140 Allstate Parkway, Unit 210
Markham, Ontario L3R 5Y8
Canada
www.ghd.com

TOWN OF CALEDON
PLANNING
RECEIVED
June 13, 2025

Our ref: 12649115

October 11, 2024

Wheelwright Group
110 Fenmar Drive
Toronto, Ontario
M9L 1M5

Attn: Ruth Wheelwright

Subject: **Traffic Impact Study**
Proposed Industrial Building Development
12155 Coleraine Drive, Bolton, Town of Caledon

Dear Ruth,

1. Introduction and background

GHD is pleased to submit this Traffic Impact Study for the proposed development of an industrial building located at 12155 Coleraine Drive in Bolton. The site location is shown in **Figure 1**.

Based on the current site plan, the proposed development consists of an industrial building with a total gross floor area (GFA) of 3,281.48 m^2 including 803.2 m^2 office, 1,050.22 m^2 warehouse and 1,428.06 m^2 maintenance shop uses with 66 passenger vehicle parking spaces provided.

The property has an existing access on Coleraine Drive. The proposed site access will be a right-in /right-out access. **Figure 2** shows the proposed industrial building and the access location. The current site plan is provided in **Appendix A**.

The objective of this study is to determine the anticipated traffic volumes generated by the proposed development during the critical weekday AM and weekday PM peak hour periods; to assess the impact of this traffic on the nearby roadways; to confirm that the proposed parking supply meets Caledon zoning by-law parking requirements, and to demonstrate that the vehicle sweep paths can be accommodated by the proposed site plan.

A Transportation Impact Study for the industrial block at Coleraine Drive and Mayfield Road bounded by Coleraine Drive, Parr Boulevard, future Simpson Road, and Mayfield Road was conducted (including the subject site) in November 2023 (referred to herein as the **November 2023 TIS**). The background traffic forecasts are built on the information contained in that traffic study.

This study establishes the existing traffic volumes for the critical weekday AM and PM peak hour periods, derives and assesses the other background traffic, estimates and assigns new site related traffic volumes onto the road network, and documents the expected site-related impacts from the proposed developments.

Figure 1 Site location

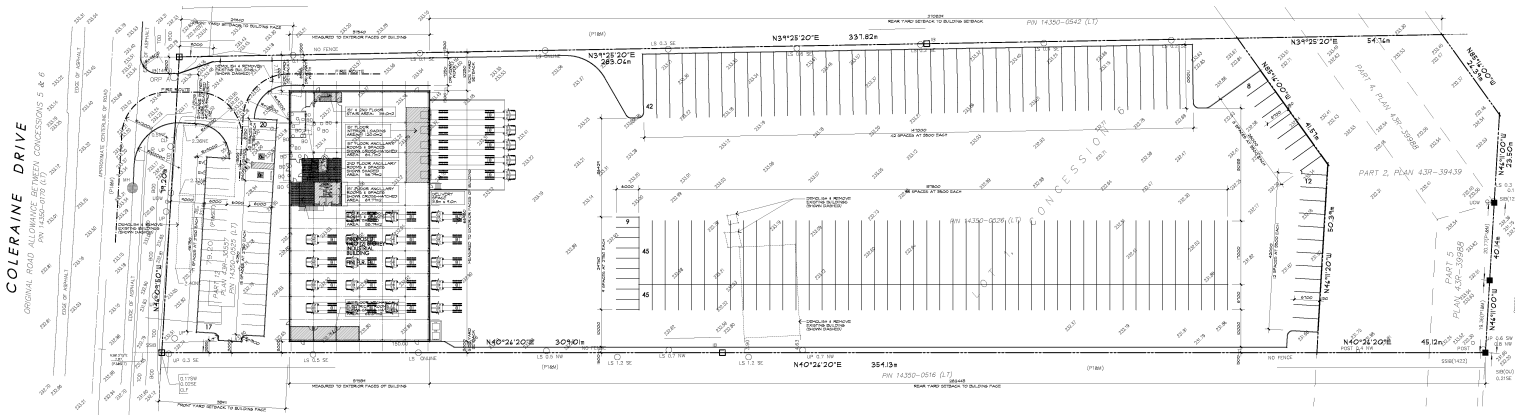


Figure 2 Site plan

2. Existing traffic

2.1 Study area

The study intersection for capacity analysis is the intersection of Coleraine Drive and Site Access.

2.2 Road network

The following describes the existing road infrastructure in this study area. **Figure 3** shows the lane configurations and traffic controls for the study intersection.

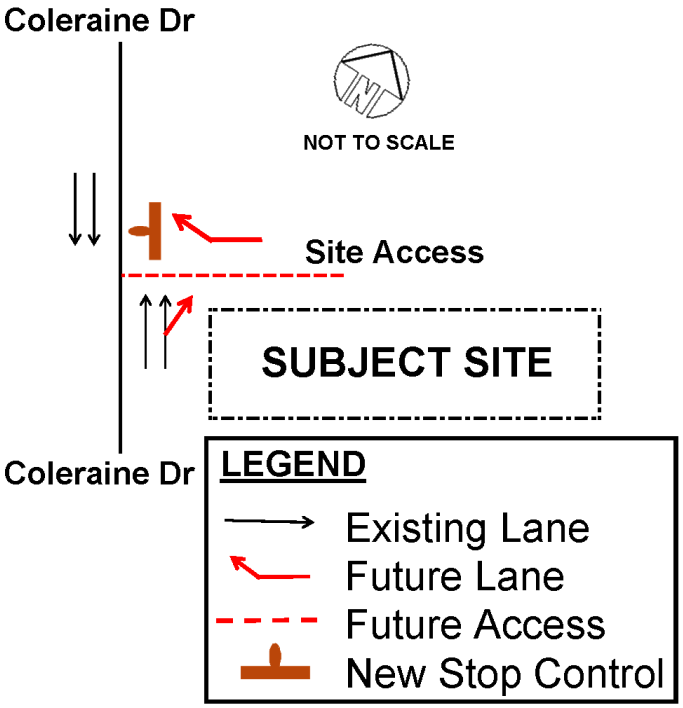


Figure 3 Intersection Lane configurations

Regional Road 150 (Coleraine Drive)

Coleraine Drive (Regional Road 150) is a north-south arterial roadway under the jurisdiction of the Region of Peel. It has a four-lane cross-section in the vicinity of the subject site with a posted speed limit of 70 km/h. It is straight and level. There is no sidewalks and no bicycle lanes along Coleraine Drive in the vicinity of the subject site.

2.3 Existing traffic data

The most recent weekday turning movement counts for the existing intersections of Coleraine Drive / Mayfield Road and Coleraine Drive / Parr Boulevard were obtained from Region of Peel and were conducted by Spectrum Inc. on Wednesday, April 17, 2024, as provided in **Appendix B**.

Based on review of the existing traffic data, the study uses the higher link volumes on Coleraine Drive counted at the Coleraine Drive / Mayfield Road during the weekday AM and PM peak hours, to be conservative.

Figure 4 shows the existing traffic volumes for weekday AM and PM peak hours at the study intersection.

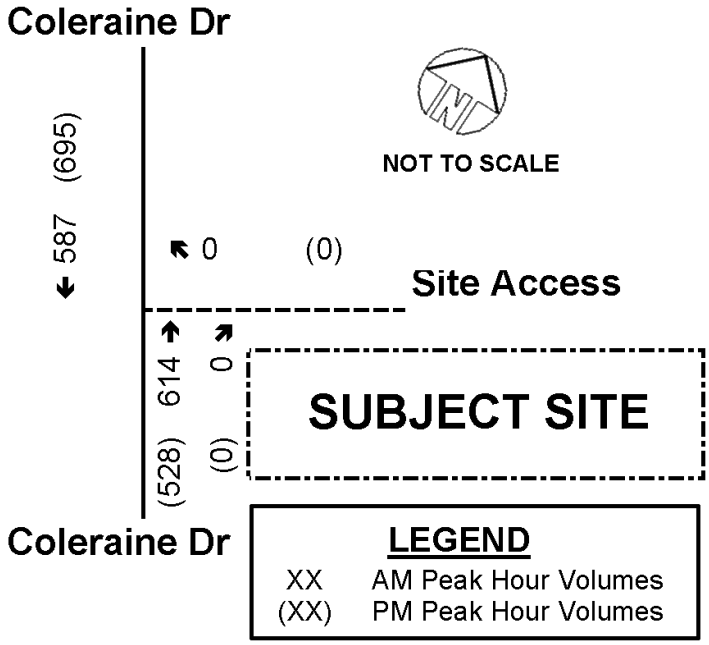


Figure 4 Existing traffic volumes

3. Background traffic

3.1 Future traffic growth

The **November 2023 TIS** applied an annual growth rate of 0.5% to through volumes on Coleraine Drive. In this analysis applied a growth rate of 0.5% per year to the northbound and southbound traffic (Figure 4) to forecast the growth for the 2033 study horizon, consistent with the **November 2023 TIS**.

The background traffic due to growth (existing traffic plus background traffic growth) is shown in **Figure 5**.

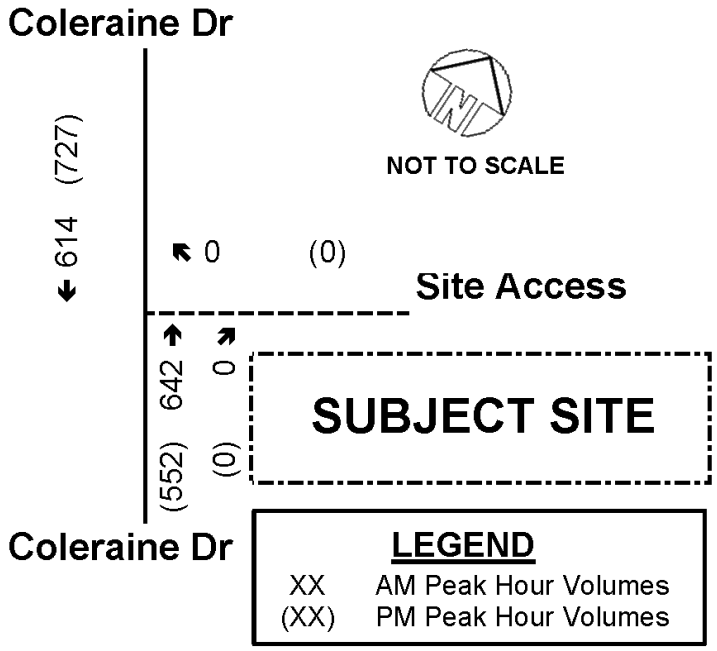


Figure 5 Background traffic volumes due to growth

3.2 Background development traffic

In this traffic study, other background development traffic volume is derived by calculating the existing 2023 volumes with background growth traffic volumes and subtracting from the 2033 future total traffic volumes (Figure 6-3, November 2023 TIS). The excerpts of **November 2023 TIS** report and background growth traffic volumes are provided in **Appendix C**.

The background development traffic volumes are shown in **Figure 6**.

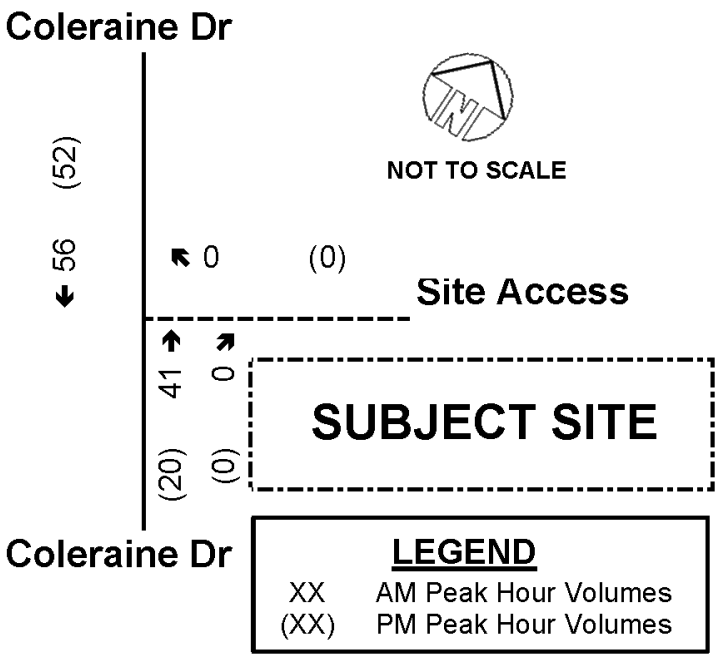


Figure 6 Other background development traffic volumes

3.3 Future background traffic volumes

The Future Background Traffic Volumes, shown in **Figure 7**, were derived by combining the background traffic growth (**Figure 5**) and other background development traffic volumes (**Figure 6**).

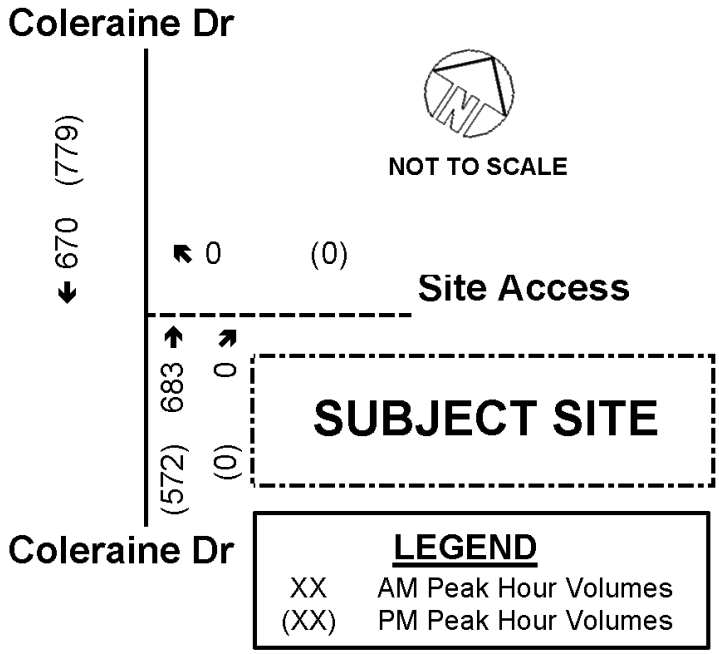


Figure 7 Future background traffic volumes

4. Proposed site generated traffic

Based on the current site plan, the proposed development consists of an industrial building with a total gross floor area (GFA) of 3,281.48 m^2 (35,321.6 ft^2) including 803.2 m^2 (8,645.6 ft^2) office, 1,050.22 m^2 (11,304.5 ft^2) warehouse and 1,428.06 m^2 (15,371.6 ft^2) maintenance shop uses.

The subject site vehicular trips were estimated based on the trip rates of General Office (Land Use Code #710), Warehouse (LUC #150) and Automobile Care Center (LUC #942) provided by Trip Generation, 11th Edition, published by the Institute of Transportation Engineers (ITE). The Automobile Care Centre (LUC #942) was selected since it closely represents the expected activity at the site. The maintenance shop is to repair trucks. There are approximately 12 work stations, therefore 24 vehicle trips entering and the 26 trip exiting estimated during the AM and PM peak hours (Table 1), are an over-estimation, however conservative for the purpose of assessing the traffic capacity of the site access.

Considering the proposed site land use GFAs may be modified, this analysis increases and rounds the land use GFAs, as conservative conditions.

The ITE's Trip Generation Manual provides two different methods to generate the trips: either using average rates or using the fitted curve equations. The estimated trips related to the proposed developments are summarized in **Table 1**. **Appendix D** contains the ITE Trip Generation details.

Table 1 Site trip generation

Site Development	GFA (1000 ft^2)	Parameter	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
Office (LUC 710)	10	New Trips (Average Rate)	13	2	15	2	12	14
		New Trips (Fitted Curve)	**20**	**3**	**23**	**4**	**21**	**25**
Warehouse (LUC 150)	12	New Trips (Average Rate)	2	0	2	1	1	2
		New Trips (Fitted Curve)	**19**	**6**	**25**	**8**	**20**	**28**
Maintenance Shop (LUC 942)	16	**New Trips (Average Rate)**	**24**	**12**	**36**	**24**	**26**	**50**
		New Trips (Fitted Curve)	-	-	-	24	26	50
Total New Trips			**63**	**21**	**84**	**36**	**67**	**103**

To be conservative, this study uses the larger trips of the average rate and fitted curve equations (resulting in more trips) to estimate trips generated by the proposed subject site.

Although there could be an allowance for transit and active transportation modes, vehicle trip reductions were not considered for this analysis, to be conservative. Accordingly, the site trips are expected to be 84 two-way vehicle trips during the weekday AM peak hour and 103 two-way vehicle trips during the weekday PM peak hour.

The site trips are assigned to the roadway network via the proposed right-in /right-out access.

Figure 8 shows the resulting site generated trips assigned to the study intersection during the weekday AM and PM peak hours, respectively.

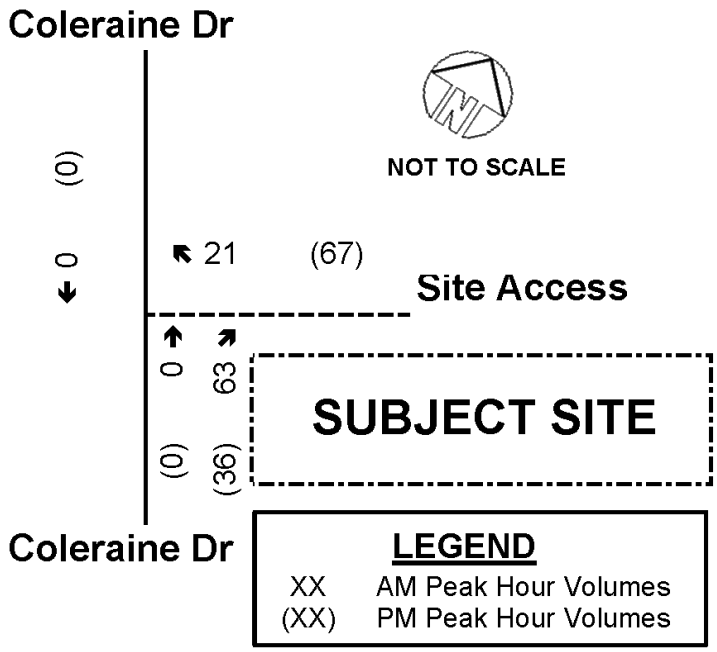


Figure 8 Site traffic volumes

5. Future total traffic

The future background traffic volumes (**Figure 7**) were combined with the estimated site trips (**Figure 8**) to estimate the total weekday AM and weekday PM traffic volumes. The total traffic volumes for the weekday AM and PM peak hours are presented in **Figure 9**.

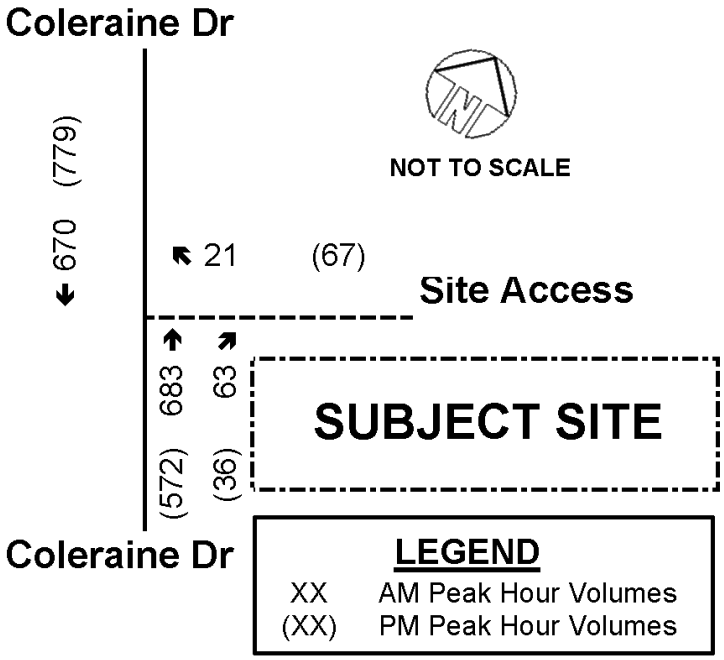


Figure 9 Future total traffic volumes

6. Future traffic conditions

This section presents the traffic impact analysis and summarizes the traffic operations of the future street network after the introduction of the subject site generated traffic.

Measuring projecting future traffic volumes quantifies traffic flow for the study intersection. To assess quality of flow, roadway capacity analyses were conducted with respect to future traffic volume conditions, assuming the proposed development is constructed.

The effectiveness of an intersection's operations is measured in terms of Level-of-Service (LOS). LOS ranges from LOS 'A' to LOS 'F', with LOS 'A' being the best level of operation for an intersection representing free flow conditions where the general level of comfort and convenience experienced by motorists is excellent, and LOS 'F' representing an at-capacity condition with congestion, and occasionally severe delays and queuing.

For analysis purposes, 'critical' intersection movements are defined as traffic movements where:

- Volume to capacity (V/C) ratio of through movement or shared through/turning movement exceeds 0.85; or
- Volume to capacity (V/C) ratio of an exclusive turning movement exceeds 1.0.

These capacity analyses are based on the methodology contained in the Highway Capacity Manual, which assigns an intersection Level of Service (LOS) based on the average control delay experienced by each vehicle passing through that intersection. Synchro software was utilized to conduct the analysis.

The existing intersection peak hour factors were based on the traffic count data and used for future scenarios in the Synchro analysis.

Table 2 summarizes the future total traffic operations for the study intersection. Detailed intersection capacity analysis reports can be found in **Appendix E**.

Table 2 Total traffic conditions

Intersection	Control Type	AM Peak Hour			PM Peak Hour		
		Overall v/c (LOS) Delay in Seconds	Critical/ Key Movements v/c(LOS) Delay in Seconds	95th %ile Queues (m)	Overall v/c (LOS) Delay in Seconds	Critical/ Key Movements v/c(LOS) Delay in Seconds	95th %ile Queues (m)
Coleraine Drive & Site Access	Unsignalized	WBR 0.04 (B) 11	WBR = 0.04 (B) 11 NBT = 0.29 (A) 0 NBTR = 0.19 (A) 0 SBT = 0.21 (A) 0 SBT = 0.21 (A) 0	WBR = 5 m NBT = 0 m NBTR = 0 m SBT = 0 m SBT = 0 m	WBR 0.11 (B) 11	WBR = 0.11 (B) 11 NBT = 0.24 (A) 0 NBTR = 0.14 (A) 0 SBT = 0.25 (A) 0 SBT = 0.25 (A) 0	WBR = 5 m NBT = 0 m NBTR = 0 m SBT = 0 m SBT = 0 m

A review of **Table 2** indicates that under future total traffic conditions, all movements at the study intersection are expected to operate with LOS 'B' or better during the weekday AM and PM peak hours, with delays less than 11 seconds. The v/c ratios during the weekday peak hours are 0.29 or less, indicating that all movements have substantial reserve capacity.

Based on the above analysis, the subject site development does not add significant adverse impacts onto the study area roadway and intersection. The proposed development traffic can be accommodated by the adjacent street system without operational issues at the study intersection. There is no road improvements triggered as a result of the subject site development.

7. Parking supply review

Based on the current site plan, the proposed development consists of an industrial building with a total gross floor area (GFA) of 3,281.48 m^2 including 803.2 m^2 office, 1,050.22 m^2 warehouse and 1,428.06 m^2 maintenance shop uses with 66 passenger vehicle parking spaces provided.

7.1 Review of Town's parking By-Law requirements

Based on our review of the Town of Caledon Zoning By-law parking requirements (Section 5, provided in **Appendix F**), **Table 3** summarizes the Town's requirements for the number of parking spaces.

Table 3 Town's parking requirements

Land Use	GFA (m^2)	By-Law Requirement	
		Parking Rate	Parking Spaces
Office	803.2	1.0 space / 30 m^2	27
Warehouse	1,050.22	1.0 space / 90 m^2	12
Maintenance Shop	1,428.06	1.0 space / 90 m^2	16
Total			**55**

Therefore, the proposed parking supply of 66 passenger vehicle spaces exceeds the Town's By-law requirement of 55 spaces with an extra 11 parking spaces.

8. Site circulation review

The site plan was reviewed with respect to design vehicle circulation using AutoTURN software.

Based on the analysis, the vehicle sweep path review confirms that the proposed site plan is sufficient to accommodate the circulation requirements of WB-20 tractor-trailers as illustrated in the figures provided in **Appendix G**.

Therefore, the proposed site plan has been reviewed and found to be acceptable in terms of vehicular flow, loading, and parking space accessibility. The proposed site access is sufficient to accommodate circulation requirements of the typical service and transport trucks.

9. Conclusions and recommendations

- The objective of this study is to determine the anticipated traffic volumes generated by the proposed development (12155 Coleraine Drive) during the critical weekday AM and weekday PM peak hours; to assess the impact of this traffic on the nearby roadways; to confirm that the proposed parking supply meets Town of Caledon bylaw parking requirements, and to demonstrate that vehicle circulation can be accommodated by the proposed site plan.

- A Transportation Impact Study for the industrial block at Coleraine Drive and Mayfield Road bounded by Coleraine Drive, Parr Boulevard, future Simpson Road, and Mayfield Road was conducted (including the subject site) in November 2023 (referred to herein as the **November 2023 TIS**). The background traffic forecasts are built on the information contained in that traffic study.
- Based on the current site plan, the proposed development consists of an industrial building with a total gross floor area (GFA) of 3,281.48 m^2 including 803.2 m^2 office, 1,050.22 m^2 warehouse and 1,428.06 m^2 maintenance shop uses with 66 passenger vehicle parking spaces provided.
- The property has an existing access on Coleraine Drive. The proposed site access will be a right-in /right-out access.
- The subject development is expected to generate 84 two-way vehicle trips during the weekday AM peak hour and 103 two-way vehicle trips during the weekday PM peak hour.
- The capacity analyses concludes that the proposed development can be satisfactorily accommodated by the abutting roadway system. Traffic generated by the proposed development does not add significant adverse impacts on the study area roadway and intersection. No road and intersection improvements are triggered as a result of this development.
- Based on our review of the Town of Caledon Zoning By-law parking requirements, the proposed parking supply of 66 passenger vehicle spaces exceeds the Town's By-law requirement of 55 spaces with a surplus of 11 parking spaces.
- The vehicle sweep path review confirms that the proposed site plan is sufficient to accommodate the circulation requirements of WB-20 tractor-trailers.

Based on the foregoing, it is our opinion that the future road network can easily accommodate the estimated subject site traffic without impact and that there are no anticipated operational issues at the study area roadways.

We trust the enclosed is sufficient for your needs, but please do not hesitate to contact the undersigned should you require any additional assistance.

Sincerely,

GHD

Hong Shen, M.Eng., P.Eng.
Senior Project Engineer
hong.shen@ghd.com

Roland Roovers, P.Eng.
Senior Manager, Transportation Planning
roland.roovers@ghd.com

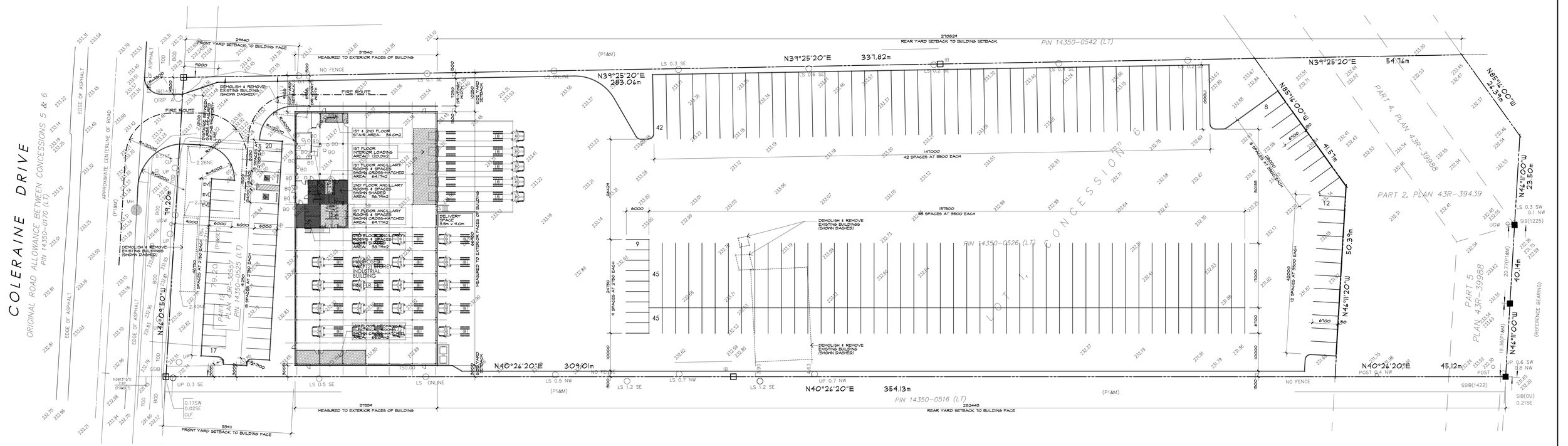
Attach. **Appendices A-G**

RR/hs

The Power of Commitment

Appendix A

Site Plan



GENERAL NOTES & LEGEND

5 / A-1 — SCALE: N.T.S.

- Overhead Door Entrance-Loading Dock
- Overhead Door Entrance-Drive-in
- Hollow Metal Door Entrance/Exit Locations

1. All dimensions noted on this plan are noted in millimetres.
2. Information for this site plan was taken from a digital file of Plan of Survey Showing Topographic Features of Part of Lot 1, Concession 6, Town of Caledon, Regional Municipality of Peel as prepared by Young & Young Surveying Inc., Ontario Land Surveyors 2 Holland Drive, Unit 5, Bolton, Ontario, L7E 1E1 Tel. (905) 951-6000 Fax. (905) 857-4811 www.youngsurveying.ca - info@youngsurveying.ca Signed & Dated: July 16, 2018 Wheelwright Group Inc. NOT responsible for same.
3. Refer also to Landscape Drawings L-1 & L-2 as prepared by Reed Olsen Landscape Architect Inc. and Site Grading/Servicing drawings G-1, P-1 & S-1 as prepared by A. M. Candaras Associates Inc.
4. Electrical site lighting shown for coordination purposes only. Refer to Electrical drawings as prepared by HL Engineering Ltd.; Wheelwright Group Inc. responsible for same.
5. Underground site services shown for coordination purposes only. Refer to Site Servicing & Grading drawings as prepared by A.M. Candaras Associates Inc. Wheelwright Group Inc. not responsible for same.
6. Lighting Notes
   a. "Lighting fixtures shall be installed in such a manner that all light emitted from the fixture, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the fixture is projected below the lamp and onto the lot the lighting is intended to serve".
   b. "The maximum height of all lighting fixtures is 9.0m".
   c. "The minimum distance of lighting fixtures from any lot line is 4.5m".
7. Ground Sign
   Proposed ground signs to conform to Town of Caledon Sign By-law 94-14.
8. Barrier Free Entrance
   Front entrance aluminum doors are equiped with electric power operators c/w push buttons in mullions.
9. On Site Snow Storage
   All snow will be trucked off site.

DRAWING LIST

6 / A-1 — SCALE: N.T.S.

A-1	Site Plan, Site Statistics & Matrices	A-2.4	Door & Room Finish Schedules & Detailed Plans at Work Area	A-5.1	Plan Details & Wall Section Details
A-2.1	Foundation & Ground Floor Plans			A-5.2	Wall Section Details
A-2.2	Upper Level & Roof Plans	A-3.1	Elevations	A-5.3	Wall Section Details
A-2.3	Detailed Plans	A-4.1	Building Cross-Sections	A-5.4	Wall Section Details

MUNICIPAL ADDRESS - 8522 MAYFIELD ROAD, BOLTON, ONTARIO

PART OF LOT 1 , CONCESSION 6, GEOGRAPHIC TOWNSHIP OF ALBION TOWN OF CALEDON , REGIONAL MUNICIPALITY OF PEEL

ZONING: MP - PRESTIGE INDUSTRIAL and MS - SERVICED INDUSTRIAL

	m2	ft2
LOT AREA (Minimum)		
Minimum Required Lot Area = 925.0 m2 (0.0925 ha)		
EXISTING LOT AREA (2.89 ha)	28,900.00	311,077.01
TOTAL LOT AREA	28,900.00	311,077.01

LOT FRONTAGE (Minimum)	REQUIRED	PROVIDED
	30.0m	79.20m

BUILDING AREA (Max. Permitted 50% of Lot Area)	PERMITTED	PROVIDED
BUILDING AREA / LOT AREA	14,450.00	2,514.43 m2
2,514.43 / 28,900.00 = 8.7%		

BUILDING AREA BREAKDOWN	m2	ft2
PROPOSED INDUSTRIAL		
: OVERALL GROSS FLOOR AREA (1st & 2nd Floor)	2,912.76	31,352.69
: 1st FLOOR AREA	2,514.43	27,065.10
: Warehouse Storage & Repair Garage	2,214.53	23,837.00
: Office	299.90	3,228.10
2nd FLOOR AREA	398.33	4,287.59
: Warehouse Storage & Repair Garage	98.43	1,059.49
: Office	299.90	3,228.10
TOTAL BUILDING GROSS FLOOR AREA	2,912.76	31,352.69

BUILDING SETBACKS	REQUIRED	PROVIDED
FRONT YARD MINIMUM (Coleraine Drive) TO WEST PROPERTY LINE	9.0m	29.840m
INTERIOR SIDE YARD MINIMUM (North Side) TO NORTH PROPERTY LINE	6.0m	9.588m
INTERIOR SIDE YARD MINIMUM (South Side) TO SOUTH PROPERTY LINE	3.0m	3.0m
REAR SIDE YARD MINIMUM TO EAST PROPERTY LINE	7.5m	270.829m

GASOLINE PUMP ISLAND, ACCESSORY SETBACKS (Minimum)	Not Applicable	Not Applicable
ACCESSORY OPEN STORAGE AREA SETBACKS (Minimum)	Not Applicable	Not Applicable
ACCESSORY OUTSIDE SALES OR DISPLAY AREA SETBACK (Minimum)	Not Applicable	Not Applicable
BUILDING HEIGHTS (Maximum)	18.0m	10.5 & 11.5m See Elevations
LANDSCAPED AREA (Min. Required 10% of Lot Area)	1,105.73 m2	1,821.52 m2
Actual Landscaped Area 1,821.52 / 11,057.34 = 16.47 %		

PLANTING STRIP WIDTH (Minimum)	m2	ft2
From Front Lot Line (West Side - Coleraine Drive)	6.0m	9.0m
From Rear Lot Line (East Side)	1.5m	3.0m
From Interior Side Lot Line (North Side)	1.5m	3.328m
From Interior Side Lot Line (South Side)	1.5m	3.0m

DRIVEWAY SETBACKS (Minimum)		
From Front Lot Line (West Side - Coleraine Drive)	1.5m	15.0m
From Rear Lot Line (East Side)	1.5m	9.0m
From Interior Side Lot Line (North Side)	1.5m	1.5m
From Interior Side Lot Line (South Side)	1.5m	1.5m

PARKING SPACE SETBACK (Minimum)		
From Front Lot Line (West Side - Coleraine Drive)	6.0m	15.0m
From Rear Lot Line (East Side)	3.0m	3.0m
From Interior Side Lot Line (North Side)	3.0m	3.0m
From Interior Side Lot Line (South Side)	3.0m	3.0m

ACCESSORY USES	Not Applicable	Not Applicable
GARBAGE ENCLOSURES	Provided Outside the Building	

PARKING STANDARDS	REQUIRED	PROVIDED
NON-RESIDENTIAL PARKING REQUIREMENTS		
INDUSTRIAL USE - NET FLOOR AREAS:		
Total Gross Floor Area: (Warehouse & Repair Garage) 2,312.96 m2		
Deduct Allowable Areas Outlined on Site Plan: 295.45 m2		
Net Floor Area: 2,017.51 m2		
(1 Space / 90m2 of Net Floor Area) (2,017.51 / 90 = 22.42 or 23)	23 Spaces	32 Spaces
Total Gross Floor Area: (Office) 599.80 m2		
Deduct Allowable Areas Outlined on Site Plan: 154.96 m2		
Net Floor Area: 444.84 m2		
(1 Space / 30m2 of Net Floor Area) (444.84 / 30 = 14.83 or 15)	15 Spaces	15 Spaces
Total Parking Spaces:	38 Spaces	47 Spaces
BARRIER FREE PARKING (13 to 100) Parking Requirement 4% of Required Spaces (38 x .04 = 1.52 or 2) =	2 Spaces	2 Spaces
TOTAL PARKING (Including Barrier Free)	38 Spaces	47 Spaces
NON-RESIDENTIAL PARKING REQUIREMENTS TRANSPORTATION TRUCK PARKING		
Total Gross Floor Area: 2,312.96 m2		
LOADING & DELIVERY STANDARDS		
LOADING SPACES : DRIVE-UP DOCKS		
LOADING: (3.5m x 14.0m x 3.35m high)	1 Space	5 Spaces
DELIVERY: (3.5m x 9.0m)	1 Space	1 Space
TOTAL LOADING	2 Spaces	6 Spaces

ZONING MATRIX

4 / A-1 — N.T.S.

Firm Name :	Name of Project :	Name & Address of Owner :
Wheelwright Group Inc. **John B. Wheelwright, P. Eng.** **110 Fenmar Drive** **Toronto, Ontario, M9L 1M5**	**INDUSTRIAL BUILDING** Location : **8522 Mayfield Road** **Bolton, Ontario**	**VESPA PACKAGING ENGINEERS INC.** **10 Automatic Road** **Brampton, Ontario, L6S 5N3**

Item	Ontario's 2012 Building Code Data Matrix Parts 3 or 9	B.C. REFERENCE	
1	Project Description : ■ New ☐ Addition ☐ Alteration; New One Storey Building ☐ Change of Use; ☐ Part 11 (11.1 to 11.4); ■ Part 3 ☐ Part 9	1.1.2. (A)	1.1.2. (A) & 9.10.1.3.
2	Major Occupancy(s): Medium Hazard Industrial (Manufacturing and Offices)	3.2.1. (1)	9.10.2
3	Building Area (sq.m.): Existing 0.00 New 5,194.51 Total 5,194.51	1.4.1.2 (A)	1.4.1.2 (A)
4	Gross Area (sq.m.): Existing 0.00 New 5,194.51 Total 5,194.51	1.4.1.2 (A)	1.4.1.2 (A)
5	Number of Storeys: Above grade 1 Below grade 0	1.4.1.2 (A) & 3.2.1.1	1.4.1.2 (A) & 9.10.4
6	Number of Streets/Fire Fighter Access: 1	3.2.2.10 & 3.2.5.	9.10.20
7	Building Classification: 3.2.2.70 Group F, Division 2, up to 4 Storeys, Increased Area, Sprinklered	3.2.2.20 - .83	9.10.2
8	Sprinkler System Proposed: ■ Entire building ☐ Selected Compartments ☐ Selected Floor Areas ☐ Basement ☐ In Lieu of Roof Rating ☐ Not Required	3.2.2.20 - .83; 3.2.1.5; 3.2.2.17 Index	9.10.8.2 Index
9	Standpipe required: ☐ Yes ■ No	3.2.9	N / A
10	Fire Alarm required: ☐ Yes ■ No	3.2.4	9.10.18
11	Water Service/Supply is Adequate: ■ Yes ☐ No	3.2.5.7	N / A
12	High Building: ☐ Yes ■ No	3.2.6	N / A
13	Construction Restrictions: ☐ Combustible permitted ☐ Non-combustible required ■ Both; Actual Construction: ☐ Combustible ☐ Non-combustible ■ Both	3.2.2.20 - .83	9.10.6
14	Mezzanine(s) Area (sq.m.): N / A	3.2.1.1.(3) - (8)	9.10.4.1
15	Occupant load based on: ☐ sq.m. / person ■ design of building 24	3.1.17	9.9.1.3
16	Barrier-free Design: ■ Yes ☐ No (Explain)	3.8	9.5.2
17	Hazardous Substances: ☐ Yes ■ No	3.3.1.2. & 3.3.1.19	9.10.1.3 (4)
18	Required Fire Resistance Rating (FRR): Horizontal Assemblies FRR (Hours) — Floor 0.75 Hours, Roof N/A Hours, Mezzanine N/A Hours; Listed Design No. or Description (SB-3): No second floor or mezzanine	3.2.2.20 - .83 & 3.2.1.4	9.10.8 9.10.9
	FRR of Supporting Members — Floors 0.75 Hours, Roof N/A Hours, Mezzanine N/A Hours; Listed Design No. or Description (SB-3): No second floor or mezzanine		
19	Spatial Separation - Construction of Exterior Walls	3.2.3	9.10.14

Wall	Area of EBF (sq.m.)	L.D. (m)	L/H or H/L	Permitted Max % of Openings	Proposed % of Openings	FRR (Hours)	Listed Design or Description	Comb. Const.	Comb. Constr. Nonc. Cladding	Non-comb. Constr.
North	400.73	15.26	N/A	100	6.79	N/A			Non-Combustible	Non-Combustible
East	1394.91	16.30	N/A	100	10.12	N/A			Non-Combustible	Non-Combustible
South	401.70	50.55	N/A	100	37.64	N/A			Non-Combustible	Non-Combustible
West	1498.36	3.33	N/A	11.2	3.87	2.0			Non-Combustible	Non-Combustible

BUILDING CODE MATRIX

3 / A-1 — N.T.S.

no.	issued / revision	date
5	Traffic Flow Truck Circulation on Site for Trailer Parking	23 September 2024
4	Traffic Flow Truck Circulation on Site for Trailer Parking	20 September 2024
3	Traffic Flow Truck Entrance Design Coordination	12 September 2024
2	Traffic Flow Truck Entrance Design Coordination	10 September 2024
1	Traffic Flow Truck Entrance Design Coordination	29 August 2024

owner
EVEREST TRANSPORTATION INC.
12155 Coleraine Drive
Bolton, Ontario, L7E 3B4

project name
PROPOSED INDUSTRIAL BUILDING
12155 Coleraine Drive, Bolton, Ontario
Town of Caledon Site Plan File No. SPA-

WHEELWRIGHT GROUP INC.
ENGINEERS AND CONTRACTORS
110 FENMAR DRIVE
TORONTO, ONTARIO, M9L 1M5
TEL.: (416) 741-2630 FAX: (416) 741-9059

EXSEN ENGINEERING LTD.
CONSULTING ENGINEERS
390 TARETON RD.
RICHMOND HILL, ON
L4C 3X7
Ph. (416) 712-0970
exsenerg11@gmail.com

scale	1:400
drawn	DM
date	August 2024
checked	
title	Overall Key Site Plan
project & drawing no.	WG-555 **A-1**

Custom Sheet Size 30" x 42"

Appendix B

Traffic Data

Spectrum

Turning Movement Count
Location Name: MAYFIELD RD & COLERAINE DR
Date: Wed, Apr 17, 2024 Deployment Lead: David Chu

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

Turning Movement Count (436 . MAYFIELD RD & COLERAINE DR) CustID: 01401354

Start Time	Southbound COLERAINE DR						Westbound MAYFIELD RD						Northbound COLERAINE DR						Eastbound MAYFIELD RD						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
07:00:00	24	94	55	0	0	173	8	49	10	0	0	67	7	72	15	0	0	94	68	44	8	0	0	120	454
07:15:00	31	86	37	0	0	154	4	48	15	0	0	67	11	79	8	0	0	98	87	49	6	0	0	142	461
07:30:00	28	69	34	0	0	131	7	50	11	0	0	68	6	56	8	0	0	70	64	50	4	0	0	118	387
07:45:00	15	85	29	0	0	129	9	62	10	0	0	81	4	53	10	0	0	67	89	77	10	0	0	176	453
Hourly	98	334	155	0	0	587	28	209	46	0	0	283	28	260	41	0	0	329	308	220	28	0	0	556	1755
08:00:00	17	61	28	0	0	106	12	53	10	0	0	75	9	68	2	0	0	79	66	61	8	0	0	135	395
08:15:00	11	87	25	0	0	123	5	54	14	0	0	73	2	56	9	0	0	67	50	54	7	0	0	111	374
08:30:00	24	69	33	0	0	126	9	48	7	0	0	64	5	64	7	0	0	76	73	58	14	0	0	145	411
08:45:00	18	57	36	0	0	111	5	44	10	0	0	59	6	89	6	0	0	101	69	62	8	0	0	139	410
Hourly	70	274	122	0	0	466	31	199	41	0	0	271	22	277	24	0	0	323	258	235	37	0	0	530	1590
BREAK																									
11:00:00	18	45	31	0	0	94	4	42	19	0	0	65	10	38	4	0	0	52	26	49	9	0	1	84	295
11:15:00	9	33	28	0	0	70	8	45	16	0	0	69	5	53	6	0	0	64	34	48	6	0	0	88	291
11:30:00	20	48	36	0	0	104	13	38	12	0	0	63	5	33	3	0	0	41	31	46	8	0	0	85	293
11:45:00	19	44	18	0	0	81	7	44	12	0	0	63	3	41	4	0	0	48	41	49	11	0	0	101	293
Hourly	66	170	113	0	0	349	32	169	59	0	0	260	23	165	17	0	0	205	132	192	34	0	1	358	1172
12:00:00	23	42	38	0	0	103	3	48	10	0	0	61	5	32	5	0	0	42	27	51	10	0	0	88	294
12:15:00	22	35	26	0	0	83	3	44	11	0	0	58	4	38	3	0	0	45	37	39	9	0	0	85	271
12:30:00	22	66	27	0	0	115	6	52	15	0	0	73	3	44	2	0	0	49	30	47	9	0	0	86	323
12:45:00	13	48	32	0	0	93	7	30	13	0	0	50	3	48	2	0	0	53	37	54	8	0	0	99	295
Hourly	80	191	123	0	0	394	19	174	49	0	0	242	15	162	12	0	0	189	131	191	36	0	0	358	1183
13:00:00	19	43	28	0	0	90	6	62	12	0	0	80	7	38	3	0	0	48	28	39	7	0	0	74	292
13:15:00	13	61	36	0	0	110	10	52	19	0	0	81	6	43	7	0	0	56	49	38	9	0	0	96	343
13:30:00	16	51	45	0	0	112	4	46	14	0	0	64	10	47	6	0	0	63	40	38	8	0	0	86	325
13:45:00	14	51	47	0	0	112	3	48	19	0	0	70	9	56	5	0	0	70	47	30	9	0	0	86	338
Hourly	62	206	156	0	0	424	23	208	64	0	0	295	32	184	21	0	0	237	164	145	33	0	0	342	1298
BREAK																									
15:00:00	17	82	111	0	0	210	11	63	15	0	0	89	7	67	4	0	0	78	43	65	6	0	0	114	491
15:15:00	23	78	66	0	1	167	9	62	20	0	0	91	13	94	7	0	0	114	48	66	7	0	0	121	493
15:30:00	15	96	70	0	0	181	24	95	12	0	0	131	6	69	7	0	0	82	38	57	13	0	0	108	502
15:45:00	23	61	52	1	0	137	10	59	13	0	0	82	6	68	8	0	0	82	41	70	8	0	0	119	420
Hourly	78	317	299	1	1	695	54	279	60	0	0	393	32	298	26	0	0	356	170	258	34	0	0	462	1906
16:00:00	20	92	89	0	0	201	7	71	15	0	0	93	6	66	10	0	0	82	38	50	4	0	0	92	468
16:15:00	14	72	69	0	0	155	6	61	17	0	0	84	6	70	9	0	0	85	39	62	7	0	0	108	432
16:30:00	17	86	72	0	0	175	9	83	15	0	0	107	9	62	9	0	0	80	31	46	6	0	0	83	445
16:45:00	8	53	48	0	0	109	10	84	13	0	0	107	7	61	5	0	0	73	37	53	4	0	0	94	383
Hourly	59	303	278	0	0	640	32	299	60	0	0	391	28	259	33	0	0	320	145	211	21	0	0	377	1728
17:00:00	20	115	88	0	0	223	13	91	17	0	0	121	9	72	4	0	0	85	54	48	5	0	0	107	536
17:15:00	8	57	58	0	0	123	15	67	14	0	0	96	6	73	7	0	0	86	44	59	4	0	0	107	412
17:30:00	9	74	93	0	0	176	5	70	16	0	0	91	8	81	6	0	0	95	43	56	2	0	0	101	463
17:45:00	15	52	66	1	0	134	4	49	16	0	0	69	6	80	8	0	0	94	65	51	4	0	0	120	417
Hourly	52	298	305	1	0	656	37	277	63	0	0	377	29	306	25	0	0	360	206	214	15	0	0	435	1828
Grand Total	565	2093	1551	2	1	4211	256	1814	442	0	0	2512	209	1911	199	0	0	2319	1514	1666	238	0	1	3418	**12460**
Approach%	13.4%	49.7%	36.8%	0%		-	10.2%	72.2%	17.6%	0%		-	9%	82.4%	8.6%	0%		-	44.3%	48.7%	7%	0%		-	-
Totals %	4.5%	16.8%	12.4%	0%		33.8%	2.1%	14.6%	3.5%	0%		20.2%	1.7%	15.3%	1.6%	0%		18.6%	12.2%	13.4%	1.9%	0%		27.4%	-

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

Heavy	459	76	358	0	-	37	331	337	0	-	36	94	45	0	-	373	315	33	0	-	-
Heavy %	81.2%	3.6%	23.1%	0%	-	14.5%	18.2%	76.2%	0%	-	17.2%	4.9%	22.6%	0%	-	24.6%	18.9%	13.9%	0%	-	-
Bicycles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycle %	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Spectrum

Turning Movement Count
Location Name: MAYFIELD RD & COLERAINE DR
Date: Wed, Apr 17, 2024 Deployment Lead: David Chu

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

Peak Hour: 07:00 AM - 08:00 AM Weather: Moderate Rain (5.84 °C)

Start Time	Southbound COLERAINE DR						Westbound MAYFIELD RD						Northbound COLERAINE DR						Eastbound MAYFIELD RD						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
07:00:00	24	94	55	0	0	173	8	49	10	0	0	67	7	72	15	0	0	94	68	44	8	0	0	120	454
07:15:00	31	86	37	0	0	154	4	48	15	0	0	67	11	79	8	0	0	98	87	49	6	0	0	142	461
07:30:00	28	69	34	0	0	131	7	50	11	0	0	68	6	56	8	0	0	70	64	50	4	0	0	118	387
07:45:00	15	85	29	0	0	129	9	62	10	0	0	81	4	53	10	0	0	67	89	77	10	0	0	176	453
Grand Total	98	334	155	0	0	587	28	209	46	0	0	283	28	260	41	0	0	329	308	220	28	0	0	556	**1755**
Approach%	16.7%	56.9%	26.4%	0%		-	9.9%	73.9%	16.3%	0%		-	8.5%	79%	12.5%	0%		-	55.4%	39.6%	5%	0%		-	-
Totals %	5.6%	19%	8.8%	0%		33.4%	1.6%	11.9%	2.6%	0%		16.1%	1.6%	14.8%	2.3%	0%		18.7%	17.5%	12.5%	1.6%	0%		31.7%	-
PHF	0.79	0.89	0.7	0		0.85	0.78	0.84	0.77	0		0.87	0.64	0.82	0.68	0		0.84	0.87	0.71	0.7	0		0.79	-
Heavy	80	8	38	0		126	1	36	32	0		69	3	7	12	0		22	32	44	0	0		76	-
Heavy %	81.6%	2.4%	24.5%	0%		21.5%	3.6%	17.2%	69.6%	0%		24.4%	10.7%	2.7%	29.3%	0%		6.7%	10.4%	20%	0%	0%		13.7%	-
Lights	18	326	117	0		461	27	173	14	0		214	25	253	29	0		307	276	176	28	0		480	-
Lights %	18.4%	97.6%	75.5%	0%		78.5%	96.4%	82.8%	30.4%	0%		75.6%	89.3%	97.3%	70.7%	0%		93.3%	89.6%	80%	100%	0%		86.3%	-
Single-Unit Trucks	37	5	15	0		57	0	11	16	0		27	0	6	0	0		6	11	12	0	0		23	-
Single-Unit Trucks %	37.8%	1.5%	9.7%	0%		9.7%	0%	5.3%	34.8%	0%		9.5%	0%	2.3%	0%	0%		1.8%	3.6%	5.5%	0%	0%		4.1%	-
Buses	0	0	0	0		0	0	5	0	0		5	0	0	0	0		0	0	3	0	0		3	-
Buses %	0%	0%	0%	0%		0%	0%	2.4%	0%	0%		1.8%	0%	0%	0%	0%		0%	0%	1.4%	0%	0%		0.5%	-
Articulated Trucks	43	3	23	0		69	1	20	16	0		37	3	1	12	0		16	21	29	0	0		50	-
Articulated Trucks %	43.9%	0.9%	14.8%	0%		11.8%	3.6%	9.6%	34.8%	0%		13.1%	10.7%	0.4%	29.3%	0%		4.9%	6.8%	13.2%	0%	0%		9%	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-

Turning Movement Count
Location Name: MAYFIELD RD & COLERAINE DR
Date: Wed, Apr 17, 2024 Deployment Lead: David Chu

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

Peak Hour: 01:00 PM - 02:00 PM Weather: Light Rain (4.57 °C)

Start Time	Southbound COLERAINE DR						Westbound MAYFIELD RD						Northbound COLERAINE DR						Eastbound MAYFIELD RD						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
13:00:00	19	43	28	0	0	90	6	62	12	0	0	80	7	38	3	0	0	48	28	39	7	0	0	74	292
13:15:00	13	61	36	0	0	110	10	52	19	0	0	81	6	43	7	0	0	56	49	38	9	0	0	96	343
13:30:00	16	51	45	0	0	112	4	46	14	0	0	64	10	47	6	0	0	63	40	38	8	0	0	86	325
13:45:00	14	51	47	0	0	112	3	48	19	0	0	70	9	56	5	0	0	70	47	30	9	0	0	86	338
Grand Total	62	206	156	0	0	424	23	208	64	0	0	295	32	184	21	0	0	237	164	145	33	0	0	342	**1298**
Approach%	14.6%	48.6%	36.8%	0%		-	7.8%	70.5%	21.7%	0%		-	13.5%	77.6%	8.9%	0%		-	48%	42.4%	9.6%	0%		-	-
Totals %	4.8%	15.9%	12%	0%		32.7%	1.8%	16%	4.9%	0%		22.7%	2.5%	14.2%	1.6%	0%		18.3%	12.6%	11.2%	2.5%	0%		26.3%	-
PHF	0.82	0.84	0.83	0		0.95	0.58	0.84	0.84	0		0.91	0.8	0.82	0.75	0		0.85	0.84	0.93	0.92	0		0.89	-
Heavy	57	10	56	0		123	5	38	55	0		98	3	20	7	0		30	54	33	4	0		91	-
Heavy %	91.9%	4.9%	35.9%	0%		29%	21.7%	18.3%	85.9%	0%		33.2%	9.4%	10.9%	33.3%	0%		12.7%	32.9%	22.8%	12.1%	0%		26.6%	-
Lights	5	196	100	0		301	18	170	9	0		197	29	164	14	0		207	110	112	29	0		251	-
Lights %	8.1%	95.1%	64.1%	0%		71%	78.3%	81.7%	14.1%	0%		66.8%	90.6%	89.1%	66.7%	0%		87.3%	67.1%	77.2%	87.9%	0%		73.4%	-
Single-Unit Trucks	16	9	20	0		45	2	18	13	0		33	2	18	2	0		22	20	17	1	0		38	-
Single-Unit Trucks %	25.8%	4.4%	12.8%	0%		10.6%	8.7%	8.7%	20.3%	0%		11.2%	6.3%	9.8%	9.5%	0%		9.3%	12.2%	11.7%	3%	0%		11.1%	-
Buses	0	0	0	0		0	0	1	0	0		1	0	0	0	0		0	0	0	0	0		0	-
Buses %	0%	0%	0%	0%		0%	0%	0.5%	0%	0%		0.3%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	-
Articulated Trucks	41	1	36	0		78	3	19	42	0		64	1	2	5	0		8	34	16	3	0		53	-
Articulated Trucks %	66.1%	0.5%	23.1%	0%		18.4%	13%	9.1%	65.6%	0%		21.7%	3.1%	1.1%	23.8%	0%		3.4%	20.7%	11%	9.1%	0%		15.5%	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-

Spectrum

Turning Movement Count
Location Name: MAYFIELD RD & COLERAINE DR
Date: Wed, Apr 17, 2024 Deployment Lead: David Chu

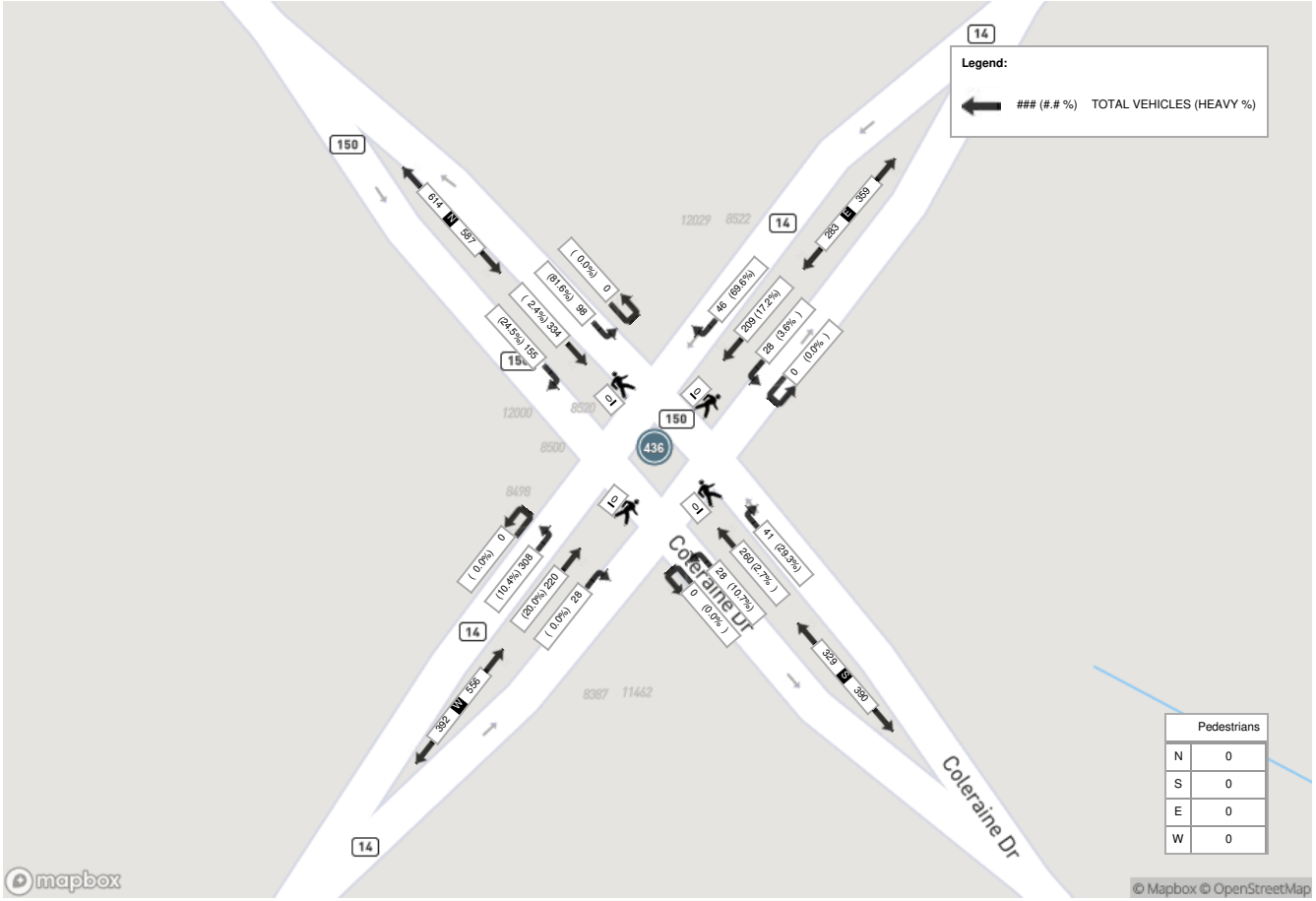
Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (5.56 °C)

Start Time	Southbound COLERAINE DR						Westbound MAYFIELD RD						Northbound COLERAINE DR						Eastbound MAYFIELD RD						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
15:00:00	17	82	111	0	0	210	11	63	15	0	0	89	7	67	4	0	0	78	43	65	6	0	0	114	491
15:15:00	23	78	66	0	1	167	9	62	20	0	0	91	13	94	7	0	0	114	48	66	7	0	0	121	493
15:30:00	15	96	70	0	0	181	24	95	12	0	0	131	6	69	7	0	0	82	38	57	13	0	0	108	502
15:45:00	23	61	52	1	0	137	10	59	13	0	0	82	6	68	8	0	0	82	41	70	8	0	0	119	420
Grand Total	78	317	299	1	1	695	54	279	60	0	0	393	32	298	26	0	0	356	170	258	34	0	0	462	**1906**
Approach%	11.2%	45.6%	43%	0.1%		-	13.7%	71%	15.3%	0%		-	9%	83.7%	7.3%	0%		-	36.8%	55.8%	7.4%	0%		-	-
Totals %	4.1%	16.6%	15.7%	0.1%		36.5%	2.8%	14.6%	3.1%	0%		20.6%	1.7%	15.6%	1.4%	0%		18.7%	8.9%	13.5%	1.8%	0%		24.2%	-
PHF	0.85	0.83	0.67	0.25		0.83	0.56	0.73	0.75	0		0.75	0.62	0.79	0.81	0		0.78	0.89	0.92	0.65	0		0.95	-
Heavy	59	10	47	0		116	6	50	45	0		101	8	9	4	0		21	43	49	8	0		100	-
Heavy %	75.6%	3.2%	15.7%	0%		16.7%	11.1%	17.9%	75%	0%		25.7%	25%	3%	15.4%	0%		5.9%	25.3%	19%	23.5%	0%		21.6%	-
Lights	19	307	252	1		579	48	229	15	0		292	24	289	22	0		335	127	209	26	0		362	-
Lights %	24.4%	96.8%	84.3%	100%		83.3%	88.9%	82.1%	25%	0%		74.3%	75%	97%	84.6%	0%		94.1%	74.7%	81%	76.5%	0%		78.4%	-
Single-Unit Trucks	14	9	11	0		34	2	9	10	0		21	2	9	0	0		11	17	18	3	0		38	-
Single-Unit Trucks %	17.9%	2.8%	3.7%	0%		4.9%	3.7%	3.2%	16.7%	0%		5.3%	6.3%	3%	0%	0%		3.1%	10%	7%	8.8%	0%		8.2%	-
Buses	0	0	0	0		0	1	4	2	0		7	0	0	0	0		0	1	3	1	0		5	-
Buses %	0%	0%	0%	0%		0%	1.9%	1.4%	3.3%	0%		1.8%	0%	0%	0%	0%		0%	0.6%	1.2%	2.9%	0%		1.1%	-
Articulated Trucks	45	1	36	0		82	3	37	33	0		73	6	0	4	0		10	25	28	4	0		57	-
Articulated Trucks %	57.7%	0.3%	12%	0%		11.8%	5.6%	13.3%	55%	0%		18.6%	18.8%	0%	15.4%	0%		2.8%	14.7%	10.9%	11.8%	0%		12.3%	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
Pedestrians%	-	-	-	-	100%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

Peak Hour: 07:00 AM - 08:00 AM Weather: Moderate Rain (5.84 °C)

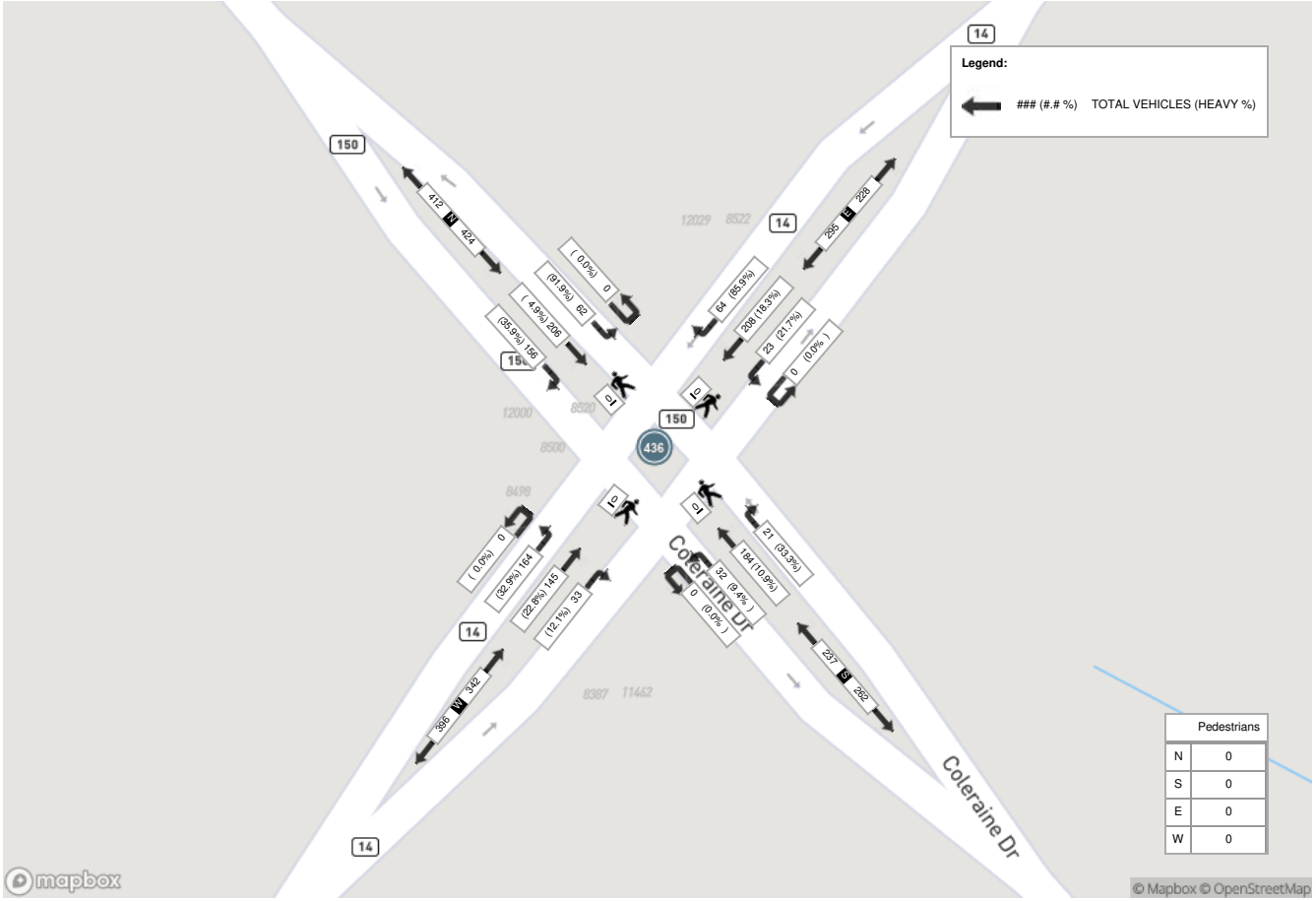


	Pedestrians
N	0
S	0
E	0
W	0

Turning Movement Count
Location Name: MAYFIELD RD & COLERAINE DR
Date: Wed, Apr 17, 2024 Deployment Lead: David Chu

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

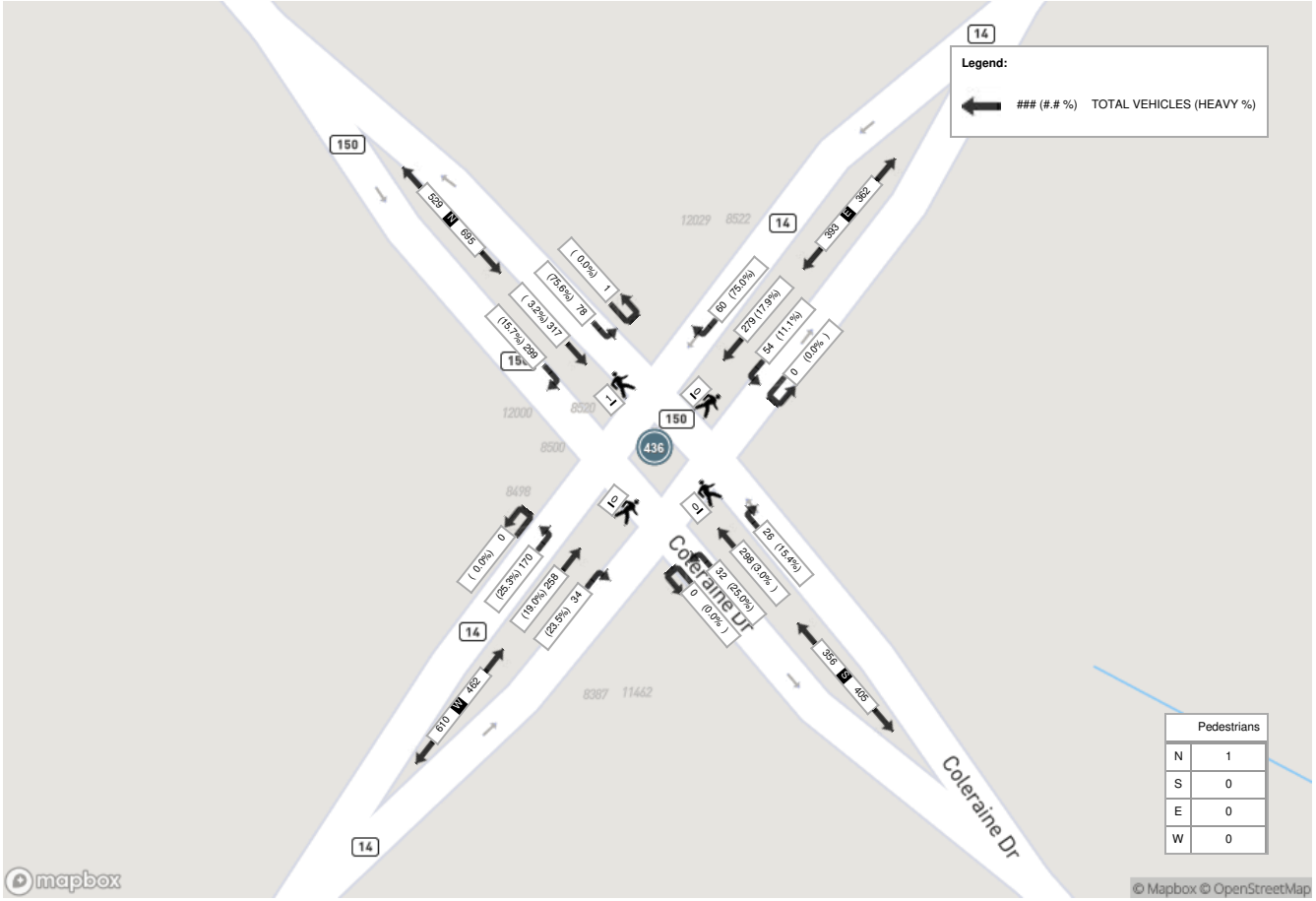
Peak Hour: 01:00 PM - 02:00 PM Weather: Light Rain (4.57 °C)



Turning Movement Count
Location Name: MAYFIELD RD & COLERAINE DR
Date: Wed, Apr 17, 2024 Deployment Lead: David Chu

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (5.56 °C)



	Pedestrians
N	1
S	0
E	0
W	0

Spectrum

Turning Movement Count
Location Name: COLERAINE DR & PARR BLVD
Date: Wed, Apr 17, 2024 Deployment Lead: David Chu

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

Turning Movement Count (734 . COLERAINE DR & PARR BLVD) CustID: 15003830

Start Time	Southbound COLERAINE DR						Westbound PARR BLVD						Northbound COLERAINE DR						Eastbound WEST DRIVEWAY						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
07:00:00	14	124	1	0	0	139	16	1	9	0	0	26	4	140	12	0	0	156	2	1	2	0	0	5	326
07:15:00	20	129	1	0	0	150	8	0	14	0	0	22	3	155	21	0	0	179	0	0	0	0	0	0	351
07:30:00	12	107	2	0	0	121	3	0	4	0	0	7	3	104	17	0	0	124	1	0	0	0	0	1	253
07:45:00	12	113	3	0	0	128	3	2	3	0	0	8	8	108	26	0	0	142	1	0	1	0	0	2	280
Hourly	58	473	7	0	0	538	30	3	30	0	0	63	18	507	76	0	0	601	4	1	3	0	0	8	1210
08:00:00	16	86	4	0	0	106	7	0	14	0	0	21	5	118	20	0	0	143	0	0	0	0	0	0	270
08:15:00	15	113	0	0	0	128	4	2	5	0	0	11	5	102	13	0	0	120	0	0	2	0	0	2	261
08:30:00	17	103	1	0	0	121	14	1	6	0	0	21	6	88	37	0	0	131	2	0	3	0	0	5	278
08:45:00	18	83	1	0	0	102	20	1	12	0	0	33	7	118	38	0	0	163	0	0	1	0	0	1	299
Hourly	66	385	6	0	0	457	45	4	37	0	0	86	23	426	108	0	0	557	2	0	6	0	0	8	1108
BREAK																									
11:00:00	3	78	3	0	0	84	5	1	17	0	0	23	0	71	5	0	0	76	5	0	1	0	1	6	189
11:15:00	7	67	6	0	0	80	4	2	12	0	0	18	4	83	13	0	0	100	2	0	2	0	0	4	202
11:30:00	13	93	6	0	0	112	4	1	7	0	0	12	5	62	13	0	0	80	5	1	1	0	0	7	211
11:45:00	3	66	2	0	0	71	7	0	13	0	0	20	6	65	6	0	0	77	0	1	4	0	0	5	173
Hourly	26	304	17	0	0	347	20	4	49	0	0	73	15	281	37	0	0	333	12	2	8	0	1	22	775
12:00:00	7	86	2	0	0	95	6	0	11	0	0	17	3	58	5	0	0	66	2	2	0	0	0	4	182
12:15:00	3	69	3	0	0	75	6	1	10	0	0	17	5	69	12	0	0	86	1	1	1	0	0	3	181
12:30:00	7	97	3	0	0	107	2	3	16	0	0	21	7	61	14	0	0	82	0	0	2	0	0	2	212
12:45:00	9	76	3	0	0	88	5	2	15	0	0	22	4	72	9	0	0	85	1	1	1	0	0	3	198
Hourly	26	328	11	0	0	365	19	6	52	0	0	77	19	260	40	0	0	319	4	4	4	0	0	12	773
13:00:00	3	76	8	0	0	87	4	5	9	0	0	18	5	64	14	0	0	83	3	3	2	0	0	8	196
13:15:00	5	83	9	0	0	97	9	4	10	0	1	23	10	70	20	0	0	100	10	5	2	0	0	17	237
13:30:00	1	87	7	0	0	95	10	2	22	0	0	34	8	78	18	0	0	104	2	2	2	0	0	6	239
13:45:00	4	78	8	0	0	90	8	2	16	0	0	26	19	74	11	0	0	104	6	0	2	0	0	8	228
Hourly	13	324	32	0	0	369	31	13	57	0	1	101	42	286	63	0	0	391	21	10	8	0	0	39	900
BREAK																									
15:00:00	14	174	1	2	0	191	11	1	18	0	0	30	3	107	18	0	0	128	5	4	28	0	0	37	386
15:15:00	10	130	1	0	0	141	20	0	23	0	0	43	2	122	21	0	0	145	2	0	6	0	0	8	337
15:30:00	13	130	0	0	0	143	33	1	30	0	0	64	5	103	15	1	0	124	2	1	6	0	0	9	340
15:45:00	1	121	3	0	0	125	8	2	20	0	0	30	3	98	15	0	0	116	2	0	3	0	0	5	276
Hourly	38	555	5	2	0	600	72	4	91	0	0	167	13	430	69	1	0	513	11	5	43	0	0	59	1339
16:00:00	15	144	0	0	0	159	30	0	19	0	0	49	1	97	9	2	0	109	0	1	6	0	0	7	324
16:15:00	6	119	1	0	0	126	11	1	23	0	0	35	1	99	13	0	0	113	0	3	5	0	0	8	282
16:30:00	5	137	0	0	0	142	20	0	29	0	0	49	1	95	10	0	0	106	1	0	3	0	0	4	301
16:45:00	3	82	1	0	0	86	12	0	14	0	0	26	1	87	12	0	0	100	1	1	3	0	0	5	217
Hourly	29	482	2	0	0	513	73	1	85	0	0	159	4	378	44	2	0	428	2	5	17	0	0	24	1124
17:00:00	5	157	0	0	0	162	43	1	34	0	0	78	6	128	5	0	0	139	2	1	4	0	0	7	386
17:15:00	7	98	1	0	0	106	9	0	16	0	0	25	0	117	7	2	0	126	0	3	2	0	0	5	262
17:30:00	7	150	0	0	0	157	13	0	26	0	0	39	0	118	8	0	0	126	0	0	2	0	0	2	324
17:45:00	6	95	2	0	0	103	13	0	12	0	0	25	4	156	5	0	0	165	1	0	7	0	0	8	301
Hourly	25	500	3	0	0	528	78	1	88	0	0	167	10	519	25	2	0	556	3	4	15	0	0	22	1273
Grand Total	281	3351	83	2	0	3717	368	36	489	0	1	893	144	3087	462	5	0	3698	59	31	104	0	1	194	**8502**
Approach%	7.6%	90.2%	2.2%	0.1%		-	41.2%	4%	54.8%	0%		-	3.9%	83.5%	12.5%	0.1%		-	30.4%	16%	53.6%	0%		-	-
Totals %	3.3%	39.4%	1%	0%		43.7%	4.3%	0.4%	5.8%	0%		10.5%	1.7%	36.3%	5.4%	0.1%		43.5%	0.7%	0.4%	1.2%	0%		2.3%	-

Heavy	89	696	17	0	-	42	18	195	0	-	43	560	76	1	-	6	3	6	0	-	-
Heavy %	31.7%	20.8%	20.5%	0%	-	11.4%	50%	39.9%	0%	-	29.9%	18.1%	16.5%	20%	-	10.2%	9.7%	5.8%	0%	-	-
Bicycles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycle %	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Turning Movement Count
Location Name: COLERAINE DR & PARR BLVD
Date: Wed, Apr 17, 2024 Deployment Lead: David Chu

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

Peak Hour: 07:00 AM - 08:00 AM Weather: Moderate Rain (5.84 °C)

Start Time	Southbound COLERAINE DR						Westbound PARR BLVD						Northbound COLERAINE DR						Eastbound WEST DRIVEWAY						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
07:00:00	14	124	1	0	0	139	16	1	9	0	0	26	4	140	12	0	0	156	2	1	2	0	0	5	326
07:15:00	20	129	1	0	0	150	8	0	14	0	0	22	3	155	21	0	0	179	0	0	0	0	0	0	351
07:30:00	12	107	2	0	0	121	3	0	4	0	0	7	3	104	17	0	0	124	1	0	0	0	0	1	253
07:45:00	12	113	3	0	0	128	3	2	3	0	0	8	8	108	26	0	0	142	1	0	1	0	0	2	280
Grand Total	58	473	7	0	0	538	30	3	30	0	0	63	18	507	76	0	0	601	4	1	3	0	0	8	**1210**
Approach%	10.8%	87.9%	1.3%	0%		-	47.6%	4.8%	47.6%	0%		-	3%	84.4%	12.6%	0%		-	50%	12.5%	37.5%	0%		-	-
Totals %	4.8%	39.1%	0.6%	0%		44.5%	2.5%	0.2%	2.5%	0%		5.2%	1.5%	41.9%	6.3%	0%		49.7%	0.3%	0.1%	0.2%	0%		0.7%	-
PHF	0.73	0.92	0.58	0		0.9	0.47	0.38	0.54	0		0.61	0.56	0.82	0.73	0		0.84	0.5	0.25	0.38	0		0.4	-
Heavy	20	64	0	0		84	1	2	11	0		14	0	54	7	0		61	2	0	1	0		3	-
Heavy %	34.5%	13.5%	0%	0%		15.6%	3.3%	66.7%	36.7%	0%		22.2%	0%	10.7%	9.2%	0%		10.1%	50%	0%	33.3%	0%		37.5%	-
Lights	38	409	7	0		454	29	1	19	0		49	18	453	69	0		540	2	1	2	0		5	-
Lights %	65.5%	86.5%	100%	0%		84.4%	96.7%	33.3%	63.3%	0%		77.8%	100%	89.3%	90.8%	0%		89.9%	50%	100%	66.7%	0%		62.5%	-
Single-Unit Trucks	10	26	0	0		36	0	2	2	0		4	0	17	3	0		20	0	0	0	0		0	-
Single-Unit Trucks %	17.2%	5.5%	0%	0%		6.7%	0%	66.7%	6.7%	0%		6.3%	0%	3.4%	3.9%	0%		3.3%	0%	0%	0%	0%		0%	-
Buses	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	-
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	-
Articulated Trucks	10	38	0	0		48	1	0	9	0		10	0	37	4	0		41	2	0	1	0		3	-
Articulated Trucks %	17.2%	8%	0%	0%		8.9%	3.3%	0%	30%	0%		15.9%	0%	7.3%	5.3%	0%		6.8%	50%	0%	33.3%	0%		37.5%	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-

Spectrum

Turning Movement Count
Location Name: COLERAINE DR & PARR BLVD
Date: Wed, Apr 17, 2024 Deployment Lead: David Chu

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

Peak Hour: 01:00 PM - 02:00 PM Weather: Light Rain (4.57 °C)

Start Time	Southbound COLERAINE DR						Westbound PARR BLVD						Northbound COLERAINE DR						Eastbound WEST DRIVEWAY						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
13:00:00	3	76	8	0	0	87	4	5	9	0	0	18	5	64	14	0	0	83	3	3	2	0	0	8	196
13:15:00	5	83	9	0	0	97	9	4	10	0	1	23	10	70	20	0	0	100	10	5	2	0	0	17	237
13:30:00	1	87	7	0	0	95	10	2	22	0	0	34	8	78	18	0	0	104	2	2	2	0	0	6	239
13:45:00	4	78	8	0	0	90	8	2	16	0	0	26	19	74	11	0	0	104	6	0	2	0	0	8	228
Grand Total	13	324	32	0	0	369	31	13	57	0	1	101	42	286	63	0	0	391	21	10	8	0	0	39	**900**
Approach%	3.5%	87.8%	8.7%	0%		-	30.7%	12.9%	56.4%	0%		-	10.7%	73.1%	16.1%	0%		-	53.8%	25.6%	20.5%	0%		-	-
Totals %	1.4%	36%	3.6%	0%		41%	3.4%	1.4%	6.3%	0%		11.2%	4.7%	31.8%	7%	0%		43.4%	2.3%	1.1%	0.9%	0%		4.3%	-
PHF	0.65	0.93	0.89	0		0.95	0.78	0.65	0.65	0		0.74	0.55	0.92	0.79	0		0.94	0.53	0.5	1	0		0.57	-
Heavy	6	106	7	0		119	7	5	31	0		43	6	80	16	0		102	1	0	0	0		1	-
Heavy %	46.2%	32.7%	21.9%	0%		32.2%	22.6%	38.5%	54.4%	0%		42.6%	14.3%	28%	25.4%	0%		26.1%	4.8%	0%	0%	0%		2.6%	-
Lights	7	218	25	0		250	24	8	26	0		58	36	206	47	0		289	20	10	8	0		38	-
Lights %	53.8%	67.3%	78.1%	0%		67.8%	77.4%	61.5%	45.6%	0%		57.4%	85.7%	72%	74.6%	0%		73.9%	95.2%	100%	100%	0%		97.4%	-
Single-Unit Trucks	2	38	4	0		44	3	3	11	0		17	4	34	3	0		41	1	0	0	0		1	-
Single-Unit Trucks %	15.4%	11.7%	12.5%	0%		11.9%	9.7%	23.1%	19.3%	0%		16.8%	9.5%	11.9%	4.8%	0%		10.5%	4.8%	0%	0%	0%		2.6%	-
Buses	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	-
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	-
Articulated Trucks	4	68	3	0		75	4	2	20	0		26	2	46	13	0		61	0	0	0	0		0	-
Articulated Trucks %	30.8%	21%	9.4%	0%		20.3%	12.9%	15.4%	35.1%	0%		25.7%	4.8%	16.1%	20.6%	0%		15.6%	0%	0%	0%	0%		0%	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
Pedestrians%	-	-	-	-	0%		-	-	-	-	100%		-	-	-	-	0%		-	-	-	-	0%		-

Spectrum

Turning Movement Count
Location Name: COLERAINE DR & PARR BLVD
Date: Wed, Apr 17, 2024 Deployment Lead: David Chu

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

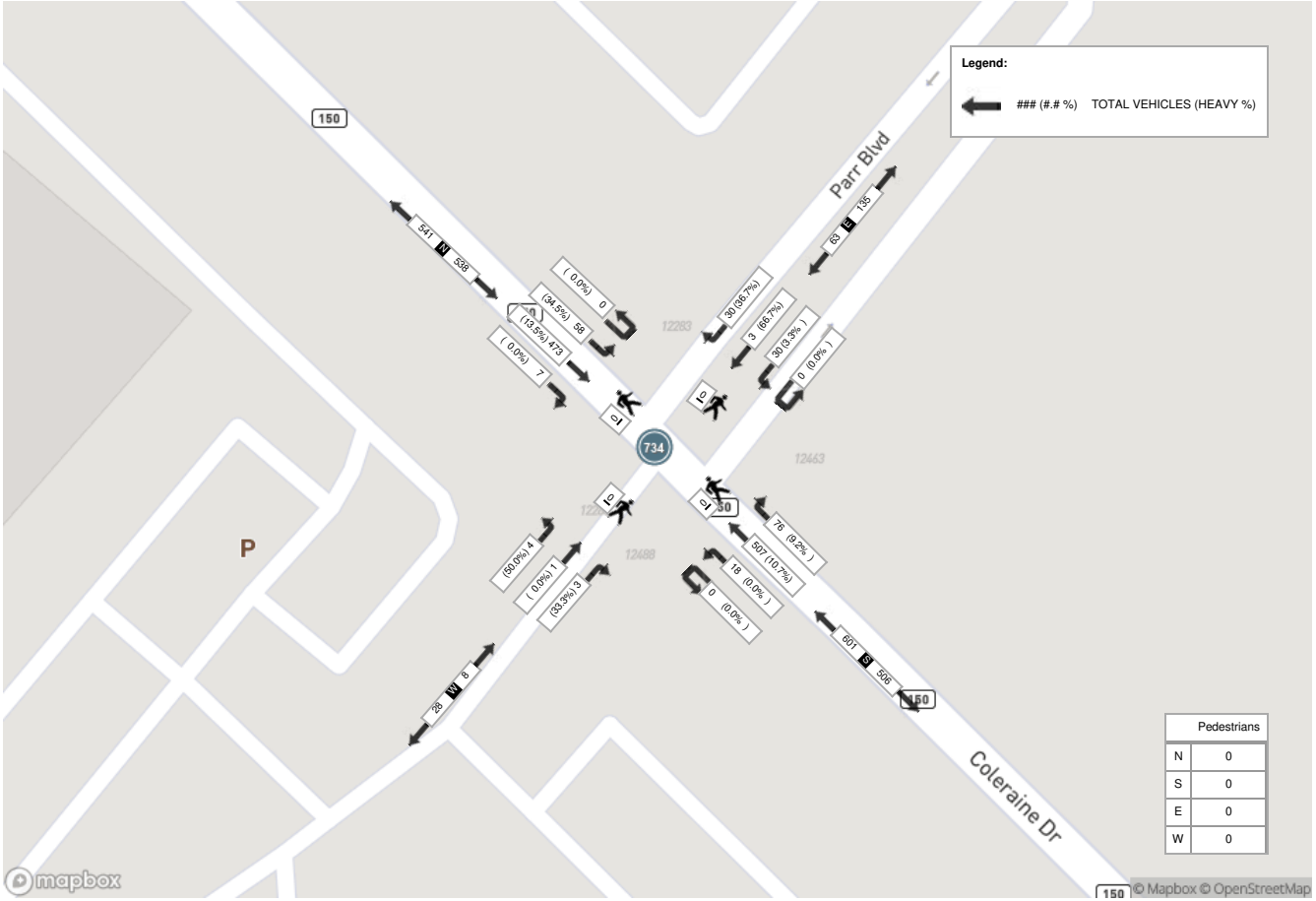
Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (5.56 °C)

Start Time	Southbound COLERAINE DR						Westbound PARR BLVD						Northbound COLERAINE DR						Eastbound WEST DRIVEWAY						Int. Total (15 min)
	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	Left	Thru	Right	UTurn	Peds	Approach Total	
15:00:00	14	174	1	2	0	191	11	1	18	0	0	30	3	107	18	0	0	128	5	4	28	0	0	37	386
15:15:00	10	130	1	0	0	141	20	0	23	0	0	43	2	122	21	0	0	145	2	0	6	0	0	8	337
15:30:00	13	130	0	0	0	143	33	1	30	0	0	64	5	103	15	1	0	124	2	1	6	0	0	9	340
15:45:00	1	121	3	0	0	125	8	2	20	0	0	30	3	98	15	0	0	116	2	0	3	0	0	5	276
Grand Total	38	555	5	2	0	600	72	4	91	0	0	167	13	430	69	1	0	513	11	5	43	0	0	59	**1339**
Approach%	6.3%	92.5%	0.8%	0.3%		-	43.1%	2.4%	54.5%	0%		-	2.5%	83.8%	13.5%	0.2%		-	18.6%	8.5%	72.9%	0%		-	-
Totals %	2.8%	41.4%	0.4%	0.1%		44.8%	5.4%	0.3%	6.8%	0%		12.5%	1%	32.1%	5.2%	0.1%		38.3%	0.8%	0.4%	3.2%	0%		4.4%	-
PHF	0.68	0.8	0.42	0.25		0.79	0.55	0.5	0.76	0		0.65	0.65	0.88	0.82	0.25		0.88	0.55	0.31	0.38	0		0.4	-
Heavy	12	101	0	0		113	8	3	28	0		39	5	62	15	0		82	0	2	1	0		3	-
Heavy %	31.6%	18.2%	0%	0%		18.8%	11.1%	75%	30.8%	0%		23.4%	38.5%	14.4%	21.7%	0%		16%	0%	40%	2.3%	0%		5.1%	-
Lights	26	454	5	2		487	64	1	63	0		128	8	368	54	1		431	11	3	42	0		56	-
Lights %	68.4%	81.8%	100%	100%		81.2%	88.9%	25%	69.2%	0%		76.6%	61.5%	85.6%	78.3%	100%		84%	100%	60%	97.7%	0%		94.9%	-
Single-Unit Trucks	6	31	0	0		37	2	2	9	0		13	1	23	5	0		29	0	2	0	0		2	-
Single-Unit Trucks %	15.8%	5.6%	0%	0%		6.2%	2.8%	50%	9.9%	0%		7.8%	7.7%	5.3%	7.2%	0%		5.7%	0%	40%	0%	0%		3.4%	-
Buses	0	0	0	0		0	0	0	0	0		0	0	1	2	0		3	0	0	0	0		0	-
Buses %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0.2%	2.9%	0%		0.6%	0%	0%	0%	0%		0%	-
Articulated Trucks	6	70	0	0		76	6	1	19	0		26	4	38	8	0		50	0	0	1	0		1	-
Articulated Trucks %	15.8%	12.6%	0%	0%		12.7%	8.3%	25%	20.9%	0%		15.6%	30.8%	8.8%	11.6%	0%		9.7%	0%	0%	2.3%	0%		1.7%	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-

Turning Movement Count
Location Name: COLERAINE DR & PARR BLVD
Date: Wed, Apr 17, 2024 Deployment Lead: David Chu

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

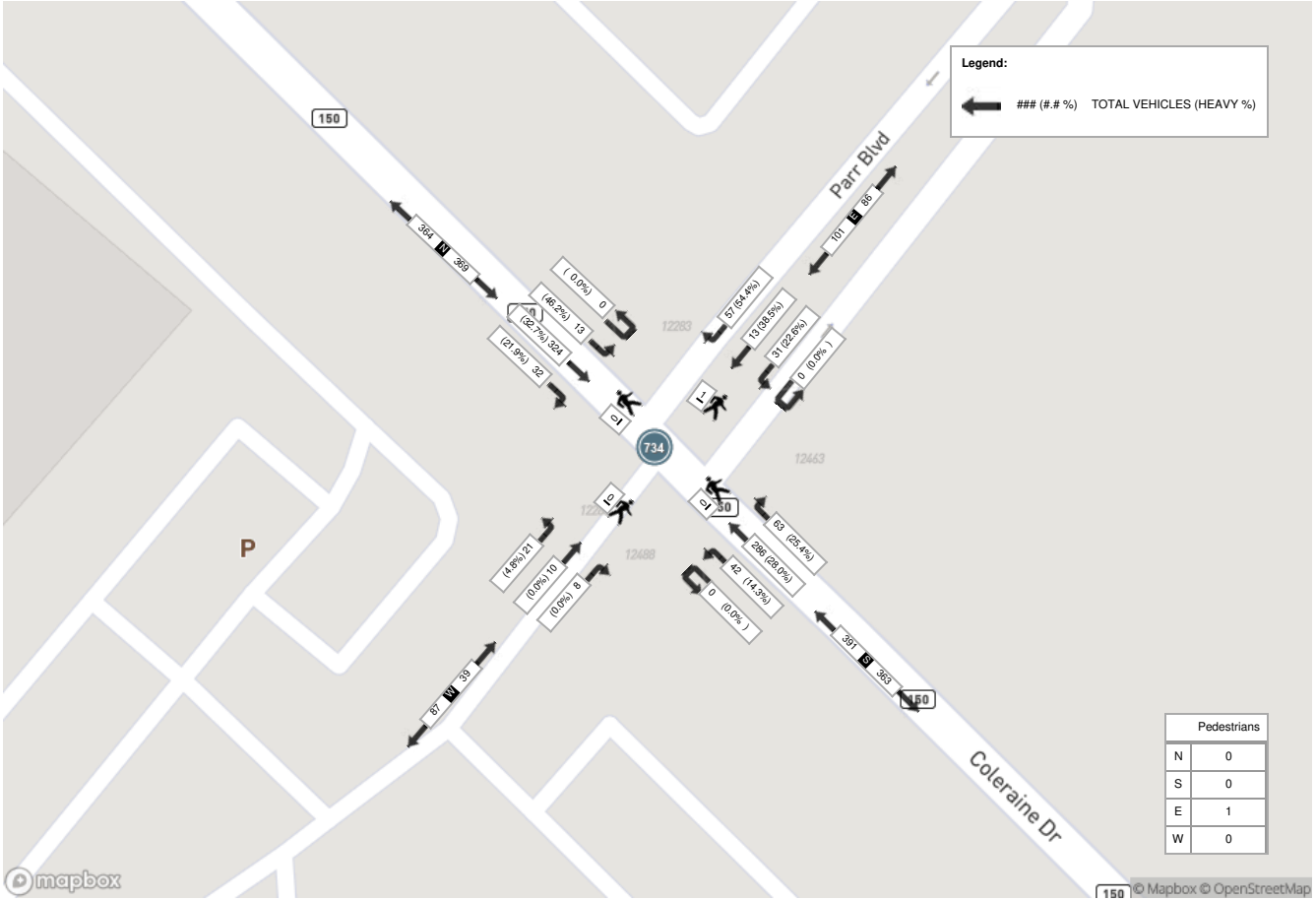
Peak Hour: 07:00 AM - 08:00 AM Weather: Moderate Rain (5.84 °C)



Turning Movement Count
Location Name: COLERAINE DR & PARR BLVD
Date: Wed, Apr 17, 2024 Deployment Lead: David Chu

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

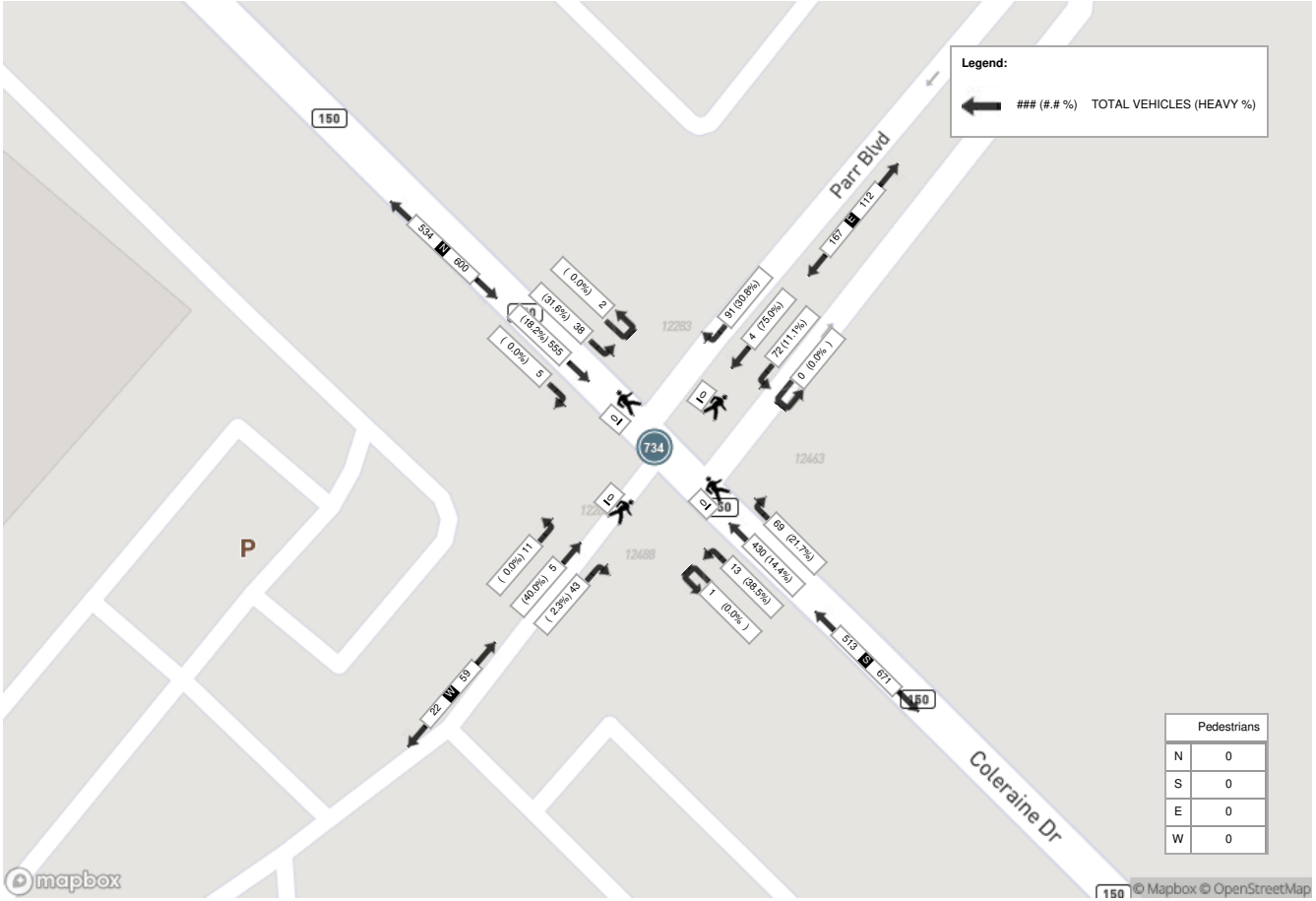
Peak Hour: 01:00 PM - 02:00 PM Weather: Light Rain (4.57 °C)



Turning Movement Count
Location Name: COLERAINE DR & PARR BLVD
Date: Wed, Apr 17, 2024 Deployment Lead: David Chu

Peel Region
SUITE B 10 PEEL CENTRE DR
BRAMPTON ONTARIO, L6T 4B9
CANADA

Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (5.56 °C)



Appendix C

Background Traffic

LEA Consulting Ltd.
625 Cochrane Drive, 5th Floor
Markham, ON, L3R 9R9 Canada
T | 905 470 0015 F | 905 470 0030
WWW.LEA.CA

November 7, 2023

Reference Number: 24085

Simpson Road Landowners Group Inc.
c/o Helen Mihailidi
7501 Keele Street, Suite 200
Vaughan, ON
L4K 1Y2

Dear Helen Mihailidi,

RE: Transportation Impact Study
Proposed Industrial Development
Coleraine Drive and Mayfield Road, Town of Caledon

LEA Consulting Ltd. (LEA) is pleased to present the findings of our Transportation Impact Study for the proposed development of an industrial block located at the northeast corner of Coleraine Drive and Mayfield Road in the Town of Caledon. This report concludes that the proposed development is expected to have an acceptable impact on the road network operations in the surrounding area.

Should you have any questions regarding this Transportation Impact Study, please do not hesitate to contact the undersigned.

Yours truly,

LEA CONSULTING LTD.

Zara Georgis, M. Eng., P. Eng.
Project Manager, Transportation Planning and Engineering

Encl. Transportation Impact Study – Coleraine Drive and Mayfield Road, Proposed Industrial Development, Town of Caledon (November 2023)

1.1 PROPOSED LAND USE PLAN

The block plan consists of 12 blocks. It is noted that some parcels in the block plan are categorized as "pending participation" or "non-participating landowners" due to the pending finalization of the development plan. Figure 1-2 illustrates the current ownership mapping with a breakdown of the parcels.

Figure 1-2: Subject Land's Parcel Mapping

Source: Weston Consulting, July 2023

As this TIS is for the whole block plan, for the parcels that do not yet have development plans, it was assumed that these sites would occupy 50% lot coverage. Further, the subject lands are planned for warehouse and office uses. A breakdown of the proposed GFA by parcel is summarized in Table 1-1.

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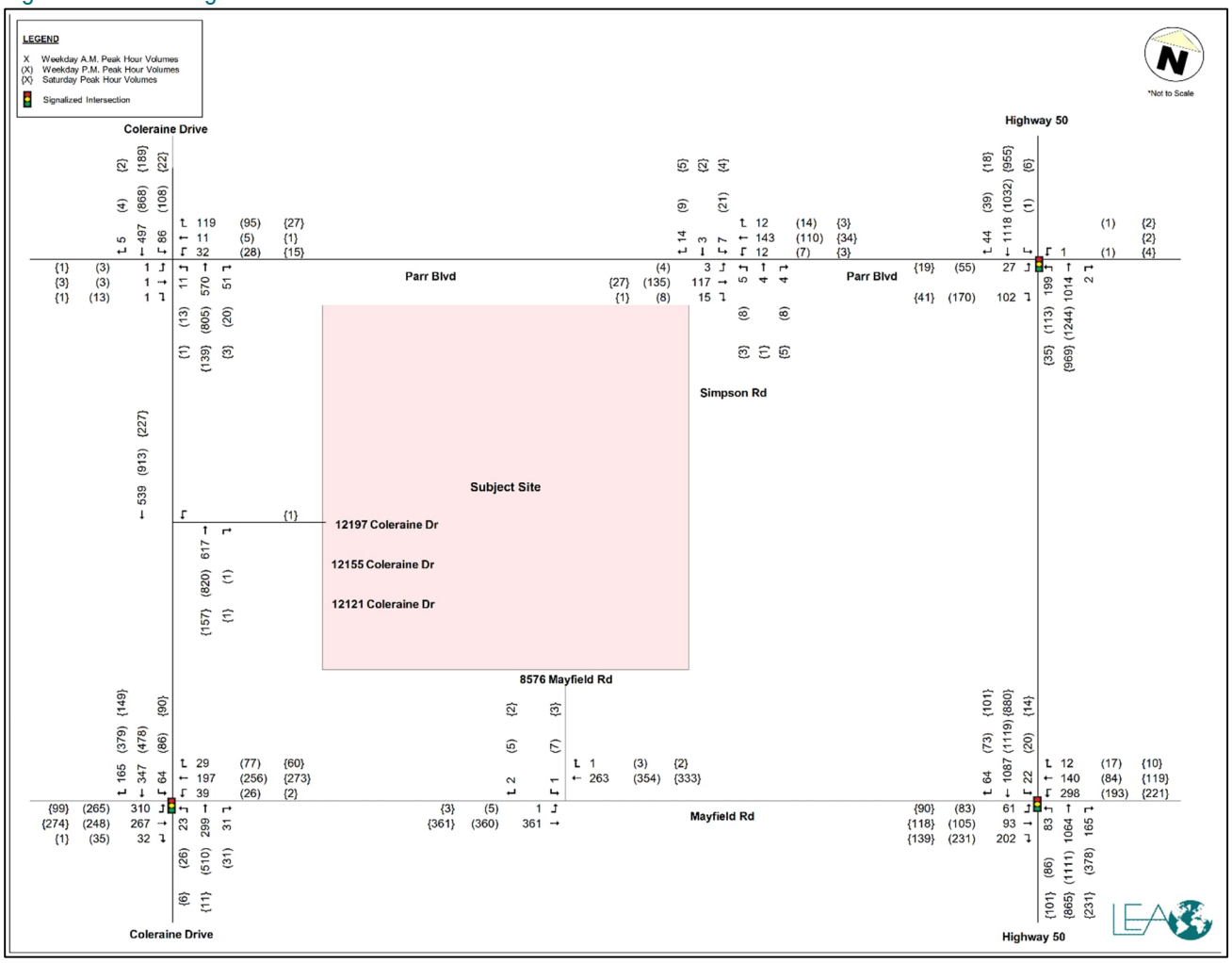
Figure 3-5: Existing Traffic Volumes



4 FUTURE BACKGROUND TRAFFIC CONDITIONS

For the analysis of future background traffic conditions, this study considers a five- and ten-year horizon from the existing year 2023 to the future years 2028 and 2033, respectively. Future background conditions include the traffic added to the network from other future developments, corridor growth, and road network improvements. The future background conditions will be used as the baseline for evaluating the impact of the proposed development.

4.1 CORRIDOR GROWTH

The Region of Peel provided growth rates for the study area corridors, which were subsequently applied to all through movements in addition to major movements at the studied intersections. Table 4-1 summarizes the applied growth rates.

Table 4-1: Corridor Growth

Corridor	AM/PM/Sat Peak Annual Growth
Mayfield Rd EB	0.5%
Mayfield Rd WB	1%
Coleraine Dr NB	0.5%
Coleraine Dr SB	0.5%
Hwy 50 NB	0.5%
Hwy 50 SB	0.5%

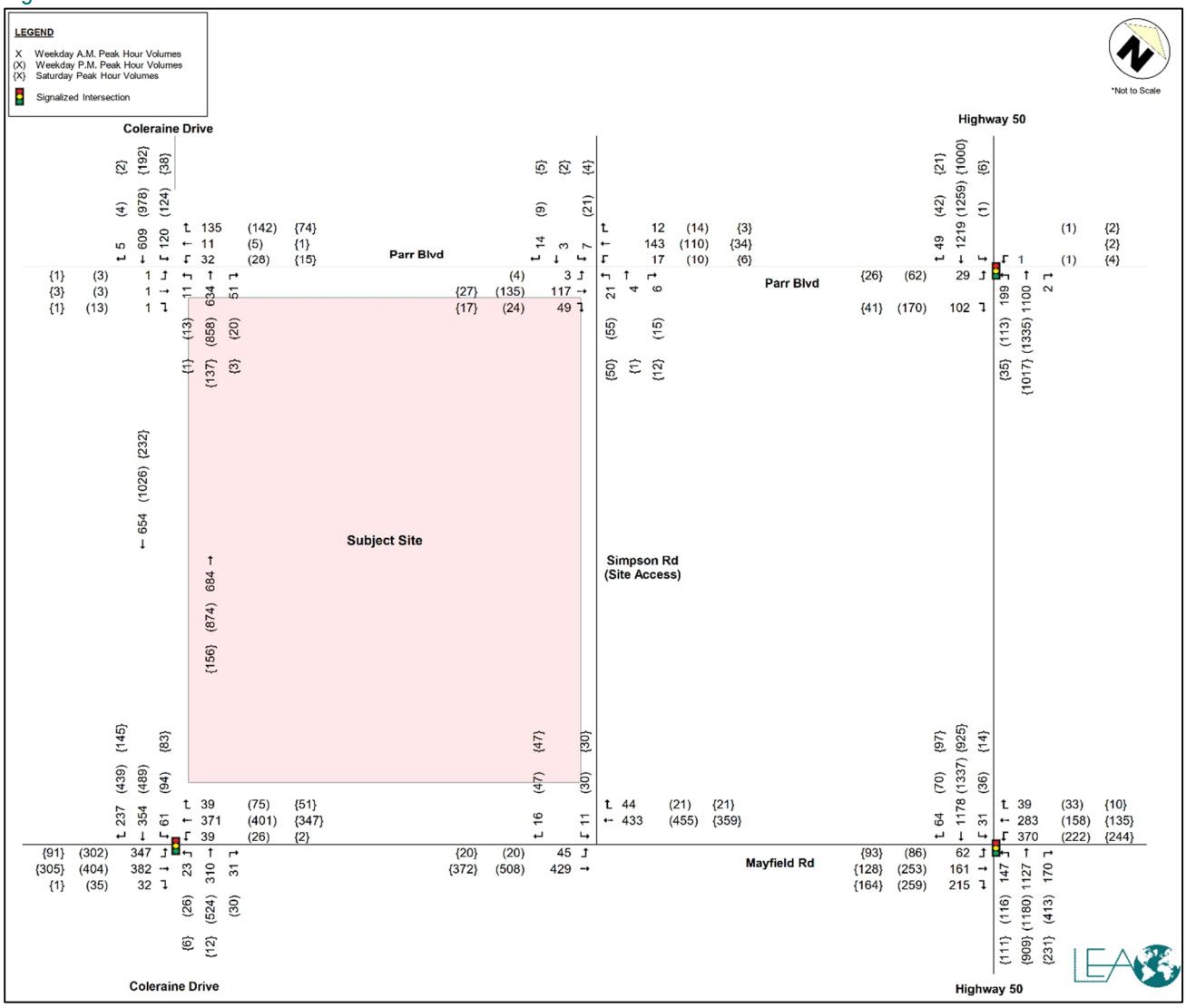
4.2 BACKGROUND DEVELOPMENTS

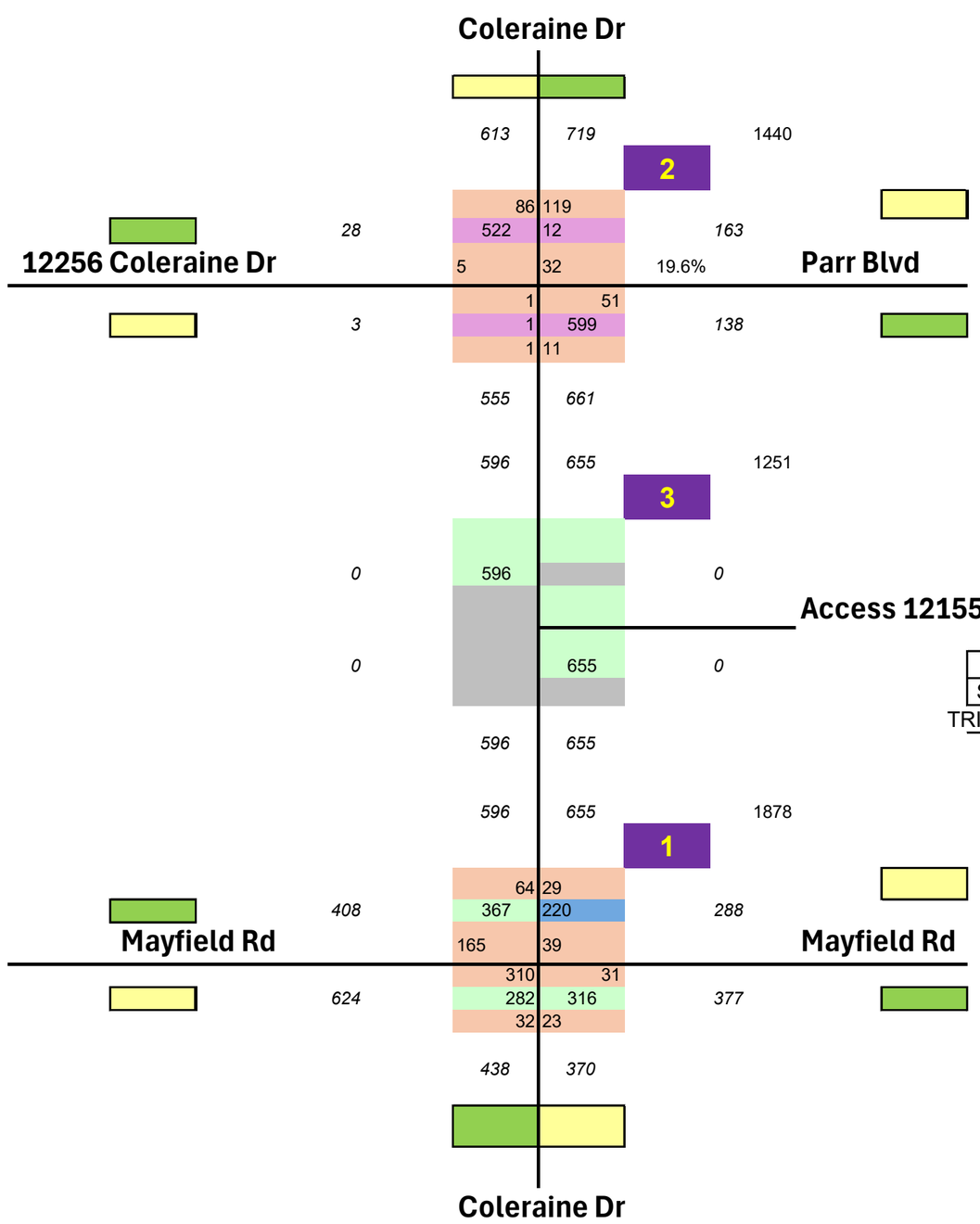
Five (5) background developments located within or near the study area were considered under future background conditions. Detailed information on the background developments included in the analysis was obtained from the Town's development application online inventory. The site statistics of the background developments are summarized below in Table 4-2 and the location of each background development relative to the location of the subject site is illustrated below in Figure 4-1

Table 4-2: Background Developments

#	Location	Proposed Development	Anticipated Horizon	Source of Traffic Volumes
1	12544 Highway 50	Gas Station 279 m^2 of retail GFA 461 m^2 of retail GFA	2028	TIS dated March 2017 (Figure 5-1) LMM Engineering Inc.
2	12563 & 12599 Highway 50 (Phase 1)	2,238 residential units; 3,179 m^2 Retail	2033	TIS dated January 2022 (Figure 21 & 24) BA Group
3	12148 Albion Vaughan Road	306 residential units; 225m^2 commercial space	2028	TIS dated September 2021 (Figure 4.2A -4.2B) Paradigm
4	Triangle Lands	406,000 m^2 of industrial GFA	2028	TIS dated Sept 2023 LEA Estimate
5	Humber Station Lands (Phase 1)	2,028 Jobs/Employee Warehousing	2028	TIS Dated Sept 2023 (Figure 5-1:5-4) LEA Consulting Ltd
	Humber Station Lands (Full Buildout)	2,548 Jobs/Employee Warehousing	2033	

Figure 6-3: 2033 Future Total Peak Hour Traffic Volumes





	IN	OUT	TOTAL
SHEET	0	0	0
TRIP GEN			0

Growth Rate	1.00%
Baseline Year	2022
Horizon Year	2033
No. of Years	11
Growth Factor	1.11567

Table 4-1 of Lea TIS Nov 2023

Growth Rate	0.50%
Baseline Year	2022
Horizon Year	2033
No. of Years	11
Growth Factor	1.05640

Table 4-1 of Lea TIS Nov 2023

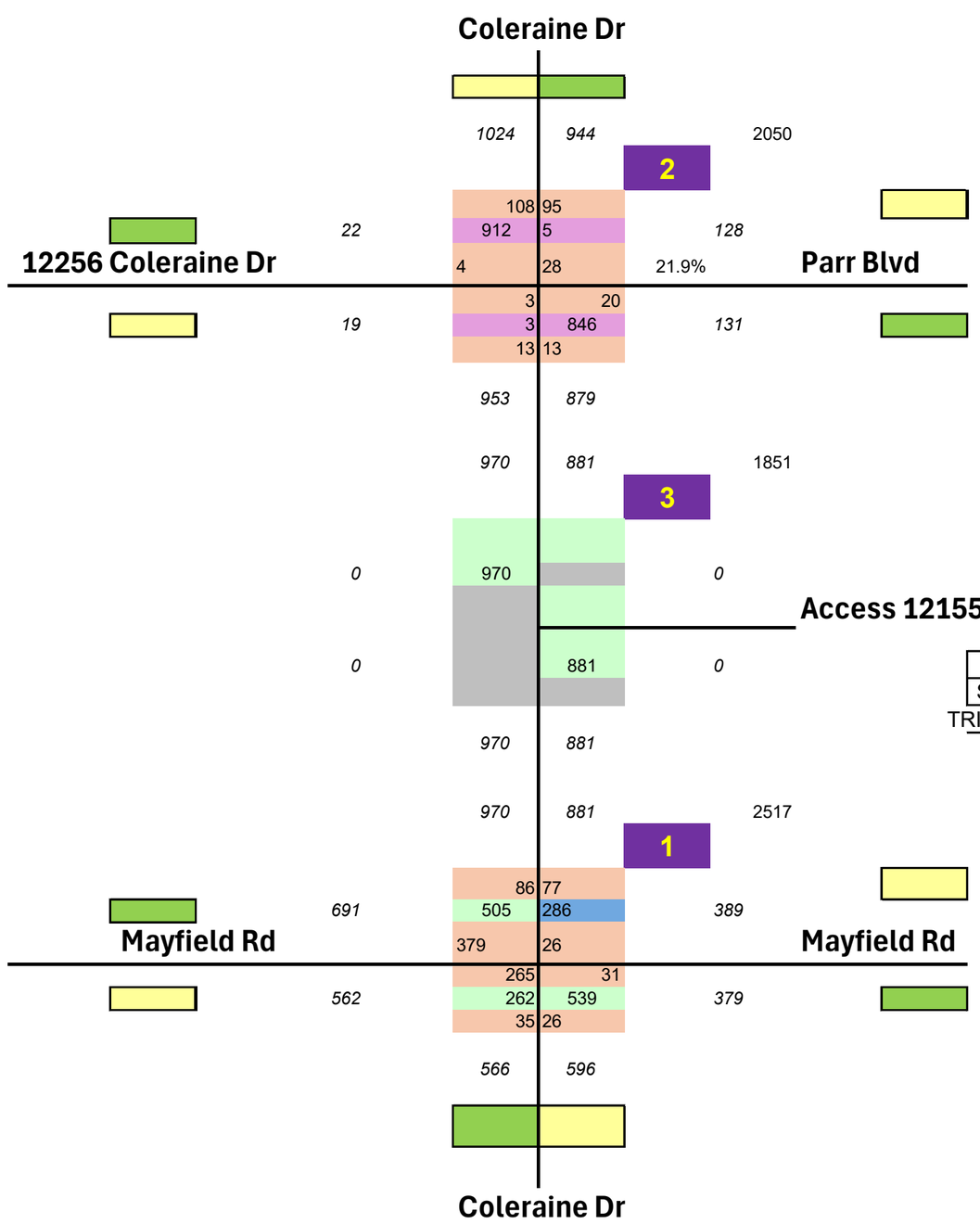
Growth Rate	0.00%
Baseline Year	2022
Horizon Year	2033
No. of Years	11
Growth Factor	1.00000

Table 4-1 of Lea TIS Nov 2023

Growth Rate	0.50%
Baseline Year	2023
Horizon Year	2033
No. of Years	10
Growth Factor	1.05114

Table 4-1 of Lea TIS Nov 2023

AM Growth Traffic from 2023Data



	IN	OUT	TOTAL
SHEET	0	0	0
TRIP GEN			0

Growth Rate	1.00%
Baseline Year	2022
Horizon Year	2033
No. of Years	11
Growth Factor	1.11567

Table 4-1 of Lea TIS Nov 2023

Growth Rate	0.50%
Baseline Year	2022
Horizon Year	2033
No. of Years	11
Growth Factor	1.05640

Table 4-1 of Lea TIS Nov 2023

Growth Rate	0.00%
Baseline Year	2022
Horizon Year	2033
No. of Years	11
Growth Factor	1.00000

Table 4-1 of Lea TIS Nov 2023

Growth Rate	0.50%
Baseline Year	2023
Horizon Year	2033
No. of Years	10
Growth Factor	1.05114

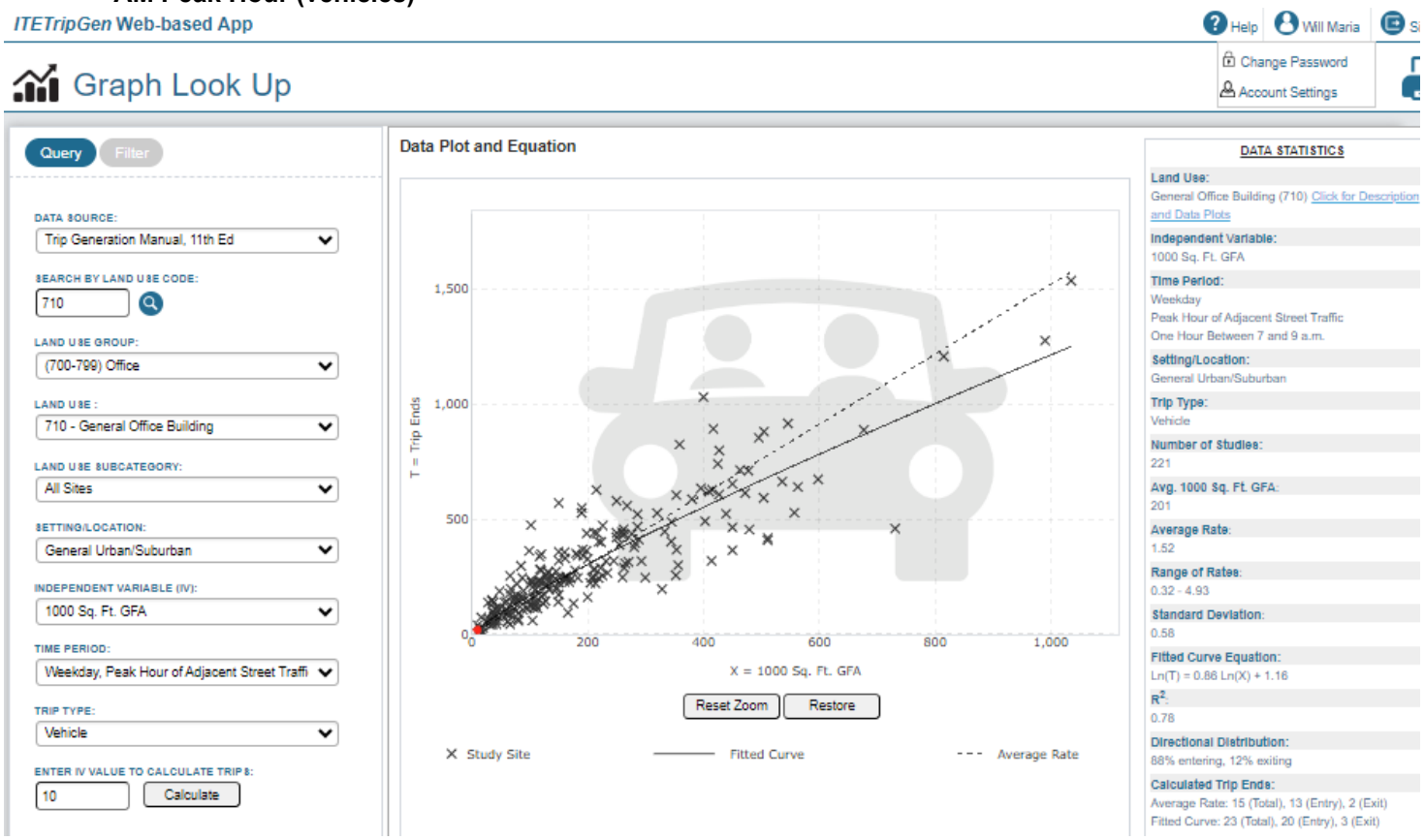
Table 4-1 of Lea TIS Nov 2023

PM Growth Traffic from 2023Data

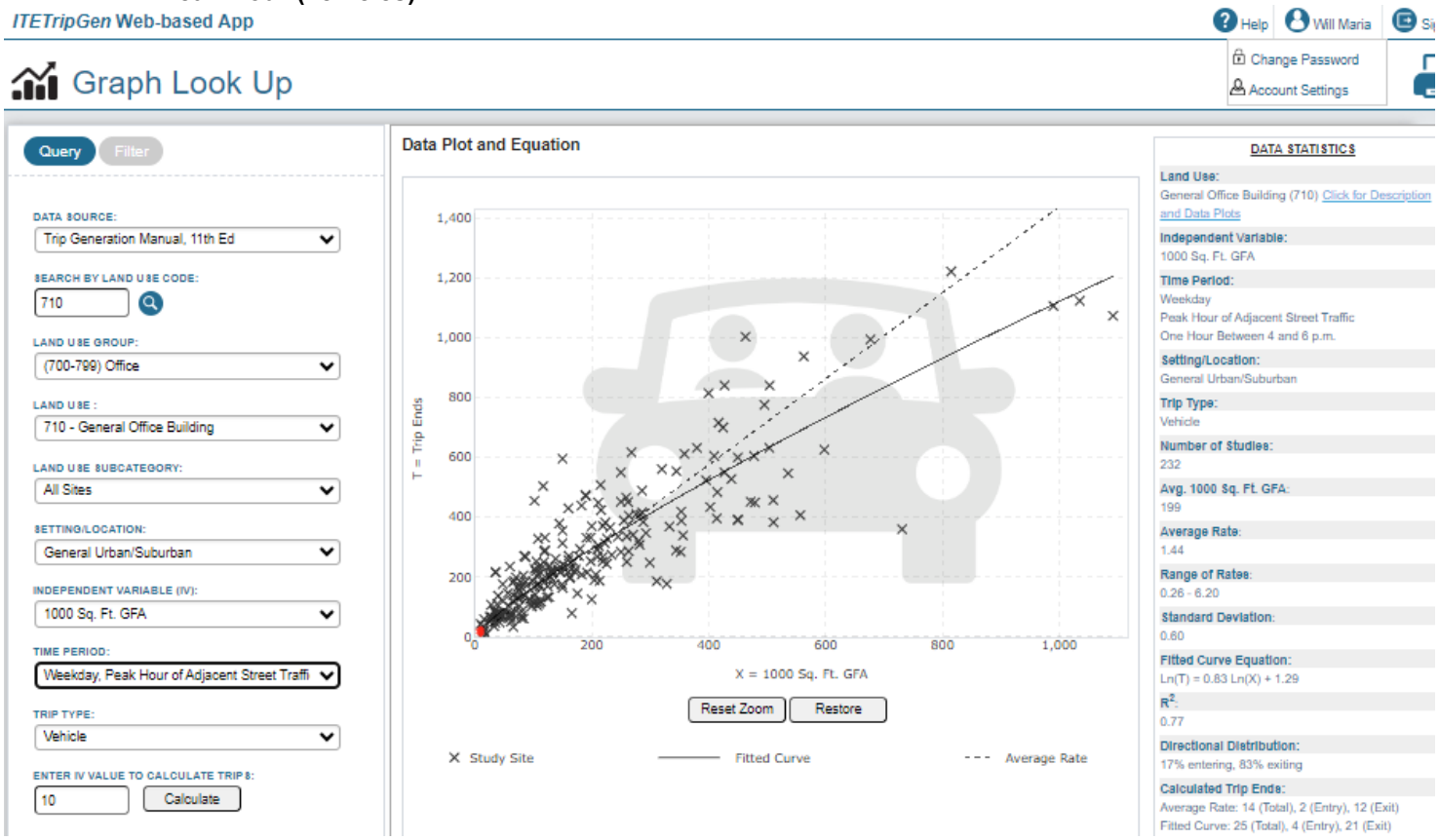
Appendix D

ITE Trip Generation

Trip Generation 12649115, ITE Office (LUC 710): 10,000 ft^2
AM Peak Hour (vehicles)



PM Peak Hour (vehicles)



Trip Generation 12649115, ITE Warehouse (LUC 150): 12,000 ft^2
AM Peak Hour (vehicles)

ITETripGen Web-based App

Help | Will Maria

Graph Look Up

Query | Filter

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 150

LAND USE GROUP: (100-199) Industrial

LAND USE : 150 - Warehousing

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

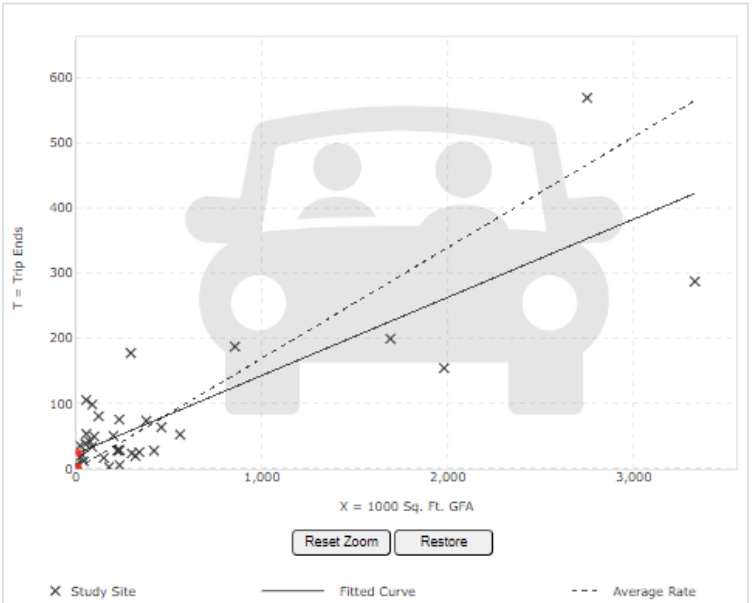
INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday, Peak Hour of Adjacent Street Traffi

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 12 Calculate

Data Plot and Equation



DATA STATISTICS

Land Use:
Warehousing (150) Click for Description and D
Plots

Independent Variable:
1000 Sq. Ft. GFA

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
36

Avg. 1000 Sq. Ft. GFA:
448

Average Rate:
0.17

Range of Rates:
0.02 - 1.93

Standard Deviation:
0.19

Fitted Curve Equation:
T = 0.12(X) + 23.62

R^2:
0.69

Directional Distribution:
77% entering, 23% exiting

Calculated Trip Ends:
Average Rate: 2 (Total), 2 (Entry), 0 (Exit)
Fitted Curve: 25 (Total), 19 (Entry), 6 (Exit)

PM Peak Hour (vehicles)

ITETripGen Web-based App

Help | Will Maria

Graph Look Up

Query | Filter

DATA SOURCE: Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE: 150

LAND USE GROUP: (100-199) Industrial

LAND USE : 150 - Warehousing

LAND USE SUBCATEGORY: All Sites

SETTING/LOCATION: General Urban/Suburban

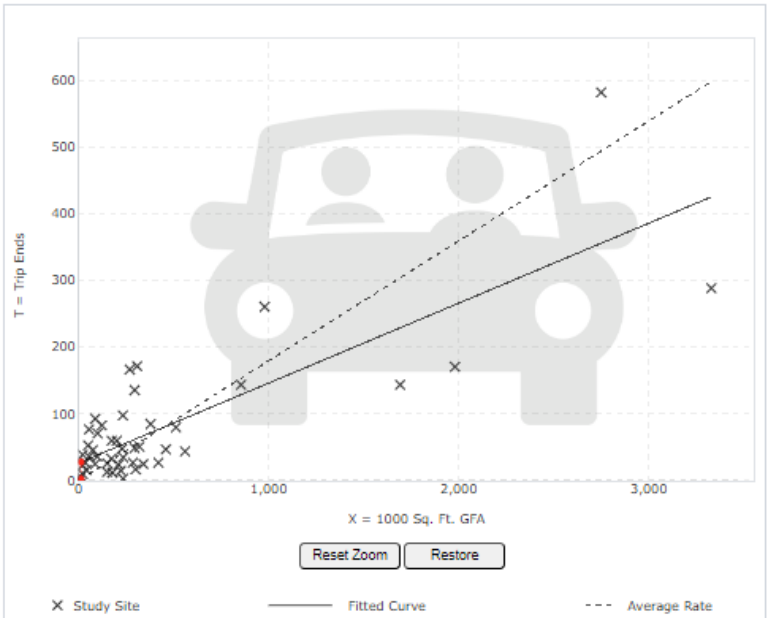
INDEPENDENT VARIABLE (IV): 1000 Sq. Ft. GFA

TIME PERIOD: Weekday, Peak Hour of Adjacent Street Traffi

TRIP TYPE: Vehicle

ENTER IV VALUE TO CALCULATE TRIPS: 12 Calculate

Data Plot and Equation



DATA STATISTICS

Land Use:
Warehousing (150) Click for Description and
Plots

Independent Variable:
1000 Sq. Ft. GFA

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
49

Avg. 1000 Sq. Ft. GFA:
400

Average Rate:
0.18

Range of Rates:
0.01 - 1.80

Standard Deviation:
0.18

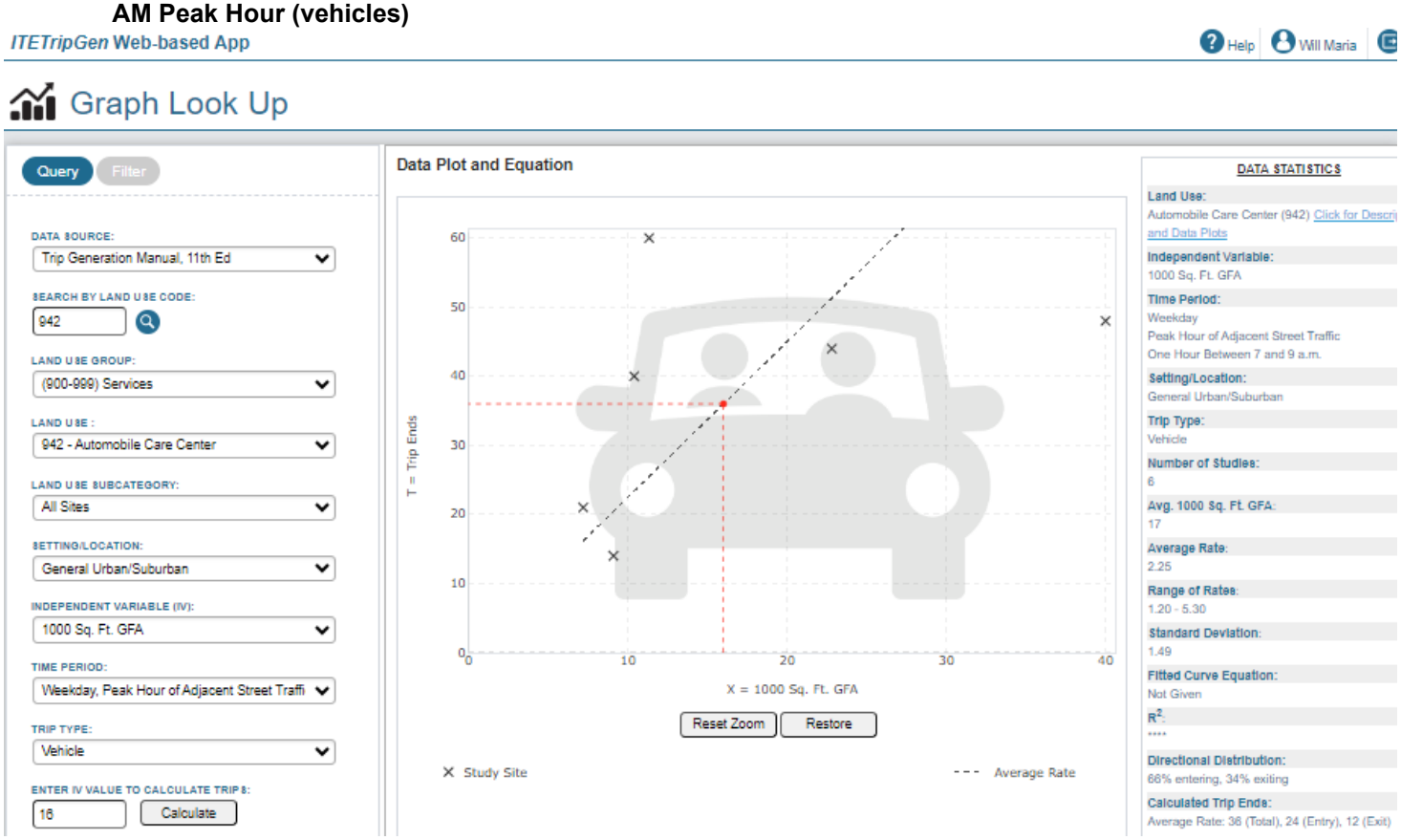
Fitted Curve Equation:
T = 0.12(X) + 26.48

R^2:
0.65

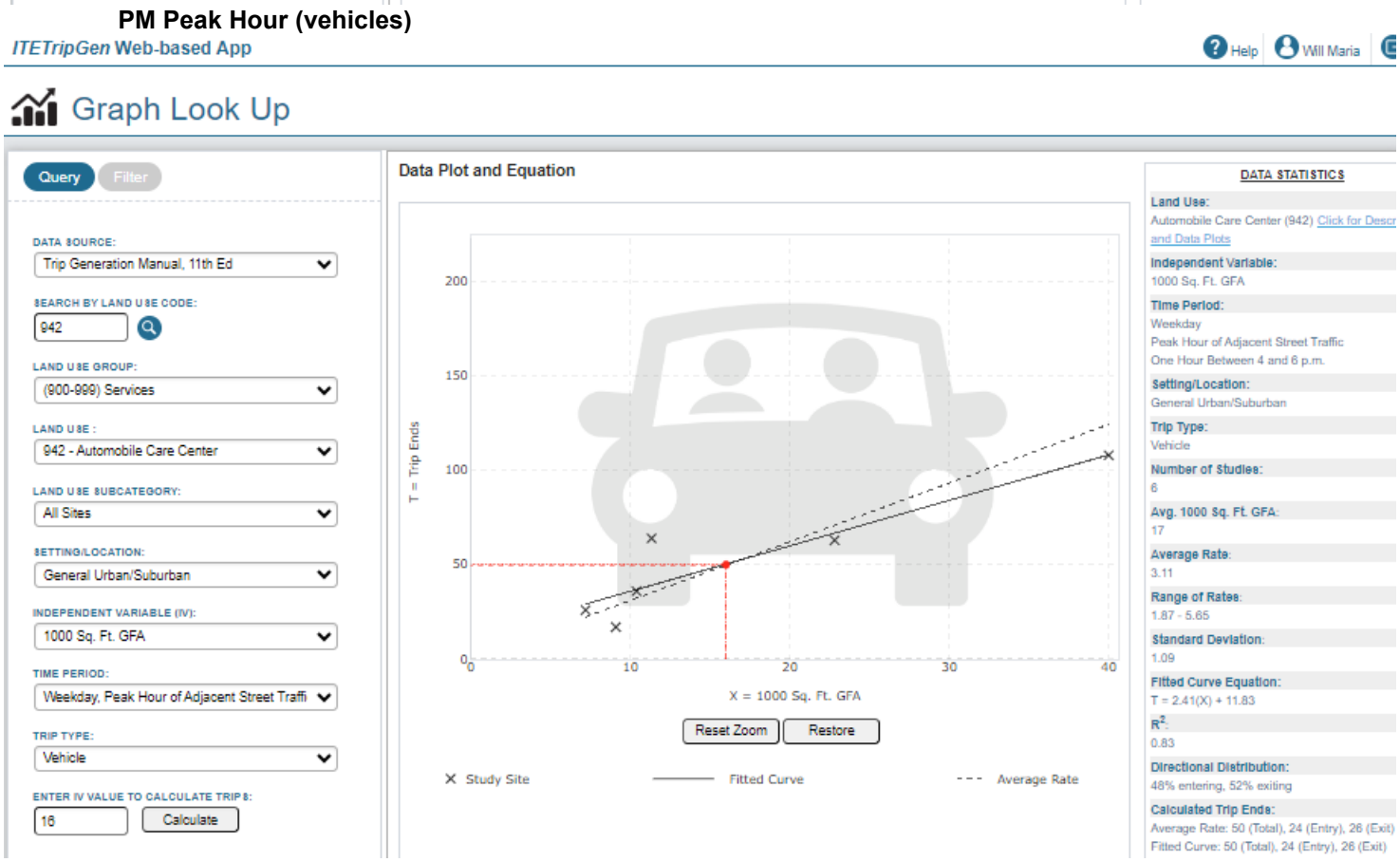
Directional Distribution:
28% entering, 72% exiting

Calculated Trip Ends:
Average Rate: 2 (Total), 1 (Entry), 1 (Exit)
Fitted Curve: 28 (Total), 8 (Entry), 20 (Exit)

Trip Generation 12649115, ITE Automobile Care Center (LUC 942): 16,000 ft^2
AM Peak Hour (vehicles)



PM Peak Hour (vehicles)



Appendix E

Synchro Report

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	21	683	63	0	670
Future Volume (vph)	0	21	683	63	0	670
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0		0.0	0.0	
Storage Lanes	0	1		0	0	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt		0.865	0.987			
Flt Protected						
Satd. Flow (prot)	0	1629	3532	0	0	3579
Flt Permitted						
Satd. Flow (perm)	0	1629	3532	0	0	3579
Link Speed (k/h)	40		70			70
Link Distance (m)	94.2		154.9			145.4
Travel Time (s)	8.5		8.0			7.5
Confl. Peds. (#/hr)	1					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	23	742	68	0	728
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	23	810	0	0	728
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	0.0		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.9%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	21	683	63	0	670
Future Volume (Veh/h)	0	21	683	63	0	670
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	23	742	68	0	728
Pedestrians			1			
Lane Width (m)			3.7			
Walking Speed (m/s)			1.1			
Percent Blockage			0			
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1141	405			810	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1141	405			810	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	96			100	
cM capacity (veh/h)	194	595			812	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	23	495	315	364	364
Volume Left	0	0	0	0	0
Volume Right	23	0	68	0	0
cSH	595	1700	1700	1700	1700
Volume to Capacity	0.04	0.29	0.19	0.21	0.21
Queue Length 95th (m)	0.9	0.0	0.0	0.0	0.0
Control Delay (s)	11.3	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	11.3	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	30.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	67	572	36	0	779
Future Volume (vph)	0	67	572	36	0	779
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0		0.0	0.0	
Storage Lanes	0	1		0	0	
Taper Length (m)	2.5				2.5	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt		0.865	0.991			
Flt Protected						
Satd. Flow (prot)	0	1629	3546	0	0	3579
Flt Permitted						
Satd. Flow (perm)	0	1629	3546	0	0	3579
Link Speed (k/h)	40		70			70
Link Distance (m)	94.2		154.9			145.4
Travel Time (s)	8.5		8.0			7.5
Confl. Peds. (#/hr)	1					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	73	622	39	0	847
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	73	661	0	0	847
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	0.0		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	1.6		1.6			1.6
Two way Left Turn Lane						
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24	14		14	24	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.8%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	67	572	36	0	779
Future Volume (Veh/h)	0	67	572	36	0	779
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	73	622	39	0	847
Pedestrians			1			
Lane Width (m)			3.7			
Walking Speed (m/s)			1.1			
Percent Blockage			0			
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1066	330			661	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1066	330			661	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	89			100	
cM capacity (veh/h)	217	665			923	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	73	415	246	424	424
Volume Left	0	0	0	0	0
Volume Right	73	0	39	0	0
cSH	665	1700	1700	1700	1700
Volume to Capacity	0.11	0.24	0.14	0.25	0.25
Queue Length 95th (m)	2.8	0.0	0.0	0.0	0.0
Control Delay (s)	11.1	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	11.1	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	27.8%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix F

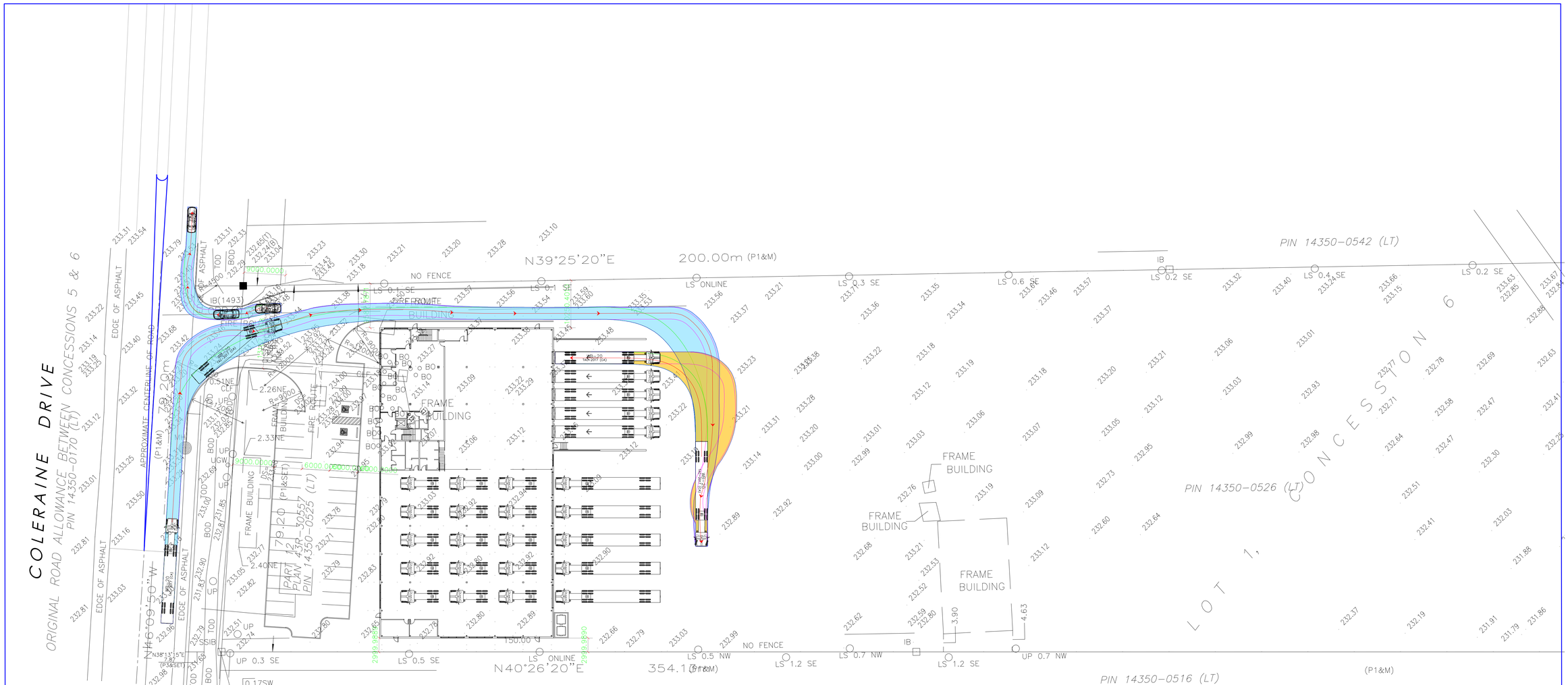
Parking By-law Requirement

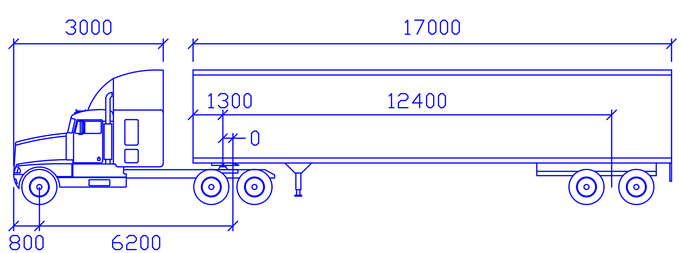
Artist Studio & Gallery	1 *parking space* per 100 m^2 of *net floor area* or portion thereof where no retail; 1 per 60 m^2 or portion thereof where retail component
Bakery	1 *parking space* per 20 m^2 of *net floor area* or portion thereof
Business Office	1 *parking space* per 30 m^2 of *net floor area* or portion thereof
Cannabis-Related Use – Indoor	1 *parking space* per 100 m^2 of *gross floor area* or portion thereof
Clinic	1 *parking space* per 16.5 m^2 *of net floor area* or portion thereof
Club	1 *parking space* per 15 m^2 of *net floor area* or portion thereof
Community Centre	1 *parking space* per 15 m^2 of *net floor area* or portion thereof
Day Nursery	1 *parking space* per staff member + 1 *parking space* per 30 m^2 of *net floor area* or portion thereof
Dry Cleaning or Laundry Plant	1 *parking space* per 20 m^2 of *net floor area* or portion thereof
Dry Cleaning or Laundry Outlet	1 *parking space* per 20 m^2 of *net floor area* or portion thereof
Factory Outlet	1 *parking space* per 20 m^2 of *net floor area* or portion thereof
Financial Institution	1 *parking space* per 25 m^2 of *net floor area* or portion thereof
Fitness Centre	1 *parking space* per 15 m^2 of *net floor area* or portion thereof
Funeral Home	1 *parking space* per 20 m^2 of *net floor area* or portion thereof
Golf Course	12 *parking spaces* per hole
Hospital	1.5 *parking spaces* per bed
Hotel	1 *parking space* per *guest room*, plus 1 *parking space* per 10 m^2 or portion thereof of *net floor area* devoted to meeting, dining and banquet facilities.
Industrial Hemp-Related Use - Indoor	1 *parking space* per 100m^2 of *gross floor area* or portion thereof
Industrial Use	a) If accessory office and retail *net floor area*s are 15% or less of the total *net floor area*: • Up to 5,000 m^2 – 1 *parking space* per 60 m^2 *net floor area* or portion thereof • 5,000 to 10,000 m^2 – 83 *parking spaces*, plus 1 *parking space* per 90 m^2 of *net floor area* or portion thereof over 5,000 m^2 • Over 10,000 m^2 – 139 *parking spaces*, plus 1 *parking space* per 170 m^2 or portion thereof of *net floor area* or portion thereof over 10,000 m^2

Place of Worship	the greater of 1 *parking space* per 6 persons design capacity of the worship area or 1 *parking space* for 10 m^2 of *net floor area* or portion thereof of the worship areas and any *accessory use* areas, excluding residential *uses*.
Printing & Processing Service Shop	1 *parking space* per 20 m^2 of *net floor area* or portion thereof
Recreational *Use*	30 *parking spaces* per ball field 30 *parking spaces* per soccer field 4 *parking spaces* per tennis court
Research Establishment	1 *parking space* per 30 m^2 of *net floor area* or portion thereof
Restaurant	1 *parking space* per 15 m^2 of *net floor area* or portion thereof
Retail Store	1 *parking space* per 20 m^2 of *net floor area* or portion thereof
Sales Service and Repair Shop	1 *parking space* per 20 m^2 of *net floor area* or portion thereof
School	Elementary – 1 *parking space* per 100 m^2 of *gross floor area* or portion thereof and 1 *parking space* per portable Secondary – 1.5 *parking spaces* per 100 m^2 of *gross floor area* or portion thereof and 1 *parking space* per portable classroom
Sports Arena	1 *parking space* per 15 m^2 of *net floor area* or portion thereof
Training Facility	1 *parking space* per 30 m^2 of *net floor area* or portion thereof
Transportation Depot	a) If associated office or retail *net floor areas* are 15% or less of the total *net floor area*: • Up to 7,000 m^2 – 1 *parking space* per 90 m^2 *net floor area* or portion thereof7,000 to 20,000 m^2 – 78 *parking spaces*, plus 1 *parking space* per 145 m^2 of *net floor area* or portion thereof over 7000 m^2 • Over 20,000 m^2 – 168 *parking spaces*, plus 1 *parking space* per 170 m^2 of *net floor area* or portion thereof over 20,000 m^2 b) If associated office or retail *net floor areas* are more than 15% of the total *net floor area*: In addition to the standards contained above in (a), the applicable *net floor areas* exceeding 15% shall be subject to the applicable office or retail parking requirements
Warehouse	a) If associated office or retail *net floor areas* are 15% or less of the total *net floor area*: • Up to 7,000 m^2 – 1 *parking space* per 90 m^2 *net floor area* or portion thereof 7,000 to 20,000 m^2 – 78 *parking spaces*, plus 1 *parking space* per 145 m^2 of *net floor area* or portion thereof over 7000 m^2

Appendix G

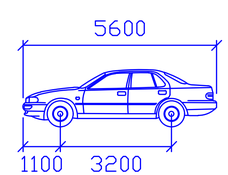
Vehicle Sweep Paths





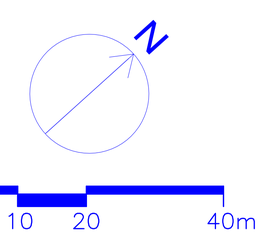
WB-20

	mm		
Tractor Width	: 2600	Lock to Lock Time	: 6.0
Trailer Width	: 2600	Steering Angle	: 28.2
Tractor Track	: 2600	Articulating Angle	: 70.0
Trailer Track	: 2600		



P

	mm
Width	: 2000
Track	: 2000
Lock to Lock Time	6.0
Steering Angle	: 35.9

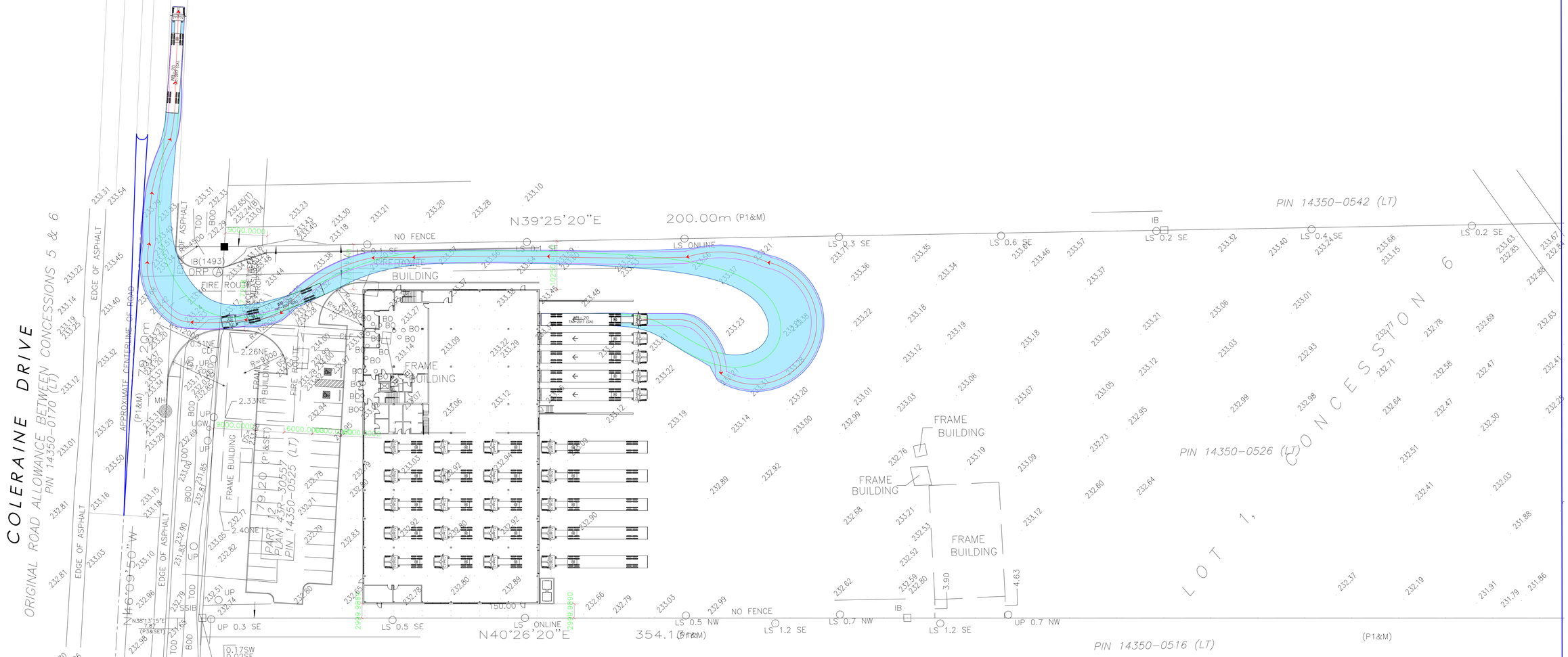


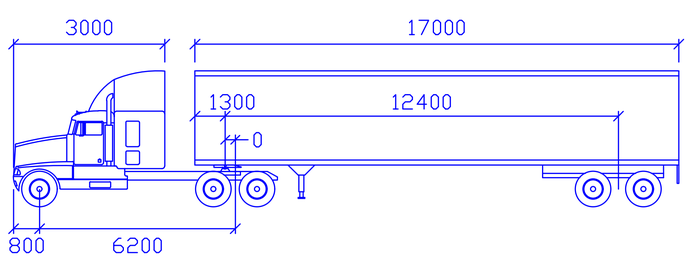
GHD

CIRCULATION REVIEW - 12155 COLERAINE DRIVE, BOLTON

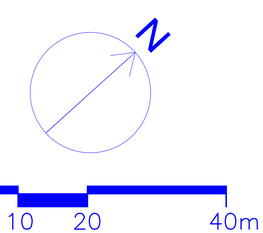
WB-20 Tractor-Semitrailer (IN1) - SITE ACCESS / COLERAINE DRIVE

Figure AT-1	
Project No.	12649115
Date	Sep. 12, 2024





WB-20



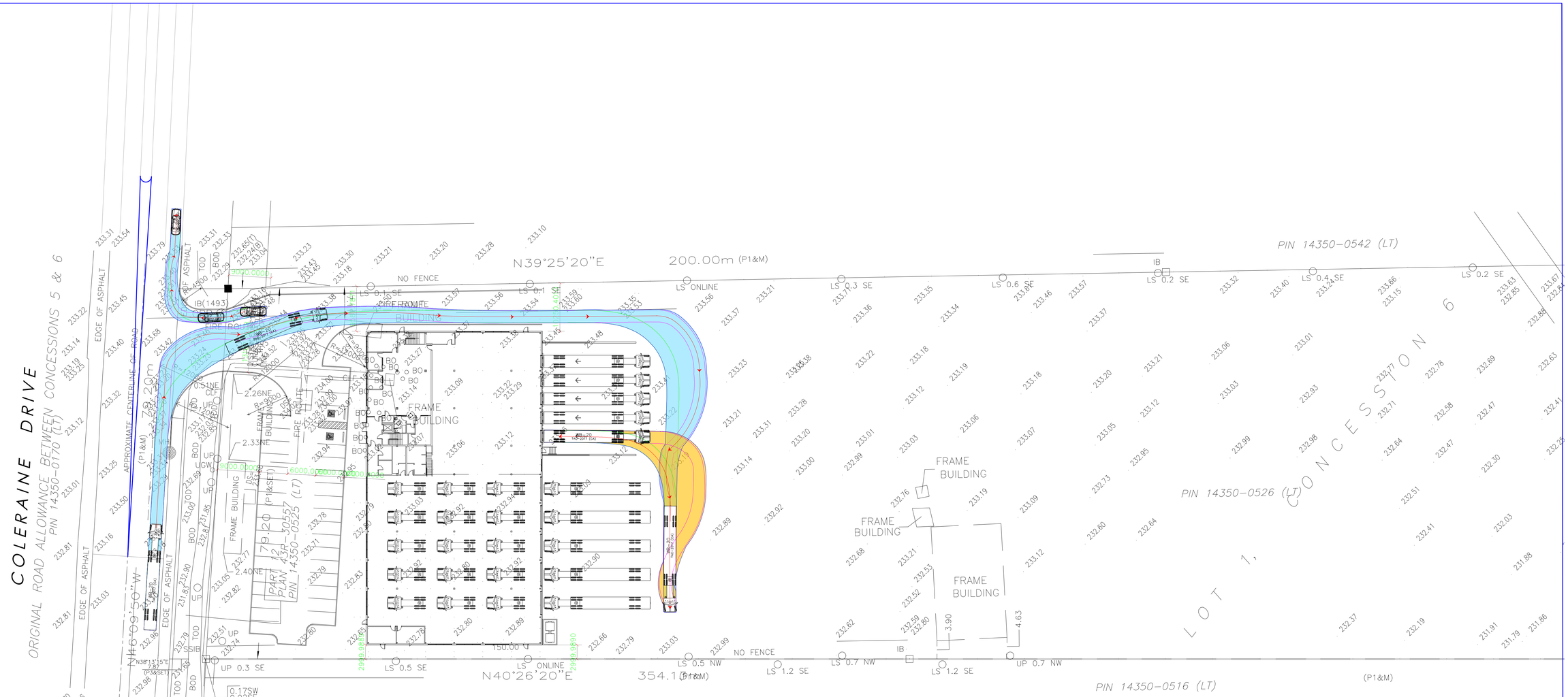
	mm		
Tractor Width	: 2600	Lock to Lock Time	: 6.0
Trailer Width	: 2600	Steering Angle	: 28.2
Tractor Track	: 2600	Articulating Angle	: 70.0
Trailer Track	: 2600		

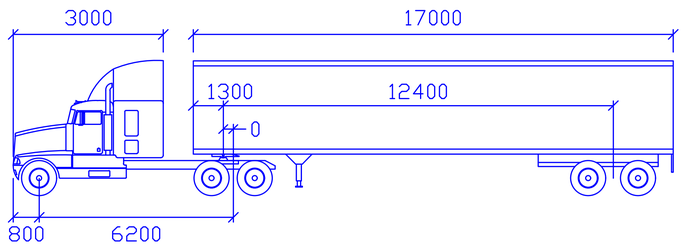
GHD

CIRCULATION REVIEW - 12155 COLERAINE DRIVE, BOLTON

WB-20 Tractor-Semitrailer (OUT1) - SITE ACCESS / COLERAINE DRIVE

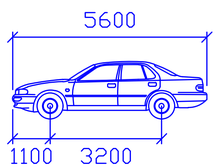
Figure AT-2	
Project No.	12649115
Date	Sep. 12, 2024





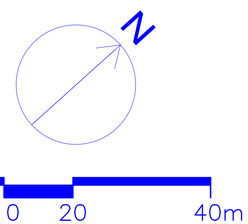
WB-20

	mm		
Tractor Width	: 2600	Lock to Lock Time	: 6.0
Trailer Width	: 2600	Steering Angle	: 28.2
Tractor Track	: 2600	Articulating Angle	: 70.0
Trailer Track	: 2600		



P

	mm
Width	: 2000
Track	: 2000
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

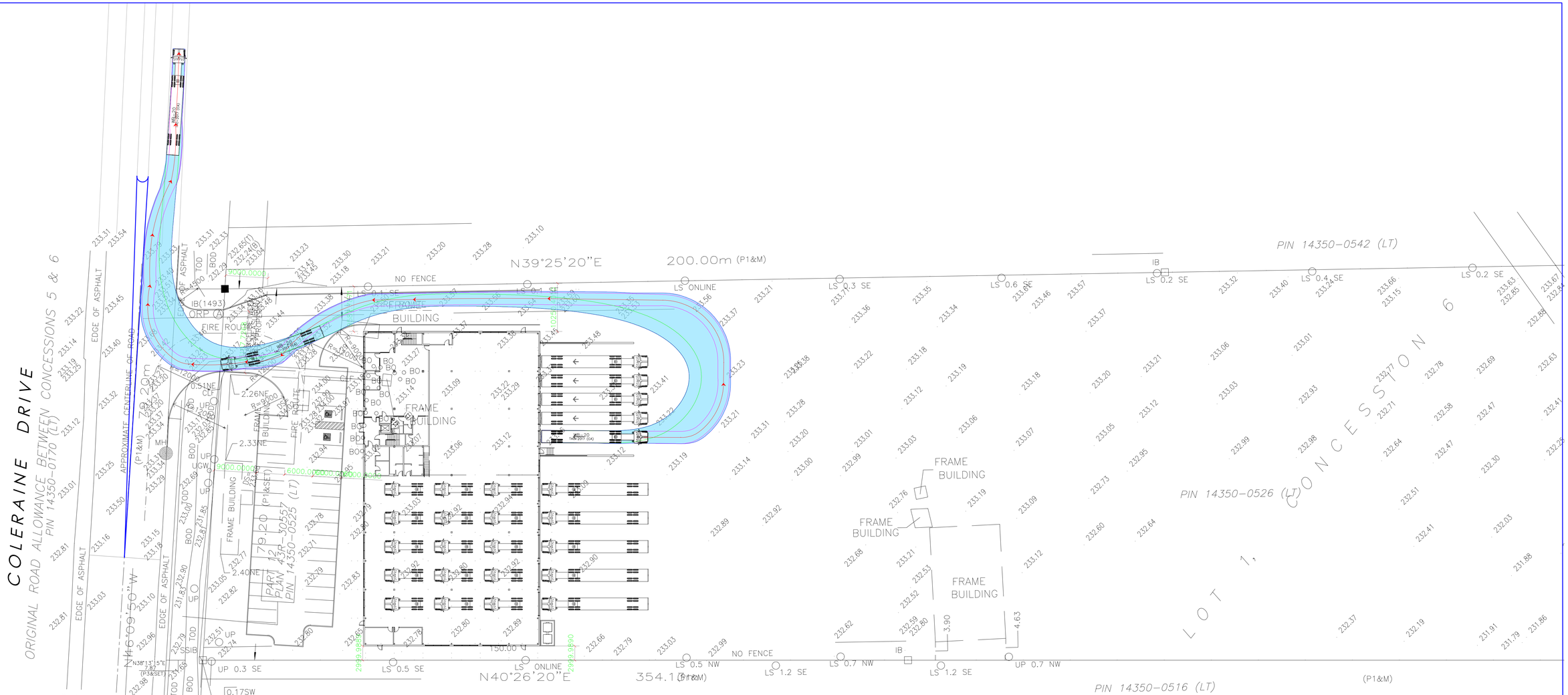


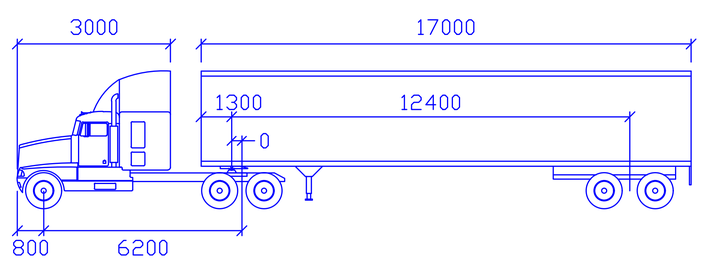
GHD

CIRCULATION REVIEW - 12155 COLERAINE DRIVE, BOLTON

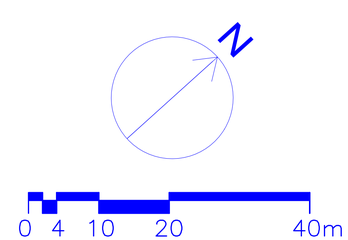
WB-20 Tractor-Semitrailer (IN2) - SITE ACCESS / COLERAINE DRIVE

Figure AT-3	
Project No.	12649115
Date	Sep. 12, 2024





WB-20



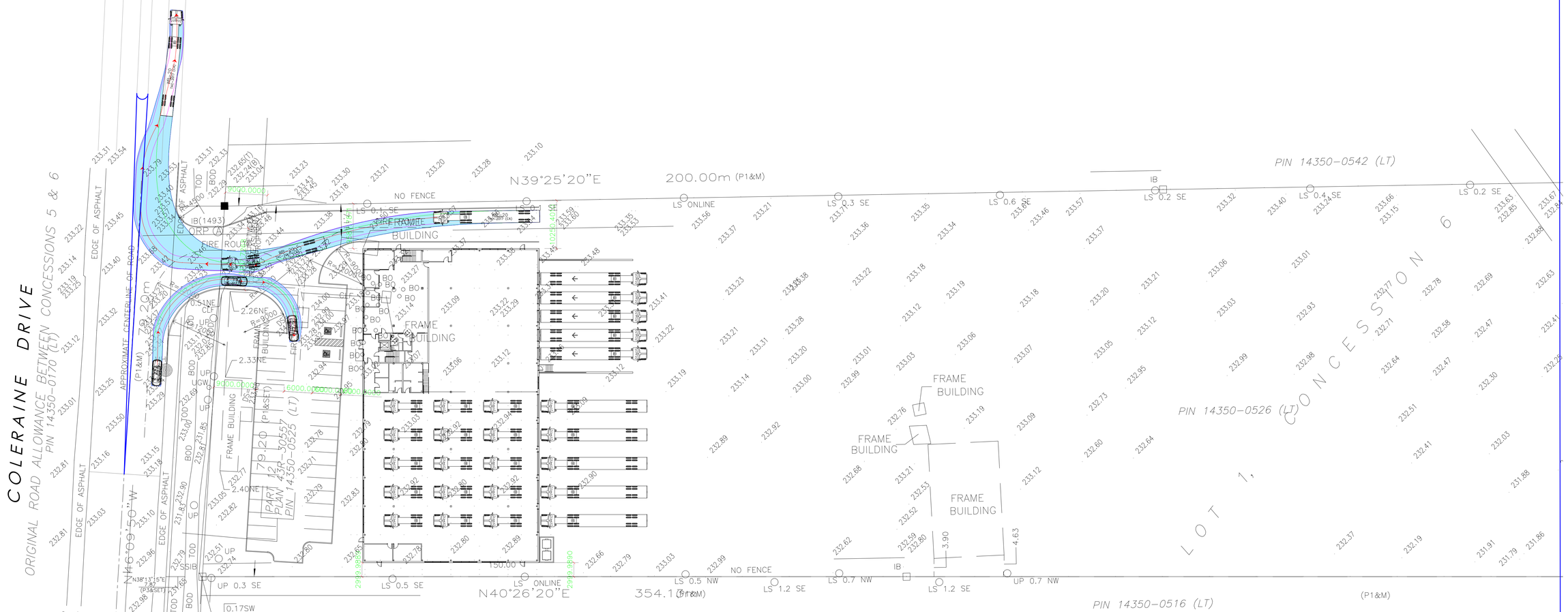
	mm		
Tractor Width	: 2600	Lock to Lock Time	: 6.0
Trailer Width	: 2600	Steering Angle	: 28.2
Tractor Track	: 2600	Articulating Angle	: 70.0
Trailer Track	: 2600		

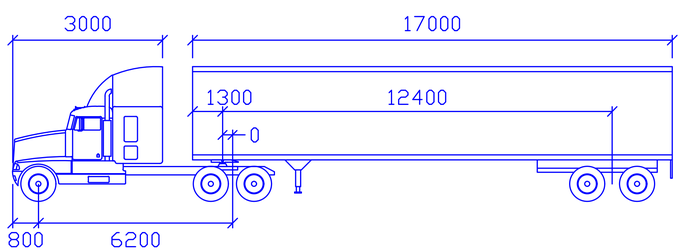
GHD

CIRCULATION REVIEW - 12155 COLERAINE DRIVE, BOLTON

WB-20 Tractor-Semitrailer (OUT2) - SITE ACCESS / COLERAINE DRIVE

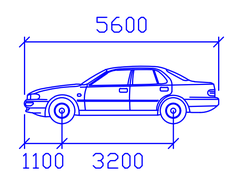
Figure AT-4	
Project No.	12649115
Date	Sep. 12, 2024





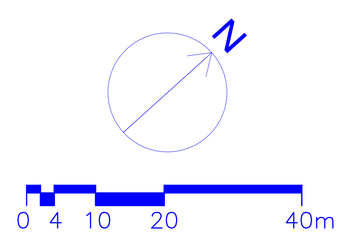
WB-20

	mm		
Tractor Width	: 2600	Lock to Lock Time	: 6.0
Trailer Width	: 2600	Steering Angle	: 28.2
Tractor Track	: 2600	Articulating Angle	: 70.0
Trailer Track	: 2600		



P

	mm
Width	: 2000
Track	: 2000
Lock to Lock Time	: 6.0
Steering Angle	: 35.9

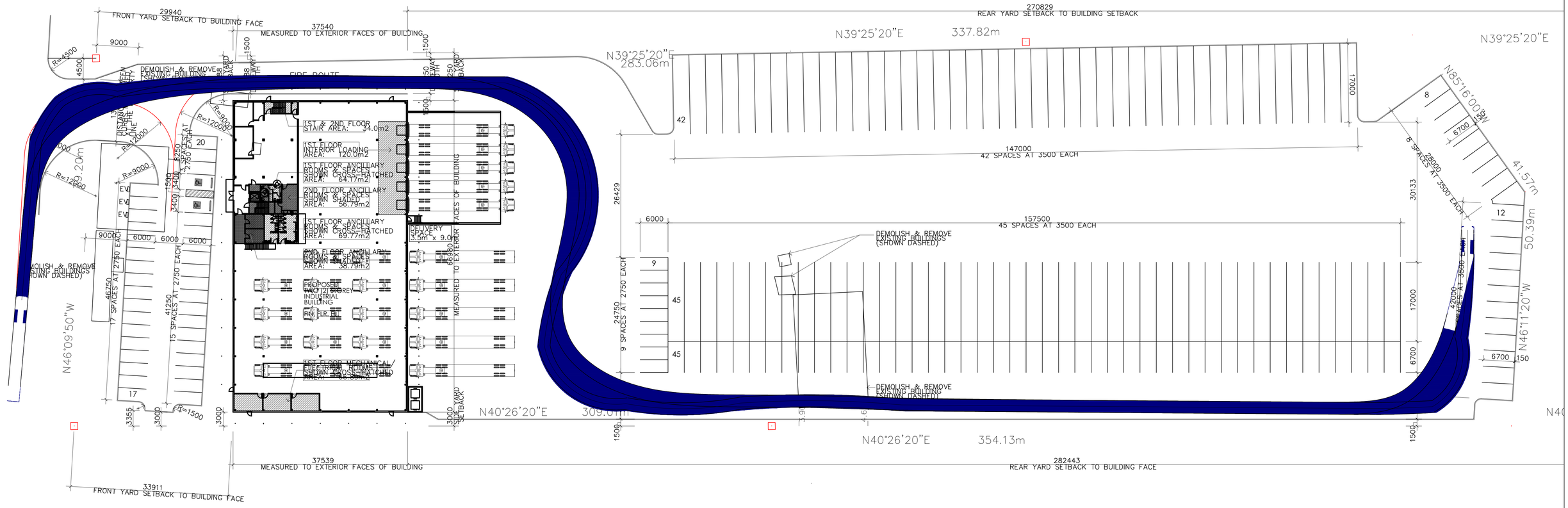


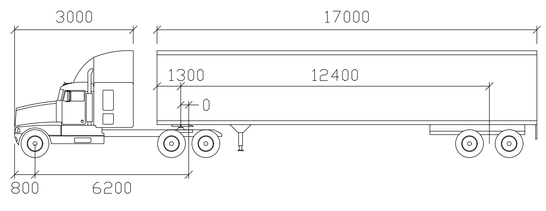
GHD

CIRCULATION REVIEW - 12155 COLERAINE DRIVE, BOLTON

WB-20 Tractor-Semitrailer (OUT3) - SITE ACCESS / COLERAINE DRIVE

Figure AT-5	
Project No.	12649115
Date	Sep. 12, 2024





WB-20

mm

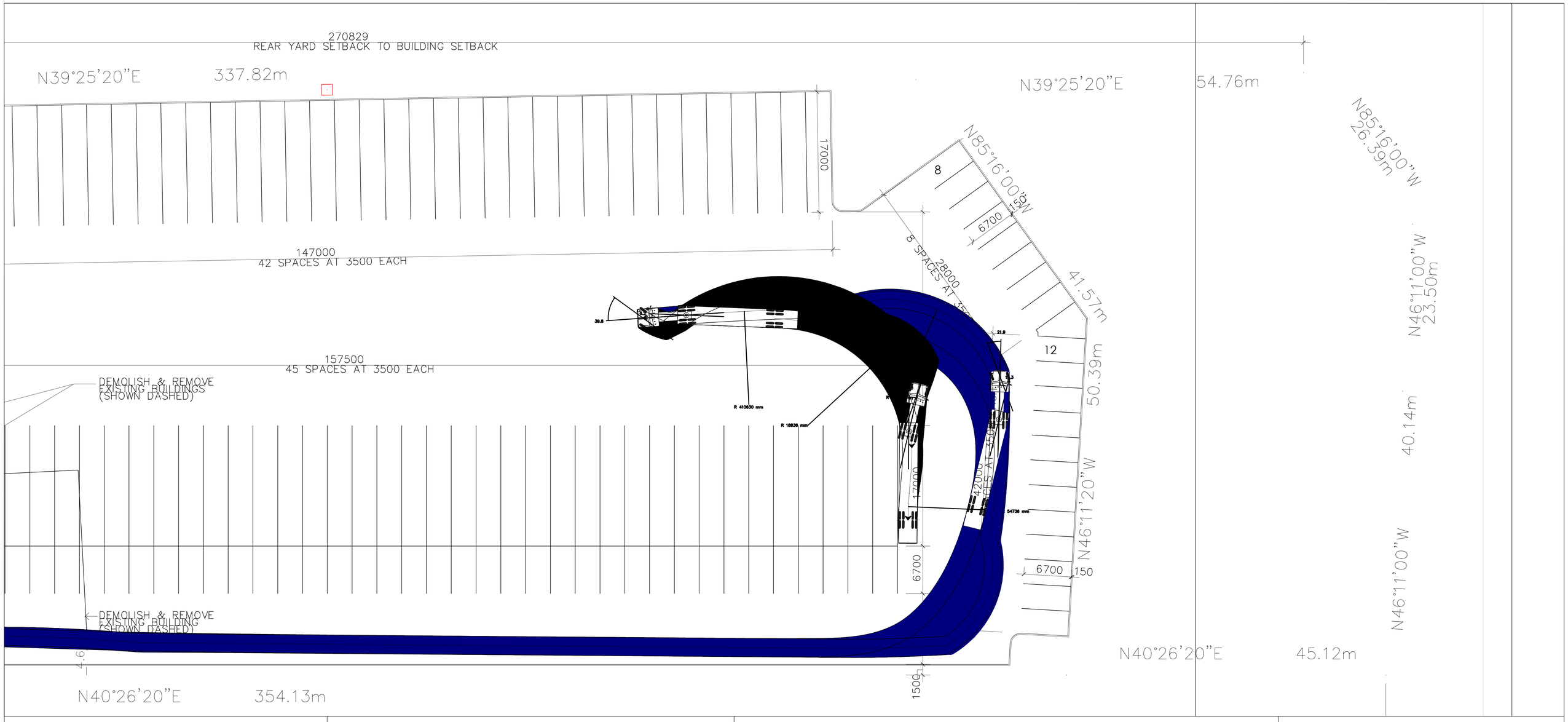
Tractor Width	: 2600	Lock to Lock Time	: 6.0
Trailer Width	: 2600	Steering Angle	: 28.2
Tractor Track	: 2600	Articulating Angle	: 70.0
Trailer Track	: 2600		

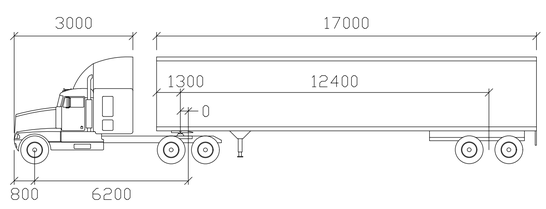
Circulation Review - 12155 Coleraine Drive, Bolton
WB-20 Tractor-Semitrailer (Access)

Figure AT - 1

Project No. 12649115

Date September 24, 2024





WB-20

mm

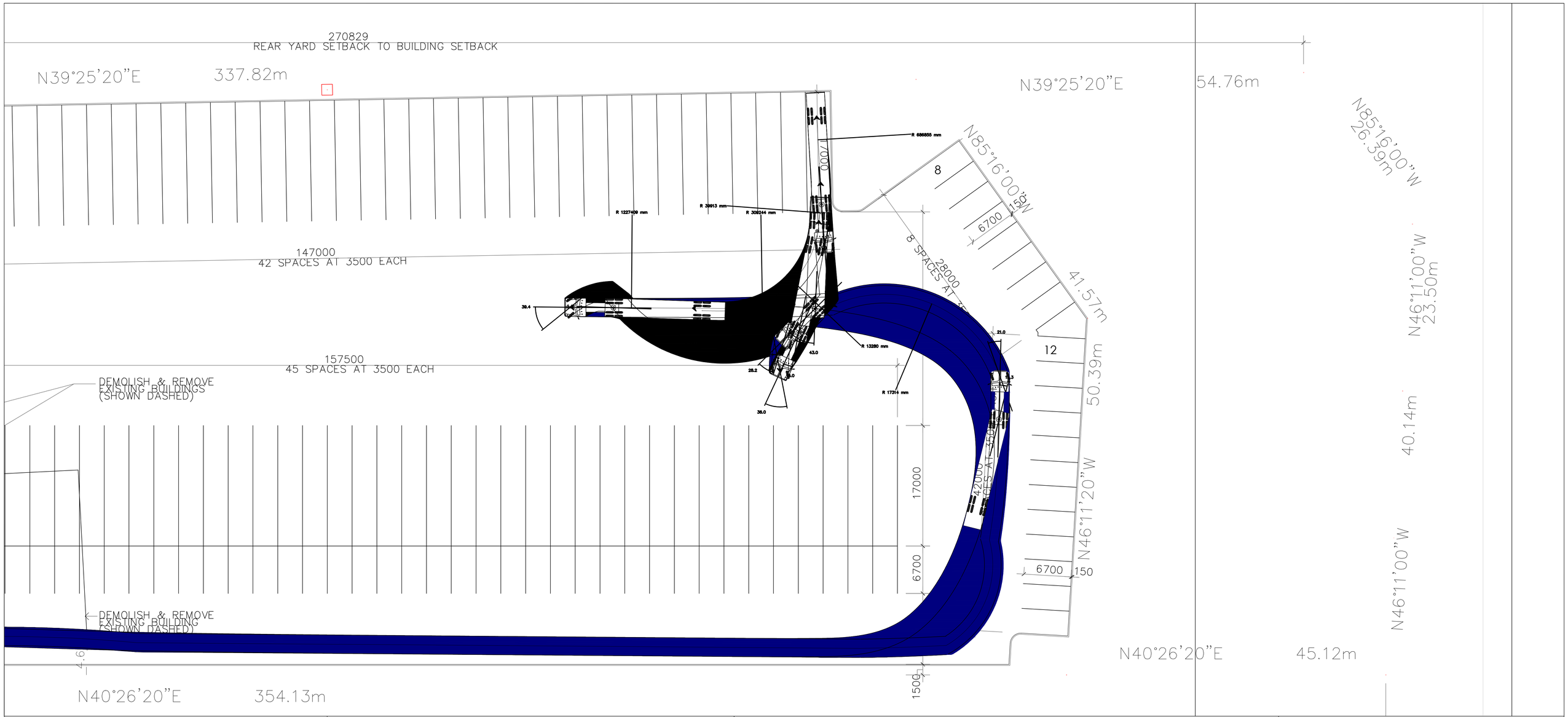
Tractor Width	: 2600	Lock to Lock Time	: 6.0
Trailer Width	: 2600	Steering Angle	: 28.2
Tractor Track	: 2600	Articulating Angle	: 70.0
Trailer Track	: 2600		

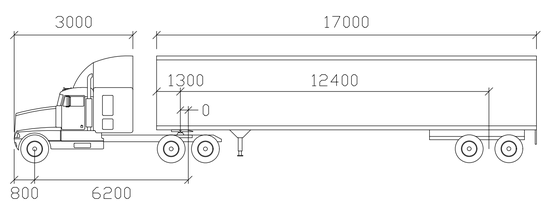
Circulation Review - 12155 Coleraine Drive, Bolton
WB-20 Tractor-Semitrailer
(In 1)

Figure AT - 2

Project No. 12649115

Date September 24, 2024





WB-20

mm

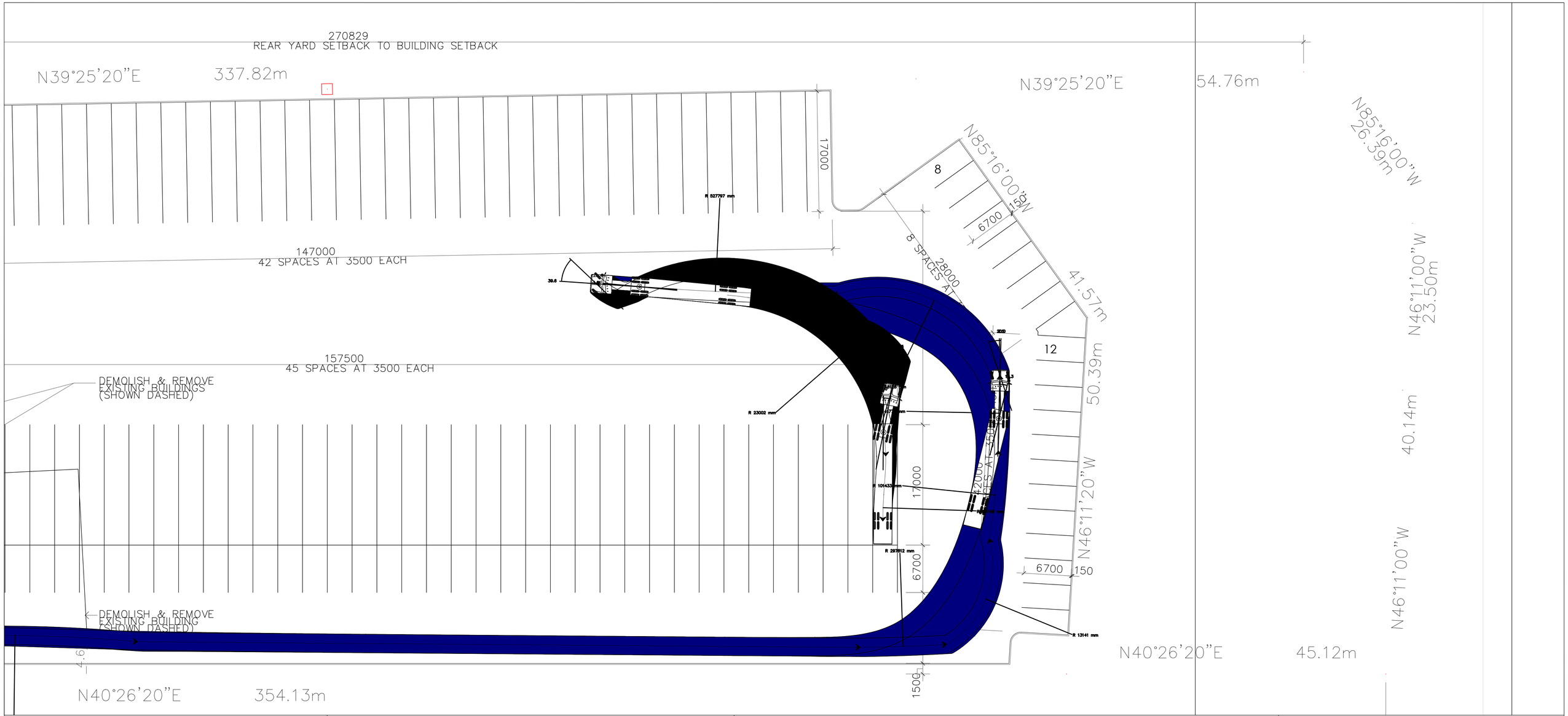
Tractor Width	: 2600	Lock to Lock Time	: 6.0
Trailer Width	: 2600	Steering Angle	: 28.2
Tractor Track	: 2600	Articulating Angle	: 70.0
Trailer Track	: 2600		

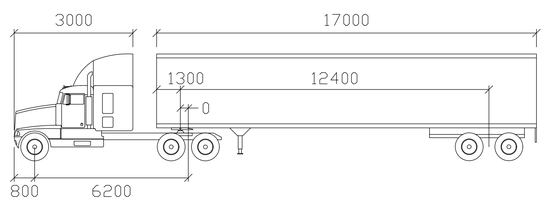
Circulation Review - 12155 Coleraine Drive, Bolton
WB-20 Tractor-Semitrailer
(In 2)

Figure AT - 3

Project No. 12649115

Date September 24, 2024





WB-20

mm

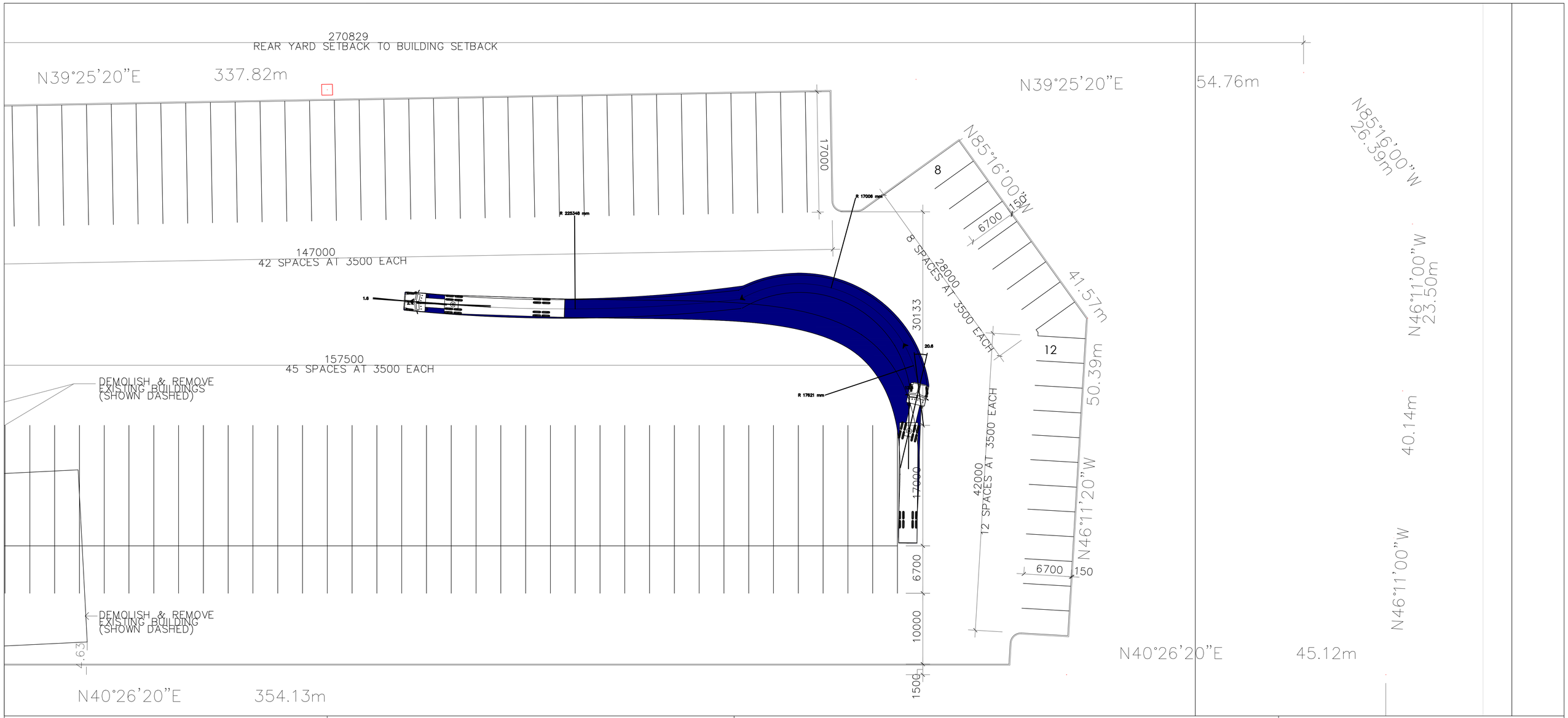
Tractor Width	: 2600	Lock to Lock Time	: 6.0
Trailer Width	: 2600	Steering Angle	: 28.2
Tractor Track	: 2600	Articulating Angle	: 70.0
Trailer Track	: 2600		

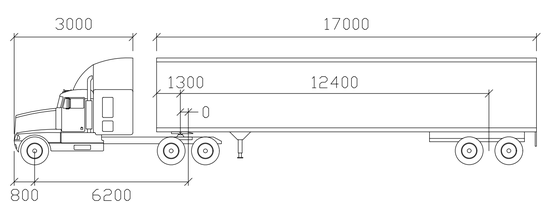
Circulation Review - 12155 Coleraine Drive, Bolton
WB-20 Tractor-Semitrailer
(In 3)

Figure AT - 4

Project No. 12649115

Date September 24, 2024





WB-20

mm

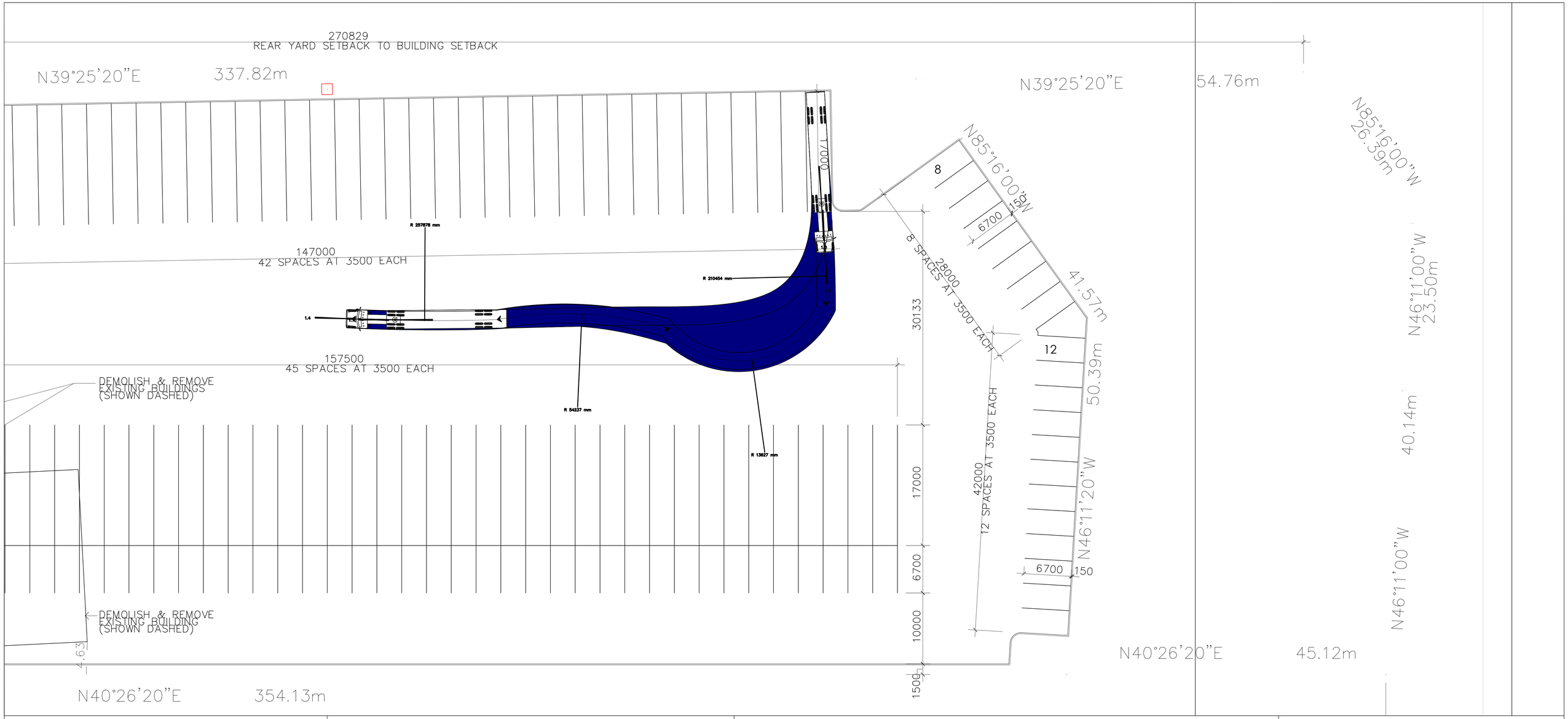
Tractor Width	: 2600	Lock to Lock Time	: 6.0
Trailer Width	: 2600	Steering Angle	: 28.2
Tractor Track	: 2600	Articulating Angle	: 70.0
Trailer Track	: 2600		

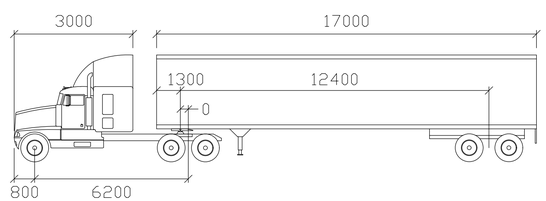
Circulation Review - 12155 Coleraine Drive, Bolton
WB-20 Tractor-Semitrailer
(Out 1)

Figure AT - 5

Project No. 12649115

Date September 24, 2024





WB-20

mm

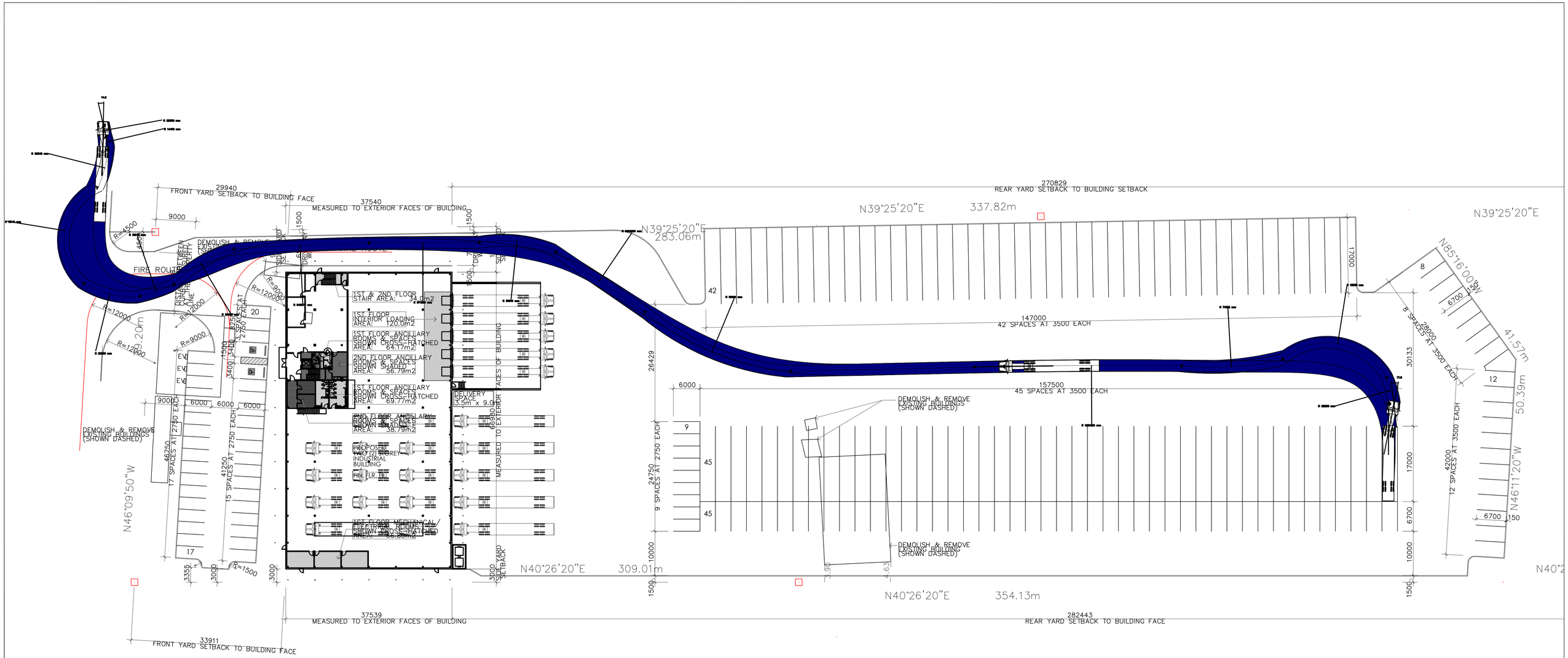
Tractor Width	: 2600	Lock to Lock Time	: 6.0
Trailer Width	: 2600	Steering Angle	: 28.2
Tractor Track	: 2600	Articulating Angle	: 70.0
Trailer Track	: 2600		

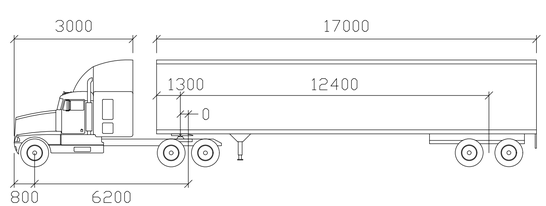
Circulation Review - 12155 Coleraine Drive, Bolton
WB-20 Tractor-Semitrailer
(Out 2)

Figure AT - 6

Project No. 12649115

Date September 24, 2024





WB-20

mm

Tractor Width	: 2600	Lock to Lock Time	: 6.0
Trailer Width	: 2600	Steering Angle	: 28.2
Tractor Track	: 2600	Articulating Angle	: 70.0
Trailer Track	: 2600		

Circulation Review - 12155 Coleraine Drive, Bolton
WB-20 Tractor-Semitrailer
(Out 3)

Figure AT - 7

Project No. 12649115

Date September 24, 2024