



Multi-Utility Infrastructure Feasibility Report

LAND AT PAVENHILL, PURTON, WILTSHIRE

JULY 2026

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1. Scope and Objectives

This report provides a comprehensive assessment of the utility infrastructure required to support the full planning application of 60 homes, associated infrastructure and open space at Land off Pavenhill, Purton, Wiltshire (herein known as ‘the development site’).

The study evaluates the availability, suitability, and delivery strategy for essential utilities including electricity, potable water and telecommunications. It also outlines the infrastructure required to meet the development’s sustainability and regulatory commitments.

Key objectives include:

- Identification of existing statutory utility infrastructure in proximity to the development site
- Proposed service strategy to facilitate the development site
- Assessment of the feasibility of new utility connections and any required diversions.
- Confirmation of compliance with Building Regulations and Environmental Standards.

2. Executive Summary

This desktop feasibility study has been prepared by Lovell Partnerships LTD to appraise the availability of electricity, potable water and telecommunications with regards to the proposed development.

The proposed site is a greenfield development located off Pavenhill, Purton, comprising of 60 homes, associated open space and infrastructure.

The proposed development will be served by robust and future-proofed utility infrastructure. All essential services are available within close proximity to the site, and the development will be designed to accommodate:

- Electricity: Supplied via existing infrastructure, designed to support electrically driven heating systems and electric vehicle charging infrastructure.
- Water: Potable water connections for all homes will be provided by the incumbent water provider or NAV provider. A requisition application has been submitted and is progressing.
- Telecommunications: Full Fibre to the Premises (FTTP) will be deployed across the site by Openreach, ensuring high-speed broadband access in compliance with Appendix R of the Building Regulations.

3. Electricity Infrastructure

3.1 Existing Infrastructure Assessment

Scottish and Southern Electricity Networks (SSEN) are the regional statutory provider for the Site.

A review of Scottish and Southern Electricity Networks (SSEN) asset records confirms that there is an existing Extra High Voltage (EHV) 132kv overhead cable located within the boundary of the proposed development site, located in southernmost area running east-west. This service is wholly within the proposed community orchard.

Existing 11kV infrastructure is present within the footway on the eastern side of Ringsbury Close.

Existing low-voltage (LV) apparatus is present along the northern edge of Pavenhill and within the footway of Ringsbury Close (site-side).

An existing pole mounted street lighting column is present on the junction of Upper Pavenhill and Pavenhill.

SSEN asset plans are included in **Appendix A**

3.2 Proposed Connection Strategy

Electricity demand for the site has been calculated to be 187KVA.

The design will incorporate capacity for the following:

- Standard domestic electrical loads
- Electrically powered heating systems (air source heat pumps)
- Electric vehicle charging infrastructure (7kW per dwelling)
- Temporary power provision for site welfare facilities, including welfare units, mortar silos, and vehicle charging stations for operatives

Note; The loadings above do not require a new ground mounted electrical transformer (substation).

The electrical network will be designed to ensure:

- System resilience and reliability
- Adequate capacity for future expansion
- Full compliance with applicable regulatory and technical standards

A detailed on-site electrical design will be developed following the appointment of either a DNO or an Independent Distribution Network Operator (IDNO).

A Point of Connection (POC) application has been submitted to the Distribution Network Operator (DNO) and has been identified as the existing ground mounted transformer within Ringsbury Close. It is anticipated that a single underground low-voltage (HV) cable will be installed from the POC to the proposed development, before being distributed throughout the site via designated service strips and footways.

All off site works from the POC to the site boundary (approx. 195m) will be completed by the DNO/IDNO.

3.3 Diversions and Disconnections

No diversions or disconnections are anticipated. However, it would be prudent to make provisions for a full radar survey of Pavenhill.

4. Gas Infrastructure

4.1 Existing Infrastructure Assessment

Wales and West Utilities (WWU) are the Primary Gas Transporter (PGT) for the area.

ESP Utilities Group, an Independent Gas Transporter (IGT), also has apparatus in the area.

The WWU asset record plans show existing mains being located within Pavenhill, circa 60m to the east of the site, and within the footway of Ringsbury Close (site-side) to the east. Refer to **Appendix B**.

ESP asset Record Plans shows an existing 90mm gas main within the northern edge of Pavenhill. Refer to **Appendix C**.

There are no existing gas assets intersecting the development site.

4.2 Proposed Connection Strategy

In alignment with the development's sustainability objectives, no gas infrastructure will be installed. All homes will be heated via air source heat pumps, eliminating the need for a gas supply and supporting the transition to low-carbon energy systems.

4.3 Diversions and Disconnections

No diversions or disconnections are anticipated. However, it would be prudent to make provisions for a full radar survey of Pavenhill.

5. Water Supply

5.1 Existing Infrastructure Assessment (Water Supply)

Thames Water Utilities (TWU) are the regional clean potable water provider to the Site.

TWU asset record plans show an existing booster station on land adjacent to the road junction between Pavenhill and Ringsbury Close to the east of the Site.

A 90mm HPPE water main routes within the running carriageway of Pavenhill to the north of the site together with an existing 3-inch water main (type unspecified) located within the footway of Ringsbury Close (site-side) to the east.

A 12" cast iron (CI) strategic water main routes southwards on Ringsbury Close and continues southwards through the southeastern portion of the site. Refer to **Appendix D**.

5.2 Proposed Connection Strategy

A new distribution main will be laid from the point of connection, which has been identified as being the existing 3" from Ringsbury Close. Individual service connections will be provided to each dwelling, with infrastructure designed to accommodate:

- Domestic water usage
- Temporary connections to serve welfare facilities

Thames Water have completed modelling on their clean water network and have confirmed that there is sufficient capacity in the clean water network to serve the proposed development of 56 residential houses & 4 residential flats within the site supply zone. Refer to **Appendix E**.

5.3 Diversions and Disconnections

No diversions or disconnections are anticipated. However, it would be prudent to make provisions for a full radar survey of Pavenhill and Ringsbury Close.

6. Sewerage and Drainage

6.1 Existing Infrastructure Assessment (Sewerage and Drainage)

A review of TWU asset records confirms that there are no existing sewerage or drainage assets located within the boundary of the proposed development site.

A sewer (diameter) crosses the front gardens of existing properties on Ringsbury Close and crosses the proposed emergency access. Refer to **Appendix E**.

6.3 Diversions and Disconnections

No diversions or disconnections are anticipated. However, it would be prudent to make provisions for a full radar survey of Pavenhill and Ringsbury Close.

6.2 Proposed Connection Strategy

Foul water drainage will be designed to fall via a gravity system within the development site to a proposed Foul Water Pumping Station, which in turn, will connect via a rising main to the existing Thames Water point of connection in Pavenhill.

All homes will be subject to infrastructure charges as per standard Thames Water scheme of charges.

The storm network has been designed to ultimately discharge into an attenuation basin in the south of the development site. The attenuation basin is designed to infiltrate into the ground.

7. Telecommunications

7.1 Telecommunications Infrastructure

A review of the Openreach Maps on Demand service confirms that existing underground and overhead apparatus are located along the southern edge of Pavenhill and within the footway of Ringsbury Close (site-side) to the east. Refer to **Appendix F**.

A review of the Gigaclear maps also confirm existing underground apparatus along the northern edge of Pavenhill and within the footway of Ringsbury Close (site-side) to the east. Refer to **Appendix G**.

7.2 Proposed Connection Strategy

Openreach will deploy Full Fibre to the Premises (FTTP) across the development. This will provide residents with access to ultra-fast broadband services, supporting modern digital lifestyles and remote working. All homes will benefit from the provision of a 2.5gb Optical Network Termination Point (ONT), future proofing all homes with a speed capability of 2500 Megabytes.

A dedicated ducted route will be provided within the site's footways and service strips to facilitate FTTP deployment. The infrastructure will be designed in compliance with Appendix R of the Building Regulations, ensuring future-proof connectivity. A detailed on-site electrical design will be developed following the appointment of Openreach at a later date.

7.3 Diversions and Disconnections

No diversions or disconnections are anticipated. However, it would be prudent to make provisions for a full radar survey of Pavenhill, in the event that the existing asset (as aforementioned) requires diversion to form the development entrance.

8. Legal and Wayleave Considerations

No abnormal legal constraints have been identified at this stage. Wayleave agreements will be sought where necessary to facilitate the installation of utility apparatus. All utility installations will be carried out in accordance with statutory undertaker requirements and relevant legislation.

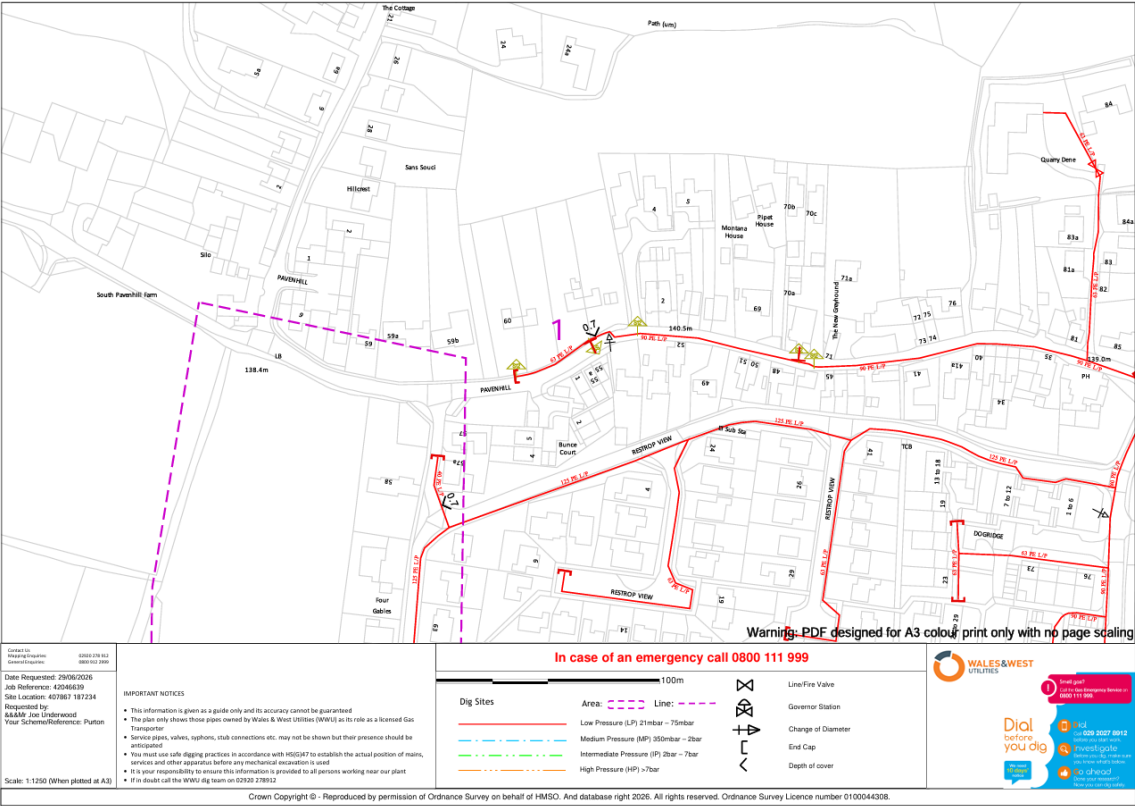
9. Conclusions and Recommendations

The proposed development at Land off Pavenhill, Purton is fully feasible from a utility infrastructure perspective. All essential services can be delivered with minimal off-site reinforcement, and the development is aligned with modern sustainability and regulatory standards.

Appendix A - SSEN Existing Asset Plans



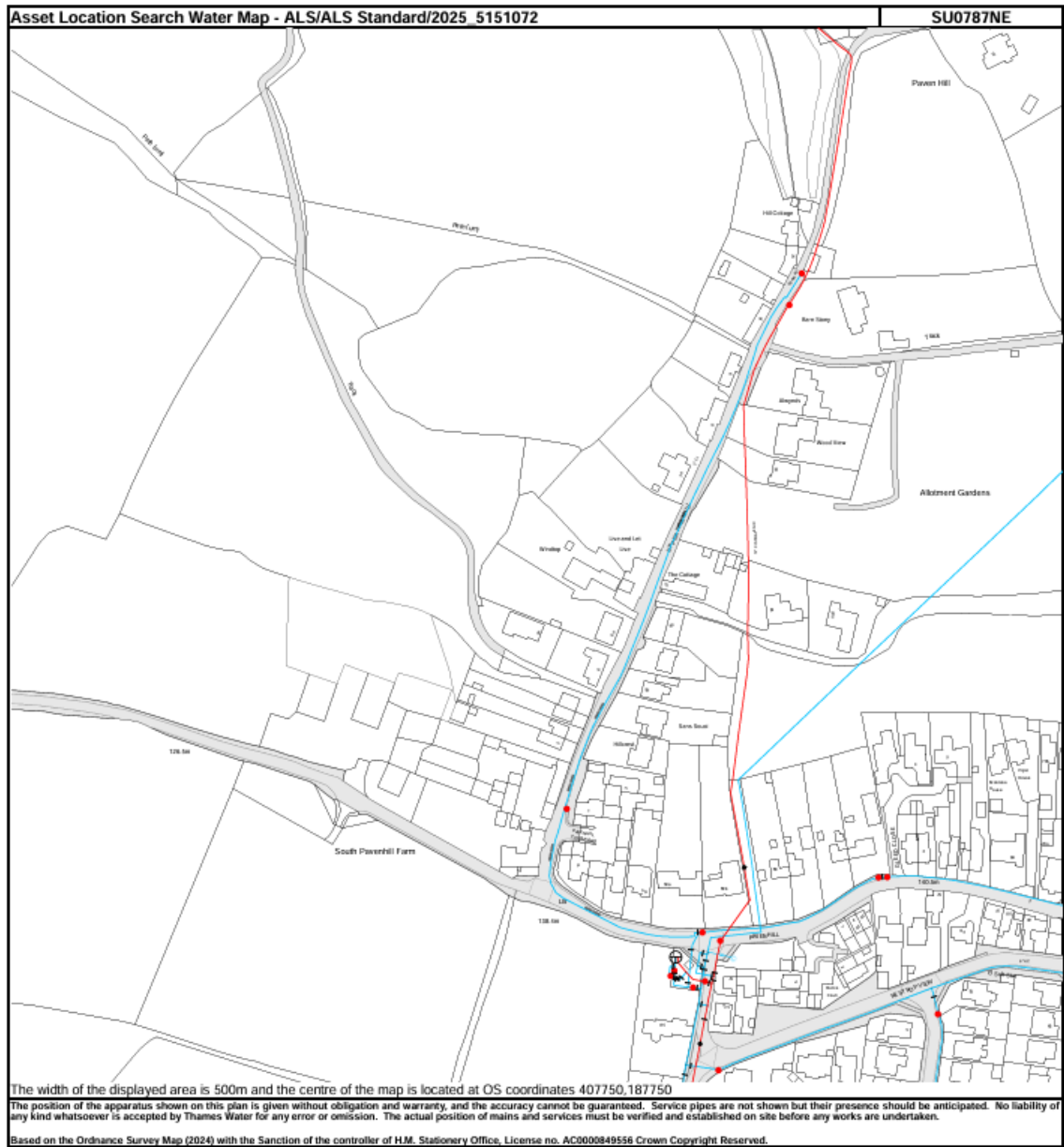
Appendix B – Wales & West Utilities Existing Asset Plans

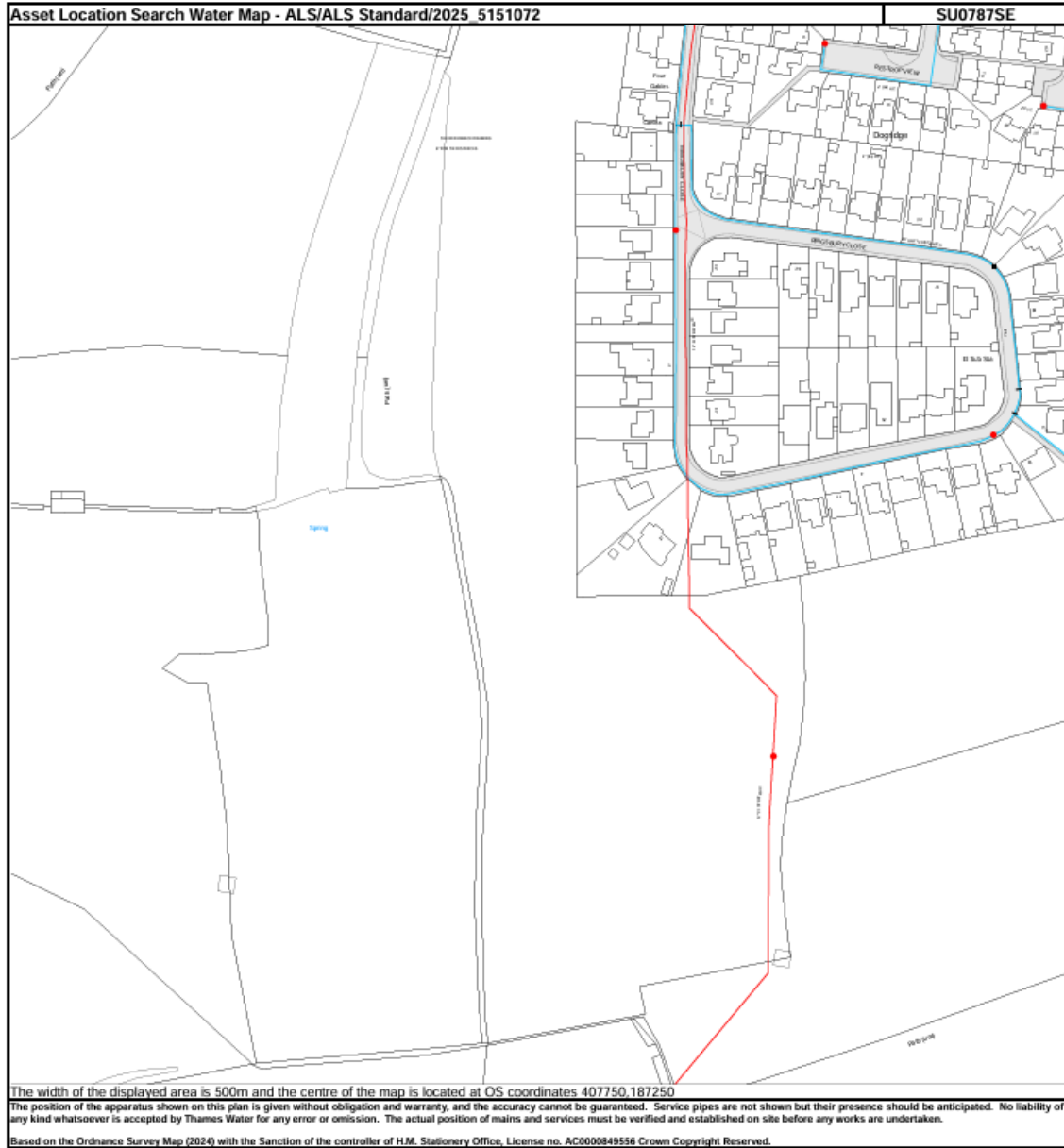


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Appendix D – Thames Water Existing Asset Plans







Appendix E – Thames Water Capacity Confirmation



Clean Water

Our reference: DS6142881

Your site address: Pavenhill Farm, Land South Of Pavenhill Farm, Purton, Swindon, Wiltshire, SN5 4DA

Customer: Aquamain UK Ltd

Clean water capacity report

Status: Confirmation of sufficient capacity following modelling study

Date: 19 November 2025

Validity: Valid until 18 May 2027 or for the duration of your Local Authority planning permission when this report is used to support your planning application, to a maximum of three years.

We've completed modelling on our clean water network and can confirm that there will be sufficient capacity in our clean water network to serve the proposed development of 56 residential houses & 4 residential flats within the site supply zone.

However, this is not reserved for your development.

Please note any connection is subject to our Network approval which may require the completion of a modelling study.

Please be aware that this report is based upon the details and drawings provided. If there are any subsequent changes to these, then the contents of this report will become invalid and a new assessment will be needed.

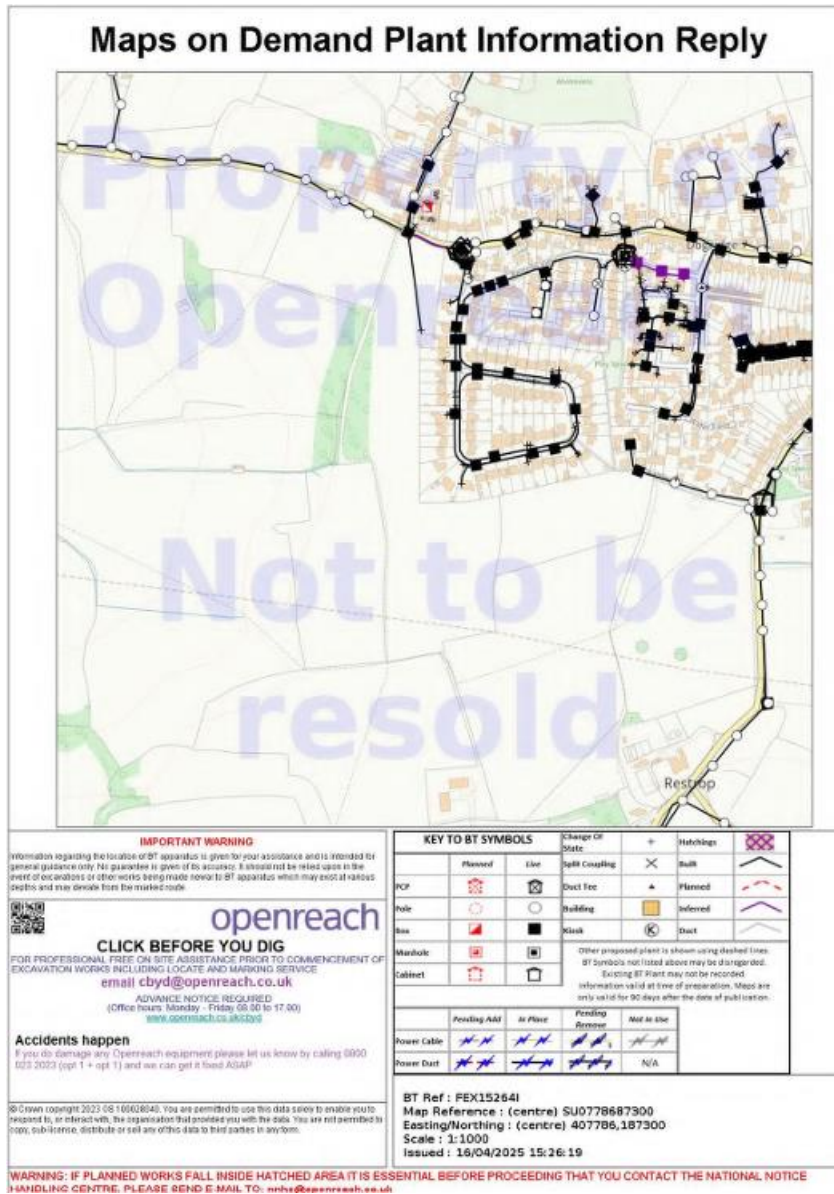
Please note that the below POC is based on desktop study and it might change after capacity check study or site-specific survey.

Nearest point of connection



Please be advised the above plan shows an indicative point of connection and used as an aid with our capacity assessment. Under a formal new water connection application will the exact point of connection be agreed on.

Appendix F – Openreach Existing Asset Plans



Appendix G – Gigaclear Existing Asset Plans

