

CERTIFICATION FORM FOR TIA STUDY PM

TRANSPORTATION IMPACT ASSESSMENT REPORTS

On 14 June 2017, the Council of the City of Ottawa adopted new Transportation Impact Assessment (TIA) Guidelines. In adopting the guidelines, Council established a requirement for those preparing and delivering transportation impact assessments and reports to sign a letter of certification.

Individuals submitting TIA reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Ottawa's Official Plan, the Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines.

By submitting the attached TIA report (and any associated documents) and signing this document, the individual acknowledges that s/he meets the four criteria listed below.

CERTIFICATION

- I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines;
- I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;
- I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and
- I am either a licensed¹ or registered² professional in good standing, whose field of expertise is either
 - Transportation engineering
 - Transportation planning

^{1,2} License of registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works.



Dated at Ottawa this 27 day of October, 2023
(City)

Name: Adam Howell, P. Eng.

Professional Title: Senior Project Manager, Transportation Planning

Signature of individual certifier that they meet the above criteria

OFFICE CONTACT INFORMATION

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STAMP

| |
|--------------------|
| 1083 Merivale Road |
|--------------------|



MEMO

TO: Josiane Gervais, P.Eng – Project Manager, Infrastructure Approvals
FROM: Adam Howell, P.Eng.
SUBJECT: 1083 Merivale Road – Transportation Safety Memo
DATE: October 23, 2023

INTRODUCTION

This transportation safety memo has been prepared in support of the Site Plan Control Application for the proposed development at 1083 Merivale Road. The site currently includes a vacated single-family detached house. The proposed redevelopment of the site is for the construction of a multi-storey residential care facility with 53 units, cafeteria, kitchen and programming space as well as a basement facility to be utilized by the Shepherds of Good Hope.

In accordance with the City of Ottawa’s 2017 Transportation Impact Assessment (TIA) Guidelines, a screening form was prepared and submitted to the City for their review, see **Appendix A**. The screening form identified a TIA would be required due to the safety trigger being met. As the trip generation trigger was not met and following discussions with the City of Ottawa TPM staff, it was indicated that a full TIA would not be required and that the requirements for the TIA would be met with the preparation of a transportation safety memo assessing two primary safety concerns: the collision history at the Merivale/Kirkwood intersection, and the access design of the driveway on Merivale Road.

EXISTING CONDITIONS

The proposed development, shown in **Figure 1**, is located on Merivale Road at the Kirkwood Avenue intersection. The development will share a parking lot with the existing building at 1095 Merivale Road that is accessible by Emperor Avenue. Additionally, the development will be accessible by an existing driveway on Merivale Road.



Figure 1: Location of Proposed Development (Source: Google Maps)



The access on Merivale Road is less than 5m south of the stop line on the southern leg of the Merivale/Kirkwood intersection. The access is a right-in/right-out, does not connect to the parking lot on Emperor Avenue and will be used by delivery trucks and as a fire route only. It is anticipated that up to two food/supply deliveries will be made per day, generally between 8 a.m. and noon. The site plan for the proposed development can be found in **Appendix B**.

SAFETY CONCERNS

COLLISION HISTORY

A review of publicly available collision data indicated that there were 36 collisions at the Merivale/Kirkwood intersection over a 5-year period¹. The detailed collision history from 2015-2019 was acquired from the City of Ottawa for additional analysis. Some key findings include:

- The maximum number of collisions in a given year was nine (2016 and 2019) which on an annual basis was not enough to identify an upward or downward trend in collision rate.
- There were no fatal collisions.
- 83% of the recorded collisions resulted in property damage only.
- Nearly 70% (25 of 36) collisions occurred during daylight.
- Less than 30% (10 of 36) collisions occurred during the anticipated delivery window of 8 a.m. to noon.
- The most common type of collision was as a result of a turning movement (36%).
- Rear end collisions accounted for 22% and sideswipes for 19%.
- Nearly half of the collisions (17 of 36) occurred in the intersection between opposing streams of traffic.
- Only eight collisions occurred on the south leg of the intersection.
- Of the eight collisions on the south leg of the intersection, five occurred in the NBL turning lane (including rear-end collisions, sideswipes and single motor vehicle collisions)

The detailed summary of collisions from 2015-2019 and additional analysis tables are attached as **Appendix C**.

The results of the collision history analysis indicate that there is no consistent pattern to the collisions at the intersection, that the collision severity is relatively low and that there has been no growth in the frequency of collisions from 2015-2019. Additionally, only a small portion of collisions occurred on the south leg of the intersection with most occurring in the NBL turning lane.

ACCESS DESIGN

The proposed development and its existing driveway are located just south (less than 5m) of the Merivale/Kirkwood intersection. The truck loading area, as shown on the proposed site plan, will be accessible via the Merivale driveway. Additionally, the Merivale Road access would be a fire access route. An AutoTurn analysis for the anticipated delivery vehicles (MSU) and Fire Trucks was carried out is attached as **Appendix D**. The MSU is able to safely turn around within the site thereby not requiring any reverse movements within the public right of way. The fire truck is capable of turning into the site; the fire access route is less than 90m long on the site and therefore per Ontario Building Code (Section 3.2.5.6), there is no requirement for the fire truck to be able to turn around within the site. A fire truck on departure would reverse back out to Merivale Road, however this is done with flagging operations by the firefighters.

Finally, the 2017 Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads requires a sight distance for right-turns from a minor road of 120 m for a single-unit truck along a road with a design speed of 50 km/h. From our desktop review of the access, see **Figure 2**, there appear to be no sightline issues.

¹ <https://maps.bikeottawa.ca/collisions>



Figure 2: Desktop Sightline Review

CONCLUSION

As requested by the City of Ottawa, a transportation safety analysis was conducted for the proposed development at 1083 Merivale Road. Both the collision history and the Merivale Road access were analyzed for the site. The collision history indicated no patterns of growth or repetition at the Merivale/Kirkwood intersection. Moreover, only eight collisions over a 5-year period occurred on the south leg of the intersection, where the driveway for the proposed development is located, with five of those collisions occurring in the NBL turning lane.

The AutoTurn analysis indicated that both MSUs and Fire Trucks will be able to manoeuvre the right-in/right-out access along Merivale Road without issue. The desktop sightline review indicated that there are no obstructions within the line of sight for exiting trucks turning back on to Merivale Road.

Adam Howell, P.Eng.
Senior Project Manager, Transportation Planning

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APPENDIX

A SCREENING FORM



City of Ottawa 2017 TIA Guidelines Screening Form

1. Description of Proposed Development

| | |
|------------------------------------|--|
| Municipal Address | |
| Description of Location | |
| Land Use Classification | |
| Development Size (units) | |
| Development Size (m ²) | |
| Number of Accesses and Locations | |
| Phase of Development | |
| Buildout Year | |

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.

| Land Use Type | Minimum Development Size |
|-------------------------------------|--------------------------|
| Single-family homes | 40 units |
| Townhomes or apartments | 90 units |
| Office | 3,500 m ² |
| Industrial | 5,000 m ² |
| Fast-food restaurant or coffee shop | 100 m ² |
| Destination retail | 1,000 m ² |
| Gas station or convenience market | 75 m ² |

** If the development has a land use type other than what is presented in the table above, estimates of person-trip generation may be made based on average trip generation characteristics represented in the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual.*

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

ITE LUC 254 (Congregate Care Facility): Less than 20 peak hour trips

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, Rapid Transit or Spine Bicycle Networks? | | |
| Is the development in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone?* | | |

*DPA and TOD are identified in the City of Ottawa Official Plan (DPA in Section 2.5.1 and Schedules A and B; TOD in Annex 6). See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA).

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 are 80 km/hr or greater? | | |
| Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway? | | |
| 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)? | | |
| Is the proposed driveway within auxiliary lanes of an intersection? | | |
| Does the proposed driveway make use of an existing median break that serves an existing site? | | |
| Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development? | | |
| Does the development include a drive-thru facility? | | |

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? | | |
| Does the development satisfy the Location Trigger? | | |
| Does the development satisfy the Safety Trigger? | | |

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).

APPENDIX

B SITE PLAN



STAMP

2 2023-10-27 REISSUED FOR SITE PLAN CONTROL
 1 2023-06-02 ISSUED FOR SITE PLAN CONTROL
 REV DATE ISSUE

NOTES

1. OWNERSHIP OF THE COPYRIGHT OF THE DESIGN AND THE WORKS EXECUTED FROM THE DESIGN REMAINS WITH CSV ARCHITECTS, AND MAY NOT BE REPRODUCED IN ANY FORM WITHOUT THE WRITTEN CONSENT OF CSV ARCHITECTS.
2. THE DRAWINGS, PRESENTATIONS AND SPECIFICATIONS AS INSTRUMENTS OF SERVICE ARE AND SHALL REMAIN THE PROPERTY OF CSV ARCHITECTS. THEY ARE NOT TO BE USED BY THE CLIENT ON OTHER PROJECTS OR ON EXTENSIONS TO THIS PROJECT WITHOUT THE WRITTEN CONSENT OF CSV ARCHITECTS.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER PROJECT DRAWINGS AND SPECIFICATIONS.
4. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY DIMENSIONS ON SITE.
5. ALL WORK SHALL BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE AND ALL SUPPLEMENTS AND APPLICABLE MUNICIPAL REGULATIONS.

CLIENT

SHEPHERDS OF GOOD HOPE
 OTTAWA
 ONTARIO, CANADA

PROJECT

SGH 1083 MERIVALE

1083 Merivale Road
 Ottawa, ON K1Z 6A9

TITLE

SITE PLAN

PROJECT NO: 2021-0111
 DRAWN: SF
 APPROVED: JS
 SCALE: 1:200
 DATE PRINTED: 2023-10-26 12:28:52 PM

REV DRAWING NO.

2

A.100

#18992

SITE PLAN GENERAL NOTES:

1. ALL GENERAL SITE INFORMATION AND CONDITIONS COMPILED FROM EXISTING PLANS AND SURVEYS
2. DO NOT SCALE THIS DRAWING
3. REPORT ANY DISCREPANCIES PRIOR TO COMMENCING WORK. NO RESPONSIBILITY IS BORN BY THE CONSULTANT FOR UNKNOWN SUBSURFACE CONDITIONS
4. CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE AND REPORT ANY ERRORS AND/OR OMISSIONS TO THE CONSULTANT
5. REINSTATE ALL AREAS AND ITEMS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES TO THE SATISFACTION OF THE CONSULTANT
6. CONTRACTOR TO LAYOUT PLANTING BEDS, PATHWAYS ETC. TO APPROVAL OF CONSULTANT PRIOR TO ANY JOB EXCAVATION
7. THE ACCURACY OF THE POSITION OF UTILITIES IS NOT GUARANTEED - CONTRACTOR TO VERIFY PRIOR TO EXCAVATION
8. INDIVIDUAL UTILITY COMPANY MUST BE CONTACTED FOR CONFIRMATION OF UTILITY EXISTENCE AND LOCATION PRIOR TO DIGGING
9. ALL DISTURBED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER UNLESS OTHERWISE NOTED

SITE PLAN KEYNOTES:

- 1 EXISTING GAS PAD
- 2 EXISTING TRANSFORMER
- 3 EXISTING SCUPPER
- 4 FRENCH DRAIN TO LANDSCAPE
- 5 PLANTER - SEE LANDSCAPE
- 6 COVERED WALKWAY
- 7 ENTRANCE CANOPY
- 8 GAZEBO
- 9 BICYCLE RACK
- 10 GUARDRAIL AND HANDRAIL PER OBC
- 11 NEW RETAINING WALL - SEE CIVIL
- 12 HIGH-ALBEDO ROOF
- 13 BOLLARD

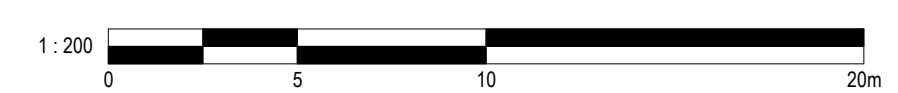
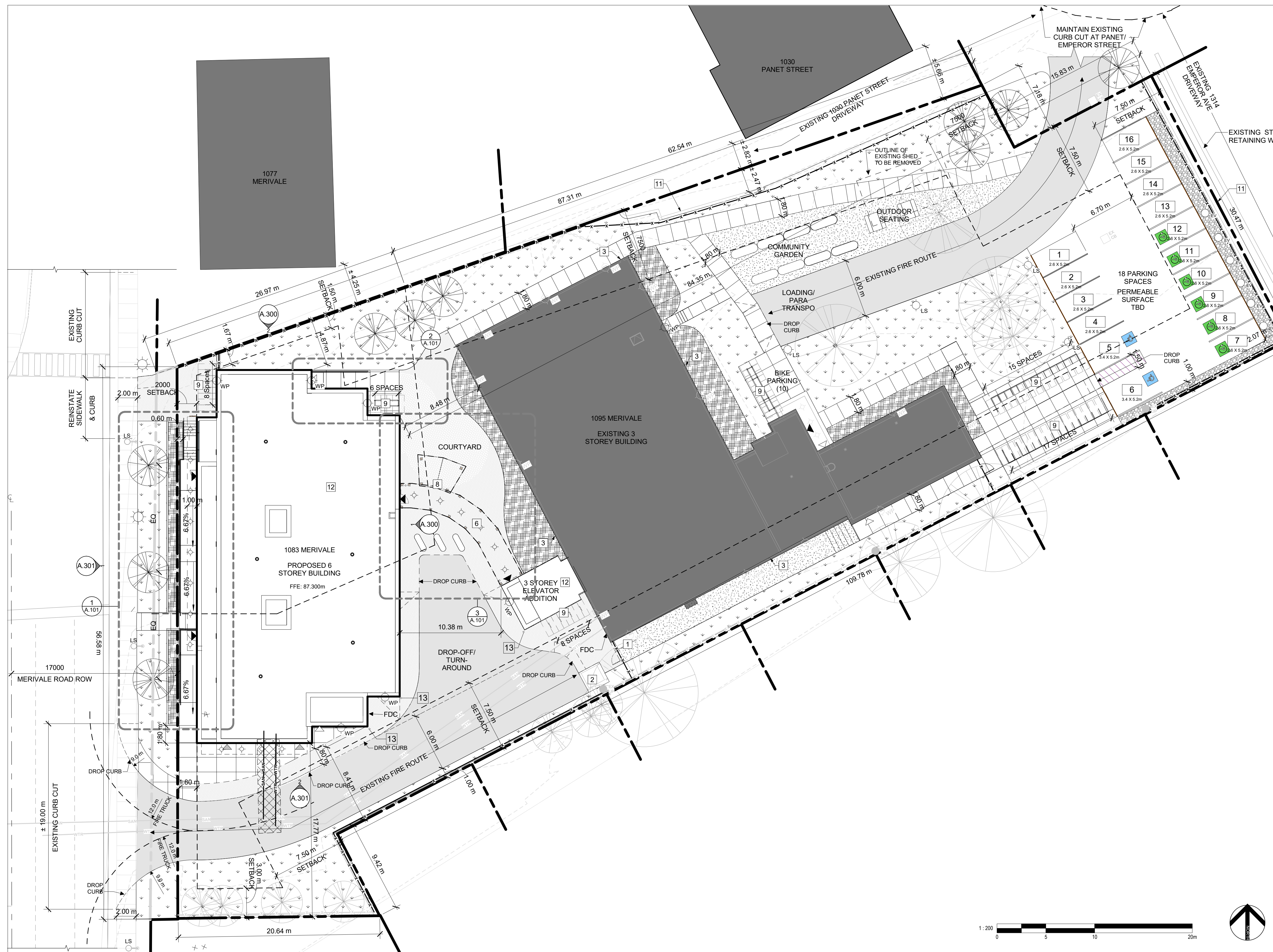
SITE PLAN LEGEND:

- EXISTING ELEMENT
- ASPHALT PAVING
- GRASS
- CONCRETE SIDEWALK
- CONCRETE PAD
- MULCH/PLANTING - SEE LANDSCAPE
- GRAVEL / RIVERSTONE/ MAINTENANCE STRIP
- STONE DUST/SAND
- PERMEABLE PAVERS TYPE 1 - SEE LANDSCAPE
- PERMEABLE PAVERS TYPE 2 - SEE LANDSCAPE

- EMERGENCY EXIT
- SERVICE DOORS
- BUILDING ENTRANCE
- PROPERTY LINE
- FENCE PER LANDSCAPE
- DOMESTIC WATER
- SANITARY
- STORM
- ELECTRICAL SERVICE (BELOW GRADE)
- GAS
- INTERNET SERVICE PROVIDER

- CATCH BASIN
- SITE LIGHTING: LIGHT STANDARD
- SITE LIGHTING: WALL PACK
- SITE LIGHTING: SOFFIT
- FIRE HYDRANT
- MANHOLE
- UTILITY POLE
- EV CHARGING STATION
- FDC

- TRAFFIC LIGHT
- TREE
- SHRUB



1 SPC SITE

A.100 1:200

LEGAL DESCRIPTION:
 PART OF LOTS 15 AND 93 REGISTERED PLAN 294 AND PART OF LOT 'L' CONCESSION 'A' (RIDEAU FRONT)

REFERENCE SURVEY:
 2021-08-16
 92-A(RF)NP

MUNICIPAL ADDRESS:
 1083 MERIVALE ROAD,
 OTTAWA, ON K1Z 6A9


| | |
|-------------------|----------------------|
| SITE AREA: | 5,007 m ² |
| BUILDING AREA: | 732 m ² |
| GROSS FLOOR AREA: | 4,244 m ² |
| BUILDING HEIGHT: | 20 m 6 STOREYS |
| ZONE: | TM12 |
| SCHEDULE 1: | AREA B |
| SCHEDULE 1A: | AREA X - INNER URBAN |

| ZONING PROVISION | REQUIRED | PROVIDED | PARKING QUEING + LOADING | REQUIRED | PROVIDED | AMENITY SPACE BREAKDOWN |
|----------------------------|------------|----------|--------------------------|----------|----------|--|
| MIN. LOT WIDTH | NO MINIMUM | N/A | RESIDENTIAL SPACES 1083 | 9 | 9 | GFA 1095 SUITES: 1,560m ² |
| MIN. LOT AREA | NO MINIMUM | N/A | RESIDENTIAL SPACES 1095 | 7 | 7 | GFA 1083 SUITES: 2,898m ² |
| MIN. FRONT YARD SETBACK | 2 m | 2 m | OFFICE SPACES 1083 | 2 | 2 | AMENITY AREA IN 1095: 148m ² |
| MIN. CORNER YARD SETBACK | 3 m | N/A | VISITOR SPACES | 0 | 0 | AMENITY AREA IN 1083: 58m ² |
| MIN. REAR YARD SETBACK | 7.5 m | 84 m | TOTAL PARKING | 18 | 18 | AMENITY AREA EXTERIOR: 490m ² |
| MIN. INTERIOR YARD SETBACK | 1.2 m | 15 m | ACCESSIBLE PARKING | 2 | 2 | REQUIRED AMENITY AREA: 446m ² |
| MAX. HEIGHT | 20m | 20m | BICYCLE PARKING | 62 | 64 | PROPOSED AMENITY AREA: 696m ² |
| LANDSCAPED AREA | NO MINIMUM | N/A | REFUSE COLLECTION | 16 cu yd | 16 cu yd | |
| | | | GARBAGE COLLECTION | 8cu yd | 8 cu yd | |

D07-12-23-0078

APPENDIX

C COLLISION ANALYSIS



Vehicle Collision Classification

| Count of Accident Time | Column Labels | | | | | |
|------------------------|---------------|----------|----------|----------|----------|-------------|
| Row Labels | 2015 | 2016 | 2017 | 2018 | 2019 | Grand Total |
| 02 - Non-fatal injury | 1 | 1 | 1 | 2 | 1 | 6 |
| 03 - P.D. only | 5 | 8 | 3 | 6 | 8 | 30 |
| Grand Total | 6 | 9 | 4 | 8 | 9 | 36 |

Weather Conditions

| Count of Location | Column Labels | | | | | |
|--------------------|---------------|----------|----------|----------|----------|-------------|
| Row Labels | 2015 | 2016 | 2017 | 2018 | 2019 | Grand Total |
| 01 - Clear | 5 | 9 | 3 | 5 | 8 | 30 |
| 02 - Rain | | | 1 | 1 | 1 | 3 |
| 03 - Snow | 1 | | | 2 | | 3 |
| Grand Total | 6 | 9 | 4 | 8 | 9 | 36 |

Light Conditions

| Count of Accident Time | Column Labels | | | | | |
|------------------------|---------------|----------|----------|----------|----------|-------------|
| Row Labels | 2015 | 2016 | 2017 | 2018 | 2019 | Grand Total |
| 01 - Daylight | 4 | 5 | 2 | 7 | 7 | 25 |
| 05 - Dusk | | | 1 | | | 1 |
| 07 - Dark | 2 | 4 | 1 | 1 | 2 | 10 |
| Grand Total | 6 | 9 | 4 | 8 | 9 | 36 |

Initial Impact

| Count of Accident Time | Column Labels | | | | | |
|------------------------|---------------|----------|----------|----------|----------|-------------|
| Row Labels | 2015 | 2016 | 2017 | 2018 | 2019 | Grand Total |
| 02 - Angle | 1 | 1 | 1 | 1 | | 4 |
| 03 - Rear end | 1 | 5 | | 2 | | 8 |
| 04 - Sideswipe | 2 | | 1 | 2 | 2 | 7 |
| 05 - Turning movement | 1 | 1 | 2 | 3 | 6 | 13 |
| 07 - SMV other | 1 | 2 | | | 1 | 4 |
| Grand Total | 6 | 9 | 4 | 8 | 9 | 36 |

Driver Action (Driver 1 Action as primary label and Driver 2 Action included as sub-label)

| Count of Accident Time | Column Labels | | | | | |
|--|----------------------|-------------|-------------|-------------|-------------|--------------------|
| Row Labels | 2015 | 2016 | 2017 | 2018 | 2019 | Grand Total |
| 01 - Driving properly | 5 | 7 | 4 | 6 | 8 | 30 |
| 00 - Unknown | 1 | | 1 | 1 | | 3 |
| 01 - Driving properly | | | | 1 | | 1 |
| 02 - Following too close | | 2 | | | | 2 |
| 04 - Speed too fast for condition | | 1 | | | | 1 |
| 06 - Improper turn | 1 | 1 | 1 | 2 | 1 | 6 |
| 07 - Disobeyed traffic control | | | | | 1 | 1 |
| 08 - Failed to yield right-of-way | 1 | 1 | 1 | | 5 | 8 |
| 10 - Lost control | 1 | 1 | | 2 | | 4 |
| 12 - Improper lane change | 1 | | 1 | | 1 | 3 |
| 99 - Other | | 1 | | | | 1 |
| 02 - Following too close | | | | 1 | | 1 |
| 99 - Other | | | | 1 | | 1 |
| 08 - Failed to yield right-of-way | | | | 1 | | 1 |
| 06 - Improper turn | | | | 1 | | 1 |
| (blank) | 1 | 2 | | | 1 | 4 |
| 01 - Driving properly | 1 | | | | | 1 |
| 08 - Failed to yield right-of-way | | | | | 1 | 1 |
| 10 - Lost control | | 2 | | | | 2 |
| Grand Total | 6 | 9 | 4 | 8 | 9 | 36 |

List of Collisions on South Leg of Merivale/Kirkwood Intersection

| Year | Date | Vehicle 1 Type | Vehicle 2 Type | Env. Condition | Light | Classification Of Accident | Initial Impact Type | Vehicle 1 Manoeuvre | Apparent Driver 1 Action | Vehicle 2 Manoeuvre | Apparent Driver 2 Action |
|-------------|-------------|--------------------------------|--------------------------------|-----------------------|---------------|-----------------------------------|----------------------------|----------------------------|-----------------------------------|----------------------------|---------------------------------|
| 2015 | 2015-01-29 | 01 - Automobile, station wagon | 04 - Passenger van | 03 - Snow | 07 - Dark | 03 - P.D. only | 04 - Sideswipe | 07 - Changing lanes | 12 - Improper lane change | 04 - Turning left | 01 - Driving properly |
| 2015 | 2015-09-01 | 01 - Automobile, station wagon | - | 01 - Clear | 01 - Daylight | 03 - P.D. only | 07 - SMV other | 04 - Turning left | 01 - Driving properly | - | - |
| 2016 | 2016-02-17 | 01 - Automobile, station wagon | - | 01 - Clear | 07 - Dark | 03 - P.D. only | 07 - SMV other | 01 - Going ahead | 10 - Lost control | - | - |
| 2016 | 2016-02-17 | 01 - Automobile, station wagon | 01 - Automobile, station wagon | 01 - Clear | 07 - Dark | 03 - P.D. only | 03 - Rear end | 04 - Turning left | 04 - Speed too fast for condition | 04 - Turning left | 01 - Driving properly |
| 2016 | 2016-04-30 | 01 - Automobile, station wagon | 01 - Automobile, station wagon | 01 - Clear | 07 - Dark | 03 - P.D. only | 03 - Rear end | 04 - Turning left | 10 - Lost control | 04 - Turning left | 01 - Driving properly |
| 2016 | 2016-10-15 | 13 - Truck - tractor | 01 - Automobile, station wagon | 01 - Clear | 01 - Daylight | 03 - P.D. only | 03 - Rear end | 01 - Going ahead | 02 - Following too close | 01 - Going ahead | 01 - Driving properly |
| 2018 | 2018-04-04 | 05 - Pick-up truck | 01 - Automobile, station wagon | 02 - Rain | 01 - Daylight | 03 - P.D. only | 03 - Rear end | 02 - Slowing or stopping | 10 - Lost control | 01 - Going ahead | 01 - Driving properly |
| 2019 | 2019-04-16 | 01 - Automobile, station wagon | - | 01 - Clear | 01 - Daylight | 02 - Non-fatal injury | 07 - SMV other | 04 - Turning left | 08 - Failed to yield right-of-way | - | - |



Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2015 To: December 31, 2019

Location: KIRKWOOD AVE @ MERIVALE RD

Traffic Control: Traffic signal

Total Collisions: 36

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|------------------------|-------------|------------------|------------------|----------------|----------|-------------------|---------------------------|-----------------------|---------|
| 2015-Jan-29, Thu,21:10 | Snow | Sideswipe | P.D. only | Loose snow | North | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning left | Passenger van | Other motor vehicle | |
| 2015-Feb-05, Thu,08:27 | Clear | Sideswipe | P.D. only | Slush | East | Turning right | Truck and trailer | Other motor vehicle | 0 |
| | | | | | East | Turning right | Passenger van | Other motor vehicle | |
| 2015-Apr-30, Thu,10:14 | Clear | Angle | P.D. only | Dry | West | Going ahead | Bicycle | Other motor vehicle | 0 |
| | | | | | North | Turning left | Passenger van | Cyclist | |
| 2015-Jul-27, Mon,08:55 | Clear | Turning movement | P.D. only | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2015-Aug-17, Mon,21:34 | Clear | Rear end | Non-fatal injury | Dry | East | Going ahead | Motorcycle | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2015-Sep-01, Tue,11:21 | Clear | SMV other | P.D. only | Dry | North | Turning left | Automobile, station wagon | Other | 0 |
| 2016-Jan-27, Wed,11:48 | Clear | Turning movement | Non-fatal injury | Wet | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Passenger van | Other motor vehicle | |
| 2016-Feb-04, Thu,07:43 | Clear | SMV other | P.D. only | Wet | South | Going ahead | Pick-up truck | Skidding/sliding | 0 |
| 2016-Feb-17, Wed,18:50 | Clear | Rear end | P.D. only | Slush | North | Turning left | Automobile, station wagon | Skidding/sliding | 0 |
| | | | | | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2016-Feb-17, Wed,20:14 | Clear | SMV other | P.D. only | Ice | North | Going ahead | Automobile, station wagon | Pole (utility, power) | 0 |
| 2016-Apr-30, Sat,19:32 | Clear | Rear end | P.D. only | Dry | North | Turning left | Automobile, station wagon | Skidding/sliding | 0 |
| | | | | | North | Turning left | Automobile, station wagon | Skidding/sliding | |
| 2016-Jul-26, Tue,16:08 | Clear | Angle | P.D. only | Dry | East | Turning right | Pick-up truck | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2016-Sep-24, Sat,13:49 | Clear | Rear end | P.D. only | Dry | East | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |



Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2015 To: December 31, 2019

Location: KIRKWOOD AVE @ MERIVALE RD

Traffic Control: Traffic signal

Total Collisions: 36

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuvre | Vehicle type | First Event | No. Ped |
|------------------------|-------------|------------------|------------------|----------------|----------|-------------------|---------------------------|---------------------|---------|
| 2016-Oct-15, Sat,14:50 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Truck - tractor | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2016-Dec-20, Tue,20:15 | Clear | Rear end | P.D. only | Wet | East | Going ahead | Snow plow | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-Jan-06, Fri,10:31 | Clear | Sideswipe | P.D. only | Packed snow | East | Changing lanes | Pick-up truck | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Pick-up truck | Other motor vehicle | |
| 2017-Apr-04, Tue,22:22 | Rain | Turning movement | P.D. only | Wet | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Pick-up truck | Other motor vehicle | |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2017-Apr-24, Mon,15:30 | Clear | Angle | P.D. only | Dry | South | Unknown | Unknown | Other motor vehicle | 0 |
| | | | | | East | Turning right | Pick-up truck | Other motor vehicle | |
| 2017-Aug-25, Fri,19:17 | Clear | Turning movement | Non-fatal injury | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Jan-15, Mon,09:44 | Clear | Rear end | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-Jan-26, Fri,11:24 | Clear | Sideswipe | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Truck - tractor | Other motor vehicle | |
| 2018-Jan-31, Wed,18:06 | Snow | Turning movement | Non-fatal injury | Loose snow | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Feb-06, Tue,14:16 | Snow | Angle | P.D. only | Loose snow | East | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |



Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2015 To: December 31, 2019

Location: KIRKWOOD AVE @ MERIVALE RD

Traffic Control: Traffic signal

Total Collisions: 36

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|------------------------|-------------|------------------|------------------|----------------|----------|---------------------|---------------------------|---------------------|---------|
| 2018-Apr-04, Wed,11:55 | Rain | Rear end | P.D. only | Wet | North | Slowing or stopping | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Unknown | Other motor vehicle | |
| 2018-Apr-10, Tue,13:30 | Clear | Sideswipe | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2018-Jul-13, Fri,16:06 | Clear | Turning movement | P.D. only | Dry | North | Turning left | Unknown | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Passenger van | Other motor vehicle | |
| 2018-Sep-18, Tue,15:54 | Clear | Turning movement | Non-fatal injury | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Apr-16, Tue,11:30 | Clear | SMV other | Non-fatal injury | Dry | North | Turning left | Automobile, station wagon | Pedestrian | 1 |
| 2019-May-07, Tue,14:50 | Clear | Turning movement | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2019-May-16, Thu,12:18 | Clear | Turning movement | P.D. only | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Sep-13, Fri,16:10 | Clear | Sideswipe | P.D. only | Dry | East | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Sep-23, Mon,12:30 | Clear | Sideswipe | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Oct-03, Thu,17:28 | Clear | Turning movement | P.D. only | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-01, Sun,17:10 | Clear | Turning movement | P.D. only | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-06, Fri,21:27 | Clear | Turning movement | P.D. only | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |



Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2015 To: December 31, 2019

Location: KIRKWOOD AVE @ MERIVALE RD


Traffic Control: Traffic signal

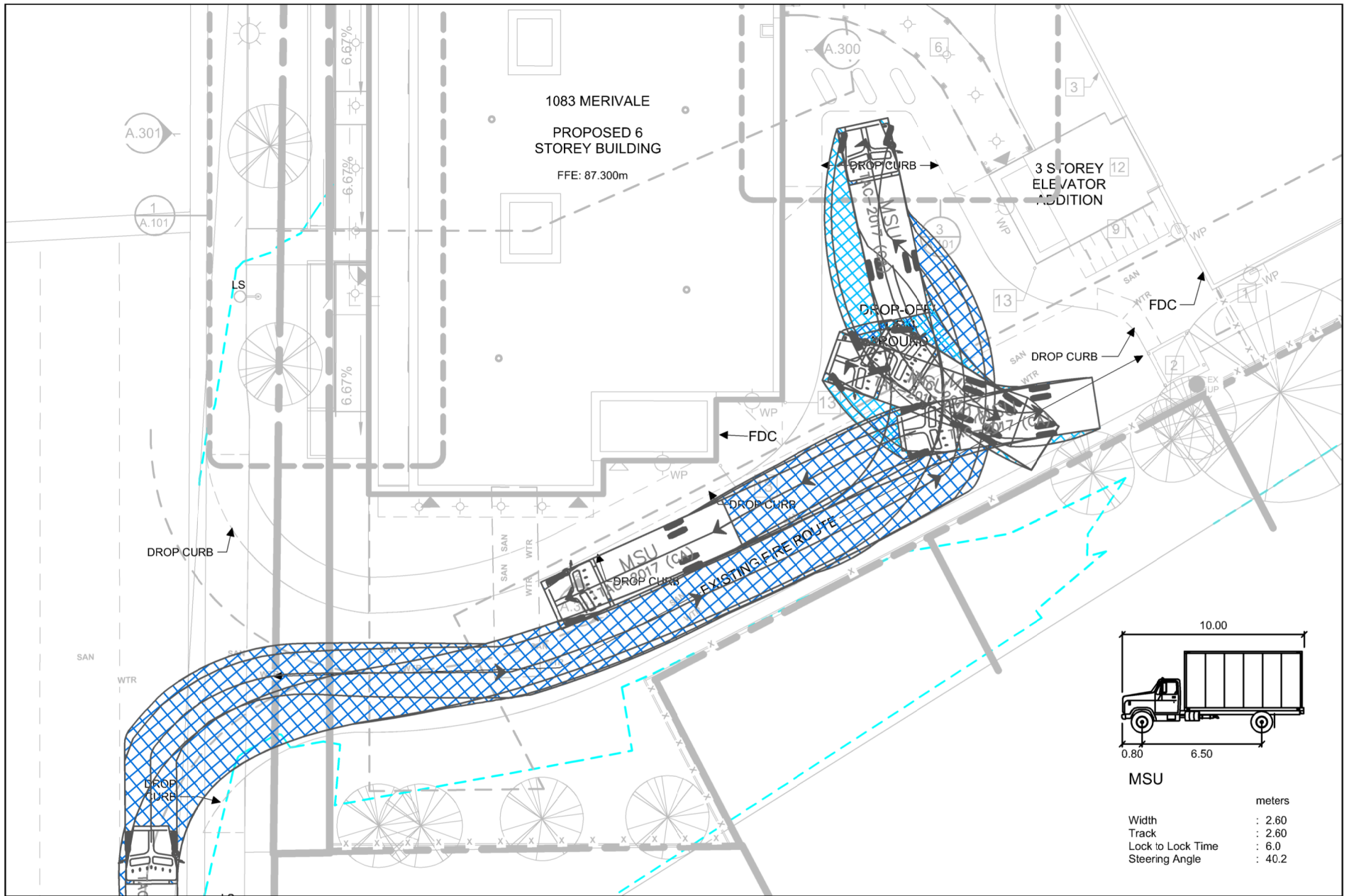
Total Collisions: 36

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|-------------------------|-------------|------------------|----------------|----------------|----------|-------------------|---------------------------|---------------------|---------|
| 2019-Dec-14, Sat, 13:30 | Rain | Turning movement | P.D. only | Wet | North | Turning left | Delivery van | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |

APPENDIX

D AUTOTURN ANALYSIS





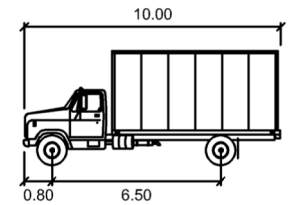
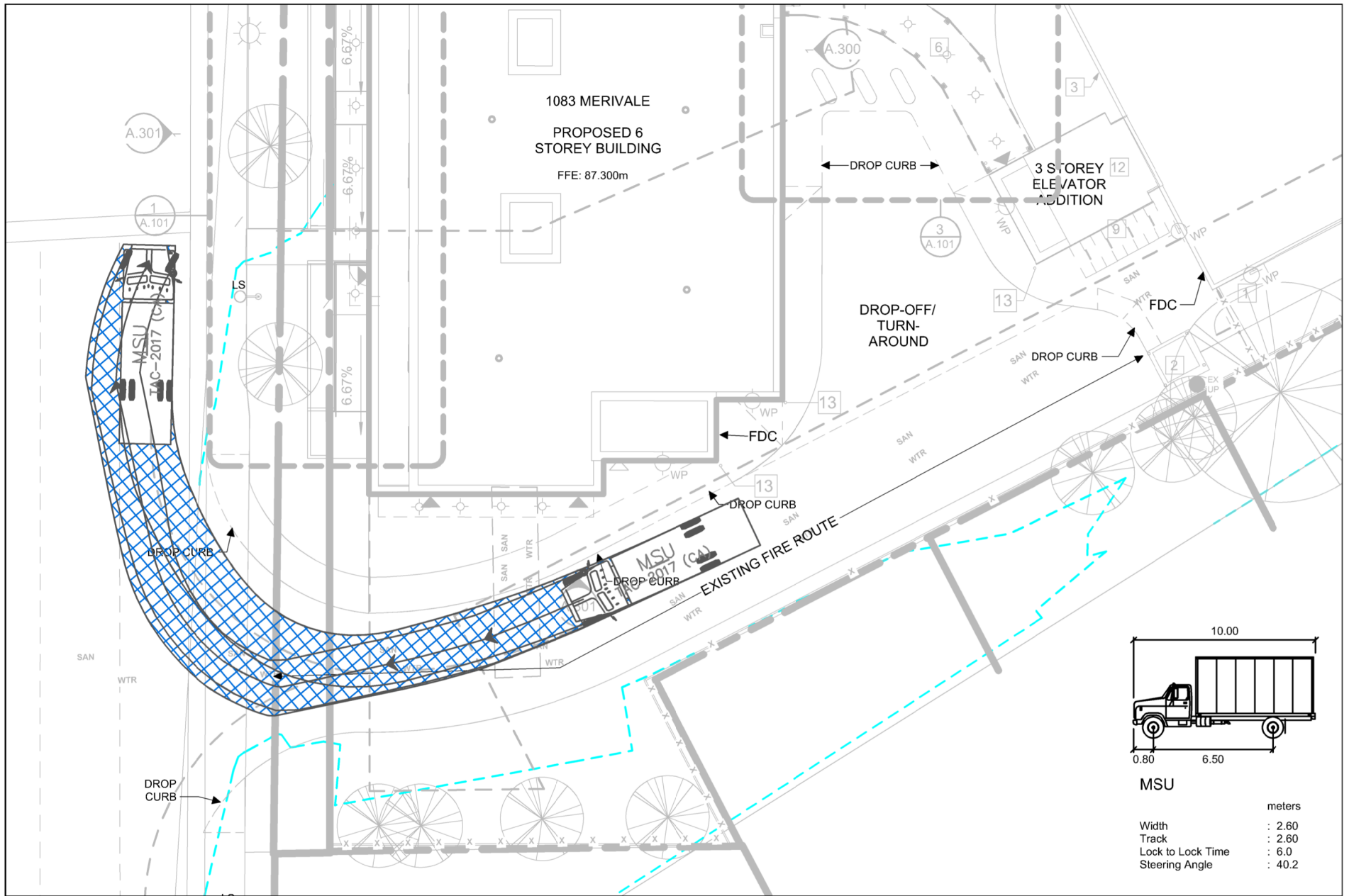
Date Site Plan Received: 2022-11-10

Scale: NTS



Appendix D - Figure 1 MSU (Inbound) Turning Model 1083 Merivale Road - Transportation Safety Review

C:\Users\cajp070918\WSP_O365\221-08265-00 - 14.10 Transp_Planning\04_Technical\01_Analysis\AutoTurn



MSU

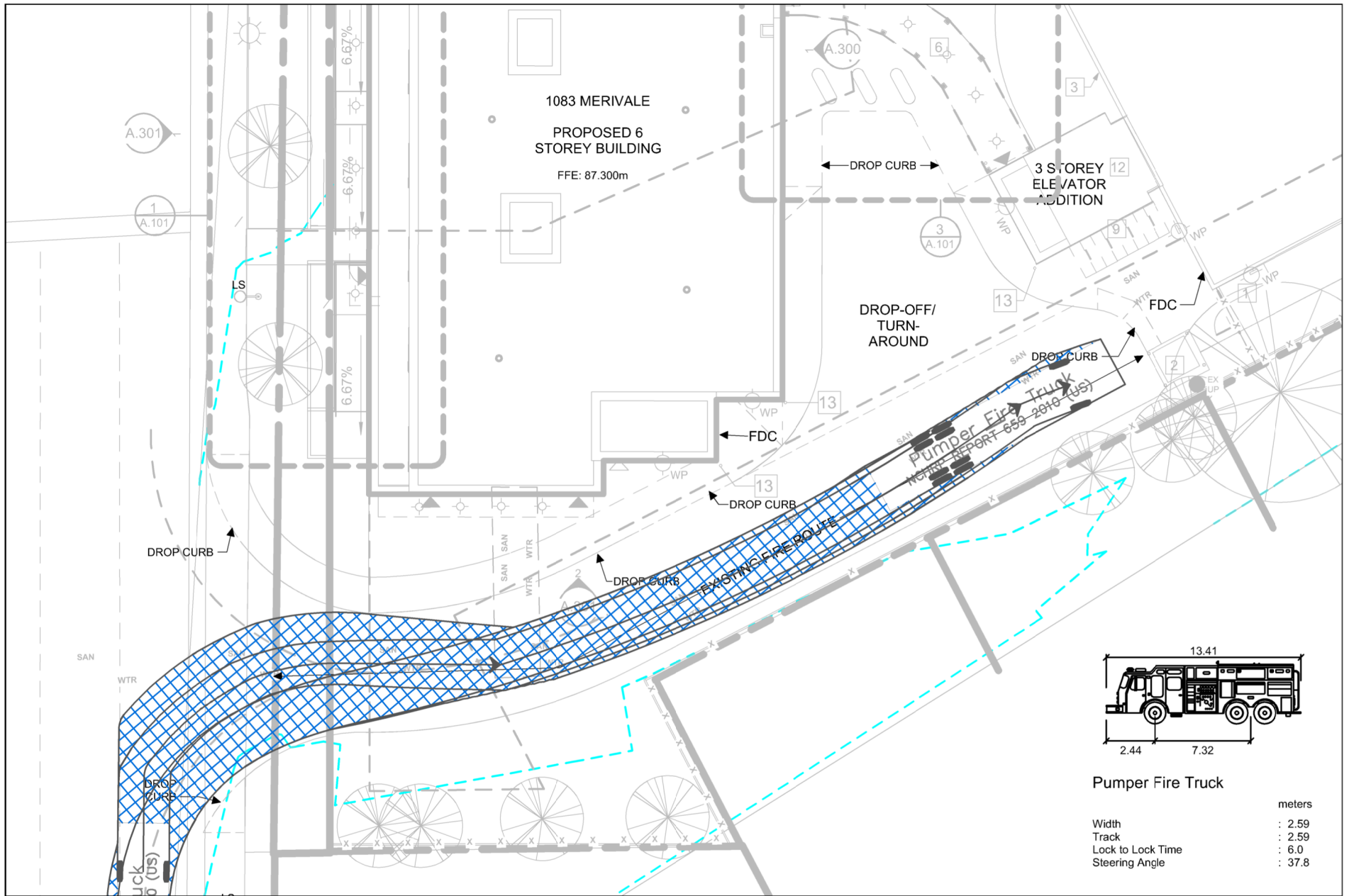
| | |
|-------------------|--------|
| | meters |
| Width | : 2.60 |
| Track | : 2.60 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 40.2 |

Date Site Plan Received: 2022-11-10

Scale: NTS



Appendix D - Figure 2 MSU (Outbound) Turning Model 1083 Merivale Road - Transportation Safety Review



Date Site Plan Received: 2022-11-10

Scale: NTS



Appendix D - Figure 3 Fire Truck (Inbound)Turning Model 1083 Merivale Road - Transportation Safety Review

APPENDIX

E

COMMENT
RESPONSE
LOG



COMMENT AND RESPONSE LOG

TO: File
FROM: Adam Howell, P.Eng.
SUBJECT: 1083-1095 Merivale Road Transportation Impact Assessment (current to October 23, 2023)
DATE: October 23, 2023

TRANSPORTATION SAFETY MEMO

WSP Submission January 19, 2023
City Comments Received July 25, 2023

1. Transportation Safety Memo:

- a) The TAC right-turn lane sightline review is to ensure a truck turning right out of the site access can see 120m upstream.**

Response: Noted, and updated language in memo to reflect that the 120m requirement is for a truck

- b) The plan used to demonstrate turning movements is different than the Site Plan submitted as part of the architectural package. Ensure the newest site plan can accommodate MSU movements.**

Response: Site plan updated in Memo. Turning template analysis updated accordingly. MSU is capable of entering and exiting along the Merivale access.

2. There are currently two curb depressions along the Merivale Road frontage to 1095 Merivale. Ensure the depressed curb outside of the proposed entrance is reinstated with full height curb.

Response: Noted and updated on Site Plan.

3. The proposed site access is 15.71m wide at the curb edge and does not meet the City's Private Approach Bylaw Section 25.1.c. "No private approach intended for two-way vehicular traffic shall exceed 9 metres in width at the street line, and at the curb line or roadway edge." Narrow the access at the curb edge as much as possible, while still allowing for fire truck movements.

Response: Noted and updated on Site Plan.

4. Show curb radii dimensions at the site access.

Response: Noted and updated on Site Plan.



5. **The loading/staging area cannot block the fire route.**

Response: Noted and updated on Site Plan.

6. **The 8.3% running slope on the ramps at the front of the building exceed AODA standards for ramps [80.24(1)4]. Ensure a slope of 1:15 is not exceeded.**

Response: Noted and updated on Site Plan.

7. **Show dimensions for pedestrian pathways throughout the site.**

Response: Noted and updated on Site Plan.

Prepared by:

Adam Howell, P. Eng.
Senior Project Manager, Transportation Planning