

## 1.0 Executive Summary

St Anne's is the construction of a new residential building at the corner of Laxton Place and Longford Street in the London Borough of Camden. St Anne's comprises of a part nine storey, part six storey building providing 22 units of affordable housing on the site of the now-demolished St Anne's Church. The construction works involve installing new Continuous Flight Auger (CFA) piles and new pile caps. The planning permission for the development has been sought under **2016/6069/P 1 Triton Square & St Anne's Church, Laxton Place, London, NW1 3DX**. Condition 4 of the extant planning permission states:

*"No impact piling within:*

- A) the commercial element; or*
- B) the residential element of the development*

*Shall commence until:*

*A piling method statement, prepared in consultation with Thames Water or the relevant statutory undertaker, detailing the depth and type of piling to be undertaken within that element and the methodology by which such piling will be carried out including measures to prevent and minimise the potential for damage to subsurface water infrastructure, and the programme of works for the relevant element, has been submitted to and approved in writing by the local planning authority.*

*Any piling within the relevant element must be undertaken in accordance with the terms of the approved piling method statement for that element.*

*Reason: To safeguard existing below ground public utility infrastructure and controlled waters in accordance with the requirements of policy CC3 of the London Borough of Camden Local Plan 2017."*

This note provides a Piling Strategy Statement for the Residential Element (Part B) and describes the proposed foundation works and Thames Water (TW) assets present at and near the site.

The previous building to occupy the site, St Anne's Church, was demolished during the period September 2018 to December 2018. The demolition works involved the demolition of the structure, ground floor slab and removal of foundations to a depth of 2 metres below ground level. The site was then backfilled to a depth of 1 metre below ground level with type 6F2 crushed hardcore.

The structural load of the new development will be supported by 64 no. CFA piles and a suspended ground level slab. The ground floor slab will be integrated with the internal pile caps so the top level of both will be the same top of concrete level. The external caps will be lowered to allow pavement build-ups and external cladding to pass over the top of the foundation. The piles will be installed using a track mounted CFA piling rig. The minimum distance from the new piles to TW assets is greater than 3m.

CFA piling is a low vibration piling technique and as such, vibrations at TW assets will not be significant. The results from the ground investigations indicate that ground movements outside the site will also be negligible.

This note concludes that no impact piling is planned during the development permanent works and that the CFA piling proposed is not anticipated to impact on Thames Water Assets nearby. It is provided to Thames Water to support the assumption that no further surveys or submissions are required under Part B of Planning Condition 4, prior to the commencement of contract piling within the Residential Element of the Development.

Supporting information and drawings are provided as enclosed.

## 2.0 Proposed Substructure Works

The St Anne's development has no basement and the suspended ground floor slab will step in three areas to accommodate the fall in footpath level around the perimeter of the site (SSL of +27.985m, SSL of +28.120m, SSL of +28.290m).

The 64 no. CFA piles will be of 600mm diameter and 10-25m in length. See Figure 1 for pile layout. Pile caps will be of 1870mm to 1000mm in depth and will integrate into the suspended ground floor slab where possible. See Figure 2 for pile cap layout.

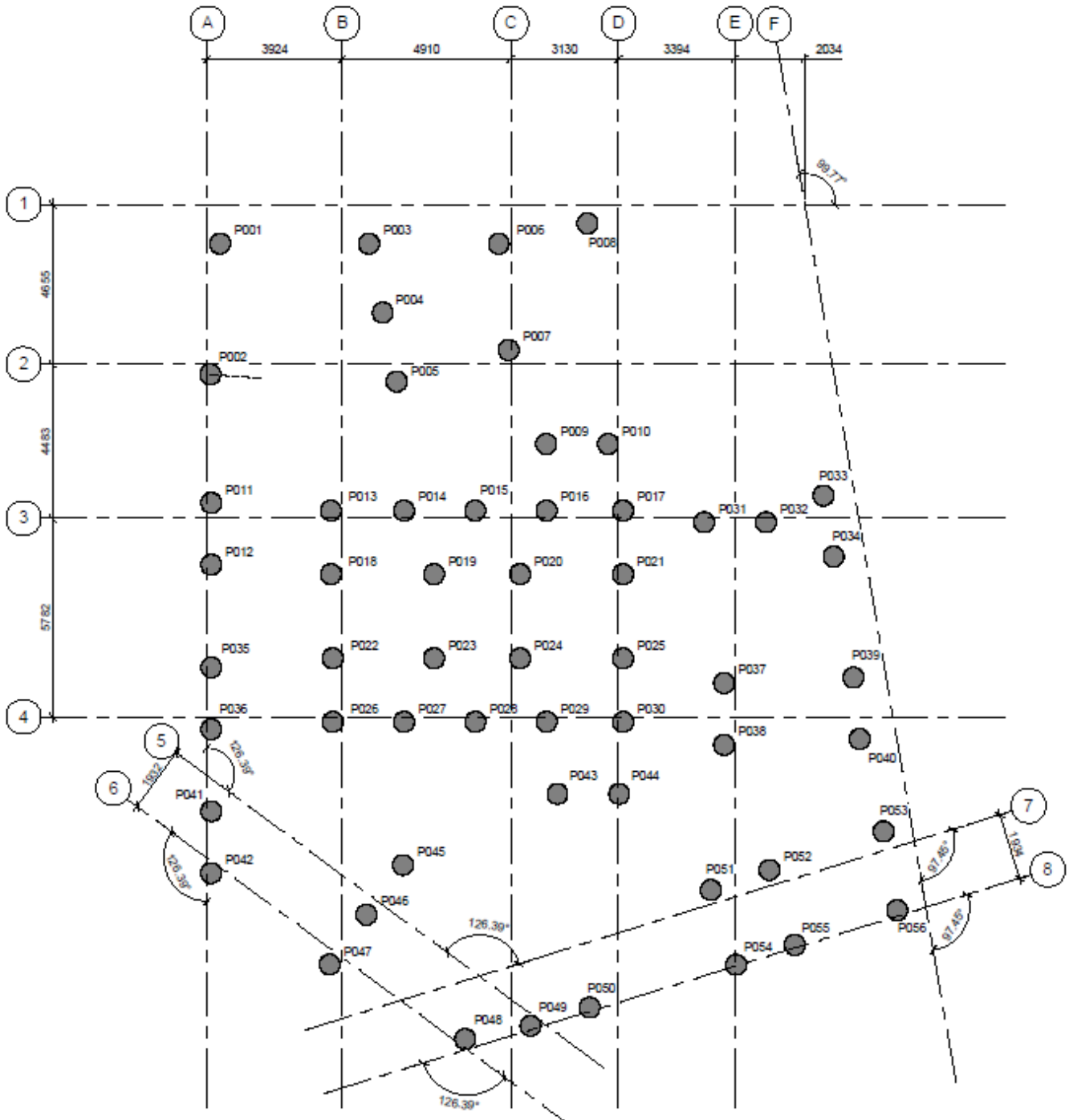


Figure 1 - Pile Layout

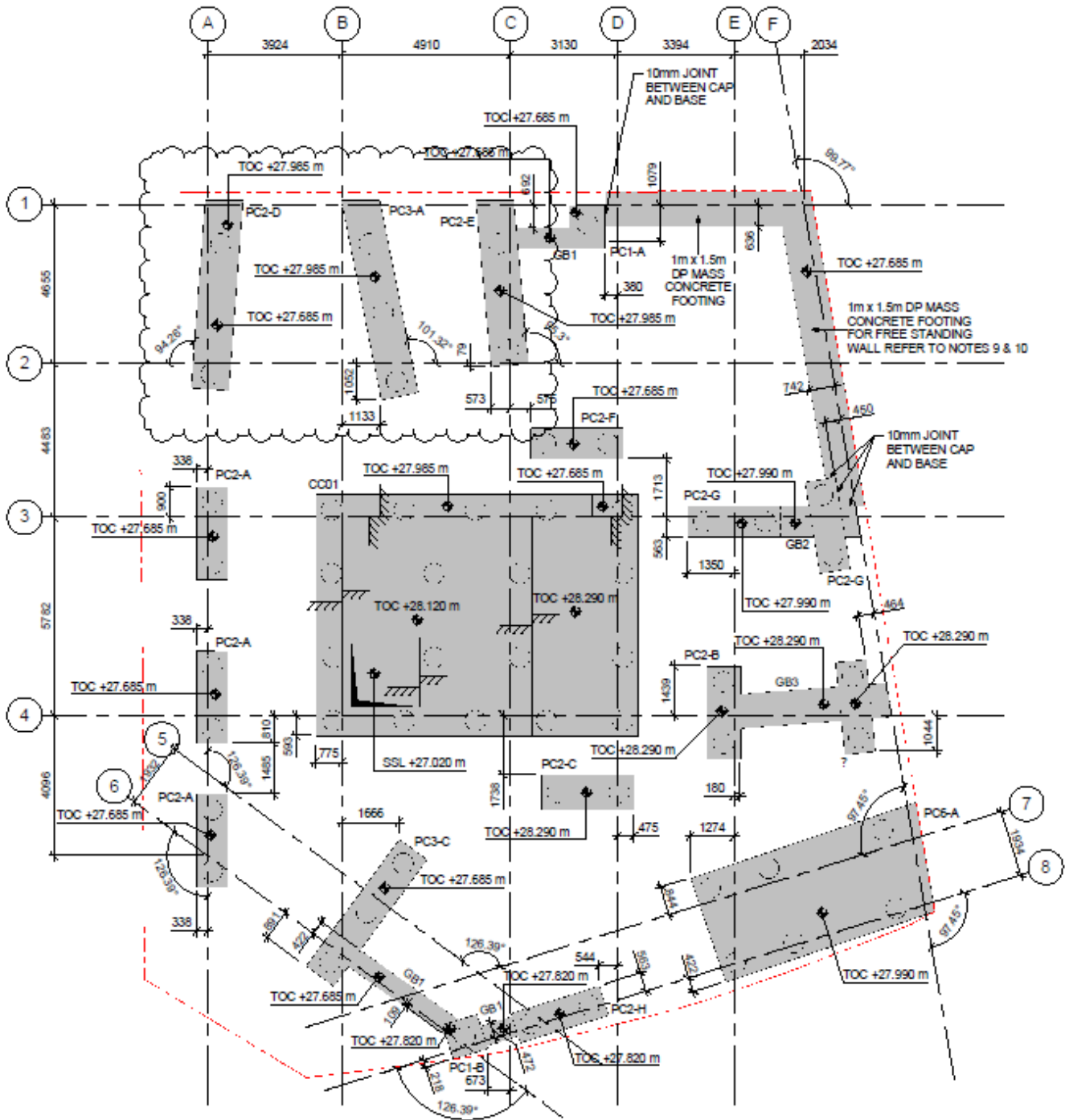


Figure 2 - Pile Cap Layout

### 3.0 Thames Water Asset Records

Records of existing Thames Water assets have been obtained via a statutory search in July 2016. The following sections review the asset records in relation to the proposed Mains Cold Water Service and Sewer connections.

### 3.1 Proposed Mains Cold Water Service Connection

The new incoming Mains Cold Water Service (MCWS) will connect to the existing TW 4" Distribution Main to the West of the St Anne's development in Laxton Place. See Figure 3 for location of TW Distribution Main, taken from the Thames Water Asset Location Search.

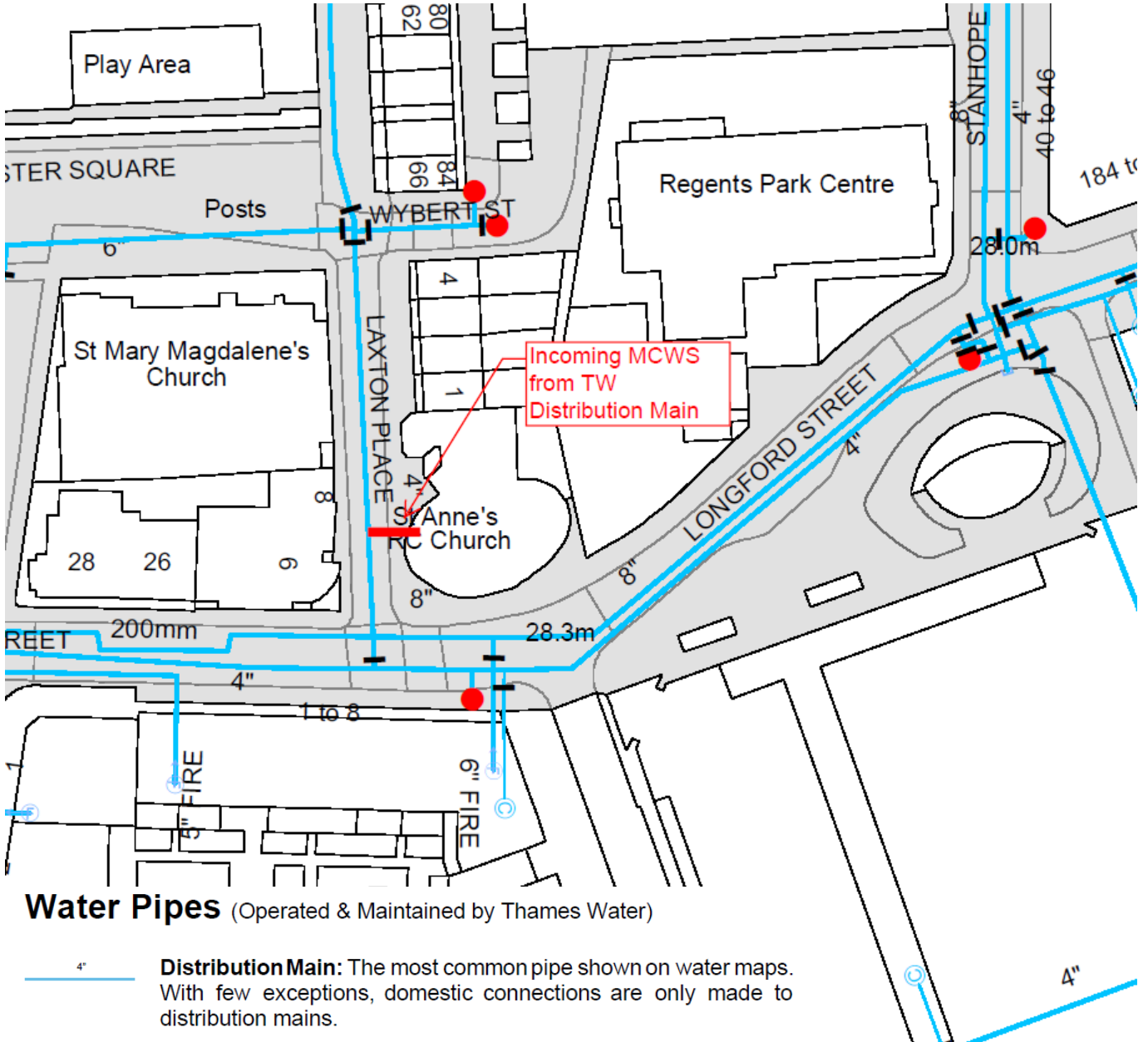
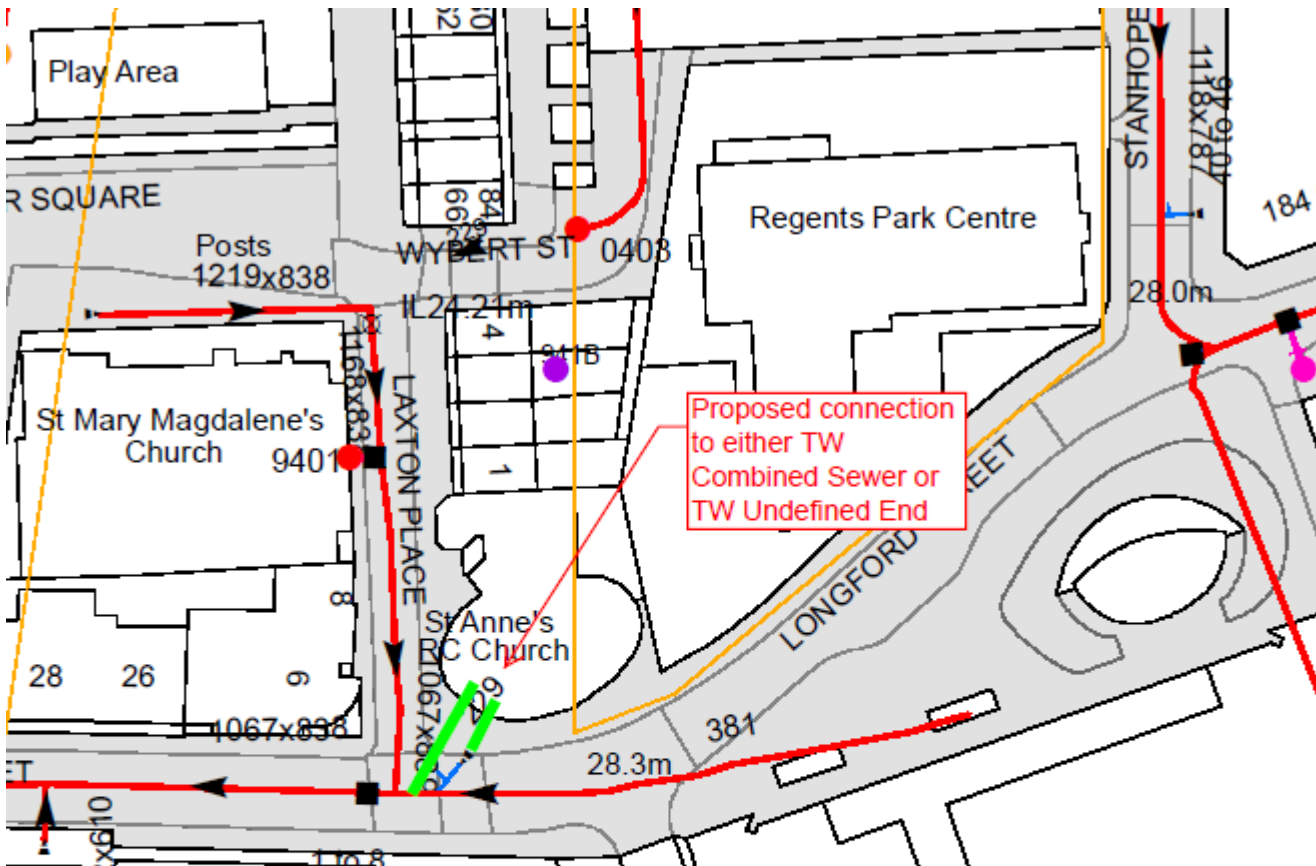


Figure 3 - Location of incoming MCWS connection to existing TW 4" Distribution Main, taken from the Thames Water Asset Location Search

### 3.2 Proposed Sewer Connection

The Thames Water Asset Location Plan shows a Combined Sewer to the West of the St Anne's development in Laxton Place and an Undefined End at the start of a sewer on the South West corner of the development, at the corner of Laxton Place and Longford Street. The construction works for the St Anne's development will seek to establish the location of the Undefined End of the sewer, and if suitable, make the new sewer connection there. If the Undefined End cannot be located, a new sewer connection will be made to the Combined Sewer. See Figure 4 for location of TW Combined Sewer, Undefined End and proposed sewer connection for the St Anne's development.



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

**Combined:** A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.

## 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.

Undefined End

Figure 4 - Location of TW Combined Sewer, Undefined End and proposed new sewer connection, taken from the Thames Water Asset Location Search

## 4.0 Conclusions

The Thames Water Asset Location Search was used to identify the Thames Water assets present at and near the site. It was concluded that no Thames Water assets underlie the building footprint.

No impact piling is proposed in relation to the development. No bored piling is proposed within 3m of existing Thames Water assets, and no adverse impact by ground movement is expected. It is therefore anticipated that no further surveys or submissions are required under Part B of Planning Condition 4, prior to the commencement of contract piling within the Residential Element of the Development.

## 5.0 Enclosures

1. Thames Water Asset Location Search ALS/ALS Standard/2016\_3363613. Search date 1<sup>st</sup> July 2016.
2. CRE8 Structures LLP drawings showing proposed piling and substructure works:
  - a. 2016007-S19801 Rev T4 Piling Layout
  - b. 2016007-S19901 Rev T3 Foundation Plan
3. Thornton Reynolds drawings showing proposed MCWS and Sewer connection works:
  - a. TR-SAC-P199 Rev T3 Below Ground Drainage Layout
  - b. TR-SAC-P300 Rev T3 Domestic Water Services Ground Floor Layout

# Asset Location Search



Thornton Reynolds  
81 Southwark Street  
LONDON  
SE1 0HX

**Search address supplied**      1  
Laxton Place  
London  
NW1 3PT

**Your reference**                      St Anne's Residential

**Our reference**                        ALS/ALS Standard/2016\_3363613

**Search date**                            1 July 2016

You are now able to order your Asset Location Search requests online by visiting  
[www.thameswater-propertysearches.co.uk](http://www.thameswater-propertysearches.co.uk)



# Asset Location Search



**Search address supplied:** 1, Laxton Place, London, NW1 3PT

Dear Sir / Madam

**An Asset Location Search is recommended when undertaking a site development.** It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This search provides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

## Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0845 070 9148, or use the address below:

Thames Water Utilities Ltd  
Property Searches  
PO Box 3189  
Slough  
SL1 4WW

Email: [searches@thameswater.co.uk](mailto:searches@thameswater.co.uk)

Web: [www.thameswater-propertysearches.co.uk](http://www.thameswater-propertysearches.co.uk)



# Asset Location Search



## Waste Water Services

**Please provide a copy extract from the public sewer map.**

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

## Clean Water Services

**Please provide a copy extract from the public water main map.**

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies.

For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0800 316 9800. The Customer Centre can also arrange for a full flow and

# Asset Location Search



pressure test to be carried out for a fee.

For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

## **Payment for this Search**

A charge will be added to your suppliers account.

# Asset Location Search



## Further contacts:

### Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, budget estimates, diversions, building over issues or any other questions regarding operational issues please direct them to our service desk. Which can be contacted by writing to:

Developer Services (Waste Water)  
Thames Water  
Clearwater Court  
Vastern Road  
Reading  
RG1 8DB

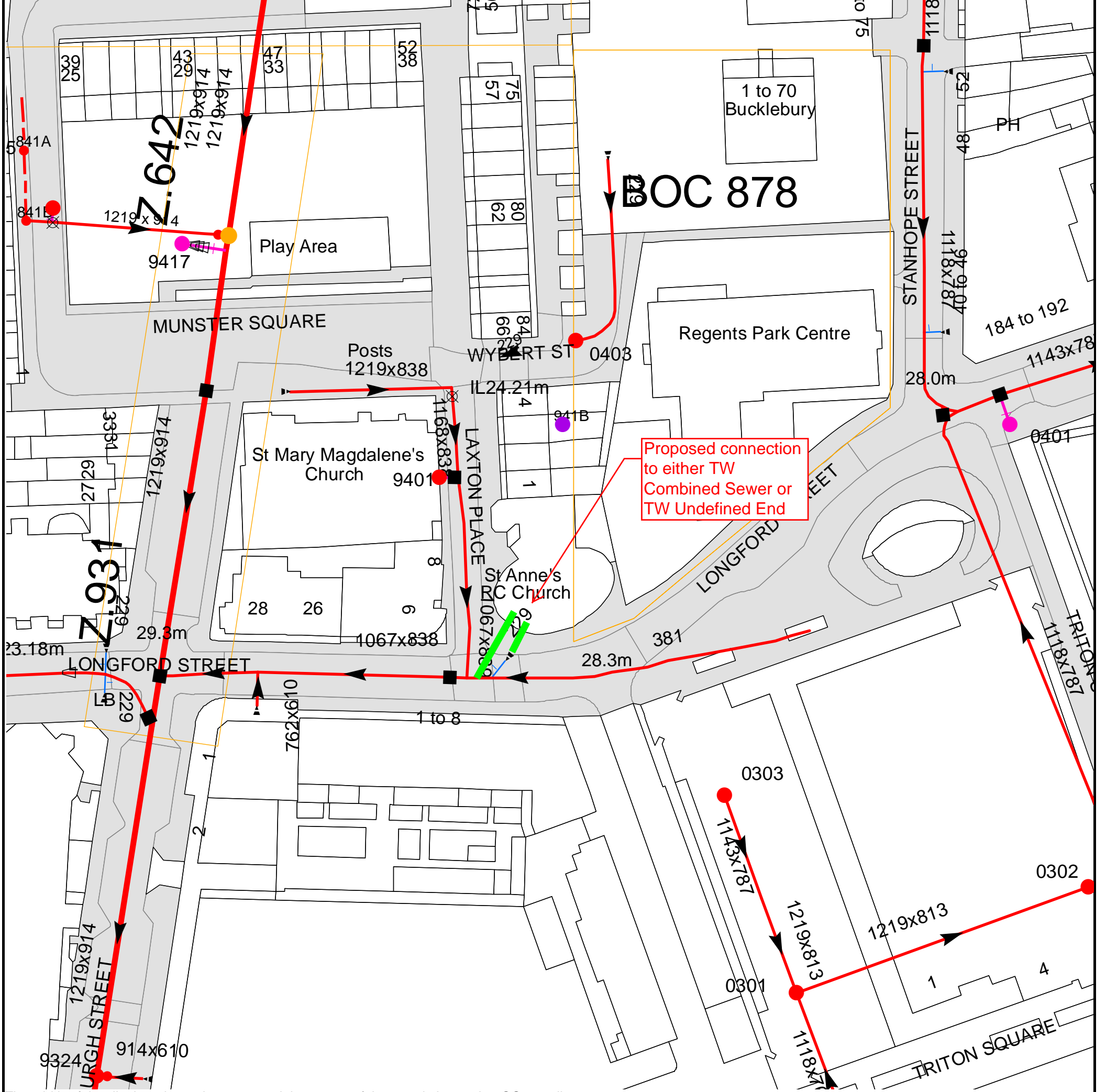
Tel: 0845 850 2777  
Email: [developer.services@thameswater.co.uk](mailto:developer.services@thameswater.co.uk)

### Clean Water queries

Should you require any advice concerning clean water operational issues or clean water connections, please contact:

Developer Services (Clean Water)  
Thames Water  
Clearwater Court  
Vastern Road  
Reading  
RG1 8DB

Tel: 0845 850 2777  
Email: [developer.services@thameswater.co.uk](mailto:developer.services@thameswater.co.uk)



The width of the displayed area is 200 m and the centre of the map is located at OS coordinates 528996,182409

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.

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



















<b>Manhole Reference</b>	<b>Manhole Cover Level</b>	<b>Manhole Invert Level</b>
0303	28.39	25.21
9401	27.98	24.1
941B	n/a	n/a
0401	n/a	n/a
0403	27.49	24.69
841A	n/a	n/a
841B	n/a	n/a
9405	28.33	n/a
9324	28.72	17.73
9417	n/a	n/a
0301	28.2	23.63
0302	28.15	23.18

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# ALS Sewer Map Key

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

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





## 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

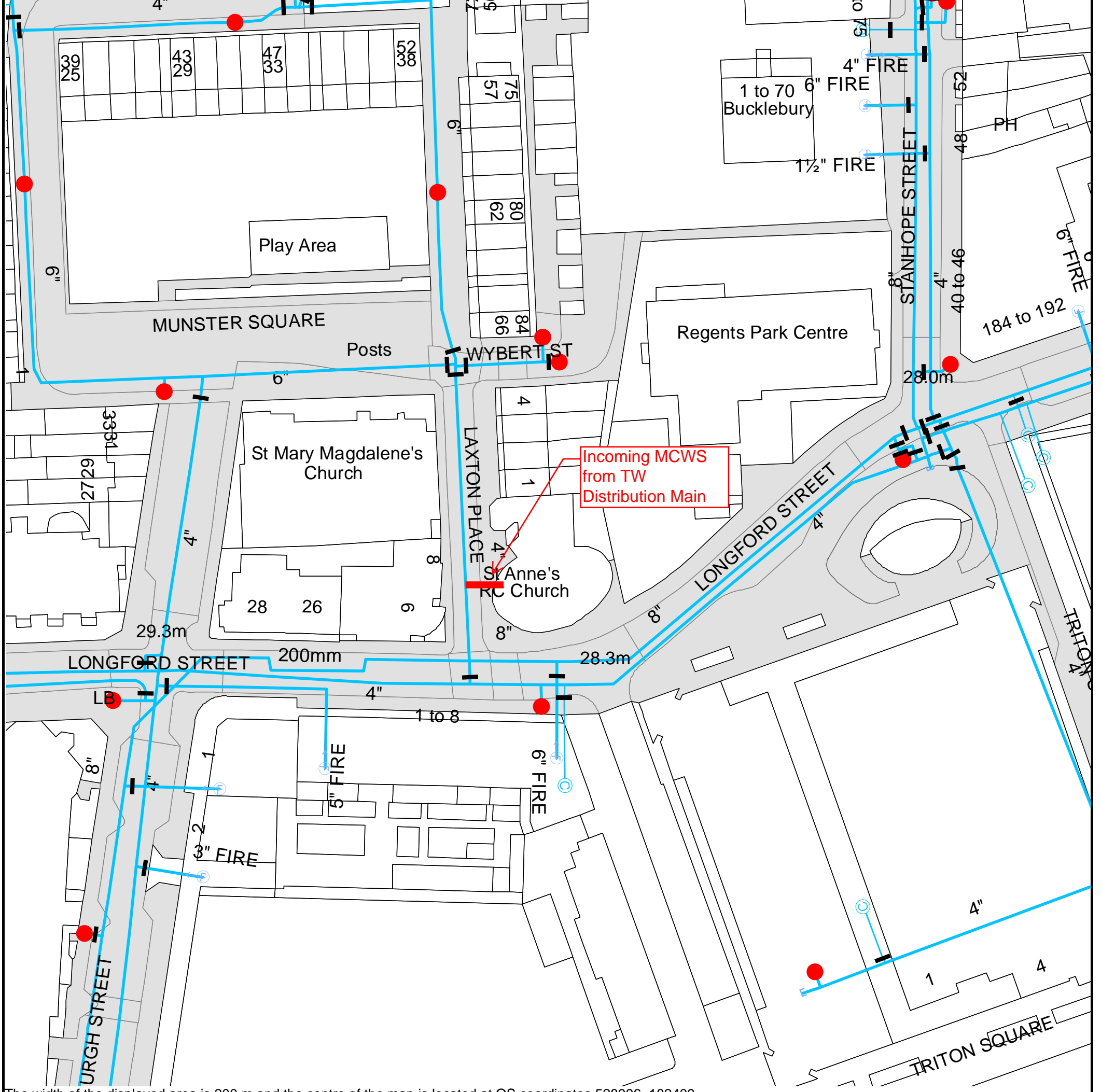
## Other Sewer Types (Not Operated or Maintained by Thames Water)

-  Foul Sewer
-  Surface Water Sewer
-  Combined Sewer
-  Gully
-  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 Insight on 0845 070 9148.

Asset Location Search Water Map - ALS/ALS Standard/2016\_3363613










The width of the displayed area is 200 m and the centre of the map is located at OS coordinates 528996, 182409.  
 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.

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# ALS Water Map Key

## Water Pipes (Operated & Maintained by Thames Water)


- 
**4"** **Distribution Main:** The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.
- 
**16"** **Trunk Main:** A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.
- 
**3" SUPPLY** **Supply Main:** A supply main indicates that the water main is used as a supply for a single property or group of properties.
- 
**3" FIRE** **Fire Main:** Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.
- 
**3" METERED** **Metered Pipe:** A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.
- 
**Transmission Tunnel:** A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.
- 
**Proposed Main:** A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

## Valves

-  General Purpose Valve
-  Air Valve
-  Pressure Control Valve
-  Customer Valve

## Hydrants





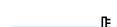


-  Single Hydrant

## Meters










-  Meter

## End Items

Symbol indicating what happens at the end of a water main.

-  Blank Flange
-  Capped End
-  Emptying Pit
-  Undefined End
-  Manifold
-  Customer Supply
-  Fire Supply



## Operational Sites

-  Booster Station
-  Other
-  Other (Proposed)
-  Pumping Station
-  Service Reservoir
-  Shaft Inspection
-  Treatment Works
-  Unknown
-  Water Tower

## Other Symbols

-  Data Logger

## Other Water Pipes (Not Operated or Maintained by Thames Water)

-  **Other Water Company Main:** Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.
-  **Private Main:** Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.



## Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment 14 days from due date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service, or will be held to be invalid.
4. Thames Water does not accept post-dated cheques-any cheques received will be processed for payment on date of receipt.
5. In case of dispute TWUL`s terms and conditions shall apply.
6. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
7. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
8. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0800 316 9800

If you are unhappy with our service you can speak to your original goods or customer service provider. If you are not satisfied with the response, your complaint will be reviewed by the Customer Services Director. You can write to him at: Thames Water Utilities Ltd. PO Box 492, Swindon, SN38 8TU.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to Consumer Council for Water on 0121 345 1000 or write to them at Consumer Council for Water, 1st Floor, Victoria Square House, Victoria Square, Birmingham, B2 4AJ.

### Ways to pay your bill

Credit Card	BACS Payment	Telephone Banking	Cheque
Call <b>0845 070 9148</b> quoting your invoice number starting CBA or ADS.	Account number <b>90478703</b> Sort code <b>60-00-01</b> A remittance advice must be sent to: <b>Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW.</b> or email <a href="mailto:ps.billing@thameswater.co.uk">ps.billing@thameswater.co.uk</a>	By calling your bank and quoting: Account number <b>90478703</b> Sort code <b>60-00-01</b> and your invoice number	Made payable to ' <b>Thames Water Utilities Ltd</b> ' Write your Thames Water account number on the back. Send to: <b>Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW</b> or by DX to <b>151280 Slough 13</b>

Thames Water Utilities Ltd Registered in England & Wales No. 2366661 Registered Office Clearwater Court, Vastern Rd, Reading, Berks, RG1 8DB.



## Search Code

### **IMPORTANT CONSUMER PROTECTION INFORMATION**

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- promotes the best practise and quality standards within the industry for the benefit of consumers and property professionals
- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

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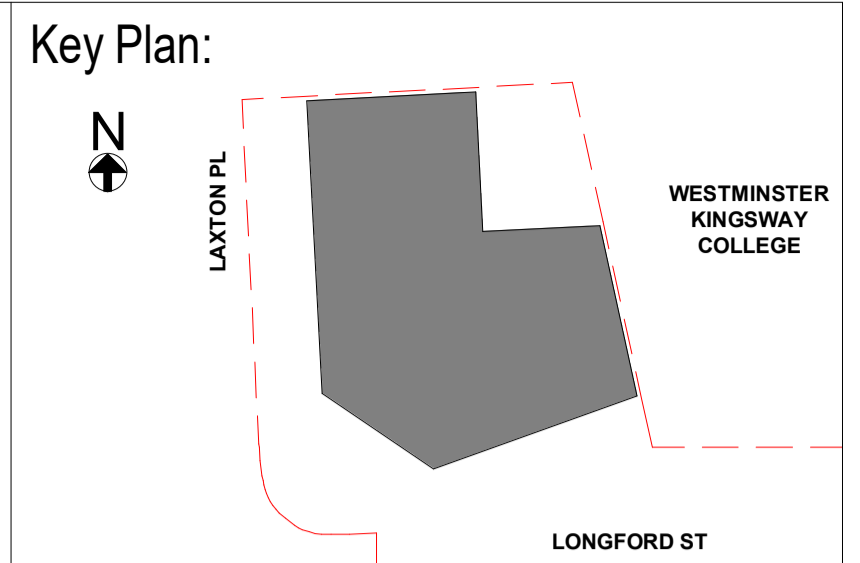
**Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.**

#### **TPOs Contact Details**

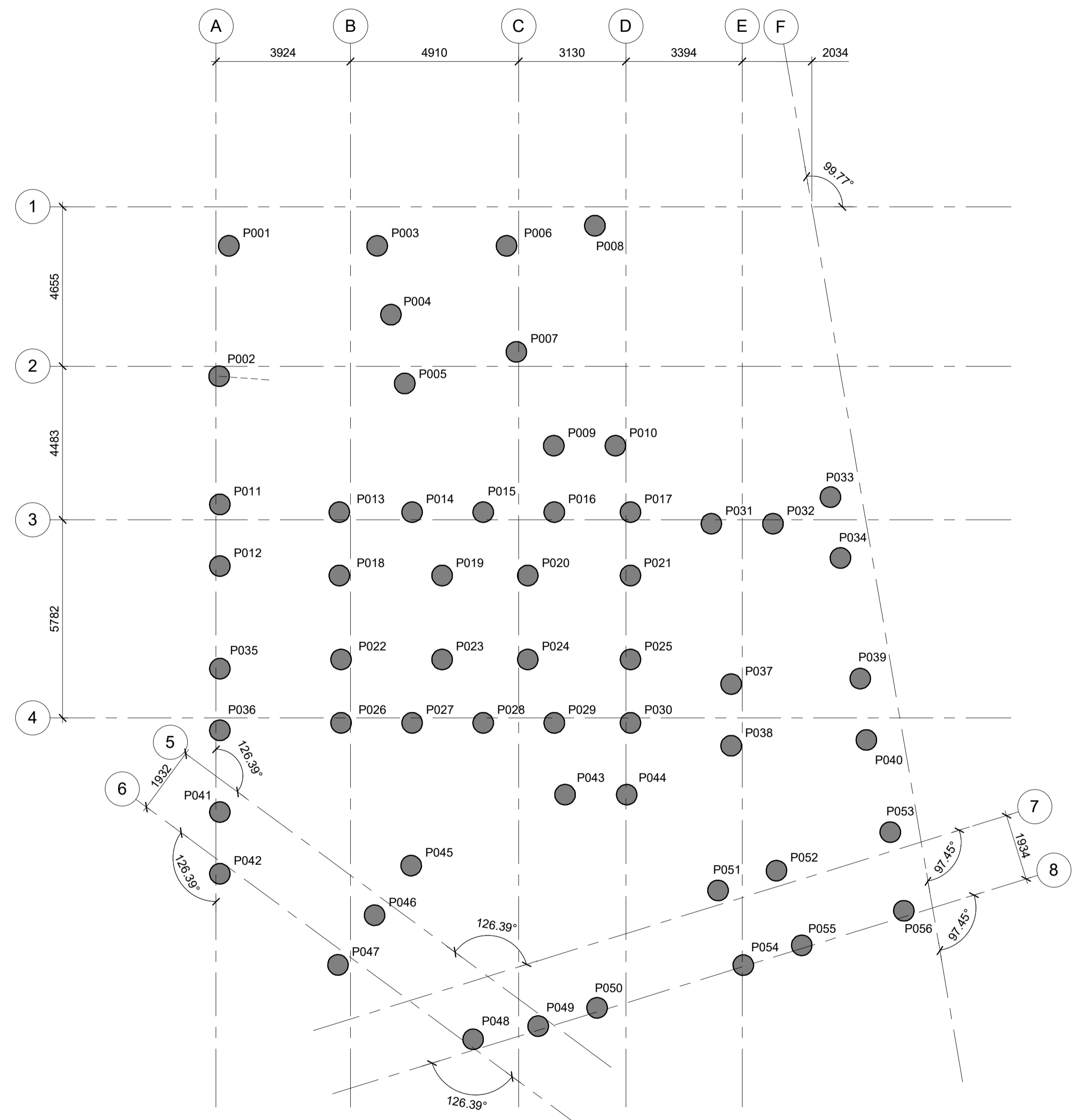
The Property Ombudsman scheme  
Milford House  
43-55 Milford Street  
Salisbury  
Wiltshire SP1 2BP  
Tel: 01722 333306  
Fax: 01722 332296  
Email: [admin@tpos.co.uk](mailto:admin@tpos.co.uk)

You can get more information about the PCCB from [www.propertycodes.org.uk](http://www.propertycodes.org.uk)

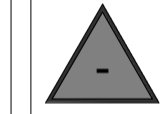
**PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE**



- Notes:
- DO NOT SCALE FROM THIS DRAWING, WORK ONLY TO DIMENSIONS SHOWN.
  - ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
  - FOR ALL SETTING OUT OF BUILDING GEOMETRY REFER TO ARCHITECTURAL DRAWINGS.
  - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL, MECHANICAL, ELECTRICAL UTILITIES DRAWINGS AND SPECIFICATIONS.
  - REFER TO DRG No. 2016007-S00001 FOR GENERAL NOTES.



**IMPORTANT CDM/H&S NOTE**  
 THE DESIGNERS HIGHLIGHT THE SIGNIFICANT RESIDUAL HEALTH AND SAFETY RISKS THAT HAVE NOT BEEN ELIMINATED FROM THE DESIGNS. THESE SIGNIFICANT RESIDUAL RISKS ARE IDENTIFIED BELOW.



THIS NOTE REFERS TO SIGNIFICANT RESIDUAL RISKS AS DEFINED IN CDM LEGISLATION. OTHER HEALTH AND SAFETY RISKS ASSOCIATED WITH CONSTRUCTION ACTIVITIES MAY BE PRESENT.

T4	SDR	CS	GW	23-07-18	UPDATED STAGE 4 ISSUE AS CLOUDED.
T3	SDR	CS	GW	07-06-18	UPDATED STAGE 4 ISSUE AS CLOUDED.
T2	SDR	SA	GW	01-12-17	STAGE 4 ISSUE
T1	SDR	SA	GW	17-11-17	DRAFT STAGE 4 ISSUE
Rev	By	Chkd	Apprvd	Date	Description

Client  
**BRITISH LAND**  
**PROPERTY MANAGEMENT LTD**

**CRE8 structures LLP**  
 382 - 386 Edgware Road  
 London W2 1EB  
 0207 183 3093  
 www.cre8structures.com

Project  
**ST. ANNE'S**

Drawing  
**PILING LAYOUT**

Drawn by: SDR Date: 17-11-17  
 Checked by: SAP Date: 17-11-17  
 Approved by: GW Date: 17-11-17

Drawing No.	Revision
2016007-S19801	T4

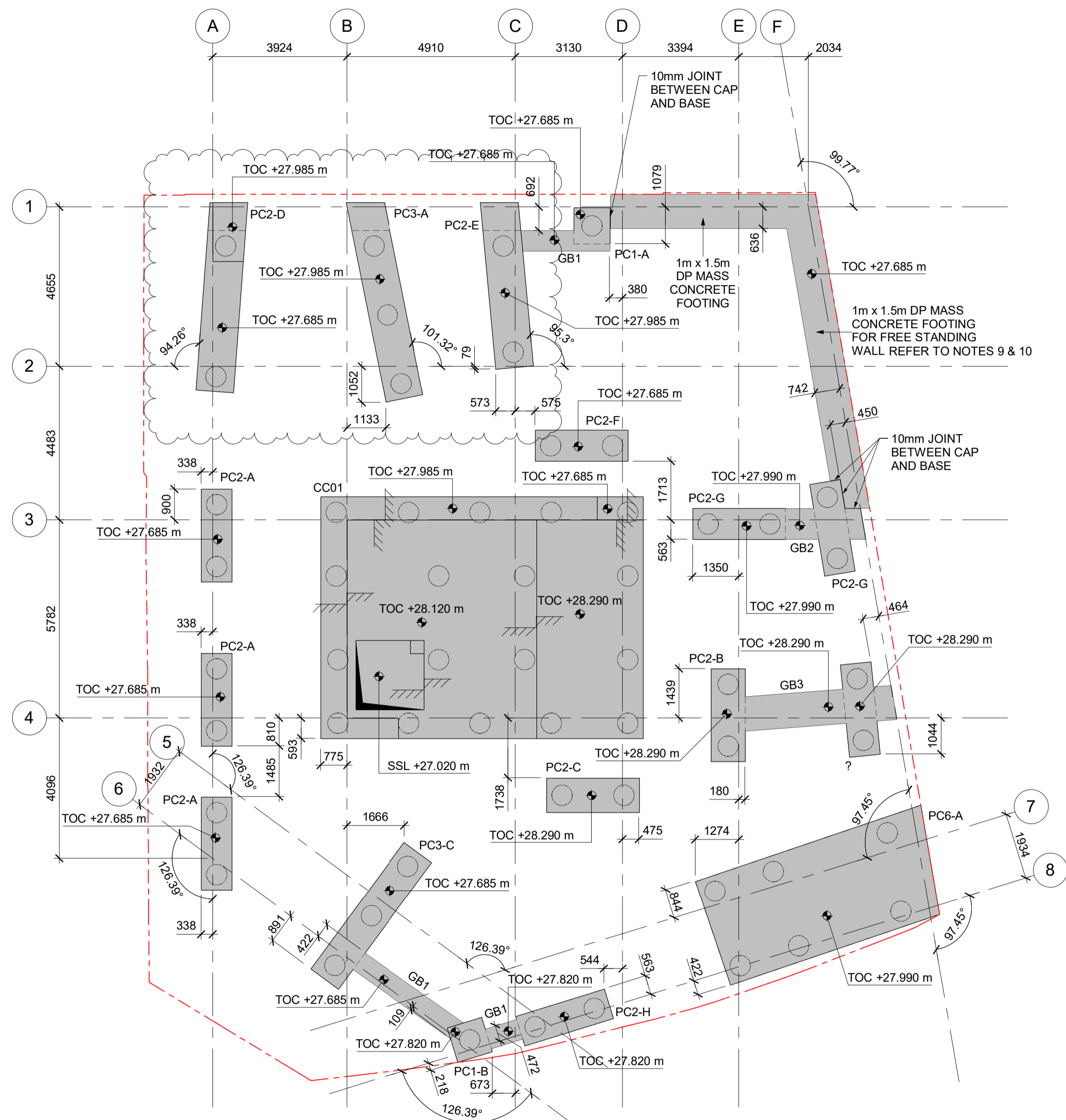
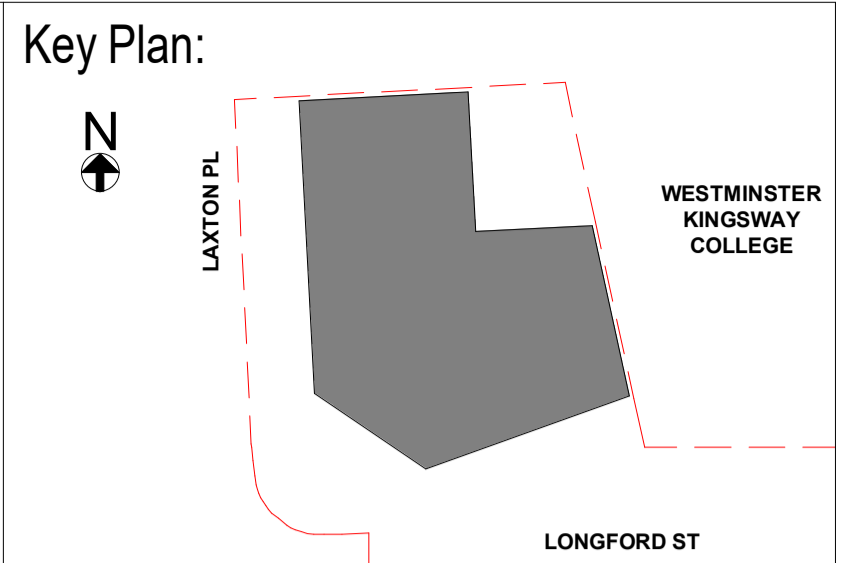
Drawing Scale: 1:100 @ A1

STAGE 4

Drawing File Path & Name: C:\Users\laxton\Documents\2016007-ST ANNE'S STAGE 3\17\_Cad\dwg\piling.rvt  
 User and Plot Date: 23/07/2018 10:06:03

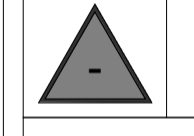
GROUND BEAM SCHEDULE	
REF.	SIZE
GB1	600 x 600mm GROUND BEAM
GB2	900 x 1400mm GROUND BEAM
GB3	1000 x 1400mm GROUND BEAM

PILECAP SCHEDULE		
PILE CAP TYPE	PILE CAP DEPTH	PILE DIAMETER
CC01	VARIES	600 mm
PC1-A	1000 mm	600 mm
PC1-B	1000 mm	600 mm
PC2-A	1400 mm	600 mm
PC2-B	1400 mm	600 mm
PC2-C	1600 mm	600 mm
PC2-D	1100 mm	600 mm
PC2-E	1400 mm	600 mm
PC2-F	1400 mm	600 mm
PC2-G	1400 mm	600 mm
PC2-H	1400 mm	600 mm
PC3-A	1400 mm	600 mm
PC3-C	1400 mm	600 mm
PC6-A	1600 mm	600 mm



- Notes:**
- DO NOT SCALE FROM THIS DRAWING. WORK ONLY TO DIMENSIONS SHOWN.
  - ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
  - FOR ALL SETTING OUT OF BUILDING GEOMETRY REFER TO ARCHITECTURAL DRAWINGS.
  - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL, MECHANICAL, ELECTRICAL UTILITIES DRAWINGS AND SPECIFICATIONS.
  - REFER TO DRG No. 2016007-S00001 FOR GENERAL NOTES.
  - REQUIREMENTS FOR HEAVE BOARD AND GAS MEMBRANE TO BE CONFIRMED BY SITE INVESTIGATION. INDICATIVE GAS MEMBRANE DETAILS ARE SHOWN ON S30001.
  - LIFT PIT SHOWN AS 1200mm DEEP FROM FFL. LIFT PIT DEPTHS AND OVERALL SHAFT DIMENSIONS TO BE CONFIRMED BY LIFT SUPPLIER.
  - FOR PILECAP DETAILS, REFER TO FOUNDATION DETAILS DRAWINGS 2016007-S39001 TO S39003
  - VIABILITY OF STRIP FOOTING FOR FREE STANDING WALL DEPENDENT UPON SUITABILITY OF GROUND AS A LOADBEARING STRATA BENEATH FOOTING. GROUND INVESTIGATION TO CONFIRM ALLOWABLE BEARING PRESSURE FOR SPREAD FOOTINGS
  - SPREAD FOOTING FOR FREE STANDING WALL IN CLOSE PROXIMITY TO EXISTING TREES ALONG THE BOUNDARY. GROUND INVESTIGATION REQUIRED TO CONFIRM GROUND CONDITIONS AND ANY EXISTING TREE ROOTS WHICH MAY AFFECT THE SIZE OF THE SPREAD FOOTING.

**IMPORTANT CDM/H&S NOTE**  
 THE DESIGNERS HIGHLIGHT THE SIGNIFICANT RESIDUAL HEALTH AND SAFETY RISKS THAT HAVE NOT BEEN ELIMINATED FROM THE DESIGNS. THESE SIGNIFICANT RESIDUAL RISKS ARE IDENTIFIED BELOW.



THIS NOTE REFERS TO SIGNIFICANT RESIDUAL RISKS AS DEFINED IN CDM LEGISLATION. OTHER HEALTH AND SAFETY RISKS ASSOCIATED WITH CONSTRUCTION ACTIVITIES MAY BE PRESENT.

Rev	By	Chkd	Apprvd	Date	Description
T3	SDR	CS	GW	07-06-18	UPDATED STAGE 4 ISSUE AS CLOUDED
T2	SDR	SA	GW	01-12-17	STAGE 4 ISSUE
T1	SDR	SA	GW	17-11-17	DRAFT STAGE 4 ISSUE

Client  
**BRITISH LAND**  
**PROPERTY MANAGEMENT LTD**

**CRE8 structures LLP**  
 382 - 386 Edgware Road  
 London W2 1EB  
 0207 183 3093  
 www.cre8structures.com

Project  
**ST. ANNE'S**

Drawing  
**FOUNDATION PLAN**

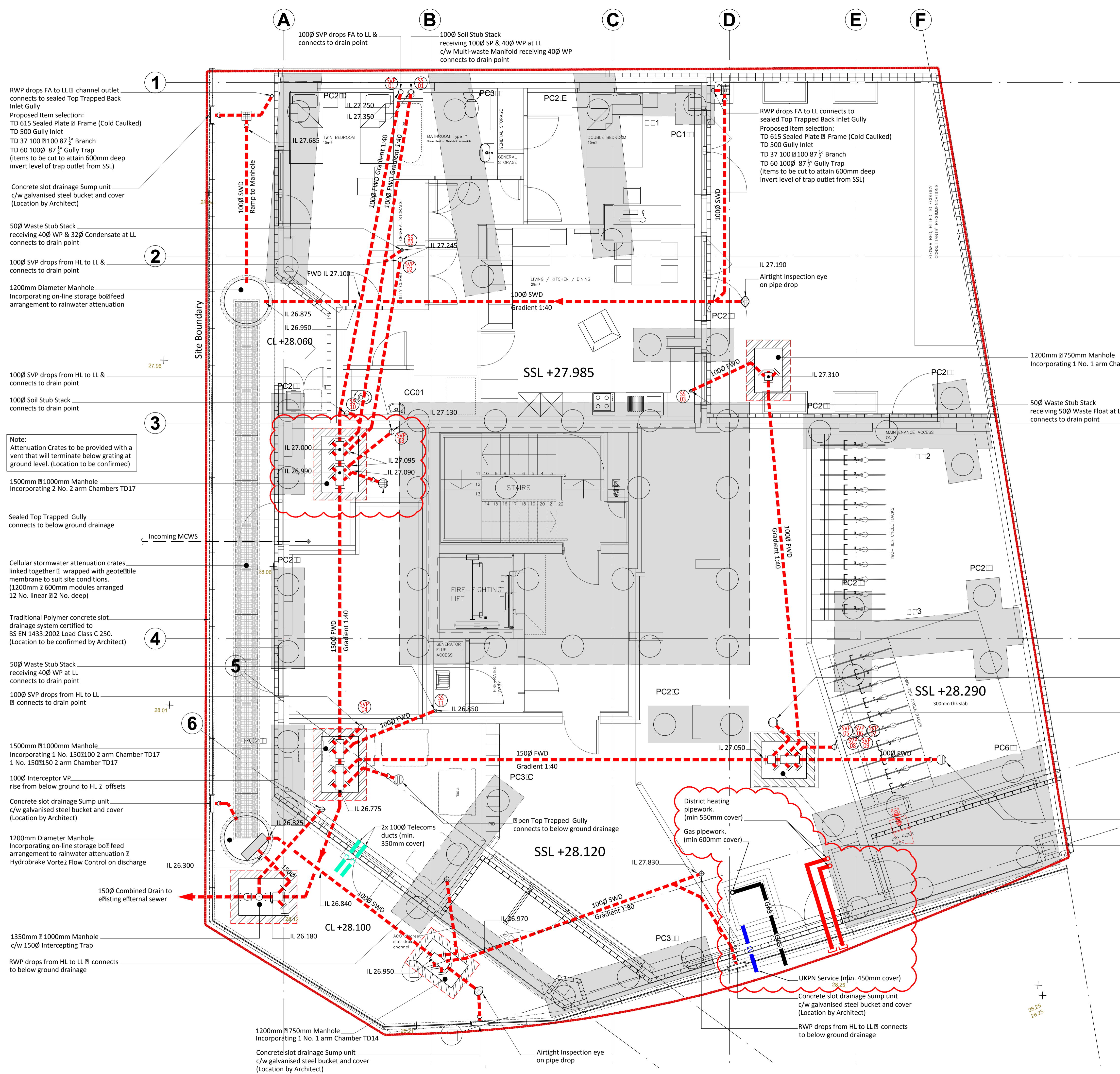
Drawn by: SDR	Date: 17-11-17
Checked by: SAP	Date: 17-11-17
Approved by: GW	Date: 17-11-17

Drawing No.	Revision
2016007-S19901	T3

Drawing Scale: 1:100 @ A1

**STAGE 4**

C:\Users\stave\Documents\2016007-ST ANNE'S-STAGE 3-RT\_Cad\stave.rvt  
 07/06/2018 10:28:35  
 User and Plot Date



RWP drops FA to LL connects to sealed Top Trapped Back Inlet Gully  
Proposed Item selection:  
TD 615 Sealed Plate Frame (Cold Caulked)  
TD 500 Gully Inlet  
TD 37 100 87 1/2 Branch  
TD 60 100 87 1/2 Gully Trap  
(Items to be cut to attain 600mm deep invert level of trap outlet from SSL)

Concrete slot drainage Sump unit  
c/w galvanised steel bucket and cover  
(Location by Architect)

500 Waste Stub Stack  
receiving 400 WP & 320 Condensate at LL  
connects to drain point

1000 SVP drops from HL to LL &  
connects to drain point

1200mm Diameter Manhole  
Incorporating on-line storage box feed  
arrangement to rainwater attenuation

1000 SVP drops from HL to LL &  
connects to drain point

1000 Soil Stub Stack  
connects to drain point

Note:  
Attenuation Crates to be provided with a  
vent that will terminate below grating at  
ground level. (Location to be confirmed)

1500mm x 1000mm Manhole  
Incorporating 2 No. 2 arm Chambers TD17

Sealed Top Trapped Gully  
connects to below ground drainage

Cellular stormwater attenuation crates  
linked together & wrapped with geotextile  
membrane to suit site conditions.  
(1200mm x 600mm modules arranged  
12 No. linear & 2 No. deep)

Traditional Polymer concrete slot  
drainage system certified to  
BS EN 1433:2002 Load Class C 250.  
(Location to be confirmed by Architect)

500 Waste Stub Stack  
receiving 400 WP at LL  
connects to drain point

1000 SVP drops from HL to LL  
connects to drain point

1500mm x 1000mm Manhole  
Incorporating 1 No. 1500x1000 2 arm Chamber TD17  
1 No. 1500x150 2 arm Chamber TD17

1000 Interceptor VP  
rise from below ground to HL offsets

Concrete slot drainage Sump unit  
c/w galvanised steel bucket and cover  
(Location by Architect)

1200mm Diameter Manhole  
Incorporating on-line storage box feed  
arrangement to rainwater attenuation  
Hydrobrake Vortex Flow Control on discharge

1500 Combined Drain to  
existing external sewer

1350mm x 1000mm Manhole  
c/w 1500 Interceptor Trap

RWP drops from HL to LL connects  
to below ground drainage

1200mm x 750mm Manhole  
Incorporating 1 No. 1 arm Chamber TD14  
Concrete slot drainage Sump unit  
c/w galvanised steel bucket and cover  
(Location by Architect)

A

B

C

D

E

F

1

2

3

4

5

6

Site Boundary

1000 SVP drops FA to LL &  
connects to drain point

1000 Soil Stub Stack  
receiving 1000 SP & 400 WP at LL  
c/w Multi-waste Manifold receiving 400 WP  
connects to drain point

RWP drops FA to LL connects to  
sealed Top Trapped Back Inlet Gully  
Proposed Item selection:  
TD 615 Sealed Plate Frame (Cold Caulked)  
TD 500 Gully Inlet  
TD 37 100 87 1/2 Branch  
TD 60 100 87 1/2 Gully Trap  
(Items to be cut to attain 600mm deep  
invert level of trap outlet from SSL)

FLOW BED, FILLED TO ECOLOGY  
CONSULTANTS RECOMMENDATIONS

1200mm x 750mm Manhole  
Incorporating 1 No. 1 arm Chamber TD14

500 Waste Stub Stack  
receiving 500 Waste Float at LL  
connects to drain point

SSL +28.290  
300mm thk slab

SSL +28.120

SSL +28.100

Dimensions of Manholes & Inspection Chambers:

Dimensions of manholes with access for personnel shall comply with the safety requirements at the place of installation.

The minimum size of manhole to enable personnel entry for cleaning and inspection for shallow manholes (up to a depth of 1.5m from pipe soffit to cover level) is 1200mm long x 750mm wide.  
The minimum clear opening to access shallow chambers up to a depth of 1.5m from pipe soffit to cover level to be 1200mm long x 675mm wide to enable standing / crouching.

The minimum size of manhole to enable personnel entry for cleaning and inspection for shallow manholes (deeper than 1.5 m up to a depth of 3m from pipe soffit to cover level) is 1200mm long x 1000mm wide.  
The minimum clear opening to access shallow chambers deeper than 1.5 m up to a depth of 3m from pipe soffit to cover level to be minimum 600mm long x 600mm wide.

For further guidance refer to BS EN 752 & BS EN 476

Non-prefabricated inspection chambers & manholes that are constructed in situ should be roofed by a concrete slab or by engineering brickwork arches & corbelling, with lintels as necessary. In situ slabs should not be less than 150mm thick. Cover frames should be bedded on one, two or three courses of engineering brickwork or precast concrete adjusting units. The clear opening of the cover should be not less than the clear opening in the cover slab.

- General Notes:
- This is not an installation drawing.
  - This drawing should be read in conjunction with all relevant architectural, civil, structural, mechanical, electrical and public health drawings, specifications and room data sheets.
  - Do not scale from this drawing. Refer to Architects drawings for building dimensional information.
  - Errors and omissions must be clarified, make no assumptions.
  - Copyright Thornton Reynolds Ltd.

Note:  
Information is indicative and subject to design development.

REF.	SIZE
□1	600 x 600 □ RO D E M
□2	900 x 1400 □ RO D E M
□3	1000 x 1400 □ RO D E M

PILE C/P REFERENCE	PILE C/P DEPTH	PILE DI. METER
PC1	1000 □	600 □
PC2	1400 □	600 □
PC2 C	1400 □	600 □
PC2 D	1400 □	600 □
PC2 E	1400 □	600 □
PC3	1400 □	600 □
PC3 C	1400 □	600 □
PC3 D	1400 □	600 □
PC6	1600 □	600 □

For further pipework information & sizes, refer to Public Health Sanitary Plumbing Services Schematic Drawing No. TR-SAC-P101

T3	Issued for Tender - Stage 4	16.03.2018
T2	Issued for Tender - Stage 4	01.12.2017
T1	Issued for Tender - Stage 4	21.11.2017
Rev:	Comment:	Date:

**thornton | reynolds**  
10A Lant Street London SE1 1QR  
+44 (0)20 73781540  
www.thorntonreynolds.com  
general@thorntonreynolds.com

Client	British Land		
Date	14 Mar 2018	Drawn by:	Neil Smith
Scale @ A1	1:50	Checked by:	KC

Drawing Title:  
**St Anne's Church Residential Public Health Services Below Ground Drainage Layout**

Drawing Number:  
**TR-SAC-P199** T3

Note:  
Below ground drainage scheme incorporates cast iron drainage fittings as Timesaver BS437

28.25  
28.25

BCWS BHWS drop from HL to LL  
 serves Bathroom appliances

BCWS BHWS at HL within ceiling void

BCWS BHWS rise from mid-level  
 to HL offsets

BHWS from HIU rise from LL  
 to mid-level offsets

BCWS rise from LL to mid-level offsets  
 c/w branch in vertical serving  
 Washing Machine

BCWS serves HIU  
 (For further detail refer to  
 Mechanical Services Drawings)

Incoming BCWS drops from HL to LL  
 via Water Meter (AMR) installed in vertical

BCWS BHWS rise from mid-level  
 to HL offsets

BCWS BHWS at HL within ceiling void

BCWS BHWS drop from HL to LL  
 serves Kitchen appliances

100Ø Dry Riser TA from HL  
 & also drops to LL to serve 65Ø Landing Valve  
 located within suitably approved outlet bo

MCWS rise to HL offsets

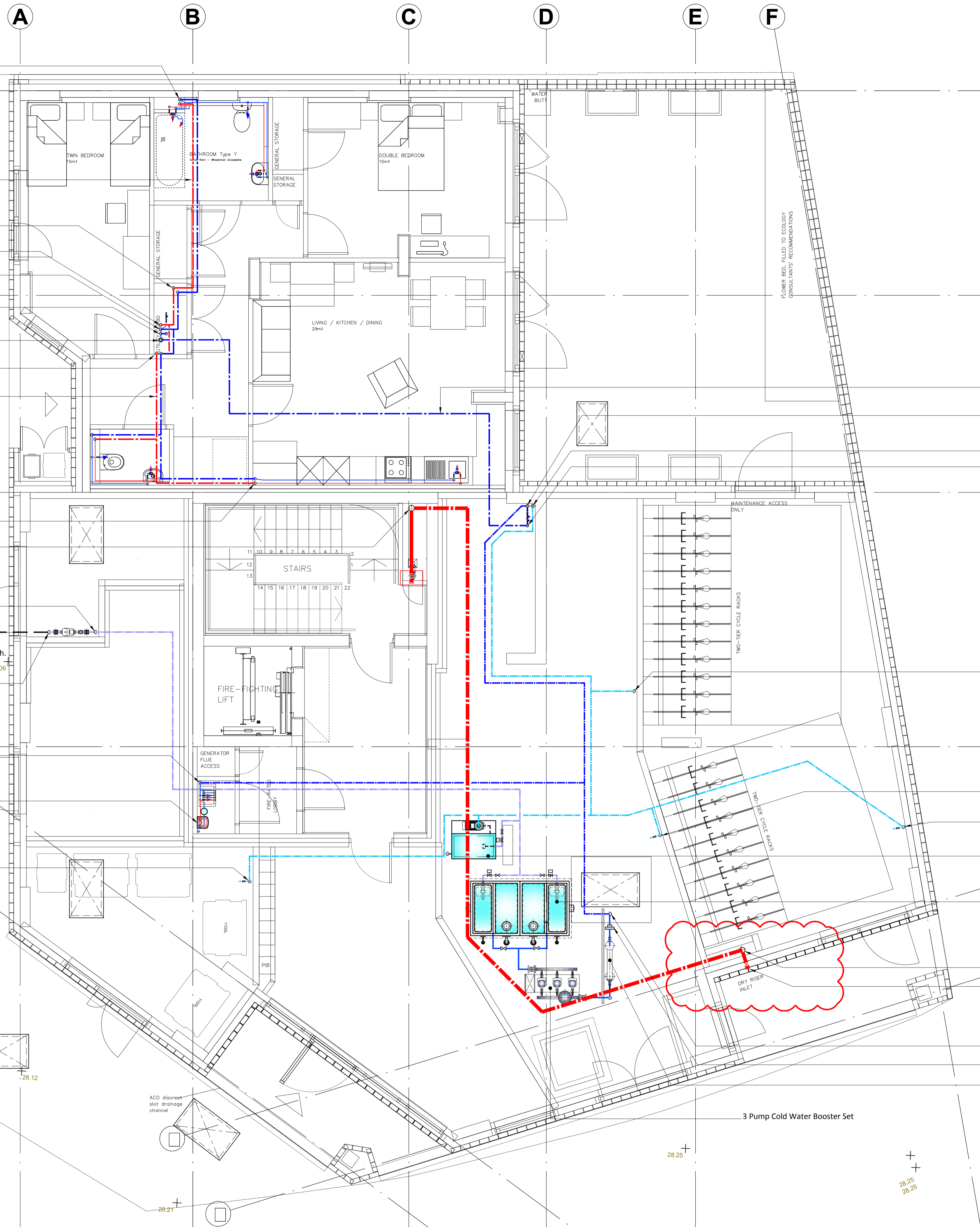
Incoming MCWS  
 MCWS to enter the building through  
 sleeve to suit incoming installation depth.  
 See details provided on this drawing

Incoming MCWS rise to LL  
 passes through Bulk Water Meter

BCWS drops from HL to LL,  
 passing through suitable valve arrangements  
 (See Schematic) before serving  
 Electric Water Heater Cleaners Sink.

Electric Unvented Water Heater  
 10 litre capacity  
 3KW electrical rating  
 c/w Expansion Vessel valves / ancillary fittings.

Cat 5 BCWS drops from HL to LL  
 serves Hose Union Bib Tap



1

2

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BCWS at HL within ceiling void

BCWS rise from HL TA  
 with branch serving valve train at LL  
 c/w IV, Strainer PRV  
 Cat 5 BCWS FB TA

BCWS rise from LL to HL offsets  
 via Water Meter (AMR) installed in vertical

Cat 5 BCWS drops from HL to LL  
 serves Mechanical Plant via  
 valved capped connection

Cat 5 BCWS drops from HL to LL  
 serves Hose Union Bib Tap

Cat 5 BCWS drops from HL to LL  
 serves Hose Union Bib Tap

Cat 5 Cold Water Booster Set  
 incorporating 115 Litre Storage Tank

Cold Water Storage Tank  
 2m x 1m x 2m high  
 c/w raised ballvalve housings  
 installed on 3 No. 2200mm long 100mm x 50mm  
 galvanised steel channels placed at 500mm centres  
 on a concrete raft base

100Ø Dry Riser to HL & offsets

Vertical inlet breech bo for a 100mm inlet pipe.  
 Two way inlet breeching piece with gun metal  
 instantaneous male coupling  
 c/w non-return valves, rubber blanks, caps chain,  
 provided with 25mm drain valve.

BCWS rise to HL offsets

Electromagnetic Water Conditioner

Ultra Violet Disinfection Unit  
 (Plant ancillary pipework / valves  
 to be installed on support frame)

3 Pump Cold Water Booster Set

- General Notes:
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  - This drawing should be read in conjunction with all relevant architectural, civil, structural, mechanical, electrical and public health drawings, specifications and room data sheets.
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  - Errors and omissions must be clarified, make no assumptions.
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For further pipework information siles ,  
 refer to Public Health Domestic Water Services  
 Schematic Drawing No. TR-SAC-P100

Incoming Water Main Requirement

Pipe materials:  
 The preferred pipe material is blue MDPE, siles 32mm for normal ground conditions.  
 For contaminated ground, other specialist materials must be used.

Ducting:  
 Where a water pipe enters a building or runs underneath a building etc, it must be located inside a suitable duct. The correct size ducting is 100mm (4") diameter pipe. (Usually plastic but can be other materials if suitable.) There must not be any markings for other utilities on the duct, such as gas, electricity, telecom etc.

Sealing both ends of the duct:  
 A readily removable seal or sealant should be used at each end of a duct.  
 Do not use oil-based sealant or other sealant that can damage the new water supply pipe.  
 Contact the supplier of the pipework and sealant before selecting a material for the installation.  
 An alternative method is to use a 'blank cap end' with a purpose made hole fitted with a grommet to allow the water pipe to pass through.  
 It is essential that pipes entering buildings below ground level are sealed against the entry of fluids, vermin and insects

Diagram 1:  
 Vertical pipe in duct greater than 750mm from external face of wall.

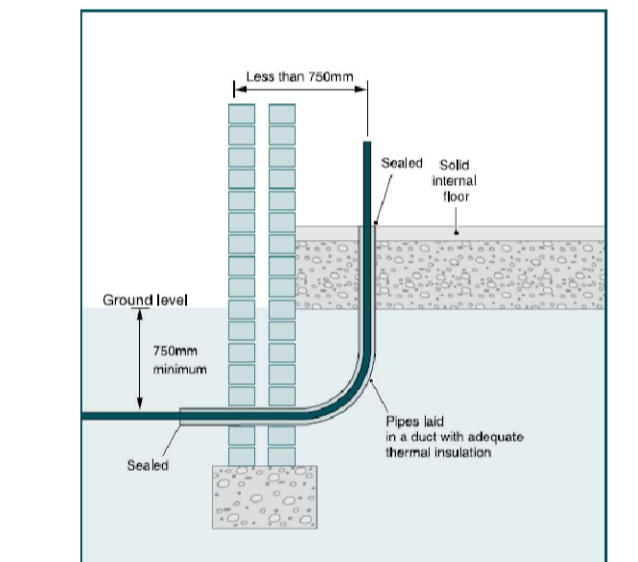
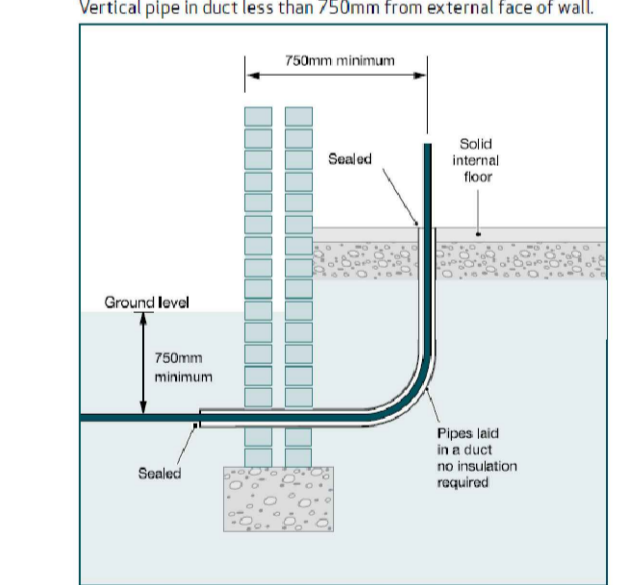


Diagram 2:  
 Vertical pipe in duct less than 750mm from external face of wall.



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Rev:	Comment:	Date:

thornton | reynolds  
 10A Lant Street London SE1 1QR +44 (0)20 73781540  
 www.thorntonreynolds.com  
 general@thorntonreynolds.com

Client	British Land		
Date	14 Mar 2018	Drawn by:	Neil Smith
Scale @ A1	1:50	Checked by:	KC

Drawing Title:  
**St Anne's Church Residential  
 Public Health Services  
 Domestic Water Services  
 Ground Floor Layout**

Drawing Number:  
**TR-SAC-P300** T3