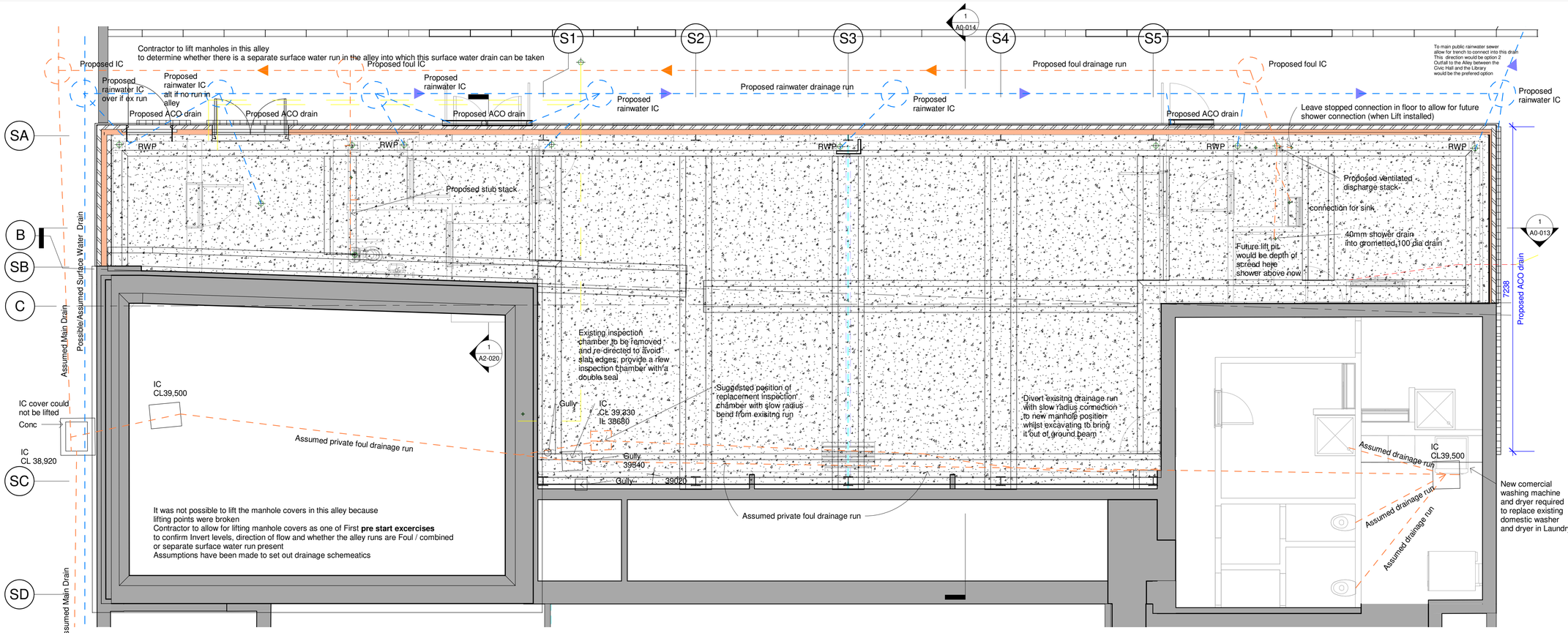

Foundation Level - Drainage Plan

1 : 50

Part H1: Foul Drainage Below Ground

Existing Foul Drainage

A. All existing drainage runs are assumed and shall be ascertained by the Contractor upon commencement of the work. Contractor should allow for dye tests to be carried out to ascertain direction and flow of pipework.
B. Where ground conditions are poor or trees are present the contractor should allow for a CCTV survey to be carried out to affected drains.
C. Where existing drains are suspected to be in the vicinity of, or run under the area of a building a CCTV survey should be allowed for and carried out to ascertain the condition of pipes and the need to move or replace them.
D. A min 900mm (from centre of pipe) easement is required to all Private drains. A min 1200mm (from centre of pipe) easement is required to all public drains
E. Where practicable new pipework should be laid so that the drainage run is outside the footprint of the building. Where a drain run is to pass under the building, no more than two connections should be possible into this route.
F. Disused drains or sewers provide ideal nesting sites for rats. In order to prevent this, any disused drains or sewers should be disconected from the sewer system as near as possible to the point of connection. This should be done in a manner which does not damage any pipe which is still in use and ensures that the sewer system is water tight. This may be carried out, for example, by removing the pipe from a junction and placing a stopper in the branch of the junction fitting. Where the connection was to a public sewer the sewearge undertaker should be consulted.

New Foul Drainage: Below Ground

A. Foul Drainage: All new drains to be 100mm dia Hepworths supasleeve vitrified clay pipes laid in straight lines at min 1 in 80 falls (max 6:3) on trimmed trench bottoms with flexible joints, backfilled with selected as dug materials. [Peak flow greater than 1 for Ground Floor toilet area]
B. Provide 150 mm dia sleeve pipe with reinforced concrete lintels over a flexiblejoint each side where drains pass through foundation brickwork.
C. Alternative: Subject to ground conditions and agreement with BCO plastic pipework may be used. Using either Hepworth PlastiDrain plain end 110, 160 and 200 dia pipes with separate flexible connectors or Ultrarib fully socketed system in 150, 225 and 300 dia, this type has a unique ring seal jointing system preventing seal dislodging during connection.
D. Drainage is to be connected into new foul water connection.

Flood Zone

A. Flood mapping states that this property is in **Flood Zone 1** with low probability of flooding.

New Drainage: Above Ground foul drainage

A. Wash hand basin to have 32mm dia uPVC waste pipe with a 75mm dia deep seal trap.
B. WC pan with outlet > 80mm to have 100mm dia PVC waste pipe with a 50mm trap.
C. Shower to have a 40mm dia waste pipe with a 50mm seal trap. Shower tray to be set within screed depth.
D. Cleaners sinks to be connected to the branch discharge pipe via a 75 mm deep seal trap.
E. Ground floor WC type to be vertical outlet with outlet connector set in slab.
F. Ground floor appliances may discharge into a stub stack or discharge stack, directly to a drain, or If the pipe carries waste water only the pipe may discharge to a gully.
G. A branch pipe from a ground floor WC should only discharge directly to a drain if the depth from the floor to the drain invert is 1.3m or less.
H. Provide new 100 mm SVPs in positions shown to collect waste from sanitaryware. SVP to connect into main drains via slow radius bend (min 300mm radius) head of pipe to be connected to a terminal above the flat roof with a cowl to prevent access but allow vent. (where in close proximity to a window the tile/head of pipe should be min 900mm above.
I. Provide lead collar at junction of roof where SVP terminates through tiled roof structure. Provide a membrane collar at junction with flat roof membrane
J. Box in all SVPs as shown with 12.5 mm plasterboard, filled and taped joints, provide glass fibre insulation to lag pipe wrapping in tighly around pipe to fill boxing this is needed to reduce pipe noise.
K. Air admittance valves to be fitted to soil pipe in a position not liable to freezing, above the flood level of the highest sanitary fitting being served.

Branch Connection to Stacks : Prevent crossflow

A. Opposed connections without swept entities not exceeding 65mm should be offset by 110mm on 100dia stacks and 250mm on 150 dia stacks.
B. Opposed connections larger than 65mm (with swept entities) should be offset at least 200mm irrispective of stack diameter.
C. Angled Connectiond of 50mm dia parralel junction where a branch discharge pipe would enter the WC connection zone should be min 20mm away from the WC connection - NB this should ne increased if the building is over 3 storeys
D. Refer to Part H section 1 for connection diagrams.

Pipes Penetrating Walls

A. Install lintels above all pipe penetrations through walls to provide min 50mm clearance all around the pipes , fill void with compresible selant at perimeter to prevent the entry of any gas.
B. Alternatively fit a larger pipe sleeve bedded in the wall projecting 150mm either side of wall, with adjacent rocker pipes of max 600mm length.

Inspection Chambers

Manhole dimensions in accordance with H1 table 12:
A. The contractor shall excavate for and construct new inspection chambers, size and depths in accordance with H1, Table 12, as shown on drawings in precast concrete bedded to manufacturers instructions with manhole covers and frames set in mortar.
B. Inspection chambers to vehicular areas should accord with Sewers for Adoption
C. Provide all necessary bending and channelling to suit connections, all to the approval of the Local Authority Inspector.
D. Storm and foul manholes greater than 930 depth to comprise of 215 mm brick chambers to BS3921 internal dimensions 1200 x 750 mm build off 150 mm thick concrete (1:2:4) slab. All connections formed in half channels and finished with 1:3 cement/sand benching.
E. Contractor to refer to H1 Table 13 for max spacing for Access Points

Part G: Hygiene (above ground items by Plumber - below/and GL by Contractor)

All plumbing work to be in accordance with BS 5572.
A. G1: Cold Water supply. Provide a 15mm cold water connection to the WC, cleaners sinks, shower and washbasin. Pipe drops to be dropped down 25mm service voids, shown on plan.
B. Fit wall mounted thermostatic shower to Dressing Room, with pipe drops from ceiling.
C. G3: Hot water supply. Provide a 15mm hot water connection to the washbasin, cleaners sink and shower from the boiler in 15mm copper pipe using the 25mm service void, stud partitioning or vanity unit.
D. A hot water system that has a hot water storage vessel shall incorporate precautions to prevent the temperature of the water stored in the vessel at any time exceeding 100 ˚C; and ensure that any discharge from safety devices is safely conveyed to where it is visible but will not cause a danger to persons in or about the building.
E. The hot water supply to any wash basin, shower or sink must be so designed and installed as to incorporate measures to ensure that the temperature of the water that can be delivered does not exceed 48˚C.
F. To allow for basic hygiene, hand washing facilities should be located in: the room containing the sanitary conveniences or an adjacent room or place that provides the sole means of access to the room containing the sanitary convenience, providing it is not used for food preparation.
G. A room containing a sanitary convenience should be seperated from a food preparation area by a door.

Water efficiency Part G2.
Reasonable provision must be made by the installation of fittings and fixed appliances that use water efficiently for the prevention of undue consumption of water. Please refer to the Water efficiency calculator for specified sanitary fixtures, fittings and appliances to make sure that these comply with Part G2.

Rev	Drawn	Comments	Date
1	BSP	For Engineers Sign Off Input prior to Tender	09 Oct 2020
2	BPA	Tender.	16 Oct 2020

WATER AND SEWERAGE LAYOUTS

DRAINS

All runs as shown on plan are assumed until Existing manhole covers are lifted to verify routes. United Utilities plan is contained in the Pre Construction information pack. None of the manholes or connections on this plan are shown on their plan. It is assumed therefore that all runs within the site area and alley are private drains Refer to the Structural Engineers drainage layouts and details.

FOUL DRAINAGE

Provide and install sink, wash basin, shower, WC to positions shown on drawing.

North

0 1 2 3 4 5
GRAPHIC SCALE: 1:50

Tender - For SE Sign Off

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Client
Nantwich Town Council

Project
Proposed Alterations and Extension to Nantwich Civic Hall, 4 Market St, Nantwich CW5 5NF

Title
Foul Drainage Plan

Package **1 Sub Structure**
Dwg Stage **RIBA Stage 4A:** **Technical Design**
Dwg Status
Date **October 2020**
Drawn **SS/BSP**
Scale @A1 **As indicated**
Checked **BSP/KJ**

Project No	Originator	Block	Level	File Type	Role	Element	Drawing No NNN	Rev
20-051	BPA	CH	00	DR	A1	003	T	2

Print Date: 16/10/2020 12:37:33

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