



Ministry of Transportation

# 407 East Environmental Assessment

## Alternative Methods Technical Report (Socio-economic)

# FINAL DRAFT

August 2007

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## 1. Introduction

This report documents the assessment and evaluation of the short-listed alternative routes identified for the 407 East Environmental Assessment (EA) from the Socio-Economic perspective. Following completion of the screening phase, alternative routes were short-listed for detailed assessment and/or comparative evaluation. The short-listed routes were broken down into 5 sections:

- West Mainline
  - Brock Road to Audley Road – 1 route
  - Audley Road to Ashburn Road – 2 route alternatives
- Central Mainline
  - Ashburn Road to Simcoe Street – 1 route
  - Simcoe Street to Enfield Road – 2 route alternatives
- East Mainline
  - Enfield Road to Highway 35/115 – 12 route alternatives
- West Link
  - West Durham Link – 9 route alternatives
- East Link
  - East Durham Link – 13 route alternatives

This report is one of nine stand-alone documents that outline the evaluation of the alternative routes process from the perspective of each discipline. These reports will be used in concert with one another as supporting documents to the Alternative Methods Report. The following 9 discipline specific reports have been prepared and made available for comment:

- Natural Environment
- Noise
- Socio-economic
- Air Quality
- Agricultural
- Waste Contamination
- Archaeology
- Cultural Heritage
- Technical

The evaluation of alternative routes was a three-step process. The first step entailed a detailed field inventory of conditions associated with each alternative route. Each environmental feature was examined to determine the extent of impact and the findings of these were outlined within each of the disciplines Field Investigations Reports. The second step was to assess the findings of the field investigations against the established Criteria and Indicators listed in Table 1 (Appendix A of Alternative Methods Report) for each of the 5 Factor Areas (Natural, Social, Economic, Cultural

and Technical). After determining the initial potential effects, standard mitigation, avoidance, enhancement and compensation measures were applied in order to determine the Net Effects.

The third step was the evaluation itself. This step involved a comparative analysis of the alternative routes considered to select a preferred alternative. At this stage, the relative importance of the environmental features was determined.

### 1.1 Socio-economic Study Team

A study team consisting of Meridian Planning Consultants Inc. staff undertook the majority of the socio-economic assessment and evaluation of route alternatives. The actual individuals and their specific roles are provided as follows:

- Jim Dymont, Project Manager
- Nancy Tuckett, Senior Planner
- Jeff Nielson, Planner
- Thor Plaxton, Planner
- Steve Aldred, GIS Co-ordinator

TSH was responsible for the assessment and evaluation of the visual aesthetics and light criteria while RWDI addressed the noise and air quality criteria and DBH Soil Services Inc. addressed the agricultural criteria.

## 2. Assessment and Evaluation of the Alternative Routes

### 2.1 Methodology

The assessment and evaluation of the alternative routes was conducted in three steps:

#### Step 1: Confirm Evaluation Criteria and Indicators/Measures

Prior to undertaking the net effects analysis, the evaluation criteria, indicators, and measures previously developed were confirmed for application to each of the alternative routes.

The approved 407 East EA Terms of Reference (ToR) set out the draft criteria and indicators in **Table 5.2** for evaluating the 'alternative methods' in the EA. In addition, **Supporting Document C** of the 407 East EA ToR provided proposed data sources and measures for each of the indicators. As a result, the draft criteria, indicators, and measures provided for in the ToR were reviewed and modified appropriately to suit the evaluation of the alternative routes.

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Specifically, the criteria, indicators and measures were modified in consultation with review agencies and the public to ensure that an appropriate level of scrutiny and rigour was applied in evaluating the “short listed” routes. By doing so, the results of the evaluation phase consist of clearly defined net effects for each “short listed” route that were suitable for comparison.

## Step 2: Undertake the Net Effects Analysis

With the evaluation criteria, indicators and measures confirmed through the preceding step, a net effects analysis of the “short-listed” alternative routes was carried out consisting of the following activities:

- Identify potential effects (based on measures) on the environment;
- Develop and apply avoidance/ mitigation/ compensation/ enhancement measures; and
- Determine net effects on the environment.

## Step 3: Carry Out the Comparative Evaluation

In Step 3, the net effects identified for each “short-listed” route segment in Step 2 were compared to one another in order to identify a “recommended route segment”. The comparison of net effects was completed using a “Reasoned Argument” or “Trade-off” method, as provided for in the approved 407 East EA ToR.

The following social and economic criteria were established at the outset of the route selection. The social environment indicators were chosen to reflect a range of the social environment that could be impacted with the introduction of a highway corridor.

The Social Environment criteria included the following indicators:

- Noise
- Community fabric
- Recreational opportunities
- Property impacts
- Traffic nuisance
- Visual aesthetics
- Light
- Air Quality

Meridian Planning Consultants Inc. was responsible for assessing the criteria for community fabric, recreational opportunities and property impacts. The assessment and evaluation of the short-listed alternative routes from the noise and air quality perspective, undertaken by RWDI, are documented in stand-alone documents. Similarly, the assessment and evaluation results for the traffic nuisance criterion are documented in the “Technical” Technical Report.

The Economic Environment criteria included the following indicators:

- Provincial/Municipal/Private Land Use Development Strategies

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- Non-Farm Commercial Activities
- Mineral Aggregate Resources
- Agriculture

Meridian Planning Consultants Inc. was responsible for assessing the criteria for Provincial/ municipal/ private land use development strategies, non-farm commercial activities and mineral aggregates. The assessment and evaluation of the short-listed route alternatives from the Agricultural perspective, undertaken by DBH Soil Services Inc., are documented in a stand-alone document.

## 2.1.1 Evaluation Criteria/Indicators

### 2.1.1.1 Community Fabric

The community fabric criterion was chosen to reflect impacts a potential highway corridor may have on the physical communities within the study area. It addresses impacts both on the urban and rural communities. The indicators addressed specific issues related to highway development adjacent to residential communities including encroachment on or severance of community, effects on planned community structure, delivery of community services and urban/rural barrier effects.

“Encroachment on, or severance of established or proposed settlement areas” addresses the impacts on community a route may have in physically dividing or effectively removing a portion of it. This criteria is intended to be evaluated at a high level examining the whole of the community.

The second indicator is the “likely effects on planned/approved community structure, as may be identified or proposed in provincial land use policies or regional official plans within and east of the study area”. It examines the effects the route may have on planned and or approved community structure including areas defined in Official Plans, approved plans of subdivision and areas defined in Provincial policy documents.

“Delivery of community services (emergency, school bus)” addresses the potential positive or negative effect the route may have with respect to the delivery of these critical services. If the route limited access to existing or planned residential developments, it may result in a delay in access to emergency services. Likewise if a route improved access to existing or planned residential developments, it may result in improved response times, which would result in a positive overall impact.

“Urban or rural barrier effects” examines potential effects a route may have on urban or rural communities in defining edges and boundaries in relation to established communities. Barrier effects can result in both positive and negative impacts on a community. A potential route may have the effect of isolating a community from an existing residential community resulting in a negative impact. Alternatively the route may result in defining a community in closer affinity with an existing residential community and providing a firm urban-rural boundary resulting in a positive impact.

**2.1.1.2 Recreational Opportunities**

The recreational opportunities criterion as defined by “Effect on hiking, hunting, fishing, nature viewing and educational opportunities” examines how a route may impact the resources available to residents in the area that may choose to use those recreational opportunities. The route may have the negative impact of displacing hiking routes or impacting hunting grounds, snowmobiling routes and/or disturbing wildlife.

**2.1.1.3 Property Impacts**

The property impacts criterion identify “Residential, institutional and recreational property effects” for individual properties.

Full removal/displacement occurs when the proposed route would occupy the same space as the building on the property. Residential displacements took into account residential dwellings. In an area that was noted as a farm cluster with several agricultural buildings, only one of the dwellings was determined to be a residential dwelling and would have been accounted for as such. In the evaluation of the route alternatives the displacement or removal of a residential dwelling was weighted as more significant than all of the remaining property impacts. The remaining property impacts were weighted as less significant.

Frontage/reduced frontage refers to when the proposed route would reduce main road lot frontage but would not displace the residential dwelling.

A complete severance of a property refers to when the proposed route results in dividing a property into two separate and viable lots. Total severances of property were weighted as having a more severe negative impact than partial severances as this would result in further divisions of land in the rural area.

A partial severance refers to a situation where the proposed route has the effect of removing a portion of the lot but not effectively dividing the lot into more than one lot. If the lot was to be divided into two parcels and only one of the parcels was deemed to be viable the severance was considered a partial severance. Viability of a lot was determined as a lot having access to a road and size of lot that could accommodate a dwelling and required services.

Loss of access refers to a situation where a route effectively removes the current access to the property without opportunity to add an access elsewhere on the property. Access impacted occurs where the current access is removed but an alternative is possible on the site.

**2.1.1.4 Visual Aesthetics**

The visual aesthetics criterion identifies potential impacts of a route alternative on visual landscape components based on a qualitative assessment of a route’s imposition on and through the visible landscape features as viewed from receptor locations.

**2.1.1.5 Light**

The light criterion addresses the effect of a route alternative on light sensitive receptors, such as residential buildings, based on a qualitative assessment of the number and type of light sensitive receptors and their proximity to the route recognizing potential opportunities to mitigate negative effects.

**2.1.1.6 Provincial/Municipal/Private Land Use Development Strategies**

The “Provincial/Municipal/Private Land Use Development Strategies” criterion was chosen to examine how the routes would impact on broad Provincial/Municipal approved policy and development.

The “Degree of compatibility with municipal and regional development goals and objectives” indicator addresses the degree to which the routes have been identified or acknowledged in existing planning documents. Furthermore overall municipal goals and objectives were taken into consideration. Consideration was also given to future development awaiting formal approval such as lands contained in the West Whitby Study.

The indicator “Capability to provide transportation service/stimulate development of major development initiatives (Seaton, Pickering Airport)” refers to the potential ability of the route to improve access to the communities and stimulate development.

The indicator “Compatibility with Federal/Provincial/Municipal planning goals/objectives/policies, including principles and policy directions under development in the Growth Plan for the Greater Golden Horseshoe, and the Greenbelt Plan, the Watershed based Source Protection Planning and the proposed GTA Transportation Strategy” examines specific policy documents to determine whether the route alternatives are compatible.

The “Effects on approved private development proposals” indicator addresses the impact of a highway on future plans of subdivision adjacent to the proposed route alternatives.

**2.1.1.7 Non-Farm Commercial Activities**

The indicator “Businesses displaced” refers to businesses that will have buildings and property displaced within the right-of-way of the proposed route alternative.

“Businesses with access affected” occurs where the current access is removed but an alternative access is possible on the site.

“Number of employees working for businesses displaced within the right-of-way” refers to the total number of employees that would be affected by a business being displaced.

“Changes (+/-) in business exposure” refers to the potential increase or decrease in business exposure to the public in proximity of a route alternative.

“Construction impacts on businesses” refers to the impacts to business as a result of the construction of the actual highway.

In the evaluation of the non-farm commercial activities the “public serving” operations were weighted higher than wholesale operations. Institutional uses such as day cares were ranked the highest. Agricultural uses were only considered “businesses” where there were products sold as retail from the site.

#### **2.1.1.8 Mineral Aggregate Resources**

Mineral Aggregate resources are a primary importance to the Province.

The first indicator “Effect on licensed aggregate resource facilities” addresses the displacement or removal of existing mineral aggregate operations within the route alternatives.

The indicator “Effect on aggregate resource areas” examines the impact a route may have on an aggregate operation by reducing the potential amount of mineral aggregate available for extraction.

### **2.1.2 Evaluation of Criteria and Indicators**

In the following evaluation of the criteria and indicators, the specific criteria are not discussed in detail if in the Net Effects Analysis, they are considered to have the same effect for each route alternative. In situations where there are no route options, the criteria and indicators are discussed in detail.

## **2.2 West Mainline – Brock Road to Audley Road**

### **2.2.1 Net Effects Analysis**

The Route that extends from Brock Road to Audley Road does not have any impacts with respect to community fabric. There is no encroachment on or severance of established or proposed settlement areas and the route does not create an urban or rural barrier effect. Furthermore, the route does not affect the delivery of community services including emergency services and school bussing.

The route does not impact any hiking, hunting, fishing or nature viewing or educational opportunities.

The route has a total of 35 property impacts including a total of four residential displacements, which is low relative to other route alternatives and property impacts experienced throughout the study area.

The route has a high degree of compatibility with the municipal and regional development goals and objectives as the route has been identified in the Durham Regional Official Plan.

There is a low impact for non-farm commercial activities. No businesses are displaced on this route alternative and no business accesses are affected. A used car lot and place of worship in the Broughton Road, Highway 7 area will experience increased exposure as a result of this route alternative. An equestrian centre located on Paddock Road north of the route alternative may experience some impacts on business as a result of construction.

## **2.3 West Mainline – Audley Road to Ashburn Road**

### **2.3.1 Net Effects Analysis**

#### **WM1**

There are low impacts with respect to the community fabric indicator for the north route from Audley Road to Ashburn Road. The route slightly encroaches on an established settlement area. The route does not affect the planned or approved community structure of the area. The route may have a low impact on the delivery of community services. The route does not impact any recreational opportunities.

Property impacts are moderate given that there are a total of 25 properties affected and a total of five residential displacements.

The north route has a high degree of compatibility with the Provincial/Municipal and private land use development strategies. The route was identified in the Durham Regional Official Plan and Town of Whitby Official Plan.

The route located at the northern limits of the Town of Whitby provides for a new defined boundary for the limits of development within the Town of Whitby and may result in stimulating further development in this location.

With respect to non-farm commercial activities, this route displaces a nursery and orchard. The nursery operation is relatively small and does not appear to sell to the public. There may be increased exposure for an industrial storage facility.

#### **WM2**

There are moderate impacts with respect to the community fabric indicator for the south route from Audley Road to Ashburn Road. The route would encroach on the community of Kinsale and the Macedonian Village. The route may have a low impact on the delivery of community services. There is a high impact in regards to recreational opportunities as the route displaces a golf centre located at Winchester Road and Coronation Road.

Property impacts are high given that there are a total of 37 properties affected and a total of 14 residential displacements.

The south route has a moderate degree of compatibility with the provincial/municipal and private land use development strategies.

This south route displaces a golf centre resulting in a higher negative impact for this route alternative. There is a higher potential for increased business exposure for the industrial storage facility and a nursery/tree farm for this route alternative.

### 2.3.2 Evaluation Results

The north route identified as WM1 ranked as the preferred route of the two alternatives. The route is preferred because it has fewer property impacts and less significant business impacts, than the south route. Five residential homes are displaced by the northerly route versus 14 for the southerly route. An orchard is displaced in the northerly route whereas a golf centre is displaced in the southerly route. The displacement of the golf centre is considered a higher impact than the orchard business.

The WM1 route also has higher compatibility with Provincial/Municipal/private land development strategies. Since neither route has an impact on mineral aggregates, they rank equally with regards to this criterion.

## 2.4 Central Mainline – Ashburn Road to Simcoe Street

### 2.4.1 Net Effects Analysis

There are low impacts to the community fabric indicator for this route section. The route does not encroach on or sever established or proposed settlement areas, however, it does create a barrier effect between the community of Brooklin and the urban area to the south.

The route does not have any effect on hiking, hunting, fishing, nature viewing or educational opportunities.

There is a moderate impact on property as there are a total of 29 properties affected; including a total of 8 residential displacements for this route alternative.

The route has a high degree of compatibility with provincial/municipal and private land use development strategies. The route was identified in the Durham Regional Official Plan and Town of Whitby Official Plan.

The route has a low impact on non-farm commercial activities since the route displaces an industrial storage facility located on Thicksen Road. There is potential for increased business

exposure for two golf courses located north and south of Winchester Road; a plaza located east of Montgomery Avenue; a coffee shop/gas station located at Winchester and Thicksen Road; a home building centre located at Winchester Road; and a gas station and animal clinic located along Winchester Road.

## 2.5 Central Mainline – Simcoe Street to Enfield Road

### 2.5.1 Net Effects Analysis

#### CM1 – South Route

There are low impacts with respect to the community fabric indicator for the south route extending from Simcoe Street to Enfield Road.

A significant component of a golf course will be displaced resulting in a lost recreational opportunity.

Property impacts are ranked high as there are a total of 60 properties affected and 15 residential displacements.

There is a high degree of compatibility with provincial/municipal land use strategies as the route is partially identified in the Durham Regional Official Plan. This route has the opportunity for stimulating development opportunities for future employment lands in north Oshawa.

Route CM1 would result in the displacement of a significant portion of a golf course: the route severs the north third of the golf facility, removing approximately 7 out of 18 holes. Approximately 30 employees would be displaced as a result of this route alternative. This is considered a high impact on non-farm commercial activities.

#### CM2 – North Route

There are low impacts with respect to the community fabric indicator for the north route extending from Simcoe Street to Enfield Road.

There are no recreational opportunities affected by this route.

There are a total of 62 properties affected and 17 residential displacements, therefore this route ranked high for property impacts.

There is a moderate degree of compatibility with provincial/municipal land use strategies as the route is partially identified in the Durham Regional Official Plan. The route has the opportunity for providing transportation service and stimulating development opportunities for future employment lands in north Oshawa.

Route CM2 would result in no business displacements.

## 2.5.2 Evaluation Results

Route CM2, the north route alternative, is the preferred route due to fewer property impacts, no lost recreational opportunities, and no business displacements.

The other criteria had similar results for both the CM1 and CM2 routes and hence were not determining criteria in the evaluation process.

## 2.6 East Mainline – Enfield Road to Hwy 35/115

### 2.6.1 Net Effects Analysis

#### EM1

The EM1 route is the most northerly of all the east mainline route options extending from the northerly option of the central mainline route. The route has a moderate impact on the community fabric criteria as it encroaches on the communities of Solina and Tyrone. Barrier effects are created for the communities of Solina and Tyrone.

The route impacts the Leskard Trail system resulting in a moderate impact on recreational opportunities.

The route results in low property impacts relative to the other alternatives with a total of 92 property impacts including 10 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goal and objectives as it is moderately compatible with the Durham ROPA and Clarington OP. However, the general route location has not been identified in the Durham Regional Official Plan or the Clarington Official Plan.

There is moderate impact from a non-farm commercial activity perspective, as there is a large nursery displaced at Regional Road 57 and Concession 7. There is a potential to increase business exposure for two Bed and Breakfasts near the route alternative. There may be possible impacts for the two Bed and Breakfasts as a result of construction activities.

#### EM2

The EM2 route extends from the northerly central mainline route option. This route has a moderate impact on the community fabric criteria as it encroaches on the communities of Solina and Tyrone. Barrier effects are created for the communities of Solina and Tyrone.

The route impacts the Leskard Trail system resulting in a moderate impact on recreational opportunities

The route results in low property impacts relative to the other alternatives with a total of 98 property impacts including 18 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goal and objectives because the route would be partially compatible with the Durham ROPA and Clarington OP. However, the general route location has not been identified in the Durham Regional Official Plan and the route differs from the route shown in the Clarington Official Plan.

There is a low impact to non-farm commercial activity since there is a home occupation displaced at Clemens Rd. There is a potential to increase business exposure for two Bed and Breakfasts near the route alternative. There may be possible impacts for the two Bed and Breakfasts as a result of construction activities.

#### EM3

The EM3 route extends from the northerly central mainline route option. The route has a moderate impact on the community fabric criteria as it encroaches on the communities of Solina and Leskard and slightly encroaches on the Village of Tyrone. Barrier effects are created for the communities of Solina and Tyrone.

The route impacts the Leskard Trail system resulting in a moderate impact on recreational opportunities.

The route results in low property impacts relative to the other alternatives with a total of 93 property impacts including 19 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goal and objectives because the route would be partially compatible with the Durham ROP and Clarington OP. However, the general route location has not been identified in the Durham Regional Official Plan and the route differs from the route shown in the Clarington Official Plan.

There is a low impact on businesses displaced, with one home occupation displaced. There is potential for increased business exposure for an orchard, cider house and another home occupation.

#### EM4

The EM4 route extends from the northerly central mainline route option. The route has a moderate impact on the community fabric criteria as it encroaches on the communities of Solina and Leskard, and slightly encroaches on the Village of Tyrone. Barrier effects are created for the communities of Solina and Tyrone.

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The route impacts the Leskard Trail system resulting in a moderate impact on recreational opportunities.

The route results in moderate property impacts relative to the other alternatives with a total of 114 properties affected including 18 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goal and objectives because the route is partially compatible with the Durham ROPA and Clarington OP. However, the general route location has not been identified in the Durham Regional Official Plan and the route differs from the route shown in the Clarington Official Plan.

There is a low impact for non-farm commercial activity with an orchard displaced. There is a potential for increased business exposure for six businesses located adjacent to the route alternative along Concession Road 78, Clemens Road, Liberty Street, Cole Road and Highway 35/115. There may be possible impacts for the two Bed and Breakfasts during construction.

**EM5**

The EM5 route extends from the northerly central mainline route option. The route has a moderate impact on the community fabric criteria as it encroaches on the communities of Solina and Leskard and slightly encroaches on the Village of Tyrone. Barrier effects are created for the communities of Solina and Tyrone.

The route impacts the Leskard Trail system resulting in a moderate impact on recreational opportunities.

The route results in high property impacts relative to the other alternatives with a total of 138 properties affected including 23 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. The general route location has not been identified in the Durham Regional Official Plan and the route is not identified in the Clarington Official Plan.

There is a moderate impact on non-farm commercial activities with one home occupation displaced and potentially 8 businesses displaced along Highway 35/115. There is a high impact because more than 25 employees could potentially be displaced.

There is a potential for increased business exposure for an orchard, cider house, two home occupations, a nursery and two Bed & Breakfast operations.

**EM6**

The EM6 route extends from the northerly central mainline route option. The route has a moderate impact on the community fabric criteria as the route encroaches on the community of Solina and

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slightly encroaches on Tyrone. Barrier effects are created for the communities of Solina and Tyrone.

The route results in high property impacts relative to the other alternatives with a total of 107 properties affected including 26 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. The general route location has not been identified in the Durham Regional Official Plan and the route is not the same as the route shown in the Clarington Official Plan.

There is a low impact for non-farm commercial activity with a home occupation displaced. There is potential for increased business exposure for a cider house and three home occupations.

**EM7**

The EM7 route extends from the southerly central mainline route option. The route has a moderate impact on the community fabric criteria as the route encroaches on the communities of Solina, Leskard and Hampton. Barrier effects are created for the communities of Solina, Leskard and Hampton.

The route impacts the Leskard Trail system resulting in a moderate impact on recreational opportunities.

The route results in moderate property impacts relative to the other alternatives with a total of 109 properties affected including 13 residential displacements.

The route has a high degree of compatibility with municipal and regional development goals and objectives. The general route location has been identified in the Durham Regional Official Plan and in the Clarington Official Plan.

There is a moderate impact on non-farm commercial activity with two equestrian centres displaced at Regional Road 57. There is a potential for increased business exposure for four businesses including a construction yard, lumber mill, junk yard and industrial site. There are two businesses that could be potentially affected during construction.

**EM8**

The EM8 route extends from the southerly central mainline route option. The route has a moderate impact on the community fabric criteria as the route encroaches on the communities of Solina, Leskard, and Hampton. Barrier effects are created for the communities of Solina, Leskard and Hampton.

The route impacts the Leskard Trail system resulting in a moderate impact on recreational opportunities.

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The route results in low property impacts relative to the other alternatives with a total of 107 properties affected including 10 residential displacements.

The route has a high degree of compatibility with municipal and regional development goals and objectives. The general route location has been identified in the Durham Regional Official Plan and the Clarington Official Plan.

There is a moderate impact on non-farm commercial activity with two equestrian centres displaced at Regional Road 57. There is potential for increased business exposure for six businesses including a construction yard, lumber mill, junk yard, industrial site and two home occupations. There are two businesses that could potentially be affected during construction.

**EM9**

The EM9 route extends from the southerly central mainline route option. The route has a moderate impact on the community fabric criteria as the route encroaches on the communities of Solina, Leskard and Hampton. Barrier effects are created for the communities of Solina, Leskard and Hampton.

The route impacts the Leskard Trail system resulting in a moderate impact on recreational opportunities.

The route results in moderate property impacts relative to the other alternatives with a total of 130 properties affected including 15 residential displacements.

The route has a high degree of compatibility with municipal and regional development goals and objectives. The general route location has been identified in the Durham Regional Official Plan and the Clarington Official Plan.

There is a moderate impact on non-farm commercial activity with seven businesses potentially displaced.

There is potential for increased business exposure for seven businesses including a construction yard, lumber mill, junk yard, industrial site, orchard cider house and two home occupations. There are two businesses that could potentially be affected during construction.

**EM10**

The EM10 route extends from the southerly central mainline route option. The route has a moderate impact on the community fabric criteria as it encroaches on the communities of Solina and Hampton. Barrier effects are created for the communities of Solina and Hampton.

The route results in high property impacts relative to the other alternatives with a total of 102 properties affected including 22 residential displacements.

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The route has a moderate degree of compatibility with municipal and regional development goals and objectives. The general route location has not been identified in the Durham Regional Official Plan and the Clarington Official Plan.

There is a moderate impact on non-farm commercial activity with two equestrian centres displaced at Regional Road 57. There is potential for increased business exposure for six businesses including a construction yard, lumber mill, junk yard, industrial site, and two home occupations.

**EM11**

The EM11 route extends from the southerly central mainline route option. The route has a moderate impact on the community fabric criteria as it encroaches on the communities of Solina, Leskard and slightly encroaches on Tyrone. Barrier effects are created for the communities of Solina, Leskard and Tyrone.

The route impacts the Leskard Trail system resulting in a moderate impact on recreational opportunities.

The route results in high property impacts relative to the other alternatives with a total of 106 property impacts including 21 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. The general route location has not been identified in the Durham Regional Official Plan nor the Clarington Official Plan.

There is a moderate impact on non-farm commercial activity with one home occupation displaced at Clemens Road and 8 businesses potentially displaced along Highway 35/115.

There is potential for increased business exposure for the orchard cider house and one home occupation.

**EM12**

The EM12 route extends from the southerly central mainline route option. The route has a moderate impact on the community fabric criteria as the route encroaches on the communities of Solina, Leskard and Hampton. Barrier effects are created for the communities of Solina, Leskard and Hampton.

The route impacts the Leskard Trail system resulting in a moderate impact on recreational opportunities.

The route results in high property impacts relative to the other alternatives with a total of 117 properties affected including 25 residential displacements.

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The route has a moderate degree of compatibility with municipal and regional development goals and objectives. The general route location has not been identified in the Durham Regional Official Plan and the Clarington Official Plan.

There is a moderate impact on non-farm commercial activity with a home occupation displaced at Regional Road 57 and eight businesses potentially displaced along Highway 35/115.

There is potential for increased business exposure for seven businesses including a construction yard, lumber mill, junk yard, industrial site, orchard cider house and two home occupations.

### 2.6.2 Evaluation Results

All of the twelve route alternatives rank equally with respect to impacts on community fabric. Only routes EM6 and EM10 result in no impacts on the recreational opportunities criteria.

Routes alternatives EM1, EM2, EM3, and EM8 rank the lowest with respect to the property impacts criteria. The routes with the fewest residential displacements include EM1, EM7, EM8 and EM9 ranging from 10-15 dwellings. The routes with the highest residential displacements include routes EM5, EM6, EM10 and EM12, whose residential displacements range from 22 to 26 displacements.

Nine of the twelve routes ranked moderate with respect to the degree of compatibility with municipal and regional goals and objectives. Routes EM7, EM8 and EM9 ranked with a high degree of compatibility with municipal and regional goals and objectives because the route alternative was shown in the Durham and Clarington's Official Plans.

There is no difference in the ranking of the routes in the remaining indicators for the Provincial/Municipal/Private Land Use Development Strategies criterion.

The routes with the least amount of impact from the non-farm commercial activity criteria were routes EM2, EM3, EM4, and EM6, because they had fewer businesses displaced, fewer construction impacts and some positive business exposure for nearby businesses. However, these route alternatives have the potential to remove the "market" which currently serves the businesses located along Highway 35/115, thereby impacting the business not through direct displacement but rather through reduced traffic and hence potentially reduced sales.

The routes with the greatest amount of impact from a non-farm commercial activity criteria were routes EM5, EM9, EM11 and EM12 because these route alternatives potentially displace a large number of businesses along Highway 115/35 (up to 9 businesses in total). However, at the design stage there may be an opportunity to mitigate the impact of the highway by improving accesses for these businesses. This could result in improved business sales for these operations as a result of increased traffic.

Although route alternatives EM5, EM9, EM11 and EM12 would appear to have the highest impacts on non-farm commercial activity, there is potential for design alternatives that may improve upon the current business operation. Despite route alternatives EM2, EM3, EM4 and EM6 having what

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appears to be the least impact on non-farm businesses, these routes could have a relatively severe impact on the businesses located along Highway 35/115 by bypassing the business location.

Route alternatives EM1, EM2, EM3 and EM8 result in the least impact to overall property impacts with route alternatives EM1, EM7, EM8 and EM9 resulting in the lowest residential displacements. From a non-farm business perspective route alternative EM9 is preferred as it ranked with a high degree of compatibility with municipal and regional goals and objectives. The route may result in improved access to businesses on Highway 35/115 at the design stage and would positively increase business exposure for a greater number of business operations while displacing fewer residences.

## 2.7 West Link

### 2.7.1 Net Effects Analysis

#### WL1

The route would have a moderate effect on planned/approved community structure with 12.6 ha of employment lands in Ajax removed and 38.3 ha of future settlement area removed from the Town of Whitby, with moderate encroachment on the proposed future growth area in Whitby.

The route has a moderate effect on urban and rural barrier effects as the route serves to separate the Almond Village residential plan of subdivision from the residential developments to the west in the Town of Ajax and between living areas at Taunton Road north to Lyndebrook Road.

The route results in low property impacts with a total of 87 properties affected including 12 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives of the Durham ROP. However, the route negatively impacts employment lands in Ajax. The route allows for contiguous development potential in growth areas.

There is a moderate ability to stimulate major transportation services and development initiatives in Whitby and Ajax.

There is a low impact on non-farm commercial activities as there is one landscaping supply business displaced. Two golf facilities, an industrial storage business and orchard would potentially have increased business exposure.

**WL2**

The route would have a moderate effect on planned/approved community structure with 12.6 ha of employment lands in Ajax removed and 47.9 ha of future settlement area removed from the Town of Whitby, with moderate encroachment on the proposed future growth area in Whitby.

The route has a moderate effect on urban and rural barrier effects as the route serves to separate the Almond Village residential plan of subdivision from the residential developments to the west in the Town of Ajax and between living areas at Taunton Road north to Lyndebrook Road.

The route results in moderate property impacts with a total of 94 properties affected including 12 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives of the Durham ROP. However, the route negatively impacts employment lands in Ajax. The route does not allow for contiguous development potential in growth areas.

There is a moderate ability to stimulate major transportation services and development initiatives in Whitby and Ajax.

There is no impact to non-farm commercial activities as there are no businesses displaced. Two golf facilities, an orchard, and an industrial storage business would potentially have increased business exposure.

**WL3**

The route would have a moderate effect on planned/approved community structure with 12.6 ha of employment lands in Ajax removed and 48.8 ha of future settlement area removed from the Town of Whitby, with moderate encroachment on the proposed future growth area in Whitby.

The route has a moderate effect on urban and rural barrier effects as the route serves to separate the Almond Village residential plan of subdivision from the residential developments to the west in the Town of Ajax and between living areas at Taunton Road north to Lyndebrook Road.

The route results in high property impacts with a total of 100 properties affected including 17 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives of the Durham ROP. However, the route negatively impacts employment lands in Ajax. The route does not allow for contiguous development potential in growth areas.

There is a moderate ability to stimulate major transportation services and development initiatives in Whitby and Ajax.

There is no impact to non-farm commercial activities as there are no businesses displaced. Two golf facilities, an orchard, and an industrial storage business would potentially have increased business exposure.

**WL4**

The route would have a high impact on planned/approved community structure with 13 ha of employment lands in Ajax removed and 58.5 ha of future settlement area removed from the Town of Whitby, with moderate encroachment on the proposed future growth area in Whitby.

The route has a moderate effect on the delivery of community services caused by increased bussing times and emergency services response times because of interchange locations and barrier effects.

The route has a moderate effect on urban and rural barrier effects as the route serves to separate the Almond Village residential plan of subdivision from the residential developments to the west in the Town of Ajax and between living areas at Rossland Road north to Lyndebrook Road.

The route results in high property impacts with a total of 98 properties affected including 20 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives of the Durham ROP. However, the route negatively impacts employment lands in Ajax. The route allows for contiguous development potential in growth areas.

There is a moderate ability to stimulate major transportation services and development initiatives in Whitby and Ajax.

There is a low impact on non-farm commercial activities as there is a landscaping supply business displaced. Two golf facilities, an orchard, and an industrial storage business would potentially have increased business exposure.

**WL5**

The route would have a low effect on planned/approved community structure with 13.0 ha of employment lands in Ajax removed and 9.98 ha of future settlement area removed from the Town of Whitby, with low encroachment on the proposed future growth area in Whitby.

The route has a moderate effect on the delivery of community services caused by increased bussing times and emergency services response times because of interchange locations and barrier effects.

The route has low urban and rural barrier effects as it only creates a minor barrier effect for the Almond Village residential plan of subdivision from the residential developments to the west in the Town of Ajax.

The route results in high property impacts with a total of 119 properties affected including 23 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives of the Durham ROP. The route negatively impacts employment lands in Ajax. The route allows for contiguous development potential in growth areas.

There is a moderate ability to stimulate major transportation services and development initiatives in Whitby.

There is no impact on non-farm commercial activities as there no businesses displaced. One landscape supply business will have its access removed. One golf facility, a dog kennel, and a retail orchard would potentially have increased business exposure.

### **WL6**

The route would have a high impact on planned/approved community structure with 2.5 ha of employment lands in Ajax removed and 84.5 ha of future settlement area removed from the Town of Whitby, with high impact with respect to encroachment on the proposed future growth area in Whitby.

The route has a moderate effect on the delivery of community services caused by increased bussing times and emergency services response times because of interchange locations and barrier effects.

The route has a high effect on urban and rural barrier effects as it separates the Almond Village residential plan of subdivision from residential development within the Town of Whitby and Town of Ajax, and with Kinsale in the north. There would be a barrier between proposed Living Areas and proposed employment lands north of Dundas. The north portion of the route would be sterilized to the west because the lands left would be too narrow to accommodate a residential community,

The route results in low property impacts with a total of 75 properties affected including 18 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives of the Durham ROP. However, the route negatively impacts employment lands in Ajax. The route does not allow for contiguous development potential in growth areas.

There is a moderate ability to stimulate major transportation services and development initiatives in Whitby.

There is high impact on non-farm commercial activities as there is a hydro sub-station, wrecking yard and a landscaping supply business displaced. A dog kennel would have potentially increased visibility with this route alternative.

### **WL7**

The route would have a high impact on planned/approved community structure with 2.5 ha of employment lands in Ajax removed and 83.8 ha of future settlement area removed from the Town of Whitby, with moderate impact with respect to encroachment on the proposed future growth area in Whitby.

The route has a moderate effect on the delivery of community services caused by increased bussing times and emergency services response times because of interchange locations and barrier effects.

The route has a moderate urban and rural barrier effect as it creates a minor barrier between the Almond Village residential plan of subdivision and residential development within the Town of Whitby. A barrier is also created between the growth area and proposed employment lands north of Dundas and between the proposed growth area at Rossland Road north to Lyndbrook Road.

The route results in low property impacts with a total of 85 properties affected including 17 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives of the Durham ROP. However, the route negatively impacts employment lands in Ajax. The route allows for contiguous development potential in growth areas.

There is a moderate ability to stimulate major transportation services and development initiatives in Whitby.

There is low impact on non-farm commercial activities as there is one landscaping supply business displaced. A golf facility and an industrial storage business would potentially have increased business exposure.

### **WL8**

The route would have a high impact on planned/approved community structure with 2.5 ha of employment lands in Ajax removed and 82.4 ha of future settlement area removed from the Town of Whitby, with a high impact with respect to encroachment on the proposed future growth area in Whitby.

The route has a low effect on the delivery of community services caused by increased bussing times and emergency services response times because of interchange locations and barrier effects.

The route has a moderate effect on urban and rural barrier effects as the route serves to separate the Almond Village residential plan of subdivision from the residential developments to the west in the Town of Ajax and between living areas north of Dundas to Lyndbrook Road.

The route results in low property impacts with a total of 76 properties affected including 13 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives of the Durham ROP. The route was the preferred route previously in the Durham ROP. However, the route negatively impacts employment lands in Ajax. The route does not allow for contiguous development potential in growth areas.

There is a moderate ability to stimulate major transportation services and development initiatives in Whitby.

There is no impact on non-farm commercial activities as there are no businesses displaced. A golf facility and an industrial storage business would potentially have increased business exposure.

### **WL9**

The route would have a moderate impact on planned/approved community structure with 2.5 ha of employment lands in Ajax removed and 50.5 ha of future settlement area removed from the Town of Whitby, with a moderate impact with respect to encroachment on the proposed future growth area in Whitby.

The route has a moderate effect on the delivery of community services caused by increased bussing times and emergency services response times because of interchange locations and barrier effects.

The route has a low effect on urban and rural barrier effects as the route only creates a minor barrier between the Almond Village residential plan of subdivision and Whitby. A barrier will be created between the proposed growth area and proposed employment lands north of Dundas.

The route results in moderate property impacts with a total of 97 properties affected including 19 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives of the Durham ROP. However, the route negatively impacts employment lands in Ajax. The route allows for contiguous development potential in growth areas.

There is a moderate ability to stimulate major transportation services and development initiatives in Whitby.

There is no impact on non-farm commercial activities as there are no businesses displaced. One landscape supply business would have its access removed. A dog kennel would have potentially increased visibility with this route alternative.

## **2.7.2 Evaluation Results**

Based on the criteria there are two routes that ranked the highest with the least amount of negative impacts from a socio-economic perspective. These routes are WL1 and WL8.

Route WL5 ranks first with respect to impacts on community fabric criteria. Route WL5 has a low impact on the barrier effect for the Almond Village residential community whereas WL9 has a higher impact separating the community from the residential neighbourhoods in Whitby. The routes that rank the lowest are routes WL6, WL7 and WL8, as these routes would fall entirely within the future growth areas of West Whitby.

All routes rank equally for the recreational opportunity criteria, as there are generally no recreational opportunities that are impacted by the route alternatives.

Routes WL8, WL6, WL1, and WL7 rank more preferable with respect to the property impacts criteria. All of these routes have the lowest residential displacements ranging from 12-19 dwellings. The routes with the highest residential property impacts include routes WL5, WL9, WL4, and WL 3. Residential displacements range from 17-23 displacements in these high impact route alternatives.

Routes WL6 and WL7 are most preferred with respect to degree of compatibility with municipal and regional goals and objectives as they are least impacting on employment lands in Ajax and allow for contiguous future development growth in areas. Routes WL4, WL5 and WL8 ranked with a high degree of compatibility with municipal and Regional goals and objectives because the route alternative was shown in the local Whitby and Region of Durham Official Plan.

The routes with the least amount of impact from the non-farm commercial activity criteria were routes WL2, WL3, WL5, WL8 and WL9 because each route alternative displaced no businesses and affected no businesses' access, and had fewer construction impacts and some positive business exposure for nearby businesses. The routes with the greatest amount of impact were routes WL1, WL4, WL6, and WL7 because these route alternatives displaced several businesses.

Considering both the social and economic criteria, route alternative WL1, WL5, WL6, WL7 and WL8 would result in the lowest socio-economic impacts.

## **2.8 East Link**

### **2.8.1 Net Effects Analysis**

#### **EL1**

The EL1 route has a moderate impact on the community fabric criteria as it may have some impact on Solina and one new residential plan of subdivision.

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The route results in low property impacts relative to the other alternatives with a total of 102 properties affected including 31 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. A portion of the link has been identified in the Durham ROP. The route is partially compatible with the Clarington Official Plan because the route would assist in attaining the goals and objectives of the OP.

There is moderate opportunity to stimulate transportation services and development in adjacent employment lands.

There is high impact on non-farm commercial activities as there is a farmers market, two manufacturing companies, one auto service, one industrial/contractors yard, and one driving range displaced with this route alternative. There are four home occupations with potentially increased visibility with this route alternative.

**EL2**

The EL2 route has a moderate impact on the community fabric criteria as the route may have some impact on Solina and one new residential plan of subdivision.

The route results in high property impacts relative to the other alternatives with a total of 125 properties affected including 40 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. A portion of the link has been identified in the Durham ROP. The route is partially compatible with the Clarington Official Plan because the route would assist in attaining the goals and objectives of the OP.

There is moderate opportunity to stimulate transportation services and development in adjacent employment lands.

There is high impact on non-farm commercial activities as there are two manufacturing companies, one auto service, one lumber mill, and one driving range displaced by the route alternative. There are four home occupations with potentially increased visibility with this route alternative.

**EL3**

The EL3 route has a moderate impact on the community fabric criteria as the route may have some impact on Solina and one new residential plan of subdivision.

The route results in high property impacts relative to the other alternatives with a total of 118 properties affected including 39 residential displacements.

## Alternative Methods Technical Report (Socio-economic)

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. A portion of the link has been identified in the Durham ROP. The route is partially compatible with the Clarington Official Plan because the route would assist in attaining the goals and objectives of the OP.

There is moderate opportunity to stimulate transportation services and development in adjacent employment lands.

There is high impact on non-farm commercial activities as there are two manufacturing companies, one auto service, one lumber mill, and one driving range displaced by the route alternative. There are four home occupations with potentially increased visibility with this route alternative.

**EL4**

The EL4 route has a moderate impact on the community fabric criteria as the route may have some impact on Solina and one new residential plan of subdivision.

The route results in moderate property impacts relative to the other alternatives with a total of 109 properties affected including 31 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. A portion of the link has been identified in the Durham ROP. The route is partially compatible with the Clarington Official Plan because the route would assist in attaining the goals and objectives of the OP.

There is moderate opportunity to stimulate transportation services and development in adjacent employment lands.

There is high impact on non-farm commercial activities as there are two manufacturing companies, one auto service, one home occupation, and one driving range displaced by the route alternative. There are four home occupations with potentially increased visibility with this route alternative.

**EL5**

The EL5 route has a high impact on the community fabric criteria as the route may have some impact on Solina and two new residential plans of subdivision.

The route results in high property impacts relative to the other alternatives with a total of 121 properties affected including 34 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. A portion of the link has been identified in the Durham ROP. The route is partially compatible with the Clarington Official Plan because the route would assist in attaining the goals and objectives of the OP.

## Alternative Methods Technical Report (Socio-economic)

There is moderate opportunity to stimulate transportation services and development in adjacent employment lands.

There is high impact on non-farm commercial activities as there are two manufacturing companies, one auto service, one home occupation, and one driving range displaced by the route alternative. There are four home occupations with potentially increased visibility with this route alternative.

**EL6**

The EL6 route has a high impact on the community fabric criteria as the route may have some impact on Solina and two new residential plans of subdivision.

The route results in moderate property impacts relative to the other alternatives with a total of 119 properties affected including 33 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. A portion of the link has been identified in the Durham ROP. The route is partially compatible with the Clarington Official Plan because the route would assist in attaining the goals and objectives of the OP.

There is moderate opportunity to stimulate transportation services and development in adjacent employment lands.

There is high impact on non-farm commercial activities as there are two manufacturing companies, one auto service, and one driving range displaced by the route alternative. There are four home occupations with potentially increased visibility with this route alternative.

**EL7**

The EL7 route has a high impact on the community fabric criteria as the route may have some impact on Solina and two new residential plans of subdivision.

The route results in moderate property impacts relative to the other alternatives with a total of 115 properties affected including 39 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. A portion of the link has been identified in the Durham ROP. The route is partially compatible with the Clarington Official Plan because the route would assist in attaining the goals and objectives of the OP.

There is moderate opportunity to stimulate transportation services and development in adjacent employment lands.

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There is high impact on non-farm commercial activities as there are two manufacturing companies, one auto service, and one driving range displaced by the route alternative. There are four home occupations with potentially increased visibility with this route alternative.

**EL8**

The EL8 route has a high impact on the community fabric criteria as the route may have some impact on Solina and two new residential plans of subdivision.

The route results in moderate property impacts relative to the other alternatives with a total of 113 properties affected including 38 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. A portion of the link has been identified in the Durham ROP. The route is partially compatible with the Clarington Official Plan because the route would assist in attaining the goals and objectives of the OP.

There is moderate opportunity to stimulate transportation services and development in adjacent employment lands.

There is high impact on non-farm commercial activities as there are two manufacturing companies, one auto service, and one driving range displaced by the route alternative. There are four home occupations with potentially increased visibility with this route alternative.

**EL9**

The EL9 route has a high impact on the community fabric criteria as the route may have some impact on Solina and two new residential plans of subdivision.

The route results in low property impacts relative to the other alternatives with a total of 87 properties affected including 35 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. A portion of the link has been identified in the Durham ROP. The route is partially compatible with the Clarington Official Plan because the route would assist in attaining the goals and objectives of the OP.

There is low opportunity to stimulate transportation services and development in adjacent employment lands because of the distance from planned employment areas.

There is moderate impact on non-farm commercial activities as there is a truss manufacturer, a home occupation and a retail nursery displaced. There are two equestrian centres and six home occupations have potentially increased visibility with this route alternative.

**EL10**

The EL10 route has a moderate impact on the community fabric criteria as the route may have some impact on Solina and one new residential plan of subdivision.

The route results in low property impacts relative to the other alternatives with a total of 83 properties affected including 33 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. A portion of the link has been identified in the Durham ROP. The route is partially compatible with the Clarington Official Plan because the route would assist in attaining the goals and objectives of the OP.

There is low opportunity to stimulate transportation services and development in adjacent employment lands because of the distance from planned employment areas.

There is moderate impact on non-farm commercial activities as there is a truss manufacturer, a home occupation, and a retail nursery displaced. There are two equestrian centres and six home occupations with potentially increased visibility with this route alternative.

**EL11**

The EL11 route has a moderate impact on the community fabric criteria as the route may have some impact on Solina and one new residential plan of subdivision.

The route results in high property impacts relative to the other alternatives with a total of 107 properties affected including 42 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. A portion of the link has been identified in the Durham ROP. The route is partially compatible with the Clarington Official Plan because the route would assist in attaining the goals and objectives of the OP.

There is low opportunity to stimulate transportation services and development in adjacent employment lands because of the distance from planned employment areas.

There is moderate impact on non-farm commercial activities as there is a truss manufacturer, a home occupation, and a retail nursery displaced. Two equestrian centres and six home occupations have potentially increased visibility with this route alternative.

**EL12**

The EL12 route has a moderate impact on the community fabric criteria as the route may have some impact on Solina and one new residential plan of subdivision.

The route results in low property impacts relative to the other alternatives with a total of 66 properties affected including 29 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. A portion of the link has been identified in the Durham ROP. The route is partially compatible with the Clarington Official Plan because the route would assist in attaining the goals and objectives of the OP.

There is low opportunity to stimulate transportation services and development in adjacent employment lands because of the distance from planned employment areas.

There is moderate impact on non-farm commercial activities as there are an equestrian centre and a home occupation displaced. Two equestrian centres and three home occupations have potentially increased visibility with this route alternative.

**EL13**

The EL13 route has a moderate impact on the community fabric criteria as the route may have some impact on Solina and one new residential plan of subdivision.

The route results in low property impacts relative to the other alternatives with a total of 64 properties affected including 31 residential displacements.

The route has a moderate degree of compatibility with municipal and regional development goals and objectives. A portion of the link has been identified in the Durham ROP. The route is partially compatible with the Clarington Official Plan because the route would assist in attaining the goals and objectives of the OP.

There is low opportunity to stimulate transportation services and development in adjacent employment lands because of the distance from planned employment areas.

There is moderate impact on non-farm commercial activities as there is an equestrian centre displaced. Two equestrian centres and six home occupations have potentially increased visibility with this route alternative.

**2.8.2 Evaluation Results**

Based on the criteria, two routes ranked the highest from a socio-economic perspective. These routes are EL12 and EL13.

Routes EL1-EL4 and EL10-EL13 rank equally in first place with respect to impacts on community fabric while Routes EL5-EL9 rank equally in second place with respect to impacts on community.

All routes rank equally for the Recreational Opportunity criteria.

Routes EL1, EL9, EL10, EL12, and EL12 rank the best with respect to the property impacts criteria with displacements ranging from 29-35. The routes with the highest residential property impacts include routes EL2, EL5, EL 11, and EL3. Residential displacements for these routes range from 34-42 displacements.

Routes EL9-EL13 have low capability to provide transportation service and stimulate development or major initiatives. Routes EL1-EL8 have moderate capability to stimulate major initiatives.

There is no difference in the ranking of the routes in the remaining indicators for the Provincial/Municipal/Private Land Use Development Strategies criterion.

The routes with the least amount of impact from the non-farm commercial activity criteria were Routes EL12 and EL13 because EL 12 displaces two businesses (an equestrian centre and home occupation) and EL13 displaces one business (an equestrian centre).

The routes with the greatest amount of impact were Routes EL1-EL8 because these route alternatives displaced the most businesses.

Considering both the social and economic criteria, Routes EL12 and EL13 would result in the lowest socio-economic impacts.

### 3. Summary

In considering the socio-economic criteria and indicators, a preliminary preferred route was determined.

For the Western Mainline extending from Audley Road to Ashburn Road, the northerly route WM1 ranked as the preferred route. The north route WM1 is generally more compatible because of fewer overall property impacts including fewer residential displacements. The route also results in less negative impact on non-commercial activities displacing an orchard as opposed to a golf facility. The route also has higher compatibility with Provincial/Municipal/private land development strategies.

For the Central Mainline, extending from Simcoe Street to Enfield Road, the preferred route is CM1 which is the northerly route. This route was chosen as there are fewer overall property impacts, no lost recreational opportunities, and no businesses are displaced. The degree of compatibility with Federal/Provincial/Municipal planning goals objectives and policies is equal for the both the route alternatives resulting in no significant preference with respect to this criterion.

For the East Mainline, from Enfield Road to Hwys 35/115, several route alternatives ranked the highest from a socio-economic perspective. The routes that ranked the highest with the least

amount of impact were routes EM8, EM1, EM2 and EM3 as they had least impacts in a majority of criteria and were least impacting on residential displacements.

For the West Link, two routes ranked the highest from a socio-economic perspective. These routes are WL1 and WL8. The preferred option is route WL1. Route WL1 had comparable rankings to route WL8 with respect to the community fabric criterion; however, there was a low urban/rural barrier effect for WL1 and a moderate business exposure for businesses in the non-farm commercial activity criteria.

For the East Link, two routes ranked the highest from a socio-economic perspective. These routes are EL12 and EL13. Both E12 and E13 ranked the best with respect to the property impacts criteria with route EL12 displacing 29 residential dwellings and E13 displacing 31. Route E13 ranked first overall as there was only one business displacement whereas in route E12 there were two. For community fabric criteria route alternatives EL12 and EL13 ranked low, as well as for recreational opportunities. The routes ranked similarly to the other routes for other criteria noted.