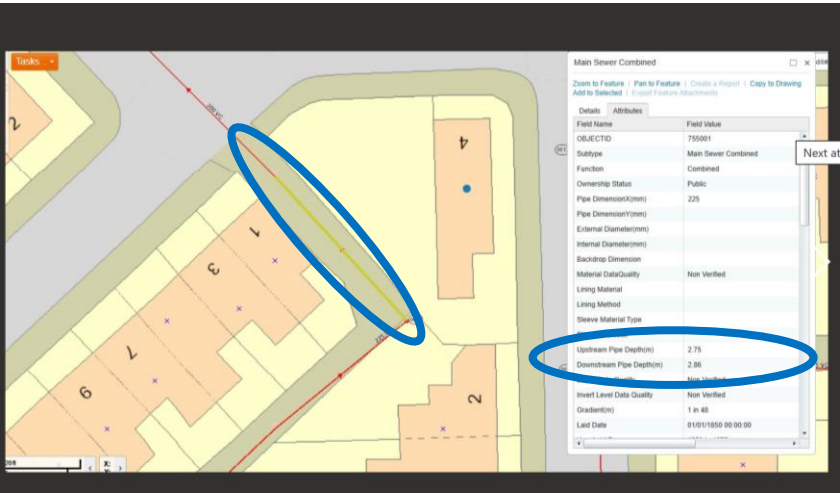


2 Highfield SUDS layout

United Utilities have officially approved the 106 Connection based on our information.

Depth of the UU sewer that UU have approved our connection to is c. 2.75m below ground level.



We are immediately adjacent to this sewer.

Gravity drainage feasibility is therefore confirmed.

The information from the report has been transposed to the drawing as maybe this is why the questions are being asked, because all the answers are in the report as that is the point of the report.

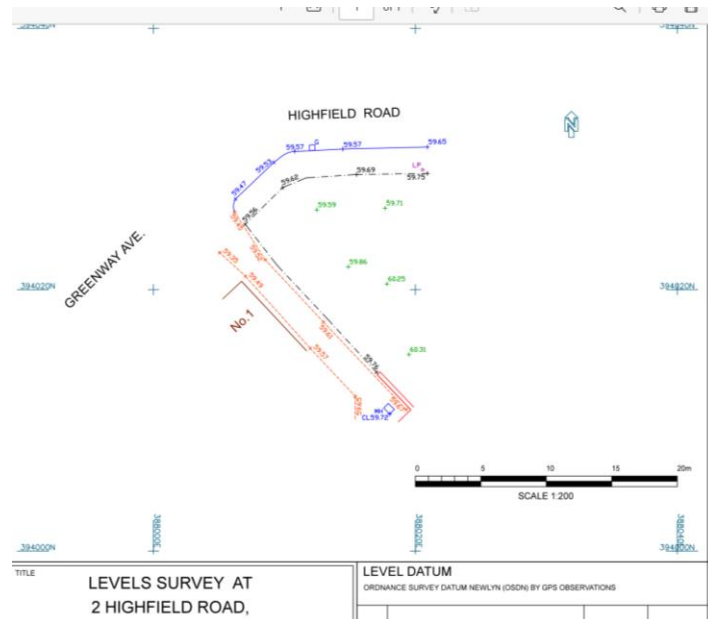
Officer September Remaining Comments:

Further information required:
The drainage layout has now been updated to provide: - Dimensions of pipes & storage structures - The Approval Notice from UU (dated 27/12/2024) confirms that an existing combined sewer connection will be used. - Depths to invert level, including 2.75m depth to invert level for the existing public combined sewer manhole.
The following is still required: - Depths to invert level have been provided, however no cover levels have been provided. Please provide cover levels, and the invert level or depth to invert for the connection to the combined sewer.
Please confirm how the oversized pipe has: - Appropriate easements with regards to the proposed building and foundations, to protect the building and the asset. - Appropriate depth of cover to withstand loading from vehicle use of garage. A depth to invert has been confirmed as 0.8m, suggesting a depth to soffit of 0.4m., raising concerns over the ability of the oversized pipe to withstand loading from vehicle use of garage.

2 Highfield SUDS layout

Cover Levels: see full survey in Appendix.

We have undertaken a site survey to provide the Cover Levels.



Pipes under garage.

Completed under Approved Document Part H hence backfilling appropriately to allow for the shallow inverts.

Cover level in garage is between 0.50m and 0.75m which is appropriate (this is the length of pipe between SW03).

200mm reinforced slab leaving 350mm depth to top of pipe is sufficient using Building Regs Part H shallow specifications.

All cover levels and inverts (see also the drawing below):

Surface Water Drainage						
Manhole No.	Cover Level	Invert Level	Depth	Type	Cover Size	Internal
SW01	59.59	59.19	0.4	B	450	450
SW02	59.59	58.69	0.9	B	450	450
SW03	60.31	59.91	0.4	B	450	450
UU01	59.52	57.25	2.75m	UU spec	650	650

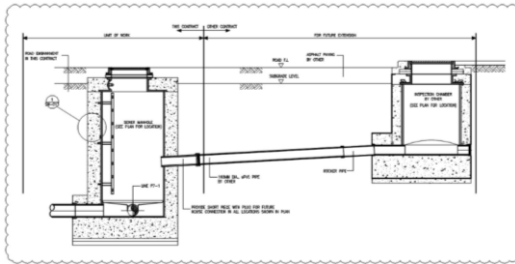
2 Highfield SUDS layout

Connection to combined sewer invert level

UU contractor to decide but it is from SW02 and hence the invert can be from c. 1.0m depth / 58.52mAOD which allows for appropriate gravity in accordance with Building Regs.

The connection approval from UU has previously been sent and acknowledged.

Standard detail for UU / contractor to agree on site:



2 Highfield SUDS layout

UU combined sewer hence only option is oversized pipe storage (see report for dimensions)

Oversized Pipe: 3.2m by 0.8m by 0.4m depth = 1.024m³

As with most highway manholes in the area, they have been tarmacked over, so will require UU to fix as it is their responsibility to ensure access

Key

Rainwater Downpipes and connection to SUDS

Inspection Chamber / Manhole Chamber

This RWP can be fitted with diverter to allow water over permeable patio and drain Low Order storm to subbase



Informal subbase storage under Patio area: not connected to sewer

Existing sewer with junction connections from site

UU confirm depth of 2.75m below ground level: Gravity confirmed.

Connection as approved by United Utilities (UU) as official 106 agreement approved by UU

Pipe connections under garage / footprint to Building Regs requirements

Surface Water pipes: 110mm diameter

Main communication pipes: 1in 100 fall (Building regs and contractor to conform on site)

Minor branches of RWP to storage adjacent = can be 1 in 50 fall

Home > UNDERGROUND DRAINAGE PIPES & FITTINGS > Inspection Chambers

110mm Plain Bottle Gully (Roddable)



110mm Plain Bottle Gully (Roddable)

Our Price: **£9.50**
(Excl. 20% VAT)
(£10.20 Inc. VAT)
Earn 9 Loyalty Points
Model: GWPT330
★★★★★

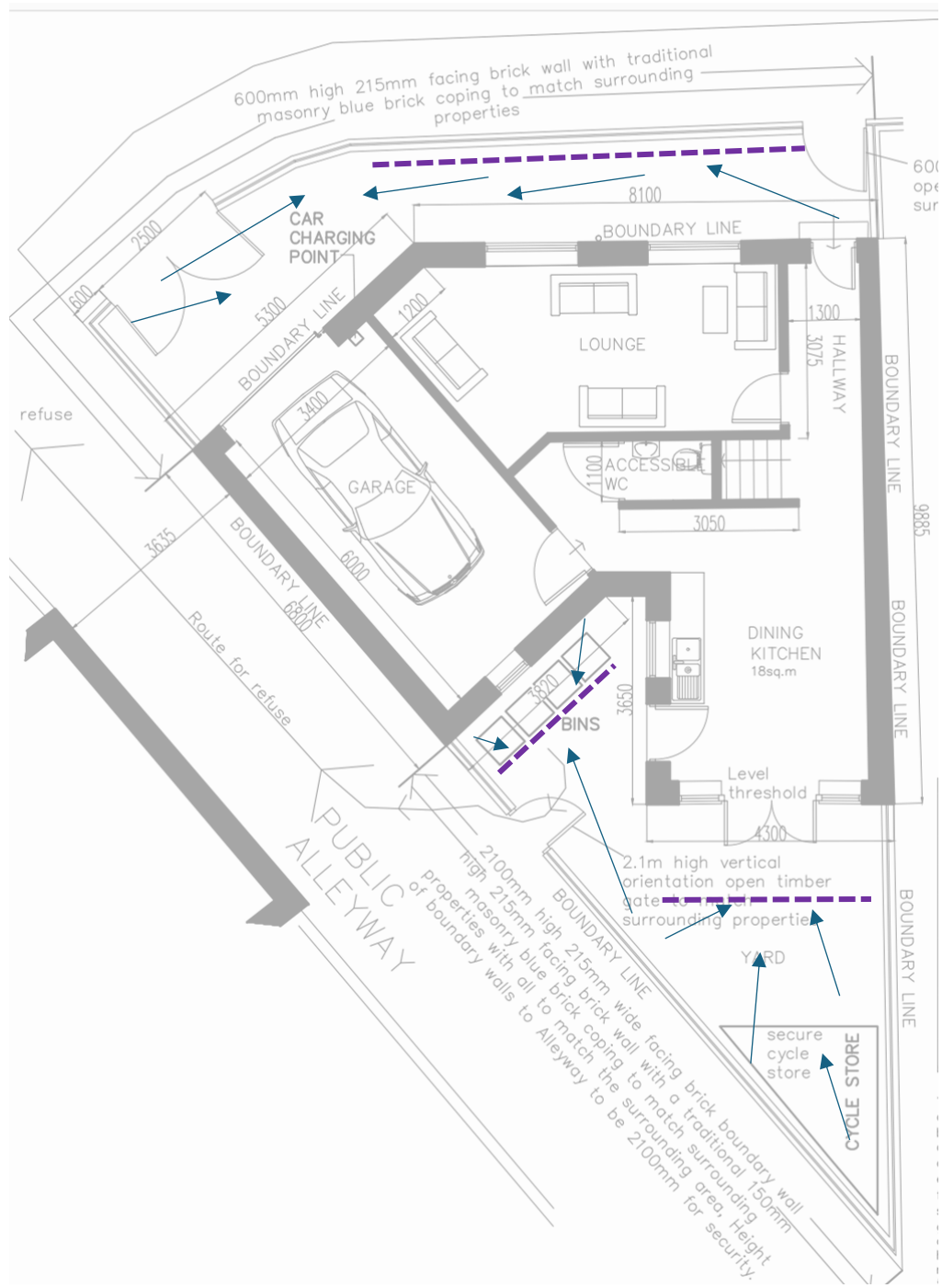
See separate drawing below for Foul Connections for UU

Example Inspection chamber / catch pit: fully roddable

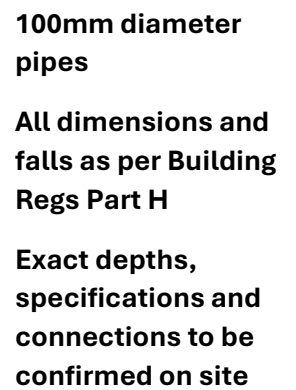
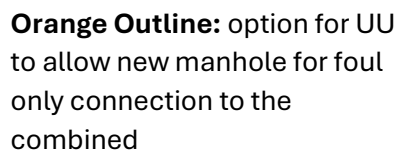
Standard c. 190mm diameter gully top grate

2 Highfield SUDS layout

Design for Exceedance



Foul Connections for UU



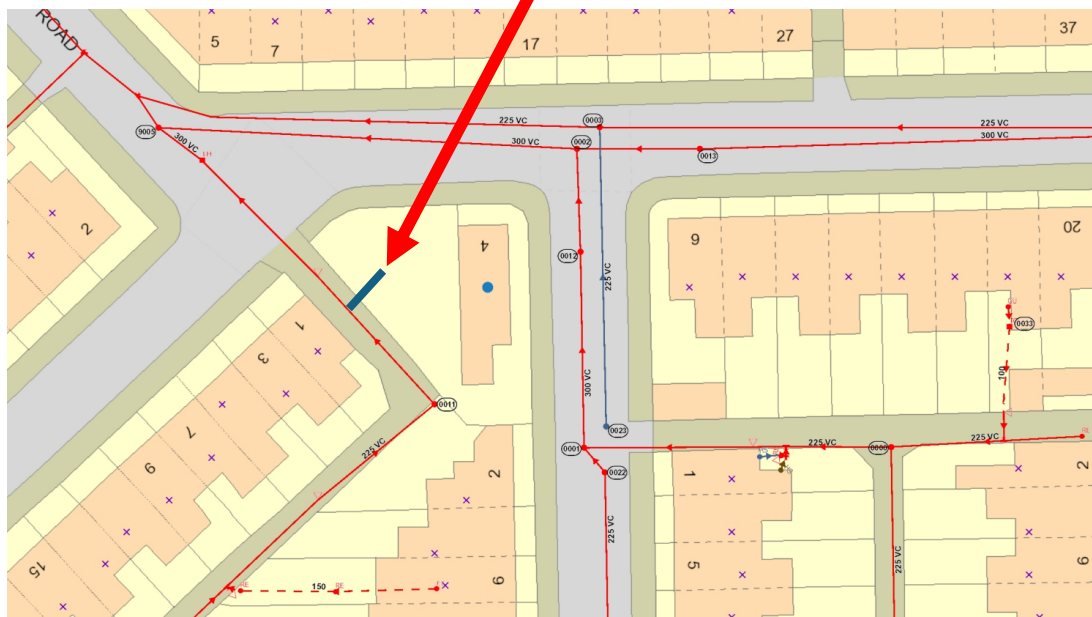
2 Highfield SUDS layout

Existing connection via junction to access road adjacent to west of site:



Existing combined comes in at that location to the sewer in the access road off Greenway Ave

Junction to be retained, pipework inside the site to be amended / extended as necessary



se underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown.

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2 Highfield SUDS layout

Appendix: site level survey

