

EXAMINING THE EQUITABILITY OF PUBLIC TRANSIT POLICIES IN MONTRÉAL,
TORONTO, AND VANCOUVER

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ABSTRACT

This major research paper (MRP) will provide a comparative analysis of the equity policies within the transportation networks of three major Canadian cities: Montréal, Toronto, and Vancouver. During the course of researching this MRP, it became evident that Vancouver's TransLink transit system would be a useful model to utilize as the basis of this comparative study, due to its extensive equity policies, and funding of its transit network, in relation to the transportation systems of Toronto and Montréal. In addition, TransLink has implemented these equitable measures without being mandated to do so by the Government of British Columbia. Vancouver's transit policies employ a number of comprehensive equity measures, which were examined using two theoretical lenses of horizontal and vertical equity, and these were then compared to Montréal's Société de Transport and the Toronto Transit Commission (TTC). These lenses aid in providing a deeper understanding of the policies employed by these transportation networks; as well as affording a basis for the comparative analysis.

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Introduction

This major research paper (MRP) compares Vancouver's transit network with those of Toronto and Montréal, focusing specifically on the respective cities' equity policies. The main goal of this major research paper is to determine the level of equitability in the public transportation networks of three Canadian cities: The MRP will employ Vancouver's transit network, TransLink, as a model transportation network to examine the equitability of the transportation systems of Toronto [the Toronto's Transit Commission (TTC)] and Montréal [Société de transport (STM)]. During the course of researching this MRP, it became evident that Vancouver's transit system would be a useful model to utilize as a basis for analysis in this comparative study, due to its extensive equity policies and funding in relation to the transportation systems of Toronto and Montréal. Moreover, TransLink has implemented these equitable measures without being mandated to do so by provincial legislation. The next most equitable transit network is Toronto, followed by Montreal. This is because the Toronto Transit Commission employs a more equitable fare structure and its barrier reduction measures are more comprehensive than those of the STM.

Vancouver, Toronto, and Montréal are the most urbanized cities in Canada because of continued growth in population and increasing infrastructure demands to support this continued expansion. For these reasons, they are viable to analyze for this MRP. In 2017, the populations of the three cities were: Vancouver, 600,000; Montréal, 1,600,000 and Toronto, 2,600,000 (World Population Review, 2019). Transportation is vital to the effective functioning of a city because it provides people with the means to travel to work, access public services, and go about their daily lives. As people become increasingly aware of the environmental impacts of automobiles, public transportation is becoming a more viable option for many citizens. However, as this MRP will

discuss more fully, these cities do not afford all people the same opportunities to access their transportation network, due to inequities. According to Kramer and Goldstein, “equity refers to the role that public infrastructure, in this case transit networks, plays in making public goods, in this case mobility and access, more equally available to all people” (2015, p. 25). These inequities take different forms such as economic, structural, and political barriers that create an increasingly inequitable public transit system. The concept of equitability, in relation to public transportation, is frequently analyzed through the theoretical lenses of horizontal and vertical equity (Camporeale et al., 2017). Camporeale et al. (2017) define “horizontal equity” as benefits being evenly distributed among a group of people with similar needs; and “vertical equity” as aid being dispersed among groups with different needs based upon those people who need it the most. The notion of equity, in this context, will form an integral part of this paper.

Rationale

There is an abundance of literature that analyzes transportation equity; however, there is a lack of comparative literature analyzing transportation equity in the Canadian context. Thus, this MRP will contribute to the growing scholarship on promoting transit equity in Canada. In the examination of the equitability of these cities' public transportation networks, this MRP will provide an investigation into the policy outcomes that would make transportation in these cities more equitable. The MRP will address the following research questions:

- How do the cities of Vancouver, Toronto, and Montréal define equitability, in relation to transit?
- What types of obstacles do these three cities face in implementing equitable transit systems?
- What current strategies have been taken to ensure more equitable transportation in these three cities?

Methodology

This MRP will employ a comparative qualitative approach, by researching and illustrating transportation academic scholarship and government documents (speeches, budgets, transportation equity policies), to provide an in-depth analysis of the level of equitability, effectivity, and type of equity implemented within TransLink, the TTC and STM systems. These cities are appropriate to utilize in this comparative approach because they represent geographic diversity within Canada in terms of their populations' transit networks, political structures, and the socioeconomic status of their citizens. Politically, Montreal and Vancouver are unique because there are municipal parties, unlike Toronto, which has no formal political parties at the municipal level.

The methodology of this MRP is also informed by two dominant theoretical lenses utilized in the field of public transportation that pertain to equality: horizontal equity and vertical equity (Camporeale et al., 2017). This MRP will utilize both, but with more emphasis on vertical equity.

This MRP will be divided into three main sections, one for each city. In each section, there will be a brief historical and structural overview of the transportation network, an analysis of the equitability of the system, and a comparative analysis between the model city, in this case Vancouver, and the equity policies of the test cities, in this case Montréal and Toronto. The first section will focus on Vancouver, but it will not have a comparative analysis because this will be discussed in the two succeeding sections.

Employing a Comparative Analysis

To expand a bit more on why a comparative approach was selected for this MRP, it was thought this this would provide a richer analysis of the transportation systems in Toronto, Montréal, and Vancouver due to the benefits of this methodological approach. Denters and Mossberger (2006) detail that a comparative method allows researchers to differentiate between variables by grouping similar variables and isolating dissimilar variables. Bryman and Bell (2016) argue that the benefit of utilizing a comparative analysis is the extrapolation of theories from the identification of the similarities and differences of analyzed variables. Cui, Boisjoly, El-Geneidy, and Levinson (2019) establish the case for utilizing Montréal, Toronto and Vancouver in a comparative study. These three cities are beneficial to use in a comparative study because they are similar in terms of their metropolitan area and population size (Curiel al., 2019). Cuiet al.'s study examined and assessed the transportation accessibility of commute times between different socio-economic groups within Montréal, Toronto, and Vancouver (Curet al., 2019).

Literature Review

Scholarship gathered to examine the Toronto Transit Commission (TTC), Société de Transport de Montréal (STM) and TransLink, will assist in answering the three research questions. In analyzing the equitability of the transportation networks, two dominant theoretical lenses, horizontal and vertical equity (within the field of transportation studies) are employed in the analysis of the equity policies of the TTC, STM, and TransLink. Camporeale, Caggiani, Fonzone and Ottomanelli (2017) define and explain these two equity lenses, and provide the context in which these lenses can be applied. As noted earlier, horizontal equity is when benefits and subsidies are evenly distributed between groups of people; whereas, vertical equity refers to benefits distributed among disadvantaged groups (Camporeale et al., 2017). Concerning Toronto's public transportation network, Hertel, Keil, and Collens (2016) provide an analysis of the vertical and horizontal equity policies employed by the TTC. Camporeale et al. (2017) and Hertel's (2016) work provide an in-depth understanding of the equitability, structure, and intent of the policies provided by the TTC.

Utilizing these two theoretical lenses aids in a comparative analysis of transit networks with regard to the identification of their different cost and benefit designs, whether it be vertically economic or horizontal and universal. For example, the TTC employs more vertical and horizontal equity policies than the STM; therefore, the application of a comparative analysis provides an effective method for this MRP to analyze the equitability of these three transit networks.

A number of scholars explore how employing a comparative method can be advantageous as a mode of analysis. Denters and Mossberger (2006) provide an explanation of how a comparative method is employed, while Braymen and Bell (2016) highlight the

advantages of utilizing a comparative method. The work of Cui, Boisjoly, El-Geneidy, and Levinson (2019) work is timely and very recently published. Moreover, it sets a precedent for utilizing a comparative study in the analysis of the transportation networks in Toronto, Montréal, and Vancouver.

Radford, Sinclair, Filey, and Derrible provide an analysis of the historical developments of Toronto's transportation networks. Both Radford and Sinclair explain the origins of transportation networks in Toronto. Radford (2015) explains that the first transportation network, the Toronto Street Railway Company (TSRC), employed hundreds of people in the city, and operated the horse-drawn streetcars as a mode of transportation. Sinclair (1891) provides an overview of the TSRC's failure and mismanagement and explains that there was a brief period when transportation went under public ownership in Toronto. Filey (1996) and Derrible (2012) provide an examination of Toronto's transit networks in the 20th century. Filey explains that the forerunner to the TTC was established in the 1920s, due to civic unrest over the poor quality of service that private companies provided. Derrible's work adds to the MRP by providing an overview of the development of the first subway system in Toronto and a timeline of the changes and upgrades that occurred with the underground system in the 1940s through to the 1980s.

The scholarship of Hertel, Keil and Collens; Varghese; and Hulchanski provide an overview of the equitability and/or equity policies of transportation within Toronto. Hertel et al. (2016) demonstrate how some of the equity policies employed by the TTC are horizontal. For example, in a study on student discounts, they conclude that discounts are available to all students, even wealthy students. Varghese (2018) provides an examination of "Neighbourhood Improvement Areas" that explores how immigrants and people of lower socioeconomic backgrounds who occupy "neighbourhood improvement areas" experience barriers to

transportation, specifically the subway system. As an example, Varghese identifies that individuals who live in these underserved areas experience longer wait times. Varghese's arguments are supported in Hulchanski's 2006 study, which reported that individuals from lower socioeconomic backgrounds experience more barriers in terms of distance to subway stations than wealthy individuals. He concludes this by geographically compartmentalizing Torontonians by income and their distance to subway stations. Hulchanski's work provides contextualization for this MRP concerning the levels of socioeconomic disparities disadvantaged individuals experience when accessing the subway network in Toronto.

Veilleux (1996), Gilbert & Poitras (2015) provide an historical overview of Montréal's transportation networks. The work of Veilleux (1996) is crucial to the understanding of the origins of Montréal's transportation network. He outlines that the first mode of transportation in Montréal was the tramway system which operated using a horse pulling a tramcar. Gilbert and Poitras (2015) provide context to the tumultuous relationship that evolved between the private transportation providers, the City of Montreal and the Provincial Government in Québec, and how the network eventually became publicly owned.

There is limited scholarship analysing transportation in Vancouver. Two notable scholars who provide a historical analysis of transportation in Vancouver are Meligrana and Wales. Meligrana's (1999) work is integral to understanding the evolution of transportation in Vancouver. He provides an analysis of the modes of transportation in the late 19th to the late 20th centuries, and explains the monopolistic companies like the British Columbia Electric Railway Company and its poor management of transit operations led to its eventual expropriation by the British Columbia Government (Meligrana, 1999). Wales (2008) explains the formation and the complexities of the transportation company TransLink. TransLink is a multifaceted cooperation,

which has other transportation companies that report to it as well. In addition, TransLink can raise its own funds through taxation and reports to multiple municipalities.

Section One: Vancouver

1.1 Historical Analysis

Meligrana (1999) provides an extensive historical analysis of the modes of transportation in the Vancouver area that outlines that public transportation started out in Vancouver under a private model with the establishment of the British Columbia Electric Railway Company (BCER) (Meligrana, 1999). The company was established in 1897 and held a monopoly over Vancouver's public transportation until the mid 20th century (Meligrana, 1999). When the company first opened, its entire system was comprised of six streetcars, which ran along 9.6 kilometers of track (TransLink, History, 2019). Streetcars continued to be the dominant mode of transportation until shortly after the Second World War (Meligrana, 1999). BCER experienced financial hardship in the postwar era and found it too costly to upgrade its streetcar system, so the company decided to upgrade its transit network to buses and trolleys (Meligrana, 1999). The Government of British Columbia expropriated BCER in the early 1960s, and it became a crown corporation, which underwent a name change to BC Hydro (Meligrana, 1999). At that time, BC Hydro supplied power along with transportation; funding from generating power was used to operate the public transportation system (Meligrana, 1999). In the 1970s, the BC Government allocated control of public transportation to a new agency, the Bureau of Transit Services; however, bus services at the time continued to be under the control of BC Hydro (Meligrana). Major changes to public transit occurred in the 1980s with the enactment of the *Urban Transportation Authority Act*, which compartmentalized transportation responsibilities into three categories: first, the consortium of municipalities in and around Vancouver were allocated the power to set fare prices and service levels; second, bus operations were allotted to a newly formed crown corporation, the Metro Transit Operating Company (MTOC); and, third, the

Urban Transit Authority (UTA) was given the authority to lease buses and operators (Meligrana, 1999). Another major development was the allotment of taxation powers to municipalities for transportation funding under the *Urban Transit Authority Act* (Meligrana, 1999). Bus service underwent two more name changes: first in 1982, when the UTA changed its name to BC-Transit, and another in 1999, when BC Transit became the Coast Mountain Bus Company (CMBC) (Meligrana, 1999; Wales, 2008).

The SkyTrain is another mode of transportation in the Vancouver transportation system that was incorporated in the 1980s. The SkyTrain is a driverless, rapid transit system that was built as a main feature of the 1986 World Exposition (TransLink, History of SkyTrain, 2019). These Expositions are global events where the aim is to showcase infrastructure (Bureau International des Expositions, About, 2019). The first train line was called the Expo-line after the World Exposition. Eighteen years later, two other lines were incorporated: the Millennium Line (M-Line) and the Canada Line (TransLink, History of SkyTrain, 2019). The M-Line opened with two stations in 2002 and was completed with another 13 stations in 2006 (TransLink, History of SkyTrain, 2019). The Canada Line opened in 2009 in preparation for the 2010 Winter Olympics (TransLink, History of SkyTrain, 2019). Finally, there was an extension to the M-Line, the Millennium Line Evergreen Extension, which began operations in 2016 (TransLink, History of SkyTrain, 2019).




The Seabus service was started in 1977 and provides transportation between the municipalities of Vancouver and North Vancouver (Wales, 2008). Initially the service had two ferries, however a third was added in 2009 in preparation for the 2010 Olympics (Wales, 2008; TransLink Regional Transportation Snapshot 2017). Wales (2008) notes that the Seabus service is a popular choice, as the passenger count reached nearly 100-million passengers by 2007.

A major development in public transportation in Vancouver and the Greater Vancouver Regional District (GVRD) was the creation, in 1999, of the Greater Vancouver Transportation Authority, known as TransLink (Wales, 2008). The creation of TransLink was in response to concerns about the high number of vehicles on roads, which caused systemic traffic congestion that impeded the efficient movement of people and goods, as well as caused environmental degradation from car emissions. Wales (2008) claims that TransLink is the first of its kind in an international context, due to its unique multi-modal oversight functions of the agency. The creation of TransLink was the result of negotiations between the British Columbia government and the GVRD municipalities, which advocated to the BC government for a regional solution to help resolve traffic congestion.

1.2 Overview of Transportation Structure

TransLink, also referred to as the South Coast British Columbia Transportation Authority (SCBCTA) is a regional transportation authority governed by 21 municipalities through a Mayors Council and the TransLink Board of Directors (TransLink, Governance Model, 2019). The Council of Mayors is in charge of long-term planning, approving investment plans, and overseeing the sale of assets within TransLink (TransLink, Governance Model, 2019). The Council also appoints the TransLink Board of Directors which is responsible for approving the operating budget, publishing annual reports and also contributing to the long-term planning of TransLink (TransLink, Governance Model, 2019). The Province of British Columbia is responsible for the laws that govern the SCBCTA which is regulated by the *South Coast British Columbia Authority Act* (TransLink, Governance Model, 2019). The Province is also responsible for approving some of the people who sit on the TransLink Board of Directors (TransLink, Governance Model, 2019).

TransLink is made up of a variety of transportation companies that report to TransLink. The bus company is called the Coast Mountain Bus Company Ltd. (CMBC) which operates the community shuttles, conventional bus and trolleys, seabus, and HandyDart (TransLink, Corporate Overview, 2019). Rail, the SkyTrain, is operated by the British Columbia Rapid Transit Co. Ltd. (TransLink, Corporate Overview, 2019). TransLink is part of a regional network; however, only transit networks in direct impact of zone one were analyzed within this MRP. The total operating expenses for 2018 were \$1.6 billion, and the total capital budget for 2018 was \$3.6 billion (TransLink, 2018 Year-End Financial and Performance Report, 2018).

Table 1: TransLink Operational Statistics				
Statistics	SkyTrain	Buses	Seabus	Accessible Transit HandyDART
Vehicle Types	1) Intermediate Capacity Transit System (ICTS) 2) Advanced Light Rapid Transit (ALRT) 3) Advanced Rapid Transit (ART) 	1) Compressed natural gas (CNG) buses 2) Diesel electric hybrid buses 3) Low emission diesel buses 4) Gasoline powered buses, diesel community shuttle	Ferries 	Contracted vehicles 
Number of vehicles	Total.....326	Total.....1,514	Total.....3	Total.....309
Number of Riders (million)	Total.....160m (2018)	Total.....247Mil	Total.....5.85Mil	Total.....1,315 (2018)
Routes (km)	Total.....79km 53 stations	Total..... Routes.....218	Total..... Routes.....2	

Source: TransLink Regional Snapshot 2017

Source: TransLink website, TransLink sees record ridership in 2017

1.3 Equity Policy Examination and Critique

TransLink employs many equity policies across all areas of its transportation system, in addition, the transportation agency states that some modes are completely accessible and barrier reduction. Table 2 was created to categorize the equity and accessibility measures employed by TransLink.

Table 2: Equity Comparison: TransLink						
Vancouver : TransLink	Accessible mode of transportation	Equitable fare structure	Barrier reduction	Equity Advisory Committee	Equity/Acceptability legislation/policies	Equity Programs
Vertical equity policies	HandyDart	Youth fare, Senior fare, Post-Secondary fare- \$41 per month UBC, Accessible transit fare, CNIB partnership free fares, BC Bus Program	Bus, Skytrain, Seabus, all accessible with lift, ramps. All SkyTrain stations have elevators Station assistant phone line	HandyDart User Advisory Committee Access Transit User Advisory Committee Access Transit Team	Bill M 219 (first reading)	TravelSmart (newcomers, schools and seniors), Universal Fare Gate Access Program, Radio frequency identification card, HandyCard Program
Horizontal equity policies		Regular fare, Monthly Pass, 90 Free Transfer				TravelSmart Business

HandyDart is a mode of transportation operated by TransLink, which is dedicated to providing service to persons with cognitive or physical disabilities (TransLink, HandyDart, 2019). The HandyDart service is a door-to-door service, operated through buses with its own set of eligibility requirements (TransLink, HandyDart, 2019). HandyDart buses are equipped with

wheelchair lifts; however, there are measurement restrictions on devices that can be accommodated by the bus (TransLink, HandyDart, 2019). To access this service, riders are required to complete a form that includes a section that must be completed by a medical professional (TransLink, HandyDart, 2019). To be eligible for the service, users must meet TransLink's definition:

Eligible users are defined as persons who have either a temporary or permanent, physical or cognitive disability that is sufficiently severe that they are unable, without assistance, to use conventional transit. Applicants must be at least 12 years old. HandyDART is a door-to-door, public transit service which uses specially equipped vehicles designed to carry passengers. Visitors to the Metro Vancouver area should use the Visitor Application Form (TransLink, HandyDart & HandyCard application form, 2013).

This program discriminates against age as users must meet the minimum age of 12 years old to qualify for the service. This can be a disadvantage to youth who live with a severe cognitive or physical disability (TransLink, HandyDart & HandyCard application form, 2013)

The service is also accessible to visitors of Metro Vancouver that complete a visitor form to access the service (TransLink, HandyDart, 2019). Persons who are socioeconomically disadvantaged and visually impaired might have trouble accessing the form without an audio feature that renders the form audible. Users would need special audio software on their computer to be able to overcome this barrier.

TransLink's fare structure employs both horizontal and vertical approaches. In keeping with the municipal scope of this MRP, only fares in Vancouver's zone one were analyzed. Examples of vertical equity fares are the U-Pass BC, a free transit partnership for Canadian National Institute for the Blind (CNIB) members, and a flat rate for HandyDart users. Litman

(2003) explains that vertical equity are measures that are implemented to improve conditions for disadvantaged groups. TransLink brands the U-Pass as being universal because the scope of the pass is multi-modal, thereby respecting the various modes of transportation students upon which the pass can be used. The pass is valid on the Seabus, SkyTrain, and Bus (TransLink, The Universal Transit Pass, 2019). TransLink allows CNIB members to ride for free with a CNIB ID Compass Card (TransLink, CNIB ID Compass Card, 2019). CNIB users, however, do not have access to free HandyDart service (TransLink, CNIB ID Compass Card, 2019). These discounts are applied to the standard transit card, Compass Card, which both adults and youth use (TransLink, Compass Card, 2019). The Compass Card is a reloadable transit fare card that can be loaded with day passes or monthly passes (TransLink, Compass Card, 2019). There is a standard adult card and a concession card, which is for seniors 65 years and older and youth from 5-18 (TransLink, Compass Card, 2019). Another approach that TransLink employs to promote equity is a flat rate of \$3 for HandyDart users, which is a fare applied to all modes of transit (TransLink, Fare Pricing, 2019).

Table 3: TransLink fares
Single ride regular fare: \$3 Single ride Youth: \$1.95 (age 5-18) Concession price <ul style="list-style-type: none"> • Free for children under 5 years old • Single ride Senior: \$1.95 (age 65+) Concession price <ul style="list-style-type: none"> • Day pass: \$10.50 • Monthly pass: \$98 Equity fare: HandyDart users \$3 flat rate all modes of transit Post-Secondary (e.g., UBC): \$41 CNIB partnership: free Transit

Source: TransLink Fare Pricing, 2019

An example of a horizontal policy applied to the fare structure is the 90-minute free transfer. This policy allows unlimited travel for the duration of 90 minutes between bus, SkyTrain and Seabus; however, it is regulated by zone, so anyone travelling outside of a zone on a pre-paid pass must first add value to their Stored Value balance (TransLink, Transferring, 2019).

In terms of barrier reduction, there are accessibility features built into TransLink's different modes of transportation (Bus, Seabus, SkyTrain). Not all of the bus stations are equipped with accessible features; however, every bus is accessible via mobility aids (TransLink, Accessible Transit, 2019). Information is available online through TransLink's Trip Planner Tool, which allows users to organize their trip and see which stations are accessible (TransLink, Accessible Transit, 2019). The Seabus stations are fully accessible as the doors at the stations were widened to allow persons using mobility devices to pass through the doors with ease (TransLink, Accessible Transit, 2019). However, there are barriers present with the ramps connecting the ferry to the terminal that change in gradation with the tide (TransLink, Accessible Transit, 2019). The extent gradation is not mentioned on the website but could affect people in wheelchairs or mobility devices, if the ramp shifts to unmanageable levels.

The SkyTrain is the most accessible of the modes of transportation employed by TransLink. All stations are accessible, and all trains have accessibility features that allow persons with physical disabilities to travel in a convenient manner (TransLink, Accessible Transit, 2019). All SkyTrain stations have elevators built into the stations (TransLink, Accessible Transit, 2019).

TravelSmart, Universal Fare Gate Access Program and the HandyCard Program are examples of the accessibility policies employed by TransLink. The Universal Fare Gate Access Program is for persons with physical impairments, so their card can be read at the fare gates

because the program provides users with a transit card equipped with radio-frequency identification (RFID) technology that automatically opens fare gates (TransLink, Universal Fare Gate Access Program, 2019).

TravelSmart is an outreach program that provides education on transportation solutions (TransLink, TravelSmart, 2019). The program is both vertically and horizontally equitable. It is vertical in that it serves disadvantaged individuals and communities (seniors, students and newcomers), and horizontal as it serves all businesses in the community that promote and practice environmental sustainability (TransLink, TravelSmart, 2019). It is vertically equitable in how it provides transit outreach programs to disadvantaged groups such as ‘newcomers,’ schools, and seniors (TransLink, TravelSmart, 2019).

TransLink’s outreach to newcomers focuses on new residents to the city of Vancouver (TransLink, TravelSmart, 2019). The program provides newcomers and seniors with transportation training through workshops that include information on planning, safety, and etiquette tips (TransLink, TravelSmart, 2019). The TravelSmart program also educates students on sustainable modes of transportation such as cycling and walking, while outlining benefits associated with these modes, such as how they promote health and support the environment (TransLink, TravelSmart, 2019). TransLink explains that it offers the TravelSmart training program to persons with disabilities, but does not elaborate on whether the programs are offered in an accessible format. These would include program adaptations for persons with hearing or visual impairments, whether this be through Braille or Sign Language Interpreters.

HandyCard is an example of a vertical equity approach employed by TransLink. The program allows eligible users to pay for transit at concession prices rather than standard fare prices; however, the card is not valid on HandyDart services (TransLink, HandyCard, 2019).

Applicants apply to the card program using the same form as the HandyDart. The program's financial aims do not support persons with disabilities. The main aim of the program is to provide a financial discount to users paying concession pricing. However, TransLink states that the card only applies to conventional transportation (excluding HandyDart), yet the eligibility criteria is limited because it states eligible users must have a disability that is severe, which prohibits them from using conventional transportation (TransLink, HandyDart & HandyCard application form, 2013). It is assumed that transit users with severe disability would be utilizing the HandyDart service, which sets its prices at a flat rate of \$3, which is \$1.05 more expensive than the concession price rates. TransLink also allows transit users who have a disability to travel with an attendant for free (TransLink, Accessible Transit, 2019). Another program that TransLink offers is an attendant program, through which a person with a disability can have a support person travel for free to aid them in their travels (TransLink, Accessible Transit, 2019).

There are two advisory committees within TransLink: the Users' Advisory Committee (UAC) and the HandyDart Users' Advisory Committee (HDUAC). The UAC was established based on feedback received from the review process of the 2019 Access Transit Strategy (TransLink, Users' Advisory Committee, 2019). The UAC website is vague on details about committee membership and mandate. The website states that the UAC meets regularly throughout the calendar year, and that the mandate of the committee is promoting accessibility through creative inclusive means (TransLink, UAC, 2019). Members from the public can apply to be on the committee (TransLink, UAC, 2019). The HDUAC was formed to provide an avenue for customer and stakeholder input into the HandyDart service (TransLink, HandyDart Users' Advisory Committee, 2019). In addition, the HDUAC discusses areas of improvement with TransLink (TransLink, HDUAC, 2019). The HDUAC states that the 13-member committee is

diverse with respect to age, persons who have a disability, and regional and municipal representation (TransLink, HDUAC, 2019).

The Spinal Cord Injury BC is a non-profit organization, the aim of which is to support persons with mobility impairments and disabilities such as spinal cord injuries. The organization provides extensive detail into the accessibility of public transportation in Vancouver and with TransLink. The organization posts on its website feedback from its stakeholders concerning the accessibility of TransLink's service. Spinal Cord Injury (2019) reports on comments received from its stakeholders (over a number of years), many of whom share the most commentary about the bus service having poor levels of accessibility service offered (Spinal Cord Injury BC, Vancouver transit accessibility, 2019). The organizations' stakeholders explain that bus drivers sometimes refuse to lower the bus ramps, and that bus stops are not truly accessible, even though they are labelled as such (Spinal Cord Injury BC, Vancouver transit accessibility, 2019). In addition, stakeholders state that the HandyDart's service is inflexible as travel bookings need to be made days in advance and so do not allow for spontaneous travel (Spinal Cord Injury BC, Vancouver transit accessibility, 2019). Another notable event reported by the non-profit organization was that, when the SkyTrain first opened, there were discussions of banning persons in wheelchairs during times of heightened transit use such as rush hour; however, this did not happen as advocates for persons with disabilities voiced strong opposition (BC Spinal Cord Injury, Accessible Transportation History, 2019). Currently, there is no legislation that mandates public or private transit companies in British Columbia to be accessible, which is why groups such as Spinal Cord Injury BC are so integral in advocating for the transportation of rights of persons with disabilities.

Bill M 219, the *British Columbia Accessibility Act*, which has received only first reading in the BC legislature, is one response to a lack of accessibility legislation (British Columbia Legislative Assembly, Bill M 219, 2018). However, it is a Member's Bill introduced by MLA Linda Reid (Liberal: Richmond South Centre). Although Ms. Reid is the longest-serving member of the BC Legislature, she is currently an opposition member, so there is little guarantee that this Bill will move forward. The Bill aims to address accessibility strictly in the public sector, concerning the development of a plan to reduce barriers as well as educate society on accessibility (British Columbia Legislative Assembly, Bill M 219, 2018). The bill is legislative and regulatory, and will be enacted through regulation by the Lieutenant Governor in Council (British Columbia Legislative Assembly, Bill M 219, 2018). Accessibility Services Canada, (2018), a training organization that helps business address and adhere to accessibility standards, explains that British Columbia is the fourth province to legislate accessibility standards following Nova Scotia in 2017, Manitoba in 2013, and Ontario in 2005. The province of Ontario was one of the first to legislatively mandate transit companies to adhere to the promotion of accessibility; however, transit companies have still not fully implemented accessibility measures, but plan to have fully accessible transit systems by 2025. The TTC's accessibility plan is outlined in Appendix A: 2019-2013 TTC Multi-Year Accessibility Plan.

Section Two: Toronto

2.1 Historical Analysis

The City of Toronto's extensive transportation history dates back over 150 years. Public transportation was chartered by the City of Toronto in 1861, with a 30-year contract for the Toronto Street Railway Company (TSRC) (Toronto Transit Commission, Milestones, 2017). Radforth (2015) explains that, by 1886, the TSRC's vast transportation network in the city employed over 300 people. The TSRC employed horse-drawn streetcars (sleighs in winter), which were operated by a driver and another employee inside them who collected fares from riders (Radforth, 2015); however, the TSRC failed financially in 1869 due to low ridership Sinclair (1891).

Toronto then operated transportation services for a brief period until 1891 when a new 30-year contract was given to the Toronto Rail Company (TTC, 2017). Sinclair (1891) details that the public was dissatisfied with TSRC's management of the transit network, specifically concerning the deteriorated conditions of streetcars in the winter, especially inadequate heating systems (Sinclair, 1891). Toronto entertained the notion of assuming full control of transportation, and consulted the Ontario Government, which argued that Toronto could borrow whatever amount needed to purchase the transportation system; however, Sinclair (1891) states that Toronto was not financially ready to assume ownership of the transit system. In 1894, Toronto's transit system underwent extensive modernization with the phasing out of horse-drawn streetcars and the incorporation of electrically-powered streetcars (TTC, Milestones, 2017). Filey (1996) outlines that what is now known as the Toronto Transit Commission (TTC) was first established in 1920 after a referendum was held. Toronto residents continued to be upset with the privately-owned transportation services operating at the time, and favoured holding a referendum

to decide this matter. Of the 23,981 people who voted in the referendum, 90% of respondents (21,700) voted in favor of a municipally operated transit system for Toronto, and 2,281 voted against a municipally run transit organization (Filey, 1996).

As Toronto grew, the demands for a more extensive transit system necessitated different modes of transportation. However, these demands were not met until the mid 1940s, as from 1910 until 1946 a subway system was considered too expensive (City of Toronto, 2018). Toronto's subway system, one of the largest in Canada, dates back over a hundred years. Thousands of commuters use the underground transit network daily. Torontonians use this system to go about their daily lives. Toronto's subway system was the first in Canada (City of Toronto Archives, 2018). The plans for a subway transit system in Toronto were first conceptualized in 1910; however, they did not come to fruition until 1946 (City of Toronto Archives, 2018).

In "Reviewing and assessing the Toronto metro system," Derrible (2012) provides an extensive overview of Toronto's subway system. In the 1920s, fundamental changes were made to Toronto's transportation network, as it transitioned to public ownership and the Toronto Transit Commission was formed (Derrible, 2012).

Until the 1920s, the outer parts of Toronto were serviced by a network of lines known as the Radial Railway that extended to Lake Simcoe and Richard Hill however, in the mid-to late 1920s, radial service was replaced with motorized buses (TTC, Milestones, 2017). As Slater (1997) argues, the replacement of streetcars with buses was "simply a matter of cost" (Slater, 1997, p. 59). Buses cost significantly less to operate than streetcars because they have fewer capital cost associated with their operations. Streetcars require complex electrical wiring systems to operate them, which needs to be updated, as new electrical technology becomes available

(Slater, 1997). Between the 1940s-1960s, there was trend in many North American cities to adopt buses over streetcars (Slater, 1997). In Toronto, buses replaced the Radial Railway.

In a 1946 referendum, Toronto residents voted to have the city invest in an underground transit system (Derrible, 2012). Toronto's first subway line opened in 1954 with twelve stations running from Union to Eglinton, servicing one of the busiest and most congested streets in Toronto: Yonge Street (Derrible, 2012). The second line (Bloor-Danforth) opened in 1966, with further extensions to both lines 1 and 2 added in the 1970s, most notably seven stations were opened on Line 1 from St. George to Wilson. In the 1980s a third metro line – the Scarborough Rapid Transit line – was established (Derrible, 2012). Finally, on November 22, 2002, Line 4 – the Sheppard line – officially opened, with five stations along 5.5 km of track and, in 2017, Line 1 was extended to York University.

As noted above, from the 1950s to the 1980s, Toronto's subway system underwent many changes, due to an increasing population and the expansion of the Toronto region geographically (Derrible, 2012). Toronto's population doubled from the 1950s to the early 2000s to 2.5 million people (Derrible, 2012). In the 1950s the subway system had an annual ridership of 800 thousand people but, by 2008, yearly ridership was more than 200 million (Derrible, 2012).







Equitable advancements within the TTC began in the mid-20th century, with the inclusion of women as drivers and mechanics; however, this only lasted for the duration of the Second World War (TTC, Milestones, 2017). Women were not allowed to work in these capacities again until the mid-1970s. With the rise of Second Wave Feminism, the fight for women's rights occupied the fore of political discussions of equality and equity in the 1970s, and the TTC's policies began to reflect the social changes of the era. In 1975 the TTC changed its hiring policies to include women in the workforce (TTC, Milestones, 2017). The

policy of female inclusion in the workforce allowed women to work as operators, which had not been the case since the Second World War (TTC. Milestones, 2017), other major equitable advancements in the transit network occurred in the late 20th-century. For example, in 1996, buses began to be equipped with a lift mechanism to assist individuals with mobility assistive devices to increase accessibility to TTC services (TTC, Milestones, 2017). Three years later, accessibility on buses was further changed as buses were equipped with lower floors designed to help individuals with mobility needs (TTC, Milestones, 2017). In 2011, all TTC bus lines were made accessible throughout the city (TTC, Milestones, 2017). The features of an accessible TTC bus include designated seating reserved for persons with disabilities and seniors, automated stop announcements, and two programs that provide bus stop route accessibility: Request Stop Program and Stop between Stops (TTC, Bus Accessibility, 2017). The Request Stop Program allows customers, between the hours of 9pm to 5am, to access the “Stops Between Stops” initiative if they feel vulnerable getting off the bus at its scheduled stops (TTC, Bus Accessibility, 2017). The Stops between Stops program is similar to the aforementioned but is available any time of the day; however, if a customer is in duress, or demonstrates a “genuine need” to leave the bus, the decision to let the customer off the bus is at the discretion of the transit driver (TTC, Bus Accessibility, 2017). These two policies broaden the scope of accessibility to include a gendered lens on accessibility to potentially vulnerable transit riders.

2.2 Overview of Transportation Structure

The TTC provides transit to the City of Toronto and parts of the Greater Toronto Area (GTA), with the total area of coverage equating to 622 square kilometers (TTC General Information, 2019). This coverage is divided into several modes of transportation: subway, bus, and streetcars (TTC General Information, 2019). Light Rail Transit (LRT) is another mode of

transportation operated by Metrolinx (a regional transportation organization) and the TTC, but this mode of transportation is not yet complete (TTC General Information, 2019). The modes of transportation within the TTC's jurisdiction include the following: four subway lines (one of which, Line 3, is currently an LRT), eleven streetcar routes, and over a hundred bus routes (TTC General Information, 2019). Table 4 provides an overview of the type of vehicles, the quantity and the annual number of riders for 2017.

Table 4: TTC Operational Statistics			
Statistics	Subway	Buses	Streetcars
Vehicle Types	 The Rocket 	 	 Canadian Light Rail Vehicle (CLRV)  Articulated Light Rail Vehicle (ALRV)
Number of vehicles	Total.....876 Subway.....848 Scarborough RT.....28	Total.....1,920 12 metre.....1,767 18.3 metre.....153	Total.....241 CLRV.....141 ALRV.....43 ‘New’ low floor articulated.....57
Number of Riders	Total.....216,188,249 Subway213,011,622 Scarborough RT.....3,176,627	Total.....261,112,835	Total.....55,914,914
Routes (km)	Total.....76.5km (given in one-way kilometres)	Total.....6,249.8km (includes roundtrip)	Total.....344.3km (includes roundtrip)

Source, TTC operational statistics, 2017

The governing structure of the TTC is a board, and the members include citizens of Toronto and city councillors (TTC, The Board, 2019). The current board is composed of four citizens and six Toronto City Councillors (TTC, The Board, 2019). The functions of the TTC Board include overseeing planning and policy, and expanding the service (TTC, The Board, 2019). The 2019 operating budget for the TTC is \$2 billion dollars (City of Toronto, TTC

Budget 2019, 2019). The TTC has a capital budget of 33.5 billion dollars, which is allocated over a 15-year period (TTC, 15-Year Capital Investment Plan & 2019-2028 Capital Budget & Plan).

The equitability of the TTC network, in terms of the physical accessibility of the system, is detailed within the annual operating statistics. The TTC states that all modes of transportation have some level of accessibility; however, the bus system is the most accessible in terms of access for individuals with mobility impairments, compared with the streetcar and subway services. All bus routes are accessible, with the entire fleet of buses equipped with low-floor ramps (TTC General Information, 2019). These ramps allow the bus to lower or ‘kneel’ to help people who have mobility aids or visual impairments to more easily access the bus (TTC, Riding the Bus: Easier Access on the TTC, 2017). There is also priority seating on every bus for pregnant women, the elderly, and persons with disabilities (TTC General Information, 2019). All streetcars align with the Accessibility for Ontarians with Disability Act (AODA), in terms of providing some level of accessible seating (TTC, Riding the Streetcar, 2019). These seats are marked with signage and a blue-coloured fabric indicating that they are accessible seating (TTC, Riding the Streetcar, 2019). Each subway train is equipped with at least one car that has accessible seating (TTC, Riding the Subway, 2017). The seats can move up or down to accommodate wheelchairs and other mobility assistive technology (TTC, Riding the Subway, 2017).

A number of Toronto’s streetcars are equipped with accessibility features to support people with mobility assistive devices. For example, 57 of Toronto’s streetcars are equipped with low-floor ramps (TTC General Information, 2019). However, based on the number of accessibility features in the other transportation modes (bus and streetcar), the subway system is the least accessible, due to the low number of accessible features offered, both on the trains and

in stations. Implementing accessibility features in the subway system can be a difficult endeavor due to the cost of making the structural changes to existing subway stations and the cost of building new stations that include accessible features. Out of the 75 subway stations, only 44 stations are accessible in terms of the installation of elevators, ramps and escalators, as shown in Table 5 below (TTC Schedules & Maps, 2019).

The TTC also has a mode of transit, which is known as the Wheel-Trans Service, which is dedicated to providing accessible transit to and from bus stops and subway stations to persons with disabilities (TTC, Using Wheel-Trans, 2018). The Wheel-Trans service was started in 1975 by a private contractor who utilized vans with mechanical lifts (TTC, Milestones, 2017). The TTC assumed ownership of the Wheel-Trans Service in 1988 (TTC, Milestones, 2017). The service is currently comprised of different modes of transportation such as buses and contracted taxi minivans (TTC, Using Wheel-Trans, 2018). There are eligibility requirements to access this service, requiring applicants to answer a questionnaire and provide supporting medical documentation from a registered healthcare professional (TTC, Wheel-Trans Eligibility Application, 2019). The questionnaire is inclusive and considers many forms of disability such as mental, physical, sensory, and cognitive (TTC, Wheel-Trans Eligibility Application, 2019). Following the AODA, the service has become more inclusive and now provides more categories for eligibility. Prior to 2017, there were only two eligibility categories: temporary and permanent (TTC, Wheel-Trans Eligibility Application, 2019). Now there is a third category, ‘conditional’, which provides services to individuals who experience environmental or physical barriers to transit such as weather (TTC, Wheel-Trans Eligibility Application, 2019).

Table 5 depicts the level of accessibility concerning elevators and escalators installed throughout the subway network, as well as their operational status. There is also a telephone line

that provides the operational status of elevators and escalators. This information allows users with mobility needs to plan their trips accordingly, if an elevator or escalator is down for maintenance.

Table 5: Subway Accessibility Level			
Line One: Yonge University	Line Two: Bloor-Danforth	Line Three: Scarborough	Line Four: Sheppard
15 out of 38 Stations are accessible	16 of 31 stations are accessible	2 of 6 stations are accessible	All stations are accessible

Source: TTC Website, 2019

2.3 Equity Policy Examination and Critique

The Toronto Transit Commission's focus on increasing access for transit users is documented in the TTC 1980 annual report, which references the creation of a Technical Advisory Committee on Improved Accessibility (TACIA) in 1979 that aimed to improve accessibility at surface and subway facilities (TTC Annual Report, 1980). Specifically, the aim of the TACIA was to identify problematic areas in the transit line for "disabled customers" (TTC Annual Report, 1980). Once areas were identified, TACIA compiled this information and sent it to stakeholders who self-identified as "disabled customers" for their input on how to improve accessibility (TTC Annual Report, 1980). Another pivotal historical point in the 1980s was the TTC's introduction of adaptations to the transit system to support seniors and people with mobility challenges (TTC Annual Report, 1980). Currently the TTC has the Advisory Committee on Accessible Transit (ACAT), which is comprised of volunteers who are tasked with public engagement to promote accessibility within the TTC (TTC Advisory Committee on Accessible Transit, 2019). ACAT volunteers dedicate seven hours per week to discuss how accessibility services, such as the Wheel-Trans service, can better serve community needs (TTC Advisory Committee on Accessible Transit, 2019). Citizens can voice their concerns directly to the ACAT, which then reports to the Toronto Transit Commission Board (TTC Advisory Committee on Accessible Transit, 2019).

No provincial legislation compelled public transportation agencies to create equitable public systems, until the 2005 passing of the Accessibility of Ontarians with Disabilities Act (AODA). Burns and Gordon (2010) detail that the AODA is a seminal piece of legislation and is one of the only laws in Canada that deals with promoting accessibility in all aspects. With a lack of federal legislation, Ontario is a leader in equity standards with the enactment of AODA, which provides accessibility across a wide spectrum, in particular public transportation (Burns and Gordon, 2010). The AODA sets certain standards with which transportation agencies must comply regarding people with disabilities, including accessibility training, and retrofitting transportation vehicles to make them more accessible. The AODA outlines six areas that need to be made fully accessible by 2025: Customer Service, Employment, Information and Communication, Information and Transportation, Design of Public Spaces (AODA website, 2019). The legislation provides target dates of implementation in each area (AODA, website 2019). The AODA details that transportation networks should be fully accessible by 2017. As shown in Appendix A, the TTC has not fully implemented all measures to ensure a fully accessible transit system by 2017 (AODA, website, 2019). To assure that AODA is adhered to, the law establishes reporting mechanisms and standards that the public sector and private sector must follow (Ontario Government, Accessibility laws, 2018).

To comply with the reporting mandate and goals of accessibility contained in the AODA, the TTC publishes plans and reports. The TTC outlines that its work toward ensuring accessibility within the transit system covers a wide spectrum of areas such as structural, employment, and goods and services (2019-2023 TTC Multi-Year Accessibility Plan, 2019). “Goods and services” pertain to making improvements concerning barrier reduction and improving accessibility (2019-2023 TTC Multi-Year Accessibility Plan, 2019). The TTC creates

plans entitled “Multi-Year Accessibility Plans” that are produced every four years, and outline its goals for meeting the AODA’s objectives and timelines (2019-2023 TTC Multi-Year Accessibility Plan, 2019). To track progress on these targets, the TTC posts annual reports. However, the TTC outlines, in its 2019-2023 multi-year plan, that it has been working on creating accessible services since the 1980s (2019-2023 TTC Multi-Year Accessibility Plan, 2019).

An example of a status report is the “2017 Accessibility Plan Status Report”, which outlines the TTC’s current strategies to make its service more accessible for persons with disabilities. Some notable reforms have been implemented at Ossington Station to make the elevator and entry access points more accessible (TTC 2017 Accessibility Plan Status Report, 2017). In addition, the TTC outlines that it is installing an audible route announcement system in buses and railcars for people with visual impairments (TTC 2017 Accessibility Plan Status Report, 2017). Along with reducing physical barriers, the TTC is also reducing economic barriers to transit accessibility. The TTC’s discount for persons with disabilities is offered through “The Fair Pass Discount” program, which allows an adult resident who is on the Ontario Disability Support Service Program (ODSP), and not receiving other funding for transportation benefits, to receive a pass price at a discounted rate of \$115.50, which equates to a \$30.77 discount from the regular price (TTC, Fair Pass Discount Program, 2018). The TTC is also changing the fare structure so that, in conjunction with their employment duties of assisting person with disabilities, aides may not be required to pay a transit fare (TTC, Support for Persons Assistance Card program, 2019). Litman (2003) defines vertical equity as “subsidies to benefit a disadvantaged group such as discounted transit fares for student and elderly riders, and special mobility services for people who are physically disabled” (Litman, 2003,p. 5). The Fare Pass

Discount program follows a vertical equity approach because it provides subsidies that are prescribed to a particular group of individuals, in this case persons with disabilities.

In “Ridership Growth Strategy,” the TTC outlines equity measures to address income disparities among Toronto populations in relation to public transit. Notable measures are the “two-hour transfer fee waiver” and the “TTC-GO discounted fare” (TTC, Ridership Growth Strategy, 2018). These strategies take a horizontal approach to equity, as they apply to everyone. The “Two Hour transfer” allows any TTC rider, albeit only those with PRESTO cards, to have a time frame of two hours to go from bus, subway, or streetcar by tapping their PRESTO card (as many times) and pay one time, within the two-hour window (TTC two-hour transfer, 2018). This approach is problematic because those who have a mobility disability, like someone in a wheelchair, might take longer going from bus to subway, and will not get as much benefit from the ‘two-hour transfer fee waiver’ as someone who is not in a wheelchair. In addition, this does not consider traffic, or extended subway or streetcar delays. Furthermore, the Presto card is also problematic because of how it is economically structured; it requires a \$10 minimum balance, which may pose economic barriers to people from low income group (PRESTO website, loading your card, 2016).

The TTC’s employs vertical and horizontal approaches to its fare structure. The Day Pass and Convention pass are examples of horizontal equity policies as they apply to everyone and are not targeted to disadvantaged groups. The Day Pass is horizontally based because its allocation is uniform to all families. For a flat rate of \$13, a family can receive unlimited travel on Saturdays and Sundays and statutory holidays (TTC website, Day Pass, 2019). The Convention Pass is horizontally based because it does not target a specific disadvantaged group and the eligibility criteria are uniform and apply to anyone holding: conventions, trade shows, meetings, and

conferences in Toronto (TTC Convention Pass, 2019). The rates are based on the number of people and days the event is held (TTC Convention Pass, 2019). The more people and days the event can support, the cheaper is the TTC for convention attendees (TTC Convention Pass, 2019). The U-Pass is an example of a vertical equity approach because it provides students with reduced transit fees. The U-Pass is for students who are attending select post-secondary institutions full-time (TTC U-Pass, 2019). The fare structure of the U-Pass equates to \$70 per month, for a total of \$280 dollars per semester (TTC U-Pass, 2019). The cost of this pass, compared to the cost of a monthly pass, saves youth (age 13-19) \$209.80 because the current (as of July 2019) fare is currently is \$122.45 per month for a total of \$489.8 for a four-month semester (TTC Fares & Passes, 2019). Adults attending a post-secondary institution who would pay \$151.15 for a monthly pass, would save \$324.6 if they utilize the U-Pass (TTC Fares & Passes, 2019). However, the U-Pass has its disadvantages. The Ontario Ministry of Training Colleges and Universities outlines that compulsory fees for post-secondary institutions may include the university transit pass. Therefore, if a university votes to implement a university transit pass all students are then compelled to pay the fee for the pass (Ryerson University, Office of The Registrar, Ancillary Fee Descriptions, 2019). This decision can pose economic burdens on students as they are already burdened by the high cost of tuition and other compulsory fees, and may not need the U-Pass. Jen McMillen, Vice-Provost for Students at Ryerson University, noted that the consensus among Ryerson students, in the 2018 referendum on the RU-Pass, was that it not be adopted (McMillen, Email, 2019).

Table 6: TTC fares
1) Regular fare: \$3.25 (adult)
2) Youth Fare: \$2.20 (age \$13-19)
• children under 12 free
3) Senior Fare: \$2.20 (age 65+)
4) Monthly pass:
• Regular: \$151.15
• Youth: \$122.45 (age 13-19)
• Student: \$122.45
• Senior: \$122.45 (age 65+)
5) Equity offers:
• Fair Pass Discount Program
• Convention pass
• U Pass - \$280 per semester

Source: TTC website, 2019

Table Seven (pp. 37-38) depicts the equity policies analyzed in section two of this paper. Table Seven also provides an historical overview of the various TTC equity policy initiatives, including *Choices for the Future*, which was implemented in the late 1980s to early 1990s, and the *Accessible Transit Service Plan* of 1997 (TTC, Background Legislation and Policy, 2017). These are progressive equity policies created by the TTC. The Toronto Transit Commission states it has a long-standing commitment to promoting transit equity and decreasing barriers to public transportation in Toronto, and that the aforementioned policies of the 1980s-90s were instrumental in creating the “Easier Access” program. The aim of this program was to improve the quality of services in transit stations for individuals with accessibility needs (TTC, Background Legislation and Policy, 2017). In addition to the TTC’s corporate policies, the transit organization states that it complies, or is working towards compliance, with the following policies: *Accessibility for Ontarians with Disabilities Act* (AODA); *Accessibility Standard for Customer Service*, *Integrated Accessibility Standards Regulation* (IASR), *Ontario Building Code* (OBC) and the *Toronto Seniors Strategy* (TTC, Background Legislation and Policy, 2017). For a

list of all TTC equity policies and initiatives, and their compliance status with the AODA, see Appendix A document pages 55-67: “Attachment 4-AODA Integrated Accessibility Standards Regulation- TTC Compliance Status” (pg.1-13) from the *2019-2023 TTC Multi-Year Accessibility Plan*.

The 2019-2023 Multi-Year Accessibility Plan outlines the different phases of projects, such as the expansion of the Fair Pass Discount Program. Phase two of the program is to extend the discount to “residents receiving child-care fee subsidies with incomes below the eligibility threshold defined as 15% above the Low-Income Measure (LIM+15)” (2019-2023 TTC Multi-Year Accessibility Plan, 2019, p. 23). Phase three is to offer the Fair Pass Discount Program to city residents who have an income below the LIM+15. (2019-2023 TTC Multi-Year Accessibility Plan, 2019). The low-income measure (LIM) is an economic indicator that accounts for household economic needs, which is based on the medium value of the income in a household (Statistics Canada, Low Income Measure, 2015). Expand Access Hubs is a policy goal of the TTC, which concerns having 10 new hubs by 2020 (2019-2023 TTC Multi-Year Accessibility Plan, 2019). Access Hubs are shelters for Wheel-Trans that allow for easier access for individuals with mobility devices and impairments (2019-2023 TTC Multi-Year Accessibility Plan, 2019).

There are financial barriers in terms of fare prices that create an inequitable subway system in Toronto. In “Next Stop Equity: Routes to fairer transit access in the Greater Toronto and Hamilton Area,” Sean Hertel, Roger Keil, and Michael Collens (2016) outline the financial barriers that different groups of people experience in Toronto to access transit. The scholars’ findings demonstrate that there are cost barriers for students and people of lower socioeconomic status, along with technological barriers experienced with the Presto system for those who do not

have access to the technology (Hertel et al., 2016). The authors conducted extensive interviews with students in a literacy program in Toronto, where they asked the students if they purchased the subsidized \$100 Metropass (which regularly sells for \$141.50), and found that only four students confirmed that they purchased them (Hertel et al., 2016). When asked why they chose not to purchase the subsidized Metropass, some students responded stating “[it] ties up too much of my money;” “I can’t afford it, even at a cheaper rate;” “it’s going to school or getting food” (Hertel et al., 2016, p. 8). Moreover, the authors outline that one student stated it was more economical to purchase the TTC tokens than to buy the pass, as they only needed to use the subway certain times of the week, and that this was all they could afford (Hertel et al., 2019). Discounts that are available are based on age, and do not take other factors into consideration, such as income or economic status (Hertel et al., 2016). For example, students from wealthy families benefit from the same discounts as students from lower income families (Hertel et al., 2016). Seniors from any socio-economic background also benefit from a discounted fare as long as they are over the age of 65 and have valid ID (TTC, Senior Fare Rates, 2019).

People of low-income status also experience technological barriers accessing the PRESTO system (Hertel et al., 2016). PRESTO is an electronic payment system where an individual can pay using a card that acts like a reloadable credit card to pay for public transit like TTC and related transit services within certain regions of Ontario). Individuals can create an online account and reload their card online, through a smartphone application, or at select subway stations (PRESTO, About 2018). This system seems very convenient and accessible; however, individuals from a lower socioeconomic background might not have access to a credit card, or technology like a cellphone or the internet to fully utilize the PRESTO system (Hertelet al., 2016). Economic barriers students and individuals of a lower socioeconomic status

experience can be solved with a vertical equitable approach (Hertel, et al., 2016). The authors utilize Litman's multi-spectrum approach to transit analysis, which links vertical equity to income and social class (Hertel et al., 2016). In "Social Inclusion as a transport planning issue in Canada," Litman (2003) argues that equitable transport is achievable, if funding, in the form of subsidies and lower prices, is provided to groups that are economically disadvantaged. However, introducing subsidies and fare decreases is a complex process, as there are many factors and stakeholders involved: budgets need to be reconfigured; different stakeholders have competing economic interests; and there also has to be studies done to see which type of subsidy will benefit the populations, and how. These studies can be costly in themselves. This is not to say that this option should not be pursued, only that it will take careful planning and implementation.

A lack of close proximity to subway stations for lower-income communities is another issue that is still prevalent within the City of Toronto. In *CityMetric*, Sanjana Varghese (2018) reports that people from lower socioeconomic backgrounds, and some immigrant populations, in Toronto experience longer commuting times to access the subway. There is a lack of subway coverage beyond Toronto's downtown core (Varghese, 2018). In terms of proximity, subway coverage is still lacking in Toronto, particularly in the "underserved inner suburbs" that have high populations of low-wage workers and immigrants (Varghese, 2018). He explains that these areas are known as 'Neighborhood Improvement Areas' (Varghese, 2018). Varghese's arguments are supported by data analysed by David Hulchanski. In "Three Cities Within Toronto: Income Polarization Among Toronto's Neighbourhoods 1970-2005," Hulchanski (2006) divides city dwellers into three categories: City 1, high-income earners; City 2, middle-income earners; and City 3, low-income earners. He provides data on a number of social indicators: income per household, mobility, crime and safety, commuting times, etc.

(Hulchanski, 2006). There are a higher number of City 3 residents who have to spend more time traveling to access a subway than City 1 residents (Hulchanski, 2006). The data in the study depict a higher number of subway stations in City 1 areas (40 stations), while in City 3 there are 19. (Hulchanski, 2006).

Persons with mobility impairments may have trouble accessing the TTC subway services, due to the lack of infrastructure to assist with accessing the underground transportation network. Infrastructure barriers include steep flights of stairs, and a lack of wheelchair ramps and elevators. Anjana Aery (2016) from the Wellesley Institute demonstrates that persons in wheelchairs still experience infrastructural barriers to using the Toronto subway system. Only 34 subway stations out of the 69 in Toronto have an elevator, despite the fact that Canada has ratified the United Nations Convention on the Rights of Persons with Disabilities (CRPD) (Aery, 2016). The treaty came into effect on May 3, 2008 with the aim to:

...promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity. Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others. (United Nations, Convention on the Rights of Person with Disabilities and Option Protocol, p. 4)

Recently, the federal government and the City of Toronto began working on providing more accessibility in the Toronto subway system (Aery, 2016). The federal government allocated \$500- million to the TTC for infrastructure spending (Aery, 2016).

2.3.1 Equity Policy Cross-Examination: Toronto and Vancouver

TransLink and the TTC are similar in that they both offer modes of transportation that are dedicated to providing transit to persons with disabilities, fare structures that offer discounts to students and seniors, and both systems have committees to advise on accessibility matters. However, the TTC does not offer a more equitable transportation network than that of TransLink. TransLink's vertical and horizontal equity policies support a wider number of users than the equity policies employed by the TTC. TransLink's vertical equity policies are more comprehensive in relation to the following: equitable fare structures, barrier reductions, its Equity Advisory Committee, and other equity programs offered (see table 7). Unlike the TTC, TransLink has modes of transportation, like the SkyTrain, which are entirely accessible. The TTC is still in the process of upgrading its network. In its 2019-2023 Multi-Year Accessibility Plan, the TTC claims that 21 subway stations will be retrofitted with elevators along with 52 other accessibility initiatives to make the network more accessible.

Table 7: Equity Comparison: TTC versus TransLink

Vancouver: TransLink	Accessible mode of transportation	Equitable fare structure	Barrier reduction	Equity Advisory Committee	Equity/Accessibility legislation/ policies	Equity Programs
Vertical equity policies	HandyDart	Youth fare Senior fare Post-Secondary fare- \$41 per month UBC Accessible transit fare CNIB partnership free fares BC Bus Program	Bus, Skytrain, Seabus, West Coast Express - all accessible with lift, ramps. All SkyTrain stations have elevators Station assistant phone line	HandyDart User Advisory Committee Access Transit User Advisory Committee Access Transit Team	Bill M 219 (first reading)	TravelSmart Universal Fare Gate Access Program Radio frequency identification card HandyCard Program
Horizontal equity policies		Regular fare Off-Peak cheaper fare Monthly Pass				

Table 7: Equity Policy Comparison: TTC versus TransLink

Toronto: TTC	Accessible mode of transportation	Equitable fare structure	Barrier Reduction	Equity Advisory Committee	Equity/Accessibility legislation/ policies	Equity Programs
Vertical Equity Policies	Wheel-Trans	1) Student fare 2) Seniors fares 3) U-pass 4) Fare Pass Discount 5) CNIB discount	1) Audible Routes 2) Elevators 3) Lifts for buses	Advisory Committee on Accessible Transit (ACAT)	<u>Legislation:</u> AODA <u>Policies:</u> 1) <i>Choices for the Future</i> (1989) 2) <i>Accessible Transit Services Plan</i> (1997) 3) <i>Easier Access Program</i> 4) Toronto Seniors Strategy 2013	Diversity and Inclusion Lens and Toolkit

					5) TTC Corporate Policy	
Horizontal equity policies		1) Convention pass 2) Two-Hour Transfer Fee waiver				

This section will compare the City of Vancouver's TransLink fare structure with that of the TTC. Other fares employed by TransLink relate to its regional service and are therefore beyond the scope of this MRP. Both transit networks employ the same level of equity in regard to fare structure. For example, they both target disadvantaged groups as exemplified with the Fare Discount Program by the TTC and the HandyDart Fare program employed by TransLink. However, TransLink's fare structure is more economical, as is its pass for post-secondary students and its single fares are considerably cheaper than those offered by the TTC. Outlined in the fare comparison table is a comparative overview of the entire fare structure across both systems.

Table 8: Fare Comparison: TTC versus TransLink	
TTC fares	TransLink fares
Single ride regular fare: \$3.25 Single ride Youth: \$2.20 (age 13-19) Free for children under 12 years old Single ride Senior: \$2.20 (age 65+) Monthly pass: <ul style="list-style-type: none"> • Regular: \$151.15 • Youth: \$122.45 • Student: \$122.45 • Senior: \$122.45 Convention Pass: (rates based on group size and length) Equity fare: Fair Discount Program (FDP) <ul style="list-style-type: none"> • Single fare \$2.05 • Monthly pass \$119.40 	Single ride regular fare: \$3 Single ride Youth \$1.95 (age 5-18) Free for children under 5 years old Single ride Senior: \$1.95 (age 65+) Day pass: \$10.50 Monthly pass: \$98 Post-Secondary (e.g., UBC \$41) Equity fare: HandyDart users \$3 flat rate (all modes of transit)

Source: TTC website; fares

Source: TransLink website; fares

Both networks employ a discount to select disadvantaged groups. However, TransLink offers more economical discounts to select groups and covers a wider array of disadvantaged groups through its programs than do the TTC's equity programs. The HandyDart program, when compared to the Fair Discount Program (FDP), has a more expensive single fare of \$3; however, its monthly pass is less expensive than the TTC's FDP which costs \$119.40 (City of Toronto, Fair Discount Program, 2019) The TTC's FDP only covers one disadvantaged group: persons with disabilities, while TransLink offers the BC bus program for two groups: persons with disabilities and seniors. Of the latter, it refers specifically to seniors who are 60 years old and receiving disability assistance, or income assistance, or living on First Nations reserve, or other criteria as indicated on its website (Government of British Columbia, B.C Bus Pass, 2019). In terms of committees within the transit organizations that promote equity, TransLink employs a more comprehensive committee structure with three committees who assist in an advisory role to

promote inclusivity for persons with accessibility issues. In comparison, the TTC only has one: the Advisory Committee on Accessible Transit.

A notable difference between the two transit systems is legislation that enforces accessibility standards on public transportation agencies. In British Columbia, there is currently no legislation that mandates public transportation operators to provide accessible transportation. Nonetheless, the B.C. government is considering such legislation. The British Columbia Accessibility Act (Bill M 219) was introduced by Liberal MLA Linda Reid and has received first reading in the B.C Legislative Assembly. In Ontario, there is comprehensive legislation, the AODA that enforces accessibility standards on both the private sector and public sector transportation agencies. However, TransLink has employed many equity policies without the enforcement of legislation.

Section Three: Montréal

3.1 Historical Analysis

Montréal is one of Canada's oldest cities and its transportation network is comprised of the following: bus, subway, and tramway. Each mode of transportation was developed at different historical periods. The first mode of transportation in the city was the tramway, which dates back to 1861, followed by the introduction of a bus system in 1919, and the completion of the subway network in 1966 (Tramways History, 2019, Bus History, 2019; 50 Years of Métro History, 2019). Beginning in 1936, the bus system gradually replaced the tramway (STM, Bus History, 2019).

Tramways were established by the Montréal City Passenger Railway Company (MCPRC) in 1861, and were operated by a horse pulling a tram (carriage with seats) (STM Tramway History, 2019). The Montréal Street Railway Company (MSRC) took over the MCPRC in 1886 and replaced the horses with electric tramways in 1892 (Tramway History, 2019). Veilleux (1996) explains that the MSRC had a monopoly over the tramway network in Montreal due to the MSRC's prior acquisitions of other tramway companies, such as the Montreal Park and Island Railway Company and the Montreal Terminal Railway Company. In 1910, a wealthy businessman, A. E. Robert, took control over the MSRC, and a year later he merged the two companies into one to create the Montréal Tramways Company (MTC) (Veilleux, 1996). There were many complications with the tramway system (Veilleux, 1996). For example, the tramway network was designed to converge all lines into a central point, thus causing immense congestion (Veilleux, 1996). In addition, the tram cars over-crowded the streets and the trams were infrequent in their stops to pick up people (Veilleux, 1996).

In 1912, the Montréal Tramways Company perceived a threat when the Canadian Autobus Company proposed the introduction of a bus line in the city (Veilleux, 1996). The notion put forward by the CAC created a huge dispute within the MTC, who felt that its transportation monopoly would be diminished (Veilleux, 1996). The proposal came at the same time MTC was trying to extend its contract with the City of Montréal. (Veilleux, 1996). MTC engaged with the City and CAC in legal battles that went on for a year, until 1913, when MTC bought out CAC and introduced its own bus line (Veilleux, 1996). Dale Gilbert and Claire Poitras (2015) explain that during the 1930s, the MTC grossly mismanaged its transit operations, which resulted in immense public dissatisfaction and mass congestions in the lines. To solve the congestion problem, the MTC employed vehicles that had previously been taken out of commission due to their poor condition (Gilbert and Poitras, 2015).

During the Second World War, rationing was implemented on resources such as gasoline, which led to an increase of people utilizing public transit, and this resulted in overcrowding reaching critical levels on the transit system (Gilbert and Poitras, 2015). The City asked MTC to commission a report on the feasibility of developing and installing a subway (Gilbert and Poitras, 2015). The report done by MTC favored a subway system; however, the city was apprehensive of the company taking on this project due to its mismanagement of the current transportation system (Gilbert and Poitras, 2015). In 1948, the Province of Québec became involved in a dispute between the MTC and the City of Montreal, after the City refused to let the company impose a fare increase (Gilbert and Poitras, 2015). The Québec Government set up an arbitration committee to study the situation regarding the services and type of operations the MTC was conducting (Gilbert and Poitras, 2015). In 1949, the committee issued a report that recommended that all public transportation matters fall under the jurisdiction of the municipality (Gilbert and




Poitras, 2015). Thus, in 1951, the Montréal Transportation Commission was established (Gilbert and Poitras, 2015).

Accessibility advancements with transportation in Montréal occurred after the Second World War (STM, paratransit history, 2019). The STM correlates its paratransit service with that of the Montreal Tramway Company, which converted a bus by adding a ramp to help injured veterans utilize transportation (STM, paratransit history, 2019). The current paratransit service is a vehicle that is retrofitted to allow for easier access for persons with disabilities (STM, what is paratransit, 2019). The full adoption of this service did not occur until the 1970s, when two brothers, Jacques and Jean-Marc Forest retrofitted a vehicle to allow them to access it with their wheelchairs. They then started a company called Minibus Forest to provide services to persons with disabilities (STM, paratransit history, 2019). In the late 1970s, the company had 16 retrofitted vehicles in operation. In Québec, offering vehicles with adaptations for persons with disabilities did not become publicly mandatory until 1980 when the provincial government made it mandatory for public transit companies to provide services to persons with disabilities (STM, paratransit History, 2019). Advancements in the paratransit services occurred throughout the late 20th-century, from the installation of hydraulic lifts in all buses, to a computerised booking system that was introduced due to nearly 200,000 paratransit trips occurring in 1991 (STM, paratransit history, 2019).

3.2 Overview of Transportation Structure

The STM operates various modes of transportation that include subway, bus, paratransit and taxi services. Table Nine, below, provides the operational statistics of the STM concerning the modes of transportation, number of vehicles per mode, ridership and route quantities. The corporate structure of the STM is based on a Board of Directors (STM, Board of Directors,

2019). The Board of Directors approves the annual budget, which includes operational and capital expenditures as well as employee levels (STM, Board of Directors, 2019). The Board also approves the operational strategic plans for the network. The composition of the STM Board is divided between five city councillors and five public transit users (STM, Board of Directors, 2019). Board members operate in three different capacities: work sessions, public, and committee meetings. There are ten public meetings held throughout the year, where attendees may debate the STM agenda, while work sessions are held to conclude what was discussed at public meetings. Within the Board are five different committees, service and accessibility, finance, asset management, ethics, and human resources. The committee tasked with accessibility is called the “Customer Service and Universal Accessibility Committee” (CSUAC) (STM, Customer Service and Universal Accessibility Committee, 2019). The CSUAC makes recommendations to the STM Board in three different areas; service to STM passengers, relations between ethnocultural communities and visible minorities, and creating universal accessibility (STM, Customer Service and Universal Accessibility Committee, 2019). The total operating budget for the STM for 2019 is \$1.460 billion dollars, the operating expenses are \$1.310 billion and the capital expenses are \$149 million dollars (STM 2019 Budget, 2019).

Table 9: STM Operational Statistics			
	Subway	Bus	Paratransit
Number of vehicles	Total.....846 AZUR.....423 MR-73.....423 47 trains 	Total.....1,808 12m.....1,551 18m.....257 Minibus.....16 	Total.....1,586 Minibus.....86 Taxi.....1,500 
Number of Riders	Total.....271.4m (2018)^	Total.....3,82m	Total.....32,000 (active clients)
Routes (km)	Total.....71km 68 stations (given in one-way kilometres)	Total.....360.4km (includes roundtrip) Lines.....222	Number of trips...4.4km

Sources: 2018 and 2019 Annual Budgets

3.3 Equity Policy Examination and Critique

The Société de transport de Montreal's (STM) equitability policies and measures focus on the issue of accessibility to reduce barriers for persons with mobility or visual impairments (STM, using public transit in a wheelchair, 2019). The subway system, as well as the bus network, are accessible to users with mobility equipment (STM, using public transit in a wheelchair, 2019). The different types of accessibility features for bus and subway are outlined on the STM website (STM, Accessibility, 2019). There are elevators for use in the subway stations; however, not all of the subway lines have this feature (STM, using public transit in a wheelchair, 2019). The Green and Orange STM lines are the most wheelchair accessible: fourteen stations between the two lines have elevators (STM, using public transit in a wheelchair, 2019). There is also an option to have an STM employee assist persons with mobility challenges with travel from station to station (STM, using public transit in a wheelchair, 2019). This

assistance provides riders with help entering and exiting the subway-car, and with utilizing the elevators (STM, using public transit in a wheelchair, 2019). Most of the bus network is wheelchair accessible; however, some of the minibus routes, such as the Navette or 212 bus to Saint-Anne, do not have wheelchair accessibility features (STM, using public transit in a wheelchair, 2019). The bus accessibility feature is a ramp that allows a wheelchair to roll onto the bus (STM, using public transit in a wheelchair, 2019).

The STM helps individuals who have an intellectual or visual disability by allowing their accompanying aides to ride public transit free of charge (STM, Accessibility for the visually or intellectual disabled, 2019). An aide can obtain entry to the transportation system free of charge by using a Companion Card, which must be presented to the transit driver (STM, Accessibility for the visually or intellectual disabled, 2019). Contained in *Strategic Plan 2020* are the STM's priorities for the year. This plan's equitable policies have to do with horizontal equity in the form of barrier reductions.

The STM has a "door-to-door" service called Paratransit (STM, What is paratransit? 2019). To be eligible for this service, there are criteria the STM outlines (STM, what is paratransit, 2019). To access the service, STM states that eligible members must qualify as a "handicapped person, that is, a person with a deficiency causing a significant and persistent disability, who is liable to encounter barriers in performing everyday activities" (STM, What is paratransit? 2019). The language in this translated definition is neither current nor sensitive. Jaun Bornman (2004) argues that the terminology of 'handicap' is problematic because it classifies individuals based on circumstances and not based on a person's attributes. The term 'health-condition' is a more appropriate term than disabled person, as the latter defines the individual, and the former equates it as an aspect of the person. The Quebec government acknowledges a

more socially-acceptable term as ‘disability’, and so does the STM. The Office des Personnes Handicapées is a governmental agency tasked with advising the government on promoting inclusivity and advocating for persons with disabilities (Office des Personnes Handicapées, Publication, 2019). The Agency, in one of its regular cyber bulletins, outlines the correct societal term to be used in addressing a person with a health condition:

Important to consider. It is not always necessary to name a person’s disability. After all, it is only one of their characteristics. A person is also female or male, who has long or short hair, is of one ethnic origin or another, etc. We should specify the disability or infirmity only if we wish to speak of it specifically, and not as a way of qualifying a person.

(Personal translation from Personnes Handicapées, Better Understand in 3 Minutes)¹.

The Agency is saying that emphasis should be placed on the person not the disability. The person is also a man or woman, and with different physical and ethnic characteristics, and that disability should not be used to qualify a person (Office des Personnes Handicapées, Better Understand in 3 Minutes, 2019). The STM utilizes the term ‘disabled’ in the context of describing a person on the French version of its paratransit website: ‘les personnes handicapées’ (person with disabilities) (STM, paratransit eligibility criteria, 2019).

A 2018 diversity survey conducted by STM illustrates that there are more Caucasian, middle aged men who do not have a disability working for STM than any other group of people (STM website, Diversity, 2019). Men make up 76% of the STM workforce compared to 23.6%

¹ The original quotation appears in French:

À bien y penser. Il n’est pas toujours nécessaire de nommer l’incapacité d’une personne. Après tout, ce n’est qu’une de ses caractéristiques. La personne est aussi une femme ou un homme, qui porte les cheveux longs ou courts, d’une origine ethnique ou d’une autre, etc. On ne devrait spécifier la déficience ou l’incapacité que si l’on veut en parler spécifiquement et non pour qualifier une personne (Office des Personnes Handicapées, Better Understand in 3 Minutes, 2019). Some anglophone Quebecers may find the agency’s use of French inaccessible or offensive.

of women (STM website, Diversity, 2019). Minorities only make up 31% of the workforce compared to 68% Caucasian (STM website, Diversity, 2019). The STM has a diversity policy that dates back over 30 years; however, statistics on representation from STM depict employment within STM is not equal regarding gender and ethnicity (STM website, Diversity, 2019).

Concerning the two theoretical lenses of vertical and horizontal equity, in relation to the STM, Sean Hertel, Roger Keil, Michael Collens (2016) note vertical equity to fare structures, and transit affordability measures. There are vertical equity policies employed by STM, in terms of a structured fare system for seniors 65 years old (and above) and students aged 6-17 for the bus and subway systems (STM, Fares, 2019). For these two groups, the fares are reduced by 40% with an OPUS card (STM, Transit Fares, 2019). An OPUS card is a reloadable electronic transaction card to which STM transit fare ticket purchases are applied (STM, OPUS card, 2019). Post-secondary students have access to reduced fares if they attend an educational institution approved by the Ministry of Education and Higher Teaching (STM, reduced fare - students, 2019).

The STM includes a number of horizontal equity policy within its fare structure. There is the: Group Transfer, Unlimited Weekend, Unlimited Evening, Weekly Pass, 2 trips, and 10 trips fare. The Group Fare is a flat fare rate for “group composed of one adult and a maximum of ten children aged 6-13” (STM, Group Fares, 2019). For Todd Litman (2003), horizontal equity is the equal and fair allocation of resources to a group of individuals, so the different fares that STM employs exemplify this type of equity as they broadly apply. Moreover, the Unlimited Weekend, Evening, and Weekly Passes are associated with flat rates and have time restrictions on when they can be utilized, but anyone is eligible to purchase them. There is no specific age, gender, or

disability qualification for these passes. The 2-trip and 10-trip fares are horizontally based and apply to anyone. The Group Transfer is horizontally based because it applies to any group of one adult and up to ten children within the age group of 6-13 (STM, Group Transfer, 2019).

3.3.1 Equity Policy Cross-Examination: Montréal and Vancouver

The STM does not employ a more equitable transportation network than that of TransLink. TransLink's vertical and horizontal equity policies support a wider number of users than the equity policies employed by the STM. Much like the case with the TTC, TransLink's vertical equity policies are more comprehensive than STM's, and are based on the same categories: equitable fare structures, barrier reductions, an Equity Advisory Committee, and other equity programs offered (See Table 10). Unlike STM, the entire TransLink network has some form of barrier reduction in place, with the SkyTrain network having accessibility features built into its system, whereas, only 14 of the STM stations have implemented accessibility features such as elevators. Table 10 applies the same TransLink zone fare restrictions as Table 7 did with Toronto. Once again only the metro Vancouver (zone 1) fare structure was analysed against that of the STM.

Table 10: Equity Comparison: STM versus TransLink

Vancouver: TransLink	Accessible mode of transportation	Equitable fare structure	Barrier reduction	Equity Advisory Committee	Equity/Accessibility legislation/ policies	Equity Programs
Vertical equity policies	HandyDart	Youth fare Senior fare Post-Secondary fare- \$41 per month UBC Accessible transit fare CNIB partnership free fares	Bus, Skytrain, Seabus, West Coast Express all accessible with lift, ramps All SkyTrain stations have elevators Station	HandyDart User Advisory Committee Access Transit User Advisory Committee Access Transit Team		TravelSmart Universal Fare Gate Access Program Radio frequency identification card HandyCard Program

			assistant phone line			
Horizontal equity policies		Regular fare Off-Peak cheaper fare Monthly Pass				
Equity Policy Comparison table: STM versus TransLink						
Montreal: STM	Accessible mode of transportation	Equitable fare structure	Barrier Reduction	Equity Advisory Committee	Equity/ Accessibility legislation/ policies	Equity Programs
Vertical Equity Policies	Paratransit Service	Post- Secondary fare Senior fare	14 subway stations with elevators	Customer Service and Universal accessibility committee (CSUAC)	Act to Secure Handicapped Persons in the Exercise of their Rights (ASHPER)	Companion card
Horizontal equity policies		Regular fare Group fare Unlimited Pass Weekend Pass				

TransLink has more vertical equity policies in its fare structure than STM, which offers only a couple of programs (HandyDart, BC Bus Program) dedicated to aiding disadvantaged groups. STM does not have comparable programs. The fare structure employed by STM is more economical when comparing to the single regular fare rates of TransLink. In addition, STM employs more horizontal-based fares and its monthly passes are cheaper than the price of TransLink's monthly pass. However, the STM does not have a monthly pass dedicated to a disadvantaged group such as TransLink's HandyDart monthly pass, which offers a discounted rate to persons with disabilities.

Table 11: Fare Comparison: STM versus TransLink	
Montreal STM fares	Vancouver TransLink fares
Single ride regular fare: \$3.50	Single ride regular fare: \$3
Single ride Youth fare: \$2.5 (ages 6-17)	Single ride Youth \$1.95
Free for children under 6 years old	Free for children under 5 years old
Senior Fare: \$2.5 (Ages 65+)	Single ride Senior: \$1.95
Day Pass: \$10	Day pass: \$10.50
Unlimited Weekend Pass: \$14	Monthly pass: \$98
Unlimited Evening Pass	Equity fare: HandyDart users \$ flat rate
Monthly Pass: \$86.5	all modes of transit
Monthly Youth \$52	
Monthly Senior \$52	
Equity fare: none	

Source: STM website, TransLink Website, 2019

The Committee structure TransLink has implemented with regard to advisory and advancement on equity matters is more extensive than that of STM, with TransLink employing three committees as opposed to STM's one committee. Lastly, there are more equity programs employed by TransLink than the STM.

What is similar between the two systems is that they both employ modes of transport that are dedicated to providing transit to persons with disabilities. Both systems have a fare structure that caters to seniors and students, and both systems have committees to report on accessibility matters. A notable difference between the two transit systems is the legislation that enforces accessibility standards on public transportation agencies. As has been identified, British Columbia currently has no legislation mandating the provision of accessible public transportation. In comparison, Québec has the *Act to Secure Handicapped Persons in the Exercise of their Rights* (ASHPER) (Québec Accessible, 2019). ASHPER ensures public transportation providers provide inclusive service and accessibility to persons with disabilities

(Québec Accessible 2019). Without this type of enforcement, the transportation employed by TransLink is more equitable than the STM.

Section Four: Findings and Analysis

1) How do the cities of Vancouver, Toronto and Montreal define equitability in relation to transit?

While the definition of equity amongst these cities varies, there are similarities with respect to how each of these transit systems focus on promoting accessibility and equity. The TTC is the only network that has equity defined within its definition of accessibility. TransLink and the STM each define what accessibility is but appear not to have a definition of equity within the documents reviewed for this MRP. In the Chief Executive Officer's Report, the TTC outlines what Equity and Accessibility means:

The TTC strives to deliver a reliable, safe, clean, and welcoming transit experience for all of its customers, and is committed to making its transit system barrier free and accessible to all. This is at the forefront of TTC's new Corporate Plan 2018-2022. The TTC strongly believes all customers should enjoy the freedom, independence, and flexibility to travel anywhere on its transit system. The TTC measures, for greater accountability, its progress towards achieving its desired outcomes for a more inclusive and accessible transit system that meets the needs of all its customers. This progress includes the TTC's Easier Access Program, which is on track to making all subway stations accessible by 2025. It also includes the launch of the Family of Services pilot and improved customer service through better on-time service delivery with improved shared rides, and same day bookings to accommodate Family of Service Trips. These initiatives

will help TTC achieve its vision of a seamless, barrier free transit system that makes Toronto proud. (TTC, Chief Executive Officer's Report, 2019)².

The corporate policy for the STM discusses accessibility throughout the network's website and policy documents. The STM corporate policy states that the company believes in universal accessibility, and that accessibility is promoted through infrastructure advancements that allow for the universal use of public areas and services (STM, Cooperate universal Accessibility Policy, 2019). Gender inclusion is also an area that is emphasized throughout STM's policies; however, the company's reported statistics on gender inclusion do not depict a diverse workforce as noted in a 2018 diversity study conducted by STM (STM, Diversity, 2019). TransLink does not have a corporate equity policy that is clearly defined. Like Toronto and Montreal, TransLink promotes accessibility. The regional body states that its network is fully accessible (TransLink, Accessible Transit, 2019). In its 2019 Access Strategy, TransLink defines accessibility in relation to destinations (TransLink, 2018 Transit Service Guidelines, 2018). In this definition, the company outlines that accessibility is related to the 'ease' of traveling to and from locations, and accessing goods and or services from a specific area (TransLink, 2018 Transit Service Guidelines, 2018).

2) What types of obstacles do these three cities face in implementing equitable transit systems?

Funding for improved transit to increase accessibility is similar among the three cities. For Montreal and Toronto, the establishment of their initial subway systems was at a time when structural barriers to implementing accessibility features in the subway stations were not a priority or legislated. In Toronto, the subway stations have hundreds of thousands of passengers

² Note: the title for this definition states; "Equity/ Accessibility Matters. In relation to equity, the TTC's statements provide the strongest correlation for the network linkages toward equity.

commuting between stations daily and the station cannot close down entirely to improve accessibility (in terms of installing ramps and elevators for mobility impairments), without significant disruptions to transit users' lives. The STM has similar issues as Toronto relating to structural limitations of the system for persons with disabilities. For these reasons, sections of the transit systems are closed for periods of time to enable accessibility technology to be installed, which results in slower implementation process.

Lack of funding for projects is another issue that is common amongst the three transit systems. Barrier reduction – in terms of structural improvements via installation of elevators, ramps and other assistive improvements – costs millions of dollars and takes time. In Toronto, the approval of funding from city council is an ongoing issue. There are many impasses and delays when the municipality votes to legislate on improvements and additions relating to transportation. This is the same for Montreal and Vancouver to an extent. However, as noted in Section One, TransLink, unlike Montreal and Toronto, has the power to raise its own funds through taxation. However, given this power, transportation projects are still very expensive, costing millions and or billions of dollars. Raising taxes is often a last resort as this measure is always unpopular.

3) What current strategies have been taken to ensure more equitable transportation in these three cities

Each of the cities employs similar strategies with respect to equity, in relation to accessibility. Table 8: The Equity Comparison Chart demonstrates these accessible comparisons. For example, each city has more than one accessible mode of transportation. Table 8 shows a comparative overview of the equity policies employed by the TTC, STM and TransLink. Numerically, the chart depicts in some categories the number of policies employed.

Table 12: Equity Policy Comparison: TransLink versus TTC & STM						
Equity Policy Categories	Accessible Mode of transportation	Equitable fare structure	Barrier reduction	Equity Advisory Committee	Equity/Accessibility legislation/ policies	Equity Programs
Vancouver: TransLink						
Vertical Equity Policies	Yes	5	Yes	2 committees	No legislation	4 programs
Horizontal Equity Policies		2				1 program
Toronto: TTC						
Vertical Equity Policies	yes	4	Yes	1 committee	Legislation/ accessibility enforced on public and private transportation systems	1 program
Horizontal Equity Policies		2				
Montreal: STM						
Vertical Equity Policies	yes	2	yes	1 committee	Legislation – only enforces accessibility on public transportation companies	1 program
Horizontal Equity Policies		2				

Conclusions

This Major Research Paper compared Vancouver's TransLink transportation equity policies to Toronto's TTC system and Vancouver's TransLink system. Vancouver was chosen because the research uncovered that it includes a range of equity transit policies that are quite progressive. TransLink is a consortium of public transportation companies; however, Toronto and Montreal's systems are overseen by a number of municipalities. In adhering to the comparative municipal aims of the study, only transportation systems, fares and policies employed in Vancouver's Zone One were analyzed (see Appendix B: TransLink Zone Fare Map, for details). In addition, the MRP was limited to studying transportation structures within the municipalities of Toronto and Montreal. The MRP also offered concise overviews of when the move toward incorporating equity, in terms of accessibility, began in each respective transit system.

A distinguishing factor between the three cities is that two of the three cities, Toronto and Montreal, have provincial legislation that mandates public transportation accessibility. In Ontario, the Accessibility for Ontarians with Disability Act (AODA) mandates both private and public transportation companies to introduce accessibility features within their transit networks. Yet, Vancouver has been able to advance and employ more equity policies relating to accessibility within its network without provincial legislation mandating that public and private transportation companies employ accessibility in their networks. This is one of the reasons why Vancouver has the most equitable transportation network. Other aspects relate to the number of the committees and equity programs that TransLink employs, which helps TransLink to continue to support and promote equity and accessibility within its transit system.

Much knowledge has been gained in the course of researching and writing this MRP; however, due to the scope and time limits of undertaking this type of scholarship, some potential areas of inquiry were not followed. Ample opportunity exists for future scholars to undertake a similar study but on a more regional level that would offer a rich and fruitful opportunity to explore the equity and accessibility at a regional level. A second option would be to compare the transit systems in Montreal, Toronto, or Vancouver to similar systems in another country. Clearly, significant opportunities exist to explore the accessibility and equity of transit policies in multi-governance approaches that would help to make transit more accessible for a greater number of citizens.

Appendices

Appendix A: 2019-2013 TTC Multi- Year Accessibility Plan



For Action

2019-2023 TTC Multi-Year Accessibility Plan

Date: May 8, 2019
To: TTC Board
From: Chief Customer Officer

Summary

TTC has a strong organizational commitment to making Toronto's transit system accessible. Following up on the TTC's *2014-2018 TTC Multi-Year Accessibility Plan*, the new *2019-2023 TTC Multi-Year Accessibility Plan* will guide system-wide accessibility improvements over the next five years that will provide universal benefits to the millions of customers who use TTC annually, in support of TTC's Corporate Plan.

The previous *2014-2018 Plan* contained 41 objectives to improve and expand TTC's accessible transit services. Of these:

- ✓ 32 objectives (78%) were successfully completed between 2014 and 2018;
- one objective will be completed in 2019, as planned, and one objective was superseded by new initiatives and is no longer proceeding; and
- ✗ seven objectives are in-progress and will be completed within the term of the *2019-2023 TTC Multi-Year Accessibility Plan*.

TTC's numerous accessibility achievements over the past five years, all of which improved and modernized transit service for people with disabilities and seniors, include:

- retrofitting seven subway stations with elevators and accessibility features;
- opening six new accessible subway stations on the Line 1 Extension to Vaughan;
- trialling platform edge tile replacements to reduce the gap between trains and subway platforms;
- deploying low-floor accessible streetcars on four routes;
- upgrading over 400 transit stops to modern accessible design standards in 2018;
- retiring the last lift-equipped TTC buses; all TTC buses are now low-floor;
- installing blue priority seating areas and signage on all TTC vehicles;
- revising and expanding Wheel-Trans eligibility;
- launching Community Bus, Family of Services, and Travel Training initiatives as well as the Fair Pass Discount Program for customers with low income;
- constructing Access Hubs at two bus loops;
- introducing the Please Offer Me A Seat (POMAS) campaign;

Attachment 4 - AODA Integrated Accessibility Standards Regulation - TTC Compliance Status

IASR Section Requirement	Steps to Compliance	Compliance Status	Implementation Notes
3 - Establishment of accessibility policies	<ul style="list-style-type: none"> Develop, implement and maintain policies regarding meeting IASR requirements Include a statement of organizational commitment to meet the needs of people with disabilities Written documents available to the public, and provided in accessible formats on request 	Compliant	<p>Policies are developed as required to comply with IASR i.e. emergency preparedness policies.</p> <p>Statement of organizational commitment is included in this Accessibility Plan.</p> <p>The above documents are available and provided in accessible formats on request.</p>
4 - Accessibility plans	<ul style="list-style-type: none"> Establish a multi-year accessibility plan, post it online, and review and update it at least every five years. 	Compliant	<p>Multi-year plan published annually from 2003 to 2014. This 2019-2023 five year plan satisfies the requirement.</p>
5 - Procuring or acquiring goods, services or facilities	<ul style="list-style-type: none"> Ensure that accessibility criteria and features are incorporated into procurement documents and given consideration during the acquisition of goods Create IASR accessibility policies, as needed 	Compliant	<p>Accessibility criteria are included in the procurement process where appropriate.</p>
6 - Self-service kiosks	<ul style="list-style-type: none"> On a go-forward basis, self-service ticket and pass vending kiosks must include accessibility features. 	Compliant	<p>All future TTC and PRESTO devices will include accessibility features, developed in consultation with ACAT.</p>
7 - Training	<ul style="list-style-type: none"> All employees, volunteers and those providing service on an organization's behalf must be trained on aspects of the IASR and the OHRC appropriate to their duties, and records of training maintained 	Compliant	<p>AODA e-learning module is available to all employees.</p>
11 - Feedback	<ul style="list-style-type: none"> Processes for receiving and responding to feedback are available to persons with disabilities in accessible formats, upon request 	Compliant	<p>Customer Service can communicate with customers in person, by email, phone, TTY, twitter or postal mail.</p>
12 - Accessible formats and communication supports	<ul style="list-style-type: none"> Make available all information in accessible formats, upon request, at no additional charge. 	Compliant	<p>Accessible formats are available, as required, as described in the TTC's Accessible Customer Service Policy Statement. No additional fees are charged for accessible formats.</p>
13 - Emergency procedure, plans or public safety information	<ul style="list-style-type: none"> In addition to s.12 requirements, all emergency procedures and public safety information that is available to the public is made available in accessible formats or with appropriate communications supports upon request 	Compliant	<p>Accessible formats are available, as required, as described in the TTC's Accessible Customer Service Policy Statement.</p>

Attachment 4 - AODA Integrated Accessibility Standards Regulation - TTC Compliance Status

IASR Section Requirement	Steps to Compliance	Compliance Status	Implementation Notes
14 a) - Accessible websites and web content	<ul style="list-style-type: none"> • Ensure all new websites and content are compliant with WCAG 2.0 level A 	Compliant	TTC website is currently WCAG 2.0 Level AA compliant. Legacy documents and pages developed previously or by 3rd parties may not be.
14 b) - Accessible websites and web content	<ul style="list-style-type: none"> • By January 1, 2020, ensure all websites and content are compliant with WCAG 2.0 level AA 	Compliant	The TTC website is compliant with the World Wide Web Consortium (W3C) Web Content Accessibility Guidelines 2.0 Level AA.
22 - Recruitment, general	<ul style="list-style-type: none"> • Notify the public of the availability of accommodation for applicants with disabilities during recruitments 	Compliant	This information is provided in the TTC's online job application system.
23 - Recruitment, assessment or selection process	<ul style="list-style-type: none"> • Notify applicants if selected for an assessment that accommodations are available upon request • If requested, provide or arrange for the provision of a suitable accommodation in a manner that takes into account the applicant's accessibility needs due to disability, in consultation with the applicant 	Compliant	In addition to the statement on our website, TTC departments have been instructed regarding the AODA recruitment process requirements.
24 - Notice to successful applicants	<ul style="list-style-type: none"> • When making offers of employment, notify the successful applicant of policies for accommodating employees with disabilities 	Compliant	A copy of the Accommodation in the Workplace Policy will be provided to candidates when an offer of employment is made
25 - Informing employees of supports	<ul style="list-style-type: none"> • Inform all employees of current policies supporting employees with disabilities, and each time there is a change to policies • Inform new employees as soon as practicable after they begin employment 	Compliant	Employees will be informed each time a change is made. New employees will receive a copy of the policy with their offer letters. This policy is also discussed at the new employee orientation session.
26 - Accessible formats and communication supports for employees	<ul style="list-style-type: none"> • Ensure that any information an employee requires to do their job and information that is generally available to all employees is provided to employees with a disability in an accessible format, upon request 	Compliant	Available as required.

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Attachment 4 - AODA Integrated Accessibility Standards Regulation - TTC Compliance Status

IASR Section Requirement	Steps to Compliance	Compliance Status	Implementation Notes
27 - Workplace emergency response information	<ul style="list-style-type: none"> Individualized workplace emergency response information required by an employee with a disability is available in the format required Employer is aware of accommodation requirements for all employees with disabilities in the event of an emergency situation Employer reviews individualized workplace emergency response information when the employee moves to a different work location, when the employee's overall accommodation needs or plans are reviewed, and when the employer reviews its general emergency response policies. 	Compliant	<p>TTC has Fire Wardens for all office locations that receive training on an annual basis. The Fire Wardens are currently responsible for collecting and maintaining this information.</p> <p>Emergency response information is collected for new hires, those returning to work, and when employees change work locations.</p>
28 - Documented individual accommodation plans	<ul style="list-style-type: none"> Ensure that individual accommodation plans are documented, and include the elements as listed in the Regulation 	Compliant	TTC currently has individualized return to work plans, including any accommodation plans, currently in a standard document called a Fitness for Work Report (FFWR), that include the elements as outlined in the Regulation.
29 - Return to work process	<ul style="list-style-type: none"> Ensure that a return to work process in place for employees returning to work requiring disability-related accommodations 	Compliant	Similar to item #28. Return to work processes are in place and documented.
30 - Performance management	<ul style="list-style-type: none"> Ensure accessibility needs of the employee are taken into account when using a performance management process 	Compliant	TTC has a performance management process and an accompanying policy of equal opportunity that includes a commitment to accommodate.
31 - Career development and advancement	<ul style="list-style-type: none"> Ensure employers take accessibility needs into account when providing career development and advancement opportunities 	Compliant	Current practice.
32 - Redeployment	<ul style="list-style-type: none"> Ensure that any redeployment activity will take into account any accessibility needs of employees with disabilities 	Compliant	Internal procedural manual reflects this requirement.
34 - Availability of information on accessibility equipment	<ul style="list-style-type: none"> Information regarding accessibility equipment and features of vehicles, routes and services is available to the public, and also available in accessible formats on request 	Compliant	This information is available on the TTC website, and is also available in other accessible formats, as required, as described in the TTC's Accessible Customer Service Policy Statement.

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Attachment 4 - AODA Integrated Accessibility Standards Regulation - TTC Compliance Status

IASR Section Requirement	Steps to Compliance	Compliance Status	Implementation Notes
35 - Non-functioning accessibility equipment	<ul style="list-style-type: none"> • Take reasonable steps to accommodate persons with disabilities when accessibility equipment on a vehicle is not functioning and/or equivalent service cannot be provided • Repair all non-functioning accessibility equipment as soon as possible 	Compliant	<p>Bus Operator's test ramps as part of the pre-trip inspection prior to leaving the garage. Failures result in the bus staying out of service for repair. Operator Notices have been issued covering the ramp failure protocol, ramp recycling requirements and general expectations. In 2015, new "lift assist" hooks were deployed to all buses to assist with ramp deployment in situations where frost or debris are interfering with automatic ramp deployment.</p>
36 - Accessibility training	<ul style="list-style-type: none"> • Provide specific training to operations employees regarding safe use of accessibility equipment, procedures for where temporary barriers exist, and emergency response procedures • Maintain training record for all employees 	Compliant	<p>Specific training to operations employees is provided regarding safe use of accessibility equipment, procedures for where temporary barriers exist, and emergency response procedures via several training and recertification programs:</p> <p>Topics covered include:</p> <ul style="list-style-type: none"> • The need for accessible transit • AODA • The TTC's commitment to Accessibility • About customers with disabilities • Serving customers with varying types of disabilities. <p>The training department files contain documentation for each attendee of the above courses, and the status of the training is recorded on the TTC's learning management system.</p>
37 - Emergency preparedness and response policies	<ul style="list-style-type: none"> • Emergency preparedness and response policies provide for the safety of customers with disabilities • Policies are available to the public in accessible formats • Review and modify existing procedures as needed 	Compliant	<p>Emergency preparedness policies provide for the safety of customers with disabilities and are available on the TTC website. These policies and are available in accessible formats on request through Customer Service.</p>
38 - Fares, support persons	<ul style="list-style-type: none"> • Eliminate the fare for a support person who is accompanying a passenger with disabilities on conventional or specialized services • Develop support person criteria 	Compliant	<p>Support person criteria developed and fares for support persons eliminated.</p>

Attachment 4 - AODA Integrated Accessibility Standards Regulation - TTC Compliance Status

IASR Section Requirement	Steps to Compliance	Compliance Status	Implementation Notes
39 - Transition existing contracts	<ul style="list-style-type: none"> Existing contracts for rail vehicle and bus purchases, signed prior to July 1, 2011 are exempt from meeting the technical requirements outlined in the standard TTC has existing contracts for rail vehicles and bus purchases that were signed before July 1, 2011 	Compliant	Although exempted, given that contracts were signed prior to 2011, efforts are made to comply on Toronto Rocket subway cars and low-floor streetcars
40 - Transition existing vehicles	<ul style="list-style-type: none"> Any vehicles that are retrofitted must include modifications to meet the technical requirements of the Standard, except those that would impact the structural integrity of the vehicle 	Compliant	The TTC does not plan to retrofit any vehicles that do not currently meet the technical requirements outlined in the IASR.
41 - Accessibility plans, conventional transportation services	<ul style="list-style-type: none"> A process for managing, evaluating and acting on customer feedback is in place and the TTC holds an annual public meeting on accessibility issues. 	Compliant	TTC acts on customer feedback provided through the annual Public Forum on Accessible Transit, by ACAT, and through Customer Service Complaints, addressing individual complaints where possible, and incorporating longer-term initiatives into the multi-year accessibility plan.
42 - Accessibility plans, specialised transportation services	<ul style="list-style-type: none"> Identify the process for estimating the demand for specialised services in the accessibility plan. Develop steps to reduce wait times for specialized transportation services. 	Compliant	Over the term of this Plan, Wheel-Trans will continue to take steps to reduce wait times for transit services by continuing to upgrade the scheduling and dispatching software in order to provide the customer with a more precise trip time based on various conditions such as road closures, weather and traffic conditions.
43 - Accessibility plans, conventional and specialized transportation services	<ul style="list-style-type: none"> Procedures with respect to accessibility equipment failures on vehicles detailed in the accessibility plan. Incorporate existing procedures into plan 	Compliant	These procedures have been incorporated into the TTC accessibility plan since 2013. Detailed information is provided at the end of Attachment 3.
44 - General responsibilities	<ul style="list-style-type: none"> Operators deploy ramps and lifts upon request Operators ensure that customers with disabilities have adequate time to board and be secured with assistance provided upon request 	Compliant	Bus and Streetcar Operators deploy ramps on request and provide adequate boarding time. Customers are secured on request on buses. Training is embedded within initial hire, recertification and requalification training programs.
45 - Alternative accessible method of transportation	<ul style="list-style-type: none"> Section applies only to conventional service providers who do not also provide specialized service 	N/A	N/A - not applicable as TTC provides both types of services.

Attachment 4 - AODA Integrated Accessibility Standards Regulation - TTC Compliance Status

IASR Section Requirement	Steps to Compliance	Compliance Status	Implementation Notes
46 - Fares	<ul style="list-style-type: none"> Transit providers cannot charge customers with a disability a higher fare than customers without a disability 	Compliant	TTC does not charge a higher fare for customers with disabilities
47 - Transit stops	<ul style="list-style-type: none"> Drop off customers with disabilities at the closest available safe location should their desired stop be inaccessible Operators promptly report any temporarily inaccessible stop or temporary barrier to the appropriate authority 	Compliant	Bus Operators are trained to drop off customers at the closest available safest location should their desired stop be inaccessible. Streetcars cannot stop between stops due to curb ramp and/or platform requirements. Training is embedded within each module of the initial hire, recertification and requalification training programs.
48 - Storage of mobility aids and mobility assistive devices	<ul style="list-style-type: none"> TTC does not provide storage locations for mobility aids and devices 	N/A	N/A as the TTC does not provide storage locations for mobility aids and devices and does not have vehicles with separate baggage compartments outside the passenger compartment.
49 - Courtesy seating	<ul style="list-style-type: none"> Every public transit vehicle has designated seating for people with disabilities only, which is clearly marked as such, as close as practicable to the front door Develop a communications strategy designed to inform the public about the purpose of courtesy seating 	Compliant	<p>All TTC vehicles have Priority Seating marked by decals inside the vehicle. As a further improvement, TTC has retrofitted all Priority Seats with blue seat fabric.</p> <p>TTC has an ongoing communications campaign to communicate the purpose of its Priority Seating areas through public address announcements, posters in subway stations and onboard vehicles, on the TTC website, and via other means.</p>
50 - Service disruptions	<ul style="list-style-type: none"> During a service disruption that is known in advance, make alternate arrangements that are accessible, or alternate accessible arrangements that are made for customers with disabilities Information on alternate arrangements is communicated in a manner that takes into account the person's disability 	Compliant	During a planned subway disruption, a Wheel Trans bus is allocated to the end terminals of the shuttle service. If both Wheel Trans vehicles are in use, a shuttle bus will be diverted to transport customers with disabilities to the next available accessible station.
51 a) - Pre-boarding announcements	<ul style="list-style-type: none"> Pre-boarding verbal announcements of the route, direction, destination or next major stop are made, on request 	Compliant	During a routine planned bus disruption, a Wheel Trans bus is not allocated to the end points of the bus shuttle. If the bus shuttle is large in scale, situational assessments are conducted and special arrangements made, if required.
		Compliant	Bus and Streetcar Operators provide information on request to customers prior to boarding.

Attachment 4 - AODA Integrated Accessibility Standards Regulation - TTC Compliance Status

IASR Section Requirement	Steps to Compliance	Compliance Status	Implementation Notes
51 b) - Pre-boarding announcements	<ul style="list-style-type: none"> • Pre-boarding automated announcements of the route, direction, destination or next major stop must be made. 	In progress	As of January 1, 2017, electronic pre-boarding route/destination announcements are available on all TTC buses and streetcars. Implementation of electronic pre-boarding route/destination announcements is available on subway Lines 3 and 4; however, implementation on Line 1 and 2 trains has been delayed due to technical challenges. Work is underway to provide these announcements on all subway trains as soon as possible in 2019; therefore, TTC is working towards full compliance with this requirement.
52 a) - On-board announcements	<ul style="list-style-type: none"> • On-board verbal announcements of destination points or available route stops are made while the vehicle is being operated 	Compliant	TTC Stop Call System fully implemented. Monthly audits are conducted to ensure compliance. Operators are trained to announce next major stops if computerized system fails.
52 b) - On-board announcements	<ul style="list-style-type: none"> • On-board automated announcements of destination points or available route stops must be made while the vehicle is being operated, audibly and visually 	Compliant	Automated audible and visual on-board announcements are made in all buses, streetcars, and new Toronto Rocket subway cars. Audible announcements are made in all remaining subway cars; however, all stops are clearly marked on station walls an in-car maps.
53 - Grab bars, handholds, handrails, stanchions	<ul style="list-style-type: none"> • Provide for grab bars and stanchions throughout the vehicle to assist persons with disabilities 	Compliant	All TTC vehicles include grab bars and stanchions.
54 - Floors and carpeted surfaces	<ul style="list-style-type: none"> • Provide flooring on-board public transportation vehicles that is slip resistant and produces minimal glare. If carpeted, be of low pile and securely fastened 	Compliant	All TTC vehicles include slip-resistant flooring that minimizes glare.
55 - Allocated mobility aid spaces	<ul style="list-style-type: none"> • Provide two allocated mobility aid spaces on board public transit vehicles as specified, both of which must meet the space requirements set out in the Regulation • Spaces equipped, as appropriate, with securement devices 	Compliant	Two mobility device spaces are provided on all new TTC vehicles. Securement devices are provided on buses. TTC does not believe that these devices are "appropriate" for rail vehicles and ACAT is in agreement.

Attachment 4 - AODA Integrated Accessibility Standards Regulation - TTC Compliance Status

IASR Section Requirement	Steps to Compliance	Compliance Status	Implementation Notes
56 - Stop-requests and emergency response controls	<ul style="list-style-type: none"> • Ensure accessible stop request controls are located throughout buses and streetcars • Ensure accessible emergency response controls are located throughout subway cars 	Compliant	<p>All new buses and streetcars have accessible push button stop controls throughout the vehicles.</p> <p>All Toronto Rocket subway cars have lowered accessible emergency response controls at the mobility device seating locations.</p>
57 - Lighting features	<ul style="list-style-type: none"> • Provide adequate lighting at all customer access doors on public transit vehicles 	Compliant	Lighting is provided at all customer access doors on new TTC vehicles.
58 - Signage	<ul style="list-style-type: none"> • Provide vehicle signage that is consistently located, glare free, high contrast and visible at the customer boarding point. 	Compliant	Signage on new TTC vehicles complies with the requirements of the standard.
59 - Lifting devices, ramps	<ul style="list-style-type: none"> • Equip lifting devices and ramps on public transit vehicles with the appropriate safety features 	Compliant	Ramps on all applicable TTC vehicles comply with the requirements of the standard.
60 - Steps	<ul style="list-style-type: none"> • Ensure that any steps on board public transit vehicles are uniform and are outfitted with the appropriate safety features 	Compliant	Buses have steps in the rear that are identified using a high vis yellow inlay on the leading edge
61 - Indicators and alarms	<ul style="list-style-type: none"> • Ensure that ramps and/or lifting devices on public transit vehicles are equipped with appropriate safety features 	Compliant	Indicators and warning alarms on all applicable TTC vehicles comply with the requirements of the standard.

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IASR Section Requirement	Steps to Compliance	Compliance Status	Implementation Notes
63 - Categories of eligibility for specialised services	<ul style="list-style-type: none"> Establish three categories of eligibility: unconditional, temporary and conditional, as per the Regulation Specialized service requests may be denied if the person has the ability to use conventional accessible transit service 	Compliant	As of January 1, 2017, Wheel-Trans introduced a new application process that implemented three new eligibility categories: temporary, conditional, and unconditional. In order to ensure that abilities are correctly categorized, customers complete an application form that allows Wheel-Trans to have a better understanding of the customer's abilities. Another tool introduced to assist in this process was conducting a functional assessment by an independent qualified third party for those applications were not clearly determined through the application process. The category of eligibility is based on the information provided in the application and the results of a functional assessment, when completed. In 2019, Wheel-Trans will introduce a program for the reclassification all customers who were registered prior to January 1, 2017.
64 - Specialised service eligibility application process	<ul style="list-style-type: none"> Determine eligibility within 14 days or provide temporary eligibility Establish an independent appeal process 	Compliant	Our process allows us to determine eligibility within 14 days or provide temporary eligibility. An independent appeal process is in place.
65 - Specialised service on emergency or compassionate grounds	<ul style="list-style-type: none"> Provide service earlier than 14 days when services are required on emergency or compassionate grounds 	Compliant	Our process allows us to provide service earlier than 14 days when services are required on emergency or compassionate grounds.
66 - Fare parity	<ul style="list-style-type: none"> Ensure that there is fare parity between conventional and specialized transportation services Same fare payment options are available for all services, with alternate options available for people who cannot use a fare payment option because of their disability 	Compliant	TTC has fare parity between conventional and Wheel-Trans services. Bus and streetcar operators are permitted to assist customers with disabilities with depositing fares in the farebox. New PRESTO vending devices are equipped with accessibility features.
67 - Visitors on specialised services	<ul style="list-style-type: none"> Make specialised services available to visitors who are eligible for specialised services where they reside, or who meet WT eligibility requirements 	Compliant	Specialized services are available for visitors, on request.
68 - Origin to destination of specialised service	<ul style="list-style-type: none"> Provide origin to destination services, which may include services on conventional transit 	Compliant	TTC's Wheel-Trans division provides origin to destination services to eligible customers.

Attachment 4 - AODA Integrated Accessibility Standards Regulation - TTC Compliance Status

IASR Section Requirement	Steps to Compliance	Compliance Status	Implementation Notes
80.21 - 80.31 - Exterior Paths of Travel	<ul style="list-style-type: none"> Incorporate accessibility requirements into new or redeveloped exterior paths of travel, including ramps, stairs, curb ramps, depressed curbs, accessible pedestrian signals, and rest areas 	Compliant	Changes have been made to TTC design standards to comply with these requirements.
80.32 - 80.38 - Accessible Parking	<ul style="list-style-type: none"> Incorporate accessible parking requirements into new or redeveloped off-street parking facilities. 	Compliant	Changes have been made to TTC design standards to comply with these requirements.
80.40 - 80.43 - Obtaining Services	<ul style="list-style-type: none"> All newly constructed service counters and fixed queuing guides must incorporate accessibility requirements All newly constructed or redeveloped waiting areas must incorporate accessibility requirements 	Compliant	All newly constructed service counters and fixed queuing guides will comply.
80.44 - Maintenance	<ul style="list-style-type: none"> Include procedures for preventative and emergency maintenance of the accessible elements in S.80 and procedures for temporary disruptions of accessible elements in the multi-year accessibility plan. 	Compliant	TTC's policy for "Preventative and Emergency Maintenance of Accessible Elements in Public Spaces" is available in the Accessibility Policies section of the TTC website.
80.46 - 80.51 - Accessible Customer Service	<ul style="list-style-type: none"> Use reasonable efforts to ensure that policies governing provision of goods, services and facilities are consistent with the principles outlined in the AODA Customer Service Standards. 	Compliant	TTC's Accessible Customer Service Policy is available on the TTC website and details TTC policies regarding communications, assistive devices, service animals, support persons, notice of service disruptions, training, feedback, and accessible formats and communications supports.

Attachment 4 - AODA Integrated Accessibility Standards Regulation - TTC Compliance Status

IASR Section Requirement	Steps to Compliance	Compliance Status	Implementation Notes
69 - Coordinated specialised services between municipalities	<ul style="list-style-type: none"> Facilitate connections between specialised services in adjacent municipalities 	Compliant	Cross boundary committee meets five times per year and sets clear goals and objectives for providing a seamless cross-boundary experience. TTC and other GTHA specialized transit providers have agreed to eliminate the requirement for a formal application process when eligible riders using mobility aids wish to use the specialized service of another GTHA jurisdiction.
70 - Hours of specialised services	<ul style="list-style-type: none"> Specialised service will, at a minimum, have the same hours of service as conventional services 	Compliant	Wheel-Trans service is available 24/7/365.
71 - Specialised services booking arrangements	<ul style="list-style-type: none"> Provide same-day bookings if possible, otherwise accept booking requests up to 3 hours before the end of service of the previous day The reservation process must be accessible 	Compliant	Reservation requests will be accepted up to the close of reservation lines for next day service. Same day service is provided to accessible Family of Services routes with 4 hours' notice.
72 - Specialised services - trip restrictions	<ul style="list-style-type: none"> No limits on the number of trips an eligible person is able to request Policies regarding consistent no-shows or cancellations must be reasonable 	Compliant	There are no limits on the number of trips an eligible person is able to request. Our policies regarding consistent no-shows and cancellations are reasonable.
73 - Specialised services - service delays	<ul style="list-style-type: none"> Provide information on the duration of service delays (30 minutes or greater after the scheduled pickup time) 	Compliant	An IT solution for automatic call-outs is being developed in the new scheduling and dispatching software. Wheel-Trans continues to use a manual process until this feature is finalized.
74 - Companions and children on specialised service	<ul style="list-style-type: none"> Allow companions to travel with persons with disabilities if space is available Allow dependents to travel with a person with a disability who is the parent/guardian of the dependant if appropriate child restraint securement systems and equipment are, if required, available 	Compliant	One Support Person or companion or all dependent children may travel with people with disabilities from Monday to Friday. As many companions as space is available for may travel with people with disabilities on weekends.

Appendix B: TransLink Zone Fare Map



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