



Residential Development Wilson Grove/Elwood,
Lundwood Barnsley.

Drainage Statement

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Residential Development off Wilson Grove/Elwood, Lundwood Barnsley.

Drainage Statement

Gleeson Developments Limited intends to construct a new residential development on the land comprising 97 dwellings. There is to be a mixture of detached and semi-detached type properties. The development will be served by new estate roads and sewers which will be offered for adoption by Barnsley Metropolitan Borough Council and Yorkshire Water respectively.

Site Description

The site is located adjacent to Wilson Grove/ Ellwood at National Grid Reference 437483,407883 and comprises a single parcel of roughly triangular shaped land approximately 3ha in size.

The site is bounded by a new residential estate forming Ellwood/Wilson Grove and Foxton Croft to the South, open fields to the West/North and residential properties to the North/East.

Existing Drainage

The Water Authority sewer records show an existing public combined sewer running through the site from Ellwood running in a North Easterly direction..

There is also an unnamed water course/drain, which borders the North Eastern section of the site which is considered to be the likely discharge point for surface water from the site subject to receipt of the appropriate consents.

Ground Conditions

We have undertaken a Stage 1 and Stage 2 intrusive ground investigation to determine the nature of the ground conditions. This investigation has identified that the soils are generally made ground comprising reworked clay Clay over stiff brown clay over mudstone. Due to the clay and mudstone ground conditions it has been concluded that the site is not suitable to sustain infiltration drainage.

The sites slopes from South to North, East to West and West to East creating a natural valley trough the South/North site axis. Gradients of the site range from low lying flat areas to a max slope of 1:6. The topography on this site is therefore considered to be a problem for at surface storage of attenuated flows, however a low lying area to the north of the site has the potential to facilitate a surface feature to balance surface water flows from the site should an open space area be plotted in that vicinity.

Development Proposals

The development proposals have been assessed and we are in discussion with Yorkshire Water and the Land drainage authority over the most acceptable points of connection and discharge rates.

It is intended to construct a new foul water drainage system to convey flows to the public combined sewer which dissects the site.

The surface water flows from the site are to be restricted to the agreed discharge rates with the council's drainage engineer Mr D Bell (see Appendix B) with surplus flows attenuated on site. It is proposed to utilise the existing drain/unnamed watercourse as an outfall for surface water flows. The flow rates to this water course have already been agreed with the council's drainage department however the point of connection is currently being negotiated. This is further discussed within the FRA carried out by JOC consultants.

Conclusion

A residential development comprising 97 dwellings is to be constructed. It will be served by new estate roads and have separate systems of foul and surface water drainage. The drainage system will incorporate attenuation on site to cater for restricted discharge of surface water and is to be offered for adoption by the Water Authority.

Appendix A – Public Sewer Records

Appendix B – Meeting Minutes