Church Street North Transportation Review

Public Open House

C.C. Tatham & Associates Ltd.
Consulting Engineers

New Tecumseth
Alliston · Beeton · Tottenham

November 22, 2016

Welcome

This Public Open House will:

- Detail the study area and key objectives.
- Present the findings of the study and the key road system recommendations.
- Seek input & comments for consideration in the selection of the final preferred solution.
- Provide opportunities for the public to ask questions.

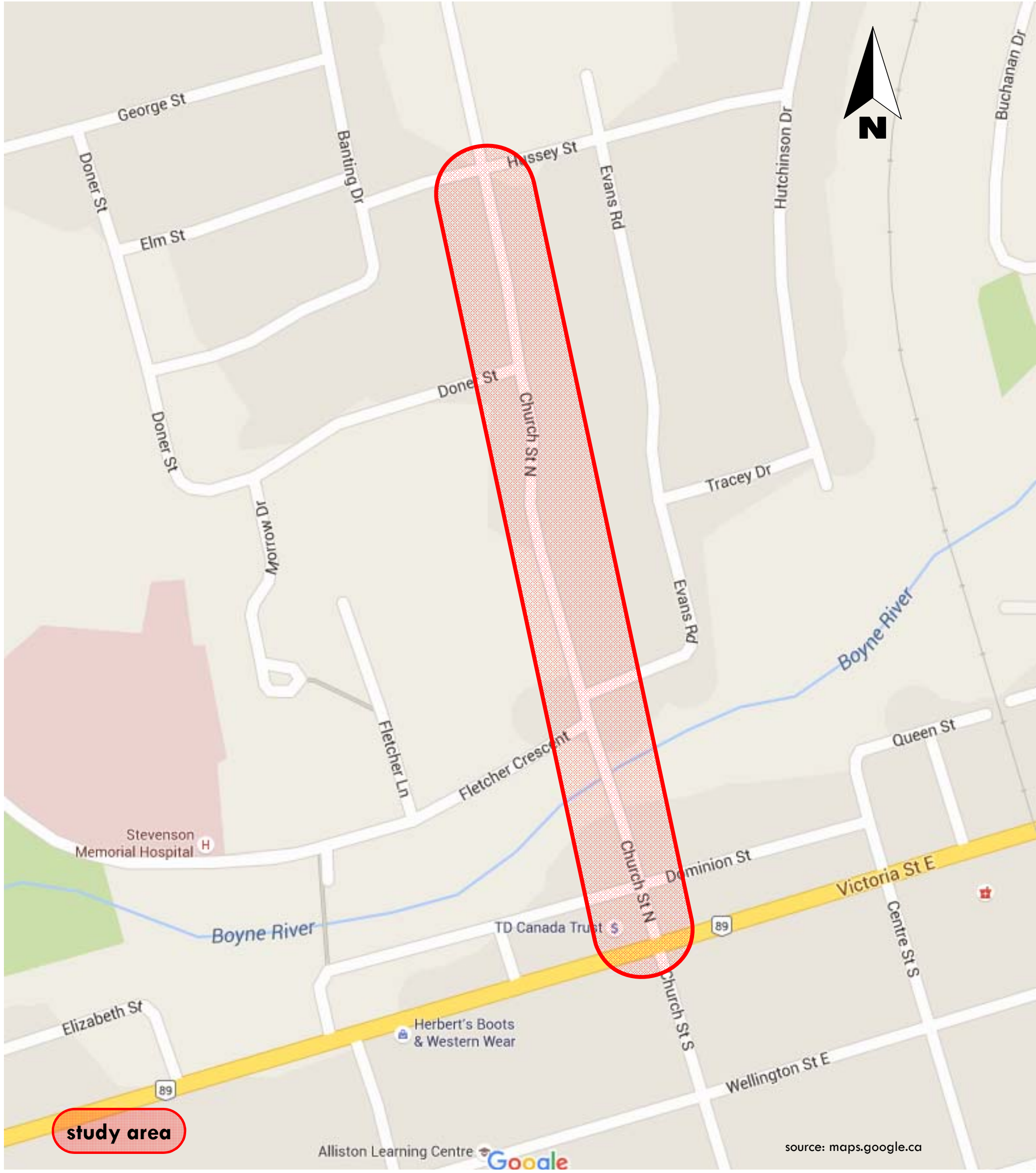
Public & Stakeholders should:

- Sign the registry
- Review the presentation material
- Ask questions of the Town and/or Consultant
- Submit a comment sheet

Study Objectives

The **OBJECTIVES** of the study are:

- Inventory the existing conditions in the study area in terms of the road network and traffic volumes.
- Provide an assessment of existing conditions with respect to traffic operations.
- Considering anticipated growth rates and development growth, identify the future conditions for the 5, 10 and 20-year horizon periods (2021, 2026 and 2036).
- Identify road improvements, if required, to support existing and future traffic demands within the Church Street North study area.
- Provide a road improvement strategy and implementation plan for the area road network through to 2036.



Existing Conditions

Church St. N at Victoria St. looking north

Victoria St. at Church St. N looking East

Church St. N at Dominion St. looking south

Dominion St. at Church St. N looking west

Church St. N at Fletcher Cres. and Evans Rd. looking north

Fletcher Cres. at Church St. N looking east

Evans Rd. at Church St. N looking west

source: Simcoe Maps, Google Street View

Existing Conditions


Church St. N at Doner St. looking south


Doner St. at Church St. N looking east


Church St. N south of Doner St. looking north at reverse bend

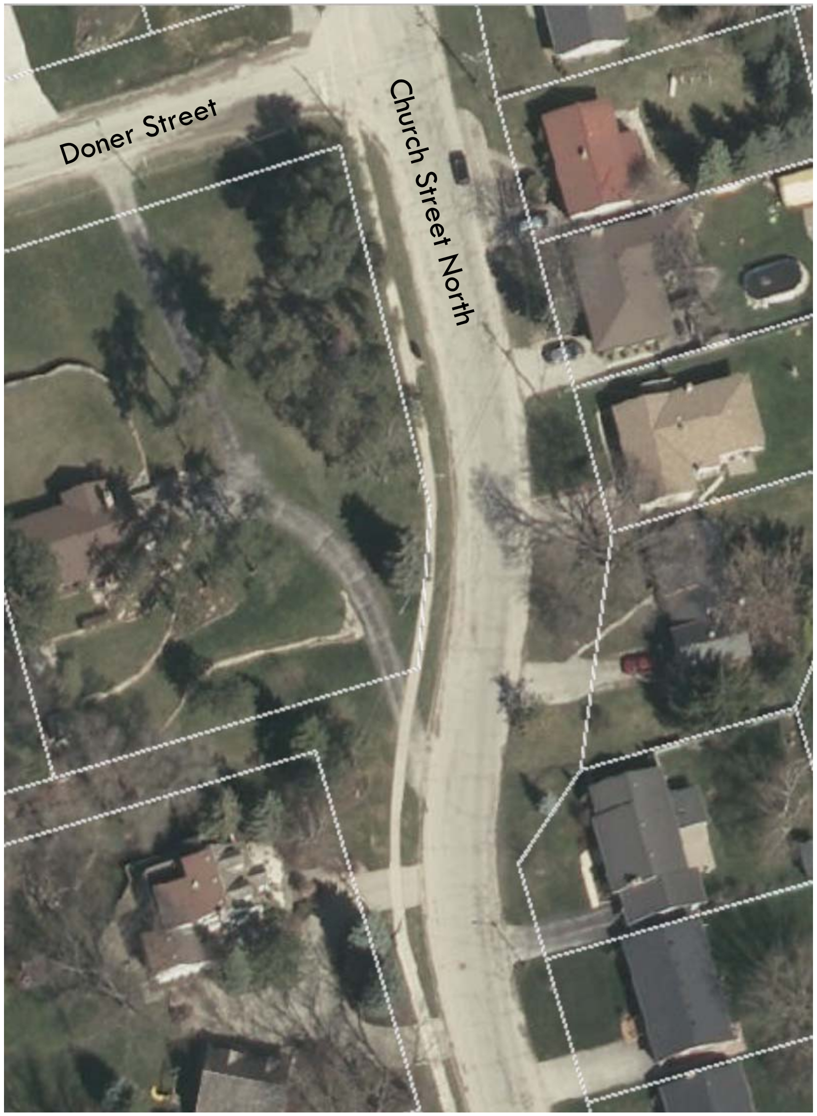

Church St. N at Doner St. looking south at reverse bend


Church St. N at Hussey St. looking north


Hussey St. at Church St. N looking east

source: Simcoe Maps, Google Street View

Existing Conditions



Looking south into the reverse curve from Doner Street

Looking north into the reverse curve

source: Simcoe Maps, Google Street View

Assessment: Traffic Volumes & Operations

2016

Traffic Volumes

10 AM Peak Hour
(10) PM Peak Hour

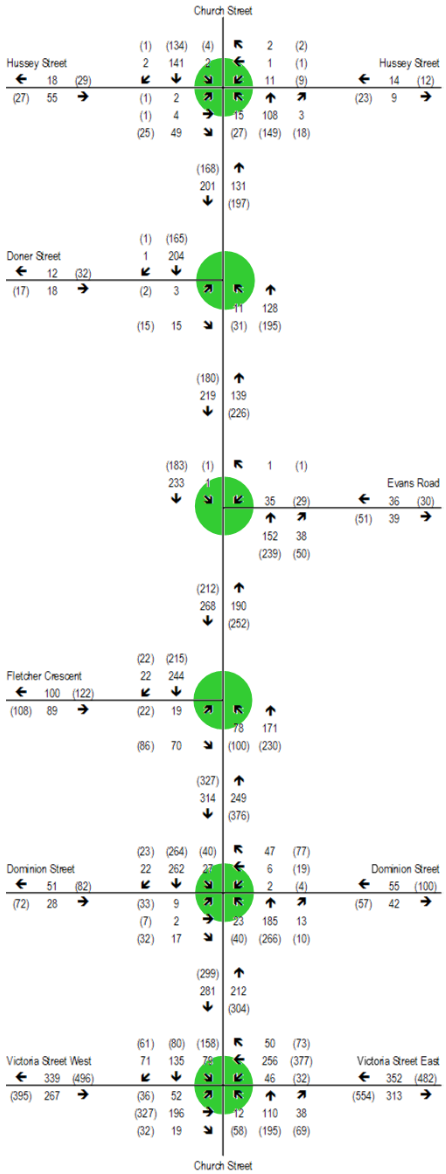
Traffic Operations

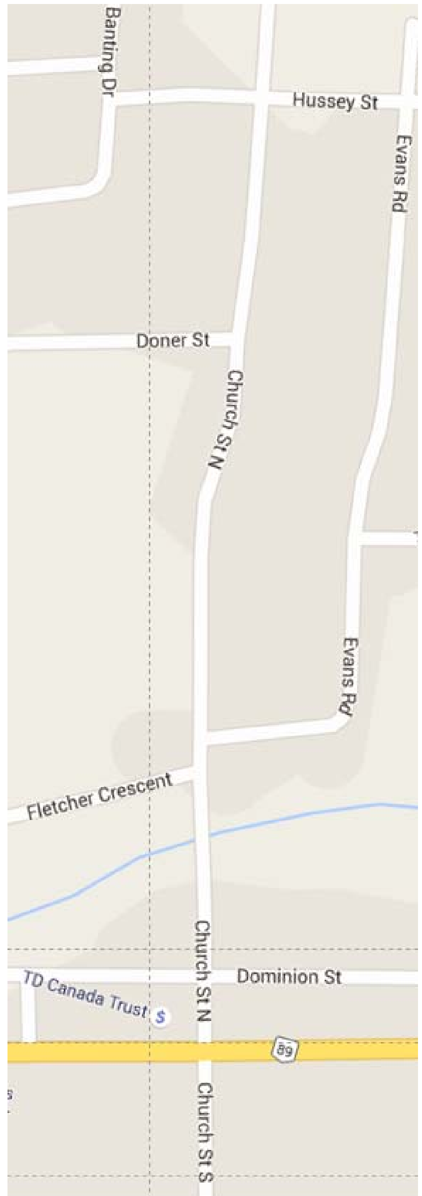
- Good (short delays)
- Fair
- Poor (long delays)

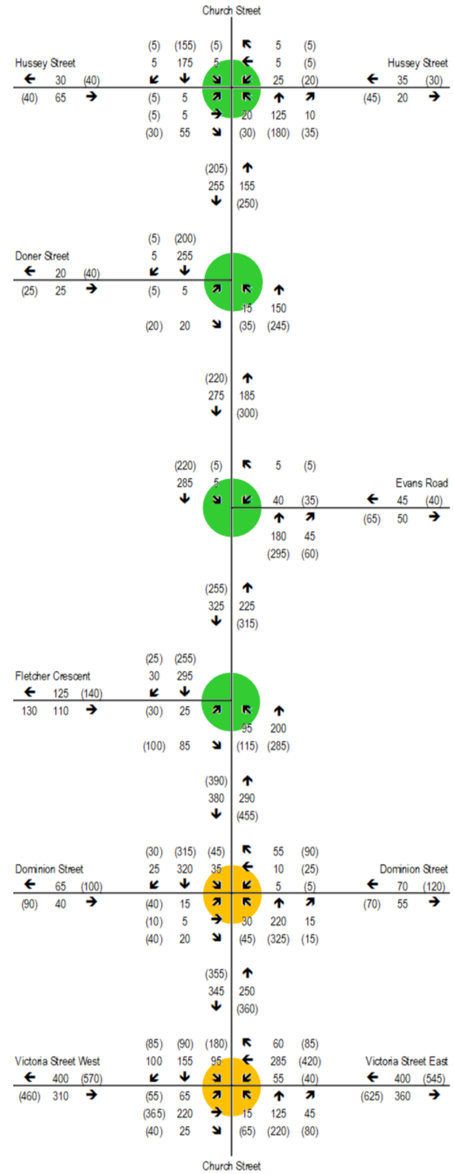
Results & Recommendations

Under existing 2016 conditions, all intersections operate at acceptable levels.

No improvements are required.







2021

Traffic Volumes

10 AM Peak Hour
(10) PM Peak Hour

Traffic Operations

- Good (short delays)
- Fair
- Poor (long delays)

Results & Recommendations

Under future 2021 conditions (with continued area development and an expansion at the Hospital), all intersections operate at acceptable levels.

No improvements are required.

Assessment: Traffic Volumes & Operations

2026

Traffic Volumes

10 AM Peak Hour
(10) PM Peak Hour

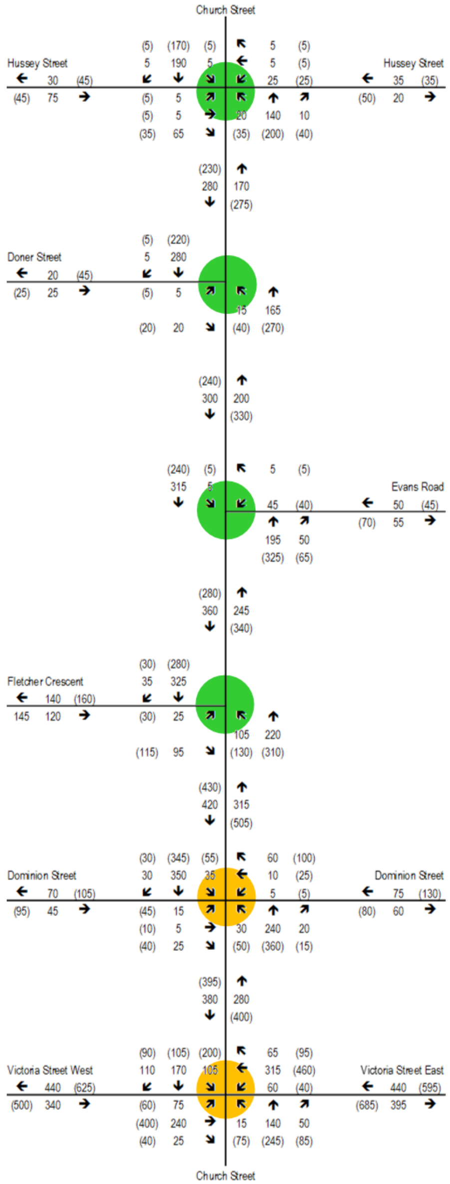
Traffic Operations

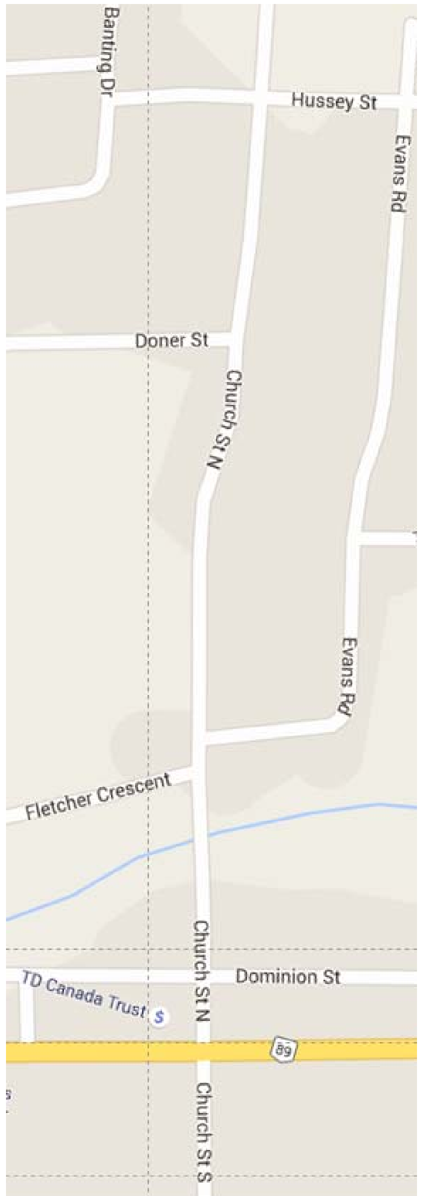
Good (short delays)
Fair
Poor (long delays)

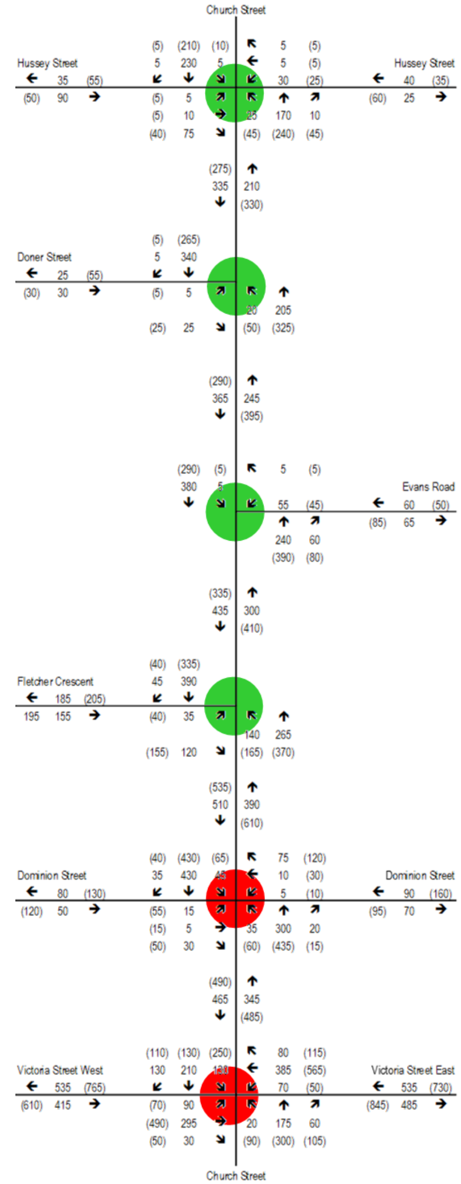
Results & Recommendations

Under future 2026 conditions (with continued area development and an expansion at the Hospital), all intersections operate at acceptable levels.

No improvements are required.







2036

Traffic Volumes

10 AM Peak Hour
(10) PM Peak Hour

Traffic Operations

Good (short delays)
Fair
Poor (long delays)

Results & Recommendations

Under future 2036 conditions, (with continued area development and an expansion at the Hospital), Dominion St & Victoria St intersections will incur poor delays.

Improvements are required.

Assessment: Travel Speeds

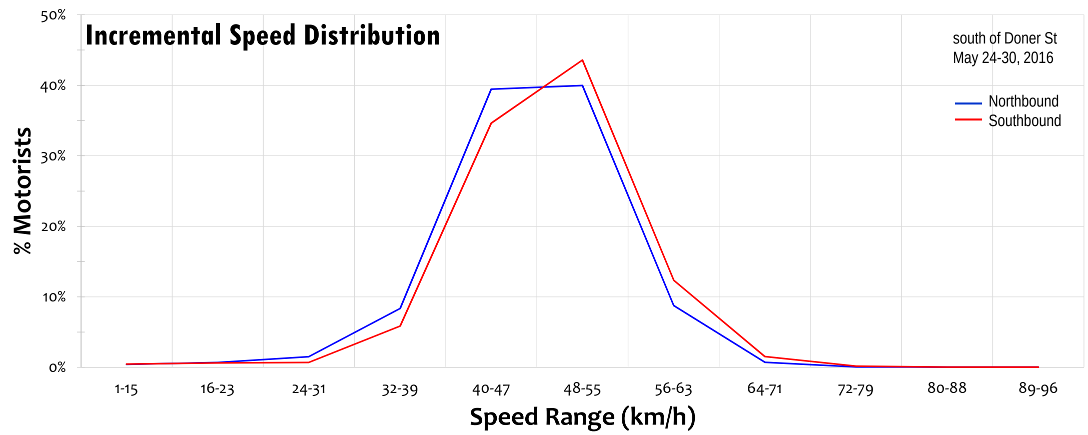
Results of speed measures

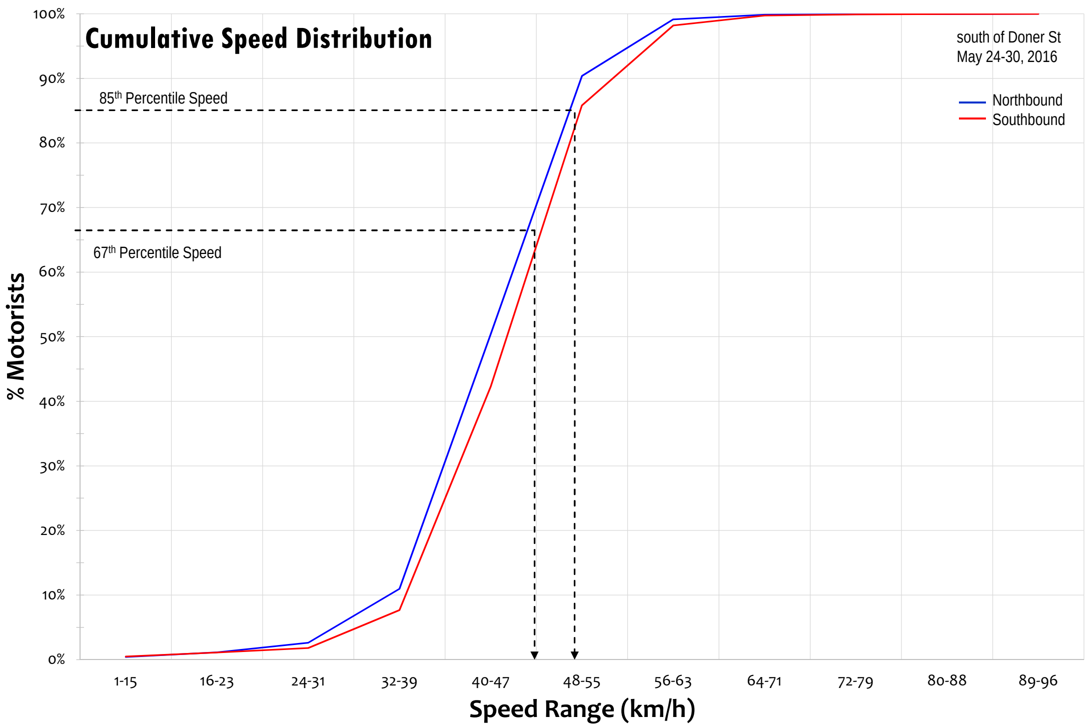
- Speed limit 50 km/h
- Average speed 48-49 km/h
- 67th Percentile 51-52 km/h
- 85th Percentile 55 km/h

Assessment results

- Town's policy is NOT to set speed limit < 67th percentile speed.
- Transportation Association of Canada notes the 85th percentile should be within 10km/h of the posted speed limit.

- The existing 50 km/h posted speed limit is considered appropriate.





Assessment: Road Geometry

Horizontal alignment assessment:

- Through the ‘S’ curve, the horizontal radii are 150 to 160 metres.
- The Town’s engineering standards noted a minimum radius of 115 metres for urban local and collector roads.
- The Ministry of Transportation of Ontario (MTO) minimum is 130 metres for a road with a posted speed of 50 km/h.
- The existing horizontal alignment of the road is considered acceptable.

Looking North on Church Street N to the ‘S’ curve and the associated horizontal and vertical alignments.

Vertical alignment assessment:

- Through the ‘S’ curve, motorists can see advancing vehicles from a distance of 85 to more than 100 metres away.
- The Town’s engineering standards require a minimum distance of 65 to 85 metres.
- The MTO standards dictate a requirement of 85 metres for a road with a posted speed limit of 50 km/h.
- The existing grade is typically 2 to 4% (8% for approximately 35 metres in the S curve).
- MTO standards dictate grades of 6 to 12% as being acceptable for the design speed.
- The existing vertical alignment of the road is considered acceptable.

Assessment Questions & Answers

Should the Church Street N speed limit be decreased?

No, 50km/h is appropriate.

Are additional all-way stops needed anywhere?

No, the existing intersection control is adequate.

Are additional traffic signals needed anywhere?

No, the existing intersection control is adequate.

Are modifications required to the road's horizontal and/or vertical alignment?

No, the existing road alignments are adequate.

Are 4 lanes required on Church Street?

No, 1 lane per direction is adequate to accommodate the existing and future traffic volumes.

Are improvements required at the Victoria Street intersection?

Yes, in the future the approaches should be modified to a provide exclusive left turn lanes and shared through-right lanes.

Are right and/or left turn lanes required anywhere?

Left turn lanes are warranted in the future at Fletcher Cr, but cannot be accommodated given the proximity to the bridge. Acceptable operations will be provided without. NB and SB left turn lanes are also warranted at Dominion St in the future (2021).

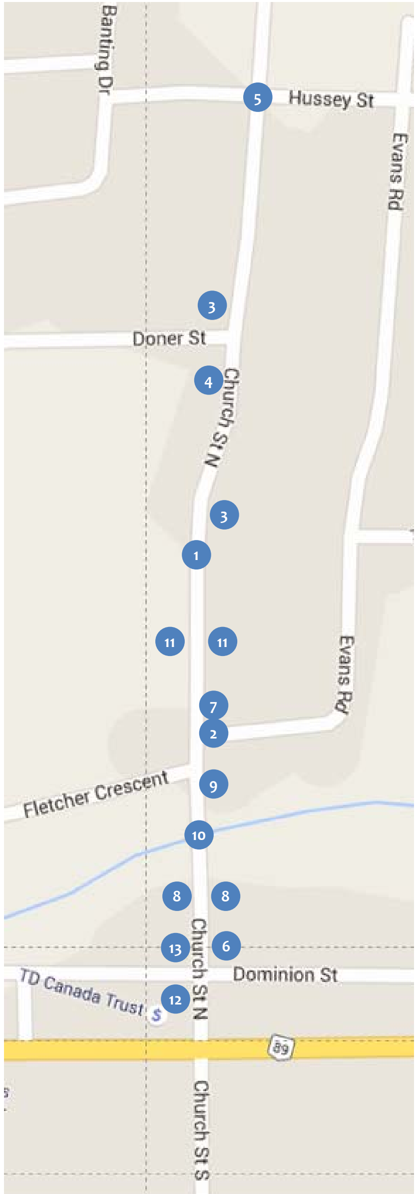
Should Fletcher Crescent & Evans Road align?

Ideally, yes to create a standard 4-leg intersection. However, the property impacts associated with a realignment of either road are significant. As acceptable traffic operations will be provided under the existing configuration, a realignment is not recommended.

When is Church Street N going to be reconstructed?

The *2014 Road Needs Study* identifies this section of Church Street N as a "NOW" need. The Town expects reconstruction within the next 2 to 5 years subject to funding.

Recommendations – Short Term (2016-2021)



Operational Improvements	Time of Need
1. Provide centreline pavement markings along Church Street to provide a visual cue to motorists as to lane allocation and road alignment.	2016
2. Paint a crosswalk at the Evans Road intersection, east leg.	2016
3. Install warning signs (Wa-5R) relating to the reverse curve.	2016
4. Relocate the community mailbox currently within the reverse curve south of Doner Street to eliminate the need for motorists to park within the reverse curve and hence obstruct sight lines for southbound motorists.	2016[1]
5. Paint crosswalks at Hussey Street intersection on all 4 legs and ensure the proper alignment of the approach sidewalks and pedestrian standing areas.	2016[1]
6. Address sidewalk alignment and configuration at Evans Road intersection. Provide a sidewalk extension to connect to the sidewalk on the west side of Church Street North and ensure alignment of the sidewalks and crosswalk on the east leg.	2016[1]
7. Reclaim the boulevard space in front of the commercial block on the east side of Church Street North, north of Dominion Street, and provide an improved sidewalk.	2016[1]
8. Address various sidewalk deficiencies with respect to width, condition and location.	2016[1]
9. Extend sidewalks across all commercial driveways.	2016[1]
10. Provide guiderail upon approach to the Boyne River bridge, complete with appropriate end treatments.	2016[1]
11. Prohibit parking on the west side of Church Street North to eliminate sight line obstructions/limitations for motorists travelling through the reverse curve. Permit parking on the east side (which will also facilitate Improvement 11). Place appropriate parking signs to inform motorists of restrictions.	2016[1]
12. Improve the south-west corner of the Dominion Street intersection to provide a pedestrian standing area, improved delineation of the road, adjacent parking and pedestrian areas. Reinstall the eastbound stop sign in accordance with current standards (eliminate the concrete sign base).	2016[1]
13. Eliminate the southbound right turn lane on Church Street North at Dominion Street and reclaim the area for sidewalk use/pedestrians.	2016[1]

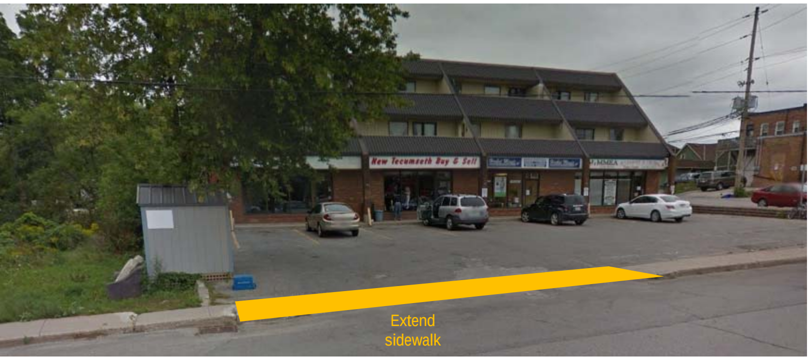
[1] while these have been identified based on existing conditions, they can be completed in conjunction with the planned reconstruction of Church

Recommendations – Medium/Long Term (2026+)

Operational Improvements	Time of Need
14. Review and modify traffic signal timing plan at Victoria Street to reflect increased traffic demands and varying demands throughout the day (eg. introduce various time of day plans).	2016-2036
15. Consider one-way westbound operations on Dominion Street to reduce volumes through the Church Street intersection, thereby improving operations. This will also facilitate the redevelopment of the river front area as per the Downtown Enhancement Master Plan. (Will require additional investigations).	2026-2031
16. At the Victoria Street intersection, reconfigure each approach to provide an exclusive left turn lane and a shared through/right lane (to better serve the left turning traffic volumes and reduce overall intersection delay). Modify the signal timings to provide advance greens for the left turn movements.	2026-2031[1]
17. Extend the southbound left turn lane at Victoria Street northerly to serve the southbound left movement at Dominion Street and also the northbound left turn movement at the Beer Store access (would preclude the implementation of Improvement 13).	2026-2031[1]

[1] these can be implemented in 2021 or 2026 to provide improved operations, albeit they are not needed until post 2026

Recommendations

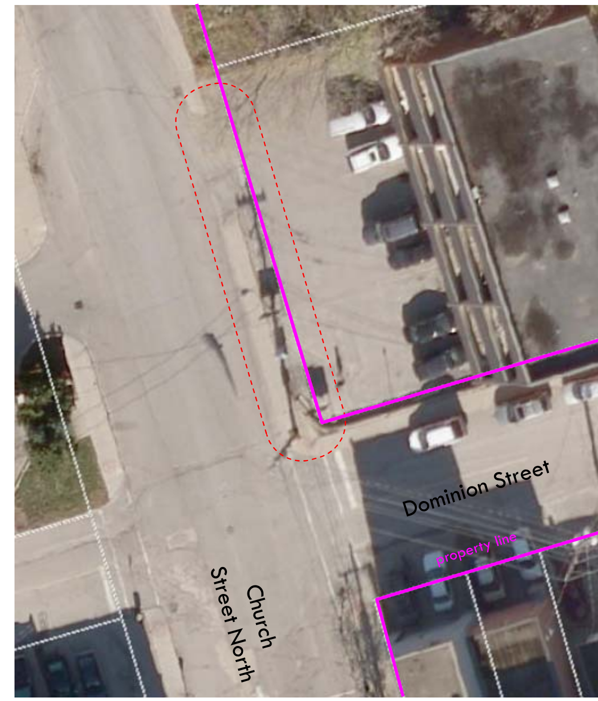


8. Extend sidewalks through commercial driveways to reinforce pedestrian corridor (2016).

12. Improve the southwest corner of the intersection to better delineate driving lane, private parking area and pedestrian facilities (2016).
15. Consider one-way operations to reduce overall road width within the constrained Dominion Street right-of-way (longer term).

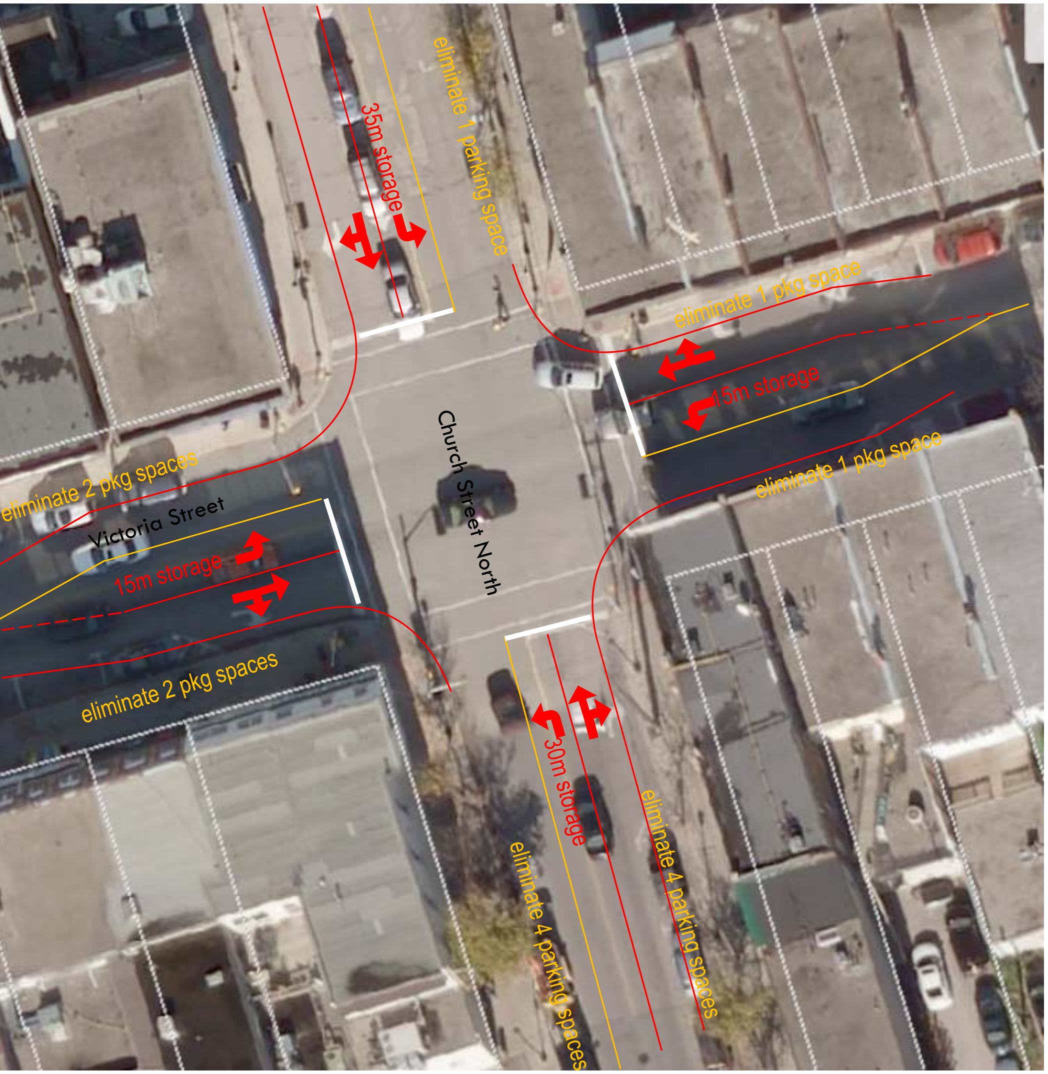
4. Provide crosswalks at Evans Road intersection (2016).

5. Ensure proper sidewalk alignments and pedestrian standing areas to facilitate crossings (2016).



6. Reclaim the boulevard space within the right-of-way to improve sidewalk facilities and negate the need to relocate the hydro pole. Will result in the loss of 2 parking spaces currently on Town property (2016).

Recommendations



16. Convert right turn lanes to shared right/through lanes and create pocket left turn lanes to better accommodate travel demands for 2026 and beyond. Implement advance green signal phase for left turn movements (2026-2031).

8. Extend sidewalks through commercial driveways to reinforce pedestrian corridor (2016).

13. Eliminate the southbound right turn lane at Dominion Street and reclaim space for new sidewalk and pedestrian/landscape features in the boulevard (2016).

8. Extend sidewalks through commercial driveways (2016).

17. Maintain the southbound right turn lane at Dominion Street and extend the southbound left turn lane from Victoria Street to the serve Dominion Street and the Beer Store access (2026-2031).

Next Steps to Complete the Study

To **COMPLETE** the study, the team will:

- Review & address public, agency & stakeholder comments.
- Confirm the study recommendations.
- Prepare the final transportation report.
- Submit report to Council for endorsement.

Who to **CONTACT** for further information:

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Public Comments

- Comments regarding this project are being collected to assist the project team in identifying needed road improvements.
- Comments will be maintained for reference during the study and, with the exception of personal information, may be used in the final report.

BEFORE you leave:

- ☑ Have all your questions been answered?
- ☑ Have you completed a comment sheet?