

Traffic Study Brief

Proposed Industrial Development

26 Anderson Boulevard
Township of Uxbridge
Regional Municipality of Durham

Table of Contents

	Page
1. INTRODUCTION.....	1
2. SITE TRIP GENERATION	2
3. PARKING SUPPLY REVIEW	3
3.1. City Parking By-law Requirements	3
4. SITE ACCESS REVIEW	4
5. CIRCULATION REVIEW	4
6. SIGHTLINE ASSESSMENT	4
7. SUMMARY	4

List of Figures

FIGURE 1 : SITE LOCATION AND SITE AREA	2
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List of Tables

TABLE 1 : SITE VEHICLE TRIP ESTIMATES	2
TABLE 2 : CITY'S PARKING BY-LAW REQUIREMENTS	3
TABLE 3 : CITY'S ACCESSIBILITY PARKING STANDARDS	3

List of Appendices

- A:** SITE PLAN
- B:** ZONING BY-LAW (PARKING)
- C:** ZONING BY-LAW (ACCESS AND LOADING SPACE)
- D:** SITE CIRCULATION PLANS



1. INTRODUCTION

WPE Engineering Limited is pleased to present this Traffic Study Brief for the proposed industrial development located at 26 Anderson Boulevard, Town of Uxbridge, Durham Region. The proposed site location is depicted in Figure 1.

The proposed development comprises of a combined 1-storey warehouse and 2-storey office. Access to the subject site is achieved by a full-movement driveway connection to Anderson Boulevard. The proposed site will provide 28 parking spaces, of which 18 parking spaces are located along the driveway, and 10 parking spaces are located in the parking zone adjacent to the driveway. 4 loading bays are provided on the northern side of the proposed warehouse to accommodate shipping and loading of goods. Detailed site plan is supplemented in **Appendix A**.

Anderson Boulevard is an inner local street under the jurisdiction of the Township of Uxbridge. The road has no posted speed limit, the general speed limit is assumed to be 50 km/h. The west end of Anderson Boulevard connects to York Durham Line which is a north-south arterial. Connection to the east-west arterial of Regional Highway 47 is via Paisley Lane.

Given the scale of development is relatively small, it is anticipated that no substantial traffic impact will be imposed on the existing road network. Therefore, no capacity analysis at neighbouring intersections is required.

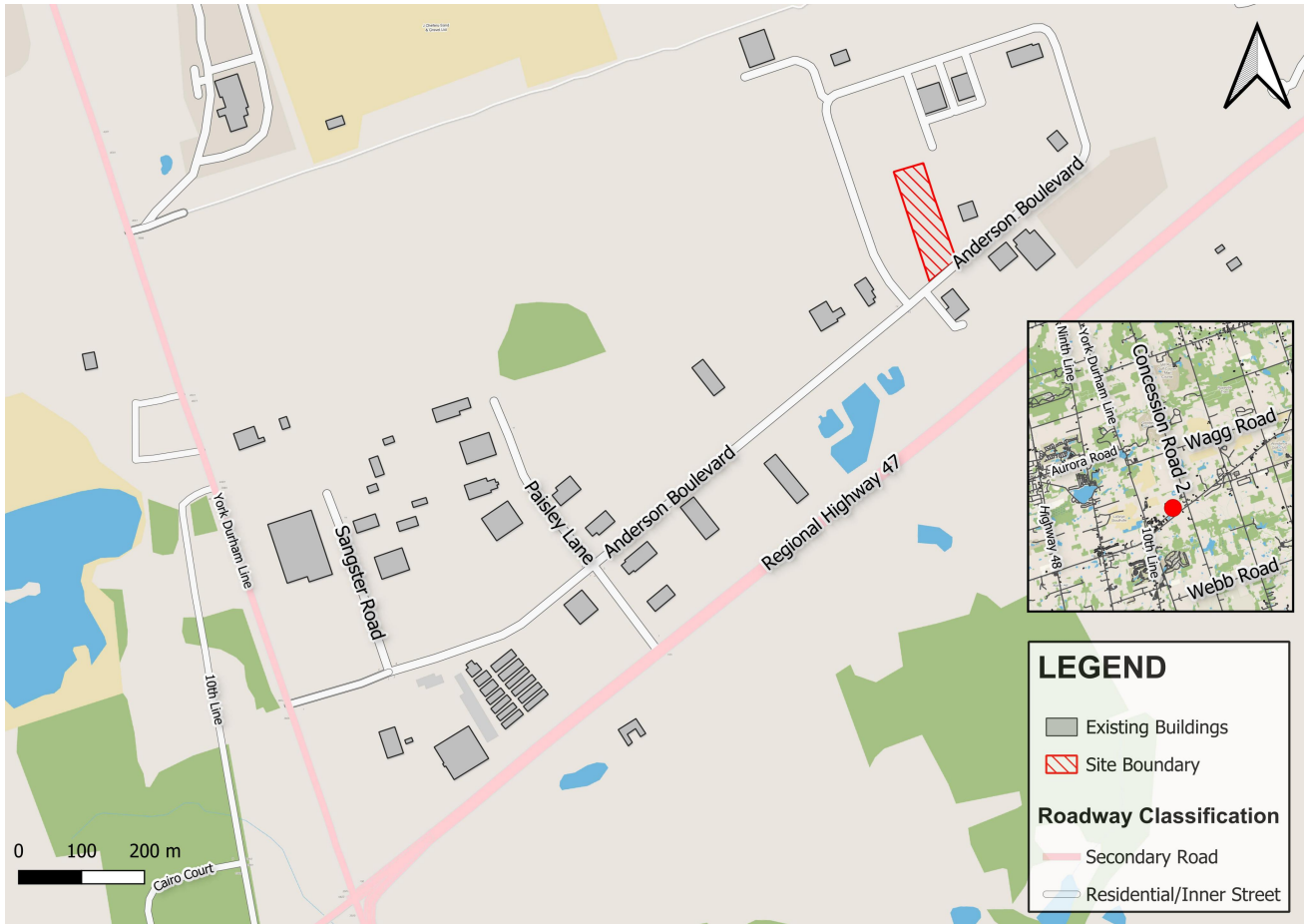


FIGURE 1: SITE LOCATION AND SITE AREA

2. SITE TRIP GENERATION

The estimation of site generated trips is based on Trip Generation Manual, 11th Edition published by the Institute of Transportation Engineers (ITS) for warehouse (LUC 150) and professional office (LUC 710). The trips are calculated from the fitted curve trip rates. Table 1 shows the projected number of vehicle trips generated during weekday morning and evening peak hour.

TABLE 1: SITE VEHICLE TRIP ESTIMATES

Land Use	GFA (1000 ft ²)	A.M. Peak Hour			P.M. Peak Hour		
		In	Out	Total	In	Out	Total
Warehouse (LUC 150)	22.4987	20	6	26	8	21	29
Office (LUC 710)	1.4811	4	0	4	1	4	5
Total		24	6	30	9	25	34

The subject site is expected to generate 30 and 34 two-way trips during the morning and afternoon peak hour. Overall, no major adverse traffic impacts on the existing road network will be anticipated with the aforementioned trips generated by the proposed site. Therefore, no further capacity analysis at intersections is needed.

3. PARKING SUPPLY REVIEW

3.1. City Parking By-law Requirements

The Township of Uxbridge's Zoning By-law 81-19 Section 5 (Parking Space Requirement Table) stipulates the minimum number of parking spaces to be supplied by each development land-use. For this study, commercial and industrial development are proposed. Table 2 summarizes the City's By-law parking requirement for the proposed development. Table 3 lists the required number of accessible parking. The captioned vehicle parking and bicycle parking By-law are supplemented in **Appendix B**.

TABLE 2: CITY'S PARKING BY-LAW REQUIREMENTS

Land-use	Gross Floor Area (m ²)	City's By-law Requirements	
		Parking Rate	Parking Space
Warehouse	2091	1 per 100 m ² of gross floor area designated for warehouse use	21
Office	138	1 per 20 m ² of gross floor area designated for office use	7
Total Parking Space Required			28
Total Parking Supply			28

TABLE 3: CITY'S ACCESSIBILITY PARKING STANDARDS

Total Site Parking Supply	Total
28	1
Total Accessible Parking Supply	2

Therefore, the current vehicle parking supply satisfies the Township of Uxbridge's Zoning By-law requirements.

4. SITE ACCESS REVIEW

The minimum width of site access required by the City's Zoning By-law is 6 metres (2-lane). The proposed subject site access has a width of 7.13 metres, which satisfies the minimum stipulated width.

The access Zoning By-law requirements are provided in **Appendix C**.

5. CIRCULATION REVIEW

This study considers Wb-20 as the largest allowed semi-truck to circulate in the subject site. Overall, vehicles are able to enter, circulate and leave the site without major difficulties. The detailed site circulation plans for Wb-20 and emergency services vehicles (fire truck) are supplemented in **Appendix D**.

6. SIGHTLINE ASSESSMENT

The existing conditions on Anderson Boulevard at the proposed development have been studied. The review indicates Anderson Boulevard is a relatively flat and straight near the subject site and no horizon curves are present. Respective daylight triangles will be provided at the site access onto Anderson Boulevard as per the request from the Township of Uxbridge and the Durham Region.

7. SUMMARY

The key findings of this study are summarized below:

- The trips generated by the site has minimal impacts on the existing road network.
- The subject site provides 28 parking spaces, of which 2 are accessible parking space. The current parking supply satisfies the City's Zoning By-law standards.
- Access to the site satisfies the City's Zoning By-law standards.
- No major difficulties are observed for ingress and egress vehicles to or from the site.

Overall, no adverse traffic impacts are anticipated from the proposed industrial development. Therefore, no site-specific mitigation measures are required.

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

Prepared By:

WPE Engineering Ltd.



A handwritten signature in black ink, appearing to read 'Vic C.Y. Chan'.

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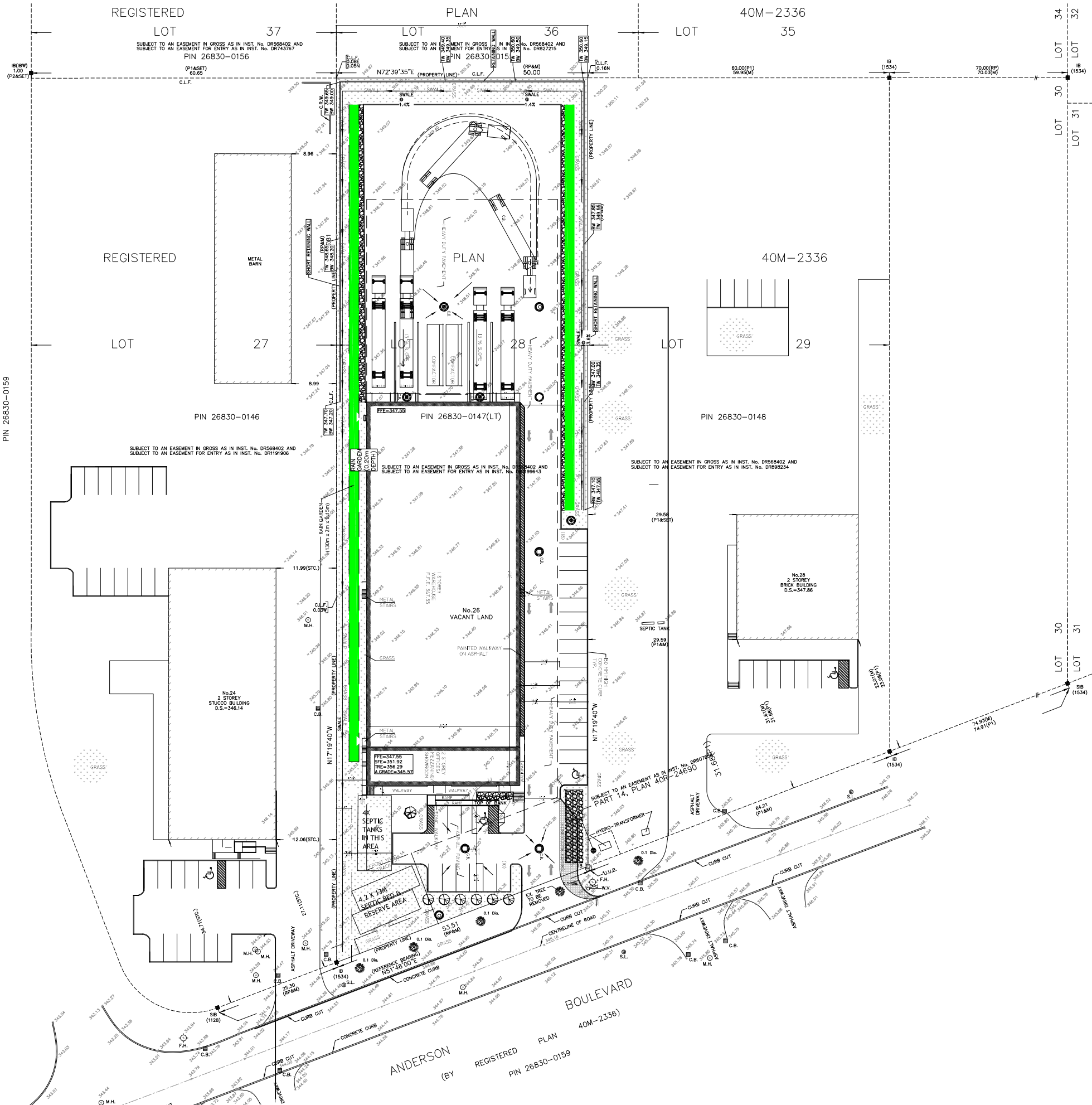
Vic C.Y. Chan, Traffic Analyst

Appendix A

Detailed Site Plan



ANDERSON
(BY REGISTERED PLAN 40M-2336)
PIN 26830-0159



SITE PLAN
PART 1 - PLAN OF SURVEY OF
LOT 28
REGISTERED PLAN 40M-2336
TOWNSHIP OF UXBRIDGE
REGIONAL MUNICIPALITY OF DURHAM

LEGEND

- DENOTES MONUMENT SET
- DENOTES MONUMENT FOUND
- IB DENOTES STANDARD IRON BAR
- P1 DENOTES IRON BAR
- P1 DENOTES PLAN OF SURVEY BY SALNA SURVEYING, O.L.S. DATE FEBRUARY 15, 2012
- P2 DENOTES PLAN OF SURVEY BY ERTL-HUNT SURVEYORS, O.L.S. DATE JULY 7, 2023
- RP DENOTES REGISTERED PLAN 40M-24690
- 1534 DENOTES HUNT SURVEYS INC., O.L.S.
- 1128 DENOTES DAVID HORWOOD LTD., O.L.S.
- IBW DENOTES IBW SURVEYORS, O.L.S.
- PIN DENOTES PROPERTY IDENTIFIER NUMBER
- M DENOTES MEASURED
- N,S,E,W DENOTES NORTH, SOUTH, EAST, WEST
- C.L.F. DENOTES CHAIN LINK FENCE
- C.R.W. DENOTES CONCRETE RETAINING WALL
- U.U.B. DENOTES UNDERGROUND UTILITY BOX
- D.S. DENOTES DOOR SILL ELEVATION AT ENTRY
- STC. DENOTES TIE TAKEN FROM STUCCO
- F.H. DENOTES FIRE HYDRANT
- O.M.H. DENOTES MANHOLE
- S.L. DENOTES STREET LAMP
- W.V. DENOTES WATER VALVE
- C.B. DENOTES CATCH BASIN
- DENOTES CONIFEROUS TREE
- DENOTES DECIDUOUS TREE



STATISTIC:

LOT AREA= 8,314.13 SQ.M
GFA MAIN FLOOR= 69.675 SQ.M
GFA SEC. FLOOR= 68 SQ.M
TOTAL GFA= 137.6 SQ.M
137.6 SQ.FT / 8,314.13 SQ.M = 1.65%

COVERAGE:
BUILDING COV. = 2,322.5 SQ.M
2,322.5 SQ.FT / 8,314.13 SQ.M = 27.93%

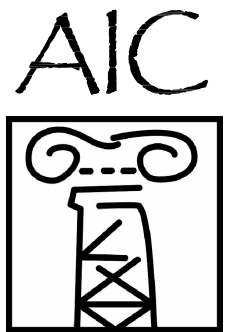
PARKING: 1 PER 100 SQ.M WAREHOUSE
1 PER 20 SQ.M OFFICE

WAREHOUSE=2,090.2 SQ.M/ 100 = 21
(PRIVATE SERVICE LAND)
OFFICE=137.6 SQ.M / 20= 7
TOTAL PARKING REQ.=28
PROVIDED=28

LANDSCAPING=
SOFT LANDSCAPE 2,084.33/8,314.13=
25.06%

SEWAGE CAPACITY = 2733lt
LOADING DOCKS = 4 x 150lt 600lt
WAREHOUSE = 1 x 950lt 950lt
REMAINING OFFICE AREA= 1,183 lt
1,183/75lt=15.77 > 15 people
15 PEOPLE x 9.3m2 AS PER T. OBC 3.1.17.1 = 139.5 SQ.M

General Notes



HOME DESIGN
BUILDING
CONSULTANT
www.architalcandesign.com

THIS DRAWING NOT TO BE SCALED. FOLLOW NOTED DIMENSIONS ONLY.
THE CONTRACTOR SHALL VERIFY THAT ALL DIMENSIONS, DATUM AND INFORMATION SHOWN ARE CORRECT AND IN ACCORDANCE WITH THE SITE PRIOR TO THE COMMENCEMENT OF WORK. VARIATIONS AND MODIFICATIONS TO THE WORK SHOWN REQUIRE THE WRITTEN CONSENT OF THE DESIGNER IN ADVANCE. THE CONTRACTOR SHALL NOTIFY THE DESIGNER OF ANY DISCREPANCIES AS THEY BECOME APPARENT.
THIS DRAWING NOT TO BE USED FOR CONSTRUCTION PURPOSES UNLESS SIGNED BY THE DESIGNER.
ALL DRAWINGS AND PRINTS ARE THE PROPERTY OF THE DESIGNER AND MUST BE RETURNED UPON COMPLETION OF THE WORK.

No.	Revision/Issue	Date

Firm Name and Address
ARCHITALCAN DESIGN INC.
Rocco Schipano
2842 Bloor St. West,
Suite 10 TORONTO ON.

Project Name and Address
26 ANDERSON BLVD
UXBRIDGE ON

Project
Date
AUG. 30, 2024
Scale
1/32" = 1'-0"

Sheet
A1

Appendix B

Zoning By-law of the Township of Uxbridge (Parking)



5. GENERAL PROVISIONS

PARKING SPACE REQUIREMENT TABLE

TYPE OR NATURE OF USE	MINIMUM OFF STREET PARKING REQUIREMENTS
Assembly Hall, Auditorium, Arena, Community Centre, Place of Entertainment, Place of Worship, Private Club or other similar places of assembly not otherwise specified herein.	1 parking space for each four persons that may be legally accommodated at any one time.
Bowling Alley	3 parking spaces for each bowling lane.
Business and/or Professional Office, Financial Establishment, Retail Commercial Establishment, Personal Service Shop including a Home Occupation.	1 parking space for each 20 square metres of gross floor area of the building directly related to the specified permitted use.
Curling Rink	4 parking spaces for each curling sheet plus such additional parking as is required for a lounge licensed in accordance with The Liquor Licence Act of Ontario.
Dry Cleaners Establishment	1 parking space for each 9 square metres or fraction thereof of gross floor area, with a minimum requirement of 4 parking spaces.
Eating Establishment, Tavern	1 parking space for each 9 square metres or fraction thereof of gross floor area, or 1 parking space for each 4 person or fraction thereof, legal capacity, whichever is greater.
Golf Course	24 parking spaces for each 9 holes of golfing facilities.
Home For the Aged, Nursing Home	1 parking space for each four beds or fraction thereof.
Hospital	1 parking space for each 2 beds or fraction thereof, or 38 square metres of gross floor area whichever is the greater.
Hotel, Motel	1 parking space for each guest room, cottage or cabin plus such parking facilities as are required for an eating

5. GENERAL PROVISIONS

PARKING SPACE REQUIREMENT TABLE (continued)

TYPE OR NATURE OF USE	MINIMUM OFF STREET PARKING REQUIREMENTS
Liquor Licensed Premises exclusive of an eating establishment but including an entertainment lounge, public house accommodated at any one time. lounge licensed in accordance with the Liquor Licence Act of Ontario, S.O., 1975, c. 40, as amended, and the Regulations thereunder.	establishment or entertainment lounge licensed in accordance with the Liquor Licence Act of Ontario. 1 parking space for each 4 persons that may be legally
Manufacturing, Processing Assembling or Fabricating Plant, Wholesale Establishment Warehouse located on privately serviced Lands.	1 parking space per 100 square metres of gross floor area or portion thereof. Where a retail sales component is included with such uses the requirement shall be 1 parking space per 70 square metres of gross floor area or portion thereof for the entire building.
Manufacturing, Processing, Assembling or Fabricating Plant, Wholesale Establishment or Warehouse on municipal services.	1 parking space per 35 square metres of gross floor area or portion thereof.
Medical, Veterinary or Dental Clinic, or, Offices of a Drugless Practitioner	5 parking spaces per practitioner, plus 1 parking space for each examination room exceeding 5 such rooms per office.
Post Office, Museum, Art Gallery, Public Library	1 parking space for each 35 square metres of gross floor area.
Residential	
(i) Apartment, Triplex, Fourplex or converted Dwelling House	1 1/2 parking spaces for each dwelling unit.
(ii) Boarding or Lodging House	1 parking space for each dwelling unit plus one parking space per guest room.
(iii) Senior Citizens' Housing	1 parking space for each two dwelling units or

Appendix C

Zoning By-law of the Township of Uxbridge (Driveway
and Loading Area)



5. GENERAL PROVISIONS

LOADING SPACE REQUIREMENT TABLES

(B/L No. 2008-063)	GROSS FLOOR AREA OF BUILDING INCLUDING AN EDUCATIONAL INSTITUTION BUILDING with the exception of buildings which are specifically built as office buildings, including a financial establishment, any apartment dwelling houses, nursing homes, homes for the aged, retirement homes or senior citizens' housing and institutional buildings, other than educational institution buildings	LOADING SPACE
	280 square metres or less	0 space
	Exceeding 280 square metres but not 2,300 square metres	1 spaces
	Exceeding 2,300 square metres but not 7,500 square metres	2 spaces
	Exceeding 7,500 square metres	3 spaces plus 1 additional space for each additional 9,200 square metres or fractional part thereof in excess of 7,500 square metres
(B/L No. 2008-063)	GROSS FLOOR AREA OF BUILDINGS WHICH ARE SPECIFICALLY BUILT AS OFFICE, FINANCIAL ESTABLISHMENT OR INSTITUTIONAL BUILDINGS, WITH THE EXCEPTION OF EDUCATIONAL INSTITUTION BUILDINGS	LOADING SPACE
	2,300 square metres or less	0 spaces
	Exceeding 2,300 metres, but not 11,600 square metres	1 space
	Exceeding 11,600 square metres	2 spaces
	APARTMENT DWELLING HOUSE, NURSING HOME, HOME FOR THE AGED, RETIREMENT HOME OR SENIOR CITIZEN HOUSING	0 spaces

b. ACCESS

Access to loading or unloading spaces shall be by means of a driveway at least 6 metres in width contained on the lot on which the spaces are located and leading to an improved public road.

c. LOADING SPACE SURFACE

Driveways, loading and unloading spaces, and related aisles and turning areas shall be maintained with a stable surface which is treated so as to prevent the raising of dust. Such loading and unloading facilities shall, before being used, be constructed of crushed stone, gravel, asphalt, concrete or similar material and shall include provisions for drainage facilities.

Appendix D

Site Circulation Plans

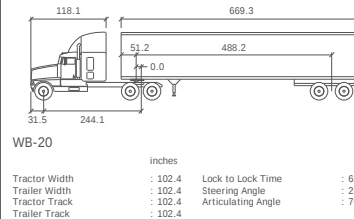


Inbound

Outbound

REVIEWED

CONSULTANT



WB-20
Tractor Width : 102.4
Tractor Track : 102.4
Tractor Track : 102.4
Lock to Lock Time : 6.0
Steering Angle : 28.2
Articulating Angle : 70.0



WPE ENGINEERING LTD.

26 ANDERSON BOULEVARD
WB-20 SITE ACCESS ROUTES (EAST)

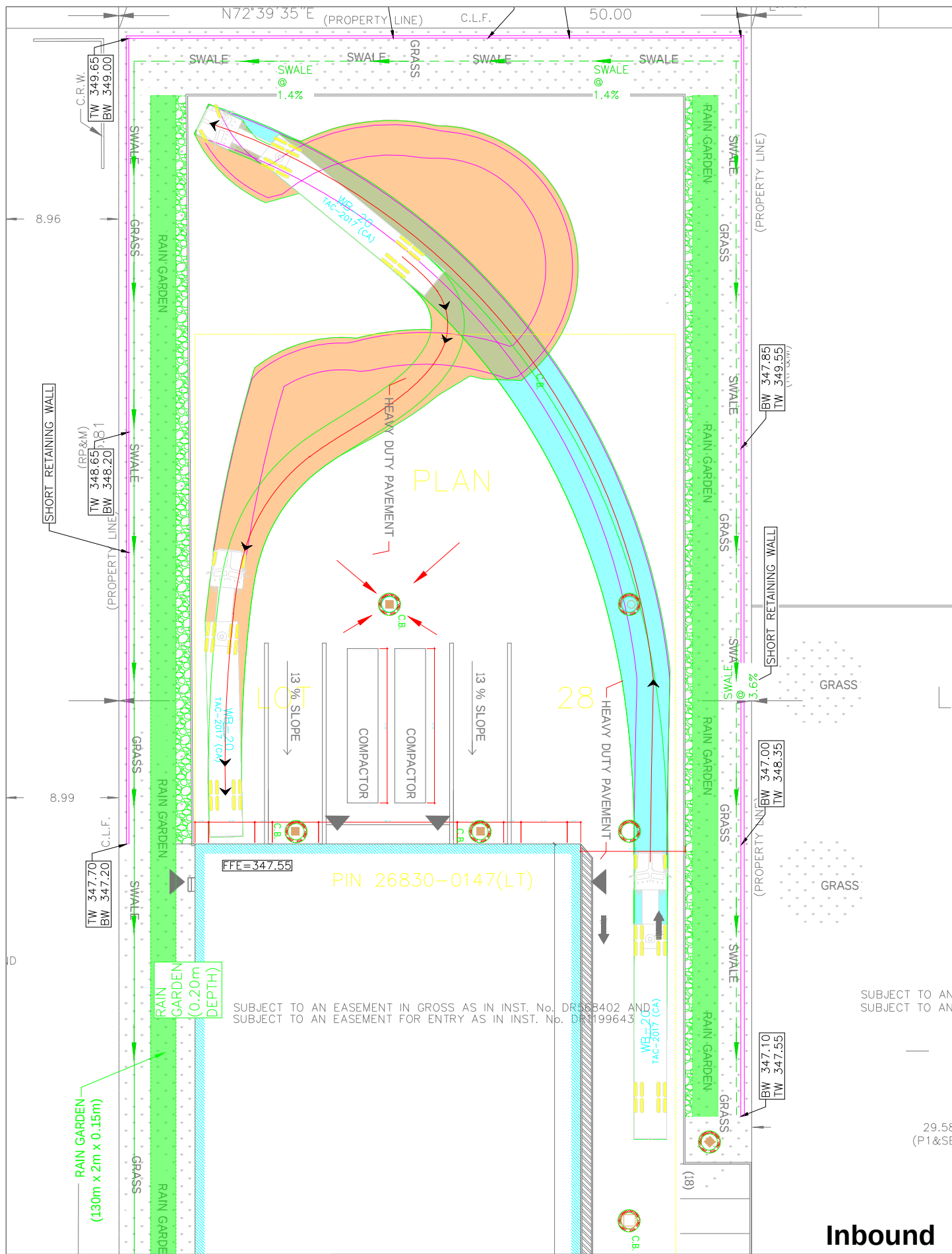
PROJECT NO.

2032

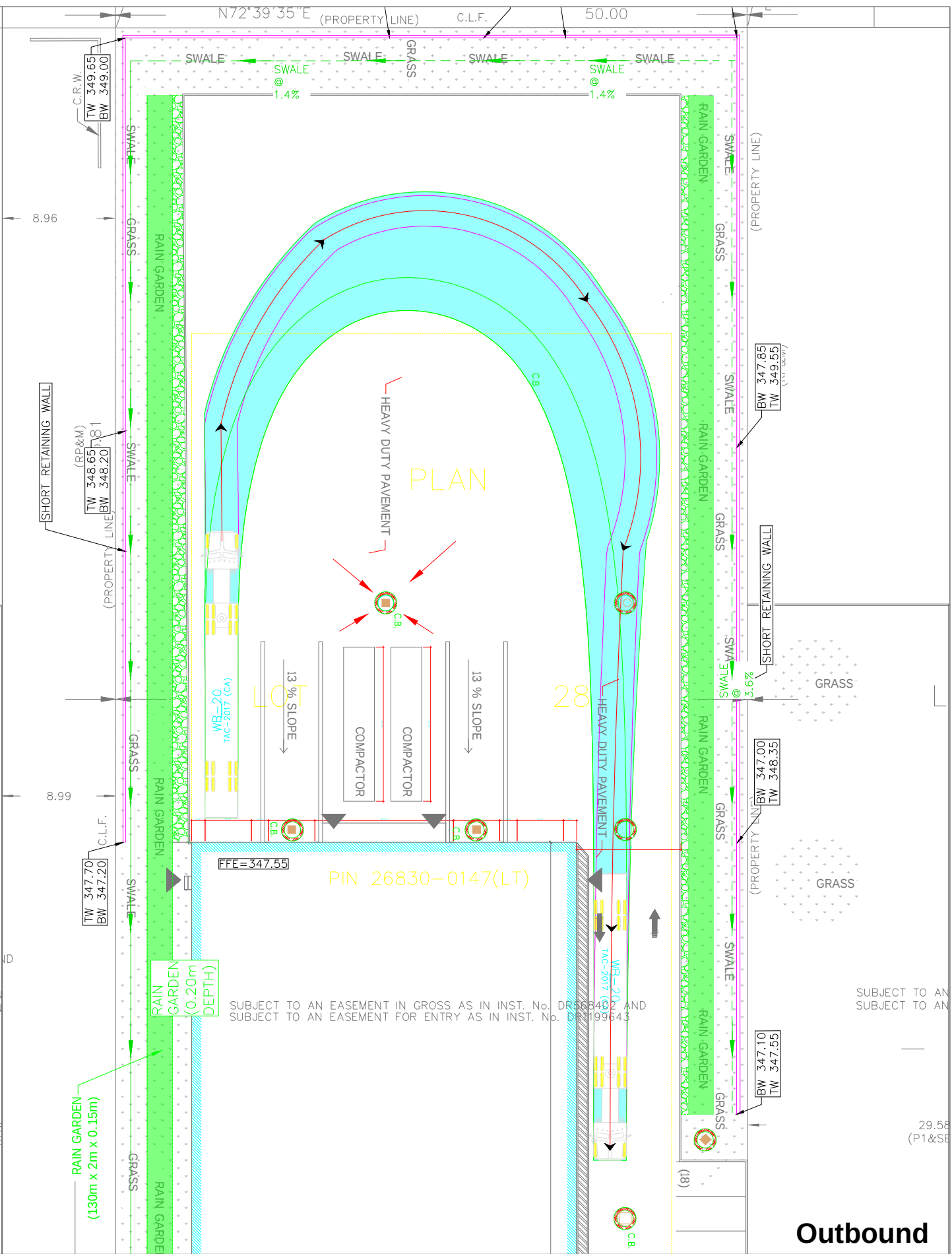
SHEET

1 OF 9

NO. REVISIONS DATE BY SCALE NTS

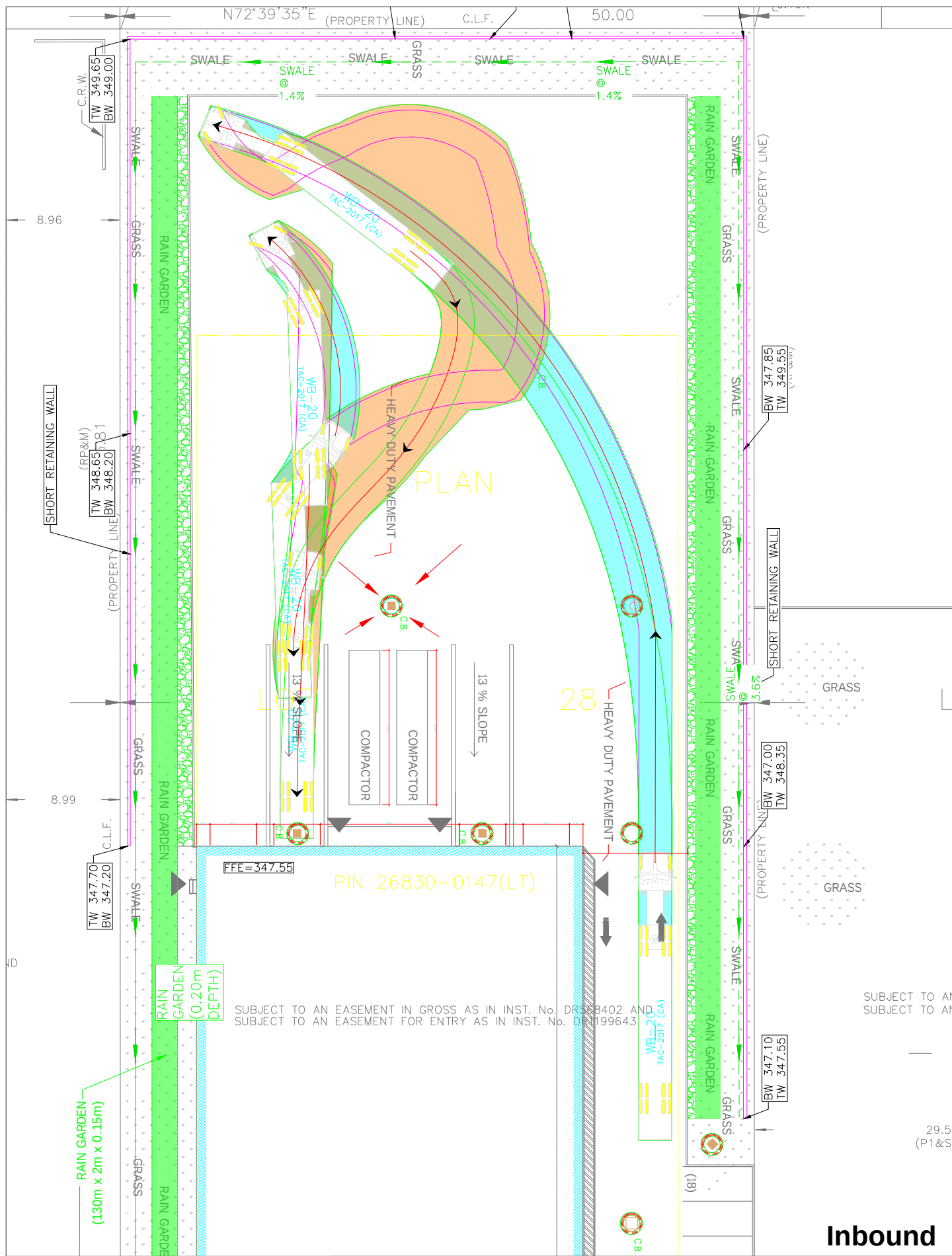


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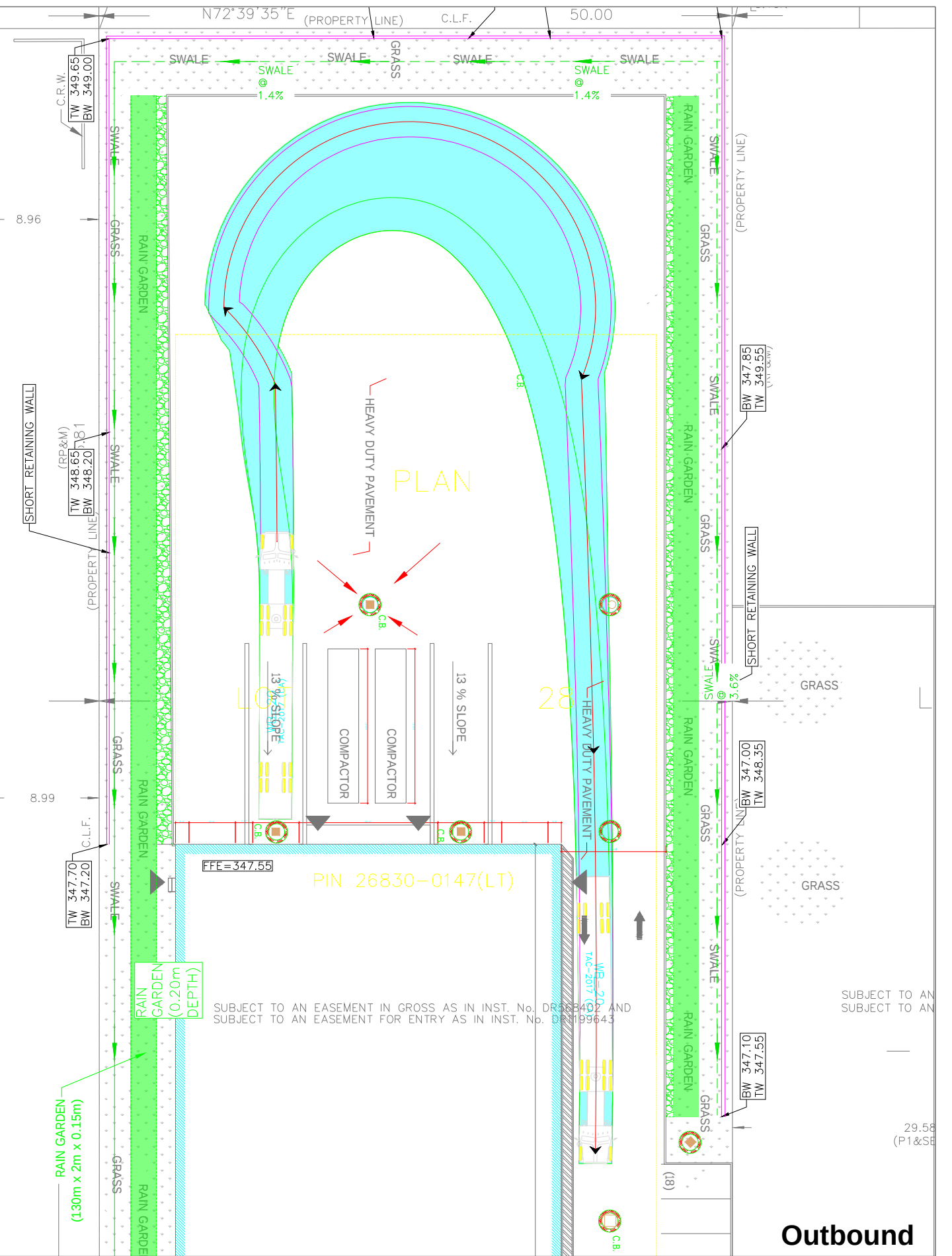


Outbound

REVIEWED	CONSULTANT 		 WB-20 Tractor Width : 102.4 inches Trailer Width : 102.4 inches Tractor Track : 102.4 inches Trailer Track : 102.4 inches Lock to Lock Time : 6.0 Steering Angle : 28.2 Articulating Angle : 70.0	PROJECT NO. 2032			
				SHEET 3 OF 9			
NO. REVISIONS DATE BY SCALE NTS				WPE ENGINEERING LTD. 26 ANDERSON BOULEVARD WB-20 SITE CIRCULATION ROUTES (LOADING BAY 1)			



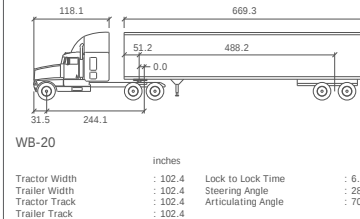
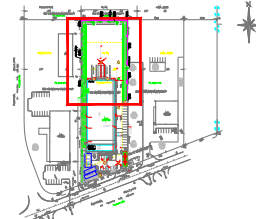
Inbound



Outbound

REVIEWED

CONSULTANT



Tractor Width	: 102.4	Lock to Lock Time	: 6.0
Tractor Height	: 102.4	Steering Angle	: 28.2
Tractor Track	: 102.4	Articulating Angle	: 70.0
Tractor Wheel	: 102.4		



WPE ENGINEERING LTD.

26 ANDERSON BOULEVARD
WB-20 SITE CIRCULATION ROUTES
(LOADING BAY 2)

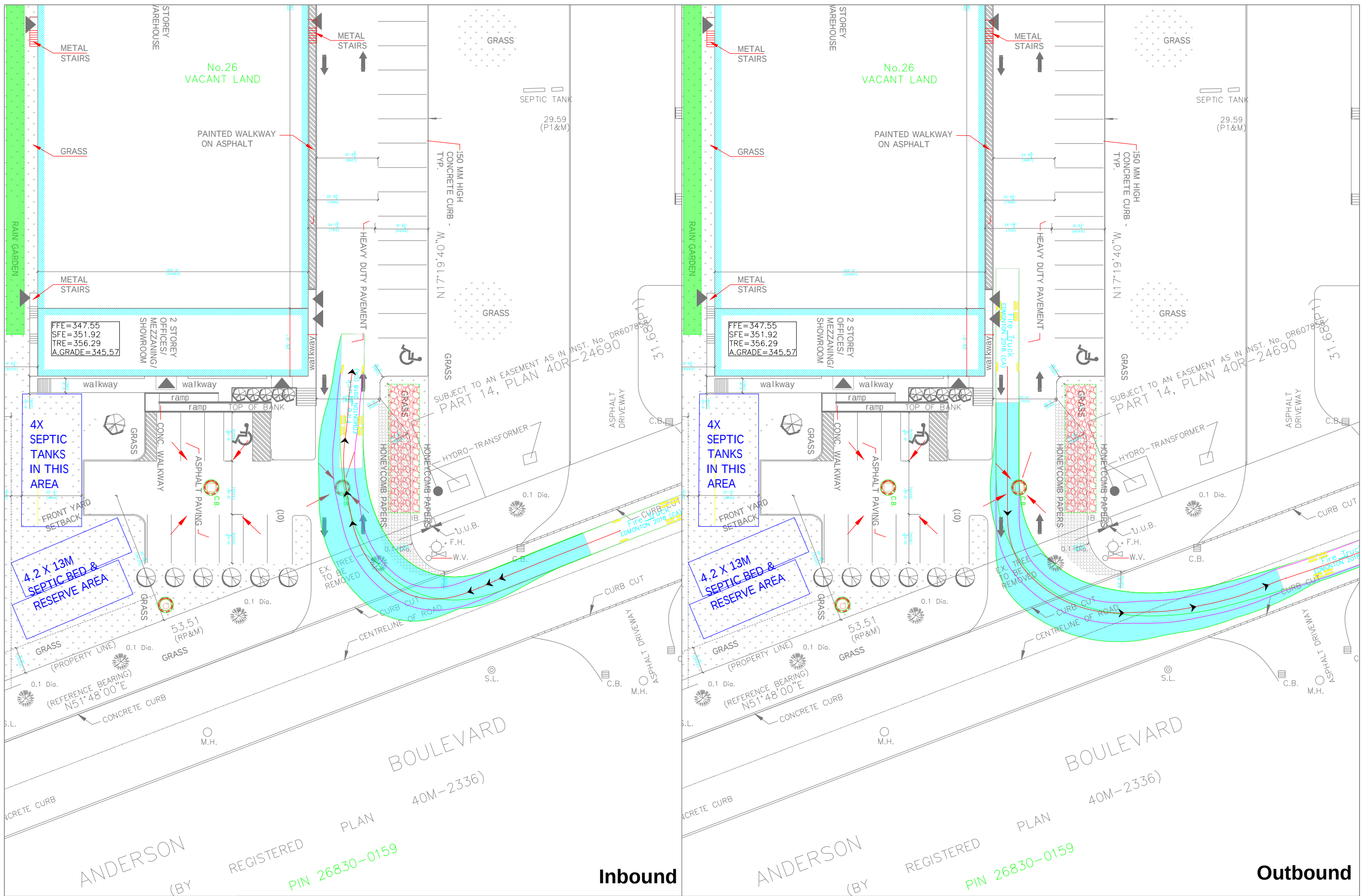
PROJECT NO.

2032

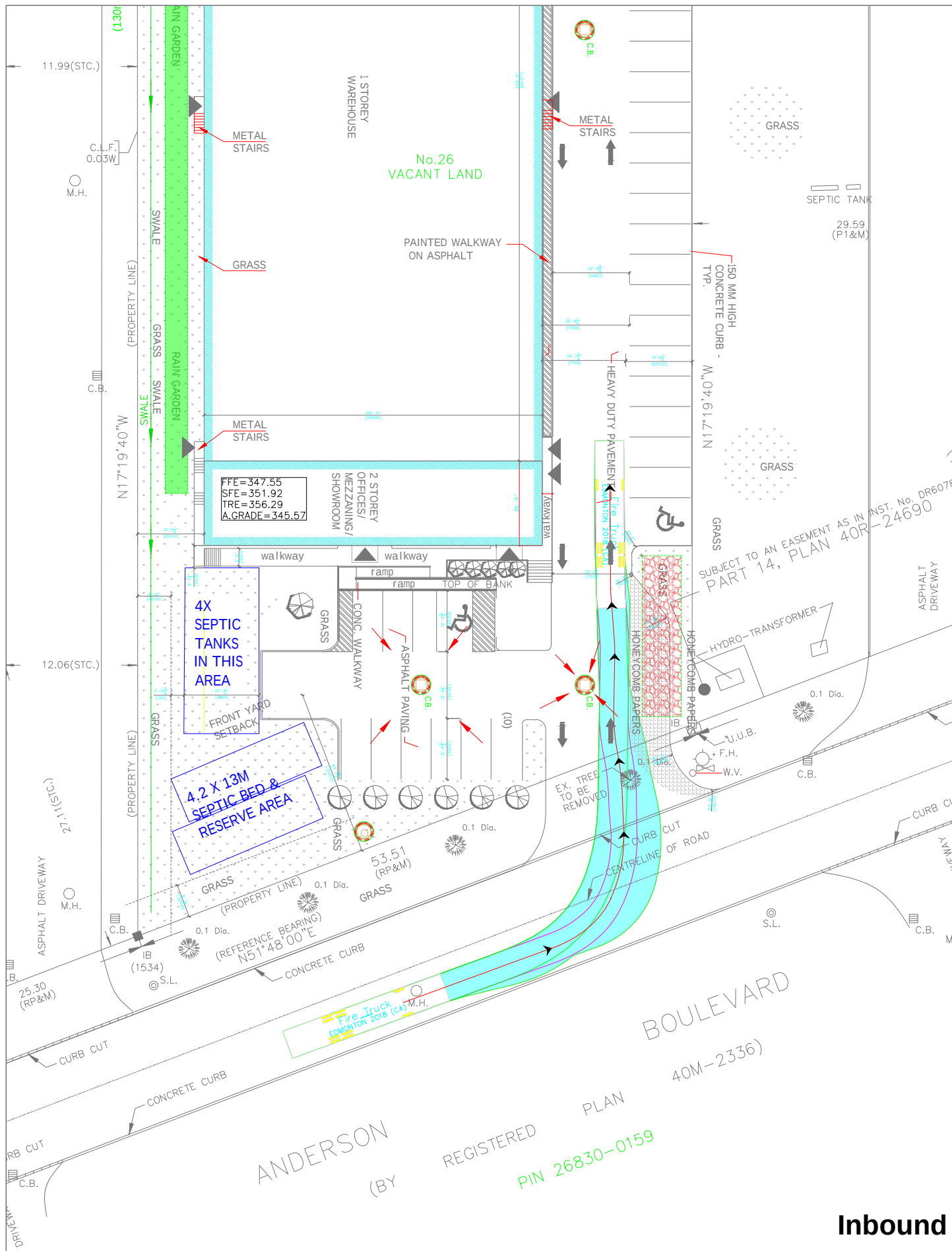
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4 OF 9

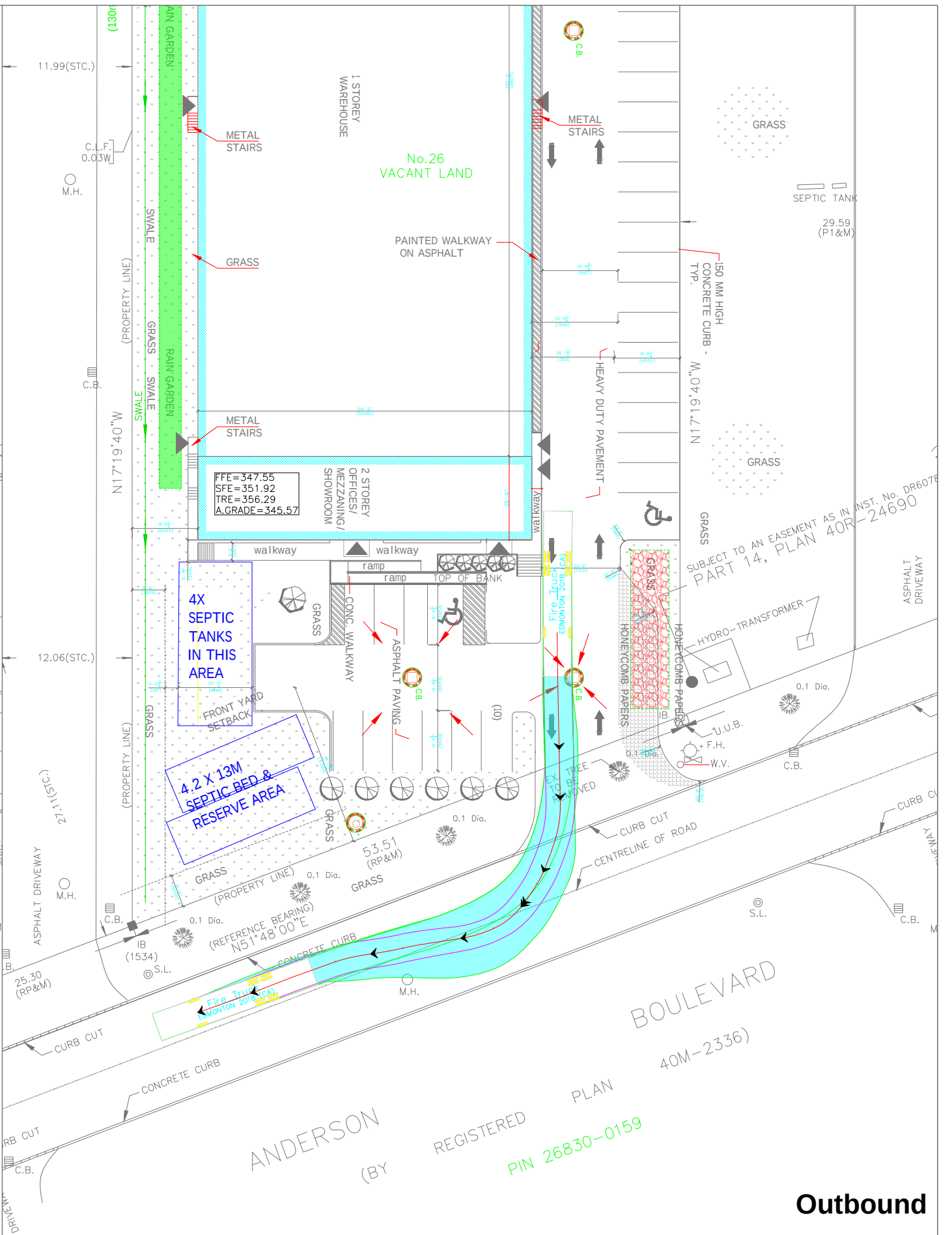
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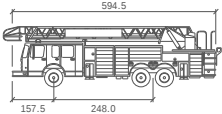
REVIEWED		CONSULTANT																PROJECT NO.	
								Fire Truck										2032	
								Width : 102.4 Track : 102.4 Lock to Lock Time : 6.0 Steering Angle : 32.6										SHEET	
																		7 OF 9	
NO.		REVISIONS		DATE		BY		SCALE NTS											



Inbound



Outbound

REVIEWED	CONSULTANT LICENSED PROFESSIONAL ENGINEER Z. DU PROVINCE OF ONTARIO		 Fire Truck Width : 102.4 Track : 102.4 Lock to Lock Time : 6.0 Steering Angle : 32.6	NO. REVISIONS DATE BY SCALE NTS	 WPE ENGINEERING LTD. 26 ANDERSON BOULEVARD FIRE TRUCK SITE ACCESS ROUTES (WEST)	PROJECT NO. 2032 SHEET 8 OF 9
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