
To:	Gwen Zhang, P.Eng., Transportation Planning Engineer Infrastructure Development and Environmental Engineering, City of Guelph	From:	Zheng Luo, PhD., P.Eng., Transportation Engineer Stantec Consulting Ltd.
File:	161413684	Date:	May 9, 2022

Reference: 1242, 1250, 1260, 1270 Gordon Street and 9 Valley Road Traffic Impact Study Update Memo

1. INTRODUCTION

The following memo summarizes updates to the 1242, 1250, 1260, 1270 Gordon Street and 9 Valley Road Traffic Impact Study ("TIS") that was prepared by Stantec Consulting Limited, dated August 12, 2021, based on the City of Guelph ("the City")'s study review comments issued on November 17, 2021. The details of the City's TIS review comments memo were attached in **Appendix A**.

This memorandum has been prepared based on the comments received from the City to address all of them and updates specific parts of the TIS as required.

2. RECOMMENDED IMPROVEMENTS

Based on the City's Gordon Street between Edinburgh Road and Lowes Road Class Environmental Assessment, Schedule 'B' and Preliminary Design final report ("the Gordon Street Improvements Study") dated July 17, 2020, and the previous Stantec TIS, the following ultimate improvements in the study area were recommended:

- A new east approach ("Street A") at the intersection of Edinburgh Road and Gordon Street with a new 15m southbound left-turn lane
- A four (4) m wide two-way centre left-turn lane along Gordon Street from south of Edinburgh Road to Lowes Road
- Off-road bike facilities along Gordon Street
- An exclusive northbound right-turn lane combined with a northbound queue pass-by lane for buses at the Arkell Road and Gordon Street intersection
- A road closure of Valley Road at Gordon Street for auto traffic based on the City's Urban Design Concept
- Three (3) m multi-use paths on both sides of Gordon Street

With the implementation of these recommended measures, it will be expected that traffic delay at the Edinburgh Road and Gordon Street intersection and the Arkell Road and Gordon Street intersection will be reduced and traffic operation at these locations, as well as along Gordon Street in the study area, will be improved. In addition, active transportation (i.e., walking and biking) conditions along Gordon Street in the study area will also be improved.

May 9, 2022

Gwen Zhang, P.Eng., Transportation Planning Engineer

Page 2 of 5

Reference: 1242, 1250, 1260, 1270 Gordon Street and 9 Valley Road Traffic Impact Study Update Memo

3. LANE CONFIGURATIONS UPDATE

Based on the City's comments, an updated site plan was prepared to include the followings:

- Three (3) m multi-use paths on both sides of Gordon Street
- Pavement marking symbols for all turning movements at the Edinburgh Road & Gordon Street intersection
- All driving lane lines at the Edinburgh Road & Gordon Street intersection
- A City-recommended bike box on the east approach of the Edinburgh Road & Gordon Street intersection.

This updated site plan is illustrated in **Figure 1**, and the details of this plan are attached in **Appendix B**.

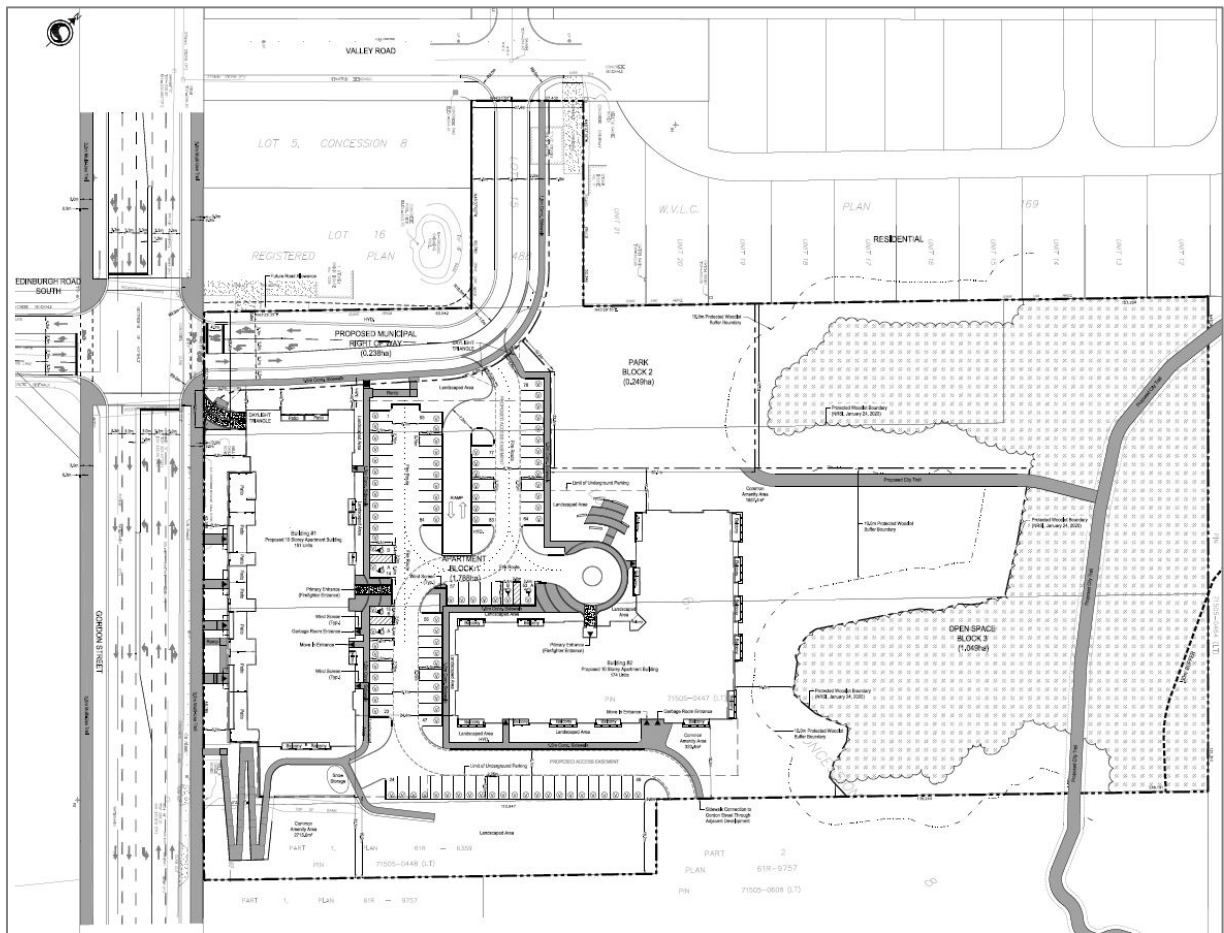


Figure 1 – Updated Site Plan

Reference: 1242, 1250, 1260, 1270 Gordon Street and 9 Valley Road Traffic Impact Study Update Memo

4. SIGHTLINE ASSESSMENT UPDATE

Based on the recommended improvements in the Gordon Street Improvements Study, Valley Road at Gordon Street will be closed for auto traffic in the future. Thus, the sight distance triangle to evaluate for both left-turning and right-turning movements in this memo is from the proposed east approach to the intersection of Gordon Street & Edinburgh Road; while only the sight distance triangle to evaluate for right-turning movement is required from the proposed south approach to the intersection of Landsdown Drive and Valley Road.

Based on the sightline assessment results included in the previous Stantec TIS report, the required sight distances are illustrated in **Figure 2**. The assessment results show that the new east leg at the intersection of Gordon Street & Edinburgh Road is expected to have sufficient sightlines for departing vehicles (i.e., the available distance on each side > required 190m distance). However, the new south leg at the intersection of Valley Road and Landsdown Drive will not have sufficient sightlines at the stopped position due to the horizontal curvature east of Landsdown Drive which results in a residence on the north side of Valley Road obstructing the available sightlines. It is assumed that this constrained sightline can be mitigated with an all-way stop control at this intersection for westbound vehicles to stop.



Figure 2 – Available and Required Sight Distances

May 9, 2022

Gwen Zhang, P.Eng., Transportation Planning Engineer

Page 4 of 5

Reference: 1242, 1250, 1260, 1270 Gordon Street and 9 Valley Road Traffic Impact Study Update Memo

5. TRAFFIC GEOMETRIC PLANS UPDATE

The truck turning templates were updated and attached in **Appendix C** with the following changes:

- Northbound right-turn paths were added for all types of vehicles
- A heavy single-unit truck traffic geometric plan was prepared

No vehicle-turning issues were observed in these plans.

6. TRANSPORTATION DEMAND MANAGEMENT UPDATE

This proposed development is located within a very sustainable transportation friendly corridor, the Gordon Street, which is well served by transit and will be receiving significant cycling infrastructure upgrades within the next 5-10 years. As recommended by the City, the following additional Transportation Demand Management ("TDM") measures were recommended for this development:

- Unbundled vehicular parking for residents
- Provision of vehicle parking not exceeding the zoning by-law vehicle parking demand
- Provision of a community carshare vehicle on-site
- Wayfinding/travel times to nearby amenities by foot, bike, and transit
- High quality cycling and pedestrian connections between the Gordon Street ROW and apartment buildings

7. PARKING STUDY UPDATE

A parking site plan was attached in **Appendix D** to reflect the following City-required features:

- Compared to what were proposed in the previous TIS, the provided bicycle parking spaces for this development are 358 (i.e., 274 spaces on P1 and 84 spaces on P2), and meet the required bicycle parking spaces based on the City's by-law
- All bike parking spaces are horizontal bicycle parking spaces
- The majority of bike parking spaces (i.e., 274 spaces of 358 total spaces, approximately 77%) are located on the first floor of underground parkade
- Among all 358 bicycle parking spaces, there are total 16 cargo bicycle parking spaces (i.e., 8 spaces on P1 and 8 spaces on P2)

8. ACTIVE TRANSPORTATION RECOMMENDATIONS

Based on the City's comments, an accessible pathway connection along the south side of development for pedestrians and cyclists connecting the Gordon Street right-of-way with the site is proposed in the latest site plan, which is included in **Figure 1** and **Appendix B**. The construction of this facility will provide an internal

May 9, 2022

Gwen Zhang, P.Eng., Transportation Planning Engineer
Page 5 of 5

Reference: 1242, 1250, 1260, 1270 Gordon Street and 9 Valley Road Traffic Impact Study Update Memo

connection to Gordon Street at the south of the site in addition to the connections at the north of the site and through the adjacent property to the south.

Stantec Consulting Ltd.



Zheng Luo Ph.D., P.Eng.
Transportation Engineer

Phone: 780-969-2040
zheng.luo@stantec.com

Attachment: Appendix A – City's TIS comments
Appendix B – Updated Site Plan
Appendix C – Traffic Geometric Plan Update
Appendix D – Parking Site Plan

APPENDIX A

City's TIS Comments

MEMO



DATE November 17, 2021
TO Mohsin Talpur, Development Environmental Engineer
FROM Transportation Services
DIVISION Transportation Planning and Engineering
DEPARTMENT IDE, Engineering and Transportation Services

**SUBJECT Transportation Impact Study Review for
 1242-1270 Gordon Street and 9 Valley Road**

Transportation Services Staff have reviewed the "1242, 1250, 1260, 1270 Gordon Street and 9 Valley Road Traffic Impact Study" that was prepared by Stantec Consulting Limited, dated August 12, 2021.

Staff are generally in agreement with the study findings and conclusions that the subject development can be accommodated by the area road network with some improvements to Gordon Street, including a new east approach at the Edinburgh Road intersection, a centre left-turn lane along Gordon Street, and an exclusive northbound right-turn lane at the Arkell Road intersection. These improvements are in line with recommendations in the [Gordon Street Improvements Study](#) (2020).

Staff suggest a technical memorandum be submitted to update some part of the study.

1. Acknowledge the improvements recommended in the Gordon Street Improvements Study and their impacts on traffic operations. Only descriptive assessments are required.
 - a. a new east approach at the Edinburgh Road intersection.
 - b. a centre left-turn lane along Gordon Street.
 - c. off-road bike facilities along Gordon Street.
 - d. an exclusive northbound right-turn lane combined with a northbound queue pass-by lane for buses at the Arkell Road intersection.
 - e. a road closure of Valley Road at Gordon Street.
2. Update the sightline assessment as a result of road closure of Valley Road at Gordon Street.
3. Revise Figure 2 and Figure 23 by modifying the lane configurations on Gordon Street to reflect recommendations in the Gordon Street Improvements study. In Figure 23, correct the pavement marking symbol for the southbound left-turn lane at Edinburgh Road. In the new east approach, consider including a bike box design.
4. Provide traffic geometric plans for northbound trucks turning right from Gordon Street to Street A.
5. Add traffic geometric plans for heavy single-unit trucks.

November 17, 2021

Transportation Demand Management related comments are offered below.

1. Please expand the TDM section. This development is located within a very sustainable transportation friendly corridor, which is well served by transit and will be receiving significant cycling infrastructure upgrades within the next 5-10 years. A number of measures to consider include the followings.
 - a. Unbundled vehicular parking for residents.
 - b. Meeting but not exceeding the provision of vehicular parking.
 - c. Provision of a community carshare vehicle on-site.
 - d. Wayfinding/travel times to nearby amenities by foot, bike, and transit.
 - e. High quality cycling and pedestrian connections between the Gordon Street ROW and apartment buildings.
 - f. A bicycle repair station on site.
2. Table 14 of the study indicates that 358 bicycle parking spaces are recommended, and 521 are being provided. Is this correct? Staff would prefer to see a variety of high quality long-term bicycle parking spaces (for instance, horizontal lift-assist racks, over-sized bike parking for cargo bikes/recumbents/bikes with trailers, regular floor-mounted racks etc.) rather than an over-supply of vertical wall mounted racks which can be inconvenient and challenging for many users.
3. Please ensure the majority of bike parking is located on the first floor of underground structures, to maximize convenience and safety for cyclists.
4. Per previous comments, staff would like to see a 3.0m wide shared pathway along the south side of development, for pedestrians and cyclists connecting the Gordon Street ROW with Building 2. The current pedestrian route requires residents living in Building 2 to take a circuitous route using Street A in order to travel southbound. Stronger active transportation connections support trips by foot and bike, by shortening travel times.

If you have any questions or concerns regarding the above comments, please feel free to contact us.

Gwen Zhang, P.Eng., Transportation Planning Engineer
Infrastructure, Development and Environmental Engineering
T: 519-822-1260 x 2638
F: 519-822-6194
E: Gwen.Zhang@guelph.ca

Cc: Munshif Muccaram, Benita van Miltenburg, Jennifer Juste, Paul Hutchison

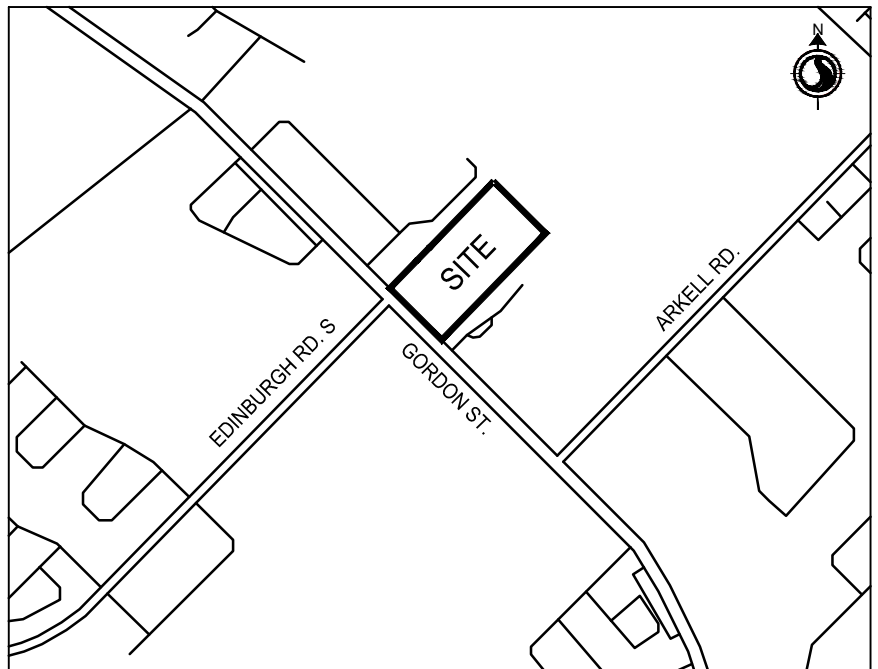
APPENDIX B

Updated Site Plan



The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

NTS.



 VISITOR PARKING
 COLOURED CONCRETE PAVING
 UNIT PAVEMENT BANDING
 CONCRETE PAVING

6.	Revised as per updated Parking and Road	JC	CH	2022.04.22
5.	Revised as per updated Building Footprints and Road	JJ	CH	2021.06.29
4.	Revised as per updated Building Footprints	JJ	CH	2021.05.27
3.	Revised as per updated Underground Parking	JJ	CH	2020.05.21
2.	Revised as per New NRSI Woodlot Boundary	JJ	CH	2020.02.18
1.	Revised as per New Building Layout	JJ	CH	2020.01.07

File Name: 161413684_R-SP	JJ	JJ	CH	2022.04.22
	Dwn.	Dsgn.	Chkd.	YYYY.MM.DD

1250 GORDON STREET

Title

Project No. 161413684

Scale 1:400

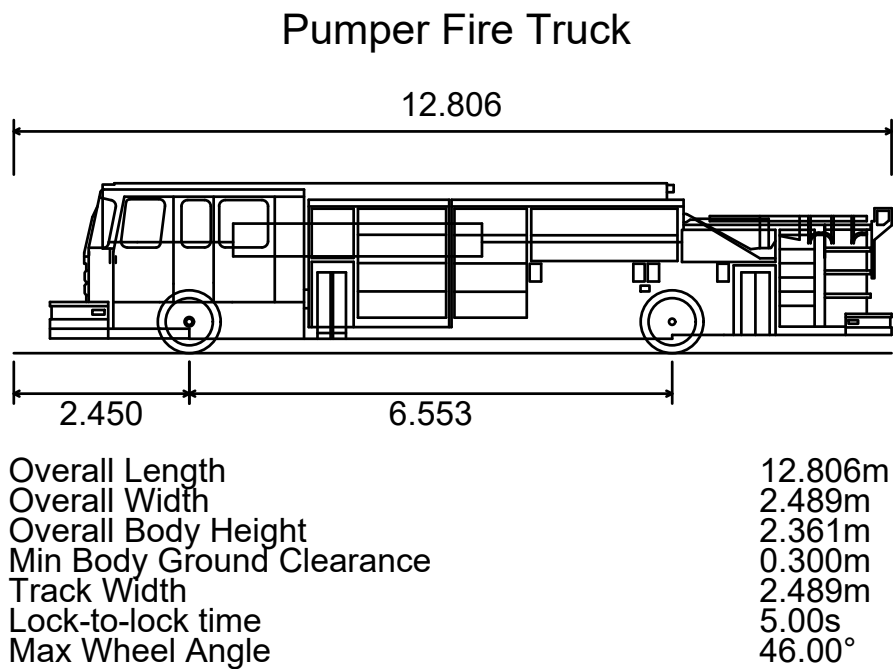
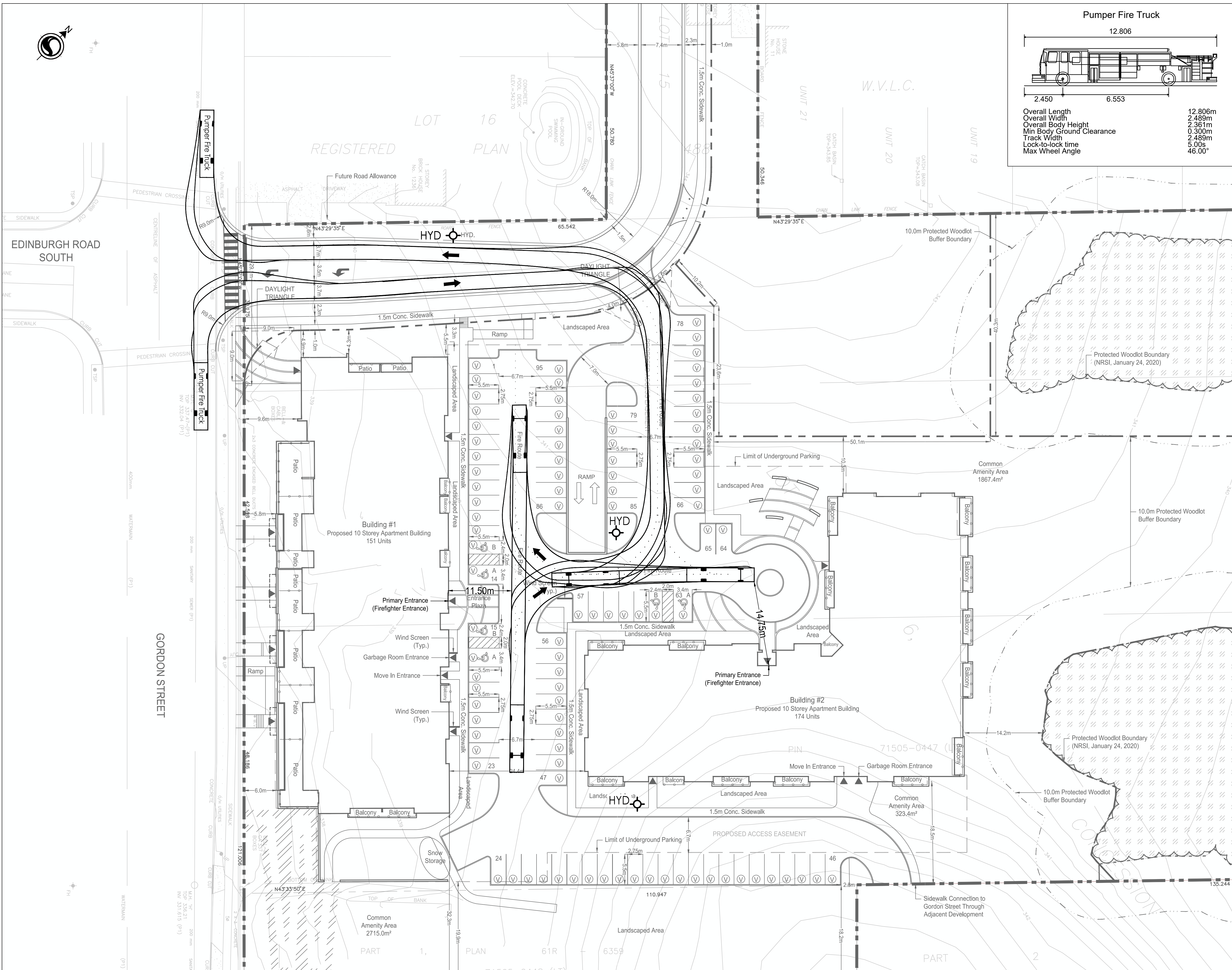
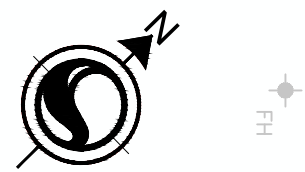
0 4 12 20m

Revision	Sheet	Drawing No.
6	1 of 1	SP 1

SP-1

APPENDIX C

Traffic Geometric Plan Update

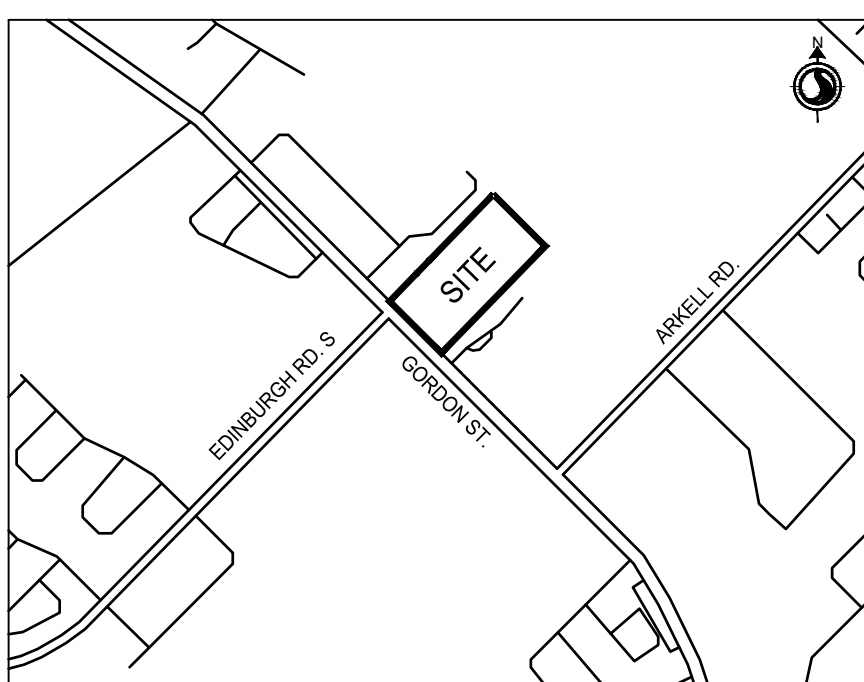


Copyright Reserved

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay.

The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

Key Map NTS.



2.	ISSUED FOR SITE PLAN APPROVAL	AB	CH	2022.03.21
1.	ISSUED FOR SITE PLAN APPROVAL	AB	CH	2021.07.07
0.	ISSUED FOR SITE PLAN APPROVAL	AB	CH	2020.03.13
Revision/Issue				By Appd YYYY.MM.DD
File Name: 161413684_R-FHS_Turning_Fire				Dwn. Dsgn. Chkd. YYYY.MM.DD

Permit-Seal

Client/Project
TRICAR DEVELOPMENTS INC.

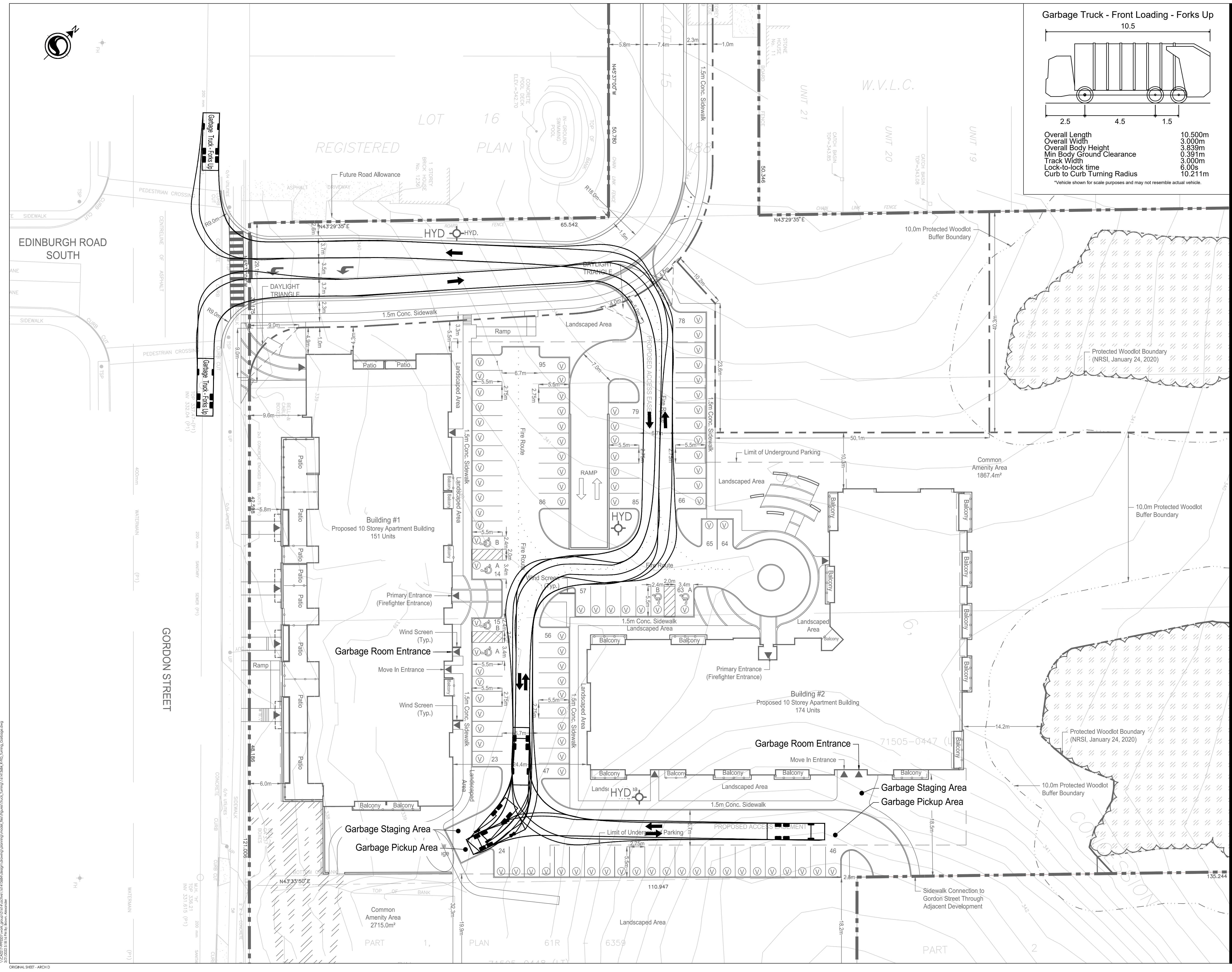
1250 GORDON STREET

GUELPH, ON

Title
TRUCK TURNING
FIRE TRUCK

Project No. 161413684
Scale 1:300

Revision 2 Sheet 1 of 3
Drawing No. AT-1



The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

Permit-Seal

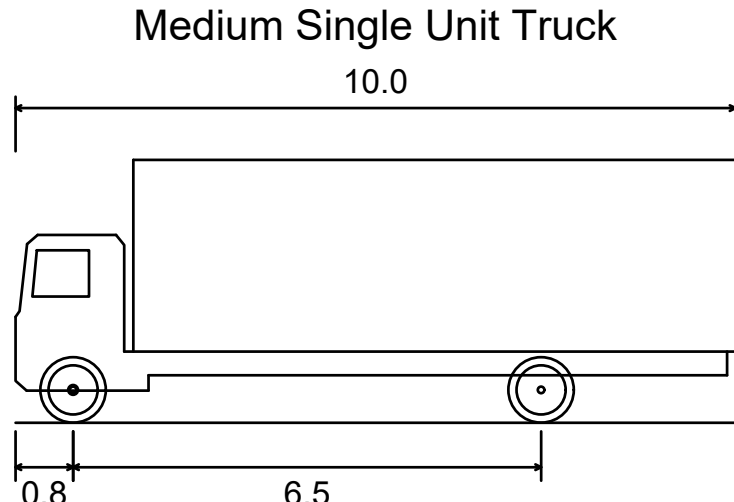
Title
TRUCK TURNING
GARBAGE TRUCK

Project No. 161413684		Scale 1:300	
Revision 2	Sheet 2 of 3	Drawing No. AT-2	



Copyright Reserved

Key Map NTS.



Overall Length	10.000m
Overall Width	2.600m
Overall Body Height	3.650m
Min Body Ground Clearance	0.445m
Track Width	2.600m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	11.100m

GORDON STREET

Move In Entrance

Move In Entrance

GUELPH, ON

Title
TRUCK TURNING
MOVING TRUCK

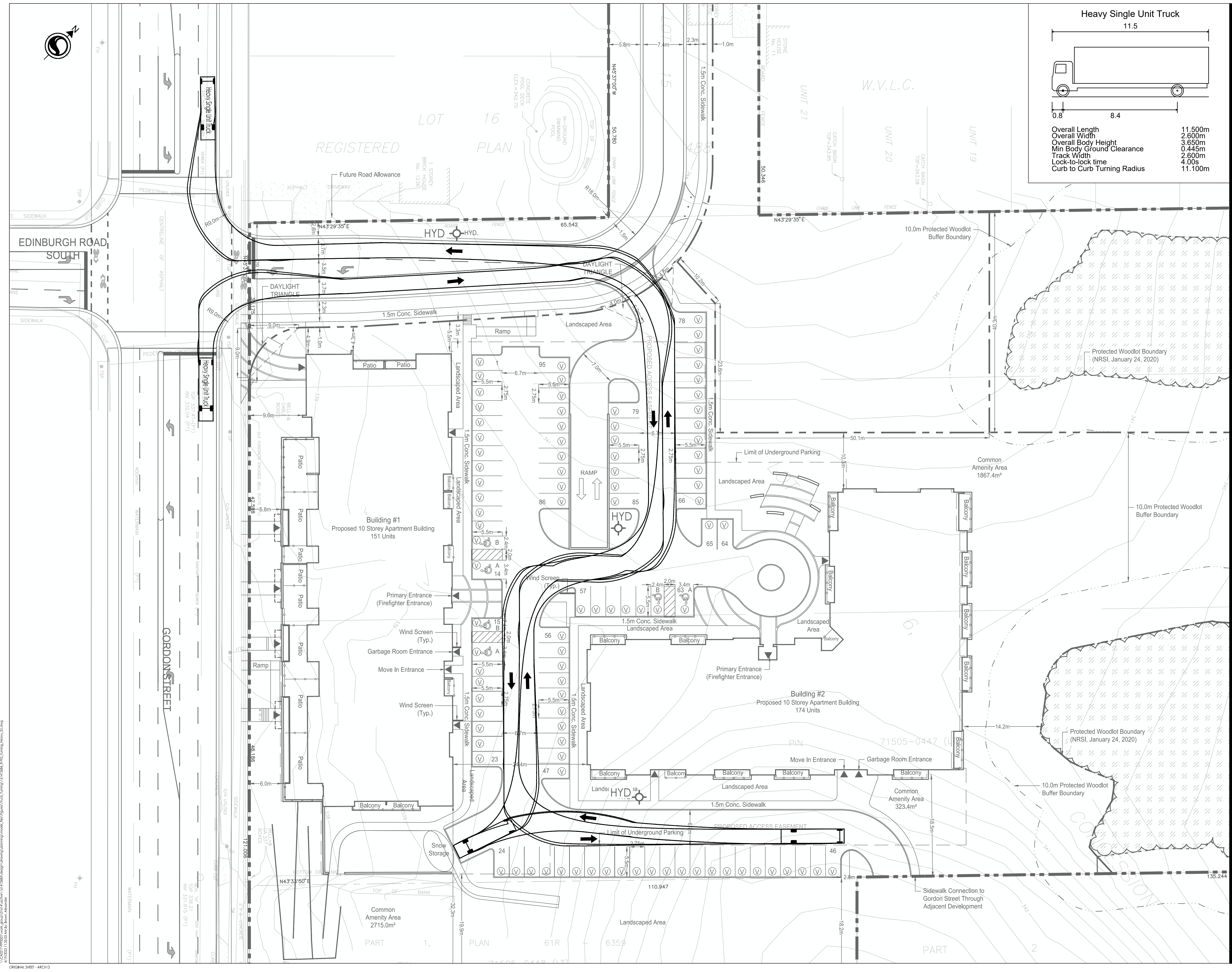
Revision Sheet
2 3 of 3

Drawing No.

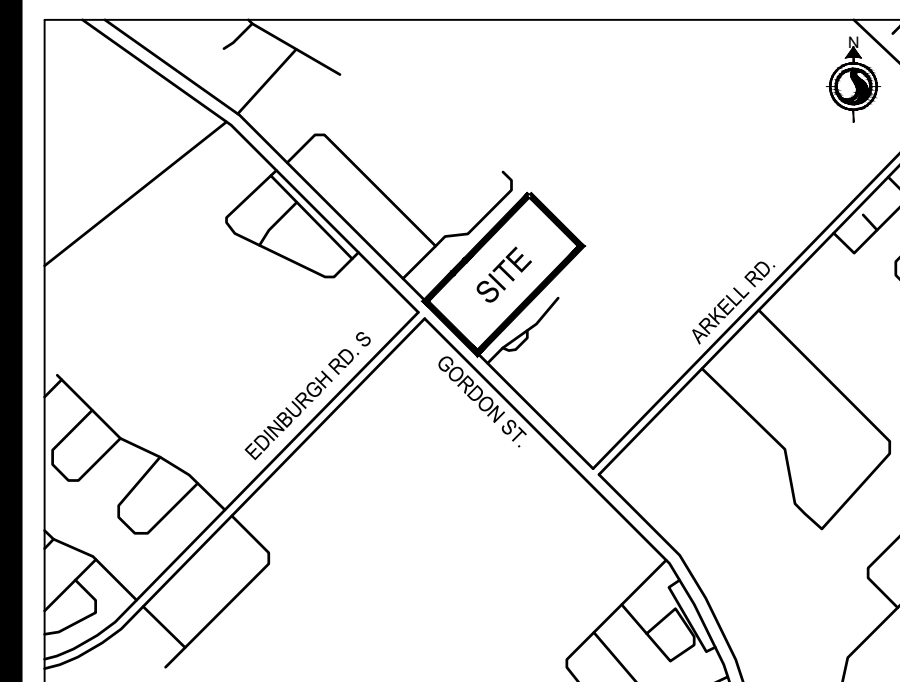
AT-3

(C:\QD217BP5501\work_group\01614\active\161413684\design\model_files\Figures\Truck_Turning\161413684_P-HQ_Turning_Moving.dwg
(P) 2022 4:15:49 PM Bruce Brown, Alexander

ORIGINAL SHEET - ARCH D



Key Map NTS.

Permit-Sea

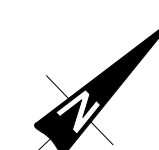
GUELPH, ON

Revision	Sheet	Drawing No.
0	4 of 4	AT 4

AT-4

APPENDIX D

Parking Site Plan



2	2021-08-26	RE-ISSUED FOR REZONING	
1	2021-08-12	ISSUED FOR REZONING	
REV.	YYYY-MM-DD	REVISION / DRAWING ISSUE	REVIEW

PERMIT STAMP

SEAL

THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS THE PROPERTY OF KASIAN ARCHITECTURE ONTARIO INCORPORATED, THE COPYRIGHT IN THE SAME BEING RESERVED TO THEM. NO REPRODUCTION IS ALLOWED WITHOUT THE PERMISSION OF KASIAN ARCHITECTURE ONTARIO INCORPORATED AND WHEN MADE MUST BEAR ITS NAME.

THIS DRAWING IS NOT TO BE SCALED. THE CONTRACTOR IS TO VERIFY DIMENSIONS AND DATA NOTED HEREIN WITH THE CONDITIONS ON SITE AND IS RESPONSIBLE FOR REPORTING ANY DISCREPANCY TO KASIAN ARCHITECTURE. ONTARIO INCORPORATED FOR ADJUSTMENT.

PROJECT

1250 GORDON STREET - MASTER

GUELPH, ONTARIO, CANADA

DRAWING TITLE

FLOOR PLAN - LEVEL P1

DRAWING ISSUE

RE-ISSUED FOR REZONING

PROJECT NO.	PLOT DATE	DRAWN
201233	2022-04-14	Author
	SCALE	REVIEWED
	1 : 200	Checker

A-102

2