



FOUL DRAINAGE AND UTILITIES ASSESSMENT

Milton Park, Abingdon

Prepared for: Vale of White Horse District Council and MEPC
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1.0 Introduction

- 1.1 Glanville Consultants has been instructed by MEPC Milton Park to undertake a Foul Drainage and Utilities Assessment for Milton Park, Oxford. The Milton Park Local Development Order (LDO) is a partnership between Vale of White Horse District Council as the local planning authority, and MEPC Milton Park as the landowner. Terence O'Rourke Ltd has been instructed by MEPC to help coordinate the LDO process.
- 1.2 The purpose of the Milton Park LDO is to enable a vibrant business area, promoting employment-generating uses at the business park, to maximise the success of the Science Vale UK Enterprise Zone and give greater confidence to business to invest in Milton Park. It is being prepared in accordance with the Town and Country Planning (Development Management Procedure) (England) Order 2010.
- 1.3 The Milton Park LDO will simplify planning control to give greater flexibility for businesses to develop new premises and facilities or adapt existing premises, whilst maintaining a successful and diverse mix of employment generating uses. Development will only be permitted where the local authority is satisfied that it is in accordance with the permitted uses and development parameters set out in the Order. Development proposals not in accordance with the provisions of the Order will be determined by a planning application.
- 1.4 The LDO has been designed to be effective for a period of 15 years to reflect the typical timescale of business leases and give greater certainty for potential investors.
- 1.5 This report considers all existing services known to be located in the vicinity of Milton Park. It examines the existing situation, the need for diversionary work and the feasibility of providing new supplies to future development located within the Enterprise Zone sites. The utility services considered include:
- Gas
 - Electricity
 - Water
 - Telecommunications
- 1.6 The report also describes the existing foul sewerage system and outlines a strategy for the disposal of foul water from the Enterprise Zone sites once developed.

2.0 Site Description and Proposed Development

Existing Site Description

- 2.1 Milton Park is located in Oxfordshire 5 miles south of Abingdon and 3 miles west of Didcot at Ordnance Survey grid reference SU 48932 191665.
- 2.2 Originally an army ordnance depot, the site was decommissioned after the war and has developed since its purchase in 1973 into one of Europe's largest business parks, and is home to more than 160 companies employing around 6,500 people on the 100 hectare site. The business park currently provides around 2.7 million square feet (250,000 square metres) of employment and ancillary floor space, and provides a mix of offices, high-tech laboratories, industrial units and warehousing.
- 2.3 Initially, services on Milton Park were in private ownership but, since a comprehensive renewal and upgrade programme was undertaken in the 1980s, the utility networks have been adopted by the relevant authorities.
- 2.4 Milton Park benefits from extensive coverage by all of the major utility companies, including:
- Gas - Scotia Gas Networks
 - Water - Thames Water
 - Electricity - Scottish and Southern Energy
 - Telecommunications
 - British Telecommunications
 - Cable & Wireless
 - Virgin Media
 - Trade Waste - United Kingdom Atomic Energy Authority
 - Sewers - Thames Water

Proposed Development

- 2.5 Parts of Milton Park have been included in the Science Vale UK Enterprise Zone (EZ). Nine separate sites have been included within the EZ, the locations of which are shown on the Proposed LDO Area and Parameters Plan prepared by Terence O'Rourke Ltd, a copy of which is included in Appendix A for reference.
- 2.6 MEPC has identified that there is potential for around 600,000 square feet (56,000 square metres) of additional floor space at Milton Park, located within the EZ sites.
- 2.7 This report considers the provision of utility supplies and foul water drainage to serve the potential development sites.

3.0 Utilities

Existing Services

3.1 Historically, combined services drawings for Milton Park have been prepared and maintained by MEPC based on records that have been obtained from the utility companies. These drawings show sewers, plant and apparatus within the vicinity of the site. The principal service providers are as follows:

- Scotia Gas Networks (gas)
- Thames Water (potable water and sewerage)
- Scottish and Southern Energy (SSE) (electricity)
- BT Openreach (telecommunications and cable)
- Cable & Wireless (telecommunications and cable)
- Virgin Media (telecommunications and cable)
- United Kingdom Atomic Energy Authority (trade waste effluent)

Gas – SGN (see Figure 2)

3.2 Gas records supplied by SGN show an extensive network of medium and low pressure gas mains which are accessible from all areas of Milton Park.

Potable Water - Thames Water (see Figure 3)

3.3 Potable water records provided by Thames Water show an extensive network of mains which provide services to all areas of Milton Park.

Electricity – SSE (see Figures 4 and 5)

3.4 Cable records supplied by SSE show an extensive network of high and low voltage cables which are accessible from all areas of Milton Park.

Telecoms - BT, Cable & Wireless and Virgin Media (see Figures 6, 7 and 8)

3.5 Plant records supplied by the telecommunications companies show an extensive network of apparatus which provide services to all areas of Milton Park.

Trade Waste Effluent - United Kingdom Atomic Energy Authority (see Figure 9)

3.6 Milton Park is bisected by water flow and return pipework formerly used to cool the nuclear reactors at the UKAEA site at nearby Harwell. The plant consists of two iron pipes flanked by a multi-core tracing cable.

3.7 The pipeline sits within an easement which extends to 20ft (6m) either side of the pipes or 10ft (3m) to the sides of the multi-core cable, whichever is the greater.

3.8 All development within the pipeline easement is prohibited. However, the only sites affected by the restrictions will be MP3 and MP9.

Service Diversions

- 3.9 It would appear from available record information that no major service diversions will be required to facilitate the proposed developments.
- 3.10 The Harwell pipeline is located within its legal easement and cannot be diverted. As a result all detailed development proposals will need to take into account its location.

New Supplies

- 3.11 In the absence of loading requirements for the individual development sites, it is not possible to obtain detailed proposals from the utility companies for the service provisions. However, from a study of the service records no particular problems are anticipated in providing the sites with gas, water and telecommunication services.
- 3.12 SGN was asked for details of existing capacities within the gas network but was unable to provide any details without detailed proposals being submitted for each development.
- 3.13 SSE was asked for details of existing capacities within the electricity network. Initial discussions have highlighted that the high voltage network has very little spare capacity and that any development after site MP3 has been completed will require an in-depth network analysis to be carried out. It was suggested that this is likely to identify the need for major reinforcement works, both at the Sutton Courtenay Lane switchrooms and to the cable network on Milton Park, to facilitate future developments.
- 3.14 Thames Water was asked for details of capacities within the water mains network. At the time of writing no response has been received.
- 3.15 BT was asked for details of capacities within their duct network. Informal discussions have indicated that there are currently no reported issues in the network. Furthermore, the BT Charter obliges BT to provide a service to any development which requires it. Therefore no issues are anticipated with BT supplies.
- 3.16 Cable & Wireless and Virgin Media will provide quotations for each development on an individual basis once detailed proposals are submitted.
- 3.17 As specific information for the proposals for each site becomes available, detailed plans and service loadings will be submitted to each supplier so that detailed proposals can be obtained for the provision of new supplies.
- 3.18 It is intended to route all new service supplies beneath the development's access roads and footpaths where possible.

4.0 Foul Drainage

Existing Situation

- 4.1 Foul drainage records for Milton Park are shown on Figure 10. These records show an extensive network of adopted sewers and pumping stations across the business park which drain to a centralised pumping station from where sewage is pumped to the main treatment plant at Didcot.

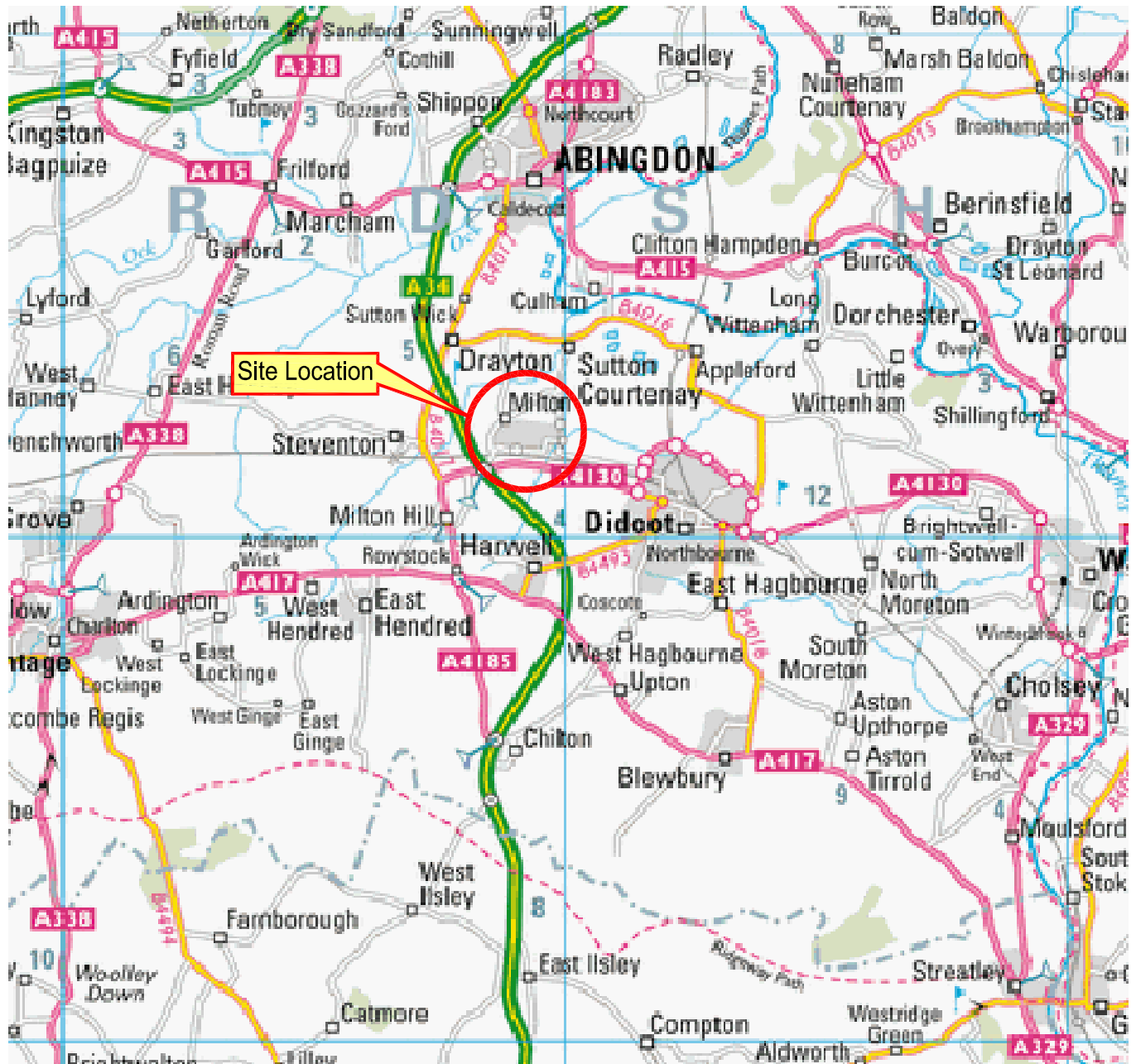
Proposed Drainage Strategy

- 4.2 All of the sites to the north of the railway have access to public foul water sewers within land owned by MEPC.
- 4.3 Public foul sewers pass close to the boundaries of the two sites located south of the railway (MP5 and MP8) but do not pass through land owned by MEPC. Whilst it is anticipated that making connections to the sewer from these two sites is technically feasible, they would involve work on third party land. Connections would therefore need to be made either by agreement by the landowner or by Thames Water requisitioning the connections.
- 4.4 It is expected that Thames Water will require a capacity check of its network prior to consenting the proposed developments once discharge details become available.

5.0 Conclusions

- 5.1 The feasibility of providing future development sites on Milton Park located within the Enterprise Zone with gas, water, electricity and telecommunication supplies has been considered, along with a strategy for the disposal of foul water from the sites once developed.
- 5.2 Gas, electricity, water, telecommunication and foul sewerage infrastructure exist in the vicinity of all of the sites.
- 5.3 No significant service diversions should be necessary to accommodate a development of the Enterprise Zone sites, although the location of an UKAEA pipeline provides a constraint to development of site MP3 and MP9.
- 5.4 In the absence of loading requirements for the individual development sites, it is not possible to obtain detailed proposals from the utility companies for the service provisions. However, from a study of the service records no particular problems are anticipated in providing the sites with gas, water and telecommunication services.
- 5.5 It is likely that major reinforcement works will be required to the electricity supply network to facilitate future development on Milton Park beyond that at site MP3.
- 5.6 It is proposed to provide a new gravity foul drainage system to serve the developments and outfall to the closest existing public Thames Water foul water sewer to each of the developments sites.
- 5.7 All sites, with the exception of MP5 and MP8, have access to public foul sewers within land owned by MEPC Milton Park. Sites MP5 and MP8 both have public foul sewers passing close to the site boundaries which will require either agreement with third parties or sewer requisitions by Thames Water to provide outfalls.

Figures



10KM

MILTON PARK

Figure 1 – LOCATION PLAN



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Scale : As Shown Date : June 2012 File : Fig 1



KEY :-

Gas Main

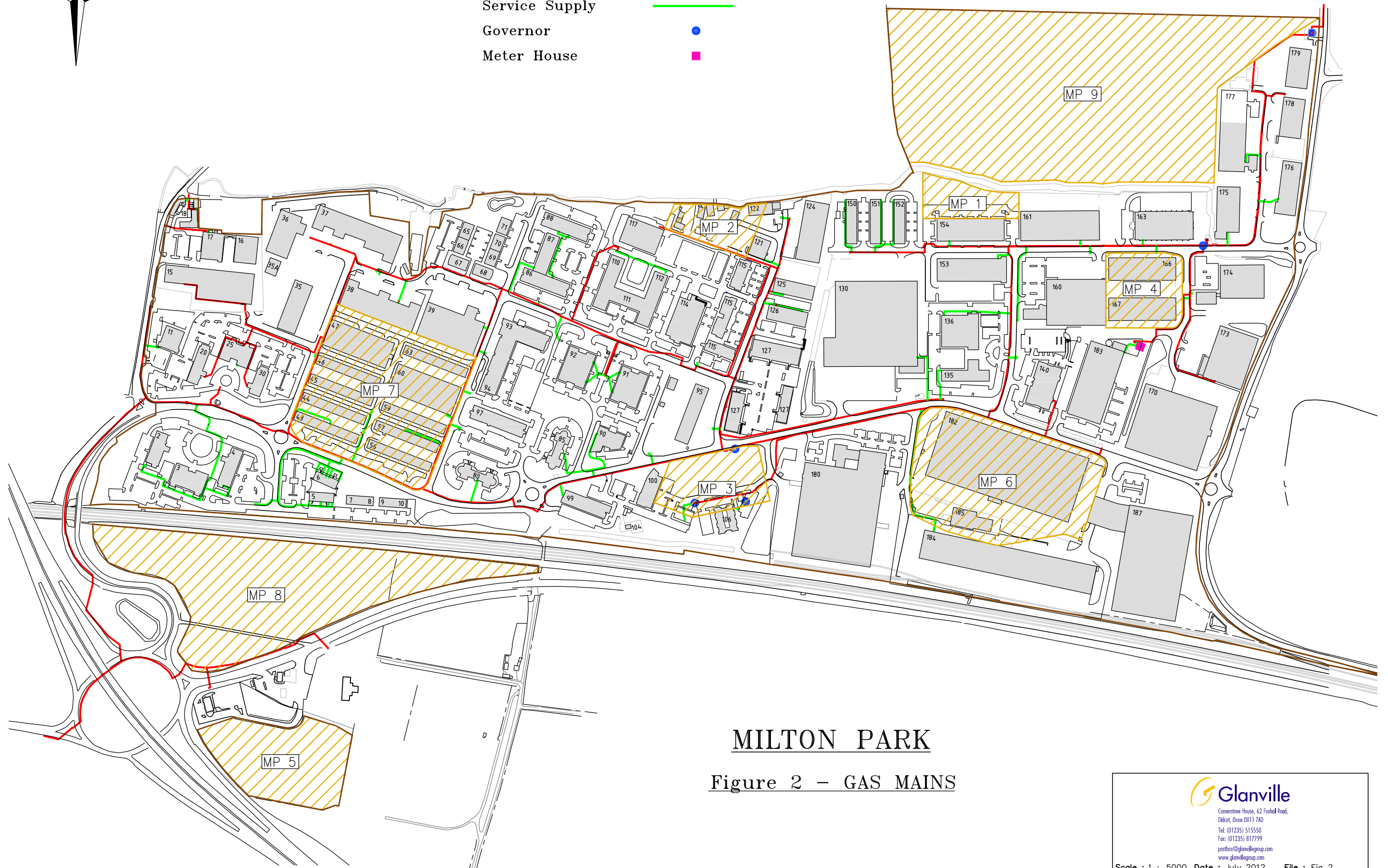
Service Supply

Governor

Meter House



Milton Park



MILTON PARK

Figure 2 - GAS MAINS



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Scale : 1 : 5000 Date : July 2012 File : Fig 2

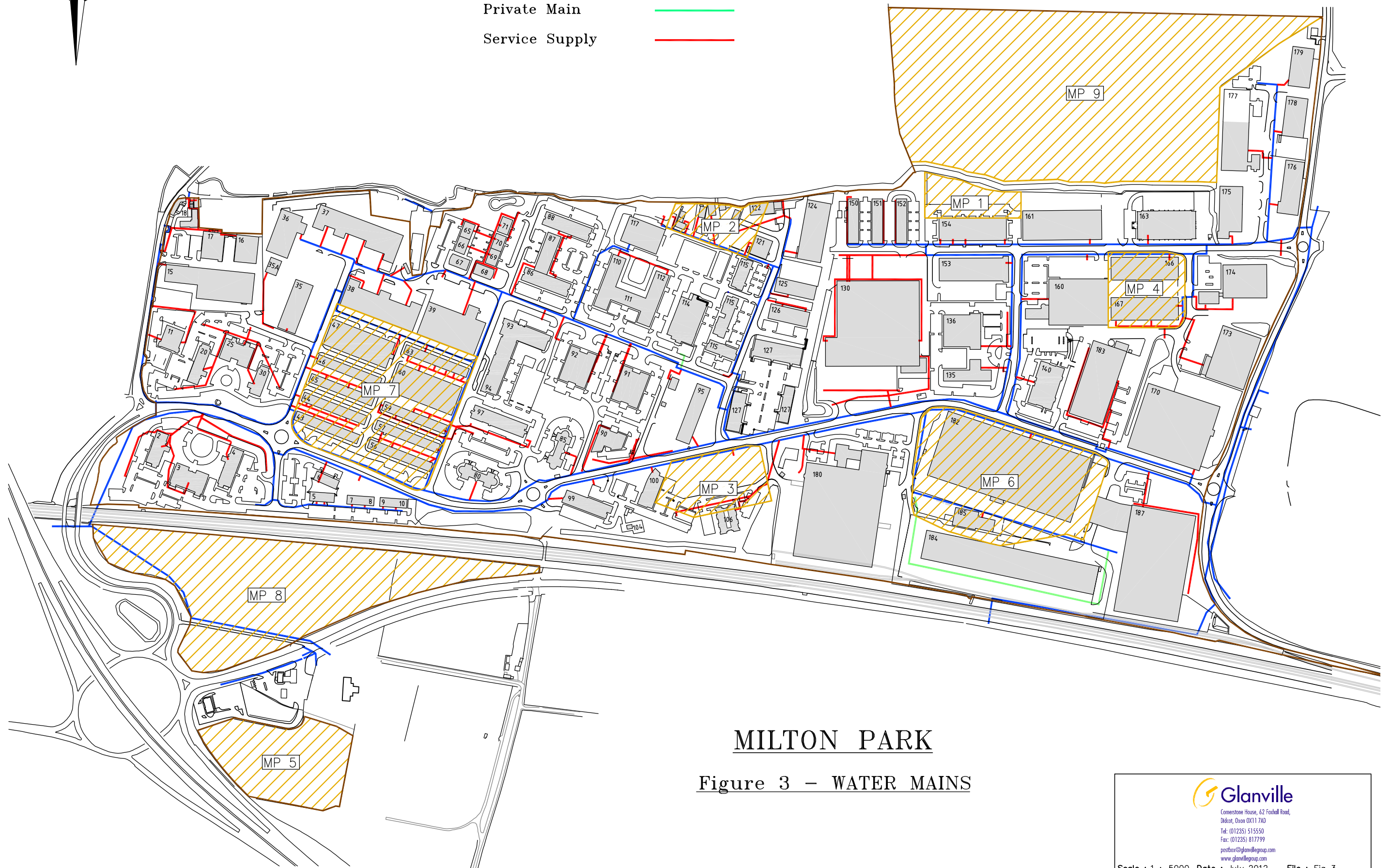


KEY :-

Adopted Main —

Private Main —

Service Supply —



MILTON PARK

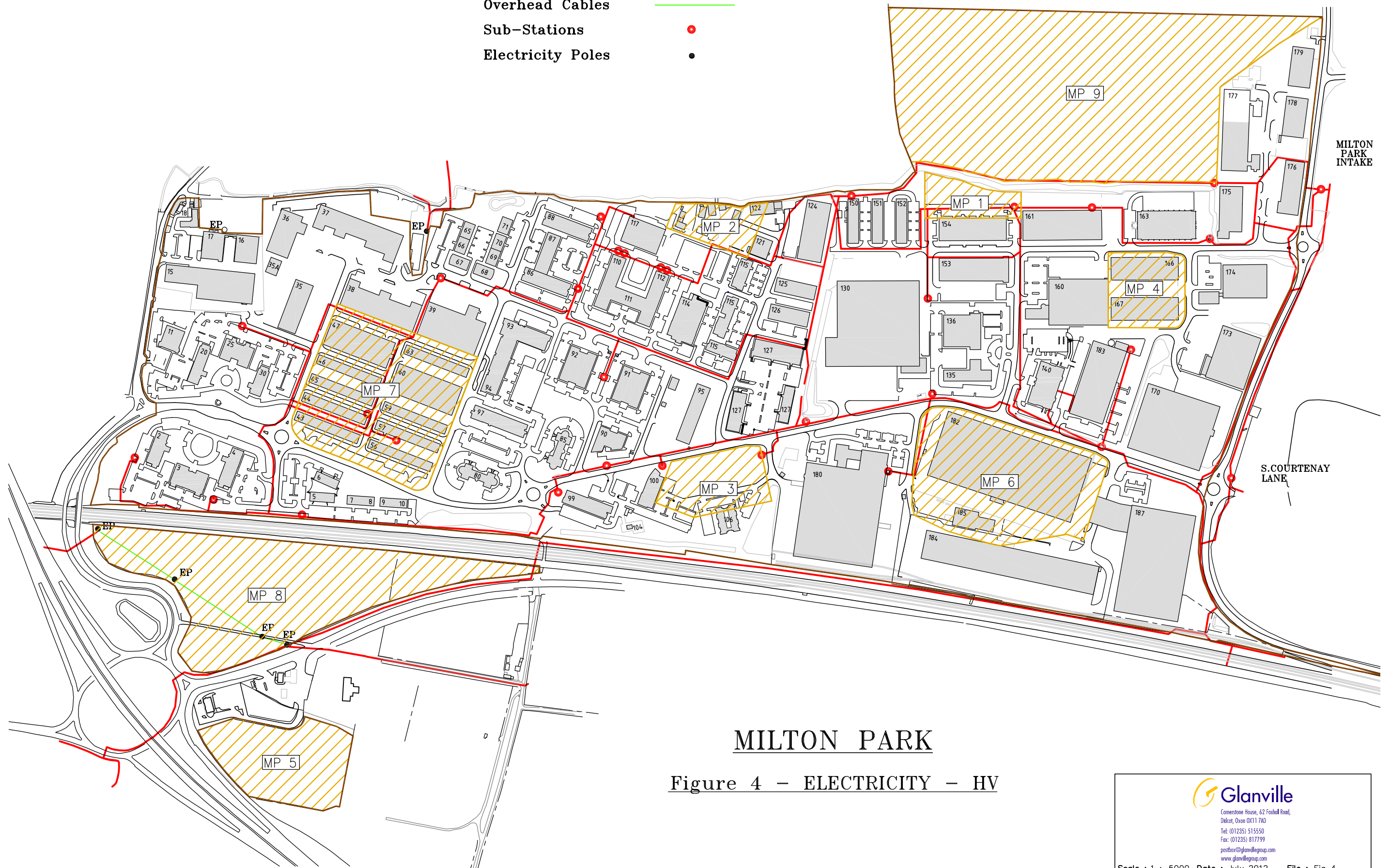
Figure 3 – WATER MAINS

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Scale : 1 : 5000 Date : July 2012 File : Fig 3

KEY :-

- High Voltage Cables ————
- Overhead Cables ————
- Sub-Stations •
- Electricity Poles •

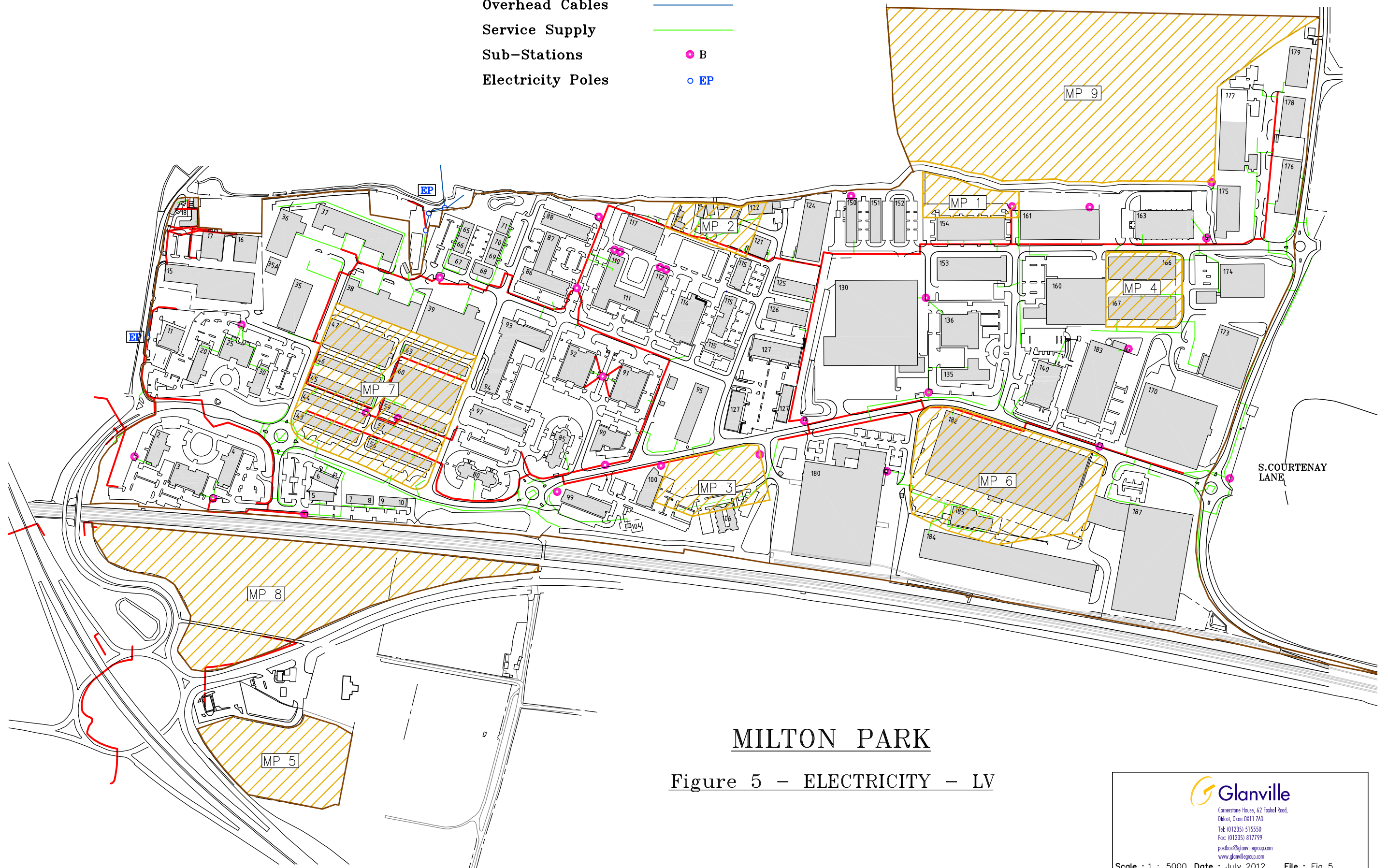


MILTON PARK

Figure 4 – ELECTRICITY – HV

KEY :-

- Low Voltage Cables ————
- Overhead Cables ————
- Service Supply ————
- Sub-Stations ● B
- Electricity Poles ○ EP



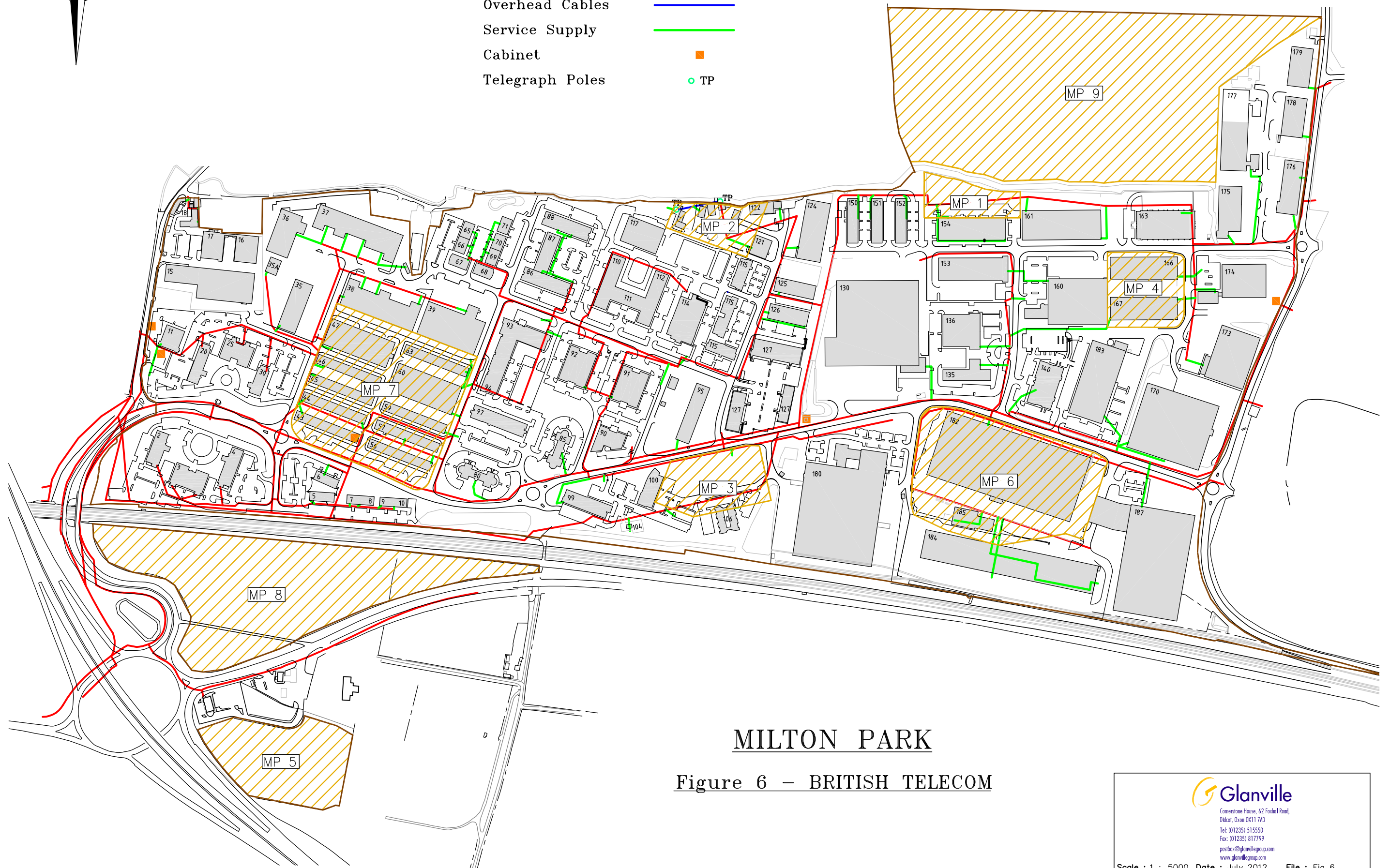
MILTON PARK

Figure 5 – ELECTRICITY – LV



KEY :-

- BT Duct System ————
- Overhead Cables ————
- Service Supply ————
- Cabinet ————
- Telegraph Poles ○ TP



MILTON PARK

Figure 6 – BRITISH TELECOM

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Scale : 1 : 5000 Date : July 2012 File : Fig 6



KEY :-

Duct System



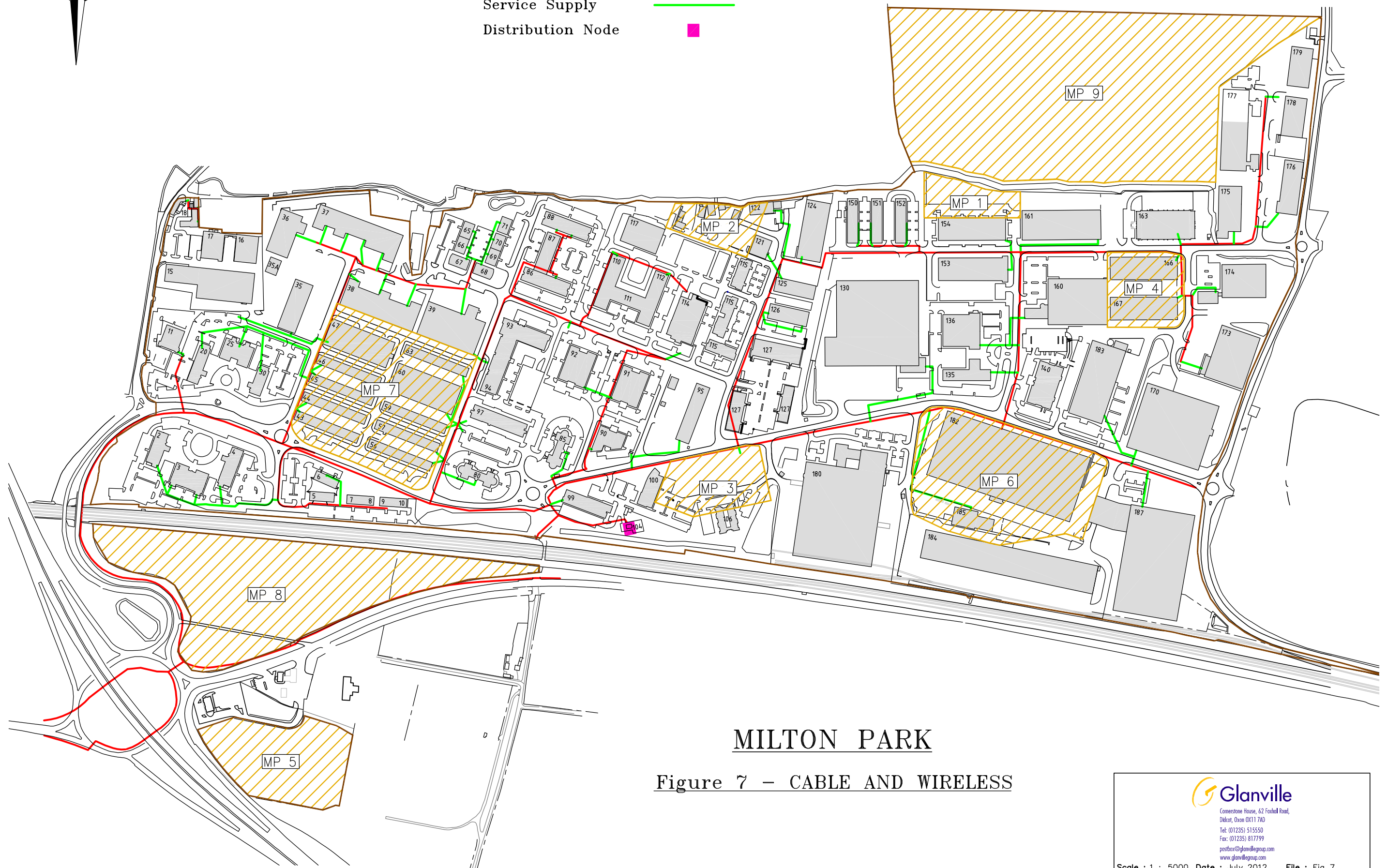
Service Supply



Distribution Node



Milton Park



MILTON PARK

Figure 7 - CABLE AND WIRELESS




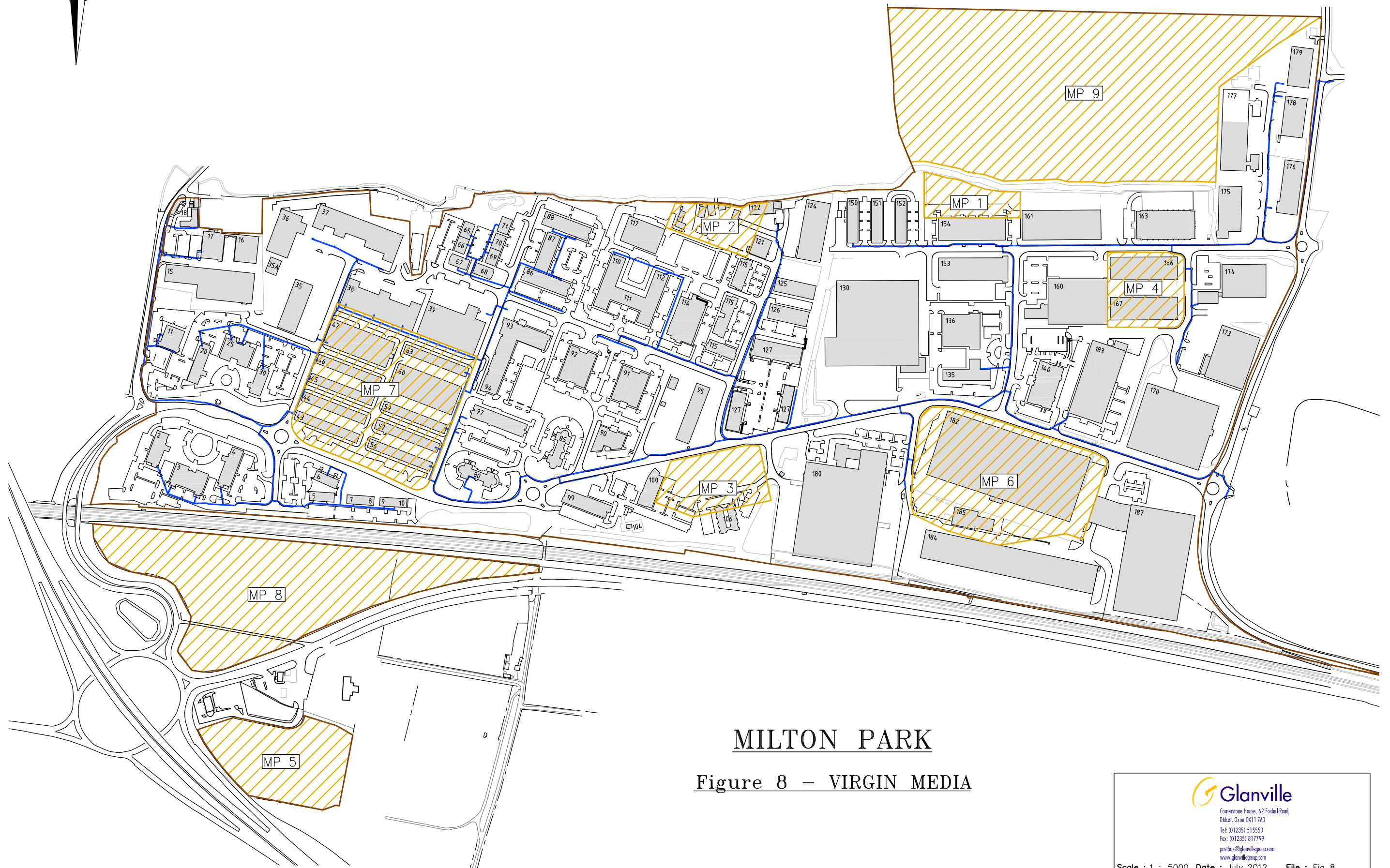
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Scale : 1 : 5000 Date : July 2012 File : Fig 7



KEY :-

Virgin Media 



MILTON PARK

Figure 8 – VIRGIN MEDIA

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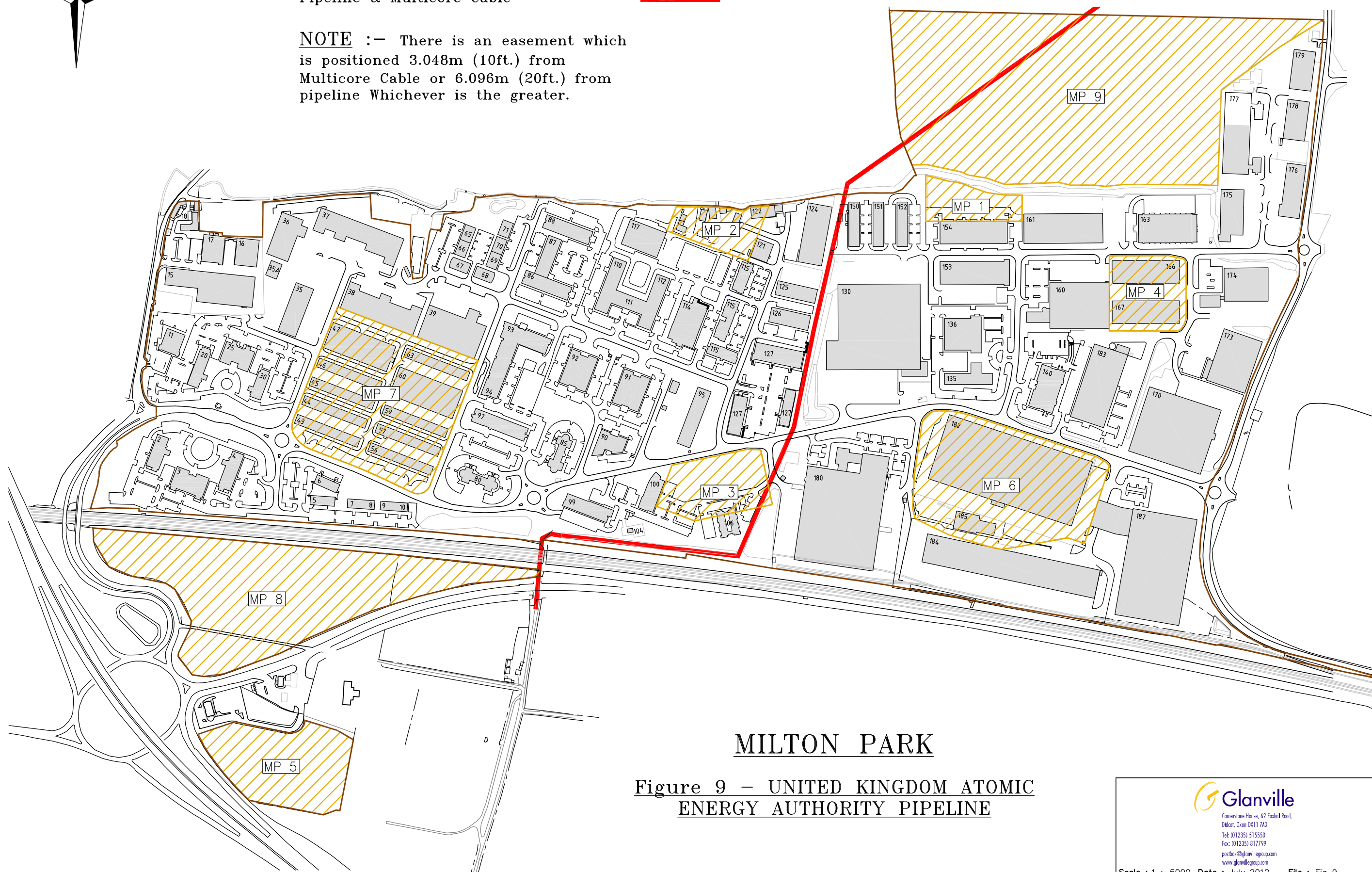
Scale : 1 : 5000 Date : July 2012 File : Fig 8



KEY :-

United Kingdom Atomic Energy Authority
Pipeline & Multicore Cable

NOTE :- There is an easement which
is positioned 3.048m (10ft.) from
Multicore Cable or 6.096m (20ft.) from
pipeline Whichever is the greater.



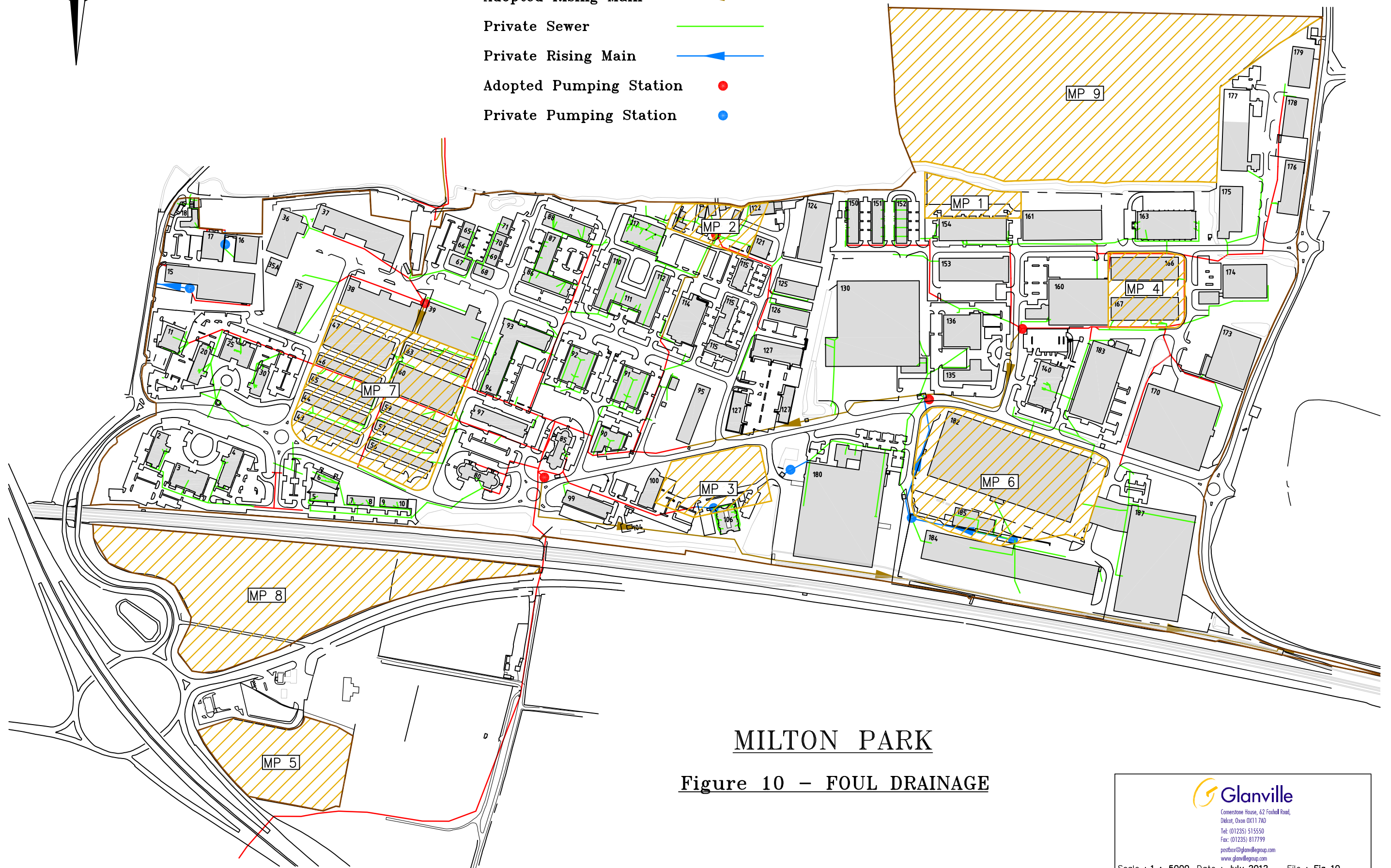
MILTON PARK

**Figure 9 – UNITED KINGDOM ATOMIC
ENERGY AUTHORITY PIPELINE**



KEY :-

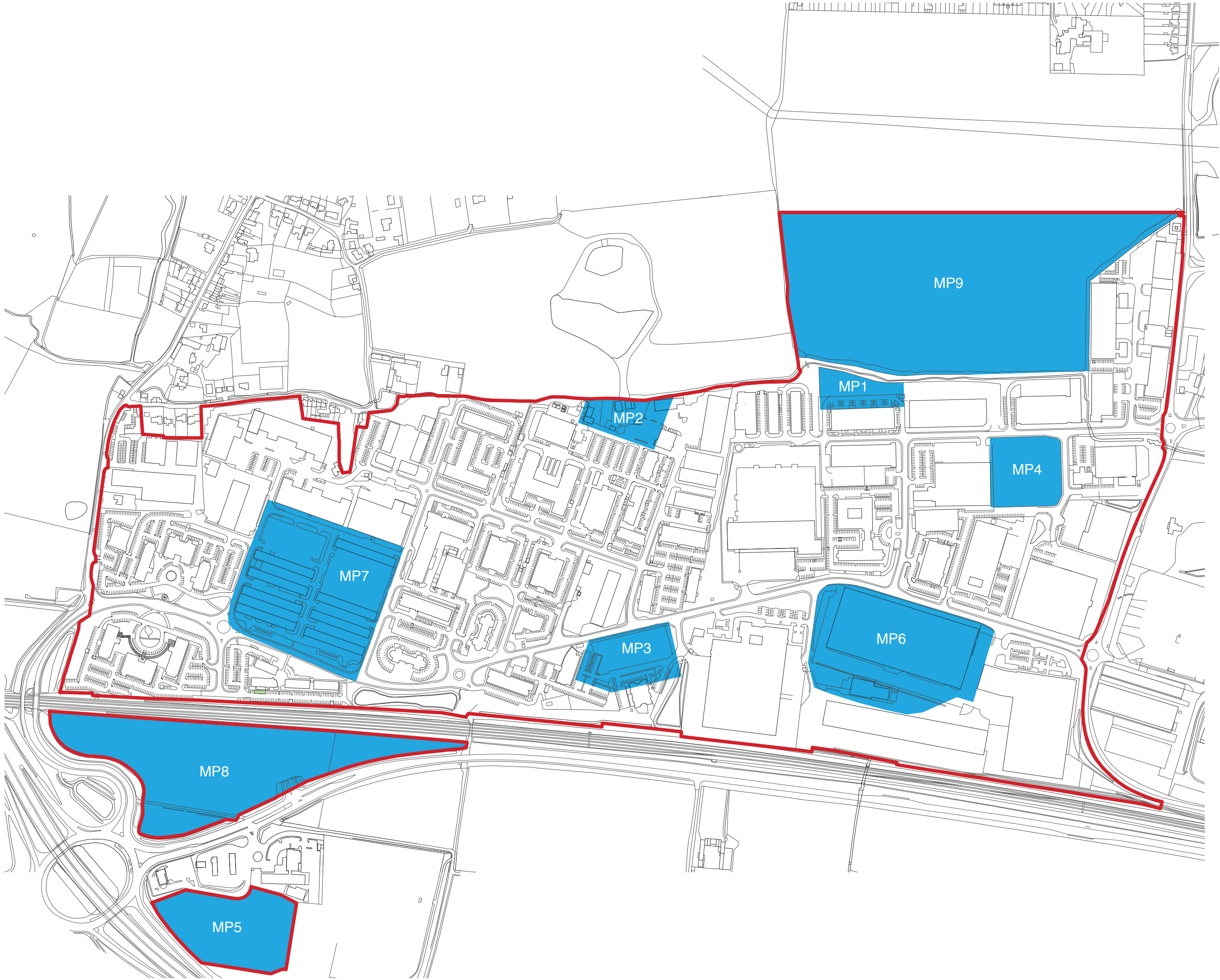
- Adopted Sewer —
- Adopted Rising Main —▶
- Private Sewer —
- Private Rising Main —▶
- Adopted Pumping Station ●
- Private Pumping Station ●



MILTON PARK

Figure 10 – FOUL DRAINAGE

Appendix A
Proposed LDO Area Parameters Plan



- Key
- LDO boundary
 - LDO zone
 - MP1 0.447 Ha
 - MP2 0.481 Ha
 - MP3 0.898 Ha
 - MP4 0.915 Ha
 - MP5 1.882 Ha
 - MP6 3.356 Ha
 - MP7 3.834 Ha
 - MP8 5.813 Ha
 - MP9 10.261 Ha

Notes



MEPC

Milton Park LDO

Proposed LDO area

199302 PLDOA

Draft	drawn by SWD
Feb 2012	checked by JI
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