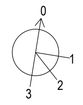
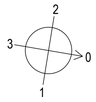
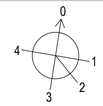
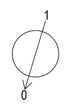
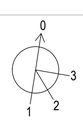
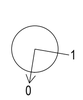
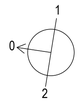
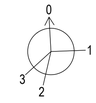
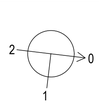
ASSUMED THAT ALL BELOW GROUND RWP BRANCHES ARE TO BE 100mmØ. TO BE CONFIRMED ONCE ALL RWP LOCATIONS AND DISCHARGE RATES HAVE BEEN CONFIRMED BY OTHERS.

REDUCED ACCESS SHAFTS TO 600Ø PPIC GREATER THAN 1.2m DEEP REQUIRED

Manhole Number	Cover Level	Connections	Pipe				Manhole Size	Types	
Coordinates	Manhole Depth		Code		Inverts	Diameters		Manhole	Cover
SW01	39.980		1	RWP	39.010	100	600	PPIC	B125
			2	RWP	39.010	100			
E: 385040.371	1.020		3	ACO	39.010	100			
N: 396337.735			0	1.000	38.960	150			
SW02	39.980		1	1.000	38.630	150	600	PPIC	B125
			2	ACO	38.680	100			
E: 385045.732	1.350		3	ACO	38.680	100			
N: 396370.761			0	1.001	38.630	150			
SW03	40.100		1	1.001	38.280	150	1200	CATCHPIT	600 x 600 D400
E: 385054.343	1.820								
N: 396369.364	2.120 TO SUMP		0	1.002	38.280	150			
SW04	40.035		1	ACO	39.050	100	600	PPIC	B125
			2	ACO	39.050	100			
E: 385050.592	1.035		3	ACO	39.050	100			
N: 396344.886			4	TD	39.050	100			
			0	2.000	39.000	150			
SW05	40.035		1	GULLY	38.870	100	1200	CATCHPIT	600 x 600 B125
E: 385052.955	1.215								
N: 396353.959	1.515 TO SUMP		0	3.000	38.870	100			
SW06	40.035		1	3.000	38.820	100	1200	B	600 x 600 D400
			2	2.000	38.770	150			
E: 385052.870	1.265		3	TD	38.820	100			
N: 396357.968			0	2.001	38.770	150			
SW07C	40.240		1	ACO	39.100	100	600	PPIC	B125
E: 385061.741	1.040								
N: 396350.972			0	4.000	39.050	150			
SW07B	40.200		1	4.000	38.985	150	600	PPIC	B125
E: 385060.503	1.065								
N: 396344.998			0	4.001	38.985	150			
SW07A	40.200		1	4.001	38.970	150	600	PPIC	B125
E: 385059.281	1.080								
N: 396344.196			0	4.002	38.970	150			
SW07	40.060		1	ACO	38.980	100	600	PPIC	B125
			2	ACO	38.980	100			
E: 385055.968	0.980		3	4.002	38.930	150			
N: 396344.734			0	4.003	38.930	150			
SW08	40.140		1	ACO	38.910	100	600	PPIC	D400
E: 385058.339	1.280								
N: 396359.349			0	5.000	38.860	150			

Manhole Number	Cover Level	Connections	Pipe				Manhole Size	Types	
Coordinates	Manhole Depth		Code		Inverts	Diameters		Manhole	Cover
SW09	40.110		1	5.000	38.770	150	600	PPIC	D400
			2	4.000	38.770	150			
E: 385058.043	1.340								
N: 396357.562			0	4.001	38.770	150			
SW10	40.035		1	4.001	38.740	150	1200	B	600 x 600 D400
			2	ACO	38.790	100			
E: 385055.379	1.295		3	2.001	38.740	150			
N: 396357.992			0	2.002	38.740	150			
SW11	40.090		1	2.003	38.600	150	1200	CATCHPIT	600 x 600 D400
			2	ACO	38.650	100			
E: 385056.216	1.490								
N: 396362.890	1.790 TO SUMP		0	2.004	38.600	150			
SW12	40.250		1	1.003	38.075	150	1500	HYDROBRAKE CHAMBER	600 x 600 D400
E: 385060.995	2.250 (TBC)								
N: 396360.771			0	1.004	38.000 (TBC)	225			
SW13	39.950		1	Ex. RWP	39.270	150 (TBC)	600	PPIC	B125
			2	Ex. RWP	39.270	150 (TBC)			
E: 385040.950	0.680								
N: 396343.557			0	6.000	39.270	150			
SW14	40.000		1	6.000	39.040	150	600	PPIC	B125
E: 385044.564	0.960								
N: 396366.759			0	6.001	39.040	150			
SW15	40.090		1	6.001	38.980	150	600	PPIC	B125
			2	Ex. RWP	38.980	150 (TBC)			
E: 385044.582	1.110								
N: 396373.231			0	6.002	38.980	150			
SW16	40.270		1	6.002	38.740	150	600	PPIC	D400
E: 385056.911	1.530								
N: 396371.493			0	6.003	38.740	150			

IMPORTANT NOTES

1. SETTING OUT SHALL BE UNDERTAKEN USING ONLY THE INFORMATION GIVEN. DISTANCES SHOULD NOT BE SCALED FROM THIS DRAWING.
2. ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SEWERS FOR ADOPTION 7TH EDITION AND UNITED UTILITIES DETAILS & GUIDELINES.
3. THE MINIMUM GRAVITY PIPE DIAMETER UNDER ADOPTABLE HIGHWAYS SHALL BE 150mm.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL INFORMATION GIVEN WITH REGARDS TO EXISTING SERVICES AND DRAINAGE CONNECTIONS ETC. PRIOR TO COMMENCING THE WORKS. THE RATES SHALL INCLUDE FOR HAND DIG AROUND SERVICES WHERE NECESSARY. THE CONTRACTOR SHALL ADHERE TO THE CDM REGULATIONS AT ALL TIMES.
5. THE OUTSIDES OF ALL SEWERS SHALL BE A MINIMUM OF 1.0m FROM KERB LINES AND THE OUTSIDE OF MANHOLES SHALL BE A MINIMUM OF 0.5m FROM KERB LINES.
6. EXISTING FLOWS IN WATERCOURSES, SEWERS AND LAND DRAINS SHALL BE MAINTAINED AT ALL TIMES.
7. ONLY TRAINED PERSONNEL SHALL BE PERMITTED TO ENTER CONFINED SPACES.
8. ALL MATERIALS TO BEAR THE RELEVANT B.S. KITEMARK AND COMPLY FULLY WITH THE SPECIFICATIONS. ALL CONCRETE & CONCRETE PRODUCTS MUST USE SULPHATE RESISTANT CEMENT (UNLESS THE SITE INVESTIGATION REPORT PROVES THAT SULPHATE ATTACK FROM SOILS AND GROUNDWATER WILL NOT OCCUR TO WITHSTAND A CLASS.
9. ALL OPENING NOTICES ETC. AS REQUIRED UNDER HIGHWAYS ACTS ETC. ARE TO BE OBTAINED PRIOR TO COMMENCEMENT OF WORKS. ALL WORKS ARE TO BE INSPECTED BY L.A., NHBC OR THE NETWORK OPERATOR AS APPLICABLE.
10. WHERE "ULTRA RIB" UPVC PIPES (OR SIMILAR APPROVED) ARE USED IN ADOPTABLE DRAINAGE THEY SHALL STILL BE HANDLED AND LAID IN ACCORDANCE WITH THE SPECIFICATION AND GUIDANCE ISSUED BY THE HIGH PERFORMANCE PIPE ASSOCIATION.
11. A CLASS S BED AND SURROUND MUST BE USED FOR SUCH PIPES. TRENCH BACKFILL IN HIGHWAYS TO WITHIN 1M OF HIGHWAY SHALL, AS DIRECTED BY THE HIGHWAY AUTHORITY BE A SUITABLE GRANULAR MATERIAL ALL IN ACCORDANCE WITH SEWERS FOR ADOPTION CL. 4.3.4.
12. SLAB LEVELS SHALL NOT BE VARIED WITHOUT REFERENCE TO THE ENGINEER FOR GUIDANCE.
13. ALL GULLY CONNECTIONS TO BE 150mm VITRIFIED CLAY UNLESS NOTED OTHERWISE.
14. ALL MANHOLE COVERS TO BE RECESSED TO ACCEPT FINISH AS DETAILED BY LANDSCAPE ARCHITECT.
15. SLOW REST BENDS TO BE USED IN ALL LOCATIONS MADE UP FROM 2No. 45 DEG BENDS (600mm TO INVERT FROM FFL).
16. MANHOLE POSITIONS AND ACCESS COVERS TO BE ACCURATELY SET-OUT BY LANDSCAPE ARCHITECT TO SUIT EXTERNAL FINISHES.
17. ALL DRAINS CAST THROUGH FOUNDATIONS TO HAVE ROCKER PIPES ON BOTH SIDES OF FOUNDATION.
18. ALL POP UP POSITIONS TO BE CONFIRMED SET OUT DIMENSIONS TO BE AGREED & PROVIDED BY OTHERS.
19. ALL DISCHARGE RATES TO BE CONFIRMED BY M&E DESIGNER.
20. ALL SURFACE WATER COLLECTION FEATURES TO BE CONFIRMED BY THE LANDSCAPE ARCHITECT.
21. STORAGE HAS BEEN PROVIDED IN A CELLULAR STORAGE TANK AND UP-SIZED MANHOLES AND PIPES.
22. EXISTING SEWER DEPTHS HAVE BEEN APPROXIMATED FROM LIMITED INFORMATION, NEW CONNECTIONS TO BE CONFIRMED PRIOR TO CONSTRUCTION OF ANY DRAINAGE WORKS.
23. LANDSCAPE ARCHITECT TO CONFIRM GULLY AND DRAINAGE CHANNEL LOCATIONS TO LANDSCAPED AREAS.
24. FOUL NETWORK TO BE CONFIRMED FOLLOWING CONFIRMATION OF BRANCH CONNECTION POINTS FROM BUILDING M&E DESIGNER.
25. CCTV SURVEY OF EXISTING SITE DRAINAGE REQUIRED PRIOR TO THE COMMENCEMENT OF ANY WORKS STARTING ON SITE.

REV	DATE	DESCRIPTION	BY	CHK	APP
C09	20.11.2024	ISSUED FOR CONSTRUCTION INTENT	JJR	JJR	AS
C08	21.10.2024	SW13A REMOVED	JJR	JJR	AS
C07	09.10.2024	ADDITIONAL DIVERSION PPIC ADDED	JJR	JJR	AS
C06	22.05.2024	FOUL DIVERSION REMOVED	JJR	AS	AS
C05	26.01.2024	ACOS ADJUSTED TO SUIT NEW EXTERNAL FALLS	JJR	AS	PB
C04	24.10.2023	UPDATED TO SUIT LATEST COVER SPEC	JJR	JRS	PB
C03	19.07.2023	UPDATED TO SUIT LATEST LAYOUT WITH GAS STORE MOVE & CHILLER ADDED	JJR	JRS	PB
C02	12.07.2023	GAS STORE ROOM RWP ADDED	JJR	JRS	PB
C01	17.03.2023	ISSUED FOR CONSTRUCTION	KB	AS	PB
P04	30.01.2023	DRAINAGE DIVERSION UPDATED TO PICK UP ADDITIONAL POP UPS	JJR	AS	PB
P03	22.12.2022	UPDATED TO SUIT SITE COMMENTS	JJR	JRS	PB
P02	16.09.2022	STAGE 4 FOR APPROVAL	JJR	JRS	PB
P01	06.05.2022	STAGE 4 ISSUE	JRS	PB	PB

DRAWING STATUS: **CONSTRUCTION INTENT**

CLIENT: MANCHESTER UNIVERSITY NHS FOUNDATION TRUST

ARCHITECT: DAY ARCHITECTURAL LTD

PROJECT: PROJECT RED
ELECTRICAL INFRASTRUCTURE

TITLE: BELOW GROUND DRAINAGE
MANHOLE SCHEDULE

STATUS:	PROJECT No.	PROJECT	ORIGINATOR	VOL/SYS	LEVEL	TYPE	ROLE	DRAWING No.	REV:
S2	220-096	RED - AJP - 02 - 00 - DR - C - 001101							C09

SCALE @ A1:	DESIGNED:	DRAWN:	CHECKED:	APPROVED:	DATE:
N.T.S	JRS	JRS	PB	PB	MAY 2022

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