TOWN OF
APPLE VALLEY, CALIFORNIA

AGENDA MATTER

Subject Item:

FOUR-WAY STOP AT THE INTERSECTION OF REATA ROAD AND PIMLICO ROAD

Summary Statement:

On November 19, 2008, the Traffic Safety Committee met and evaluated the need for four-way STOP controls at the intersection of Reata Road and Pimlico Road. The Committee concurred with the staff recommendation to establish the intersection as a four-way STOP. Attached is the staff report submitted to the Traffic Safety Committee for Council information.

Recommended Action:

Adopt Resolution 2008-65, "A Resolution of the Town Council of the Town of Apple Valley establishing the intersection of Reata Road and Pimlico Road as a four-way STOP intersection."

Proposed by: <u>**Engineering Division**</u>   Item Number_____

T. M. Approval: _____ **Budgeted Item** ☒ **Yes** ☐ **No** ☐ **N/A**

Council Meeting Date: 12/09/08

9-1

ITEM # 3

To: Traffic Committee Members
From: Richard Pedersen, Deputy Town Engineer
Date: November 19, 2008
Subject: Four-way STOP sign installation at the intersection of Reata Road and Pimlico
          Road

Staff received a request to investigate the intersection of Reata Road and Pimlico Road to determine if a four-way stop is warranted. Currently there are STOP signs on the east and west legs of the intersection on Pimlico Road. The Traffic Committee previously reviewed this intersection in 2006.

Staff performed a traffic engineering investigation which included an evaluation of past records of vehicle conflict, traffic volumes, and a field review of the intersection. Four-way STOP controls may be warranted if 1) the total volume of the major approach legs of the intersection average 300 vehicles per hour for the peak eight hours and 2) that for the same eight hour period the minor approach legs average a total of 200 vehicles per hour. Currently the average is 181 vehicles per hour for the major legs and 138 vehicles per hour for the minor legs. While this volume is clearly less than the minimum normally required for a four-way stop warrant, it does indicate that there exists a balance of traffic on the major and minor approaches which is consistent with the 2/3 ratio required in the warrant.

State warrants also indicate that if 5 accidents occur in a 12 month period that may be susceptible to correction by placing additional stop signs, a four way stop may be justified. Between January 2005 and August 2008 there have not been any traffic collisions at this intersection.

Staff investigated for other contributing factors including surrounding geography, the potential for driver confusion, and intersection layout for clear sight views. The counts reveal that the traffic control currently in place at this intersection requires that the major leg stop, in conflict with normal two-way stop guidelines which require that the low volume approach be stopped. This may cause driver uncertainty if a motorist assumes the other approaches are required to stop. In addition, the zoning in this area changes abruptly between commercial on the southeast corner, and residential on the remaining corners, merging two differing trip generation rates. An existing retaining wall on the southeast corner minimizes visibility for drivers turning from northbound Reata Road onto eastbound Pimlico Road. Reata Road has a speed limit of 35 mph with 2 lanes of traffic in each direction. Pimlico Road has a speed limit of 35 mph with 2 lanes of traffic going eastbound and 1 lane of traffic going westbound.

In compliance with four-way stop guidance optional warrant D, "An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multiway stop control would improve traffic operational characteristics of the intersection", staff recommends that four-way STOP controls be installed to alleviate this potentially confusing situation and improve operational safety at this intersection.
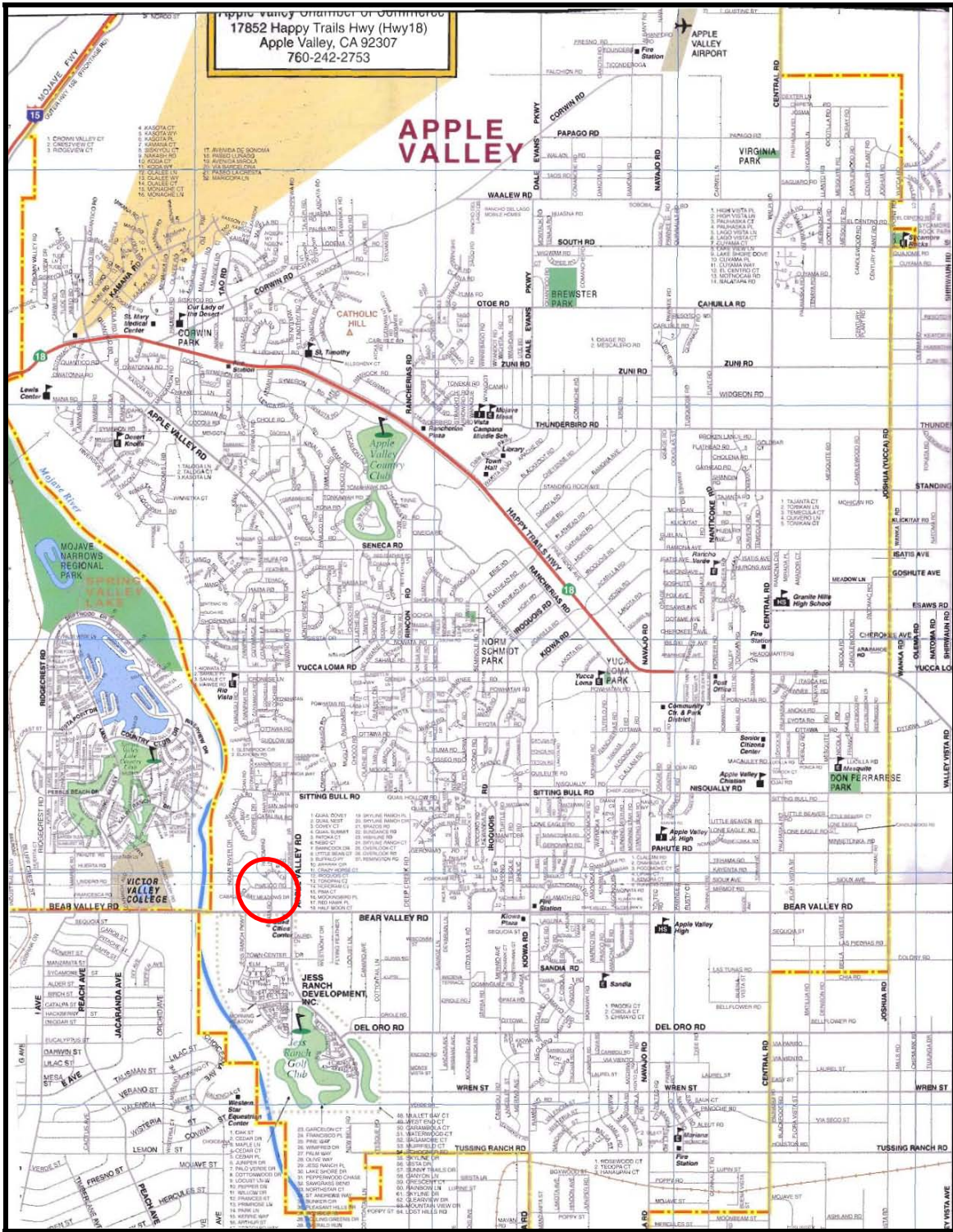
Recommendation

Staff recommends that four-way STOP controls be installed at the intersection of Reata Road and Pimlico Road.

Fiscal Impact

Installation of 2 stop signs $150 each

Exhibits

Location Map, Traffic Volume Analysis

LOCATION MAP
Reata Road and Pimlico Road

TOWN OF APPLE VALLEY
Traffic Count Datasheet
Intersection of Reata Road and Pimlico Road
Study Date: October 21, 2008 3:30 p.m. - October 22, 2008 3:30 p.m.

Reata Road and Pimlico Road						
Time of Day	**Location**					
(Military Time)	**Reata Rd N/B**	**Reata Rd S/B**	**Pimlico Rd E/B**	**Pimlico Rd W/B**	**Traffic Count on Major Legs** *210 Required*	**Traffic Count on Minor Legs** *140 Required*
00:00 - 01:00	4	1	1	4	5	5
01:00 - 02:00	4	2	2	3	5	6
02:00 - 03:00	3	0	1	2	3	3
03:00 - 04:00	1	1	3	5	8	2
04:00 - 05:00	3	1	4	5	9	4
05:00 - 06:00	5	7	5	8	13	12
06:00 - 07:00	18	14	31	40	71	32
07:00 - 08:00	47	22	41	102	143	69
08:00 - 09:00	54	15	33	106	139	69
09:00 - 10:00	54	18	21	137	158	72
10:00 - 11:00	73	17	25	124	149	90
11:00 - 12:00	125	14	26	141	167	139
12:00 - 13:00	90	14	26	155	181	104
13:00 - 14:00	96	12	18	150	168	108
14:00 - 15:00	108	19	20	139	159	127
15:00 - 16:00	130	13	35	179	214	143
16:00 - 17:00	148	26	31	150	181	174
17:00 - 18:00	141	15	41	169	210	156
18:00 - 19:00	132	19	24	144	168	151
19:00 - 20:00	107	17	15	65	80	124
20:00 - 21:00	64	6	10	39	49	70
21:00 - 22:00	40	5	6	31	37	45
22:00 - 23:00	20	1	6	12	18	21
23:00 - 24:00	17	2	2	8	10	19
TOTALS	1,484	261	427	1,918	2,345	1,745

☐ = 8 hour period

☐ = maximum hour

Average for highest 8 hours =	181	138
Required =	*300*	*200*

TRAFFIC VOLUME ANALYSIS

RESOLUTION NO. 2008-65

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF APPLE VALLEY ESTABLISHING THE INTERSECTION OF REATA ROAD AND PIMLICO ROAD AS A FOUR-WAY STOP INTERSECTION.

WHEREAS, a traffic engineering investigation has determined that establishing the intersection of Reata Road and Pimlico Road as a four-way STOP intersection is warranted in accordance with Section 52.0111 of the San Bernardino County Code as adopted by the Town of Apple Valley.

NOW THEREFORE, THE TOWN COUNCIL OF THE TOWN OF APPLE VALLEY DOES RESOLVE AND ORDER AS FOLLOWS:

Section 1: Approves and establishes the intersection of Reata Road and Pimlico Road as a four-way STOP intersection.

Section 2: Authorizes and directs the Town Manager to cause additional STOP signs to be placed on Reata Road and Pimlico Road.

APPROVED and ADOPTED this the 9th day of December, 2008.

_____
MAYOR

ATTESTED:

_____
TOWN CLERK