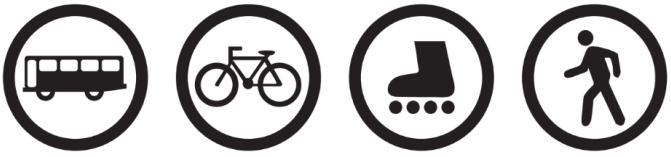
Clean Air & Safe Routes 4 Schools

A School Travel Plan

Belgo Elementary School



Belgo Elementary **Clean Air & Safe Routes 4 Schools—a School Travel Plan** is delivered in partnership with the City of Kelowna, Regional District of Central Okanagan, School District 23, Interior Health, and the Royal Canadian Mounted Police (RCMP). The Regional Air Quality Coordinator compiled this Plan.

Revised September 2024

Contents

List of Figures

List of Tables

Project Overview

Clean Air and Safe Routes 4 Schools in the Central Okanagan

In 2017, the Regional District of Central Okanagan (RDCO), in coordination with the City of Kelowna, implemented the Clean Air and Safe Routes 4 Schools program at Belgo Elementary School. The Clean Air and Safe Routes 4 Schools program uses the "School Travel Plan (STP)" Toolkit created by Green Communities Canada in combination with the "Cleaner Air 4 Schools" toolkit developed by the City of London, England. The development of the School Travel Plan, combined with the implementation of school programming, has reduced vehicle traffic and increased the number of students using active transportation across many provinces.

School Travel Planning involves collaborative work with multiple stakeholders to produce a plan that addresses barriers, safety concerns and necessary infrastructure improvements specific to each school. The STP objectives were expanded to include tools to identify areas of poor air quality around the school, promote student understanding of the causes and impacts of air pollution, and provide ideas for engaging staff, students and parents in improving air quality. The Regional Air Quality Coordinator facilitated the plan's development and coordinated the Municipal Committee. This committee was comprised of numerous stakeholders who assisted in planning, including other City of Kelowna departments, Interior Health, RCMP, and School District 23. A school committee was also formed with school representatives and parents. By engaging various partners, the program created a greater sense of community, added broader implications for schools and neighbourhoods in adopting active transportation habits and improved air quality.

The School Travel Planning program involved baseline research through classroom and family surveys, observations and traffic count to establish the number of students currently using active transportation for school travel and to identify the real and perceived barriers that prevent students and parents from using active transportation. The Committees were involved in a school walkabout that identified areas of concern. This information was used to develop education and community mobilization programs within the school described in the Action Plan of this document. The School Committee has delivered programming within the school with the assistance of the facilitators and all partners.

After seven years, several infrastructure improvements have been made around the school; the follow-up survey results in 2024 show an overall increase of 6% in sustainable transportation to and from school. More kids walk, bicycle, or roll to and from school. The school is encouraged to continue implementing the action plan and recommended actions outlined in this document.

Background

The School Travel Plan

The School Travel Plan (STP) was developed with guidance from HASTE (Hub for Action on School Transportation Emissions) and the Provincial Coordinators for the School Travel Planning program. The Green Communities Canada toolkit has been developed and fine-tuned based on pilot programs across Canada over several years. A School Travel Plan is a living document belonging to the school. It should be revisited to update the status of Action Plan items and incorporate future evaluation findings. It is part of a complete School Travel Planning process, shown in Figure 1, successfully developed and implemented across Canada since 2007.

School Travel Planning process

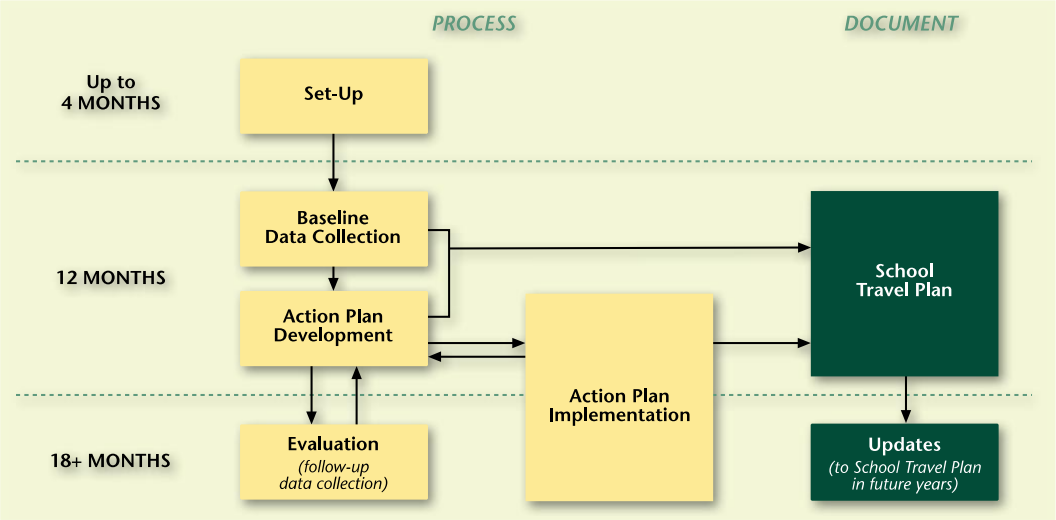


Figure 1. School Travel Planning Process

The National Children's Health, Mobility and Happiness: A Canadian School Travel Planning Model project completed in 2012 used Active and Safe Routes to School programming combined with Transportation Demand Management principles to encourage active and sustainable school travel modes for students, families and staff. The project was designed to address barriers to active travel caused by attitudes and car-dominated design in school neighbourhoods to reduce the health risks to children. Even before many Action Plan items had been fully implemented, by March 2012, some provinces saw a shift towards active travel of up to 6 percent and some individual schools saw a change of over 20 percent.

Safe Routes to School programs are focused on making it safer for more children to walk and bike to school, which helps increase their physical activity levels. Children and youth aged 5 to 17 should get at least 60 minutes of moderate-to-vigorous physical activity daily. Currently, only 37.6% of this target group meets the recommendation. [1]

Recent research states there has been a dramatic increase in unhealthy weight in children over the past four decades. In 1978, 15% were at an unhealthy weight; in 2007, Statistics Canada found that 29% of adolescents had an unhealthy weight. [2]

[1] Children and physical activity - Canada.ca
[2] Healthy Families BC

- Most adolescents have trouble outgrowing this problem, and in fact, many continue to gain weight.
- Children and youth spend almost eight hours a day in front of screens, and 63% of their free time, after school and on weekends, is spent on sedentary activities.
- If current trends continue, by 2040, up to 70% of adults aged 40 years will be either overweight or obese.

There are many benefits to walking or cycling to school:

- Health- Active transportation contributes to children's physical activity participation and improves overall health.
- Social- Time spent walking to school allows students to interact with their parents, siblings or peers.
- Environment: Active trips are environmentally friendly and can reduce greenhouse gas emissions.
- Economic - Walking or cycling to school saves money on gas.
- Education- Physical activity before the school day helps to prepare students for learning by increasing concentration and reducing stress. Students arrive at school awake and alert.

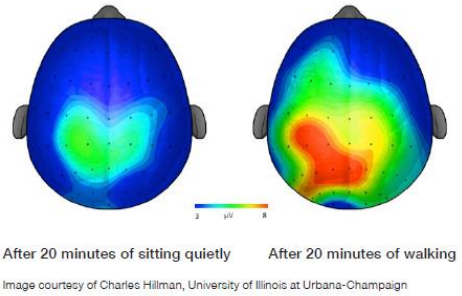


Figure 2. Brain scans of students taking test

A recent study[3] analyzed the effects of physical activity on brain health**.** Figure 2 shows two brain images, taken from the top of the head, representing the average amount of students' neural activity during a test following sitting and walking for 20 minutes. Blue represents lower neural activity, while red denotes higher brain activity in a given region. After 20 minutes at a moderate walking pace, children responded to test questions (in the content areas of reading, spelling, and arithmetic) with greater accuracy. Also, following physical activity, children completed learning tasks faster and more accurately and were likelier to read above their grade level.

Resources

- School Travel Planning (STP) is presented by a coalition of organizations across Canada working together to enable more children to walk and cycle to school. Green Communities' Canada Walks makes coordination of efforts and knowledge transfer between and among these organizations possible. This national website provides resources with links to international and provincial/territorial organizations and their curriculum and campaigns that can benefit and complement a school's efforts for health promotion and environmental awareness.
    - Toolkit resources and flexible templates are available to use in every phase of the STP process. at School Travel Planning Toolkit
- Cleaner Air 4 Primary Schools Toolkit was developed by the London Sustainability Exchange (LSx). This organization works to support London to become a sustainable city. It provides businesses, governments, communities and people with the motivation, knowledge and connections they need to implement sustainability.
    - The Toolkit can be found at: **https://www.london.gov.uk/sites/default/files/ca4s_toolkit.pdf**

The Central Okanagan used a combination of both toolkits to implement The Clean Air & Safe Routes 4 Schools program at Belgo Elementary School in the City of Kelowna.

[3] Active Living Research

Introduction

The Regional District of Central Okanagan (RDCO), in coordination with the City of Kelowna, invited Belgo Elementary School to participate in the Clean Air and Safe Routes 4 Schools program, which aims to increase active transportation participation, reduce the number of motorized vehicles used for travel to and from school, and reduce emissions around and from school buildings.

Belgo Elementary School, with the active participation and support of the Parent Advisory Committee (PAC) and administrative personnel, was invited to participate and signed the School Agreement on **April 24, 2017**. The facilitator delivered a presentation on April 20, explaining the scope of the project and their crucial role in the process. An introductory document to parents and terms of reference for the school committee were presented for their review, acknowledging their vital contribution.

Municipality representatives were invited to participate, and a package with an introductory document on the school travel planning and the terms of reference for the municipal stakeholder committee was sent for their review. All members signed a statement of support, included in *Appendix 1* of this document.

The school and municipal committees were established, and a general project timeline was presented to both committees for their consideration and approval.

City stafff prepared maps for the Family surveys and the Walkabout route. City personnel, with the support of the school committee, also performed a traffic count and observations around Belgo and analyzed the family baseline surveys. The municipal and school committee members actively participated in the process. They provided feedback on the draft maps surveys, discussed the walkabout findings and analyzed the graphs and baseline data to develop and implement programs to target specific behaviours and barriers included in the Action Plan.

The following sections are a comprehensive overview of the results of all the baseline and follow-up information gathered. This information is not just data but a testament to the progress and outcomes of the Clean Air and Safe Routes 4 Schools program. It reflects our collective efforts and the positive changes we are making together.

School Profile

Belgo's Principal provided the school profile on September 11, 2017, which contained general information on the school's primary concerns and issues.

Table 1. Belgo's Profile

Profile	Description
School Name	Belgo Elementary School
School Type, e.g. public, separate, private	Public School
Age of School / Year Opened	The school opened in 1970, was leased out as a private school for some time (1986-?), and then reopened as École Belgo Elementary public school again.
Name of School Board	Central Okanagan (SD#23)
Number of Students	344
Number of Families	257
Grades, e.g. K-6, K-8	K-5 in English, K-6 in French
School Bell Times	8:27 warning bell, in session from 8:30 to 2:30, lunch from 11:00 to 12:00
Number of Parking Spaces, staff/visitor	No visitor spaces 27 staff spaces plus one handicap spot
Description of Location, e.g. District centre/suburban/rural	Rutland area, City
Is the school in a Neighbourhood Watch or Block Parent Community?	
% Bussed Students	1%
Socio-Economic Description of Families	varied
Any local programs, e.g. French immersion, fine arts, special needs, before and after-school daycare, etc.	French Immersion
High-Level Description of Any Major School Travel Problems e.g. catchment size, driver behaviour on local or connector roads, traffic speed, heavy trucks, bussing wait times	Congestion in the front, more significant in Winter with snow accumulation Neighbours are unhappy about parking around their property for drop off and pick up (in front and at entry points around the school)

Profile	Description
Existing Facilities at the School Site, e.g. bike rack/storage, kiss' n ride, school bus drop-off zone, adult or student crossing guards, public transit bus stops serving the school, transport arrangements to after-school programs.	Bike Rack Several vehicles come for pick up to after-school programs. Public bus stops a block away.
Existing Safety Policy & Education, e.g. school safety policy and rules, current safety education programs	
Programs at this school that have goals similar to STP, e.g. environmental, physical activity, mental health	.
Types of school/parent committee communications used/available (i.e. newsletter, website, Facebook page)	PAC Facebook Page School Website School Newsletter Email list
Other Information	

Catchment

In 2017, there were 344 students in grades K to 6. In 2023-2024, there are 290 students. The catchment area is shown in Figure 3.

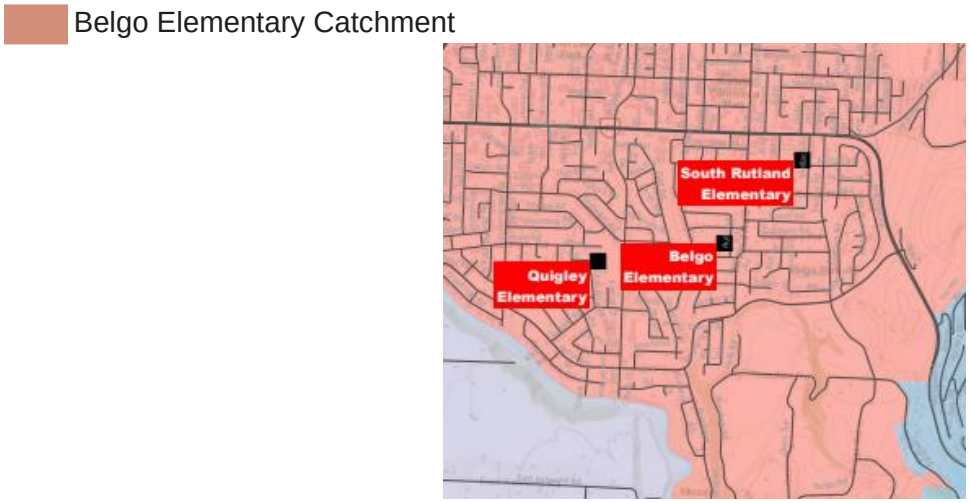


Figure 3. Belgo Elementary Catchment Area

GIS Analysis - Distance to School

Via the postal codes of all students attending Belgo Elementary School, general information was obtained to support some strategies and actions within the school. A GIS analysis was made using ArcInfo to calculate the distance from home to school for all students. The following are the results:

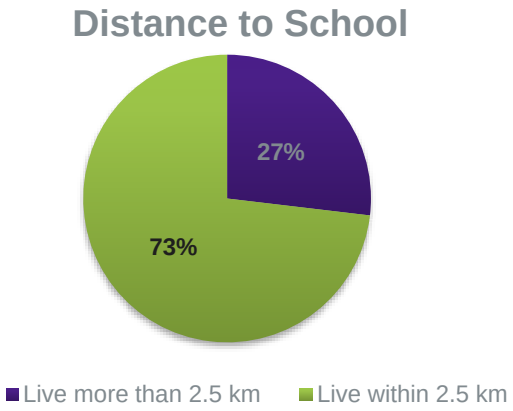


Figure 4. Distance to School

- 73% of students live within 2.5 km from the school
- 27% of students require a longer walk/bike ride to reach school as they live more than 2.5 km away

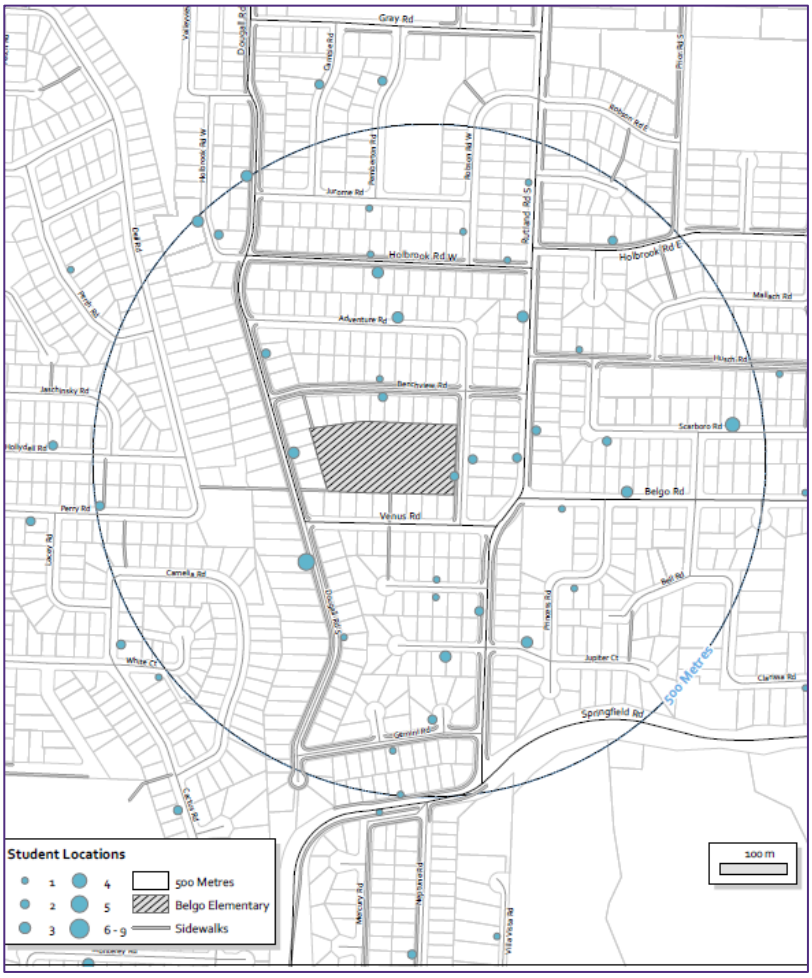


Figure 5. Students within catchment area by postal codes (2017)

- 32% of the students live within 1 km or

16 min walking

6 min cycling

CAUTION: ArcInfo was used to calculate the distance (in meters) from multiple points to one point, in this case, to Belgo school. Distances are calculated on a straight line to the reference point. Use caution regarding walk/bike distances; they do not account for walk/cycle paths that might connect roads.

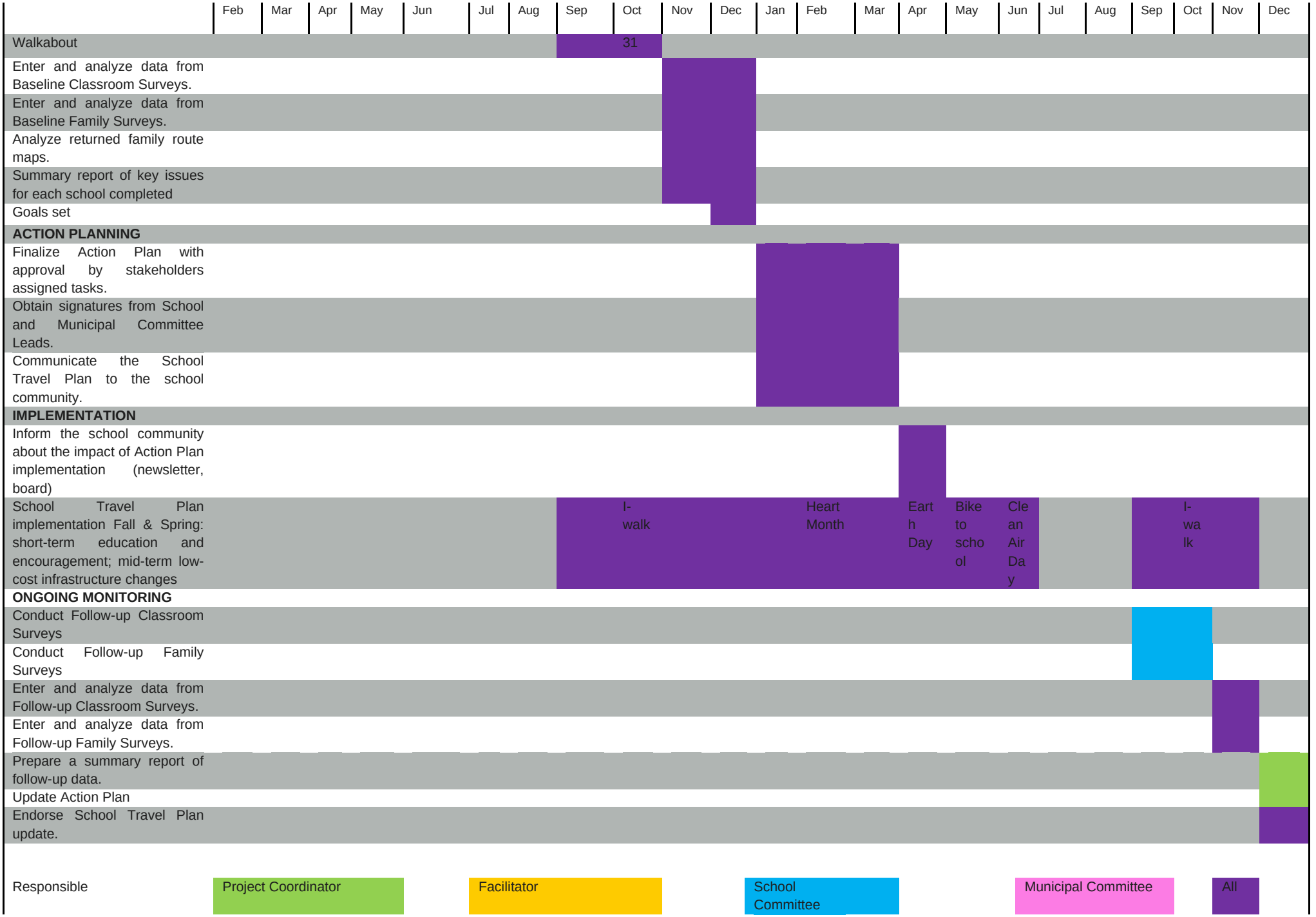
Timeline of Main Tasks

City of Kelowna
City of West Kelowna
District of Lake Country
District of Peachland
Westbank First Nation
Regional District of Central Okanagan

smartTRIPS

Table 2. Timeline of Main Tasks

	2017											2018…										
STP/Project Timeline	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SET-UP																							
The Municipal Stakeholder Committee established																							
Coordinate & Follow up activities of the two committees and facilitator.																							
Schools chosen and invited.		Belgo																					
Send the School agreement to be signed.																							
The school Agreement is signed, and the process has started.			4/24																				
School STP Committees established																							
Prepare and deliver introduction presentation/documents to PAC and formalized School committee.			4/26					September 2															
Prepare surveys for data collection.							Aug-Sep																
Deliver surveys for data collection.																							
School Stakeholder Committee meetings									Ongoing over the two years during the school year														
Municipal Steering Committee meetings				Ongoing over the two years – approximately 2 x per year (can be combined with other meetings as appropriate) or by email																			
Project preparation and data collection																							
Complete School Profile								11															
Inform the school and parents about the project.								Sep 19-23															
Prepare and submit a map to be included in the surveys.																							
Conduct Baseline Classroom Surveys over five consecutive days.								Sep 25-29															
Conduct a Baseline Family Survey								Sep 25-29															


Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Walkabout
31
Enter and analyze data from Baseline Classroom Surveys.
Enter and analyze data from Baseline Family Surveys.
Analyze returned family route maps.
Summary report of key issues for each school completed
Goals set
ACTION PLANNING
Finalize Action Plan with approval by stakeholders assigned tasks.
Obtain signatures from School and Municipal Committee Leads.
Communicate the School Travel Plan to the school community.
IMPLEMENTATION
Inform the school community about the impact of Action Plan implementation (newsletter, board)
School Travel Plan implementation Fall & Spring: short-term education and encouragement; mid-term low-cost infrastructure changes
I-walk
Heart Month
Earth Day
Bike to school
Clean Air Day
I-walk
ONGOING MONITORING
Conduct Follow-up Classroom Surveys
Conduct Follow-up Family Surveys
Enter and analyze data from Follow-up Classroom Surveys.
Enter and analyze data from Follow-up Family Surveys.
Prepare a summary report of follow-up data.
Update Action Plan
Endorse School Travel Plan update.
Responsible
Project Coordinator
Facilitator
School Committee
Municipal Committee
All

Baseline Data Collection

Belgo comprises approximately 257 families, and an equal number of surveys were distributed on September 22, 2017. Over the week of September 25 to 29, teachers helped with 16 classroom "hands-up surveys" and reminded their students to complete and submit the Family surveys. An introduction to the program and a reminder to fill out the survey were sent through the school newsletter.

To encourage students' participation, the Air Quality Program provided:

- 16 prize packages- one for each classroom. The contents of the prize bags are as follows: one black SmartTrips bag, ten bicycle spoke reflective stickers, one SmartTrips stainless steel water bottle, 10 Smart Trips stickers, two bike bells, two SmartTrips reflective armbands, one pair of socks, one bike sense manual, one bike maintenance book, school zone safety card and one pedometer.

- 1 Grand Prize included 1 bicycle, helmet and 1 package (above).

The teachers distributed these prizes at their discretion, and there was a draw for the grand prize. Roisin Perseval, from grade 2, won the bicycle.

Figure 6. Facilitator Dave Gibson delivers the bicycle

Student Classroom Survey findings

Belgo Elementary has 16 classrooms, and with the teachers' support, 12 classroom surveys were completed reflecting travel "to" school of seventy-six percent of the students, as shown in Figure 7.

Table 3. Summary - TO School (Frequency)

	Walked	Walked part-way	Bicycle	School Bus	Public Transit	Carpool	Car	Other	Total
Monday	39	15	4	10	4	25	166	7	270
Tuesday	36	15	4	9	3	19	167	7	260
Wednesday	36	13	4	8	2	24	166	8	261
Thursday	39	15	3	9	2	24	163	7	262
Friday	38	15	4	7	3	14	158	5	244
Total	188	73	19	43	14	106	820	34	1297
Average	37.5	14.5	3.75	9	2.75	23	165.5	7.25	263.3

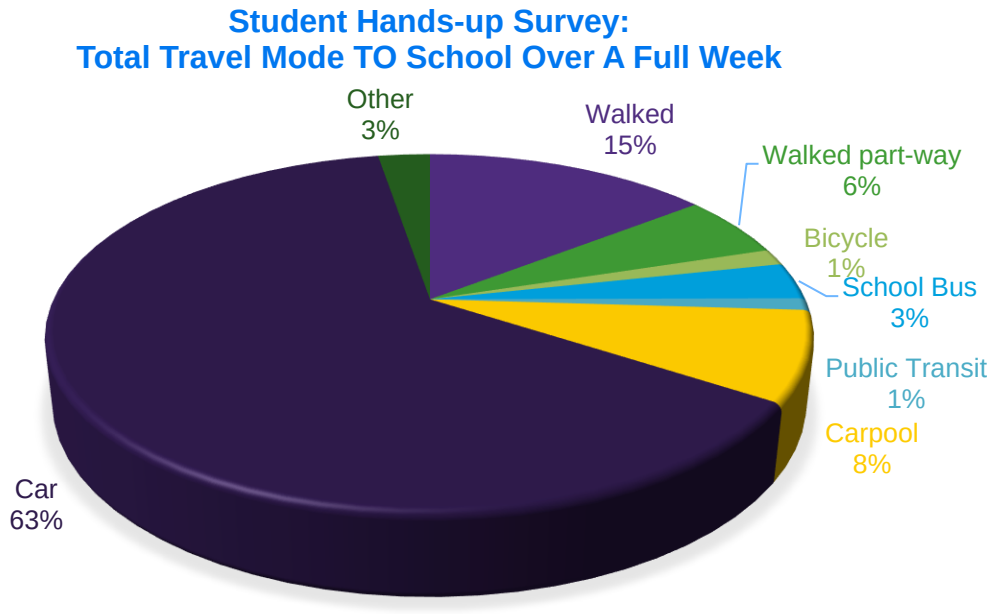


Figure 7. Total Travel Model to School over a full Week

We received 12 complete classroom surveys outlining "from" school results. Seventy-two percent of the 346 students attending Belgo were tracked for one week. As illustrated in Figure 8, more kids walk from school in the afternoon compared to the "to" school results.

Table 4. Summary - FROM School (Frequency)

	Walked	Walked part-way	Bicycle	School Bus	Public Transit	Carpool	Car	Other	Total
Monday	46	11	3	18	6	10	149	12	255
Tuesday	41	11	6	14	3	13	147	22	257
Wednesday	44	14	5	16	1	10	140	20	250
Thursday	44	11	2	14	2	15	138	23	249
Friday	44	11	5	16	2	19	119	26	242
Total	175	58	21	78	14	67	693	103	1253
Average	43.75	11.75	4	15.5	3	12	143.5	19.25	252.8

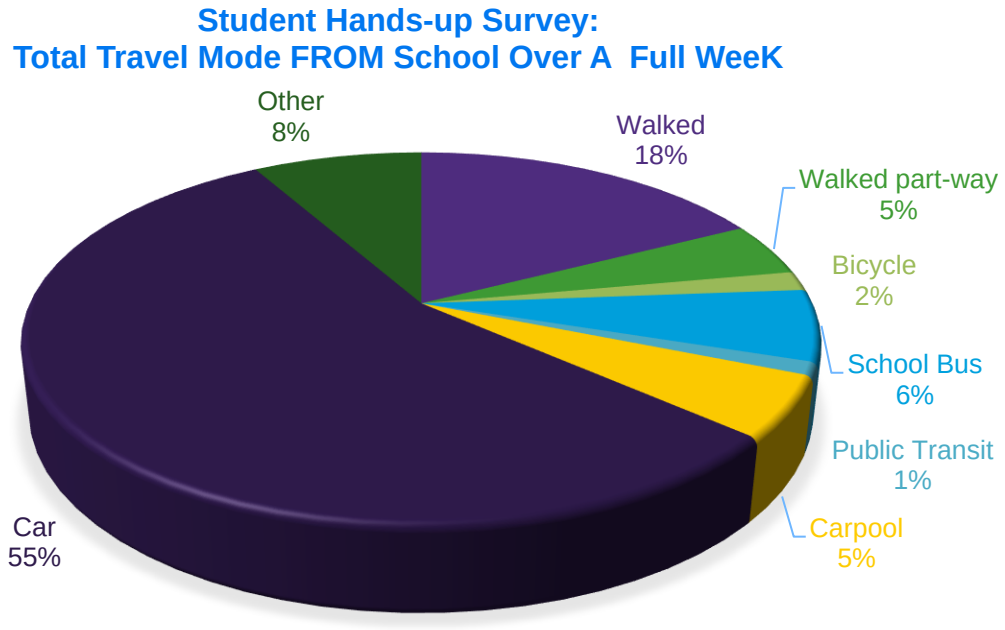


Figure 8. Total Travel Model from School over a full Week

Other includes: after-school day care bus, boys and girls club, YMCA.

Walkabout and Route Map

The Walkabout was performed on October 31, 2017, from 8:00 to 10:30 am. Five members from the Municipal Committee and four from the School Committee attended. The following pages show a detailed overview of the walking route and key findings. The agenda, walkabout route map and walkability checklist with specific points of observation to consider during the route were provided by the program coordinator to every participant before the meeting.

The agenda was as follows:

8:00 Arrival
8:05 Introductions
8:10 Brief summary of issues by PAC president
8:15 Group 1 - Observe drop- off area Belgo (point 1 on the map, Fig 17)
Group 2- Observe drop-off area Belgo (point 2 on the map, Fig, 17)
8:40 Start walkabout
9:40 Return to the school staff room – refreshments- coffee & cookies
9:50 Discussion of findings &next steps
10:30 Wrap-up

The walkabout route was developed by city staff based on the information provided by the school committee.

Figure 9. Belgo Walkabout Rout Map

Walkabout Main Findings

After the Walkabout, the Municipal and School Committee members discussed the main findings and issues Belgo faced. Attendees provided insightful information to consider in the development of the Action Plan. The following is a summary of the Walkabout findings. The complete list is in *Appendix 2*.

Table 5. Belgo Walkabout Main Findings

The Walkability Checklist	General Findings
Parking lot, or on road parking at school	Double parking. Pedestrians and cars entering school on same parking entrance. Winter-narrowed parking/travel lanes. U-turns are frequent. Block driveways, parking entrance, hydrant and bus parking. Distractive driving, Stressed. Idling behaviour
Facilities for walkers on the street next to the school site	Cars entering through "exit only " to drop off at parking lot. Generally good sight lines, but parked cars reduce visibility.
Walking paths to the school	Parking lot in front of the school, one narrow entrance beside bike racks and through 3 walkaways; narrow entrances- unable to pass with stroller, bicycle or backpack. 15-26" wide onto field. Rutland Rd-people pass on right over crosswalks when cars stopped at crosswalk-bollards or barriers needed. Walkway at Venus, parents park on driveways and drop-off on street
Bicycle facilities	Not sheltered. Enough room for 30-40 bikes (under used)
School Bus/After School Care Loading Zone	1 school bus in the morning.4-5 after school vans. No Special Ed bus. School wheelchair accessible.
Walking facilities and traffic observations	All around school. A few gaps on Venus. Only one side on Adventure Rd. (school side). Rutland & Benchview-smell exhaust. Dangerous maneuvers. Not lights. Crossing flash lights requested in the past.
Alternative safe parking locations	Lions Park is two blocks away. They could park near the 3 walkways (school perimeter).
Bicycle facilities	Bike lanes only on Rutland-a few gaps to connect to school. Parked cars in surrounding streets make it difficult. Kids ride on sidewalks.
General Comments	Flashing crosswalk requested in the past. City is looking into it, subject to budget approval. Snow on sidewalks is resident's responsibility-bylaw enforcement a possibility
General Suggestions	SD23-Is it possible for kids living within 4.8 km to be eligible for school bus? Some parents are willing to pay. Very few students use the school bus. ate opening near playground to avoid car/pedestrians conflict. Re-sized other walkways entrances for easy access

Figure 10. Walkabout-Municipal and School Committees

Figure 11. Battery parking creating conflict

Figure 12. U-turns are frequent

Figure 13. Cars frequently block hydrant

Figure 14. Car/pedestrian conflict at school entrance

Figure 15. Cars blocking sidewalks

Figure 16. Narrow Walkway entrances

Figure 17. Backing up over the crosswalk

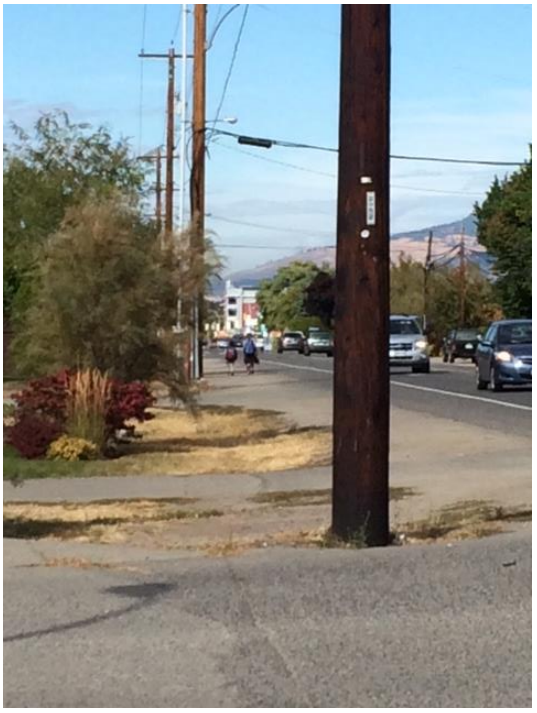


Figure 18. Sidewalk only one side -Rutland Rd

Traffic Count Findings

With support from the City of Kelowna's staff, the school committee performed a three-day traffic count on September 25, 26 and 29, 2017. The observations were made from 8:10 am to 8:40 am and from 2:10 pm to 2:40 pm at four locations. Location #1 was on Rutland Rd @ Benchview Rd, location #2 was on Benchview Rd @ Adventure Rd, location 3 was on Adventure Rd @ School entrance and location 4 was on Venus @ Dougall Rd, as shown in the map below.

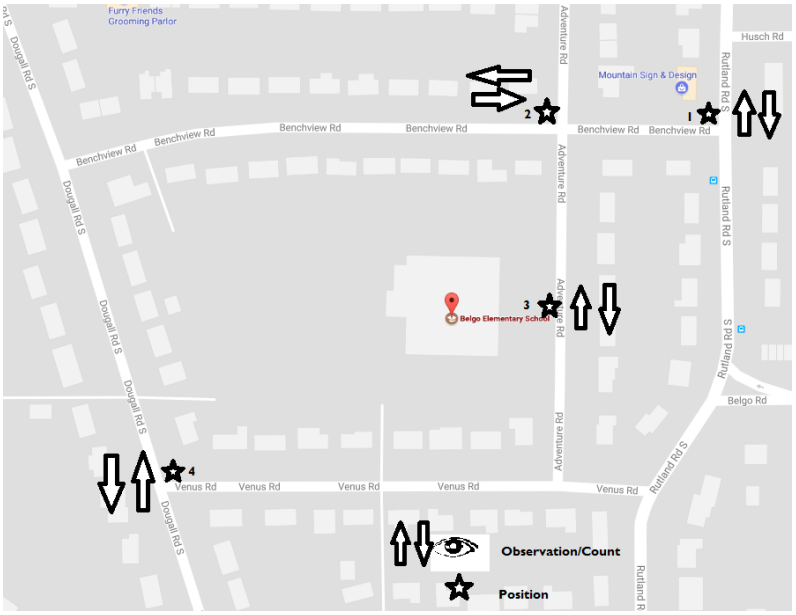


Figure 19. Traffic Count Locations

The following are the average results from the four locations:

Table 6. Belgo Drop-off Traffic Count and Observations

Date:	*September 25,26 & 29 2017*	*Start Time:*	*8:10 am*	*End Time:*	*8:40 am*
Location:	#1 + #2 + #3 + #4	Observer:	School Committee-City staff		
Start counting in blocks of 10 min:	8:10 - 8:20 am	8:20 - 8:30 am	8:30 - 8:40 am	Totals	
Vehicles stopping in marked no-stopping or no-parking zones	7	16	10	33	
U and 3-point turns where not permitted or unsafe	4	4	3	11	
Rolling Stops at Intersections	7	12	18	36	
Drivers Failing to yield to walkers	2	2	5	10	
Jaywalking: walking in or crossing traffic lanes	23	34	22	79	
Cyclists riding on the sidewalk	1	1	0	3	
Real or potential conflicts between vehicles, bikes and/or walkers	2	3	1	5	
Visibility/sightline problems (e.g. parked cars, overgrown vegetation etc.)	1	2	1	3	
Presence and behaviour of delivery or maintenance vehicles	0	0	0	0	
Speeding (by appearance)	18	28	23	70	
Idling (more than 60s)	7	3	5	16	
Distracted drivers (using phone, eating etc.)	3	3	4	10	

Table 7. Belgo Pick-up Traffic Count and Observations

Date:	*September 25,26 & 29 2017*	*Start Time:*	*2:10 pm*	*End Time:*	*2:40 pm*
Location:	#1 + #2 + #3 + #4	Observer:	School Committee-City staff		
Start counting in blocks of 10 min:	2:10 - 2:20 pm	2:20 - 2:30 pm	2:30 - 2:40 pm	Totals*	
Vehicles stopping in marked no-stopping or no-parking zones	3	4	4	12	
U and 3-point turns where not permitted or unsafe	4	3	0	7	
Rolling Stops at Intersections	2	5	13	20	
Drivers Failing to yield to walkers	0	1	2	3	
Jaywalking: walking in or crossing traffic lanes	2	6	3	11	
Cyclists riding on the sidewalk	0	0	4	4	
Real or potential conflicts between vehicles, bikes and/or walkers	0	0	0	1	
Visibility/sightline problems (e.g. parked cars, overgrown vegetation etc.)	0	3	1	4	
Presence and behaviour of delivery or maintenance vehicles	0	0	0	0	
Speeding (by appearance)	6	5	6	17	
Idling (more than 60s)	3	3	2	8	
Distracted drivers (using phone, eating etc.)	1	0	1	2	

*Numbers are rounded

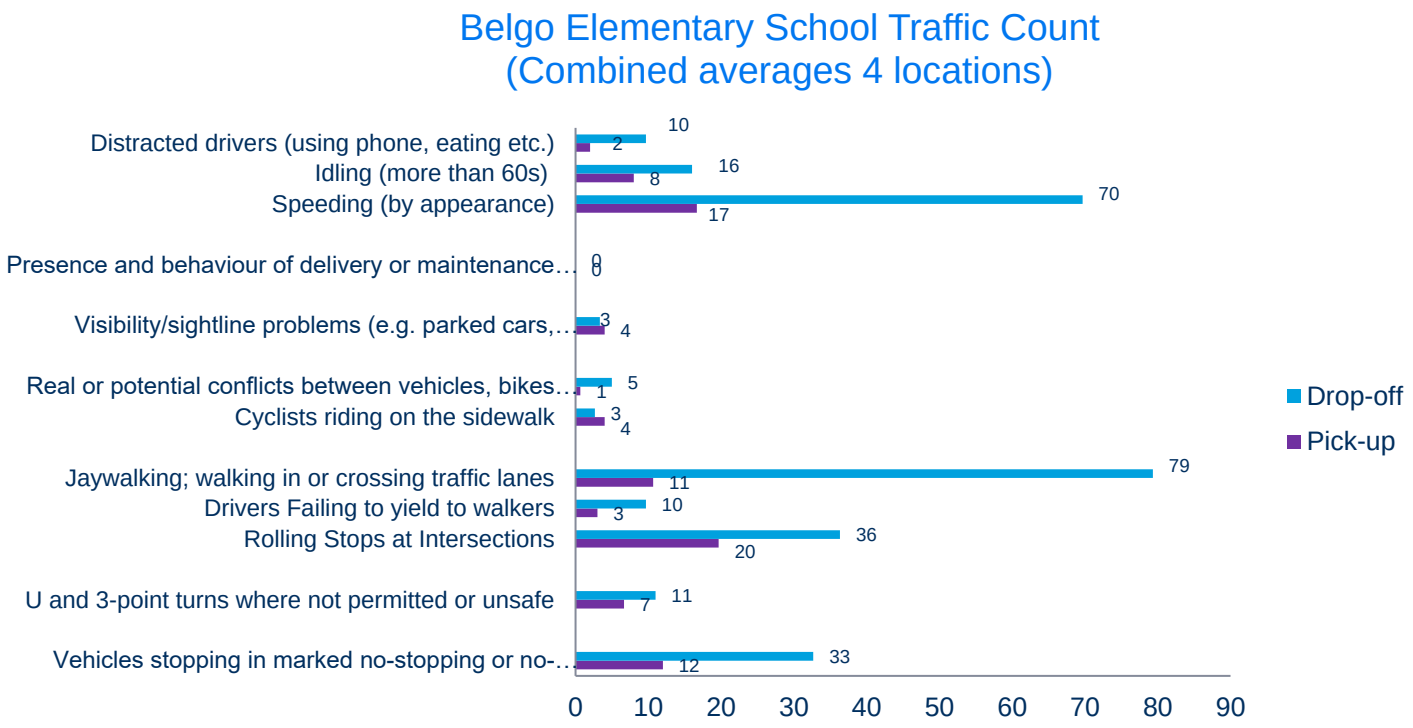


Figure 20. Average Drop-off and Pick-up Traffic Observations

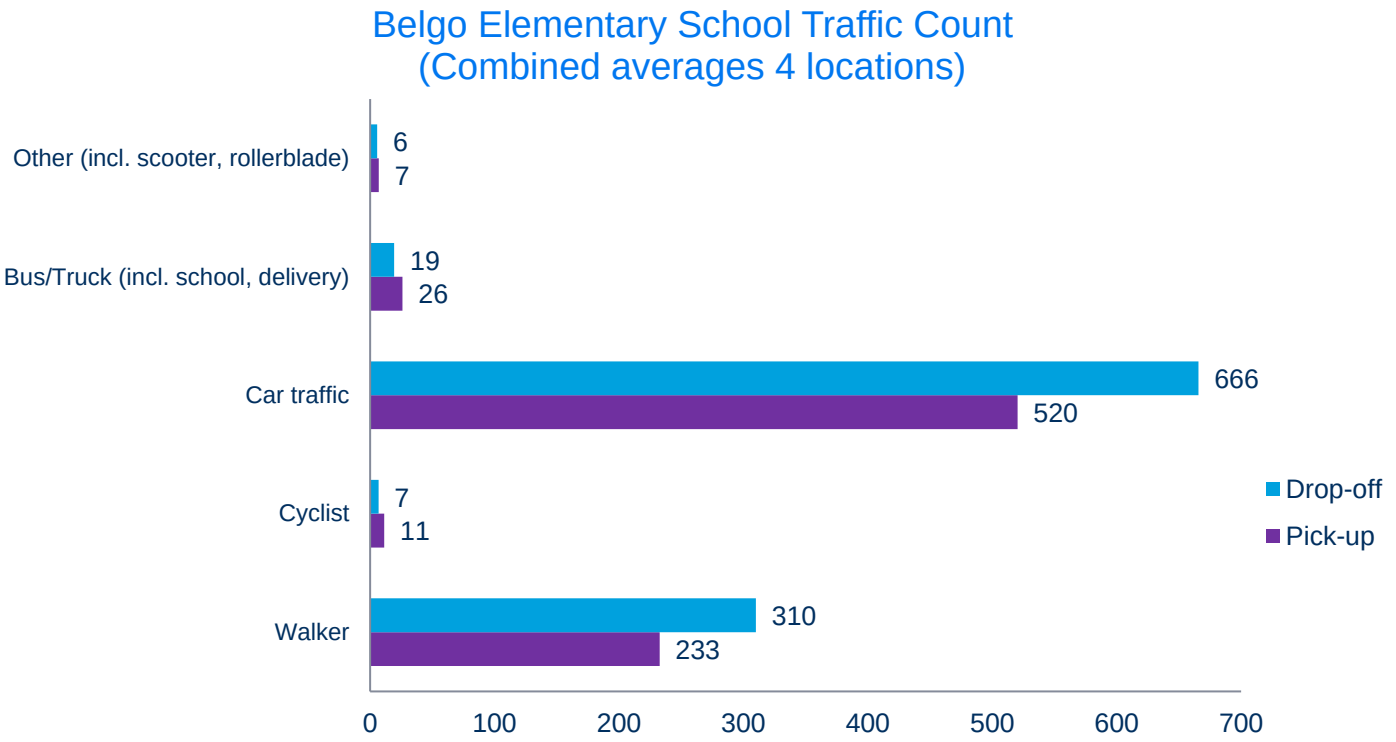


Figure 21. Average Drop-off and Pick-up Traffic Count

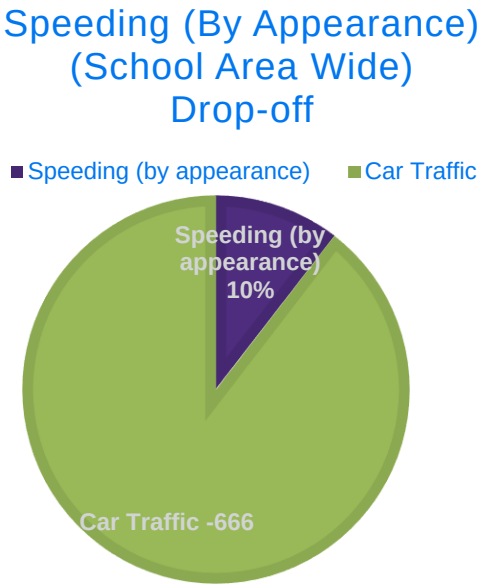


Figure 22. Speeding by appearance-Drop-off

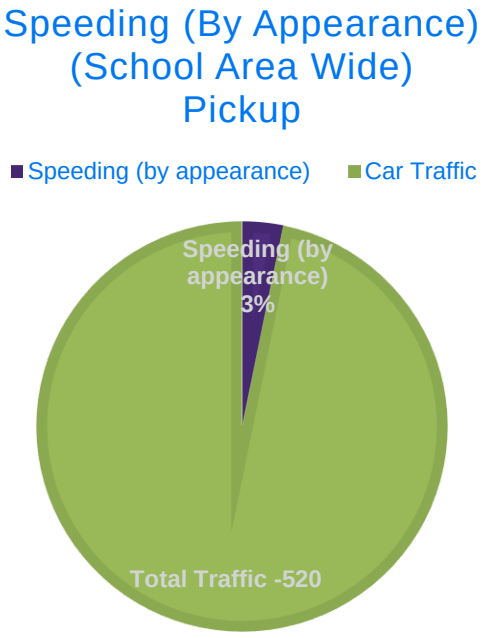


Figure 23. Speeding by appearance-Pick- up

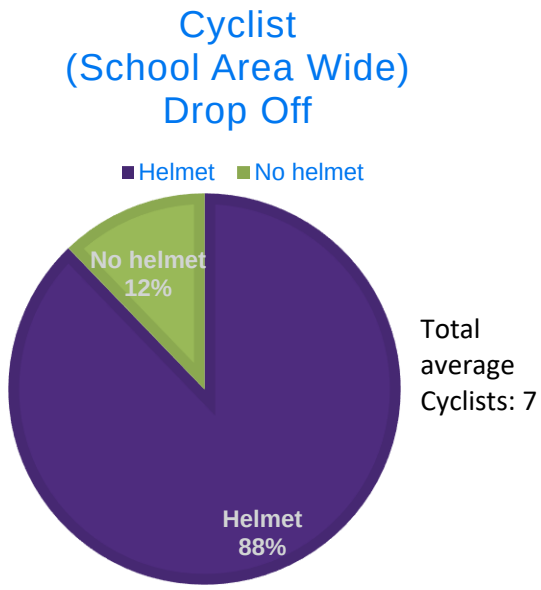


Figure 25. Cyclist Drop- off

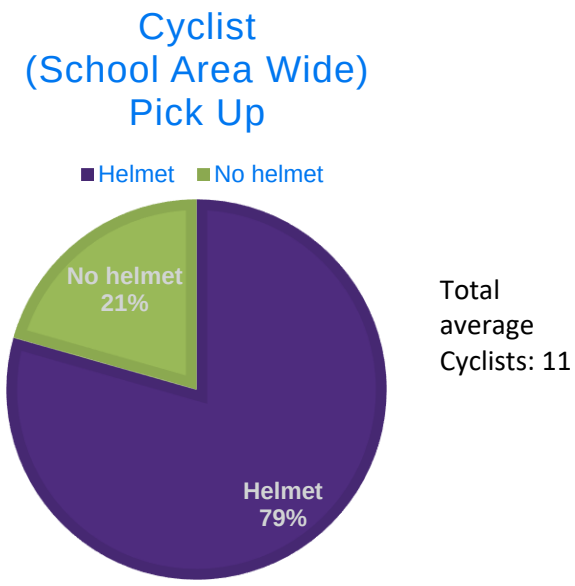


Figure 24.Cyclist Pick-up

Approximately 11% of those cyclists were students from Belgo.

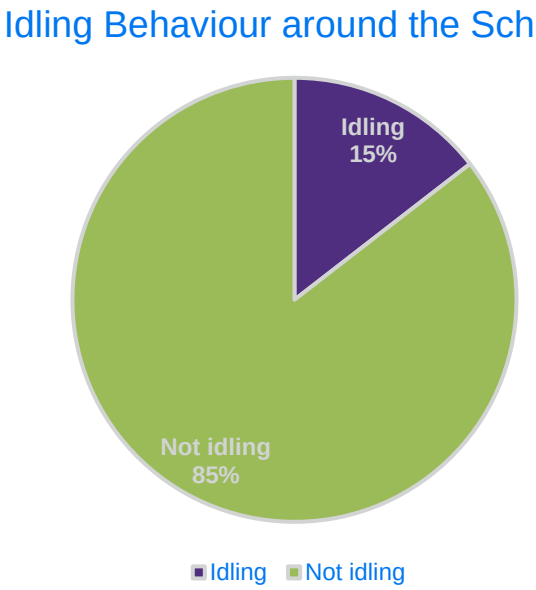


Figure 26. Idling Behaviuor around the school

On September 25, at 2:40 pm, a school bus idled for more than 10 minutes while waiting for students attending a field trip. On September 29, a parent from Belgo Elementary idled for 21 minutes while waiting (2:15-2:35) until the parent moved on and parked in another spot. On average, 24 cars were observed idling during the three days.

City of Kelowna also installed electronic traffic count instrumentation along Dougall Rd, Benchview Rd and Rutland Rd in 2014 and 2016. The following are the volume and speed statistics. Although all the counts are before traffic calms down in this area, speeds and volumes may be lower now.

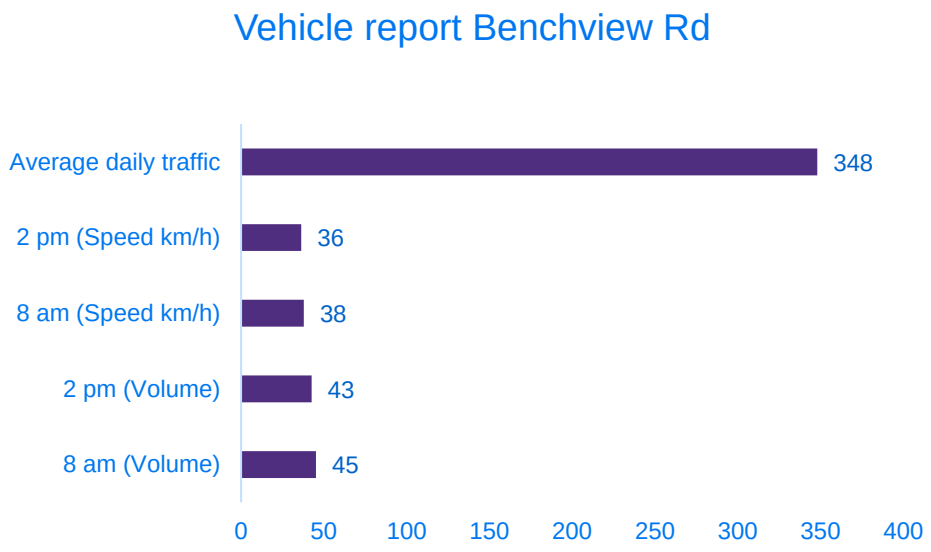


Figure 27. Vehicle flow report- Benchview Rd.-5/28/2014 to 6/04/2014

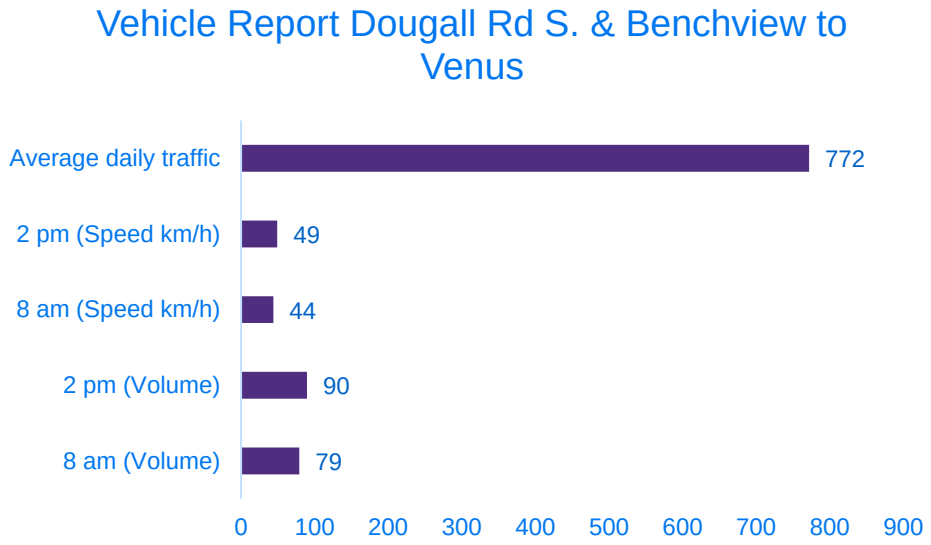


Figure 28. Vehicle flow report-Dougall Rd- 5/27/2016 to 6/03/ 2016

According to the sample taken at Rutland Rd-Belgo on September 22, 2016, at peak hour, from 7:45 to 8:45 am, an average of 732 vehicles pass through Rutland road.

Reducing Emissions from School Buildings

All but the most efficient buildings release emissions of gaseous pollutants, including nitrogen dioxide, particulate matter and carbon dioxide. These pollutants contribute to poor outdoor air quality and climate change and give rise to poor indoor air quality. Inadequate ventilation can lead to high concentrations of air pollutants in buildings, which can cause a health risk[4].

This section aims to identify some of the critical sources of building-related emissions. By implementing the recommendations in the action plan, the school will reduce pollution emissions from the building. Still, it may also be able to reduce energy costs. Projects to reduce school building emissions also provide an opportunity to influence and educate the school community on the issues of air quality and energy consumption.

Where do emissions come from?

It is estimated that the energy consumption from school buildings will account for roughly 37% of the school's overall greenhouse gas footprint. The contribution of school buildings to local air pollution is more challenging to establish. However, we know that equipment such as boilers makes a significant contribution.

Typical sources of pollution from school buildings include:

- Boilers (combustion of gas releasing nitrogen dioxide)
- Back-up generators (combustion of gas)
- Air conditioning systems
- Kitchens and canteens
- Vehicle: school transport, supplies and deliveries, cars idling
- Garden equipment (lawnmowers, leaf blowers, etc., running off gas)
- Other equipment, such as gas-fired water heaters

Opportunities for Emission Reduction

Understanding and managing the school's energy consumption will usually also enable you to reduce pollutant emissions. Belgo can undertake several actions to reduce energy consumption and pollution emissions, which have been identified. Those actions are described in the Action Plan.

[4] Indoor Air Quality in Buildings: A Comprehensive Review on the Factors Influencing Air Pollution in Residential and Commercial Structure - PMC (nih.gov)

School GHG Emissions by Transportation

Considering the classroom and family survey data and average statistics, some sources of Greenhouse gases (GHG) were identified and estimated for Belgo School:

- The postal codes of all the students attending Belgo; those postal codes were transformed into Geocodes using http://www.gpsvisualizer.com/geocoder/
- Based on the classroom survey, an average of 72% of the kids are driven to and from school (driven + carpool + bus), and 28 % walk and/or bike/other.
- The emission factor of 0.2296 KgCO_2/km –"Average Emissions and Fuel Consumption for Passenger Cars."

Description	GHG(Tonnes/year)
Baseline: Belgo School GHG emissions due to kids being driven to and from school. Average 72% (driven + carpool+ bus)	97
GHG that could be saved if reaching the rest of the students who live in longer walking / short bike distances (less than 2.5 km, or 3 min drive time).	44
GHG already being saved; Baseline: 28% of the students walk and bike to and from school.	2.7
GHG potentially saved if 100% of parents driving their kids don't idle (considering 156 families).	27.9

The traffic count showed that at least 15% of the parents idle around the school. In addition to the GHG emission reduction from those who can bike or walk to school because they live nearby (less than 2.5 km), the Cleaner Air 4 Schools Program includes an idling campaign which involves the teachers' and parents' collaboration.
If that program is implemented and assumes:

- At least 257 families attend Belgo. Considering 72% of students are driven to and from school, it is estimated that 185 drivers are picking up/dropping off kids around the school on average—one car per family – light-duty vehicle.
- National surveys show Canadians idle between 6 to 8 minutes per day
- Emission factor-2.289 Kg CO_2/litre and cost of fuel $1.68/litre
- If 185 driver(s) of light-duty vehicles avoided idling for **6** minute (s) a day*, engine size 3lts, each driver would save 66 litres of fuel and $111 in fuel costs, contributing to 151 kg of GHG emissions reduction annually.

	If 257 families don't idle (6 min/day)	If 185 families that usually drop off the kids do not idle (6 min/day)
Fuel savings (L/year)	16,885	12,157
CO_2 savings (tonnes)	38,835	27,961
Cost savings ($/year)	$ 28,427	$ 20,468

Every tonne of CO_2 reduced counts!

School resources are available on the City of Kelowna website. Parents and staff can check out this interactive story map to learn more about idling and use the Idling Fuel and Money Estimator to learn how much fuel and money can be saved. As of Monday, July 25, 2022, residents and visitors can no longer idle within the City of Kelowna boundaries for more than one minute. For more information, please visit www.rdco.com/airquality.

*Source: Idling Wastes Fuel and Money (nrcan.gc.ca)

Indoor Air Quality

Why is indoor air quality important?

The **British Columbia Lung Foundation** states that Canadians spend 90% of their day indoors, with about 70% at home and 20% at work or school. Poor indoor air quality may cause headaches, tiredness, coughing, sneezing, sinus congestion, shortness of breath, dizziness and nausea. It can irritate the skin, eyes, nose or throat. Allergy or asthma symptoms could get worse. Poor indoor air quality is caused by indoor air pollution. Knowing possible causes will help you improve the quality of the air you breathe indoors.[5] Three basic ways to improve indoor air quality are to control the source, improve ventilation and clean the air.

SD23 and school administration should work together to ensure the best indoor air quality in school buildings. Here are some valuable resources for creating Healthy Indoor Air Quality (IAQ) in Schools:

- Framework for Effective School IAQ Management
- IAQ Tools for Schools Action Kit
- IAQ Tools for Schools Preventive Maintenance Guidance Documents
- IAQ Tools for Schools Video Resources
- In BC, there are Safety measures in place to protect students and staff and reduce the spread of COVID-19.
- The IAQ Fact Sheet Series is designed to help people without a technical background understand details about indoor air quality (IAQ) so that they can make critical decisions for their schools, e.g ventilation, HVAC filtration, in-room air cleaners, germicidals, electronic air cleaners and disinfectants.
- Radon testing, mitigation and awareness.
- Implement a sustainable procurement policy. This helps to make measurable progress towards sustainability goals, such as greenhouse gas emissions, zero waste goals, and social, diversity, economic, and local responsibility.

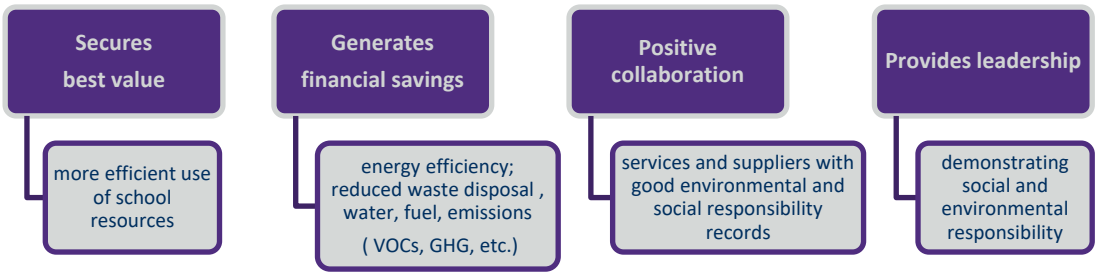


Figure 29. Benefits of Sustainable Procurement

School Travel Planning and Clean Air Goals

Considering all data from the Family Surveys, traffic count observation, classroom surveys and the GIS analysis, the Municipal and School Committees defined the Goals and Strategies to implement the Clean Air and Safe Routes 4 Belgo. The three main goals were:

- Reduce congestion within school premises and increase safety at the school site;
- Increase active school travel on the school journey, and
- Reduce overall school emissions

[5] Indoor Air Quality | HealthLink BC

Action Plan

This Action Plan includes short, medium and long-term measures. All measures were identified, including who will be responsible for the tasks and target completion dates.

Table 8. Belgo Action Plan

Action/Initiative	Tasks	Responsibility	Start Date	Completion date	Estimat eCost
Objective 1: Improve the safety of children on the active school journey					
Pedestrian and bike safety presentations	Seek road safety curriculum resources for classroom teaching. ICBC road safety teaching resources: Road safety (icbc.com)	Facilitator			none
Parent role-modelling messaging	Provide messages for use in school and parent communications Parents as Role Models - SCAN of Northern Virginia (scanva.org)	School Committee			
Road safety/personal safety presentation	Contact community police to present at an assembly • Road safety for your kids (icbc.com) • Contact B.C. RCMP - Speed Watch (rcmp-grc.gc.ca) • Resources available for teachers and parents at KidSmartz (missingkids.org)	RCMP			
School speed zone awareness	Seek road safety curriculum resources for classroom teaching. ICBC road safety teaching resources: Pace Car Community Guide (parachute.ca) Teach road safety (icbc.com)	RCMP			$
Improve vehicle and walker/cyclist separation at and on school site	A site study by school district staff/municipal advisors. We need to request the Director of Operations through the Principal. Add work to Annual Facilities Grant and/or Capital Plan)	Facilitator SD23 School Committee	Depending on priority with other projects	2019	
Improve access points for students.	SD23 Operations Department will analyze the improvement of narrow walkway entrances and opening in front of the school to right of the driveway for pedestrian access. Need to request through the Principal to Director of Operations. Add work to Annual Facilities Grant and/or Capital Plan.	Facilitator SD23 School Committee	Depending on priority with other projects	2019	$
School bus for students within 4.8 km ratio	SD23 will analyze parent's proposal to increase bus riders. This is SD23 policy 470R, if this policy is to change, parents would need to discuss it through PAC and request an amendment through the Board of Trustees.	Facilitator SD23 School Committee			$
Sidewalk	Rutland Rd from Venus to Holbrook – West side – new sidewalk	City of Kelowna	2018	2019	
Crosswalk – Rutland & Benchview	Flashing pedestrian lights	City of Kelowna	2018- Pending Budget	2018	
School Zone Signage enhancement	Replace signage – as required from fading or wear	City of Kelowna	As required	2018	$
Crosswalk – Venus & Rutland	Install delineator posts along the bike lane (east side)	City of Kelowna	2018- Pending Budget	2019	
Signage – Adventure Rd	Install parking signage to indicate parallel parking	City of Kelowna	2018	2018	
Crosswalk markings	Install standard crosswalk (parallel) markings on Adventure at Venus & Benchview, and on Venus at Rutland.	City of Kelowna	2018- Pending Budget	2019	
Best Walking Routes Map brochure	Create map showing the best routes and distribute it to families along with walking safety information.	City of Kelowna	2018	2018	
Bike Rodeo	Youth learn basic rules of the road, hand signals, obstacle avoidance and scanning techniques.	Facilitator	May 2018	2018	

Action/Initiative	Tasks	Responsibility	Start Date	Completion date	Estimat eCost
Objective 2: Raise the awareness of the environmental and health benefits of active travel					
Provide a Cleaner Air 4 school Program	The program is designed and will be provided by the Air Quality Program and the lesson will be delivered to grades 3-6 by the school teachers • Air Quality/ provides ready to use materials • Parents Council shares info through newsletter • School Administration supports delivering at least one lesson (around 30 min) a year through teachers grades 3-4 Check the Resources section at kelowna.com/airquality .	Air Quality School committee	March of every year	June of every year to 3rd grades.	$
Have students create artwork for temporary outdoor signage	Identify classes that can make this an art project or run a contest.	School Committee SD23 City of Kelowna	TBD	TBD	$
Have physical activity benefits messages in newsletters/health presentations.	Review information on the Public Health Agency of Canada website. • http://www.interiorhealth.ca/YourHealth/SchoolHealth/HealthPromotion/Pages/default.aspx • http://www.interiorhealth.ca/sites/Partners/SchoolDistricts/Pages/HealthPromotionResources.aspx • Online Action School (actionschoolsbc.ca)	School Committee Interior Health	TBD	Ongoing	
Sustainable Happiness lesson plans	Distribute teacher resources found at • SH Teacher's Guide NSNov19 (resources4rethinking.ca) • Sustainable Happiness and Health Education Teacher's Guide- Elementary | Sustainability Classroom Resources at Resources for Rethinking (resources4rethinking.ca) • http://www.cleanairchampions.ca/programs.php	School Committee SD23			$
Objective 3: To encourage more students to walk to school					
Drop & Go / Walk a Block or Two	Identify suitable locations for students to be dropped off outside the school zone.	School Committee/ Facilitator	TBD	2018	$
Buddy Scheme	Set up a scheme to encourage students to walk and cycle with others	School Committee Facilitator	TBD	TBD	$
Neighbourhood Walking School Bus	Identify a route from a suitable neighbourhood to school. Organize WSB.	School Committee Facilitator	TBD	TBD	
IWALK (International Walk to School Month – October)	Organize a Walk to School Week. How_to_set_a_walking_competition.pdf (kelowna.ca)	School Committee	2017 -October 4	Every year	$
Walk to School Days	Detail a challenge and advertise Walking Wednesdays. How_to_set_a_walking_competition.pdf (kelowna.ca)	School Committee	TBD	TBD	$
Appropriate dress	Organize a fashion show for Be Seen, Be Warm.	School Committee	TBD	TBD	$
Celebration	Organize a community walk to school with local dignitaries on Earth Day	School Committee SD23	April 22, 2018	Every year	
Bike and Walk to School Week	Encourage students and their families to walk, scooter, skateboard or ride their bikes to and from school. Homepage - GoByBike BC	School Committee/TDM	May 2018	Every year	$
Commuter challenge	Promotes friendly competition to see who can get the highest percentage of employees out of single occupancy vehicles http://commuterchallenge.ca	School Committee	June 4-10, 2018	Every year	$
Carpool month	Promote Carpooling as a simple way for individuals to participate in the climate change challenge while saving money, reducing congestion, and conserving energy. Communicate in the monthly newsletter for families and staff) Resources: • Free Carpool and Rideshare Listings (carpoolworld.com) • Carpooling Software for Schools (carpoolworld.com) • Carpooling and Car Sharing - Province of British Columbia (gov.bc.ca) • Rideshare in Kelowna (shareyourride.net)	School Committee	October 2018	Every year	

Action/Initiative	Tasks	Responsibility	Start Date	Completion date	Estimat eCost
Clean Air Day	Participate in activities that contribute to cleaner air, healthier communities and a better quality of life for all. Promote things you can do to help improve local air quality. Tie to Art Contest Okanagan Regional Library Introduces Air Quality Monitor Kit to Help Patrons Breathe Easy (orl.bc.ca)	School Committee/ Air Quality	June 2018	Every year	
Objective 4: To facilitate safe bicycling to and from school					
Bike safety training	On-bike training for students	Facilitator	October 2018	2018	No cost
Cycle Storage	Provide adequate bike racks in secure locations on the school site. Need to request through the Principal to Director of Operations. Add work to Annual Facilities Grant and/or Capital Plan) Bike registration to reduce theft and help recovery | 529 Garage (project529.com)	SD23/ School Committee	Depending on priority with other projects	TBD	$ review
Objective 5: Reducing Emissions from School Buildings					
Understanding Energy Use, and Improving Monitoring and Measurement	Monitor usage over a period of time, e.g. a week, a month. When and how often is the emissions source used? Report on areas of waste, across all spectrums of school (each year groups, staff department etc)• Where possible, establish permanent mechanisms to monitor energy or equipment use (e.g. meter readings, use of smart meters)	SD23	Ongoing		$
Reducing Energy Demand & Improving Building Efficiency	•Reduce energy waste (switching off appliances when not in use, installing occupancy sensors for lights, installing Thermostatic Radiator Valves to control temperature etc.) • Investigate energy efficiency of key building systems (i.e. most efficient boiler in place, investigating more suitable solutions such as Combined Heat and Power CHP) School IAQ Fact Sheet: Overview | U.S. Green Building Council (usgbc.org)	SD23	Ongoing		$
Investigate Opportunities for Renewable Energy Provision	• Investigate potential for on-site renewable energy generation, e.g. Photo Voltaic solar panels, wind turbines, ground source heat pumps etc. • If renewable energy options are not possible, ensure energy supplies are from a green provider	SD23	Ongoing		
Reducing Emissions from Procurement	• Source supplies locally where possible - reducing emissions from transport and delivery (e.g. food/stationery supplies) • Use sustainable products (i.e. recycled paper and stationery, cleaning products with low environmental impacts, energy efficient kitchen/office equipment – Energy Star Label)	SD23	Ongoing		$

Action/Initiative	Tasks	Responsibility	Start Date	Completion date	Estimat eCost
Test for radon gas and ensure lowest levels reasonably achievable, with all space below the Canadian Guideline of 200 Bq/m³	Screen each building by deploying detectors during the cold months of the year for a minimum of 91 days in the lowest level of the building receiving occupancy >4 hours/day • Implement interim and permanent radon reduction measures in obvious areas of concern, and especially in areas testing high. • Test buildings per the Health Canada Guide for Radon Measurements in Public Buildings, Workplaces, Schools, Day Cares, Hospitals, Care Facilities, Correctional Centres https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/guide-radon-measurements-public-buildings-schools-hospitals-care-facilities-detention-centres.html • Make radon inclusive of general building oversight, maintenance and data collection; obtain a portable radon monitor and routinely check buildings under different seasons, HVAC and energy efficiency adjustments, and after significant indoor renovation or equipment alterations • Be transparent with radon test results to staff and parents along with promotional material encouraging staff and parents to test their indoor environments. Resources available: o Greg Baytalan, Specialist Environmental Health Officer, Interior Health (250) 469-7070 ext. 12273 greg.baytalan@interiorhealth.ca o Information and links on the Interior Health Radon Page https://www.interiorhealth.ca/YourEnvironment/RadonGas/Pages/default.aspx • A Step-By-Step Manual for Radon Reduction, by Douglas L. Kladder, Protecting Your Home From Radon in Canada : a Step-by-step Manual for Radon Reduction | Okanagan Regional Library | BiblioCommons • School Resources - Take Action on Radon • Radon and Energy Efficiency | BC Lung Foundation	SD23/School Committee	Completed 2020	Completed 2020	
Objective 6: To monitor the effectiveness of initiatives and revise School Travel Plan					
Monitor transportation mode	Conduct a Follow-up Classroom Survey. BikeWalkRoll | How Did You Get to School Today?	Air Quality/School Committee	October 2017	May 2024	
Monitor behaviour changes	Conduct Follow-up Family Survey.	Air Quality/School Committee	October 2017	May 2024	$
Report on implementation of STP and initiatives	Follow-up of first-year actions. Revise the plan and compile a final report with recommendations.	Air Quality	April 2018	September 2024	$
Oversee the implementation of Action Plan items and track changes over time	The follow-up hands-up classroom survey should be performed at the end of every school year. If possible, a family survey should be performed every second year.	School Committee	October 2019	September 2024 onward	$

Follow-up Activities 2017-2024

City of Kelowna

September 2018

The City of Kelowna installed amber Pedestrian-activated flashing lights at Benchview and Rutland Rd.

Figure 30. New Pedestrian flashing lights installed at Benchview and Rutland Rd.

The traffic Safety Officer Dave Gibson trained 7 students for the kiss-and-drop valet.

November 2019

The City of Kelowna built a sidewalk on the west side of Rutland Rd from Venus Rd to Holbrook Rd W.

Figure 31. New sidewalk on Rutland Rd facing south. Photo taken north of Benchview Rd.

Figure 32. New sidewalk on Rutland Rd facing north. Photo taken near Belgo Rd.

2018 – 2019

The City of Kelowna installed Twin Parallel Line crosswalk markings at the intersections of Benchview Rd & Adventure Rd, Venus Rd & Adventure Rd, and Venus Rd & Rutland Rd.

Figure 34. Benchview Rd & Adventure Rd crosswalk markings

Figure 33. Venus Rd & Adventure Rd crosswalk markings.

Figure 35. Venus Rd & Rutland Rd crosswalk markings.

The City of Kelowna installed delineator posts along the bike lane on the east side of Rutland Rd approaching Belgo Rd.

Figure 36. Delineator posts along the east side of Rutland Rd facing north. Photo taken south of Belgo Rd.

The City of Kelowna installed parallel parking signage and replaced faded signs.

Figure 37. Examples of parallel parking and visible reflective signage along Adventure Rd.

Air Quality

March-April 2018

Air Quality compiled all information and prepared the School Travel Plan document for Belgo, including an Action Plan for the next five years. The Principal signed it on March 1, 2018.

The Air Quality coordinator prepared and provided to the school committee:

- An article about the Baseline results.
- The Cleaner Air Program 4. This program is part of the School Action Plan and should be delivered to students in grades 3 to 6 by the teachers. The activities, presentation and materials are ready to print and use and can be modified.
    - The Cleaner Program 4 Schools (word document)
    - Four appendices: "Things you can do to improve Air Quality," "Let's Talk Air pollution," "Air pollution Facts," and the Air pollution Lesson (PowerPoint presentation)

August 2018

Air Quality collaborated with the school committee to create the Best Route to School map. The routes were traced based on the available infrastructure and the feedback received through the mapping exercise from the Family surveys. The school committee helped to localize one possible "Park and Walk station." City staff created the Best Routes to Belgo-map.

Fall 2019

The Cleaner Air Program was shared once more with the school committee. Instructions and the link to set up Walking competitions were provided. It is recommended to plan a one or two-week event in October/April/May annually:

- October International Walk&Wheel to School Month
- Earth Day, April 22
- Environment week(first week of June)

Winter 2020

In September 2020, the Air Quality program successfully applied for and received $20,200 in funding from Health Canada for a Radon Outreach Project. The project's goal was to initiate screening of radon levels in selected schools in the Central Okanagan so school operators would learn how easy it is to test for radon, get radon on their agenda, mitigate where necessary to lower radon exposure to children and staff, and raise radon awareness region-wide through an online campaign.

This collaborative project with School District 23, Independent Schools, Interior Health, CARST and Health Canada helped 55 elementary schools screened for radon in 2020-2022. Belgo screened several school classrooms for radon in 2020.

When testing schools for radon, Health Canada's Guide for Radon Measurement in Public Buildings is to be followed, which involves testing every ground-contact occupied room. This comprehensive approach requires many radon detectors, whereas this screening program provided only a sample number. According to Health Canada's guidelines, all schools that were not fully tested were provided with recommendations to purchase additional detectors to ensure the school was tested entirely.

- A summary report was created: **School screening results 2021-2022**

Spring 2024

- The school participated in a Pollution Pit Stop Idling Awareness Campaign for two weeks from April 12-28, 2024 and completed the follow-up surveys on progress made.
- A pizza lunch was offered as a prize for a Pit Stop Pledge competition.
    - One grade 5 class enjoyed the pizza lunch on May 16, 2024.
- The Air Quality program provided 240 idling awareness packages to all families and staff.
    - The package includes City of Kelowna postcards, RDCO postcards, stickers and decals.
    - A couple of idling banners were lent and displayed around the school fences for two weeks- April 12-26

Figure 38. Pizza Lunch Idling Pledge winner class

A standard school package to run subsequent idling awareness campaigns can be ordered online at Air quality | City of Kelowna

Figure 39. Idling banners displayed

Follow-up Classroom Survey results: 2017-2024

During the week of April 22 to 26, 2024, the teachers completed a follow-up online classroom survey; Belgo Elementary School-STP follow up - BikeWalkRoll, providing the mode of transportation "To" and "From" school. The BikeWalkRoll report for the one-week data collection can be found at BikeWalkRoll School Report.

In 2017, Belgo had 346 students registered. Over the week of September 25 to 29, 2017, 12 classrooms completed the "hands-up surveys," reflecting travel "To" school of seventy-six percent of the students. In 2024, Belgo had 290 students registered. Seven classrooms completed the "To" school survey, accounting for sixty-five percent of the students.

The results below reflect changes in the transportation mode share "To" and "From" school, considering confidence level and margins of error.

	Baseline 2017 To School	Follow-up 2024 To School
Population size (expected number of trips tracked TO school over 5 days)	346x5= 1730	290x5=1440
Number of respondents (actual trips TO school tracked over 5 days)	1297	528
Confidence level	95%	95%
Margin of error	1.45%	3.40%

The figure below compares the travel mode before and after implementing the School Travel Plan.

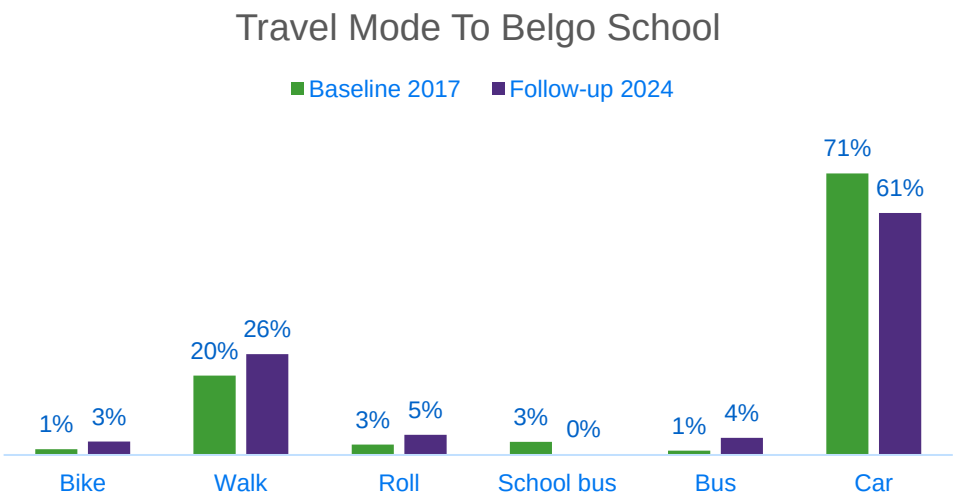


Figure 40.Travel Model to School -Follow-up

Before implementing the School Travel Plan, data shows, with a margin of error of ±1.45% and 95 % confidence level, that 69% to 72.8% of the kids travelled "To" school by car in 2017.

After the School Travel plan implementation, data shows, with a margin of error ±3.4% and 95% confidence level, that 58% to 64.8% of the kids travel "To" school by car. That means, on average, 10% fewer kids travel "To" school by car in 2024.

c	Baseline 2017 From School	Follow-up 2024 From School
Population size (expected number of trips tracked to school over 5 days)	1730	1440
Number of respondents (actual trips to school tracked over 5 days)	1253	404
Confidence level	95%	95%
Margin of error	1.45%	4.14%

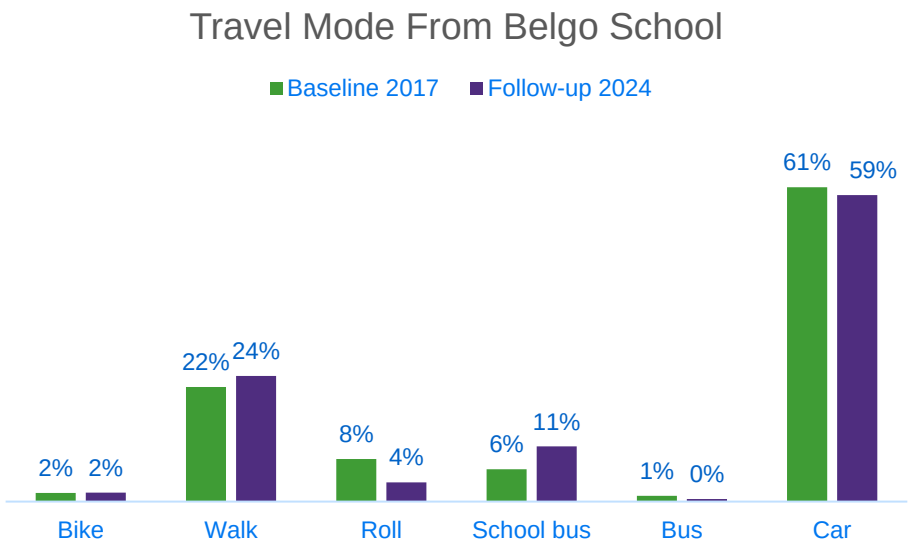


Figure 41.Travel Model From School -Follow-up

Before implementing the School Travel Plan, data shows, with a margin of error of ±1.45% and 95 % confidence level, that 59% to 62% of the kids travelled "From" school by car,

After implementing the School Travel plan, data shows, with a margin of error ±4.1% and 95% confidence level, that 55% to 63% of the kids travelled "From" school by car. That means on average, 1% fewer kids travel From school by car in 2024, and more kids take the school bus and walk.

On average, after the school travel plan implementation, 6% fewer kids travel by car "To" and "From" school.

Follow-up Family Survey Results: 2017-2024

In 2017, 133 family surveys were received out of 257 families, which means 52% of Belgo School families provided insightful information. In 2024, the school was integrated by around 200 families, and we only received 22 responses through the online family survey: School travel planning program, which means only 11% of parents provided feedback.

Due to the minimal number of follow-up family surveys received, **data samples are not large enough to reflect improvements related to barriers, real or perceived.** Nevertheless, a comparison between the baseline and the limited follow-up data is presented:

	Baseline 2017	Follow-up 2024
School population (number of families)	257	200
Number of respondents (surveys received)	133	22
Confidence level	95%	95%
Margin of error	5.91%	19.76%

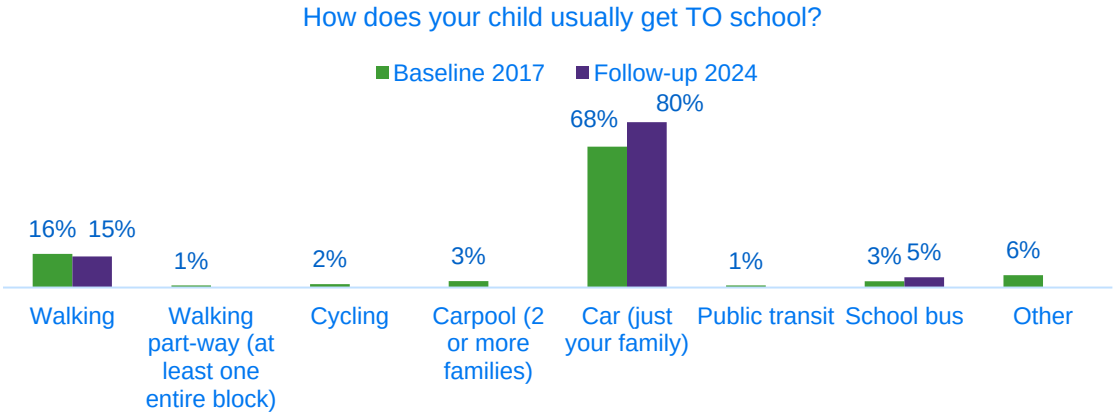


Figure 42. How does your child get to school? -Follow-up

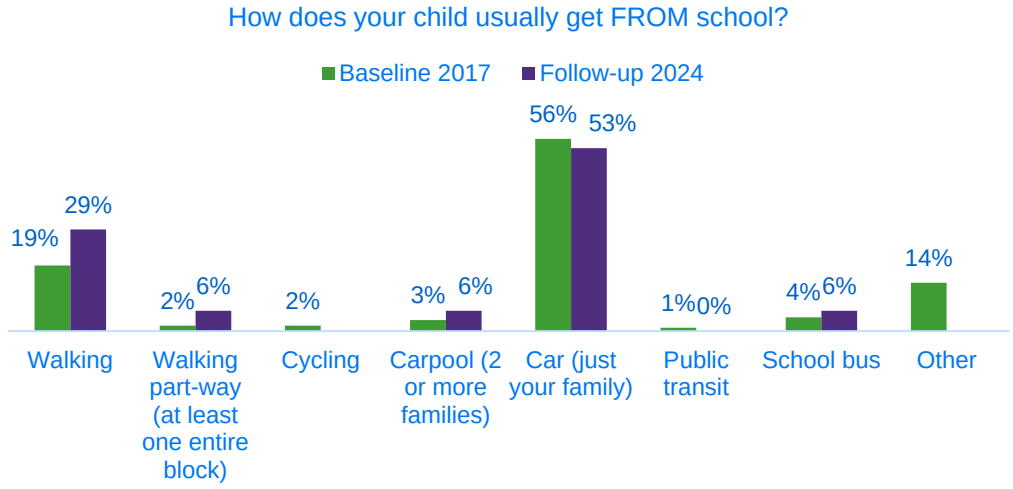


Figure 43. How does your child get from school? -Follow-up

The follow-up Family survey and additional comments from parents are included in Appendix 2.

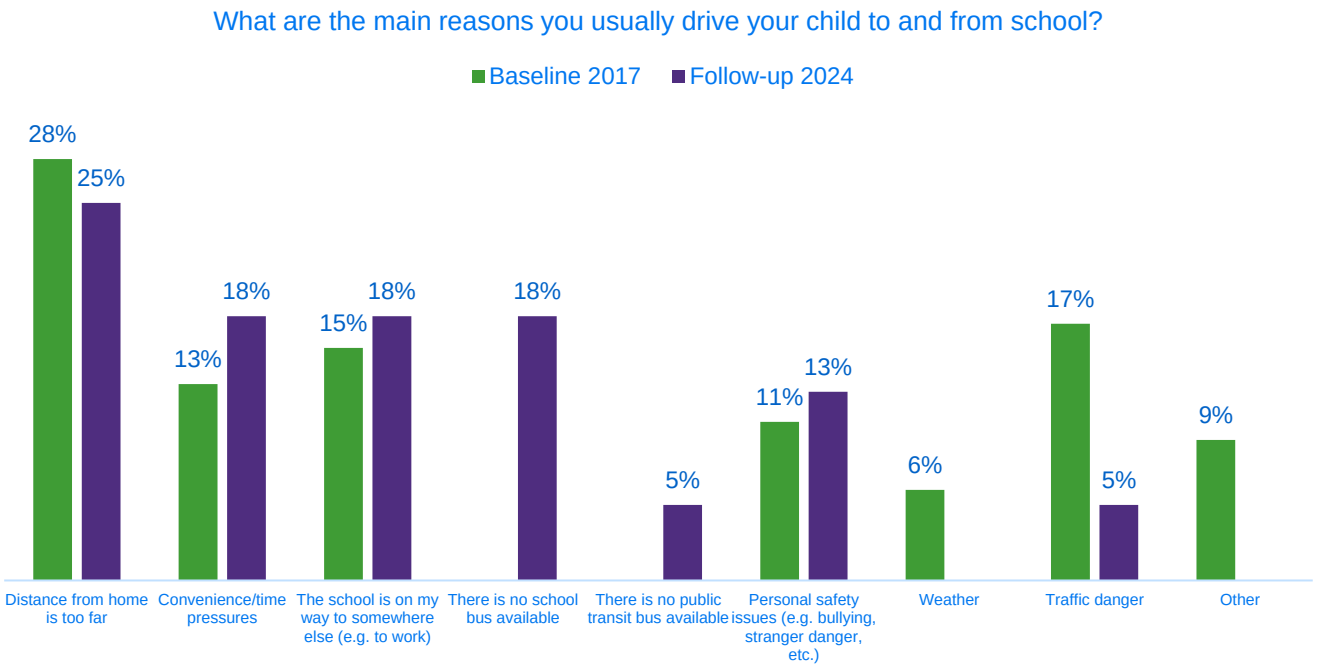


Figure 44. Main reasons you usually drive your child to and from school- Follow-up

Reasons provided in "Other": Worried about distracted drivers; No school bus coming to my area. Stairs are not stroller friendly and younger children struggle with the huge stair climb.

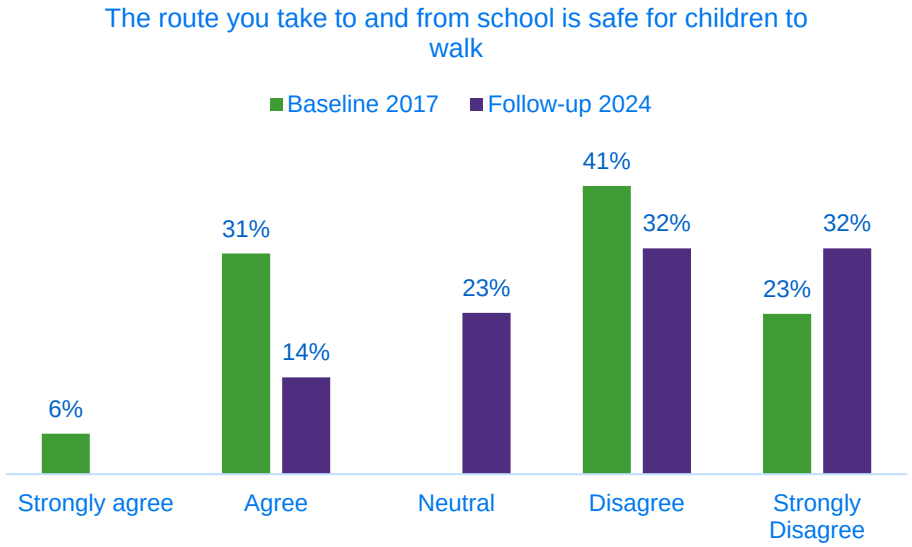


Figure 45. The route you take to and from school is safe for children to walk

The reasons provided in "Other", were: If there was a trusted adult to ensure the safety of the children (talking to strangers, wanting to pet their animals, etc.) and making sure vehicles followed the rules; Child has ASD. No crosswalks anywhere near them on Hwy 33. No sidewalks leading to 100 stairs; Busy routes.

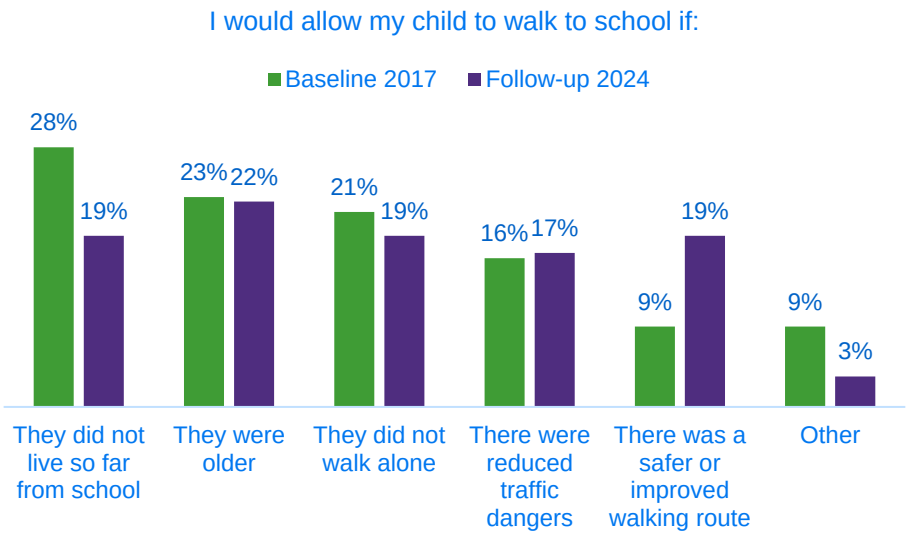


Figure 46. I would allow my child to walk to school if- Follow-up

"Other" included: Steep incline of Springfield Rd. No safe bike lanes to bike together to school. Child does not want to walk that far alone. Rides back home, but there are stairs he has to come down from. They cannot carry bike upstairs alone, so riding to school is not an option; Shorter bicycle route that was not along the highway or Springfield Rd. Less homeless people on the Rutland stairs.

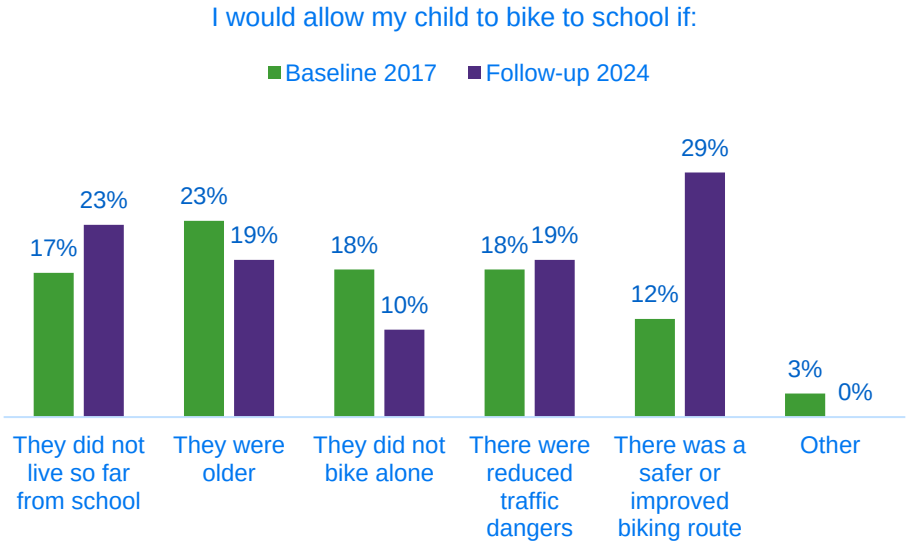


Figure 47. I would allow my child to bike to school if:Follow-up

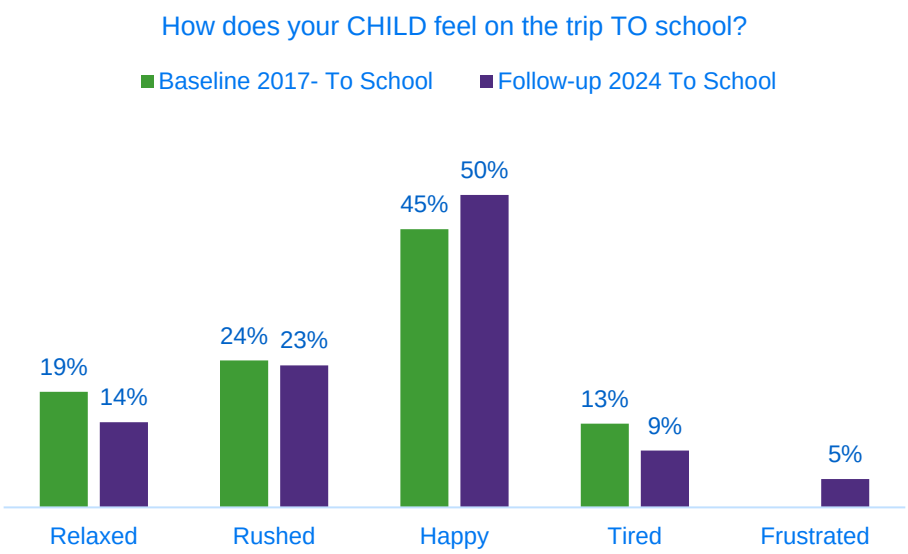


Figure 48. How does the child feel on the trip to school?- Follow-up

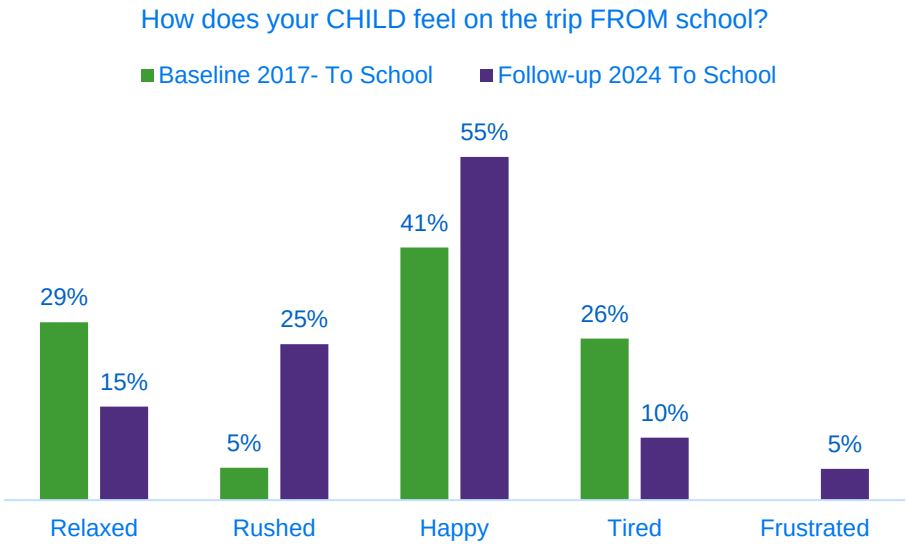


Figure 49. How does your child feel on the trip FROM school?- Follow-up

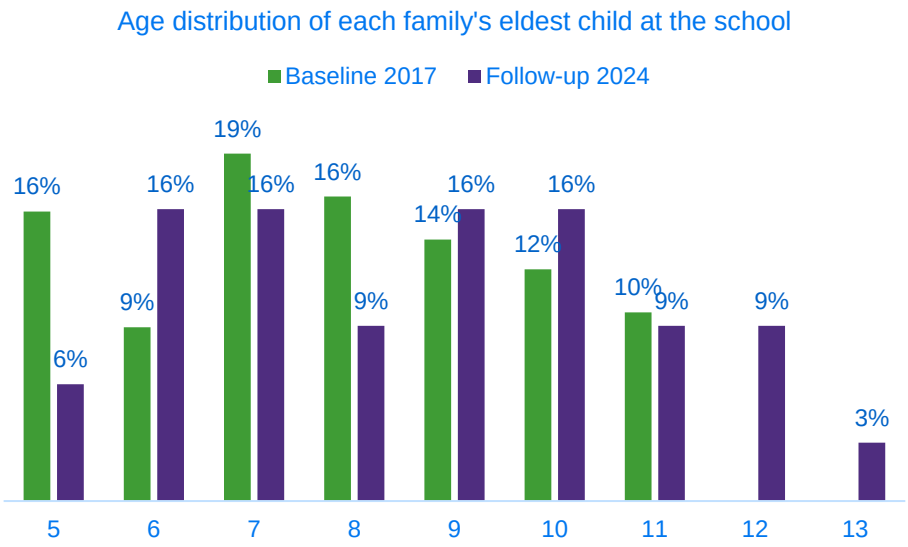


Figure 50. Age distribution of each family's eldest child at the school-Follow-up

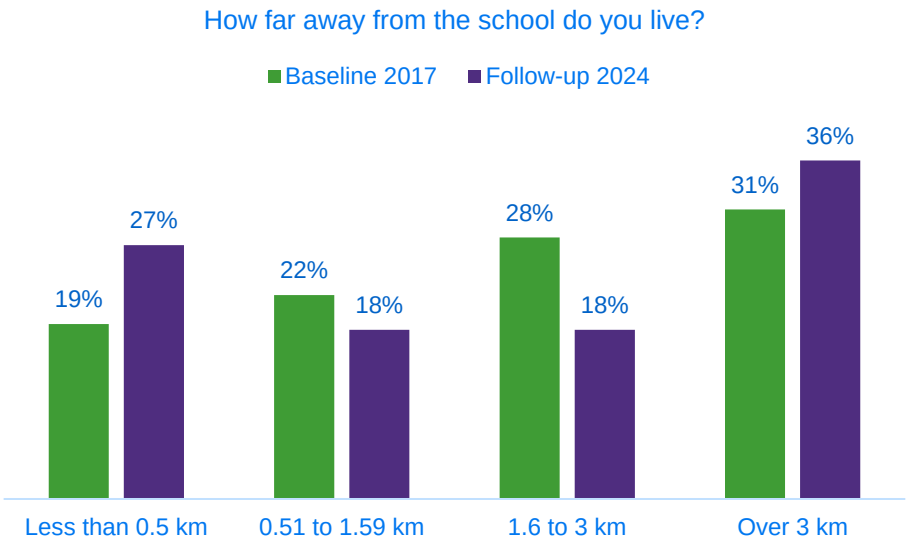


Figure 51. How far away from the school do you live?- Follow-up

The following graphs show the sentiments of 11% of the parents who provided feedback related to the actions performed around the school since the School Travel Panning project began.

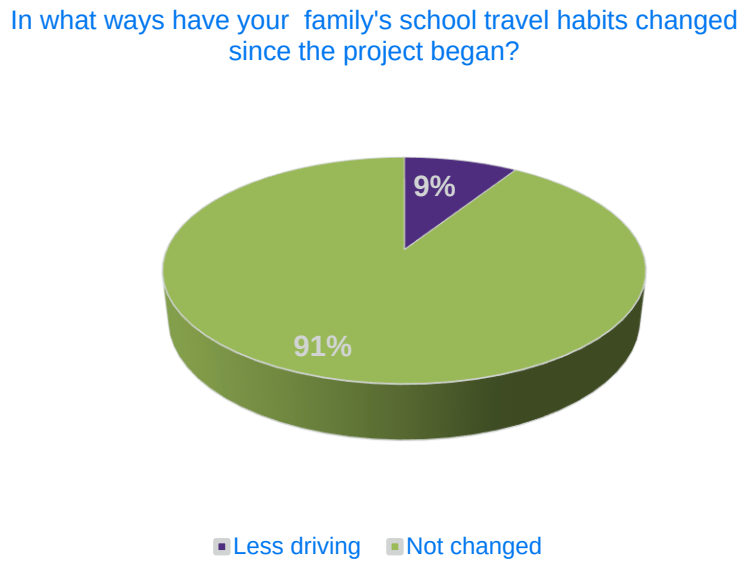


Figure 52. In what ways have your family's school travel habits changed since the project began?

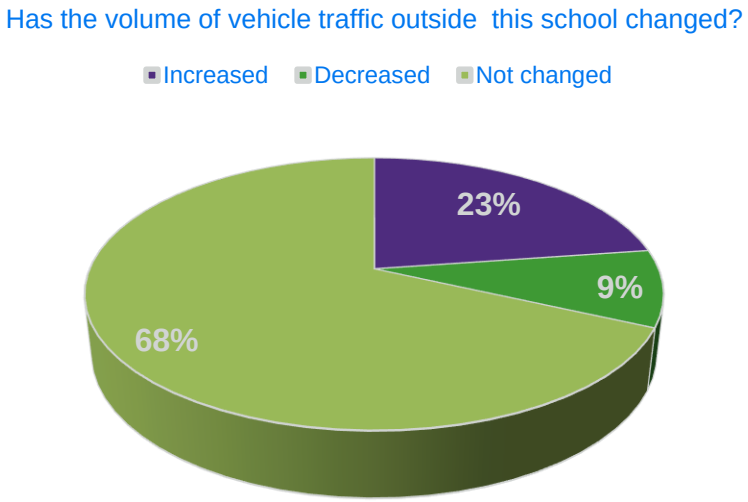


Figure 53. Has the volume of vehicle traffic outside this school changed?

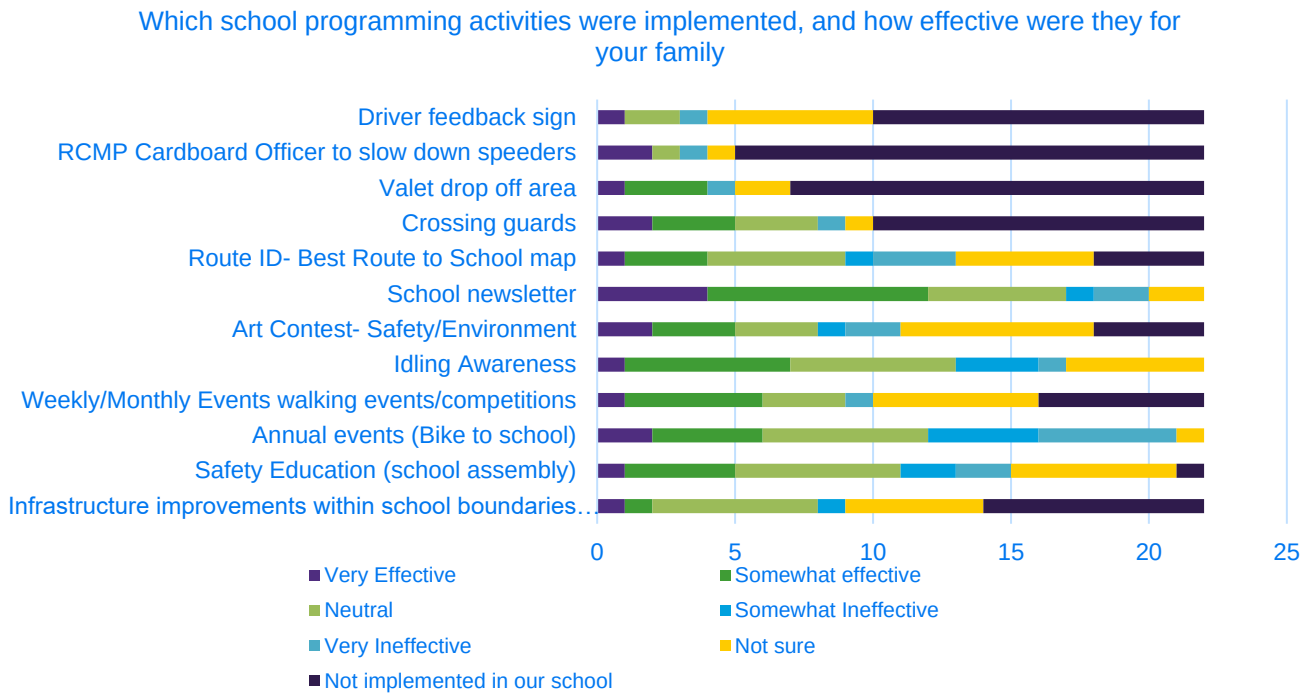


Figure 54. Which school programming activities were implemented, and how effective were they?

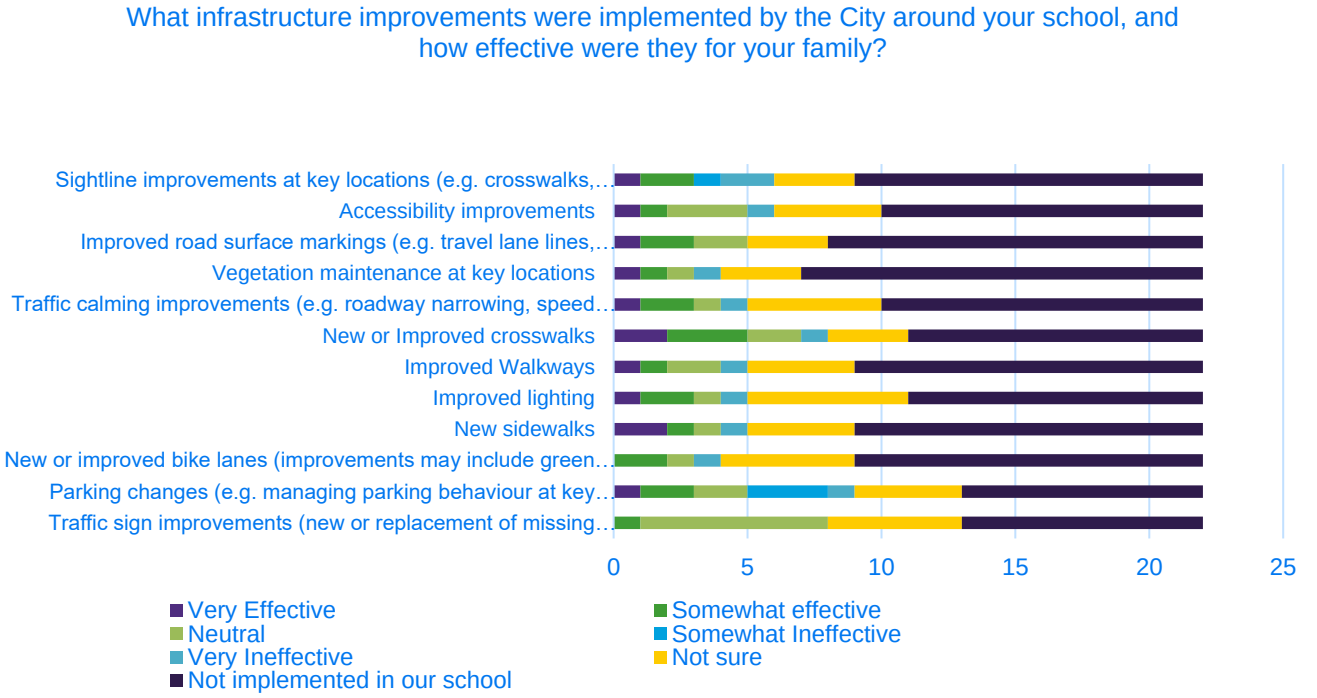


Figure 55. What infrastructure improvements were implemented by the City around your school, and how effective were they for your family?

Conclusions and Recommendations

- After a few years of activities and infrastructure improvements around the school, there was a 6% positive shift in active transportation, as more kids walk, bicycle, or roll. According to a GIS analysis of the students' postal codes, 32% live within 1 km. Therefore, Belgo Elementary can potentially increase the number of kids who walk to and from school even more.

- The main issue preventing parents from allowing their kids to walk or bike to and from school is that the distance from home is too far. More emphasis on carpooling and park-and-walk activities could be considered in the following years.

- Delivering the Cleaner Air Program each year to students in grades 3 or 4 may support the efforts to encourage sustainable transportation options over time. This program, developed in collaboration with Interior Health, contains information on idling, air pollution, and health facts that can be shared periodically with the school community through the school newsletter. The program aims to raise awareness about the environmental and health impacts of transportation choices and promote sustainable alternatives.

- Some parents' concerns, such as snow removal on a road, sidewalk, pathway, or tree/ bush trimming, can be quickly resolved through the Service Request System at www.kelowna.ca. We encourage the school community to report any issues as soon as they identify them to keep the best routes to school safe and clear of obstacles. The City's system is designed to address the various problems promptly.

- We recognize parents' crucial role in shaping their children's travel habits. As newsletters are the most effective way to reach out to parents, reinforced regular parent role model messaging can be a powerful tool for encouraging behaviour change. We suggest the school committee explore incentivizing responsible parents who follow traffic rules, e.g., providing VIP parking for a month or gift certificates. By knowing and adhering to traffic laws, parents can help ensure the safety of all road users, including their children.

- Due to the limited number of family survey responses, future family surveys could provide better insight into parents' sentiments and accurately reflect changes or improvements related to real or perceived barriers in travelling to and from school.

- The continuation of School Travel Planning has the support of 100% of the parents who answered the surveys in 2024. At the beginning of every school year, a new school committee is encouraged to be integrated with the new Parent Advisory Committee (PAC) to continue implementing the outlined annual actions. This process involves reviewing the previous year's activities, setting new goals, and planning or scheduling some Action Plan activities for the coming year.

Endorsement

In May 2024, through the follow-up family and classroom surveys, follow-up data was collected after substantial work was completed. The results were compared to the baseline data gathered in October 2017.

The results have been shared with the STP municipal and school Committees. The school is encouraged to share the results with parents/caregivers.

	Principal	Municipal Lead
< September 2024>	Leeann Yapps	Nancy Mora

Appendix 1. Stakeholders

Committee members

In coordination with the City of Kelowna, Regional Services invited the institutions described below to participate in the Municipal and School Stakeholder Committee. An introductory document on School Travel Planning and the Terms of Reference of the Municipal and School Stakeholder Committee was sent for their review.

The Municipal and School committee members were aware of their activities in advance and provided their input in the following manner:

- Participated in the Walkabout
- Contributed ideas for the Action Plan
- Participated in the education of parents and students regarding health, wellness, air quality and safety benefits
- Agreed with improvements recommended in the Action Plan

Table 9. Members of the School STP Committee

Stakeholder	Staff	Roll	Contact information
Belgo Elementary School		Description	Contact information
School Administration			
	Leeann Yapps	Principal	leeann.yapps@sd23.bc.ca
	Marie-Josee Bedard (Former)		Marie-Josee.Bedard@sd23.bc.ca
	Rhonda Powell Gill Hayward	Teacher	rhonda.powell@sd23.bc.ca Gillian.Hayward@sd23.bc.ca
Parents			
	Lacey Lenarduzzi	Parent	
	Jennifer Spencer	Parent	
	Rob World	Parent	
	Taralyn Friesen	Parent	
	Collin Whyte	Parent	

Table 10. Members of the Municipal Stakeholder Committee

Stakeholder	Staff	Roll	Contact information
	Name	Description	Contact information
City of Kelowna	Dan Glasscock Dave Gibson (Former)	STP Facilitator	dan.glasscock@sd23.bc.ca
	Nancy Mora	Regional Air Quality Program Coordinator	nmoracastro@kelowna.ca
	Jayde Hiemstra	Communications Coordinator	As needed jhiemstra@kelowna.ca
	Jasen Sacmann Melissa Stickland (Former)	Traffic Technician	jsackmann@kelowna.ca MStickland@kelowna.ca
RCMP	Federico Angulo	Law Enforcement	Federico.ANGULO@rcmp-grc.gc.ca
School District	David Widdis	Planning Manager	david.widdis@sd23.bc.ca
Interior Health	Tanya Osborne Anita Ely	Community Health Facilitator Environmental Health Officer	tanya.osborne@interiorhealth.ca Anita.Ely@interiorhealth.ca

Acknowledgements

Thanks to the following organizations for their valuable information:

Green Communities CANADA

HASTe HUB for ACTIVE SCHOOL TRAVEL

LSx London Sustainability Exchange

City of Kelowna
City of West Kelowna
District of Lake Country
District of Peachland
Westbank First Nation
Regional District of Central Okanagan

smartTRIPS

Active & Safe ROUTES TO SCHOOL

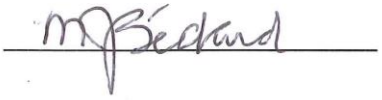
City of Kelowna
City of West Kelowna
District of Lake Country
District of Peachland
Westbank First Nation
Regional District of Central Okanagan

smartTRIPS

Endorsement

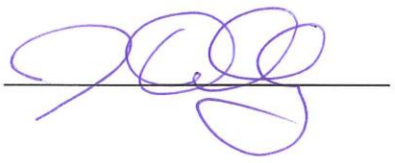
The School Travel Plan for Belgo has been endorsed by Principal Marie-Josee Bedard, and by one representative of the Municipal Stakeholder Committee.

School Principal: Marie-Josee Bedard

Signature: 

Date: March 1st, 2018

Lead representative of the Municipal Committee: Jerry Dombowsky

Signature: 

Date: March 1st, 2018

Statement of support

Clean Air and Safe Routes 4 Schools
School Travel Planning
School Agreement

I, Marie-Josee Bedard, Principal, agree on Belgo Elementary School's behalf, that we will participate in the School Travel Planning. I understand that the School Travel Planning process will begin immediately and continue on an ongoing basis—the first year being the most intensive with implementation continuing in year two and beyond. We have secured the support of the Parent Advisory Council to participate in this project.

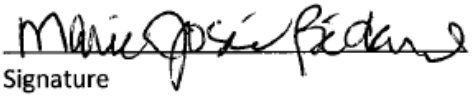
I understand that our school will have the following responsibilities:

- Participate fully in the five-step School Travel Planning process.
- Contribute in-kind staff time for data collection, meetings and implementation tasks.
- Allow select students to participate in meetings and assist with implementation.
- Provide meeting space as needed.

School Principal:

Marie-Josee Bedard
Name

Belgo Elementary School
School Name


Signature

April 24, 2017
Date

City of Kelowna
District of West Kelowna
District of Lake Country
District of Peachland
Westbank First Nation
Regional District of Central Okanagan

smartTRIPS

School Travel Planning
Municipal Stakeholder Committee
Statement of Support

I, David Widdis, representing the Central Okanagan School District No. 23, agree to participate as a member of the Municipal Stakeholder Committee for the City of Kelowna. This commitment will begin immediately and continue on an ongoing basis.

I understand that as a member of the Municipal Stakeholder Committee, my role in this project may include the following responsibilities:

- Consider the *Child and Youth Friendly Land Use and Transport Planning Guidelines* found at **www.kidsonthemove.ca/documents.htm** when making decisions about Action Plan items.
- Contribute in-kind staff time for meetings, data collection and implementation tasks that are relevant to my organization's existing responsibilities in the community, e.g. transportation engineering and planning departments will oversee infrastructure, police and/or bylaw officers will oversee safety and traffic enforcement, public health and school districts will guide education opportunities, etc.

David Widdis
Name

Signature

Central Okanagan School District No. 23
Organization Name

April 10, 2015
Date

Witness:

Jennifer Pearson
Name

Signature

Central Okanagan School District No. 23
Organization Name

April 10, 2015
Date

School Travel Planning

Municipal Stakeholder Committee

Statement of Support

I, Anita Ely, representing the Interior Health Authority, agree to participate as a member of the Municipal Stakeholder Committee for the City of Kelowna. This commitment will begin immediately and continue on an ongoing basis.

I understand that as a member of the Municipal Stakeholder Committee, my role in this project may include the following responsibilities:

- Consider the *Child and Youth Friendly Land Use and Transport Planning Guidelines* found at **www.kidsonthemove.ca/documents.htm** when making decisions about Action Plan items.
- Contribute in-kind staff time for meetings, data collection and implementation tasks that are relevant to my organization's existing responsibilities in the community, e.g. transportation engineering and planning departments will oversee infrastructure, police and/or bylaw officers will oversee safety and traffic enforcement, public health and school districts will guide education opportunities, etc.

Anita Ely
Name

A. Ely
Signature

Interior health Authority
Organization Name

September 26, 2017
Date

Witness:

J. Ivor Norlin
Name

Signature

Interior health Authority
Organization Name

September 26, 2017
Date

City of Kelowna
District of West Kelowna
District of Lake Country
District of Peachland
Westbank First Nation
Regional District of Central Okanagan

smartTRIPS

School Travel Planning
Municipal Stakeholder Committee
Statement of Support

I, David Widdis, representing the Central Okanagan School District No. 23, agree to participate as a member of the Municipal Stakeholder Committee for the City of Kelowna. This commitment will begin immediately and continue on an ongoing basis.

I understand that as a member of the Municipal Stakeholder Committee, my role in this project may include the following responsibilities:

- Consider the *Child and Youth Friendly Land Use and Transport Planning Guidelines* found at **www.kidsonthemove.ca/documents.htm** when making decisions about Action Plan items.
- Contribute in-kind staff time for meetings, data collection and implementation tasks that are relevant to my organization's existing responsibilities in the community, e.g. transportation engineering and planning departments will oversee infrastructure, police and/or bylaw officers will oversee safety and traffic enforcement, public health and school districts will guide education opportunities, etc.

David Widdis
Name

Signature

Central Okanagan School District No. 23
Organization Name

April 10, 2015
Date

Witness:

Jennifer Pearson
Name

Signature

Central Okanagan School District No. 23
Organization Name

April 10, 2015
Date

City of Kelowna
District of West Kelowna
District of Lake Country
District of Peachland
Westbank First Nation
Regional District of Central Okanagan

smartTRIPS

School Travel Planning

Municipal Stakeholder Committee

Statement of Support

I, Jerry Dombowsky, representing the Sustainable Transportation Partnership of the Central Okanagan, agree to participate as a member of the Municipal Stakeholder Committee for the City of Kelowna. This commitment will begin immediately and continue on an ongoing basis.

I understand that as a member of the Municipal Stakeholder Committee, my role in this project may include the following responsibilities:

- Consider the *Child and Youth Friendly Land Use and Transport Planning Guidelines* found at **www.kidsonthemove.ca/documents.htm** when making decisions about Action Plan items.
- Contribute in-kind staff time for meetings, data collection and implementation tasks that are relevant to my organization's existing responsibilities in the community, e.g. transportation engineering and planning departments will oversee infrastructure, police and/or bylaw officers will oversee safety and traffic enforcement, public health and school districts will guide education opportunities, etc.

Jerry Dombowsky
Name

Sustainable Transportation Partnership of the Central Okanagan
Organization Name

Signature

April 10, 2015
Date

Witness:

Ron Westlake
Name

Sustainable Transportation Partnership of the Central Okanagan
Organization Name

Signature

April 10, 2015
Date

Appendix 2. Walkabout Findings and Family Survey comments

The Walkability Checklist	Findings by School and Municipal Committees
At the School Site	
Parking lot, or on road parking at school	
Is there potential for vehicle and pedestrian conflict?	Double parking. Pedestrians and cars entering school on same parking entrance. Winter-narrowed parking/travel lanes.
Is traffic flow clearly signed? (on ground and on signs)	Yes, no-stop signs available on school site, but not followed by parents.
What is the parking and driving behaviour of driving parents and staff?	U-turns are frequent. Cars entering through "exit only " to drop off at parking lot. Block driveways, parking entrance, hydrant and bus parking. Distractive driving, Stressed.
How do children access the school from parked vehicle? (do they use a crosswalk, is one available?)	Jaywalking. Drop off on street when no parking available. Only parking available is on side of road (soft shoulders).
Is there parking lot supervision?	No directly. Only on volunteer basis.
Facilities for walkers on the street next to the school site	
Number and position of safety patrollers, adult and/or student, if any. If they are not currently organized, are they needed?	Not organized at the moment. A few teachers for a few weeks at the beginning of the school year.
What are the sight distances from school crossing to road curves, blind corners, or school and transit bus zones?	Generally good sight lines, but parked cars reduce visibility.
How is the placement of the school crossing in relation to driveways and bus loading zones?	Only one school bus comes 8:10 and has designated parking in front of the school. After 8:10 parents park in bus area. Parents usually block driveways around school.
Are there sidewalks?	Yes, on the school's side.
Walking paths to the school	
Where are the access points for students?	Parking lot in front of the school, one narrow entrance beside bike racks and through 3 walkaways; narrow entrances- unable to pass with stroller, bicycle or backpack. 15-26" wide onto field.
Is there potential conflict with vehicles?	Yes, cars and pedestrians are entering through the parking lot. Rutland rd-people pass on right over crosswalks when cars stopped at crosswalk-bollards or barriers needed. Walkway at Venus, parents park on driveways and drop-off on street. Benchview&Adventure cars park on soft shoulder. Rutland&Benchview, bus block view, cars block driveways, bush blocks view. Similar situations @ Venus &Rutland. Vehicle backing up from driveway towards sidewalk/crosswalk onto Rutland.
Is the lighting adequate along walkways?	No lights through. But lighting on opposite side of streets.
What is the maintenance of walkways, i.e. snow and ice removal; mud, puddles; holes needing filling?	Poor maintenance. Dangerous in Winter- snow from street and sidewalk moved onto shoulder of road. Narrows the street to a 1-way road.
Can routes from backfields, adjacent parks, be used year-round?	Yes. Snow control would increase its use. Narrow entrance-limited accessibility (bike or even big backpack). Not for anyone with mobility issues.
Bicycle facilities	
Bike racks: do they exist? Are they secure, sheltered?	Not sheltered. Enough room for 30-40 bikes (under used)

Is there potential for conflict with vehicles to access the bike storage area?	No
School Bus/After School Care Loading Zone	
Where do students wait for busses, and for how long? What type of supervision is employed?	In front of school main entrance and playground area - parking lot for private after school program.
How many busses, vans and special needs transportation vans/busses access the school?	1 school bus in the morning.4-5 after school vans. No Special Ed bus
Are there ramps, any special entrances or accommodations for differently-abled students?	Yes, wheelchair accessible. No special needs students currently attending.
Further items to look for	
Emergency vehicle access	Yes, but fire hydrant blocked daily.
Location of garbage dumpsters and other school maintenance equipment	Yes, near exit to school parking lot
No-idling signage	Yes. Notice a couple of vehicles idling.
For waiting students and families:	
Shelter from inclement weather/shade	No. Only under sides of building but not significant
Play area	Yes, fenced off.
Natural landscape	Trees, playground,
In Areas Surrounding School Site	
Walking facilities and traffic observations	
How far do sidewalks extend around the school and into the surrounding community?	All around school. A few gaps on Venus. Only one side on Adventure Rd. (school side)
What is the type, volume, speed, noise and pollution of traffic on surrounding streets—perceived and real (the municipality might have volume and speed counts).	Rutland &Benchview-smell exhaust. Dangerous maneuvers.
Are there heavy trucks? Are there problem areas where a heavy truck might mount the sidewalk to turn at an intersection?	Not much truck traffic.
Are there on-street signs that indicate to drivers they are approaching a school zone? Are they visible?	Yes
Timing of traffic lights? Do they allow enough time for small children to cross safely?	Not lights. Crossing flash lights requested in the past.
Alternative safe parking locations	
Is there an area away from the school to suggest for distant driving families to safely park to take part in a walk-a-block-or-two scheme?	Side and back entrance but with narrow entrances. Dougall&Venus or Dougall &Benchview
Bicycle facilities	
Are bike paths or lanes suitable for families?	Bike lanes only on Rutland-a few gaps to connect to school. Parked cars in surrounding streets make it difficult. Kids ride on sidewalks.
Are best cycle routes identified?	No
Non-traffic related items to consider	
Types of buildings surrounding school: residential, recreational, commercial, industrial	Residential
Location of other public spaces near school: parks, community centres, libraries, churches	Lions Park is two blocks away. They could park near the 3 walkways (school perimeter).
Number of shade trees on streets	Not in front of the school, but considerable in school perimeter.
Green space vs. concrete space	Quite Balanced. 40% green vs 60% concrete.
Graffiti on buildings	No

Physical state of the sidewalks	Good. Many soft shoulders. On Rutland sidewalks has poles in centre and need to stop od soft shoulder to go around.
Size of the sidewalks	Most standard, others relatively narrow.
Garbage along the routes to school	No
Obstructions on the sidewalks	Not frequent, but one car on Venus was obstructing the sidewalk.
Block Parent or Neighbourhood Watch community—if so, where are Block Parents located?	Unknown
Potential or known areas where crime, bullying, loitering or intimidation is possible	Potential-Back walkways on side of field (Benchview @ Dougall)
General Comments	Highway 33 and Hwy 97- Ministry of the Environment responsibility.
	Flashing crosswalk requested in the past. City is looking into it, subject to budget approval.
	Snow on sidewalks is resident's responsibility-bylaw enforcement a possibility
Suggestions	To SD23-Is it possible for kids living within 4.8 km to be eligible for school bus? Some parents are willing to pay. Very few students use the school bus.
	Gate opening near playground to avoid car/pedestrians conflict. Re-sized other walkways entrances for easy access

The online Familiy survey and obstacle map can be found in the Get Involved Kelowna platform School travel planning program | Get Involved Kelowna

Additional Comments from Family Surveys- Baseline 2017			
Location 1	Description	Location 2	Description
Rutland at Benchview Road	Sometimes vehicles do not stop at crosswalk across Rutland Rd.	Stirling Rd	No sidewalks
Belgo Road	No sidewalks	Rutland Rd crosswalk	Cars speed down Rutland Rd. Drivers do not pay attention at crosswalk
Belgo and Springfield Road intersection	Vehicles travel faster than speed limit to\from Hwy 33 via Springfield. No marked crossing between Hwy 33 and Rutland Road to cross over. Closest is just past Rutland Road\Springfield Road	Houghton Rd between Hollywood Rd and Dougall Rd	No sidewalks
Hwy 97, 33, and Rutland Road North	No safe bike lanes	In front of the school	There are many vehicles. There are aggressive, fast drivers, and distracted drivers (cellphones)
Crosswalk at Venus Rd and Rutland Rd	Wide shoulder allows vehicles to pass on the right over top of a crosswalk when the car in front of them is stopped for pedestrians in crosswalk or waiting to turn left.	Adventure and Benchview	Speeding, no signals, no understanding that it is technically a crosswalk.
Hwy 33 and Rutland Rd	Busy street/ rough area around 7-11 intersection	Belgo Rd from home.	No sidewalks
Hollydell\Hollywood	Traffic stop is always busy and dangerous	Adventure and Rutland road	Sidewalks not plowed. People will walk on the road.
McIntosh Rd and Rutland Rd	Cars turn right without looking for pedestrians	Belgo Rd	No sidewalks
Rutland Rd	Crosswalk unsafe	Venus Rd to Adventure Rd	No crosswalk. Morning and after-school traffic
Springfield at Rutland Rd	Difficult for bikes and pedestrians	Venus/Adventure Rd	Cars are parked all over the place, making it hard to moving cards to see kids crossing the road.
Belgo Rd	No sidewalks, 2 blind spots, and speeders	Venus and Adventure Rds	Very busy with cars coming/going and parked before and after school.
Rutland Rd near Venus	Cars pass on the right (in bike lane or gravel), and speed. Vehicles do not stop at crosswalk.	Venus and Adventure Rds	No crosswalk.
Hwy 33\Springfield	High-speed Hwy traffic. Lack of sidewalk along Springfield	Corner of Springfield and Hollywood Rds	Traffic always speeds and tries to get through lights.
Springfield Rd at Hwy 33	Crossing the highway there is no light or x-walk.	Benchview Rd and Adventure Rd	A crosswalk would feel safer for crossing with school traffic
End of Hollywood Rd. South and Springfield Rd	No crosswalk to cross from left to right to get to sidewalk. High-speed traffic	Rutland Rds and Belgo Rd	At crosswalk cars go way too fast
Crossing Rutland Rd at Benchview Rd	Traffic does not stop for pedestrians and drive above speed limit	Adventure Rd	No Sidewalks
Rutland Rd and Venus	No one stops at crosswalk. Almost been hit by cars multiple times. Cars pass on the right hand side of	Jupiter\ Rutland Rd	Rolling stops

	vehicles that stop at the crosswalk. Shoulder on the road is wide, it allows vehicles to pass on the right. Crosswalk is located on a bend in the road, which reduces reaction time for vehicles when they do see pedestrians on the sidewalk.		
Hwy 33 meets and Springfield	Major 2 lane highway with no crosswalk and no lights.	Hollydell Rd	No crosswalks
Hwy 33 and Springfield	No crosswalk to cross 4 laned highway	Gerstmas Rd and Thompson Rd	No sidewalk near and crossing at the light is terrible. People making right-hand turns to Springfield have difficulty seeing pedestrians
Rutland Rd		Myron Rd and Muir Rd	Not a lot of street lights. No sidewalks
Springfield Rd and Neptune Rd	Drivers do not put attention to crosswalk light. Road is busy and cars drive way too fast.	Dougall Rd	Gross sidewalks
Springfield Rd	High-speed traffic.	Venus+Rutland and Benchview+Rutland	Ignoring of crosswalks.
Pasadena Rd	No sidewalks.	Springfield to Rutland Rd South	High-speed traffic. Only flashing lights to cross.
Benchview Rd	Cars/trucks drive too fast sometimes. It is hard to see walkers on crosswalk. It is scary trying to go around cars going left.	Infron of Belgo	Cars idling
Perry Rd to Dell Rd "100 stairs"	No sidewalks on side streets leading to bottom of "100 stairss" linking Dell and Dougall Rd South	Mars\Rutland	Rolling stops
Stairwell between Dougall and Dell	Stair case is steep and can be icy in Winter.	Hwy 33	Very busy street
Intersection of Rutland Rd and where the crosswalk lights are		Belgo Rd and Springfield Rd	Risky corner. No light, no crosswalk. Too dangerous to send child through this area
Crossing Springfield Rd	People speed a lot. Has witnessed several accidents at this intersection.	City Bus exchange	Shady characters (drugs)
Rutland Rd near Benchview Rd	Crossing Rutland Rd at crosswalk is very unsafe. Cars do not stop for the kids. There are cars that park on both sides of the crosswalk and the kids are too short to be seen by drivers. Cars passing on the right as cars turn left on Benchview.	Dougall Rd South	Cars Speeding
Rutland Rd	No sidewalk on west side of Rutland Rd	Gemin\Rutland Rd	Rolling stops
Holbrook Rd after prior Rds	No crosswalk to footpath	Rutland Rd crosswalks	All need flashing lights
Lynnick Rd near Sunrise Kloppenberg	No sidewalks and cars go extremely fast	Hollydell Rd and Hollywood Rd	Busy intersection
Hwy 33 and Springfield	Very busy highway to cross	Hollydell Rd towards Dougall Rd	No sidewalks and a lot of cars parked on the road
Lights at Hwy 33 and Dougall Rd	Left turning vehicles. Have been nearly hit 5 times when driving	Crosswalk on Leathhead	Uncontrolled crosswalk. Fast traffic
Adventure Rd near the school	Lacks sidewalk	Quigley Rd	Traffic, cars turning corner too quickly.
Holbrook Rd West	No sidewalks	Rutland Road	Busy Street

Hollydell Rd\ Dell Rd	Very steep stairs to climb (100 stairs)	Crosswalk at Benchview and Rutland Rd	I have seen children nearly get run over at this crosswalk
Neptune\Springfield	Traffic turning through the red pedestrian light often	Springfield Rd on Belgo Rd	Traffic speed
Dougall Rd and Hwy 33	Crossing the Hwy is dangerous	Rutland Rd near Benchview	Cars pass on the right (in bike lane or gravel), and speed. Vehicles do not stop at crosswalk.
Rutland Rd	Full of speeders and drivers are distracted\do not put attention	Springfield Rd	No sidewalk between Hwy 33 and Belgo Rd
Rutland Rd	Crosswalk has no lights. Cars passing other cars on shoulder	Springfield and Neptune Rds	No crosswalk
2268 Garner Rd	No sidewalks. Major Hwy crossing with no crosswalk	Springfield meets Rutland Rd	Cars speed. No sidewalks, no lights, no crosswalks, and a major intersection.
Gerstmar Rd and Graham Rd	Busy intersection with no designated crosswalk or crosswalk lights	Hwy 33 and Trant Rd	No crosswalk to cross 4 laned highway.
Benchview Rd\ Rutland Rd	Cars often do not stop or see people at crosswalks. Flashing lights are needed	Sidewalk on Springfield near Rutland Rd	Sidealk is very close to road and cars travel very fast.
Crossing on Rutland Rd	Needs a button to stop traffic	Rutland Rd at Venus	Busy bend on road, cars come very fast around the corner.
Hollydell Rd and Hollywood Rd	Heavy traffic crossing at Hollywood Rd. One has to go off route to get to a crosswalk	Intersection at Springfield and Hollywood Rds	No crosswalk and a lot of traffic.
Intersection of Dougall Rd and Hwy 33	Very busy intersection	Corner of Dell and Perry	Tight corner with no traffic visibility, no sidewalks, and Perry is on a hill/slope so vision is limited.
Hollydell Rd and Hollywood Rd	Intersection with fast moving vehicles\buses	Crosswalk at Benchview Rd and Rutland Rd	Would prefer to have a flashing crosswalk light. Cars drive very fast and often do not stop.
Rutland Rd near Venus Rd	A lot of vehicles do not stop for the crosswalk or are in a hurry to go before one is finished crossing	Benchview at Adventure Rd	A lot of cars parked on the street. It is hard to see at the crosswalk. Cross-guards needed.
Rutland Rd and Hwy 33	Big highway intersection	Whole west side of Rutland Street	No sidewalks, passing on the right. Can't use crosswalks to walk to the other side.
Pedestrian walkway	Walkway opening to school field is too narrow and has branches hanging down on it	Rutland and Benchview	Busy cars
Dougall Rd and Hwy 33	Too busy	Venus to Adventure	Parents park on sides of the road and are distracted. Close calls with children and cars when crossing. There are illegal U-turns.
Rutland Rd South	A lot of traffic in the morning. Child is a bolter.	Dougall Rd (33 to Benchview)	Cars speed, low visibility on curved roads.

Additional Comments from family surveys- Baseline 2017

- Child is nervous to ride on the road with vehicles.
- Would like to have a carpool or walking program.
- Enjoys taking the school bus
- Child has ASD.
- Does not understand danger well, can be stressful to walk
- There is a lot of traffic congestion and competition for parking during drop-off
- Would like a school bus to be provided for students outside of the catchment area
- Used to take the bus, but it was too expensive
- Hard to cross at Venus
- Cars do not stop and has to wait long to cross
- Child scared of the buses
- Child wants to walk or bike with others
- Kids sometimes bike and walk
- In Winter, places along Rutland road on our route do not shovel the sidewalk, making the walk more tiresome for the kids
- Car drop-offs should be made safer
- Safest route is long and hard for a 5 year-old
- The ice buildup on the sidewalk and parking lot at the school is very dangerous.
- People park vehicles on sides of streets which blocks vision for children crossing and vehicles can only drive single lane
- Child would like to bike, but the highway she would have to cross is way too busy and dangerous
- I have requested from the City a flashing crosswalk to put across Rutland road for kids to cross safely, I have been told it's just not in the budget. It is crazy that this is not considered a priority
- Notice a lot of speeding traffic on route to school\Would like more School Bus availability
- Although signs are posted, too many cars are still idling at school entrance right where the kids are passing by
- Would like school to have a designated drop and go spot so parents can drop off kids and not have to find a spot to park
- Bus should be free since it is not safe for child to walk to school; bussing should be offered for French Immersion schools. This would greatly decrease the amount of parents driving their child to school
- Flashing lights are needed at Rutland Rd
- Wish cars would drive slower on Rutland Rd
- Hill up Springfield Rd is too big for children and busy for them to bike
- Constant supervision of school playground, parents may feel safer allowing their kids to walk to school
- Often have to park on Benchview and walk from there.

Additional Comments from family surveys- Follow up- 2024

- It's nice that Belgo is situated off of Rutland Rd, I feel that makes it much easier to walk/bike to. Because of the French immersion program though, its catchment area is quite large, so it isn't feasible to walk/bike for many families.
- We live in Black Mountain & part of our drive is down Hwy 33 which is typically well travelled by other vehicles at that time of day. We then turn on to Springfield, which does not have any sidewalks or bike lanes. Finally, we turn on to Rutland Road to get to Belgo. Traffic is typically relatively heavy with cars. The turn from Rutland road on to Venus Road can be scary due to the S-turn in the road (on Rutland Road). Cars come around that S-turn fast at times & can be unsafe, especially for pedestrians.
- Belgo traffic, especially the morning drop-off, is extremely frustrating. As it is mostly a French immersion school, there is no SD23 bus option for kids, which increases the number of parents needing to drive their kids to school. Once at school, there are not enough places for parents to pull over and let their kids out of vehicles safely. Kids will often need to cross the street in front of cars, not at crosswalks.

  The Winter is the WORST, when snow is piled up on the sides of the roads and parking spots become about 50% less than usual, and the road becomes so narrow that traffic is one-laned.

  If there could somehow be an organized, quick drop-off line/loop for parents who do not need to walk their younger kids to their class, that would really help.

  Also the City of Kelowna being aware of the parking/snow-removal problems around the school in the Winter.

  Many French immersion kids from Black Mountain would benefit from a school bus program! It would cut down the Belgo traffic by half, or 1/3rd.

  Lastly, the intersection at Belgo Rd and Springfield Rd is extremely unsafe, which keeps me from sending my older kids to school on their bikes. I have 3 kids at Belgo (my oldest is now in grade 8 but attended Belgo prior), but because of that intersection I have never felt comfortable with them riding to school, even though we are only 5kms away.
- Just get a bus and bus the kids to school. I mean, come on…how the heck do you actually expect people to stop driving in a town that is spread out, poorly planned, and totally car centric. Wake up. Bus the kids safely to school and get These cars off the roads and away from schools. This is not rocket science. Yes it costs money. But we can all do the math to see what driving costs people and the environment.
- There is no cross walks and the sidewalks have not been done but they are falling apart.. There is no speed bumps.
- We use the 100 stairs in rutland, making sure the gate is always unlocked and that it is clean and safe for kids to use would make walking to school a lot easier.
- It's a busy neighborhood - highly congested, and parking is limited. Maybe pick-up spots around the the other sides of the school (back field walk way to the side road) but also having a supervisor there for 15 minutes after school.
- More crosswalk across busy roads such as Hollywood rd and Gerstmer rd.
- We take the stairs in Rutland that link Dougall and Dell Road. On more than one occasion I have had to ask homeless or transients to move along and clean up or avoid drug paraphernalia. It does not feel like a safe place for children to travel alone.

Appendix 3. Best Route to Belgo

Online Best Route to Belgo

Best Routes to School

City of Kelowna
City of West Kelowna
District of Lake Country
District of Peachland
Westbank First Nation
Regional District of Central Okanagan

Belgo smartTRIPS

Parents are encouraged to read this to their kids to teach them about getting to school safely!

KIDS, BE STREET S.M.A.R.T.!

SIDEWALKS:
Use sidewalks! Stay on the inside edge, and stand away from the edge when you want to cross the street. If there is no sidewalk, walk **facing traffic** so that you can see oncoming vehicles.

MUSIC:
If you are listening to music, remove one earpiece before crossing the street or walking in an unfamiliar neighbourhood.

ATTENTION:
Watch out for moving vehicles backing out of driveways, back alleys, and in parking lots.

ROAD CROSSING:
Always cross at an intersection or crosswalk. To cross safely, make eye contact with the drivers in all lanes to make sure they **are** stopped.

TEAM UP:
It's safer and more fun to walk to school with family or friends and good exercise too.

Neighbourhood Safety Tips

TRANSIT
Parents and children can take a bus route together a few times before the kids go solo. Ask the bus driver if you have questions.

SAFETY IN NUMBERS
Team up with another parent or neighbour to share the responsibilities of walking to and from school. If students are older, encourage them to walk with friends or older siblings.

AWARENESS AND INDEPENDENCE Teach your children how to stay safe by identifying friendly neighbours or safe public places. Warn them about high traffic areas or corners that might hide hazards. Exploring and teaching kids about your community and city at a young age are lessons that will help them travel safer.

S.U.P.E.R. Bike Safety

Practice these bike safety tips at all times when riding your bike!

Signs: Use your hand signals when riding your bike and obey traffic signs.

Use caution: Leave space when riding next to parked cars and watch out for doors swinging open. Wear light or bright coloured clothing, bike lights and reflectors, so you can be easily seen.

Protection: Wear your helmet when riding your bike - it's the law.

Eye contact: Make eye contact with other road users (drivers and pedestrians) to improve safety for everyone.

Right hand side: Ride your bike single file and as far to the right hand side of the road as possible. Use bike lanes if they are available.

Beware of strangers!

- When you are out with your family, identify safe places where you can ask for help if needed. It might be a neighbour or a friend's house or maybe a safe place you can go.
- If your family uses a safety password, practice and remember that special word.
- Don't ever go anywhere with a stranger!

Park & Walk

Families who are unable to walk all the way to school can still contribute to improved traffic safety and healthy schools. Park at your school's designated area or, park legally on a street away from the school. Walk the last few blocks with your children, allowing them to enjoy a little extra active time outdoors.

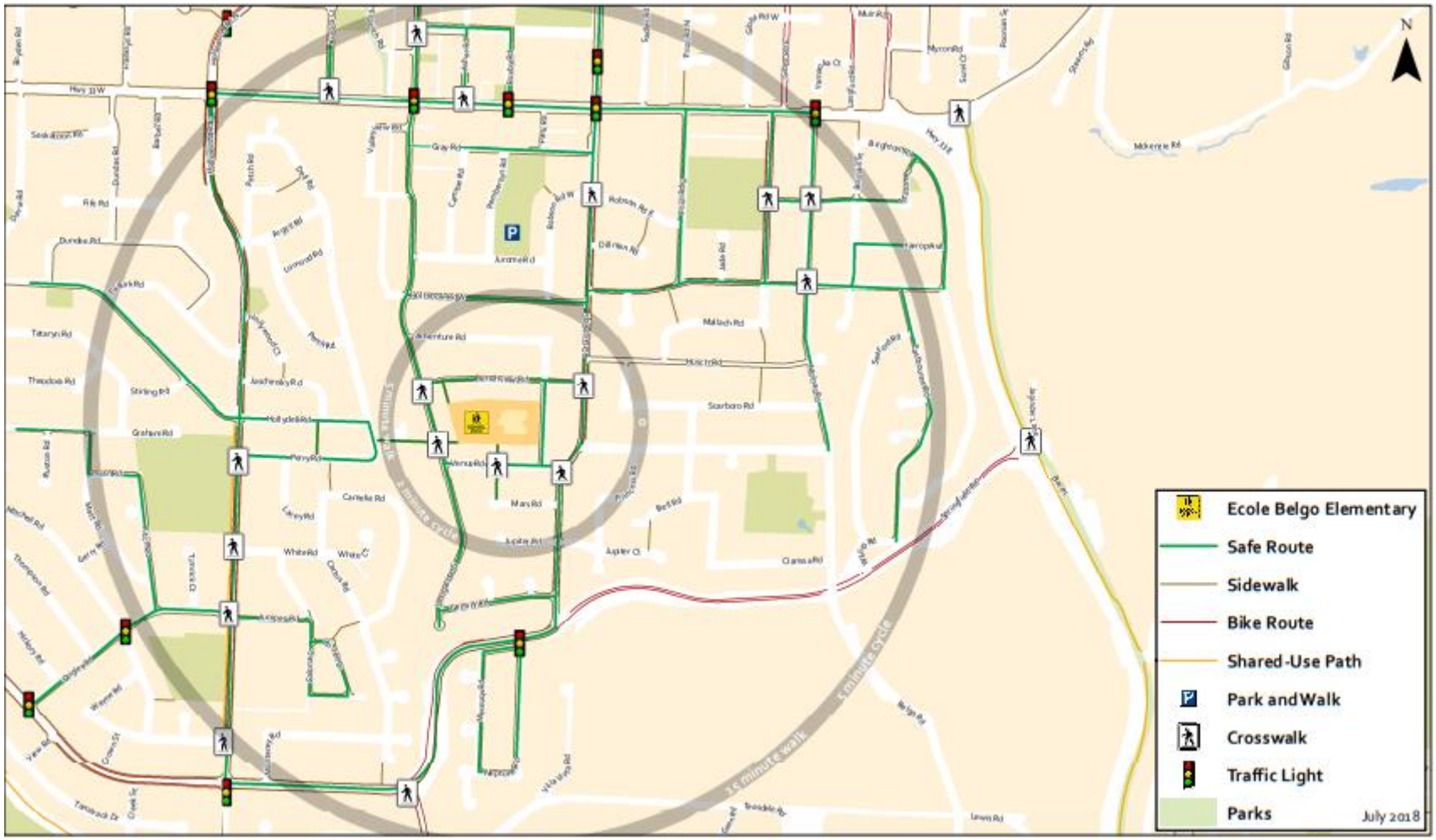
Belgo currently has one designated park & walk station at Lions Park on Jurome Road.

Safe Route

Use the proposed Safe Route map on the next page and get to school safely by walking cycling, in-line skating, riding a skateboard or a scooter.

Remember to always cross at a road intersection and make eye contact with drivers!

smartTRIPS 1435
Water Street
Kelowna, BC V1Y 1J4
info@smartTRIPS.ca


N
Ecole Belgo Elementary
Safe Route
Sidewalk
Bike Route
Shared-Use Path
Park and Walk
Crosswalk
Traffic Light
Parks
July 2018
5 minute cycle
5 minute walk

Clean Air & Safe Routes 4 Schools
A School Travel Plan
Belgo Elementary School

Revised September 2024

Questions or concerns should be directed to:
Regional Air Quality Program
www.rdco.com/airquality
airquality@kelowna.ca
ph. 250-469-8408