

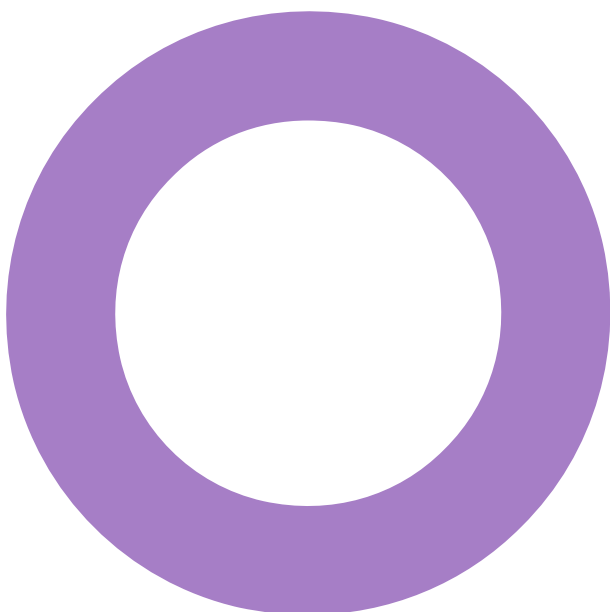
Former Holloway Prison

Utilities Assessment



Holloway Prison. London. Peabody.

MEP ENGINEERING
UTILITIES ASSESSMENT
REVISION 3 - 01 NOVEMBER 2021



Audit sheet.

Rev.	Date	Description of change / purpose of issue	Prepared	Reviewed	Authorised
1	26 Aug 21	First issue	NB		RE
2	28 Sep 21	Updated issue	DN	NB	RE
3	01 Nov 21	Comments incorporated	DN	NB	RE

This document has been prepared for Peabody only and solely for the purposes expressly defined herein. We owe no duty of care to any third parties in respect of its content. Therefore, unless expressly agreed by us in signed writing, we hereby exclude all liability to third parties, including liability for negligence, save only for liabilities that cannot be so excluded by operation of applicable law. The consequences of climate change and the effects of future changes in climatic conditions cannot be accurately predicted. This report has been based solely on the specific design assumptions and criteria stated herein.

Project number: 07/10168

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Executive Summary

This report has been produced on behalf of Peabody in order to provide an overview of the utility services provisions for the proposed development at Holloway Prison.

The utility services covered by the report are:

Water Supply

Gas Supply

Electricity Supply

Telecommunications

All new incoming services supplies will avoid trees and architectural remains (due to the redevelopment nature of the site this will be achieved by default). All requirements for new structures such as gas meter room, electrical substations, electrical switch rooms and comms rooms (for incoming telecommunication supplies) have been incorporated into the architectural plans at ground floor and are therefore integral to the proposed new buildings.

A plan is enclosed at Appendix A which sets out the location of services across the Development.

1. Water supply

A large network of onsite mains cold water (MCW) pipes serving the old prison buildings will need to be decommissioned and removed. Currently it is believed the MCW connection points beyond the prison wall boundaries are predominantly located along Parkhurst Road.

A new MCW site infrastructure will need to be installed serving all five plots A to E along with new fire hydrants. It is anticipated that this new infrastructure will be derived from the trunk main running along Parkhurst Road (running to the East of the development) and potentially a trunk main in Dalmeny Avenue (running to the South of the development).

It is not anticipated that the Development would give rise to any undue stress on water supply infrastructure.

Plot A – Requires 1 x new MCW connection of 2.45 L/s capacity serving a main water storage tank for this plot.

Plot B – Requires 1 x new MCW connection of 3.0 L/s capacity serving a main water storage tank for this plot. Plus 4No. MCW connections to individual commercial units each rated at 1.5 L/s each.

Plot C – Requires 1 x new MCW connection of 1.6 L/s capacity serving a main water storage tank for this plot. Plus 1No. MCW connections to the commercial units rated at 1.5 L/s.

Plot D – Requires 1 x new MCW connection of 2.0 L/s capacity serving a main water storage tank for this plot.

Plot E – Requires 1 x new MCW connection of 1.2 L/s capacity serving a main water storage tank for this plot.

2. Gas

Two low pressure gas pipes currently run into the existing prison site derived from the trunk main running in Parkhurst Road. All existing pipes will need to be decommissioned.

A new low pressure gas infrastructure will need to be installed serving plots B and C commercial units only (to facilitate gas cooking use if required). It is anticipated that this new infrastructure will be derived from the trunk main running along Parkhurst Road (running to the East of the development).

With regards to the proposed residential units, no gas connections are proposed.

It is not anticipated that the Development would give rise to any undue stress on gas infrastructure.

Plot B – Requires 1 x new gas main run to a gas meter room. From the gas meter room, supplies to any commercial unit within Plot B requiring it can be provided. Initially a peak load of 50m³/hr (540kW), with an estimated annual consumption of 1,000,000 kWh/annum.

Plot C – Requires 1 x new gas main run to the commercial unit. Initially a peak load of 25m³/hr (270kW), with an estimated annual consumption of 500,000 kWh/annum

3. Electricity supply

Existing supplies and relocation

UKPN have confirmed that the 1no existing substation on their records has been decommissioned and removed.

There are 2no existing UKPN network substations (Holloway Prison North and Holloway Prison South) still live which will need to be decommissioned and removed.

1no UKPN network substation will be required to be in place before the existing substations are removed to take over the service, the location for this is currently being agreed with the design team but the preferred location is to the northeast of the site in a new brick built external substation.

It is not anticipated that the Development would give rise to any undue stress on electricity infrastructure.

New LV electrical supplies

Plot A

Twin substation

235No 100A SPN supplies for apartments

900kVA Landlord supply

Plot B

Twin substation

321No 100A SPN supplies for apartments

900kVA Landlord supply

4No 200A TPN supplies for commercial units

Plot C

Twin substation

155No 100A SPN supplies for apartments

720kVA Landlord supply

1No 200A TPN supply for Flexible commercial unit

1No 200A TPN supply for Womens Centre

Plot D

Twin substation

183No 100A SPN supplies for apartments

720kVA Landlord supply

Plot E

Single substation

91No 100A SPN supplies for apartments

650kVA Landlord supply (including extra care facilities)

UKPN Network Substation

A new 1MVA UKPN network substation within a brick build enclosure is to be located in the North East of the site

This network substation will replace the 2No existing substations currently within the site boundary.

Temporary Building Supply

A 1MVA TBS substation within a GRP enclosure is to be provided in the northeast corner of the site.

4. Telecommunications

The main communications provider to the site will be BT Openreach, who will be approached to provide fibre lines to each apartment, commercial unit, landlord areas of each plot and dedicated communications to the Women's Building and plot E extra care facilities.

An alternative communications provider can also be provided to the apartments and commercial units, such as Virgin Media or Hyperoptic.

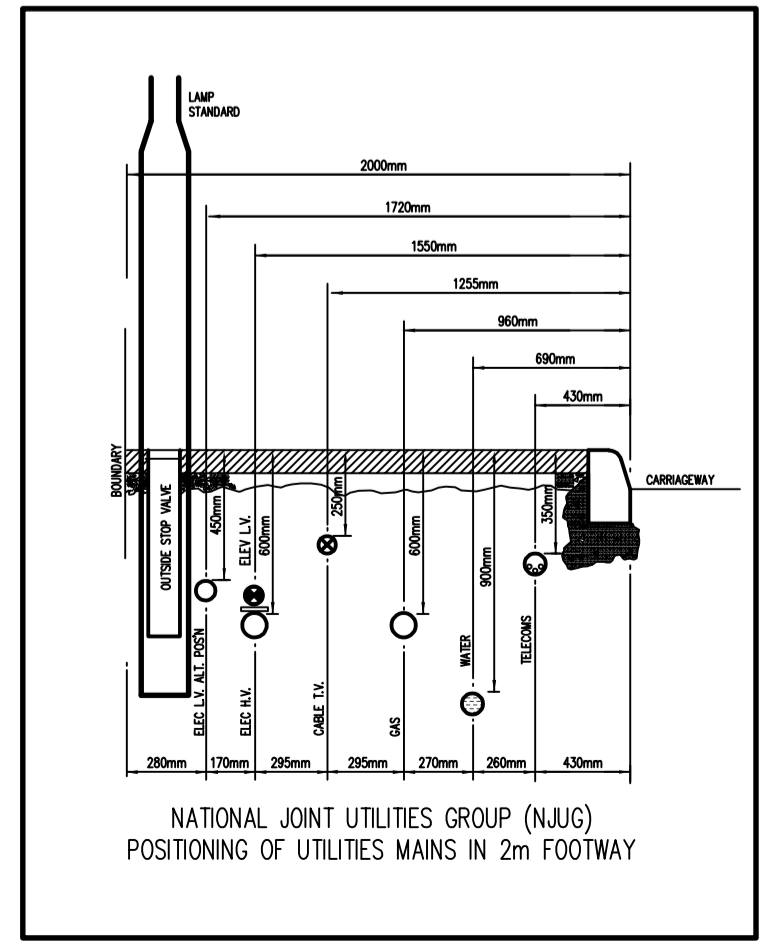
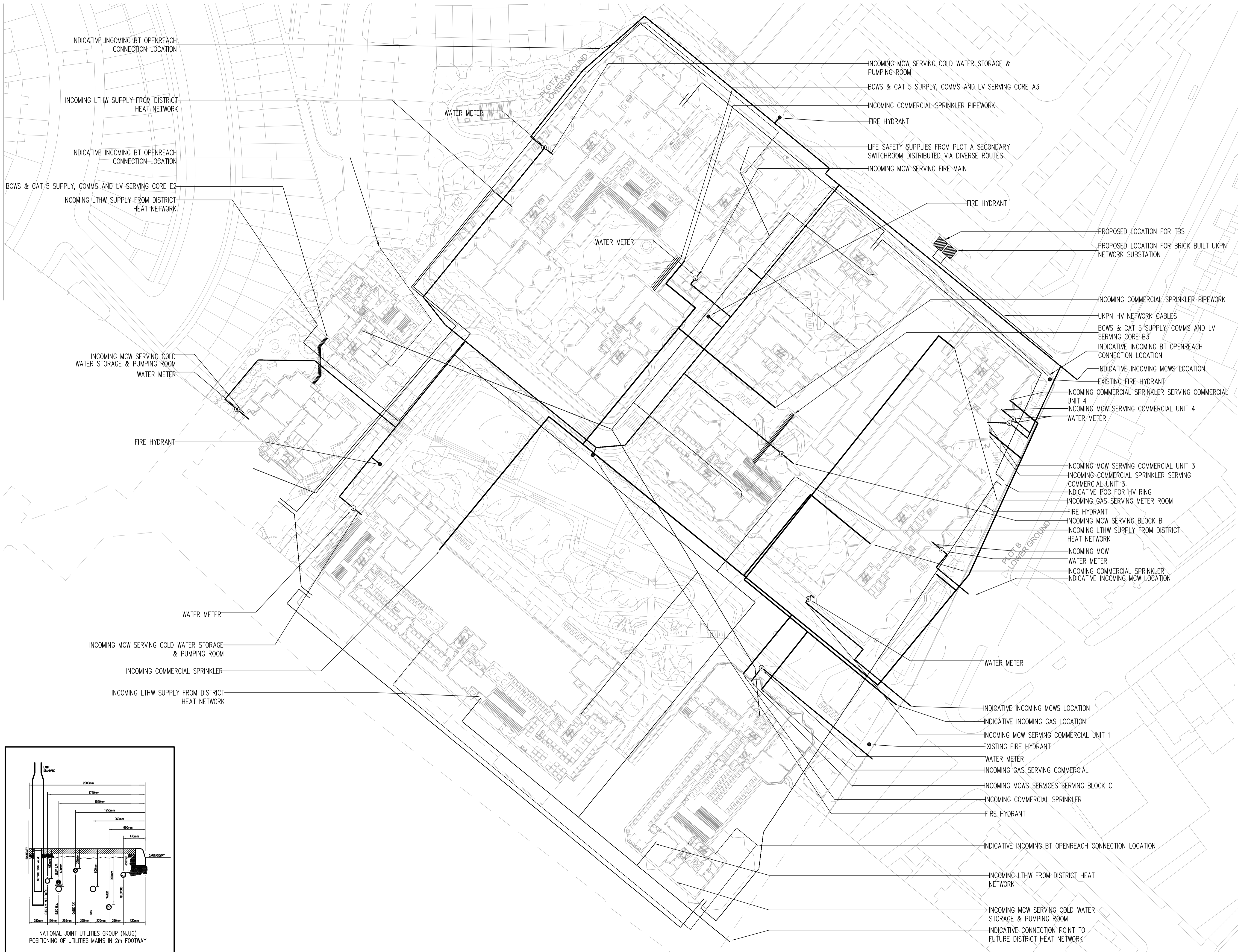
It is not anticipated that the Development would give rise to any undue stress on telecommunications infrastructure.

5. Foul water

Refer to the Flood Risk Assessment and Drainage Strategy produced by Waterman for details on drainage and foul water.

Appendix A

This drawing shall not be scaled.
Work from the dimensions shown in the drawing or given in relevant specifications



CDM Regulations:
In addition to any information included in this drawing or the model from which it is derived, refer also to the project CDM Risk Register for information on residual risks.

General Notes:

- The drawing does not necessarily show all the information needed to interpret the design intent or the construction details.
- The drawing contains information from more than one source and must be read in conjunction with all relevant specifications.
- Any apparent drafting errors and differences between other drawings and specifications shall be brought to our attention.

Project Notes:

- ALL ROUTES ARE INDICATIVE AND SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT, STRUCTURAL ENGINEER, CIVIL ENGINEER, ARCHITECT AND STATUTORY AUTHORITIES
- ALL IN-GROUND SERVICES ARE TO BE INSTALLED IN LINE WITH NJUG REGULATIONS

Index	Description	Designed	Reviewed	Authorised	Date

REVISIONS:



ARCHITECT:
ALLFORD HALL MONAGHAN MORRIS

CLIENT:
PEABODY

PROJECT TITLE:
PROJECT HOLLOWAY

DRAWING TITLE:
COMBINED SERVICES
EXTERNAL SITE SERVICES LAYOUT

STAGE 2 ISSUE

PERSON RESPONSIBLE FOR:		
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HOARE LEA 

+44 1202 654 600

HOARELEA.COM

Enterprise House
Old School Close
Ferndown
Bournemouth
BH22 9UN
England

