TECHNICAL NOTE

Project	Kidderpore Avenue
Report Title	Non Material Amendment (S96a) – Hampstead Manor Vehicular Access
Date	21/06/2017
Prepared by	Phil Wilson
Checked by	Derek Griffiths
Approved by	Roy McGowan
Prepared for	Mount Anvil

1.1 Introduction

1.1.1 This note has been prepared by Momentum Transport Planning (MTP) to supplement a non-material amendment to the layout of two vehicular accesses to the Hampstead Manor development at Kidderpore Avenue in the London Borough of Camden (LBC).

1.1.2 The approved development includes the demolition and replacement of three buildings on the northern side of Kidderpore Avenue and their replacement with new residential buildings, the renovation of existing listed buildings, provision of new basement car parking and ancillary uses and landscaping. Planning consent was granted in 2015 (2015/3936/P). The location of the development is shown in figure 1.1 below.

Figure 1.1: Site Location

1.2 Development Proposals

1.2.1 The development proposals incorporate two vehicular accesses onto the site. The layout of both were approved at planning and are described in a Transport Assessment completed to support the planning application for the development by Momentum Transport Planning.

1.2.2 The first, is a new access which is providing access to a proposed two level basement car park located on the west side of the site at Queen Mother's Hall.

1.2.3 The second, utilises the existing access east of the site near Lord Cameron Hall, which would be used to access an external, surface-level delivery and servicing area located next to the Lord Cameron Hall building.

1.2.4 The location and layout of both accesses are shown in figure 1.2.

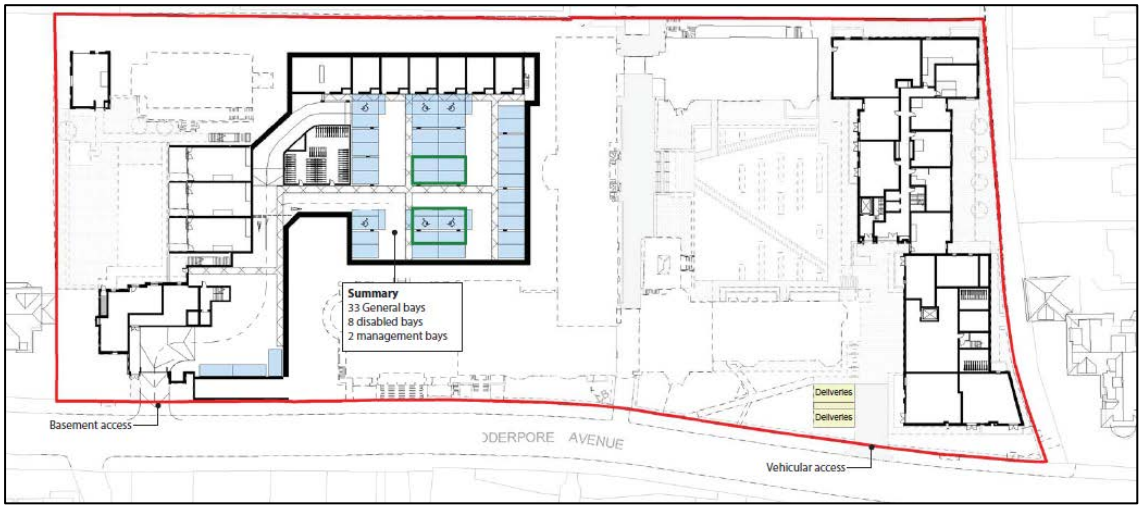


Figure 1.2: Site Accesses

1.2.5 Since the development was granted planning permission, the design has been developed further. Several constraints were raised which since planning, have resulted in minor changes to the layouts of both accesses which now require approval through non-material amendment submitted to LB Camden.

1.3 Amendments to Queen Mother Hall Basement Access

1.3.1 The Queen Mother Hall basement access ramp consists of a new footway crossover and down ramp into a basement below the development. The design is restricted by the existing levels on Kidderpore Avenue which fall steeply to the west and the levels of the first floor of the development which the ramp must pass under while maintaining adequate headroom for vehicles.

1.3.2 At a design team meeting in November 2016 it was highlighted the proposed layout of the ramp (in its current position) would result in substandard vertical geometry resulting in vehicle grounding and steep gradients. The team therefore agreed to "skew" the position of the ramp, to increase the length of the approach ramp and flatten the general profile ramp improving its vertical geometry.

1.3.3 The design was discussed with Camden's highway and planning team on 02/03/2017, where the principles of the layout were agreed. The revised layout is shown in figure 1.3. The following drawings provide further details in Appendix A.

Queen Mother Hall Vehicle Access Plans

- M000076-DP-001-C – General Arrangement
- M000076-DP-002-C – Visibility Splays
- M000076-DP-003-C – Swept Path Analysis
- M000076-DP-004-C – Waste Movements

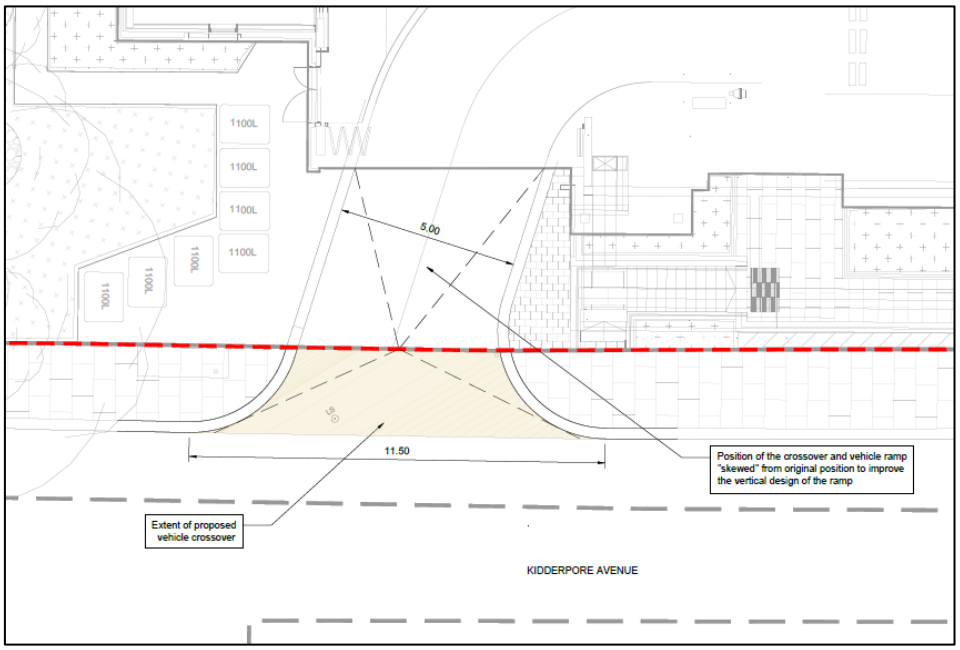


Figure 1.3: Amended layout of the basement access

1.4 Amendments to Lord Cameron Hall Access and Service Area

1.4.1 To cater for deliveries to the development provision was made for an off-street delivery and servicing area accessible from the existing eastern vehicle access to the site. This delivery and servicing area was originally planned to accommodate two bays for vehicles up to 7m in length.

1.4.2 During the detailed design of the area, it was highlighted that the proposed servicing area conflicted with the root protection zone of a nearby tree shown in figure 1.4. The tree is covered by an LBC Tree Preservation order which prevents the cutting of roots without the specific permission of LBC.

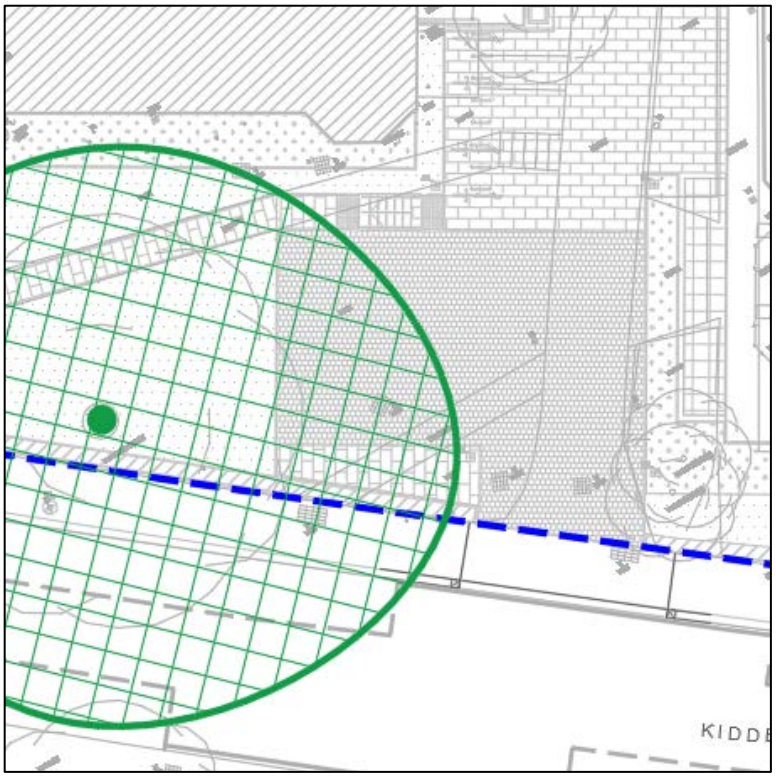


Figure 1.4: Root protection area

1.4.3 MTP explored a number of alternative arrangements for the access, which were presented in a technical note (Appendix C). The note was reviewed by Steve Cardno at LB Camden who confirmed that option 1 was the preference of LB Camden.

1.4.4 Option 1 proposed the reduction of the proposed hardstanding area to minimise encroachment into the root protection area. Two loading bays are no longer achievable with this option and a small turning head is included in place so that vehicles can still enter and exit in forward gear.

1.4.5 The arrangement requires a small section of the root zone to be cut into, however trial holes (available on request) undertaken recently on behalf of the Landscape Architect (Fabrik). showed that there is little evidence of root growth in this area.

1.4.6 The revised design is shown in figure 1.5 below, the following drawings provide further details in Appendix B

Lord Cameron Hall Vehicle Access Plans

- M000076-DP-005-C – General Arrangement
- M000076-DP-006-C – Visibility Splays
- M000076-DP-007-C – Swept Path Analysis
- M000076-DP-008-C – Waste Movements

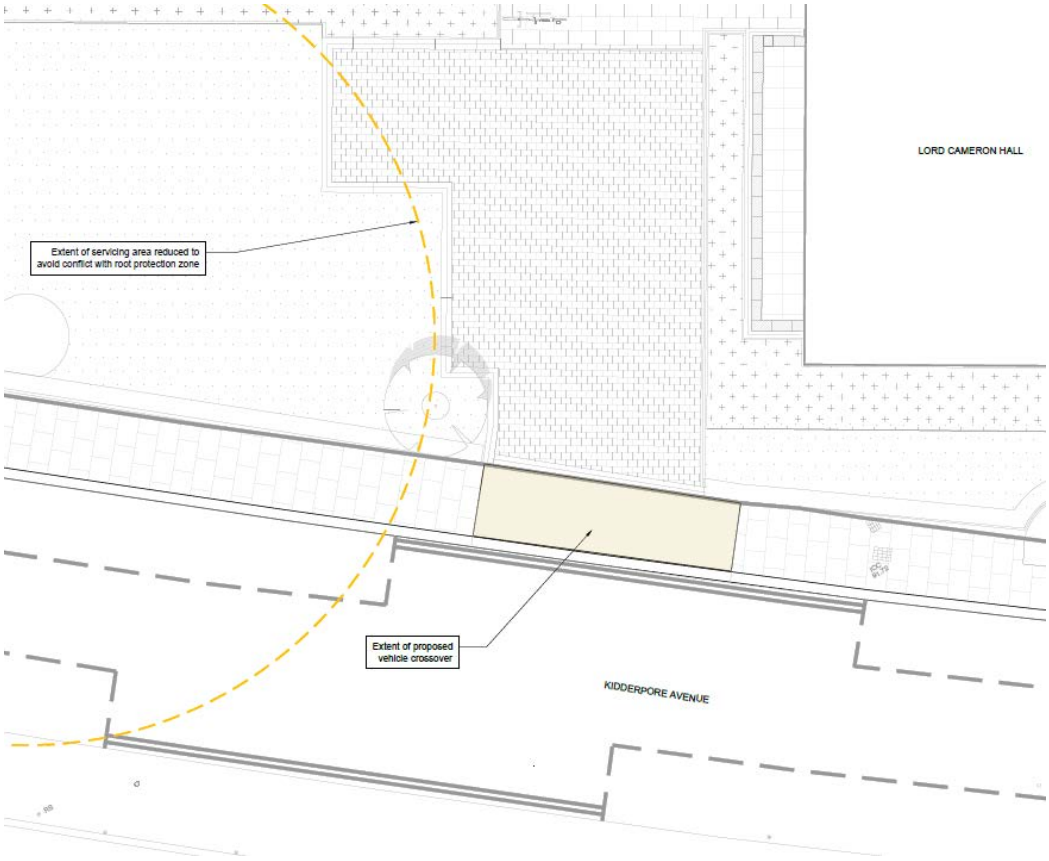
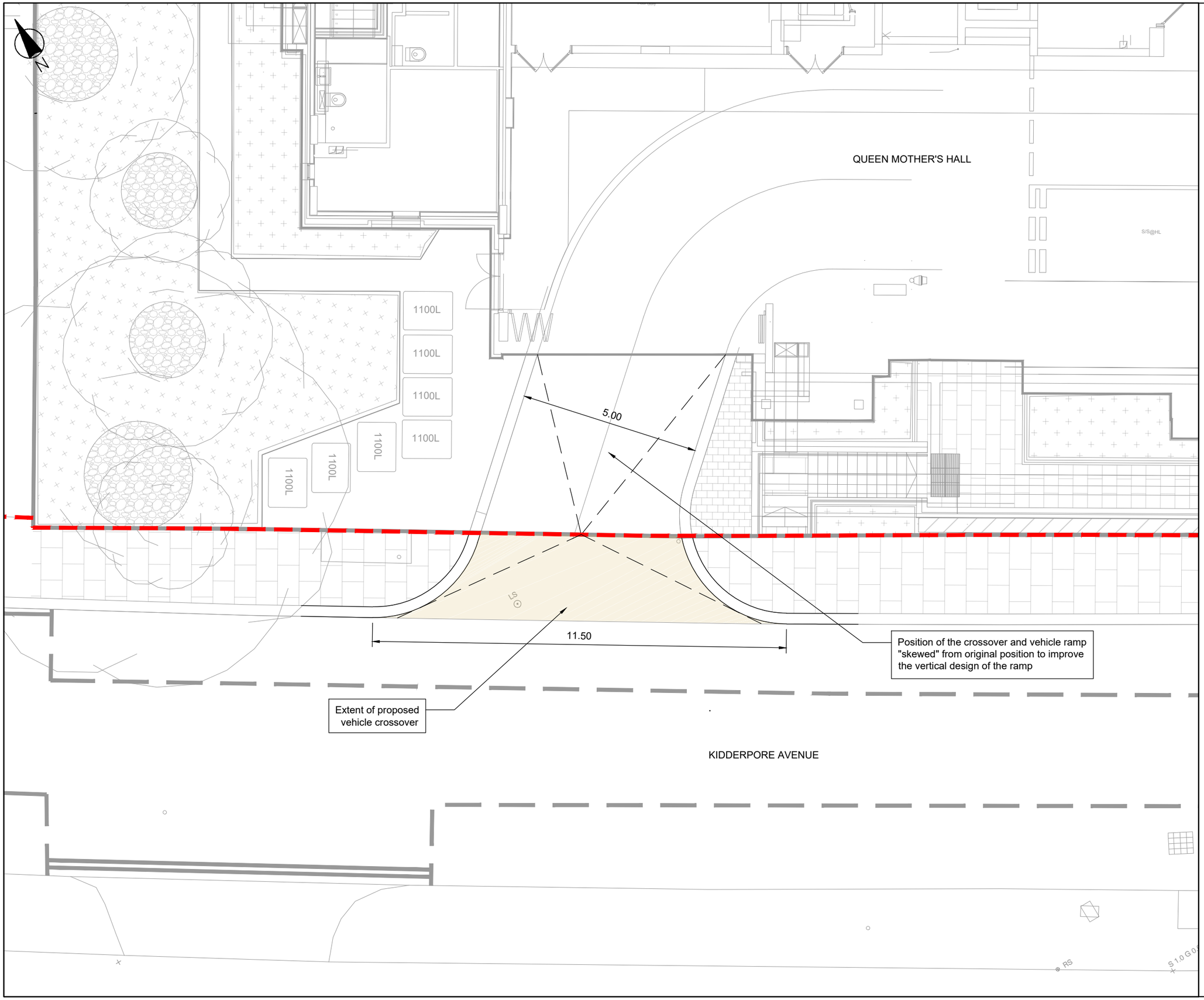


Figure 1.4: Amended layout of Lord Cameron Hall Access

APPENDIX A – QUEEN MOTHER HALL VEHICLE ACCESS PLANS



NOTES

1. Do not scale from this drawing, work to figured dimensions only.
2. Dimensions are in metres unless stated otherwise.
3. This drawing is based on topographical survey information provided by Murphy Surveys (Oct 2015), drawing number 1330-01-09.

KEY

- Existing highway boundary
- Proposed Access
- Proposed vehicle crossover extents

FOR APPROVAL

Rev	Date	By	Remarks	Chkd	Appd
C	12/06/17	IH	Issued to Camden Council	PW	DHG
B	23/05/17	IH	Issued to Camden Council	PW	DHG
A	02/05/17	YS	First Issue	PW	DHG

momentum transport planning

Client

MOUNT ANVIL

Job Title

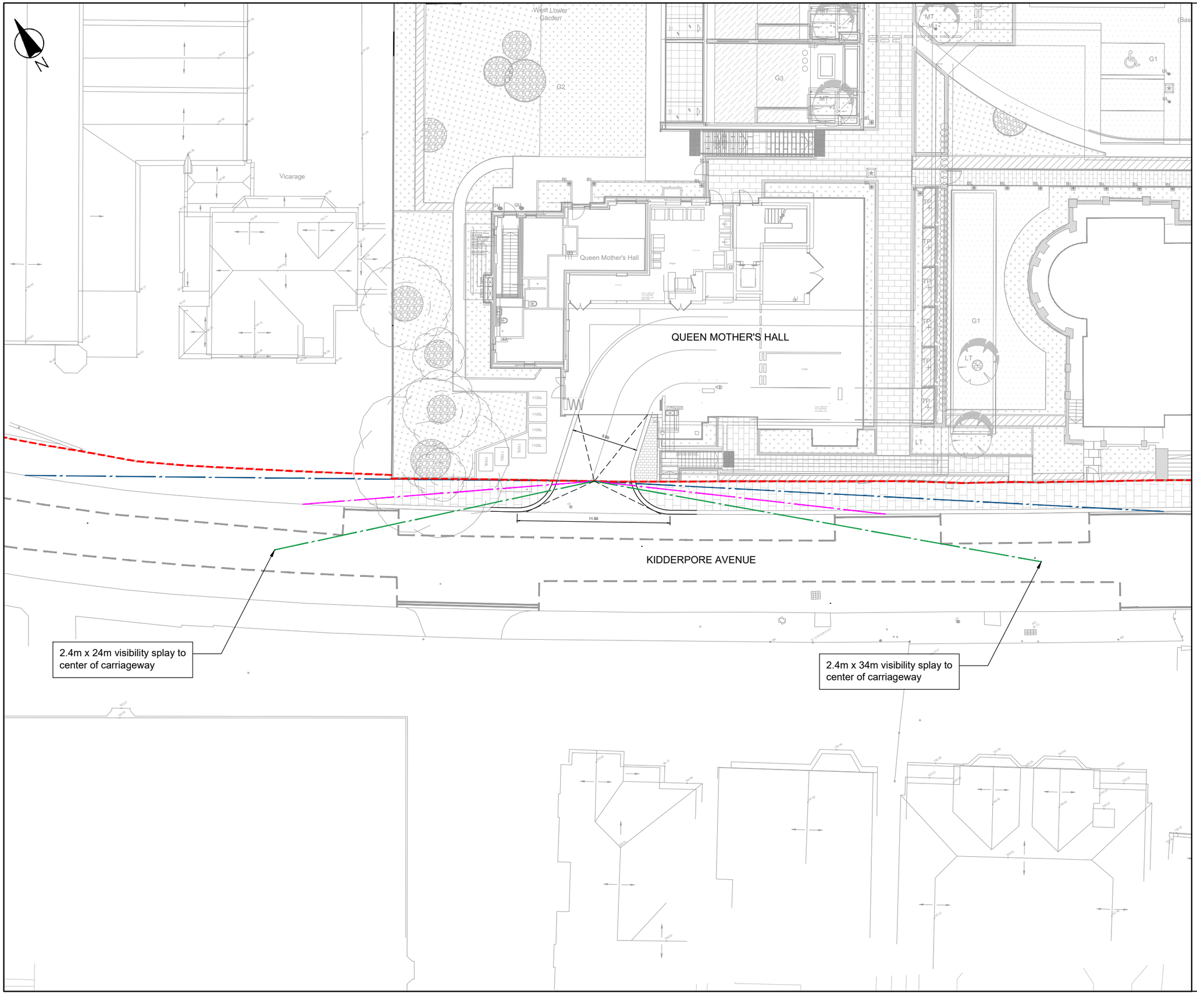
KIDDERPORE AVENUE

Drawing Title

QUEEN MOTHER'S HALL
PROPOSED VEHICLE ACCESS
GENERAL ARRANGEMENT

Scale at A3 1:100

Job No	Drawing No	Issue
M000076	M000076-DP-001	C



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3. This drawing is based on topographical survey information provided by Murphy Surveys (Oct 2015), drawing number 1330-01-09.

KEY

- Existing highway boundary
- Proposed Access
- 2.4m x 43m Visibility Splay (MfS @ 30mph) to kerbline
- 2.4m x 22m Visibility Splay (MfS @ 20mph) to kerbline
- 2.4m x Achievable Visibility Splay to center of carriageway

FOR APPROVAL

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C	12/06/17	IH	Issued to Camden Council	PW	DHG
B	23/05/17	IH	Issued to Camden Council	PW	DHG
A	02/05/17	YS	First Issue	PW	DHG

momentum transport planning

Client

MOUNT ANVIL

Job Title

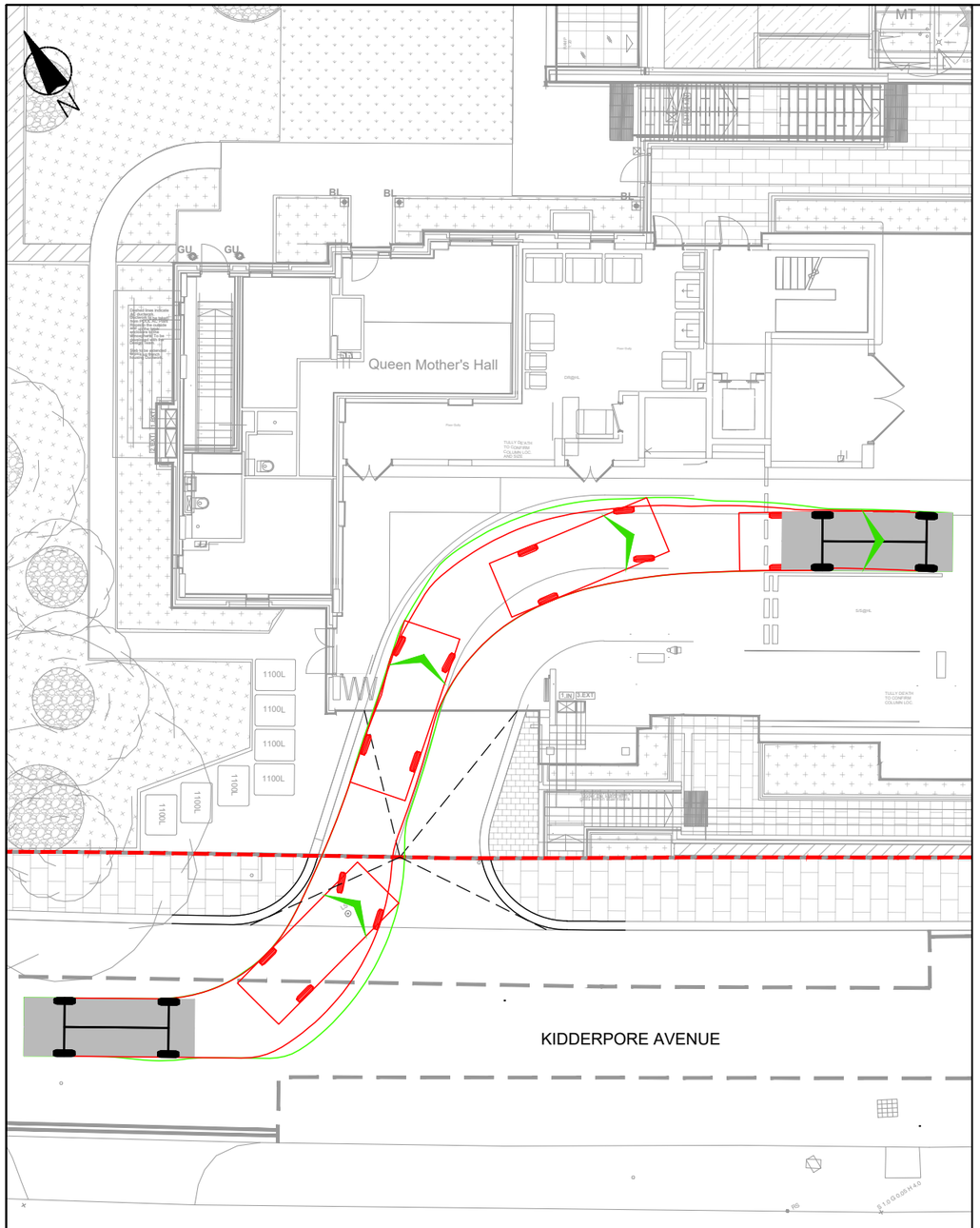
KIDDERPORE AVENUE

Drawing Title

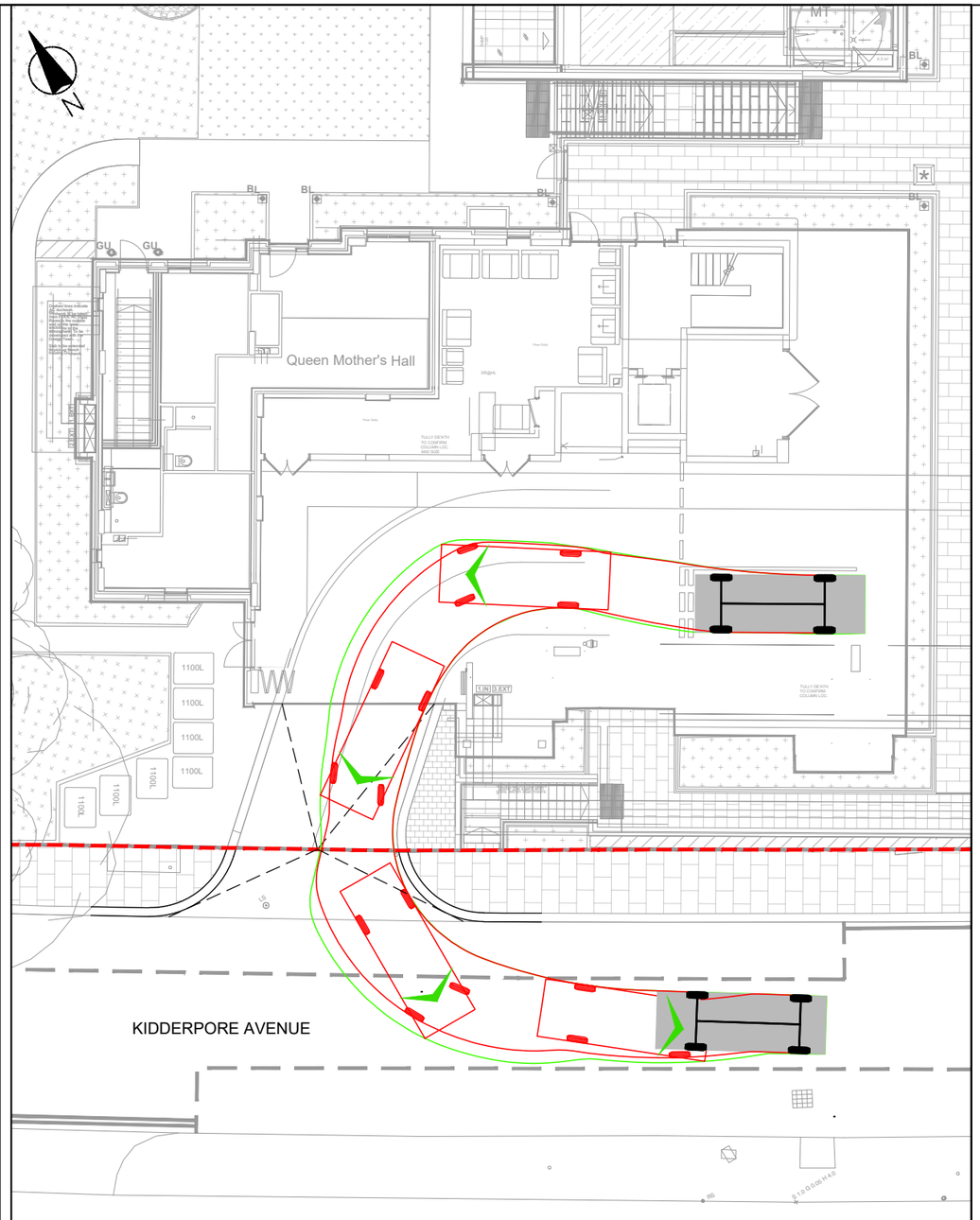
QUEEN MOTHER'S HALL
PROPOSED VEHICLE ACCESS
VISIBILITY SPLAYS

Scale at A3 NTS

Job No	Drawing No	Issue
M000076	M000076-DP-002	C



VEHICLE ENTRY MANOEUVRE



VEHICLE EXIT MANOEUVRE

NOTES

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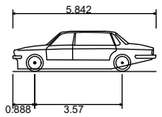
3. This drawing is based on topographical survey information provided by Murphy Surveys (Oct 2015), drawing number 1330-01-09.

KEY

Existing highway boundary

Proposed Access

VEHICLE PROFILE



Phantom	
Overall Length	5.842m
Overall Width	1.990m
Overall Body Height	1.640m
Min Body Ground Clearance	0.100m
Track Width	1.990m
Lock to lock time	2.00s
Kerb to Kerb Turning Radius	6.900m

FOR APPROVAL

Rev	Date	By	Remarks	Chkd	Appd
C	12/06/17	IH	Issued to Camden Council	PW	DHG
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A	02/05/17	YS	First Issue	PW	DHG

momentum transport planning

Client

MOUNT ANVIL

Job Title

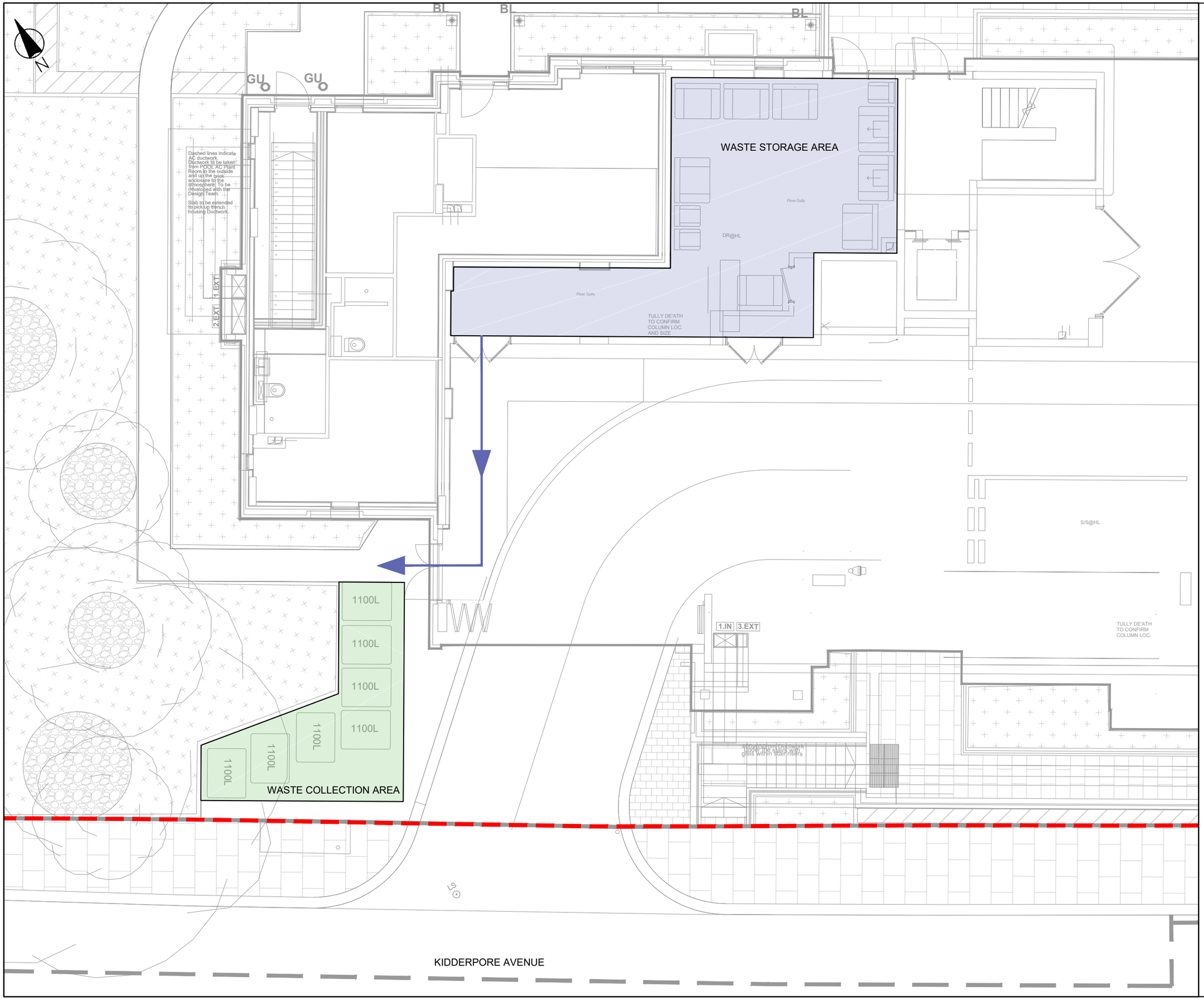
KIDDERPORE AVENUE

Drawing Title

QUEEN MOTHER'S HALL
PROPOSED VEHICLE ACCESS
VEHICLE SWEPT PATHS
LARGE CAR

Scale at A3 1:200

Job No	Drawing No	Issue
M000076	M000076-DP-003	C



NOTES

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3. This drawing is based on topographical survey information provided by Murphy Surveys (Oct 2015), drawing number 1330-01-09.

KEY

- Existing highway boundary
- Proposed Access
- Waste storage area
- Waste collection area
- Bin route to waste collection area

FOR APPROVAL

Rev	Date	By	Remarks	Chkd	Appd
C	12/06/17	IH	Issued to Camden Council	PW	DHG
B	23/05/17	IH	Issued to Camden Council	PW	DHG
A	02/05/17	YS	First Issue	PW	DHG

momentum transport planning

Client

MOUNT ANVIL

Job Title

KIDDERPORE AVENUE

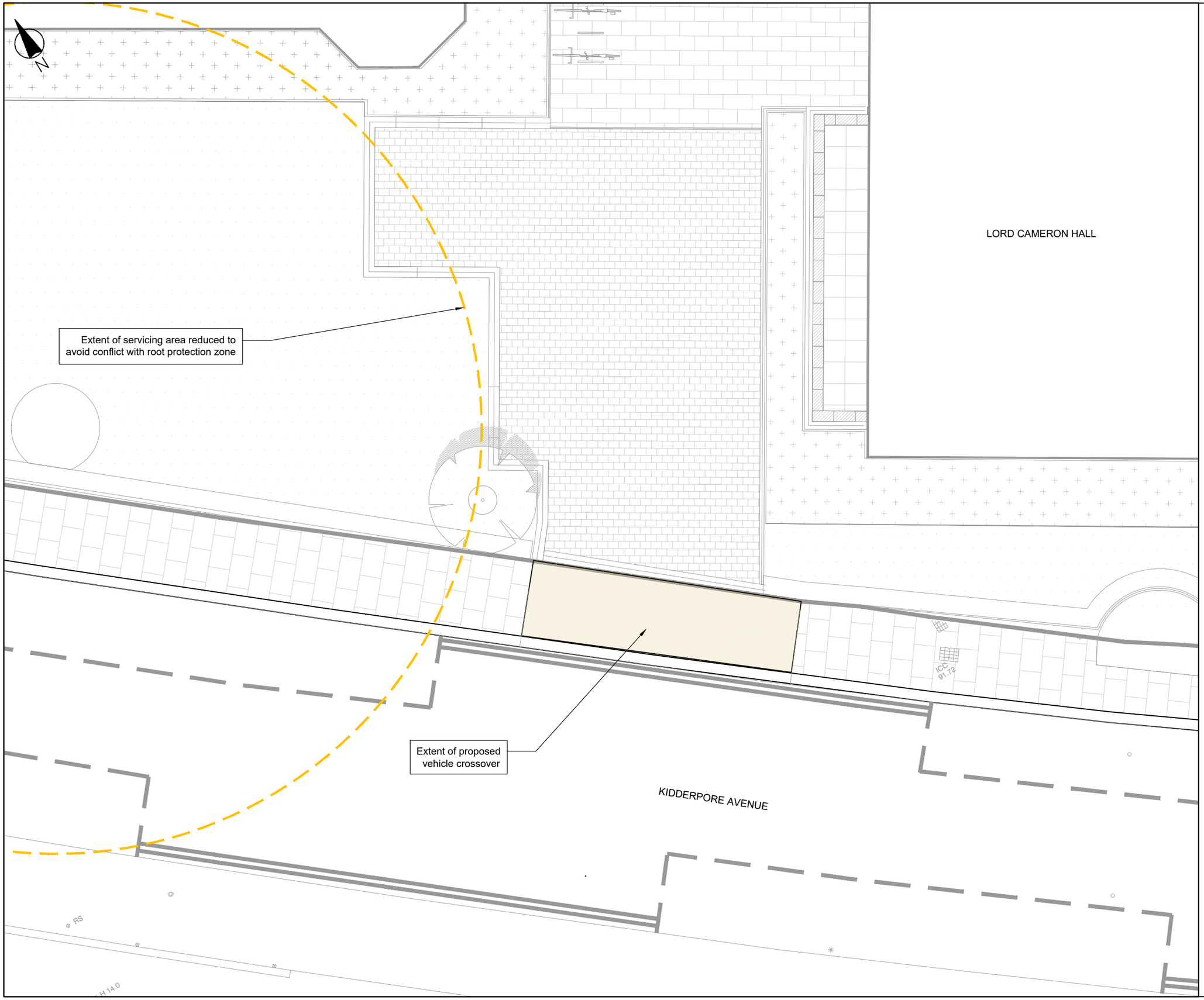
Drawing Title

QUEEN MOTHER'S HALL
PROPOSED VEHICLE ACCESS
WASTE MOVEMENTS

Scale at A3 1:100

Job No	Drawing No	Issue
M000076	M000076-DP-004	C

APPENDIX B – LORD CAMERON HALL VEHICLE ACCESS PLANS



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3. This drawing is based on topographical survey information provided by Murphy Surveys (Oct 2015), drawing number 1330-01-09.

KEY

- Existing highway boundary
- Proposed vehicle crossover extents
- Extent of root protection zone

FOR APPROVAL

Rev	Date	By	Remarks	Chkd	Appd
C	12/06/17	IH	Issued to Camden Council	PW	DHG
B	23/05/17	IH	Issued to Camden Council	PW	DHG
A	02/05/17	YS	First Issue	PW	DHG

momentum transport planning

Client

MOUNT ANVIL

Job Title

KIDDERPORE AVENUE

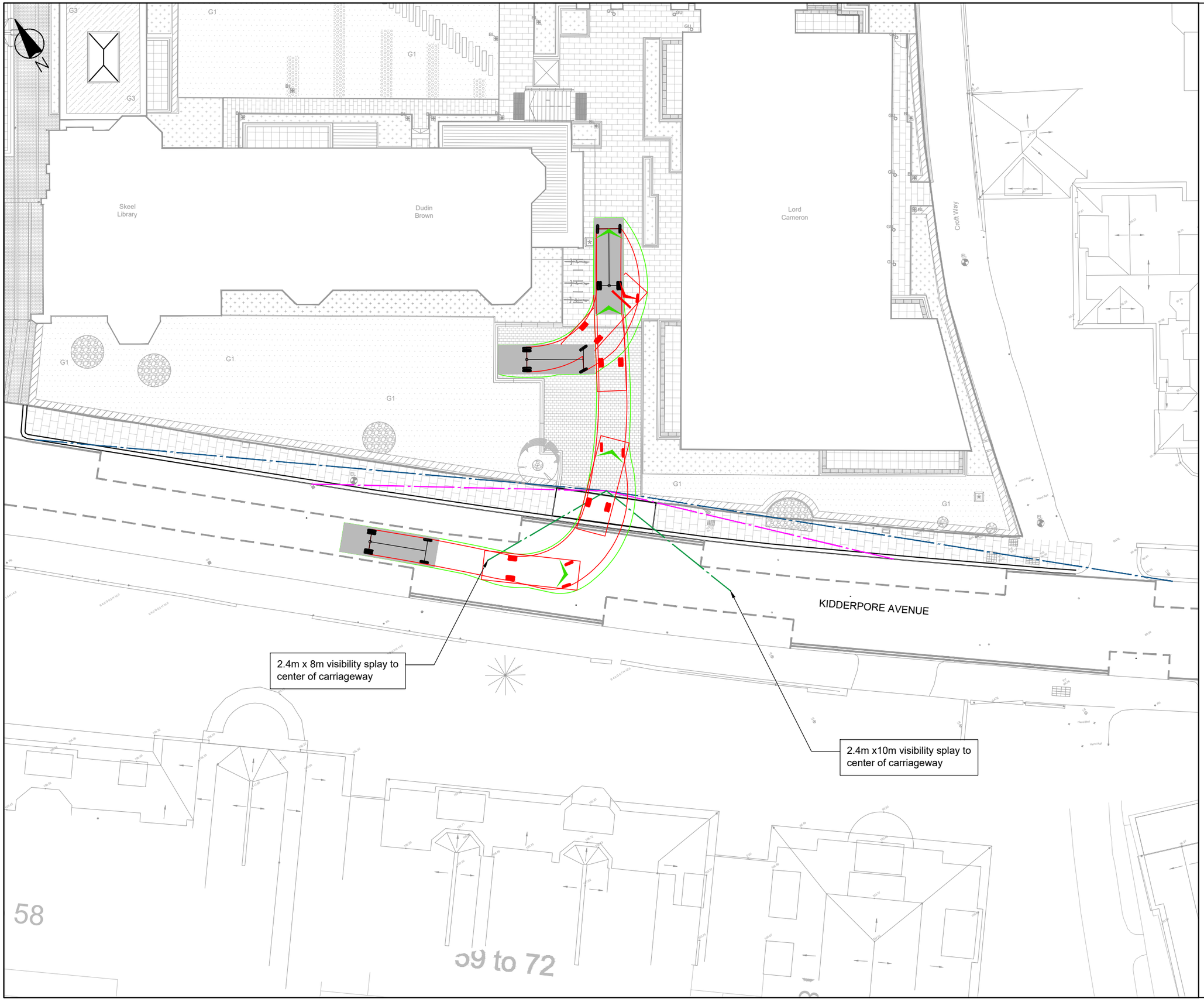
Drawing Title

LORD CAMERON HALL
PROPOSED VEHICLE ACCESS
GENERAL ARRANGEMENT

Scale at A3

1:100

Job No	Drawing No	Issue
M000076	M000076-DP-005	C



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KEY

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- 2.4m x 43m Visibility Splay (MfS @ 30mph) to kerbline
- 2.4m x 22m Visibility Splay (MfS @ 20mph) to kerbline
- 2.4m x Achievable Visibility Splay to center of carriageway

FOR APPROVAL

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A	02/05/17	YS	First Issue	PW	DHG

momentum transport planning

Client

MOUNT ANVIL

Job Title

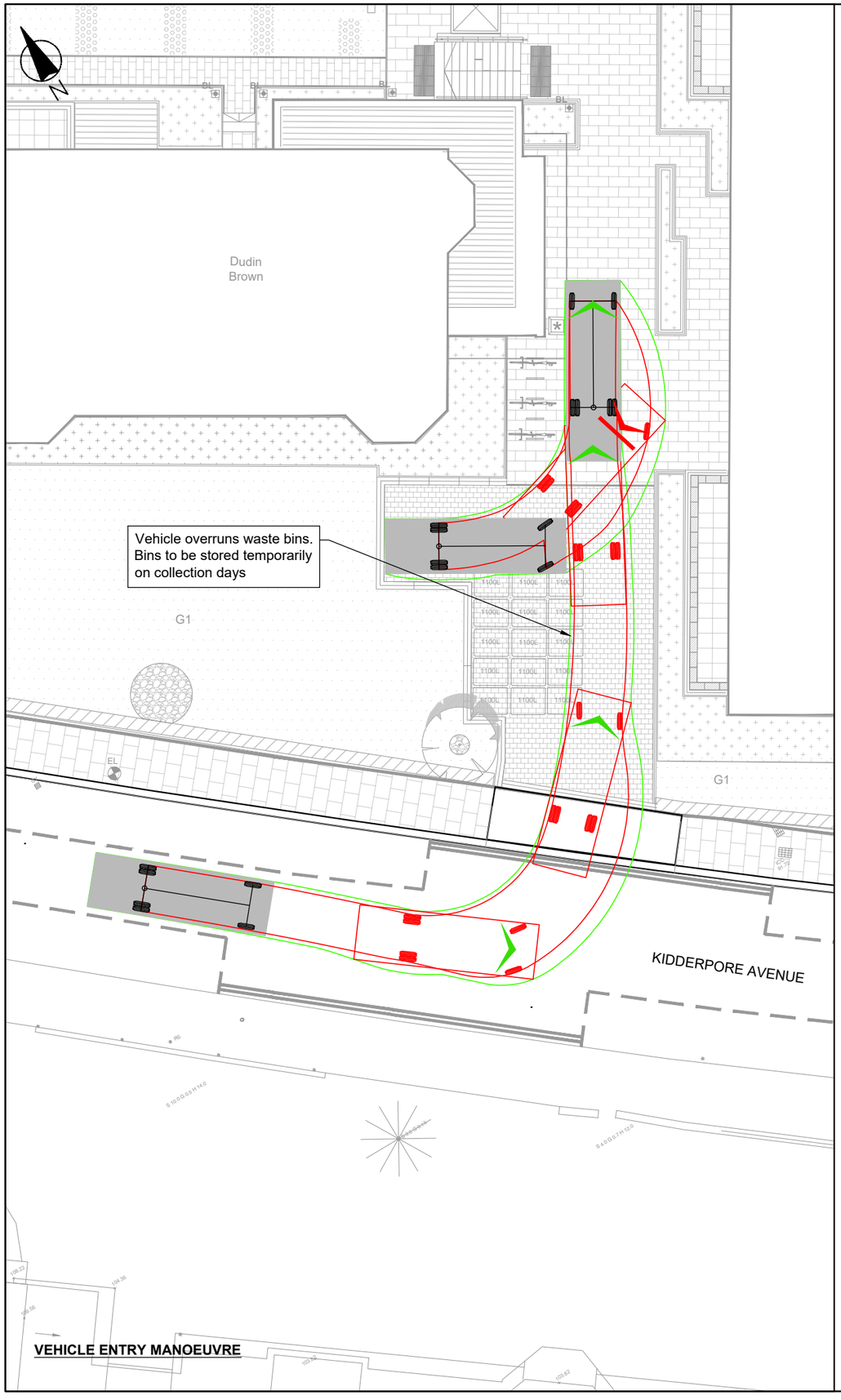
KIDDERPORE AVENUE

Drawing Title

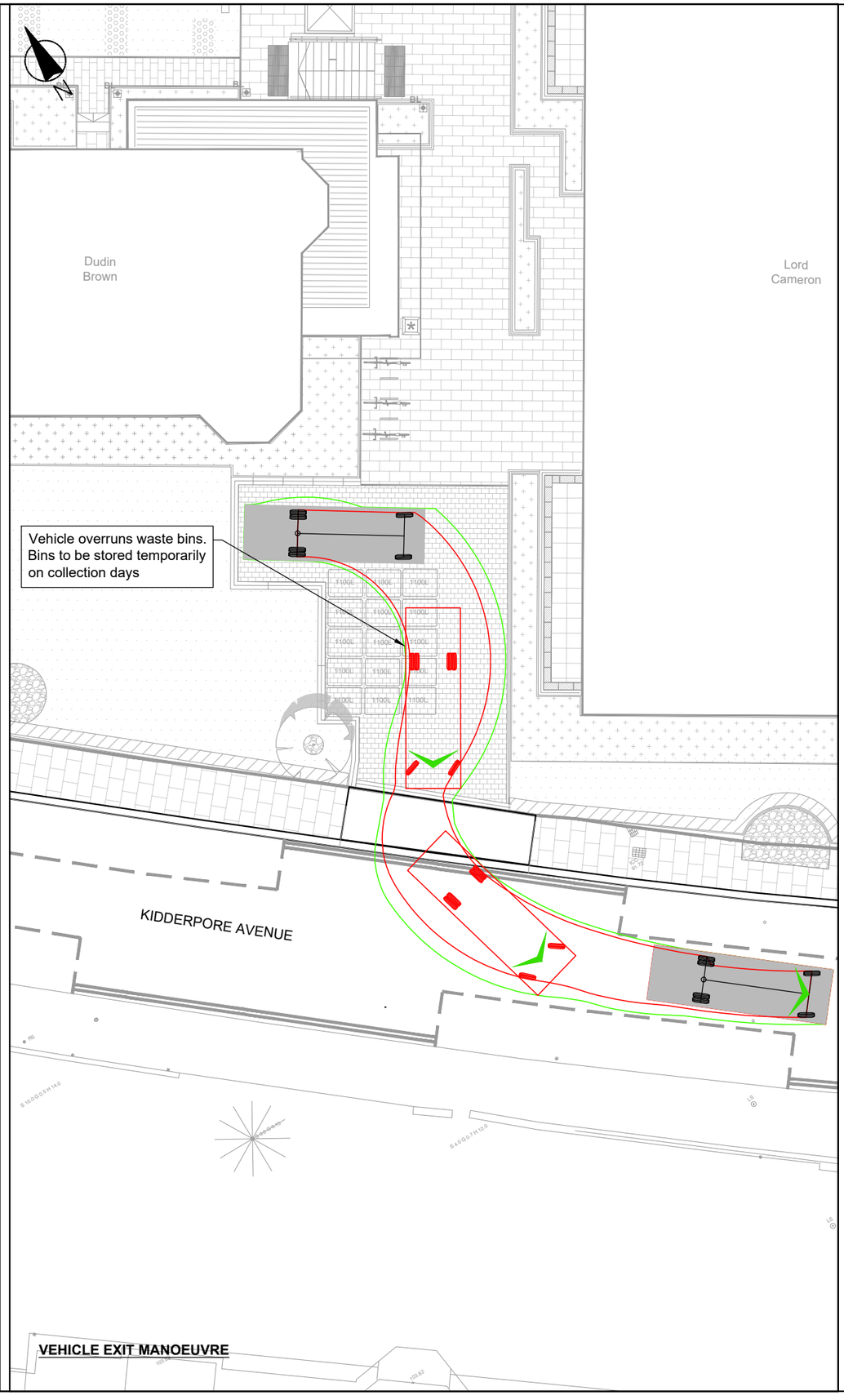
LORD CAMERON HALL
PROPOSED VEHICLE ACCESS
VISIBILITY SPLAYS

Scale at A3 NTS

Job No	Drawing No	Issue
M000076	M000076-DP-006	C



VEHICLE ENTRY MANOEUVRE



VEHICLE EXIT MANOEUVRE

NOTES

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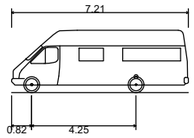
3. This drawing is based on topographical survey information provided by Murphy Surveys (Oct 2015), drawing number 1330-01-09.

KEY

Existing highway boundary

Proposed Access

VEHICLE PROFILE



7.5t Panel Van	
Overall Length	7.210m
Overall Width	2.192m
Overall Body Height	2.544m
Min Body Ground Clearance	0.316m
Track Width	1.865m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.400m

FOR APPROVAL

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momentum transport planning

Client

MOUNT ANVIL

Job Title

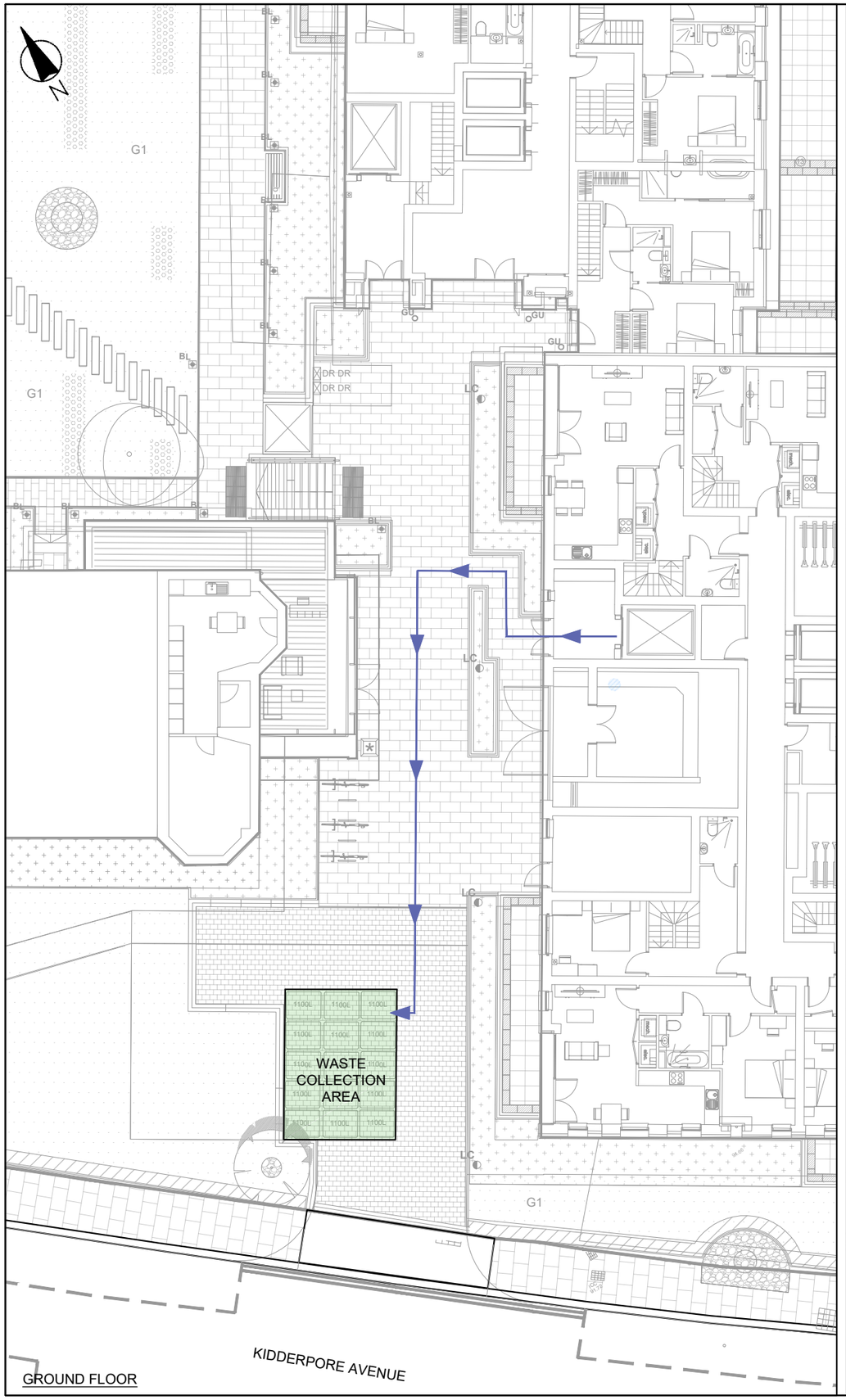
KIDDERPORE AVENUE

Drawing Title

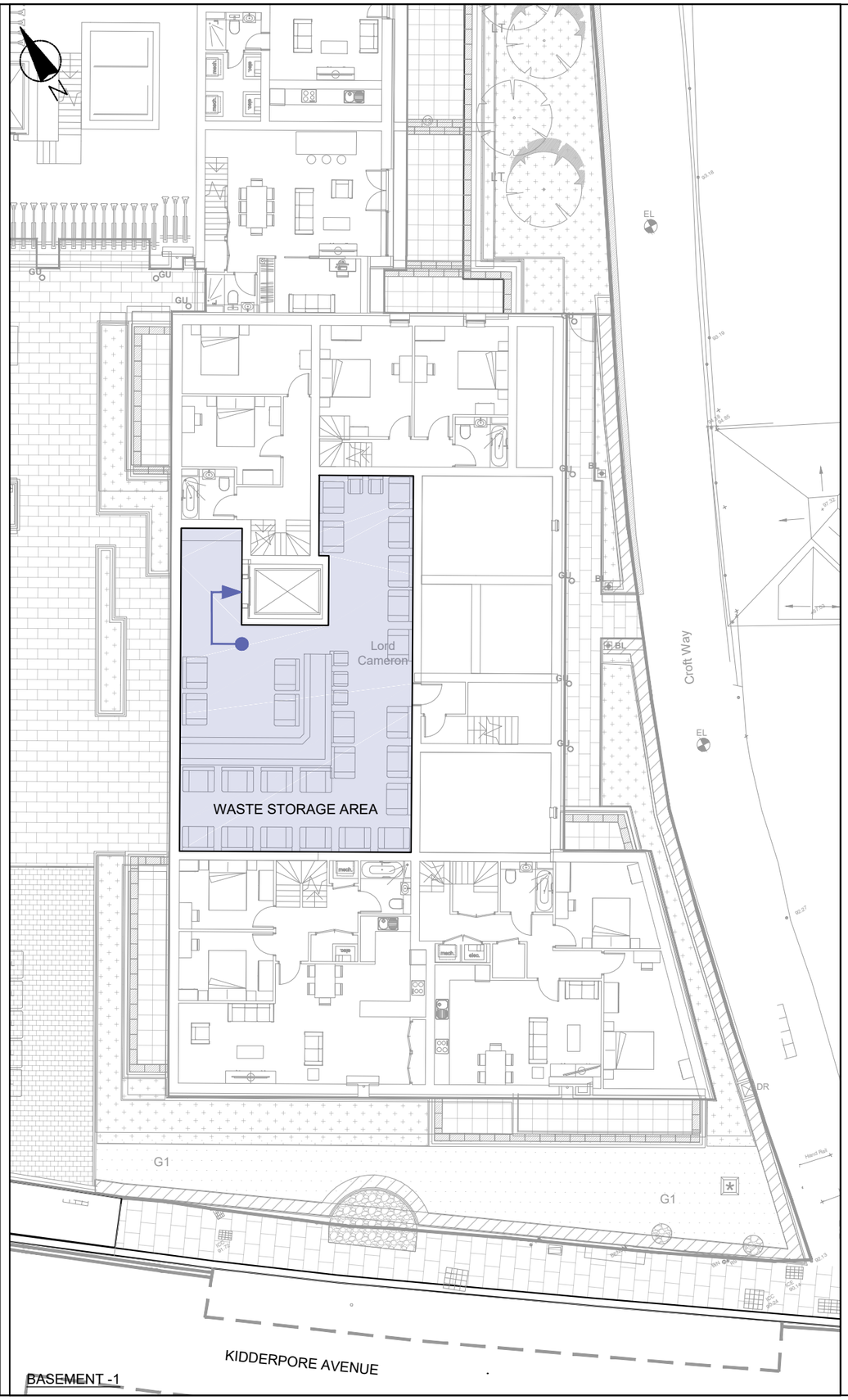
LORD CAMERON HALL
PROPOSED VEHICLE ACCESS
VEHICLE SWEPT PATHS
(SERVICING)

Scale at A3 1:200

Job No	Drawing No	Issue
M000076	M000076-DP-007	C



GROUND FLOOR



BASEMENT -1

NOTES

1. Do not scale from this drawing, work to figured dimensions only.
2. Dimensions are in metres unless stated otherwise.
3. This drawing is based on topographical survey information provided by Murphy Surveys (Oct 2015), drawing number 1330-01-09.
4. Bins to be stored in the basement storage area of the development. On collection days bins are to be moved to the collection area immediately before collection to minimise blocking of the vehicle access.

KEY

- Existing highway boundary
- Proposed Access
- Waste storage area
- Waste collection area
- Bin route to waste collection area

FOR APPROVAL

Rev	Date	By	Remarks	Chkd	Appd
C	12/06/17	IH	Issued to Camden Council	PW	DHG
B	23/05/17	IH	Issued to Camden Council	PW	DHG
A	02/05/17	YS	First Issue	PW	DHG

momentum transport planning

Client

MOUNT ANVIL

Job Title

KIDDERPORE AVENUE

Drawing Title

LORD CAMERON HALL
PROPOSED VEHICLE ACCESS
WASTE MOVEMENTS

Scale at A3 1:200

Job No	Drawing No	Issue
M000076	M000076-DP-008	C

APPENDIX C – LORD CAMERON HALL TECHNICAL NOTE

TECHNICAL NOTE

Project	Kidderpore Avenue
Report Title	Service Access Technical Note
Date	30/06/2016
Prepared by	Phil Wilson
Checked by	Derek Griffiths
Approved by	Roy McGowan
Prepared for	Mount Anvil

1.1 Introduction

1.1.1 This technical note has been prepared by Momentum Transport Planning (MTP) to discuss the potential servicing routes to the development proposed on Kidderpore Avenue in the London Borough of Camden (LBC).

1.1.2 MTP have been approached by the landscape architects for the site (Fabrik) who have highlighted concerns that the approved site layout may compromise a mature tree within the site.

1.1.3 MTP discussed this issue with LBC during a site visit of 26 April 2016 (attended by Allan Trulock and Derek Griffiths of MTP, and Steve Cardno of LBC), and provided further feedback to LBC at a design meeting on 03 June 2016 (attended by Derek Griffiths and Phil Wilson of MTP, and Steve Cardno of LBC). LBC requested that the key design issues be considered and summarised, and potential that alternative approaches be outlined in a technical note.

1.1.4 This note investigates the concerns raised, and provides advice on potential alternative options for the consideration of Mount Anvil and LBC to find an appropriate route forward.

1.2 Approved Development Proposals

1.2.1 The approved development includes the demolition and replacement of three buildings on the northern side of Kidderpore Avenue, their replacement with new residential buildings, the renovation of existing listed buildings, provision of new basement car parking and ancillary uses, and landscaping. This is shown in figure 1.1 below.

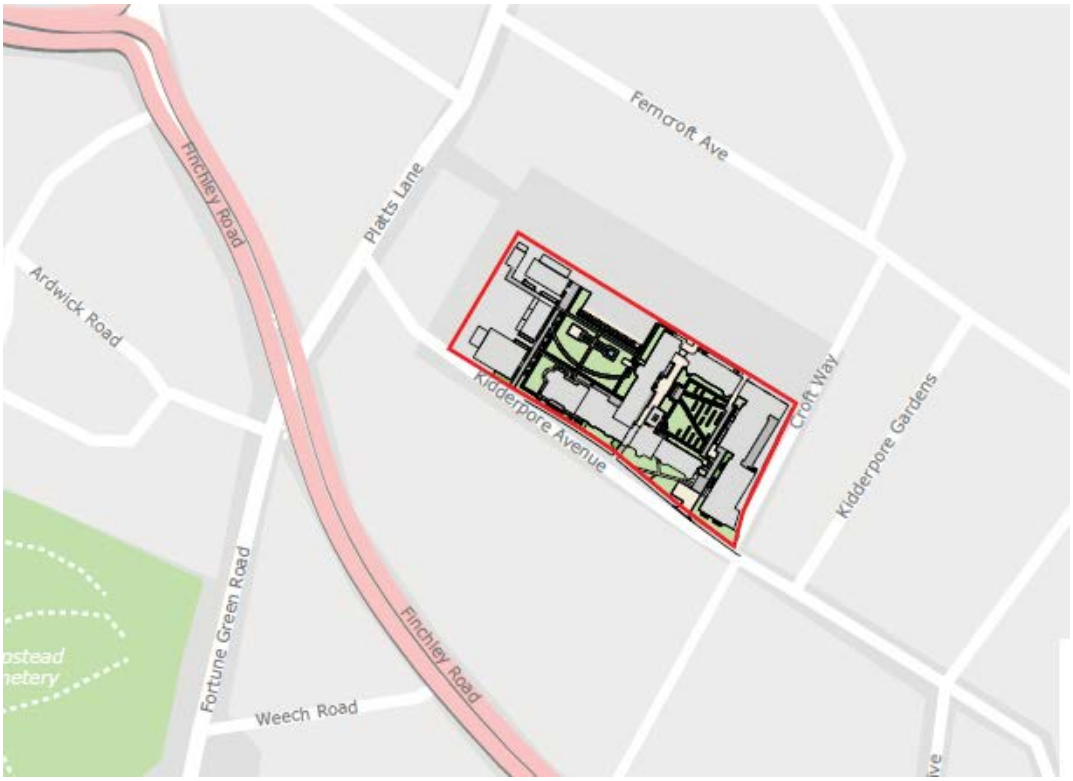


Figure 1.1: Site Location

1.2.2 The development proposals incorporate two vehicular accesses onto the site:

- The first to a new two level basement car park located on the west side of the site at Queen Mother's Hall.
- The second, utilising the existing access east of the site near Lord Cameron Hall, which would be used to access an external, surface-level delivery and servicing area located next to the Dudin Brown building.

1.2.3 The locations of both accesses are shown in figure 1.2.

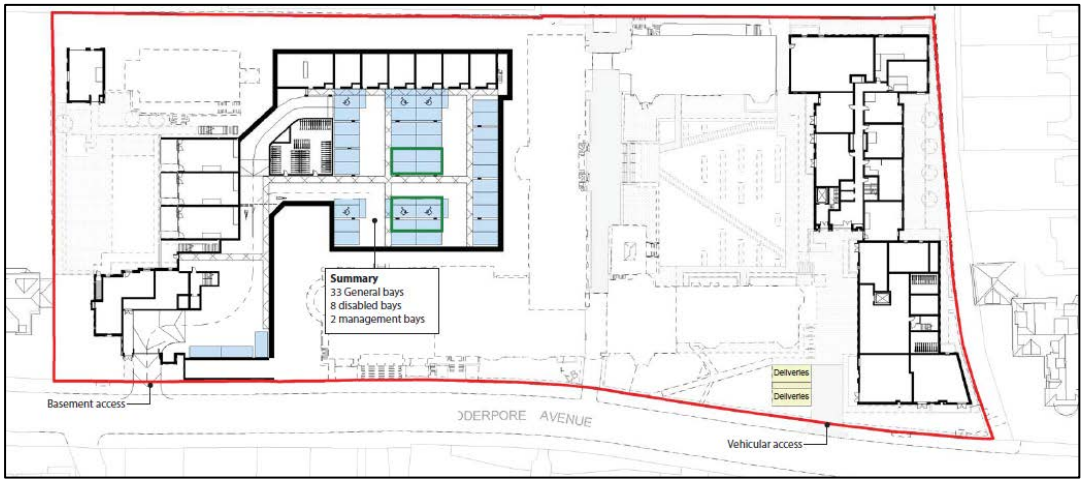


Figure 1.2: Site Accesses

Consented servicing arrangements

1.2.4 The number of delivery and servicing vehicle trips associated with the proposed Kidderpore Avenue (North) development has been estimated as 15 deliveries a day (refer to the Kidderpore Avenue Transport Assessment completed by MTP in 2015 for further information)

1.2.5 To cater for these delivery vehicles, the development proposals include the provision of an off-street delivery and servicing area accessible from the existing eastern vehicle access to the site. This delivery and servicing area was originally planned to accommodate two bays for vehicles up to 7m in length, However this has been reduced to a single bay which was determined to be adequate provision for the residential servicing of the development.

1.2.6 This provision was also made for delivery vehicles to allow them to enter and exit the site in a forward gear to access the two proposed delivery bays, this was a condition of the original design brief. The agreed arrangement is shown in Figure 1.3.

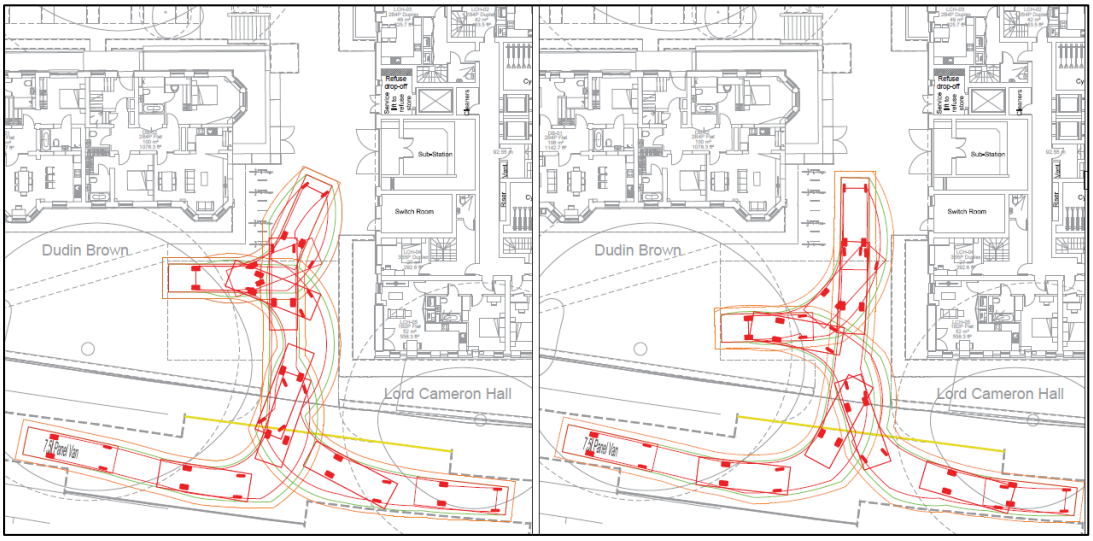


Figure 1.3: Consented servicing arrangements

Design Issues

1.2.7 During the detailed design of the servicing area, being undertaken by the landscape architect, it was highlighted that the proposed servicing area conflicted with the root protection area of a nearby tree covered by a LBC Tree Preservation order. Such an order prevents (among other things) the cutting of roots without the specific permission of LBC. The tree can be seen on the left side of the existing access in Figure 1.3. The red areas represent the approximate position of the proposed expanded vehicle access and loading bays.

Figure 1.3 Consented servicing arrangements

1.2.8 The estimated root zone of the tree is shown in green hatching in Figure 1.4, and it can be seen that the zone clashes with the proposed loading bays.

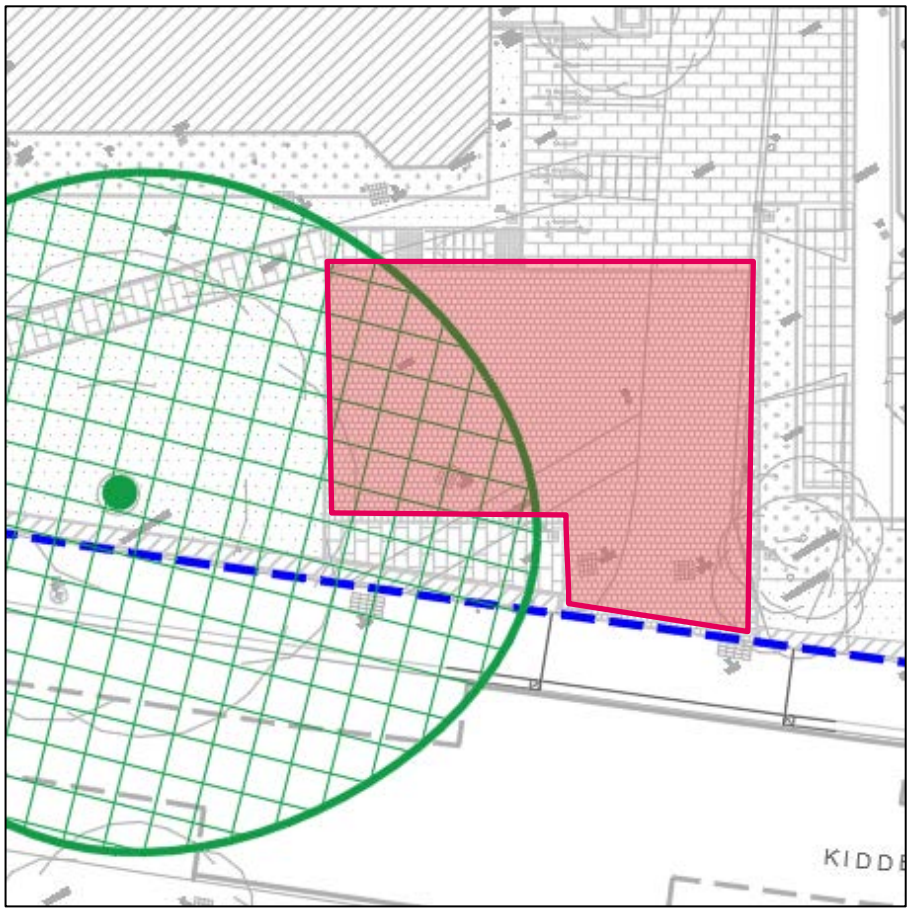


Figure 1.4: Root protection area

1.2.9 MTP and Fabrik have undertaken a review of the levels within the site to determine how the loading bay could be raised to a level that would allow for a 'no dig' solution that would minimise the impact on the tree roots (albeit increasing the potential impact of high sided vehicles on the tree canopy). This analysis has shown that any hardstanding in this area would be required to be lower than the existing levels to tie into the existing access whilst achieving acceptable gradients across the area.

1.2.10 As a result of this analysis, it is considered that this option is no longer viable without detriment to the tree. As such, we have considered potential alternative approaches to allow for servicing and deliveries.

1.3 Proposed Alternatives – Option 1

1.3.1 Option 1, shown in figure 1.5, proposes the reduction of the proposed hardstanding area to minimise encroachment into the root protection area. The two loading bays are no longer achievable with this option with a small turning head included instead so that vehicles can still enter and exit in forward gear.

1.3.2 The reduction in space with this arrangement means only one delivery vehicle can access the area at a time, and were two vehicles to arrive at the same time, one would be required to wait on street. The tighter turning movements also mean at least two of the proposed cycle stands would need to be relocated.

1.3.3 The arrangement requires a small section of the root zone to be cut into, however trial holes undertaken recently to inform Fabrik's work show that there is little evidence of root growth in this area.

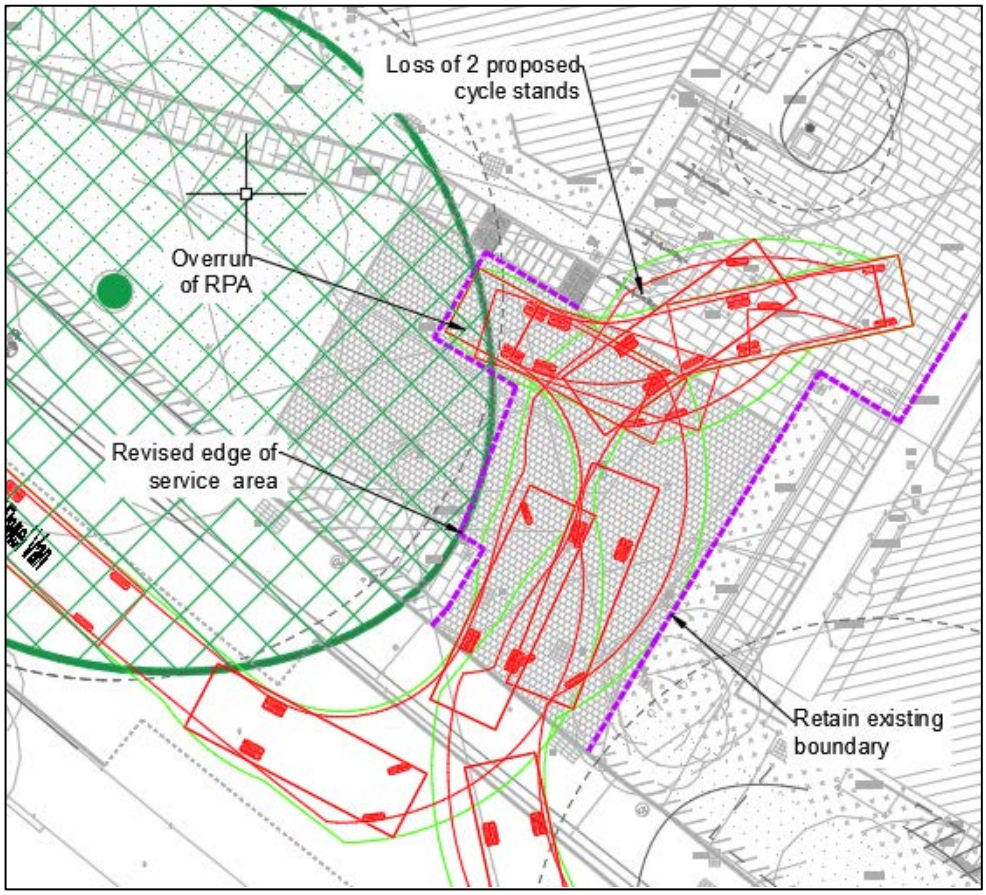


Figure 1.5: Option 1

1.4 Proposed Alternatives – Option 2

1.4.1 Option 2, shown in figure 1.6, is similar to option 1 and proposes the reduction of the proposed hardstanding area to minimise encroachment into the root protection area. The hardstanding area is instead expanded on the east side to the edge of the proposed building terrace. By doing so a smaller section of the root protection area is cut into.

1.4.2 As with option 1 the two loading bays are no longer achievable with this option with a small turning head included instead so that vehicles can still enter and exit in forward gear.

1.4.3 The reduction in space with this arrangement means that only one delivery vehicle can access the area at a time. Additional vehicles will be required to wait on street. The tighter turning movements also mean at least one of the proposed cycle stands will need to be relocated to facilitate turning movements.

1.4.4 It is also noted that the landscape architect feels the loss of the landscaping on the southeastern edge would be detrimental to the wider landscaping scheme.

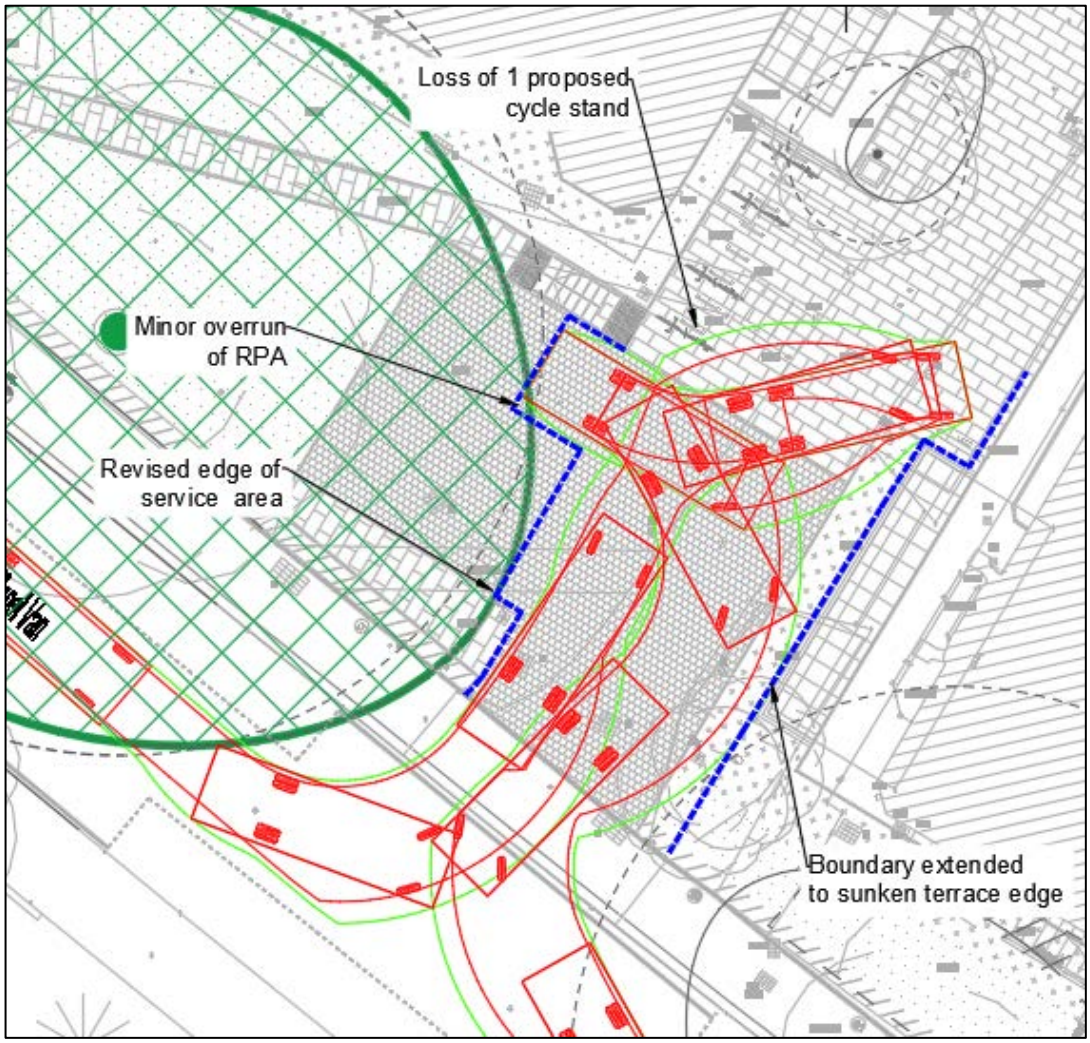


Figure 1.6: Option 2

1.5 Proposed Alternatives – Option 3

1.5.1 Option 3, shown in figure 1.7, proposes the reduction of the proposed hardstanding area to remove any encroachment into the root protection area.

1.5.2 The original two parallel loading bays are no longer achievable with this option. Instead the entrance is widened on the west side so that two bays be provided perpendicular to Kidderpore Avenue. No turning head is provided so vehicles would be required to either enter or exit in reverse gear. In addition, when being used by two vehicles simultaneously the access would block access for emergency vehicles. There would be no impact on the cycle bays in their current positions.

1.5.3 MTP's previous work highlighted concerns that given the level of pedestrian traffic along Kidderpore Avenue, including to and from local schools, would increase the risk of vehicle / pedestrian conflict, and also vehicle / vehicle conflict as a result of reversing manoeuvres from or back to the carriageway. Such issues would need to be fully assessed should this option be progressed further.

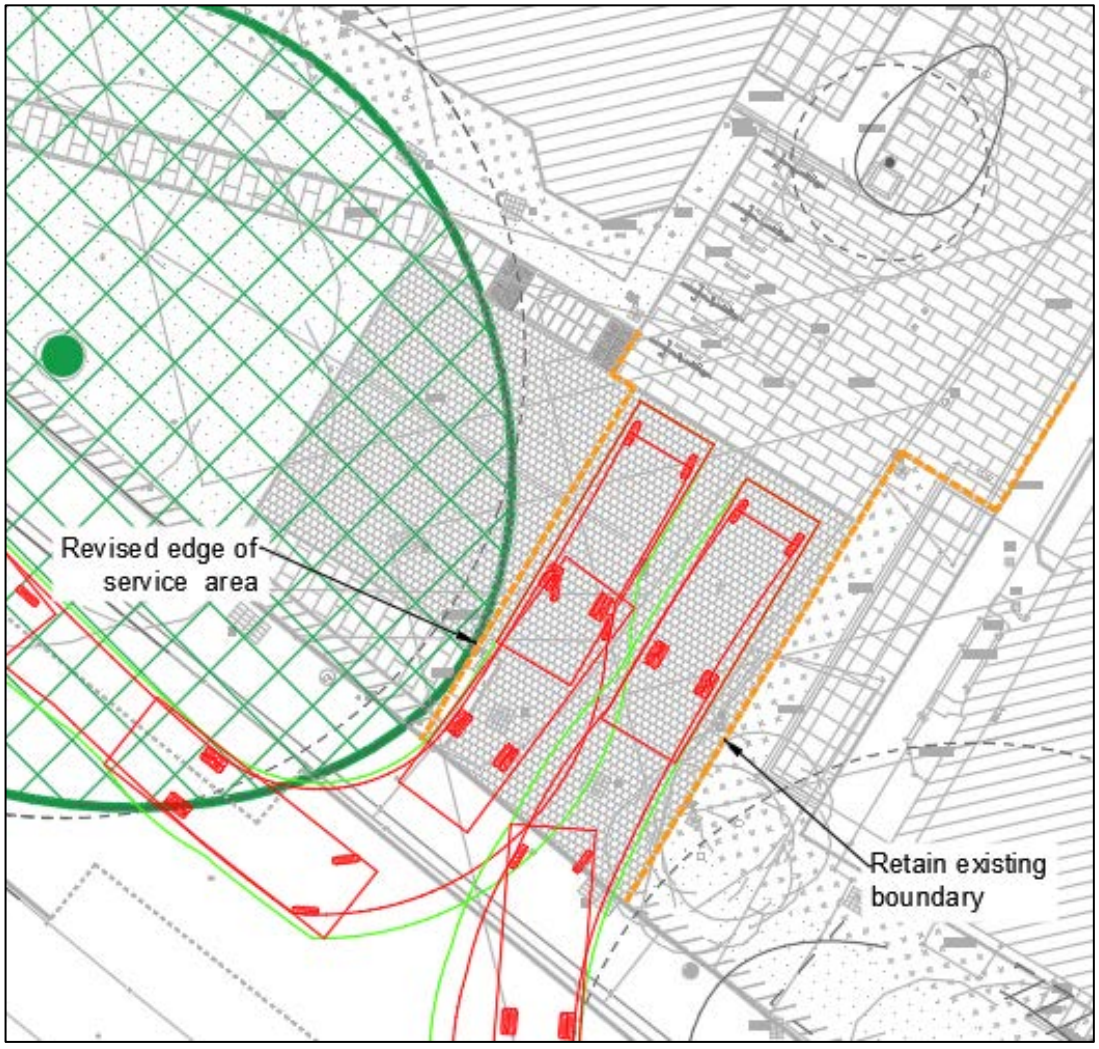


Figure 1.7: Option 3

1.6 Proposed Alternatives – Option 4

1.6.1 Option 4, shown in figure 1.8, proposes the reduction of the proposed hardstanding area to remove any encroachment into the root protection area. The original two loading bays are no longer achievable with this option. Instead an on-street loading bay is provided next to the access.

1.6.2 The access would be retained for emergency access and for vehicles 'picking up and dropping off'.

1.6.3 This option will require the permanent removal of 2-3 permit holder parking bays on Kidderpore Avenue, and would not be able to cater for two servicing vehicles arriving at the same time.

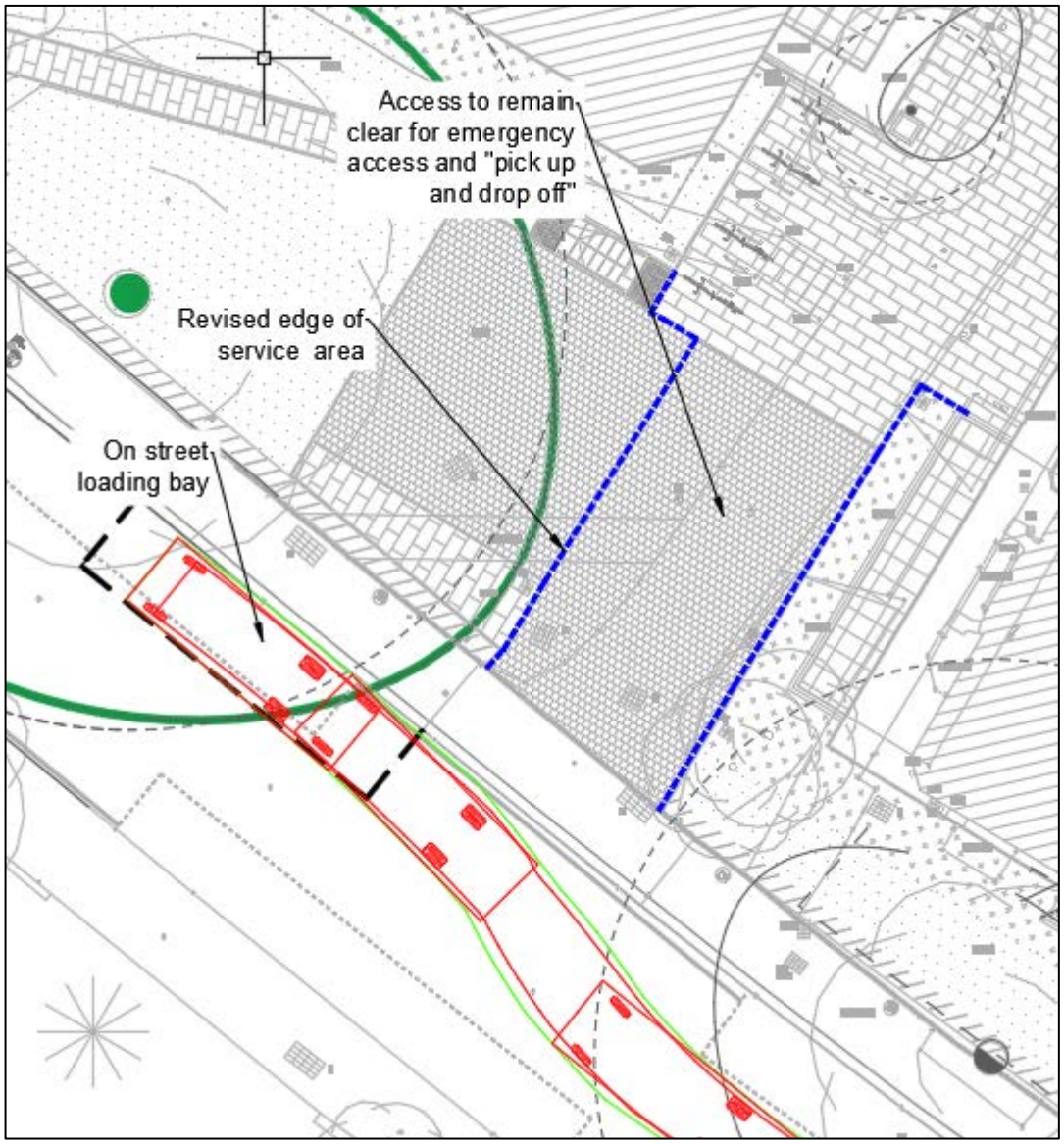


Figure 1.8: Option 4

1.7 Summary

1.7.1 On the basis that the tree must be retained, and that the risks to the tree as a result of excavating within the rooting zone to allow for the loading bays is unacceptable, MTP have considered the transport options with respect to maintaining as far as possible the current proposed servicing access whilst minimising those risks.

1.7.2 Option 1 significantly reduces (but does not eliminate) the impact on the tree relative to the current proposal. Whilst it reduces the level of on-site service vehicle provision from two to one spaces, it retains forward in – forward out access.

1.7.3 Whilst Option 2 further reduces the impact of development within the tree root protection zone, the expansion to the hardstanding area shown in option 2 affects the wider layout of the proposed development and the architect has expressed a desire to not pursue this option further. The option provides broadly the same level of service as Option 1.

1.7.4 The adverse vehicle movements associated with option 3 (vehicles reversing across the footway) mean the option is less likely to be acceptable on safety grounds, whilst it also contradicts the client's original brief for the scheme. It does however remove the impact on the tree root protection zone.

1.7.5 If options 1-3 are all considered unacceptable then it may be possible to consider an on-street servicing solution, as per option 4. This option would need to be considered in light of it being outside the original client brief, and there being a need to agree with LB Camden the necessary changes to traffic orders (and the associated liaison and consultation with local residents).

1.8 Next Steps

1.8.1 We seek the views of Mount Anvil in relation to the options set out in this technical note.

1.8.2 Following agreement of how we should progress, we will approach LBC to discuss what is required and their views on the suitability of the proposed amendments.

1.8.3 Equally, we would seek the views of Fabrik, the landscape architect, and would highlight that they would need to confirm that any impacts on the tree and the wider landscaping are acceptable by seeking the professional advice of an arboriculturalist and/or other specialists in this field.

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