

11.0 **MATERIAL ASSETS – SITE SERVICES**

11.1 **Introduction**

This Chapter of the EIAR comprised of an assessment of the likely impact of the proposed development on existing utility services in the vicinity of the site as well as identifying proposed mitigation measures to minimise any impacts.

The material assets considered in this chapter of the EIAR include Power, Gas and Telecommunications. Note that Surface Water Drainage, Foul Drainage and Water Supply are addressed in Chapter 7.0 (Water & Hydrology).

A detailed description of the proposed development can be found in Chapter 3 of this EIAR.

The proposed development will also include the following associated engineering infrastructure:

- Provision of a site access point / formation of a new junction on Clonminch Road.
- Provision of improved facilities for cyclists between the proposed site access and Tullamore Town Centre.
- Delivery of a portion of the roads objective between the Clonminch Road and Chancery Lane (as shown in the Tullamore Town and Environs Development Plan) including high quality cycle infrastructure.
- Facilitation of potential future pedestrian links through adjacent lands.
- Provision of internal site road network including associated footpaths.
- Provision of surface water drainage, foul drainage and water supply infrastructure.
- Provision of a foul pumping station discharging to the existing public foul drain located on the Clonminch Road.

11.2 **Study Methodology**

An assessment of the likely impact of the proposed development on existing utility services in the vicinity of the site included a desktop review of the following information:

- ESB Networks Utility Plans
- Gas Networks Ireland Service Plans
- Eir E-Maps

The information noted above can be found in Appendix 11-A (Utility Record Drawings).

11.3 Receiving Environment/Baseline

11.3.1. Power

An ESB Networks plan is included in Appendix 11-A showing the location of existing electrical services in the vicinity of the site.

- Existing MV (10kV/20kV) overhead lines cross the western portion of the site (adjacent to Clonminch Road). These overhead lines then go below ground on approach to Clonminch Road (to the west) and Limefield and Clonminch Woods (to the north).
- An existing MV (10kV/20kV) overhead line / underground cable route is located along the site's southern boundary.
- An Existing 38kV & Higher Voltage overhead line traverses the site from its southern boundary to its northern boundary.

11.3.2. Gas

Gas Networks Ireland plans are included in Appendix 11-A showing the location of gas distribution pipes in the vicinity of the site.

An existing medium pressure distribution pipeline (125mm / 4bar) is shown running along the Clonminch Road (west of the site / adjacent to the proposed site access point).

11.3.3. Telecoms

Eir network plans are included in Appendix 11-A showing the location of telecommunications infrastructure in the vicinity of the site.

Telecommunication infrastructure is located to the west of the site:

- Along Clonminch Road (adjacent to the proposed site access point).
- Within Clonminch Wood

The National Broadband Plan indicates that commercial operators are delivering, or have indicated plans to deliver, high speed broadband services to the areas noted above.

11.4 Characteristics of the Proposed Development

11.6.1. Power

Power supply for the proposed development will be taken from the existing ESB MV Network located to the west of the site along Clonminch Road.

Existing MV and HV overhead power lines located within the site will be relocated and / or diverted underground in advance of commencement of site works.

11.4.1. Gas

Gas supply (if required as part of the energy strategy for the proposed development) will be taken from the existing Gas Networks Ireland network located west of the site along Clonminch Road.

11.4.2. Telecoms

The existing Eir network located to the west of the site on Clonmich Road will be extended to service the proposed development. As noted previously, the National Broadband Plan indicates that commercial operators are delivering, or have indicated plans to deliver, high speed broadband services to Clonminch Road / Clonminch Wood.

11.5 Potential Impacts of the Proposed Development

11.6.1. Construction Phase

There is potential interruption to ESB's network, Gas Networks Ireland's infrastructure and Eir's infrastructure while carrying out works along the Clonminch Road (e.g. during formation of site access junction) and while carrying out works to provide service connections to the proposed development. Similarly, relocation or undergrounding of existing overhead ESB lines may lead to loss of connectivity to and / or interruption of supply from the electrical grid.

11.6.2. Operational Phase

On completion of the construction phase, there will be no further impact on electrical, gas or telecommunications supplies.

11.6.3. Potential Cumulative Impacts

Other development in the vicinity of the site is likely to have similar impacts during the construction phase in relation to Material Assets – Site Services.

Should the construction phase of the developments noted above coincide with development of the site, potential cumulative impacts are not anticipated once similar ameliorative, remedial and reductive measures are implemented.

11.6.4. Interactions

11.5.4.1. **Soils and Geology**

Trench excavations to facilitate site service installation will result in exposure of subsoils to potential erosion and subsequent sediment generation. Mitigation measures are outlined in Chapter 6 Land & Soils, Section 6.6.1 (i.e. service trenches to be backfilled as soon as practicable to minimise potential erosion of subsoils).

11.5.4.2. **Noise and Vibration**

Development of the site will result in a level of construction related noise and vibration.

11.5.4.3. **Air Quality**

Dust generation can also occur during extended dry weather periods as a result of construction traffic.

11.6.5. “Do Nothing Scenario”

There will be no impact on material assets in relation to site services if the development does not proceed.

11.6 Mitigation Measures

11.6.1. Construction Phase

- Provision of connections to the existing electricity, gas and telecommunications networks are to be coordinated with the relevant utility provider and carried out by approved contractors.
- A detailed “Construction Management Plan” will be prepared by the Contractor and implemented during the construction phase. Site inductions will include reference to the procedures and best practice as outlined in the “Construction Management Plan”.
- Contractor to prepare Method Statement detailing proposals for works in the vicinity of existing utilities (method statement to be agreed with PSDP).
- Contractor to locate and record all services on site prior to commencement of excavations (including but not limited to a GPR utility survey along the Clonminch and slit trench investigation to confirm the location of existing infrastructure).
- Contractor to comply with HSA Code of Practice for Avoiding Danger from Underground Services.
- Ducting and / or poles along the proposed relocated route will be constructed and ready for rerouting of cables in advance of decommissioning of existing overhead electricity lines.
- Reinstatement of any excavations, trenches etc. relating to the provision of electrical, gas and telecommunications connections is to be carried out in accordance with the relevant utility provider’s requirements.

11.6.2. Operational Phase

On completion of the construction phase, there will be no further impact on electrical, gas or telecommunications supplies.

11.6.3. 'Do Nothing' Scenario

No mitigation measures are proposed should the development does not proceed.

11.7 **Predicted Impact of the Proposed Development**

11.6.1. Construction Phase

Implementation of the measures outlined in Section 11.6.1 will ensure that the potential impacts of the proposed development on site services do not occur during the construction phase and that any residual impacts will be short term.

11.6.2. Operational Phase

Demand from the proposed development during the operational phase is not predicted to impact on the existing power, gas and telecoms network.

11.6.3. 'Worst Case' Scenario

Contact between humans and machinery with above ground or below ground utilities is considered a 'worst case scenario' during the construction phase resulting in risk to health and safety and significant disruption to utility networks.

The mitigation measures outlined above are design solutions that will be managed through the design and construction process and enforced as part of the contract documentation.

11.6.4. 'Do Nothing' Scenario

There are no predicted impacts should the proposed development not proceed.

11.8 **Residual Impacts**

Implementation of measures outlined in Section 11.6 will ensure that the potential impacts of the proposed development on site services do not occur during the construction phase and that any residual impacts will be short term.

11.9 **Monitoring**

No specific monitoring is proposed in relation to electrical, gas and telecommunications infrastructure. No ongoing monitoring is proposed on completion of the construction phase.

11.10 **Difficulties Encountered**

No particular difficulties were encountered during preparation of this chapter. The analysis reported within this chapter is based upon publicly available information from ESB Networks, Gas Networks Ireland and Eir.

11.11 **References**

ESB Network Plans

Gas Network Ireland Network Plans

Eir E maps

Safe Construction with Electricity – ESB Networks

ESB Networks Code of Practice for Avoiding Danger from Overhead Electricity Wires – ESB Networks

Safety, Health and Welfare at Work (Construction) Regulations 2006 - Health and Safety Authority (HSA)

Safety advice for working in the vicinity of natural gas pipelines – Gas Networks Ireland

Guidelines on the information to be contained in environmental impact assessment reports.

Environmental Protection Agency (Draft 2017).

APPENDIX 11A Utility Record Drawings