

Office of the City Manager

CONSENT CALENDAR
December 17, 2013

To: Honorable Mayor and Members of the City Council

From: (Christine Daniel, City Manager

Submitted by: Andrew Clough, Director, Public Works

Subject: Implementation of 15 MPH Speed Signs Around Elementary Schools

RECOMMENDATION

Adopt a Resolution authorizing the City Manager to implement installation of 15 mph speed signs around preschools and elementary schools in the City of Berkeley.

FISCAL IMPACTS OF RECOMMENDATION

The installation of the 15 mph signs is estimated to cost \$48,600. This will cover the cost of speed surveys, the 15 mph speed signs, poles and installation. Funding is available in the FY 2014 Measure B Fund (Fund 391).

CURRENT SITUATION AND ITS EFFECTS

California Vehicle Code (CVC) 22358.4b(1) grants authority to local jurisdictions to establish a 15 mph speed zone around schools when school children are present, and during the noon recess, however the code is ambiguous about whether a traffic study is necessary or not. Specifically the CVC requires speed surveys to be conducted as the basis for establishing enforceable speed limits. CVC 22358.4b(1) includes similar language regarding the need for a speed survey, but then allows establishment of 15 or 20 mph speed limits within school zones, either as justified by the survey or as determined by resolution of the City Council. Transportation staff asked the City Attorney to help clarify this issue in order to determine if the cost of conducting speed surveys (about \$6,000) could be avoided. The CVC interpretation from the City Attorney's Office was that we "do not have to have a survey that concludes that the speed limit is 'more than is reasonable or safe' when you meet the conditions regarding being near school grounds/buildings, but that we still need to do the traffic study, and take the provisions of CVC 627 into consideration."

BACKGROUND

At its May 21, 2013 meeting Council referred AB 321 to the Transportation Commission, and requested that they return to the City Council with a recommendation on implementation of 15 mph speed zones within 500 feet of all elementary schools in Berkeley. There are 11 elementary schools throughout Berkeley all of which are located within 25 mph speed zones. There are also 3 preschools which are included for the

purposes of this evaluation. With a few exceptions nearly all these schools are located within city blocks surrounded by 4 adjacent streets.

Transportation staff has reviewed the provisions of the California Vehicle Code (CVC) as well as other applicable standards in order to identify the necessary process for establishment 15 mph speed zones. The review has also identified implementation options and approximate costs.

The following are the assumptions and logistics for evaluation and installation of 15 mph speed zones around elementary schools.

- There are 14 school sites in Berkeley: 3 preschools and 11 BUSD elementary schools.
- For each school, staff would select 2 abutting streets where speeding would likely be more of an issue, compared to the other abutting streets for the same school. This would be at least 28 speed surveys at a cost of approximately \$300 per school, for survey costs of \$8,400.
- Staff time for identification of suitable sites for speed surveys, analysis of the results of each survey, identification of suitable sign location, and supervision of implementation, is estimated at about 4 hours per school, or 56 hours of staff time. Using the FY 2014 hourly labor rate of \$117.23 for an Assistant Traffic Engineer, this cost would be \$6,565.
- Assuming that all 14 locations qualify for 15 mph, either because of the speed survey (not expected) or because the Council authorizes it, then each of the 4 abutting streets would have 2 new signs (1 per direction) for a total of 112 individual signs (we could not have 1 abutting street at 15 mph and the rest at 25 mph). We have 2 options in terms of signage:
 - **Option 1 Static Speed Signs**: 1 static speed sign per direction on each of the abutting streets with legend "When Children Present;" material and installation cost is \$300 per location, for a total of \$33,600 (14 schools, 4 streets each, 1 sign per direction).
 - **Option 2 Flashing Beacons**: To avoid the need for drivers to interpret whether the 15 mph limit applies at a particular time, use 15 mph speed limit signs with flashing beacons and legend "When Flashing," which would flash during applicable school hours, thus leaving no doubt as far as drivers are concerned as to when the reduced speed limit is in effect. Cost of these units, including material, labor & installation is approximately \$5,000 per location, assuming availability of an electrical supply. For 14 schools, 2 locations on each of the 4 abutting streets (1 per direction) the cost of 15 mph speed signs with flashing beacons at 112 locations would be \$560,000
- **TOTAL COSTS**: including surveys, staff time, and purchase and installation of signage: Option 1 is estimated at \$48,600; and Option 2 at \$575,000.

Input on this proposal from the Berkeley Police Department Traffic Division is attached.

At its September 2013 meeting, the Transportation Commission voted to recommend that Council move forward with Option 1 for the 15 mph elementary school zone sign program, that staff identify funds to install the signs in time for Zachary Cruz Pedestrian Safety Month in March 2014, and that staff investigate double fines for school zones and implement those concurrently, if feasible (M/S: Schneider/Thomas; Ayes: Lathbury, McCaughrin, Roberts, Schneider, Smulka, Thomas, Zander Noes: None Abstain: None Absent: Watson).

RATIONALE FOR RECOMMENDATION

Based on the Council referral, the Transportation Commission determined that implementing 15 mph speed limits around preschools and elementary schools is desirable and should be done as soon as feasible.

Referring to the CVC requirements for establishing speed limits in school zones, Traffic Engineering staff has outlined the necessary process. The City Traffic Engineer may only establish speed limits below 25 mph in a school zone if supported by an engineering speed survey that finds 85% of drivers travel at or below the proposed speed limit. As past studies have not resulted in such speed limit reductions, the Traffic Engineer does not have authority to lower the existing speed limit. However, the City Council may establish a reduced school zone speed limit of 15mph as authorized by CVC 22358.4b(1).

ALTERNATIVE ACTIONS CONSIDERED

The Transportation Commission considered the installation of flashing beacons with the 15 mph speed limit signs in school zones to increase effectiveness and compliance, but concluded that the cost was too great to be able to implement that improvement at all schools. Thus the static sign option was selected to enable implementation at all schools.

CONTACT PERSON

Hamid Mostowfi, P.E. Supervising Traffic Engineer, Public Works, 981-6403

Attachments:

- 1: Resolution
- 2: Input from Berkeley Police Department Traffic Division

RESOLUTION NO. ##,###-N.S.

IMPLEMENTATION OF 15 MPH SPEED LIMIT AROUND PRESCHOOLS AND ELEMENTARY SCHOOLS

WHEREAS, California Assembly Bill AB 321, which went into effect in January 2008 allows local governments to extend school zones to 1,000 feet and reduce speed limits within 500 feet of a school site to 15 mph on residential streets, on 2-lane roads, where speed limits are already 30 mph or less; and

WHEREAS, California Vehicle Code 22358.4b(1) grants authority to local jurisdictions to establish a 15 mph speed zone around schools when school children are present and during the noon recess; and

WHEREAS, the Berkeley City Council at its May 21, 2013 meeting referred AB 321 to the Transportation Commission and requested that they return to Council with a recommendation on implementation of 15 mph speed zones within 500 feet of all elementary schools in Berkeley; and

WHEREAS, the Transportation Commission considered different options for implementation of 15 mph speed limit around preschools and elementary schools; and

WHEREAS, on September 19, 2013 the Transportation Commission recommended implementation of 15 mph speed limit around preschools and elementary schools through installation of 15 mph "when children are present" speed signs.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that the City Manager is authorized to implement 15 mph speed limits around preschools and elementary schools.



MEMORANDUM

September 2, 2013

To: Farid Javandel, P.E. Transportation Manager

From: Hamid Mostowfi, P.E. Supervising Traffic Engineer

Subject: BPD Input on 15 MPH Speed Signs Around Elementary Schools

The following is input from BPD on 15 mph speed signs around elementary schools:

A. Collision Perspective: Officer W. Cocke #143, Traffic Analyst

Between 08/01/10 and 07/31/13, there were 327 documented injury collisions involving pedestrians in the City of Berkeley. 23 (14%) of those collisions occurred near school zones. Out of the 23, none were caused by vehicles traveling at an unsafe speed.

The most frequent cause listed was a right of way violation committed by either the involved driver or pedestrian. 73% of the collisions were caused by drivers failing to yield the right of way to pedestrians in a crosswalk. 23% were caused by pedestrians failing to yield the right of way to vehicles while in the roadway.

13 of the 23 collisions occurred during the school day, and 4 of those involved juvenile pedestrians. Juvenile pedestrians were found at fault in 3 of the collisions.

The collision data does not seem to support a need for lowering the speed limit in school zones from 25 mph to 15 mph. It seems that a review of the signage and the visibility of crosswalks in school zones as well as educating students about pedestrian safety would be a better way to approach the issue.

B. Enforcement Perspective: Sqt. Rittenhouse, Enforcement Bureau

Currently, BPD only has 4 Traffic Officers: 2 work Monday – Thursday and the other 2 work Tuesday – Friday. They have Citywide responsibility for addressing traffic issues/complaints as well as handling injury collisions occurring in the City. Each of the police beats also has an officer assigned who is responsible for anything that occurs in their geographically assigned area from abandoned cars to robberies.

If a 15mph zone is affected on all sides of 14 schools, regular enforcement would be difficult, at best. The traffic officers would be able to provide some enforcement, though at irregular times. The beat officers may be able to provide some enforcement as well, but most beat officers are not qualified to enforce speed using radar/lidar.

To effectively dedicate resources regularly to this, we would need additional traffic officers and we are already significantly impacted by being understaffed. Currently, a police officer (with benefits) costs over \$200k per year, not including specialty motorcycle training (radar/lidar/basic motorcycle) training. The extended training also means that there is an approximant 6-month ramp up time to get new motor officers into a fulltime enforcement position. Additional motorcycles at approximately \$35k each would also be needed. If 2 officers and 2 motorcycles were added, the minimum cost would be \$570k for the first year. Even still, we could not guarantee constant enforcement given our priorities for public safety, crime fighting and calls for service given our staffing levels and the 14 school zones being considered.

The safety of pedestrians, especially kids, is and will continue to be a priority for the officers assigned to the Traffic Bureau. As always, we will make every effort to educate motorists and enforce vehicle laws around our City's schools.