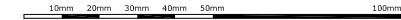


If there should be any doubt or query regarding the interpretation of the information given on this Drawing, please enquire directly to Rolton Group Ltd before executing such part of the works.

The contents of this drawing are strictly confidential and must not in any circumstances be copied, shown, published or otherwise disclosed to anyone, outside the Rolton Group without express consent in writing.



Sewer Type Key:

- - - Existing combined drainage
- - - Proposed Private Surface Water Sewer
- - - Proposed Private Foul Water Sewer
- - - Proposed Private Combined Water Sewer
- - - Proposed RWP Connection to Storm
- - - Proposed SVP Connection to Foul
- - - Proposed Private FW Gully (floor gully)
- - - Proposed Private FW Gully (yard gully)
- - - Proposed Private SW Gully (yard gully)
- - - Proposed SW Linear Drainage with below ground connection for permeable paving

General Key:

- Network Rail Easement
- Proposed Services Easement
- 1:000/6000/1:50/27.00m
- Drainage Model Pipe Reference
- Sewer Diameter
- Sewer Gradient
- Sewer Length

Manhole/Inspection Chamber Type Key:

- Surface Water PPIC
- Foul Water PPIC
- Surface Water PCC MH/CP
- Combined Water PCC MH
- Surface Water Control Chamber
- Surface Water Catch-pit Manhole
- Proposed Private Cellular Storage Tank

General notes:

1. This drawing is to be read in conjunction with all the relevant contract documentation.
2. All dimensions are in mm unless otherwise stated.
3. Drawings marked Preliminary are for guidance/approval only.
4. The developer is responsible for locating any existing services, for making provision for access to lay service to serve adjacent sites and for protecting any services to the satisfaction of the relevant utility company.
5. The developer is to obtain all necessary licences/permissions before making connecting to existing sewers.
6. Pipes to be connected soffit to soffit.
7. All Invert levels are to be checked on site prior to work commencing and any discrepancies reported immediately.
8. Levels Indicated are Invert levels unless noted otherwise and are of lowest connection in manhole.
9. Drawing based on:
 - a. Site Layout General Arrangement, 1952-GA-SP-L00, rev.P3, produced by Alan Camp Architect
 - b. Block A General Arrangement Drawing, 1952-GA-P-A-L00, rev.P12, produced by Alan Camp Architect
 - c. Block B1 General Arrangement Drawing, 1952-GA-B1-C-L00, rev.P9, produced by Alan Camp Architect
 - d. Block B2 General Arrangement Drawing, 1952-GA-B2-C-L00, rev.P8, produced by Alan Camp Architect
 - e. Block C General Arrangement Drawing, 1952-GA-P-C-L00, rev.P8, produced by Alan Camp Architect
 - f. Landscape Design drawings: HO-439_DA_001_R00, HO-439_HL_CV105_R00, HO-439_HL_CV205_R00, dated 05/03/2014, produced by Hannah Oakden Landscape Design

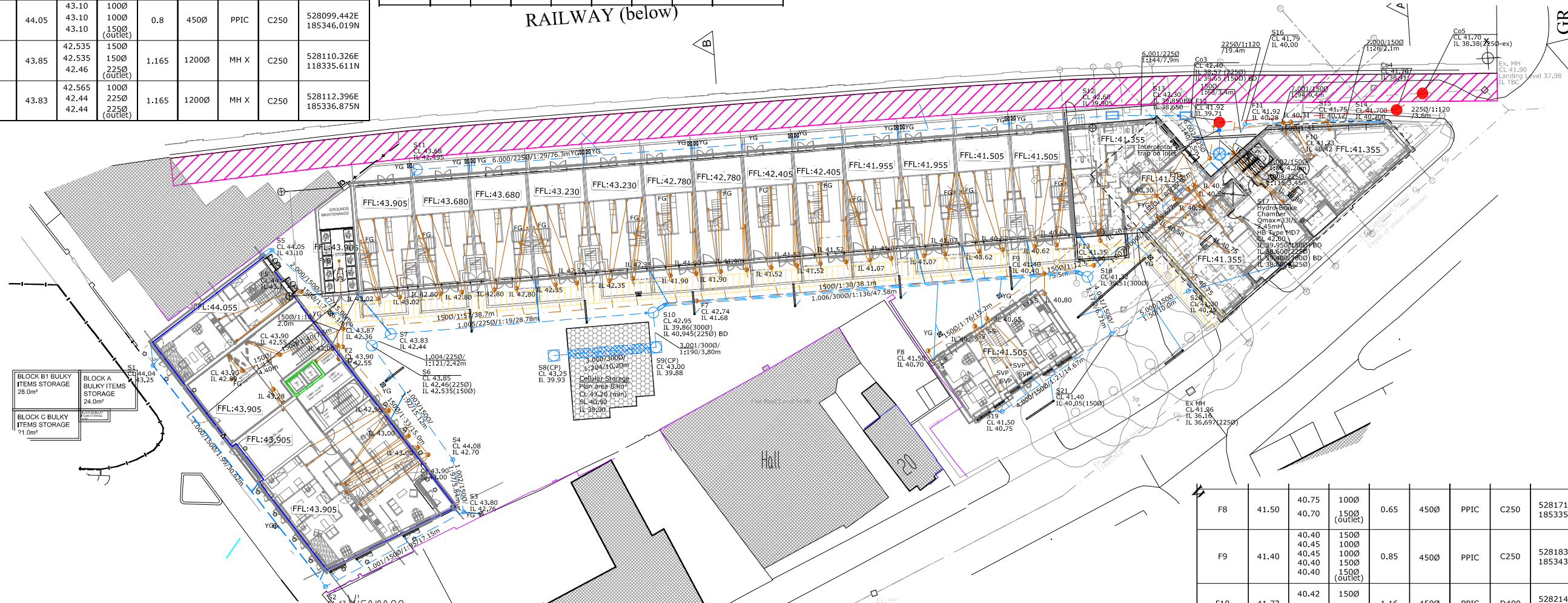
Private drainage notes:

1. All specifications and installations are to comply with the latest edition of the Building Regulations approved documents (part H), relevant BS and manufacturers recommendations.
2. All connections below the slab and from the building to be at an approximate minimum gradient of 1:40.
3. Drawing to be read in conjunction with construction details drawings 12-0083/INF/30-32
4. Pipes to be 100mm dia. UPVC to BS4660 laid on class 5 granular bed and surround and backfilled in accordance with detail on drawing unless otherwise shown. Pipes with less than 0.6m cover in un-trafficked areas or 0.9m cover in trafficked areas to have min. of 100mm concrete surround class Z.
5. Pipes running under buildings to have a min. of 100mm granular surround.
6. Drainage run connecting into the adoptable manholes needs to be Class 120 concrete or Vitrified Clay as stated in the notes for the adoptable drainage.
7. Inspection chambers and manholes. Brickwork Class B engineering to BS 3921, pre-cast concrete sections to BS 5911, plastic relevant BBA certificate.
8. Rodding eyes and access fittings to be in accordance with BS 4660 and relevant BBA certificate.
9. Inspection chambers and manholes to have removable non-ventilating covers to a load class as indicated on the manhole schedule.
10. All drainage adjacent to the Network Rail easement and above ground anchors to be encased in concrete (Class Z)

Storm Water Manhole Schedule							
Manhole No.	Cover Level	Inverts	Pipe Ø	MH depth to soffit of pipe	MH Ø	MH Type	Cover
S1	44.04	43.3 43.3 43.25	1000 1000 1500 (outlet)	0.64	4500	PPIC	C250
S2	43.75	42.94 42.94	1500 1500 (outlet)	0.66	4500	PPIC	C250
S3	43.80	42.81 42.76 42.76	1000 1500 1500 (outlet)	0.89	4500	PPIC	C250
S4	44.08	42.70 42.70	1500 1500 (outlet)	1.23	4500	PPIC	C250 #
S5	44.05	43.10 43.10 43.10	1000 1000 1500 (outlet)	0.8	4500	PPIC	C250
S6	43.85	42.535 42.535 42.46	1500 1500 2250 (outlet)	1.165	12000	MH X	C250
S7	43.83	42.565 42.44 42.44	1000 2250 2250 (outlet)	1.165	12000	MH X	C250

S10	42.95	40.95 (BD) 39.86 39.86	2250 3000 3000 (outlet)	2.79	12000	MH B	C250
S11	43.68	42.62 42.62 42.495	1000 1000 2250 (outlet)	0.96	12000	MH X	C250
S12	42.60	39.905 39.905	2250 2250 (outlet)	2.695	1200 x 675	MH B	C250

RAILWAY (below)



S13	42.30	39.850BD 38.650	2250 2250 (outlet)	3.425	1200 x 675	MH B	D400
S14	41.700	40.250 40.200	1000 1500 (outlet)	1.35	4500	PPIC	D400 #
S15	41.75	40.120 40.120	1500 1500 (outlet)	1.38	4500	PPIC	D400 #
S16	41.79	40.00 40.00	1500 1500 (outlet)	1.64	4500	PPIC	D400 #
S17	42.00	39.950 38.600 39.400 38.600	1500 BD 2250 3000 BD 2250 (outlet)	3.10	12000 (Refer to INF/35 for detail)	HB Chamber	D400
S18	41.32	39.66 39.51 39.51	1500 3000 3000 (outlet)	1.51	12000	MH B	D400

S19	41.50	40.80 40.75	1000 1500 (outlet)	0.60	4500	PPIC	D400
S20	41.30	40.30 40.30 40.25	1000 1000 1500 (outlet)	0.90	4500	PPIC	D400
S21	41.40	40.05 40.05 40.05	1500 1500 1500 (outlet)	1.20	4500	PPIC	D400

Reduced access PPIC

Foul Water Manhole Schedule							
Manhole No.	Cover Level	Inverts	Pipe Ø	MH depth to soffit of pipe	MH Ø	MH Type	Cover
F1	43.90	43.05 43.05 43.05	1000 1000 1500 (outlet)	0.75	4500	PPIC	C250
F2	43.90	42.55 42.55	1500 1500 (outlet)	1.20	4500	PPIC	C250
F6	43.87	42.41 42.36 42.36 42.36	1000 1500 1500 1500 (outlet)	1.36	4500	PPIC	C250 #
F7	42.74	41.68 41.68	1500 1500 (outlet)	0.91	4500	PPIC	C250

F8	41.50	40.75 40.70	1000 1500 (outlet)	0.65	4500	PPIC	C250
F9	41.40	40.45 40.45 40.40 40.40	1500 1000 1000 1500 (outlet)	0.85	4500	PPIC	C250
F10	41.73	40.42 40.42	1500 1500 (outlet)	1.16	4500	PPIC	D400
F11	41.92	40.25 40.25	1500 1500 (outlet)	1.52	4500	PPIC	D400
F12	41.92	39.71 39.71	1500 1500 (outlet)	2.08	4500	PPIC	D400
F13	41.35	39.96 39.96	1500 1500 (outlet)	1.24	4500	PPIC	D400
Co3	42.40	38.570 39.650 38.570	2250 SW PE (Proposed) 1500 PE to S13 2250 (outlet)	3.605	12000	MH A	D400
Co4	41.70	38.41 38.41	2250 2250 (outlet)	3.065	12000	MH A	D400
Co5	41.70	38.38 38.38 ex	2250 2250 (outlet)	3.095	12000	MH A	D400

CONNECTION TO THE EXISTING SEWER SUBJECT TO THAMES WATER APPROVAL

- C12 27.02.15 Co4 moved further north SDP
- C11 20.02.15 Co4 moved SDP
- C10 20.11.14 S20 moved, S17 details amended SDP
- C9 14.11.14 S13-S17 lowered, BD added to S13. Foul drainage to Block C adjusted (F10-F13) SDP
- C8 29.10.14 Drainage to block C amended to assist with foundation crossings. Hydrobrake updated SDP
- C7 08.10.14 Foul drainage to Block C revised. Alternative outfall MH C03 and C04 added SDP
- C6 11.07.14 F7 and F9 Invert levels revised SDP
- C5 15.05.14 Manhole schedule added. Block A SVP locations revised. Drainage outfall location amended SDP
- C4 28.04.14 SW drainage layout revised between S13 and Co1. FW drainage revised between F10 & Co1 SDP
- C3 07.04.14 New site layout and OF layouts attached. Files and drainage revised SDP
- C2 17.02.14 Storage tank location and Hydrobrake details SDP adjusted. Interceptor trap moved. Pipe references 3,000,3,001,4,000,4,001,1,006 adjusted SDP
- C1 28.11.13 Construction issue. Drainage layout revised. SOP following changes to proposed site & building layouts SDP
- T1 03.06.13 Detailed storm & foul drainage details added SWF for TENDER purposes only SDP
- P3 16.05.13 Proposed surface water drainage added SDP
- P2 26.03.13 Risk Assessment Reference amended SDP
- P1 18.09.12 Preliminary issue SDP

Revisions

Issue Purpose: **CONSTRUCTION**

Project: **Block Low Rise Camden**

Drawing Title: **Proposed Drainage Layout**

DHO site: **12-0083 XDRA 001**

Specification Reference:

Drawn By: **AJM** Checked By: **SDP**

Scales: **1:250@A1** Date: **Sept 12**
1:500@A3

Drawing No.: **12-0083/INF/11 C12** Rev.:



- THE CHARLES PARKER BUILDING
MIDLAND ROAD, HIGHAM FERRERS
NORTHANTS NN10 8DN
- ONE MINERVA BUSINESS PARK
LYNCH WOOD
PETERBOROUGH PE2 6FT
- THE DAVID ROLTON BUILDING
TWELVE QUARTZ POINT
STONEBRIDGE ROAD
BIRMINGHAM B46 3JL