



Thunderbird Elementary

Year 1 Initial Report

School Active Travel Planning

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1 School Active Travel Planning

In 2017, Thunderbird Elementary School (Thunderbird) began the City of Vancouver's School Active Travel Planning (SATP) program. This program is a partnership between the City and the Vancouver School Board.

The SATP program encourages and promotes walking and cycling to school. The program's focus is to:

- Improve the safety and comfort of walking and cycling infrastructure around schools
- Increase education and awareness around active travel

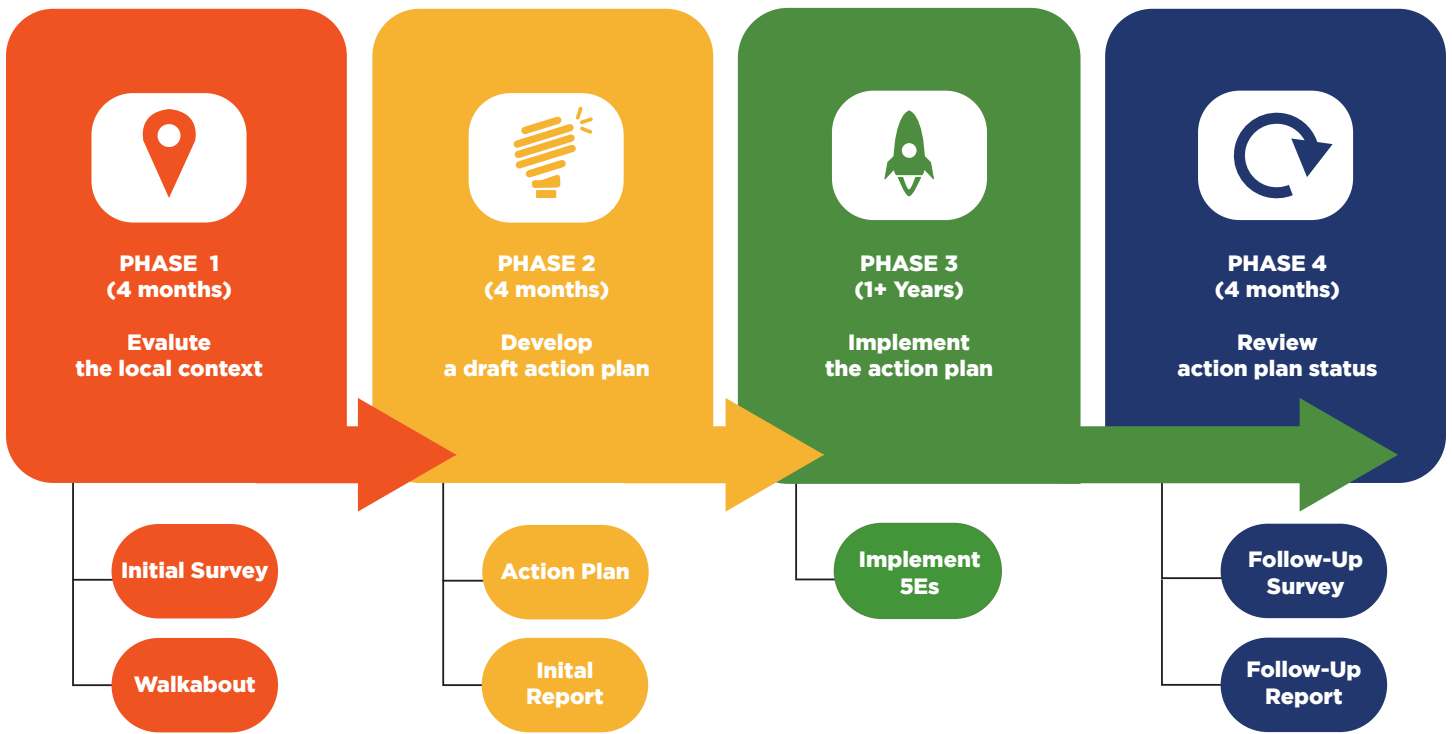
The program is supported by the City of Vancouver's long-range Transportation 2040 Plan which includes policies to support the encouragement, promotion and education of sustainable travel in school and to move towards zero traffic fatalities and serious injuries. Transportation 2040 also sets a target that at least two-thirds of all trips will be made by foot, bike, and transit.

The SATP program is a community-based model for implementing school travel planning. Known collectively as the 5E's, the program takes a comprehensive approach to support active and sustainable travel to and from school. The 5Es are:

- **Evaluation:** Collect information to understand context and monitor changes.
- **Engineering:** Improve infrastructure near the school.
- **Enforcement:** Increase compliance with traffic laws and parking regulations.
- **Education:** Change perceptions of active travel and support programs to improve safety and reduce conflicts between modes.
- **Encouragement:** Promote active travel as a fun, easy and exciting way to get to school.

The SATP process is defined by four phases of implementation over two to three years (see Figure 1).

Figure 1. School Active Travel Planning Process



The City of Vancouver, the Vancouver School Board, the Principal and the Parent Advisory Council (PAC) are the key partners in this process. Other stakeholders may be involved in the program, such as the Vancouver Police Department (VPD), Insurance Corporation of B.C. (ICBC), Translink’s TravelSmart and other community organizations and agencies.

2 School Profile

Thunderbird’s current catchment area is bordered by Grandview Highway, Boundary Road, E 1st Ave, Lillooet Street (north of Broadway) and Renfrew Street (south of Broadway)(see map in Appendix B). In 2017, Thunderbird had 225 enrolled students and families speak over 21 different languages at home. The school was built to serve the nearby BC Housing Complex and the close proximity to the complex means many student can easily walk to school. The school is physically attached to the Thunderbird Community Centre to the north. School staff and centre staff work together to support Thunderbird families.

During phase 1 (October 2017-January 2018), City staff collected information from the Thunderbird community to learn about the school. Figure 2 summarizes the public engagement and data collection conducted in this phase.

Figure 2. Evaluation Summary



Feedback received through meetings and surveys helps to prepare a school transportation profile and highlights preliminary school-based travel concerns.

Walking: The neighbourhood around Thunderbird is predominately local streets with sidewalks on both sides of the street. Many students walk from the higher density Skeena Terrace Housing Complex as well as the surrounding neighbourhoods. Parents reported that traffic volumes and speeds on Rupert Street were barrier to walking is a barrier for some parents. Many families use the raised crosswalk at Cassiar Street and Hermon Drive, while other cross in front of the Community Centre where visibility is limited.

Biking and Rolling (wheelchairs, skateboards and scooters): The neighbourhood around Thunderbird few bike routes. The closest off-street bike route is the Central Valley Greenway to the south and Slocan Street local bikeway to the west. Students can cycle or scooter on to school grounds at the east and west entrances. A bicycle rack is located in a secure and dry spot at the main entrance.

Taking Transit: The school is located close to Rupert Skytrain Station and several bus routes along E Broadway and Rupert Street. Staff and parents reported that many students will begin to bus when they begin to attend Vancouver Technical Secondary.

Driving: The school is bordered by local residential streets and two lanes border the site to the north and west. These lanes are often used as informal access routes to the school. has local roads to the north, south and east. Staff and parents reported vehicle drop-off and pick-up happen on Cassiar Street, E 8th Avenue, and in the west laneway. Parents reported unsafe behaviour during pick-up and drop-off times, with vehicles parking the wrong way on Cassiar Street and high speeds in the laneway.

Staff reported that some parents used the staff parking lot for pick-up and drop-off. Students coming from the west, via the E 7th Avenue pedestrian traffic signal, enter the school grounds at the staff parking lot. Additional vehicle activity and unpredictable turning movements has created an unsafe area for students which requires they reverse for up to 30 meters. Short-term solutions are proposed in the action plan. A long-term solution to separate students and vehicles is needed if the school's layout is changed.

Finally, parents and staff reported that vehicles may be shortcutting from Lougheed Highway to Cassiar Street and vehicles are often still travelling at higher speeds as they travel by the school. City and school staff will continue to monitor the volume and speed near the school for any further changes.

A school infrastructure map is included in the report to help students and families plan a comfortable and convenient route to school (see Appendix B).

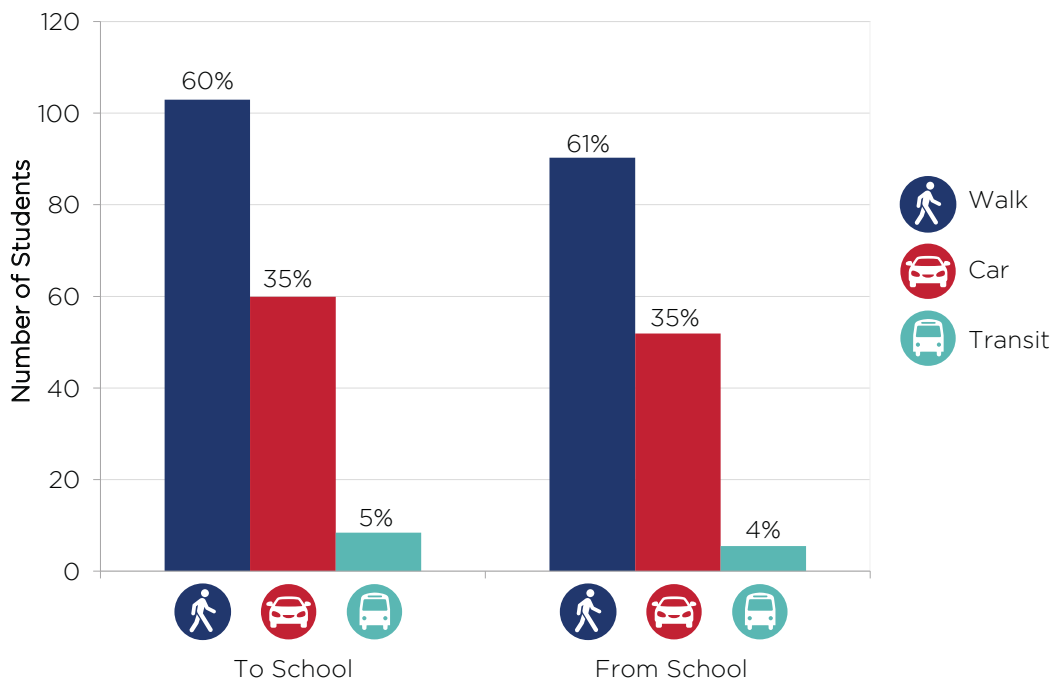
3 School Travel Patterns

During phase 1, an in-class hands-up survey and a take-home survey for parents were used to learn about how families travel to and from school. These surveys give every student and family a chance to provide feedback. The collection process is summarized below and the survey questions can be found in Appendix C.

Hands-Up Survey	
Number of Divisions (Students Represented)	9 Divisions (192 Students)
Hands-Up Survey dates	October 2 - 6, 2017
Take-Home Survey	
Approximate Response Rate (Students Enrolled)	54% (of 211 Students)
Number of Families (Students Represented)	83 Families (114 Students)
Take-Home Survey Dates	October 2 - 16, 2017

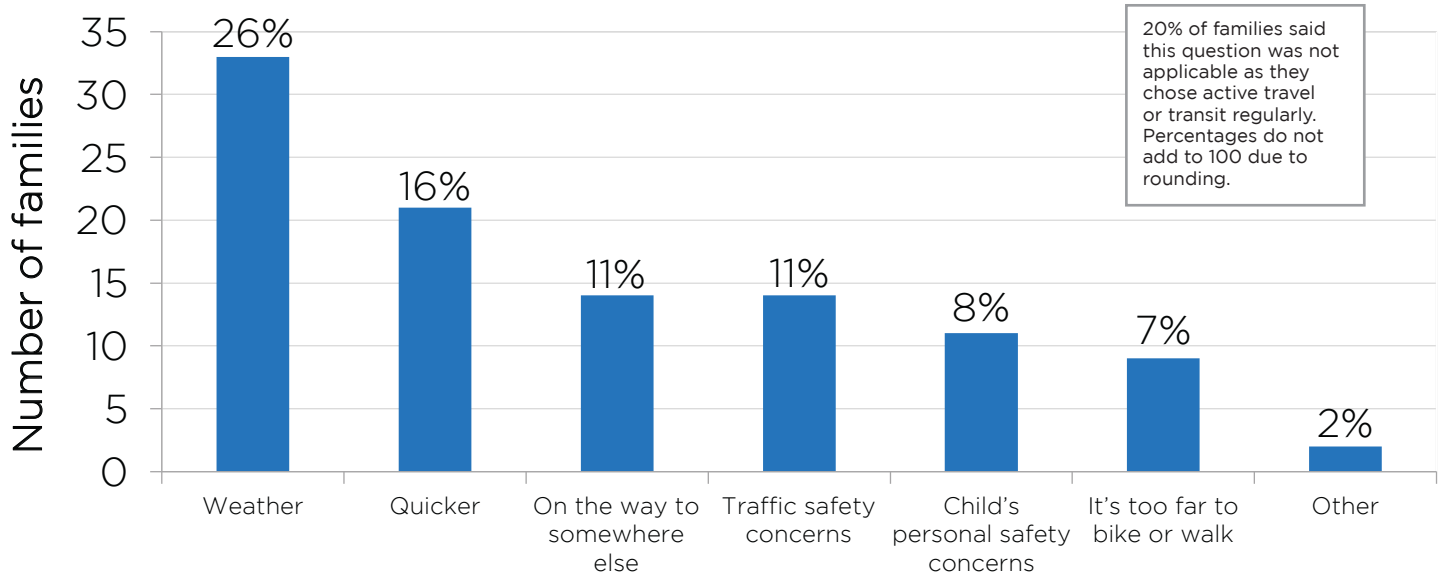
In the hands-up survey, 60% of students reported walking, 35% reported being driven to school and 5% reported taking transit (see Figure 3). Overall, 65% of families chose sustainable transportation to get to school. Most families traveled home the same way.

Figure 3. Hands-Up Survey Results



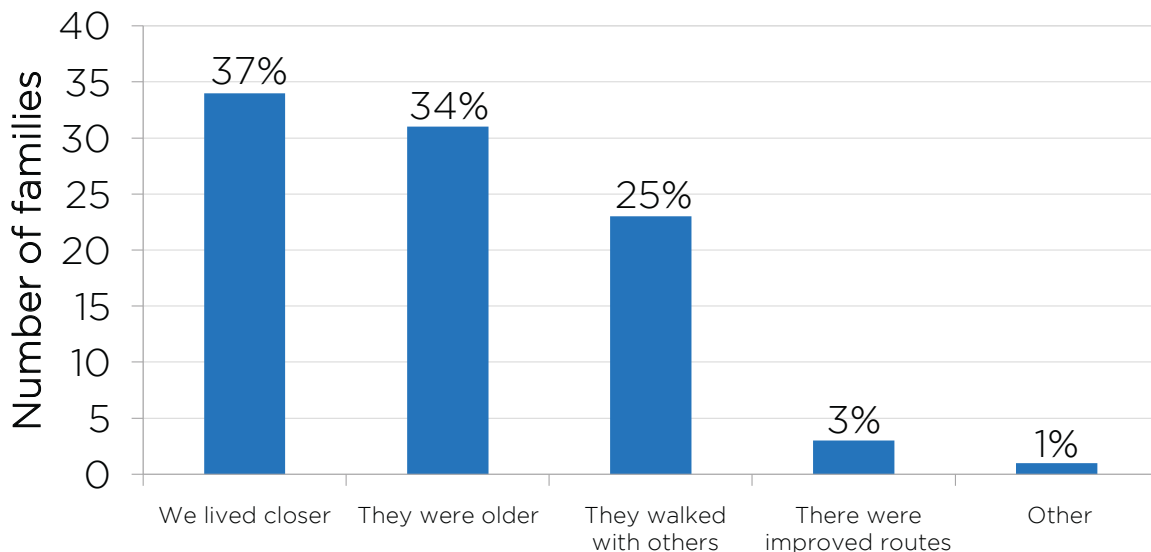
In the take-home survey, families reported on their travel patterns and barriers to active travel. Weather and time pressure were the most common reasons parents drove children to school (see Figure 4). Parents were also concerned about traffic safety and personal safety.

Figure 4. Reasons for Driving



Parents were also able to select three top three greatest barriers to allowing their child to walk (see Figure 5). Distance was the top barrier, but based on the reasons for driving, it may be related to the time pressure of walking with students. Encouraging group travel, even informal buddies, could reduce the time pressure and reduce the other top barriers (age and walking alone).

Figure 5. Parents Would Allow Youngest Child To Walk More if...

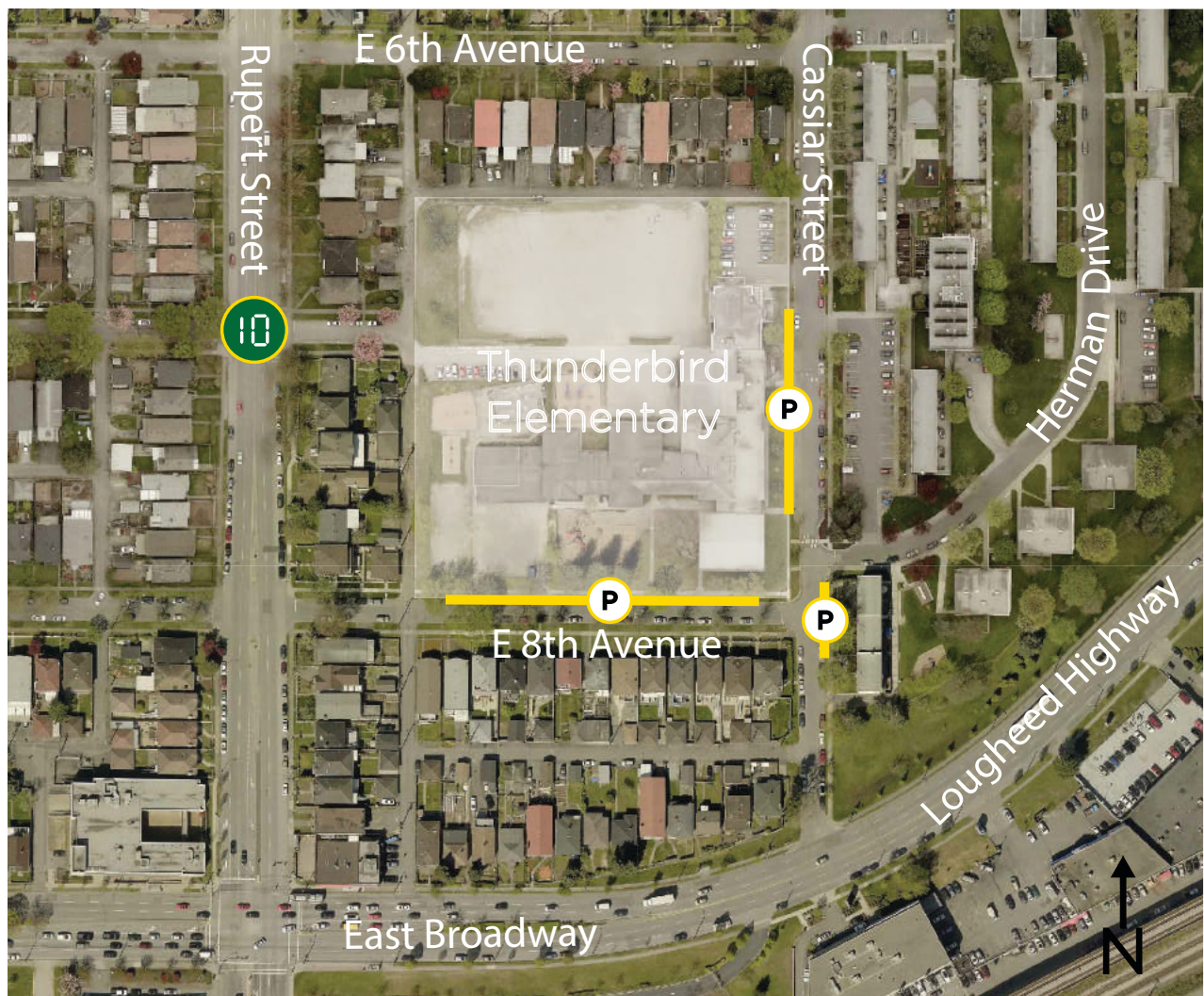


Additional survey results can be found in Appendix C.

4 Action Plan and Next Steps

An action plan for the school has been created through collaboration and consultation with the school administration, the PAC, VSB staff, City staff and other local stakeholders. This plan will guide the implementation of the 5Es in the coming years. A summary of the infrastructure improvements can be found in the map below (Figure 6) and a detailed action plan can be found in Appendix A.

Figure 6. Proposed Infrastructure Improvements



Legend:



Parking Signs
Changed or Installed



Countdown Timer

These infrastructure improvements are targeted at areas where students are walking and biking. The improvements above:

- Create more comfortable facilities
- Increase the visibility of students using facilities
- Communicate clearly to students where they should cross

The City of Vancouver looks after action items related to **evaluation** and **engineering**. The City, the SATP partners and other organizations work together to provide the other 3Es.

- **Enforcement:** VPD, ICBC and City of Vancouver Parking Enforcement
- **Education & Encouragement:** The school, PAC, VPD, ICBC, Translink, City of Vancouver and community organizations

Thunderbird is a small school with limited staff and parent capacity to take on large-scale encouragement initiatives. Encouragement programs should be sustainable initiatives that are easy to run and promote. Details of these actions are also provided in the Action Plan in Appendix A. Additional resources in the appendices include:

- **A transportation infrastructure map** for families planning their active travel routes to school (Appendix B).
- **A parking map** to promote safe pick-up and drop-off behaviour around the school (Appendix B).
- **Extended survey results** for use by the school community (Appendix C).

In phase 4, the City will lead another data collection process to measure the success of the initial action plan and as a check-in point to update the plan.

Appendices

Appendix A: Action Plan

Item	Details	Complete	Comments
City of Vancouver			
School Active Travel Planning Report	Year 1 Report	Summer 2018	
	Year 2 Report	Anticipated 2020	
Hands-Up and Take-Home School Travel Surveys	Year 1 Surveys	Fall 2017	
	Year 2 Surveys	Anticipated 2019-2020	
Infrastructure Map	Map	Summer 2018	For distribution by school.
	Map Update	Anticipated 2020	
Parking Map	Map	Summer 2018	For distribution by school.
	Map Update	Anticipated 2020	
Parking Improvements	Install “3 Min Parking 8am to 5pm” on Cassiar St. and E 8 th Ave.	Anticipated Summer 2018	Clearly marks areas for quick pick-up and drop-off. Complete.
Cassiar St. and E 8 th Ave.	Add “No Stopping Anytime” signs to clear intersection of parked vehicles	Anticipated Summer 2018	Parked vehicles reduce the visibility of students and residents crossing. Complete.

Item	Details	Complete	Comments
Maintain infrastructure assets	Replace southbound “Hazard” marker on Cassiar St.	Summer 2017	Maintenance ensures these infrastructure pieces are visible and reduces conflicts between modes.
	Repaint stop bars at Cassiar St. and E 5 th Ave.	Summer 2017	
Install Countdown Timers	Rupert St. and E 7 th Ave.	Summer 2017	Timers let pedestrians know the amount of time left to complete their crossing. Complete.
Thunderbird Elementary School & Parent Advisory Council (PAC)			
Close staff parking lot during drop-off and pick-up	During first week(s) of September, have volunteer close lot with chain to non-staff vehicles.	September 2018 (and ongoing as needed)	Keeping lot chained off to parents will discourage pick-up and drop-off in this narrow lot.
Active Travel Weeks	Register for HUB’s Bike to School Week and Dash BC’s Walk and Wheel to School Week	Anticipated 2018 and ongoing	These annual events promote and encourage active travel.
Organize Student-Designed Sign	Students will create sign promoting Thunderbird as an active travel school.	Anticipated 2018-2019	City provides dimensions and print weather-proof sign.
Regular Travel Event	Promote a regular (weekly or monthly) active travel event or celebration	Ongoing	Examples include “Walking Wednesday” or “Fitness Friday”
Thunderbird Community Centre			
Support Active Travel Initiatives	Support school initiatives by participating and promoting in the Centre as appropriate.	Ongoing	Partnerships help build neighbourhood support for active travel events.

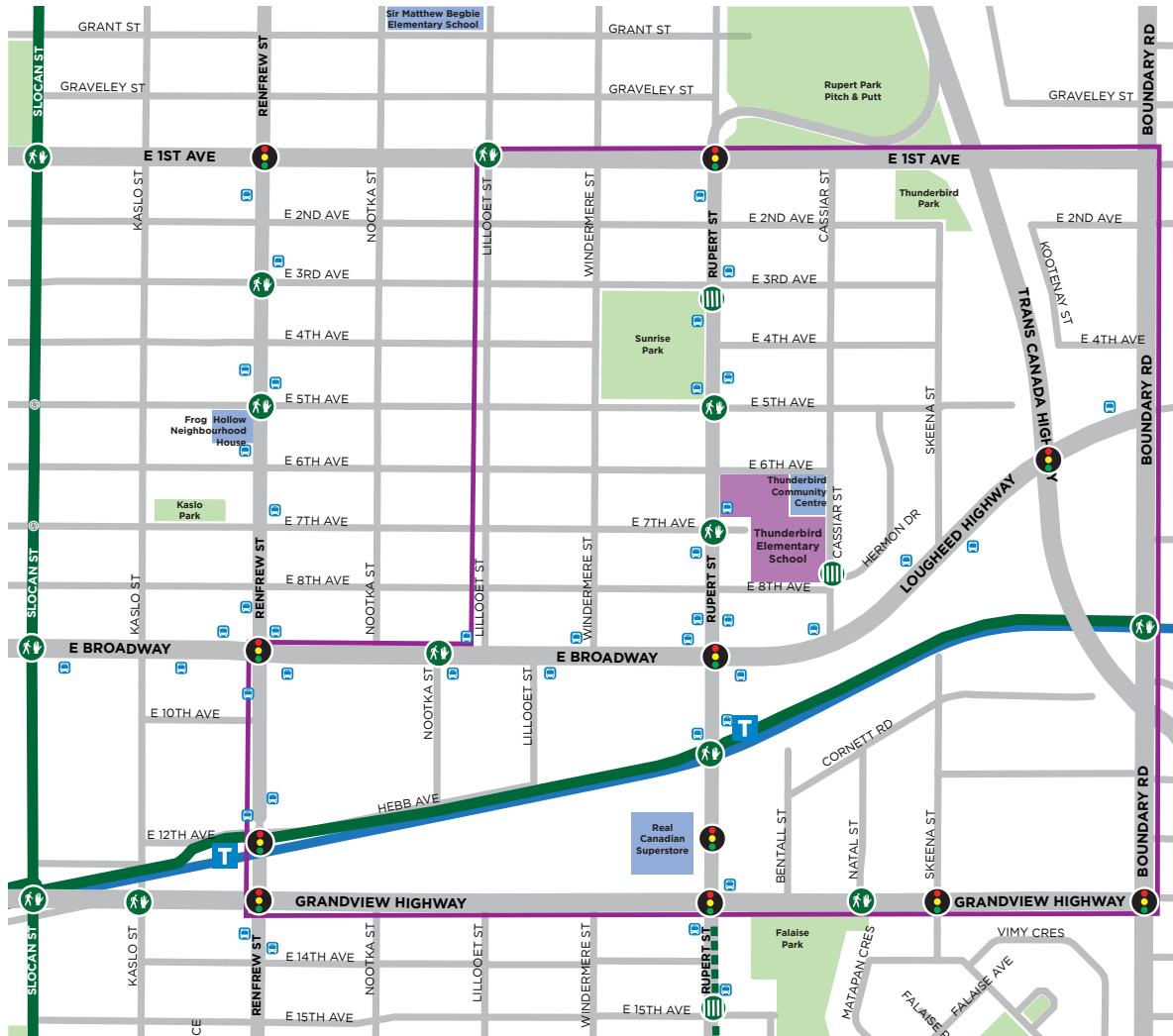
Item	Details	Complete	Comments
Vancouver School Board (VSB)			
Trim Hedge Near Staff Parking Lot	Trim hedge	Ongoing	To increase site lines and visibility near staff parking lot.
Improve Infrastructure For Bicycle Parking	The VSB can support costs for installation of 2 additional bike racks if desired by the school	Timing depedant on school request	Principal to use the VSB maintenance system to log the request. Connect with Sustainability department to have the cost transfer arranged.
Vancouver Police Department (VPD)			
Pedestrian Safety Presentation	Present to students on walking safety.	Anticipated 2018-2019	To encourage safe walking behaviour.
TravelSmart			
Present Transit 101	Present to grade 6 and 7 students on sustainable travel choices	Anticipated 2018-2019	To increase student's awareness of active travel options in Vancouver.

Appendix B: Map Package














The following package is intended to provide all families at the school with the information to plan their route to school however they travel. Both maps can be sent home and posted within the school for review.

The infrastructure map (and accompanying back page) helps families make the best decision about their active travel route to school. The map of parking (and accompanying back page) near the school lays out the different types of parking available for parents.

Thunderbird Elementary ~ Active Travel Infrastructure Map



Legend

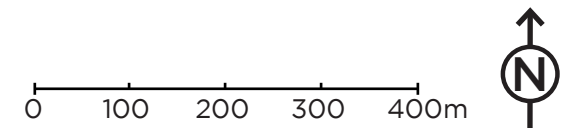
-  Traffic Signal
-  Pedestrian/Bike Signal
-  Marked Crosswalk
-  Traffic Circle
-  Bus Stop
-  Transit Station
-  School
-  Landmark/Destination
-  Arterial Street (busy)
-  Local Street (less busy)
-  Bike Route
-  SkyTrain
-  School Catchment

Safety Tips

Safe places to cross the street are at the corner of the street with a stop sign, traffic or pedestrian signals or at a marked crosswalk.

Always make eye contact with others before crossing the street.

Traffic Circles - Cars or bikes should yield to the right and stop for people walking.



Disclaimer: This map is produced as a public resource for general information purposes only. The City, it's employees, officers, directors and representatives do not guarantee the accuracy of the information contained therein nor warrant the safety of any route, highway, road, street, designated cycling route or other shown in the map information.

Active School Travel



Walking, cycling, and rolling benefits students, the community, and the environment.



Environment

Reduces car travel to school, in turn decreasing traffic congestion, greenhouse gas emissions, and air pollution.



Community

Creates opportunities to engage with neighbours and socialize on the way to and from school.



Student

Leads to healthier, happier and more alert learners through increased physical activity.



Health

Inspires active travel habits early in life that carry into adulthood.



Walk + Bike + Roll
Getting Around the
Vancouver Way

Thunderbird Elementary Parking Map



LEGEND



3 min Parking (School Days)

These spots are for quick pick-ups and drop-offs. Park and collect your child quickly to create a spot for another vehicle.



No Stopping (Anytime)

Vehicles cannot stop in a No Stopping zone for any reason, or any length of time. No Stopping signs without time limits are in effect at *all* times.



No Stopping (School Days)

Vehicles cannot stop in a No Stopping zone for any reason, or any length of time. This gives emergency vehicles somewhere to park.



School Drop Off/Pick Up Zone



Marked Crosswalk

Crosswalks are vulnerable areas where students are crossing. Drivers should not stop or park on crosswalks. Clearance signs (no stopping) mark the areas near crosswalks where stopping is prohibited.



Pedestrian/Bike Signal

Support Active Transportation

Keep the area around your school a safe place to walk, cycle and roll by following the posted signs. If you are driving, consider the "Drive to Five" initiative. Park five minutes away and walk to school. It is an active way to start and end the day.

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Walk+Bike+Roll Safety Tips

Keep the area around your school a safe place to walk, cycle and roll by following the posted signs. If you are driving, consider parking several blocks away and walking to the school. It's an active way to start and end the day.



School Crosswalk

Drivers must yield to pedestrians and remain stopped at every marked and unmarked intersection until they reach the other curb.



School Zone

This sign reminds drivers they are entering a school zone and they should be alert.



Speed Humps

Speed humps are installed to reduce the speed of traffic and calm the street. Slow down around the school.



School Zone Speed Limit

On local streets in the school zone, drivers need to slow down to 30 km/hr between 8 AM to 5 PM.



No Stopping (School days)

No vehicles are allowed here between 8 AM - 5 PM. This keeps sightlines clear and gives emergency vehicles somewhere to park.



Bus Zone

Only buses may park here.



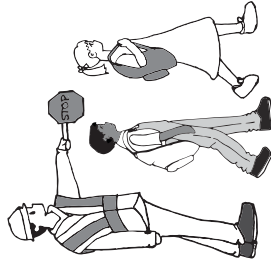
No Parking (School days)

Drivers may stop for no more than five minutes to drop-off and pick-up. A legal parking spot should be found to wait longer or enter the school.



3 Minute Parking (School days)

These spots are for quick pick-ups and drop-offs. Park and collect your child quickly to create a spot for another vehicle.



Safety Patrols

Patrols direct and help students at intersections near the school. Please respect all safety patrols around schools in Vancouver. Children are still learning the rules of the road and may not do as directed or expected. Be prepared to react.

Be mindful about how you travel on our city streets, sidewalks, paths and bike facilities.

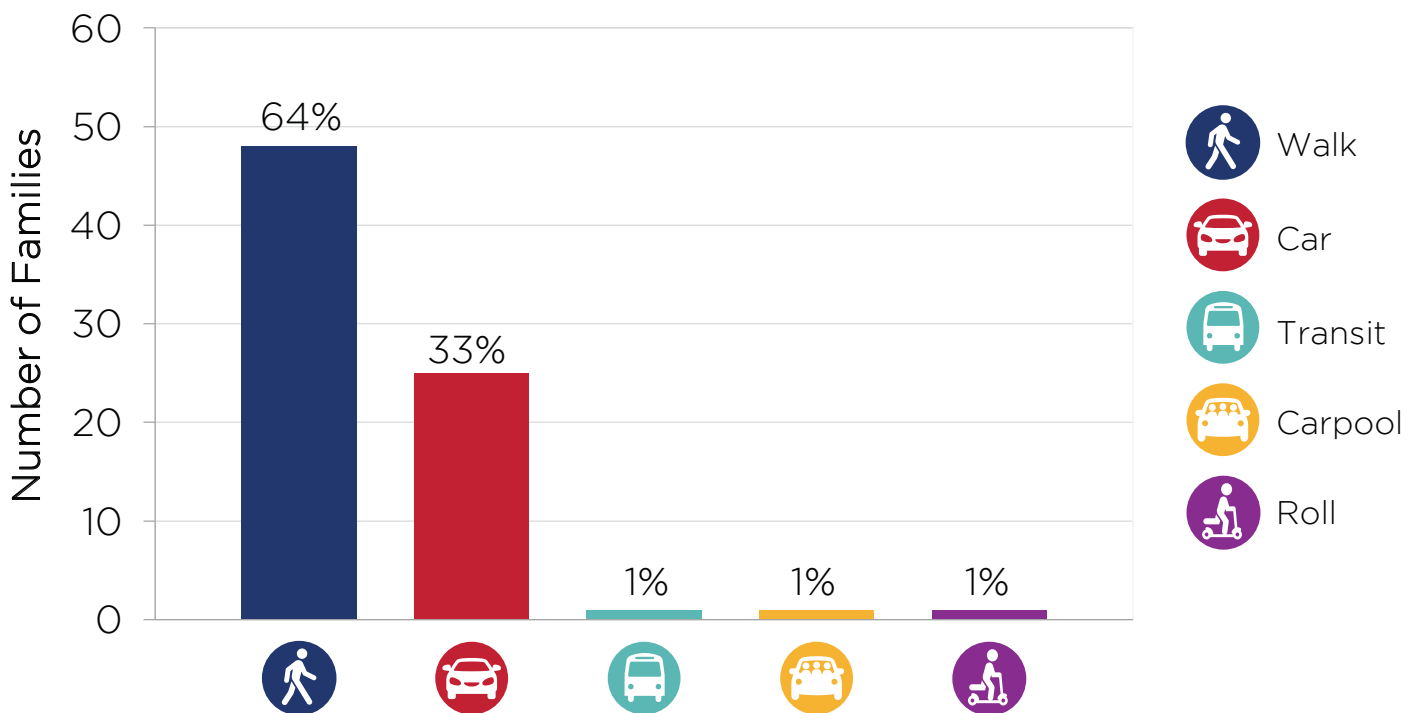
Learn more: vancouver.ca/streets-transportation/school-active-travel-planning.aspx

Appendix C: Surveys

Appendix C contains additional surveys results as well as the hands-up survey form distributed to classrooms and take-home survey distributed to families.

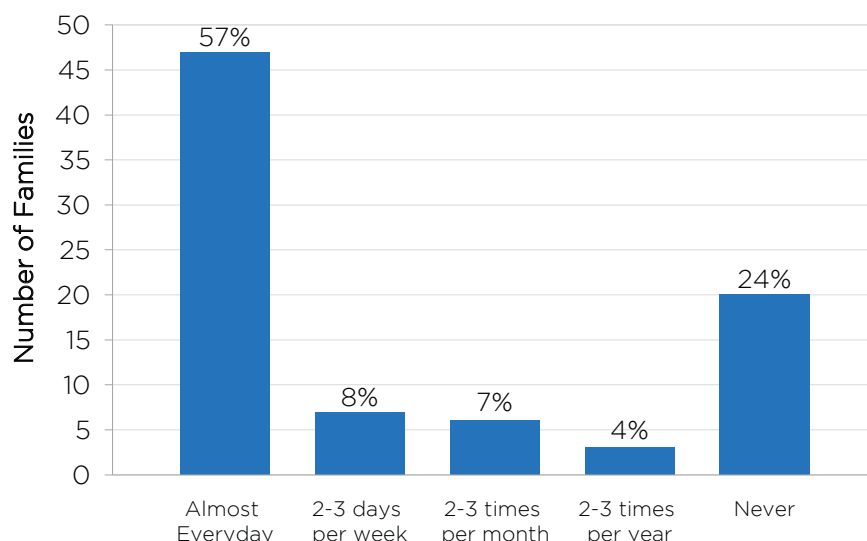
The results in the figures below are a continuation of those in Chapter 3. The surveys asked parents how their youngest child travels to school and their relationship with active travel. Comparing the hands-up survey on mode share (Figure 3 on page 7) and the take-home survey (Figure 7 below), active travel mode share is slightly greater in the take-home survey results and slightly more variation in mode choice. This may be related to the difference in questions (“how did you travel to school” vs. “how does your youngest child *usually* travel to school”) however it is likely related to self selection for the survey. Families that choose active travel may be more likely to fill out a survey on active travel.

Figure 7. Take-Home Survey Mode Share Results



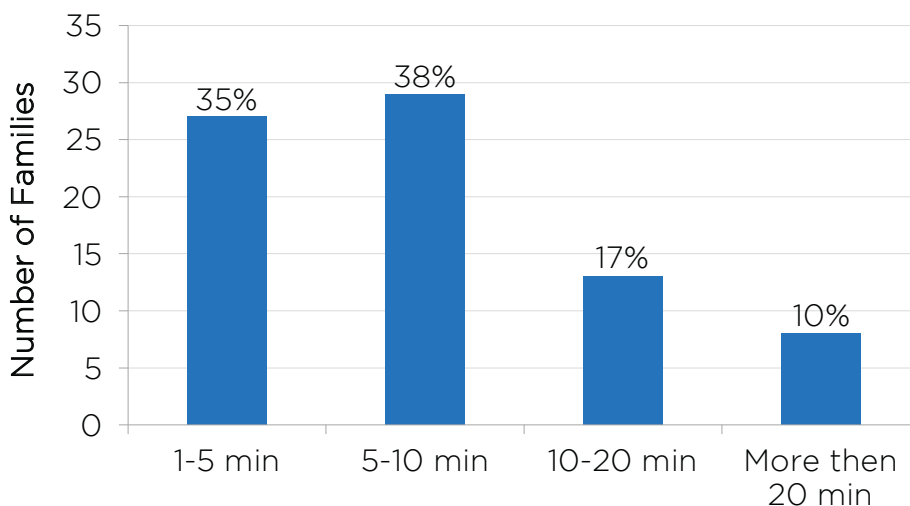
Families also provided details about how often their youngest child walks or bikes and how long the trip takes or would take (Figure 8 to Figure 11). From this results, the majority of students walk almost everyday (57%) while a small minority bike even occasionally (11%). Since over 80% of students live within a 10 minute walk of the school, promoting walking as a fun way to travel may encourage students to ask to walk alone, with friends, or with family. Promoting cycling to students who live further away should include connecting families with bike safety hardware (helmets, lights, bells) and bike education, one barrier to cycling for families (see Figure 13 on page 23).

Figure 8. How Often Youngest Child Walks to School



Given that anecdotal feedback indicates many students will transition to transit for their commute to high school, encouraging older students to choose transit may reach families who live a 20+ minute walk or bike away from the school. Opportunities to reach these students include the Transit 101 program (presented by TravelSmart) or encouraging students to take the bus during “I Love Transit Week” each fall when Kindergarten to Grade 12 students travel for free.

Figure 9. Length of Time for Youngest Child to Walk to School



Many families also reported that almost 20% of students travel together or alone (Figure 12). Informal buddy programs and walking school buses that emphasize the social and leadership aspects of active travel may encourage older students to walk with friends, siblings and extended family that live nearby (e.g. cousins). This could support parents who drive because of time pressure (see Figure 4 on page 8). It may also support families who listed student age (22%) or needing others to bike with (12%) as barriers to cycling for their family.

Figure 10. How Often Youngest Child Bikes to School

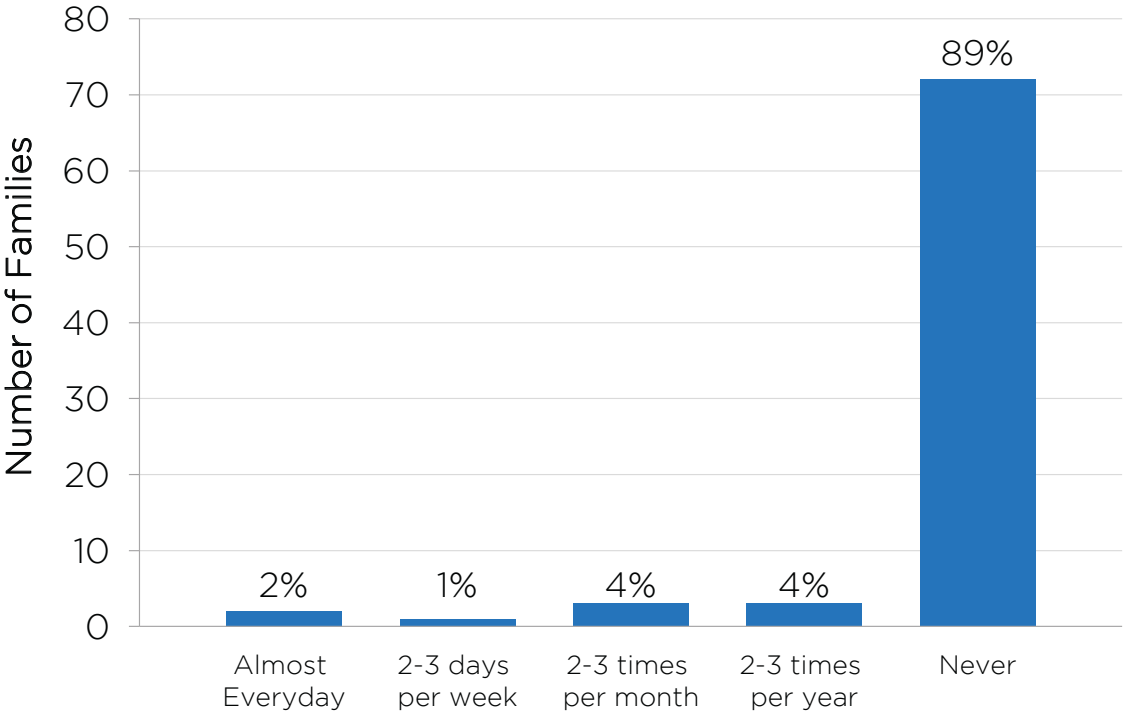


Figure 11. Length of Time for Youngest Child to Bike to School

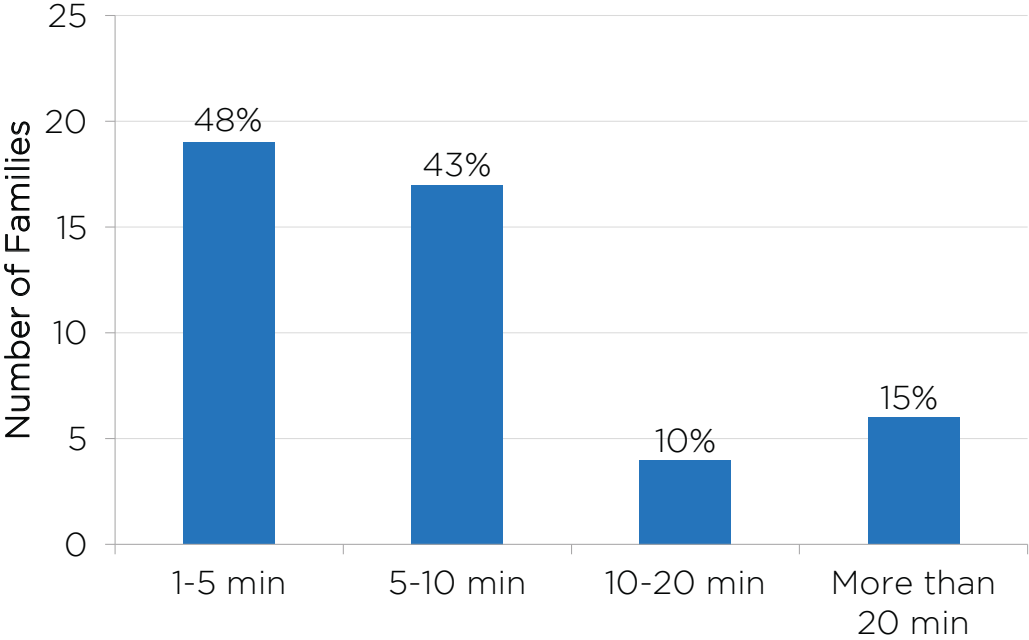


Figure 12. Who Youngest Student Travels to School With

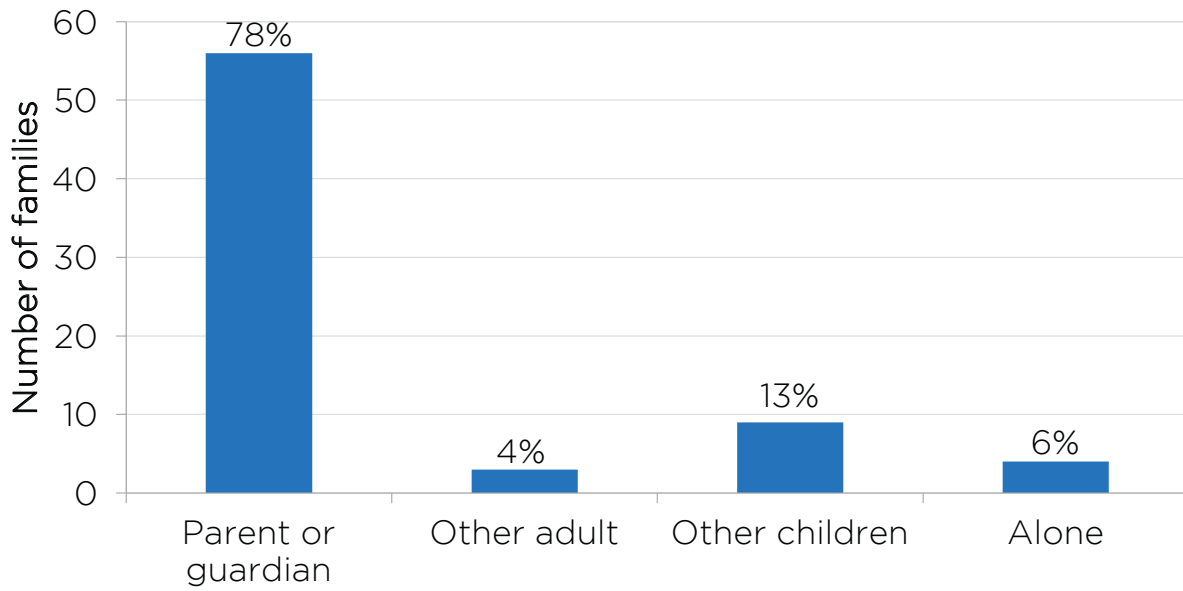
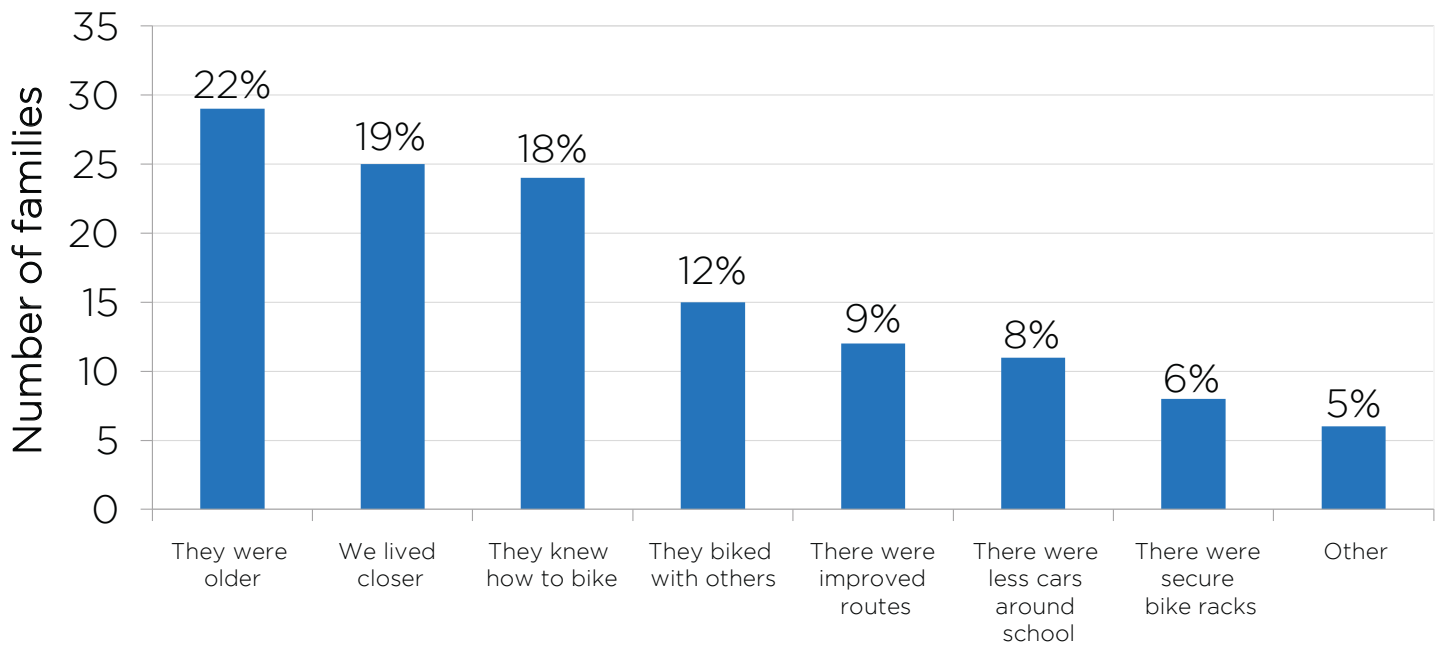


Figure 13. Parents Would Allow Youngest Child to Bike More if...



Thunderbird Elementary School Classroom Transportation Survey



Please complete this survey by asking students to raise their hands for the week of:

Monday, October 2, 2017 to Friday, October 6, 2017

Teacher: _____ Grade _____ Division #: _____ # of Students: _____

“How did you travel to school this morning?”



	Walk	Bike	Roll	Transit	Car	Car-pool	School Bus	Other	Total
Mon									
Tues									
Wed									
Thurs									
Fri									
Total									

“How will you travel from school today?”



	Walk	Bike	Roll	Transit	Car	Car-pool	School Bus	Other	Total
Mon									
Tues									
Wed									
Thurs									
Fri									
Total									

Additional instructions:

- Ask students to report how they arrived and left the school grounds.
- The “Roll” category includes children who skateboard, scooter, rollerblade, etc.
- The “Carpool” category refers to a student who travels in a private vehicle with multiple children from different homes (i.e. not siblings).

If you or your students have any questions, please email: schoolactivetravel@vancouver.ca

Dear Thunderbird Parent:

Thunderbird is participating in the City of Vancouver's School Active Travel Planning program to encourage and promote walking and cycling to school. The program takes place over two years and includes several types of projects to address barriers to active travel:

- Gathering information from students and families about their travel choices
- Conducting a walkabout with City staff and the school community to identify school travel challenges and opportunities
- Consulting with stakeholders such as the Vancouver Police, Translink and HUB
- Creating a school travel action plan
- Upgrading transportation infrastructure near the school
- Promoting active travel education and awareness

Studies have shown that active travel has many benefits for students, the community, and the environment, including:

- Increasing physical activity among students, leading to healthier, happier, and more alert learners
- Creating opportunities to engage with neighbours and socialize on the way to school
- Reducing car travel to school, in turn decreasing traffic congestion, greenhouse gas emissions, and air pollution
- Inspiring active travel habits early in life to carry into adulthood

To learn more about the program, please visit

<http://vancouver.ca/streets-transportation/school-active-travel-planning>

Every family's feedback is important to the success of the program. Take 10 minutes to complete the attached survey and tell us about your family's travel choices. This information will help us create a school travel plan that considers the needs of the school's students and families.

Please return ONE survey per family with your youngest child by Monday, October 16, 2017.

If you have any questions about the survey or the School Active Travel Program, please contact our team at schoolactivetravel@vancouver.ca.

Thank you,

Liliana Quintero
Transportation Engineer
Engineering Services
City of Vancouver
schoolactivetravel@vancouver.ca



Thunderbird Elementary School Transportation Survey



This survey is part of the City of Vancouver's School Active Travel Planning program which seeks to improve the safety and comfort of walking and cycling to school. **Your input is vital** to the success of this program.

Div: _____

Please fill out **ONE survey per family** and return it with your youngest child by **Oct 16, 2017**.

Tell us about your family...

1. How old are your children attending Thunderbird?

Child	Age
1	
2	
3	

2. What is your postal code?

Tell us about how your family travels...

3. How does your **youngest** child usually get **TO** school? (Choose one)

- Walk
- Bike
- Roll (e.g. skateboard, scooter)
- Bus or Skytrain
- Carpool (Your children & other children)
- Car (Your children only)
- Other:

4. How do you usually get to your daily activities?

- Walk
- Bike
- Roll (e.g. skateboard, scooter)
- Bus or Skytrain
- Carpool (Traveling with others to work)
- Car
- Other:

5. Who usually travels with your **youngest** child **TO** school?

- Parent/Guardian
- Other adult (e.g. grandparent, childcare worker)
- Other children (e.g. sibling, friends)
- Child travels alone

6. **If you usually drive your youngest child** to school, what are the **3 most** important reasons why?

- Weather
- It's on my way to somewhere else
- It's quicker
- I'm worried about traffic safety
- I'm worried about my child's personal safety (e.g. bullying, stranger danger)
- It's too far for my child to bike or walk
- Not applicable (We walk/bike/roll/transit regularly)
- Other:



7. How often does your **youngest** child walk **TO** school?

- Almost everyday
- 2-3 days per week
- 2-3 times per month
- 2-3 times per year
- Never

8. How long does it take your youngest child **to walk** to or from school?

- 1-5 minutes
- 6-10 minutes
- 11-20 minutes
- +20 minutes

9. I would allow my youngest child **to walk** to and from school more if: (check the **3 most** important reasons)

- We lived closer
- They were older
- They walked with others
- There was an improved walking route (e.g. crosswalk improvements)
- There were less cars around the school during pick-up & drop-up
- Not applicable (we walk regularly)
- Other: _____

10. How often does your **youngest** child bike **TO** school?

- Almost everyday
- 2-3 days per week
- 2-3 times per month
- 2-3 times per year
- Never

11. How long does it take your youngest child **to bike** to or from school?

- 1-5 minutes
- 6-10 minutes
- 11-20 minutes
- +20 minutes

12. I would allow my youngest child **to bike** to and from school more if: (check the **3 most** important reasons)

- We lived closer
- They were older
- They biked with others
- There was an improved biking route (e.g. bike lanes)
- There were less cars around the school during pick-up & drop-up
- There were secure bike racks
- They knew how to bike
- Not applicable (we bike regularly)
- Other: _____

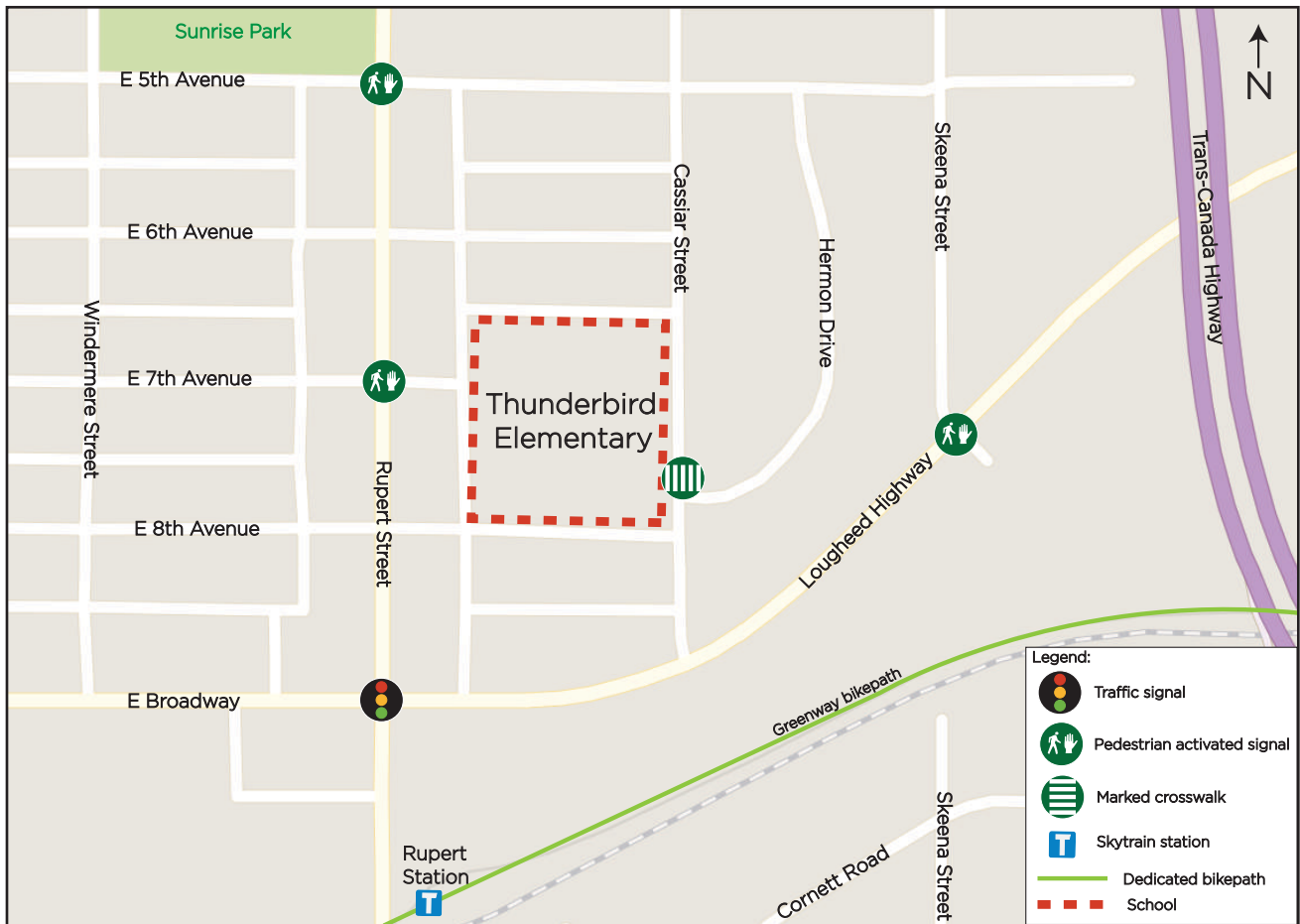
13. Do you have any other comments about your child's journey to school?

14. Please mark your usual walking or biking route to school on the map.

Circle whether this is a walking route or biking route



OR



15. If applicable, **circle and number up to two areas of concern** on the map. Describe these concerns below.

Concern	Description
1	
2	

More information about the City of Vancouver’s program is available at <http://vancouver.ca/streets-transportation/school-active-travel-planning.aspx>.

Your personal data and responses will remain confidential. Any personal information is collected in accordance to BC’s Freedom of Information and Protection of Privacy Act.