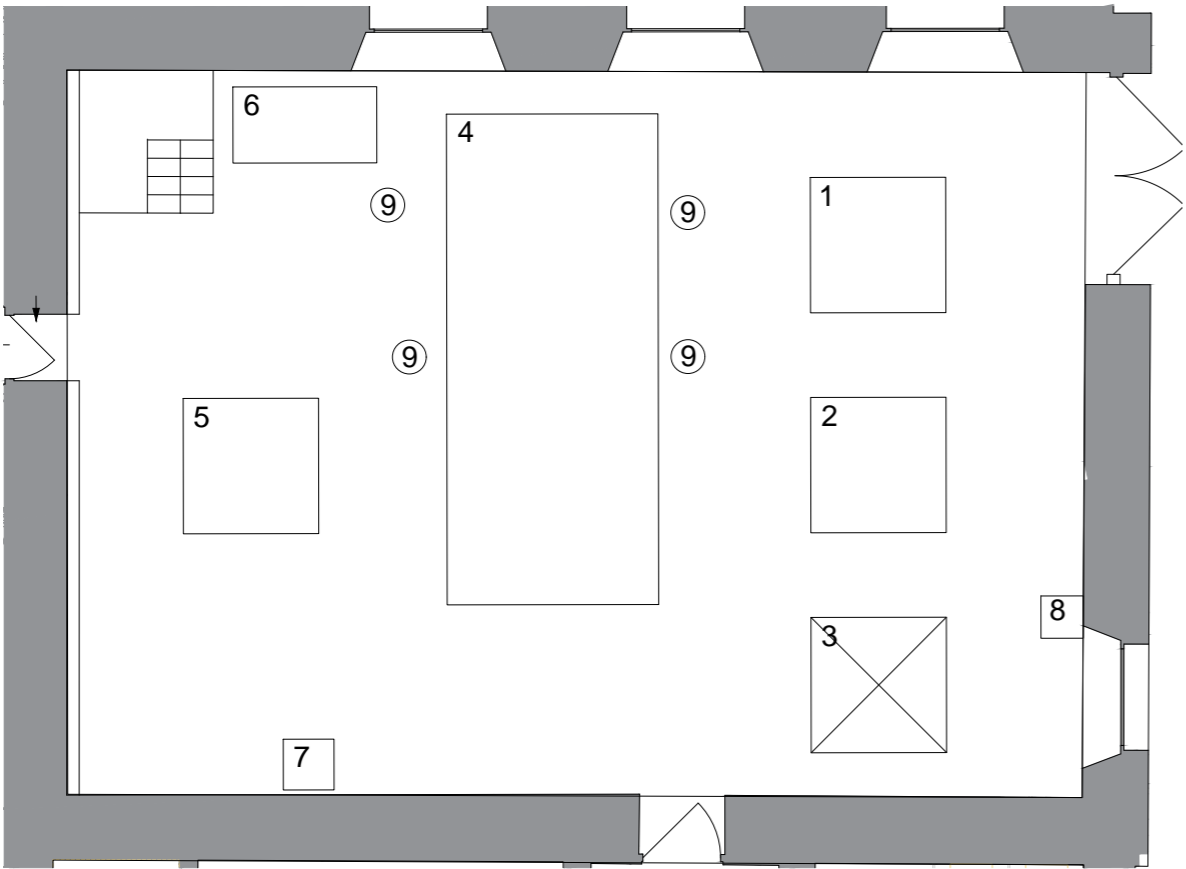


Heritage changes **Existing pumphouse machinery**



Ruston & Ward Pumphouse existing electrical pumping equipment. Approximate locations shown.

Item 1



Replacment W H Allen DC motor  
Date: Undated  
Size: 1.6m x 1.6m  
Report comment: Low to medium significance

Item 2



Harland DC motor  
Date: 1932  
Size: 1.6m x 1.6m  
Report comment: Low to medium significance

Item 3



Harland DC Motor  
Date: 1932  
Size: 1.6m x 1.6m x 3 (Recessed)  
Report comment: Low to medium significance

Item 4

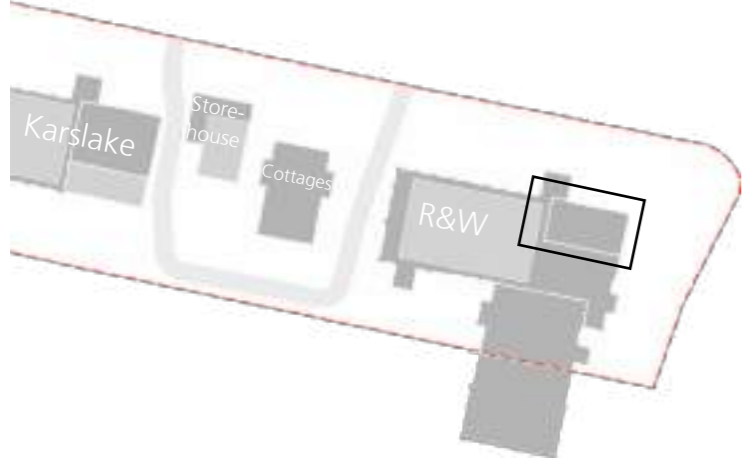


**Harland twin impellar electric centrifugal pump set**  
Date: 1932  
Size: 5.8m x 2.5m  
Report comment: Low to medium significance

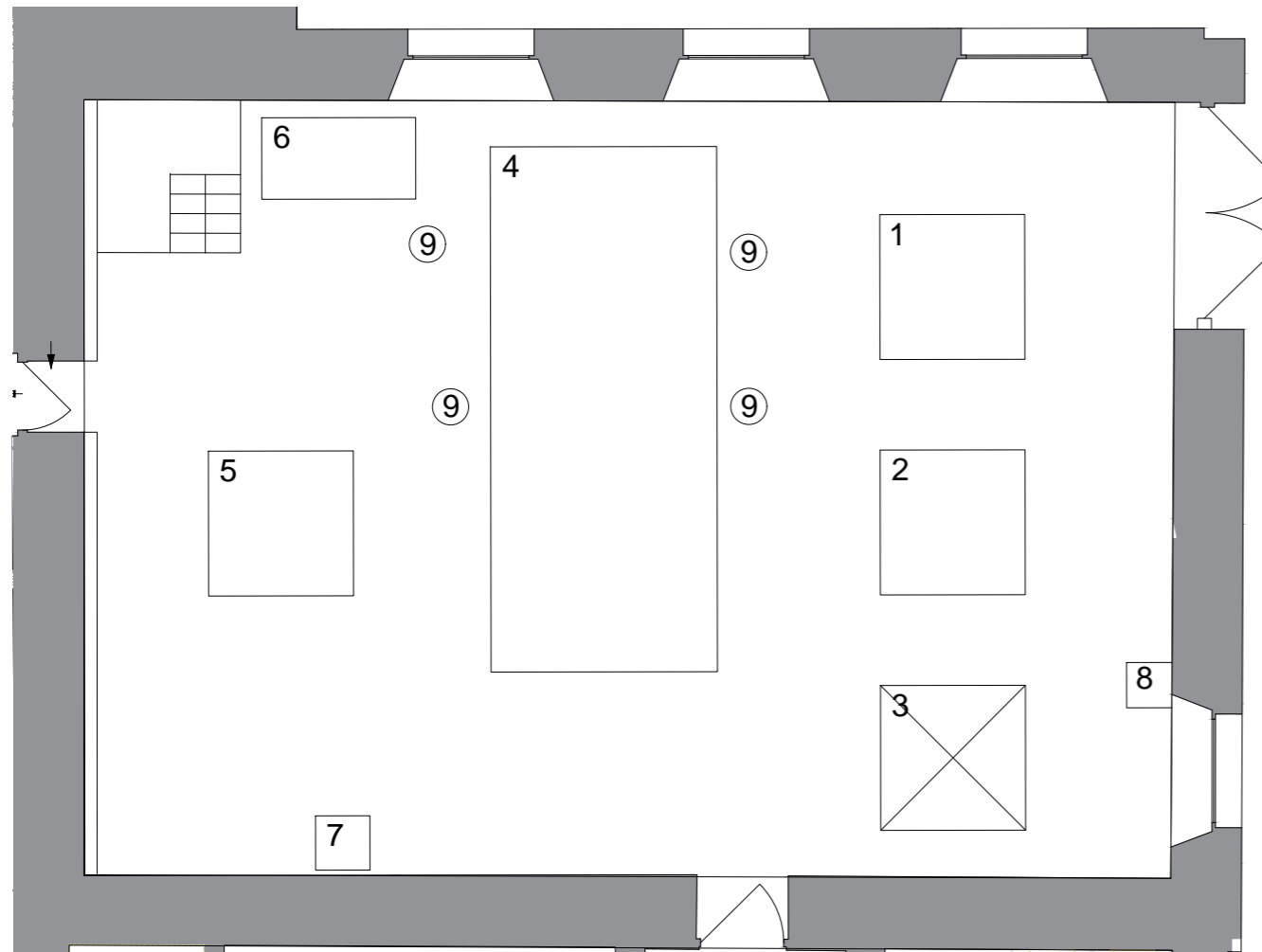
Item 5



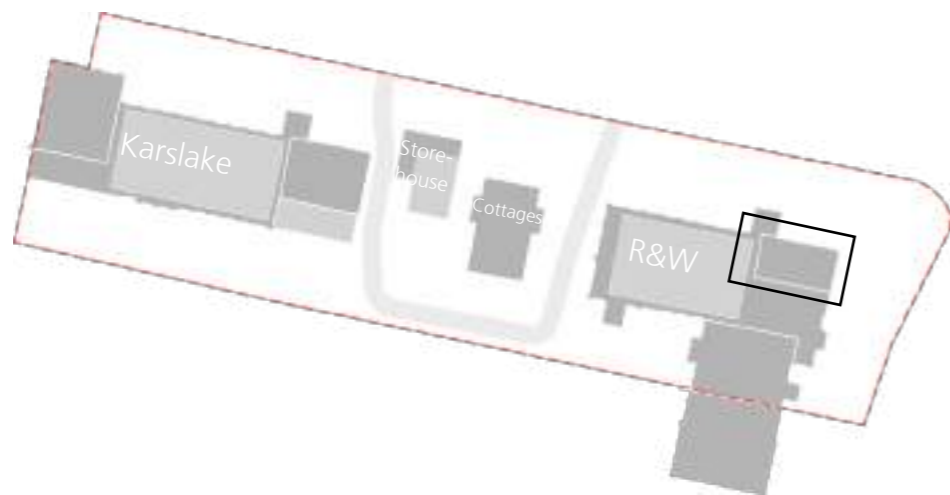
Harland DC Motor  
Date: 1932  
Size: 1.6m x 1.6m  
Report comment: Low to medium significance



# Heritage changes **Existing pumphouse machinery**



Ruston & Ward Level 0 Pumphouse existing electrical pumping equipment. Approximate locations shown.



Item 6



Harland control cabinet for electric centrifugal pump  
Date: 1932  
Size: 0.9m x 1.7m Double leaf.  
Report comment: Low to medium significance

Item 7



Harland control cabinet for electric centrifugal pump  
Date: 1932  
Size: 0.6m x 0.6m Single Leaf  
Report comment: Low to medium significance

Item 8



Harland control cabinet for electric centrifugal pump  
Date: 1932  
Size: 0.5m x 0.5m Single Leaf  
Report comment: Low to medium significance

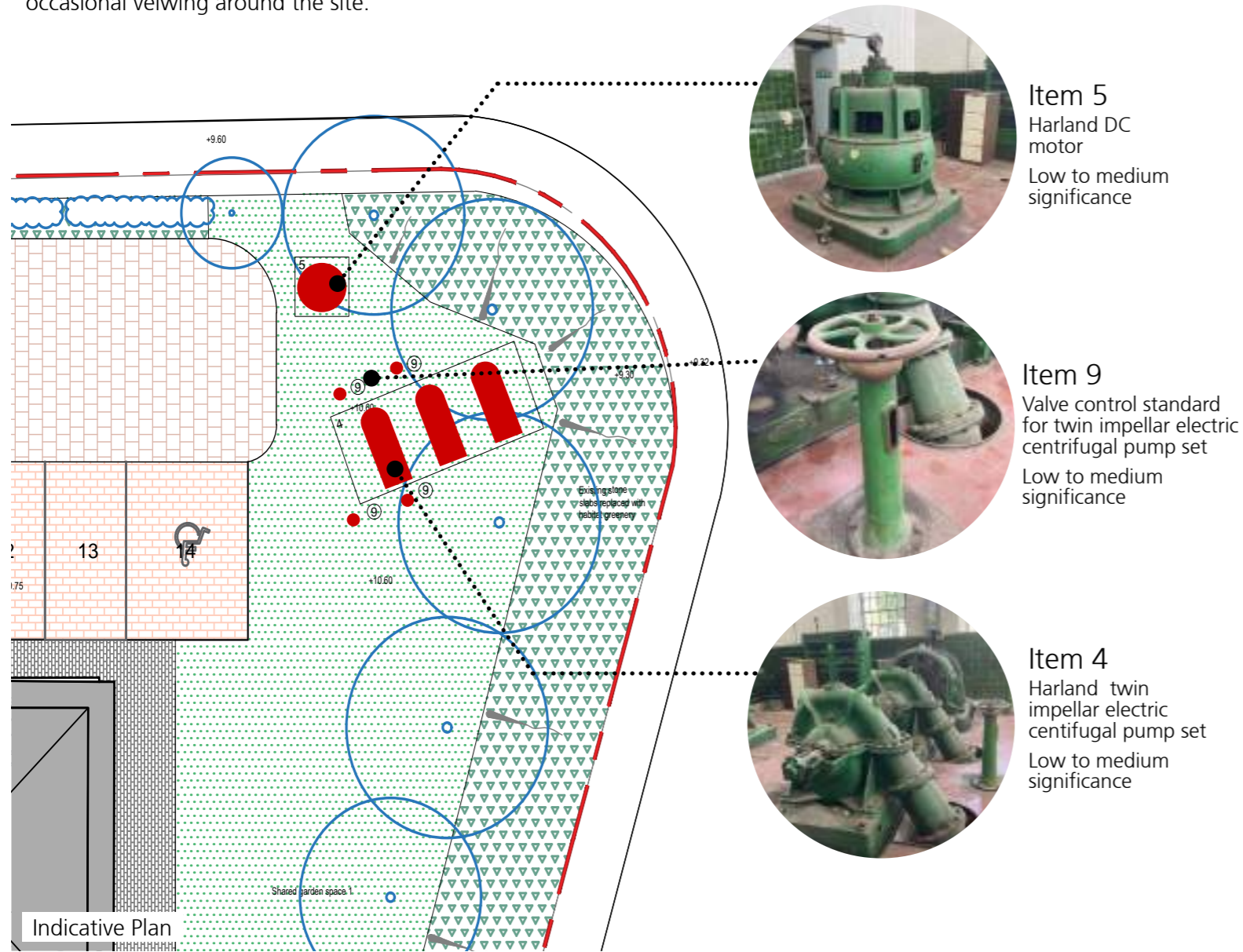
Item 9



Valve Control standard for centrifugal pump  
Date: 1932  
Size: 0.4 d  
Report comment: Low to medium significance

# Heritage changes Machinery relocation

Site plan denoting potential positions for machinery relocation for occasional viewing around the site.



Item 5  
Harland DC motor  
Low to medium significance



Item 9  
Valve control standard for twin impellar electric centrifugal pump set  
Low to medium significance



Item 4  
Harland twin impellar electric centrifugal pump set  
Low to medium significance

3No. Harland control cabinets to be relocated to the proposed coworking business space to help create a unique and authentic character to reimagined workshop space



Item 6  
Harland control cabinet for electric centrifugal pump  
Low to medium significance

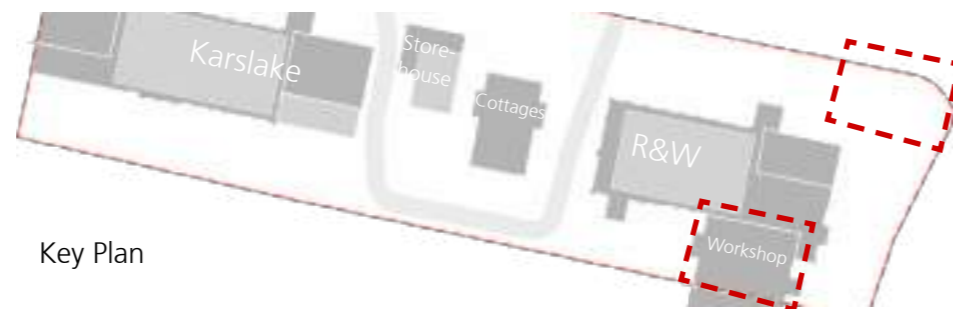


Item 7  
Harland double leaf control cabinet for electric centrifugal pump  
Low to medium significance

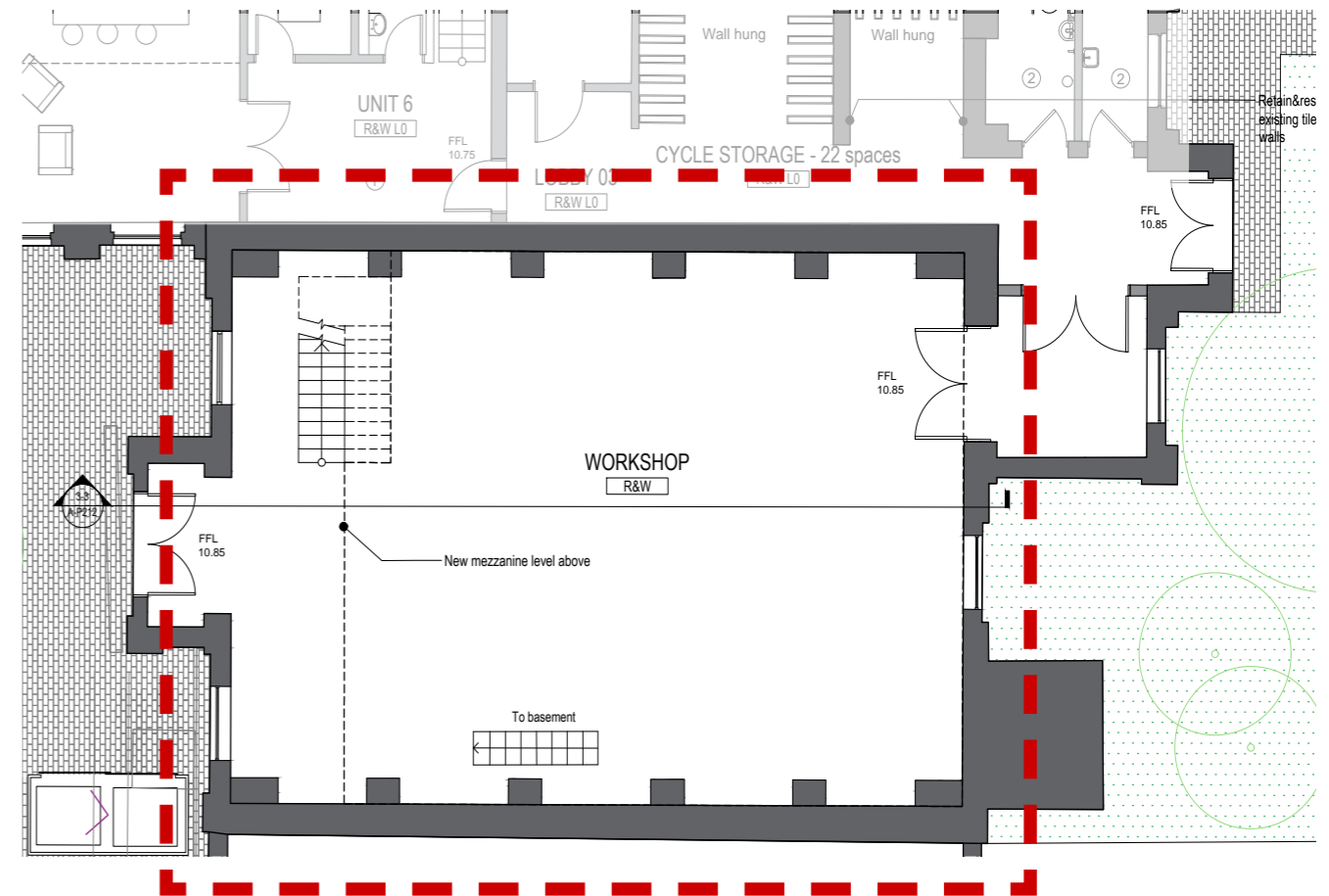


Item 8  
Harland control cabinet for electric centrifugal pump  
Low to medium significance

Centrifugal Pump, DC Motor and Valve Control used to create a unique landscape feature in the most prominent location on the corner of the site Upper and Lower Sunbury Road



Key Plan



# 07 Landscape

## Landscape **Design concept**

Inspiration is drawn from the Ruhr Industrial Park where nature has reclaimed the post industrial landscape. Our approach is to create a hard landscaped 'margin' to the buildings formed from existing cobbles. Limited grass zones are carefully integrated within the paving and cobble joints to soften where beneficial. Planting is provided in industrial metal and Corten planters and demarcation is created through level change and low brick retaining walls. Beyond the immediate building 'necklace' trees and other native planting create wilder landscaped areas that form a softer outer perimeter to the site.



**Industrial planters**



**Green cobbles**



**Reclaimed by nature**



# Landscape **Amenity spaces**

Soft landscape 'perimeter' to site

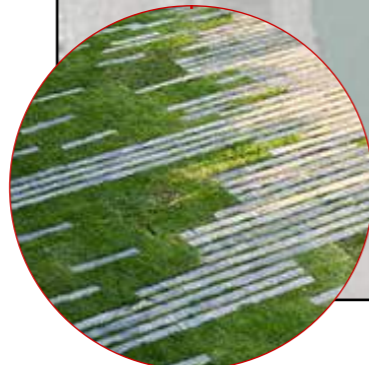
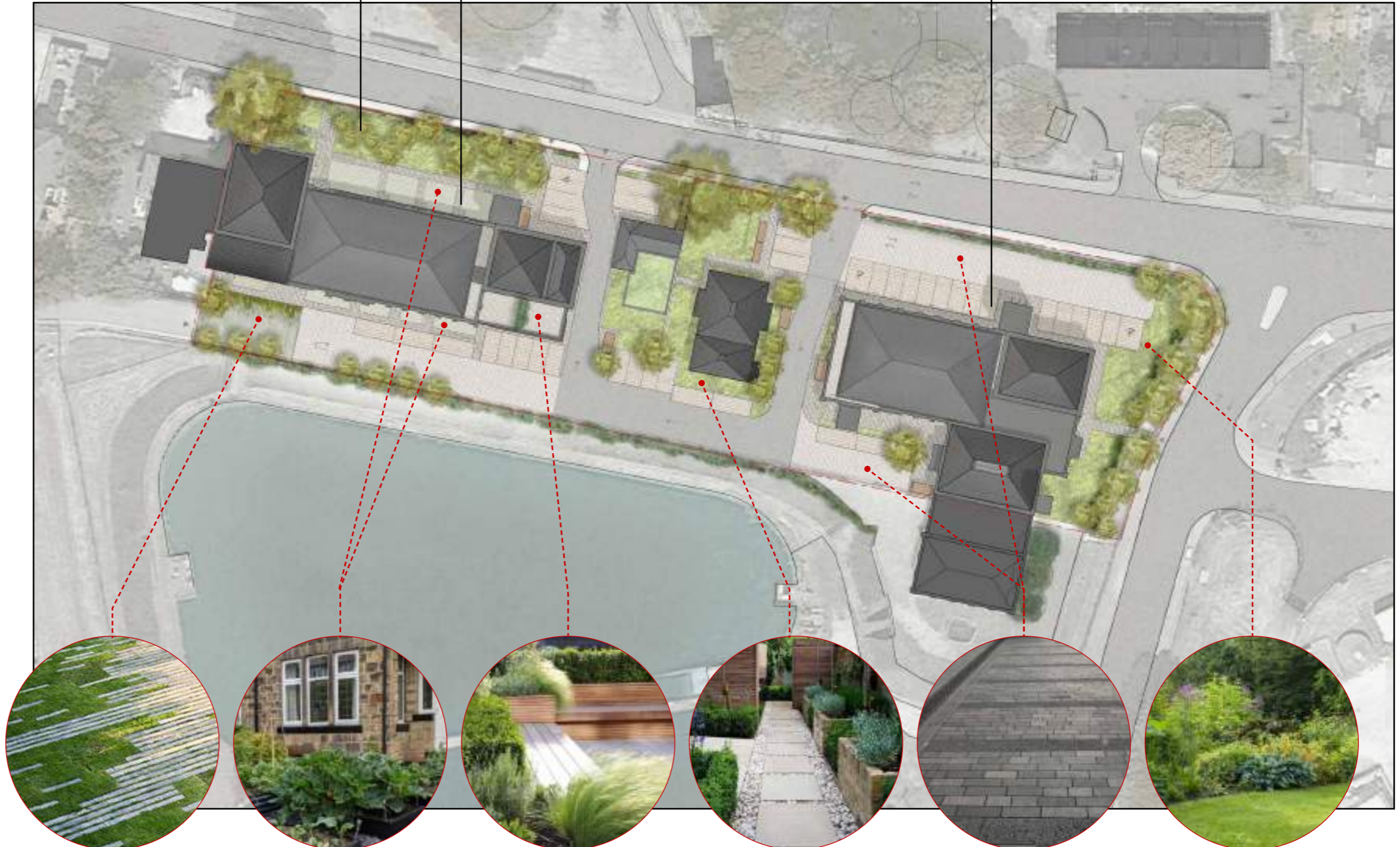
Hard landscape 'margin' to buildings

Hard landscape 'margin' to buildings

Wild native planting including trees combined with necessary number of parking provision to the perimeter of the site.

The majority of the residential units have their own private outdoor amenity space as a hard landscaped terrace while occupants can also benefit from a shared roof terrace and a common garden space.

A children's play area will be integrated into the landscape design to the south. Shared surface, permeable paving throughout the site will prioritise pedestrians and slow vehicle movement.



**Children's play area**  
Located within the communal gardens to the south of Karslake.



**Front gardens**  
Private front gardens provide outdoor amenity space for the majority of ground level units in Karslake.



**Roof Terraces**  
New flats on both Karslake and Ruston & Ward buildings include a usable terrace within the set back from existing parapet edge.



**Rear gardens**  
Private back gardens for the Cottages and Storehouse.

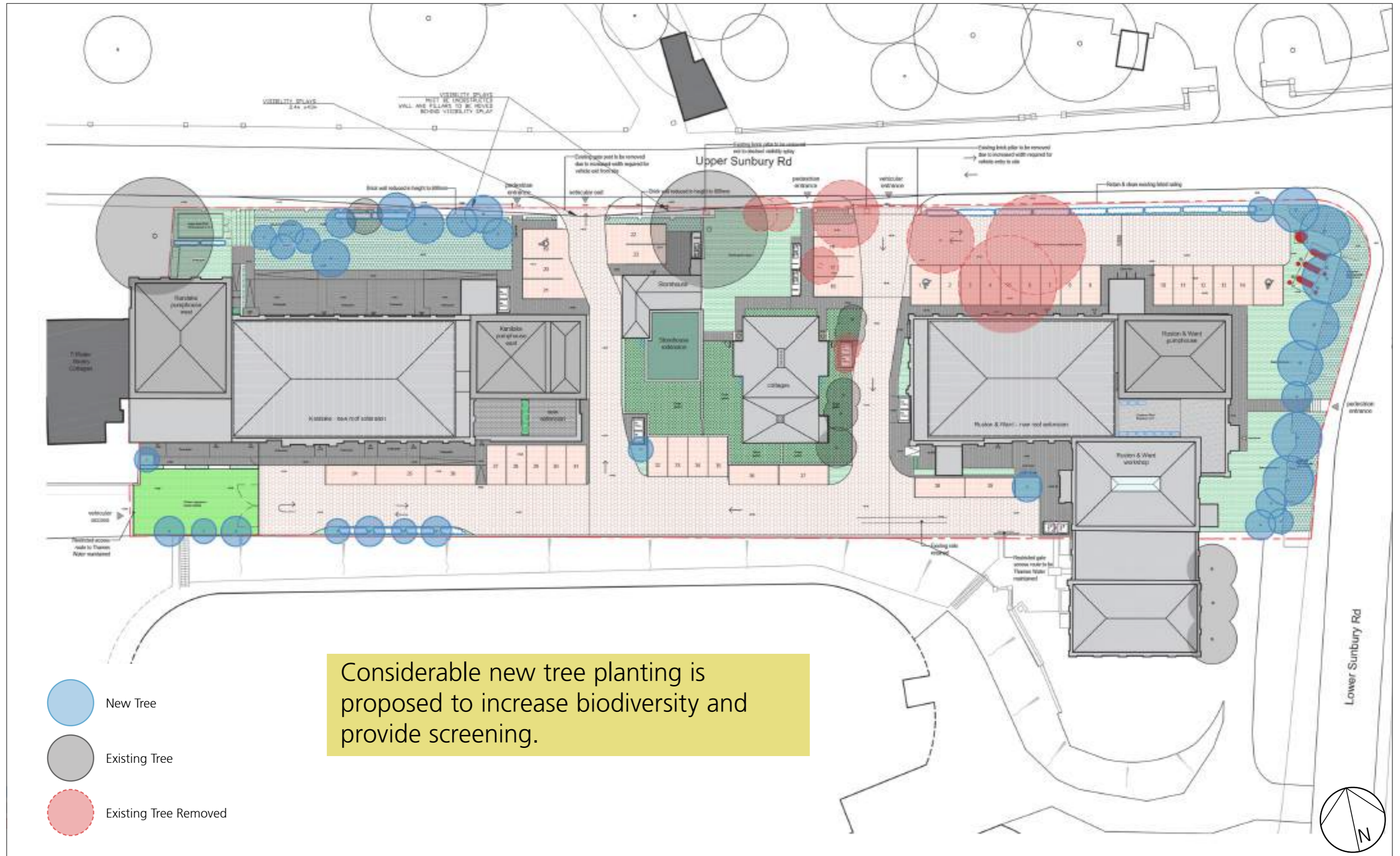


**Shared surface paving**  
Subtle paving changes uses size, colour and texture of pavers to denote parking spaces and vehicle movement lines while providing pedestrian priority across the site.

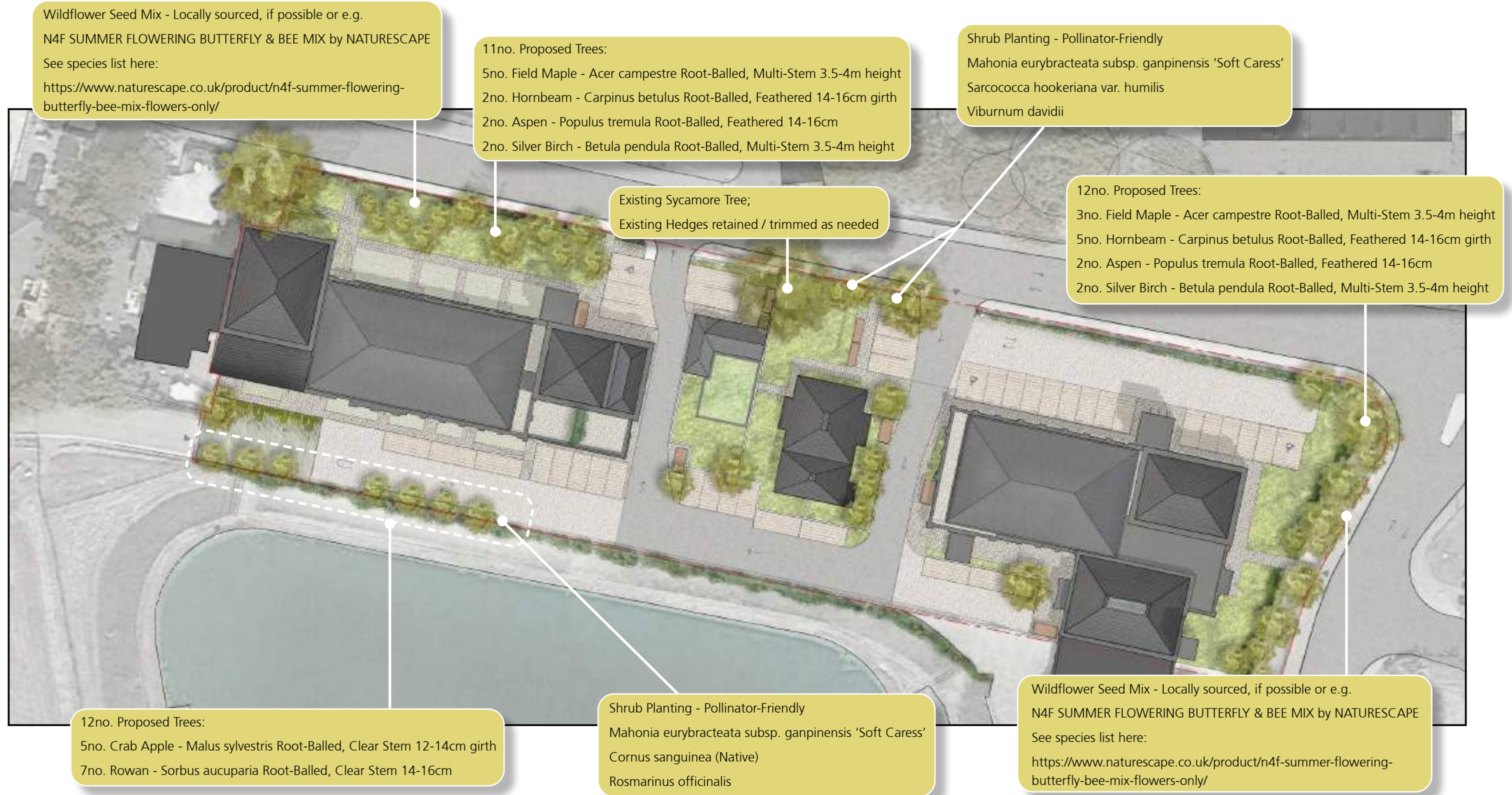


**Communal gardens**  
Grassy berm lawn, wild flowers, and trees soften the site edge along Upper & Lower Sunbury Roads.

# Landscape **Trees**



# Landscape **Trees and planting**



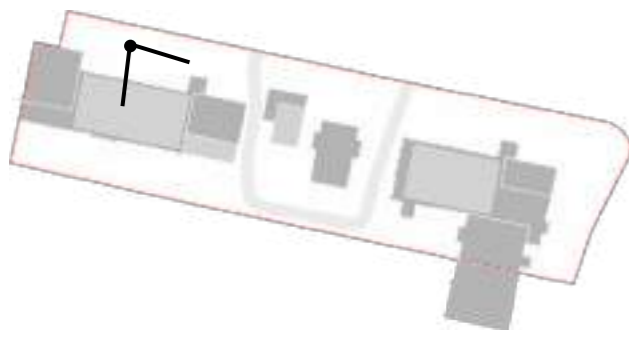


## Landscape **Karslake front view**

The building settings are enhanced with high-quality landscaping and active entry points all around the buildings.

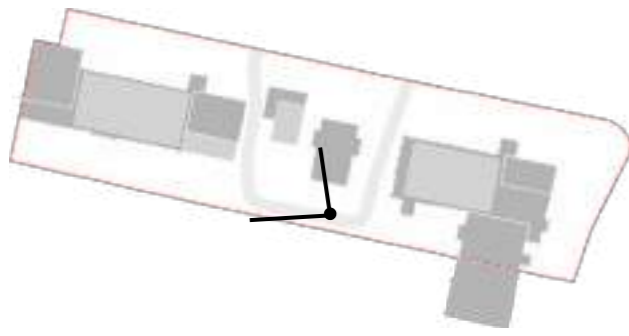
Ground level gallery units at Karslake are provided individual front gardens and entry doors that open onto the shared garden landscape.

The new roof extension sits lightly over the ground level units, providing a usable terrace along the full edge in a setback from the existing parapet edge.



## Landscape **Karslake back view**

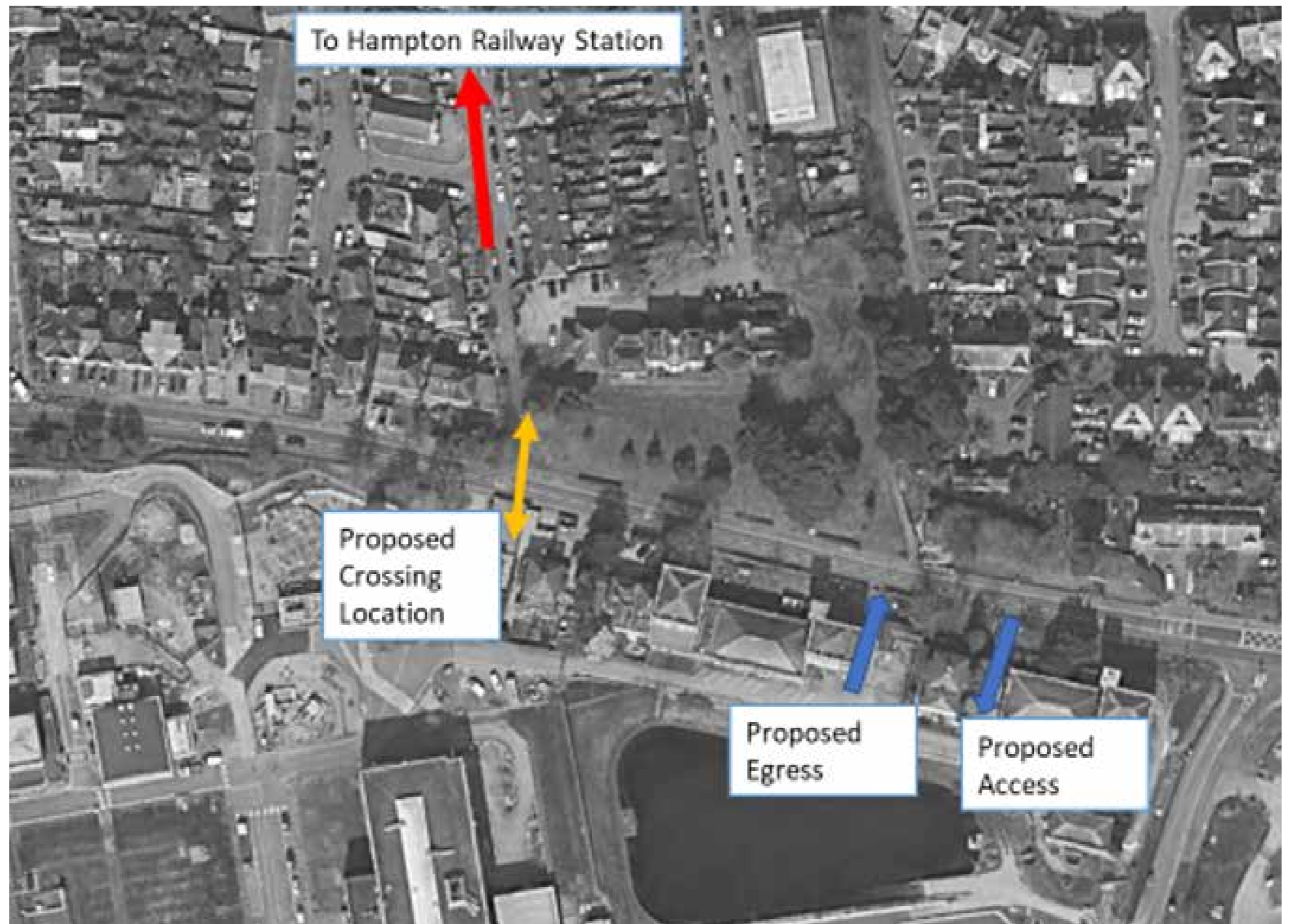
The hard landscaping along the southern edge of the site is provided as shared surface with pedestrian priority. The 1-way vehicle system is indicated by change in paving type and colour.



# 08 Access

## Access **Pedestrian crossing**

- Markides Associates have consulted with TfL and London Borough of Richmond upon Thames to discuss the provision of a pedestrian crossing facility on Upper Sunbury Road.
- Following the consultation to date, it is proposed that a pedestrian crossing facility will be provided in the location shown
- The proposed location aims to better connect the nearby community with the railway station, via Beard's Hill. On this basis, the surrounding community will also benefit from this new pedestrian crossing facility.
- The proposed pedestrian facility is anticipated to enhance the pedestrian accessibility of the site.



# Access **Vehicle movement**

The proposal has been carefully tested to demonstrate that it can accommodate vehicle movement without any significant adverse impacts on the existing road network. Sustainable transport methods such as cycle parking, electric vehicle charging points, and public transport options will be promoted.

## Parking

- 39 parking spaces provided on site
- Split with 36 spaces assigned to residential units and 3 spaces assigned to offices; to be marked to indicate allocation
- 69 cycle parking spaces will be provided + 16 spaces for visitors

## Vehicular Access

Vehicular access will be via a currently unused simple priority junction on Upper Sunbury Road. The junction is located approximately 50m from the proposed access.

## Vehicular Egress

A new vehicular egress is introduced with appropriate visibility splays. The junction is located approximately 80m from the proposed egress.



Vehicular Egress



Height of brick wall will be reduced and existing gateposts removed to provide acceptable vehicle visibility splay upon exiting onto Upper Sunbury Rd

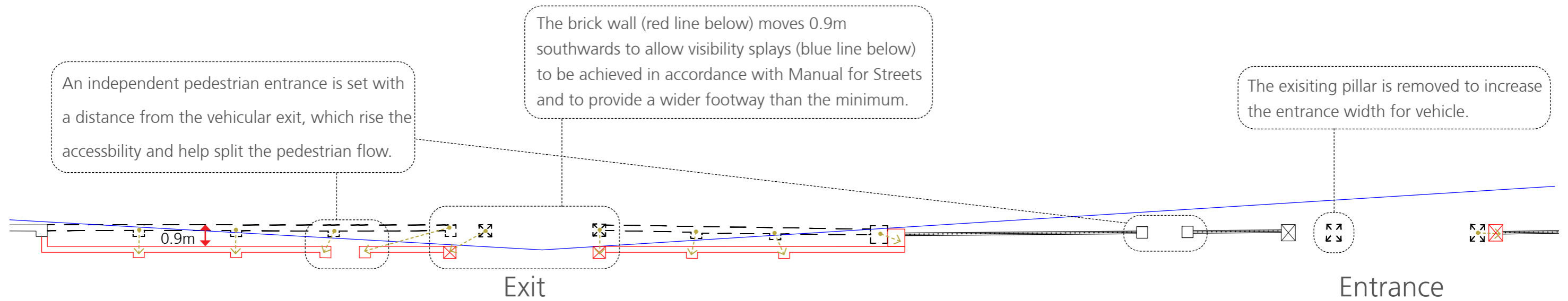
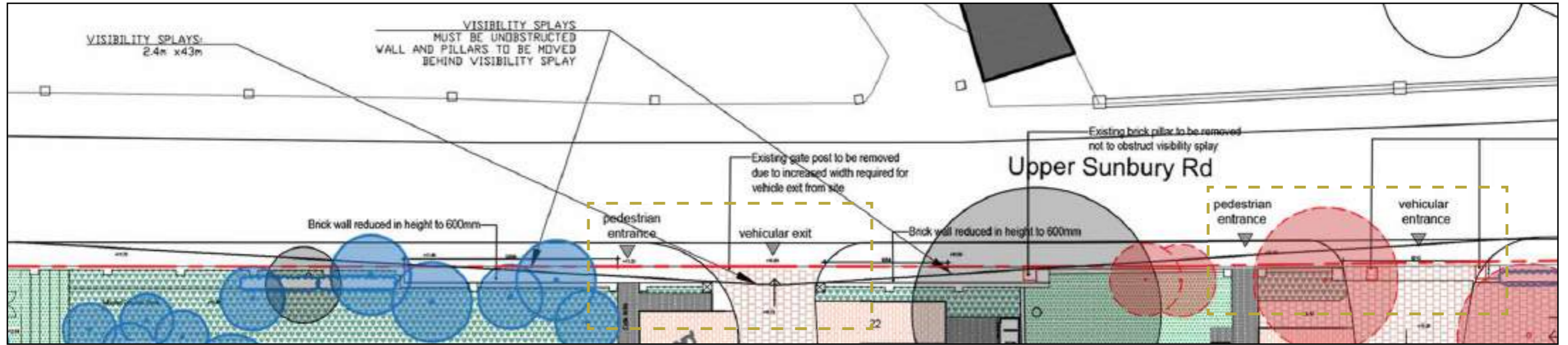
Vehicular Access



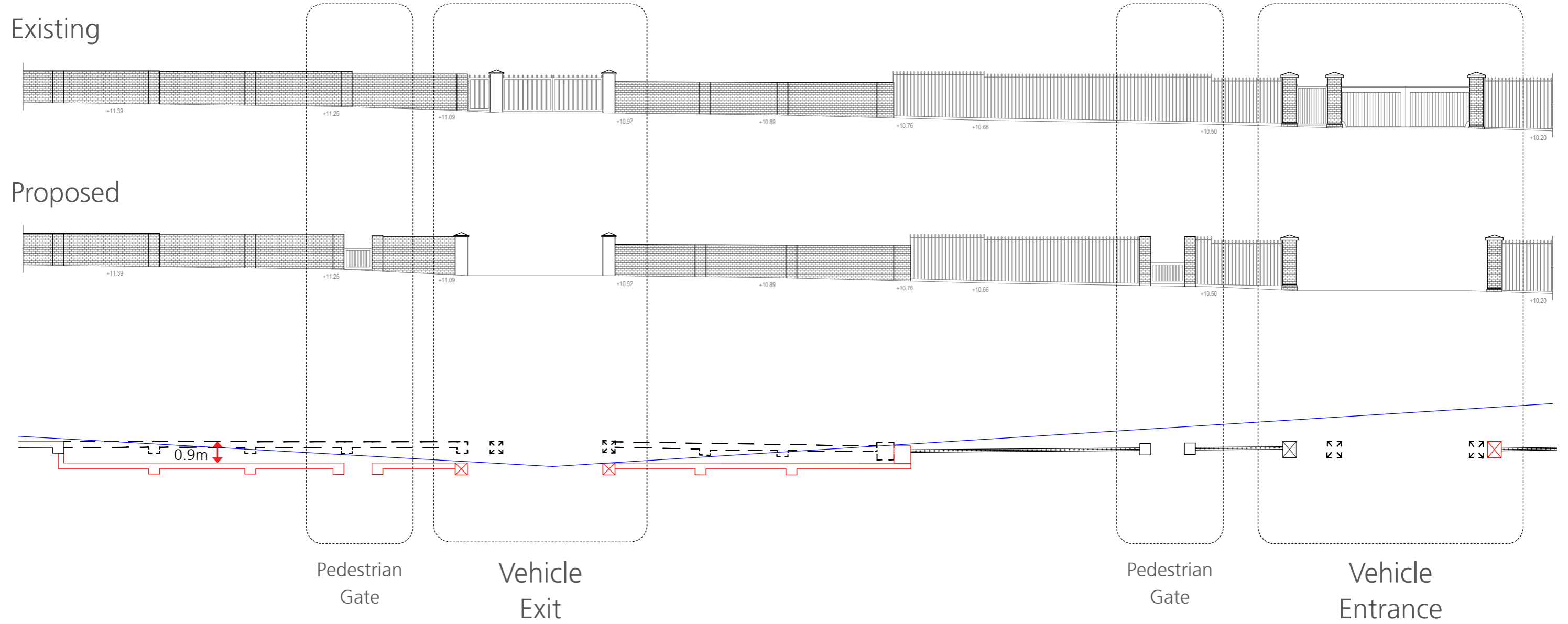
The central pier at existing vehicle entry will be removed to provide sufficient width for vehicles to enter

- ← - - - 1-way vehicular movement
- - - 2-way shared surface parking area
- Space for parking
- ~ ~ ~ Access provided for Thames Water

# Access Boundary wall and vision splay



# Access **Boundary wall modification**



# Access **Accessibility strategy - ground floor**

The site design puts pedestrians first, with new paths and shared surface paving to provide accessibility to all.

The dwellings make reasonable provision, within the constraints of the existing listed buildings, for most people to access the dwellings and incorporate features for a wide range of occupants and adaptable for future needs.

## Ground level units

25 units are accessed directly from ground level; it is assumed that a stepped access will be required due to existing slab buildup for insulation, but a level access will be provided where possible; subject to further design development.

## Lifts

3 new lifts are inserted into each Pump house to provide accessible access to all of the upper units.







## Site landscape

The majority of the landscape will be designed without curbs for a shared surface layout. Where steps in paving are required, drop curb will be provided.

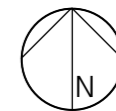
## Flat layouts

The internal layouts for the residential units meet Building Regulations Part M - access to and use of buildings



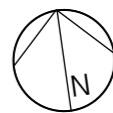
-  Site entry - pedestrian access
-  Site pathways
-  Buildings - lobby entry
-  Common lift
-  Residential unit entry
-  Residential unit entry without lift access

-  1-Bed
-  2-Bed
-  3-Bed
-  4-Bed
-  Office





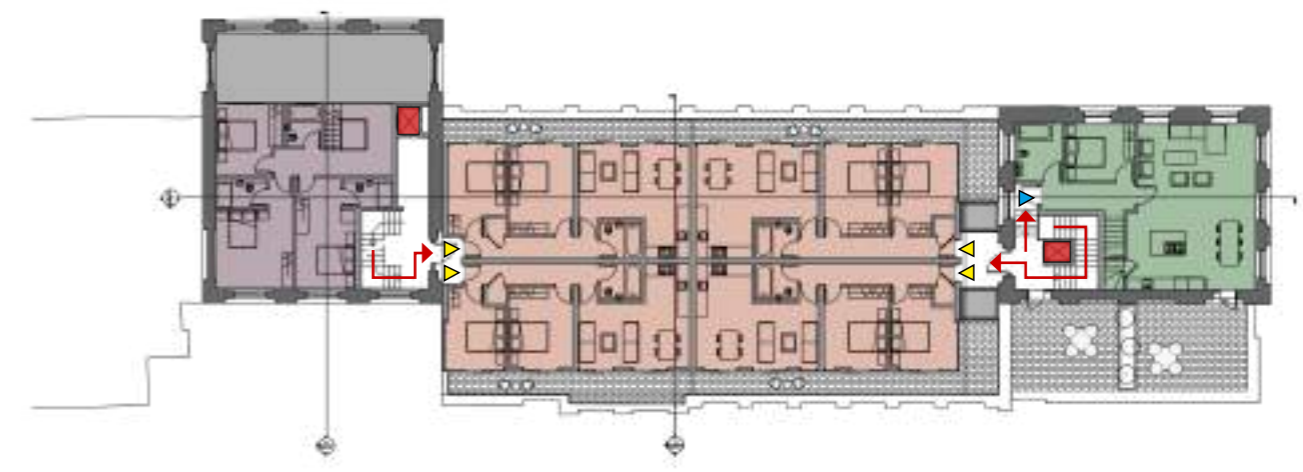
# Access **Accessibility strategy - Karslake**



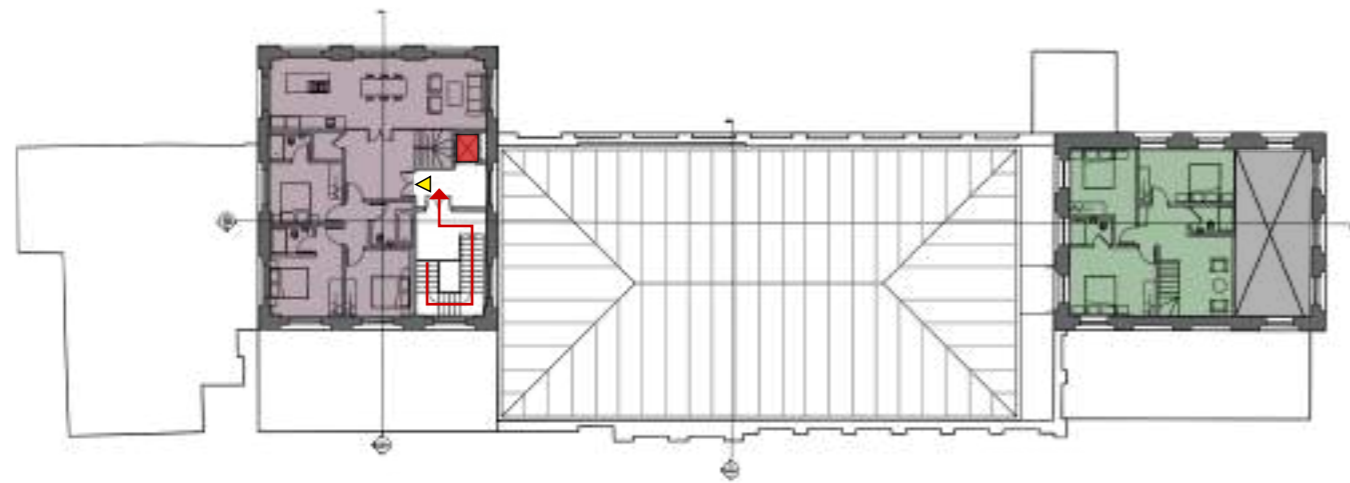
- 1-Bed
- 2-Bed
- 3-Bed
- 4-Bed
- Office



Level 1



Level 2



Level 3

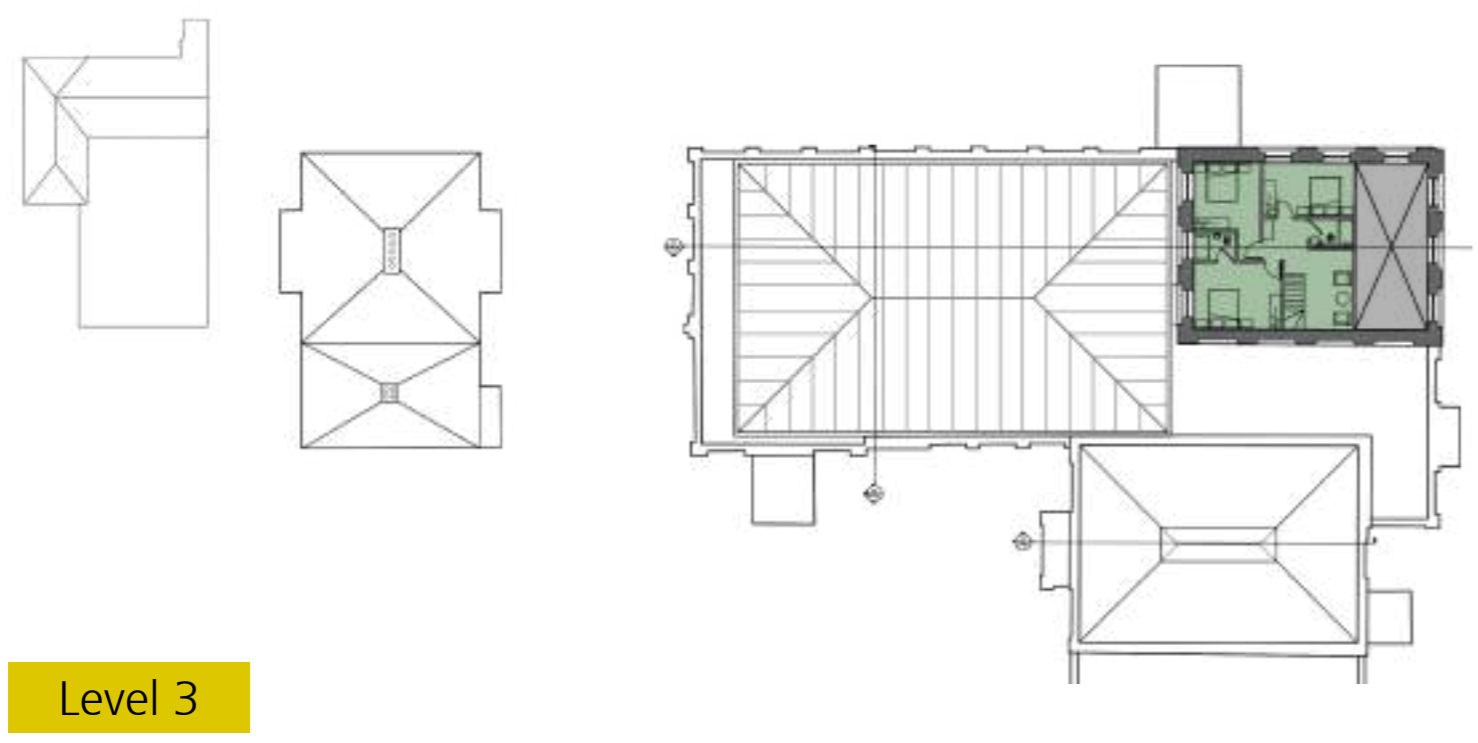
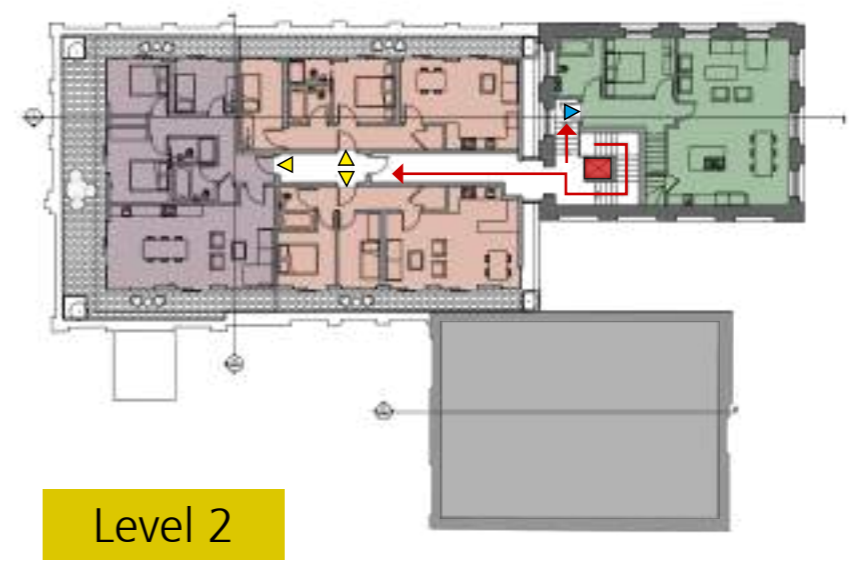
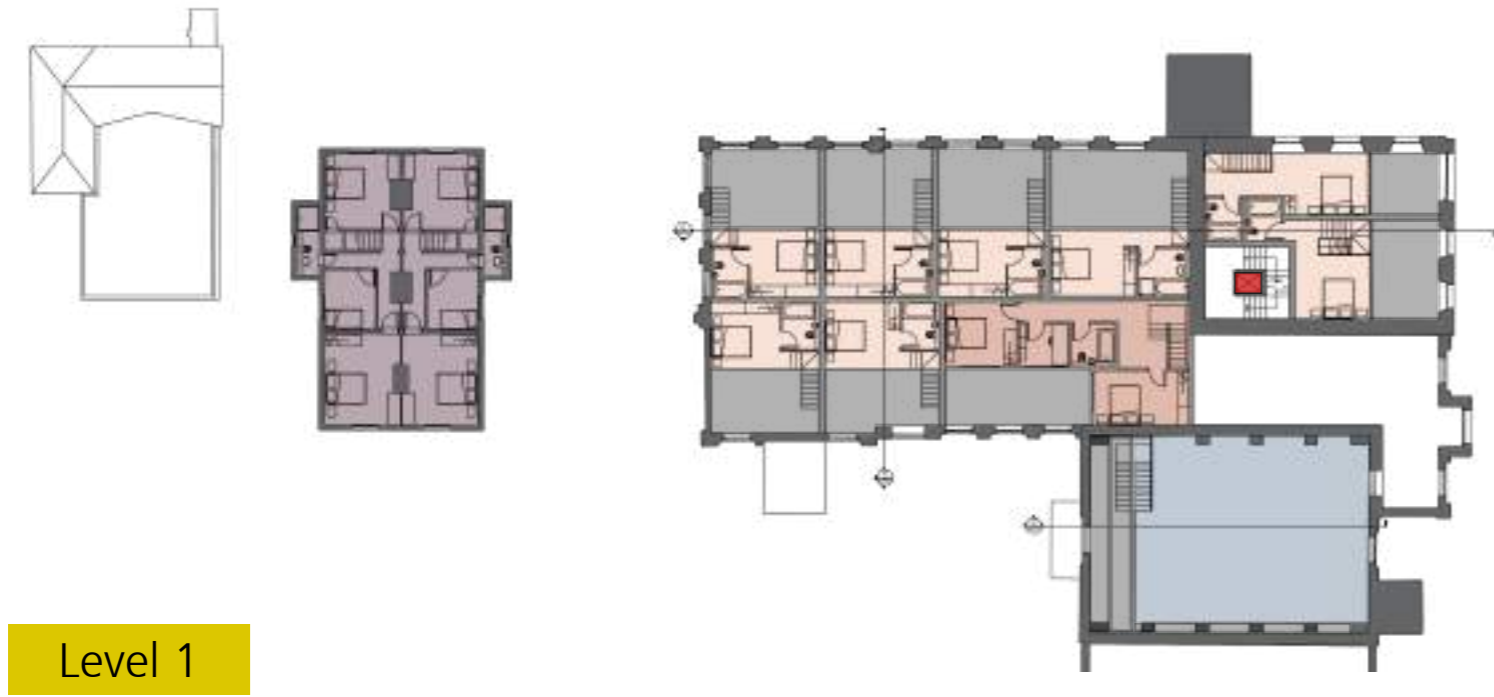


Level 4

- Common stair path to unit
- Common lift
- Residential unit entry
- Residential unit entry without lift access

# Access **Accessibility strategy - Ruston & Ward, Storehouse, Cottages**

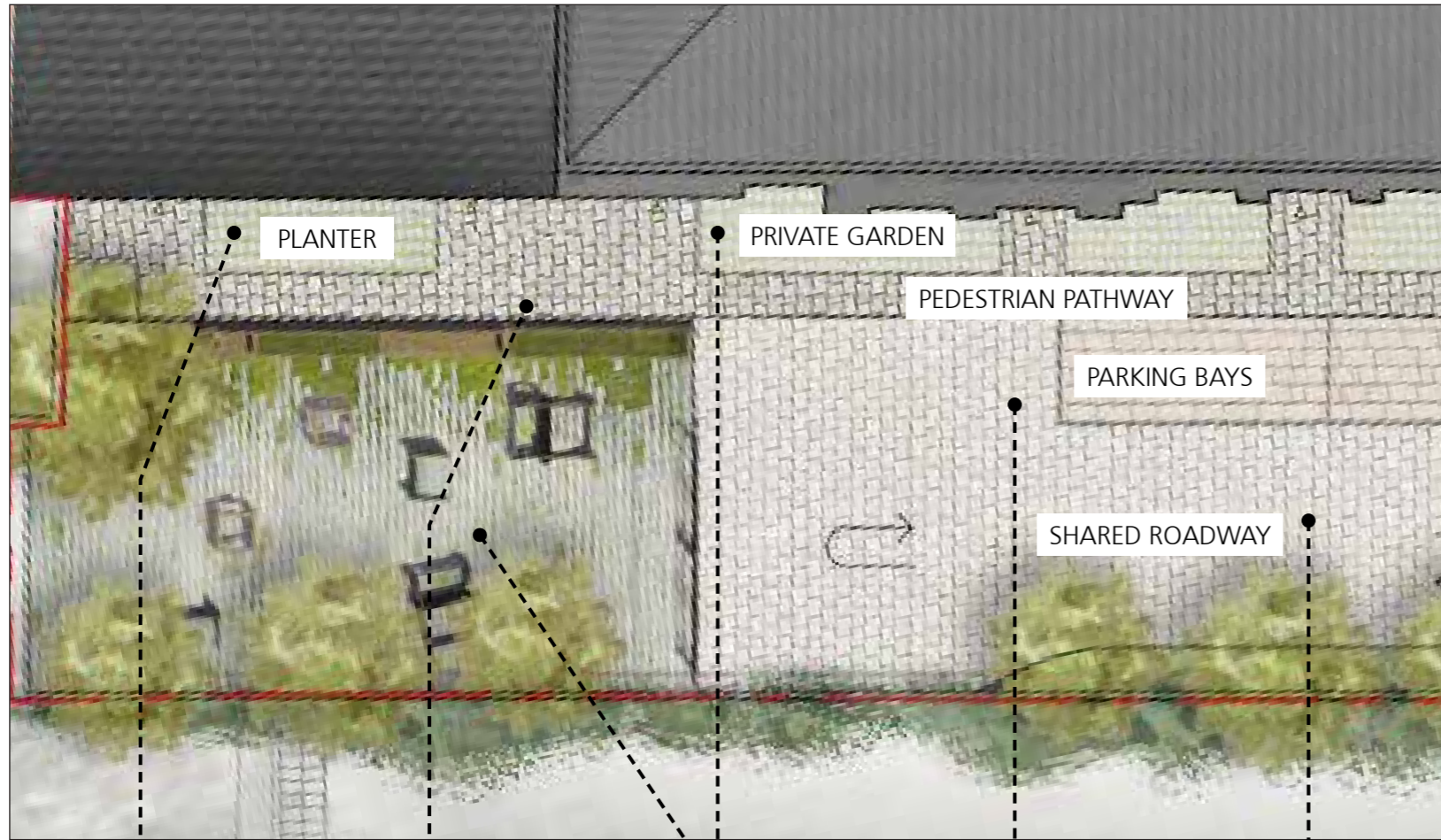
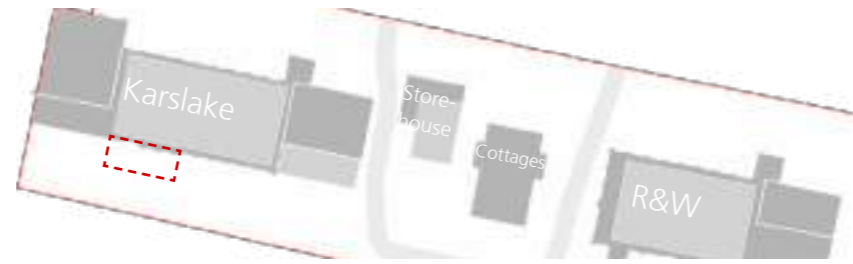
1-Bed  
 2-Bed  
 3-Bed  
 4-Bed  
 Office



Common stair path to unit  
 Common lift  
 Residential unit entry  
 Residential unit entry without lift access

# Access **Amenity spaces**

Enlarged plan of a typical Karslake front garden amenity with materials selected to align to the buildings industrial character & feel.



**Planters & Furniture**  
Garden furniture & planters. Industrial style and appearance to supplement proposal.



**Pedestrian Path**  
Residential unit entrance pathway to use permeable paving to compliment re-laid cobbles within private garden area.



**Private Yard & Play area**  
Existing cobbles located on site to be relocated and featured within the private garden amenities.



**Parking Bays**  
Parking bays to appear visually contrasting to the other paved areas.



**Shared Roadway**  
Permeable block paving colour or size to be used to denote vehicle movement lines while providing pedestrian priority across the site.



# Access **Play Space Relocation**

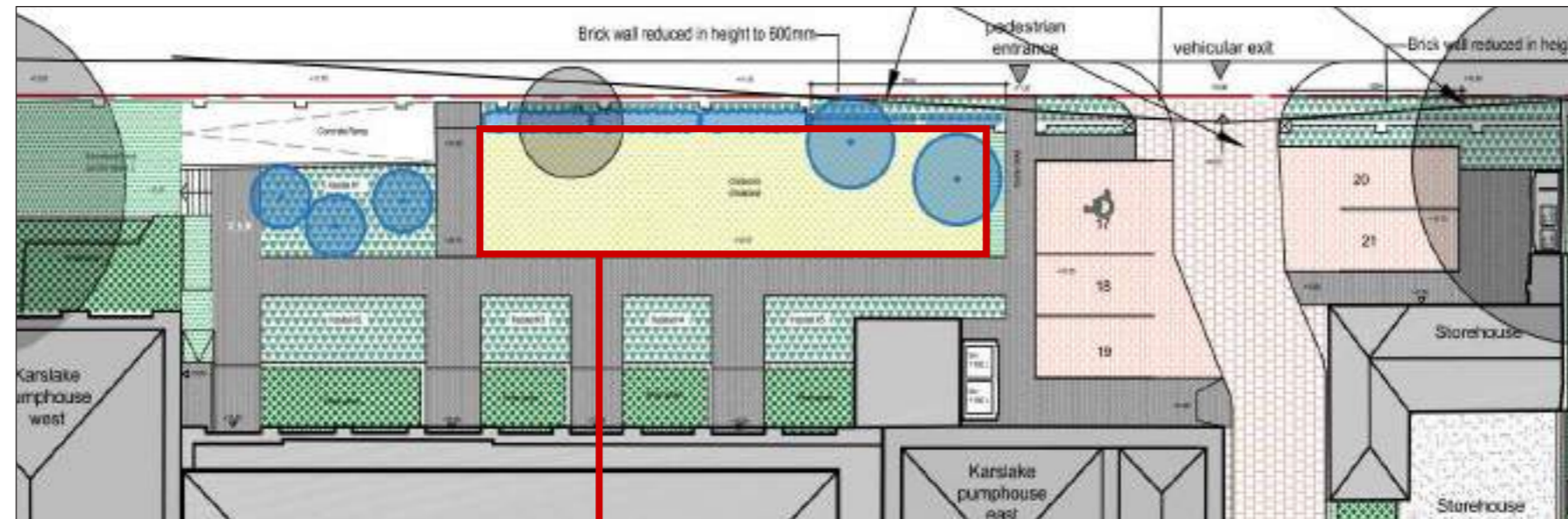
Previous play space located north of the Karlake building.

Play space relocated to align with DRP preference for location away from road and to southern aspect of site.

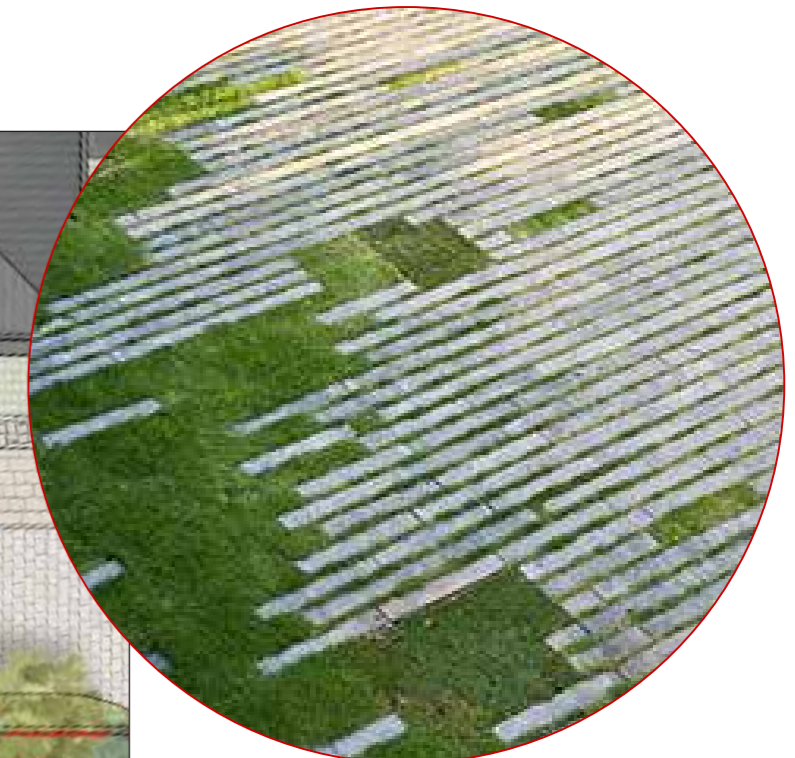
This will involve management of access over the play area which will be designed to allow for occasional vehicle movements.

Relocated to the south of Karlake building although allowing occasional vehicular passage via access gates.

## Previous Version



## Updated Version



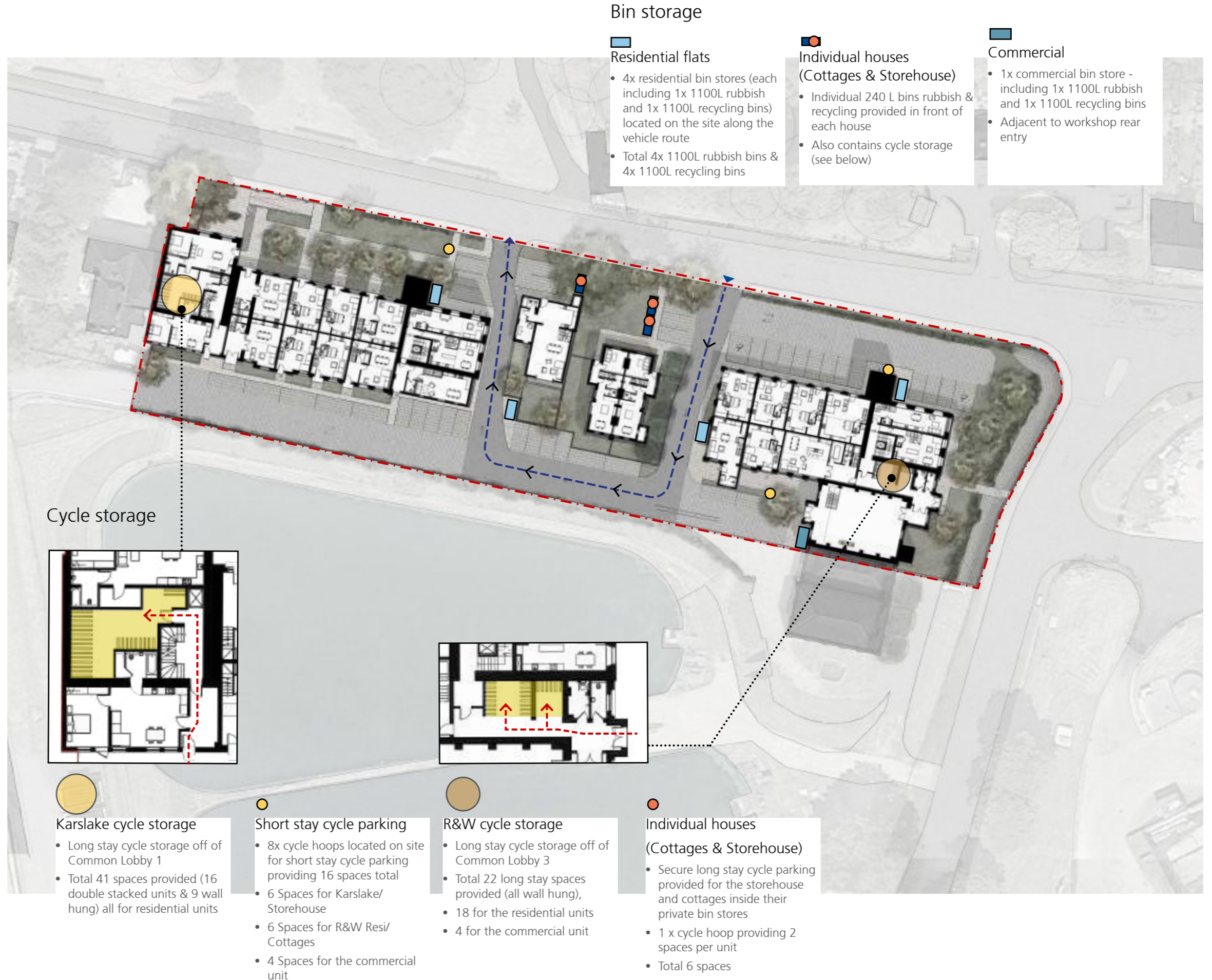
Play space finish style in this area will be required to have a paved access route potentially in a similar style to the above.

# Access **Cycle & bin storage (previous version)**

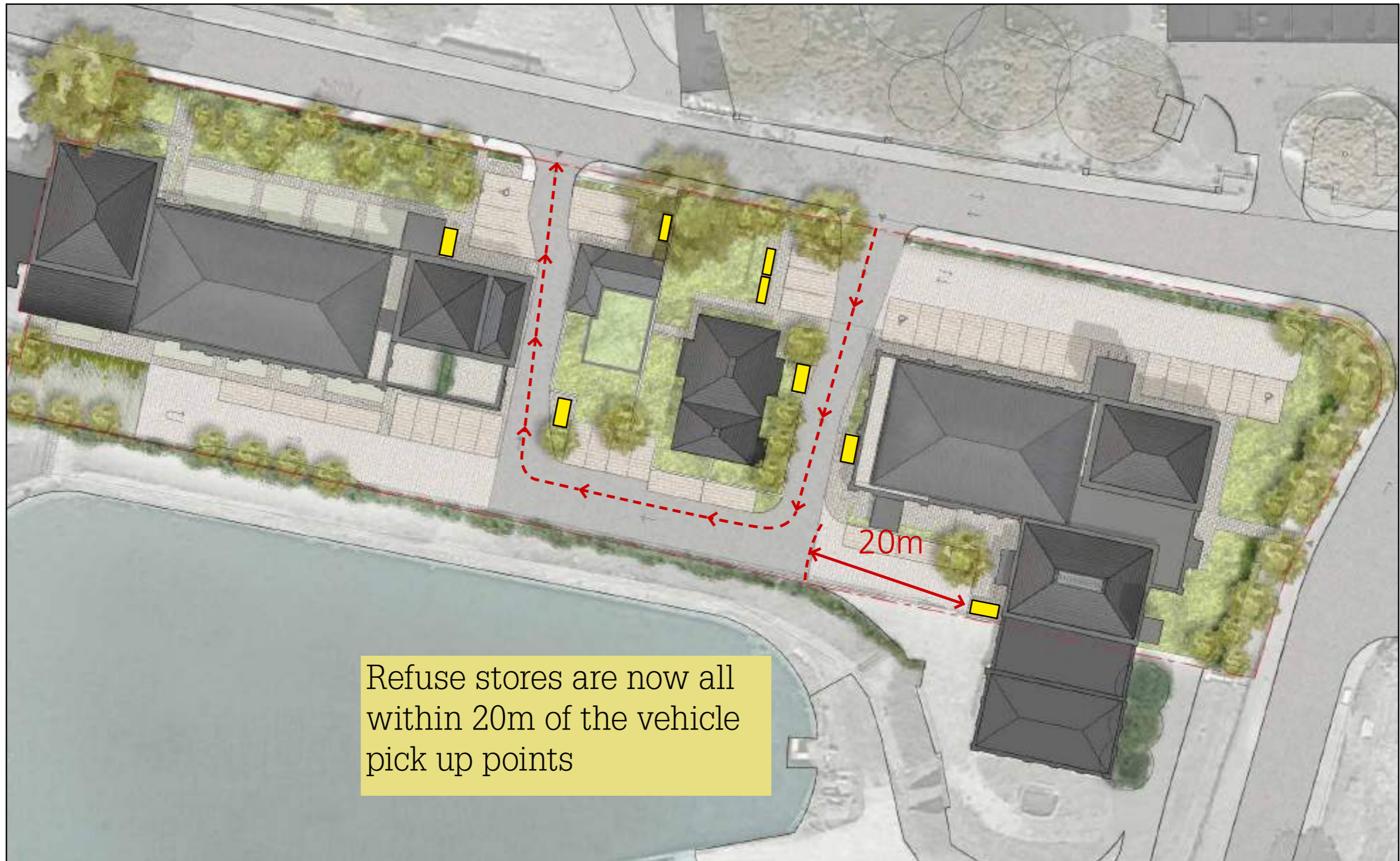
Cycle and bin storage are provided throughout the site to meet policy requirements, located for ease of use and servicing. Please refer to the separate transport prepared by Markides Associates for full details of cycle storage.

Cycle storage rooms are provided accessed through the common lobbies within each building - Karslake and Ruston & Ward. The individual houses are provided private cycle storage adjacent to the bin storage at their front gardens. Short stay cycle hoops are also provided near the car parking bays.

High quality bin stores including rubbish and recycling are provided along the vehicle route. Private stores for the individual houses, common stores separated for residential units and commercial space.



## Access **Cycle & bin storage update**



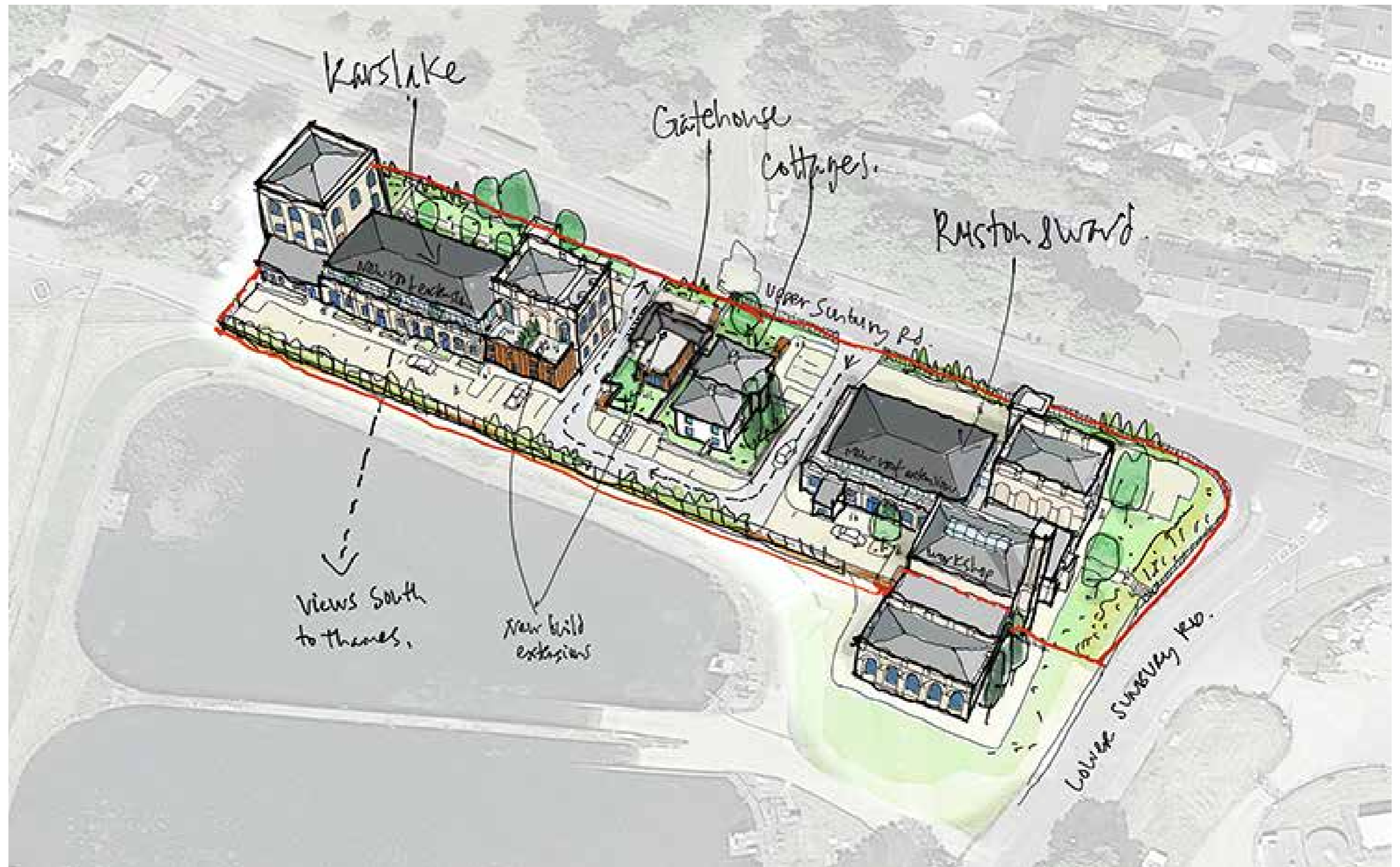
# 09 Summary of benefits

## Summary **Benefits**

This document aims to illustrate how thoughtful design interventions can unlock the benefits of this proposal such that we can bring restoration and new life these unique historic buildings.

The Hampton Waterworks site is a complex and difficult project that has demanded a careful balance of heritage, viability, use and architectural considerations.

- End to the deterioration of the historic buildings
- Restoration of listed heritage Waterworks buildings
- 36 new high quality residential dwellings for Richmond
- Employment space for job creation
- Upgraded site landscaping
- Appropriate landmark entry to Hampton
- Considered contemporary architecture juxtaposed with the industrial Victorian buildings
- Key heritage details retained, restored and highlighted within the proposal





# Appendix

# Proposal Accommodation

The proposal is residential led with 36 units of a mix of 1, 2 and 3+ bedroom, with additional employment space provided in the Ruston & Ward workshop. 39 car parking spaces are provided.

- Number of units
- 16x 1-Bed
  - 11x 2-Bed
  - 7x 3-Bed
  - 2x 4-bed
- 36 Total units**
- Parking  
**39 spaces provided**

Space	Description		Level	Units						NSA (sqm)			GIA (sqm)			Accessibility
	New build / existing	Notes		1b 2p	2b 3p	2b 4p	3b 5p	3b 6p	4b 8p	Main	Upper	Sub-total	Main	Upper	Sub-total	
<b>Karslake</b>																
Unit 1	Existing	Pump house West	Level 0	1						56.3	0.0	56.2	61.9	0.0	61.9	Type 3
Unit 2	Existing	Central block	Level 0 + 1				1			61.9	39.8	101.7	70.4	44.3	114.7	Type 2
Unit 3	Existing	Central block	Level 0 + 1				1			58.9	38.8	97.7	63.4	42.9	106.3	Type 2
Unit 4	Existing	Central block	Level 0 + 1	1						39.3	20.6	59.9	42.4	23.6	66.0	Type 2
Unit 5	Existing	Central block	Level 0 + 1	1						37.9	20.6	58.5	40.8	23.5	64.3	Type 2
Unit 6	Existing	Central block	Level 0 + 1	1						36.7	20.6	57.3	39.6	22.5	62.1	Type 2
Unit 7	Existing	Central block	Level 0 + 1	1						34.7	20.6	55.3	37.5	22.4	59.9	Type 2
Unit 8	Existing	Central block	Level 0 + 1				1			54.6	25.4	80.0	59.6	31.6	91.2	Type 2
Unit 9	Existing	Central block	Level 0 + 1				1			51.5	25.4	76.9	55.4	30.9	86.3	Type 2
Unit 10	Existing	Pump house East	Level 0 + 1	1						40.3	28.8	69.1	42.9	32.3	75.2	Type 1
Unit 11	Existing	Pump house East	Level 0 + 1	1						40.3	26.1	66.4	45.3	31.1	76.4	Type 1
Unit 12	New	Extension SE	Level 0 + 1					1		46.9	55.7	102.6	51.1	62.3	113.4	Type 2
Unit 13	Existing	Pump house West	Level 0	1						71.1	0.0	71.1	72.4	0.0	72.4	Type 3
Unit 14	Existing	Pump house West	Level 1 + 2					1		72.8	78.5	151.3	76.1	80.1	156.2	Type 2
Unit 15	New	Roof	Level 2				1			69.9	0.0	69.9	72.7	0.0	72.7	Type 2
Unit 16	New	Roof	Level 2				1			64.9	0.0	64.9	77.6	0.0	66.6	Type 3
Unit 17	New	Roof	Level 2				1			77.0	0.0	75.9	68.2	0.0	78.1	Type 2
Unit 18	New	Roof	Level 2				1			71.1	0.0	71.1	73.8	0.0	73.8	Type 2
Unit 19	Existing	Pump house East	Level 2 + 3						1	84.4	72.8	157.2	85.8	72.8	158.6	Type 1
Unit 20	Existing	Pump house West	Level 3 + Mz					1		126.3	103.9	230.2	129.4	103.4	232.8	Type 2
<b>Karslake Subtotal</b>				<b>8</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1773.1</b>			<b>1888.9</b>			
				<b>20 Units total</b>												
<b>Ruston &amp; Ward</b>																
Unit 1	Existing	Central block	Level 0 + 1	1						41.6	21.6	63.2	43.7	23.5	67.2	Type 2
Unit 2	Existing	Central block	Level 0 + 1	1						47.6	21.0	68.6	49.8	22.8	72.6	Type 2
Unit 3	Existing	Central block	Level 0 + 1	1						41.9	22.0	63.9	45.0	25.1	70.1	Type 2
Unit 4	Existing	Central block	Level 0 + 1	1						38.8	22.1	60.9	41.2	24.8	66.0	Type 2
Unit 5	Existing	Central block	Level 0 + 1	1						41.3	21.7	63.0	44.1	24.8	68.9	Type 2
Unit 6	Existing	Central block	Level 0 + 1				1			80.2	57.1	137.3	85.3	63.4	148.7	Type 2
Unit 7	Existing	Central block	Level 0 + 1	1						53.5	27.4	80.9	58.6	32.7	91.3	Type 2
Unit 8	Existing	Pump house	Level 0 + 1	1						38.5	27.4	65.9	41.3	31.2	72.5	Type 1
Unit 9	Existing	Pump house	Level 0 + 1	1						39.2	24.7	63.9	44.6	30.3	74.9	Type 1
Unit 10	New	Roof extension	Level 2				1			64.5	0.0	64.5	66.1	0.0	66.1	Type 2
Unit 11	New	Roof extension	Level 2					1		88.2	0.0	88.2	89.5	0.0	89.5	Type 2
Unit 12	New	Roof extension	Level 2				1			61.9	0.0	61.9	63.9	0.0	63.9	Type 2
Unit 13	Existing	Pump house	Level 2+3						1	82.0	71.1	153.1	83.4	71.1	154.5	Type 1
<b>R&amp;W Subtotal</b>				<b>8</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1035.2</b>			<b>1106.2</b>			
				<b>13 Units total</b>												
<b>Cottages</b>																
No. 3	Existing	Cottage	Level 0 + 1				1			58.7	57.1	115.8	61.9	59.8	121.7	
No. 4	Existing	Cottage	Level 0 + 1				1			55.7	57.1	112.8	58.9	59.8	118.7	
No. 3	Existing	Cottage (Storage)	Basement -1							15.0		15.0	18		18	Type 1
No. 4	Existing	Cottage (Storage)	Basement -1							15.0		15.0	18		18	Type 1
<b>Cottages Subtotal</b>				<b>2</b>						<b>258.5</b>			<b>276.4</b>			
				<b>2 Units total</b>												
<b>Storehouse</b>																
Storehouse	Existing + New	Store - conversion	Level 0				1			87.5	0.0	87.5	90.5	0	90.5	Type 3
<b>Storehouse Subtotal</b>				<b>1</b>						<b>87.5</b>			<b>90.5</b>			
				<b>1.0 Units total</b>												
<b>Total</b>				<b>16</b>	<b>4</b>	<b>7</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>3154.4</b>			<b>3362.0</b>			

**36 Total Proposed Units**

# Proposal **Accommodation**

The proposal is residential led with 36 units of a mix of 1, 2 and 3+ bedroom, with additional employment space provided in the Ruston & Ward workshop.

39 car parking spaces are provided.

NSA (m <sup>2</sup> )							
Level	Residential					Common	Subtotal
	Karslake	R&W	Dwellings		Subtotal		
			Cottages	Storehouse			
4	103.9	-	-	-	103.9	3	107.0
3	199.1	71.1	-	-	270.2	16.7	286.9
2	445.8	296.6	-	-	742.4	92.6	835.0
1	395.2	245.0	114.2	-	754.4	97.5	851.9
0	630.3	422.5	114.3	87.5	1254.7	182.9	1437.6
B1	-	-	30.0	-	30.0	196.8	226.8
<b>Total</b>	<b>1774.3</b>	<b>1035.2</b>	<b>258.5</b>	<b>87.5</b>	<b>3155.6</b>	<b>589.6</b>	<b>3745.2</b>

GIA (m <sup>2</sup> )																	
Level	Residential					Non Residential				Overall				Total			
	Karslake	R&W	Dwellings		Subtotal	Common		Total	Commercial	Non Residential		Overall					
			Cottages	Storehouse		Karslake	R&W	(of which mezzanines)	R&W	R&W	(of which mezzanines)	Karslake	R&W	Cottages	Storehouse		
4	103.4	-	-	-	103.4	2.6	-	106.0	77.8	0	0	0.0	106.0	-	-	-	106.0
3	202.2	71.1	-	-	273.3	18.1	0.0	291.4	143.9	0	0	0.0	220.3	71.1	-	-	291.4
2	458.2	302.9	-	-	761.1	55.4	46.6	863.1	110.2	0	0	0.0	513.6	349.5	-	-	863.1
1	443.5	278.6	119.6	-	841.7	96.1	25.9	963.7	597.6	117.0	0.0	117.0	539.6	421.5	119.6	-	1080.7
0	682.7	453.6	120.8	90.5	1347.6	120.6	85.5	1553.7	929.5	162.0	12.5	174.5	803.3	713.6	120.8	90.5	1728.2
B1	0	0	36	-	36.0	106.2	99.1	241.3	929.5	27.3	0.0	27.3	106.2	126.4	36.0	-	268.6
<b>Total</b>	<b>1890.0</b>	<b>1106.2</b>	<b>276.4</b>	<b>90.5</b>	<b>3363.1</b>	<b>399.0</b>	<b>257.1</b>	<b>4019.2</b>	<b>929.5</b>	<b>306.3</b>	<b>12.5</b>	<b>318.8</b>	<b>2289.0</b>	<b>1682.1</b>	<b>276.4</b>	<b>90.5</b>	<b>4338.0</b>

# Appendix **Inclusive access & wheelchair housing**

The development will be delivered to conform with Part M of the Building Regulation Approved Documents.

The buildings have been considered to achieve an appropriate balance of accessibility within the constraints of the existing listed buildings.

## Planning Policy

The London Plan Housing SPG states that 90 per cent of new build housing should meet Building Regulation requirement M4(2) 'accessible and adaptable dwellings' and the remaining 10 per cent meeting Building Regulation requirement M4(3) 'wheelchair user dwellings'.

Policy also notes that requirements for accessibility should be balanced against preserving historic buildings or environments.

## Site

The site has minimal slope throughout and the landscape paths will be designed with curb cuts where required to allow for ease of movement & wheelchair accessibility.

## Common lobbies

Level access without steps or barriers are provided into each of the three common lobbies to provide wheelchair access to the lifts and thus all building levels.

## Part M-1+ Visitable dwellings

8 dwelling units provided. Where the constraints of the existing heritage building do not allow for a fully compliant Part M-2 dwelling, the dwelling will be M-1, but including as many Part M-2 requirements as possible. The existing constraints are mainly to do with the need to install insulation above the existing slab for thermal performance, thus a level access is not possible at the ground floor units access directly from the external site.

## Part M-2, Accessible and adaptable dwellings

24 dwelling units provided. Where level access into the dwelling is possible within the constraints of the existing heritage buildings, then the dwelling will be fully compliant with building regulation Part M-2.

## Part M-3 Wheelchair users

4 dwelling units are provided as fully accessible. Two of these units are at the ground level of Karlake, and is on the roof extension of Karlake, and the last is the Storehouse. These will fully be compliant with building regulation Part M-3 .

## Employment space

Accessible, level access to the main level of the employment office space has also been considered. There are two entries, with the main entry which forms part of the Ruston & Ward common lobby providing a level access. Within the R&W common lobby, WC facilities are provided, one of which is accessible.

## Proposed dwellings, Part M accessibility type

Space	Description		Level	Accessibility Part M Type
	New build / existing	Notes		
<b>Karslake</b>				
Unit 1	Existing	Pump house West	Level 0	Type 3
Unit 2	Existing	Central block	Level 0 + 1	Type 2
Unit 3	Existing	Central block	Level 0 + 1	Type 2
Unit 4	Existing	Central block	Level 0 + 1	Type 2
Unit 5	Existing	Central block	Level 0 + 1	Type 2
Unit 6	Existing	Central block	Level 0 + 1	Type 2
Unit 7	Existing	Central block	Level 0 + 1	Type 2
Unit 8	Existing	Central block	Level 0 + 1	Type 2
Unit 9	Existing	Central block	Level 0 + 1	Type 2
Unit 10	Existing	Pump house East	Level 0 + 1	Type 1
Unit 11	Existing	Pump house East	Level 0 + 1	Type 1
Unit 12	New	Extension SE	Level 0 + 1	Type 2
Unit 13	Existing	Pump house West	Level 0	Type 3
Unit 14	Existing	Pump house West	Level 1 + 2	Type 2
Unit 15	New	Roof	Level 2	Type 2
Unit 16	New	Roof	Level 2	Type 3
Unit 17	New	Roof	Level 2	Type 2
Unit 18	New	Roof	Level 2	Type 2
Unit 19	Existing	Pump house East	Level 2 + 3	Type 1
Unit 20	Existing	Pump house West	Level 3 + Mz	Type 2

<b>Ruston &amp; Ward</b>				
Unit 1	Existing	Central block	Level 0 + 1	Type 2
Unit 2	Existing	Central block	Level 0 + 1	Type 2
Unit 3	Existing	Central block	Level 0 + 1	Type 2
Unit 4	Existing	Central block	Level 0 + 1	Type 2
Unit 5	Existing	Central block	Level 0 + 1	Type 2
Unit 6	Existing	Central block	Level 0 + 1	Type 2
Unit 7	Existing	Central block	Level 0 + 1	Type 2
Unit 8	Existing	Pump house	Level 0 + 1	Type 1
Unit 9	Existing	Pump house	Level 0 + 1	Type 1
Unit 10	New	Roof extension	Level 2	Type 2
Unit 11	New	Roof extension	Level 2	Type 2
Unit 12	New	Roof extension	Level 2	Type 2
Unit 13	Existing	Pump house	Level 2+3	Type 1

<b>Cottages</b>				
No. 3	Existing	Cottage	Level 0 + 1	
No. 4	Existing	Cottage	Level 0 + 1	
No. 3	Existing	Cottage (Storage)	Basement -1	Type 1
No. 4	Existing	Cottage (Storage)	Basement -1	Type 1

<b>Storehouse</b>				
Storehouse	Existing + New	Store - conversion	Level 0	Type 3

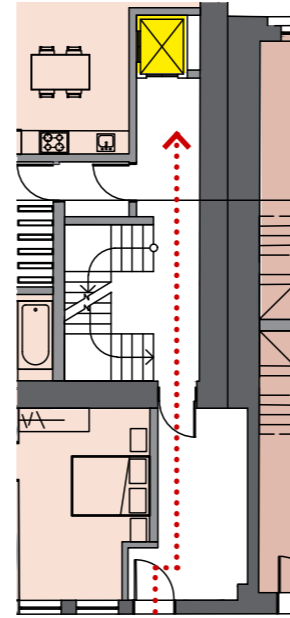
# Appendix **Inclusive access & wheelchair housing**

## **Part M Category 1 Visitable dwellings**

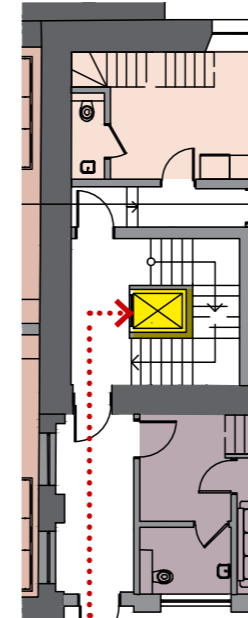
Makes reasonable provision for most people, including wheelchair users, to approach and enter the dwelling and to access habitable rooms and sanitary facilities on the entrance storey.

- To be used where the heritage listing does not allow for Category 2 - typically where a Category 2 dwelling is not possible to achieve with the heritage listing this has to do with being unable to provide level access into the dwelling
- Doors min. opening width of 775mm; corridor clear passageway min. 900mm width
- Dwelling entrance is level if possible
- 8 dwelling units provided.
- Where the constraints of the existing heritage building do not allow for a fully compliant Part M-2 dwelling, the dwelling will be M-1, but including as many Part M-2 requirements as possible. The existing constraints are mainly to do with the need to install insulation above the existing slab for thermal performance, thus a level access is not possible at the ground floor units access directly from the external site.

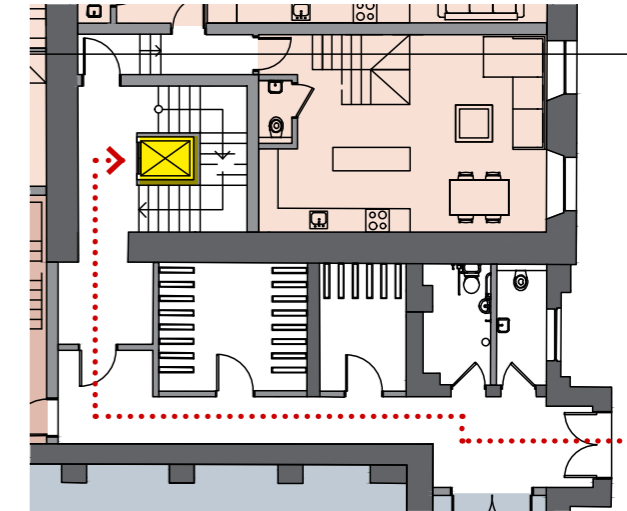
### Communal entrances



Karslake - W



Karslake - E



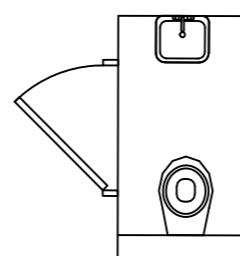
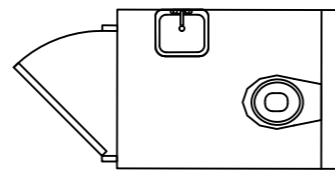
Ruston & Ward - E

## **Part M Category 2 Accessible & adaptable dwellings**

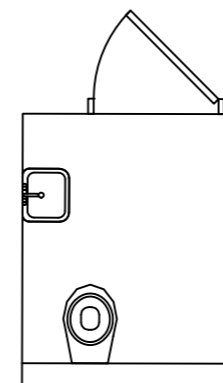
Makes reasonable provision for most people to access the dwelling and incorporates features that make it potentially suitable for a wide range of occupants, including older people, those with reduced mobility and some wheelchair users.

- Step free access to dwelling
- Step-free access to WC and other accommodation within entrance storey and associated outdoor space
- Features are provided to enable common adaptations to be carried out in the future to increase accessibility and functionality
- Wall mounted switches, sockets and other controls are reasonably accessible to people who have reduced reach
- 24 dwelling units provided.
- Where level access into the dwelling is possible within the constraints of the existing heritage buildings, then the dwelling will be fully compliant with building regulation Part M-2.

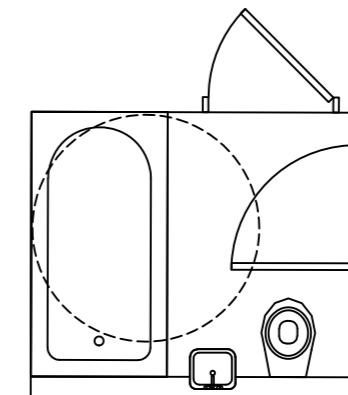
### Bathrooms - Category 2 Accessible & Adaptable



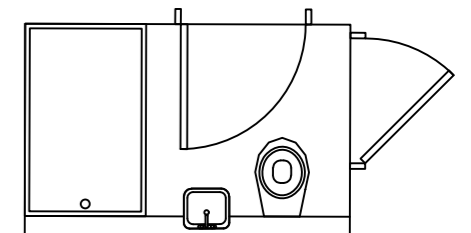
Configuration 1  
WC, Ground level  
1-2 bedroom unit



Configuration 2  
WC, Ground level  
3+ bedroom unit



Configuration 3  
Full Bathroom  
Bedroom level



Configuration 4  
Ensuite bathroom  
(no requirements)

# Appendix **Inclusive access & wheelchair housing**

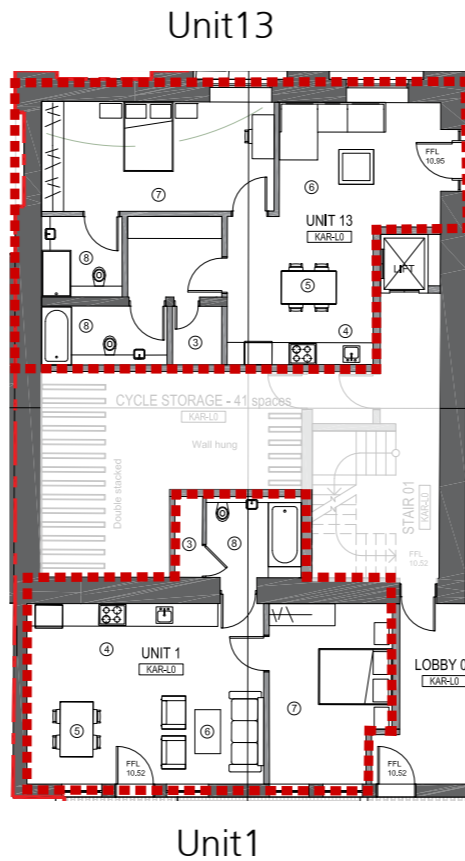
## **Part M Category 3a Wheelchair adaptable dwellings**

Makes reasonable provision for a wheelchair user to live in the dwelling and use any associated private outdoor space, parking and communal facilities.

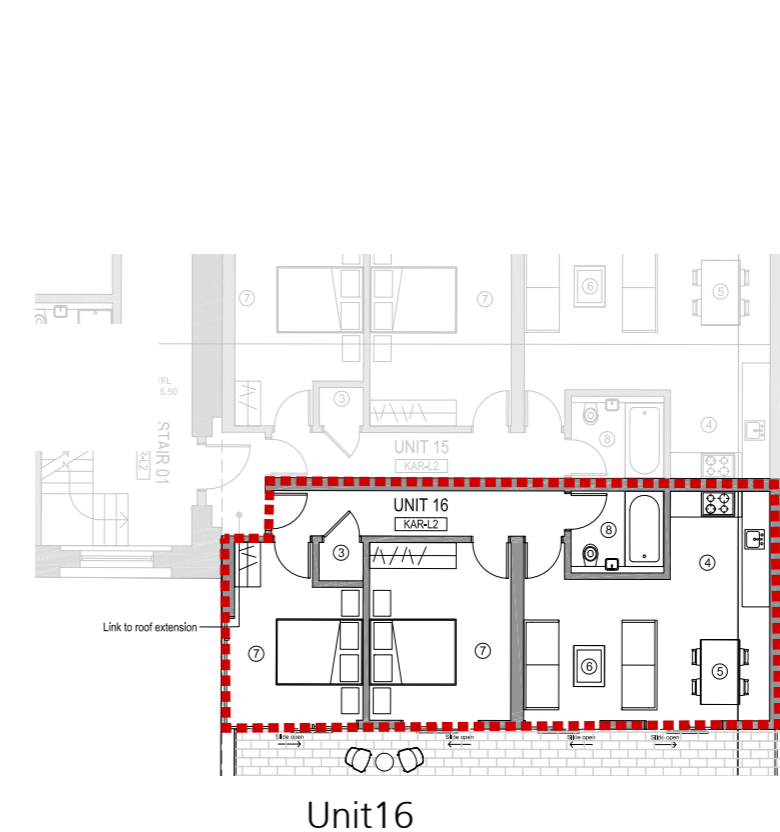
- Total 4 Wheelchair user dwellings provided - 10%
- Karslake units 1 & 13 at Ground level, and unit 16 at level 2
- Storehouse
- Step free access to dwelling, private outdoor space, parking space and communal facility
- Step-free access to WC and other accommodation within entrance storey and associated outdoor space
- Sufficient internal space to make the accommodation within the dwelling suitable for a wheelchair user
- Dwelling is wheelchair adaptable, such that key parts could be easily altered to meet needs of a wheelchair user
- Wall mounted switches, sockets and other controls are reasonably accessible to people who have reduced reach

### Part M-3 Wheelchair user dwellings

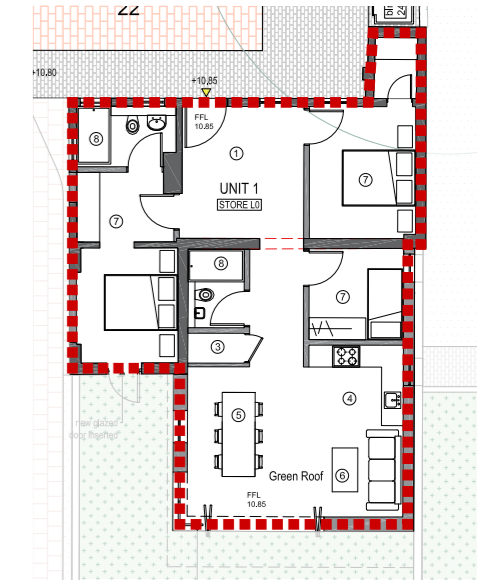
Karslake, Level 0



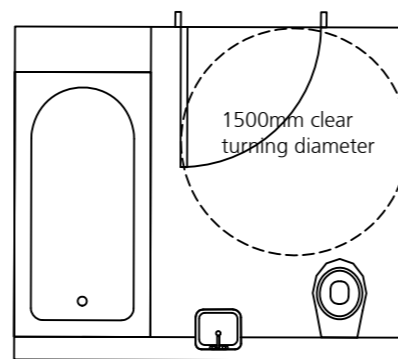
Karslake, Level 2



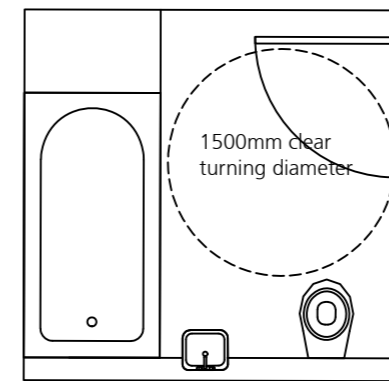
Storehouse, Level 0



### Bathrooms - Category 3 Wheelchair user



Configuration 1



Configuration 2

Door can open in or out, but needs to be able to open out

# Appendix **Housing standards**

The proposed residential units have been designed in line with the London housing guide SCP and the UK nationally described space standards to ensure that a high level of quality and adequate space is provided within each dwelling.

The Draft London Plan 2019 Policy D6 Housing quality and standards have been referenced throughout the design process. The majority of the space standards have been fully met, but due to working within the constraints of listed buildings an appropriate balance has been achieved where full compliance of a standard was found unachievable within the heritage fabric.

## New London Plan 2017 Policy D4 Housing quality & standards

### Minimum space standards

- ✓ 1. Dwellings must provide at least the gross internal floor area and built-in storage area set out in the table  
The dwellings are of a high design standard, with most providing significantly greater internal floor area than required. Due to working within the existing heritage buildings, there is one unit which falls slightly (~1m) under the minimum requirements

### Bedroom sizes

- ✓ 2. A dwelling with two or more bedspaces must have at least one double (or twin) bedroom that is at least 2.75m wide. Every other additional double (or twin) bedroom must be at least 2.55m wide.  
This has been met within the proposal.
- ✓ 3. A one bedspace single bedroom must have a floor area of at least 7.5 sqm and be at least 2.15m wide.  
This has been met within the proposal.
- ✓ 4. A two bedspace double (or twin) bedroom must have a floor area of at least 11.5 sqm.  
This has been met within the proposal.

### Floor to ceiling height

- 5. The minimum floor to ceiling height must be 2.5m for at least 75 per cent of the Gross Internal Area of each dwelling.  
Due to working within an existing heritage building, good ceiling height is provided for all of the dwellings but not in full compliance with the standard. A majority of units are provided as gallery style, with 50% of area given to a double high living area of 4.8m, the other 50% provides a mezzanine bedroom above the kitchen / dining area with ceiling heights of 2.3m. The roof extensions have been designed to maintain a low profile in keeping with the existing roof height, thus the dwelling units are not fully compliant with the ceiling height, but are designed with full height glazing across the full external wall to make the internal space full larger and brighter.

## Private outdoor space

- 6. A minimum of 5 sqm of private outdoor space should be provided for 1-2 person dwellings and an extra 1 sqm should be provided for each additional occupant.

Due to working within the constraints of existing heritage buildings, private outdoor amenity space has not been achieved for every unit. 21 dwellings out of 37 total are provided with private outdoor amenity space greater than 5 sqm. Additional shared amenity space is provided for the development, such as the common roof terrace on Karlake (24 sqm) and garden space to the north of Karlake and the east of Ruston & Ward.

- 7. The minimum depth and width for all balconies and other private external spaces should be 1.5m.

Due to the constraints of the existing heritage buildings this has not been fully met. The roof extensions are set back from the existing facade to provide a terrace of minimum 850mm depth, increasing to 1150mm in some units. The large roof terrace on the Karlake side extension is 4.5m x 5.5m in size.

- 8. Residential development should maximise the provision of dual aspect dwellings and normally avoid the provision of single aspect dwellings.

Due to working within the constraints of existing heritage buildings, not all dwellings have been provided with dual aspects, but where possible dual aspect dwellings have been provided.

- ✓ 9. The design of development should provide sufficient daylight and sunlight to new housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space.

This has been met within the proposal. Each dwelling is provided with significantly sized windows to allow sufficient daylight inside. The new roof extensions are provided with a large overhang to minimise overheating.

- ✓ 10. Dwellings should be designed with adequate and easily accessible storage space that supports the separate collection of dry recyclables (for at least card, paper, mixed plastics, metals, glass) and food.

This has been met within the proposal.

Minimum gross internal floor area (sqm)	Minimum gross internal floor area (sqm)	Minimum gross internal floor area (sqm)	Minimum gross internal floor area (sqm)	Minimum gross internal floor area (sqm)	Minimum gross internal floor area (sqm)
1p	2p	3p	4p	5p	6p
39 (37) *	50	61	74	85	95
50	60	70	84	93	102
60	70	81	93	102	108
70	80	91	103	112	118
80	90	101	113	122	128
90	100	111	123	132	138
100	110	121	133	142	148
110	120	131	143	152	158
120	130	141	153	162	168
130	140	151	163	172	178
140	150	161	173	182	188
150	160	171	183	192	198
160	170	181	193	202	208
170	180	191	203	212	218
180	190	201	213	222	228
190	200	211	223	232	238
200	210	221	233	242	248
210	220	231	243	252	258
220	230	241	253	262	268
230	240	251	263	272	278
240	250	261	273	282	288
250	260	271	283	292	298
260	270	281	293	302	308
270	280	291	303	312	318
280	290	301	313	322	328
290	300	311	323	332	338
300	310	321	333	342	348
310	320	331	343	352	358
320	330	341	353	362	368
330	340	351	363	372	378
340	350	361	373	382	388
350	360	371	383	392	398
360	370	381	393	402	408
370	380	391	403	412	418
380	390	401	413	422	428
390	400	411	423	432	438
400	410	421	433	442	448
410	420	431	443	452	458
420	430	441	453	462	468
430	440	451	463	472	478
440	450	461	473	482	488
450	460	471	483	492	498
460	470	481	493	502	508
470	480	491	503	512	518
480	490	501	513	522	528
490	500	511	523	532	538
500	510	521	533	542	548
510	520	531	543	552	558
520	530	541	553	562	568
530	540	551	563	572	578
540	550	561	573	582	588
550	560	571	583	592	598
560	570	581	593	602	608
570	580	591	603	612	618
580	590	601	613	622	628
590	600	611	623	632	638
600	610	621	633	642	648
610	620	631	643	652	658
620	630	641	653	662	668
630	640	651	663	672	678
640	650	661	673	682	688
650	660	671	683	692	698
660	670	681	693	702	708
670	680	691	703	712	718
680	690	701	713	722	728
690	700	711	723	732	738
700	710	721	733	742	748
710	720	731	743	752	758
720	730	741	753	762	768
730	740	751	763	772	778
740	750	761	773	782	788
750	760	771	783	792	798
760	770	781	793	802	808
770	780	791	803	812	818
780	790	801	813	822	828
790	800	811	823	832	838
800	810	821	833	842	848
810	820	831	843	852	858
820	830	841	853	862	868
830	840	851	863	872	878
840	850	861	873	882	888
850	860	871	883	892	898
860	870	881	893	902	908
870	880	891	903	912	918
880	890	901	913	922	928
890	900	911	923	932	938
900	910	921	933	942	948
910	920	931	943	952	958
920	930	941	953	962	968
930	940	951	963	972	978
940	950	961	973	982	988
950	960	971	983	992	998
960	970	981	993	1002	1008
970	980	991	1003	1012	1018
980	990	1001	1013	1022	1028
990	1000	1011	1023	1032	1038
1000	1010	1021	1033	1042	1048

Minimum space standards for new dwellings, taken from UK Nationally described space standards

# Appendix Housing standards

## Proposed Dwelling sizes

The dwellings are of a high design standard, with most providing significantly greater internal floor area than required.

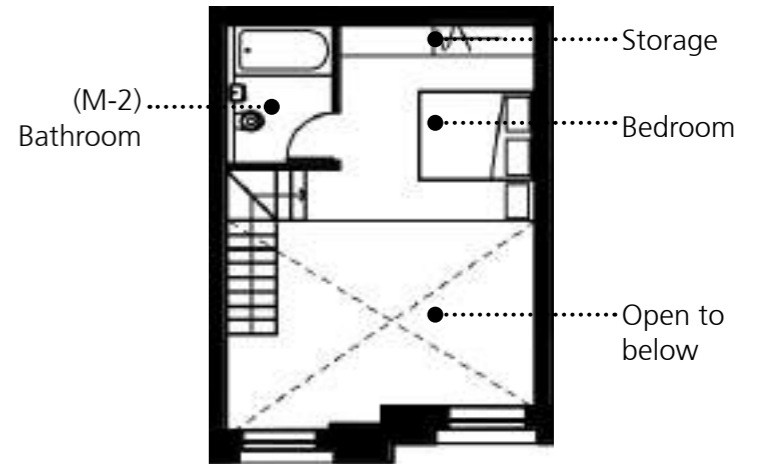
Due to working within the existing heritage buildings, as noted on the previous page, one unit falls very slightly under area:

## Individual dwelling sizes

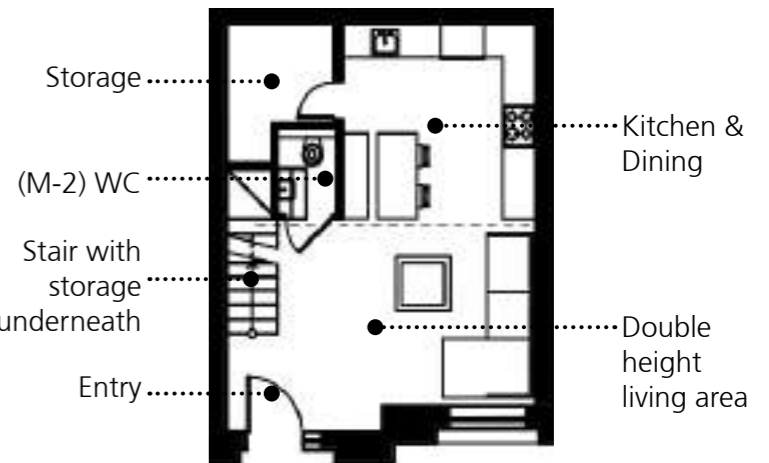
Space	Description		Level	NSA (sqm)						GIA (sqm)			Accessibility				
				Residential						Residential							
				1b 2p	2b 3p	2b 4p	3b 5p	3b 6p	4b 8p	Main	Upper	Sub-total		Main	Upper	Sub-total	
<b>Karslake</b>																	
Unit 1	Existing	Pump house West	Level 0	1							56.3	0.0	56.2	61.9	0.0	61.9	Type 3
Unit 2	Existing	Central block	Level 0 + 1			1					61.9	39.8	101.7	70.4	44.3	114.7	Type 2
Unit 3	Existing	Central block	Level 0 + 1			1					58.9	38.8	97.7	63.4	42.9	106.3	Type 2
Unit 4	Existing	Central block	Level 0 + 1	1							39.3	20.6	59.9	42.4	23.6	66.0	Type 2
Unit 5	Existing	Central block	Level 0 + 1	1							37.9	20.6	58.5	40.8	23.5	64.3	Type 2
Unit 6	Existing	Central block	Level 0 + 1	1							36.7	20.6	57.3	39.6	22.5	62.1	Type 2
Unit 7	Existing	Central block	Level 0 + 1	1							34.7	20.6	55.3	37.5	22.4	59.9	Type 2
Unit 8	Existing	Central block	Level 0 + 1			1					54.6	25.4	80.0	59.6	31.6	91.2	Type 2
Unit 9	Existing	Central block	Level 0 + 1			1					51.5	25.4	76.9	55.4	30.9	86.3	Type 2
Unit 10	Existing	Pump house East	Level 0 + 1	1							40.3	28.8	69.1	42.9	32.3	75.2	Type 1
Unit 11	Existing	Pump house East	Level 0 + 1	1							40.3	26.1	66.4	45.3	31.1	76.4	Type 1
Unit 12	New	Extension SE	Level 0 + 1				1				46.9	55.7	102.6	51.1	62.3	113.4	Type 2
Unit 13	Existing	Pump house West	Level 0	1							71.1	0.0	71.1	72.4	0.0	72.4	Type 3
Unit 14	Existing	Pump house West	Level 1 + 2					1			72.8	78.5	151.3	76.1	80.1	156.2	Type 2
Unit 15	New	Roof	Level 2			1					69.9	0.0	69.9	72.7	0.0	72.7	Type 2
Unit 16	New	Roof	Level 2			1					64.9	0.0	64.9	77.6	0.0	66.6	Type 3
Unit 17	New	Roof	Level 2			1					77.0	0.0	75.9	68.2	0.0	78.1	Type 2
Unit 18	New	Roof	Level 2			1					71.1	0.0	71.1	73.8	0.0	73.8	Type 2
Unit 19	Existing	Pump house East	Level 2 + 3						1		84.4	72.8	157.2	85.8	72.8	158.6	Type 1
Unit 20	Existing	Pump house West	Level 3 + Mz					1			126.3	103.9	230.2	129.4	103.4	232.8	Type 2
<b>Karslake Subtotal</b>				<b>8</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>1</b>		<b>1773.1</b>			<b>1888.9</b>			
<b>20 Units total</b>																	
<b>Ruston &amp; Ward</b>																	
Unit 1	Existing	Central block	Level 0 + 1	1							41.6	21.6	63.2	43.7	23.5	67.2	Type 2
Unit 2	Existing	Central block	Level 0 + 1	1							47.6	21.0	68.6	49.8	22.8	72.6	Type 2
Unit 3	Existing	Central block	Level 0 + 1	1							41.9	22.0	63.9	45.0	25.1	70.1	Type 2
Unit 4	Existing	Central block	Level 0 + 1	1							38.8	22.1	60.9	41.2	24.8	66.0	Type 2
Unit 5	Existing	Central block	Level 0 + 1	1							41.3	21.7	63.0	44.1	24.8	68.9	Type 2
Unit 6	Existing	Central block	Level 0 + 1			1					80.2	57.1	137.3	85.3	63.4	148.7	Type 2
Unit 7	Existing	Central block	Level 0 + 1	1							53.5	27.4	80.9	58.6	32.7	91.3	Type 2
Unit 8	Existing	Pump house	Level 0 + 1	1							38.5	27.4	65.9	41.3	31.2	72.5	Type 1
Unit 9	Existing	Pump house	Level 0 + 1	1							39.2	24.7	63.9	44.6	30.3	74.9	Type 1
Unit 10	New	Roof extension	Level 2			1					64.5	0.0	64.5	66.1	0.0	66.1	Type 2
Unit 11	New	Roof extension	Level 2					1			88.2	0.0	88.2	89.5	0.0	89.5	Type 2
Unit 12	New	Roof extension	Level 2			1					61.9	0.0	61.9	63.9	0.0	63.9	Type 2
Unit 13	Existing	Pump house	Level 2+3						1		82.0	71.1	153.1	83.4	71.1	154.5	Type 1
<b>R&amp;W Subtotal</b>				<b>8</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>		<b>1035.2</b>			<b>1106.2</b>			
<b>13 Units total</b>																	
<b>Cottages</b>																	
No. 3	Existing	Cottage	Level 0 + 1				1				58.7	57.1	115.8	61.9	59.8	121.7	
No. 4	Existing	Cottage	Level 0 + 1				1				55.7	57.1	112.8	58.9	59.8	118.7	
No. 3	Existing	Cottage (Storage)	Basement -1								15.0		15.0	18		18	Type 1
No. 4	Existing	Cottage (Storage)	Basement -1								15.0		15.0	18		18	Type 1
<b>Cottages Subtotal</b>				<b>2</b>						<b>258.5</b>			<b>276.4</b>				
<b>2 Units total</b>																	
<b>Storehouse</b>																	
Storehouse	Existing + New	Store - conversion	Level 0				1				87.5	0.0	87.5	90.5	0	90.5	Type 3
<b>Storehouse Subtotal</b>				<b>1</b>						<b>87.5</b>			<b>90.5</b>				
<b>1.0 Units total</b>																	
<b>Total</b>				<b>16</b>	<b>4</b>	<b>7</b>	<b>5</b>	<b>2</b>	<b>2</b>		<b>3154.4</b>			<b>3362.0</b>			

36 Total Proposed Units

## Typical 1-bed, gallery style flat



Upper level



Ground level



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