Clean Air & Safe Routes 4 Schools

A School Travel Plan South Kelowna Elementary School











South Kelowna 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.

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Project Overview

Clean Air and Safe Routes 4 Schools in the Central Okanagan

In 2019, the Regional District of Central Okanagan (RDCO), in coordination with the City of Kelowna, started the implementation of the Clean Air and Safe Routes 4 Schools program at South Kelowna 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 and the implementation of school programming have been shown to reduce vehicle traffic and increase the number of students using active transportation. School Travel Planning involves collaborative work with multiple stakeholders to produce a plan that addresses 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

After five years, several infrastructure improvements have been made around the school. The follow-up survey results 2024 show an overall increase of 7% in car trips to and from school; fewer kids walk, bike, 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 regularly to update the Action Plan items' status 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.

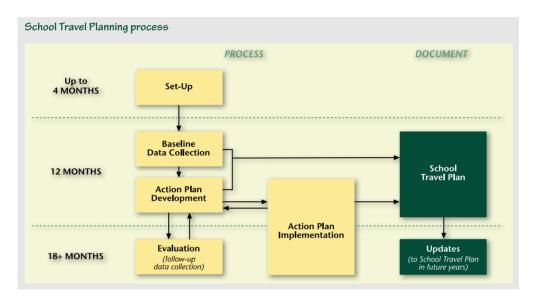


Figure 1. School Travel Planning Process

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

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¹ Children and physical activity - Canada.ca

² Healthy Families BC

- Most adolescents have trouble outgrowing this problem; 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.

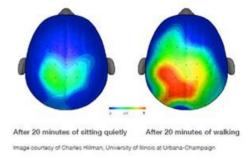


Figure 2. Brain scans of students taking

A recent Study³ 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 each 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 a wealth of resources with links to international and provincial/territorial organizations and their curriculum, as well as to 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. Find the Toolkit at <u>School Travel Planning Toolkit</u>
- 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.
 - o The Toolkit can be found at: https://www.london.gov.uk/sites/default/files/ca4s toolkit.pdf

Central Okanagan used a combination of both toolkits to implement <u>The Clean Air & Safe Routes 4 Schools program</u> at South Kelowna 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 South Kelowna Elementary School to participate in the Clean Air and Safe Routes 4 Schools program to increase participation in active transportation, reduce the number of motorized vehicles used for travel to and from school and reduce emissions around and from school buildings.

South Kelowna Elementary School was invited to participate and signed the School Agreement on **November 22, 2018**. The facilitator and the air quality coordinator delivered a presentation to the Parent Advisory Committee (PAC) and administrative personnel to explain the scope of the project and their role in the process on November 20. An introductory document for parents and the Terms of Reference of the school committee were sent for their review.

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 provided. 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 approval.

City staff prepared maps for the Family surveys and the Walkabout route. City personnel also used traffic count data collected near South Kelowna Elementary and analyzed the family baseline surveys. The municipal and school committee members actively participated in the process. They provided feedback on the draft maps and 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 include the results of all the baseline and follow-up information gathered.

School Profile

South Kelowna's principal provided the school profile on November 23, 2018, which contained general information on the main concerns and issues.

Table 1. South Kelowna's Profile

Profile	Description
School Name	South Kelowna Elementary School
School Type, e.g. public, separate, private	Public School
Age of School / Year Opened	Original -1924 and 1952 Addition 1996
Name of School Board	School District #23 Central Okanagan Public Schools
Number of Students	243
Number of Families	163
Grades, e.g. K-6, K-8	K-6
School Bell Times	AM 8:25, lunch from 11:00 to 11:58 Recces: 1:25-1:40 PM- 2:30
Number of Parking Spaces, staff/visitor	Approximately 40 (this includes 2 disabilities)
Description of Location, e.g. District centre/suburban/rural	Kelowna
Is the school in a Neighbourhood Watch or Block Parent Community?	Block Watch Program through Facebook- South East Kelowna
% Bussed Students	33%
Socio-Economic Description of Families	Mixed
Any local programs e.g. French immersion, fine arts, special needs, before and after-school day care etc.	City of Kelowna After School Programs facilitated by Kathy Sawchuk- 250-863-1136
High-Level Description of Any Major School Travel Problems e.g. catchment size, driver behavior, on local or connector road,	Traffic speed Distracted divers
traffic speed, heavy trucks, bussing wait times	Drivers making U-turns and double parking Trucks do speed in school zone

Profile	Description
Existing Facilities at 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 school, transport arrangements to after school programs	Bike Rack School Bus -2 stop in the bus loop to drop off and pick up kids School bus loop (parents drop off and pick up here)
Existing Safety Policy & Education, e.g. school safety policy and rules, current safety education programs	No students allowed at the front of the school expect upon drop off and end of day pick up Sidewalks and walkways are to be utilized Helmets must be worn, no riding on school property Staff wear hi-vis vests when on supervision
Programs at this school that have goals similar to STP, e.g. environmental, physical activity, mental health	Health education- as per ministry curriculum. Bike rodeos (every 2 years) Safe routes for students
Types of school/parent committee communications used/available (i.e. newsletter, website, Facebook page)	School Website Newsletter Email list PAC Facebook Page
Other Information	

Catchment

In 2019, there were 243 students in grades K to 6. In 2023-2024, there are 269 students. The catchment area is shown in Figure 3.

South Kelowna Elementary Catchment

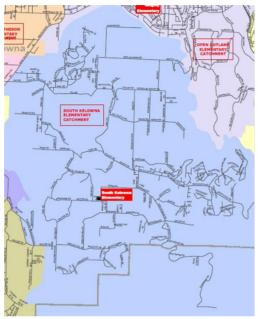


Figure 3. South Kelowna Elementary Catchment Area

GIS Analysis - Distance to School

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

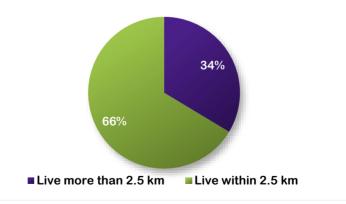


Figure 4. Distance to School

- 66% of current students live within 2.5 km from the school
- 34% of students require a longer walk/bike ride to reach school as they live more than 2.5 km away

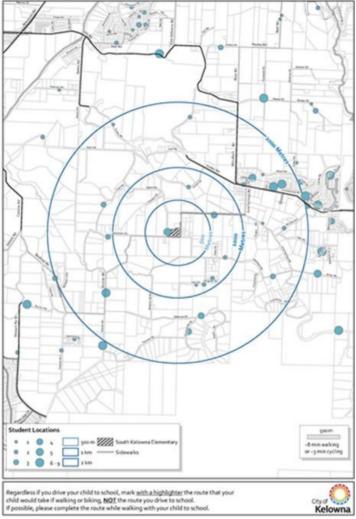


Figure 5. Students within catchment area by postal codes

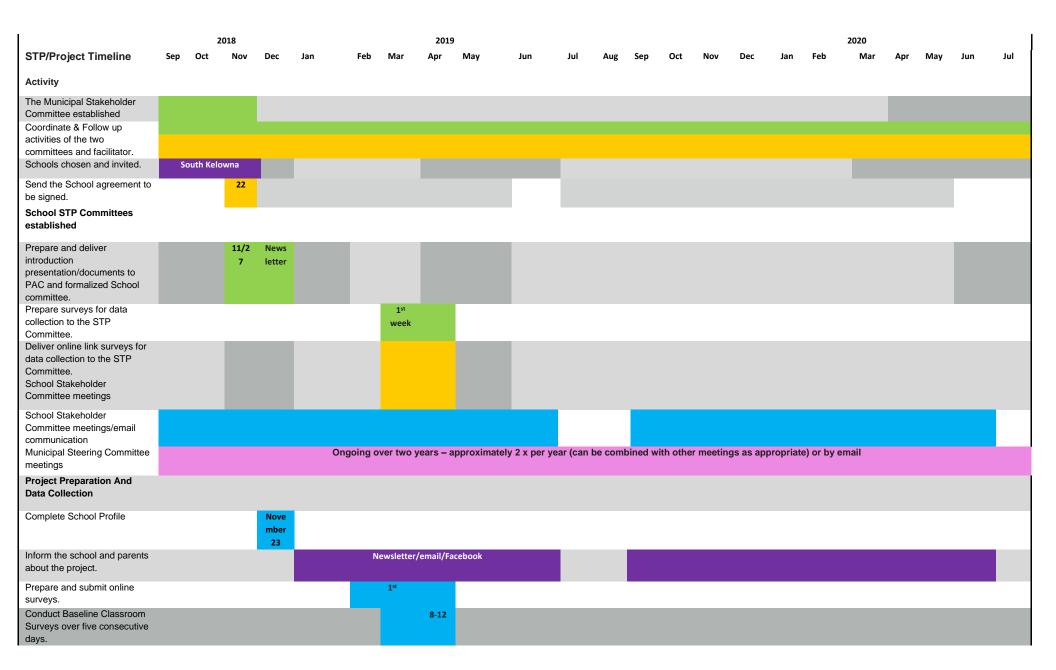
• 44% of the students live within 2 km or

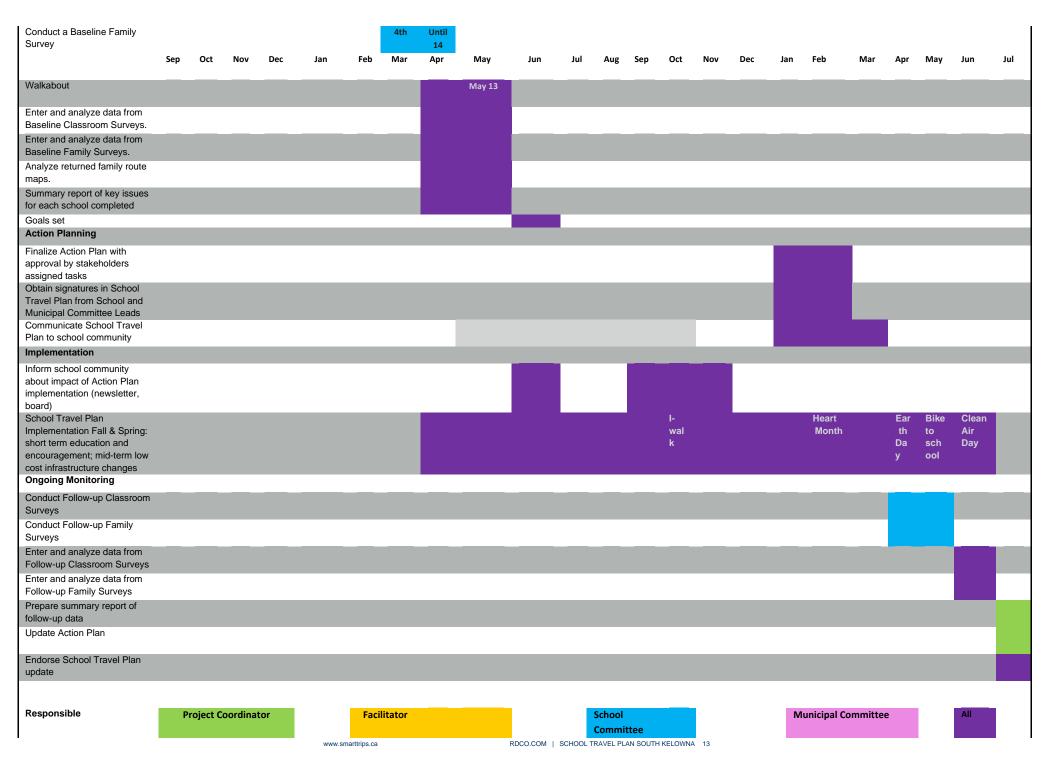
12 min cycling

CAUTION: ArcInfo was used to calculate the distance (in meters) from multiple points to one point, in this case, to South Kelowna 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

Table 2. Timeline of Main Tasks

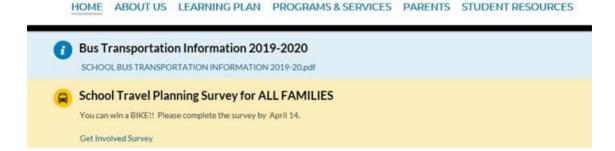




Baseline Data Collection

South Kelowna is composed of approximately 163 families. An online survey was set up for South Kelowna parents on March 4 and was available until April 14, 2019. Over the week of June 3 to 7, teachers helped with ten classrooms' "hands-up surveys" and reminded their students to complete and submit the Family surveys. The survey was advertised through the school website:





To encourage students' participation, the RDCO provided:

- 11 prizes-packages, one for each classroom. The prize bags are one black SmartTrips bag, ten bicycle reflective stickers, one SmartTrip stainless steel water bottle, two bike bells, two SmarTtrips reflective armband/pant straps, two note pads, and two pedometers.
- 1 Grand Prize included 1 bicycle, helmet and 1 package (above).

The prizes were distributed at the teachers' discretion, and there was a draw for the grand prize. The winner of the bicycle was **Addison Wozney**.



Figure 6. Facilitator Dave Gibson delivering the bicycle

Student Classroom Survey Findings

South Kelowna Elementary has 11 classrooms, and with the teachers' support, ten classroom surveys were received reflecting travel "to" school of eighty-four 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	8	18	11	54	0	9	112	1	213
Tuesday	7	18	13	52	0	11	109	0	210
Wednesday	7	18	8	52	0	11	108	0	204
Thursday	9	17	10	50	0	8	100	0	194
Friday	7	18	10	45	0	11	106	1	198
Total	38	89	52	253	0	50	535	2	1019
Average	7.6	17.8	10.4	50.6	0	10	107	0.4	203.8

Student Hands-up Survey: Total Travel Mode TO School Over A Week

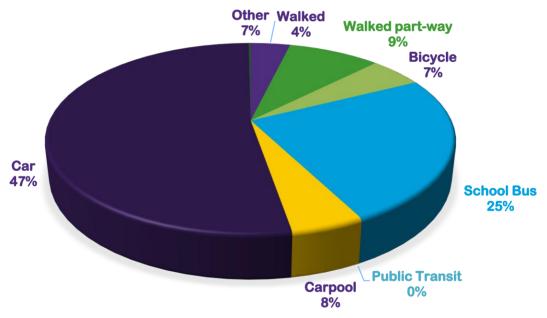


Figure 7. Total Travel Model to School over a whole Week-June 2019

We received 10 complete classroom surveys outlining "from" school results. Eighty-one percent of the 243 South Kelowna students were tracked over one week. As illustrated in Figure 8, more kids are driven 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	11	18	11	57	0	6	104	0	207
Tuesday	11	15	13	56	0	12	101	0	208
Wednesday	9	11	9	56	0	8	99	0	192
Thursday	11	10	8	49	0	19	92	0	189
Friday	7	10	8	59	0	10	99	0	193
Total	49	64	49	277	0	55	495	0	989
Average	9.8	12.8	9.8	55.4	0	11	99	0	197.8

Student Hands-up Survey: Total Travel Mode FROM School Over a Week

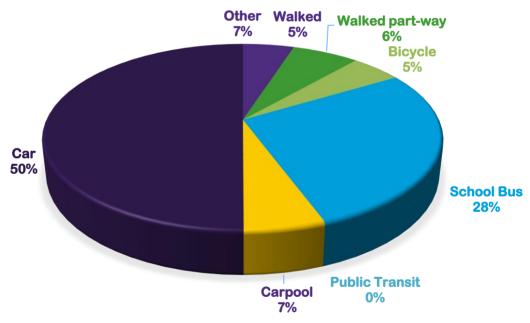


Figure 8. Total Travel Model from School over a full Week- June 2019

Baseline Family Survey Findings

Obstacle Map

Through the online family survey, parents identified obstacles they encounter on their way to or from school on a map.

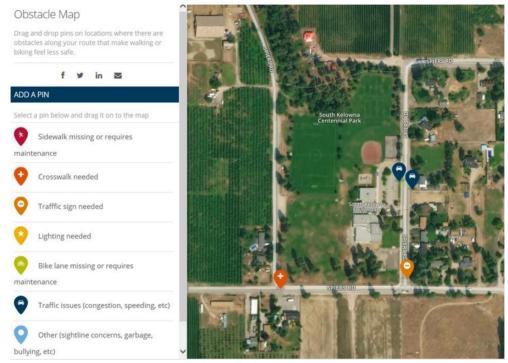


Figure 9. Traffic issues on Spiers Rd across the school

- Better school zone signage is needed to remind drivers to slow in school zone
- Children Crossing to the store or from the sidewalk to store safely
- Better school zone necessary signage to remind drivers to slow in school zone

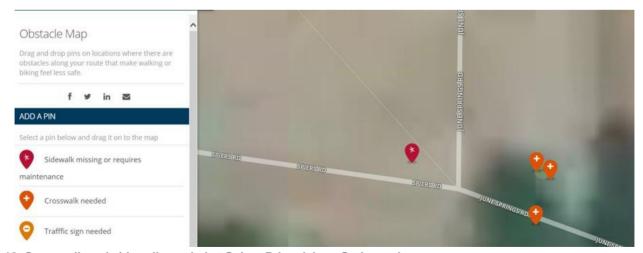


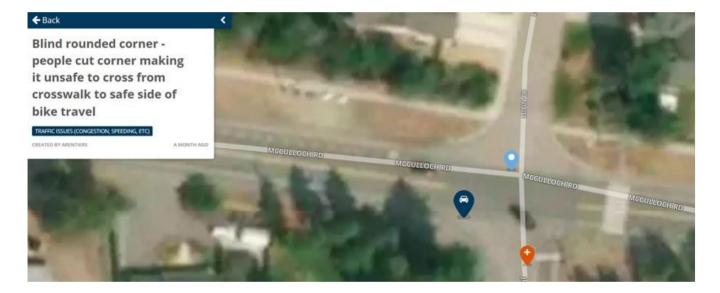
Figure 10. Crosswalk and sidewalk needed at Spiers Rd and June Springs rd

- Blind Corner
- Blind Corner no crosswalk to cross safely from the correct biking lane going to school to cross over to the sidewalk



Figure 11. Blind spot turning right to June Springs

Travelling along June springs turning right to June springs is a blind corner



- Blind Corner to cross safely from the current crosswalk to travel up June Springs toward school
- Blind rounded Corner people cut Corner, making it unsafe to cross from the crosswalk to safe side of bike travel
- Blind Corner unable to cross safely to travel in the correct bike lane going towards school

Walkabout and Route Map

The Walkabout was performed on **May 13, 2019, from 8:00-10:30 am**. Six 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, walkability checklist, and important points of observation to consider during the route were provided to every participant before the meeting.

The agenda was as follows:

8:00 Arrival

8:05 Introductions

8:10 Brief summary of issues by Principal or PAC president

8:15 Group 1 - Observe the drop-off area (school parking lotpoint 1 on the map). Group 2- Observe area of possible conflict/park and walk. Due limited time, group 2 will drive to Spiers Rd @June Springs Rd -point 2 on the map

8:45 Group 2 returns to point 1 (school parking lot)

8:50 Both groups start Walkabout to the back of the schoolpossible drop off area, any issues at Wallace and Spiers Rd

9:20 Return to the school's library- refreshments- coffee & cookies

9:30 Discussion of findings -Next Steps

10:30 Wrap-up



Figure 12. South Kelowna Walkabout Rout Map

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

Walkabout Main Findings

After the Walkabout, the Municipal and School Committee members discussed the main findings and issues South Kelowna 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. South Kelowna Walkabout Main Findings

The Walkability Checklist	General Findings
Parking lot or on-road	Possible stop signs on school parking lot exit onto street; failure to stop, rolling stops. * School
parking at school	speed sign on Wallace Dr is bent over needs to be straightened. *No lines on road* Need stop lines
	at intersection. *Slow down signs are needed. U-turn signage could be useful. *Parents don't really
	obey regular traffic laws. No proper place for deliveries (i.e. bottled water), therefore can create
Facilities for well-are on	conflict during drop-off times.
Facilities for walkers on	Possible set up a kiss & drop (Grade 6 Student Valet Service). * Spiers on the far back side of the
the street next to the	school had blind corners and missing pavement, so cars swerved to oncoming.
school site	
Walking paths to the	North driveway could use sidewalk continuation from street to exit. * Maintenance good along
school	Spiers in front of the school - Other sides not cleared properly.
Bicycle facilities	Bike racks available. Share use path available. *Spiers Rd back of school has no shoulder/bike
	lane/sidewalk
School Bus/After School	Two buses, after 8:10 the bus lane is used by parents to drop off students. * Parent use the bus
Care Loading Zone	lane and leave unattended vehicles for long periods of time.
Walking facilities and	Traffic count data from 2013 & 2015, shows vehicle volume is clearly higher at drop off/ pick up
traffic observations	time 8 and 2pm. No traffic lines near the school
Alternative safe parking	Back of the school and share use path (Spiers/June Springs)- Add gate to city parking lot at the
locations	back of the school for easy access
General Comments	Speeding vehicles are frequently observed along Wallace/Spiers Rd, additional signage could be
	considered to bring awareness
General Suggestions	Reflective traffic markers could be installed across the school to discourage U turns



Figure 13. Walkabout-Municipal and School Committees



Figure 14. Observed poor driving behavior by construction traffic trucks



Figure 15. Delivery trucks on bus lane for long periods of time during drop off



Figure 16. Rolling stops exiting parking lot



Figure 17. Speeding cars along Spiers- More School Zone signs are needed to bring awareness



Figure 18. Enough space at back of the school for park and walk alternative.

Traffic Count

Traffic data was available for the intersection of McCulloch & June Springs. A five-hour turning movement count (TMC) was completed on May 30, 2017, using a Miovision Video Collection Unit (VCU). The footage was also recorded on May 17 and 18, 2018 and reviewed for pedestrians. The following are the volume and speed statistics.

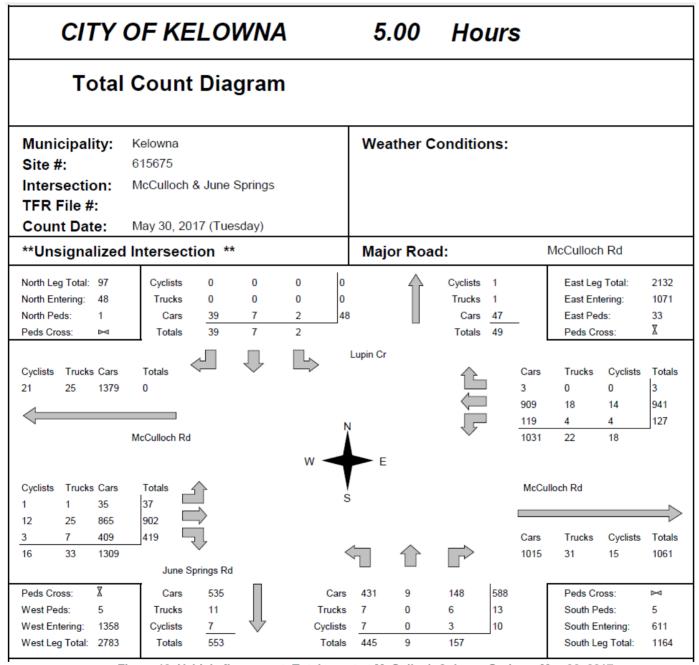


Figure 19. Vehicle flow report- Total count at McCulloch & Junes Springs, May 30, 2017

There is no speed information available for this location at this time.

Station: 125486 - June Springs Rd

Vehicle General Flow Report - Grand Totals

Data From 00:00 - 08/07/2013 To: 00:00 - 08/12/2013

Note: ADT and Average are based on total value of all lanes printed (Together Print).

Average Daily Traffic (ADT)

Wee	ekday		Weekend			Tota	I ADT	
Cars:	1977	(87%)	Cars:	1787	(88%)	Cars :	1901	(87%)
Trucks:	293	(13%)	Trucks :	235	(12%)	Trucks:	270	(13%)
Total :	2270		Total :	2022		Total :	2171	

Speed Totals

50 % :	76.0 kph	Top Speed :	196.0 kph	Average Truck Speed :	76.3 kph
85 % :	87.4 kph	Low Speed :	5.3 kph	Average Car Speed :	74.7 kph

Avg: 74.9 kph 20kph Pace Speed: 66.6 - 86.5 (63.4%)

Peak Hour Totals

AM Peak Hour (Volume)	AM Peak Hour (Speed)		
Weekday: 11:00 - 12:00 (Avg 159)	04:30 - 05:30 (81.3 kph)		
Weekend: 10:45 - 11:45 (Avg 174)	04:30 - 05:30 (77.6 kph)		
PM Peak Hour (Volume)	PM Peak Hour (Speed)		
PM Peak Hour (Volume) Weekday: 16:15 - 17:15 (Avg 183)	PM Peak Hour (Speed) 22:45 - 23:45 (78.8 kph)		

Grand Totals

Total Cars :	9507 (1901 ADT)	Average Length : 391 cm	Average Headway : 39.6 sec
Total Trucks :	1350 (270 ADT)	Average Axles : 2.2	Average Gap : 39.4 sec
Total Volume :	10857 (2171 ADT)		

Figure 20. Vehicle flow Report-June Springs Rd

According to the flow report at June Springs Rd – Between McCulloch Rd and Spiers Rd, there's an average of 2,270 vehicles during weekdays with an average speed of 74.7 km/h.

Average Weekday Volume on Spiers Rd Between Wallace Hill Rd and June Springs Rd-2015

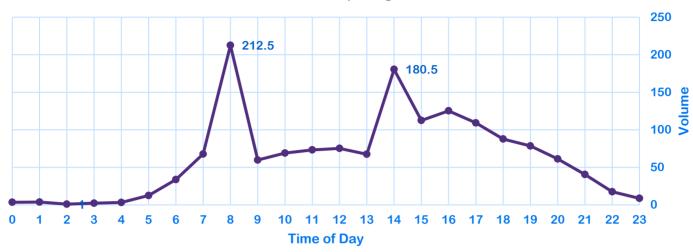


Figure 21. Average weekday volume on Spiers Rd between Wallace & June Springs

According to data collected from May 27, 2015, to June 2, 2015, vehicle volume can be identified during drop-off and pick-up hours. The average daily traffic is 1500 vehicles.

Average Weekend Volume on Spiers Rd Between Wallace Hill Rd and June Springs Rd-2015



Figure 22. Average weekend volume on Spiers Rd between Wallace & June Springs

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.

This section aims to identify some of the critical sources of building-related emissions. By implementing the recommendations set out in the action plan, the school will not only reduce the emissions of pollution from the building but may be able to reduce energy costs as well. 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 make 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

In most cases, understanding and managing school energy consumption will also enable you to reduce pollutant emissions. Several actions South Kelowna can undertake to reduce energy consumption and pollution emissions have been identified. Those actions are described in the Action Plan.

School GHG Emissions by Transportation

The Greenhouse gases (GHG) were estimated for South Kelowna School using the baseline classroom and family survey data and some average statistics:

- The postal codes of all the students attending South Kelowna; those postal codes were transformed into Geocodes using http://www.gpsvisualizer.com/geocoder/
- Based on the classroom survey, an average of 82% of the kids are driven to and from school (driven + carpool + bus), and 17 % walk and/or bike/other.
- The emission factor of 0.2296 KgCO2/km –"Average Emissions and Fuel Consumption for Passenger Cars."

Description	GHG(Tonnes/year)
Baseline: South Kelowna School GHG emissions due to kids being driven	82.1
to and from school. Average 82% (driven + carpool+ bus)	
GHG that could be saved if reaching the rest of the students who	43
live in longer walking / short bike distance (less than 2.5 km,	
or 3 min drive time).	
GHG already being saved; Baseline: 17% of the students walk	1.2
and bike to and from school.	
GHG potentially saved if 100% of parents driving their kids don't idle (considering	25.5
156 families).	

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 190 families attending South Kelowna (average drivers) sign the idling reductions pledge.
 Considering 82% of students are driven to and from school, it is estimated that 156 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-2.3 Kg CO₂/litre and cost of fuel 1.68 \$/litre
- If 156 drivers of light-duty vehicles avoided idling for 6 minutes a day*, each driver would save 66 litres of fuel, \$111 in fuel costs, and contribute to the reduction of 151 kg of GHG emissions annually.

	If 190 families don't idle (6 min/day)) If 15	6 families that usually drop off the kid idle (6 min/day)	s don't
Fuel savings (L/year)	12,483		10,236	
CO ₂ savings (tonnes)	28,711		23,543	
Cost savings (\$/year)	\$ 21,016	\$	17,233	

Every tonne of CO2 reduced counts!

School resources are available on the <u>City of Kelowna</u> website. Parents and staff can check out this <u>interactive</u> story map to learn more about idling and use the <u>Idling Fuel and Money Estimator</u> 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 <u>www.rdco.com/airquality</u>.

^{*}Source: Factors that affect fuel efficiency (canada.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.4 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, Safety measures are 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.

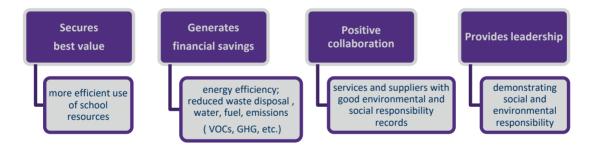


Figure 23. Benefits of Sustainable Procurement

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 South Kelowna. 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

⁴ 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 6. South Kelowna Action Plan

Action/Initiative	Tasks	Responsibility	Start Date	Completion date	Estimated Cost
Objective 1: Improve the safety Pedestrian and bike safety presentations	/ of children on the active school journey Seek road safety curriculum resources for classroom teaching. ICBC road safety teaching resources:	STP facilitator-he will	October 2020	October 2020	none
presentations	Road safety (icbc.com)	deliver the presentation School Committee-help set up a date for presentation during a school assembly		2020	
Parent role-modelling messaging	Provide messages for use in school and parent communications https://www.scanva.org/support-for-parents/parent-resource-center-2/parents-as-role-models/	School Committee- share information through newsletter	TBD	TBD	
Road safety/personal safety presentation	School wide assembly combined presentations from STP facilitator & Street Crime Unit - School Resource Officer, RCMP Resources available for teachers and parents at KidSmartz (missingkids.org) Contact B.C. RCMP - Speed Watch (rcmp-grc.gc.ca) Road safety for your kids (icbc.com)	RCMP- delivers the presentation School committee- for presentation during a school assembly-usually while pedestrian bike presentations	October 2020	October 2020	
School speed zone awareness	Seek road safety curriculum resources for classroom teaching. ICBC road safety teaching resources: • Teach road safety (icbc.com) • Pace Car Community Guide (parachute.ca) • Contact community police for speed watch.	School Committee- share information through teachers and newsletter	TBD	TBD	\$
Improve vehicle and walker/cyclist separation at and on school site	A stop sign could be installed at the parking lot exit to avoid vehicle/pedestrian conflict. This should be authorized by the school and submit a work order.	School Administration-	Depending on priority with other projects	TBD	
Improve access points for students	A gate to city parking lot at the back of the school could be added for easy access. The school would need to authorize it and submit a work order	City of Kelowna	Depending on priority with other projects	2020	\$

Action/Initiative	Tasks	Responsibility	Start Date	Completion date	Estimated Cost
Sidewalk/Curb	Identify potential options: Delineator posts, concrete curb extensions, and curve radius reduction at applicable intersections. Curb extensions at driveways and at the start/end of parking lanes for narrowing travel lanes. Walkway to the rear parking lot.	City of Kelowna	2020	2020 & 2021	
Crosswalks	Identify potential options: Curb letdowns and concrete pads for accessibility. In-street delineator posts (depending on outcome of 2019 pilot). Channelization islands or curb extensions for shorter crossing distances.	City of Kelowna	2020	2020	
School Zone Signage enhancement	Identify potential options: Portable signage to compliment MUTCD signage. In-street delineator posts (depending on outcome of 2019 pilot).	City of Kelowna	2020	2020	\$
Signage	Identify potential options: Larger sized signage. Parking restriction signage depending on the parking plan. Additional multi-use pathway signage.	City of Kelowna	2020	2019	
Pavement markings	Identify potential options: Buffered bike lanes where space permits. Twin parallel bar crosswalk lines at stop control intersections where appropriate. Repaint faded or missing lines/stencils. Realign centerline if required. Bike lanes on Spiers Rd depending on the parking plan. Traffic calming speed boxes.	City of Kelowna	2019	2020	
Best Walking Routes Map brochure	Create map showing best routes and distribute to families along with walking safety information	City of Kelowna	2020	2020	
Bike Rodeo	Youth learn basic rules of the road, hand signals, obstacle avoidance and scanning techniques/Cycle Education Program "Learn2Ride" for Gr. 3-6 students.	STP facilitator/School Administration	May 2020	Every two years	
Objective 2: Raise the awarene	ess 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/ provides ready to use materials Parents Council shares info through newsletter School	March of every year	June of every year to 3 rd grades.	\$
Have students create artwork for temporary/permanent outdoor signage	Identify classes that can make an art project or run an Art contest. Art Contest Theme should be: Clean Air/Safety/Active transportation. The STP Program will pay to produce 6 signs (20 in height x 18 in width) The school committee will pay to produce any extra signs.	School Committee/classroom teachers City of Kelowna- provide guidelines	February 2020	April 2020	\$
Have physical activity benefits message in newsletters/health presentations.	Review information on 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 • https://onionalth.ca/sites/Partners/SchoolDistricts/Pages/HealthPromotionPages/default.aspx • https://onionalth.ca/sites/Partners/SchoolDistricts/Pages/HealthPromotionResources.aspx • onionalth.ca/sites/Partners/SchoolDistricts/Pages/HealthPromotionResources.aspx • onionalth.ca/sites/Pages/HealthPromotionResources.aspx • onionalth.ca/sites/Pages/HealthPromotionResources.aspx •				

Action/Initiative	Tasks	Responsibility	Start Date	Completion date	Estimated Cost
Objective 3: To encourage mor	e 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 with support of STP facilitator	TBD	TBD	\$
Buddy Scheme	Set up scheme to encourage students to walk and cycle with others	Parents Council with support of STP facilitator	TBD	TBD	\$
Walking Competition	Detail a challenge and advertise Walking Wednesdays (other days). Walking Competition. Set up a walking competition for 3-4 weeks (March-June). Regional Air Quality could provide pedometers for each participant class and the pool entry fee to the H ₂ O Aquatic Centre for one winner class. School committee pays for class transportation to H ₂ O	Parents Council with support of STP 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 Administration	2020 - October	Every year	\$
Bike and Walk to School Days	Encourage students and their families to walk, scooter, skateboard or ride their bikes to and from school. Detail a challenge and advertise Walking/Biking Wednesdays or other specific days (March-June).				

Action/Initiative	Tasks	Responsibility	Start Date	Completion date	Estimated Cost
	• 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)				
Investigate Opportunities for	• Investigate potential for on-site renewable energy generation, e.g. Photo Voltaic solar	SD23	Ongoing		
Renewable Energy Provision	panels, wind turbines, ground source heat pumps etc. • If renewable energy options are not possible, ensure energy supplies are from a green provider.				
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		\$
Test for radon gas and ensure the lowest levels are 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				

Follow-up activities 2019-2024

School Committee Activities

March 2020

As part of ongoing efforts to improve and address the unique traffic safety challenges around the school, an Art Contest was completed with the support of city staff and the school. On March 13, enthusiastic students in grades 1 to 6 received 116 drawings. A city body voted on the top fifteen drawings. The digital images were colour scanned, printed on vinyl, and mounted (signs size 20 inx18 in). The school installed the signs around the school in June. Below are a few examples of these drawings.

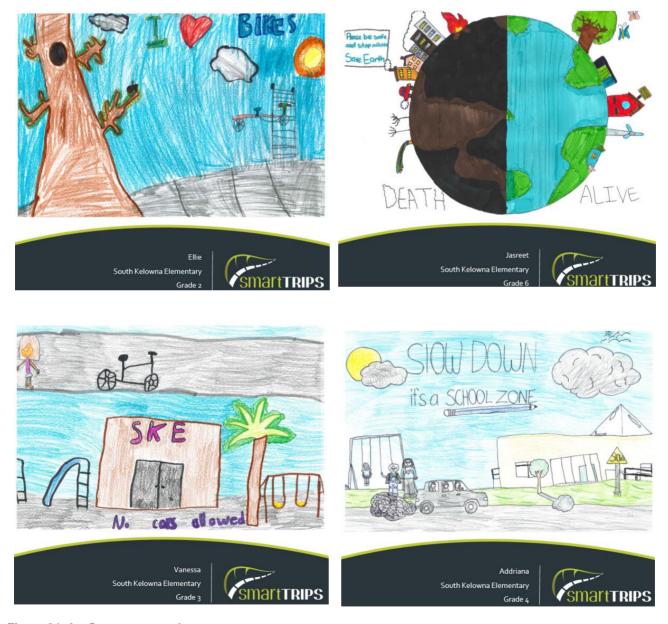


Figure 24. Art Contest- examples

Winter 2021

The original PAC is no longer active, but a new PAC was integrated. All the STP information was sent to SKE families and the school staff. The PAC received the clean air program and access to all four addendums.

The Safe Routes map was posted on the school website and will remain active throughout the school year.

City of Kelowna

September 2019

The traffic safety officer and city staff installed more than 10 school zone awareness signs on the perimeter: "Slow Down- School Zone."





Figure 25. School Zone Awareness

Summer 2020

City staff 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 "obstacle map" exercise from the Family surveys. The school committee helped localize possible "Park and Walk stations" and provided comments and suggestions to clarify the map to the school community. The <u>Best Route to school map</u> was created by City staff.

- Traffic calming curbs were installed at 5 locations along routes to the school.
- They were installed as traffic calming measures to create a safer environment for pedestrians/cyclists
- Traffic calming curbs were installed at the following locations:



Figure 26. Traffic calming curbs -McCulloch & June Springs



Figure 27. Traffic calming curbs- Spiers & June Springs



Figure 28.Traffic calming curbs and sharrows- Spiers fronting SKE north of parking lot access



Figure 29.Traffic calming curbs and crosswalk- Spiers fronting SKE at main entrance



Figure 30.Traffic calming curbs- Wallace Hill & Spiers

- The McCulloch & June Springs intersection received a parallel bar crosswalk on the south leg to facilitate crossing activities.
- Crosshatching was installed adjacent to the SB bike lane to accommodate larger vehicle turn paths
- At the Spiers & June Springs intersection, a parallel bar crosswalk was installed on the north leg to connect the multi-use path to the bike lane and facilitate crossing activity
- The SB approach was reconfigured to intersect with Spiers at more of a 90-degree angle to improve motorist safety. A painted median was installed to facilitate larger truck turning movements
- A Zebra crosswalk was installed at the front entrance of SKE
- Sharrows were installed on Spiers fronting SKE to remind drivers to share the road with cyclists
- Parallel bar crosswalk markings and stop bars were installed at the Wallace Hill & Spiers all-way stop
- An asphalt sidewalk was installed on Spiers at the rear of the school to facilitate an alternate parking and pick-up drop-off option. An additional fence opening was added at the terminus of the path.
- Bike lane symbols were added or refreshed at various locations



Figure 31. Asphalt sidewalk on Spiers at the rear of the school

Summer 2021

- Based on review and feedback, traffic-calming curb positioning was adjusted at McCulloch & June Springs and Spiers & June Springs.
- An additional traffic-calming curb was added at McCulloch and June Springs to prevent EBR vehicles from cutting behind the Corner.

Air Quality

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. South Kelowna screened several school classrooms for radon in 2020.

When testing schools for radon, <u>Health Canada's Guide for Radon Measurement in Public Buildings</u> 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 thoroughly tested were provided with recommendations to purchase additional detectors to ensure the school was tested entirely.

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

Spring 2021

<u>The Cleaner Air Program</u> was shared with the school committee. This program is part of the <u>School Action Plan</u> and is intended for teachers to deliver to grades 3 to 6. The activities, presentation, and materials are ready to print and use and can be edited.

- 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)

Air Quality provided instructions and the link to set up walking competitions during the school year.

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

Spring 2024

The school participated in a <u>Pollution Pit Stop Idling Awareness</u> <u>Campaign</u> for two weeks from April 12-28, 2024 and completed the follow-up surveys on progress.

- A pizza lunch was provided as a prize for a <u>Pit Stop Idling</u> <u>Pledge</u> competition.
- Two grade-2 classes enjoyed a pizza lunch on May 8, 2024.
- A couple of idling banners were displayed around the school fences for two weeks, April 12-26.



Figure 32. Idling banner displayed

- The Air Quality program provided 210 idling awareness packages to all families and staff.
 - o The package includes City of Kelowna postcards, RDCO postcards, stickers and decals.
- A standard school package to run subsequent idling awareness campaigns can be ordered online at <u>Air</u> quality | City of Kelowna







Follow-up Traffic data

Baseline Data

Average Weekday Volume on Spiers Rd Between Wallace Hill Rd and June Springs Rd-2015

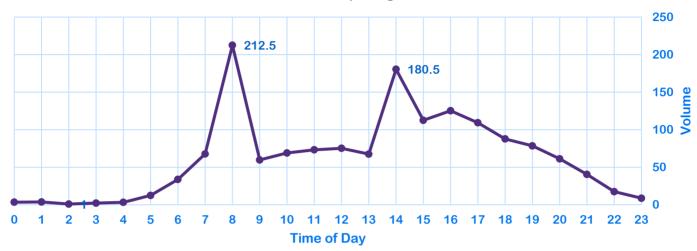


Figure 34. Average weekday volume on Spiers Rd between Wallace & June Springs

According to data collected from May 27, 2015, to June 2, 2015, vehicle volume can be identified during drop-off and pick-up hours. The average daily traffic is 1500 vehicles.

Follow-Up Data

New traffic speed and volume data was collected in May 2024 using in-street traffic counting equipment. The counters were set up just north of the school's main parking lot on Spiers Rd. Below is a summary of the results.

Speed

- Average Speed = 40 kph
- 85th % Speed = 51 kph
- Average Speed During School Hours = 37 kph

Volume (Weekday)

1,437 Average Daily Traffic

In the subsequent figure, it can be seen that weekday traffic volume spikes during school drop-off and pick-up periods (8:30AM and 2:30PM).

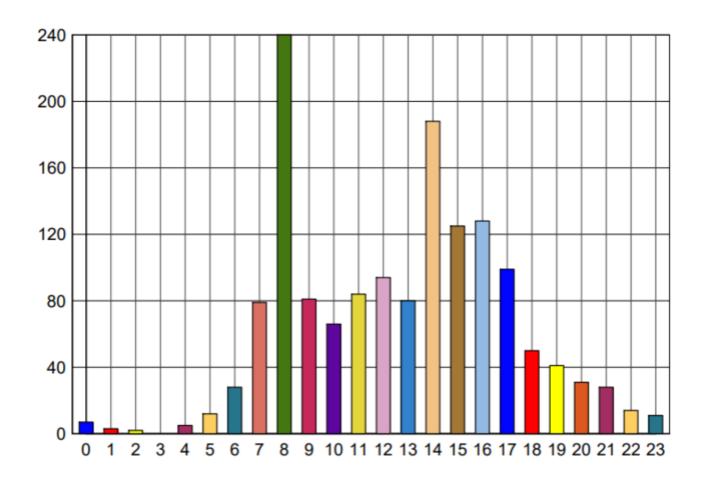
Time/Volume Graph

 Device ID: 408237
 Location: 4197
 Raw Count: 10,059

 Operator:
 Lane: Both
 AADT Count: 1,437

 Begin: 05/22/2024 01:00 PM
 Street: Spiers Rd
 AADT Factor: 1

 End: 05/29/2024 01:00 PM
 City: Kelowna
 Speed Limit: 50



The drop-off and pick-up pattern remains unchanged compared to the 2015 data. Similarly, the ADT has also remained relatively consistent at approximately 1,400-1,500 vehicles. Although before data was not collected fronting the school, the 2024 data indicates speeds are moderate overall; however, they are still above the 30 kph school zone speed limit during school hours at 37 kph.

Follow-up Classroom Survey results: 2019-2024

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

In 2019, South Kelowna had 243 students. Over the week of June 3 to 7, 2019, teachers helped with 10 classroom "hands-up" surveys, reflecting travel "to" school of eighty-four percent of the students. In 2023-2024, South Kelowna had 269 students registered; 10 teachers collected data over one week, reflecting travel "to" school of thirty-eight percent of the students.

A comparison between the baseline and follow-up data is presented. The survey results below reflect changes in the transportation mode share "To" and "From" school, considering the below confidence level and margins of error.

	Baseline 2019 To School	Follow-up 2024 To School
Population size (expected number of trips	243x5= 1,215	269x5=1,345
tracked TO school over 5-days)		
Number of respondents (actual trips TO school	1019	516
tracked over 5-days)		
Confidence level	95%	95%
Margin of error	1.23%	3.39%

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

Travel Mode TO South Kelowna

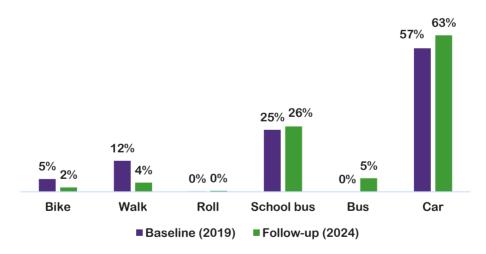


Figure 35. Total Travel Model to School -Follow-up

Before implementing the School Travel Plan, data shows, with a margin of error of ±1.23% and 95 % confindence level, that 56.1% to 58.6% of the kids travel "To" school by car in 2019.

After the School Travel plan implementation, data shows, with a margin of error ±3.39% and 95% condidence level, that 59.2% to 66% of the kids travel "To" school by car. That means, on average, 5% more kids travel "To" school by car in 2024.

	Baseline 2019 From School	Follow-up 2024 From School
Population size (expected number of trips	243x5= 1,215	269x5=1,345
tracked TO school over 5-days)		
Number of respondents (actual trips TO	989	362
school tracked over 5-days)		
Confidence level	95%	95%
Margin of error	1.34%	4.40%

Travel Mode FROM South Kelowna

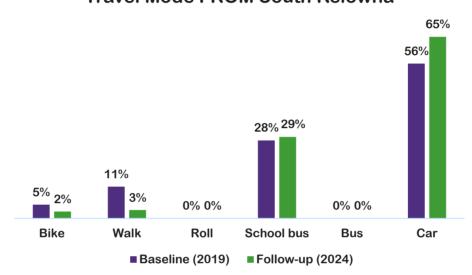


Figure 36.Total Travel Model From School -Follow-up

Before implementing the School Travel Plan, data shows, with a margin of error of ±1.34% and 95 % confindence level, that 54.3% to 57% of the kids travel "From" school by car in 2019.

After implementing the School Travel plan, data shows, with a margin of error $\pm 4.4\%$ and 95% confidence level, that 60.8% to 69.6% of the kids travelled "From" school by car. That means on average, 10% more kids travel From school by car in 2024.

On average, after the school travel plan implementation, 7% more kids travel by car "To" and "From" school.

Follow-up Family Survey Results: 2019-2024

In 2019, twenty-seven family surveys were received out of 163 families, which means only 17% of South Kelowna School families provided insightful information. In 2024, the school was integrated with 190 families, and only 23 responses were received through the online family survey: <u>School travel planning program</u>, which means only 12% of parents provided feedback.

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

	Baseline 2019	Follow-up 2024
School population (number of families)	163	190
Number of respondents (surveys received)	27	23
Confidence level	95%	95%
Margin of error	17.28%	19.21%

How does your child usually get TO school?

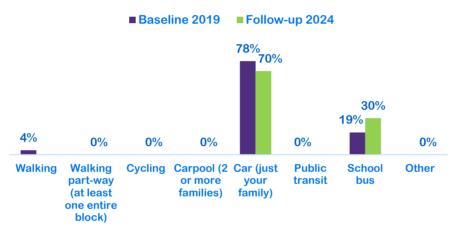


Figure 37. How does your child get to school? -Follow-up

How does your child usually get FROM school?

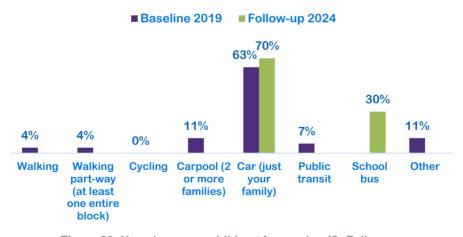


Figure 38. How does your child get from school? -Follow-up

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

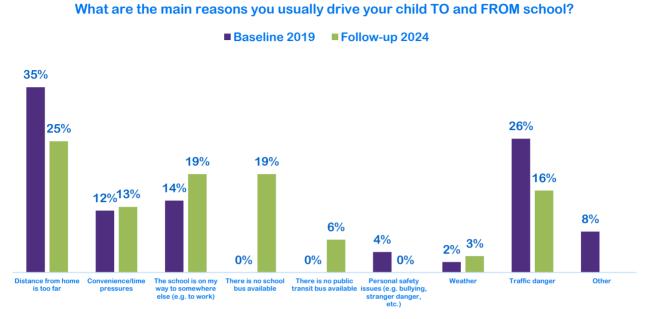


Figure 39. Main reasons you usually drive your child to and from school- Follow-up

Reasons provided in "Other": There is No bus option. I wish there were unsafe crossing at intersections, blind corners, no full sidewalks from neighbourhoods all the way, and distance. She is too young now, but I would like her to bike to school with her brother and work nearby in the coming years.

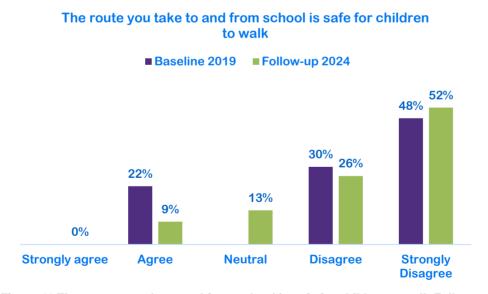


Figure 40. The route you take to and from school is safe for children to walk-Follow-up

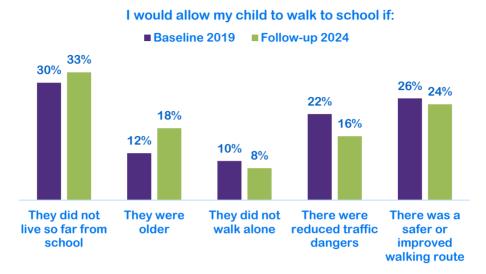


Figure 41. I would allow my child to walk to school if- Follow-up

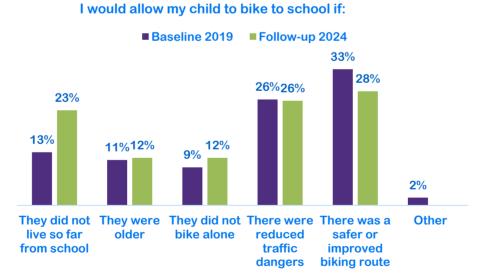


Figure 42. I would allow my child to bike to school if- Follow-up

"Other" included; Child needs to learn to ride bike.

How does your CHILD feel on the trip TO school?

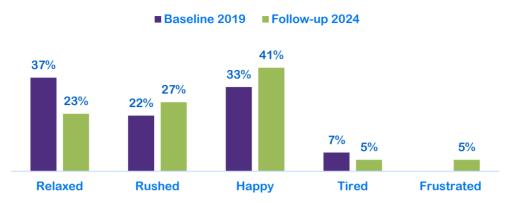


Figure 43. How does your CHILD feel on the trip TO school?- Follow-up

How does your CHILD feel on the trip FROM school?

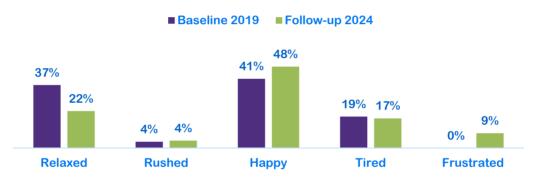


Figure 44. How does your CHILD feel on the trip FROM school?- Follow-up

How far away from the school do you live?

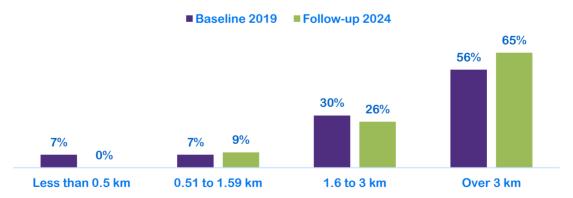


Figure 45.How far away from the school do you live?-Follow-up

Additional comments from family surveys are included in Appendix 2.

The following graphs show the sentiments of 12% of the parents who provided feedback related to the actions performed around the school since the School Travel Panning project began.

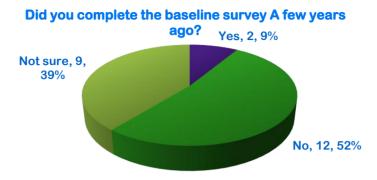


Figure 46. Did you complete the baseline survey A few years ago?

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

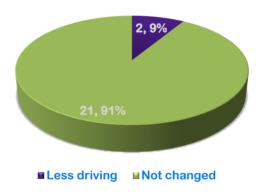


Figure 47. In what ways have your family's school travel habits changed?

Has the volume of vehicle traffic outside this school changed?

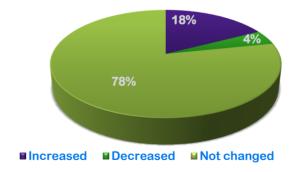


Figure 48. Has the volume of vehicle traffic outside this school changed?

Which school programming activities were implemented, and how effective were they for your family?

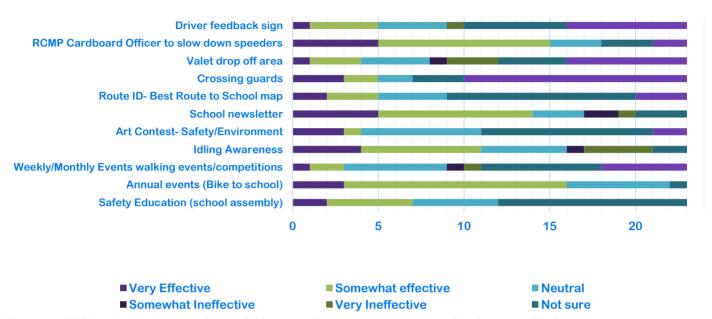


Figure 49. Which school programming activities were implemented, and how effective were they?

The RCMP Cardboard officer and annual events are the most effective activities for South Kelowna families.

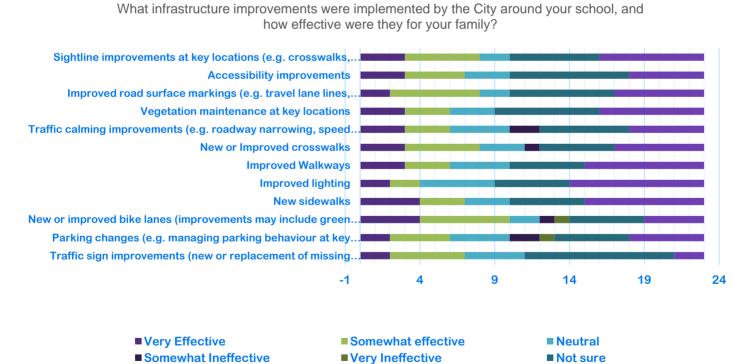


Figure 50. Which school programming activities were implemented by the City, and how effective were they?

Do you support ongoing School Travel Planning efforts?

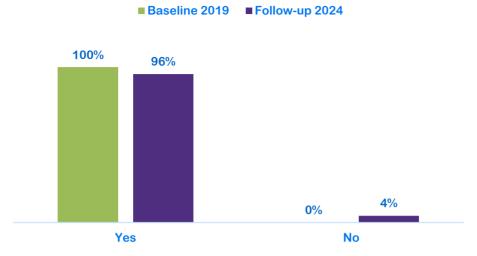


Figure 51. Do you support ongoing School Travel Planning efforts?- Follow-up

Conclusions and Recommendations

- After a few years of activities and infrastructure improvements around the school, on average, 7% more kids travel by car "To" and "From" school. According to a GIS analysis of the students' postal codes, 44% live within 2 km. Therefore, South Kelowna Elementary can potentially increase the number of kids who walk to and from school.
- 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 may 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 should be shared
 periodically with the school community through the school newsletter. The program aims to raise
 awareness about 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 <u>best routes to school</u> 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 96% of the parents who answered the survey 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 May 2019.

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>

Jasmine Lemon

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 of the 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 7. Members of the School STP Committee

Stakeholder	Staff	Roll	Contact information
South Kelowna		Description	Contact information
Elementary School			
School Administration			
	Jasmine Lemon	Principal	jasmine.lemon@sd23.bc.ca
	Nadia Piasentin	Former Principal	Nadia.Piasentin@sd23.bc.ca
Parents			
	Amanda Rentiers	Main Contact	
	George Heppner	Parent	
	Jody	Parent	
	Ali Taylor	Parent	
	Jazmin Tomichich	Parent	

Table 8. Members of the Municipal Stakeholder Committee

Stakeholder	Staff	Roll	Contact information
	Name	Description	Contact information
City of Kelowna	Dan Glasscock	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 Sackmann	Traffic Technician	JSackmann@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	Community Health Facilitator	tanya.osborne@interiorhealth.ca

Acknowledgements

Thanks to the following organizations for their valuable information:





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







Endorsement

The School Travel Plan for South Kelowna Elementary has been endorsed by Principal Nadia Piasentin on behalf of the school, and by one representative of the Municipal Stakeholder Committee.

School Principal	Nadia Piasentin
Signature	1000
Date	March 11, 2020
Lead representative of Municipal Stakeholder Committee	Jerry Dombowsky
Signature	900
Date	March 11, 2020

Statement of support

I, Nadia Piasentin, Principal, agree on South Kelowna 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.

November 22, 2018

Date

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:

Nadia Piasentin Name	South Kelowna Elementary School School Name
Tode .	



School Travel Planning Municipal Stakeholder Committee Statement of Support

David Widdis

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.

Name	Organization Name	
Signature Signature	April 10, 2015 Date	
Witness:		
Jennifer Pearson Name	Central Okanagan School District No. 23 Organization Name	
Day D	April 10, 2015 Date	

Central Okanagan School District No. 23

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.

Organization Name

Anita Ely
Name
Organization Name

September 26, 2017
Date

Witness:

Interior health Authority
Organization Name

Supplementation Name

Interior health Authority
Date

September 26, 2017 Date

Signature



School Travel Planning Municipal Stakeholder Committee Statement of Support

James Dambauselas

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.

Custolandla Transportation Bastonadia of the Control Olemen

Name	Organization Name
Signature	April 10, 2015 Date
Witness:	
Ron Westlake	Sustainable Transportation Partnership of the Central Okanagan
Name	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?	*Yes- school parking lot entry/exit. * In front of the school; parents U-turn, no crosswalk. *No proper place for deliveries (i.e. bottled water), therefore can create conflict during drop-off times
Is traffic flow clearly signed? (on ground and on signs)	*Possible stop sign on school parking lot exit onto street; failure to stop, rolling stops. * School speed sign on Wallace Dr is bent over needs to be straightened. *No, no lines on road* Need stop lines at intersection. *Slow down signs are needed. U-turn signage could be useful. Consider additional signage for drop off zone in front of school (enter/exit signs, Exit Only or No Enter signs, one-way sign). Consider putting cross walk on the front side of the school on Spiers Road (not necessary flashing lights but a sign and markings on road).
What is the parking and driving behaviour of driving parents and staff?	*Pick up/drop off is happening in the parking area- not using parking spots. *Casual, don't really obey regular traffic laws. Parent use the bus lane and leave unattended vehicles for long periods of time. *Consider more visible "No idling" sign* Parents often U-turn in front of school
How do children access the school from parked vehicle? (do they use a crosswalk, is one available?)	*Drop off on opposite side of the road and children crossing road with no crosswalk
Is there parking lot supervision?	No
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?	* 2 playground supervisors? * Possible set up a kiss & drop (Grade 6 Student Valet Service)
What are the sight distances from school crossing to road	Spiers on far back side of school had blind corners and missing pavement
curves, blind corners, or school and trans it bus zones?	so cars swerve to oncoming. * Sight lines are good
How is the placement of the school crossing in relation to driveways and bus loading zones?	No crosswalks on spiers road on 3 sides of the school
Are there sidewalks?	Yes- along spiers (school side-except the back). Not across the school. On backside of school (Spiers Road) - no sidewalks or bike lanes. Sidewalks and crossings are not connected.
Walking paths to the school	
Where are the access points for students?	Front and back of school (school field) * Road across the school. Multi use pathway along Spiers (parents drop off kids at Corner of Spiers & June Springs to let kids bike to school)
Is there potential conflict with vehicles?	*Yes-U turns in front of the school. * North driveway could use sidewalk continuation from street to exiting. *Corner of Spiers Road and June Springs - has no safe way for students to cross the road and access the multi-use pathway*Corner of McCulloch & June Springs not an all way stop sign and only one cross walk, not easy for students to connect with bike lanes/sidewalks. Also, blind Corner at this intersection potentially causing accidents
Is the lighting adequate along walkways?	Yes
What is the maintenance of walkways, i.e. snow and ice removal; mud, puddles; holes needing filling?	Good along Spiers in front of the school - Other sides not cleared properly. * School based maintenance
Can routes from backfields, adjacent parks, be used year-round?	Yes, flatten shoulder back of the school by gate opening. * Yes, during spring and fall, not sure about winter.
Bicycle facilities	
Bike racks: do they exist? Are they secure, sheltered?	Yes, not sheltered.
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?	
How many busses, vans and special needs transportation vans/busses access the school?	Two- After 8:10 the bus lane is used by parents to drop off students
Are there ramps, any special entrances or accommodations for students with diverse abilities?	Yes
Further items to look for	
Emergency vehicle access	Yes, good condition
Location of garbage dumpsters and other school maintenance equipment	In front of parking lot
No-idling signage	Yes- In front and back of the school
For waiting students and families	
Shelter from inclement weather/shade	Limited- at the school entrance
Play area	Yes-safe fenced, south end of school
Natural landscape	Yes, good condition
In Areas Surrounding School Site	
Walking facilities and traffic observations	
How far do sidewalks extend around the school and into the surrounding community?	Along Spiers on school entrance. Sidewalks are not connected. No sidewalks on the backside of the school, and sidewalk does not extend past multi-use lane. Sidewalks are also not connected on McColloch Road.
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).	There's traffic count data from 2013 & 2015. Vehicle volume clearly higher at drop off/ pick up time 8 and 2
Are there heavy trucks? Are there problem areas where a heavy truck might mount the sidewalk to turn at an intersection?	Yes, while construction is in progress, lots of dump trucks and utility vehicles. City will send notification to bring awareness on speed limits
Are there on-street signs that indicate to drivers they are approaching a school zone? Are they visible?	Yes, under BC motor vehicle guidelines. *School zone is on three sides of school. *Between Saucier and Wallace Hill Road, vehicles speed because no reminder of school zone when vehicles turn.
Timing of traffic lights? Do they allow enough time for small children to cross safely?	No traffic lights
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-ortwo scheme?	Back of the school and share use path (Spiers/June Springs)- Add gate to city parking lot at the back of the school for easy access. At multi use path - need designated area to park & unload.
Bicycle facilities	
Are bike paths or lanes suitable for families?	*Yes, share use path available. *Spiers Rd back of school has no shoulder/bike lane/sidewalk. *On backside of school (Spiers Road), no sidewalks or bike lanes. Sidewalks, lanes, and crossings are not connected.
Are best cycle routes identified?	No
Non-traffic related items to consider	
Types of buildings surrounding school: residential, recreational, commercial, industrial	Residential /agricultural. * Small convenience school store south end of school.
Location of other public spaces near school: parks, community centres, libraries, churches	Shared use field adjacent to school
Number of shade trees on streets	A few on north approach to school. Not along sidewalk in front of school. * Yes, at the back of the school.
Green space vs. concrete space	Good
Graffiti on buildings	No
Physical state of the sidewalks	Good condition- standard
Size of the sidewalks	Good
Garbage along the routes to school	No, clean condition
Obstructions on the sidewalks	No* During construction there's interference
Block Parent or Neighbourhood Watch community—if so, where are Block Parents located?	No
Potential or known areas where crime, bullying, loitering or intimidation is possible	None

Additional comments from Baseline Family Surveys 2019

We live on Ward Road, off Spiers road. There is no shoulder on either of these roads. Ward road has completely deteriorated, much of the asphalt surface is gone and it is potholes. Also, much traffic from seasonal accommodations. Spiers/Ward very gravelly

We live in West Kelowna but in the spring/summer we do make an effort to bike walk from the mailboxes to/from school.

We take that time in the truck to talk about their day.

We would encourage our children to ride bikes to school, weather permitting, if there was a safe bike route.

Bus stop is far from our house. It could easily be closer

For the next year I will inquire if I can sign up the children for using the bus only in the mornings. They stay at the afterschool program and the bus does not run for driving them home

live to far from school to walk

traffic is busy and people drive too fast. vehicle parking and control around the school is terrible.

Parents getting wild with driving when they are late can be stressful

Additional Comments from family surveys- Follow up- 2024

more defined bike lanes

What is the study that shows that idling makes the air cleaner for our kids to breathe on the signage?

That statement seems very aggressive for families that rely on driving their kids to school. Are you teaching our kids that driving to school is making the air they breath toxic or just when cars idle?

We live off mcculloch road, we really need side walks from mahonia estates to field road! People drive fast, not safe to walk

The children have to ride along a busy road in the morning. Ther have been several complaints regarding the excessive speeding on this stretch of road yet nothing has been done about it. People are late for work, kids are drag racing. All hours kf the day. The tailgaiting is beyond brutal. Even with bike lanes it is not safe until you get to Spiers road with the biking lane off the road.

You can't for SKE. The catchment is so big, people have to drive. The school bus also runs WAAAY too early. The pick up at our stop is 7:15 and the bus gets to the school around 8:10. I'm not confident that there are even monitors on the school grounds that early to ensure its safe. I don't want to have to wake up my child 45 minutes earlier than I have to just to put them on a bus for almost an hour and then wander unsupervised around the school. I would use the school bus if the pick up wasn't so early. I would love another bus to shorten the journey. Bike to school week is fun, although most parents drive their kids most of the way because school is so far.

Would like to see more bike lanes or the shoulders of the road designated for walking/biking or sidewalks up in south east Kelowna area. Makes it difficult to send kids on bikes when no lines distinguishing road vs shoulder (side of road).

Kids take the bus to and from school but do participate in bike to school week because of the potential to win a prize.

Our drop off lane is absolutely bonkers. There doesn't seem to be an efficient order- parents are not on the same page with how that is supposed to work. It's not a parking lane- I have seen parents get out of their vehicles and walk their children to their door.

We have no sidewalks and no street lights. Rural area with crazy drivers. We are 2.9km from the school - we need the bus or we drive (not eligible for the bus). Bike with them as much as we can but it feels very dangerous to do so.

June springs rd up to Spiers has no sidewalk and more space between car and pedestrians would help with safety. Traffic is heavy on this road at school drop off and pick up times. People are speeding as well. Spiers has an excellent pedestrian walk path.

Spiers Road needs a safe shoulder for walkers and bikers.

Provide additional details about the journey to and from school and add ideas on encouraging students to walk or bike to school.

Appendix 3. Best Route to South Kelowna

Best routes to school South Kelowna-map.pdf (rdco.com)

BEST ROUTES TOSCHOOL



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.

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

Neighborhood safety tips S.U.P.E.R bike safety

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

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, friends or safe public places. Warn them about high traffic areas or corners that might hide hazards.

Exploring and learning about your community and city at a young age are lessons that will last

Beware of strangers!

- When you are out with your family, identify safe places at which you can ask for help. 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. Be stranger aware!

Park and walk

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

South Kelowna has two park and walk stations: 1-The parking lot at the back of the school on Spiers Rd.

2-The multi-use pathway between the intersection of Spiers & June Springs and the

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.



Driver awareness

Drive lawfully, safely and without distraction. Parents have a valuable part to play as role models for their children's future driving

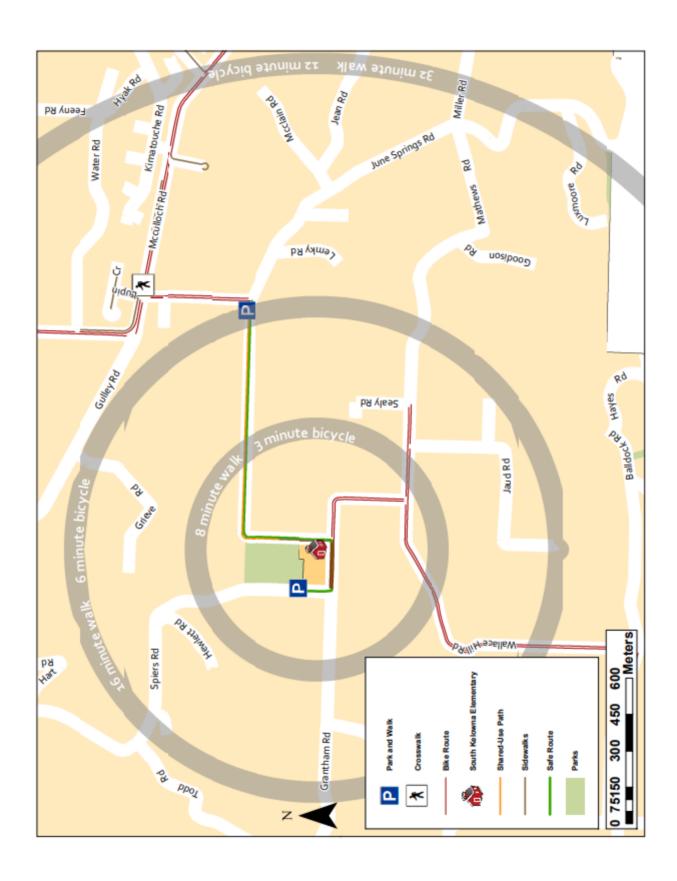
U-turns are illegal in a school zone. They are dangerous too as they cause many blind spots in an area that may be filled with young walkers and cyclists.

Don't idle your vehicle. It contributes to poor air quality which negatively impact young lungs. If you're going to be stopped for more than 60 seconds-except in traffic-turn the engine off.

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.

smartTRIPS.ca



Clean Air & Safe Routes 4 Schools A School Travel Plan **South Kelowna Elementary School**

Revised March 2025

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

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