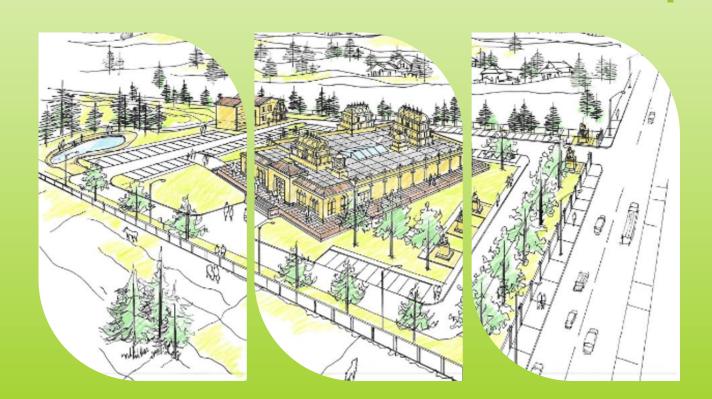
City of Ottawa

Upgrading of the Existing Ottawa Sivan Temple Infrastructure on 2104 Roger Stevens Drive

Z0016000

+

TRAFFIC BRIEF



CIMA+ file number: Z0016000

April 10, 2025



City of Ottawa

Upgrading of the Existing Ottawa Sivan Temple Infrastructure on 2104 Roger Stevens Drive

Z0016000

TRANSPORTATION MEMO

Prepared by: Farah Samouh

MASc, P. Eng.

Engineering License Number: 100545653

Verified by: Ronauq Sabharwal

M.EngCEM., P. Eng.

Engineering License Number: 100224735



500-5935 Airport Road, Mississauga, ON L4V 1W5 CANADA T 905 695-1005 F 905-695-0525

CIMA+ file number: Z0016000 April 10, 2025

Table of contents

Z0016000

| 1. | Project Overview | 1 |
|------|--|---|
| 2. | Correspondence with the City of Ottawa | 2 |
| 3. | Temple Occupancy | 2 |
| 4. | Trips Generated | 3 |
| 5. | TIA Screening Overview | 4 |
| 6. | Parking | 4 |
| 7. | Conclusions | 6 |
| | | |
| List | of Figures | |
| | e 1.1: Temples West Elevation | 1 |
| | e 1.2: Existing Traffic Patterns | |

Appendices

Appendix A - TIA Screening form



Project Overview 1.

2104 Roger Stevens Drive is known for currently housing the Ottawa Sivan Temple in the City of Ottawa. This site is set on Roger Stevens Drive, which is characterized by a posted speed limit of 80 km/h. The area is relatively quiet for most of the year, with low traffic volumes visiting the temple, except during special events and festivals. The surrounding region features a mix of residential and Agriculture characteristics. The temple at this location is currently undergoing an upgrade, with a gross floor area of 2,013 m², which includes improvements to its infrastructure and additional on-site parking spaces to better accommodate visitors.

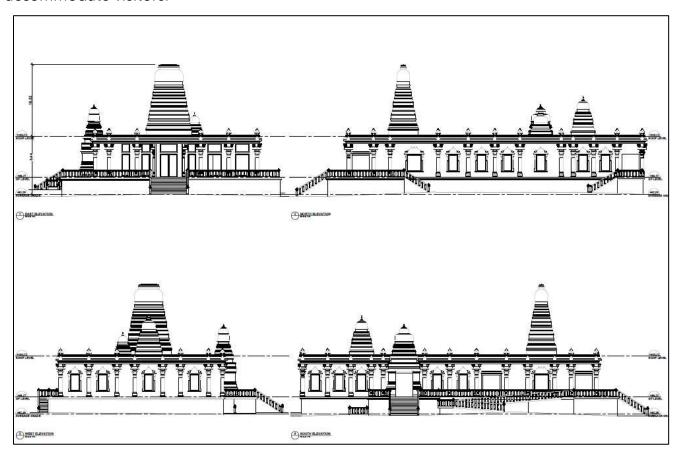


Figure 1.1: Temple Elevation



2. Correspondence with the City of Ottawa

A meeting was convened on July 10th, 2024, with representatives from CIMA, P-Squared Concepts Inc., the Temple, and the City of Ottawa in attendance. During this meeting, the City of Ottawa reviewed the anticipated traffic impact of the temple. Considering that the temple is already in operation and the current travel patterns are established, the City agreed with CIMA+'s recommendation that a full Traffic Impact Assessment (TIA) is unnecessary. Instead, they agreed that a Traffic Impact Memo would be sufficient to evaluate the existing conditions and the expected impact. This direction was based on the understanding that the temple's ongoing activities already generate the primary traffic flow, and thus, a comprehensive study is not required. This memo was developed in response to the requirement of Traffic Impact Memo.

3. Temple Occupancy

The redesign of the temple is not anticipated to significantly increase the size of the congregation due to the fact that the people of the faith will continue to practice independent of the size of the temple.

The existing temple occupancy is very small, with fewer than 5 cars visiting the temple approximately 325 days per year (89% of the year). The temple has a maximum car occupancy between 20 and 50 cars during festival days which occur 10 days during the year (3% of year), as illustrated in Figure 2. Furthermore, the existing car occupancy is primarily consisting of families or carpooling and is expected to remain the same in the future.



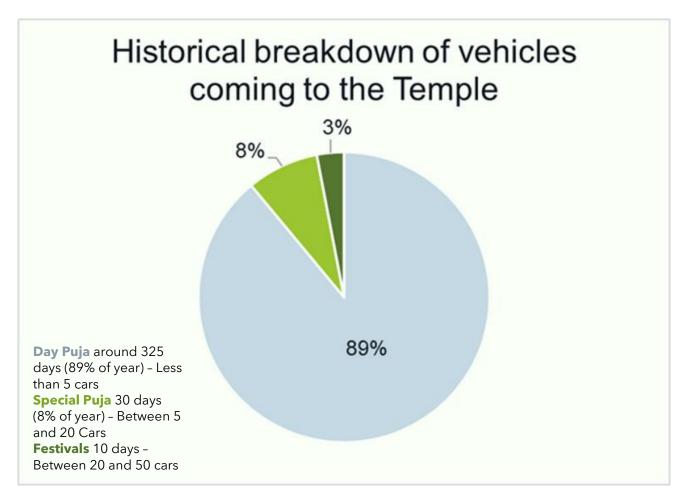


Figure 3.2: Existing Traffic Patterns

4. Trips Generated

Historical data indicates that the current temple receives fewer than 20 vehicles for 97% of the year, showing a low volume of trips. The planned temple upgrade is not expected to significantly increase traffic, as the existing people of faith who visit the temple will continue their visits.

Furthermore, car occupancy is typically comprised of families. Therefore, there are usually more than two or three people in a car, and this trend is expected to continue in the future as well.

Additionally, the current access to the temple currently exists and will be utilized for the upgraded design, ensuring no major changes in traffic patterns.



5. TIA Screening Overview

A safety concern was identified in the TIA screening form regarding the 80 km/h speed limit on Roger Stevens Drive within the study area; the form can be found in Appendix A. The updated design includes 60-75 additional on-site marked parking spaces. This will allow visitors to park on-site and access the temple without interacting with Roger Stevens Drive vehicular traffic. Currently, visitors may park on local streets and walk to the temple, a practice that will be eliminated with the new on-site parking. Hence, the upgraded design provides safer access to the constituents by allowing ample parking on-site and reducing the need for walking along Roger Stevens Drive to access the temple.

6. Parking

Z0016000

The current temple lacks marked parking spaces. People either park along the driveway within the temple or on local streets, then walk along Roger Stevens Drive to access the temple by foot.

With the new plan, those currently parking on the street or along the driveway will have designated parking spots at the temple. This ensures that visitors can park on-site and that pedestrians do not interact with Roger Stevens Drive or vehicular traffic when coming to the temple.

7. Site Access Review

CIMA+ reviewed the site access design to for compliance with (1) the City of Ottawa's Private Approach By-law (By-law No. 2003-447) and (2) Transportation Association of Canada's Geometric Design Guide for Canadian Roads (GDGCR 2017).

Section 11 of the City of Ottawa's By-law indicates that a private approach should have a width between 2.4 metres and 9 metres. In addition, the width of the private approaches should not exceed 50% of the frontage on which it is located. Both proposed accesses to the temple have a width of 6.7 metres, which is within the appropriate range and well below 50% of the proposed frontage of approximately 43 metres.

Section 17 of the by-law notes that any private approach should intersect the centreline of the roadway as close as possible to a right angle, with the minimum acute angle being 70 degrees. The proposed accesses intersect Roger Stevens Drive at approximately a 90-degree angle, satisfying this requirement.



Z0016000

Section 18 of the City's by-law requires an access impact study if there are 50 or more parking spaces on the property and if it anticipated that traffic generated by the property would adversely impact the adjacent highway. Although the temple will have over 50 parking spaces, it is not anticipated to generate large volumes of traffic at a regular basis, as shown in Section 3 of this report. As such, it is not expected that an access impact study will be required.

Finally, Section 25(a) of the by-law indicates that the maximum number of private approaches permitted for an institutional land use is two one-way or two-way approaches for a property with 35 to 45 metres of frontage. The proposed temple will have a frontage of approximately 43 metres as well as two two-way accesses. Section 25(c) of the by-law states that no two-way approach should exceed a width of 9 metres. Given that both proposed accesses have a width of 6.7 metres, the criteria are satisfied. In addition, Section 25(g) indicates that the distance between a two-way private approach and another private approach for the same property should be a minimum of 9 metres, which is met by the proposed site plan. Section 25(s) of the by-law notes that any approach serving a parking area should not have a grade exceeding 2%, which is also satisfied by the proposed site plan.

The proposed accesses were also reviewed using Chapter 8 - Access and Chapter 9 - Intersections of the GDGCR. Chapter 8 notes that spacing between driveways and intersections as well as other driveways is required to separate conflict zones. Neither of the proposed accesses is located near any other driveways, and the west access is located approximately 95 metres away from Trailwood Drive, which is the nearest intersection. This distance is sufficient to separate the proposed accesses from the intersection. Chapter 9 of the GDGCR outlines the required intersection sight distance for drivers exiting the temple looking both left and right to turn onto Roger Stevens Drive. Given a posted speed limit of 80 km/h and a design speed of 100 km/h, the required intersection sight distance to turn onto a two-lane highway with no median and a grade of 3% or less is 210 m for drivers turning left and 185 metres for drivers turning right. Since Roger Stevens Drive does not have a significant vertical or horizontal curve, both minimum sight distances are anticipated to be met.



8. Conclusions

During the June 10th, 2024, meeting with the City of Ottawa, it was agreed that a full Traffic Impact Assessment is unnecessary. Instead, a traffic memo was deemed sufficient to satisfy the requirement for evaluating the existing impact of the temple. It is anticipated that the temple's redesign is not expected to generate significant additional traffic volume in the area. The visitors, typically families, will continue to visit the temple as they do now, often with more than two or three people per car. The current temple setup lacks marked parking spaces, which results in visitors potentially parking along the driveway or on the adjacent local streets and walking along Roger Stevens Drive to reach the temple. The new plan will provide designated on-site parking spots, eliminating the need for on-street parking and reducing pedestrian interactions with vehicular traffic on Roger Stevens Drive. This improvement will enhance the safety of the temple visitors by mitigating the previous safety concerns associated with the posted speed limit. A review of the proposed site accesses using both the City of Ottawa's Private Approach by-law and the GDGCR indicated that the access dimensions meet all the criteria based on the City's bylaw and the GDGCR thresholds for spacing and sight distance.





Appendix A TIA Screening Form



City of Ottawa 2017 Transportation Impact Assessment (TIA) Guidelines Screening Form

1. Description of Proposed Development

| Municipal Address | 2104 Roger Stevens Dr., Ottawa, ON, KOA 2TO |
|----------------------------------|---|
| Description of Location | Rural transect - Village |
| Land Use Classification | Place of Worship |
| Development Size (units) | n/a |
| Development Size (m²) | approx. 1,116 m2 (GFA) |
| Number of Accesses and Locations | One access |
| Phase of Development | 2 phases |
| Buildout Year | 2026 |

If available, please attach a sketch of the development or site plan to this form.

2. Trip Generation Trigger

Considering the Development's Land Use type and Size (as filled out in the previous section), please refer to the Trip Generation Trigger checks below.

Table notes:

- 1. Table 2, Table 3 & Table 4 TRANS Trip Generation Manual
- 2.Institute of Transportation Engineers (ITE) Trip Generation Manual 11.1 Ed.

| Land Use Type | Minimum Development Size |
|--|--------------------------|
| Single-family homes | 60 units |
| Multi-Use Family (Low-Rise) ¹ | 90 units |
| Multi-Use Family (High-Rise) ¹ | 150 units |
| Office ² | 1,400 m ² |
| Industrial ² | 7,000 m ² |
| Fast-food restaurant or coffee shop ² | 110 m² |
| Destination retail ² | 1,800 m² |
| Gas station or convenience market ² | 90 m² |

If the proposed development size is greater than the sizes identified above, the Trip Generation Trigger is satisfied.

Revision Date: December 2023

¹ Hubs are identified in Schedules B1 to B8 of the City of Ottawa Official Plan. PMTSAs are identified in ScheduleC1 of the Official Plan. DPAs are identified in Schedule C7A and C7B of the Official. See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA.

3. Location Triggers

| | Yes | No |
|---|-----|------------|
| Does the development propose a new driveway to a boundary street that is designated as part of the City's Transit Priority Network, Rapid Transit network or Cross-Town Bikeways? | | $ \times $ |
| Is the development in a Hub, a Protected Major Transit Station Area (PMTSA), or a Design Priority Area (DPA)? ¹ | | \times |

If any of the above questions were answered with 'Yes,' the Location Trigger is satisfied.

4. Safety Triggers

| | Yes | No |
|---|-----|----|
| Are posted speed limits on a boundary street 80 km/hr or greater? | X | |
| Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway? | | X |
| Is the proposed driveway within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions)? | | X |
| Is the proposed driveway within auxiliary lanes of an intersection? | | X |
| Does the proposed driveway make use of an existing median break that serves an existing site? | | X |
| Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development? | | X |
| Does the development include a drive-thru facility? | | X |

If any of the above questions were answered with 'Yes,' the Safety Trigger is satisfied.

5. Summary

| | Yes | No |
|---|-----|----------|
| Does the development satisfy the Trip Generation Trigger? | | \times |
| Does the development satisfy the Location Trigger? | | X |
| Does the development satisfy the Safety Trigger? | X | |

If none of the triggers are satisfied, the TIA Study is complete. If one or more of the triggers is satisfied, the TIA Study must continue into the next stage (Screening and Scoping).

Revision Date: December 2023