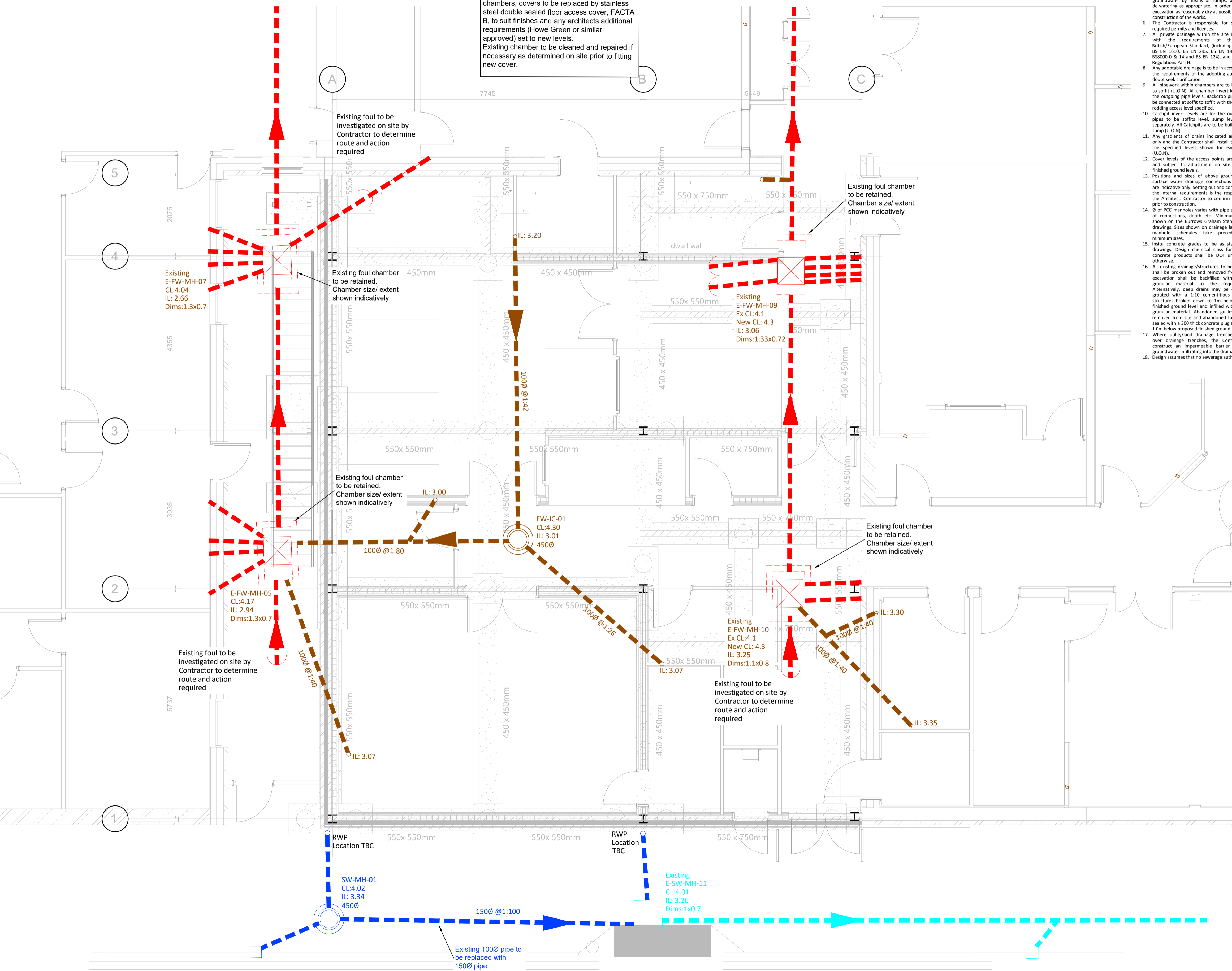




FFL assumed approximately 4.1m
 Rainwater downpipe locations to be set by others. Locations shown are indicative only

Existing chambers to be retained as internal chambers, covers to be replaced by stainless steel double sealed floor access cover, FACTA B, to suit finishes and any architects additional requirements (Howe Green or similar approved) set to new levels. Existing chamber to be cleaned and repaired if necessary as determined on site prior to fitting new cover.



GENERAL NOTES:

- This drawing shall be read in conjunction with all the relevant architects, engineers' and service engineers drawings & specifications.
- All units in millimeters U.O.N. on the drawing. Do not scale off the drawing.
- All temporary works for formwork, excavations etc., to be the design responsibility of the Contractor.
- The Contractor shall allow for the protection, temporary and permanent support and diversion works as necessary, to all existing services to the satisfaction of the asset owners.
- The Contractor shall allow for dealing with surface water run-off into excavations and from groundwater by means of sumps, pumping and de-watering as appropriate, in order to keep the excavation as reasonably dry as possible during the construction of the works.
- The Contractor is responsible for obtaining all required permits and licenses.
- All private drainage within the site is to comply with the requirements of the relevant British/European Standard, (including BS 752, BS EN 1430, BS EN 295, BS EN 1917, BS EN 12050, BS EN 1241 and BS EN 1241), and the Building Regulations Part H.
- Any adoptable drainage is to be in accordance with the requirements of the adopting authority, if in doubt seek clarification.
- All pipework within chambers are to be laid soffit to soffit (U.O.N). All chamber invert levels are for the outgoing pipe levels. Backdrop pipework shall be connected at soffit to soffit with the backdrop / rodding access level specified.
- Catchpit invert levels are for the outgoing pipe, pipes to be soffit level, sump level specified separately. All Catchpits are to be built with a 300 sump (U.O.N).
- Any gradients of drains indicated are indicative only and the Contractor shall install the drains to the specified levels shown for each chamber (U.O.N).
- Cover levels of the access points are provisional and subject to adjustment on site to suit the finished ground levels.
- Positions and sizes of above ground foul and surface water drainage connections ("pop-ups") are indicative only. Setting out and confirmation of the internal requirements is the responsibility of the Architect. Contractor to confirm requirement prior to construction.
- Ø of PVC manholes varies with pipe size, number of connections, depth etc. Minimum sizes are shown on the Burrows Graham Standard Details drawings. Sizes shown on drainage layout and/or manhole schedules take precedence over minimum sizes.
- In situ concrete grades to be as stated on the drawings. Design chemical class for all precast concrete products shall be C24 unless agreed otherwise.
- All existing drainage/structures to be abandoned shall be broken out and removed from site, the excavation shall be backfilled with a suitable granular material to the required level. Alternatively, deep drains may be cleaned and grouted with a 1:10 cementitious grout, with structures broken down to 2m below proposed finished ground level and infilled with a suitable granular material. Abandoned gullies are to be removed from site and abandoned tails are to be sealed with a 300 thick concrete plug at a depth of 1.0m below proposed finished ground level.
- Where utility/land drainage trenches etc cross over drainage trenches, the Contractor shall construct an impermeable barrier to prevent groundwater infiltrating into the drainage trench.
- Design assumes that no sewerage authority sewers or other drainage systems require modification, diversion or abandoning (U.O.N on the drawings).
- Unless otherwise agreed, all outlets to ponds and watercourses to be proprietary PCC units. Where applicable, headwall details are to be approved by the relevant authority (i.e. Internal Drainage Board / Lead Local Flood Authority / Environment Agency / Highway Authority).
- All manholes less than 1.5m deep are considered as none man entry and shall be maintained from ground level.
- Upon completion of the works, the Contractor shall clean all drainage by jetting, removing all debris from site and the system is to be CCTV surveyed. No debris shall be permitted to enter the existing drainage system.
- No deep rooting trees/vegetation should be planted within 5.0m of any drainage works.
- The storage and installation of all proprietary drainage items used are to be strictly in accordance with the manufacturers instructions / requirements.
- Any works within the public highway to be reinstated to highway authority requirements. All relevant permits/licenses must be sought by the contractor prior to the works being undertaken.
- Penstocks, where indicated, shall be electronically operated complete with power supply and connection (refer to service engineers drawings for cable and ducting etc).
- Statutory Undertakers information, where shown, is indicative only based on supplied records. The contractor shall verify the depth position and nature of the services as necessary in order to construct the works.
- Drainage channels are to be ACO Qmax in service yards and ACO Multidrain in car parks, or similar approved Channels are to be sized by the supplier and approved by the Engineer in writing prior to ordering. Drainage channels to be installed to manufacturers' requirements. Design of channels shall be based on a 1 in 30 year storm return period, 15' minute duration. Outlet units on channel drains to include silt traps.
- All RWP, gully and channel connections shall be Ø150 U.O.N. Waste/soil stack connections shall be Ø100mm U.O.N and shall have internal above ground rodding eyes or large access fittings in accordance with Building Regulations.
- All WPC's, SRWP's and RWP's are shown indicatively. Locations shall be confirmed by others.
- All sprinkler drain, gully locations and flow rates to be confirmed by the sprinkler Contractor. Potential local storage manholes for sprinkler discharge are to be confirmed following definition of system requirements. It is assumed that future sprinkler installation points will be located close to foul water drainage runs.
- Concrete protection is to be provided, with expansion joints installed at all pipe joint, on all pipes as follows:
 - i) Within vehicle accessible areas if the cover is less than 1.2m. A concrete slab is required where the cover is less than 0.9m.
 - ii) Within landscape and pedestrian accessible only areas where the cover is less than 0.6m a cover slab or surround is required.
 - iii) Where required due to the proximity of foundations and other loadings, omitting expansion joints.
 - iv) As required by the manufacturer for flexible pipe systems.
- Below ground drainage connections to be provided to all canopy downpipes
 - 32.1. Ø150mm with concrete bed and surround U.O.N.

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SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING

- CONSTRUCTION
- MAINTENANCE
- DEMOLITION

IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT

Key:

- Proposed Surface Water
- Existing Surface Water to be reused
- Proposed Foul Water
- Existing Foul Water to be reused
- Existing manhole chamber size

P01	15.09.23	ALA	Issued for Information	JW
REV	DATE	BY	DESCRIPTION	CHKD

Burrows Graham

North Office:
5 Ambassador Place, Stockport Road,
Altrincham WA15 8DB
Tel: +44 (0)161 804 8046

South Office:
Buckland House, Dover Mews,
High Street, Berkhamsted HP4 2BL
Tel: +44 (0)161 804 8046



CLIENT

PROJECT
SOUTHPORT HOSPITAL
CT SCAN UNIT

DRAWING TITLE
PROPOSED DRAINAGE

BGL PROJECT NUMBER 30051	DRAWING STATUS PRELIMINARY	OFFICE NORTH
SCALE @ A1 1:50	DATE 15/09/2023	DRAWN BY ALA
		CHECKED BY JW

DRAWING No
30051-BGCT-XX-XX-DR-01250

REV
P01

