

## **Request for proposal**

### **1) Background that indicates your understanding of the project and the PTA**

**Problem Definition: This study would be done to gather insights on whether it is feasible to develop a Bus Terminal and/or underground parking at Dorchester Street.**

The Public Transit Authority (PTA) in Sydney, NS is serviced by Transit Cape Breton under the division Cape Breton Regional Municipality (CBRM), which offers thirteen bus routes within the municipality, serving the region's areas like Sydney, Sydney River, Glace Bay, New Waterford, Dominion, Reserve Mines, North Sydney and Sydney Mines.

From late 2018, Handi-Trans paratransit has been accessible for passengers whose disabilities restrict them from using Transit Cape Breton's regular bus service. Fares range from \$1.25 to \$5, depending on how many zones are travelled. The proposal in question is to identify the feasibility of building a bus terminal and further analyse the possibility of building an underground parking at one of the busiest and most important junctions in the bus route, Dorchester street. This junction is located in Downtown Sydney and connects all regions with Sydney River. The bus stand will comprise of 4 bus bays, a coffee shop, washrooms (2 Male, 2 Female) and a heated waiting area with seating. By creating this bus terminal we estimate to serve around 110,000 people in Cape Breton alone and the neighbouring cities would comprise of another 20,000 commuters on an annual basis (Halifax, St Johns, Newfoundland) which is made possible by granting access of the terminal to long distance bus operators like Maritime Atlantic. The construction will be realized using an interest-free loan from the Government payable in 20 years. The study will focus on the feasibility and extent of generation of revenue from the coffee shop and, advertising and tariff of underground parking as opposed to the cost and determine the profitability of said project.

## **2) Information to elicit from the customers**

The information to be elicited from the customers will be obtained through a questionnaire to be delivered in person and collected digitally. The information will focus on details relating to travel such as frequency of use of public transport, frequency of use of Dorchester Street bus stop and travel to and from Dorchester Street bus stop. The questionnaire also aims to gather information on frequency of visit to coffee shops as well as basic demographical information. The information thus elicited can be used to determine the probabilistic use of coffee shop and underground parking facilities which are the sources of revenue generation. This will thus ultimately help determine the feasibility and financial viability of the project. The questionnaire and the flow diagram to be used to elicit aforementioned information has been attached in Appendix A.

## **3) Research design**

We will initiate by using Exploratory research which will be followed up by Conclusive research after which we will move forward by using Descriptive research wherein we will conduct a survey which will be a single cross sectional design survey. We would also factor in errors in our research design (if any). The following design would first explore the problem at hand. Subsequently, through questionnaire and secondary data, we can identify the potential business value and revenue generated from the project. This can be studied against the cost to reach a conclusion thereby helping us in making a calculated and informed decision.

The questionnaire designed for this research will be delivered in person at

- Dorchester Street Bus Stop
- Sydney River Shopping Complex

The purpose of focussing on aforementioned areas is to capture information and opinions of users of the bus stop in question. The questionnaire can also be extended to the following areas :

- Sydney River Bus Stop
- Cape Breton University
- Mayflower Mall

The demographic of population that is our target is one that uses the bus stop located at Dorchester Street frequently. Also, the lack of facilities including but not limited to parking, waiting area and seating may be discouraging people from using the bus stop. The questionnaire will be designed to unearth information about the same so as to quantify the need and help actualise the feasibility of the proposed project.

#### 4) Analysis of data

The data gathered about travel behaviour and demographical information can be used to obtain insights into spending habits and thus potential business of the coffee shop as well as use of underground parking facilities. Also, the data may also give insights into potential deterrents to usage of bus stop which may be lack of facilities and thereby help strengthen our work towards determining the financial viability of undertaking the project. The questionnaire will also elicit information on usage and thus help determine peak hours. The same can also be determined using data from PTA which will be used as secondary data for the purpose of this research.

Quantifying these responses would help us analyse the data in a comprehensive manner. The technique used for codifying/quantifying data has been given in Appendix B.

#### 5) Timelines

We assume the following timelines would be met if the process is conducted:

- Training of Interviewers - **2 days**
- Gather data - **12 days**
- Analysing the data - **4 days**
- Documenting and delivering action plan – **2 days**

## 6) Pricing policy

Sample Size- **500 Respondents**

Productivity- **4 responses** per interviewer per day

Number of interviewers to be hired- **12**

We plan to elicit **4 responses** per interviewer per day which would give us a total of **48 responses in a day**. At this speed we will take **10.4 days** to complete 500 responses. We plan to vouchsafe each respondent with two bus tickets which would cost us a total of **\$1,500** (\$3.00 X 500). With this strategy we will be able to incur 1 extra respondent per interviewer per day which would in-turn help us to finish the work early and provide us substantial savings on employee recruitment, supervision and training cost.

Each employee earns \$10/hr, so, for 8 hours/day of work our cost of 12 Interviewers comes to

$\$80(\text{Daily Income}) \times 12(\text{Employees}) \times 10.4(\text{Days}) = \mathbf{\$9,984}$

Further the supervision cost is approximated to be 1/3 of the interviewer cost which would be equal to  $9,984/3 = \mathbf{\$3,328}$

Total labour cost=  $9,984 + 3,328 = \mathbf{\$13,312}$

Training our employee would cost us half the price=  $8 \times 80 = \mathbf{\$640}$

Our total Labour cost is equal to Interviewer cost+ supervisor cost+ Training cost= **\$13,792**

We will be using google forms to help in filling up the surveys, by doing so we will be able to save all the paper and printing costs and also help minimise discrepancies due to human error.

The refreshment cost for employees=  $(12 \times \$10 \times 10.5 \text{ days}) =$  (this is not included in our pricing model as we would prefer to pay our interviewers after receiving their claims for the spending they did)

Travel allowance per interviewer by bus=  $3 \text{ dollars/day} = 3 \times 12 \times 10.5 = \mathbf{\$378}$

We assume our managerial costs to be **\$3,000** (75 hours X \$40/ hour)

The profit margins we propose are as follows:

$18,670/0.6 = \mathbf{\$31,116.66}$  (40% profit)

$18,670/0.5 = \mathbf{\$37,340}$  (50% profit)

$18,670/0.4 = \mathbf{\$46,675}$  (60% profit)

We plan to save on paper and printing cost for the surveys, instead we will try to use google forms to elicit information from the respondents as it will be cost effective. Since the information will already be digital, this further enhances time-space efficacy as resources to convert information to digital form will not be required. The information can be captured on the interviewer's smart phone or any other smart device by logging into a secure google form ensuring confidentiality and privacy.

## Appendix A

### Questionnaire

**Questionnaire No**

**Interviewer No**

**Date**

Hello my name is \_\_\_\_\_. I am working on behalf of Semper Fortis Marketing agency and am interested in your opinions for a research project on transportation. The information that you give me will be treated as confidential and will not be revealed to any third party. The questionnaire will only take 15 minutes to be completed and I would also like to present you with 2 bus coupons as a token of thanks and appreciation upon completion of this survey.

1. May I continue ? (If No, thank and terminate)

☐ Yes    ☐ No

2. Have you travelled by bus in the past 6 months ? (If No, skip to 13)

☐ Yes    ☐ No

3. How often do you use the public transport ?

☐ Daily    ☐ 3-4 times/week    ☐ less than 3 times/week

4. How far do you live from Dorchester Street bus stop ?

☐ 0-1 KM    ☐ 1-2 KM    ☐ 2-3 KM    ☐ 3-4 KM    ☐ more than 4 KM

5. What time(s) of the day are you at the bus stop ?

☐ 7-10 am    ☐ 10-1 pm    ☐ 1-4 pm    ☐ 4-7 pm    ☐ 7-10 pm

6. How much time do you wait for the bus ?

☐ Less than 5 mins    ☐ 5-10 mins    ☐ 10-15 mins    ☐ 15-20 mins

☐ More than 20 mins

7. What mode of transport do you use to get to Dorchester Street bus stop ? (If Bus, skip to 10)(If Bicycle/Vehicle, skip to 9)

☐ Bus    ☐ Walk    ☐ Bicycle    ☐ Vehicle

8. Why do you walk ? (Skip to 10)

☐ Exercise    ☐ Lack of parking    ☐ Other

9. Where do you park your mode of transportation ?

☐ Street parking      ☐ Other

10. How often do you visit coffee shops ?

☐ More than 5 times/week    ☐ 3-4 times/week    ☐ Less than 2 times/week

11. Have you travelled outside Cape Breton Island in the past 6 months ? (If No, skip to 9)

☐ Yes      ☐ No

12. What mode of transportation did you use ?

☐ Bus      ☐ Other

13. Which brackets of age do you fall into out of the following?

☐ 15-24 years    ☐ 25-34 years    ☐ 35-44 years    ☐ 44-55 years  
☐ 55 years and above

14. What is your gender ?

☐ Male      ☐ Female      ☐ Other

15. What is your occupation ?

☐ Self Employed    ☐ Government    ☐ Private Sector    ☐ Student  
☐ Other      ☐ Retired/Not Working

16. Do you own a vehicle ?

☐ Yes      ☐ No

17. What is the total annual income of the household ?

☐ Less than \$20,000      ☐ Between \$20,000 and \$40,000  
☐ Between \$40,000 and \$60,000    ☐ Between \$60,000 and \$80,000  
☐ More than \$80,000

Thanks for your time. Your responses are valuable.

## Appendix B

### Quantifying/Coding scheme of data :

Q1	1 - Yes	2 - No				
Q2	1 - Yes	2 - No	0 - Skip Logic			
Q3	3 - Daily	2 - 3/4 times/week	1 - less than 3 times/week	0 - Skip Logic		
Q4	3 - More than 4km	2 - 2-4km	1 - 0-2km	0 - Skip Logic		
Q5 [7-10am]	1 - Yes	2 - No	0 - Skip Logic			
Q5 [10-1pm]	1 - Yes	2 - No	0 - Skip Logic			
Q5 [1-4pm]	1 - Yes	2 - No	0 - Skip Logic			
Q5 [4-7pm]	1 - Yes	2 - No	0 - Skip Logic			
Q5 [7-10pm]	1 - Yes	2 - No	0 - Skip Logic			
Q6	5 - More than 20 mins	4 - 15-20 mins	3 - 10-15 mins	2 - 5-10 mins	1 - Less than 5 mins	0 - Skip Logic
Q7	1 - Bus	2 - Walk	3 - Bicycle	4 - Vehicle	0 - Skip Logic	
Q8	1 - Exercise	2 - Lack of parking	3 - Other	0 - Skip Logic		
Q9	1 - Street Parking	2 - Other	0 - Skip Logic			
Q10	3 - More than 5 times/week	2 - 3-5 times/week	1 - Less than 2 times/week			
Q11	1 - Yes	0 - No				
Q12	1 - Bus	2 - Other	0 - Skip Logic			
Q13	1 - 15-24 years	2 - 25-34 years	3 - 35-44 years	4 - 45-54 years	5 - 55 years and above	
Q14	1 - Male	2 - Female	3 - Other			
Q15	1 - Self Employed	2 - Government	3 - Private Sector	4 - Student	5 - Other	6 - Retired/Not Working
Q16	1 - Yes	2 - No				
Q17	1 - Less than \$20,000	2 - \$20,000-\$40,000	3 - \$40,000-\$60,000	4 - \$60,000-\$80,000	5 - More than \$80,000	

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