



WASTE MANAGEMENT STRATEGY

November 2015

156 WEST END LANE WASTE MANAGEMENT STRATEGY

A2DOMINION DEVELOPMENTS LIMITED

NOVEMBER 2015

156 WEST END LANE

WASTE MANAGEMENT STRATEGY

A2Dominion Developments Limited

Type of document (Final)
Confidential

Project no: 70011383
Date: November 2015

WSP | Parsons Brinckerhoff
6 Devonshire Square
London
EC2M 4YE

Tel: +44 (0)207 337 1700
Fax: +44 (0)207 337 1701
www.wspgroup.com
www.pbworld.com

QUALITY MANAGEMENT

ISSUE/REVISION	FIRST ISSUE	REVISION 1	REVISION 2	REVISION 3
Remarks	Draft	Final		
Date	10 November 2015	17 November 2015		
Prepared by	Michael Berney	Michael Berney		
Checked by	Matthew Venn	Matthew Venn		
Authorised by	Matthew Venn	Matthew Venn		
Project number	70011383	70011383		

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ABBREVIATIONS

BS	British Standard
DCLG	Department for Communities and Local Government
Defra	Department for Environment, Food and Rural Affairs
LBC	London Borough of Camden
NPPF	National Planning Policy Framework
PPS	Planning Policy Statement
RCV	Refuse Collection Vehicle

1 INTRODUCTION

PROJECT BACKGROUND

- 1.1.1 WSP | Parsons Brinckerhoff has been commissioned by A2Dominion Developments Limited to prepare a Waste Management Strategy for a planning application for 156 West End Lane (hereafter referred to as the 'Proposed Development').
- 1.1.2 This Waste Management Strategy considers the potential impacts that may arise from waste generated during the operational phase with the overall aim of developing a strategy for legislative compliance and good practice in the separation, storage and collection of waste arisings.

PROPOSED DEVELOPMENT & APPLICATION SITE DESCRIPTION

Proposed Development

- 1.1.3 Demolition of all existing buildings and redevelopment of the site to provide 164 mixed-tenure homes (Use Class C3), new floorspace for town centre uses (Use Classes A1, A2, A3, D1 or D2), new employment floorspace (including four dedicated units for start-up businesses) (Use Class B1), a community meeting room and new and improved public open spaces, together with associated new landscaping, on-site access, servicing and disabled car parking.

Application Site and its Setting

- 1.1.4 The site is located on the eastern side of West End Lane, West Hampstead NW6. The site, as existing, consists of a five storey office building fronting West End Lane and an open yard/storage area to the rear. The site is arranged as office floorspace at upper floor levels and a retail showroom and ancillary offices at ground floor with an open yard/storage area to the rear.
- 1.1.5 The site falls within the jurisdiction of the London Borough of Camden (LBC).

REPORT STRUCTURE

- 1.1.6 This report is set out in the following format:
- **Section 2: Waste Legislation, Policy & Guidance** - details of the national legislation and policies that have relevance to the Proposed Development.
 - **Section 3: Management of Operational Waste** - details the strategy which will be adopted to successfully manage the waste arisings from the Proposed Development once operational.
 - **Section 4: Summary & Conclusions.**
 - **Appendix A: National, London and Lambeth Waste Policy & Guidance.**
 - **Appendix B: Swept Path Analysis for Refuse Collection Vehicles.**

2 WASTE LEGISLATION, POLICY AND GUIDANCE

INTRODUCTION

- 2.1.1 This section contains details of the national legislation that have relevance to the Proposed Development. National, London and Camden waste policy and guidance reviewed during the preparation of this Waste Management Strategy are listed below.

NATIONAL LEGISLATION

- 2.1.2 A list of relevant items of national waste legislation is outlined below in reverse chronological order:
- ***The Waste (England and Wales) Regulations 2011 (as amended)*** - From 1 January 2015, waste collection authorities must now collect waste paper, metal, plastic and glass separately. It also imposes a duty on waste collection authorities, from that date, when making arrangements for the collection of such waste, to ensure that those arrangements are by way of separate collection.
 - ***Revised Waste Framework Directive (2008)*** - Clarifies the definition of 'waste' and of other concepts such as 'recycling' and 'recovery'. It has applied a new Waste Hierarchy, expanded the 'polluter pays' principle by emphasising producer responsibility, applies more stringent waste reduction and waste management targets for Member States and requires enhanced content in waste management plans.

NATIONAL, LONDON AND CAMDEN WASTE POLICY

- 2.1.3 The relevant national, London and Camden waste policy that was reviewed during the preparation of this Waste Management Strategy is outlined below and further detail provided in **Appendix A**:
- *National Planning Policy Framework* (2012);
 - *National Planning Policy for Waste* (2014);
 - *Waste Management Plan for England* (2013);
 - *The Mayor's Vision for London's Waste* (2010);
 - *Making Business Sense of Waste: The Mayor's Business Waste Strategy for London* (2010);
 - *The London Plan: Spatial Development Strategy for London Consolidated with Alterations since 2011* (2015);
 - LBC, *Camden Core Strategy 2010-2025* (Adopted November 2010); and
 - LBC, *Camden Planning Guidance 'Design': CPG1* (2014).

3 MANAGEMENT OF OPERATIONAL WASTE

INTRODUCTION

- 3.1.1 This section details the strategy which will be adopted to successfully manage the waste arisings from the Proposed Development once operational.

WASTE MANAGEMENT SERVICES PROVIDED BY LBC

- 3.1.2 **Table 3.1** outlines the current waste management services that are provided by and on behalf of LBC:

Table 3.1: LBC waste management services

Refuse	Weekly collection (plastic sacks)
Recycling	Recyclable materials collected: <ul style="list-style-type: none"> ■ glass (green, clear, brown); ■ paper (newspaper, magazines, writing paper); and card; ■ cans (food and drinks cans); ■ juice cartons - wax-lined, poly-lined and foil-lined cartons e.g. milk cartons, orange juice cartons, also known sometimes as Tetra Pak; ■ coloured and clear food trays e.g. fruit punnets, ready meal trays; ■ yogurt containers, straws and bottle caps; ■ plastic containers of any size or colour, yoghurt pots, ice cream tub, margarine containers; and ■ plastic bags and magazine wrapping.
Food waste	Weekly kerbside collection: <ul style="list-style-type: none"> ■ Flats and estates: outdoor communal container ■ Houses and low-rise flats: outdoor caddy
Bulky waste	Free doorstep collection for reusable furniture. Chargeable collection for disposal of large items.
Bring Sites	Numerous sites across the borough.
Recycling Centre	Regis Road Recycling Centre, Kentish Town, NW5 3EW

Source: LBC website.

CURRENT RECYCLING PERFORMANCE

- 3.1.3 According to Gov.uk, from Camden's total household waste tonnage of 72,732 in 2013-14, approximately 21,327 tonnes was reused, recycled and composted.
- 3.1.4 The household waste recycling and composting rate was therefore 29.3%.
- 3.1.5 As a comparison, the proportion of household waste sent for recycling, composting or reuse in England as a whole was 44.2% in 2013-14.

GENERATION OF HOUSEHOLD WASTE

- 3.1.6 Household waste generation from the Proposed Development has been estimated using Gov.uk municipal waste statistics and LBC data.
- 3.1.7 At this stage in the design process the figures can only be considered indicative as a variety of factors, such as the on-going promotion of waste minimisation and recycling, consumer habits and population changes will impact on waste generation rates in future years.
- 3.1.8 As a baseline, **Table 3.2** outlines how the average household waste generation rate per residential unit was established.

Table 3.2: Average household waste generation for LBC

Total household waste generated within Camden in 2013-14 (tonnes)	72,732
Total number of households within LBC boundary ¹	102,508
Estimated mean waste generation per household per annum (tonnes)	0.71

- 3.1.9 This average household waste generation rate was then used to provide an estimate of the waste arisings from the future residents of the Proposed Development. This is outlined in **Table 3.3**.

Table 3.3: Estimated household waste arisings

No. of units	Estimated mean waste generation per household per annum (tonnes)	Tonnes per annum*	Tonnes per week*
164	0.71	116	2.2

* Figures have been rounded

- 3.1.10 At this stage it is estimated that if current waste generation levels remain the same, the Proposed Development could potentially generate 116 tonnes of household waste per annum (2.2 tonnes per week) should all units be constructed and occupied.
- 3.1.11 Of this tonnage, a significant proportion will be separated for recycling and composting. For indicative purposes, assuming that at least half of the household waste from the Proposed Development will be recycled or composted (there is a 50% recycling target for England by 2020²), this equates to 58 tonnes per annum (1.1 tonnes per week).

¹ Office for National Statistics: Neighbourhood Statistics: Camden: Housing

² Defra (2013) *Waste Management Plan for England*

STORAGE OF HOUSEHOLD WASTE

Internal

- 3.1.12 In the first instance, residents would segregate and store their refuse and recycling through the use of internal compartmentalised waste storage in their kitchens. This would promote the segregation of refuse, recyclable and compostable materials at source.
- 3.1.13 An example of a suitable compartmentalised waste bin is shown in **Figure 3.1**.

Figure 3.1: Example Segregated Waste Bin³



Waste Stores

- 3.1.14 The waste storage capacity requirements for the Proposed Development have been based on the following volumes from LBC's *Camden Planning Guidance*. **Table 3.4** summarises the volumes based on size of household.
- 3.1.15 The provision of bins would be split equally between refuse and recycling including provision for food waste.
- 3.1.16 The waste stores will be large enough to allow clearance of 150 mm between each bin and the walls. There will be space in front of the bins to allow residents to easily access the bins when depositing waste.

Table 3.4: Weekly waste capacity

SIZE OF HOUSEHOLD	WEEKLY WASTE (LITRES)
Studio / one bed	100
Two bed	170
Three bed	240
Four bed	310

³ The Code Store: <http://www.thecodestore.co.uk/shop/details/291/213/waste/was1-storage-of-non-recyclable-waste-and-recyclable-household-waste/built-in-kitchen-bins/easy-cargo-49-litre-waste-bin.html>

Shared Ownership units

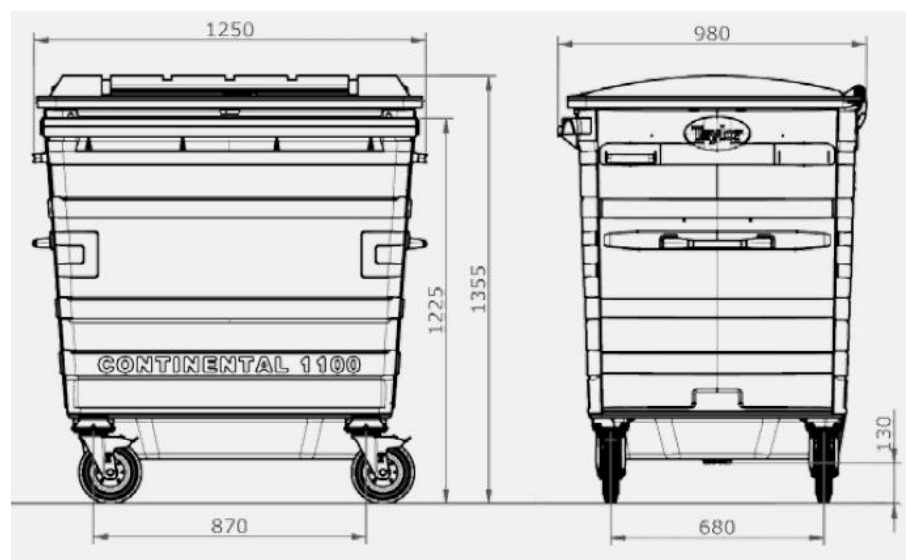
- 3.1.17 The waste storage requirements for the Shared Ownership units were calculated using the above waste capacities and the number of units and the results are summarised in **Table 3.5**.

Table 3.5: Waste storage requirements (Shared Ownership)

SHARED OWNERSHIP		No. UNITS	WEEKLY WASTE	TOTAL WASTE
L Ground	1 bed	6	100	600
Ground	1 bed	2	100	200
1st Floor	1 bed	2	100	200
	2 bed	5	170	850
2nd Floor	1 bed	2	100	200
	2 bed	5	170	850
3rd Floor	1 bed	2	100	200
	2 bed	4	170	680
4th Floor	1 bed	3	100	300
	2 bed	4	170	680
5th Floor	2 bed	5	170	850
Total		40	-	5,610

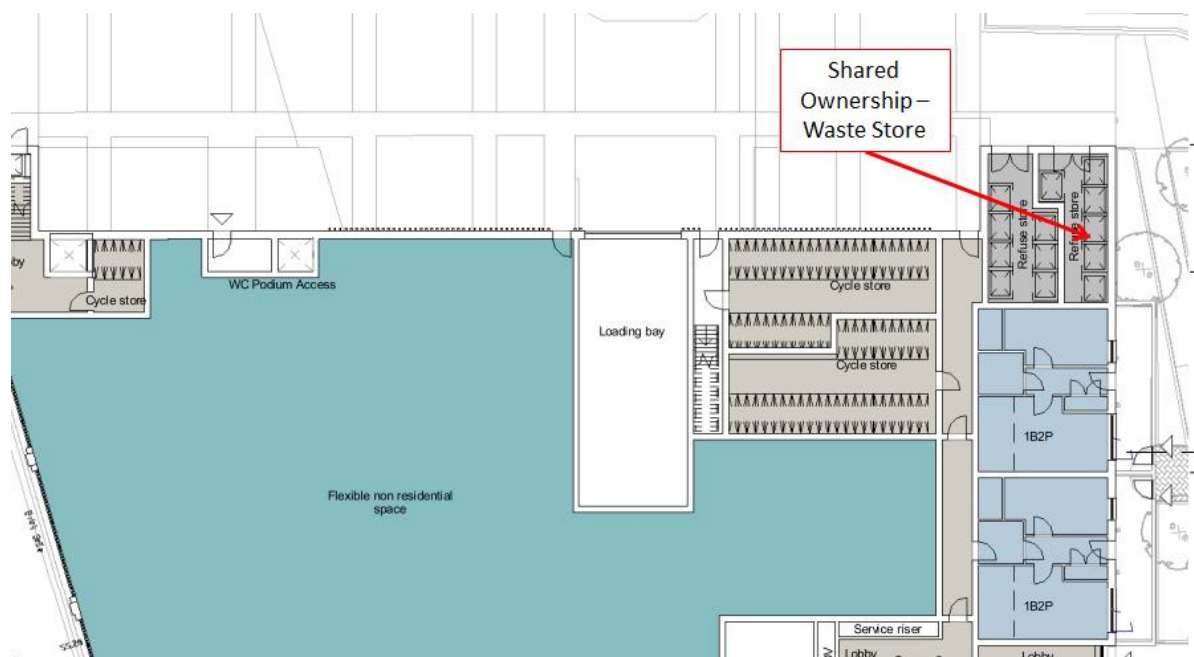
- 3.1.18 The Shared Ownership units will have a dedicated waste store with sufficient space for the equivalent of **six 1,100 litre Eurobins** (**Figure 3.2**) on the ground floor level as shown in **Figure 3.3**.

Figure 3.2: 1,100 litre Eurobins⁴



⁴ Taylor Group: <http://taylorbins.co.uk/wp-content/uploads/2014/10/Taylor-Insert-Continental-1100-V1.pdf>

Figure 3.3: Waste store (Shared Ownership)



Affordable Rented units

- 3.1.19 The waste storage requirements for the Affordable Rented units were calculated using the above waste capacities and the number of units and the results are summarised in **Table 3.6**.

Table 3.6: Waste storage requirements (Affordable Rented)

AFFORDABLE RENTED		NO. UNITS	WEEKLY WASTE	TOTAL WASTE
1st Floor	1 bed	3	100	300
	2 bed	1	170	170
	3 bed	0	240	0
2nd Floor	1 bed	3	100	300
	2 bed	1	170	170
	3 bed	4	240	960
	4 bed	1	310	310
3rd Floor	1 bed	1	100	100
	2 bed	3	170	510
	3 bed	4	240	960
	4 bed	1	310	310
4th Floor	1 bed	0	100	0
	2 bed	3	170	510
	3 bed	4	240	960
	4 bed	1	310	310
5th Floor	1 bed	0	100	0
	2 bed	3	170	510
	3 bed	4	240	960
	4bed	1	310	310
Total		38	-	7,650

- 3.1.20 The Affordable Rented units will have a dedicated waste store with sufficient space for the equivalent of **seven 1,100 litre Eurobins** on the ground floor level as shown in **Figure 3.4**.

Figure 3.4: Waste store (Affordable Rented)



Private Sale units

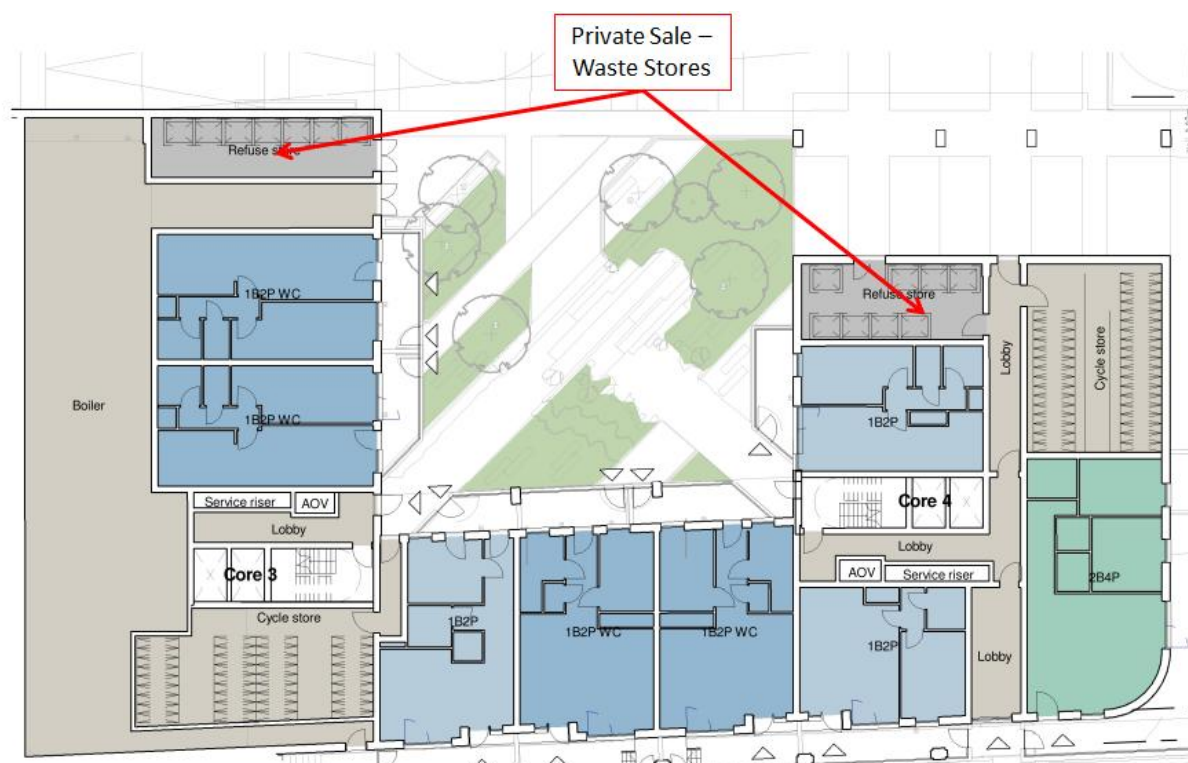
- 3.1.21 The waste storage requirements for the Private Sale units were calculated using the above waste capacities and the number of units and the results are summarised in **Table 3.7**.

Table 3.7: Waste storage requirements (Private Sale)

PRIVATE SALE		No. UNITS	WEEKLY WASTE	TOTAL WASTE
L Ground	1 bed	1	100	100
	2 bed	1	170	170
Ground	1 bed	11	100	1,100
	2 bed	7	170	1,190
1st Floor	1 bed	9	100	900
	2 bed	10	170	1,700
2nd Floor	1 bed	9	100	900
	2 bed	10	170	1,700
3rd Floor	1 bed	2	100	200
	2 bed	9	170	1,530
4th Floor	1 bed	2	100	200
	2 bed	9	170	1,530
5th Floor	2 bed	6	170	1,020
Total		86	-	12,240

- 3.1.22 The Private Sale units will have two dedicated waste stores (Core 3 and Core 4) with sufficient space for the equivalent of **12 No. 1,100 litre Eurobins** on the lower ground floor level as shown in **Figure 3.5**.

Figure 3.5: Waste store (Private Sale)



COLLECTION OF HOUSEHOLD WASTE

- 3.1.23 On collection days, the Refuse Collection Vehicle (RCV) will access the Proposed Development from West End Lane and drive along the access route. There will be direct access to the Shared Ownership and Affordable Rented waste stores on ground floor level. The swept path analysis for the RCVs has been provided in **Appendix B** and shows the proposed route to service each waste store.
- 3.1.24 Fob access will enable RCVs to drive to the waste stores for the Private Sale units on the lower ground level, utilising the turning head to reverse and exit the Proposed Development in a forward gear.
- 3.1.25 Collectors will not have to manually transport a wheeled bin more than 10 metres from the point of storage to the RCV – all waste stores are within this distance.
- 3.1.26 For bulky waste, it has been assumed that residents will make arrangements with LBC for collection and temporarily store the waste in an agreed location at ground level.

STORAGE & COLLECTION OF COMMERCIAL WASTE

Non-residential floorspace

- 3.1.27 The non-residential floorspace at ground floor, fronting West End Lane, will have its own internal waste storage and will arrange for their own waste collection directly from their unit via the loading bay.

Flexible employment space

- 3.1.28 The flexible employment space will have a dedicated waste store with 2 No.660 litre Eurobins on the ground floor level as shown in **Figure 3.7**.

Figure 3.7: Office waste store



Start-up Units and Community Meeting Room

- 3.1.29 The start-up units and community meeting room will each have internal waste storage and will arrange for their own waste collections directly from their units. Commercial waste collection vehicles would stop temporarily on West End Lane and waste would be manually transferred from the units back to the awaiting vehicle.

Appendix A

**NATIONAL, LONDON AND CAMDEN
WASTE POLICY & GUIDANCE**

National Waste Policy

National Planning Policy Framework (2012)⁵

The National Planning Policy Framework ('the Framework') sets out the Government's economic, environmental and social planning policies for England and provides a framework within which local people and councils can produce local and neighbourhood plans. Most of the existing Planning Policy Statements (PPSs) have been abolished and replaced by 12 'core' planning principles.

Unfortunately, the Framework does not provide much clarity on planning policy for the development of waste infrastructure and states that:

'This Framework does not contain specific waste policies, since national waste planning policy will be published as part of the National Waste Prevention Plan for England. However, local authorities preparing waste plans and taking decisions on waste applications should have regard to policies in this Framework so far as relevant'.

Further policy and guidance is expected to be included in the Waste Management Plan for England which will replace Waste Strategy for England 2007 for these purposes. This may not be published until the end of 2013⁶.

National Planning Policy for Waste (2014)⁷

The National Planning Policy for Waste replaces 'Planning Policy Statement 10: Planning for Sustainable Waste Management' (PPS 10) and is to be considered alongside other national planning policy for England - such as in the NPPF and the Waste Management Plan for England. As its primary focus is on planning for waste management facilities, it is not considered relevant to the Proposed Development.

Waste Management Plan for England (2013)

The Waste Management Plan for England, published in December 2013, provides an analysis of the current waste management situation in England and fulfils the mandatory requirements of Article 28 of the revised Waste Framework Directive (WFD). The WFD required that Member States ensure that their competent authorities, in this instance Defra, establish one or more waste management plans covering all of their territory.

The Plan does not introduce new policies or change the landscape of how waste is managed in England. Its core aim is to bring current waste management policies under the umbrella of one national plan. It supersedes the previous waste management plan, the Waste Strategy for England 2007.

⁵ Department for Communities and Local Government (DCLG) (2012) *National Planning Policy Framework*
<http://www.communities.gov.uk/documents/planningandbuilding/pdf/2115939.pdf>

⁶ Department for Environment, Food and Rural Affairs (Defra) (2012) *Progress with delivery of commitments from the Government's Review of Waste Policy in England (2011)*
<http://www.defra.gov.uk/publications/files/pb13738-waste-review-progress.pdf>

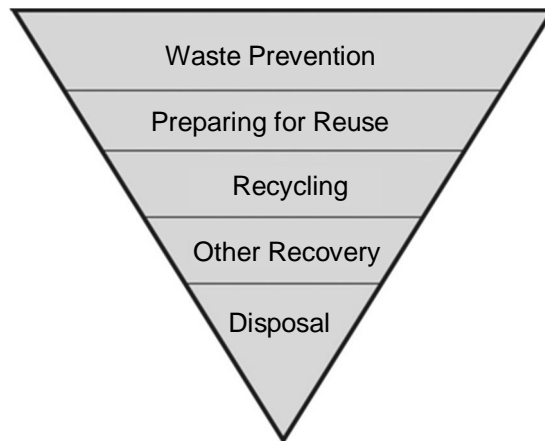
⁷ DCLG (2014) *National Planning Policy for Waste*
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/364759/141015_National_Planning_Policy_for_Waste.pdf

Waste Hierarchy

The Waste Hierarchy requires avoidance of waste in the first instance followed by reducing the volume that requires disposal after it has been generated.

It gives an order of preference for waste management options to minimise the volume for disposal, as shown in **Figure A1**.

Figure A1: The Waste Hierarchy



Source: Waste Framework Directive

The main principles of the Waste Hierarchy are:

- Waste should be prevented or reduced at source as far as possible;
- Where waste cannot be prevented, waste materials or products should be reused directly or refurbished and then reused;
- Waste materials should be recycled or reprocessed into a form that allows them to be reclaimed as a secondary raw material;
- Where useful secondary materials cannot be reclaimed, the energy content of the waste should be recovered and used as a substitute for non-renewable energy resources; and
- Only if waste cannot be prevented, reclaimed or recovered, should it be disposed of into the environment and this should only be undertaken in a controlled manner.

The Waste Hierarchy has been implemented in England and Wales by the *Waste (England and Wales) Regulations 2011*. These regulations require that an establishment or undertaking that imports, produces, collects, transports, recovers or disposes of waste must take reasonable steps to apply the Waste Hierarchy when waste is transferred or disposed of.

Waste Policy & Guidance for London

The Mayor's vision for London's waste (2010)⁸

In 2010 the Mayor unveiled London's first dedicated draft document aimed at tackling the 16 million tonnes of waste from sources such as the commercial & industrial (C&I) and construction, excavation & demolition (CE&D) sectors.

The strategy, which is non-statutory, particularly focuses on waste reduction and highlights the economic benefits of businesses improving their waste management practices.

When the document was published, London recycled 57% of its waste; the Mayor specified a target of 80% of all London's waste to be recycled or composted by 2031, setting the following recycling targets for London:

- To recycle or compost 70% of C&I waste by 2020, maintaining this performance to 2031.
- To reuse and recycle 95% of CE&D waste by 2020, maintaining this performance to 2031.

Making Business Sense of Waste: The Mayor's Business Waste Strategy for London⁹

Making Business Sense of Waste is the first Mayoral strategy for London's business waste. It sets out initiatives to help all kinds of London's businesses, from shops, restaurants, office buildings, manufacturers to construction companies to save money and reduce harm to the environment through better waste management.

The London Plan: Spatial Development Strategy for London Consolidated with Alterations since 2011 (2015)¹⁰

The London Plan is the 'overall strategic plan for London, setting out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years'.

The strategy includes the following waste management policy that has influenced the development of more specific business waste guidance:

Policy 5.3 Sustainable Design and Construction

The highest standards of sustainable design and construction should be achieved in London to improve the environmental performance of new developments and to adapt to the effects of climate change over their lifetime.

e. minimising the generation of waste and maximising reuse or recycling

Policy 5.16 Waste self-sufficiency

The Mayor will work with London boroughs and waste authorities, the London Waste and Recycling Board (LWaRB), the Environment Agency, the private sector, voluntary and community sector groups, and neighbouring regions and authorities to:

⁸ Greater London Authority (GLA) (2010) The Mayor's vision for London's waste
<http://legacy.london.gov.uk/mayor/environment/waste/docs/vision-jan2010.pdf>

⁹ GLA (2011) *Making Business Sense of Waste: The Mayor's Business Waste Strategy for London*
<http://www.london.gov.uk/publication/londons-wasted-resource-mayors-municipal-waste-management-strategy>

¹⁰ GLA (2011) *The London Plan*
<http://www.london.gov.uk/sites/default/files/London%20Plan%20March%202015%20%28FALP%29.pdf>

- a manage as much of London's waste within London as practicable, working towards managing the equivalent of 100% of London's waste within London by 2026*
- b create positive environmental and economic impacts from waste processing*
- c work towards zero biodegradable or recyclable waste to landfill by 2026.*

This will be achieved by:

- a minimising waste*
- b encouraging the reuse of and reduction in the use of materials*
- c exceeding recycling/composting levels in local authority collected waste (LACW) of 45 per cent by 2015, 50 per cent by 2020 and aspiring to achieve 60 per cent by 2031*
- d exceeding recycling/composting levels in commercial and industrial waste of 70 per cent by 2020*
- e exceeding recycling and reuse levels in construction, excavation and demolition (CE&D) waste of 95 per cent by 2020*
- f improving London's net self-sufficiency through reducing the proportion of waste exported from the capital over time*
- g working with neighbouring regional and district authorities to co-ordinate strategic waste management across the greater south east of England.*

Camden Waste Policy

LBC, Camden Core Strategy 2010-2025 (Adopted November 2010)¹¹

Camden's Core Strategy sets out the key elements of the Council's planning vision and strategy for the borough. It is the central part of our Local Development Framework (LDF), a group of documents setting out Camden's planning strategy and policies.

The Core Strategy will, along with other Local Development Framework documents, replace Camden's current Unitary Development Plan (2006).

The following policies are of relevance to waste management:

CS18 – Dealing with our waste and encouraging recycling

The Council will seek to make Camden a low waste borough. We will:

- a) aim to reduce the amount of waste produced in the borough and increase recycling and the re-use of materials to meet our targets of 40% of household waste recycled by 2010, 45% by 2015 and 50% by 2020;*
- b) make sure that developments include facilities for the storage and collection of waste and recycling;*
- c) deal with North London's waste by working with our partner boroughs in the North London Waste Authority to produce a North London Waste Plan, which will ensure that facilities are provided to meet the amount of waste allocated to the area in the London Plan;*
- d) safeguard Camden's existing waste site at Regis Road.*

¹¹ LBC (2010) Camden Core Strategy 2010-2025

<http://www.camden.gov.uk/ccm/navigation/environment/planning-and-built-environment/planning-policy/local-development-framework--ldf/-core-strategy/>

LBC, Camden Planning Guidance 'Design': CPG1 (2014)¹²

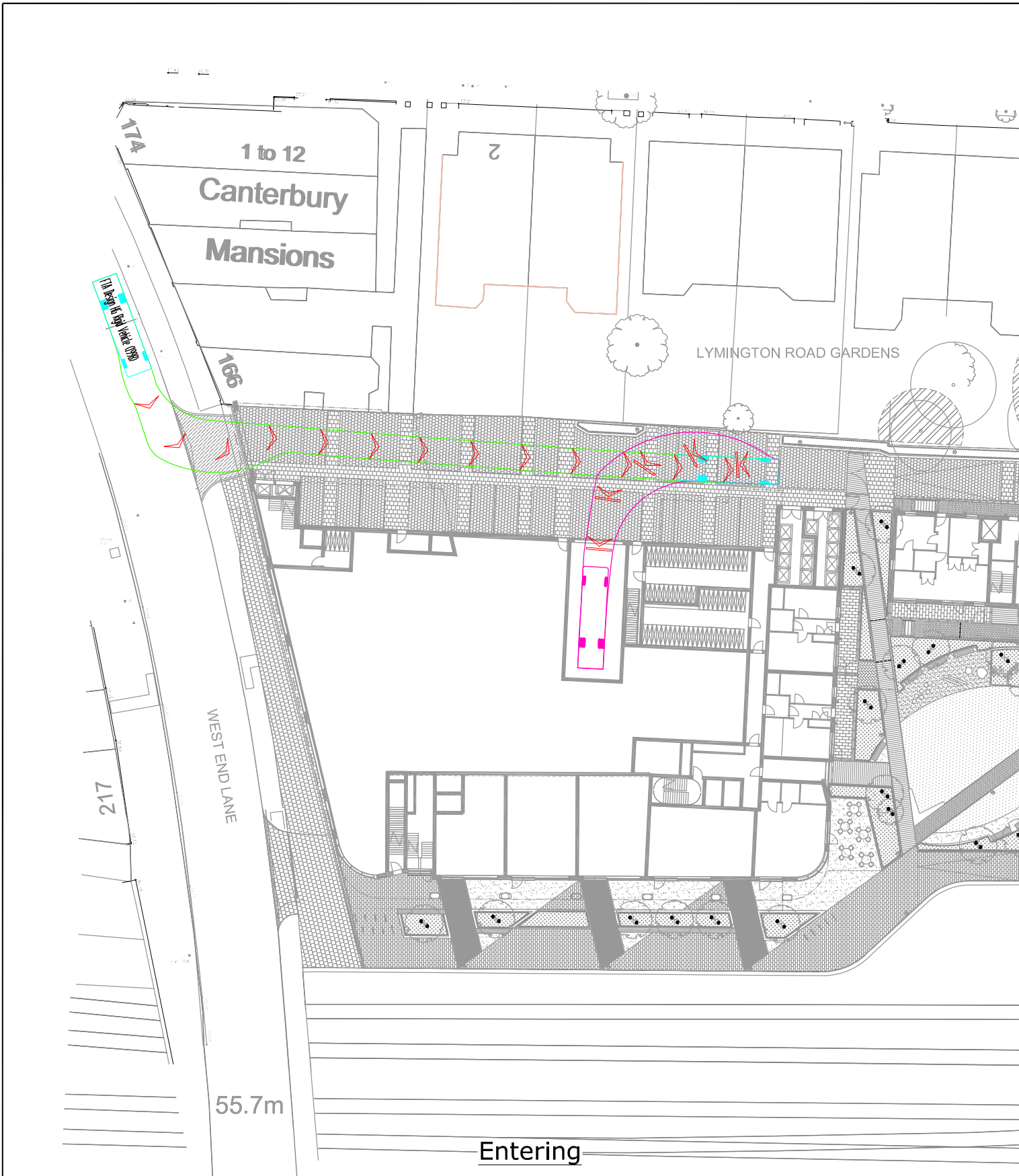
This guidance document supports a range of both Core Strategy and Development policies. The purpose of this guidance is to promote design excellence and to outline the ways in which high quality design within developments can be achieved.

¹² LBC (2014) *Camden Planning Guidance 'Design': CPG1*
http://www.camden.gov.uk/ccm/cms-service/download/asset?asset_id=3235609

Appendix B

SWEPT PATH ANALYSIS FOR REFUSE COLLECTION VEHICLES

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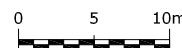
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BASED ON ORDNANCE SURVEY MAPPING AND
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WEST END LANE, WEST HAMPSTEAD

Swept path analysis of a 10m rigid vehicle.

SCALE @ A3 1:500



DATE

12/10/15

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TRANSPORT PLANNING PRACTICE

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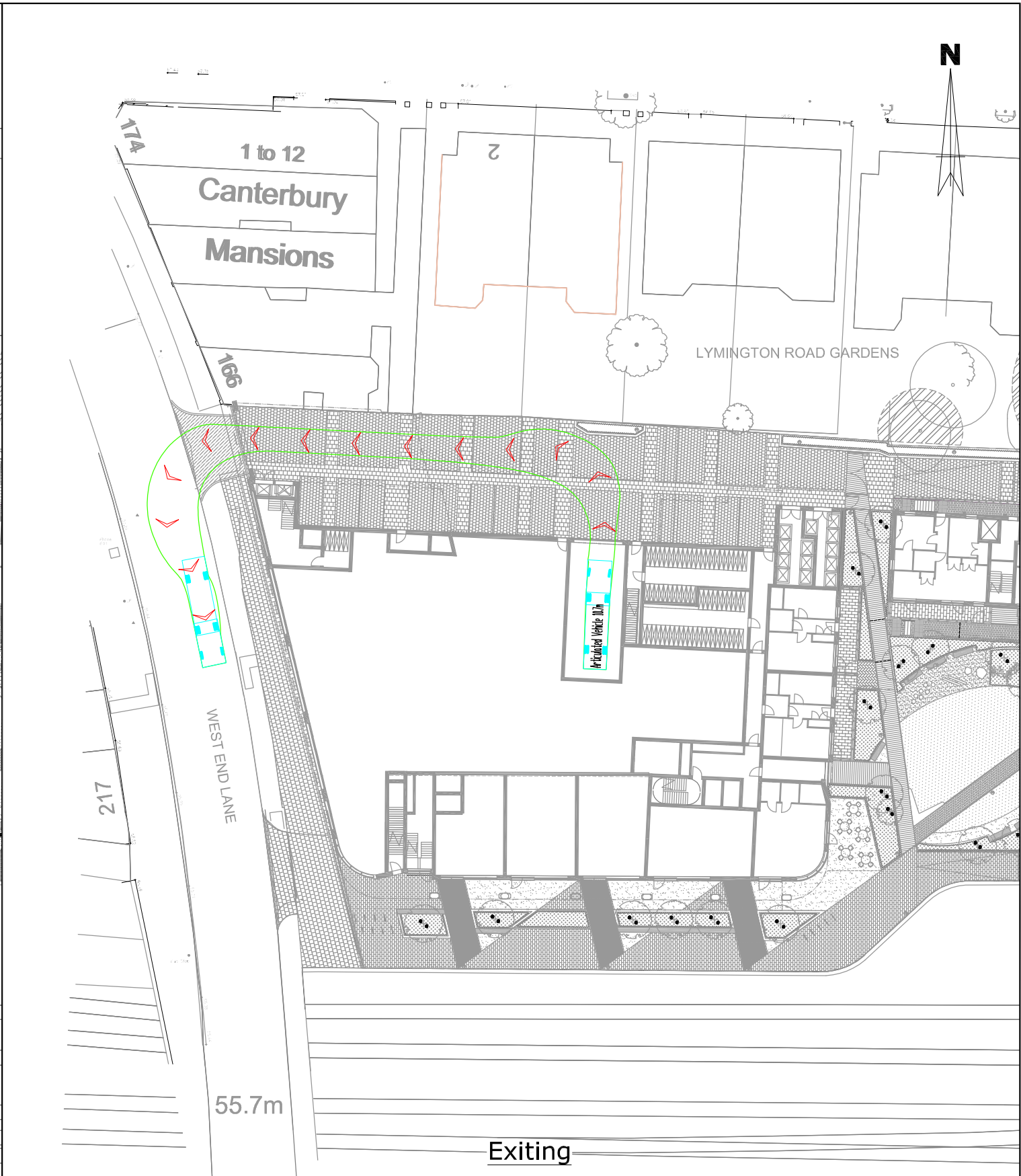
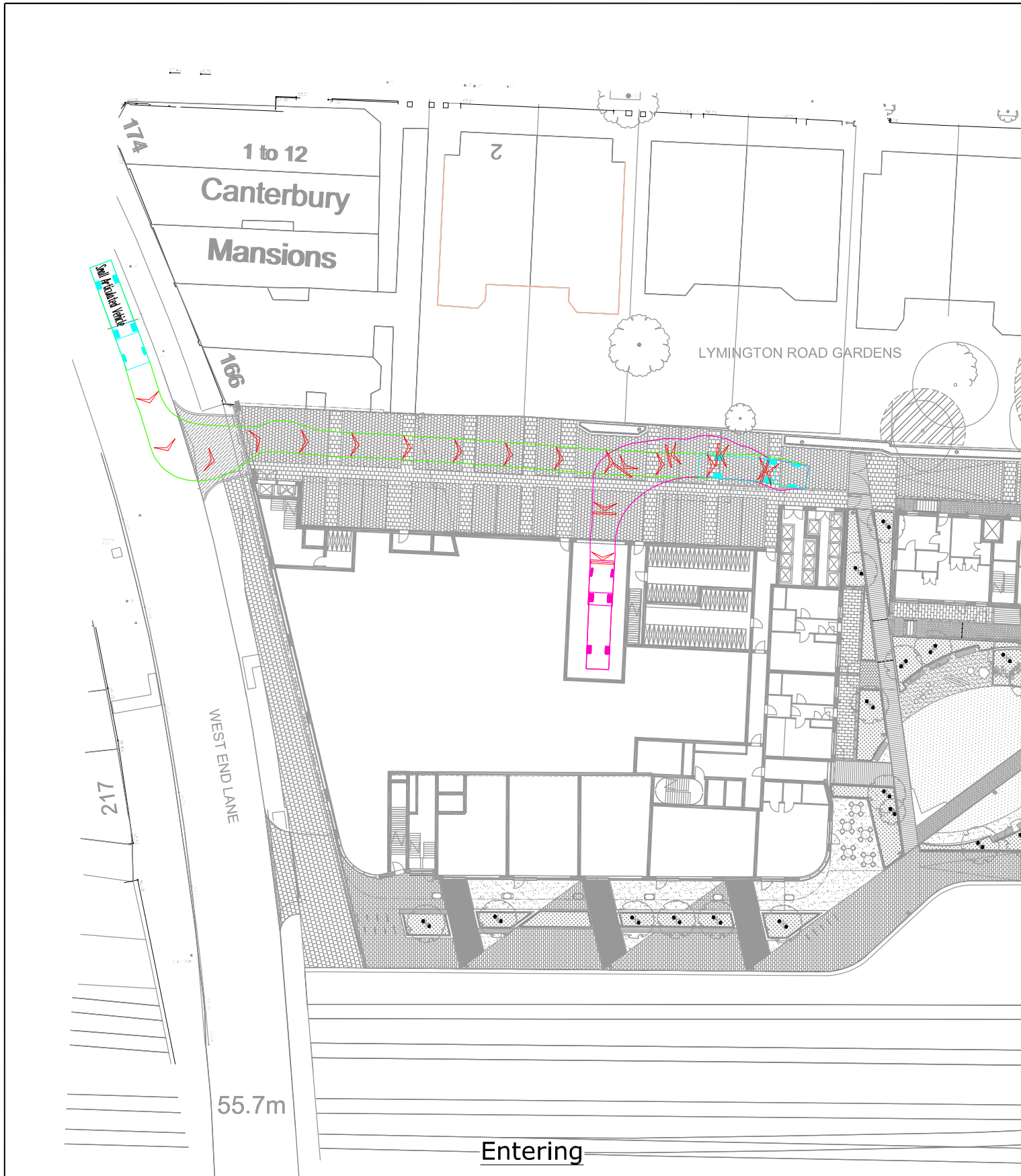
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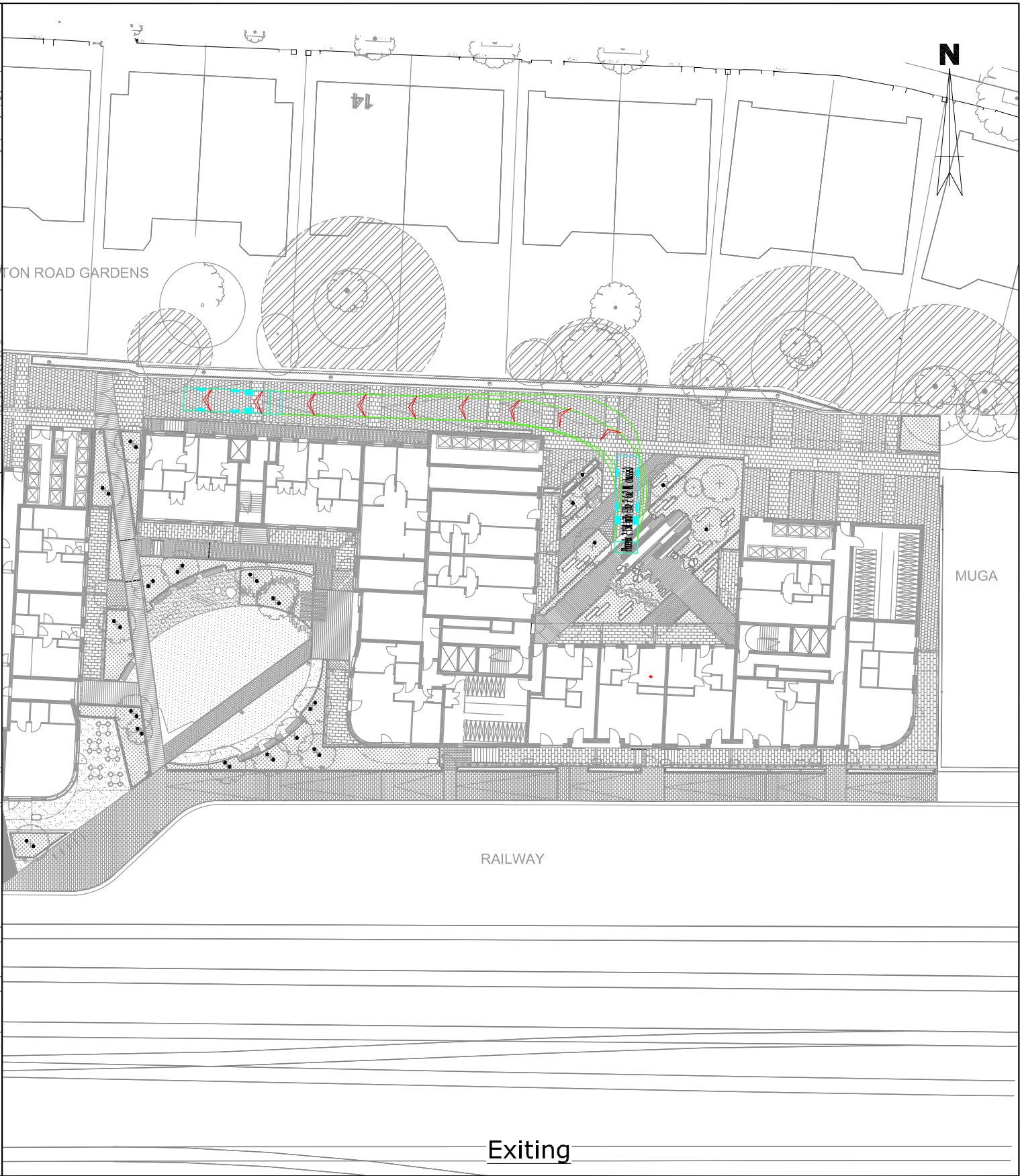
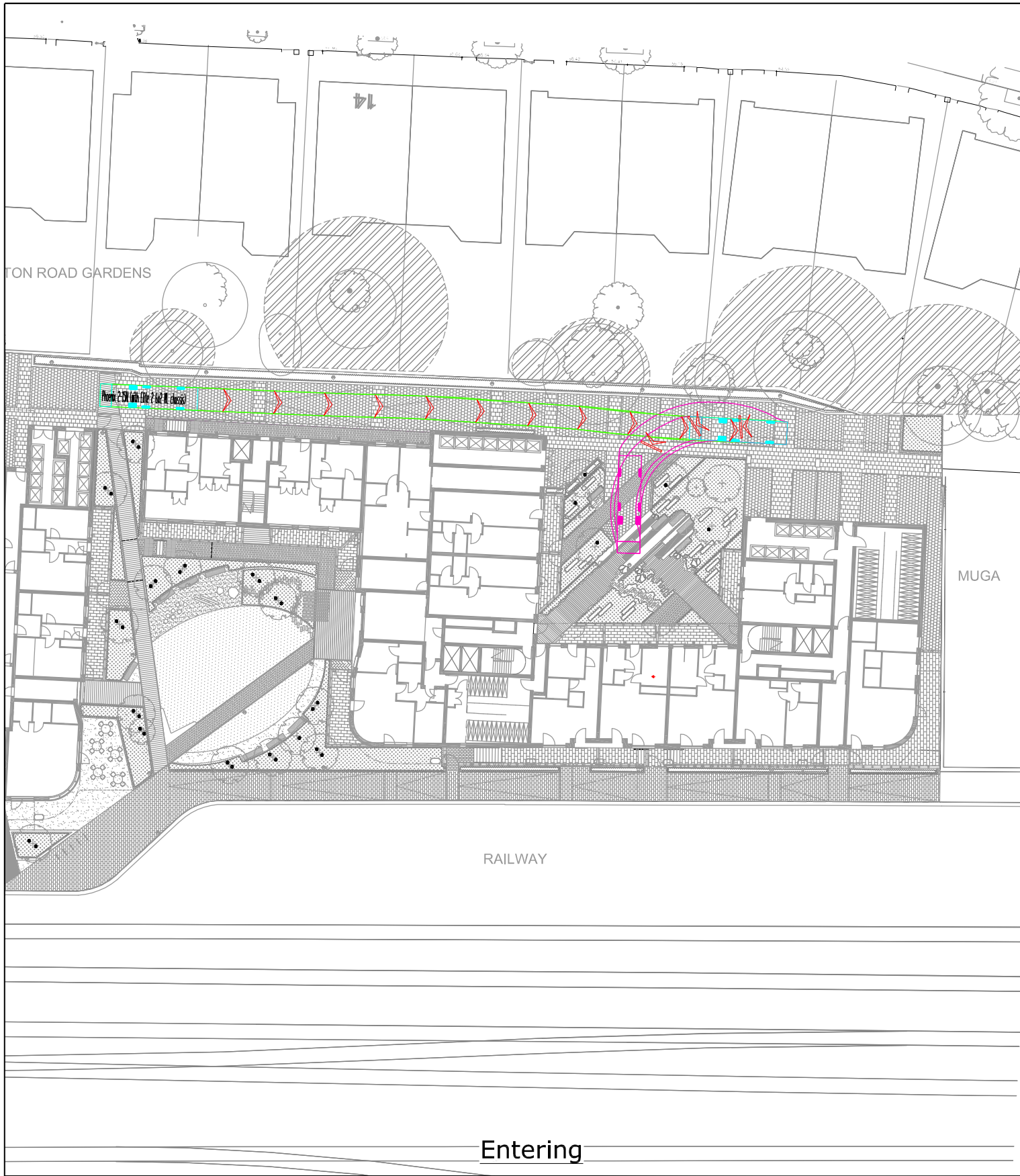


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WEST END LANE, WEST HAMPSTEAD				TRANSPORT PLANNING PRACTICE	
Swept path analysis of a 10.7m articulated vehicle.				70 Cowcross Street London, EC1M 6EL	
t: 020 7608 0008 w: www.tppweb.co.uk				 transport planning practice	
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					REV A



Entering

Exiting

WEST END LANE, WEST HAMPSTEAD

Swept path analysis of a 9.6m refuse vehicle
turning at lower ground level

TRANSPORT PLANNING PRACTICE

70 Cowcross Street
London, EC1M 6EL

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w: www.tppweb.co.uk



DRAWING NUMBER

30760/AC/030

REV

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Based on drawing number D2313 G&LG Floor working .TPP
REF - IN_54.

SCALE @ A3

1:500

DATE

12/10/15

DRAWN BY

LD

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TC



This drawing has been prepared for planning purposes and should not be used for construction.