

APPENDIX E




Evaluation of Network Alternatives







Summary Evaluation Matrix

Principle	Question	Alternative 1: Existing Conditions	Alternative 2: Current Policy Framework	Alternative 3: Emerging Vision
 <p>CHOICE</p>	Does it promote a shift towards sustainable modes of transportation?	No Does not provide adequate amount of sidewalks (6.7 km) and dedicated cycling lanes (0 km)	Partially Provides for increased sidewalks (10 km) and dedicated cycling lanes (5 km)	Yes Identifies the most sidewalks (15 km) and dedicated cycling lanes (15 km)
	Does it provide an efficient and integrated transportation network for all users?	No Favours automobile travel	No Does not comprehensively address the study area, or efficiently incorporate proposed transit investments	Yes Identifies connections between the study area and surrounding communities to transit investments via walking and cycling
 <p>EXPERIENCE</p>	Does it support an attractive and vibrant public realm and sense of place?	Partially Provides some sense of place on segments of Borough Drive, Albert Campbell Square and main entrance to mall	Partially Provides for an improved sense of place through mixed land use, with a focus on the pedestrian and cycling experience	Yes Builds upon Alternative 2 and defines street types based on Complete Streets Guidelines
	Does it allow for the convenient and safe movement of users of all modes of transportation?	No Favours automobile travel through existing street design. Lacks wayfinding and active transportation connections	No Identifies a pedestrian network, but does not define a wayfinding and signage strategy	Yes Provides a defined and unique strategy for the Centre, specifying wayfinding improvements to street design
 <p>SOCIAL EQUITY</p>	Does it provide for opportunities to improve connectivity to work, school and other destinations?	Partially Key routes and transit stations are not well-connected to key origins/destinations	Partially Some improved connections to key origins/destinations	Yes Adds new connections for the entire Centre
	Does it accommodate all users, including vulnerable street users?	Partially Does not fully comply with AODA, but does provide accessibility ramps in Albert Campbell Square and provides elevators in Scarborough Centre TTC Station	Partially Does not improve all accessibility deficiencies in the network	Yes Complies with AODA with regards to transportation network
 <p>HEALTHY NEIGHBOURHOODS</p>	Does it support the mixed-use and transit-oriented vision of the Secondary Plan?	No Does not achieve the objectives set out by the provincial and municipal policies	Partially Complies with planning policies, but identifies further work is required for planning complete transportation network and facilities	Yes Builds upon Alternative 2 and related planning policies, recommending a master plan for new transportation facilities throughout the study area
	Does it create a transportation network and block plan that supports a vibrant urban centre?	No Encourages automobile travel through large blocks and street design	Partially Provides guidelines for intersection spacing to encourage pedestrian activity for the McCowan Precinct	Yes Proposes a fine-grained transportation network for the entire Centre
 <p>SHAPING THE CITY</p>	Does it improve connectivity and access within the Centre and to/from surrounding communities?	No Does not provide adequate connections within Scarborough Centre and to/from surrounding communities	Partially Creates policy framework for improving connectivity	Yes Reconfigures transportation network for better connections between Scarborough Centre and surrounding communities
	Does it encourage and support active and sustainable modes of transportation?	Partially Provides few transportation demand management (TDM) measures	Partially Provides general TDM recommendations only	Yes Identifies strategies for car share, bike share, demand-responsive transit, and outreach programs that encourage the use of active modes of transportation
 <p>PUBLIC HEALTH & ENVIRONMENT</p>	Does it minimize the impact on the natural environment and cultural heritage?	Yes Does not impact existing natural environmental and cultural heritage	Partially May impact ecology, built/cultural heritage or areas with archaeological impact	Partially Potential greater impact on ecology, built/cultural heritage or areas with archaeological impact
	Does it support and enhance the open space network?	Partially Maintains existing open spaces, but does not propose new open space connections	Yes Promotes enhancements to the natural environment to improve the livability and sense of place in the Centre	Yes Offers new connections to parks and open spaces throughout the Centre
 <p>AFFORDABILITY</p>	Is it economically feasible to implement (considering full life cycle costs, impact to utilities, durability and future expansion opportunities)?	Yes Does not require investment for transportation network changes, but requires operating and maintenance costs	Partially Requires some investments from public and private sector	Partially Requires greater investment from public and private sector
 <p>SUPPORTING GROWTH</p>	Does it encourage public and private investments?	Partially Provides some potential for development on large parcels of land	Partially Improves development potential in the Centre	Yes Improves development potential in the Centre and maximizes connections and accessibility to the proposed public investments in transit
	Does it allow for the safe and efficient movement of goods?	No Does not address the movement of goods and designated truck routes	No Does not address the movement of goods and designated truck routes	Yes Provides designated truck routes that are more efficient and separated from non-motorized traffic


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	Does it promote a shift towards sustainable modes of transportation?	Pedestrian and cycling infrastructure	Kilometres of sidewalks and dedicated cycling lanes within the Centre	<ul style="list-style-type: none"> Provides 6.7 km of sidewalks and 0 km of dedicated cycling lanes 	<ul style="list-style-type: none"> Increases length of total sidewalks to 10km and length of dedicated cycling lanes to 5 km 	<ul style="list-style-type: none"> Identifies the most sidewalks (15km) and dedicated cycling lanes (15km)
	Does it provide an efficient and integrated transportation network for all users?	Integration between modes of transportation	Types of transfer points that allow for efficient mixed-mode travel	<ul style="list-style-type: none"> In general, pedestrian network is fragmented and dedicated cycling facilities are non-existent, making neither option a viable choice Key transfer points include: <ul style="list-style-type: none"> Scarborough Centre TTC Station (Bus, Pedestrian, and SRT) McCowan and Midland TTC Stations (Bus, Pedestrian and SRT) Other Bus Stops, e.g. Corporate Drive/Lee Centre Drive, Ellesmere/McCowan, Ellemere/Brimley (Bus, Transit) 	<ul style="list-style-type: none"> Multi-modal street network for the McCowan, Civic, and Town Centre Commercial Precincts Partially addresses connections between Precincts and surrounding communities. For example, pedestrian and cycling access across Highway 401 New subway and bus terminal will not be connected by a compatible street pattern due to adjacent grade separations (Progress Avenue and Corporate Drive with McCowan Road) and channelized right turns (Bushby Drive to McCowan Road) that limit pedestrian and cycling connections Bus routes and stops are not modified to incorporate new bus terminal 	<ul style="list-style-type: none"> Builds upon Alternative 2 Develops a comprehensive street network for all precincts and includes connections between precincts Progress Avenue and McCowan Road, as a signalized at-grade intersection, will allow for stronger pedestrian/cycling connections to transit Bushby Drive channelized right turn onto McCowan Road is removed for better pedestrian and cycling connectivity Bus routes and stops are modified to incorporate new bus terminal and to provide local transit service to the Centre Provides recommendations to improve pedestrian and cycling connections to communities to the north (reconfiguration of three highway 401 interchanges) and south (reconfiguration of Ellesmere Road intersections with Borough Approach East and West) in order to have better accessibility to the Centre without the need of an automobile
	Does it support an attractive and vibrant public realm and sense of place?	Appropriate street type and design that accommodates all modes of transportation	Identify the street type and its adherence to the design principles outlined in the Complete Streets Guidelines	<ul style="list-style-type: none"> Segments of Borough Drive adhere to a Civic Street based on the Complete Streets Guidelines. The segment in front of the library respects local context, creates an attractive public space Most streets throughout the entire study area are designed to favour automobile travel and fail to adhere to the Complete Street Guidelines (Streets for People, Placemaking, Prosperity) 	<ul style="list-style-type: none"> The Scarborough Centre Secondary Plan envisions McCowan Road, Ellesmere Road and Brimley Road, as mixed-use streets that promote commercial and retail with surface transit Progress Avenue is envisioned to contain an animated pedestrian streetscape The Brimley corridor is intended to function as a major connection to/from the Centre and support adjacent mixed land-uses The McCowan Precinct plan envisions Bushby Drive (and its extension) as a promenade that connects the future park and school facilities, with a high level of pedestrian activity 	<ul style="list-style-type: none"> Builds upon Alternative 2 to develop design principles based on Complete Streets Guidelines. Segments of Borough Drive, and east and west approaches will draw from design guidelines for Civic Streets due to significant adjacent institutional uses Brimley Road, Progress Avenue, segments of Borough Drive, and McCowan Road will reflect the design principles of Downtown and Centres Main Streets and support a wide range of land uses and activities for all modes of transportation Ellesmere Road is proposed as a Mixed-Use Connector Street with high-order surface transit routes and separated cycling facilities Segments of Corporate Drive, Town Centre Court, Omni Drive, Grangeway Avenue, and other streets will be developed using Downtown and Centres Residential Streets design elements with a high level of pedestrian and cycling activity and moderate level of automobile traffic Proposes several Employment Streets to connect truck and goods movement
	Does it allow for the convenient and safe movement of users of all modes of transportation?	User-friendly signage and wayfinding: active transportation connections	Assessment of the following wayfinding signage components: directional/locational, introduction, identification, and vehicle and pedestrian signage to enhance connections to key origins/destinations	<ul style="list-style-type: none"> There is a lack of a uniform, comprehensive system of signage to help residents and visitors navigate the Centre. For example, there is no introductory signage leading into Scarborough Centre, with the exception of one sign on McCowan Road. Directional/locational signage is inconsistent, with different colors, sizes and logos. Vehicle wayfinding is present but is not comprehensive and some signs are worn-off and illegible. Pedestrian wayfinding is minimal. There is no signage or wayfinding inside the mall parking structures to provide directions toward exits or to access the mall; however, there are several pedestrian connections and accessibility elevators. Lacks an intuitive and connected active transportation network to connect to key origins and destinations 	<ul style="list-style-type: none"> Provides a general recommendation that the City is to develop a comprehensive wayfinding strategy for the study area Provides the policy framework for enhancing active transportation networks and providing better connections between key origins and destinations 	<ul style="list-style-type: none"> Recommends developing a comprehensive strategy for a unique signage and wayfinding program that respects the context of the Centre. This includes identifying best practice for intuitive navigation of all modes of transportation, such as: <ul style="list-style-type: none"> Directional signage for all modes of travel, comprehensive of private developments Locational signage for context within the Centre for pedestrians and cyclists to help navigate major destinations and connections in the Centre Introductory signage to provide unique character to the Centre Identification of different vehicle and pedestrian signage types Wayfinding and signage will be used to enhance the active transportation environment and to enhance connections between destinations Provides the policy framework and comprehensive active transportation networks and providing better connections between key origins and destinations
	Does it provide for opportunities to improve connectivity to work, school and other destinations?	Changes in accessibility to desired destinations	Number of connections	<ul style="list-style-type: none"> Key routes to destinations and transit stations, particularly between Progress Avenue and McCowan Road, are not accessible 	<ul style="list-style-type: none"> Provides policy context for creating a well-defined, cohesive and connected public realm that will provide connections to key destinations 	<ul style="list-style-type: none"> Recommends that all major destinations and transportation facilities in the study area be accessible Includes retrofitting existing connections and adding newly accessible pedestrian connections in the study area
	Does it accommodate all users, including vulnerable street users?	Improves mobility for vulnerable users	Compliance with Accessibility for Ontarians with Disabilities Act (AODA)	<ul style="list-style-type: none"> Does not fully comply with AODA, but does provide accessibility ramps in Albert Campbell Square and elevators in Scarborough Centre TTC station 	<ul style="list-style-type: none"> Does not improve all accessibility deficiencies in the network 	<ul style="list-style-type: none"> Complies with AODA and provides design guidelines and policy recommendations for all transportation facilities in the study area (streets, ramps, intersections, parking, transit stops and transfers, wayfinding, and crossings).

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 <p>HEALTHY NEIGHBOURHOODS</p>	Does it support the mixed-use and transit-oriented vision of the Secondary Plan?	Reflects planning policies	Compliance with the vision of the Scarborough Centre Secondary Plan as outlined in policies relating to transportation and mobility	<ul style="list-style-type: none"> Does not achieve the objectives set out by the provincial and municipal policies 	<ul style="list-style-type: none"> Complies with planning policies, but identifies further work is required for planning complete transportation network and facilities 	<ul style="list-style-type: none"> Builds upon Alternative 2 and related planning policies, recommending a master plan for new transportation facilities throughout the study area. Recommends design guidelines for street types drawing from Complete Streets Guidelines Provides recommendations for transit-oriented developments surrounding new transit investments
	Does it create a transportation network and block plan that supports a vibrant urban centre?	Consistency with mixed-use principles	Simplified grid/street network (average block size)	<ul style="list-style-type: none"> Consists of large development blocks (greater than 150 m intersection spacing) that encourage automobile dependency. With 0.14 intersection per hectare, the Centre currently favours automobile travel 	<ul style="list-style-type: none"> Proposes a simplified grid/street network with intersection spacing ranging from 80-150m for the McCowan Precinct. The Town Centre Commercial and Civic Precincts follow the same principle, but no grid is proposed for the Brimley Precinct. Such intersection spacing provides for pedestrian-oriented blocks that allow for large enough development parcels in the range of 0.36 to 0.7 hectares 	<ul style="list-style-type: none"> Builds upon the design framework for the McCowan Precinct Plan, by proposing a simplified grid/street network for the entire Centre area, with intersection spacing ranging from 80-120 m, which allows for a more human-scale block pattern and still provides opportunity for development
 <p>SHAPING THE CITY</p>	Does it improve connectivity and access within the Centre and to/from surrounding communities?	Review of impact to safety and comfort for all modes	Road diets, safe pedestrian and cycling crossing locations, the operation of bus routes/stops in the Centre and the removal of channelized right turns and ramps	<ul style="list-style-type: none"> Includes 3 Channelized right turns (Borough Approach East and West at Ellesmere Road, Bushby Drive and McCowan Road), 10 ramps along McCowan Road, 2 ramps at Brimley Road interchange Barriers to active (Pedestrian & cycling) crossings Bus routes undertake complex routes and manoeuvres to enter bus terminal 	<ul style="list-style-type: none"> Provides the policy framework for improved connectivity and identifies the need to improve connections by removing channelized right turns, identifies Brimley off-ramp to be reconfigured and removal of channelized right turn from Bushby Drive to McCowan Road. Thus includes: <ul style="list-style-type: none"> 2 channelized right turns (unchanged) 10 ramps on McCowan Road (unchanged) Does not address bus routes 	<ul style="list-style-type: none"> Reconfiguration of McCowan Road (with removal of ramps and grade separations). This includes normalization of the Progress Avenue and McCowan Road intersection, and removal of the ramps. Also normalizes the Bushby Drive/McCowan Road intersection and removes all channelized right turns. Thus includes: <ul style="list-style-type: none"> 0 channelized right turns Removal of 4 ramps from McCowan Road Reconfiguration of the Highway 401 interchange and ramps to allow for better pedestrian and cycling connections Improves bus routing
	Does it encourage and support active and sustainable modes of transportation?	Incentive measures to promote active modes of transportation	Number of transportation demand management (TDM) measures	<ul style="list-style-type: none"> Provides few TDM measures Existing strategies include bike lockers, private car share and SmartCommute Workplaces 	<ul style="list-style-type: none"> Generally recommends TDM strategies, such as car share, to reduce auto-dependency. 	<ul style="list-style-type: none"> Recommends identifying strategies for car share, bike share, a demand-responsive internal bus terminal, and outreach programs to increase active and sustainable modes of transportation in the study area. Provides transit-oriented development guidelines for new developments Reduces high-speed vehicle traffic on major streets
 <p>PUBLIC HEALTH & ENVIRONMENT</p>	Does it minimize the impact on the natural environment and cultural heritage?	Impact on area ecology, built/cultural heritage and areas with archaeological potential	Size of area and number of features affected	<ul style="list-style-type: none"> No impact to ecology, built/cultural heritage or areas with archaeological impact 	<ul style="list-style-type: none"> Some impact to ecology, built/cultural heritage or areas with archaeological impact. Proposed changes to the transportation network that may conflict with areas of archaeological potential include improvements such as proposed extension of Bushby Drive and reconfiguration of the Brimley interchange 	<ul style="list-style-type: none"> Potentially greater impact on ecology, cultural heritage and areas of archaeological potential. The following proposed changes to the transportation network may conflict with areas of archaeological potential: <ul style="list-style-type: none"> Reconfigure form, function and operation along the McCowan Road corridor, specifically at Progress Avenue Development of a simplified grid/street network on empty land parcels (such as the land between Borough Drive and Brimley Road)
	Does it support and enhance the open space network?	Improves open space connections in the study area	Number of connections to open space areas for all modes of transportation	<ul style="list-style-type: none"> Maintains existing open spaces, but does not propose new open space connections 	<ul style="list-style-type: none"> Promotes the enhancement of the natural environment to provide relief from the urban context of the area and improve the livability, desirability, and sense of place in the Centre 	<ul style="list-style-type: none"> Offers new connections to open spaces throughout the Centre and incorporates wayfinding with trails and green spaces to become viable and strong connections for active modes of transportation. Will provide policy recommendations to encourage transit-oriented developments by outlining appropriate zoning by-laws and parking requirements for the Centre.
 <p>AFFORDABILITY</p>	Is it economically feasible to implement (considering full life cycle costs, impact to utilities, durability and future expansion opportunities)?	Implements improvements considering full life cycle costs, impact to utilities, durability and future expansion opportunities	Capital, operating, and maintenance costs	<ul style="list-style-type: none"> Requires no cost for transportation network improvements, but requires operating/maintenance costs for existing infrastructure. Existing structures are approaching the time for scheduling minor maintenance repairs as per bridge inspection reports. In the next 20-30 years, these existing structures will be required to schedule major bridge repairs. Asphalt repairs will also be required as identified by the City of Toronto's Pavement Design Guidelines 	<ul style="list-style-type: none"> Requires capital resources for the development of the following solutions: <ul style="list-style-type: none"> The extension of Bushby Drive to the lands at 705 Progress Avenue, and designating the Bushby Drive Promenade with a generous right-of-way for public green space Enhancing the Corporate Drive underpass and Progress Avenue Bridge (including public art, lighting, plants, wide sidewalks, etc.) Eliminating and/or reconfiguring vehicular ramps between Bushby Drive and McCowan Road Redesigning of Brimley Road/Highway 401 interchange Enhancing the function of Borough Drive between Borough Approach East and West Reconfiguration of Borough Approach East and West intersections at Ellesmere Road Widening of Ellesmere Road from McCowan Road to Morningside Avenue Constructing new streets to divide large parcels of land in the Centre Building a new bridge on Bellamy Road to Milner Avenue Establishing a 'Gateway' at McCowan Road and Town Centre Court/Bushby Drive Creating dedicated bike lanes on McCowan Road south of Progress Avenue, on Town Centre Court/Bushby Drive Extension from Borough Drive East to the 705 Progress Avenue site Marking of bike lanes and/or sharrows on Progress Avenue, Consilium Place/Grangeway Avenue, and Corporate Drive 	<ul style="list-style-type: none"> Builds upon all the solution of Alternative 2, and includes the following solutions that require significant investments: <ul style="list-style-type: none"> Removing the grade separation at the intersection of McCowan Road and Progress Avenue Enhancing east-west connections through Albert Campbell Square by connecting with the proposed Bushby Drive Promenade Enhancing Borough Drive into a complete Civic Street with a cluster of public landmarks and open spaces Redesigning Highway 401 interchanges to improve safety for pedestrians and cyclists Reconfiguring the form, function and operation of the transportation network along McCowan Road Determining the function and operation of Triton Road, including transit (bus) access, servicing and routes, and connections for active modes of transportation Identifying crossing opportunities including mid-block crossing and conflict points that require enhancements for pedestrians and cyclists Identifying the type and location of parking required within the Centre and recommends appropriate parking strategies and measures to help reduce automobile dependency Designating pedestrian/cycling connections to encourage residents and visitors of the Centre to rely less on automobiles Developing a wayfinding and signage strategy to aid in the navigation of all modes of travel Reconfiguring the SRT corridor/infrastructure into green east-west connections and pathway <ul style="list-style-type: none"> Widening of Ellesmere Road from McCowan Road to Morningside Avenue, to accommodate future transit improvements

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	Does it encourage public and private investments?	Unlocks the potential for development	Size/number of new development properties and accessibility to transit	<ul style="list-style-type: none"> • Large development blocks allow for development of segregated land uses rather than mixed-use and higher density development • Provides constraints to developments in key areas (such as the vacant land north of Bushby Drive). Furthermore, the Centre has not reached 50% of density targets set out by the Places to Grow Act for the year 2031. 	<ul style="list-style-type: none"> • Unlocks potential for developments in the McCowan, Civic, and Town Centre Commercial Precincts. • Does not fully support the accessibility/connectivity to the new subway and bus terminal 	<ul style="list-style-type: none"> • Builds upon Alternative 2, and unlocks development potential in the entire Centre, including the Brimley Precinct. • Reconfigures street network to provide stronger access for pedestrians and cyclists to the new transit investments.
	Does it allow for the safe and efficient movement of goods?	Strategic movement of goods in the Centre	Number of designated and segregated truck routes in the study area	<ul style="list-style-type: none"> • Does not provide truck routing that is segregated from non-motorized traffic 	<ul style="list-style-type: none"> • Does not address the movement of goods or provide designated truck routes that are segregated from non-motorized transit • Provides recommendation for a wayfinding and signage strategy, which would improve truck movement 	<ul style="list-style-type: none"> • Designating truck routes to allow for efficient and reliable goods movement while reducing exposure to pedestrians and cyclists • Improves road and intersection design for greater efficiency of goods movement • Provides improved wayfinding and signage to direct trucks through the Centre