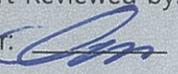


Agenda Report Reviewed by:
City Manager: 

**CITY OF SEBASTOPOL
CITY COUNCIL
STAFF REPORT**

Meeting: March 1, 2016
To: City Councilmembers
From: Council member Patrick Slayter
City Manager Larry McLaughlin
Subject: Traffic Calming Measures at the Bodega Avenue and Nelson Way Intersection
Recommendation: That the Mayor and City Council Discuss the Information Presented at Tonight's Meeting Regarding Measures for Traffic Calming
Funding: Currently Budgeted: _____ Yes XX No _____ N/A
Net General Fund Cost: \$ TBD
Amount: \$

INTRODUCTION:

This item is to request City Council Discuss the Information Presented at Tonight's Meeting Regarding Measures for Traffic Calming on Bodega Avenue and Nelson Way.

BACKGROUND:

Burbank Homes and Orchards (BHO), a senior housing complex and historic City park, is located on the south side of the intersection of Bodega Avenue and Nelson Way. A logical pedestrian route from this complex to shopping areas and other city amenities includes crossing Bodega Avenue at Nelson Way. The closest traffic control to the west of BHO is approximately one-half mile away at the intersection of Bodega Avenue and Pleasant Hill Road. The closest traffic control to the east is at the intersection of Bodega Avenue and Jewell Avenue, again, approximately one-half mile away. There have been a number of collisions at this intersection between automobiles and at least two collisions between automobiles and pedestrians over the past several years. Close calls and unreported collisions are not officially reported but evidence exists to conclude they are common.

DISCUSSION:

This portion of road has recently been discussed by the Council several times, and digital speed signs have been approved for purchase and installation several hundred feet to the east of BHO. Recently there was a collision between an automobile and a resident of BHO who was a pedestrian in the crosswalk at Bodega Avenue and Nelson Way.

The safety of all Sebastopol residents is of primary concern for the City; providing a safe environment is perhaps the most basic reason for a City to exist. It is appropriate for the Council to discuss the possibility of additional traffic calming measures at this heavily travelled location adjacent to a large population of seniors, many of whom walk to get around town.

Staff's approach in assisting with the preparation of this agenda item was to solicit input from the City's Police and Engineering Departments, to provide the residents and City Council with information on (a) a general review of traffic calming measures, and the costs associated with the various types of measures, including the installation of a traffic signal; (b) specifics about the site and nearby areas, including traffic volumes, accident history, speed limits, and signage and other traffic calming measures provided to date; and (c) some discussion on pedestrian safety in general and ways in which that may be improved.

Options for the Bodega Avenue and Nelson Way intersection which are discussed may include: a new traffic signal, a "Street Smart" crossing, and enhanced enforcement of existing laws. Any direction given to staff at this meeting would require a more thorough analysis, and further Council action.

RECOMMENDATION: That the City Council Provide Direction to Staff.

Attachment:

Memo from City Engineer

Memo from Police Chief



Engineering Department
714 Johnson Street
Sebastopol, California 95472
Telephone: (707)-823-2151
Fax: (707)-823-4721
Website: www.ci.sebastopol.ca.us
e-mail: hmikus@cityofsebastopol.org
Henry J. Mikus, Engineering Manager

Mayor
Sarah Glade Gurney
City Council
Una Glass, Vice Mayor
Robert Jacob
John Eder
Patrick Slayter

City Manager/City Attorney
Larry McLaughlin
City Clerk
Mary Gourley

Memorandum

To: Larry McLaughlin, City Manager
CC: Joe Gaffney, City Engineer
From: Henry Mikus, Engineering Manager
Date: February 25, 2016
Subject: Neighborhood Traffic Calming: Potential Project Funding Sources

In order to assist the City Council's upcoming discussion regarding possible traffic calming actions along Bodega Avenue (with focus on the Nelson Way intersection), City Engineer Joe Gaffney prepared a memorandum outlining a number of these traffic calming options with advantages and drawbacks. The memorandum also discussed, in a very general way, possible costs for some of the actions. Some of the more effective, and expensive options to consider would be intersection pedestrian improvements via flashing beacons and crosswalk lights, or installing traffic signals.

Any deficiencies related to ADA compliance must be addressed at the time of any intersection improvements. The measures required will vary greatly between locations, which impacts any cost estimates. Thus for the sake of this discussion a budget number for any intersection improvement at Nelson Way of \$250,000 will be used.

Although a budget amount for "Crosswalk Improvements, Bodega & Nelson" is listed in the Capital Improvement Plan(CIP), no date or funding sources are listed. No funding source has been identified for any of the potential Bodega Avenue enhancements.

Other than the General Fund, the most suitable source of money for any Bodega Avenue traffic improvements the City Council may decide to proceed with, is the Traffic Impact Fee Fund. However, although the fund is at a healthy level, *it is vital to note that most of the fund's balance plus several upcoming years' projected income, are already allocated to projects.* In fact, the projected Fund balance at the end of the 5-year CIP planning window would be but \$60,000. Thus, if the Council decides to utilize this fund for a Bodega project, it will only occur at the expense of other already funded projects.

This Traffic Impact Fee fund was analyzed as part of the Council’s recent mid-year budget adjustment discussion (page 35 of 38 in the Finance Department report). The plans for the fund are summarized below:

Current Fund Balance:	\$965,879
Projects underway, FY15-16:	\$108,207
Additional Proposed Projects, FY 15-16:	\$147,700
FY 16-17 Planned Projects (local streets bikeways):	\$545,179
FY 17-18 Planned Projects (2 Bodega sidewalk gap closures):	\$330,224
Set-aside for Grant Matching funds:	\$100,000
Total Funds Allocated:	\$1,231,310
Desired Projects with no year or funding source identified:	\$3,058,481
Unfunded SR 116 Bikeways (unsuccessful grant):	\$800,000
Estimated revenue, next 5 years:	\$324,400
<i>Estimated Fund Balance after 5 years:</i>	<i>\$58,969</i>

It is obvious if the Fund were to be used for up to \$250,000 for Bodega and/or Nelson pedestrian and traffic safety enhancements, the only already-planned projects of sufficient size to free up sufficient money, are the local streets bikeways set for the upcoming fiscal year (note: the RFP for project design is currently being solicited), or the Bodega sidewalk closures for FY 17-18. With Fund revenue estimated at between \$50,000 and \$75,000 per year either of these projects would need 5 years’ delay to allow sufficient funds to be replenished.

Another complicating factor is the somewhat-on-hold Bikeways for SR 116 project. However, that may ultimately not be a negative factor, as City Engineering staff are part of discussions recently initiated with CalTrans which are exploring the possibility of bikeways work becoming included in a state SR 116 slurry seal project tentative for implementation by 2018.

Memorandum

To: Henry Mikus, Engineering Manager

CC:

From: Joe Gaffney, City Engineer

Date: February 17, 2016

Re: Neighborhood Traffic Calming

In response to the citizen complaints about traffic issues on Bodega Avenue, I have researched several techniques to effect traffic calming. I have also visited the intersection of Bodega Avenue and Nelson Street to see if improvements can be made to make that intersection safer.

Traffic Calming Techniques:

The guru of neighborhood traffic calming techniques is Mr. Dan Burden. Through his company, Walkable Communities, Inc. (www.walkable.org), Mr. Burden publishes many information resources on making streets safer and more walkable. Mr. Burden visited Sebastopol in August 2000, and his workshop led to the formation of the Street Smart Sebastopol committee, the prioritization of intersections in the city for crosswalk improvements, and eventually the Street Smart project, which was built out in three phases.

Some of the tools that Mr. Burden suggests include the following, with pros and cons for each:

1. **Advance Crosswalk Warnings:** The Manual of Uniform Traffic Control Devices (MUTCD) recommends advance warning signs, plus warning signs at the crosswalk. In addition, transverse striping can be used in a chevron pattern, getting wider as it approaches the crosswalk.
Pros: Striping and signing improvements are relatively inexpensive.
Cons: Transverse striping wears faster than longitudinal striping, requiring more frequent maintenance. The use of thermoplastic striping, which lasts longer, requires hiring a striping contractor.
2. **Reducing Lane Widths:** By restriping either the median stripe or the shoulder stripe, or adding bicycle lanes, the through lane can be reduced to as little as 10 to 11 feet wide. The narrower width usually causes drivers to reduce their speed.
Pros: The cost is low, being just striping. If bike lanes are added, there is an additional cost for signage.
Cons: If parking volume on the street section is high, this may lead to increased sideswipe accidents.
3. **Speed Humps and Speed Tables:** Speed humps are similar to speed bumps, but have a much softer profile to allow driving over them at speeds of 15 to 20 mph. Speed tables are similar, but have a wider top section, usually at a crosswalk.
Pros: The speed humps and speed tables are economical to construct, being just asphalt, some striping and advance warning signs.
Cons: Police and fire emergency vehicles must also drive slowly over the humps, increasing response times. Parking is removed at the speed hump.
4. **Bulbouts:** This is what was done in the Street Smart project, where the curb return was extended into the street and landscaped.

Pros: The bulbout shortens the crosswalk and draws attention to the crossing.

Cons: Bulbouts are expensive and usually require additional drainage improvements.

5. Chicanes: By having offset bulbouts, the street is narrowed, forcing drivers to slow to maneuver between them.

Pros: Vehicle speeds are reduced, and landscaping adds to a park-like environment.

Cons: Bulbouts are expensive. Parking will be removed on the street. The bulbouts have to be located to keep driveways open.

6. Pedestrian-Activated Warnings: The Street Smart project used flashing beacons and in-roadway lighting to draw attention to the crosswalk.

Pros: The flashing beacons and in-roadway lighting are a positive indication to the driver that the crosswalk is occupied. With the proliferation of these types of crosswalks, both in Sebastopol and in other cities in Sonoma County, drivers are becoming more familiar with the warnings.

Cons: The pedestrian lighting is expensive, on the order of \$35,000 to \$140,000 per intersection.

Pedestrians must be aware that activation of the lights does not guarantee that a vehicle will stop. The in-pavement flashers have proven to be a high-maintenance item in some locations, requiring additional Maintenance expenditures.

7. Traffic Signals: A traffic signal provides positive control at the intersection. Pedestrian push buttons will allow the pedestrian to activate the signal when s/he wants to cross the street.

Pros: A traffic signal is a positive means to control traffic flows at the intersection.

Cons: Traffic signals are expensive, costing from \$150,000 to \$200,000 per intersection. If a driver ignores the signal, the crossing will be much less safe than if no signal were installed.

Bodega Avenue/Nelson Street Intersection

The intersection of Bodega Avenue and Nelson Street is currently configured with a crosswalk and a center island. This crosswalk has been problematic, mostly because of the downhill speeds of eastbound vehicles through the intersection. The intersection is currently served with a flashing beacon overhead sign to alert eastbound (downhill) drivers of the upcoming intersection, and an automatic speed sign to alert eastbound drivers of their speed. The intersection could benefit from a few improvements:

1. Currently, there are no advance crosswalk signs at the intersection. The MUTCD recommends placement of advance warning signs for a crosswalk at least 100 feet before the crosswalk. Also the pavement markings ("Ped Xing Ahead") should be re-installed at this increased distance.
2. The crosswalk signs themselves are the signs used for a school crosswalk. The signs should be switched out with the correct crosswalk signs, and in the latest fluorescent yellow-green colors.
3. The visibility of the sign on the northeast corner, the sign visible to westbound drivers, can be improved by trimming back the tree in the lot on that corner. Currently, the tree overhangs the fence and blocks the advance view of the crosswalk sign. Similarly, the directional sign for the Luther Burbank Gardens could be collocated on the crosswalk sign post – currently, the directional sign blocks the advance visibility of the crosswalk sign.
4. The crosswalk striping should be repainted, with thermoplastic paint if possible.
5. A shoulder stripe could be painted on the north shoulder to reduce the westbound lane to 11 feet wide in the vicinity of the intersection. This narrower lane may lead to reduced speeds through the intersection.
6. Similarly, a right turn only lane could be striped in the eastbound direction, reducing the through lane to 11 feet wide. Narrower lanes usually lead to reduced speeds as the drivers feel more constrained.

These are improvements that could be done with City Public Works personnel as a part of their regular duties. A local traffic striping company should be hired to do the traffic striping with thermoplastic paint, which is much more durable than the traffic marking paint that is normally applied.

An escalating list of improvements to this intersection could range from a pedestrian-activated warning signal, similar to the ones used at the Street Smart intersections, to a fully-actuated traffic signal with advance warning beacons. I would recommend a traffic analysis of the intersection by the City's Traffic Engineer before pursuing a traffic signal further. Also, this would require Council authorization since this project is not currently in the adopted CIP.

SEBASTOPOL POLICE DEPARTMENT
6850 Laguna Park Way, Sebastopol, CA 95472
(707) 829-4400 (telephone) - (707) 829-0967 (fax)

Jeffrey D. Weaver
Chief of Police

Memorandum

Date: February 21st, 2016
To: Larry McLaughlin, City Manager
From: Jeff Weaver, Chief of Police
Re: Bodega Avenue safety efforts

The Sebastopol Police Department has long been involved in efforts to enhance safety on Bodega Avenue. This memorandum contains an overview of those efforts.

#1. The Speed Limit – For many years, the speed limit on Bodega Avenue near Nelson Way was 35 miles per hour. In approximately 1995, the City Council lowered the speed limit to 25 miles per hour at the request of Burbank Heights Residents. Because that speed limit was artificially low as assessed by an Engineering and Traffic Safety Survey, radar could no longer be used to enforce the speed limit. In approximately 2002, the state legislature authorized creation of “Senior Zones”, similar to “School Zones”, which allowed the speed limit to be set at 25 miles per hour regardless of the speed indicated by an Engineering and Traffic Safety Survey. Using that legislative authority, the area fronting Burbank Heights was declared a “Senior Zone” and, thereafter, the police department resumed using radar to enforce the speed limit. The two attached graphs show the total number of traffic stops made in Sebastopol and those made on Bodega Avenue and the total number of speeding citations issued in Sebastopol and those issued on Bodega Avenue. A review of the two graphs shows much attention has been focused on Bodega Avenue to address speeding through enforcement.

#2. Speed Awareness Signs – As authorized by the City Council at the request of police department staff, two Speed Awareness Signs were installed on Bodega Avenue for eastbound traffic; one near Valley View Drive and the second in front of Burbank Heights. The Speed Awareness Sign in front of Burbank Heights developed a mechanical problem and operated intermittently. On February 11th, the mechanical problem was repaired by the department of public works. Additionally, at their meeting of December 1st, 2015, the City Council authorized the purchase of two additional Speed Awareness Signs to be placed on Bodega Avenue east of Nelson Way; one for each direction of traffic. Those signs have been ordered.

#3. Creation of a Respite Island – Some years ago, police department staff worked with engineering staff to create a median island adjacent to the crosswalk on Bodega Avenue at Nelson Way. The median island serves as a respite for pedestrians who can stand on it to get out of the roadway as they cross Bodega Avenue.

- #4. Signage – The police department asked the department of public works to:
- a. Remove a sheen of moss from the 25 mile per hour sign for eastbound Bodega Avenue traffic entering the Burbank Heights Senior Zone to make it more visible.
 - b. To move the Senior Zone Ahead sign for eastbound traffic on Bodega Avenue closer to the actual Senior Zone to make it more effective.

- c. Reposition the Burbank Farm sign on Bodega Avenue just east of Nelson Way for westbound traffic as it partially obscures the sign indicating the location of the crosswalk there.
- d. To purchase and install a “Yield to Pedestrians” sign on the median island.

#5. Traffic Volumes – The most recent Bodega Avenue Engineering and Traffic Safety Survey found that 13,300 vehicles travel on Bodega Avenue fronting Burbank Heights each day. That translates to 93,100 vehicles per week; 4,854,500 vehicles per year.

#6. Prevention Education – Police department staff are working with Burbank Heights administration to schedule a pedestrian and traffic safety education class at Burbank Heights in association with the weekly Farmers’ Market held on Wednesdays. This training will be accomplished in March or April.

#7. Accident History – The accident history on Bodega Avenue near Nelson Way from May, 2009 forward is as follows:

4-18-2010 unknown time - A three vehicle collision occurred. One occupant later contacted the police because of neck pain. No report was taken.

8-29-2011 8:23am - A two vehicle non-injury collision occurred. No report was taken.

10-17-2012 5:07pm - A two vehicle non-injury collision occurred. No report was taken.

10-31-2012 1:35pm - A two vehicle non-injury collision occurred. No report was taken.

1-08-2015 4:35pm - A two vehicle non-injury collision occurred. A vehicle traveling eastbound stopped to allow a pedestrian to cross. A vehicle struck the rear of the stopped vehicle.

12-28-2015 10:21am - A two vehicle non-injury collision occurred. A vehicle traveling southbound on Nelson Way stopped at the stop sign and then entered Bodega Avenue in the path of an on-coming westbound vehicle.

1-23-2016 7:35pm - A pedestrian was crossing Bodega Avenue at Nelson Way in the crosswalk. The pedestrian was struck by a vehicle traveling westbound on Bodega Avenue.

The last pedestrian-involved collision on record at the police department was on September 14th, 2004.

#8. Overall considerations – Everyone using our roadways (drivers, bicyclists, and pedestrians) are responsible for exercising due caution for their safety and the safety of others. Traffic control devices, while capable of enhancing safety, cannot prevent all collisions. Regardless of the presence of traffic control devices and regardless of legal right-of-way, all roadway users must engage in defensive walking, driving, and biking to enhance their safety.