WELCOME

Ferguson Avenue Class Environmental Assessment

Public Information Centre #2
March 2, 2016

Brooklin United Church, 19 Cassels Road East, Whitby, Ontario
Study Progress to Date

1. Conduct Site-Specific Studies
   A transportation assessment was conducted to examine:
   - traffic conditions at key intersections
   - vehicle speeds on Ferguson Avenue
   - origin and destination of vehicles using Ferguson Avenue
   - collision history at intersections
   - review the need for a traffic control at Ferguson Avenue and Highway 7

2. Identify the Problems / Opportunities and Consult with the Public
   The problems and opportunities identified in the transportation assessment were presented at Public Information Centre #1, held on September 23, 2015 at the Brooklin Community Centre and Library. Comments were invited, and the results of comments to date have been summarized.

3. Develop Alternative Solutions and Consult with the Public
   Based on the known existing conditions, and considering the comments received from the public, the study team developed a number of options for addressing the problems.
   The options are being presented here at Public Information Centre #2. Your comments are welcome and appreciated.
## Frequency of Issues Identified from Public Comments

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<th>Issue</th>
<th>Frequency</th>
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<tr>
<td>Preference for maintaining connection between roads</td>
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<td>Concern about road closures pushing traffic to other roads</td>
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<td>Questions about the study process</td>
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<td>Concern for pedestrians / preference for sidewalks on Ferguson Ave</td>
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<td>Advocacy for restricting access at Ferguson Ave to right-in / right-out at Highway 7</td>
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<td>Concerns about vehicle speed on Ferguson Ave</td>
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<td>Preference for closure of Ferguson Ave at Highway 7</td>
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<td>Concerns about emergency service access / response times</td>
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<td>Preference for traffic calming on Ferguson Ave</td>
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<td>Advocacy for maintaining a connection to future development to the south</td>
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<td>Preference for signalization of the Ferguson Ave / Highway 7 intersection</td>
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<td>Concerns about motorists ignoring stop signs</td>
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What we studied...

— Current traffic capacity at key intersections (this is called 'Level of Service' or LOS for short - it is the delay time experienced before traffic can proceed)
— Traffic queue length at key intersections
— Whether or not there is warrant for a traffic control at the Ferguson Avenue / Highway 7 intersection
— History of collisions on Ferguson Avenue and at the intersections with Vipond Road, Heber Down Crescent, and Highway 7
— Vehicle speed on Ferguson Avenue
— The composition of vehicles using Ferguson Avenue (to determine how many vehicles traveling on Ferguson Avenue use it as a means to get somewhere else)

What we found...

— Traffic Level of Service (LOS) is poor at the intersections of Highway 7 with Ashburn Road, Ferguson Avenue, and Baldwin Street (see map to the right).
— Some of the traffic queues along Highway 7 at the intersections with Ashburn Road and Baldwin Street exceed available storage length - these occasionally extend through the intersection with Ferguson Avenue, which affects function of that intersection.
— Based on an analysis of existing traffic volumes, and the existing intersection configuration, there is no warrant for a traffic signal at the intersection of Ferguson Avenue with Highway 7. The long delay times for turning movements at this intersection result in poor LOS scores, but the volume of Ferguson Avenue traffic does not meet the minimum threshold required by current standards to warrant a signal.
— Over a 10-year period from 2004 to 2014, there have been 6 reported collisions on Ferguson Avenue; 3 of these were at the intersection with Vipond Road, and 3 were along Ferguson Avenue between intersections. Limited information was available about the nature of the collisions. Based on the information available, the calculated collision rate (per million vehicle kilometers) warrants further evaluation.
— According to available data from the Ministry of Transportation for the last 3 years, there have been no reported collisions at Highway 7.
— 5 of the 6 collisions involved property damage only; the other collision involved a non-fatal injury to a pedestrian.
— Vehicle speeds have increased along Ferguson Avenue from 2008 to 2014; most recent data shows that 50% of vehicles travel within 2 km/hr of the posted speed limit (50 km/hr), and 85% of vehicles travel at 61 km/hr or less. Since the 85% vehicle speed exceeds the posted limit by more than 10 km/hr, it warrants further examination.
— Depending on the time of day, between 43% and 72% of vehicles using Ferguson Avenue are originating from or destined to a location other than Ferguson Avenue itself.
— One-third to one-half of vehicles using the Ferguson Avenue / Highway 7 intersection are going to or coming from Heber Down Crescent; this needs to be considered in any future decisions on intersection closures.
Problem Summary

Traffic and Intersection Problems

Currently, there are high volumes of east and westbound traffic along Highway 7 in the vicinity of Ferguson Avenue.

During peak travel hours, this results in capacity deficiencies and queuing delays on and at Ferguson Avenue, which contributes to operational and safety concerns at the intersection of these roads.

Through-traffic using Ferguson Avenue to/from Highway 7 is also a concern for Ferguson Avenue residents.

The possible solutions to the problems focus on two areas:
1. Changes that can be made to the road network
2. Changes that can be made to the design of Ferguson Avenue

Driver Behaviour and Pedestrian Safety Problems

Ferguson Avenue is a two-lane rural collector road with a right-of-way consisting of two paved lanes, narrow gravel shoulders, ditches to accommodate drainage, and no sidewalks.

In recent years, Ferguson Avenue residents have raised concerns regarding vehicle speeds and pedestrian safety.

Ferguson Avenue is a two-lane rural collector road with a right-of-way consisting of two paved lanes, narrow gravel shoulders, ditches to accommodate drainage, and no sidewalks.
To solve the traffic and intersection problems...

Currently, there are high volumes of east and westbound traffic along Highway 7 in the vicinity of Ferguson Avenue.

During peak travel hours, this results in capacity deficiencies and queuing delays on and at Ferguson Avenue, which contributes to operational and safety concerns at the intersection of these roads.

Through-traffic using Ferguson Avenue to/from Highway 7 is also a concern for Ferguson Avenue residents.

We have these possible solutions...

Option 1 - Do nothing (required option for comparison purposes)
Option 2 - Signalize the intersection at Highway 7 and Ferguson Avenue
Option 3 - Restrict turning movements at Highway 7 and Ferguson Avenue to right-in / right-out
Option 4 - Restrict southbound left turns from Ferguson Avenue onto Highway 7
Option 5 - Create a roundabout at Highway 7 and Ferguson Avenue
Option 6 - Close Ferguson Avenue at Highway 7
Option 7 - Close Ferguson Avenue just south of Heber Down Crescent
Option 8 - Close Ferguson Avenue just north of Heber Down Crescent
Option 1 - Do Nothing

Transportation Patterns
- Maintains existing access to Highway 7 for area residents
- Does not change existing conditions related to through traffic or traffic volume on Ferguson Avenue
- Does not change existing collision risk at the intersection of Ferguson Avenue and Highway 7

Community Safety
- Does not change existing conditions on Ferguson Avenue related to vehicle speeding or pedestrian safety

Existing Property
- No change to existing properties

Future Development
- Maintains the option for full turning and through movements at the road connection to future development to the south

Emergency Services
- No change to existing access or emergency service response times
Option 2 - Signalize the intersection at Highway 7 and Ferguson Avenue

Transportation Patterns
- Reduces collision risk for turning movements onto/off of Highway 7, but potentially increases risk of rear-end collisions eastbound and westbound
- Improves turning operations at Ferguson Avenue / Highway 7 intersection
- Does not change Highway 7 through traffic volume and may ultimately attract motorists to Ferguson Avenue
- May increase queuing along Ferguson Avenue (depending on signal timing and Highway 7 green time)

Community Safety
- Provides for a future signal-controlled pedestrian crossing of Highway 7
- Does not improve pedestrian safety, and not likely to influence vehicle travel speed along Ferguson Avenue

Existing Property
- Access to commercial site at #1-3 Ferguson Avenue is affected. Future access location would have to be determined through the site plan approval process
- Property acquisition required at #49 and #105 Winchester Road West for the future intersection changes
- Location of access to #49 and #105 Winchester Road West changes

Future Development
- Maintains the option for full turning and through movements at the road connection to future development to the south

Emergency Services
- No change to existing access or emergency service response times
Option 3 - Restrict turning movements at Highway 7 and Ferguson Avenue to right-in / right-out

Transportation Patterns
- Will eliminate about 110 peak hour southbound trips each day on Ferguson Avenue, as most through traffic is currently turning left at Highway 7
- Will eliminate about 80 peak hour northbound trips each day on Ferguson Avenue, as right turns from Highway 7 are still possible
- Will divert about 190 peak hour trips each day to the surrounding street system
- Eliminates the collision risks of all left turns at the intersection with Highway 7

Community Safety
- Does not improve pedestrian safety, and not likely to influence vehicle travel speed along Ferguson Avenue
- Does not provide a pedestrian crossing of Highway 7 to future development

Existing Property
- Access to commercial site at #1-3 Ferguson Avenue is affected. Future access location would have to be determined through the site plan approval process
- Left-turn exits from #105 Winchester Road West no longer possible

Future Development
- Restricts through movements at the potential road connection locations for future development to the south

Emergency Services
- No significant change to emergency service response times
Option 4 - Restrict southbound left turns from Ferguson Avenue onto Highway 7

Transportation Patterns
- Will eliminate about 110 peak hour southbound trips each day on Ferguson Avenue, as most through traffic is currently turning left at Highway 7
- Northbound Ferguson Avenue traffic volumes from Highway 7 would be relatively unaffected
- Minimal redirection of traffic to the surrounding street system
- Eliminates the collision risk of southbound left turns at the intersection with Highway 7

Community Safety
- May not improve pedestrian safety, and may not influence vehicle travel speed along Ferguson Avenue
- Does not provide a pedestrian crossing of Highway 7 to future development

Existing Property
- Access to commercial site at #1-3 Ferguson Avenue is affected. Future access location would have to be determined through the site plan approval process
- Property acquisition required at #49 and #105 Winchester Road West for the future intersection changes
- Location of access to #49 and #105 Winchester Road West changes
- Left-turn exits from #49 and #105 Winchester Road West no longer possible

Future Development
- Would restrict future northbound left turns and through movements from the development to the south

Emergency Services
- No significant change to emergency service response times
Option 5 - Create a roundabout at Highway 7 and Ferguson Avenue

Transportation Patterns
- Will provide safer vehicle movements at the intersection of Highway 7 / Ferguson Avenue by eliminating the collision risks of left turns
- Does not prevent through traffic on Ferguson Avenue
- Congestion / delays to Ferguson Avenue traffic may remain, as there is a volume imbalance vs. Highway 7 traffic

Community Safety
- Does not improve pedestrian safety, and not likely to influence vehicle travel speed along Ferguson Avenue
- Provides a pedestrian crossing of Highway 7

Existing Property
- Access to commercial site at #1-3 Ferguson Avenue is affected. Future access location would have to be determined through the site plan approval process
- Roundabout could become a gateway feature into Brooklin
- Property acquisition required at #49 and #105 Winchester Road West
- Location of access to #49 and #105 Winchester Road West changes

Future Development
- Maintains the option for full turning and through movements at the road connection to future development to the souths

Emergency Services
- No significant change to emergency service response times

Future road connection

New driveway access points

Access point affected

Property required for additional municipal right-of-way

Property required for additional municipal right-of-way

Vehicular traffic

Pedestrian crossing

New driveway access points

Future road connection

Roundabout could become a gateway feature into Brooklin

Property acquisition required at #49 and #105 Winchester Road West

Location of access to #49 and #105 Winchester Road West changes

Future development

Maintains the option for full turning and through movements at the road connection to future development to the souths

Emergency services

No significant change to emergency service response times

Property required for additional municipal right-of-way

Vehicular traffic

Pedestrian crossing

New driveway access points

Future road connection

Roundabout could become a gateway feature into Brooklin

Property acquisition required at #49 and #105 Winchester Road West

Location of access to #49 and #105 Winchester Road West changes

Future development
Option 6 - Close Ferguson Avenue at Highway 7

Transportation Patterns
- Will eliminate about 300 peak hour trips each day on Ferguson Avenue
- Will eliminate about 140 peak hour trips each day on Heber Down Crescent
- Would eliminate direct access to Highway 7 for residents of the area
- Eliminates left turn difficulties at Highway 7, as well as safety and collision risks
- Increased congestion, delay, etc. at Ashburn Road / Highway 7, Baldwin / Highway 7, and other intersections from re-routing of Ferguson Avenue and Heber Down Crescent traffic
- Will warrant a re-evaluation of the continued need for stop signs at the intersection of Vipond Road / Ferguson Avenue
- Road network is significantly altered by breaking the connection of the collector road (Ferguson Avenue) with Highway 7
- Changes would result in the road function not meeting the intent of a collector road

Community Safety
- Pedestrian safety on Ferguson Avenue may be improved (through lower traffic volumes and speeds)
- Vehicle speed and volume may increase on adjacent roads, which may affect pedestrian safety
- Does not provide pedestrian crossing of Highway 7 to future development site

Existing Property
- Access to commercial site at #1-3 Ferguson Avenue is affected. Future access location would have to be determined through the site plan approval process
- Property acquisition required at #1-3 and #4 Ferguson Avenue to accommodate the cul-de-sac

Future Development
- Restricts through movements at the potential road connection locations for future development to the south

Emergency Services
- No significant change to emergency service response times if access point provided at the cul-de-sac
Option 7 - Close Ferguson Avenue just south of Heber Down Crescent

Transportation Patterns
- Will eliminate about 300 peak hour trips each day on Ferguson Avenue
- Will eliminate about 140 peak hour trips each day on Heber Down Crescent
- Would eliminate direct access to Highway 7 for residents of the area
- Eliminates left turn difficulties at Highway 7, as well as safety and collision risks
- Increased congestion, delay, etc. at Ashburn/Highway 7, Baldwin/Highway 7, and other intersections from re-routing of Ferguson Avenue and Heber Down Crescent traffic
- Will warrant a re-evaluation of the continued need for stop signs at the intersection of Vipond Road/Ferguson Avenue
- Road network is significantly altered by breaking the connection of the collector road (Ferguson Avenue) with Highway 7
- Changes would result in the road function not meeting the intent of a collector road

Community Safety
- May reduce vehicle speeds on Ferguson Avenue
- Pedestrian safety on Ferguson Avenue may be improved (through lower traffic volumes and speeds)
- Does not provide a pedestrian crossing of Highway 7 to future development site
- Poor sight-lines for accessing #4, #6, and #8 Ferguson Avenue driveways

Existing Property
- Access to commercial site at #1-3 Ferguson Avenue is affected. Future access location would have to be determined through the site plan approval process
- Creates longer driveways at #4 and #6 Ferguson Avenue
- Driveways at #4 and #6 Ferguson Avenue would get snow plowed in
- Creates potential surplus Town right-of-way property

Future Development
- Restricts through movements at the potential road connection locations for future development to the south

Emergency Services
- Potential increase to emergency service response times
Option 8 - Close Ferguson Avenue just north of Heber Down Crescent

Transportation Patterns
- Will eliminate about 300 peak hour trips each day on Ferguson Avenue
- Will add about 45 peak hour trips each day to Heber Down Crescent and other adjacent roads
- Would eliminate direct access to Highway 7 for residents of Ferguson Avenue, resulting in Ferguson Avenue residents using alternative local roads
- Residents from the Harvey Johnston Way townhouse complex and other areas east of Ferguson Avenue will still have access to Highway 7 via Heber Down Crescent
- Will warrant a re-evaluation of the continued need for all-way stop signs at the intersection of Vipond Road / Ferguson Avenue
- Does not improve conditions for left turns or traffic delays at the intersection of Highway 7 and Ferguson Avenue

Community Safety
- May reduce travel speed on Ferguson Avenue, which may improve pedestrian safety on Ferguson Avenue
- Vehicle speed and volume may increase on adjacent roads, which may affect pedestrian safety
- Does not provide a pedestrian crossing of Highway 7 to future development site
- May increase travel speed on Vipond Road if all-way stop signs removed

Existing Property
- Properties at # 1-3, #4 and #6 Ferguson Avenue will require an address change
- Property acquisition required at #8, #12 and #15 Ferguson Avenue to accommodate the cul-de-sac

Future Development
- Maintains the option for full turning and through movements at the road connection to future development to the south

Emergency Services
- No significant change to emergency service response times if access point provided at the cul-de-sac
Out of all the road network options, closure of Ferguson Avenue in some form would result in the highest amount of traffic dispersion into the surrounding area, as shown here:

**How to read the diagram:**
- **Yellow numbers** are the increases (or decreases) in the number of morning peak hour trips.
- **Pink arrows** show the direction of travel.
- **Orange numbers** are the increases (or decreases) in the number of afternoon peak hour trips.
To solve the driver behaviour and pedestrian safety problems...

Ferguson Avenue is a two-lane rural collector road with a right-of-way consisting of two paved lanes, narrow gravel shoulders, ditches to accommodate drainage, and no sidewalks.

In recent years, Ferguson Avenue residents have raised concerns regarding vehicle speeds and pedestrian safety.

We have these possible solutions...

Option A - Do nothing (required option for comparison purposes)
Option B - Modify the rural cross-section and add sidewalks
Option C - Modify the rural cross-section and add sidewalks & traffic calming (see examples below)
Option D - Urbanize the cross-section and add sidewalks
Option E - Urbanize the cross-section and add sidewalks & traffic calming (see examples below)

Examples of traffic calming:

Road-Narrowing  Curb Extensions  Curb Radius Change  Road Signs  Designated On-Street Parking
Ferguson Avenue Design Option A

Option A - Do Nothing

Transportation Patterns
- Does not change existing conditions related to through traffic volume

Community Safety
- Does not change conditions related to speeding or pedestrian safety

Existing Property
- No property impacts

Design Standards
- Existing design is not in compliance with Town Engineering Standards and Design Criteria
Option B - Modify the rural cross-section and add sidewalks on one or both sides

Transportation Patterns
- Does not change existing conditions related to through traffic volume or speed

Community Safety
- Sidewalks separate pedestrians from vehicles and improve safety
- Sidewalks would provide a connection to schools, parks, Downtown Brooklin, businesses and other public amenities

Existing Property
- Could require grading on private property
- Ferguson Avenue is a collector road, so the Town is responsible for winter sidewalk maintenance
- Sidewalk will impact available parking area in driveways

Design Standards
- New design would be in compliance with Town Engineering Standards and Design Criteria
Option C - Modify the rural cross-section and add sidewalks & traffic calming

Transportation Patterns
- Could discourage and reduce through traffic volume
- Could increase traffic and congestion on surrounding streets
- Could affect availability of on-street parking

Community Safety
- Sidewalks separate pedestrians from vehicles and improve safety
- Traffic calming could reduce speeding on Ferguson Ave.
- Sidewalks would provide a connection to schools, parks, Downtown Brooklin, businesses and other public amenities

Existing Property
- Could require grading on private property
- Ferguson Avenue is a collector road, so the Town is responsible for winter sidewalk maintenance
- Sidewalks will impact available parking area in driveways

Design Standards
- New design would be in compliance with Town Engineering Standards and Design Criteria
Option D - Urbanize the cross-section and add sidewalks on one or both sides

Transportation Patterns
• Does not change existing conditions related to through traffic volume or speed

Community Safety
• Sidewalks separate pedestrians from vehicles and improve safety
• Sidewalks would provide a connection to schools, parks, Downtown Brooklin, businesses and other public amenities

Existing Property
• Could require grading on private property
• Ferguson Avenue is a collector road, so the Town is responsible for winter sidewalk maintenance
• Sidewalks will impact available parking area in driveways

Design Standards
• New design would be in compliance with Town Engineering Standards and Design Criteria
Option E - Urbanize the cross-section and add sidewalks & traffic calming

Two examples of traffic calming options

**Transportation Patterns**
- Could discourage and reduce through traffic volume
- Could increase traffic and congestion on surrounding streets
- Could affect availability of on-street parking

**Community Safety**
- Sidewalks separate pedestrians from vehicles and improve safety
- Traffic calming could reduce speeding on Ferguson Ave.
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**Existing Property**
- Could require grading on private property
- Ferguson Avenue is a collector road, so the Town is responsible for winter sidewalk maintenance
- Sidewalks will impact available parking area in driveways

**Design Standards**
- New design would be in compliance with Town Engineering Standards and Design Criteria
Next Steps

What’s Next After This Public Information Centre?

— Tonight’s Public Information Centre (PIC) is the second of 3 PICs that will be held for this project
— After tonight’s PIC, the project team will review any comments received, and evaluate the options based on technical criteria and known community concerns
— The results of the evaluation will be used to recommend a preferred solution consisting of a combination of options shown here
— The third PIC, planned for early summer 2016, will present the recommended solution
— Notices of all PICs will be mailed to stakeholders and advertised in local newspapers

We need your input!
Please provide your comments on the various options being considered.
Do you have any suggestions for changes to the options?

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Do you have any suggestions for changes to the options?

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