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3 Abbreviations:-

- CL - Cover Level
- IL - Invert Level
- MH - Manhole
- RWP - Rainwater Pipe
- DP - Drop Point

4 Refer to drawing 1907/DR090 for drainage notes

Drainage Key

- Proposed SW drain run
- Proposed FW drain run
- Proposed CW drain run
- Proposed Pumped Rising Main
- Existing Pumped Rising Main
- Public Sewer
- Existing drain run
- Proposed channel Drain
- Redundant drain run
- Proposed / Existing Rain Water Pipe
- Proposed / Existing Rodding Eye
- Proposed / Existing Drainage Point
- Proposed / Existing Floor Gully
- Proposed SW Manhole
- Proposed FW Manhole
- Proposed CW Manhole
- Proposed Public Sewer Manhole
- Existing Manhole

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- 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 FACTA 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 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 UPVC 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 7th Edition.
- Concrete encasement of the pipework shall be required where the vertical clearance between two pipes crossing is less than 300mm
- Existing drainage layout based on CCTV survey by JPD Technical Services, completed February 2020. Please refer to drawings 5006-1a and 5006-2a along with accompanying report by JPD for any necessary repair works to be completed on site
- All manholes contain internal cast iron benching. Allow for re-construction of manholes, where any changes or benching are required
- 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.
- Fat & grease interception is to be provided above slab level and to be specified by others. No allowance for fat/grease traps has been provided in the HTS below ground drainage design.
- All existing manhole covers to be replaced
- Existing pumping equipment to be replaced. M&E to provide flows to allow a pump quote to be requested.

Existing Basement Manhole Schedule							
Ref	Cover level	Invert level	Chamber size	MH Material / Type	Cover Class	Cover Size	Notes
Ex MH1	15.780	14.710	600 x 400	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH2	15.780	14.490	1700 x 900	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH3	15.770	15.200	600 x 450	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH4	15.720	15.320	600 x 450	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH5	15.760	15.060	600 x 450	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH6	TBC	TBC	600 x 450	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH7	TBC	TBC	600 x 450	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH8	TBC	TBC	600 x 450	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	UTL
Ex MH9	15.760	14.890	600 x 450	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH10	15.710	15.140	600 x 450	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	Bolted access chamber
Ex MH11	15.690	15.110	600 x 450	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH12	15.730	14.950	600 x 450	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH13	15.680	14.890	600 x 450	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH14	15.770	14.330	1200 x 720	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	Outfall Manhole
Ex MH15	15.700	15.290	600 x 450	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH16	15.670	TBC	600 x 450	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	Unable to remove bolts from BAC

Ref	Cover level	Invert level	Chamber size	MH Material / Type	Cover Class	Cover Size	Notes
Ex MH17	15.710	TBC	TBC	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	UTL
Ex MH18	15.780	TBC	TBC	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	UTL
Ex MH19	15.810	15.100	600 x 450	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH20	15.810	14.5	1000 x 600	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH21	TBC	TBC	900 x 750	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH22	TBC	TBC	1100 x 600	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	-
Ex MH23	TBC	TBC	900 x 600	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	- Kitchen
Ex MH24	TBC	TBC	1100 x 700	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	UTL - Changing Room
Ex MH25	TBC	TBC	900 x 700	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	UTL - Changing Room
Ex OL1	15.790	13.980	1000 x 1000	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	1 Chamber Oil Interceptor
Ex PC1	15.790	13.990	1500 x 900	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	Surface Water Pump Chamber
Ex PC2	TBC	TBC	1700 x 780	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	Pump Chamber
Ex PC3	TBC	TBC	1700 x 1200	Cast In Situ	Heavy duty, sealed, infill pattern units	TBC	Pump Chamber

TS 11.03.20 GW GAP Stage 4 Issue

Rev Date By Eng Amendments

HEYNE TILLET STEEL

STRUCTURAL ENGINEERS

hts.uk.com

Job Name
One Berkeley Street

Drawing Title
Proposed Basement Below Ground Drainage

Purpose of Issue **Stage 4** Scale at A0 1:100

Drawing No **1907/DR091** Rev **T1**