

VASCONCELLOS AVENUE


*NEIGHBORHOOD TRAFFIC CALMING
COMMITTEE*



TECHNICAL REPORT

JUNE 2009

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To: Vasconcellos Avenue Neighborhood Traffic Calming Committee
From: David Vickers, Transportation Analyst 
Date: June 25, 2009
Subject: Traffic Studies

At the request of the Vasconcellos Avenue Neighborhood Traffic Calming Committee (VANTCC) several traffic studies have been conducted on Vasconcellos Avenue and adjacent streets. More specifically the VANTCC requested the following:

- Compare the effectiveness of marked verses unmarked crosswalks at the park
- Consider the installation of a centerline through the corner at Inderbitzin Way & Granite Lane
- Installation of "Drive 25" signs
- Conduct multiway stop sign studies at Vasconcellos Avenue & Basil Drive, Pestana Avenue & Azalea Drive and Vasconcellos Avenue & Inderbitzin Way
- Conduct speed surveys in the 200, 400 and 600 blocks of Vasconcellos Avenue
- Installation of additional speed limit signs on Vasconcellos Avenue
- Consider the installation of LED message signs for speed limits
- Relocate the school bus stop on Pestana Avenue near the park
- Shorten the length of the traffic signal cycle at Vasconcellos Avenue & SR120 (E. Yosemite Avenue)
- Park lighting
- Change hours of park irrigation
- Installation of "No Outlet" sign on Vasconcellos Avenue north of Nehemiah Drive

Marked Verses Unmarked Crosswalks:

Numerous studies throughout the State have found that marked crosswalk do not improve the safety of pedestrians. Studies conducted in Long Beach, San Diego and Los Angeles conclude that collisions actually decrease by as much as 61% when marked crosswalks were removed. The Los Angeles studies examined 9-years of collision data, Long Beach studied 5-years, and San Diego analyzed 3-years of data. The conclusion of those studies is that crosswalks should only be marked to guide significant numbers of pedestrians to the safest of potential routes. Please see the attached for more detail.

Recommendation: Further studies maybe required once the area is fully developed. Marked crosswalks are not recommended at this time.

Centerline through the Corner at Inderbitzin Way & Granite Lane:

This treatment has been requested to reduce a cross-over traffic pattern and to discourage traffic from using this route once the Vasconcellos Avenue and Azalea Drive connection is complete. Based on the width of Inderbitzin Drive and Granite Lane it is unlikely that a significant volume of northbound Vasconcellos Avenue traffic will use Inderbitzin Drive and Granite Lane access Azalea Drive. Due to the curb to curb width (36 feet) of the streets in question, placement of a centerline through this corner will require on-street parking restrictions in front of 1972, 1973 and a portion of the Springport Park frontage.

Recommendation: Centerline markings are not recommended at this time

“Drive 25” Signs:

“Drive 25” signs are installed at or near the entrance to the subject neighborhood and should not be employed on a street by street basis. “Drive 25” signs are installed where other speed reduction techniques are not feasible.

Recommendation: “Drive 25” signs would be appropriate eastbound on Azalea Drive.

Multiway Stop Sign Studies:

The proposed Crivello Estates subdivision is likely to alter the trip distribution on Vasconcellos Avenue and Azalea Drive. Existing homes on Vasconcellos Avenue, Inderbitzin and Granite Lane are expected to use the Azalea Drive connection to access Yosemite Avenue or Louise Avenue by way of Pestana Avenue. Future extensions of Azalea Drive and Nehemiah Drive to Austin Road will also affect the traffic patterns in this area. Based on the proposed sixty-five (65) single family homes, Crivello Estates will generate a total daily traffic volume of 622 vehicles (two-way). It is also estimated that a percentage of existing Vasconcellos Avenue traffic will use the Azalea Drive connection to Pestana Avenue. The Azalea Drive connection will attract an estimated daily traffic volume of 211 vehicles from an existing twenty-two (22) single family homes on Vasconcellos Avenue, Inderbitzin Way and Granite Lane. Trip distribution from the proposed subdivision and the existing homes is projected to be as follows:

	<i>Total Volume From Existing Vasconcellos, Inderbitzin, Granite</i>	<i>Total Volume From Crivello Estates</i>
Azalea Drive at Marigold Lane	211 vehicles	435 vehicles / 70%
Vasconcellos Avenue at Inderbitzin Way	115 vehicles	187 vehicles / 30%

The noted volumes will be calculated for peak hour one-way volumes and used in the requested multiway stop sign studies.

Vasconcellos Avenue & Basil Drive: To date no collisions have occurred. The 8-hour approach volumes, minor/major street traffic flow characteristics, and delay criteria have not been met. Even though the 85th percentile speeds are slightly higher than the

Neighborhood Traffic Calming Program threshold, it is recommended that education and enforcement be employed.

Vasconcellos Avenue & Inderbitzin Way: To date no collisions have occurred, minor/major street traffic flow and delay criteria have not been met. The 8-hour approach volumes did not meet minimum criteria and speeds surveyed are within acceptable tolerances for this type of roadway. Traffic volumes generated from the proposed Crivello Estates have been included in the multiway stop sign analysis.

Pestana Avenue & Azalea Drive:

The 8-hour approach volumes, minor/major street traffic flow characteristics and delay criteria have not been met. Even though the 85th percentile speeds are higher than the standard, it is recommended that education and enforcement be employed. Traffic volumes generated from the proposed Crivello Estates have been included in the multiway stop sign analysis.

Please see the attached traffic studies for more detail.

Recommendation: Multiway stop signs are not recommended at the subject intersections at this time.

Speed Surveys:

The Neighborhood Traffic Calming Program sets reason for concern when speeds are measured at or above 32 mph on a residential street or at or above 30 mph in a school zone or near a park. Knowing this, the first action would be to implement a focused education and enforcement effort to reduce the speed of traffic.

Vasconcellos Avenue	85th Percentile	10 MPH Pace	Percent in Pace
Northbound (200 Block)	34 mph	25-34 mph	57.2%
Northbound (400 Block)	33 mph	24-33 mph	55.1%
Northbound (600 Block)	28 mph	19-28 mph	51.2%
Southbound (200 Block)	37 mph	25-34 mph	69.7%
Southbound (400 Block)	32 mph	24-33 mph	64.8%
Southbound (600 Block)	29 mph	19-28 mph	57.8%

Pestana Avenue	85th Percentile	10 MPH Pace	Percent in Pace
Northbound	34 mph	25-34 mph	66.8%
Southbound	33 mph	25-34 mph	49.6%

Recommendation: Employ random enforcement as indicated by the 24-hour speed surveys and as dictated by the field observations of the Police Department.

Additional Speed Limit Signs:

Speed limit signs are posted at the point of change and normally at one mile increments thereafter. The 2007 Traffic & Engineering Study shows 25 mph speed limit signs were to be posted on Vasconcellos Avenue at Nehemiah Drive.

Recommendation: Replace the missing 25 mph speed limit signs north and south bound on Vasconcellos Avenue at Nehemiah Drive.

LED Message Signs for Speed Limits:

Discussions with nearby City's, which employ this device, find that the first priorities for installation of LED message signs are on collector streets fronting schools. Should the City of Mantecá employ the use of such devices, installation on street such as Vasconcellos Avenue should only be considered after satisfying the needs of the school zones.

Recommendation: Staff should investigate potential grants and other funding sources for the implementation of a school zone project. Installation of LED Message signs on Vasconcellos Avenue is not recommended, until other priority installations are complete.

Existing of School Bus Stop on Pestana Avenue:

Manteca Unified School District (MUSD) transportation staff were contacted and related that the current stop is centrally located to minimize the distance between the area homes and the stop. Due to the recent budget cuts, MUSD staff notes that school bus service to this area is unlikely next school year; therefore the current bus stop would be eliminated.

Recommendation: None, subject to review and action by MUSD.

Traffic Signal Vasconcellos Avenue / SR120 (E. Yosemite Avenue):

An excessive cycle length has caused area drivers to run red lights or avoid this intersection altogether. The State of California, Department of Transportation, was contacted and advised of the situation. They were aware of the lengthy cycle length as several in-ground vehicle detector loops have been damaged; therefore the signal has been set to operate on a time based cycle. Repairs are scheduled for mid-June 2009, after which the signal will be returned to a traffic actuated program.

Recommendation: City staff and area residents should continue to monitor traffic signal operations and advise the State of California, Department of Transportation, District 10 maintenance personnel at (209) 948-7454 of any issues.

Park Lighting:

Parks staff has compiled a City-wide list of park lights that are non-operative and have been repairing them time allows. Springport Park has been moved to the top of that list, which could complete the repairs as early as next week. .

Recommendation: Park Division personnel to schedule the Building Maintenance and Tree crews to complete the repairs as needed.

Hours of Park Irrigation:

Current irrigation begins at 10:00 p.m., adjusting the times of irrigation can be a risk reward proposition. Most times this has had very little effect discouraging undesirable persons, as vandals kick off and break the irrigation heads to keep from getting wet. This causes the system to go to a high flow alarm and shuts down the entire parks irrigation causing the park to brown out. This approach has been employed at several parks (Morezone, Library, Union West) with marginal success at the cost of hundreds of dollars of irrigation repairs before switching the system back to the 10:00 p.m. start time.

The Municipal Code states that City parks are closed during the hours of 11:00 pm to 6:00 am the following day.

Recommendation: Irrigation starting times will be moved to 9:00 p.m. for a two week trial period. Staff does not recommend a change to the Municipal Code regarding the hours of operation for City parks.

No Outlet Sign on Vasconcellos Avenue:

Until such time as the Vasconcellos Avenue Azalea Drive connection is complete, the installation of a “No Outlet” sign would be appropriate on Vasconcellos Avenue just north of Nehemiah Drive.

Recommendation: Install “No Outlet” sign on northbound Vasconcellos Avenue just north of Nehemiah Drive.

Summary:

- Install “Drive 25” signs
- Focused traffic enforcement
- Install additional speed limit signs
- Repair park light
- Trial period for start of park irrigation
- Install No Outlet sign
- Monitor street network as area develops

Attachments:

Area / Project Map
Marked Crosswalk Study
Multiway Stop sign Studies
24-Hour Speed Surveys and Graphs