Hydrock Satellite Business Park Utilities Strategy Report

For *Mileway*

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1. Introduction

Hydrock have been appointed to provide planning stage advisory services in relation to the demolition, design and construction of the proposed development at Satellite Business Park.

This document forms part of the detailed planning application for the site and will inform the City of Wolverhampton Council Planning Department of the proposed utilities strategy.

The site is currently comprised of existing industrial buildings and is located within the administrative boundary of the City of Wolverhampton Council. The redevelopment will consist of the demolition of existing buildings and the construction of a building for use as a builders merchant. The proposed site plan is shown below in Figure 1.

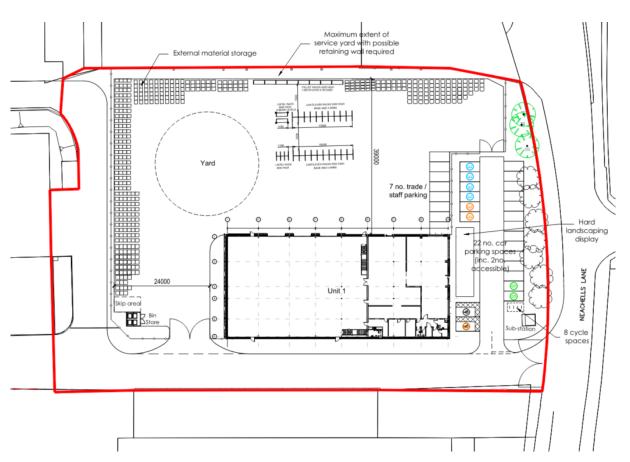


Figure 1: Proposed Site Plan



2. Existing Utility Services

2.1 General

The site is located within the City of Wolverhampton.

Figure 2 shows a combined utilities drawing with the existing utilities overlayed on the proposed site plan.



Figure 2: Combined Utilities Drawing

2.2 Electricity

The local electricity network is owned and managed by Western Power Distribution (WPD).

There are two low voltage electricity supplies to the existing building on the Satellite Business Park site, both supplied via the Western Power Distribution Substation to the south east of the site. The service cables are routed under the carpark to the east of the existing building and around the existing building along the road to the south. The incoming service cables enter the buildings and are terminated into three-phase cut-outs. The existing LV supplies on site that supply the building being demolished will require isolation, disconnection and potentially strip out by WPD.

During the record searches, there was found to be existing low voltage mains and high voltage mains cables clashing with the north east corner of the proposed unit on the site, see Figure 2. The underground LV duct route that clashes is likely to be the electricity entry point to the existing building and so will require alteration throughout the works anyway.



2.3 Communications

The local communications network is owned and managed by BT Openreach.

The existing BT Openreach service is derived from the local network which is routed along Neachells Lane. The communications service cable is then routed into the existing building where it terminates into a distribution point.

2.4 Gas

The local gas network is owned and managed by Cadent Gas.

The current gas supply to the existing building on the site is derived from the gas main pipework within Neachells Lane. The gas service to the existing buildings on site runs below ground in Neachells Lane before entering the existing building and terminating at an internal gas meter.

2.5 Water

The local water network is owned and managed by Severn Trent Water.

There is an existing Severn Trent Water main running underground along Neachells Lane. The water service to the existing buildings on site runs below ground in Neachells Lane.



3. New Supplies

3.1 Electricity

Hydrock have carried out an electrical load assessment for the proposed development based on a typical watts per meter squared approach with figures derived from BISRIA Guide 86/2024 - Electrical Criteria.

The calculation is based upon instantaneous water heaters with electrical heating and cooling within the ancillary areas. No heating is to be provided to the warehouse stores area.

Electric Vehicle Charging has been based on 3.6kW (16A), Single Phase chargers for each of the proposed and future points.

The calculated loads for the development, based upon the above are shown below:

» Total estimated building load - 167kVA (241A), 400V, 3 phase.

This shall be serviced via a new dedicated 315A, Low-Voltage, Three Phase & Neutral supply from the local Distribution Network Operator (DNO) providing 25% headroom for future works. It is anticipated that the new incoming supply shall be derived directly from their existing Distribution Substation located to the South East of the site.

3.2 Communications

Ofcom's online speed checker estimates that download speeds of up to 80 Mb/s and an upload speed of up to 20 Mb/s are currently available.

It is expected that the existing BT route will be extended to the new entrance of the site.

3.3 Gas

There is no requirement for gas on the scheme, as such, the existing supply and meter shall be disconnected and stripped out.

3.4 Water

Hydrock have undertaken a water demand assessment for the proposed developments.

The calculated loads are shown below:

» Domestic Water Supply - 1.0 litres/second

It is anticipated that this water demand would require a 40mm plastic pipework incoming supply.

It is anticipated that the new incoming connections can be made from the existing water main within Neachells Lane.