



Drainage Scheme for proposed three storey building comprising retail unit (Class E) to ground floor and two one-bed self-contained apartments on upper floors at 52 Manchester Street, Heywood, OL10 1DL.

Prepared for

James Campbell Associates Ltd
Campbell House,
13 Rochdale Road,
Firgrove,
Rochdale,
OL16 3BN.

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1. Introduction

- 1.1. Martin Environmental Solutions has been commissioned to undertake a consideration of, and production of, a drainage scheme for the proposed in support of a discharge of a planning condition attached to permission 20/00969/FUL for a replacement building comprising retail to the ground floor and residential apartments to the upper floors at 52 Manchester Street, Heywood, OL10 1DL.

Site Location and Context

- 1.2. The site currently consists of a two-storey brick-built property. To the east is Manchester Street, the south an electricity substation and car park, to the rear commercial units including a metal fabrication business which extends round to the north and further commercial properties.
- 1.3. Existing drainage to the front of the property consists of a combined foul and surface water system.
- 1.4. An aerial Photograph is enclosed in Figure 1.



2. Policy and Guidance

- 2.1. The Building Regulations, approved document H details the requirements for building drainage in terms of both foul and surface water drainage.
- 2.2. The approved document identifies a hierarchy in dealing with drainage from land, starting with infiltration into the land itself, surface water bodies, separate sewage systems and finally combined sewer systems.
- 2.3. In conjunction with the BRE document Soakaway design Digest 365, a system for establishing the suitability for soakaway/infiltration systems has been identified.
- 2.4. The approved document also provides details over the location of any infiltration system with regard to property boundaries and building foundations.



3. The Assessment

Location

- 3.1 The proposed development is for the replacement of the existing two-storey building with a three-storey development consisting of ground floor commercial and upper residential units with access off Manchester Street to the east.
- 3.2 Existing drainage for the surrounding properties and those currently located on site consists of a combined sewer running along Manchester Street.
- 3.3 Research has identified that the geology in the area consists of Lower Pennine Coal Measures – Mudstone, Siltstone and Sandstone within the bedrock overlaid with Glaciofluvial Deposits, Devensian - Sand and Gravel deposits in the Superficial Layer.
- 3.4 Hydrology in the area has been identified as consisting of a Secondary A Aquifer in both the bedrock and superficial layer capable of supporting water supplies a local level and forming an important source of baseflow to rivers.

Foul drainage

- 3.6 Running along Manchester Steet there is located an existing combined public sewer. Since 2015 where any part of a property is within 30m of an existing sewer the Environment Agency will not allow a new discharge from a septic tank or sewage treatment plant. The development site is within 30m of the existing sewer as such these options are not available.
- 3.7 For discharge to ground a drainage field is required. Current Building Regulations state that drainage fields should be located at least 10m from any watercourse and at least 15m from any building. Given the size of the site there is no external area in which a drainage field could be located. Therefore, a discharge to ground is not suitable for this development.
- 3.8 Current Building Regulations state that connection to non-mains foul drainage should only be considered where connection to the mains drainage is not practicable.
- 3.9 As such, it is proposed to retain the existing connection to the public sewer at the side of the property. The new development will consist of additional water usage and therefore discharge volumes and it is recommended that all appliances fitted are designed to minimise water usage towards the water efficiency target of 110l/person or lower.



Surface Water

- 3.10 Requirement H3 of the Building Regulations 2015 states that a hierarchy for surface water disposal should be considered, where priority should be given to soakaway/infiltration system, watercourse and as a last resort, sewers.
- 3.11 The overall role of Sustainable Urban Drainage (SuDS) is the use of drainage design to mitigate the adverse effect of rainwater runoff due to the impact of both new and existing developments. The National Planning Practice Guidance confirms this approach and identifies a hierarchical structure:
- Infiltration
 - Surface water body
 - Surface water sewer
 - Combined sewer
- 3.12 In line with the requirements of Building Regulation Approved Document H and BRE 365 – Soakaway design, soakaways need to be located at least 5m away from any building foundations or road.
- 3.13 Given this requirement and the layout of the site it is not possible to install a suitable soakaway at the development.
- 3.14 Given the limited space on site this is not a valid option for surface water disposal.
- 3.15 There are no watercourses in the vicinity of the site, as such disposal surface water is not a viable option.
- 3.16 There are no surface water sewer systems in the area and as such discharge to a surface water sewer is not a viable option.
- 3.17 This leaves the final option in the hierarchy of discharge to the combined sewer running along Manchester Street.
- 3.18 The new building will cover the same footprint as the existing one and so rainwater dischargers will be the same as the current discharges. There is no space available on site to provide additional surface water storage facilities.
- 3.19 The above system will ensure suitable surface water disposal, in line with the Building Regulations hierarchy.



4 Conclusion

- 4.1 A consideration of the disposal options for foul and surface water drainage has been undertaken. Given the constraints of the site in question it has been identified that a discharge to ground or a watercourse are not viable options for either foul or surface water.
- 4.2 As such it is proposed that the existing connection be re-used to the combined public sewer at the front of the site and both surface and foul water be discharged to this point.

Figure 1 – Aerial Photograph

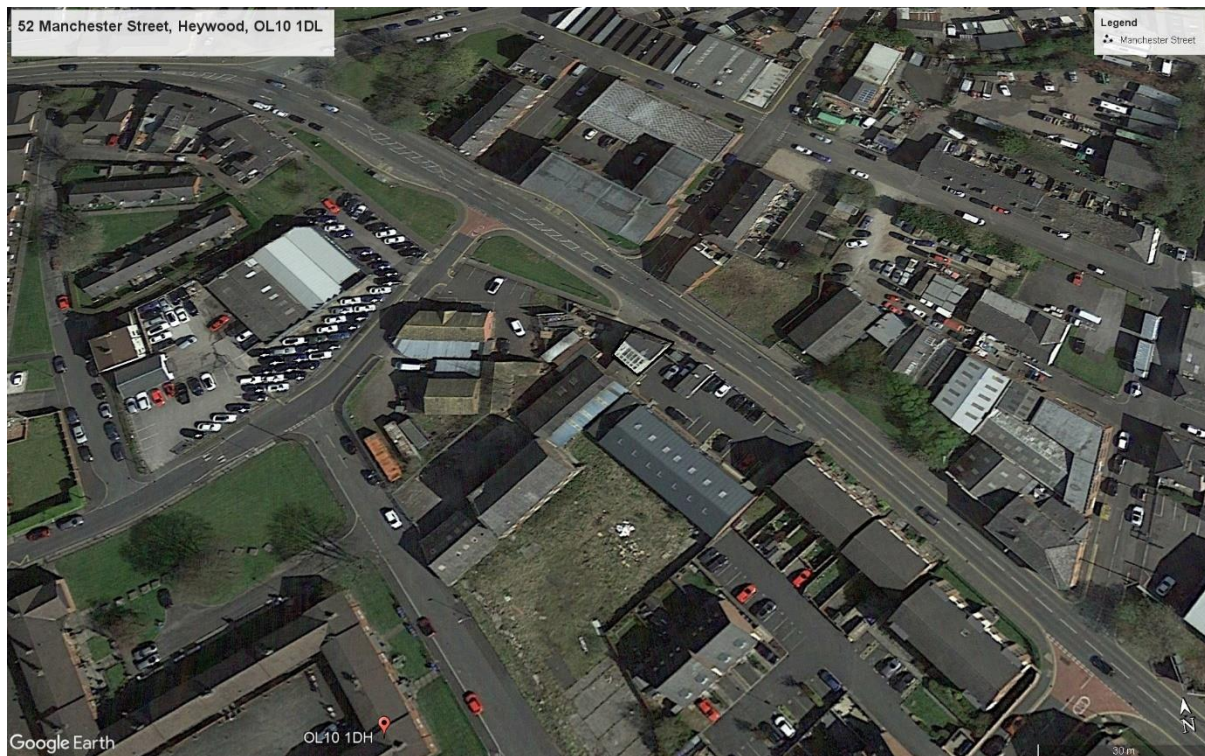


Figure 2 – Public Sewer System.

