



December 18, 2019

Via: Email

Kresho Petrovich
Grainboys Holdings Inc.
1453 Old Forest Road
Pickering, Ontario L1V 1N8

Dear Kresho:

**Re: 3469 York Durham Line Traffic Brief
Uxbridge, ON
Project No.: 300050710.0000**

R.J. Burnside & Associates Limited (Burnside) was retained by Grainboys Holdings Inc. to provide a Traffic Brief for a proposed industrial development to be located at 3469 York Durham Line in the Town of Uxbridge.

The existing site is occupied by a farm with a single family home. Existing access is provided by a full movement driveway on York Durham Line. According to the preliminary site plan by Lassing Dibben Consulting Engineers Ltd., dated August 19, 2019, a 3,700.00 m² (40,000 ft²) grain processing facility is proposed to be added. Access is proposed via an all movement driveway on York Durham Line approximately 30 m south of the existing access, which will be closed. The proposed site plan is shown in Attachment 1.

York Durham Line is under the jurisdiction of York Region (the Region) and the Region requires a Site Plan application. As part of that application the Region has requested a Traffic Brief with existing traffic counts (weekday AM and PM peak hours), weekday AM and PM peak hour trip generation projections, a sightline analysis, and a truck access analysis.

Based on our review, we have concluded the following:

- Existing and projected traffic will have no noticeable impact on traffic operations at the subject driveway or at the Tenth Line and York Durham Line intersection and will be well within the day to day variations of traffic.
- The sightlines at the proposed site driveway will meet or exceed TAC requirements.
- The proposed site and driveway geometrics are sufficient to accommodate the largest expected design vehicle.

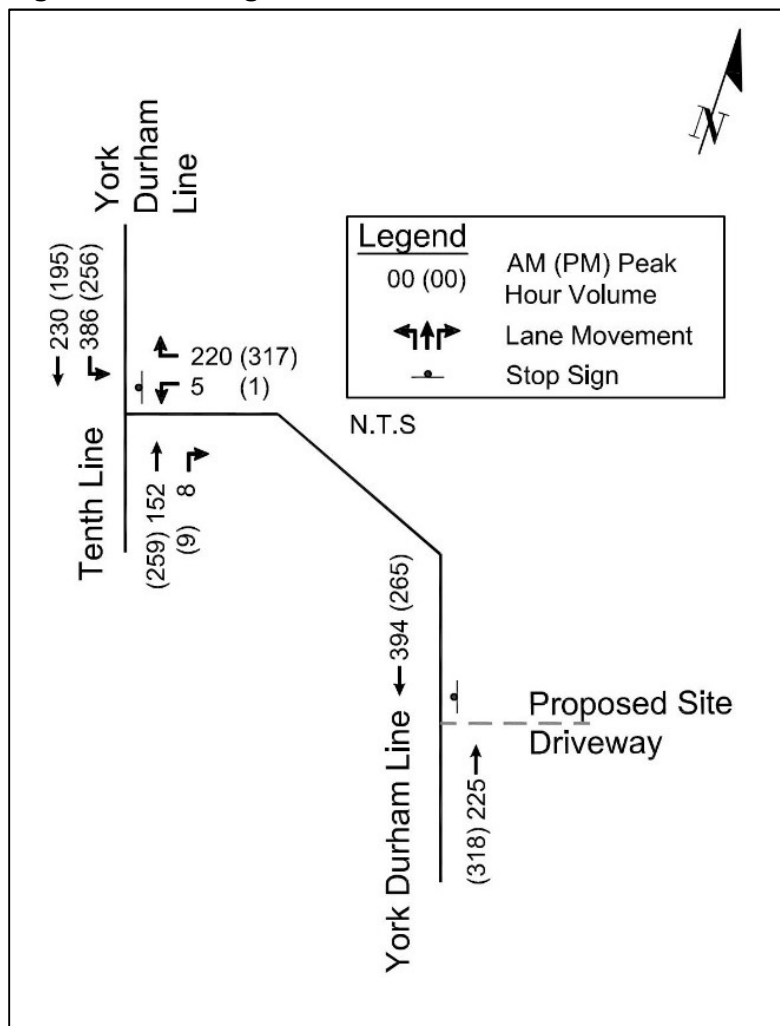
1.0 Existing Conditions

The site is located in the southeast quadrant of the intersection of Tenth Line and York Durham Line. The site is surrounded by other farms, vacant land, the York Durham Heritage Railway Line to the east, and a grainery to the south.

There are no existing or proposed turn lanes at the proposed site driveway or at the intersection of York Durham Line / Tenth Line. York Durham Line is classed as an arterial road and Tenth Line is a collector road under the Town of Whitchurch-Stouffville's jurisdiction.

Turning movement traffic counts were undertaken at the intersection of Tenth Line / York Durham Line during the weekday AM peak period (7:00 AM – 9:00 AM) and PM peak period (4:00 PM – 6:00 PM). The weekday AM and PM peak hours were selected as these are the typical traffic peak periods for this type of development. The traffic counts were carried out by Accu-Traffic Inc. on Tuesday, October 8, 2019, on behalf of Burnside. The existing weekday AM and PM peak hour traffic volumes are illustrated in Figure 1 and the existing traffic count summaries are provided in Attachment 2.

Figure 1: Existing Traffic Volumes



2.0 Proposed Operations

The grain processing facility will have a small office, a grain processing operation and silos for the raw and finished product. During a typical weekday, the number of employees will peak at 16 in the middle of the afternoon at around the 3:00 pm shift change. Employee numbers and hours will be as follows:

- Office Staff: 4 employees (9:00 am to 5:00 pm)
- Production Staff (Day Shift): 8 employees (6:00 am to 3:00 pm)
- Production Staff (Midnight Shift): 4 employees (3:00 pm to 12:00 am)

The facility will also operate one shift on Saturdays with 2 employees.

A typical weekday will have 4-7 trucks throughout the day. However, it is anticipated that a total of two trucks would arrive and depart during the weekday morning and afternoon peak hours, respectively. Trucks will predominantly originate to/from the north and will rarely head south.

3.0 Trip Generation

Based on the proposed operations noted in Section 2.0, the projected trips generated in the weekday AM and PM peak hours are shown in Table 1.

Table 1: Trip Generation

Trip Type	Weekday AM Peak Hour	Weekday PM Peak Hour
Inbound Trips	6	0
Outbound Trips	0	6
Total Trips	6	6

The projected trips is minimal and will not be noticeable in the day to day variation of traffic within the local road network.

4.0 Sightline Analysis

A sightline analysis was conducted to review the adequacy of sightlines for drivers at the proposed driveway. Vehicles travelling southbound on York Durham Line towards the proposed driveway can be clearly seen turning at the T-intersection at Tenth Line as shown in Photo 1, whereas northbound vehicles approaching the driveway from the south can be observed up to the horizontal curve to the south as shown in Photo 2. These photos, from Google Streetview, show that the roadway is relatively flat and there are no vertical sightline issues. Therefore, only a horizontal analysis was conducted based on the Region's Access Guidelines for Regional Roads, which is shown in Attachment 3. The guidelines recommend a minimum sight distance of 110m for an assumed design speed of 70km/h on York Durham Line. The available sightlines were found to meet or exceed the Region requirements.

Photo 1: Proposed Driveway North Sightline on York Durham Line



Photo 2: Proposed Driveway South Sightline on York Durham Line



In addition, taking into consideration the proximity of the proposed site driveway to the intersection of York Durham Line / Tenth Line, it is unlikely vehicles approaching the proposed site driveway will be operating at the design speed, as southbound vehicles need to first deaccelerate on Tenth Line to turn onto York Durham Line prior to approaching the driveway, while northbound vehicles will slow down as they approach the T-intersection at Tenth Line. Therefore, it is our opinion that the evaluation based on a design speed of 70km/h should be considered conservative.

5.0 Truck Access Analysis

An analysis of access via the proposed driveway to/from the proposed loading spaces was conducted for a WB20 design vehicle (53 foot tractor trailer) utilizing AutoTurn. The WB20 truck

represents the largest vehicle that is expected to access the site. The analysis is provided in Attachment 3 and confirms that the proposed site layout and driveway design will accommodate the expected design vehicle.

6.0 Conclusions

The projected site traffic is estimated to be only 6 trips in the AM peak hour and 6 trips in PM peak hour. This small amount of traffic will not be noticeable within the day to day variation of traffic volumes on York Durham Line.

The sightlines at the proposed site driveway meet or exceed the Region requirements.

The site and driveway is well designed to accommodate the largest design vehicle, which is expected to be a WB20 truck.

Should you require clarification of any of the above please contact either of the undersigned.

Yours truly,

R.J. Burnside & Associates Limited



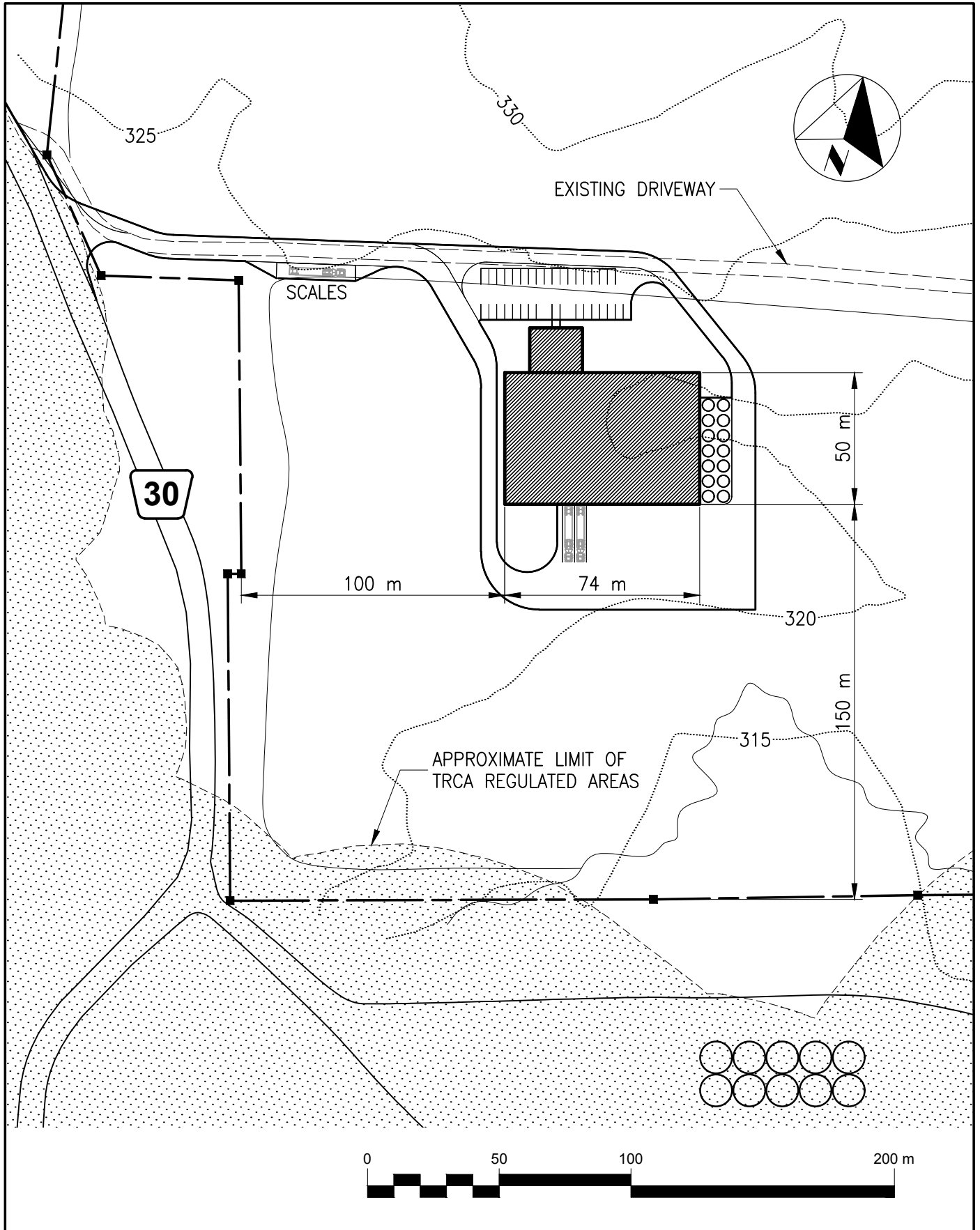
Benedict Wong, E.I.T
Transportation Planner
BW:




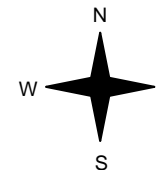
David Angelakis, C.E.T
Senior Project Manager - Transportation

Enclosure(s) Attachment #1: Site Plan
Attachment #2: Existing Traffic Counts
Attachment #3: Sightline Analysis
Attachment #4: Truck Access Analysis


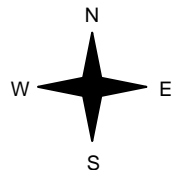





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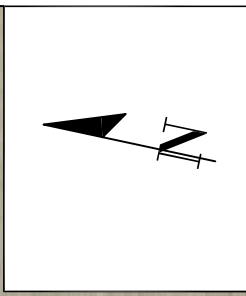


customer: Mr K. Petrovich GRAINBOYS HOLDINGS		title: PRELIMINARY SITE LAYOUT @ 100 m		 Lassing Diben Consulting Engineers Ltd
date: 19Aug19	job no. 19-066	scale: 1:2000	project: PORT ROYAL MILLS - 3469 York Durham Line	

Accu-Traffic Inc.																																			
Morning Peak Diagram	Specified Period From: 7:00:00 To: 9:00:00	One Hour Peak From: 7:30:00 To: 8:30:00																																	
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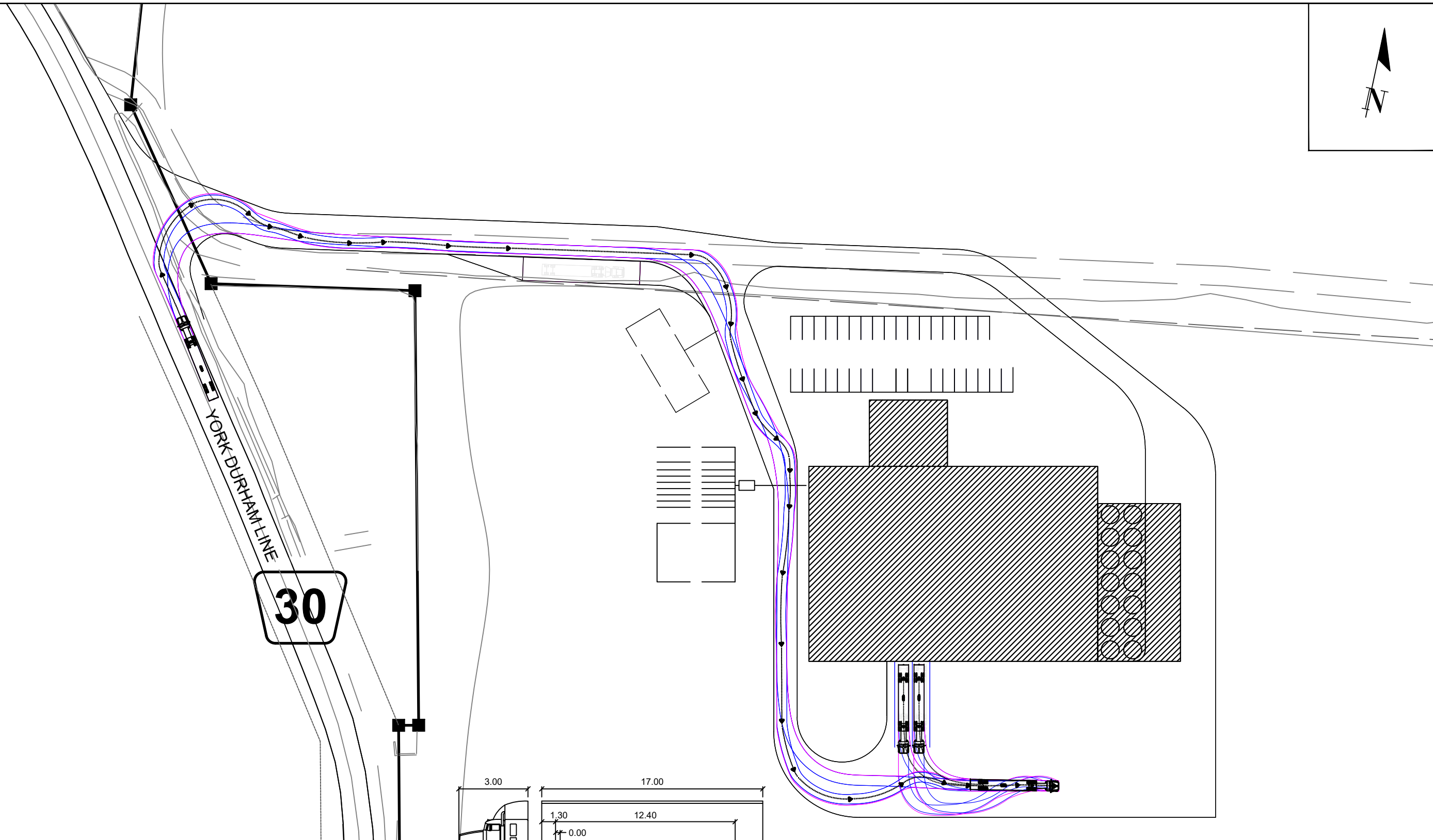
3469 York Durham Line
UXBRIDGE, ONTARIO

SIGHTLINE ANALYSIS

R.J Burnside & Associates Limited
BW/ DWA

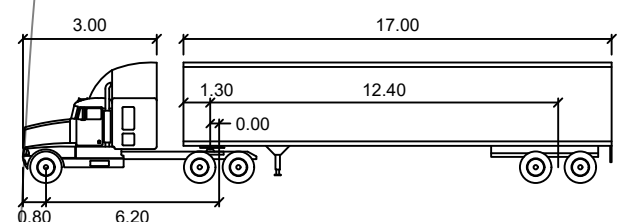
OCTOBER 16, 2019

1:1000



30

YORK DURHAM LINE



WB-20

	Tractor Width	: 2.60	Lock to Lock Time	: 6.0
	Trailer Width	: 2.60	Steering Angle	: 28.2
	Tractor Track	: 2.60	Articulating Angle	: 70.0
	Trailer Track	: 2.60		

LEGEND

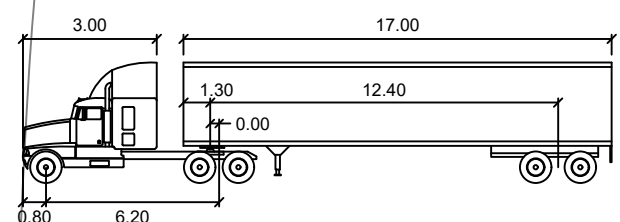
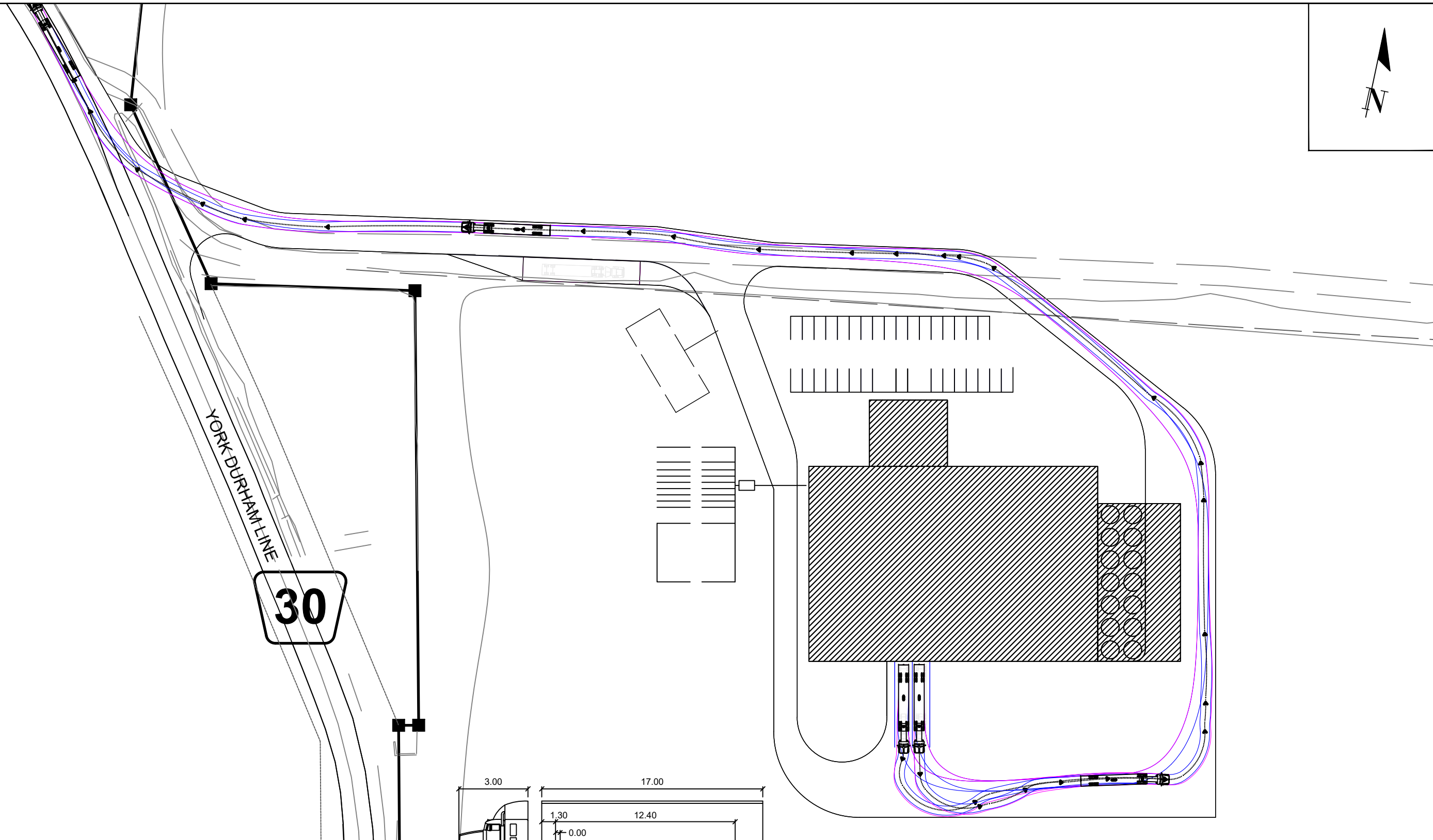
- VEHICLE BODY PATH
- VEHICLE TIRE PATH



3469 York Durham Line
 UXBRIDGE, ONTARIO
 ACCESS ANALYSIS - WB20 TRUCK
 ENTRY PATHS

R.J Burnside & Associates Limited
 BW/ DWA



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WB-20

	Tractor	Trailer	Tractor	Trailer
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LEGEND

-  VEHICLE BODY PATH
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3469 York Durham Line
UXBRIDGE, ONTARIO
ACCESS ANALYSIS - WB20 TRUCK
EXIT PATHS

R.J Burnside & Associates Limited
BW/ DWA

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