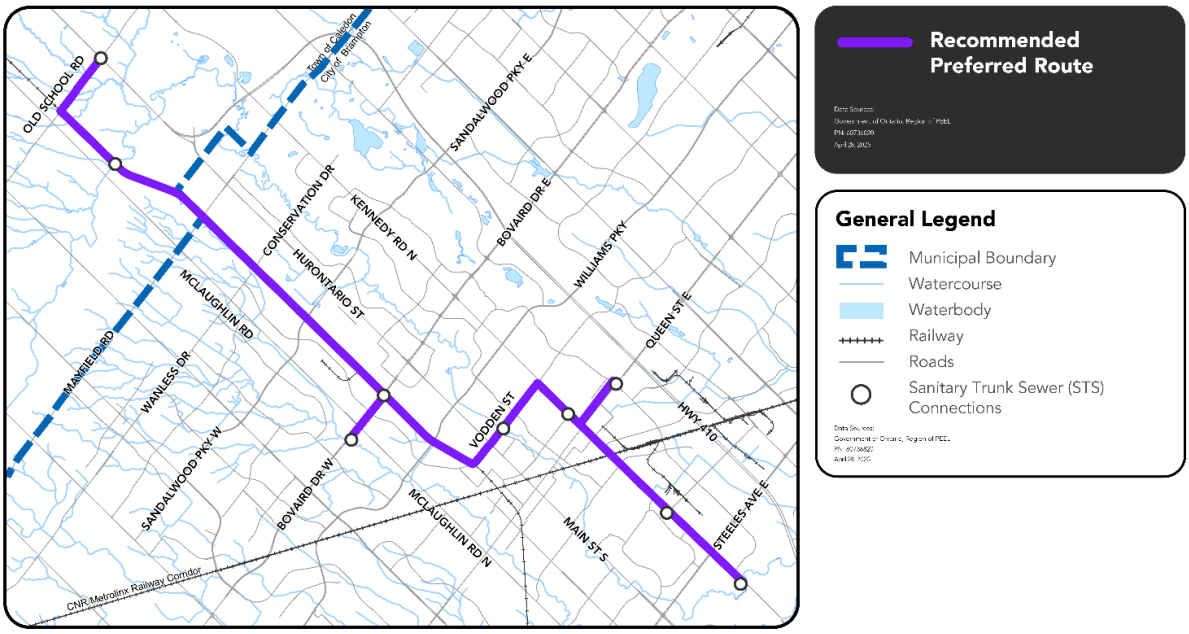
Recommended Preferred Route: How did we get here?

Updated May 2025.

The recommended preferred route is Route S2: Kennedy Road including Vodden Street and Orangeville-Brampton Railway (OBR) Corridor and Route N1: Orangeville-Brampton Railway (OBR) Corridor including Old School Road to Hurontario Street.

Figure 1: Recommended Preferred Route



1. Evaluation method

An evaluation framework was developed based on seven environmental components that together address the broad definition of the environment as described in the *Environmental Assessment Act*. The evaluation framework components and descriptions are as follows:

- **Natural Environment** Component having regard for protecting the natural and physical components of the environment (i.e., air, land, water and biota), including natural heritage and environmentally sensitive areas.
- **Socio-economic Environment:** Component that evaluates potential effects on residents, neighbourhoods, businesses, and community character.
- **Cultural Environment:** Component that considers potential impacts on historical/archaeological and cultural heritage resources.

- **Legal/Jurisdictional:** Component that considers potential land requirements and compliance with planning policies.
- **Technical Environment:** Component that considers the technical suitability and other engineering aspects of the water system.
- **Climate Change:** Component that considers potential effects of climate mitigation and adaptation.
- **Economic/Financial:** Component that compares the potential financial costs.

A comparative evaluation of the short-list routing options is complete and used the established evaluation criteria. The routing options were rated based on their potential constraints relative to other routes, as follows:

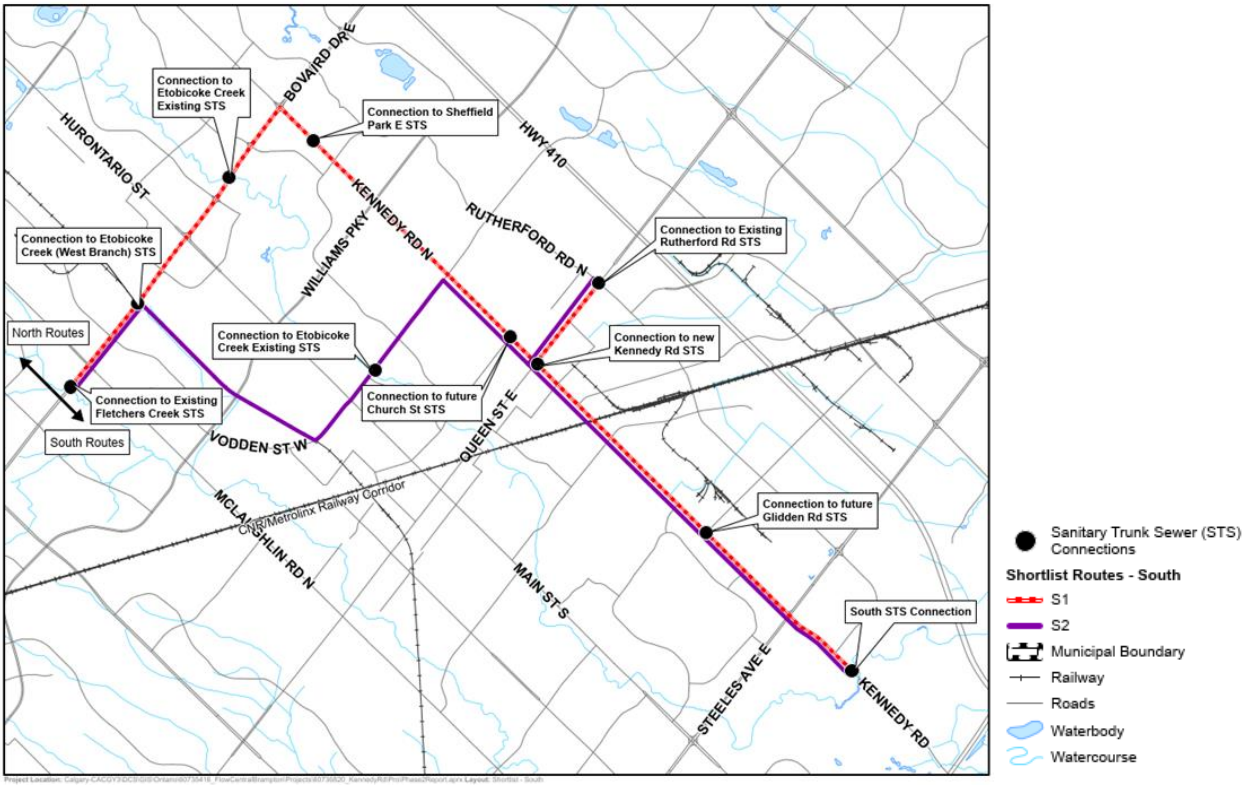
- High Constraints (Least Preferred)
- Medium Constraints (Less Preferred)
- Low Constraints (Preferred)

2. Short-list routes

Short-list routes were identified and shared at PIC #1 for the south and north study areas.

South routes:

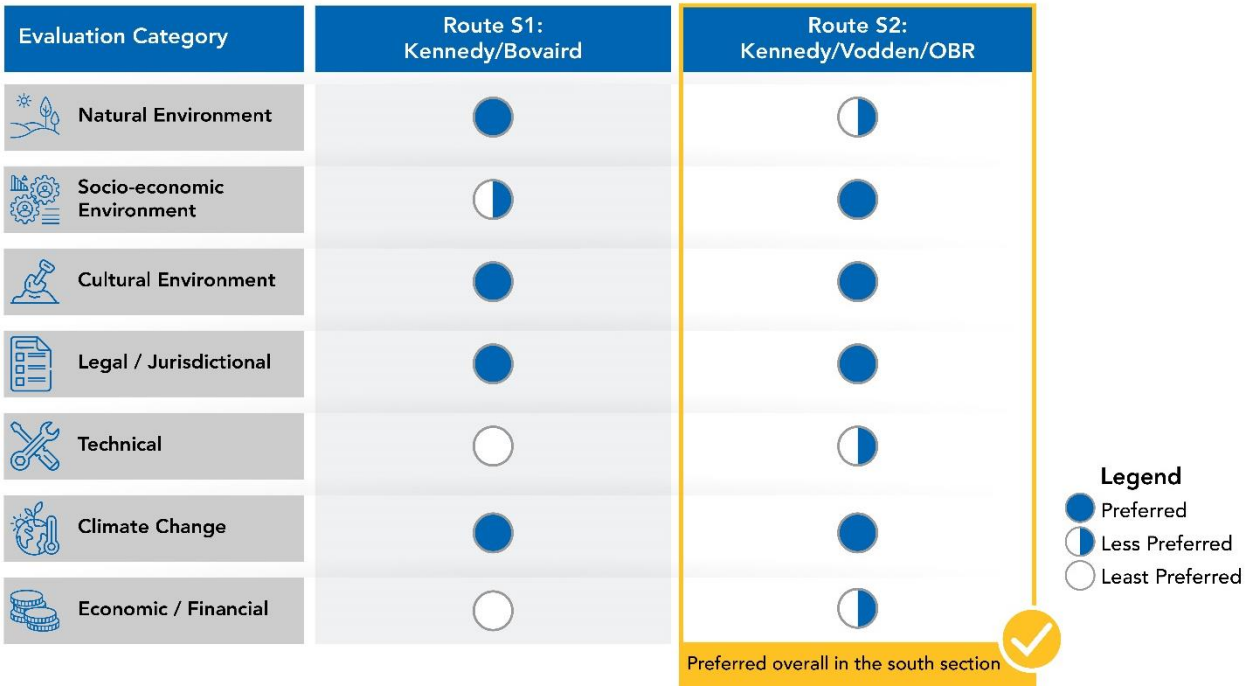
Figure 2: South routes



- Route S1: Kennedy Road including Bovaird Drive
- Route S2: Kennedy Road including Vodden Street and Orangeville-Brampton Railway (OBR) Corridor Route, including a small section of Bovaird Drive (required for connection to existing Fletcher's Creek Sanitary Trunk Sewer, west of McLaughlin Road)
- Queen Street Sanitary Sewer Extension (common to S1 and S2): New Sanitary Trunk Sewer on Queen Street from Rutherford Road North to Kennedy Road North

Route S2: Kennedy Road including Vodden Street and Orangeville- Brampton Railway (OBR) Corridor Route was selected as the recommended preferred south route based on the evaluation results.

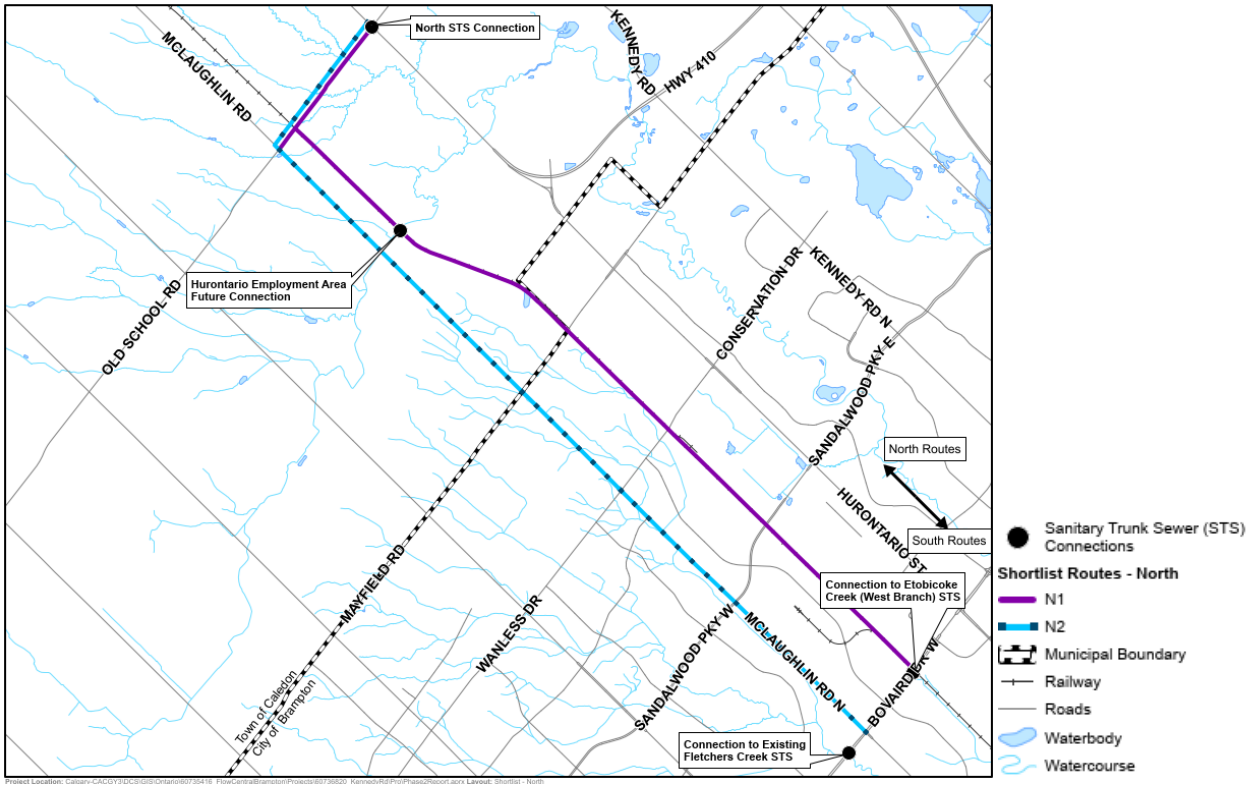
Figure 3: Evaluation results of south routes



Route S2: Kennedy Road including Vodden Street and Orangeville- Brampton Railway (OBR) Corridor Route was selected as the recommended preferred south route based on the evaluation results.

North routes:

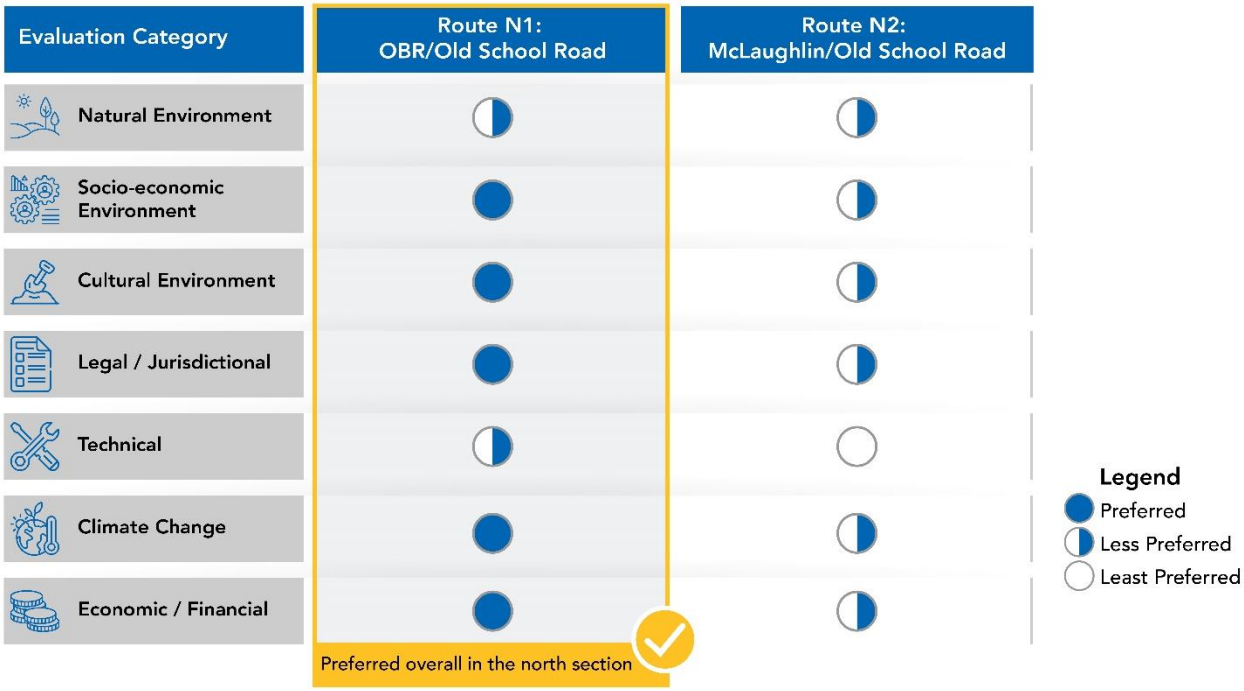
Figure 4: North routes



- Route N1: Orangeville-Brampton Railway (OBR) Corridor including Old School Road Route
- Route N2: McLaughlin Road including Old School Road Route

Route N1: Orangeville-Brampton Railway (OBR) Corridor including Old School Road Route was selected as the recommended preferred south route based on the evaluation results.

Figure 5: Evaluation results of north routes



The tables below include a detailed and preliminary route evaluation matrix for both south and north routes.

Table 1: Preliminary Route Evaluation Matrix Review – South Routes

Category	Evaluation Criteria	Route S1: Kennedy/Bovaird	Route S2: Kennedy/Vodden/Orangeville-Brampton Railway
Natural Environment	Potential effects on water resources.	**Route S1 has three fewer fish-bearing watercourses, and less groundwater management and is preferred from water resources perspective.**	Route S2 has three more fish bearing watercourses and slightly more groundwater management compared to S1.
Natural Environment	Potential effects on terrestrial features.	Minimal loss of vegetation or disruption to sensitive habitats is anticipated along both Route S1 and S2 as the majority of the route will be installed via trenchless methods, with direct impacts limited to exit and entrance shafts, which are largely outside of natural heritage features.	Minimal loss of vegetation or disruption to sensitive habitats is anticipated along both Route S1 and S2 as the majority of the route will be installed via trenchless methods, with direct impacts limited to exit and entrance shafts, which are largely outside of natural heritage features.
Natural Environment	Potential effects on Species at Risk and Species at Risk habitat.	Both route S1 and S2 have similar impacts on Species at Risk and Species at Risk habitat: Twelve Species at Risk may occur within 120 metres of the N1 Route and may be indirectly affected via trenchless methods.	Both route S1 and S2 have similar impacts on Species at Risk and Species at Risk habitat: Twelve Species at Risk may occur within 120 metres of the N1 Route and may be indirectly affected via trenchless methods.
Natural Environment	Potential effects on soil and groundwater.	**From a soil and groundwater contamination perspective, Route S1 is preferred as it has less areas of potential contamination in comparison to the Orangeville Bampton Railway corridor from Vodden Street to Bovaird Drive.**	From a soil and groundwater contamination perspective, Route S2 is less preferred as it uses the Orangeville Bampton Railway corridor from Vodden Street to Bovaird Drive which will require more rigorous measures to address soil and groundwater contamination compared to Route S1.
Natural Environment	**Evaluation Ranking**	**Route S1 is preferred from overall Natural Environment perspective.**	—
Socio-economic	Number of potentially impacted sensitive receptors during construction (e.g., increased noise, dust, vibration and reduced access to property and businesses).	Route S1 impacts the same number of sensitive receptors (17) however anticipate potential impacts to high traffic commercial areas along Bovaird Drive.	**Route S2 impacts the same number of sensitive receptors (17) however it avoids potential impacts to high traffic commercial areas.**

Category	Evaluation Criteria	Route S1: Kennedy/Bovaird	Route S2: Kennedy/Vodden/Orangeville-Brampton Railway
Socio-economic	Traffic and active transportation impacts during construction (e.g., bike lanes, sidewalks, trails)	Route S1 is less preferred as there are more traffic impacts related to higher traffic volumes and anticipated 2-lane closures on Kennedy Road and Bovaird Drive and limited opportunity to enhance active transportation.	**Route S2 is preferred as there are fewer lane closures anticipated along this route (2-lane closures on Kennedy Road and 1-lane closure on Vodden Street). There are also more opportunities to enhance active transportation related to future Orangeville-Brampton Railway multi use trail.**
Socio-economic	Potential impacts on public transit during construction (e.g., bus stop closure/ relocation).	Route S1 impacts rapid transit corridor on Bovaird Drive and Main Street which are higher order transit routes and more impact to bus shelter and transit stops.	**Route S2 is preferred as it avoids impacts to higher order transit routes (e.g., Bovaird Drive) and may result in less impacts to bus shelters and transit stops.**
Socio-economic	Potential impacts on agricultural lands and operations.	No impacts.	No impacts.
Socio-economic	**Evaluation Ranking**	—	**Route S2 is preferred from an overall Socio-Economic Environment perspective.**
Cultural Environment	Potential for loss and/or disturbance to archaeological resources.	Moderate to high archaeological potential for most areas outside of the paved roadway. Highest potential near water bodies and water courses. Similar impacts from an archaeological perspective due to proximity to the Graham East/Graham West Cemetery.	Moderate to high archaeological potential for most areas outside of the paved roadway. Highest potential near water bodies and water courses. Similar impacts from an archaeological perspective due to proximity to the Graham East/Graham West Cemetery.
Cultural Environment	Potential effects on built heritage resources and cultural heritage landscape.	Similar impacts on cultural heritage resources.	Similar impacts on cultural heritage resources
Cultural Environment	**Evaluation Ranking**	**Both Routes score equal from an overall Cultural Environment perspective**	**Both Routes score equal from an overall Cultural Environment perspective**
Legal/Jurisdictional	Compliance with applicable planning policies and potential conflict with planning regulations	Both routes support planned growth, utilize major arterial and/or local collector roads, and have similar amount of construction within conservation authority regulated areas	Both routes support planned growth, utilize major arterial and/or local collector roads, and have similar amount of construction within conservation authority regulated areas

Category	Evaluation Criteria	Route S1: Kennedy/Bovaird	Route S2: Kennedy/Vodden/Orangeville-Brampton Railway
Legal/Jurisdictional	Land requirements (e.g., number of temporary and permanent easements).	Similar impacts from land requirement perspective.	Similar impacts from land requirement perspective.
Legal/Jurisdictional	**Evaluation Ranking**	**Both Routes score equal from a Legal/Jurisdictional perspective**	**Both Routes score equal from a Legal/Jurisdictional perspective**
Technical Environment	Constructability (e.g., sewer/shaft depth).	Route S1 is least preferred due to significantly deeper shafts (10 to 30 metres deep) compared to Route S2.	**Route S2 is preferred due to significantly shallower shafts (15 to 20 metres) compared to Route S1.**
Technical Environment	Permits and approvals (e.g., complexity and duration oof obtaining permits).	Both routes have similar permitting requirements.	Both routes have similar permitting requirements.
Technical Environment	Connection points to existing and future sanitary trunk sewers/sub-trunks.	Connections on Bovaird are expected to pick up less volume of flow upstream thereby freeing up less capacity in the existing wastewater system for future Major Transit Station Areas.	**Route S1 is preferred because connection points on Vodden Street are expected to intercept a greater volume of flow than Route S1, thereby freeing up more capacity for future Major Transit Station Areas.**
Technical Environment	Operations and maintenance (ability to access maintenance chambers and pipes).	Both Routes score equally from operations and maintenance perspective.	Both Routes score equally from operations and maintenance perspective.
Technical Environment	Conflicts with existing utilities.	**Route S1 is preferred as this Route has more space for potential relocation of utilities at shaft locations.**	Less preferred due to less space to implement potential relocations of near-surface utilities at shaft locations.
Technical Environment	Conflicts with existing or planned infrastructure improvements.	Route S1 is expected to have significant conflict with recent Bovaird Drive/active transportation improvements.	**Route S2 is preferred as only minor conflicts are identified with recent active transportation improvements. Also provides an opportunity to coordinate restoration with Orangeville-Brampton Railway multi-use trail.**

Category	Evaluation Criteria	Route S1: Kennedy/Bovaird	Route S2: Kennedy/Vodden/Orangeville-Brampton Railway
Technical Environment	Construction truck traffic management during construction.	**Route S1 is preferred from construction truck traffic perspective (Bovaird Drive is a major arterial road and accommodates significant truck traffic therefore the added truck traffic from construction would not be as impactful).**	Route S2 is less preferred due to impacts related to construction truck traffic. Vodden Street is a local collector road with less truck traffic and therefore added truck traffic from construction will be more impactful.
Technical Environment	**Evaluation Ranking**	—	**Route S2 is preferred from overall Technical Environment perspective.**
Climate Change	Climate change mitigation.	Both routes generate similar amount of greenhouse gas emissions during construction.	Both routes generate similar amount of greenhouse gas emissions during construction.
Climate Change	Climate change adaptation (e.g., vulnerability to climate change effects).	Similar vulnerability to climate change effects related to flooding.	Similar vulnerability to climate change effects related to flooding.
Climate Change	**Evaluation Ranking**	**Both Routes score similar from overall Climate Change perspective.**	**Both Routes score similar from overall Climate Change perspective.**
Economic/Financial	Estimated construction costs.	Route S1 is least preferred from a construction cost perspective due to deep tunnel shafts including extended construction duration within high traffic Right-of-Way.	**Route S2 is preferred from a construction cost perspective due to shallower tunnel shafts and shorter construction duration within lower traffic Right-of-Way.**
Economic/Financial	Estimated operations and maintenance costs.	Higher cost related to accessing shafts in high traffic Right-of-Way corridors (Kennedy Road and Bovaird Drive). Deeper shafts and chambers would require longer maintenance time, specialized equipment and thus cost more.	**Route S2 is preferred due to easier access to shafts related to shallower depth and less traffic volumes in the Right-of-Way (Vodden Street and Orangeville-Brampton Railway alignment). Shallower shafts and chambers would require shorter maintenance time and thus cost less.**
Economic/Financial	**Evaluation Ranking**	—	**Route S2 is preferred from overall Economic/Financial perspective.**
Overall	**Recommended Preferred Solution? (YES/NO)**	**NO**	**YES**

Table 2: Preliminary Route Evaluation Matrix Review – North Routes

Category	Evaluation Criteria	Route N1: Orangeville-Brampton Railway / Old School Road	Route N2: McLaughlin/Old School Road
Natural Environment	Potential effects on water resources.	**Route N1 has ten fewer fish-bearing watercourses, and less groundwater management complexity compared to Route N2.**	Route N2 has ten more fish-bearing watercourses, and more groundwater management complexity compared to Route N1 due to a portion of the Route running parallel to Fletchers Creek Critical Habitat).
Natural Environment	Potential effects on terrestrial features.	Similar impacts: Minimal loss of vegetation or disruption to sensitive habitats is anticipated along this Route as the majority of the Route will be installed via trenchless methods. Route N1 crosses the Provincially Significant Wetland at two locations, however, direct impacts are limited to exit and entrance shafts, which are outside of the Provincially Significant Wetland.	Similar impacts: Minimal loss of vegetation or disruption to sensitive habitats is anticipated along this Route as the majority of the Route will be installed via trenchless methods. Route N2 crosses the Provincially Significant Wetland at three locations (one more crossing than Route N1), however, direct impacts are limited to exit and entrance shafts, which are outside of the Provincially Significant Wetland.
Natural Environment	Potential effects on Species at Risk and Species at Risk habitat.	Fourteen Species at Risk may occur within 120 metres of the N1 Route and may be indirectly affected via trenchless methods	Fifteen Species at Risk may occur within 120 metres of the N2 Route and may be indirectly affected via trenchless methods
Natural Environment	Potential effects on soil and groundwater.	From a soil and groundwater contamination perspective, Route N1 is less preferred as it uses the Orangeville Bampton Railway corridor from Bovaird Drive to Old School Road which will require additional studies and measures to address soil and groundwater contamination compared to Route N1.	**From a soil and groundwater contamination perspective, Route N2 is preferred as it avoids the Orangeville Bampton Railway corridor from Bovaird Drive to Old School Road.**
Natural Environment	**Evaluation Ranking**	**Both Routes score similar from overall Natural Environment perspective.**	**Both Routes score similar from overall Natural Environment perspective.**

Category	Evaluation Criteria	Route N1: Orangeville-Brampton Railway / Old School Road	Route N2: McLaughlin/Old School Road
Socio-economic	Number of potentially impacted sensitive receptors during construction (e.g., increased noise, dust, vibration and reduced access to property and businesses).	**Fewer sensitive receptors are impacted along Route N1 and therefore N1 is preferred.**	More sensitive receptors are impacted along Route N2 and therefore N2 is less preferred.
Socio-economic	Traffic and active transportation impacts during construction (e.g., bike lanes, sidewalks, trails).	**Route N1 is preferred as it avoids major traffic impacts on roads with high traffic volumes and provides significant opportunity for enhancing active transportation.**	Route N2 is less preferred as there are major traffic impacts on heavily travelled roads and minimal opportunity for enhancing active transportation.
Socio-economic	Potential impacts on public transit during construction (e.g., bus stop closure/ relocation).	**Route N1 is more preferred as it avoids impacts to public transit shelters, stops and service.**	Route N2 is less preferred as it results in impacts to public transit shelters, stops and service.
Socio-economic	Potential impacts on agricultural lands and operations.	More potential impacts due to potential loss of prime agricultural land related to temporary access from McLaughlin Road to Orangeville Brampton Railway corridor. Note that agricultural operations will eventually be displaced by future urban development as per Region's Official Plan.	**Route N2 is preferred as it avoids impacts to agricultural lands.**
Socio-economic	**Evaluation Ranking**	**Route N1 is preferred from an overall Socio-Economic Environment perspective.**	—
Cultural Environment	Potential for loss and/or disturbance to archaeological resources.	High archaeological potential for most areas outside of the paved roadway and railway corridor, particularly in the northern most section within and adjacent existing undisturbed agricultural lands.	High archaeological potential for most areas outside of the paved roadway and railway corridor, particularly in the northern most section within and adjacent existing undisturbed agricultural lands.
Cultural Environment	Potential effects on built heritage resources and cultural heritage landscape.	**Four known cultural heritage resources are located adjacent to Route N1. Route N1 is preferred as there are less anticipated impacts on cultural heritage resources.**	Nine cultural heritage resources are located adjacent to Route N1. Route N2 is less preferred as there are more impacts on cultural heritage resources.
Cultural Environment	**Evaluation Ranking**	**Route N1 is preferred from an overall Cultural Environment perspective.**	—

Category	Evaluation Criteria	Route N1: Orangeville-Brampton Railway / Old School Road	Route N2: McLaughlin/Old School Road
Legal/Jurisdictional	Compliance with applicable planning policies and potential conflict with planning regulations.	**Route N1 is preferred due to less construction within Conservation Authority regulated areas.**	Route N2 is less preferred due to more construction within Conservation Authority regulated areas.
Legal/Jurisdictional	Land requirements (e.g., number of temporary and permanent easements).	Similar impacts from land requirement perspective.	Similar impacts from land requirement perspective.
Legal/Jurisdictional	**Evaluation Ranking**	**Route N1 is preferred from an overall Legal/Jurisdictional perspective.**	—
Technical Environment	Constructability (e.g., sewer/shaft depth).	**Orangeville-Brampton Railway alignment avoids work in heavily travelled road allowances as well as utilities and watercourse encroachments. Route N1 is preferred.**	McLaughlin Road is heavily travelled south of Mayfield Road with significant utilities and watercourse encroachments into the ROW, thus limiting space for construction and greater impacts to the travelling public.
Technical Environment	Permits and approvals (e.g., complexity and duration oof obtaining permits).	**Route N1 is preferred from a permits and approvals perspective as both permitting/approvals and road occupancy requirements are less.**	Route N2 is less preferred from a permits and approvals perspective as both permitting/approvals and road occupancy requirements are more.
Technical Environment	Connection points to existing and future sanitary trunk sewers/sub-trunks.	Route N1 less preferred due to longer length of connection from Fletcher's Creek STS.	**Route N2 preferred due to shorter length of connection from Fletcher's Creek STS.**
Technical Environment	Operations and maintenance (ability to access maintenance chambers and pipes).	Route N1 is less preferred due to accessibility for operations and maintenance purposes.	**Route N2 is preferred due to accessibility for operations and maintenance purposes.**
Technical Environment	Conflicts with existing utilities.	**Route N1 is preferred as there are minimal utilities within the trunk sewer's routing alignment.**	Route N2 is least preferred as there are significant utilities within the trunk sewer's routing alignment.
Technical Environment	Conflicts with existing or planned infrastructure improvements.	**Route N1 is preferred due to limited conflicts with existing and planned infrastructure including coordination with future Orangeville-Brampton Railway Multi-Use Trail.**	Route N2 is less preferred due to more conflicts with existing and planned infrastructure, and it does not provide opportunity to coordinate with future Orangeville-Brampton Railway Multi-Use Trail.

Category	Evaluation Criteria	Route N1: Orangeville-Brampton Railway / Old School Road	Route N2: McLaughlin/Old School Road
Technical Environment	Construction truck traffic management during construction.	Slightly more impacts related to construction truck traffic.	**McLaughlin Road can accommodate more truck traffic and is preferred from ease of access to haul routes.**
Technical Environment	**Evaluation Ranking**	**Route N1 is preferred from an overall Technical perspective.**	—
Climate Change	Climate change mitigation.	Similar impacts on climate change as this route generates similar amount of greenhouse gas emissions during construction.	Similar impacts on climate change as this route generates similar amount of greenhouse gas emissions during construction.
Climate Change	Climate change adaptation (e.g., vulnerability to climate change effects).	**Route N1 is preferred as it is less vulnerable to climate change effects related to flooding due to less construction within conservation authority regulated areas.**	More construction within Toronto and Region Conservation Authority and Credit Valley Conservation regulated areas expected and higher probability of Flooding particularly along McLaughlin Road.
Climate Change	**Evaluation Ranking**	**N1 is preferred from overall Climate Change perspective.**	—
Economic/Financial	Estimated construction costs.	**Route N1 is preferred due to lower construction costs.**	Route N2 is less preferred due to higher construction. Costs related to shafts in high traffic road allowance.
Economic/Financial	Estimated operations and maintenance costs.	**Route N1 is preferred due to lower operation and maintenance costs along the north portion of Orangeville-Brampton Railway.**	Route N2 is less preferred due to higher operation and maintenance costs.
Economic/Financial	**Evaluation Ranking**	**Route N1 is preferred overall from an Economic /Financial perspective.**	—
Overall	**Recommended Preferred Solution? (YES/NO)**	**YES**	**NO**