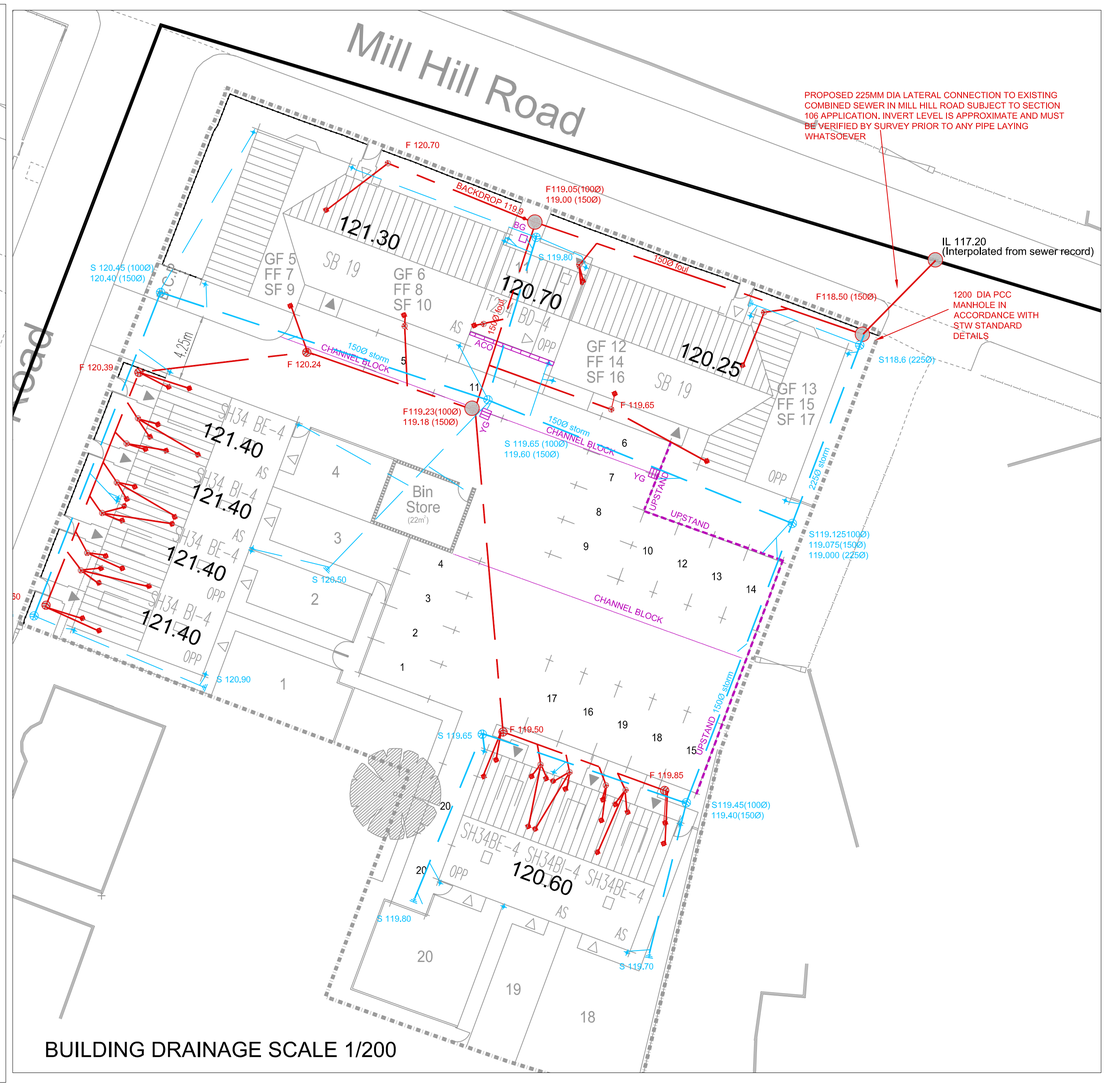


EXTERNAL WORKS SCALE 1/200



BUILDING DRAINAGE SCALE 1/200

THE SCALE OF RETAINING STRUCTURES SHALL BE IN ACCORDANCE WITH THE DEVELOPERS STANDARD DRAWING BEM/SD/2A A AS FOLLOWS:

GRAVEL BOARD	MAX 350MM	NOT SUITABLE AGAINST DRIVES
SLAB ON EDGE	351-500MM	MAX 300MM AGAINST DRIVES
WALL TYPE 1A	500-600MM	225-400 AGAINST DRIVES
WALL TYPE 2A	600-1050	
WALL TYPE 3A	1050-1350	
SCHEME SPECIFIC DESIGN	ANY WALL ABOVE 1500MM	

FENCING LOCATED ABOVE WALLS SHALL ABUT THE REAR FACE OF BRICKWORK AND BE PROVIDED WITH INDEPENDANT CONCRETE FOUNDATIONS. POSTS MUST NOT BE FIXED TO WALLS. GUARD FENCING MUST BE PROVIDED AT ALL LOCATIONS WHERE FALL HEIGHTS EXCEED 600MM

WHERE CLOSE BOARDED OR PANEL FENCING IS USED ABOVE THE STANDARD WALL TYPES THE SCHEME MUST BE REFERRED TO THE STRUCTURAL ENGINEER TO CHECK THE WALL SUITABILITY

LOG RETAINING WALLS MAY BE CONSIDERED IN LOCATIONS OTHER THAN IN BETWEEN PLOTS AND WILL BE ANNOTATED SEPERATELY SUBJECT TO CLIENT APPROVAL

THE LAYOUT WILL INDICATE THE MAXIMUM RETAINED HEIGHT AND APPLICABLE MAXIMUM WALL TYPE. THE WALL SHALL THEN STEP DOWN IN TYPE AND SCALE AS DETERMINED ON SITE AND IN ACCORDANCE WITH THE STANDARD DETAIL DRAWINGS

WHERE LOW POINTS ARE INCATED AGAINST BUILDINGS IT IS ANTICIPATED THAT THE ACTUAL LOW POINT WILL BE OFFSET FROM THE BUILDING LINE BY A MINIMUM OF 150MM HORIZONTALLY AND 80MM VERTICALLY SO AS TO PROVIDE A WATER CHECK. WHERE PRACTICAL THE USE OF CHANNEL DRAINAGE SYSTEMS SHALL BE PREFERRED FOR INDIVIDUAL DRIVE AREAS GULLIES ARE PREFERRED FOR COMMONAL OR LARGER AREAS. IT IS ESSENTIAL THAT THE GULLIES USED FOR A PARTICULAR APPLICATION AREA ADEQUATE IN NUMBER AND SCALE FOR THE PARTICULAR APPLICATION

THE PROVISION OF EXTERNAL STRUCTURES REQUIRES EXCAVATION WORK IN TRENCHES, AND REQUIRES NORMAL TRENCH PRECAUTIONS TO BE UNDERTAKEN.

THE PROVISION OF RETAINING WALLS MAY NECESSITATE THE UNDERCUTTING OF EXISTING SLOPES AND/OR STRUCTURES TO EFFECT THE NEW WALL CONSTRUCTION. SPECIALIST ADVICE IS REQUIRED IN THESE INSTANCES FROM AN APPROPRIATELY QUALIFIED STRUCTURAL AND GEOTECHNICAL ENGINEER TO ADDRESS THE ISSUES OF STRUCTURAL STABILITY.

MATERIALS AND PLANT MUST NOT BE STORED ON THE HIGH SIDE OF AN UNDERCUT SLOPE AND THE AREA MUST BE GUARDED TO PREVENT FALLS FROM HEIGHT

ADEQUATE MEASURES MUST BE EMPLOYED TO PROVIDE SLOPE STABILITY OR STABILITY / SHORING TO EXISTING STRUCTURES, AND PARTICULAR ATTENTION SHOULD BE PAID TO THE WEATHER PROOFING OF ANY SLOPES THAT WILL BE EXPOSED FOR SOME TIME

SIMILAR PRECAUTIONS ARE REQUIRED WHEN WORKING IN PROXIMITY TO EXISTING RETAINED MATURE TREES. EXCAVATIONS MAY DESTABILISE STRUCTURAL ROOTS AND SHOULD IDEALLY BE UNDERTAKEN BY HAND TO AVOID OVERHEAD CONTACT BETWEEN PLANT AND TREE BOUGHS

METHOD STATEMENTS MAY BE REQUIRED BY THE PLANNING SUPERVISOR DEMONSTRATING OPERATIVE TRAINING AND COMPETANCE IN THESE ISSUES. PERSONAL PROTECTIVE EQUIPMENT MUST BE USED AT ALL TIMES

With effect from 01 November 2008 Barratt Developments has entered into a dual supply arrangement with Burdens and Keyline for the provision of storm and foul drainage product, which will consist of all pipe work including fittings (concrete, clay and plastic), manhole rings, cover slabs, road gullies, cast iron covers gully gratings and concrete slabs, kerbs and edgings.

LEGEND

- FACINGS 300 — MAXIMUM DEPTH OF FACING BRICKWORK IN MM BELOW THE NORMAL 2 COURSES BELOW DPC
- 98.0 / 99.1 RW 98.60 99.0 — INDICATIVE FINISHED GROUND LEVELS AT THE TOP AND BOTTOM OF A RETAINING STRUCTURE OR ALTERNATIVELY AT STRATEGIC POINTS AROUND FOOTWAYS PLOTS AND GARDENS
- RET. WALL TYPE 2A MAX HEIGHT 1.10M — ANNOTATION OF WALL HEIGHT, MAXIMUM TYPE AND APPROXIMATE EXTENTS
- LOG RETAINING TO PROPRIETARY DETAILS MAX RETENTION 1200
- 99.50 98.60 1/12 STEPS 4 X 150 RISE 3 X 300 TREAD — INDICATION OF STEPS RAMPS AND ACCESS GRADIENTS COMMENSURATE WITH PART M OF THE BUILDING REGULATIONS WHERE ACCESS IS STEEPER THAN 1/20, RISE AND GOING TO BE STIPULATED
- * — PLOT WHERE ACCESS IS FLATTER THAN 1/20 AND COMPLIES WITH PART M WITHOUT DETAIL
- DPC 48.5 — DETACHED GARAGES ARE STIPULATED AS DPC LEVEL, AS THE FLOOR LEVEL WITHIN THE GARAGE WILL VARY WITH FALLS, IN ANY EVENT THE EXTERNAL GROUND LEVEL AT THE GARAGE DOOR SHALL BE 150MM LOWER THAN THE DPC LEVEL AS STATED
- HOUSES SHALL CONTINUE TO BE SPECIFIED AS FINISHED FLOOR LEVELS
- SE — RETENTION USING SLAB ON EDGE
- GB — DITTO GRAVEL BOARD
- TANKING AND OR SPLIT DPC TO BRICKWORK TO DIMENSIONS INDICATED
- CHANNEL BLOCK / UPSTAND — PRE-FORMED DISHED PCC CHANNEL OR SUITABLE ALTERNATIVE TO FORM DRAINAGE PATH
- WATER CHECK RETENTION TO EDGE OF PARKING AREA EITHER BULLNOSED EDGING OR KERB UPSTAND 25MM
- BG / YG — TRAPPED BOTTLE GULLY 150 X 150 WATERWAY
- MIN 375MM DIA 450MM DEEP TRAPPED GULLY WITH C250 STANDARD GRATING MIN 0.65 SQUARE METRE WATERWAY AREA

NOTES

1) ALL BUILDING DRAINAGE IS TO COMPLY WITH BS8301 AND PART H BUILDING REGULATIONS

2) BUILDING DRAINAG PRODUCTS SHALL BE POLYPPE SYSTEM AS PER STANDARD DETAIL DRAWING BEM/SD3/3, PIPES SHALL BE 100MM DIAMETER UNLESS OTHERWISE STATED ON THE DRAWINGS

3) PIPE BEDDING MATERIAL TO BE CLASS B 100MM THICKNESS. GRANULAR MATERIAL TO BE 10MM SINGLE SIZE

4) BACKFILL IS TO BE SELECETED FILL FREE FROM STONES LARGER THAN 40MM, CLAY MATTER, VEGETABLE MATTER AND FROZEN MATERIAL

5) MANHOLE COVERS IN DRIVES SHALL BE TO BSEN 124

6) ALL DRAINS IN THE VICINITY OF TREES SHALL BE CONSTRUCTED IN ACCORDANCE WITH NHBC PRACTICE NOTE 3

7) ALL FINAL CONNECTIONS TO THE ADOPTABLE PUBLIC SEWER SHALL BE 150MM DIAMETER UNLESS OTHERWISE STATED

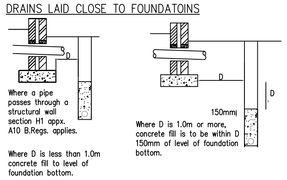
8) MANHOLE COVERS WITHIN GARAGES SHALL BE AVOIDED WHERE PRACTICABLE. IF REQUIRED, THEY SHALL BE FITTED WITH APPROVED SEALED COVERS

9) WHERE ANNOTATED, SURFACES SHALL BE PROVIDED WITH A DRAINAGE UPSTAND TO PREVENT THE RISK OF OVER WASH, REFER TO STANDARD DETAIL BEM/SD/2

LEGEND

- VIT CLAY RODDING EYE WITH ALLUMINIUM SCREW DOWN COVER IE HEPWORTH CODE 262 OR SIMILAR
- 450MM DIA PLASTIC ACCESS CHAMBER MAX DEPTH 1.2M IE HEPWORTH CODE PPIC100 OR SIMILAR
- CONCRETE MANHOLE SECTION DEPTH EXCEEDING 1.2M DIMS TO SUIT REGS H3 TABLE 9 OR APPROVED NON-MAN ENTRY PLASTIC ALTERNATIVE
- 225 DIA VIT CLAY INSPECTION CHAMBER MAX 450MM DEEP IE HEPWORTH IC200 OR SIMILAR
- 450MM DIA PLASTIC ACCESS CHAMBER MAX DEPTH 1.2M IE HEPWORTH CODE PPIC100 OR SIMILAR
- CONCRETE MANHOLE SECTION DEPTH EXCEEDING 1.2M DIMS TO SUIT REGS H3 TABLE 9 OR APPROVED NON-MAN ENTRY PLASTIC ALTERNATIVE
- BG / YG — TRAPPED BOTTLE GULLY MIN 150 X 150 WATERWAY MIN 375MM DIA 450MM DEEP TRAPPED GULLY WITH C250 STANDARD GRATING MIN 0.65 SQUARE METRE WATERWAY AREA
- MODULAR / CELLULAR CRATE STORAGE SYSTEM- DIMENSIONS AND PREFERRED SYSTEM INDICATED ON DRAWINGS
- PCC RING SOAKAWAY SYSTEM- RING DIAMETER AND LEVELS STIPULATED ON DRAWINGS

DRAINS LAID CLOSE TO FOUNDATOINS



The site manager is to inspect all excavations for stability prior to any personell entering the trench. If any doubt whatsoever exists regarding the state of the ground the operative must refer the issue to the manager prior to entering the trench.

Site staff must observe all normal trench precautions for any excavation , Risks to staff include trench collapse due to plant or materials loading, trench instability due to running conditions or shrinkage and expansion, and gassing risk due to ground gasses or contact with live sewerage.

Appropriate method statements must be in place for these operations and the operatives must have demonstrated to the principal contractor evidence of their training and competance in respect of such works

Additional risks include falls from height and the potential for debris to be kicked into trenches. Appropriate barrier systems must be used where necessary

In deep systems, and at the discretion of the planning supervisor, trench working may be defined as confined spaces working and additional safety precautions including compliance with specific legislation, must be taken. Escape plans must be in place and gas monitoring equipment available.

With effect from 01 November 2008 Barratt Developments has entered into a dual supply arrangement with Burdens and Keyline for the provision of storm and foul drainage product, which will consist of all pipe work including fittings (concrete, clay and plastic), manhole rings, cover slabs, road gullies, cast iron covers gully gratings and concrete slabs, kerbs and edgings.

THE ARRANCEMENT OF BUILDING DRAINAGE SHOULD BE GENERALLY IN ACCORDANCE WITH THE STANDARD DRAWING BEM/OSMA/1

RISK ASSESSMENT

Existing services:
Existing Public Apparatus - there is a full range of public utility services within the existing footways of the existing road network which surrounds the site. Details have been supplied by the client. The site is clear of public utility services but private domestic connections are known to exist. It is assumed that these will be disconnected in advance of demolition The potential area for conflict is therefore the construction of the outfall sewer which may interfere with utility pipes

Existing ground conditions:Site investigation - Not supplied

Contamination - refere to client for specialised advice

The works are within the immediate proximity of shops and other community facilities and in proximity to other occupied dwellings on the surrounding roads

Sewers / Drains - public sewers exist in the road network surrounding the site

Highways - Access to the site will be via Mill Hill Road which is a busy town centre street with on street parking.

Topography. The site falls moderately and locally steeply from NE to West to East

RESIDUAL RISKS

Outfall construction- it is anticipated that due to the limited room for plant, access and jib swings, that the sewer connection will be made under a road closure. At the very least, positive traffic control measures would be required

Ground stability- it is assumed that the demolition and filling of any voids will have been undertaken prior to building construction by competant persons, and any areas of filling recorded

Under cutting- Foundation lines and building drainage runs have been minimised adjacent to existing walls and structures but cannot be eradicated, Stability risk to existing structures due to under cutting

Loading adjacent to existing structures- existing retaining walls are of unkown stability and must not be loaded by materials or plant. Areas to be pre-isolated

Contact with live utility services during outfall sewer construction

Plant and delivery movements on site and within constrained site access area

The general traffic level on the adjacent Roads, and the extent to which turning construction plant may cause increased accident potential.

Adverse topography- risks to plant and material stability

Trench support adequate to deal with excavations through made ground and variable soil profiles. Client to supply site investigation

Possible unknown basements cellars troughs or other underground structures. associated with former buildings

Working in confined spaces. Specific risks in **all trenches** , and especially within deep on site sewers and connections to existing sewers, Risk of elevated C02 Risk of sudden water or flowing solids or gaseous ingress

Disease and contamination risk associated with contact with existing sewerage

COSHH control measures required for road and sewerage construction.Risk of burn, chemical burn, contamination, disease, asphyxiation, poisoning

REV	DESCRIPTION	DATE	INITIAL
C	RE-DRAWN TO SUIT THE FEB 09 PLANNING LAYOUT	14-02-09	SWD

PURPOSE OF ISSUE	REV	DATE

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PROJECT: PROPOSED RESIDENTIAL DEVELOPMENT AT MILL HILL ROAD, HINCKLEY

CLIENT: DAVID WILSON HOMES EAST MIDLANDS

TITLE: BUILDING DRAINAGE & EXTERNAL WORKS LAYOUT

DRAWN:	CHECKED:	DATE:
SWD		
SCALE: 1:200		
DWG No: E151/100		REV: C