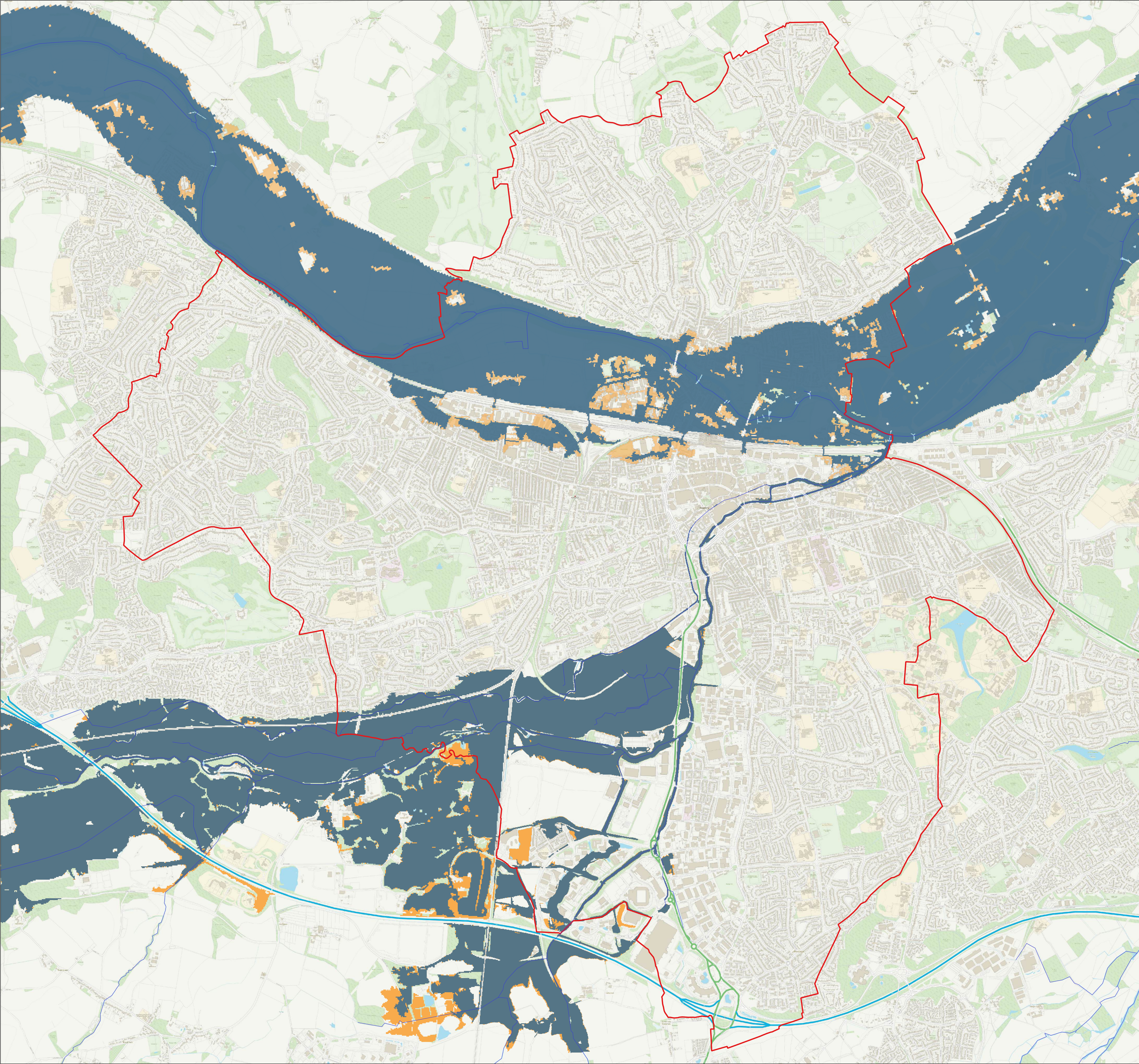




Legend

- Reading Borough Council Boundary
- Watercourses
- 100-Yr (plus central climate change allowance)*
- 100-Yr (plus higher central climate change allowance)**

* Central proxies Thames (35%), Kennet (25%)
** Higher Central proxies Thames (70%), Kennet (35%)

Project Title:
**Reading Borough Level 1
Strategic Flood Risk Assessment**

Figure Title:
**Fluvial Climate Change Flood Map for
Main Rivers in Reading Borough**

Figure number:
WHS 10135-A01-001 B

Appendix E – Extract of SFRA Level 1

Section 3.4

Viewing all of the local plan sites across the Reading Borough area including those already granted planning permission, it appears that the majority are located on brownfield land in urban areas. Redeveloping these areas generally presents less of a risk than new development on greenfield land. For brownfield sites, typically a betterment on existing brownfield surface water runoff rates is required especially in areas where drainage is poor. This is particularly important when considering that of the 148 sites with outstanding permission, likely to be included in the local plan update and adopted previously, 118 of the sites lie partially within areas at low surface water flood risk, 96 sites lie within areas at medium surface water flood risk and 59 sites lie within areas at high surface water flood risk. Therefore, a reduction in runoff rates provides an opportunity to reduce surface water flood risk in a number of areas.

Section 4.1

4.1 Opportunities to Reduce Flood Risk

This section identifies at a strategic level how a proposed development has the potential to improve the water environment via the use of SuDS and Natural Flood Management (NFM), in addition to remedial work on structures (i.e. culverts and bridges) and the provision of green spaces. Some of the potential measures and key benefits are outlined below:

- Runoff control using SuDS - SuDS slow the rate of surface water run-off and where viable use infiltration to mimic natural drainage in both rural and urban areas. This reduces the risk of “flash-flooding” which occurs when rainwater rapidly flows into the public sewerage and drainage systems. Runoff is controlled at or near source and typically, greenfield rates are maintained or there is betterment on brownfield rates at existing development sites. This minimises excess runoff to third party land, thereby managing and reducing flood risk where possible. Provided SuDS is correctly implemented it should safeguard against the cumulative impact of development causing an increase of flood risk within Reading Borough.

Section 5.2

5.2 Recommendations

- 5.2.1 In general, development should be located in Flood Zone 1 wherever possible. In cases where this is not possible, a sequential approach should be taken by locating developments with the highest vulnerabilities at areas of lowest flood risk.
- 5.2.2 Where flood risk is significant and access may be compromised in extreme events, a comprehensive Emergency Flood Plan must be provided to help manage any residual risk.
- 5.2.3 Sustainable drainage principles should be followed at every site to safeguard against increasing flood risk both onsite and to third party land downstream.
- 5.2.4 For greenfield development sites runoff rates should be controlled to be no greater than the existing greenfield rate of runoff from the site.
- 5.2.5 For developments on previously developed brownfield sites the rate of runoff should not exceed the runoff of the site in its previously developed condition, and should seek a betterment on pre-existing rates, especially in locations where drainage is poor.

Appendix F – Proposed Drainage Plans

1. DO NOT SCALE FROM THIS DRAWING
2. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
3. THIS DRAWING IS FOR INFORMATION ONLY.
4. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND CONSULTANTS DRAWINGS AND SPECIFICATIONS.
5. THIS DRAWING IS BASED ON:
 - PLOWMAN CAVERN 2D TOPOGRAPHIC SURVEY DATED 13/01/22

 ExCMBD →	EXISTING COMBINED SEWER
 ExSW → ExSW →	EXISTING PUBLIC SURFACE WATER DRAINAGE NETWORK
 ExFW → ExFW →	EXISTING FOUL WATER DRAINAGE NETWORK
 ExSW → ExSW →	EXISTING PRIVATE SURFACE WATER DRAINAGE NETWORK
	EXISTING OVERLAND FLOW PATH
	PLANNING APPLICATION BOUNDARY

CDM RESIDUAL CIVIL / STRUCTURAL DESIGN RISKS



PROJECT
Reading Police Station

CLIENT
S2 ESTATES

TITLE
EXISTING OVERLAND
FLOW PATH LAYOUT

DISCIPLINE
CIVIL

DRAWN
ND

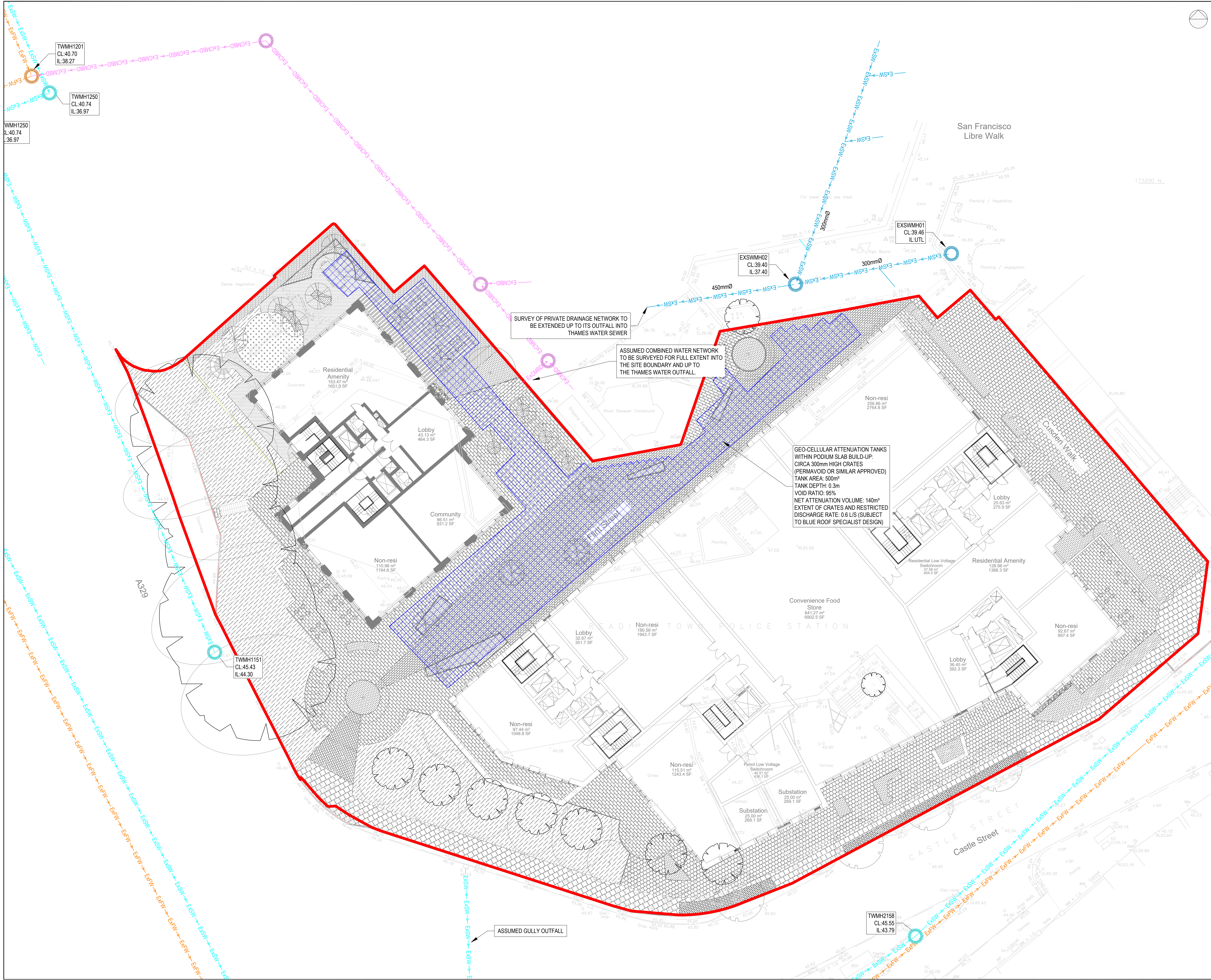
DRAWING NO.
4396-1

4396-MHT-XX-XX-DR-C-0100

SCALE
1:250

APPROVED
SD

ISSUE
D02



ISSUED FOR PLANNING

REV	DESCRIPTION	BY	DATE
P01	ISSUED FOR INFORMATION	NP	20.03.26
P02	ISSUED FOR PLANNING	NP	15.04.26
P03	UPDATED TO SUIT TWS CAPACITY CONFIRMATION	SP	30.04.26

- NOTES:
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 - THIS DRAWING IS FOR INFORMATION ONLY.
 - DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND CONSULTANTS DRAWINGS AND SPECIFICATIONS.
 - THIS DRAWING IS BASED ON:
 - FLOWMAN CAVERN 2D TOPOGRAPHIC SURVEY DATED 13/01/22
 - JTP PROPOSED SITE-WIDE GROUND FLOOR PLAN DATED 28/04/26 - P1 ISSUE.
 - EXTERIOR ARCHITECT'S LANDSCAPE LAYOUT RECEIVED ON 27/3/26.
 - PROPOSED PEAK SURFACE WATER DISCHARGE RATE TO BE RESTRICTED TO 4 L/S FOR ALL STORM EVENTS UP TO 1 IN 100 YEAR INCLUDING 40% ALLOWANCE FOR THE CLIMATE CHANGE IN RAINFALL INTENSITIES. TO BE AGREED WITH THE LLFA. THE PEAK SURFACE WATER RUNOFF RATE IS IN LINE WITH THAMES WATER'S PRE-PLANNING RESPONSE ON CAPACITY CONFIRMATION.
 - FOUL WATER DISCHARGE RATE WILL BE UNRESTRICTED FROM THE SITE.

- KEY:
- ExCMBD EXISTING PRIVATE COMBINED / FOUL DRAINAGE
 - ExSW → ExSW EXISTING PUBLIC SURFACE WATER SEWER NETWORK
 - ExFW → ExFW EXISTING PUBLIC FOUL WATER SEWER NETWORK
 - ExSW → ExSW EXISTING PRIVATE SURFACE WATER DRAINAGE NETWORK
 - GEO-CELLULAR TANKS WITHIN PODIUM SLAB BUILD-UP
 - SW → SW PROPOSED PRIVATE SURFACE WATER DRAINAGE NETWORK
 - FW → FW PROPOSED PRIVATE FOUL WATER DRAINAGE NETWORK
 - PLANNING APPLICATION BOUNDARY
 - PROPOSED SURFACE WATER CATCHPIT



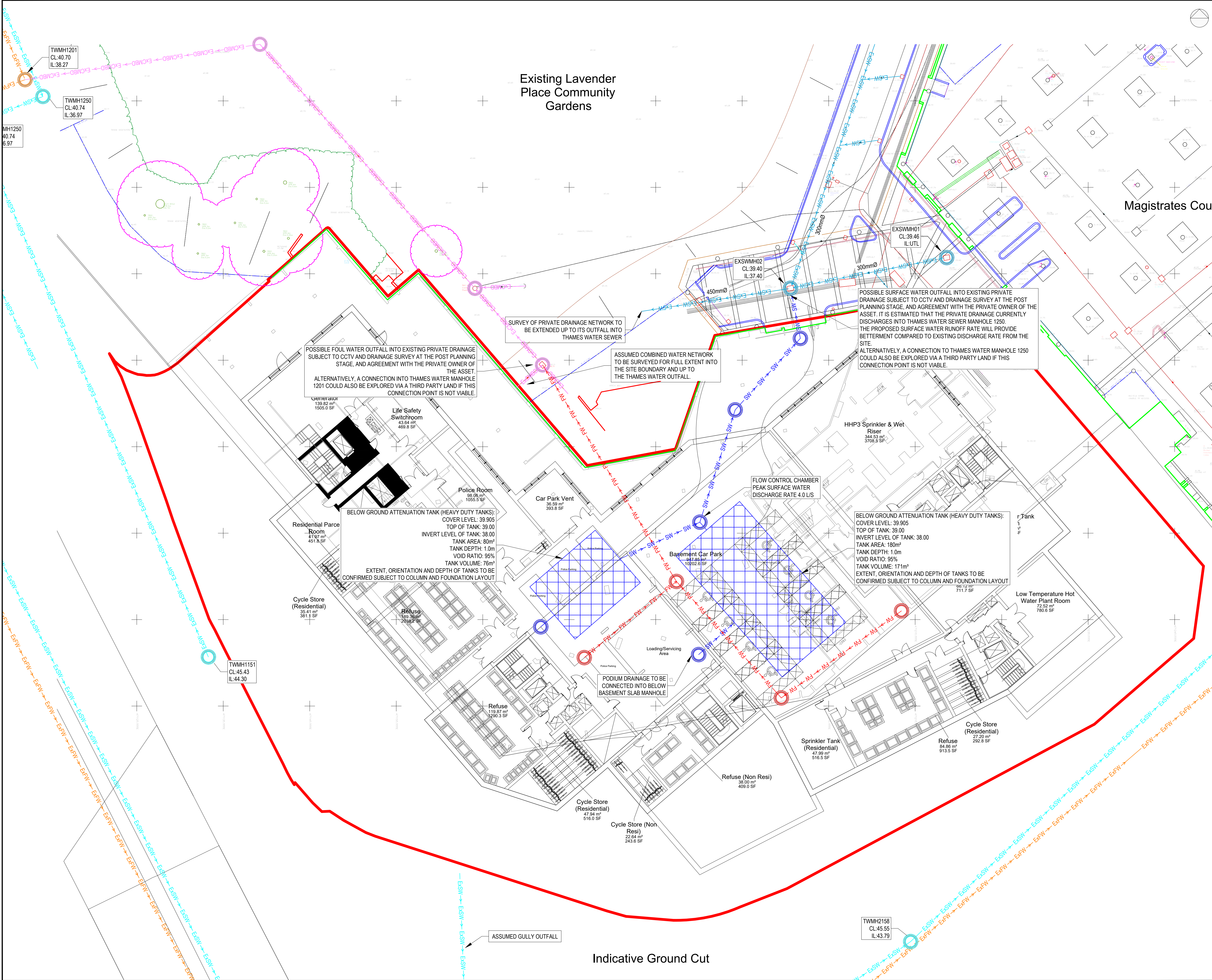
One London Wall, London, EC2Y 5EA
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www.meinhardt.co.uk

PROJECT
Reading Police Station

CLIENT
S2 ESTATES

TITLE
PROPOSED CONCEPT DRAINAGE STRATEGY LAYOUT - GROUND FLOOR

DISCIPLINE			SCALE
CIVIL			1:200
DRAWN	DESIGNED	CHECKED	APPROVED
NP	NP	SP	SP
DRAWING No			ISSUE
4396-MHT-XX-XX-DR-C-0102			P03



ISSUED FOR PLANNING

REV	DESCRIPTION	BY	DATE
P01	ISSUED FOR INFORMATION	NP	20.03.26
P02	ISSUED FOR PLANNING	NP	15.04.26
P03	UPDATED TO SUIT TWS CAPACITY RESPONSE	SP	30.04.26

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 - FLOWMAN CAVERN 2D TOPOGRAPHIC SURVEY DATED 13/01/22
 - JTP PROPOSED SITE-WIDE GROUND FLOOR PLAN DATED 28/04/26 - P1 ISSUE
 - EXTERIOR ARCHITECTS LANDSCAPE LAYOUT RECEIVED ON 27/3/26
- PROPOSED PEAK SURFACE WATER DISCHARGE RATE TO BE RESTRICTED TO 4 L/S FOR ALL STORM EVENTS UP TO 1 IN 100 YEAR INCLUDING 40% ALLOWANCE FOR THE CLIMATE CHANGE IN RAINFALL INTENSITIES. TO BE AGREED WITH THE LLFA. THE PEAK SURFACE WATER RUNOFF RATE IS IN LINE WITH THAMES WATER'S PRE-PLANNING RESPONSE ON CAPACITY CONFIRMATION
- FOUL WATER DISCHARGE RATE WILL BE UNRESTRICTED FROM THE SITE

KEY:

- ExCMBD → EXISTING PRIVATE COMBINED / FOUL DRAINAGE
- ExSW → EXISTING PUBLIC SURFACE WATER SEWER NETWORK
- ExFW → EXISTING PUBLIC FOUL WATER SEWER NETWORK
- ExSW → EXISTING PRIVATE SURFACE WATER DRAINAGE NETWORK
- Geo-Cellular Tanks Below Basement / Lower Ground Floor Slab
- SW → SW PROPOSED PRIVATE SURFACE WATER DRAINAGE NETWORK
- FW → FW PROPOSED PRIVATE FOUL WATER DRAINAGE NETWORK
- PLANNING APPLICATION BOUNDARY
- Proposed Surface Water Catchpit

CDM RESIDUAL CIVIL / STRUCTURAL DESIGN RISKS

One London Wall, London, EC2Y 5EA
info@meinhardt.co.uk Telephone: +44 (0)20 7831 7999
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PROJECT

Reading Police Station

CLIENT

S2 ESTATES

TITLE

PROPOSED CONCEPT DRAINAGE STRATEGY LAYOUT - LOWER GROUND FLOOR (BASEMENT)

DISCIPLINE			SCALE
CIVIL			1:200

DRAWN	DESIGNED	CHECKED	APPROVED
NP	NP	SP	SP

DRAWING No	ISSUE
4396-MHT-XX-XX-DR-C-0103	P03

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5. ALL PROPRIETARY PRODUCTS TO BE INSTALLED AS PER SUPPLIER'S RECOMMENDATIONS.