7.8 DRAINAGE STRATEGY

DRAINAGE STRATEGY FOR HAYES TOWN CENTRE

The proposed drainage strategy for the Hayes Town Centre development follows the design principles set out in the previously approved drainage strategy prepared by Whitby Wood in 2021 and submitted as part of the S73 application.

SURFACE WATER DRAINAGE

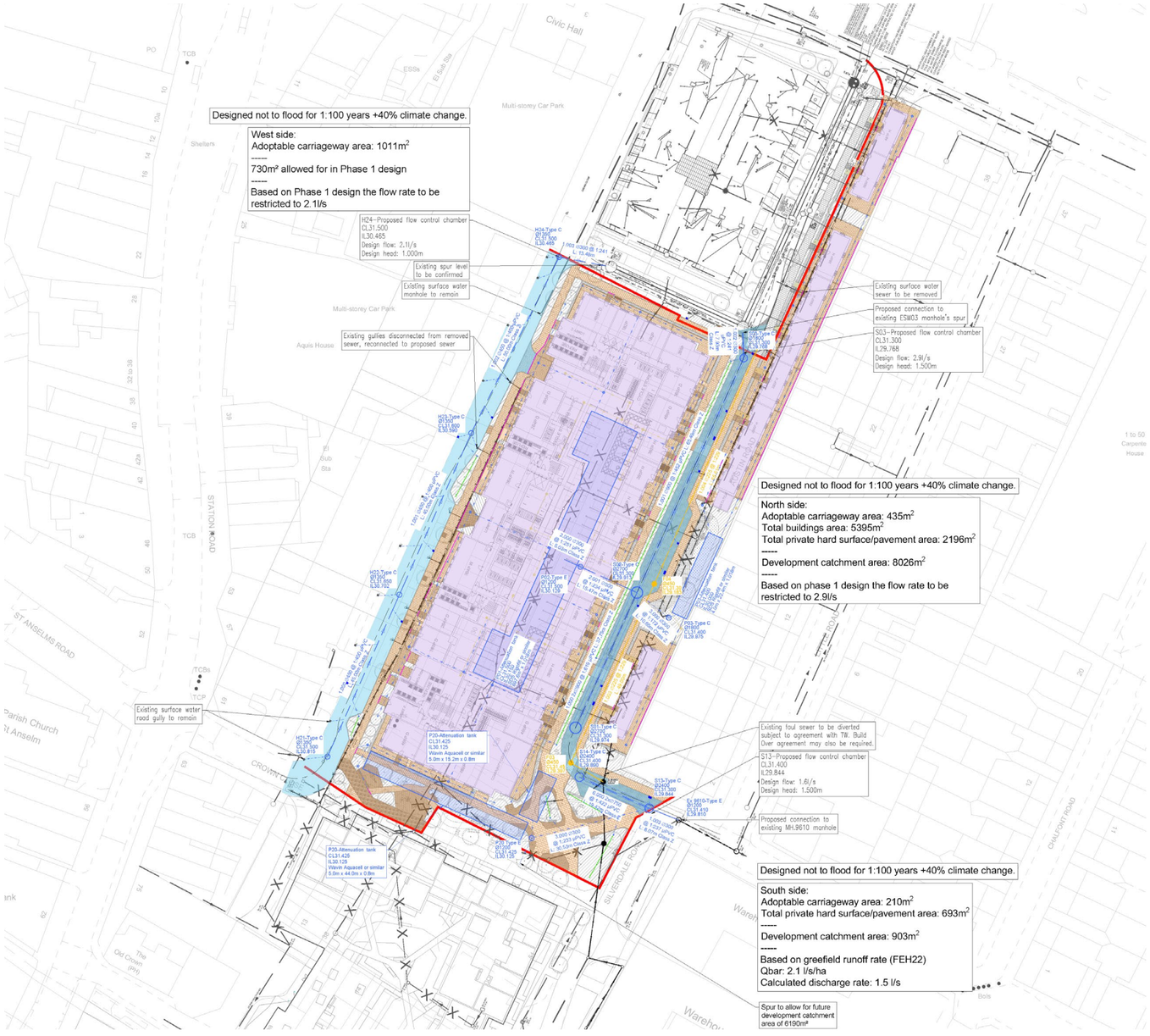
Surface water will be managed through a gravity drainage system incorporating attenuation tanks located beneath the proposed car park and landscaped areas. These tanks will control runoff before discharging at three locations: two connections to the Phase 1 drainage system, limited to a discharge rate of 2.9 l/s and 2.1 l/s, and a third connection to the public Thames Water surface water sewer in Silverdale Road, limited to 1.6 l/s. This discharge arrangement provides controlled runoff in accordance with sustainable drainage requirements. Rain gardens are proposed across the site, each with an underlying perforated pipe to manage overflow. Green roofs are also proposed. The current drainage strategy incorporates these green roofs within impermeable catchment calculations, providing flexibility to reduce attenuation volumes during the detailed design stage if required.

FOUL WATER DRAINAGE

Foul water will be conveyed via a gravity drainage network with a proposed connection to the Phase 1 foul sewer in Austin Road. The existing foul sewer located beneath the Phase 2 proposed buildings will require a diversion to accommodate the new development layout. The diversion will be subject to a diversion agreement with Thames Water, and a build over agreement may also be required.

The proposed surface water system beneath Austin Road will be adopted and maintained by Thames Water, and the proposed surface water sewer beneath Crown Close is to be adopted by highways drainage under a S38/S278 agreement. The diverted foul sewer will be adopted and maintained by Thames Water, subject to their approval. All remaining drainage infrastructure will remain private and will be managed and maintained by the development's management company. All proposed connection points and discharge rates will be confirmed with Thames Water as part of the application process.

IESISSTRUCTURES



INDICATIVE DRAINAGE GA PLAN

M / 193

7.9 FIRE STRATEGY

Introba

SUMMARY

Introba has been engaged as a specialist fire and life safety consultant to develop and validate the Fire Strategy in support of a Hybrid Planning Application submitted to the Hillingdon Council by the Applicant, London Borough of Hillingdon. The Fire Strategy for the development has been designed in accordance with BS 9991:2024. Additionally, guidance from The London Plan has been implemented. Both pieces of guidance have been developed to ensure the highest standard of fire safety is designed into the building development at an early stage of design.

The RMA is for Phase 2 and Phase 3. It consists 10 townhouses in Phase 2. Phase 3 consists of Buildings C,D,E & F. Buildings C & F (18-30 m) will both have an evacuation stair and a fire-fighting stair core, with the other two buildings having a single residential evacuation stair core. The layout of these buildings has configured to satisfy BS 9991:2024 means of escape, lobby protection, fire-fighting facilities, and smoke control principles for this height band. Phase 3 is proposed to also include townhouses. The travel distance and occupancy capacities have been designed in accordance with BS 9991:2024. Each stair is part of the protected route with the associated smoke ventilation and fire-fighting provisions required.

Each residential stair core in the development will have an evacuation lift which is separated from the accommodation and stair by a lift lobby, to satisfy the recommendations of both BS 9991:2024 and the London Plan, the evacuation lifts will be designed and installed in accordance with EN 81-72. Each evacuation lift has a temporary waiting space. Travel distances and exit capacities are designed against BS 9991:2024 criteria and any corridors with extended travel distances will be justified using CFD analysis.

8. APPENDIX

8.1 APPENDIX 1 - DETAILED AREA SCHEDULE

8.1.1 Phase 2

Note: The tenure mix and distribution shown on this schedule is indicative only and will be controlled separately through the s106 agreement

Phase 2 - Social Rent Houses																				
	1B1P 40m²	1B2P 50m²	1B2P W 59m²	2B3P 61m²	2B3P W 74m²	2B3P + 66m²	2B4P 70m²	2B4P W 83m²	2B4PD 80m²	3B5P 86m²	3B4P W 93m²	3B5PD 104m²	3B5P H 98m²	3B6P 97m²	4B6P D 108m²	4B7PH 128m²	4B8PD 140m²	Total	NIA m²	GIA m²
0													8			2		10	1,040	520
1																			0	483
2																			0	79
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**2**	**0**	**10**	**1,040**	**1,082**

*Phase 2 GIA includes external substation

APPENDIX 1 - DETAILED AREA SCHEDULE

8.1.2 Phase 3

GF of Phase 3 - Social Rent

	1B1P 40m²	1B2P 50m²	1B2P W 59m²	2B3P 61m²	2B3P W 74m²	2B3P + 66m²	2B4P 70m²	2B4P W 83m²	2B4PD 80m²	3B5P 86m²	3B4P W 93m²	3B5PD 104m²	3B5P H 102m²	3B6P 97m²	4B6P D 108m²	4B7PH 128m²	4B8PD 140m²	Total	NIA m²	GIA m²
0									2			3	10		2		2	19	1,988	972
1																		0	0	892
2																		0	0	265
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**3**	**10**	**0**	**2**	**0**	**2**	**19**	**1,988**	**2,129**

Community Centre

NIA (m2)	GIA (m2)
166	169

*Ground Floor GIAs do not include parking

Podium Parking GIA	**1370**	**m²**

Core C - Private

	1B1P 40m²	1B2P 50m²	1B2P W 59m²	2B3P 61m²	2B3P W 74m²	2B3P + 66m²	2B4P 70m²	2B4P W 83m²	2B4PD 80m²	3B5P 86m²	3B4P W 93m²	3B5PD 104m²	3B5P H 98/102m²	3B6P 97m²	4B6P D 108m²	4B7PH 128m²	4B8PD 140m²	Total	NIA m²	GIA m²
0																			0	185
1																			0	65
2																			0	59
3																			0	59
4		2			1		2	1		2								8	569	716
5		2			1		2	1		2								8	569	716
6		2		1			1			2								6	403	549
7		1	1	1			1			2								6	412	549
Total	**0**	**7**	**1**	**2**	**2**	**0**	**6**	**2**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**1,953**	**2,897**

Roof Plant

GIA m²
44.27

Core C - Social Rent

	1B1P 40m²	1B2P 50m²	1B2P W 59m²	2B3P 61m²	2B3P W 74m²	2B3P + 66m²	2B4P 70m²	2B4P W 83m²	2B4PD 80m²	3B5P 86m²	3B4P W 93m²	3B5PD 104m²	3B5P H 98/102m²	3B6P 97m²	4B6P D 108m²	4B7PH 128m²	4B8PD 140m²	Total	NIA m²	GIA m²
0		2								1								3	186	367
1		2			1			1		2								6	429	516
2		2			1		2	1		2								8	569	657
3		2			1		2	1		2								8	569	657
4																			0	
5																			0	
6																			0	
7																			0	
Total	**0**	**8**	**0**	**0**	**3**	**0**	**4**	**3**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**		**25**	**1,753**	**2,196**

Core D - Social Rent

	1B1P 40m²	1B2P 50m²	1B2P W 59m²	2B3P 61m²	2B3P W 74m²	2B3P + 66m²	2B4P 70m²	2B4P W 83m²	2B4PD 80m²	3B5P 86m²	3B4P W 93m²	3B5PD 104m²	3B5P H 98/102m²	3B6P 97m²	4B6P D 108m²	4B7PH 128m²	4B8PD 140m²	Total	NIA m²	GIA m²
0											1							1	93	457
1		1				1	2			1								5	342	469
2		3					3			1								7	446	572
3		3					3			1								7	446	572
4		3					3			1								7	446	572
5		3					3			1								7	446	572
6		3					3			1								7	446	570
7		1					1			2				1				5	389	505
Total	**0**	**17**	**0**	**0**	**0**	**1**	**18**	**0**	**0**	**8**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**46**	**3,054**	**4,288**

Roof Plant

GIA m²
16.37

Core E - Social Rent

	1B1P 40m²	1B2P 50m²	1B2P W 59m²	2B3P 61m²	2B3P W 74m²	2B3P + 66m²	2B4P 70m²	2B4P W 83m²	2B4PD 80m²	3B5P 86m²	3B4P W 93m²	3B5PD 104m²	3B5P H 98/102m²	3B6P 97m²	4B6P D 108m²	4B7PH 128m²	4B8PD 140m²	Total	NIA m²	GIA m²
0											1							1	93	486
1		2				1	2			1								6	392	525
2		4					3			1								8	496	627
3		4					3			1								8	496	627
4		4					3			1								8	496	627
5		4					3			1								8	496	627
6		4					3			1								8	496	625
7		1					1			2				1				5	389	505
Total	**0**	**23**	**0**	**0**	**0**	**1**	**18**	**0**	**0**	**8**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**52**	**3,354**	**4,650**

Core F - Social Rent

	1B1P 40m²	1B2P 50m²	1B2P W 59m²	2B3P 61m²	2B3P W 74m²	2B3P + 66m²	2B4P 70m²	2B4P W 83m²	2B4PD 80m²	3B5P 86m²	3B4P W 93m²	3B5PD 104m²	3B5P H 98/102m²	3B6P 97m²	4B6P D 108m²	4B7PH 128m²	4B8PD 140m²	Total	NIA m²	GIA m²
0			2															2	118	562
1		1		2	1		1	1										6	399	561
2		1		2	1		1	1		2								8	571	716
3		1		2	1		1	1		2								8	571	716
4		1		2	1		1	1		2								8	571	716
5		1		2	1		1	1		2								8	571	716
6		1		2	1		1			2								7	488	628
7		1	1	1			1			1				1				6	423	549
8		1	1	1			1			1				1				6	423	549
Total	**0**	**8**	**4**	**14**	**6**	**0**	**8**	**5**	**0**	**12**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**59**	**4,135**	**5,710**

Note: The tenure mix and distribution shown on this schedule is indicative only and will be controlled separately through the s106 agreement

APPENDIX 1 - DETAILED AREA SCHEDULE

8.1.3 Summary

Note: The tenure mix and distribution shown on this schedule is indicative only and will be controlled separately through the s106 agreement

Phase 2 and 3 Social Rent																					
	1B1P 40m²	1B2P 50m²	1B2P W 59m²	2B3P 61m²	2B3P W 74m²	2B3P + 66m²	2B4P 70m²	2B4P W 83m²	2B4PD 80m²	3B5P 86m²	3B4P W 93m²	3B5PD 104m²	3B5P H 98/102m²	3B6P 97m²	4B6P D 108m²	4B7PH 128m²	4B8PD 140m²	Total Unit Number	Total Hab Room	Total NIA (m2)	Total GIA (m2)
Total	**0**	**56**	**4**	**14**	**9**	**2**	**48**	**8**	**2**	**35**	**2**	**3**	**18**	**4**	**2**	**2**	**2**	**211**	**704**	**15,324**	**20,055**
	0	**60**		**83**						**62**					**6**						
Mix	0%	28%		39%						29%					3%			100%			

Phase 2 and 3 Private																					
	1B1P 40m²	1B2P 50m²	1B2P W 59m²	2B3P 61m²	2B3P W 74m²	2B3P + 66m²	2B4P 70m²	2B4P W 83m²	2B4PD 80m²	3B5P 86m²	3B4P W 93m²	3B5PD 104m²	3B5P H 98/102m²	3B6P 97m²	4B6P D 108m²	4B7PH 128m²	4B8PD 140m²	Total Unit Number	Total Hab Room	Total NIA (m2)	Total GIA (m2)
Total	**0**	**7**	**1**	**2**	**2**	**0**	**6**	**2**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**28**	**92**	**1,953**	**2,897**
	0	**8**		**12**						**8**					**0**						
Mix	0%	29%		43%						29%					0%			100%			

Phase 2 and 3 Total																								
	1B1P 40m²	1B2P 50m²	1B2P W 59m²	2B3P 61m²	2B3P W 74m²	2B3P + 66m²	2B4P 70m²	2B4P W 83m²	2B4PD 80m²	3B5P 86m²	3B4P W 93m²	3B5PD 104m²	3B5P H 98/102m²	3B6P 97m²	4B6P D 108m²	4B7PH 128m²	4B8PD 140m²	Total Unit Number	Total Hab Room	Total NIA (m2)	Total Residential GIA (m2)	Total Parking GIA (m2)	Total Community GIA (m2)	Total Roof Plant GIA* (m2)	Total Overall GIA (m2)
Total	**0**	**63**	**5**	**16**	**11**	**2**	**54**	**10**	**2**	**43**	**2**	**3**	**18**	**4**	**2**	**2**	**2**	**239**	**796**	**17,277**	**22,952**	**1,370**	**169**	**116**	**24,607**
	0	**68**		**95**						**70**					**6**									
Mix	0.0%	28.5%		39.7%						29.3%					2.5%			100%						

8.2 APPENDIX 2 - MANDATORY CODE COMPLIANCE SCHEDULE

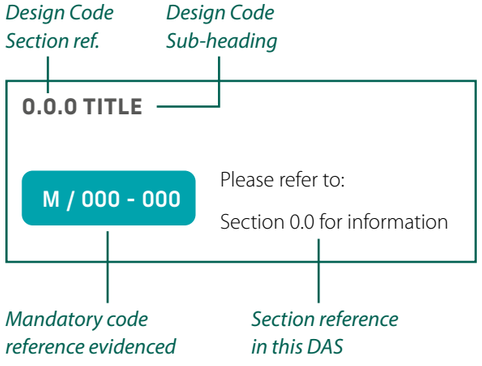
COMPLIANCE SCHEDULE

A full schedule of compliance with all mandatory codes in the Design Code, submitted pursuant to Condition 8 of the hybrid planning permission, is set out in this appendix.

For ease of cross-reference between documents, the mandatory codes listed are grouped by the section code and sub-headings used in the design code. References to sections of this Design Access Statement are then used to indicate where detailed evidence of compliance with each section of mandatory code can be found.

This RMA is for phase 2 and 3 of the outline area. The mandatory codes in section 3.3 CanalSide and 3.6 Silverdale Road are not applicable to this RMA. These are excluded from this schedule.

Key



Please note this appendix lists compliance for mandatory codes only.

2.2.1 MASSING & TOWNSCAPE

M / 001 - 007

Please refer to:

Section 4.2 for proposed land uses and outline

Section 4.3 development extents and proposed landscape zones

Section 4.4.1 for general massing, storey heights and floor to floor heights

Section 4.5 enhancing HTC character

Section 4.20.1 marker building community centre

Section 6.7.2 for marker building and key corner architectural expression and detailing, 6.9 and 6.10 - 6.13 architectural detail

Section 7.9 for daylight / sunlight requirement influences on the massing

Section 7.10 for overheating requirement influences on the massing

Section 6.2 outline of massing expression

2.2.2 BUILDING HEIGHTS AND SETBACKS

M / 008 - 011

Please refer to:

Section 4.3 for general massing, storey heights and evidence of compliance with the Building Heights Parameter Plan

Section 4.4 for compliance with building heights, parameter plan compliance

Section 6.20 Proposed elevations

2.2.3 ROOFSCAPES

M / 012 - 014

Please refer to:

Section 4.14 for information on the green / brown roof strategy

Section 5.3 Planting Strategy

Section 6.2 general massing

Section 6.8 architectural roof detailing

2.2.4 BALCONIES

M / 015 - 018

Please refer to:

Section 4.19 external private amenity spaces

Sections 4.16.1 and 4.16.2 Private amenity space in Phase 2 layout

Section 4.17.1 Phase 3 typical layout

Section 6.6, 6.7 elevation details and balcony placement

Section 7.10 for overheating requirement influences on the balconies

Section 7.11 for wind testing and design mitigations employed to ensure thermal comfort

2.2.5 ACTIVE FRONTAGES

M / 019 - 022

Please refer to:

Sections 4.12.1 and 4.10 outlining the active frontages strategy and all access strategies for each phase.

Sections 4.16.1, 4.16.2 and 4.17.2 Habitable rooms overlooking street, access to street

Section 6.20 Proposed elevations

2.2.6 ELEVATIONS

M / 023 - 028

Please refer to:

Sections 6.2, 6.7 proposed elevation concept

Section 6.3 character areas

Section 6.4 materiality and colour palette

Section 6.6 rainwater pipes and balcony drainage, elevation strategy

2.2.7 ENTRANCES

M / 029 - 034

Please refer to:

Sections 6.6.1 Facade example

2.2.8 WINDOWS

M / 035 - 036

Please refer to:

Section 4.8.3 daylight, privacy and overlooking

Section 4.15 Fenestration - dual aspect layout

Section 4.13 Window layout in typical floor plan

Section 6.5 and 6.6 Window types and spacing

2.2.9 PRIVACY

M / 037 - 038

Please refer to:

Section 4.8.3 daylight, privacy and overlooking

Section 6.5 Window types and window spacing

Section 6.8 Architectural detail (elevation)

APPENDIX 2 - MANDATORY CODE COMPLIANCE SCHEDULE

2.2.10 MATERIALITY AND APPEARANCE

M / 039 - 042

Please refer to:

Sections 4.8 and 4.11 outlining the active frontages strategy and all access strategies

Section 6.1, 6.3 context information and 6.2 massing

Section 6.4 materiality and colour palette, 6.5 window spacing

Section 6.6, 6.7, 6.8 for elevational detail and strategy elements and strategies for minimising their visual impact

Section 6.9 - 6.12 for detailed site wide elevations

Section 6.14 - 6.17 examples of external and internal proposals

2.2.11 RESIDENTIAL QUALITY

M / 043 - 047

Please refer to:

Section 4.4.1 Storey heights and section view

Section 4.13 Typical Floor Plan

Section 4.15 Dual Aspect site wide strategy

Sections 4.16.1 to 4.17.7 for the detailed floor plans of apartments

Section 4.17.1 typical layout for phase 3

Section 4.18.2 Wheelchair Dwelling example

Section 6.5 Window Types and window spacing

Section 6.7 for architectural details including some entrances

2.3 ACCESSIBILITY

M / 048 -053

Please refer to:

Section 4.7.1 site levels strategy

Section 4.18.1 Inclusive Design principles

Section 4.18.2 Wheelchair Dwelling example

Section 6.5 for fenestration strategy

Section 7.9 for daylight/sunlight requirements

Section 7.10 for overheating requirements

2.4.1 PARKING

M / 054 - 060

Please refer to:

Section 4.8.1 car parking

Section 4.10 Podium parking

Section 4.12.5 Parking and access strategy

Section 4.18.1 Inclusive design

2.4.2 ACCESS

M / 061 - 071

Please refer to:

Section 4.8.1 site wide car parking and loading bay strategy

Section 4.8.2 bin store access

Section 4.12.3 and 4.12.4 refuse strategy, fire and access strategy

Section 4.16.1 Phase 2 layout

Section 4.17.2 Private amenity of duplexes an street access

Section 4.19 amenity and defensible space with access to public spaces

Section 5.2 Public Realm design

Section 5.4 Landscape Material Strategy

Section 6.1 for existing context analysis

Section 6.2 for the primary architectural elevational concept including tonal strategy

2.5.3 PUBLIC REALM AND OPEN SPACES

M / 072 - 077

Please refer to:

Section 4.3 proposed development extents

Section 5.1 landscape plan, 5.2 Public Realm Design

Section 5.4 Landscape Material Strategy

Section 4.8.3 distances between buildings

2.5.4 STREETSCAPES

M / 078 - 084

Please refer to:

Section 4.12.5 and 4.12.6 for the site wide access

Section 4.19 Private amenity, defensible space

Section 5.4 Landscape Material Strategy

Section 6.1 Immediate context

2.5.5 PRIVATE AMENITY AND DEFENSIBLE SPACE

M / 085 - 089

Please refer to:

Section 4.19 defensible space buffer, gardens and amenity

Sections 4.8 and 4.11 outlining the podium access and distancing

Section 6.14.1 Proposed bay studies

2.5.6 COMMUNAL COURTYARDS

M / 090 - 095

Please refer to:

Section 4.8.3 orientation, and distances between buildings

Section 4.11 orientation, massing and access to podium

Section 4.19 defensible space fronting communal amenities

Section 5.1 Play strategy, 5.2 public realm design, 5.3 Planting strategy

Section 5.4 Landscape Material strategy

2.5.7 PLAY, FITNESS AND RECREATION

M / 096 - 097

Please refer to:

Section 5.1.1 Play strategy

Sections 5.2 for short stay provisions in landscape

2.5.8 MATERIALS AND STREET FURNITURE

M /098 - 100

Please refer to:

Section 5.2 Public Realm design

Section 5.4 Landscape Material Strategy

2.5.9 TREES AND PLANTING

M / 101 - 104

Please refer to:

Section 5.1 for the landscape masterplan and play strategies

Section 5.3 Planting Strategy

APPENDIX 2 - MANDATORY CODE COMPLIANCE SCHEDULE

2.5.10 BIODIVERSITY AND ECOLOGY

M / 105 - 107

Please refer to:

Section 5.3 Planting Strategy

2.5.11 URBAN GREENING FACTOR

M / 108

Please refer to:

Section 5.3 Planting Strategy

2.5.12 SUDS, WATER MANAGEMENT AND IRRIGATION

M / 109

Please refer to:

Section 4.14 Roofplan and green roof strategy

Section 5.2 Public Realm Design

Section 7.9 for daylight/ sunlight requirements

Section 7.10 for overheating requirements

2.5.13 SAFE AND SECURE ENVIRONMENT

M / 110 - 113

Please refer to:

Section 4.8.2 Secured by Design strategy

Section 5.2 Public Realm Design

Section 6.15.1 Phase 3 Block F Access

2.6.14 DAYLIGHT, SUNLIGHT AND OVERHEATING

M / 114 - 117

Please refer to:

Section 4.11 provisions for shared open space

Section 4.20.1 daylight for community centre

5.3 Planting Strategy

2.6.15 ENERGY

M / 118

Please refer to:

Section 4.13 Apartment layout to provide daylight and ventilation, for typical floor plans confirming compliance with NDSS

2.7 HERITAGE

M / 119

Please refer to:

Section 6.1 heritage context

Section 6.3 character areas

3.2.2 AUSTIN ROAD BUILT FORM

M / 120 - 126

Please refer to:

Section 4.9 Active frontages, streetscape on Austin Road

Section 4.10 Access on ground floor

Section 4.12.5 vehicle entrance at Austin Road

Section 4.15 - 4.16 Phase 2 layouts and local impact

Section 4.17.1 Phase 3 layout

Section 6.4 Character areas

Section 6.12 Architectural detail of the mews houses

Section 6.14.1 Phase 3 3B House

3.2.3 AUSTIN ROAD OPEN SPACE AND PUBLIC REALM

M / 127 - 130

Please refer to:

Section 5.2 Public Realm Design

Section 6.4 Character areas

3.4.2 CROWN CLOSE BUILT FORM

M / 144- 153

Please refer to:

Section 4.10 Ground floor layout

Sections 4.12 active frontages on Crown Close, lobbies and entrances for postal strategy, Podium Parking and access

Section 6.4 Character areas, 6.15 Phase 3 Block F Access

Section 6.13.1, 6.16.1 Architectural detail of community centre

3.4.3 CROWN CLOSE OPEN SPACE AND PUBLIC REALM

M /154 - 160

Please refer to:

Sections 4.19 amenity spaces

Section 6.4 Character areas

Section 5.3 Planting strategy

3.5.2 COMMUNITY SQUARE BUILT FORM

M / 161 - 171

Please refer to:

Sections 4.20.1 Community Centre Layout

Section 4.18.2 Inclusive design facing community square

Section 4.20.1 community centre detail, 6.4 character areas

3.5.3 COMMUNITY SQUARE OPEN SPACE AND PUBLIC REALM

M / 172 - 181

Please refer to:

Section 5.2 Public Realm design

Section 5.3 Planting strategy