
Flt Perm.	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1727	0	1770	1727	0	1770	3699	0	1770	3569	0
Volume (vph)	154	205	196	11	187	176	158	299	14	173	373	144
Lane Group Flow (vph)	171	446	0	12	404	0	176	366	0	192	603	0
Perm or Prot?	Prot			Prot			Prot			Prot		
Phase Number	5	2		1	6		3	8		7	4	
Maximum Split (s)	10	24		6	20		11	12		13	14	
Lost Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
g/c Ratio	0.13	0.38		0.05	0.31		0.15	0.16		0.18	0.20	
Lane Grp Cap (vph)	225	659		97	534		257	605		322	714	
V/C Ratio	0.76	0.68		0.12	0.76		0.68	0.60		0.60	0.84	
V/S Ratio Prot	0.10			0.01			0.10			0.11		
V/S Ratio Perm		0.26			0.23			0.10			0.17	
Critical LG?	Yes				Yes		Yes				Yes	
Uniform Delay, d1	17.6	10.8		18.8	13.0		16.9	16.2		15.7	16.1	
Platoon Factor	1.00	0.68		1.00	1.00		1.00	1.00		1.00	1.00	
Incr. Delay, d2	9.3	1.9		0.0	4.2		4.9	1.2		2.2	6.4	
Webster's St Delay	26.9	9.2		18.8	17.3		21.9	17.5		17.8	22.5	
LOS	D	B		C	C		C	C		C	C	

Cycle Length: 55
Control Type: Actuated-Coordinated
Lost Time: 12
Sum of Critical V/S Ratios: 0.60
Intersection V/C Ratio: 0.77
Intersection Webster Stopped Delay: 18.2
Intersection LOS: C

Splits and Phases: Niblick & Creston



18.17

Center For Microcomputers In Transportation
University of Florida
512 Weil Hall
Gainesville, FL 32611-2083
Ph: (904) 392-0378

Streets: (N-S) CRESTON (E-W) SANTA YNEZ
Analyst..... DLD
Date of Analysis..... 3/9/99
Other Information..... EXISTING AM PEAK

All-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	< 0	1	2	0	0	0	0	1	0	1
Volumes		576	10	14	271					21		37
PHF		.9	.9	.9	.9					.9		.9

Volume Summary and Capacity Analysis WorkSheet

	NB	SB	EB	WB
LT Flow Rate	0	16		23
RT Flow Rate	11	0		41
Approach Flow Rate	651	317		64
Proportion LT	0.00	0.05		0.36
Proportion RT	0.02	0.00		0.64
Opposing Approach Flow Rate	317	651		0
Conflicting Approaches Flow Rate	64	64		968
Proportion, Subject Approach Flow Rate	0.63	0.31		0.06
Proportion, Opposing Approach Flow Rate	0.31	0.63		0.00
Lanes on Subject Approach	2	3		2
Lanes on Opposing Approach	3	2		0
LT, Opposing Approach	16	0		0
RT, Opposing Approach	0	11		0
LT, Conflicting Approaches	23	23		16
RT, Conflicting Approaches	41	41		11
Proportion LT, Opposing Approach	0.05	0.00		0.00
Proportion RT, Opposing Approach	0.00	0.02		0.00
Proportion LT, Conflicting Approaches	0.36	0.36		0.02
Proportion RT, Conflicting Approaches	0.64	0.64		0.01
Approach Capacity	1015	1236		460

Intersection Performance Summary

Movement	Approach Flow Rate	Approach Capacity	V/C Ratio	Average Total Delay	LOS
NB	651	1015	0.64	11.4	C
SB	317	1236	0.26	2.7	A
WB	64	460	0.14	1.7	A

Intersection Delay = 8.1
Level of Service (Intersection) = B

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Streets: (N-S) CRESTON (E-W) SANTA YNEZ
Analyst..... DLD
Date of Analysis..... 3/9/99
Other Information..... EXISTING PM PEAK

All-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	< 0	1	2	0	0	0	0	1	0	1
Volumes		475	7	23	568					7		15
PHF		.9	.9	.9	.9					.9		.9

Volume Summary and Capacity Analysis WorkSheet

	NB	SB	EB	WB
LT Flow Rate	0	26		8
RT Flow Rate	8	0		17
Approach Flow Rate	536	657		25
Proportion LT	0.00	0.04		0.32
Proportion RT	0.01	0.00		0.68
Opposing Approach Flow Rate	657	536		0
Conflicting Approaches Flow Rate	25	25		1193
Proportion, Subject Approach Flow Rate	0.44	0.54		0.02
Proportion, Opposing Approach Flow Rate	0.54	0.44		0.00
[illegible] on Subject Approach	2	3		2
[illegible] on Opposing Approach	3	2		0
LT, Opposing Approach	26	0		0
RT, Opposing Approach	0	8		0
LT, Conflicting Approaches	8	8		26
RT, Conflicting Approaches	17	17		8
Proportion LT, Opposing Approach	0.04	0.00		0.00
Proportion RT, Opposing Approach	0.00	0.01		0.00
Proportion LT, Conflicting Approaches	0.32	0.32		0.02
Proportion RT, Conflicting Approaches	0.68	0.68		0.01
Approach Capacity	1014	1358		416

Intersection Performance Summary

Movement	Approach Flow Rate	Approach Capacity	V/C Ratio	Average Total Delay	LOS
NB	536	1014	0.53	7.5	B
SB	657	1358	0.48	6.3	B
WB	25	416	0.06	1.3	A

Intersection Delay = 6.7
Level of Service (Intersection) = B

18-19

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Streets: (N-S) CRESTON (E-W) SANTA YNEZ
Analyst..... DLD
Date of Analysis..... 3/18/99
Other Information..... A.M. PEAK HOUR WITH SCOTT STREET CLOSED

All-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	< 0	1	2	0	0	0	0	1	0	1
Volumes		514	19	31	185					28		49
PHF		.9	.9	.9	.9					.9		.9

Volume Summary and Capacity Analysis WorkSheet

	NB	SB	EB	WB
LT Flow Rate	0	34		31
RT Flow Rate	21	0		54
Approach Flow Rate	592	240		85
Proportion LT	0.00	0.14		0.36
Proportion RT	0.04	0.00		0.64
Opposing Approach Flow Rate	240	592		0
Conflicting Approaches Flow Rate	85	85		832
Proportion, Subject Approach Flow Rate	0.65	0.26		0.09
Proportion, Opposing Approach Flow Rate	0.26	0.65		0.00
Lanes on Subject Approach	2	3		2
Lanes on Opposing Approach	3	2		0
LT, Opposing Approach	34	0		0
RT, Opposing Approach	0	21		0
LT, Conflicting Approaches	31	31		34
RT, Conflicting Approaches	54	54		21
Proportion LT, Opposing Approach	0.14	0.00		0.00
Proportion RT, Opposing Approach	0.00	0.04		0.00
Proportion LT, Conflicting Approaches	0.36	0.36		0.04
Proportion RT, Conflicting Approaches	0.64	0.64		0.03
Approach Capacity	967	1202		488

Intersection Performance Summary

Movement	Approach Flow Rate	Approach Capacity	V/C Ratio	Average Total Delay	LOS
NB	592	967	0.61	10.2	C
SB	240	1202	0.20	2.1	A
WB	85	488	0.17	1.9	A

Intersection Delay = 7.3
Level of Service (Intersection) = B

18.20

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Streets: (N-S) CRESTON (E-W) SANTA YNEZ
Analyst..... DLD
Date of Analysis..... 3/18/99
Other Information..... PM PEAK WITH SCOTT STREET CLOSED

All-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	< 0	1	2	0	0	0	0	1	0	1
Volumes		432	12	34	513					12		24
PHF		.9	.9	.9	.9					.9		.9

Volume Summary and Capacity Analysis WorkSheet

	NB	SB	EB	WB
LT Flow Rate	0	38		13
RT Flow Rate	13	0		27
Approach Flow Rate	493	608		40
Proportion LT	0.00	0.06		0.32
Proportion RT	0.03	0.00		0.68
Opposing Approach Flow Rate	608	493		0
Conflicting Approaches Flow Rate	40	40		1101
Proportion, Subject Approach Flow Rate	0.43	0.53		0.04
Proportion, Opposing Approach Flow Rate	0.53	0.43		0.00
Lanes on Subject Approach	2	3		2
Lanes on Opposing Approach	3	2		0
LT, Opposing Approach	38	0		0
RT, Opposing Approach	0	13		0
LT, Conflicting Approaches	13	13		38
RT, Conflicting Approaches	27	27		13
Proportion LT, Opposing Approach	0.06	0.00		0.00
Proportion RT, Opposing Approach	0.00	0.03		0.00
Proportion LT, Conflicting Approaches	0.32	0.32		0.03
Proportion RT, Conflicting Approaches	0.68	0.68		0.01
Approach Capacity	991	1346		428

Intersection Performance Summary

Movement	Approach Flow Rate	Approach Capacity	V/C Ratio	Average Total Delay	LOS
NB	493	991	0.50	6.6	B
SB	608	1346	0.45	5.6	B
WB	40	428	0.09	1.4	A

Intersection Delay = 5.9
Level of Service (Intersection) = B

18.21

Center For Microcomputers In Transportation
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Streets: (N-S) CRESTON (E-W) SCOTT STREET
Major Street Direction.... NS
Length of Time Analyzed... 60 (min)
Analyst..... DLD
Date of Analysis..... 3/18/99
Other Information..... EXISTING AM PEAK

Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	<0	1	2	0	0	0	0	1	0	1
Stop/Yield												
Volumes		524	46	86	206					34		62
PHF		.9	.9	.9	.9					.9		.9
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10						1.10		1.10

Worksheet for TWSC Intersection

Step 1: RT from Minor Street — WB — EB

Conflicting Flows: (vph) 316
Potential Capacity: (pcph) 958
Movement Capacity: (pcph) 958
Prob. of Queue-Free State: 0.92

Step 2: LT from Major Street — SB — NB

Conflicting Flows: (vph) 633
Potential Capacity: (pcph) 784
Movement Capacity: (pcph) 784
Prob. of Queue-Free State: 0.86

Step 4: LT from Minor Street — WB — EB

Conflicting Flows: (vph) 952
Potential Capacity: (pcph) 268
Major LT, Minor TH Impedance Factor: 0.86
Adjusted Impedance Factor: 0.86
Capacity Adjustment Factor due to Impeding Movements 0.86
Movement Capacity: (pcph) 232

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
WB L	42	232		18.9	0.7	C	9.3
WB R	76	958		4.1	0.2	A	
SB L	106	784		5.3	0.5	B	1.6

Intersection Delay = 1.4 sec/veh

AVG DELAY = 7.4 | LOS B

18.22

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Streets: (N-S) CRESTON (E-W) SCOTT STREET
Major Street Direction.... NS
Length of Time Analyzed... 60 (min)
Analyst..... DLD
Date of Analysis..... 3/18/99
Other Information..... EXISTING PM PEAK

Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	2	<0	1	2	0	0	0	0	1	0	1
Stop/Yield			|			|						
Volumes		439	30	55	520					23		43
PHF		.9	.9	.9	.9					.9		.9
Grade		0			0						0	
MC's (%)												
SU/RV's (%)												
CV's (%)												
PCE's				1.10						1.10		1.10

Worksheet for TWSC Intersection

Step 1: RT from Minor Street — WB EB

Conflicting Flows: (vph) 260
Potential Capacity: (pcph) 1022
Movement Capacity: (pcph) 1022
Prob. of Queue-Free State: 0.95

Step 2: LT from Major Street — SB NB

Conflicting Flows: (vph) 521
Potential Capacity: (pcph) 900
Movement Capacity: (pcph) 900
Prob. of Queue-Free State: 0.93

Step 4: LT from Minor Street — WB EB

Conflicting Flows: (vph) 1144
Potential Capacity: (pcph) 197
Major LT, Minor TH Impedance Factor: 0.93
Adjusted Impedance Factor: 0.93
Capacity Adjustment Factor due to Impeding Movements 0.93
Movement Capacity: (pcph) 182

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
WB L	29	182		23.5	0.6	D	10.6
WB R	53	1022		3.7	0.0	A	
SB L	67	900		4.3	0.2	A	0.4

Intersection Delay = 0.8 sec/veh

AVG DELAY = 7.8 / LOS B

18.2