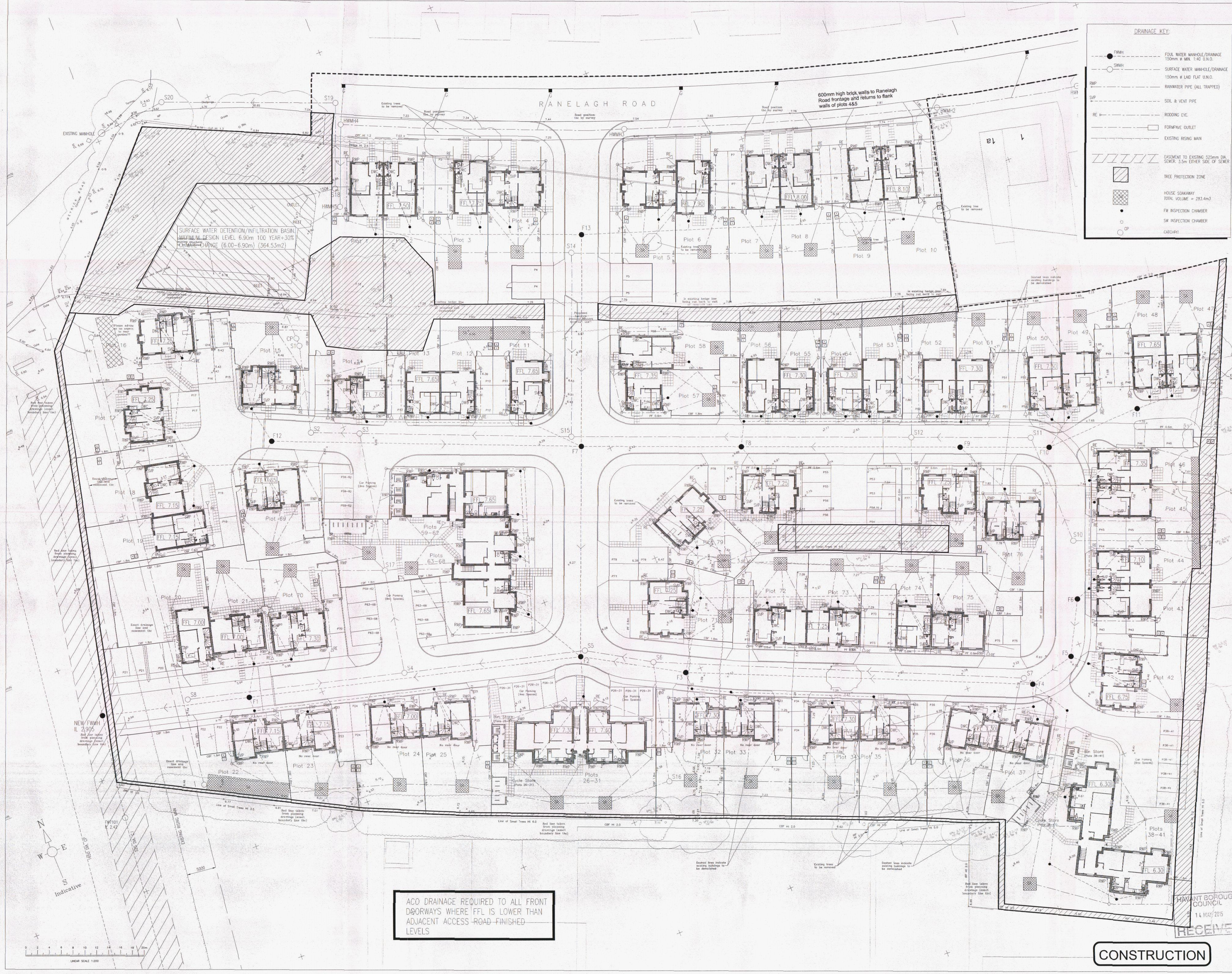




DRAINAGE KEY:

- FWMH - FOUL WATER MANHOLE/DRAINAGE 150mm x MIN. 1.40 U.N.O.
- SWMH - SURFACE WATER MANHOLE/DRAINAGE 150mm x LAD FLAT U.N.O.
- RWP - RAINWATER PIPE (ALL TRAPPED)
- SVP - SOIL & VENT PIPE
- RE - ROOFING EYE
- FO - FORMPIPE OUTLET
- ER - EXISTING RISING MAIN
- ES - EASEMENT TO EXISTING 525mm DIA. SEWER. 3.0m EITHER SIDE OF SEWER
- TPZ - TREE PROTECTION ZONE
- HS - HOUSE SOAKAWAY TOTAL VOLUME = 283.4m³
- FI - FI INSPECTION CHAMBER
- SI - SI 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 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 SWPS, RWPS ETC. REFER TO ARCHITECT'S DRAWINGS.

D6. ALL PIPES UP TO 300mm DIAMETER TO BE VITRIFIED CLAY, EXTRA STRENGTH TO BS EN 295 OR BS 65 WITH PLAIN ENDED SLEEVES 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 TURNED GENERALLY USING CHANNEL PIPES AND SLURPER BONDS, CUT TO SUIT.

D8. ALL GULLY AND DRAINAGE CHANNEL 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 VITRIFIED. COVER AND FRAMES SHALL BE HEAVY DUTY D400 IN CARPAGESWAYS AND VEHICULAR AREAS AND MEDIUM DUTY B125 IN FOOTPATHS AND SOFT LANDSCAPING. IN BLOCK PAVED AREAS COVERS SHALL BE RECESSED IMPREGATED STEEL.

D12. REFER TO STRUCTURAL DRAWINGS FOR DETAILS OF MANHOLES AND DRAINAGE CONNECTIONS WITH FLOOR SLABS AND FOUNDATIONS.

D13. COVER LEVELS ARE TO BE INDICATED 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. OPERATES SHALL HAVE RECEIVED FULL 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 1:60 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
S18	6.75	6.00	0.75	B	B125
S19	6.75	6.00	0.75	B	D400
S20	6.75	6.00	0.75	B	D400

Foul Manhole Schedule

Manhole Ref	Cover Level	Invert Level	Depth (m)	Size/Constr'n	Cover/Grade
F1	7.15	3.20	3.95	B	D400
F2	7.15	3.86	3.29	B	D400
F3	7.15	4.07	3.08	B	D400
F4	7.15	4.75	2.40	B	D400
F5	7.15	5.47	1.68	B	D400
F6	7.15	5.62	1.53	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

CONSTRUCTION	HD/04/15	HD/04/15	HD/04/15
C2 CONSTRUCTION	HD/03/15	HD/03/15	HD/03/15
C1 CONSTRUCTION	HD/01/15	HD/01/15	HD/01/15
P6 PRELIMINARY	HD/11/14	HD/11/14	HD/11/14
P5 PRELIMINARY	HD/11/14	HD/11/14	HD/11/14
P4 PRELIMINARY	HD/10/14	HD/10/14	HD/10/14
P3 PRELIMINARY	HD/10/14	HD/10/14	HD/10/14
P2 PRELIMINARY	HD/09/14	HD/09/14	HD/09/14

ORIGINAL DRAWING SIZE - A1 X-REFS: .

CAD REF: .

14 MAY 2015

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CONSTRUCTION

FOREMAN HOMES LTD
RANELAGH ROAD, HAVANT
PROPOSED RESIDENTIAL DEVELOPMENT
DRAINAGE LAYOUT

Hamill Davies Limited
Consulting Civil and Structural Engineers
14-2260-500 C3

ACO DRAINAGE REQUIRED TO ALL FRONT DOORWAYS WHERE FFL IS LOWER THAN ADJACENT ACCESS ROAD FINISHED LEVELS