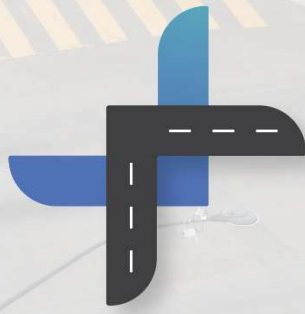




HEATH & ASSOCIATES

Transportation Planning & Engineering

TRAFFIC ASSESSMENT

Fruitland Elementary School

Puyallup, Washington

December 23, 2024

1011 E Main Ave Suite 453 | Puyallup, WA | 98372
(253) 770-1401 | heathtraffic.com

FRUITLAND ELEMENTARY SCHOOL TRAFFIC MEMORANDUM

Prepared for:

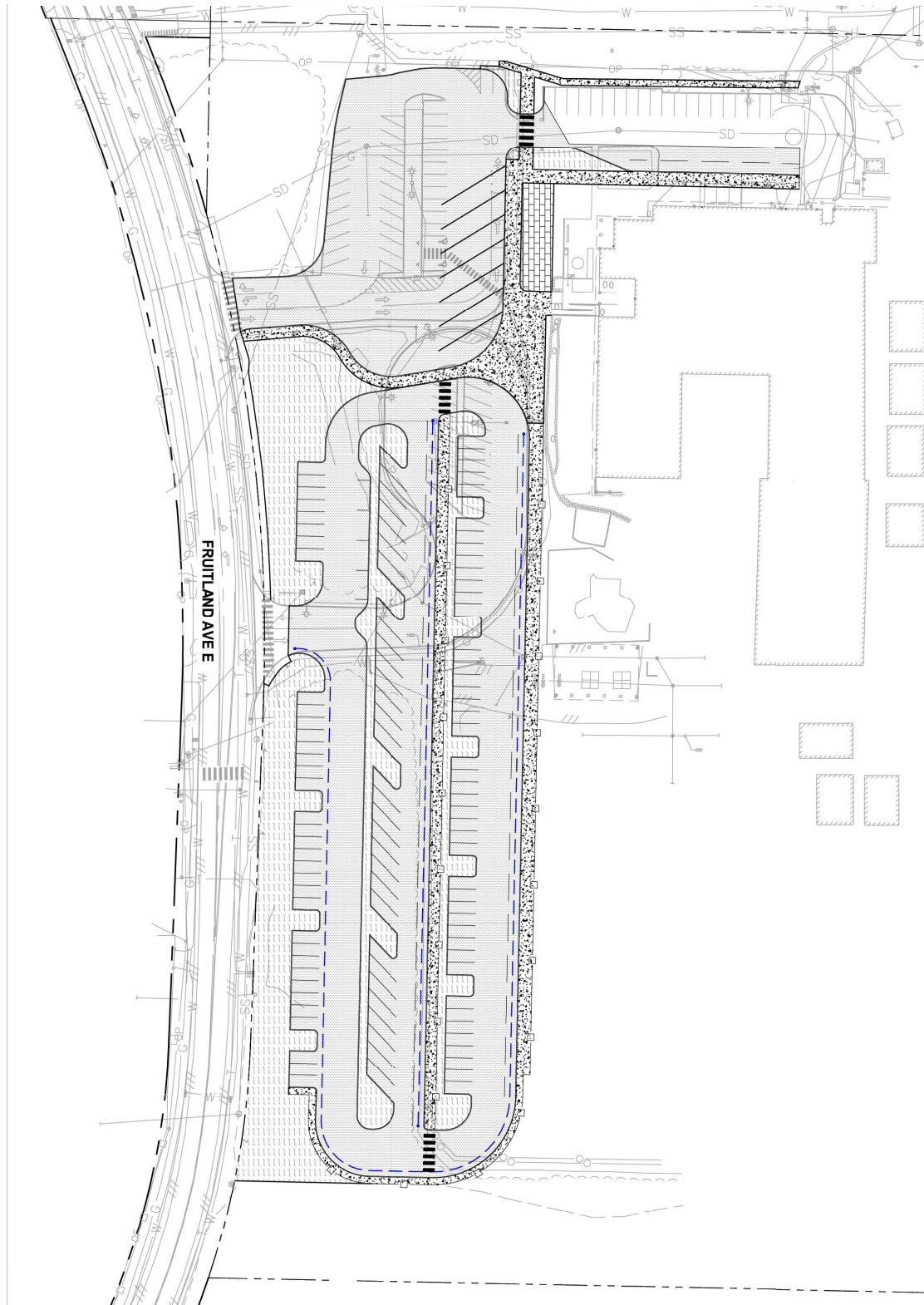
Puyallup School District &
JMJ Team

Prepared by:

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License:





3. EXISTING CONDITIONS

3.1 Existing Street System

The primary roadway serving the project is Fruitland Avenue E.

Fruitland Avenue E: is a north-south, two-to-three-lane minor arterial bordering the subject site to the west. The roadway provides connection to W Pioneer Avenue to the north and to 112th Street E to the south. Along the school frontage, the roadway's cross-section is comprised of a single lane in each direction along with a center two-way left-turn-lane (TWLTL). The posted speed limit is 35 mph paired with 20 mph school zone signage near the site.

3.2 Existing School Peak Hour Volumes

As part of the analysis, cameras were set along Fruitland Avenue when school was in session. The objective was to determine the number of vehicles entering and exiting the school site and to observe the queuing associated with the drop-off and pick-up activity. Observations spanned three consecutive days in October 2024 (Oct. 1st-3rd) and focused on the hours of 7:30 – 9:00 AM and 2:00 – 3:30 PM¹. Cameras were placed at each driveway and along Fruitland Avenue E. Existing turning movement peak hour volumes are shown in **Figures 3-8**. A summary of the volume totals is provided in **Table 1**.

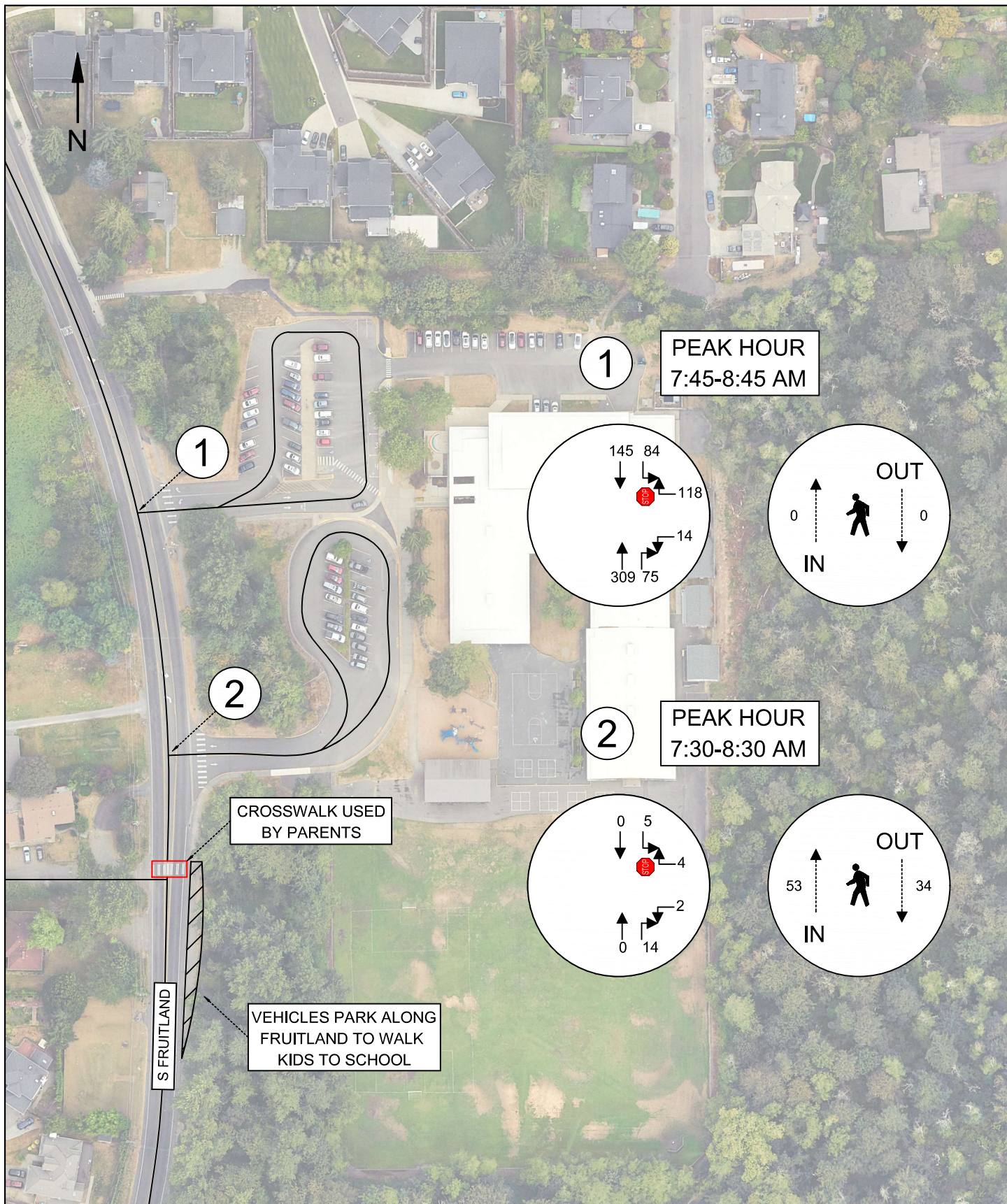
Table 1: Fruitland Elementary Peak Hour Volumes

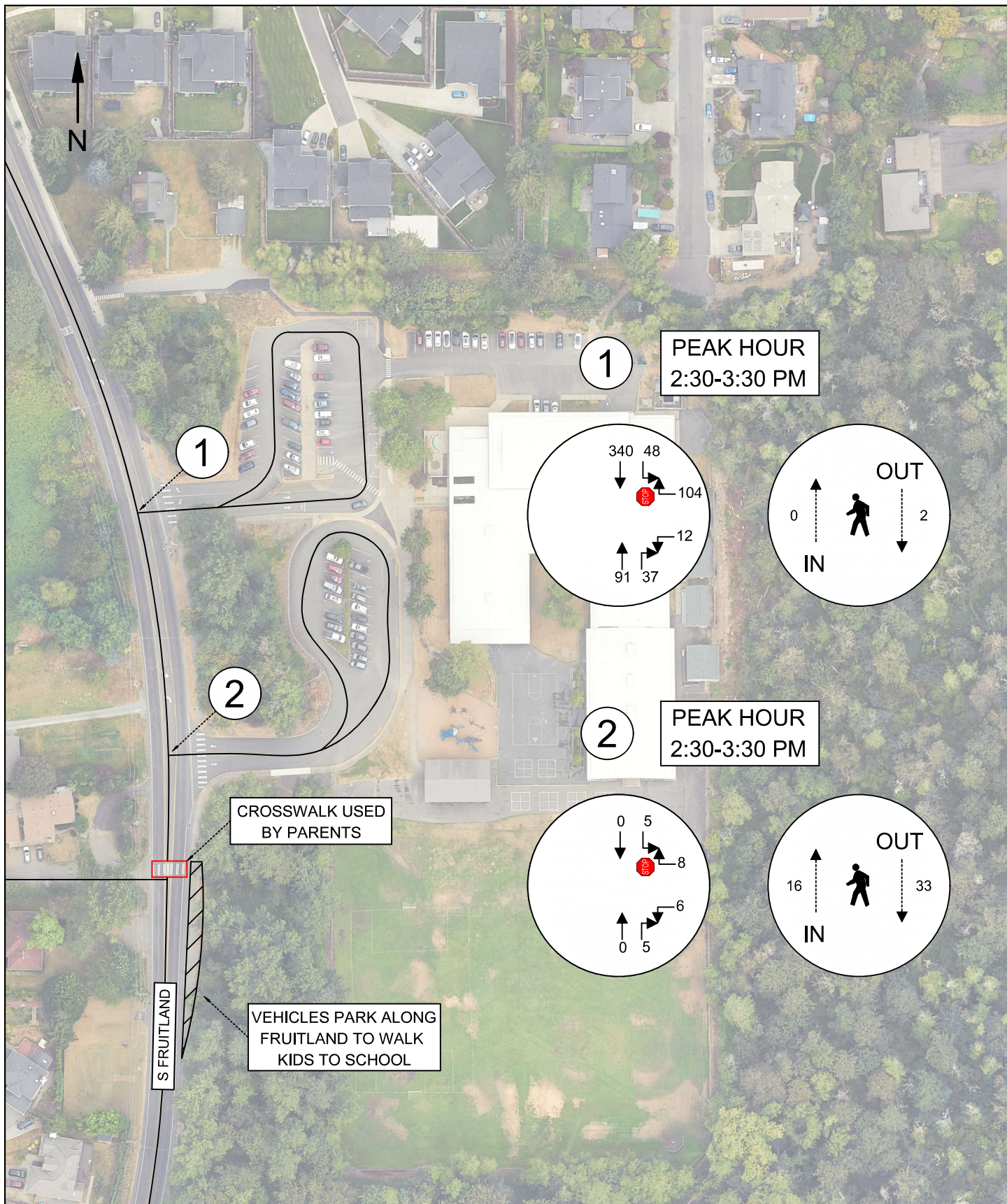
Date	Peak Hour	Inbound Vehicles	Outbound Vehicles	Total
Tuesday, Oct. 1	AM	178	138	316
	PM	95	130	225
Wednesday, Oct. 2	AM	201	163	364
	PM	95	139	234
Thursday, Oct. 3	AM	153	92	245
	PM	90	142	232

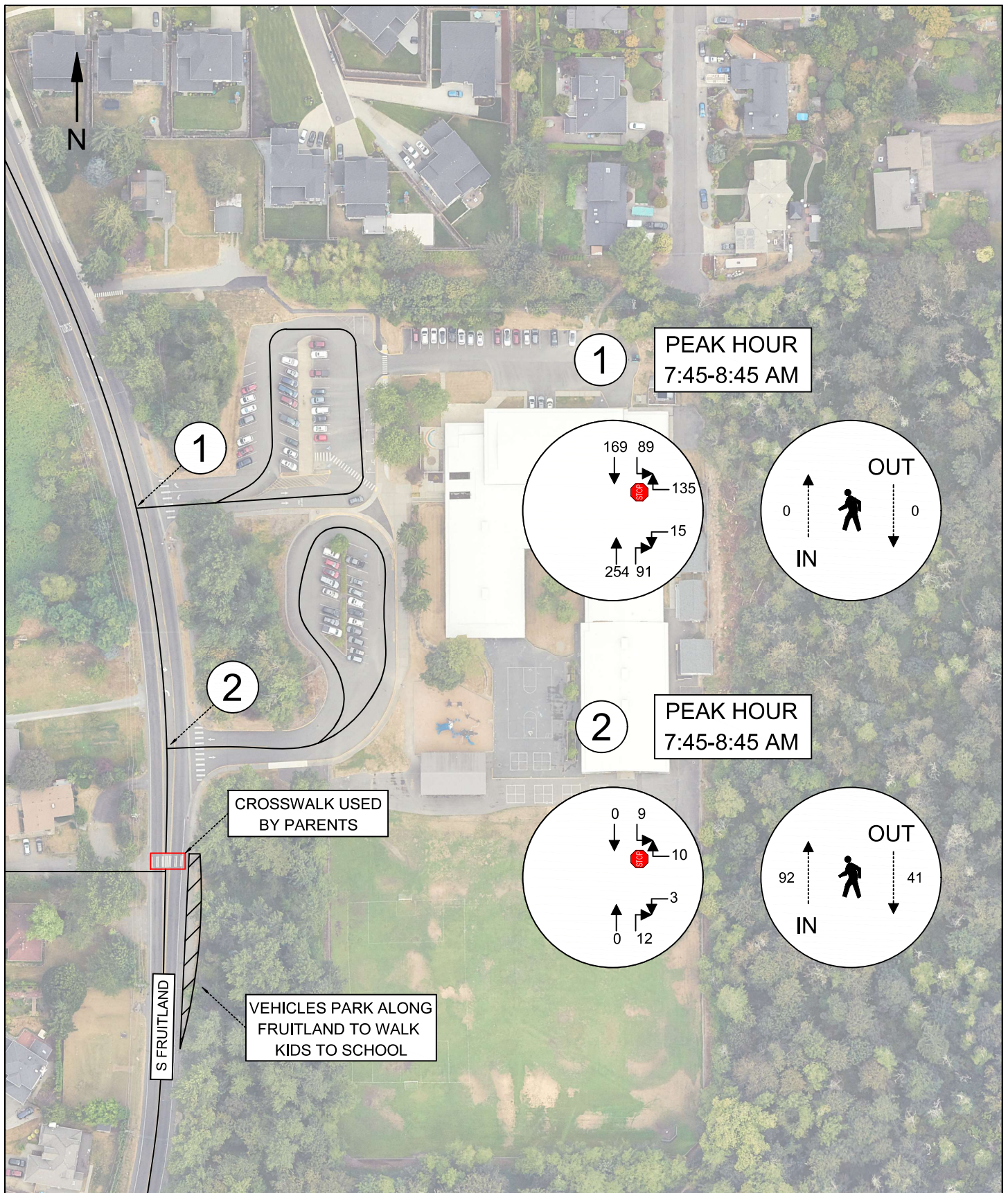
Based on the three-day observations, Wednesday had the highest reported vehicle movements for both the AM and PM peak hours. Also shown in the figures are the number of pedestrians that were recorded. Most of the pedestrian volumes were from parents/guardians parking on the shoulder and walking their child(ren) to and from the school entrance.

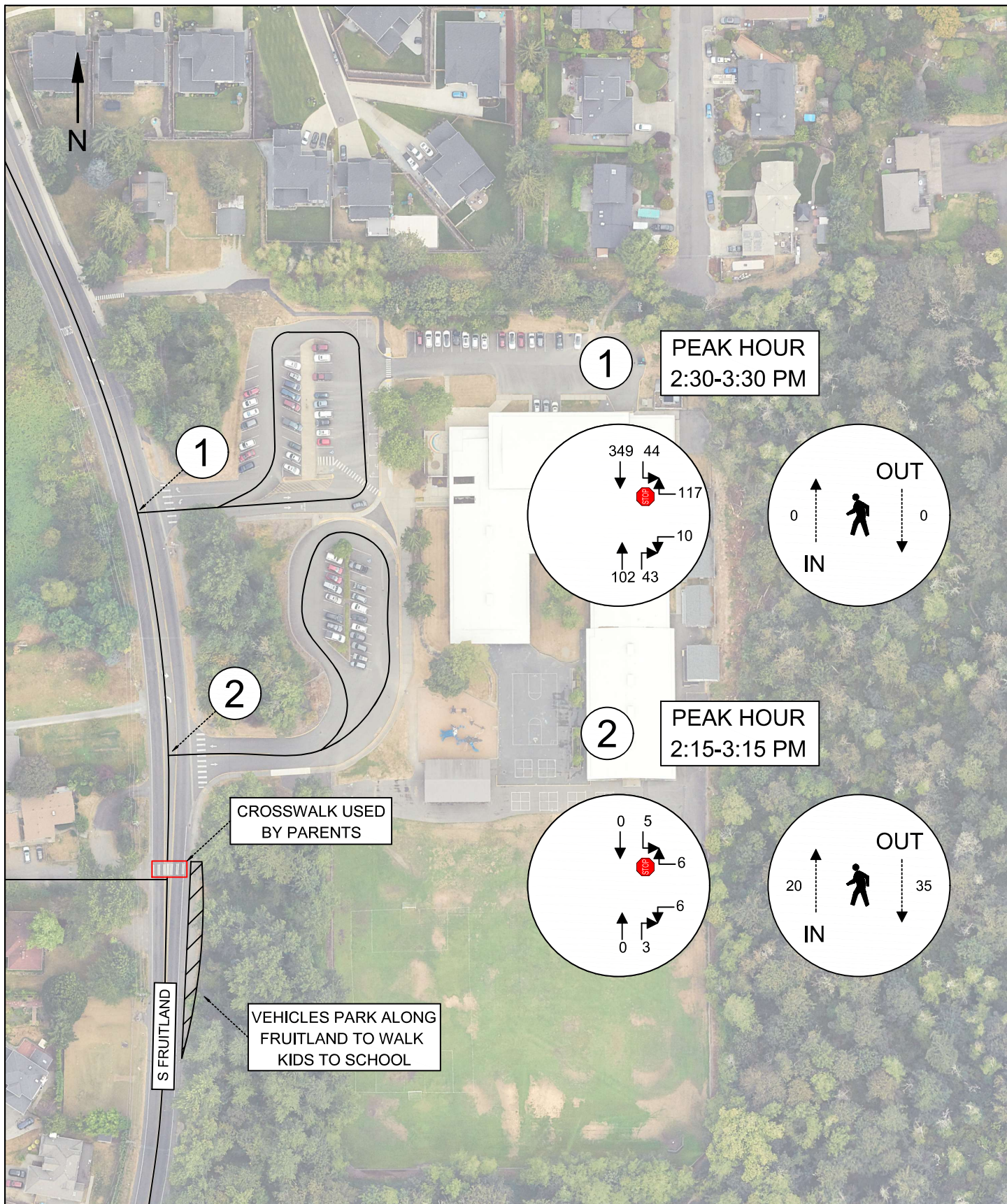
¹ Bell schedule Tuesday-Friday is 8:35 a.m. – 2:56 p.m. Monday is a late start of 9:35 a.m.

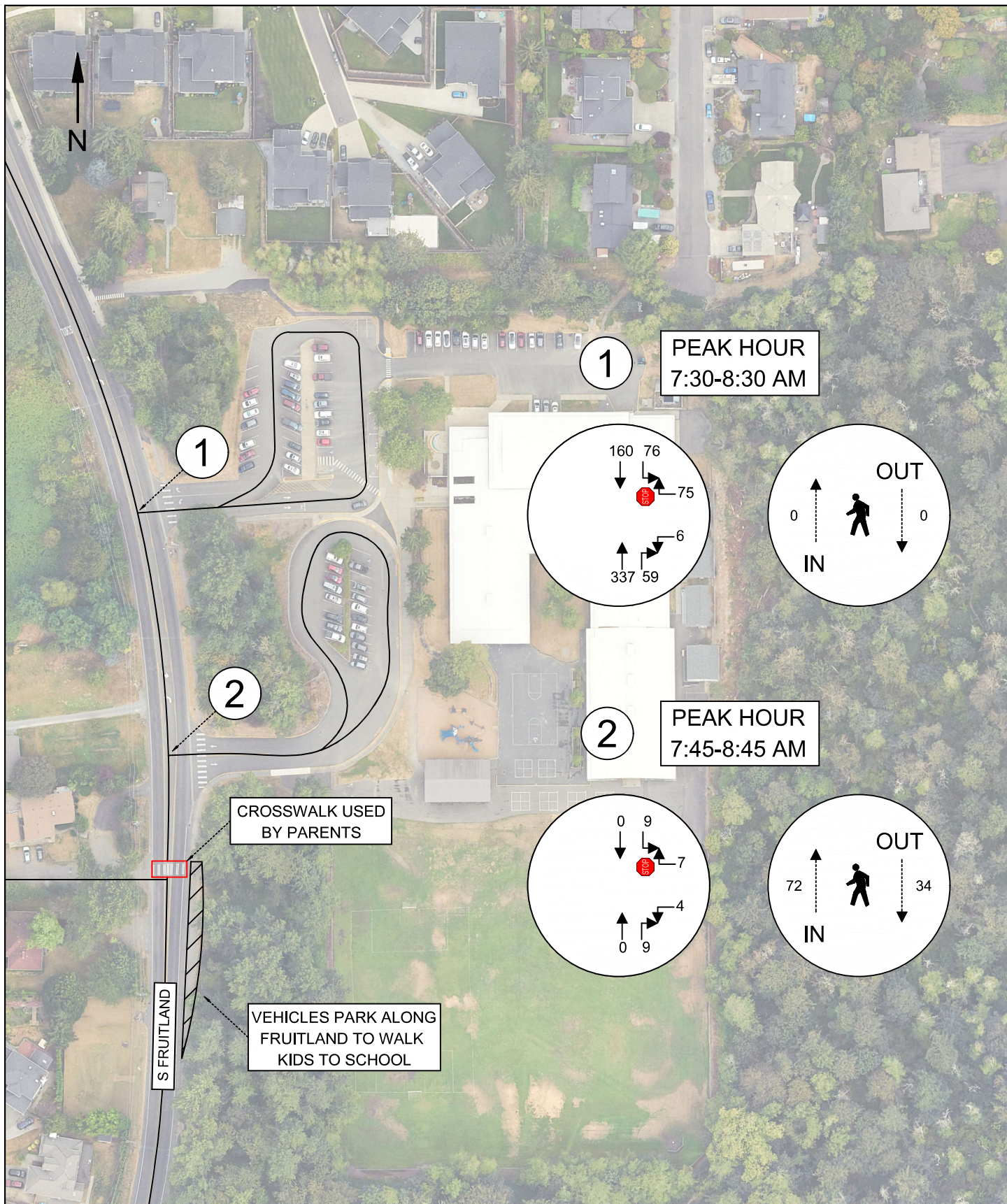


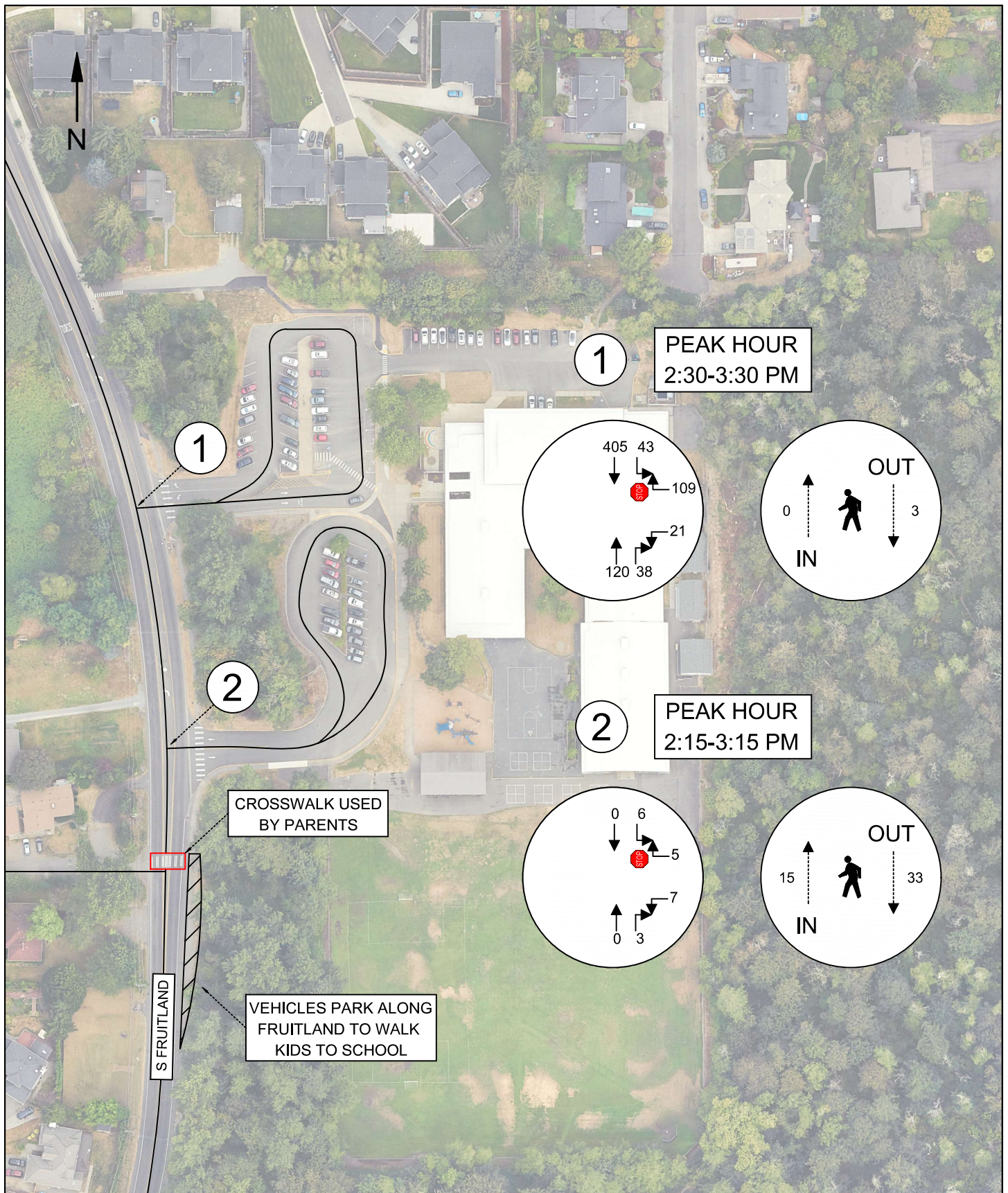












3.3 Existing Queuing

Currently, all pick-up and drop-off activity occurs within the northern parking lot. This area provides only around 300-feet of queuing capacity (~12-13 vehicles). Fruitland Elementary School bell schedule is 8:35 a.m. to 2:56 p.m.² Despite a dismissal bell near 3:00 p.m., vehicles were observed to arrive around 2:00 p.m. The queuing reached capacity between and spilled onto Fruitland Avenue between 2:10-2:25 p.m., depending on the day. The morning had overall less queuing impacts, though spillover onto Fruitland occurred around 8:10 a.m. for all three days.

Figure 9: Existing Queuing Capacity



² Monday is a late start with a 9:35 a.m. schedule.



Overall, the total queue lengths observed along Fruitland Avenue, not including the on-site queuing, were approximately:

- **Day 1:** AM peak – 1,410 feet; PM peak – 2,280 feet
- **Day 2:** AM peak – 2,110 feet; PM peak – 2,320 feet
- **Day 3:** AM peak – 1,520 feet; PM peak – 1,780 feet

Southbound Queues

Vehicles were primarily observed queuing within the center two-way left-turn lane, allowing non-school traffic to bypass the line. However, at times the queue extended approximately 1,100 feet—just beyond 86th Street E—exceeding the storage capacity of the center turn lane. As a result, some blockage occurred in the southbound through lane.

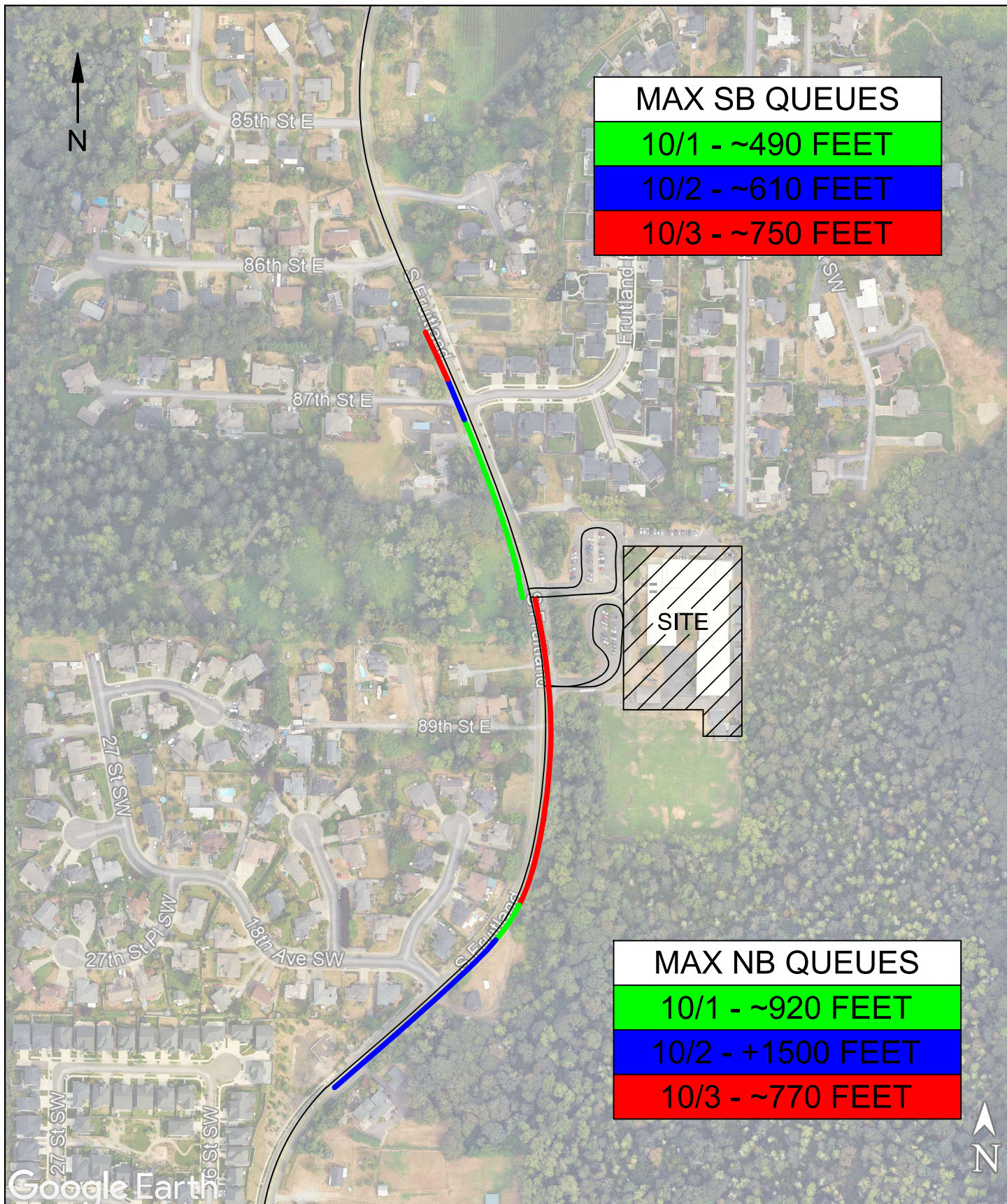
Northbound Queues

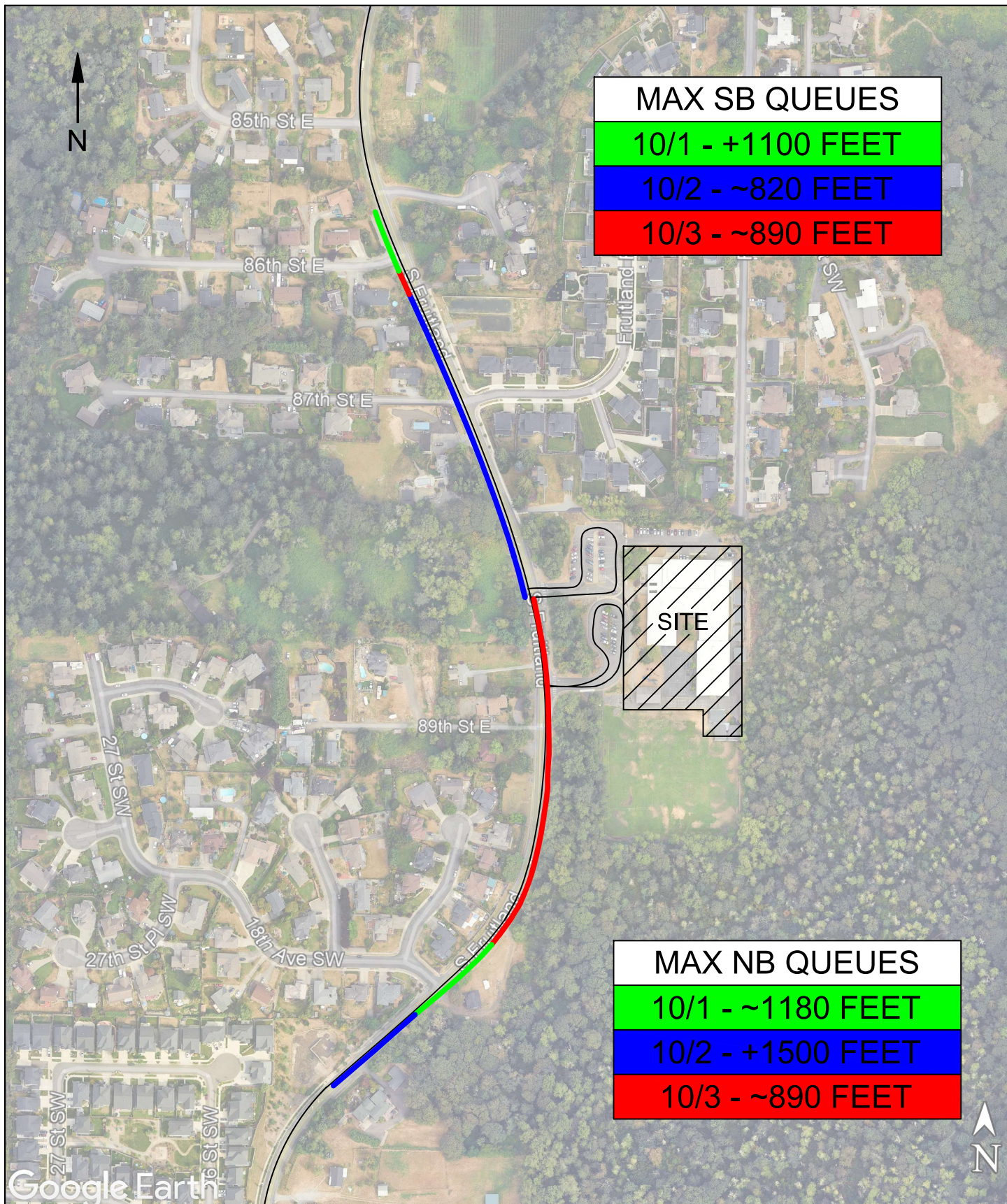
While some vehicles pulled over onto the shoulder, the majority were stored in the northbound through lane, causing blockages for non-school traffic. Northbound queues were longer than southbound queues, reaching a maximum length of approximately 1,500 feet. However, not all vehicles in the queue were associated with school activity. Some drivers were observed making U-turns to leave the queue, entering the two-way left-turn lane to bypass it, or waiting in the queue before continuing northbound, incurring additional delays. Observations indicated that 20-25 vehicles in the peak northbound queue appeared unrelated to the school.

Total Estimated School Queuing Demand

Considering the on-site queue, off-site queue, and non-school-related vehicles, the total estimated queue demand for Fruitland Elementary School is approximately 2,000 to 2,200 feet, equivalent to around 90 to 100 vehicles.







4. FORECAST TRAFFIC DEMAND & ANALYSIS

4.1 New proposed Layout

No changes to the site access locations are proposed. However, the northern loop will be designated for bus loading and staff parking. The southern driveway will feature two queue lanes, divided into separate drive aisles. **Table 2** outlines the key changes in on-site parking and queuing capacities.

Table 2: On-site Capacity Change Summary

Metric	Existing	Proposed³	Increase
Parking	77	131	1.7
Queuing	300'	1580'	5.3

As summarized above, there will be a substantial increase in parking from 77 stalls to 131 stalls and over five times the on-site queuing capacity from 300-feet to 1,580-feet. It should be noted that Fruitland Elementary has had a relatively stable student enrollment and the Puyallup School District is not anticipating any significant increase in the future. Therefore, the observed queuing demands should represent the future conditions.

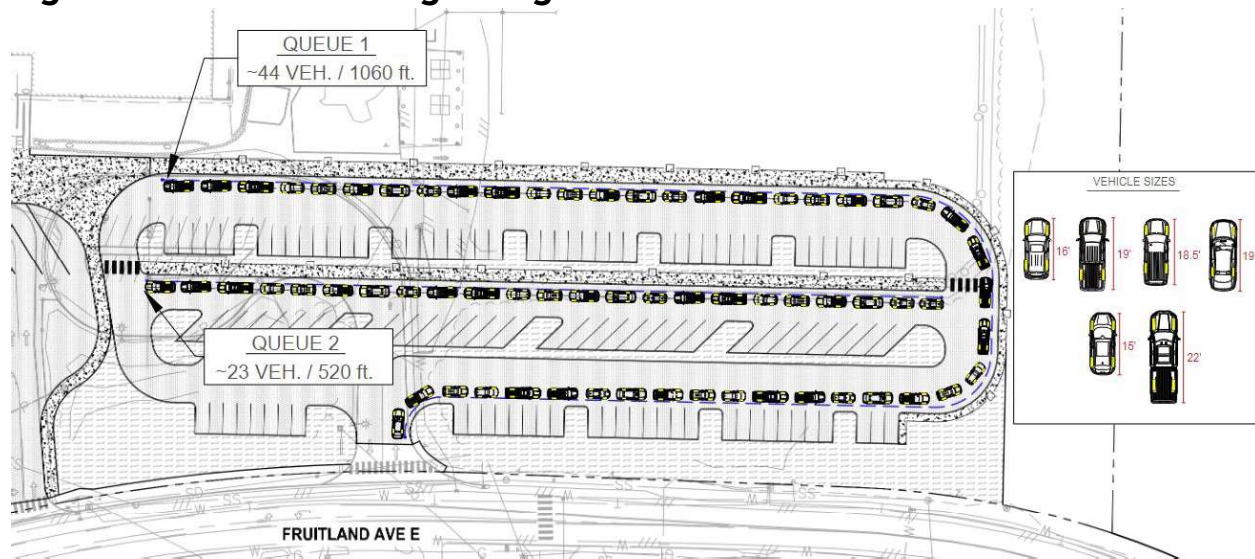
With a 2,200-foot queuing demand, and 1,580-feet of on-site capacity, approximately 620-feet of additional demand would need to be accounted for. This represents between 25-28 vehicles. With a net increase of 54 parking stalls, any excess queues could be accommodated or directed to the parking stalls. However, if no additional parking stalls were to be utilized, the impact to Fruitland Avenue would be significantly shorter in both duration and length.

Spillover onto Fruitland Avenue began around 2:10 p.m. and lasted until approximately 3:05 p.m., totaling 55 minutes. With the new site configuration and increased capacity, and without considering potential improvements in pick-up operations or use of parking stalls, the impact on Fruitland Avenue is expected to decrease by approximately 35 minutes. However, should spillover onto Fruitland is occur it could likely be managed within the southbound center turn lane and the northbound shoulder.

³ Queuing lanes can be used for additional parking for events bringing the total parking count to 199 on-site stalls.



Figure 12: On-Site Queuing Configuration



Illustrated above are 67 vehicles stored on-site in the two queue lanes. The actual number of vehicles in the queue can vary depending on vehicle size and spacing. However, this new configuration represents more than a fivefold increase in capacity compared to existing conditions.

Additionally, the increased parking supply (from 77 to 131 stalls) provides added capacity, allowing some parents to park and walk to pick up their child, which may further reduce queuing demands. The larger drop-off and pick-up area is also expected to enhance operational efficiency. With the ability to load and unload more vehicles simultaneously, the throughput of drop-off and pick-up activities could improve thereby reducing wait times.

5. RECOMMENDATIONS

1. On-site Traffic Management

- Staff can help facilitate traffic flow and ensure that vehicles are directed to the designated queue lanes.
- Staff to assist and ensure safe and quick student loading and unloading to keep from creating a bottleneck.
- With two queue lanes, additional conflict points are present. Therefore, staff should be trained in best pick-up and drop-off practices. Additionally, a crossing guard is recommended at the internal crosswalk between Queue Lane 1 and Queue Lane 2 to facilitate student crossings.



2. **Increase Bus Ridership:** According to the Puyallup School District, around 38% of students use busing. This is down from their peak of 43%.
 - a. More students taking the bus means fewer individual cars to and from the school. This reduces both queuing and congestion.
 - b. Puyallup School District should explore incentive programs that aim to promote bus ridership. For example, a 5% increase in bus ridership could remove around 18 single-occupant vehicle trips in the peak hour.
3. **Promote Carpooling:** Carpooling decreases the number of individual vehicles arriving during student pick-up and drop-off. While not quantified, most pick-ups at Fruitland Elementary appears to be single students.
 - a. Puyallup School District could promote carpooling by facilitating introductions or creating community forums for families who express interest.
 - b. Carpooling can be incentivized through rewards, recognition, priority parking, or other similar measures.
4. **Continued Monitoring:** Fruitland Elementary School should continue to monitor the queuing after implementing the new layout. Should spillover continue to occur, the following strategies could be considered.
 - a. Direct early arrivals to park in a stall as opposed to staging in the queue lanes. With parents arriving close to an hour early, this strategy may discourage parents from arriving too early and would leave additional capacity for the queue lanes.
 - b. Continue to enforce right-turn out only during school pick-up and drop-off. Left-turns create additional driver delay and increase potential conflicts.
 - c. Once the queue reaches capacity and extends onto Fruitland Avenue, staff could direct drivers to continue moving and re-circulate back to the school once the queue has diminished. Although this approach increases vehicle miles traveled, it helps prevent traffic blockages along Fruitland Avenue.

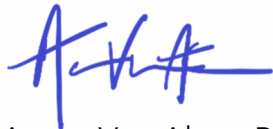


6. CONCLUSIONS & MITIGATION

The proposed redesign of Fruitland Elementary School's parking lot and drop-off/pick-up operations addresses critical issues related to queuing and traffic impacts along Fruitland Avenue E. By increasing on-site queuing capacity more than fivefold and expanding parking availability, the new layout is expected to significantly reduce the extent and duration of spillover onto surrounding streets.

These changes, coupled with operational improvements such as increased staff traffic management, incentivized bus ridership, and promotion of carpooling, aim to improve efficiency, safety, and overall operations during peak traffic periods. Continued monitoring and adaptation of these strategies will be essential to ensure the long-term success of the proposed solutions.

Please feel free to contact me should you have any questions.



Aaron Van Aken, P.E., PTOE
Avanaken@heathtraffic.com



FRUITLAND ELEMENTARY SCHOOL TRAFFIC MEMORANDUM

APPENDIX



Fruitland Elementary Parking
 Pedestrian Counts
 10/1 - 10/3/2024

Pedestrian Volumes (In/Out)		
AM	N Access	S Access
10/1/2024	0/0	53/34
10/2/2024	0/0	92/41
10/3/2024	0/0	72/34

Vehicles were seen to park south of the bus access along S Fruitland, and parents would walk into the site via the curb and in via the bus access.

Pedestrian Volumes (In/Out)		
PM	N Access	S Access
10/1/2024	0/0	16/33
10/2/2024	0/0	20/35
10/3/2024	0/3	15/33

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File Name : 5459c
 Site Code : 00005459
 Start Date : 10/1/2024
 Page No : 1

Groups Printed- Passenger + - Heavy

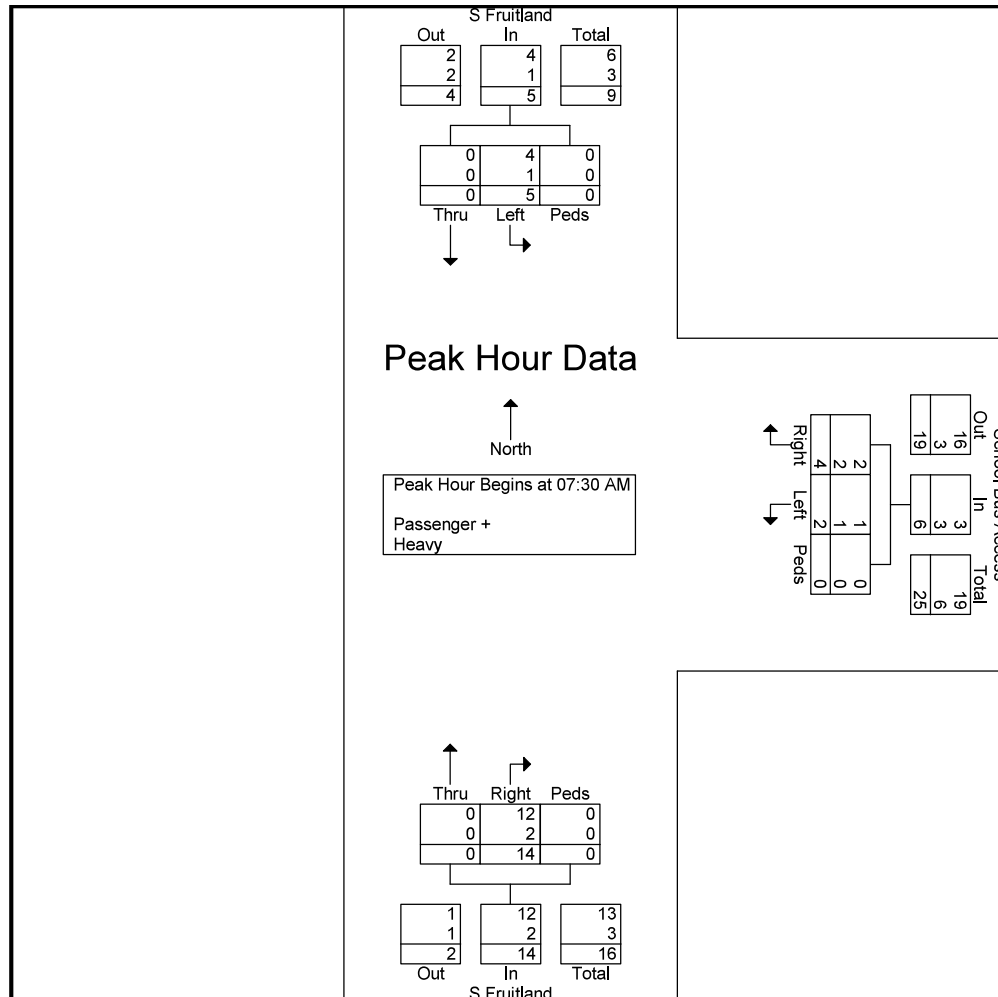
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	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
07:30 AM	0	2	0	2	1	0	0	1	5	0	0	5	8
07:45 AM	0	2	0	2	0	0	0	0	3	0	0	3	5
Total	0	4	0	4	1	0	0	1	8	0	0	8	13
08:00 AM	0	0	0	0	1	0	0	1	4	0	0	4	5
08:15 AM	0	1	0	1	2	2	0	4	2	0	0	2	7
08:30 AM	0	0	0	0	5	0	0	5	0	0	0	0	5
08:45 AM	0	0	0	0	1	1	0	2	1	0	0	1	3
Total	0	1	0	1	9	3	0	12	7	0	0	7	20
Grand Total	0	5	0	5	10	3	0	13	15	0	0	15	33
Apprch %	0	100	0		76.9	23.1	0		100	0	0		
Total %	0	15.2	0	15.2	30.3	9.1	0	39.4	45.5	0	0	45.5	
Passenger +	0	4	0	4	2	1	0	3	12	0	0	12	19
% Passenger +	0	80	0	80	20	33.3	0	23.1	80	0	0	80	57.6
Heavy	0	1	0	1	8	2	0	10	3	0	0	3	14
% Heavy	0	20	0	20	80	66.7	0	76.9	20	0	0	20	42.4

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File Name : 5459c
Site Code : 00005459
Start Date : 10/1/2024
Page No : 2

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Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	0	2	0	2	1	0	0	1	5	0	0	5	8
07:45 AM	0	2	0	2	0	0	0	0	3	0	0	3	5
08:00 AM	0	0	0	0	1	0	0	1	4	0	0	4	5
08:15 AM	0	1	0	1	2	2	0	4	2	0	0	2	7
Total Volume	0	5	0	5	4	2	0	6	14	0	0	14	25
% App. Total	0	100	0		66.7	33.3	0		100	0	0		
PHF	.000	.625	.000	.625	.500	.250	.000	.375	.700	.000	.000	.700	.781
Passenger +	0	4	0	4	2	1	0	3	12	0	0	12	19
% Passenger +	0	80.0	0	80.0	50.0	50.0	0	50.0	85.7	0	0	85.7	76.0
Heavy	0	1	0	1	2	1	0	3	2	0	0	2	6
% Heavy	0	20.0	0	20.0	50.0	50.0	0	50.0	14.3	0	0	14.3	24.0



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File Name : 5459d
 Site Code : 00005459
 Start Date : 10/1/2024
 Page No : 1

Groups Printed- Passenger + - Heavy

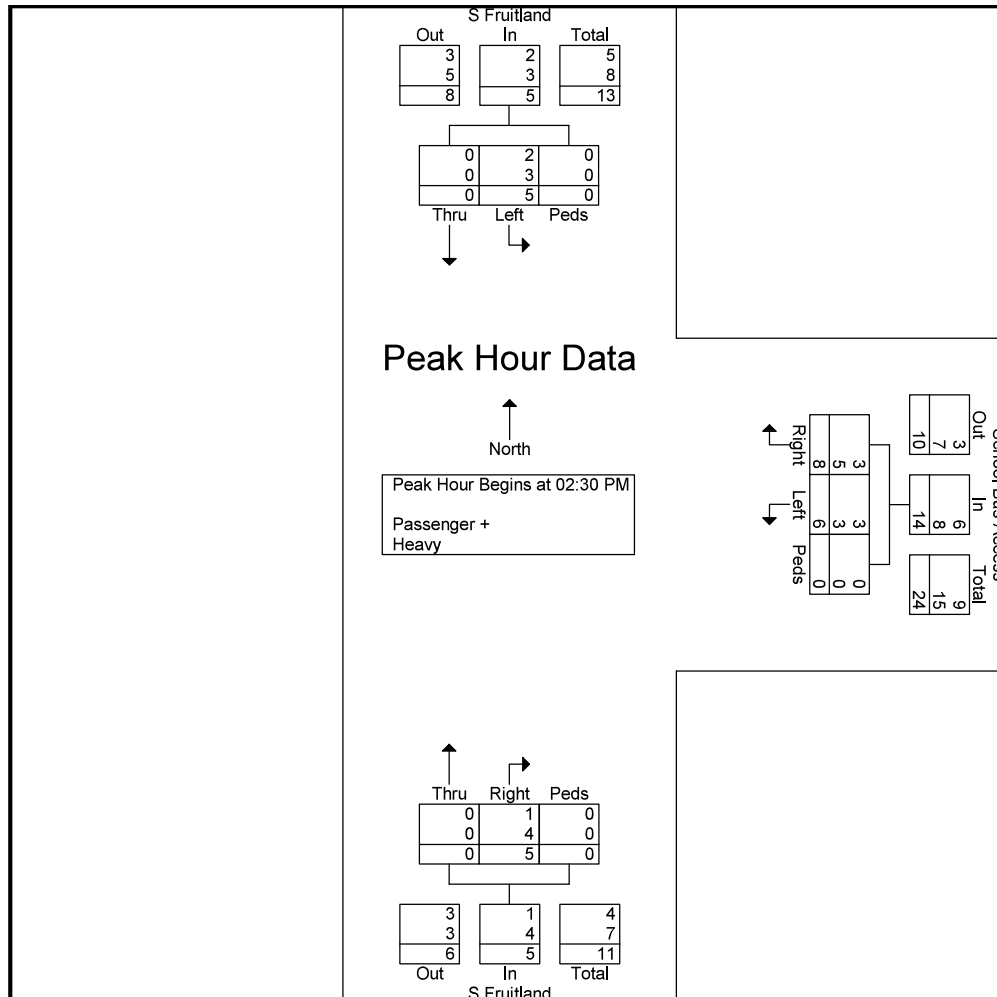
Start Time	S Fruitland Southbound				School Bus Access Westbound				S Fruitland Northbound				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
02:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
02:15 PM	0	2	0	2	0	0	0	0	1	0	0	1	3
02:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
02:45 PM	0	2	0	2	1	1	0	2	4	0	0	4	8
Total	0	5	0	5	2	1	0	3	5	0	0	5	13
03:00 PM	0	2	0	2	4	4	0	8	0	0	0	0	10
03:15 PM	0	0	0	0	3	1	0	4	1	0	0	1	5
Grand Total	0	7	0	7	9	6	0	15	6	0	0	6	28
Apprch %	0	100	0		60	40	0		100	0	0		
Total %	0	25	0	25	32.1	21.4	0	53.6	21.4	0	0	21.4	
Passenger +	0	3	0	3	3	3	0	6	1	0	0	1	10
% Passenger +	0	42.9	0	42.9	33.3	50	0	40	16.7	0	0	16.7	35.7
Heavy	0	4	0	4	6	3	0	9	5	0	0	5	18
% Heavy	0	57.1	0	57.1	66.7	50	0	60	83.3	0	0	83.3	64.3

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File Name : 5459d
Site Code : 00005459
Start Date : 10/1/2024
Page No : 2

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Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:30 PM													
02:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
02:45 PM	0	2	0	2	1	1	0	2	4	0	0	4	8
03:00 PM	0	2	0	2	4	4	0	8	0	0	0	0	10
03:15 PM	0	0	0	0	3	1	0	4	1	0	0	1	5
Total Volume	0	5	0	5	8	6	0	14	5	0	0	5	24
% App. Total	0	100	0		57.1	42.9	0		100	0	0		
PHF	.000	.625	.000	.625	.500	.375	.000	.438	.313	.000	.000	.313	.600
Passenger +	0	2	0	2	3	3	0	6	1	0	0	1	9
% Passenger +	0	40.0	0	40.0	37.5	50.0	0	42.9	20.0	0	0	20.0	37.5
Heavy	0	3	0	3	5	3	0	8	4	0	0	4	15
% Heavy	0	60.0	0	60.0	62.5	50.0	0	57.1	80.0	0	0	80.0	62.5



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File Name : 5459g
 Site Code : 00005459
 Start Date : 10/2/2024
 Page No : 1

Groups Printed- Passenger + - Heavy

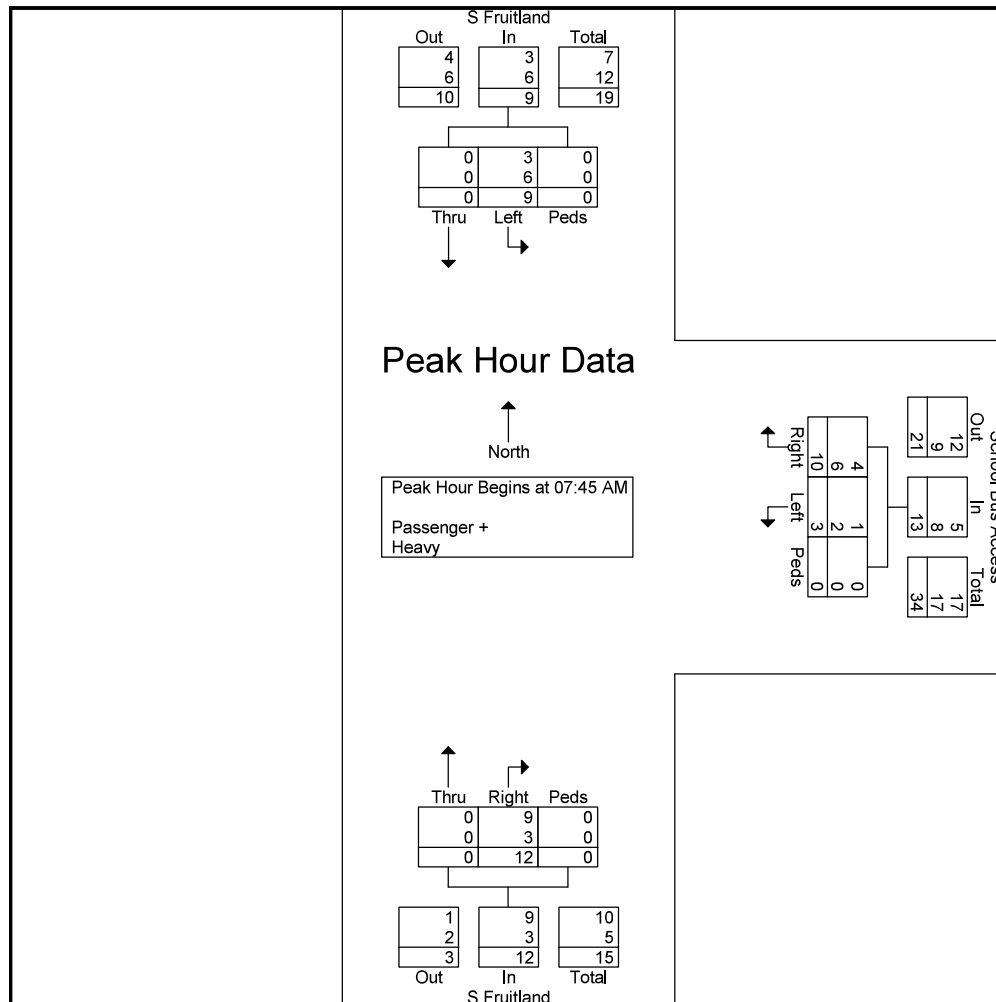
	S Fruitland Southbound				School Bus Access Westbound				S Fruitland Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
07:30 AM	0	0	0	0	0	0	0	0	3	0	0	3	3
07:45 AM	0	3	0	3	0	1	0	1	6	0	0	6	10
Total	0	3	0	3	0	1	0	1	9	0	0	9	13
08:00 AM	0	0	0	0	3	0	0	3	4	0	0	4	7
08:15 AM	0	6	0	6	2	2	0	4	2	0	0	2	12
08:30 AM	0	0	0	0	5	0	0	5	0	0	0	0	5
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	6	0	6	10	2	0	12	6	0	0	6	24
Grand Total	0	9	0	9	10	3	0	13	15	0	0	15	37
Apprch %	0	100	0		76.9	23.1	0		100	0	0		
Total %	0	24.3	0	24.3	27	8.1	0	35.1	40.5	0	0	40.5	
Passenger +	0	3	0	3	4	1	0	5	12	0	0	12	20
% Passenger +	0	33.3	0	33.3	40	33.3	0	38.5	80	0	0	80	54.1
Heavy	0	6	0	6	6	2	0	8	3	0	0	3	17
% Heavy	0	66.7	0	66.7	60	66.7	0	61.5	20	0	0	20	45.9

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File Name : 5459g
Site Code : 00005459
Start Date : 10/2/2024
Page No : 2

	S Fruitland Southbound				School Bus Access Westbound				S Fruitland Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	0	3	0	3	0	1	0	1	6	0	0	6	10
08:00 AM	0	0	0	0	3	0	0	3	4	0	0	4	7
08:15 AM	0	6	0	6	2	2	0	4	2	0	0	2	12
08:30 AM	0	0	0	0	5	0	0	5	0	0	0	0	5
Total Volume	0	9	0	9	10	3	0	13	12	0	0	12	34
% App. Total	0	100	0		76.9	23.1	0		100	0	0		
PHF	.000	.375	.000	.375	.500	.375	.000	.650	.500	.000	.000	.500	.708
Passenger +	0	3	0	3	4	1	0	5	9	0	0	9	17
% Passenger +	0	33.3	0	33.3	40.0	33.3	0	38.5	75.0	0	0	75.0	50.0
Heavy	0	6	0	6	6	2	0	8	3	0	0	3	17
% Heavy	0	66.7	0	66.7	60.0	66.7	0	61.5	25.0	0	0	25.0	50.0



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PO Box 397 Puyallup, WA 98371

File Name : 5459h
 Site Code : 00005459
 Start Date : 10/2/2024
 Page No : 1

Groups Printed- Passenger + - Heavy

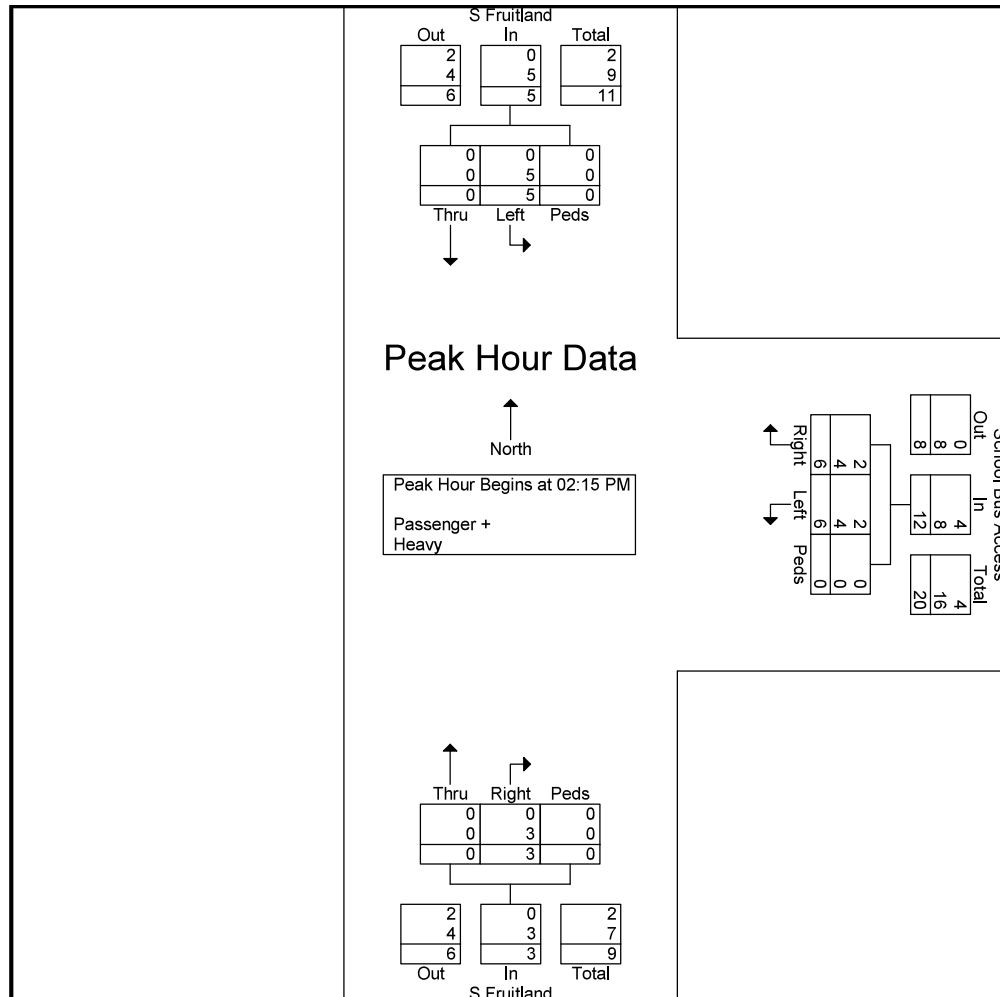
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	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	2	0	2	0	0	0	0	2	0	0	2	4
02:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
02:45 PM	0	1	0	1	0	1	0	1	1	0	0	1	3
Total	0	5	0	5	0	1	0	1	3	0	0	3	9
03:00 PM	0	0	0	0	6	5	0	11	0	0	0	0	11
03:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
Grand Total	0	5	0	5	6	6	0	12	4	0	0	4	21
Apprch %	0	100	0		50	50	0		100	0	0		
Total %	0	23.8	0	23.8	28.6	28.6	0	57.1	19	0	0	19	
Passenger +	0	0	0	0	2	2	0	4	0	0	0	0	4
% Passenger +	0	0	0	0	33.3	33.3	0	33.3	0	0	0	0	19
Heavy	0	5	0	5	4	4	0	8	4	0	0	4	17
% Heavy	0	100	0	100	66.7	66.7	0	66.7	100	0	0	100	81

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File Name : 5459h
 Site Code : 00005459
 Start Date : 10/2/2024
 Page No : 2

	S Fruitland Southbound				School Bus Access Westbound				S Fruitland Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:15 PM													
02:15 PM	0	2	0	2	0	0	0	0	2	0	0	2	4
02:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
02:45 PM	0	1	0	1	0	1	0	1	1	0	0	1	3
03:00 PM	0	0	0	0	6	5	0	11	0	0	0	0	11
Total Volume	0	5	0	5	6	6	0	12	3	0	0	3	20
% App. Total	0	100	0		50	50	0		100	0	0		
PHF	.000	.625	.000	.625	.250	.300	.000	.273	.375	.000	.000	.375	.455
Passenger +	0	0	0	0	2	2	0	4	0	0	0	0	4
% Passenger +	0	0	0	0	33.3	33.3	0	33.3	0	0	0	0	20.0
Heavy	0	5	0	5	4	4	0	8	3	0	0	3	16
% Heavy	0	100	0	100	66.7	66.7	0	66.7	100	0	0	100	80.0



Heath & Associates

PO Box 397 Puyallup, WA 98371

File Name : 5459k
 Site Code : 00005459
 Start Date : 10/3/2024
 Page No : 1

Groups Printed- Passenger + - Heavy

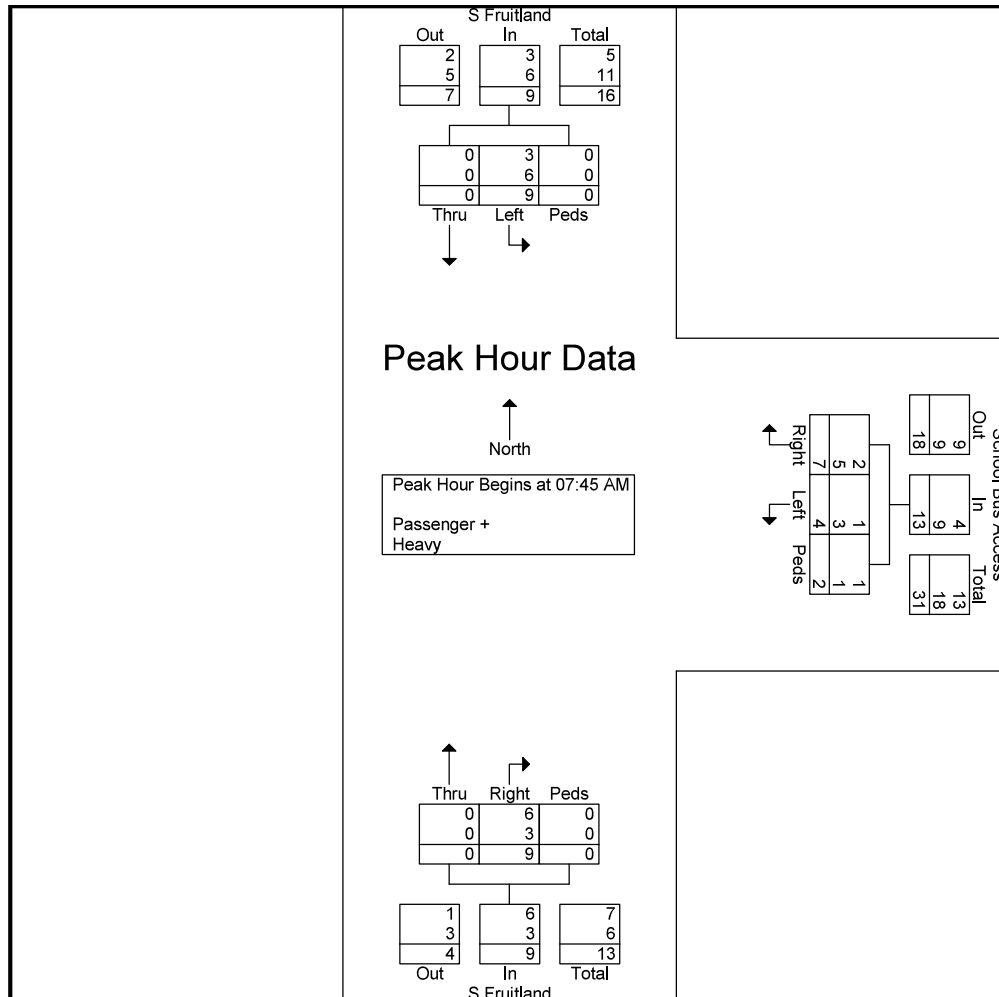
Start Time	S Fruitland Southbound				School Bus Access Westbound				S Fruitland Northbound				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
07:30 AM	0	0	0	0	0	0	0	0	5	0	0	5	5
07:45 AM	0	3	0	3	0	0	0	0	4	0	0	4	7
Total	0	3	0	3	0	0	0	0	9	0	0	9	12
08:00 AM	0	0	0	0	1	0	0	1	3	0	0	3	4
08:15 AM	0	5	0	5	3	2	2	7	2	0	0	2	14
08:30 AM	0	1	0	1	3	2	0	5	0	0	0	0	6
08:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	6	0	6	8	4	2	14	5	0	0	5	25
Grand Total	0	9	0	9	8	4	2	14	14	0	0	14	37
Apprch %	0	100	0		57.1	28.6	14.3		100	0	0		
Total %	0	24.3	0	24.3	21.6	10.8	5.4	37.8	37.8	0	0	37.8	
Passenger +	0	3	0	3	2	1	1	4	11	0	0	11	18
% Passenger +	0	33.3	0	33.3	25	25	50	28.6	78.6	0	0	78.6	48.6
Heavy	0	6	0	6	6	3	1	10	3	0	0	3	19
% Heavy	0	66.7	0	66.7	75	75	50	71.4	21.4	0	0	21.4	51.4

Heath & Associates

PO Box 397 Puyallup, WA 98371

File Name : 5459k
 Site Code : 00005459
 Start Date : 10/3/2024
 Page No : 2

	S Fruitland Southbound				School Bus Access Westbound				S Fruitland Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	0	3	0	3	0	0	0	0	4	0	0	4	7
08:00 AM	0	0	0	0	1	0	0	1	3	0	0	3	4
08:15 AM	0	5	0	5	3	2	2	7	2	0	0	2	14
08:30 AM	0	1	0	1	3	2	0	5	0	0	0	0	6
Total Volume	0	9	0	9	7	4	2	13	9	0	0	9	31
% App. Total	0	100	0		53.8	30.8	15.4		100	0	0		
PHF	.000	.450	.000	.450	.583	.500	.250	.464	.563	.000	.000	.563	.554
Passenger +	0	3	0	3	2	1	1	4	6	0	0	6	13
% Passenger +	0	33.3	0	33.3	28.6	25.0	50.0	30.8	66.7	0	0	66.7	41.9
Heavy	0	6	0	6	5	3	1	9	3	0	0	3	18
% Heavy	0	66.7	0	66.7	71.4	75.0	50.0	69.2	33.3	0	0	33.3	58.1



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PO Box 397 Puyallup, WA 98371

File Name : 5459I
 Site Code : 00005459
 Start Date : 10/3/2024
 Page No : 1

Groups Printed- Passenger + - Heavy

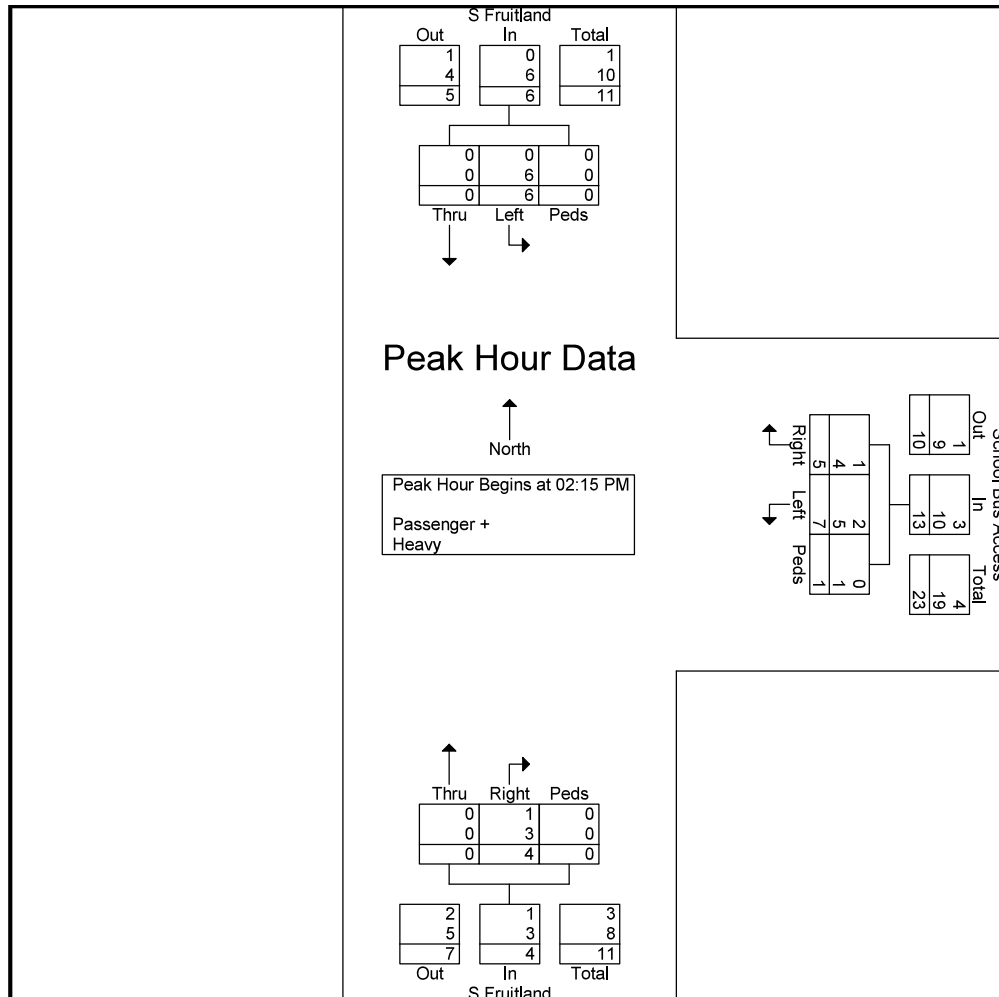
Start Time	S Fruitland Southbound				School Bus Access Westbound				S Fruitland Northbound				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	1	0	1	0	0	0	0	1	0	0	1	2
02:30 PM	0	4	0	4	0	0	0	0	2	0	0	2	6
02:45 PM	0	1	0	1	0	1	1	2	0	0	0	0	3
Total	0	6	0	6	0	1	1	2	3	0	0	3	11
03:00 PM	0	0	0	0	5	6	0	11	1	0	0	1	12
03:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	2
Grand Total	0	6	0	6	5	9	1	15	4	0	0	4	25
Apprch %	0	100	0		33.3	60	6.7		100	0	0		
Total %	0	24	0	24	20	36	4	60	16	0	0	16	
Passenger +	0	0	0	0	1	4	0	5	1	0	0	1	6
% Passenger +	0	0	0	0	20	44.4	0	33.3	25	0	0	25	24
Heavy	0	6	0	6	4	5	1	10	3	0	0	3	19
% Heavy	0	100	0	100	80	55.6	100	66.7	75	0	0	75	76

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PO Box 397 Puyallup, WA 98371

File Name : 5459I
Site Code : 00005459
Start Date : 10/3/2024
Page No : 2

	S Fruitland Southbound				School Bus Access Westbound				S Fruitland Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:15 PM													
02:15 PM	0	1	0	1	0	0	0	0	1	0	0	1	2
02:30 PM	0	4	0	4	0	0	0	0	2	0	0	2	6
02:45 PM	0	1	0	1	0	1	1	2	0	0	0	0	3
03:00 PM	0	0	0	0	5	6	0	11	1	0	0	1	12
Total Volume	0	6	0	6	5	7	1	13	4	0	0	4	23
% App. Total	0	100	0		38.5	53.8	7.7		100	0	0		
PHF	.000	.375	.000	.375	.250	.292	.250	.295	.500	.000	.000	.500	.479
Passenger +	0	0	0	0	1	2	0	3	1	0	0	1	4
% Passenger +	0	0	0	0	20.0	28.6	0	23.1	25.0	0	0	25.0	17.4
Heavy	0	6	0	6	4	5	1	10	3	0	0	3	19
% Heavy	0	100	0	100	80.0	71.4	100	76.9	75.0	0	0	75.0	82.6



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PO Box 397 Puyallup, WA 98371

File Name : 5459a
 Site Code : 00005459
 Start Date : 10/1/2024
 Page No : 1

Groups Printed- Passenger + - Heavy

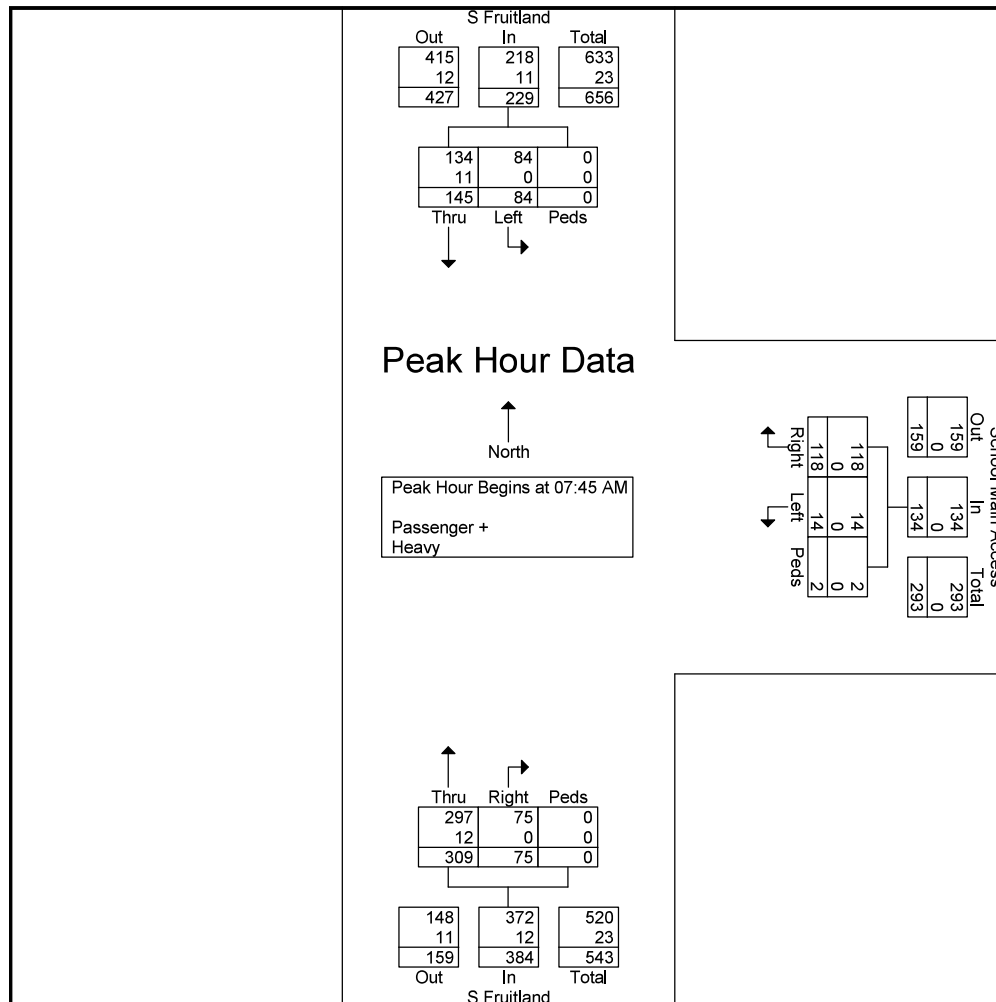
	S Fruitland Southbound				School Main Access Westbound				S Fruitland Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
07:30 AM	38	8	0	46	0	4	0	4	6	134	0	140	190
07:45 AM	26	11	0	37	1	2	0	3	13	119	0	132	172
Total	64	19	0	83	1	6	0	7	19	253	0	272	362
08:00 AM	35	13	0	48	3	0	0	3	9	91	0	100	151
08:15 AM	45	31	0	76	63	1	1	65	33	20	0	53	194
08:30 AM	39	29	0	68	51	11	1	63	20	79	0	99	230
08:45 AM	28	4	0	32	3	2	0	5	2	48	0	50	87
Total	147	77	0	224	120	14	2	136	64	238	0	302	662
Grand Total	211	96	0	307	121	20	2	143	83	491	0	574	1024
Apprch %	68.7	31.3	0		84.6	14	1.4		14.5	85.5	0		
Total %	20.6	9.4	0	30	11.8	2	0.2	14	8.1	47.9	0	56.1	
Passenger +	193	96	0	289	121	20	2	143	82	474	0	556	988
% Passenger +	91.5	100	0	94.1	100	100	100	100	98.8	96.5	0	96.9	96.5
Heavy	18	0	0	18	0	0	0	0	1	17	0	18	36
% Heavy	8.5	0	0	5.9	0	0	0	0	1.2	3.5	0	3.1	3.5

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PO Box 397 Puyallup, WA 98371

File Name : 5459a
 Site Code : 00005459
 Start Date : 10/1/2024
 Page No : 2

	S Fruitland Southbound				School Main Access Westbound				S Fruitland Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	26	11	0	37	1	2	0	3	13	119	0	132	172
08:00 AM	35	13	0	48	3	0	0	3	9	91	0	100	151
08:15 AM	45	31	0	76	63	1	1	65	33	20	0	53	194
08:30 AM	39	29	0	68	51	11	1	63	20	79	0	99	230
Total Volume	145	84	0	229	118	14	2	134	75	309	0	384	747
% App. Total	63.3	36.7	0		88.1	10.4	1.5		19.5	80.5	0		
PHF	.806	.677	.000	.753	.468	.318	.500	.515	.568	.649	.000	.727	.812
Passenger +	134	84	0	218	118	14	2	134	75	297	0	372	724
% Passenger +	92.4	100	0	95.2	100	100	100	100	100	96.1	0	96.9	96.9
Heavy	11	0	0	11	0	0	0	0	0	12	0	12	23
% Heavy	7.6	0	0	4.8	0	0	0	0	0	3.9	0	3.1	3.1



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PO Box 397 Puyallup, WA 98371

File Name : 5459b
 Site Code : 00005459
 Start Date : 10/1/2024
 Page No : 1

Groups Printed- Passenger + - Heavy

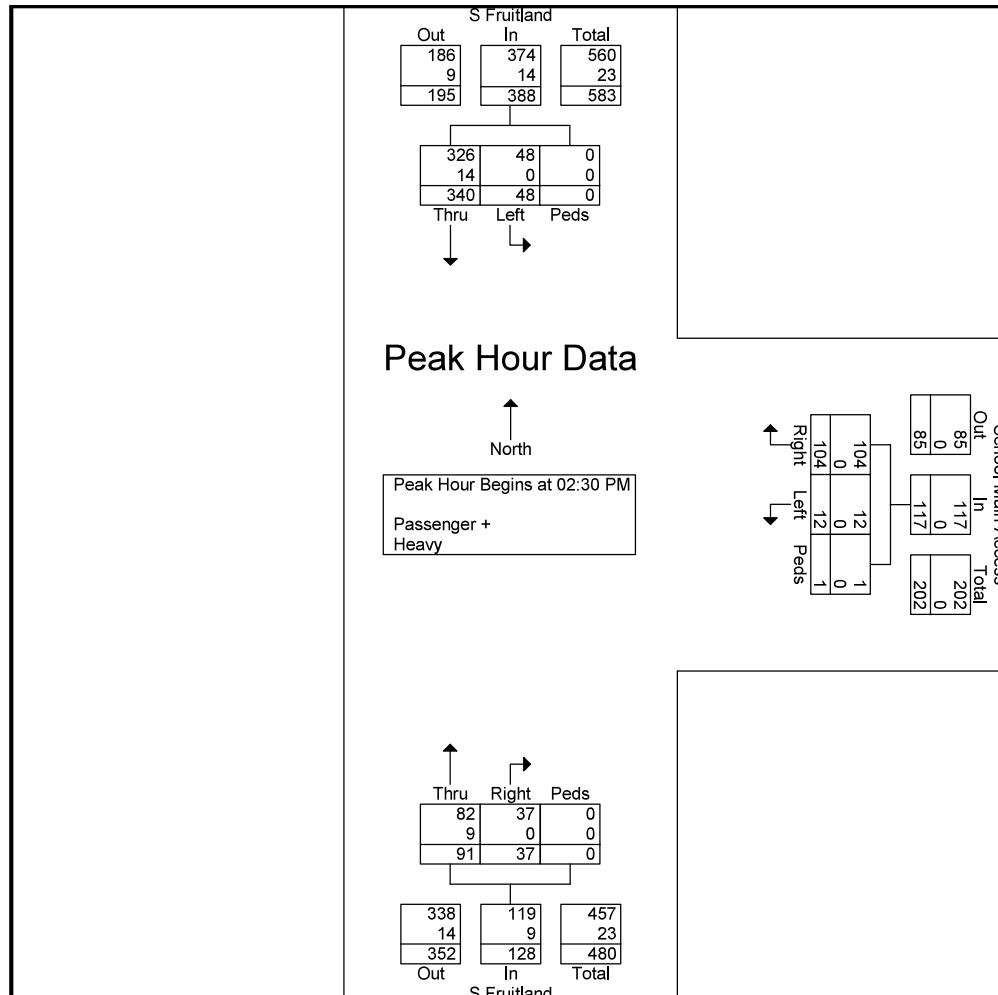
Start Time	S Fruitland Southbound				School Main Access Westbound				S Fruitland Northbound				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
02:00 PM	67	5	0	72	2	0	0	2	0	54	0	54	128
02:15 PM	80	2	0	82	0	1	0	1	1	45	0	46	129
02:30 PM	73	2	0	75	1	0	0	1	0	1	0	1	77
02:45 PM	59	23	0	82	48	0	0	48	22	3	0	25	155
Total	279	32	0	311	51	1	0	52	23	103	0	126	489
03:00 PM	98	22	0	120	53	6	0	59	14	45	0	59	238
03:15 PM	110	1	0	111	2	6	1	9	1	42	0	43	163
Grand Total	487	55	0	542	106	13	1	120	38	190	0	228	890
Apprch %	89.9	10.1	0		88.3	10.8	0.8		16.7	83.3	0		
Total %	54.7	6.2	0	60.9	11.9	1.5	0.1	13.5	4.3	21.3	0	25.6	
Passenger +	468	55	0	523	106	13	1	120	38	174	0	212	855
% Passenger +	96.1	100	0	96.5	100	100	100	100	100	91.6	0	93	96.1
Heavy	19	0	0	19	0	0	0	0	0	16	0	16	35
% Heavy	3.9	0	0	3.5	0	0	0	0	0	8.4	0	7	3.9

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PO Box 397 Puyallup, WA 98371

File Name : 5459b
 Site Code : 00005459
 Start Date : 10/1/2024
 Page No : 2

	S Fruitland Southbound				School Main Access Westbound				S Fruitland Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:30 PM													
02:30 PM	73	2	0	75	1	0	0	1	0	1	0	1	77
02:45 PM	59	23	0	82	48	0	0	48	22	3	0	25	155
03:00 PM	98	22	0	120	53	6	0	59	14	45	0	59	238
03:15 PM	110	1	0	111	2	6	1	9	1	42	0	43	163
Total Volume	340	48	0	388	104	12	1	117	37	91	0	128	633
% App. Total	87.6	12.4	0		88.9	10.3	0.9		28.9	71.1	0		
PHF	.773	.522	.000	.808	.491	.500	.250	.496	.420	.506	.000	.542	.665
Passenger +	326	48	0	374	104	12	1	117	37	82	0	119	610
% Passenger +	95.9	100	0	96.4	100	100	100	100	100	90.1	0	93.0	96.4
Heavy	14	0	0	14	0	0	0	0	0	9	0	9	23
% Heavy	4.1	0	0	3.6	0	0	0	0	0	9.9	0	7.0	3.6



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PO Box 397 Puyallup, WA 98371

File Name : 5459e
 Site Code : 00005459
 Start Date : 10/2/2024
 Page No : 1

Groups Printed- Passenger + - Heavy

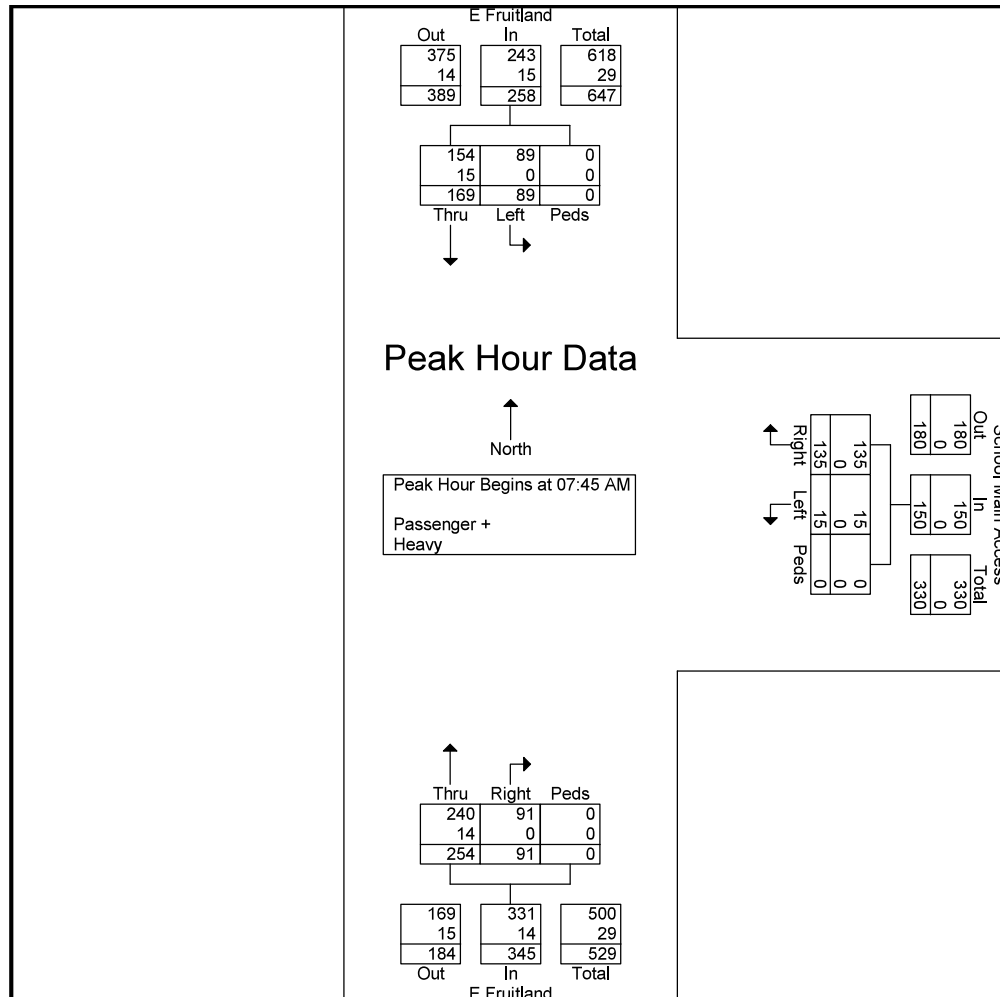
	E Fruitland Southbound				School Main Access Westbound				E Fruitland Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
07:30 AM	38	7	0	45	0	2	0	2	9	111	0	120	167
07:45 AM	41	15	0	56	2	3	0	5	9	100	0	109	170
Total	79	22	0	101	2	5	0	7	18	211	0	229	337
08:00 AM	41	8	0	49	2	2	0	4	11	74	0	85	138
08:15 AM	49	31	0	80	54	1	0	55	31	14	0	45	180
08:30 AM	38	35	0	73	77	9	0	86	40	66	0	106	265
08:45 AM	25	4	0	29	2	8	0	10	6	37	0	43	82
Total	153	78	0	231	135	20	0	155	88	191	0	279	665
Grand Total	232	100	0	332	137	25	0	162	106	402	0	508	1002
Apprch %	69.9	30.1	0		84.6	15.4	0		20.9	79.1	0		
Total %	23.2	10	0	33.1	13.7	2.5	0	16.2	10.6	40.1	0	50.7	
Passenger +	214	100	0	314	137	25	0	162	106	384	0	490	966
% Passenger +	92.2	100	0	94.6	100	100	0	100	100	95.5	0	96.5	96.4
Heavy	18	0	0	18	0	0	0	0	0	18	0	18	36
% Heavy	7.8	0	0	5.4	0	0	0	0	0	4.5	0	3.5	3.6

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PO Box 397 Puyallup, WA 98371

File Name : 5459e
Site Code : 00005459
Start Date : 10/2/2024
Page No : 2

	E Fruitland Southbound				School Main Access Westbound				E Fruitland Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	41	15	0	56	2	3	0	5	9	100	0	109	170
08:00 AM	41	8	0	49	2	2	0	4	11	74	0	85	138
08:15 AM	49	31	0	80	54	1	0	55	31	14	0	45	180
08:30 AM	38	35	0	73	77	9	0	86	40	66	0	106	265
Total Volume	169	89	0	258	135	15	0	150	91	254	0	345	753
% App. Total	65.5	34.5	0		90	10	0		26.4	73.6	0		
PHF	.862	.636	.000	.806	.438	.417	.000	.436	.569	.635	.000	.791	.710
Passenger +	154	89	0	243	135	15	0	150	91	240	0	331	724
% Passenger +	91.1	100	0	94.2	100	100	0	100	100	94.5	0	95.9	96.1
Heavy	15	0	0	15	0	0	0	0	0	14	0	14	29
% Heavy	8.9	0	0	5.8	0	0	0	0	0	5.5	0	4.1	3.9



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PO Box 397 Puyallup, WA 98371

File Name : 5459f
 Site Code : 00005459
 Start Date : 10/2/2024
 Page No : 1

Groups Printed- Passenger + - Heavy

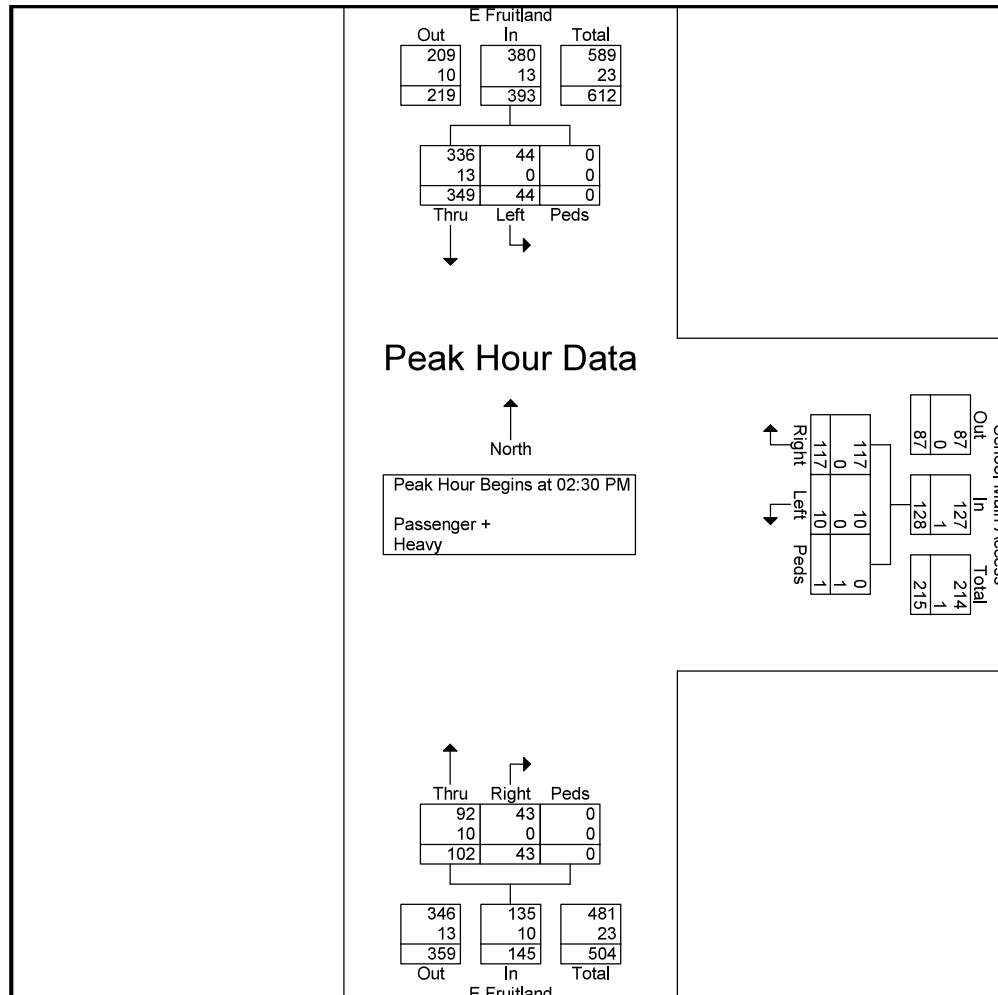
Start Time	E Fruitland Southbound				School Main Access Westbound				E Fruitland Northbound				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
02:00 PM	74	5	0	79	2	1	0	3	5	52	0	57	139
02:15 PM	75	3	0	78	5	1	0	6	1	43	0	44	128
02:30 PM	62	2	0	64	0	0	0	0	0	5	0	5	69
02:45 PM	72	21	0	93	58	0	1	59	23	4	0	27	179
Total	283	31	0	314	65	2	1	68	29	104	0	133	515
03:00 PM	94	21	0	115	53	7	0	60	20	51	0	71	246
03:15 PM	121	0	0	121	6	3	0	9	0	42	0	42	172
Grand Total	498	52	0	550	124	12	1	137	49	197	0	246	933
Apprch %	90.5	9.5	0		90.5	8.8	0.7		19.9	80.1	0		
Total %	53.4	5.6	0	58.9	13.3	1.3	0.1	14.7	5.3	21.1	0	26.4	
Passenger +	480	52	0	532	124	12	0	136	49	180	0	229	897
% Passenger +	96.4	100	0	96.7	100	100	0	99.3	100	91.4	0	93.1	96.1
Heavy	18	0	0	18	0	0	1	1	0	17	0	17	36
% Heavy	3.6	0	0	3.3	0	0	100	0.7	0	8.6	0	6.9	3.9

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File Name : 5459f
 Site Code : 00005459
 Start Date : 10/2/2024
 Page No : 2

	E Fruitland Southbound				School Main Access Westbound				E Fruitland Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:30 PM													
02:30 PM	62	2	0	64	0	0	0	0	0	5	0	5	69
02:45 PM	72	21	0	93	58	0	1	59	23	4	0	27	179
03:00 PM	94	21	0	115	53	7	0	60	20	51	0	71	246
03:15 PM	121	0	0	121	6	3	0	9	0	42	0	42	172
Total Volume	349	44	0	393	117	10	1	128	43	102	0	145	666
% App. Total	88.8	11.2	0		91.4	7.8	0.8		29.7	70.3	0		
PHF	.721	.524	.000	.812	.504	.357	.250	.533	.467	.500	.000	.511	.677
Passenger +	336	44	0	380	117	10	0	127	43	92	0	135	642
% Passenger +	96.3	100	0	96.7	100	100	0	99.2	100	90.2	0	93.1	96.4
Heavy	13	0	0	13	0	0	1	1	0	10	0	10	24
% Heavy	3.7	0	0	3.3	0	0	100	0.8	0	9.8	0	6.9	3.6



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PO Box 397 Puyallup, WA 98371

File Name : 5459i
 Site Code : 00005459
 Start Date : 10/3/2024
 Page No : 1

Groups Printed- Passenger + - Heavy

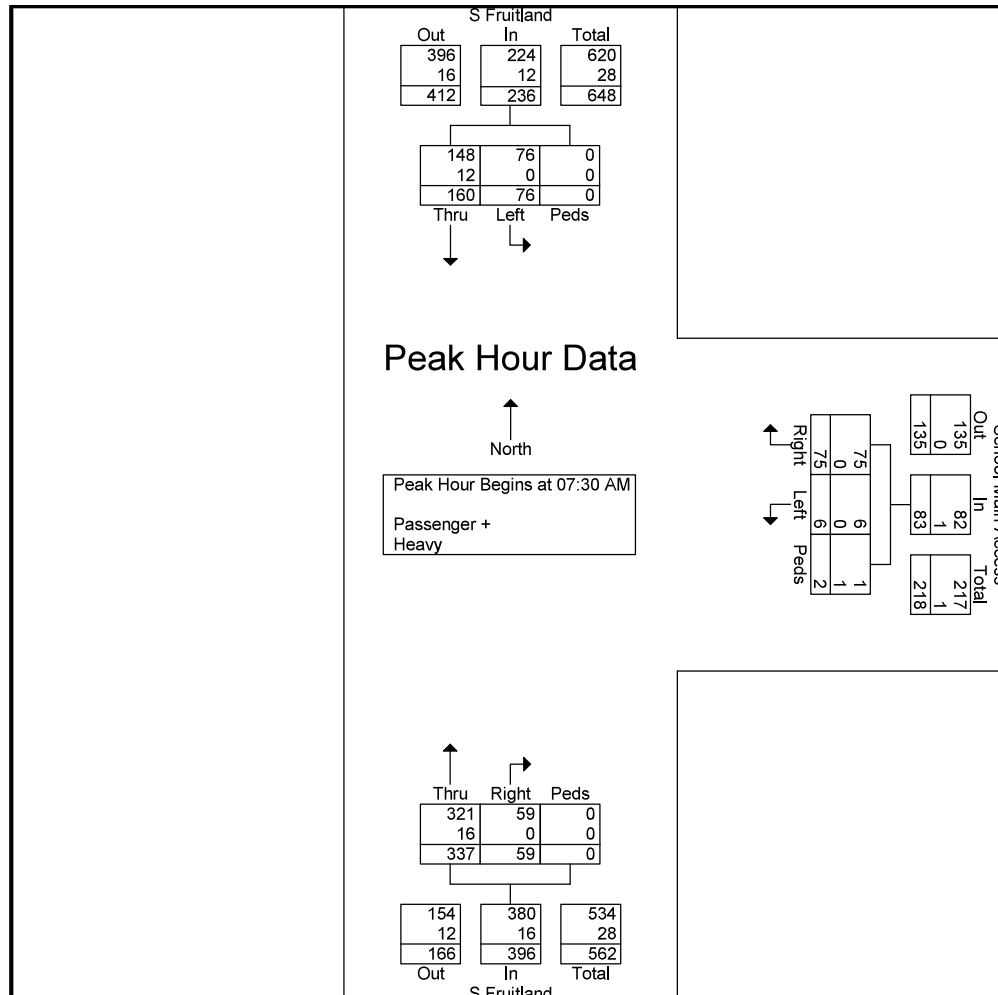
	S Fruitland Southbound				School Main Access Westbound				S Fruitland Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
07:30 AM	41	9	0	50	1	0	0	1	11	124	0	135	186
07:45 AM	45	10	0	55	1	4	0	5	8	105	0	113	173
Total	86	19	0	105	2	4	0	6	19	229	0	248	359
08:00 AM	32	11	0	43	3	1	1	5	15	77	0	92	140
08:15 AM	42	46	0	88	70	1	1	72	25	31	0	56	216
08:30 AM	35	20	0	55	41	10	1	52	21	45	0	66	173
08:45 AM	27	1	0	28	7	1	0	8	2	51	0	53	89
Total	136	78	0	214	121	13	3	137	63	204	0	267	618
Grand Total	222	97	0	319	123	17	3	143	82	433	0	515	977
Apprch %	69.6	30.4	0		86	11.9	2.1		15.9	84.1	0		
Total %	22.7	9.9	0	32.7	12.6	1.7	0.3	14.6	8.4	44.3	0	52.7	
Passenger +	206	97	0	303	123	17	2	142	82	407	0	489	934
% Passenger +	92.8	100	0	95	100	100	66.7	99.3	100	94	0	95	95.6
Heavy	16	0	0	16	0	0	1	1	0	26	0	26	43
% Heavy	7.2	0	0	5	0	0	33.3	0.7	0	6	0	5	4.4

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	S Fruitland Southbound				School Main Access Westbound				S Fruitland Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	41	9	0	50	1	0	0	1	11	124	0	135	186
07:45 AM	45	10	0	55	1	4	0	5	8	105	0	113	173
08:00 AM	32	11	0	43	3	1	1	5	15	77	0	92	140
08:15 AM	42	46	0	88	70	1	1	72	25	31	0	56	216
Total Volume	160	76	0	236	75	6	2	83	59	337	0	396	715
% App. Total	67.8	32.2	0		90.4	7.2	2.4		14.9	85.1	0		
PHF	.889	.413	.000	.670	.268	.375	.500	.288	.590	.679	.000	.733	.828
Passenger +	148	76	0	224	75	6	1	82	59	321	0	380	686
% Passenger +	92.5	100	0	94.9	100	100	50.0	98.8	100	95.3	0	96.0	95.9
Heavy	12	0	0	12	0	0	1	1	0	16	0	16	29
% Heavy	7.5	0	0	5.1	0	0	50.0	1.2	0	4.7	0	4.0	4.1



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 Site Code : 00005459
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Groups Printed- Passenger + - Heavy

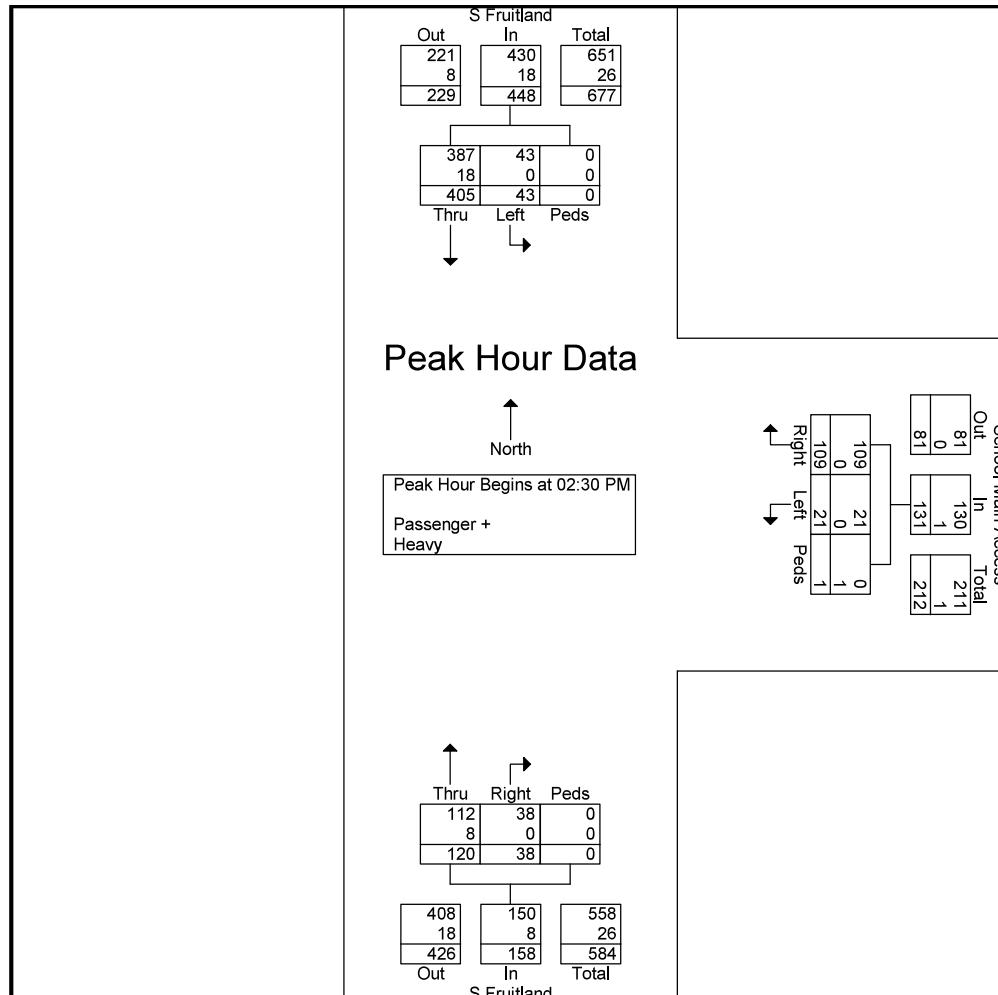
Start Time	S Fruitland Southbound				School Main Access Westbound				S Fruitland Northbound				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
02:00 PM	90	6	0	96	1	1	0	2	4	52	0	56	154
02:15 PM	81	8	0	89	1	1	0	2	5	38	0	43	134
02:30 PM	95	1	0	96	0	0	0	0	0	9	0	9	105
02:45 PM	75	24	0	99	65	0	1	66	26	11	0	37	202
Total	341	39	0	380	67	2	1	70	35	110	0	145	595
03:00 PM	105	18	0	123	36	12	0	48	10	46	0	56	227
03:15 PM	130	0	0	130	8	9	0	17	2	54	0	56	203
Grand Total	576	57	0	633	111	23	1	135	47	210	0	257	1025
Apprch %	91	9	0		82.2	17	0.7		18.3	81.7	0		
Total %	56.2	5.6	0	61.8	10.8	2.2	0.1	13.2	4.6	20.5	0	25.1	
Passenger +	553	57	0	610	111	23	0	134	47	201	0	248	992
% Passenger +	96	100	0	96.4	100	100	0	99.3	100	95.7	0	96.5	96.8
Heavy	23	0	0	23	0	0	1	1	0	9	0	9	33
% Heavy	4	0	0	3.6	0	0	100	0.7	0	4.3	0	3.5	3.2

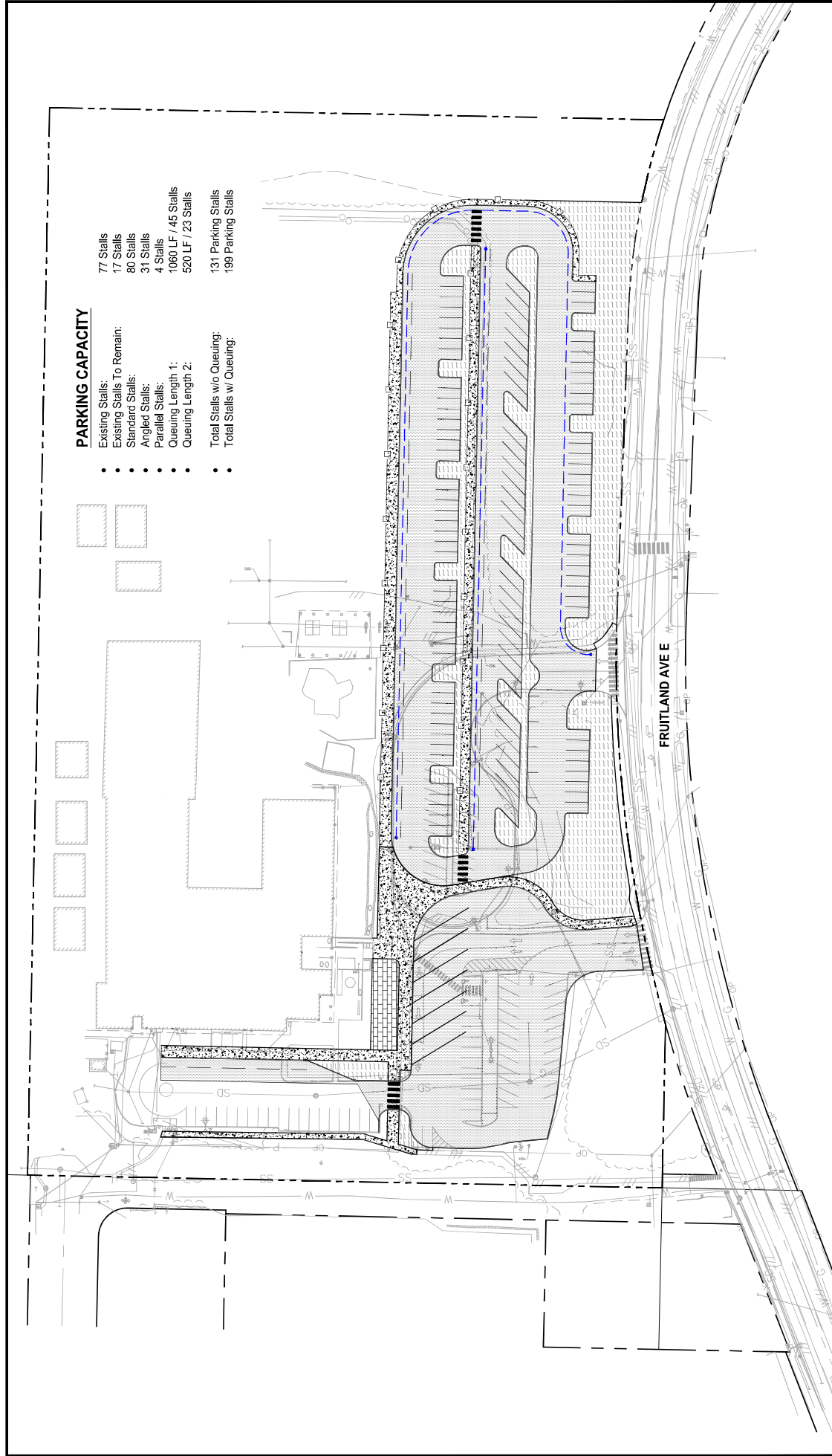
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File Name : 5459j
 Site Code : 00005459
 Start Date : 10/3/2024
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	S Fruitland Southbound				School Main Access Westbound				S Fruitland Northbound				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:30 PM													
02:30 PM	95	1	0	96	0	0	0	0	0	9	0	9	105
02:45 PM	75	24	0	99	65	0	1	66	26	11	0	37	202
03:00 PM	105	18	0	123	36	12	0	48	10	46	0	56	227
03:15 PM	130	0	0	130	8	9	0	17	2	54	0	56	203
Total Volume	405	43	0	448	109	21	1	131	38	120	0	158	737
% App. Total	90.4	9.6	0		83.2	16	0.8		24.1	75.9	0		
PHF	.779	.448	.000	.862	.419	.438	.250	.496	.365	.556	.000	.705	.812
Passenger +	387	43	0	430	109	21	0	130	38	112	0	150	710
% Passenger +	95.6	100	0	96.0	100	100	0	99.2	100	93.3	0	94.9	96.3
Heavy	18	0	0	18	0	0	1	1	0	8	0	8	27
% Heavy	4.4	0	0	4.0	0	0	100	0.8	0	6.7	0	5.1	3.7





DATE: Dec 05, 2024 FILE: Site Plan Concept



Fruitland Elementary Proposed Site Plan Figure #2 12-6-24