



DRAINAGE KEY:

- FWMH FOUL WATER MANHOLE/DRAINAGE 150mm # MIN. 1.40 U.N.O.
- SWMH SURFACE WATER MANHOLE/DRAINAGE 150mm # LAID FLAT U.N.O.
- RWP RAINWATER PIPE (ALL TRAPPED)
- SVP SOIL & VENT PIPE
- RE RODDING EYE
- FOURPAVE OUTLET
- SA HOUSE SOAKAWAY
- FW INSPECTION CHAMBER
- SW INSPECTION CHAMBER
- CP CATCHPIT

- NOTES:**
1. THIS DRAWING IS COPYRIGHT AND SHOULD NOT BE REPRODUCED WITHOUT APPROVAL.
 2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE ARCHITECT'S DRAWINGS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF BOTH PARTIES IMMEDIATELY.
 3. ANY DIMENSIONS/LEVELS INDICATED "REF." REFER TO ASSUMED/EXISTING DIMENSIONS WHICH ARE TO BE SITE CHECKED PRIOR TO THE COMMENCEMENT OF ANY WORK.
- DRAINAGE NOTES:**
- D1. INVERT LEVELS AND POSITIONS OF EXISTING DRAINS / CHAMBERS / SEWERS WHERE NEW CONNECTIONS ARE TO BE MADE MUST BE CHECKED AND CONFIRMED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS.
 - D2. ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY, ENVIRONMENT AGENCY AND IN CONJUNCTION WITH ALL RELEVANT BRITISH STANDARDS, CODES OF PRACTICE AND 'SEWERS FOR ADOPTION' AS APPROPRIATE.
 - D3. ALL DRAINAGE SHALL COMPLY WITH THE TYPICAL DETAILS AND THE REQUIREMENTS OF BS EN 752.
 - D4. REFER TO MANHOLE SCHEDULE OR DRAWINGS FOR MANHOLE TYPES, SIZE, DEPTHS AND SPECIFIC REQUIREMENTS.
 - D5. FOR SETTING OUT DIMENSIONS OF SWP'S, RWP'S ETC. REFER TO ARCHITECT'S DRAWINGS.
 - D6. ALL PIPES UP TO 300mm DIAMETER TO BE VIRIDIFIED CLAY. EXTRA STRENGTH TO BS EN 285 OR BS 65 WITH PLAIN ENDED SLEAVED OR SOCKETED FLEXIBLE JOINTS. ALL PIPES OF 375mm DIAMETER AND OVER, TO BE SULPHATE RESISTING CONCRETE CLASS M WITH SOCKETED FLEXIBLE JOINTS.
 - D7. INVERTS OF INCOMING BRANCHES SHALL BE AT SPRINGING LEVEL TO THE MAIN PIPE AND FORMED GENERALLY USING CHANNEL PIPES AND SLIPPER BENDS, CUT TO SUIT.
 - D8. ALL GULLY AND DRAINAGE CHAMBER CONNECTIONS SHALL BE 150mm DIAMETER AND TRAPPED UNLESS OTHERWISE SPECIFIED.
 - D9. ALL FOUL AND RWP CONNECTIONS SHALL BE 100mm DIAMETER UNLESS OTHERWISE SPECIFIED.
 - D10. ALL PRE-CAST CONCRETE UNITS IN THE DRAINAGE WORKS SHALL BE MANUFACTURED USING SULPHATE RESISTING CEMENT.
 - D11. MANHOLE COVERS AND FRAMES SHALL BE TO BS EN 124 AND KITEMARKED. COVER AND FRAMES SHALL BE HEAVY DUTY D400 IN CARRIAGEWAYS AND VEHICULAR AREAS AND MEDIUM DUTY B125 IN FOOTWAYS AND SOFT LANDSCAPING. IN BLOCK PAVED AREAS COVERS SHALL BE RECESSED FABRICATED STEEL.
 - D12. REFER TO STRUCTURAL DRAWINGS FOR DETAILS OF MANHOLES AND DRAINS CONSTRUCTED WITHIN FLOOR SLABS AND FOUNDATIONS.
 - D13. COVER LEVELS ARE TO BE RAISED LOCALLY TO SUIT FINISHED GROUND LEVELS.
 - D14. HEALTH & SAFETY: THE WORKS SHALL BE CARRIED OUT BY SPECIALIST COMPETENT AND EXPERIENCED CONTRACTORS WHO ARE MEMBERS OF A RECOGNISED NATIONAL ORGANISATION.
 - D15. OPERATIONS SHALL HAVE RECESSED FILL AND APPROPRIATE TRAINING FOR THE OPERATION THEY ARE TO UNDERTAKE. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH ALL PERTINENT HEALTH AND SAFETY REGULATIONS.
 - D16. PIPES TO BE LAID TO A MINIMUM GRADIENT OF 1:500 UNLESS NOTED OTHERWISE.

Surface Water Manhole Schedule

Manhole Ref	Cover Level	Invert Level	Depth (m)	Size/ Constr'n	Cover/ Grade
S1	7.50	6.40	1.10	B	B125
S2	7.37	6.40	0.97	B	D400
S3	7.32	6.40	0.92	B	D400
S4	7.15	6.40	0.75	B	D400
S5	7.15	6.40	0.75	B	D400
S6	7.15	6.40	0.75	B	D400
S7	7.15	6.40	0.75	B	D400
S8	7.15	6.40	0.75	B	D400
S9	7.15	6.40	0.75	B	B125
S10	7.15	6.40	0.75	B	D400
S11	7.15	6.40	0.75	B	D400
S12	7.15	6.40	0.75	B	D400
S13	7.15	6.40	0.75	B	B125
S14	7.38	6.40	0.98	B	D400
S15	7.15	6.40	0.75	B	B125
S16	7.15	6.40	0.75	B	B125
S17	7.42	6.40	1.02	B	B125

Foul Manhole Schedule

Manhole Ref	Cover Level	Invert Level	Depth (m)	Size/ Constr'n	Cover/ Grade
F1	7.15	3.28	3.87	B	D400
F2	7.15	4.17	2.98	B	D400
F3	7.15	4.47	2.68	B	D400
F4	7.15	5.46	1.69	B	D400
F5	7.15	5.60	1.55	B	D400
F6	7.15	5.77	1.38	B	D400
F7	7.15	4.74	2.41	B	D400
F8	7.15	5.17	1.98	B	D400
F9	7.15	5.75	1.40	B	D400
F10	7.15	5.99	1.16	B	D400
F11	7.30	6.25	1.05	B	D400
F12	7.40	6.05	1.35	B	D400
F13	7.38	6.03	1.35	B	D400

REFER TO HDL DRG. Nos. 14-2260-510 FOR EXTERNAL WORKS/DRAINAGE DETAILS

SIZE OF SOAKAWAYS SUBJECT TO RESULT OF PERCOLATION TESTS

SOAKAWAYS TO BE LOCATED A MINIMUM OF 5m FROM ANY FOUNDATION

P1	PRELIMINARY	HDL/06.14	HDL/06.14	HDL/06.14
Version	Amendment	Revised By	Checked By	Approved By
ORIGINAL DRAWING SIZE - A1		X-REFS:		
CAD REF:				

HDL
HAMILL DAVIES LIMITED
Consulting Civil and Structural Engineers

Client: FOREMAN HOMES LTD
Project: RANELAGH ROAD, HAVANT
Drawing: PROPOSED RESIDENTIAL DEVELOPMENT DRAINAGE LAYOUT

Version: PRELIMINARY
Drawing Office: CHANMORSE
Telephone: 01489 893 596

Drawn: HDL
Designed: HDL
Scale: 1:200 @ A0

14-2260-500 P1

PRELIMINARY