



**Panther House and
156-164 Grays Inn Road**

Panther House
Developments Limited

Utilities Statement

August 2019

Panther House

Utilities Statement

Planning

5th August 2019, Rev A

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ISSUE HISTORY

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A	05/08/19	Planning Submission

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1.0 INTRODUCTION

This report summarises the extent of the utility networks in the local area of the Panther House development.

The information described is based on the drainage and utility radar survey provided by Subscan (dated 23/7/2015) as well as drawings from utility services providers (responses to a desktop utility search, dated 2015). The area defined by this survey is shown in figure 1 (blue dashed boundary line).

The report is intended to inform the design development and will form the basis of the Utilities statement that will support the planning application. It is provided as a high level summary of the disconnections, diversions and new connections required based on an initial review of the desktop surveys.

A utility application has been made to UK Power Networks has been made for relocating the existing substation.

Contact has been made with Cadent, Thames Water and Virgin Media regarding gas, water and communications connections, respectively, and formal quotations will be obtained after planning.

The following are the key project specific points which would have an implication on cost, programme and construction sequencing which should be considered now for the purpose of developing the cost plan.

Water – Thames Water

- Remove all existing connections to site.
- Provide a single new connection from Mount Pleasant, this will serve all requirements on site, including the commercial areas, the domestic units and the associated domestic sprinkler tank.

Gas – Cadent

- Disconnect existing supplies.

Electricity - UKPN

- Build new network substation and site substation.
- Disconnect existing LV supplies from the existing substations.
- Provide new LV supplies from new network substation.
- Provide Panther House Development with new LV supplies from site substation. Commercial services will terminate at an adjacent substation. Domestic services will terminate in a separate adjacent switchroom which will form the start of a BNO with associated metered connections across site to each of the residential units.

Telecoms

- Remove all existing infrastructure.
- Provide new telecoms at Mount Pleasant (commercial).
- Provide new telecoms at Grays Inn Road (commercial and residential connections).



Figure 1 - Utility desktop survey area of interest

2.0 WATER

Thames Water owns and operates the potable water and fire-fighting supplies serving and surrounding the site.

The record drawing from Thames Water is represented in Figure 2, whilst the utility infrastructure recognised by the survey can be seen in Figure 3.

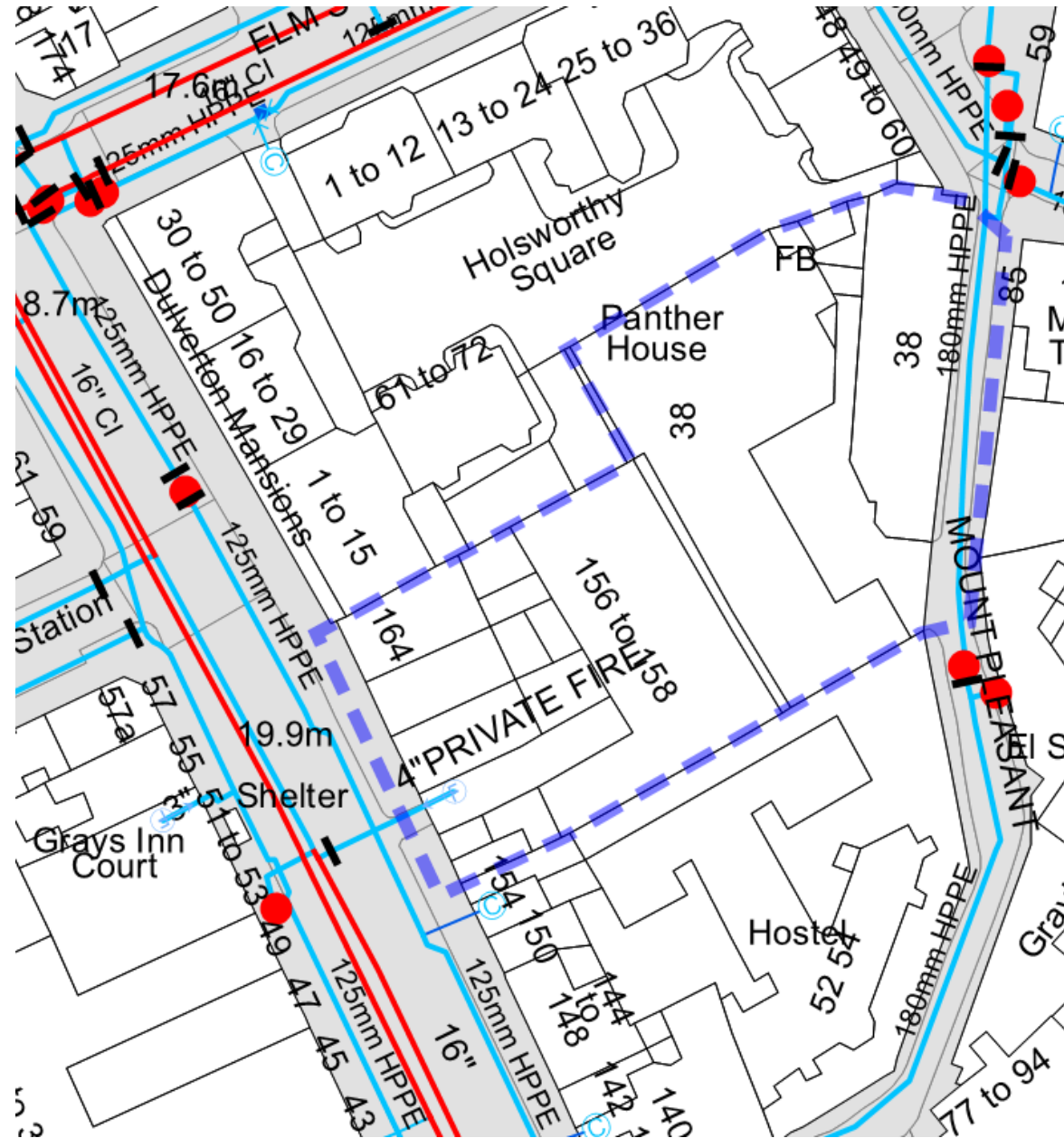


Figure 2: Thames Water Infrastructure.
(Blue lines indicate distribution mains, Red dots indicate Hydrants)
Source: ALS/ALS Standard/2015_3092930, 10 July 2015

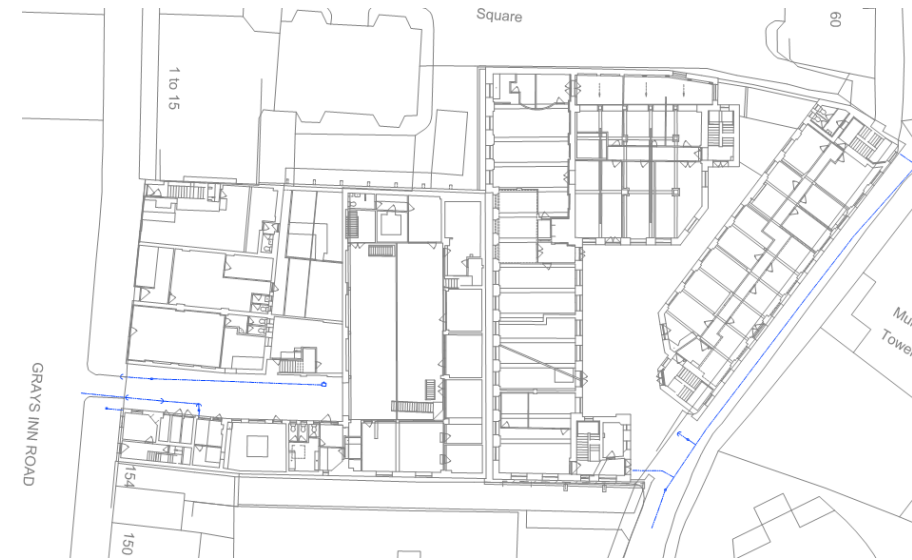


Figure 3: Surveyed Water Infrastructure
Source: Subscan survey drawing 23/7/2015

Description of Existing Utility Water Main Infrastructure

The Thames Water infrastructure drawing shows distribution mains present on both Grays Inn Road and Mount Pleasant.

The radar survey suggests the site is served from 6 water supplies; 3 from Grays Inn Road and 3 from Mount Pleasant as follows:

- Grays Inn Road

There are three domestic water services but it is not clear where they enter the Gray's Inn Road units and the Tramshed. This will be investigated as part of Stage 3.

The Thames Water drawing indicates one supply is a private fire main.

- Mount Pleasant

Panther House Block 1 and Block 2 are fed individually from the mains in Mount Pleasant. Block 1 is fed into the north core of the building and Block 2 is fed into the south core of the building. In addition, there is a connection shown by the radar survey entering the courtyard. The trace is lost within the courtyard so it is not clear where this enters the building.

- Local Hydrants

There is a single hydrant on Gray's Inn Road opposite the site. On Mount Pleasant, there are two fire hydrants off the entrance to the site to the South, and one lies to the North of the site, at the junction with Laystall Street.

Scope of Works for the Project

It is proposed that all water services for the site will be served from a single connection from Mount Pleasant.

This will serve three water tanks: a commercial cold water storage tank, a domestic cold water storage tank and a combined sprinkler tank. Metered connections will be provided to individual residential and retail units within the Gray's Inn Road building.

A new, upgraded supply will be provided. Existing services will be terminated.

3.0 NATURAL GAS

Cadent own and operates the natural gas network serving and surrounding the site. Cadent is a new brand for National Grid Gas Distribution and therefore the drawings we have on record for the site are branded 'National Grid'.

An extract of the desktop drawing from National Grid is in Figure 4, whilst the utility infrastructure represented in the survey can be seen in Figure 5.

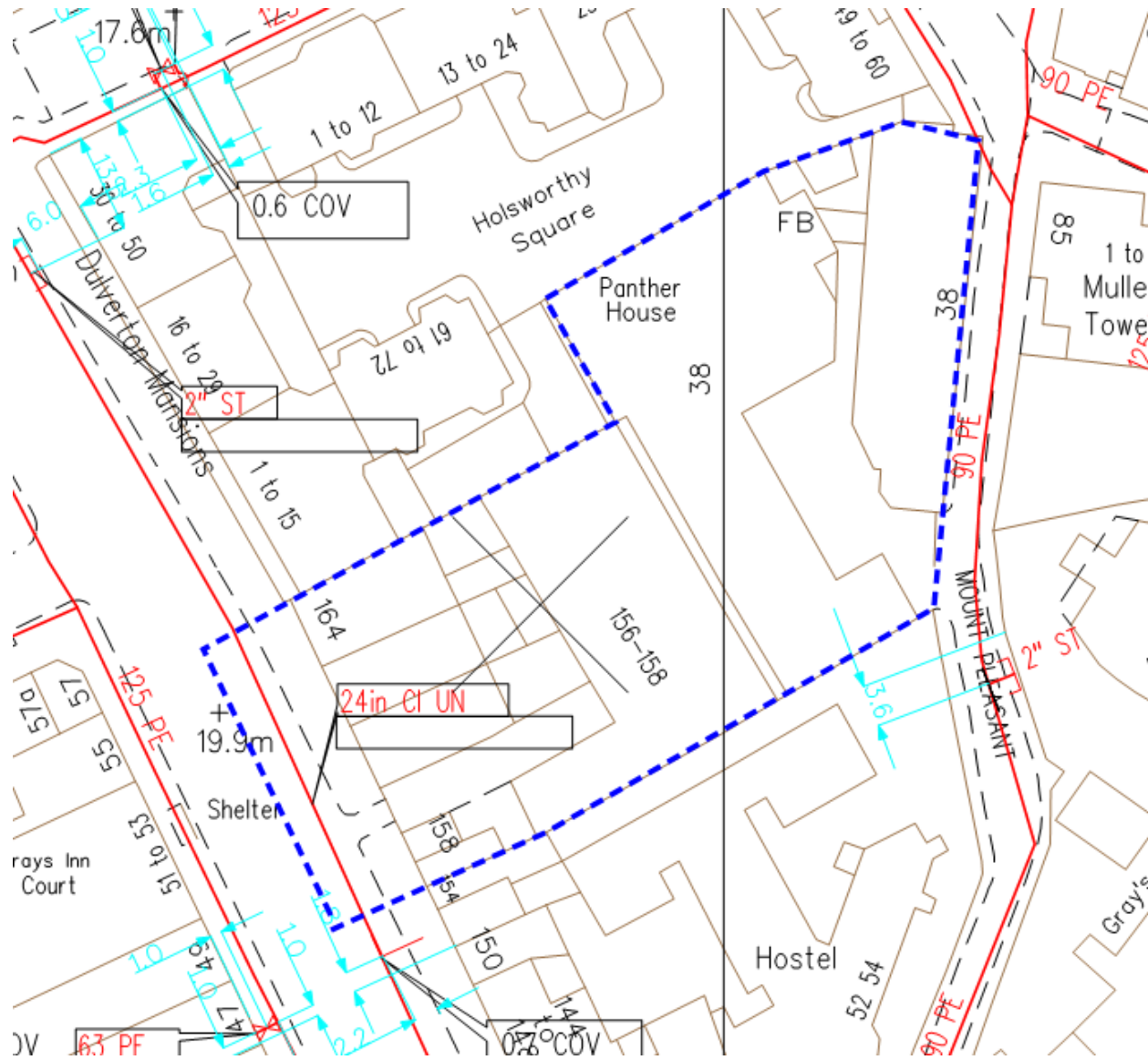


Figure 4: National Grid Infrastructure



Figure 5: Natural Gas Surveyed Infrastructure
Source: Subscan survey drawing 23/7/2015

Description of Existing Natural Gas Infrastructure

The drawings provided by National Grid, show gas mains routing in both Gray's Inn Road and Mount Pleasant.

The survey drawing shows two connections to the site: one to Panther House Block 1 (to the north) and one to 156 Gray's Inn Road.

However, we are aware of a boiler and associated to the south of Panther House Block 2, and so we would anticipate there to be an additional gas connection from Mount Pleasant entering the site at this point.

Scope of Works for the Project

Camden's confirmed carbon requirements for the project mean that gas is unlikely to be provided to the project. At present, we envisage all heat will need to be provided to the development by heat pumps.

All existing supplies shall be disconnected.

4.0 ELECTRICITY

UK Power Networks (UKPN) owns and operates the local electrical power network, including the existing substation on site (reference 24304).

The utility infrastructure recognised by the survey can be seen in Figure 7.

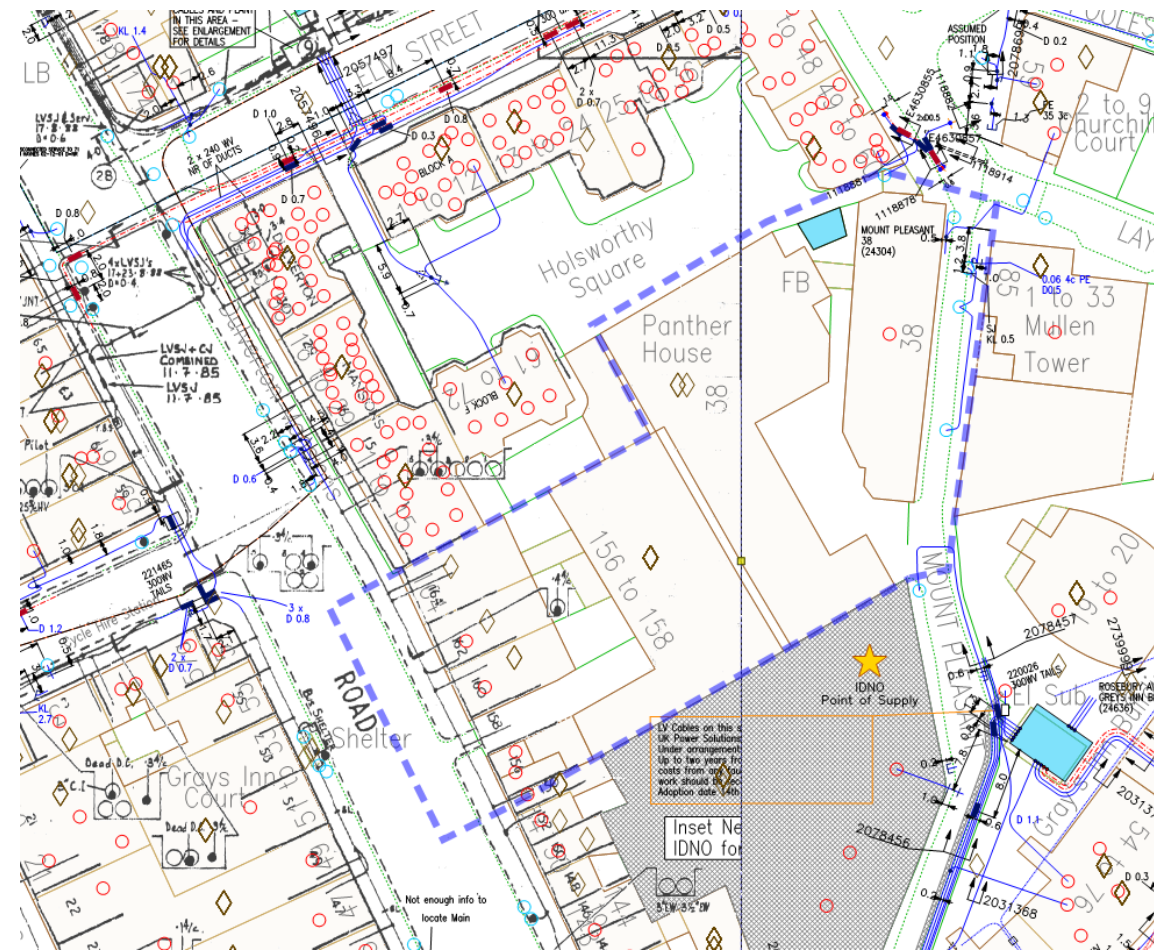


Figure 6: UKPN Network Drawing Showing Substation at North of Site



Figure 7: Surveyed Electrical Infrastructure
Source: Subscan survey drawing 23/7/2015

Description of Existing Power Infrastructure

The UKPN drawing suggests that the Gray's Inn Road building and the Tramshed are fed from the service in the pavement of Gray's Inn Road. This is not currently clear how many services exist at present and this shall be developed through visual services in the forthcoming stage.

There are no individual connections shown from Mount Pleasant and we assume that Panther House Blocks 1 & 2 are both served from the UKPN owned substation on site.

The HV cables are shown on the UKPN lease (figure 9) to enter via Mount Pleasant.



Figure 8: Photo of Existing UKPN Substation. Source: Site visit, Jan 2018

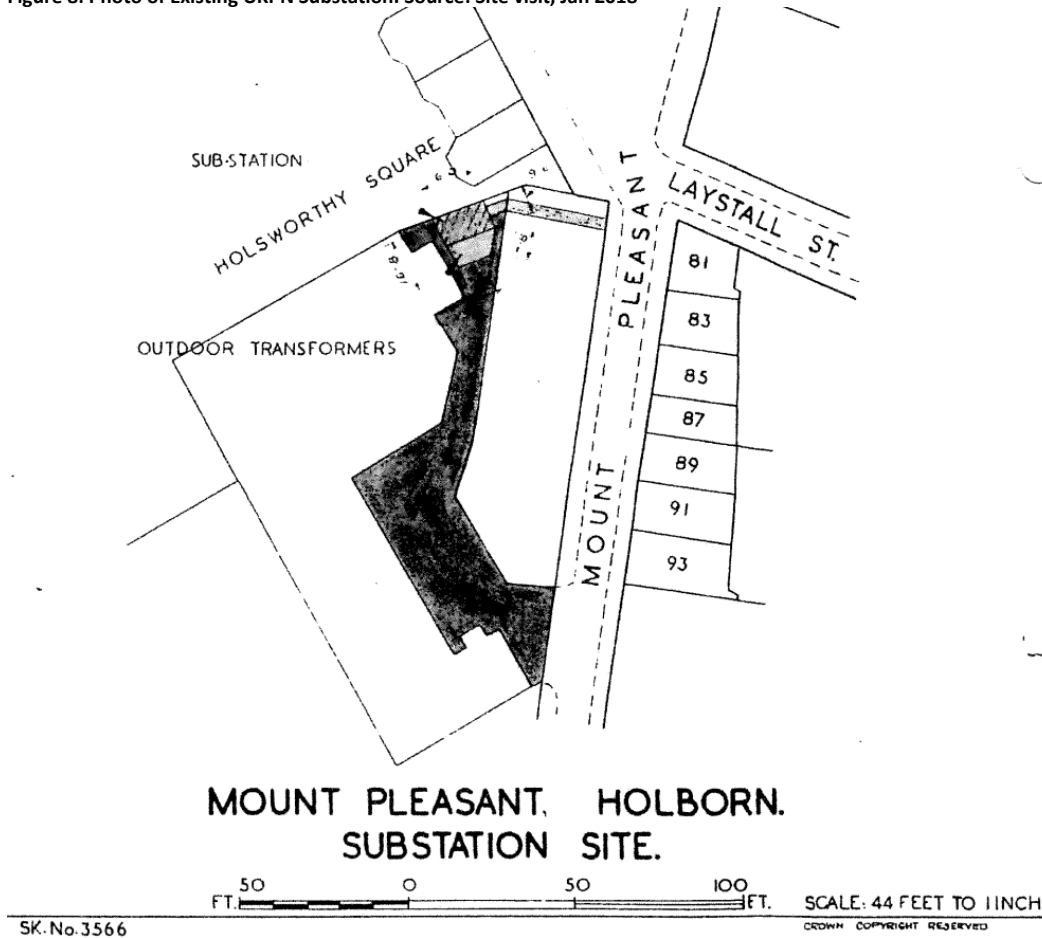


Figure 9 Extract from Substation Lease Document

Figure 9 shows an extract of the lease documents. This highlights that UKPN require 24/7 vehicular access to the substation.

Scope of Works for the Project

Relocate existing network substation to allow the space between Panther House Blocks 1 & 2 to be developed without the need to maintain UKPN’s access requirements. Remove existing HV connection and substations and all associated site supplies.

This will require new network substation to be built and set to work before old substation is demolished. Need careful planning and construction sequencing.

Provide a new substation and HV connection and provide an associated LV switchroom to serve the Panther House Development.

Terminate connections to the Gray’s Inn Road Buildings to allow the site to be demolished. Provide new utility connections to each residential unit.

UKPN have confirmed that to meet the load requirement for the development, one additional substation will be required in addition to the relocated network substation.

We have recently met UKPN on site and clarified their special requirements for the necessary transformers. These requirements, including for their access and the necessary ventilation to the substation, have been incorporated within the Architect’s planning drawings.

A new cable will be taken from the local 33kV Back Hill substation on the corner of Eyre Street and Warner Street to serve the new substation. Refer to figure 10.

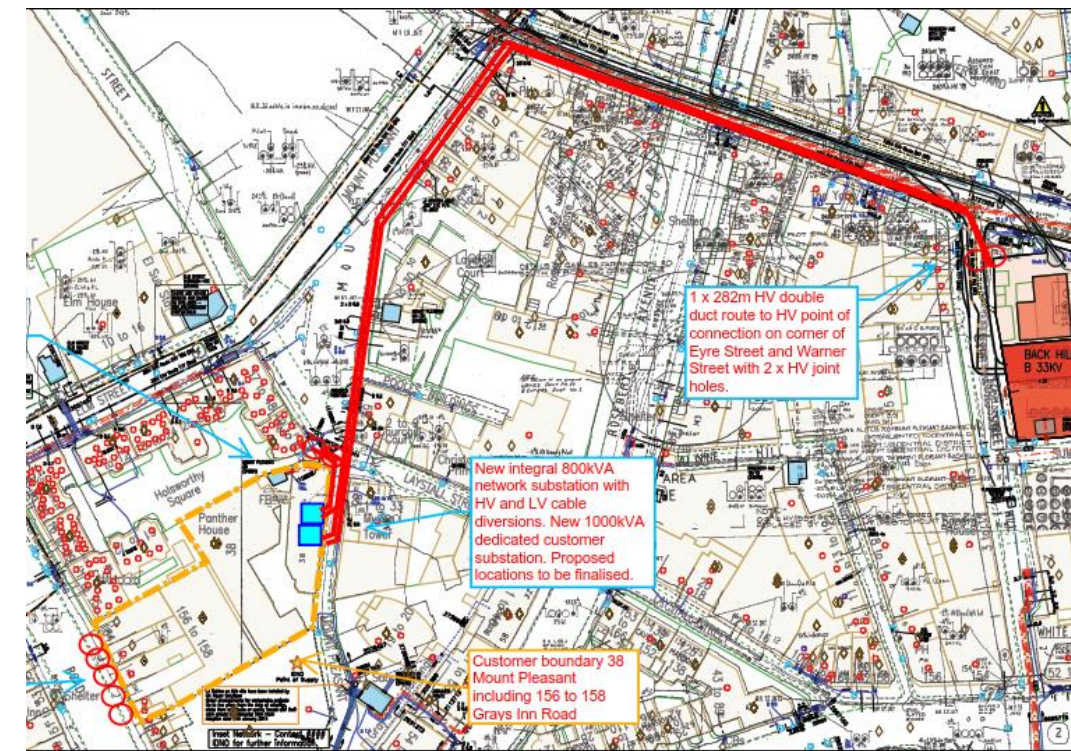


Figure 10 Proposed HV Cable Route from the local Back Hill 33kV Substation

5.0 TELECOMMUNICATIONS

Both BT Openreach and Virgin Media Assets are present around the site.

The drawing shows three joint boxes and connections to Panther house on Mount Pleasant. On Gray's Inn Road three joint boxes are present and connections are shown to Gray's Inn Road.

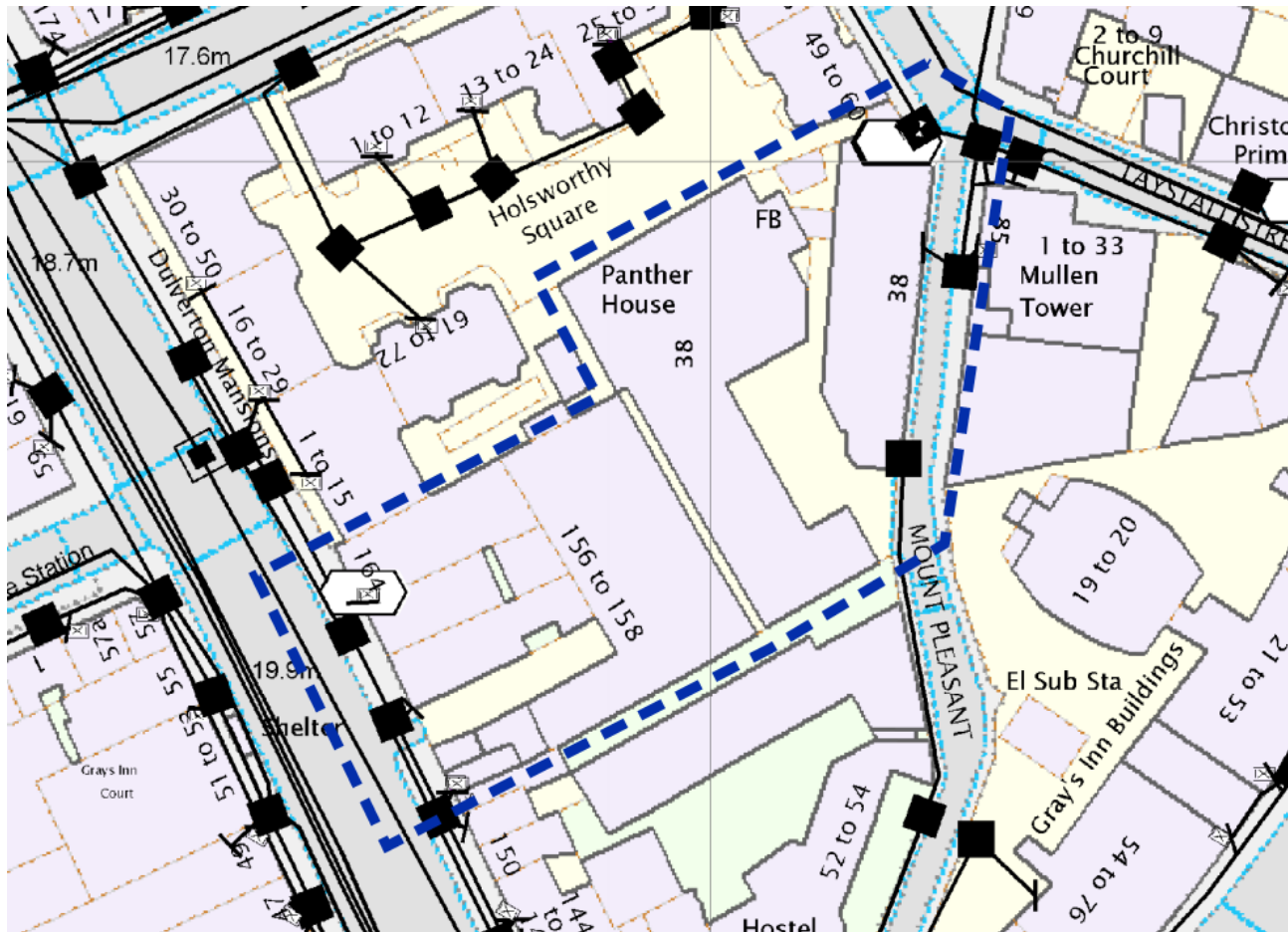


Figure 11: BT Openreach Telecommunications Infrastructure. Source: BT Openreach issued on 09/07/2015.

The utilities map from Virgin Media is shown in Figure 12. There are two distribution and nodal cabinets on Gray's Inn Road outside of numbers 156 and 160-164 respectively. On the opposite side of the plot, on Mount Pleasant, there is one distribution and nodal cabinet serving Panther House.

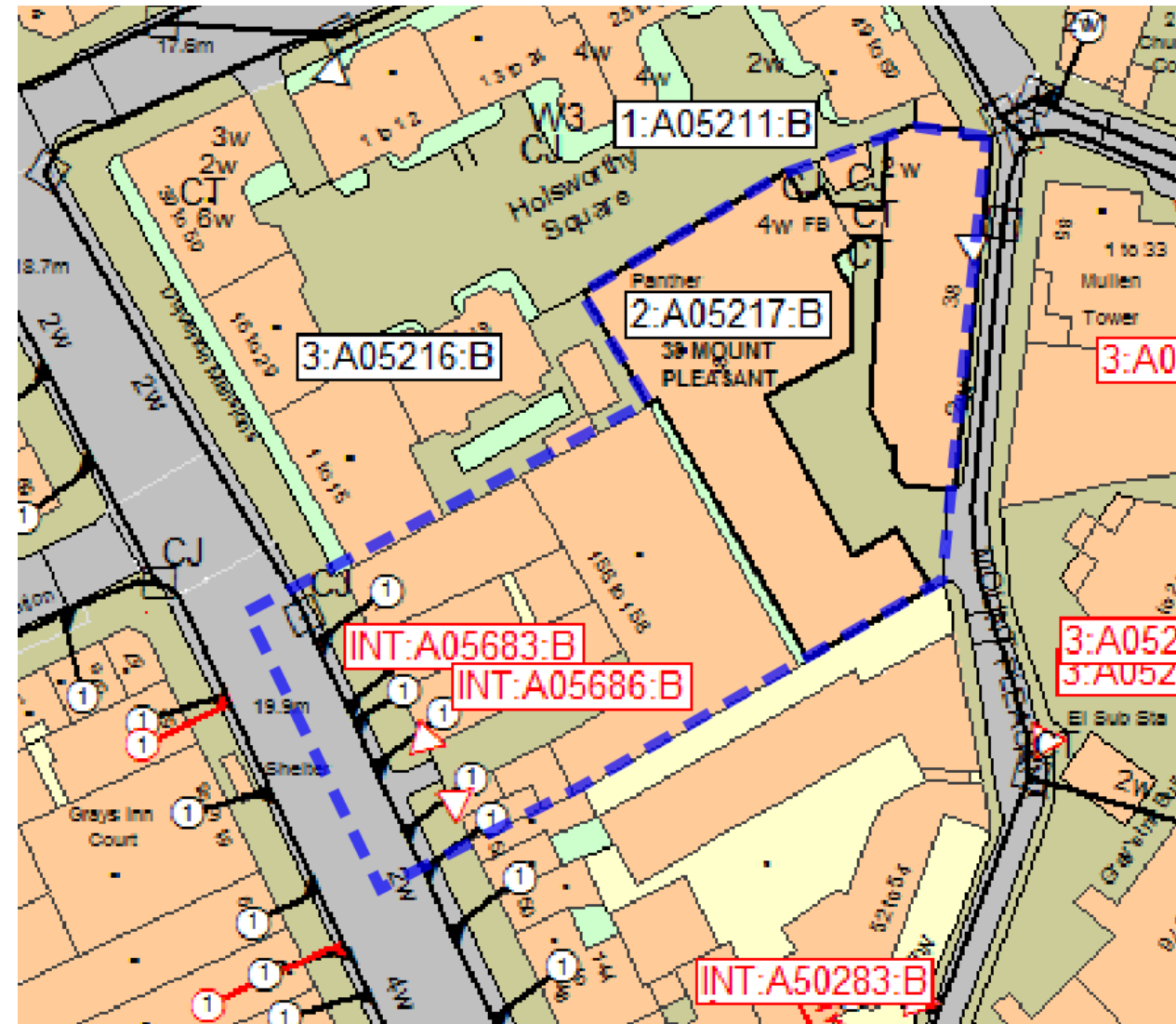


Figure 12: Virgin Media Telecommunications Infrastructure. Source: Received from Virgin Media by email on 27 March 2018



Figure 13: Surveyed Telecommunications Infrastructure. Source: Subscan survey drawing 23/7/2015

Scope of Works for the Project

The project will require the following work to be done:

- Termination of all existing supplies.
- Provision of new supply to proposed Comms Room of the proposed buildings in Panther House Block 1 from Mount Pleasant. This will also serve the retail, restaurant and office units within the Gray's Inn Road building.
- Provision of new supply to Gray's Inn Road building to provide the commercial development with resilience.
- Provision of new supplies to the Gray's Inn Road domestic units from Gray's Inn Road.