

# APPENDIX C: CHECKLIST OF BOROUGH TRAFFIC AND SIGN VARIATIONS

To be read in conjunction with Traffic Signs Regulations and General Directions 2002 and Traffic Signs Manual2016.

#### C.1 Road Markings

It is recommended that 50mm wide lines are used for all waiting restrictions and bay markings.

#### **C.2** Waiting Restriction Markings at Pedestrian Crossings

Omit markings from the front of controlled pedestrian crossing as no lines are needed (parking in front of these is always an offence under the Traffic Management Act 2004. (chapter 5, para 15.1 - 15.13.)

#### C.2.1 Warning Lines

Provide the minimum number of marks on each approach as indicated for each speed limit of road in table 4-3, chapter 5. For 20mph speed limits use 2 marks. Use with discretion at a junction or leading up to a Give Way.

#### C.2.2 Zig zags

Do not extend zig zag across a junction where this would require a significant increase in the number.

Use warning lines in centre of road instead of zig zag where road width is less than 6m wide. (chapter 5, Para 15.15).

#### C.2.3 Traffic Islands and hatches

Hatched markings are not to be used on approaches to islands and will always require departure approval. Used inclined warning lines as described in Chapter 5, para 4.23 and figure 4-

4. Also refer to table 14-1. Use to nearside of island only, wherever possible.

Where additional emphasis is required, consider alternative carriageway surfaces first (e.g. block paving or aggregate

dressing) before resorting to hatched markings.

#### C.3 Signs

#### C.3.1 Warning Signs

The erection of any warning sign will require prior approval by the Streetscene Traffic & Road Safety Manager. (Chapter 4, Para 1.7)

#### C.3.2 Size of signs

Always use smallest bracketed sign size on 20mph streets. Refer to Appendix A in chapter 3).

#### C.3.3 Backing Boards

Yellow retro-reflective backing boards are not to be used and will always require departure approval. Use a standard sign of larger size instead. (chapter 3, para 1.31 and chapter 7 14.19-14.24)

#### C.3.4 New Road Layout Signs

All new road layout signs must be removed after 3 months (para 37).

#### C.3.5 'No Left turn' and 'No right turn' Signs

Do not duplicate 'turn left only' signs (sign 609) on the right hand side of a one-way system or on the central refuge in a two- way road. (chapter 3, para 4.16)

#### C.3.6 Controlled Parking Zones entry signs

Only use one sign at zone entry (sign 663, 663.1 or 665) and zone end (sign 664 or 666) where carriageway width is less than 5m or speed limit is 20mph. (Chapter 3, para 12.1 – 12.14).

#### C.3.7 Review of all CPZ Parking

Review and consider use of standard permit holder parking instead to remove need for large defacing entrance and exit signs.







To be read in conjunction with Chapter 6 of the Hounslow Streetscene Design Guide Change alphabetically

Туре	Requirements	Use Notes	Example	Comments
Lighting Style 1 – STELA or similar	A highly aesthetic design and state-of-the-art functionality offers local authorities, lighting designers, architects and urban designers a modern and sustainable alternative for city roads, walkways and parks that delivers savings in energy and emissions without the need to compromise.  No Upgrades required to achieve life or energy savings  CMS Enabled	At lighting upgrade schemes within the borough along Link 4 & 5.		Used in Link 4 & 5
Lighting Style 2 - LUMA or similar	Luma – a high performance cost saving solution to the challenges of traffic route lighting.  Replaces everything up to 400W SON .  Up to 100,000 hours service life  Constant Flux & CMS Enabled	At lighting upgrade schemes within the borough along Link 1, 2 & 3		Used in Link 1,2 & 3
Lighting Style 3 – HERITAGE (Precinct & Alternatives or similar)	Precinct is an example of an up to date design based on a traditional Victorian style that lends itself for application in a multitude of landscapes and environments.  Precinct uses modern reflector technology with lamp sources up to 150W from the proven Arc series of road lanterns that lend themselves to applications where mounting heights range from 3.5 to 7 metres.  Alternative heritage designs are also available to suit different historic styles and features	At lighting upgrade schemes within 'Areas of Distinctiveness'		'Areas of Distinctiveness'
Lighting Columns	Lighting columns to be black RAL No 9005 and as per standard details  All styles to fit within the area of the chosen lantern	All areas within the borough		Borough Wide
Standard Bin Style 1	Make: Hefton Contemporary Litter Bin  Dimensions (approx.): 1050mm (H) x 540mm (OD)  Material/Weight: Durable MDPE/13 Kgs. (with liner)  Bin Volume: 105 litres/120 litres	For use 'Place' status C, D & E		Place C, D & E



Туре	Requirements	Use Notes	Example	Comments
	Aperture Size: 335mm (W) x 150mm (H)  Colour/Livery: Black – No additional livery  Product Features: Smooth Body Finish, Ashtray & 2 x M10 Ground Fixing Bolts, Galvanised Steel Liner.  Ashtray Design: Smooth Finish/Conical  Base Design: Twist Lock Base System with a central drainage hole.			
Standard Dual Bin	Make: Dual Plastic Litter Bin  Dimensions (approx.): 1100mm (H) x 1000 x 450/500mm (D)approximately  Material/Weight: Durable MDPE/35 Kgs. (with liner)  Liner Size: 2 x 80 litres galvanised liners  Aperture Size: 330mm (W) x 150mm (H) approx.  Colour/Livery: Black — No additional livery  Product Features: Smooth Body Finish, Ashtray & 4 x M10 Ground Fixing Bolts, Galvanised Steel Liner.  Ashtray Design: Smooth Finish/Conical  Base Design: Heavy duty base. Can be Top, Side or front opening doors with a central drainage hole.	For use 'Place' status A, B, C, D & E		Place A, B, C, D & E
Bins Heritage	Make: Eclipse 120L Litter Bin (Standard)  Dimensions: 1000mm (H) x 500mm x 500mm  Material: Pre-treated zintec steel Features: 4 x large posting apertures with integral litter guides  Stainless Steel Heavy Duty  Bar hinge & slam lock design 90/120 litre galvanised liner  Self-Emptying Stainless Steel Ashtray	For use in 'Place' status 'Areas of Distinctiveness' U, V, X, or Y		'Areas of Distinctiveness'
Bins Heritage Dual	Make: Eclipse Double-Key Features 120L	For use in 'Place' status 'Areas of		'Areas of Distinctiveness'



Туре	Requirements	Use Notes	Example	Comments
		Distinctiveness' U, V, X,		
	Material: Pre-treated zintec steel	or Y		
	2x120Ltr Galvanized steel liner. Pyramid lid.		LITTER	
	Stainless Steel slam lock.		A	
	Gold painted aperture surrounds			
	Litter laser cut into each Door backed by gold backing plates.			
	Tidyman Plaque on each Door 3 gold vinyl bands.			
Standard Bollard Style 1	Description 'Manchester style' bollard with decorative banding, rounded top and square base Black No logos, crests or messages. A visibility band may be used in the recess of the bollard Dimensions (approx.) Height above ground: 1000mm Material: Polyurethane Fixing Root Fixed	For use in 'Place' status A or B or in 'Areas of Distinctiveness' U, V, X or Y		'Place' A, B or in 'Areas of Distinctiveness'
Standard Bollard Style 2	Description  'Cold Stream' style bollard with grooved neck and flat top Black  No logos, crests or messages.  A visibility band may be used in the recess of the bollard  Dimensions (approx)  Height above ground: 1000mm  Diameter: 165mm  Materials:  Polyurethane	For use in 'Place' category C, D or E		Place C, D & E
	Fixing Root Fixed			
Standard Bollard for Verge Protection	Description Square timber bollard with pointed top No logos, crests or messages.	For use in 'Area' Z		Area of Distinctiveness 'Z'
	<b>Dimensions (approx.)</b> : Height: 750mm Width: 150mm			
	Materials: Treated Timber			
Standard Refuge Bollard Reflective	Description  Non-illuminated bollard with yellow retro-reflective front, rear & sides and white plastic finish	For use 'Place' status A, B, C, D & E		Borough Wide
	Traffic signs on one face			
	Dimensions (approx.)			



Туре	Requirements	Use Notes	Example	Comments
	Overall height: 1036mm Max. bollard width: 400mm Max. bollard depth: 200mm Bolt-down foot detail: 328 x 328mm Fixing centres: 228 x 228mm Sign face: 300mm diameter			
Standard Refuge Bollard Illuminated	Description LED Illuminated bollard with yellow retro-reflective front, rear & sides and white plastic finish Traffic signs on one face  Dimensions (approx.) Overall height: 1036mm Max. bollard width: 400mm Max. bollard depth: 200mm Bolt-down foot detail: 328 x 328mm Fixing centres: 228 x 228mm Sign face: 300mm diameter			
Cycle Stands	Description Simple upright symmetrical style cycle stand with tight radii at corners finished in Black. No tapping bars or parking signage  Dimensions: 715 x 800mm approx  Materials: polyurethane  Fixing: Surface fixing	To be used Borough wide		Borough Wide
Cycle Hoop	Description A simple design made of a steel ring bisected by a tube attached to an existing poles, lamp posts, and railings into bike stands Colour: to match existing column street furniture being attached to	To be used Borough wide	both wheel and the fact that t	Borough Wide
Guard Railing	Description Visi-rail panel with sight gap as per standard detail HH.SD.400.001 Colour black RAL No 9005  Dimensions Panel lengths: 2000mm Above ground height: 1070mm  Materials: Steel	Reference conformity to the BS for pedestrian guard railing.		Borough wide



Туре	Requirements	Use Notes	Example	Comments
Boundary Railings	Low timber post knee rail as per standard detail HH.SD.300.001	For use around open spaces and grass verges where vehicle over-run is an issue		Borough Wide
Standard Seat Style 1	Description  A simple style metal seat with back (and optional arm rests), Black  Also available in a bench form without back and armrests  Dimensions (approx.): 1800mm long  Materials: Mild steel and fully welded  Fixing: Legs to be root fixed or with concealed bolt ground fixing	For use in areas of C, D and E areas		
Standard Seat Style 2	Description  A traditional style seat with 2 legs, back, armrests and simple decorative details.  Painted black with timber slats  Also available in a bench form without back and armrests  Dimensions (approx.): 1850mm long  Materials: Cast iron legs and supports, timber slats  Fixing: Legs to be root fixed or with concealed bolt ground fixing	Distinctiveness' U, V, X, Y or Z and within 'Place status' A or B. Not suitable in areas with high potential for vandalism		
Memorial Seating	Engraved metal plaque fixed centrally to the back of the seat	All types of seating bench	DAVID ROSE TO A long and Light	Borough Wide
Inset Covers	To be used as alternative to utility covers (supplied by utility companies) and installed so that footway material used matches and provides a continuous pattern across the footway	Distinctiveness' U, V, X, Y or Z		'Area of Distinctiveness'
Sign light	Product • Externally illuminated LED lanterns • LUA sign compliant with BSEN12899 Part 1 2007 for sign up to 600*600mm • 3x1watt for E2 UE2 and 6x1watt for E3 UE3 • CMS enabled	Replacement of all new signs, requiring illumination, within the borough		Borough Wide (black)



Туре	Requirements	Use Notes	Example	Comments
	<ul> <li>Use LUB for larger signs.</li> <li>Benefits</li> <li>Low energy sign reducing carbon footprint</li> <li>Up to 60% less power consumption</li> <li>Can be retrofitted to existing</li> </ul>			
	signs  • Low maintenance  • Lack of fluorescent lights means no need for mercury recycling			
Legible London – Way Finding Signs (Standard)	Description Finger post signs made of standard sign face mounted on steel post finished in Black or galvanized	For use in Places A, B, C, (excluding main Town Centres)	An Asica Cases  Mission H  Revislence Hali	Place A, B & C
Legible London – Way Finding Signs (Main Town Centres)	Description Information board with details pictorial information identifying location on a map base.	For use in Places A & B, predominantly Town Centres		Place A & B or Town Centres
Shrub Planting	Low maintenance native species with seasonal variety in their selection of local province where possible. Refer to paragraph 6.1.20 for detail of commonly used species.	All areas within the borough		Borough Wide
Trees	Tree species must be appropriate to the conditions and context of locality, taking historic or significant sightlines into account Areas of high quality to integrate tree root protection box space in the ground where available.  Refer to paragraph 6.1.25 for detail of commonly used species.	All areas within the borough	Abbey	Borough Wide
Period Features	To retain and repair historical street furniture in its original location	All areas within the borough	ASSOCIATION ASSOCIATION	Borough Wide



## APPENDIX E: PALETTE OF BOROUGH MATERIALS

To be read in conjunction with Chapter 5 of the Hounslow Streetscene Design Guide <u>Carriageway</u>

rriageway Type	Requirements	Use Notes	Example	Comments
Туре	Requirements	Ose Notes	Example	Comments
UL-M	6 – 14 mm aggregates laid between 18-50mm in thickness using polymer-modified binder to deliver a tough surface with excellent skid resistance	Surface course used in areas on Link 1, 2 & 3 and where required to match existing areas.		Used in Link 1,2 & 3
Gripfibre	Adaptable to different road types using continuous or gapgraded mixture in a highperformance thin overlay.  Material is HAPAS Approved.	Surface course used in areas on Link 1, 2, 3, 4 & 5 and where required to match existing areas.		Used in Link 1,2, 3, 4 & 5
Fibrovia	Cater for application on a variety of substrates:-  • Excellent durability to rutting  • Excellent skid resistance  • Good noise reduction compared to HRA  • Good workability	Surface course used in areas on Link 4 & 5		Used in Link 4 & 5
Surface Dressing	Surface Dressing can provide:  A reduction in traffic disruption due to the speed of the process  Supply of BBA/HAPAS approved binders  All works are carried out in accordance with national sector scheme 13A  can offer:  Several surface dressing types which are available to suit all site conditions, such as single, double, sandwich and racked in dressings  Sharing of knowledge and best practice through our membership of the Road Surface Treatments Association (RSTA)  Computer controlled spray jets to ensure that the correct amount of binder is applied to match the condition of the road	minor roads to major roads and provides high skid resistance		Used in 'Link' 1,2, 3, 4 & 5
Anti-Skid (High Friction Surfacing)	Available from two product groups both complying with Clause 924. Epoxy Resin Anti-Skid (two component resins, surface dressed with calcined bauxite aggregate) and Thermoplastic Anti-Skid (blended molten resins and calcined bauxite aggregates, hot screed applied).	Ant-skid surfacing is suitable for all classes of carriageways from minor roads to major roads and provides high skid resistance	Black	Used in 'Link' 1,2, 3, 4 & 5
Foambase	Cold-mixed and cold-laid, Foambase re-uses asphalt planings, crushed concrete and other 'waste' materials in premium bituminous mixtures. These replace hot mix base and binder course materials with no	Surface course used in areas on Link 1, 2, 3 & 4 and where required to match existing areas		Used in Link 1,2, 3, 4 & 5



Туре	Requirements	Use Notes	Example	Comments
	compromise in quality		·	
EME2	EME2 (Enrobé à Module Élevé), is a very stiff and resilient base and binder course material that has now replaced HMB35 and which utilizes approximately 5.5% of a very hard 15/20 or 20/25 pen binder.  Is now officially covered by a national standard in addition to its inclusion in the Specification for Highway Works.	Binder Course used in areas on Link 1, 2 & 3		Used in 'Link' 1, 2 & 3
HDM	Heavy duty bitumen macadam materials complying with either the Specification for Highway Works or the MCHW and associated standards.	Binder Course used in areas on Link 1, 2 & 3		Used in 'Link' 1, 2 & 3
Flexiplast	A quicker process that reduces disruption and public inconvenience     Savings on costs and aggregates due to smaller layer thicknesses     Less energy and resource-intensive, so more sustainable     A flexible solution for all road types from motorways to housing estates	Spray-applied bitumen binder provides a flexible membrane over the concrete. This crack inhibitor also seals the concrete base against water ingress and further damage. Gripfibre microsurfacing forms a thick layer with the membrane to accommodate thermal movement within the concrete, protecting against deterioration of the road surface		Used in Link 1,2, 3, 4 & 5
Period Features	To Retain Historical Surfacing	Assess and retain or repair historical surfacing where possible. If existing surface is not suitable for current use then retain material at store for future use elsewhere within borough		Maintain borough wide especially 'Links' through Areas of Distinctiveness

### **Footway**

Туре	Requirements	Use Notes	Example	Comments
Hot Rolled Asphalt - HRA	Wearing Course 6mm aggregate size	To be used to match existing areas of tarmac / macadam paving or where other material are not appropriate.		Link & Place band 4 for footway, footway parking and crossover.
Concrete modular paving 63mm thick, Grey (Natural)	400 x 400 x 50mm.  Use 200*100*50mm concrete			Link & Place Band 1, 2 and 3 (preferred)



Туре	Requirements	Use Notes	Example	Comments
New Standard	paving blocks to strengthen and demark area of footway for parking at identified sights			
Concrete Flag Paving 63mm thick, Grey (Natural)	600mm wide by 450/600/750 long 63mm  Use of 200*100*63mm concrete paving blocks to strengthen and demark area of footway for parking at identified sights	The use of handling equipment should be used in the installation of the larger size units in accordance with current Health & Safety legislation.		Link & Place Band 1, 2, 3 & Areas of Distinctiveness
Yorkstone Natural Stone Paving	Typically widths of 300, 450 and 600mm with thickness of 50, 63 & 75mm min, may be specified in random length for aesthetic quality  Conservations Areas (V) – to be replaced with like for like during the maintenance/ reactive regime	Diamond sawn is the preferred finish for all streets. Where practical the Council will endeavour to retain all existing areas of Yorkstone.		'Enhanced Areas'
Concrete Sett Paving	Typically 80mm thick laid using mixture of 240 and 160 gauge size blocks	'Traditional' coloured Tegula Paving may be used on integrated parking and raised entry treatments where the main pavement is in flags.		Entry treatments
Tactile Paving	400x400x65mm — Red, Buff, Grey (Conservation areas and areas of Heritage)	Typically Red blister paving used on controlled crossing points, Buff or natural may be used at other crossing points, e.g. in conservation areas		Band 1, 2, 3, 4 & Areas of Distinctiveness
Granite Kerb (fine picked straight and radius)	150mm x 300mm 300mm x 150mm	The use of handling equipment should be used in the installation of these kerbs in accordance with current Health & Safety legislation.		Link & Place band 1, 2, 3 and 'Areas of Distinctiveness'
Concrete Kerb (Straight and radius)	As per standard detail HH.SD.1100.001  Typically Bullnose kerb should be used for all locations.	The use of handling equipment should be used in the installation of these kerbs in accordance with current Health & Safety legislation.		Link & Place Band 4



Туре	Requirements	Use Notes	Example	Comments	
Grey Concrete Edging	50mm x 150mm	Flat top edging should be used to retain the footway constructed against soft areas such as grass / landscaping.		Link & Place band 1, 2, 3 and 4	
Trief Kerbing	May be used where high levels of HGV overruns/ mounting onto footway occurs  • Granite / Granite Aggregates Finish to be used in Bands 1,2 & 3  • Concrete Finish in Band 4	Alternative options such as double height kerbs should be considered before opting for Trief kerbing		Link & Place band 1, 2, 3 and 4	
Period Features	To Retain Historical footway Surfacing	Assess and retain or repair historical surfacing where possible. If existing surface is not suitable for current use then retain material at store for future use elsewhere within the borough		Maintain borough wide especially 'Links' through Areas of Distinctiveness	



## APPENDIX F: STREETSCENE PRINCIPLE SIGN-OFF SHEET

The following checklist of Principles must be completed for Streetscene schemes in Excess of £500,000 (excluding those funded through the PFI Maintenance), developed externally, or presenting departure from the standards set out in the SDG. This is to demonstrate that consideration has been given to all 4 principles set out in the Streetscene Design guide. This sheet must be issued to the Streetscene Review Panel 4 weeks before the scheduled review meeting for the scheme.

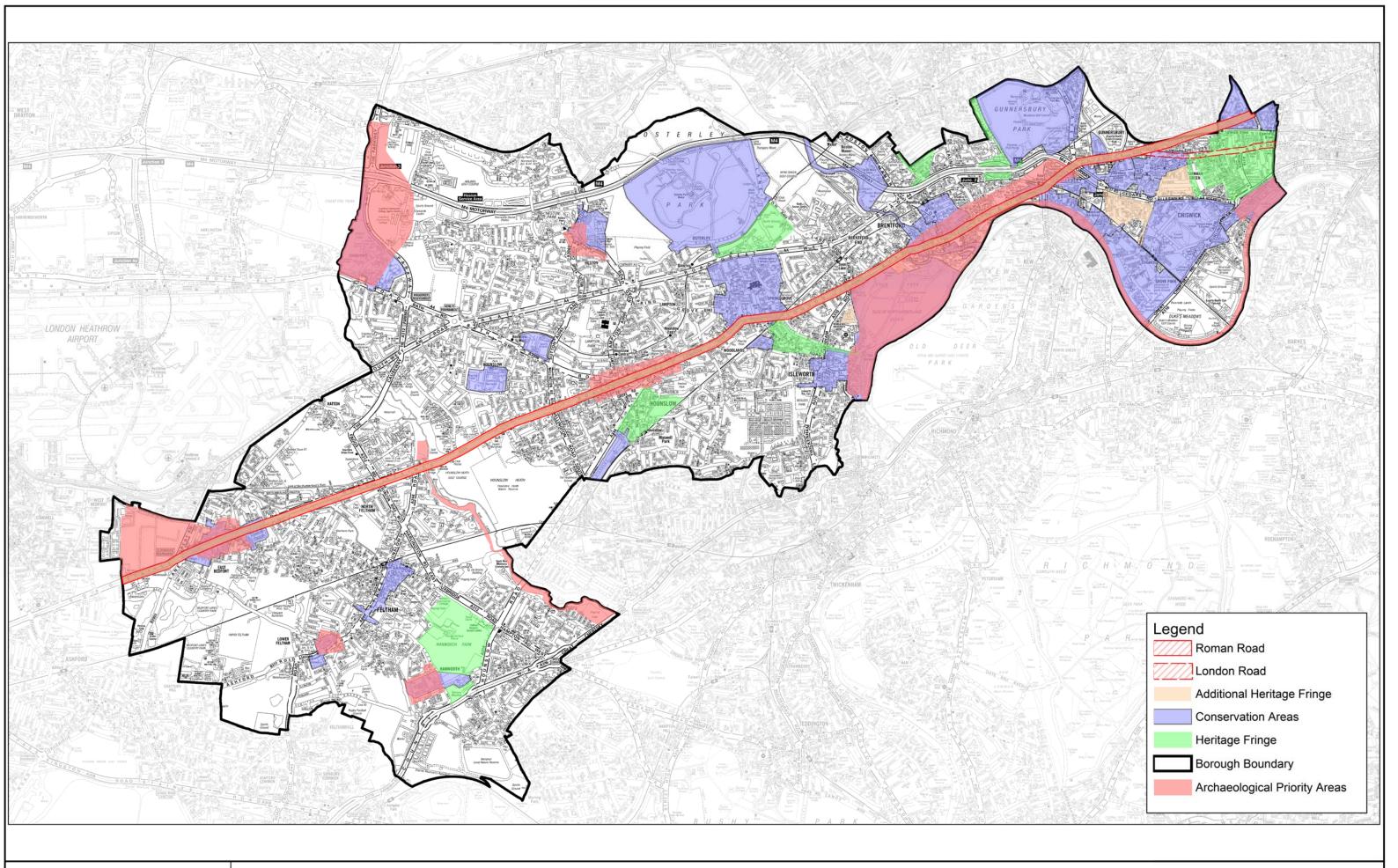
Project Name.		Project Manager.			Date.		
Prin cipl e	Definition			Consideration in proj	take	ciple n forward esign	If No, please justify
					Yes	No	
1	Streets must ref	lect their Function					
1.1	pedestrians, cyclist	knowledge the functions of the street '('Link' and 'Place') as a route for destrians, cyclists, and motor vehicles and a place where people live, work, go opping and socialise.					
1.2		designed to accommodate requir to account different patterns of a					
2	Streets must be	inclusive, safe, & accessible	)				
2.1	including the elderl	g needs of all groups of people in ly, children, those with disabilitie ss, to ensure an inclusive environr sion.	s, pedestrians, cyclists, and				
2.2	Implement both road safety and crime prevention measures to ensure the safety of all street users and where necessary carry out a street community safety of all street users and where necessary carry out a street community safety audit during day and night time. night			t			
3	Streets must be	attractive & full of character	•				
3.1	Review the cumulative impact of design decisions on the appearance of the street, taking into account the simplicity of the designs;						
3.2	Consider the context and character of the street and how it relates with the layout, architecture, planting, and surrounding views. (Refer to 'Place' and 'Area of Distinctiveness' definitions in Chapter 4);						
3.3	Consider all existing and proposed Streetscene furniture collectively to ensure they work well together and are compatible with their context. (Refer to 'Place' and 'Area of Distinctiveness' definitions in Chapter 4);						
3.4	approved within th		tscene that are coordinated and	1			
4	Streets must be sus	stainably built & maintained					
4.1		ene components to ensure they p d resistance or design life.	perform to relevant technical				
4.2		y of the street design detailing, ir ecessarily equal cost.	mplementation and workmansh	ip.			
4.3		e life costing of all specified mater ess but minimise the maintenance					
4.4		tical sustainability themes29 – er e and public space in all street de					
4.5	4.5 Consider innovative design solutions in the Streetscene by reviewing new products and technology.						
Autho	risation						
LBH F	LBH Representative Service Provider Representative			OpCo Representa	itive		
Name	ame: Name:			Name:			
Date:			Date:		Date:		
Signa	ture:		Signature:		Signature:		



	London Borou	gh of Ho	ounslow: Default Place C	ategories	
	[Subject to refinement	based on	local knowledge]		
Theme	Feature		Place status	Cor	mments
Education				Likely to serve reside	nts in local
	Primary School	D	Neighbourhood	neighborhoods	nts of the legal area
	Secondary School	С	Area	Likely to serve reside Likely to serve peopl	
	Further Education Establishment	В	Borough	Borough	e iroin across the
				Likely to serve people	e from across the
	Special Schools	В	Borough	Borough	
Medical	Hospitals	В	Borough		
	General Practice Surgeries	D	Neighbourhood		
	General Fractice Surgeries	J	Neighbourhood		
Places of Worship	Christian	D	Neighbourhood		ore for neighborhoods.
		_			draw visitors from larger
	Hindu	С	Area	area	draw visitars from larger
	Jewish	С	Area	area	draw visitors from larger
	Jewish .	•	Alcu		draw visitors from larger
	Muslim	С	Area	area	<b>0</b>
				2 in Borough, so will draw visitors from larger	
	Sikh	С	Area	area	
Libraries	All	С	Area	11 in Borough so ser	ve area
	All	•	Alea	11 iii bolougii so serve area	
Courts				Likely only 1 in Borou	ugh so serves whole
	Crown	<b>B</b> Borough		Borough.	
	Othorn	2	No information	Unknown how many	Magistrates or Civil
	Others	?	No information	courts in Borough	
Parks				Includes Syon, Osterley and Gunnersbury	
	Historic Parks & Gardens	Α	Regional	Parks	
	Others	D	Neighbourhood		
				Generally serve local	noighbourhood areas
Travel	Train Stations	D	Neighbourhood	Generally serve local neighbourhood areas only	
	Hounslow Central Tube station	c	Area	Serves wider Hounslow Community	
		_			
Sports & Leisure	Gyms	*	Local knowledge required	Likely to be C or D depending on number and	
	Swimming Pools	*	Local knowledge required	local knowledge of use.	
	Sports centres	*	Local knowledge required	_	
Retail	Centre type		Primary frontage	Secondary frontage	
	Metropolitan/regional		A		В
	Major		В		С
	District		С		D
	Major Neighbourhood		С		D
	Minor Neighbourhood			D D	
	Local Parade			<u> </u>	
Cinemas & Theatres		*			To be leasted and
			?	No information	To be located and discussed.
					Further discussion
River Frontage					required to identify key
			A-C	Regional to Area	frontages
Employment					Further identification of sites and discussion
Linpioyinciit			A-D	Regional to Neighbourhood	required.









Conservation areas, APAs and Heritage Fringe

