



**THIS LAYOUT SHOULD BE USED FOR:**  
 All private building drainage - position and levels  
 All private retaining walls - position and levels  
 Road names and postal numbers  
 Street lighting and other furniture/signage

**THIS LAYOUT SHOULD NOT BE USED FOR:**  
 Adoptable sewer and highway works - position and levels  
 Footings and drive positions or materials  
 Private parking paths, or areas  
 House types and positions

MARSHALLS ARE TO BE CONSULTED THROUGHOUT THE CONSTRUCTION OF THE POROUS PAVING SYSTEMS TO ENSURE COMPLIANCE WITH THEIR STANDARDS. THE CONTRACTORS ATTENTION IS DRAWN TO THE REQUIREMENT FOR THE POROUS PAVEMENT FORMATION TO FALL TOWARDS THE OUTFALL

INFILTRATION POROUS PAVING SYSTEM - TO BE UNDERLAIN WITH A PERMEABLE MEMBRANE (TERRAM 1000 OR SIMILAR APPROVED)

UNTIL TECHNICAL APPROVAL HAS BEEN OBTAINED FROM THE RELEVANT LOCAL AUTHORITIES, IT SHOULD BE UNDERSTOOD THAT ALL DRAWINGS ARE ISSUED AS PRELIMINARY AND NOT FOR CONSTRUCTION. SHOULD THE CONTRACTOR COMMENCE SITE WORK PRIOR TO APPROVAL BEING GIVEN, IT IS ENTIRELY AT HIS OWN RISK.

- Notes**
- All levels relate to Ordnance Datum.
  - For adoptable roads and sewer details refer to drawings 5.500 series.
  - Building Drainage
  - All connections to adoptable manholes from private building drainage to be 150mm diameter pipes unless otherwise specified.
  - All house drainage to be 100mm dia unless otherwise stated, and laid in accordance with current Building Regulations and BS8301 : 1995.
  - The Contractor is to refer to Marshalls standard details for connection specifications between surface water manholes and the porous paving system.
  - All drainage products are to be Polytippe.
  - Pipe bedding material is to be Class B with 150mm minimum thickness surround.
  - Backfill is to be with selected fill free of stones larger than 40mm, lumps of clay over 100mm, timber, frozen material and vegetable matter.
  - Protection of house drainage runs is required in accordance with the Typical House Drainage Details drawing. The contractor shall satisfy themselves and agree with the Site Management the actual extent of pipe protection required.
  - Pipes entering and leaving manholes/inspection chambers shall include a rocker pipe, 600mm in length.
  - Brickwork to chambers shall be Class B Engineering to BS3921.
  - Rainwater pipes are to be sited on side elevations whenever possible.

- Proposed**
- All retaining walls with a height of 600mm or greater are to include 1.2m high post and rail fencing unless located in rear gardens. Similar retaining walls in rear gardens are to include 900mm height picket fence.
  - All flights of steps to primary level access, with more than 2 steps are to be provided with handrails, except where the steps are 900mm or more apart.
  - Brick retaining walls are to be used in preference to gravel boards for front garden areas.
- KEY**
- F3 Proposed Foul Sewer
  - S3 Proposed Highway Drain
  - 150mm Perforated load drain/link pipes beneath porous paving
  - 150mm link pipes beneath impermeable margins
  - Highway Gully
  - Marshalls block paving
  - Carriageway - Permeable
  - Footway/Service margin - Impermeable
  - Refer to Bovis details for colour & bond. 60mm block in private areas
  - Direction of falls of porous paving formation
- Private Drains** (Refer to Engineering Notes/Specification)
- Small Foul I.C. (225mm dia. Depth to invert 400-600mm)
  - Medium Foul I.C. (450mm dia. Depth to invert 600-1000mm)
  - Non Entry I.C. (330mm dia. Depth to invert 1000-3000mm)
  - Large Foul I.C. (1200x750mm or PC rings. Depth to invert 1000-1800mm)
  - Small Surface Water I.C. (225mm dia. Depth to invert 450-600mm)
  - Medium Surface Water I.C. (450mm dia. Depth to invert 600-1000mm)
  - Non Entry I.C. (330mm dia. Depth to invert 1000-3000mm)
  - Large Surface Water I.C. (1200x750mm or PC rings. Depth to invert 1000-1800mm)
- ACO**
- Drainage Channel
  - Marshalls Sump
  - Marshalls Spreader
  - 200 Litre Water Butt

A	14.11.14	Plot engineering details updated following Bovis comments.	RM
Rev	Date	Details	By
Drainage Authority Approval Date			
Highway Authority Approval Date			

Do not scale from this drawing. Use written dimensions only. When shown relationships between slab levels and ground levels are to be checked on site. Any discrepancy or suggested modification to be reported to Design and Engineering Director.  
 Note: This drawing is the copyright of Bovis Homes Ltd.

**BOVIS HOMES**

Bovis Homes Central Region  
 Bromwich Court  
 Highway Point  
 Gorsey Lane  
 Coleshill  
 B46 1JU  
 Tel: 01675 437 000  
 Fax: 01675 437 094  
 DX: 728340 Coleshill 2

**Brookbanks Consulting**

6150 Knights Court Solihull Parkway Birmingham B37 7WY  
 Tel (0121) 329 4330 Fax (0121) 329 4331  
 www.brookbanks.com

SITE: KINGSMERE, BICESTER KM4			
DRAWING TITLE: ENGINEERING LAYOUT SHEET 1			
DRAWN BY: RM	DATE: 02.09.14	DRAWING NO.: BICE_5_630	REV: A
SCALE: 1:250 @ A1	CHECKED/DATE: RH		