ARCADIS IBI GROUP
500–333 Preston Street
Ottawa ON K1S 5N4 Canada
tel 613 225 1311 fax 613 225 9868
ibigroup.com

Memorandum

To/Attention	Neeti Paudel, P.Eng. Transportation Project Manager City of Ottawa	**Date**	August 16, 2023
From	David Hook, P.Eng.	**Project No**	124875
cc	Kevin Harper, MCIP, RPP Director, Infill Development Minto Communities - Canada		
Subject	178-200 Isabella Street – TIA Addendum #1		

Dear Ms. Paudel:

Introduction

On April 30, 2021, Transportation Impact Assessment (TIA) Step 5: Final Report was submitted to the City of Ottawa in support of a Zoning By-law Amendment (ZBLA) application for a proposed high-rise residential development at 178-200 Isabella Street. On May 10, 2023, fourth-round circulation comments were received from the City which suggest that the TIA Final Report may not have been circulated. The TIA Final Report responded to many of the technical comments that were noted as being “outstanding” in the latest fourth-round comments.

All transportation comments received to date have now been addressed, either through the April 2021 TIA Final Report, the Applicant’s fifth-submission response letter (August 2023) or this TIA Addendum #1.

Although the TIA remains valid, refinements to the development concept have been made since the submission of the Final Report. The purpose of this TIA Addendum is to summarize the key changes from a transportation perspective and determine what impacts there may be on the conclusions/recommendations of the TIA, if any.

The revised concept plan is provided in **Appendix A**.

Concept Plan Changes

The changes in site statistics relative to the April 2021 TIA are summarized in **Table 1** below.

Table 1 – Site Statistics Comparison

SITE STATISTICS	APRIL 2021 TIA	TIA ADDENDUM #1	CHANGE	COMMENTS
Dwelling Units	260 units	234 units	-26 units (-10%)	Slight reduction in unit count will lessen overall traffic impacts
Two-way Vehicle Trips [1]	84 vehicle trips [2]	24 vehicle trips [3]	-60 vehicle trips (-71%) [3]	Per 'Revisions to 2023 TIA Guidelines', traffic modelling would no longer be required for a development generating <75 vehicle trips.
Vehicle Parking Spaces	175 spaces provided (149 spaces required)	132 spaces provided (122 spaces required)	-43 spaces (-25%)	Meets Zoning By-law (2008) requirements in both instances.
Bike Parking Spaces	262 spaces provided (131 spaces required)	242 spaces provided (117 spaces required)	-20 spaces (-7%)	Exceeds Zoning By-law (2008-250) requirement by at least two-fold in both instances.

Note:

[1] Maximum of weekday morning or afternoon peak hour periods.

[2] Trip generation calculated using previous 2009 TRANS Trip Generation methodology.

[3] Trip generation calculated in accordance with more recently adopted 2020 TRANS Trip Generation Summary Report methodology.

Based on the elements in **Table 1** above, it is evident that the combined impacts of a reduction in dwelling unit count and the City of Ottawa's adoption of the trip forecasting methodology outlined in the '2020 TRANS Trip Generation Summary Report' have resulted in a substantial decrease in site-generated travel demand estimates. Further, it is important to note that the City of Ottawa's recently-issued addendum to the 2017 TIA Guidelines, which took effect on June 14, 2023 for new development applications, specifies that intersection capacity analysis is no longer required for developments where site-generated traffic is anticipated to remain below 75 vehicles per hour during the critical analysis period. Given that the site's updated trip generation is not expected to exceed 24 two-way vehicular trips during either weekday peak hour, this provides a strong indication that the proposed development's traffic impacts are negligible in relation to the broader transportation network and is consistent with the overall conclusions/recommendations of the 2021 TIA Final Report.

The vehicle and bicycle parking statistics remain well in excess of the minimum requirements prescribed by Zoning By-law (2008-250) and the bike parking ratio of 1:1 is consistent with the rate described in the April 2021 TIA. This ratio of bike parking spaces is aligned with the site's urban context and adjacency to a planned active transportation corridor which will provide opportunities for sustainable modes of travel to and from the site.

To enhance the site frontage, an additional 0.5-metre buffer was also incorporated adjacent the protected 1.5m Pedestrian Easement to accommodate an additional clearance area from the building face to fixed objects such as planters and the opening of exterior doors, so as to not restrict path of travel for pedestrians.

Relevant extracts from the 2020 TRANS Trip Generation Summary Report are included in **Appendix B**.

Swept Path Analyses

Turning templates conducted using AutoTURN swept path analysis software were revised to reflect minor updates to the concept plan since the April 2021 TIA Final Report. The analysis considered three (3) critical design vehicles: 1) Medium Single-Unit (MSU) Truck; 2) Front-loading Waste Collection Vehicle; and 3) TAC 1999 Passenger Car.

The results of the revised swept path analyses indicate that all three design vehicles noted above are able to successfully access and circulate through the site, as well as egress to Isabella Street in a forward motion without any encroachment issues with vertical sightline elements.

Updated turning template analyses are provided in **Appendix C**.

Conclusion

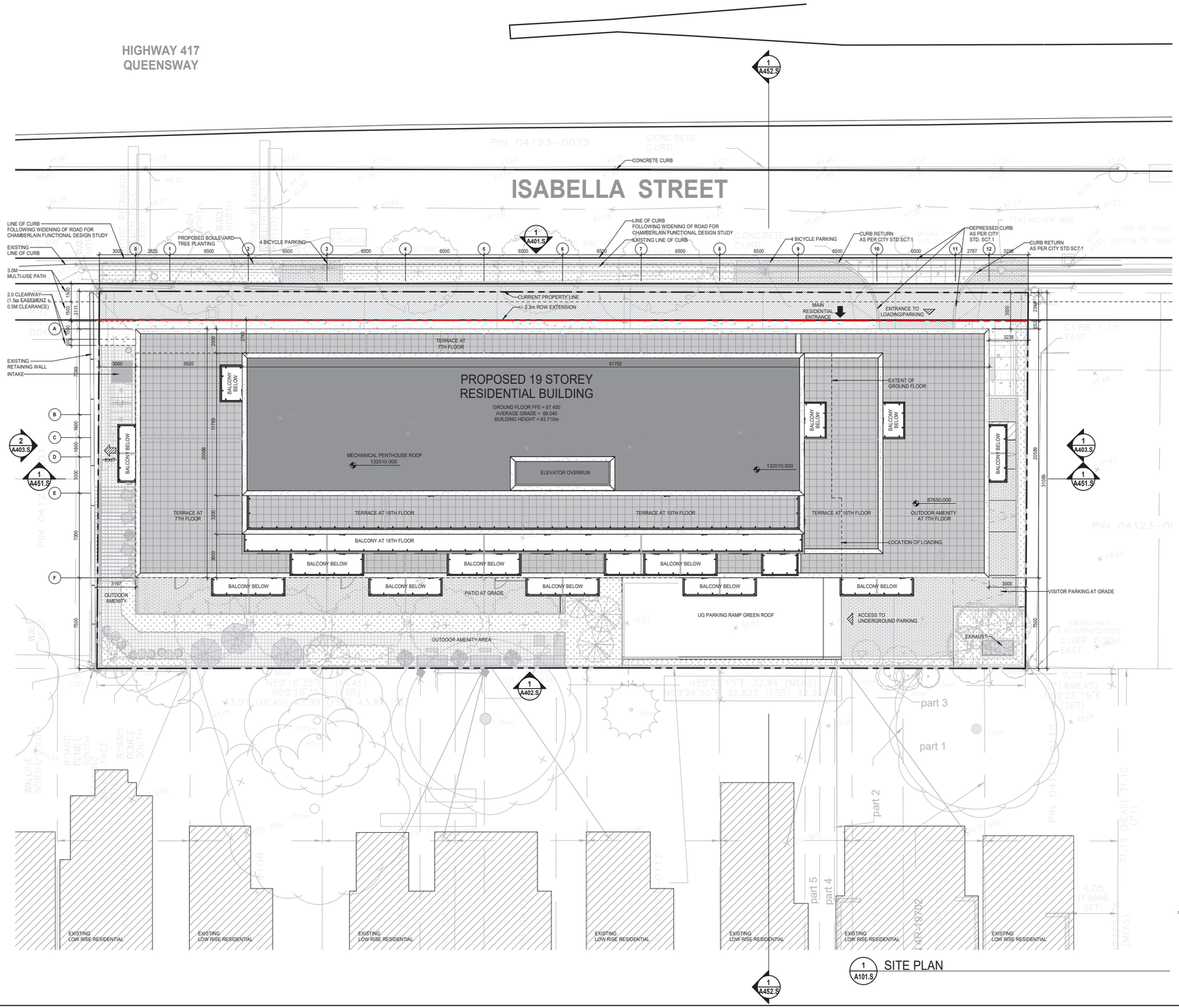
Based on the above, revisions to the site statistics relative to the April 2021 TIA Final Report were reviewed and the impacts on the overall transportation network were determined to be negligible with respect to the overall conclusions and recommendations of that study. Further, revised swept path analyses confirms that the development concept submitted in support of the Zoning By-law amendment applications is functional in terms of site circulation.

It is anticipated that site statistics and other site-specific details may continue to fluctuate within a reasonable range until these elements are refined and finalized as part of a future potential Site Plan Control (SPC) application process.

Prepared By:

David Hook, P.Eng.
Associate – Manager | Transportation Engineering

Appendix A – Updated Concept Plan



SITE PLAN

Stantec

Stantec Geomatics Ltd.
400-1331 Clyde Avenue
Ottawa ON
Tel. 613.722.4420
www.stantec.com

TOPOGRAPHIC SKETCH OF
PART OF LOT
REGISTERED PLAN
(GEOGRAPHIC TOWNSHIP OF)
CITY OF OTTAWA
REGIONAL MUNICIPALITY OF
Scale 1:100
6 METRES

Stantec Geomatics Ltd.
ONTARIO LAND SURVEYORS

BOUNDARY NOTE
BOUNDARY LINEWORK AND INFORMATION IS COMPILED FROM PLAN XXXXXX AND IS NOT BASED ON ACTUAL SURVEY.

METRIC CONVERSION
DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

BEARING NOTE
BEARINGS ARE REFERRED TO THE " LIMIT OF ", AS SHOWN ON PLAN ", HAVING A BEARING OF XX°XX'XX".

VERTICAL DATUM NOTE
ELEVATIONS ARE OF GEODETIC ORIGIN AND ARE DERIVED FROM

ELEVATIONS ARE REFERRED TO THE CANADIAN GEODETIC VERTICAL DATUM (CGVD-1928:1978) AND ARE DERIVED FROM BENCHMARK MONUMENT No. *, HAVING A PUBLISHED ELEVATION OF * METRES.

HORIZONTAL DATUM NOTE
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR (MTM, ZONE 9, CM:(-75°W)
DATUM: NAD 83 (CSRS)(2010.0)

DISTANCES ON THIS PLAN MAY BE CONVERTED TO GROUND DISTANCES BY DIVIDING BY A COMBINED SCALE FACTOR OF 0.999900.

LEGEND

	DENOTES	
■	"	FOUND MONUMENTS
○	"	SET MONUMENTS
IB	"	IRON BAR
IBM	"	ROUND IRON BAR
SIB	"	STANDARD IRON BAR
SSIB	"	SHORT STANDARD IRON BAR
CC	"	CUT CROSS
CP	"	CONCRETE PIN
WIT	"	WITNESS
PIN	"	PROPERTY IDENTIFICATION NUMBER
M/MEAS	"	MEASURED
PROP	"	PROPORTIONED
OU	"	ORIGIN UNKNOWN
STANTEC	"	STANTEC GEOMATICS LTD.
(P1	"	PLAN

UNDERGROUND TELEPHONE
UNDERGROUND HYDRO
WATERMAIN
GASMAIN
STORM SEWER
UNDERGROUND FIBRE OPTIC

SURVEYOR'S CERTIFICATE
I CERTIFY THAT :
1. THE SURVEY WAS COMPLETED ON THE DAY OF , 2020.

DATE

BRIAN J. WEBSTER
ONTARIO LAND SURVEYOR

DRAWN: * CHECKED: * PAL: * FIELD: * PROJECT No.: 161400000-111

TOPOGRAPHIC LEGEND AND SURVEY INFORMATION

SITE PLAN LEGEND

- PROPERTY LINE
- LINE OF UNDER GROUND GARAGE BELOW
- MAIN BUILDING ENTRANCE
- RETAIL ENTRANCE
- EXIT
- VEHICLE / LOADING ENTRANCE / EXIT
- FIRE HYDRANT
- SIAMESE CONNECTION
- MH MANHOLE COVER
- AD AREA DRAIN
- CB CATCH BASIN
- FD FLOOR DRAIN
- EXISTING LIGHT
- F.F.E. FINISH FLOOR ELEVATION
- ### ### EXISTING ELEVATION
- ### ### PROPOSED ELEVATION
- 00000 TOP OF ROOF
- BUILDING ENVELOPE
- FIRE ACCESS ROUTE HEAVY DUTY PAVING. ASSEMBLY TO BE DESIGNED TO MEET THE LOADS IMPOSED BY FIRE FIGHTING EQUIPMENT.

Date	No.	Description

REVISION RECORD

2023-08-16	RE-ISSUED FOR REZONING APPLICATION
2023-03-07	RE-ISSUED FOR REZONING APPLICATION
2022-12-15	RE-ISSUED FOR REZONING APPLICATION
2021-04-30	RE-ISSUED FOR REZONING APPLICATION
2020-09-11	ISSUED FOR REZONING APPLICATION

ISSUE RECORD

178-200 Isabella

Ottawa, Ontario
for
Minto Communities

19048 As indicated RN JS
PROJECT SCALE DRAWN REVIEWED

Site Plan

A101.S

8/16/2023 4:47:14 PM

C:\Users\RN482611\Documents\2AL_AR_19048_178-200 Isabella_R2022_rnglPPCA.rvt

Appendix B – Trip Generation Extracts

3.2 Recommended Residential Trip Generation Rates

A blended trip rate was developed from the three data sources through application of a rank-sum weighting process, considering the strengths and weaknesses of each dataset for the dwelling type in question. The recommended blended **residential person-trip rates** are presented in **Table 3**. All rates represent person-trips per dwelling unit and are to be applied to the **AM or PM peak period.**

Table 3: Recommended Residential Person-trip Rates

ITE Land Use Code	Dwelling Unit Type	Period	Person-Trip Rate
210	Single-detached	AM	2.05
		PM	2.48
220	Multi-Unit (Low-Rise)	AM	1.35
		PM	1.58
221 & 222	Multi-Unit (High-Rise)	AM	0.80
		PM	0.90

3.3 Adjustment Factors – Peak Period to Peak Hour

The various trip generation data sources require some adjustment to standardize the data for developing robust blended trip rates. The peak period conversion factor in **Table 4** may be used where applicable to develop trip generation rate estimates in the desired format.

Table 4: Adjustment Factors for Residential Trip Generation Rates

Factor	Application	Apply To	Period	Value
Peak Period Conversion Factor	**Peak period to peak hour conversion.** Because the 2020 TRANS Trip Generation Study reports trip generation rates by peak period, factors must be applied if the practitioner requires peak hour rates. In practice, the conversion to peak hour trip rates should occur **after** the application of modal shares.	Person-trip rates per peak period	AM	0.50
			PM	0.44
		Vehicle trip rates per peak period	AM	0.48
			PM	0.44
		Transit trip rates per peak period	AM	0.55
			PM	0.47
		Cycling trip rates per peak period	AM	0.58
			PM	0.48
		Walking trip rates per peak period	AM	0.58
			PM	0.52

Table 8: Residential Mode Share for High-Rise Multifamily Housing

District	Period	Mode				
		Auto Driver	Auto Pass.	Transit	Cycling	Walking
Ottawa Centre	AM	18%	2%	26%	1%	52%
	PM	17%	9%	21%	1%	52%
Ottawa Inner Area	AM	26%	6%	28%	5%	34%
	PM	25%	8%	21%	6%	39%
Île de Hull	AM	27%	3%	37%	12%	21%
	PM	26%	8%	27%	11%	28%
Ottawa East	AM	39%	7%	38%	2%	13%
	PM	40%	14%	28%	3%	15%
Beacon Hill	AM	48%	9%	30%	3%	10%
	PM	52%	16%	28%	0%	4%
Alta Vista	AM	38%	12%	42%	2%	7%
	PM	45%	16%	28%	2%	9%
Hunt Club	AM	39%	6%	44%	1%	9%
	PM	44%	11%	35%	2%	9%
Merivale	AM	41%	6%	42%	2%	8%
	PM	41%	11%	33%	2%	13%
Ottawa West	AM	28%	11%	41%	3%	16%
	PM	33%	11%	26%	7%	23%
Bayshore/Cedarview	AM	40%	12%	38%	2%	8%
	PM	40%	15%	33%	1%	11%
Hull Périphérie	AM	48%	11%	30%	1%	10%
	PM	47%	15%	23%	3%	13%
Orleans	AM	54%	7%	29%	0%	10%
	PM	61%	13%	21%	0%	6%
South Gloucester / Leitrim	AM	50%	15%	25%	1%	9%
	PM	53%	17%	21%	1%	9%
South Nepean	AM	58%	6%	30%	2%	4%
	PM	54%	15%	25%	0%	7%
Kanata - Stittsville	AM	43%	26%	28%	0%	4%
	PM	55%	19%	21%	0%	5%
Plateau	AM	53%	9%	35%	3%	1%
	PM	65%	7%	25%	2%	1%
Aylmer	AM	45%	17%	25%	0%	13%
	PM	31%	21%	23%	4%	20%
Pointe Gatineau	AM	44%	15%	24%	3%	14%
	PM	52%	15%	20%	2%	11%
Gatineau Est	AM	53%	10%	25%	0%	12%
	PM	61%	10%	25%	0%	4%
Masson-Angers	AM	63%	15%	19%	0%	3%
	PM	64%	18%	16%	0%	1%
Other Rural Districts	AM	63%	15%	19%	0%	3%
	PM	64%	18%	16%	0%	1%

Appendix C – Swept Path Analyses

DEPRESSED CURB AS
PER CITY STD. SC7.1

CONCRETE CURB

MHSAN
T/G=67.28

CURB RETURN AS
PER CITY STD SC7.1

MHSAN
T/G=67.26

CB
T/G=67.08

O/H

WALK

VB
HYD

part 1

part 4

CURB

part 2

part 3

WALL

STONE RETAINING WALL

CONCRETE SIDEWALK

10.00

0.80 6.50

MSU

meters

Width : 2.60
Track : 2.60
Lock to Lock Time 6.0
Steering Angle : 40.2

PROPOSED 19 STOREY
MIXED-USE BUILDING
GROUND FLOOR FFE =67.57

LOT 11

LOT 12

LOT 13

LOT 14

LOT 15

LOT 16

LOT 18

RETAINING WALL

BOARD FENCE

DEPRESSED CURB AS
PER CITY STD. SC7.1

CONCRETE CURB

MHSAN
T/G=67.28

CURB RETURN AS
PER CITY STD SC7.1

CB
T/G=67.08

O/H

WALK

VB
HYD

part 1

STONE RETAINING WALL

CONCRETE SIDEWALK

10.00

0.80 6.50

MSU

meters

Width : 2.60
Track : 2.60
Lock to Lock Time 6.0
Steering Angle : 40.2

PROPOSED 19 STOREY
MIXED-USE BUILDING
GROUND FLOOR FFE =67.57

LOT 11 LOT 12 LOT 13 LOT 14 LOT 15 LOT 16 LOT 18

part 2 part 3 part 4

RETAINING WALL

BOARD FENCE

CURB

DEPRESSED CURB AS
PER CITY STD. SC7.1

CONCRETE CURB

MHSAN
T/G=67.28

CURB RETURN AS
PER CITY STD SC7.1

MHSAN
T/G=67.26

CB
T/G=67.08

O/H

WALK

VB
HYD

part 1

CONCRETE

SIDEWALK

STONE RETAINING WALL

STONE RETAINING WALL

UP

WALL

part 2

part 3

10.31

1.48

5.38

Wayne Titan

meters

Width : 2.58
Track : 2.44
Lock to Lock Time 6.0
Steering Angle : 45.0

PROPOSED 19 STOREY
MIXED-USE BUILDING
GROUND FLOOR FFE =67.57

LOT 11

LOT 12

LOT 13

LOT 14

LOT 15

LOT 16

LOT 17

LOT 18

part 4

CURB

RETAINING WALL

RETAINING WALL

RETAINING WALL

BOARD FENCE

part 4

part 1

part 1

DEPRESSED CURB AS
PER CITY STD. SC7.1

CONCRETE CURB

MHSAN
T/G=67.28

CURB RETURN AS
PER CITY STD SC7.1

CB
T/G=67.08

O/H

WALK

VB
HYD

part 1

CONCRETE SIDEWALK

STONE RETAINING WALL

STONE RETAINING WALL

UP

WALL

part 2

part 3

10.31

1.48

5.38

PROPOSED 19 STOREY
MIXED-USE BUILDING
GROUND FLOOR FFE =67.57

Wayne Titan

meters

Width : 2.58
Track : 2.44
Lock to Lock Time 6.0
Steering Angle : 45.0

LOT 11

LOT 12

LOT 13

LOT 14

LOT 15

LOT 16

LOT 18

part 4

CURB

RETAINING WALL

RETAINING WALL

RETAINING WALL

BOARD FENCE

part 4

part 1

5.60

1.10 3.20

P

meters

Width : 2.00
Track : 2.00
Lock to Lock Time 6.0
Steering Angle : 35.9

DEPRESSED CURB AS PER CITY STD. SC7.1

CURB RETURN AS PER CITY STD SC7.1

MHSAN T/G=67.28

MHSAN T/G=67.26

CB T/G=67.08

CONCRETE CURB

CONCRETE SIDEWALK

STONE RETAINING WALL

STONE RETAINING WALL

UP

WALL

O/H

WALK

VB HYD

part 1

part 2

part 4

PROPOSED 19 STOREY
MIXED-USE BUILDING
GROUND FLOOR FFE =67.57

LOT 11

LOT 12

LOT 13

LOT 14

LOT 15

LOT 16

LOT 17

LOT 18

CURB

RETAINING WALL

RETAINING WALL

RETAINING WALL

BOARD FENCE

part 4

part 1

part 1

5.60

1.10 3.20

P

meters
Width : 2.00
Track : 2.00
Lock to Lock Time 6.0
Steering Angle : 35.9

DEPRESSED CURB AS PER CITY STD. SC7.1

CONCRETE CURB

MHSAN T/G=67.28

CURB RETURN AS PER CITY STD SC7.1

MHSAN T/G=67.28

CB T/G=67.08

CB T/G=67.14

UP

O/H

CONCRETE SIDEWALK

CONCRETE CURB

STONE RETAINING WALL

STONE RETAINING WALL

WALK

VB

HYD

part 1

WALL

part 2

PROPOSED 19 STOREY
MIXED-USE BUILDING
GROUND FLOOR FFE =67.57

part 4

CURB

LOT 11

LOT 12

LOT 13

LOT 14

LOT 15

LOT 16

LOT 18

RETAINING WALL

RETAINING WALL

RETAINING WALL

BOARD FENCE

part 4

part 1

part 1