

PROPOSED MANHOLE SCHEDULE

Ref	Cover level	Invert level	Chamber size	MH Material / Type	Cover Class	Cover Size	Cover Type	Notes
FWMH 01	37.67	36.93	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
FWMH 02	37.67	36.82	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
FWMH 03	37.67	36.70	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
FWMH 04	37.67	36.63	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
FWMH 05	37.67	36.96	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
FWMH 06	37.67	36.87	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
FWMH 07	37.67	36.65	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
FWMH 08	37.67	36.59	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
FWMH 09	37.67	36.53	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
FWMH 10	37.67	36.59	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
FWMH 11	45.20	44.00	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
FWMH 12	45.20	44.00	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
SWMH 01	37.67	36.95	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
SWMH 02	37.67	36.96	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
SWMH 03	45.00	44.24	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
SWMH 04	44.96	43.86	675 x 750	Concrete	A 15	675 X 750	Double Sealed and bolted	Notes
SWMH 05	45.20	43.87	675 x 750	Concrete	C250	450 Ø	Double Sealed and bolted	Notes
SWPPIC 01	45.00	44.38	450 Ø	Polypropylene	A 15	450 Ø	Double Sealed and bolted	Notes
SWPPIC 02	45.40	44.20	450 Ø	Polypropylene	A 15	450 Ø	Double Sealed and bolted	Notes
SWPPIC 03	45.20	44.70	450 Ø	Polypropylene	C250	450 Ø	Double Sealed and bolted	Notes
SWPPIC 04	45.20	44.70	450 Ø	Polypropylene	C250	450 Ø	Double Sealed and bolted	Notes
CMBMH 01	45.20	43.93	675 x 750	Concrete	C250	675 X 750	Double Sealed and bolted	Notes

PROPOSED HYDROBRAKE SCHEDULE

Ref	Cover level	Invert level	Chamber size	MH Material / Type	Cover Class	Cover Size	Cover Type	Pump Rate	Pump Unit Reference
FLOW CON 1	45.52	43.79	1200 dia	Type B - Concrete	A 15	600 x 600	Double Sealed and bolted	4.00 l/s	MD-SHE-0102-4000-0500-4000
FLOW CON 2	45.52	43.80	1200 dia	Type B - Concrete	A 15	600 x 600	Double Sealed and bolted	3.75 l/s	MD-SHE-0100-3800-0500-3800

PROPOSED PUMP SCHEDULE

Ref	Cover level	Invert level	Chamber size	MH Material / Type	Cover Class	Cover Size	Cover Type	Pump Rate	Notes
FWPS 01	37.67	IL A: 36.45 IL B: 35.14 IL C: 37.10 IL D: 36.77 IL E: 37.10 IL SUMP: 34.17	1500 dia	GRP Chamber	A 15	1000 x 600	Double Sealed and bolted	4.75 l/s	Refer to specification for further details.
FWPS 02	37.67	IL A: 36.51 IL B: 37.10 IL C: 35.15 IL D: 36.66 IL E: 37.10 IL SUMP: 34.17	1500 dia	GRP Chamber	A 15	1000 x 600	Double Sealed and bolted	4.75 l/s	Refer to specification for further details.
SWPS 01	37.67	IL: 35.69			A 15	1000 x 600	Double Sealed and bolted	1.00 l/s	Refer to HTS drawing 1247-104-T1 for details on tank / pump chamber structure.
SWPS 02	37.67	IL: 35.69			A 15	1000 x 600	Double Sealed and bolted	1.25 l/s	Refer to HTS drawing 1247-103-T1 for details on tank / pump chamber structure.

- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
- Do not scale from this drawing in either paper or digital form. Use written dimensions only. To check drawing has been printed to the intended scale the above bar should be 100mm
- All drainage shall comply with the typical drainage construction details and the requirements of BS EN 752.
- Access covers and frames shall comply with the loadings specified and to BS EN 124 and kitemarked or if recessed covers are specified then in accordance with FACRA association equivalent.
- The proposed building outlines shown on this drawing are for information only. Refer to Architects plans for precise location setting out information and details.
- All drainage pipework shown shall be 100mm diameter unless noted otherwise.
- All under slab drainage shall be laid at gradients of 1:40 min., for foul pipework and 1:80 min. for surface water unless noted otherwise.
- All under slab drainage shall be clear of foundations unless shown otherwise with long radius bends kept to a minimum and used where unavoidable.
- At least one soil pipe at the head of each foul run shall be vented to the atmosphere.
- All gutters shall be fitted with a leaf filter at each outlet to reduce the risk of blockage.
- All rainwater downpipes shall be accessible above ground for rodding purposes.
- Any part of the existing drainage system to be retained as part of the new scheme shall be cleaned and inspected by CCTV survey. Any structural defects shall be repaired or replaced as may be required using appropriate and approved methods.
- Where existing access locations are to be retained the cover and frames shall be checked to ensure they are of a suitable duty for reuse and levels adjusted to suit proposed finished ground levels.
- All internal access covers shall be recessed, double sealed and lockable.
- Cover levels shown on this drawing are approximate and shall be adjusted to suit finished pavement levels on site by Contractor. Covers shall be orientated to suit pavement finishes where appropriate.
- All private drainage pipework for foul and surface water systems have been designed on the basis of UPRC to BS EN 1401-1, unless noted otherwise.
- All adoptable drainage pipework for foul and surface water systems have been designed on the basis of clayware, concrete or plastic to comply with sewers for Adoption 6th Edition.
- Concrete encasement of the pipework shall be required where the vertical clearance between two pipes crossing is less than 300mm
- All existing drainage shall be assumed to be live and shall be maintained at all times during the works. Existing drainage shall be reconnected to the new drainage system unless proven to be redundant for abandonment. All existing drainage to be abandoned shall be sealed by appropriate means.
- All drainage connecting to the public sewer network shall not commence until receipt of the approval from the drainage authority and shall comply with requirements using vitrified clay pipework to BS EN 295 with plain sleeved or socketed flexible joints subject to their approval.
- Where drainage works are carried out in the public highway the relevant necessary approvals and load opening notices shall be obtained from the highway authority and utility companies.
- Upon completion all new drainage installation together with any existing drainage retained shall be jetted and CCTV surveyed upon completion. Contractor to ensure that the drainage system is fully operational, free of excess debris/silt and all identified faults rectified.
- The contractor is to execute all repair works and recommendations associated with drainage to be retained and reused.
- HEALTH & SAFETY: Future works shall be carried out by specialist competent and experienced contractors. All operatives shall have received full and appropriate training with appropriate qualifications for the operations they are required to undertake. All work shall be carried out in accordance with the relevant Health & Safety Regulations.

30/09/2024 @ A1, L1/09/2024 @ A3/

Rev	Date	By	Eng	Amendments
T1	03.03.17	CR	CR	TENDER

Purpose of Issue **Tender** Scale at A0  
Drawing No **1247/ DR020** Indicated  
Rev **T1**



STRUCTURAL ENGINEERS  
hts.uk.com

Job Name  
**73 - 75 Avenue Road**  
**NW8 6JD**  
London  
Drawing Title  
**Drainage Notes / Shedules**