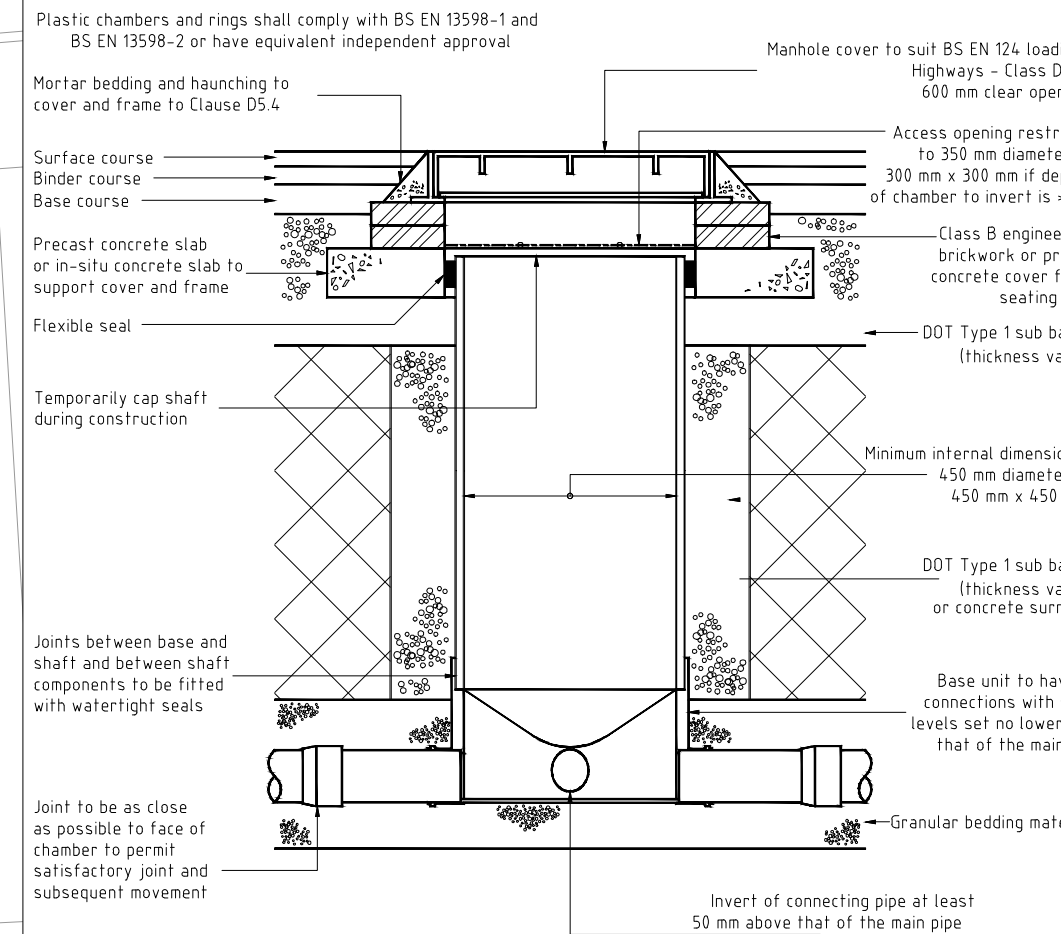
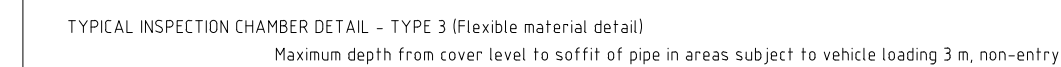
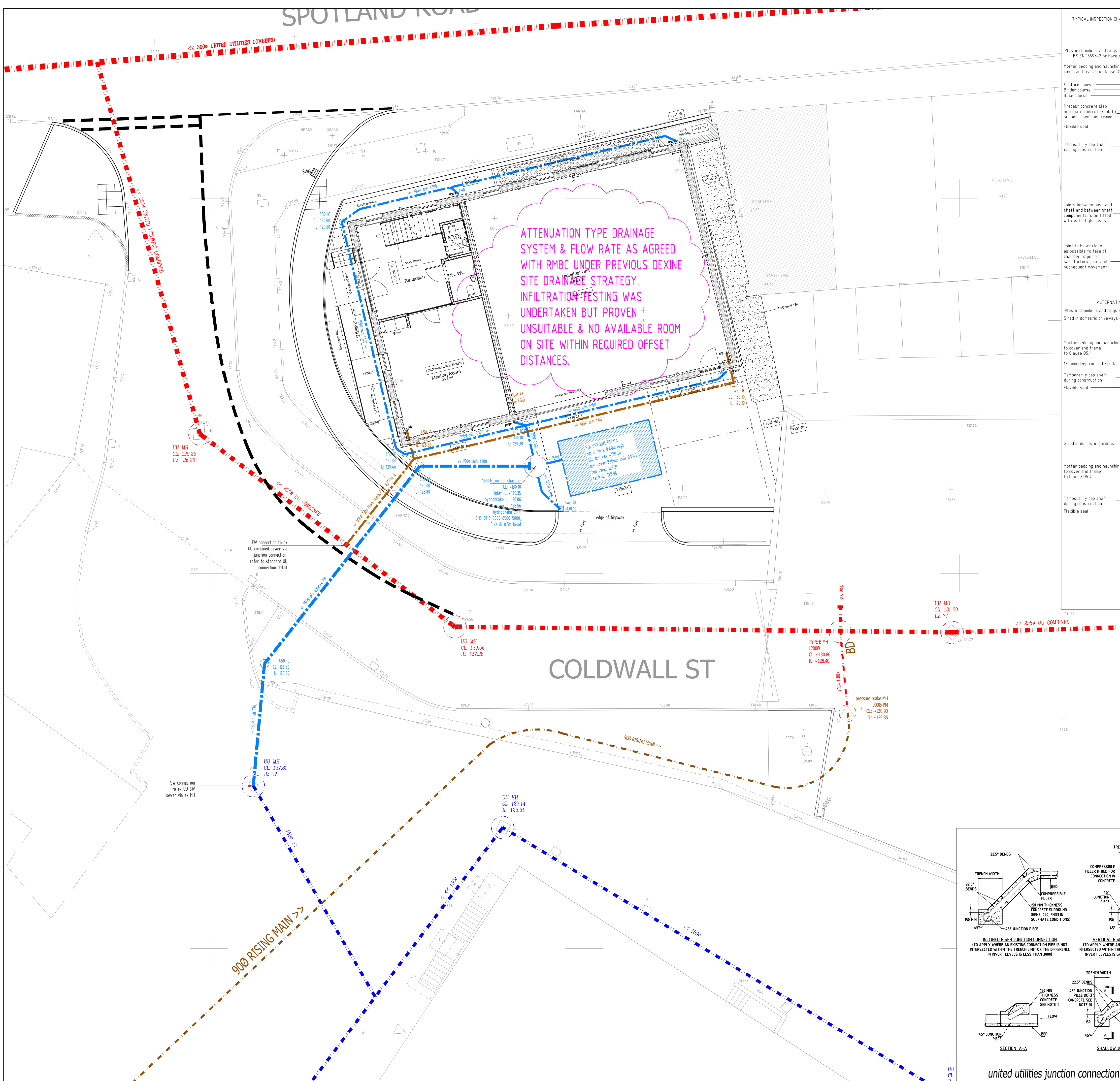
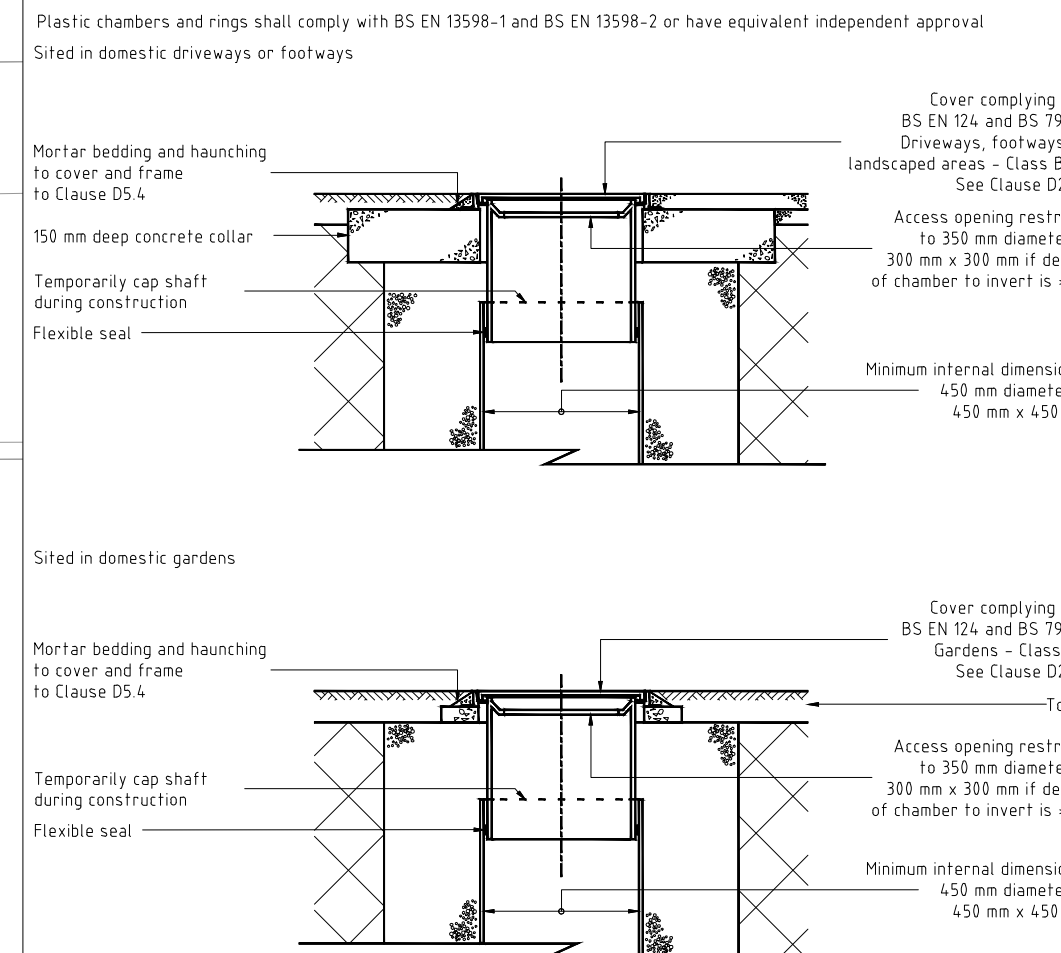
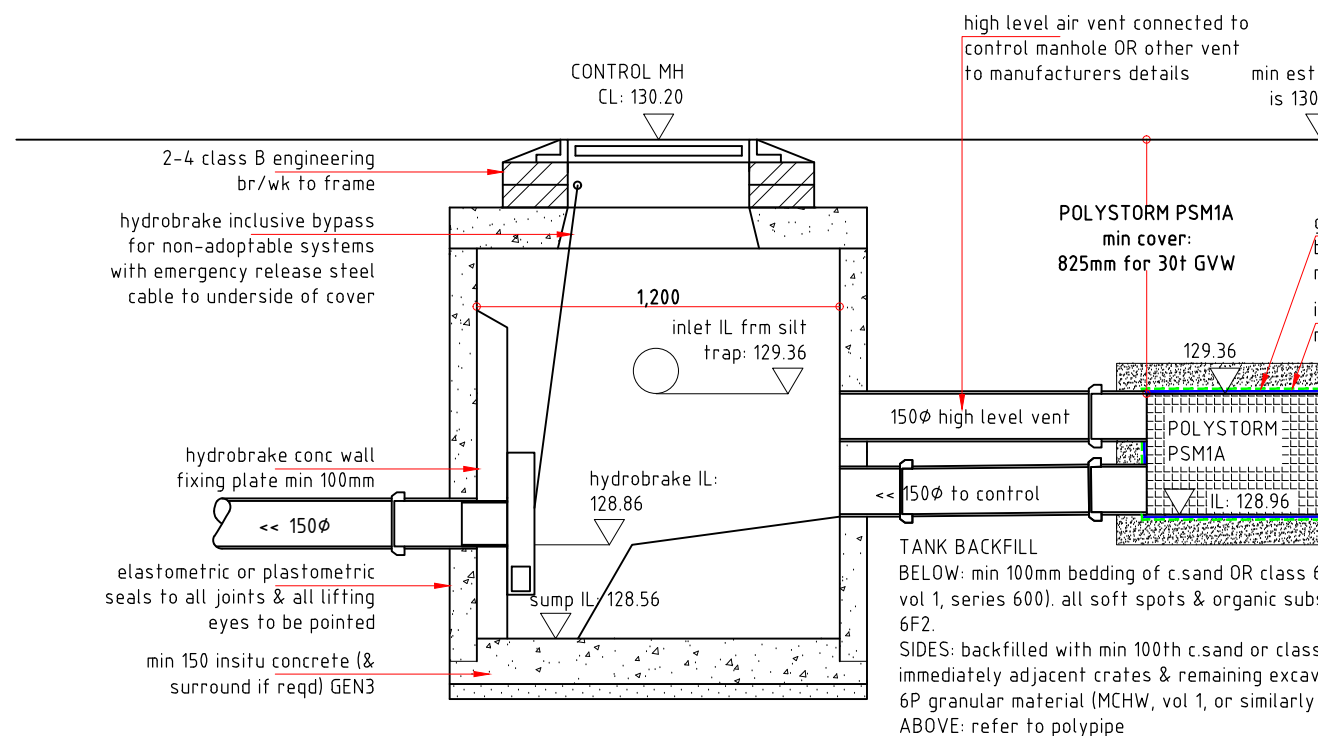




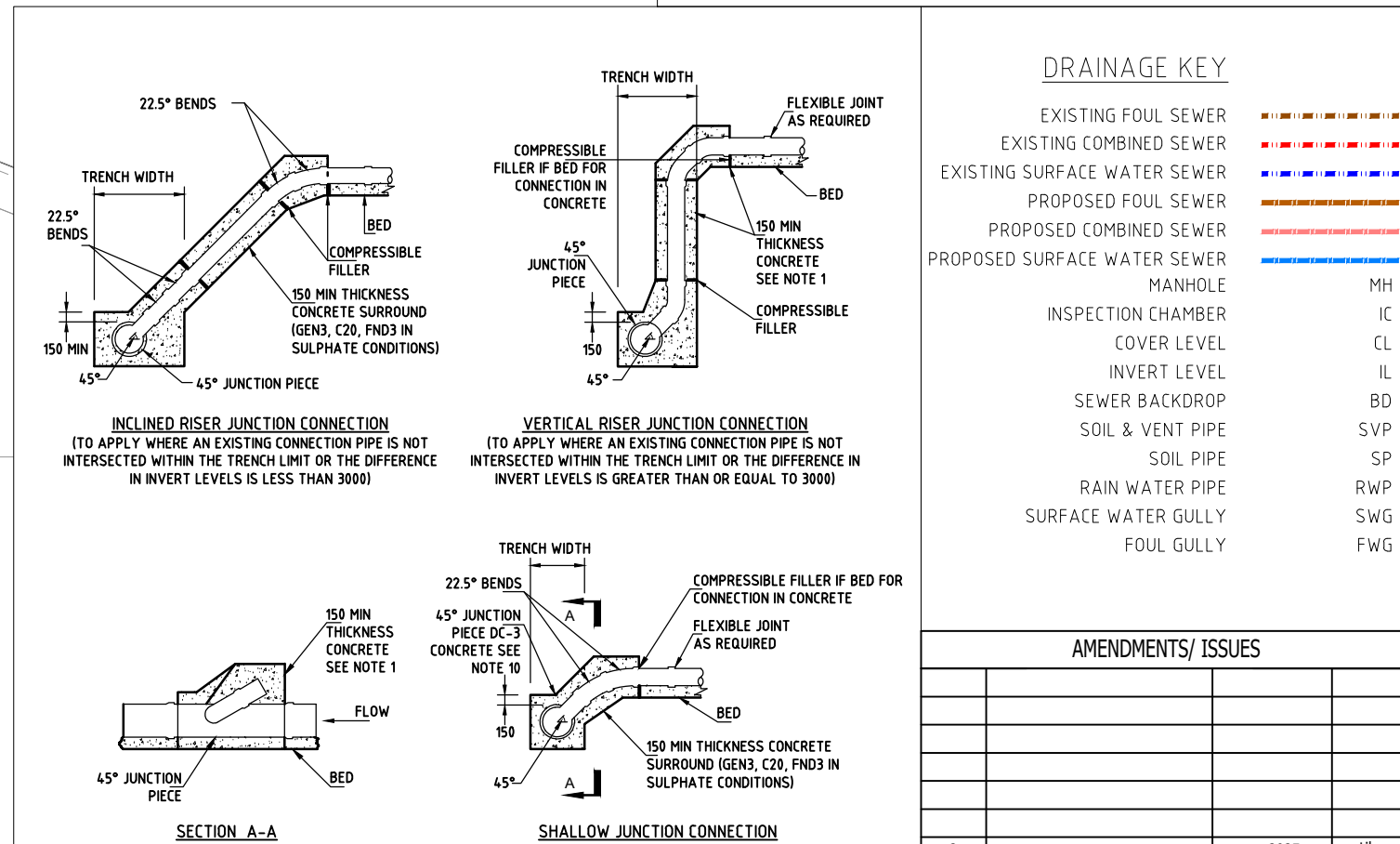
ALTERNATIVE TOP DETAILS FOR LIGHT VEHICLE LOADING AND LANDSCAPED AREAS - TYPE 3



inspection chamber typical detail 1:25



attenuation & control chamber general arrangement detail 1:25



united utilities junction connection details 1:25

GENERAL NOTES:

01 THIS DRAWING IS CONTRACT DOCUMENT. IT IS NOT TO BE COPIED, USED OR DISCLOSED, IN WHOLE OR IN PART, TO THIRD PARTIES WITHOUT WRITTEN PERMISSION. IF REMAINS THE PROPERTY OF F&B AND MUST BE RETURNED ON REQUEST.

02 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT CONTRACT DOCUMENTS

02.01 all items in notes or schedule

02.01 all items to site/contract

02.01 Refer to architect's details for SBM

02.01 Refer to contract or SPP/SDS for any ordering material / construction

02.01 Do not scale, the contractor and supplier shall be responsible for commencing shop drawings or work on site

02.01 all work to be carried out in accordance with CDM 2015

02.01 IN REMAIN ACCESS ROAD & PRIVATE DRIVE

11/0/14

03 DRAINAGE

03.1 To be read in conjunction with J1 Both Accessways drainage calculations.

03.2 Manhole cover levels shall be in accordance with the following table

03.3 Sewers/narrows to be constructed in accordance with the water authorities sewers for adoption level (as applicable). (Ref. Approved D08 and H8 in 52-14)

03.4 Class 5 granular bed and surround to all new sewers.

03.5 Sewers must have no 50mm concrete surrunds if

03.6 Adoptable sewers with less than 100mm of cover under highways or driveways.

03.7 private assets with less than 100mm of cover under private nurseries

03.8 To be read in conjunction with J1 Both Accessways drainage calculations

03.9 Foul water must not be the following gradients in accordance with J1 and Sewers for Adoption

03.10 500m gradients not less than 180 where at least 1% is correct and not less than 140 where no 1% is correct

03.11 500m Foul gradients not less than 150 with at least 5% correct and

03.12 Surface water must not be the following gradients in accordance with J1 and SPP

03.13 500m gradients not less than 100

03.14 500m gradients to be not less than 100

03.15 500m gradients to be not less than 100

03.16 500m gradients to be not less than 100

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04.52

NPFT Hierarchy of Surface Water Discharge Options		
Discharge Type	Method Adopted	Reasoning
1. into the ground (infiltration)	NO	Not suitable. No available area for infiltration on Site within 8 Regulation offset distances. Previous infiltration tests on the wider Site indicated low rates.
2. to a surface water body	NO	Too distant.
3. to a SW sewer, highway drain, or another drainage system	NO	Not available.
4. to a combined sewer	YES	Combined sewers available for connection and previously agreed with RMCBC for connection of all Site drainage.

IMPLEMENTATION PHASE FOR DRAGAGE SYSTEMS, ATTENUATION TANKS & SWAKWAYS		
IMPLEMENTATION PHASE	ACTION	REASON
Construction phase	All dragage pipes, gutters & manholes installed in the correct order, plugged or connected together to isolate from construction SW flows.	To ensure construction debris does not enter the drainage system while allowing for construction of the drainage system to be put for completion.
Pre-habitation phase	Manholes & gutters & associated drainage pipes, manholes & gutters may be brought online as long as they will not be subject to further construction SW & debris from upstream work.	To ensure adequate drainage of completed parts of the Site, while protecting the drainage system to the parts of the Site still under construction from potential debris.
Post construction phase	Site attenuation tank, control chamber/hydrobox or air swakways installed and connected to the final construction of the Site has finished, and construction debris and all entering the system is mitigated.	To ensure protection of the attenuation tank & hydrobox, and to ensure they are not subjected to debris associated with construction that could damage or reduce their long term storage capacity.
	Drainage, control chambers and accessible swakways to be checked for full drainage, and cleaned accordingly.	To ensure the system is free from silt/debris accumulation prior to sign off.

TABLE 753. TABLE 213 OPERATION & MAINTENANCE REQUIREMENTS FOR TREATMENT STRATEGIES		
MATERIAL	REQUIRED ACTION	TYPICAL FREQUENCY
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action. Remove debris from the catchment surface wherever it may cause risks to performance. For systems where rainfall infiltration into the tank from above, check surface of filter for blockage by sediment, algae or other material; remove and replace surface infiltration medium as necessary. Remove sediment from pre-treatment structures and/or internal forebays.	Monthly for systems that annually Monthly Annually Annually, or as required
Remedial action	Repair/rehabilitate inlets, outlets, overflows and vents.	As required
Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed. Survey media of tanks for sediment build-up and remove if necessary.	Annually Every 5 years or as required

high level air vent connected to
control manhole OR other vent
to manufacturers details min est
is 130

PLANNING ONLY OR CONSTRUCTION

T J B O O T H A S S O C I A T E S

20A Eastgate Street
Rochdale
Lancashire
OL16 1DH

hallmark developments / dexine mills, spotland rd

new office

drainage plan & details

FILE NAME: dwg-tjba-hallmark-dexine site-200918

SCALE: 1 : 100 & as indicated @ A