Final Report

SH 82 Access Control Plan

State Highway 82, Eagle County

Eagle County, Colorado

April 2002

TABLE OF CONTENTS

LIST OF TABULATIONS

LIST OF ILLUSTRATIONS

I. EXECUTIVE SUMMARY

State Highway (SH) 82 connects the Towns of Aspen, Snowmass Village, Basalt, Carbondale, and Glenwood Springs as well as the rural portion of southwestern Eagle County. For motorists desiring to travel by automobile along the Roaring Fork Valley, State Highway 82 is the only continuous available route.

As a part of the state highway system, access is controlled by the Colorado Department of Transportation using the criteria and standards set forth in the *State Highway Access Code*. SH 82 is assigned an access category designation of Expressway (E-X). The Colorado Department of Transportation has made a major investment in improving the capacity of SH 82, and therefore, there is a strong desire to protect this investment by controlling access. Eagle County shares this perspective as well. The Town of Basalt believes that its residents require reasonable access to the roadway. State Highway 82 is also important to the Roaring Fork Transit Authority. It transports large numbers of bus riders along the corridor. In addition, bus riders are faced with the challenge of safely crossing SH 82.

SH 82 has a total of twelve access points within Eagle County, nine in the westbound/northbound direction and eight in the eastbound/southbound direction. Only two of these access points are controlled by a traffic signal, El Jebel Road and Willits Lane/Two Rivers. All other access points are controlled by a Stop sign. Four of the access points provide access to private property or businesses.

Traffic on SH 82 has experienced dramatic growth in traffic volumes. From 1988 to 1998, SH 82 has grown by almost 100 percent, going from almost 9,000 vehicles per day to almost 19,000 vehicles per day. The Colorado Department of Transportation is forecasting that SH 82 will grow by 50 percent over the next twenty years. A rail line is proposed for the SH 82 corridor connecting Aspen to Glenwood Springs. If this rail line is implemented over the next twenty years, it should slow the rate of growth in traffic. Five major developments are proposed along SH 82 within Eagle County. They are Sopris Meadows, Kodiak Park PUD, Crawford, Mount Sopris Tree Farm, and Blue Ridge. These five developments are proposing almost 400 dwelling units, approximately 785,000 square feet of office, commercial and retail development, a 100-room hotel, and several recreational fields.

SH 82 is divided up into six segments: (1) Garfield/Eagle County Line to JW Drive/Valley Road; (2) JW Drive/Valley Road to El Jebel Road; (3) El Jebel Road to Willits Lane (North); (4) Willits Lane (North) to Original Road; (5) Original Road to Willits Lane/Two Rivers Road; and (6) Willits Lane/Two Rivers Road to Emma Road.

Segment No. 1 - Garfield/Eagle County Line to JW Drive/Valley Road

No new accesses shall be allowed in this segment of SH 82.

Segment No. 2 - JW Drive/Valley Road to El Jebel Road

No new accesses shall be allowed in this segment of SH 82. Some minor intersection improvements are needed at the intersection of El Jebel Road. Specifically,

free right-turn lanes need to be provided for each approach. El Jebel Road should be improved to a five-lane cross section north of SH 82.

Segment No. 3 - El Jebel Road to Willits Lane (North)

No new accesses shall be permitted along this segment of SH 82. The two existing access points on the north side of SH 82, private access and the access to the Wind River Tree Farm, shall be consolidated into a new access at the intersection of SH 82 and Willits Lane (North). This new access will result in the intersection of SH 82 and Willits Lane (North) becoming a four-legged intersection. In addition, this intersection should be signalized immediately.

Segment No. 4 - Willits Lane (North) to Original Road

No new accesses shall be permitted along this segment of SH 82. The two existing access points on the north side of SH 82 (north frontage road and the access to the Christ Community Church) shall be eliminated. The frontage road should be extended to the south to connect with Original Road. In addition, a connection should be provided from Original Road to Willits Lane. The intersection of SH 82 and Original Road should be signalized once it meets the *Manual on Uniform Traffic Control Devices* traffic signal warrants. The existing access at the north end of the frontage road needs to available to emergency vehicles only.

Segment No. 5 - Original Road to Willits Lane/Two Rivers Road

No new accesses shall be permitted along this segment of SH 82.

Segment No. 6 - Willits Lane/Two Rivers Road to Emma Road

No new accesses shall be permitted along this segment of SH 82.

SH 82 is able to achieve the desired traffic signal progression efficiency required by the Colorado Department of Transportation, as stated in the *State Highway Access Code.*

Eagle County, the Town of Basalt and the Colorado Department of Transportation should include these eleven projects in the next update to the *Intermountain Regional Transportation Plan.*

II. INTRODUCTION

SH 82 runs along the Roaring Fork Valley. It connects the Towns of Aspen, Snowmass Village, Basalt, Carbondale, and Glenwood Springs as well as the rural portion of south-western Eagle County. For motorists desiring to travel by automobile along the Roaring Fork Valley, SH 82 is the only continuous available route for them to use. During the winter months, SH 82 ends at Aspen because Independence Pass is closed.

As a result of the tremendous growth in traffic along SH 82, the Colorado Department of Transportation evaluated several alternatives for dealing with the traffic problems. As a result of these environmental studies, the decision was made that SH 82 should be four-laned through Eagle County. Prior to the widening of SH 82 in Eagle County, old SH 82 provided direct access into the Town of Basalt. However, it was not possible to widen old SH 82 in Eagle County along the existing alignment due to severe right-of-way constraints. Therefore, the widening of SH 82 in Eagle County involved the construction of a bypass route to the west of the Town of Basalt. This widening left a three-mile section of old SH 82 two lanes running parallel to new SH 82 and through the Town of Basalt.

Since SH 82 is a part of the State Highway System, decisions on where access should be permitted is controlled by the *State Highway Access Code* (State of Colorado, Volume 2, CCR 601-1, August 31, 1998). In administering the *State Highway Access Code,* each segment of the state highway system is assigned an access category. For SH 82, the Colorado Department of Transportation has assigned an Access Category of E-X (Expressway). The concept of controlling access is to ensure each state highway is able to achieve the desired level of performance.

The relative importance of SH 82 is viewed from four perspectives, that of the Colorado Department of Transportation (the owner), Eagle County, the Town of Basalt, and the users of the roadway. It is safe to say that all four perspectives view SH 82 as being a critical element of their respective roadway system. The Colorado Department of Transportation and Eagle County want to minimize where access is permitted along SH 82 to ensure that it can handle as many vehicles as possible with the fewest number of accidents. The Colorado Department of Transportation has made and is continuing to make a major investment in the SH 82 corridor. There is strong interest in protecting this investment. The Town of Basalt believes that its residents require reasonable access to SH 82. SH 82 has three traffic signals controlling access points into and out of the Town of Basalt. Traffic is transferred to old SH 82, allowing lower speed limits and ease of exit to residential and business streets. While moving automobiles, SH 82 is also used by the Roaring Fork Transit Authority to transport a significant number of bus riders on a daily basis. Due to the number of vehicles traveling along SH 82 as well as the speed these vehicles are traveling at, bus riders are faced with challenges in safely getting across SH 82. While expressway type facilities do not normally have a significant number of pedestrians and bicyclists, amenities need to be provided on SH 82 so that those pedestrians and bicyclists are provided with a safe environment. The Town of Basalt believes strongly that design considerations at all new or improved access points for SH 82 should give equal consideration to pedestrian/bicycle, transit and vehicular modes of transportation.

There is a realization by all levels of government that the four-laning of SH 82 will not be able to meet the long-range mobility needs of the Roaring Fork Valley. As a result of this realization, the governments along the Roaring Fork Valley have come together to identify the need to construct a rail line between Aspen and Glenwood Springs. The first step in fulfilling this goal is the purchasing of the Denver and Rio Grande Railroad rail right-of-way. A majority of this rail right-of-way will be used for the rail line.

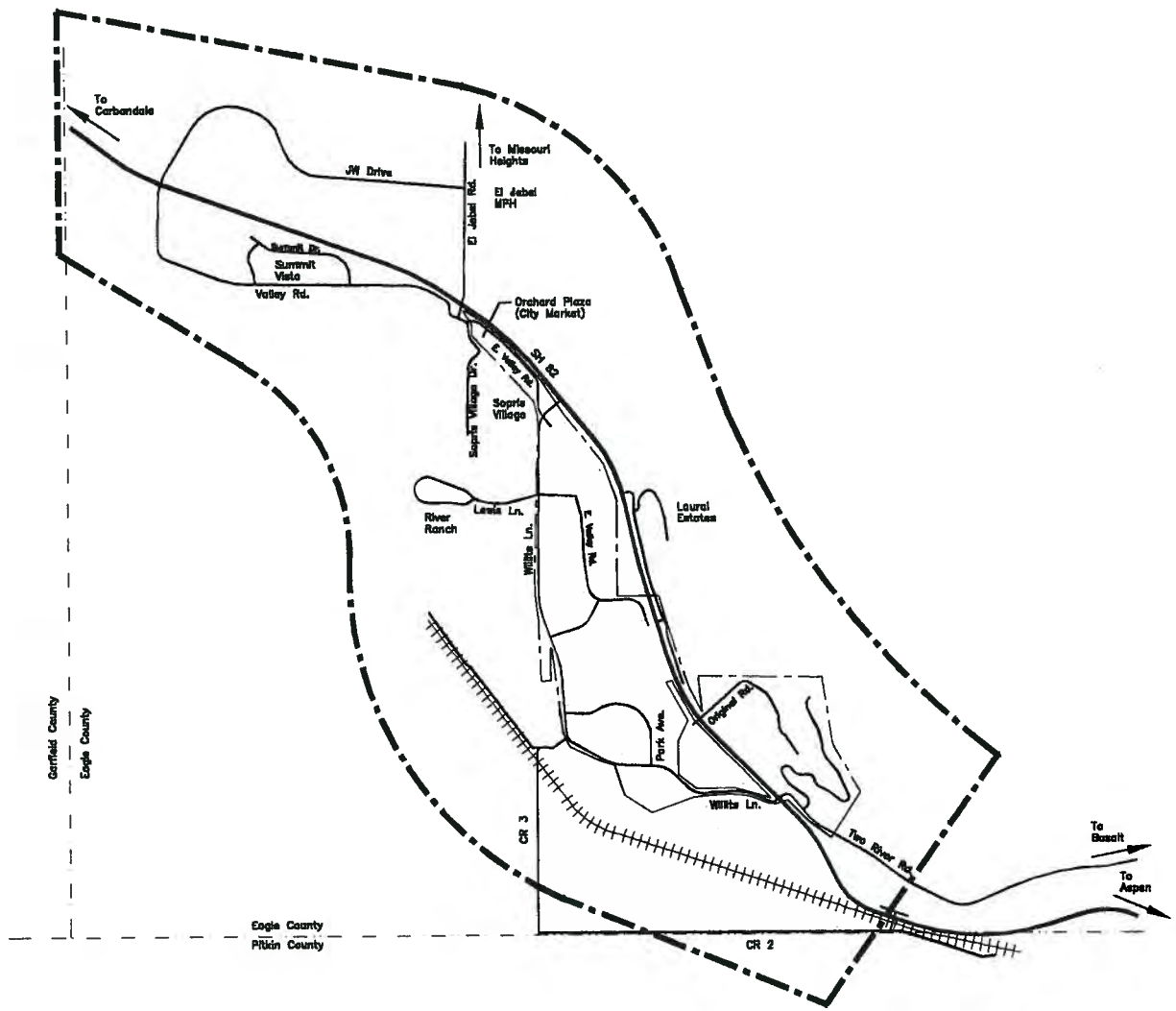
The *State Highway Access Code* provides a general description of the various types of access categories. These categories consist of:

- Interstate System, Freeway Facilities (F-W)
- Expressway, Major Bypass (E-X)
- Rural Highways
  - Regional Highway (R-A)
  - Rural Highway (R-B)
- Non-Rural
  - Regional Highway (NR-A)
  - Arterial (NR-B)
  - Arterial; (NR-C)
- Frontage Roads (F-R)

SH 82 has an access category designation of "Expressway" in Eagle County. The *Access Code* states that "*this category is appropriate for use on highways that have the capacity for high speed and relatively high traffic volumes in an efficient and safe manner.*" It also goes on to state that "*direct access service to abutting land is subordinate to providing service to through traffic movements.*"

The *Access Code* also provides very specific guidelines for where access will be permitted for an expressway facility. It states that "*typical spacing of intersecting streets, roads, and highways shall be planned on intervals of one mile and normally based upon section lines where appropriate. One-half mile spacing of public ways may be permitted to the highway only when no reasonable alternative access to the general street system exists.*" The *Access Code* also states that "*no private property access may be permitted unless reasonable access cannot be obtained from the general street system.*".

Access decisions relative to SH 82 are normally made based on the guidelines contained within the *State Highway Access Code.* However, the *Access Code* does provide for the development of an *Access Control Plan.* The *Access Control Plan* provides the Colorado Department of Transportation and the appropriate local authority with a comprehensive roadway access design plan for a designated portion of the state highway system. This plan needs to balance the transportation planning objectives of the local jurisdiction and the Colorado Department of Transportation. The plan "*shall not preclude the current or future accommodation of other transportation modes of bicycle, pedestrian, and transit.*" Figure 1 depicts the planning area for the development of the *Access Control Plan* for SH 82.



N

Approximate Scale
Scale: 1" = 3,000'

LEGEND:

Basalt Town Limits

Figure 1

Study Area

February, 2002
SH 82 Access Control Plan (LSC #001790)

III. EXISTING CONDITIONS

Roadway System

The existing roadway system for the *SH 82 Access Control Plan* is depicted in Figure 2. The primary roadways include:

- SH 82: This roadway connects the Towns of Glenwood Springs, Carbondale, Basalt, Snowmass Village and Aspen as well as the rural areas of Garfield, Eagle and Pitkin Counties. To reflect the importance of this roadway to not only the Roaring Fork Valley by the rest of the State, the Colorado Department of Transportation has included this roadway as a part of the National Highway System. Within Eagle County this roadway has been widened to four lanes. The speed limit varies from 55 to 65 mph.

- SH 82 Business (Two Rivers Road): Prior to the construction of the SH 82 bypass near Basalt, all traffic on SH 82 used this roadway. Now with the construction of the SH 82 bypass, only traffic desiring to access the Town of Basalt uses this roadway. It is a narrow two-lane roadway. At SH 82, this roadways forms a four-legged intersection with Willits Lane and is controlled by a traffic signal. The Town of Basalt has functionally classified this roadway as an arterial in its *Master Plan.*

- Willits Lane: This roadway is probably the most important local roadway. It intersects with SH 82 at the north and south end. At the south end, this roadway is controlled by a traffic signal, while at the north end, this roadway is controlled by a Stop sign. It consists of two lanes in its full length. Local residents use this roadway to access the Orchard Plaza commercial center which is located on the north, the Basalt Trade Center, and the Basalt Industrial Park. Motorists sometimes find it difficult to enter SH 82 at the north end of Willits Lane during the peak periods. Rather than wait at this unsignalized intersection, motorists will drive to the existing El Jebel Road intersection, since this intersection is controlled by a traffic signal. The Town of Basalt has functionally classified this roadway as a collector roadway in its *Master Plan.*

- Valley Road: This roadway begins at the intersection of SH 82 and JW Drive and ends at Sopris Valley Drive. It is controlled by a Stop sign at each end. It has a posted speed limit of 25 mph. Residents will use this roadway to access the proposed Mount Sopris Tree Farm development which will include the Eagle County offices and several recreational facilities. Motorists have difficulty entering SH 82 from Valley Road and JW Drive, and therefore they will drive to the existing El Jebel Road intersection, since it is controlled by a traffic signal. In fact, most Blue Lake residents prefer the El Jebel Road intersection for accessing SH 82. The Town of Basalt has functionally classified this roadway as a collector roadway in its *Master Plan.* The *Eagle County Land Use Regulations* classify this roadway as a Suburban Residential Collector.

- East Valley Road: This roadway is not fully developed. The northern section begins at Sopris Village Drive on the north and ends at Willits Lane. The southern section

begins at Lewis Lane on the north and ends at Original Road on the south. The section between Willits Lane and Lewis Lane will be completed as a part of the Sopris Meadows development. The Town of Basalt has functionally classified this roadway as a collector roadway in its *Master Plan.* The *Eagle County Land Use Regulations* classify this roadway as a Suburban Residential Collector.

- El Jebel Road: This roadway begins on the south at SH 82 and extends north. It provides residents of the El Jebel area and Missouri Heights with direct access to SH 82 and the Orchard Plaza commercial development. It consists of a two-lane, paved roadway. There are no sidewalks on either side. The design of the El Jebel Road intersection with SH 82 and Valley Road is confusing to motorists due to right-of-way limitations. The Town of Basalt has functionally classified this roadway as an arterial in its *Master Plan.* The *Eagle County Land Use Regulations* classify this roadway as a Rural Major Collector.

- JW Drive: This roadway begins on the west at SH 82 and extends to the east where it ends at El Jebel Road. It provides residents of the Blue Lake subdivision with access to SH 82 on the west and the El Jebel area on the east. It has a posted speed limit of 25 mph. The only fire station for the El Jebel area is located along this roadway. Motorists have difficulty entering SH 82 from Valley Road and JW Drive, and therefore they will drive to the existing El Jebel Road intersection, since it is controlled by a traffic signal. In fact, most Blue Lake residents prefer the El Jebel Road intersection for accessing SH 82. The Town of Basalt has functionally classified this roadway as a collector roadway in its *Master Plan.* The *Eagle County Land Use Regulations* classify this roadway as a Suburban Residential Collector.

- Willits Lane (Extended): This roadway does not currently exist. This roadway will be completed as a part of the Kodiak Park PUD and Blue Ridge PUD. It will begin on the south at the intersection of SH 82 and Willits Lane and end at El Jebel Road. This roadway has not been functionally classified by the Town of Basalt as of the preparation of this report. Kodiak Park PUD has received sketch plan approval from Eagle County. The Blue Ridge PUD has received preliminary plan approval from Eagle County.

  This roadway will begin at SH 82 at the intersection of SH 82 and extend in a north and west direction until it reaches El Jebel Road. The access with SH 82 at Willits Lane has not been approved by CDOT. Court action has taken place relative to the Kodiak Park PUD development which has granted this development two access points with SH 82.

Figure 3 depicts the location of the existing access points along SH 82 in Eagle County. The number of access points varies by direction. Table 1 contains a listing of the access locations as well as an identification of the allowable movements and type of traffic control device in use. As can be seen from Figure 3 and Table 1, there are eight access points in the eastbound/southbound and westbound/northbound directions. All but one of these access points are full movement accesses. Only two of the access points are controlled by a traffic signal.

Transit System

Local governments within the Roaring Fork Valley have made a major commitment to providing residents and visitors of the Roaring Fork Valley with an excellent transit system -- Roaring Fork Transit Agency (RFTA). Figure 4 depicts the routes for the RFTA bus system within Eagle County.

As can be seen in Figure 4, RFTA has two bus routes that serve the El Jebel/Basalt area. The first route follows Two Rivers Road (SH 82 Business) until it reaches SH 82. At SH 82, the routes follows SH 82 until it reaches El Jebel Road where it follows El Jebel Road to JW Drive. At JW Drive, the route travels along JW Drive until it reaches SH 82 where it continues along SH 82. The other bus route follows SH 82 for its full length in Eagle County. Figure 4 also depicts locations of bus stops. At El Jebel Road, a pedestrian underpass exists to facilitate bus riders access across SH 82. There is an existing bus stop at Original Road which presents bus riders with the daunting task of crossing SH 82 without the aid of any type of traffic control devices.

Besides these existing bus routes, there are two transit-related improvements along the SH 82 corridor in Eagle County which will have an impact on SH 82 -- rail transit system and a local bus feeder system for the Town of Basalt.

Rail Transit System: A recently completed environmental impact statement is recommending the implementation of rail service along the SH 82 corridor from Glenwood Springs to Aspen. This proposed rail transit service would, for the most part, follow the existing railroad right-of-way. However, in Eagle County the locally preferred alternative is to follow existing SH 82 on the south side. One station is proposed for the El Jebel area. The exact location has not been selected. Two locations are under consideration -- El Jebel Road and Willits Lane (North). Figure 5 depicts the location of the proposed rail line as well as the two possible locations for the rail station in the El Jebel area.

Local Feeder System: RFTA has adopted a Transit Development Program (TDP) which identifies the need for developing a local bus feeder service in the Basalt/El Jebel area. The TDP does not identify specific locations for routes and bus stops. This will be done as part of a more comprehensive evaluation of this proposed service.

The development of the *SH 82 Access Control Plan* needs to take into account the location of existing and proposed transit facilities. It is also appropriate that this Plan identify where existing and/or proposed transit facilities should be relocated to better integrate with the accesses along SH 82.

Pedestrian System

The Town of Basalt in its *Master Plan* identifies the location of existing and proposed trails. Existing and proposed trails are identified in Figure 6. As it relates to the *SH 82 Access Control Plan*, proposed trails are:

- North side of SH 82 El Jebel Road and the existing frontage road;
- Willits Lane from SH 82 to SH 82 (trail connection o be completed in November 2001);
- East Valley Road between Lewis Lane and Original Road;
- Two Rivers Road from SH 82 to Midland; and
- El Jebel Road from SH 82 north.

The Town of Basalt is committed to providing its residents with a well defined pedestrian/bicycle trail system. In fact, the Town's *Comprehensive Master Plan* includes a number of new trails which for the most part appear in Eagle County's *Trails Master Plan.* The development of a comprehensive trail system is designed to encourage residents to get out of their cars for some of their trips. This will directly benefit SH 82 by slowing the traffic rate of growth.

Traffic Volumes

Traffic volumes along SH 82 have experienced a dramatic growth. Four locations have been examined which demonstrate this fact -- Catherine to El Jebel Road, El Jebel Road to Willits Lane (North), Willits Lane (North) to Willits Lane (South), and Willits Lane (South) to Emma Road (Eagle County Road 2). The annual growth rate from 1988 to 1998 has ranged from a low of four percent (Willits Lane to Emma Road) to a high of seven percent (El Jebel Road to Willits Lane). This information was obtained from traffic volume maps produced by the Colorado Department of Transportation. Table 2 contains the traffic volumes for each segment by year while Figure 7 depicts the Year 2000 average daily traffic volumes along SH 82. These traffic counts were taken in January, 2001. Figure 8 depicts the graph of this growth. Appendix A contains the raw peak-hour traffic count data.

Turning movement traffic volumes have also been collected at the major intersections along SH 82. Specifically, the locations where these counts have been taken are JW Drive, El Jebel Road, Willits Lane (North), Original Road, Willits Lane (South), and Emma Road. These traffic volumes were collected in the spring of 2001 by Counter Measures, Inc. for both the morning and evening peak-hours. Figure 9 depicts the morning and evening peak-hour traffic volumes at the major intersections along SH 82.

Traffic Operations

An evaluation of the intersection turning movement traffic counts was conducted. The evaluation was conducted using procedures outlined the 1997 *Highway Capacity Manual.* The *Highway Capacity Manual* defines six Levels of Service, ranging from excellent (LOS "A") to unacceptable (LOS "F). What follows is a short description of each LOS category, according the *Highway Capacity Manual* for a freeway/expressway condition.

Level of Service A - This LOS describes free-flow operations. Free-flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. Delay at signalized intersections is minimal.

Level of Service B - This LOS represents reasonable free flow and free-flow speeds are maintained. The lowest average spacing between vehicles is about 330 feet or about 17 car lengths. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high. The effects of minor incidents and point breakdowns are still easily absorbed.

Level of Service C - This LOS provides for flow with speeds at or near the free-flow speed of the freeway. Freedom to maneuver within the traffic stream is noticeably restricted at LOS C, and lane changes require more care and vigilance on the part of the driver. Minimum average spacings are in the range of 220 feet, or eleven car lengths. Minor incidents may still be absorbed, but the local deterioration in service will be substantial. Queues may be expected to form behind any significant blockage.

Level of Service D - This LOS is the level at which speeds begin to decline slightly with increasing flows. In this range, density begins to increase somewhat more quickly with increasing flow. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels. Even minor incidents can be expected to create queuing, because the traffic stream has little space to absorb disruptions. Minimum average vehicle spacings are about 165 feet, or eight car lengths.

Level of Service E - This LOS describes operation at capacity. Operations at this level are volatile, there being virtually no usable gaps in the traffic stream. Vehicles are spaced at approximately six car lengths, leaving little room to maneuver within the traffic stream at speeds that are still over 49 mph. Any disruption to the traffic stream, such as vehicles entering from a ramp or a vehicle changing lanes, can establish a disruption wave that

propagates throughout the upstream traffic flow. At capacity, the traffic stream has no ability to dissipate even the most minor disruptions, and any incident can be expected to produce a serious breakdown with extensive queuing.

Level of Service F - This LOS describes breakdowns in vehicular flow. Such conditions generally exist within queues forming behind breakdown points. Such breakdowns occur for a number of reasons: (1) traffic incidents that cause a temporary reduction in the capacity of a short segment; (2) points of recurring congestion exists such as merge or weaving areas; and (3) any location where the projected peak-hour flow rate exceeds the number of vehicles arriving is greater than the number of vehicles discharging.

The *Highway Capacity Manual* also describes the traffic condition for signalized intersections for the same six LOS conditions. What follows are these descriptions:

Level of Service A - This LOS describes operation with very low control delay, up to ten seconds per vehicle. This Level of Service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.

Level of Service B - This LOS describes operations with control delay greater than ten and up to 20 seconds per vehicle. This Level of Service generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.

Level of Service C - This LOS describes operations with control delay greater than 20 and up to 35 seconds per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

Level of Service D - This LOS describes operations with control delay greater than 35 and up to 55 seconds per vehicle. At this Level of Service, the influence of congestion becomes more noticeable. Longer delays may result form some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

Level of Service E - This LOS describes operations with control delay greater than 55 and up to 80 seconds per vehicle. This Level of Service is considered by many agencies to the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent occurrences.

Level of Service F - This LOS describes operations with control delay in excess of 80 seconds per vehicle. This Level of Service, considered unacceptable to most drivers, often

occurs with over-saturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels.

The Colorado Department of Transportation and Eagle County have adopted LOS "D" as acceptable for the peak-hour intersection traffic operation. Figure 10 depicts the Level of Service for each of the traffic movements at the major intersections along SH 82. Overall, most of the traffic movements at these intersections are operating at an acceptable Level of Service (LOS "D" or better) in the morning and evening peak-hours. The exception is:

- Willits Lane (North).

Of those intersections where some or all of the traffic movements at the Stop controlled intersections are currently experiencing problems, only one of the intersections (Willits Lane - North) meets the *Manual on Uniform Traffic Control Devices* (MUTCD) peak-hour traffic signal warrants. This determination is based on the intersection turning movement traffic counts collected in the spring of 2001. Prior to the installation of this traffic signal, it would be advisable to collect additional traffic volumes to ensure that this intersection continues to meet MUTCD peak-hour traffic signal warrants.

Accident History

Motor vehicle accident data was provided by the Colorado Department of Transportation for the Eagle County portion of SH 82. Figure 11 depicts the location of these accidents along SH 82 in Eagle County. Table 3 contains a summary of the accident history for SH 82 from 1996 through 1999.

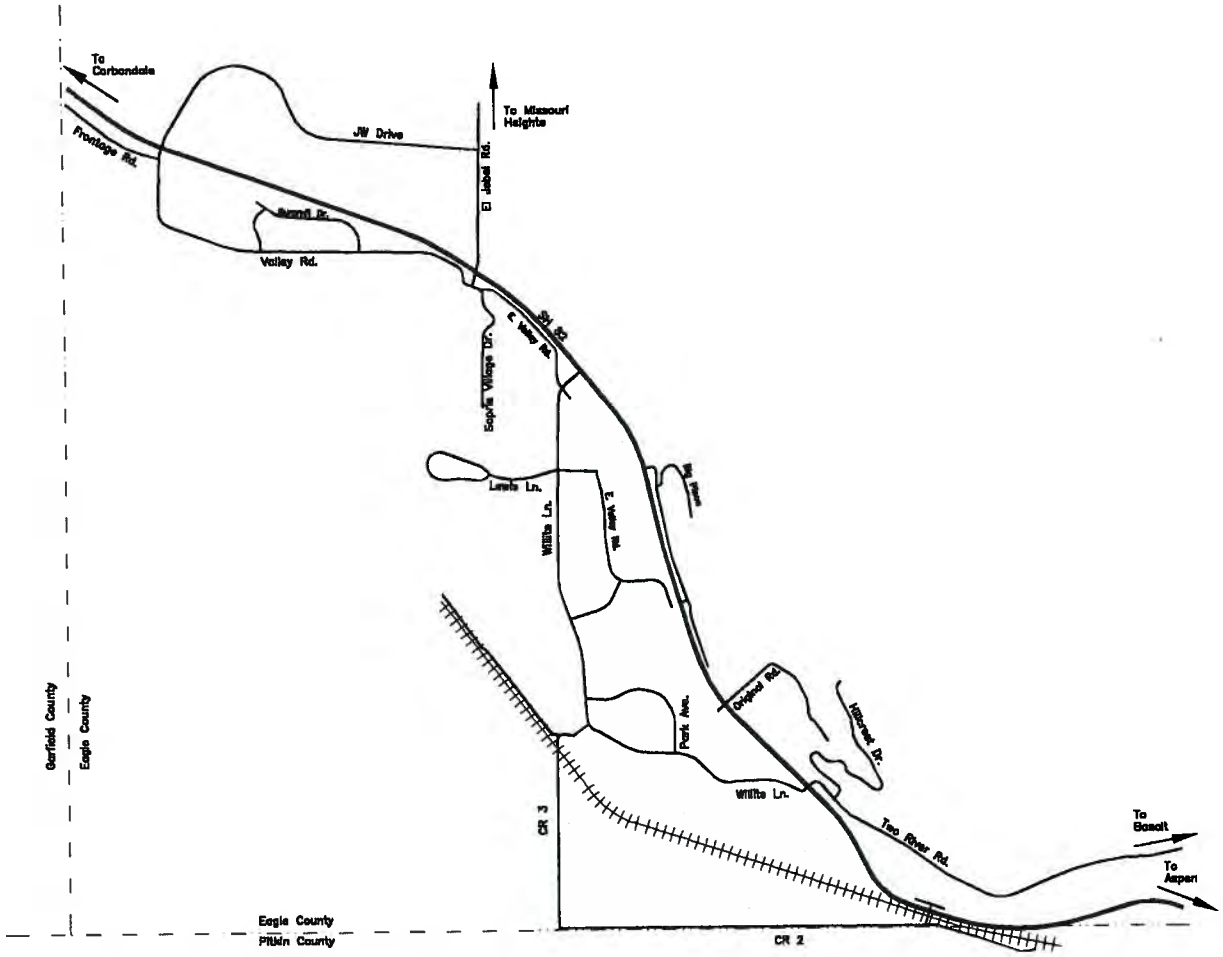
As can be seen in Table 3, this stretch of SH 82 had a total of 109 accidents. Only one of these accidents involved a fatality. The other 108 accidents were either injury or property damage. Injury accidents accounted for approximately 40 percent of the remaining accidents. The maximum number of accidents occurred in 1997 and 1998 with 31 accidents while the fewest number of accidents occurred in 1996 with 22 accidents.

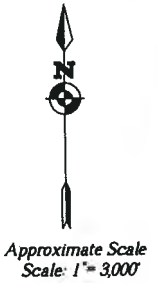
When one examines the location of these accidents, over one-half (56 accidents) took place between JW Drive and El Jebel Road. Some of the accidents along this stretch of SH 82 occurred before the intersection of SH 82 and El Jebel Road was signalized. The second most popular was between Willits Lane (North) and Original Road with 20 accidents. While SH 82 is a challenge for pedestrian to cross, only two of the 109 accidents involved a pedestrian. These two accidents occurred between JW Drive and El Jebel Road. The one fatality was a pedestrian. This accident occurred in the winter of 1996 at night with slush on the roadway.

The Town of Basalt also provided accident information for the Year 2000 for accidents along SH 82 that were within the Town limits. In 2000, a total of 21 accidents occurred on SH 82. Summarized below are the location of these 21 accidents. Almost 60 percent of the accidents in 2000 occurred at the intersection of Two Rivers Road/Willits Lane and

SH 82 which is controlled by a traffic signal. No information was provided by the Town of Basalt as to the nature of the accidents, so no determination can be made as to what the possible problem might be. Only one accident occurred at the intersection of Original Road and SH 82 which is controlled by a Stop sign on Original Road..

Number of Accidents	Accident Location
2	Mile Marker 20
2	Mile Marker 20.5
1	Mile Marker 20.6
1	Mile Marker 20.9
12	Two Rivers/Willits Lane
1	Mile Marker 21.1
1	Mile Marker 21.2
1	Original Road
21	Total



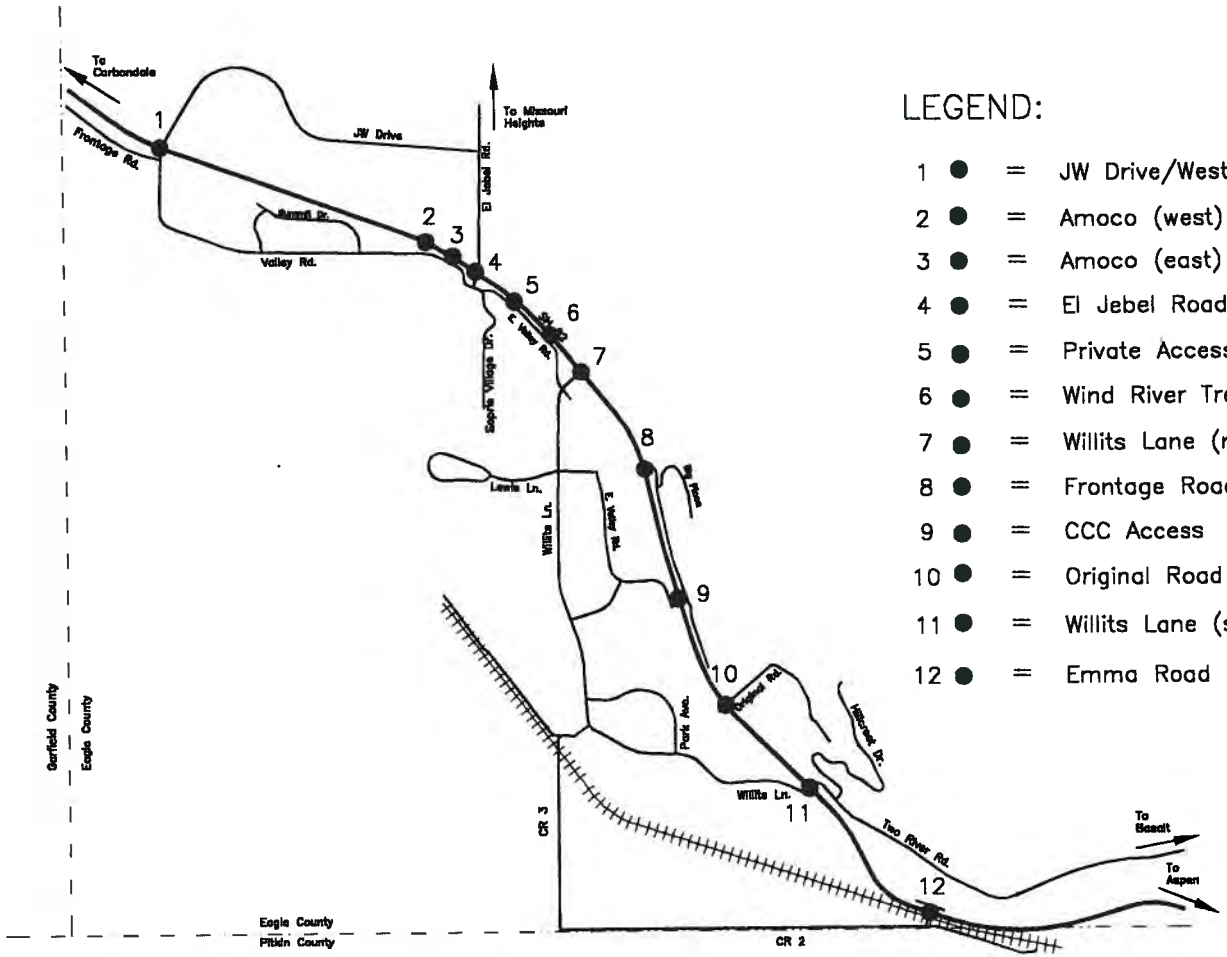


Approximate Scale
Scale: 1" = 3,000'

Figure 2

Existing Roadway System

February, 2002
SH 82 Access Control Plan (LSC #001790)



LEGEND:

1	●	=	JW Drive/West Valley Road
2	●	=	Amoco (west)
3	●	=	Amoco (east)
4	●	=	El Jebel Road
5	●	=	Private Access
6	●	=	Wind River Tree Property
7	●	=	Willits Lane (north)
8	●	=	Frontage Road Access
9	●	=	CCC Access
10	●	=	Original Road
11	●	=	Willits Lane (south)
12	●	=	Emma Road

N

Approximate Scale
Scale 1" = 3,000'

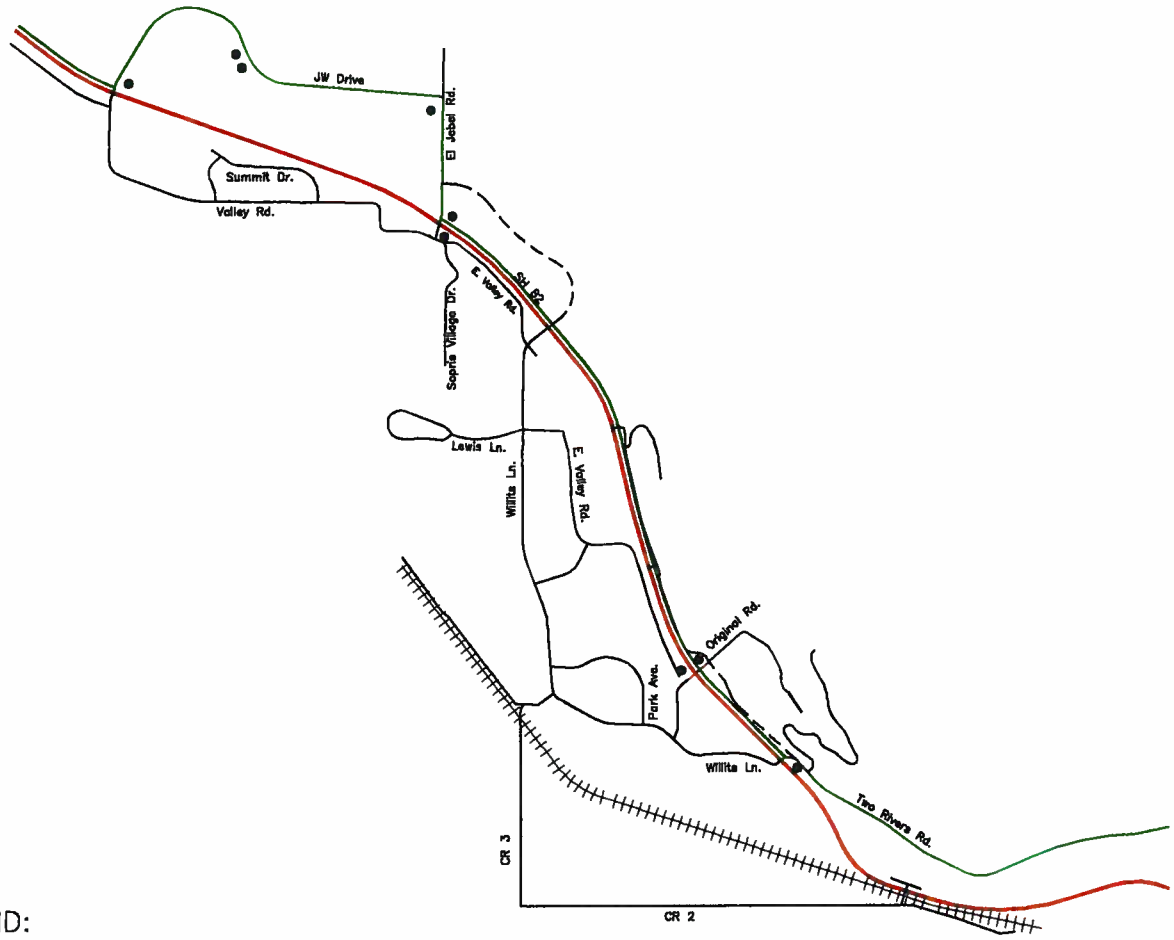
Figure 3

Existing Access Points

February, 2002
SH 82 Access Control Plan (LSC #001790)

Table 1
Existing Access Points on SH 82 in Eagle County

Access Point	Allowable Movements	Type of Access Control
Westbound		
Emma Road	Full Movement	Stop Control
Two Rivers Road	Full Movement	Signalized
Original Road	Full Movement	Stop Control
Christ Community Church Access	Full Movement	Stop Control
Frontage Road Access	Full Movement	Stop Control
Wind River Tree Property	Full Movement	Stop Control
Private Access	Right-in/Right-out	Stop Control
El Jebel Road	Full Movement	Signalized
JW Drive	Full Movement	Stop Control
Eastbound		
West Valley Road	Full Movement	Stop Control
Amoco (west entrance)	Full Movement	Stop Control
Amoco (east entrance)	Right-in/Right-out	Stop Control
El Jebel Road	Full Movement	Signalized
Willits Lane (North)	Full Movement	Stop Control
Original Road	Full Movement	Stop Control
Willits Lane (South)	Full Movement	Signalized
Emma Road	Full Movement	Stop Control



N

Approximate Scale
Scale: 1"= 3,000'

LEGEND:

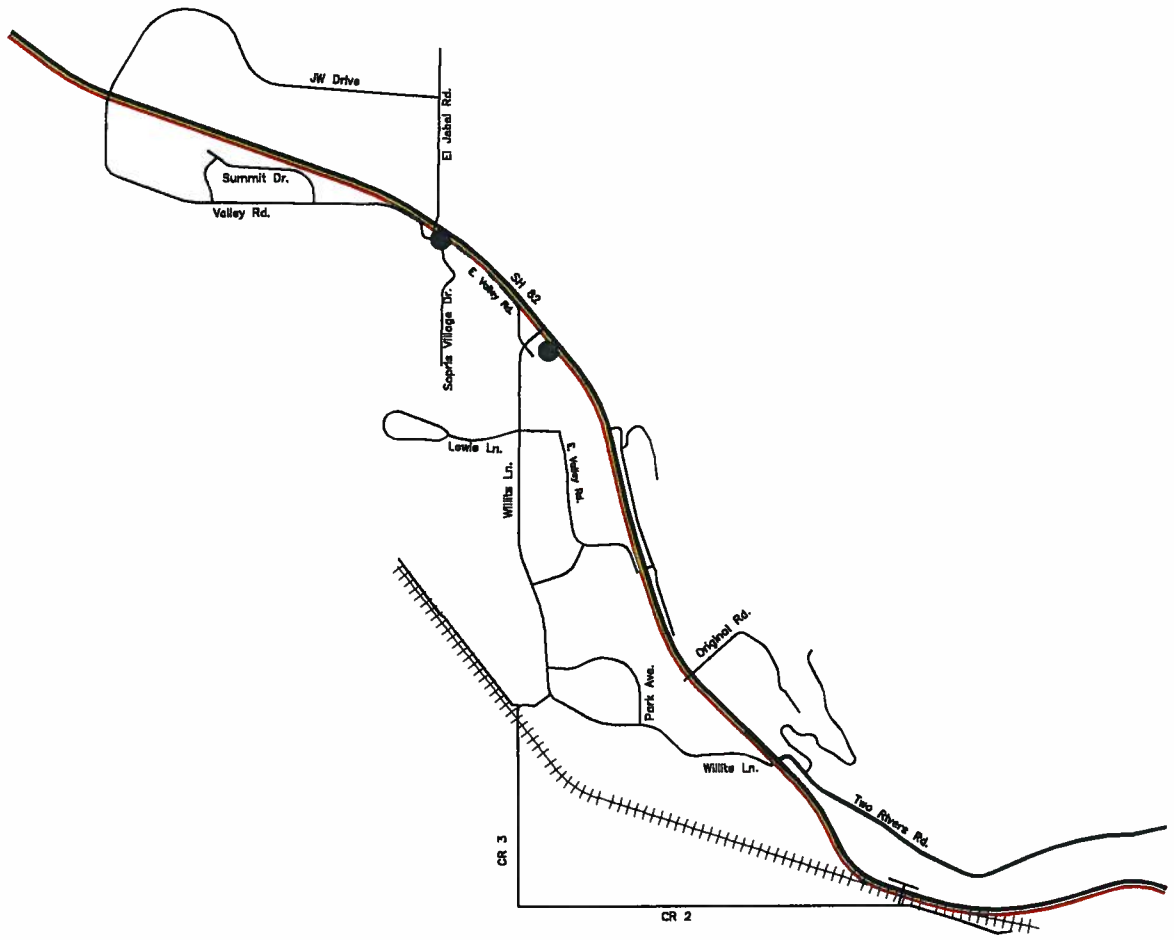
= Roaring Fork Transit Agency Bus Route

= Bus Stops

Figure 4

Existing RFTA Service

February, 2002
SH 82 Access Control Plan (LSC #001790)



N

Approximate Scale
Scale: 1"= 3,000'

LEGEND:

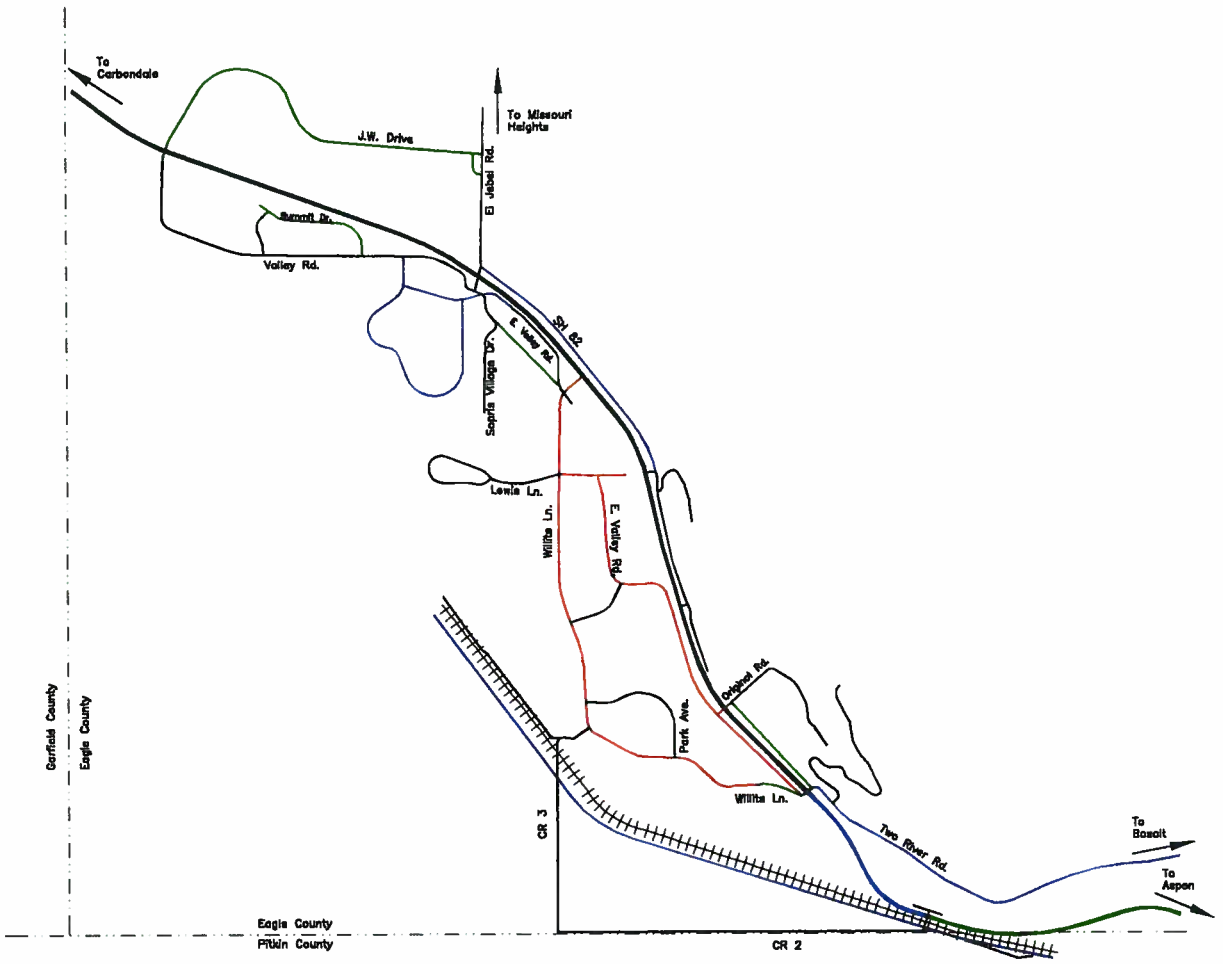
= Future Rail Line Location

= Possible Rail Station Location

Figure 5

Future Rail System

February, 2002
SH 82 Access Control Plan (LSC #001790)



Approximate Scale
Scale: 1"= 3,000'

LEGEND:

= Existing Trails

= Proposed Trails

= Trails in Progress

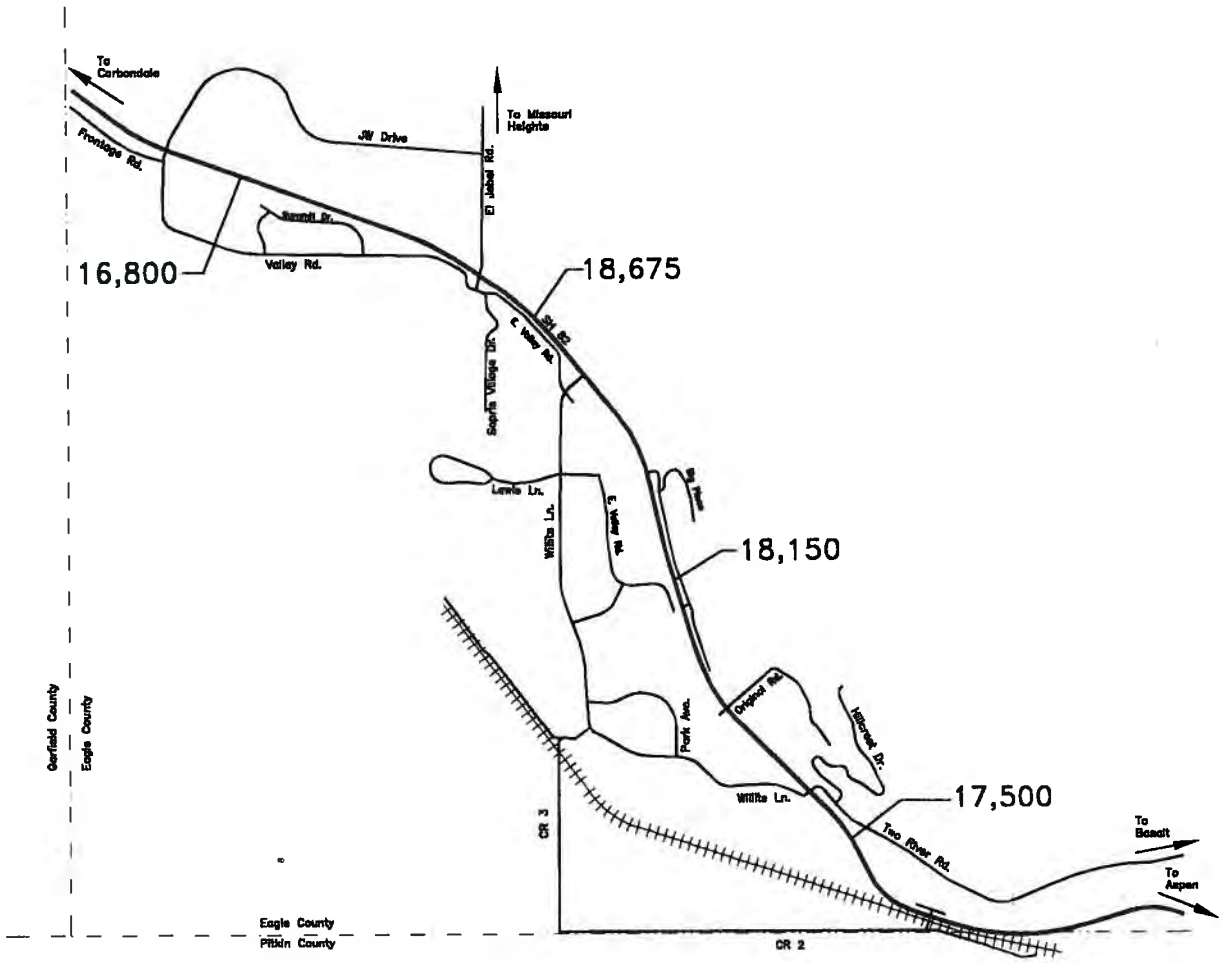
Figure 6

Existing and Future Trails

February, 2002
SH 82 Access Control Plan (LSC #001790)

Table 2
Historical Traffic Volumes
SH 82, Eagle County

	Year									
	1988	1989	1990	1991	1992	1993	1995	1996	1997	1998
Catherine to El Jebel Rd.	8,800	9,300	11,300	12,200	11,100	11,300	14,300	15,900	16,350	17,100
El Jebel Rd. to Willits Lane (North)	8,800	9,300	11,300	11,200	12,600	12,500	14,400	17,600	18,100	18,925
Willits Lane (North) to Two Rivers Rd.	9,850	7,500	9,400	9,500	11,000	12,200	12,800	17,200	17,675	18,500
Two Rivers Rd. to Emma Rd.	10,500	7,500	9,800	9,700	10,500	10,100	13,100	14,800	15,200	15,900



N

Approximate Scale
Scale: 1"= 3,000'

Figure 7

Year 2000 Average Daily Traffic Volumes

February, 2002
SH 82 Access Control Plan (LSC #001790)

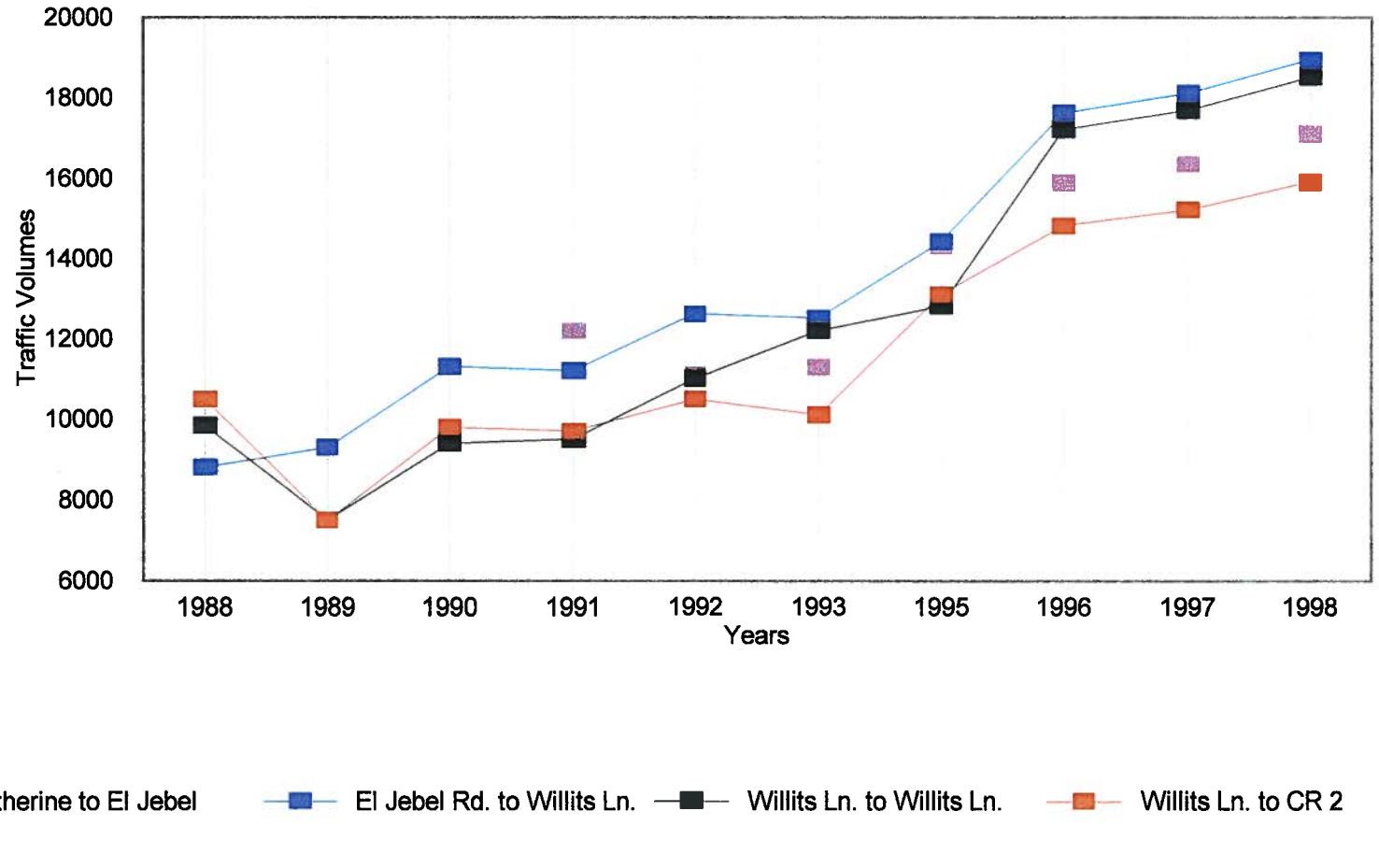
LEGEND:

18,675 = Average Daily Traffic

Figure 8

SH 82 Historical Traffic Growth

Eagle County, CO



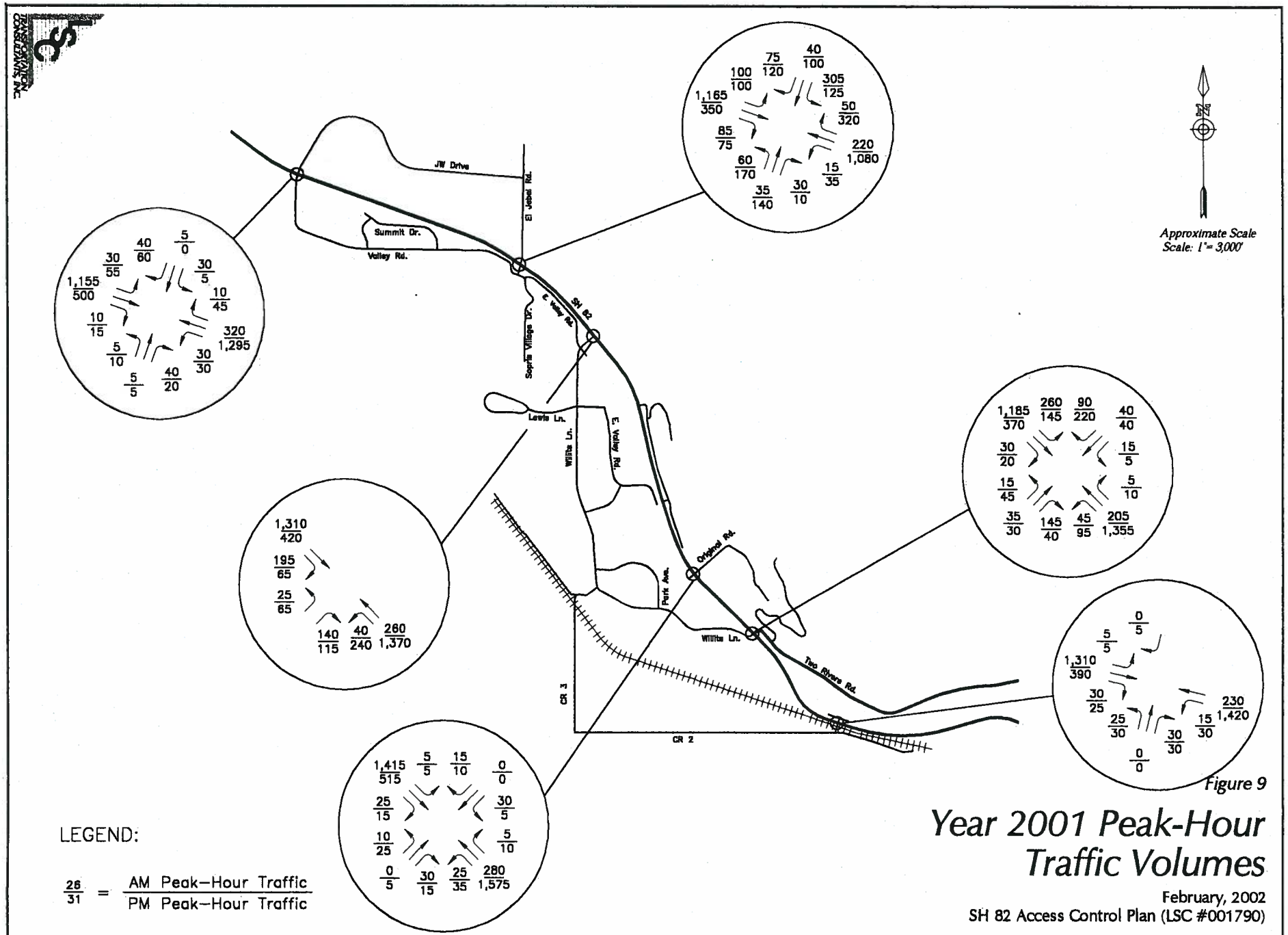


Figure 9

Year 2001 Peak-Hour Traffic Volumes

February, 2002
SH 82 Access Control Plan (LSC #001790)

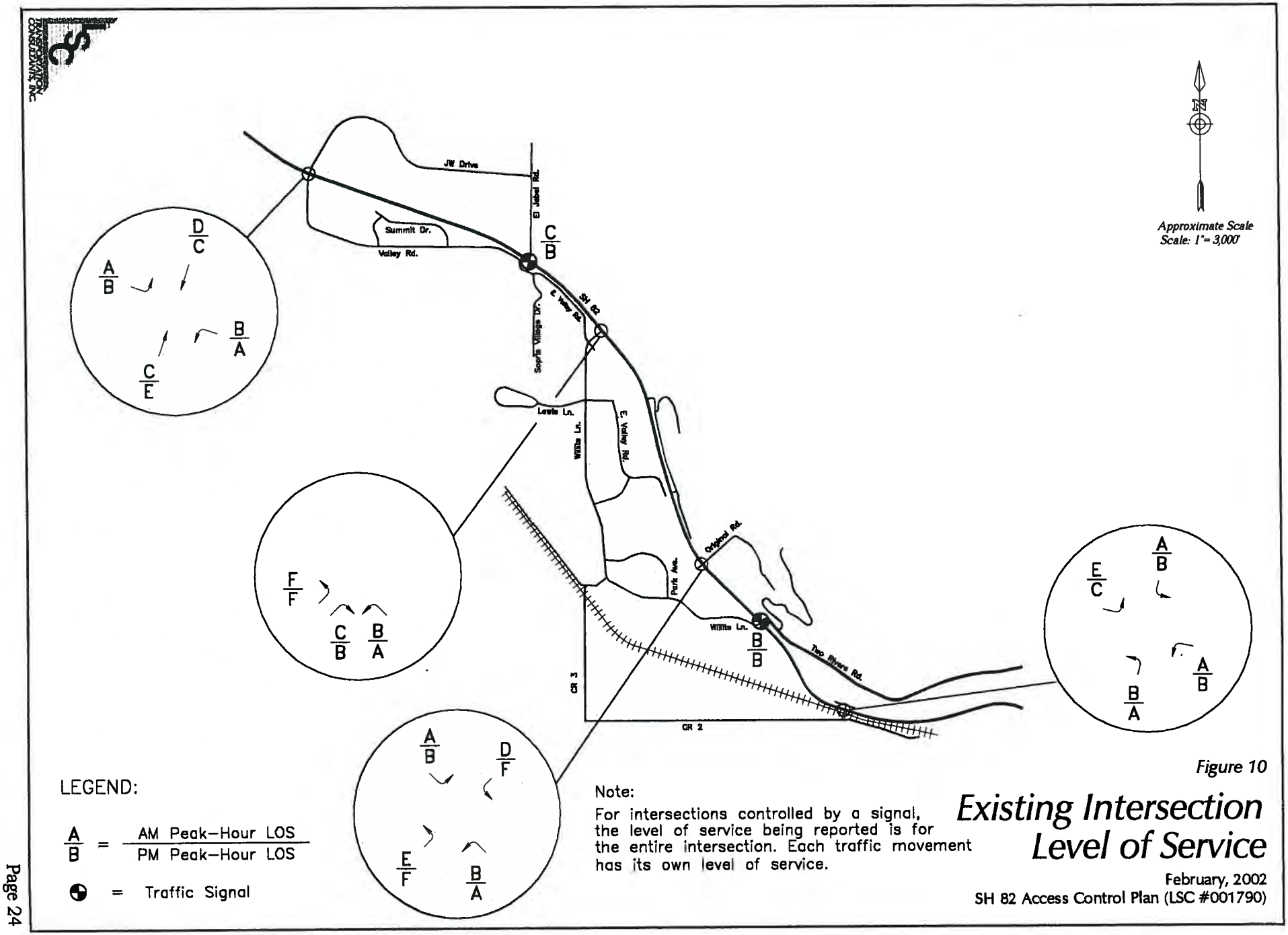
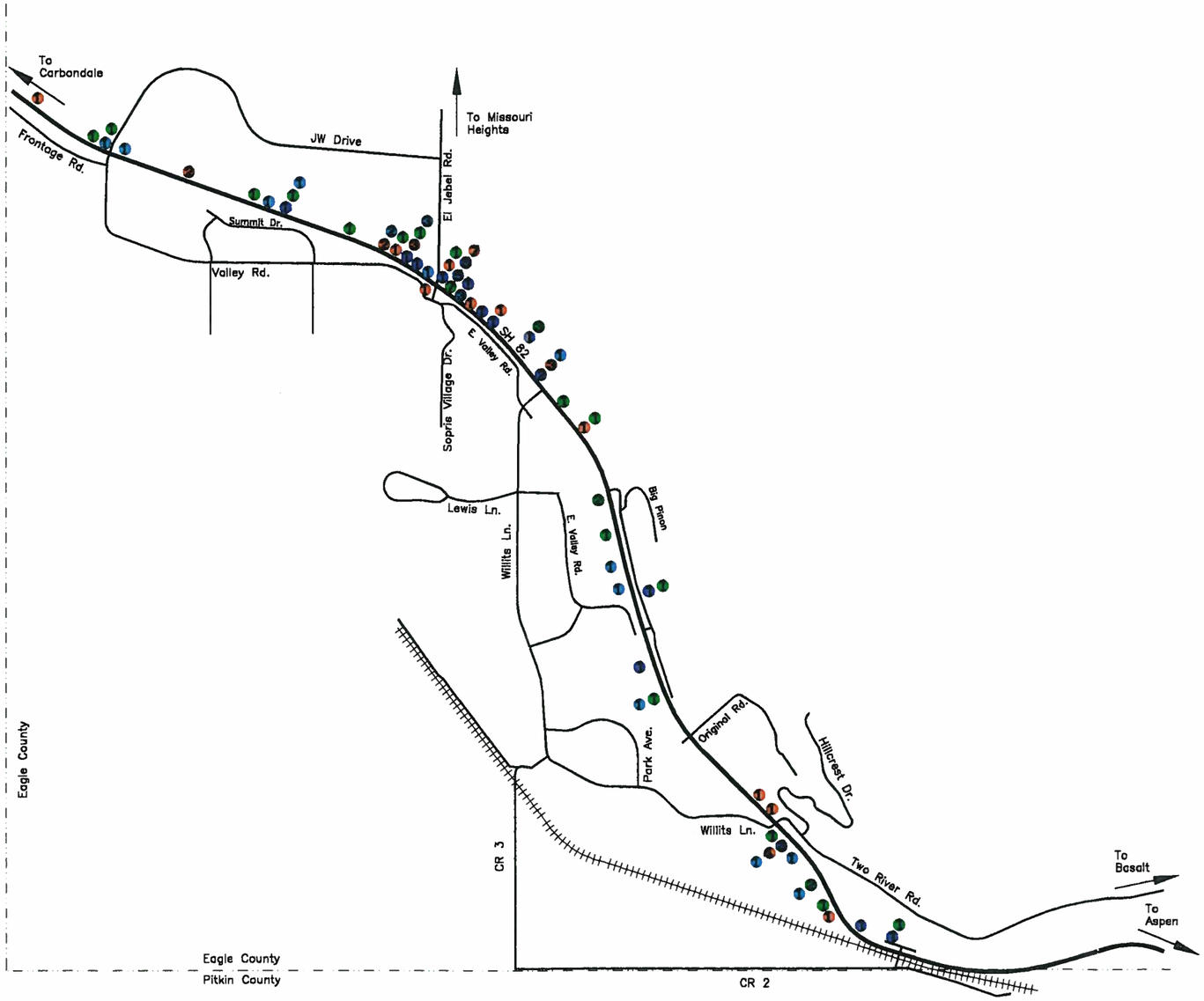


Figure 10

Existing Intersection Level of Service

February, 2002
SH 82 Access Control Plan (LSC #001790)



Approximate Scale
Scale: 1"= 2,000'

LEGEND:

- = Number of Accidents/Year 1996
- = Number of Accidents/Year 1997
- = Number of Accidents/Year 1998
- = Number of Accidents/Year 1999

LSC TRANSPORTATION CONSULTANTS, INC.

Figure 11

Historical Accident Locations (1996-1999)

February, 2002
SH 82 Access Control Plan (LSC #001790)

Table 3
Historical Accident Data
SH 82, Eagle County

Year	Accident Type			
	Fatal	Injury	Property	Total
1996	1	7	14	22
1997	0	14	17	31
1998	0	9	22	31
1999	0	13	12	25
Total	1	43	65	109

IV. PROJECTED FUTURE CONDITIONS

Development

A number of developments is planned for the SH 82 corridor. Some developments are just beginning the local development planning process while others have received approval for their final development plan. A survey was conducted to determine the number of proposed development and the level of development as well as the associated traffic levels, A total of five major developments was identified. Figure 12 depicts the location of these five major developments which are listed below:

- Sopris Meadows
  - 155 single-family homes
  - 339 multi-family homes
  - 262,000 square feet of mixed commercial uses

- Kodiak Park PUD
  - 42 dwelling units
  - 31,230 square feet of specialty retail
  - 3,040 square-foot restaurant
  - 18,700 square feet of general office
  - 36 apartments
  - 5,000 square feet of warehouse development
  - 4,000 square feet for a nursery
  - 3,000 square feet for a greenhouse
  - 4,000 square feet for a community center
  - 1,400 square-foot day care center
  - 7,700 square-foot health club
  - 50 rental units

- Crawford
  - 178 single-family homes
  - 79 multi-family homes
  - 370,000 square feet of commercial floor area

- Mount Sopris Tree Farm
  - 13,000 square-foot Eagle County government offices
  - Recreational sports fields

- Blue Ridge
  - 10 single-family homes
  - 45 multi-family homes
  - 100-room hotel/motel
  - 60,000 square feet of commercial uses

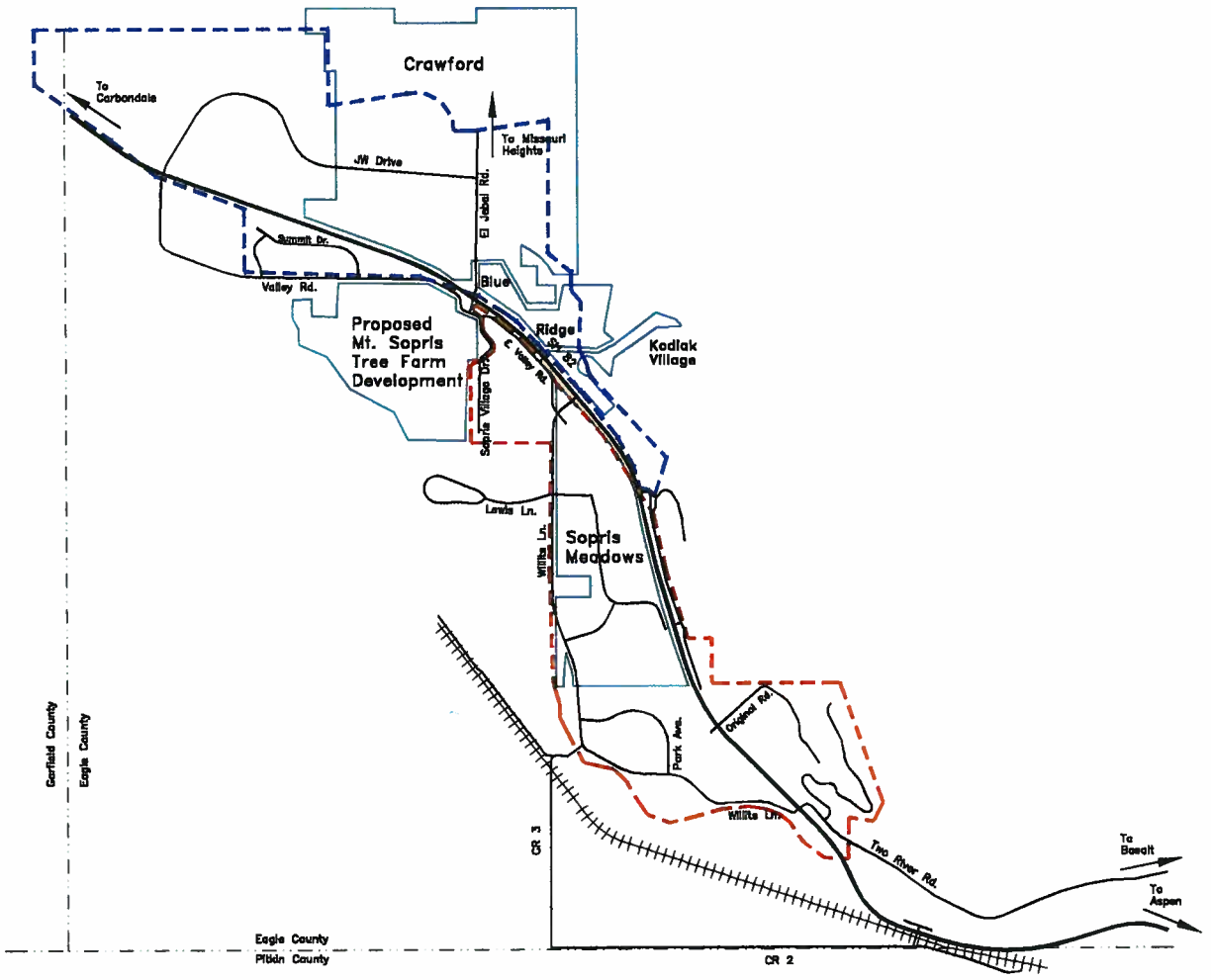
Figure 13 depicts the morning and evening peak-hour traffic volumes at the major intersections along SH 82 for the future developments depicted in Figure 12.

Traffic Levels

The development of an *Access Control Plan* must be based on what can reasonably be expected for the long range future. In this case, the Year 2021 has been selected as a reasonable long range planning horizon. Future year traffic volumes are made up of three primary components -- existing or background traffic, through traffic (traffic that has neither an origin nor destination within the corridor), and new traffic generated by yet undeveloped land areas along SH 82.

Figure 9 depicts the existing morning and evening peak-hour traffic volumes at the major intersections along SH 82. Through traffic on SH 82 is assumed to grow at an annual rate of about two percent per year which results in a 20-year growth factor of 1.50. This rate of growth is being forecasted by the Colorado Department of Transportation. Other traffic using SH 82 is assumed to have an annual growth rate of about one percent per year which results in a 20-year growth factor of 1.25. These rates are applied to the existing traffic volumes. In addition, traffic generated by new developments is then added to these increased traffic volumes to represent the traffic volumes that are expected to use SH 82 in Eagle County. These volumes are depicted in Figure 14.

With the creation of a Rural Transportation Authority, it is highly likely that the proposed rail line between Glenwood Springs and Aspen will be in place and operating by 2021. There is a higher probability that the Town of Basalt, in cooperation with RFTA, will establish a local bus circulator service. This new service will not only serve the residents of the Town of Basalt but the rural portions of Eagle County along SH 82, specifically El Jebel and Missouri Heights. In addition, if the Town of Basalt is able to construct all of the trails identified in their *Comprehensive Plan*, some residents will use these trails to meet a portion of their mobility needs, thereby reducing the number of vehicle-trips. While no detailed travel modeling was done for this *Access Control Plan*, it is assumed that the peak-hour traffic volumes depicted in Figure 14 are reduced by 15 percent to account for a shift from the private automobile to transit (local bus circulator service, existing express bus service, and the regional rail service), walking and bicycling. Figure 15 depicts the adjusted 2021 morning and evening peak-hour traffic volumes at the major intersections along SH 82.



Approximate Scale
Scale: 1" = 3,000'

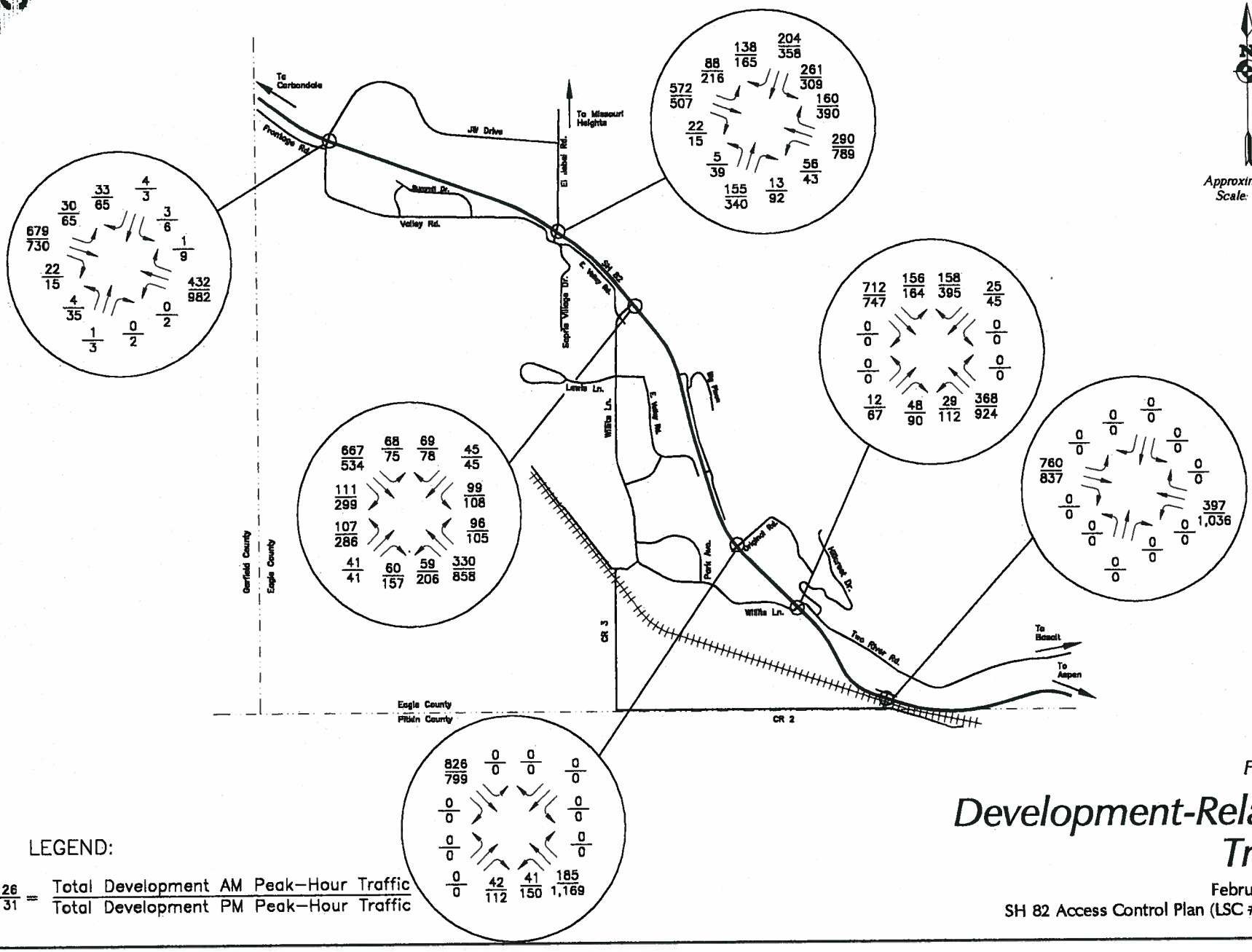
LEGEND:

- = Existing Basalt Town Limits
- = Eagle/Garfield Service Area
- = Boundary of Proposed Developments

Figure 12

Future Development Locations

February, 2002
SH 82 Access Control Plan (LSC #001790)



Approximate Scale
Scale: 1"= 3,000'

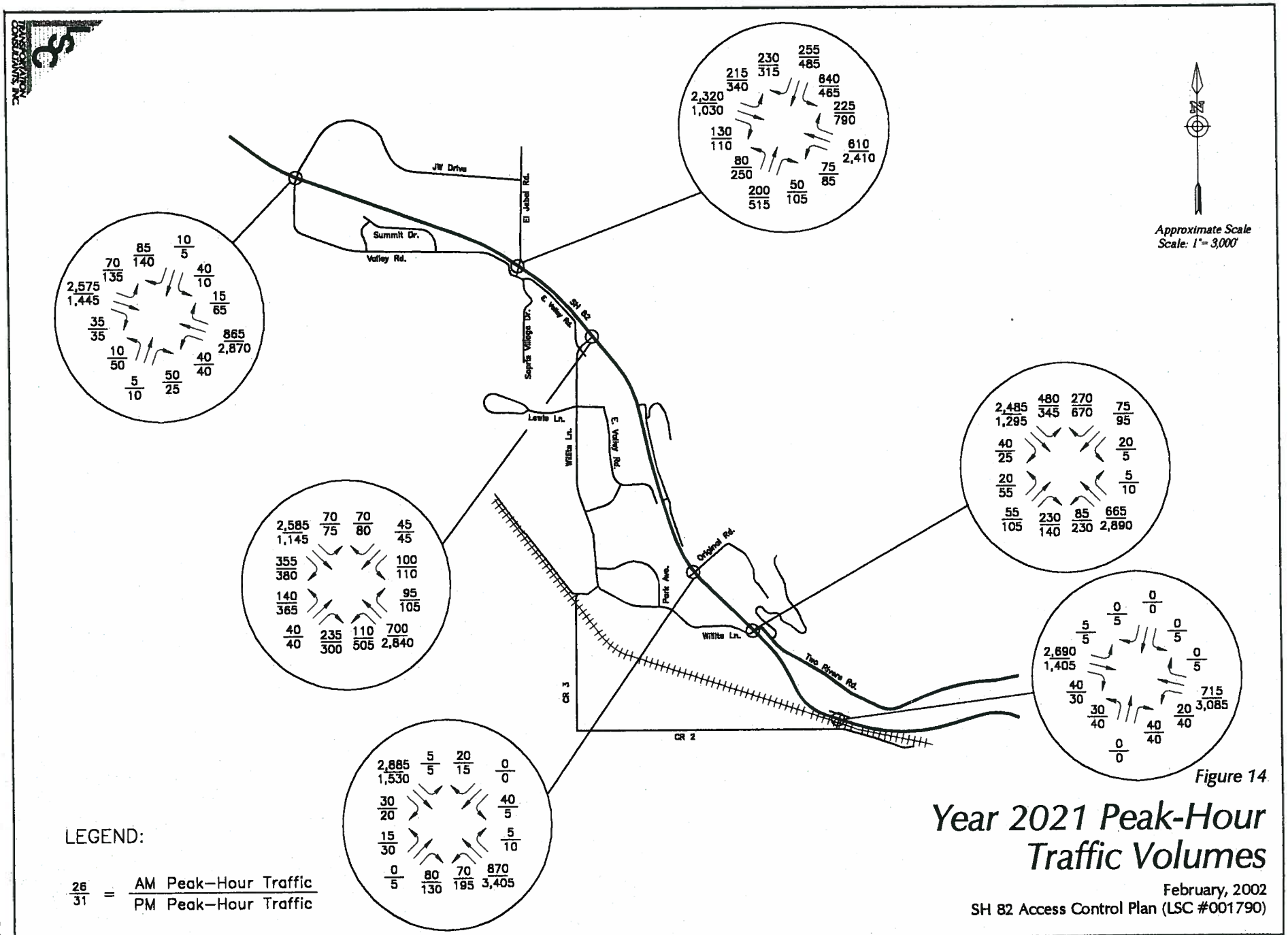
LEGEND:

$\frac{26}{31}$ = Total Development AM Peak–Hour Traffic / Total Development PM Peak–Hour Traffic

Figure 13

Development-Related Traffic

February, 2002
SH 82 Access Control Plan (LSC #001790)



N

Approximate Scale
Scale: 1"= 3,000'

Figure 14

Year 2021 Peak-Hour Traffic Volumes

February, 2002
SH 82 Access Control Plan (LSC #001790)

LEGEND:

$\frac{26}{31}$ = $\frac{\text{AM Peak-Hour Traffic}}{\text{PM Peak-Hour Traffic}}$

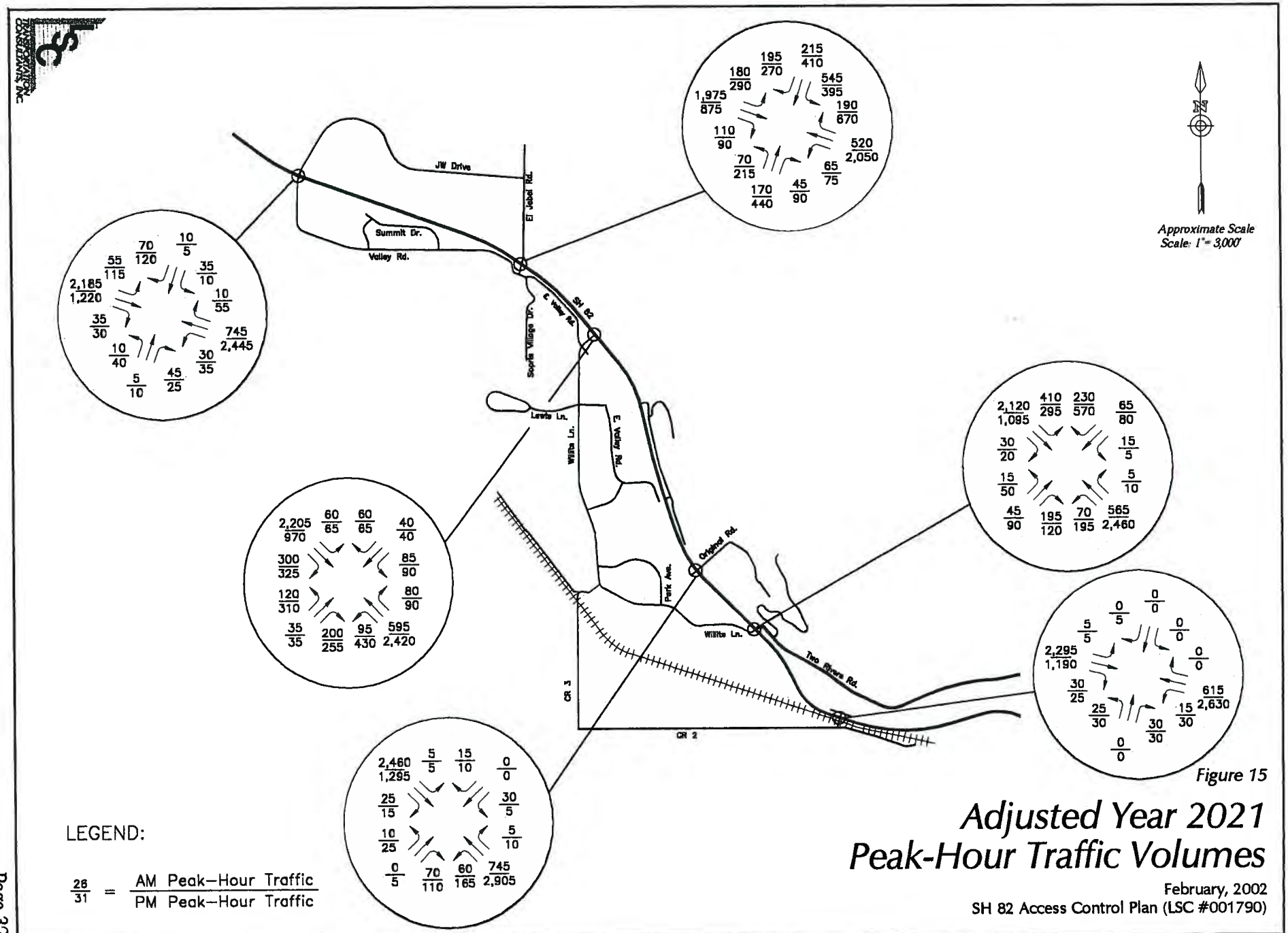


Figure 15

Adjusted Year 2021 Peak-Hour Traffic Volumes

February, 2002
SH 82 Access Control Plan (LSC #001790)

V. PUBLIC PARTICIPATION

The *State of Colorado State Highway Access Control Code* stipulates that "*at least one advertised public meeting shall be held during the development phase of the plan.*" Both Eagle County and the Town of Basalt felt that two public meetings should be held. Prior to both public meetings, an open house was held from 6:00 to 7:00 PM. The purpose of the open house was to provide citizens an informal environment to examine the information gathered so far, ask questions, and share concerns and issues.

The Town of Basalt and Eagle County provided a list of individuals who either live along SH 82 or have a direct interest in the outcome of the *Access Control Plan.* This list was periodically updated by the Town of Basalt and Eagle County. The individuals on this list were mailed an invitation directly. Newspaper ads were placed in four local newspapers - Glenwood Springs Independent, Aspen Times, Aspen Daily News, and the Eagle Valley Enterprise. The ad was placed twice in each newspaper. Appendix B contains a copy of the open house/public meeting notification.

The first public meeting was held on January 10, 2001 at the Blue Lake Homeowners Association Community Center. The purpose of the meeting was to present the information gathered along the SH 82 corridor and obtain citizen input relative to the issues and concerns about SH 82. Approximately 15 persons were in attendance at either the open house and/or public meeting.

The second public meeting was held on April 16, 2001 at the Blue Lake Homeowners Association Community Center. The purpose of the meeting was to present the draft *Access Control Plan* and to obtain citizen feedback as to the acceptability of the elements of the draft *Access Control Plan.* This open house/meeting was attended by about ten individuals.

Besides these two open house/public meetings, a one-half day charette was held on March 2, 2001 at the Basalt Fire Station. The attendance at this meeting was by invitation only. Staff from the Town of Basalt, Eagle County, and the Colorado Department of Transportation were in attendance along with representatives from the major developers along the corridor. The purpose of the meeting was to discuss access options for the corridor. This charette occurred between the January 10, 2001 and April 16, 2001 open house/public meeting. Approximately 15 persons were in attendance.

VI. ACCESS CONTROL PLAN

The SH 82 Access Control Plan presented in this section identifies the recommended access points as well as the type of traffic control along the entire corridor. However, if the level of development changes from what is contained on the original access permit, the owner of the property where the access is located must reapply to the Colorado Department of Transportation. The Colorado Department of Transportation will determine whether or not the property owner is allowed to keep the access. In addition, access points along the state highway system may be closed, moved, or modified when a state highway is reconstructed by the Colorado Department of Transportation.

The SH 82 corridor was subdivided into six segments. The limits of these segments are depicted in Figure 16.

Segment No. 1 - Eagle/Garfield County Line to JW Drive/Valley Road

No new accesses shall be allowed in this segment of SH 82. In addition, the intersection of JW Drive/Valley Road shall not be signalized. This intersection barely meets signal warrants in 2020. If this intersection were to be signalized, it might encourage some motorists to use it rather than the El Jebel Road intersection. The *Access Control Plan* shall not cause more traffic to use either JW Drive or Valley Road.

A bus stop should be established along SH 82 at JW Drive/Valley Road. The westbound/northbound bus stop should be west of JW Drive and the eastbound/southbound bus stop should be east of Valley Road. Either a pedestrian overpass or underpass with adequate lighting should be constructed across SH 82. This would provide a safe way for bus riders to cross SH 82, since a traffic signal is not being recommended for the intersection. Figure 17 depicts the *Access Control Plan* for Segment No. 1.

Segment No. 2 - JW Drive/Valley Road to El Jebel Road

No new accesses shall be permitted along this segment of SH 82. Therefore, no change is being recommended for the two access points into the Amoco Service Station. However, if either the level of development for the Amoco Service Station changes from what is contained on the original access permit or upon reconstruction of the highway, in accordance with the *State Highway Access Code*, the Colorado Department of Transportation may close these two access points since the property can get access to Valley Road on the south of the property.

Some minor improvements shall be made at the intersection of SH 82 and El Jebel Road. Specifically, free right-turns shall be provided for all of the approaches. Acceleration and deceleration lanes already exist along SH 82. Islands would have to be installed at each of the approaches to facilitate the free right-turn. This would allow right-turning vehicles to make their turn without having to stop at the traffic signal. In addition, an eastbound/southbound double left-turn lane is needed at the intersection of El Jebel Road and SH 82. However, the second eastbound left-turn lane cannot be constructed until El Jebel Road is widened to four lanes. Figure 18 depicts the *Access Control Plan* for Segment No. 2. Figure 19 depicts the recommended layout for the SH 82 and El Jebel Road intersection.

Segment No. 3 - El Jebel Road to Willits Lane (North)

No new accesses shall be permitted along this segment of SH 82 . The existing right-in/ right-out access for the Wind River Tree Farm and the private access, located on the east/north side of SH 82, shall be consolidated into a new access at the intersection of SH 82 and Willits Lane (North). This new access will result in the intersection of SH 82 and Willits Lane (North) becoming a four-legged intersection. This new east leg (Blue Ridge Road) will be connected into El Jebel Road south of JW Drive.

This intersection of SH 82 and Willits Lane (North) currently meets the *Manual on Uniform Traffic Control Devices* (MUTCD) peak-hour traffic signal warrants based on 2001 AM and PM peak-hour traffic counts. This is based on using Figure 4-6 from the MUTCD report (Communities less than 10,000 population or above 40 mph on major street). In 2001, SH 82 (both directions) has 1,803 vehicles in the AM peak-hour and 2,094 vehicles in the PM peak-hour. Willits Lane (North) has 166 vehicles in the AM peak-hour and 183 vehicles in the PM peak-hour.

An RFTA bus stop shall be provided at Willits Lane (North). The westbound/northbound bus stop will be west of Blue Ridge Road and the eastbound/southbound bus stop will be east of Willits Lane (North). The presence of the traffic signal should make it safer for bus riders to cross SH 82. Figure 20 depicts the access plan for Segment No. 3.

Segment No. 4 - Willits Lane (North) to Original Road

No new accesses shall be permitted along this segment of SH 82. The two existing access points (North Frontage Road and Christ Community Church) on the east side of SH 82 shall be eliminated. The existing frontage road, which ends at the Christ Community Church complex, should be extended to the south to connect with Original Road. The location for this connection should be such that it does not present a safety problem. The frontage road should not be extended north to connect with the proposed Blue Ridge Road, because it would not be compatible with the development plans for Kodiak Park PUD. A connection should be provided from Original Road to Willits Lane. The medical center access should be restricted to the north and west side of the property. The intersection with Original Road shall also be signalized once it meets MUTCD peak-hour traffic signal warrants. The year in which the traffic signal is needed will depend primarily upon how fast Sopris Meadows develops. A free-right turn lane needs to be provided for westbound Two Rivers Road onto northbound SH 82 as a part of the traffic signal project.

The existing access at the north end of the frontage road is being recommended for closure, however, it cannot be eliminated totally. The Basalt & Rural Fire Protection District has requested that the north access remain for emergency vehicles only.

The existing RFTA bus stops should be moved closer to Original Road. The westbound/ northbound bus stop should be located north of Original Road and the eastbound/ southbound bus stop should be located south of Original Road. The presence of a traffic signal as well as the bus stops being located at Original Road, should make it easier for bus riders to safely cross SH 82. A bus stop is also proposed for the proposed Sopris Meadows development in the southbound direction. The land for this bus stop is being

provided by the developer of the Sopris Meadows development. A complementary northbound bus stop shall also be provided as well. In order to be consistent with the rest of the corridor, a pedestrian overpass or underpass with adequate lighting shall be provided. Figure 21 depicts the *Access Control Plan* for Segment No. 4.

Segment No. 5 - Original Road to Two Rivers Road/Willits Lane (South)

No new accesses shall be permitted along this segment of SH 82. As was mentioned in Segment No. 4, a connection shall be provided between the Original Road/SH 82 intersection and Willits Lane to the south. This connection will improve circulation in and around the commercial/industrial developments along Willits Lane. Figure 22 depicts the *Access Control Plan* for Segment No. 5.

Segment No. 6 - Two Rivers Road/Willits Lane (South) to Emma Road

No new access points shall be permitted in this segment. The intersection of SH 82 and Emma Road shall continue to be controlled by a Stop sign. Figure 23 depicts the *Access Plan* for Segment No. 6.

El Jebel Road

El Jebel Road should be improved to a five-lane cross-section from SH 82 to JW Drive and from SH 82 to Valley Road. The fifth lane would be a shared left-turn lane. It may also make sense to consider a roundabout for El Jebel Road and Valley Road. A sidewalk should be provided on both sides of El Jebel Road from Valley Road to JW Drive. Access control should be implemented along this section of El Jebel Road. Figure 24 depicts the typical cross-section for El Jebel Road between SH 82 and JW Drive.

Future Access Requests

It is important to note that the Colorado Department of Transportation owns most of the access rights along SH 82 within Eagle County. These access rights were purchased as a part of the construction of the new roadway. If new accesses have to be granted along SH 82, they shall be restricted to right-in/ right-out-only. Wherever possible, access shall be directed to the local roadway system. The granting of any new access points by the Colorado Department of Transportation will be done in accordance with the requirements of the *State Highway Access Code.*

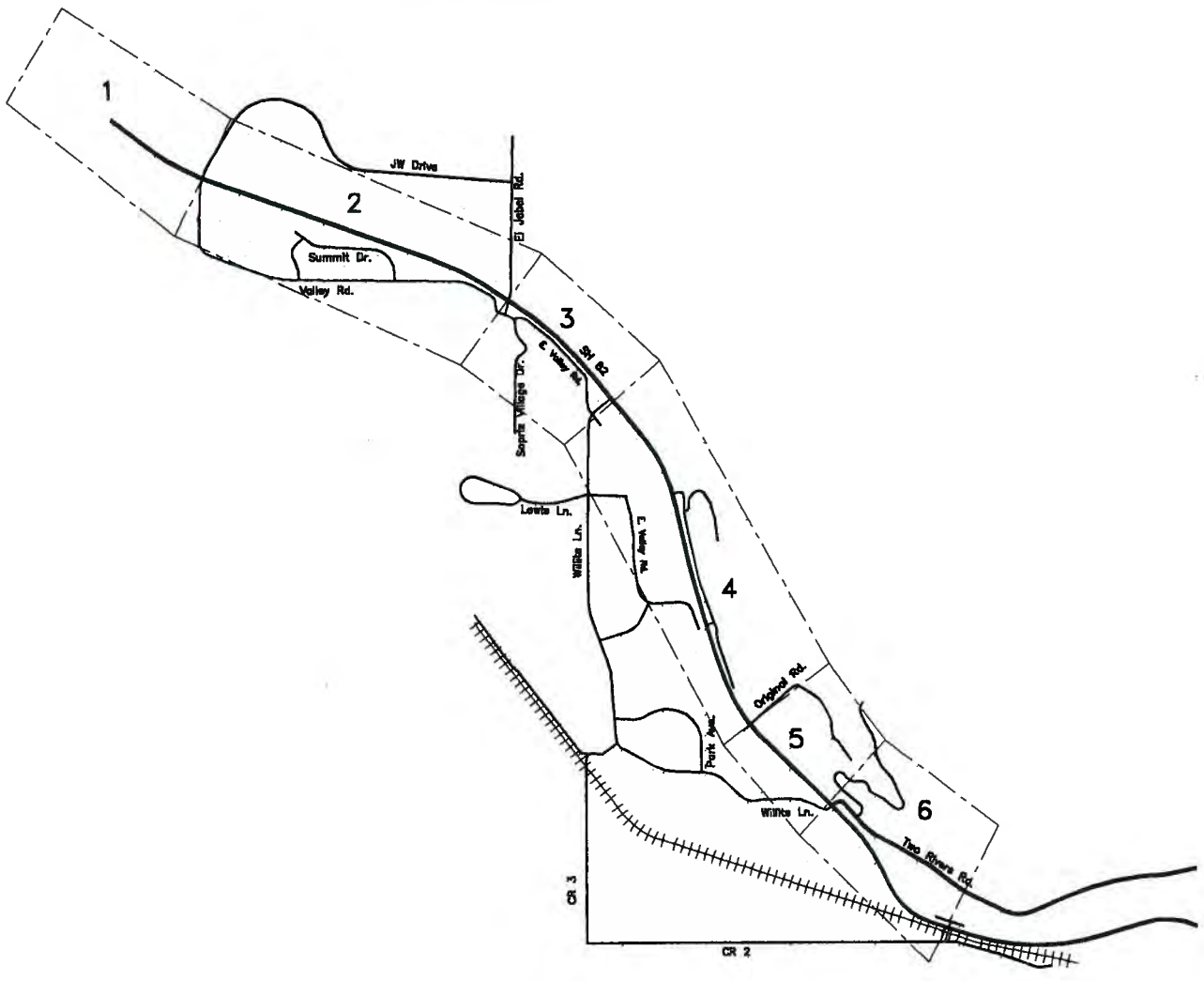
Traffic Signal Progression Analysis

A traffic signal progression analysis was performed for SH 82 assuming four signalized intersections -- El Jebel Road, Willits Lane (North), Original Road, and Willits Lane (South). The posted speed limit is 65 mph. However, it is highly likely that a lower speed limit will be posted as a result of the additional signals. Two different speed limits were used for this analysis, 45 and 55 mph. The traffic volumes depicted in Figure 15 are being used for the traffic signal progression analysis.

The analysis focused on the efficiency of the bandwidth and the Level of Service of each signalized intersection. The goal of this analysis is to have each intersection operate at Level of Service "D" or better and a 35 percent efficiency of the bandwidth. These goals have been established by the Colorado Department of Transportation. The cycle length was assumed to be 120 seconds. Table 4 summarizes the results of this analysis. The *Highway Capacity Manual* technique was used to assess the performance of each intersection.

All but one of the intersections operated at an acceptable Level of Service (LOS "D" or better) in the AM and PM peak-hours either at 45 or 55 mph. The one exception is the intersection of SH 82 and El Jebel Road in the PM peak-hour. This intersection operated at a poor Level of Service (LOS "E"). The AM peak-hour had better Levels of Service than the PM peak-hour, regardless of the operating speed used. Regardless of the operating speed, the resulting bandwidths in the eastbound/southbound and westbound/northbound directions were able to achieve the goal of a 35 percent efficiency. At 45 mph, the efficiency of the bandwidth ranged from a low of 38 percent to a high of 42 percent. Better results were achieved when the operating speed was assumed to be 55 mph. The bandwidth ranged from a low of 43 percent to a high of 44 percent. Of the two operating speeds, 55 mph is the preferred operating speed. Appendix C contains the results of the analysis using 45 mph as the operating speed while Appendix D contains the results of the analysis using 55 mph as the operating speed.

While the intersection of SH 82 and El Jebel Road does not meet the standard of LOS "D" or better by 2021, the recommendations included in this *Access Control Plan* should move forward. It is important to keep in mind that the traffic volumes used in the traffic signal progression analysis include several assumptions. First, all of the proposed development would occur to the levels desired by the owners of the property. Second, through and local traffic using SH 82 would continue to grow in spite of the increased congestion at the major intersections. Third, a small reduction (15 percent during the morning and evening peak-hours) has been made for alternative modes, the exact effect is unknown. And finally, it is also possible that some of the traffic forecasted to use the intersection of SH 82 and El Jebel Road will divert to other intersections, such as JW Drive and Willits Lane (North)/Blue Ridge Road, thereby improving the Level of Service at SH 82 and El Jebel Road.



Approximate Scale
Scale: 1"= 3,000'

Figure 16

Corridor Segments

February, 2002
SH 82 Access Control Plan (LSC #001790)

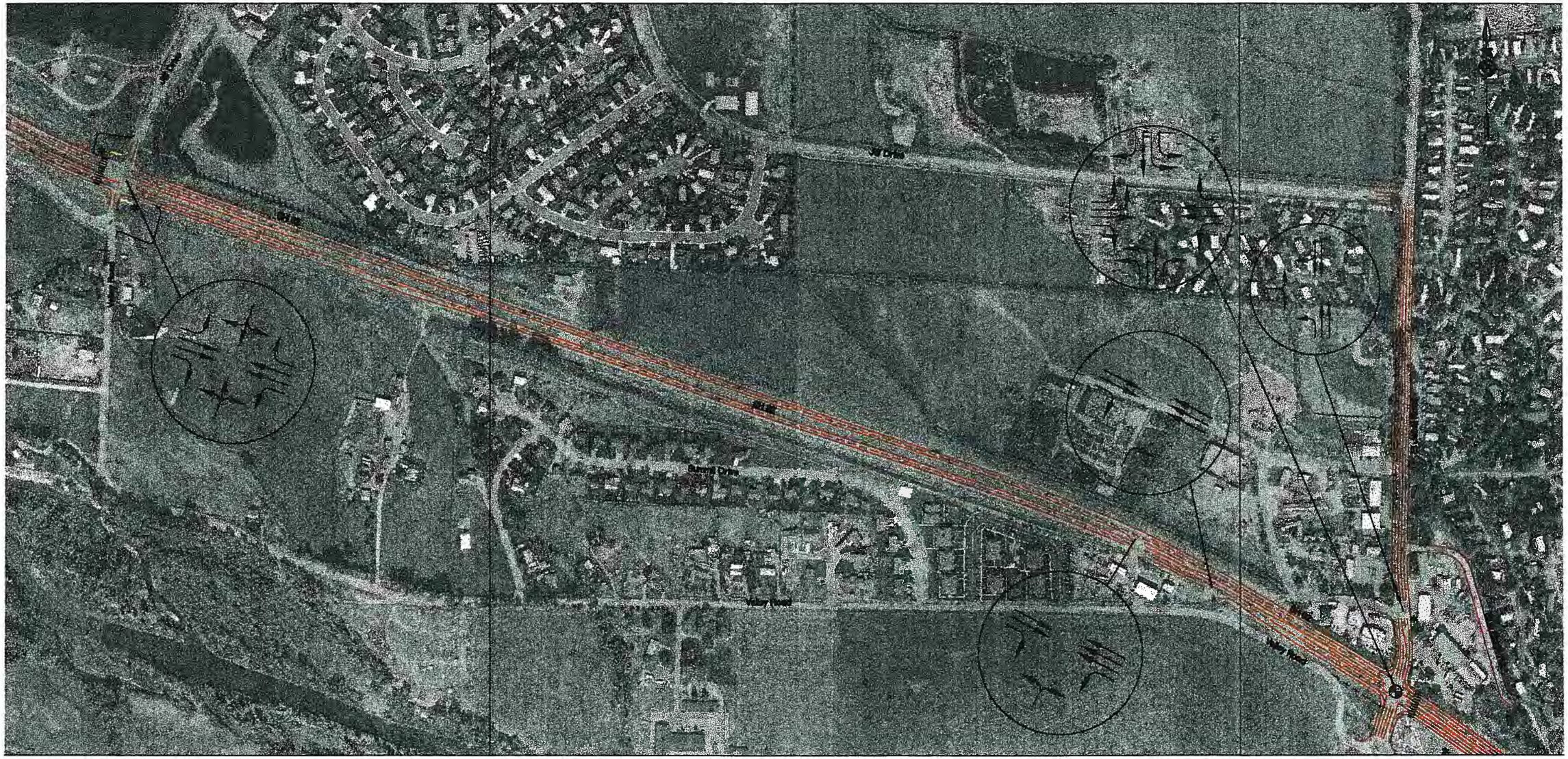
LEGEND:

* = Bus Stop

||||| = Pedestrian Underpass/Overpass

Figure 17

Segment No. 1
Eagle/Garfield County Line to JW Drive
February, 2002
SH 82 Access Control Plan (LSC #001790)



LEGEND:

*	= Bus Stop	----------	= Pedestrian Connector
||||	= Pedestrian Underpass		
	= Traffic Signal		
	= Stop Sign		

Figure 18

Segment No. 2
JW Drive to
El Jebel Road
February, 2002
SH 82 Access Control Plan (LSC #001790)

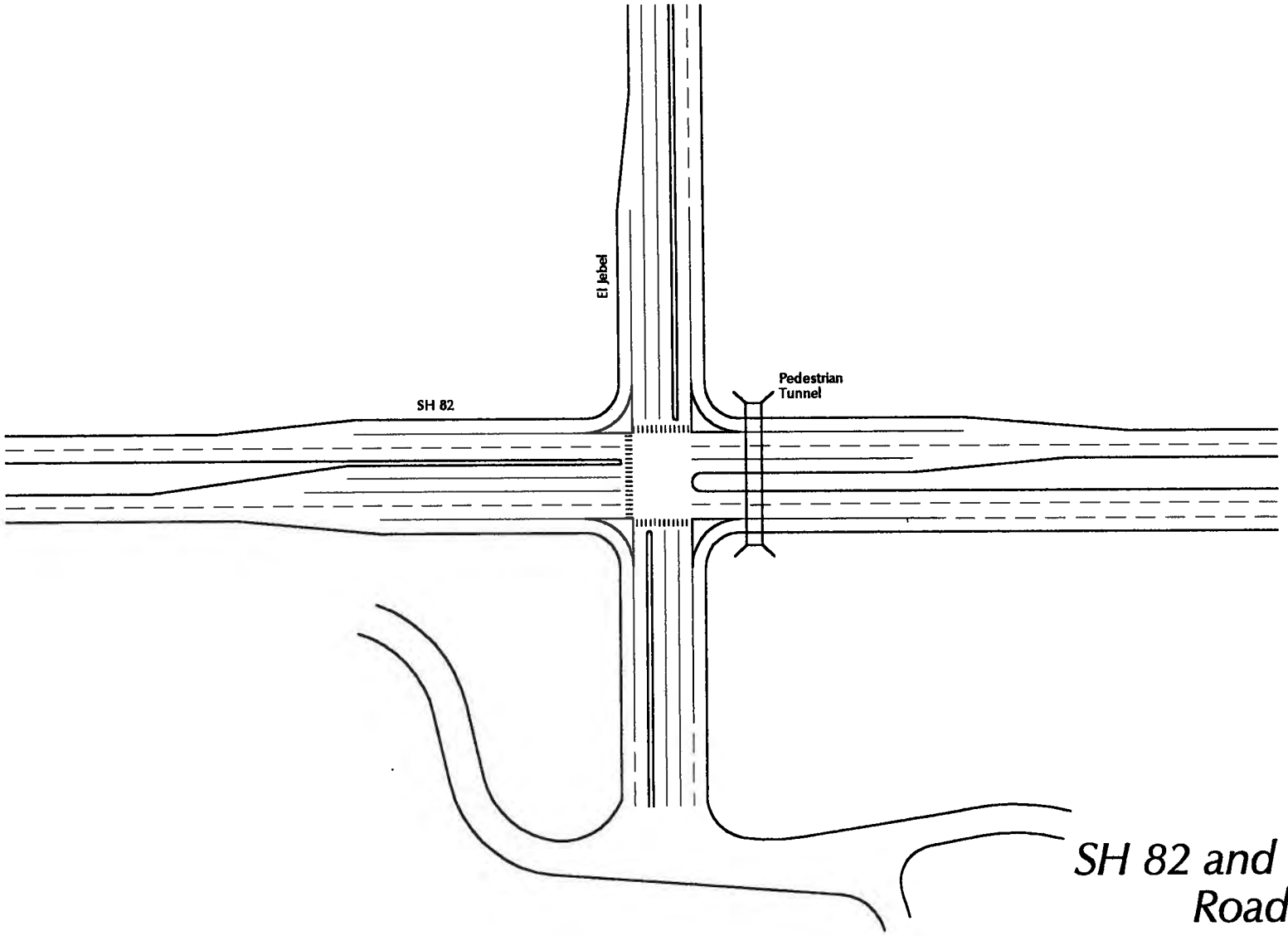
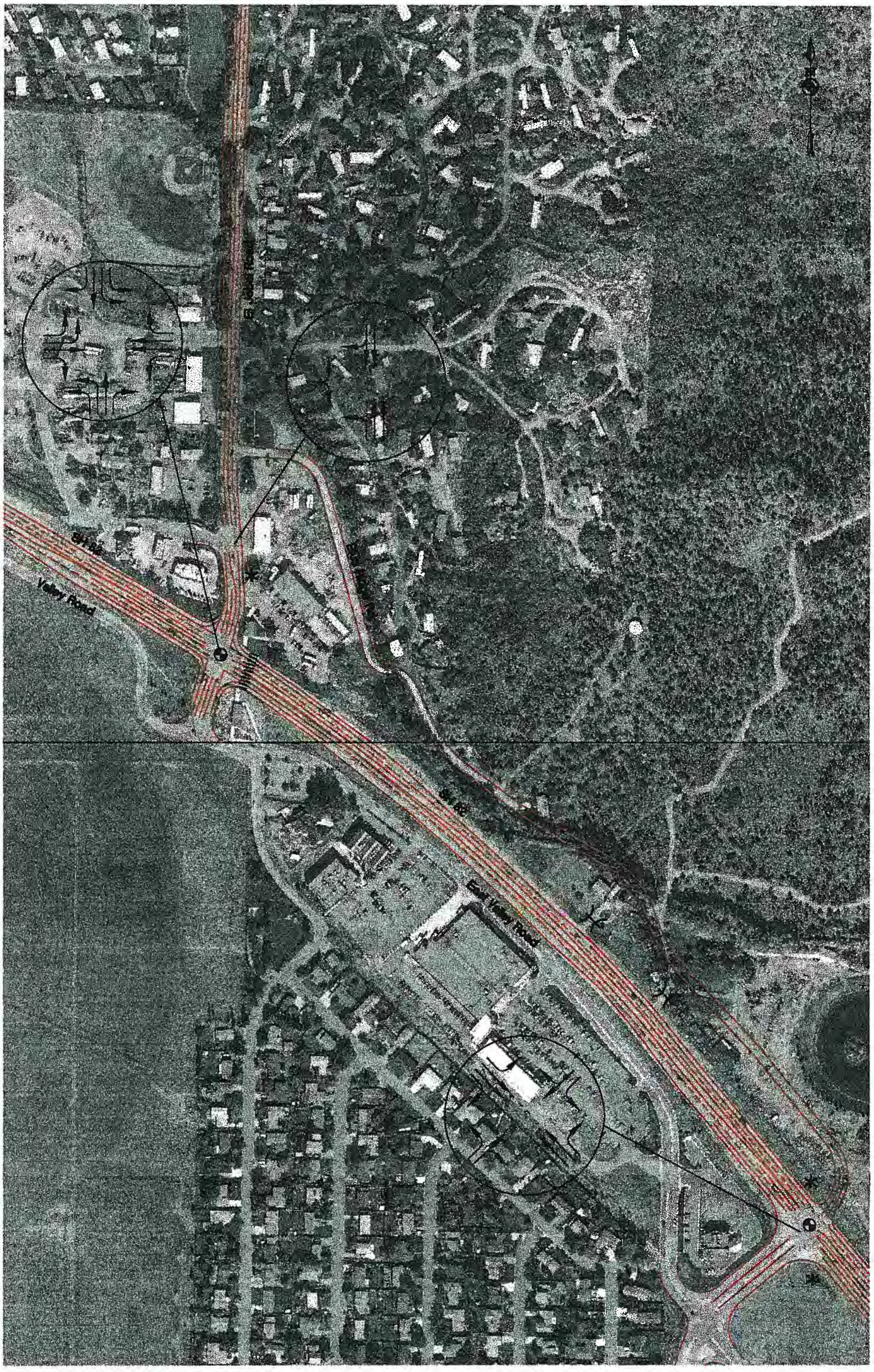


Figure 19

SH 82 and El Jebel Road Layout

February, 2002
SH 82 Access Control Plan (LSC #001790)



LEGEND:

* = Bus Stop

|||| = Pedestrian Underpass

◒ = Traffic Signal

)(= Access Closed

Figure 20

Segment No. 3
El Jebel Road to
Willits Lane (North)

February, 2002

SH 82 Access Control Plan (LSC #001790)

Figure 21

Segment No. 4 Willits Lane (North) to Original Road

February, 2002

SH 82 Access Control Plan (LSC #001790)

LEGEND:

| = Stop Sign

✱ = Bus Stop

◒ = Traffic Signal

Figure 22

Segment No. 5
Original Road to
Two Rivers Road

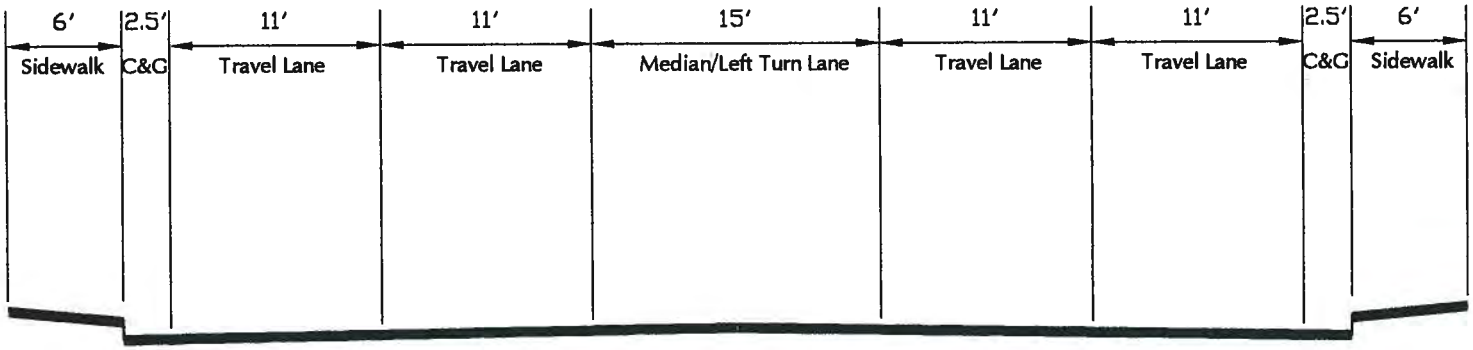
February, 2002

SH 82 Access Control Plan (LSC #001790)

LEGEND:

⊦	=	Stop Sign
✱	=	Bus Stop
⊕	=	Traffic Signal
▭	=	Trail Underpass

Figure 23
Segment No. 6
Willits Lane (South) to Emma Road
February, 2002
SH 82 Access Control Plan (LSC #001790)



Approximate Scale
Scale: 1"= 10'

Figure 24

El Jebel Road
Typical Cross-Section

February, 2002
SH 82 Access Control Plan (LSC #001790)

Table 4
Traffic Signal Progression Results
SH 82 Access Control Plan
Eagle County, Colorado

	AM Peak-Hour	PM Peak-Hour
Alternative No. 1 - 45 mph Operating Speed		
Eastbound Direction	42%	40%
Westbound Direction	38%	40%
Alternative No. 2 - 55 mph Operating Speed		
Eastbound Direction	43%	44%
Westbound Direction	43%	44%

VIII. IMPLEMENTATION PLAN

A total of eleven projects has been identified for the *SH 82 Access Control Plan.* The cost for these eleven projects is estimated to be approximately $2,101,500 (2001 dollars) which excludes any right-of-way costs. Not all of these projects have the same level of importance for SH 82. In fact, signalization cannot take place until the intersection meets the *Manual on Uniform Traffic Control Devices* signal warrants. Other projects are dependent on other actions being taken by either Eagle County or the Town of Basalt.

Four time periods have been selected -- Immediate, Short-Term (0 to 5 years), Intermediate (5 to 10 years), and Long-Range (10 to 20 years). Of the eleven projects, one is recommended for immediate implementation. This project involves the installing a traffic signal at SH 82 and Willits Lane (North). Four projects, two of which are dependent upon the implementation of local bus circulator service, are scheduled for the short-term. Two projects are scheduled for the intermediate time period. The final four projects are scheduled for the long-range time frame. Table 5 contains a listing of these eleven projects by implementation time frame as well as the estimated cost for each project.

Funding Strategies

Of the eleven projects, it appears that the traffic signal at SH 82 and Willits Lane (North) and Blue Ridge Road can be funded in part with private funds. No recommendations are offered in this report regarding the amount of funds that should come from the private sector. Sopris Meadows and Kodiak Park PUD which are located directly next to the intersection of SH 82 and Willits Lane (North) could be asked to contribute a percentage of the cost for the traffic signal. Kodiak Park PUD should participate in the construction of Blue Ridge Road. All other projects will require public funds to complete. Public funding sources include local funds (Eagle County or the Town of Basalt), the Rural Transportation Authority, the Colorado Department of Transportation, or the U.S. Department of Transportation.

In order to be eligible for funds from either the Colorado Department of Transportation or the U.S. Department of Transportation, these eleven projects need to be included in the *Intermountain Regional Transportation Plan.* Eagle County and the Town of Basalt should either request an amendment to the currently adopted *Intermountain Regional Transportation Plan* or include these projects as a part of the next update cycle.

Table 5
Implementation Schedule
SH 82 Access Control Plan
for Eagle County

Implementation Time Frame	Project Location	Project Description	Estimated Cost
Immediate			
	SH 82 & Willits Lane (North)	Install Traffic Signal	$200,000
Short-Term (0 to 5 Years)			
	SH 82 & El Jebel Road	Install Islands for Free Right-Turn	$5,000
	SH 82 & JW Drive	Construct Pedestrian Access	$490,000
	SH 82 & Sopris Meadows	Construct Pedestrian Access	$490,000
	Blue Ridge Road from SH 82 to El Jebel	Construct New Roadway	$150,000
Intermediate (5 to 10 Years)			
	SH 82 & Original Road	Install Traffic Signal	$200,000
	Church Complex to Original Road	Extend Frontage Road	$130,000
Long-Range (10 to 20 Years)			
	El Jebel Road from SH 82 to JW Drive	Improve to 5-lane Cross-Section	$250,000
	Original Road from SH 82 to Willits Lane	Construct New Roadway	$170,000
	El Jebel Road and SH 82	Construct Eastbound Double Left-Turn Lane	$15,000
	Two Rivers Road and SH 82	Install Island for Free Right-Turn	$1,500
		Total Cost	$2,101,500

Note: No right-of-way costs are included in these estimates.

VIII. NEXT STEP

The *SH 82 Access Control Plan* needs to be submitted to the Town of Basalt, Eagle County, and the Colorado Department of Transportation for approval. After each agency approves the Plan, a formal agreement needs to be signed by all three parties. Appendix E contains a sample intergovernmental agreement. This draft intergovernmental agreement should serve as a beginning point in the drafting of the actual intergovernmental agreement.

After the intergovernmental agreement is signed, the three agencies should discuss having one agency administer access along the corridor. Depending on whether the property is in either Eagle County or the Town of Basalt, either Eagle County or the Colorado Department of Transportation is responsible for administering access. This situation could be confusing to a property owner. It would make more sense to have one agency administer access.

The Town of Basalt or Eagle County should pursue getting these nine projects included in the *Intermountain Regional Transportation Plan* through a formal amendment or the next update cycle.

Work should begin on the signalization of the intersection of SH 82 and Willits Lane (North). The peak-hour traffic volumes included in this report indicate this intersection meets the *Manual on Uniform Traffic Control Devices* peak-hour signal warrants. It is recommended that additional peak-hour traffic counts be taken to make sure this intersection meets the peak-hour signal warrants. If in fact the peak-hour traffic counts still indicate this intersection should be signalized, the Colorado Department of Transportation should begin discussions with Eagle County, the Town of Basalt and private developers regarding how to pay for this traffic signal.

The Town of Basalt should aggressively pursue the establishment of a local bus circulator service for the town. Discussions should take place with RFTA regarding the actual routes and how the service will be funded.

APPENDIX A

2001 Peak-Hour Traffic Count Data

Counter Measures

Site Code : 3
N/S STREET: JW DR
E STREET: SH-82
:

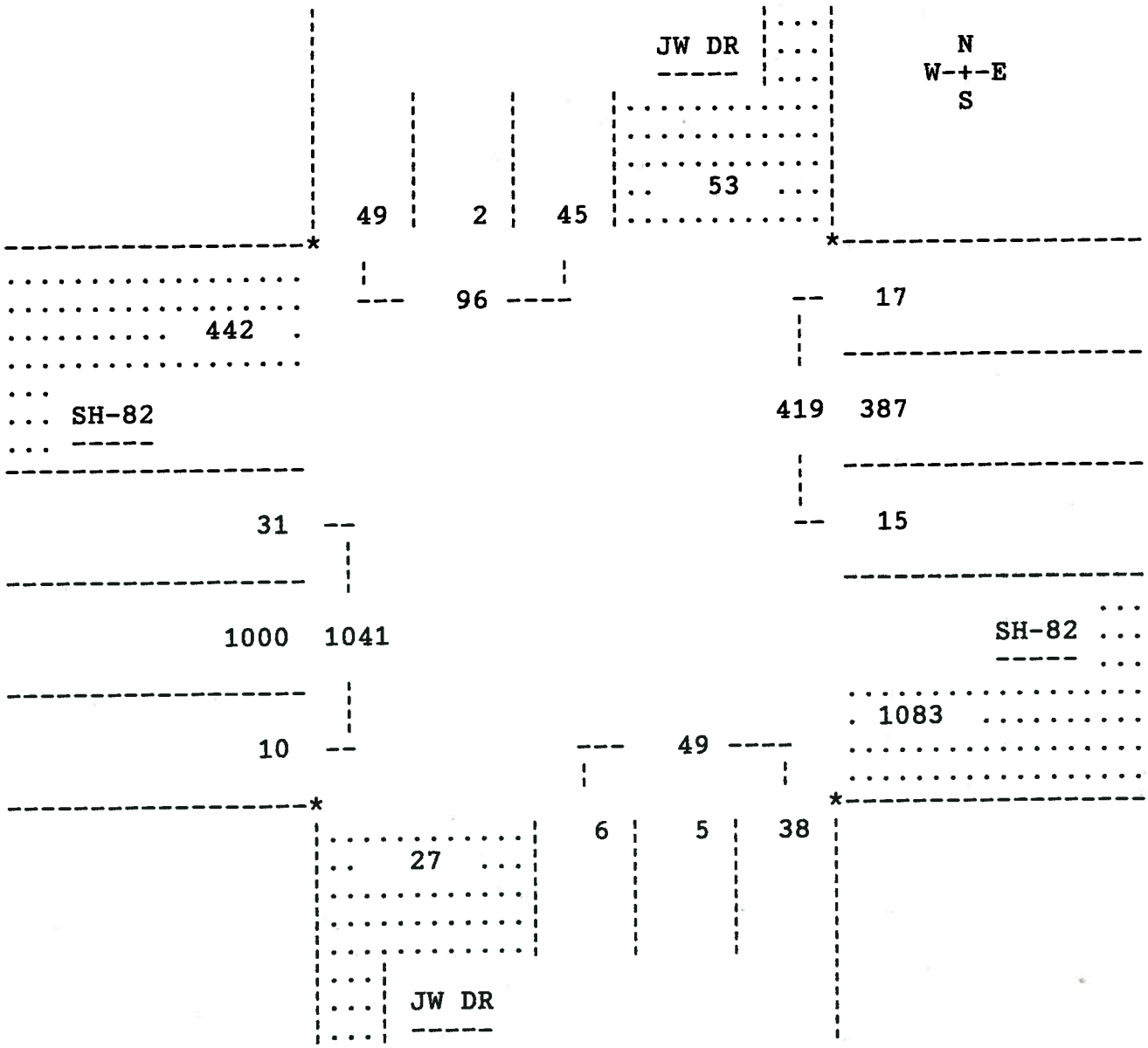
PAGE: 1
FILE: JWDRSH82

Movements by: Primary

DATE: 4/07/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:30 AM - 8:30 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:15 AM	0.92	46	3	50	99	46	3	51
East	7:30 AM	0.87	17	387	15	419	4	92	4
South	7:30 AM	0.88	38	5	6	49	78	10	12
West	6:45 AM	0.87	12	1126	32	1170	1	96	3
Entire Intersection									
North	7:30 AM	0.89	49	2	45	96	51	2	47
East		0.87	17	387	15	419	4	92	4
South		0.88	38	5	6	49	78	10	12
West		0.89	10	1000	31	1041	1	96	3



Counter Measures

Site Code : 3
N/S STREET: JW DR
E STREET: SH-82
:

PAGE: 1
FILE: JWDRSH82

Movements by: Primary

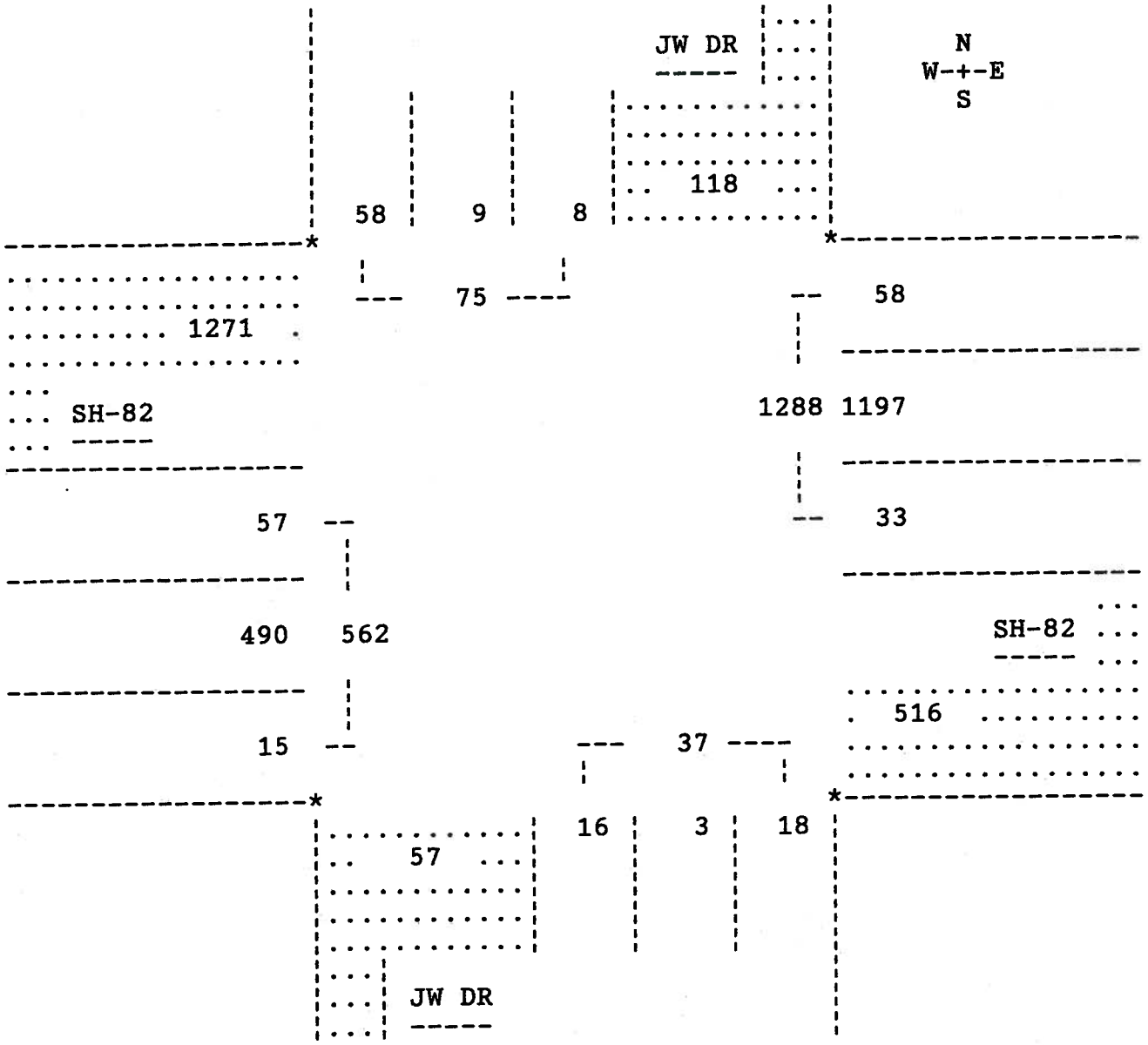
DATE: 4/07/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.78	58	9	8	75	77	12	11
East	4:30 PM	0.95	49	1224	43	1316	4	93	3
South	5:00 PM	0.62	18	3	16	37	49	8	43
West	5:00 PM	0.91	15	490	57	562	3	87	10

Entire Intersection

North	5:00 PM	0.78	58	9	8	75	77	12	11
East		0.93	58	1197	33	1288	5	93	3
South		0.62	18	3	16	37	49	8	43
West		0.91	15	490	57	562	3	87	10



Counter Measures

Site Code : 3
N/S STREET: EL JEBEL RD
E STREET: SH-82
:

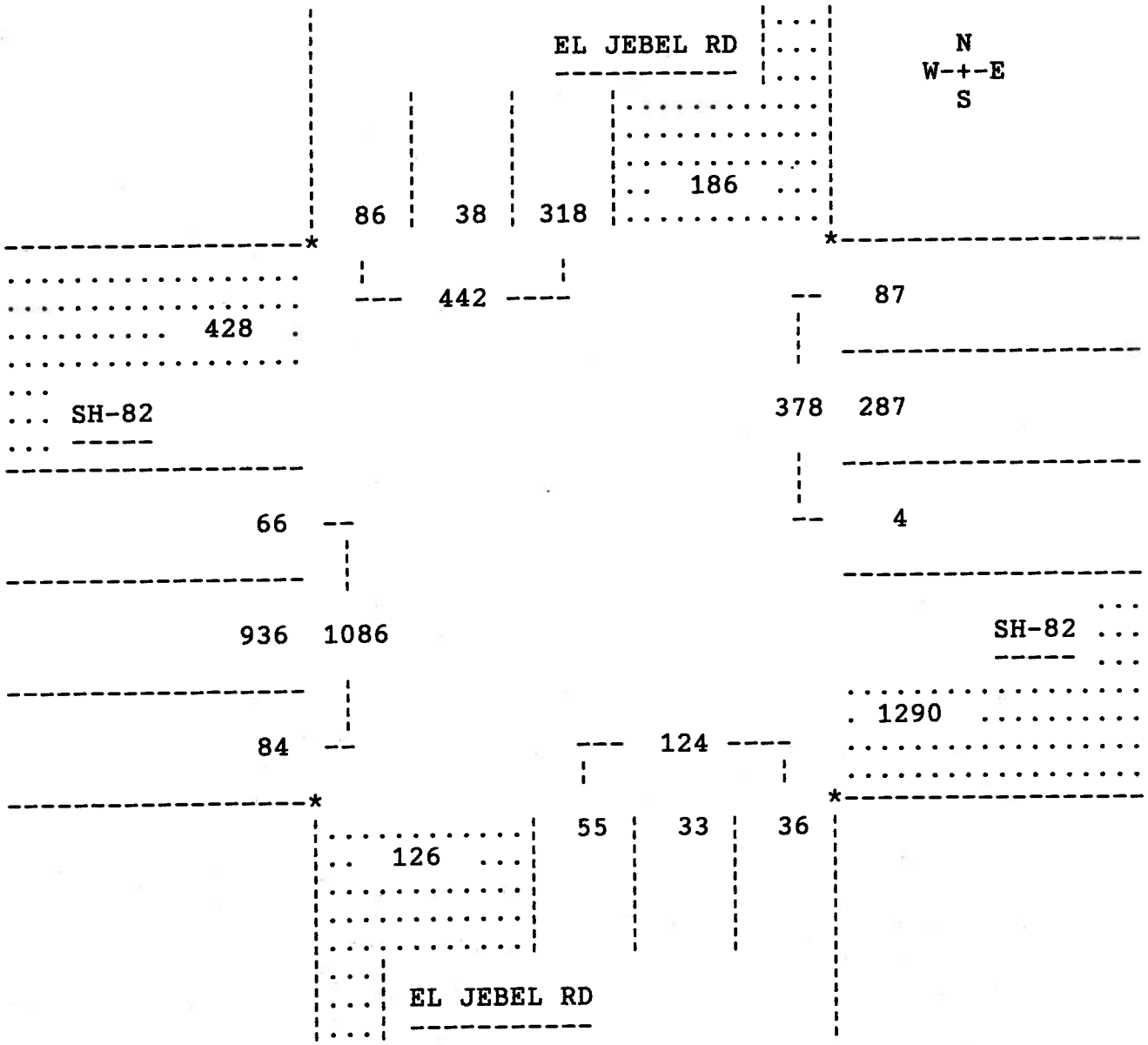
PAGE: 1
FILE: ELJESH82

Movements by: Primary

DATE: 4/06/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:30 AM - 8:30 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:15 AM	0.81	78	42	336	456	17	9	74
East	7:30 AM	0.72	87	287	4	378	23	76	1
South	7:00 AM	0.82	48	43	44	135	36	32	33
West	7:00 AM	0.90	86	997	83	1166	7	86	7
Entire Intersection									
North	7:30 AM	0.79	86	38	318	442	19	9	72
East		0.72	87	287	4	378	23	76	1
South		0.76	36	33	55	124	29	27	44
West		0.84	84	936	66	1086	8	86	6



Counter Measures

Site Code : 3
N/S STREET: EL JEBEL RD
E STREET: SH-82
:

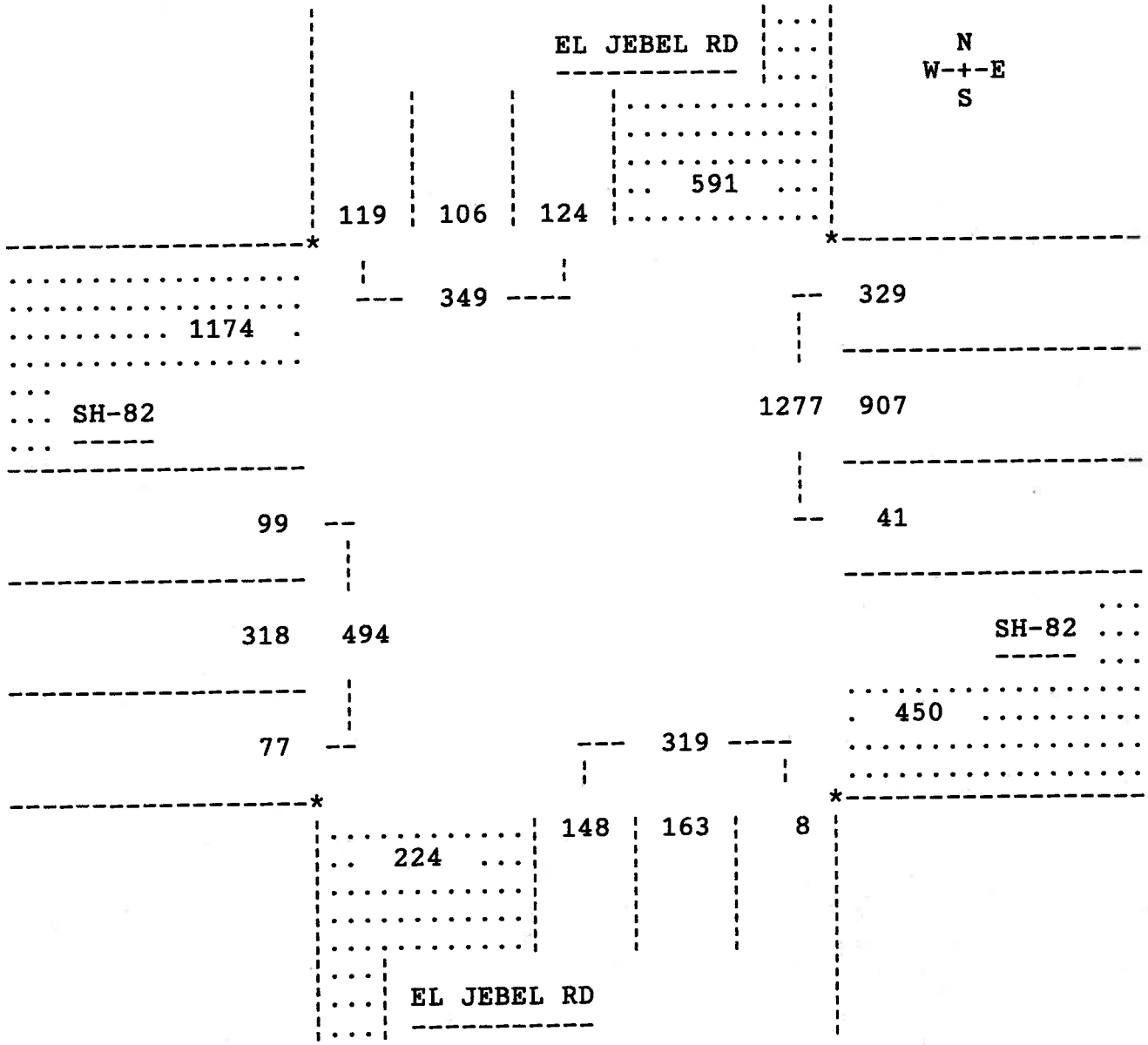
PAGE: 1
FILE: ELJESH82

Movements by: Primary

DATE: 4/06/99

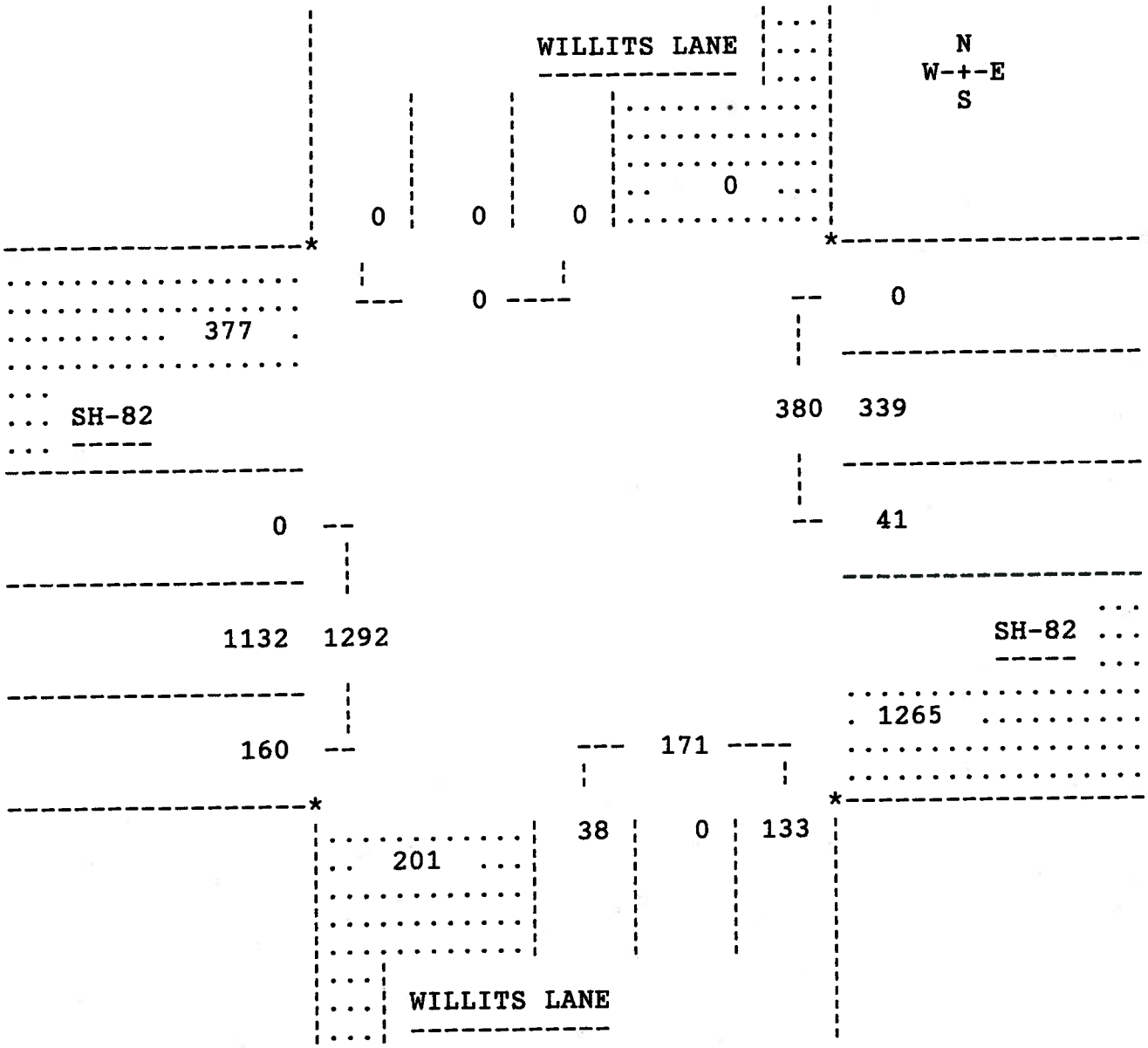
PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.89	119	106	124	349	34	30	36
East	4:30 PM	0.92	267	1001	47	1315	20	76	4
South	5:00 PM	0.83	8	163	148	319	3	51	46
West	4:15 PM	0.88	98	347	94	539	18	64	17
Entire Intersection									
North	5:00 PM	0.89	119	106	124	349	34	30	36
East		0.89	329	907	41	1277	26	71	3
South		0.83	8	163	148	319	3	51	46
West		0.81	77	318	99	494	16	64	20



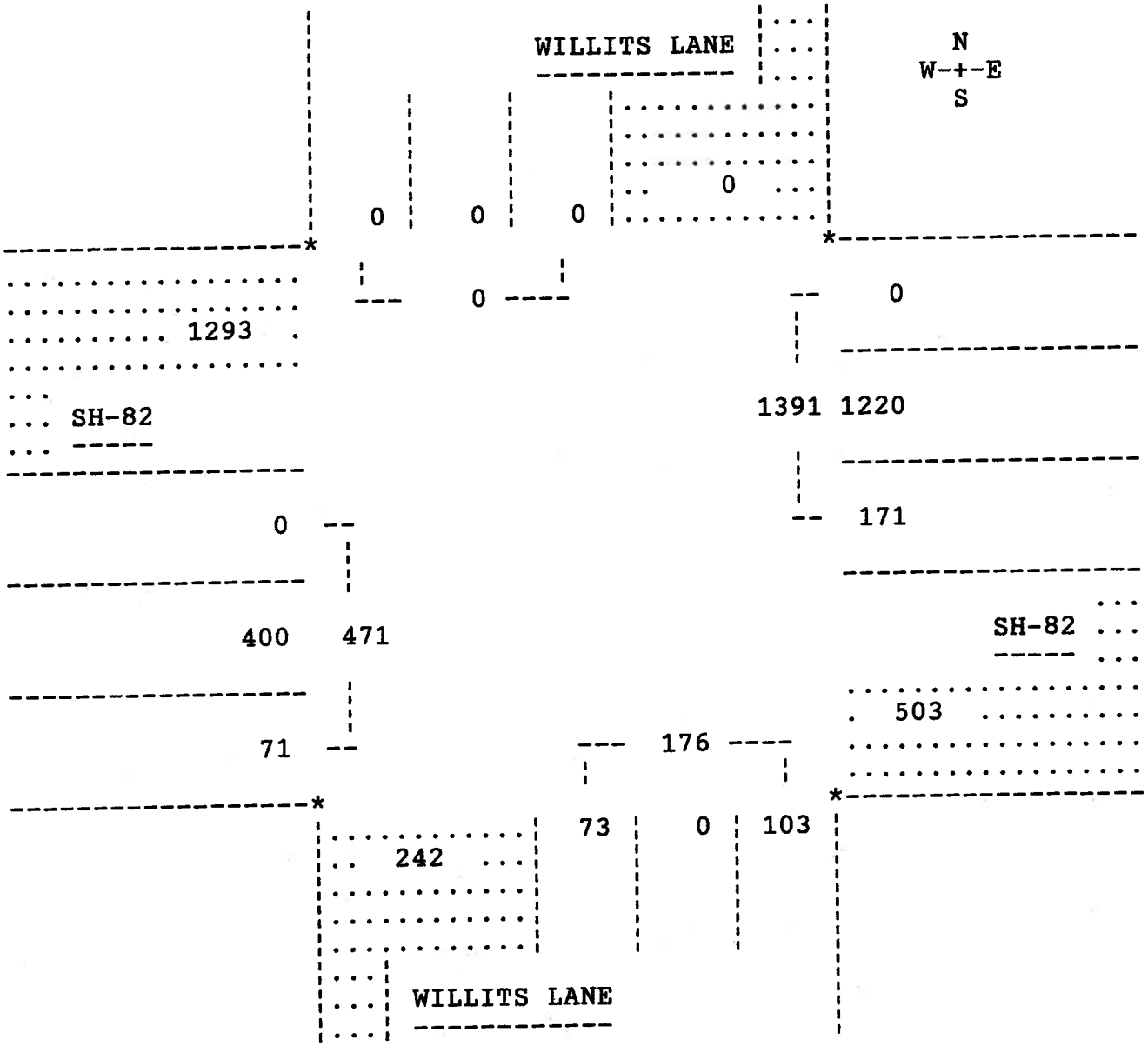
PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:30 AM - 8:30 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	12:00 AM	0.00	0	0	0	0	0	0	0
East	7:30 AM	0.73	0	339	41	380	0	89	11
South	7:15 AM	0.89	148	0	30	178	83	0	17
West	7:00 AM	0.86	143	1222	0	1365	10	90	0
Entire Intersection									
North	7:30 AM	0.00	0	0	0	0	0	0	0
East		0.73	0	339	41	380	0	89	11
South		0.86	133	0	38	171	78	0	22
West		0.81	160	1132	0	1292	12	88	0



PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.00	0	0	0	0	0	0	0
East	4:00 PM	0.96	0	1233	167	1400	0	88	12
South	5:00 PM	0.90	104	0	77	181	57	0	43
West	4:45 PM	0.93	68	411	0	479	14	86	0
Entire Intersection									
North	4:15 PM	0.00	0	0	0	0	0	0	0
East		0.96	0	1220	171	1391	0	88	12
South		0.86	103	0	73	176	59	0	41
West		0.91	71	400	0	471	15	85	0



Counter Measures

Site Code :
N/S STREET: SH-82
E/W STREET: ORIGINAL ROAD
:

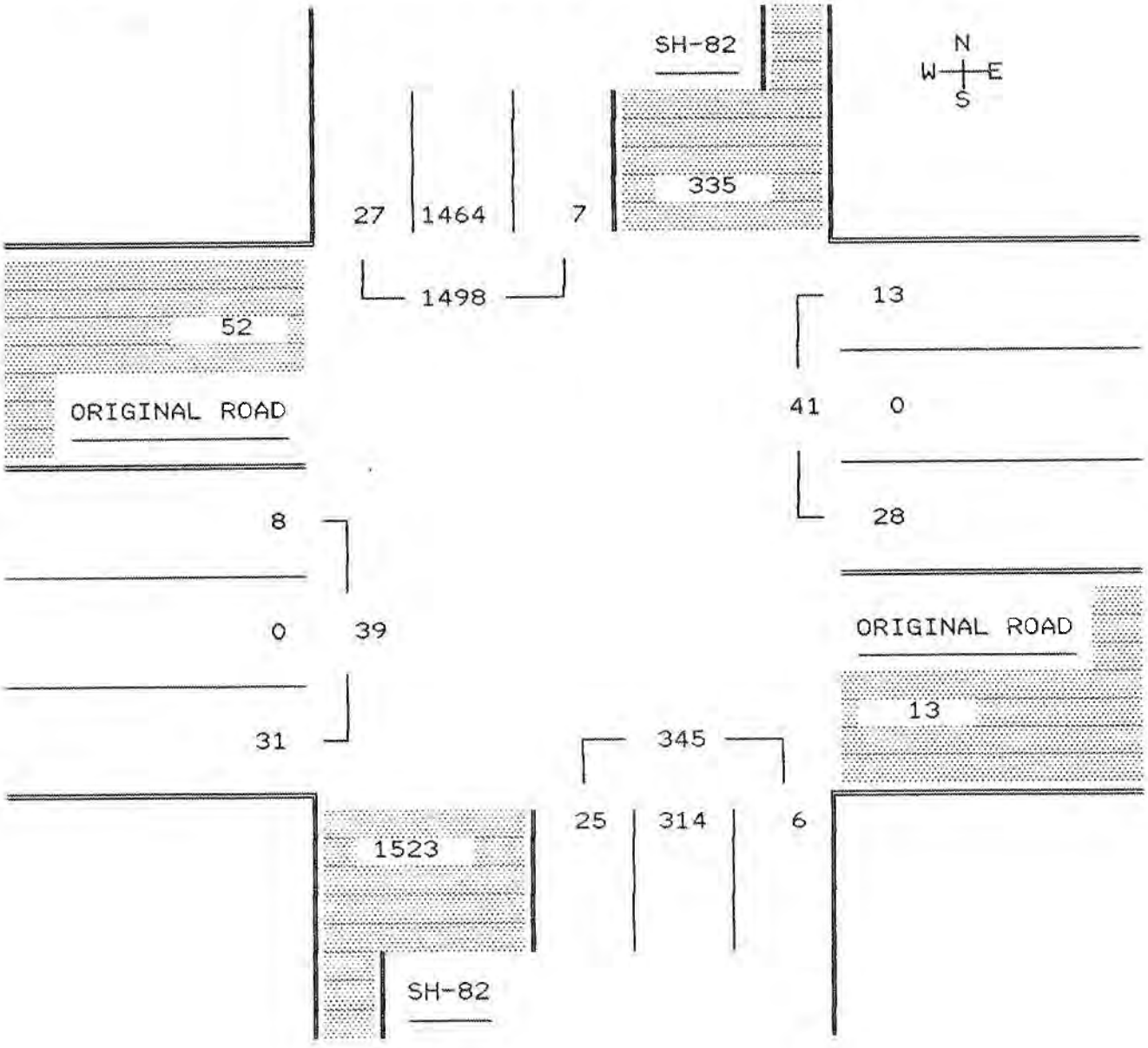
PAGE: 1
FILE: SH82ORIG

Movements by: Primary

DATE: 1/09/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:30 AM - 8:30 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:15 AM	0.94	27	1464	7	1498	2	98	0
East	7:30 AM	0.80	14	0	31	45	31	0	69
South	7:15 AM	0.91	6	314	25	345	2	91	7
West	7:00 AM	0.77	33	0	7	40	82	0	18
Entire Intersection									
North	7:15 AM	0.94	27	1464	7	1498	2	98	0
East		0.73	13	0	28	41	32	0	68
South		0.91	6	314	25	345	2	91	7
West		0.75	31	0	8	39	79	0	21



Counter Measures

Site Code :
N/S STREET: SH-82
E/W STREET: ORIGINAL ROAD
:

PAGE: 1
FILE: SH82ORIG

Movements by: Primary

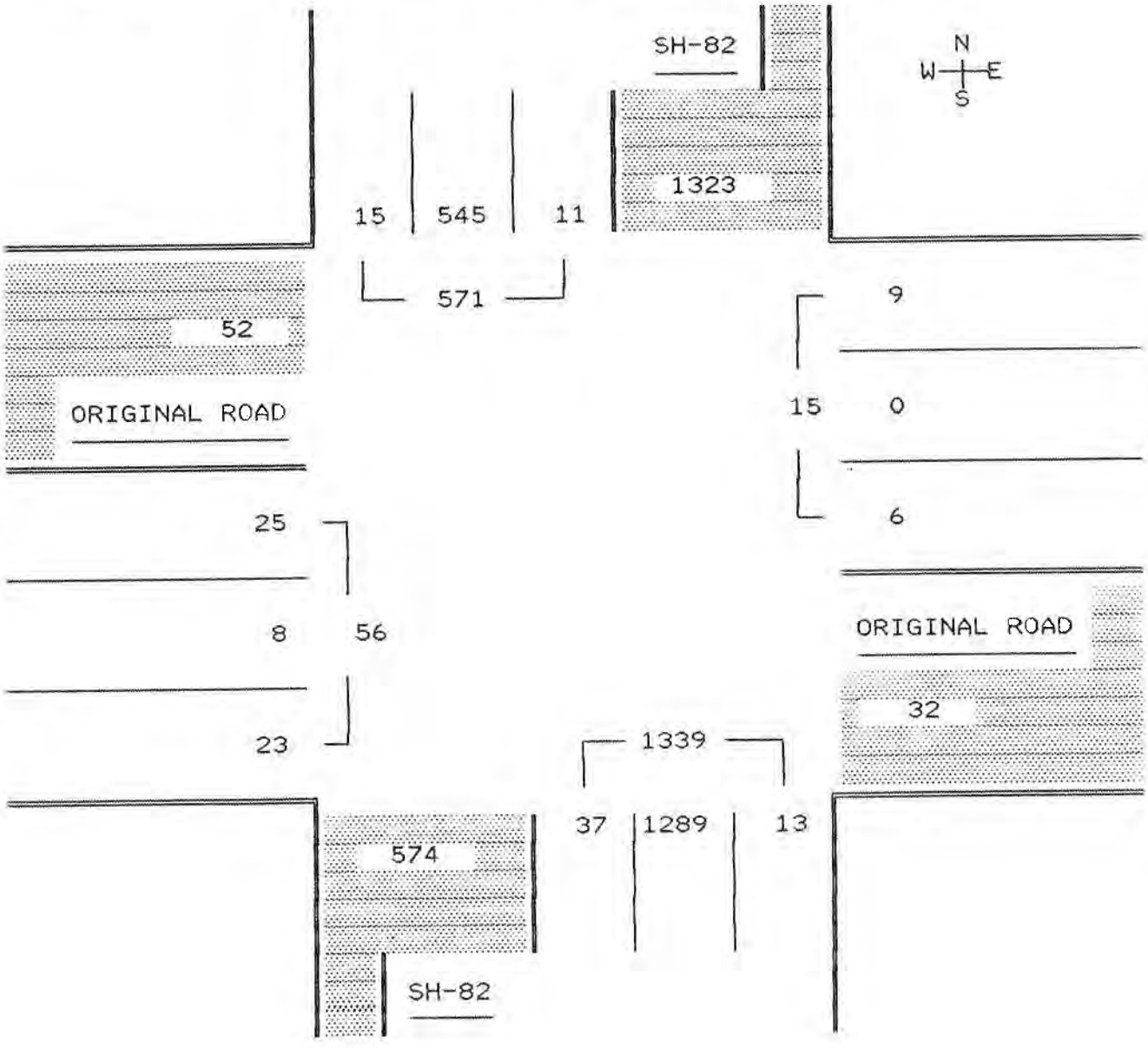
DATE: 1/09/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES ..... Right	Thru	Left	Total	.... PERCENTS ... Right	Thru	Left
North	4:30 PM	0.95	15	545	11	571	3	95	2
East	4:30 PM	0.75	9	0	6	15	60	0	40
South	4:15 PM	0.92	15	1291	37	1343	1	96	3
West	4:15 PM	0.85	27	10	24	61	44	16	39

Entire Intersection

North	4:30 PM	0.95	15	545	11	571	3	95	2
East		0.75	9	0	6	15	60	0	40
South		0.92	13	1289	37	1339	1	96	3
West		0.78	23	8	25	56	41	14	45



Counter Measures

Site Code :
N/S STREET: SH-82
E/W STREET: TWO RIVERS ROAD
:

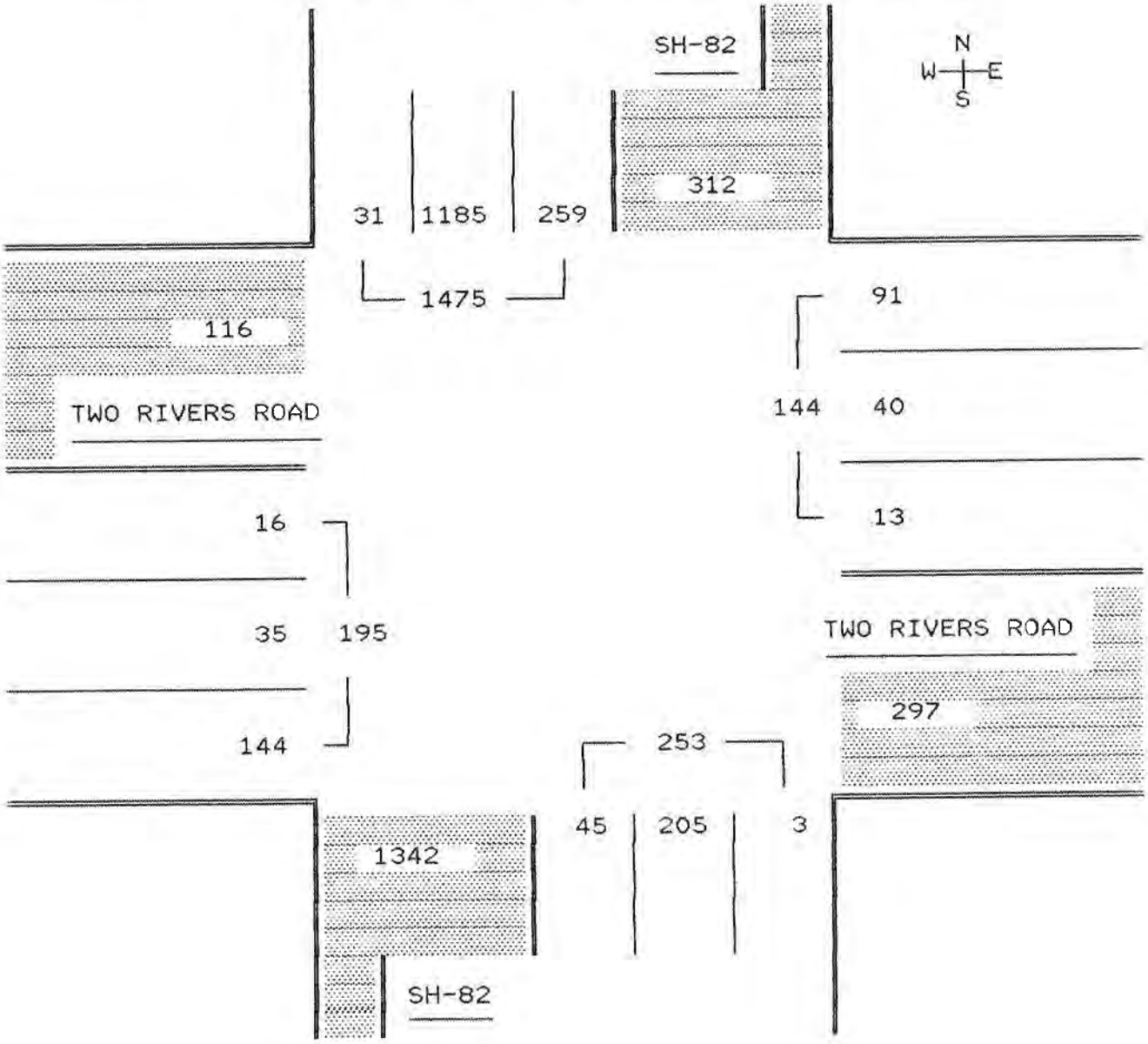
PAGE: 1
FILE: SH82TWOR

Movements by: Primary

DATE: 1/04/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:30 AM - 8:30 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:15 AM	0.89	31	1185	259	1475	2	80	18
East	7:30 AM	0.63	101	44	11	156	65	28	7
South	7:30 AM	0.88	3	217	44	264	1	82	17
West	7:15 AM	0.84	144	35	16	195	74	18	8
Entire Intersection									
North	7:15 AM	0.89	31	1185	259	1475	2	80	18
East		0.58	91	40	13	144	63	28	9
South		0.84	3	205	45	253	1	81	18
West		0.84	144	35	16	195	74	18	8



Counter Measures

Site Code :
N/S STREET: SH-82
E/W STREET: TWO RIVERS ROAD
:

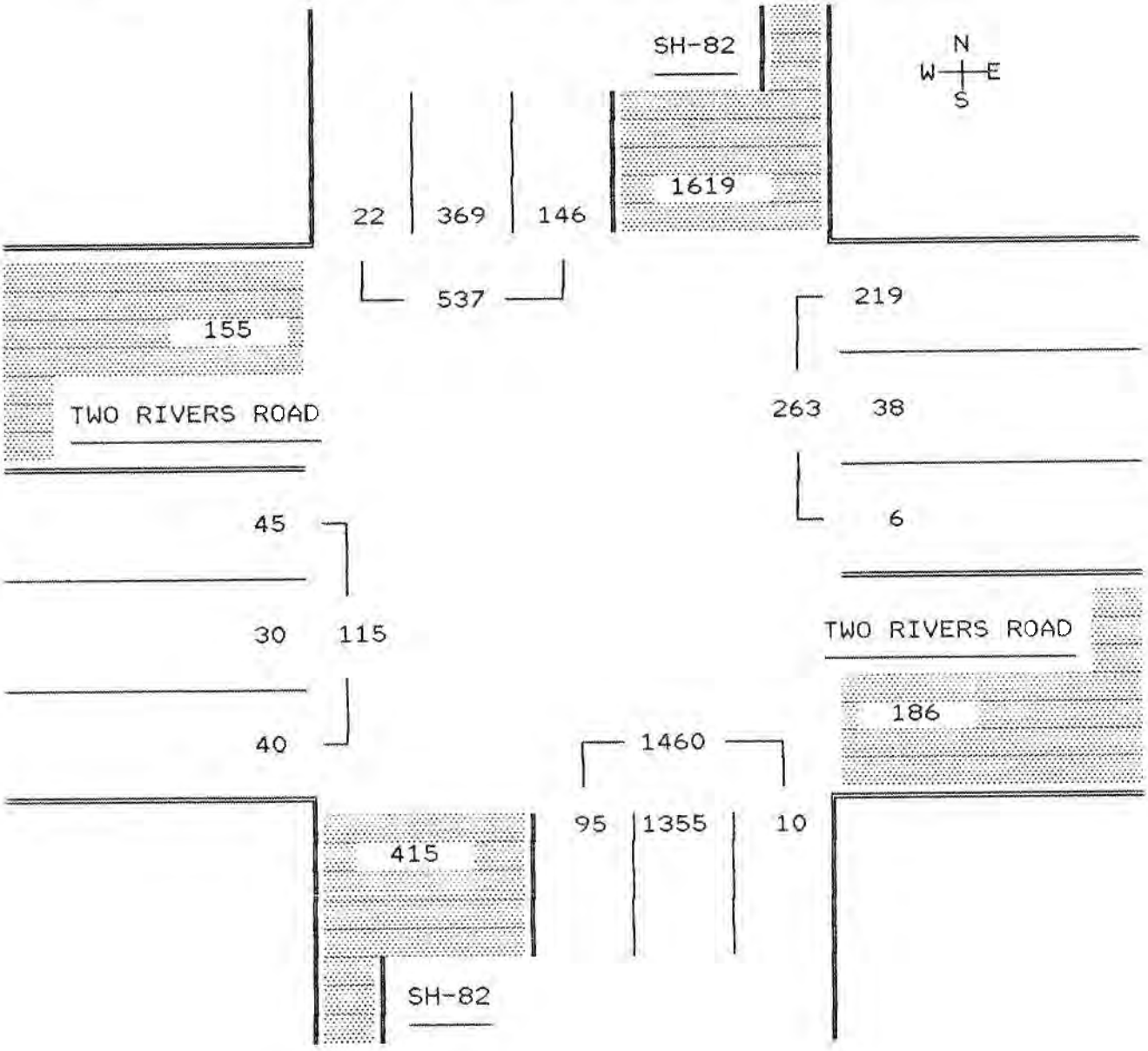
PAGE: 1
FILE: SH82TWOR

Movements by: Primary

DATE: 1/04/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES ..... Right	Thru	Left	Total	.... PERCENTS ... Right	Thru	Left
North	5:00 PM	0.93	22	369	146	537	4	69	27
East	5:00 PM	0.91	219	38	6	263	83	14	2
South	4:45 PM	0.96	9	1333	123	1465	1	91	8
West	4:45 PM	0.92	41	36	48	125	33	29	38
Entire Intersection									
North	5:00 PM	0.93	22	369	146	537	4	69	27
East		0.91	219	38	6	263	83	14	2
South		0.95	10	1355	95	1460	1	93	7
West		0.85	40	30	45	115	35	26	39



Counter Measures

Site Code :
N/S STREET: J W DRIVE/W VALLEY RD
E/W STREET: SH 82
:

PAGE: 1
FILE: JWDRSH82

Movements by: Primary

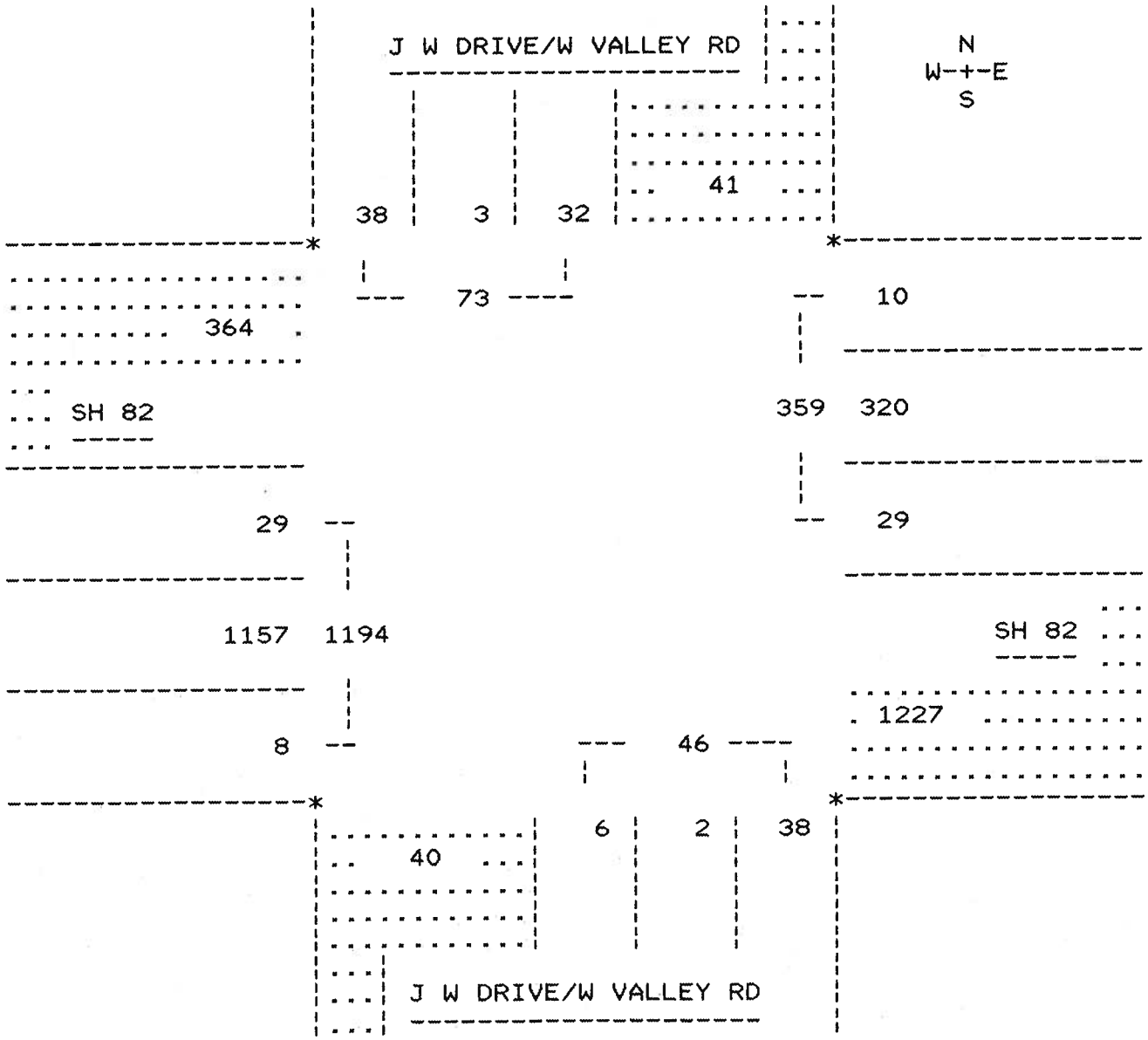
DATE: 1/23/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:15 AM - 8:15 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES ..... Right	Thru	Left	Total	.... PERCENTS ... Right	Thru	Left
North	7:15 AM	0.61	38	3	32	73	52	4	44
East	7:15 AM	0.79	10	320	29	359	3	89	8
South	7:15 AM	0.88	38	2	6	46	83	4	13
West	7:15 AM	0.92	8	1157	29	1194	1	97	2

Entire Intersection

North	7:15 AM	0.61	38	3	32	73	52	4	44
East		0.79	10	320	29	359	3	89	8
South		0.88	38	2	6	46	83	4	13
West		0.92	8	1157	29	1194	1	97	2



Counter Measures

Site Code :
N/S STREET: J W DRIVE/W VALLEY RD
E/W STREET: SH 82
:

PAGE: 1
FILE: JWDRSH82

Movements by: Primary

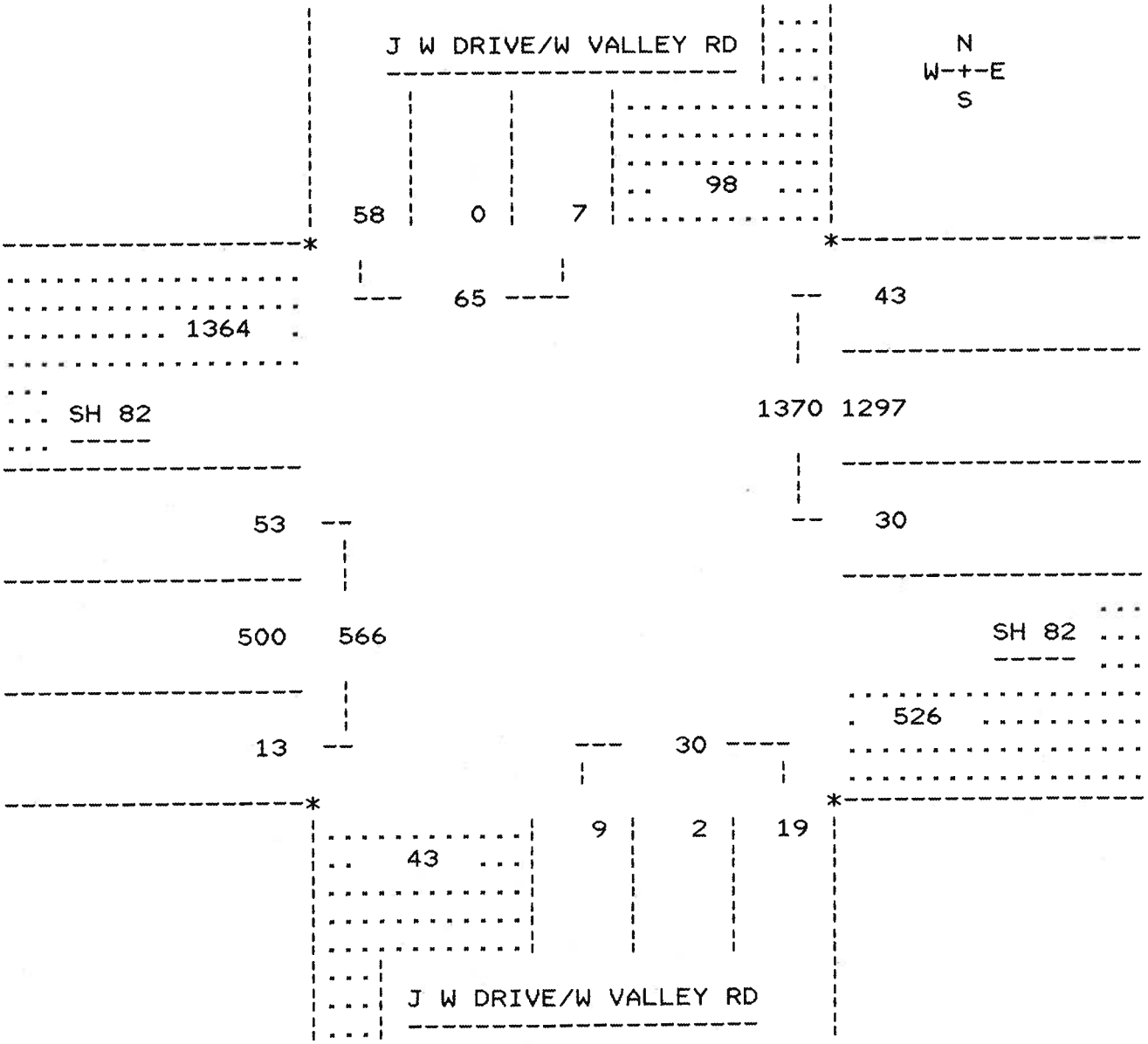
DATE: 1/23/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 5:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES ..... Right	Thru	Left	Total	.... PERCENTS ... Right	Thru	Left
North	5:00 PM	0.81	58	0	7	65	89	0	11
East	5:00 PM	0.91	43	1297	30	1370	3	95	2
South	5:00 PM	0.63	19	2	9	30	63	7	30
West	5:00 PM	0.87	13	500	53	566	2	88	9

Entire Intersection

North	5:00 PM	0.81	58	0	7	65	89	0	11
East		0.91	43	1297	30	1370	3	95	2
South		0.63	19	2	9	30	63	7	30
West		0.87	13	500	53	566	2	88	9



Counter Measures

Site Code :
/S STREET: EL JEBEL RD
/W STREET: SH82
:

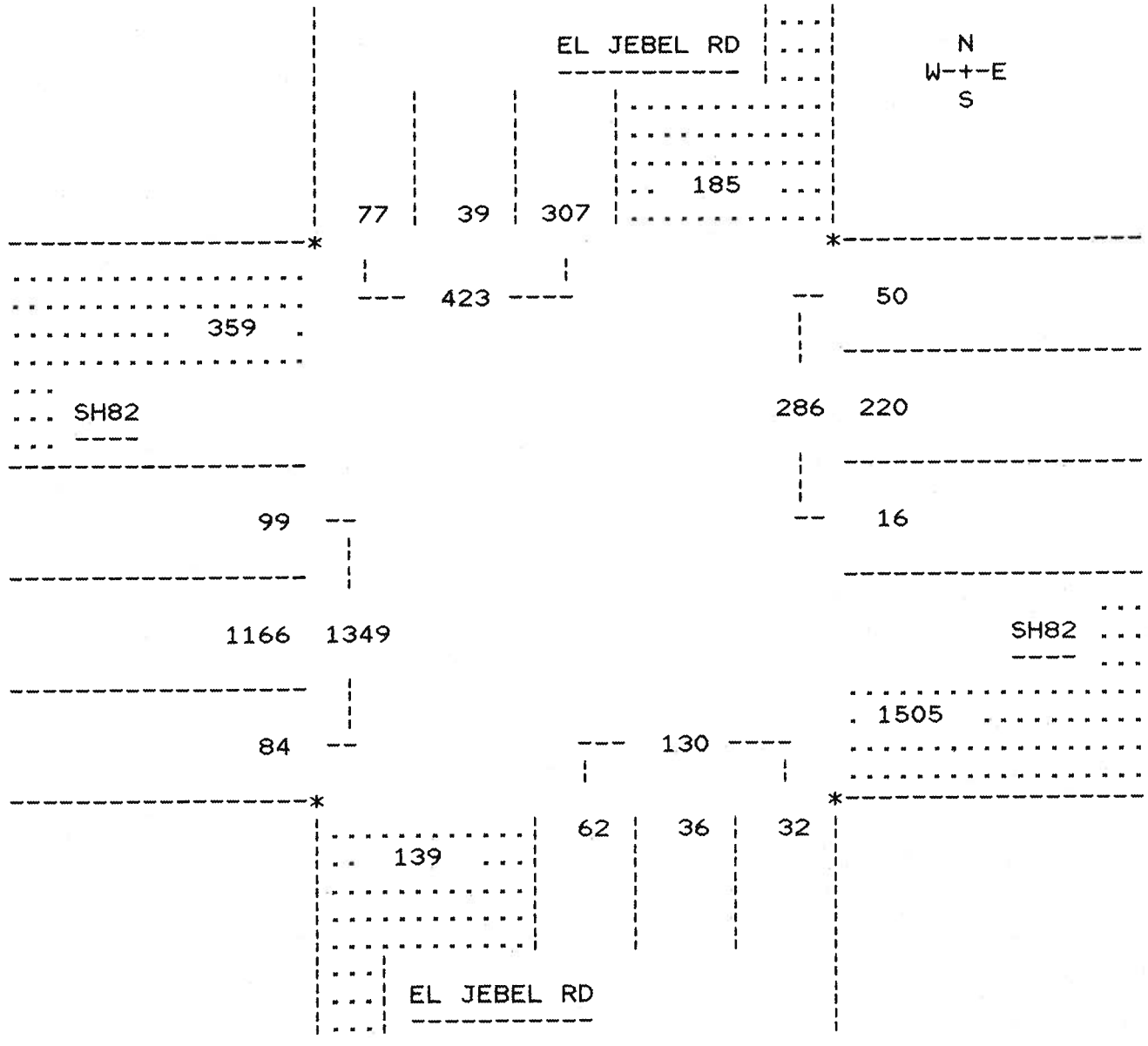
PAGE: 1
FILE: ELJESH82

Movements by: Primary

DATE: 1/23/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:30 AM - 8:30 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES ..... Right	Thru	Left	Total	.... PERCENTS ... Right	Thru	Left
North	7:30 AM	0.85	84	48	305	437	19	11	70
East	7:30 AM	0.86	54	236	30	320	17	74	9
South	7:30 AM	0.91	31	34	69	134	23	25	51
West	7:15 AM	0.89	84	1166	99	1349	6	86	7
Entire Intersection									
North	7:15 AM	0.82	77	39	307	423	18	9	73
East		0.77	50	220	16	286	17	77	6
South		0.88	32	36	62	130	25	28	48
West		0.89	84	1166	99	1349	6	86	7



Counter Measures

Site Code :
N/S STREET: EL JEBEL RD
E/W STREET: SH82
:

PAGE: 1
FILE: ELJESH82

Movements by: Primary

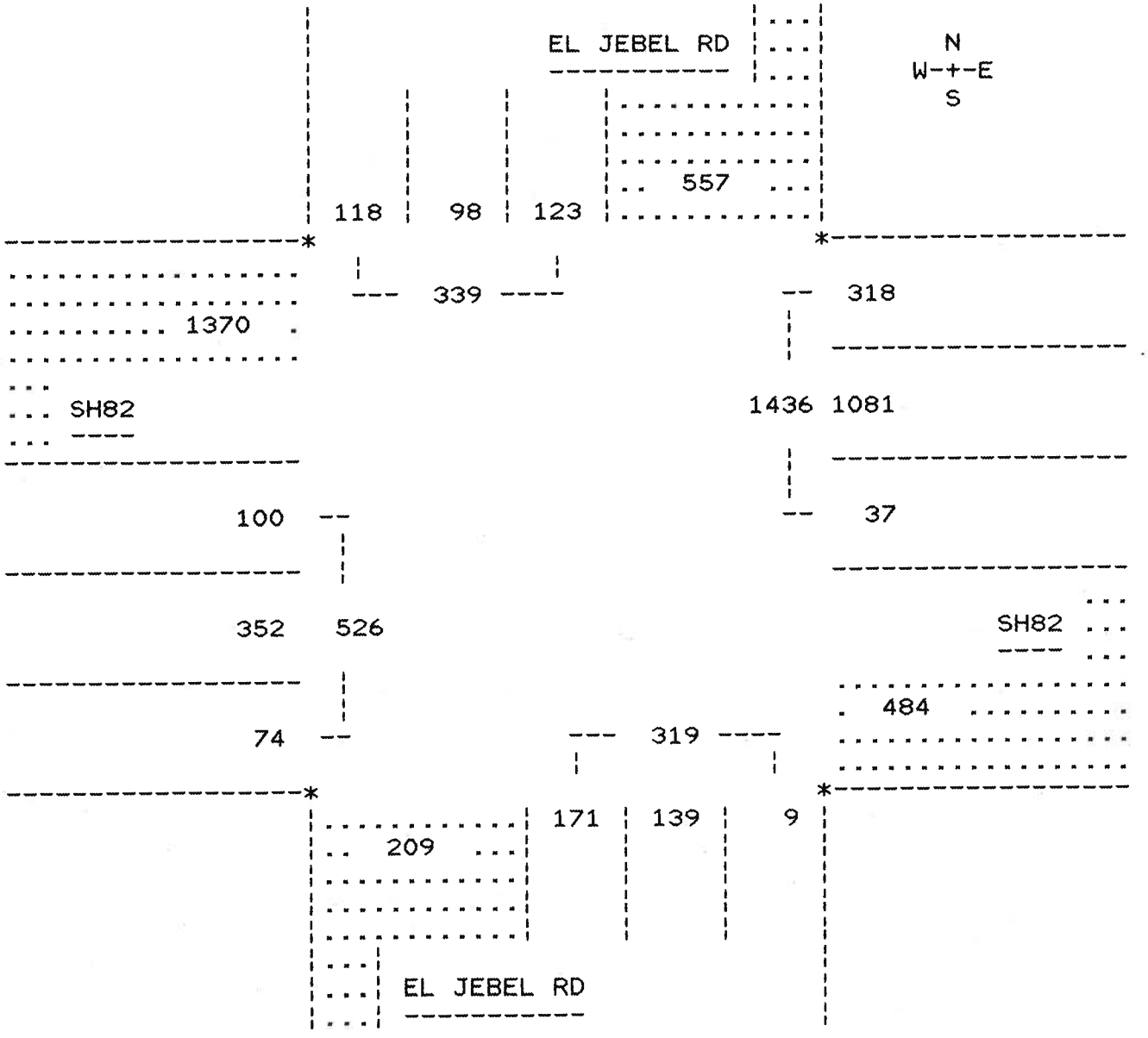
DATE: 1/23/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.86	118	98	123	339	35	29	36
East	5:00 PM	0.99	318	1081	37	1436	22	75	3
South	4:30 PM	0.90	9	133	179	321	3	41	56
West	4:30 PM	0.89	79	358	111	548	14	65	20

Entire Intersection

North	5:00 PM	0.86	118	98	123	339	35	29	36
East		0.99	318	1081	37	1436	22	75	3
South		0.90	9	139	171	319	3	44	54
West		0.85	74	352	100	526	14	67	19

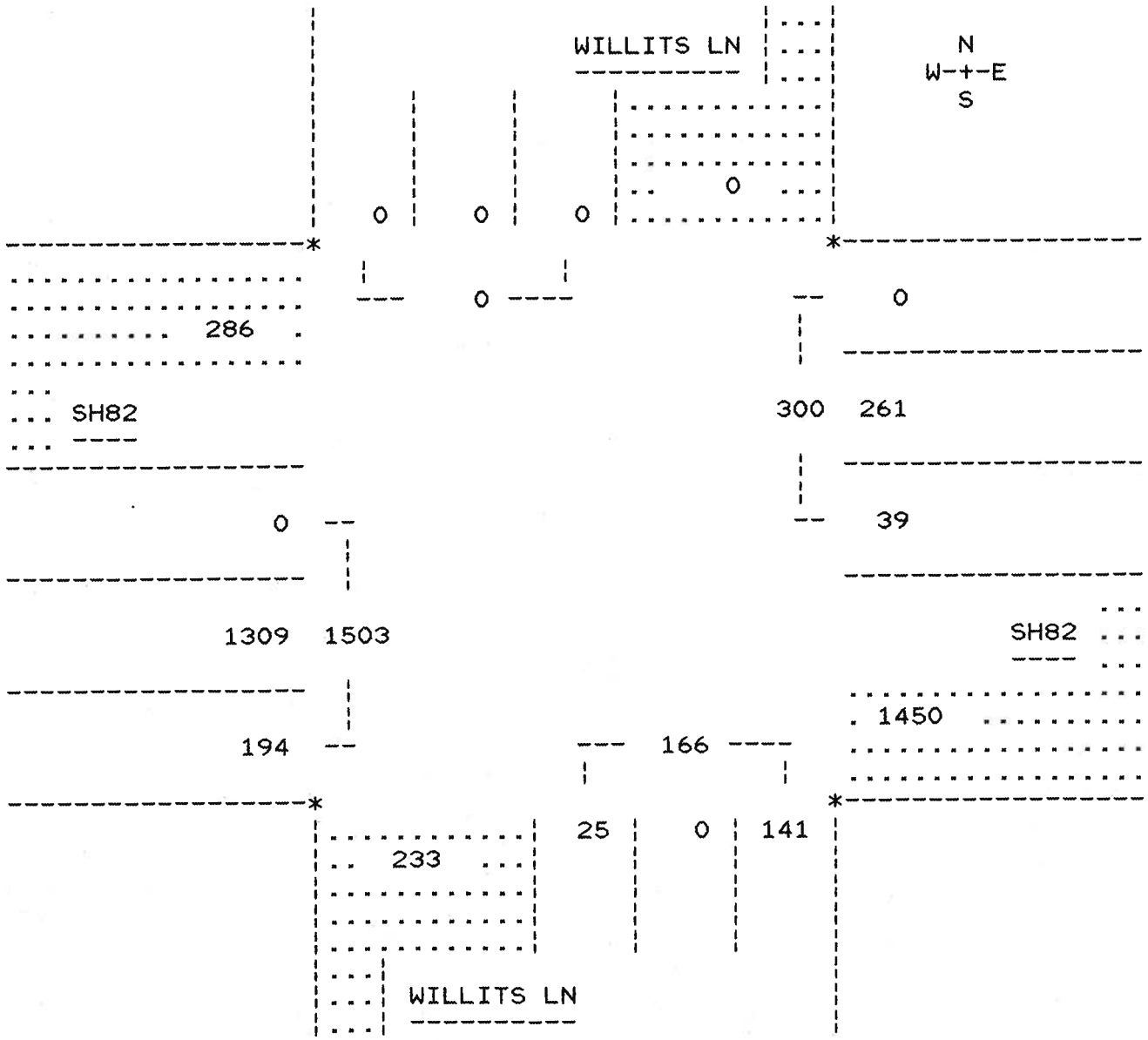


PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:15 AM - 8:15 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES ..... Right	Thru	Left	Total	.... PERCENTS ... Right	Thru	Left
North	12:00 AM	0.00	0	0	0	0	0	0	0
East	7:15 AM	0.74	0	261	39	300	0	87	13
South	7:15 AM	0.83	141	0	25	166	85	0	15
West	7:15 AM	0.89	194	1309	0	1503	13	87	0

Entire Intersection

North	7:15 AM	0.00	0	0	0	0	0	0	0
East		0.74	0	261	39	300	0	87	13
South		0.83	141	0	25	166	85	0	15
West		0.89	194	1309	0	1503	13	87	0

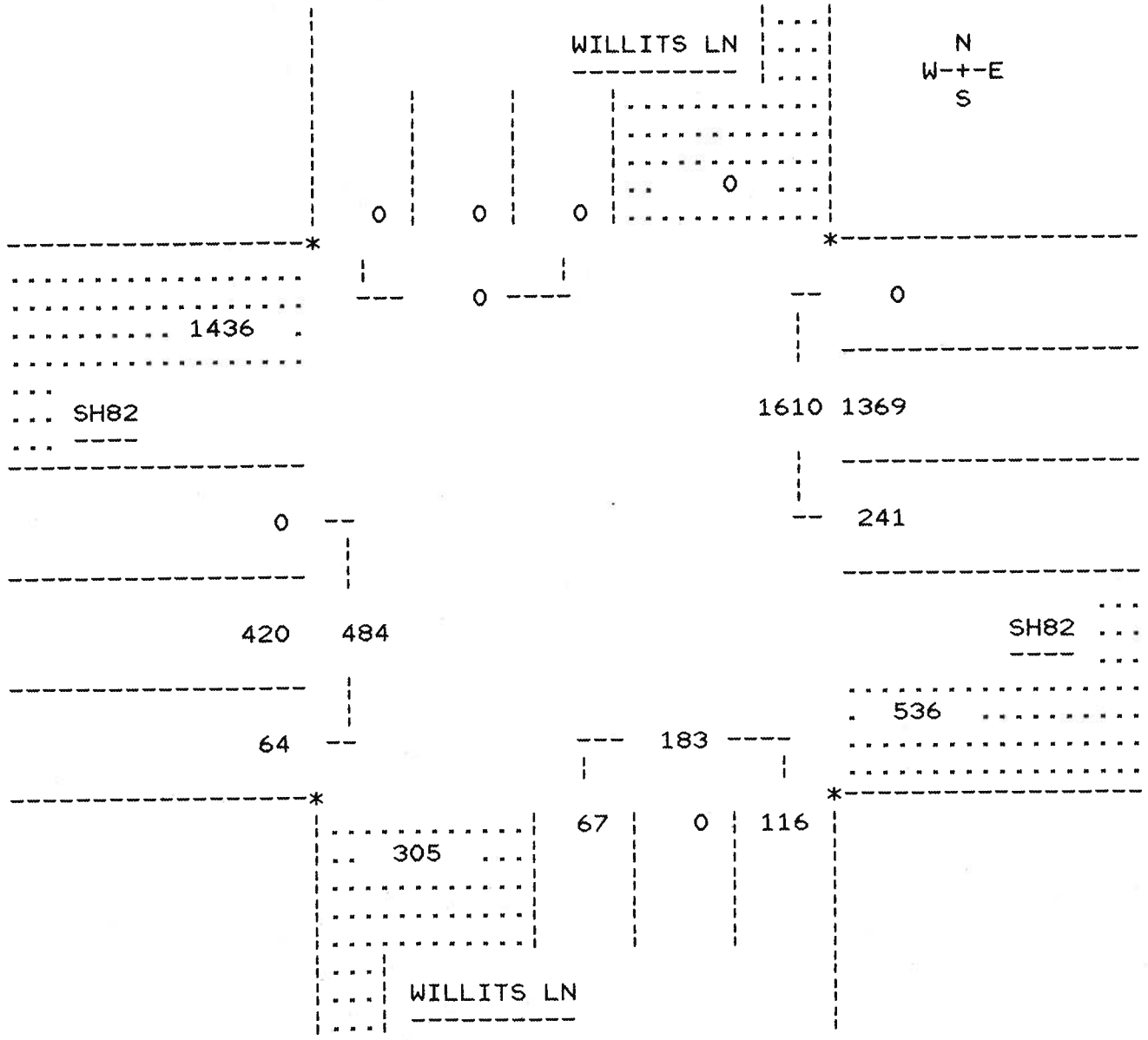


PEAK PERIOD ANALYSIS FOR THE PERIOD: 5:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.00	0	0	0	0	0	0	0
East	5:00 PM	0.96	0	1369	241	1610	0	85	15
South	5:00 PM	0.85	116	0	67	183	63	0	37
West	5:00 PM	0.88	64	420	0	484	13	87	0

Entire Intersection

North	5:00 PM	0.00	0	0	0	0	0	0	0
East		0.96	0	1369	241	1610	0	85	15
South		0.85	116	0	67	183	63	0	37
West		0.88	64	420	0	484	13	87	0



Counter Measures

Site Code :
N/S STREET: SH-82
E/W STREET: ORIGINAL ROAD
:

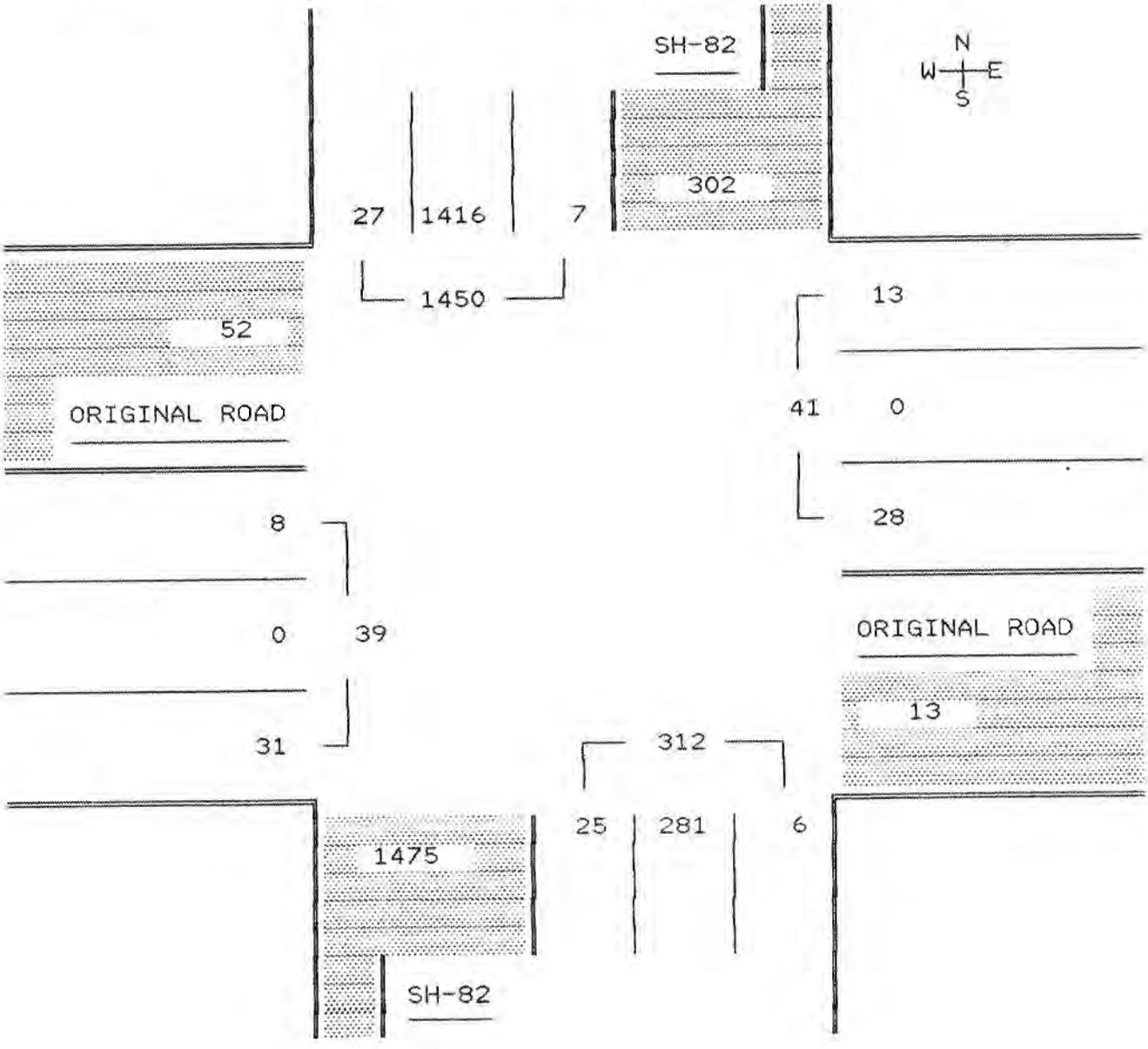
PAGE: 1
FILE: SH32ORIG

Movements by: Primary

DATE: 1/09/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:15 AM - 8:15 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	7:15 AM	0.88	27	1416	7	1450	2	98	0
East	7:15 AM	0.73	13	0	28	41	32	0	68
South	7:15 AM	0.75	6	281	25	312	2	90	8
West	7:15 AM	0.75	31	0	8	39	79	0	21
Entire Intersection									
North	7:15 AM	0.88	27	1416	7	1450	2	98	0
East		0.73	13	0	28	41	32	0	68
South		0.75	6	281	25	312	2	90	8
West		0.75	31	0	8	39	79	0	21



Counter Measures

Site Code :
N/S STREET: SH-82
E/W STREET: ORIGINAL ROAD
:

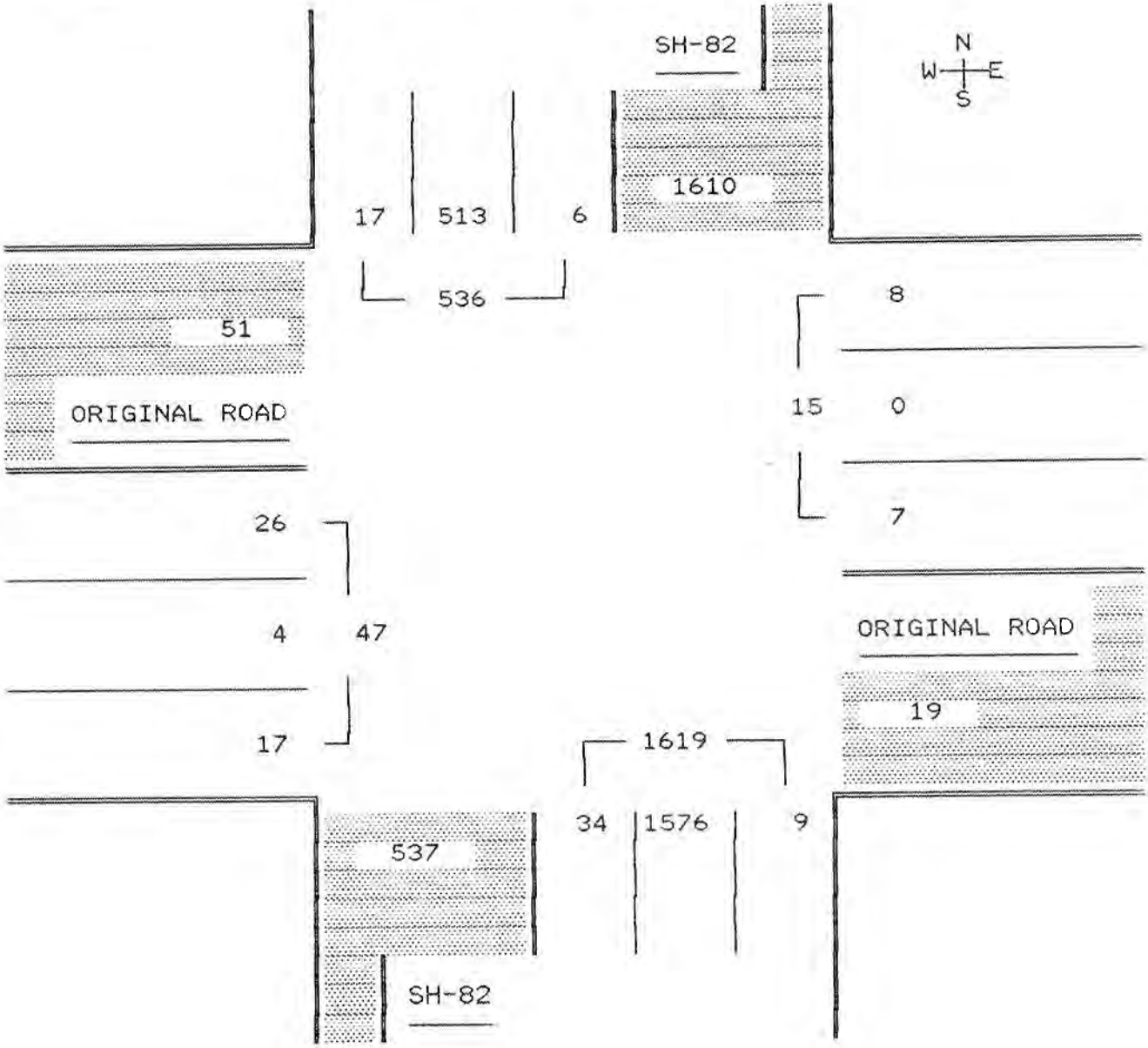
PAGE: 1
FILE: SH92ORIG

Movements by: Primary

DATE: 1/09/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 5:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.93	17	513	6	536	3	96	1
East	5:00 PM	0.75	8	0	7	15	53	0	47
South	5:00 PM	0.95	9	1576	34	1619	1	97	2
West	5:00 PM	0.90	17	4	26	47	36	9	55
Entire Intersection									
North	5:00 PM	0.93	17	513	6	536	3	96	1
East		0.75	8	0	7	15	53	0	47
South		0.95	9	1576	34	1619	1	97	2
West		0.90	17	4	26	47	36	9	55



Counter Measures

Site Code :
N/S STREET: SH-82
E/W STREET: TWO RIVERS ROAD
:

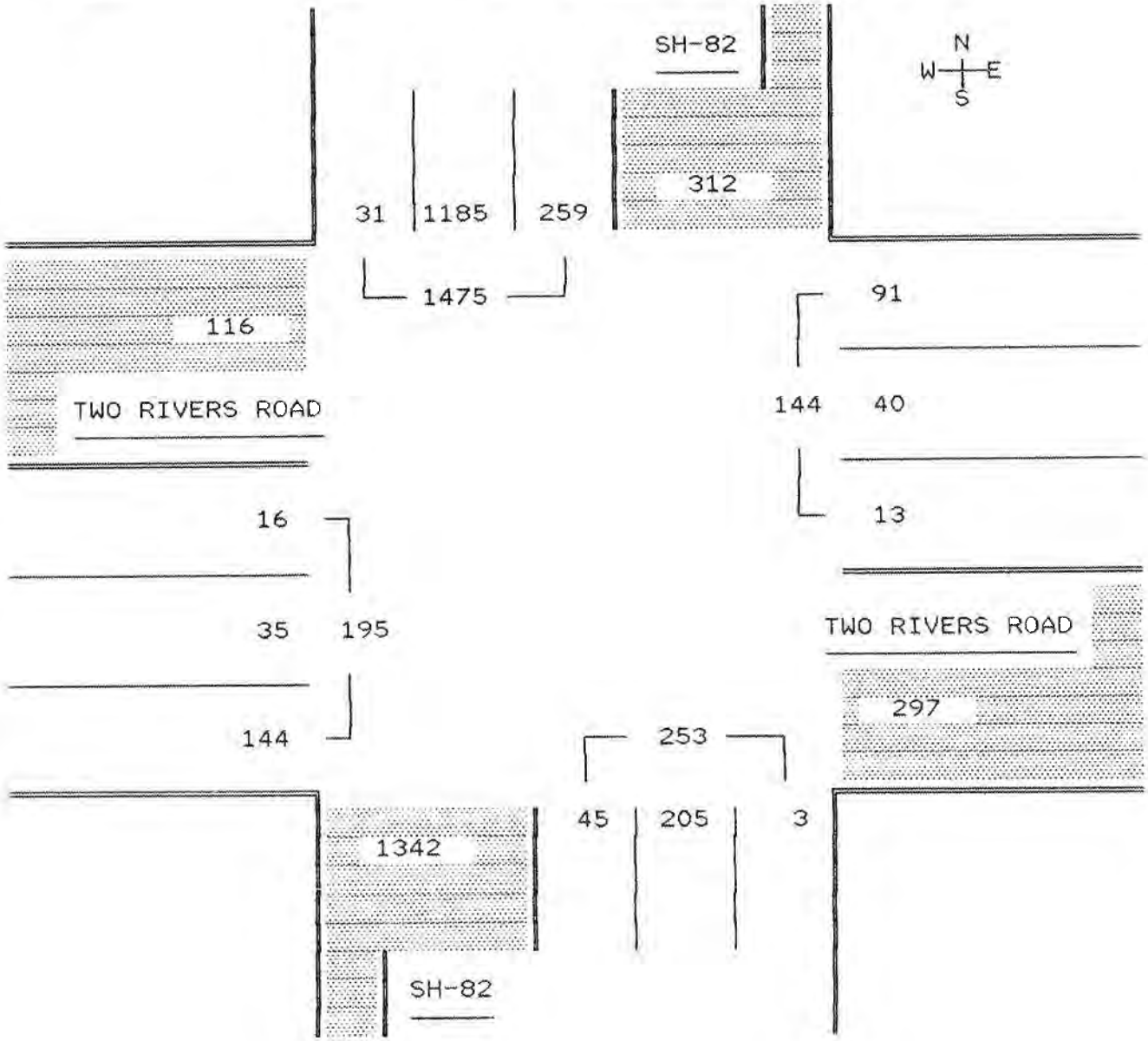
PAGE: 1
FILE: SH82TWOR

Movements by: Primary

DATE: 1/04/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:15 AM - 8:15 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES ..... Right	Thru	Left	Total	.... PERCENTS ... Right	Thru	Left
North	7:15 AM	0.89	31	1185	259	1475	2	80	18
East	7:15 AM	0.58	91	40	13	144	63	28	9
South	7:15 AM	0.84	3	205	45	253	1	81	18
West	7:15 AM	0.84	144	35	16	195	74	18	8
Entire Intersection									
North	7:15 AM	0.89	31	1185	259	1475	2	80	18
East		0.58	91	40	13	144	63	28	9
South		0.84	3	205	45	253	1	81	18
West		0.84	144	35	16	195	74	18	8



Counter Measures

Site Code :
N/S STREET: SH-82
E/W STREET: TWO RIVERS ROAD
:

PAGE: 1
FILE: SH82TWOR

Movements by: Primary

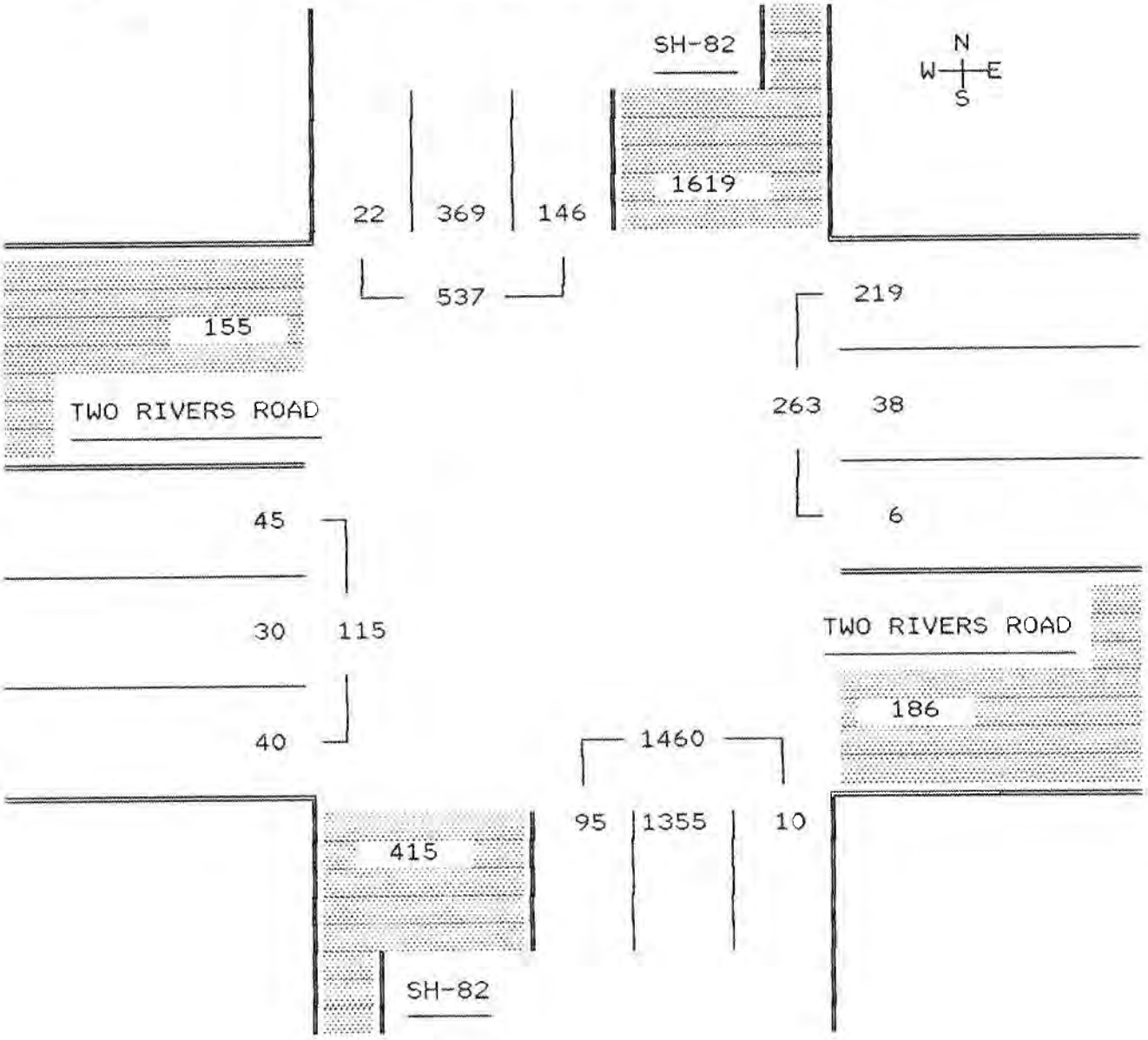
DATE: 1/04/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 5:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	VOLUMES Right	Thru	Left	Total	PERCENTS Right	Thru	Left
North	5:00 PM	0.93	22	369	146	537	4	69	27
East	5:00 PM	0.91	219	38	6	263	83	14	2
South	5:00 PM	0.95	10	1355	95	1460	1	93	7
West	5:00 PM	0.85	40	30	45	115	35	26	39

Entire Intersection

North	5:00 PM	0.93	22	369	146	537	4	69	27
East		0.91	219	38	6	263	83	14	2
South		0.95	10	1355	95	1460	1	93	7
West		0.85	40	30	45	115	35	26	39



Counter Measures

Site Code :
N/S STREET: SH-82
E/W STREET: EMMA ROAD
:

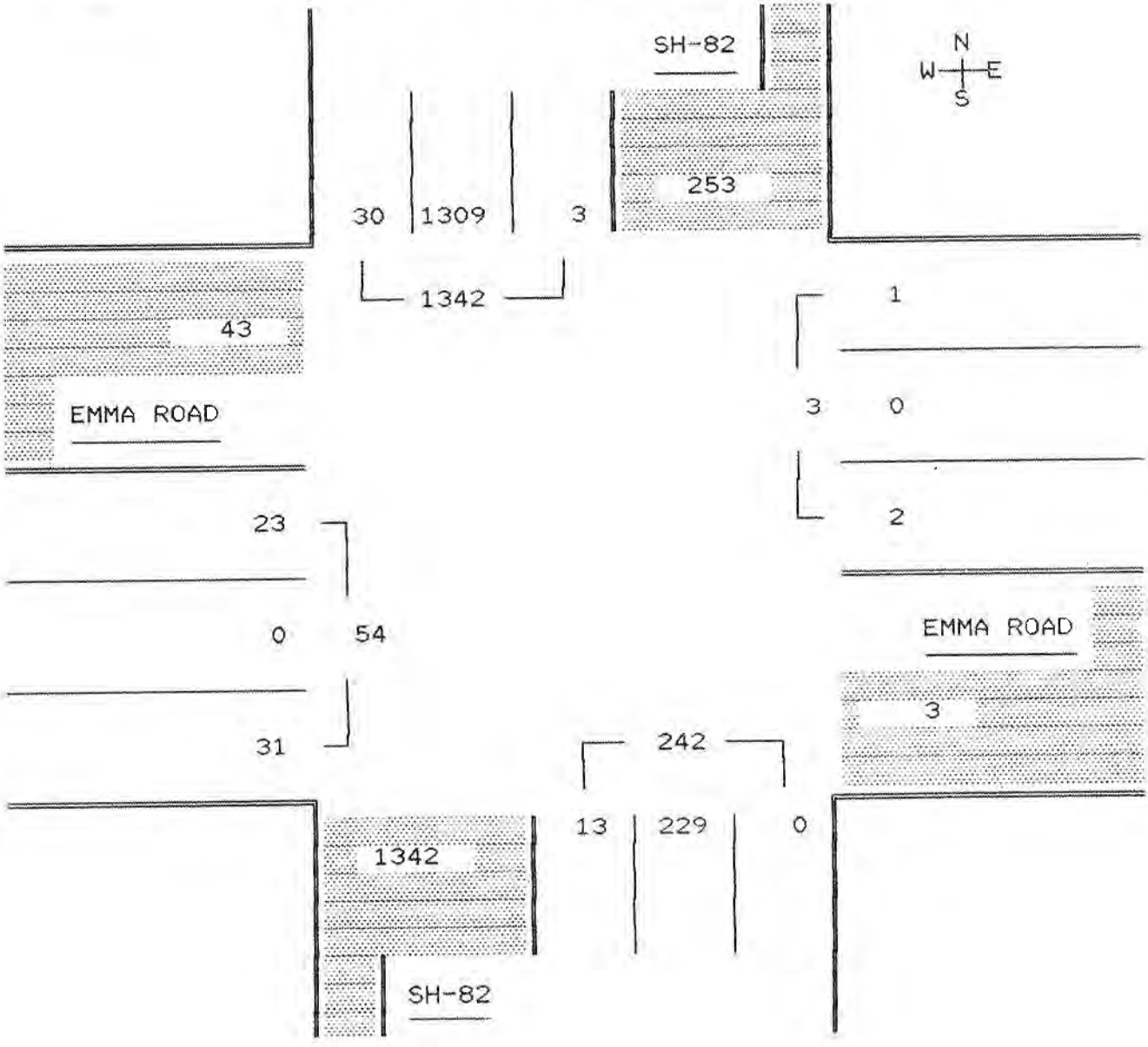
PAGE: 1
FILE: SH82EMMA

Movements by: Primary

DATE: 1/09/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:15 AM - 8:15 AM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES ..... Right	Thru	Left	Total	.... PERCENTS ... Right	Thru	Left
North	7:15 AM	0.96	30	1309	3	1342	2	98	0
East	7:15 AM	0.75	1	0	2	3	33	0	67
South	7:15 AM	0.83	0	229	13	242	0	95	5
West	7:15 AM	0.68	31	0	23	54	57	0	43
Entire Intersection									
North	7:15 AM	0.96	30	1309	3	1342	2	98	0
East		0.75	1	0	2	3	33	0	67
South		0.83	0	229	13	242	0	95	5
West		0.68	31	0	23	54	57	0	43



Counter Measures

Site Code :
N/S STREET: SH-82
E/W STREET: EMMA ROAD
:

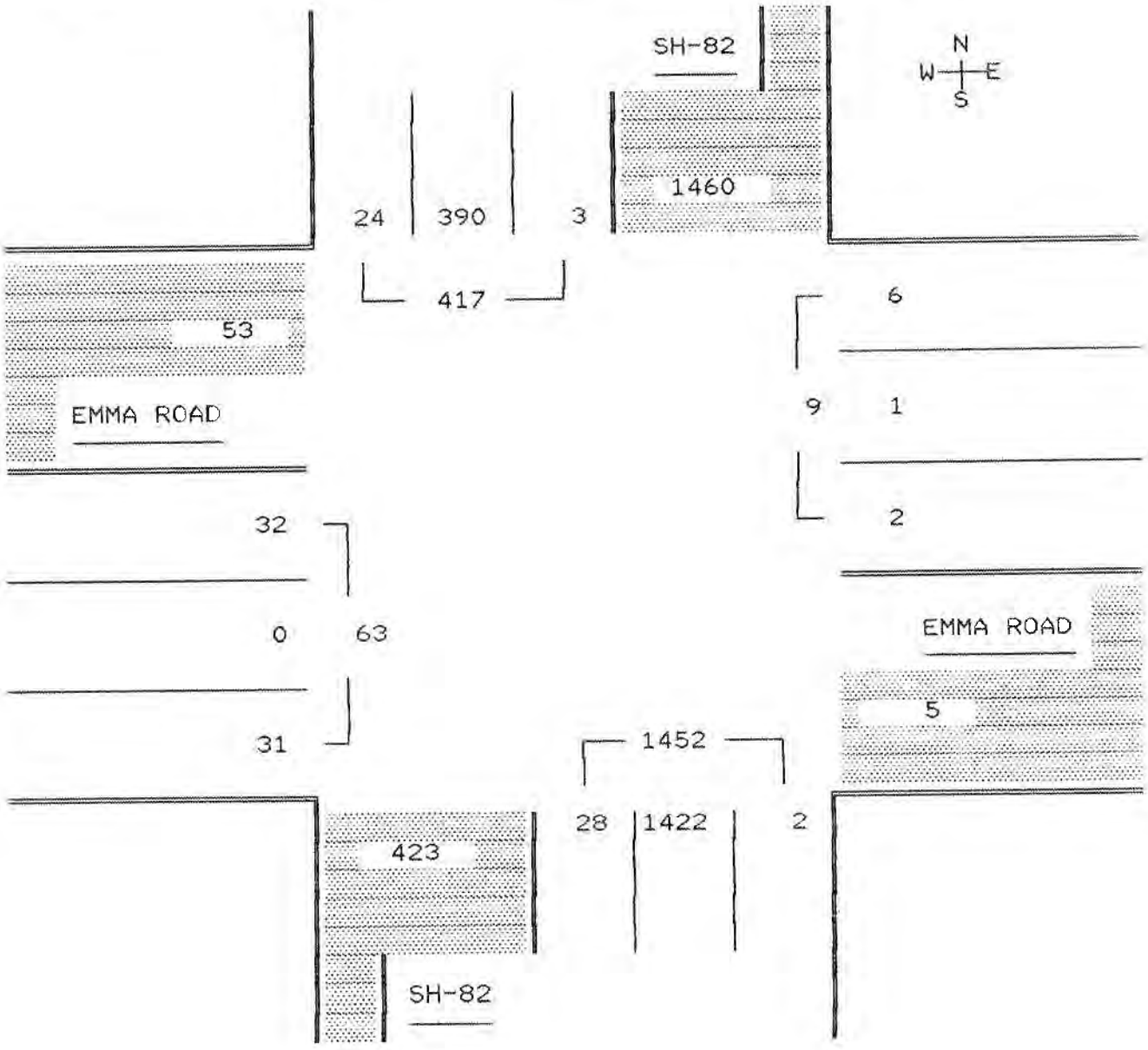
PAGE: 1
FILE: SH82EMMA

Movements by: Primary

DATE: 1/09/01

PEAK PERIOD ANALYSIS FOR THE PERIOD: 5:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES ..... Right	Thru	Left	Total	.... PERCENTS ... Right	Thru	Left
North	5:00 PM	0.90	24	390	3	417	6	94	1
East	5:00 PM	0.45	6	1	2	9	67	11	22
South	5:00 PM	0.95	2	1422	28	1452	0	98	2
West	5:00 PM	0.79	31	0	32	63	49	0	51
Entire Intersection									
North	5:00 PM	0.90	24	390	3	417	6	94	1
East		0.45	6	1	2	9	67	11	22
South		0.95	2	1422	28	1452	0	98	2
West		0.79	31	0	32	63	49	0	51



APPENDIX B

Public Meeting Notices

SH 82 Access Control Plan
Open House/Public Meeting
Notification

January 10, 2001
Blue Lake Homeowners Association Community Center
189 J.W. Drive
Open House - 6:00 p.m. to 7:00 p.m.
Public Meeting - 7:00 p.m. to 9:00 p.m.

Sponsoring Agencies:
Eagle County, the Town of Basalt, and the Colorado Department of Transportation

Goal of Plan:
To development an Access Control Plan for SH 82 in Eagle County that balances the level of access from abutting properties and local streets with the need to move traffic on SH 82.

Purpose of Open House:
Share information gathered about SH 82 and obtain citizen input relative to the issues and concerns about SH 82. Your input is a valuable tool in the Access Control Plan process and we urge you to attend the open house.

Contractual Services Provided by:
LSC Transportation Consultants, Inc.
1889 York Street
Denver, Colorado 80206
(303) 333-1105
(303) 333-1107

If you cannot attend the open house, but would like to offer comments on the plan, you may address them to Helen Migchelbrink, Eagle County Engineer, P.O. Box 850, Eagle, CO 81631.

LSC Transportation Consultants, Inc.
c/o Dave L. Ruble Jr.
1889 York Street
Denver, CO 80206

SH 82 Access Control Plan
Open House/Public Meeting Notification

April 16, 2001
Blue Lake Homeowners Association Community Center
189 J.W. Drive

Open House - 6:00 p.m. to 7:00 p.m.
Public Meeting - 7:00 p.m. to 9:00 p.m.

Sponsoring Agencies:
Eagle County, the Town of Basalt, and the Colorado Department of Transportation

Goal of Plan:
To develop an Access Control Plan for SH 82 in Eagle County that balances the level of access from abutting properties and local streets with the need to move traffic on SH 82.

Purpose of Open House and Pubic Meeting:
Present the information gathered along SH 82, the draft Access Control Plan, and obtain citizen input relative to the draft Access Control Plan. Your input is a valuable tool in the Access Control Plan process and we urge you to attend the open house.

Contractual Services Provided by:
LSC Transportation Consultants, Inc.
1889 York Street
Denver, Colorado 80206
303.333.1105
303.333.1107

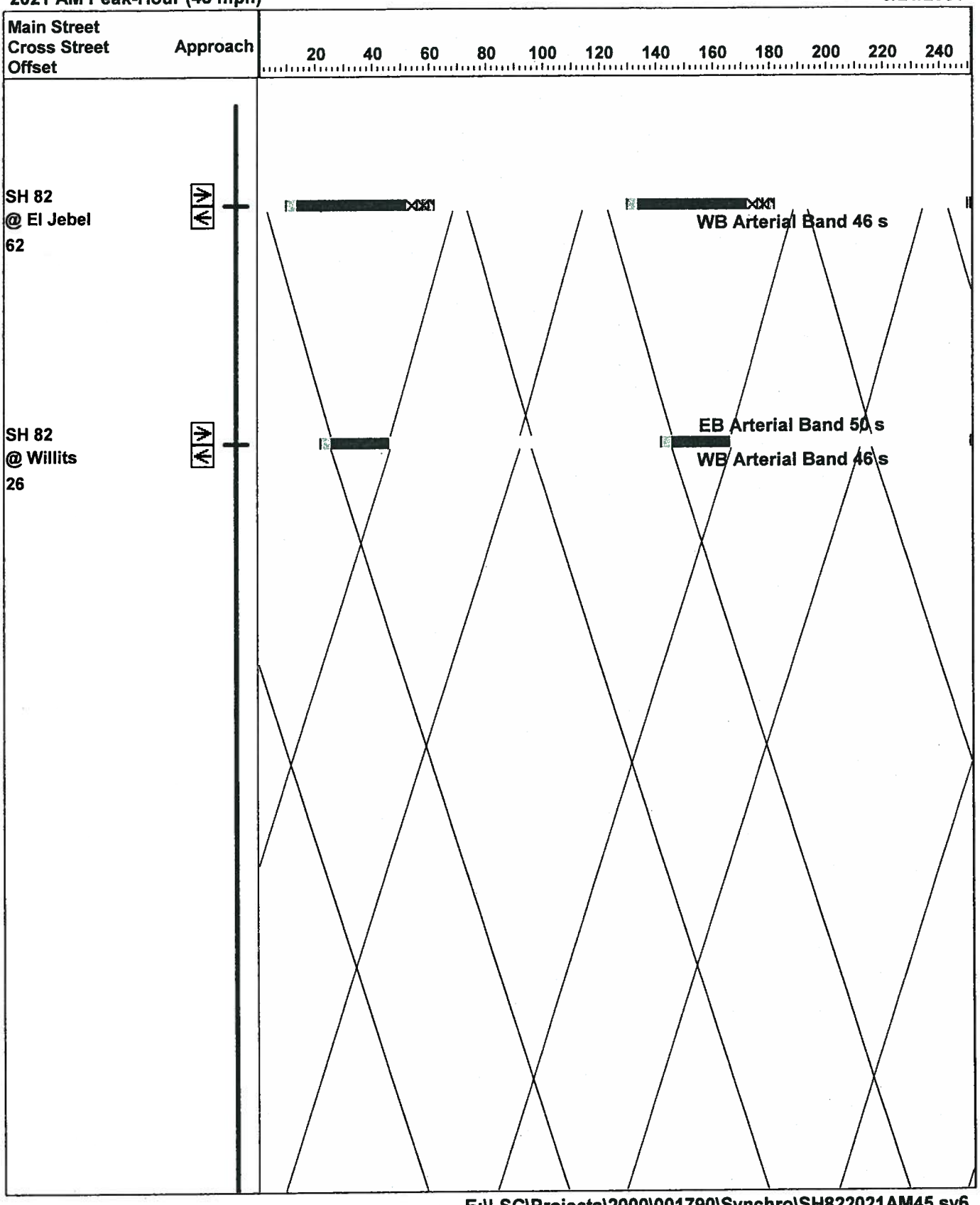
If you cannot attend the open house, but would like to offer comments on the plan, you may address them to Helen Migchelbrik, Eagle County Engineer, P.O. Box 850, Eagle, CO 81631

APPENDIX C

Traffic Signal Progression Data Using 45 mph

SH 82 Access Control Plan
2021 AM Peak-Hour (45 mph)

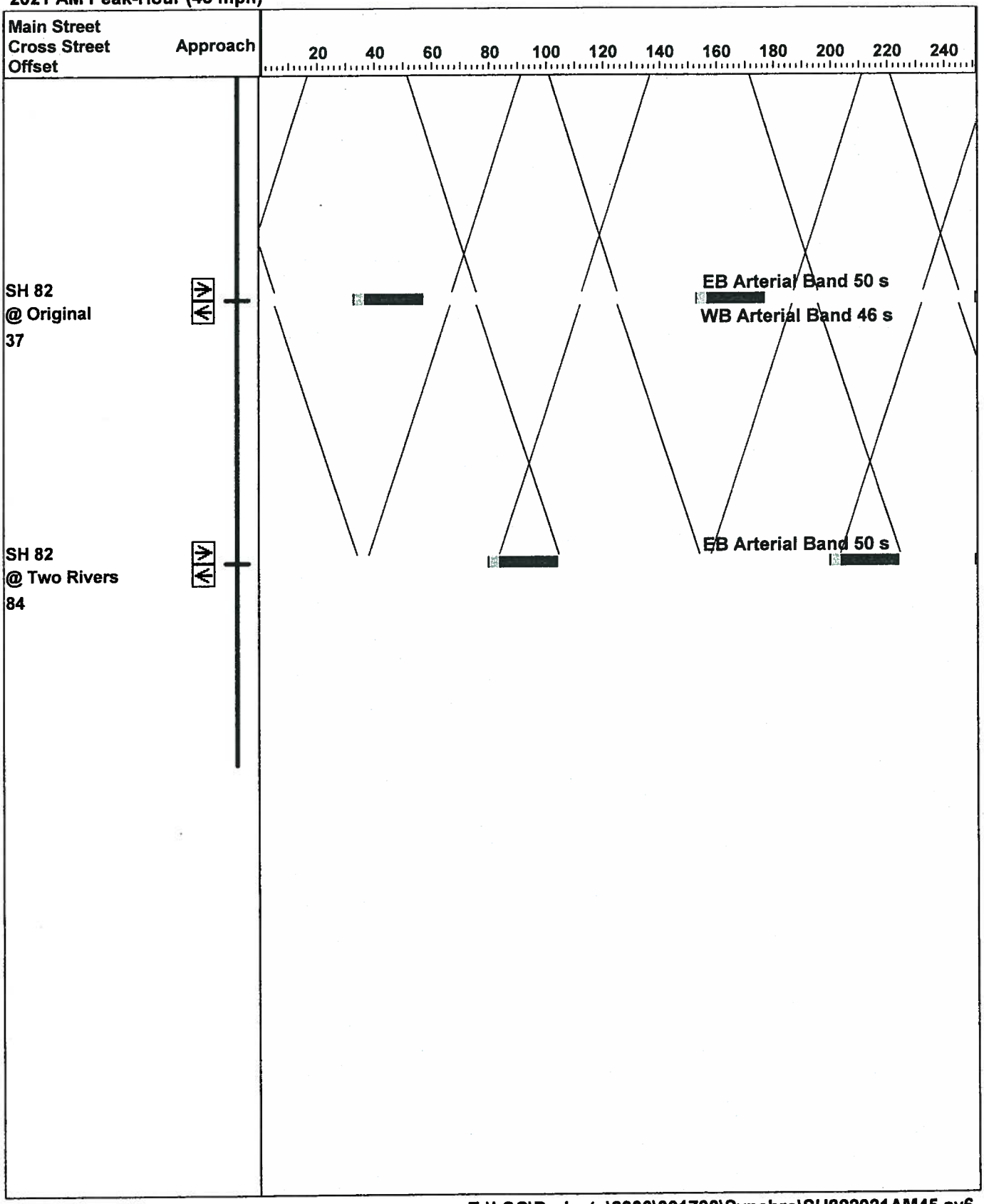
6/21/2001



E:\LSC\Projects\2000\001790\Synchro\SH822021AM45.sy6

SH 82 Access Control Plan
2021 AM Peak-Hour (45 mph)

6/21/2001



E:\LSC\Projects\2000\001790\Synchro\SH822021AM45.sy6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	1863	1583	3433	3539	1583
Flt Permitted	0.39	1.00	1.00	0.06	1.00	1.00	0.61	1.00	1.00	0.26	1.00	1.00
Satd. Flow (perm)	733	3539	1583	109	3539	1583	2207	1863	1583	951	3539	1583
Volume (vph)	180	1975	110	65	520	190	70	170	45	545	215	195
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	189	2079	116	68	547	200	74	179	47	574	226	205
Lane Group Flow (vph)	189	2079	116	68	547	200	74	179	47	574	226	205
Turn Type	pm+pt		Free	pm+pt		Free	pm+pt		Free	pm+pt		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		Free	6		Free	8		Free	4		Free
Actuated Green, G (s)	77.3	71.3	120.0	71.7	68.5	120.0	18.7	15.5	120.0	33.5	26.3	120.0
Effective Green, g (s)	77.3	71.3	120.0	71.7	68.5	120.0	18.7	15.5	120.0	33.5	26.3	120.0
Actuated g/C Ratio	0.64	0.59	1.00	0.60	0.57	1.00	0.16	0.13	1.00	0.28	0.22	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	524	2103	1583	109	2020	1583	377	241	1583	555	776	1583
v/s Ratio Prot	c0.02	c0.59		c0.02	0.15		0.01	0.10		c0.12	0.06	
v/s Ratio Perm	0.21		0.07	0.36		0.13	0.03		0.03	c0.17		0.13
v/c Ratio	0.36	0.99	0.07	0.62	0.27	0.13	0.20	0.74	0.03	1.03	0.29	0.13
Uniform Delay, d1	8.9	23.9	0.0	59.1	13.1	0.0	43.7	50.3	0.0	39.8	39.1	0.0
Progression Factor	1.00	1.00	1.00	1.41	1.06	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	17.1	0.1	10.3	0.3	0.2	0.3	11.7	0.0	47.3	0.2	0.2
Delay (s)	9.3	41.1	0.1	93.6	14.1	0.2	44.0	62.0	0.0	87.1	39.3	0.2
Level of Service	A	D	A	F	B	A	D	E	A	F	D	A
Approach Delay (s)		36.6			17.3			47.8			58.6	
Approach LOS		D			B			D			E	

Intersection Summary			
HCM Average Control Delay	38.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	100.4%	ICU Level of Service	F
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.41	1.00	1.00	0.04	1.00	1.00	0.73	1.00	1.00	0.73	1.00	1.00
Satd. Flow (perm)	761	3539	1583	78	3539	1583	1359	1863	1583	1365	1863	1583
Volume (vph)	60	2205	300	95	595	80	120	35	200	85	40	60
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	63	2321	316	100	626	84	126	37	211	89	42	63
Lane Group Flow (vph)	63	2321	316	100	626	84	126	37	211	89	42	63
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	96.0	96.0	96.0	96.0	96.0	96.0	16.0	16.0	16.0	16.0	16.0	16.0
Effective Green, g (s)	96.0	96.0	96.0	96.0	96.0	96.0	16.0	16.0	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.80	0.80	0.13	0.13	0.13	0.13	0.13	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	609	2831	1266	62	2831	1266	181	248	211	182	248	211
v/s Ratio Prot		0.66			0.18			0.02			0.02	
v/s Ratio Perm	0.08		0.20	c1.29		0.05	0.09		0.13	0.07		0.04
v/c Ratio	0.10	0.82	0.25	1.61	0.22	0.07	0.70	0.15	1.00	0.49	0.17	0.30
Uniform Delay, d1	2.6	7.0	3.0	12.0	2.9	2.5	49.7	46.0	52.0	48.2	46.1	46.9
Progression Factor	1.08	0.76	1.90	1.23	0.81	2.24	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0	0.6	0.0	336.9	0.0	0.0	19.9	1.3	62.0	9.1	1.5	3.6
Delay (s)	2.9	5.9	5.7	351.6	2.4	5.7	69.6	47.2	114.0	57.3	47.6	50.5
Level of Service	A	A	A	F	A	A	E	D	F	E	D	D
Approach Delay (s)		5.8			45.9			92.4			53.0	
Approach LOS		A			D			F			D	

Intersection Summary			
HCM Average Control Delay	23.9	HCM Level of Service	C
HCM Volume to Capacity ratio	1.52		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.4%	ICU Level of Service	E
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770		1583	1770		1583
Flt Permitted	0.34	1.00	1.00	0.04	1.00	1.00	0.76		1.00	0.76		1.00
Satd. Flow (perm)	639	3539	1583	78	3539	1583	1410		1583	1410		1583
Volume (vph)	5	2460	25	60	745	5	10	0	70	30	0	15
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	2589	26	63	784	5	11	0	74	32	0	16
Lane Group Flow (vph)	5	2589	26	63	784	5	11	0	74	32	0	16
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	96.0	96.0	96.0	96.0	96.0	96.0	16.0		16.0	16.0		16.0
Effective Green, g (s)	96.0	96.0	96.0	96.0	96.0	96.0	16.0		16.0	16.0		16.0
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.80	0.80	0.13		0.13	0.13		0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	511	2831	1266	62	2831	1266	188		211	188		211
v/s Ratio Prot		0.73			0.22							
v/s Ratio Perm	0.01		0.02	c0.81		0.00	0.01		0.05	0.02		0.01
v/c Ratio	0.01	0.91	0.02	1.02	0.28	0.00	0.06		0.35	0.17		0.08
Uniform Delay, d1	2.4	8.9	2.4	12.0	3.1	2.4	45.4		47.3	46.1		45.5
Progression Factor	1.22	1.33	1.55	1.53	0.93	0.91	1.00		1.00	1.00		1.00
Incremental Delay, d2	0.0	3.0	0.0	116.9	0.1	0.0	0.6		4.5	2.0		0.7
Delay (s)	3.0	14.8	3.8	135.2	2.9	2.2	46.0		51.8	48.1		46.2
Level of Service	A	B	A	F	A	A	D		D	D		D
Approach Delay (s)		14.7			12.7			51.1			47.5	
Approach LOS		B			B			D			D	

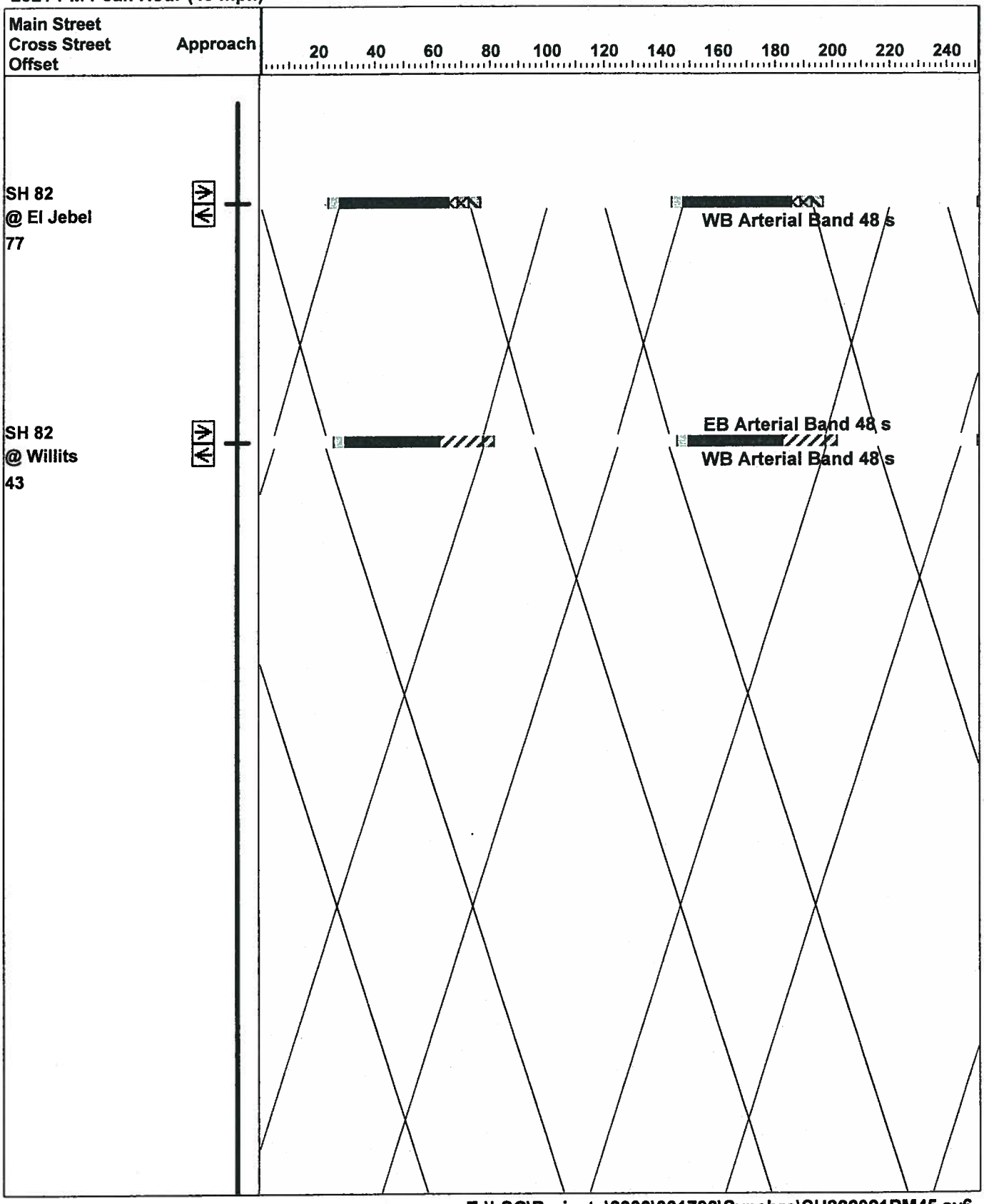
Intersection Summary			
HCM Average Control Delay	15.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.5%	ICU Level of Service	D
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.99	1.00		0.99	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		1839	1583		1845	1583
Flt Permitted	0.42	1.00	1.00	0.05	1.00	1.00		0.92	1.00		0.94	1.00
Satd. Flow (perm)	787	3539	1583	87	3539	1583		1717	1583		1757	1583
Volume (vph)	410	2120	30	70	565	5	15	45	195	15	65	230
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	432	2232	32	74	595	5	16	47	205	16	68	242
Lane Group Flow (vph)	432	2232	32	74	595	5	0	63	205	0	84	242
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	96.0	96.0	96.0	96.0	96.0	96.0		16.0	16.0		16.0	16.0
Effective Green, g (s)	96.0	96.0	96.0	96.0	96.0	96.0		16.0	16.0		16.0	16.0
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.80	0.80		0.13	0.13		0.13	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	630	2831	1266	70	2831	1266		229	211		234	211
v/s Ratio Prot		0.63			0.17							
v/s Ratio Perm	0.55		0.02	c0.85		0.00		0.04	0.13		0.05	0.15
v/c Ratio	0.69	0.79	0.03	1.06	0.21	0.00		0.28	0.97		0.36	1.15
Uniform Delay, d1	5.3	6.5	2.4	12.0	2.9	2.4		46.8	51.8		47.3	52.0
Progression Factor	1.30	1.55	0.95	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	1.4	0.7	0.0	124.2	0.0	0.0		3.0	55.0		4.2	107.2
Delay (s)	8.2	10.7	2.3	136.2	2.9	2.4		49.7	106.8		51.6	159.2
Level of Service	A	B	A	F	A	A		D	F		D	F
Approach Delay (s)		10.2			17.6			93.4			131.5	
Approach LOS		B			B			F			F	

Intersection Summary			
HCM Average Control Delay	27.1	HCM Level of Service	C
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	88.9%	ICU Level of Service	D
c Critical Lane Group			

SH 82 Access Control Plan
2021 PM Peak-Hour (45 mph)

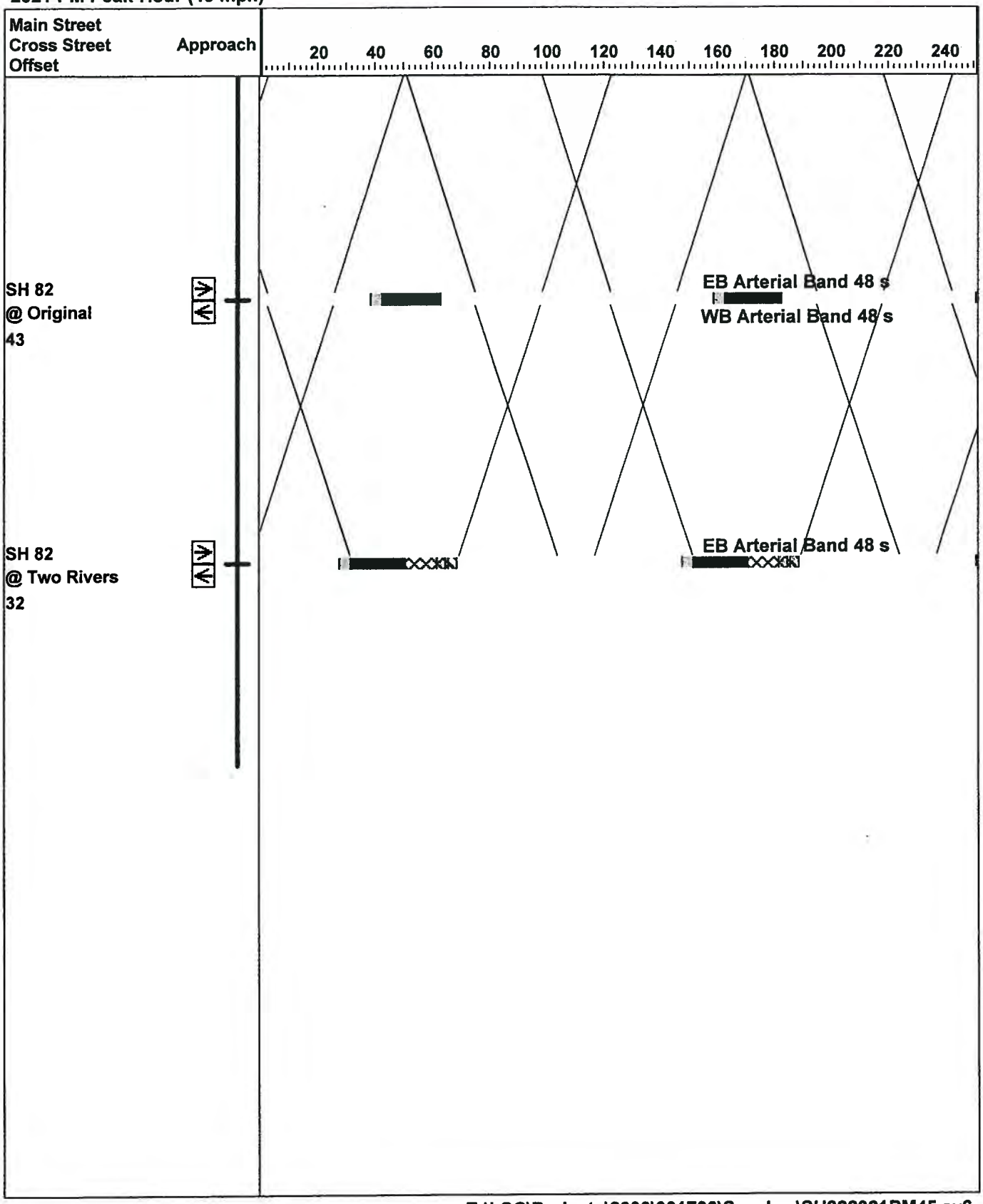
6/21/2001



E:\LSC\Projects\2000\001790\Synchro\SH822021PM45.sy6

SH 82 Access Control Plan
2021 PM Peak-Hour (45 mph)

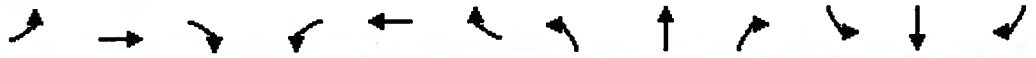
6/21/2001



E:\LSC\Projects\2000\001790\Synchro\SH822021PM45.sy6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	3433	1863	1583	3433	3539	1583
Flt Permitted	0.06	1.00	1.00	0.27	1.00	1.00	0.30	1.00	1.00	0.18	1.00	1.00
Satd. Flow (perm)	204	3539	1583	498	3539	1583	1070	1863	1583	657	3539	1583
Volume (vph)	290	875	90	75	2050	670	215	440	90	395	410	270
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	305	921	95	79	2158	705	226	463	95	416	432	284
Lane Group Flow (vph)	305	921	95	79	2158	705	226	463	95	416	432	284
Turn Type	pm+pt		Free	pm+pt		Free	pm+pt		Free	pm+pt		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		Free	6		Free	8		Free	4		Free
Actuated Green, G (s)	78.0	71.6	120.0	69.4	67.0	120.0	28.0	20.0	120.0	32.0	22.0	120.0
Effective Green, g (s)	78.0	71.6	120.0	69.4	67.0	120.0	28.0	20.0	120.0	32.0	22.0	120.0
Actuated g/C Ratio	0.65	0.60	1.00	0.58	0.56	1.00	0.23	0.17	1.00	0.27	0.18	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	321	2112	1583	313	1976	1583	407	311	1583	407	649	1583
v/s Ratio Prot	c0.06	0.26		0.01	c0.61		0.04	c0.25		c0.09	0.12	
v/s Ratio Perm	0.56		0.06	0.14		0.45	0.09		0.06	0.19		0.18
v/c Ratio	0.95	0.44	0.06	0.25	1.09	0.45	0.56	1.49	0.06	1.02	0.67	0.18
Uniform Delay, d1	58.4	13.2	0.0	11.6	26.5	0.0	38.1	50.0	0.0	57.2	45.6	0.0
Progression Factor	1.00	1.00	1.00	1.02	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	37.1	0.7	0.1	0.0	42.4	0.1	1.6	236.3	0.1	50.4	2.6	0.2
Delay (s)	95.5	13.9	0.1	11.8	63.6	0.1	39.7	286.3	0.1	107.5	48.2	0.2
Level of Service	F	B	A	B	E	A	D	F	A	F	D	A
Approach Delay (s)		31.7			47.0			180.6			58.0	
Approach LOS		C			D			F			E	

Intersection Summary				
HCM Average Control Delay	62.7	HCM Level of Service	E	
HCM Volume to Capacity ratio	1.16			
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	117.9%	ICU Level of Service	G	
c Critical Lane Group				



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.06	1.00	1.00	0.18	1.00	1.00	0.58	1.00	1.00	0.73	1.00	1.00
Satd. Flow (perm)	116	3539	1583	340	3539	1583	1087	1863	1583	1365	1863	1583
Volume (vph)	65	970	325	430	2420	90	310	35	255	90	40	65
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	68	1021	342	453	2547	95	326	37	268	95	42	68
Lane Group Flow (vph)	68	1021	342	453	2547	95	326	37	268	95	42	68
Turn Type	Perm		Perm	pm+pt		Perm	pm+pt		Perm	Perm		Perm
Protected Phases		4		3	8		5	2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	64.0	64.0	64.0	83.0	83.0	83.0	29.0	29.0	29.0	16.0	16.0	16.0
Effective Green, g (s)	64.0	64.0	64.0	83.0	83.0	83.0	29.0	29.0	29.0	16.0	16.0	16.0
Actuated g/C Ratio	0.53	0.53	0.53	0.69	0.69	0.69	0.24	0.24	0.24	0.13	0.13	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	62	1887	844	414	2448	1095	314	450	383	182	248	211
v/s Ratio Prot		0.29		0.14	c0.72		c0.08	0.02			0.02	
v/s Ratio Perm	0.58		0.22	c0.62		0.06	c0.17		0.17	0.07		0.04
v/c Ratio	1.10	0.54	0.41	1.09	1.04	0.09	1.04	0.08	0.70	0.52	0.17	0.32
Uniform Delay, d1	28.0	18.4	16.7	21.6	18.5	6.1	45.0	35.2	41.5	48.4	46.1	47.1
Progression Factor	0.93	0.87	1.76	1.20	0.70	0.50	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	132.4	0.3	0.3	46.5	19.8	0.0	61.1	0.4	10.2	10.3	1.5	4.0
Delay (s)	158.5	16.2	29.5	72.4	32.7	3.0	106.1	35.6	51.7	58.7	47.6	51.1
Level of Service	F	B	C	E	C	A	F	D	D	E	D	D
Approach Delay (s)		26.2			37.6			78.9			53.9	
Approach LOS		C			D			E			D	

Intersection Summary			
HCM Average Control Delay	40.0	HCM Level of Service	D
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	109.0%	ICU Level of Service	F
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00		1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770		1583
Flt Permitted	0.04	1.00	1.00	0.17	1.00	1.00	0.76	1.00	1.00	0.75		1.00
Satd. Flow (perm)	78	3539	1583	325	3539	1583	1410	1863	1583	1405		1583
Volume (vph)	5	1295	15	165	2905	10	25	5	110	5	0	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	1363	16	174	3058	11	26	5	116	5	0	11
Lane Group Flow (vph)	5	1363	16	174	3058	11	26	5	116	5	0	11
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	96.0	96.0	96.0	96.0	96.0	96.0	16.0	16.0	16.0	16.0		16.0
Effective Green, g (s)	96.0	96.0	96.0	96.0	96.0	96.0	16.0	16.0	16.0	16.0		16.0
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.80	0.80	0.13	0.13	0.13	0.13		0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	62	2831	1266	260	2831	1266	188	248	211	187		211
v/s Ratio Prot		0.39			c0.86			0.00				
v/s Ratio Perm	0.06		0.01	0.54		0.01	0.02		0.07	0.00		0.01
v/c Ratio	0.08	0.48	0.01	0.67	1.08	0.01	0.14	0.02	0.55	0.03		0.05
Uniform Delay, d1	2.6	3.9	2.4	5.2	12.0	2.4	45.9	45.2	48.6	45.2		45.4
Progression Factor	0.17	0.64	0.01	0.98	1.05	1.62	1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	0.5	0.1	0.0	1.9	38.4	0.0	1.5	0.1	9.9	0.3		0.5
Delay (s)	0.9	2.6	0.0	6.9	50.9	3.9	47.4	45.3	58.6	45.5		45.9
Level of Service	A	A	A	A	D	A	D	D	E	D		D
Approach Delay (s)		2.6			48.4			56.1			45.7	
Approach LOS		A			D			E			D	

Intersection Summary			
HCM Average Control Delay	35.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	101.2%	ICU Level of Service	F
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		1830	1583		1858	1583
Flt Permitted	0.05	1.00	1.00	0.22	1.00	1.00		0.79	1.00		0.98	1.00
Satd. Flow (perm)	90	3539	1583	409	3539	1583		1468	1583		1831	1583
Volume (vph)	295	1095	20	195	2460	10	50	90	120	5	80	570
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	311	1153	21	205	2589	11	53	95	126	5	84	600
Lane Group Flow (vph)	311	1153	21	205	2589	11	0	148	126	0	89	600
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	Perm		Free
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2		2	6		Free
Actuated Green, G (s)	97.0	84.5	84.5	87.5	79.0	79.0		15.0	15.0		15.0	120.0
Effective Green, g (s)	97.0	84.5	84.5	87.5	79.0	79.0		15.0	15.0		15.0	120.0
Actuated g/C Ratio	0.81	0.70	0.70	0.73	0.66	0.66		0.12	0.12		0.12	1.00
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)	269	2492	1115	395	2330	1042		184	198		229	1583
v/s Ratio Prot	c0.14	0.33		0.04	0.73							
v/s Ratio Perm	c0.80		0.01	0.34		0.01		c0.10	0.08		0.05	0.38
v/c Ratio	1.16	0.46	0.02	0.52	1.11	0.01		0.80	0.64		0.39	0.38
Uniform Delay, d1	55.2	7.8	5.3	5.5	20.5	7.1		51.1	49.9		48.3	0.0
Progression Factor	1.26	0.44	0.24	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	101.1	0.1	0.0	1.2	56.8	0.0		30.0	14.6		4.9	0.7
Delay (s)	170.8	3.6	1.3	6.7	77.3	7.1		81.1	64.5		53.2	0.7
Level of Service	F	A	A	A	E	A		F	E		D	A
Approach Delay (s)		38.6			71.9			73.5			7.5	
Approach LOS		D			E			E			A	

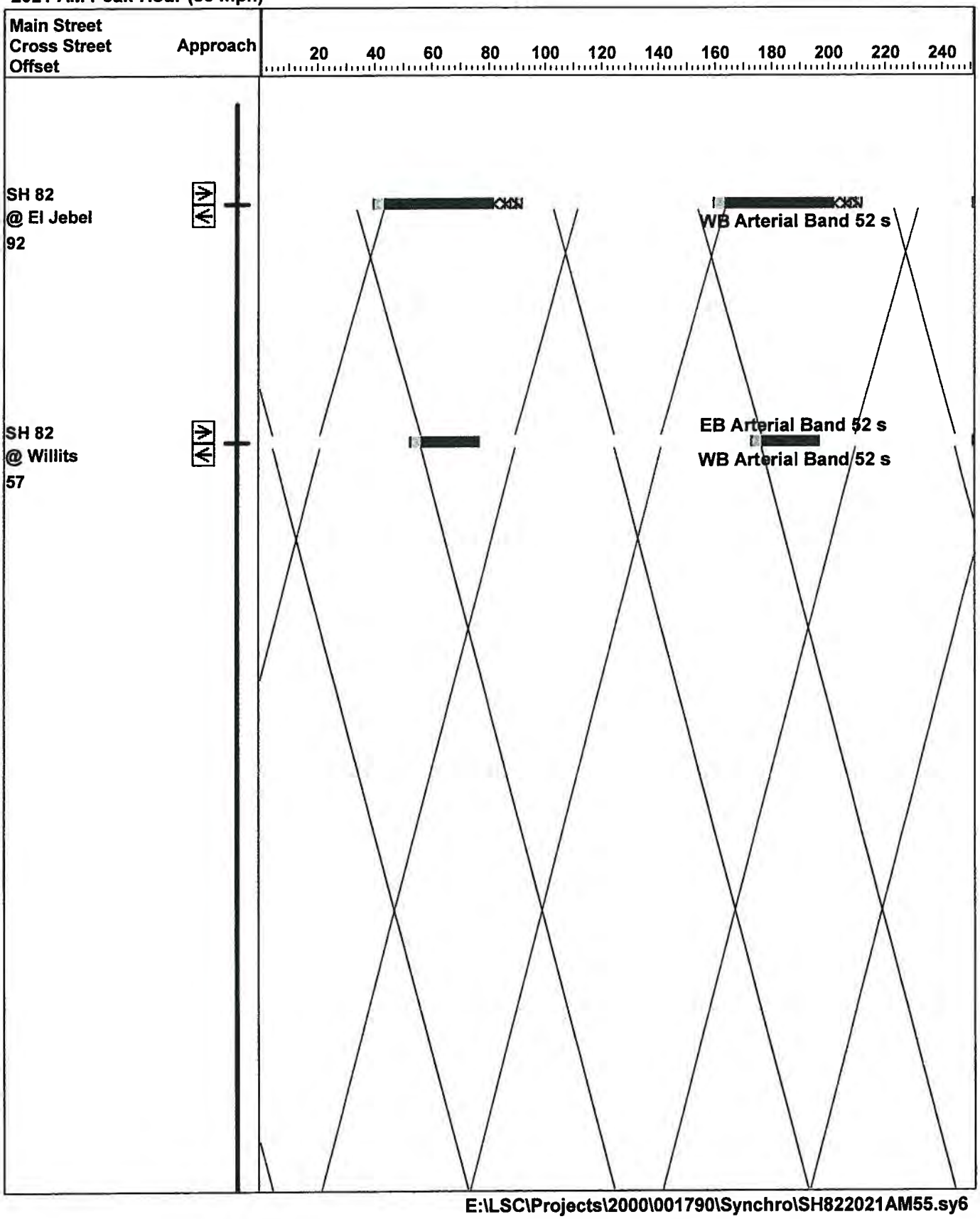
Intersection Summary			
HCM Average Control Delay	54.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	113.3%	ICU Level of Service	G
c Critical Lane Group			

APPENDIX D

Traffic Signal Progression Data Using 55 mph

SH 82 Access Control Plan
2021 AM Peak-Hour (55 mph)

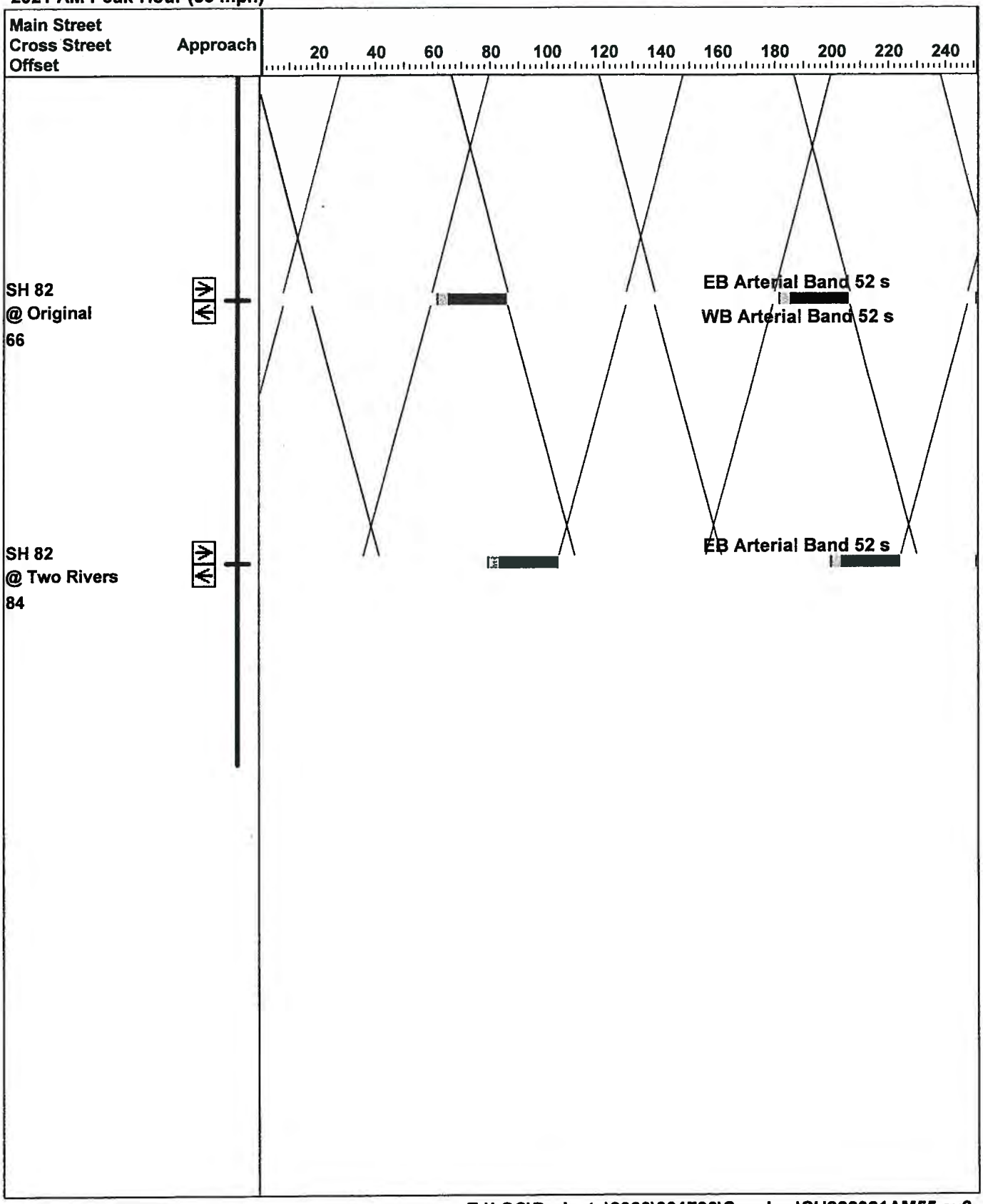
6/21/2001



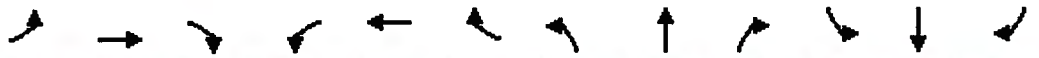
E:\LSC\Projects\2000\001790\Synchro\SH822021AM55.sy6

SH 82 Access Control Plan
2021 AM Peak-Hour (55 mph)

6/21/2001

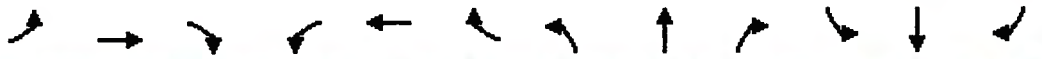


E:\LSC\Projects\2000\001790\Synchro\SH822021AM55.sy6



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	3433	1863	1583	3433	3539	1583
Flt Permitted	0.39	1.00	1.00	0.06	1.00	1.00	0.61	1.00	1.00	0.26	1.00	1.00
Satd. Flow (perm)	733	3539	1583	109	3539	1583	2207	1863	1583	951	3539	1583
Volume (vph)	180	1975	110	65	520	190	70	170	45	545	215	195
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	189	2079	116	68	547	200	74	179	47	574	226	205
Lane Group Flow (vph)	189	2079	116	68	547	200	74	179	47	574	226	205
Turn Type	pm+pt		Free	pm+pt		Free	pm+pt		Free	pm+pt		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		Free	6		Free	8		Free	4		Free
Actuated Green, G (s)	77.3	71.3	120.0	71.7	68.5	120.0	18.7	15.5	120.0	33.5	26.3	120.0
Effective Green, g (s)	77.3	71.3	120.0	71.7	68.5	120.0	18.7	15.5	120.0	33.5	26.3	120.0
Actuated g/C Ratio	0.64	0.59	1.00	0.60	0.57	1.00	0.16	0.13	1.00	0.28	0.22	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	524	2103	1583	109	2020	1583	377	241	1583	555	776	1583
v/s Ratio Prot	c0.02	c0.59		c0.02	0.15		0.01	0.10		c0.12	0.06	
v/s Ratio Perm	0.21		0.07	0.36		0.13	0.03		0.03	c0.17		0.13
v/c Ratio	0.36	0.99	0.07	0.62	0.27	0.13	0.20	0.74	0.03	1.03	0.29	0.13
Uniform Delay, d1	8.9	23.9	0.0	59.1	13.1	0.0	43.7	50.3	0.0	39.8	39.1	0.0
Progression Factor	1.00	1.00	1.00	1.24	0.62	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	17.1	0.1	10.3	0.3	0.2	0.3	11.7	0.0	47.3	0.2	0.2
Delay (s)	9.3	41.1	0.1	83.4	8.5	0.2	44.0	62.0	0.0	87.1	39.3	0.2
Level of Service	A	D	A	F	A	A	D	E	A	F	D	A
Approach Delay (s)		36.6			12.7			47.8			58.6	
Approach LOS		D			B			D			E	

Intersection Summary			
HCM Average Control Delay	37.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	100.4%	ICU Level of Service	F
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.41	1.00	1.00	0.04	1.00	1.00	0.73	1.00	1.00	0.73	1.00	1.00
Satd. Flow (perm)	761	3539	1583	78	3539	1583	1359	1863	1583	1365	1863	1583
Volume (vph)	60	2205	300	95	595	80	120	35	200	85	40	60
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	63	2321	316	100	626	84	126	37	211	89	42	63
Lane Group Flow (vph)	63	2321	316	100	626	84	126	37	211	89	42	63
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	96.0	96.0	96.0	96.0	96.0	96.0	16.0	16.0	16.0	16.0	16.0	16.0
Effective Green, g (s)	96.0	96.0	96.0	96.0	96.0	96.0	16.0	16.0	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.80	0.80	0.13	0.13	0.13	0.13	0.13	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	609	2831	1266	62	2831	1266	181	248	211	182	248	211
v/s Ratio Prot		0.66			0.18			0.02			0.02	
v/s Ratio Perm	0.08		0.20	c1.29		0.05	0.09		0.13	0.07		0.04
v/c Ratio	0.10	0.82	0.25	1.61	0.22	0.07	0.70	0.15	1.00	0.49	0.17	0.30
Uniform Delay, d1	2.6	7.0	3.0	12.0	2.9	2.5	49.7	46.0	52.0	48.2	46.1	46.9
Progression Factor	1.07	0.74	1.83	2.44	1.15	2.22	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0	0.6	0.0	336.9	0.0	0.0	19.9	1.3	62.0	9.1	1.5	3.6
Delay (s)	2.8	5.7	5.5	366.2	3.4	5.6	69.6	47.2	114.0	57.3	47.6	50.5
Level of Service	A	A	A	F	A	A	E	D	F	E	D	D
Approach Delay (s)		5.6			48.4			92.4			53.0	
Approach LOS		A			D			F			D	

Intersection Summary			
HCM Average Control Delay	24.3	HCM Level of Service	C
HCM Volume to Capacity ratio	1.52		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.4%	ICU Level of Service	E
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770		1583	1770		1583
Flt Permitted	0.34	1.00	1.00	0.04	1.00	1.00	0.76		1.00	0.76		1.00
Satd. Flow (perm)	639	3539	1583	78	3539	1583	1410		1583	1410		1583
Volume (vph)	5	2460	25	60	745	5	10	0	70	30	0	15
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	2589	26	63	784	5	11	0	74	32	0	16
Lane Group Flow (vph)	5	2589	26	63	784	5	11	0	74	32	0	16
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	96.0	96.0	96.0	96.0	96.0	96.0	16.0		16.0	16.0		16.0
Effective Green, g (s)	96.0	96.0	96.0	96.0	96.0	96.0	16.0		16.0	16.0		16.0
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.80	0.80	0.13		0.13	0.13		0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	511	2831	1266	62	2831	1266	188		211	188		211
v/s Ratio Prot		0.73			0.22							
v/s Ratio Perm	0.01		0.02	c0.81		0.00	0.01		0.05	0.02		0.01
v/c Ratio	0.01	0.91	0.02	1.02	0.28	0.00	0.06		0.35	0.17		0.08
Uniform Delay, d1	2.4	8.9	2.4	12.0	3.1	2.4	45.4		47.3	46.1		45.5
Progression Factor	0.71	1.00	0.64	0.95	0.93	0.91	1.00		1.00	1.00		1.00
Incremental Delay, d2	0.0	3.0	0.0	116.9	0.1	0.0	0.6		4.5	2.0		0.7
Delay (s)	1.7	11.9	1.6	128.2	2.9	2.2	46.0		51.8	48.1		46.2
Level of Service	A	B	A	F	A	A	D		D	D		D
Approach Delay (s)		11.8			12.2			51.1			47.5	
Approach LOS		B			B			D			D	

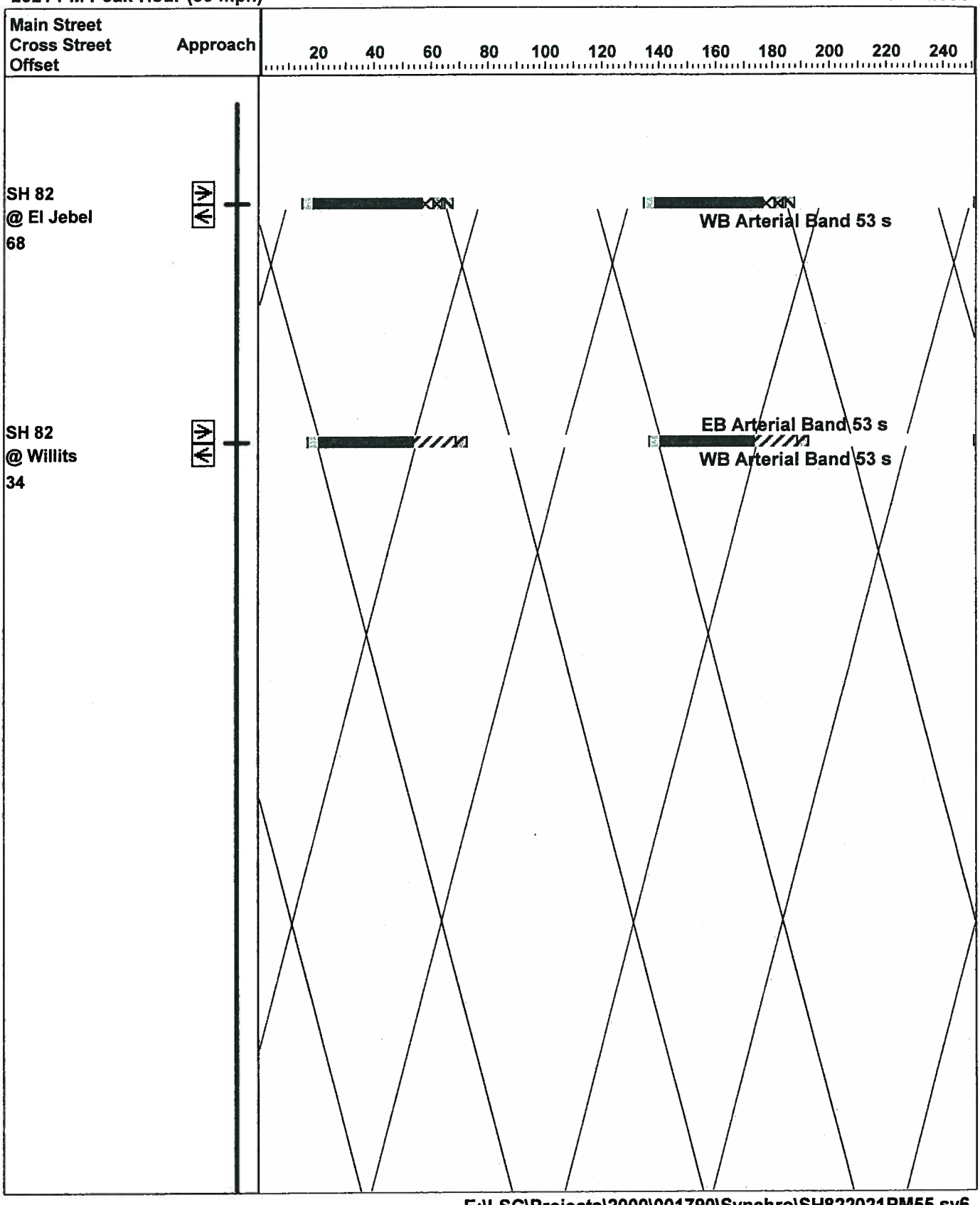
Intersection Summary			
HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.5%	ICU Level of Service	D
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.99	1.00		0.99	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		1839	1583		1845	1583
Flt Permitted	0.42	1.00	1.00	0.05	1.00	1.00		0.92	1.00		0.94	1.00
Satd. Flow (perm)	787	3539	1583	87	3539	1583		1717	1583		1757	1583
Volume (vph)	410	2120	30	70	565	5	15	45	195	15	65	230
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	432	2232	32	74	595	5	16	47	205	16	68	242
Lane Group Flow (vph)	432	2232	32	74	595	5	0	63	205	0	84	242
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	96.0	96.0	96.0	96.0	96.0	96.0		16.0	16.0		16.0	16.0
Effective Green, g (s)	96.0	96.0	96.0	96.0	96.0	96.0		16.0	16.0		16.0	16.0
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.80	0.80		0.13	0.13		0.13	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	630	2831	1266	70	2831	1266		229	211		234	211
v/s Ratio Prot		0.63			0.17							
v/s Ratio Perm	0.55		0.02	c0.85		0.00		0.04	0.13		0.05	0.15
v/c Ratio	0.69	0.79	0.03	1.06	0.21	0.00		0.28	0.97		0.36	1.15
Uniform Delay, d1	5.3	6.5	2.4	12.0	2.9	2.4		46.8	51.8		47.3	52.0
Progression Factor	0.28	0.25	0.33	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	1.4	0.7	0.0	124.2	0.0	0.0		3.0	55.0		4.2	107.2
Delay (s)	2.9	2.3	0.8	136.2	2.9	2.4		49.7	106.8		51.6	159.2
Level of Service	A	A	A	F	A	A		D	F		D	F
Approach Delay (s)		2.4			17.6			93.4			131.5	
Approach LOS		A			B			F			F	

Intersection Summary			
HCM Average Control Delay	21.7	HCM Level of Service	C
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	88.9%	ICU Level of Service	D
c Critical Lane Group			

SH 82 Access Control Plan
2021 PM Peak-Hour (55 mph)

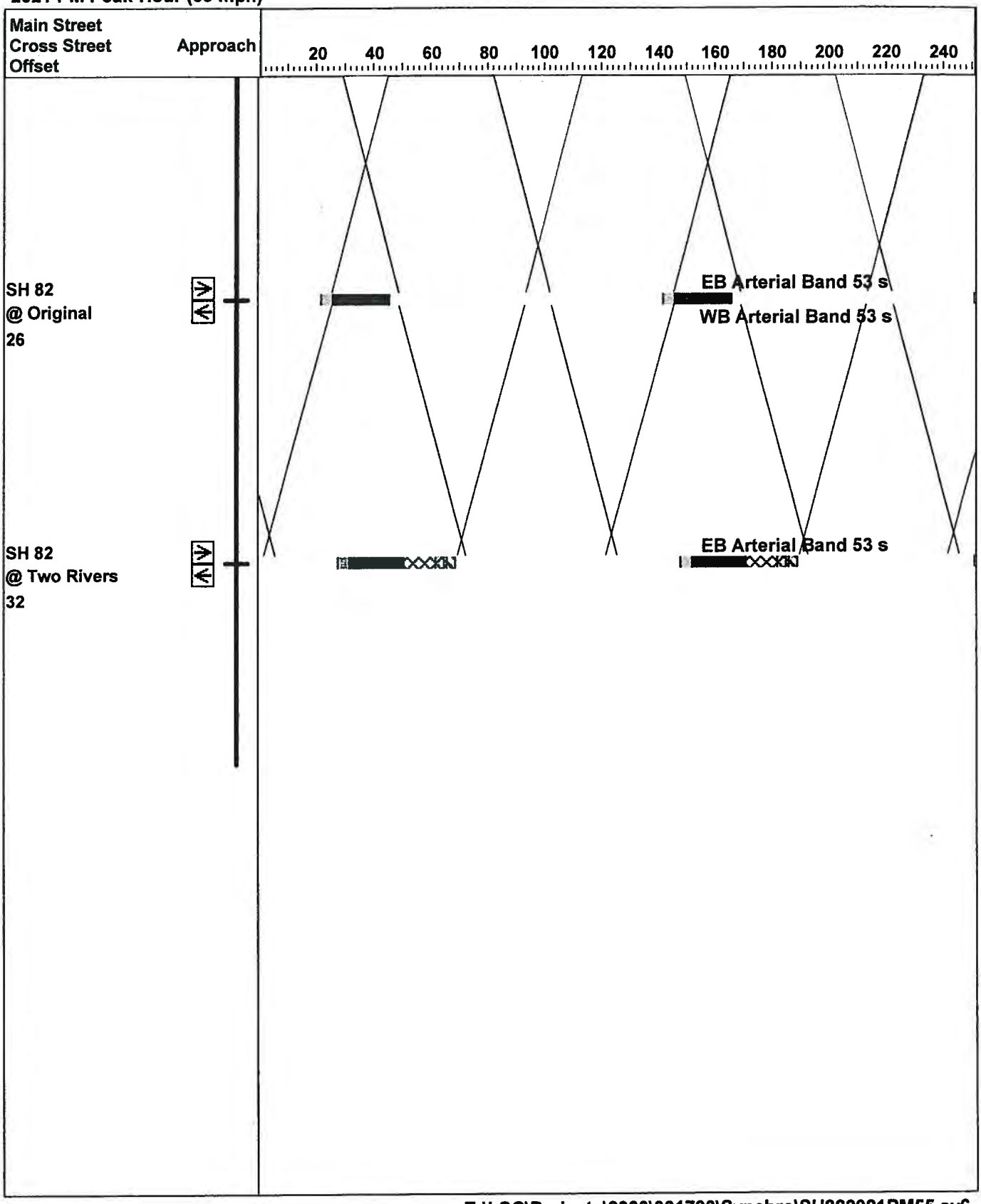
6/21/2001



E:\LSC\Projects\2000\001790\Synchro\SH822021PM55.sy6

SH 82 Access Control Plan
2021 PM Peak-Hour (55 mph)

6/21/2001



E:\LSC\Projects\2000\001790\Synchro\SH822021PM55.sy6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	1770	3539	1583	3433	1863	1583	3433	3539	1583
Flt Permitted	0.06	1.00	1.00	0.26	1.00	1.00	0.35	1.00	1.00	0.17	1.00	1.00
Satd. Flow (perm)	204	3539	1583	488	3539	1583	1277	1863	1583	602	3539	1583
Volume (vph)	290	875	90	75	2050	670	215	440	90	395	410	270
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	305	921	95	79	2158	705	226	463	95	416	432	284
Lane Group Flow (vph)	305	921	95	79	2158	705	226	463	95	416	432	284
Turn Type	pm+pt		Free	pm+pt		Free	pm+pt		Free	pm+pt		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		Free	6		Free	8		Free	4		Free
Actuated Green, G (s)	77.8	70.8	120.0	70.2	67.0	120.0	26.0	20.0	120.0	34.0	24.0	120.0
Effective Green, g (s)	77.8	70.8	120.0	70.2	67.0	120.0	26.0	20.0	120.0	34.0	24.0	120.0
Actuated g/C Ratio	0.65	0.59	1.00	0.59	0.56	1.00	0.22	0.17	1.00	0.28	0.20	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	321	2088	1583	320	1976	1583	384	311	1583	406	708	1583
v/s Ratio Prot	c0.06	0.26		0.01	c0.61		0.03	c0.25		c0.09	0.12	
v/s Ratio Perm	0.56		0.06	0.14		0.45	0.10		0.06	0.20		0.18
v/c Ratio	0.95	0.44	0.06	0.25	1.09	0.45	0.59	1.49	0.06	1.02	0.61	0.18
Uniform Delay, d1	58.4	13.6	0.0	11.3	26.5	0.0	40.1	50.0	0.0	57.2	43.7	0.0
Progression Factor	1.00	1.00	1.00	1.04	0.79	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	37.1	0.7	0.1	0.0	42.4	0.1	2.3	236.3	0.1	51.1	1.6	0.2
Delay (s)	95.5	14.3	0.1	11.8	63.4	0.1	42.4	286.3	0.1	108.3	45.3	0.2
Level of Service	F	B	A	B	E	A	D	F	A	F	D	A
Approach Delay (s)		32.0			46.9			181.3			57.1	
Approach LOS		C			D			F			E	

Intersection Summary			
HCM Average Control Delay	62.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	117.9%	ICU Level of Service	G
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.06	1.00	1.00	0.18	1.00	1.00	0.58	1.00	1.00	0.73	1.00	1.00
Satd. Flow (perm)	116	3539	1583	340	3539	1583	1087	1863	1583	1365	1863	1583
Volume (vph)	65	970	325	430	2420	90	310	35	255	90	40	65
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	68	1021	342	453	2547	95	326	37	268	95	42	68
Lane Group Flow (vph)	68	1021	342	453	2547	95	326	37	268	95	42	68
Turn Type	Perm		Perm	pm+pt		Perm	pm+pt		Perm	Perm		Perm
Protected Phases		4		3	8		5	2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	64.0	64.0	64.0	83.0	83.0	83.0	29.0	29.0	29.0	16.0	16.0	16.0
Effective Green, g (s)	64.0	64.0	64.0	83.0	83.0	83.0	29.0	29.0	29.0	16.0	16.0	16.0
Actuated g/C Ratio	0.53	0.53	0.53	0.69	0.69	0.69	0.24	0.24	0.24	0.13	0.13	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	62	1887	844	414	2448	1095	314	450	383	182	248	211
v/s Ratio Prot		0.29		0.14	c0.72		c0.08	0.02			0.02	
v/s Ratio Perm	0.58		0.22	c0.62		0.06	c0.17		0.17	0.07		0.04
v/c Ratio	1.10	0.54	0.41	1.09	1.04	0.09	1.04	0.08	0.70	0.52	0.17	0.32
Uniform Delay, d1	28.0	18.4	16.7	21.6	18.5	6.1	45.0	35.2	41.5	48.4	46.1	47.1
Progression Factor	0.94	0.87	1.80	1.09	1.51	1.66	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	132.2	0.3	0.3	46.5	19.8	0.0	61.1	0.4	10.2	10.3	1.5	4.0
Delay (s)	158.4	16.2	30.2	70.1	47.8	10.1	106.1	35.6	51.7	58.7	47.6	51.1
Level of Service	F	B	C	E	D	B	F	D	D	E	D	D
Approach Delay (s)		26.3			49.9			78.9			53.9	
Approach LOS		C			D			E			D	

Intersection Summary			
HCM Average Control Delay	47.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	109.0%	ICU Level of Service	F
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00		1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00		0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770		1583
Flt Permitted	0.04	1.00	1.00	0.17	1.00	1.00	0.76	1.00	1.00	0.75		1.00
Satd. Flow (perm)	78	3539	1583	325	3539	1583	1410	1863	1583	1405		1583
Volume (vph)	5	1295	15	165	2905	10	25	5	110	5	0	10
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	5	1363	16	174	3058	11	26	5	116	5	0	11
Lane Group Flow (vph)	5	1363	16	174	3058	11	26	5	116	5	0	11
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	96.0	96.0	96.0	96.0	96.0	96.0	16.0	16.0	16.0	16.0		16.0
Effective Green, g (s)	96.0	96.0	96.0	96.0	96.0	96.0	16.0	16.0	16.0	16.0		16.0
Actuated g/C Ratio	0.80	0.80	0.80	0.80	0.80	0.80	0.13	0.13	0.13	0.13		0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	62	2831	1266	260	2831	1266	188	248	211	187		211
v/s Ratio Prot		0.39			c0.86			0.00				
v/s Ratio Perm	0.06		0.01	0.54		0.01	0.02		0.07	0.00		0.01
v/c Ratio	0.08	0.48	0.01	0.67	1.08	0.01	0.14	0.02	0.55	0.03		0.05
Uniform Delay, d1	2.6	3.9	2.4	5.2	12.0	2.4	45.9	45.2	48.6	45.2		45.4
Progression Factor	1.02	2.22	0.96	1.33	1.31	1.80	1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	0.5	0.1	0.0	1.9	38.4	0.0	1.5	0.1	9.9	0.3		0.5
Delay (s)	3.1	8.8	2.3	8.7	54.0	4.4	47.4	45.3	58.6	45.5		45.9
Level of Service	A	A	A	A	D	A	D	D	E	D		D
Approach Delay (s)		8.7			51.4			56.1			45.7	
Approach LOS		A			D			E			D	

Intersection Summary			
HCM Average Control Delay	39.2	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	101.2%	ICU Level of Service	F
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		1830	1583		1858	1583
Flt Permitted	0.05	1.00	1.00	0.21	1.00	1.00		0.81	1.00		0.98	1.00
Satd. Flow (perm)	88	3539	1583	396	3539	1583		1514	1583		1832	1583
Volume (vph)	295	1095	20	195	2460	10	50	90	120	5	80	570
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	311	1153	21	205	2589	11	53	95	126	5	84	600
Lane Group Flow (vph)	311	1153	21	205	2589	11	0	148	126	0	89	600
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	Perm		Free
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2		2	6		Free
Actuated Green, G (s)	95.2	84.2	84.2	88.8	81.0	81.0		16.0	16.0		16.0	120.0
Effective Green, g (s)	95.2	84.2	84.2	88.8	81.0	81.0		16.0	16.0		16.0	120.0
Actuated g/C Ratio	0.79	0.70	0.70	0.74	0.68	0.68		0.13	0.13		0.13	1.00
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)	224	2483	1111	382	2389	1069		202	211		244	1583
v/s Ratio Prot	c0.13	0.33		0.03	0.73							
v/s Ratio Perm	c0.97		0.01	0.36		0.01		c0.10	0.08		0.05	0.38
v/c Ratio	1.39	0.46	0.02	0.54	1.08	0.01		0.73	0.60		0.36	0.38
Uniform Delay, d1	56.7	7.9	5.4	5.5	19.5	6.4		49.9	49.0		47.4	0.0
Progression Factor	1.72	0.20	0.05	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2	197.6	0.1	0.0	1.5	45.7	0.0		20.8	11.9		4.2	0.7
Delay (s)	294.9	1.7	0.3	7.0	65.2	6.4		70.8	60.8		51.5	0.7
Level of Service	F	A	A	A	E	A		E	E		D	A
Approach Delay (s)		63.1			60.7			66.2			7.3	
Approach LOS		E			E			E			A	

Intersection Summary			
HCM Average Control Delay	54.7	HCM Level of Service	D
HCM Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	113.3%	ICU Level of Service	G
c Critical Lane Group			

APPENDIX E

SH 82 Draft Intergovernmental Agreement

DRAFT

Intergovernmental Agreement between Eagle County Town of Basalt and the State of Colorado Department of Transportation

THIS AGREEMENT is entered into this _____ day of _____, 200_ , by and between Eagle County (hereafter referred to as the "County"), the Town of Basalt (hereafter referred to as the "Town"), and the State of Colorado, Department of Transportation (hereafter referred to as the "Department).

WITNESSETH:

WHEREAS, the Department, County and the Town desire to enter into an agreement regulating vehicular access for the section of State Highway 82 between the Eagle/Garfield County Line (MP 17.673) and the Pitkin/Eagle County Line (MP 21.369) (hereafter referred to as the "Segment") which is within Eagle County, in conformance with Section 2.12 of the State Highway Access Code, 2 CCR 601-1 as amended August, 1998 (hereafter referred to as the "Code"), and

WHEREAS, regulation of vehicular access is necessary to maintain the efficient and smooth flow of traffic, to reduce the potential for traffic accidents, to protect the functional level and optimize the traffic capacity of State Highway 82 to provide an efficient spacing of traffic signals, and to protect the public health, safety and welfare; and,

WHEREAS, the Department, County and the Town desire to reach a comprehensive and mutually acceptable roadway access location plan for this Segment for the purpose of meeting current and future capacity demands and public safety criteria while also providing reasonable access needs for locally planned development to the extent feasible given existing and future conditions along this section of State Highway.

NOW THEREFORE, for and in consideration of the mutual provisions herein contained, the parties hereto agree as follows:

1. The Department, County and the Town shall regulate access to the Segment of State Highway 82 in compliance with the Code, this agreement, and Exhibit "A" attached hereto and incorporated herein.

2. Vehicular access to the Segment shall be permitted only when such access is in compliance with Exhibit "A", Code section 1.3.2 and the design requirements of section 4 of the Code.

3. Private accesses which were in legal existence prior to the adoption of this Agreement may continue in existence until such time as a change is required by this Agreement. When closure, modification, or relocation of a private access is required, appropriate processes of the County, Town or the State Administrative Procedure Act will be followed.

4. Actions taken by the County, Town and Department with regard to transportation planning and traffic operations within the area illustrated in Exhibit "A" shall not be inconsistent with the Agreement.

5. Parcels created after the effective date of this Agreement, which adjoin the Segment, shall not be provided with direct access to the Segment, unless such access location, use and design are consistent with the Code, section 4 and Exhibit "A".

6. This Agreement is based upon and is intended to be consistent with the Highway Access Law, §43-2-147 C.R.S., and the Code, both as from time amended. Any access decision made along the Segment may not be inconsistent with any amendment to the Code.

7. This Agreement supersedes and controls all prior written and oral agreements and representations of the parties regarding the Segment of State Highway 82 and is the complete integrated agreement of the parties regarding the subject matter thereof.

8. This Agreement may not be amended except by subsequent written agreement of the parties.

9. By signing this Agreement, the parties acknowledge and represent to one another that all procedure necessary to validly contract and execute this Agreement have been performed and the persons signing for each of the parties have been duly authorized to do so.

Eagle County, Colorado

ATTEST:

_____

Chairman, Board of County Commissioners

_____

Clerk to the Board of County Commissioners

APPROVED AS TO FORM:

_____

Eagle County Attorney

Town of Basalt, Colorado

ATTEST:

_____

Mayor, Town of Basalt

_____

Town Clerk

APPROVED AS TO FORM:

_____

Town Attorney

State of Colorado
Department of Transportation

_____

Chief Engineer for Engineering

Design and Construction

APPROVED:

_____

Regional Transportation Director

ATTEST:

_____

Chief Clerk

DRAFT

EXHIBIT A

SH 82 Access Control Plan

Eagle/Garfield County Line to Emma Road
Eagle County, Colorado

This Access Control Plan identifies the locations and restrictions of all future accesses to SH 82 in Eagle County, Colorado. This Plan has been based on the standards contained in the State Highway Access Code (Colorado Department of Transportation, 2 CCR 601-1) 1998. All access decisions for this section of State Highway 82 shall be in conformance with this intergovernmental agreement.

Construction costs for roadway improvements, bridge improvements, access closures or restrictions, and traffic control devices shall be the responsibility of the appropriate party, as determined by statute, rule, and local ordinance.

ACCESS LOCATIONS

The following accesses may be closed or their turning movements restricted, when, in the opinion of the County (with Department concurrence), the Town (with Department concurrence) or by the Department, any of the following conditions occur:

- The access is detrimental to the public's health, safety, and welfare.
- The access develops an accident history that is correctable by restricting access.
- The restrictions are necessitated by a change in roadway or traffic conditions.

Eastbound Direction
Measured from the JW Drive in an east and southeasterly direction.

1. 0.000 miles - Existing public roadway (JW Drive and Valley Road)
2. 0.803 miles - Existing private property access (Amoco Service Station), full movement access.
3. 0.867 miles - Existing private property access (Amocoa Service Station), right-in/right-out access.
4. 1.017 miles - Existing public roadway (El Jebel Road), signalized access.
5. 1.345 miles - Existing public roadway (Willits Lane), potential future signal location and the construction of a north leg resulting in a four-legged intersection.

6. 2.591 miles - Existing public roadway (Original Road), potential future signal location.

7. 2.951 miles - Existing public roadway (Two Rivers Road/Willits Lane), signalized access.

8. 3.514 miles - Existing public roadway (Emma Road), full movement access

Westbound Direction

Measured from Emma Road in a north and northwesterly direction.

1. 0.000 miles - Existing public roadway (Emma Road), full movement access.

2. 0.563 miles - Existing public roadway (Two Rivers Road/Willits Lane), signalized access.

3. 0.923 miles - Existing public roadway (Original Road), potential future signal location.

4. 2.169 miles - Existing public roadway (Willits Lane), potential future signal location and the construction of a north leg resulting in a four-legged intersection.

5. 2.497 miles - Existing public roadway (El Jebel Road), signalized access.

6. 3.514 miles - Existing public roadway (JW Drive and Valley Road), full movement access.

INTERGOVERNMENTAL AGREEMENT
AMONG
THE TOWN OF BASALT,
THE COUNTY OF EAGLE COUNTY,
AND
THE STATE OF COLORADO
DEPARTMENT OF TRANSPORTATION

THIS AGREEMENT (hereinafter referred to as the "Agreement") is entered into effective as of the 30th day of April 2003, by and among the Town of Basalt and the County of Eagle County (hereinafter referred to collectively as the "City and County"), and the State of Colorado, Department of Transportation (hereinafter referred to as the "Department"), said parties being referred to collectively herein as the "Agencies."

RECITALS:

A. The Agencies are authorized by the provisions of Article XIV, Section 18(2)(a), Colorado Constitution, and Sections 29-1-201, et. seq., C.R.S., to enter into contracts with each other for the performance of functions that they are authorized by law to perform on their own; and

B. Each Agency is authorized by Section 43-2-147(1)(a), C.R.S., to regulate access to public highways within its jurisdiction; and

C. The coordinated regulation of vehicular access to public highways is necessary to maintain the efficient and smooth flow of traffic, to reduce the potential for traffic accidents, to protect the functional level and optimize the traffic capacity, to provide an efficient spacing of traffic signals, and to protect the public health, safety and welfare; and

D. The Agencies desire to provide for the coordinated regulation of vehicular access for the section of State Highway 82, (From milepost 17.714 to milepost 21.470) (hereinafter referred to as the "Segment"), which is within the jurisdiction of the Agencies; and

E. The Agencies are authorized pursuant to Section 2.12 of the 1998 State Highway Access Code, 2 C.C.R. 601-1 (the "Access Code") to achieve such objective by written agreement among themselves adopting and implementing a comprehensive and mutually acceptable highway access control plan for the Segment for the purposes recited above; and

F. The development of this Access Control Plan adheres to the requirements of the Access Code, Section 2.12.

NOW THEREFORE, for and in consideration of the mutual promises and undertakings herein contained, the Agencies agree as follows:

1. The Access Control Plan for the Segment (hereinafter referred to as the "Access Control Plan") is attached hereto as Exhibit A and incorporated herein. The Access Control Plan Illustration is attached hereto as Exhibit B, and is incorporated herein by this reference.

2. The Agencies shall regulate access to the Segment in compliance with the Access Control Plan, the Highway Access Law, section 43-2-147, C.R.S., (the "Access Law") and the applicable sections of the Access Code. Vehicular access to the Segment shall be permitted when such access is in compliance with the Access Control Plan, the Access Law and the applicable sections of the Access Code.

3. Accesses that were in existence in compliance with the Access Law prior to the effective date of this Agreement may continue in existence until such time as a change in the access is required by the Access Control Plan or in the course of highway reconstruction. When closure, modification, or relocation of access is necessary or required, the Agency(ies) having jurisdiction shall utilize appropriate legal process to effect such action.

4. Actions taken by any Agency with regard to transportation planning and traffic operations within the areas described in the Access Control Plan shall be in conformity with this Agreement. Per section 2.12 (a) of the Access Code, design waivers may be approved if agreed upon by the Agencies.

5. Parcels of real property created after the effective date of this Agreement that adjoin the Segment shall not be provided with direct access to the Segment unless the location, use and design thereof conform to the provisions of this Agreement.

6. This Agreement is based upon and is intended to be consistent with the Access Law and the Access Code as now or hereafter constituted. An amendment to either the Access Law or the Access Code that becomes effective after the effective date of this Agreement and that conflicts irreconcilably with an express provision of this Agreement may be grounds for revision of this Agreement.

7. This Agreement does not create any current financial obligation for either Agency. Any future financial obligation of either Agency shall be subject to the execution of an appropriate encumbrance document, where required. Agencies involved in or affected by any particular or site-specific undertaking provided for herein will cooperate with each other to agree upon a fair and equitable allocation of the costs associated therewith, however, notwithstanding any provision of this Agreement, neither Agency shall be required to expend its public funds for such undertaking without the express prior approval of its governing body or director. All financial obligations of the Agencies hereunder shall be contingent upon sufficient funds therefore being appropriated, budgeted, and otherwise made available as provided by law.

8. Should any one or more sections or provisions of this Agreement be judicially determined

to be invalid or unenforceable, such judgment shall not affect, impair or invalidate the remaining provisions of this Agreement, the intention being that the various provisions hereof are severable.

9. This Agreement supersedes and controls all prior written and oral agreements and representations of the Agencies and constitutes the whole agreement between them with respect to the subject matter of this instrument. No additional or different oral representation, promise or agreement shall be binding on either Agency. This Agreement may be amended or terminated only in writing executed by the Agencies on express authorization from their respective governing bodies or legally designated officials.

10. By signing this Agreement, the Agencies acknowledge and represent to one another that all procedures necessary to validly contract and execute this Agreement have been performed, and that the persons signing for each Agency have been duly authorized by such Agency to do so.

11. No portion of this Agreement shall be deemed to constitute a waiver of any immunities the parties or their officers or employees may possess, nor shall any portion of this Agreement be deemed to have created a duty of care that did not previously exist with respect to any person not a party to this Agreement.

12. It is expressly understood and agreed that the enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to the undersigned parties and nothing in this Agreement shall give or allow any claim or right of action whatsoever by any other person not included in this Agreement. It is the express intention of the undersigned parties that any entity other than the undersigned parties receiving services or benefits under this Agreement shall be an incidental beneficiary only.

IN WITNESS WHEREOF, the Agencies have executed this Agreement effective as of the day and year first above written.

Town of Basalt, Colorado

Mayor, Town of Basalt

ATTEST:

Town Clerk

APPROVED AS TO FORM:

Town Attorney

County of Eagle, Colorado

Commissioner, County of Eagle

ATTEST:

County Clerk

APPROVED AS TO FORM:

County Attorney

State of Colorado
Department of Transportation

Chief Engineer

ATTEST:

Chief Clerk

CONCUR:

Regional Transportation Director

DRAFT

EXHIBIT A

SH 82 Access Control Plan

Eagle/Garfield County Line to Emma Road
Eagle County, Colorado

The purpose of this Access Control Plan is to provide Eagle County, the Town of Basalt, and the Colorado Department of Transportation (Department) with a comprehensive roadway access control plan for State Highway 82 from Eagle/Garfield County Line to Pitkin/Eagle County Line. This Plan has been based on the standards contained in the Access Code

II. Authority

The development of this Access Control Plan was completed pursuant to the requirements of the 1998 State Highway Access Code (2 C.C.R. 601-1) Section 2.12., and adopted by the attached Agreement.

III. Responsibilities

Access segment shall only be in conformance with this Agreement. Responsibilities for the costs of access improvements, closures and modifications will be consistent with section 43-2-147(6)(b) C.R.S., the Agreement, and this Access Control Plan. Responsibility for construction costs for roads, closures, traffic control and/or any other features covered by this Agreement and Access Control Plan shall be based on a fair and equitable allocation of the costs as agreed upon by the involved Agencies.

IV. Access Revisions

Accesses described in Section IV, below, may be closed, relocated, or consolidated, or turning movements may be restricted, or the access may be brought into conformance with this Access Control Plan, when in the opinion of the Town and County with Department concurrence, or in the opinion of the Department, any of the following conditions occur: a) the access is determined to be detrimental to the public's health, safety and welfare, b) the access has developed an accident history that is correctable by restricting the access, or c) the access restrictions are necessitated by a change in road or traffic conditions, or d) there is a change in the use of the property that would result in a change in the type of access operation, or e) a highway reconstruction project provides the opportunity to make highway and access improvements in support of this access control plan. Access construction shall be consistent with the design and specifications of the Code.

IV. Access Locations

The following is a description of all existing and future access points along the Segment including their current status and agreed to changes and future conditions. All access locations is

defined by the approximate Department mile point (in hundredths of a mile) along State Highway 82, to the centerline of the access.

Eastbound Direction

1. 17.978 - Existing public roadway (JW Drive) – This may remain as a full movement non –signalized access.

2. 18.791 - Existing private property access (Amoco Service Station), full movement access. This access will be closed when property is redeveloped or funding is available to close the access. Access will be available from Valley Road.

3. 18.849 - Existing private property access (Amoco Service Station), Currently, a right-in/right-out access. . This access will be closed when the property is redeveloped or funding is available to close the access. Access will be available from Valley Road.

4. 19.006 - Existing public roadway (El Jebel Road), This may remain as a full-movement signalized access.

5. 19.437 - Existing public roadway (Willits Lane), This may remain as a full movement access with the potential of a future signal location, and the construction of a north leg resulting in a four-legged intersection.

6. 20.582 - Existing public roadway (Original Road), This may remain as a full movement with the potential of a future signal location.

7. 20.945 - Existing public roadway (Two Rivers Road/Willits Lane), This may remain as a full-movement signalized access.

8. 21.462 - Existing public roadway (Emma Road), This may remain as a full movement access.

Westbound Direction

Measured from Emma Road in a north and northwesterly direction toward City of Glenwood Springs.

1. 21.462 - Existing public roadway (Emma Road), This may remain as a full movement access.

2. 20.945 - Existing public roadway (Two Rivers Road/Willits Lane), This may remain as a full-movement signalized access.

3. 20.582 - Existing public roadway (Original Road), This may remain as a full movement with the potential of a future signal location.

4. 20.249 – Existing private access with right-in and right-out. The access will be closed, once there is a connection with Original Road.

5. 19.822 – Existing Frontage Road access allowance of right-in and right-out movement. The access will be closed for public use, once there is a connection with Original Road. This access may remain as an emergency access for the Basalt & Rural Fire Protection District.

6. 19.483 - Existing public roadway (Willits Lane), This may remain as a full movement access with the potential of a future signal location, and the construction of a north leg resulting in a four-legged intersection.

7. 19.437 – Exiting right–in and right-out access. **Once there is a connection** with Blue Ridge Road the access will be close.

8. 19.3147 – Existing right-in and right-out access. Once there is a connection with Blue Ridge Road, the access will be close.

9. 19.006 - Existing public roadway (El Jebel Road), This may remain as a full movement, signalized access.

10. 17.978 - Existing public roadway (JW Drive), This may remain as a full movement non-signalized access.

V. Supporting Street System

Generally, a parallel street system of local collector function streets will be constructed on both the north and south sides of State Highway 82 during the development process. This local parallel system of city streets and county roads will help distribute vehicles to and from the primary north/south streets that have signalized or right-turn only access locations on SH 82 and will help maintain the hierarchy of the supporting street system.

EXHIBIT B

Access Plan Illustrated

April 2002

The attached Exhibit B is for general illustration and only for the ease of identifying and locating access points. Refer to the text of the document for accurate access location information.