

RESOLUTION NO. 24-1961

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LAKE FOREST PARK, WASHINGTON, APPROVING SCHOOL WALK ZONE TRAFFIC SAFETY CAMERAS PURUSANT TO LFPMC 10.06.010.

WHEREAS, the City of Lake Forest Park is a non-charter optional municipal code city as provided in Title 35A RCW, incorporated under the laws of the state of Washington, and has the authority to regulate the use of city streets pursuant to RCW 35A.11.020; and

WHEREAS, Chapter 10.06 of the Lake Forest Park Municipal Code (“LFPMC”), Automated Traffic Safety Cameras, is an important means to maintain and enhance the safety and welfare of the residents of the City of Lake Forest Park and ensure that the city’s streets are used in a safe manner; and

WHEREAS, Northeast 178th Street from 25th Avenue Northeast to State Route 104 is a walking route within a one-half mile radius of Brookside Elementary that students use to travel to school by foot, bicycle, or other means of active transportation; and

WHEREAS, on Northeast 178th Street there is currently a school speed zone for Brookside Elementary located between 35th Avenue Northeast and 37th Avenue Northeast, with traffic safety speed cameras operating when children are present, or warning flashers are active with a reduced speed limit of 20 mph; and

WHEREAS, the City Council is proposing to modify these existing school zone traffic safety cameras to monitor vehicle speeds in a school walk zone throughout the day, which would allow the cameras to be activated 24 hours a day and 7 days a week to monitor the 25 mph corridor speed limit, while also continuing to monitor the 20 mph school zone speed limit during the morning and afternoons when Brookside Elementary School is in session; and

WHEREAS, the City Council has reviewed and accepted the Equity Analysis completed by ECOnorthwest dated April 26, 2024, and addendum dated August 1, 2024, which satisfies the requirements of RCW 46.63.220 and provides the City Council with information regarding the impact of the proposed traffic safety speed camera on livability, accessibility, economics, education, and environmental health; and

WHEREAS, the City Council has reviewed and accepted the updated Transpo Group speed and safety analysis dated August 2, 2024, which also satisfies the requirements of RCW 46.63.220 and includes analysis of vehicle speeds, traffic volumes, crashes and citations issued by the existing school zone traffic safety cameras;

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Lake Forest Park, as follows:

Section 1. FINDINGS. The Whereas clauses above are incorporated herein as findings of the City Council.

Section 2. SCHOOL WALK ZONE IDENTIFIED. Pursuant to chapter 10.06 LFPMC, the City Council identifies as a school walk zone for Brookside Elementary Northeast 178th Street from 25th Avenue Northeast to State Route 104.

Section 3. SCHOOL WALK ZONE TRAFFIC SAFETY CAMERAS. Pursuant to chapter 10.06 LFPMC, the City Council hereby approves the addition to the City's traffic safety camera program the traffic safety cameras on Northeast 178th Street, one near the intersection with 33rd Ave. NE (designated "LF02") and the other near the intersection with Brookside Blvd./NE 180th St. (designated "LF01"), to detect and enforce the school walk zone designated by the City Council for Brookside Elementary.

Section 4. CORRECTIONS. The City Clerk is authorized to make necessary corrections to this resolution including, but not limited to, the correction of scrivener's/clerical errors, references, numbering, section/subsection numbers and any references thereto.

PASSED BY A MAJORITY VOTE of the members of the Lake Forest Park City Council this 8th day of August, 2024.

APPROVED:

Tom French

Tom French (Aug 9, 2024 12:35 PDT)

Thomas French
Mayor

ATTEST/AUTHENTICATED:

Matt McLean

Matt McLean
City Clerk

FILED WITH THE CITY CLERK: August 5, 2024
PASSED BY THE CITY COUNCIL: August 8, 2024
RESOLUTION NO.: 24-1961



DATE: August 1, 2024
TO: Phillip Hill, [City Administrator, City of Lake Forest Park, WA](#)
FROM: Jade Aguilar, ECOnorthwest
SUBJECT: Addendum to Traffic Speed Safety Camera Equity Impact Analysis

ECOnorthwest conducted an equity impact analysis for the City of Lake Forest Park, WA in April 2024. This report evaluated the equity considerations of placing a speed safety camera ("SSC") at the 3300 block of NE 178th Street in accordance with the 2023 Revised Code of Washington (RCW) 46.63.170(1)(d)(ii).

ECOnorthwest's team analyzed the equity impact of the proposed SSC program by answering six high-level equity questions, informed by best practice research and literature, and considering 16 equity targets regarding the decision-making, placement, deployment, and evaluation of Lake Forest Park's proposed SSC. *Of these 16 equity targets, half were met, two targets elevated concerns, and another six are key opportunities for the city to expand its SSC's equitable impact.*

In July 2024, ECOnorthwest received a request from the city to identify and define the geographic extent for which the April 2024 analysis would be pertinent. The city was especially interested in knowing if the findings of the April 2024 analysis applied to the immediate neighborhood around Brookside Elementary School, the school down the road from the originally proposed SSC location.

ECOnorthwest's team evaluated the geographic radius (buffer) for which the April 2024 analysis would remain valid. This analysis took into consideration the demographic characteristics of area as well as the geographic resolution of the data sources used to evaluate the equity impacts in the April 2024 analysis. To that effect, the authors found that the findings of the equity impact analysis are applicable and valid for a 0.5-mile radius around the Brookside

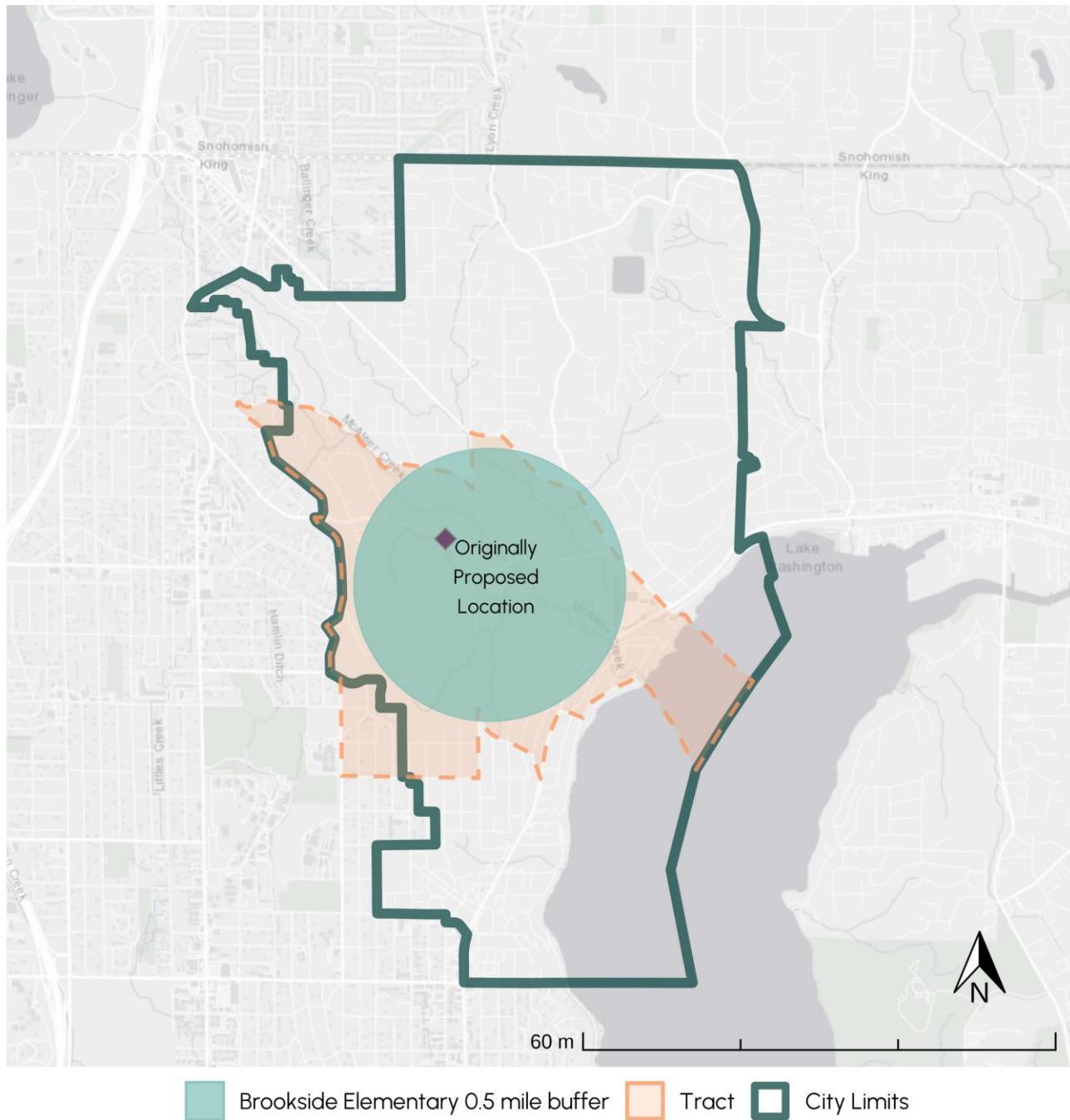


Elementary School.¹ This buffer stays within the census tract that was used as a key geography during the analysis and remains within a neighborhood with a homogenous demographic profile compared to city.

¹ The coordinates used for Brookside Elementary School were (47.75482, -122.29041). The 0.5-mile radius uses these coordinates as the center point of the buffer.



Exhibit 1: Study area with half mile buffer around Brookside Elementary



MEMORANDUM

Date: August 2, 2024 **TG:** 1.18166.21

To: Phillip Hill – City of Lake Forest Park

From: Jon Pascal, PE - Transpo Group

cc: Jeffrey Perrigo, PE – City of Lake Forest Park

Subject: NE 178th Street School Walk Zone Traffic Safety Cameras

The City of Lake Forest Park is proposing school walk zone traffic safety cameras to be located along the NE 178th Street corridor to monitor vehicle speeds throughout the day. The cameras would be operated 24 hours a day and 7 days a week to monitor the 25 mph corridor speed limit, while also continuing to monitor the 20 mph school zone speed limit during the morning and afternoons when Brookside Elementary School is in session. The City has requested a speed and safety analysis to provide an understanding of the existing conditions within the NE 178th Street school walk zone. This memorandum provides a summary of existing vehicle speeds, traffic volumes, crashes, and citations issued by the existing school zone traffic safety cameras and will be used as a basis for monitoring safety performance within the school walk zone.

State Law on Automated Traffic Safety Cameras

State law RCW 46.63.250 allows municipalities to install automated traffic safety cameras in school walk zones to detect speed violations. A “school walk zone” is defined in RCW 46.63.210 (7) as *roadways within a one-mile radius of a school that students use to travel to school by foot, bicycle, or other means of active transportation*. As such, the NE 178th Street corridor from 25th Avenue NE to State Route 104 is defined as being within the school walk zone of Brookside Elementary School. Such a designation allows Lake Forest Park to install automated traffic safety cameras along the corridor to monitor vehicle speeds.

Corridor Description

The NE 178th Street corridor within the City of Lake Forest Park is shown in Figure 1. The figure highlights the location of the existing school zone speed cameras and radar speed feedback signs that are in place along the corridor.

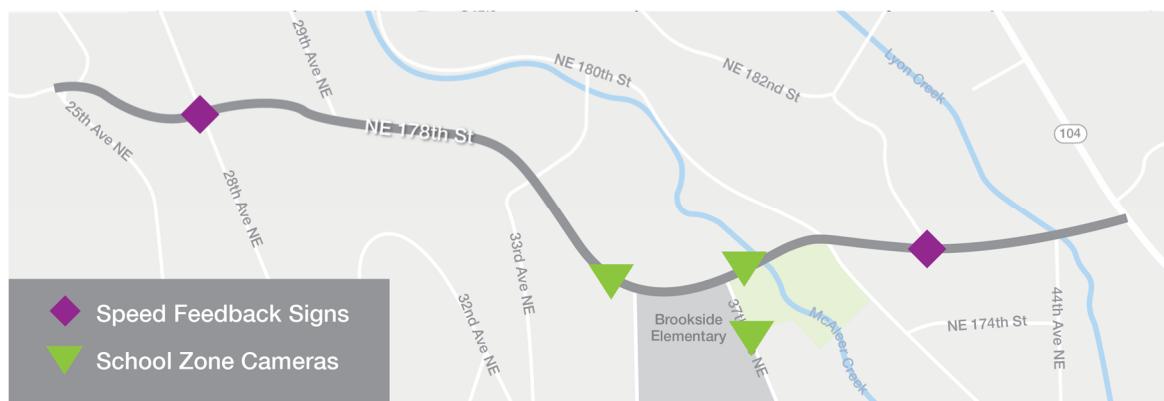


Figure 1. NE 178th Street Corridor with Existing Speed Management Tools

NE 178th Street is a two-lane east-west roadway with a posted speed limit of 25 miles per hour (mph), including a single lane in both eastbound and westbound directions. The roadway is classified as a Minor Arterial by the City of Lake Forest Park based on the adopted Comprehensive Plan.

There is a designated school zone located between 35th Avenue NE and 37th Avenue NE, with speed cameras operating from 7:30 am to 9:30 am and 2:30 pm to 4:30 pm, with a reduced speed limit of 20 mph. Additionally, two speed feedback signs are positioned at the intersections of NE 178th Street and 28th Avenue NE, and NE 178th Street and 40th Avenue NE.

Vehicle Speeds

Speeds for all vehicles were collected along the study corridor at two locations by using the speed feedback signs at the intersection of NE 178th Street and 40th Avenue NE, and the intersection of NE 178th Street and 28th Avenue NE over two months from April to May 2023. The posted speed limit on the corridor during the data collection period was 25 mph.

Key speed indicators include the median speed, 85th percentile speed, 10 mph pace, percent in pace, and percent of vehicles 5 mph over the speed limit. The key indicators are used to help identify if a speeding problem exists and to what extent. The definition and purpose of the speed indicators are described below. Table 1 summarizes the key speed indicators for the study corridor.

Median Speed – The speed in which 50 percent of all traffic is traveling at or below. The statistical median is not typically used in determining the appropriate posted speed limit, but is used as a point of reference in understanding the prevailing conditions. Ideally, the median speeds should be under the posted speed limit.

85th Percentile Speed – The speed in which 85 percent of the traffic is traveling at or below. Typically, the 85th percentile speed should be within 5 to 10 mph of the posted speed.

10 mph Pace – The 10 mph pace is a measure of the range in speeds and is defined as the consecutive 10 mph range containing the highest number of vehicles. Typically, the upper limit of the 10 mph pace should be near the posted speed limit.

Percent in Pace – The percent in pace represents the percentage of all vehicles traveling within the 10 mph pace. It is desirable to have a high percentage of the total number of vehicles in the 10 mph pace.

Percent of Vehicles 5 mph over the Speed Limit – A measure representing the number of vehicles traveling over the posted speed limit by at least 5 mph. This represents the percentage of vehicles that could be the target of automated traffic safety cameras since citations are usually given to vehicles exceeding the speed limit by more than 5 mph.

Table 1. NE 178th Street Speed Data Summary (2023)

| Indicator | Westbound ¹ | Eastbound ² |
|---|------------------------|------------------------|
| Posted Speed Limit (mph) | 25 mph | 25 mph |
| Average Daily Traffic | 2,250 vehicles | 3,655 vehicles |
| Median Speed | 23 mph | 24 mph |
| 85th Percentile Speed | 28 mph | 29 mph |
| 10 mph Pace | 19-29 mph | 20-30 mph |
| % in Pace | 63% | 62% |
| % of Vehicles 5 mph over Speed Limit ³ | 7% | 9% |

1. Data collected in the westbound direction at 40th Avenue NE.

2. Data collected in the eastbound direction at 28th Avenue NE

3. Represents the vehicles exceeding the posted speed limit by at least 5 mph.

As shown in Table 1 the number of vehicles driving at 31 mph or more is about 7 percent of the total daily westbound traffic and 9 percent of the total daily eastbound traffic.

For a more comprehensive understanding of speed distribution within the corridor, Figure 2 and Figure 3 present a summary of speed distribution data gathered from the speed feedback signs. The graphs show the average daily number of vehicles operating in speed ranges of 5 mph.

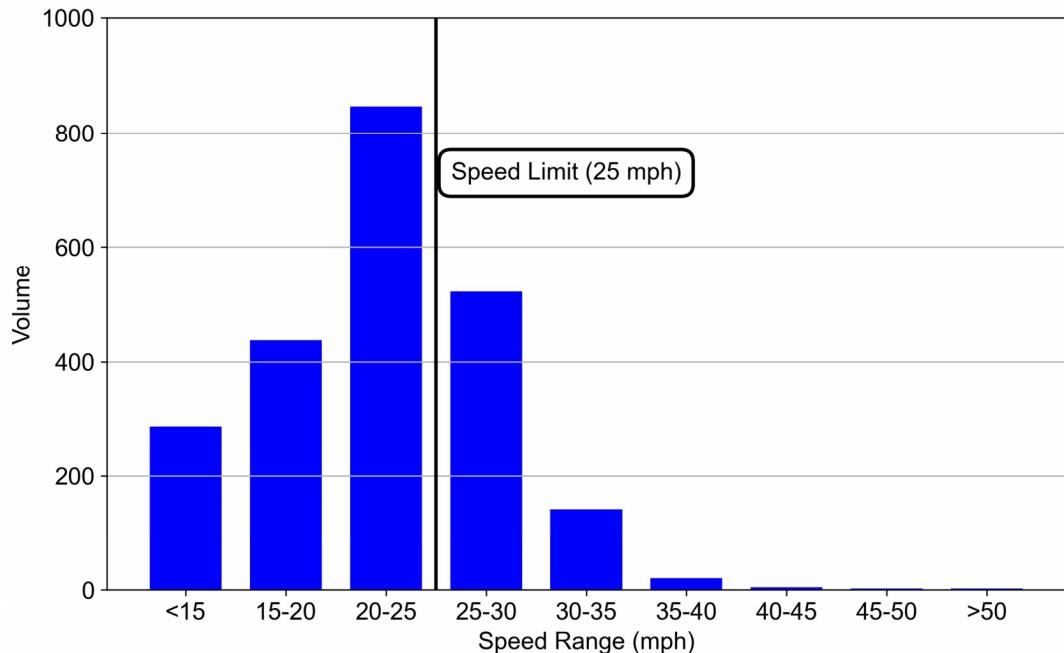


Figure 2 Vehicle Speed Distribution for NE 178th Street at 40th Avenue NE (Westbound)

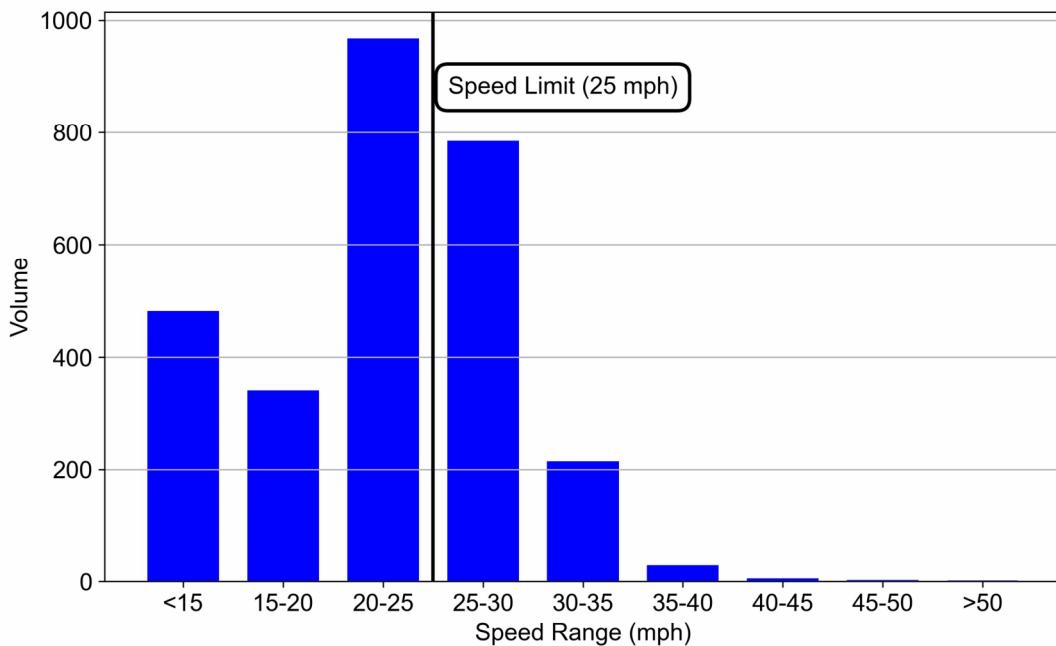


Figure 3 Vehicle Speed Distribution for NE 178th Street at 28th Avenue NE (Eastbound)

The figures highlight that a majority number of vehicles operate at or under 25 mph. However, they also highlight many vehicles continue to exceed the speed limit, specifically in the eastbound direction. The second highest volume of vehicles falls within the speed range of 25 to 30 mph.

Collision Records

Crash records over the most recent complete five-year period were reviewed for the corridor. The crash records are summarized in Table 2. Historical crash data was provided by WSDOT for the period of January 1, 2019 to December 31, 2023.

Table 2. Annual Collision Summary – 2019 to 2023

| Roadway Segment | 2019 | 2020 | 2021 | 2022 | 2023 | Total | Annual Average |
|-----------------|------|------|------|------|------|-------|----------------|
| NE 178th Street | 8 | 1 | 2 | 2 | 1 | 21 | 3.5 |

Source: WSDOT, 2023.

Note: Under 23 U.S. Code § 409 and 23 U.S. Code § 148, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

As shown in Table 2, the corridor experienced an annual average of more than 3 collisions over the last 5-year period, with 21 collisions total along the corridor. The majority of collisions resulted in property damage only, with no fatalities and two injuries over the last 5-year period.

Of the total collisions, six involved improper vehicle movements (improper passing, improper backing, or not granting right-of-way to another vehicle), three involved driver inattention or distraction, and one involved a driver under the influence of alcohol. No collisions involved pedestrians or bicyclists.

School Zone Speed Camera Citations

In addition to the radar speed feedback sign, data for both directions of travel were collected from the school zone speed cameras. The cameras currently operate from 7:30 to 9:30 am and 2:30 to 4:30 pm when school is in session and enforce the 20 mph school zone speed limit. While the cameras record driver speeds continuously, citations are issued during enforcement hours only. The cameras also operate during school early release time periods, which is why some citations are noted during the midday period. The citation data were collected for the most recent year, 2023. The summary of citations issued by each hour of the day is shown in Table 3.

Table 3. School Speed Camera Citations Records by Time of the Day

| Time Period | % of Total Citations | Average Number of School Zone Citations per Hour per Day ¹ | Average Number of School Zone Citations per Hour per Year |
|--------------|----------------------|---|---|
| 7-7:59 AM | 8% | 4 | 607 |
| 8-8:59 AM | 18% | 8 | 1,460 |
| 9-9:59 AM | 14% | 6 | 1,092 |
| 10-10:59 AM | - | - | - |
| 11-11:59 AM | 2% | 1 | 132 |
| 12-12:59 PM | 1% | - | 72 |
| 1-1:59 PM | 4% | 2 | 301 |
| 2-2:59 PM | 15% | 6 | 1,147 |
| 3-3:59 PM | 24% | 11 | 1,925 |
| 4-4:59 PM | 15% | 6 | 1,167 |
| TOTAL | 100% | 44 | 7,903 |

NOTE: 2023 data for both directions

1. Represents the ratio of the average daily citations recorded by time of the day.

Based on the citation records from school zone speed cameras in Table 3, there are on average approximately 44 citations recorded daily, which results in approximately 7,903 citations recorded per year. A higher number of citations is generally observed during the afternoon hours.

Estimated Number of Citations with All-Day Speed Enforcement

Expanding the operating hours of the traffic safety cameras would extend the duration that speeding violations would be captured. To estimate the total number of citations that may be issued with the extended operating hours of the cameras, it was assumed that the proportion of vehicles exceeding the posted speed limit by over 5 mph will remain consistent at approximately 7 percent of total westbound daily traffic and 9 percent for eastbound daily traffic (see Table 1). In addition, vehicle speeds and traffic volumes fluctuate on a daily basis, so a +/- 15 percent range in total citations was assumed. As a result, the number of vehicles receiving citations could fluctuate between 350 to 470 vehicles per day if the camera operating hours are expanded to monitor vehicle speeds 24 hours a day, 7 days per week. Based on the experience of other agencies, it is also expected that vehicle speeds and the number of citations would decrease over time as more drivers become familiar with the cameras.

Key Findings

The key findings of the speed and safety analysis along NE 178th Street are the following:

- **School Walk Zone:** State law RCW 46.63.250 allows municipalities to install automated traffic safety cameras in school walk zones to detect speed violations. The NE 178th Street corridor from 25th Avenue NE to State Route 104 is defined as being within the school walk zone of Brookside Elementary School. Such a designation allows the City to install automated traffic safety cameras along the corridor to monitor vehicle speeds.
- **Vehicle Speeds:** Existing speed data shows a persistent trend of vehicles traveling over the speed limit despite existing speed management tools. While a significant portion of vehicles drive below the posted speed limit, a considerable number of vehicles exceed the speed limit. Records show that approximately 7 percent of vehicles travel over 5 mph above the speed limit in the westbound direction and 9 percent in the eastbound direction.
- **Collision Records:** Over the past five years, the corridor has experienced an average of more than five collisions annually, totaling 21 collisions. While most collisions resulted in property damage only, improper vehicle movements, driver distraction, and exceeding safe speeds were the key contributing factors.
- **Existing School Zone Speed Camera Citations:** With operating hours from 7:30 am to 9:30 am and 2:30 pm to 4:30 pm, and a reduced speed limit to 20 mph, an average of 44 daily citations and 7,903 yearly citations are issued to vehicles traveling at 26 mph or greater.
- **Estimated School Walk Zone Speed Camera Citations:** It is estimated that approximately 350 to 470 citations would be issued per day with cameras monitoring vehicle speeds 24 hours a day, 7 days per week.
- **Monitoring:** The data summarized in this study may be used to monitor changes in vehicle speeds, collisions, and number of citations and track the safety performance of the corridor over time.