

50 Speers Road, Oakville ON Preliminary (Rezoning/OPA) Solid Waste Management Plan v2

Helberg Properties Limited c/o Arcanos Property Management Corporation 235 Carlaw Avenue, Suite 403 Toronto ON M4M 2S1



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R.J. Burnside & Associates Limited

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055467_50 Speers Road Preliminary Waste Management Plan.docx



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Table of Contents

1.0	Introduction	1
2.0	Waste Management System Requirements	
	2.1 Waste Storage Room	2
	2.2 Equipment Requirements	
3.0	Waste Loading	5
	3.1 Collection Method	5
4.0	Conclusions	6
-		

Tables

Table 1: Residential Waste Storage Room Equipment & Spatial Requirements	. 4	4
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Appendices

Appendix A Site Plan and Statistics Appendix B Waste Collection Vehicle Turning Path Analysis

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1.0 Introduction

This document describes the Preliminary Solid Waste Management Plan (plan) developed for the proposed 50 Speers Road multi-residential development located in the Town of Oakville, Ontario. This plan is intended for municipal review during the Zoning By-Law Amendment (ZBLA) process. The development's Site Plan may change during the ZBLA process and prior to Site Plan Approval (SPA) / construction, though it is currently expected that the methods of handling solid waste as expressed in this report will not require revision. This report will be developed further during SPA, featuring further specifics and operational detail.

This report is based on the BDP Quadrangle 'Issued for OPA/ZBLA Resubmission v2' drawing set, dated February 2024. The 'Context, Site Plan & Statistics' (#A101.S), as well as the 'Ground Floor Plan' (#A201.S) from this set have been attached to this report as Appendix A. It describes the solid waste handling for both residents and property management staff perspectives.

The 50 Speers Road development covers a gross site (property) area of 4,180 m². The development is a 27-storey multi-residential building, which includes:

- 330 residential units, including 13 townhome style units on the ground floor.
- Three levels of underground parking.
- A ground floor waste storage room.
- A ground floor waste loading area (including staging area).

In preparing this report, Burnside has considered the following Halton Region documents:

- Development Design Guidelines for Source Separation of Solid Waste, Regional Official Plan Guidelines, dated June 2014.
 - Direct communications with Halton's Multi-Residential Waste Diversion Coordinator.¹
- By-law No's. 123-12, 88-15.

Halton's Development Design Guidelines for Source Separation of Solid Waste document, hereinafter referred to as the 'Guidelines', outline the requirements to obtain approval for municipal collection services. Following the Guidelines provides some flexibility to address future solid waste management needs and programs. In addition, Halton's municipal waste collection services are preferred over private services when considering long term operating costs for the development.

¹ Not specific to the 50 Speers Road development.

2.0 Waste Management System Requirements

2.1 Waste Storage Room

Current plans provide a waste storage room on the ground floor. We assume this will carry through to final design and construction. The waste storage room could be moved to the underground parking levels with minimal changes, the primary change being the need to use a tractor or 'front-lift-bin mover' to shuffle the waste containers between the underground level waste storage room and the loading area on the ground floor.

The development will feature the following residential waste collection system:

- A single-chute system, accessible on each residential floor (beginning at Level 2), will be used to deliver the waste to the waste storage room:
 - Controls at the chute access include an interlock to prevent simultaneous access and access during maintenance.
- A tri-sorter will be installed on the chute (in the waste storage room) to direct the waste into a container for recycling (blue-box), organics, or garbage.
- A compactor will minimize the number of bins required for garbage storage.
- 10 m² of contiguous space for the storage of bulky wastes will be included in its own storage room, also located on the ground floor.
- The waste storage room will be locked and inaccessible to residents.
- The development features 13 ground floor townhouse suites that will not have access to the chute system for their waste. These residents will dispose of their wastes into carts within the 'TH Garbage Drop-Off' room on the ground floor, located across the hall from the waste storage room.
 - Carts (expected to be 360 L/95-gallon capacity or similar) will be available to collect waste. Property staff will transfer waste from this room to bins in the waste storage room, as necessary.
 - For the recycling waste stream, the carts will be dumped into the front-lift bins regularly. A cart tipper² will be used to assist maintenance staff with this task. Use of a cart tipper will reduce the likelihood of workplace accidents and reduce strain on maintenance staff.
 - For the garbage stream, front-lift bins will need to be 'pre-loaded' using the cart tipper to empty the cart into an empty garbage bin. The garbage bin can then be connected to the compactor to be filled. This is expected to occur every time an empty (mostly) front-lift bin is connected to the compactor.

² A cart tipper such as one from Vestil Manufacturing Corp. or similar will be used (example, <u>https://www.vestil.com/product.php?FID=227</u>, accessed February 2024).

 For the organics stream, containers will simply be replaced should 360 L carts be used. If smaller bins are present servicing the through the wall chutes, they will be emptied within carts using a cart tipper (as noted for recyclables).

The front-load bins and semi-automated carts used to store materials will have castors/wheels to allow maintenance staff to move the bins as required.

2.2 Equipment Requirements

The chute will lead waste into the waste storage room. A tri-sorter will be installed on the bottom of the chute. The tri-sorter will feed:

- 4 yd³ front load bins for recycling;
- 360 L semi-automated carts for organics; and
- A compactor that loads 3 yd³ front load bins for garbage.

Recyclables and garbage will be collected by the Region separately on different days each week. Garbage may be collected twice weekly while recyclables and organics will only be collected once per week.

Table 1 outlines the equipment requirements for the residential waste storage room. Maintenance staff will check the bins daily to ensure those reaching capacity are exchanged for empty units. Carts accepting townhome wastes will also be checked and emptied as necessary into bins, as described in Section 2.1. Trained maintenance staff will control access to the waste storage room as there are safety concerns associated with the chutes and the garbage compactor.

Burnside has based our waste storage containers (bin counts) on details provided by Halton Region via direct communications³:

- a) Recycling:
 - 42 units per 3 yd³ front-end bin (loose).
 - 56 units per 4 yd³ front-end bin (loose).
- b) Organics:
 - Halton Guideline 1.8.1.3.2 requires one 360 L (0.34 yd³) organics bin for every 25 residential units.
 - To ensure flexibility, the development could instead use two, 2 yd³ bins. Burnside has confirmed that the current waste storage room and loading area can accommodate this change (if collected separately).

³ Garbage and recycling bin ratios were provided via email by Halton Region's Multi-Residential Waste Diversion Coordinator, Andrew Suprun, on March 22, 2022. These values replace those in the Guidelines.

- c) Garbage (compacted):
 - 54 units per 3 yd³ front-end bin (compacted).
 - 72 units per 4 yd³ front-end bin (compacted).

Table 1: Residential Waste Storage Room Equipment & Spatial Requirements

Equipment	No.	Area	Collection
Equipment	Required	Needed	Frequency
Tower – level 2 and above [†]			
Waste Chute & Controls (activates Trisorter)	1		
Trisorter (Directs wastes to appropriate	1	± 5 m ²	
container)			
Compactor (Garbage stream)	1		
Recycling Bins – 4 yd ³ front load type	6†	16.7 m ²	Weekly
Organics Carts – 360 L semi-automated	14†	11.2 m ²	Weekly
carts			
Garbage Bins – 3 yd ³ front load, compaction	7†	15.9 m ²	Weekly
type			
Townhomes – ground level access [‡]			
360 L semi-automated carts (or smaller)	3	2.4 m ²	
Cart Tipper	1	± 2 m ²	
Bulky Waste Storage Area		10 m ²	As Required
Container Movement/Jockeying Space§		25%	
Total Waste Storage Room Area Needs		80 m ²	
Notes:	•	•	
† The room sizing provides flexibility to store extra contair	ners to allow se	rvice while bir	ns await

collection in loading area. Extra bins have not been shown in table.

‡ Townhome recycling and garbage carts are transferred as required into tower recycling or garbage bins. Organics carts do not need to be transferred, merely replaced with empty (tower) carts.

§ Estimated area required to move bins and carts within the waste storage room. Room configuration can impact this value.

The total space needed for waste containers, equipment, Bulky Waste Storage Area and maneuvering within the room is estimated to be 80 m². The current design for the waste storage room accommodates this space. The additional space provides flexibility to accommodate future waste management needs.

3.0 Waste Loading

Recyclables, organics, and garbage will be collected in one Loading Area, located on the ground level. Maintenance staff will be available during collection to maneuver bins. The method which bins will be collected is outlined in Section 3.1 below.

3.1 Collection Method

On each waste stream's collection day, prior to 7:00 AM, maintenance staff will move the bins in the following manner:

- 1. The stream's bins will be moved out of the waste storage room, through the overhead door to the adjacent loading/staging area.
- 2. Bins will be moved into the loading area to the lefthand (south) side of the staging area.

Bins will require maintenance staff assistance during collection. When the collection truck arrives, collection will be facilitated in the following manner:

- 1. Staff will bring a full bin from the left (south) side of the staging area to the front of the truck for tipping (in a designated area in front of the vehicle).
- 2. After the bin is emptied, staff will remove the emptied bin from the front of the truck, moving it to the right (north) side of the staging area.
- 3. Staff will then bring the next full bin to the front of the truck so it can be tipped. This will continue until all bins are tipped and positioned on the right (north) side of the staging area.

The positioning of bins in the staging area before and after collection has been illustrated in Drawing No. VMD-01 of Appendix B. Maintenance staff may use a trash bin mover⁴ for ease of moving bins. Maintenance staff will assist in moving the bins, so the waste collection vehicle does not have to move during collection. Once all bins are empty, staff will return it to the waste storage room.

The collection truck drive path is attached as Appendix B. The Transportation Engineer has confirmed the maneuvers are functional for Halton Region's Waste Collection vehicle.

⁴ The WasteCaddy (<u>https://www.djproducts.com/product/video-wastecaddy-efficient-trash-bin-mover/,</u> accessed February 2024) is provided as an example.

4.0 Conclusions

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From the research completed in preparing this report, Burnside believes that the 50 Speers Road multi-residential development can successfully operate using Halton Region's waste management services. Further, the development's design provides the flexibility required to address future solid waste management systems.

6



Appendix A

Site Plan and Statistics

BDP. Quadrangle

Quadrangle Architects Limited The Well, 8 Spadina Avenue, Suite 2100, Toronto, ON M5V 0S8 **t** 416 598 1240 www.bdpquadrangle.com

50 Speers Road

Oakville, ON

for Helberg Properties Limited

Project No. 20023Date2024-02-23Issued forIssued for OPA/ZBLA Resubmission v2

ARCHITECTURAL DRAWINGS

A000.S	Cover Page
A100.S	Concept Plan
A101.S	Context, Site Plan & Statistics
A102.S	Survey
A103.S	P3 Underground
A104.S	P2 Underground
A105.S	P1 Underground
A201.S	Ground Floor Plan
A202.S	Floor 2 Plan
A203.S	Floor 3 Plan
A204.S	Floor 4 Plan
A205.S	Floor 5 Plan
A206.S	Floor 6 Plan
A207.S	Floor 7 Plan
A208.S	Floor 8 Plan (Amenity)
A209.S	Typical Tower Floor Plan 9-20
A220.S	Typical Tower Floor Plan 21-25
A226.S	Floor 26 Plan
A227.S	Floor 27 Plan
A228.S	Mechanical Penthouse
A229.S	Roof Plan
A401.S	Building Elevations
A402.S	Building Elevations
A403.S	Coloured Building Elevations
A451.S	Building Section

LANDSCAPE ARCHITECT

MacNaughton Hermsen Britton Clarkson Planning Limited 7050 Weston Rd, Woodbridge ON L4L 8G7 905-851-7479

TRANSPORTATION

BA Consulting Group Ltd 45 St. Clair Ave. W. Suite 300 416 961 7110 **CIVIL ENGINEERING**

Odan-Detech Group Inc. 5230 South Service Road, Burlington ON L7L 5K2 905-632-3811 PLANNING & URBAN DESIGN

Bousfields Inc. 3 Church Street, Toronto ON M5E 1M2 416-947-9744





		Gross	2014-014 Floor	Oakville By-Law 2014-014			Unit Bre	akdowr	۱		Dee Dertable	
	Floor	Building Area	Area Exclusions* (sm)	Gross Floor Area	Bach	1B	2B	3B	3B- 2ST	Total Units	Res Rentable Area (sf)	
	Mech Penthouse	520	520	0							0	
	27	597	72	525	0	0	6	0	0	6	4,562	
	26	597	72	525	0	2	6	0	0	8	5,359	
	25	735	79	656	0	2	7	0	0	9	6,805	
	24	735	79	656	0	2	7	0	0	9	6,805	
	23	735	79	656	0	2	7	0	0	9	6,805	
	22	735	79	656	0	2	7	0	0	9	6,805	
	21	735	79	656	0	2	7	0	0	9	6,805	
	20	769	79	691	2	6	4	0	0	12	7,172	
	19	769	79	691	2	6	4	0	0	12	7,172	
5	18	769	79	691	2	6	4	0	0	12	7,172	
IN IN	17	769	79	691	2	6	4	0	0	12	7,172	
00	16	769	79	691	2	6	4	0	0	12	7,172	
d .	15	769	79	691	2	6	4	0	0	12	7,172	
R	14	769	79	691	2	6	4	0	0	12	7,172	
Ň	13	769	79	691	2	6	4	0	0	12	7,172	
0	12	769	79	691	2	6	4	0	0	12	7,172	
F	11	769	79	691	2	6	4	0	0	12	7,172	
	10	769	79	691	2	6	4	0	0	12	7,172	
	9	769	79	691	2	6	4	0	0	12	7,172	
	8	769	88	682	0	2	2	0	0	4	2,665	
	7	1,417	119	1,298	1	11	6	2	0	20	13,470	
	6	1,417	119	1,298	1	11	6	2	0	20	13,470	
	5	1,417	119	1,298	1	11	6	2	0	20	13,470	
	4	1,417	119	1,298	1	11	6	2	0	20	13,470	
	3	1,417	119	1,298	1	11	6	2	0	20	13,470	
	2	2,111	156	1,955	2	3	5	0	-	10	15,929	
	Ground	2,046	589	1,458	0	0	0	0	13	13	7,579	
> ш	P1	3,733	3,674	58.9								
0 Q	P2	3,733	3,674	58.9								
BEL GR/	P3	3,733	3,674	58.9								
S											223,533 s	f
AL	Above Grade	26,631	sm	23,200 sm	31	144	132	10	13	330	20,767 s	m
τοτ		286,658	sf	249,725 sf	9%	44%	40%	3%	4%	100%	% of Unit Type	
	·											
о Ц об		Gr	oss Site Area	4,180 sm	418	566	774	954	1329		Average Unit S	ize b
rea		Lo	t Coverage %	51%				Total B	Below-Gr	ade GBA=	11,199 s	m
Site A	FSI (Net F	Floor Area / Gro	oss Site Area)	5.6			Total A	bove + E	3elow-Gr	ade GBA=	37,830 s	m
Floor Area: Residential	means the aggregate a	area of a buildi	ng contained v	vithin the exterior walls, but d	loes not i	nclude at	ttic or ba	sement	space			

Floor Area means the aggregate area of a residential building containing a dwelling measured from the exterior of the outside walls, but shall not include a private garag (GBA) Net Floor Area *means the total area of all floors of a building measured from the interior faces of the exterior walls or demising walls, but does not include the area of stair w (GFA): escalators, ventilation shafts, attics, concourses, washrooms, attached enclosed and covered loading docks and related enclosed corridors used for loading below grade parking structures, storage rooms, rooms for garbage containment and mechanical rooms.

NOTE: All open to below areas are included in Floor Area and Net Floor Area, unless otherwise indicated in the Notes column above.

<u>3</u> Building Statistics A101.S

VEHICULAR PARKING **BICYCLE PARKING** esidential (0.75 space/unit <75sm NFA) 0.75 x 285 Residential (Long-term) (0.75/unit) 0.75 x 330 esidential (1.25 spaces/unit >75sm NFA) 1.25 x 45 . Visitor (0.25 spaces/unit <75sm NFA) 0.25 x 285 Visitor (0.25 spaces/unit >75sm NFA) 0.25 x 45 TOTAL REQUIRED PARKING Visitor (Short-term) (0.25/residential total) 0.25 x 330 Provided 280 * 50 **330** 0.85 x 330 0.15 x 330 Residential (0.85 space/unit) Visitor (0.15 spaces/unit) TOTAL PROVIDED PARKING TOTAL BICYCLES Required Provided Accessible Parking Spaces (included in Total Parking) cludes 1 car-share spaces Refer to Traffic Report prepared by BA Group, for additional information. LOADING / GARBAGE AMENITY AREA Provided oading Spaces Refer to Traffic Report prepared by BA Group, for additional information. Residential (Loading Space 3.5m x 12m, 4.2m vertical clearance) Indoor Amenity 1 1 TOTAL LOADING SPACES **Outdoor Amenity** Level GF 80 10 24 Garbage Room Size Bulk Waste Storage Room Garbage Staging Area



2 Parking and Amenity Stats

10	Air partier	FIN	Finish	PT	Paint, paint
AC	Air conditioner	FL	Floor	PVC	Polvvinvl o
AD	Area drain	FLUOR	Fluorescent	(R)	Relocated
AFF	Above finish floor	FP	Fireplace	R	Radius
AL	Aluminum	FPL	Flush pull	RB	Resilient h
AN	Anodized	FRCG	File Raled Ceramic Glass	RC	Roller cate
AŬ	Automatic door operator	FRR	Fire resistance rating	RD	Roof drain
AP	Acoustic panel	FSI	Floor space index	REF	Reference
APC	Architectural precast concrete	GA	Gauge	REV	Revision
APPROX	Approximate	GALV	Galvanized	RE	Resilient fl
AS	Acoustic seal	GB	Gypsum board		Deceeded
AST	Astragal	GFA	Gross floor area		Recessed
ASTM	American Society for Testing Materials	GFI	Ground fault interrupter		Rangenood
AT	Acoustic ceiling tile	GK	Gasket	RM	Room
AVB	Air/vapour barrier	GL	Glazing, glass	RU	Rougn ope
AVG	Average	GLB	Glass - back painted	RR	Remote rel
BF	Barrier free	GLL	Glass - laminated	RVR	Reverse
BLDG	Building	GLT	Glass - tempered	RWL	Rain water
BOLF	Bollard, fixed	GLTF	Glass - tempered and frosted	SAFB	Sound atter
BOLR	Bollard, fixed	GLS	Glass - safety	SB	Site bulletir
BR	Brick	GLFC	Glass - fire-rated ceramic	SBO	Supplied by
CACF	Central Alarm Control Facility	GRB	Grab bar	SC	Solid core
СВ	Catch basin	GWG	Georgian wire glass	SD	Scupper dr
CCMPA	Can. Concrete Masonry Producers Assos.	Н	Height/high	SI	Site instruc
CCN	Contemplated change notice	HB	Hose bib	SG	Spandrel g
CG	Corner guard	HC	Hollow core	CIM	Similar
СН	Coat hook	HCC	Honey comb core	SIM	
CID	Clear inside dimension	HDF	High density fibreboard	SK	Skim coat
CIP	Cast-in-nlace	HG	Hinge	SL	Sealer, sea
oi⊧ Cl	Construction joint	HGPC	Hinge, centre pivot	SP	Spandrel p
		HCPO	Hinge offset nivot	SPT	Spray textu
		HM	Hollow metal	SS	Stainless s
				SSM	Solid surface
CLG	Celling	пг Цр	Hour	ST	Stone
CLR	Clear finish	ПК		STC	Sound tran
CLT	Closet	HSS		STD	Stained, sta
CMU	Concrete masonry unit	ніР		STL	Steel
COL	Column	ID	Interior design	STRUC	Structural
CONC	Concrete	IFP	Intumescent fireproofing	Т	Tile
CP	Communications panel	INSUL	Insulated, insulation	ТВ	Tack board
CPT	Carpet	INT	Interior	TBD	To be deter
CR	Card reader	JAN	Janitor	TC	Traffic coat
CSA	Canadian Standards Association	KP	Kick plate	TD	Terrace dra
СТ	Ceramic tile	L	Length/long	TFI	Telenhone
C/W	Complete with	LA	Latch		Temporary
CYL	Cylinder	LAV	Lavatory		Terrozzo
D	Depth/Deep	LEV	Low emitting vehicle	TER	Torració
DB	Dead bolt	LIN	Linen closet/shelves		
DC	Door contact	LN	Linoleum	1H 	I nreshold
DIA ø	Diameter	LP	Low point	IHK	
, -	Dimension	LS	Lock set		i op of curb
	Down	LV	Louvre	TOF	1 op of finis
	Door pull	MAG	Magnetic lock	TOFR	Top of finis
	Door pull - recessed	MAX	Maximum	TOG	Top of grac
	Door ptop door mounted	MDF	Medium density fibreboard	TOP	Top of para
050	Door stop - door mounted	MECH	Mechanical	TOS	Top of slab
DSF	Door stop - floor mounted	MER	Manufacturer	TOW	Top of wall
DSO	Door stop - overhead recessed		Minimum	TRR	Temperatu
DSW	Door stop - wall mounted		Miscollanacua	TT	Thumb turr
DW	Dishwasher	MISC		TYP	Typical
DWG	Drawing	MILL		UH	Unit heater
ED	Exit device	MIR	Mirror	I IP	Urinal
EIFS	Exterior insulating finish system	MO	Masonry opening		Undoroide
EJ	Expansion joint	MP	Metal panel		Undonumiter
ELEC	Electrical	MRGB	Moisture resistant gypsum board		
ELEV	Elevator	MTL	Metal		
EOS	Edge of slab	MW	Microwave	VB	vapour bar
FP	Electrical panel	(N)	New		vinyi comp
 ESP	Escutcheon plate	N/A	Not applicable	VEST	vestibule
E0		NBC	National Building Code	VFI	Vinyl-faced
EV	Lyua Electrical vehicle	NIC	Not in contract	VG	Vision glas
∟v EVSF	Electrical vehicle supply equipment	NTS	Not to scale	VGF	Vinyl graph
EQUIP	Equipment	OBC	Ontario Building Code	VNR	Veneer
ES	Electric strike	00	On centre	VP	Visitor's pa
 (F)	Existing	0P	Operable panel	W	Width/wide
(E/R)	Existing/relocated		Oriented strand board	WB	White boar
(L/R) EVT	Exterior	09B	Overflow sciencer drain	WC	Water close
		PB	Push button	WCV	Wall cover
FAP	Fire alarm pull	PCT	Porcelain tile	WD	Wood
FC	⊢an coll	PERE	Perforated	W/D	Washer/Dr
FD	Floor drain		Plastic laminato	WIC	Walk_in do
FFE	Fire fighter's elevator		n lastic idililiate		
FFH	Fire fighter's handset	PLY	Piywood	WPS	vvaterproof
	Finished floor level	PNL	Panel	WR	waste rece
FFL	Fixed glazing	PP	Push plates	WS	Weatherstr
FFL FG		50	Parquet flooring	WT	Window tre
FFL FG FH	Fire hydrant	PQ	, aldret lie en lie		
FFL FG FH FHC	Fire hydrant Fire hose cabinet	PQ			

e by Unit Type (SF)	
· · · · · · · · · · · · · · · · · · ·	
a caraca bacamant ar attic	
s garage, basement, or attic. f stair wells, elevators,	
ading purposes, above and	
	1
Required Provided	-
248 248	
82 82	
330 330	
	1
Provided	-
Cool on	
660 sm	
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SITE PLAN LEGEND PROPERTY LINE LINE OF UNDER GROUND GARAGE BELOW MAIN BUILDING ENTRANCE RETAIL ENTRANCE VEHICLE / LOADING ENTRANCE / EXIT FIRE HYDRANT SIAMESE CONNECTION MANHOLE COVER AREA DRAIN CATCH BASIN ⊖^{FD} FLOOR DRAIN (INTERIOR) Δ TYPICAL PARKING SPACE TYPICAL B.F. PARKING SPACE 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. **GREEN ROOF** TERRACE PAVERS No. Description Date No. Description Date REVISION RECORD 2024-02-23 Issued for OPA/ZBLA Resubmission v2 2022-10-12 Rezoning & Official Plan Amendment ISSUE RECORD BDP. Quadrangle Quadrangle Architects Limited 901 King Street West, Suite 701 Toronto, ON M5V 3H5 t 416 598 1240 www.bdpquadrangle.com 50 Speers Road Oakville, ON for Helberg Properties Limited 20023 project scale ED AT DRAWN REVIEWED Context, Site Plan & Statistics A101.S

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A451.S



Appendix B

Waste Collection Vehicle Turning Path Analysis







R.J. Burnside & Associates Limited