Document 2

Evaluation of Alternative Corridors

1.1 EVALUATION CRITERIA AND METHODOLOGY

The evaluation of alternative corridors was a key phase of the environmental assessment process. Eleven alternative corridors (Figure 1) and their varied opportunities, constraints, and environmental effects were evaluated. An evaluation method reveals the rationale or reasons for decisions but does not necessarily make the decision. As such, evaluation methods are designed as decision-making aids. Using a formal evaluation method has these advantages:

- It provides a better basis for decision-making that may not otherwise exist;
- It provides reasons for decisions that on examination can be traced, explained, and defended; and,
- It provides a means to demonstrate how the many aspects of the environment have been considered, in a holistic and multi-disciplinary manner.

Several evaluation methods are available for environmental assessment studies. An Evaluation Matrix was selected as the methodology for this study as it provides a method of objectivity for evaluating several alternatives against several criteria that can be tailored to this type of project and study area context. The evaluation methodology included the following tasks:

- Task 1: Criteria Development;
- Task 2: Identification of Alternative Corridors;
- Task 3: Criteria-based Evaluation of Alternative Corridors; and,
- Task 4: Synthesis of Findings and Recommendation of Preliminary Preferred Corridor

The context-sensitive criteria that have been developed specifically for this study by the Core Study Team, that include subject matter experts for all aspects of the environment, are presented in Table 1 with the evaluation scale shown in Table 2. The criteria are grouped into five (5) broad categories covering all aspects of the “environment” as defined in the EA Act including:

- Transportation System Sustainability;
- Greenbelt Value and Ecological Sustainability;
- Land Use, Community Sustainability, and Climate Change;
- Natural and Physical Sustainability; and,
- Economic Sustainability.

Table 1: Evaluation Criteria and Indicators

Criteria		Indicators
Transportation System Sustainability		
1	**Arterial Road Network**	a) Provides east-west vehicular connectivity to the north-south arterial and collector road network within the study area b) Provides vehicular access to adjacent planned development lands c) Provides a direct and efficient travel route through the study area d) Maintains opportunity for a range of future Rideau River crossing alignments
2	**Active Transportation**	a) Provides east-west connectivity with the north-south arterial and collector road network within the study area b) Provides pedestrian and cycling access to adjacent planned development lands c) Provides a direct and efficient travel route through the study area d) Provides opportunities to connect to recreational pathways and to area community walking and cycling routes
3	**Transit Network**	a) Provides an opportunity to create new bus transit ridership b) Enables efficient routes and flexibility for local bus service c) Maximizes opportunity for convenient and accessible bus stops d) Provides efficient route and direct connection to Leitrim LRT Station and Park and Ride facility for all modes e) Supports the possibility of transit-oriented uses at Leitrim Station
Greenbelt Value and Ecological Sustainability		
4	**Contiguous Natural Link**	a) Maximizes the continuity and contiguity of the Greenbelt lands as a natural link b) Minimizes the number of crossings by the arterial road
5	**Greenbelt Width**	a) Maximizes the potential to achieve a Greenbelt of not less than 250m width b) Maximizes the potential for wider greenbelt areas of 500m to 700m
6	**Protection of Existing Vegetation**	a) Optimizes the incorporation of existing valued natural/vegetated areas
7	**Connection between Watercourses**	a) Maximizes the potential for the Greenbelt's watercourses to connect to the Rideau River, Mosquito Creek, and Leitrim Wetland
8	**Wildlife Connection between Rideau**	a) Maximizes the capability of the Greenbelt to accommodate and attract wildlife movement

Criteria		Indicators
	River and Leitrim and Lester Wetlands	
9	**Restoration/naturalization of landscape**	a) Maximizes opportunities for the Greenbelt to undergo restoration and naturalization activities that will enhance its role as a natural link
Land Use, Community Sustainability and Climate Change		
10	**Community Planning & Design**	a) Consistent with area plans for Riverside South, Leitrim and the OMCIAA b) Provides an efficient structure to support a network of collector and local roads c) Supports the orderly arrangement and organization of land uses/diminishes fragmentation of land uses d) Provides exposure and frontage for employment uses e) Provides an efficient corridor for trunk municipal services and utilities
11	**Airport Development**	a) Enables OMCIAA's plan for a future southern runway, designed according to contemporary aviation standards b) Enables the OMCIAA to implement its plan for employment development south of the proposed southern runway
13	**Airport Safety**	a) Minimizes the likelihood of habitats that will create a risk to aviation, particularly bird habitat
13	**Cultural Heritage Resources**	a) Avoids or minimizes impact on existing archaeological resources or areas with potential b) Avoids or minimizes impact on designated or potential built heritage resources c) Avoids or minimizes impact on designated or potential cultural heritage landscapes
14	**Noise & Vibration**	a) Maximizes separation between the roadway (a potential noise and vibration source) and sensitive receivers
15	**Air Quality**	a) Maximizes fuel efficient driving behavior b) Minimizes travel distance and associated infrastructure
16	**Climate Change**	a) Minimizes potential effects on climate due to energy used in construction b) Minimizes potential effects on climate due to motorized vehicle road use operations activities c) Minimizes potential effect of climate on the project

Natural and Physical Sustainability		
17	**Surface Water and Aquatic Habitat**	a) Results in the least amount of stormwater management facilities outside of the right-of-way b) Minimizes impact on or loss of existing aquatic habitat
18	**Natural Heritage Features**	a) Minimizes or avoids impacts on designated features of the City's natural heritage system
19	**Agricultural Resources**	a) Minimizes impacts on designated Agriculture Lands
20	**Physical Environment**	a) Minimizes risk to human health on areas of known contaminated soils and/or groundwater b) Minimizes impacts on known sensitive slopes and/or significant valleylands c) Minimizes impacts on known Aggregate Resources
Economic Sustainability		
21	**Phasing and Implementation**	a) Maximizes the ability to phase and incrementally implement the project b) Minimizes the propensity for traffic diversion during construction
22	**Life Cycle Cost**	a) Minimizes the capital infrastructure cost including minimizing the need to alter or abandon existing infrastructure b) Minimizes road and infrastructure maintenance and replacement cost c) Minimizes property acquisition cost d) Minimizes cost of managing impacted materials

1.2 EVALUATION SCALE

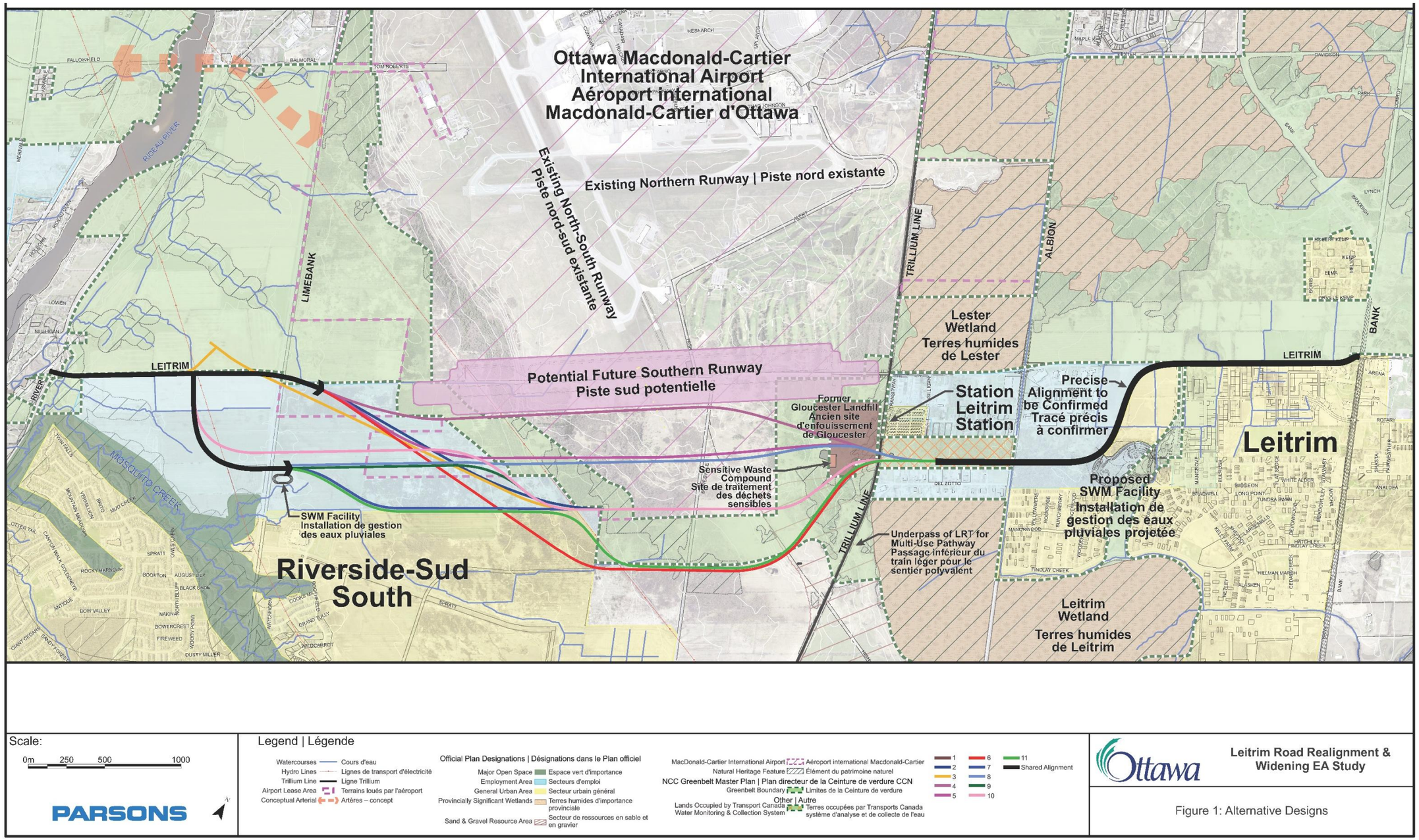
To assist in understanding how the evaluation was conducted, Table 2 details the evaluation scale used. Each alternative was evaluated based on how it performs in meeting each individual indicator ranging from performing very well to failure. A colour-coded format is used. The darker the gradient of green, the better the alternative performs for that indicator.

Table 2: Evaluation Scale and Definitions

Assessment	Definition
Performs Very Well	The alternative is evaluated by subject matter experts to have a highly favorable result in regards to fulfillment of the indicator. The design is expected to result in the achievement of best design practices, benchmarks, regulatory standards, or values expressed by stakeholders and, in policy and guidelines, with the performance often exceeding benchmarks.
Performs Well	The alternative is evaluated by subject matter experts to have a favorable result in regards to fulfillment of the indicator. The design is expected to result in the achievement of best design practices, benchmarks, regulatory standards, or values expressed by the

	stakeholders and in policy and guidelines.
Performs Adequately	The alternative is evaluated by subject matter experts to have an acceptable result in regards to fulfillment of the indicator. The design is expected to result in the achievement of best design practices, benchmarks, regulatory standards, or values expressed by stakeholders and in policy and guidelines, with the performance just meeting or approaching benchmarks.
Performs Poorly	The alternative is evaluated by subject matter experts to have an undesirable result in regards to fulfillment of the indicator. There is a risk that the design may fall short of best design practices, benchmarks, regulatory standards, or values expressed by stakeholders and in policy and guidelines.
Fails	The alternative is evaluated by subject matter experts to have an unacceptable result in regards to fulfillment of the indicator. The design is expected to fall short of best design practices, benchmarks, regulatory standards, or values expressed by stakeholders and in policy and guidelines with the performance often below benchmarks.

Figure 1: Alternative Corridors for Evaluation



Scale:

0m 250 500 1000

PARSONS

Legend | Légende

Watercourses — Cours d'eau
Hydro Lines — Lignes de transport d'électricité
Trillium Line — Ligne Trillium
Airport Lease Area — Terrains loués par l'aéroport
Conceptual Arterial — Artères – concept

Official Plan Designations | Désignations dans le Plan officiel

Major Open Space — Espace vert d'importance
Employment Area — Secteurs d'emploi
General Urban Area — Secteur urbain général
Provincially Significant Wetlands — Terres humides d'importance provinciale
Sand & Gravel Resource Area — Secteur de ressources en sable et en gravier

MacDonald-Cartier International Airport — Aéroport international Macdonald-Cartier
Natural Heritage Feature — Élément du patrimoine naturel
NCC Greenbelt Master Plan | Plan directeur de la Ceinture de verdure CCN
Greenbelt Boundary — Limites de la Ceinture de verdure
Other | Autre
Lands Occupied by Transport Canada Water Monitoring & Collection System — Terres occupées par Transports Canada système d'analyse et de collecte de l'eau

1 2 3 4 5 6 7 8 9 10 11 Shared Alignment

Ottawa

Leitrim Road Realignment & Widening EA Study

Figure 1: Alternative Designs

1.3 EVALUATION RESULTS

Preliminary results are shown in Table 3. From this analysis, and following independent multi-disciplinary team review, two alternatives (7 and 9) are concluded to perform better than the others. Alternative 1 is carried forward as the historical alignment only for comparison purposes.

Alternative 1 – Historical Diagonal Route. This is the historically planned, diagonal alternative. It diverts southerly at the west end of the proposed southern runway, and more or less follows the western edge of the NCC Greenbelt (Airport Natural Link) along its western flank in a diagonal direction. It crosses the Greenbelt at location that aligns with the boundary between the general urban area (residential) and employment land uses, and crosses the Trillium Line along the south edge of the Gloucester Landfill (avoiding its central part).

Alternative 7 – Mixed Use Complete Street. This route follows a more southerly alignment, effectively bounding the future residential and employment uses at the north end of the Riverside South Community. It crosses the NCC Greenbelt and proceeds easterly in the same alignment as Alternative 1.

Alternative 9 – Business Park Street. This route more or less bisects the planned employment area of the Riverside South Community, and shifts southerly to cross the Greenbelt and proceed easterly on the same alignments as alternatives 1 and 7. In addition to these alternatives, a fourth was considered in more detail, at the request of the National Capital Commission.

Alternative 11 – South of Greenbelt Route. This route shares the same westerly alignment as Alternative 7, but swings to the south to result in one (1) less crossing of the NCC Greenbelt. After forming the southern edge of the Greenbelt, it swings back to the north to cross the Trillium Line more or less at the same location as Alternatives 1, 7 and 9.

The ensuing evaluation had regard for the following policy documents and plans:

- NCC Greenbelt Master Plan;
- City of Ottawa Transportation Master Plan;
- Riverside South Community Design Plan;
- Leitrim Community Design Plan; and,
- Airport Secondary Plan (showing southerly employment lands).

With these plans as a basis, the evaluation paid particular attention to how the alignments could be integrated into, and form an important foundational structure for, the landscapes and communities that the realigned Leitrim Road would pass through.

Table 3: Evaluation of Alternative Corridors - Preliminary Results

			Alternative											
Number	**Criteria**	**Indicator**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**Qualifier**
Transportation System Sustainability														
1a	**Arterial Road Network**	Provides east-west vehicular connectivity to the north-south arterial and collector road network within the study area												Alternatives that provide better east-west connectivity will perform better for this indicator.
1b		Provides vehicular access to adjacent planned development lands												Alternatives that provide access to planned development lands perform better for this indicator.
1c		Provides a direct and efficient travel route through the study area												Lengthy alternatives or those alternatives that require multiple turning movements perform poorly for this indicator.
1d		Maintains opportunity for a range of future Rideau River crossing alignments												Alternatives that enable flexibility in the location of a future Rideau River crossing will perform better for this indicator.
2a	**Active Transportation**	Provides east-west pedestrian and cycling connectivity with the north-south arterial and collector road network within the study area												Alternatives that provide better east-west connectivity will perform better for this indicator.
2b		Provides pedestrian and cycling access to adjacent planned development lands												Alternatives that provide the best pedestrian and cycling access to adjacent planned development lands will perform better for this indicator.
2c		Provides a direct and efficient pedestrian and cycling travel route through the study area												Alternatives that provide the most direct and efficient travel route through the study area will perform better for this indicator.
2d		Provides opportunities to connect to recreational pathways and to area community walking and cycling routes												Alternatives that are central to planned land uses/communities and also interact with the Greenbelt will perform better for this indicator.
3a	**Transit Network**	Provides an opportunity to create new bus transit ridership												Alternatives that are bordered by ridership-generating land uses will perform better for this indicator.
3b		Enables efficient routes and flexibility for local bus service												Alternatives that provide the most flexibility for a range of bus transit routes serving the Leitrim and Riverside South Communities and the Airport employment lands will perform better for this indicator.
3c		Maximizes opportunity for convenient and accessible bus stops												Alternatives that have greatest extent of urban edge (including sidewalks or pathways close to the roadway) will perform better for this indicator.
3d		Provides efficient route and direct connection to Leitrim LRT Station and Park and Ride facility for all modes												Alternatives that provide the most direct and efficient access/connection for all modes to facilities will perform better for this indicator.
3e		Supports the possibility of transit-oriented uses at Leitrim Station												Alternatives that provide arterial road benefits to Leitrim Station perform better for this indicator.
Greenbelt Value and Ecological Sustainability														
4a	**Contiguous Natural Link**	Maximizes the continuity and contiguity of the Greenbelt lands as a natural link												Alternatives that minimize fragmentation of the Airport Natural Link will perform better for this indicator.
4b		Minimizes the number of crossings by the arterial road												Alternatives with the fewest and shortest crossing of the Greenbelt will perform better for this indicator.
5a	**Greenbelt Width**	Maximizes the potential to achieve a Greenbelt of not less than 250m width												Alternatives that allow for a 250m Greenbelt will perform better for this indicator.

			Alternative											
Number	**Criteria**	**Indicator**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**Qualifier**
5b		Maximizes the potential for wider Greenbelt areas of 500m to 700m												Alternatives that facilitate the potential for a wider Greenbelt will perform better for this indicator.
6a	**Protection of Existing Vegetation**	Optimizes the incorporation of existing valued natural/vegetated areas												Indicators that avoid existing wooded areas and ridge area west of the future runway will perform better for this indicator.
7a	**Connection between Watercourses**	Maximizes the potential for the greenbelt's watercourses to connect to the Rideau River, Mosquito Creek, and Leitrim Wetland												Alternatives that facilitate or provide an opportunity to connect existing watercourses to the Rideau River, Mosquito Creek, or Leitrim Wetland will perform better for this indicator.
8a	**Wildlife Connection between Rideau River and Leitrim and Lester Wetlands**	Maximizes the capability of the greenbelt to accommodate and attract wildlife movement												Alternatives that minimize fragmentation, maintain existing wooded and other vegetated areas and limit the number of crossings will perform better for this indicator.
9a	**Restoration/naturalization of landscape**	Maximizes opportunities for the Greenbelt to undergo restoration and naturalization activities that will enhances its role as a natural link												Alternatives that create opportunities for a wider natural link and provide the greatest opportunities for restoration and naturalization will perform better for this indicator.
Land Use and Community Sustainability, and Climate Change														
10a	**Community Planning & Design**	Consistent with area plans for Riverside South, Leitrim and the Ottawa Macdonald-Cartier International Airport Authority (OMCIAA)												Alternatives that minimize potential changes to current or planned land use designations will perform better for this indicator.
10b		Provides an efficient structure to support a network of collector and local roads												Alternatives that are central to existing and planned land uses provide the best opportunities for efficient collector and local road networks will perform best for this indicator.
10c		Supports the orderly arrangement and organization of land uses/diminishes fragmentation of land uses												Alternatives that serve as a separation between existing and proposed land uses (i.e. employment and residential) and do not result in the fragmentation of land or create awkward development parcels will perform better for this indicator.
10d		Provides exposure and frontage for employment uses												Alternatives that maximize exposure to employment lands will perform better for this indicator.
10e		Provides an efficient corridor for trunk municipal services and utilities												Alternatives that are central to existing land uses and provide the opportunity to connect to existing municipal services and utilities will perform better for this indicator.
11a	**Airport Development**	Enables OMCIAA's plan for a future southern runway, designed according to contemporary aviation standards												Alternatives that avoid potential interactions with infrastructure associated with a new runway and all associated infrastructure, will perform better for this indicator.
11b		Enables the OMCIAA to implement its plan for employment development south of the proposed southern runway												Alternatives that provide the most flexibility for a combination of airside and/or groundside uses will perform well for this indicator.
12a	**Airport Safety**	Minimizes the likelihood of habitats that will create a risk to aviation, particularly bird habitat												Alternatives that limit the amount and value of potential bird habitats, including waterfowl which are large birds posing a risk of air strike, will perform better for this indicator.
13a	**Cultural Heritage Resources**	Avoids or minimizes impact on existing archaeological resources or areas with potential												Alternatives that minimize impacts on or avoid areas of archaeological potential will perform better for this indicator.
13b		Avoids or minimizes impact on designated or potential built heritage resources												Alternatives that avoid impacts on built heritage resources will perform better for this indicator.

			Alternative											
Number	**Criteria**	**Indicator**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**Qualifier**
13c		Avoids or minimizes impact on designated or potential cultural heritage landscapes												Alternatives that minimize or avoid cultural heritage landscapes (including Greenbelt lands, cemeteries and farms) will perform better for this indicator.
14	**Noise and Vibration**	Maximizes separation between the roadway (a potential noise and vibration source) and sensitive receivers												Alternatives that maximize their separation from existing and planned sensitive land uses will perform better for this indicator.
15a	**Air Quality**	Maximizes fuel efficient driving behavior												Alternatives that have adequate vehicle capacity and that have an efficient arrangement of intersections will perform better for this indicator.
15b		Minimizes travel distance and associated infrastructure												Alternatives with the shortest travel distance will perform better for this indicator.
16a	**Climate Change**	Minimizes potential effects on climate due to energy used in construction												Alternatives with the shortest length will lead to the least amount of energy used and potential GHG emissions resulting from the production of materials (asphalt, concrete, copper wire, etc.)
16b		Minimizes potential effects on climate due to motorized vehicle road use operations activities												Alternatives with the shortest length that will lead to the least amount of energy used and potential resulting GHG emissions by vehicles traversing the corridor or maintaining it will perform better for this indicator.
16c		Minimizes potential effect of climate on the project												Alternatives with fewer exposures to climate change based risks (such as watercourse crossings, adjacency to sensitive slopes and flood plains) will have greater resiliency and will perform better for this indicator.
Natural and Physical Sustainability														
17a	**Surface Water and Aquatic Habitat**	Results in the least amount of stormwater management facilities outside of the right-of-way												Alternatives with the most rural ditch drainage will perform better for this indicator.
17b		Minimizes impact on or loss of existing aquatic habitat												Alternatives that involve the fewest number or length of watercourse crossings will perform better for this indicator.
18a	**Natural Heritage Features**	Minimizes or avoids impacts on designated features of the City's natural heritage system												Alternatives that minimize or avoid impacts (including limiting fragmentation) to areas designated in the City's natural heritage system or other identified natural areas will perform better for this indicator.
19a	**Agricultural Resources**	Minimizes impacts on designated Agriculture Lands												Alternatives that minimize displacement of agricultural lands, that keep them whole, or that maintain or enhance access to them, will perform better for this indicator.
20a	**Physical Environment**	Minimizes risk to human health on areas of known contaminated soils and/or groundwater												Alternatives that minimize footprint on potentially impacted soil or contain possible alternatives to avoid the Gloucester Landfill altogether will perform better for this indicator.
20b		Minimizes impacts on known sensitive slopes and/or significant valleylands												Alternatives that have the least interaction with Mosquito Creek sensitive slopes and significant valleylands will perform better for this indicator.
20c		Minimizes impacts on known Aggregate Resources												Alternatives that have the least interaction with designated aggregate resource areas will perform better for this indicator.
Economic Sustainability														

			Alternative											
Number	**Criteria**	**Indicator**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**Qualifier**
21a	**Phasing and Implementation**	Maximizes the ability to phase and incrementally implement the project												Alternatives that utilize existing infrastructure and/or can be implemented as part of adjacent land development will perform better for this indicator.
21b		Minimizes the propensity for traffic diversion during construction												Alternatives that do not require the widening/reconstruction of existing Leitrim Road or major intersections will perform better for this indicator.
22a	**Life Cycle Cost**	Minimizes the capital infrastructure cost including minimizing the need to alter or abandon existing infrastructure												Alternatives that do not require the reconstruction of existing infrastructure and have the shortest corridor length will perform better for this indicator.
22b		Minimizes road and infrastructure maintenance and replacement cost												Alternatives with the shortest length, maintenance requirements for stormwater management systems and pedestrian and cycling facilities will perform better for this indicator.
22c		Minimizes property acquisition cost												Alternatives with the least amount of land acquisition will perform better for this indicator.
22d		Minimizes cost of managing impacted materials												Alternatives that minimize interaction with contaminated materials will perform better for this indicator.

Performs Very Well
Performs Well
Performs Adequately
Performs Poorly
Fails

Having considered the multi-criteria analysis, Alternative 7 was initially favoured as the highest performing option, with Alternative 9 a close second. This initial preference for Alternative 7 was for the following reasons:

1. It best serves the multi-modal transportation function within the arterial road network and in the land-use context through this sector of the City of Ottawa. It would be an efficient and well-utilized route between Riverside South and Leitrim, while providing a good route for longer distance travel, including future Rideau River crossing choices.

2. It best provides the greatest opportunity to result in a complete street, by providing an attractive and direct route for pedestrians, cyclists, transit riders and all other users travelling to and from residential and employment uses, and travelling between communities.

3. It best provides the greatest likelihood of serving adjacent land uses, including the Riverside South general urban area and employment lands, by providing opportunities for access and marketing visibility.

4. It provides approximately 1000m of business marketing exposure, multi-modal access, and possibly municipal servicing and utilities, to the Airport's southern business lands.

5. It best provides a potential to accommodate municipal services and utilities that can be co-located within the corridor, which in turn will result in efficient, serviceable, and cost-effective urban development.

6. It provides one of the shortest options, thereby resulting in savings of travel time and vehicle kilometers travelled, as well as the least amount of energy to construct and maintain, and results in a lower contribution to climate change.

7. It provides the best opportunity for the arterial road to serve a local bus transit route and attract ridership, with the best opportunities to have local service that is integrated with Leitrim Station.

8. It provides the greatest opportunity and flexibility for the NCC and the Airport Authority, and other land owners, to work together towards creating the Airport Natural Link of most appropriate size and location at the west end of the future southern runway.

9. It provides flexibility to potential future changes to the Airport Authority's runway design including the Runway End Safety Area length, approach lighting, and safety and security requirements.

10. It will provide the opportunity for the western leg of the NCC Greenbelt to be flanked by the rear yard of employment uses which can be appropriately landscaped in a semi-natural fashion, thereby improving the potential for the Greenbelt to provide the Airport Natural Link function.

11. It allows the southern side of the east-west leg of the NCC Greenbelt Airport Natural Link to be bounded on the south by designated rural lands (as opposed to a roadway), which thereby improves the potential for the Greenbelt to provide the Airport Natural Link function.

12. It crosses the NCC Greenbelt and Airport Natural Link at its narrowest location, and it results in no more crossings of the NCC Greenbelt and Airport Natural Link than exist today.

13. It results in one of the shortest crossings of the NCC Greenbelt and Airport Natural Link at the crossing, and has less effect on identified natural heritage features in that area. In addition, the need for grade separation of Leitrim Road over Trillium Line is an excellent opportunity to maintain connectivity, minimize fragmentation and provide an Eco passage for wildlife.

14. Of note however, Alternative 9 performed nearly identical to Alternative 7. The one minor distinguishing feature of Alternative 7 is that it would form the boundary of the employment and residential lands in Riverside South, whereas Alternative 9 would form a spine route through the centre of the employment lands in Riverside South.

1.4 PRELIMINARY PREFERRED CORRIDOR

Based on the foregoing, Alternative 7 (Mixed Use Complete Street), was presented for public review as the preliminary preferred alternative. It had the best result for the area's integrated transportation and land use systems, it had the best result in terms of community design, it had a very good result for the planning and implementation of the NCC Greenbelt and Airport Natural Link, and is the most efficient economically. This preliminary preferred corridor was presented to a broad range of stakeholders during consultation activities in September 2017.

1.5 PREFERRED CORRIDOR

During consultation activities, area stakeholders expressed concern that the alignment would interfere with the phasing of development of adjacent lands in a portion of the Riverside South community, just east of Limebank Road. The concern involved the uncertainty in timing of the long-term project implementation of the residential

community development, which is proposed in a short-term period. Stakeholders suggested that the road would be more of a long-term benefit if it bisected the employment lands, rather than forming the boundary between the employment lands and residential lands. As a result of the consultation, the preliminary preferred corridor was established with a minor alignment shift in the Riverside South employment lands, essentially mirroring Alternative 9, which performed very well in the initial evaluation. On this basis, the recommended corridor is Alternative 9 – Business Park Street. This route more or less bisects and services the planned employment area of Riverside South, and shifts southerly to cross the Greenbelt at its narrowest area in the west. From that point, it proceeds easterly on the same alignment as Alternative 7. Minor alignment refinements in the Leitrim community were also incorporated into the Preferred Design in consideration of the best use of future planned employment and residential areas in the community. Those refinements also had regard for the airport's land use planning requirements.

The above noted corridor was selected as the Preferred Corridor and was then subject to a review of alternative design analyses. Design details/options to be evaluated included:

1. Complete Street principles and context-sensitive cross-sections;
2. Roadway interconnectivity alternatives including signalized versus roundabout options;
3. Rural versus rural cross-sections based on context;
4. Divided versus undivided roadway considerations;
5. Pedestrian and cyclist options based on context;
6. Grade separation over the future Trillium Line Extension, and opportunities for pathway connections;
7. Corridor lighting options;
8. Need for noise attenuation; and,
9. Opportunities for eco-crossing locations within the natural heritage system and Greenbelt lands.