

Twickenham Riverside Landscape Supporting Technical Drawings





X:\JOBS\6975_TWICKENHAM_RIVERSIDE\DRAWINGS\PLANNING DRAWINGS\6975_100.DWG



- KEY**
- PLANNING APPLICATION BOUNDARY
 - EXISTING LEVELS
 - PROPOSED LEVELS
- HARDWORKS**
- PAVING TYPE 01 - SMALL SIZED MODULES OF NATURAL STONE TO FOOTWAYS & SHARED SURFACE
 - PAVING TYPE 02 - SMALL SIZED MODULES OF NATURAL STONE TO BOAT HOUSE ROOF
 - PAVING TYPE 03 - LARGE SIZED NATURAL STONE TO SQUARE
 - PAVING TYPE 04 - RESIN BOUND GRAVE
 - PAVING TYPE 05 - SELF BINDING GRAVEL
 - PAVING TYPE 06 - PLAY SAND
 - PAVING TYPE 07 - TACTILE PAVING
 - PAVING TYPE 08 - TARMAC
 - PAVING TYPE 10 - WET POUR RUBBER PLAY SURFACE
 - PAVING TYPE 11 - GRANITE SETTS
 - RETAINING WALL
 - BALUSTRADE
 - EDGE TYPE 01 - LOW RAISED BRICK EDGE
 - EDGE TYPE 02 - FLUSH BRICK EDGE
 - EDGE TYPE 03 - RAISED GRANITE KERB EDGE
 - EDGE TYPE 04 - RAISED GRANITE EDGE
 - EDGE TYPE 05 - FLUSH GRANITE EDGE
 - BRICK WALL TYPE 01 - RAISED BRICK WALL TO SERVICE ROAD PLANTER
 - GARDEN STORAGE SHED- BRICK WALL TO MATCH ADJACENT PLANTER WITH GREEN ROOF; TO ARCHITECTS DETAIL
 - PLANTED TERRACES - TIMBER EDGE, EUROPEAN OAK SLEEPER; 200MM X 100MM VERTICAL SLATS; FIXED TO SUPPORT FRAME; FINISH NATURAL; BY WOODSCAPE OR EQUAL AND APPROVED
 - CYCLE STAND; SHEFFIELD CYCLE STAND 750MM X 900MM BY MARSHALL'S OR EQUAL AND APPROVED
 - FIXED & TELESCOPIC BOLLARDS, STAINLESS STEEL GRADE 316, 900MM HIGH BY ATG ACCESS OR EQUAL AND APPROVED
 - BINS PROPOSED TO MATCH EXISTING
 - METAL EDGE AND SELF BINDING GRAVEL TO TREE SURROUNDS IN HARD STANDING
 - SEATING TERRACES; EUROPEAN OAK SLEEPER; 200MM X 100MM VERTICAL SLATS; PREFIXED TO SUPPORT FRAME; FINISH NATURAL
 - STEPS & ASSOCIATED HANDRAILS
 - CHESS TABLE AND CHAIRS, SUPPLIER TBC
- SOFTWORKS**
- HERBACEOUS PLANTING
 - RAIN GARDENS
 - LAWN
 - EXISTING TREES
 - PROPOSED TREES
 - PROPOSED PLEACHED TREES
 - PROPOSED FLOATING HABITAT
 - CLIMBERS ON TRELLIS SYSTEM
 - EXISTING TREES RPA
- PLAY EQUIPMENT**
- EXISTING LAMPPOSTS (LP), GULLEYS (GG), SIGNS (SI), FEEDER PILLARS (FP) & MANHOLES (MH)
 - PROPOSED POWER
 - PROPOSED WATER FOUNTAIN
 - PROPOSED MULTI DIRECTIONAL LIGHT POSTS
 - LIFEBUOY (SPECIFICATION TBC)
 - SLOT DRAIN/GULLEY
- REVISIONS**
- | REV. | DESCRIPTION | APP. DATE |
|------|------------------------------------|-------------|
| F | Update to include changes to Trees | AH 04/08/22 |
| E | Response to Planners Comments | AH 26/07/22 |
| D | Widford Lane Highway Assessment | AH 27/04/22 |
| C | Response to Planners Comments | AH 21/04/22 |
| B | Response to Planners Comments | AH 10/02/21 |
| A | Planning Issue | AH 26/07/21 |
- PROJECT TITLE**
TWICKENHAM RIVERSIDE
- DRAWING TITLE**
General Arrangement Plan
- ISSUED BY** London T: 020 7467 1470
DATE JULY 2021 DRAWN NR
SCALE 1:250 CHECKED AH
STATUS Planning APPROVED AH
- DWG. NO 6975_100**
- No dimensions are to be scaled from this drawing. All dimensions are to be checked on site. Area measurements for indicative purposes only.
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 Sources: Ordnance Survey

KEY

-  PLANNING APPLICATION BOUNDARY
-  GREEN ROOF



REV.	DESCRIPTION	APP. DATE
C	Update to include changes to Trees	AH 04/08/21
B	Response to Planners Comments	AH 19/12/21
A	Planning Issue	AH 28/07/21

LDA DESIGN

PROJECT TITLE
TWICKENHAM RIVERSIDE

DRAWING TITLE
General Arrangement Roof

ISSUED BY	London	T: 020 7467 1470
DATE	JULY 2021	DRAWN NR
SCALE	1:250	CHECKED AH
STATUS	Planning	APPROVED AH

DWG. NO 6975_102

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site.
Area measurements for indicative purposes only.
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Sources: Ordnance Survey



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- LEGEND
- KEY
- PLANNING APPLICATION BOUNDARY
- SOFTWORKS
- HERBACEOUS PLANTING
 - RAIN GARDENS
 - LAWN
 - EXISTING TREES
 - PROPOSED PLEACHED TREES
 - PROPOSED FLOATING HABITAT
 - CLIMBERS ON TRELLIS SYSTEM
 - EXISTING TREES RPA
 - TREE PIT EXTENTS & SOIL VOLUME
 - SILVACELLS BY DEEPROOT OR EQUAL AND APPROVED
 - TREE ROOT BARRIER

REV.	DESCRIPTION	APP. DATE
C	Update to include changes to Trees	AH 04/08/22
B	Response to Planners Comments	AH 10/12/21
A	Planning Issue	AH 29/02/21

LDA DESIGN

PROJECT TITLE
TWICKENHAM RIVERSIDE

DRAWING TITLE
General Arrangement Tree Pit Plan

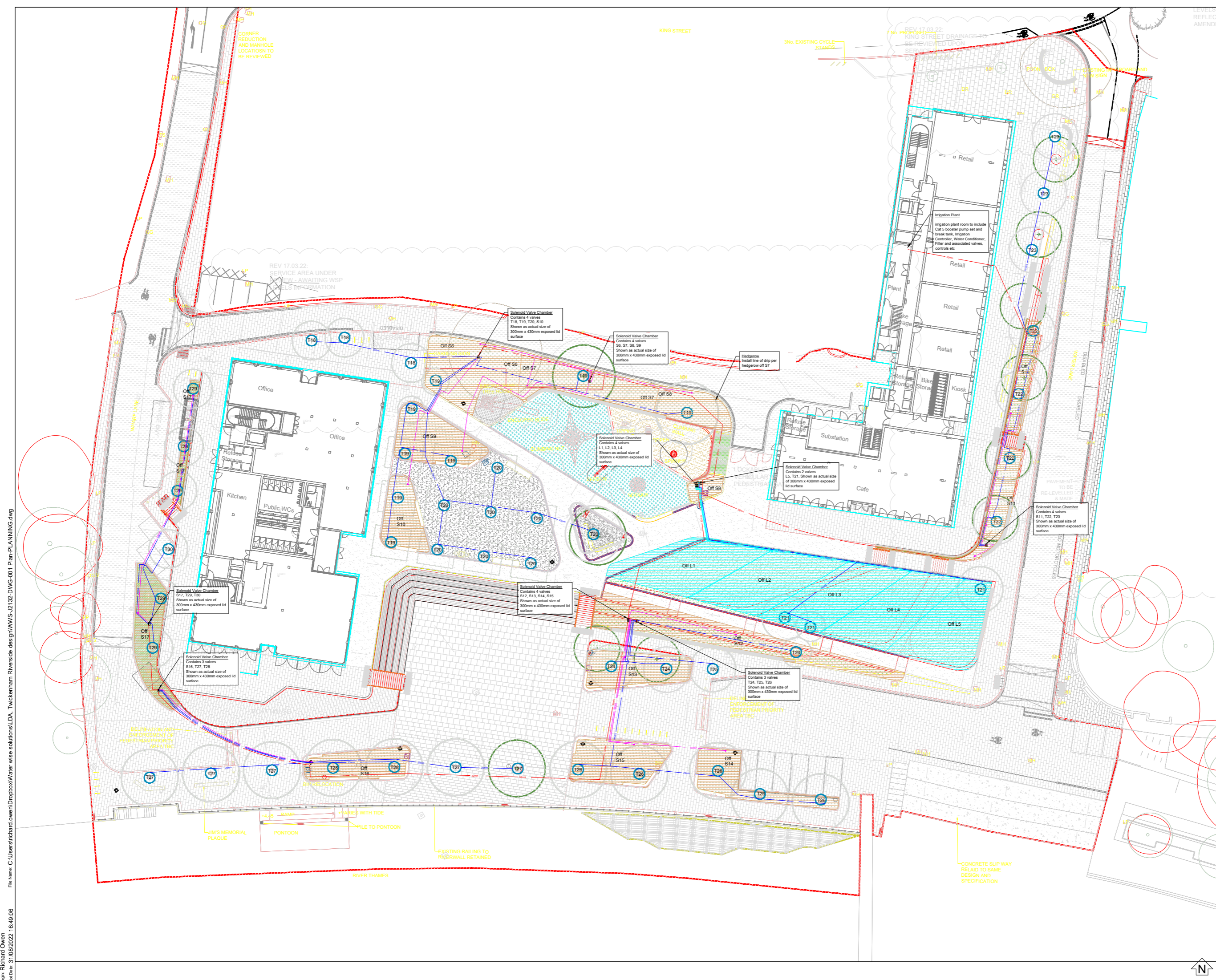
ISSUED BY	London	T: 020 7467 1470
DATE	Sep 2021	DRAWN NR
SCALE	A1 1:250	CHECKED AH
STATUS	Planning	APPROVED AH

DWG. NO 6975_103

No dimensions are to be scaled from this drawing. All dimensions are to be checked on site. Area measurements for indicative purposes only.

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Sources: Ordnance Survey



NOTES:
 Ducting Requirements
 > Ducts to be provided by others.
 > Ducts to be minimum 100mm with draw cord. No flexi duct
 > No sharp bends
 > Ducts must be able to accommodate the irrigation pipework, which is rigid
 > Warning tape will be issued for installation by the landscape contractor above the crown of the pipe, halfway between top of pipe and finished level.
 > Drip line **MUST** be laid prior to mulch layer being applied
 > Solenoid valves are shown **LARGER THAN ACTUAL SIZE** and will be grouped together as noted on the drawing.

Solenoid Valve, Maybe shown separately but groups of valves are installed in single chambers as per notes on drawing
 Reference letter and number by each valve denote valve type and number, ie L for Lawns, S, for Shrubs, T for trees and H for Hedges

- LEGEND:**
- 32mm Green Striped MDPE Mainline Pipework with irrigation low voltage signal cable
 - 25mm Green Striped MDPE Lateral Pipework - Lawn
 - 25mm Green Striped MDPE Lateral Pipework - Trees
 - 25mm Green Striped MDPE Lateral Pipework - Shrub
 - Rain Bird Xeri Bug Tree Drip Necklaces - Trees
 - Netafim Techline Dripline - 300mm Spacing - Shrub
 - Netafim Techline Dripline - 300mm Spacing - Drip Subsurface
 - P Irrigation Pumpstation Location
 - Drip line to lateral pipe connection - planting
 - Drip line to lateral pipe connection - drip under turf

Response to planners comments	IB	RO	RO	RO	11.08.2022	01
First Issue	IB	RO	RO	RO	11.04.2022	00
Revision Details	Prep.	Chk.	App.	Date	Rev.	

Job Title: **Twickenham Riverside**

Drawing Title: **Irrigation System : General Arrangement Plan**

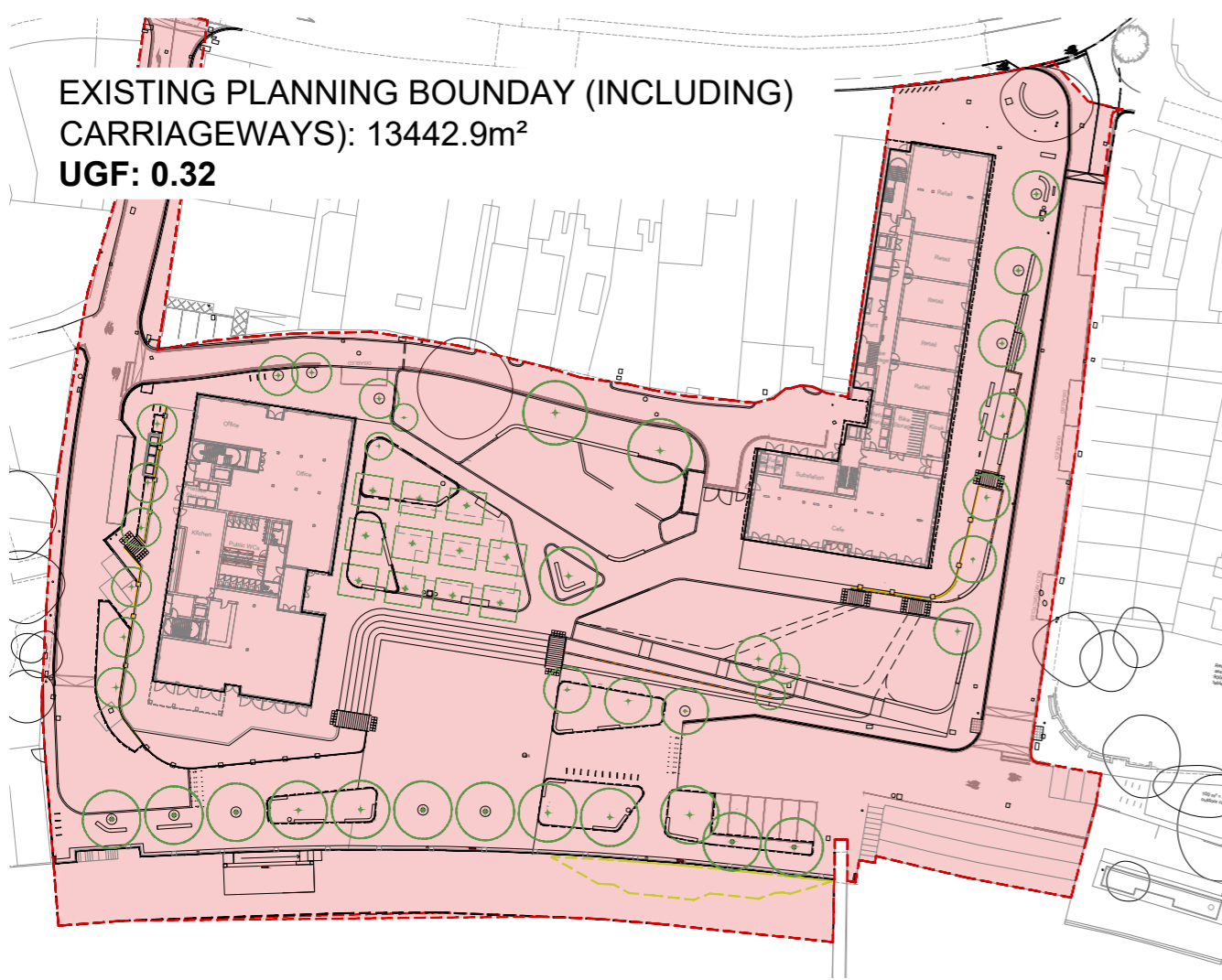
Scale at A1: 1:250

Client: **LDA for Richmond & Wandsworth Council**

Irrigation Contractor: **waterwise solutions**
 20 Hanover Road, Coxheath
 Maidstone, ME17 4QQ
 Tel: 01352 753812

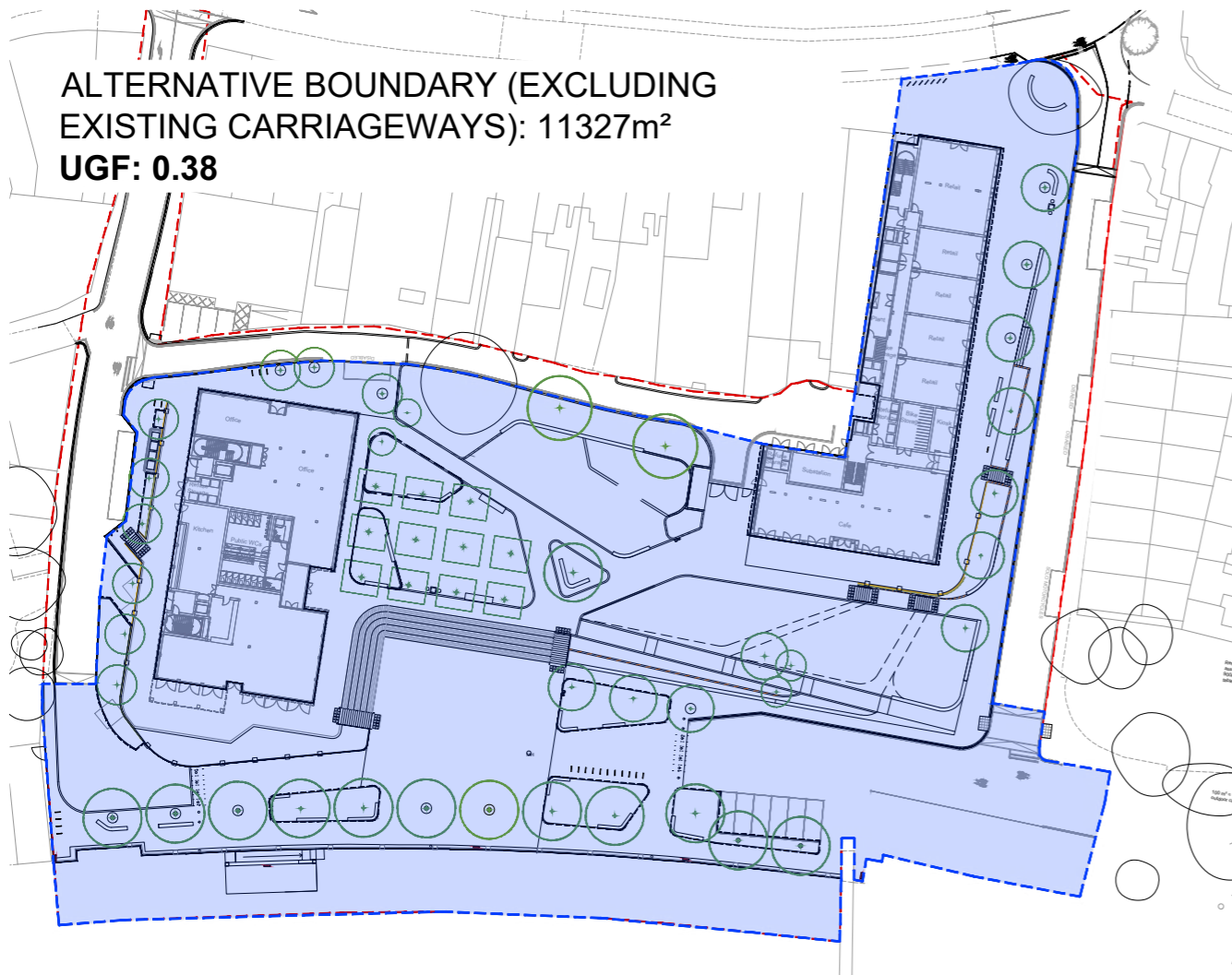
Drawn: IB	Checked: RO	Design: IB	Approved: IB	Sheet: 1/1	Revision: 01
Date: 11-04-2022					

**EXISTING PLANNING BOUNDARY (INCLUDING CARRIAGEWAYS): 13442.9m²
UGF: 0.32**



Urban Greening Factor Calculator				
Surface Cover Type	Factor	Area (m ²)	Contribution	Notes
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1	819.72	819.72	
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1	1039.58	1039.58	
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	0.8		0	
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree.	0.8	1451	1160.8	One tree added to square at 78m ²
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	0.7	78.7	55.09	Garden Storage: 14.9m ² Water Lane: 23.4m ² Wharf Lane: 40.4m ²
Flower-rich perennial planting.	0.7	930.23	651.161	
Rain gardens and other vegetated sustainable drainage elements.	0.7	66.12	46.284	
Hedges (line of mature shrubs one or two shrubs wide).	0.6	28.6	17.16	
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6		0	
Green wall –modular system or climbers rooted in soil.	0.6	400	240	
Groundcover planting.	0.5		0	
Amenity grassland (species-poor, regularly mown lawn).	0.4	564.71	225.884	
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014.	0.3		0	
Water features (chlorinated) or unplanted detention basins.	0.2		0	
Permeable paving.	0.1	1369	136.9	Resin Bound Gravel: 719m ² Rubber Play Surface: 252m ² Sand: 88.5m ² Self Binding Gravel (updated within calc as this is permeable) : 309m ²
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0		0	
Total contribution			4392.579	
Total site area (m²)				13442.9
Urban Greening Factor				0.326758289

**ALTERNATIVE BOUNDARY (EXCLUDING EXISTING CARRIAGEWAYS): 11327m²
UGF: 0.38**



Urban Greening Factor Calculator -				
Surface Cover Type	Factor	Area (m ²)	Contribution	Notes
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1	819.72	819.72	
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1	1039.58	1039.58	
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	0.8	0	0	
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree.	0.8	1451	1160.8	One tree added to square at 78m ²
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	0.7	78.7	55.09	Garden Storage: 14.9m ² Water Lane: 23.4m ² Wharf Lane: 40.4m ²
Flower-rich perennial planting.	0.7	930.23	651.161	
Rain gardens and other vegetated sustainable drainage elements.	0.7	66.12	46.284	
Hedges (line of mature shrubs one or two shrubs wide).	0.6	28.6	17.16	
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6	0	0	
Green wall –modular system or climbers rooted in soil.	0.6	400	240	
Groundcover planting.	0.5		0	
Amenity grassland (species-poor, regularly mown lawn).	0.4	564.71	225.884	
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014.	0.3	0	0	
Water features (chlorinated) or unplanted detention basins.	0.2	0	0	
Permeable paving.	0.1	1369	136.9	Resin Bound Gravel: 719m ² Rubber Play Surface: 252m ² Sand: 88.5m ² Self Binding Gravel (updated within calc as this is permeable) : 309m ²
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0		0	
Total contribution			4392.579	
Total site area (m²)				11327
Urban Greening Factor				0.38779721

REV.	DESCRIPTION	APP. DATE
C	Update to include changes to Trees	AH 04/06/22
B	Response to Planning Comments	AH 13/05/22
A	Response to Planning Comments	AH 21/03/22

LD&A DESIGN

PROJECT TITLE
TWICKENHAM RIVERSIDE

DRAWING TITLE
Urban Greening Factor Calculation

ISSUED BY	London	T: 020 7467 1470
DATE	APRIL 2022	DRAWN NR
SCALE	A1 1:250	CHECKED AH
STATUS	Planning	APPROVED AH

DWG. NO 6975_150

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Sources: Ordnance Survey



- UGF KEY**
- UGF BOUNDARY (PLANNING BOUNDARY)
 - UGF BOUNDARY (REMOVING CARRIAGEWAYS)
 - EXISTING TREE TO BE RETAINED
 - PROPOSED TREE
 - WETLAND OR OPEN WATER
 - EXTENSIVE GREEN ROOF
 - FLOWER RICH PERENNIAL PLANTING
 - RAIN GARDEN
 - HEDGE ROWS
 - CLIMBERS ROOTED IN SOIL
 - AMENITY GRASSLAND
 - PERMEABLE PAVING I

REV.	DESCRIPTION	DATE
B	Update to include changes to Trees	04/08/22
A	Response to Planners Comments	16/05/22

LD A DESIGN

PROJECT TITLE
TWICKENHAM RIVERSIDE

DRAWING TITLE
Urban Greening Factor (UGF) Plan

ISSUED BY	London	T: 020 7467 1470
DATE	JULY 2021	DRAWN NR
SCALE@A1	1:250	CHECKED AH
STATUS	Planning	APPROVED AH

DWG. NO 6975_151

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Sources: Ordnance Survey



Number	Abbreviation	Species	Specification	Density
1	pub	Betula pubescens		20/m ²
2	PLMON	Tilia mongolica	100% Mature, 100% Clear Stem 175-200 5's	20/m ²
3	AL	Alnus sibirica		20/m ²
4	ASAC	Acer saccatum		20/m ²
5	AM	Amorpha canescens		20/m ²
6	AS	Asplenium platyneuron		20/m ²
7	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
11	AM	Amorpha canescens		20/m ²
12	AM	Amorpha canescens		20/m ²
13	AM	Amorpha canescens		20/m ²
14	AM	Amorpha canescens		20/m ²
15	AM	Amorpha canescens		20/m ²
16	AM	Amorpha canescens		20/m ²
17	AM	Amorpha canescens		20/m ²
18	AM	Amorpha canescens		20/m ²
19	AM	Amorpha canescens		20/m ²
20	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
21	AM	Amorpha canescens		20/m ²
22	AM	Amorpha canescens		20/m ²
23	AM	Amorpha canescens		20/m ²
24	AM	Amorpha canescens		20/m ²
25	AM	Amorpha canescens		20/m ²
26	AM	Amorpha canescens		20/m ²
27	AM	Amorpha canescens		20/m ²
28	AM	Amorpha canescens		20/m ²
29	AM	Amorpha canescens		20/m ²
30	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
31	AM	Amorpha canescens		20/m ²
32	AM	Amorpha canescens		20/m ²
33	AM	Amorpha canescens		20/m ²
34	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
35	AM	Amorpha canescens		20/m ²
36	AM	Amorpha canescens		20/m ²
37	AM	Amorpha canescens		20/m ²
38	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
39	AM	Amorpha canescens		20/m ²
40	AM	Amorpha canescens		20/m ²
41	AM	Amorpha canescens		20/m ²
42	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
43	AM	Amorpha canescens		20/m ²
44	AM	Amorpha canescens		20/m ²
45	AM	Amorpha canescens		20/m ²
46	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
47	AM	Amorpha canescens		20/m ²
48	AM	Amorpha canescens		20/m ²
49	AM	Amorpha canescens		20/m ²
50	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
51	AM	Amorpha canescens		20/m ²
52	AM	Amorpha canescens		20/m ²
53	AM	Amorpha canescens		20/m ²
54	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
55	AM	Amorpha canescens		20/m ²
56	AM	Amorpha canescens		20/m ²
57	AM	Amorpha canescens		20/m ²
58	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
59	AM	Amorpha canescens		20/m ²
60	AM	Amorpha canescens		20/m ²
61	AM	Amorpha canescens		20/m ²
62	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
63	AM	Amorpha canescens		20/m ²
64	AM	Amorpha canescens		20/m ²
65	AM	Amorpha canescens		20/m ²
66	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
67	AM	Amorpha canescens		20/m ²
68	AM	Amorpha canescens		20/m ²
69	AM	Amorpha canescens		20/m ²
70	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
71	AM	Amorpha canescens		20/m ²
72	AM	Amorpha canescens		20/m ²
73	AM	Amorpha canescens		20/m ²
74	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
75	AM	Amorpha canescens		20/m ²
76	AM	Amorpha canescens		20/m ²
77	AM	Amorpha canescens		20/m ²
78	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
79	AM	Amorpha canescens		20/m ²
80	AM	Amorpha canescens		20/m ²
81	AM	Amorpha canescens		20/m ²
82	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
83	AM	Amorpha canescens		20/m ²
84	AM	Amorpha canescens		20/m ²
85	AM	Amorpha canescens		20/m ²
86	AM	Amorpha canescens		20/m ²

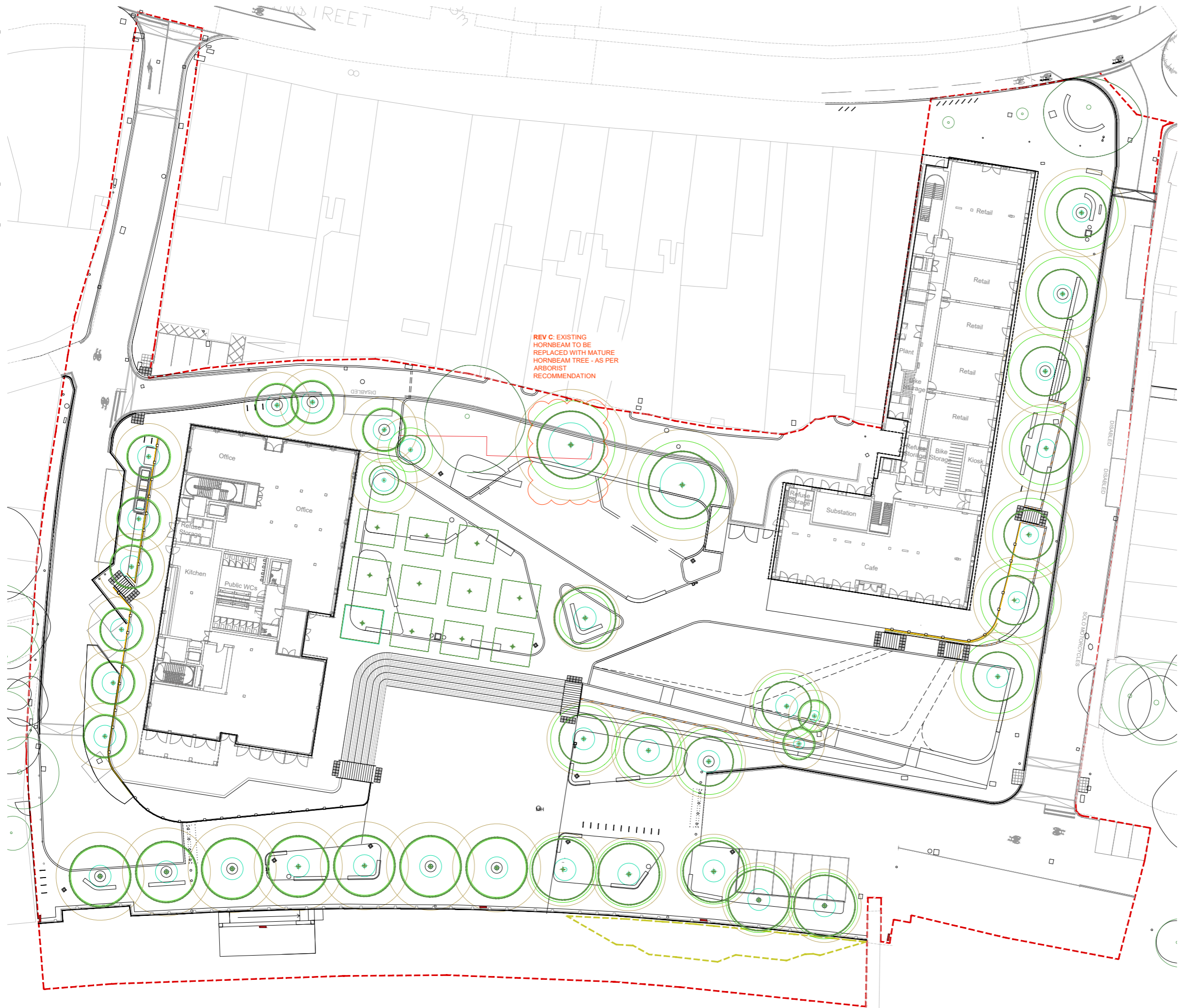
Number	Abbreviation	Species	Specification	Density
87	AM	Amorpha canescens		20/m ²
88	AM	Amorpha canescens		20/m ²
89	AM	Amorpha canescens		20/m ²
90	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
91	AM	Amorpha canescens		20/m ²
92	AM	Amorpha canescens		20/m ²
93	AM	Amorpha canescens		20/m ²
94	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
95	AM	Amorpha canescens		20/m ²
96	AM	Amorpha canescens		20/m ²
97	AM	Amorpha canescens		20/m ²
98	AM	Amorpha canescens		20/m ²

Number	Abbreviation	Species	Specification	Density
99	AM	Amorpha canescens		20/m ²
100	AM	Amorpha canescens		20/m ²
101	AM	Amorpha canescens		20/m ²
102	AM	Amorpha canescens		20/m ²

LD&DESIGN
 PROJECT TITLE
 TWICKENHAM RIVERSIDE
 DRAWING TITLE
 Site Wide Planting Plan
 ISSUED BY: London T: 020 7467 1470
 DATE: JULY 2021 DRAWN: NR
 SCALE: A1 1:250 CHECKED: TW
 STATUS: Planning APPROVED: AH
 DWG. NO. 6975_300
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 All dimensions are to be checked on site.
 Area measurements for indicative purposes only.
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 Sources: Ordnance Survey



- KEY**
- PLANNING APPLICATION BOUNDARY
 - TREE CANOPY SPREAD YEAR 0
 - TREE CANOPY SPREAD YEAR 25
 - TREE CANOPY SPREAD YEAR 50

REV C: EXISTING HORNBEAM TO BE REPLACED WITH MATURE HORNBEAM TREE - AS PER ARBORIST RECOMMENDATION

REV.	DESCRIPTION	APP. DATE
C	Update to include changes to Trees	AH 04/08/22
B	Response to Planners Comments	AH 15/05/22
A	Response to Planners Comments	AH 09/12/21

LDA DESIGN

PROJECT TITLE
TWICKENHAM RIVERSIDE

DRAWING TITLE
SITEWIDE CANOPY PLAN

ISSUED BY	London	T: 020 7467 1470
DATE	OCT 2021	DRAWN NR
SCALE@A1	1:250	CHECKED AH
STATUS	Planning	APPROVED AH

DWG. NO 6975_350

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Sources Ordnance Survey

