



The Contractor is to check and verify in conjunction with the Architects details all setting out points, building and site dimensions, levels and sewer invert levels at connection points and ensure that they are fully compliant with the contents and requirements of the site investigation report before work starts. The Contractor is to comply in all respects with current building legislation, British Standard Specifications, Building Regulations etc, whether or not specifically stated on this drawing.

This drawing is not intended to show details of ground conditions or ground contaminants. Each area of ground referred to in support of any structure depicted (including drawings) to be investigated by the Contractor any areas of formation for said structures which do not accord with the anticipated conditions as described in the site investigation report are to be immediately notified to the Engineer, where applicable. Any suspect fluid ground or ground contaminants on or within the ground should be further investigated by a suitable expert. Any earthworks shown indicate typical slopes for guidance only and should be investigated further by a suitable geotechnical expert.

Where existing trees are shown to be retained they should be subject to a full Arboricultural Inspection for safety. All trees are to be planted so as to ensure they are a minimum of 5 metres from buildings and 3 metres from drainage and services, where applicable. A provision is to be provided to accommodate the proposed tree planting, where applicable.

© This drawing and the building works depicted are the copyright of Banners Gate Ltd and may not be reproduced or amended except by written permission. No liability will be accepted for amendments made by other persons.

- GENERAL NOTES**
1. This drawing is to be read in conjunction with relevant architectural and engineering drawings.
  2. Levels indicated in blocks are Finished floor levels and are 150mm above adjacent finished ground levels unless otherwise shown.
  3. Levels of the existing road at the point of tie-in with proposed site road must be checked prior to commencement of works.
  4. Any discrepancies between the details shown and actual on site conditions to be reported immediately to the engineer prior to commencement of works.

- ADOPTABLE ROADS AND SEWERS**
1. Roads, footways and parking bays which form part of the highway to be adopted under Section 38 of the Highways Act 1980 shall comply with the requirements of the Adopting Authority.
  2. Sewers to be adopted under Section 104 of the Water Industries Act 1991 shall comply with the Water Authorities Association 'Sewers for Adoption 6th Edition' with any amendments specified by the Adopting Water Authority.
  3. All pipes to be used in adoptable sewerage shall be either clayware to BS EN 205 or concrete to BS EN 1916 and BS 5911: Part 1 with Class 2 bedding unless otherwise stated. With approval of the Adopting Authority solid wall concentric external rib reinforced uPVC pipes complying with the relevant provisions of BS EN 13476 may be used.
  4. Where cover to a pipe is more than 1200mm under adoptable carriageway the trench shall be filled to formation of the carriageway with well compacted DTP Type 1 material.
  5. Where cover to a pipe is less than 1200mm under adoptable carriageway it shall be provided with concrete protection in accordance with the specification of the adopting authority and back filled to formation of the carriageway with well compacted DTP Type 1 material. Where concrete bed and surround is specified flexibility of joints is to be maintained by using compressible bitumen impregnated fibreboard at each pipe joint.
  6. All existing drainage invert levels, diameters and locations are to be checked by the Contractor prior to the commencement of any proposed drainage work. Any difference between actual and drawn details is to be reported to the Engineer immediately.
  7. Positions of existing services/statutory undertakers apparatus adjacent to or crossing proposed sewers is to be checked by the Contractor prior to starting work.

**PRELIMINARY  
DRAWING**  
SUBJECT TO APPROVAL

- Notes:**
1. The existing STW sewers crossing the site are to be investigated to confirm their exact line and levels prior to commencement of works, due to lack of STW information and buried manholes at time of design.
  2. Where possible, the existing STW sewers are to remain in-situ and not be diverted, subject to approval from STW.
  3. Existing concrete channel to be removed and replaced with natural watercourse to EA specification.
  4. Embankment from edge of highway to watercourse subject to reinforcement designed by a Geotechnical Engineer, due to proximity of the highway.

**Notes**

Existing Area (overall)	1.469 ha
Existing Area (impermeable)	0.853 ha (55% imperv)
Proposed Impermeable Area	0.717 ha (49% imperv)
Proposed SW flows attenuated @ 64 ls > (30% reduction in existing run-off)	
<b>SW Storage Requirement</b>	
1m <sup>3</sup> /yr = 100m of 7500 Pipe = 44m <sup>3</sup>	
1m <sup>3</sup> /100yr +30% (Cellular Storage) = 48m <sup>3</sup>	

P/2014/01663  
Received 23/12/14

Rev.	Description	Date	By

Client

Project

**Pennycroft Lane  
Uttoxeter**

Title

**Engineering Layout**

**BANNERS GATE**  
CIVIL, STRUCTURAL & ARCHITECTURAL DESIGN SERVICES

10-11 Birmingham Street, Halesowen, West Midlands B63 3HN  
Tel: 0121 687 1500 Fax: 0121 687 1501  
E-mail: e-mail@bannersgate.com

Scale	1:500 @ A1	Drawn	LH
Date	November 2014	Checked	SCM
File	14102/dwgs/civils	Drawing	14102 / 100