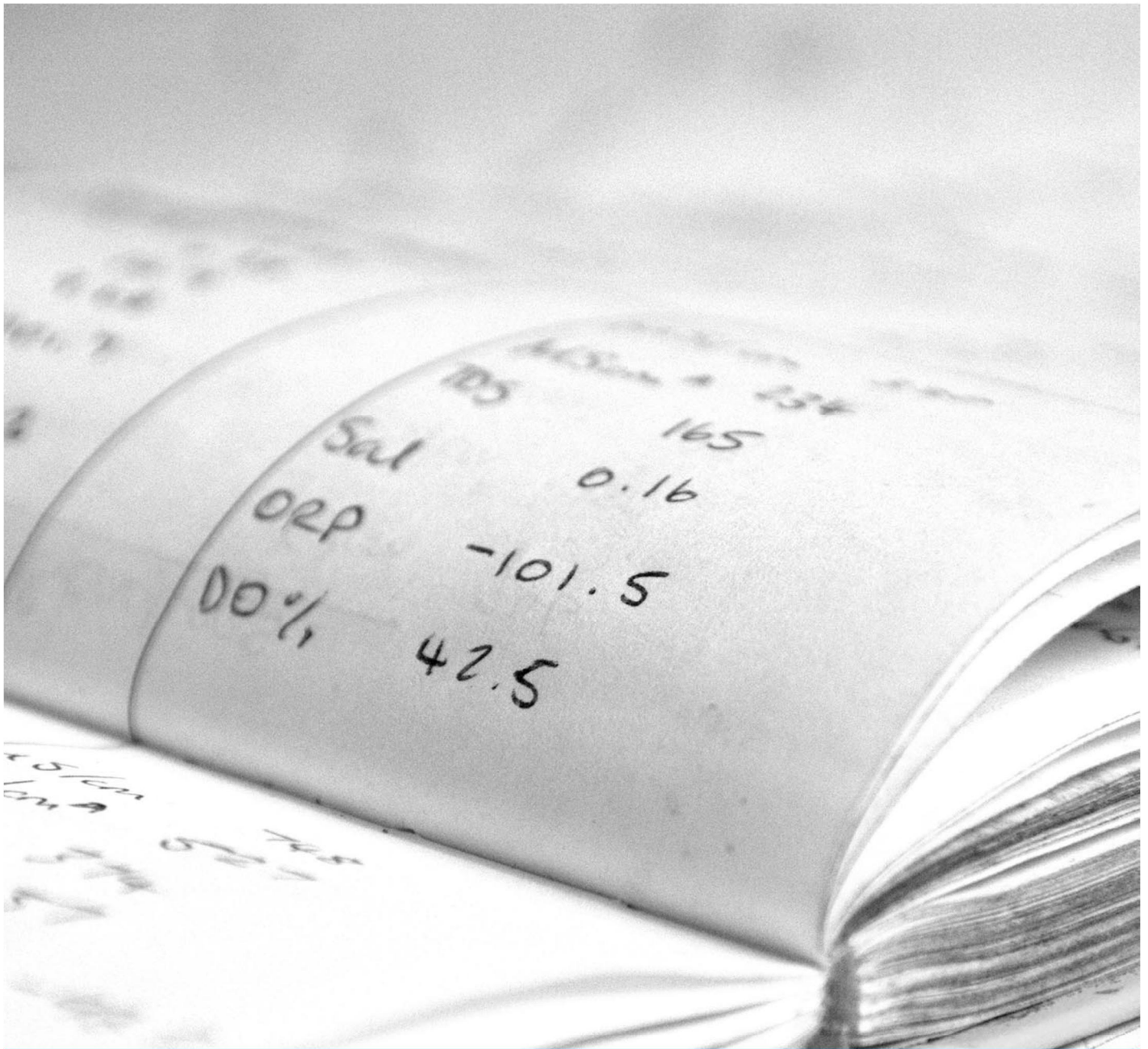




UNITED  
BY OUR  
DIFFERENCE



Outline Utilities Strategy  
Acrefair (South), Wrexham  
Air Products Plc

September 2011

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# QM

| Issue/revision | Issue 1                                                                           | Revision 1 | Revision 2 | Revision 3 |
|----------------|-----------------------------------------------------------------------------------|------------|------------|------------|
| Remarks        |                                                                                   |            |            |            |
| Date           | 15 September 2011                                                                 |            |            |            |
| Prepared by    | Sandy Griffin                                                                     |            |            |            |
| Signature      |  |            |            |            |
| Checked by     | Richard Jones                                                                     |            |            |            |
| Signature      |  |            |            |            |
| Authorised by  | Sandy Griffin                                                                     |            |            |            |
| Signature      |  |            |            |            |
| Project number | 11191085                                                                          |            |            |            |
| File reference | Acrefair/text/reports                                                             |            |            |            |

**WSP Development and Transportation**  
The Victoria  
150-182 The Quays  
Salford  
Manchester  
M50 3SP

**Tel: +44 (0)161 886 2400**  
**Fax: +44 (0)161 886 2401**  
**<http://www.wspgroup.com>**

WSP UK Limited | Registered Address WSP House, 70 Chancery Lane, London, WC2A 1AF, UK | Reg No. 01383511 England | WSP Group plc | Offices worldwide

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# Executive Summary

## CONTEXT

WSP UK Limited was instructed by Air Products Limited to provide an outline utility strategy covering electric, water, gas and telecoms to inform and support a proposed residential development comprising up to 220 units at its former engineering works in Acrefair, North Wales.

## INVESTIGATION INFORMATION

WSP has undertaken a utility search of all the services which may have apparatus in and around the site.

WSP has obtained and reviewed utility plans provided by Scottish Power Energy Networks, Wales and West Utilities, Welsh Water, Dee Valley Water and British Telecom.

WSP has consulted with Scottish Power Energy Networks, Wales and West Utilities, Welsh Water, Dee Valley Water and British Telecom to establish constraints and points of connection associated with serving the site.

WSP has undertaken indicative calculations of utility loadings based on the proposed number of residential units.

WSP has also attended site.

## ELECTRIC SUPPLY

The site contains an existing overhead 11kV high voltage network.

Scottish Power Energy Networks has advised that this overhead network can be diverted underground to accommodate a future master plan proposals.

Scottish Power Energy Networks has advised the nearest point of connection to serve a development of up to 220 residential units is on to the 11kV high voltage network in King Street.

A secondary sub-station will be required in the site to convert the high voltage supply to a low voltage supply suitable for residential use.

## GAS SUPPLY

The site contains no gas main networks.

Wales and West Utilities has advised that there is capacity in the surrounding gas supply network to serve a proposed development of up to 220 residential units.

Depending on the point of connection a gas governor may be required on site to support the development if the supply is from an existing medium pressure gas main.

## WATER SUPPLY

The site contains no live water trunk or distribution mains.

Dee Valley Water has advised that the existing mains in the surrounding area can service a proposed development of up to 220 residential units and no off-site reinforcement is anticipated.

## TELECOMMUNICATIONS

The site contains a telegraph pole at the site's south boundary.

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British Telecom has been unable to confirm a point of connection and if reinforcement is required to its existing network.

The nearest British Telecom apparatus to the site is contained in Llangollen Road's south footway. Depending on the location of any new vehicular access off Llangollen Road a diversion lowering the underground apparatus may be required.

This summary forms part of WSP's Outline Utility Strategy (ref. 11191085). Under no circumstances is it to be used as an independent document.

---

# 1 Introduction

## 1.1 APPOINTMENT

1.1.1 WSP UK Ltd has been commissioned by Air Products Plc to provide an outline utilities strategy report to inform and support a proposed residential development at the former Air Products Plc site located off Llangollen Road in Acrefair, Clywd.

## 1.2 PROPOSED DEVELOPMENT

1.2.1 The outline utilities strategy shall be developed for a residential site with an approximate area of 8.75 hectares and up to 220 dwellings.

## 1.3 OBJECTIVE OF STRATEGY

1.3.1 The objective of the strategy is to provide information and present proposals on the following:

- Identify the position of existing utility apparatus on site and in the vicinity of the site boundary,
- Identify means of supplying the site with gas, water, electricity and telecoms systems,
- Outline any potential utility diversions required associated with development of the site,
- Outline the points of connection in to the site and utility reinforcement requirements.

1.3.2 Constraints on the existing foul and surface water drainage networks and the strategy for drainage the site are detailed in WSP's document, 'Acrefair (South), Wrexham – Outline Drainage Strategy'.

1.3.3 The utility strategy process comprised a desk study, data research, calculations and consultation with regulatory bodies.

1.3.4 A site visit was undertaken on the 14<sup>th</sup> July 2011 to identify existing utilities that may affect the site.

---

## 2 Existing Site

### 2.1 SITE LOCATION

2.1.1 The site, centred on the National Grid Reference 328013E 343074N, is located at Acrefair in North Wales approximately 2km west of Ruabon and 11km south west of Wrexham. A site location plan can be found in Appendix A of this report.

### 2.2 SITE DESCRIPTION

2.2.1 The site is approximately 8.75 hectares in size and is a mixture of undeveloped brownfield land, open space and wood land. The site has been previously industrially utilised, most recently supporting an engineering works which has been vacated and demolished in 2010. The former engineering works building floor slabs, site roadway, car parks and storage yard area surfacing remain occupying an area of approximately 5.25 hectares.

2.2.2 The site is bounded by the A539, Llangollen Road, to the north beyond which lies a combination of open space and residential properties. Residential properties located along Lancaster Terrace back on to the site's east boundary above the former site's car park. Further south, along the site's east boundary, the land is a mixture of open space and wooded areas. Land to the south of the site is predominately open space with residential properties located along Cae Coch Lane, Station Road and The Haven. King Street, forms the site's west boundary, separating residential and commercial premises from the former engineering works site.

2.2.3 The site's principal access is located off the A539 Llangollen Road. A gated vehicular access also exists on the site's south boundary at the head of Station Road.

---

## 3 Utility Services

### 3.1 GENERAL BACKGROUND

3.1.1 Utility suppliers were consulted to obtain details of their existing plant within or in the vicinity of the site. The results of this consultation can be seen in table 3.1 below.

Table 3.1 – Results of Utility Consultation

| Utility                           | Category        | Status                        |
|-----------------------------------|-----------------|-------------------------------|
| SP Energy Networks                | Electricity     | Plant in and adjacent to site |
| Wales West Utilities              | Gas             | Plant adjacent to site        |
| ES Pipelines Ltd                  | Gas             | Plant adjacent to site        |
| BT                                | Telecoms        | Plant adjacent to site        |
| Dee Valley Water                  | Water Mains     | Plant adjacent to site        |
| Welsh Water                       | Water Sewers    | Plant adjacent to site        |
| Gas Transportation Co.            | Gas             | No plant in area              |
| Energetics                        | Electricity/Gas | No plant in area              |
| Fibrespan Network                 | Telecoms        | No plant in area              |
| Gamma Telecom                     | Telecoms        | No plant in area              |
| Interoute                         | Telecoms        | No plant in area              |
| Affiniti                          | Telecoms        | No plant in area              |
| Easynet                           | Telecoms        | No plant in area              |
| Virgin Media                      | Telecoms        | No plant in area              |
| Instalcom                         | Telecoms        | No plant in area              |
| Verizon Business                  | Telecoms        | No plant in area              |
| BT DLT                            | Telecoms        | No plant in area              |
| Colt                              | Telecoms        | No plant in area              |
| TATA                              | Telecoms        | No plant in area              |
| KPN                               | Telecoms        | No plant in area              |
| SSE Pipelines Ltd / Neos Networks | Gas/Telecoms    | No plant in area              |
| Linesearch                        | Oil/Fuels       | No plant in area              |
| OFCOM                             | Telecoms        | No plant in area              |
| Trafficmaster                     | Telecoms        | No plant in area              |
| Spectrum                          | Telecoms        | No plant in area              |
| Fujitsu                           | Telecoms        | No plant in area              |
| Envoy Asset Management Ltd        | Gas             | No plant in area              |
| Energis                           | Telecoms        | No plant in area              |
| Vtesse                            | Telecoms        | No plant in area              |

3.1.2 An assessment of the indicative utility loadings to serve up to 220 residential dwellings has been undertaken, see Appendix B. The indicative loadings have been used in discussions with Scottish Power (electric). For discussions with Wales West

---

Utilities (gas) and Dee Valley Water (potable water) the utility assessment has been based on number of proposed residential dwellings, see paragraph 1.2.1.

3.1.3 Correspondence confirming the status of services on the site following the engineering works decommissioning in 2010 is contained in Appendix C.

## 3.2 ELECTRICAL SUPPLY

3.2.1 Scottish Power Energy Networks utility record maps show electrical networks in the site, see Appendix D.

3.2.2 A high voltage 11kV overhead line, running north west to south west, crosses the site's south east corner. On exiting the site the overhead supply runs underground turning north west in to Station Road where it enters a secondary HV/LV sub-station located off Station Road. No other electrical network is shown within the site boundary.

3.2.3 Scottish Power Energy Networks has advised that the existing overhead network can be diverted underground, where it crosses the site, to suit future master plan proposals.

3.2.4 The former engineering works were served by an on-site 11kV sub-station which was supplied by an overhead feed taken from the high voltage network which currently crosses the site. As part of the engineering works decommissioning the overhead feed supplying the 11kV sub-station and the sub-station itself were both removed.

3.2.5 An underground 11kV high voltage cable runs from the sub-station off Station Road in to King Street's east footway. This cable crosses King Street's carriageway prior to its junction with Llangollen Road and runs along Llangollen Road's south footway heading south west away from the site.

3.2.6 No electrical networks are shown in Llangollen Road's south footway adjacent to the site boundary.

3.2.7 Street lighting columns are located in Llangollen Road's north footway and King Street's east footway. As there are no corresponding low voltage networks shown on Scottish Power Energy Networks utility records these columns shall be served from a local authority supply.

3.2.8 Scottish Power Energy Networks, which owns, operates and maintains the electricity distribution network in the Acrefair area has advised the nearest point of connection to serve a proposed 220 dwelling development is located on the 11kV high voltage network in King Street.

3.2.9 A secondary electrical sub-station will be required in the site to convert the high voltage electrical supply to a low voltage supply suitable for residential use.

3.2.10 An indicative budget cost of £175,000 has been provided by Scottish Power Energy Networks for supplying electrical connections to 220 gas heated plots.

3.2.11 Scottish Power Energy Network's advice is indicative only as it is based on a desk top study. Confirmation of a point of connection and reinforcement requirements will be confirmed following receipt of an application for a formal point of connection.

## 3.3 GAS SUPPLY

3.3.1 Utility maps provided by Wales and West Utilities, in their role as a Licensed Gas Transporter, show gas mains in the highways surrounding the site, see Appendix E.

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3.3.2 A 6 inch diameter steel medium pressure gas main is located in King Street. This main extends in to The Haven and terminates at the site's south boundary. This main formerly fed the site's gas governor located on the site's south boundary at the head of The Haven. As part of the site's decommissioning the gas governor has been removed.

3.3.3 A 180mm diameter PE low pressure gas main is located in King Street's carriageway. This main extends in to Llangollen Road and runs along the highway's northern edge opposite the site boundary.

3.3.4 A 63mm diameter PE low pressure gas supply supports the residential development on Lancaster Terrace.

3.3.5 In addition to Wales and West Utilities other gas suppliers have networks in the area, for example ES Pipelines Ltd and GTC Pipelines. However, these networks are small supplies to existing residential developments located to the north of Llangollen Road.

3.3.6 Utility records show no live gas mains existing on the site. Correspondence obtained of the decommissioning of the engineering works confirms the gas supply has been disconnected and the on-site pipes purged.

3.3.7 Wales and West Utilities has advised that there is capacity in the existing gas supply network feeding the Acrefair area to supply the proposed development. However, at this stage it cannot guarantee capacity or provide figures of available capacity as it operates on a first come first serve policy and each response is only valid for ninety days. However, Wales and West Utilities see no overriding constraints that would preclude or restrict the development of this site.

3.3.8 Depending on the future point of connection for a gas supply provided by Wales and West Utilities a gas governor may be required on site to support the development if the supply is taken from an existing medium pressure gas main.

3.3.9 Wales and West Utilities has been unable to provide any costs for the development at this stage due to no detailed infrastructure layout being available. However, it has provided the following average costs for different elements of work:

- Mains laid in public highway - £150 per metre
- Mains laid in developers trenches - £50 per metre
- Service laid on a site - £450
- Service laid from public highway - £1200

### 3.4 WATER SUPPLY

3.4.1 Existing records provided by Dee Valley Water show water mains in the site, see Appendix F. These existing water mains are the supplies to the former engineering works; one enters the site off Llangollen Road, to the west of the existing vehicular entrance, and the other from King Street. The main from King Street does not follow the vehicular access route provided by Station Road and The Haven. Instead, its route on entering Station Road takes it north east towards the site passing the residential development, Stonecroft, to its south.

3.4.2 Correspondence obtained of the decommissioning of the engineering works confirms the water supplies entering the site have been turned off by Dee Valley Water.

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3.4.3 A 6 inch cast iron main is present in King Street and two mains; a 6 inch asbestos cement main and a 200mm ductile iron main are present in Llangollen Road.

3.4.4 A 6 inch asbestos cement main terminates at the site's east boundary to the south of the Lancaster Terrace residential development.

3.4.5 A feasibility enquiry was made to Dee Valley Water to confirm a point of connection and identify any reinforcement requirements. It has advised that the existing mains in the area can service the development and doesn't anticipate the need for off-site mains reinforcement.

3.4.6 Dee Valley Water has provided details of its current policy to minimise supply pipe leakage and facilitate meter readings:

- For all new developments to be supplied with water on a measured basis (ie through a revenue meter) and for each individual unit within the development to be individually metered (and billed directly by Dee Valley Water),
- For all meters to be located externally to buildings, at the highway boundary and in pedestrian/verge areas only. Dee Valley Water liability to terminate at the boundary meter.

3.4.7 Dee Valley Water has been unable to provide any costs for the development at this stage due to no detailed infrastructure layout being available. However, it anticipates a 180mm link main is required through the development to provide a supply.

3.4.8 Dee Valley Water has provided the following charges which each new unit will incur in the financial year 2011/2012:

- Connection application charge per property - £46.07
- Connection Charge (excl. excavation & backfill) - £259.88 plus VAT
- Water Infrastructure Charge - £312.19 plus VAT
- Sewerage Infrastructure Charge - £312.00 plus VAT
- Building Water Charge (unless metered) - £48.39 plus VAT

The above charges apply to payments made in the financial year 2011/2012 and are reviewed annually.

### 3.5 TELECOMMUNICATIONS

3.5.1 British Telecom has existing underground apparatus in Llangollen Road's south footway, adjacent to the site's north boundary, see Appendix G. If a new vehicular access is sited off Llangollen Road into the proposed development a diversion lowering the telecom's apparatus in Llangollen Road's south footway may be required.

3.5.2 British Telecom has underground and overhead apparatus in King Street and Station Road.

3.5.3 No apparatus is shown within the site boundary. However, a telegraph pole is evident in the site's south boundary adjacent to the former gas governor.

3.5.4 British Telecom, through its Openreach newSites business, has a license obligation to provide service to any end customer requiring a connection, although this is subject to possible network reinforcement charges. This will include all network provision

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activities to extend Openreach line plant to the site from the nearest existing solid network.

3.5.5 All costs for network reinforcement that exceed a £3400 exemption per plot will be charged to the developer. Where costs fall below £3400 per plot no charge will be raised.

---

## 4 Conclusions

### 4.1 ELECTRIC SUPPLY

4.1.1 The site contains an existing overhead high voltage 11kV electric network. This network can be diverted underground to accommodate the development's future master plan.

4.1.2 A secondary HV/LV sub-station is located off Station Road close to the site's southern boundary.

4.1.3 Scottish Power Energy Networks has provided an indicative point of connection on to the existing high voltage electric network located in King Street. However, it is unable to confirm if reinforcement is required without a formal request for a point of connection.

4.1.4 A secondary sub-station will be required in the site to convert the high voltage supply to a low voltage supply.

4.1.5 Scottish Power Energy Networks has provided an indicative budget cost for connecting 220 dwellings at £175,000.

### 4.2 GAS SUPPLY

4.2.1 The site contains no existing gas networks.

4.2.2 A medium pressure gas main is located in The Haven. This main formerly served the engineering works on the site. Low pressure mains are evident in King Street and Llangollen Road.

4.2.3 Wales and West Utilities has advised that there is capacity in the existing gas supply network feeding the Acrefair area to supply the proposed development and it sees no overriding constraints that would preclude or restrict the development of this site.

4.2.4 Depending on the point of connection a gas governor may be required on site if the connection is to the existing medium pressure main in The Haven.

4.2.5 Wales and West Utilities has provided average costs for mains laying ranging from £50 to £150 per metre and for laying services to plots ranging from £450 to £1200 per plot.

### 4.3 WATER SUPPLY

4.3.1 Utility records provided by Dee Valley Water show the site contains existing water networks serving the former engineering works. However, correspondence obtained on the decommissioning undertaken in 2010 confirms the water has been disconnected.

4.3.2 Water mains are present in King Street and Llangollen Road. A main also terminates at the site's east boundary south of the Lancaster Terrace residential development.

4.3.3 Dee Valley Water has advised that the existing mains in the area can service the development and it doesn't anticipate the need for off-site mains reinforcement.

### 4.4 TELECOMMUNICATIONS

4.4.1 Utility records provided by British Telecommunications show the site contains no existing apparatus. However, a telegraph pole is evident on the site's south boundary.

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4.4.2 Underground telecoms apparatus is located in Llangollen Road's south footway. Depending on the location of future vehicular access points a diversion lowering this existing apparatus may be required.

4.4.3 British Telecommunications has been unable to confirm if reinforcement of its existing network is required. However, it is understood that it may charge for network reinforcement works less an allowance of £3,400 per plot.

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## Appendices, Figures & Tables

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## Appendix A Site Location Plan

J:\WSPDSchemes\Acrefair, Air Products Ltd\DRAWINGS\AUTOCAD\GA General Arrangement\1085-GA-01.dwg 30/09/2011 14:07:45 Smith, Toby



DO NOT SCALE

KEY  
SITE BOUNDARY

|     |          |    |             |     |     |
|-----|----------|----|-------------|-----|-----|
|     |          |    |             |     |     |
| A   | 15/09/11 | TS | FIRST ISSUE | SG  | SG  |
| REV | DATE     | BY | DESCRIPTION | CHK | APD |

DRAWING STATUS: FOR INFORMATION ONLY



The Victoria, 150-182 The Quays, Salford M50 3SP  
Tel: +44 (0)161 886 2400 Fax: +44 (0)161 886 2401  
<http://www.wspgroup.com>

CLIENT: AIR PRODUCTS PLC

ARCHITECT: N/A

PROJECT: ACREFAIR

TITLE: SITE LOCATION PLAN

|                         |                           |                         |
|-------------------------|---------------------------|-------------------------|
| SCALE @ A3:<br>N.T.S.   | CHECKED:<br>SG            | APPROVED:<br>SG         |
| CAD FILE:<br>1085-GA-01 | DESIGN-DRAWN:<br>TS       | DATE:<br>September 2011 |
| PROJECT No:<br>11191085 | DRAWING No:<br>1085/GA/01 | REV:<br>A               |

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## Appendix B   Outline Utility Loadings

|                                        |                  |                                     |                |            |
|----------------------------------------|------------------|-------------------------------------|----------------|------------|
| Project<br>Acrefarm - Air Products Plc |                  |                                     | Status         |            |
| Date<br>By July 2011<br>Checked        | Job no.<br>91085 | Section                             | Sheet no.<br>1 | Rev        |
| Rev                                    | Date             | Details<br>OUTLINE UTILITY STRATEGY |                | Tel<br>Fax |
| Part<br>LOADING                        |                  |                                     |                |            |



REF

OUTPUT

### ELECTRICITY

Indicative loading per unit = 1.5 kW

Estimated total kW =  $220 \times 1.5$   
= 330 kW

Converted to kVA =  $333 / 0.9$  = 366 kVA

say 370 kVA

370 kVA

### GAS

Indicative loading per unit = 5 m<sup>3</sup>/hr

Estimated total loading =  $220 \times 5$   
= 1,100 m<sup>3</sup>/hr

1100 m<sup>3</sup>/hr.

---

## Appendix C Decommissioning Correspondence

**vicky horbury**

**From:** carl payne  
**Sent:** 09 November 2010 10:43  
**To:** vicky horbury  
**Subject:** FW: Acrefair Utilities

---

From: Price, Leslie [mailto:PRICEL@airproducts.com]  
Sent: 16 July 2010 11:39  
To: dave.sharp@wrexham.gov.uk; carl payne; Kim Weekes  
Cc: O'Donnell, Laurence James; Allwood, Sam  
Subject: Acrefair Utilities

Dear all, this e mail confirms the disconnection of utilities from the Acrefair site.

Gas supply- incoming pipework has been physically cut and all site pipes purged.

Water- all incoming supplies to the site have been switched off by our supplier Dee Valley Water.  
Please note one supply to the main office building has been taken on by BDB to service their cabins.

Fire Alarms systems-factory and offices have been made non operational

Telephone and IT systems have been made non operational

Electricity- all power to the factory and all buildings has been isolated this morning with cables physically cut by Scottish Power and NWP Ltd. within the Scottish Power sub-station and at each Ring Main unit.

Note: the incoming supply to the site which enters the Scottish Power sub station is still live and connected to a Scottish Power switch. The out put from this switch has been disconnected by Scottish Power thereby allowing the cables feeding the factory and offices to be cut.

Scottish Power will require more time to carry out the work of removing the switch and engineering works for this has been initiated by SP. The substation is a stand alone building and will interfere with the demolition of the rest of the site. John Payne, BDB Site Manager, has been made aware of the situation and will clearly label the substation as being live.

The substation is locked with the key being the property of Scottish Power and they are the only key holders.

Regards

Les

--  
I am using the free version of SPAMfighter.  
We are a community of 7 million users fighting spam.  
SPAMfighter has removed 304 of my spam emails to date.  
Get the free SPAMfighter here: <http://www.spamfighter.com/len>

10/11/2010



## Distribution Isolation Certificate

### 1. DECLARATION

I, LES PRICE being the Customer's Authorised Person  
representing the occupier viz AIR PRODUCTS LTD ADDRESS ACREFAIR, WREXHAM.  
hereby declare that, having personally established the conditions  
detailed below, which will remain unaltered during the validity of this certificate, the work specified herein may safely be carried out on the following apparatus:  
Points at which system is isolated and locked off: AT S/S 'C' - 11KV INCOMER FROM SPEN PSW.  
Apparatus efficiently earthed at: AT S/S 'C' - 11KV INCOMER FROM SPEN FEEDER ESW  
(These earths may be removed temporarily by NWP without reference to the occupier)  
Warning Notices/Barriers posted at: S/S 'C'

Other precautions or special conditions affecting work: ~~IF~~ ISOLATION & EARTH APPLIED BY SPEN AT SPEN AIR PRODUCTS S/S.

A system diagram indicating all sources of supply at time of issue of this certificate is available.

Description of work to be carried out: CUT CABLE TO DISCONNECT THE MAIN 11KV SUPPLY TO SITE.

I accept that the above work will be carried out under conditions which satisfy the requirements of the NWP Safety procedure and that I will be responsible for Safety Supervision against all risks under my control.

Signed [Signature] being the Customer's Authorised Person  
Time 09.05 Date 16/7/10

### 2 RECEIPT

I hereby declare that I accept responsibility for carrying out the work specified on the apparatus detailed above and that no attempt will be made by me, or by the men under my control, to interfere with any other apparatus.

Signed [Signature] being a Senior Authorised Person appointed by NWP  
Time 9.06 Date 16-7-10

### 3 CLEARANCE

I hereby declare that the work for which this isolation certificate was issued is now completed and that all men under my charge have been withdrawn and warned that it is no longer safe to work on the apparatus specified. All gear, tools and additional equipment have been removed.

Signed [Signature] being a Senior Authorised Person appointed by NWP  
Time 9.48 Date 16-7-10

### 4 CONFIRMATION

The above work is accepted as being complete.

Signed [Signature] being the Customer's Authorised Person  
Time 9.48 Date 16-7-10

Logo file UP1certlogo.jpg  
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MPRN : 2247505  
TEST DATE : 03/03/2010

**CERTIFICATE OF TIGHTNESS TESTING OF GAS INSTALLATION  
TO IGE/UP/1 EDITION 2  
(with Amendments - March 2005)**

**INSTALLATION DETAILS**

Site / Co. Name : AIR PRODUCTS LTD      SiteContact : MR LES PRICE  
Address : AIR PRODUCTS LTD (UK)  
            LLANGOLLEN ROAD      Telephone : 01978 813337  
            ACREFAIR      Mobile :  
            WREXHAM LL14 3HW  
Job Desc. : REMOVE METER REGULATOR ASSEMBLY ÆEmail :  
Location : KISOK  
Fuel Gas : Natural Gas      Strength Test Cert No. : Comps must be strength tested

**TIGHTNESS TEST DETAILS**

**OVERALL RESULT : PASS**

Previous Test Details : No previous test details

Tester's Name : A.EDWARDS / IHIGHTON      Employee / CORGI No. : 215189  
Pressure Gauge : Water (SG 1.0)      Serial No. : n/a  
Cal. Due Date : n/a      GRM : 0.5 mbar  
Let-By Test : Pass      Tightness Test Gas : Fuel Gas  
Comments : TIGHTNESS TEST PRIOR TO DECOMMISSIONING

**SECTION RESULTS**

| Section ID | Result | New / Existing | IV <sub>1</sub> (m <sup>3</sup> ) | OP (mbarg) | Initial TTP (mbarg) | Final TTP (mbarg) | TTD (mins) | Soak Time (days) | Creep Rate (mbar / day) | T <sub>0</sub> (°C) | T <sub>1</sub> (°C) | PA <sub>0</sub> (mbara) | PA <sub>1</sub> (mbara) | GM <sub>corr</sub> (mbar) |
|------------|--------|----------------|-----------------------------------|------------|---------------------|-------------------|------------|------------------|-------------------------|---------------------|---------------------|-------------------------|-------------------------|---------------------------|
| 1          | Pass   | New            | 13                                | 21         | 21                  | 21                | 275        | n/a              | n/a                     | 4                   | 4                   | 1020                    | 1020                    | 0                         |

Tester's Signature :



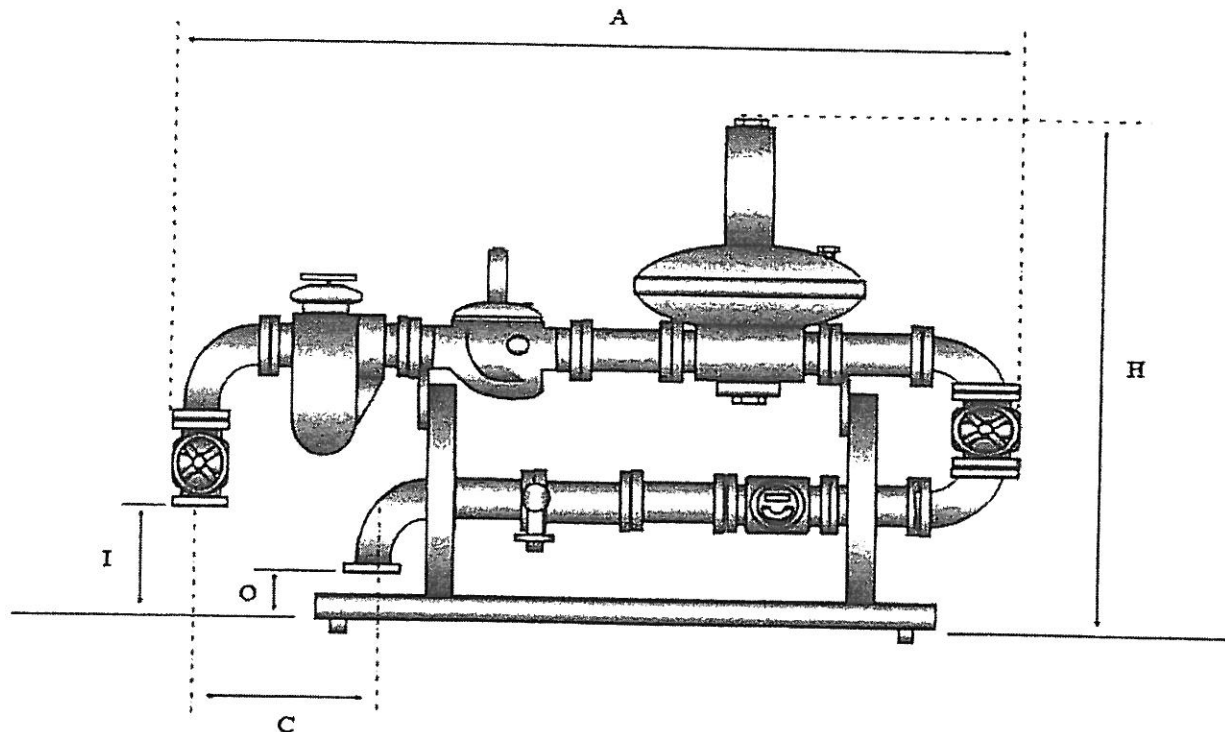
v2.5 March 2009

Page 1 of 2

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missing from template folder.

MPRN : 2247505  
TEST DATE : 03/03/2010

INSTALLATION DIAGRAM OR PHOTOGRAPH



DRMP3

COMPONENT LIST

| Section ID | Component Type | New / Existing | Bypassed | Area Type | Area Volume (m <sup>3</sup> ) | Joints Tested | Meter Type | Pipe Material | Diameter    | Length | Volume (m <sup>3</sup> ) | OP (mbarg) |
|------------|----------------|----------------|----------|-----------|-------------------------------|---------------|------------|---------------|-------------|--------|--------------------------|------------|
| 1          | Meter          | New            | n/a      | n/a       | n/a                           | n/a           | RPD        | n/a           |             |        |                          |            |
| 1          | Pipe           | New            | n/a      | n/a       | n/a                           | n/a           | n/a        | Steel         | 150 mm / 6" | 480 mm | 0.008532                 | 21         |
| 1          | Pipe           | New            | n/a      | n/a       | n/a                           | n/a           | n/a        | Steel         | 150 mm / 6" | 340 m  | 6.8                      | 21         |
| 1          | Pipe           | New            | n/a      | n/a       | n/a                           | n/a           | n/a        | Steel         | 100 mm / 4" | 465 m  | 4.185                    | 21         |
| 1          | Pipe           | New            | n/a      | n/a       | n/a                           | n/a           | n/a        | Steel         | 80 mm / 3"  | 170 m  | 0.918                    | 21         |
| 1          | Pipe           | New            | n/a      | n/a       | n/a                           | n/a           | n/a        | Steel         | 40 mm / 1½" | 75 m   | 0.1125                   | 21         |
| 1          | Pipe           | New            | n/a      | n/a       | n/a                           | n/a           | n/a        | Steel         | 25 mm / 1"  | 240 m  | 0.1536                   | 21         |

Tester's Signature :

Logo file UP1certlogo.jpg  
missing from template folder.

MPRN : 2247505  
TEST DATE : 03/03/2010

**CERTIFICATE OF PURGING OF GAS INSTALLATION**  
**TO IGE/UP/1 EDITION 2**  
(with Amendments - March 2005)

**INSTALLATION DETAILS**

Site / Co. Name : AIR PRODUCTS LTD  
Address : AIR PRODUCTS LTD (UK)  
LLANGOLLEN ROAD  
ACREFAIR  
WREXHAM LL14 3HW  
SiteContact : MR LES PRICE  
Telephone : 01978 813337  
Mobile :  
Job Desc. : REMOVE METER REGULATOR ASSEMBLY  
Location : KISOK  
Fuel Gas : Natural Gas

**PURGE DETAILS**

OVERALL RESULT : PASS

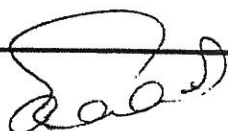
Previous Test Details : No previous test details

Tester's Name : A.EDWARDS / I HIGHTON  
Employee / CORGI No. : 215189  
Gas Detector : Gasco Seeker Mk2  
Serial No. : 61424  
Cal. Due Date : 23/04/2010  
Purge Type : Fuel to Air (Direct)  
Job Desc. : REMOVE METER REGULATOR ASSEMBLY AND PURGE OUT  
Comments :

**SECTION RESULTS**

| Section ID | Result | IV <sub>r</sub> (m <sup>3</sup> ) | PV (m <sup>3</sup> ) | OP (mbarg) | Min. Q <sub>p</sub> (m <sup>3</sup> /hr) | Actual Q <sub>p</sub> (m <sup>3</sup> /hr) | Max. Purge Time (s) | Act. Purge Time (s) | Safe End (% gas) | Actual End (% gas) |
|------------|--------|-----------------------------------|----------------------|------------|------------------------------------------|--------------------------------------------|---------------------|---------------------|------------------|--------------------|
| 1          | Pass   | 13                                | 19                   | 21         | 38                                       | 38                                         | 1800                | 1780                | 1.8              | 0                  |

Tester's Signature :



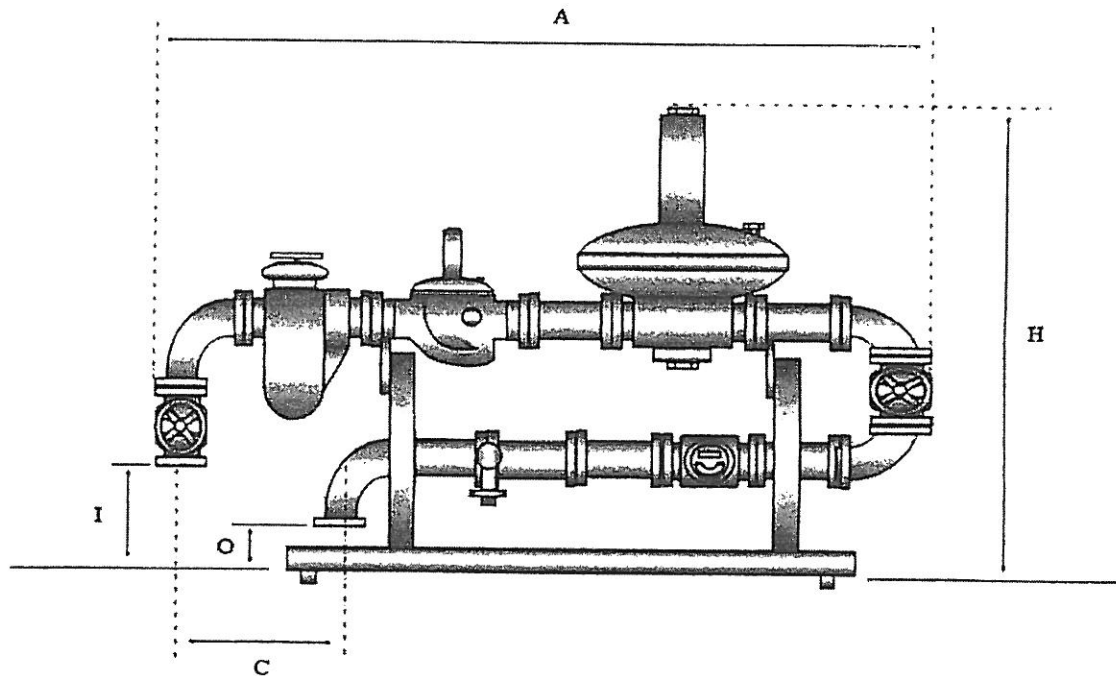
v2.5 March 2009

Page 1 of 2

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missing from template folder.

MPRN : 2247505  
TEST DATE : 03/03/2010

# INSTALLATION DIAGRAM OR PHOTOGRAPH



DRMP3

# COMPONENT LIST

| Section ID | Component Type     | New / Existing | Meter Type | Pipe Material | Diameter    | Length | Volume (m <sup>3</sup> ) | Purge Volume (m <sup>3</sup> ) | Min Purge Rate (m <sup>3</sup> / hr) | OP (mbarg) |
|------------|--------------------|----------------|------------|---------------|-------------|--------|--------------------------|--------------------------------|--------------------------------------|------------|
| 1          | Meter              | New            | RPD        | n/a           | 150 mm / 6" | 480 mm | 0.008532                 | 0.012798                       | n/a                                  | 21         |
| 1          | Pipe               | New            | n/a        | Steel         | 150 mm / 6" | 340 m  | 6.8                      | 10.2                           | 38                                   | 21         |
| 1          | Pipe               | New            | n/a        | Steel         | 100 mm / 4" | 465 m  | 4.185                    | 6.2775                         | 20                                   | 21         |
| 1          | Pipe               | New            | n/a        | Steel         | 80 mm / 3"  | 170 m  | 0.918                    | 1.377                          | 11                                   | 21         |
| 1          | Pipe               | New            | n/a        | Steel         | 40 mm / 1½" | 75 m   | 0.1125                   | 0.16875                        | 2.5                                  | 21         |
| 1          | Pipe               | New            | n/a        | Steel         | 25 mm / 1"  | 240 m  | 0.1536                   | 0.2304                         | 1                                    | 21         |
| 1          | Purge Hose         | n/a            | n/a        | n/a           | 50 mm / 2"  | 20 m   | 0.048                    | 0.072                          | n/a                                  | n/a        |
| 1          | Purge Point        | n/a            | n/a        | n/a           | 50 mm / 2"  | n/a    | n/a                      | 0                              | n/a                                  | n/a        |
| 1          | Vent / Flare Stack | n/a            | n/a        | n/a           | 50 mm / 2"  | 3 m    | 0.0072                   | 0.0108                         | n/a                                  | n/a        |
| 1          | Flame Arrester     | n/a            | n/a        | n/a           | 50 mm / 2"  | n/a    | n/a                      | 0                              | n/a                                  | n/a        |

Tester's Signature :

v2.5

March 2009

Page 2 of 2

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## Appendix D Scottish Power Energy Networks Information

Griffin, Sandy

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From: Boyle, Philip <philip.boyle@scottishpower.com>  
Sent: 17 September 2011 15:58  
To: Griffin, Sandy  
Subject: Acrefair, Wrexham, Clwyd - Budget costs

Dear Sandy

Regarding the above please see budget cost for 220 gas heated plots (370Kva) electric only - £175,000 for connections only

Estimated HV POC approx from King Street  
Substation to be installed on site  
LV Infrastructure from substation to service the site  
Estimated LV Interconnector will also be approx from King Street  
Reinforcement to be identified on POC application  
There does seem to be a requirement HV diversions as per your site boundary  
Estimated site entrance from King Street

This estimate is based on the above however will need to be confirmed on an application for a formal POC which will also identify if any reinforcement is required

In order to do that you will need to provide a more detailed design layout

If you require any further information please let me know

Regards

Phil Boyle  
Senior Project Engineer  
07753 624 015

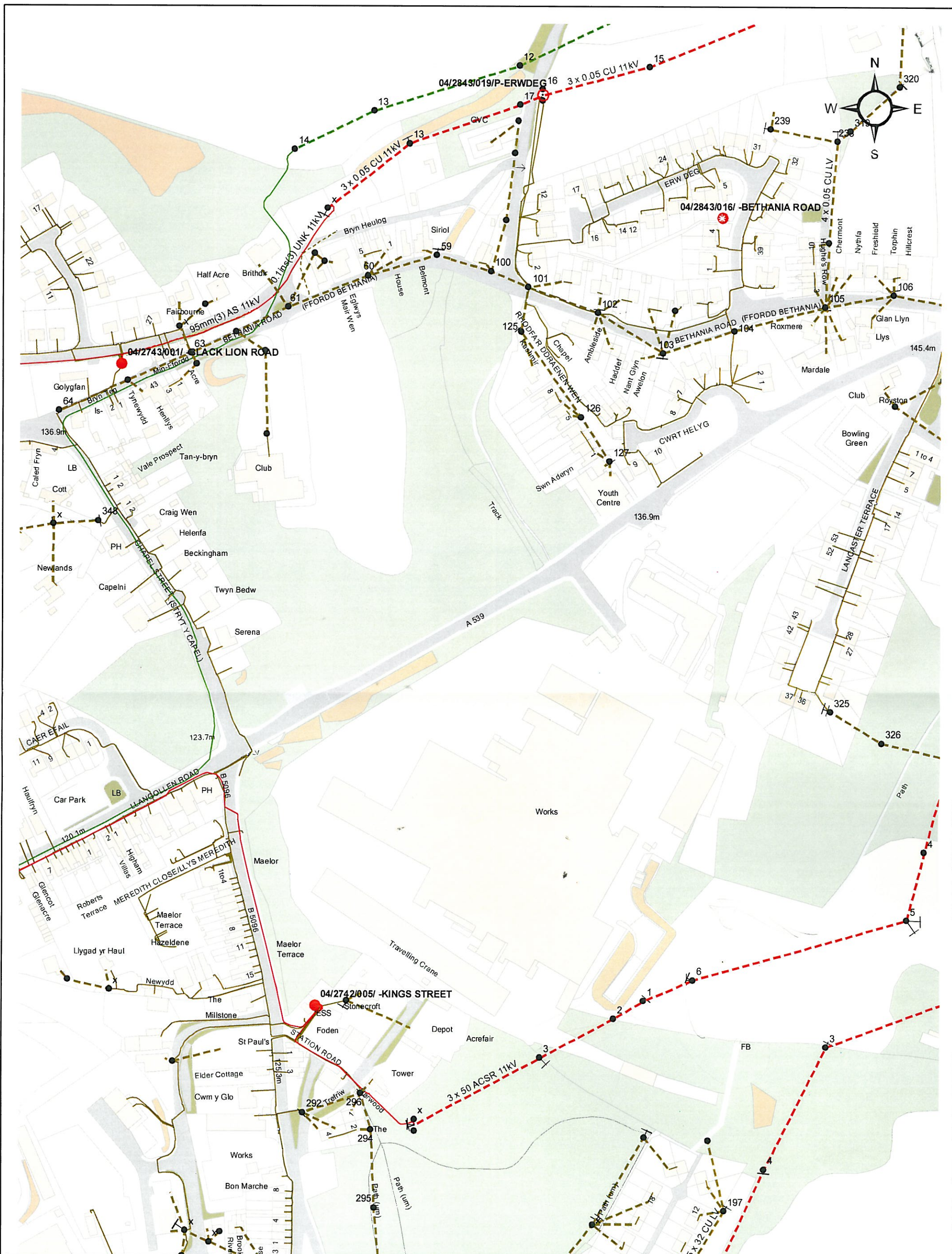
=====  
Please consider the environment before printing this email.

If you have received this message in error, please notify the sender and immediately delete this message and any attachment hereto and/or copy hereof, as such message contains confidential information intended solely for the individual or entity to whom it is addressed. The use or disclosure of such information to third parties is prohibited by law and may give rise to civil or criminal liability.

The views presented in this message are solely those of the author(s) and do not necessarily represent the opinion of Iberdrola, S.A. or any company of its group. Neither Iberdrola, S.A. nor any company of its group guarantees the integrity, security or proper receipt of this message. Likewise, neither Iberdrola, S.A. nor any company of its group accepts any liability whatsoever for any possible damages arising from, or in connection with, data interception, software viruses or manipulation by third parties.

=====  
Por favor, piense en el medio ambiente antes de imprimir este mensaje.

Si usted recibe por error este mensaje, por favor comuníquelo a su remitente y borre inmediatamente tanto el mensaje como cualquier anexo o copia del mismo, ya que



The position and depths of underground and overhead apparatus as indicated on this plan are approximate and are intended for guidance only. The depths may have changed if the land surface levels have altered. You are also informed that the plan may not show, or may inaccurately show, individual property services and services to street lighting installations. The onus of locating the apparatus precisely before commencing any excavations or other works in the immediate vicinity therefore rests entirely upon the person undertaking or responsible for those works. Before any such works are undertaken the precise location of the apparatus and cables should therefore be ascertained by suitable means. In the event of an emergency or for further assistance please contact 0845 272 7979 (Scottish Power area) or 0845 272 2424 (SP Manweb area).

Reproduced from (or based upon) Ordnance Survey maps by PowerSystems with the permission of Ordnance Survey on behalf of the controller of HMSO.  
(c) Crown Copyright Power Systems 100019036

**SP ENERGY NETWORKS**  
On behalf of SP Manweb plc

SP Manweb plc  
Registered Office: c/o PowerSystems  
3 Prenton Way, Prenton, CH43 3ET  
Registered in England and Wales No 2366937

|                           |            |
|---------------------------|------------|
| <b>OVERHEAD LINE</b>      |            |
| <b>UNDERGROUND CABLES</b> |            |
| In Use                    | —          |
| Out of Use                | - - -      |
| Assumed route             | < - - - >  |
| <b>VOLTAGE COLOUR KEY</b> |            |
| EHV                       | 132kV BLUE |
|                           | 33kV GREEN |
| HV                        | 11kV RED   |
| LV                        | BROWN      |

Where cables have been laid SINCE 1 OCTOBER 1998 the following depths in mm apply (to the tops of cables or ducts) UNLESS OTHERWISE SHOWN, but see comments (TO TOP OF CABLE, ADD 75mm FOR BOTTOM OF TRENCH)

|              | EHV | HV  | LV  |
|--------------|-----|-----|-----|
| IN FOOTPATHS | 775 | 600 | 450 |
| ACROSS ROADS | 775 | 700 | 600 |
| ALONG ROADS  | 775 | 700 | 600 |
| AGRICULTURAL | 910 | 910 | 910 |

Your attention is drawn to the Health and Safety Executive Booklet HSG47, available from HSE.

DATE: 29/06/2011

SCALE: 1:2000

MAP REFERENCE: 328011 343146

0 10 20 40 60 80 Metres

---

## Appendix E    Wales and West Utilities Information



Mr Sandy Griffin  
WSP  
The Victoria  
150 – 182 The Quays  
Salford  
M50 3SP

Wales & West House  
Spooner Close  
Celtic Springs  
Coedkernew  
Newport NP10 8FZ

Tŷ Wales & West  
Spooner Close  
Celtic Springs  
Coedcernyw  
Casnewydd NP10 8FZ

T. 029 2027 8500  
F. 0870 1450076  
[www.wwuutilities.co.uk](http://www.wwuutilities.co.uk)

|                |  |  |
|----------------|--|--|
| WSP MANCHESTER |  |  |
|                |  |  |
| 28 JUL 2011    |  |  |
| Action         |  |  |
| File Ref:-     |  |  |

27<sup>th</sup> July 2011

Dear Sandy

RE: Former Air Products Site, Llangollen Road, Acrefair, Wrexham, LL14 3HW.  
WWU ref: 35003625.

Thank you giving us the opportunity to be involved in the consultation on the Air Products site Development.

Wales & West Utilities use information from area and local government development plans in our forward planning and develop our investment plans using this data. Our current Network Planning Policy is to use 5 year and 10 year planning horizons.

As you already know, all proposed development sites are in the vicinity of existing gas mains. This is obviously positive as the cost of lengthy approach mains can make supplying a site with gas economically infeasible before any other costs are factored in. After comparing your site plan with our existing network it appears that some disconnection works may be required as there will probably be low pressure existing services on site.

As a general statement there is capacity in the existing gas supply network feeding the Acrefair area to supply this development site.

Feeding locally is the Low Pressure gas supply system and all proposed sites will take gas from this pressure tiers. At this stage we are not in a position to guarantee capacity or give figures for available capacity. The gas distribution industry operates on a first come first serve policy. For example, there may be spare capacity to feed a housing site today but if a manufacturing plant doubled their gas load before the housing site committed then the spare capacity could be taken. We do however take into account local development plans in our forward planning and develop our investment plans using this data.

I realise this is not extremely helpful but to guarantee capacity we have to receive specific enquiries detailing sites and gas loads and phasing. Even then our response is only valid for ninety days. If our supply system cannot support requested gas loads we will look at reinforcement. If there is reinforcement it will be put through an economic test based on potential transportation revenue and there may be a contribution required.

24 hour gas escape number  
Rhif 24 awr os bydd nwy yn gollwng

**0800 111 999\***

\*calls will be recorded and may be monitored  
ca'll galwadau eu recordio a gellir eu monitro

Wales & West Utilities Limited  
Registered Office:  
Wales & West House, Spooner Close, Coedkernew, Newport NP10 8FZ  
Registered in England and Wales: No. 5046791



Given the long lead time, the lack of a detailed infrastructure layout and the unknowns regarding the reinforcement required to serve each site, it is not possible to give any costs for the developments at this stage. However, as a rough guide, these are our current average costs for different elements of work.

Mains laid in public highway = £150 per metre  
Mains laid in developers trenches = £50 per metre  
Service laid on a site = £450  
Service laid from public highway = £1200

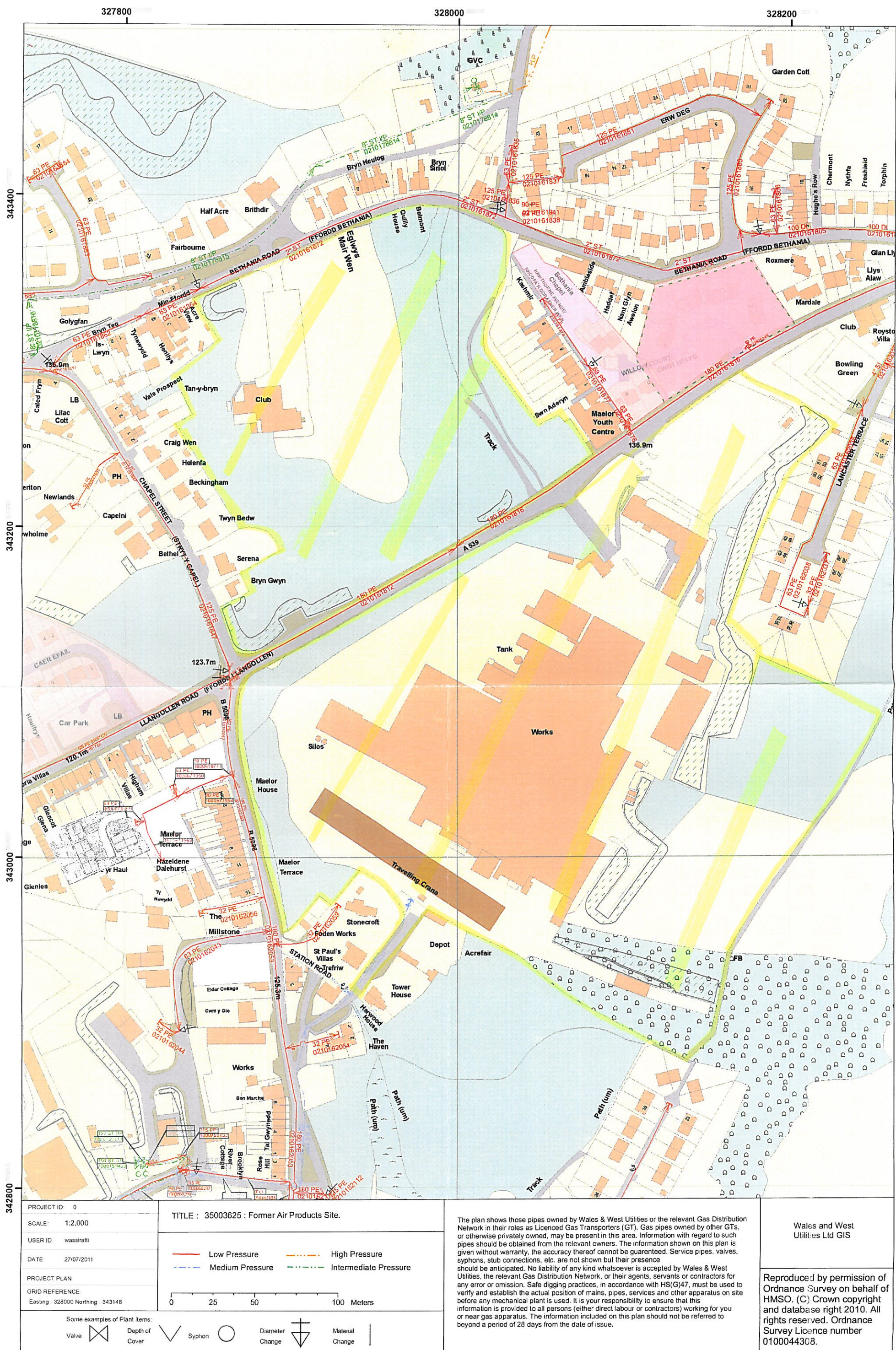
In summary I see no overriding constraints that would preclude or restrict the development of these sites from Wales & West Utilities perspective.

Please contact me to discuss any of the proposals further.

Regards

A handwritten signature in black ink, appearing to be "Wayne Assiratti", written over a horizontal line.

Wayne Assiratti  
Network Support Assistant  
Tel: 02920 278819



---

## Appendix F    Dee Valley Water Information



Our Ref        JW/U2207/PJD

Mr Alexander Griffin  
WSP UK Ltd  
The Victoria  
150 – 182 the Quays  
Salford  
Manchester  
M50 3SP

15 August 2011

Dear Mr Griffin

**FEASIBILITY OF SUPPLYING WATER TO FORMER AIR PRODUCTS  
ACREFAIR WREXHAM**

We acknowledge receipt of your application. Thank you for payment of the feasibility charge.

Please find attached a copy of our plan that indicates the locations of our mains in the area that would service the development.

It is current Dee Valley Water Policy:-

- 1) For all new developments to be supplied with water on a measured basis (ie through a revenue meter) and for each individual unit within the development to be individually metered (and billed directly by DVW).
- 2) For all meters to be located externally to buildings, at the highway boundary and in pedestrian/verge areas only. DVW liability to terminate at the boundary meter.

The purpose of this policy is to minimise supply pipe leakage and facilitate meter reading. In circumstances where it is problematic to locate meters at external positions, we can advise you of the alternatives.

The pressure in our main adjacent to the site, under normal demand patterns, currently varies between about 37 metres head and 44 metres head. However, due to operational considerations and the effects of changing demands on our distribution system, we cannot guarantee that pressure will not vary outside the current range in the future. The minimum pressure, under normal demand patterns, that we are required to provide in our distribution mains is 15 metres head, or 10 metres head at the customer's side of our meter or the main stop tap, if they are at the property boundary. Our statutory obligation

is to supply water with enough pressure that it will reach the top storey of the tallest buildings, unless the building is at such a height that the water will not flow to it by gravitation from our service reservoir or tank. If water pressure could be a problem, we can advise you what you can do.

On the basis of the current available information, we do not anticipate the need for off-site mains reinforcement to be able to provide a supply to the development.

As you are not currently in a position to provide a detailed layout of the development, we are unable to provide you a cost for on-site water mains; however, we do anticipate a 180mm link main through the development to provide a supply. A budget cost can be provided when you obtain planning permission and submit a plan to us accordingly.

On the basis that we could receive future revenue from the development, in accordance with Section 41, Water Industry Act 1991, we will offset the actual costs of providing water mains to the development by calculating the discounted aggregate deficit.

The design cost for the scheme is £ 5,743.61

Should you decide for your appointed contractor to carry out excavation, backfill, design and lay the water main, that contractor will need to be an accredited self lay contractor under the Water Industry Registration Scheme (WIRS) administered by Lloyds Register. Appropriately, payment would be made for the asset, under Section 51 of the Water Industry Act.

If we undertake the design only and the build is by others, or the scheme does not proceed, then standard rate VAT will apply. If we undertake the work as a “design and build” package then the connection and on-site mains costs for certain categories of development will be either reduced rate or zero rated for VAT.

**Can you please confirm that you wish us to proceed with the detailed design and that you will meet our design costs, stated above, in the event that the scheme does not proceed.**

If and when you instruct us to proceed with the detailed design, can you also please confirm/provide the following information:-

1. Confirmation who you wish to install the water mains.
2. A completed Water Mains Requisition form or Self Lay Water Mains application form.
3. Are we, in our costings, to **include** excavation and backfill in highway and **exclude** excavation and backfill on the site.

4. Please provide, if possible, an electronic plan in Autocad LT format or a scaled site plan, of the proposed development. If available an electronic plan is preferred.
5. Please provide finished landscape details and/or details of any dedicated service strips that may be provided.
6. Please provide details of any fire fighting requirements.
7. Confirm that there is no ground contamination.

For work carried out in financial year 2011/2012, each new unit will also incur the following charges:

|                                                |   |                                                                                                                                     |
|------------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------|
| Connection application charge per property     | - | £46.07                                                                                                                              |
| Connection Charge (excl excavation & backfill) | - | £259.88 +VAT at standard /reduced rate (unit cost may reduce depending on meter layout and increase if road crossings are required) |
| Water Infrastructure Charge                    | - | £312.19 +VAT at standard rate                                                                                                       |
| Sewerage Infrastructure Charge                 | - | £312.00 +VAT at standard rate                                                                                                       |
| Building Water Charge (unless metered)         | - | £48.39 +VAT at standard rate                                                                                                        |

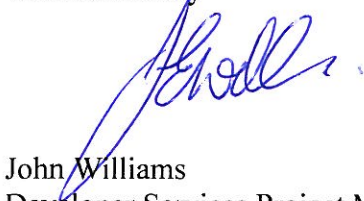
Infrastructure charges for non domestic units will depend on the size of meter required, please refer to our scheme of charges:-

The above charges apply to payments made in financial year 2011/2012. Charges are reviewed annually. The above charges due after April 2012 will be subject to the next review.

Infrastructure charges will be reduced by an allowance based on past usage on the former Air Products site.

**Please ensure that all correspondence in relation to this scheme is addressed to the "Developer Services Admin. Team" at the address below.**

Yours sincerely



John Williams  
Developer Services Project Manager

Att



---

## Appendix G British Telecom Information

Our Ref: /NNHC/2006

Your Ref: 8952JS

Date: As Post Mark

National Notice Handling Centre  
PP 3WW18, Telecom House,  
Trinity Street,  
Hanley,  
Stoke-on-Trent,  
ST1 5ND.

Freephone: 0800 800865

Freephone 0800 800 865

**NR & SW ACT 1991 – PROPOSED WORKS AT:**

Prior to commencement of work: for free onsite guidance and accurate up to date location of BT plant please contact our Plant Protection Service by the following methods

**Tele 0800 9173993**

**Fax 01332 578650**

**Email Dial before you dig [DBYD@openreach.co.uk](mailto:DBYD@openreach.co.uk)**

**Visit the website [www.dialbeforeyoudig.com](http://www.dialbeforeyoudig.com)**

Thank you for your letter of 08/07/2011 describing the above proposals.

Enclosed are copies of our drawing marked up to show the approximate locations of BT apparatus which is present in the immediate vicinity of your works. It is intended for general guidance only. No guarantee is given of its accuracy.

It should not be relied upon in the event of excavations or other works made near to British Telecommunications plc apparatus which may exist at various depths and may deviate from the marked route.

To avoid damage it is recommended that mechanical excavators or borers are not used within 600mm of British Telecommunications plc plant. If scaffolding is erected, please ensure that our equipment is not enclosed, blocked, covered or otherwise obstructed by the scaffolding.

In the event of BT apparatus being in the area of works we recommend that your plant/vehicle crossing is either resited, or apply for a budget estimate by submitting detailed plans to the above address, these will be forwarded to the appropriate department for their comments.

Please ensure you quote our reference on any future correspondence.

# *Openreach Plant Maps Requested*

NewSite Office (addresses can be located from [here](#))  
National Freephone: 0800 616 866

**Dear Sir/Madam,**

Thank you for your request to: [www.openreach.co.uk/networkinfo/](http://www.openreach.co.uk/networkinfo/)

You have downloaded copies of our drawings marked up to show the approximate location of Openreach apparatus, which is present in the immediate vicinity of your works. It is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works made near to Openreach apparatus, which may, exist at various depths and may deviate, from the marked route.

To avoid damage it is recommended that mechanical excavators or borers are not used within 600mm of Openreach plant. Please ensure that our equipment is not enclosed, blocked, covered or otherwise obstructed by your plant. In the event of clearance not being adequate we anticipate that your plant is either resited, or an order is placed with Openreach for rearrangements of its plant. If there are any difficulties with the Map please ring 0800 616866.

---

Please contact our Network Protection Service if required by dialling 0800 917 3993 or by Email on [DBYD@openreach.co.uk](mailto:DBYD@openreach.co.uk) giving seven days notice of your commencement date. This will provide you with on-site advice and a check of location for any Openreach apparatus.

---

Further to this, I hope the following points will assist you at the new development: -

Openreach has a licence obligation to provide service to any end customer requiring a connection. A Developer would not normally be charged for provision of service, our standard connection charges would apply to the end user when orders are placed with the communication provider of choice. However, should a Developer insist on an underground service in an area where Openreach plant is provided overhead, charges may be incurred.

When the Developer has obtained contract and planning permission Openreach would request a 'Clean', scaled Site Layout, Location Map and a covering letter be sent to the relevant newSite Office. We would particularly request that you give details of your programmed site start date and likely first occupancy date where possible. To obtain contact details of the newSite office covering the development area click on the URL below.

<http://www.openreach.co.uk/orpg/networkinfo/developnetwork/regionalcontacts.do>

Where a development affects existing Openreach apparatus in the public highway, the cost of any necessary protection or diversionary works must be borne by the Developer. In this case where a budget estimate is required a Site Plan, Location Map and a covering letter should be forwarded to the Repayments Project Office. Please visit <http://www.openreach.co.uk/orpg/networkinfo/alternetwork/alterationcontacts.do> for contact details of the Repayments Office covering the development area.

Yours faithfully,

## Openreach newSites

---

Please contact our Network Protection Service if required by dialling 0800 917 3993 or by Email on [DBYD@openreach.co.uk](mailto:DBYD@openreach.co.uk) giving seven days notice of your commencement date. This will provide you with free on-site advice and a check of location for any BT apparatus.

---

Thank you for your request to: [www.openreach.co.uk/networkinfo/](http://www.openreach.co.uk/networkinfo/)

I have to state that Openreach approved your proposed works and plan(s) subject to the following amendments or conditions, via:-

(1) (a) That not less than 48 hours (exclusive of Saturdays, Sundays and public holidays) before commencing the execution of your works or any part or parts thereof, you shall inform me in writing at the above address of the date on the place at which you intend to commence the same, and shall from time to time similarly inform me of any part or parts of your works which you propose to carry out between the hours of 6.00pm and 6.00am.

(b) That you shall commence your works within six months from the date here of. (It follows that if your works are not commenced within that period this approval will have lapsed and you will need to seek fresh approval.)

(2) (a) That so far as your works consist of LOW VOLTAGE LINES you shall separate each such line from every part of any telegraphic line of Openreach by a distance exceeding 50 mm, or where a separation exceeding 50 mm is not possible by such smaller distance not less than 25 mm as may be agreed by the Openreach representative, provided that wherever by agreement the separation does not exceed 50 mm you shall insert between the two lines a slab of concrete which shall be at least 50 mm thick (except that in the space within which the two lines are less than 50 mm apart the concrete need be of such thickness only as to fill such space) and of such width and length that at every point the shortest path between the two lines round the concrete shall exceed 75 mm.

(b) That so far as your works consist of HIGH-VOLTAGE LINES you shall separate such line from every part of any telegraphic line of Openreach by a distance

(i) Where such lines consist of single core cables, of not less than 450 mm.

(ii) Where such lines consist of cables not of single-core type, of not less than 300 mm. If during the execution of your works the Openreach representative shall be satisfied that a separation of 300 mm is not reasonably practicable you may provide such smaller separation as the said representative shall agree to, provided that wherever such agreed separation does not exceed 150 mm you shall insert between your lines and the telegraphic line a slab of concrete at least 50 mm thick and of such width and length that at every point the shortest patch between the two lines, round the concrete shall exceed 180 mm.

(3) That you shall in addition to complying with condition (2) hereof, place your works so as to permit reasonable access to any telegraphic line of Openreach without risk of damage to your works, and shall execute your works so as not to interfere with the stability of any such telegraphic line.

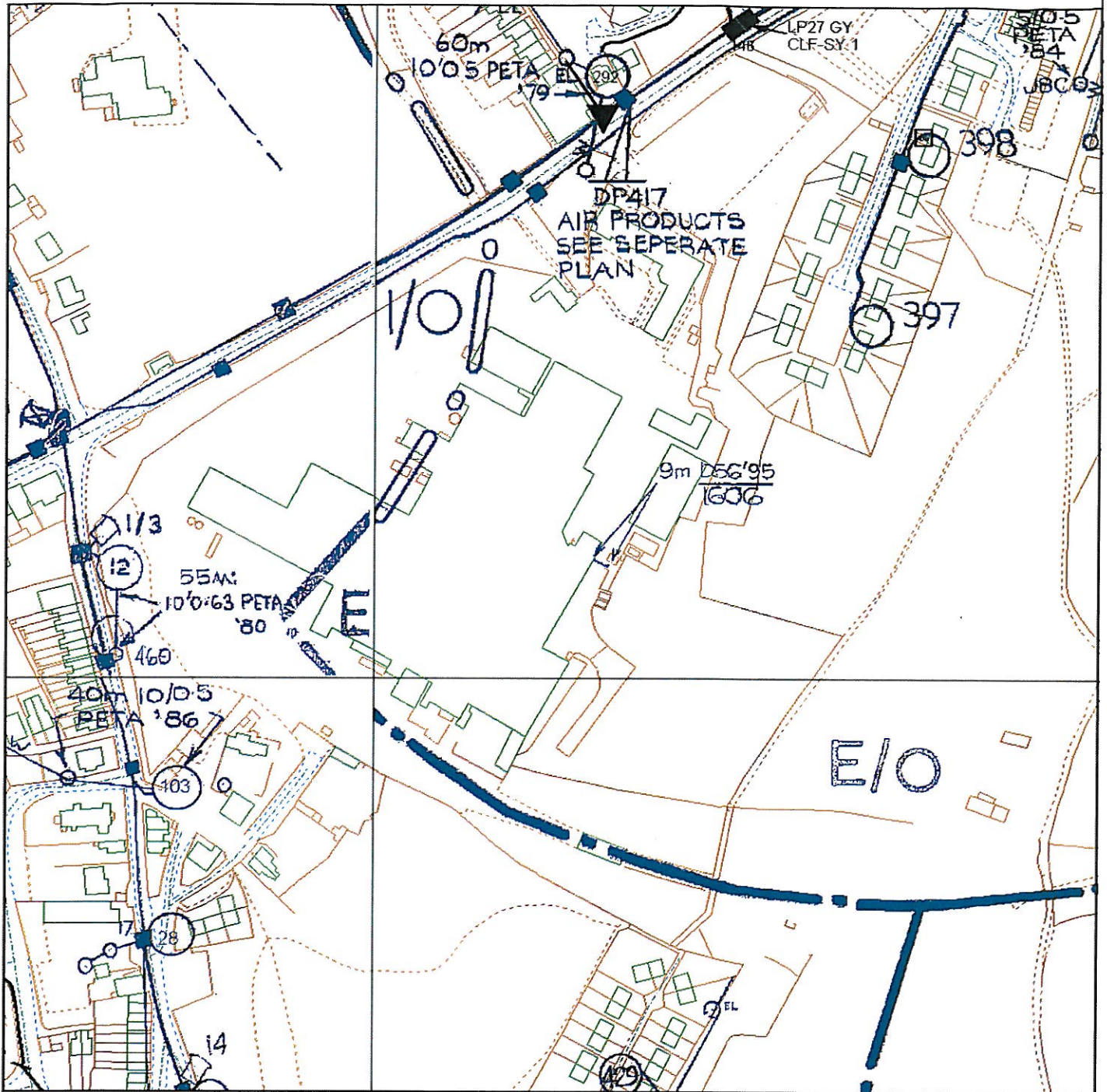
(4) That, if and as often as required, you shall furnish any further information with regard to the depth, course and position of your works and shall allow the Openreach representatives to have access, free of charge, at all reasonable times, to the plans of your works.

I have to say that Openreach expressly reserves all rights and remedies to which British Telecommunications plc may be entitled in the event of any of its telegraphic lines being at any time destroyed, injured or injuriously affected by your electric line or works, or any use made thereof, or your supply of energy.

Yours faithfully,

**Openreach National Notice Handling Centre**

## Maps by email Plant Information Reply



## IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only.

No guarantee is given of its accuracy.

It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.

## DIAL BEFORE YOU DIG

**FOR PROFESSIONAL ON SITE ASSISTANCE PRIOR  
TO COMMENCEMENT OF EXCAVATION WORKS**

ADVANCE NOTICE REQUIRED

(Office hours: Monday-Friday 08.00 to 17.00)

**Tel: 0800 9173993**

E-mail: [dbyd@openreach.co.uk](mailto:dbyd@openreach.co.uk)

Website: [www.dialbeforeyoudig.com](http://www.dialbeforeyoudig.com)

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Controller of Her Majesty's Stationary Office

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## KEY TO BT SYMBOLS

—— UNDERGROUND PLANT

A/C, D/W or W OVERHEAD PLANT

■ JOINT BOX

 OR  DISTRIBUTION POINT

☐ or ☐ 72 MANHOLE

--- DP BOUNDARY

 OR  OTHER BT BOUNDARY

○ POLE

☒ CABINET

☐ BURIED JOINT

JOINTING POST

PROPOSED U/G

PROPOSED O/H

 PROPOSED BOX

Other proposed plant is shown using dashed lines. BT symbols not listed above may be disregarded. Existing BT plant may not be recorded. Information valid at the time of preparation.

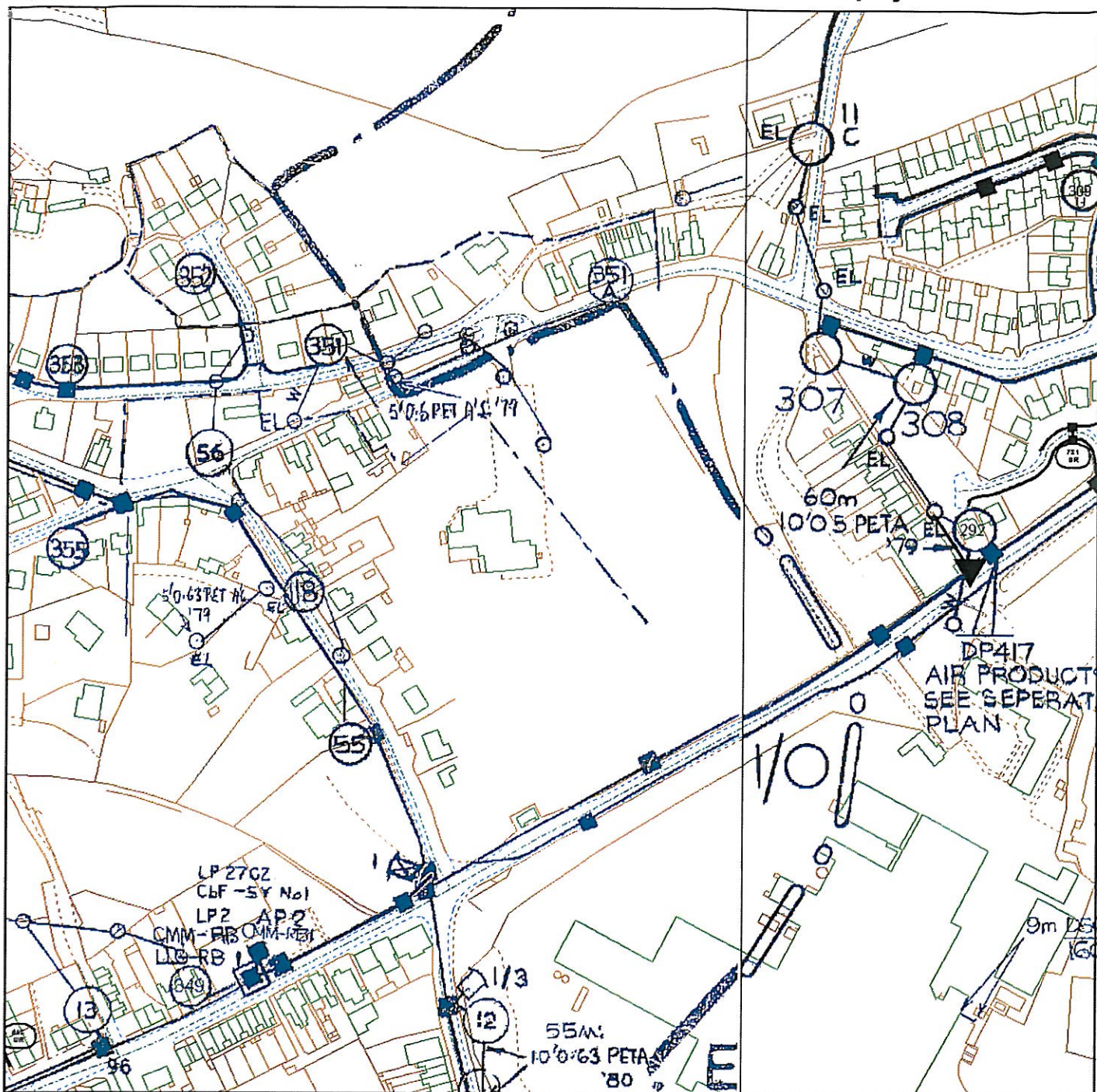
openreach  
a BT Group business

BT ref: QJK15042X

**Map reference (centre):** SJ2808243060

Issued: 02/07/11 15:16:08

# Maps by email Plant Information Reply



## IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy.

It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route

## DIAL BEFORE YOU DIG

FOR PROFESSIONAL ON SITE ASSISTANCE PRIOR  
TO COMMENCEMENT OF EXCAVATION WORKS

ADVANCE NOTICE REQUIRED  
(Office hours: Monday-Friday 08.00 to 17.00)

Tel: 0800 9173993  
E-mail: [dbyd@openreach.co.uk](mailto:dbyd@openreach.co.uk)  
Website: [www.dialbeforeyoudig.com](http://www.dialbeforeyoudig.com)

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openreach  
a BT Group business

BT ref: DFT15052E

Map reference (centre): SJ2791343267

Issued: 08/07/11 15:16:43