

Job Name: The Old Power Station Vastern Road
Job No: 47500
Note No: TN004
Date: 9th June 2020
Prepared By: Joe House / Dan Townsend
Subject: RBC Highway Response

Introduction

This technical note has been prepared by Stantec on behalf of Berkeley Homes (Oxford and Chiltern) Ltd to provide a response to Reading Borough Council (RBC) highway comments provided in the letter dated 28th May 2020.

The comments provided are in response to the full planning application (ref. 200188) for the demolition of existing structures and erection of a series of buildings ranging in height from 1 to 11 storeys, including residential dwellings (C3 use class) and retail floorspace (A3 use class), together with a new north-south pedestrian link, connecting Christchurch Bridge to Vastern Road.

A revised Landscape General Arrangement Plan has been prepared to support the highways comments which is contained within **Appendix A**.

Pedestrian and Cycle Access via Christchurch Bridge

The Transport Development Control comments state that:

- a) *"...should a direct route not be provided and a switch back design be included within the scheme that a technical justification would be required as to why this would not be provided. However, this has not been forthcoming within the submitted documentation.*

The Highway Authority therefore does not agree with the proposed design of the footway / cycleway and this must be revised to remove the switch back and include a more direct route through the site."

Through the development of the masterplan, it was considered that a switch back ramp designed offered the most practical design solution which can still create a safe, urban, 'traffic free' shared pedestrian and cycle connection between the current bridge and Vastern Road. As requested a separate technical note has been prepared by Stantec to provide a detailed technical review of the Pedestrian and Cycle Connection to Christchurch Bridge. This note is contained within **Appendix B** of this response.

- b) *"It is noted that a new route has been provided between the site and the towpath as identified during the pre-application discussions. However, it is noted that the 1:21 gradient (4.7%) would appear to be close to the maximum length of gradient and therefore it would need to be clarified through updated plans of the actual distance to ensure it complies with the Table below taken from the CD 195 Designing for cycle traffic."*

As requested by RBC during pre-application discussion the proposals were updated to introduced a new connection from the site to the River Thames southern towpath dedicated for pedestrians only as such the proposed gradient of 1:21 is seen as acceptable for the future uses. To achieve the level change from the site down to the river a small number of steps are needed however an alternative step free route is conveniently provided for those who may have impaired mobility.

Vastern Road Access and Connectivity

The Transport Development Control comments state that:

- a) *“...Any proposal without the inclusion of this crossing facility identified on a submitted plan and secured via a S278 Agreement would be unacceptable to the Highway Authority.*

The Highway Authority are unable to comment on the suitability of the pedestrian access onto Vastern Road until a scheme for a toucan crossing has been submitted, this is to ensure that the pedestrian access is located conveniently in relation to the crossing. This must therefore be submitted.”

There are currently four signalised pedestrian crossings locations on Vastern Road. From the southern site entrance onto Vastern Road, the closest crossings are located circa 116m to the west and 115m to the east. The submitted application includes S106 Heads of terms which include a contribution for £50,000 for delivery of this crossing. We are aware that applications are currently in for both Reading Station Shopping Park (ref.200328) and Reading Metropolitan (ref.182252) site. Our understanding is that these are submitted in outline only and so there is no guarantee on their final form. The submitted scheme is also subject to a viability appraisal and given the substantial cost required to connect to the existing Christchurch bridge to provide the link from the River Thames to Vastern Road, it was deemed most appropriate to provide a financial contribution to deliver part of the crossing, until further detail on the final form of the adjacent scheme at Vastern Retail park was known, rather than implement a crossing which currently would not follow any desire line.

- b) *“It is noted that along the southern boundary of the Coal Drop Building an east west path is provided that circumvents the building, however this path should be extended further east to connect to the north south route given that residents will wish to use this as this will be a desire line. The scheme should be revised to provide this link.”*

A revised masterplan has been prepared which provides a footpath linking the primary north-south shared foot/cycleway to the rear of the Coal Drop building.

Proposed Vehicular Access

The Transport Development Control comments state that:

- a) *“Tracking diagrams have been provided that identify that two cars can pass one another however it is noted that the tracking for a refuse vehicle and a HGV would require the use of the full width of the carriageway not only through the site but also on Lynmouth Road. This is for a distance in excess of 50m whilst also negotiating two 90 degree bends, this will therefore result in conflict between cars and service vehicles as well as vehicles with pedestrians and cyclists using the north – south footway / cycleway. The proposed scheme therefore does not accord with DfT document Manual for Streets...”*

“The road widths on the bends should therefore be altered to ensure a continued vehicle flow through the site can be provided”

The site access proposals at Lynmouth Road have been reviewed to support additional passing places within the site. The internal arm of the proposed site access has been widened to 6.0m from 4.8m and the southern radius increased. This has been achieved through widening the road into the landscaping to the south with the on-street parking retained. The site access proposals are illustrated on drawing **47500/5500/001**.

As shown in the swept path assessment drawings **47500/5500/002** to **004** the site access is able to accommodate large refuse and HGV access whilst also providing a suitable place once within the site. This has been checked for both direction of access meaning that a HGV or Large Refuse vehicle entering the site and a car negotiating the internal bend exiting have an opportunity to pass prior to the site access. The reverse scenario has also been tested so that a large vehicle leaving the site is capable of passing a car entering the site.

The junction visibility splays illustrated are based on the principles that Lynmouth Road is a narrow residential cul-de-sac with on street parking on both sides and therefore traffic speed will be low. In accordance with Manual for Streets a 15mph speed limit was seen as an appropriate design speed for Lynmouth Street which requires a 17m sight stopping distance. At 2.4m from the give way the visibility splay to the right would be partially obstructed by the on-street parking however MfS stipulates that some encroachment is acceptable in urban areas where speeds are low.

The site access proposals are a replacement of an existing exit only junction from the site as such the visibility splays considered above will be reflective of the current scenario if not a slight improvement with the access slightly further south. Additionally, the proposed development is estimated to generate fewer car trips than the previous uses on site as such lowering the usage of the upgraded site access. As summarised within the TS, the proposed development is estimated to have an overall reduction in two way car trip of 60% in the AM peak hour and 45% reduction in the PM peak hour.

The effect of the development proposals at the improved junction with Lynmouth Road is not to be considered 'severe', unless there is a clear safety issue that would exacerbate (based on NPPF 2019). This is not the case (as presented in Section 4.8 Personal Injury Collision Review of the Transport Statement) and the Council have not raised any issue of highway safety.

- b) *"It is noted that the road markings at the entrance of the site are to be provided away from the kerb line with no justification provided. On review of the drawings it would appear that this has been provided to widen the access to allow two cars to pass one-another at the site access. This is not acceptable and the give way marking must be provided along the kerb edge..."*

"It is also noted that no tactile paving has been illustrated on the submitted drawing, given that the proposal now takes the form of a bellmouth this must be provided"

The recommendation provided by RBC with regards to alignment of the give way markings and tactile paving have been incorporated into the site access design proposals.

Proposed Car Parking

The Transport Development Control comments state that:

- a) *"It should however be noted that the application drawings illustrate a provision of 56 spaces with the car parking layout including the provision of tandem spaces. In principle I have no objection to this subject to these spaces being allocated to a 3 bed unit. This should therefore be clarified/agreed."*

Agreed. The 3-bedroom apartments are all located with Block D above the undercroft parking therefore the proposed tandem space is in an appropriate location.

Proposed Disabled Parking

The Transport Development Control comments state that:

- c) *"...it is stated that the development will provide a total of 3 disabled spaces. However the only submitted drawings illustrating the provision of any disabled spaces is located within the Design and Access Statement. This does not give any detail on the design of the spaces and it is noted that they are not conveniently located to the entrances to any of the residential blocks. Revised drawings are therefore required to rectify this and these should be spread through the development to ensure access is available to all blocks"*

The disabled parking provision outlined will be for a visitor use as such the proposals seek to provide two on street spaces central to the site along the internal road. These bays are 2.7m wide by 6.6m long and designed in accordance with the Inclusive Mobility guidance. A further disabled bay is provided in the parking courtyard associated with Block B and C to the south of the development site. This bay is 2.5m x 5.0 with sufficient clearance to the front and side of the bay for access. In this location the parking area only supports 13 spaces and would have a low vehicle generation meaning a reduced risk to those with impaired mobility accessing the lift and stairs.

Due to the headroom restriction in the undercroft car park to the north of the site, this area can not support disabled bays.

Proposed Electric Vehicle Parking

The Transport Development Control comments state that:

- a) *"A provision of 5 car parking spaces has been proposed to be electric charging spaces. However, the proposal should be rounded up to include the provision of 6 electric charging points (56 x 10%). It is also noted that no drawing has been provided illustrating the location of the electric charging points, this should be provided and these should be located throughout the development so that access is provided to all."*

Four electric vehicle charging points will be provided in the northern undercroft car park with another 2 electric charging bays in the southern car park. A total of 6 electric vehicle charging points will be provided within the site.

Proposed Cycle Parking

The Transport Development Control comments state that:

- a) *"...the submitted cycle stores would only be sufficient to accommodate a provision of 40 cycle spaces should Sheffield type stands be used. Having reviewed the drawings even if josta two tier cycle storage is used this would only equate to 96 cycle spaces. Both of these are below the required standard and therefore revised drawings are required illustrating the required provision of cycle spaces."*
- b) *"I also have concern regarding the location of two of the cycle stores, the first being that for Block D given that this is accessed from the rear of the site and is therefore not convenient or inviting. The store is also not very well overlooked and could be the subject of crime. The cycle store must therefore be relocated to a more convenient location."*
- c) *"The second is the smaller store at the rear of Block B / C, this is also not conveniently located and must therefore be relocated."*
- d) *"It should also be clarified what level of cycle parking is to be provided within each store against the number of units to which that cycle store would serve to make sure each block is provided with a sufficient number of cycle spaces."*

The proposed cycle parking provided on site for the future residents will be of a josta two tier rack configuration. The table below provides a summary of the proposed cycle parking for each building based on RBC standards which require 0.5 spaces for 1 and 2 bedroom apartments and 1 space for 3+ bed apartments.

Building Ref	Accommodation Schedule	RBC Cycle Parking Requirements	Previous Cycle Parking Provision	Revised Cycle Parking Provision
Building A:	8 x 1 bed 19 x 2 bed	14 spaces	14 spaces (7 josta stands)	14 spaces (7 josta stands)
Building B:	29 x 1 bed 49 x 2 bed	39 spaces	30 spaces (15 josta stands)	40 spaces (20 josta stands)
Building C:	3 x 1 bed 7 x 2 beds	5 spaces	6 spaces (3 josta stands)	6 spaces (3 josta stands)
Building D:	8 x 1 bed 35 x 2 bed 12 x 3 bed	34 spaces	28 spaces (14 josta stands)	34 spaces (17 josta stands)
Building EFG:	13 x 1 bed 26 x 2 bed	20 spaces	20 spaces (10 josta stands)	20 spaces (10 josta stands)
Overall	209	112 spaces	98 spaces	114 spaces

The masterplan and cycle parking provisions have been modified to reflect the above requirements for Buildings B and D. The revised building floor plans for B and D are contained within **Appendix A**.

All cycle parking will be provided within secure facilities within the footprint of their respective buildings. The presence of the car parking, windows and overlooking balconies all naturally create activity in the areas around the cycle stores and in turn provide a certain degree of surveillance. In addition, the parking and cycle stores can have CCTV installed to increase the security and act as a deterrent for crime.

Servicing and Emergency Access

The Transport Development Control comments state that:

- a) *"...However, it is noted from the image from the Design and Access Statement that at least one of the refuse stores is located in excess of 10m from where a vehicle would collect. This must therefore be reviewed along with all refuse storage areas and in line with MfS all collection areas must be within 10m of a collecting vehicle"*

The arrangement of the internal roads and shape of the site has meant that some of the bin stores are located outside of the recommended 10m carry distance for refuse operatives. Stantec drawings **47500/5500/005** provides a swept path strategy for refuse collection from the 6 bin stores on site. The distances are summarised below for each bin store:

- Bin Store 1: 11.0m
- Bin Store 2: 12.5m
- Bin Store 3: 6.9m
- Bin Store 4: 24.0m
- Bin Store 5: 11.0m
- Bin Store 6: 10.0m

Based on the above distances refuse collection will need to be carried out under a managed strategy through a Berkeley Homes Management Company.

- b) *"In addition the turning head at the northern end of the site requires refuse and delivery vehicles to drive and reverse over the dedicated footway / cycleway. As stipulated at the pre-application stage I have concern over this movement given the importance of this pedestrian / cycle route and the potential for conflict with service vehicles. A revised turning head is therefore required that does not result in reversing over this route."*
- c) *"It was also requested that it would need to be clarified where any servicing will take place so as to not obstruct access to the basement car park, the turning head or the footway / cycleway..."*

In response to the above two comments above, the proposed turning area to the north of the site can accommodate large cars, 4.6t light vans and food delivery type vehicles which provide the majority of internet deliveries. These more frequent can manoeuvre and turn on either side of the proposed raised crossing minimising the uses and provides mitigation against highway safety concerns. This demonstrates there is no requirement to reverse over the pedestrian/cycle path. These swept paths are shown on drawing **47500/5500/007** and also illustrates the additional space given for vehicles to turn at the entry to the undercroft car park.

Refuse collection will be weekly and deliveries by HGVs will be infrequent. The turning circles associated with the larger vehicles and the constrained width of the site at this location means these vehicles will need reverse over the foot/cycleway when turning at the northern end of the site. At the time when these vehicles are servicing the site, suitable passing places are available, and access is retained to the car parking areas. The passing places within the site whilst servicing is being carried out are illustrated on drawing **47500/5500/006**

- d) *"The below diagram also identifies the fire strategy for the site which includes the requirement of a fire tender accessing beyond the bollards to the northern section of the dedicated footway / cycleway. However, no tracking diagrams have been provided to confirm that a fire tender could actually get to the area in question, this must therefore be provided."*

Stantec drawing **47500/5500/008** provides the swept path assessment of a 7.9m Fire Pumping Appliance accessing the northern part of the site. The vehicle will be able to mount the foot/cycle path which is circa 3.75m in this location.

Summary

The about technical note has sought to address the Highway related comments made by Reading Borough Council in the letter dated 28th May 2020. Where necessary the layout has been modified and additional swept path drawing have been provided for clarification. Therefore as set previously summarised in within the Transport Statement, it is recommended that the development proposals be considered positively from a transport perspective with no material impact on the local highway network, when RBC considers the planning application in the round.

Appendix A – Revised Masterplan

DRAFT



LANDSCAPE GENERAL ARRANGEMENT PLAN



NOTES

- THIS DRAWING IS BASED ON BERKELEY HOMES LAYOUT: 448-PL-SL-001
- THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER LANDSCAPE DRAWINGS AND DOCUMENTS
- THIS DRAWING IS NOT INTENDED FOR CONSTRUCTION
- DO NOT SCALE FROM THIS DRAWING
- ANY DISCREPANCIES WITHIN THIS DRAWING OR BETWEEN THIS DRAWING AND ANY OTHER INFORMATION IS TO BE REPORTED TO BERKELEY HOMES OFFICE CHILTERN FOR CLARIFICATION

KEY

APPLICATION AREAS & CONTOURS

- OUTLINE PLANNING APPLICATION SITE BOUNDARY
- EA BUFFER 8M OFFSET
- EARTHWORKS CONTOURS
- PROPOSED LEVELS
 - +45.00
 - +46.00
 - +47.00
- EXISTING LEVELS
 - +45.00
 - +46.00

SOFT LANDSCAPE

- EXISTING TREES RETAINED
- LARGE FEATURE TREES
 - REFER TO PLANTING FRAMEWORK PLAN FOR DETAILS
- MEDIUM URBAN TREES
 - REFER TO PLANTING FRAMEWORK PLAN FOR DETAILS
- SMALL URBAN TREES
 - REFER TO PLANTING FRAMEWORK PLAN FOR DETAILS
- LARGE RIPARIAN FEATURE TREES
 - REFER TO PLANTING FRAMEWORK PLAN FOR DETAILS
- MEDIUM RIPARIAN URBAN TREES
 - REFER TO PLANTING FRAMEWORK PLAN FOR DETAILS
- SMALL RIPARIAN URBAN TREES
 - REFER TO PLANTING FRAMEWORK PLAN FOR DETAILS
- AMENITY SHRUB MIX
 - REFER TO PLANTING FRAMEWORK PLANS FOR DETAILS
- HERBACEOUS PLANT MIX
 - REFER TO PLANTING FRAMEWORK PLANS FOR DETAILS
- NATIVE RIPARIAN SHRUB MIX
 - REFER TO PLANTING FRAMEWORK PLANS FOR DETAILS
- BULB PLANTING
 - REFER TO PLANTING FRAMEWORK PLANS FOR DETAILS
- HEDGEROW
 - REFER TO PLANTING FRAMEWORK PLANS FOR DETAILS
- AMENITY GRASS MIX
 - REFER TO PLANTING FRAMEWORK PLANS FOR DETAILS
- SPECIES RICH GRASSLAND MIX
 - REFER TO PLANTING FRAMEWORK PLANS FOR DETAILS
- SPECIES RICH WET GRASSLAND MIX
 - REFER TO PLANTING FRAMEWORK PLANS FOR DETAILS

PROPOSED HARD LANDSCAPE & BOUNDARY TREATMENTS

- ASPHALT ROAD SURFACE
 - BLACK COLOUR OR SIMILAR
- CONCRETE BLOCK PAVING 1
 - SILVER GREY COLOUR OR SIMILAR
- CONCRETE BLOCK PAVING 2
 - MID / DARK GREY OR SIMILAR
- CONCRETE BLOCK PAVING 3
 - SILVER GREY OR SIMILAR
- CONCRETE FLAG PAVING 1
 - SILVER / MID GREY OR SIMILAR
- CAFE TERRACE DECKING
 - COMPOSITE DECKING MATERIAL OR SIMILAR
- RESIN BOUND GRAVEL SURFACE
 - PEARL / LIGHT BURN OR SIMILAR
- LOOSE BARK MULCH
- BESPOKE IN-LAY PAVING DETAIL
 - WEATHERED STEEL OR SIMILAR
- BENCH SEATING
 - VARIOUS LENGTH TIMBER TOPPED SEATING OR SIMILAR
- LITTER BINS
 - COLOR GRAPHITE / ANTHRACITE GREY OR SIMILAR
- ILLUMINATED BOLLARDS
 - LOW STAINLESS STEEL LIGHTING BOLLARDS OR SIMILAR
- METAL / TIMBER BOLLARDS
 - POWDER COATED METAL BOLLARDS AND NATURAL TIMBER BOLLARDS OR SIMILAR
- METAL BOLLARDS
 - LOW STAINLESS STEEL DROP BOLLARDS OR SIMILAR
- BOULDERS
 - NATURAL STONE BOULDERS OR SIMILAR
- WAY FINDING STUDS
 - TACTILE PAVING DETAIL, BRUSHED STEEL DETAIL OR SIMILAR
- CAFE TERRACE RAILING
 - BLACK POWDER COAT FINISH WITH TIMBER TOP OR SIMILAR APPROVED
- ECOLOGY BUG HOTEL
 - GABION CAGE OR SIMILAR

C	08/06/20	TN	Minor Road Amendments
A	20/06/20	TN	Minor amendments to cycle footway
	10/02/20	TN	Minor amendments to tree planting

revision	date	prepared	checked

Berkeley
Designed for life

Berkeley House
Farnham Lane
Farnham Royal SL2 3RQ

T: 01753 784400
F: 01753 648655
www.berkeleygroup.co.uk

project
VASTERN ROAD

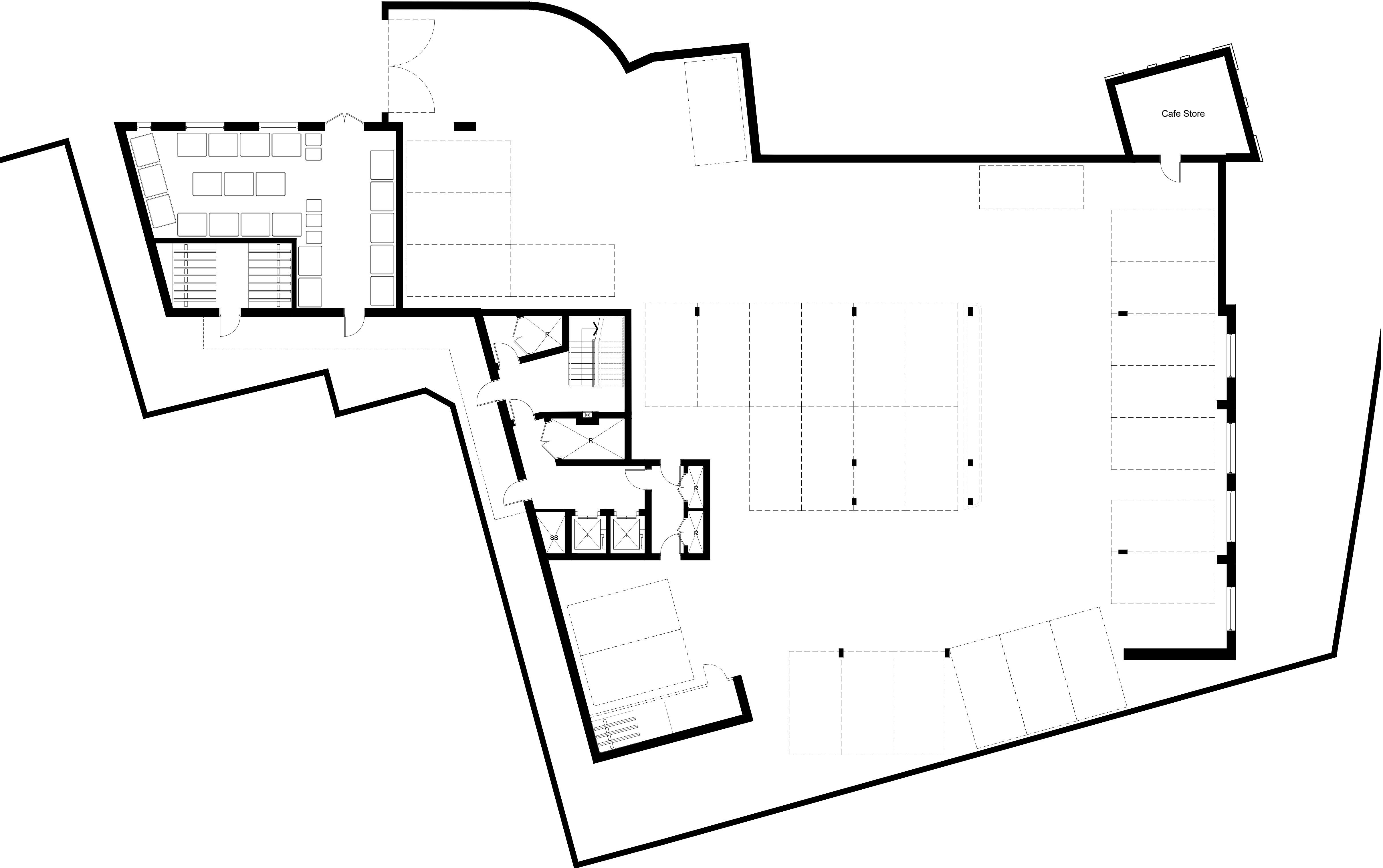
drawing
LANDSCAPE GENERAL ARRANGEMENT PLAN

date	scale @ a1 (a3)	drawn
January 2020	1:250 (1:500)	TN

drawing number	revision
448.LA.101	C

key plan

notes



A 10.06.20 EE Added cycle store in the undercroft

revision	date	prepared	description
----------	------	----------	-------------

Berkeley
Designed for life

Berkeley House
Farnham Lane
Farnham Royal
SL2 3RQ

T: 01753 784400
F: 01753 646855
www.berkeleygroup.co.uk

project
Vastern Road
Reading

drawing
Block D
Ground Floor Plan

date
October 2019

scale @ a1
1:100

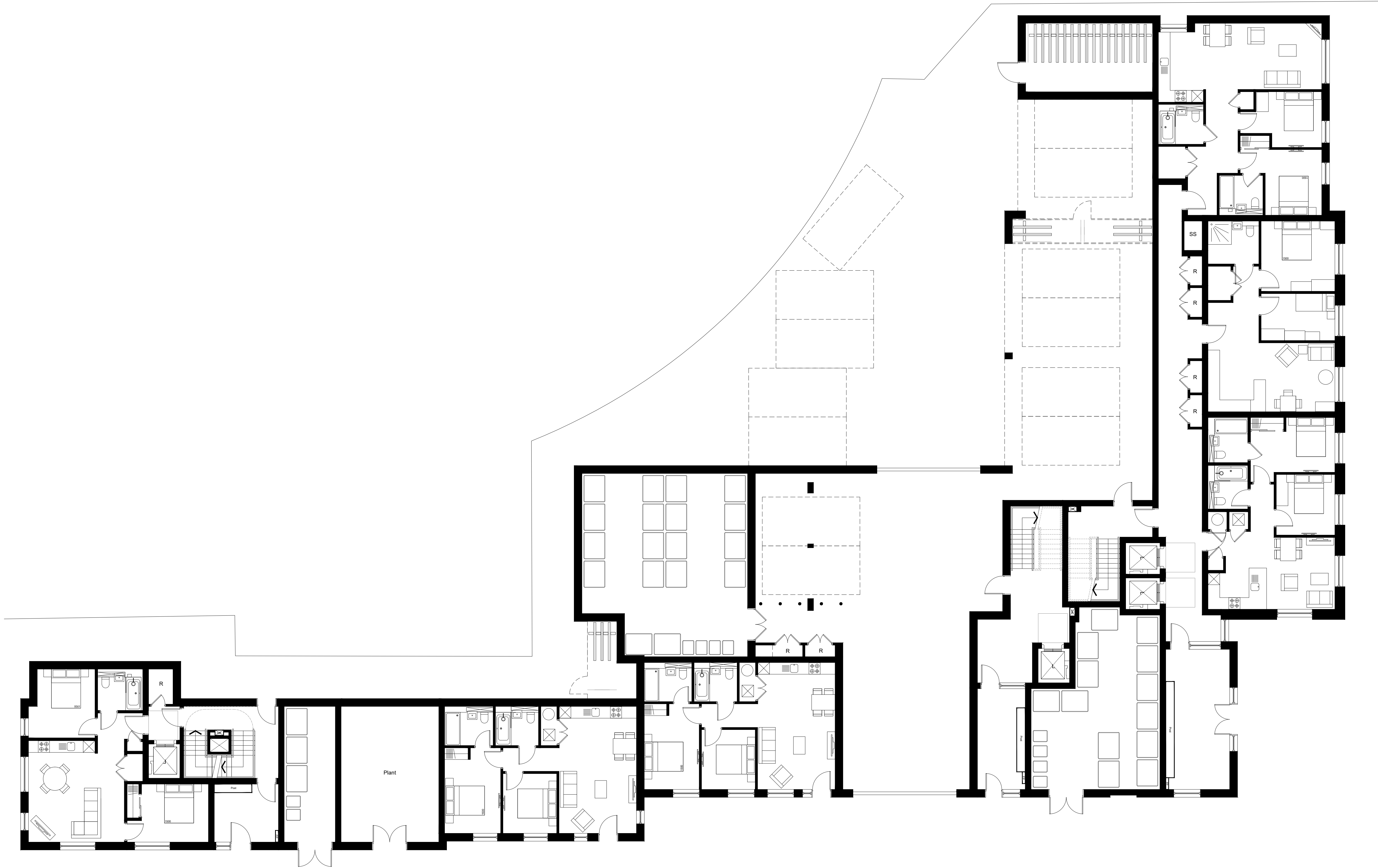
drawn
EE

drawing number
448.PL.D.100

revision
A



Ground Floor Plan



A 30.04.20 EE Added glazing next to a door on one apartment
A 10.06.20 EE Added cycle store in the undercroft

revision	date	prepared	description

Berkeley
Designed for life

Berkeley House
Farnham Lane
Farnham Royal
SL2 3RQ

T: 01753 784400
F: 01753 646855
www.berkeleygroup.co.uk

project
Vastern Road
Reading

drawing
Block B and C
Ground Floor Plan

date	scale @ a1	drawn
October 2019	1:100	ISB

drawing number	revision
448.PL.BC.100	B

Ground Floor Plan



Appendix B – Christchurch Bridge Connection Technical Note

DRAFT

Job Name: The Old Power Station Vastern Road
Job No: 47500
Note No: TN003
Date: 8th June 2020
Prepared By: Joe House / Dan Townsend
Subject: **Pedestrian and Cycle Connection to Christchurch Bridge**

Introduction

To support the planning application for the residential redevelopment of part of the former SSE site at 53-55 Vastern Road, Berkley Homes (Oxford and Chiltern) Limited have prepared a Cycle and Footway booklet to provide information in relation to the internal pedestrian and cycle connection between the site and Christchurch Bridge.

This Technical Note has been prepared by Stantec to supplement the information booklet and provides a descriptive review of the proposals regarding the design principles, constraints, and relevant policy and guidance.

Baseline Connections

Christchurch Bridge provides a traffic free connection over the River Thames between Caversham (via Christchurch Meadows) to the north and Reading to the south. The bridge opened in 2015 and forms part of the National Cycle Network (NCN) Route 5. The bridge provides a shared foot/cycle path with the average bridge deck width of c4.7m (excluding a minor allowance for the footprint of the mast and seating area), down to 3.5m at either end. The bridge is connected to the north via 3.0m wide shared foot/cycle paths across Christchurch Meadow and to the south via a shared foot/cycle towpath which was widened as part of the works associated with the bridge to a max width of 3.0m.

The current pedestrian and cycle connection to Vastern Road is via Norman Place approximately 110m to the east of the bridge landing. Users are faced with a 90 degree turn onto the access ramp to the widened 3.0m towpath and another turn in excess of 90 degrees onto Norman Place. The route through Norman Place is approximately 2.1m wide.

A Toucan crossing facility currently provides a pedestrian and cycle connection across Vastern Road from Norman Place towards the station, with the central island having a width of approximately 2.8m. The onward connection to the Town Centre is via the Northern Station interchange and sub-way under Reading Station (where cyclists currently have to dismount). Once through the subway at the southern end, for cyclists to continue their journey they have two options; firstly they can travel west and use Greyfriars Road to get to Friar Street, or secondly they dismount and use the access ramps provided at the station. All these areas are shared with pedestrians.

During the design consultation for the bridge it was agreed with Reading Borough Council (RBC) Officers and later endorsed by Members at planning committee that the associated connections and bridge would provide a shared pedestrian / cycle facility. This was to ensure that the route provided a free low speed connection suitable for all users, which reflected the sub-urban to urban environment which the bridge connects. Design rationale was to create a new piece of public realm with a traffic free connection suitable for all users, which reflected the wide range of people using the facility; from families with children and buggies, to wheelchair users and commuter pedestrians and cyclists. The introduction of a Café facility within the proposed development and greater landscaping enhancements would only add to the public realm benefits. As with all other sections of the route described above, it was designed to be an alternative to Reading and Caversham bridges. Connections at either end should logically accord with this design philosophy.

On the 18th May 2020 RBC policy committee approved a number of schemes which re-allocate road space for active travel following Government advice around social distance measures amid the COVID-19 pandemic. Under legalisation these schemes are temporary and can be in place for up to 18 months, however the schemes could be made permanent with minimal additional works. The approved schemes are:

- Gosbrook Road and Westfield Road: Due to narrowness of pavements, make Gosbrook Road (Westfield Road to Prospect Street) and Westfield Road (southbound) from Henley Road junction to Gosbrook Street one way, to increase capacity for walking and cycling.
- Sidmouth Street: One way (northbound) for all traffic and introduce a new contra-flow cycle lane in the current southbound lane to increase space for pedestrians and cycle lanes.
- **Reading Bridge: Remove inbound lane and existing hatching to create both northbound and southbound cycle lanes.**
- Oxford Road: New cycle and bus lanes.
- Whitley Street Local Centre: Remove one traffic lane outbound and reallocate it to cyclists, alongside other improvements for pedestrians.
- Southampton Street/Silver Street: Introduce cycle lanes through removal of existing road hatching.
- Redlands Road: Introduce southbound cycle lane (uphill) and cycle priority measures at Christchurch Green junction.

Clearly the Reading Bridge scheme provides an alternative direct route for high speed commuting cyclists to travel to / from the Town Centre and Reading Station. The scheme is due to be implemented in June 2020.

Christchurch Bridge was designed in accordance with the following standards:

- DMRB BD 29/04 (Footbridges), therefore meeting standards for all users.
- BD29/04 states minimum width of 2m for use with cycles and horses but should accord with LTN 2/86 (now LTN 1/12) where the bridge is part of a pedestrian and cycle route.
- LTN 1/12 gives a preferred minimum width of 3.0m (Table 7.5) with an additional 500mm each side to allow for vertical features above 600mm high (Table 7.4)
- LTN 1/12 states that it should be read in conjunction with LTN 2/08 and makes reference to a number of other relevant publications including the Sustrans report 'The merits of Segregated and Non-Segregated Traffic Free Paths' which reviews various standards/guidance/studies, one of which refers to research by Atkins that leads to the classification of widths relating to a range of separate flows for pedestrians and cyclists, and Inclusive Mobility amongst others.

In addition to the above Sustrans were consulted in the design process of Christchurch Bridge, advised of over 50 shared use bridges they have knowledge of, and where available have provided details of the width of these bridges. The vast majority (16 of 22) are 3.5m or less wide.

Proposed Connection Strategy

RBC's Reading Central Area Action Plan' (adopted in January 2009) identifies the connection between Christchurch Bridge and Vastern Road as a key movement corridor. The pedestrian and cycle strategy for the site has been carefully considered/developed in the context of the Plan including consultation with officers, members, key stakeholders and the general public during pre-application engagement.

The pedestrian and cycle strategy for the site has been developed to reflect and complement the existing Christchurch bridge design principles. Primarily this will create a safe, urban, 'traffic free' shared cycle pedestrian and cycle connection between the current bridge and Vastern Road that can benefit future site residents and existing Christchurch Bridge/tow path users. In summary the route provides:

- 3m minimum width to provide space for route to be shared by cyclists, pedestrians and wheelchair users consistent with the towpath and bridge approaches;
- Stepped sections are provided to create direct routes for pedestrians reducing number of pedestrians using ramped sections;
- Lengths of ramped sections are below the recommended maximum lengths of 30m for 5% gradients the ramped lengths are between 17m and 19m respectively;
- Ramped sections are supplemented by minimum 5m length flat sections to ease use for wheelchair users;
- Ramped section to directly feed to the southern River Thames towpath;
- Landscaping and curves to reduce speeds creating a safer environment for all users;
- Curves in ramp down from bridge naturally discourage high speed cycling at potential conflict points within public realm and Vastern Road;
- Route width widens at corners to ease cycle manoeuvring and ensure tandems/cycles with trailers can use ramp (these are currently unable to use the Christchurch bridge route so this is a significant benefit); and
- No hard barriers either side of the ramp to improve feeling of space available.
- High quality public realm allowing for integration of the public space around the elevated café terrace.

Ramp Design Standards / Principles

The design of the link between the site and the podium level connection at Christchurch Bridge has been at to forefront of the design development from the early stages of plan making to help promote sustainable travel in the local area.

The final design provides a minimum 3.0m wide shared use ramp at a maximum gradient of 1:21 which is suitable for all users including pedestrians, cyclists and wheelchair users, in accordance with the Department for Transport (DfT) 'Inclusive Mobility' guidance. To achieve the required drop in levels, the ramp has been designed as an 'S Bend' configuration and is confined to the northern area of the site to reduce the severance that would be created by an elevated structure and discourage high speed cycling through this area of public realm.

The proposed minimum ramp width of 3.0m with no hard obstacles either side is in accordance with standards and therefore appropriate for the location and expected users and demand.

RBC does not have a bespoke set of cycling standards. The London Cycling Design Standards (widely applicable to areas outside London and in town and city centres) outlines that a 3.0m wide shared use path will allow for safe and suitable opportunities for cyclists with a trailer to pass both pedestrians and wheelchair users.

Another key factor of an 'S Bend' ramp configuration is the radii and turning circles. The inner and outer radii of the proposed ramps are designed at 1.0m and 4.0m respectively. In comparison with the ramp configuration at the rail stations southern forecourt, the direction changes are less severe and the proposed width is greater.

The 'LTN2/08 Cycle Infrastructure Design' guidance sets out the minimum turning circles for cyclists in Table 2.4. For conventional bikes, which are expected to be the primary cycle type, a minimum inner radius of 0.85m and outer radius of 1.65m is required, and as such the ramp design proposals are in excess of the relevant standards.

For the less common cyclists that have rear trailers, they do require larger turning cycle radii of 1.5m (inner) and 2.65m (outer). This can clearly be accommodated within the available ramp width and therefore would comply with the LTN2/08 requirements.

Notwithstanding the above, the current designs are also a measure to help manage cycling speeds through the site when coming from Christchurch Bridge and approaching Vastern Road through an area of shared use public realm; reduced radii to control cycle speeds are referred to as an appropriate measure in the LTN 2/08 Cycle Infrastructure Design.

Creation of High-Quality Places

The latest National Planning Policy Framework (NPPF), which sets out the governments planning policies for England, outlines that sustainable and active travel should be promoted through the introduction of high-quality places and developed from an early planning stage. NPPF also sets out that developments should *"create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users"*.

The walking and cycling improvements proposed by the development were widely discussed with RBC during the pre-application stage for the former SSE site pedestrian and cycle strategy and amended to reflect RBC officer comments. The final 'S Bend' ramp proposals allow for access for pedestrians, cyclists, buggy and wheelchair users with the ability to include high-quality landscaping around the bends and also allow for the integration of the public space around the elevated café terrace.

The proposed pedestrian / cycle strategy provides a high-quality link whilst creating a high-quality public space for all users including future residents. This strategy also accords with the adopted Reading Station Area Framework. This strategy has been developed for the emerging and submitted applications at the adjacent and neighbouring sites of Station Shopping Park, Royal Mail and Station Hill. These sites are connected by the planned shared pedestrian foot/cycle subway under the station and provide a clear and legible shared pedestrian/cycle route through the centre and beyond.

Summary

The proposed pedestrian and cycle strategy for the site has been developed to reflect RBC policy and the existing sub-urban to urban setting complementing the existing pedestrian / cycle infrastructure in the area.

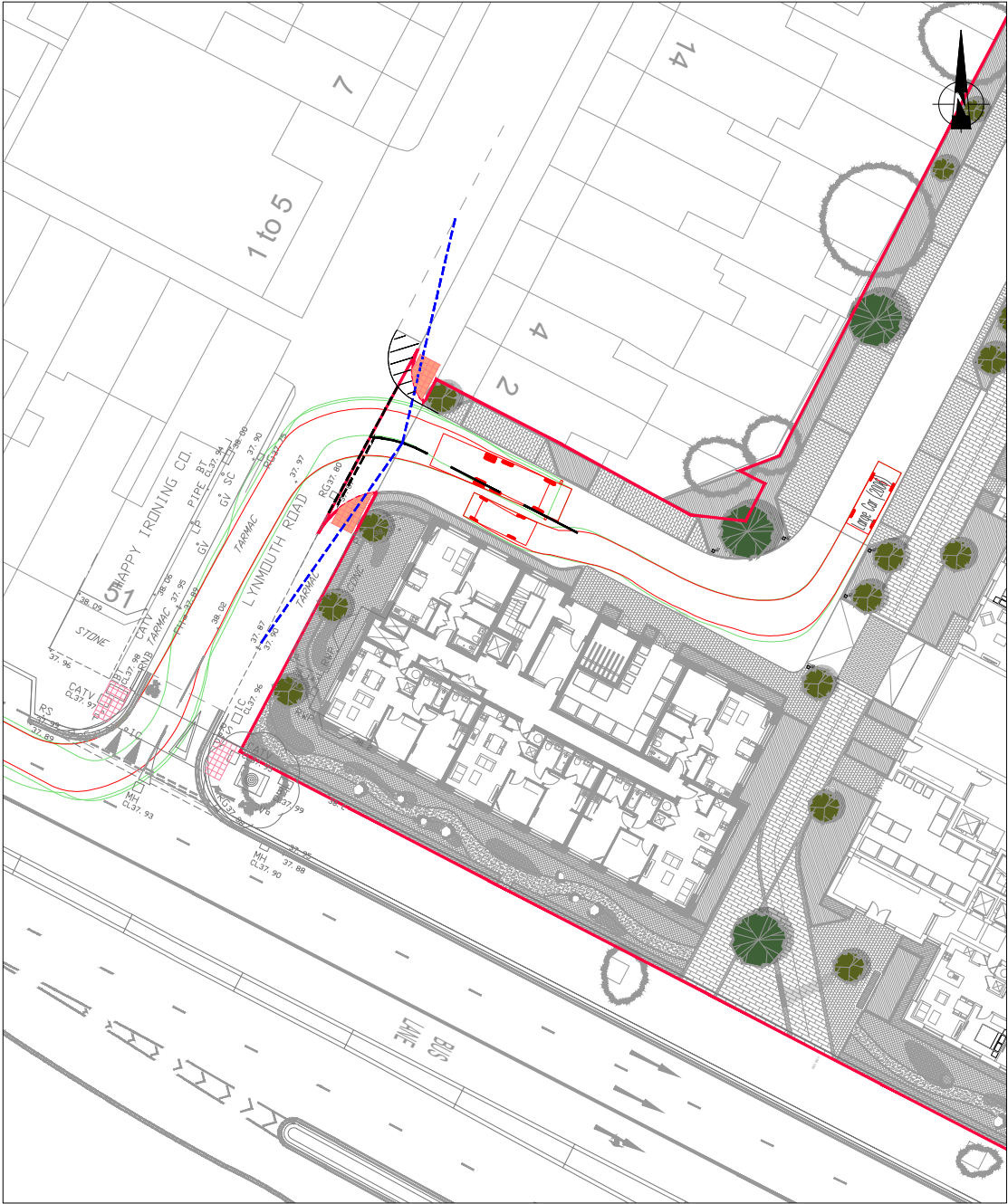
The design provides a safe and direct route through the proposed development, connecting the station to Christchurch Bridge and beyond, as per RBC's aspirations, whilst incorporating the change in levels and adhering to all framework, legislation and guidance.

The proposed pedestrian and cycle connection to Christchurch bridge achieves the following:

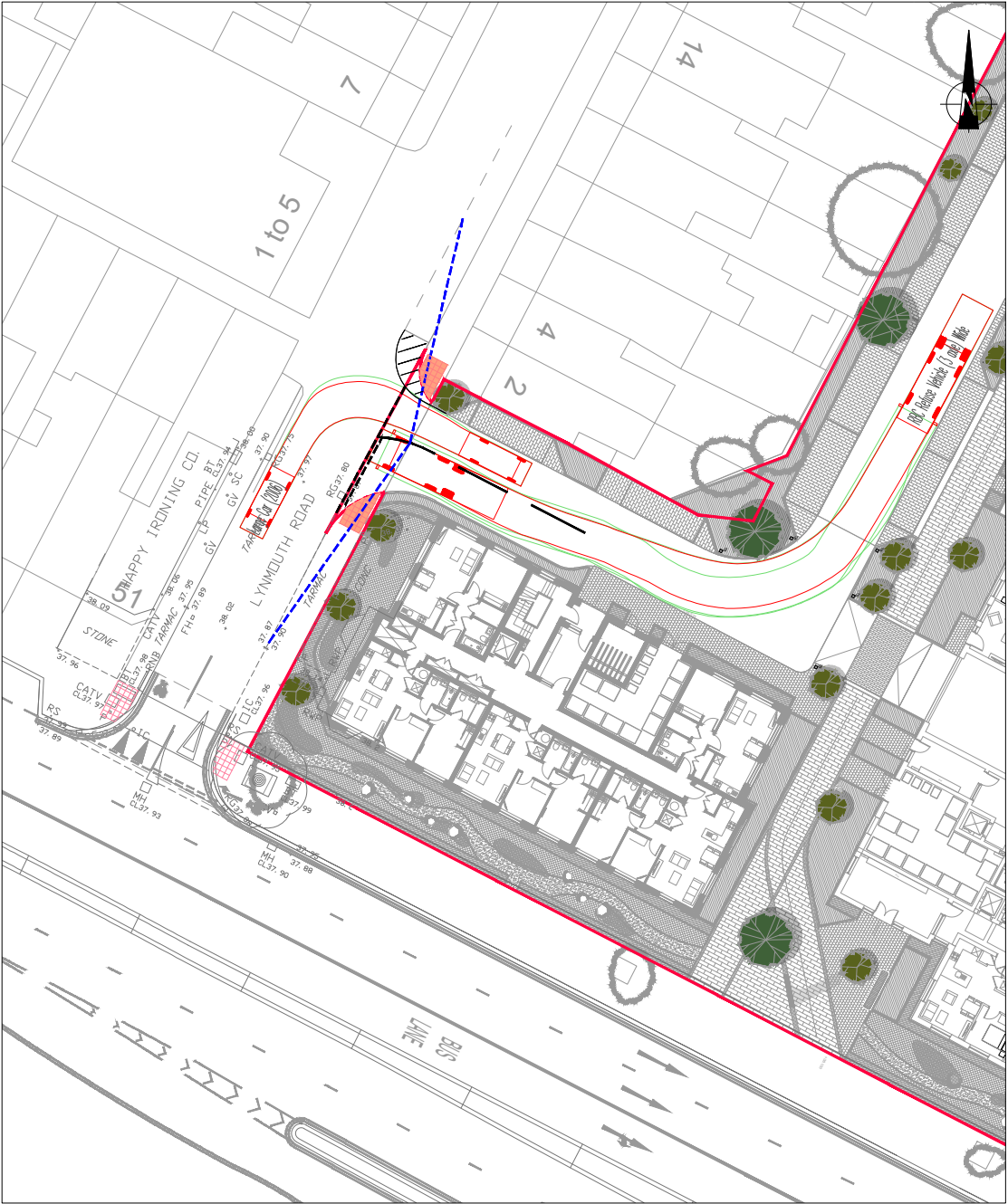
- Provides a new direct route through the proposed development, with high quality landscaping providing enhanced public realm benefits in addition to the Bridge.
- Significant improvement to the current north-south route passing along the towpath via Norman Place.
- Opportunity to introduce landscaping and improvement to public realm and caters for all potential users of the space, enhancing the vision of the bridge.
- Minimum of 3.0m wide shared use path allowing for safe and suitable opportunities for cyclists with a trailer to pass both pedestrians and wheelchair users.
- A maximum gradient of 1:21 which is suitable for all users including pedestrians, cyclists and wheelchair users. Additional stepped routes for pedestrians have also be included to provide more direct access.
- Curves in ramp down from bridge naturally discourage high speed cycling and therefore creating an area of high-quality public realm and sense of place that will be in keeping with the local areas future vision.

Appendix C – Stantec Drawings

DRAFT

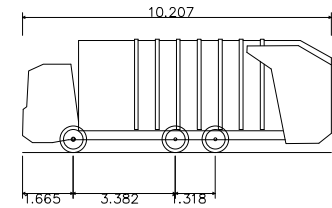


REFUSE VEHICLE INBOUND VS
CAR OUTBOUND

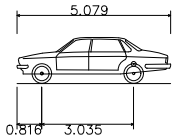


REFUSE VEHICLE OUTBOUND VS
CAR INBOUND

VEHICLE PROFILES:



RBC Refuse Vehicle (3 axle) Wide
Overall Length 10.207m
Overall Width 2.530m
Overall Body Height 3.748m
Min Body Ground Clearance 0.300m
Track Width 2.480m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 8.600m



Large Car (2006)
Overall Length 5.079m
Overall Width 1.872m
Overall Body Height 1.525m
Min Body Ground Clearance 0.310m
Max Track Width 1.831m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.900m

Mark	Revision	Date	Drawn	Chkd	Appd

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

Drawing Issue Status
FOR INFORMATION

THE OLD POWER STATION
VASTERN ROAD, READING
SITE ACCESS PASSING PLACES
REFUSE SWEEP PATH ASSESSMENT

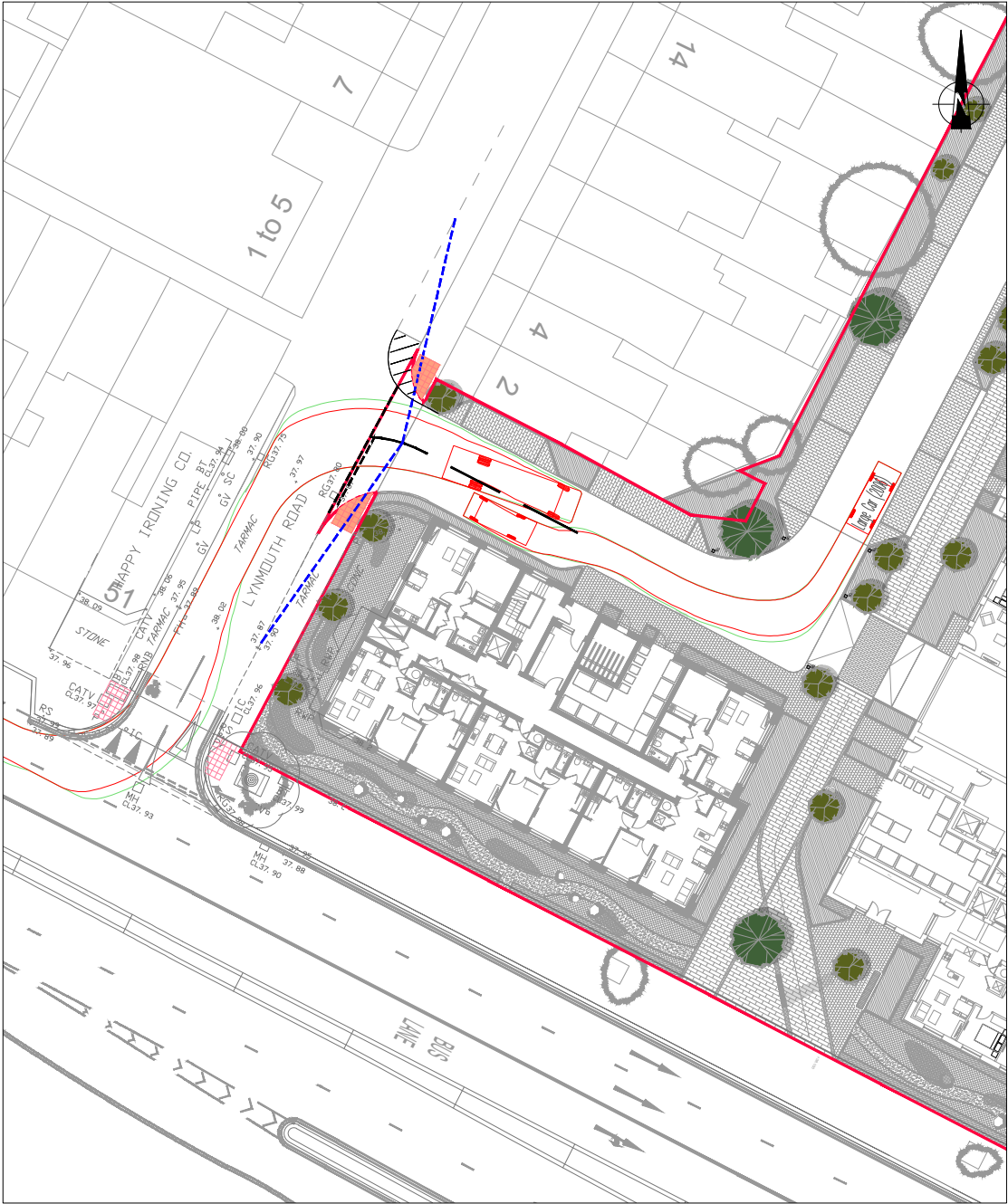
Client

Berkeley
Designed for life

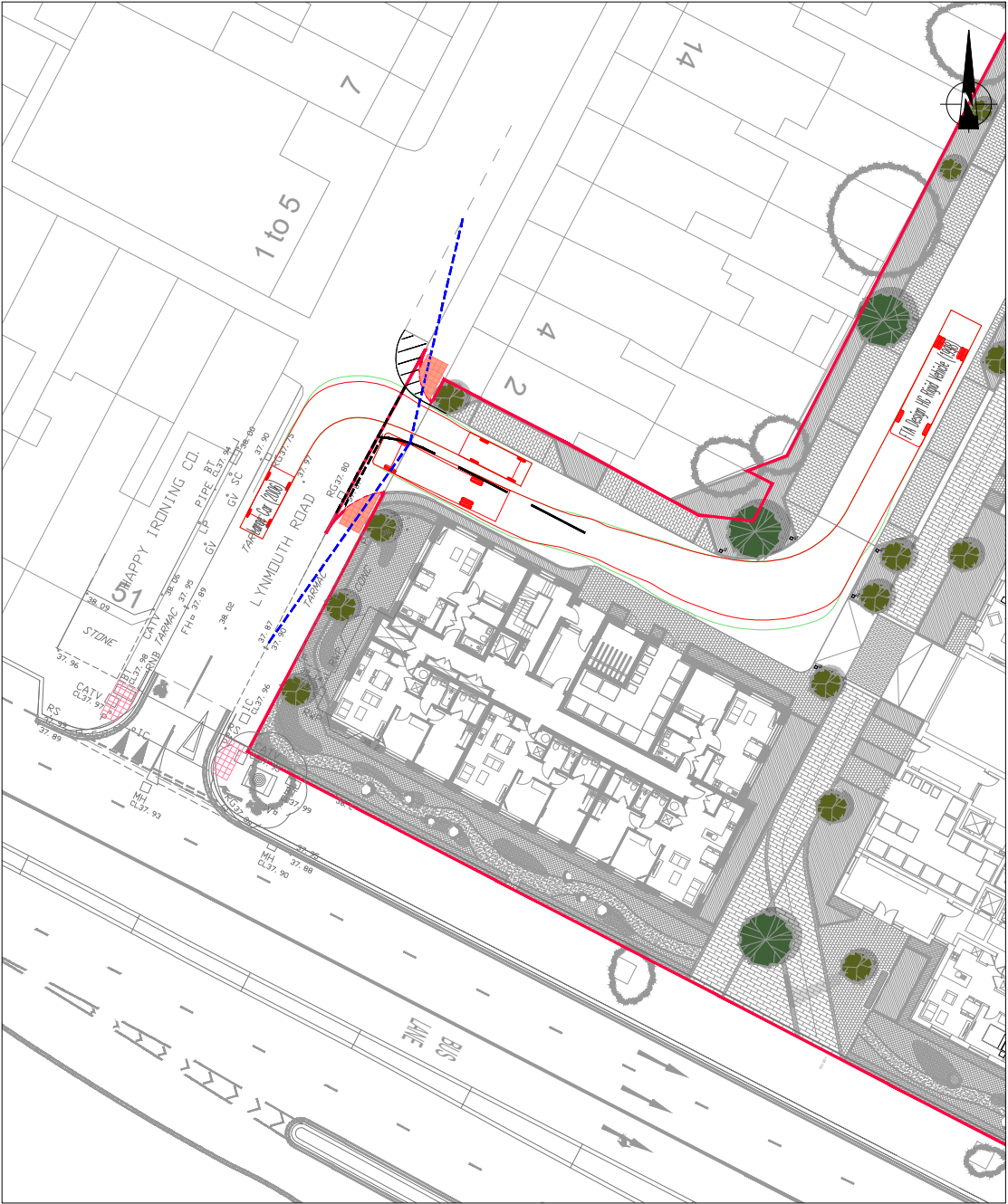
Date of 1st Issue	Designed	Drawn
10.06.20	-	JC
A3 Scale	Checked	Approved
1:500	JH	DT
Drawing Number	Revision	
47500/5500/002		

now part of

peterbrett.com
© Peter Brett Associates LLP
READING
Tel: 01189 500 761

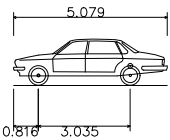
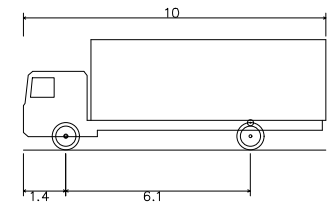


10m HGV INBOUND VS
CAR OUTBOUND



10m HGV OUTBOUND VS
CAR INBOUND

VEHICLE PROFILES:



FTA Design HG Rigid Vehicle (1998)		Large Car (2006)	
Overall Length	10.000m	Overall Length	5.079m
Overall Width	2.500m	Overall Width	1.872m
Overall Body Height	3.645m	Overall Body Height	1.525m
Min Body Ground Clearance	0.440m	Min Body Ground Clearance	0.310m
Track Width	2.470m	Max Track Width	1.831m
Lock to lock time	3.00s	Lock to lock time	4.00s
Kerb to Kerb Turning Radius	11.000m	Kerb to Kerb Turning Radius	5.900m

Mark	Revision	Date	Drawn	Chkd	Appd

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

Drawing Issue Status
FOR INFORMATION

**THE OLD POWER STATION
VASTERN ROAD, READING
SITE ACCESS PASSING PLACES
HGV SWEPT PATH ASSESSMENT**

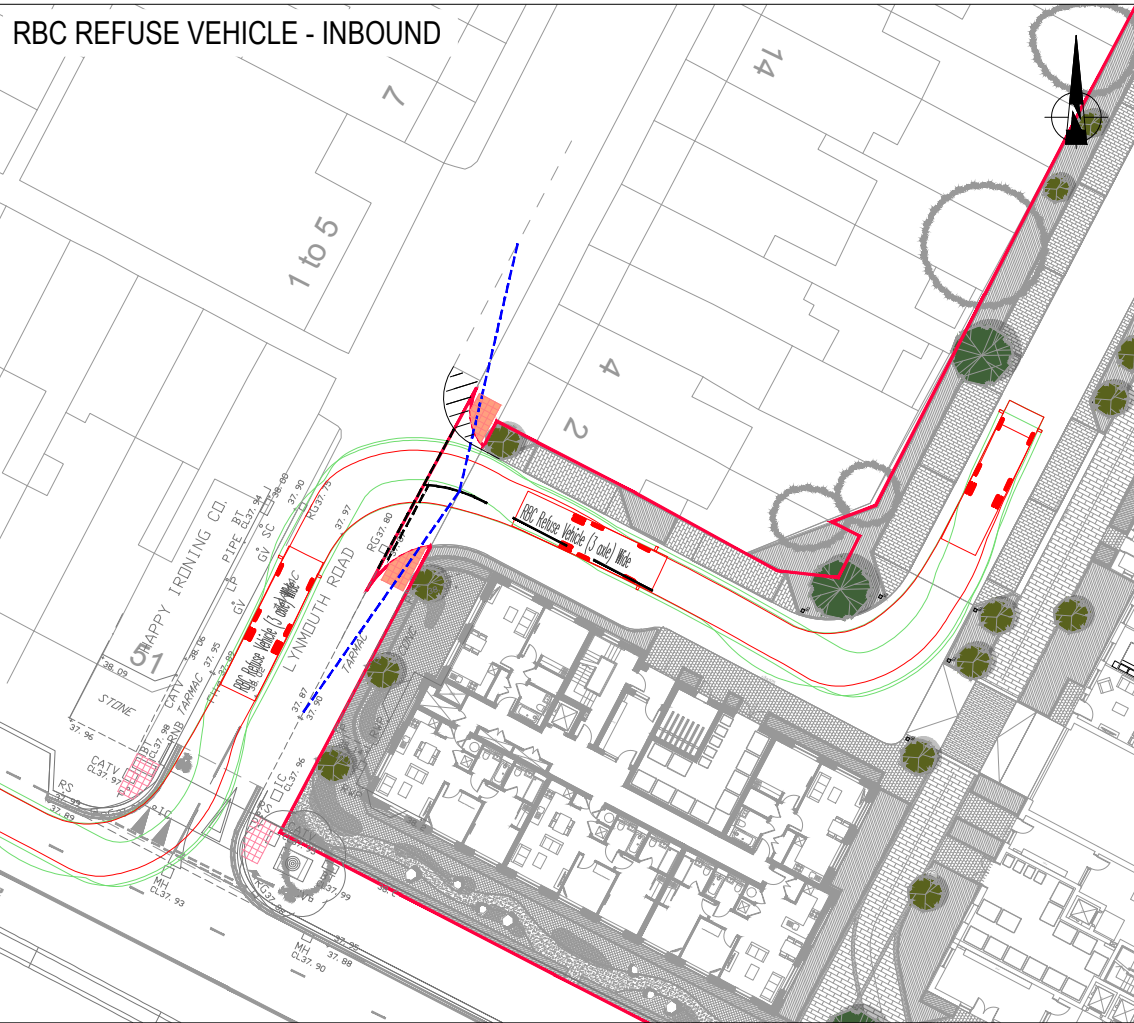
Client

Berkeley
Designed for life

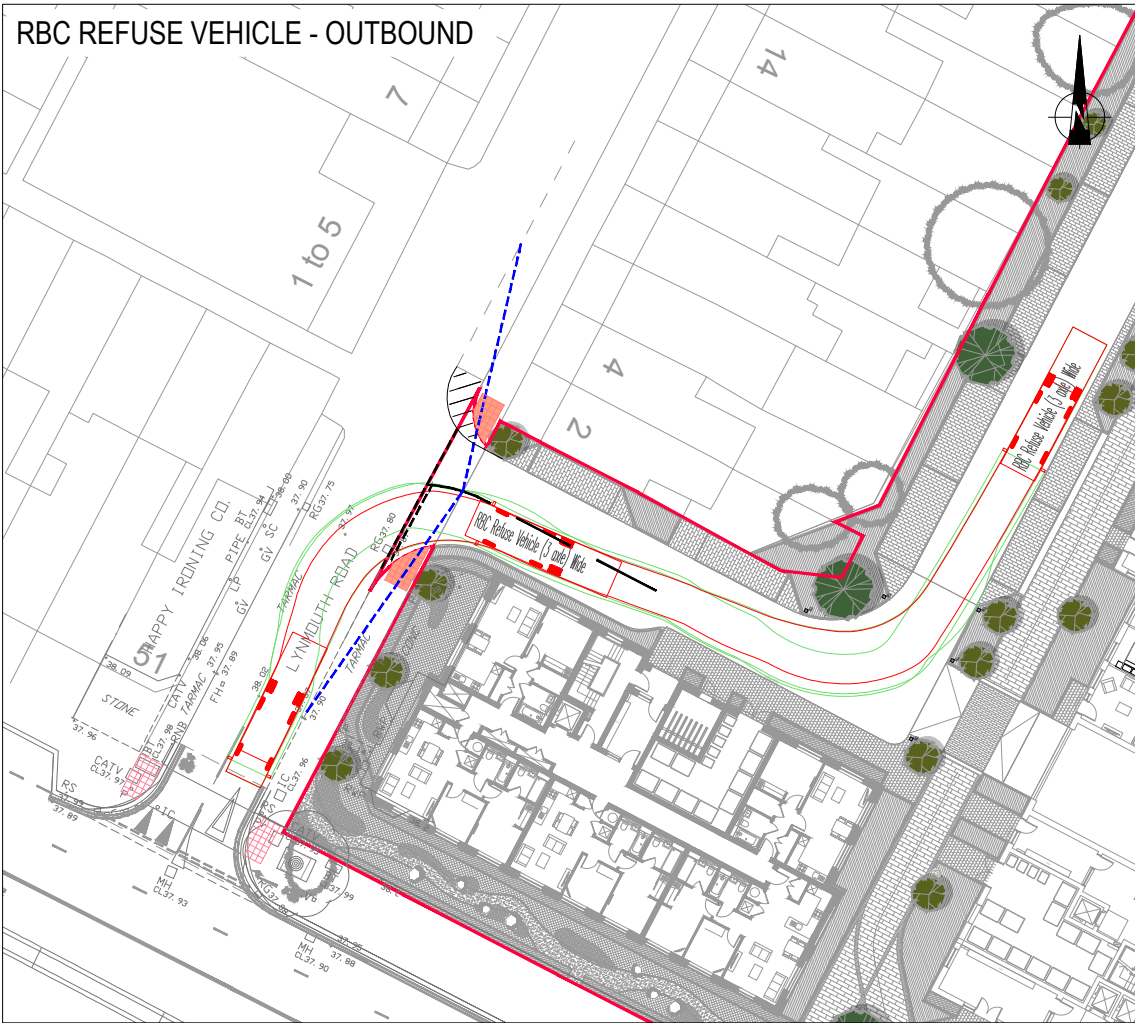
Date of 1st Issue 03.06.20	Designed -	Drawn JC
A3 Scale 1:500	Checked JH	Approved DT
Drawing Number 47500/5500/003		Revision

pba
peterbrett
now part of
Stantec
peterbrett.com
© Peter Brett Associates LLP
READING
Tel: 01189 500 761

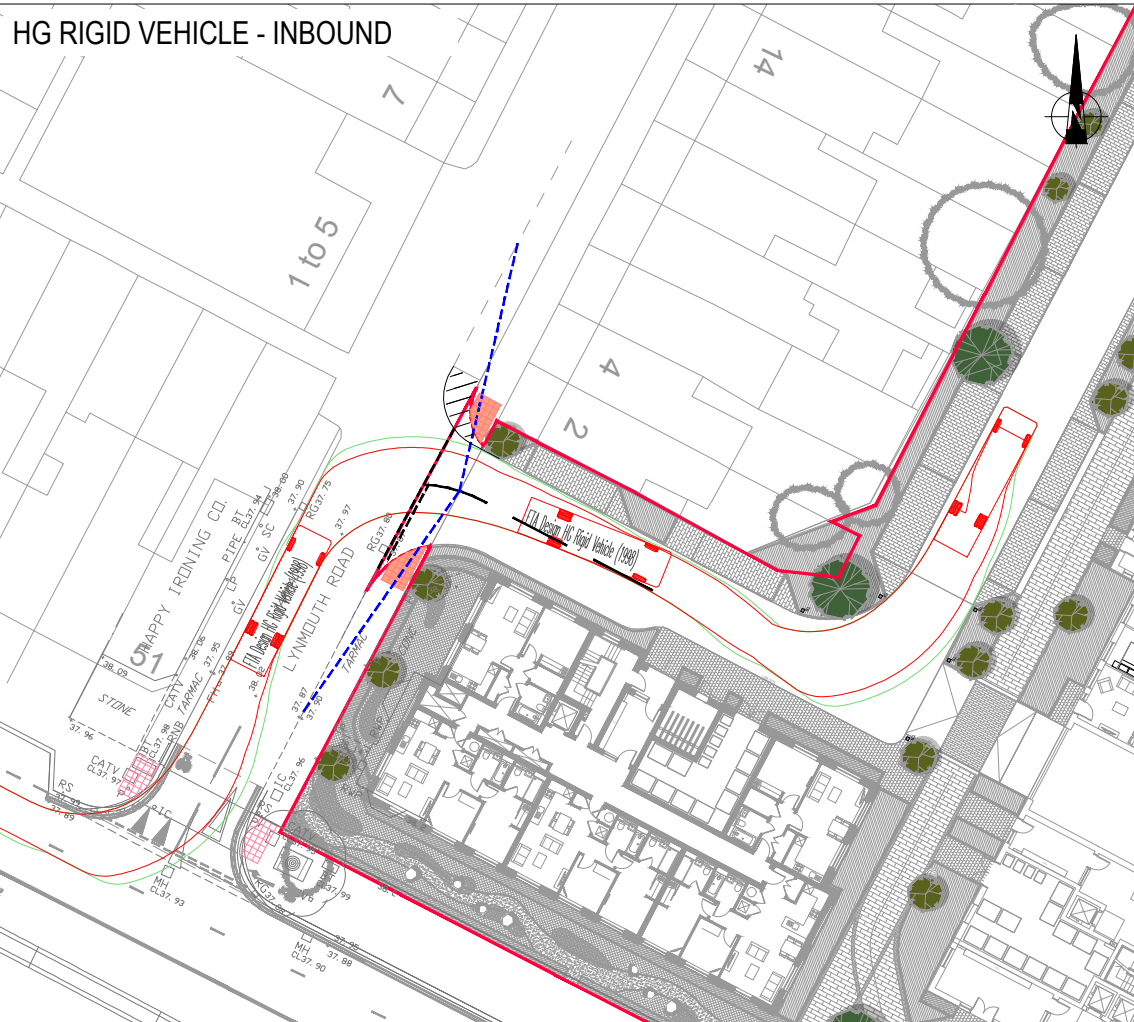
RBC REFUSE VEHICLE - INBOUND



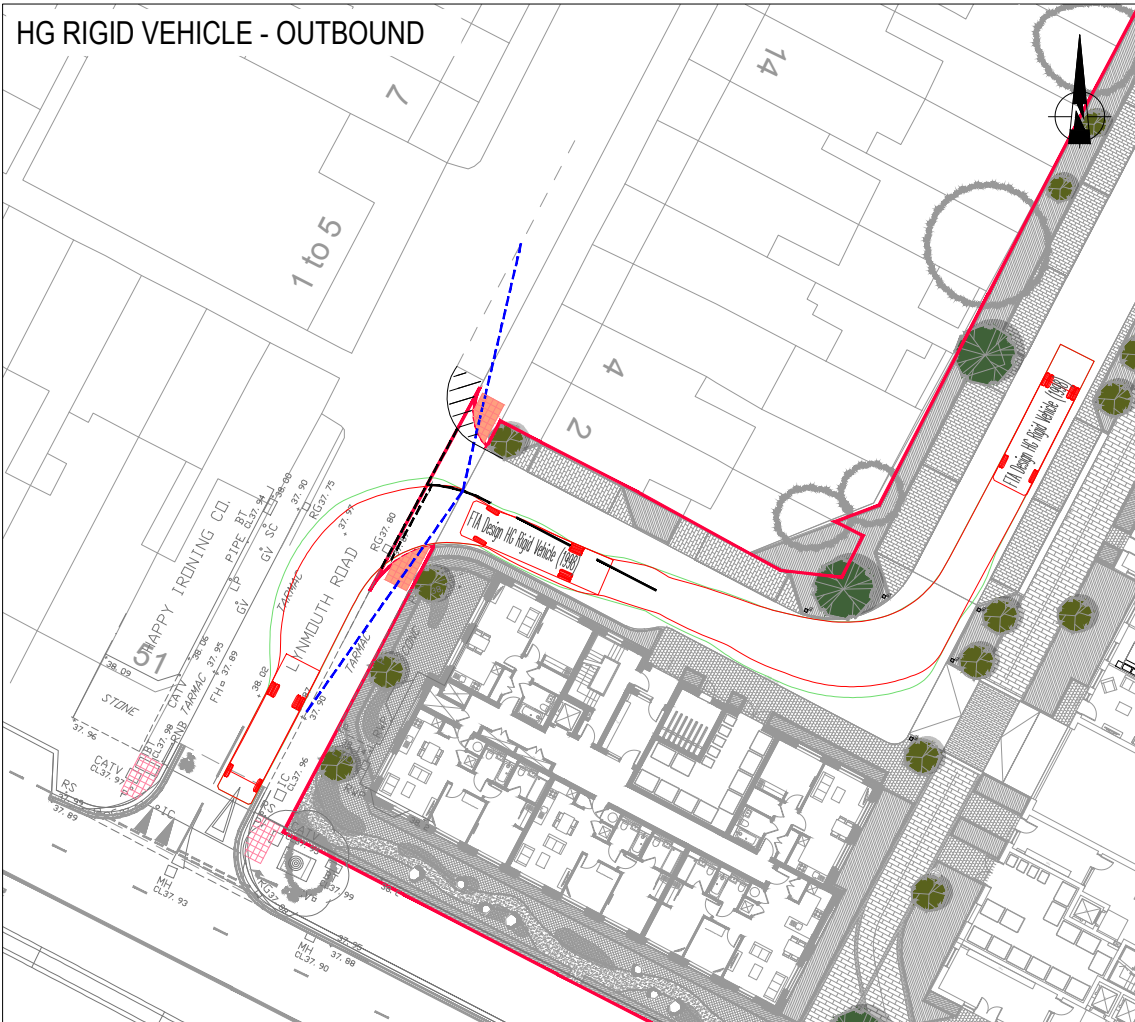
RBC REFUSE VEHICLE - OUTBOUND



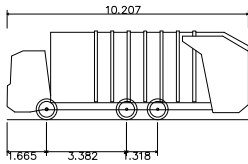
HG RIGID VEHICLE - INBOUND



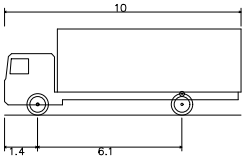
HG RIGID VEHICLE - OUTBOUND



VEHICLE PROFILES:



RBC Refuse Vehicle (3 axle) Wide
Overall Length 10.207m
Overall Width 2.530m
Overall Body Height 3.748m
Min Body Ground Clearance 0.300m
Track Width 2.480m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 8.600m



FTA Design HG Rigid Vehicle (1998)
Overall Length 10.000m
Overall Width 2.500m
Overall Body Height 3.645m
Min Body Ground Clearance 0.440m
Track Width 2.470m
Lock to lock time 3.00s
Kerb to Kerb Turning Radius 11.000m

Mark	Revision	Date	Drawn	Chkd	Appd

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

Drawing Issue Status
FOR INFORMATION

**THE OLD POWER STATION
VASTERN ROAD, READING
SITE ACCESS SWEEP PATH ASSESSMENT**

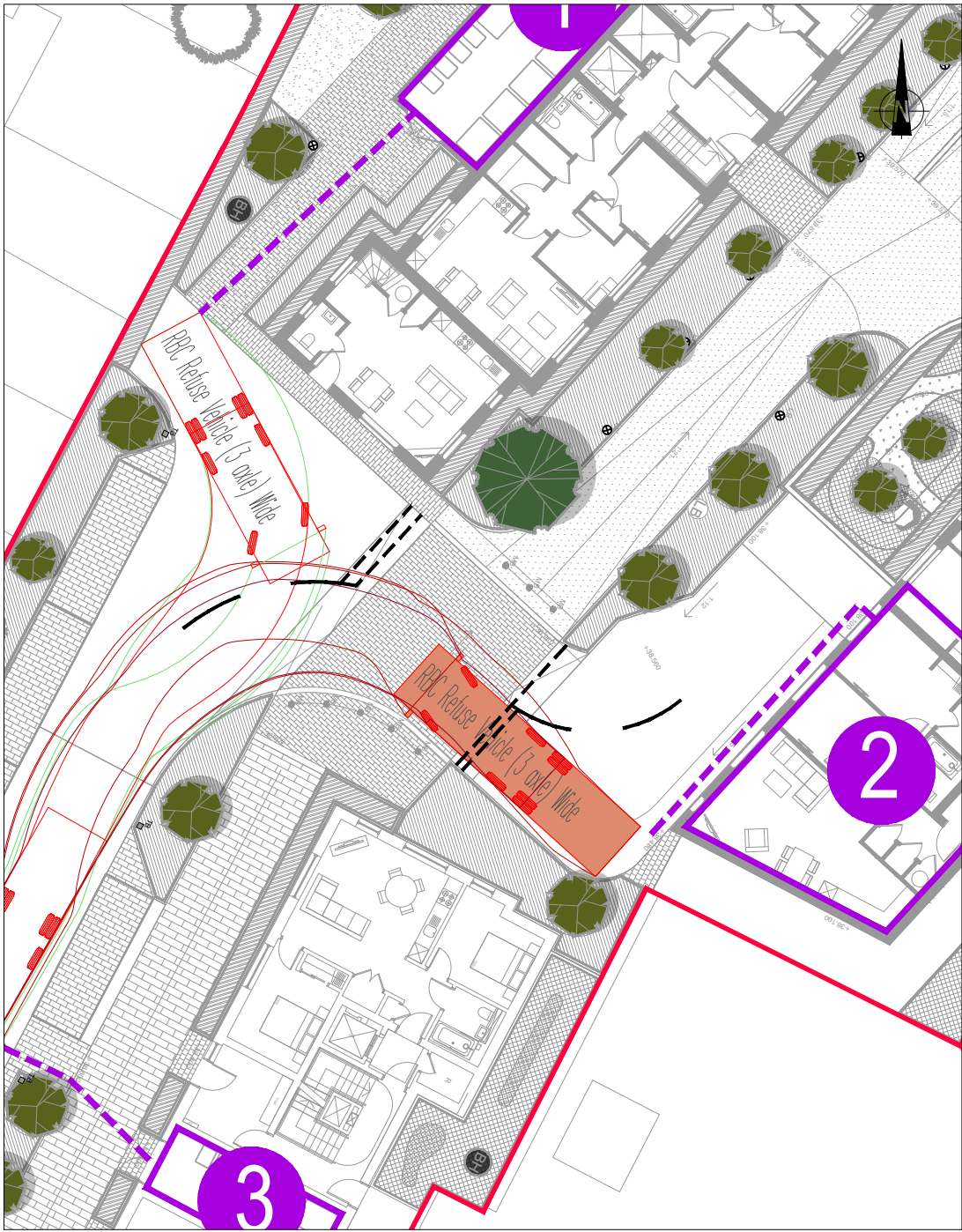
Client
Berkeley
Designed for life

Date of 1st Issue	Designed	Drawn
10.06.20	-	JC
A3 Scale	Checked	Approved
1:500	JH	DT
Drawing Number		Revision
47500/5500/004		

pba
peterbrett
now part of
Stantec
peterbrett.com
© Peter Brett Associates LLP
READING
Tel: 01189 500 761



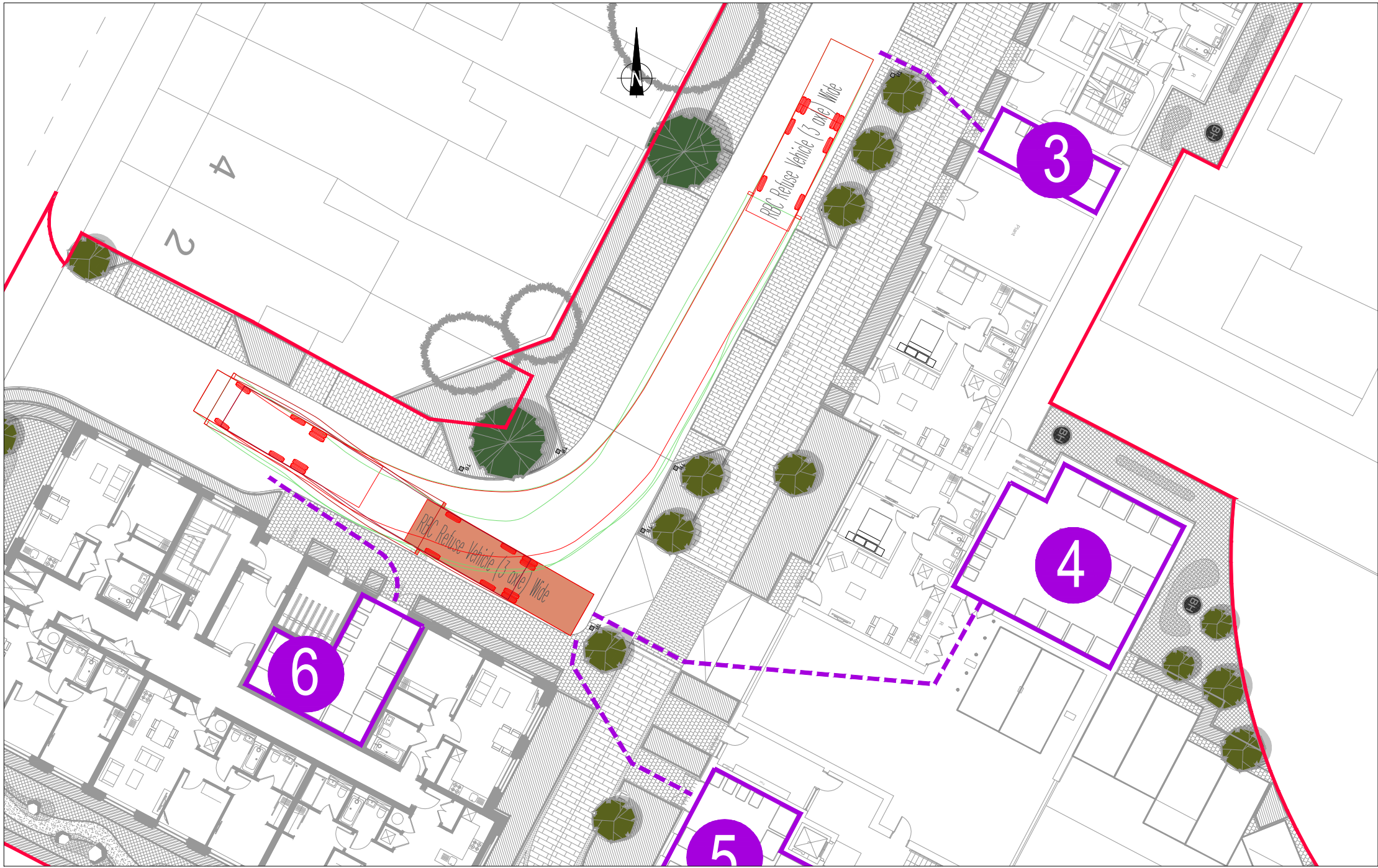
1 - COLLECTION AT BLOCK EFG (STORE 1)



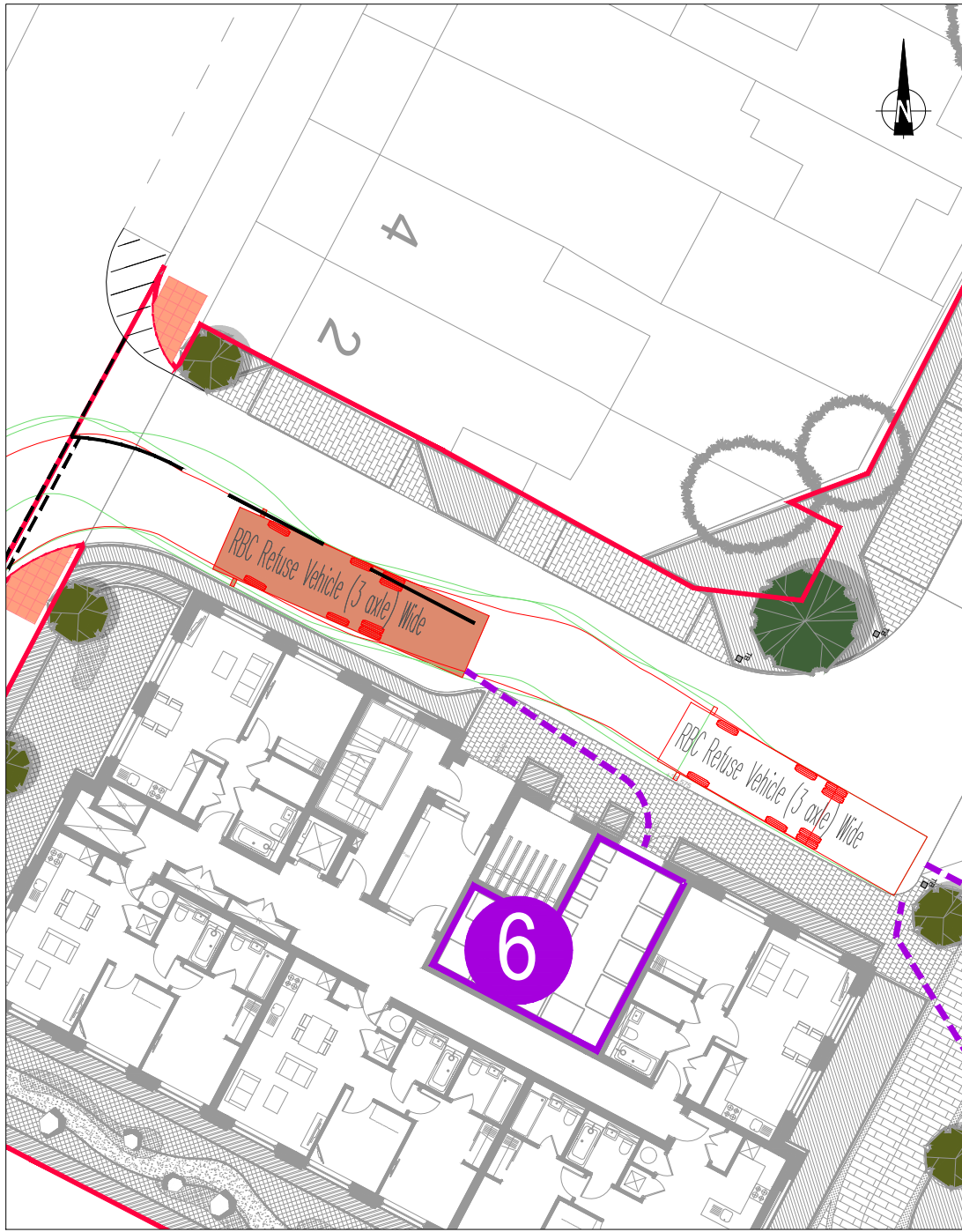
2 - COLLECTION AT BLOCK D (STORE 2)



3 - COLLECTION AT BLOCK C (STORE 3)

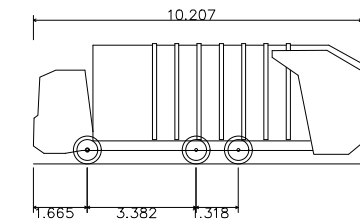


4 - COLLECTION AT BLOCK B (STORES 4 AND 5)



5 - COLLECTION AT BLOCK A (STORE 6)

VEHICLE PROFILE:



RBC Refuse Vehicle (3 axle) Wide	10.207m
Overall Length	2.530m
Overall Width	3.748m
Overall Body Height	0.300m
Min Body Ground Clearance	2.480m
Track Width	4.00s
Lock to lock time	8.600m
Kerb to Kerb Turning Radius	

Mark	Revision	Date	Drawn	Chkd	Appd

SCALING NOTE: Do not scale this drawing - any errors or omissions shall be reported to Stantec without delay.
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

Drawing Issue Status

FOR INFORMATION

THE OLD POWER STATION
VASTERN ROAD, READING
INTERNAL TURNING HEAD
SWEEP PATH ANALYSIS

Client

Berkeley
Designed for life

Stantec

stantec.com/uk

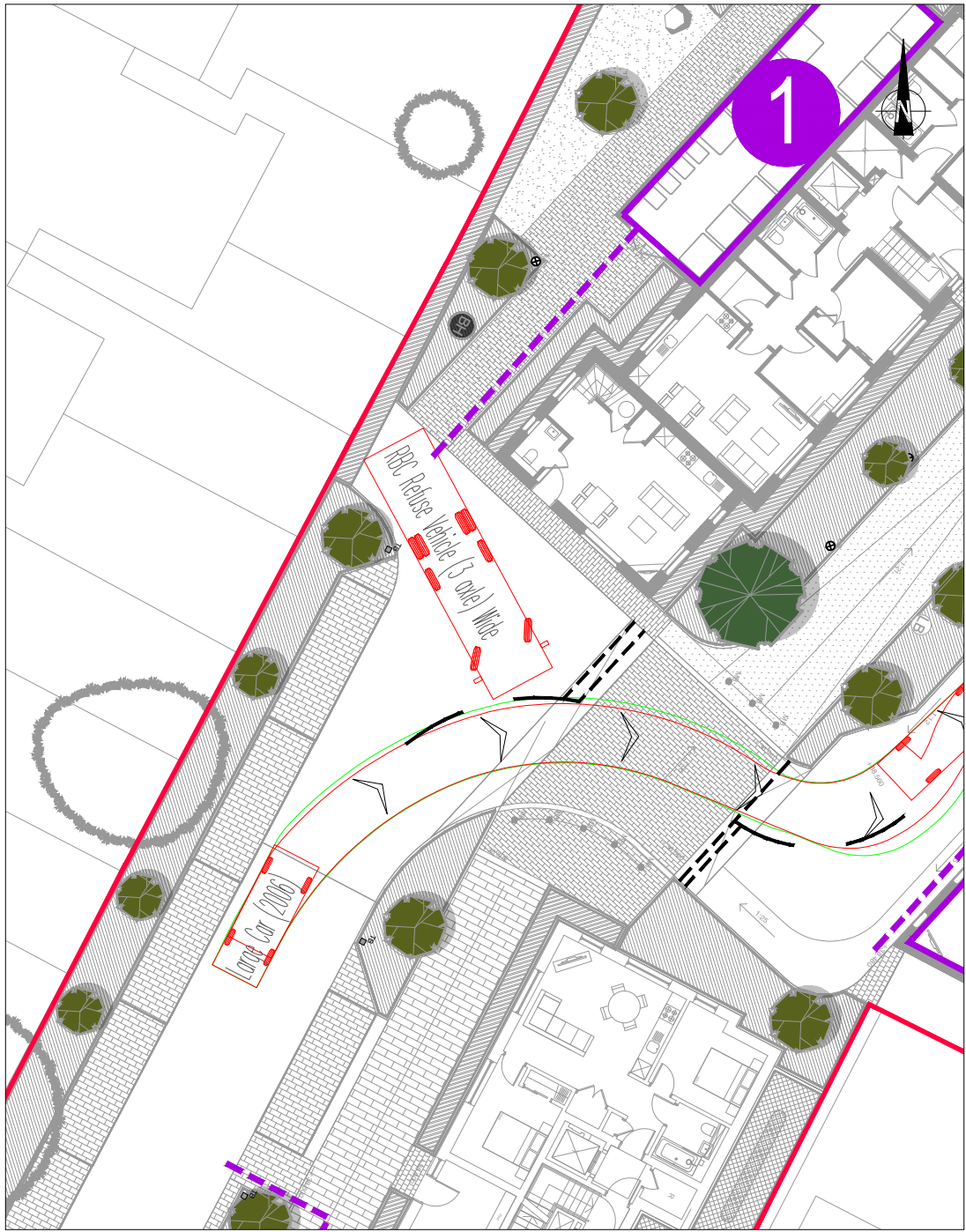
Copyright reserved
The copyrights to all designs and drawings are the property of Stantec.
Reproduction or use for any purpose other than that
authorised by Stantec is forbidden.

Date of 1st Issue	Designed	Drawn
10.06.20	-	AC
A2 Scale	Checked	Approved
1:250	JH	DT

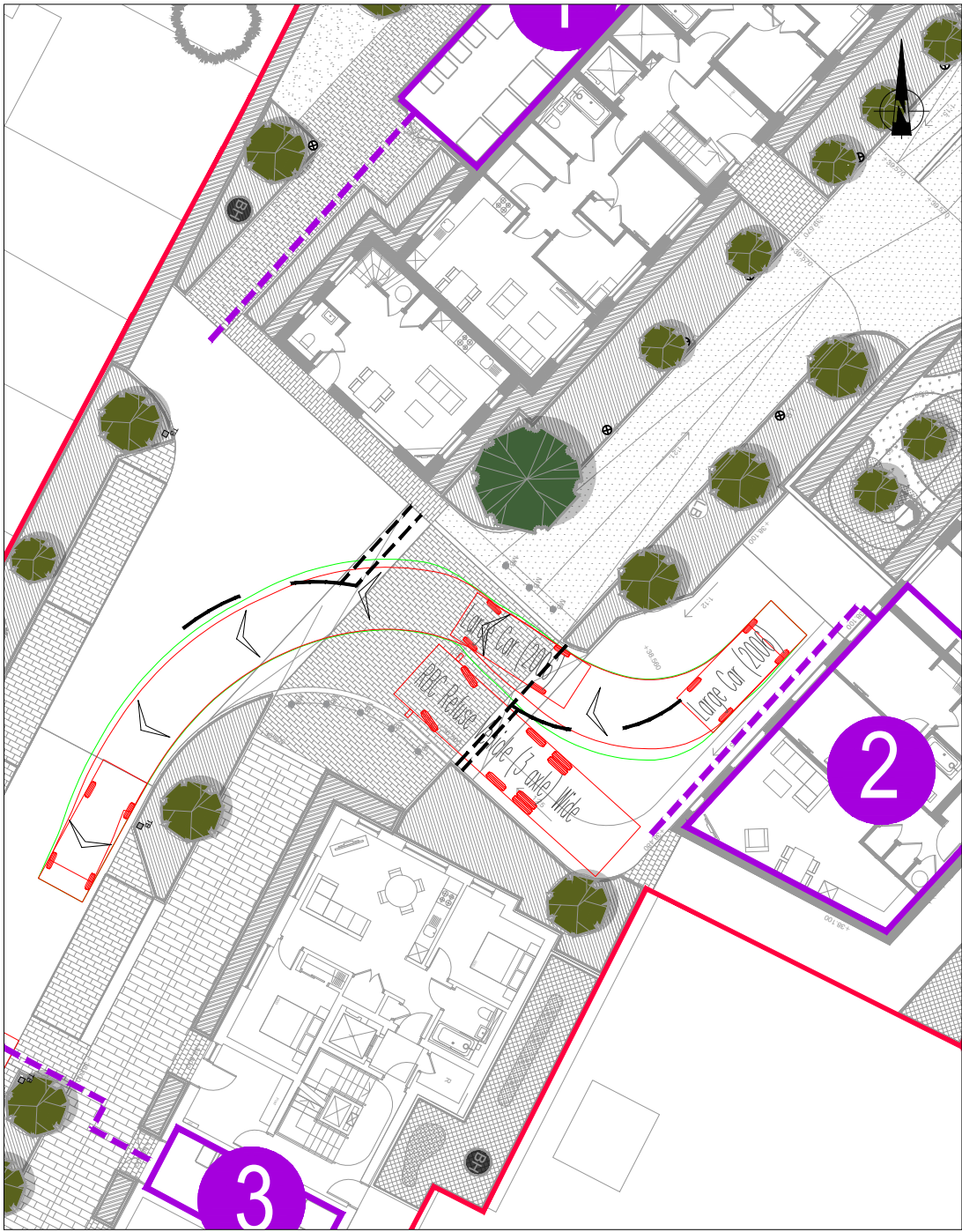
Drawing Number

47500/5500/005

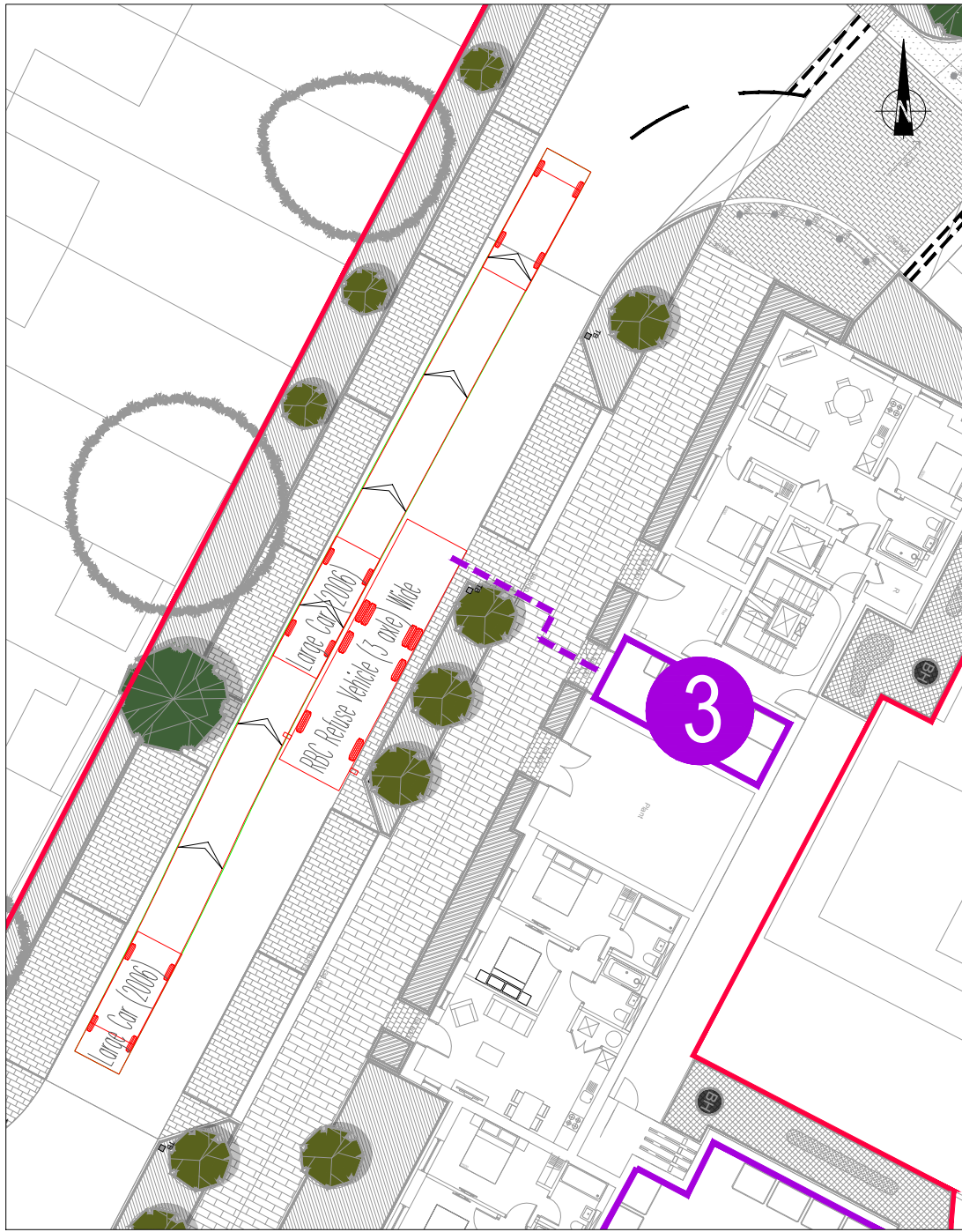
Revision



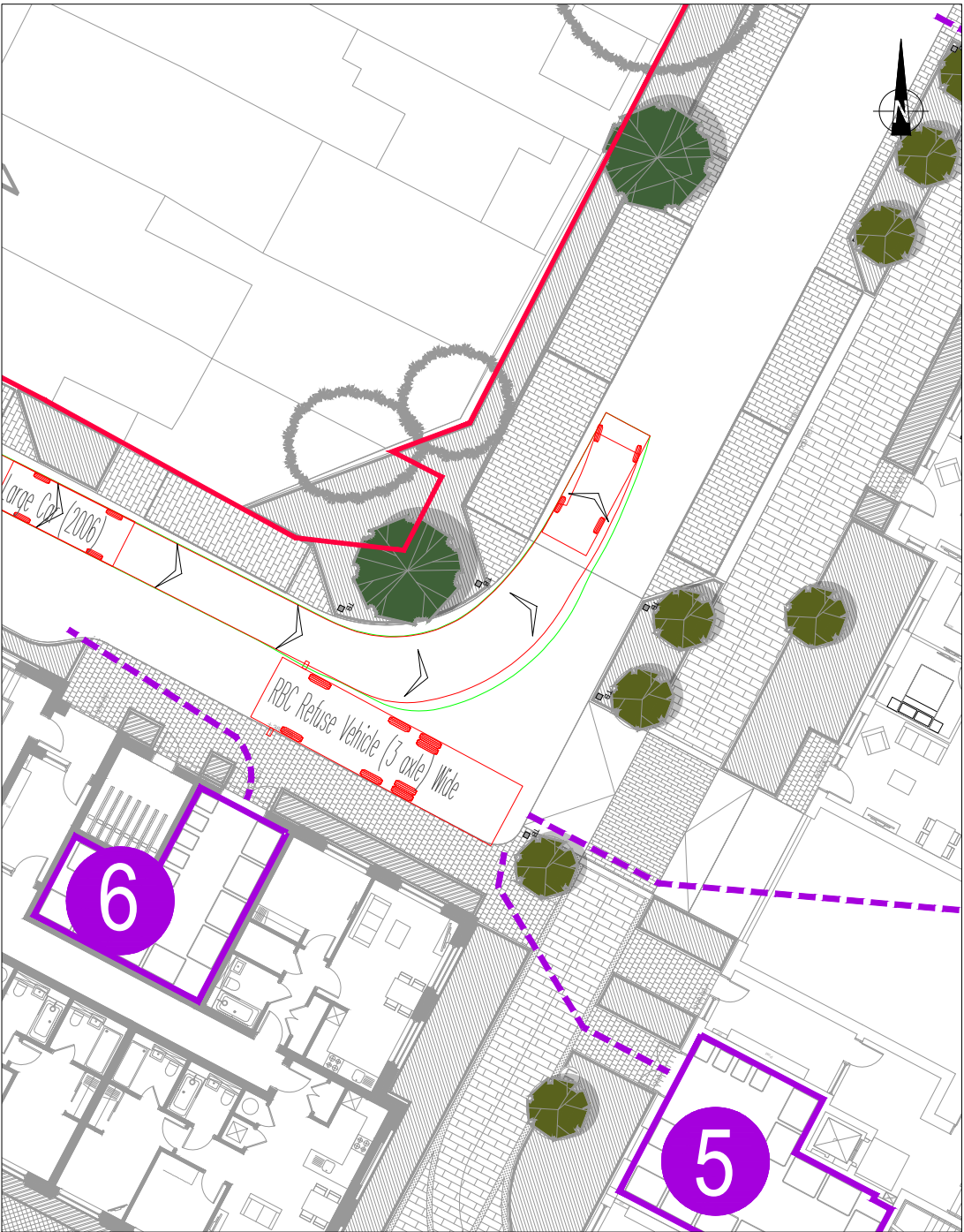
1 - COLLECTION AT BLOCK EFG (STORE 1)



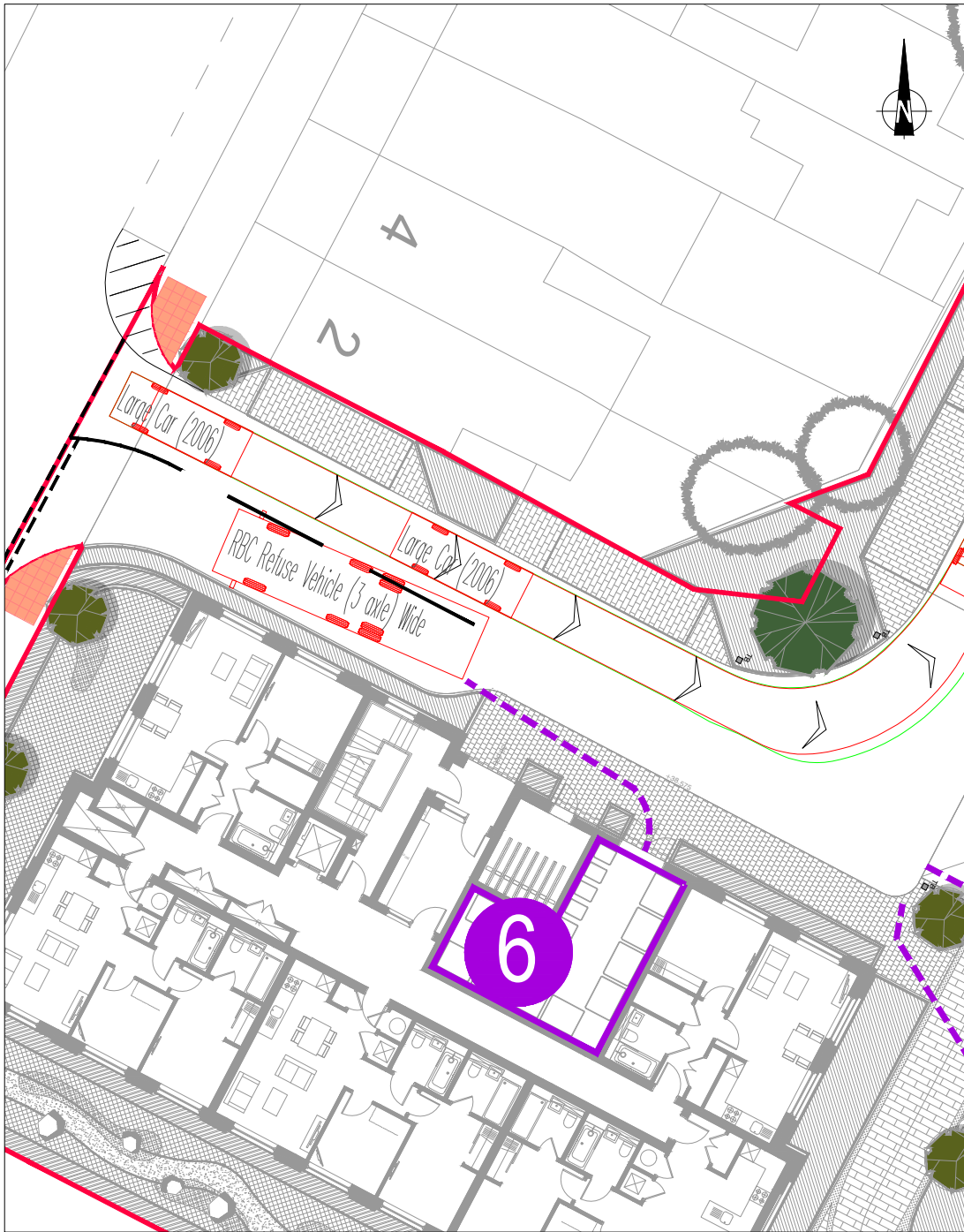
2 - COLLECTION AT BLOCK D (STORE 2)



3 - COLLECTION AT BLOCK C (STORE 3)

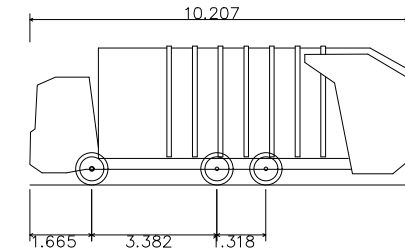


4 - COLLECTION AT BLOCK B (STORES 4 AND 5)

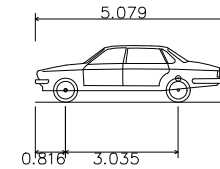


5 - COLLECTION AT BLOCK A (STORE 6)

VEHICLE PROFILE:

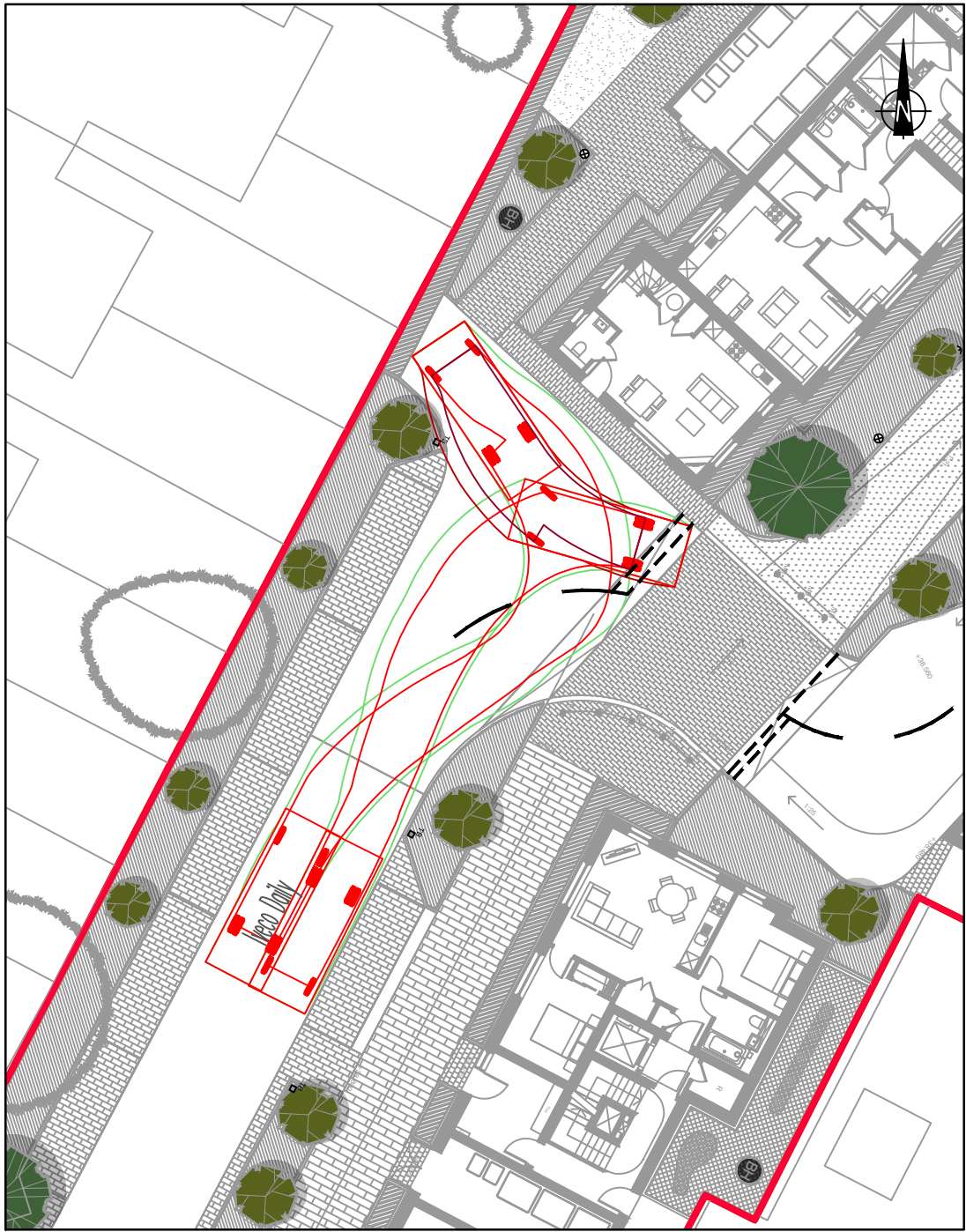


RBC Refuse Vehicle (3 axle) Wide
Overall Length 10.207m
Overall Width 2.530m
Overall Body Height 3.748m
Min Body Ground Clearance 0.300m
Track Width 2.480m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 8.600m



Large Car (2006)
Overall Length 5.079m
Overall Width 1.872m
Overall Body Height 1.525m
Min Body Ground Clearance 0.310m
Max Track Width 1.831m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.900m

Mark	Revision	Date	Drawn	Chkd	Appd
SCALING NOTE: Do not scale this drawing - any errors or omissions shall be reported to Stantec without delay.					
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.					
Drawing Issue Status					
FOR INFORMATION					
THE OLD POWER STATION VASTERN ROAD, READING INTERNAL PASSING PLACES SWEEP PATH ANALYSIS					
Client					
Berkeley Designed for life					
Date of 1st Issue 10.06.20		Designed -		Drawn JH	
A2 Scale 1:250		Checked DT		Approved DT	
Drawing Number 47500/5500/006				Revision	
Stantec stantec.com/uk Copyright reserved The copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorised by Stantec is forbidden. READING Tel: 01189 500 761					



BLOCK EFG - IVECO DAILY



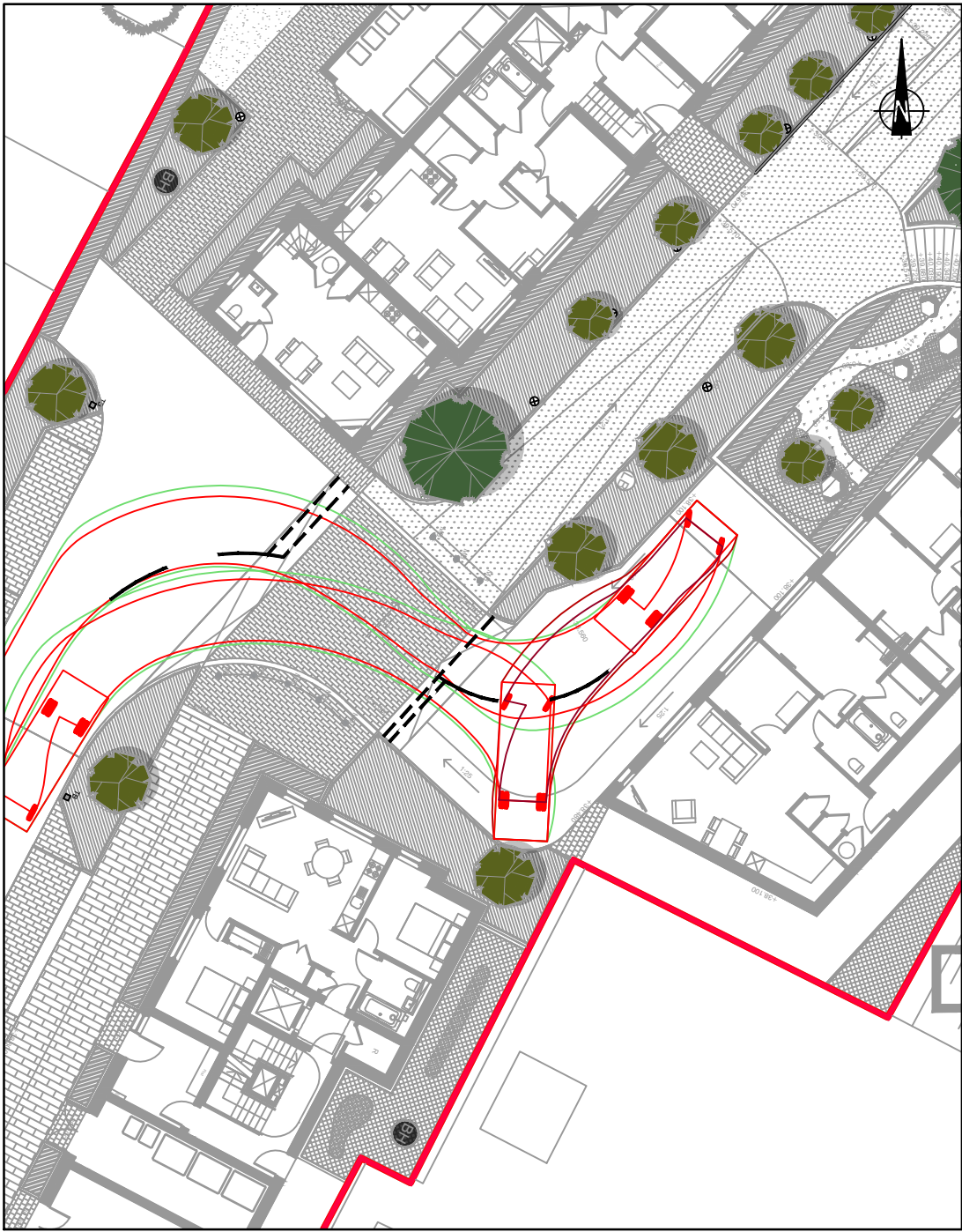
BLOCK EFG - 4.6t LIGHT VAN



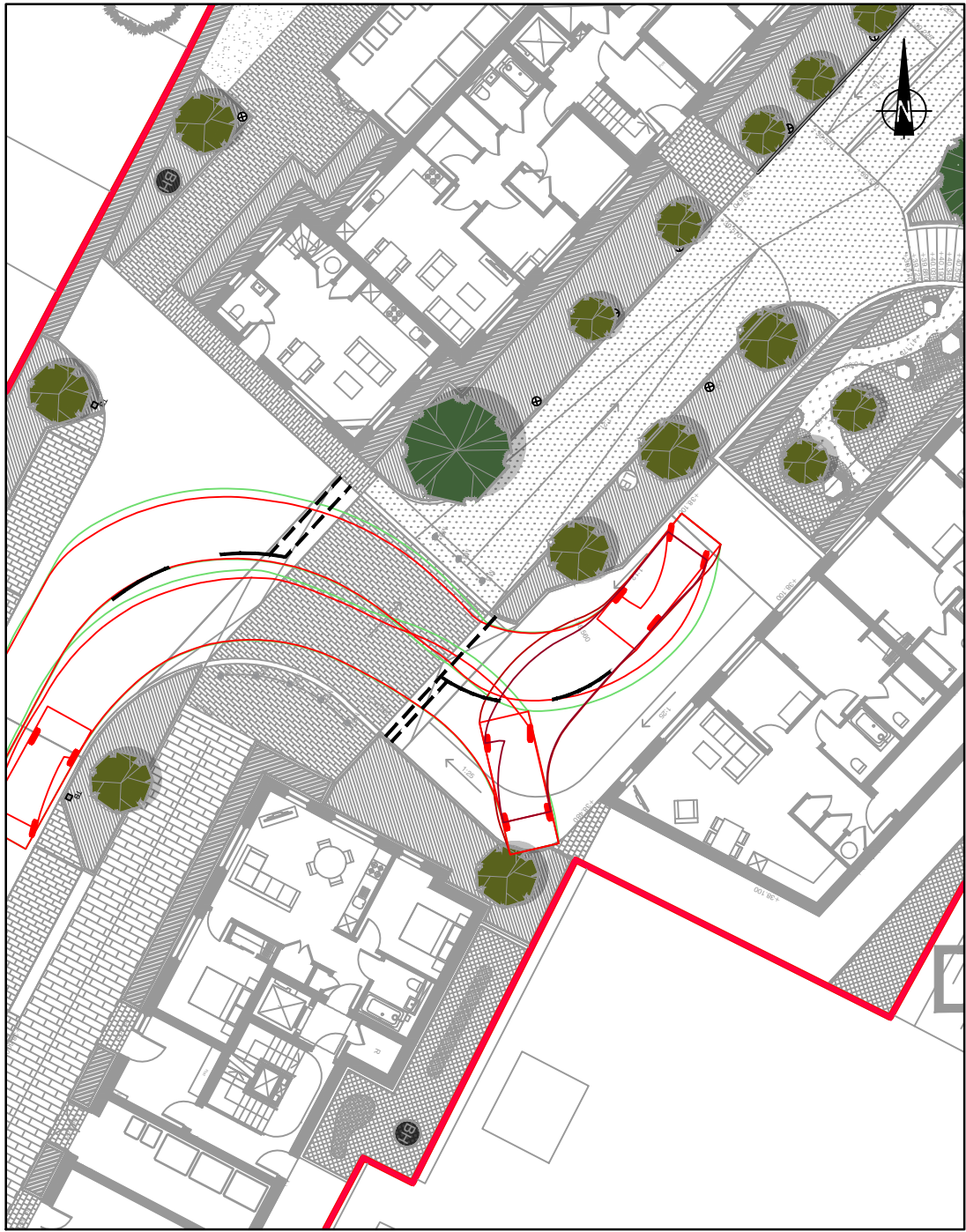
BLOCK EFG - LARGE CAR



BLOCK D - IVECO DAILY



BLOCK D - 4.6t LIGHT VAN



BLOCK D - LARGE CAR

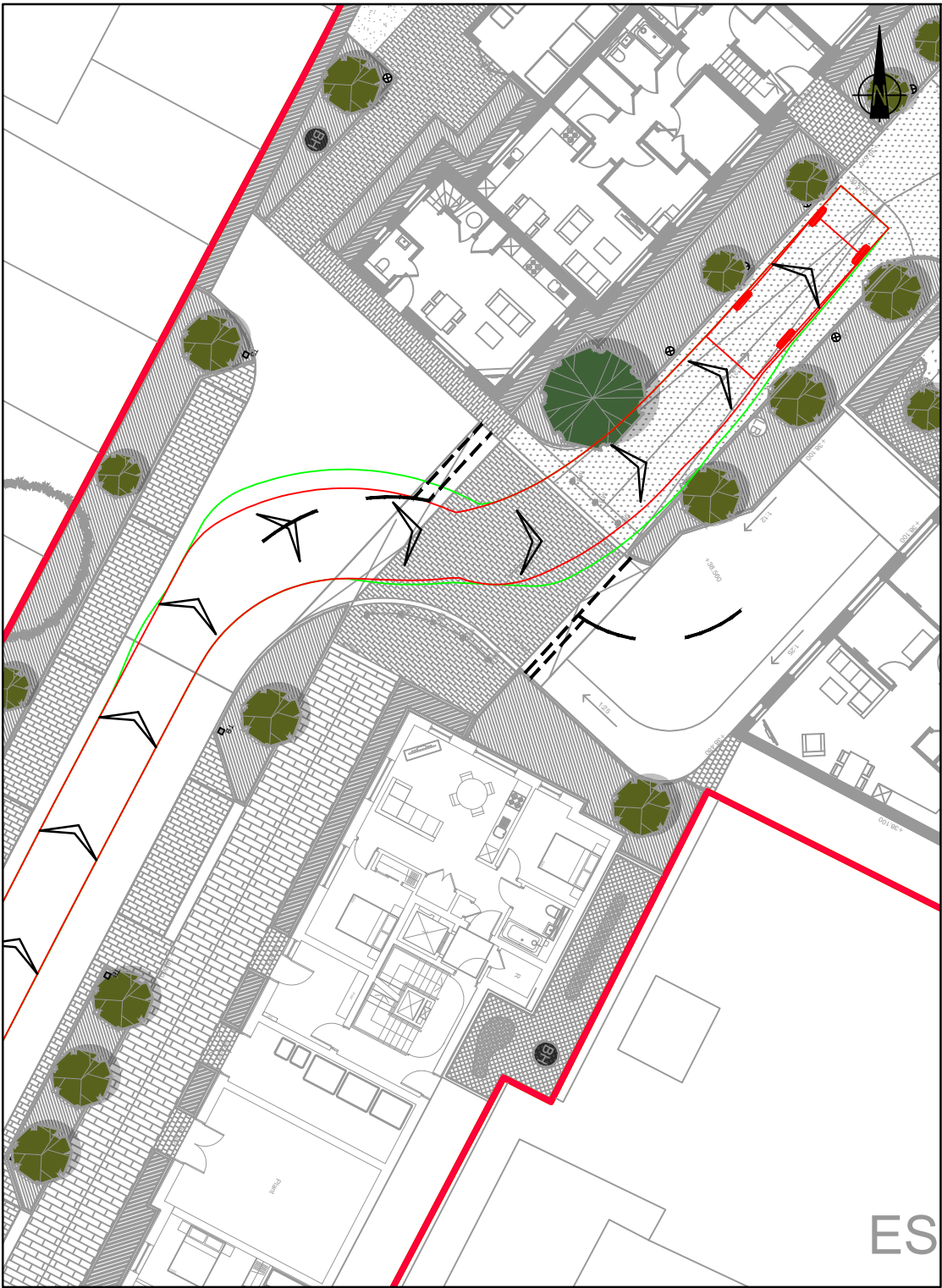
VEHICLE PROFILE:

Iveco Daily
Overall Length6.509m
Overall Width2.550m
Overall Body Height2.567m
Min Body Ground Clearance0.340m
Track Width2.000m
Lock to lock time3.00s
Kerb to Kerb Turning Radius7.000m

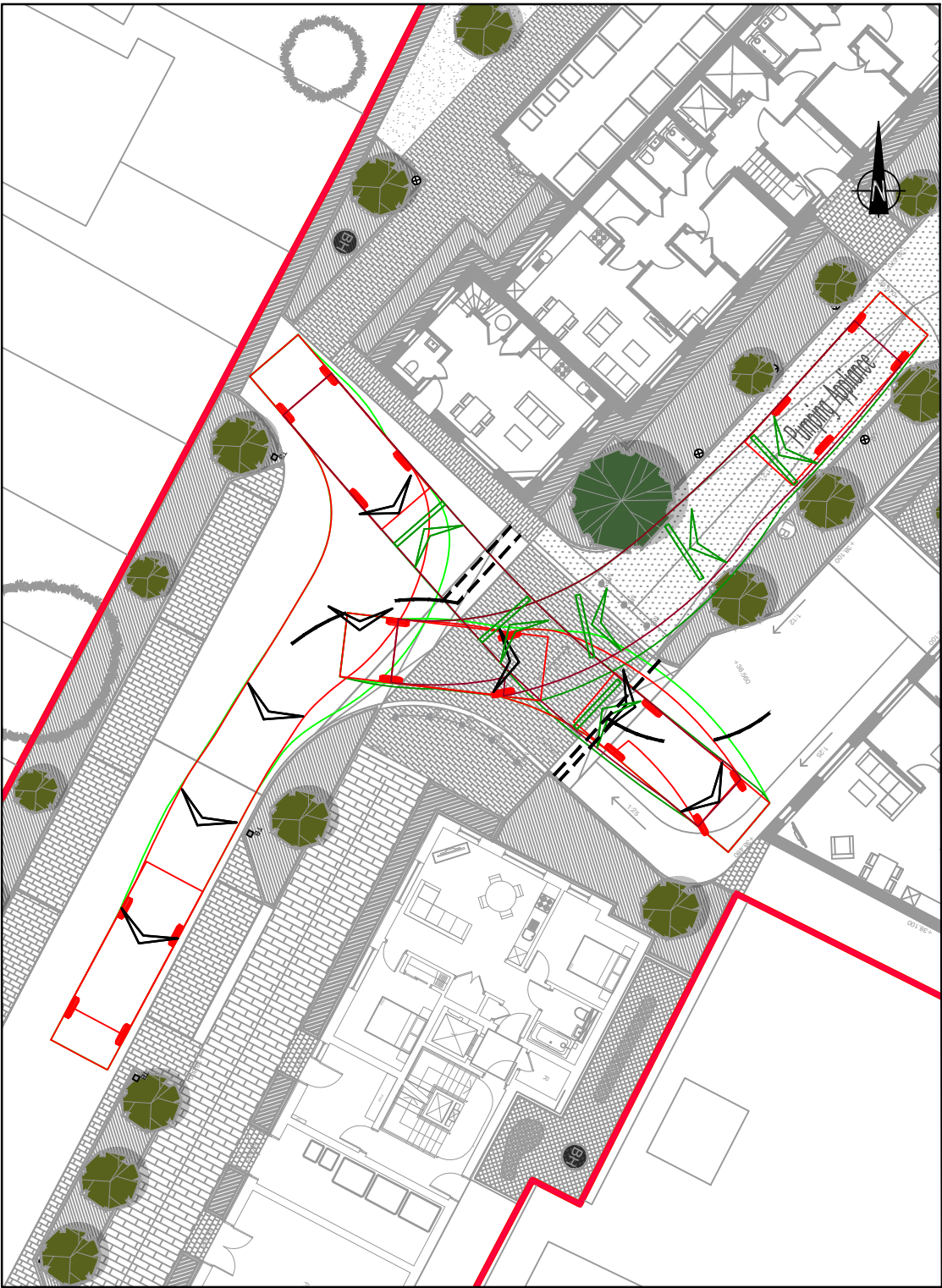
4.6t Light Van
Overall Length5.885m
Overall Width2.000m
Overall Body Height2.526m
Min Body Ground Clearance0.299m
Track Width1.765m
Lock to lock time4.00s
Kerb to Kerb Turning Radius6.000m

Large Car (2006)
Overall Length5.079m
Overall Width1.872m
Overall Body Height1.525m
Min Body Ground Clearance0.310m
Max Track Width1.831m
Lock to lock time4.00s
Kerb to Kerb Turning Radius5.900m

Mark	Revision		Date	Drawn	Chkd	Appd
SCALING NOTE: Do not scale this drawing - any errors or omissions shall be reported to Stantec without delay.						
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.						
Drawing Issue Status						
FOR INFORMATION						
THE OLD POWER STATION VASTERN ROAD, READING INTERNAL TURNING HEAD SWEEP PATH ANALYSIS						
Client						
Berkeley Designed for life						
Date of 1st Issue 10.06.20		Designed -		Drawn AC		
A2 Scale 1:200		Checked JH		Approved DT		
Drawing Number 47500/5500/007					Revision	
stantec.com/uk						
Copyright reserved The copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorised by Stantec is forbidden.						
READING Tel: 01189 500 761						

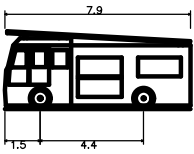


PUMPING APPLIANCE ACCESS TO
BLOCKS D AND EFG - INBOUND



PUMPING APPLIANCE ACCESS TO
BLOCKS D AND EFG - OUTBOUND

VEHICLE PROFILES:



Pumping Appliance	7.900m
Overall Length	2.500m
Overall Width	3.300m
Overall Body Height	0.140m
Min Body Ground Clearance	2.500m
Track Width	4.00s
Lock to lock time	7.750m
Kerb to Kerb Turning Radius	

Mark	Revision	Date	Drawn	Chkd
				Appd

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

Drawing Issue Status
FOR INFORMATION

THE OLD POWER STATION
VASTERN ROAD, READING
EMERGENCY VEHICLE ACCESS
SWEEP PATH ASSESSMENT

Client		
Berkeley		
Designed for life		
Date of 1st Issue	Designed	Drawn
10.06.20	-	JHC
A3 Scale	Checked	Approved
1:250	JH	DT
Drawing Number	Revision	
47500/5500/008		

pba
peterbrett
now part of
Stantec
peterbrett.com
© Peter Brett Associates LLP
READING
Tel: 01189 500 761