## 2102 - Highway 404 New Interchange - at Doane Road

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Highway 404 New Interchange | **Project ID** | **2102** |
| **Municipality** | East Gwillimbury | **Road Segment ID** | 45-29 to 45-30 |
| **Project Limits** | at Doane Road | | |
| **Project Type** | New Interchange | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 36 metres

#### Description

Components of interchange ramps have been pre-constructed as part of Highway 404 extension.

#### Natural and Built Environment

| | |
|---|---|
| **Natural Environment** | Observations: Regional Greenlands System south of Doan Road.<br>Environmentally Sensitive Areas: ESAs across Highway 404 north of Doane<br>Source Water Protection Areas: Within SWP zone |
| **Land Use and Built Environment** | Primarily agricultural lands. |

### Problem or Opportunity Statement

- Improved network connectivity needed to move people and goods.
- Network improvements needed to accommodate expansion of the Designated Urban Area.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Interchange improvements at adjacent interchange - Potential to divert travel demand to other corridors. Does not address travel demand in corridor.
3. New partial interchange - Improves access to highway, but only to/from select directions.
4. New full interchange - Addresses travel demand and improves highway access to/from all directions.

## 2102 - Highway 404 New Interchange - at Doane Road (continued)

### Recommended Improvement and Justification

**Recommendation** Construct new full interchange.

**Justification** Identified in 2009 TMP and confirmed through Doane Road EA. Interchange is required to serve growth in Queensville and Sharon. Interchange ramps already partially roughed in. Opportunity to include park and ride lot with interchange improvements. Approval required from MTO.

**TMP Phase** 2022 to 2026

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ○ | ● | ○ | ◕ | ◕ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 4,063,000 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|
| Doane Road - Yonge Street to Woodbine Avenue - Widen to 4 lanes | 2056 |

### Key Intersections and Constraints

**Highway 404 at Doane Road**

# 2103 - Highway 404 Interchange Improvements - at Mulock Drive

## Project Description

| | | | |
|---|---|---|---|
| **Location** | Highway 404 Interchange Improvements | **Project ID** | **2103** |
| **Municipality** | Newmarket, Whitchurch-Stouffville | **Road Segment ID** | 74-29 to 74-30 |
| **Project Limits** | at Mulock Drive | | |
| **Project Type** | Interchange Improvements | | |

## Map


## Existing Conditions

### Physical and Transportation Conditions

**OP Designated ROW** Up to 36 metres

### Description

Existing partial interchange with access to/from the south. Signalized intersection at northbound off-ramp.

### Natural and Built Environment

**Natural Environment** Observations: Forested areas and watercourse in the northeast and northwest quadrants.
Source Water Protection Areas: Within SWP zone

**Land Use and Built Environment** Agricultural lands to the east. Low density residential to the southwest and employment lands to the northwest.

## Problem or Opportunity Statement

- Improved network connectivity needed to move people and goods.
- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.

## Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Interchange improvements at adjacent interchange - Potential to divert travel demand to adjacent corridor. Does not address travel demand in corridor.
3. Interchange improvements - Addresses travel demand and improves access to/from Highway 404.

## 2103 - Highway 404 Interchange Improvements - at Mulock Drive (continued)

### Recommended Improvement and Justification

**Recommendation** Interchange improvements.

**Justification** Additional ramps to/from north at Mulock Drive interchange are needed for improved connectivity. Interchange reduces traffic on local/collector streets including Harry Walker Parkway and Davis Drive. MTO conducting Class EA for improvements along Highway 404 from Highway 407 to Green Lane. MTO plans include missing ramps to/from north at Mulock Drive. Opportunity to include park and ride lot with interchange improvements.

**TMP Phase** 2022 to 2026

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ○ | ● | ○ | ◕ | ◕ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 6,000,000 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|

### Key Intersections and Constraints

**Highway 404 at Mulock Drive**

## 2104 - Highway 404 New Interchange - at St John's Sideroad

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Highway 404 New Interchange | **Project ID** | **2104** |
| **Municipality** | Aurora, Whitchurch-Stouffville | **Road Segment ID** | 26-29 to 26-30 |
| **Project Limits** | at St John's Sideroad | | |
| **Project Type** | New Interchange | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 36 metres

#### Description

Existing Highway 404 underpass of St. John's Sideroad.

#### Natural and Built Environment

**Natural Environment** Observations: Regional Greenlands System to the north and south.
Source Water Protection Areas: Near SWP zone

**Land Use and Built Environment** Agricultural lands to the northwest, southwest and southeast. Residential parcels with direct frontage on St. John's Sideroad to the east.

### Problem or Opportunity Statement

- Improved network connectivity needed to move people and goods.
- Network improvements needed to accommodate expansion of the Designated Urban Area.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Interchange improvements at adjacent interchange - Potential to divert travel demand to other corridors. Does not address travel demand in corridor.
3. New partial interchange - Improves access to highway, but only to/from select directions.
4. New full interchange - Addresses travel demand and improves highway access to/from all directions.

## 2104 - Highway 404 New Interchange - at St John's Sideroad (continued)

### Recommended Improvement and Justification

**Recommendation** Construct new full interchange.

**Justification** New interchange needed to accommodate growth in east Aurora. Interchange provides alternative access to Highway 404 and relieves traffic on Wellington Street, eliminating the need to widen Wellington beyond the current 4 lanes. Approval required from MTO.

**TMP Phase** 2027 to 2031

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ○ | ● | ○ | ◕ | ◕ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 40,250,000 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|
| St John's Sideroad - Bayview Avenue to Highway 404 - Widen to 4 lanes | 2029 |

### Key Intersections and Constraints

**Highway 404 at St John's Sideroad**

## 2105 - Highway 404 New Interchange - at 19th Avenue

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Highway 404 New Interchange | **Project ID** | **2105** |
| **Municipality** | Richmond Hill, Markham | **Road Segment ID** | 29-29 to 29-30 |
| **Project Limits** | at 19th Avenue | | |
| **Project Type** | New Interchange | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 43 metres

#### Description

Existing Highway 404 underpass of 19th Avenue.

#### Natural and Built Environment

**Natural Environment** Observations: Regional Greenlands System with watercourse on the west side of Highway 404.

**Land Use and Built Environment** Primarily agricultural uses. Industrial site in the southeast quadrant.

### Problem or Opportunity Statement

- Improved network connectivity needed to move people and goods.
- Network improvements needed to accommodate growth in Designated Urban Area.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Interchange improvements at adjacent interchange - Potential to divert travel demand to other corridors. Does not address travel demand in corridor.
3. New partial interchange - Improves access to highway, but only to/from select directions.
4. New full interchange - Addresses travel demand and improves highway access to/from all directions.

## 2105 - Highway 404 New Interchange - at 19th Avenue (continued)

### Recommended Improvement and Justification

**Recommendation** Construct new full interchange.

**Justification** New interchange needed as connection to Donald Cousens Parkway and to accommodate growth in North Markham and Richmond Hill. 19th Avenue is currently under the jurisdiction of Richmond Hill/Markham and is a candidate for transfer to the Region. A new interchange has been protected in North Leslie Secondary Plan approvals. Approval required from MTO.

**TMP Phase** 2027 to 2031

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ○ | ● | ○ | ● | ◔ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 40,250,000 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|
| 19th Avenue - Bayview Avenue to Woodbine Avenue - Widen to 4 lanes | 2037 |
| Donald Cousens Parkway (19th Avenue) - Woodbine Avenue to Major Mackenzie Drive - Widen to 4 lanes; New ar | 2053 |

### Key Intersections and Constraints

**Highway 404 at 19th Avenue**

## 2106 - Highway 404 Interchange Improvements - at 16th Avenue

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Highway 404 Interchange Improvements | **Project ID** | **2106** |
| **Municipality** | Richmond Hill, Markham | **Road Segment ID** | 73-29 to 73-30 |
| **Project Limits** | at 16th Avenue | | |
| **Project Type** | Interchange Improvements | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 43 metres

#### Description

Existing interchange (ParClo AB).

#### Natural and Built Environment

**Natural Environment** Observations: Existing development on both sides.

**Land Use and Built Environment** Primarily employment lands in surrounding area. Buttonville airport in southeast corner.

### Problem or Opportunity Statement

- Improved network connectivity needed to move people and goods.
- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Interchange improvements at adjacent interchange - Potential to divert travel demand to adjacent corridor. Does not address travel demand in corridor.
3. Interchange improvements - Addresses travel demand and improves access to/from highway.

## 2106 - Highway 404 Interchange Improvements - at 16th Avenue (continued)

### Recommended Improvement and Justification

**Recommendation** Interchange improvements.

**Justification** Interchange re-configuration improves capacity and reduces delay at the intersections. MTO conducting Class EA for improvements along Highway 404 from Highway 407 to Green Lane. MTO plans include reconfiguration of existing interchange to Parco A once Buttonville Airport redevelops. Opportunity for new park and ride facility. Approval required from MTO.

**TMP Phase** 2017 to 2021

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ○ | ● | ○ | ◕ | ◕ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 13,750,000 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|
| 16th Avenue - Leslie Street to Woodbine Avenue - Widen to 6 lanes | 2087 |

### Key Intersections and Constraints

**Highway 404 at 16th Avenue**

## 2107 - Highway 407 New Interchange - at Martin Grove Road

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Highway 407 New Interchange | **Project ID** | **2107** |
| **Municipality** | Vaughan | **Road Segment ID** | 07-10 |
| **Project Limits** | at Martin Grove Road | | |
| **Project Type** | New Interchange | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** N/A

#### Description

Existing Highway 407 underpass. This section of Martin Grove Road is 4 general purpose lanes with continuous sidewalks on both sides. No dedicated cycling facilities.

#### Natural and Built Environment

**Natural Environment** Observations: Existing development on both sides.

**Land Use and Built Environment** Hydro corridor to the northeast. Large industrial/commercial building to the northwest.

### Problem or Opportunity Statement

- Improved network connectivity needed to move people and goods.
- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Interchange improvements at adjacent interchange - Potential to divert travel demand to other corridors. Does not address travel demand in corridor.
3. New partial interchange - Improves access to highway, but only to/from select directions.
4. New full interchange - Addresses travel demand and improves highway access to/from all directions.

## 2107 - Highway 407 New Interchange - at Martin Grove Road (continued)

### Recommended Improvement and Justification

**Recommendation** Construct new interchange.

**Justification** New Highway 407 interchange at Martin Grove Road was identified in 2009 TMP. Previous feasibility study indicated that a partial interchange to/from the east is feasible within the existing Highway 407 right-of-way. Interchange would serve residential and industrial areas to the south and industrial areas to the north, providing improved accessibility to Highway 407. Approval required from MTO and 407 ETR.

**TMP Phase** 2027 to 2031

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ○ | ● | ○ | ◕ | ○ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 40,250,000 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|

### Key Intersections and Constraints

**Highway 407 at Martin Grove Road**

# 2108 - Highway 407 New Interchange - at Centre Street

## Project Description

| | | | |
|---|---|---|---|
| **Location** | Highway 407 New Interchange | **Project ID** | **2108** |
| **Municipality** | Vaughan | **Road Segment ID** | 71-19 to 71-21 |
| **Project Limits** | at Centre Street | | |
| **Project Type** | New Interchange | | |

## Map


## Existing Conditions

### Physical and Transportation Conditions

**OP Designated ROW** Up to 45 metres

### Description

Existing Highway 407 overpass. This section of Centre Street is 4 general purpose lanes with paved shoulders with a median island under the structure. A sidewalk is provided on the south side. No dedicated cycling facilities.

### Natural and Built Environment

**Natural Environment** Observations: Greenlands system, watercourse and trail in the southwest quadrant.

**Land Use and Built Environment** Hydro corridor parallel to Highway 407 on the east side. Approx 130 m to Highway 7 on the west side. Community park in the northeast quadrant.

## Problem or Opportunity Statement

- Improved network connectivity needed to move people and goods.
- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.

## Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Interchange improvements at adjacent interchange - Potential to divert travel demand to other corridors. Does not address travel demand in corridor.
3. New partial interchange - Improves access to highway, but only to/from select directions.
4. New full interchange - Addresses travel demand and improves highway access to/from all directions.

## 2108 - Highway 407 New Interchange - at Centre Street (continued)

### Recommended Improvement and Justification

**Recommendation** Construct new interchange.

**Justification** New Highway 407 interchange at Centre Street was identified in 2009 TMP. Previous feasibility study indicated several design concepts for this interchange would be feasible. The Interchange serves the residential and commercial areas to the southeast and industrial areas to the northwest. Approval required from MTO and 407 ETR.

**TMP Phase** 2032 to 2041

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ○ | ● | ○ | ◕ | ○ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 40,250,000 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|
| Highway 7 - Helen Street to Yonge Street - RT Corridor | 1007 |

### Key Intersections and Constraints

**Highway 407 at Centre Street**

## 2109 - Highway 407 Interchange Improvements - at Ninth Line

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Highway 407 Interchange Improvements | **Project ID** | **2109** |
| **Municipality** | Markham | **Road Segment ID** | 69-04 |
| **Project Limits** | at Ninth Line | | |
| **Project Type** | Interchange Improvements | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 45 metres

#### Description

Existing interchange (ParClo A) without the S-E on-ramp in the southeast quadrant. This section of Ninth Line is 4 general purpose lanes (5 lanes on the structure) with continuous sidewalks on both sides. No dedicated cycling facilities.

#### Natural and Built Environment

**Natural Environment** Observations: Greenlands system with watercourse in the southeast quadrant.

**Land Use and Built Environment** Primarily lower density residential. Big box retail commercial in the southeast quadrant.

### Problem or Opportunity Statement

- Improved network connectivity needed to move people and goods.
- Network improvements needed to accommodate growth in Designated Urban Area.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Interchange improvements at adjacent interchange - Potential to divert travel demand to adjacent corridor. Does not address travel demand in corridor.
3. Interchange improvements - Addresses travel demand and improves access to/from highway.

## 2109 - Highway 407 Interchange Improvements - at Ninth Line (continued)

### Recommended Improvement and Justification

**Recommendation** Interchange improvements.

**Justification** New ramp from South to East needed to serve growth in Markham. York Region completed interchange feasibility study identifying the need for missing ramp. A full interchange improves utility of Ninth Line. 407 ETR has not committed to improvements, but will consider if BCA thresholds are met. Approval required from MTO and 407 ETR.

**TMP Phase** 2032 to 2041

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ○ | ◔ | ○ | ◔ | ○ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 3,750,000 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|

### Key Intersections and Constraints

**Highway 407 at Ninth Line**

# 2110 - Highway 407 Interchange Improvements - at Donald Cousens Parkway

## Project Description

| | | | |
|---|---|---|---|
| **Location** | Highway 407 Interchange Improvements | **Project ID** | **2110** |
| **Municipality** | Markham | **Road Segment ID** | 48-05 |
| **Project Limits** | at Donald Cousens Parkway | | |
| **Project Type** | Interchange Improvements | | |

## Map


## Existing Conditions

### Physical and Transportation Conditions

**OP Designated ROW** Up to 36 metres

### Description

Existing partial interchange missing S-W on-ramp and S-E on-ramp.

### Natural and Built Environment

**Natural Environment** Observations: Regional Greenlands System adjacent to Highway 407 on the north side.

**Land Use and Built Environment** Big box retail commercial to the southwest. Agricultural and open space in the northwest, northeast and southeast quadrants.

## Problem or Opportunity Statement

- Improved network connectivity needed to move people and goods.
- Network improvements needed to accommodate growth in Designated Urban Area.
- Capacity improvements needed to accommodate future travel demands.

## Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Interchange improvements at adjacent interchange - Potential to divert travel demand to adjacent corridor. Does not address travel demand in corridor.
3. Interchange improvements - Addresses travel demand and improves access to/from highway.

## 2110 - Highway 407 Interchange Improvements - at Donald Cousens Parkway (continued)

### Recommended Improvement and Justification

**Recommendation** Interchange improvements.

**Justification** Donald Cousens Parkway to Morningside Link EA recommended completing interchange with the addition of ramps to/from south. 407 ETR has not committed to improvements, but will consider if BCA thresholds are met. Approval required from MTO and 407 ETR.

**TMP Phase** 2022 to 2026

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ○ | ● | ○ | ● | ○ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 6,750,000 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|

### Key Intersections and Constraints

**Highway 407 at Donald Cousens Parkway**

## 2111 - Highway 400 New Interchange - at 15th Sideroad

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Highway 400 New Interchange | **Project ID** | **2111** |
| **Municipality** | King | **Road Segment ID** | 40-15 to 40-16 |
| **Project Limits** | at 15th Sideroad | | |
| **Project Type** | New Interchange | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** N/A

#### Description

15th Sideroad is discontinuous at Highway 400. Existing corridor is unpaved, gravel surface.

#### Natural and Built Environment

**Natural Environment** Observations: Interchange is located within Regional Greenlands System.
Environmentally Sensitive Areas: ANSI in southwest quadrant.

**Land Use and Built Environment** Primarily agricultural lands in the vicinity. MTO weigh station located on Highway 400 just north of 15th Sideroad.

### Problem or Opportunity Statement

- Improved network connectivity needed to move people and goods.
- Network improvements needed to accommodate growth in Designated Urban Area.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Interchange improvements at adjacent interchange - Potential to divert travel demand to other corridors. Does not address travel demand in corridor.
3. New partial interchange - Improves access to highway, but only to/from select directions.
4. New full interchange - Addresses travel demand and improves highway access to/from all directions.

## 2111 - Highway 400 New Interchange - at 15th Sideroad (continued)

### Recommended Improvement and Justification

| | |
|---|---|
| **Recommendation** | Construct new full interchange. |
| **Justification** | New interchange identified in Mid-York East-West Transportation Corridor Feasibility study as a carry-forward corridor. 15th Sideroad currently under jurisdiction of King Township and is a candidate for transfer to the Region. Need for interchange related to planned improvements on 15th Sideroad resulting in a continuous east-west road, eliminating the missing link between Jane and Keele, and across Highway 400. New interchange and corridor improvements provide traffic relief on King Road through King City and provides alternate truck route bypassing King City. Approval required from MTO. |
| **TMP Phase** | 2032 to 2041 |

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ○ | ◔ | ○ | ● | ◔ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 40,250,000 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|
| 15th Sideroad - Highway 400 to Jane Street - Widen to 4 lanes | 2049 |

### Key Intersections and Constraints

**Highway 400 at 15th Sideroad**

## 2112 - Highway 400 New Interchange - at King Vaughan Road

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Highway 400 New Interchange | **Project ID** | **2112** |
| **Municipality** | Vaughan | **Road Segment ID** | 29-15 to 29-16 |
| **Project Limits** | at King Vaughan Road | | |
| **Project Type** | New Interchange | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** N/A

#### Description

Existing Highway 400 underpass with 2-lanes on King Vaughan Road.

#### Natural and Built Environment

**Natural Environment** Observations: Regional Greenlands System located in southwest quadrant. Watercourses on both sides of Highway 400.

**Land Use and Built Environment** Industrial land use in the northeast quadrant. Primarily agricultural lands on northwest, southwest and southeast quadrants. Private residence located in southeast quadrant approx 50 m from Highway 400.

### Problem or Opportunity Statement

- Improved network connectivity needed to move people and goods.
- Network improvements needed to accommodate expansion of the Designated Urban Area.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Interchange improvements at adjacent interchange - Potential to divert travel demand to other corridors. Does not address travel demand in corridor.
3. New partial interchange - Improves access to highway, but only to/from select directions.
4. New full interchange - Addresses travel demand and improves highway access to/from all directions.

## 2112 - Highway 400 New Interchange - at King Vaughan Road (continued)

### Recommended Improvement and Justification

**Recommendation** Construct new interchange.

**Justification** Interchange required to support growth in Northern Vaughan. Interchange provides connection to Highway 400 and also to GTA West. Interchange feasibility to be confirmed through GTA West EA. York Region working with MTO and Vaughan through the GTA West EA to confirm final interchange configuration in the area of the future GTA West / Highway 400 freeway to freeway interchange. Identified as a carry-forward corridor in the Mid-York East-West Transportation Study. Approval required from MTO.

**TMP Phase** 2032 to 2041

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ○ | ● | ○ | ◕ | ◕ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 40,250,000 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|
| King Vaughan Road - Pine Valley Drive to Bathurst Street - Widen to 4 lanes | 2018 |

### Key Intersections and Constraints

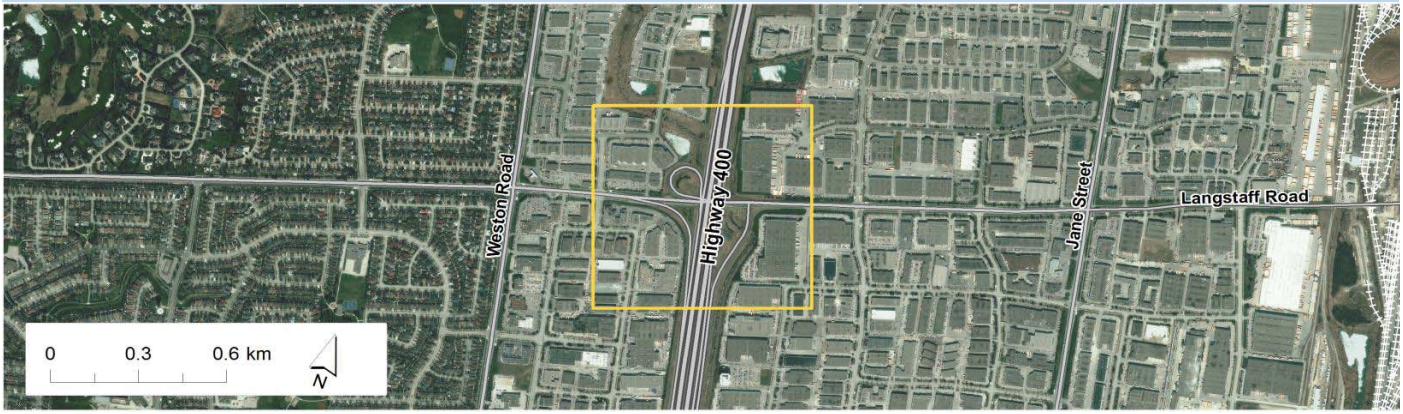
**Highway 400 at King Vaughan Road**

## 2113 - Highway 400 Interchange Improvements - at Langstaff Road

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Highway 400 Interchange Improvements | **Project ID** | **2113** |
| **Municipality** | Vaughan | **Road Segment ID** | 72-15 to 72-16 |
| **Project Limits** | at Langstaff Road | | |
| **Project Type** | Interchange Improvements | | |

### Map




### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 36 metres

#### Description

Existing partial interchange with access to/from the south only. Signalized intersection at northbound off-ramp.

#### Natural and Built Environment

**Natural Environment** Observations: Watercourse on east side of Highway 400 crossing to west side north of Langstaff Road.

**Land Use and Built Environment** Employment/industrial lands surrounds interchange area.

### Problem or Opportunity Statement

- Improved network connectivity needed to move people and goods.
- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Interchange improvements at adjacent interchange - Potential to divert travel demand to adjacent corridor. Does not address travel demand in corridor.
3. Interchange improvements - Addresses travel demand and improves access to/from highway.

## 2113 - Highway 400 Interchange Improvements - at Langstaff Road (continued)

### Recommended Improvement and Justification

**Recommendation** Interchange improvements.

**Justification** Interchange improvements needed to provide access to/from the north. A full interchange provides improved highway connectivity for goods movement. Need for improvement increases when Langstaff Road missing link is constructed between Jane Street and Keele Street. Opportunity for new park and ride facility. Langstaff Road EA (Weston to Highway 7) is scheduled to commence in 2016. Approval required from MTO.

**TMP Phase** 2027 to 2031

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ○ | ● | ○ | ● | ◔ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 14,250,000 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|
| Langstaff Road - Weston Road to Jane Street - Widen to 6 lanes | 2079 |

### Key Intersections and Constraints

**Highway 400 at Langstaff Road**

## 2114 - Highway 400 Interchange Improvements - at Highway 7 - Vaughan Metropolitan Centre

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Highway 400 Interchange Improvements | **Project ID** | **2114** |
| **Municipality** | Vaughan | **Road Segment ID** | 07-15 to 07-16 |
| **Project Limits** | at Highway 7 - Vaughan Metropolitan Centre | | |
| **Project Type** | Interchange Improvements | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 60 metres

#### Description

Existing full interchange at Highway 7

#### Natural and Built Environment

**Natural Environment** Observations: Watercourse on east side of Highway 400 ramps.

**Land Use and Built Environment** Major commercial/employment area in the surrounding vicinity.

### Problem or Opportunity Statement

- Improved network connectivity needed to move people and goods.
- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Interchange improvements at adjacent interchange - Potential to divert travel demand to adjacent corridor. Does not address travel demand in corridor.
3. Interchange improvements - Addresses travel demand and improves access to/from highway.

## 2114 - Highway 400 Interchange Improvements - at Highway 7 - Vaughan Metropolitan Centre (continued)

### Recommended Improvement and Justification

**Recommendation** Interchange improvements.

**Justification** Improvements to existing full interchange on Highway 400 at Highway 7 is needed to accommodate Vaughan Corporate Centre Plan. Approval required from MTO.

**TMP Phase** 2017 to 2021

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ○ | ◕ | ○ | ◕ | ◕ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 19,200,000 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|
| Highway 7 - Helen Street to Yonge Street - RT Corridor | 1007 |

### Key Intersections and Constraints

**Highway 400 at Highway 7**

## 2115 - Highway 7 - Kipling Avenue to Helen Street

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Highway 7 | **Project ID** | **2115** |
| **Municipality** | Vaughan | **Road Segment ID** | 07-11 to 07-12 |
| **Project Limits** | Kipling Avenue to Helen Street | **Length** | 1,400 m |
| **Project Type** | Widen to 6 lanes | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 45 metres

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| **Model Forecast** | Maximum | Average | Maximum | Average |
| 2011 Existing | 2,070 | 1,280 | 1.03 | 0.64 |
| Daily truck volume | 4,280 /day | 2,710 /day | | |

#### Description

Existing 4 general purpose lanes with turning lanes at intersections. Continuous sidewalk on the north side. No pedestrians allowed on the south side between McKenzie St & Wallace St. No dedicated cycling facilities. CP MacTier Subdivision railway underpass east of Kipling Avenue; structural walls abuts travel lanes. Curbside transit service, including Viva Orange.

#### Natural and Built Environment

**Natural Environment** Observations: Crosses the Humber River valley between Kipling Avenue and Islington Avenue.

**Land Use and Built Environment** Mostly low-density residential; parkland in the Humber River valley, public school, pool and arena to the north

### Future Transportation Conditions

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| | Maximum | Average | Maximum | Average |
| **2041 Do Nothing** | 2,690 | 1,680 | 1.34 | 0.84 |
| **2041 Proposed Network** | 3,240 | 2,000 | 1.08 | 0.67 |

## 2115 - Highway 7 - Kipling Avenue to Helen Street (continued)

### Problem or Opportunity Statement

- Corridor improvements needed to address high transit demands along Highway 7 corridor
- Constrained section from Kipling to Helen impacts both road and transit operations.
- Corridor improvements needed to increase transit speed and reliability.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Optimize existing facility with intersection improvements only - Minor improvement for corridor traffic flow. Does not address overall traffic congestion. Does not improve transit/HOV and active modes.
3. Widen corridor to 6 lanes for general purpose capacity improvements - Improves traffic flow and reduces congestion. Opportunity to improve walking and cycling facilities.
4. Widen corridor to implement dedicated rapid transit - Does not address traffic congestion. Opportunity to improve walking and cycling facilities.
5. Widen parallel/adjacent corridor - Potential to divert some traffic to other corridors. Does not address corridor congestion and travel demand, no improvements to walking and cycling facilities, does not encourage shift to transit/HOV.

### Recommended Improvement and Justification

| | |
|---|---|
| **Recommendation** | Widen to 6 lanes in addition to dedicated rapidway. Construction to be coordinated with rapidway construction. |
| **Justification** | EA provides detailed justification for dedicated rapidway. Eliminating constraint (railway underpass) improves transit speeds and service reliability and maximizes ridership potential. Opportunity to improve walking and cycling facilities. |
| **TMP Phase** | 2027 to 2031 |

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ● | ◔ | ● | ◔ | ● |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 65,608,800 |
| **Incremental Annual Road Operating Cost** | $ | 70,000 |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | 26,400 |

### Related Projects

| Name | Project ID |
|---|---|
| Highway 7 - Highway 50 to Helen Street - RT Corridor | 1006 |
| Highway 7 - Helen Street to Yonge Street - RT Corridor | 1007 |

## 2115 - Highway 7 - Kipling Avenue to Helen Street (continued)

### Key Intersections and Constraints

**Highway 7 at Islington Avenue**


**Railway underpass east of Kipling Avenue (Image capture: 2015, ©2016 Google)**

## 2116 - Steeles Avenue - Highway 50 to Islington Avenue

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Steeles Avenue | **Project ID** | **2116** |
| **Municipality** | Vaughan | **Road Segment ID** | 95-07 to 95-11 |
| **Project Limits** | Highway 50 to Islington Avenue | **Length** | 4,230 m |
| **Project Type** | Steeles (Widen to 6 lanes) | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** 45 metres

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| **Model Forecast** | Maximum | Average | Maximum | Average |
| 2011 Existing | 940 | 640 | 0.58 | 0.40 |
| Daily truck volume | N/A | N/A | | |

#### Description

Existing 4 general purpose lanes with turning lanes at intersections. Continuous sidewalk on south side. No continuous sidewalk on north side from Highway 50 to Islington Avenue. No dedicated cycling facilities. Curbside transit service between Highway 427 and Islington Avenue. Grade separated rail crossing for CN York Subdivision under the intersection of Steeles Avenue/Martin Grove Road.

#### Natural and Built Environment

**Natural Environment** Observations: Thackeray Park and Humber River valley lands located on both sides of Steeles Avenue between Kipling Avenue and Islington Avenue.

**Land Use and Built Environment** Industrial/commercial land uses to east of Highway 27. Primarily residential on the south side from east of Highway 27 to Islington Avenue.

### Future Transportation Conditions

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| | Maximum | Average | Maximum | Average |
| **2041 Do Nothing** | 1,220 | 990 | 0.76 | 0.62 |
| **2041 Proposed Network** | 1,450 | 1,330 | 0.60 | 0.55 |

## 2116 - Steeles Avenue - Highway 50 to Islington Avenue (continued)

### Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Optimize existing facility with intersection improvements only - Minor improvement for corridor traffic flow. Does not address overall traffic congestion. Does not improve transit/HOV and active modes.
3. Widen corridor to 6 lanes for general purpose capacity improvements - Improves traffic flow and reduces congestion. Opportunity to improve walking and cycling facilities. Does not support shift to transit/HOV. Not consistent with Council policy to widen to 6 lanes for transit/HOV lanes only.
4. Widen corridor to 6 lanes to implement transit/HOV lanes - Addresses traffic capacity. Opportunity to improve walking and cycling facilities. Potential to improve transit travel time and encourage shift to transit/HOV.
5. Widen corridor to implement rapid transit - Does not address traffic congestion. Transit ridership does not meet RT threshold.
6. Widen parallel/adjacent corridor - Potential to divert some traffic to other corridors. Does not address corridor congestion and travel demand, no improvements to walking and cycling facilities, does not encourage shift to transit/HOV.

### Recommended Improvement and Justification

**Recommendation** Widen corridor to 6 lanes for general purpose capacity improvements.

**Justification** Boundary road under the jurisdiction of the City of Toronto. Widening provides a continuous 6-lane corridor on Steeles Avenue. Potential for implementing HOV lanes jointly with City of Toronto. Improvements at the intersection of Highway 50 will require coordination with Peel Region.

**TMP Phase** 2032 to 2041

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
|  |  |  |  |  |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 54,205,700 |
| **Incremental Annual Road Operating Cost** | $ | 211,400 |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | 79,700 |

### Related Projects

| Name | Project ID |
|---|---|
| Steeles Avenue - Pine Valley Drive to Jane Street - Steeles (Widen to 6 lanes) | 2117 |

## 2116 - Steeles Avenue - Highway 50 to Islington Avenue (continued)

### Key Intersections and Constraints

**Steeles Avenue at Highway 50**


**Steeles Avenue at Highway 427**


**Steeles Avenue at Highway 27**


**Steeles Avenue at Islington Avenue**

## 2117 - Steeles Avenue - Pine Valley Drive to Jane Street

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Steeles Avenue | **Project ID** | **2117** |
| **Municipality** | Vaughan | **Road Segment ID** | 95-14 to 95-16 |
| **Project Limits** | Pine Valley Drive to Jane Street | **Length** | 3,610 m |
| **Project Type** | Steeles (Widen to 6 lanes) | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** 45 metres

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| **Model Forecast** | Maximum | Average | Maximum | Average |
| 2011 Existing | 1,590 | 1,400 | 0.99 | 0.87 |
| Daily truck volume | N/A | N/A | | |

#### Description

Existing 4 general purpose lanes with turning lanes at intersections. Widens to 6 lanes at the intersection of Pine Valley Drive/Steeles Avenue. Continuous sidewalk on south side. Sidewalk on north side, with a disconnect at the overpass of Highway 400. No dedicated cycling facilities. Curbside transit service.

#### Natural and Built Environment

**Natural Environment** Observations: Small pocket of Regional Greenlands System and forest at the northwest quadrant of Jane Street at Steeles Avenue.

**Land Use and Built Environment** Large employment area with industrial land uses on both sides of Steeles Avenue.

### Future Transportation Conditions

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| | Maximum | Average | Maximum | Average |
| **2041 Do Nothing** | 1,970 | 1,600 | 1.23 | 1.00 |
| **2041 Proposed Network** | 2,240 | 2,200 | 0.93 | 0.92 |

## 2117 - Steeles Avenue - Pine Valley Drive to Jane Street (continued)

### Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Optimize existing facility with intersection improvements only - Minor improvement for corridor traffic flow. Does not address overall traffic congestion. Does not improve transit/HOV and active modes.
3. Widen corridor to 6 lanes for general purpose capacity improvements - Improves traffic flow and reduces congestion. Opportunity to improve walking and cycling facilities. Does not support shift to transit/HOV. Not consistent with Council policy to widen to 6 lanes for transit/HOV lanes only.
4. Widen corridor to 6 lanes to implement transit/HOV lanes - Addresses traffic capacity. Opportunity to improve walking and cycling facilities. Potential to improve transit travel time and encourage shift to transit/HOV.
5. Widen corridor to implement rapid transit - Does not address traffic congestion. Transit ridership does not meet RT threshold.
6. Widen parallel/adjacent corridor - Potential to divert some traffic to other corridors. Does not address corridor congestion and travel demand, no improvements to walking and cycling facilities, does not encourage shift to transit/HOV.

### Recommended Improvement and Justification

**Recommendation** Widen corridor to 6 lanes for general purpose capacity improvements.

**Justification** Boundary road under the jurisdiction of the City of Toronto. Forecast demand meets threshold for widening to 6 lanes and provides a continuous 6-lane corridor on Steeles Avenue. Potential for implementing HOV lanes jointly with City of Toronto

**TMP Phase** 2032 to 2041

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
|  |  |  |  |  |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 28,905,900 |
| **Incremental Annual Road Operating Cost** | $ | 180,400 |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | 68,000 |

### Related Projects

| Name | Project ID |
|---|---|
| Steeles Avenue - Highway 50 to Islington Avenue - Steeles (Widen to 6 lanes) | 2116 |

## 2117 - Steeles Avenue - Pine Valley Drive to Jane Street (continued)

### Key Intersections and Constraints

**Steeles Avenue at Pine Valley Drive**


**Steeles Avenue at Weston Road**


**Steeles Avenue at Jane Street**

## 2118 - Steeles Avenue - Bathurst Street to Hilda Avenue

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Steeles Avenue | **Project ID** | **2118** |
| **Municipality** | Vaughan, Toronto | **Road Segment ID** | 95-24 |
| **Project Limits** | Bathurst Street to Hilda Avenue | **Length** | 1,380 m |
| **Project Type** | Steeles (Widen to 6 lanes) | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** 36 metres

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| **Model Forecast** | Maximum | Average | Maximum | Average |
| 2011 Existing | 1,400 | 1,400 | 0.87 | 0.87 |
| Daily truck volume | N/A | N/A | | |

#### Description

Existing 4 general purpose lanes with turning lanes at intersections. Continuous sidewalks on both sides. No dedicated cycling facilities. Curbside transit service.

#### Natural and Built Environment

**Natural Environment** Observations: Existing development on both sides.

**Land Use and Built Environment** Mostly tower residential from Bathurst Street to Pam Gate Boulevard, commercial on the north side and residential on the south side to Hilda Avenue.

### Future Transportation Conditions

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| | Maximum | Average | Maximum | Average |
| **2041 Do Nothing** | 1,550 | 1,550 | 0.96 | 0.96 |
| **2041 Proposed Network** | 1,300 | 1,300 | 0.81 | 0.81 |

## 2118 - Steeles Avenue - Bathurst Street to Hilda Avenue (continued)

### Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Optimize existing facility with intersection improvements only - Minor improvement for corridor traffic flow. Does not address overall traffic congestion. Does not improve transit/HOV and active modes.
3. Widen corridor to 6 lanes for general purpose capacity improvements - Improves traffic flow and reduces congestion. Opportunity to improve walking and cycling facilities. Does not support shift to transit/HOV. Not consistent with Council policy to widen to 6 lanes for transit/HOV lanes only.
4. Widen corridor to 6 lanes to implement transit/HOV lanes - Addresses traffic capacity. Opportunity to improve walking and cycling facilities. Potential to improve transit travel time and encourage shift to transit/HOV.
5. Widen corridor to implement rapid transit - Does not address traffic congestion. Transit ridership does not meet RT threshold.
6. Widen parallel/adjacent corridor - Potential to divert some traffic to other corridors. Does not address corridor congestion and travel demand, no improvements to walking and cycling facilities, does not encourage shift to transit/HOV.

### Recommended Improvement and Justification

**Recommendation** Interim widening to 6 general purpose lanes.

**Justification** Boundary road under the jurisdiction of the City of Toronto. Forecast demand meets threshold for widening to 6 lanes and provides a continuous 6-lane corridor on Steeles Avenue. Potential for implementing HOV lanes jointly with City of Toronto. Potential for conversion to Rapid Transit as per Metrolinx plans.

**TMP Phase** 2022 to 2026

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
|  |  |  |  |  |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 15,458,400 |
| **Incremental Annual Road Operating Cost** | $ | 69,000 |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | 26,000 |

### Related Projects

| Name | Project ID |
|---|---|
| Steeles Avenue - Spadina Subway to Milliken GO - RT Corridor | 1024 |

## 2118 - Steeles Avenue - Bathurst Street to Hilda Avenue (continued)

### Key Intersections and Constraints

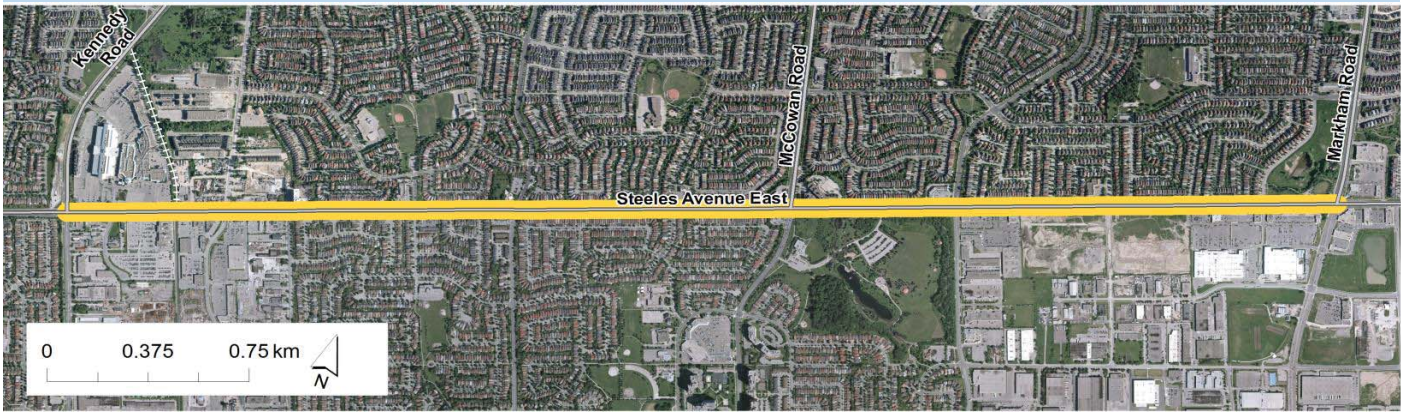
**Steeles Avenue at Bathurst Street**

# 2121 - Steeles Avenue - Kennedy Road to Markham Road

## Project Description

| | | | |
|---|---|---|---|
| **Location** | Steeles Avenue | **Project ID** | **2121** |
| **Municipality** | Markham | **Road Segment ID** | 95-36 to 95-38 |
| **Project Limits** | Kennedy Road to Markham Road | **Length** | 4,740 m |
| **Project Type** | Steeles (Widen to 6 lanes) | | |

## Map




## Existing Conditions

### Physical and Transportation Conditions

**OP Designated ROW** 36 metres

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| **Model Forecast** | Maximum | Average | Maximum | Average |
| 2011 Existing | 1,400 | 1,250 | 0.87 | 0.78 |
| Daily truck volume | N/A | N/A | | |

### Description

Existing 4 general purpose lanes with turning lanes at intersections. Continuous sidewalks on the north side. Sidewalk on south side is disconnected at one point, with a multi-use path (as a potential alternative for pedestrians) on south side between McCowan Road and Middlefield Road connecting sidewalks. Bike lane between McCowan Road and Markham Road. Curbside transit service.

### Natural and Built Environment

**Natural Environment** Observations: Milliken Park on south side between McCowan Road and Middlefield Road.

**Land Use and Built Environment** Primarily residential north of Steeles Avenue. Regional shopping centre and commercial/industrial area at Kennedy Road and Steeles Avenue. Big box commercial on southwest quadrant of Markham Road and Steeles Avenue.

## Future Transportation Conditions

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| | Maximum | Average | Maximum | Average |
| **2041 Do Nothing** | 1,910 | 1,730 | 1.19 | 1.08 |
| **2041 Proposed Network** | 1,950 | 1,810 | 1.21 | 1.13 |

## 2121 - Steeles Avenue - Kennedy Road to Markham Road (continued)

### Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Optimize existing facility with intersection improvements only - Minor improvement for corridor traffic flow. Does not address overall traffic congestion. Does not improve transit/HOV and active modes.
3. Widen corridor to 6 lanes for general purpose capacity improvements - Improves traffic flow and reduces congestion. Opportunity to improve walking and cycling facilities. Does not support shift to transit/HOV. Not consistent with Council policy to widen to 6 lanes for transit/HOV lanes only.
4. Widen corridor to 6 lanes to implement transit/HOV lanes - Addresses traffic capacity. Opportunity to improve walking and cycling facilities. Potential to improve transit travel time and encourage shift to transit/HOV.
5. Widen corridor to implement rapid transit - Does not address traffic congestion. Transit ridership does not meet RT threshold.
6. Widen parallel/adjacent corridor - Potential to divert some traffic to other corridors. Does not address corridor congestion and travel demand, no improvements to walking and cycling facilities, does not encourage shift to transit/HOV.

### Recommended Improvement and Justification

| | |
|---|---|
| **Recommendation** | Widening to 6 general purpose lanes. The potential for lane conversion to transit or HOV use will depend on City of Toronto and Metrolinx plans for the corridor. |
| **Justification** | Boundary road under the jurisdiction of the City of Toronto. Forecast demand meets threshold for widening to 6 lanes and provides a continuous 6-lane corridor on Steeles Avenue. Opportunity to improve cycling facilities. Potential for implementing HOV lanes jointly with City of Toronto. Potential for conversion to Rapid Transit as per City of Toronto and Metrolinx plans. |
| **TMP Phase** | 2027 to 2031 |

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
|  |  |  |  |  |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 37,981,200 |
| **Incremental Annual Road Operating Cost** | $ | 236,900 |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | 89,300 |

### Related Projects

| Name | Project ID |
|---|---|
| Steeles Avenue - Spadina Subway to Milliken GO - RT Corridor | 1024 |
| Steeles Avenue - Markham Road to 11th Concession - Steeles (Widen to 6 lanes) | 2122 |
| Stouffville GO Grade Separation - Steeles Avenue east of Kennedy Road - Rail grade separation | 2133 |

## 2121 - Steeles Avenue - Kennedy Road to Markham Road (continued)

### Key Intersections and Constraints

**Steeles Avenue at Kennedy Road**


**Steeles Avenue at McCowan Road**


**Steeles Avenue at Markham Road**


**Stouffville GO at Steeles Avenue**

## 2122 - Steeles Avenue - Markham Road to 11th Concession

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Steeles Avenue | **Project ID** | **2122** |
| **Municipality** | Markham | **Road Segment ID** | 95-40 to 95-44 |
| **Project Limits** | Markham Road to 11th Concession | **Length** | 6,140 m |
| **Project Type** | Steeles (Widen to 6 lanes) | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** 36 metres

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| **Model Forecast** | Maximum | Average | Maximum | Average |
| 2011 Existing | 830 | 680 | 1.03 | 0.84 |
| Daily truck volume | N/A | N/A | | |

#### Description

Existing 2 general purpose lanes with turning lanes at some intersections. Widens to 4 lanes at the intersections of Markham Road/Steeles Avenue, Staines Road/Steeles Avenue, and Beare Road/Steels Avenue. No continuous sidewalk from Markham Road to Beare Road. No dedicated cycling facilities, but a potential north-south Rouge National Urban Park trail crossing of Steeles Avenue at Reesor Road / Little Rouge Creek. Curbside transit service from Markham Road to Staines Road. At-grade rail crossing for CP Havelock Rail Line located east of Markham Road. CN York Subdivision railway underpass located east of Ninth Line. A potential north-south Rouge National Urban Park trail crossing of Steeles Avenue at Reesor Road / Little Rouge Creek.

#### Natural and Built Environment

**Natural Environment** Observations: Several crossings of Regional Greenlands System and forested areas. Crossing of Rouge River west of Ninth Line. Crossing of Little Rouge Creek at Reesor Road. Corridor traverses Rouge National Urban Park east of Ninth Line.

**Land Use and Built Environment** Mix of agricultural and parklands. Small pockets of residential development between Markham Road and Ninth Line. Cemetery on north side east of Reesor Road. Corridor traverses Rouge National Urban Park east of Ninth Line.

### Future Transportation Conditions

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| | Maximum | Average | Maximum | Average |
| **2041 Do Nothing** | 970 | 830 | 1.21 | 1.04 |
| **2041 Proposed Network** | 2,080 | 1,580 | 1.30 | 0.98 |

## 2122 - Steeles Avenue - Markham Road to 11th Concession (continued)

### Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Optimize existing facility with intersection improvements only - Minor improvement for corridor traffic flow. Does not address overall traffic congestion. Does not improve transit/HOV and active modes.
3. Widen corridor to 6 lanes for general purpose capacity improvements - Improves traffic flow and reduces congestion. Opportunity to improve walking and cycling facilities. Does not support shift to transit/HOV. Not consistent with Council policy to widen to 6 lanes for transit/HOV lanes only.
4. Widen corridor to 6 lanes to implement transit/HOV lanes - Addresses traffic capacity. Opportunity to improve walking and cycling facilities. Potential to improve transit travel time and encourage shift to transit/HOV.
5. Widen corridor to implement rapid transit - Does not address traffic congestion. Transit ridership does not meet RT threshold.
6. Widen parallel/adjacent corridor - Potential to divert some traffic to other corridors. Does not address corridor congestion and travel demand, no improvements to walking and cycling facilities, does not encourage shift to transit/HOV.

### Recommended Improvement and Justification

**Recommendation**

Widening to 6 general purpose lanes and potential jog elimination at Reesor Road. The potential for lane conversion to transit or HOV use will depend on City of Toronto and Metrolinx plans for the corridor.

**Justification**

Boundary road under the jurisdiction of the City of Toronto. Forecast demand meets threshold for widening to 6 lanes and provides a continuous 6-lane corridor on Steeles Avenue. Opportunity to improve walking and cycling facilities. Potential for implementing HOV lanes jointly with City of Toronto. Potential for conversion to Rapid Transit as per Metrolinx plans. Intersection improvements at Reesor Road can improve traffic flow; further study is required to assess the need for this jog elimination.

**TMP Phase**

2017 to 2021: Markham Road to Ninth Line
2027 to 2031: Ninth Line to 11th Concession

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
|  |  |  |  |  |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 80,819,300 |
| **Incremental Annual Road Operating Cost** | $ | 509,400 |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | 231,500 |

### Related Projects

| Name | Project ID |
|---|---|
| Steeles Avenue - Spadina Subway to Milliken GO - RT Corridor | 1024 |
| Steeles Avenue - Kennedy Road to Markham Road - Steeles (Widen to 6 lanes) | 2121 |
| Steeles Avenue - 11th Concession to York/Durham Line - Steeles (Widen to 6 lanes) | 2123 |
| CP Havelock Grade Separation - Steeles Avenue east of Tapscott Road - Rail grade separation | 2161 |

## 2122 - Steeles Avenue - Markham Road to 11th Concession (continued)

### Key Intersections and Constraints

**Steeles Avenue at Markham Road**


**Steeles Avenue at Ninth Line**


**Railway underpass east of Ninth Line (Image capture: 2015, ©2016 Google)**

## 2123 - Steeles Avenue - 11th Concession to York/Durham Line

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Steeles Avenue | **Project ID** | **2123** |
| **Municipality** | Markham | **Road Segment ID** | 95-46 |
| **Project Limits** | 11th Concession to York/Durham Line | **Length** | 620 m |
| **Project Type** | Steeles (Widen to 6 lanes) | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** 36 metres

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| **Model Forecast** | Maximum | Average | Maximum | Average |
| 2011 Existing | 690 | 690 | 0.43 | 0.43 |
| Daily truck volume | N/A | N/A | | |

#### Description

Existing 4 general purpose lanes. No sidewalks on either side. No dedicated cycling facilities. No transit services.

#### Natural and Built Environment

**Natural Environment** Observations: Regional Greenlands System on the north side. Corridor traverses Rouge National Urban Park.

**Land Use and Built Environment** Woodlots and agricultural fields. Corridor is traverses Rouge National Urban Park.

### Future Transportation Conditions

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| | Maximum | Average | Maximum | Average |
| **2041 Do Nothing** | 1,340 | 1,340 | 0.83 | 0.83 |
| **2041 Proposed Network** | 1,450 | 1,450 | 0.90 | 0.90 |

## 2123 - Steeles Avenue - 11th Concession to York/Durham Line (continued)

### Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Optimize existing facility with intersection improvements only - Minor improvement for corridor traffic flow. Does not address overall traffic congestion. Does not improve transit/HOV and active modes.
3. Widen corridor to 6 lanes for general purpose capacity improvements - Improves traffic flow and reduces congestion. Opportunity to improve walking and cycling facilities. Does not support shift to transit/HOV. Not consistent with Council policy to widen to 6 lanes for transit/HOV lanes only.
4. Widen corridor to 6 lanes to implement transit/HOV lanes - Addresses traffic capacity. Opportunity to improve walking and cycling facilities. Potential to improve transit travel time and encourage shift to transit/HOV.
5. Widen corridor to implement rapid transit - Does not address traffic congestion. Transit ridership does not meet RT threshold.
6. Widen parallel/adjacent corridor - Potential to divert some traffic to other corridors. Does not address corridor congestion and travel demand, no improvements to walking and cycling facilities, does not encourage shift to transit/HOV.

### Recommended Improvement and Justification

| | |
|---|---|
| **Recommendation** | Widening to 6 general purpose lanes. The potential for lane conversion to transit or HOV use will depend on City of Toronto and Metrolinx plans for the corridor. |
| **Justification** | Boundary road under the jurisdiction of the City of Toronto. Forecast demand meets threshold for widening to 6 lanes and provides a continuous 6-lane corridor on Steeles Avenue. Opportunity to improve walking and cycling facilities. Potential for implementing HOV lanes jointly with City of Toronto. Potential for conversion to Rapid Transit as per Metrolinx plans. |
| **TMP Phase** | 2027 to 2031 |

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ● | ◕ | ◕ | ◕ | ◔ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 4,787,000 |
| **Incremental Annual Road Operating Cost** | $ | 31,000 |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | 11,700 |

### Related Projects

| Name | Project ID |
|---|---|
| Steeles Avenue - Spadina Subway to Milliken GO - RT Corridor | 1024 |
| Steeles Avenue - Markham Road to 11th Concession - Steeles (Widen to 6 lanes) | 2122 |

## 2123 - Steeles Avenue - 11th Concession to York/Durham Line (continued)

### Key Intersections and Constraints

**Steeles Avenue at York/Durham Line**

## 2124 - Yonge Street - Davis Drive to Green Lane

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Yonge Street | **Project ID** | **2124** |
| **Municipality** | Newmarket | **Road Segment ID** | 01-30 |
| **Project Limits** | Davis Drive to Green Lane | **Length** | 2,040 m |
| **Project Type** | Widen to 6 lanes | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 45 metres

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| **Model Forecast** | Maximum | Average | Maximum | Average |
| 2011 Existing | 1,320 | 1,320 | 0.66 | 0.66 |
| Daily truck volume | 1,200 /day | 1,200 /day | | |

#### Description

Existing 4 general purpose lanes with turning lanes at intersections. Continuous sidewalk on east side. Sidewalk on west side from Green Lane to Upper Canada Mall entrance. Shared roadway (unsigned route) Green Lane to the border of East Gwillimbury/Newmarket.

#### Natural and Built Environment

**Natural Environment** Observations: Existing development on both sides of corridor.
Source Water Protection Areas: Corridor is within a source water protection area.

**Land Use and Built Environment** Primarily retail commercial with some residential backing onto Yonge Street on the east side. Regional shopping centre in the northwest quadrant of Yonge Street and Davis Road. Stormwater management ponds on west side.

### Future Transportation Conditions

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| | Maximum | Average | Maximum | Average |
| **2041 Do Nothing** | 2,570 | 2,570 | 1.28 | 1.28 |
| **2041 Proposed Network** | 2,600 | 2,600 | 1.30 | 1.30 |

## 2124 - Yonge Street - Davis Drive to Green Lane (continued)

### Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.
- Corridor improvements needed to support walking and cycling.
- Corridor improvements needed to support transit and HOV.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Optimize existing facility with intersection improvements only - Minor improvement for corridor traffic flow. Does not address overall traffic congestion. Does not improve transit/HOV and active modes.
3. Widen corridor to 6 lanes for general purpose capacity improvements - Improves traffic flow and reduces congestion. Opportunity to improve walking and cycling facilities. Does not support shift to transit/HOV. Not consistent with Council policy to widen to 6 lanes for transit/HOV lanes only.
4. Widen corridor to 6 lanes to implement transit/HOV lanes - Addresses traffic capacity. Opportunity to improve walking and cycling facilities. Potential to improve transit travel time and encourage shift to transit/HOV.
5. Widen corridor to implement rapid transit - Does not address traffic congestion. Transit ridership does not meet RT threshold.
6. Widen parallel/adjacent corridor - Potential to divert some traffic to other corridors. Does not address corridor congestion and travel demand, no improvements to walking and cycling facilities, does not encourage shift to transit/HOV.

### Recommended Improvement and Justification

**Recommendation** Interim widening to 6 lanes to implement transit/HOV lanes.

**Justification** Road widening to 6 lanes with transit/HOV lanes and improved cycling facilities included in 10-year Capital Plan. Corridor will accommodate increasing transit frequencies prior to evolving to a rapid transit corridor with 4 general purpose lanes and median rapidway.

**TMP Phase** 2017 to 2021

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ● | ◔ | ● | ◔ | ● |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 18,137,200 |
| **Incremental Annual Road Operating Cost** | $ | 102,000 |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | 38,500 |

### Related Projects

| Name | Project ID |
|---|---|
| Yonge Street - Davis Drive to Green Lane - RT Corridor | 1005 |
| Yonge Street - Mulock Drive to Davis Drive - RT Corridor | 1004 |

## 2124 - Yonge Street - Davis Drive to Green Lane (continued)

### Key Intersections and Constraints

**Yonge Street at Davis Drive**

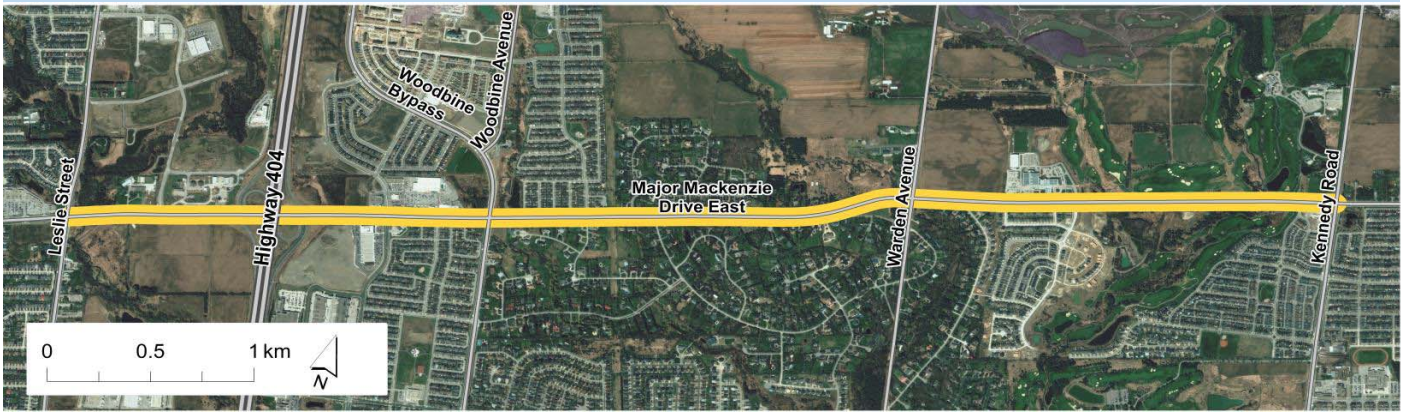

**Yonge Street at Green Lane**

# 2125 - Major Mackenzie Drive - Leslie Street to Kennedy Road

## Project Description

| | | | |
|---|---|---|---|
| **Location** | Major Mackenzie Drive | **Project ID** | **2125** |
| **Municipality** | Richmond Hill, Markham | **Road Segment ID** | 25-29 to 25-40 |
| **Project Limits** | Leslie Street to Kennedy Road | **Length** | 6,170 m |
| **Project Type** | Widen to 6 lanes | | |

## Map




## Existing Conditions

### Physical and Transportation Conditions

**OP Designated ROW** Up to 45 metres

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| **Model Forecast** | Maximum | Average | Maximum | Average |
| 2011 Existing | 1,800 | 1,450 | 1.00 | 0.81 |
| Daily truck volume | 1,360 /day | 910 /day | | |

### Description

Existing 4 general purpose lanes with turning lanes at intersections. Sidewalk on north side. Shared pathway (in-boulevard) between Woodbine Avenue and Kennedy Road on south side. Curbside transit service.

### Natural and Built Environment

**Natural Environment** Observations: Several crossings of Regional Greenlands System and watercourses at Leslie Street, Woodbine Avenue, Warden Avenue, west of Kennedy Road and west of McCowan Road.

**Land Use and Built Environment** Range of residential developments from medium density to estate residential on the south side. Primarily agricultural uses and golf course on the north side. Community centre located east of Warden Avenue.

## Future Transportation Conditions

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| | Maximum | Average | Maximum | Average |
| **2041 Do Nothing** | 2,930 | 2,360 | 1.63 | 1.32 |
| **2041 Proposed Network** | 2,670 | 2,070 | 1.48 | 1.12 |

## 2125 - Major Mackenzie Drive - Leslie Street to Kennedy Road (continued)

### Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.
- Corridor improvements needed to support walking and cycling.
- Corridor improvements needed to support transit and HOV.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Optimize existing facility with intersection improvements only - Minor improvement for corridor traffic flow. Does not address overall traffic congestion. Does not improve transit/HOV and active modes.
3. Widen corridor to 6 lanes for general purpose capacity improvements - Improves traffic flow and reduces congestion. Opportunity to improve walking and cycling facilities. Does not support shift to transit/HOV. Not consistent with Council policy to widen to 6 lanes for transit/HOV lanes only.
4. Widen corridor to 6 lanes to implement transit/HOV lanes - Addresses traffic capacity. Opportunity to improve walking and cycling facilities. Potential to improve transit travel time and encourage shift to transit/HOV.
5. Widen corridor to implement rapid transit - Does not address traffic congestion. Transit ridership does not meet RT threshold.
6. Widen parallel/adjacent corridor - Potential to divert some traffic to other corridors. Does not address corridor congestion and travel demand, no improvements to walking and cycling facilities, does not encourage shift to transit/HOV.

### Recommended Improvement and Justification

**Recommendation**

Interim widening to 6 lanes to implement transit/HOV lanes.

**Justification**

Meets volume threshold for 6 lanes. Meets criteria for HOV lane. Interim widening to 6 lanes with transit/HOV lane prior to implementation of rapidway. Provides continuous 6-lane corridor with transit/HOV lane. Opportunity to improve walking and cycling facilities.

**TMP Phase**

2022 to 2026: Leslie Street to Woodbine Avenue
2027 to 2031: Woodbine Avenue to Kennedy Road

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
|  |  |  |  |  |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 64,925,500 |
| **Incremental Annual Road Operating Cost** | $ | 308,400 |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | 116,300 |

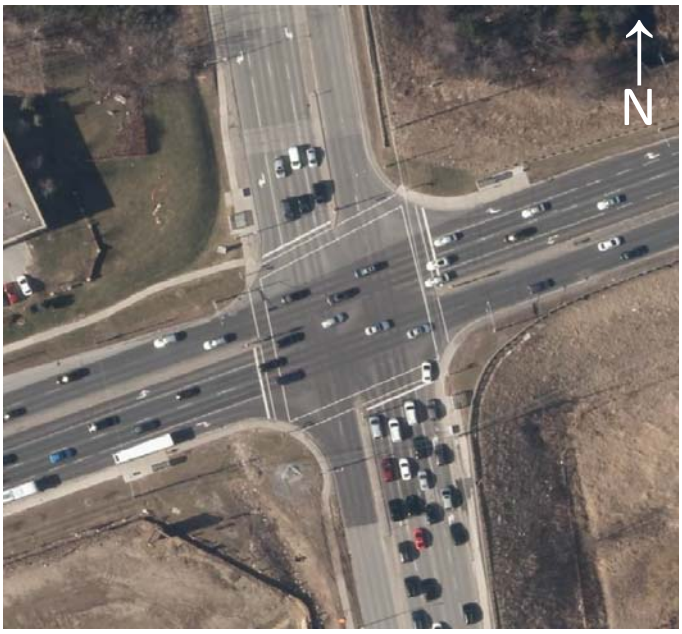
### Related Projects

| Name | Project ID |
|---|---|
| Major Mackenzie Drive - Jane Street to Leslie Street - RT Corridor | 1013 |
| Major Mackenzie Drive - Leslie Street to Donald Cousens Parkway - RT Corridor | 1014 |
| Major Mackenzie Drive - Donald Cousens Parkway to Delray Drive - Widen to 4 lanes | 2128 |

## 2125 - Major Mackenzie Drive - Leslie Street to Kennedy Road (continued)

### Key Intersections and Constraints

**Major Mackenzie Drive at Leslie Street**




**Major Mackenzie Drive at Highway 404**


**Major Mackenzie Drive at Woodbine Avenue**


**Major Mackenzie Drive at Warden Avenue**

## 2125 - Major Mackenzie Drive - Leslie Street to Kennedy Road (continued)

### Key Intersections and Constraints

**Major Mackenzie Drive at Kennedy Road**

## 2126 - Green Lane - Yonge Street to 2nd Concession

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Green Lane | **Project ID** | **2126** |
| **Municipality** | East Gwillimbury | **Road Segment ID** | 19-26 |
| **Project Limits** | Yonge Street to 2nd Concession | **Length** | 2,050 m |
| **Project Type** | Widen to 6 lanes | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 45 metres

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| **Model Forecast** | Maximum | Average | Maximum | Average |
| 2011 Existing | 1,450 | 1,450 | 0.72 | 0.72 |
| Daily truck volume | 1,530 /day | 1,530 /day | | |

#### Description

Existing 4 general purpose lanes with turning lanes at intersections. Sidewalk on north side only from Yonge Street to east of the commercial plaza at the intersection of Yonge Street/Green Lane. Shared roadway (unsigned route). Curbside transit service.

#### Natural and Built Environment

**Natural Environment** Observations: Forested areas to the north and south.
Source Water Protection Areas: Protection area located north of Green Lane at 2nd Concession.

**Land Use and Built Environment** Retail commercial at Yonge Street. Primarily agricultural lands easterly to 2nd Concession.

### Future Transportation Conditions

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| | Maximum | Average | Maximum | Average |
| **2041 Do Nothing** | 2,390 | 2,390 | 1.19 | 1.19 |
| **2041 Proposed Network** | 2,120 | 2,120 | 1.06 | 1.06 |

## 2126 - Green Lane - Yonge Street to 2nd Concession (continued)

### Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.
- Corridor improvements needed to support walking and cycling.
- Corridor improvements needed to support transit and HOV.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Optimize existing facility with intersection improvements only - Minor improvement for corridor traffic flow. Does not address overall traffic congestion. Does not improve transit/HOV and active modes.
3. Widen corridor to 6 lanes for general purpose capacity improvements - Improves traffic flow and reduces congestion. Opportunity to improve walking and cycling facilities. Does not support shift to transit/HOV. Not consistent with Council policy to widen to 6 lanes for transit/HOV lanes only.
4. Widen corridor to 6 lanes to implement transit/HOV lanes - Addresses traffic capacity. Opportunity to improve walking and cycling facilities. Potential to improve transit travel time and encourage shift to transit/HOV.
5. Widen corridor to implement rapid transit - Does not address traffic congestion. Transit ridership does not meet RT threshold.
6. Widen parallel/adjacent corridor - Potential to divert some traffic to other corridors. Does not address corridor congestion and travel demand, no improvements to walking and cycling facilities, does not encourage shift to transit/HOV.

### Recommended Improvement and Justification

**Recommendation** Interim widening to 6 lanes to implement transit/HOV lanes.

**Justification** Interim road widening to 6 lanes with transit/HOV lanes and improved cycling facilities. Corridor will accommodate increasing transit frequencies prior to evolving to a rapid transit corridor with 4 general purpose lanes and median rapidway.

**TMP Phase** 2022 to 2026

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
|  |  |  |  |  |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 16,708,000 |
| **Incremental Annual Road Operating Cost** | $ | 102,500 |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | 38,600 |

### Related Projects

| Name | Project ID |
|---|---|
| Green Lane - 2nd Concession to Highway 404 - Widen to 6 lanes | 2023 |
| Green Lane - Yonge Street to GO Station - RT Corridor | 1021 |

## 2126 - Green Lane - Yonge Street to 2nd Concession (continued)

### Key Intersections and Constraints

**Green Lane at Yonge Street**


**Green Lane at 2nd Concession**

## 2127 - Pine Valley Drive - Steeles Avenue to Highway 7

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Pine Valley Drive | **Project ID** | **2127** |
| **Municipality** | Vaughan | **Road Segment ID** | 57-01 to 57-02 |
| **Project Limits** | Steeles Avenue to Highway 7 | **Length** | 2,200 m |
| **Project Type** | Widen to 6 lanes | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 36 metres

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| **Model Forecast** | Maximum | Average | Maximum | Average |
| 2011 Existing | 1,610 | 1,520 | 1.00 | 0.95 |
| Daily truck volume | N/A | N/A | | |

#### Description

Existing 4 general purpose lanes with turning lanes at intersections. Crossing over Highway 407 is 6 lanes. Continuous sidewalks on west side. Sidewalk on east side south of Hanlan Road only. No dedicated cycling facilities. Curbside transit service. CP Havelock railway underpass south of Highway 407; structural walls abuts travel lanes and sidewalk.

#### Natural and Built Environment

**Natural Environment** Observations: Existing development on both sides.

**Land Use and Built Environment** Industrial land uses between Steeles and rail corridor and on the east side of Pine Valley Drive north of Highway 407. Residential backlotting onto the west side north of Highway 407. Parallel hydro corridor on the north side of rail corridor.

### Future Transportation Conditions

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| | Maximum | Average | Maximum | Average |
| **2041 Do Nothing** | 2,030 | 1,980 | 1.27 | 1.24 |
| **2041 Proposed Network** | 2,540 | 2,510 | 1.06 | 1.04 |

## 2127 - Pine Valley Drive - Steeles Avenue to Highway 7 (continued)

### Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.
- Corridor improvements needed to support walking and cycling.
- Corridor improvements needed to support transit and HOV.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Optimize existing facility with intersection improvements only - Minor improvement for corridor traffic flow. Does not address overall traffic congestion. Does not improve transit/HOV and active modes.
3. Widen corridor to 6 lanes for general purpose capacity improvements - Improves traffic flow and reduces congestion. Opportunity to improve walking and cycling facilities. Does not support shift to transit/HOV. Not consistent with Council policy to widen to 6 lanes for transit/HOV lanes only.
4. Widen corridor to 6 lanes to implement transit/HOV lanes - Addresses traffic capacity. Opportunity to improve walking and cycling facilities. Potential to improve transit travel time and encourage shift to transit/HOV.
5. Widen corridor to implement rapid transit - Does not address traffic congestion. Transit ridership does not meet RT threshold.
6. Widen parallel/adjacent corridor - Potential to divert some traffic to other corridors. Does not address corridor congestion and travel demand, no improvements to walking and cycling facilities, does not encourage shift to transit/HOV.

### Recommended Improvement and Justification

**Recommendation** Widen corridor to 6 lanes to implement transit/HOV lanes.

**Justification** Need identified in Western Vaughan IEA. Widening from Hwy 407 to Hwy 7 is in the 10-year capital program.

**TMP Phase** 2032 to 2041

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
|  |  |  |  |  |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 52,331,800 |
| **Incremental Annual Road Operating Cost** | $ | 110,000 |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | 41,500 |

### Related Projects

| Name | Project ID |
|---|---|

## 2127 - Pine Valley Drive - Steeles Avenue to Highway 7 (continued)

### Key Intersections and Constraints

**Pine Valley Drive at Steeles Avenue**


**Pine Valley Drive at Highway 7**

## 2128 - Major Mackenzie Drive - Donald Cousens Parkway to Delray Drive

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Major Mackenzie Drive | **Project ID** | **2128** |
| **Municipality** | Markham | **Road Segment ID** | 25-41 |
| **Project Limits** | Donald Cousens Parkway to Delray Drive | **Length** | 400 m |
| **Project Type** | Widen to 4 lanes | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 36 metres

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| **Model Forecast** | Maximum | Average | Maximum | Average |
| 2011 Existing | 450 | 450 | 0.56 | 0.56 |
| Daily truck volume | N/A | N/A | | |

#### Description

Existing 2 general purpose lanes with turning lanes at intersections. Widens to 3 general purpose lanes at the intersections of Donald Cousens Parkway/Major Mackenzie Drive and Delray Drive/Major Mackenzie Drive. Major Mackenzie Drive corridor to the east and west is 4 lanes. No sidewalks on either side. No dedicated cycling facilities. No transit services.

#### Natural and Built Environment

**Natural Environment** Observations: Adjacent to Regional Greenlands System and forested area on the north side.

**Land Use and Built Environment** Forested area on the north side. Residential development on the south side.

### Future Transportation Conditions

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| | Maximum | Average | Maximum | Average |
| **2041 Do Nothing** | 590 | 590 | 0.73 | 0.73 |
| **2041 Proposed Network** | 1,040 | 1,040 | 0.65 | 0.65 |

## 2128 - Major Mackenzie Drive - Donald Cousens Parkway to Delray Drive (continued)

### Problem or Opportunity Statement

- Transportation network improvements are needed to accommodate expansion of the Designated Urban Area.
- Capacity improvements needed to accommodate future travel demands.
- Corridor improvements needed to support walking and cycling.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Optimize existing facility with intersection improvements only - Minor improvement for corridor traffic flow. Does not address overall traffic congestion.
3. Urbanize corridor but maintain 2-lane cross-section - Does not address traffic congestion. Opportunity to improve walking and cycling facilities.
4. Widen corridor to 4 lanes and construct to urban arterial standard - Addresses traffic capacity. Opportunity to improve walking and cycling facilities.
5. Widen parallel/adjacent corridor - Potential to divert some traffic to other corridors. Does not address corridor congestion and provides no improvements to walking and cycling facilities.

### Recommended Improvement and Justification

**Recommendation** Widen to 4 lanes and construct to urban arterial standard.

**Justification** Road section approaching Ninth Line has already been widened to 4 lanes. Approx 400 m section from Donald Cousens Parkway to Delray Drive needs to be widened from 2 lanes to 4 lanes. Included in 10-year capital plan. Volumes do not meet thresholds for widening beyond 4 lanes. Opportunity to improve walking and cycling facilities.

**TMP Phase** 2027 to 2031

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
|  |  |  |  |  |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 4,613,700 |
| **Incremental Annual Road Operating Cost** | $ | 20,000 |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | 7,500 |

### Related Projects

| Name | Project ID |
|---|---|
| Major Mackenzie Drive - Leslie Street to Donald Cousens Parkway - RT Corridor | 1014 |
| Major Mackenzie Drive - Leslie Street to Kennedy Road - Widen to 6 lanes | 2125 |

## 2128 - Major Mackenzie Drive - Donald Cousens Parkway to Delray Drive (continued)

### Key Intersections and Constraints

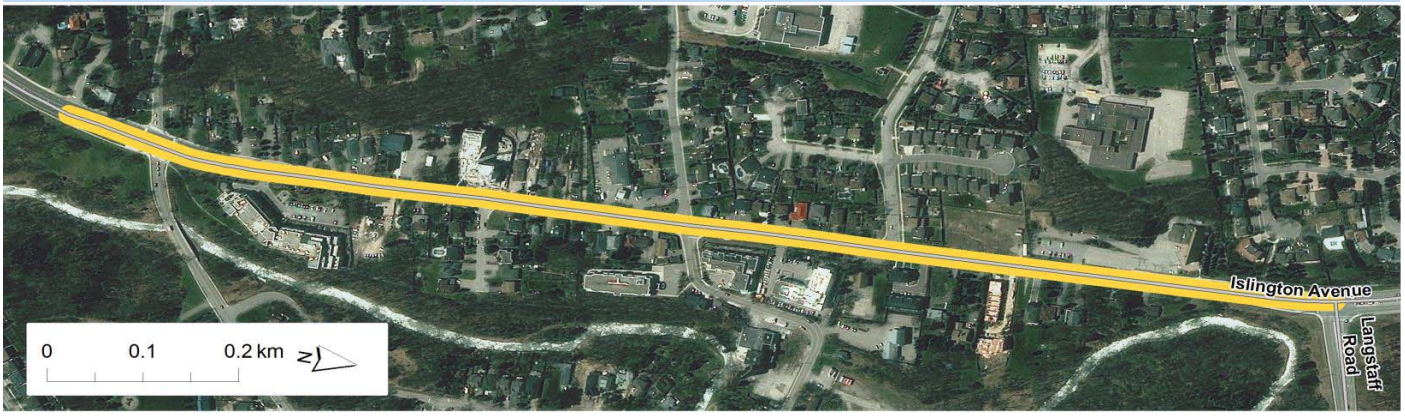
**Major Mackenzie Drive at Donald Cousens Parkway**

# 2130 - Islington Avenue - Willis Road to Langstaff Road

## Project Description

| | | | |
|---|---|---|---|
| **Location** | Islington Avenue | **Project ID** | **2130** |
| **Municipality** | Vaughan | **Road Segment ID** | 17-04 |
| **Project Limits** | Willis Road to Langstaff Road | **Length** | 1,100 m |
| **Project Type** | Widen to 4 lanes | | |

### Map




## Existing Conditions

### Physical and Transportation Conditions

**OP Designated ROW** Up to 30 metres

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| **Model Forecast** | Maximum | Average | Maximum | Average |
| 2011 Existing | 800 | 800 | 0.50 | 0.50 |
| Daily truck volume | N/A | N/A | | |

### Description

Existing 2 general purpose lanes with continuous two-way left turn lane. Widens to 4 general purpose lane at Langstaff Road and at Willis Road. Sidewalks on both sides. No cycling facilities. Curbside transit service.

### Natural and Built Environment

**Natural Environment** Observations: Conservation area to the northeast. Regional Greenlands System parallel to Islington Ave on the east side.
Environmentally Sensitive Areas: Designated ESA in the southeast quadrant of Islington Avenue and Langstaff Road.

**Land Use and Built Environment** Mix of single-family and multi-family residential buildings, churches and park lands.

## Future Transportation Conditions

| | Peak Hour Auto Volume | | Peak Hour V/C Ratio | |
|---|---|---|---|---|
| | Maximum | Average | Maximum | Average |
| **2041 Do Nothing** | 1,190 | 1,190 | 0.74 | 0.74 |
| **2041 Proposed Network** | 1,210 | 1,210 | 0.75 | 0.75 |

## 2130 - Islington Avenue - Willis Road to Langstaff Road (continued)

### Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.
- Corridor improvements needed to support cycling.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Optimize existing facility with intersection improvements only - Minor improvement for corridor traffic flow. Does not address overall traffic congestion.
3. Widen corridor to 4 lanes - Addresses traffic capacity. Opportunity to improve cycling facilities.
4. Widen parallel/adjacent corridor - Potential to divert some traffic to other corridors. Does not address corridor congestion and provides no improvements to cycling facilities.

### Recommended Improvement and Justification

| | |
|---|---|
| **Recommendation** | Widen corridor to 4 lanes. |
| **Justification** | Volumes meet threshold for widening. Widening accommodates existing and future demand and provides for a continuous 4-lane cross-section. Opportunity to improve cycling facilities |
| **TMP Phase** | 2027 to 2031 |

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
|  |  |  |  |  |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 8,683,200 |
| **Incremental Annual Road Operating Cost** | $ | 55,000 |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | 20,700 |

### Related Projects

| Name | Project ID |
|---|---|

## 2130 - Islington Avenue - Willis Road to Langstaff Road (continued)

### Key Intersections and Constraints

**Islington Avenue at Langstaff Road**

## 2131 - Barrie GO Grade Separation - Rutherford Road east of Keele Street

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Barrie GO Grade Separation | **Project ID** | **2131** |
| **Municipality** | Vaughan | **Road Segment ID** | 73-20 |
| **Project Limits** | Rutherford Road east of Keele Street | | |
| **Project Type** | Rail grade separation | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 43 metres

#### Description

Existing 4 general purpose lanes. Sidewalk on south side. Railway crossing warning system with gates. No dedicated cycling facilities. Curbside transit service.

#### Natural and Built Environment

**Natural Environment** Observations: Pond and trail system in the northeast quadrant

**Land Use and Built Environment** Rutherford GO station located in southwest quadrant. Residential to the northwest and southeast.

### Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.
- Corridor improvements needed to support walking, cycling and transit.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Improve grade crossing safety - Potential to improve walking and cycling facilities and address any safety concerns.
3. Transportation improvements to adjacent/parallel corridor - Potential to divert travel demand to other corridor. No improvement to walking and cycling. No improvement to transit.
4. Construct rail grade separation structure - Addresses travel demand within corridor. Opportunity to improve walking and cycling infrastructure. Opportunity to improve transit service.

## 2131 - Barrie GO Grade Separation - Rutherford Road east of Keele Street (continued)

### Recommended Improvement and Justification

**Recommendation** Construct rail grade separation structure.

**Justification** Existing traffic and train volumes exceed exposure warrants for grade separation. Grade separation improves pedestrian and cyclist safety and reduces delay to transit and traffic along the corridor. Grade separation needed to support planned RER service improvements.

**TMP Phase** 2017 to 2021

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ◑ | ● | ◔ | ◑ | ◔ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 48,151,900 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|
| Rutherford Road - Jane Street to Bathurst Street - Widen to 6 lanes | 2084 |

### Key Intersections and Constraints

**Barrie GO at Rutherford Road**

## 2132 - Barrie GO Grade Separation - Wellington Street west of Industrial Parkway

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Barrie GO Grade Separation | **Project ID** | **2132** |
| **Municipality** | Aurora | **Road Segment ID** | 15-26 |
| **Project Limits** | Wellington Street west of Industrial Parkway | | |
| **Project Type** | Rail grade separation | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 20 metres

#### Description

Existing 2 general purpose lanes with median lane. Sidewalks on both side. Railway crossing warning system with gates. No dedicated cycling facilities. Curbside transit service.

#### Natural and Built Environment

**Natural Environment** Observations: Existing development in the immediate area.
Source Water Protection Areas: Located within SWP zone.

**Land Use and Built Environment** Aurora GO station located in the southeast quadrant. GO station parking located in the south west quadrant. Retail commercial on the north side.

### Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.
- Corridor improvements needed to support walking, cycling and transit.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Improve grade crossing safety - Potential to improve walking and cycling facilities and address any safety concerns.
3. Transportation improvements to adjacent/parallel corridor - Potential to divert travel demand to other corridor. No improvement to walking and cycling. No improvement to transit.
4. Construct rail grade separation structure - Addresses travel demand within corridor. Opportunity to improve walking and cycling infrastructure. Opportunity to improve transit service.

## 2132 - Barrie GO Grade Separation - Wellington Street west of Industrial Parkway (continued)

### Recommended Improvement and Justification

**Recommendation** Construct rail grade separation structure.

**Justification** Existing traffic and train volumes exceed exposure warrants for grade separation. Grade separation improves pedestrian and cyclist safety and reduces delay to transit and traffic along the corridor. Grade separation needed to support planned RER service improvements.

**TMP Phase** 2022 to 2026

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ◑ | ◕ | ◔ | ◑ | ◔ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 44,394,900 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|
| Wellington Street - Yonge Street to Industrial Parkway - Widen to 4 lanes | 2021 |

### Key Intersections and Constraints

**Barrie GO at Wellington Street**

## 2133 - Stouffville GO Grade Separation - Steeles Avenue east of Kennedy Road

### Project Description

| | | | |
|---|---|---|---|
| **Location** | Stouffville GO Grade Separation | **Project ID** | **2133** |
| **Municipality** | Markham | **Road Segment ID** | 95-34 |
| **Project Limits** | Steeles Avenue east of Kennedy Road | | |
| **Project Type** | Rail grade separation | | |

### Map


### Existing Conditions

#### Physical and Transportation Conditions

**OP Designated ROW** Up to 36 metres

#### Description

Existing 4 general purpose lanes. Sidewalks on both sides. Railway crossing warning system with gates. No dedicated cycling facilities. Curbside transit service.

#### Natural and Built Environment

**Natural Environment** Observations: Existing development in the immediate area.

**Land Use and Built Environment** Retail commercial located on all 4 quadrants. Milliken GO Station to the southwest.

### Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.
- Corridor improvements needed to support walking, cycling and transit.

### Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Improve grade crossing safety - Potential to improve walking and cycling facilities and address any safety concerns.
3. Transportation improvements to adjacent/parallel corridor - Potential to divert travel demand to other corridor. No improvement to walking and cycling. No improvement to transit.
4. Construct rail grade separation structure - Addresses travel demand within corridor. Opportunity to improve walking and cycling infrastructure. Opportunity to improve transit service.

## 2133 - Stouffville GO Grade Separation - Steeles Avenue east of Kennedy Road (continued)

### Recommended Improvement and Justification

**Recommendation** Construct rail grade separation structure.

**Justification** Existing traffic and train volumes exceed exposure warrants for grade separation. Grade separation improves pedestrian and cyclist safety and reduces delay to transit and traffic along the corridor. Grade separation needed to support planned RER service improvements.

**TMP Phase** 2017 to 2021

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
|  |  |  |  |  |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 46,576,900 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|
| Steeles Avenue - Kennedy Road to Markham Road - Steeles (Widen to 6 lanes) | 2121 |

### Key Intersections and Constraints

**Stouffville GO at Steeles Avenue**

# 2134 - Stouffville GO Grade Separation - Kennedy Road north of Steeles Avenue

## Project Description

| | | | |
|---|---|---|---|
| **Location** | Stouffville GO Grade Separation | **Project ID** | **2134** |
| **Municipality** | Markham | **Road Segment ID** | 03-01 |
| **Project Limits** | Kennedy Road north of Steeles Avenue | | |
| **Project Type** | Rail grade separation | | |

## Map


## Existing Conditions

### Physical and Transportation Conditions

**OP Designated ROW** Up to 43 metres

### Description

Existing 4 general purpose lanes. Sidewalks on both sides. Railway crossing warning system with gates. No dedicated cycling facilities. Curbside transit service.

### Natural and Built Environment

**Natural Environment** Observations: Existing development in the immediate area.

**Land Use and Built Environment** Residential to the southwest. Retail commercial to the southeast. Treed areas the north.

## Problem or Opportunity Statement

- Capacity improvements needed to address existing congestion.
- Capacity improvements needed to accommodate future travel demands.
- Corridor improvements needed to support walking, cycling and transit.

## Alternatives Considered

1. Do Nothing - Does not address Problem or Opportunity Statement.
2. Improve grade crossing safety - Potential to improve walking and cycling facilities and address any safety concerns.
3. Transportation improvements to adjacent/parallel corridor - Potential to divert travel demand to other corridor. No improvement to walking and cycling. No improvement to transit.
4. Construct rail grade separation structure - Addresses travel demand within corridor. Opportunity to improve walking and cycling infrastructure. Opportunity to improve transit service.

## 2134 - Stouffville GO Grade Separation - Kennedy Road north of Steeles Avenue (continued)

### Recommended Improvement and Justification

**Recommendation** Construct rail grade separation structure.

**Justification** Existing traffic and train volumes exceed exposure warrants for grade separation. Grade separation improves pedestrian and cyclist safety and reduces delay to transit and traffic along the corridor. Grade separation needed to support planned RER service improvements.

**TMP Phase** 2022 to 2026

### Alignment with TMP Objectives

| Support Transit | Support Road Network | Support Active Transportation | Support Goods Movement | Support Last Mile |
|---|---|---|---|---|
| ◑ | ● | ◔ | ◑ | ◔ |

### Costs

| | | |
|---|---|---|
| **Capital Cost** | $ | 46,206,900 |
| **Incremental Annual Road Operating Cost** | $ | - |
| **Incremental Road Maintenance and Rehabilitation Cost** | $ | - |

### Related Projects

| Name | Project ID |
|---|---|
| Kennedy Road - Steeles Avenue to Highway 407 - Widen to 6 lanes | 2001 |

### Key Intersections and Constraints

**Stouffville GO at Kennedy Road (north of Steeles Avenue)**