ST. THOMAS THE RAILWAY CITY	**Report No.** ES-30-26
	File No.
Directed to: Mayor Joe Preston and Members of City Council	**Meeting Date:** June 8, 2026
Department: Environmental Services	**Attachment**
Authored By: Daniel Koppert, LET, PMP, Manager of Capital Works	South Edgeware & Burwell Intersection Class EA Study
Subject: **South Edgeware and Burwell Intersection Environmental Assessment**	

Recommendation:

THAT: Report ES-30-26 relating to South Edgeware and Burwell Intersection Environmental Assessment be received for information; and further,

THAT: Council authorize staff to proceed with Alternative 3 – new two-lane roundabout – as the preferred solution for the South Edgeware and Burwell Intersection Class Environmental Assessment (Class EA) Study; and further,

THAT: Council direct staff to file a Notice of Study Completion and commence the 30-day public review period in accordance with the requirements of the Environmental Assessment Act.

Origin:

Infrastructure upgrades are required on South Edgeware Road from west of Balaclava Street to Highbury Avenue to provide a deep trunk sanitary sewer connection between Yarmouth Yards and the new sewage treatment plant (D-WRF). This project includes the installation of trunk sewer and sanitary forcemain, Secondary transmission main and watermain replacement, and storm drainage improvements. The underground utility work provides an opportunity to ensure the related roadway improvements accommodate planned growth and intensification on this important arterial corridor.

Background:

In 2025, RC Spencer Associates was retained to complete a Corridor Study considering current and future conditions at all 14 intersections along South Edgeware. The Corridor Study identified applicable geometric improvements and provided recommendations. In accordance with the 2025 Transportation Master Plan recommendations, the study also assessed roundabout designs for the intersections of South Edgeware Road at Burwell Road and South Edgeware Road at Balaclava Street.



Figure 1 - South Edgeware Road Project Overview

Activities related to replacement or expansion of infrastructure within an existing right-of-way are pre-approved in accordance with the Environmental Assessment Act under the Municipal Class Environmental Assessment (Schedule A+). All improvements related to the South Edgeware Road Trunk Sanitary Sewer project are contained within the existing right-of-way, however for a roundabout intersection treatment at Burwell Road, some property acquisition is required in the north-east and south-east quadrants of the intersection.

Under the Environmental Assessment Act, property acquisition for roadway improvements triggers an Environmental Assessment, a public process wherein a problem or opportunity is identified, alternative solutions are proposed, the solutions are evaluated, and a report then prepared for review. Subject to general agreement with the report's findings, the solution is then implemented.

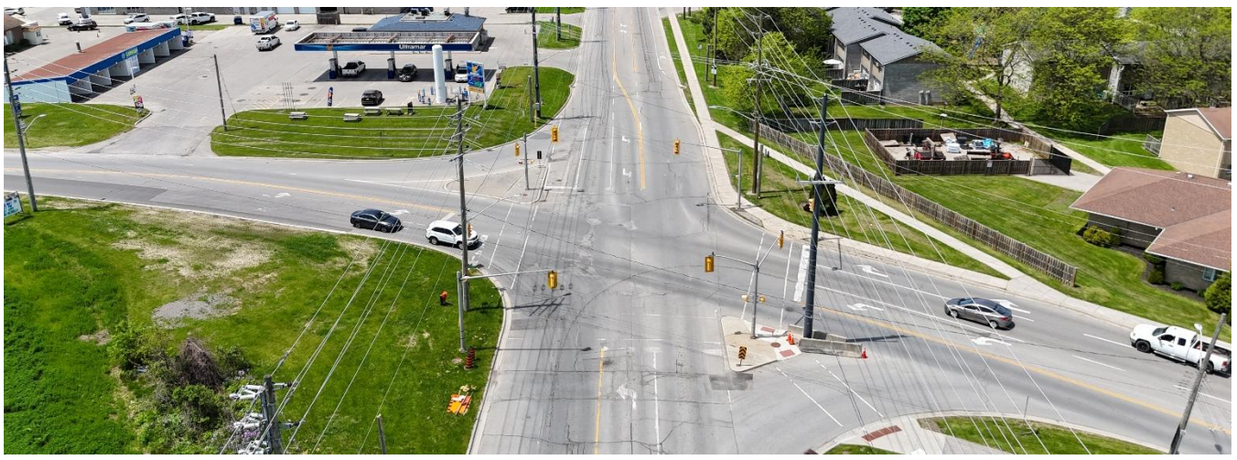


Figure 2 - South Edgeware Road and Burwell Road Intersection – Existing Conditions

The potential intersection treatments at South Edgeware and Burwell Road were evaluated following a Schedule B project under the Municipal Class Environmental Assessment process. The Problem/Opportunity statement has been determined to be "Identifying a preferred solution for proposed intersection improvements," and "The intersection should be reconstructed based on observed traffic operations and traffic safety considerations." Through the Class EA process, the following intersection alternatives were identified:

Alternative 1 - Do Nothing (keep existing geometric conditions and signal control)
Alternative 2 – Optimized Signal Control (with optimal geometric conditions) $1.4M
Alternative 3 – Roundabout Control (with the City's proposed geometric constraints) $2.8M

Alternative 1 does not satisfy the requirements of the Problem/Opportunity statement and was therefore screened out and not carried forward. Due to the extensive excavation and trenching required as part of the South Edgeware trunk sewer construction and other underground utility work, the existing traffic signal infrastructure will be disturbed during construction, requiring replacement. The existing traffic signal does provide adequate traffic operation functionality in the planning horizon (2045) and does not meet technical traffic safety design considerations in its current configuration.

The remaining alternatives were analyzed based on technical characteristics, social, environmental, and economic considerations. Benefits and drawbacks were considered for each viable alternative as summarized below:

Alternative	Technical	Social	Environmental	Economic	Summary
Alternative 2 Optimized Signal Control	• Intersection skew angle and curve is undesirable • poor sightlines • safety concerns and continued risk of severe collisions	• Pedestrians and cyclists accommodated • Least construction impacts • contained within the existing ROW	• Long traffic delays expected over the planning horizon • idling vehicles lead to increased emissions	Construction Cost: $1.4M O&M Cost: $28k/year Societal cost of collisions (approx. 4.5 incidents/yr under existing geometric conditions)	Somewhat desirable
Alternative 3 Roundabout Control	• Highest vehicle capacity • Require less maintenance • best overall for safety (95% reduction in fatal collisions) • fewest vehicle conflict points	• Property acquisition required • Pedestrians and cyclists accommodated • Improved aesthetics • Lowest delays, shorter queues	• best traffic flow, fewest delays • most green space • Reduced vehicle idling, emissions • Reduced fuel consumption • Reduced energy required for acceleration and deceleration	Construction Cost: $2.8M O&M Cost: $11k/year Reduced societal cost of collisions/ insurance claims	**Most desirable**

The Notice of Study Commencement was posted to the City website on Monday, March 9, 2026 and mailed on Friday, March 27, 2026, to all residences and businesses within a 200m radius of the South Edgeware and Burwell intersection area. Key stakeholders and affected property owners were contacted individually for specific feedback. Additionally, feedback was solicited through the City's social media streams.

A total of twelve (12) comments were received by email during the consultation period. Of the comments received, two (2) favored Alternative 2 (Optimized Signal Control), and three (3) favored Alternative 3 (Roundabout Control). Two responses favored Alternative 1 (Do Nothing) and five (5) responses did not indicate a preference. All comments were reviewed and incorporated into the project file for consideration in the selection process.

After reviewing the alternatives and feedback provided through the consultation process, and in consideration of the technical, social, environmental, and economic impacts relating to each alternative, the Class EA Study has recommended Alternative 3, a new 2 lane roundabout, as the preferred intersection treatment that best accommodates current and future conditions.

Strategic Priority:

Strategic Pillar: Excellence in All We Do - Priority #2: Thoughtful, Strategic, and Sustainable Community Growth

Financial Impact:

The South Edgeware Road Trunk Sanitary Sewer project is a multi-year phased project. Phase 1 (Woodworth Avenue Construction) was included in the 2026 Capital Budget. Phase 2 (South Edgeware Road – Waterworks to Burwell Road) will be included in the 2027 Capital Budget submission. Phase 3 (South Edgeware Road – Burwell Road to Highbury Avenue) will be included in the 2028 Capital Budget request. Costs associated with the construction of Alternative 3 will be included in the Phase 3 (2028) budget request.

Report Approval:

This report has been reviewed and approved by the Director of Environmental and Infrastructure Services/City Engineer.

All reports are reviewed and approved by the City Manager.

SOUTH EDGEWARE AND BURWELL INTERSECTION CLASS ENVIRONMENTAL ASSESSMENT STUDY

Prepared for:

ST. THOMAS
THE RAILWAY CITY

Prepared by:

RC SPENCER ASSOCIATES INC.
Consulting Engineers
Tecumseh: 1610 Sylvestre Drive - Tecumseh ON N9K 0B9
Leamington: 18 Talbot Street W. - Leamington ON N8H 1M4
Chatham-Kent: 49 Raleigh Street - Chatham ON N7M 2M6

File No.: 25-1765

May 2026

FINAL DRAFT

SOUTH EDGEWARE AND BURWELL INTERSECTION

CLASS ENVIRONMENTAL ASSESSMENT STUDY, ST. THOMAS, ON (MAY 2026)

Table of Contents

1.0 Introduction 1

2.0 Municipal Class Environmental Assessment Process 3

3.0 Notice of Study Commencement 4

4.0 Phase 1: Identification of Problems or Opportunities 6

5.0 Phase 2: Development and Evaluation of Alternative Solutions 6

6.0 Methodology 7

7.0 Existing Traffic Volumes 8

8.0 Projected 20-Year Horizon Traffic Volumes 9

9.0 Traffic Signal and Roundabout Control Modelling 10

10.0 Functional Design Plans 10

11.0 Cost Estimates 10

12.0 Comparitive Evaluation of Alternative Solutions 10

- 12.1 Option 1 – Do Nothing 10
- 12.2 Option 2 – Optimized Signal Control 11
- 12.3 Option 3 – Roundabout Control 16

13.0 Public and Agency Consultation 19

14.0 Summary and Identification of the Preferred Alternative 19

Appendices

Appendix A: Traffic Data Collection

Appendix B: Traffic Projection Figures

Appendix C: Detailed Model Results: Future Configuration Options

Appendix D: Functional Designs

Appendix E: Cost Estimates

Appendix F: Presentation of Alternatives

Appendix G: Response to Public Request for Input

FINAL DRAFT

1.0 INTRODUCTION

The City of St. Thomas has retained RC Spencer Associates Inc. to undertake a Schedule B Class Environmental Assessment (EA) to evaluate improvements to the intersection of Burwell Road at South Edgeware Road, in St. Thomas, ON. The area plan and subject intersection are shown on the following **Figure 1**:



Figure 1: Location of Study Area Intersection

The City of St. Thomas is located near the centre of Elgin County, approximately 15 km south of London, on Highway 3. The 2021 population forecast was updated in 2024 and indicated an increase in the anticipated population growth. According to the statistics presented in Watson and Associates Economists Ltd.'s 2024 Growth Analysis Study for the City of St. Thomas, under the current forecast, the population in St. Thomas is expected to steadily increase from 44,000 in 2021 to 79,500 by 2051, representing a population increase of 2% annually over the 30-year period. The new PowerCo facility and the development of Yarmouth Yards is estimated to instigate a year-over-year growth in residents and jobs.

In September 2025, RC Spencer Associates Inc. prepared a corridor study for the South Edgeware Road corridor, which is approximately 2.8km in length and is parallel to (and approximately a half kilometre north of) Highway 3, along the north end of St. Thomas.

The September 2025 South Edgeware Road Corridor Study encompassed the entirety of South Edgeware Road, from Waterworks Park (west of Balaclava Street) to the newly constructed roundabout at Highbury Avenue South. Background studies (specifically RV Anderson's Highbury Avenue and South Edgeware Road EA Traffic Study) were consulted to determine the projected area development traffic. According to information provided by the City, South Edgeware Road is an arterial roadway with an approximate average annual daily traffic (AADT) of 6,500 vehicles per day (vpd), although the updated turning movement counts suggest that the AADT is more in the range of 9,000 – 10,000 vehicles per day between First Avenue and Burwell Road. South Edgeware Road establishes a critical east / west commuter route within the City of St. Thomas. The South Edgeware Road corridor improvements have been prioritized in the City of St. Thomas' Asset Management Plan (10 Year Capital Forecast) for replacement in 2027 – 2028. The work includes installation of a new trunk sanitary sewer from the Yarmouth Yards development site to Woodworth Street (to service the new PowerCo facility).

To accommodate the anticipated compounding growth, the road authority recognized that the South Edgeware Road corridor may require various traffic infrastructure improvements; as a result, this Schedule B Class Environmental Assessment (EA) was specifically prepared to proactively guide the respective decision-makers in sustainably evaluating their "next steps" for the Burwell Road at South Edgeware Road intersection.

Burwell Road is a north / south arterial road; it begins at Ron McNeill Line (County Road 52) north of the city, intersects with South Edgeware Road, and continues south to Talbot Street (where it transitions to Fairview Avenue). At the south edge of the city, it becomes County Road 22.

The subject four-legged (skewed) signalized intersection is located approximately 175m east of the east leg of Confederation Drive. The northwest quadrant of the intersection is primarily residential; the other three quadrants are comprised of primarily industrial land uses. The existing signal control incorporates an advance left turn phase on the westbound approach. The eastbound approach is comprised of a left turn lane, two through lanes, and a right turn channel. The westbound approach is comprised of a left turn lane, a through lane, and a right turn channel. East of the intersection, South Edgeware Road becomes a two-lane roadway with a rural cross-section. The northbound approach is comprised of a left turn lane and a shared through / right turn lane, while the southbound approach is comprised of a left turn lane, a through lane, and a right turn lane. The on-street bicycle lanes provided on both sides of South Edgeware Road end to the west of this intersection. Sidewalks are provided on the west side of the north leg and on the north side of the west leg. The speed limit on all legs is 50km/h; all legs are currently comprised of an urban cross-section.

2.0 MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT PROCESS

Municipal infrastructure projects are subject to the provisions of the Ontario Environmental Assessment Act (EA Act) and its requirements when undertaking Environmental Assessments for applicable public works projects. The Municipal Class Environmental Assessment (last amended in February 2024) provides municipalities with a phased planning procedure to plan and undertake all municipal sewage, water, stormwater management, and transportation projects that occur frequently, are usually limited in scale, and have a predictable range of environmental impacts and applicable mitigation measures. These projects are approved under the Environmental Assessment Act, as long as they are planned, designed, and constructed according to the requirements of the Municipal Class Environmental Assessment document.

The specific requirements of the Municipal Class Environmental Assessment process for a particular project depend on the type of project, its complexity, and the significance of environmental impacts. Four categories of projects are identified in the document, including "Exempt", Schedule B, Schedule C, and Master Plan projects. Under Project Description 19a, construction of localized operational improvements at specific locations (and construction of intersections and roundabouts) are "exempt" if a project is within an existing right-of-way; for projects that require property acquisition, decision-makers are to refer to Project Description 33 to determine the project schedule. Projects valued at less than $3M are subject to Schedule B, while projects valued at or greater then $3M are subject to Schedule C. Since the subject intersection's geometric and traffic control improvements are estimated to be valued at less than $3M (regardless of the traffic control that is ultimately implemented), it is the engineers' opinion that a Schedule B Class EA is the most appropriate process for navigating the intersection improvements' potential impacts.

As shown on **Figure 2**, a "Schedule B" project follows Phases 1 and 2 of the Municipal Class Environmental Assessment process and is screened as follows:

- Phase 1 consists of the identification of "Problems" and "Opportunities":
    - Identify the problems or opportunities to be addressed, as well as the needs and justification corresponding to the problems and / or opportunities;
- Phase 2 consists of the development and evaluation of "Alternative Solutions":
    - Identify alternative solutions to the problems or opportunities by taking into consideration the existing environment and establishing a preferred solution, taking into account public and agency review and input;

- Based on the objective of avoiding or minimizing adverse environmental impacts, the Schedule B screening process involves:
    - Inventory of the environment potentially affected by the project;
    - Public and agency consultation;
    - An impact assessment of the preferred alternative, including measures to avoid / mitigate any adverse impacts; and
    - Documentation of the Class EA Process in a Project File.

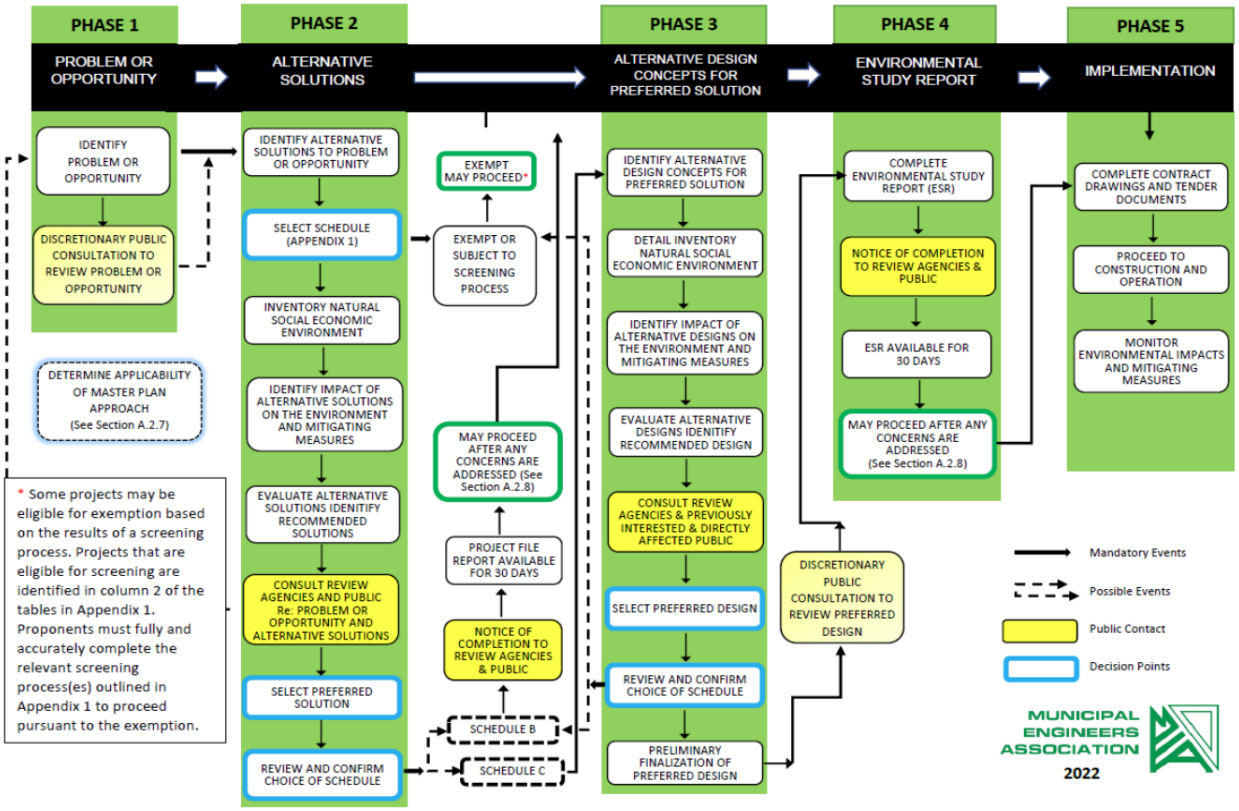


Figure 2: Current Municipal Class EA Planning and Design Process

3.0 NOTICE OF STUDY COMMENCEMENT

On 9 March 2026, the following Notice of Study Commencement **(Figure 3)** was posted on the City's website; on 27 March 2026, a physical notice was distributed to businesses, property owners, and residents within 200m of the subject intersection area. No requests for further information (or requests to be added to the mailing list) were received in response to the published Notice of Study Commencement.

City of St. Thomas
Notice of Study Commencement

The Corporation of the City of St. Thomas retained RC Spencer Associates Inc. to undertake a Class Environmental Assessment (EA) for improvements to the intersection of South Edgeware Road at Burwell Road, in the City of St. Thomas.

The purpose of the Class EA is to identify a preferred solution for the proposed intersection improvements. This project is being completed under the planning and design process for a "Schedule B" project, as outlined in the Municipal Engineers Association's *Municipal Class Environmental Assessment* process.

The Class EA process involves the collection and integration of input through consultation. The major components of the study include:

- Identification of intersection options and roadway infrastructure improvements;
- Evaluation and selection of a preferred option based on consultation;
- Completion of an impact assessment and identification of mitigation measures for consideration during the design phase;
- Documentation of the study process and recommendations by way of a Project File, which will be available for public review and comments at the end of the study.



PUBLIC COMMENTS ARE INVITED

At any time during this project, there is an opportunity for interested persons to review outstanding issues and to bring concern to the attention of the Project Team. The collected information will be used in accordance with the *Freedom of Information and Protection of Privacy Act*. Except for personal information, all comments will become part of the public record.

For further information or to be added to the mailing list, please contact:

Mr. Daniel Koppert, LET, PMP
City of St. Thomas
Manager of Capital Works
P.O. Box 520, 545 Talbot Street
St. Thomas, ON | N5P 3V7
P: 519.631.1680
E: dkoppert@stthomas.ca

Mr. Aaron Blata, M.Eng., P.Eng., PTOE, RSP1
RC Spencer Associates Inc.
Consulting Engineers
18 Talbot Street West
Leamington, ON | N8H 1M4
P: 519.324.0606
E: ablata@rcspencer.ca

Figure 3: Notice of Study Commencement

4.0 PHASE 1: IDENTIFICATION OF PROBLEMS OR OPPORTUNITIES

When considering reconstruction of the South Edgeware Road corridor, the City of St. Thomas identified that some of the major intersections within the corridor could warrant further review. Accordingly, the City of St. Thomas engaged RC Spencer Associates Inc. to undertake a comprehensive corridor study to better understand what potential problems or opportunities could be addressed as part of the planned South Edgeware Road corridor reconstruction. Among other observations and conclusions, the resulting September 2025 South Edgeware Road Corridor Study (authored by RC Spencer Associates Inc.) identified that, based on observed and quantified traffic operations and traffic safety considerations, the subject intersection of Burwell Road at South Edgeware Road could be reconstructed with higher-order traffic control; this is consistent with the findings of the **Transportation Master Plan Refresh (2025)**, prepared by Paradigm Transportation Solutions Limited, which recommended roundabout control at the subject intersection. To better understand the potential problems or opportunities at this intersection, particularly in consideration of the planned South Edgeware Road reconstruction project, the City of St. Thomas engaged RC Spencer Associates Inc. to commence the Municipal Class Environmental Assessment (MCEA) process specific to the potential reconstruction of the intersection of Burwell Road at South Edgeware Road.

5.0 PHASE 2: DEVELOPMENT AND EVALUATION OF ALTERNATIVE SOLUTIONS

Of note, although the baseline identification of problems or opportunities is specific to the observed and quantified traffic operations and traffic safety considerations at the intersection of Burwell Road at South Edgeware Road, some aspects of the “Development and Evaluation of Alternative Solutions” are also considerate of how the planned road reconstruction may factor into the feasibility of the developed alternatives. Specifically, although “doing nothing” is an option that should always be presented and considered, due to the planned South Edgeware Road reconstruction project (with its various underground infrastructure implications), the subject intersection cannot be simply left “as is”.

When considering what geometric and / or traffic control improvements should be explored in the development and evaluation of alternative solutions (and in consideration of the City of St. Thomas' 2025 Transportation Master Plan recommendations and the technical work already completed as part of the September 2025 corridor study), it became apparent that only three alternatives are justifiably worth exploring as part of the subject MCEA process (even though Option 1 – “Do Nothing” is not possible); they are summarized as follows:

- Option 1: Do Nothing (with Existing Geometric Conditions and Signal Control);
- Option 2: Optimized Signal Control (with Optimal Geometric Conditions);
- Option 3: Roundabout Control (with the City's Proposed Geometric Constraints).

In this context, Option 1 should simply be viewed as the "baseline" scenario upon which the other two geometric and traffic control options are compared.

6.0 METHODOLOGY

When exploring the various geometric and / or traffic control options for the subject intersection, the signalized control options were modelled and studied based on the methodology outlined in the Highway Capacity Manual (7th Edition); the Synchro 12 traffic modelling software package, as utilized for the analysis, integrates the most current methodology prescribed in the Highway Capacity Manual (7th Edition). However, consistent with current provincial best practices, the roundabout option was analyzed using the Junctions 9 software package, which relies on the ARCADY model for various geometric inputs.

The September 2025 corridor study's peak hour volumes provided the basis for industry-standard traffic operations analysis; the software packages utilized for the respective analyses calculate various parameters of intersection performance, such as level of service (LOS), intersection capacity utilization (ICU), control delay, volume-to-capacity (v/c) ratio, and 95th percentile queue lengths on individual approaches.

The below **Table 1** generally summarized the level of service (LOS) qualification criteria for signalized intersections (based on the Highway Capacity Manual methodology):

Table 1: HCM (7th Edition) Intersection Level of Service Criteria for Signalized Intersections

Level of Service	Average Control Delay (sec/veh)	General Description (Signalized Intersections)
A	≤10	Free Flow
B	>10 - 20	Stable Flow (slight delays)
C	>20 - 35	Stable flow (acceptable delays)
D	>35 - 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 - 80	Unstable flow (intolerable delay)
F	>80	Forced flow (jammed)

The thresholds A through F are based on the queuing delay on each leg of the intersection, but it should be noted that these thresholds differ for unsignalized and signalized intersections.

Similarly, it should be noted that the level of service (LOS) reported in Junctions 9 is based purely on the queueing delay (corresponding to the Highway Capacity Manual's unsignalized control equivalent), summarized in the below **Table 2**:

Table 2: HCM (7th Edition) Intersection Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (sec/veh)
A	0 - 10
B	>10 - 15
C	>15 - 25
D	>25 - 35
E	>35 - 50
F	>50

7.0 EXISTING TRAFFIC VOLUMES

As provided in **Appendix A,** weekday turning movement counts were obtained by Pyramid Traffic Inc. on 27 March 2025 for the intersection of Burwell Road at South Edgeware Road. The AM and PM peak hour volumes are illustrated on **Figure 4**:

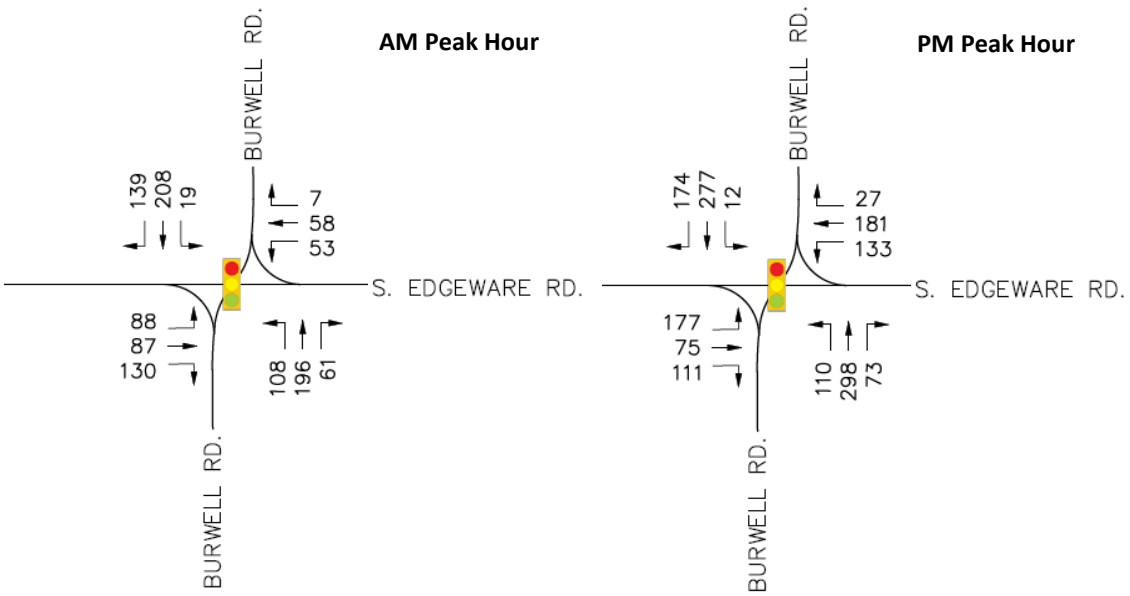


Figure 4: Existing Traffic Volumes (AM / PM Peak Hours)

8.0 PROJECTED 20-YEAR HORIZON TRAFFIC VOLUMES

At the City's discretion, traffic operations were evaluated for the 2045 horizon year, representing a 20-year projection period. In addition to general background traffic growth, traffic growth from anticipated area developments was also accounted for via review of the Highbury Avenue and South Edgeware Road Municipal Class Environmental Assessment (completed by R.V. Anderson Associates Limited in 2023). These developments consist of the expansion of Highbury Avenue from a two-lane to a four-lane cross-section, from Ron McNeil Line to South Edgeware Road, as well as the reconstruction of South Edgeware Road between Burwell Road and Highbury Avenue to incorporate a two-way left turn lane into the corridor. As derived from Watson and Associates Economists Ltd.'s 2024 Growth Analysis Study for the City of St. Thomas, background traffic was increased by 2% per year, compounded annually, for the 2045 horizon forecast. The following **Figure 5** summarizes the total traffic estimates for the 2045 horizon year (including background growth and area development traffic); the figure depicts the intersection as roundabout controlled, but projected traffic volumes are not expected to differ if the intersection remains signalized. The effect of adding the 2% growth rate and the area development traffic to existing traffic volumes can be found in **Appendix B**.

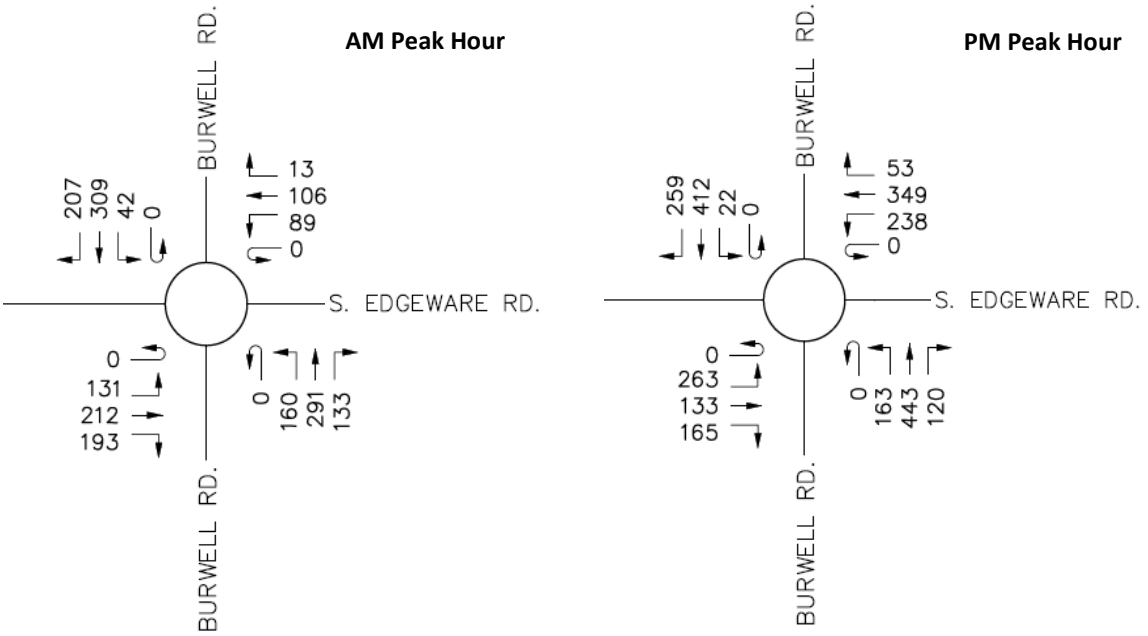


Figure 5: Total Traffic 2045 Volumes (AM / PM Peak Hours)

9.0 TRAFFIC SIGNAL AND ROUNDABOUT CONTROL MODELLING

For the 2045 horizon year's "Total Traffic" scenario (existing traffic + background growth and area development traffic), the three aforementioned traffic control alternatives were considered and modelled accordingly. Again, these three alternatives are generally described as follows:

- Option 1: Do Nothing;
- Option 2: Optimized Signal Control;
- Option 3: Roundabout Control.

Synchro 12 modelling was utilized to evaluate the existing and "optimal" signalized intersection scenarios; Junctions 9 (ARCADY) modelling was utilized to evaluate the optimal (two-lane) roundabout. The resulting Synchro 12 and Junctions 9 (ARCADY) simulation reports are provided in **Appendix C**.

10.0 FUNCTIONAL DESIGN PLANS

The functional design plans for the respective alternatives are provided in **Appendix D**. These designs were iteratively developed by RC Spencer Associates Inc.

11.0 COST ESTIMATES

Based on the functional design plans, RC Spencer Associates Inc. prepared high-level cost estimates for the two intersection improvement alternatives (Options 2 and 3); of note, for completeness, the cost to implement Option 2 was estimated assuming both standalone and integrated intersection reconstruction scenarios. These documents are provided in **Appendix E**; the cost estimates informed the evaluation of the respective geometric and traffic control improvement alternatives.

12.0 COMPARITIVE EVALUATION OF ALTERNATIVE SOLUTIONS

12.1 Option 1 – Do Nothing

Option 1 ("Do Nothing") represents the scenario where no geometric or traffic control changes are implemented within the studied 20-year horizon; as previously noted, Option 1 should simply be viewed as the "baseline" scenario upon which the other two geometric and traffic control options are compared.

The following **Table 3** provides the volume to capacity ratio, control delay, level of service, and 95th percentile queue length for each movement on each approach; movements where the v/c ratio exceeds 0.85 and 95th percentile volumes exceed capacity are highlighted with bold text:

Table 3: Total Traffic 2045 – Option 1 (Do Nothing)

Intersection Movement	Traffic Control Type	Option 1 – Do Nothing							
		AM Peak Hour				PM Peak Hour			
		V/C	Delay	LOS	95th %tile Queue (m)	V/C	Delay	LOS	95th %tile Queue (m)
EBL	Signal	0.31	15.3	B	22.8	**0.86**	44.2	D	**68.8**
EBT	Signal	0.18	12.6	B	15.1	0.11	10.9	B	9.9
EBR	Channel	0.32	3.8	A	11.7	0.25	3.2	A	9.5
WBL	Signal	0.25	14.8	B	17.5	0.54	18.2	B	40.8
WBT	Signal	0.18	13.1	B	18.1	0.53	16.2	B	52.4
WBR	Channel	0.03	0.1	A	0.4	0.09	3.9	A	5.4
NBL	Signal	0.47	17.8	B	29.2	0.73	36.9	D	**45.6**
NBT	Signal	0.67	18.4	B	66.8	**0.94**	42.7	D	**121.3**
NBR	Signal	0.67	18.4	B	66.8	**0.94**	42.7	D	**121.3**
SBL	Signal	0.17	13.0	B	9.3	0.19	17.0	B	6.7
SBT	Signal	0.46	15.1	B	45.1	0.68	21.8	C	70.0
SBR	Signal	0.31	3.2	A	10.5	0.41	6.5	A	19.7

The modelling results indicate that, for the 2045 horizon (at a 2% growth rate), with the current configuration and timings, excessive queueing will begin to develop on the northbound and eastbound approaches. Specifically, queues from the northbound and eastbound left turn movements begin to spill back into the through lanes, resulting in compounding queue lengths.

These compounding queue lengths indicate that traffic control improvements are justified within a 20-year horizon. If no improvements are made, drivers can be expected to experience long delays and queues during the PM peak hour, and operations are projected to continually degrade beyond the 2045 horizon year. Furthermore, it should be noted that the proposed pedestrian / cycling facilities included in the South Edgeware Road reconstruction will require improvements to be made to this intersection to meet current accessibility requirements under the Accessibility for Ontarians with Disabilities Act (AODA), 2005, regardless of which option is ultimately selected.

12.2 Option 2 – Optimized Signal Control

Option 2 – Optimized Signal Control considers optimal improvements to the existing traffic signal controls without the implementation of major modifications to the existing intersection layout. The existing site conditions were examined, and improvements were proposed to maximize the

effectiveness of traffic signal control for the 2045 horizon year. This alternative incorporates optimized signal timings per the Synchro 12 simulation reports, responds to the anticipated northbound and eastbound queues as best as possible (within the existing City right-of-way).

This alternative highlights the modifications required to the existing signal infrastructure to meet current accessibility standards described within O. Reg. 413/12 under the Accessibility for Ontarians with Disabilities Act (AODA); it also considers the future infrastructure improvements proposed by the City along South Edgeware Road and includes connections to a 3.0m multi-use pathway in the north boulevard and a 1.8m sidewalk in the south boulevard.

The improvements proposed in the "Option 2" alternative are as follows:

- Extension of the eastbound left turn lane to 30m to accommodate more queued vehicles;
- Extension of the northbound left turn lane to 30m and widening of the road to add a dedicated northbound right turn lane; this minimizes queues in the through lane by allowing vehicles making right turns (to slip by during a 50th percentile queue);
- Reconstruction of the existing sidewalk landings on all approaches to meet AODA exterior path of travel regulations (full tactile plate coverage, curb ramp clear width, depressed curbs, accessible pedestrian pushbuttons, etc.);
- Replacement of several existing aluminum mast arms to ensure compliance with Ontario Traffic Manual (OTM) Book 12 "best practices" for traffic signal head location;
- Examination of the northbound and southbound signal head visibility distances with respect to OTM Book 12 guidance; for a design speed of 60 km/h, at least one signal head should be within a driver's 10° cone of vision at 110m from the stop bar (OTM Book 12, Pg. 151-152), and because this requirement is not met on the northbound approach; an auxiliary signal head was added to the functional design;
- Reconstruction of the channelized eastbound and westbound right turn lanes into "Smart Channels" per current MTO design best practices; in an urban environment where vehicle speeds are low and traffic volumes are high, "Smart Channels" provide the following benefits to driver, cyclist, and pedestrian safety:
    - Increased entry angle of vehicles, improving driver sightlines while merging
    - Improved visibility of crossing pedestrians and cyclists
    - Reduced vehicle speeds in the channel
    - Greater compliance with the yield condition

The below **Figure 6** illustrates how the recommended improvements work together:

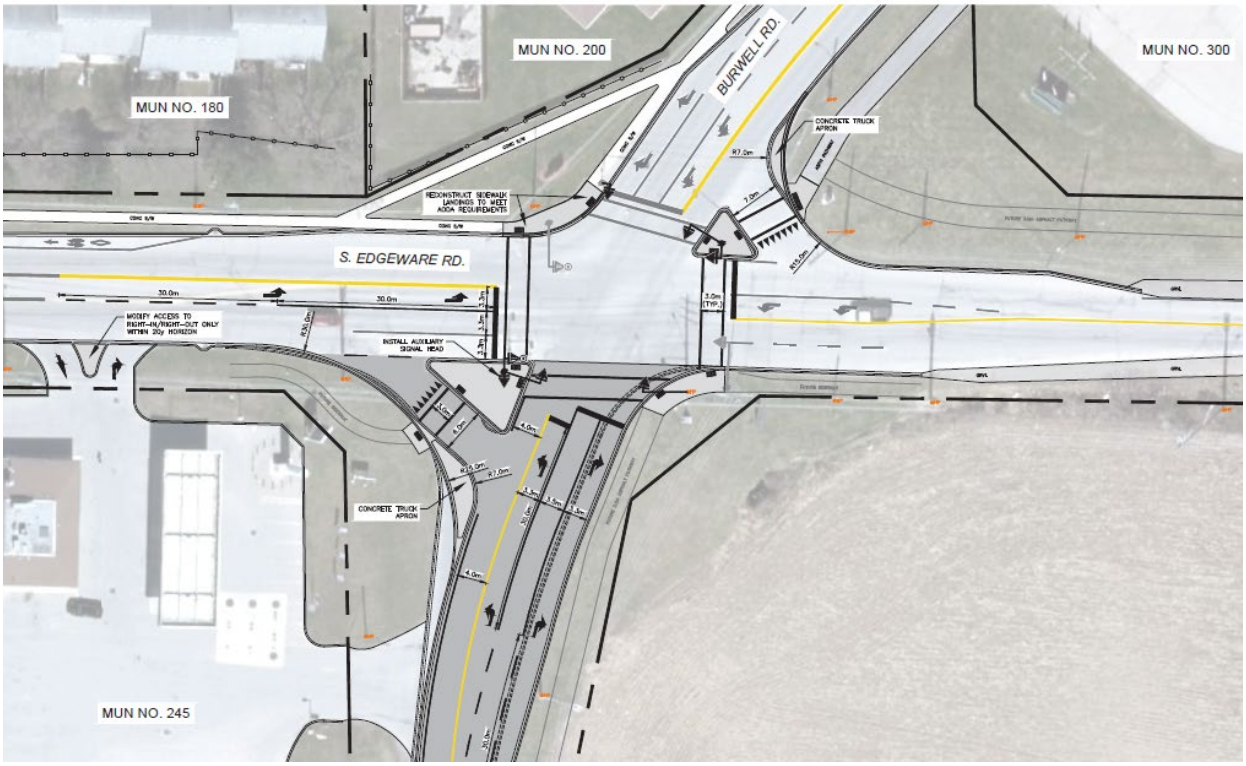


Figure 6: Option 2 – Optimized Signal Control

According to the Preliminary Cost Estimate, the intersection improvements required to implement the "Option 2" functional design are expected to cost about **$670,000** (if only the absolute minimum amount of road reconstruction work is undertaken as part of a standalone intersection reconstruction project).

However, since the planned South Edgeware Road corridor reconstruction limits overlap with the subject intersection, it is the engineers' opinion that the implications of the overlapping work (specifically, the significant underground servicing work) will require complete reconstruction of the subject intersection. Accordingly, if Option 2 is implemented in conjunction with the planned South Edgeware Road corridor reconstruction project, it is the engineers' opinion that the realistic cost to reconstruct this intersection could be closer to **$1,430,000.**

The following **Table 4** summarizes the traffic operations metrics for the 2045 horizon year if the proposed geometric and signal timing changes (specific to Option 2) are implemented:

Table 4: Total Traffic 2045 – Option 2 (Optimized Signal Control)

Intersection Movement	Traffic Control Type	Option 2 – Optimized Signal Control							
		AM Peak Hour				PM Peak Hour			
		V/C	Delay	LOS	95th %tile Queue (m)	V/C	Delay	LOS	95th %tile Queue (m)
EBL	Signal	0.30	14.4	B	22.1	**0.91**	54.4	D	**71.2**
EBT	Signal	0.17	12.0	B	14.6	0.11	11.5	B	10.2
EBR	Channel	0.32	3.5	A	11.3	0.26	3.4	A	9.8
WBL	Signal	0.24	14.0	B	16.9	0.56	19.6	B	42.1
WBT	Signal	0.17	12.4	B	17.5	0.55	17.4	B	54.1
WBR	Channel	0.02	0.1	A	0.4	0.09	4.2	A	5.6
NBL	Signal	0.49	19.4	B	30.5	0.57	30.8	C	**43.2**
NBT	Signal	0.47	16.1	B	45.6	0.69	21.1	C	72.6
NBR	Signal	0.23	3.5	A	9.2	0.21	3.6	A	8.8
SBL	Signal	0.13	12.5	B	9.0	0.10	12.6	B	5.7
SBT	Signal	0.48	16.1	B	46.6	0.65	20.0	C	67.8
SBR	Signal	0.32	3.6	A	11.4	0.39	5.8	A	18.4

The results show that, with these modifications, the intersection continues to function at a LOS B out to the 2045 horizon during the PM peak hour. Movements where the v/c ratio exceeds 0.85 (and where the 95th percentile volumes exceed the storage length provided) are highlighted with bold text; the eastbound and northbound left turn movements remain problematic.

To alleviate queueing in the problematic movements, the implementation of protected left turn phases was considered; however, upon review, it was concluded that, due to the balanced split of traffic in the PM peak hour, any benefit gained on the targeted approach resulted in significant negative impacts on the other three approaches (and a worse overall intersection LOS).

Notably, increasing the cycle length of the signals causes southbound queueing to “spill back” to a point where the dedicated right turn lane is blocked, leading to compounding increases in queue length. After careful analysis, it was determined that permitted turning conditions on all approaches remains the optimal signal timing configuration in the 2045 horizon year.

With or without these improvements, the site access immediately west of the intersection (Mun. No. 245, South Edgeware Road) is frequently blocked during the 2045 PM peak hour. As part of these traffic signal control improvements, it is recommended that the site access be reconfigured to a right-in / right-out only access alongside the eastbound left turn lane extension.

Traffic Signal Control Considerations

Though making targeted improvements to the existing signal control is an appealing alternative from a cost analysis perspective, there are fundamental drawbacks to maintaining signalized control at this intersection that must be considered. The following are site-specific concerns regarding signalized control of this intersection:

- The existing intersection is at a 60° angle; this is "undesirable" according to Chapter 9, page 42, of the TAC Geometric Design Guide for Canadian Roads (GDG), especially at an intersection of two major roads: "*Particular consideration should be given to maintaining an angle of skew within 10° of right angle."*
- The existing intersection is also on a curve; per the GDG Chapter 9, page 42: "*Location of intersections on curves is not desirable due to decreased visibility, increased conflict potential for vehicles crossing the major roadway, and complications with roadway superelevation and pavement widening on curves.*"
- The unusual geometric configuration of the existing intersection reduces driver visibility, increases the length of time required for pedestrians to complete a crossing maneuver, and increases the risk / severity of collisions.
- Due to the high volume of vehicles attempting to make a (permitted) eastbound left turn during the PM peak hour, there is concern that motorists may be encouraged to make unsafe maneuvers to complete their turn; this may lead to unsafe conditions for pedestrians and dismounted cyclists and is especially concerning if the northern east-west crossing treatment is to be included as part of a multi-use trail network in future improvements to the South Edgeware Road corridor.
- There is limited storage capacity on the southbound approach.
- With or without the implementation of an extension to the eastbound left turn lane, the site access to the west of the intersection (Mun. No. 245, South Edgeware Road) is frequently blocked during the 2045 PM peak hour.

12.3 Option 3 – Roundabout Control

Option 3 – Roundabout Control considers what geometric improvements would be required to facilitate roundabout control at the subject intersection. Due to the higher traffic volumes expected by the horizon year, a single-lane roundabout is insufficient; a two-lane roundabout is required to process the future traffic, particularly during the critical PM peak hour.

Of note, this intersection was considered for roundabout control in the **Transportation Master Plan Refresh (2025)**. The City of St. Thomas provided a preliminary design for the subject roundabout; RC Spencer Associates Inc. iteratively reviewed the design and utilized it when evaluating the proposed intersection reconfiguration. This roundabout control alternative also considers future South Edgeware Road improvements and incorporates connections to a 3.0m multi-use pathway in the north boulevard, as well as a 1.8m sidewalk in the south boulevard.

The below **Figure 7** illustrates the roundabout concept.

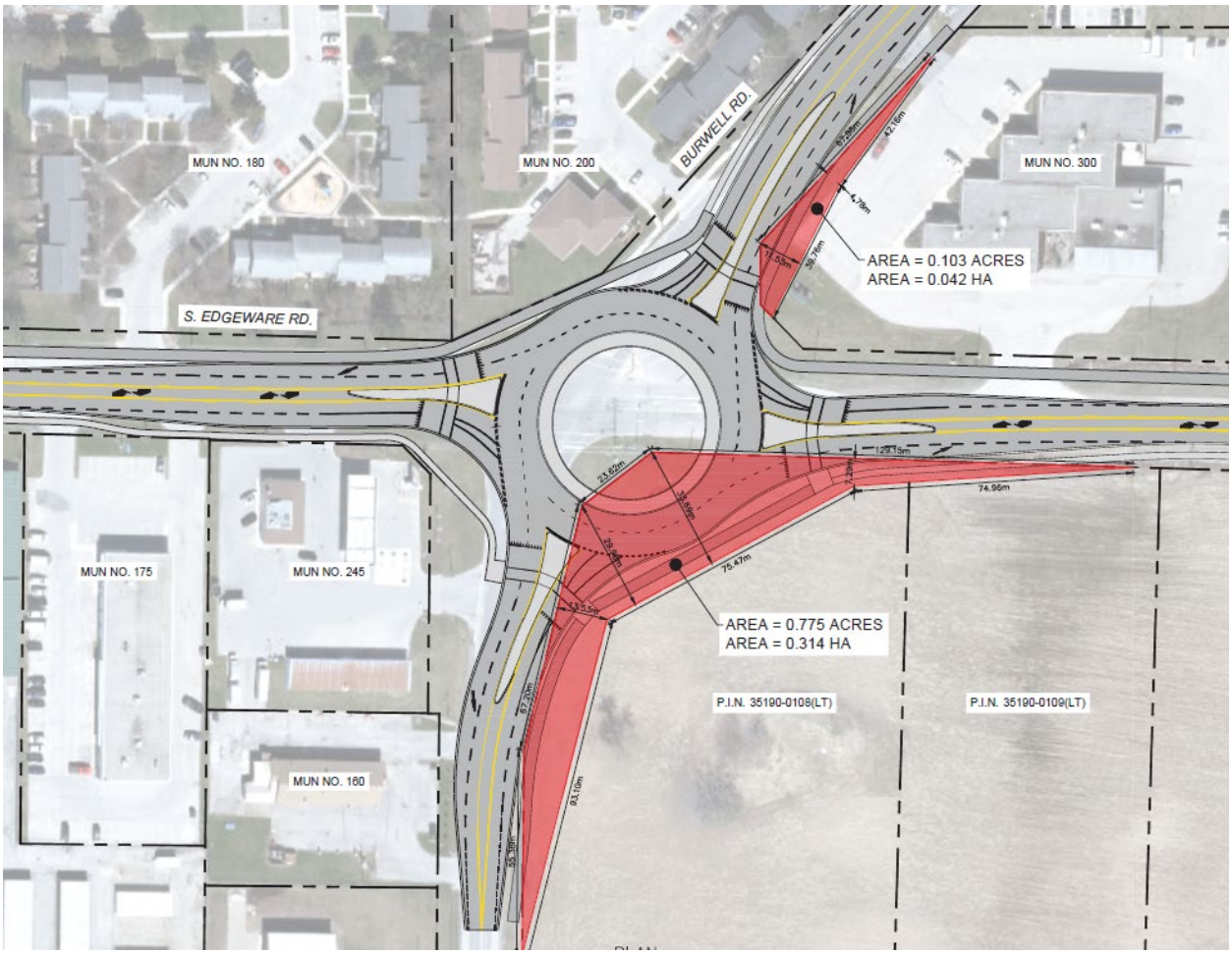


Figure 7: Option 3 – Roundabout Control

According to the Preliminary Cost Estimate, the intersection improvements required to implement the "Option 3" functional design are expected to cost about **$2,800,000.**

The following **Table 5** summarizes the traffic operations metrics for the 2045 horizon year if the proposed roundabout design is implemented.

Table 5: Total Traffic 2045 – Option 3 (Roundabout Control)

Intersection Movement	Traffic Control Type	Option 3 – Roundabout Control							
		AM Peak Hour				PM Peak Hour			
		V/C	Delay	LOS	95th %tile Queue (PCE)	V/C	Delay	LOS	95th %tile Queue (PCE)
EBL	Yield	0.25	2.14	A	1.4	0.28	2.36	A	1.6
EBT	Yield	0.25	2.14	A	1.4	0.28	2.36	A	1.6
EBR	Yield	0.25	2.14	A	1.4	0.28	2.36	A	1.6
WBL	Yield	0.12	2.21	A	0.5	0.39	3.36	A	2.9
WBT	Yield	0.12	2.21	A	0.5	0.39	3.36	A	2.9
WBR	Yield	0.12	2.21	A	0.5	0.39	3.36	A	2.9
NBL	Yield	0.26	2.11	A	1.5	0.33	2.26	A	2.1
NBT	Yield	0.26	2.11	A	1.5	0.33	2.26	A	2.1
NBR	Yield	0.26	2.11	A	1.5	0.33	2.26	A	2.1
SBL	Yield	0.28	2.32	A	1.5	0.45	4.04	A	2.7
SBT	Yield	0.28	2.32	A	1.5	0.45	4.04	A	2.7
SBR	Yield	0.28	2.32	A	1.5	0.45	4.04	A	2.7

The results indicate that, with two-lane roundabout control at this intersection, operations are expected to achieve LOS A and v/c ratios below critical levels on all approaches, out to the 2045 horizon year.

Roundabout Control Benefits

The following are site-specific observations in support of roundabout control:

- 2045 PM Peak Hour traffic projections show a balanced 55% / 45% traffic split N-S / E-W; as discussed previously, such balanced traffic splits limit the effectiveness of signal control and restrict which optimization strategies can be implemented as traffic volumes continue to increase.
- The large existing public right-of-way allows for roundabout control to be implemented with relatively little property acquisition.
- Heavy left turn volumes (like those present at this intersection) are more easily managed by roundabout control than signalized intersection control; motorists have an easier time seeking gaps during peak hour traffic and are not encouraged to make unsafe maneuvers.

The Transportation Association of Canada's Canadian Roundabout Design Guide (CRDG) also provides comprehensive guidance on roundabout design, advantages, disadvantages, safety benefits, and planning considerations; the following is a summary of the advantages of roundabout control provided within that reference:

- Safety – Reduce collision frequency and severity compared to stop-controlled and signalized intersections (particularly at skewed intersections); by eliminating the potential for head-on, right-angle, and left-turning conflicts, and significantly reducing vehicle speeds, roundabouts have been proven to reduce injury collisions by 75%, and fatal collisions by at least 95%.
- Operational – Operate with lower delays, shorter queues, and higher operational capacity than stop-controlled and signalized intersections.
- Aesthetics – Can serve as community focal points and provide the opportunity for additional streetscape features.
- Economic – Require less maintenance than traffic signals, offer time and fuel savings to drivers, and provide societal cost savings through less severe and fewer collisions.
- Sustainability – Reduce vehicle fuel consumption and idle time; reduce the energy required to accelerate and decelerate.

Roundabout Control Drawbacks

Though the implementation of roundabout control would provide numerous benefits to intersection operations and safety, there are still a handful of drawbacks to roundabout control:

- Per the Preliminary Cost Estimate, roundabout control construction is expected to cost approximately $2,800,000 if implemented as part of an integrated corridor reconstruction project; although this is about two times greater than the cost of targeted signal control improvements in a similar integrated construction scenario, over time, the potential year-over-year savings can offset the higher upfront construction cost, with the life-cycle costs of roundabout control expected to be lower than signal control over a 25-year period.
- The implementation of a roundabout at this intersection would require the acquisition of 0.356 ha of private property to the northeast and southeast; the expected costs of property acquisition were included in the Preliminary Cost Estimate.

13.0 PUBLIC AND AGENCY CONSULTATION

Once the alternative solutions were finalized (and their respective benefits / drawbacks summarized), a comprehensive presentation was prepared for potential public and agency stakeholders to provide their input. That presentation, entitled "Burwell Road at South Edgeware Road – Schedule B Class EA: Presentation of Alternatives" is provided in **Appendix F**. The invitation to provide input on this project was circulated through the various City of St. Thomas communications outlets. The email correspondence received in response to the publicly advertised "Request for Input" is provided in **Appendix G**. On balance, public support for the three respective options was mixed; there was no clear preference or input that was not already flagged or considered during the preliminary review stage.

Of note, no special invitations were extended to any of the potentially interested area agencies, but during the open invite for public and agency input, no agencies provided comments or input on the three respective alternative solutions.

14.0 SUMMARY AND IDENTIFICATION OF PREFERRED ALTERNATIVE

The City of St. Thomas has retained RC Spencer Associates Inc. to undertake a Schedule B Class Environmental Assessment (EA) to evaluate improvements to the intersection of Burwell Road at South Edgeware Road, in St. Thomas, ON. Under current forecasts, the population in St. Thomas is expected to steadily increase from 44,000 in 2021 to 79,500 by 2051, representing a population increase of 2% annually over the 30-year period.

In September 2025, RC Spencer Associates Inc. authored a corridor study of South Edgeware Road. South Edgeware Road is approximately 2.8km in length and is parallel to and approximately a half kilometre north of Highway 3, along the north end of St. Thomas; this study encompassed the entirety of South Edgeware Road, from Waterworks Park (west of Balaclava Street) to the newly constructed roundabout at Highbury Avenue South. The study also considered area industrial developments in the context of this study. Background studies were also consulted to determine the projected area development traffic.

The South Edgeware Road corridor improvements have been prioritized in the City of St. Thomas' Asset Management Plan (10 Year Capital Forecast) for replacement in 2027 – 2028. As a result, this Schedule B Class Environmental Assessment (EA) was specifically prepared to proactively guide the respective decision-makers in sustainably evaluating their "next steps" for the Burwell Road at South Edgeware Road intersection.

Synchro 12 and Junctions 9 (ARCADY) traffic simulation models were used to evaluate the 20-year horizon traffic scenarios, which accounted for background traffic growth and other area development traffic. Upon completion of the traffic operations analyses, it was concluded that:

- If no improvements are made (Option 1), drivers are expected to experience long delays and queues during the PM Peak Hour, and operations are likely to continue to degrade beyond the 2045 horizon year; furthermore, connection to the proposed pedestrian and cycling facilities included in the South Edgeware Road reconstruction will require improvements to be made to this intersection to meet current accessibility requirements under the Accessibility for Ontarians with Disabilities Act, 2005 (AODA);
- With optimized signal control (Option 2), the intersection continues to function at a LOS B out to the 2045 horizon during the PM peak hour; however, the eastbound and northbound left turn movements remain problematic during the critical PM peak hour;
- To alleviate the queueing in the problematic eastbound and northbound left turn movements, the implementation of protected left turn phases was considered, but it was observed that, due to the balanced split of traffic in the PM peak hour, any benefit gained on the targeted approach resulted in significant negative impacts on the other three approaches (and a worse overall intersection LOS);
- Increasing the cycle length of the signals causes southbound queueing to “spill back” to a point where the dedicated right turn lane is blocked, leading to compounding increases in queue length; it was determined that permitted turning conditions on all approaches remains the optimal signal timing configuration in the 2045 horizon year;
- Under signal control, the site access immediately west of the intersection (Mun. No. 245, South Edgeware Road) is frequently blocked during the 2045 PM peak hour; if signal control is maintained for this intersection, the site access should be reconfigured to a “right-in / right-out only” access (alongside the eastbound left turn lane extension);
- Under two-lane roundabout control (Option 3), operations are expected to achieve LOS A and v/c ratios below critical levels on all approaches (out to the 2045 horizon year).

Based on the functional design plans, RC Spencer Associates Inc. prepared high-level cost estimates for the two intersection improvement alternatives. Of note, the construction cost to implement Option 2: Optimized Signal Control (Standalone Construction) is estimated to be about $670,000, while the construction cost to implement Option 2: Optimized Signal Control (Integrated Construction) could be about **$1,430,000**; the integrated construction estimate is best comparable to Option 3: Roundabout Control, which is estimated to cost about **$2,800,000**.

Though making targeted improvements to the existing signal control is an appealing alternative from a cost analysis perspective, there are fundamental drawbacks to maintaining signalized control at this intersection that must be considered. The following are site-specific concerns regarding signalized control of this intersection:

- The existing intersection is at a 60° angle; this is "undesirable" according to Chapter 9, page 42, of the TAC Geometric Design Guide for Canadian Roads (GDG), especially at an intersection of two major roads.
- The existing intersection is also on a curve; per the GDG Chapter 9, page 42: "*Location of intersections on curves is not desirable due to decreased visibility, increased conflict potential for vehicles crossing the major roadway, and complications with roadway superelevation and pavement widening on curves.*"
- The unusual geometric configuration of the existing intersection reduces driver visibility, increases the length of time required for pedestrians to complete a crossing maneuver, and increases the risk / severity of collisions.
- Due to the high volume of vehicles attempting to make a (permitted) eastbound left turn during the PM peak hour, motorists may be encouraged to make unsafe maneuvers to complete their turn; this may lead to unsafe conditions for active transportation users and is especially concerning if the northern east-west crossing treatment is included in future multi-use trail network improvements to the South Edgeware Road corridor.
- There is limited storage capacity on the southbound approach.
- Site access to the west of the intersection (Mun. No. 245, South Edgeware Road) is frequently blocked during the 2045 PM peak hour.

Meanwhile, site-specific support for roundabout control can be summarized as follows:

- 2045 PM Peak Hour traffic projections show a balanced 55% / 45% traffic split for the respective north / south and east / west movements; balanced traffic splits limit the effectiveness of signal control and restrict which optimization strategies can be implemented as traffic volumes continue to increase.
- The large existing public right-of-way allows for roundabout control to be implemented with relatively little property acquisition.
- Heavy left turn volumes (like those present at this intersection) are more easily managed by roundabout control than signalized intersection control.

- Under roundabout control, motorists have an easier time seeking gaps in peak hour traffic volumes and are not enticed to make unsafe maneuvers.
- This intersection was historically identified as being a candidate for a roundabout control in the City's Transportation Master Plan Refresh (2025) document.

Furthermore, the Transportation Association of Canada (TAC) is supportive of roundabout control based on the following "high-level" reasons:

- Safety – Reduce collision frequency and severity compared to stop-controlled and signalized intersections (particularly at skewed intersections); by eliminating the potential for head-on, right-angle, and left-turning conflicts, and significantly reducing vehicle speeds, roundabouts have been proven to reduce injury collisions by 75%, and fatal collisions by at least 95%.
- Operations – Operate with lower delays, shorter queues, and higher operational capacity than stop-controlled and signalized intersections.
- Aesthetics – Can serve as community focal points and provide the opportunity for additional streetscape features. Economic – Require less maintenance than traffic signals, offer time and fuel savings to drivers, and provide societal cost savings through less severe and fewer collisions.
- Sustainability – Reduce vehicle fuel consumption and idle time; reduce the energy required to accelerate and decelerate.

However, there are also some site-specific concerns regarding roundabout control at this intersection; they are summarized as follows:

- Per the Preliminary Cost Estimate, roundabout control construction is expected to cost approximately $2,800,000 if implemented as part of an integrated corridor reconstruction project; although this is about two times greater than the cost of targeted signal control improvements in a similar integrated construction scenario, over time, the potential year-over-year savings can offset the higher upfront construction cost, with the life-cycle costs of roundabout control expected to be lower than signal control over a 25-year period.
- The implementation of a roundabout at this intersection would require the acquisition of 0.356 ha of private property to the intersection's northeast and southeast.

Ultimately, when weighing all the known and studied factors (and site-specific considerations), it is the engineers' opinion that two-lane roundabout control (Option 3) is the most appropriate control for the intersection of Burwell Road at South Edgeware Road.

All of which is respectfully submitted,

RC Spencer Associates Inc.

Appendix A

TRAFFIC DATA COLLECTION

S Edgeware Rd @ Burwell Rd

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 9:00:00

One Hour Peak
From: 8:00:00
To: 9:00:00

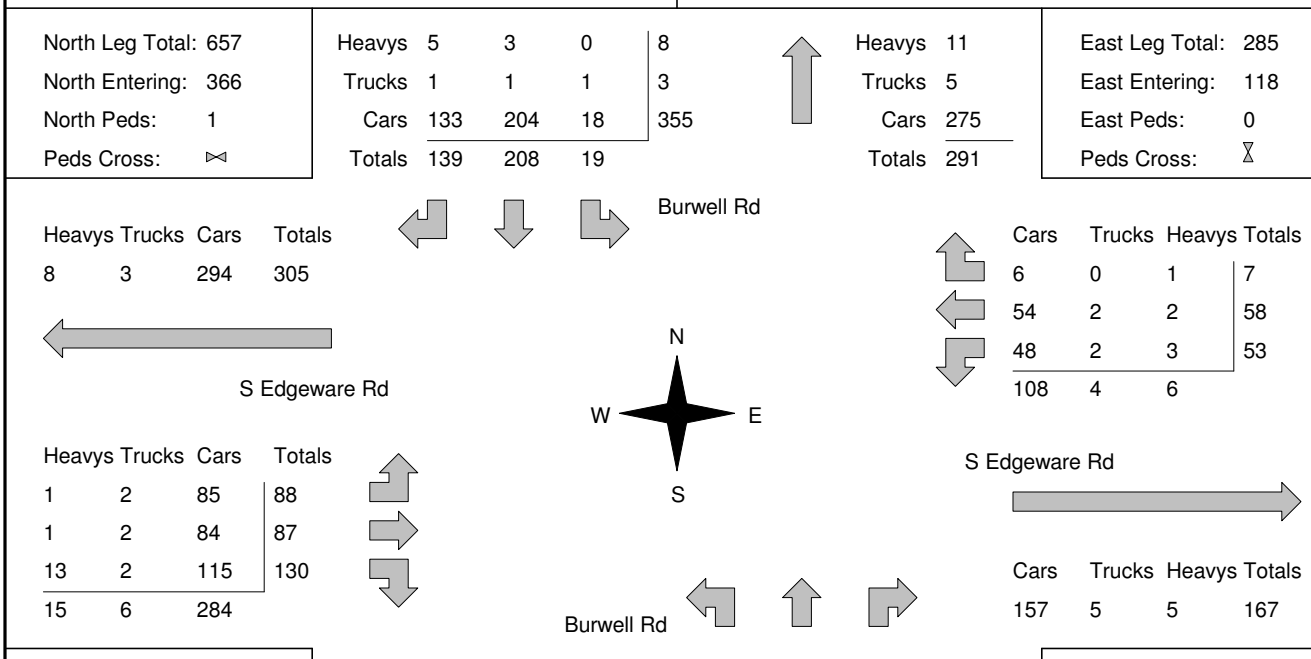
Municipality: St Thomas
Site #: 0000000010
Intersection: S Edgeware Rd & Burwell Rd
TFR File #: 10
Count date: 27-Mar-2025

Weather conditions:
Clear/Dry

Person(s) who counted:
Pyramid Traffic Inc

**** Signalized Intersection ****

Major Road: S Edgeware Rd runs W/E



Comments

S Edgeware Rd @ Burwell Rd

Mid-day Peak Diagram

Specified Period
From: 11:00:00
To: 14:00:00

One Hour Peak
From: 11:45:00
To: 12:45:00

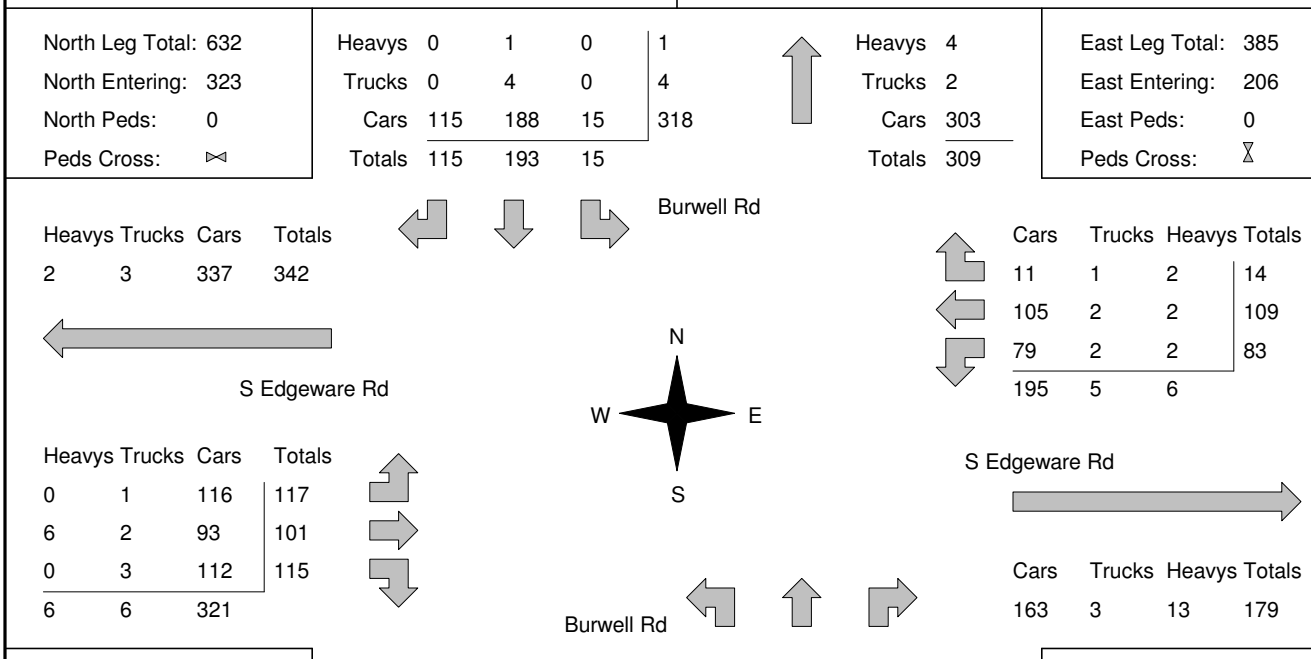
Municipality: St Thomas
Site #: 0000000010
Intersection: S Edgeware Rd & Burwell Rd
TFR File #: 10
Count date: 27-Mar-2025

Weather conditions:
Clear/Dry

Person(s) who counted:
Pyramid Traffic Inc

**** Signalized Intersection ****

Major Road: S Edgeware Rd runs W/E



Comments

S Edgeware Rd @ Burwell Rd

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 15:30:00
To: 16:30:00

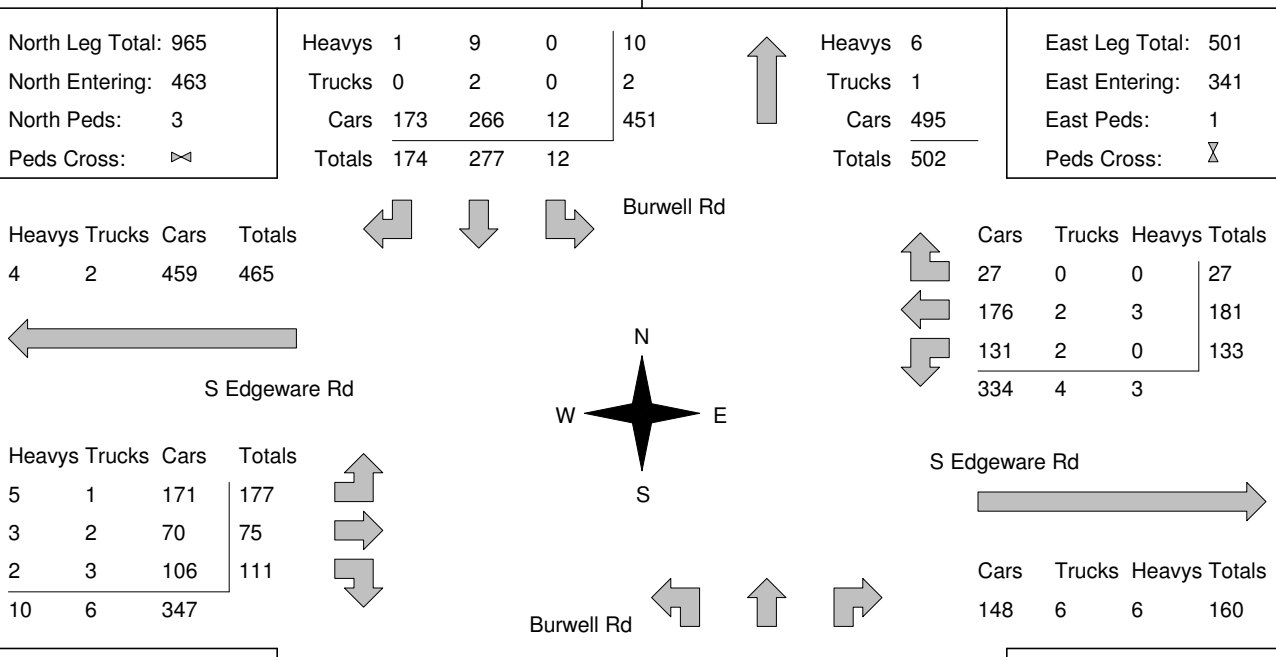
Municipality: St Thomas
Site #: 0000000010
Intersection: S Edgeware Rd & Burwell Rd
TFR File #: 10
Count date: 27-Mar-2025

Weather conditions:
Clear/Dry

Person(s) who counted:
Pyramid Traffic Inc

**** Signalized Intersection ****

Major Road: S Edgeware Rd runs W/E



Comments

S Edgeware Rd @ Burwell Rd

Total Count Diagram

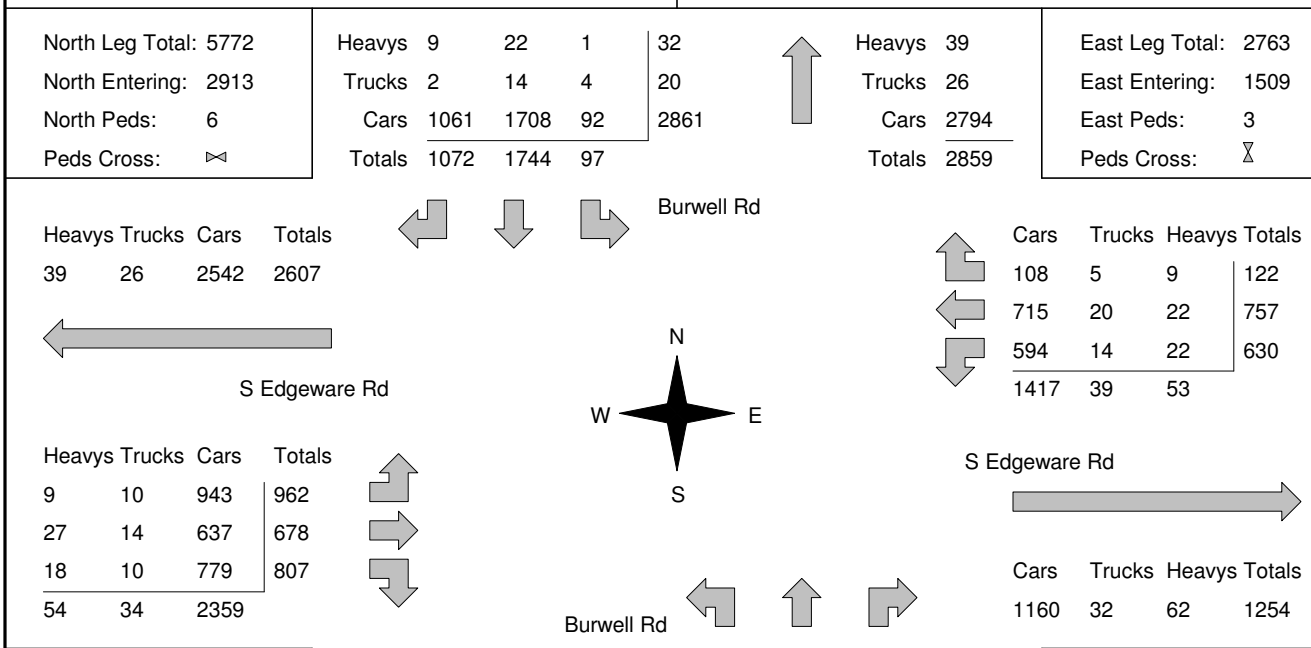
Municipality: St Thomas
Site #: 0000000010
Intersection: S Edgeware Rd & Burwell Rd
TFR File #: 10
Count date: 27-Mar-2025

Weather conditions:
Clear/Dry

Person(s) who counted:
Pyramid Traffic Inc

**** Signalized Intersection ****

Major Road: S Edgeware Rd runs W/E



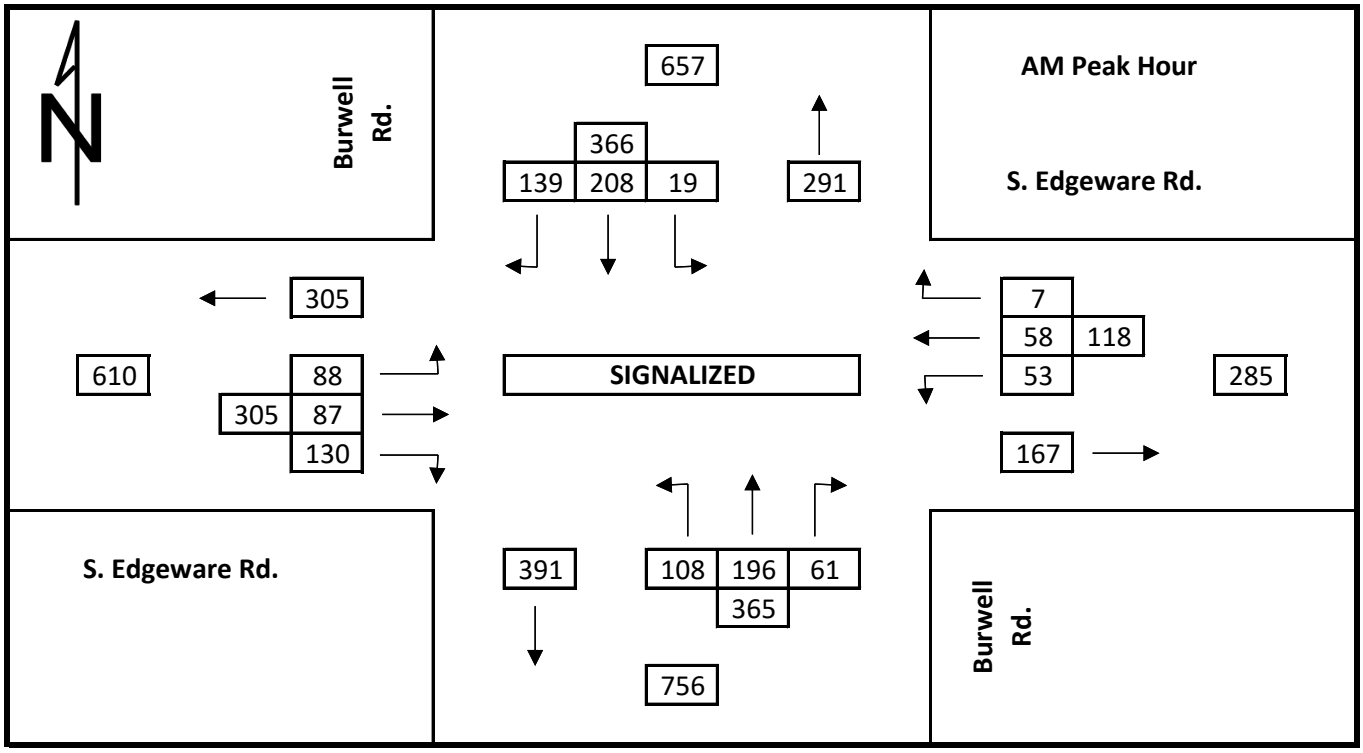
Comments

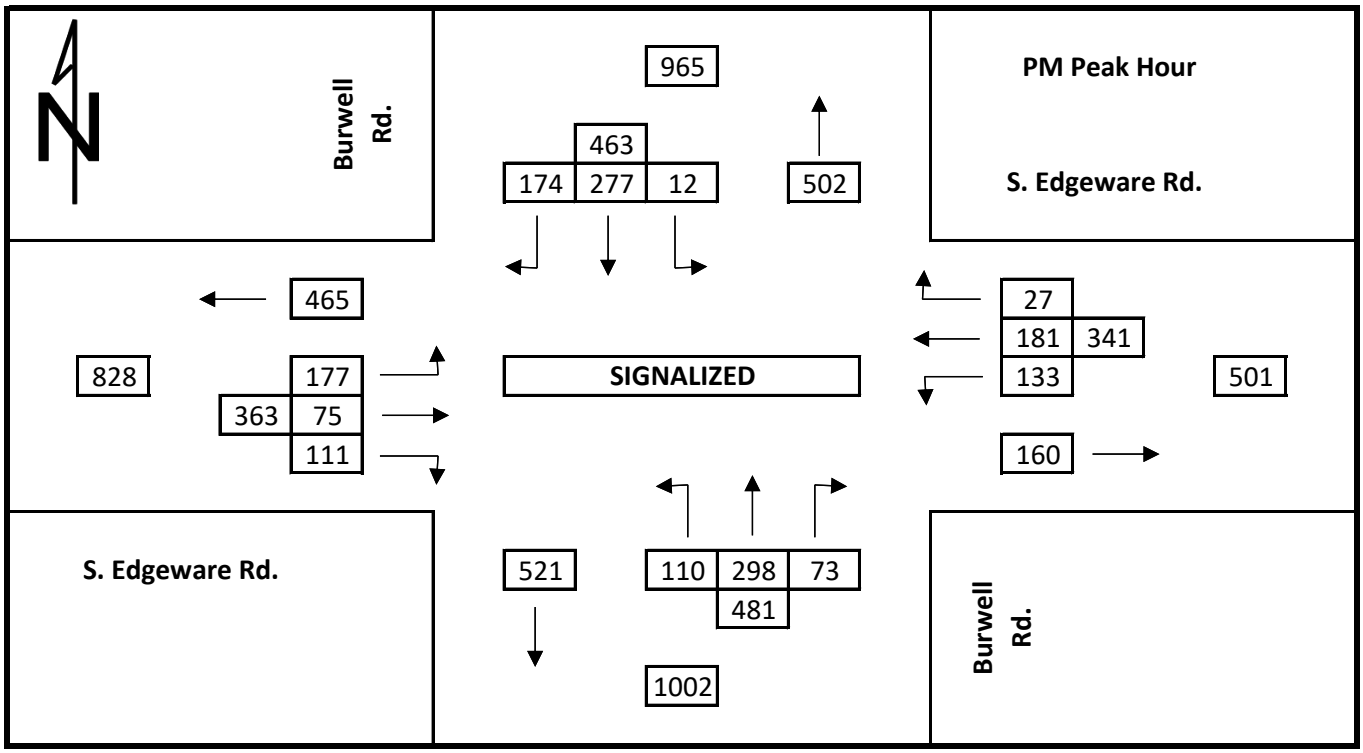
Appendix B

TRAFFIC PROJECTION FIGURES

Existing Traffic Counts

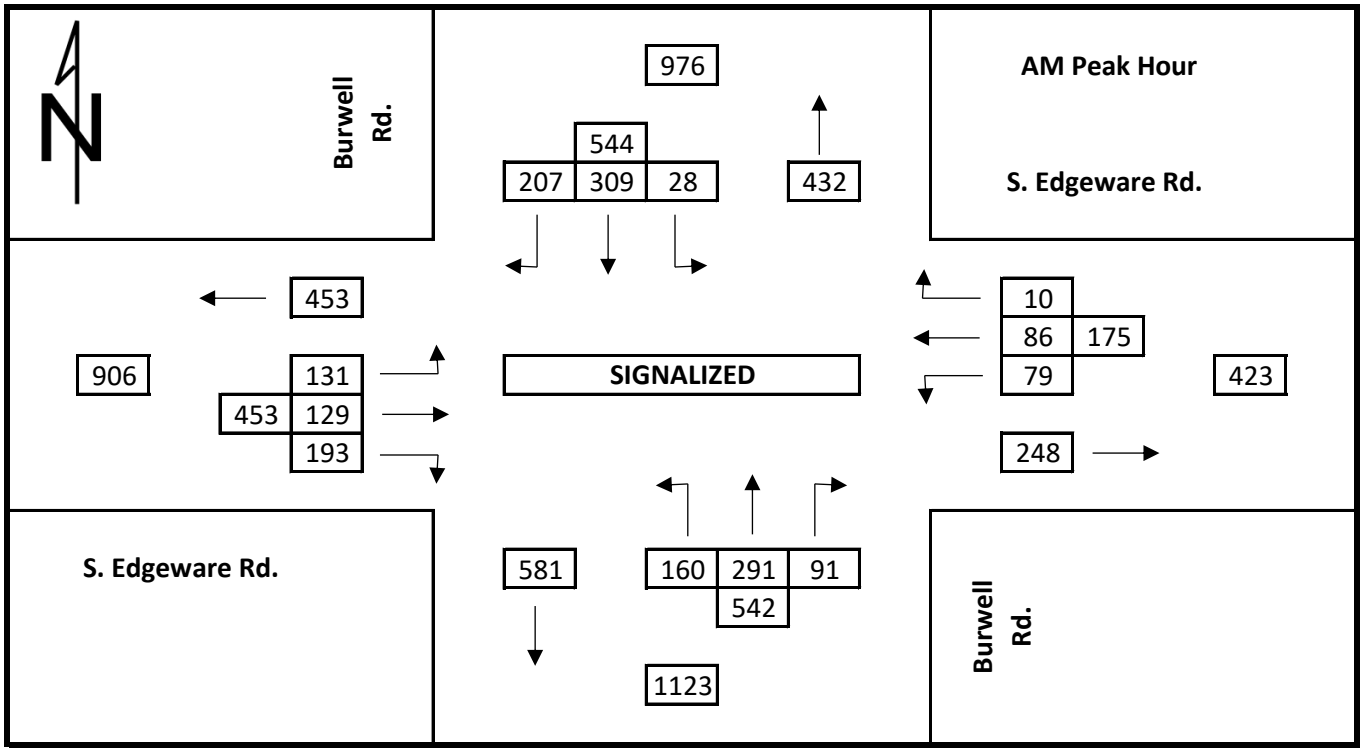
Burwell Road at South Edgeware Road

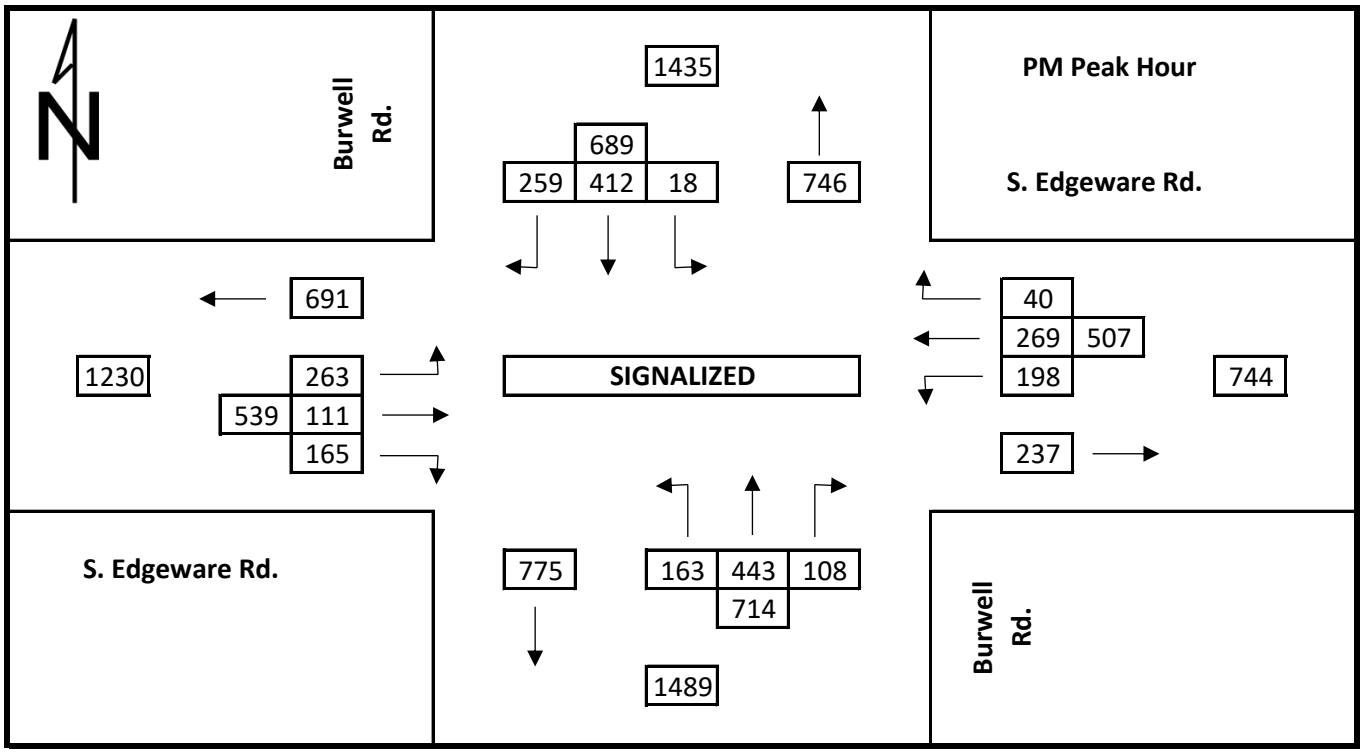




Background Traffic Year 2045

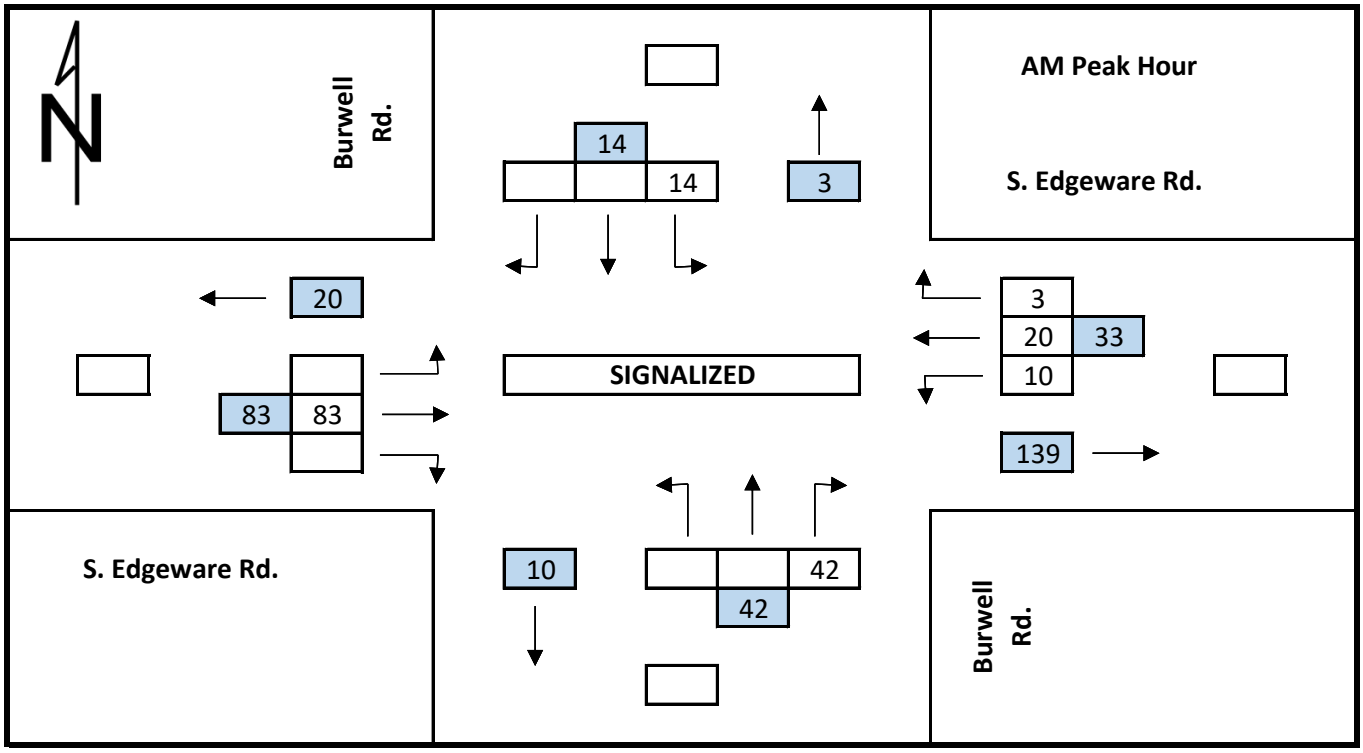
Burwell Road at South Edgeware Road

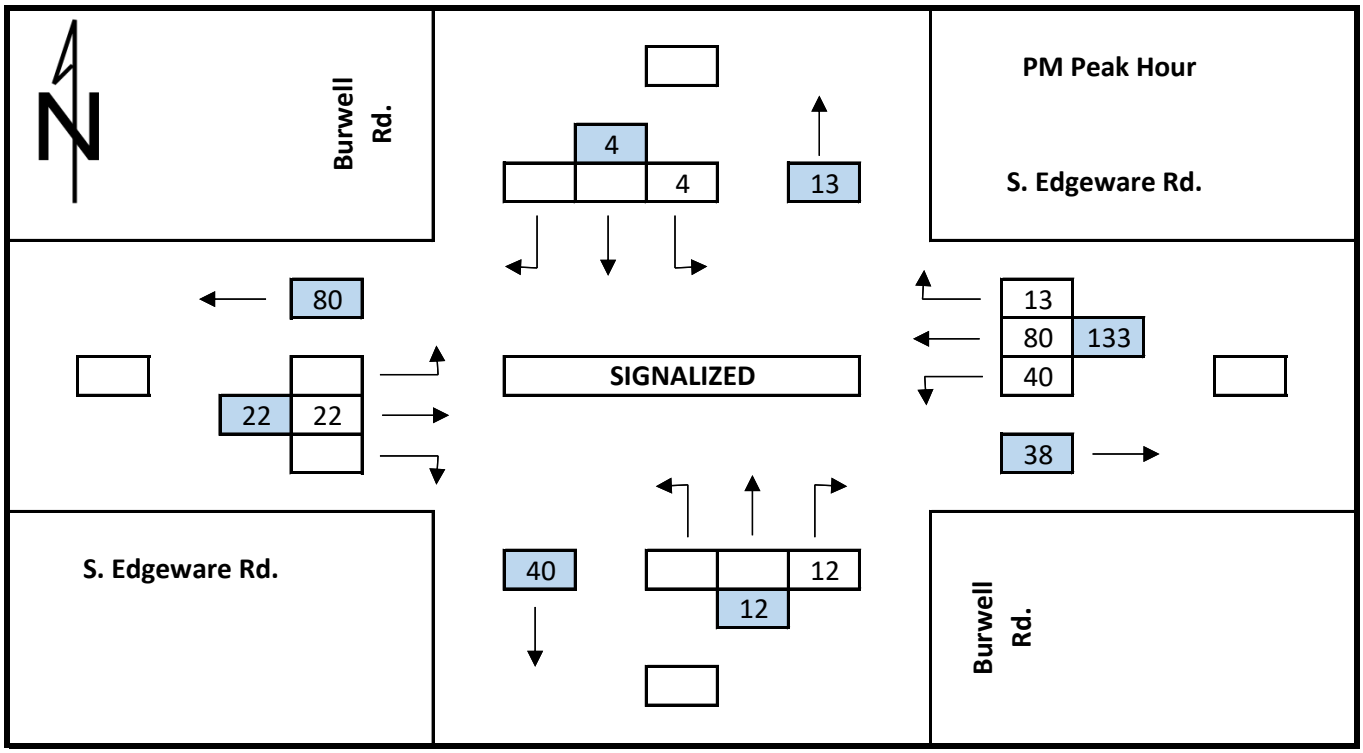




Area Development Traffic

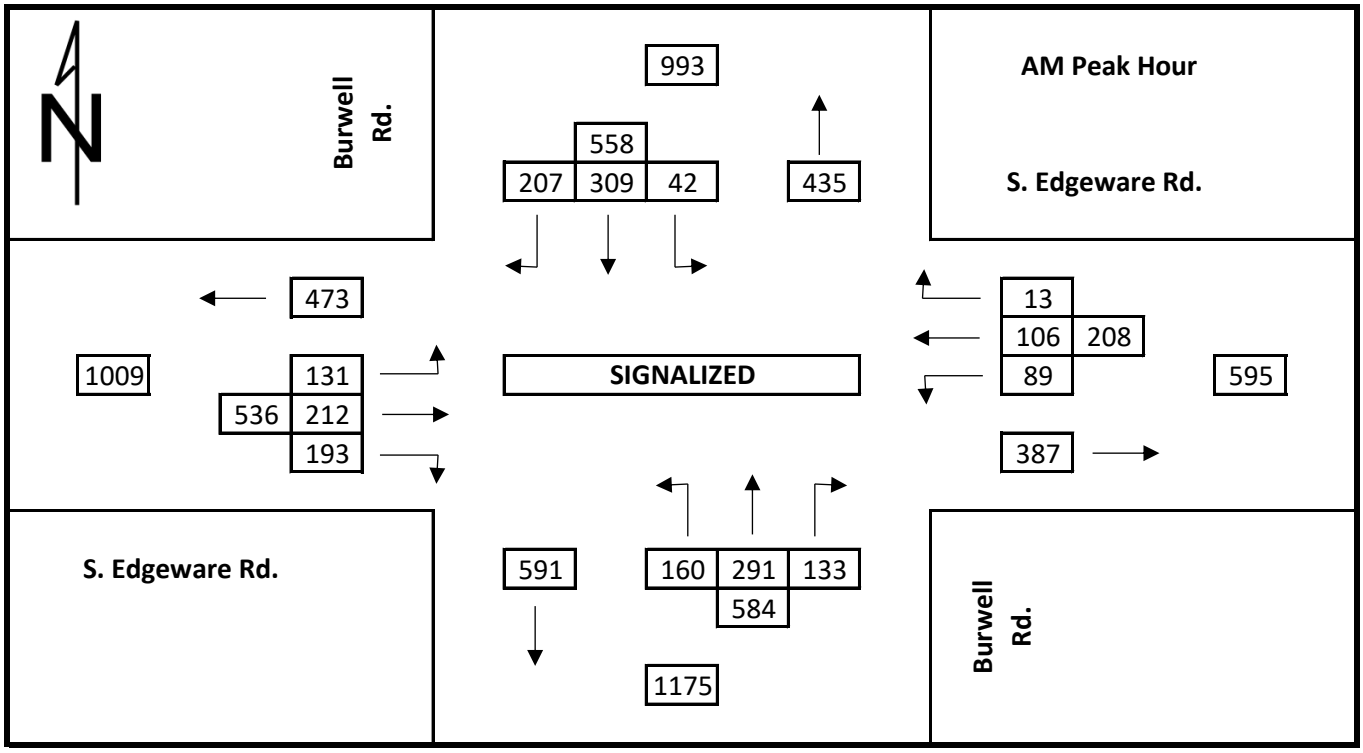
Burwell Road at South Edgeware Road

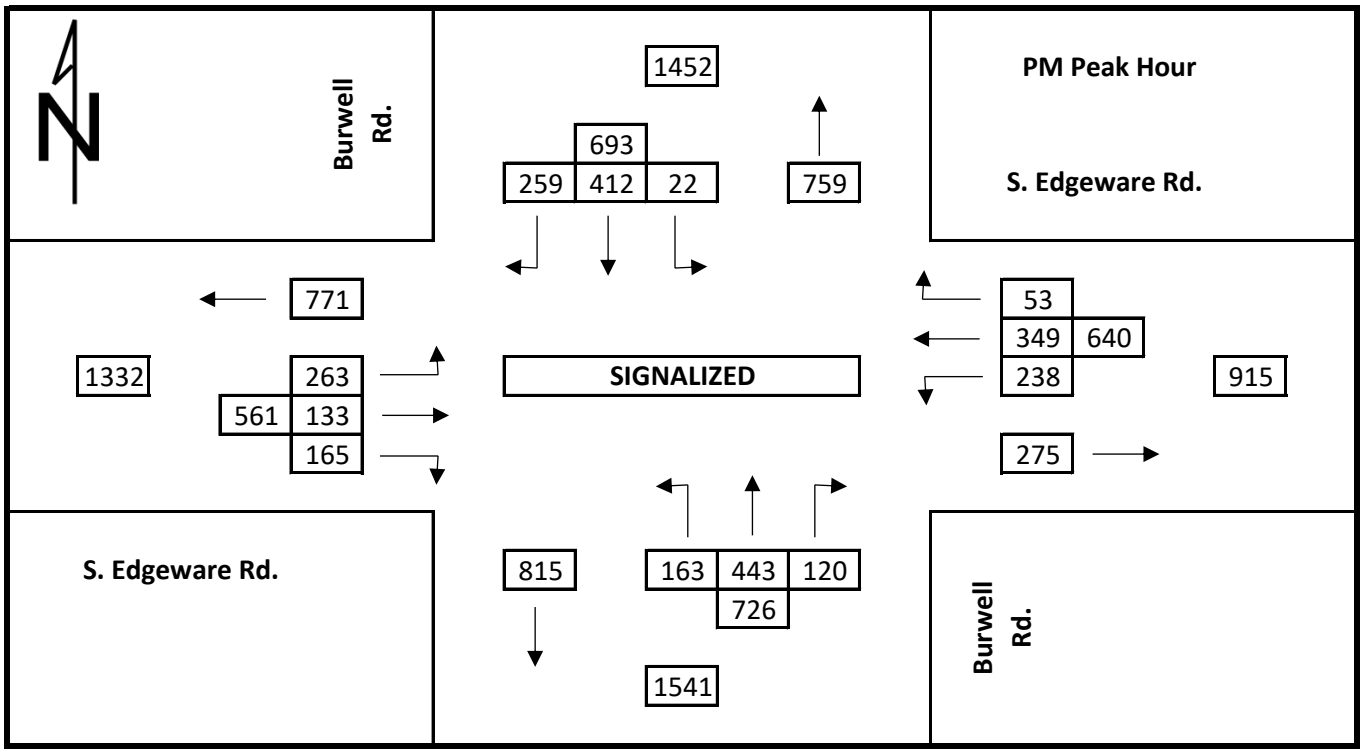




Total Traffic 2045

Burwell Road at South Edgeware Road





Appendix C

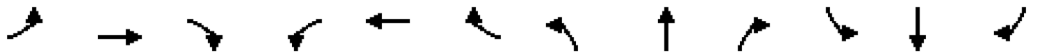
DETAILED MODEL RESULTS:

FUTURE CONFIGURATION OPTIONS

Option 1: Do Nothing

Option 2: Optimized Signal Control

Option 3: Roundabout Control



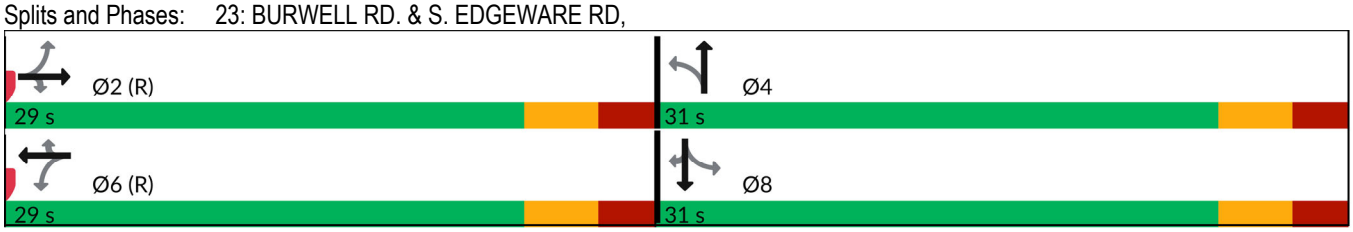
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	212	193	89	106	13	160	291	133	42	309	207
Future Volume (vph)	131	212	193	89	106	13	160	291	133	42	309	207
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (m)	21.5		15.0	18.0		42.0	20.0		0.0	15.0		17.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	25.0			23.0			32.0			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.953				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1632	3264	1343	1542	1654	1319	1648	1572	0	1601	1735	1446
Flt Permitted	0.683			0.608			0.510			0.376		
Satd. Flow (perm)	1173	3264	1343	987	1654	1319	885	1572	0	634	1735	1446
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			210			51		47				224
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		185.8			477.6			245.5			179.3	
Travel Time (s)		13.4			34.4			17.7			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	12%	9%	7%	14%	2%	6%	10%	5%	2%	4%
Adj. Flow (vph)	142	230	210	97	115	14	174	316	145	46	336	225
Shared Lane Traffic (%)												
Lane Group Flow (vph)	142	230	210	97	115	14	174	461	0	46	336	225
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6		6	4			8		8
Minimum Split (s)	27.8	27.8	27.8	27.8	27.8	27.8	28.8	28.8		28.8	28.8	28.8
Total Split (s)	29.0	29.0	29.0	29.0	29.0	29.0	31.0	31.0		31.0	31.0	31.0
Total Split (%)	48.3%	48.3%	48.3%	48.3%	48.3%	48.3%	51.7%	51.7%		51.7%	51.7%	51.7%
Maximum Green (s)	23.2	23.2	23.2	23.2	23.2	23.2	25.2	25.2		25.2	25.2	25.2
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8		5.8	5.8	5.8
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	9.0	9.0		9.0	9.0	9.0
Flash Don't Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0	14.0	14.0		14.0	14.0	14.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	23.2	23.2	23.2	23.2	23.2	23.2	25.2	25.2		25.2	25.2	25.2
Actuated g/C Ratio	0.39	0.39	0.39	0.39	0.39	0.39	0.42	0.42		0.42	0.42	0.42
v/c Ratio	0.31	0.18	0.32	0.25	0.18	0.03	0.47	0.67		0.17	0.46	0.31
Control Delay (s/veh)	15.3	12.6	3.8	14.8	13.1	0.1	17.8	18.4		13.0	15.1	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	15.3	12.6	3.8	14.8	13.1	0.1	17.8	18.4		13.0	15.1	3.2
LOS	B	B	A	B	B	A	B	B		B	B	A
Approach Delay (s/veh)		10.1			13.0			18.2			10.5	
Approach LOS		B			B			B			B	
Queue Length 50th (m)	10.8	8.6	0.0	7.5	8.5	0.0	13.4	36.5		3.1	25.8	0.1

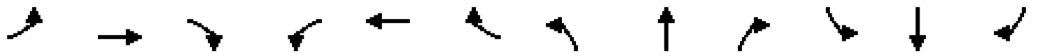
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (m)	22.8	15.1	11.7	17.5	18.1	0.4	29.2	66.8		9.3	45.1	10.5
Internal Link Dist (m)		161.8			453.6			221.5			155.3	
Turn Bay Length (m)	21.5		15.0	18.0		42.0	20.0			15.0		17.0
Base Capacity (vph)	453	1262	648	381	639	541	371	687		266	728	737
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.31	0.18	0.32	0.25	0.18	0.03	0.47	0.67		0.17	0.46	0.31

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.67
Intersection Signal Delay (s/veh): 13.1 Intersection LOS: B
Intersection Capacity Utilization 100.6% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 23: BURWELL RD. & S. EDGEWARE RD,





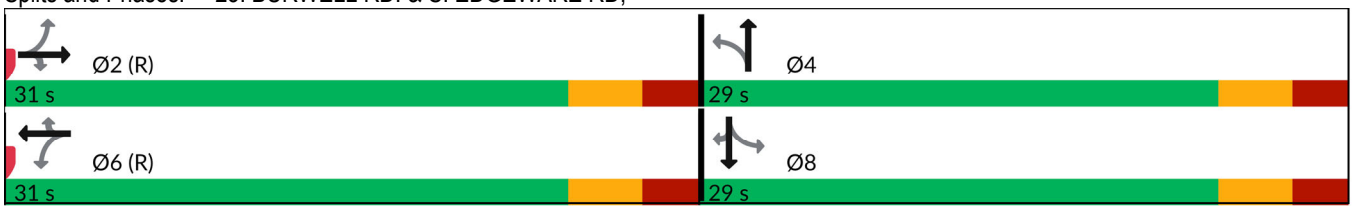
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	263	133	165	238	349	53	163	443	120	22	412	259
Future Volume (vph)	263	133	165	238	349	53	163	443	120	22	412	259
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (m)	21.5		15.0	18.0		42.0	20.0		0.0	15.0		17.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	25.0			23.0			32.0			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.968				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1632	3142	1432	1648	1718	1475	1648	1652	0	1648	1701	1475
Flt Permitted	0.463			0.660			0.365			0.187		
Satd. Flow (perm)	795	3142	1432	1145	1718	1475	633	1652	0	324	1701	1475
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			179			58		26				199
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		185.8			477.6			245.5			179.3	
Travel Time (s)		13.4			34.4			17.7			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	7%	5%	2%	3%	2%	2%	2%	10%	2%	4%	2%
Adj. Flow (vph)	286	145	179	259	379	58	177	482	130	24	448	282
Shared Lane Traffic (%)												
Lane Group Flow (vph)	286	145	179	259	379	58	177	612	0	24	448	282
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6		6	4			8		8
Minimum Split (s)	27.8	27.8	27.8	27.8	27.8	27.8	28.8	28.8		28.8	28.8	28.8
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	29.0	29.0		29.0	29.0	29.0
Total Split (%)	51.7%	51.7%	51.7%	51.7%	51.7%	51.7%	48.3%	48.3%		48.3%	48.3%	48.3%
Maximum Green (s)	25.2	25.2	25.2	25.2	25.2	25.2	23.2	23.2		23.2	23.2	23.2
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8		5.8	5.8	5.8
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	9.0	9.0		9.0	9.0	9.0
Flash Don't Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0	14.0	14.0		14.0	14.0	14.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	25.2	25.2	25.2	25.2	25.2	25.2	23.2	23.2		23.2	23.2	23.2
Actuated g/C Ratio	0.42	0.42	0.42	0.42	0.42	0.42	0.39	0.39		0.39	0.39	0.39
v/c Ratio	0.86	0.11	0.25	0.54	0.53	0.09	0.73	0.94		0.19	0.68	0.41
Control Delay (s/veh)	44.2	10.9	3.2	18.2	16.2	3.9	36.9	42.7		17.0	21.8	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	44.2	10.9	3.2	18.2	16.2	3.9	36.9	42.7		17.0	21.8	6.5
LOS	D	B	A	B	B	A	D	D		B	C	A
Approach Delay (s/veh)		24.2			16.0			41.4			15.9	
Approach LOS		C			B			D			B	
Queue Length 50th (m)	27.9	5.1	0.0	20.7	30.3	0.0	16.2	61.0		1.7	40.9	5.8

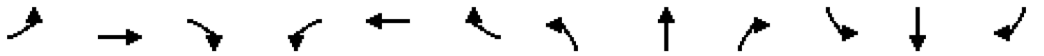
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (m)	#68.8	9.9	9.5	40.8	52.4	5.4	#45.6	#121.3		6.7	70.0	19.7
Internal Link Dist (m)		161.8			453.6			221.5			155.3	
Turn Bay Length (m)	21.5		15.0	18.0		42.0	20.0			15.0		17.0
Base Capacity (vph)	333	1319	705	480	721	653	244	654		125	657	692
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.86	0.11	0.25	0.54	0.53	0.09	0.73	0.94		0.19	0.68	0.41

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.94
Intersection Signal Delay (s/veh): 24.8 Intersection LOS: C
Intersection Capacity Utilization 110.0% ICU Level of Service H
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: BURWELL RD. & S. EDGEWARE RD,





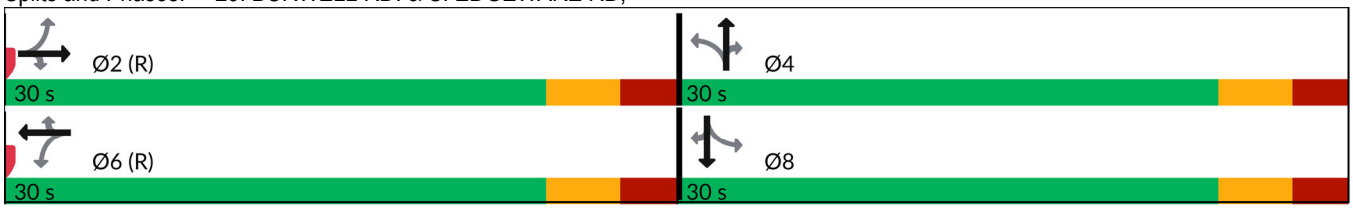
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	212	193	89	106	13	160	291	133	42	309	207
Future Volume (vph)	131	212	193	89	106	13	160	291	133	42	309	207
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (m)	30.0		15.0	18.0		42.0	30.0		30.0	15.0		17.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	25.0			23.0			30.0			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1632	3264	1343	1542	1654	1319	1648	1669	1367	1601	1735	1446
Flt Permitted	0.683			0.608			0.503			0.526		
Satd. Flow (perm)	1173	3264	1343	987	1654	1319	873	1669	1367	886	1735	1446
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			210			51			145			218
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		185.8			477.6			245.5			179.3	
Travel Time (s)		13.4			34.4			17.7			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	3%	12%	9%	7%	14%	2%	6%	10%	5%	2%	4%
Adj. Flow (vph)	142	230	210	97	115	14	174	316	145	46	336	225
Shared Lane Traffic (%)												
Lane Group Flow (vph)	142	230	210	97	115	14	174	316	145	46	336	225
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6		6	4		4	8		8
Minimum Split (s)	27.8	27.8	27.8	27.8	27.8	27.8	28.8	28.8	28.8	28.8	28.8	28.8
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	9.0	9.0	9.0	9.0	9.0	9.0
Flash Don't Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0	14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Act Effct Green (s)	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
Actuated g/C Ratio	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
v/c Ratio	0.30	0.17	0.32	0.24	0.17	0.02	0.49	0.47	0.23	0.13	0.48	0.32
Control Delay (s/veh)	14.4	12.0	3.5	14.0	12.4	0.1	19.4	16.1	3.5	12.5	16.1	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.4	12.0	3.5	14.0	12.4	0.1	19.4	16.1	3.5	12.5	16.1	3.6
LOS	B	B	A	B	B	A	B	B	A	B	B	A
Approach Delay (s/veh)		9.5			12.3			14.1			11.2	
Approach LOS		A			B			B			B	
Queue Length 50th (m)	10.4	8.4	0.0	7.3	8.2	0.0	13.9	25.7	0.0	3.2	26.6	0.5

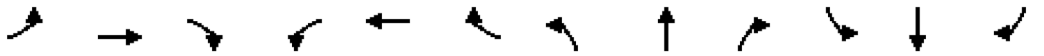
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (m)	22.1	14.6	11.3	16.9	17.5	0.4	30.5	45.6	9.2	9.0	46.6	11.4
Internal Link Dist (m)		161.8			453.6			221.5			155.3	
Turn Bay Length (m)	30.0		15.0	18.0		42.0	30.0		30.0	15.0		17.0
Base Capacity (vph)	473	1316	666	398	667	562	352	673	637	357	699	713
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.17	0.32	0.24	0.17	0.02	0.49	0.47	0.23	0.13	0.48	0.32

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.49
Intersection Signal Delay (s/veh): 11.8 Intersection LOS: B
Intersection Capacity Utilization 94.3% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 23: BURWELL RD. & S. EDGEWARE RD,





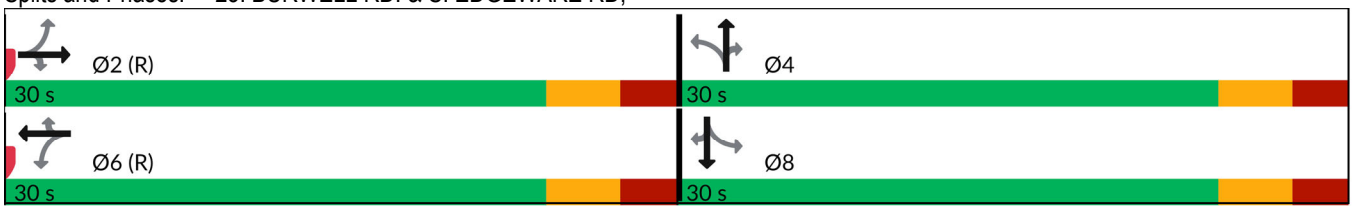
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	263	133	165	238	349	53	163	443	120	22	412	259
Future Volume (vph)	263	133	165	238	349	53	163	443	120	22	412	259
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Storage Length (m)	30.0		15.0	18.0		42.0	30.0		30.0	15.0		17.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	25.0			23.0			30.0			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1632	3142	1432	1648	1718	1475	1648	1735	1367	1648	1701	1475
Flt Permitted	0.454			0.660			0.378			0.341		
Satd. Flow (perm)	780	3142	1432	1145	1718	1475	656	1735	1367	592	1701	1475
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			179			58			130			205
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		185.8			477.6			245.5			179.3	
Travel Time (s)		13.4			34.4			17.7			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	7%	5%	2%	3%	2%	2%	2%	10%	2%	4%	2%
Adj. Flow (vph)	286	145	179	259	379	58	177	482	130	24	448	282
Shared Lane Traffic (%)												
Lane Group Flow (vph)	286	145	179	259	379	58	177	482	130	24	448	282
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6		6	4		4	8		8
Minimum Split (s)	27.8	27.8	27.8	27.8	27.8	27.8	28.8	28.8	28.8	28.8	28.8	28.8
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Maximum Green (s)	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	9.0	9.0	9.0	9.0	9.0	9.0
Flash Don't Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0	14.0	14.0	14.0	14.0	14.0	14.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Act Effct Green (s)	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
Actuated g/C Ratio	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
v/c Ratio	0.91	0.11	0.26	0.56	0.55	0.09	0.67	0.69	0.21	0.10	0.65	0.39
Control Delay (s/veh)	54.5	11.5	3.4	19.6	17.4	4.2	30.8	21.1	3.6	12.6	20.0	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	54.5	11.5	3.4	19.6	17.4	4.2	30.8	21.1	3.6	12.6	20.0	5.8
LOS	D	B	A	B	B	A	C	C	A	B	C	A
Approach Delay (s/veh)		29.3			17.1			20.4			14.5	
Approach LOS		C			B			C			B	
Queue Length 50th (m)	29.1	5.3	0.0	21.4	31.4	0.0	15.5	42.7	0.0	1.6	39.5	5.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (m)	#71.2	10.2	9.8	42.1	54.1	5.6	#43.2	72.6	8.8	5.7	67.8	18.4
Internal Link Dist (m)		161.8			453.6			221.5			155.3	
Turn Bay Length (m)	30.0		15.0	18.0		42.0	30.0		30.0	15.0		17.0
Base Capacity (vph)	314	1267	684	461	692	629	264	699	628	238	686	717
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.11	0.26	0.56	0.55	0.09	0.67	0.69	0.21	0.10	0.65	0.39

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.91
Intersection Signal Delay (s/veh): 19.9 Intersection LOS: B
Intersection Capacity Utilization 102.1% ICU Level of Service G
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: BURWELL RD. & S. EDGEWARE RD,



Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.2.1013
© Copyright TRL Limited, 2019

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: 25-1765 S. Edgeware Rd. (Burwell Rd. at South Edgeware Rd.).j9
Path: Z:\2025\25-1765\Schedule B Class EA\ARCADY
Report generation date: 04/02/2026 9:11:01 AM

»25-1765 - Existing Traffic, (AM Peak Hour)
»25-1765 - Existing Traffic, (PM Peak Hour)
»25-1765 - Total Traffic 2045, (AM Peak Hour)
»25-1765 - Total Traffic 2045, (PM Peak Hour)

Summary of intersection performance

	(AM Peak Hour)									(PM Peak Hour)								
	Set ID	Queue (PCE)	95% Queue (PCE)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersection LOS	Network Residual Capacity	Set ID	Queue (PCE)	95% Queue (PCE)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersection LOS	Network Residual Capacity
	25-1765 - Existing Traffic																	
WB - S. Edgeware Rd.	D1	0.1	0.5	1.96	0.06	A	1.84	A	332 % [SB - Burwell Rd.]	D2	0.2	0.5	2.28	0.19	A	2.11	A	146 % [SB - Burwell Rd.]
SB - Burwell Rd.		0.2	0.5	1.95	0.17	A					0.3	1.4	2.45	0.25	A			
EB - S. Edgeware Rd.		0.2	0.5	1.78	0.14	A					0.2	0.5	1.89	0.17	A			
NB - Burwell Rd.		0.2	0.5	1.74	0.16	A					0.3	0.5	1.82	0.21	A			
	25-1765 - Total Traffic 2045																	
WB - S. Edgeware Rd.	D3	0.1	0.5	2.21	0.12	A	2.19	A	179 % [SB - Burwell Rd.]	D4	0.7	2.9	3.36	0.39	A	3.02	A	53 % [SB - Burwell Rd.]
SB - Burwell Rd.		0.4	1.5	2.32	0.28	A					0.9	2.7	4.04	0.45	A			
EB - S. Edgeware Rd.		0.4	1.4	2.14	0.25	A					0.4	1.6	2.36	0.28	A			
NB - Burwell Rd.		0.4	1.5	2.11	0.26	A					0.5	2.1	2.26	0.33	A			

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Intersection LOS and Intersection Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

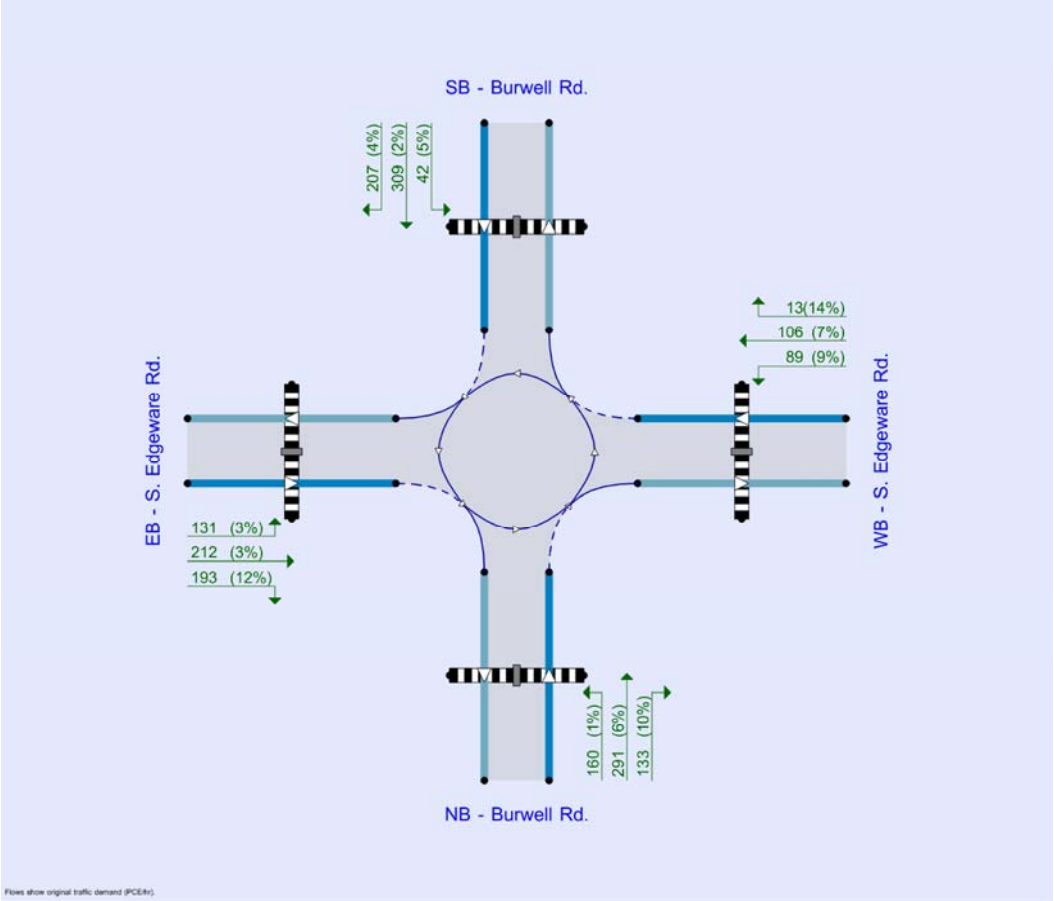
File summary

File Description

Title	S. Edgeware Rd.
Location	St. Thomas
Site number	25-1765
Date	18/07/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Analyst	HGSCIVIL\synchro
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCE	PCE	perHour	s	-Min	perMin



The intersection diagram reflects the last run of Intersections.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	V/C Ratio Threshold	Average Delay threshold (s)	Queue threshold (PCE)
5.75	✓		✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Existing Traffic	(AM Peak Hour)	ONE HOUR	00:00	01:30	15	✓
D2	Existing Traffic	(PM Peak Hour)	ONE HOUR	00:00	01:30	15	✓
D3	Total Traffic 2045	(AM Peak Hour)	ONE HOUR	00:00	01:30	15	✓
D4	Total Traffic 2045	(PM Peak Hour)	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	25-1765	✓	100.000	100.000

25-1765 - Existing Traffic, (AM Peak Hour)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	WB - S. Edgeware Rd. - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	SB - Burwell Rd. - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	EB - S. Edgeware Rd. - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	NB - Burwell Rd. - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Intersection Network

Intersections

Intersection	Name	Intersection type	Use circulating lanes	Leg order	Intersection Delay (s)	Intersection LOS
1	untitled	Standard Roundabout		WB, SB, EB, NB	1.84	A

Intersection Network Options

Driving side	Lighting	Network residual capacity (%)	First leg reaching threshold
Right	Normal/unknown	332	SB - Burwell Rd.

Legs

Legs

Leg	Name	Description
WB	S. Edgeware Rd.	
SB	Burwell Rd.	
EB	S. Edgeware Rd.	
NB	Burwell Rd.	

Roundabout Geometry

Leg	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
WB - S. Edgeware Rd.	6.70	9.70	6.6	22.5	72.5	34.8	
SB - Burwell Rd.	6.80	9.43	10.0	30.6	72.5	39.9	
EB - S. Edgeware Rd.	6.80	11.73	12.5	30.0	72.5	38.5	
NB - Burwell Rd.	6.80	11.30	12.4	48.5	72.5	35.4	

Unsignalled Pedestrian Crossing Crossings

Leg	Space between crossing and intersection entry (Unsignalled Pedestrian Crossing) (PCE)	Vehicles queueing on exit (Unsignalled Pedestrian Crossing) (PCE)	Central Refuge	Crossing data type	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
WB - S. Edgeware Rd.	2.00	2.00	✓	Distance	7.00	5.00	8.40	6.00
SB - Burwell Rd.	2.00	2.00	✓	Distance	7.50	5.36	7.00	5.00
EB - S. Edgeware Rd.	2.00	2.00	✓	Distance	9.20	6.57	7.20	5.14
NB - Burwell Rd.	2.00	2.00	✓	Distance	7.00	5.00	8.60	6.14

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Leg	Final slope	Final intercept (PCE/hr)
WB - S. Edgeware Rd.	0.596	2372
SB - Burwell Rd.	0.607	2450
EB - S. Edgeware Rd.	0.644	2685
NB - Burwell Rd.	0.655	2719

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Existing Traffic	(AM Peak Hour)	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCE Factor for a Truck (PCE)

✓	✓	Truck Percentages	2.00

Demand overview (Traffic)

Leg	Linked leg	Profile type	Use O-D data	Average Demand (PCE/hr)	Scaling Factor (%)
WB - S. Edgeware Rd.		ONE HOUR	✓	118	100.000
SB - Burwell Rd.		ONE HOUR	✓	366	100.000
EB - S. Edgeware Rd.		ONE HOUR	✓	305	100.000
NB - Burwell Rd.		ONE HOUR	✓	365	100.000

Demand overview (Pedestrians)

Leg	Profile type	Average pedestrian flow (Ped/hr)
WB - S. Edgeware Rd.	[ONEHOUR]	0.00
SB - Burwell Rd.	[ONEHOUR]	1.00
EB - S. Edgeware Rd.	[ONEHOUR]	1.00
NB - Burwell Rd.	[ONEHOUR]	0.00

Origin-Destination Data

Demand (PCE/hr)

		To			
		WB - S. Edgeware Rd.	SB - Burwell Rd.	EB - S. Edgeware Rd.	NB - Burwell Rd.
From	WB - S. Edgeware Rd.	0	7	58	53
	SB - Burwell Rd.	19	0	139	208
	EB - S. Edgeware Rd.	87	88	0	130
	NB - Burwell Rd.	61	196	108	0

Vehicle Mix

Truck Percentages

		To			
		WB - S. Edgeware Rd.	SB - Burwell Rd.	EB - S. Edgeware Rd.	NB - Burwell Rd.
From	WB - S. Edgeware Rd.	0	14	7	9
	SB - Burwell Rd.	5	0	4	2
	EB - S. Edgeware Rd.	3	3	0	12
	NB - Burwell Rd.	10	6	1	0

Results

Results Summary for whole modelled period

Leg	Max V/C Ratio	Max Delay (s)	Max Queue (PCE)	Max 95th percentile Queue (PCE)	Max LOS	Average Demand (PCE/hr)	Total Intersection Arrivals (PCE)
WB - S. Edgeware Rd.	0.06	1.96	0.1	0.5	A	108	162
SB - Burwell Rd.	0.17	1.95	0.2	0.5	A	336	504
EB - S. Edgeware Rd.	0.14	1.78	0.2	0.5	A	280	420
NB - Burwell Rd.	0.16	1.74	0.2	0.5	A	335	502

Main Results for each time segment

00:00 - 00:15

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	89	22	295	0.00	2196	0.040	89	125	0.0	0.0	1.848	A
SB - Burwell Rd.	276	69	165	0.00	2350	0.117	275	219	0.0	0.1	1.784	A
EB - S. Edgeware Rd.	230	57	210	0.00	2549	0.090	229	229	0.0	0.1	1.654	A
NB - Burwell Rd.	275	69	146	0.00	2623	0.105	274	294	0.0	0.1	1.610	A

00:15 - 00:30

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	106	27	352	0.00	2162	0.049	106	150	0.0	0.1	1.895	A
SB - Burwell Rd.	329	82	197	0.00	2330	0.141	329	262	0.1	0.2	1.850	A
EB - S. Edgeware Rd.	274	69	252	0.00	2523	0.109	274	274	0.1	0.1	1.706	A
NB - Burwell Rd.	328	82	174	0.00	2605	0.126	328	351	0.1	0.2	1.661	A

00:30 - 00:45

Leg	Total Demand	Intersection Arrivals	Circulating	Pedestrian demand	Capacity	V/C Ratio	Throughput	Throughput (exit side)	Start queue	End queue	Delay (s)	Unsignalised level of

	(PCE/hr)	(PCE)	flow (PCE/hr)	(Ped/hr)	(PCE/hr)		(PCE/hr)	(PCE/hr)	(PCE)	(PCE)		service
WB - S. Edgeware Rd.	130	32	431	0.00	2115	0.061	130	184	0.1	0.1	1.963	A
SB - Burwell Rd.	403	101	241	0.00	2304	0.175	403	320	0.2	0.2	1.948	A
EB - S. Edgeware Rd.	336	84	308	0.00	2486	0.135	336	336	0.1	0.2	1.784	A
NB - Burwell Rd.	402	100	214	0.00	2579	0.156	402	430	0.2	0.2	1.737	A

00:45 - 01:00

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	130	32	432	0.00	2115	0.061	130	184	0.1	0.1	1.963	A
SB - Burwell Rd.	403	101	241	0.00	2303	0.175	403	320	0.2	0.2	1.948	A
EB - S. Edgeware Rd.	336	84	308	0.00	2486	0.135	336	336	0.2	0.2	1.784	A
NB - Burwell Rd.	402	100	214	0.00	2579	0.156	402	430	0.2	0.2	1.737	A

01:00 - 01:15

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	106	27	353	0.00	2162	0.049	106	150	0.1	0.1	1.898	A
SB - Burwell Rd.	329	82	197	0.00	2330	0.141	329	262	0.2	0.2	1.850	A
EB - S. Edgeware Rd.	274	69	252	0.00	2522	0.109	274	274	0.2	0.1	1.707	A
NB - Burwell Rd.	328	82	174	0.00	2604	0.126	328	352	0.2	0.2	1.661	A

01:15 - 01:30

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	89	22	295	0.00	2196	0.040	89	126	0.1	0.0	1.852	A
SB - Burwell Rd.	276	69	165	0.00	2350	0.117	276	219	0.2	0.1	1.788	A
EB - S. Edgeware Rd.	230	57	211	0.00	2549	0.090	230	230	0.1	0.1	1.654	A
NB - Burwell Rd.	275	69	146	0.00	2623	0.105	275	294	0.2	0.1	1.610	A

Queue Variation Results for each time segment

00:00 - 00:15

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.05	0.00	0.00	0.05	0.05			N/A	N/A
SB - Burwell Rd.	0.14	0.00	0.00	0.14	0.14			N/A	N/A
EB - S. Edgeware Rd.	0.11	0.00	0.00	0.11	0.11			N/A	N/A
NB - Burwell Rd.	0.12	0.00	0.00	0.12	0.12			N/A	N/A

00:15 - 00:30

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.06	0.03	0.27	0.49	0.52			N/A	N/A
SB - Burwell Rd.	0.17	0.00	0.00	0.17	0.17			N/A	N/A
EB - S. Edgeware Rd.	0.13	0.00	0.00	0.13	0.13			N/A	N/A
NB - Burwell Rd.	0.15	0.00	0.00	0.15	0.15			N/A	N/A

00:30 - 00:45

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.07	0.03	0.28	0.50	0.53			N/A	N/A
SB - Burwell Rd.	0.22	0.03	0.26	0.47	0.49			N/A	N/A
EB - S. Edgeware Rd.	0.17	0.03	0.27	0.49	0.52			N/A	N/A
NB - Burwell Rd.	0.19	0.03	0.27	0.48	0.51			N/A	N/A

00:45 - 01:00

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.07	0.00	0.00	0.07	0.07			N/A	N/A
SB - Burwell Rd.	0.22	0.03	0.26	0.46	0.49			N/A	N/A
EB - S. Edgeware Rd.	0.17	0.00	0.00	0.17	0.17			N/A	N/A
NB - Burwell Rd.	0.19	0.00	0.00	0.19	0.19			N/A	N/A

01:00 - 01:15

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.06	0.00	0.00	0.06	0.06			N/A	N/A
SB - Burwell Rd.	0.17	0.00	0.00	0.17	0.17			N/A	N/A
EB - S. Edgeware Rd.	0.13	0.00	0.00	0.13	0.13			N/A	N/A
NB - Burwell Rd.	0.15	0.00	0.00	0.15	0.15			N/A	N/A

01:15 - 01:30

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.05	0.00	0.00	0.05	0.05			N/A	N/A

SB - Burwell Rd.	0.14	0.00	0.00	0.14	0.14			N/A	N/A
EB - S. Edgeware Rd.	0.11	0.00	0.00	0.11	0.11			N/A	N/A
NB - Burwell Rd.	0.12	0.00	0.00	0.12	0.12			N/A	N/A

25-1765 - Existing Traffic, (PM Peak Hour)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	WB - S. Edgeware Rd. - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	SB - Burwell Rd. - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	NB - Burwell Rd. - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Intersection Network

Intersections

Intersection	Name	Intersection type	Use circulating lanes	Leg order	Intersection Delay (s)	Intersection LOS
1	untitled	Standard Roundabout		WB, SB, EB, NB	2.11	A

Intersection Network Options

Driving side	Lighting	Network residual capacity (%)	First leg reaching threshold
Right	Normal/unknown	146	SB - Burwell Rd.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Existing Traffic	(PM Peak Hour)	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCE Factor for a Truck (PCE)
✓	✓	Truck Percentages	2.00

Demand overview (Traffic)

Leg	Linked leg	Profile type	Use O-D data	Average Demand (PCE/hr)	Scaling Factor (%)
WB - S. Edgeware Rd.		ONE HOUR	✓	341	100.000
SB - Burwell Rd.		ONE HOUR	✓	463	100.000
EB - S. Edgeware Rd.		ONE HOUR	✓	363	100.000
NB - Burwell Rd.		ONE HOUR	✓	481	100.000

Demand overview (Pedestrians)

Leg	Profile type	Average pedestrian flow (Ped/hr)
WB - S. Edgeware Rd.	[ONEHOUR]	1.00
SB - Burwell Rd.	[ONEHOUR]	3.00
EB - S. Edgeware Rd.	[ONEHOUR]	5.00
NB - Burwell Rd.	[ONEHOUR]	0.00

Origin-Destination Data

Demand (PCE/hr)

		To			
		WB - S. Edgeware Rd.	SB - Burwell Rd.	EB - S. Edgeware Rd.	NB - Burwell Rd.
From	WB - S. Edgeware Rd.	0	27	181	133
	SB - Burwell Rd.	12	0	174	277
	EB - S. Edgeware Rd.	75	177	0	111
	NB - Burwell Rd.	73	298	110	0

Vehicle Mix

Truck Percentages

		To			
		WB - S. Edgeware Rd.	SB - Burwell Rd.	EB - S. Edgeware Rd.	NB - Burwell Rd.
From	WB - S. Edgeware Rd.	0	0	3	2
	SB - Burwell Rd.	0	0	1	4
	EB - S. Edgeware Rd.	7	3	0	5
	NB - Burwell Rd.	10	0	0	0

Results

Results Summary for whole modelled period

Leg	Max V/C Ratio	Max Delay (s)	Max Queue (PCE)	Max 95th percentile Queue (PCE)	Max LOS	Average Demand (PCE/hr)	Total Intersection Arrivals (PCE)
WB - S. Edgeware Rd.	0.19	2.28	0.2	0.5	A	313	469
SB - Burwell Rd.	0.25	2.45	0.3	1.4	A	425	637
EB - S. Edgeware Rd.	0.17	1.89	0.2	0.5	A	333	500
NB - Burwell Rd.	0.21	1.82	0.3	0.5	A	441	662

Main Results for each time segment

00:00 - 00:15

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	257	64	440	0.00	2110	0.122	256	120	0.0	0.1	1.988	A
SB - Burwell Rd.	349	87	319	0.00	2164	0.161	348	377	0.0	0.2	2.035	A
EB - S. Edgeware Rd.	273	68	317	3.76	2480	0.110	273	349	0.0	0.1	1.702	A
NB - Burwell Rd.	362	91	198	0.00	2589	0.140	361	391	0.0	0.2	1.638	A

00:15 - 00:30

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	307	77	526	0.00	2059	0.149	306	144	0.1	0.2	2.103	A
SB - Burwell Rd.	416	104	381	0.00	2102	0.198	416	451	0.2	0.3	2.193	A
EB - S. Edgeware Rd.	326	82	379	4.49	2440	0.134	326	418	0.1	0.2	1.777	A
NB - Burwell Rd.	432	108	237	0.00	2563	0.169	432	468	0.2	0.2	1.712	A

00:30 - 00:45

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	375	94	644	0.00	1988	0.189	375	176	0.2	0.2	2.284	A
SB - Burwell Rd.	510	127	467	0.00	2017	0.253	509	552	0.3	0.3	2.454	A
EB - S. Edgeware Rd.	400	100	464	5.51	2386	0.168	399	512	0.2	0.2	1.891	A
NB - Burwell Rd.	530	132	291	0.00	2528	0.209	529	573	0.2	0.3	1.825	A

00:45 - 01:00

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	375	94	644	0.00	1988	0.189	375	176	0.2	0.2	2.284	A
SB - Burwell Rd.	510	127	467	0.00	2016	0.253	510	553	0.3	0.3	2.454	A
EB - S. Edgeware Rd.	400	100	465	5.51	2385	0.168	400	512	0.2	0.2	1.891	A
NB - Burwell Rd.	530	132	291	0.00	2528	0.209	530	574	0.3	0.3	1.825	A

01:00 - 01:15

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	307	77	526	0.00	2058	0.149	307	144	0.2	0.2	2.103	A
SB - Burwell Rd.	416	104	381	0.00	2102	0.198	417	452	0.3	0.3	2.196	A
EB - S. Edgeware Rd.	326	82	380	4.49	2440	0.134	327	418	0.2	0.2	1.780	A
NB - Burwell Rd.	432	108	237	0.00	2563	0.169	433	469	0.3	0.2	1.715	A

01:15 - 01:30

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	257	64	441	0.00	2109	0.122	257	121	0.2	0.1	1.989	A
SB - Burwell Rd.	349	87	319	0.00	2163	0.161	349	378	0.3	0.2	2.038	A
EB - S. Edgeware Rd.	273	68	318	3.76	2480	0.110	273	350	0.2	0.1	1.705	A
NB - Burwell Rd.	362	91	199	0.00	2588	0.140	362	392	0.2	0.2	1.641	A

Queue Variation Results for each time segment

00:00 - 00:15

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.14	0.00	0.00	0.14	0.14			N/A	N/A

SB - Burwell Rd.	0.20	0.00	0.00	0.20	0.20			N/A	N/A
EB - S. Edgeware Rd.	0.13	0.00	0.00	0.13	0.13			N/A	N/A
NB - Burwell Rd.	0.16	0.00	0.00	0.16	0.16			N/A	N/A

00:15 - 00:30

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.18	0.00	0.00	0.18	0.18			N/A	N/A
SB - Burwell Rd.	0.25	0.00	0.00	0.25	0.25			N/A	N/A
EB - S. Edgeware Rd.	0.16	0.00	0.00	0.16	0.16			N/A	N/A
NB - Burwell Rd.	0.21	0.00	0.00	0.21	0.21			N/A	N/A

00:30 - 00:45

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.24	0.03	0.26	0.47	0.49			N/A	N/A
SB - Burwell Rd.	0.35	0.03	0.26	0.47	0.49			N/A	N/A
EB - S. Edgeware Rd.	0.21	0.03	0.26	0.48	0.50			N/A	N/A
NB - Burwell Rd.	0.27	0.03	0.26	0.46	0.49			N/A	N/A

00:45 - 01:00

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.24	0.03	0.26	0.46	0.49			N/A	N/A
SB - Burwell Rd.	0.35	0.03	0.33	1.13	1.37			N/A	N/A
EB - S. Edgeware Rd.	0.21	0.03	0.26	0.47	0.50			N/A	N/A
NB - Burwell Rd.	0.27	0.03	0.27	0.48	0.51			N/A	N/A

01:00 - 01:15

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.18	0.00	0.00	0.18	0.18			N/A	N/A
SB - Burwell Rd.	0.25	0.00	0.00	0.25	0.25			N/A	N/A
EB - S. Edgeware Rd.	0.16	0.00	0.00	0.16	0.16			N/A	N/A
NB - Burwell Rd.	0.21	0.00	0.00	0.21	0.21			N/A	N/A

01:15 - 01:30

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.14	0.00	0.00	0.14	0.14			N/A	N/A
SB - Burwell Rd.	0.20	0.00	0.00	0.20	0.20			N/A	N/A
EB - S. Edgeware Rd.	0.13	0.00	0.00	0.13	0.13			N/A	N/A
NB - Burwell Rd.	0.17	0.00	0.00	0.17	0.17			N/A	N/A

25-1765 - Total Traffic 2045, (AM Peak Hour)

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	WB - S. Edgeware Rd. - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	SB - Burwell Rd. - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	EB - S. Edgeware Rd. - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	NB - Burwell Rd. - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Intersection Network

Intersections

Intersection	Name	Intersection type	Use circulating lanes	Leg order	Intersection Delay (s)	Intersection LOS
1	untitled	Standard Roundabout		WB, SB, EB, NB	2.19	A

Intersection Network Options

Driving side	Lighting	Network residual capacity (%)	First leg reaching threshold
Right	Normal/unknown	179	SB - Burwell Rd.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Total Traffic 2045	(AM Peak Hour)	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCE Factor for a Truck (PCE)
✓	✓	Truck Percentages	2.00

Demand overview (Traffic)

Leg	Linked leg	Profile type	Use O-D data	Average Demand (PCE/hr)	Scaling Factor (%)
WB - S. Edgeware Rd.		ONE HOUR	✓	208	100.000
SB - Burwell Rd.		ONE HOUR	✓	558	100.000
EB - S. Edgeware Rd.		ONE HOUR	✓	536	100.000
NB - Burwell Rd.		ONE HOUR	✓	584	100.000

Demand overview (Pedestrians)

Leg	Profile type	Average pedestrian flow (Ped/hr)
WB - S. Edgeware Rd.	[ONEHOUR]	0.00
SB - Burwell Rd.	[ONEHOUR]	1.00
EB - S. Edgeware Rd.	[ONEHOUR]	1.00
NB - Burwell Rd.	[ONEHOUR]	0.00

Origin-Destination Data

Demand (PCE/hr)

		To			
		WB - S. Edgeware Rd.	SB - Burwell Rd.	EB - S. Edgeware Rd.	NB - Burwell Rd.
From	WB - S. Edgeware Rd.	0	13	106	89
	SB - Burwell Rd.	42	0	207	309
	EB - S. Edgeware Rd.	212	131	0	193
	NB - Burwell Rd.	133	291	160	0

Vehicle Mix

Truck Percentages

		To			
		WB - S. Edgeware Rd.	SB - Burwell Rd.	EB - S. Edgeware Rd.	NB - Burwell Rd.
From	WB - S. Edgeware Rd.	0	14	7	9
	SB - Burwell Rd.	5	0	4	2
	EB - S. Edgeware Rd.	3	3	0	12
	NB - Burwell Rd.	10	6	1	0

Results

Results Summary for whole modelled period

Leg	Max V/C Ratio	Max Delay (s)	Max Queue (PCE)	Max 95th percentile Queue (PCE)	Max LOS	Average Demand (PCE/hr)	Total Intersection Arrivals (PCE)
WB - S. Edgeware Rd.	0.12	2.21	0.1	0.5	A	191	286
SB - Burwell Rd.	0.28	2.32	0.4	1.5	A	512	768
EB - S. Edgeware Rd.	0.25	2.14	0.4	1.4	A	492	738
NB - Burwell Rd.	0.26	2.11	0.4	1.5	A	536	804

Main Results for each time segment

00:00 - 00:15

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	157	39	437	0.00	2111	0.074	156	291	0.0	0.1	1.993	A
SB - Burwell Rd.	420	105	267	0.00	2288	0.184	419	327	0.0	0.2	1.982	A
EB - S. Edgeware Rd.	404	101	331	0.00	2472	0.163	403	355	0.0	0.2	1.845	A
NB - Burwell Rd.	440	110	289	0.00	2529	0.174	439	444	0.0	0.2	1.815	A

00:15 - 00:30

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	187	47	523	0.00	2060	0.091	187	348	0.1	0.1	2.080	A
SB - Burwell Rd.	502	125	319	0.00	2256	0.222	501	391	0.2	0.3	2.112	A
EB - S. Edgeware Rd.	482	120	395	0.00	2430	0.198	482	425	0.2	0.3	1.959	A
NB - Burwell Rd.	525	131	346	0.00	2492	0.211	525	531	0.2	0.3	1.929	A

00:30 - 00:45

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	229	57	640	0.00	1990	0.115	229	426	0.1	0.1	2.212	A
SB - Burwell Rd.	614	154	391	0.00	2213	0.278	614	479	0.3	0.4	2.318	A
EB - S. Edgeware Rd.	590	148	484	0.00	2373	0.249	590	520	0.3	0.4	2.141	A
NB - Burwell Rd.	643	161	424	0.00	2441	0.263	643	650	0.3	0.4	2.110	A

00:45 - 01:00

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	229	57	641	0.00	1990	0.115	229	426	0.1	0.1	2.212	A
SB - Burwell Rd.	614	154	391	0.00	2213	0.278	614	479	0.4	0.4	2.318	A
EB - S. Edgeware Rd.	590	148	484	0.00	2373	0.249	590	521	0.4	0.4	2.141	A
NB - Burwell Rd.	643	161	424	0.00	2441	0.263	643	651	0.4	0.4	2.110	A

01:00 - 01:15

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	187	47	524	0.00	2060	0.091	187	348	0.1	0.1	2.081	A
SB - Burwell Rd.	502	125	319	0.00	2256	0.222	502	391	0.4	0.3	2.114	A
EB - S. Edgeware Rd.	482	120	396	0.00	2430	0.198	482	426	0.4	0.3	1.960	A
NB - Burwell Rd.	525	131	346	0.00	2492	0.211	525	532	0.4	0.3	1.930	A

01:15 - 01:30

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	157	39	438	0.00	2111	0.074	157	292	0.1	0.1	1.996	A
SB - Burwell Rd.	420	105	267	0.00	2288	0.184	420	328	0.3	0.2	1.986	A
EB - S. Edgeware Rd.	404	101	331	0.00	2471	0.163	404	356	0.3	0.2	1.846	A
NB - Burwell Rd.	440	110	290	0.00	2529	0.174	440	445	0.3	0.2	1.816	A

Queue Variation Results for each time segment

00:00 - 00:15

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.09	0.00	0.00	0.09	0.09			N/A	N/A

SB - Burwell Rd.	0.23	0.00	0.00	0.23	0.23			N/A	N/A
EB - S. Edgeware Rd.	0.21	0.00	0.00	0.21	0.21			N/A	N/A
NB - Burwell Rd.	0.22	0.00	0.00	0.22	0.22			N/A	N/A

00:15 - 00:30

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.11	0.03	0.27	0.49	0.51			N/A	N/A
SB - Burwell Rd.	0.29	0.00	0.00	0.29	0.29			N/A	N/A
EB - S. Edgeware Rd.	0.26	0.00	0.00	0.26	0.26			N/A	N/A
NB - Burwell Rd.	0.28	0.00	0.00	0.28	0.28			N/A	N/A

00:30 - 00:45

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.14	0.03	0.28	0.50	0.53			N/A	N/A
SB - Burwell Rd.	0.39	0.03	0.26	0.47	0.49			N/A	N/A
EB - S. Edgeware Rd.	0.35	0.03	0.27	0.48	0.51			N/A	N/A
NB - Burwell Rd.	0.38	0.03	0.27	0.48	0.50			N/A	N/A

00:45 - 01:00

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.14	0.00	0.00	0.14	0.14			N/A	N/A
SB - Burwell Rd.	0.40	0.03	0.34	1.28	1.54			N/A	N/A
EB - S. Edgeware Rd.	0.35	0.03	0.34	1.13	1.39			N/A	N/A
NB - Burwell Rd.	0.38	0.03	0.35	1.22	1.46			N/A	N/A

01:00 - 01:15

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.11	0.00	0.00	0.11	0.11			N/A	N/A
SB - Burwell Rd.	0.30	0.00	0.00	0.30	0.30			N/A	N/A
EB - S. Edgeware Rd.	0.26	0.00	0.00	0.26	0.26			N/A	N/A
NB - Burwell Rd.	0.28	0.00	0.00	0.28	0.28			N/A	N/A

01:15 - 01:30

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.09	0.00	0.00	0.09	0.09			N/A	N/A
SB - Burwell Rd.	0.23	0.00	0.00	0.23	0.23			N/A	N/A
EB - S. Edgeware Rd.	0.21	0.00	0.00	0.21	0.21			N/A	N/A
NB - Burwell Rd.	0.22	0.00	0.00	0.22	0.22			N/A	N/A

25-1765 - Total Traffic 2045, (PM Peak Hour)

Data Errors and Warnings

Severity	Area	Item	Description
Last Run	Last Run	SB - Burwell Rd. - Capacity	Pedestrian Crossing causes blocking on previous leg due to traffic queing to leave the intersection in 4 timesegment(s).
Warning	Pedestrian Crossing	WB - S. Edgeware Rd. - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	SB - Burwell Rd. - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	NB - Burwell Rd. - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Intersection Network

Intersections

Intersection	Name	Intersection type	Use circulating lanes	Leg order	Intersection Delay (s)	Intersection LOS
1	untitled	Standard Roundabout		WB, SB, EB, NB	3.02	A

Intersection Network Options

Driving side	Lighting	Network residual capacity (%)	First leg reaching threshold
Right	Normal/unknown	53	SB - Burwell Rd.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Total Traffic 2045	(PM Peak Hour)	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCE Factor for a Truck (PCE)
✓	✓	Truck Percentages	2.00

Demand overview (Traffic)

Leg	Linked leg	Profile type	Use O-D data	Average Demand (PCE/hr)	Scaling Factor (%)
WB - S. Edgeware Rd.		ONE HOUR	✓	640	100.000
SB - Burwell Rd.		ONE HOUR	✓	693	100.000
EB - S. Edgeware Rd.		ONE HOUR	✓	561	100.000
NB - Burwell Rd.		ONE HOUR	✓	726	100.000

Demand overview (Pedestrians)

Leg	Profile type	Average pedestrian flow (Ped/hr)
WB - S. Edgeware Rd.	[ONEHOUR]	1.00
SB - Burwell Rd.	[ONEHOUR]	3.00
EB - S. Edgeware Rd.	[ONEHOUR]	5.00
NB - Burwell Rd.	[ONEHOUR]	0.00

Origin-Destination Data

Demand (PCE/hr)

		To			
		WB - S. Edgeware Rd.	SB - Burwell Rd.	EB - S. Edgeware Rd.	NB - Burwell Rd.
From	WB - S. Edgeware Rd.	0	53	349	238
	SB - Burwell Rd.	22	0	259	412
	EB - S. Edgeware Rd.	133	263	0	165
	NB - Burwell Rd.	120	443	163	0

Vehicle Mix

Truck Percentages

		To			
		WB - S. Edgeware Rd.	SB - Burwell Rd.	EB - S. Edgeware Rd.	NB - Burwell Rd.
From	WB - S. Edgeware Rd.	0	0	3	2
	SB - Burwell Rd.	0	0	1	4
	EB - S. Edgeware Rd.	7	3	0	5
	NB - Burwell Rd.	10	0	0	0

Results

Results Summary for whole modelled period

Leg	Max V/C Ratio	Max Delay (s)	Max Queue (PCE)	Max 95th percentile Queue (PCE)	Max LOS	Average Demand (PCE/hr)	Total Intersection Arrivals (PCE)
WB - S. Edgeware Rd.	0.39	3.36	0.7	2.9	A	587	881
SB - Burwell Rd.	0.45	4.04	0.9	2.7	A	636	954
EB - S. Edgeware Rd.	0.28	2.36	0.4	1.6	A	515	772
NB - Burwell Rd.	0.33	2.26	0.5	2.1	A	666	999

Main Results for each time segment

00:00 - 00:15

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	482	120	653	0.00	1983	0.243	481	207	0.0	0.3	2.451	A
SB - Burwell Rd.	522	130	563	0.00	1935	0.270	520	570	0.0	0.4	2.612	A
EB - S. Edgeware Rd.	422	106	504	3.76	2360	0.179	421	579	0.0	0.2	1.940	A
NB - Burwell Rd.	547	137	314	0.00	2513	0.217	545	612	0.0	0.3	1.857	A

00:15 - 00:30

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	575	144	781	0.00	1906	0.302	575	247	0.3	0.4	2.768	A
SB - Burwell Rd.	623	156	674	0.00	1827	0.341	622	682	0.4	0.5	3.069	A
EB - S. Edgeware Rd.	504	126	604	4.49	2296	0.220	504	693	0.2	0.3	2.099	A
NB - Burwell Rd.	653	163	376	0.00	2473	0.264	652	732	0.3	0.4	2.007	A

00:30 - 00:45

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	705	176	956	0.00	1802	0.391	704	303	0.4	0.7	3.356	A
SB - Burwell Rd.	763	191	825	0.00	1679	0.454	762	835	0.5	0.8	4.026	A
EB - S. Edgeware Rd.	618	154	739	5.51	2209	0.280	617	848	0.3	0.4	2.364	A
NB - Burwell Rd.	799	200	460	0.00	2418	0.331	799	896	0.4	0.5	2.258	A

00:45 - 01:00

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	705	176	957	0.00	1802	0.391	705	303	0.7	0.7	3.358	A
SB - Burwell Rd.	763	191	826	0.00	1678	0.455	763	836	0.8	0.9	4.041	A
EB - S. Edgeware Rd.	618	154	740	5.51	2208	0.280	618	849	0.4	0.4	2.365	A
NB - Burwell Rd.	799	200	460	0.00	2417	0.331	799	897	0.5	0.5	2.258	A

01:00 - 01:15

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	575	144	782	0.00	1906	0.302	576	247	0.7	0.4	2.772	A
SB - Burwell Rd.	623	156	675	0.00	1825	0.341	624	683	0.9	0.5	3.084	A
EB - S. Edgeware Rd.	504	126	605	4.49	2295	0.220	505	694	0.4	0.3	2.103	A
NB - Burwell Rd.	653	163	376	0.00	2472	0.264	653	734	0.5	0.4	2.009	A

01:15 - 01:30

Leg	Total Demand (PCE/hr)	Intersection Arrivals (PCE)	Circulating flow (PCE/hr)	Pedestrian demand (Ped/hr)	Capacity (PCE/hr)	V/C Ratio	Throughput (PCE/hr)	Throughput (exit side) (PCE/hr)	Start queue (PCE)	End queue (PCE)	Delay (s)	Unsignalised level of service
WB - S. Edgeware Rd.	482	120	655	0.00	1982	0.243	482	207	0.4	0.3	2.460	A
SB - Burwell Rd.	522	130	565	0.00	1933	0.270	522	572	0.5	0.4	2.624	A
EB - S. Edgeware Rd.	422	106	506	3.76	2358	0.179	423	581	0.3	0.2	1.945	A
NB - Burwell Rd.	547	137	315	0.00	2513	0.218	547	614	0.4	0.3	1.861	A

Queue Variation Results for each time segment

00:00 - 00:15

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.33	0.00	0.00	0.33	0.33			N/A	N/A

SB - Burwell Rd.	0.38	0.00	0.00	0.38	0.38			N/A	N/A
EB - S. Edgeware Rd.	0.23	0.00	0.00	0.23	0.23			N/A	N/A
NB - Burwell Rd.	0.28	0.00	0.00	0.28	0.28			N/A	N/A

00:15 - 00:30

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.44	0.00	0.00	0.44	0.44			N/A	N/A
SB - Burwell Rd.	0.53	0.05	0.58	1.35	1.45			N/A	N/A
EB - S. Edgeware Rd.	0.29	0.00	0.00	0.29	0.29			N/A	N/A
NB - Burwell Rd.	0.36	0.00	0.00	0.36	0.36			N/A	N/A

00:30 - 00:45

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.65	0.03	0.26	0.65	0.65			N/A	N/A
SB - Burwell Rd.	0.85	0.03	0.26	0.85	0.85			N/A	N/A
EB - S. Edgeware Rd.	0.40	0.03	0.26	0.47	0.50			N/A	N/A
NB - Burwell Rd.	0.50	0.03	0.26	0.50	0.50			N/A	N/A

00:45 - 01:00

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.66	0.03	0.30	1.23	2.92			N/A	N/A
SB - Burwell Rd.	0.85	0.03	0.29	0.85	2.74			N/A	N/A
EB - S. Edgeware Rd.	0.41	0.03	0.35	1.31	1.57			N/A	N/A
NB - Burwell Rd.	0.50	0.03	0.32	1.47	2.11			N/A	N/A

01:00 - 01:15

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.44	0.00	0.00	0.44	0.44			N/A	N/A
SB - Burwell Rd.	0.54	0.54	1.03	1.44	1.49			N/A	N/A
EB - S. Edgeware Rd.	0.30	0.00	0.00	0.30	0.30			N/A	N/A
NB - Burwell Rd.	0.37	0.00	0.00	0.37	0.37			N/A	N/A

01:15 - 01:30

Leg	Mean (PCE)	Q05 (PCE)	Q50 (PCE)	Q90 (PCE)	Q95 (PCE)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
WB - S. Edgeware Rd.	0.33	0.00	0.00	0.33	0.33			N/A	N/A
SB - Burwell Rd.	0.38	0.00	0.00	0.38	0.38			N/A	N/A
EB - S. Edgeware Rd.	0.23	0.00	0.00	0.23	0.23			N/A	N/A
NB - Burwell Rd.	0.28	0.00	0.00	0.28	0.28			N/A	N/A

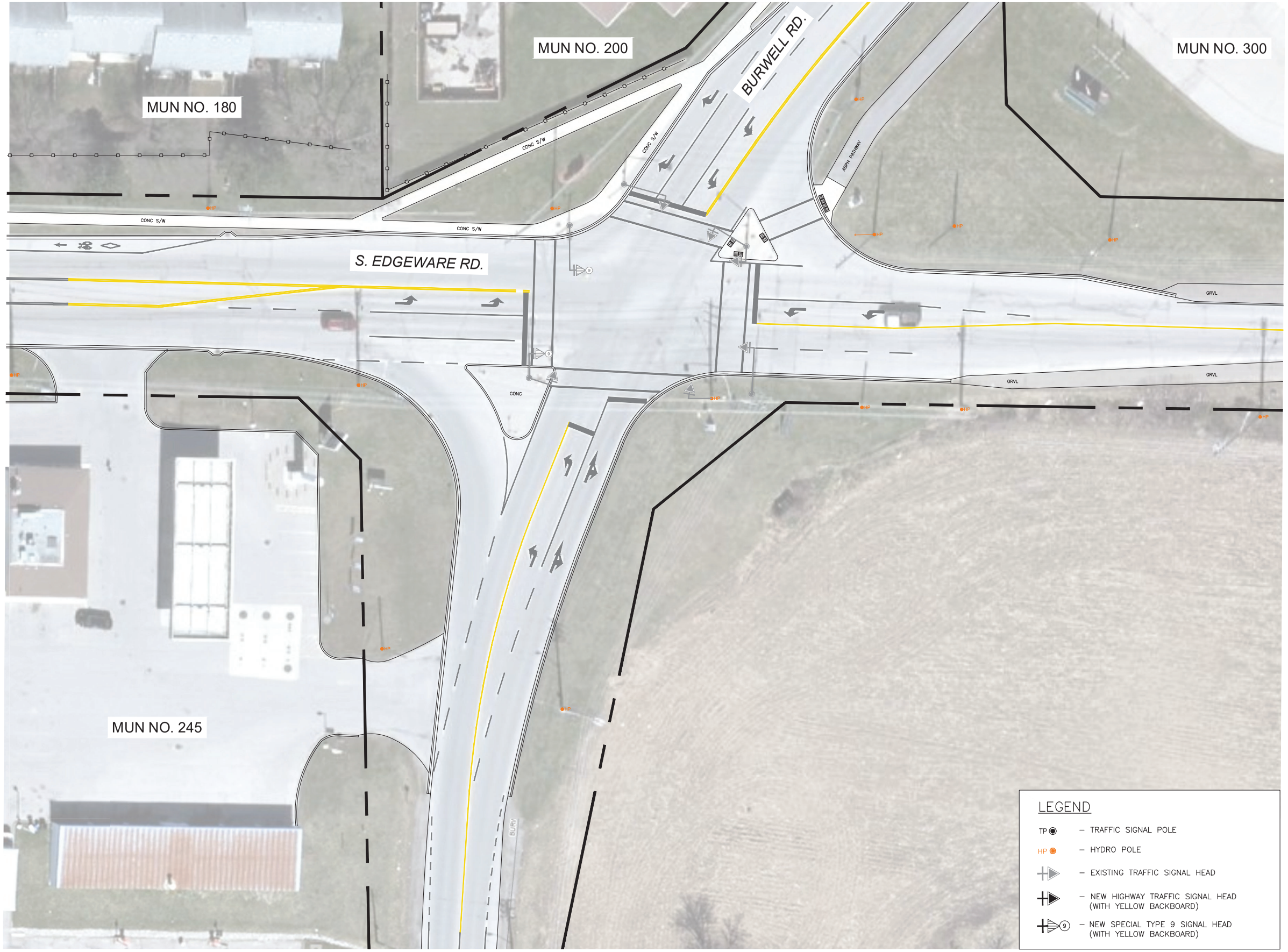
Appendix D

FUNCTIONAL DESIGNS

Option 1: Do Nothing

Option 2: Optimized Signal Control

Option 3: Roundabout Control



PLAN

RC SPENCER ASSOCIATES INC.
Consulting Engineers
Tecumseh: 1600 Sylvestre Dr. - Tecumseh, ON N9K 0B9
Leamington: 18 Talbot St. W. - Leamington, ON N8H 1M4
Chatham-Kent: 49 Raleigh St. - Chatham, ON N7M 2M6
Professional Engineers Ontario

ST. THOMAS
THE RAILWAY CITY

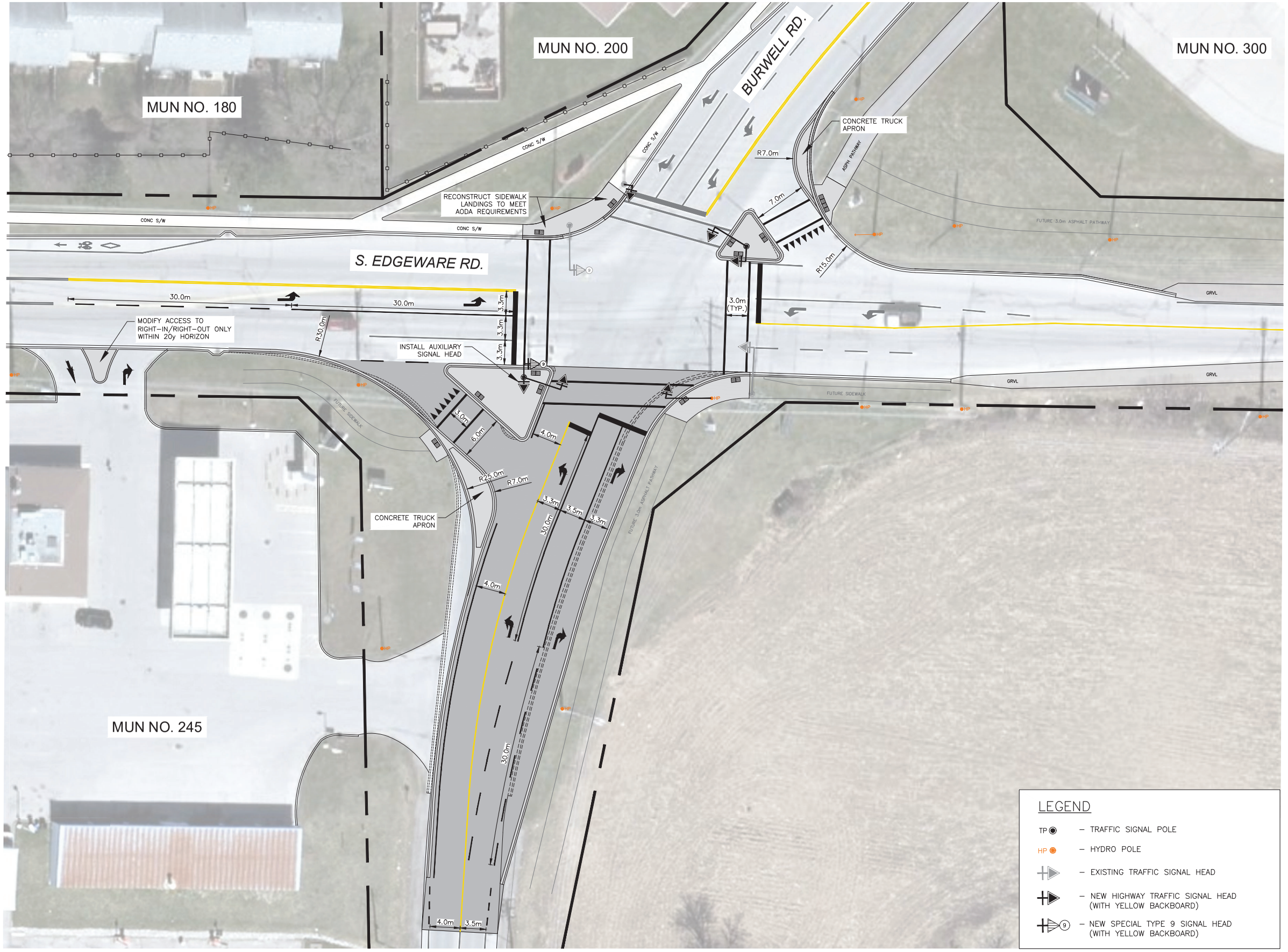
NO.	REVISION	DATE	BY	APP.
1.	COMPLETED FUNCTIONAL DESIGN OPTIONS	04 FEB. 2026	M.C.A.	A.D.B.

DESIGN	M.C.A.
CHECKED	A.D.B.
DRAWN	M.C.A.
CHECKED	A.D.B.
DATE	JANUARY 2026
SCALE	1 : 250

S EDGEWARE ROAD, ST. THOMAS – CLASS E.A.

OPTION 1: DO NOTHING

PROJECT NO. 25–1765
SHEET NO. 1
OF 3



PLAN

RC SPENCER ASSOCIATES INC.
Consulting Engineers
Tecumseh: 1600 Sylvestre Dr. - Tecumseh, ON N9K 0B9
Leamington: 18 Talbot St. W. - Leamington, ON N8H 1M4
Chatham-Kent: 49 Raleigh St. - Chatham, ON N7M 2M6
Professional Engineers Ontario

ST. THOMAS
THE RAILWAY CITY

NO.	REVISION	DATE	BY	APP.

NO.	REVISION	DATE	BY	APP.
1.	COMPLETED FUNCTIONAL DESIGN OPTIONS	04 FEB. 2026	M.C.A.	A.D.B.

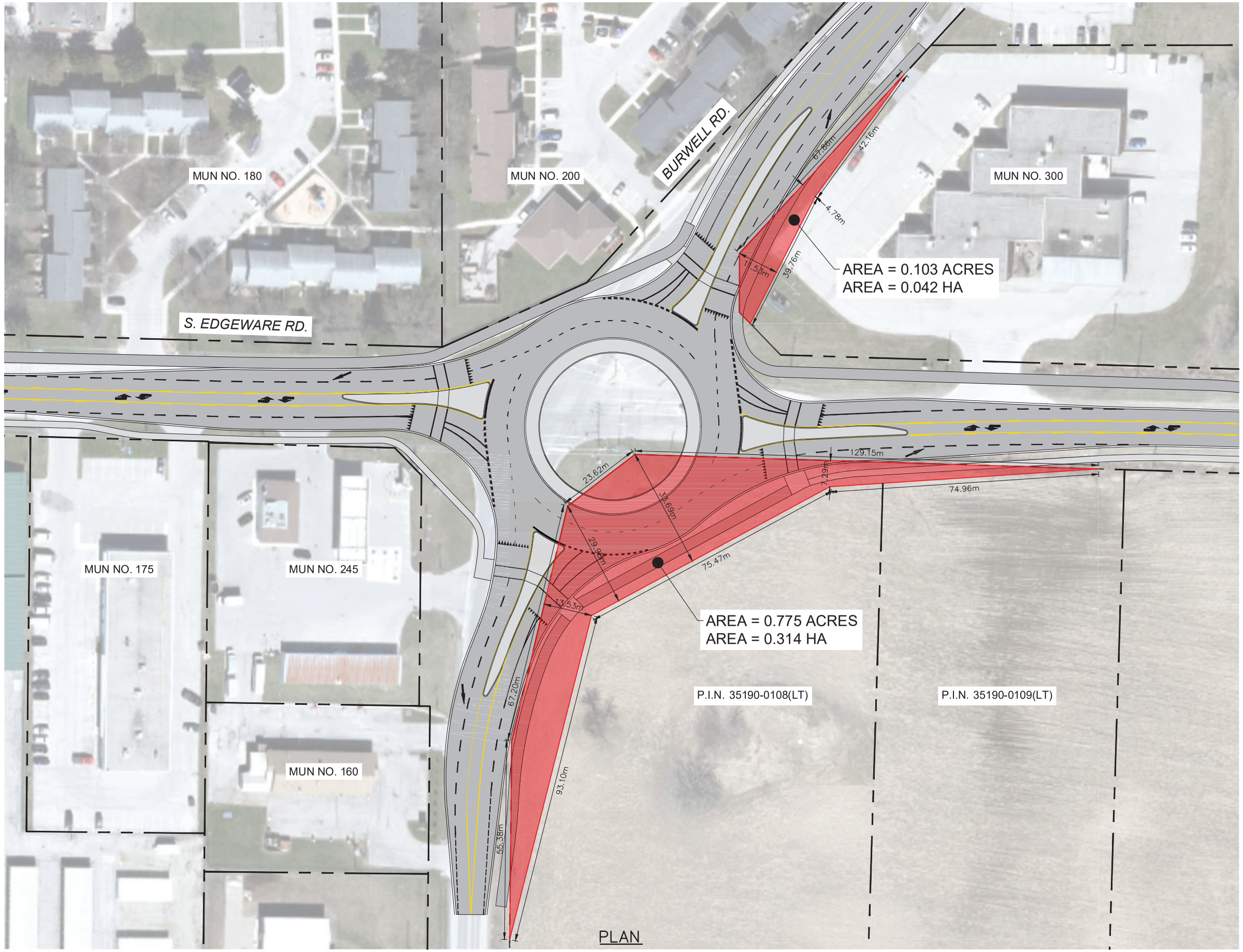
DESIGN	M.C.A.
CHECKED	A.D.B.
DRAWN	M.C.A.
CHECKED	A.D.B.
DATE	JANUARY 2026
SCALE	1 : 250

S EDGEWARE ROAD, ST. THOMAS – CLASS E.A.

OPTION 2: OPTIMIZED SIGNAL CONTROL

PROJECT NO. 25-1765

SHEET NO. 2 OF 3



PLAN

RC SPENCER ASSOCIATES INC.
Consulting Engineers
Tecumseh: 1600 Sylvestre Dr. - Tecumseh, ON N9K 0B9
Leamington: 18 Talbot St. W. - Leamington, ON N8H 1M4
Chatham-Kent: 49 Raleigh St. - Chatham, ON N7M 2M6
Professional Engineers Ontario

ST. THOMAS
THE RAILWAY CITY

NO.	REVISION	DATE	BY	APP.

NO.	REVISION	DATE	BY	APP.
1.	COMPLETED FUNCTIONAL DESIGN OPTIONS	04 FEB. 2026	M.C.A.	A.D.B.

DESIGN	M.C.A.
CHECKED	A.D.B.
DRAWN	M.C.A.
CHECKED	A.D.B.
DATE	JANUARY 2026
SCALE	1 : 500

S EDGEWARE ROAD, ST. THOMAS – CLASS E.A.

OPTION 3: ROUNDABOUT CONTROL

PROJECT NO. 25–1765

SHEET NO. 3

OF 3

Appendix E

COST ESTIMATES

Option 2: Optimized Signal Control

Option 3: Roundabout Control

Schedule B Class E.A. – Burwell Road at South Edgeware Road, St. Thomas, ON.

Preliminary Cost Estimate - Option 2: Standalone Signal Control Improvements 25-1765

Item No.	Description	Unit	Est. Qty.	Unit Price	Total Price
Section A - Removals					
1	Mill 50mm of existing surface asphalt	S.M.	350	$ 25.00	$ 8,750.00
2	Remove existing asphalt pavement	S.M.	1300	$ 10.00	$ 13,000.00
3	Remove existing driveway approaches and sidewalk	S.M.	200	$ 10.00	$ 2,000.00
4	Remove existing curb and gutter	L.M.	250	$ 10.00	$ 2,500.00
5	Remove / relocate signs	L.S.	1	$ 750.00	$ 750.00
6	Remove pavement marking lines	L.M.	220	$ 20.00	$ 4,400.00
7	Remove pavement marking symbols	Each	2	$ 250.00	$ 500.00
8	Remove traffic signal mast arm and head	Each	6	$ 200.00	$ 1,200.00
9	Remove traffic signal pole and concrete footing	Each	2	$ 2,000.00	$ 4,000.00
10	Relocate / adjust existing catch basin	Each	3	$ 1,500.00	$ 4,500.00
11	Miscellaneous removals / adjustments	L.S.	1	$ 4,500.00	$ 4,500.00
				Total Section A - Removals	**$ 46,100.00**
Section B - Surface Works					
12	Earth excavation and grading	C.M.	1000	$ 50.00	$ 50,000.00
13	Supply, place and compact selected granular course	C.M.	900	$ 90.00	$ 81,000.00
14	Hot mix, hot laid asphaltic concrete	Tonne	600	$ 150.00	$ 90,000.00
15	Restore existing asphalt driveways	S.M.	60	$ 150.00	$ 9,000.00
16	Concrete curb and gutter	L.M.	350	$ 90.00	$ 31,500.00
17	Curb sub-drain system (150mm dia. perforated Big 'O')	L.M.	350	$ 40.00	$ 14,000.00
18	Concrete barrier curb	L.M.	15	$ 75.00	$ 1,125.00
19	Concrete sidewalk	S.M.	100	$ 90.00	$ 9,000.00
20	Concrete median islands and truck aprons	S.M.	170	$ 150.00	$ 25,500.00
21	Tactile plates	Each	26	$ 400.00	$ 10,400.00
22	Topsoil and hydroseed	S.M.	450	$ 15.00	$ 6,750.00
23	Pavement markings (line painting)	L.S.	1	$ 10,000.00	$ 10,000.00
24	Pavement markings (symbols)	L.S.	1	$ 3,500.00	$ 3,500.00
				Total Section B - Surface Works	**$ 341,775.00**
Section C - Traffic Signal Infrastructure					
25	Underground PVC electrical conduit (open cut)				
	a) 50mm dia.	L.M.	35	$ 75.00	$ 2,625.00
	b) 75mm dia.	L.M.	70	$ 110.00	$ 7,700.00
26	Traffic signal cable installation, wiring, and grounding	L.S.	1	$ 10,000.00	$ 10,000.00

Schedule B Class E.A. – Burwell Road at South Edgeware Road, St. Thomas, ON.

Preliminary Cost Estimate - Option 2: Standalone Signal Control Improvements 25-1765

Item No.	Description	Unit	Est. Qty.	Unit Price	Total Price
27	Heavy class aluminum traffic signal pole (including concrete footing and pre-set mounting assemblies)	Each	2	$ 5,000.00	$ 10,000.00
28	Aluminum pedestrian pushbutton pole (including concrete footing and pre-set mounting assemblies)	Each	6	$ 2,000.00	$ 12,000.00
29	Aluminum single member mast arms	Each	6	$ 1,200.00	$ 7,200.00
30	Aluminum double arm brackets	Each	5	$ 300.00	$ 1,500.00
31	Traffic signal heads				
32	a) Highway signal head	Each	6	$ 1,200.00	$ 7,200.00
33	b) Special Type 9 signal head	Each	1	$ 1,200.00	$ 1,200.00
34	c) Pedestrian signal head	Each	4	$ 800.00	$ 3,200.00
35	Accessible Pedestrian Pushbutton System	Each	8	$ 3,750.00	$ 30,000.00
36	Utility boxes	Each	2	$ 2,000.00	$ 4,000.00
37	Loop traffic detection system	L.S.	1	$ 4,000.00	$ 4,000.00
38	Streetlight improvements	L.S.	1	$ 40,000.00	$ 40,000.00
39	Signage	L.S.	1	$ 1,500.00	$ 1,500.00
40	Drainage and storm sewer improvements	L.S.	1	$ 20,000.00	$ 20,000.00
	Total Section C - Traffic Signal Infrastructure				**$ 162,125.00**
Section D - Miscellaneous					
41	Traffic control	L.S.	1	$ 40,000.00	$ 40,000.00
42	Mobilization and demobilization	L.S.	1	$ 10,000.00	$ 10,000.00
43	Bonds and insurances	L.S.	1	$ 10,000.00	$ 10,000.00
44	Contingency allowance	L.S.	1	$ 60,000.00	$ 60,000.00
	Total Section D - Miscellaneous				**$ 120,000.00**
Summary of Cost Estimate					
Section A - Removals					$ 46,100.00
Section B - Surface Works					$ 341,775.00
Section C - Traffic Signal Infrastructure					$ 162,125.00
Section D - Miscellaneous					$ 120,000.00
	Total Cost Estimate (Excluding H.S.T.)				**$ 670,000.00**

Schedule B Class E.A. - Burwell Road at South Edgeware Road, St. Thomas, ON.

Preliminary Cost Estimate - Option 2: Integrated Signal Control Improvements 25-1765

Item No.	Description	Unit	Est. Qty.	Unit Price	Total Price
Section A - Removals					
1	Mill 50mm of existing surface asphalt	S.M.	150	$ 110.00	$ 16,500.00
2	Remove existing asphalt pavement	S.M.	3500	$ 10.00	$ 35,000.00
3	Remove existing driveway approaches and sidewalk	S.M.	350	$ 10.00	$ 3,500.00
4	Remove existing curb and gutter	L.M.	400	$ 10.00	$ 4,000.00
5	Remove / relocate signs	L.S.	1	$ 750.00	$ 750.00
6	Remove pavement marking lines	L.M.	50	$ 20.00	$ 1,000.00
7	Remove traffic signal mast arm and head	Each	8	$ 200.00	$ 1,600.00
8	Remove traffic signal pole and concrete footing	Each	6	$ 2,000.00	$ 12,000.00
9	Relocate / adjust existing catch basin	Each	3	$ 1,500.00	$ 4,500.00
10	Miscellaneous removals / adjustments	L.S.	1	$ 10,000.00	$ 10,000.00
				Total Section A - Removals	**$ 88,850.00**
Section B - Surface Works					
11	Earth excavation and grading	C.M.	2500	$ 50.00	$ 125,000.00
12	Supply, place and compact selected granular course	C.M.	2200	$ 90.00	$ 198,000.00
13	Hot mix, hot laid asphaltic concrete	Tonne	1500	$ 150.00	$ 225,000.00
14	Restore existing asphalt driveways	S.M.	60	$ 150.00	$ 9,000.00
15	Concrete curb and gutter	L.M.	500	$ 90.00	$ 45,000.00
16	Curb sub-drain system (150mm dia. perforated Big 'O')	L.M.	500	$ 40.00	$ 20,000.00
17	Concrete barrier curb	L.M.	20	$ 75.00	$ 1,500.00
18	Concrete sidewalk	S.M.	250	$ 90.00	$ 22,500.00
19	Concrete median islands and truck aprons	S.M.	170	$ 150.00	$ 25,500.00
20	Tactile plates	Each	26	$ 400.00	$ 10,400.00
21	Topsoil and hydroseed	S.M.	700	$ 15.00	$ 10,500.00
22	Pavement markings (line painting)	L.S.	1	$ 12,000.00	$ 12,000.00
23	Pavement markings (symbols)	L.S.	1	$ 4,100.00	$ 4,100.00
				Total Section B - Surface Works	**$ 708,500.00**
Section C - Traffic Signal Infrastructure					
24	Underground PVC electrical conduit (open cut)				
	a) 50mm dia.	L.M.	250	$ 75.00	$ 18,750.00
	b) 75mm dia.	L.M.	300	$ 110.00	$ 33,000.00
25	Traffic signal cable installation, wiring, and grounding	L.S.	1	$ 25,000.00	$ 25,000.00
26	Heavy class aluminum traffic signal pole (including concrete footing and pre-set mounting assemblies)	Each	6	$ 5,000.00	$ 30,000.00

Schedule B Class E.A. - Burwell Road at South Edgeware Road, St. Thomas, ON.

Preliminary Cost Estimate - Option 2: Integrated Signal Control Improvements 25-1765

Item No.	Description	Unit	Est. Qty.	Unit Price	Total Price
27	Aluminum pedestrian pushbutton pole (including concrete footing and pre-set mounting assemblies)	Each	2	$ 2,000.00	$ 4,000.00
28	Aluminum single member mast arms	Each	8	$ 1,200.00	$ 9,600.00
29	Aluminum double arm brackets	Each	9	$ 300.00	$ 2,700.00
30	Traffic signal heads				
31	a) Highway signal head	Each	7	$ 1,200.00	$ 8,400.00
32	b) Special Type 9 signal head	Each	2	$ 1,200.00	$ 2,400.00
33	c) Pedestrian signal head	Each	8	$ 800.00	$ 6,400.00
34	Accessible Pedestrian Pushbutton System	Each	8	$ 3,750.00	$ 30,000.00
35	Utility boxes	Each	7	$ 2,000.00	$ 14,000.00
36	Loop traffic detection system	L.S.	1	$ 10,000.00	$ 10,000.00
37	Power supply and service breaker pedestal	L.S.	1	$ 10,000.00	$ 10,000.00
38	Traffic controller	L.S.	1	$ 40,000.00	$ 40,000.00
39	Streetlight improvements	L.S.	1	$ 100,000.00	$ 100,000.00
40	Signage	L.S.	1	$ 5,000.00	$ 5,000.00
41	Drainage and storm sewer improvements	L.S.	1	$ 20,000.00	$ 20,000.00
	Total Section C - Traffic Signal Infrastructure				**$ 369,250.00**
Section D - Miscellaneous					
42	Traffic control	L.S.	1	$ 80,000.00	$ 80,000.00
43	Mobilization and demobilization	L.S.	1	$ 10,000.00	$ 10,000.00
44	Bonds and insurances	L.S.	1	$ 10,000.00	$ 10,000.00
45	Electrical connection allowance	L.S.	1	$ 15,000.00	$ 15,000.00
46	Contingency allowance	L.S.	1	$ 150,000.00	$ 150,000.00
	Total Section D - Miscellaneous				**$ 265,000.00**
Summary of Cost Estimate					
Section A - Removals					$ 88,850.00
Section B - Surface Works					$ 708,500.00
Section C - Traffic Signal Infrastructure					$ 369,250.00
Section D - Miscellaneous					$ 265,000.00
	Total Cost Estimate (Excluding H.S.T.)				**$ 1,431,600.00**

Schedule B Class E.A. – Burwell Road at South Edgeware Road, St. Thomas, ON.

Preliminary Cost Estimate - Option 3: Roundabout Control 25-1765

Item No.	Description	Unit	Est. Qty.	Unit Price	Total Price
Section A - Removals					
1	Mill 50mm of existing surface asphalt	S.M.	50	$ 110.00	$ 5,500.00
2	Remove existing asphalt pavement	S.M.	6900	$ 8.00	$ 55,200.00
3	Remove existing drivewalk approaches and sidewalk	S.M.	1300	$ 10.00	$ 13,000.00
4	Remove existing curb and gutter	L.M.	750	$ 10.00	$ 7,500.00
5	Remove / relocate signs	L.S.	1	$ 2,500.00	$ 2,500.00
6	Remove traffic signal mast arm and head	Each	8	$ 200.00	$ 1,600.00
7	Remove traffic signal pole and concrete footing	Each	5	$ 1,300.00	$ 6,500.00
8	Remove existing catch basin and lead	Each	8	$ 2,000.00	$ 16,000.00
9	Miscellaneous removals / adjustments	L.S.	1	$ 20,000.00	$ 20,000.00
10	Hydro pole relocation / overhead burial by Entegrus	L.S.	1	$ 100,000.00	$ 100,000.00
				Total Section A - Removals	**$ 227,800.00**
Section B - New Construction					
11	Earth excavation and grading	C.M.	6100	$ 50.00	$ 305,000.00
12	Supply, place and compact selected granular course	C.M.	5500	$ 75.00	$ 412,500.00
13	Hot mix, hot laid asphaltic concrete	Tonne	3300	$ 150.00	$ 495,000.00
14	Restore existing ashphalt driveways	S.M.	550	$ 150.00	$ 82,500.00
15	Concrete curb and gutter	L.M.	1600	$ 90.00	$ 144,000.00
16	Curb sub-drain system (150mm dia. perforated Big 'O')	L.M.	1600	$ 40.00	$ 64,000.00
17	Concrete barrier curb	L.M.	130	$ 75.00	$ 9,750.00
18	Concrete median islands and truck apron	S.M.	1300	$ 150.00	$ 195,000.00
19	Concrete sidewalk	S.M.	450	$ 90.00	$ 40,500.00
20	Asphalt multi-use pathway	S.M.	850	$ 120.00	$ 102,000.00
21	Tactile plates	Each	32	$ 400.00	$ 12,800.00
22	Topsoil and hydroseed	S.M.	4000	$ 15.00	$ 60,000.00
23	Pavement markings (line painting)	L.S.	1	$ 30,000.00	$ 30,000.00
24	Pavement markings (symbols)	L.S.	1	$ 9,000.00	$ 9,000.00
25	Streetlight improvements	L.S.	1	$ 150,000.00	$ 150,000.00
26	Signage	L.S.	1	$ 10,000.00	$ 10,000.00
27	Drainage and storm sewer improvements	L.S.	1	$ 150,000.00	$ 150,000.00
				Total Section B - New Construction	**$ 2,272,050.00**
Section C - Miscellaneous					
28	Private property acquisition (2025 approximation)	L.S.	1	$ 60,000.00	$ 60,000.00
29	Traffic control	L.S.	1	$ 80,000.00	$ 80,000.00

Schedule B Class E.A. – Burwell Road at South Edgeware Road, St. Thomas, ON.

Preliminary Cost Estimate - Option 3: Roundabout Control 25-1765

Item No.	Description	Unit	Est. Qty.	Unit Price	Total Price
30	Mobilization and demobilization	L.S.	1	$ 10,000.00	$ 10,000.00
31	Bonds and insurances	L.S.	1	$ 40,000.00	$ 40,000.00
32	Allowance for cost of final electrical connection to service breaker(s) by regional electrial utility	L.S.	1	$ 10,000.00	$ 10,000.00
33	Contingency allowance	L.S.	1	$ 100,000.00	$ 100,000.00
				Total Section C - Miscellaneous	**$ 300,000.00**
Summary of Cost Estimate					
Section A - Removals					$ 227,800.00
Section B - New Construction					$ 2,272,050.00
Section C - Miscellaneous					$ 300,000.00
				Total Cost Estimate (Excluding H.S.T.)	**$ 2,799,850.00**

Appendix F

PRESENTATION OF ALTERNATIVES

BURWELL ROAD AT SOUTH EDGEWARE ROAD

Schedule B Class EA

Presentation of Alternatives

RC SPENCER ASSOCIATES INC.
Consulting Engineers

ST. THOMAS
THE RAILWAY CITY

Introduction & Background

RC SPENCER ASSOCIATES INC.
Consulting Engineers

The City of St. Thomas has retained RC Spencer Associates Inc. to undertake a Schedule B Class Environmental Assessment (EA) to evaluate improvements to the intersection of Burwell Road at South Edgeware Road, in St. Thomas, ON.



Growing Population

RC SPENCER ASSOCIATES INC.
Consulting Engineers



The 2021 population forecast was updated in 2024 and indicated an increase in the anticipated population growth.

According to statistics presented in Watson and Associates Economists Ltd.'s 2024 Growth Analysis Study for the City of St. Thomas, under the current forecast, the population in St. Thomas is expected to steadily increase from 44,000 in 2021 to 79,500 by 2051, representing a **population increase of 2% annually over the 30-year period**. The new PowerCo facility and the development of Yarmouth Yards is estimated to instigate a growth in residents and jobs.

In September 2025, RC Spencer Associates Inc. prepared a corridor study for the South Edgeware Road corridor.

Growing Population

RC SPENCER ASSOCIATES INC.
Consulting Engineers

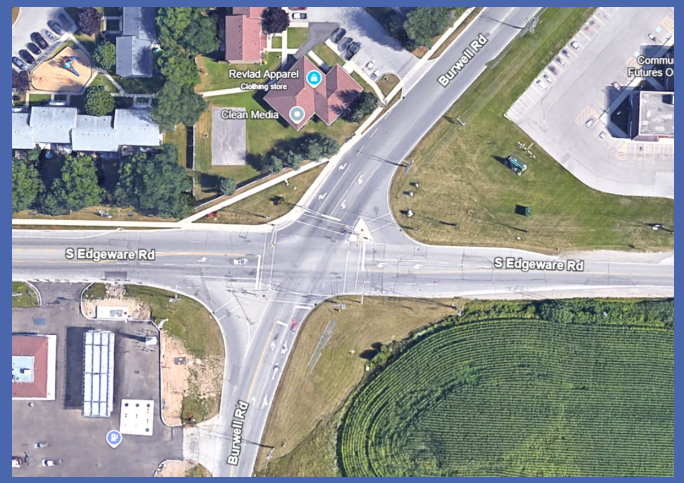


South Edgeware Road is an arterial roadway with an approximate average annual daily traffic (AADT) of 6,500 vehicles per day (vpd), although the updated turning movement counts suggest that the AADT could be 9,000 – 10,000 vpd between First Avenue and Burwell Road.

South Edgeware Road establishes a critical east / west commuter route within the City of St. Thomas. The South Edgeware Road corridor improvements have been prioritized in the City of St. Thomas' Asset Management Plan (10 Year Capital Forecast) for replacement in 2027 – 2028. To accommodate the anticipated compounding growth, the road authority recognized that the South Edgeware Road corridor may require various traffic infrastructure improvements; as a result, this Schedule B Class Environmental Assessment (EA) was specifically prepared to proactively guide the respective decision-makers in sustainably evaluating their "next steps" for the Burwell Road at South Edgeware Road intersection.

Existing Intersection Conditions

RC SPENCER ASSOCIATES INC.
Consulting Engineers



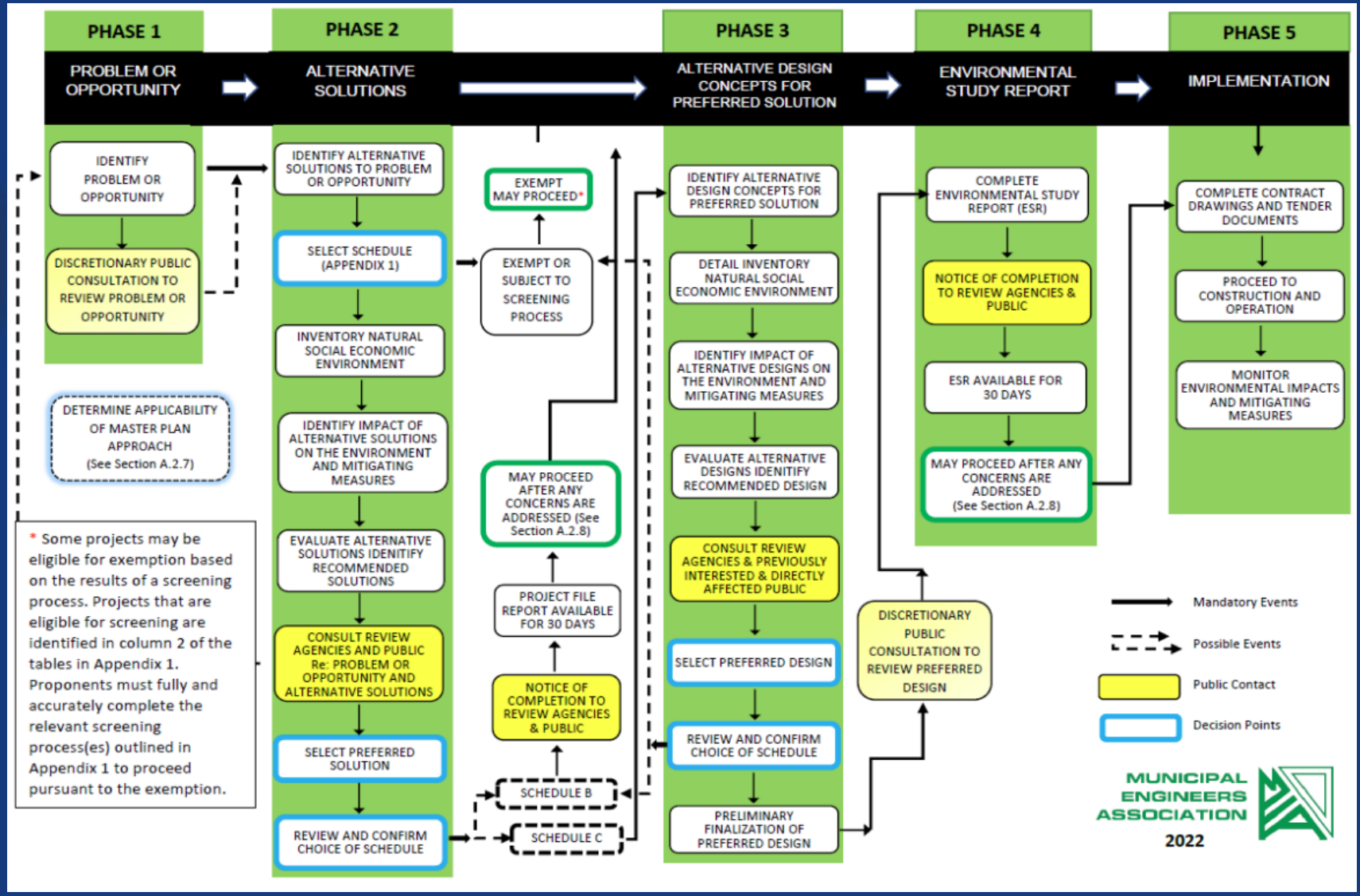
The subject four-legged (skewed) signalized intersection is located approximately 175m east of the east leg of Confederation Drive. The northwest quadrant of the intersection is primarily residential; the other three quadrants are comprised of primarily industrial land uses.

The eastbound approach is comprised of a left turn lane, two through lanes, and a right turn channel. The westbound approach is comprised of a left turn lane, a through lane, and a right turn channel. East of the intersection, South Edgeware Road becomes a two-lane roadway with a rural cross-section. The northbound approach is comprised of a left turn lane and a shared through / right turn lane, while the southbound approach is comprised of a left turn lane, a through lane, and a right turn lane. The South Edgeware Road on-street bicycle lanes end to the west of this intersection. Sidewalks are provided on the west side of the north leg and on the north side of the west leg. The speed limit on all legs is 50km/h; all legs are comprised of an urban cross-section.

Municipal Class EA Process

RC SPENCER ASSOCIATES INC.
Consulting Engineers

Municipal infrastructure projects are subject to the provisions of the Ontario Environmental Assessment Act (EA Act) and its requirements to prepare an Environmental Assessment for applicable public works projects.

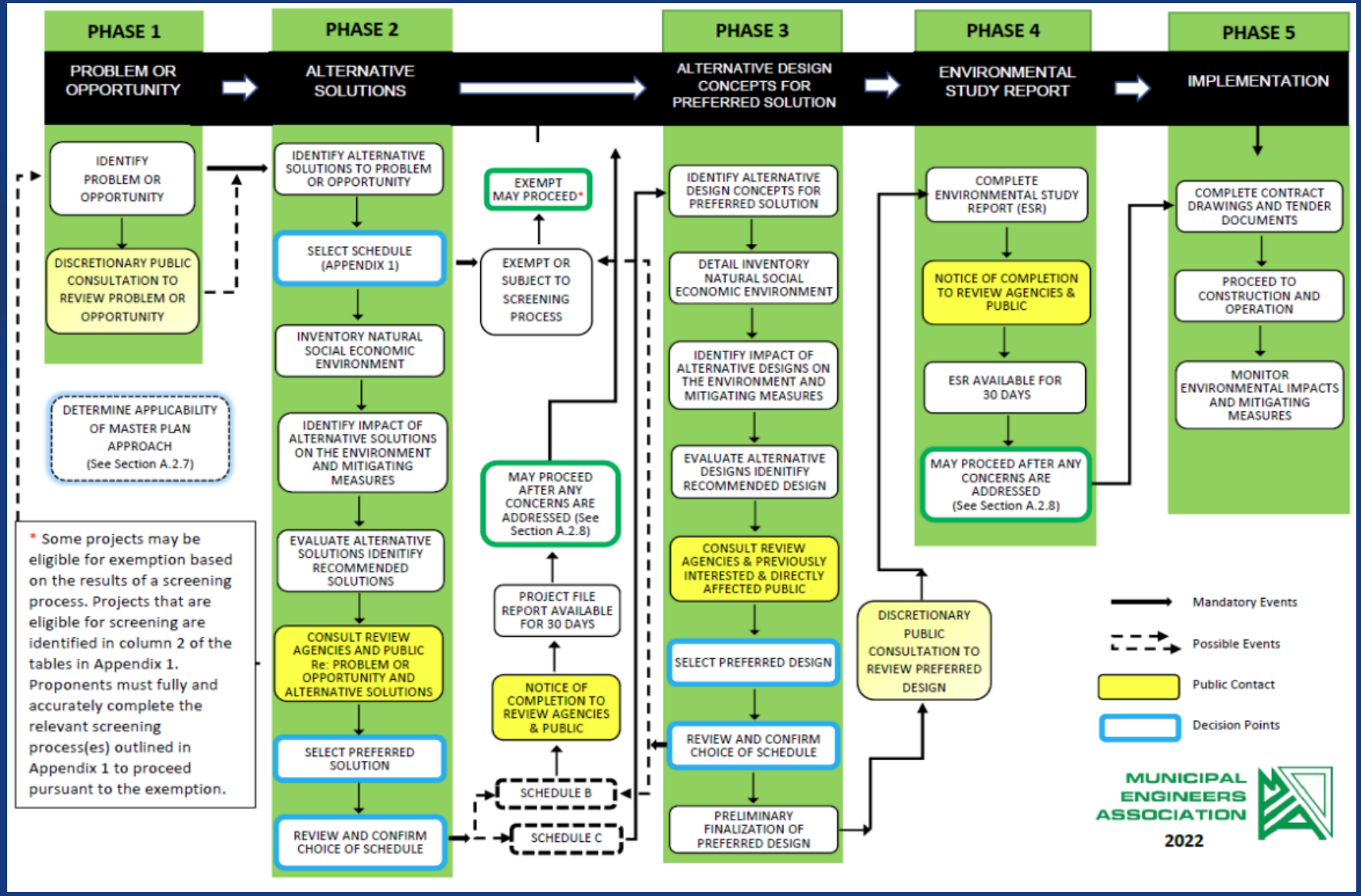


Municipal Class EA Process

RC SPENCER ASSOCIATES INC.
Consulting Engineers

Four categories of projects are identified in the MCEA document:

- Exempt
- Schedule B
- Schedule C
- Master Plans



Municipal Class EA Process

RC SPENCER ASSOCIATES INC.
Consulting Engineers

Four categories of projects are identified in the MCEA document:

- Exempt
- Schedule B
- Schedule C
- Master Plans

Under Project Description 19a, construction of localized operational improvements at specific locations (and construction of intersections / roundabouts) are “exempt” if a project is within an existing right-of-way

For projects that require property acquisition, decision-makers are to refer to Project Description 33 to determine the project schedule. Projects valued at less than $3M are subject to Schedule B, while projects valued at or greater then $3M are subject to Schedule C.

Since this intersection’s geometric and traffic control improvements are estimated to be valued at less than $3M (regardless of the traffic control that is ultimately implemented), it is the engineers’ opinion that a Schedule B Class EA is the most appropriate process for navigating the intersection improvements’ potential impacts.

Municipal Class EA Process

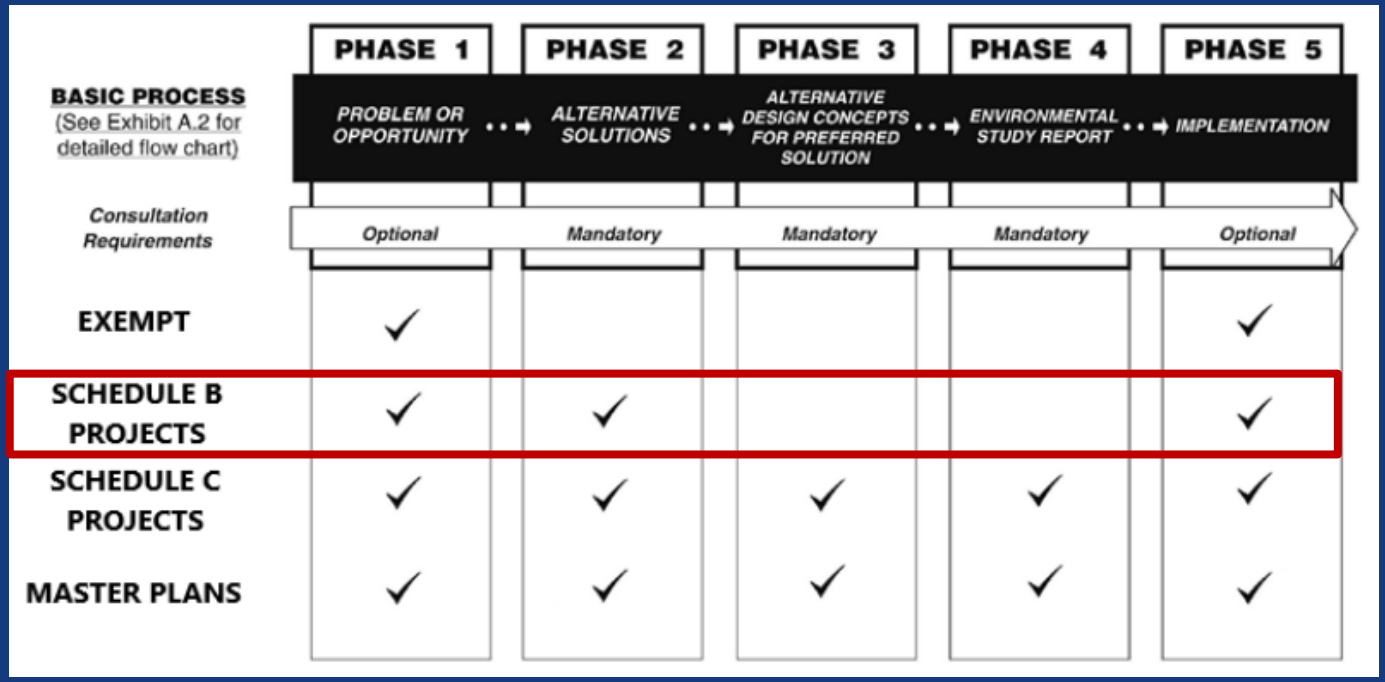
RC SPENCER ASSOCIATES INC.
Consulting Engineers

Four categories of projects are identified in the MCEA document:

- Exempt
- Schedule B
- Schedule C
- Master Plans

Based on the objective of avoiding or minimizing adverse environmental impacts, the Schedule B screening process involves:

- Inventory of the environment potentially affected by the project;
- Public and agency consultation;
- An impact assessment of the preferred alternative, including measures to avoid / mitigate any adverse impacts; and
- Documentation of the Class EA Process in a Project File.



Notice of Study Commencement

RC SPENCER ASSOCIATES INC.
Consulting Engineers

On 9 March 2026, a Notice of Study Commencement was posted on the City's website.

On 27 March 2026, a physical notice was distributed to businesses, property owners, and residents within 200m of the subject intersection area.

ST. THOMAS
THE RAILWAY CITY

City of St. Thomas
Notice of Study Commencement

The Corporation of the City of St. Thomas retained RC Spencer Associates Inc. to undertake a Class Environmental Assessment (EA) for improvements to the intersection of South Edgeware Road at Burwell Road, in the City of St. Thomas.

The purpose of the Class EA is to identify a preferred solution for the proposed intersection improvements. This project is being completed under the planning and design process for a "Schedule B" project, as outlined in the Municipal Engineers Association's *Municipal Class Environmental Assessment* process.

The Class EA process involves the collection and integration of input through consultation. The major components of the study include:

- Identification of intersection options and roadway infrastructure improvements;
- Evaluation and selection of a preferred option based on consultation;
- Completion of an impact assessment and identification of mitigation measures for consideration during the design phase;
- Documentation of the study process and recommendations by way of a Project File, which will be available for public review and comments at the end of the study.



PUBLIC COMMENTS ARE INVITED

At any time during this project, there is an opportunity for interested persons to review outstanding issues and to bring concern to the attention of the Project Team. The collected information will be used in accordance with the *Freedom of Information and Protection of Privacy Act*. Except for personal information, all comments will become part of the public record.

For further information or to be added to the mailing list, please contact:

Mr. Daniel Koppert, LET, PMP
City of St. Thomas
Manager of Capital Works
P.O. Box 520, 545 Talbot Street
St. Thomas, ON | N5P 3V7
P: 519.631.1680
E: dkoppert@stthomas.ca

Mr. Aaron Blata, M.Eng., P.Eng., PTOE, RSP1
RC Spencer Associates Inc.
Consulting Engineers
18 Talbot Street West
Leamington, ON | N8H 1M4
P: 519.324.0606
E: ablata@rcspencer.ca

Existing Traffic AM Peak Hour

RC SPENCER ASSOCIATES INC.
Consulting Engineers

Collected turning movement counts provided the basis for industry-standard traffic operations review of intersection performance:

Level of Service (LOS), Intersection Capacity Utilization (ICU), Control Delay, Volume-to-Capacity (v/c) ratio, and 95th Percentile Queues

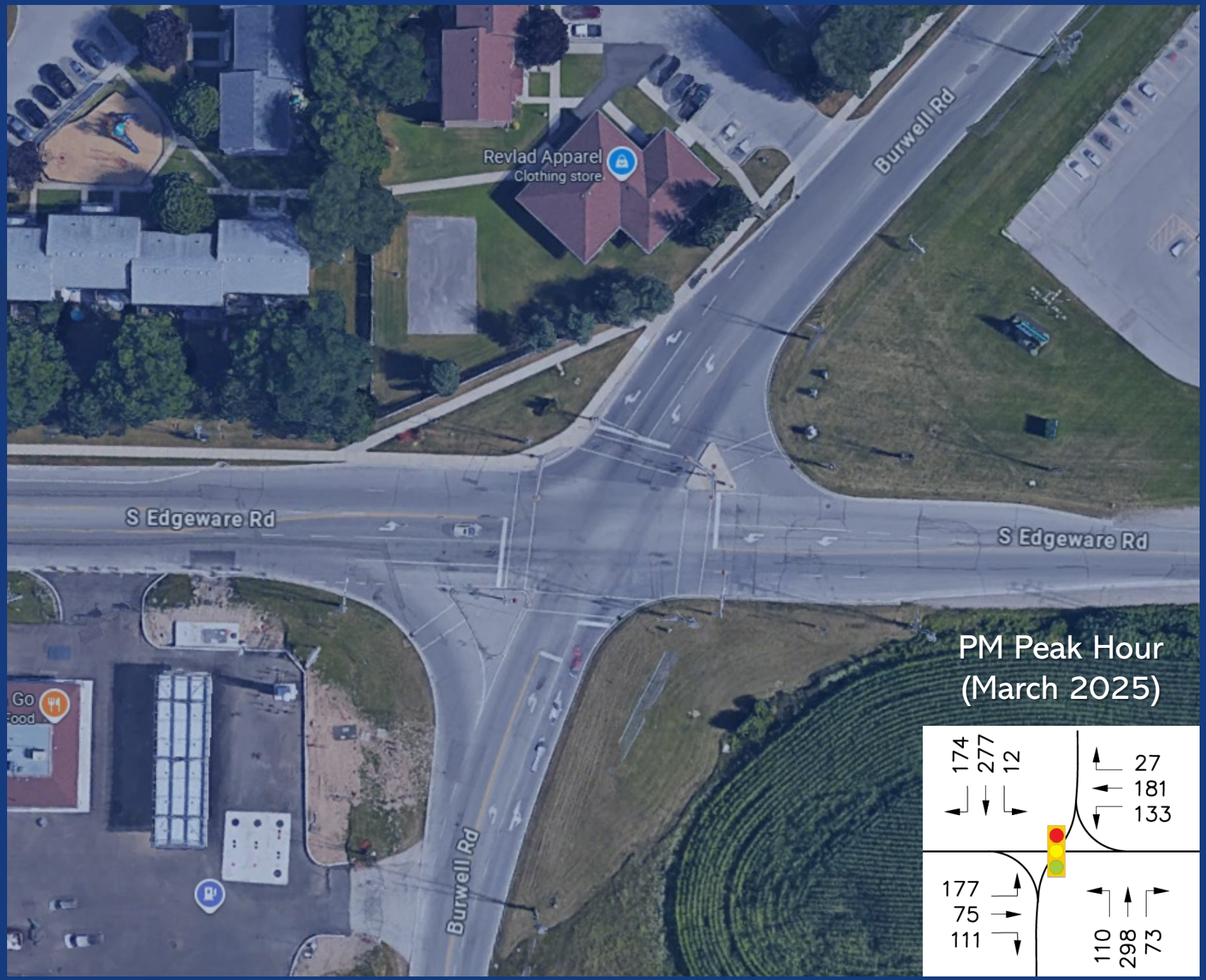


Existing Traffic PM Peak Hour

RC SPENCER ASSOCIATES INC.
Consulting Engineers

Collected turning movement counts provided the basis for industry-standard traffic operations review of intersection performance:

Level of Service (LOS), Intersection Capacity Utilization (ICU), Control Delay, Volume-to-Capacity (v/c) ratio, and 95th Percentile Queues



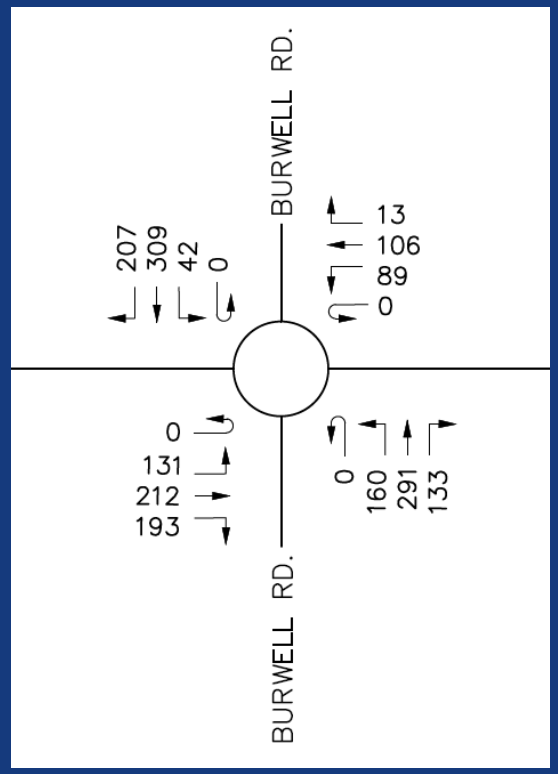
Future Traffic Conditions

RC SPENCER ASSOCIATES INC.
Consulting Engineers

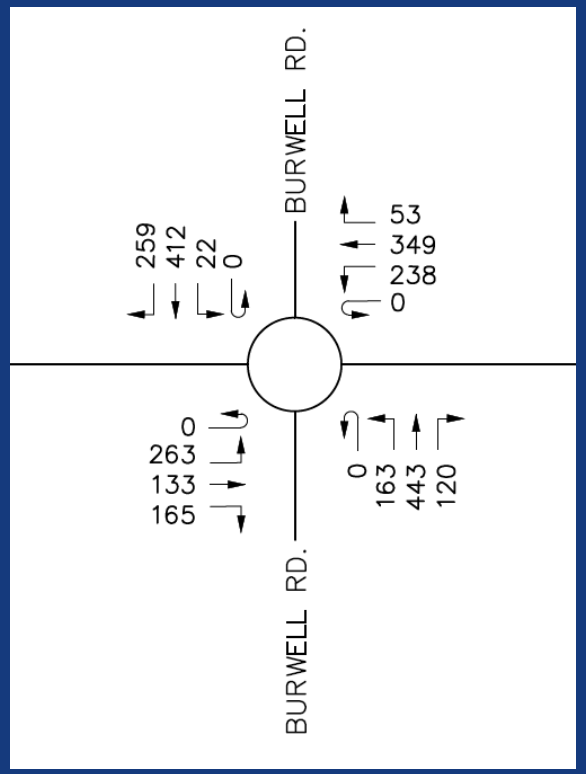


At the City's discretion, traffic operations were evaluated for the 2045 horizon year (representing a 20-year projection):

AM Peak Hour
Total 2045 Traffic

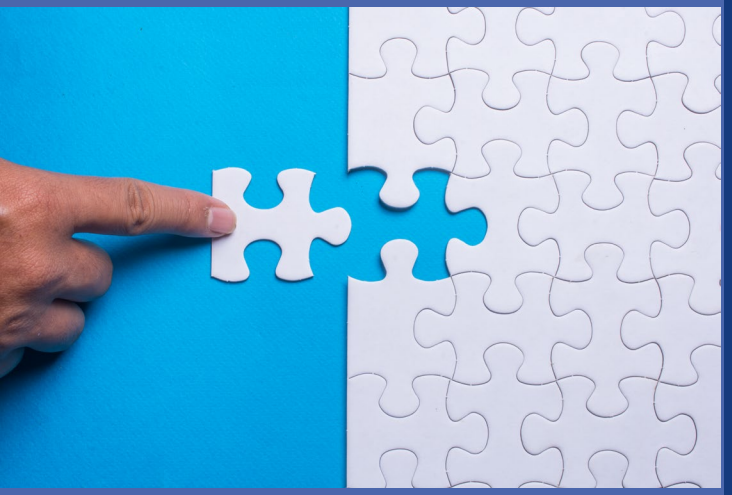


PM Peak Hour
Total 2045 Traffic



Phase 1: Problems / Opportunities

RC SPENCER ASSOCIATES INC.
Consulting Engineers



The September 2025 South Edgeware Road Corridor Study (authored by RC Spencer Associates Inc.) identified that the subject intersection of Burwell Road at South Edgeware Road should be reconstructed based on observed traffic operations and traffic safety considerations.

As noted on Page 14 of the September 2025 report, *"The intersection of Burwell Avenue at South Edgeware Road is also under consideration for the implementation of a roundabout. The intersection is currently signalized and is comprised of accessory lanes on all approaches. Due to the high volumes of traffic expected by the horizon year, a single-lane roundabout is insufficient; a two-lane roundabout is required to process the future traffic, particularly during the PM peak hour..."*

Phase 2: Alternative Solutions

RC SPENCER ASSOCIATES INC.
Consulting Engineers



When considering what geometric and / or traffic control improvements should be explored in the development and evaluation of alternative solutions (and in consideration of the technical work already completed as part of the September 2025 corridor study), it became apparent that only three alternatives are justifiably worth exploring as part of the subject Schedule B MCEA process:

Option 1:
Do Nothing (with Existing Geometric Conditions and Signal Control);

Option 2:
Optimized Signal Control (with Optimal Geometric Conditions);

Option 3:
Roundabout Control (with the City's Proposed Geometric Constraints).

Phase 2: Alternative Solutions

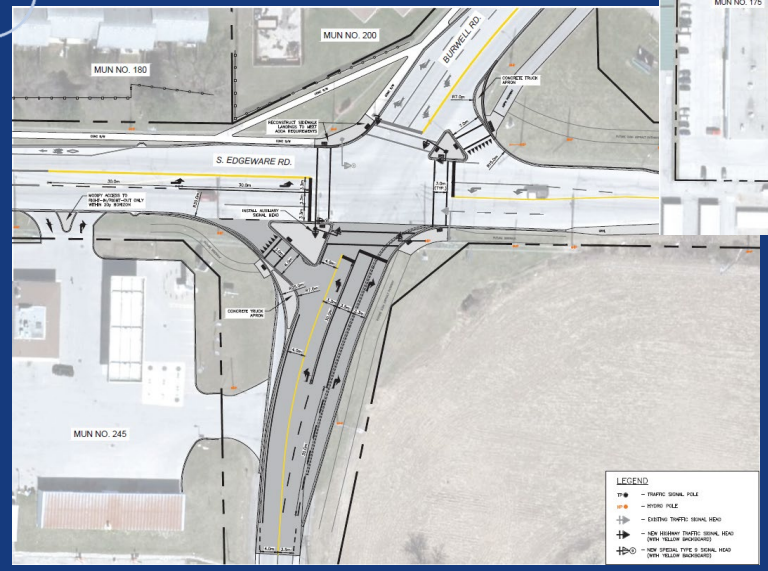
RC SPENCER ASSOCIATES INC.
Consulting Engineers

1. Do Nothing
2. Opt. Signal Control
3. Roundabout Control

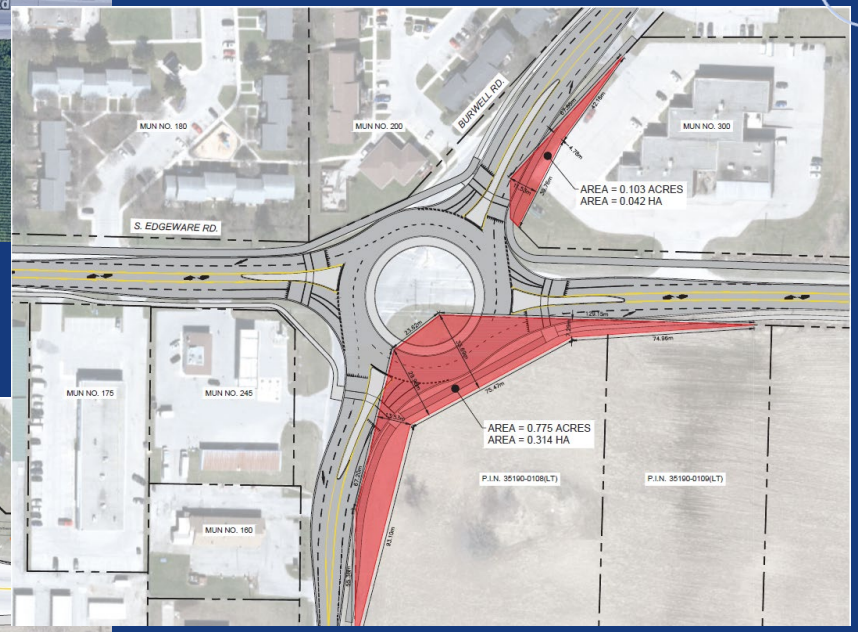
1



2



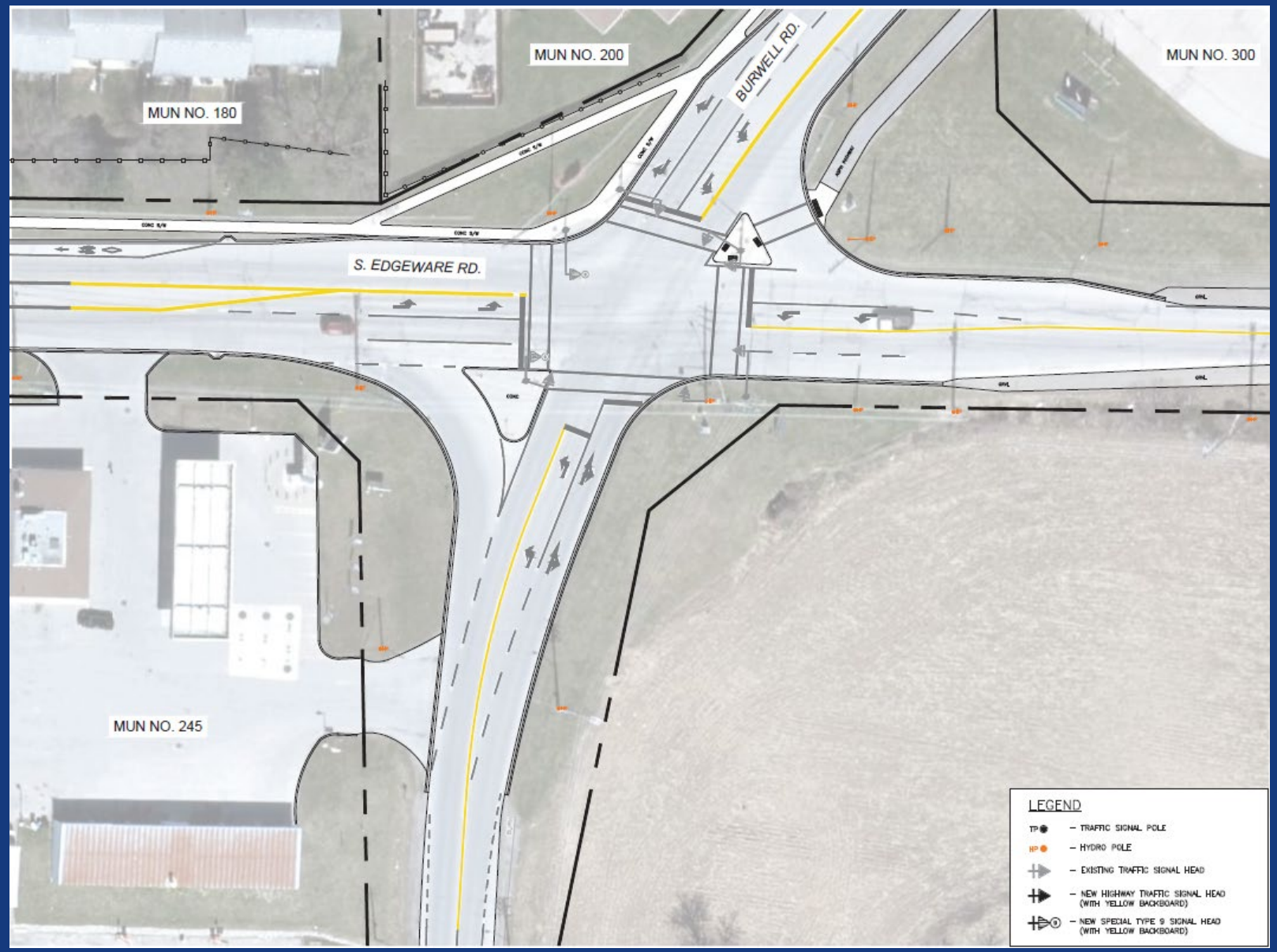
3



Option 1:
Do Nothing

RC SPENCER ASSOCIATES INC.
Consulting Engineers

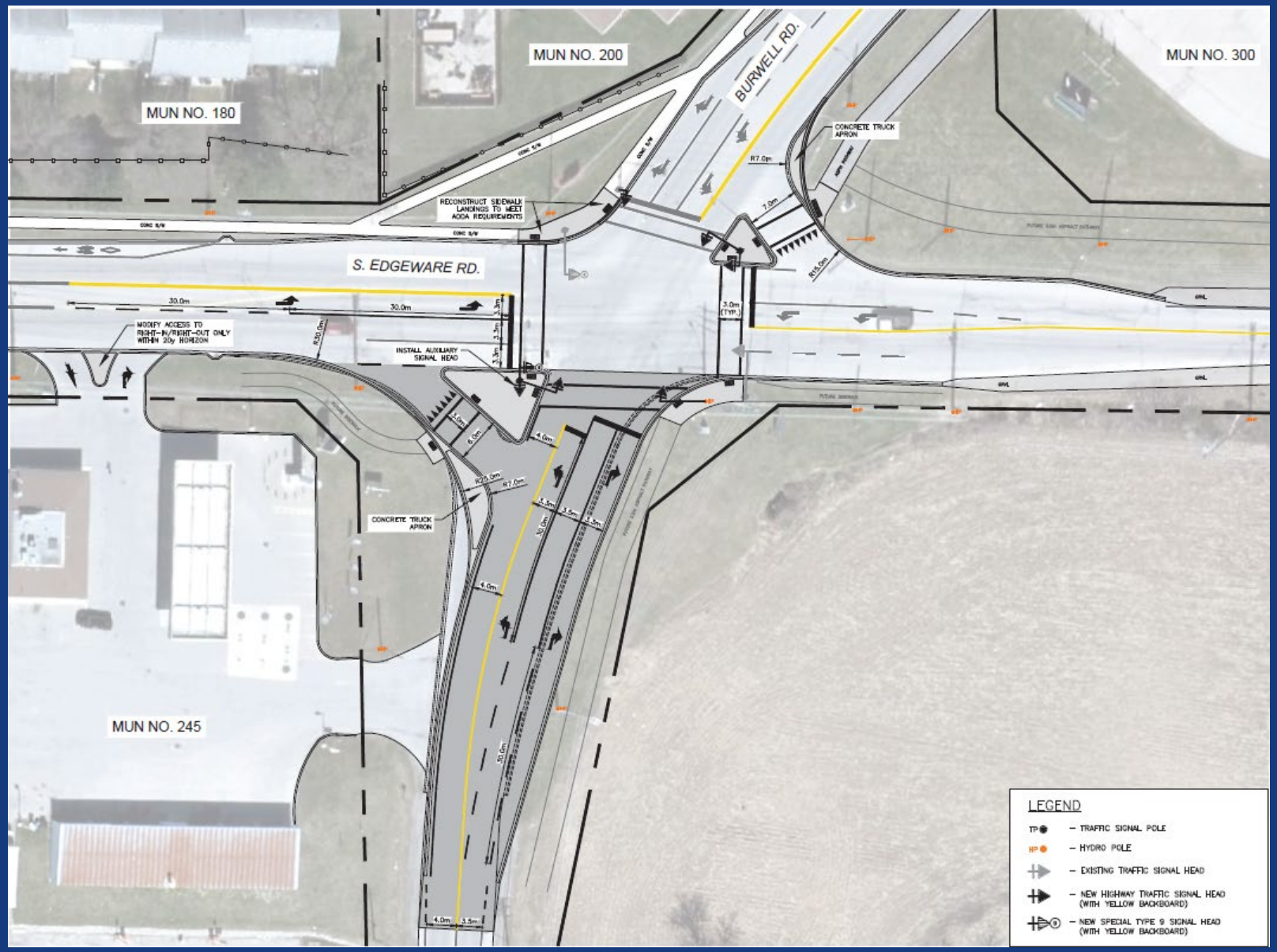
Option 1 represents the scenario where no geometric or traffic control changes are implemented within the 20-year horizon.



Option 2: Optimized Signal Control

RC SPENCER ASSOCIATES INC.
Consulting Engineers

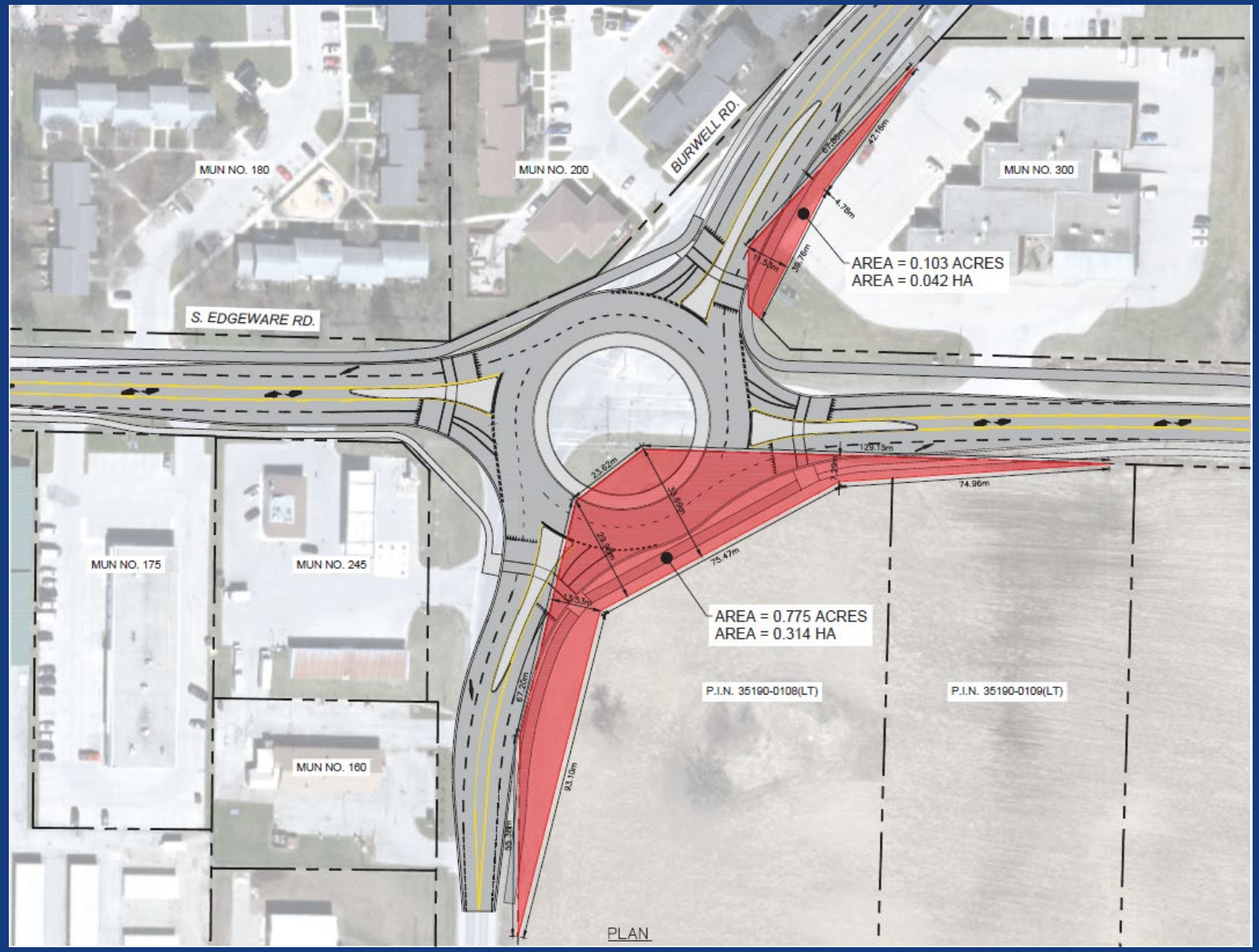
Option 2 incorporates optimized signal timings, addresses northbound and eastbound queues as best as possible (within the existing City right-of-way), and highlights the infrastructure modifications required to meet current accessibility standards.



Option 3: Roundabout Control

RC SPENCER ASSOCIATES INC.
Consulting Engineers

Option 3 incorporates geometric and traffic control improvements (and land acquisition) that would be required to implement a two-lane roundabout (with two-lane approaches on every leg of the intersection).



Cost Estimates

RC SPENCER ASSOCIATES INC.
Consulting Engineers

Based on the functional design plans, RC Spencer Associates Inc. prepared high-level cost estimates for the two intersection improvement alternatives (Options 2 and 3).

Cost Estimates

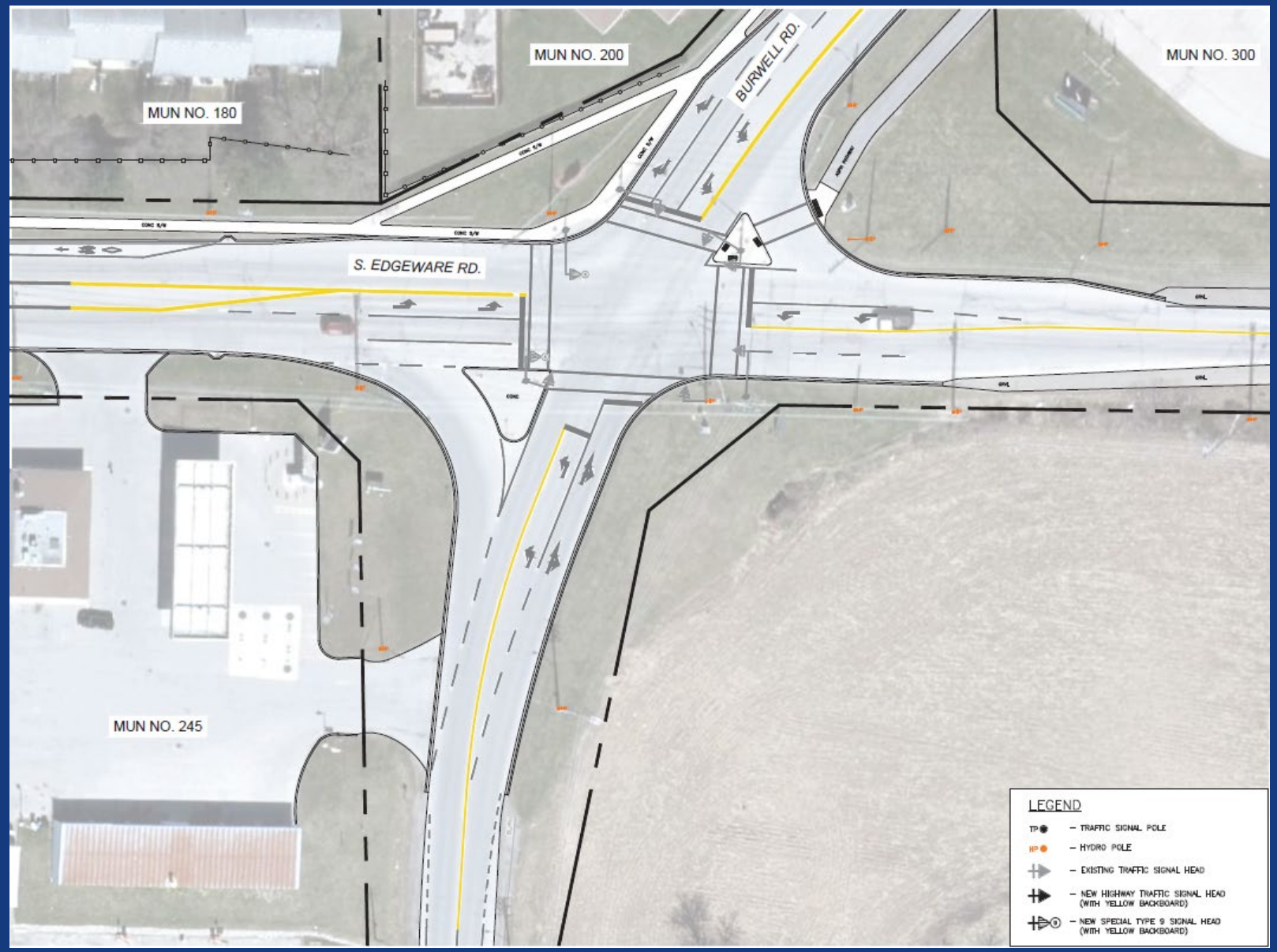
2 — $ 670,000.00

3 — $ 2,800,000.00

Option 1:
Do Nothing

RC SPENCER ASSOCIATES INC.
Consulting Engineers

Option 1 represents the scenario where no geometric or traffic control or changes are implemented within the 20-year horizon.



Option 1: Do Nothing

RC SPENCER ASSOCIATES INC.
Consulting Engineers

This table reports the 2045 traffic operations metrics for **Option 1 – Do Nothing.**

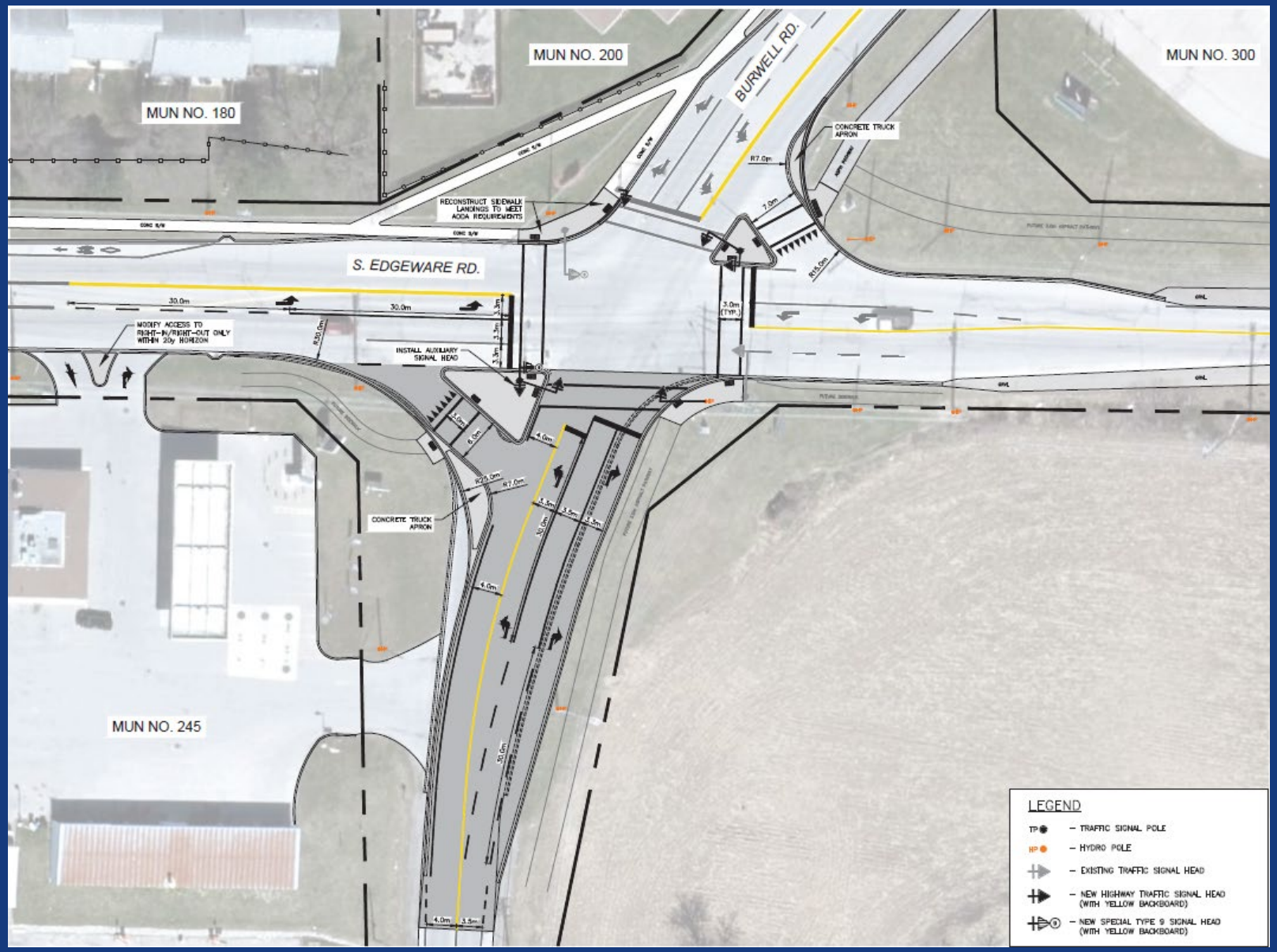
The results show that, with the current configuration and timings, excessive queueing will begin to develop on the northbound and eastbound approaches.

Intersection Movement	Traffic Control Type	Total Traffic 2045 - Option 1 - Do Nothing							
		AM Peak				PM Peak			
		V/C	Delay	LOS	95th %tile Queue (m)	V/C	Delay	LOS	95th %tile Queue (m)
EBL	Signal	0.31	15.3	B	22.8	**0.86**	44.2	D	**68.8**
EBT	Signal	0.18	12.6	B	15.1	0.11	10.9	B	9.9
EBR	Channel	0.32	3.8	A	11.7	0.25	3.2	A	9.5
WBL	Signal	0.25	14.8	B	17.5	0.54	18.2	B	40.8
WBT	Signal	0.18	13.1	B	18.1	0.53	16.2	B	52.4
WBR	Channel	0.03	0.1	A	0.4	0.09	3.9	A	5.4
NBL	Signal	0.47	17.8	B	29.2	0.73	36.9	D	45.6
NBT	Signal	0.67	18.4	B	66.8	**0.94**	42.7	D	**121.3**
NBR	Signal	0.67	18.4	B	66.8	**0.94**	42.7	D	**121.3**
SBL	Signal	0.17	13.0	B	9.3	0.19	17.0	B	6.7
SBT	Signal	0.46	15.1	B	45.1	0.68	21.8	C	70.0
SBR	Signal	0.31	3.2	A	10.5	0.41	6.5	A	19.7

Option 2: Optimized Signal Control

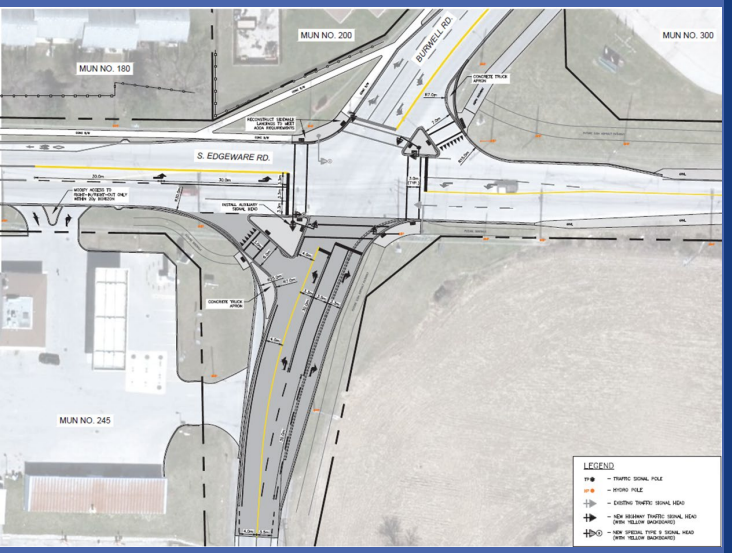
RC SPENCER ASSOCIATES INC.
Consulting Engineers

Option 2 incorporates optimized signal timings, addresses northbound and eastbound queues as best as possible (within the existing City right-of-way), and highlights the infrastructure modifications required to meet current accessibility standards.



Option 2: Optimized Signal Control

RC SPENCER ASSOCIATES INC.
Consulting Engineers



The improvements proposed in **Option 2** are as follows:

- Extension of the eastbound left turn lane to 30m to accommodate more queued vehicles.
- Extension of the northbound left turn lane to 30m and the widening of the road to add a dedicated northbound right turn lane; this minimizes queues in the through lane by allowing vehicles making right turns to slip-by during a 50th percentile queue.
- Reconstruction of the existing sidewalk landings on all approaches to meet AODA exterior path of travel regulations (full tactile plate coverage, curb ramp clear width, depressed curbs, accessible pedestrian pushbuttons, etc.).
- Replacement of several existing aluminum mast arms to ensure compliance with Ontario Traffic Manual (OTM) Book 12 best practices for traffic signal head location.
- Reconstruction of the channelized eastbound and westbound right turn lanes into “Smart Channels”.

Option 2: Optimized Signal Control

RC SPENCER ASSOCIATES INC.
Consulting Engineers

This table reports the 2045 traffic operations metrics for **Option 2 – Optimized Signal Control.**

The results show that, even with the optimized timings and geometries, queues exceeding capacity are still expected on the northbound and eastbound approaches.

Intersection Movement	Traffic Control Type	Total Traffic 2045 Option 2 – Optimized Signal Control							
		AM Peak				PM Peak			
		V/C	Delay	LOS	95th %tile Queue (m)	V/C	Delay	LOS	95th %tile Queue (m)
EBL	Signal	0.30	14.4	B	22.1	**0.91**	54.4	D	**71.2**
EBT	Signal	0.17	12.0	B	14.6	0.11	11.5	B	10.2
EBR	Channel	0.32	3.5	A	11.3	0.26	3.4	A	9.8
WBL	Signal	0.24	14.0	B	16.9	0.56	19.6	B	42.1
WBT	Signal	0.17	12.4	B	17.5	0.55	17.4	B	54.1
WBR	Channel	0.02	0.1	A	0.4	0.09	4.2	A	5.6
NBL	Signal	0.49	19.4	B	30.5	0.57	30.8	C	**43.2**
NBT	Signal	0.47	16.1	B	45.6	0.69	21.1	C	72.6
NBR	Signal	0.23	3.5	A	9.2	0.21	3.6	A	8.8
SBL	Signal	0.13	12.5	B	9.0	0.10	12.6	B	5.7
SBT	Signal	0.48	16.1	B	46.6	0.65	20.0	C	67.8
SBR	Signal	0.32	3.6	A	11.4	0.39	5.8	A	18.4

Option 2: Optimized Signal Control

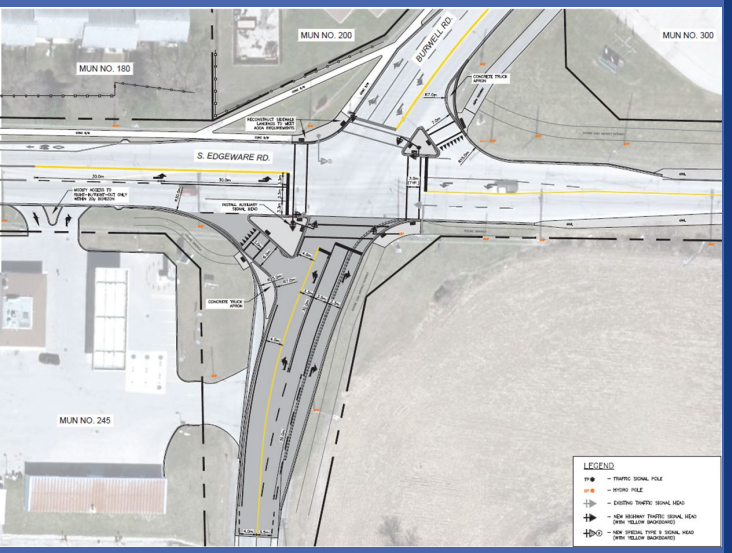
RC SPENCER ASSOCIATES INC.
Consulting Engineers

The implementation of protected left turn phases was considered, but due to the balanced split of traffic in the PM peak hour, any benefit gained on the targeted approach resulted in significant negative impacts on the other three approaches (and a worse overall intersection LOS).

Intersection Movement	Traffic Control Type	Total Traffic 2045 Option 2 – Optimized Signal Control							
		AM Peak				PM Peak			
		V/C	Delay	LOS	95th %tile Queue (m)	V/C	Delay	LOS	95th %tile Queue (m)
EBL	Signal	0.30	14.4	B	22.1	**0.91**	54.4	D	**71.2**
EBT	Signal	0.17	12.0	B	14.6	0.11	11.5	B	10.2
EBR	Channel	0.32	3.5	A	11.3	0.26	3.4	A	9.8
WBL	Signal	0.24	14.0	B	16.9	0.56	19.6	B	42.1
WBT	Signal	0.17	12.4	B	17.5	0.55	17.4	B	54.1
WBR	Channel	0.02	0.1	A	0.4	0.09	4.2	A	5.6
NBL	Signal	0.49	19.4	B	30.5	0.57	30.8	C	**43.2**
NBT	Signal	0.47	16.1	B	45.6	0.69	21.1	C	72.6
NBR	Signal	0.23	3.5	A	9.2	0.21	3.6	A	8.8
SBL	Signal	0.13	12.5	B	9.0	0.10	12.6	B	5.7
SBT	Signal	0.48	16.1	B	46.6	0.65	20.0	C	67.8
SBR	Signal	0.32	3.6	A	11.4	0.39	5.8	A	18.4

Option 2: Optimized Signal Control

RC SPENCER ASSOCIATES INC.
Consulting Engineers



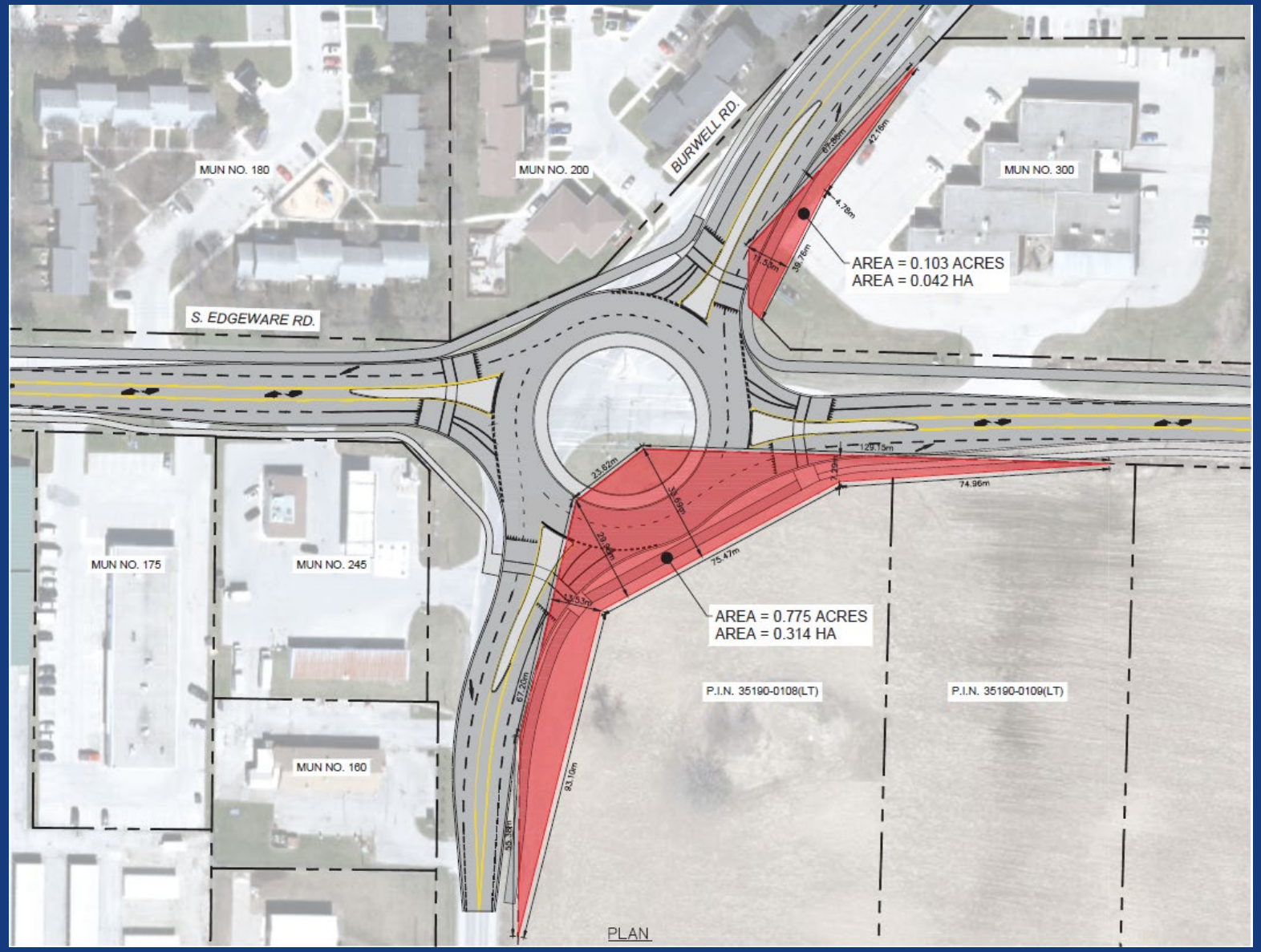
Site-specific concerns regarding signalized control:

- The existing intersection is at an “undesirable” 60° angle; from the TAC, *“Particular consideration should be given to maintaining an angle of skew within 10° of right angle.”*
- The existing intersection is on a curve; location of intersections on curves is not desirable due to decreased visibility, increased conflict potential for vehicles crossing the major roadway, and complications with roadway superelevation / widening on curves.
- The unusual geometric configuration of the existing intersection reduces driver visibility, increases the length of time required for pedestrians to complete a crossing maneuver, and increases the risk / severity of collisions.
- There is limited storage capacity on the southbound approach as traffic volumes continue to grow past the 20-year horizon.
- Site access to the west of the intersection (245 South Edgeware Rd) is frequently blocked during the 2045 PM peak hour.

Option 3: Roundabout Control

RC SPENCER ASSOCIATES INC.
Consulting Engineers

Option 3 incorporates geometric and traffic control improvements (and land acquisition) that would be required to implement a two-lane roundabout (with two-lane approaches on every leg of the intersection).



Option 3: Roundabout Control

RC SPENCER ASSOCIATES INC.
Consulting Engineers

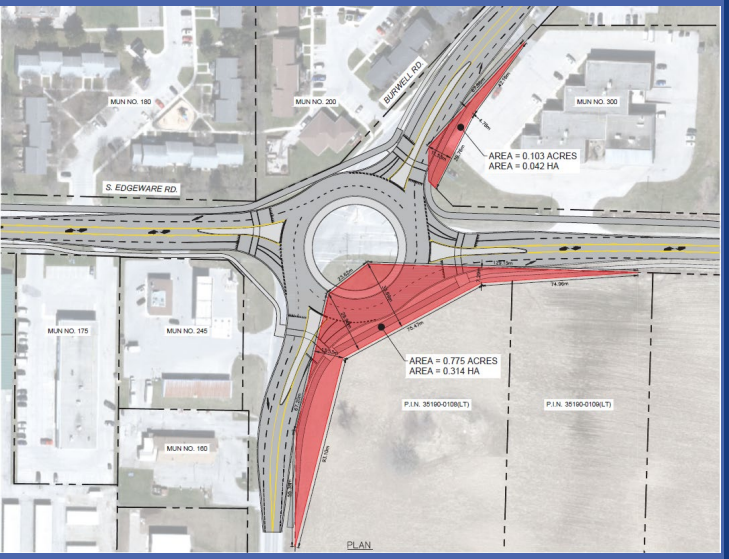
This table reports the 2045 traffic operations metrics for **Option 3 – Roundabout Control.**

The results show that two-lane roundabout control produces very good levels of service on all approaches.

Intersection Movement	Traffic Control Type	Total Traffic 2045 – Option 3 – Roundabout Control							
		AM Peak				PM Peak			
		V/C	Delay	LOS	95th %tile Queue (m)	V/C	Delay	LOS	95th %tile Queue (m)
EBL	Yield	0.25	2.14	A	1.4	0.28	2.36	A	1.6
EBT	Yield	0.25	2.14	A	1.4	0.28	2.36	A	1.6
EBR	Yield	0.25	2.14	A	1.4	0.28	2.36	A	1.6
WBL	Yield	0.12	2.21	A	0.5	0.39	3.36	A	2.9
WBT	Yield	0.12	2.21	A	0.5	0.39	3.36	A	2.9
WBR	Yield	0.12	2.21	A	0.5	0.39	3.36	A	2.9
NBL	Yield	0.26	2.11	A	1.5	0.33	2.26	A	2.1
NBT	Yield	0.26	2.11	A	1.5	0.33	2.26	A	2.1
NBR	Yield	0.26	2.11	A	1.5	0.33	2.26	A	2.1
SBL	Yield	0.28	2.32	A	1.5	0.45	4.04	A	2.7
SBT	Yield	0.28	2.32	A	1.5	0.45	4.04	A	2.7
SBR	Yield	0.28	2.32	A	1.5	0.45	4.04	A	2.7

Option 3: Roundabout Control

RC SPENCER ASSOCIATES INC.
Consulting Engineers



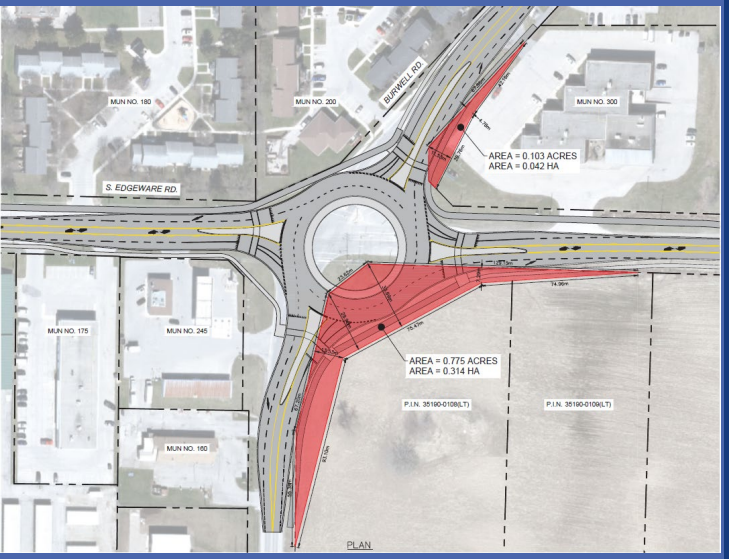
Site-specific observations in support of roundabout control:

- 2045 PM Peak Hour traffic projections show a balanced 55% / 45% traffic split N-S / E-W; balanced traffic splits limit the effectiveness of signal control and restrict which optimization strategies can be implemented as traffic volumes continue to increase.
- The large existing public right-of-way allows for roundabout control to be implemented with relatively little property acquisition.
- Heavy left turn volumes (like those present at this intersection) are more easily managed by roundabout control than signalized intersection control.
- Motorists have an easier time seeking gaps during peak hour traffic and are not enticed to make unsafe maneuvers.

Of note, this intersection was identified as being a candidate for a roundabout control in the Transportation Master Plan Refresh.

Option 3: Roundabout Control

RC SPENCER ASSOCIATES INC.
Consulting Engineers



Transportation Association of Canada support of roundabout control:

Safety – Reduce collision frequency and severity compared to stop-controlled and signalized intersections (particularly at skewed intersections); by eliminating the potential for head-on, right-angle, and left-turning conflicts, and significantly reducing vehicle speeds, roundabouts have been proven to reduce injury collisions by 75%, and fatal collisions by at least 95%.

Operational – Operate with lower delays, shorter queues, and higher operational capacity than stop-controlled and signalized intersections.

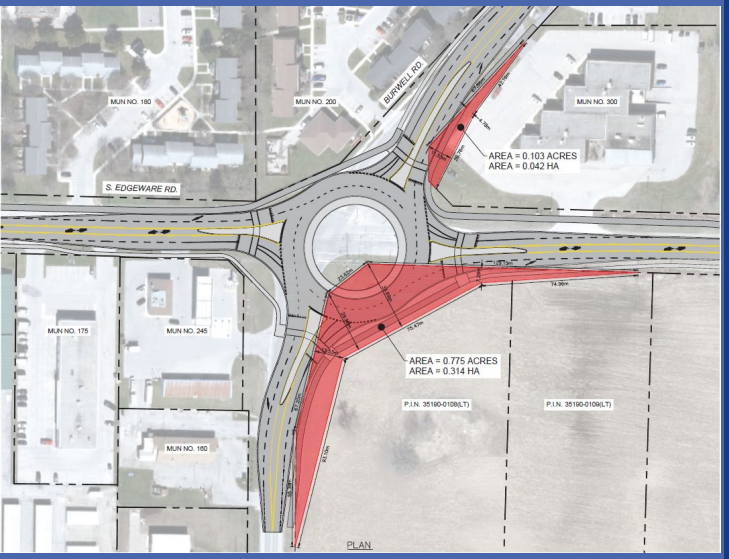
Aesthetics – Can serve as community focal points and provide the opportunity for additional streetscape features.

Economic – Require less maintenance than traffic signals, offer time and fuel savings to drivers, and provide societal cost savings through less severe and fewer collisions.

Sustainability – Reduce vehicle fuel consumption and idle time; reduce the energy required to accelerate and decelerate.

Option 3: Roundabout Control

RC SPENCER ASSOCIATES INC.
Consulting Engineers



Site-specific concerns regarding roundabout control:

Cost

Per the Preliminary Cost Estimate, roundabout control construction is expected to cost approximately $2,800,000; although this is about 4.2x greater than the cost of performing targeted signal control improvements at this intersection, over time, savings can offset the higher upfront construction cost, with life-cycle costs of roundabout control being lower than signal control over a 25-year span.

Land Acquisition

The implementation of a roundabout at this intersection would require the acquisition of 0.356 ha of private property to the northeast and southeast; the expected costs of property acquisition were included in the Preliminary Cost Estimate.

Public & Agency Input

RC SPENCER ASSOCIATES INC.
Consulting Engineers

Have your say!

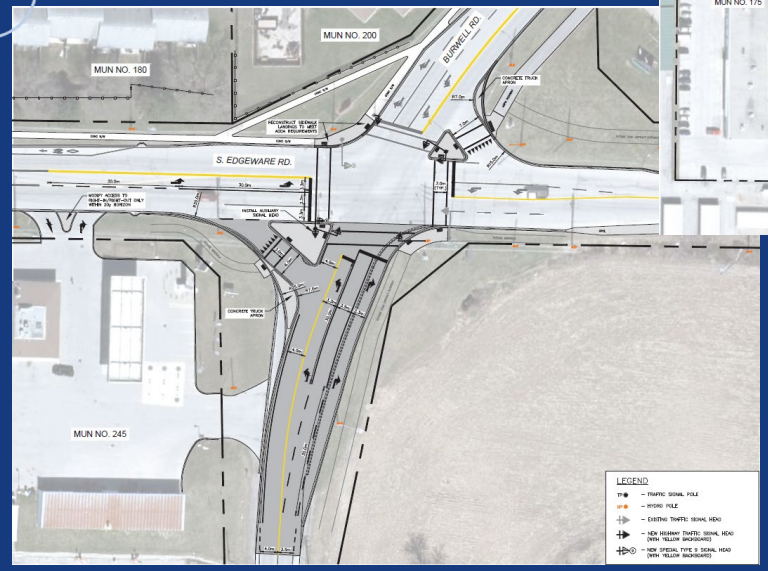
We are seeking public input on the three presented alternatives. For input, information, or to be added to the mailing list, contact:

Mr. Daniel Koppert, LET, PMP
City of St. Thomas
Manager of Capital Works
E: dkoppert@stthomas.ca

1

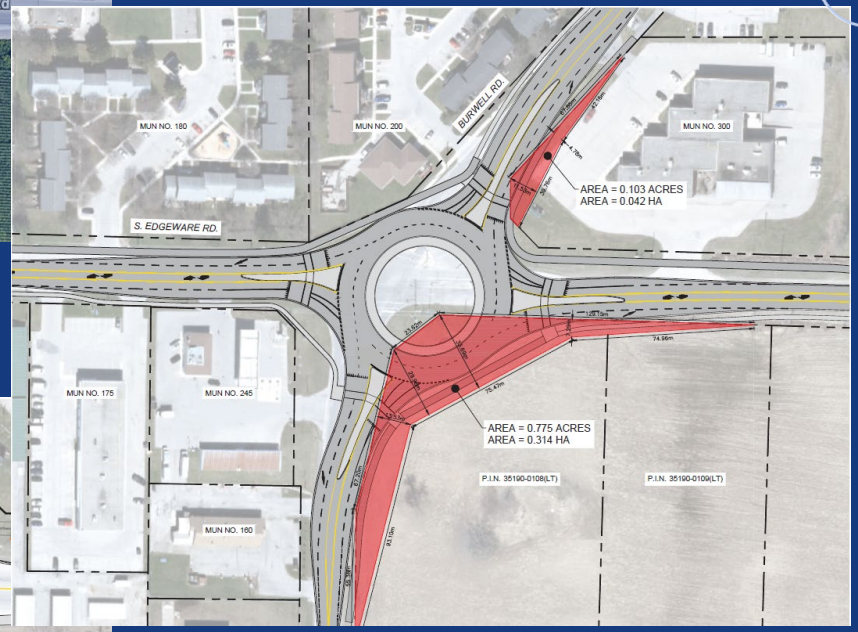


2



THANK YOU!

3



Alternatively, you can contact:

Mr. Aaron Blata, P.Eng., PTOE, RSP1
RC Spencer Associates Inc.
Consulting Engineers
E: ablata@rcspencer.ca

Appendix G

RESPONSE TO

PUBLIC REQUEST FOR INPUT

ablata@rcspencer.ca

From: Koppert, Dan <dkoppert@stthomas.ca>
Sent: April 30, 2026 12:27 PM
To: Janet Kasper
Subject: Re: Burwell and SouthEdgeware intersecton

Hello Janet,

Thank you for your interest in the South Edgeware and Burwell Road Intersection Improvement Environmental Assessment. Your feedback is valued. All comments are reviewed and incorporated in the Project File for consideration in selecting the best alternative for intersection improvements.

I also note your comment regarding the lighting at the 1Password roundabout, which will be passed on to our Roads and Transportation service area for review and corrective action as required.

Regards,

ST. THOMAS
THE RAILWAY CITY

Daniel Koppert, LET, PMP
Manager of Capital Works
Phone: 519-631-1680 x4260

From: Janet Kasper <jpattison325@gmail.com>
Sent: Thursday, April 30, 2026 10:30 AM
To: Koppert, Dan <dkoppert@stthomas.ca>
Subject: Burwell and SouthEdgeware intersecton

You don't often get email from jpattison325@gmail.com. Learn why this is important

CAUTION:
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello, living in the Confederation Dr area i would like to share my input with you.

I feel a large traffic circle would be the best option. Option 3. This is as long as it is positioned where shown, not interfering with the gas station or the subdivision. Also noted is the new sidewalk on the ne side of the intersection. Badly needed. Bicycle traffic has also increased in the area.

As an aside - please pass on that the 1 password place traffic circle is a hazard at night. It needs to be lite. It is not being seen until people are too close to it. At the very least a light inside the soccer ball or several around the exterior.
Solar panel?

Thanks for listening

Have a wonderful day!

Janet Kasper
647 519-4276
jpattison325@gmail.com

“Live in such a way that if someone were to speak badly of you, no one would believe it.”~ Zig Ziglar

ablata@rcspencer.ca

From: Koppert, Dan <dkoppert@stthomas.ca>
Sent: April 30, 2026 12:31 PM
To: Robert Hawley
Subject: Re: Burwell&southedgeware

Hello Robert,

Thank you for your interest in the South Edgeware and Burwell Road Intersection Improvement Environmental Assessment. Your feedback is valued. All comments are reviewed and incorporated in the Project File for consideration in selecting the best alternative for the planned intersection improvements.

Regards,

Daniel Koppert, LET, PMP
Manager of Capital Works
Phone: 519-631-1680 x4260

From: Robert Hawley <robhawley18@icloud.com>
Sent: Thursday, April 30, 2026 10:07 AM
To: Koppert, Dan <dkoppert@stthomas.ca>
Subject: Burwell&southedgeware

[You don't often get email from robhawley18@icloud.com. Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

CAUTION:
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I'm reaching out to express my interest in voting for option #3, roundabout control for the intersection of burwell&southedgeware.

ablata@rcspencer.ca

From: Koppert, Dan <dkoppert@stthomas.ca>
Sent: April 30, 2026 12:40 PM
To: Sarah Mann
Subject: Re: Re the intersection of Burwell and S Edgeware

Hello Sarah,

Thank you for your interest in the South Edgeware and Burwell Road Intersection Improvement Environmental Assessment. Your feedback is valued. All comments are reviewed and incorporated in the Project File for consideration in selecting the best alternative for the planned intersection improvements.

Your comment regarding transit, pedestrian and cyclist accommodations are noted. Improvements on South Edgeware Road will include new cycling facilities, and cyclists will be considered in each intersection improvement alternative under the Environmental Assessment. I also note that Burwell Road south of South Edgeware Road has been marked for future active transportation improvements in the Transportation Master Plan Update conducted in 2025.

Regards,

ST. THOMAS
THE RAILWAY CITY

Daniel Koppert, LET, PMP
Manager of Capital Works
Phone: 519-631-1680 x4260

From: Sarah Mann <sarahdmann@hotmail.com>
Sent: Thursday, April 30, 2026 9:44 AM
To: Koppert, Dan <dkoppert@stthomas.ca>
Subject: Re the intersection of Burwell and S Edgeware

[You don't often get email from sarahdmann@hotmail.com. Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

CAUTION:
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi there
The only piece I wanted to bring forward to make sure it was considered, is that students to both St Joes and CECI would ideally use this path to get to school. I live in Dalewood and my son just recently finished up at CECI. As he does not get school bus, and city bus is unpredictable at best, riding his bike to school could be an option however sections of Burwell are not ideal to allow for this safely. I'd hope that cyclists are taken into consideration for all of these options.
Many thanks!
Sarah Mann
Sent from my iPhone

ablata@rcspencer.ca

From: Koppert, Dan <dkoppert@stthomas.ca>
Sent: April 30, 2026 12:42 PM
To: Angella Edwards
Subject: Re: South Edgeware and Burwell Rd

Angella,

Thank you for your interest in the South Edgeware and Burwell Road Intersection Improvement Environmental Assessment. Your feedback is valued. All comments are reviewed and incorporated in the Project File for consideration in selecting the best alternative for the planned intersection improvements.

Regards,

ST. THOMAS
THE RAILWAY CITY

Daniel Koppert, LET, PMP
Manager of Capital Works
Phone: 519-631-1680 x4260

From: Angella Edwards <angella_edwards@icloud.com>
Sent: Thursday, April 30, 2026 9:41 AM
To: Koppert, Dan <dkoppert@stthomas.ca>
Subject: South Edgeware and Burwell Rd

[You don't often get email from angella_edwards@icloud.com. Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

CAUTION:
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I think that there should be nothing done. Option one is my opinion as there is no need to add another roundabout in town and these lights are just fine and have been for years. London has so much more traffic and they have lights at most intersections and it works well.
Sent from my iPhone
Angella Edwards

ablata@rcspencer.ca

From: Koppert, Dan <dkoppert@stthomas.ca>
Sent: May 1, 2026 10:08 AM
To: Tony Stea
Subject: Re: Burwell Road Improvements

Hi Tony,

Thank you for your interest in the South Edgeware and Burwell Road Intersection Improvement Environmental Assessment. Your feedback is valued. All comments are reviewed and incorporated in the Project File for consideration in selecting the best alternative for intersection improvements.

Your contact information has been added to the contact list to receive any future updates for the project.

Regards,

ST. THOMAS
THE RAILWAY CITY

Daniel Koppert, LET, PMP
Manager of Capital Works
Phone: 519-631-1680 x4260

From: Tony Stea <steatony@gmail.com>
Sent: Thursday, April 30, 2026 1:43 PM
To: Koppert, Dan <dkoppert@stthomas.ca>
Subject: Burwell Road Improvements

[You don't often get email from steatony@gmail.com. Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

CAUTION:
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good day I would like to be added for updates on upcoming project. Also I would like to add that this is a very busy intersection and would be better served with what I believe was your option 2 with geographical reconfiguration and maintaining traffic lights to better control the traffic.

Thank you
Tony Stea
519-808-9598
Sent from my iPhone

ablata@rcspencer.ca

From: Koppert, Dan <dkoppert@stthomas.ca>
Sent: May 4, 2026 1:36 PM
To: Bre Betts
Subject: Re: South Edgeware and Burwell project

Hi Bre,

Thank you for your interest in the South Edgeware and Burwell Road Intersection Improvement Environmental Assessment. Your feedback is valued. All comments are reviewed and incorporated in the Project File for consideration in selecting the best alternative for intersection improvements.

Regards,

ST. THOMAS
THE RAILWAY CITY

Daniel Koppert, LET, PMP
Manager of Capital Works
Phone: 519-631-1680 x4260

From: Bre Betts <bettsbreappleid@gmail.com>
Sent: Thursday, April 30, 2026 6:22 PM
To: Koppert, Dan <dkoppert@stthomas.ca>
Subject: South Edgeware and Burwell project

[You don't often get email from bettsbreappleid@gmail.com. Learn why this is important at https://aka.ms/LearnAboutSenderIdentification]

CAUTION:
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi there!

I'm not a Facebook commenter, but did review the presentation, and wanted to suggest very strong support for option 2 - perhaps with extra focus on how we can make that intersection more authentically pleasing. With clearer, and perhaps more, lanes, advance signals, etc., I think it'll be equally effective.

That said, it doesn't currently need anything, in my opinion. I use it many times per day and never spend more than 30 seconds at that intersection (average of five seconds); even with those projected increases, the roundabout feels like overkill.

Also, it's not an exaggeration that this city would benefit from mandatory roundabout training for drivers...food for thought if you go that route, that some would benefit from educational materials. Perhaps even a mailout (I wish I was kidding!).

Thanks!

Bre Betts

Sent from my iPhone

ablata@rcspencer.ca

From: Koppert, Dan <dkoppert@stthomas.ca>
Sent: May 4, 2026 1:38 PM
To: Jill Beechey
Subject: Re: Burrell Rd at South Edgeware

Hi Jill,

Thank you for your interest in the South Edgeware and Burwell Road Intersection Improvement Environmental Assessment. Your feedback is valued. All comments are reviewed and incorporated in the Project File for consideration in selecting the best alternative for intersection improvements.

Regards,

ST. THOMAS
THE RAILWAY CITY

Daniel Koppert, LET, PMP
Manager of Capital Works
Phone: 519-631-1680 x4260

From: Jill Beechey <jillbeechey13@gmail.com>
Sent: Friday, May 1, 2026 8:02 AM
To: Koppert, Dan <dkoppert@stthomas.ca>
Subject: Burrell Rd at South Edgeware

You don't often get email from jillbeechey13@gmail.com. Learn why this is important

CAUTION:
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning;

After reviewing the options...
I would like to say, I have had enough of roundabouts. I find the cost of them totally unjustified.
Even with the growth of the city, that corner should be left alone. I dont know why things that aren't broken have to be changed.
As a tax payer I would say option 1 would be my first choice and option 2 only if totally necessary.
If you want traffic to flow from the new industrial area, have it follow down Centennial.
Stop wasting tax payers money on things like this.

Respectfully
Jill Beechey

ablata@rcspencer.ca

From: Koppert, Dan <dkoppert@stthomas.ca>
Sent: May 4, 2026 1:43 PM
To: Eric Koegler
Subject: Re: Burwell Rd at South Edgeware Rd Traffic Alternatives ...

Hi Eric,

Thank you for your interest in the South Edgeware and Burwell Road Intersection Improvement Environmental Assessment. Your feedback is valued. All comments are reviewed and incorporated in the Project File for consideration in selecting the best alternative for intersection improvements.

To provide feedback regarding the proposed intersection alternatives, simply send an email with your input to myself (dkoppert@stthomas.ca) and/or our consultant, RC Spencer Associates (ablata@rcspencer.ca). The alternatives can be viewed on the City of St. Thomas website, at www.stthomas.ca/southedgeware-ea.

Regards,

ST. THOMAS
THE RAILWAY CITY

Daniel Koppert, LET, PMP
Manager of Capital Works
Phone: 519-631-1680 x4260

From: Eric Koegler <ekoegler.ek@gmail.com>
Sent: Friday, May 1, 2026 1:16 PM
To: Koppert, Dan <dkoppert@stthomas.ca>
Subject: Burwell Rd at South Edgeware Rd Traffic Alternatives ...

You don't often get email from ekoegler.ek@gmail.com. Learn why this is important

CAUTION:
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello,

Regarding the BURWELL ROAD at SOUTH EDGEWARE ROAD, Schedule B Class EA, Presentation of Alternatives.

I would like to be included in the mailing list for this proposal to provide my public input. I use this intersection many times a day (Mon - Fri) for work and have narrowly missed being involved in accidents on many occasions.

What do I need to do to provide my "2 cents worth" ?

Thank you!

CHeers, Eric Koegler
Be Safe & Be Kind

ablata@rcspencer.ca

From: Koppert, Dan <dkoppert@stthomas.ca>
Sent: May 4, 2026 1:47 PM
To: Anne-Marie Nicli
Subject: Re: South Edgeware Road and Burwell Road Intersection Improvements – Environmental Assessment

Hello Anne-Marie,

Thank you for your interest in the South Edgeware and Burwell Road Intersection Improvement Environmental Assessment. Your feedback is valued. All comments are reviewed and incorporated in the Project File for consideration in selecting the best alternative for intersection improvements.

Your contact information has been added to the contact list to receive any future updates for the project.

Regards,

ST. THOMAS
THE RAILWAY CITY

Daniel Koppert, LET, PMP
Manager of Capital Works
Phone: 519-631-1680 x4260

From: Anne-Marie Nicli <anicli@elginconstruction.net>
Sent: Monday, May 4, 2026 9:47 AM
To: Koppert, Dan <dkoppert@stthomas.ca>
Subject: South Edgeware Road and Burwell Road Intersection Improvements – Environmental Assessment

You don't often get email from anicli@elginconstruction.net. Learn why this is important

CAUTION:
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Daniel, good morning. I have received a letter in the mail about the assessment for possible changes to the above intersection. As my business and employee commuters will be impacted by possible traffic flow changes, I'd like to ask that I am added or maintained on the mailing list for this project please. Thank you.

Regards,

Anne-Marie Nicli | Vice President
T: 519.631.5041 ext.223 | **M:** 519-694-0707
Elgin Construction Company Limited | 140 Burwell Road, St. Thomas, ON N5P 3R8
President | Nicli Equipment Limited | R. Nicli Property Inc. | R. Nicli Holdings Inc.
www.elginconstruction.net
anicli@elginconstruction.net



ELGIN CONSTRUCTION
COMPANY LIMITED
Grounded in Tradition, Driven by Progress Since 1944

This email message and any attached files are intended only for the use of the individual or entity to which they are addressed and may contain information that is confidential, proprietary, privileged and/or exempt from disclosure under applicable law. If the reader of this message is not the intended recipient you are notified that any distribution, copying, disclosure and use of, or reliance on the contents of this transmission is strictly prohibited. If you have received this transmission in error, please notify the sender immediately by return e-mail and destroy the transmission by deleting the original message attachments and all copies.
The organization accepts no liability for any damage caused by any virus transmitted by this email. Email transmission cannot be guaranteed to be secure or error-free, as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender, therefore, does not accept liability for any errors or omissions in the contents of this message which arise as a result of email transmission

ablata@rcspencer.ca

From: Koppert, Dan <dkoppert@stthomas.ca>
Sent: May 4, 2026 2:25 PM
To: ultramar2017@hotmail.com
Cc: Aaron Blata; Brix, Michael
Subject: Re: Notice of Study Commencement – Intersection of South Edgeware Rd and Burwell Rd

Hi Marcel,

Thank you for your interest in the South Edgeware and Burwell Road Intersection Improvement Environmental Assessment. Your feedback is valued. All comments are reviewed and incorporated in the Project File for consideration in selecting the best alternative for intersection improvements.

We acknowledge your concerns regarding business access, heavy truck access, and construction impacts. Please know that we will take these concerns into consideration for the Environmental Assessment and for detailed design of the selected alternative. If you would like, we would be happy to meet with you to discuss the impacts of the proposed alternatives specifically related to your property and business.

As per your request, your contact information has been added to the contact list to receive any future updates for the project.

Regards,

ST. THOMAS
THE RAILWAY CITY

Daniel Koppert, LET, PMP
Manager of Capital Works
Phone: 519-631-1680 x4260

From: Ultramar St. Thomas <ultramar2017@hotmail.com>
Sent: Tuesday, April 28, 2026 7:06 AM
To: ablata@rcspencer.ca <ablata@rcspencer.ca>; Koppert, Dan <dkoppert@stthomas.ca>
Subject: Notice of Study Commencement – Intersection of South Edgeware Rd and Burwell Rd

You don't often get email from ultramar2017@hotmail.com. Learn why this is important

CAUTION:
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Koppert and Mr. Blata,

I am writing as the owner of the commercial property at 245 South Edgeware Road (Ultramar / 6-Bay Car Wash) regarding the Notice of Study Commencement for the intersection of South Edgeware and Burwell Road.

Please add my business to the project mailing list to ensure I receive all future updates.

As you evaluate intersection options, I ask that the following business requirements be considered:

●Heavy Vehicle Access: My site requires regular access for fuel tankers and large delivery trucks. Any new intersection design (such as a roundabout or modified curbing) must maintain a turning radius that allows these vehicles to navigate the area safely and efficiently.

●Entrance Access: Maintaining clear, unobstructed access for customers at my current South Edgeware Road entrances is vital. I am concerned about any potential medians or turn restrictions that could impact traffic flow into the property.

●Construction Mitigation: My business operates daily from 6:00 AM to 10:00 PM. I would like to be kept informed on how the city intends to maintain continuous, safe access for my customers and staff during these operational hours throughout the construction phase.

I look forward to reviewing the project updates as they become available.

Regards,
Marcel Odesho
Owner, 2596455 ONTARIO INC.
Ultramar St. Thomas
245 South Edgeware Rd, St. Thomas, ON

ablata@rcspencer.ca

From: Koppert, Dan <dkoppert@stthomas.ca>
Sent: May 5, 2026 8:44 AM
To: Eric Koegler
Subject: Re: Burwell Rd at South Edgeware Rd Traffic Alternatives ... feedback

Eric,

Thank you for your detailed comments. Your feedback is appreciated.

Regards,

Daniel Koppert, LET, PMP
Manager of Capital Works
Phone: 519-631-1680 x4260

From: Eric Koegler <ekoegler.ek@gmail.com>
Sent: Monday, May 4, 2026 3:42 PM
To: Koppert, Dan <dkoppert@stthomas.ca>
Subject: Re: Burwell Rd at South Edgeware Rd Traffic Alternatives ... feedback

You don't often get email from ekoegler.ek@gmail.com. Learn why this is important

CAUTION:
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Mr Koppert,

Thank you for the opportunity to provide feedback on this project.

I'm a delivery driver in and around St Thomas and I (we) use this intersection all the time.

One thing I have found myself, and witnessed happening to other drivers at that intersection are twofold:

1. The dedicated right turn 'slip lane' (westound S Edgeware to northbound Burwell is a constant danger zone as drivers using that turn lane don't give the right-of-way to drivers northbound on Burwell or those turning left off S Edgeware. Not a day goes by where I don't see a very close call or people having to brake hard to avoid a collision.

2. When going eastbound on S Edgeware, the left turn lane at Burwell is almost blind to oncoming westbound traffic (especially when trucks are in the left turn lane from westbound Edgeware to southbound Burwell) and, as above, many times causes close calls. It's due to the offset E/W road at that intersection.

I believe option 3, Roundabout Control, would be the best. People becoming used to roundabouts and I think would be the best alternative.

Option 2 would be my 2nd choice, but doing nothing (Option 1) is an accident waiting to happen.

CHeers, Eric Koegler
Be Safe & Be Kind
519-280-6912 (mobile)

On Mon, May 4, 2026, 1:43 p.m. Koppert, Dan <dkoppert@stthomas.ca> wrote:

Hi Eric,

Thank you for your interest in the South Edgeware and Burwell Road Intersection Improvement Environmental Assessment. Your feedback is valued. All comments are reviewed and incorporated in the Project File for consideration in selecting the best alternative for intersection improvements.

To provide feedback regarding the proposed intersection alternatives, simply send an email with your input to myself (dkoppert@stthomas.ca) and/or our consultant, RC Spencer Associates (ablata@rcspencer.ca). The alternatives can be viewed on the City of St. Thomas website, at www.stthomas.ca/southedgeware-ea.

Regards,

ST. THOMAS
THE RAILWAY CITY

Daniel Koppert, LET, PMP
Manager of Capital Works
Phone: 519-631-1680 x4260

From: Eric Koegler <ekoegler.ek@gmail.com>
Sent: Friday, May 1, 2026 1:16 PM
To: Koppert, Dan <dkoppert@stthomas.ca>
Subject: Burwell Rd at South Edgeware Rd Traffic Alternatives ...

You don't often get email from ekoegler.ek@gmail.com. Learn why this is important

CAUTION:
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello,

Regarding the BURWELL ROAD at SOUTH EDGEWARE ROAD, Schedule B Class EA, Presentation of Alternatives.

I would like to be included in the mailing list for this proposal to provide my public input. I use this intersection many times a day (Mon - Fri) for work and have narrowly missed being involved in accidents on many occasions.

What do I need to do to provide my "2 cents worth" ?

Thank you!

CHeers, Eric Koegler
Be Safe & Be Kind

ablata@rcspencer.ca

From: Koppert, Dan <dkoppert@stthomas.ca>
Sent: May 7, 2026 1:19 PM
To: Dave Anderson
Subject: Re: Add me to the mailing list

Dave,

Thank you for your interest in the South Edgeware and Burwell Road Intersection Improvement Environmental Assessment.

Your email has been added to the mailing list for the project.

Regards,

Daniel Koppert, LET, PMP
Manager of Capital Works
Phone: 519-631-1680 x4260

From: Dave Anderson <8080420@gmail.com>
Sent: Thursday, April 30, 2026 5:11 PM
To: Koppert, Dan <dkoppert@stthomas.ca>
Subject: Add me to the mailing list

You don't often get email from 8080420@gmail.com. Learn why this is important

CAUTION:
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Regarding: Burwell Road at South Edgeware Road – Schedule B Class EA – Presentation of Alternatives – RC Spencer Associates Inc., April 2026

Thanks,
Dave Anderson

ablata@rcspencer.ca

From: Koppert, Dan <dkoppert@stthomas.ca>
Sent: May 14, 2026 10:33 AM
To: Grace Robertson
Subject: Re: South Edgeware/Burwell road Development

Grace,

Thank you for your interest in the South Edgeware and Burwell Road Intersection Improvement Environmental Assessment. Your feedback is valued. All comments are reviewed and incorporated in the Project File for consideration in selecting the best alternative for intersection improvements.

We acknowledge your concerns regarding accessibility at this intersection. Please know that we will take these concerns into consideration for the Environmental Assessment and for detailed design of the selected alternative. The selected alternative will consider accessibility improvements such as proper ramps and crossings in accordance with the Accessibility for Ontarians with Disabilities Act (AODA), the City of St. Thomas' Complete Street guidelines, and best practice.

Regards,

ST. THOMAS
THE RAILWAY CITY

Daniel Koppert, LET, PMP
Manager of Capital Works
Phone: 519-631-1680 x4260

From: Grace Robertson <grob2706@gmail.com>
Sent: Wednesday, May 13, 2026 8:17 PM
To: Koppert, Dan <dkoppert@stthomas.ca>
Subject: South Edgeware/Burwell road Development

You don't often get email from grob2706@gmail.com. Learn why this is important

CAUTION:
This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning,

I would like to ask if, when you go ahead with this change do you intend to make crossing more accessible to wheelchairs. At the moment if my husband wants to go anywhere on Burwell towards Talbot he has to go on the road. This is unsafe.