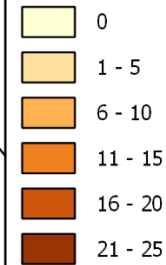


### Legend

Borough Boundary

#### Number of Sewer Flooding Incidents based on DG5 data



in association with



Metis Consultants Limited



Client



Project Title

London Borough of Richmond Upon Thames Strategic Flood Risk Assessment Level 1

Drawing Title

Sewer Flooding Incidents

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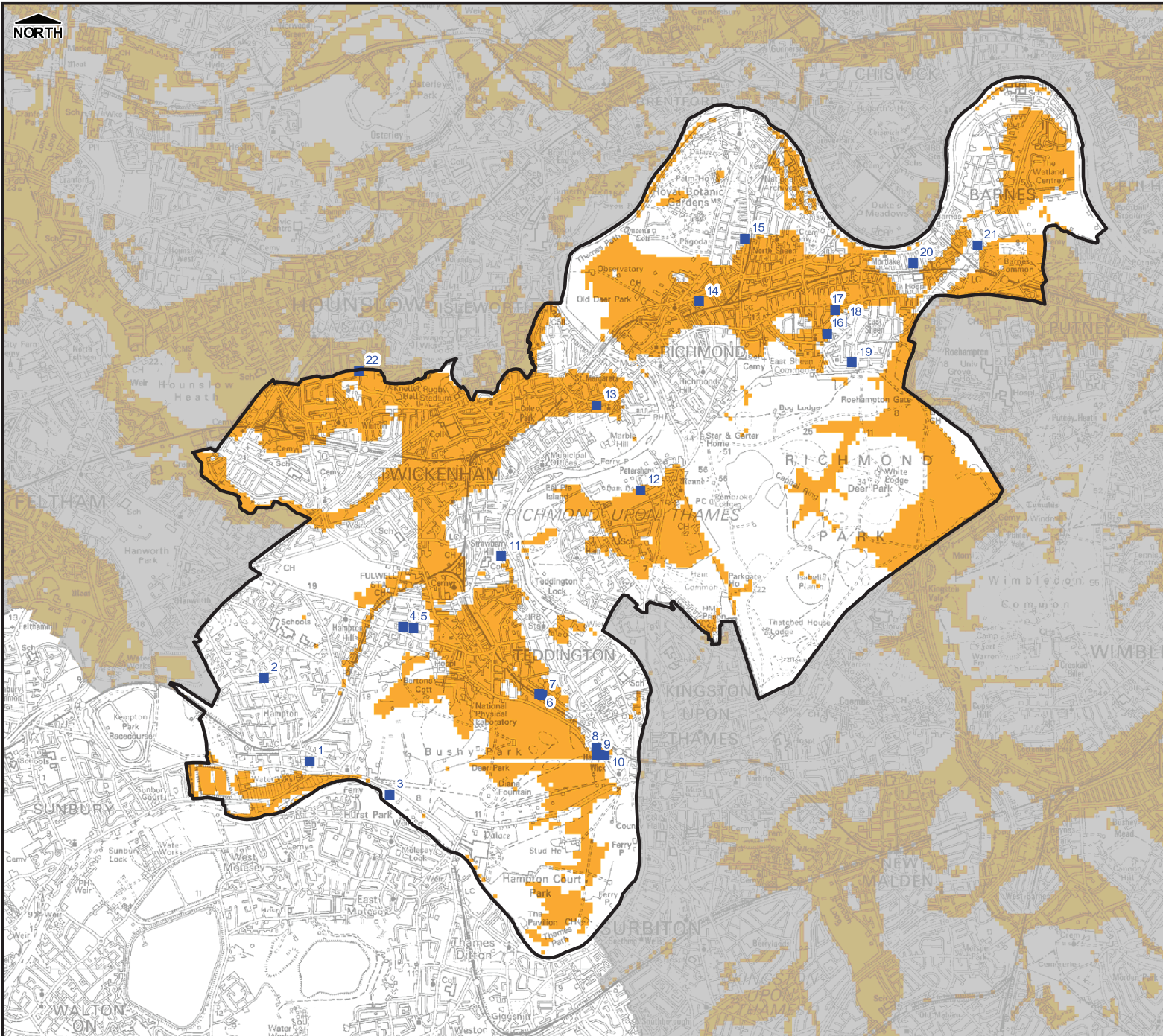
Drawing Number

FIGURE I

1:65,000







THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED

**Legend**

- Richmond Borough Council
- Groundwater Flood Incident (EA Records)
- Increased Potential for Elevated Groundwater in**
- Permeable Superficial Deposits
- Consolidated Aquifers

**Notes**

1. The increased Potential for Elevated Groundwater map shows those areas within the London Boroughs where there is an increased potential for groundwater to rise sufficiently to interact with the ground surface or be within 2m of the ground surface. Such groundwater rise could lead to the following:
  - Flooding of basements of buildings below ground level;
  - Flooding of buried services or other assets below ground level;
  - Inundation of farmland, roads, commercial, residential and amenity areas;
  - Flooding of ground floors of buildings above ground level; and
  - Overflowing of sewers and drains
2. Incident records shown are generally unconfirmed and may include issues such as water main bursts or non-groundwater related problems.
3. Areas not shown to have increased potential for elevated groundwater should be considered to have a low potential for elevated groundwater - Lack of information does not imply 'no potential' of elevated groundwater in that area.
4. Includes groundwater flood mapping provided by JBA consulting, Copyright, Jeremy Benn Associates Limited 2008-2011, partially derived from data supplied by the Environment Agency.

**London Borough Richmond**



**Surface Water Management Plan**

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 Covers all data that has been supplied and distributed under license for the Drain London project.  
 Digital geological data reproduced from British Geological Survey (c) NERC Licence No 2011/053A

<b>Scale at A3</b> 1:50,000	<b>Date</b> 22/03/2011	<b>Drawn by</b> C.Woolhouse	<b>Approved by</b> S.Cox
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**Increased Potential For Elevated Groundwater**

**Consultants**

**CAPITA SYMONDS** URS / Scott Wilson  
 Flood Risk Management 6 - 8 Greencoat Place  
 London SW1P 1PL

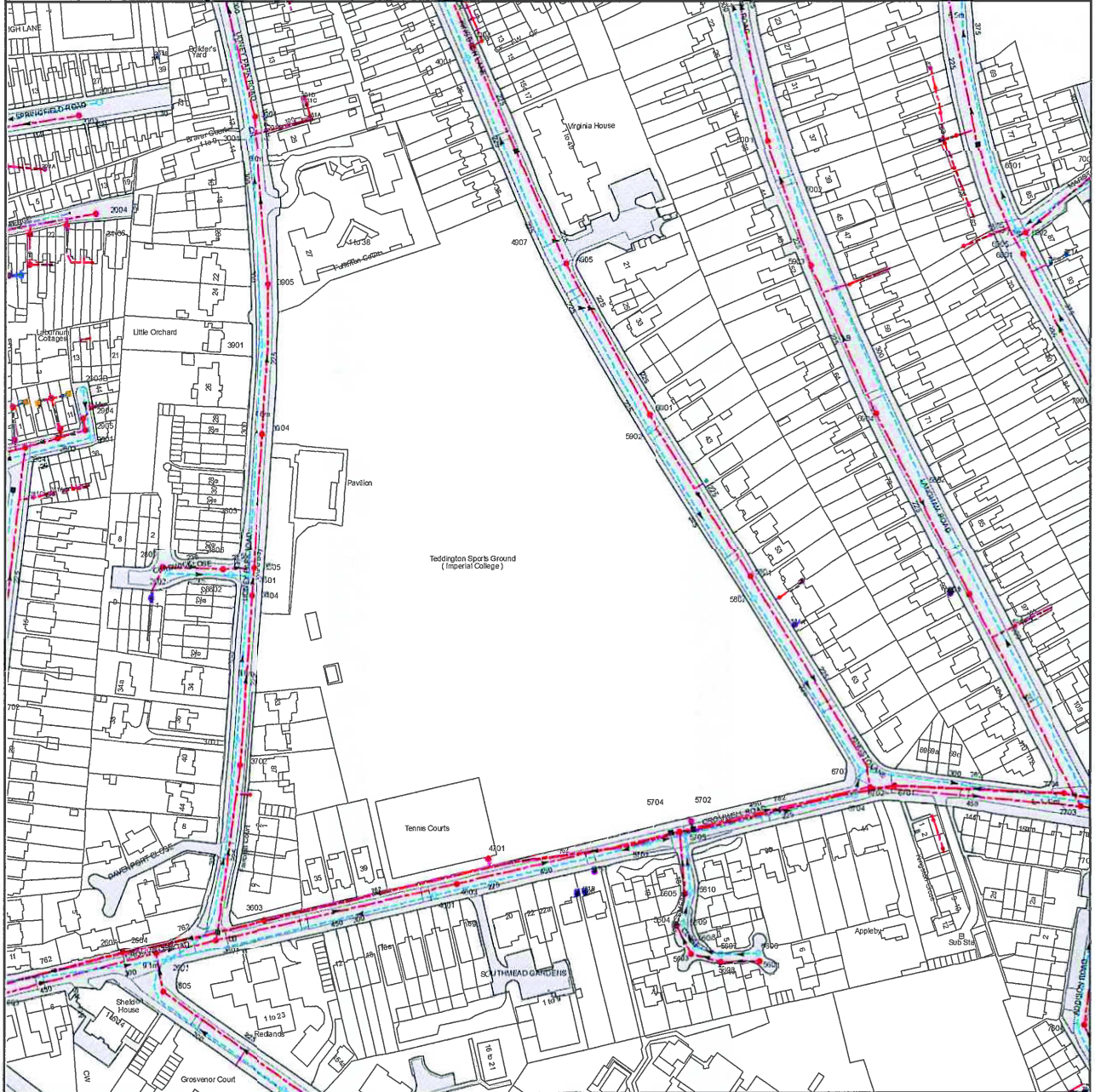
**Drain London Programme Board Members**

**GREATER LONDON AUTHORITY**

**FIGURE 3.5.1**



CommercialDW Drainage and Water Enquiry Sewer Map- CDWS/CDWS Standard/2015 3056174



The width of the displayed area is 500m

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.

NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates no survey information is available.

Manhole Reference	Manhole Cover Level	Manhole Invert Level
281F	n/a	n/a
581D	n/a	n/a
581C	n/a	n/a
5801	n/a	n/a
5802	n/a	n/a
5001	n/a	n/a
5002	n/a	n/a
5903	n/a	n/a
691A	n/a	n/a
6904	n/a	n/a
6802	n/a	n/a
601D	n/a	n/a
601H	n/a	n/a
681B	n/a	n/a
601G	n/a	n/a
601E	n/a	n/a
691B	n/a	n/a
601F	n/a	n/a
6801	n/a	n/a
3905	8.61	6.28
301B	n/a	n/a
4907	10.36	8.34
4905	10.36	7.9
5902	n/a	n/a
5901	n/a	n/a
581B	n/a	n/a
2806	8.91	n/a
2802	8.98	n/a
3806	8.99	n/a
3802	9.02	n/a
3801	n/a	n/a
3001	n/a	n/a
3803	8.83	5.73
3804	8.81	6.8
3805	n/a	n/a
3904	8.8	6.28
3901	8.5	n/a
5702	9.01	-1.89
5603	n/a	n/a
5608	n/a	n/a
5607	n/a	n/a
5602	n/a	n/a
5606	n/a	n/a
5601	n/a	n/a
581A	n/a	n/a
6704	8.92	6.74
6703	8.99	6.55
6702	8.99	5.41
6701	8.96	-1.8
671B	n/a	n/a
671A	n/a	n/a
2601	9.1	6.07
2604	9.05	6.41
3601	9.21	6.34
5604	n/a	n/a
5609	n/a	n/a
3603	9.19	-2.2
4601	9.49	7.13
461A	n/a	n/a
5605	n/a	n/a
5610	n/a	n/a
461B	n/a	n/a
4603	9.4	5.91
461C	n/a	n/a
4701	9.45	n/a
5701	9.15	7.6
5705	n/a	n/a
5704	n/a	n/a
371A	n/a	n/a
3702	8.96	7.09
3701	9	5.77

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## Sewer Key - Commercial Drainage and Water Enquiry

### Public Sewer Types (Operated & Maintained by Thames Water)

	<b>Foul:</b> A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
	<b>Surface Water:</b> A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.
	<b>Combined:</b> A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
	<b>Trunk Surface Water</b>
	<b>Trunk Foul</b>
	<b>Storm Relief</b>
	<b>Trunk Combined</b>
	<b>Vent Pipe</b>
	<b>Bio-solids (Sludge)</b>
	<b>Proposed Thames Water Surface Water Sewer</b>
	<b>Proposed Thames Water Foul Sewer</b>
	<b>Gallery</b>
	<b>Foul Rising Main</b>
	<b>Surface Water Rising Main</b>
	<b>Combined Rising Main</b>
	<b>Sludge Rising Main</b>
	<b>Proposed Thames Water Rising Main</b>
	<b>Vacuum</b>

### Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

	Air Valve
	Dam Chase
	Fitting
	Meter
	Vent Column

### Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

	Control Valve
	Drop Pipe
	Ancillary
	Weir

### End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol, Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

	Outfall
	Undefined End
	Inlet

### Other Symbols

Symbols used on maps which do not fall under other general categories

	Public/Private Pumping Station
	Change of characteristic indicator (C.O.C.I.)
	Invert Level
	Summit

### Areas

Lines denoting areas of underground surveys, etc.

	Agreement
	Operational Site
	Chamber
	Tunnel
	Conduit Bridge

### Other Sewer Types (Not Operated or Maintained by Thames Water)

	Foul Sewer		Surface Water Sewer
	Combined Sewer		Gulley
	Culverted Watercourse		Proposed
			Abandoned Sewer

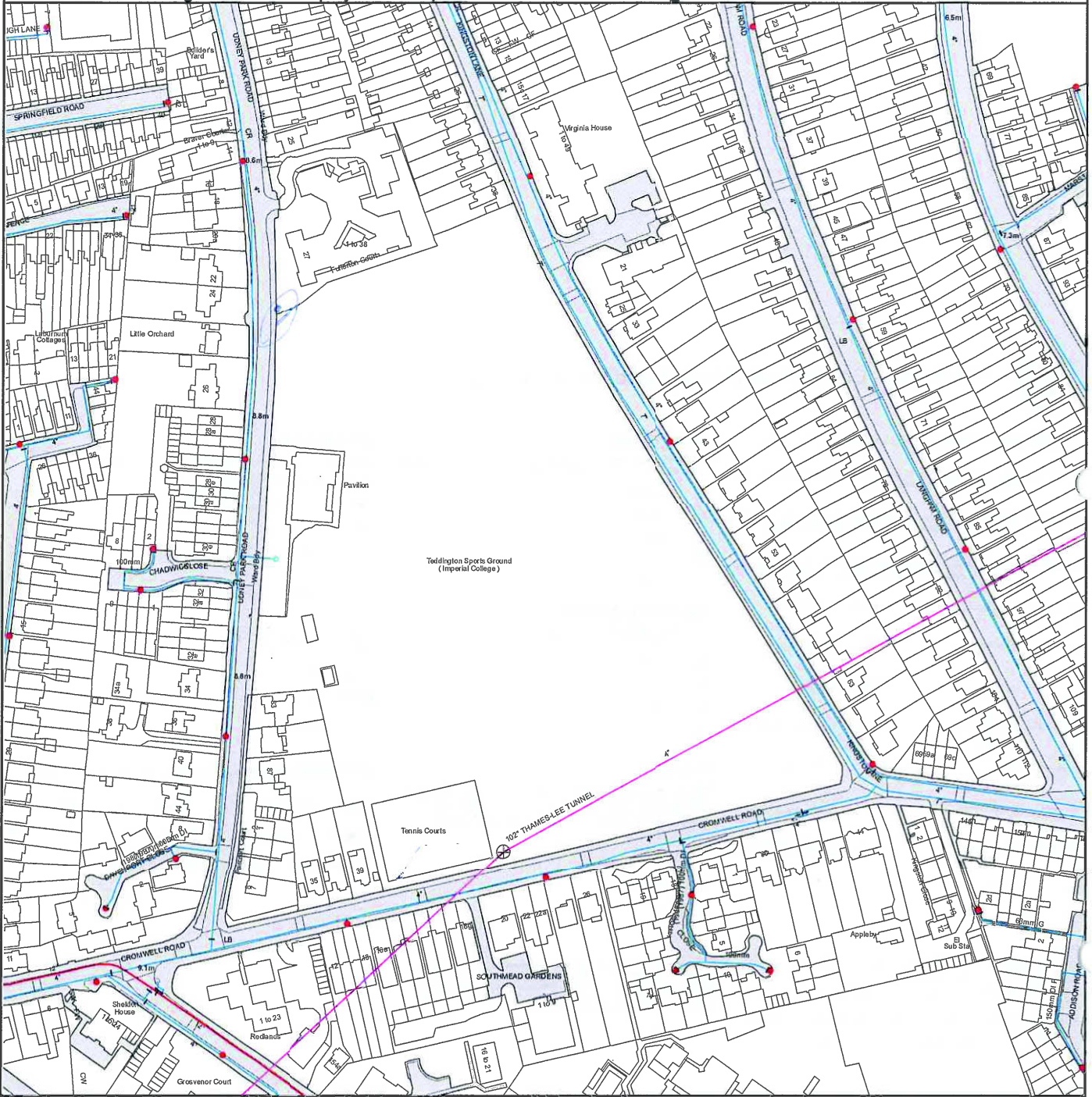
### Notes:

- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
- 2) All measurements on the plans are metric.
- 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow.
- 4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
- 5) 'na' or '0' on a manhole level indicates that data is unavailable.

- 6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimetres. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology present on the plan, please contact a member of Property Searches on 0118 925 1604.



CommercialDW Drainage and Water Enquiry Water Map-CDWS/CDWS Standard/2015 3056174



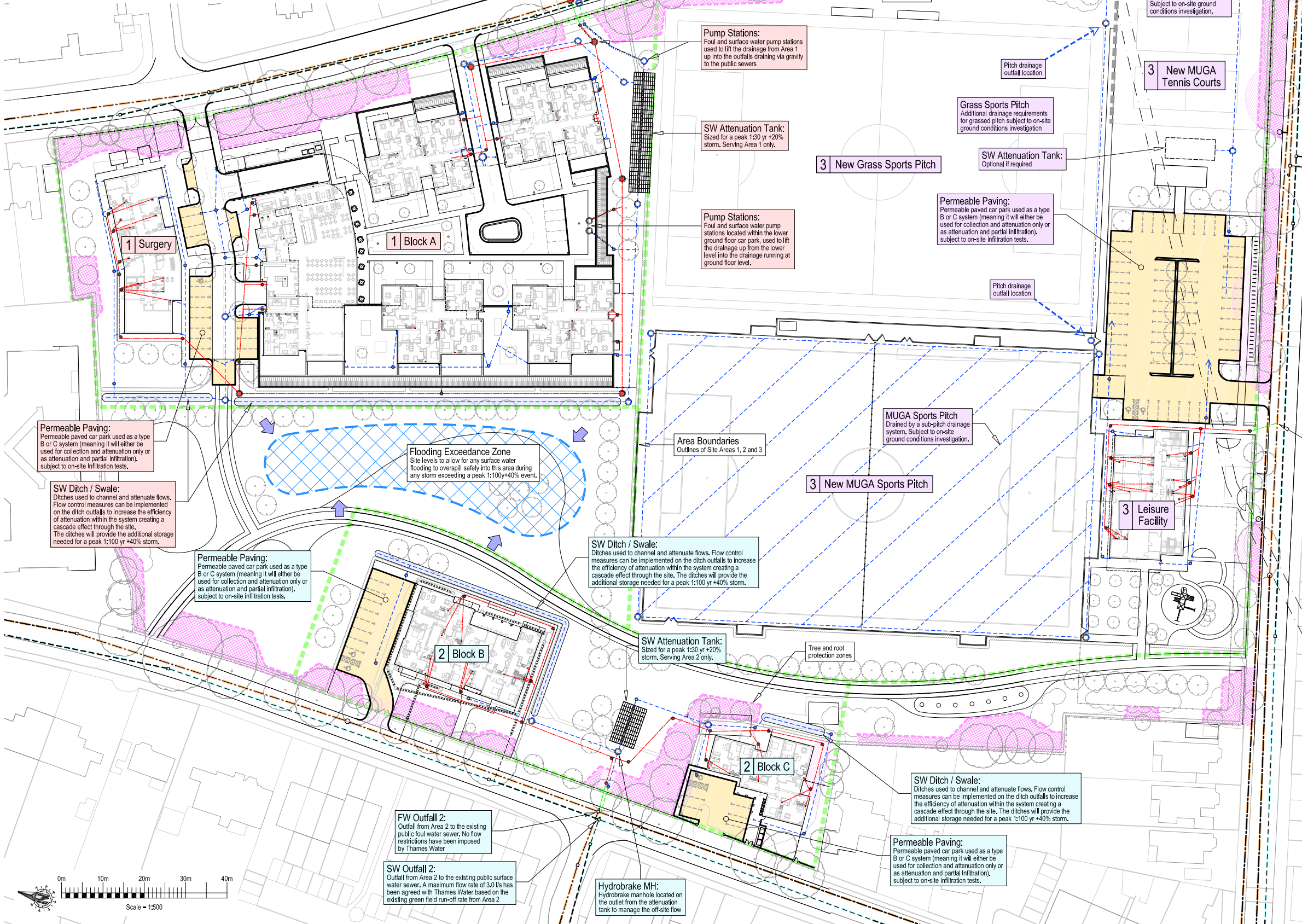
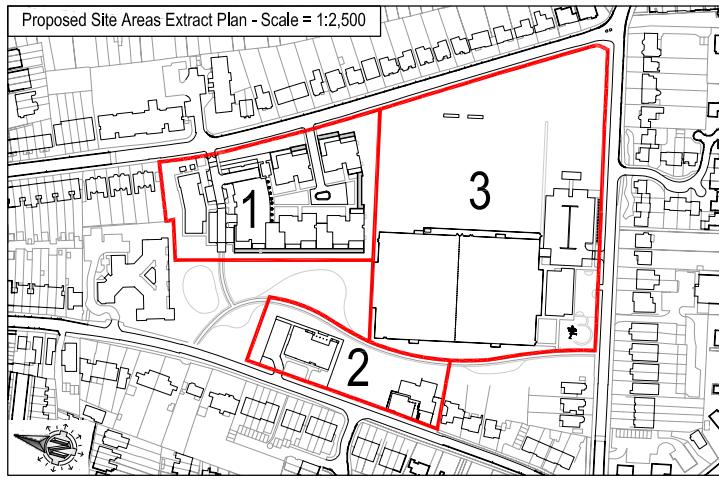
The width of the displayed area is 500m

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.

**Appendix E**  
Drainage Strategy Drawings





**SW Outfall 3:**  
Outfall from Area 3 to the existing public surface water sewer. A maximum flow rate of 12.9 l/s has been agreed with Thames Water based on the existing green field run-off rate from Area 3

**FW Outfall 1:**  
Outfall from Area 1 to the existing public foul water sewer. No flow restrictions have been imposed by Thames Water

**SW Outfall 1:**  
Outfall from Area 1 to the existing public surface water sewer. A maximum flow rate of 4.5 l/s has been agreed with Thames Water based on the existing green field run-off rate from Area 1

**Detention Basin:**  
Used to attenuate and infiltrate the flows generated by Area 3 before overflowing to the public surface water sewer. Sized for a peak 1:100 yr +40% storm.

**Pump Stations:**  
Foul and surface water pump stations used to lift the drainage from Area 1 up into the outfalls draining via gravity to the public sewers

**SW Attenuation Tank:**  
Sized for a peak 1:30 yr +20% storm. Serving Area 1 only.

**Pump Stations:**  
Foul and surface water pump stations located within the lower ground floor car park, used to lift the drainage up from the lower level into the drainage running at ground floor level.

**Grass Sports Pitch**  
Additional drainage requirements for grassed pitch subject to on-site ground conditions investigation

**SW Attenuation Tank:**  
Optional if required

**Permeable Paving:**  
Permeable paved car park used as a type B or C system (meaning it will either be used for collection and attenuation only or as attenuation and partial infiltration), subject to on-site infiltration tests.

**Permeable Paving:**  
Permeable paved car park used as a type B or C system (meaning it will either be used for collection and attenuation only or as attenuation and partial infiltration), subject to on-site infiltration tests.

**SW Ditch / Swale:**  
Ditches used to channel and attenuate flows. Flow control measures can be implemented on the ditch outfalls to increase the efficiency of attenuation within the system creating a cascade effect through the site. The ditches will provide the additional storage needed for a peak 1:100 yr +40% storm.

**Permeable Paving:**  
Permeable paved car park used as a type B or C system (meaning it will either be used for collection and attenuation only or as attenuation and partial infiltration), subject to on-site infiltration tests.

**SW Ditch / Swale:**  
Ditches used to channel and attenuate flows. Flow control measures can be implemented on the ditch outfalls to increase the efficiency of attenuation within the system creating a cascade effect through the site. The ditches will provide the additional storage needed for a peak 1:100 yr +40% storm.

**SW Attenuation Tank:**  
Sized for a peak 1:30 yr +20% storm. Serving Area 2 only.

**SW Ditch / Swale:**  
Ditches used to channel and attenuate flows. Flow control measures can be implemented on the ditch outfalls to increase the efficiency of attenuation within the system creating a cascade effect through the site. The ditches will provide the additional storage needed for a peak 1:100 yr +40% storm.

**Permeable Paving:**  
Permeable paved car park used as a type B or C system (meaning it will either be used for collection and attenuation only or as attenuation and partial infiltration), subject to on-site infiltration tests.

**FW Outfall 2:**  
Outfall from Area 2 to the existing public foul water sewer. No flow restrictions have been imposed by Thames Water

**SW Outfall 2:**  
Outfall from Area 2 to the existing public surface water sewer. A maximum flow rate of 3.0 l/s has been agreed with Thames Water based on the existing green field run-off rate from Area 2

**Hydrobrake MH:**  
Hydrobrake manhole located on the outlet from the attenuation tank to manage the off-site flow

**Notes:**

- This drawing is to be read in conjunction with all relevant architects, engineers and specialist sub-contractors drawings and the specification.
- All setting out to be in accordance with the schedules, any discrepancies between the engineers and the architects drawings to be referred to the architect before proceeding. Dimensions must not be scaled.
- All private drainage is to be in accordance with BS EN 752-1-2-3-4, BS EN 1295-1, BS EN 1610 and all relevant sections of approved document H of the building regulations (2002 Edition).
- All adoptable drainage is to be in accordance with 'Sewers for Adoption 7th Edition' - a design and construction guide for developers and the local highway authority requirements where appropriate.
- Where drainage pipework is to be flexibly jointed extra strength vitrified clay it should be to BS EN 295-1, Hepworth 'Superslevel' or equivalent.
- Where drainage pipework is plastic i.e. PVC-U it shall be to BS EN 1401-1 Osma or equivalent. Private pipework to be type SN4 and all adoptable pipework to be type SN8.
- All concrete pipework shall be to BS EN 1916 and BS 5911-1. Manholes and fittings shall be to BS 5911 parts 3 and 4 and BS EN 1917.
- All materials for adoptable drainage are to be Kitemarked as appropriate.
- All adoptable manhole covers are to be badged as appropriate i.e. FW or SW.
- Rising main trench to have warning tape fitted. Allow for 1.0m of tape coiled inside the pump chamber at the upstream end of the rising main.
- Where drains pass through foundations or connect to manholes, flexible pipe joints are to be provided within 150mm of the face of the structure and within a further 600mm to form a rocker pipe.
- Where pipes pass through screen walls, footings or retaining walls, lintels are to be provided.
- Where pipelines pass within 1.0m of buildings or walls the foundations are to be taken down below the bottom of the trench. Where pipelines are more than 1.0m away from foundations the trench shall be backfilled with concrete up to a point that meets a 45° angle line taken from the bottom corner of the nearest foundation.
- Where depth to invert does not exceed 600mm and the pipe size does not exceed 100mm diameter, 300mm dia. polypropylene access chambers may be used. Elsewhere, proprietary polypropylene or precast concrete manholes are to be used.
- Where connections are to be made to existing manholes / sewers, invert levels, pipe sizes and orientation should be checked prior to the commencement of the works and any variance reported to the engineer immediately. Where connections are to be made on or off site the contractor is to check the line and level of any services / mains, to ensure that no clashes exist prior to works commencing.
- Where pipelines cross, each is to be surrounded with grade ST4 mass concrete for a distance not less than 1.0m centred on the crossing point. Length of surround to be extended as necessary to within 150mm of the next nearest flexible joints.
- For adoptable drainage, a reinforced concrete cover slab is to be provided where the effective cover to the crown of the adopted pipe(s) is less than 0.9m in verges or 1.2m in carriageways and / or footpaths. Where effective cover is 1.0m or less in carriageways and / or footpaths, pipework will need to be ductile iron (ie. Stanton Pam St. Gobain type 'Integral').
- For private drainage, concrete protection is to be provided where the effective cover to the crown of the pipe(s) is less than 1.2m in trafficked areas and 0.6m in soft landscaped or pedestrianised areas.
- Effective cover is the minimum depth of cover over the pipe crown at any time during the construction process.
- All adopted foul drainage to be located a minimum of 1.2m finished depth to soffit. Unless specifically identified as otherwise with relevant protective measures.
- The contractor is to ensure that protective measures are taken to ensure that drainage pipework and fittings are not damaged by site traffic prior to oversite filling operations being completed around buildings.
- Chamber annotation references are as follows:  
AC - Denotes a polypropylene or vitrified clay access chamber, depth not exceeding 600mm, diameter not exceeding 300mm.  
IC - Denotes a polypropylene inspection chamber, depth not exceeding 3.0m, diameter not exceeding 600mm. Standard diameter 450mm unless specified otherwise.  
MH - Denotes a manholes constructed from either brick, polypropylene or P.C.C. sections. Chamber depth to be in excess of 1.2m.  
CP - Denotes a catchlight chamber.  
Annotations are indicative only and final depths are to be checked on site prior to installation.
- The top run of each private foul drainage network is to be laid to falls no steeper than 1:40, the head of each run is to be vented to atmosphere in accordance with approved document H.
- All surface water drainage to be min 100mm dia. laid at a gradient no steeper than 1/80. And all foul water drainage to be min 100mm dia. unless stated otherwise.
- The contractor is to ensure that all pipework connections are arranged to direct flows down or into the main channel in the direction of the main flow. Where necessary 3/4 bends are to be used on oblique connections inside the chamber where sufficient room exists or the pipelines on oblique connections are arranged outside the chamber to be able to divert flows down the main channel. Connections brought in perpendicular to the main channel are not acceptable. Where possible the main channel flow shall be from any connections with WCs to ensure a flush through the main channel is achieved.
- The contractor is to ensure that when preformed polypropylene manhole bases are used that they are orientated such that the main flow is through the main channel of the base. This should be achieved by incorporating long radius bends outside of the manhole.
- Any connection into a public sewer is to be inspected by the local water authority and carried out fully in accordance with their requirements. The contractor is to allow for obtaining the appropriate connection to a public sewer forms and paying all necessary fees.
- The contractor is to allow for obtaining the appropriate road opening licences from the local highway authority and paying all necessary fees for any works associated with off-site sewer connections. All reinstatement works within the public highway are to be carried out in accordance with the requirements of the local highway authority.
- Package pumping station(s) to be 'a specialist design element' or equivalent. For installation guidance refer to manufacturer's specification. Any vent pipe to be taken to a position agreed with the architect. A three phase electricity supply is required to provide power to the control panel of the pumping station. The control panel, if external, is to be located inside a kiosk within close proximity of the pumping station. If internally located within a building, the control panel may be positioned on a wall. Localised re-grading of the ground around the pumping station may be required to accommodate new levels. An informative notice plaque should be located on or near the control panel stating 'In the event of the alarm sounding or warning light flashing please contact the number below insert contact telephone number'.
- Drainage channel(s) to be 'Acu' or equivalent. For installation guidance refer to the manufacturer's specification. Refer to landscape architects details for surfacing treatments around units where applicable. All drainage channels are to be constructed with in-built falls where possible. Relevant units are to be incorporated to provide the necessary length of channel gradient from the head of the run to the sump unit.
- Modular crate attenuation tank system(s) to be 'Wavin Aquacel'. Size, unit types and arrangement to be confirmed.
- Permeable paving to be to 'The architects specification'. It is intended to use the permeable paved parking areas as either a Type B or a Type C system. A Type B system provide collection, attenuation and partial infiltration while a Type C system will provide collection and attenuation only. This will be subject to detailed design and on-site infiltration testing.

P2	14.07.17	Issued for Planning Approval	GEB
P1	19.06.17	Drawn	GEB
Rev.	Date	Description	Issued By

**Planning**



CONSULTING STRUCTURAL CIVIL AND ENVIRONMENTAL ENGINEERS  
ADDRESS: 2nd Floor, Janssen House, 43 Commercial Road, Poole, Dorset BH14 0HU  
T: 0044 1202 237237 W: www.calcinotto.co.uk E: admin@calcinotto.co.uk

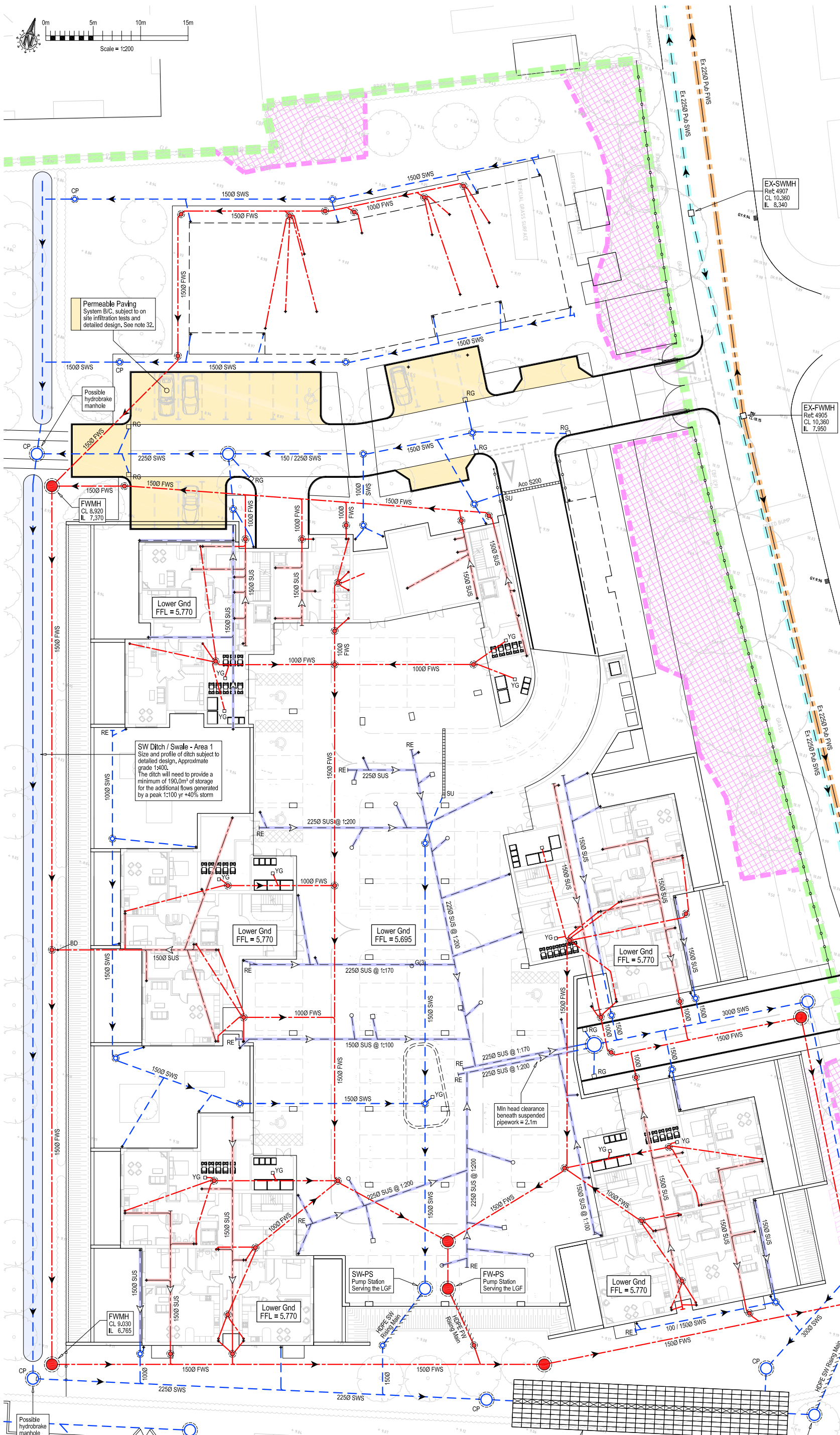
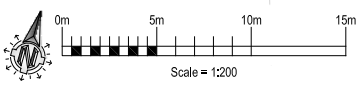
Client: **Quantum Land and Property Limited**

Project Title: **Former ICL Private Ground**

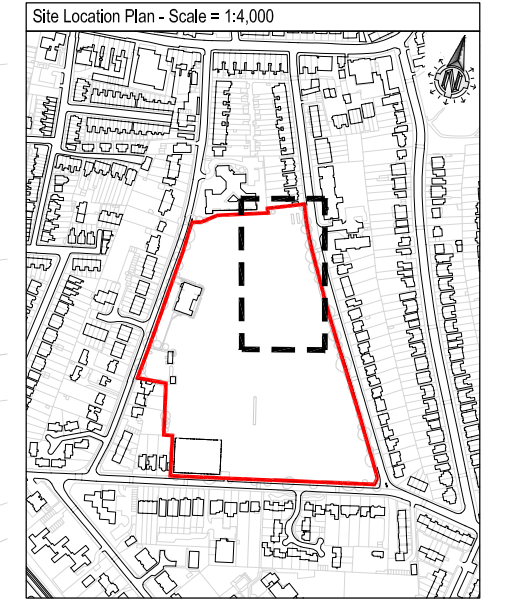
**Proposed Drainage Strategy Plan**

Drawn by	GEB	Project No.	3336	Drawn No. (Rev)	003 P2
Scale	1:500	Date	Jul '17		





- Notes:**
- This drawing is to be read in conjunction with all relevant architects, engineers and specialist sub-contractors drawings and the specification.
  - All setting out to be in accordance with the schedules, any discrepancies between the engineers and the architects drawings to be referred to the architect before proceeding. Dimensions must not be scaled.
  - Refer to drawing JB-3336-007 or 008 for the full list of drainage notes.



- Drainage Legend**
- Existing Private Surface Water Sewer (& Manhole)
  - Existing Private Foul Water Sewer (& Manhole)
  - Existing Public Surface Water Sewer (& Manhole)
  - Existing Public Foul Water Sewer (& Manhole)
  - Existing Public Combined Sewer (& Manhole)
  - Proposed Surface Water Sewer (& Manhole)
  - Proposed Foul Water Sewer (& Manhole)
  - Proposed Adoptable FW Demarcation Chamber
  - Proposed Adoptable SW Demarcation Chamber
  - Proposed Adoptable Foul Water Lateral
  - Proposed Adoptable Surface Water Lateral
  - Proposed Suspended Surface Water Drain
  - RE --- Proposed Suspended SW Rodding Eye
  - RWP --- Rainwater Collection Pipe at High Level
  - Proposed Suspended Foul Water Drain
  - RE --- Proposed Suspended FW Rodding Eye
  - SVP --- Soil & Vent Pipe at High Level
  - RG --- 4500 P.C.C. Road Gully
  - YG --- Square Trapped V.C. Yard Gully w/ Shallow Bucket
  - G(1,2,3) --- Gully / Outlet Serving the Podium Slab
  - RE --- Rodding Eye (Refer to plan for invert level)
  - RWP --- Rainwater Collection Pipe
  - SU --- Drainage Channel (with Sump Unit)
  - SVP --- Soil & Vent Pipe
  - SS --- Stub Stack
  - Rising Main - Surface Water
  - Rising Main - Foul Water
  - Pipeline with Concrete Surround
  - XXXXXX --- Pipeline to be Removed / Abandoned
- Any outlets marked with an (A) reference required rodding access.  
Refer to architects / M&E drawings for exact positions of internal connections and RWPS.

- Note:**
- This is an initial drainage scheme only and is subject to detailed design and development.
  - All foul and surface water outlets positions have been assumed.
  - The proposed drainage and infiltration measures have been sized for a peak 1:100 yr (+40% for climate change) storm event.

P2	14.07.17	Issued for Planning Approval	GEB
P1	12.06.17	Drawn	GEB
Rev.	Date	Description	Issued By

**Planning**

**calcinotto**

CONSULTING STRUCTURAL CIVIL AND ENVIRONMENTAL ENGINEERS  
 ADDRESS: 2nd Floor, Jonsen House, 43 Commercial Road, Poole, Dorset BH14 0HU  
 T: 0044 1202 237237 W: www.calcinotto.co.uk E: admin@calcinotto.co.uk

Client: **Quantum Land and Property Limited**

Project Title: **Former ICL Private Ground**

Drawing Title: **Proposed Drainage Plan Area 1 - Plot A and GP Surgery Sheet 1 of 3 - Lower Ground Floor**

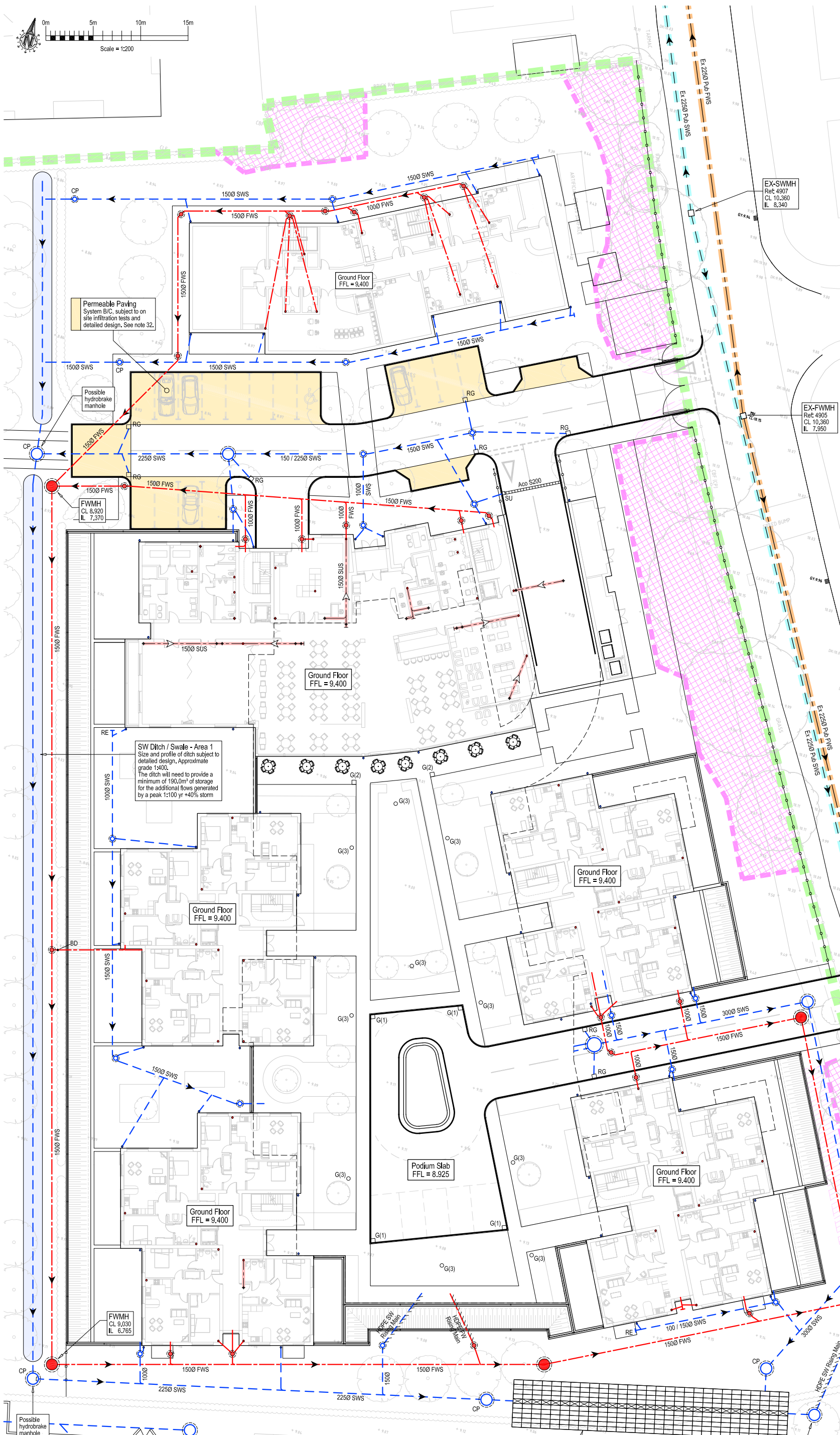
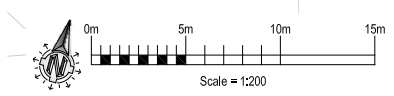
Drawn by	GEB	Project No.	3336	Drwg No. [Rev]	005 P2
Scale	1:200				
Date	Jun' 17				



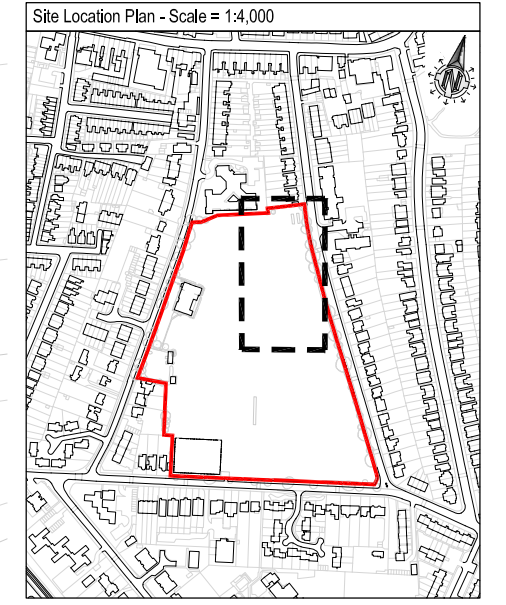
**Attention Tank 1**  
 Tank Size = 28.0 x 5.0 x 2.0m deep  
 Unit Size = 1.0 x 0.5 x 0.4m deep  
 Unit Types = Wavin Aquacell 'Eco, Prime and Plus'  
 CL 9.050  
 Top of tank = 8.800  
 IL 6.800 ±  
 Sized for a peak 1:30 year (+20%) Storm

**SW-PS**  
 Pump Station Chamber Size: TBC  
 Model: TBC  
 Max Flow: 4.5 l/s  
 CL 9.030  
 IL 6.550 ±





- Notes:**
- This drawing is to be read in conjunction with all relevant architects, engineers and specialist sub-contractors drawings and the specification.
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  - Refer to drawing JB-3336-007 or 008 for the full list of drainage notes.



**Drainage Legend**

- Existing Private Surface Water Sewer (& Manhole)
- Existing Private Foul Water Sewer (& Manhole)
- Existing Public Surface Water Sewer (& Manhole)
- Existing Public Foul Water Sewer (& Manhole)
- Existing Public Combined Sewer (& Manhole)
- Proposed Surface Water Sewer (& Manhole)
- Proposed Foul Water Sewer (& Manhole)
- Proposed Adoptable FW Demarcation Chamber
- Proposed Adoptable SW Demarcation Chamber
- Proposed Adoptable Foul Water Lateral
- Proposed Adoptable Surface Water Lateral
- Proposed Suspended Surface Water Drain
- RE --- Proposed Suspended SW Rodding Eye
- RWP --- Rainwater Collection Pipe at High Level
- Proposed Suspended Foul Water Drain
- RE --- Proposed Suspended FW Rodding Eye
- SVP --- Soil & Vent Pipe at High Level
- RG --- 4500 P.C.C. Road Gully
- YG --- Square Trapped V.C. Yard Gully w/ Shallow Bucket
- G(1,2,3) --- Gully / Outlet Serving the Podium Slab
- RE --- Rodding Eye (Refer to plan for invert level)
- RWP --- Rainwater Collection Pipe
- SU --- Drainage Channel (with Sump Unit)
- SVP --- Soil & Vent Pipe
- SS --- Stub Stack
- Rising Main - Surface Water
- Rising Main - Foul Water
- Pipeline with Concrete Surround
- XXXXXX --- Pipeline to be Removed / Abandoned

Any outlets marked with an (A) reference required rodding access.  
Refer to architects / M&E drawings for exact positions of internal connections and RWPS.

**Note:**

- This is an initial drainage scheme only and is subject to detailed design and development.
- All foul and surface water outlets positions have been assumed.
- The proposed drainage and infiltration measures have been sized for a peak 1:100 yr (+40% for climate change) storm event.

P2	14.07.17	Issued for Planning Approval	GEB
P1	12.06.17	Drawn	GEB
Rev.	Date	Description	Issued By

**Planning**

**calcinotto**  
CONSULTING STRUCTURAL CIVIL AND ENVIRONMENTAL ENGINEERS  
ADDRESS: 2nd Floor, Jonsen House, 43 Commercial Road, Poole, Dorset BH14 0HU  
T: 0044 1202 237237 W: www.calcinotto.co.uk E: admin@calcinotto.co.uk

Client: **Quantum Land and Property Limited**  
Project Title: **Former ICL Private Ground**

Drawing Title: **Proposed Drainage Plan Area 1 - Plot A and GP Surgery Sheet 2 of 3 - Ground Floor**

Drawn by	GEB	Project No.	3336	Drwg No. (Rev)	006 P2
Scale	1:200				
Date	Jun 17				



**Attention Tank 1**  
Tank Size = 28.0 x 5.0 x 2.0m deep  
Unit Size = 1.0 x 0.5 x 0.4m deep  
Unit Types = Wavin Aquacec® Eco, Prime and Plus  
CL 9,050  
Top of tank = 8,600  
IL 6,800  
Sized for a peak 1:30 year (+20%) Storm

**SW-PS Pump Station**  
Chamber Size: TBC  
Model: TBC  
Max Flow: 4.5 l/s  
CL 9,000  
IL 6,550