

19.0 STREET FURNITURE - Existing

- Bollard
- Litter bin
- Parking ticket machine
- Cycle stand
- Guardrail
- Phone box
- Seating
- Bus stop shelter

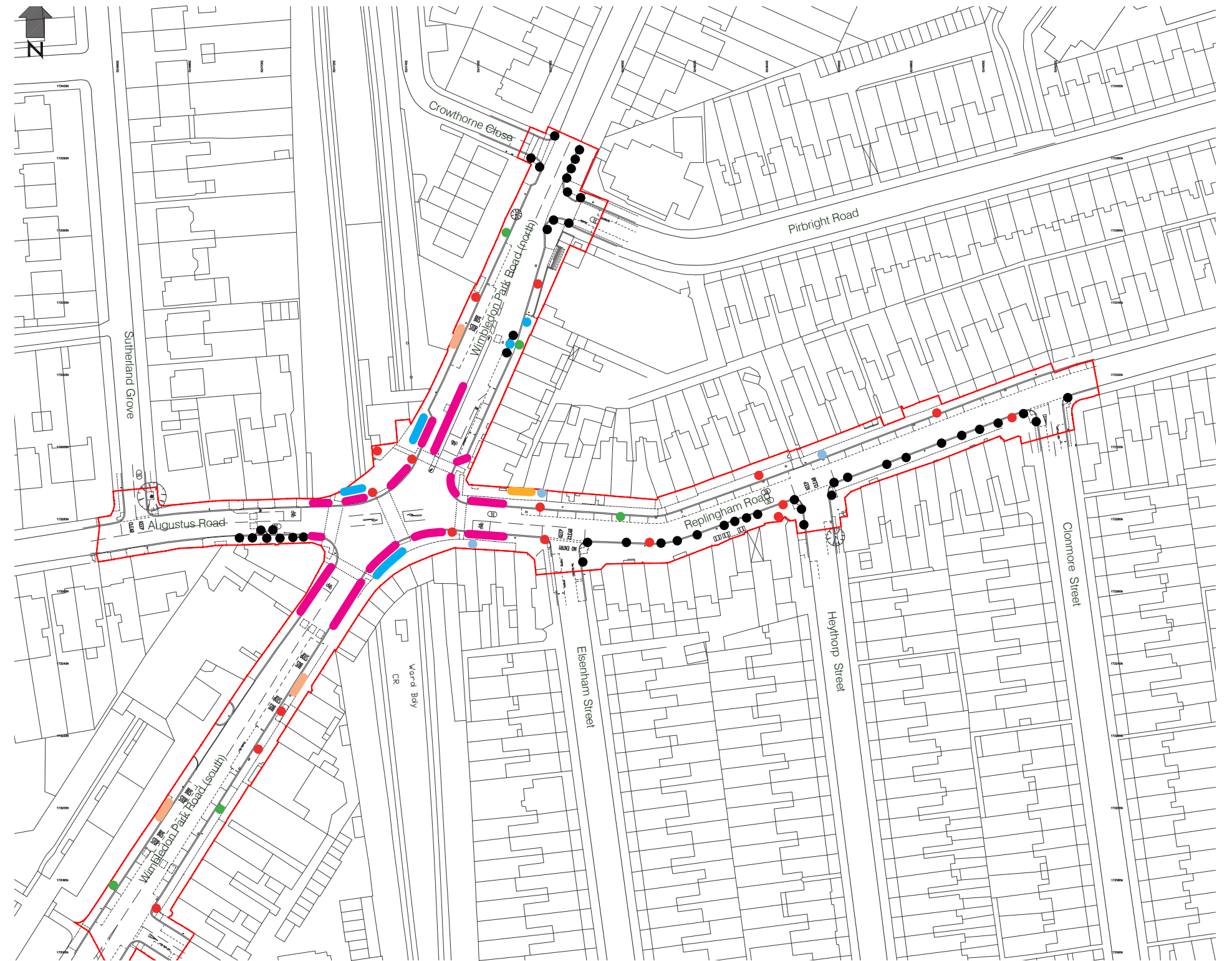


Figure 19. Existing street furniture

Railings are not needed and should be removed unless their use is justified...

TfL - Station Design Idiom

19.1 STREET FURNITURE - Existing

As shown in the diagram in the previous page, the furniture layout is cluttered. The proposal will seek to rationalize the furniture elements and their location, especially around the station.

- There are 5 different types of bollards within the scheme area. Predominately bollards are placed to prevent vehicles overrunning the kerb or provide visual distinction for crossing points
- There are two different types of bins used within the area
- The footways and build outs around the streets are generally cluttered and should be simplified
- Guardrails are currently installed on all arms of the junction

PEDESTRIAN GUARDRAILS

- Often guardrails will not prevent some pedestrians from crossing the road, going around or jumping over the guardrails putting them at greater risk. Pedestrian guardrails also create a traffic dominated environment which can increase vehicular speeds and promote aggressive driver attitudes. Guardrails have been removed in some of the busiest junctions in London, notably King's Cross and Oxford Circus
- In Southfields, we are removing the existing guardrails and replacing it with street furniture elements along the kerb. This will visually demarcate a barrier between footway and carriageway, helping to channel pedestrians to defined crossings. The impact of removing the guardrails on the junction will be assessed in more detail by a Road Safety Audit



Existing bollards



Existing litter bin



Bollard/bike stands/ticket machine in Wimbledon Park Road



Existing guardrail / seating / notice panel in Replingham Rd.



Existing guardrails / bike stands by the station

19.2 STREET FURNITURE - Proposed

- Bollard
- Litter bin
- Parking ticket machine
- Phone box
- Bus stop shelter
- Light post
- Station forecourt seating
- Seating

For cycle stands please refer to chapter 19.4, page 62.



Figure 20. Proposed street furniture

Railings are not needed and should be removed unless their use is justified...

TFL - Station Design Idiom

19.3 STREET FURNITURE - Proposed

The design will provide a consistent street furniture palette that will be appropriate to the character of Southfields as well as in line with accessibility and maintenance requirements.

SEATING

An increased number of benches will be provided in this scheme, more specifically in the station forecourt and along Replingham Road. These benches will be consistent with the aesthetics and materials of other street furniture elements within the scheme as well as fulfil safety and accessibility requirements.

LITTER BINS

- The proposal will bring consistency to the type of litter bins

BUS STOP

- The existing bus stops have been retained in number (2) and location (Wimbledon Park Road, north and south of the junction)

BOLLARDS

- The existing bollards contribute to the cluttering of the footway and our proposals will rationalize their type, location and number



Proposed timber seating with armrest and backrest



Proposed timber seating for station forecourt



Proposed litter bin to match one of the existing



Options for bollards

	Litter bins		Seating		Bollards	
	EX	PR	EX	PR	EX	PR
Wimbledon Park Road (north)	2	2	0	0	14	0
Wimbledon Park Road (south)	3	3	0	0	5	6
Augustus Road	0	0	0	0	9	0
Replingham Road	8	8	1	3	32	25
Junction	4	4	0	9	0	0
TOTAL	17	17	1	12	60	31

19.4 STREET FURNITURE - Cycle stands

● Cycle stands

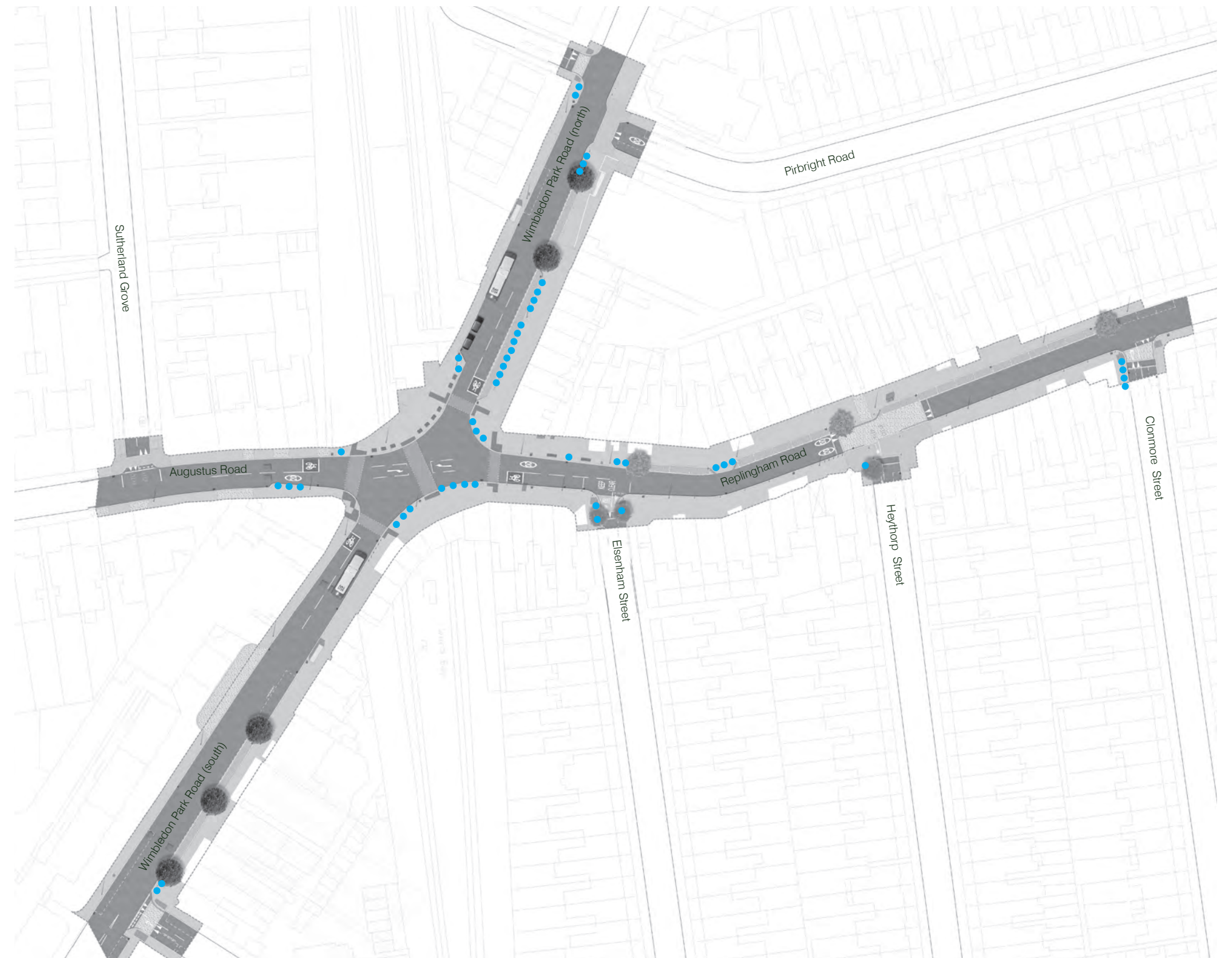


Figure 21. Proposed cycle stands

Railings are not needed and should be removed unless their use is justified...

TfL - Station Design Idiom

19.5 STREET FURNITURE - Cycle parking spaces

Currently cycle parking is concentrated around the station/ junction. The proposals are looking to increase the number of cycle stands and distribute them throughout the project area at strategic locations. These locations relate to street furniture zones, stopping points and safety. In most cases the proposed cycle stands are positioned parallel to the kerb to: a) create a barrier between footway and carriageway separating pedestrians from the carriageway; b) help channel pedestrians to proposed crossing areas and c) preserve generous footpaths widths where possible

- Cycle stands function as a visual barrier but does not restrict the movement of pedestrians from accessing the footway from the road. This will allow more people to cross the road during the pedestrian green light phase
- Footway extension provides more space for cycle parking whilst maintaining footway space for pedestrians
- Existing guardrails are noted as informal cycle parking. They have been counted (1 bike every 2.5m of guardrail) and replaced with cycle stands

A number of elements have been proposed to help slow the traffic flow, reduce the noise and generally create a more cycle friendly space. These elements include the following:

- Increase number and location of cycle stands on site
- Tree planting which will help calm traffic
- Contra-flow cycle lane in Elsenham Street and Heythorp Street
- Use of 'Copenhagen' crossings and raised tables
- Reduction of lane widths at Wimbledon Park Road (north)
- Removal of guardrails

Please see Appendix 4 - CLoS Assessment on page 184 for more information about this element of the proposed scheme.



Existing cycle stands



Proposed cycles stands

	Cycle parking spaces	
	EX	PR
Wimbledon Park Road (north)	8	34
Wimbledon Park Road (south)	0	4
Augustus Road	0	6
Replingham Road	0	28
Junction	36	28
Informal (guardrails)	21	0
TOTAL CYCLE PARKING	65	100

20.0 SAFETY ELEMENTS - Plan

- Cycle stands
- Trees
- Bollards
- Litter bins
- Parking ticket machines
- Phone boxes
- Bus stop shelters
- Light posts
- Seating
- Parked cars

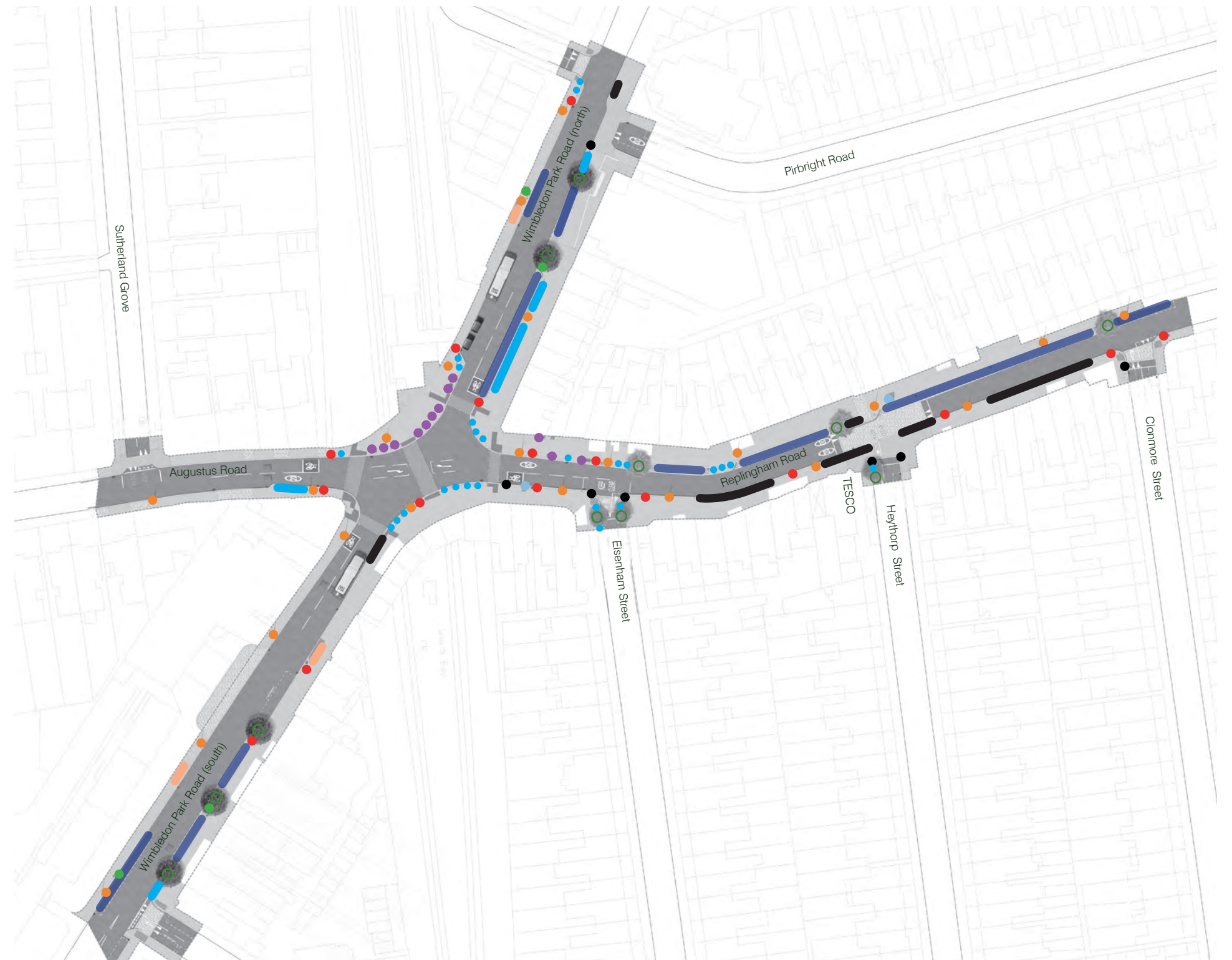


Figure 22. Proposed safety elements

20.1 SAFETY ELEMENTS

The plan on the previous page shows how across the site pedestrians and vehicles will be separated by a 1m wide safety furniture corridor.

In the areas adjacent to the Station forecourt, where the flow of pedestrian is expected to be higher, the furniture corridor will replace the existing guardrails.

The furniture corridor will increase the sense of safety on site and will rationalize the location of the furniture avoiding cluttering the footways.

The main elements located within the furniture corridor are the following:

- Cycle stands
- Bollards
- Litter bins
- Parking machines
- Phone box
- Bus shelter
- Light columns
- Station forecourt seating
- Seating

Trees and parked cars will also provide a barrier between footway and carriageway, contributing to a sense of safety for pedestrians.



Light post



Bus stop



Phone box



Trees



Litter bin



Parking machine



Cycle stands



Seating



Bollard

20.2 SAFETY ELEMENTS - Mitigating vulnerabilities outside the station - Constraints

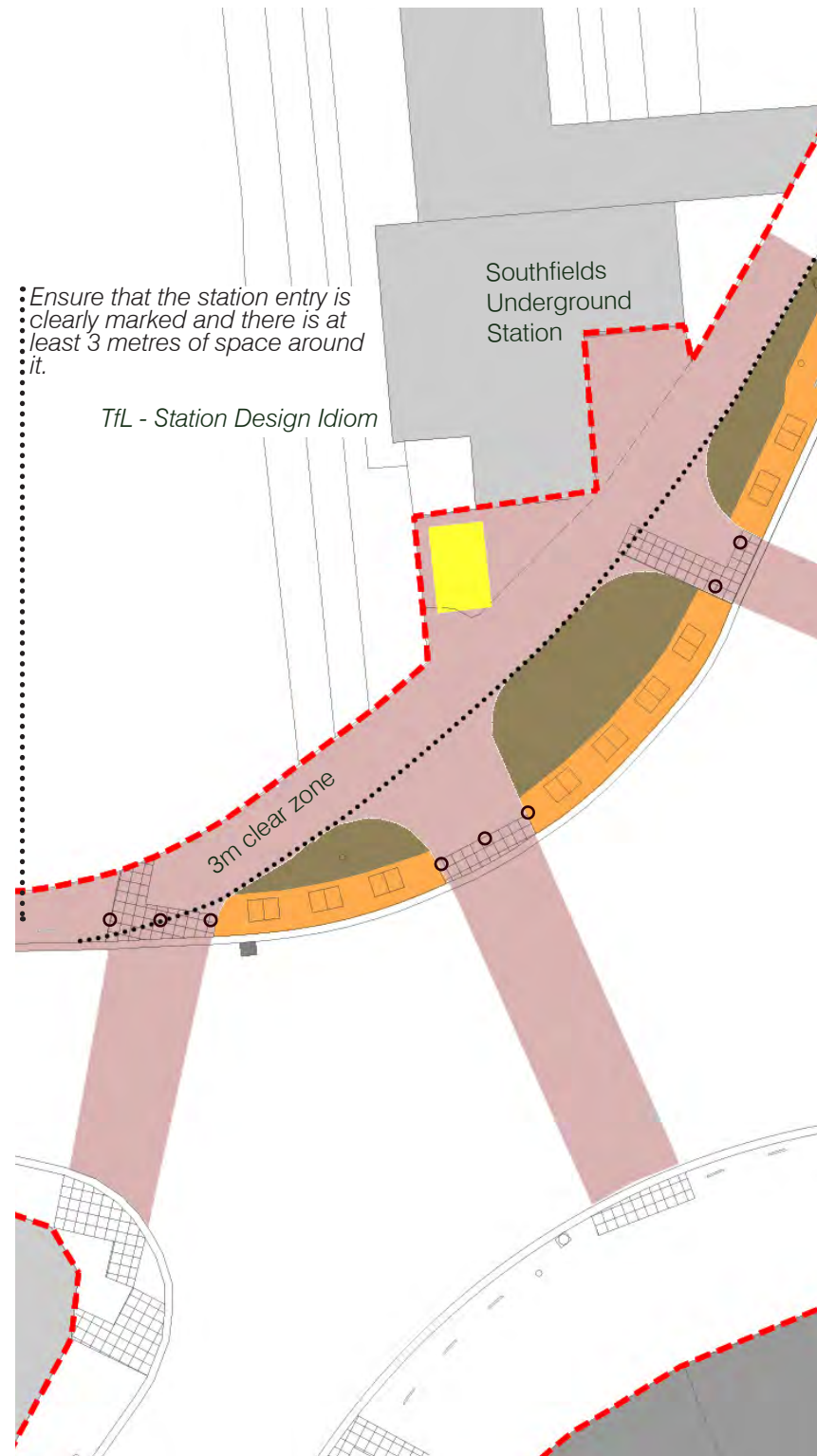
- Southfields Underground Station building
- 3m clearance zone around the station
- Main pedestrian movement
- Additional clearance zone around the station
- Mobile coffee outlet
- Furniture zone
- VSB Bollard

SAFETY KEY POINTS

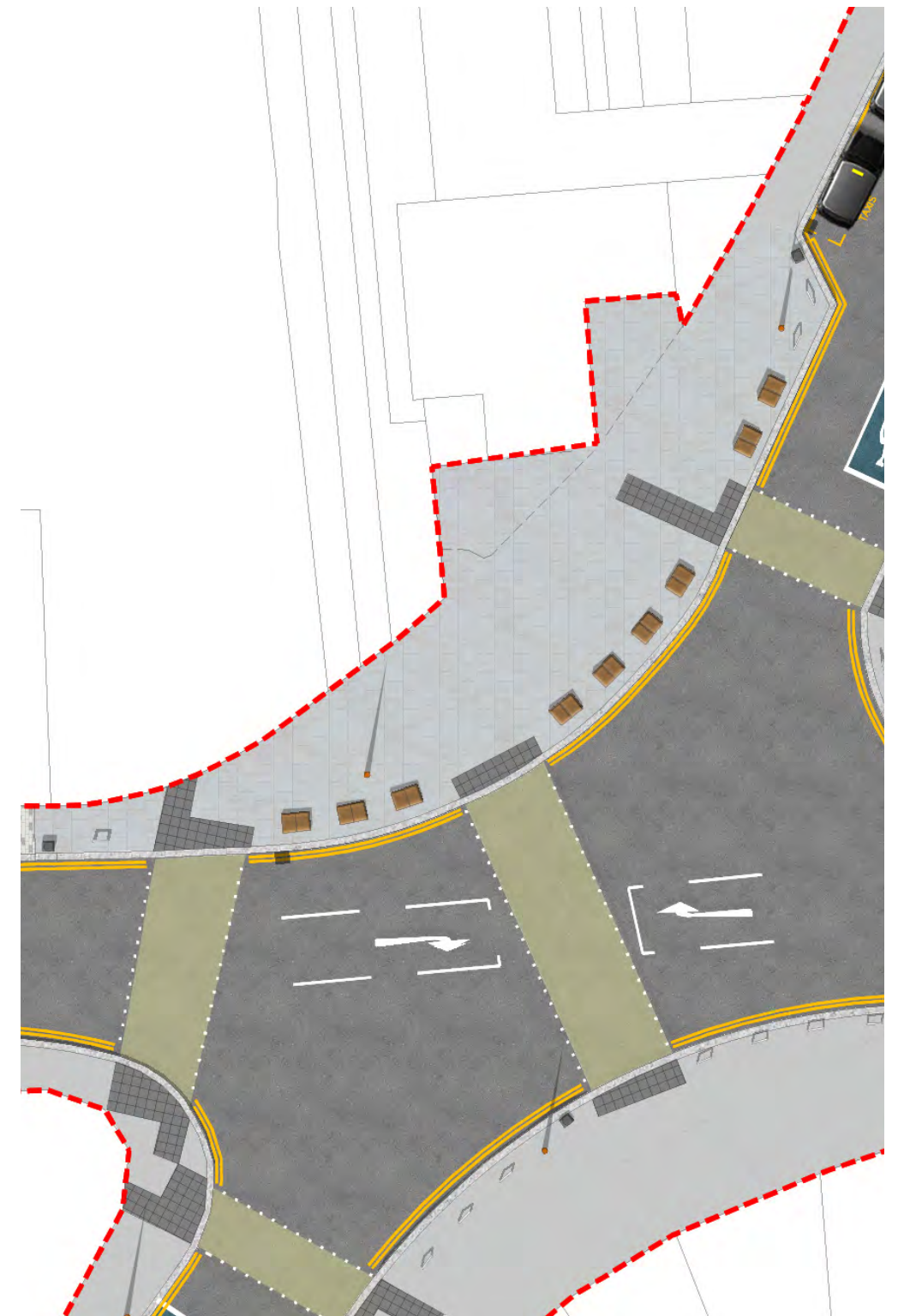
- **Aesthetics:** In almost every project, be it a commercial site or a public space of historic importance, maintaining or enhancing the look and feel of the environment is essential.
- **Function:** Full integration within the highway dictates that the key functions of the location must be maintained. Functions may include ensuring accessibility at transport interchanges or providing a safe and effective means of vehicle access control.
- **Accessibility:** To prevent vehicle encroachment, it is recommended that the clear distance between adjacent VSB (Vehicle Safety Barrier) measures or to the next structural object (e.g. wall or building) should be a maximum of 1200mm, measured.
- **Pedestrian crossings:** When integrating VSBs (usually bollards) at a pedestrian crossing, the designer should ensure that the barriers do not unduly impede accessibility. Consideration should be given to barrier position relative to the kerb line and to the layout of any associated tactile paving.
- **Traffic calming:** The application of horizontal deflections (e.g. chicanes) that are enforced by VSBs to prevent overrun or circumvention, will limit hostile vehicle approach speed thus reducing the effectiveness of a penetrative vehicle impact, be it a vehicle as a weapon or delivering a large explosive device. In turn this can reduce the safety requirements, thus providing the opportunity to deploy more discreet protection and decrease the cost of associated countermeasures.

DfT - Vehicle Safety Barriers within the Streetscape

The safety furniture (seating) is placed as both an aesthetic element and for security. Due to the number of pedestrians that attend events at Wimbledon, we have provided an area wider than the suggested 3m clearance zone.



Constraints at the station forecourt



Proposal

20.3 SAFETY ELEMENTS - Mitigating vulnerabilities outside the station - Precedents

APPLICATION OF SECURITY KEY POINTS TO THE PROJECT:

Project Centre's proposal for the Station forecourt incorporates the safety elements seamlessly into the design aesthetic.

- The dwelling area outside the Southfields Underground Station and other junction areas in the vicinity of the Station have been identified as the key priority for HVM (Hostile Vehicle Mitigation)
- The bridge imposes limitations of weight & depth however market solutions are still possible without compromising on safety
- In the Project Centre's proposal, the preference is for permanent and easily maintainable measures, similar to other areas such as Covent Gardens, Jubilee Gardens (London Eye), Tower of London, which incorporated seating/planting shrouding the HVM measures. The example demonstrates the applicability of the aesthetic principles to safety elements
- Physical features must be a maximum of 1.2m apart to be fit for purpose however pedestrian permeability is a priority outside the station
- The possibility of changing signals times during the Wimbledon Championships to prioritise pedestrians moving from station area to the tennis courts has to be further investigated with TfL



Jubilee Gardens, London



New Street Station, Birmingham



Bridge St., Warrington



Fenchurch Street, London



Titanic, Belfast



Financial district, New York



Tesco superstore, Seaton



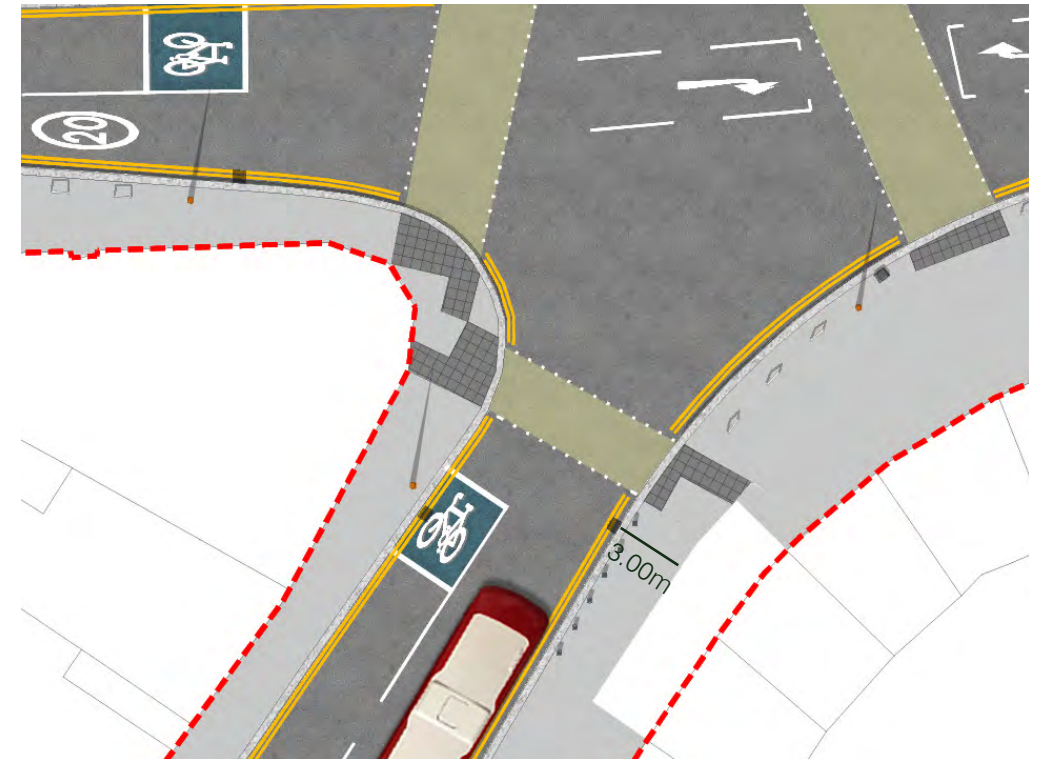
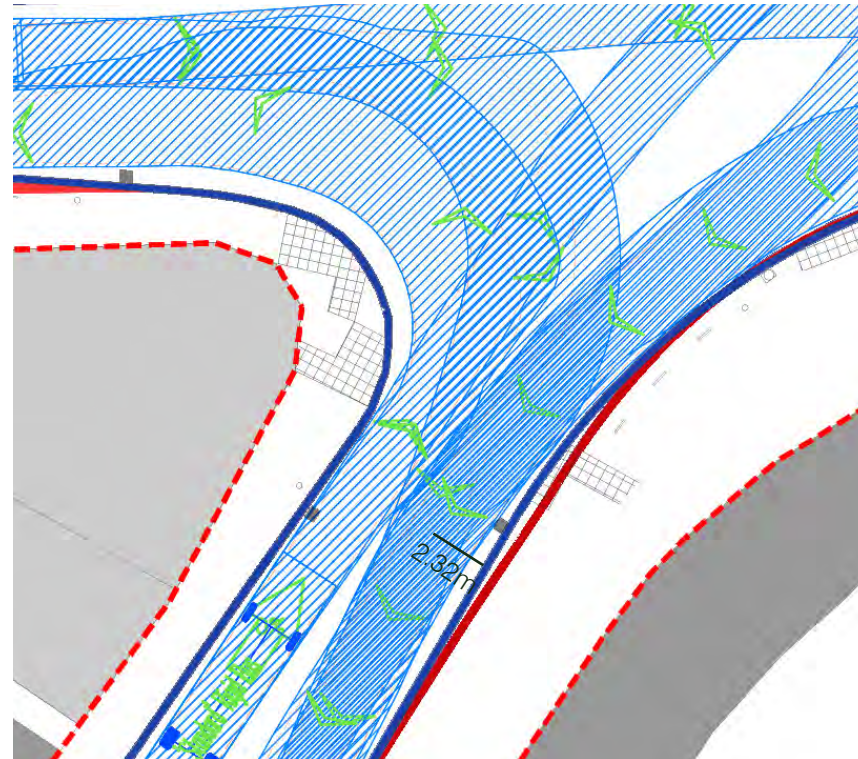
i 360 Brighton

20.4 SAFETY ELEMENTS - Pinch Point

On the southern arm of the Southfields junction, on the eastern side, the footway width between the kerb and the restaurant's terrace forms a pinch point for pedestrians. This could be a potentially larger issue during the two weeks of the Wimbledon Tennis Championship with the substantial increase of footfall.

The proposal is to extend the footway width from 2.32m to 3m, which will allow for safer and more comfortable pedestrian movements.

This extension was based on a vehicle tracking exercise that included the left turn and the straight movement from Wimbledon Park Road (south) and the right turn from Augustus Road.



Existing pinch point at Wimbledon Park Road (south)



Proposal

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21.0 ACCESSIBILITY

ACCESSIBILITY ELEMENTS

- Tactile paving
- Dropped kerb
- Furniture corridor
- Resting areas
- Disabled parking
- Pedestrian crossing points

- It is proposed to remove 1 of the 2 disabled bays in Elsenham Street due to underutilization and proposed gateway improvements
- The proposal creates resting areas for pedestrians by providing benches on the station forecourt and Replingham Road
- Heythorp Street will be provided with a 'Copenhagen' crossing as a tool to enhance pedestrian priority over cars
- The proposal developed strategy for tactile paving that is in line with current best practice within London. Specific requirements will be looked at in more detail in the next stage of design
- Some shops in Replingham Road are not accessible due to the gradient of the street and access to the shops requiring steps. Accessibility to shops is not part of the scope of works for this commission but a potential improvement to the accessibility and consistency of access to shop thresholds would be recommended

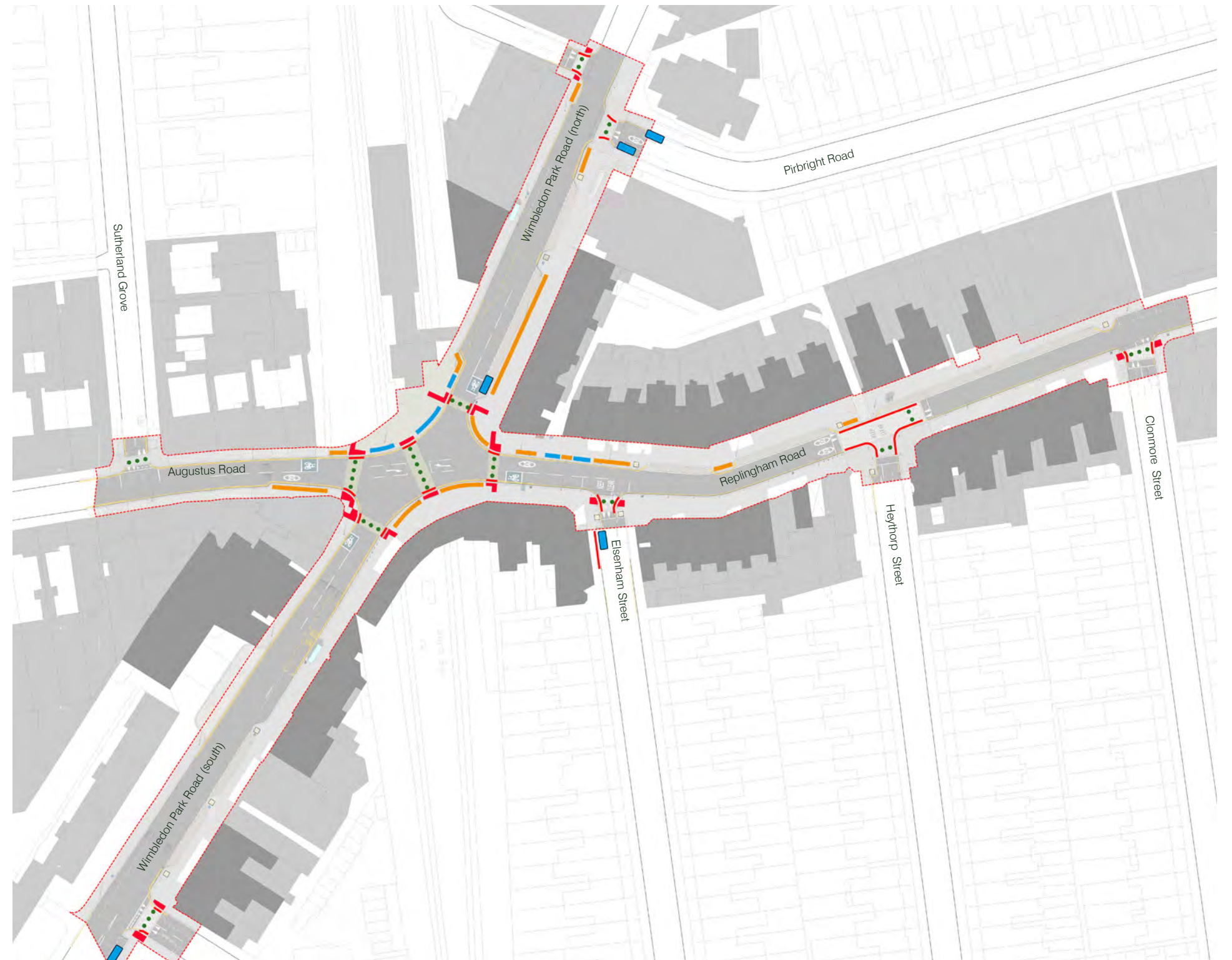


Figure 23. Accessibility plan

21.1 ACCESSIBILITY - Tactile paving

TACTILE PAVING:

The London Streetscape Guidance for Controlled Crossings recommends red tactile paving on the TLRN (Transport for London Road Network) and contrasting grey tactile paving in conservation areas. This varies from the existing DfT guidance, however within the streetscape guidance it is stated that the reason for TfL's variation from national guidance is:

"Research shows that partially impaired people often use the contrasting colour of the tactile paving to guide them through the streetscape. However, there is less evidence that the specific colour used makes the space more legible."
- Streetscape Guidance, TfL, 2017

The national guidance for Uncontrolled Crossing is:

"buff or any colour (other than red) which provides contrast with the surrounding footway."
-Guidance on the use of Tactile Paving Surfaces, DfT, 1998

None of the roads within the scheme are on the TLRN. We propose a visually contrasting dark grey for Controlled Crossings and a lighter grey for Uncontrolled Crossings to complement the historic and tradition feel of the area.



Dark grey contrasted tactile paving



Light grey contrasted tactile paving



Buff tactile paving



Red tactile paving

21.2 ACCESSIBILITY - Crossings

SIDE ROAD RAISED ENTRY TREATMENTS

Raised entry treatments create a convenient level crossing for pedestrians walking along the main road. The effect of raising the road slows down vehicles and gives pedestrians greater visibility when crossing the road. There are existing raised tables on Crowthorne Close and Pirbright Road which we are proposing to replace. 'Copenhagen' crossings are a relatively new practice however there are examples of their use both around London and within the London Borough of Wandsworth.



Clapham Old Town



Tooting Bec Underground Station











King's Cross

22.0 WAYFINDING - Existing and potential routes

Providing clear wayfinding information at key locations is a useful tool for making the pedestrian experience more comfortable. This will help the local community and visitors to define their journeys as well as invite them to discover areas of interest that would otherwise remain unknown.



-  Existing signed cycle route (Southfields to Wimbledon Common) - Potential pedestrian route
-  Existing signed pedestrian route (Capital Ring) (Underground stations to Tennis courts)
-  Potential pedestrian/cycle route (Southfields to Wimbledon Park Underground)
-  Potential pedestrian/cycle route (Wimbledon Common to Tennis Courts)
-  Google recommended however realistically unsuitable route for pedestrians/cycles due to lack of footpaths
-  Potential pedestrian/cycle route (Southfields Underground to Sikh Gurdwara Temple)
-  Potential pedestrian/cycle route (Southfields Underground to London Mosque)
-  Potential pedestrian/cycle route (Southfields Underground to Royal Hospital)

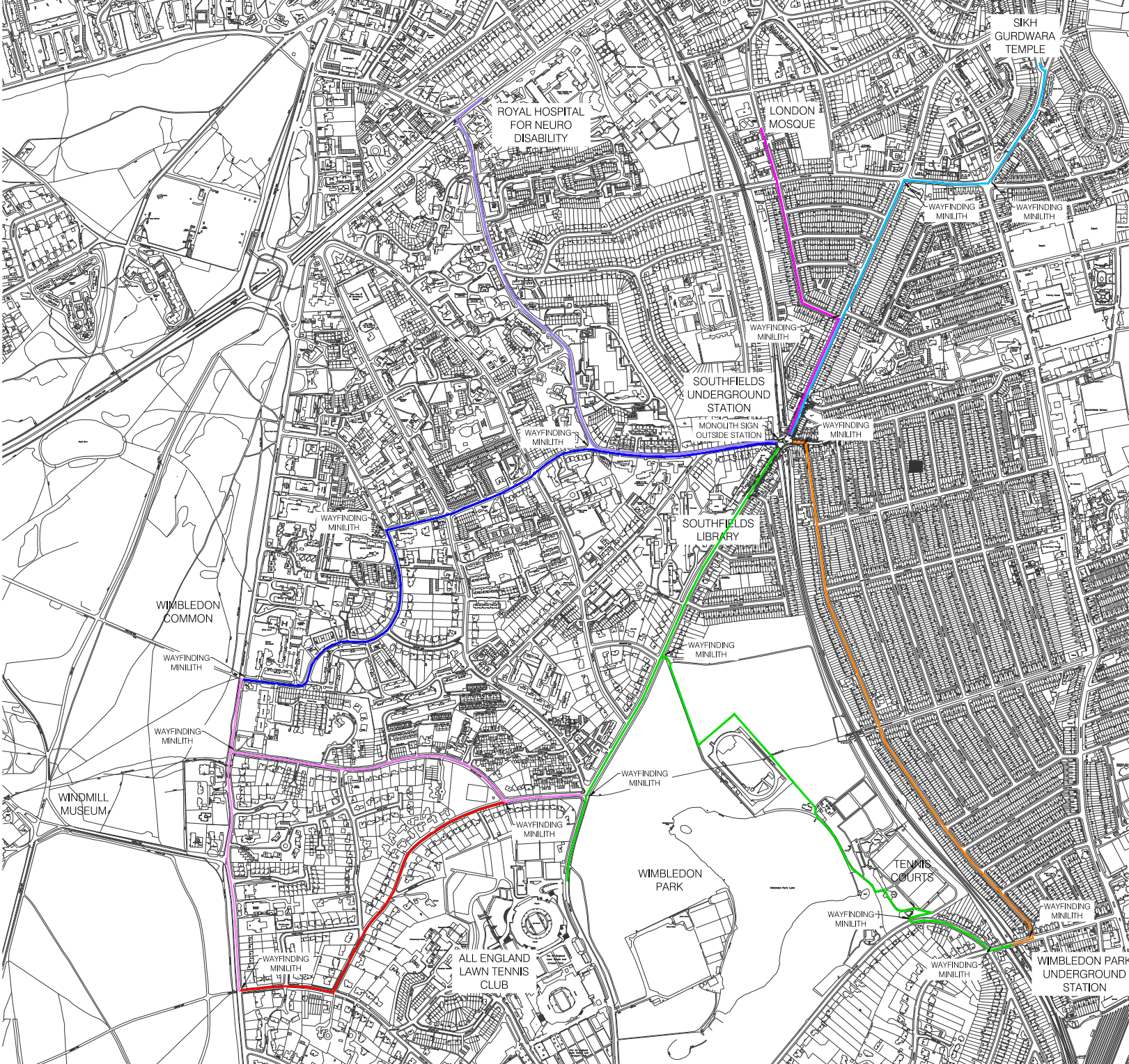


Figure 24. Existing and potential routes

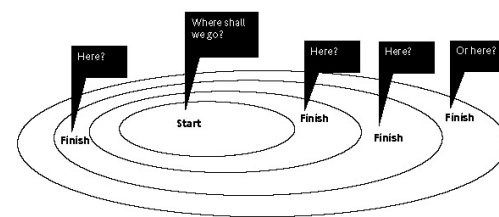
22.1 WAYFINDING - Legible London

Introducing Legible London wayfinding will bring quality to this streetscape element as well as making it consistent with other areas in London.

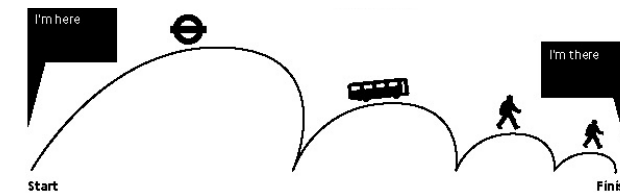
- █ Existing signed cycle route (Southfields to Wimbledon Common) - Potential pedestrian route
- █ Existing signed pedestrian route (Capital Ring) (Underground stations to Tennis courts)
- █ Potential pedestrian/cycle route (Southfields to Wimbledon Park Underground)
- █ Potential pedestrian/cycle route (Southfields Underground to Sikh Gurdwara Temple)
- █ Potential pedestrian/cycle route (Southfields Underground to London Mosque)
- █ Potential pedestrian/cycle route (Southfields Underground to Royal Hospital)



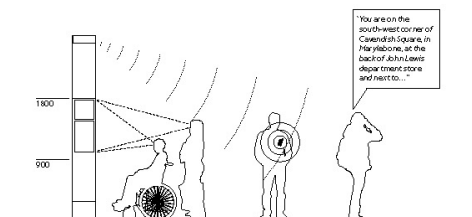
Figure 25. Wayfinding strategy



Strollers need the walking system to work for them opportunistically at the street level - allowing them to drift, wonder and have the confidence to get lost. The conceptual model of a stroller is a kin to 'ripples in a pond'.



A strider's goal include efficient travelling. Striders need the walking architecture to connect up different transportation nodes and modes.



Awareness. A possible adaptation for the future is a system for helping the visually impaired to navigate by relaying their proximity to signs to a mobile device.

The Yellow Book: A Prototype wayfinding stem for London, TfL, 2007

22.2 WAYFINDING - Legible London - Totems

Several stations around London have the Legible London signs located around the entrance. Notable examples include:

- Wimbledon Park Underground Station, the closest station to Southfields Underground Station
- Tooting Bec and Balham Underground Stations within the London Borough of Wandsworth
- Shepherd's Bush Overground and National Rail Station, an example of an international destination



Wimbledon Park Underground Station



Tooting Bec Underground Station



Balham Underground Station



Legible London totems



Shepherd's Bush Overground and National Rail Station

22.3 WAYFINDING - Wandsworth Town precedents

Wandsworth Town Station is an example of having Legible London signage together with a traditional heritage finger post.



Wayfinding elements at Wandsworth Town station



Figure 26. Wandsworth Town station entrance

23.0 LIGHTING - Current street lighting

EXISTING STREET LIGHT WITHIN THE PROJECT EXTENTS

- Inventory data received from the client’s database shows existing lighting columns on the main roads (Replingham Road, Wimbledon Park Road (north) and August Road) are 10m high, 1m outreach brackets with Schreder ZX2 high pressure sodium. This information matches discussions with the Client and observations on site on the 19th of December 2017. Adjoining roads, which are primarily residential, have 6m columns, 1m outreach bracket with Schreder ZX1 high pressure sodium lamps. Our site visits confirm the inventory is generally accurate
- At the time of this report LB Wandsworth is in the process of replacing the high pressure sodium lamps with LEDs. This LED installation programme has been completed on the section of Wimbledon Park Road (south) and the main junction within the project area only. The remaining high pressure sodium luminaires are listed to be changed to LED
- The style of the existing street lighting is functional. The existing lighting columns are steel stepped columns, the column is painted grey/green and black at the base, as shown in the adjacent image
- All columns surrounding the junction and those on Replingham Road have Christmas decorations/lighting and signage mounted on the columns. In addition, at Christmas a tree is located at the front of the station which is lit with festoon style lights. Flower baskets are mounted on some, but not all columns located on Replingham Road
- The majority of the columns have signage and some have small banners attached (the size of the signs and banners vary). There are also a number of large directional signs and signposts without signs. Overall, the footpaths have a large number of street furniture elements causing clutter. The scheme would benefit from decluttering of street furniture including traffic signs, posts, etc.

CONDITION OF EXISTING LIGHTING COLUMNS:

On visual inspection, most of the existing columns appear to be in fair condition and functional consistent with their age. Some signs of wear, including evidence of chipping/peeling paint.



Existing columns and street furniture

23.1 LIGHTING - Street lighting design options

OPTION 1 Decorative timber columns at junctions and Replingham Rd:

Install two 12m timber mast columns (Type B) with painted black steel base root mounted to be located on the footpaths at the front of the entrance to Southfields underground station. These columns will be fitted with flood lights, thus illuminating the carriageway and footpaths including the Station entrance.

Around the main junction (opposite the station) and Replingham Road install new 10m tapered timber columns (Type A) with painted black steel base root mounted and Ampera luminaires as shown below. These will tie into the timber masts located at the station entrance for continuity.

Install new 10m stepped steel columns (Type D) painted black with post-top mounted Ampera luminaires on all the surrounding street within the project area.

This option will create a sense of arrival and interest for the public space outside the front of Southfields Underground station. The 12m masts will also provide back lighting onto the footway and achieve a more consistent level of lighting in the area. The junction and underground station concourse will feel connected to Replingham Road by using similar timber style columns, whilst using natural colours to tie into the heritage of the area. The lighting on the approach roads will tie into the junction using standard LB Wandsworth equipment finished in black and this will emphasise the decorative lighting at the junction and Replingham Road. It will also tie in with the proposed wooden bollards and seating.

OPTION 2 Tapered steel post-top columns in black:

Replace all street lighting columns within the project area with new 10m steel tapered columns and post-top mounted Schreder Ampera Luminaires (Type C) (LB Wandsworth spec). Columns and luminaires all finished in black.

All columns at the junction will be tapered steel columns painted black with black Ampera luminaires. Two lighting columns outside the front of the station will be positioned towards the front of the footway.

This option will create interest by using a conical column with a noticeable taper. These columns will be used within the entire extents of the project to create a simple but elegant feel which considers the character and unique identity of the location.

Option 3 Standard LB Wandsworth specification columns in black:

Replace all street lighting columns within the project area with new 10m tubular stepped columns, and post-top mounted Schreder Ampera Luminaires (Type D) (LB Wandsworth spec). Columns and luminaires all finished in black.

This option will follow the specification of the borough. This will create continuity of the lighting throughout the project extent and into the surrounding roads. The proposed columns will be finished in black so the column and luminaire feel connected.



Figure 27. Lighting Design Option 1

23.2 LIGHTING - Street lighting column options

LIGHTING TYPES

Type A

Wandsworth specified Urbis Ampera light fitting with a timber (brown) and steel (black) tapered column. This is a 10m column which matches existing.

Type B

Feature flood light fitting with a timber (brown) and steel (black) tapered column. This is a 12m column.

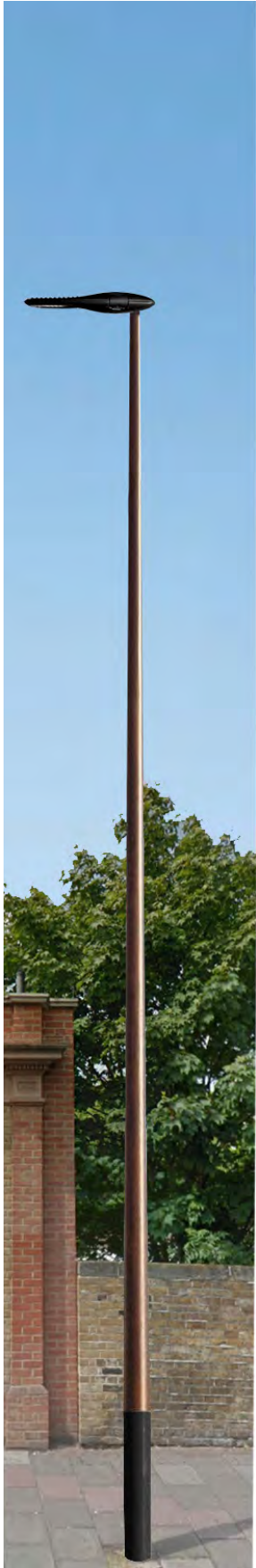
Type C

Wandsworth specified Urbis Ampera light fitting with a steel (black) tapered column. This is a 10m column which matches existing.

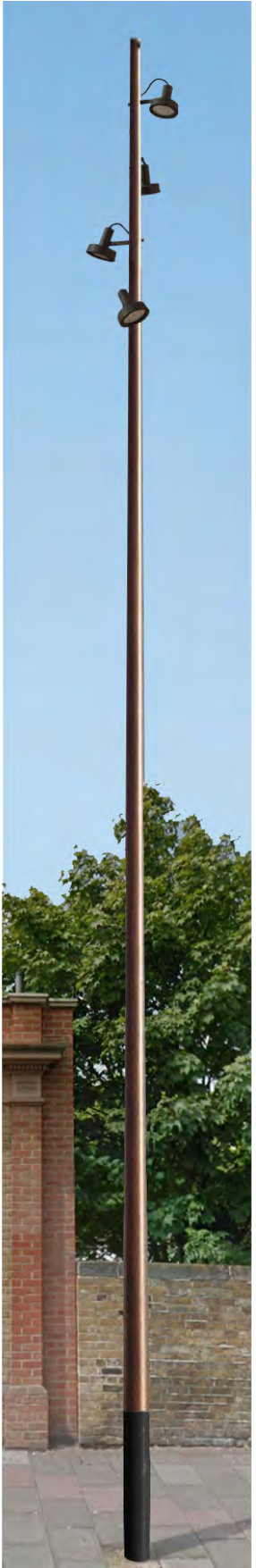
Type D

Wandsworth specified Urbis Ampera light fitting with a steel (black) standard stepped column. This is the same as the current pole installed in Wandsworth except the column is usually a grey. This is a 10m column which matches existing.

All proposed lighting columns shall cater for festive lighting/decorations. The exact requirements and specifications for festive lighting shall be agreed in later design stages.



Proposed Type A light post



Proposed Type B light post



Proposed Type C light post



Proposed Type D light post

23.3 LIGHTING - Feature lighting options

OPTION 1: Recessed feature lighting at Southfields Underground Station and tree up lighters on Replingham Road. Lighting plan on next page is showing tree uplighters.

- Install two warm white recessed up lighters next to each new and existing tree along Replingham Road to highlight the tree. Examples in figure 1
- Linear strip lighting in the footway / station concourse (Fig. 2 and 3)

A simple but striking lighting effect created by recessed linear LED strip lighting will create a visual interest to all pedestrian arriving at Southfields Underground Station. The recessed linear strip lighting will be connected to a colour changing DMX system and thus will allow different moods to be created to suit events and public / festive holidays etc. This feature lighting will seek to capture the attention of all pedestrians and will bring identity to Southfields Underground Station, but will not disturb the ambient lighting and character of the surroundings. Examples of linear strip lighting and tree up lighters can be seen in figures 1, 2 and 3.

OPTION 2: Public seating lighting and tree up lighters on Replingham Road

- Install lighting under benches and public seating outside the front of the Underground Station

The new public seating area shall include low level illumination to attract and welcome the public to sit and enjoy the location. A warm white LED light shall be installed at each seat to create a comforting ambience within the public realm. The type of lighting fitting used and the effect on the footpath will very much depend on the final selection of the public seating. Examples of bench/seating lighting can be seen in figures 4 and 5.



1. Recessed tree up lighters



2. Linear strip lighting



3. Linear strip lighting



4. Lighting under benches



5. Lighting under benches

23.4 LIGHTING - Street and feature lighting plan

- LIGHT COLUMN TYPE
- Existing light post to be retained
 - ⦿ New standard light post
 - ⦿ New high quality light post
 - ⦿ New feature light post for station entrance
- FEATURE LIGHTS
- ⦿ Tree up lighters
 - Lights under benches
 - Linear strip lighting

RECOMMENDATION:

Our recommended lighting option for Southfields comprises of a mixture of options i.e. Street lighting option 1 (wooden street lighting columns) with feature lighting option 2 (public seating lighting and tree up lighters on Replingham Road). We believe this solution will complement the style of the surroundings and feel of the area, whilst achieving the required lighting requirements.



Figure 28. Plan showing street and feature lighting locations

24.0 SOFT LANDSCAPE - Trees

-  Existing tree
-  Liquidambar tree at side road
-  Birch tree at Wimbledon Park Road
-  Rowan tree at Replingham Road
-  Highway Boundary

The positioning of trees has generally been aligned with the property boundaries in order not to obstruct the entrances of the buildings.

On Wimbledon Park Road (south) 2 of the 3 proposed trees are not in line with the property boundary. This is in order to keep more parking bays. A visualisation (see page 84) shows that, even if not perfectly aligned with the property boundaries they do not seem to be obstructing views to the entrances of the businesses.

We have proposed trees on footway extensions because the width of the highway boundary is often too narrow to place a tree and provide the minimum amount required of public footway.



Figure 29. Tree strategy

24.1 SOFT LANDSCAPE - Trees - Precedents

The character areas identified within the project will also be reflected in the choice of different tree species for the different areas.

- For Wimbledon Park Road we are considering birch trees. They are common in the London area and have an elegant light structure that will be adequate to this location which is dominated by ground floor retail and food and beverage units. These trees will be located along the route to Wimbledon Tennis Club and its sculptural white bark will reflect the white of the players' clothes at Wimbledon
- For the side road treatment at Heythorp Street and Elsenham Street Liquidambar trees will be used, to match the species of the existing tree in Elsenham Street
- For Replingham Road we are proposing a tree that would be able to give the street its own distinctive character whilst not obstructing views to businesses entrances



Liquidambar tree option for side streets



Birch tree option for Wimbledon Park Road



Acer platanoides option for Replingham Road



Rowan tree option for Replingham Road

Make the most of the public space outside the station to make it stand out and give customers a chance to pause before or after travelling. These public spaces will create centres of urban activity, attract more people and increase retail and advertising opportunities...

TfL - Station Design Idiom

24.2 SOFT LANDSCAPE - Trees in Wimbledon Park Road (south)



Existing public realm at Fara charity shop



Proposed public realm at Fara charity shop



Existing public realm at Post Office



Proposed public realm at Post Office

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24.4 SOFT LANDSCAPE - Tree pit system installation

 Tree pit system installation - Area required by planting cells

Trees will be installed within a strata cell tree pit system in order to encourage a healthy growth and minimize impact on surrounding services. The required soil volume for each tree is approximately 15-20m², although this will need to be further assessed on the next stage of design. This plan shows indicatively where these pits are proposed. Tree pit systems encourage growth, provide water retention and prevent the tree root damaging the footways and carriageways.



Figure 30. Tree pit system installation

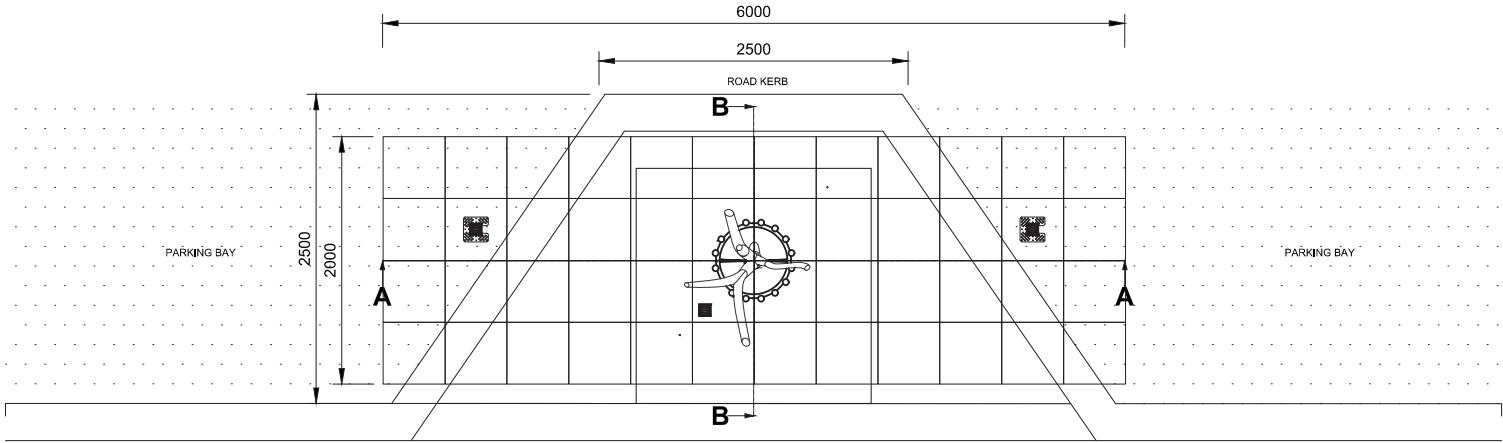
24.5 SOFT LANDSCAPE - Tree pit system installation - Detail

EXAMPLE OF SYSTEM

The GreenBlue Urban RootSpace® system is essentially a soil support system – designed for maximum soil and rooting volume, to be 'utility friendly', with economic freight and industry leading strength characteristics.

In 2001, GreenBlue Urban produced the world's first purpose made commercial structural soil cell for urban tree planting. Since then, thousands of trees have benefited and continue to benefit, from access to uncompacted soil volumes beneath heavily engineered pavements and roadways.

RootSpace® is the next generation soil protection product, developed by GreenBlue Urban to reduce cost, cut down installation time and incorporate industry leading soil aeration methodology – a vital and often overlooked component in tree pit design.



Example of the proposed tree pit system previously used in London - Plan

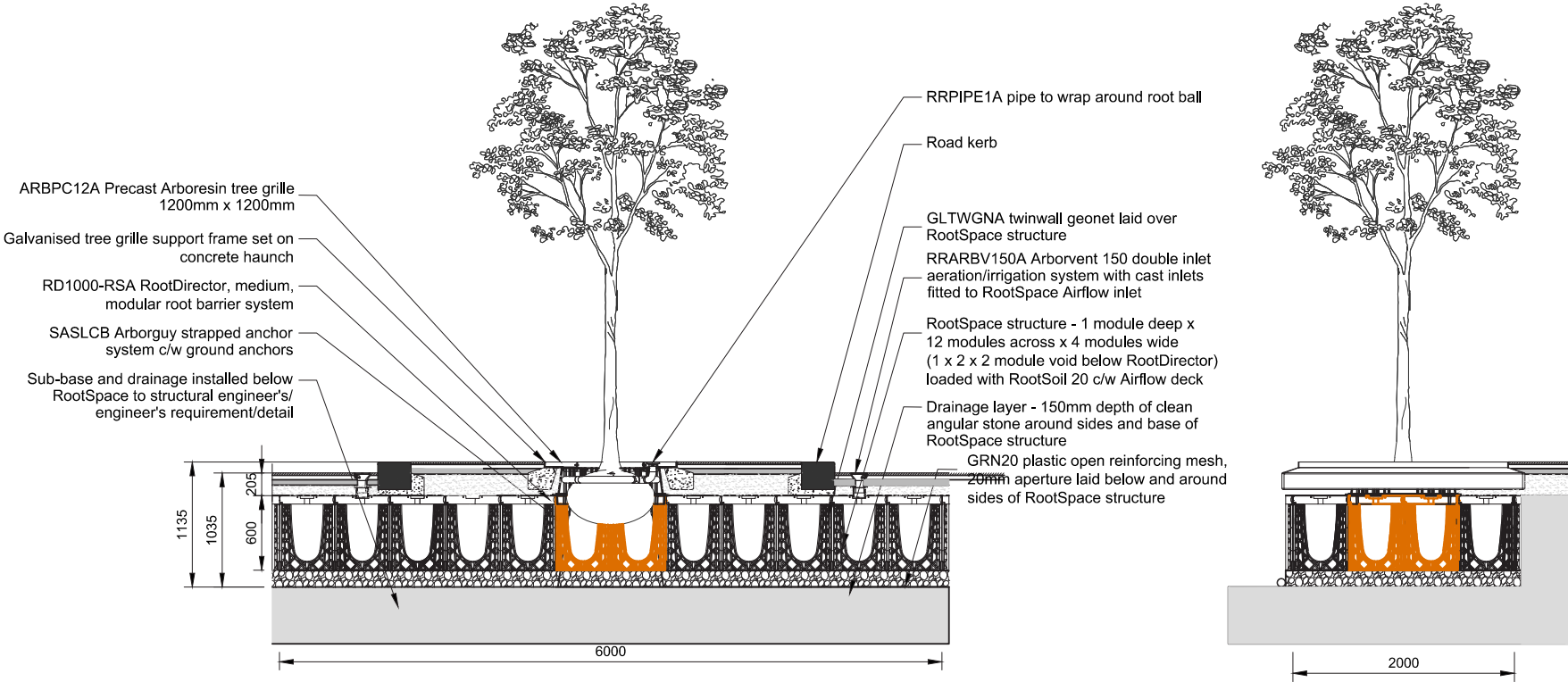


Figure 31. Example of the proposed tree pit system previously used in London - Sections

25.0 DRAINAGE - Wimbledon Park Road and Augustus Road

GULLIES

- Existing gully to be retained
- Existing gully to be relocated
- Proposed new gully

The proposal will retain the majority of the existing gullies as the overall carriageway drainage will not change substantially. The gullies few that need relocation will follow the proposed kerb alignment.

WIMBLEDON PARK ROAD (north)

- 1 No. gully proposed in footway extension
- 1 No. gully relocated in footway extension

CROWTHORNE CLOSE

- 1 No. gully proposed at entry ramp

PIRBRIGHT ROAD

- 1 No. gully proposed at entry ramp

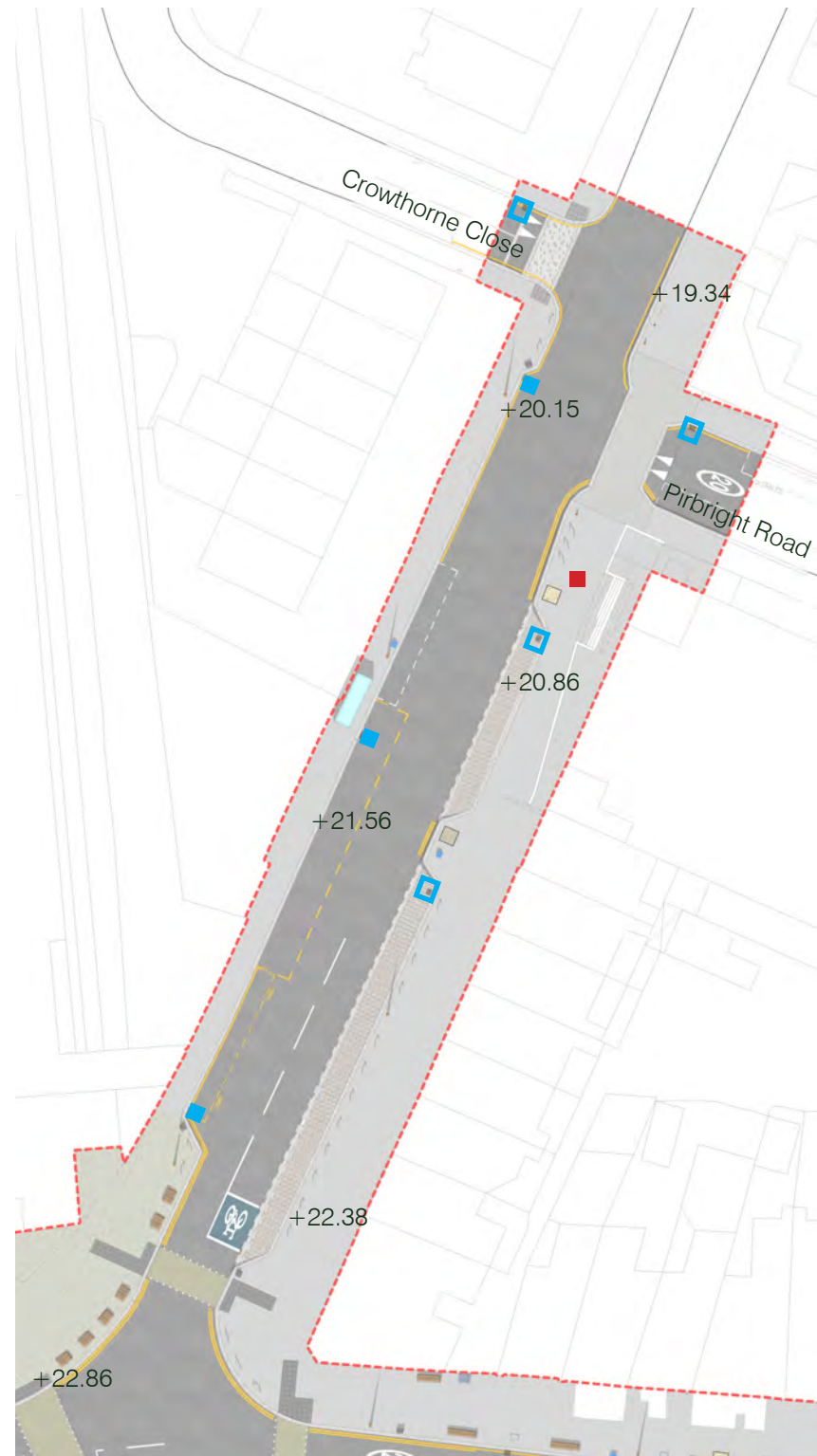
WIMBLEDON PARK ROAD (south)

- 3 No. gullies proposed in footway extension

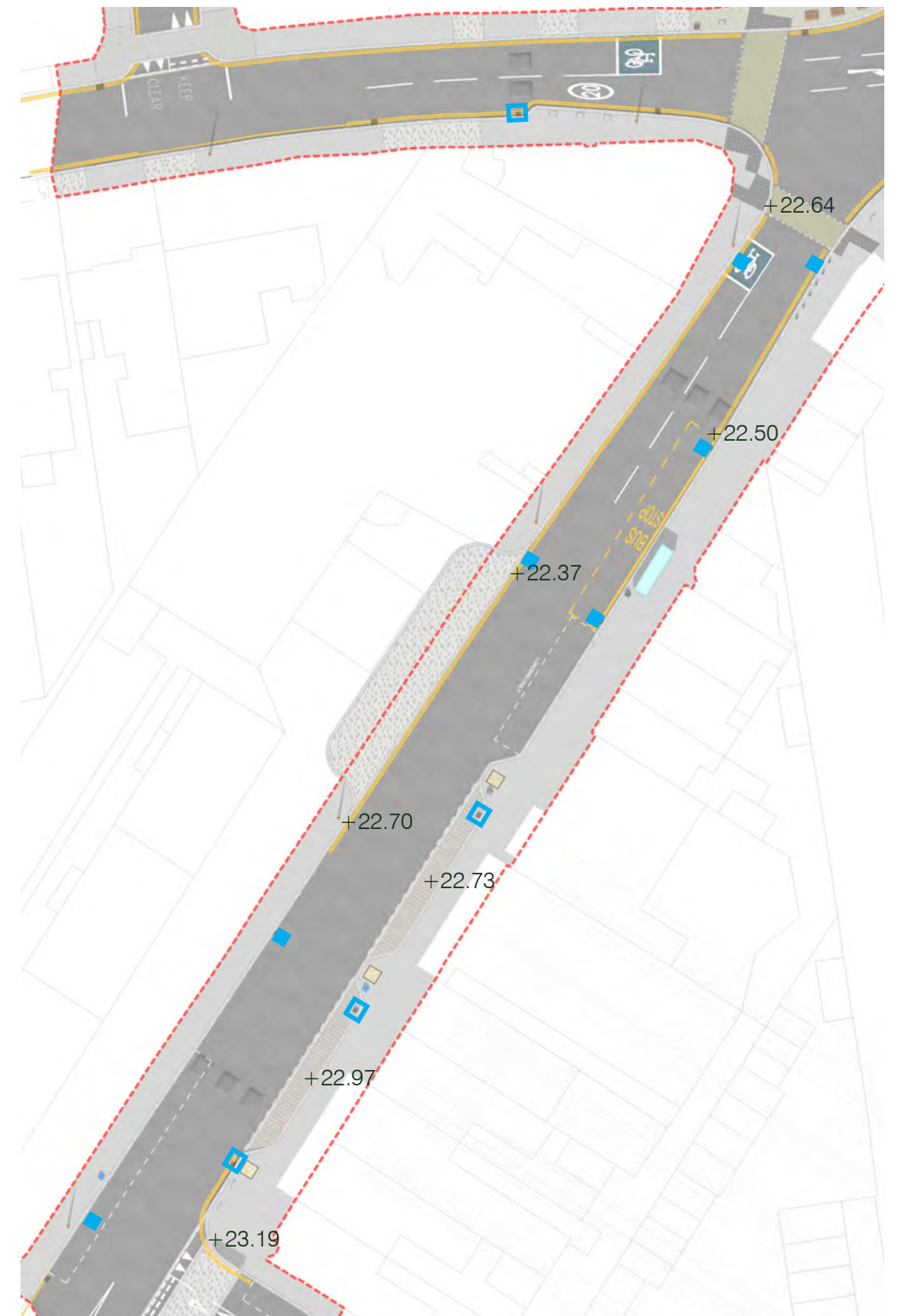
AUGUSTUS ROAD

- 1 No. gully to added (south side) by footway extension

The gully location is indicative at this stage. It will be finalized in the next stage of design.



Wimbledon Park Road (north)



Wimbledon Park Road (south) and Augustus Road

25.1 DRAINAGE - Replingham Road, Elsenham Street, Heythorp Street and Clonmore Street

GULLIES

- Existing gully to be retained
- Existing gully to be relocated
- Proposed new gully

REPLINGHAM ROAD

- 1 No. gully relocated by the junction with Elsenham Street (south side)
- 1 No. gully relocated opposite the junction with Elsenham Street
- 1 No. gully relocated at the bend (north side)
- 1 No. gully relocated by the junction with Heythorp Street
- 1 No. gully relocated opposite junction with Heythorp Street
- 2 No. gullies proposed between Heythorp Street and Clonmore Street
- 1 No. gully relocated opposite the junction with Clonmore Street
- 1 No. gully relocated by the junction with Clonmore Street

ELSENHAM STREET

- 1 No. gully proposed at the base of ramp (west side)
- 1 No. gully proposed on the east side

HEYTHORP STREET

- 1 No. gully proposed on east side
- 1 No. gully proposed at the base of ramp (west side). Existing gully to be removed/relocated; new gully to tap on
- 1 No. gully was proposed. Under new alignment the gully has been shifted west to the base of the raised table ramp

CLONMORE STREET

- 2 No. gullies proposed at entry treatment. Existing gullies (2 No.) to be removed/relocated; new gullies to tap on

The gully location is indicative at this stage. It will be finalized in the next stage of design.



26.0 UTILITIES AND SERVICE COVER ASSESSMENT - Replingham Road

Following the utilities and service cover assessment the following issues were highlighted (refer to hatched line on plan, cross reference with text below):

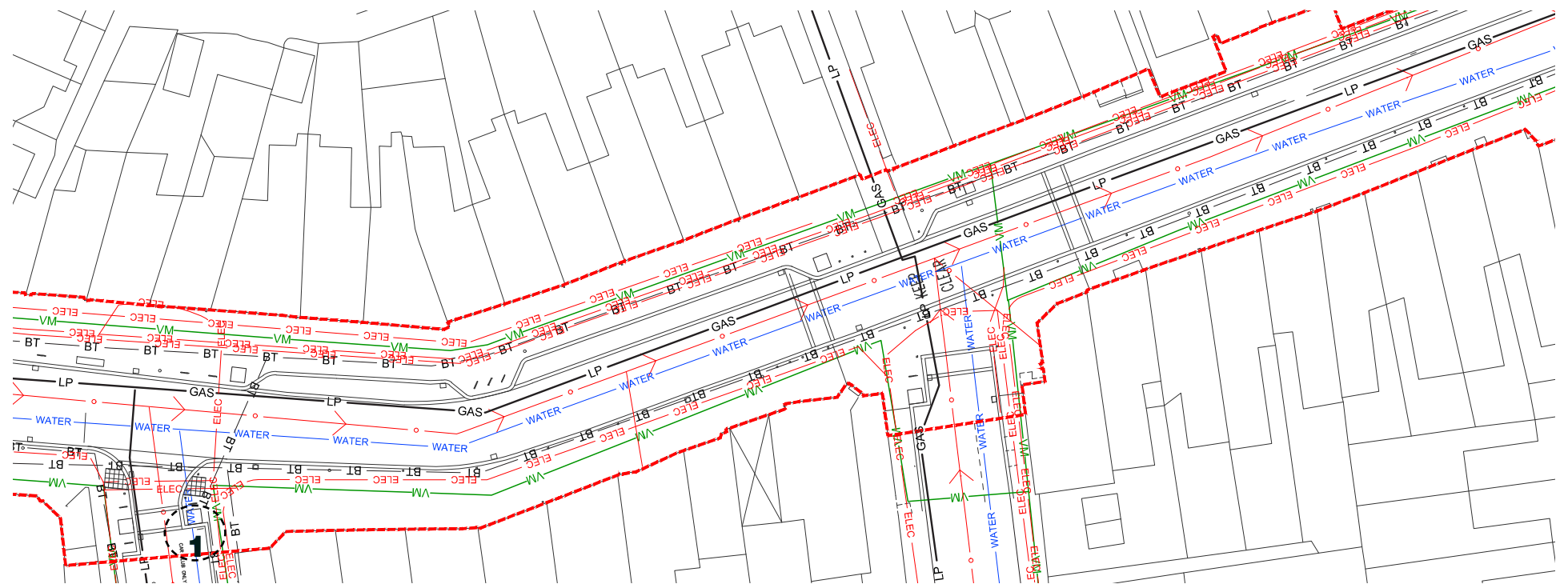
Issue 1: Elsenham Street: 1 No Tree located above water main.

Action: Subject to cover level of main, the trees could be re-located or removed.

Actions to be taken forward in the next stage of design.



Proposal



Service cover assessment and below ground statutory service review

26.1 UTILITIES AND SERVICE COVER ASSESSMENT - Wimbledon Park Road (south)

Following the utilities and service cover assessment the following issues were highlighted (refer to hatched line on plan, cross reference with text below):

Issue 1: Wimbledon Park Road (south): 3 No Trees proposed above/in close proximity to water main.

Action: Subject to cover level of main, the trees could be relocated or removed.

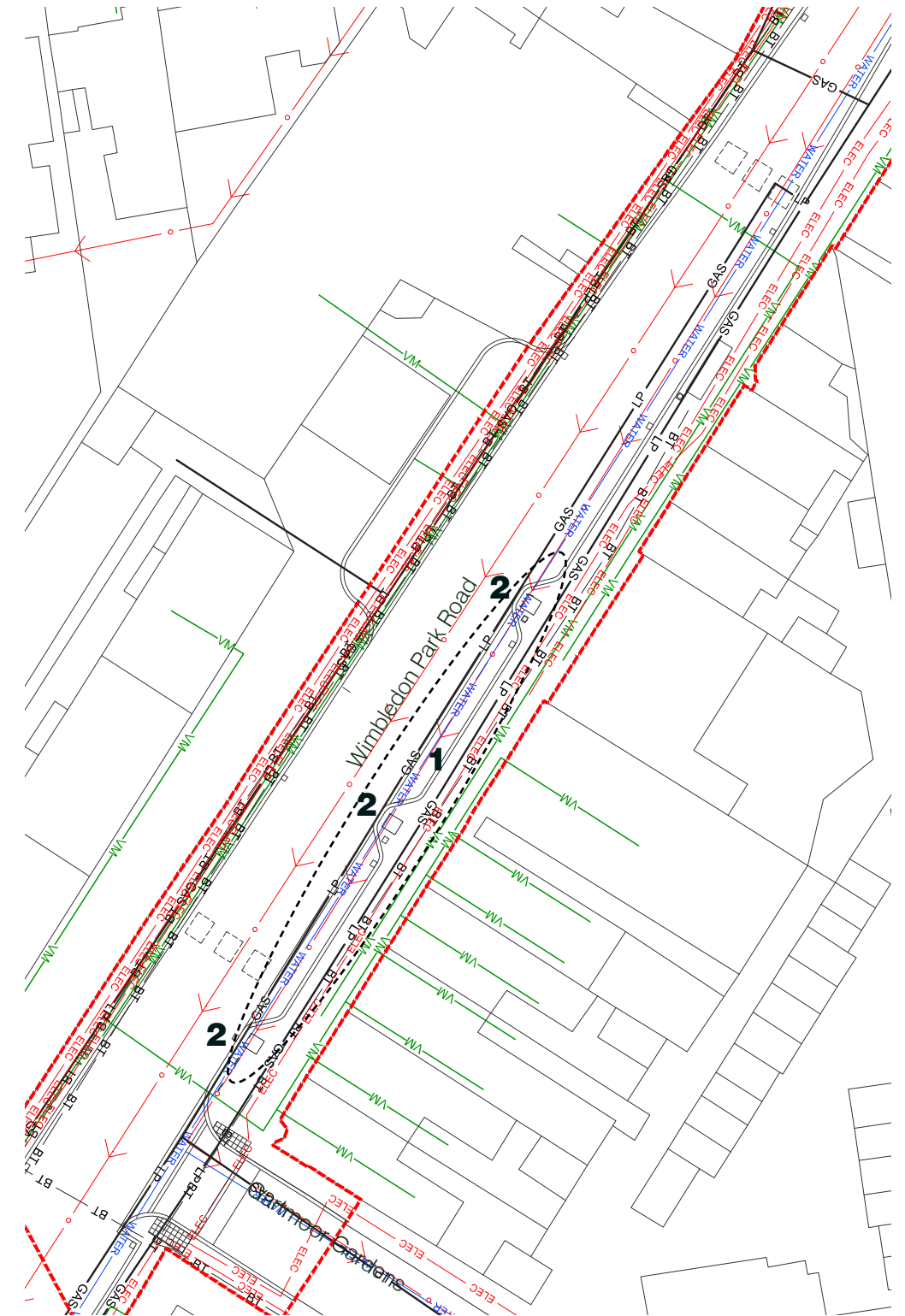
Issue 2: Wimbledon Park Road (south): Footway extension proposed above/in close proximity to gas main.

Action: Subject to cover level of main, alignment could be needed.

Actions to be taken forward in the next stage of design.



Proposal



Service cover assessment and below ground statutory service review

26.2 UTILITIES AND SERVICE COVER ASSESSMENT - Wimbledon Park Road (north)

Following the utilities and service cover assessment the following issues were highlighted (refer to hatched line on plan, cross reference with text below):

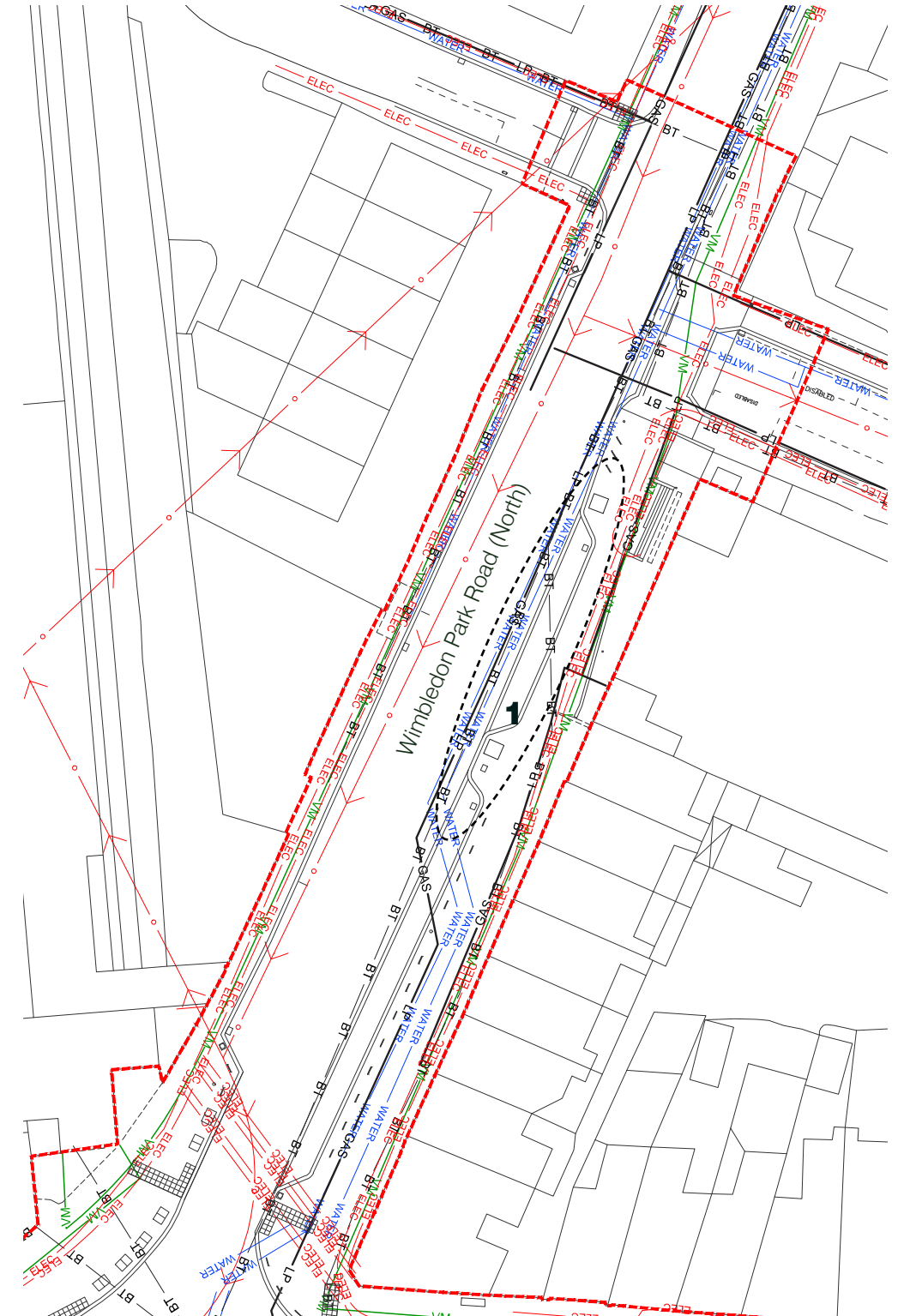
Issue 1: Wimbledon Park Road (north): Footway extension above/in close proximity to the gas main.

Action: Subject to cover level of main, alignment could need to be adjusted.

Actions to be taken forward in the next stage of design.



Proposal



Service cover assessment and below ground statutory service review

27.0 PUBLIC ART OPPORTUNITIES

Public art opportunities



1. Proposed art feature on station wall



2. Proposed temporary art feature at diagonal pedestrian crossing

The design team has explored the possibility of introducing small scale public art interventions onto the station/junction area.

The experience of many places in London often begins at the station. That sense of place should start at the platform, the moment you arrive...

TfL - Station Design Idiom



3. Proposed green wall on top of station wall

28.0 HEALTHY STREETS INDICATORS

'The Mayor of London is committed to taking the Healthy Streets Approach, which aims to put people and their health at the centre of decisions about how we design, manage and use public spaces. It aims to make our streets healthy, safe and welcoming for everyone. The approach is based on the 10 Healthy Streets Indicators which focus on the experience of people using streets'.

Project Centre's design team has informally assessed the scheme against the Healthy Streets indicators.

Raised table as traffic calming measure



Substituting parking for street trees



Rationalizing street furniture



Additional seating by the station and along Replingham Road



Footway extensions



Increasing number and improve distribution of cycle stands



Improve quality and consistency of footway paving



Improving wayfinding



Upgrade light columns and provide consistency



Tightening radii at junction



Introducing public art



Encouraging accessible forecourt use



The Healthy Streets Assessment can be found on the next page. The assessment shows that the proposal will make a substantial difference to Wimbledon Park Road and Replingham Road, enhancing those streets on all indicators. As expected there are less substantial benefits in Augustus Road. Further information on the Healthy Streets assessment can be found on Appendix 3, page 172.

10 Healthy Streets Indicators

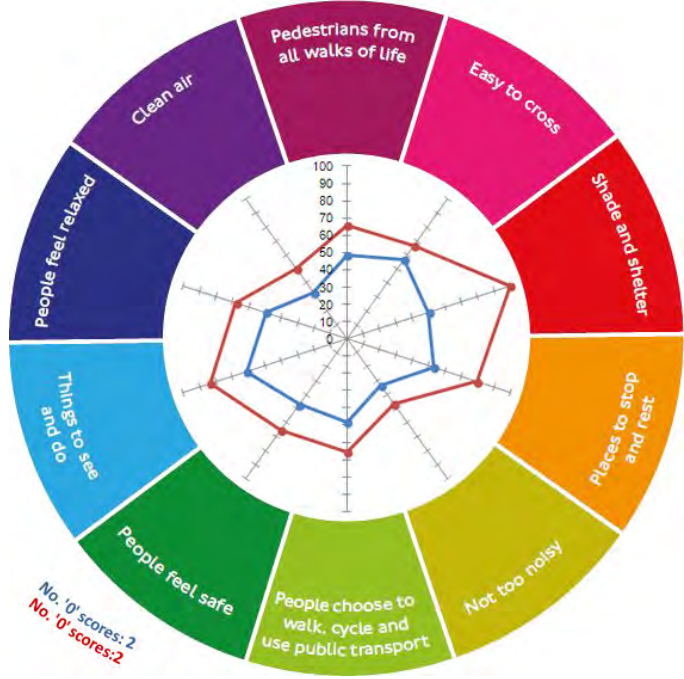


28.1 HEALTHY STREETS ASSESSMENT

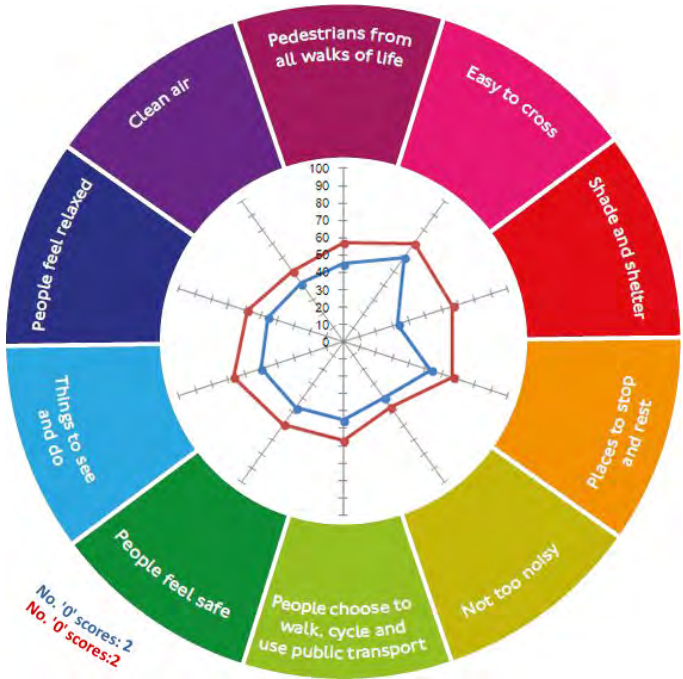
Wimbledon Park Road - Crowthorne Close to Gartmoor Gardens	Existing layout	Proposed layout
Pedestrians from all walks of life	48	66
Easy to cross	57	67
Shade and Shelter	50	100
Places to stop and rest	53	80
Not too noisy	33	47
People choose to walk, cycle and use public transport	48	66
People feel safe	47	65
Things to see and do	61	83
People feel relaxed	49	68
Clean Air	33	50
Overall Healthy Streets Check score	49	67
Number of '0' scores	3	1

Replingham Road - Wimbledon Park Road to Clonmore Street	Existing layout	Proposed layout
Pedestrians from all walks of life	45	57
Easy to cross	60	70
Shade and Shelter	33	67
Places to stop and rest	53	67
Not too noisy	40	47
People choose to walk, cycle and use public transport	45	57
People feel safe	47	59
Things to see and do	50	67
People feel relaxed	46	59
Clean Air	42	50
Overall Healthy Streets Check score	47	59
Number of '0' scores	2	2

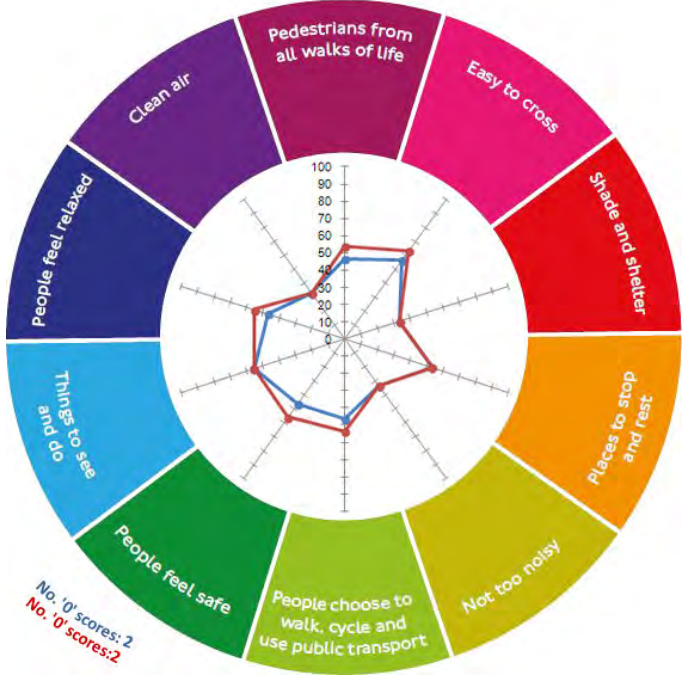
Augustus Road - Sutherland Grove to Wimbledon Park Road	Existing layout	Proposed layout
Pedestrians from all walks of life	46	54
Easy to cross	57	63
Shade and Shelter	33	33
Places to stop and rest	53	53
Not too noisy	33	33
People choose to walk, cycle and use public transport	46	54
People feel safe	47	56
Things to see and do	56	56
People feel relaxed	47	55
Clean Air	33	33
Overall Healthy Streets Check score	47	54
Number of '0' scores	2	2



Wimbledon Park Road -
Crowthorne Close to Gartmoor Gardens



Replingham Road -
Wimbledon Park Road to Clonmore Street



Augustus Road -
Sutherland Grove to Wimbledon Park Road

29.0 COST ESTIMATE - Cost areas

As shown on the plan 70% of the expense will be divided between the Southfields Underground Station/Junction and Replingham Road as we look at these areas to be the most important from a public realm point of view. Wimbledon Park Road will also require repaving, tree planting and new line marking for the bus stop. The Augustus Road area will have lighter touch improvements.

- Southfields Underground Station/Junction (35%)
- Replingham Road (35%)
- Wimbledon Park Road (20%)
- Augustus Road (10%)

Project Centre has provided an initial high level costing for 3 options:
 Option 1 – using concrete flags throughout the scheme
 Option 2 – using predominantly concrete flags with natural stone paving adjacent to the station
 Option 3 – using natural stone paving throughout the scheme

These cost estimates are shown on the following page.



Figure 32. Indicative Cost strategy

29.1 INITIAL COST ESTIMATE OPTIONS



WBC SOUTHFIELDS UNDERGROUND STATION HIGH LEVEL ESTIMATE



WBC SOUTHFIELDS UNDERGROUND STATION OUTLINE ESTIMATE ISSUE 1 30/01/2018 KL JT SUMMARY	OPTION 1 - Concrete Paving			OPTION 2 - Mixture of Concrete and Natural Stone			OPTION 3 - Natural Stone Paving		
	PUBLIC Amount (£)	PRIVATE Amount (£)	TOTAL Amount (£)	PUBLIC Amount (£)	PRIVATE Amount (£)	TOTAL Amount (£)	PUBLIC Amount (£)	PRIVATE Amount (£)	TOTAL Amount (£)
Series 100 - Preliminaries	113,265	7,305	120,570	127,663	7,421	135,084	168,011	22,911	190,922
Series 200 - Site Clearance	37,010	8,000	45,010	37,010	8,000	45,010	37,010	8,000	45,010
Series 300 - Fencing & Street Furniture	-	-	-	-	-	-	-	-	-
Series 400 - Safety Fencing & Pedestrian Guardrail	48,450	-	48,450	48,450	-	48,450	48,450	-	48,450
Series 500 - Drainage and Service Ducts	176,750	-	176,750	176,750	-	176,750	176,750	-	176,750
Series 600 - Earthworks	5,203	4,640	9,843	5,203	4,640	9,843	5,203	4,640	9,843
Series 700 - Pavements	199,338	-	199,338	199,338	-	199,338	199,338	-	199,338
Series 1100 - Kerbs, Footways and Paved Areas	348,929	60,407	409,337	479,822	61,573	541,395	846,623	216,470	1,063,093
Series 1200 - Traffic Signs and Road Markings	15,000	-	15,000	15,000	-	15,000	15,000	-	15,000
Series 1300 - Lighting	250,000	-	250,000	250,000	-	250,000	250,000	-	250,000
Series 1700 - Structural Concrete	-	-	-	-	-	-	-	-	-
Series 2000 - Waterproofing	-	-	-	-	-	-	-	-	-
Series 2400 - Brickwork	-	-	-	-	-	-	-	-	-
Series 3000 - Landscaping	37,000	-	37,000	37,000	-	37,000	37,000	-	37,000
Series 3100 - Daywork	-	-	-	-	-	-	-	-	-
Series 5000 - Maintenance Painting of Structures	-	-	-	-	-	-	-	-	-
Sub-Total	1,230,945	80,352	1,311,297	1,376,236	81,634	1,457,870	1,783,386	252,021	2,035,407
Contingency (30%)	366,989	24,106	391,095	533,106	24,490	557,596	584,222	75,606	659,828
Drainage Remedial Works	20,000	-	20,000	20,000	-	20,000	20,000	-	20,000
Traffic Signal Works	50,000	-	50,000	50,000	-	50,000	50,000	-	50,000
Provisional Sum for Service Protection/ Diversion Works	20,000	-	20,000	20,000	-	20,000	20,000	-	20,000
Public Art	-	-	40,000	-	-	40,000	-	-	40,000
	-	-	-	-	-	-	-	-	-
Total Estimate	1,687,935	104,457	1,792,392	1,999,342	106,125	2,105,467	2,457,608	327,628	2,785,235

Assumptions

- 1 Programme unknown at this time.
- 2 Carriageway works are expected to be undertaken during restricted working hours. An allowance has been included in Series 700. This is subject to the approved method of working and imposed restrictions.
- 3 An amount of the footway works is expected to be undertaken within restricted working hours. An allowance has been included in Series 1100. This is subject to the approved method of working and imposed restrictions.
- 4 Allowance has been made for recessed covers.
- 5 Earthworks - Existing construction assumed to be removed to ensure proposed levels can be achieved. Where existing severed base (footway or carriageway) is shown to be stable the base could be left insitu subject to agreement with the Engineer.
- 6 Surfacing - Final quantities subject to coreholes. Assume 40mm resurfacing works on carriageway.
- 7 Possession charges are not included in the cost estimate.

30.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions:

The Council's ambition to create a new 'village style' town centre provides a substantial opportunity for realising the potential of Southfields as a pleasant and well designed area that caters for the needs of the resident population. This proposal will focus on creating a sense of place for the local community as well as ensure that the area feels safe and calm i.e. the design will be in line with current best practice where pedestrians and cyclists are prioritized.

The design solutions presented on this report are based on various surveys, guideline documentation, coordination with relevant parties (LBW, TfL, AELTC) and stakeholder engagement meetings/feedback, all of which helped to clarify the current status of the project area and its key opportunities/challenges. This exercise aimed at ensuring that the proposed design solutions are well-grounded and implementable as a result of a thorough design iteration process.

This report also demonstrates the potential to incorporate new emerging agendas such as Healthy Streets, improved air quality, sustainable urban drainage and sustainable modes of transport (by encouraging more accessible environments for pedestrians and cyclists).

The design aims at providing substantial improvements on the quality of the public realm with focus on:

- The balance between footway and carriageway space, narrowing carriageways and widening footways
- Reducing pedestrian severance and increasing connectivity for pedestrians revitalizing a wide variety of activities on the street
- Increasing the number of street trees as a key element to improve air quality, calm traffic and provide separation between pedestrians and carriageway
- Rationalise street furniture, providing additional seating and cycle parking spaces all within defined street furniture corridors that will help make movement easier as well as act as barriers between the carriageway and footway
- Additional traffic calming measures such as 'Copenhagen' crossings and raised tables
- Improving the quality and consistency of footway paving materials as well as street furniture elements
- Upgrading light columns and provide a more harmonious arrangement that has a positive impact on the 'look and feel' of the streetscape.
- Improving wayfinding and articulation with Legible London
- Encouraging accessible access to shops
- Increasing the cycle parking provision as well as improve the cycle network within area by introducing informal contra-flow lanes
- Improve safety levels around the project area through HMV measures and a thoughtful street furniture arrangement

Our proposals aim to create a high quality public realm that clearly improves the experience for pedestrians and cyclists as well as taking into consideration transport-related requirements i.e buses, loading movements, vehicles and parking for residents and visitors) ensuring that scheme responds well to the proposed brief.

Recommendations:

In order to take this design forward to Detail Design and implementation we recommend the following tasks to be undertaken:

- Coordination regarding CCTV requirements
- Development of lighting design in more detail
- Study in more detail the impact of proposals on levels and drainage
- Commissioning of trial holes in selective locations where trees and light columns will be located
- Commission for updated GPR information in order to progress proposals further
- Continuous stakeholder engagement
- Road Safety Audit to be undertaken on the proposed design
- Agreement from LBW on the tree planting and SUDs strategy for the area to inform development of strata cell and tree pit detailing
- Clear definition of sustainability targets
- Further review of guidelines documentation relevant to the scheme
- Clarification of information regarding LBW material palette
- Traffic flow surveys to Elsenham Street and Heythorp Street
- Clarification of bus stop U location
- Obtain bus survey data - to assess how many times 2 buses were recorded in the stop U
- Coordination with TfL and National Rail regarding amendment to signal layout associated with removal of island
- Coordination with TfL regarding any works that impact the station or bridge structure
- Determine if there are any plans to upgrade junction to PCATS.
- Coordination with Legible London regarding signage and wayfinding
- Understand the possibility of moving phone boxes
- Understand the possibility of introducing drinking fountains
- Coordination with AELTC
- Commissioning of building surveyors
- Clarification of construction programme
- Coordination regarding Sainsbury's loading works



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