An Issue Specific Traffic Impact Study

For

The Berk Major Subdivison

TM 5577

Prepared For

The County of San Diego

And

Jeffery S. Berk, Trustee
22451 Atomo
Mission Viejo, CA 92691

Addendum on February 24, 2015

By

Urban System Associates
8451 Miralani Dr., # A
San Diego, CA 92126

And

Federhart & Associates
Sub-Consultant

TM 5577 – TIS

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Addendum

On February 18, 2015 this consultant was told that the TM 5577 Tentative Map was being modified to provide another, private, access to / from Winterhaven Road. This new access will be provided by extending Moonlite Hill Road via an almost 90° turn at lots 14 and 19, on the western edge of the TM 5577 map. Note on Page 3A, that the added access roadway will pass lots 14 and 12 in order to reach Winterhaven Road west of the existing Sunnycrest Lane / Winterhaven Road intersection.

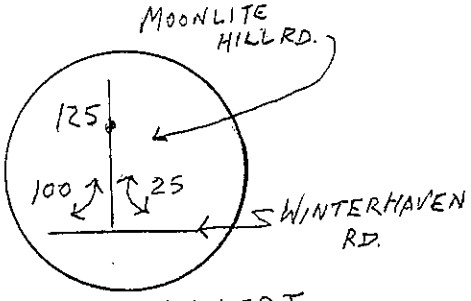
It must be emphasized that this new access is a private access for TM 5577 residents for their normal day to day use. In case of major emergency events however, it is planned that this access will be opened for other residents in the area, who normally are limited to use only Sunnycrest Lane to Winterhaven Road.

With the new access the other residents in the area will also be benefited by the fact that many of the TM 5577 residents will use the new access and decrease the traffic on Sunnycrest for the benefit of these other Sunnycrest Lane travelers. Finally, beside the benefit of having less traffic to contend with on Sunnycrest, these other residents will have the safety benefit of having two access routes to the outside in case of a major fire, flood, or any other need to close Sunnycrest.

The project traffic study found that 50% of the total project traffic will travel to or from the west on Winterhaven Road or, 126 ADT. By measuring the distance from the TM 5577 lots via the new access plus the local roads, or, using Sunnycrest Lane to go west on Winterhaven Road, it was found that about 80% of the TM 5577 Project total westbound traffic generation, of 100 ADT, can be expected to use the new Moonlite Hill Road access. Additionally it is expected that perhaps 20% of the new projects eastbound Winterhaven Road traffic, or 25 ADT, would find it convenient to use the new access. Thus it is expected that about 25 ADT of TM 5577's future generated eastbound traffic will also use the new access road. See Page 3A for the TM 5577 traffic assignment on Moonlite Hill Road.

Feb. 24, 2015
T.M. 5577

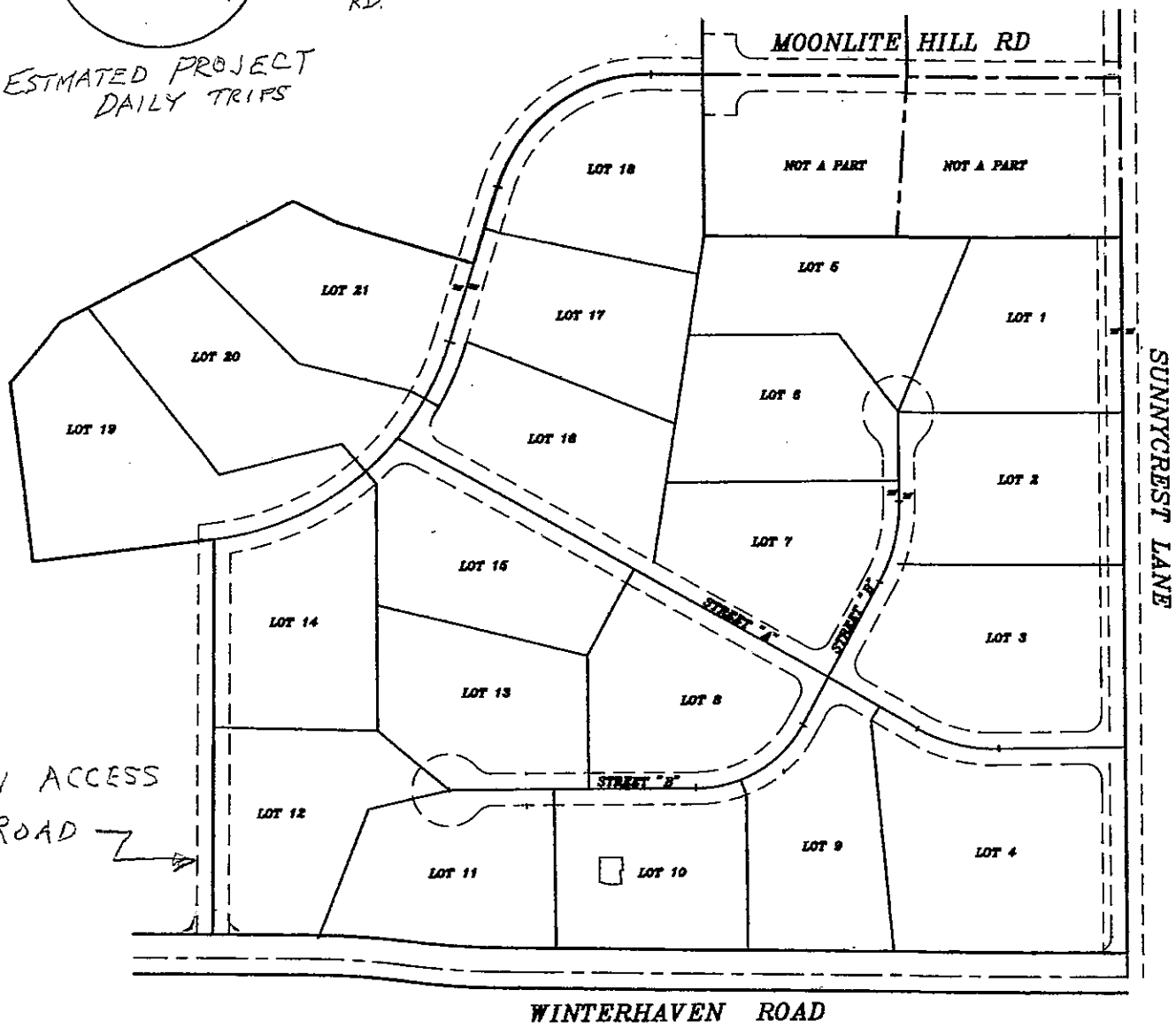
TENTATIVE MAP



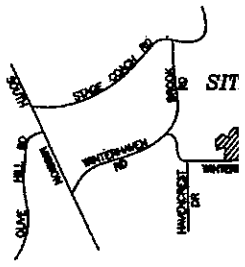
ESTIMATED PROJECT DAILY TRIPS

LEGAL DESCRIPTION

A PORTION OF LOT 17 & 18 IN THE SUBDIVISION OF TRACT "D" OF THE PARTITI
IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE



KEY MAP



VICINITY MA
NO SCALE

SOLAR NOTE

"ALL LOTS WITHIN THIS SUBDIVISION HAVE A MINIMUM OF 100 SQUARE OF SOLAR ACCESS FOR THE FUTURE DWELLING UNIT ALLOWED BY THIS SUBDIVISION"

LAWRENCE PAXTON, PLS 4447

10-10-2013
DATE

3A

\\SERVER\SC3004\1484\MAP_09-19-2013

Additionally, this Addendum must consider the sight distance that will be available at the new Moonlite Hill / Winterhaven Road intersection. To analyze the sight distance at the new access, the project Civil Engineer prepared the following Page 3A letter dated February 20, 2015. Note that the last paragraph states that 660 feet of clear sight distance will be available from, Moonlite Hill Road to the west along Winterhaven Road and 555 feet will be available to the east.

Using these distances they can be compared to County of San Diego standards for existing 85th percentile speeds. This Traffic Report states on Page 27 that the speeds along Winterhaven Road were measured to be at 44.7 MPH and the existing posted speeds of 45 MPH have been certified to be correct. Thus by County Standards, 450 feet of clear sight distance is required. Since the project Civil Engineer has found that the Moonlite Hill Road motorists arriving at Winterhaven Road will have a minimum of 550 feet (to the east) and 660 feet to the west, the new intersection will have very good sight distances in both directions, and the line of sight in each direction will be within the Winterhaven Road right of way.

This Addendum has shown clearly that the proposed Moonlite Hill access road provided by TM 5577, will have clear traffic sight distance and overall safety benefits to, residents and future neighbors, and is therefore recommended to be constructed.

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San Diego, CA 92106
PH. # 619/226-0625

Urban Systems Associates
8451 Miralani Dr. #A
San Diego, CA 92126
PH. # 858/560-4911

the Sea Bright company

February 20, 2015

County of San Diego
Planning and Development Services
5510 Overland Avenue – Suite 310
San Diego, CA 92123

Ref: Berk – TM 5577 – SIGHT DISTANCE FOR FUTURE CONNECTION
ENVIRONMENTAL LOG NO. PDS2013-ER-13-02-003
1650 WINTERHAVEN ROAD, FALLBROOK APN 106-280-22

The above referenced project is proposing a road connection onto Winterhaven Road. This proposed road would be an extension of Moonlite Hill Road and would intersect with Winterhaven Road, 1,150 west of the intersection of Sunnycrest Lane with Winterhaven Road.

Physically, there is adequate unobstructed sight distance in both directions along Winterhaven Road from the proposed private access road, Moonlite Hill Road, for the prevailing operating speed of traffic on Winterhaven Road, per the Design Standards of Section 6.1.E of the County of San Diego Public Road Standards. Said lines of sight fall within the existing right-of-way and a clear space easement is not required.

There is 660' looking west(oncoming eastbound traffic) and 555' looking east(oncoming westbound traffic).

Sincerely,

Robert Sukup

Robert Sukup
RCE 28302

REGISTERED PROFESSIONAL ENGINEER
ROBERT O. SUKUP
No. 28302
Exp. 3/31/16
CIVIL
STATE OF CALIFORNIA

Berksight1

5A

TM 5577 – TIS

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TM 5577 – TIS

A List Of Terms And Acronyms

TIS --- Traffic Impact Study

ADT ---Average Daily Traffic

LOS --- Level of Service
(A is best traffic Conditions,
F is worst Congestion)

TIF --- Traffic Impact Fees

CMP ---Congestion Management Program

HCM --- Highway Capacity Manual

SANDAG --- San Diego Association of Governments

D

TM 5577 – TIS

Executive Summary

TM 5577 is a 21 Estate Lot subdivision located in the south central area of Fallbrook, California. It gains its public roadway access via Sunnycrest Lane and Moonlite Hill Road, both private roadways, which have intersections with Winterhaven Road, a 2 lane Residential Collector, with an ultimate 40 foot pavement in 60 feet of right of way as per County Public Road Standards.

TM 5577 will dedicate its ½ of ultimate right of way for both the public Winterhaven Road and the private Sunnycrest Lane, and make the standard improvements along its roadway frontages on all affected streets..

The TM 5577 TIS contains "before and after" project, measurements of the traffic LOS's on both the Winterhaven Road segments and its intersection with Sunnycrest Lane, but also the intersection with Brooke Road to the west, and Green Canyon Road to the east.

In all cases, the project was found to have no direct traffic impacts on the Winterhaven Road segments, and also no direct traffic impacts on the three Winterhaven Road intersections. The project did not change the existing LOS B traffic measurement on Winterhaven Road, nor any of the three intersections from their existing LOS A or B, with either the existing plus cumulative or existing plus cumulative plus project traffic. Therefore, the TIS found that the existing traffic conditions in the TM 5577 area are very good now, will remain very good after the project is built out and will remain so when all the vacant lands to be served by Sunnycrest Lane, are built-out in the future.

The intersection of Sunnycrest / Winterhaven was found in the TIS for TM 5553 to have an existing, sight distance deficiency to the east of Sunnycrest, due to a slight sag in the surface of Winterhaven Road. After speed studies for the TIS, it was determined that 450 feet of sight distance was required both east and west of Sunnycrest along Winterhaven Road, by County standards.

In the TIS for TM 5553, the project engineer has proposed and the County is requiring, a modification to the intersection of Sunnycrest / Winterhaven, which moves the eastern curb (and roadway) to the east so that all vehicles entering or leaving Winterhaven Road, will have good sight distances in all directions. Thus, with implementation of these project proposals, sight distance deficiency is eliminated at this "project access" intersection.

Because of its small size and traffic generation, TM5577 was found to not require a CMP study. Further, because because of its low traffic impact, it was agreed with County staff that its minor cumulative traffic impacts can be mitigated by payment of the standard, County, TIF fees, since it qualifies for this program that allows projects to mitigate their minor cumulative impacts with fees contributed to a County account used to construct projects on the major County road system. The future owners of TM 5577 will pay their TIF fees, when taking out their building permits. To summarize, the project does not have any direct traffic impacts and will mitigate cumulative impacts with the TIF payment.

In February 2015 this consultant was informed that the developer of TM 5577 and the County of San Diego had reached an agreement that the Tentative Map would be modified so that residents of TM 5577 would have daily use of another access to Winterhaven Road.

This access would be via the construction of the private, Moonlite Hill Road from its current terminus at the intersection of Lots 14 and 19, southerly along Lots 14 and 12, to Winterhaven Road.

This second access for TM 5577 residents will <u>reduce</u> the normal day to day traffic using the Sunnycrest Lane / Winterhaven Road intersection, but

during emergencies, can be opened to all residents using Sunnycrest Lane thus providing a safety access for all the users of the Sunnycrest Lane area, during these emergencies.

A TIS For TM 5577

Project Description

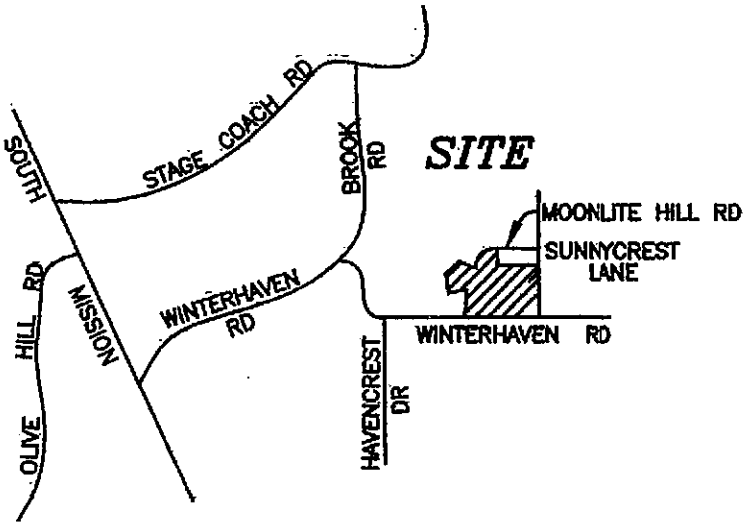
The project is a residential subdivision to subdivide a 26.5-acre site into 21 single family lots ranging between 1 and 1.5 acres in size. The project site is located at 1650 Winterhaven Road, in the Fallbrook Community Planning area, within unincorporated San Diego Country. The site is subject to the General Plan Regional Category of Semi-Rural, Land Use Designation Semi-Rural 1 (SR-1), allowing 1 dwelling unit per 1 acre. Zoning for the site is Limited Agriculture (A-70). The site is developed with an existing single family residence that would be retained. Access would be provided by a private road connecting to Sunnycrest Lane and Moonlite Hill Road.

A portion of the project site was evaluated as part of a Major Pre-Application Conference conducted on July 20, 2007. Pre-App 07-084 analyzed a 40 lot subdivision of one acre lots or larger on a 53-acre site. The current project site is only 26.5-acres, and the tentative map application is proposing a subdivision of 21 residential lots.

Under County of San Diego Guidelines, last modified in August 2011, a project of this size will generate more than 200 daily trips and therefore will require an Issue Specific Traffic Study as proposed in this TIS. Because of its small size, no Congestion Management Program analysis (CMP) will be performed in this TIS.

The Project

The TM 5577 of 21 estate residential units will all be located in the vacant, northwestern quadrant of land at the intersection of Winterhaven Road and Sunnycrest Lane in Fallbrook, California. Figure 1 locates the project on a map of the southcentral, area of the Community of Fallbrook. Figure 2 is a Site Plan of TM 5577. Note that Figure 2 shows that the project will access Sunnycrest Lane either directly on, or via, Moonlite Hill Rd. Since Sunnycrest is the only access to the public road system, the Sunnycrest Lane / Winterhaven Road intersection is the "gateway" to the public roadways in the project area and this intersection is one of the three that County staff wants analyzed in this traffic study. (See Figure 3 for the Study Area and the intersections to be studied)



VICINITY MAP

NO SCALE

TM 5577

2

FIGURE 1

COUNTY OF SAN DIEGO TRACT NO. _____

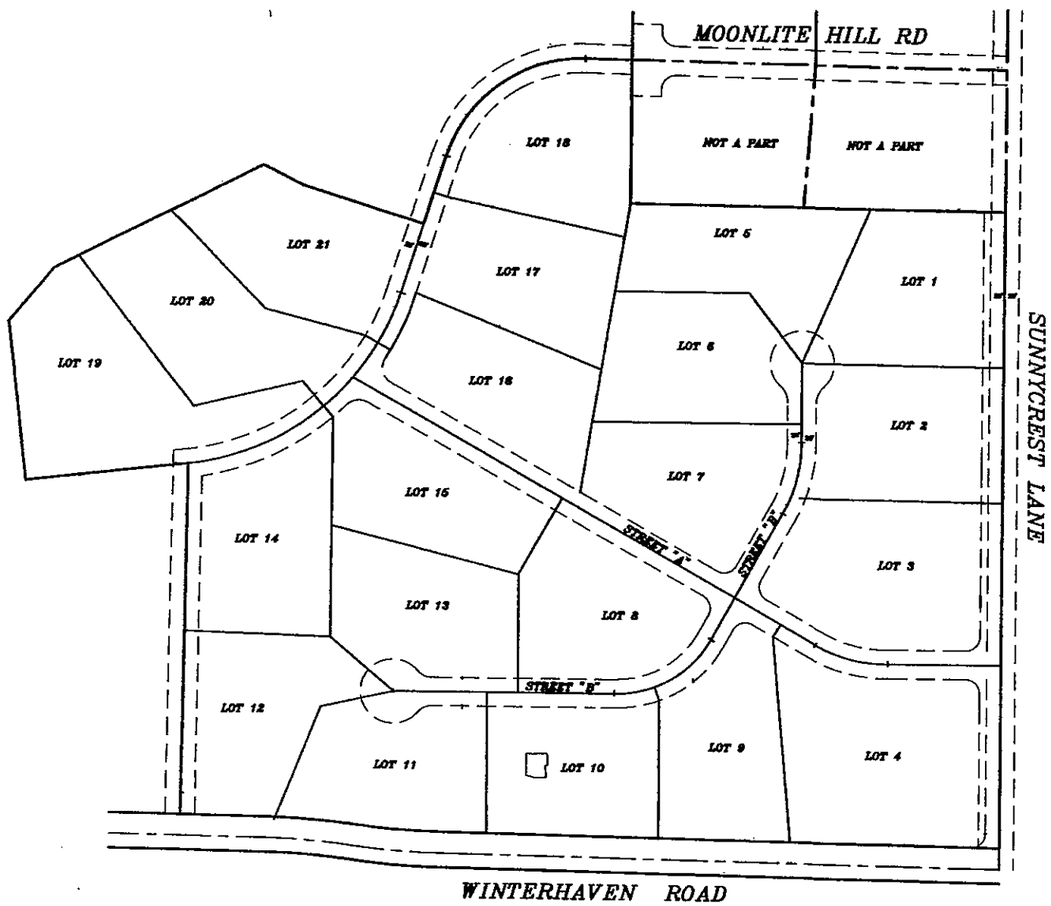
Feb. 24, 2015

TENTATIVE MAP 5577

SHEET 1 OF 3 SHEETS

LEGAL DESCRIPTION

A PORTION OF LOT 17 & 18 IN THE SUBDIVISION OF TRACT "D" OF THE PARTITION OF RANCHO MONSERATE, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE MAP THEREOF NO. 821



SCALE 1"=100' N

SLOPE DENSITY	
LOT NO.	LOT SLOPE
1	8%
2	10%
3	9%
4	9%
5	11%
6	10%
7	11%
8	10%
9	12%
10	7%
11	9%
12	14%
13	11%
14	13%
15	10%
16	10%
17	10%
18	8%
19	12%
20	10%
21	12%

OWNER/SUBDIVIDER

JEFFERY S. BERK
22451 ATOMO
MISSION VIEJO, CA. 92691
PHONE (949) 488-6448

JEFFERY S. BERK, TRUSTEE

DATE: OCT 2, 2013

NANCY B. BERK
574 COMBES AVE
THOUSAND OAKS, CA 91360
PHONE (805) 320-8355

NANCY B. BERK, TRUSTEE

DATE: Oct 2, 2013

EXISTING ZONING

APN 106-280-22
TRA= 75006

USE REGULATIONS	A-70	
NEIGHBORHOOD REGS	L	
DENSITY	–	
LOT SIZE	1 AC	
BUILDING TYPE	C	
MAX FIR AREA	–	
FIR AREA RATIO	–	
HEIGHT	G	
COVERAGE	–	
SETBACK	C	
OPEN SPACE	–	
SPECIAL AREA REGS	C	

SUPPLEMENTAL INFORMATION

1. EXISTING ZONING: A-70
2. COMMUNITY PLANNING: FALLBROOK
3. GENERAL PLAN DESIGNATION: SEMI-RURAL RESIDENTIAL (SR-1) 1 DU/AC
4. REGIONAL CATEGORY: SEMI-RURAL
5. WATER: FALLBROOK PUBLIC UTILITY DISTRICT
6. SEWER/SEPTIC: SUBSURFACE DISPOSAL (SEPTIC)
7. FIRE PROTECTION: FALLBROOK FIRE PROTECTION DISTRICT
8. SCHOOL DISTRICT: FALLBROOK HIGH SCHOOL AND FALLBROOK ELEMENTARY SCHOOL
9. STREET LIGHTS TO BE INSTALLED IN ACCORDANCE WITH SAN DIEGO COUNTY STANDARDS.
10. NUMBER OF LOTS: 21
11. NUMBER OF DWELLING UNITS: 21
12. NUMBER OF ACRES: 26.48
13. MINIMUM LOT SIZE: 1 AC NET
14. FEES TO BE PAID IN LIEU OF DEDICATION FOR PARK LAND.
15. NO SPECIAL ASSESSMENT ACT PROCEEDINGS ARE PROPOSED.
16. POTABLE WATER LINES ON OR NEAR THIS PROPERTY ARE AS SHOWN.
17. GROUND WATER WILL NOT BE USED FOR DOMESTIC USE.
18. ALL BUILDINGS TO REMAIN.
19. THE DEVELOPER SHALL COMPLY WITH THE REQUIREMENTS SPECIFIED IN THE COUNTY STANDARDS.
20. TOPOGRAPHY: PHOTO GEODETIC
21. NO 100 YEAR FLOOD PLANS EXIST ON THE SITE.
22. ALL CUT SLOPES: 1 1/2 : 1
23. ALL FILL SLOPES 2 : 1
24. NO LOT GRADING IS PROPOSED.

PAXTON SURVEYING & ENGINEERING
P.O. BOX 1461
ESCONDIDO, CA 92033-1461
(760) 294-4871

10-10-2013
LAWRENCE PAXTON, PLS 4447 DATE

SEA BRIGHT CO.
4322 SEA BRIGHT PLACE
CARLSBAD, CA 92008
(760) 720-0098

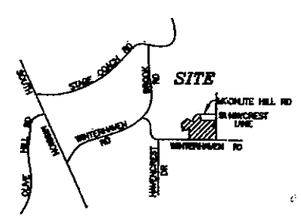
10/10/13
ROBERT O. SUKUP, RCE 28302 DATE

KEY MAP

SOLAR NOTE

"ALL LOTS WITHIN THIS SUBDIVISION HAVE A MINIMUM OF 100 SQUARE OF SOLAR ACCESS FOR THE FUTURE DWELLING UNIT ALLOWED BY THIS SUBDIVISION"

10-10-2013
LAWRENCE PAXTON, PLS 4447 DATE



VICINITY MAP
NO SCALE

Site Plan of TM 5577

3

FIGURE 2

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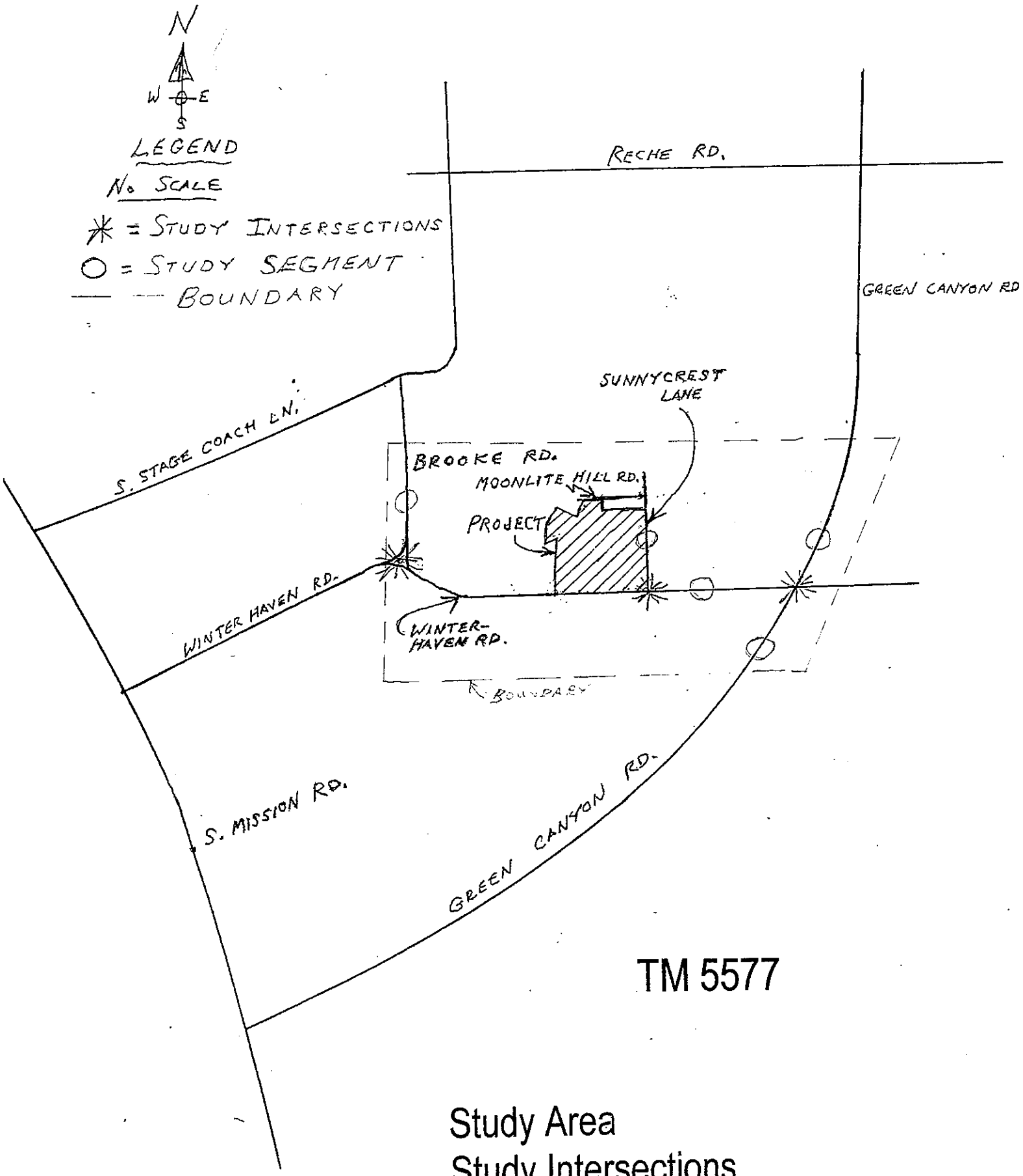


Study Area
Study Intersections

FIGURE 3

It should be noted here that another tentative map is being processed in the same area as TM 5577, covering the northeast quadrant of the Sunnycrest / Winterhaven area. This TM 5553 project after two iterations, has all its required material at the County awaiting County Planning Commission and Board of Supervisors action. County Transportation Engineering staff for the new TM 5577 project suggested that this TIS for TM 5577, could use pertinent data developed for TM 5553. Consequently, this new TIS will provide new, existing traffic counts, and treat TM 5553's traffic as cumulative traffic in the intersection and segment analyses herewith. (See Figure 3A for the Site Plan of TM 5553)

Existing Conditions

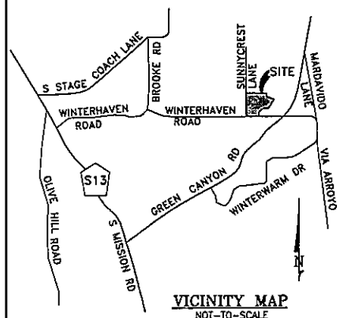
As shown above on Figure 3 in the discussion of this Issue Specific TIS, the County Transportation Engineering staff, determined that this TIS should study Winterhaven Road between Brooke Road on the west and Green Canyon Road on the east, along with its intersections with Brooke Road, Sunnycrest Lane, and Green Canyon Road. The projects, direct traffic impacts on these intersections will be determined, along with its impact on the Winterhaven Road segment. Further, the project must propose the correction of any existing sight distance deficiences for the existing speeds, at the Sunnycrest / Winterhaven Road intersection. All of the public roadways near the project shown on Figure 3 are typical rural County two lane roadways. They have centerlines and a 12 foot lane in each direction along with painted edge lines with about 1 to 3 feet of pavement behind the edge lines. Winterhaven Road however has been widened to a 36 foot width for 248 feet to the west and 376 feet to the east of the Sunnycrest Lane centerline. It is striped with a 12 foot lane in each direction leaving a 6 foot edge lane terminating with an asphalt berm on each side.

Figure 4 shows the intersection lanes and controls at the three study intersections. Note that at the Winterhaven / Brooke intersection, it is west Winterhaven to / from Brooke to the north, that is the through route. Westbound Winterhaven stops for these through movements. Winterhaven Road is classified as a Residential Collector. As such, it will ultimately be a 40 foot paved roadway within 60 feet of graded width. TM 5577 will be conditioned to dedicate and improve Winterhaven Road along its frontage, to the one half graded width of 30 feet with 20 feet of pavement, a dike / curb at the edge of the pavement, and 10 feet of disintegrated granite (DG) for a pathway that completes the "filling up" of the ½, fronting, right of way.

Sunnycrest Lane is an existing private road. TM5577 will be conditioned like TM 5553, to improve this road to a graded width of 28 feet with at least 24 feet of improved

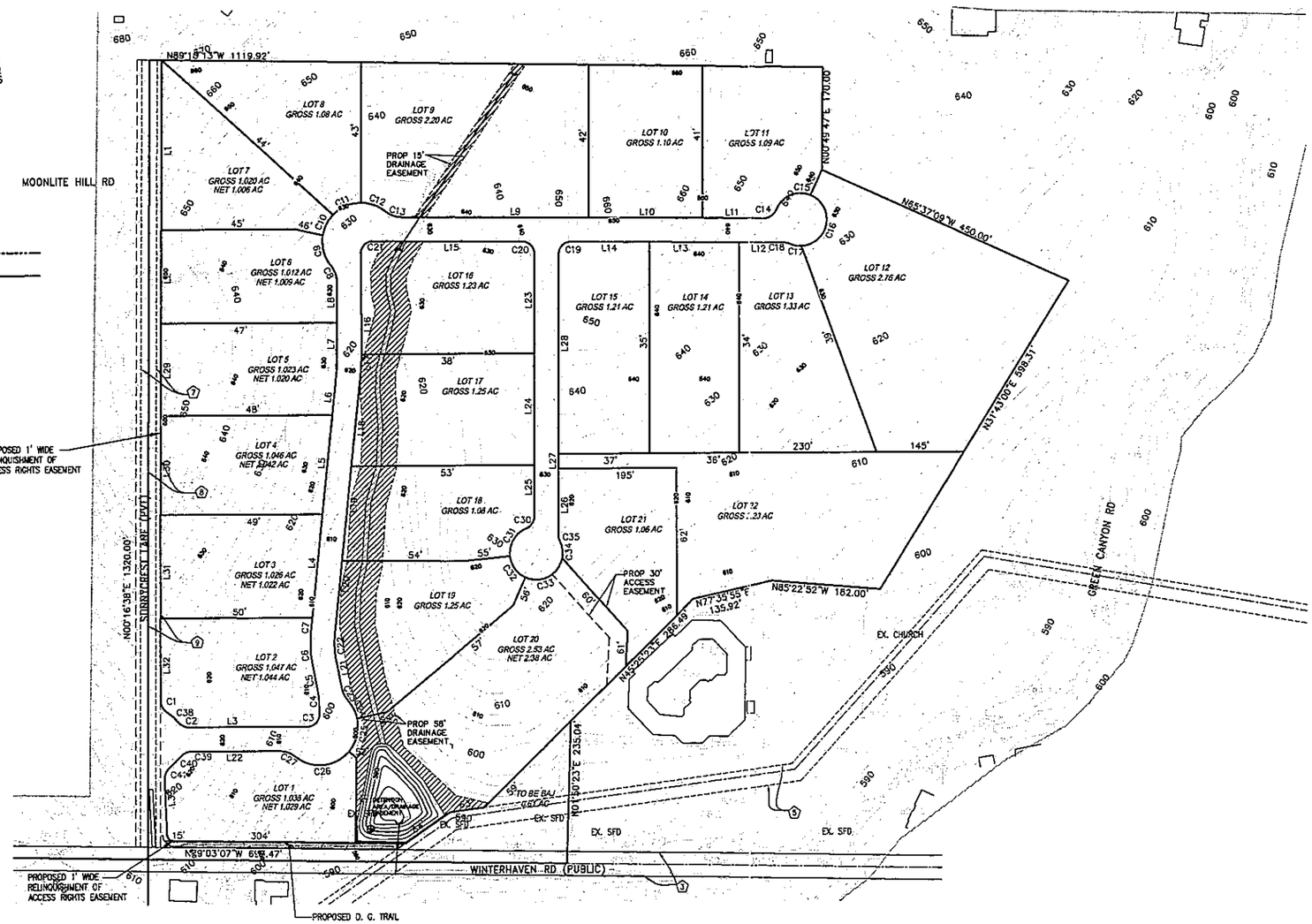
HEALTH DEPT. NO.: _____

TENTATIVE TRACT MAP
COUNTY OF SAN DIEGO TRACT 5553



VICINITY MAP
NOT-TO-SCALE
THOMAS BROTHERS GUIDE PAGE: 1028, A-7

MOONLITE HILL RD



LEGEND

PROJECT BOUNDARY	
PROPOSED LOT LINE	
PROPOSED DRAINAGE EASEMENT	
EXISTING WELL *	⊕

NOTE: *

EXISTING WELL TO BE PLUGGED/CAPPED AND ABANDONED IN PLACE.

EXISTING & PROPOSED ZONING

ZONE		
USE REGULATIONS		A70
ANIMAL REGULATIONS		L
DEVELOPMENT REGULATIONS	Density	1.0 AC MIN.
	Lot Size	1.0 AC MIN.
	Building Type	G
	Maximum Floor Area	—
	Floor Area Ratio	—
	Height	G
	Lot Coverage	—
	Setback	C
	Open Space	—
SPECIAL AREA REGULATIONS		C

EDA: ESTATE DEVELOPMENT AREA
CLUSTERING: ALLOWED PER GP POLICY 1.55

NOTES

1. TAX ASSESSOR'S PARCEL NO.: 106-300-41
2. TAX RATE AREA: 75006
3. LEGAL DESCRIPTION: PAR A OF DOC95-036034 IN LOTS 15/16 TCT D.
4. TOTAL AREA: 33.76 ACRES GROSS 29.97 ACRES NET.

   MINIMUM LOT SIZE: 1 ACRE NET
   TOTAL NUMBER OF DWELLING UNITS ALLOWED: 1DU/ACRE
   TOTAL NUMBER OF LOTS: 23
   RESIDENTIAL: 22
   ROAD: 1
   DETENTION/WATER QUALITY: 1
5. EXISTING AND PROPOSED ZONING: A70 LIMITED AGRICULTURE
6. GENERAL PLAN REGIONAL CATEGORY: SEMI-RURAL
7. GENERAL PLAN LAND USE DESIGNATION: SR-1
8. COMMUNITY PLAN DESIGNATION: FALLBROOK
9. IMPROVEMENTS FOR THIS SUBDIVISION WILL NOT BE CONSTRUCTED UNDER SPECIAL ASSESSMENT PROCEDURES.
10. WHERE REQUIRED, PARK FEES WILL BE PAID IN LIEU OF PARK LAND DEDICATION
11. STREET LIGHTS: NONE-PROJECT OUTSIDE DARK SKY POLICY.
12. SOLAR STATEMENT:
    EACH LOT HAS UNOBSTRUCTED ACCESS TO SUNLIGHT TO AT LEAST 100 SQ. FT. OF AREA PER SECTION 81401 (n) ORDINANCE NO. 5589.
13. SOURCE OF TOPOGRAPHY: MORENO AERIAL, DATED:11-29-07
14. SERVICE DISTRICTS
    SEWER: INDIVIDUAL SEPTIC SYSTEMS
    WATER: FALLBROOK PUBLIC UTILITY DISTRICT
    FIRE PROTECTION: NORTH COUNTY FIRE PROTECTION DISTRICT
    SCHOOL DISTRICTS: FALLBROOK ELEMENTARY & FALLBROOK HIGH SCHOOL
15. GRADING: PROPOSED AS SHOWN ON GRADING PLAN
16. CONTOUR INTERVAL: 2 FEET
17. STREETS TO BE DESIGNED IN ACCORDANCE WITH COUNTY STANDARDS.
18. STATUS OF LEGAL ACCESS: WINTER HAVEN RD (PUBLIC)
19. STATUS OF ROADS: PROPOSED PRIVATE ROADS
20. ASSOCIATED PERMITS: NONE

HEALTH DEPARTMENT

ALL PARCELS SHALL HAVE A LAYOUT OF THE SEWAGE DISPOSAL SYSTEM, PROPOSED STRUCTURES, CUTS AND FILLS, APPROVED BY THE SAN DIEGO DEPARTMENT OF ENVI-ENVIRONMENTAL HEALTH PRIOR TO THE APPROVAL OF THE BUILDING PERMIT AND/OR ISSUANCE OF A SEPTIC TANK PERMIT. AN ADDITIONAL EXPANSION AREA OF 100% OF THE INITIAL TILE AREA SHALL BE PROVIDED BY GRAVITY FLOW FOR THE POTENTIAL EXPANSION IN THE EVENT OF FAILURE.

DEH CONTROL NUMBER _____
EACH PARCEL IS APPROVED FOR A STANDARD SEPTIC TANK CONNECTED THE LEACH FIELD LISTED BELOW, TO SERVE A THREE BEDROOM DWELLING; PROVIDED THE ORIGINAL SOIL IS NOT DISTURBED IN ANY WAY, SUCH AS CUTTING, FILLING OR RIPPING. THIS DOES NOT CONSTITUTE APPROVAL FOR COMMERCIAL ESTABLISHMENTS.

LAND DIVISION STATEMENT/OWNER'S CERTIFICATE

I HEREBY CERTIFY THAT I AM THE RECORD OWNER, AS SHOWN ON THE LATEST EQUALIZED COUNTY ASSESSMENT, OF THE PROPERTY SHOWN ON THE TENTATIVE PARCEL MAP. ALL OF MY CONTIGUOUS OWNERSHIP WITHIN AND BEYOND THE BOUNDARIES OF THE TENTATIVE PARCEL MAP IS SHOWN. THE BASIS OF CREATION OF THE LOTS IN MY OWNERSHIP (E.G. PARCEL MAP, FINAL MAP, CERTIFICATE OF COMPLIANCE, RECORDED DEED BEFORE FEBRUARY 1, 1972) IS INDICATED ON THE TENTATIVE PARCEL MAP. I UNDERSTAND THAT PROPERTY IS CONSIDERED AS CONTIGUOUS EVEN IF IT IS SEPERATED BY ROADS, STREETS, UTILITY EASEMENTS OR RAILROAD RIGHTS-OF-WAY. "FREEWAY" AS DEFINED IN SECTION 23.5 OF THE STREETS AND HIGHWAYS CODE, SHALL NOT BE CONSIDERED AS ROADS OR STREETS.

I FURTHER CERTIFY THAT I WILL NOT, BY THIS APPLICATION, CREATE OR CAUSE TO BE CREATED, OR WILL NOT HAVE PARTICIPATED IN THE CREATION OF MORE THAN FOUR PARCELS ON CONTIGUOUS PROPERTY UNLESS SUCH CONTIGUOUS PARCELS WERE CREATED BY A MAJOR SUBDIVISION. FOR PURPOSES OF THIS CERTIFICATION, THE TERM "PARTICIPATED" MEANS HAVING COOPERATED WITH OR ACTED IN A PLANNING, COORDINATING OR DECISION- MAKING CAPACITY IN ANY FORMAL OR INFORMAL ASSOCIATION OR PARTNERSHIP FOR THE PURPOSE OF DIVIDING REAL PROPERTY.

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT.

EXECUTED THIS____ DAY OF _____
AT_____ CALIFORNIA

PROPERTY OWNER / SUBDIVIDER

HALSTEAD B. MCCORMAC TRUST
DOUGLAS E. MCCORMAC TRUSTEE
16533 2500 ROAD, CEDAREDGE, CO 81413
(970)856-4121

BY: _____ DATE

GRAPHIC SCALE
0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

DATE: 03/09/12

SAN DIEGUITO ENGINEERING, INC
4407 MANCHESTER, SUITE 105
ENCINITAS, CA 92024
PHONE: (760) 753-5525
CIVIL ENGINEERING • PLANNING
LAND SURVEYING

PLOTTABLE EASEMENTS:

PTR #307420924

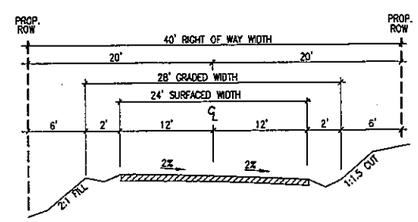
(3) AN EASEMENT FOR RIGHT OF WAY FOR PUBLIC ROAD AND INCIDENTAL PURPOSES TO THE COUNTY OF SAN DIEGO RECORDED APRIL 8, 1941 IN BOOK 1156 PAGE 259 OF O.R.

(5) AN EASEMENT FOR PIPELINE AND INCIDENTAL PURPOSES TO THE SAN DIEGO GAS AND ELECTRIC COMPANY PER DEED RECORDED JUNE 6, 1960 AS FILE/PAGE NO. 115415 OF O.R.

(7) AN EASEMENT FOR PIPELINE AND INCIDENTAL PURPOSES TO THE SAN DIEGO GAS AND ELECTRIC COMPANY PER DEED RECORDED FEBRUARY 25, 1991 AS DOCUMENT NO. 1991-0080842 OF O.R.

(8) AN EASEMENT FOR ROAD AND INCIDENTAL PURPOSES TO F.W. ROOD AND L.P. ROOD, TRUSTEES UP DATED FEBRUARY 2, 1990 PER DEED RECORDED JULY 6, 1992 AS DOCUMENT NO. 1992-0420095 OF O.R.

(9) AN EASEMENT FOR ROAD AND INCIDENTAL PURPOSES TO SID AND JEAN BERK PER DEED RECORDED JULY 6, 1992 AS DOCUMENT NO. 2001-0771250 OF O.R.



PROPOSED PRIVATE RD. SECTION
NOT-TO-SCALE
NOTE: ACCESS ROAD DESIGN MEETS COUNTY OF SAN DIEGO PRIVATE ROAD DESIGN STANDARD 3.1(c) for AD 100-750.

PREPARED BY:

IVAN R. FOX, RCE#38144
SAN DIEGUITO ENGINEERING, INC. 4407
MANCHESTER AVE. SUITE 105 ENCINITAS,
CA 92024

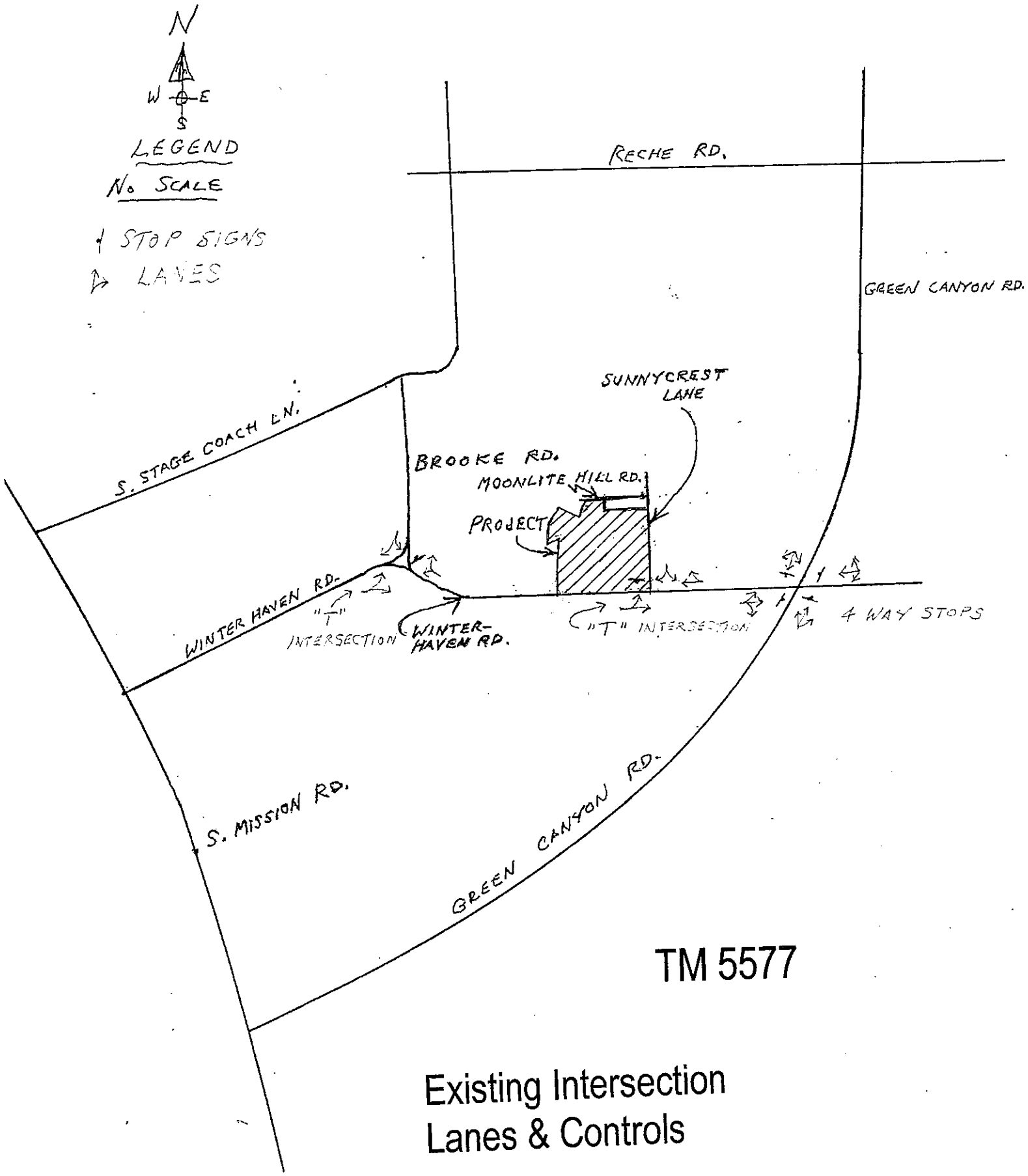
BY: _____ DATE

REGISTERED PROFESSIONAL ENGINEER IVAN R. FOX NO. 38144 EXP. 3-31-13 CIVIL STATE OF CALIFORNIA

SHEET 1 OF 2
FILE NO. 5278

ENGINEER'S NAME: SAN DIEGUITO ENGINEERING
PHONE NO. (760) 753-5525

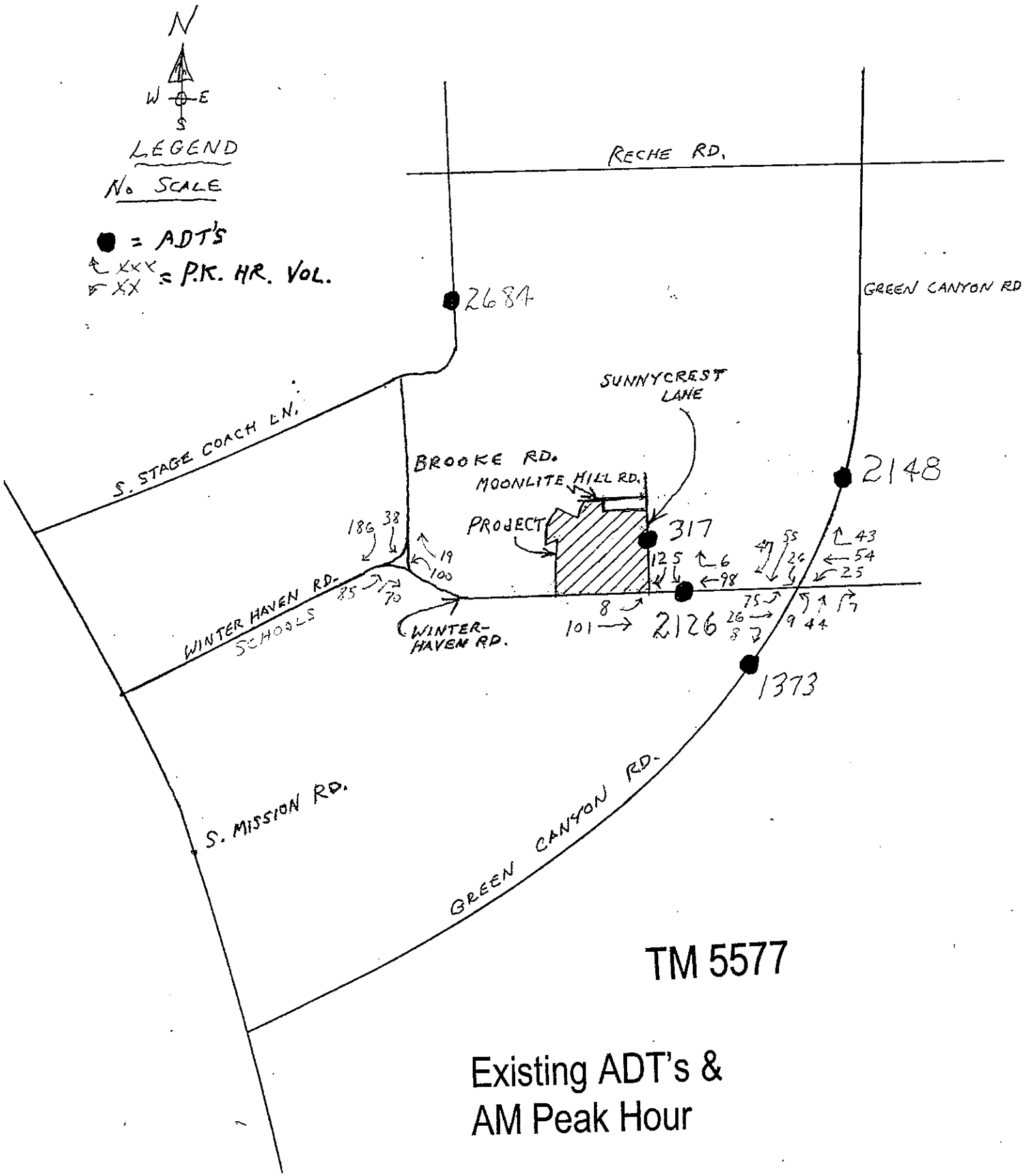
TM 5553 6 FIGURE 3A 6 FIGURE 3A



TM 5577

Existing Intersection Lanes & Controls

FIGURE 4

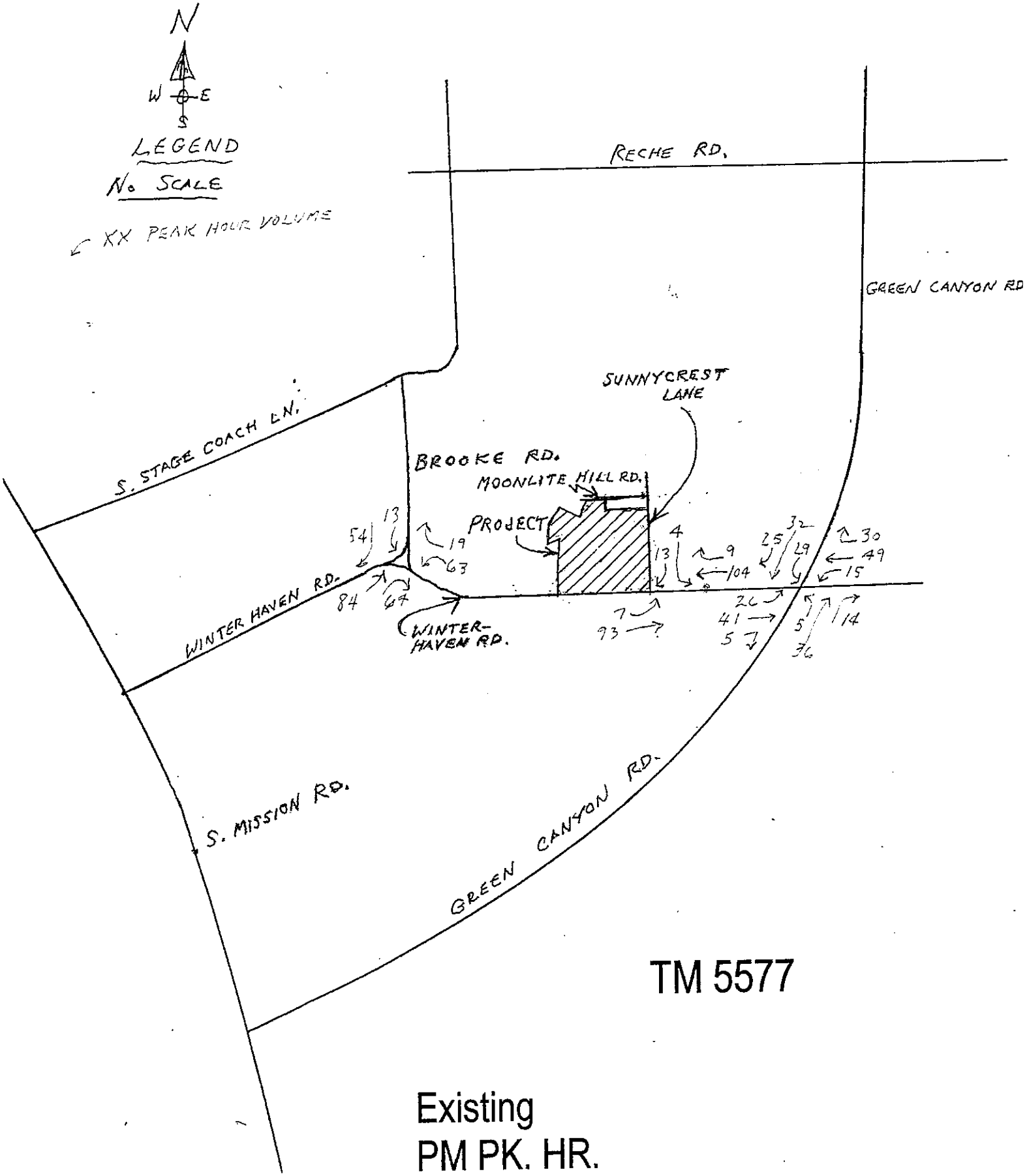


TM 5577

Existing ADT's &
AM Peak Hour

FIGURE 5

ALL COUNTS ON 3/5/2014



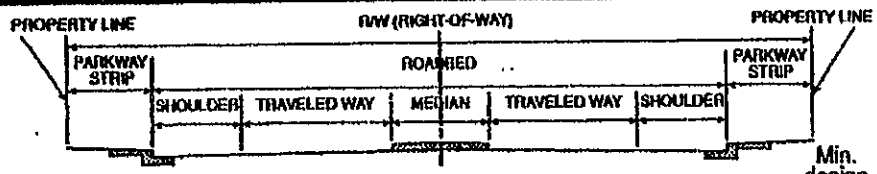
TM 5577

Existing
PM PK. HR.

FIGURE 6

COUNTS ON 3/5/2014

SUMMARY OF COUNTY OF SAN DIEGO PUBLIC ROAD STANDARDS†



CLASS	CIRCULATION ELEMENT ROAD CROSS-SECTIONS									AVERAGE DAILY VEHICLE TRIPS (ADT) LEVEL OF SERVICE (LOS)				
	Median	Traveled way	Shoulder	Parkway strip	Roadbed	R/W*	Min.curve radius	Max. grades	Min. design speed (mph)	A Free flow	B Steady flow	C Stable flow	D Approach unstable	E Unstable flow
EXPRESSWAY Divided highway with only selected public road access with full grade separations	34'	36'	10'	10'	126'	146'	1200'	6%	55	<36,000	<54,000	<70,000	<86,000	<108,000
PRIME ARTERIAL Divided highway, signalized intersections, access control, or extra lanes as required	14'	36'	8'	10'	102'	122'	1200'	6%	55	<22,200	<37,000	<44,600	<50,000	<57,000
MAJOR ROAD 4-lane divided road, access & parking controlled as necessary	14'	24'	8'	10'	78'	98'	1200'	7%	55	<14,800	<24,700	<29,600	<33,400	<37,000
COLLECTOR 4-lane undivided road	—	24'	8'	10'	64'	84'	700'	7%	45	<13,700	<22,800	<27,400	<30,800	<34,200
LIGHT COLLECTOR 2-lane undivided road	—	12'	8'	10'	40'	60'	700'	9%	45	<1,900	<4,100	<7,100	<10,900	<16,200
RURAL COLLECTOR 2-lane undivided road, extra R/W allows greater flexibility & upgrade	—	12'	8'	22'	40'	84'	500'	12%	40	<1,900	<4,100	<7,100	<10,900	<16,200
RURAL LIGHT COLLECTOR 2-lane undivided road, decreased "curve radii" standards	—	12'	8'	10'	40'	60'	500'	12%	40	<1,900	<4,100	<7,100	<10,900	<16,200
RURAL MOUNTAIN 2-lane undivided road appropriate only in rural mountain areas	—	12'	8'	30'	40'	100'	500'	12%	40	<1,900	<4,100	<7,100	<10,900	<16,200
RECREATIONAL PARKWAY Recreational routes for travel pleasure purposes	—	12'	8'	30'	40'	100'	400'	12%	25	<1,900	<4,100	<7,100	<10,900	<16,200
NON-CIRCULATION ROADS														
RESIDENTIAL COLLECTOR	—	12'	8'	10'	40'	60'	300'	12%	30	<4,500	Levels of service are not applied to non-circulation roads since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors. Not all non-circulation road classifications are shown.			
RESIDENTIAL STREET	—	12'	6'	10'	36'	56'	200'	15%	30	<1,500				
RESIDENTIAL LOOP/CUL-DE-SAC	—	12'	4'	10'	32'	52'	200'	15%	30	<200				

*Additional pavement and R/W may be required for C.E. Collectors and L1 Collectors in Industrial/Commercial Zones, 4 and 12 ft., respectively. C.E. roads needing additional turn lanes will require an additional 12 to 14 ft. of pavement and R/W for each lane. C.E. roads designated with Bike Lanes will require an additional 10 ft. of pavement and R/W.

†For full standards, refer to Public Road Standards, adopted by the Board of Supervisors on 2/26/92

10

TABLE 1

width along the project frontage. A 40 foot private road easement will also be conditioned if it does not exist now.

In order to evaluate the existing traffic conditions in the project study area, it is necessary to have existing traffic counts. In this case daily (ADT) and intersection turning movement traffic counts were made on Wednesday, March 5, 2014. The complete count reports are shown in the Appendix A1 thru A19 but Figures 5 and 6 show these new, existing traffic volumes.

By using the daily traffic count of Figure 5 on Winterhaven Road, it was compared to the County Public Road Standards of Table 1 for a Light Collector roadway which has the same, ultimate, 40 / 60 cross section (no extra turn lanes) with 2, 12 foot lanes. This classification was chosen for comparison since in this area Winterhaven Road has mostly through traffic like a Light Collector. Note on Table 1, that the 2126 ADT, counted on Winterhaven Road, is more than the 1900 ADT of LOS A but less than the 4100 ADT of LOS B and therefore is within LOS B.

Table 2 and Figure 5 show that Winterhaven Road (and others shown in the Figure 3 area) are all at an excellent LOS B, or better, today. (Note that south Green Canyon on Figure 5 , has 1373 ADT = LOS A) Of interest to add to this very good LOS B, it is noted that Winterhaven Road past the project, and others surrounding the project, are posted with 45 MPH speed limit signs which indicates that this is a safe and comfortable speed to travel on these roadways since they were just recently re-certified.

Table 2

Existing Winterhaven Road Level of Service (LOS) as per Table 1 For a Light Collector

County Standard		Existing Winterhaven Road	
LOS	ADT	LOS	ADT
B	4100	B	2126

The existing intersection turning movement counts of Figure 5 and 6 were used to determine the existing peak hour traffic conditions at the three study area intersections of interest. For use in the Highway Capacity Manual (HCM) formulas for determining LOS the existing turning lane configurations and controls must be used with the counts. As mentioned previously, Figure 4 shows the existing lanes and stop sign controls at the intersection – none are signalized.

The existing traffic HCM calculations were made and are shown in the Appendix for both AM and PM peak hours (A20 thru A25), while Table 3 shows the result of the HCM calculations.

Table 3

Existing Three Intersection Peak Hour Delays and LOS'S

Intersection	AM Peak			PM Peak		
	Ave.Delay*	Worst Delay*	Worst LOS	Ave.Delay*	Worst Dely*	Worst LOS
1. Winterhaven/ Brooke	3.6	12.4	B	3.1	10.1	B
2. Winterhaven/ Sunnycrest	1.0	9.2	A	0.9	9.2	A
3. Winterhaven/ Green Canyon	8.3	8.5	A	7.8	7.9	A

*Delays are seconds / per vehicle per approach at the intersection. Average delays are the average delays for all moves together, while the worst case delay is the highest delay on any approach of the intersection.

As can be seen in Table 3, just like the Winterhaven segment in Table 2 the three significant project public road intersections, are all operating at very good LOS's (A or B) in each weekday peak hour, thus proving that there are no congestion problems at segments or intersections near the project, at the present time.

Cumulative Traffic Impact Analysis

Tables 2 and 3 have just shown that the existing traffic on the TM 5577 project network has no congestion problems at either segments or intersections.

There is however a "next door" project that is almost approved by the County and should be considered a cumulative traffic project, and therefore its traffic should be added to existing traffic before adding the new traffic from project TM 5577.

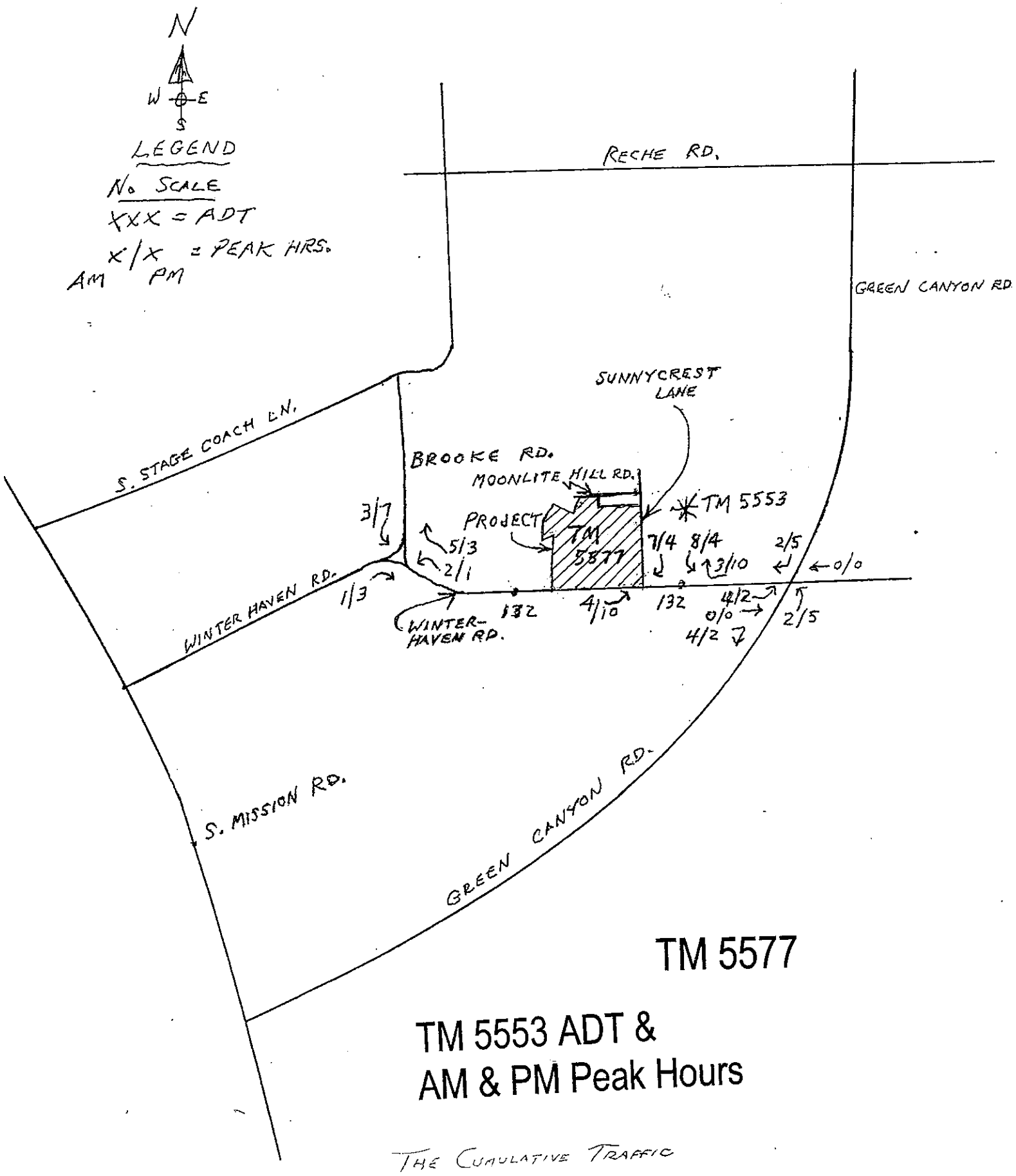
This TM 5553 project with 22 residential units, will generate 264 ADT, 7 in and 15 out AM trips, and 20 in and 8 outbound trips in the PM. These trips were distributed just like the trips of the new TM 5577.

Figure 7 shows the cumulative traffic of TM 5553 as it was taken from its TIS dated September 12, 2012. Figure 8 shows the TM5553 traffic added to the existing traffic of Figures 5 and 6 and is thus existing & cumulative traffic. Using Figure 8 traffic in the HCM calculations used to derive traffic impacts, Table 4 below shows, the direct traffic impacts due to the traffic of TM 5553. Note in Table 4 that the effects of the cumulative traffic is still minimal, and the traffic LOS's just before the TM 5577 traffic, is still very good. (The Appendix pages A26 thru A31 show the LOS's and delays just before the project traffic is added).

Table 4

A Comparison of Three Intersection Peak Hour Delays And LOS's Between Existing And With Cumulative Traffic Added

Intersection	AM Ave. Delay	AM Worst Delay	AM Worst LOS	PM Ave. Delay	PM Worst Delay	PM Worst LOS
1. Winterhaven/ Brooke						
Existing Traffic	3.6	12.4	B	3.1	10.1	B
Existing + Cum	3.8	12.5	B	3.3	10.2	B
2. Winterhaven/ Sunnycrest						
Existing Traffic	1.0	9.2	A	0.9	9.2	A
Existing + Cum	1.6	9.4	A	1.4	9.4	A
3. Winterhaven/ Green Canyon						
Existing Traffic	8.3	8.5	A	7.8	7.9	A
Existing + Cum	8.4	8.6	A	7.8	7.9	A

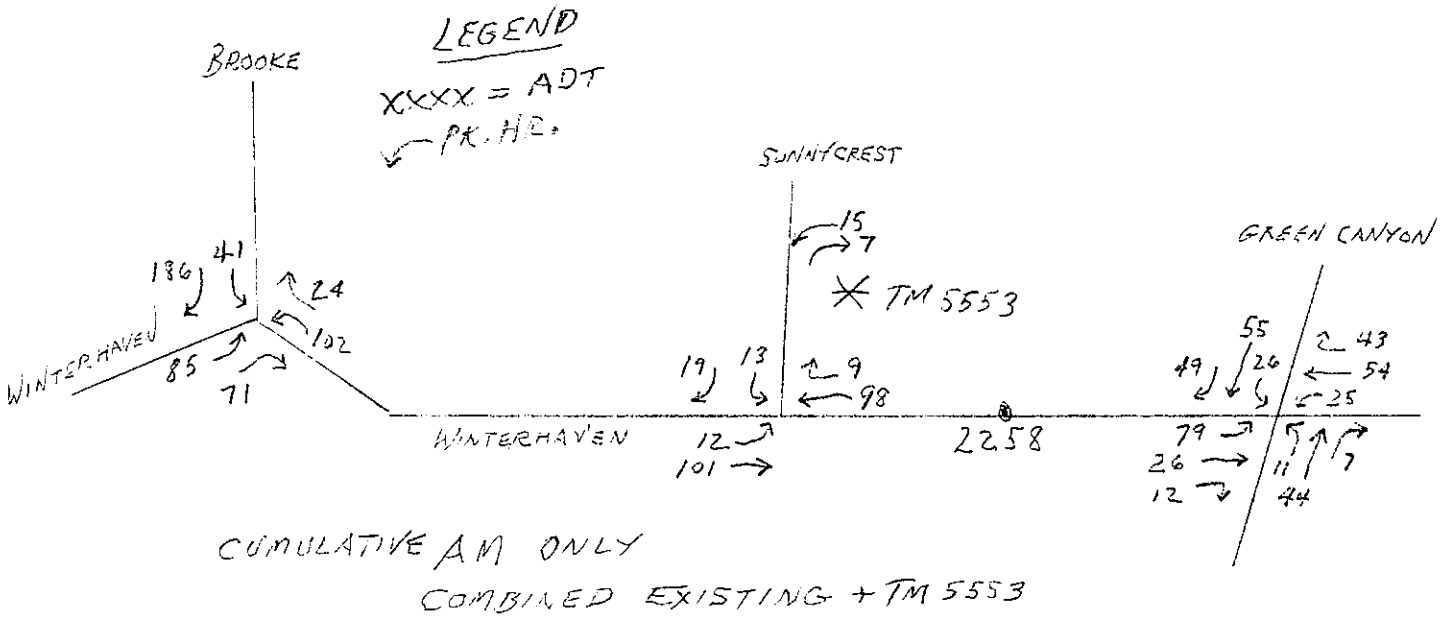


TM 5577

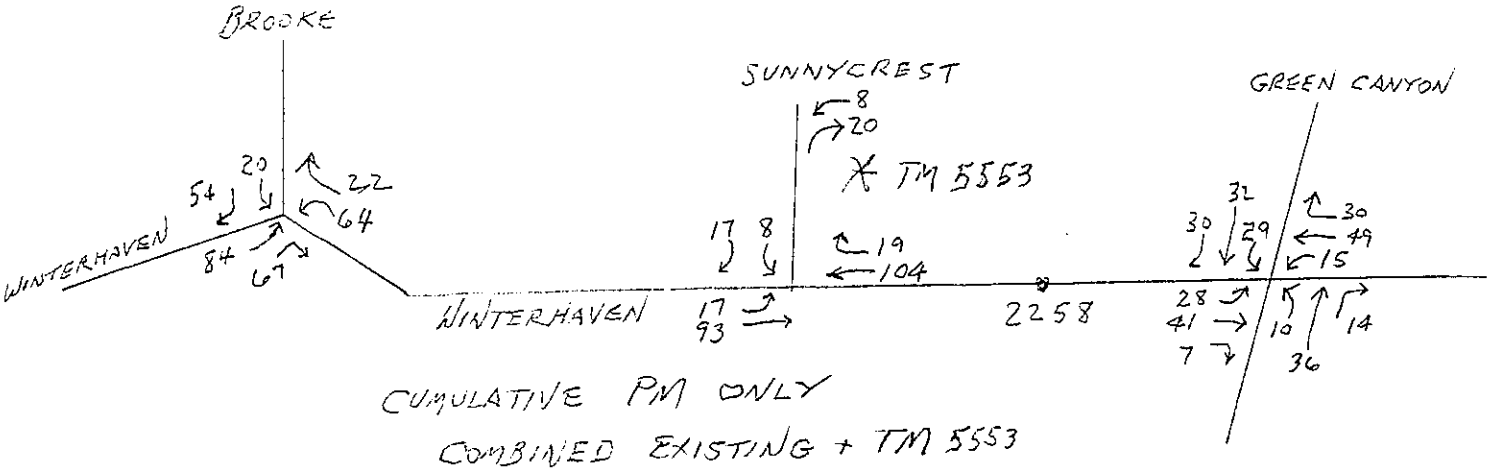
TM 5553 ADT &
AM & PM Peak Hours

THE CUMULATIVE TRAFFIC

FIGURE 7



CUMULATIVE AM ONLY
COMBINED EXISTING + TM 5553



CUMULATIVE PM ONLY
COMBINED EXISTING + TM 5553

Combined Existing
+ TM 5553 Traffic

TM 5577

FIGURE 8

Figure 8 also shows that the Winterhaven segment volume only increases to 2258 ADT. A quick glance at Table 2 shows that the Volume is still way below the LOS B limit of 4100 ADT, or only 55% of the LOS B capacity. Table 5 shows this segment comparison.

Table 5

Comparison Of Segment LOS Before And After Cumulative TM 5553

Winterhaven Rd – East and West of Sunnycrest Lane

Existing Traffic		Existing + Cumulative Traffic		
ADT	LOS	ADT	LOS	LOS Change
2126	B	2258	B	None

Project Impact Analysis

From the above it is known that the existing road system, has no traffic congestion problems at the present time near the proposed 21 units within the TM5577 project. The following section of this TIS will quantify the direct traffic impacts of the 5577 project. This will be done by generating the project traffic, then using the directional distribution of TM5553 to finally assign the project traffic to the nearby public streets. This project traffic can then be added to the existing and cumulative traffic of both segments and intersections so that direct traffic impacts can be quantified.

Project Trip Generation

By using the accepted, SANDAG vehicular traffic generation rate for the San Diego Region, the average daily, and peak hour traffic of the TM 5577 residential units can be determined. Table 6 shows the expected project traffic.

Table 6

TM 5577 Project Trip Generaltion

	Daily Trips (ADT)			Peak Hours*			
				AM		PM	
Residential	Units	Rate	Daily Trips	IN	Out	IN	Out
Estate	21	12	252	6	14	18	8

AM* = 8% of ADT split 30% in & 70% out
PM* = 10% of ADT split 70% in & 30% out

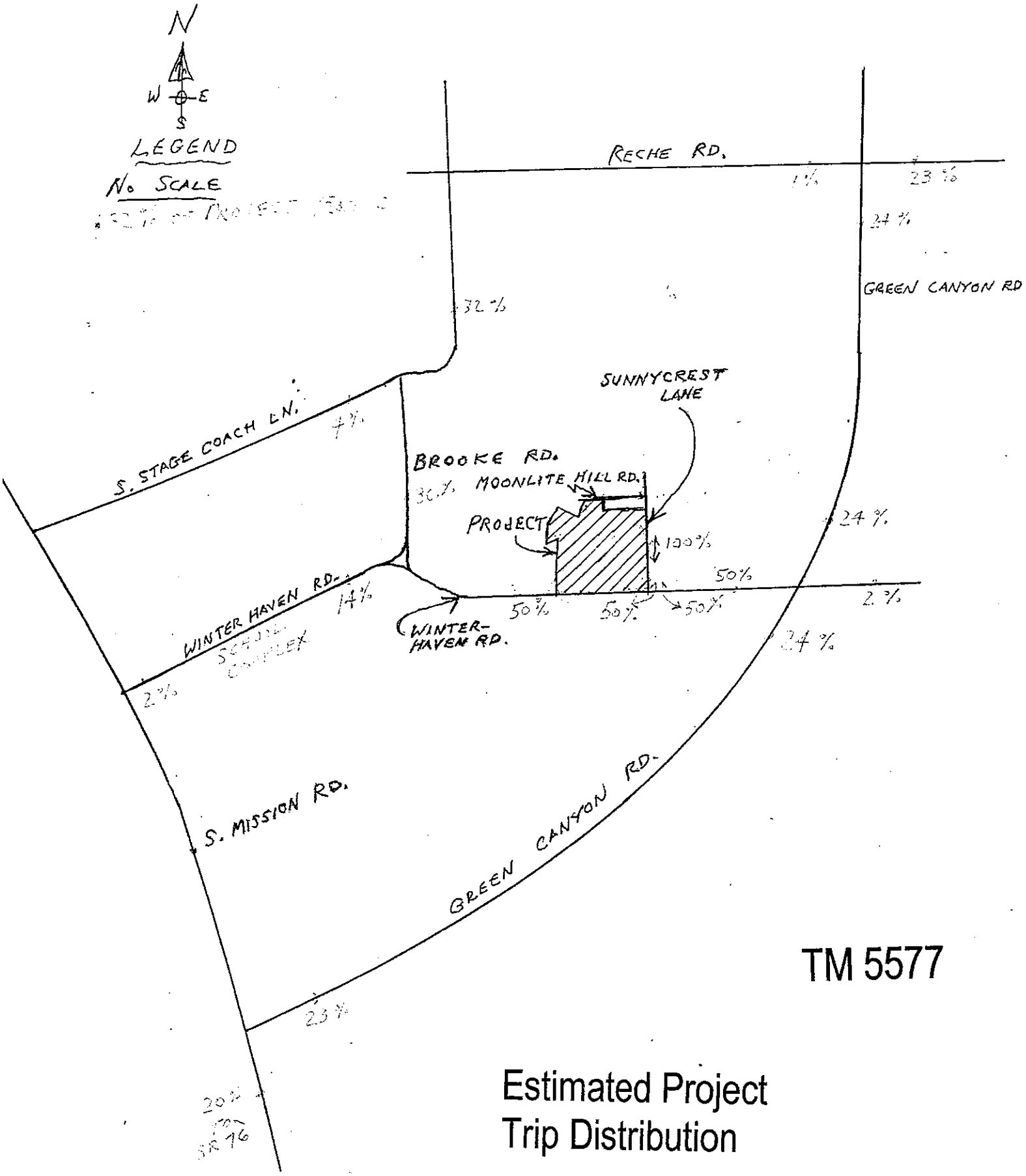
Project Trip Distribution

To determine the projects directional distribution of its 252 ADT and peak hour traffic, the SANDAG, series 11, year 2015 single zone, traffic assignment was obtained from the TIS of TM 5553. The project lies within this zone and the SANDAG assignment of the zonal traffic made it possible to change the volumes, to percents of the total going onto the roadways in the various directions. Figure 9 shows the estimated project traffic distribution percentages. Note that on Winterhaven Road, west of Brooke, there is a "loss" of 12% of the project traffic. The SANDAG assignment shows that this is due to the large school complex on this segment which acts as a destination for many of the zones (and thus the projects) residentially generated trips.

Project Traffic Assignment

Using the project generated traffic of Table 6 and the distribution of Figure 9, a project traffic assignment was made for the projects ADT and peak hour volumes. Figures 10 and 11 show this project only traffic.

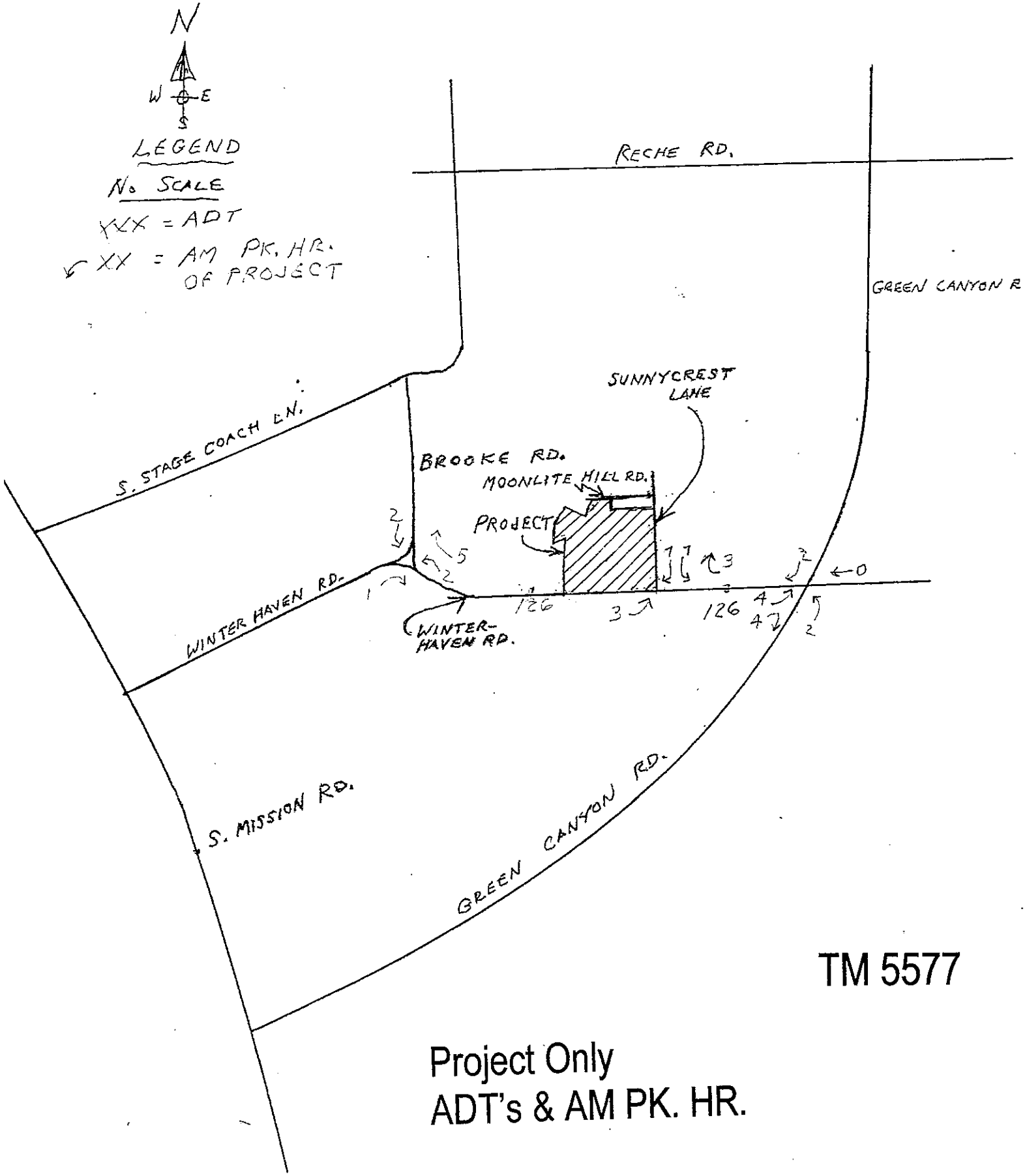
The project traffic of Figures 10 and 11 was used and added to the existing plus cumulative traffic of Figure 8. The "after project" traffic conditions could then be quantified at each of the intersections and segments of interest. Figures 12 and 13 show this combined "after project" traffic for the analysis.



TM 5577

Estimated Project Trip Distribution

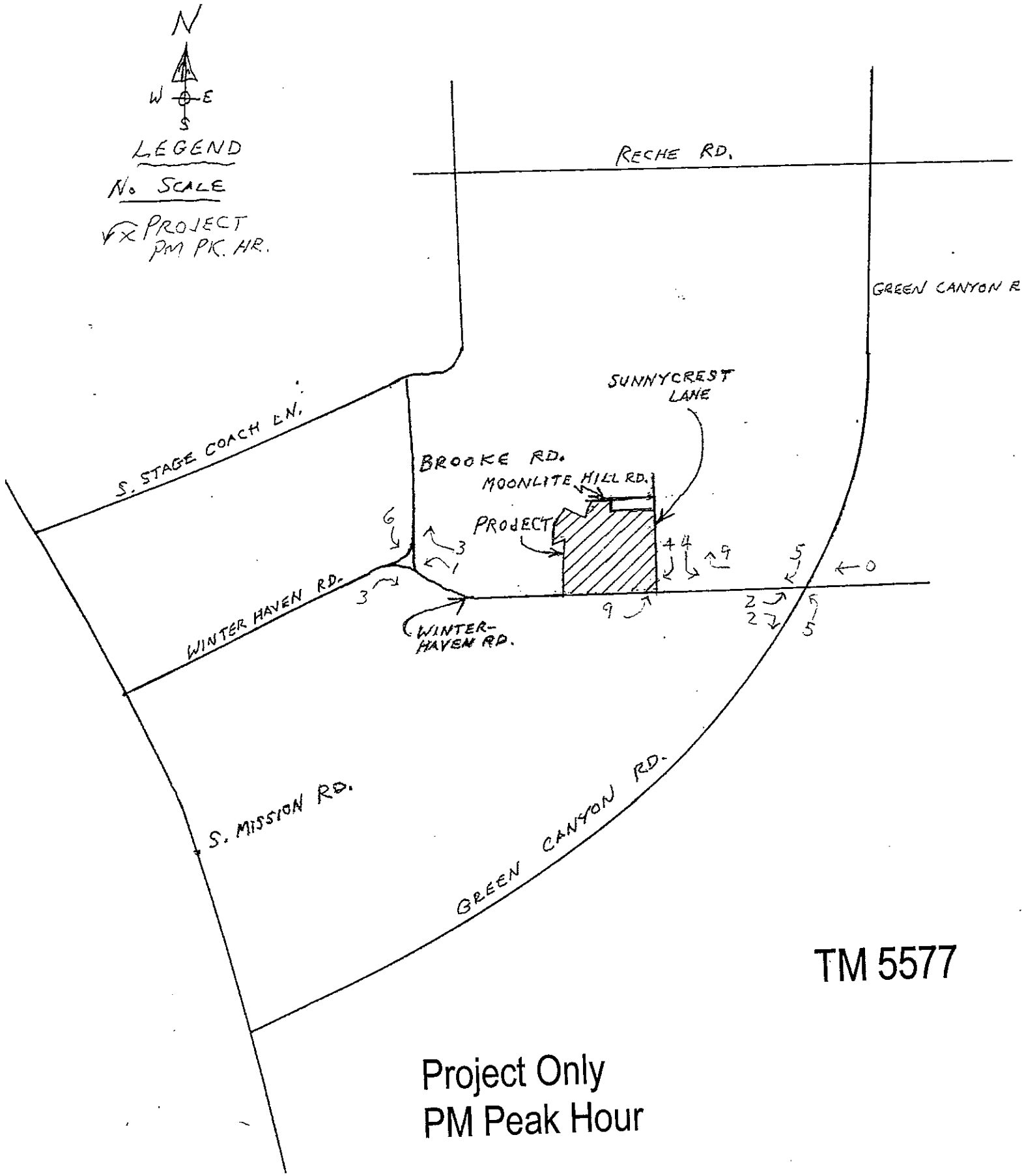
FIGURE 9



TM 5577

Project Only
ADT's & AM PK. HR.

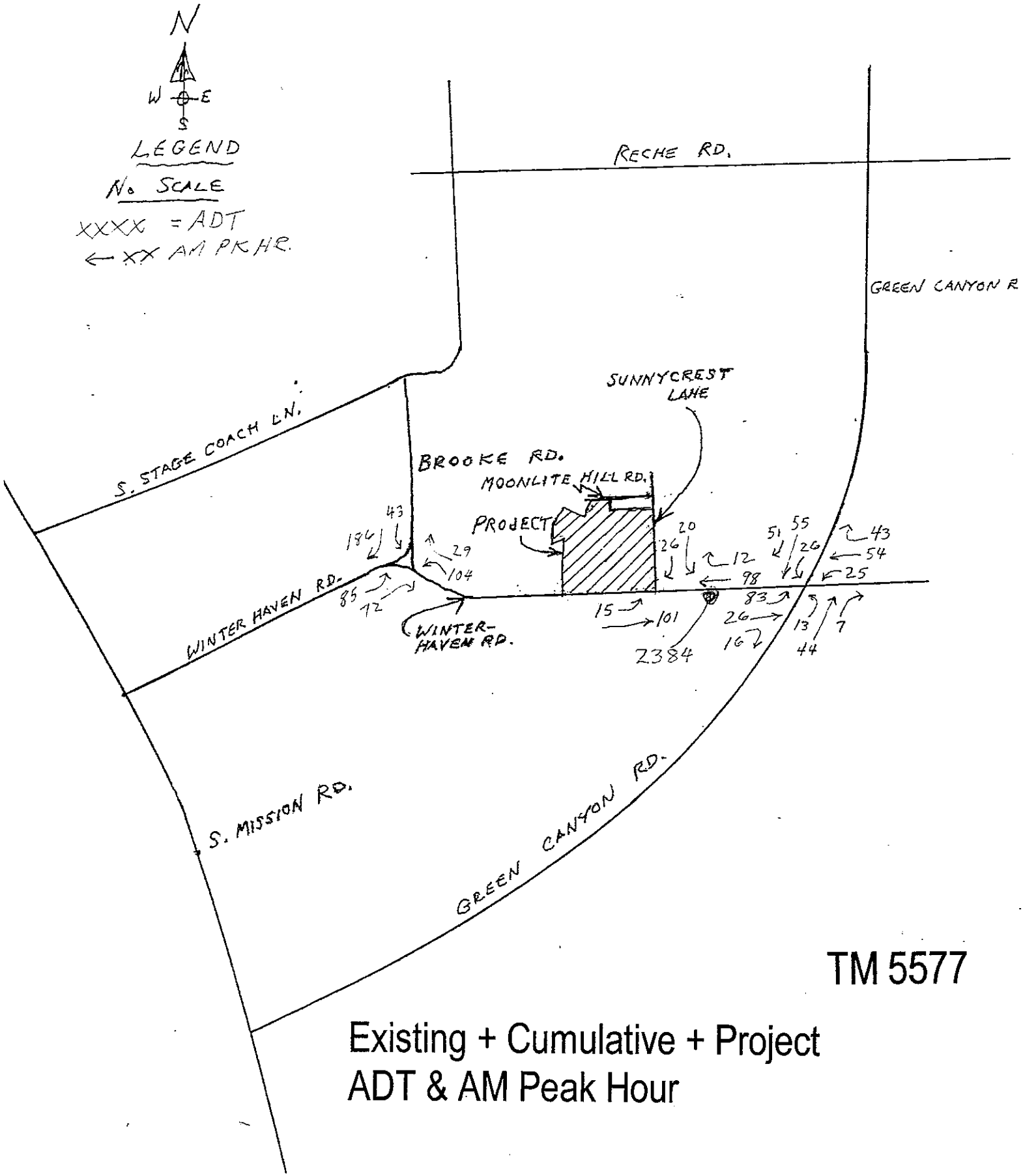
FIGURE 10



TM 5577

Project Only
PM Peak Hour

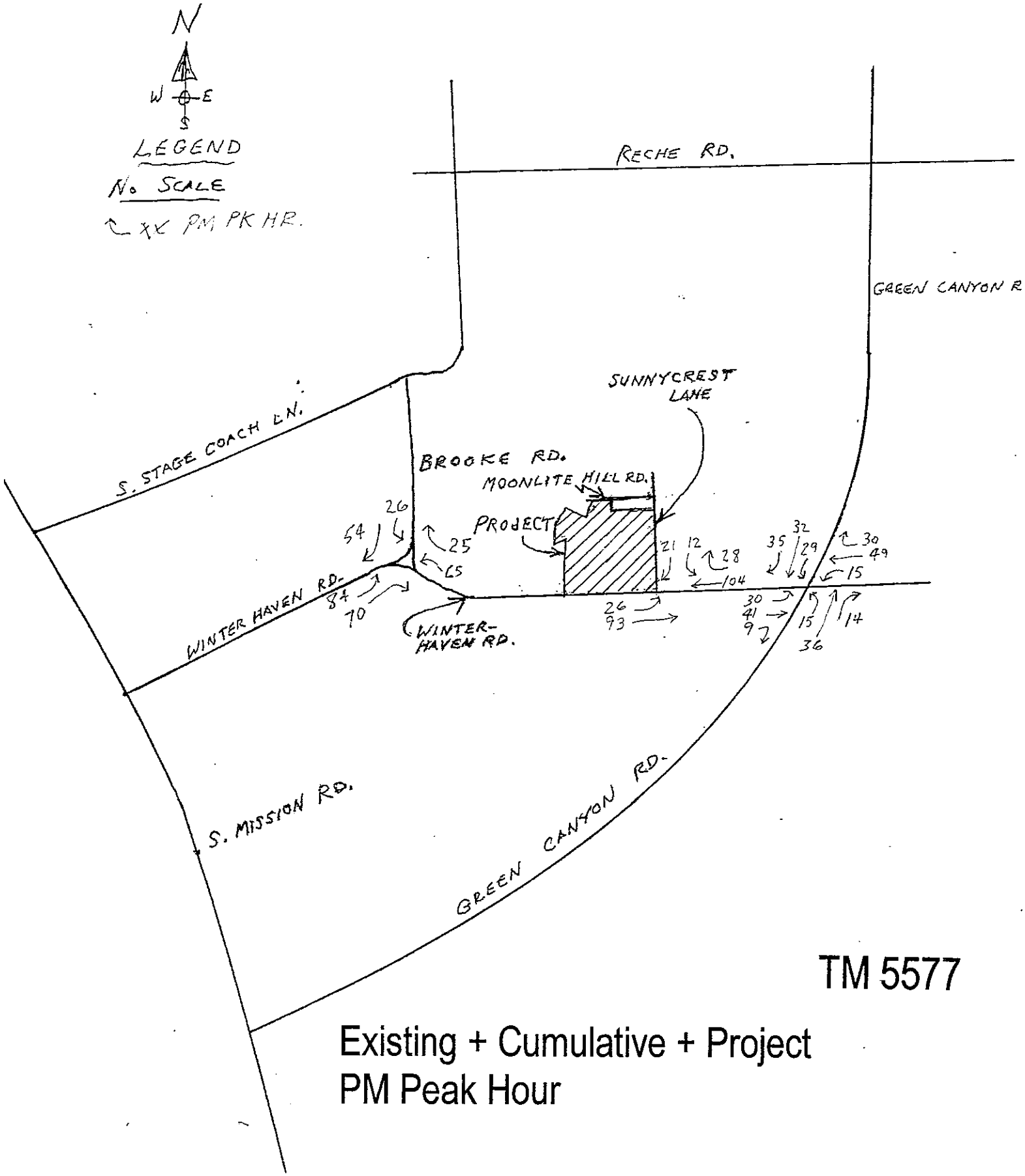
FIGURE 11



TM 5577

Existing + Cumulative + Project
ADT & AM Peak Hour

FIGURE 12



TM 5577

Existing + Cumulative + Project
PM Peak Hour

FIGURE 13

Project Traffic Analysis

The "after project" ADT volumes of Figure 10 were compared to the ADT's shown in Table 2 and 5 to determine the change in the Winterhaven Road Volumes and existing LOS's. Table 7 makes the ADT comparison.

Table 7

Comparison of Segment LOS's Before And After Cumulative And Cumulative Plus Project Traffic Is Added to Existing Traffic

Winterhaven Road East and West of Sunnycrest Lane

Existing Traffic		Existing + Cumulative Traffic		Existing + Cumulative + Project Traffic		
ADT	LOS	ADT	LOS	ADT	LOS	LOS Change
2126	B*	2258	B*	2384	B*	None

*Compared to Table 1, using Light Collector, where LOS B = 4100 max.

Table 7 shows that the project does not change this Winterhaven Road segment LOS and therefore its minor daily traffic addition will not be noticeable to the traveling public. Note that the after project, 2384 ADT, is only 58.2% of the LOS B maximum of 4100.

The intersection "after project" delays and LOS's can also be quantified by using the same HCM formulas as were used for existing traffic leading to the existing delays and LOS's of Tables 3 and 4. Table 8 shows this comparison using the after project peak hour traffic of Figures 12 and 13 in the HCM calculations. The Appendix shows the "after project" calculations (A32 to A37).

Table 8

A Comparison of Three Intersection Peak Hour Delay's And LOS's, Between, Existing, Existing + Cumulative, And Existing + Cumulative + The TM5577 Project Traffic

Intersection	AM			PM				
	AVE* Delay	Worst* Delay	Worst* LOS	AVE* Delay	Worst* Delay	Worst* LOS	LOS** Change	Delay Signif.
1. Winterhaven/ Brooke								
Existing Traffic	3.6	12.4	B	3.1	10.1	B	No	No
Existing + Cum Traffic	3.8	12.5	B	3.3	10.2	B	No	No
Exist + Cum +Proj	4.0	12.6	B	3.5	10.3	B	No	No
2. Winterhaven/ Sunnycrest								
Existing	1.0	9.2	A	0.9	9.2	A	No	No
Exist + Cum	1.6	9.4	A	1.4	9.4	A	No	No
Exist + Cum +Proj	2.1	9.6	A	1.9	9.6	A	No	No
3. Winterhaven/ Green Canyon								
Existing	8.3	8.5	A	7.8	7.9	A	No	No
Exist + Cum	8.4	8.6	A	7.8	7.9	A	No	No
Exist + Cum + Proj	8.4	8.6	A	7.9	8.0	A	No	No

*See explanation at bottom of Table 3

** Worst LOS change

Note in Table 8 that at all times, the project increases the worst case delays only by +0.2 seconds or less. This means that the project, will not have direct traffic impact at the three intersections since the County, "Guidelines For Determining Significance", dated August 2011, allows one second of delay at LOS F, while all the LOS's in Table 8 are at LOS"s A and B and a maximum of only 20% of the worst change allowed at LOS F.

Of further interest in order to get an idea of what "Build-out" traffic might do to the LOS's at the critical intersection, this consultant estimated the total number of dwelling units that could be served by Sunnycrest Lane, if the vacant land that is north and northwest of TM 5577 and TM 5553, was developed with similar residential projects, and existing projects were built out. From this rough analysis, 115 future D.U.s were totaled, with about 45 existing and 70 future units.

Further, even though existing traffic in the area has decreased slightly from the counts used in the October 3, 2008 TIS for TM 5553, 15% more traffic was added to the 2014 counts for thisTIS in order to allow for future growth on the public roadways.

Table 9 below shows the traffic generated by the 115 estimated "Build-out" units.

Table 9

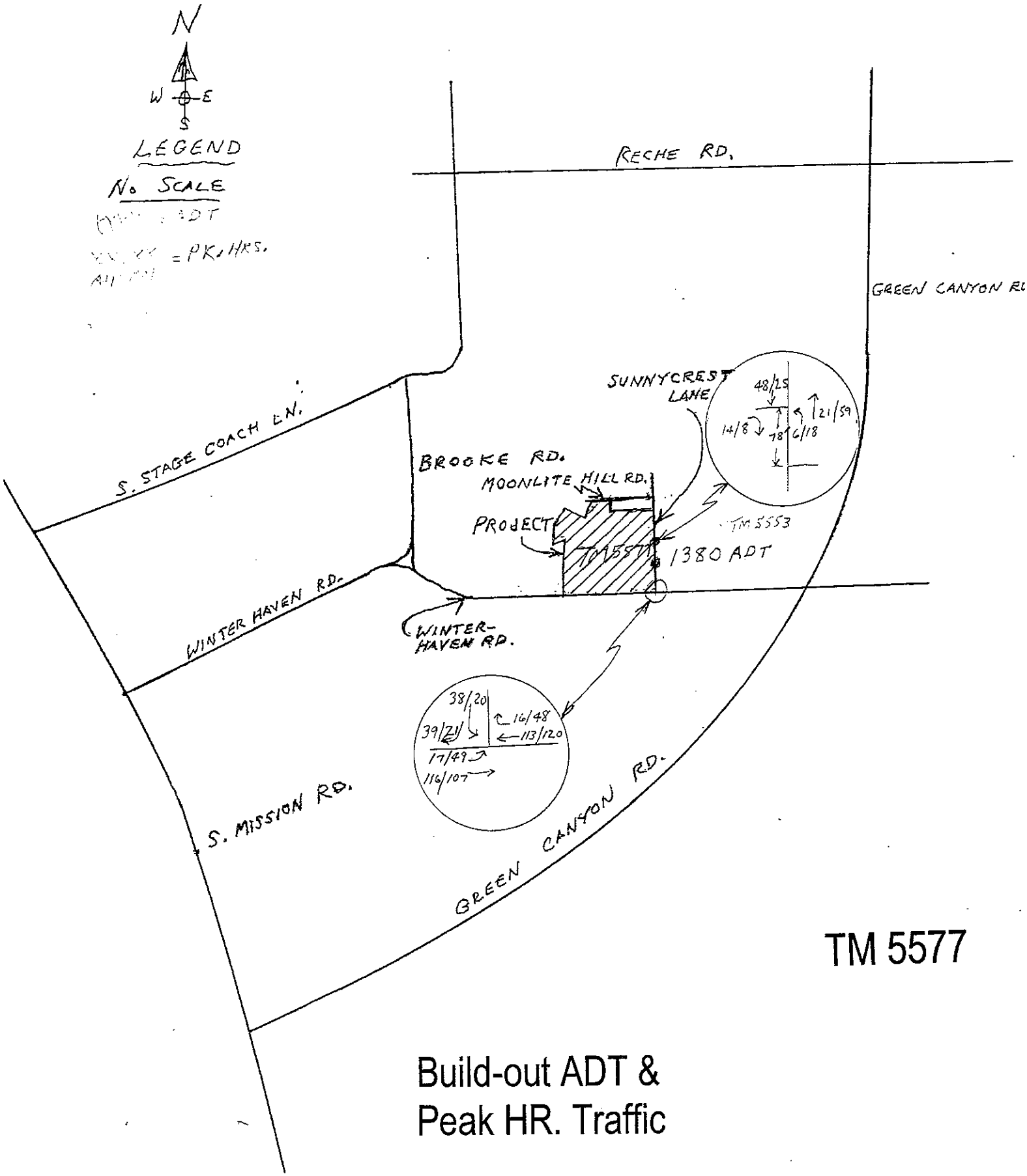
Estimated Build-out Traffic Generation Served By Sunnycrest Lane

115 future units generates 1380 ADT and
In the AM* = 33 IN & 77 OUT
And in the PM** = 97 IN & 41 OUT

*At 8% of ADT split 30% IN & 70% OUT &
**At 10% of ADT split 70% IN & 41 OUT

Using the same trip distribution as was used earlier in thisTIS, Figure 14 shows the "Build-out" traffic at the intersection of Winterhaven and Sunnycrest as explained above, while A38 and A39 in the Appendix show the peak hour ICU calculations. These calculations show that at "Build-out" the critical intersection will still have an average LOS of A at both peaks (LOS B at worst case).

As has been shown above, TM 5577, will have no significant direct traffic impact on the nearby Fallbrook roadway system. Because of its very low direct impacts, its cumulative traffic impacts will also be very minor, and therefore will be mitigated by paying its share into the County TIF fee program. The TIF fee accumulation account is used for improvements on the County road system to mitigate project cumulative traffic impacts when projects are so small they cannot construct meaningful improvements on the major County road network. It is agreed that the owners of TM5577 will pay their fair share of TIF fees for their 21 residential units as they apply for building permits for each unit.



TM 5577

Build-out ADT &
Peak HR. Traffic

FIGURE 14

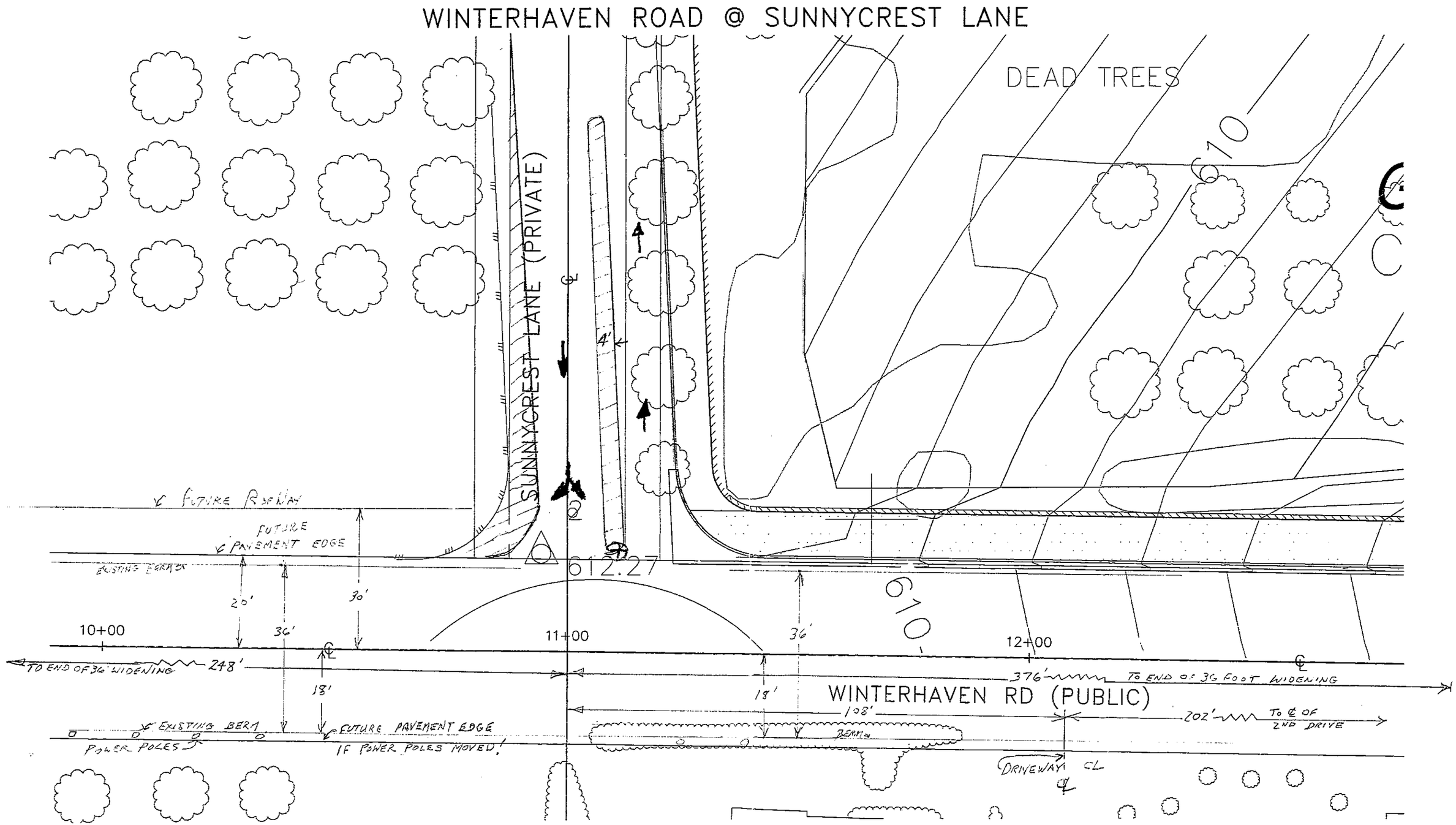
Sight Distance

The TM5577 project in south Fallbrook, will access the public road system at the existing intersection of Winterhaven Road (Public) and Sunnycrest Lane (Private). This intersection is known to have a sight distance deficiency from Sunnycrest Lane to the east on Winterhaven Road and for eastbound Winterhaven vehicles turning left into Sunnycrest. The sight distance issues are caused by a sag in the Winterhaven surface to the east of Sunnycrest. Since the Page 2A Addendum, TM5577 will also access Winterhaven Road at the newly planned Moonlite Hill Road extension. Day to day this intersection will be available to residents of TM5577 but in emergencies, it will be opened for use by all nearby residents.

An eastbound Winterhaven Road speed survey was made In June 2008 for the TM5553 project and the 85th percentile speed was found to be 44.7 MPH. Using County of San Diego Public Road Standards, this speed requires 450 feet of clear sight distance from Sunnycrest Lane. Recently the County has certified the 45 MPH speed limit as being correct, and since the ADT volumes as counted in March 2014 by this TIS for TM5577, are virtually the same as they were in June 2008, it can be assumed that 450 feet of required sight distance is still valid and no new speed studies are required.

To solve the existing sight distance issues at Winterhaven Road and Sunnycrest Lane, TM5553 is proposing and is conditioned to, widen Sunnycrest Lane on the east side (its side) from its access point, south to Winterhaven Road, and install a 90 foot long, raised, 4 foot wide median separating the southbound and northbound lanes on Sunnycrest. This plan in effect moves the intersection to the east about 10 feet for eastbound Winterhaven vehicles left turning into Sunnycrest Lane, and thus makes vehicles on the sag, visible. Figure 15 shows this Sunnycrest Lane widening on a large scale plan as prepared by TM 5553's Civil Engineer.

The sight distance in either direction, to/from Sunnycrest, will be over 600 feet, well beyond the 450 dictated by the existing speeds on Winterhaven. Also, the sight lines will be unimpeded and within the right of way. Note: the sight distance to the east will be realized not only by the new intersection geometrics shown on Figure 15, but also by the projects removal of existing trees and shrubbery in the future Winterhaven Road right of way after the project improvements. Figure 16 shows the 450 and 600 foot sight distances to the east and west on the plan view, and in both directions in the profiles. When theTM 5553 and TM 5577 projects have completed their widening and improvements along Winterhaven, the widened intersection stretch will be 38 feet wide for a normal 26 feet of travel lanes and 6 feet of curb lanes like today.



09/13/2012

SAN DIEGUITO ENGINEERING, INC

4407 MANCHESTER, SUITE 105
ENCINITAS, CA 92024
PHONE: (760) 753-5525

CIVIL ENGINEERING • PLANNING
LAND SURVEYING

GRAPHIC SCALE

0 10 20 40

(IN FEET)
1 inch = 20 ft.

REVISED SUNNYCREST / WINTERHAVEN INTERSECTION

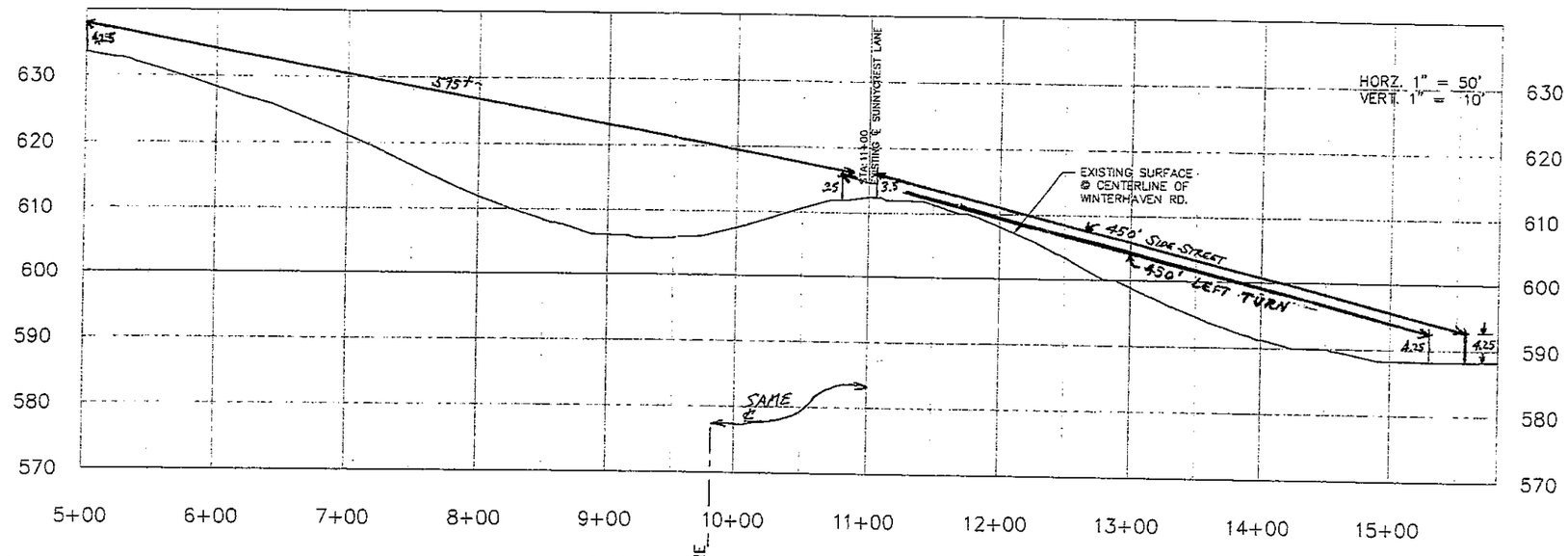
28

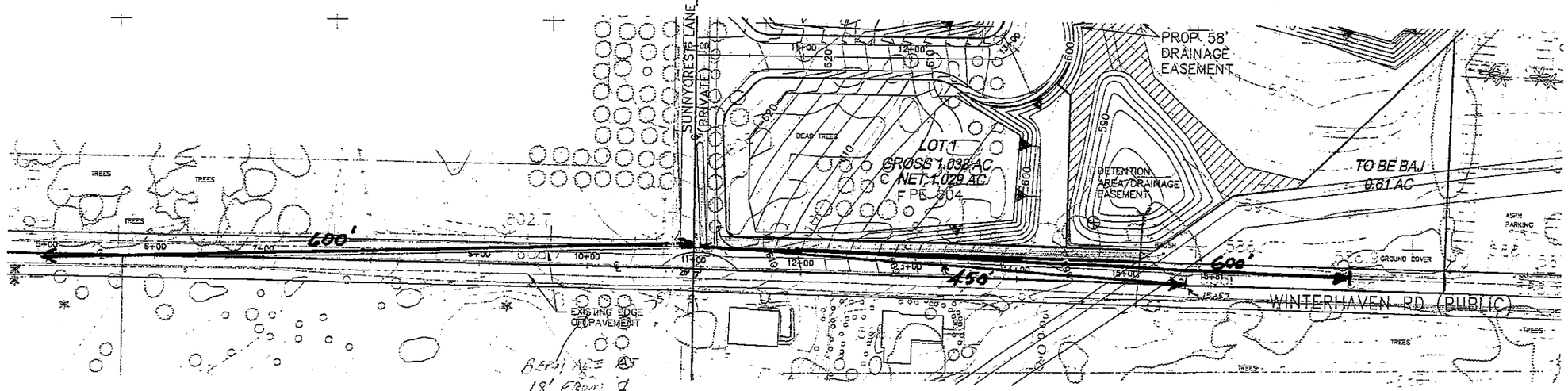
FROM TIS FOR TM 5553

FIGURE 15

FILE NO. 5278

WINTERHAVEN ROAD @ SUNNYCREST LANE
COUNTY OF SAN DIEGO TRACT 5553





BEGIN ACC @ 18' FROM ℄ FOR 248' TO WEST OF SUNNY CREST ℄ AND 376 TO EAST OF SC ℄

SAN DIEGUITO ENGINEERING, INC
4407 MANCHESTER, SUITE 105
ENCINITAS, CA 92024
PHONE (760) 753-5525
CIVIL ENGINEERING • PLANNING
LAND SURVEYING

GRAPHIC SCALE
0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

FIGURE 16

SIGHT DISTANCE STUDY

29

FROM TIS FOR TM 5553

FIGURE 16

Traffic Access

Along Sunnycrest Lane the access street intersections to TM 5553 on the east side and TM 5577 on the west side, are planned to be about 78 feet apart. A design exception is in the process for this intersection spacing.

A Summary of Recommended Mitigation and Project Design Features

In order that the project mitigate its minor cumulative traffic impacts, it is recommended that the project pay its standard, TIF fees, for its 21 residential units. As is standard in San Diego County, these TIF fees will be paid when each residence takes out its building permit.

It is recommended that the intersection of Sunnycrest/Winterhaven and the widening of Sunnycrest Lane, as shown by Figures 15 & 16 be implemented in order that the existing sight distance can be improved to County Standards within the proposed right of way.

As discussed in the Addendum on Page 2A the extension of Moonlite Hill Road to a new intersection with Winterhaven Road is also recommended for traffic and safety reasons.

Since the project has no direct traffic impacts, the planned right of way dedication and construction of Winterhaven Road to public road, half width, County standards for almost a quarter mile of frontage, and the dedication and construction of Sunnycrest Lane to private road County standards, no other traffic improvements to the exterior roadway system is necessary in addition to those mentioned, including the construction of the Moonlite Hill Road intersection with Winterhaven Road as discussed in the Page 2A Addendum.

F

APPENDIX

A

ADT's

Martin's Traffic Counts
Vehicle Counts

VehicleCount-64 -- English (ENU)

Datasets:

Site:	**[00105] Brook Road North of Winter Haven Road**
Attribute:	[+33.350305 -117.230315]
Direction:	5 - South bound A>B, North bound B>A. **Lane:** 0
Survey Duration:	12:41 Tuesday, March 04, 2014 => 8:05 Friday, March 07, 2014,
Zone:	
File:	00105 2014-03-07 0805.EC0 (Plus)
Identifier:	M280P4JB MC56-6 [MC55] (c)Microcom 02/03/01
Algorithm:	Factory default axle (v4.04)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**14:00 Tuesday, March 04, 2014 => 18:00 Thursday, March 06, 2014 (2.16667)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	0 - 100 mph.
Direction:	South (bound), P = North
Separation:	All - (Headway)
Name:	Default Profile
Scheme:	Vehicle classification (Scheme F99)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 3046 / 6191 (49.20%)

*** Tuesday, March 04, 2014 - Total=498 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	**95**	**96**	**99**	**68**	**52**	**33**	**21**	**21**	**6**	**7**	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	35	19	13	17	13	2	5	2	1	2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	19	25	26	11	4	9	8	1	1	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	20	30	18	13	9	4	3	1	3	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	22	25	11	11	7	6	5	2	2	0

*** Wednesday, March 05, 2014 - Total=1397, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
2	**5**	**1**	**2**	**10**	**42**	**138**	**216**	**98**	**72**	**60**	**72**	**109**	**72**	**68**	**79**	**74**	**73**	**62**	**47**	**59**	**24**	**6**	**6**	
2	2	0	0	2	8	29	45	35	19	22	14	39	11	19	28	9	17	21	12	23	12	2	2	0
0	1	1	1	3	7	31	78	31	17	14	20	27	12	19	21	22	16	21	13	14	5	0	1	1
0	1	0	1	3	12	27	67	18	24	13	14	19	27	18	12	19	20	8	11	9	6	3	2	0
0	1	0	0	2	15	51	26	14	12	11	24	24	22	12	18	24	20	12	11	13	1	1	1	0

AM Peak 0645 - 0745 (241), AM PHF=0.77 PM Peak 1200 - 1300 (109), PM PHF=0.70

*** Thursday, March 06, 2014 - Total=1151 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
1	**2**	**0**	**3**	**8**	**47**	**128**	**213**	**111**	**71**	**48**	**49**	**58**	**64**	**90**	**90**	**80**	**88**	-	-	-	-	-	-	
0	0	0	0	0	4	25	38	43	25	10	11	13	15	13	24	23	21	-	-	-	-	-	-	-
1	1	0	1	1	12	32	81	32	21	12	11	12	14	23	22	18	25	-	-	-	-	-	-	-
0	0	0	1	3	16	29	63	16	14	16	10	19	16	20	22	22	17	-	-	-	-	-	-	-
0	1	0	1	4	15	42	31	20	11	10	17	14	19	34	22	17	25	-	-	-	-	-	-	-

AM Peak 0645 - 0745 (224), AM PHF=0.69

Martin's Traffic Counts
Vehicle Counts

VehicleCount-64 -- English (ENU)

Datasets:

Site:	**[00105] Brook Road North of Winter Haven Road**
Attribute:	[+33.350305 -117.230315]
Direction:	5 - South bound A>B, North bound B>A. **Lane:** 0
Survey Duration:	12:41 Tuesday, March 04, 2014 => 8:05 Friday, March 07, 2014,
Zone:	
File:	00105 2014-03-07 0805.EC0 (Plus)
Identifier:	M280P4JB MC56-6 [MC55] (c)Microcom 02/03/01
Algorithm:	Factory default axle (v4.04)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**14:00 Tuesday, March 04, 2014 => 18:00 Thursday, March 06, 2014 (2.16667)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	0 - 100 mph.
Direction:	North (bound), P = North
Separation:	All - (Headway)
Name:	Default Profile
Scheme:	Vehicle classification (Scheme F99)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 2964 / 6191 (47.88%)

*** Tuesday, March 04, 2014 - Total=723 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	**124**	**123**	**129**	**131**	**95**	**36**	**37**	**21**	**17**	**10**	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	35	30	35	19	8	8	6	6	3	2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	31	29	26	32	10	11	4	4	2	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	31	39	39	27	16	9	6	4	4	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	38	26	31	31	17	2	9	5	3	1	0

*** Wednesday, March 05, 2014 - Total=1287, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
3	**3**	**2**	**1**	**3**	**10**	**46**	**106**	**88**	**43**	**37**	**75**	**95**	**97**	**71**	**97**	**110**	**144**	**105**	**63**	**33**	**28**	**20**	**7**	
2	1	2	0	0	1	6	20	30	15	7	12	34	35	16	33	18	32	18	17	6	6	9	3	0
0	2	0	0	0	3	9	29	27	9	8	21	25	21	16	22	33	31	35	12	11	8	8	2	0
1	0	0	1	2	3	11	28	13	10	12	15	14	20	19	21	33	37	28	14	8	7	2	1	1
0	0	0	0	1	3	20	29	18	9	10	27	22	21	20	21	26	44	24	20	8	7	1	1	1

AM Peak 0715 - 0815 (116), AM PHF=0.97 PM Peak 1700 - 1800 (144), PM PHF=0.82

*** Thursday, March 06, 2014 - Total=954 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
2	**1**	**1**	**5**	**4**	**11**	**32**	**101**	**74**	**35**	**50**	**41**	**56**	**79**	**115**	**113**	**125**	**109**	-	-	-	-	-	-	
0	1	0	2	0	0	3	14	17	9	11	8	8	19	31	40	31	15	-	-	-	-	-	-	-
0	0	0	0	0	2	10	28	22	4	15	11	18	9	27	23	34	39	-	-	-	-	-	-	-
1	0	0	2	2	4	5	36	19	8	10	13	16	29	17	21	25	28	-	-	-	-	-	-	-
1	0	1	1	2	5	14	23	16	14	14	9	14	22	40	29	35	27	-	-	-	-	-	-	-

AM Peak 0715 - 0815 (104), AM PHF=0.72

A2

Martin's Traffic Counts
Vehicle Counts

VehicleCount-64 -- English (ENU)

Datasets:

Site:	**[00104] Sunnycrest Lane North of Winter Haven Road**
Attribute:	[+33.347748 -117.221682]
Direction:	7 - North bound A>B, South bound B>A. **Lane:** 0
Survey Duration:	12:20 Tuesday, March 04, 2014 => 18:05 Thursday, March 06, 2014,
Zone:	
File:	00104 2014-03-07 0807.EC0 (Plus)
Identifier:	N116JRX9 MC56-L4 [MC55] (c)Microcom 19Sep03
Algorithm:	Factory default axle (v4.04)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**14:00 Tuesday, March 04, 2014 => 18:00 Thursday, March 06, 2014 (2.16667)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	0 - 100 mph.
Direction:	North (bound), P = North
Separation:	All - (Headway)
Name:	Default Profile
Scheme:	Vehicle classification (Scheme F99)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 362 / 762 (47.51%)

*** Tuesday, March 04, 2014 - Total=78 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	**10**	**11**	**11**	**13**	**7**	**4**	**14**	**6**	**0**	**2**	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	5	2	4	3	1	11	4	0	1	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	1	3	2	2	3	1	0	1	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	3	5	0	0	0	1	0	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	5	1	2	1	0	0	0	0	0

✓

*** Wednesday, March 05, 2014 - Total=159, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	**1**	**0**	**0**	**0**	**1**	**0**	**16**	**8**	**9**	**10**	**7**	**17**	**11**	**14**	**8**	**7**	**18**	**13**	**7**	**8**	**3**	**1**	**0**	
0	0	0	0	0	1	0	1	3	3	5	1	4	4	5	4	4	2	3	0	2	1	0	0	0
0	0	0	0	0	0	0	2	2	3	1	1	3	2	3	1	2	7	1	5	3	1	1	0	0
0	1	0	0	0	0	0	7	3	1	1	4	7	2	5	3	0	7	4	1	2	1	0	0	0
0	0	0	0	0	0	0	6	0	2	3	1	3	3	1	0	1	2	5	1	1	0	0	0	0

AM Peak 0715 - 0815 (18), AM PHF=0.64 PM Peak 1715 - 1815 (19), PM PHF=0.68

*** Thursday, March 06, 2014 - Total=125 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	**0**	**0**	**0**	**0**	**1**	**1**	**15**	**6**	**11**	**10**	**9**	**14**	**19**	**10**	**8**	**11**	**10**	**-**	**-**	**-**	**-**	**-**	**-**	
0	0	0	0	0	0	0	1	3	3	3	4	3	9	2	0	3	0	-	-	-	-	-	-	-
0	0	0	0	0	1	0	4	1	3	1	1	4	3	1	2	3	3	-	-	-	-	-	-	-
0	0	0	0	0	0	1	4	1	3	2	3	6	1	1	4	3	4	-	-	-	-	-	-	-
0	0	0	0	0	0	0	6	1	2	4	1	1	6	6	2	2	3	-	-	-	-	-	-	-

AM Peak 0715 - 0815 (17), AM PHF=0.71

A3

Martin's Traffic Counts
Vehicle Counts

VehicleCount-64 -- English (ENU)

Datasets:

Site:	**[00104] Sunnycrest Lane North of Winter Haven Road**
Attribute:	[+33.347748 -117.221682]
Direction:	7 - North bound A>B, South bound B>A. **Lane:** 0
Survey Duration:	12:20 Tuesday, March 04, 2014 => 18:05 Thursday, March 06, 2014,
Zone:	
File:	00104 2014-03-07 0807.EC0 (Plus)
Identifier:	N116JRX9 MC56-L4 [MC55] (c)Microcom 19Sep03
Algorithm:	Factory default axle (v4.04)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**14:00 Tuesday, March 04, 2014 => 18:00 Thursday, March 06, 2014 (2.16667)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	0 - 100 mph.
Direction:	South (bound), P = North
Separation:	All - (Headway)
Name:	Default Profile
Scheme:	Vehicle classification (Scheme F99)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 368 / 762 (48.29%)

*** Tuesday, March 04, 2014 - Total=73 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	9	11	11	11	2	11	2	0	0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	2	3	6	4	1	8	0	0	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	0	2	3	0	1	0	0	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	2	4	0	1	0	2	0	0	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	3	4	3	3	1	0	2	0	0	0

*** Wednesday, March 05, 2014 - Total=158, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	0	0	0	1	4	5	20	12	10	13	9	13	16	7	9	10	10	8	4	3	4	0	0	
0	0	0	0	0	0	1	2	3	5	3	0	5	6	4	1	0	2	2	3	0	1	0	0	0
0	0	0	0	1	1	1	3	3	3	2	0	1	4	0	1	2	2	2	0	1	1	0	0	0
0	0	0	0	0	2	2	6	3	2	6	7	7	3	1	3	3	1	2	0	1	1	0	0	0
0	0	0	0	0	1	1	9	3	0	2	2	0	3	2	4	5	5	2	1	1	1	0	0	0

AM Peak 0715 - 0815 (21), AM PHF=0.58 PM Peak 1230 - 1330 (17), PM PHF=0.61

*** Thursday, March 06, 2014 - Total=137 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	0	0	0	1	2	5	18	13	10	18	10	12	13	9	10	6	10	-	-	-	-	-	-	
0	0	0	0	0	0	1	3	2	2	1	2	5	3	2	2	2	3	-	-	-	-	-	-	-
0	0	0	0	1	0	0	2	3	2	4	4	2	5	2	1	2	3	-	-	-	-	-	-	-
0	0	0	0	0	1	1	6	4	5	6	2	2	4	2	4	1	2	-	-	-	-	-	-	-
0	0	0	0	0	1	3	7	4	1	7	2	3	1	3	3	1	2	-	-	-	-	-	-	-

AM Peak 1015 - 1115 (19), AM PHF=0.68

Martin's Traffic Counts
Vehicle Counts

VehicleCount-64 -- English (ENU)

Datasets:

Site:	**[00103] Winter Haven Rd btwn Green Canyon Rd & Sunnycrest Lane**
Attribute:	[+33.347358 -117.219532]
Direction:	8 - East bound A>B, West bound B>A. **Lane:** 0
Survey Duration:	12:02 Tuesday, March 04, 2014 => 8:03 Friday, March 07, 2014,
Zone:	
File:	00103 2014-03-07 0803.EC0 (Plus)
Identifier:	A647KH81 MC56-1 [MC55] (c)Microcom 07/06/99
Algorithm:	Factory default axle (v4.04)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**14:00 Tuesday, March 04, 2014 => 18:00 Thursday, March 06, 2014 (2.16667)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	0 - 100 mph.
Direction:	East (bound), P = East
Separation:	All - (Headway)
Name:	Default Profile
Scheme:	Vehicle classification (Scheme F99)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 2446 / 5026 (48.67%)

*** Tuesday, March 04, 2014 - Total=484 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	**77**	**74**	**96**	**78**	**73**	**31**	**27**	**16**	**8**	**4**	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	19	24	24	24	8	6	4	3	2	3
-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	20	21	20	21	5	7	3	2	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	15	30	18	16	4	9	5	2	2	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	29	20	21	16	12	14	5	4	1	0	1

*** Wednesday, March 05, 2014 - Total=1106, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
5	**0**	**1**	**0**	**1**	**8**	**59**	**102**	**58**	**65**	**44**	**66**	**98**	**100**	**93**	**85**	**70**	**73**	**59**	**48**	**40**	**18**	**7**	**6**	
3	0	0	0	0	1	7	14	19	14	10	11	28	23	33	21	12	23	19	13	9	11	2	2	1
0	0	1	0	1	0	7	21	16	27	14	16	30	24	20	24	15	18	21	8	9	3	3	1	0
1	0	0	0	0	3	16	30	9	11	11	19	22	26	21	16	23	14	12	15	8	4	1	0	0
1	0	0	0	0	4	29	37	14	13	9	20	18	27	19	24	20	18	7	12	14	0	1	3	0

AM Peak 0715 - 0815 (107), AM PHF=0.72 PM Peak 1315 - 1415 (110), PM PHF=0.83

*** Thursday, March 06, 2014 - Total=856 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
1	**0**	**1**	**0**	**1**	**6**	**54**	**97**	**85**	**60**	**63**	**55**	**52**	**67**	**75**	**90**	**70**	**79**	-	-	-	-	-	-	
1	0	0	0	0	3	9	10	19	20	11	11	12	13	22	28	24	21	-	-	-	-	-	-	-
0	0	0	0	1	0	3	16	22	13	20	20	13	26	13	22	18	31	-	-	-	-	-	-	-
0	0	0	0	0	0	11	37	22	12	16	6	18	13	19	25	18	11	-	-	-	-	-	-	-
0	0	1	0	0	3	31	34	22	15	16	18	9	15	21	15	10	16	-	-	-	-	-	-	-

AM Peak 0730 - 0830 (112), AM PHF=0.76

EB = 8 hrs 1 way - 626

WB = Same 8 hrs - 601

1227

A5

Martin's Traffic Counts
Vehicle Counts

VehicleCount-64 -- English (ENU)

Datasets:

Site:	**[00103] Winter Haven Rd btwn Green Canyon Rd & Sunnycrest Lane**
Attribute:	[+33.347358 -117.219532]
Direction:	8 - East bound A>B, West bound B>A. **Lane:** 0
Survey Duration:	12:02 Tuesday, March 04, 2014 => 8:03 Friday, March 07, 2014,
Zone:	
File:	00103 2014-03-07 0803.EC0 (Plus)
Identifier:	A647KH81 MC56-1 [MC55] (c)Microcom 07/06/99
Algorithm:	Factory default axle (v4.04)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**14:00 Tuesday, March 04, 2014 => 18:00 Thursday, March 06, 2014 (2.16667)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	0 - 100 mph.
Direction:	West (bound), P = East
Separation:	All - (Headway)
Name:	Default Profile
Scheme:	Vehicle classification (Scheme F99)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 2246 / 5026 (44.69%)

*** Tuesday, March 04, 2014 - Total=424 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	79	98	78	43	21	13	12	4	6	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	28	26	25	9	5	6	4	1	1	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	16	18	14	18	4	2	4	1	3	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	19	32	22	11	5	2	2	1	1	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	16	22	17	5	7	3	2	1	1	0

*** Wednesday, March 05, 2014 - Total=1020, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	2	1	1	5	9	39	108	69	66	53	85	85	76	59	72	84	73	65	25	22	13	7	1	
0	0	1	0	1	1	9	23	16	25	8	13	28	22	20	18	28	18	27	7	5	8	2	0	1
0	2	0	0	0	2	7	51	21	14	14	20	17	20	11	19	18	22	15	9	8	3	3	0	0
0	0	0	0	2	3	8	19	16	13	14	25	20	17	13	23	28	14	15	5	3	1	1	0	0
0	0	0	1	2	3	15	15	16	14	17	27	20	17	15	12	10	19	8	4	6	1	1	1	1

AM Peak 0645 - 0745 (108), AM PHF=0.53 PM Peak 1545 - 1645 (86), PM PHF=0.77

*** Thursday, March 06, 2014 - Total=802 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
2	1	1	1	4	10	33	108	68	65	67	55	52	67	69	60	81	58	-	-	-	-	-	-	
1	1	0	0	1	2	5	18	17	18	20	12	14	14	19	21	18	14	-	-	-	-	-	-	-
0	0	0	0	0	2	6	42	17	14	15	13	13	16	16	20	16	16	-	-	-	-	-	-	-
0	0	1	1	1	3	9	28	13	17	20	19	15	20	18	12	30	14	-	-	-	-	-	-	-
1	0	0	0	2	3	13	20	21	16	12	11	10	17	16	7	17	14	-	-	-	-	-	-	-

AM Peak 0700 - 0800 (108), AM PHF=0.64

(8 hrs 601)

A6

Martin's Traffic Counts
Vehicle Counts

VehicleCount-64 -- English (ENU)

Datasets:

Site:	**[00101] Green Canyon Road N/O Winter Haven Road**
Attribute:	[+33.348917 -117.216542]
Direction:	5 - South bound A>B, North bound B>A. **Lane:** 0
Survey Duration:	13:10 Tuesday, March 04, 2014 => 7:56 Friday, March 07, 2014,
Zone:	
File:	00101 2014-03-07 0757.EC0 (Plus)
Identifier:	A5558BK6 MC56-1 [MC55] (c)Microcom 07/06/99
Algorithm:	Factory default axle (v4.04)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**14:00 Tuesday, March 04, 2014 => 18:00 Thursday, March 06, 2014 (2.16667)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	0 - 100 mph.
Direction:	North (bound), P = North
Separation:	All - (Headway)
Name:	Default Profile
Scheme:	Vehicle classification (Scheme F99)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 2579 / 5083 (50.74%)

*** Tuesday, March 04, 2014 - Total=461 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	83	74	83	72	62	30	26	20	5	6	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	29	23	17	18	11	12	8	2	5	2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	18	20	21	14	4	5	4	3	0	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	14	23	18	13	7	6	6	0	1	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	13	17	16	17	8	3	2	0	0	1

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*** Wednesday, March 05, 2014 - Total=1128, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
5	1	2	2	3	18	58	153	69	63	46	63	74	80	81	69	98	77	57	44	31	19	9	6	
2	1	0	0	0	1	9	17	27	11	11	20	23	15	26	13	20	15	24	11	9	7	4	2	0
1	0	0	0	1	1	8	37	13	18	13	12	15	22	13	21	21	18	14	14	5	6	3	1	0
1	0	2	1	0	9	17	44	14	19	10	19	15	23	13	20	27	22	14	5	6	5	2	2	0
1	0	0	1	2	7	24	55	15	15	12	12	21	20	29	15	30	22	5	14	11	1	0	1	0

AM Peak 0715 - 0815 (163), AM PHF=0.74 PM Peak 1600 - 1700 (98), PM PHF=0.82

*** Thursday, March 06, 2014 - Total=990 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	0	1	1	4	16	55	148	82	71	54	52	70	78	96	101	89	72	-	-	-	-	-	-	
0	0	0	0	1	4	7	19	30	16	17	18	16	19	23	34	17	18	-	-	-	-	-	-	-
0	0	0	0	0	2	7	28	23	17	8	13	14	19	28	31	36	19	-	-	-	-	-	-	-
0	0	0	1	1	5	8	49	21	25	13	9	21	20	20	20	20	14	-	-	-	-	-	-	-
0	0	1	0	2	5	33	52	8	13	16	12	19	20	25	16	16	21	-	-	-	-	-	-	-

AM Peak 0715 - 0815 (159), AM PHF=0.76

Martin's Traffic Counts
Vehicle Counts

VehicleCount-64 -- English (ENU)

Datasets:

Site:	**[00101] Green Canyon Road N/O Winter Haven Road**
Attribute:	[+33.348917 -117.216542]
Direction:	5 - South bound A>B, North bound B>A. **Lane:** 0
Survey Duration:	13:10 Tuesday, March 04, 2014 => 7:56 Friday, March 07, 2014,
Zone:	
File:	00101 2014-03-07 0757.EC0 (Plus)
Identifier:	A5558BK6 MC56-1 [MC55] (c)Microcom 07/06/99
Algorithm:	Factory default axle (v4.04)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**14:00 Tuesday, March 04, 2014 => 18:00 Thursday, March 06, 2014 (2.16667)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	0 - 100 mph.
Direction:	South (bound), P = North
Separation:	All - (Headway)
Name:	Default Profile
Scheme:	Vehicle classification (Scheme F99)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 2324 / 5083 (45.72%)

*** Tuesday, March 04, 2014 - Total=441 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	77	83	68	48	35	23	24	6	7	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	14	17	15	19	10	5	9	4	1	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	27	21	20	15	10	4	7	2	4	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	18	28	17	9	6	9	5	0	2	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	18	17	16	5	9	5	3	0	0	0

*** Wednesday, March 05, 2014 - Total=1020, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	3	1	0	8	15	46	95	86	67	55	61	62	69	73	65	83	68	52	36	32	27	10	6	
0	1	0	0	0	2	9	26	28	20	11	14	17	14	15	14	22	18	19	11	11	7	0	1	2
0	2	1	0	3	2	10	33	26	19	15	15	16	15	24	23	19	18	11	12	6	3	5	1	0
0	0	0	0	2	1	16	18	18	13	13	15	14	20	19	18	26	17	14	1	8	12	0	4	0
0	0	0	0	3	10	11	18	14	15	16	17	15	20	15	10	16	15	8	12	7	5	5	0	1

AM Peak 0715 - 0815 (97), AM PHF=0.73 PM Peak 1600 - 1700 (83), PM PHF=0.80

*** Thursday, March 06, 2014 - Total=863 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
3	3	1	0	7	16	45	115	90	56	47	69	45	46	75	86	87	72	-	-	-	-	-	-	
2	1	0	0	3	4	8	18	28	14	12	22	8	16	15	15	21	14	-	-	-	-	-	-	-
0	0	0	0	0	4	9	40	21	14	13	14	10	11	9	34	17	22	-	-	-	-	-	-	-
0	2	1	0	2	4	14	23	22	13	12	18	10	8	29	23	33	24	-	-	-	-	-	-	-
1	0	0	0	2	4	14	34	19	15	10	15	17	11	22	14	16	12	-	-	-	-	-	-	-

AM Peak 0715 - 0815 (125), AM PHF=0.78

Martin's Traffic Counts
Vehicle Counts

VehicleCount-64 -- English (ENU)

Datasets:

Site:	**[00102] Green Canyoy Rd S/O Winter Haven Rd**
Attribute:	[+33.346720 -117.218922]
Direction:	7 - North bound A>B, South bound B>A. **Lane:** 0
Survey Duration:	13:19 Tuesday, March 04, 2014 => 7:58 Friday, March 07, 2014,
Zone:	
File:	00102 2014-03-07 0759.EC0 (Plus)
Identifier:	M293M05F MC56-6 [MC55] (c)Microcom 02/03/01
Algorithm:	Factory default axle (v4.04)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**14:00 Tuesday, March 04, 2014 => 18:00 Thursday, March 06, 2014 (2.16667)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	0 - 100 mph.
Direction:	North (bound), P = North
Separation:	All - (Headway)
Name:	Default Profile
Scheme:	Vehicle classification (Scheme F99)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 1626 / 3194 (50.91%)

*** Tuesday, March 04, 2014 - Total=351 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	53	60	65	43	28	26	17	11	5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	17	12	17	13	8	13	5	4	4	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	9	17	17	8	4	3	7	5	0	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	14	17	16	14	8	6	4	0	1	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	13	14	15	8	8	4	1	2	0	0

*** Wednesday, March 05, 2014 - Total=714, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
3	1	3	1	3	10	26	55	37	33	33	38	41	45	50	56	76	60	54	36	22	16	9	6	
1	1	1	0	0	0	2	6	11	9	7	10	10	8	11	13	15	5	18	11	10	5	1	1	0
1	0	1	0	1	3	2	21	8	4	8	9	5	13	10	20	22	20	11	9	4	4	5	1	0
1	0	1	0	1	4	10	9	9	11	9	12	11	15	13	14	17	18	16	9	6	5	3	3	0
0	0	0	1	1	3	12	19	9	9	9	7	15	9	16	9	22	17	9	7	2	2	0	1	0

AM Peak 0715 - 0815 (60), AM PHF=0.71 PM Peak 1600 - 1700 (76), PM PHF=0.86

*** Thursday, March 06, 2014 - Total=561 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	1	0	0	3	8	29	55	36	30	25	41	39	59	61	59	53	62	-	-	-	-	-	-	
0	0	0	0	0	2	0	9	12	7	9	13	5	16	11	14	14	21	-	-	-	-	-	-	-
0	0	0	0	0	0	4	10	9	8	2	10	8	15	23	19	16	8	-	-	-	-	-	-	-
0	1	0	0	1	4	8	18	9	7	10	4	14	11	12	12	12	18	-	-	-	-	-	-	-
0	0	0	0	2	2	17	18	6	8	4	14	12	17	15	14	11	15	-	-	-	-	-	-	-

AM Peak 0715 - 0815 (58), AM PHF=0.81

Martin's Traffic Counts
Vehicle Counts

VehicleCount-64 -- English (ENU)

Datasets:

Site:	**[00102] Green Canyon Rd S/O Winter Haven Rd**
Attribute:	[+33.346720 -117.218922]
Direction:	7 - North bound A>B, South bound B>A. **Lane:** 0
Survey Duration:	13:19 Tuesday, March 04, 2014 => 7:58 Friday, March 07, 2014,
Zone:	
File:	00102 2014-03-07 0759.EC0 (Plus)
Identifier:	M293M05F MC56-6 [MC55] (c)Microcom 02/03/01
Algorithm:	Factory default axle (v4.04)
Data type:	Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time:	**14:00 Tuesday, March 04, 2014 => 18:00 Thursday, March 06, 2014 (2.16667)**
Included classes:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range:	0 - 100 mph.
Direction:	South (bound), P = North
Separation:	All - (Headway)
Name:	Default Profile
Scheme:	Vehicle classification (Scheme F99)
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Vehicles = 1476 / 3194 (46.21%)

*** Tuesday, March 04, 2014 - Total=243 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	48	50	32	30	15	13	10	3	2	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	9	15	11	10	4	2	3	3	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	16	9	5	12	5	4	2	0	0	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	15	15	9	7	2	4	3	0	2	0
-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	8	11	7	1	4	3	2	0	0	0

*** Wednesday, March 05, 2014 - Total=659, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	1	3	1	11	15	54	66	60	54	46	33	33	41	46	43	47	33	16	19	18	13	5	1	
0	1	1	0	0	2	11	14	21	14	11	7	5	3	8	4	15	10	5	4	8	4	0	1	1
0	0	2	0	5	3	13	19	15	14	9	9	10	15	19	18	8	6	2	4	4	2	3	0	0
0	0	0	1	2	1	16	13	13	15	13	7	11	14	10	14	16	8	8	0	3	6	0	0	0
0	0	0	0	4	9	14	20	11	11	13	10	7	9	9	7	8	9	1	11	3	1	2	0	1

AM Peak 0715 - 0815 (73), AM PHF=0.87 PM Peak 1515 - 1615 (54), PM PHF=0.75

*** Thursday, March 06, 2014 - Total=574 (Incomplete) , 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
2	1	2	1	10	17	48	83	67	40	45	37	30	33	40	38	51	29	-	-	-	-	-	-	
1	0	0	0	3	3	11	16	23	12	10	13	7	11	6	3	16	7	-	-	-	-	-	-	-
0	0	2	0	2	5	12	27	17	8	13	9	5	10	7	18	13	10	-	-	-	-	-	-	-
0	1	0	1	2	2	7	21	14	13	12	7	10	6	12	11	15	6	-	-	-	-	-	-	-
1	0	0	0	3	7	18	19	13	7	10	8	8	6	15	6	7	6	-	-	-	-	-	-	-

AM Peak 0715 - 0815 (90), AM PHF=0.83

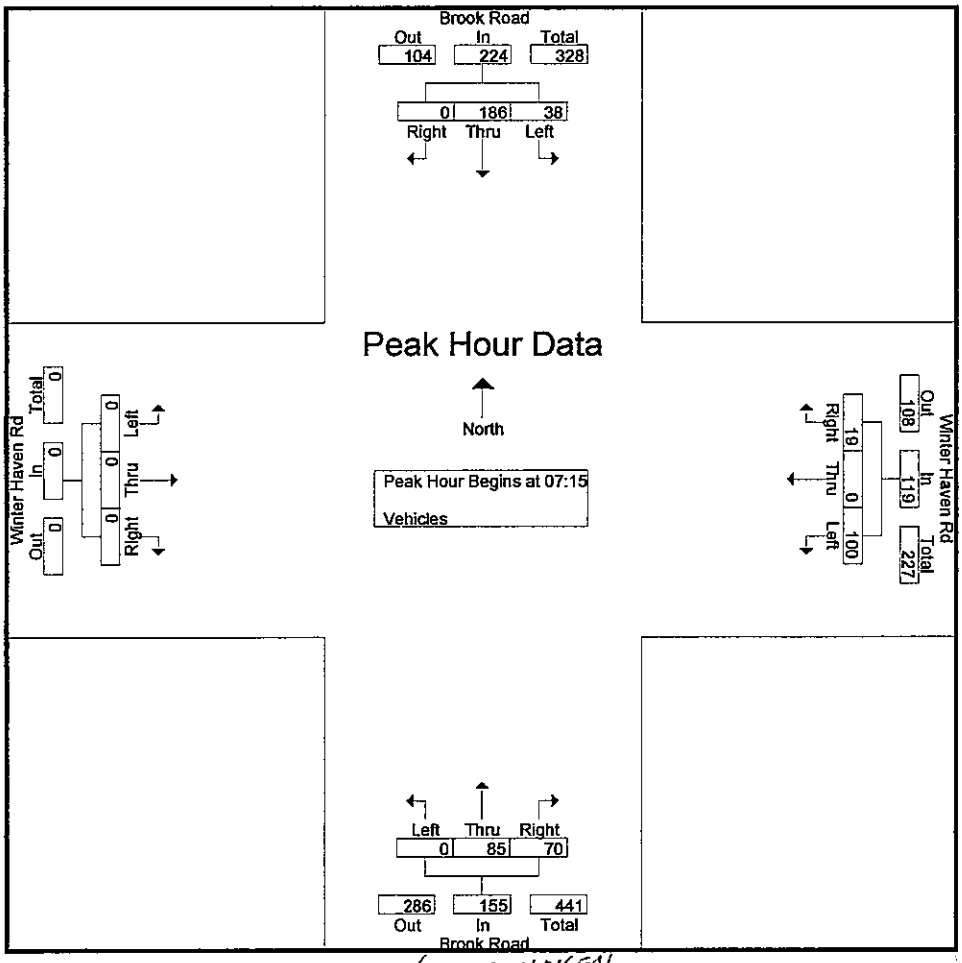
Martin's Counts

2117 willow Drive
El Centro, Ca
619-988-1949
mparishtc@gmail.com

Weather: Clear & Dry
Counted by: M. Parish
Board No.: Video
Loc: Brook Road & Winter Haven Roa

File Name : 1400101
Site Code : 1400101
Start Date : 3/6/2014
Page No : 2

	Brook Road Southbound				Winter Haven Rd Westbound				Brook Road Northbound				Winter Haven Rd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15																	
07:15	9	74	0	83	33	0	4	37	0	23	13	36	0	0	0	0	156
07:30	14	53	0	67	35	0	5	40	0	32	22	54	0	0	0	0	161
07:45	6	23	0	29	15	0	7	22	0	13	22	35	0	0	0	0	86
08:00	9	36	0	45	17	0	3	20	0	17	13	30	0	0	0	0	95
Total Volume	38	186	0	224	100	0	19	119	0	85	70	155	0	0	0	0	498
% App. Total	17	83	0		84	0	16		0	54.8	45.2		0	0	0		
PHF	.679	.628	.000	.675	.714	.000	.679	.744	.000	.664	.795	.718	.000	.000	.000	.000	.773



WINTER HAVEN

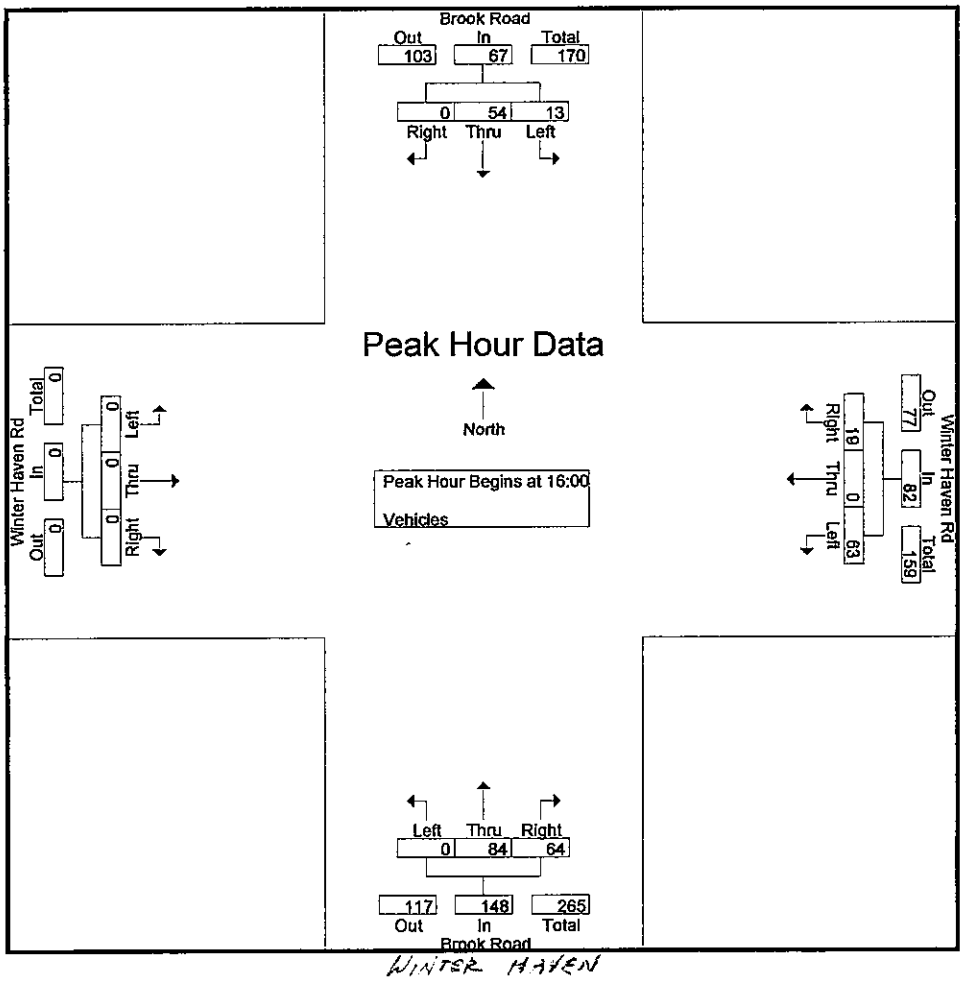
Martin's Counts

2117 willow Drive
El Centro, Ca
619-988-1949
mparishtc@gmail.com

Weather: Clear & Dry
Counted by: M. Parish
Board No.: Video
Loc: Brook Road & Winter Haven Roa

File Name : 1400101
Site Code : 1400101
Start Date : 3/6/2014
Page No : 3

	Brook Road Southbound				Winter Haven Rd Westbound				Brook Road Northbound				Winter Haven Rd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:00																	
16:00	3	14	0	17	14	0	4	18	0	19	18	37	0	0	0	0	72
16:15	3	16	0	19	20	0	4	24	0	26	18	44	0	0	0	0	87
16:30	3	14	0	17	18	0	5	23	0	15	18	33	0	0	0	0	73
16:45	4	10	0	14	11	0	6	17	0	24	10	34	0	0	0	0	65
Total Volume	13	54	0	67	63	0	19	82	0	84	64	148	0	0	0	0	297
% App. Total	19.4	80.6	0		76.8	0	23.2		0	56.8	43.2		0	0	0		
PHF	.813	.844	.000	.882	.788	.000	.792	.854	.000	.808	.889	.841	.000	.000	.000	.000	.853



WINTER HAVEN

Martin's Counts

2117 willow Drive
El Centro, Ca
619-988-1949
mparishtc@gmail.com

Weather: Clear & Dry
Counted by: M. Parish
Board No.: Video
Loc: Brook Road & Winter Haven Roa

File Name : 1400101
Site Code : 1400101
Start Date : 3/6/2014
Page No : 1

Groups Printed- Vehicles

	Brook Road Southbound					Winter Haven Rd Westbound					Brook Road Northbound					Winter Haven Rd Eastbound							
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	3	33	0	0	36	14	0	3	1	17	0	8	10	0	18	0	0	0	0	0	1	71	72
07:15	9	74	0	0	83	33	0	4	0	37	0	23	13	0	36	0	0	0	0	0	0	156	156
07:30	14	53	0	0	67	35	0	5	0	40	0	32	22	0	54	0	0	0	0	0	0	161	161
07:45	6	23	0	0	29	15	0	7	0	22	0	13	22	0	35	0	0	0	0	0	0	86	86
Total	32	183	0	0	215	97	0	19	1	116	0	76	67	0	143	0	0	0	0	0	1	474	475
08:00	9	36	0	0	45	17	0	3	0	20	0	17	13	0	30	0	0	0	0	0	0	95	95
08:15	8	25	0	0	33	14	0	3	0	17	0	21	12	0	33	0	0	0	0	0	0	83	83
08:30	1	15	0	0	16	11	0	5	0	16	0	12	15	0	27	0	0	0	0	0	0	59	59
08:45	8	12	0	0	20	16	0	6	1	22	0	9	13	0	22	0	0	0	0	0	1	64	65
Total	26	88	0	0	114	58	0	17	1	75	0	59	53	0	112	0	0	0	0	0	1	301	302
*** BREAK ***																							
16:00	3	14	0	0	17	14	0	4	0	18	0	19	18	0	37	0	0	0	0	0	0	72	72
16:15	3	16	0	0	19	20	0	4	0	24	0	26	18	1	44	0	0	0	0	0	1	87	88
16:30	3	14	0	0	17	18	0	5	0	23	0	15	18	0	33	0	0	0	0	0	0	73	73
16:45	4	10	0	0	14	11	0	6	0	17	0	24	10	0	34	0	0	0	0	0	0	65	65
Total	13	54	0	0	67	63	0	19	0	82	0	84	64	1	148	0	0	0	0	0	1	297	298
17:00	4	14	0	0	18	16	0	1	0	17	0	14	19	0	33	0	0	0	0	0	0	68	68
17:15	4	17	0	0	21	8	0	5	0	13	0	27	19	0	46	0	0	0	0	0	0	80	80
17:30	4	14	0	0	18	11	0	2	0	13	0	22	10	0	32	0	0	0	0	0	0	63	63
17:45	6	17	0	0	23	12	0	3	2	15	0	19	10	0	29	0	0	0	0	0	2	67	69
Total	18	62	0	0	80	47	0	11	2	58	0	82	58	0	140	0	0	0	0	0	2	278	280
Grand Total	89	387	0	0	476	265	0	66	4	331	0	301	242	1	543	0	0	0	0	0	5	1350	1355
Apprch %	18.7	81.3	0			80.1	0	19.9			0	55.4	44.6			0	0	0					
Total %	6.6	28.7	0		35.3	19.6	0	4.9		24.5	0	22.3	17.9		40.2	0	0	0		0	0.4	99.6	

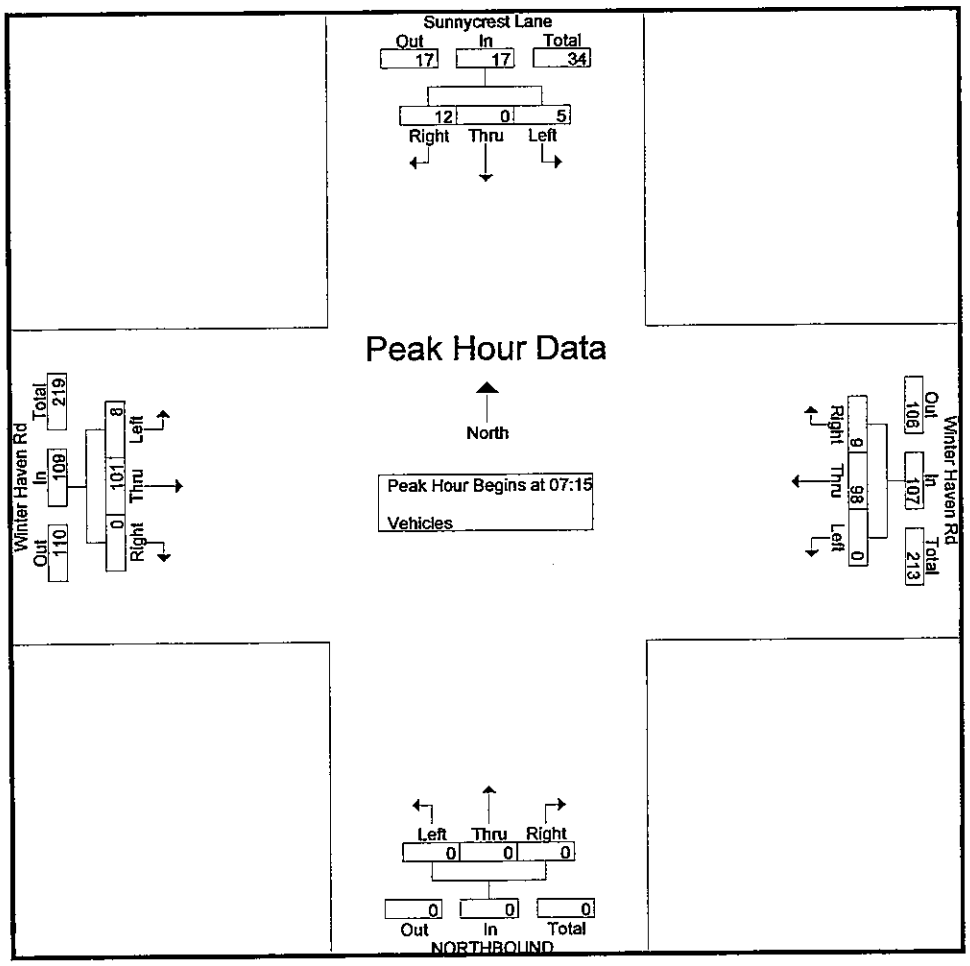
Martin's Counts

2117 willow Drive
El Centro, Ca
619-988-1949
mparishtc@gmail.com

Weather: Clear & Dry
Counted by: B. Tymick
Board No.: D4-4577
Loc: Sunnycrest Lane & Winter Haven Roa

File Name : 1400102
Site Code : 1400102
Start Date : 3/6/2014
Page No : 2

	Sunnycrest Lane Southbound				Winter Haven Rd Westbound				NORTHBOUND Northbound				Winter Haven Rd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15																	
07:15	0	0	2	2	0	42	3	45	0	0	0	0	2	20	0	22	69
07:30	1	0	5	6	0	25	1	26	0	0	0	0	2	34	0	36	68
07:45	3	0	4	7	0	18	4	22	0	0	0	0	3	28	0	31	60
08:00	1	0	1	2	0	13	1	14	0	0	0	0	1	19	0	20	36
Total Volume	5	0	12	17	0	98	9	107	0	0	0	0	8	101	0	109	233
% App. Total	29.4	0	70.6		0	91.6	8.4		0	0	0		7.3	92.7	0		
PHF	.417	.000	.600	.607	.000	.583	.563	.594	.000	.000	.000	.000	.667	.743	.000	.757	.844



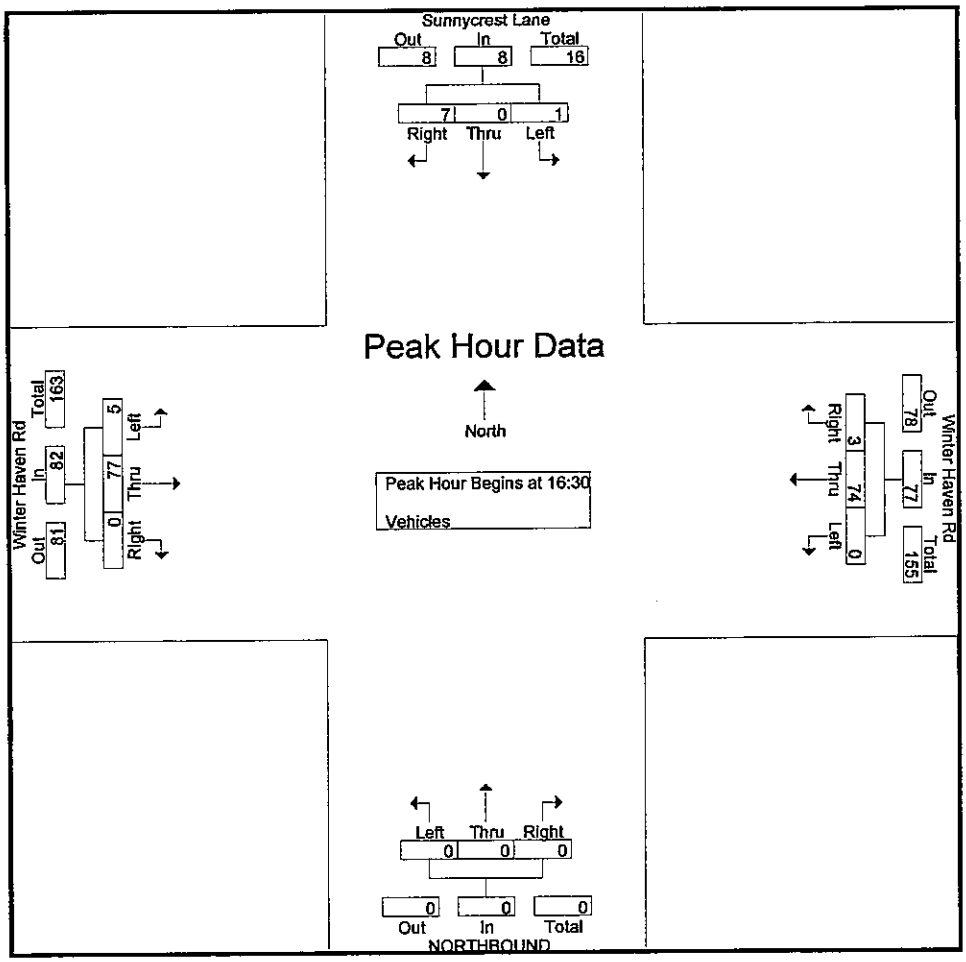
Martin's Counts

2117 willow Drive
El Centro, Ca
619-988-1949
mparishtc@gmail.com

Weather: Clear & Dry
Counted by: B. Tymick
Board No.: D4-4577
Loc: Sunnycrest Lane & Winter Haven Roa

File Name : 1400102
Site Code : 1400102
Start Date : 3/6/2014
Page No : 3

	Sunnycrest Lane Southbound				Winter Haven Rd Westbound				NORTHBOUND Northbound				Winter Haven Rd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	0	0	1	1	0	29	1	30	0	0	0	0	2	16	0	18	49
16:45	0	0	1	1	0	17	0	17	0	0	0	0	2	10	0	12	30
17:00	0	0	3	3	0	14	0	14	0	0	0	0	0	27	0	27	44
17:15	1	0	2	3	0	14	2	16	0	0	0	0	1	24	0	25	44
Total Volume	1	0	7	8	0	74	3	77	0	0	0	0	5	77	0	82	167
% App. Total	12.5	0	87.5		0	96.1	3.9		0	0	0		6.1	93.9	0		
PHF	.250	.000	.583	.667	.000	.638	.375	.642	.000	.000	.000	.000	.625	.713	.000	.759	.852



Martin's Counts

2117 willow Drive
El Centro, Ca
619-988-1949
mparishtc@gmail.com

Weather: Clear & Dry
Counted by: B. Tymick
Board No.: D4-4577
Loc: Sunnycrest Lane & Winter Haven Roa

File Name : 1400102
Site Code : 1400102
Start Date : 3/6/2014
Page No : 1

Groups Printed- Vehicles

	Sunnycrest Lane Southbound					Winter Haven Rd Westbound					NORTHBOUND Northbound					Winter Haven Rd Eastbound							
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	0	0	2	0	2	0	19	1	1	20	0	0	0	0	0	0	11	0	0	11	1	33	34
07:15	0	0	2	0	2	0	42	3	0	45	0	0	0	0	0	2	20	0	0	22	0	69	69
07:30	1	0	5	0	6	0	25	1	0	26	0	0	0	0	0	2	34	0	0	36	0	68	68
07:45	3	0	4	0	7	0	18	4	0	22	0	0	0	0	0	3	28	0	0	31	0	60	60
Total	4	0	13	0	17	0	104	9	1	113	0	0	0	0	0	7	93	0	0	100	1	230	231
08:00	1	0	1	0	2	0	13	1	0	14	0	0	0	0	0	1	19	0	0	20	0	36	36
08:15	2	0	1	0	3	0	18	0	0	18	0	0	0	0	0	1	19	0	0	20	0	41	41
08:30	2	0	2	0	4	0	13	0	0	13	0	0	0	0	0	1	19	0	0	20	0	37	37
08:45	3	0	1	0	4	0	21	1	0	22	0	0	0	0	0	0	21	0	0	21	0	47	47
Total	8	0	5	0	13	0	65	2	0	67	0	0	0	0	0	3	78	0	0	81	0	161	161
*** BREAK ***																							
16:00	1	0	1	0	2	0	17	1	0	18	0	0	0	0	0	2	22	0	0	24	0	44	44
16:15	1	0	1	0	2	0	13	1	0	14	0	0	0	0	0	2	18	0	0	20	0	36	36
16:30	0	0	1	0	1	0	29	1	0	30	0	0	0	0	0	2	16	0	0	18	0	49	49
16:45	0	0	1	0	1	0	17	0	0	17	0	0	0	0	0	2	10	0	0	12	0	30	30
Total	2	0	4	0	6	0	76	3	0	79	0	0	0	0	0	8	66	0	0	74	0	159	159
17:00	0	0	3	0	3	0	14	0	0	14	0	0	0	0	0	0	27	0	0	27	0	44	44
17:15	1	0	2	0	3	0	14	2	0	16	0	0	0	0	0	1	24	0	0	25	0	44	44
17:30	1	0	1	0	2	0	13	2	0	15	0	0	0	0	0	1	10	0	0	11	0	28	28
17:45	1	0	1	0	2	0	13	2	0	15	0	0	0	0	0	1	15	0	0	16	0	33	33
Total	3	0	7	0	10	0	54	6	0	60	0	0	0	0	0	3	76	0	0	79	0	149	149
Grand Total	17	0	29	0	46	0	299	20	1	319	0	0	0	0	0	21	313	0	0	334	1	699	700
Apprch %	37	0	63			0	93.7	6.3			0	0	0			6.3	93.7	0					
Total %	2.4	0	4.1		6.6	0	42.8	2.9		45.6	0	0	0		0	3	44.8	0		47.8	0.1	99.9	

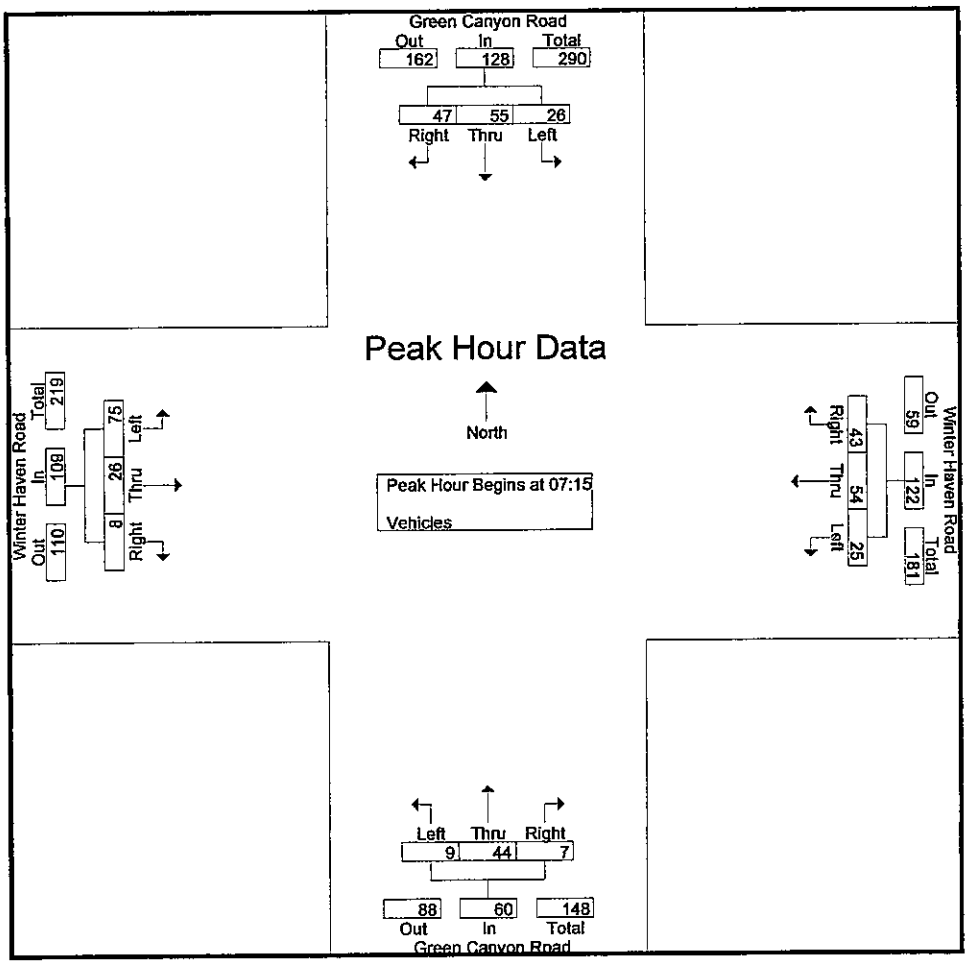
Martin's Counts

2117 willow Drive
El Centro, Ca
619-988-1949
mparishtc@gmail.com

Weather: Clear & Dry
Counted by: M. Parish
Board No.: D4-5323
Loc: Green Canyon Rd & Winter Haven Rd

File Name : 1400103
Site Code : 00103
Start Date : 3/6/2014
Page No : 2

	Green Canyon Road Southbound				Winter Haven Road Westbound				Green Canyon Road Northbound				Winter Haven Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15																	
07:15	8	14	21	43	12	24	9	45	2	6	2	10	13	3	1	17	115
07:30	1	13	10	24	5	11	9	25	6	13	0	19	26	9	2	37	105
07:45	10	12	9	31	6	11	14	31	1	13	2	16	28	6	2	36	114
08:00	7	16	7	30	2	8	11	21	0	12	3	15	8	8	3	19	85
Total Volume	26	55	47	128	25	54	43	122	9	44	7	60	75	26	8	109	419
% App. Total	20.3	43	36.7		20.5	44.3	35.2		15	73.3	11.7		68.8	23.9	7.3		
PHF	.650	.859	.560	.744	.521	.563	.768	.678	.375	.846	.583	.789	.670	.722	.667	.736	.911



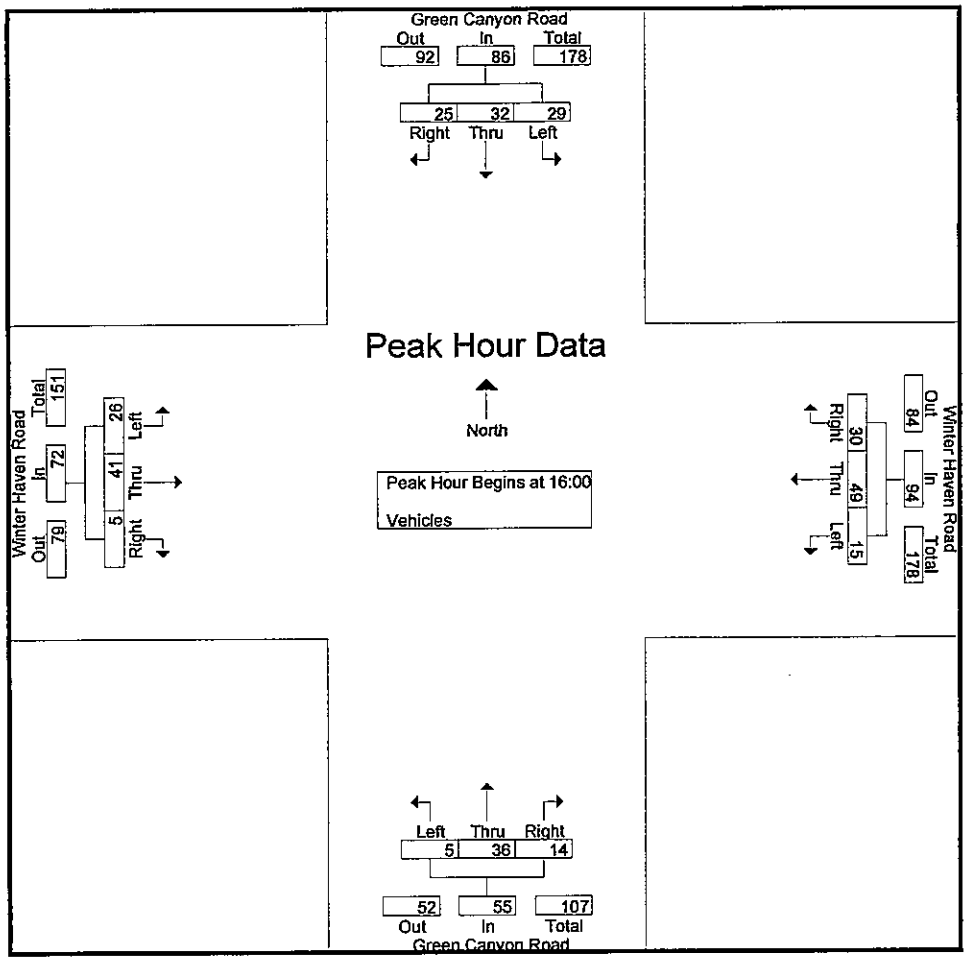
Martin's Counts

2117 willow Drive
El Centro, Ca
619-988-1949
mparishtc@gmail.com

Weather: Clear & Dry
Counted by: M. Parish
Board No.: D4-5323
Loc: Green Canyon Rd & Winter Haven Rd

File Name : 1400103
Site Code : 00103
Start Date : 3/6/2014
Page No : 3

	Green Canyon Road Southbound				Winter Haven Road Westbound				Green Canyon Road Northbound				Winter Haven Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:00																	
16:00	6	9	3	18	7	13	5	25	3	6	4	13	6	16	2	24	80
16:15	6	9	5	20	3	10	12	25	1	13	5	19	12	6	1	19	83
16:30	8	8	15	31	4	14	8	26	0	9	1	10	4	13	2	19	86
16:45	9	6	2	17	1	12	5	18	1	8	4	13	4	6	0	10	58
Total Volume	29	32	25	86	15	49	30	94	5	36	14	55	26	41	5	72	307
% App. Total	33.7	37.2	29.1		16	52.1	31.9		9.1	65.5	25.5		36.1	56.9	6.9		
PHF	.806	.889	.417	.694	.536	.875	.625	.904	.417	.692	.700	.724	.542	.641	.625	.750	.892



A16

Martin's Counts

2117 willow Drive
El Centro, Ca
619-988-1949
mparishtc@gmail.com

Weather: Clear & Dry
Counted by: M. Parish
Board No.: D4-5323
Loc: Green Canyon Rd & Winter Haven Rd

File Name : 1400103
Site Code : 00103
Start Date : 3/6/2014
Page No : 1

Groups Printed- Vehicles

	Green Canyon Road Southbound					Winter Haven Road Westbound					Green Canyon Road Northbound					Winter Haven Road Eastbound							
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00	4	6	5	0	15	8	13	6	0	27	1	7	1	0	9	8	2	3	0	13	0	64	64
07:15	8	14	21	0	43	12	24	9	0	45	2	6	2	0	10	13	3	1	0	17	0	115	115
07:30	1	13	10	0	24	5	11	9	0	25	6	13	0	0	19	26	9	2	0	37	0	105	105
07:45	10	12	9	0	31	6	11	14	0	31	1	13	2	0	16	28	6	2	0	36	0	114	114
Total	23	45	45	0	113	31	59	38	0	128	10	39	5	0	54	75	20	8	0	103	0	398	398
08:00	7	16	7	0	30	2	8	11	0	21	0	12	3	0	15	8	8	3	0	19	0	85	85
08:15	9	11	4	0	24	2	14	8	0	24	0	9	0	0	9	5	13	5	0	23	0	80	80
08:30	5	10	5	0	20	4	8	6	0	18	0	5	0	0	5	8	10	0	0	18	0	61	61
08:45	1	8	13	0	22	2	12	3	0	17	1	4	2	3	7	2	8	5	0	15	3	61	64
Total	22	45	29	0	96	10	42	28	0	80	1	30	5	3	36	23	39	13	0	75	3	287	290
*** BREAK ***																							
16:00	6	9	3	0	18	7	13	5	0	25	3	6	4	0	13	6	16	2	0	24	0	80	80
16:15	6	9	5	0	20	3	10	12	0	25	1	13	5	0	19	12	6	1	0	19	0	83	83
16:30	8	8	15	0	31	4	14	8	0	26	0	9	1	0	10	4	13	2	0	19	0	86	86
16:45	9	6	2	0	17	1	12	5	0	18	1	8	4	0	13	4	6	0	0	10	0	58	58
Total	29	32	25	0	86	15	49	30	0	94	5	36	14	0	55	26	41	5	0	72	0	307	307
17:00	9	5	2	0	16	0	12	2	0	14	1	9	6	0	16	3	17	2	0	22	0	68	68
17:15	8	7	4	0	19	2	10	5	0	17	0	7	1	0	8	8	19	1	0	28	0	72	72
17:30	15	3	7	0	25	3	6	6	0	15	2	7	8	0	17	3	11	0	0	14	0	71	71
17:45	6	4	3	0	13	0	10	5	0	15	1	9	5	0	15	6	8	2	0	16	0	59	59
Total	38	19	16	0	73	5	38	18	0	61	4	32	20	0	56	20	55	5	0	80	0	270	270
Grand Total	112	141	115	0	368	61	188	114	0	363	20	137	44	3	201	144	155	31	0	330	3	1262	1265
Apprch %	30.4	38.3	31.2			16.8	51.8	31.4			10	68.2	21.9			43.6	47	9.4					
Total %	8.9	11.2	9.1		29.2	4.8	14.9	9		28.8	1.6	10.9	3.5		15.9	11.4	12.3	2.5		26.1	0.2	99.8	

HCM Unsignalized Intersection Capacity Analysis
3: Winter Haven Road & Brooke Road

3/14/2014

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	100	19	85	70	38	186
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	109	21	92	76	41	202
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	415	130			168	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	415	130			168	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	81	98			97	
cM capacity (veh/h)	576	919			1409	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	129	168	243
Volume Left	109	0	41
Volume Right	21	76	0
cSH	613	1700	1409
Volume to Capacity	0.21	0.10	0.03
Queue Length 95th (ft)	20	0	2
Control Delay (s)	12.4	0.0	1.5
Lane LOS	B		A
Approach Delay (s)	12.4	0.0	1.5
Approach LOS	B		

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	37.3%	ICU Level of Service	A
Analysis Period (min)	15		

A 20

HCM Unsignalized Intersection Capacity Analysis
8: Winter Haven Road & Sunnycrest Lane

3/14/2014

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	8	101	98	6	5	12
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	110	107	7	5	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	113				237	110
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	113				237	110
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	1476				747	944

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	118	113	18
Volume Left	9	0	5
Volume Right	0	7	13
cSH	1476	1700	876
Volume to Capacity	0.01	0.07	0.02
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.6	0.0	9.2
Lane LOS	A		A
Approach Delay (s)	0.6	0.0	9.2
Approach LOS			A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	21.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: Winter Haven Road & Green Canyon Road

3/14/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	75	26	8	25	54	43	9	44	7	26	55	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	82	28	9	27	59	47	10	48	8	28	60	51

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	118	133	65	139
Volume Left (vph)	82	27	10	28
Volume Right (vph)	9	47	8	51
Hadj (s)	0.13	-0.14	-0.01	-0.15
Departure Headway (s)	4.7	4.4	4.7	4.4
Degree Utilization, x	0.15	0.16	0.08	0.17
Capacity (veh/h)	724	771	722	760
Control Delay (s)	8.5	8.2	8.1	8.3
Approach Delay (s)	8.5	8.2	8.1	8.3
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.3		
HCM Level of Service	A		
Intersection Capacity Utilization	30.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: Winter Haven Road & Brooke Road

3/14/2014

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	63	19	84	64	13	54
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	68	21	91	70	14	59
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	213	126			161	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	213	126			161	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	91	98			99	
cM capacity (veh/h)	768	924			1418	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	89	161	73
Volume Left	68	0	14
Volume Right	21	70	0
cSH	799	1700	1418
Volume to Capacity	0.11	0.09	0.01
Queue Length 95th (ft)	9	0	1
Control Delay (s)	10.1	0.0	1.5
Lane LOS	B		A
Approach Delay (s)	10.1	0.0	1.5
Approach LOS	B		

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	25.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: Winter Haven Road & Sunnycrest Lane

3/14/2014

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	7	93	104	9	4	13
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	101	113	10	4	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	123				234	118
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	123				234	118
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	98
cM capacity (veh/h)	1464				750	934

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	109	123	18
Volume Left	8	0	4
Volume Right	0	10	14
cSH	1464	1700	883
Volume to Capacity	0.01	0.07	0.02
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.6	0.0	9.2
Lane LOS	A		A
Approach Delay (s)	0.6	0.0	9.2
Approach LOS			A

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	20.7%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: Winter Haven Road & Green Canyon Road

3/14/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	26	41	5	15	49	30	5	34	14	29	32	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	45	5	16	53	33	5	37	15	32	35	27

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	78	102	58	93
Volume Left (vph)	28	16	5	32
Volume Right (vph)	5	33	15	27
Hadj (s)	0.06	-0.13	-0.11	-0.07
Departure Headway (s)	4.4	4.2	4.3	4.3
Degree Utilization, x	0.10	0.12	0.07	0.11
Capacity (veh/h)	781	822	791	790
Control Delay (s)	7.9	7.8	7.6	7.8
Approach Delay (s)	7.9	7.8	7.6	7.8
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.8		
HCM Level of Service	A		
Intersection Capacity Utilization	25.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: Winter Haven Road & Brooke Road

3/14/2014

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	102	24	85	71	41	186
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	111	26	92	77	45	202
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	422	131			170	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	422	131			170	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	81	97			97	
cM capacity (veh/h)	570	919			1408	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	137	170	247
Volume Left	111	0	45
Volume Right	26	77	0
cSH	614	1700	1408
Volume to Capacity	0.22	0.10	0.03
Queue Length 95th (ft)	21	0	2
Control Delay (s)	12.5	0.0	1.6
Lane LOS	B		A
Approach Delay (s)	12.5	0.0	1.6
Approach LOS	B		

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	38.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	12	101	98	9	13	19
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	110	107	10	14	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	116				247	111
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	116				247	111
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	98
cM capacity (veh/h)	1472				735	942

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	123	116	35
Volume Left	13	0	14
Volume Right	0	10	21
cSH	1472	1700	845
Volume to Capacity	0.01	0.07	0.04
Queue Length 95th (ft)	1	0	3
Control Delay (s)	0.9	0.0	9.4
Lane LOS	A		A
Approach Delay (s)	0.9	0.0	9.4
Approach LOS			A

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	22.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: Winter Haven Road & Green Canyon Road

3/14/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	79	26	12	25	54	43	11	44	7	26	55	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	86	28	13	27	59	47	12	48	8	28	60	53

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	127	133	67	141
Volume Left (vph)	86	27	12	28
Volume Right (vph)	13	47	8	53
Hadj (s)	0.11	-0.14	0.00	-0.15
Departure Headway (s)	4.7	4.4	4.7	4.4
Degree Utilization, x	0.16	0.16	0.09	0.17
Capacity (veh/h)	725	766	715	756
Control Delay (s)	8.6	8.3	8.1	8.4
Approach Delay (s)	8.6	8.3	8.1	8.4
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.4		
HCM Level of Service	A		
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: Winter Haven Road & Brooke Road

3/14/2014

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	64	22	84	67	20	54
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	70	24	91	73	22	59
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	230	128			164	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	230	128			164	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	91	97			98	
cM capacity (veh/h)	747	922			1414	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	93	164	80
Volume Left	70	0	22
Volume Right	24	73	0
cSH	785	1700	1414
Volume to Capacity	0.12	0.10	0.02
Queue Length 95th (ft)	10	0	1
Control Delay (s)	10.2	0.0	2.1
Lane LOS	B		A
Approach Delay (s)	10.2	0.0	2.1
Approach LOS	B		

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	27.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	17	93	104	19	8	17
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	101	113	21	9	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	134				261	123
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	134				261	123
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	98
cM capacity (veh/h)	1451				718	927

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	120	134	27
Volume Left	18	0	9
Volume Right	0	21	18
cSH	1451	1700	848
Volume to Capacity	0.01	0.08	0.03
Queue Length 95th (ft)	1	0	2
Control Delay (s)	1.2	0.0	9.4
Lane LOS	A		A
Approach Delay (s)	1.2	0.0	9.4
Approach LOS			A

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	25.8%	ICU Level of Service	A
Analysis Period (min)	15		

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HCM Unsignalized Intersection Capacity Analysis
5: Winter Haven Road & Green Canyon Road

3/14/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	28	41	7	15	49	30	10	36	14	29	32	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	30	45	8	16	53	33	11	39	15	32	35	33

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	83	102	65	99
Volume Left (vph)	30	16	11	32
Volume Right (vph)	8	33	15	33
Hadj (s)	0.05	-0.13	-0.07	-0.10
Departure Headway (s)	4.4	4.2	4.4	4.3
Degree Utilization, x	0.10	0.12	0.08	0.12
Capacity (veh/h)	776	803	781	790
Control Delay (s)	7.9	7.8	7.7	7.9
Approach Delay (s)	7.9	7.8	7.7	7.9
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.8		
HCM Level of Service	A		
Intersection Capacity Utilization	24.0%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: Winter Haven Road & Brooke Road

3/14/2014

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	104	29	85	72	43	186
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	113	32	92	78	47	202
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	427	132			171	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	427	132			171	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	80	97			97	
cM capacity (veh/h)	565	918			1407	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	145	171	249
Volume Left	113	0	47
Volume Right	32	78	0
cSH	617	1700	1407
Volume to Capacity	0.23	0.10	0.03
Queue Length 95th (ft)	23	0	3
Control Delay (s)	12.6	0.0	1.7
Lane LOS	B		A
Approach Delay (s)	12.6	0.0	1.7
Approach LOS	B		

Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: Winter Haven Road & Sunnycrest Lane

3/14/2014

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	15	101	98	12	20	26
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	110	107	13	22	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	120				255	113
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	120				255	113
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				97	97
cM capacity (veh/h)	1468				725	940

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	126	120	50
Volume Left	16	0	22
Volume Right	0	13	28
cSH	1468	1700	833
Volume to Capacity	0.01	0.07	0.06
Queue Length 95th (ft)	1	0	5
Control Delay (s)	1.0	0.0	9.6
Lane LOS	A		A
Approach Delay (s)	1.0	0.0	9.6
Approach LOS			A

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	22.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: Winter Haven Road & Green Canyon Road

3/14/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	83	26	16	25	54	43	13	44	7	26	55	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	90	28	17	27	59	47	14	48	8	28	60	55

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	136	133	70	143
Volume Left (vph)	90	27	14	28
Volume Right (vph)	17	47	8	55
Hadj (s)	0.09	-0.14	0.01	-0.16
Departure Headway (s)	4.7	4.4	4.7	4.5
Degree Utilization, x	0.18	0.16	0.09	0.18
Capacity (veh/h)	726	761	709	752
Control Delay (s)	8.6	8.3	8.2	8.4
Approach Delay (s)	8.6	8.3	8.2	8.4
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.4		
HCM Level of Service	A		
Intersection Capacity Utilization	30.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: Winter Haven Road & Brooke Road

3/14/2014

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	65	25	84	70	26	54
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	71	27	91	76	28	59
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	245	129			167	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	245	129			167	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	97			98	
cM capacity (veh/h)	729	920			1410	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	98	167	87
Volume Left	71	0	28
Volume Right	27	76	0
cSH	774	1700	1410
Volume to Capacity	0.13	0.10	0.02
Queue Length 95th (ft)	11	0	2
Control Delay (s)	10.3	0.0	2.6
Lane LOS	B		A
Approach Delay (s)	10.3	0.0	2.6
Approach LOS	B		

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	28.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: Winter Haven Road & Sunnycrest Lane

3/14/2014

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	26	93	104	28	12	21
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	101	113	30	13	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	143				286	128
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	143				286	128
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				98	98
cM capacity (veh/h)	1439				691	922

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	129	143	36
Volume Left	28	0	13
Volume Right	0	30	23
cSH	1439	1700	822
Volume to Capacity	0.02	0.08	0.04
Queue Length 95th (ft)	2	0	3
Control Delay (s)	1.8	0.0	9.6
Lane LOS	A		A
Approach Delay (s)	1.8	0.0	9.6
Approach LOS			A

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	26.8%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
5: Winter Haven Road & Green Canyon Road

3/14/2014

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	30	41	9	15	49	30	15	36	14	29	32	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	45	10	16	53	33	16	39	15	32	35	38

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	87	102	71	104
Volume Left (vph)	33	16	16	32
Volume Right (vph)	10	33	15	38
Hadj (s)	0.04	-0.13	-0.05	-0.12
Departure Headway (s)	4.5	4.3	4.4	4.3
Degree Utilization, x	0.11	0.12	0.09	0.12
Capacity (veh/h)	771	795	773	791
Control Delay (s)	8.0	7.9	7.8	7.9
Approach Delay (s)	8.0	7.9	7.8	7.9
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.9		
HCM Level of Service	A		
Intersection Capacity Utilization	23.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: Winter Haven Road & Sunnycrest Lane

3/27/2014

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	17	116	113	16	38	39
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	126	123	17	41	42
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	140				295	132
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	140				295	132
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				94	95
cM capacity (veh/h)	1443				688	918

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	145	140	84
Volume Left	18	0	41
Volume Right	0	17	42
cSH	1443	1700	788
Volume to Capacity	0.01	0.08	0.11
Queue Length 95th (ft)	1	0	9
Control Delay (s)	1.1	0.0	10.1
Lane LOS	A		B
Approach Delay (s)	1.1	0.0	10.1
Approach LOS			B

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	28.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
8: Winter Haven Road & Sunnycrest Lane

3/27/2014

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	49	107	120	48	20	21
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	116	130	52	22	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	183				379	157
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	183				379	157
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				96	97
cM capacity (veh/h)	1392				599	889

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	170	183	45
Volume Left	53	0	22
Volume Right	0	52	23
cSH	1392	1700	719
Volume to Capacity	0.04	0.11	0.06
Queue Length 95th (ft)	3	0	5
Control Delay (s)	2.6	0.0	10.3
Lane LOS	A		B
Approach Delay (s)	2.6	0.0	10.3
Approach LOS			B

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	30.9%	ICU Level of Service	A
Analysis Period (min)	15		