August 8, 2013

To: Sally Clark, Council President
Bruce Harrell, Chair, Public Safety, Civil Rights & Technology Committee
Tom Rasmussen, Chair, Transportation Committee

From: Peter Harris, Central Staff

Re: Locations of new cameras to enforce school zone speed limits

Introduction

Last month, in the first quarter supplemental budget appropriation ordinance for 2013, the Council authorized the Seattle Department of Transportation (SDOT) and the Seattle Police Department (SPD) to install nine additional traffic safety cameras to enforce speed limits in five school zones. SDOT and SPD have completed the analysis of potential new locations for the new cameras and are ready to install them.

Last year the Legislature amended RCW 46.63.170 to require that "[the] appropriate legislative authority must prepare an analysis of the locations within the jurisdiction where automated traffic safety cameras are proposed to be located: . . . (ii) before adding additional cameras or relocating any existing camera to a new location within the jurisdiction."

I have reviewed the documentation prepared by SDOT and SPD on the methods they used to select the new school zone camera locations, and have discussed these methods with SPD and SDOT staff. The methods they used to select the new locations appear to me to be entirely appropriate and valid.

My understanding is that this memo will satisfy the state requirement. I will ask the City Clerk to prepare a Clerk File containing this memo and the attached documentation. Unless you prefer an alternative process, no further Council action is required.

Documentation

Attached are:

> An August 3 memo from Greg Doss of SPD to me summarizing the process by which SDOT and SPD selected the locations for the school zone cameras and identifying the five new locations; and
>
> A two-page paper titled "Photo Enforcement at Schools – Pilot Project," written last year, which describes the overall process for selecting school zones in more detail.

Note also that the Automated Traffic Enforcement Program is described on page 384 of the 2012 Adopted Budget, and the appropriation for the new cameras is described in Attachment K to Ordinance 124222, which is the first quarter 2013 supplemental budget appropriation ordinance.

Conclusion

If you have any questions, please let me know.

CC: Greg Doss, Seattle Police Department
Jim Curtin, Seattle Department of Transportation
Monica Simmons, City Clerk

SEATTLE POLICE DEPARTMENT MEMORANDUM

TO: Peter Harris
Council Central Staff

DATE: 08/05/2013

FROM: Greg Doss, Strategic Advisor, Seattle Police Department
Jim Curtain, Strategic Advisor, Seattle Department of Transportation

SUBJECT: CLERK FILE FOR 2014 SCHOOL ZONE CAMERAS
RCW REQUIRED LEGISLATIVE ANALYSIS

Introduction & Summary:

Passed on July 15th, the First Quarter Supplemental Budget authorized the Seattle Department of Transportation (SDOT) and the Seattle Police Department (SPD) to install nine new automated traffic safety cameras to enforce speed limits in five school zones. These cameras are identical in operation to the school zone safety cameras the City is using at Broadview-Thomson K-8 School, Thurgood Marshall Elementary School, Olympic View Elementary School and Gatewood Elementary School. SDOT and SPD have completed the analysis of potential new locations for the new school zone cameras and are ready to begin the installation process.

Last year, the Legislature passed and the Governor signed Senate Bill 5188, which amended RCW 46.63.170 to require that "[the] appropriate legislative authority must prepare an analysis of the locations within the jurisdiction where automated traffic safety cameras are proposed to be located: . . . (ii) before adding additional cameras or relocating any existing camera to a new location within the jurisdiction." This memo is intended to provide the information necessary to satisfy this requirement.

Background on Seattle's Speed Zone Camera Program:

In December 2012, the City of Seattle began using fixed cameras to enforce the school zone speed limit at four elementary schools. On July 9th of this year, staff from the SPD and SDOT presented to the Seattle City Council a preliminary review of the data collected from the pilot sites. The review found that:

- A total of 24,336 citations were issued by the school zone cameras between December 10 and April 27.
- There is a slight downward trend in the number of citations issued per week, which may indicate that fewer drivers are speeding, but more data will be needed to draw any conclusions about long-term results.

On July 15th of this year, the Council passed legislation to alter the Adopted Budget in several ways that impact school road safety efforts. The funding increases were made possible due to revenue from the current school zone speed cameras. The increases included:

- The addition of $300,000 for a School Road Safety Plan;
- $320,000 for additional school zone speed cameras in 4-5 locations;
- $126,199 for automated traffic enforcement support around school zones; and
- $450,000 for capital improvements such as curb bulbs, medians, and radar feedback signs adjacent to the four schools that currently have school zone speed cameras.

The expansion of school zone speed cameras to 4-5 additional locations is occurring because of the strong evidence behind automated enforcement and school zone cameras nationally, the strong support of agencies like National Highway Traffic Safety Administration, the reduction in citations seen in other regional jurisdictions, and the 16 percent reduction seen in Seattle School Zone camera locations during the first four months.

SPD and SDOT propose to install the new cameras at the locations listed below. The locations for these additional cameras were selected using a process similar to the one that was used to select the first four locations. The cameras are expected to be on-line in early 2014:

- Bailey Gatzert Elementary on East Yesler Way (Westbound only)
- Dearborn Park Elementary on South Orcas St
- Nathan Eckstein Middle School on Northeast 75th Street
- Roxhill Elementary on Southwest Roxbury
- Holy Family Parish School on Southwest Roxbury

Process / Analysis used to determine the new sites:

This siting process for the Speed Zone cameras began in 2011 when SDOT staff undertook an analysis on 50 schools where they had installed flashing beacons to encourage drivers to go the speed limit through the school zone. SDOT narrowed the list of potential sites to 16 schools where speeding continued to be a concern, and conducted week long speed studies in all of those locations. The list was eventually narrowed to four schools that would receive the greatest speed reduction / safety benefit from automated enforcement: Broadview-Thomson K-8 School, Thurgood Marshall Elementary School, Olympic View Elementary School and Gatewood Elementary School.

After installing cameras at the above locations, SDOT Arterial Traffic Calming Program staff and SPD returned to the list of 16 schools to begin an analysis of other schools that might benefit from automated enforcement. Staff returned to this list because of the original concern that the 85th percentile speed at these schools is over 35 mph, when the speed limit is 30 mph. The 16 locations by district included:

- **NW Seattle**: Broadview-Thompson (Greenwood @ N 132nd)(*has camera now*), BF Day (Fremont @ 39th/40th)

- **NE Seattle**: View Ridge (NE 75th @48th Ave NE), Northgate (1st Ave NE @ N 117th), Olympic View (5th Ave NE @ NE 95th St)(*has camera now*)

- **Central Seattle**: Madrona (E Union @ 32/33rd), Bailey Gatzert (E Yesler at 12th/14th)

- **South Seattle**: Concord (9th Ave S @ S Henderson St), Wing Luke (Beacon Ave S @ Rose/Kenyon), Dearborn Park (S Orcas @ 28th Ave S), Thurgood Marshall (MLK S @ S Judkins St) (*has camera now*)

- **SW Seattle**: Roxhill and Holy Family (SW Roxbury at 20th Ave SW/30th Ave SW), Arbor Heights (35th Ave SW @ SW 104th St), Sanislo (16th Ave SW @ SW Myrtle), Highland Park (9th Ave SW @ Trenton/Cloverdale), Gatewood (Fauntleroy & Myrtle) (*has camera now*)

Based on the 85% speed, SDOT chose seven schools to be subjected to additional speed tests conducted by American Traffic Solutions (ATS). ATS ran a study that produced data on the number of cars traveling 1 mph over the posted speed, the number traveling 6 mph over the posted speed and the percent of vehicles traveling 6 mph over the posted speed limit. Ultimately, SDOT staff made four selections from the schools studied by ATS. The data for these locations appears below.

			AM			PM			Totals			
School	Street	Number of Lanes	Hour	Violations = + 1mph	Violations = +6 Vio	Hour	Violations = + 1mph	Violations = +6 Vio	Violations	Violations = +6 Vio	Total Traffic Volume during ET	% > 6MPH
Dearborne Park Elementary	S Orcas	1	8:00-9:00	215	147	2:45-3:45	75	40	290	187	444	64.48
		1	8:00-9:00	221	176	2:45-3:45	147	107	368	283	388	76.90
Bailey Gatzert Elementary School	E Yesler Way	1	8:05-9:05	402	233	2:45-3:45	152	79	554	312	951	56.32
		2	8:05-9:05	323	186	2:45-3:45	266	156	589	342	737	58.06
Holy Family	SW Roxbury St	2	7:35-8:35	394	152	2:45-3:45	362	164	756	316	1184	41.80
		2	7:35-8:35	531	461	2:45-3:45	590	432	1121	893	1361	79.66
Roxhill Elementary	SW Roxbury St	2	8:45-9:45	369	166	3:20-4:20	437	206	806	372	993	46.15
		2	8:45-9:45	138	36	3:20-4:20	192	64	330	100	893	30.30

When making these selections, staff considered other non-speed factors such as the proximity of the schools to a particularly problematic / high speed arterial and the feasibility of installing a camera versus another type of enforcement (e.g. Speed Van or police emphasis).

Before finalizing selections, SDOT also examined schools that were proximate to particularly high speed arterials or had students involved in recent serious collisions. When considering this data, SDOT staff made the determination that Nathan Eckstein Middle School on Northeast 75th Street should be added to the four schools chosen from the ATS study.

ATS is currently working with SDOT to permit the sites and should begin construction sometime in early 2014. Barring any significant problems with construction, the cameras should be up and running by the second quarter of next year. If you have any questions, please contact Greg Doss at 206-615-1230 or Jim Curtin at 206-684-8874. Thank you.

Photo Enforcement at Schools - Pilot Project

Recently, the State Legislature authorized the use of automated traffic safety cameras to detect speed violations. Through a Washington Traffic Safety Commission grant, the Seattle Police Department (SPD) experimented with mobile enforcement and achieved some success in 2010 and 2011. The experiences with the mobile enforcement generated the idea and creation of a Budget Issue Paper (BIP) to pilot fixed photo enforcement.

Two programs, Arterial Traffic Calming and Safe Routes to School, within Seattle Department of Transportation (SDOT) are working with SPD to pilot photo enforcement at selected schools. It is hoped that fixed photo enforcement will become a tool that SDOT can use to address high speeds adjacent to schools. To date, there is no tool available that is as effective as we would like.

Background

There are around 150 State accredited schools in Seattle; many of which are on arterial streets. SDOT receives numerous complaints weekly about speed and safety. Through the Arterial Traffic Calming Program, SDOT prioritizes speeding concerns City wide and addresses high speed five to ten arterial streets every year.

Due to budget constraints, the Seattle School district is reducing the number of buses, and encouraging parents to have their children to walk to school. Many parents site concern for safety as the reason they do not allow their children to walk to school. Please note that this is mostly based on perception, pedestrian collisions in Seattle are low and driver error is a significant contributor. However, national studies document speed as the major factor in pedestrian fatalities and serious injuries. The tools that SDOT is currently using to reduce speeding near schools include:

- Flashing Beacons – generally achieve a decrease of 5 mph in the 85% speed, but the 85% is still 10 mph over the speed limit.
- Mobile Photo Enforcement - generally a decrease of 5 mph to 10 mph in the 85% speed, but the 85% is still 10 mph over the speed limit.
- Radar Speed Signs – generally a decrease of 5 mph in the 85% speed; piloting with flashing beacons on 23rd Ave S by Garfield High School

Initial Review of Speeding near Schools

SDOT has installed approximately 50 flashing beacons with 20 mph signage. The beacons flash for a half hour in the morning and afternoon when students are walking to and from school. Of those 50 locations, SDOT reviewed available speed data and determined that 15 of them may have a speeding concern. The caveat being the data may be old or not directly in the school's 20 mph zone. The Arterial Traffic Calming Program has identified a speeding concern being where the 85% speed is over 35 mph, when the speed limit is 30 mph. The 15 locations by district include:

- NW Seattle – Greenwood @ N 132nd, Fremont @ 39th/40th
- NE Seattle—NE 75th @48th Ave NE, 1st Ave NE @ N 117th, 5th Ave NE @ NE 95th St

- Central Seattle – E Union @ 32/33rd, E Yesler at 12th/14th
- South Seattle – 9th Ave S @ S Henderson St, Beacon Ave S @ Rose/Kenyon, S Orcas @ 28th Ave S, MLK S @ S Judkins St
- SW Seattle – SW Roxbury at 20th Ave SW/30th Ave SW, 35th Ave SW @ SW 104th St, 16th Ave SW @ SW Myrtle, 9th Ave SW @ Trenton/Cloverdale

Selecting Schools for Pilot Projects

Using the selected schools above, SDOT will conduct another speed study at each of the locations. SDOT will review the data and look for schools that have the highest 85% speeds and the highest number of vehicles traveling over 40 mph. The data will be reviewed for both the weekly average and when the beacons are flashing.

SDOT will rank all of the schools and discuss their findings with SPD and the Seattle School District. Based on the ranking and input from SPD and Seattle School District, SDOT will select four schools to participate in the pilot project. SDOT will discuss the pilot project with the Principals and PTA of the selected schools. If the PTA and/or Principals are not fully supportive of the pilot project, SDOT will select another school, assuming that the speeding concerns are comparable.

Review of the Pilot Projects

SDOT will conduct traffic studies approximately 6 months after the photo cameras are installed. That information, as well as enforcement information will be shared with the schools. SDOT will request that the schools conduct a survey of parents' perceptions of the change in speed and safety before and after the photo cameras were installed.

Future of Photo Cameras

If the pilot project achieves the results that are expected, SDOT will partner with SPD on a 2013 BIP for additional cameras. How many cameras is dependent on the results of the pilot project, as well as existing speeding concerns adjacent to the schools. It is important to note that the fixed cameras follow several other traffic calming measures. Feedback from parents of schools where the pilot projects will be installed will also be an important component.