















## 2013 Okanagan Travel Survey Report 1: Survey Design and Conduct

#### Submitted to

City of Kelowna

City of Vernon

District of Lake Country

City of West Kelowna

Westbank First Nation

District of Peachland

Regional District of Central Okanagan

Government of Canada

Province of British Columbia

The Union of BC Municipalities

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The views expressed in this document do not necessarily reflect the views or policies of the Union of BC Municipalities, Province of BC, or Government of Canada.

















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## 1.0 Introduction

## 1.1 Background

In the fall of 2013, the Cities of Kelowna, Vernon, and West Kelowna, Districts of Peachland and Lake Country, the Westbank First Nation and the Regional District of Central Okanagan partnered to conduct a regional travel survey to collect daily travel pattern of their residents. The Okanagan Travel Survey was a household-based survey targeted to all residents of the Central Okanagan and City of Vernon (combined population and household totals of 217,994 and 91,372 respectively).

Similar to the survey conducted in the spring of 2007, the goal of the survey was to develop a database of resident travel patterns to be used as the basis for transportation planning, and policy development. The comparison of the 2013 survey results to the 2007 dataset also allowed for the monitoring of changes in travel patterns between those years.

## 1.2 Survey Scope and Conduct

Data on the travel characteristics of residents are necessary to support the development of a regional transportation demand model and a household travel database, and the monitoring of the regional travel patterns. These tools and datasets in turn provide the basis for the development of evidence-based policies and plans, as well as the monitoring of the achievement of corresponding goals and targets. Therefore, a data collection exercise in the form of a travel survey is required to collect information about the socioeconomic characteristics of residents and their various travel patterns such as:

- trip origin and destination,
- trip purpose,
- travel mode, and
- trip start and end times.

Trip data was collected over a 24 hour period during the weekday (Monday-Friday) in the fall of 2013.

#### 1.2.1 Survey Areas

Residents of the following areas were surveyed ("survey area"):

- City of Kelowna
- City of Vernon



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

Over the course of a 24 hour period, as residents make trips not just in their local areas, but to other neighbouring regions and beyond, the study area (**Exhibit 1.1**) extended further to:

- North Okanagan
- South Okanagan
- External to the Okanagan Valley

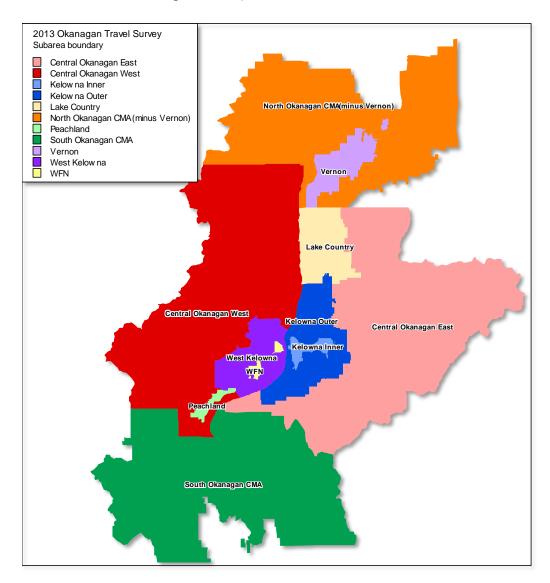


Exhibit 1.1. Study Area



#### 1.2.2 Survey Conduct

The survey was a household-based survey that required each member of participating households, 5 years and older, to complete a "trip diary" of their trips made within a 1-day period. Each household was provided, in advance, an assigned date as to when their trip diary survey should be completed. Residents of the survey area were invited through post cards mailed to homes, as well as other media (i.e. digital and print ads, radio ads, road signs, posters, etc.). Specific survey conduct

- Survey Duration: Post card invitations delivered September 23 October 11, with reminder post cards delivered in November. The survey closed on Nov 30, 2013.
- Survey invitation cards were mailed to residents which contained a unique access code to enter the online survey.
- Central to the survey was the online survey website (www.OKTravelSurvey.ca). However those who did not have Internet access were provided a toll-free number to call for a paper-based survey package to be mailed to them, or to respond over the phone.
- A variety of prizes, ranging from cash prizes, gift cards, and prizes donated by sponsors, were provided as an incentive for residents to complete their surveys.

Overall, 6,972 people in 3,057 households completed the survey for a 3.3% response rate. The respondents reported a total of 22,441 trip records over an effective 24 hour period during the survey duration.

## 1.3 Survey Reports

The survey design, conduct, and results are documented in a series of three reports:

- Report 1: 2013 Okanagan Travel Survey Survey Design and Conduct
- Report 2: 2013 Okanagan Travel Survey Survey Database and Query Tools
- Report 3: 2013 Okanagan Travel Survey Analysis of Survey Results and Baseline Comparison

This report describes the design, methodology and conduct of the travel survey. For further information regarding the description of the resulting trip database and query tools developed, or the analysis and results of the survey, including comparison to the 2007 baseline survey, refer to Reports 2 and 3, respectively.



# 2.0 Survey Planning

## 2.1 Introduction

The planning of a travel survey begins with a process framework that covers the main components required to obtain sound travel information from a contiguous group of communities. These main survey planning components are:

- 1. Survey Methodology
- 2. Survey Form Design & Instruments
- 3. Communications and Marketing
- 4. Survey Conduct
- 5. Data Processing and Summary

The following subsections describe the planning of the first three components. Survey conduct is discussed in detail in **Section 3.0**, while **Section 4.0** provides further details on the post-survey data processing and summary.

## 2.2 Survey Methodology

The methodological approach to survey design and conduct is based on the information needs that prompted the need for the survey—specifically the data elements. Defining the data needs, in terms of quality and attributes, leads into the type of survey method and instruments.

## 2.2.1 Survey Data Elements

With a need to understand the travel patterns of Okanagan residents over a complete 24 hour weekday cycle, in order to support policy, planning, and monitoring needs, some of the key data elements required from the survey are:

- Trip origin and destination
- Trip times (start and end)
- Trip purpose
- Trip mode
- Occupancy rates (automobile)
- Parkina
- Trip rate (per person)
- Trip distance (computed)

Although the results of the survey pertain to travel data, the need for **household** and **person** information is required to expand and adjust survey samples to the overall population, which is represented by census information. This complicates travel surveys more than typical market research surveys in terms of information required (increasing



survey burden), during survey ("on-the-fly") and post-processing computations, and the range of summary queries (e.g. cross-tabs) required for policy, planning, and monitoring purposes.

Refer to Report 2 for details on survey data elements and corresponding data schema and dictionary.

#### 2.2.2 Survey Method

Based on the data needs—specifically the need for a complete 24 hour profile of travel patterns—a **household-based** daily trip diary method was chosen as the best method to obtain the necessary data. This method requires the use of a trip diary form that allows respondents to capture their trip characteristics over a single 24 hour period. The subsequent survey design and instruments created were based on the goal of capturing a complete set of daily travel patterns of all residents (aged 5 or older) of participating households.

## 2.3 Survey Form Design & Instruments

The defining tools in the collection of survey data are the instruments used by participants to capture their responses. Starting with a standard paper-based form, the 2013 Okanagan Travel Survey utilized the latest web-based survey instruments.

#### 2.3.1 Survey Form

**Appendix A** provides the final survey form designs used (paper format). The entry elements are identical to that used in the 2007 survey, and similar to surveys conducted throughout B.C. and world-wide.

The purpose of the first form is to obtain household information, such as household size, type of household, vehicle and bicycle ownership, and contact information of the corresponding household respondent.

The second form asks for information pertaining to **each person** in the household 5 years of age or older. Other personal attributes such as gender, age, occupation and/or school status are asked. Mobility specific questions such as ownership of a driver's license, use of mobility aids, and use of transit are also asked.

The final and last form is the trip diary form, of which each household member 5 years and older are required to fill out for a randomly designated day. As discussed in 2.1.1, the requisite survey data elements that are the focus of the survey are asked in a logical and intuitive design that allows for efficient and clear recording of trips made throughout the day by each household individual.



Integral to the proper use of the trip diary form is an understanding of the definition of a "trip" to ensure consistency and accuracy of expected inputs. **Appendix B** provides illustrative definitions what a "trip" is, and conversely, what a "trip" is not.

## 2.3.2 Survey Website

Although the paper-based survey forms are instruments in of themselves, and the only instruments used in past surveys (i.e. pre-2000), with the advent of the internet, personal computers, and mobile devices, these surveys have evolved to take advantage of the efficiencies afforded by these technologies. Specifically, the cost and effort in distributing adequate number of survey kits per household, the burden to respond using paper forms, and the manual transcription required once survey kits are returned, are reduced. The 2013 Okanagan Travel Survey used a website design as the core instrument of responses, with the use of fillable-PDF documents and mobile trip diary apps to a limited extent.

The website (<u>www.oktravelsurvey.ca</u>) consisted of the following main components and modules:

- General information webpages describing the purpose, incentives (i.e. prizes), sponsors, frequently-asked questions (FAQ), and contacts of local government officials.
- Access request page where eligible participants can register to obtain a unique and secure access code
- Survey access page an access-code secured page that allows entry to the dynamically generated survey webpages
- Household web-form where household contacts can enter their household information
- Person web-form where the information for each household member aged 5 and older is entered
- Vehicle web-form where the information for each vehicle in the household is entered
- Trip diary preparation page where the survey day is designated and instructions on how to fill out the trip diary forms are provided, including downloadable and printable PDF forms.
- Trip diary entry page where the detailed information for each trip of each eligible household member made over the course of their designated day is entered.



To reduce survey burden and ensure the desired and intended information is captured accurately and efficiently, the user interface and online survey process was designed ergonomically with tips and verification logic throughout to reduce data omission and errors. **Appendix C** provides snapshots of the survey website pages.

## 2.4 Communications and Marketing

With support from **Bold!** Communications, a communications and marketing plan was developed and implemented. The following describe the main components of the communications and marketing strategy.

## 2.4.1 Support Information Material

Although the primary audience were the residents of Central Okanagan and the City of Vernon, in order to increase awareness and participation, information sheets and materials were developed to allow elected officials and local government executives to consistently and concisely promote the survey. This included:

- Information sheets
- Q & A sheets
- Survey partner notices and updates
- Council briefings

#### 2.4.2 Survey Logo and Tagline

Key to a marketing campaign is the branding of the object being marketed in order to increase awareness and invoke desired responses. For the 2013 Okanagan Travel Survey, a combination of a recognizable survey logo (Exhibit 2.1) and tagline ("Help steer the Okanagan's transportation future") were developed to increase survey awareness and participation. Specifically, with mailed post card invitations being the main mode of survey placement to households in the study area, it was desired to ensure recognition of the invitation cards amidst other mailed products.



Exhibit 2.1. Survey Logo



#### 2.4.3 Project Contacts

To provide public authentication and handle inquiries, contact information for local government officials and consultant team were provided on the website and communications materials. A 1-877 number was provided to handle request for mailed paper forms or obtain information over the phone.

## 2.4.4 Survey Incentives

As the complexity and breadth of the survey increases what is known as "survey burden", a range of incentives in the form of prizes and donation to charity were publicized. The following incentives were used in order to attract respondents through to completion:

- Cash awards of 1x \$5000, 9x \$1000 (1 used for early bird prize and 5 used for referral prizes), and 8 x \$500
- 20 x \$100 Gift Cards
- 1x Big White Ski Resort Weekend Prize
- 1x West Kelowna Warriors Hockey Season Pass
- 3 x West Kelowna Warriors Hockey FlexPack
- 60 x \$25 Kelly O'Bryan's Restaurant Gift Certificate
- \$1 Donation to United Way (Central and South Okanagan / Similkameen and North Okanagan Columbia Shuswap) for every completed household survey response

Other than cash, gift card and donation incentives (provided by the consulting team), sponsors generously provided many of the prizes on behalf of the survey.

The media announcement of the early bird cash prize draw winner provided the opportunity to increase awareness and participation mid-way through the survey.

#### 2.4.5 Household Survey Placements

The main mode of marketing and communication of the survey was the direct mail-out of invitation postcards to all qualified households in the study area. A total of over 85,000 post cards were mailed out to each of the households in the Central Okanagan and the City of Vernon, resulting in effectively a 93.4% placement rate. A second set of reminder postcards were mailed out to all households approximately 2 months following the first mail-out. Refer to **Appendix D** for samples of both post cards.

In addition to the mail outs, Facebook ads were targeted to the study area to target social media audiences.



#### 2.4.6 Media communications

A range of media communications were used to market and announce the survey. The following media were used, with most providing reduced sponsorship level costs:

- Website "click through" banner ads (Castanet, local government partner websites)
- Newspaper ads
- Radio ads
- Road signs
- Community center
- Posters
- Facebook, Twitter, RSS
- Media releases general announcements and prize draw announcements

For the media communications modes, graphics, text content, and script (radio ads) were developed. **Appendix E** provides examples of some of the media graphics developed.



# 3.0 Survey Conduct

### 3.1 Introduction

The survey was conducted over a 2.5 month period between September 16<sup>th</sup> to November 30<sup>th</sup>, 2013. During this time, the communications and marketing plan initiatives were rolled out, post card invitations were mailed out to study area household, public inquiries were handled, and a number of survey tasks were administered (including website administration and maintenance, reminder phone calls, and prize draw administration).

## 3.2 Communications and Marketing

## 3.2.1 Pre-Survey Marketing

One week prior to households receiving mailed-out survey invitation post card, presurvey media communications were implemented. Pre-survey communications included road signs, posters, newspaper ads, radio ads, website banner ads, and the launching of the project website.

Local government staff and elected officials were notified of the communications plan and provided with information sheets and periodic updates. Media releases were also provided to allow media services to publicize the survey.

#### 3.2.2 Public Inquiries

Public inquiries were made via email and phone calls (to the 1-877 survey project phone number). The call load was relatively light and could be handled by one staff person. It was believed this was attributable to the general completeness of information and instructions on the website (which attracted over 10,000 unique visitors). However, the survey project phone number was required to be manned 16 hours a day due to calls from the public in the early morning and late evening hours.

Inquiries ranged from general questions, to calls for assistance with the website survey forms. Approximately 150 calls requesting paper forms to be mailed were handled, mainly from households without internet access.

A number of inquiries via phone calls or emails were made to local government officials, ranging from questioning the validity of the survey to providing additional input regarding transportation matters given the nature of the survey. Any inquiries regarding the technical aspects of the survey were directed to the consulting team.



## 3.3 Survey Placement and Responses

The first set of survey invitation postcards were mailed out in three waves, to allow for the spreading of responses over three weeks to allow for a more uniform distribution of days designated to each respondent household. Reminder emails were sent to respondents one day prior to their designated survey dates.

- Wave 1: Week of September 23rd
- Wave 2: Week of September 30<sup>th</sup>
- Wave 3: Week of October 7<sup>th</sup>
- Reminder Postcard: Week of November 3rd

This also simulated the previous survey in which telephone calls were made over approximately a 1 month period.

The rate of completion by week is shown in **Exhibit. 3.1**, while the distribution of completions by day of week is shown in **Exhibit 3.2**.

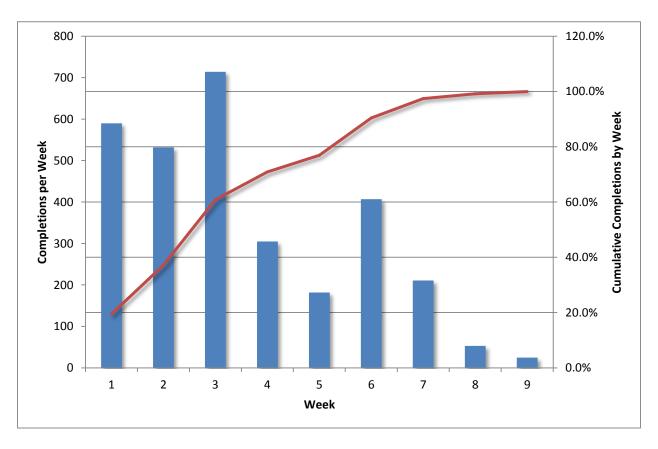


Exhibit 3.1. Distribution of Survey Completions by Week



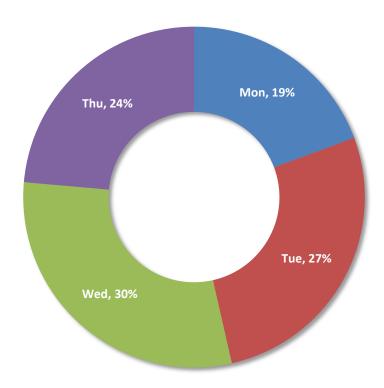


Exhibit 3.2. Distribution of Completions by Day of Week

Social media, specifically Facebook, was used to recruit additional households with the intent to target households that may be renting a secondary suite in homes with only one registered mailing address. Facebook ads were targeted to the study area, providing just over 5% of the total household responses.

A number of respondents who had started their surveys but did not complete them on their designated dates were provided reminder phone calls, with call staff obtaining incomplete information over the phone. Phone calls were also made to respondents who had any uniquely illogical entries, such as relatively short travel times for the estimated distance travelled. However, with logic checks built into the website, these issues were rare.

Approximately 2% of survey responses were mailed back, mainly from respondents who did not have access to a computer or the internet.

## 3.4 Post-Survey Sample Size

Upon completion of the survey conduct phase, a total of 3,077 household samples were completed. The next phase is the data processing and verification and it is expected this sample size to be slightly reduced with removal of invalid samples.



## 4.0 Data Processing & Summary

## 4.1 Introduction

After the conduct of the travel survey, the data was downloaded from the survey web server and prepared for data processing. This involved verification through logic checks, verifying origin and destination coordinates (i.e. geocoding verification), and the expansion of trip data to estimate total trips.

After a clean and verified data base was established, a battery of queries were performed to the database to obtain a variety of key survey metrics and summaries that were used to provide custom summaries to local governments, and produce user-friend tools to allow for further queries by transportation professionals.

## 4.2 Data Logic Verification

The data provided by each household and household members can be used to cross-check for illogical or improbable entries. An example would be the input of the age of a household member that is under 16 years of age but is noted to have a driver's license. A series of logic checks were implemented to verify the data, with any illogical entries corrected (either using existing data available for clues, or call-backs to correct the data), or rejected due to sufficiently invalid information. The following list of logic checks was applied to clean the data:

#### Household Data

- Valid address and valid response (address within study area)
- Stated municipality verification (comparison to geocoded street address)
- Number of people to person records (person database)

#### Person Data

- Driver's license to age (age required to be 16 years or older)
- Age verified to grade or post-secondary school, employment age profile
- Full time employment vs. full time school (possible, but verified through manual review)

#### Trip Data

- Trip origin and destination geocoding
- Trip completeness missing trips (i.e. return home missing)
- Estimated distance verification
- Truncation of trip distances to outside region
- Work trips to employed status
- School trips to school status
- Realistic trip start and end times (relative to distance)
- Distance by mode (realistic distribution)



#### 4.2.1 Spatial Data Verification

A significant and complex verification step is the checking of the spatial coordinates of each trip starting (origin) and ending (destination) location. The web survey utilized Google-maps based geocoding of trips. The geocoding was verified to a number of variables, including destination land use type, trip purpose, and adjacency to roads. Any erroneous spatial coordinates were validated and clean using the B.C. Digital Road Atlas spatial dataset, which is considered the de facto road centerline network in B.C.

## 4.3 Trip Segment Data Expansion

After the collection, refinement, and cleaning of the survey database, the survey sample was expanded to regional control totals. This required the development of data expansion factors and the use of statistical procedures. Data expansion involves factoring the survey sample to a regional control total (the survey universe). The data can then be used to represent absolute values for the estimation of travel summaries.

At this stage, certain biases in the data can be eliminated by stratifying the sample before expanding. For this survey, the method employed did not require sample stratification as the survey placement was made effectively to the entire population. However throughout the survey conduct, check were made to ensure responses were representative by subarea and household size in an effort to monitor for any sample bias towards specific geographic locations or smaller/larger households. The five subareas are defined as:

- Vernon
- Lake Country
- Kelowna, Central Okanagan (East)
- West Kelowna, Westbank First Nation, Central Okanagan (West)
- Peachland

For each subarea, the data was further disaggregated based on household size. Five categories of household sizes were used:

- One person
- Two persons
- Three persons
- Four persons
- Five and over (5+)

The resulting stratification for purposes of expansion factor development was 25 (five subareas x 5 household sizes). The total number of households in each of the 25 sample



groups was estimated using a combination of 2011 Census data and 2013 population estimates produced by BC Stats.

The 2013 population estimates were adjusted by BC Stats to account for the 2011 Census undercount and to include persons in private households and institutions. As this was a household survey, an estimate of the 2013 population in private households is required. First, the 2013 estimates were converted to Census Subdivision Areas (CSD). 2013 population in private households and total households were then estimated for each CSD as follows:

$$POP2013_{HHD} = POP2013_{TOT} \left( \frac{POP2011_{HHD}}{POP2011_{TOT}} \right)$$

$$HHD2013_{TOT} = POP2013_{HHD} \left( \frac{HHD2011_{TOT}}{POP2011_{HHD}} \right)$$

This data was aggregated by municipality and the number of households by family size were calculated based on household size ratios from the 2011 Census. This data was then aggregated to the five subareas providing a household universe for each of the 25 sample groups. Expansion factors were calculated by dividing the household universe by the number of survey samples in each group.

The resulting expansion factors were:

	1 Person HHD	2 Person HHD	3 Person HHD	4 Person HHD	5+ Person HHD
Vernon	58.64	27.28	46.88	41.51	69.85
Lake Country	50.53	26.99	29.59	39.50	46.75
Kelowna, Central Okanagan (East)	46.92	27.49	41.27	36.86	68.33
West Kelowna, WFN, Central Okanagan (West)	68.00	30.67	48.02	46.44	56.33
Peachland	38.00	17.18	38.71	41.40	54.00



Overall, the target of an average expansion factor of 45 was achieved (effective average was 44, with lower values being better), with variations from this average reasonable.

In summary, data expansion not only allows for the estimate of absolute figures (e.g. total trips) but the expansion factors take into account the bias of the resulting sampling distributions, with the main variables accounting for bias assumed to be location (i.e. area) and household size (i.e. number of people per household).

#### 4.4 Validation

While verification is the checking of the data for logical consistency and validity, data validation tests the quality of the data relative to "truth", or comparison to other well established or validated datasets, such as Census, or the testing of results through "face validation", or validation through past experience and expertise. Both methods of validation were employed to assure the quality of the resulting data for the 2013 Okanagan Travel Survey.

#### 4.4.1 Validation to Census

To validate the survey data to Census data, the expanded totals from the survey are compared to their counterpart data from Census. The precision (degree of comparability) will be due to the quality of the expansion factors, as well as any differences in the year the data represents. However, for purposes of validation, the comparisons should be adequate with expected differences.

#### Total Study Area Population:

Travel survey (2013): 92,621Census (2013 BC Stats adjusted): 91,372

o Travel survey 1.4% higher

#### Total Study Area Households:

Travel survey (2013): 214,611Census (2013 BC Stats adjusted): 217,994

Travel survey -1.6% lower

#### Gender Distribution:

Travel survey (2013): 53.7% females
 Census (2011): 54.1% females

o Travel survey -0.4% lower



#### Commuting Mode Shares:

Automobile:

Travel Survey (2013): 86.0%Census (2011): 87.2%

■ Travel survey -1.2% lower

o Transit

Travel Survey (2013): 3.7%Census (2011): 3.4%

Travel survey 0.3% higher

Walk

Travel Survey (2013): 6.2%Census (2011): 4.9%

Travel survey 1.3% higher

o Cycle

Travel Survey (2013): 3.8%Census (2011): 2.6%

Travel survey 1.2% higher

The total population and household estimates are comparable between Census and travel survey data, which represent similar years (2013). The gender estimates (females) are comparable and difference can also be accounted for due to differences in years (Census figures represent 2011). The commuting (travel to work) mode share are also comparable, with differences (e.g. reduced auto use, and increased transit and active modes) possibly attributable to different years (Census figures represent 2011) and the fact that more investments in transit and active modes were made in recent years.

The validation to Census data suggests the 2013 travel survey data is reasonable and reflective of the demographic and commuting characteristics of the study area residents.

## 4.4.2 Validation to Previous Survey

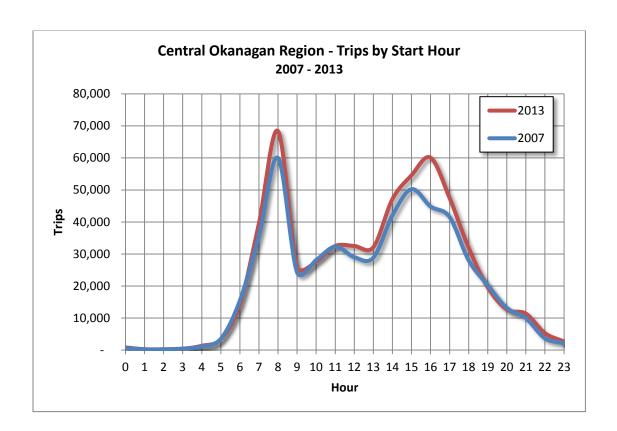
A comparison to the previous 2007 travel survey allows for a "face validation" of the resulting 2013 survey data. With an understanding that there will be typically subtle changes between the summaries of each survey (given changes in demographics and travel patterns between the two years), variables that are relatively constant over time are trip rates and the profile of trips per hour over the course of the day.

The average daily trip rate per person was **3.37 in 2007**, and **3.34 in 2013**, or a 1% drop. As it can be seen, the trips rates are relatively stable, suggesting the 2013 survey methodology is consistent with 2007.



A comparison of the plots of the pattern of trip starts per hour between survey years can also provide a sense of validation, as the distribution of trip starts over the course of the survey day should remain relatively stable (i.e. the same shape), with the 2013 survey data showing a slightly higher curve (i.e. amplitude) given the increased population and relatively stable trip rate.

As shown in **Exhibit 4.1**, the distribution of trip starts (per hour) over the course of the survey day for the City of Vernon and Central Okanagan residents are similar between 2007 and 2013 surveys (with what seems to be increases in trips during morning and afternoon peak periods, as expected). This suggests the 2013 data is valid relative to the 2007 data, and that relative comparison should be statistically sound.





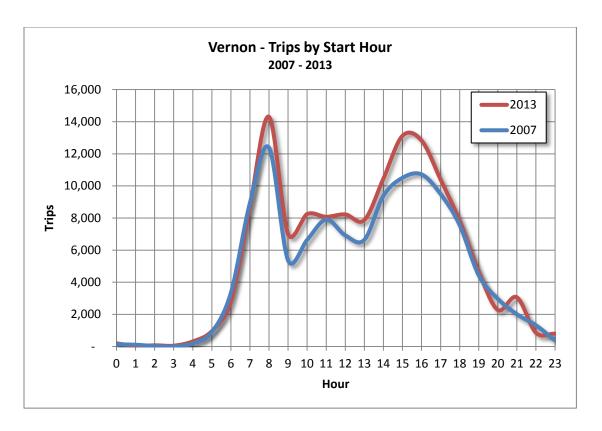


Exhibit 4.1. Distribution of Trip Starts (per hour) over the Survey Day, 2007 and 2013

## 4.5 Final Sample Size and Summary

Overall, the final valid and clean database consisted of **3,057 households** of **6,972 people** for a **3.3% response rate**. The respondents reported a total of **22,441 trip records** over an effective 24 hour period during the survey duration.

Summaries of the results of the survey were provided to local government councils and boards, including medial releases in May 2014.

Detailed analysis and results are provided in Report 3: 2013 Okanagan Travel Survey – Analysis of Survey Results and Baseline Comparison.

# Appendix A – Travel Survey and Trip Diary Forms

## **Household Form**

NAGAN EL SURVEY	CO	NTACT PERSON O	F THE HOUSE	HOLD: F	PLEASE FILL OU	JT THIS F	ORM AND	RETURN	BY MAIL	]
Access Code:		-	-		-					
First Name:				Surnam	e:					
Address:				Apt/Unit						
City:				Province	e: B.C.	Postal C	ode:			
Home Phone Number:				Email: (optional)						
Dwelling Type:	☐ Apartr		е	3. Hous	ehold Income:	□ \$25 □ \$45 □ \$65 □ \$10	s than \$25 5,000 to les 5,000 to les 5,000 to les 00,000 or m 't know fer not to d	s than \$4 s than \$6 s than \$1 ore	5,000	
Number of People in your Household: (5 years and older)					per of Bicycles: king condition)					
			Number of V	ehicles in	your Household	d (including r	notorcycles &	sconters)		
5. Number of vehicles: (	Circle)	1	2		3	z (menaamig i	4		5	_
a. Year of vehicle: (e.g. "2012")										
b. Make of vehicle: (e.g. "Ford" or "Honda")										
c. Model of vehicle: (e.g. "F-150" or "Civic")										
d. Transmission & Fuel (e.g. Trans: auto, manual   diesel, propane, hybrid, el	Fuel: gas,									
e. Ownership (Choose one 1. Owned 3. Com 2. Leased 4. Share	, ,									



## **Person Form**

NAGAN EL SURVEY		PLEAS	SE FILL OUT	THIS FO	ORM FO	R EACH PERSO	ON IN	HOUSEHOLD AGE	ED 5 OF	OLDER	AND RETU	JRN BY MAI	L
Person Profile For:			Name or init	als				Home Phone Number:	(1	his is used	to link this pe	rson to your ho	usehold)
1. Age:			2. Gender	:	Male	□ Female		3. Have Driver's Lic	ense?	□ Yes	□No	□ N/A (e.g. u	nder 16 yr
4. Person need of mobility a  No assistanc Temporary Permanent	aids?	W   S   S   C   C   C   C   C   C   C   C	r primary device /heelchair cooter /alker ane rutches one of the abou		has	he past 30 days this person: Taken public to C d somewhere all the None of the a	ransit ycled e way	☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes	hav	es this pe /e a mont nual trans	hly or	□ Yes	□No
7. Person is: (select all that appi  Working ft  Working p.  Full time s  Dart time s  Retired  Other (des	ull time part time student student ed ccribe):			Occupa	ation Ty	t is this person' pe? Professional Business Sales Service/Retail Clerical	s	☐ Skilled- ☐ Skilled- ☐ Other v ☐ Comme ☐ Other(d	Technic vorkers ercial Dr	iver			
9. If this person Work #1 Name		ise list	their workpla	ce(s)				#2 Name:					
Type of Workpla	ice:		☐ Office ☐ Retail	□ In	dustrial		(if appl Type o	icable) of Workplace:		☐ Office ☐ Retail		Industrial Other	
Address or cross	s-street:						Addre	ss or cross-street:					
Municipality:							Munic	ipality:					
10. If this perso	n is a stude	nt, plea	ase list their s	chool(s)									
School #1 Nam	ne:						Schoo (if appl	ol #2 Name:					
Type of School:			☐ Grade Sch					of School:		☐ Grade	School (K-1	13) 🗆 Othe	or.
Address or cross	s-street:		L Fost Secon	idary			Addre	ss or cross-street:		L Posts	econdary	_ Othe	.1
Municipality:							Munic	ipality:					



Go to Trip 7 or this was last trip for the day

Go to Trip 6
or this was last trip
for the day

Go to Trip 5 or this was last trip for the day

Go to Trip 4 or this was last trip for the day

Go to Trip 3 or this was last trip for the day

Go to Trip 2
or this was last trip
for the day

Where did you go next? (You next trip starts where the previous trip ended)

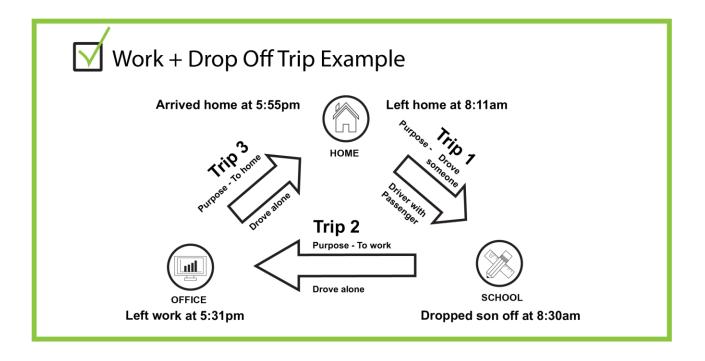
When each person has completed this Trip Diary survey form, please go back to the survey website (www.oktravelsurvey.ca), login with your Access Code and fill in this information online.

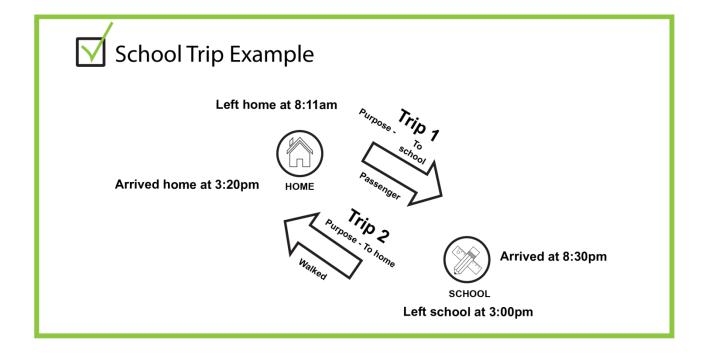
## **Trip Diary Form**

TRAVEL SURVEY	PLEASE F	PLEASE FILL OUT THIS TRIP DIARY FORM FOR EACH PERSON IN THE HOUSEHOLD	RIP DIARY FOR	M FOR EACH	PERSON IN THE	ноизеногр		
Trip Diary form for: Step 1. Name or initial	initial	Step 2.	Assimed Trin Diany Day	Step house	Step 4. Did this person make any trips on this household's assigned Trip Diary Day?	any trips on this iry Day?		2
Note: A trip is one-way travel to a destination with a distinct purpose to travel (e.g. a non-stop trip from home to work).	ion with a distinct purpose	to travel (e.g. a non-s	top trip from home to	work).	If No, please select reason(s) that apply:		Home Business	□ Day Off
What <u>doesn't</u> count as a trip:  walking a dog, jogging or cycling (with no destination)  walk between a parking lot of to and from transit stops  moving around between rooms within the same building, or between buildings on campus  commercial vehicle/delivery/transit <u>dirver</u> trips (only personal trips to and from work apply)	(with no destination) and from transit stops ithin the same building, or be it driver trips (only personal t	etween buildings on ca trips to and from work a	mpus apply)			000	Telecommute Home Schooled Sick	Out of town Other Describe Other:
Step 3. TRIP DIARY: Please record all of your trips below on your assigned Trip Diary Day	our trips below on your assi	gned Trip Diary Day						
Trip Locations: 1started my first Write down the address OR I started my first	P I went to:		→ 3 <sup>rd</sup> Trip Next I went to:		◆ 5 <sup>m</sup> Trip Next I went to:		→ 7 <sup>m</sup> Trip Next I went to:	◆ 8 <sup>m</sup> Trip Next I went to:
nearby intersection OR trip from: landmark.								
Include the municipality.	_							
End Location Type: (Choose only one, write code #)	ode #) Location Type	Location Type	Location Type	Location Type	Location Type	Location Type	Location Type	Location Type
1. Housel 8. Daysane 11. Indoor rec./ apartment 7. Hospital 12. Outdoor rec. building 8. Bankfinandial (park, beach 13. Industrial 9. Religious 901) 15. School 10. Farmy 14. School 10. Farmy 14. School 10. Farmy 14. School 10. Farmy 10. Farmy 10. Farmy 14. School 10. Farmy 10		(Write GOGE #):	(write code #):	(write code #):	(write code #):	(WITE 000€ #):	(write code #):	(write code #):
Main Trip Purpose: (Choose only one, write code #)	ode #) Purpose Code:	Purpose Code:	Purpose Code:	Purpose Code:	Purpose Code:	Purpose Code:	Purpose Code:	Purpose Code:
1. To work/work	nome e or							
Start time: Write in Exact Time you left the start	Started at	Started at	Started at	Started at	Started at	Started at	Started at	Started at
location. Circle AM or PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM
Arrival time: Write in Exact Time you arrived at this	this Arrived at	Arrived at	Arrived at	Arrived at	Arrived at	Arrived at	Arrived at	Arrived at
destination. Circle AM or PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM
Method of Travel: (Choose all that apply, write code #)  1. Automobile – driver 2. Automobile – passenger 3. Transit bus (specify route 7. School bus numbers) 4. Walking	e #)							
If not a Driver ("1"), was a vehicle available to drive?	e? Y N N/A	Y N N/A	Y N N/A	Y N N/A	Y N N/A	Y N N/A	Y N NA	Y N N/A
If by automobile: How many other people travelled with you: Example: -10' if you rode alone -11' if noe other person was in the vehicle with you -2' if two other becole were in the vehicle with you.	illed # of other people	# of other people	# of other people	# of other people	# of other people	# of other people	# of other people	# of other people
If by automobile: Did you use pay parking? (if so, specify cost)	ó	u			·			



# **Appendix B – Trip Definition Examples**







# Non - Trip Examples



Walking a dog (with no destination)



Jogging or biking in your neighborhood with no destination



Walking between a parking lot and your destination



Moving around between classes / campus or within the same building complex (e.g. office)

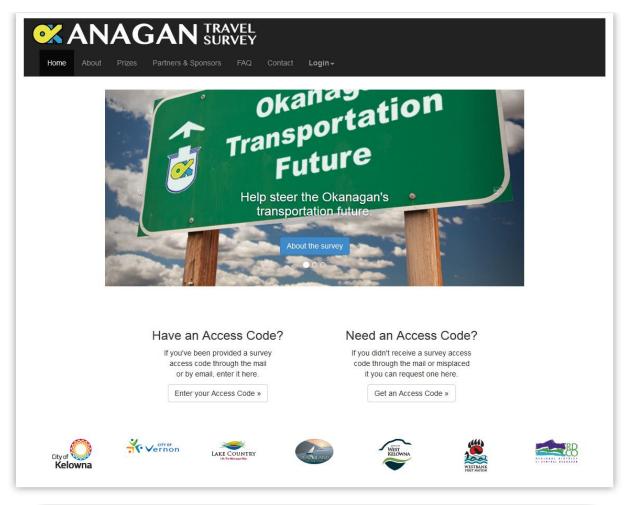


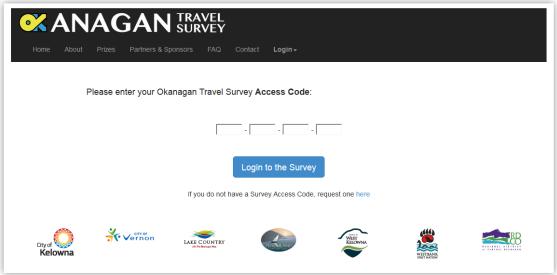
Walking to or from transit stops



Commercial vehicle trips - please DO NOT include trips where the purpose is commercial delivery or driving a bus or taxi

# **Appendix C – Website Instrument Design**









#### Part A: Household Information

#### Introduction

The Okanagan Travel Survey seeks to understand the various transportation patterns and characteristics of residents of the Central Okanagan and City of Vernon. Understanding these travel patterns and characteristics will help planners and engineers in developing the future transportation system for the Okanagan. The more households that participate in this survey, the more accurate and useful the information obtained will be.

This survey seeks to understand key attributes of household transportation patterns that may help to explain how, why, when and how much travelling is done in the Okanagan. Some personal and household information will be asked, in addition to your travel details. All personal information collected will be kept completely confidential.

The Okanagan Travel Survey consists of two parts:

- » Part A: Household Information information about your household, household members, and vehicles. This information can be completed today, and should take about 5-10 minutes.
- » Part B: Trip Diary the 1-Day Trip Diary component of this survey. After completing the household information (Part A), you will be assigned a specific date to complete the 1-Day Trip Diary.

This online survey will lead you to fill out forms to enter this information. Please **select a person from your household to act as the survey coordinator**. This person should ensure all information is entered and household members are properly instructed and prepared on how to complete the Trip Diary component of the survey.

Please click on the button below to start Part A of the survey.

[Note: only use the buttons presented on each web page to move through the survey.

Do not use your browser's BACK or FORWARD buttons.]

Enter Household Information







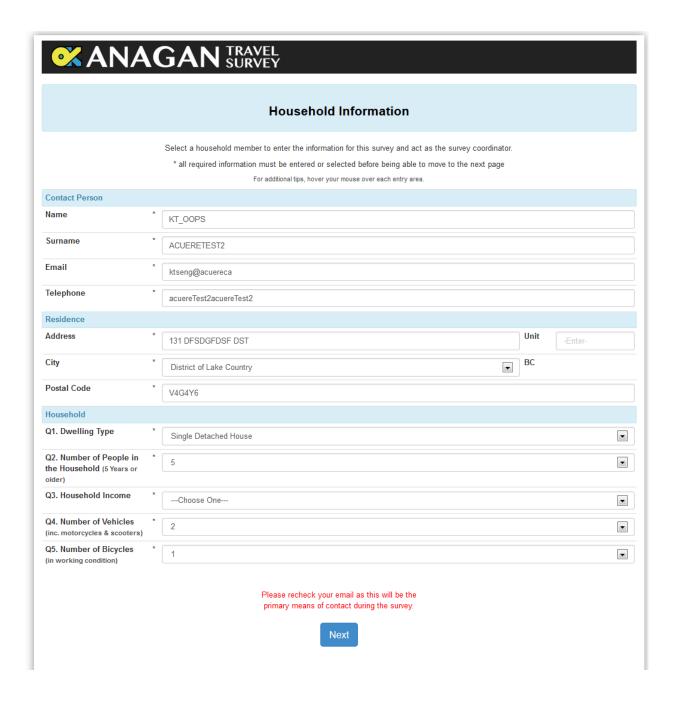




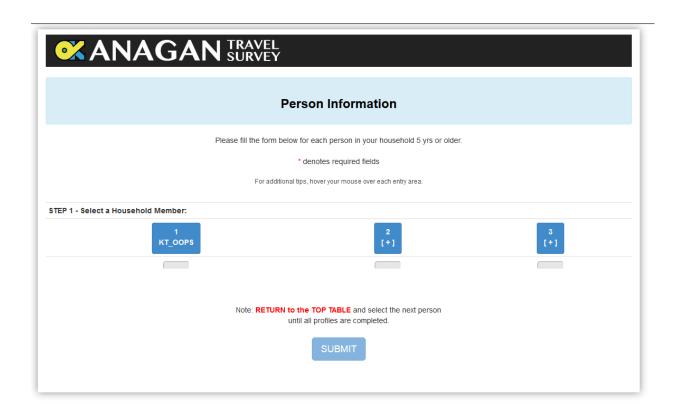




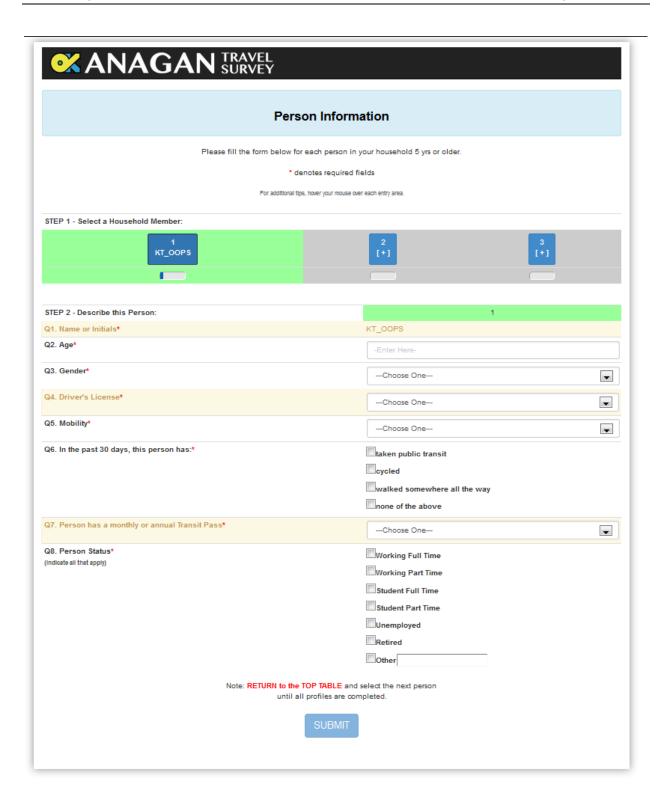




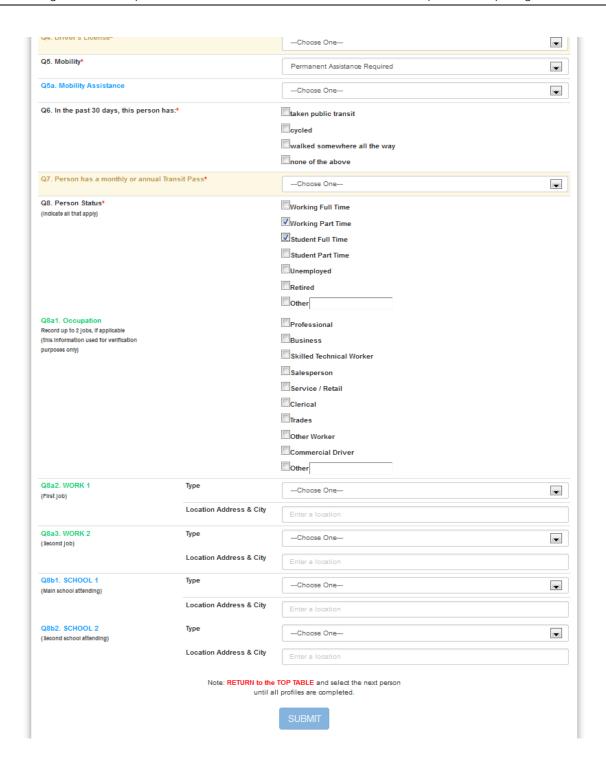




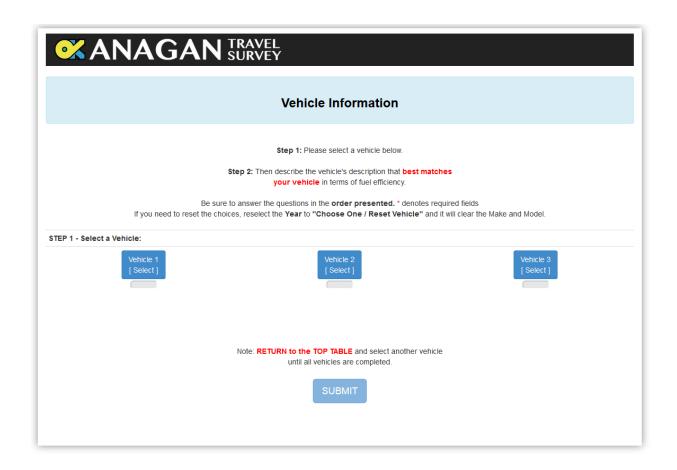




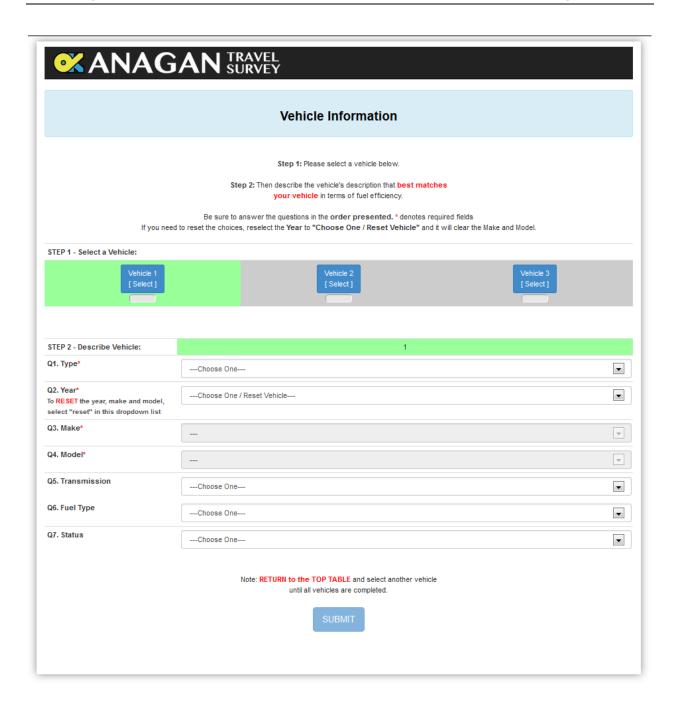
















## Part B: Trip Diary

#### Preparing for your Trip Diary

Thank you for completing Part A (Household Information) of the survey!

The second and final part is to complete the Trip Diary. Each member of your household will be required to complete a Trip Diary to record all of the trips made within your household's Assigned Trip Diary Day.

#### Your Assigned Trip Diary Day

Your household is assigned to complete the Trip Diary on:

#### Thursday, October 10, 2013

Please note, this date has been randomly assigned to your household. This ensures a random selection of participants travel habits are recorded. Please strive to complete your survey on this assigned date.

#### The Trip Diary Form

Please download and print the Trip Diary Form for each household member. The form is available here:

Printable Trip Diary Form

If you do not have Adobe Acrobat Reader installed, you can get it here: Get Adobe Reader



If a person tends to make more than 8 trips a day (see definition of a trip below), please provide an additional form. You will be able to print-out additional copies of this form by entering back into this website using your Access Code.

On the Assigned Trip Diary Day, each household member should record each of their trips throughout their day, filling in the required information. When each person has completed their Trip Diary survey form, please come back to this survey website and login with your Access Code to fill the Trip Diary information online.

(Note: you will be able to enter in your Trip Diary information after 5:00 pm on your Assigned Day. Before then, you will be shown this page.)

For more information, please refer to the instructions on the form. An example of how the form should be filled out is provided below:

Example Trip Diary Form





Please download and print the Trip Diary Form for each household member. The form is available here

Printable Trip Diary Form

If you do not have Adobe Acrobat Reader installed, you can get it here: Get Adobe



If a person tends to make more than 8 trips a day (see definition of a trip below), please provide an additional form. You will be able to print-out additional copies of this form by entering back into this website using your Access Code.

On the Assigned Trip Diary Day, each household member should record each of their trips throughout their day, filling in the required information. When each person has completed their Trip Diary survey form, please come back to this survey website and login with your Access Code to fill the Trip Diary information online.

(Note: you will be able to enter in your Trip Diary information after 5:00 pm on your Assigned Day. Before then, you will be shown this page.)

For more information, please refer to the instructions on the form. An example of how the form should be filled out is provided below:

Example Trip Diary Form 🃆

#### What exactly is a Trip?

Each household member who makes a trip will be required to record that particular trip. However, a key question is "What is a Trip"? Generally, a trip is defined as leaving one location and travelling to another location for a single purpose.

The following are examples and illustrations as to what is considered a trip and what is not.

Example 1: A parent going to work and dropping of a child at school, with a return trip back home - total of 3 Trips for the day. [click here for diagram]

**Example 2:** Corresponding (to Example 1) child's trip to and from school - **total of 2 Trips for the day**. [click here for diagram]

Example 3: Commercial Driver (e.g. delivery, taxi, bus) driving to and from work alone - total of 2 Trips for the day (only personal trips to and from work apply - do not record delivery trips). [click here for diagram]

Example 4: Activities NOT Consider a Trip [click here for diagram]

☑ Email me my Trip Diary information



















## Okanagan Travel Survey

Part B: Trip Diary

#### Enter in your Trip Diary Information

If each member of your household has completed a Trip Diary, you may now record the information online.

For each member of your household, you will enter in the details of each trip during the Assigned Trip Diary Date. If any individual did not take any trips (that person stayed in the same place for the 24 hour period), you will be prompted with the reason why no trips were made on that day.

Once you have recorded the Trip Diary information for each member of your household, the survey will end and you will automatically be entered into the prize draw.

Please click on the button below to begin entering the information as written on your paper Trip Diary survey form

Note: only use the buttons presented on each web page to move through the survey.

[Do not use your browser's BACK or FORWARD buttons.]

Record Your Trip Diary Information







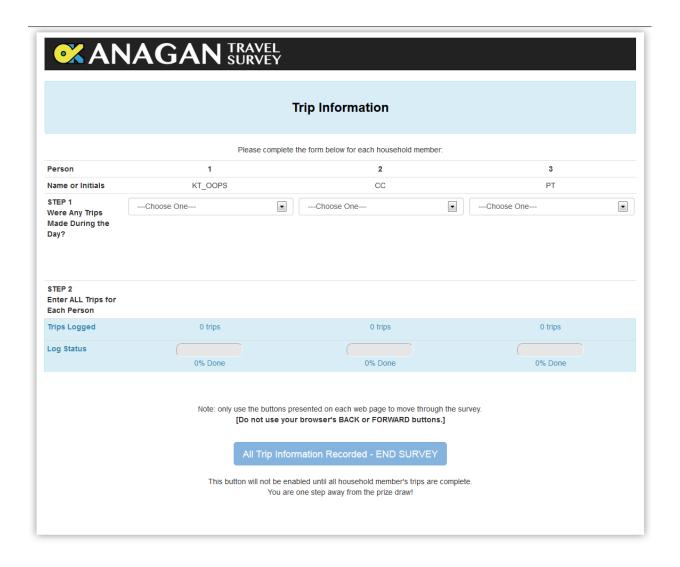




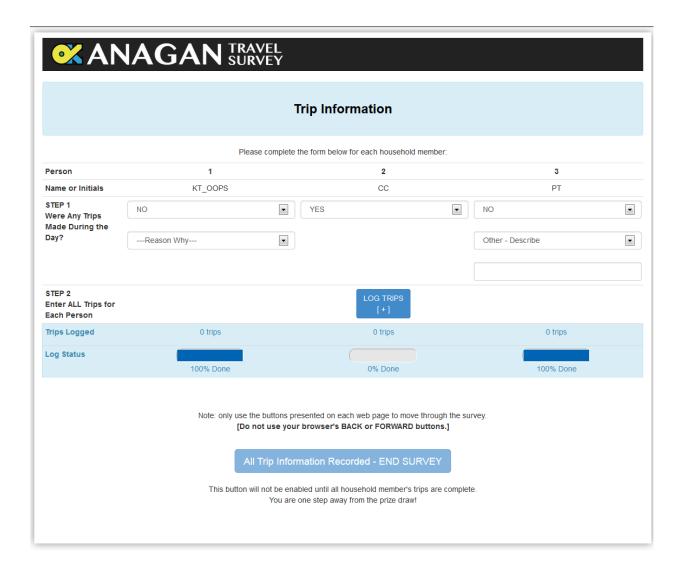




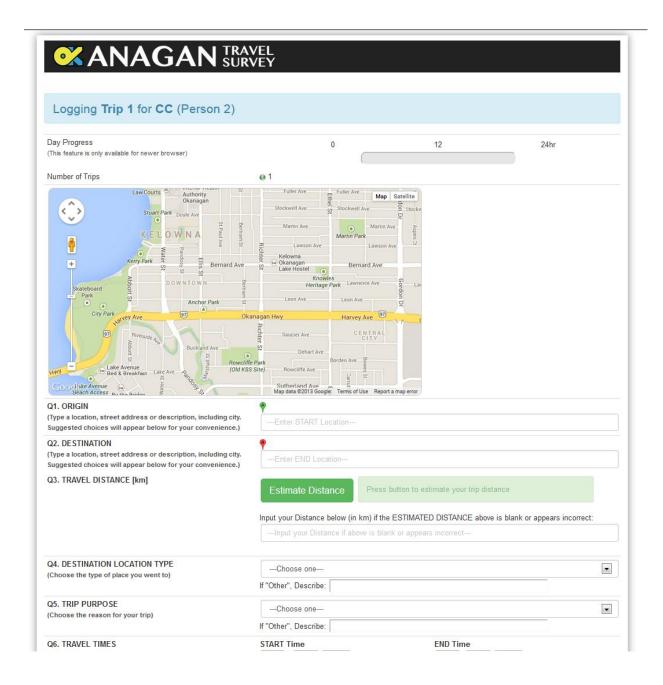




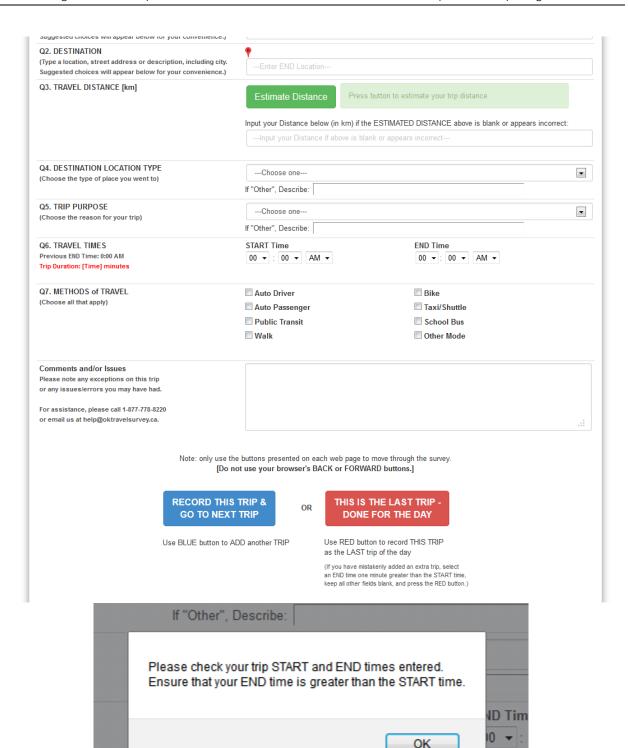








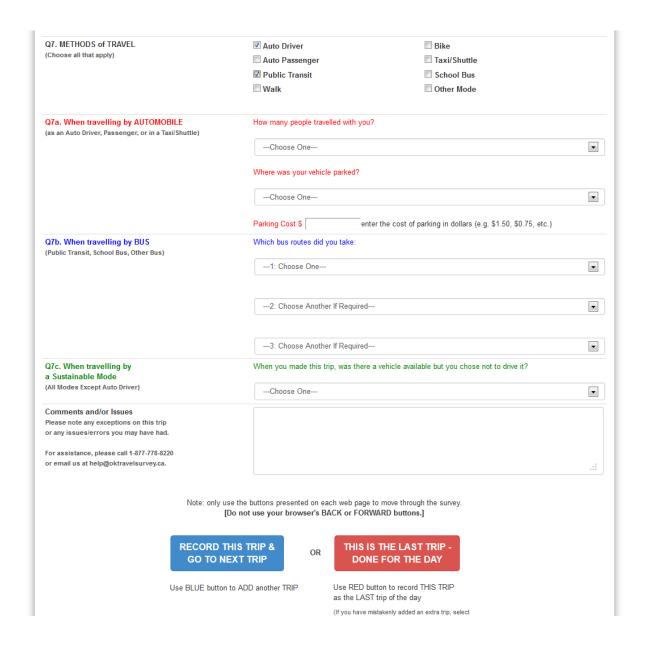




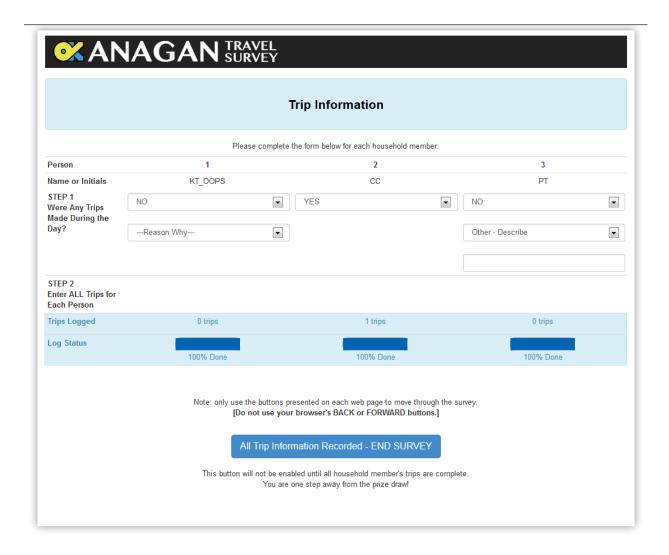
Auto Driver



Bike









# **Appendix D - Postcard Survey Invitation**

#### **Initial Mail-out Design**







#### Second Mail-Out Design















# How do you get around?

Help steer the Okanagan's transportation future





Complete your 1-Day transportation log at

# OkTravelSurvey.ca

or call 1-877-778-8220

Want an efficient transportation system that suits your needs?









Complete your 1-Day transportation log today at



You could win one of over 100 prizes including a \$5000 shopping spree & 3 X \$1000 shopping sprees

\$1 will be donated to United Way, for every survey completed\*

\*Up to a maximum of \$5000.

Survey conducted confidentially by Acuere Consulting Inc.



# Appendix E – Example Media Graphics

### Click-through website banner ads







#### **Poster**

















# www.OKTravelSurvey.ca

 $For \ more \ information:$ 

www.OKTravelSurvey.ca info@OKTravelSurvey.ca 1-877-778-8220 Editorial's Homepage















Please keep this poster up until Oct 31, 2013



# Roadside Sign



(example draft for signage)

