

Technical Note

Project	Greenway Junior School	Project No	14500
Subject	Drainage Technical Note for Consented Scheme	Date	28 April 2026
File Ref	Drainage Technical Note for Consented Scheme.docx	Pages	4

This technical note has been produced with the intention of Discharging Condition 3 of the Planning application DC/22/1954 regarding the site located at Greenway Academy, Greenway, Horsham, RH12 2JS.

For reference, Condition 3 is worded as follows:

Pre-Commencement Condition: No development shall commence until a drainage strategy detailing the proposed means of foul and surface water disposal has been submitted to and approved in writing by the Local Planning Authority in consultation with Southern Water. The development shall be carried out in accordance with the approved scheme.

An application (DISC/24/0197) has been reviewed previously for the discharge of Conditions 3, 4 and 6 of the following approval of DC/22/1954. With reference to the letter dated 3rd October 2024 from the West Sussex County Council acting as the Lead Local Flood Authority, Condition 3 has not be discharged, with concerns expressed for the drainage design lacking the multifunctional benefits of SuDS, as well as noting gaps within the information provided for the drainage calculations. An updated drainage strategy has been developed to address the concerns as noted within the letter. Please find attached the updated drainage strategy plan and accompanying surveys and calculations. The commentary below sets out each of the issues identified within the letter and the steps taken to address them within the updated drainage strategy.

Attachments are as follows:

- SRP1029-CRH-00-EX-D-C-5510_Drainage Layout Consented Scheme (Sheet 1 of 2)
- SRP1029-CRH-00-EX-D-C-5511_Drainage Layout Consented Scheme (Sheet 2 of 2)
- InfoDrainage Calculations for Consented Scheme
- SRP1029-2381467 Topographical Survey
- SRP1029-SVS-XX-XX-D-Y-0001_3D PAS128 and Topographical Survey
- SRP1029-SVS-XX-XX-D-Y-0002_CCTV Survey Report
- SRP1029-SVS-XX-XX-D-Y-0003_CCTV Site Plan

1. In the underground survey it says the existing surface water pipe on the eastern boundary is blocked. This must be maintained as the pipe is being retained. Without maintenance, flood risk could increase elsewhere. It still remains unclear how the north west area of the site in particular currently drains.

Further CCTV survey has been conducted on the 11/03/2026 by Subvision Surveys Ltd, see attached report (ref: SRP1029-SVS-XX-XX-D-Y-0002 and 0003). The surface water pipe on the eastern boundary has been surveyed up to the manhole chamber upstream of the connection to the public sewer which is the location of the proposed connection. To ensure flood risk is not increased elsewhere, it is noted that further survey is required to ensure there is no blockage between the public sewer (ref: SW MH 6252) and the chamber directly upstream of it (ref: SW 13). Within the CCTV survey, a blockage within the existing drainage upstream of the demarcation chamber has been noted. Therefore, any existing drainage that is to be retained within the existing access road will be jetted and appropriate remedial works undertaken to any defective pipework prior to completion of the proposed development. It should also be noted that the small section of pipework in this area which is proposed to remain will be subject to much reduced flows as the road and associated catchments further upstream are to be re routed into the new drainage system and associated SuDS which will further reduce flood risk in this area of the site.

The northwest area of the site is currently a grass field and will remain so after the proposed development. This area of the site slopes from the middle of the site towards the western boundary of the development. The PAS128 survey conducted March 2026 by Subvision Surveys Ltd (ref: SRP1029-SVS-XX-XX-D-Y-0001) did not find any related services within the area that would indicate formal drainage. Current drainage proposals for the new scheme direct all runoff from the new development away from the northwestern corner of the site to see that flood risk in this area is not increased from the current status quo.

2. In the updated calculations, the impermeable area going into each manhole is not provided. This must be provided so we can ensure the correct impermeable area is being drained.

The impermeable areas for each respective catchment are included in the updated InfoDrainage model calculations.

3. Cv value 1 must be used in design settings in calculations.

A Cv value of 1 has been used in the updated InfoDrainage model calculations.

4. The time to half empty for the tank has not been provided.

The time to half empty for the tanks has been provided in the updated InfoDrainage model calculations.

5. The labels on the drainage strategy must match the calculations. The drainage layout has been updated since 2023, but the date hasn't been updated.

The labels within the drainage strategy matches the calculations within the updated drainage strategy. The updated drainage strategy for the consented scheme has been based on the SRP1029-MAC-XX-XX-D-L-0007 by MAC Consulting Ltd dated 23/05/2023.

6. For the attenuation tank, there is 500mm of cover for the attenuation tank. In the Drainage Strategy dated 13th March 2023, Figure 4 shows minimum cover must be 1000mm.

Within the updated drainage strategy, there are two attenuation tanks, both of the attenuation tanks have been designed in accordance with the required cover as per the manufacturer requirements, for the loading anticipated.

7. For ATT02 in the calculations, it has been designed with an infiltration depth, however in the drainage layout it is a tanked feature.

Due to the ground condition on site, it is anticipated that infiltration would not be feasible on site. This is further confirmed by BRE365 testing conducted on 26/03/2026. The test results indicate little to no infiltration capacity within the location and depth of the proposed tanks. Therefore, infiltration is not proposed for this development.

8. An exceedance plan for the proposed drainage strategy is required, to ensure routes are not towards buildings and property.

Through a pre-application meeting held on the 20th April 2026, the LLFA has been consulted on the consented scheme. During the meeting, the LLFA has confirmed that an exceedance plan is not necessary or required on this occasion, and therefore this has not been provided to discharge Condition 3. The general levels strategy would in all cases allow for surface water to drain away from buildings, follow the general circulation pathways around the site towards lower elevations to the south and ultimately into Greenway and the associated highway drainage network.

9. It is disappointing to see a traditional end of pipe design being used. SuDS should be designed to have multifunctional benefits. The current design does not meet the 4 pillars (water quality, water quantity, amenity, biodiversity) of SuDS design. Whilst we appreciate this application is for a school, there are several examples of where SuDS are used in schools.

With consideration of the above feedback, the updated drainage strategy has considered the 4 pillars of SuDS design within the proposal. The general drainage strategy has been laid out below.

The surface water catchment has been analysed and the Greenfield runoff rate (Q_{bar}) calculated. The proposed discharge rates for the development should be restricted to Q_{bar} at 7L/s based on 1.85ha of catchment area contributing to the surface water drainage system. The proposed discharge rate will be split across two separate surface water drainage networks which will both ultimately discharge into public surface water sewers beneath Greenway road at 3.5L/s and 3.5L/s for the eastern and western outfalls respectively for all storm events up to and including the 1 in 100year plus CC event.

Permeable pavement systems are to be installed where possible around the proposed building, within the carpark and MUGA, to provide interception and treatment of surface water runoff. The subbase beneath permeable pavements will also be used to attenuate flows at source which will allow the size of the downstream attenuation tanks to be optimised during detailed design.

A swale system has also been implemented further upstream within the eastern network to capture runoff from the site access road, this in turn will help to reduce peak discharge rates and improve the water quality prior to entering the main below ground drainage system.

Two separate attenuation tanks have been proposed for this site, one for each outfall. The tank on the west side of the site sits immediately adjacent to the proposed building on its northwestern edge and discharges into Southern Water Manhole 4253 via a flow control manhole located immediately downstream of the tank.

The eastern attenuation tank is located immediately beneath a proposed dry detention basin which is hydraulically linked to the underlying tank. During larger storm events the tank will surcharge upwards and begin to fill the basin. This has allowed the size of the underlying tank to be kept to a minimum with any additional storage requirements being provided in the above ground basin. The inclusion of the basin adds further amenity and biodiversity benefit to the SuDS scheme proposed for the site as it will also provide water quality improvements as well as providing interception for any runoff which enters the basin directly from any adjacent impermeable areas. The flow control manhole ref SW MH 30 located downstream of the south-eastern attenuation tank is then connected to an existing surface water demarcation chamber which discharges ultimately to the Southern Water Manhole 6252.

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The updated drainage strategy has considered water quality, amenity, and biodiversity benefits within its SuDS design by incorporating permeable paving, a swale, and a detention basin within its proposal.

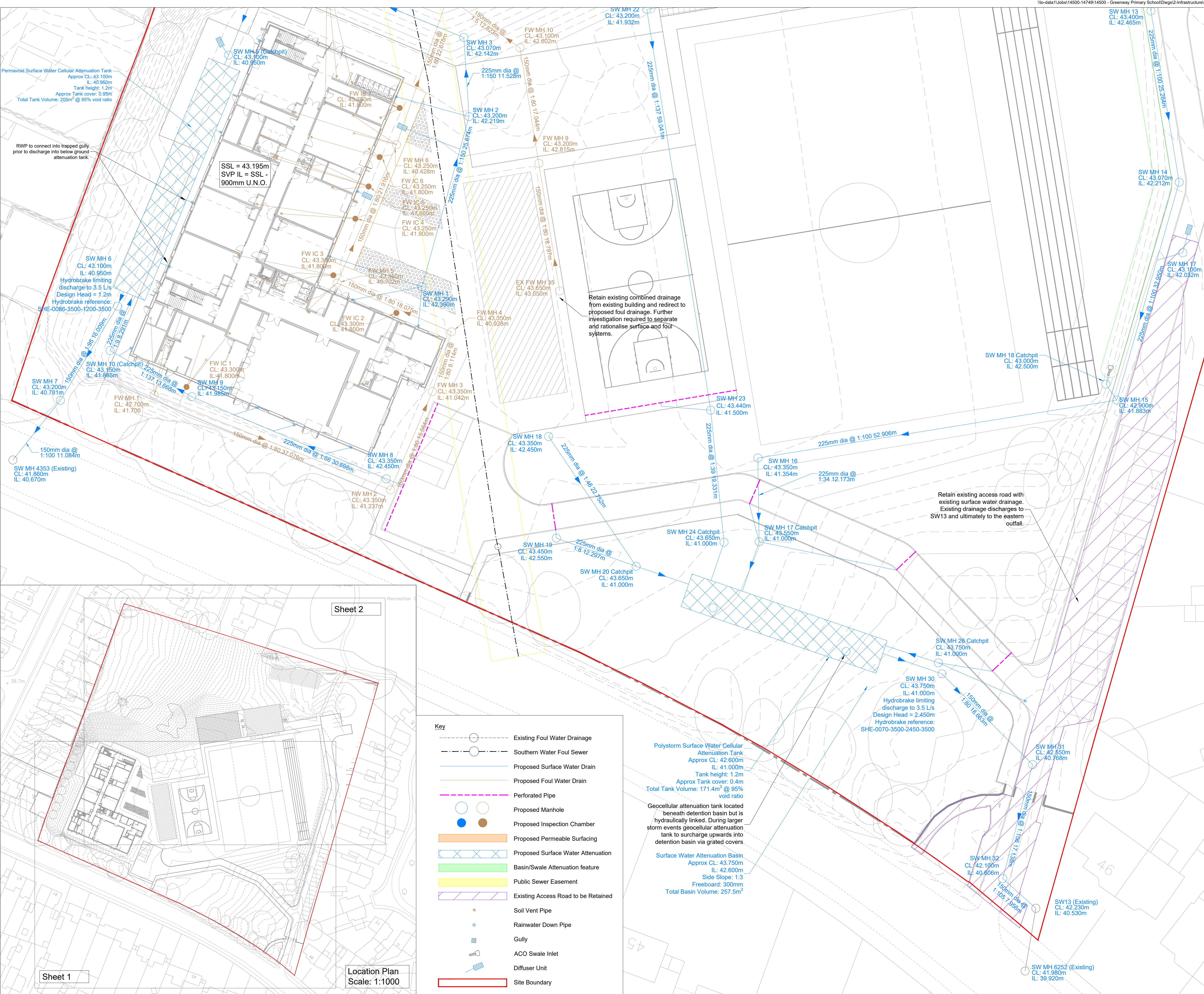


Appendix 1

Drainage Strategy Layout

SRP1029-CRH-00-EX-D-C-
5510_Drainage Layout Consented
Scheme (Sheet 1 of 2)

SRP1029-CRH-00-EX-D-C-
5511_Drainage Layout Consented
Scheme (Sheet 2 of 2)



Notes

- Do not scale from this drawing on print or electronically. Work from figured dimensions only.
- No deviation from the details on this drawing is allowed without CampbellReith's prior permission in writing.
- Read this drawing with all Architect's, Service Engineer's and CampbellReith's relevant details, specifications and drawings.
- All work is to be done in accordance with the relevant specifications issued by CampbellReith, British Standard Codes of Practice, Statutory Requirements and the Contract Documents.
- Drawing revision:
P: Preliminary Evolving drawings for approvals, tenders, billings etc.
C: Contractual Drawings authorized and approved for stage completion.
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Work in progress
S0 - Initial status
Shared (Non-contractual)
S1 - Suitable for coordination, **S2** - Suitable for information, **S3** - Suitable for review and comment, **S4** - Suitable for stage approval.
Published (For contractors purposes)
A1, An etc - Authorised and accepted ('n' relates to work stages)
B1, Bn etc - Partial sign-off (with comments)
CR - As constructed record document (Final Construction ONLY. Any deviations to that which is on site is not the liability of CampbellReith)
- Work Stages:
2 - Concept, **3** - Definition, **4** - Design, **5** - Build & commission, **6** - Handover
- Only drawings with **revision Cn and status A5 to be used for Construction.**
- Proposed Masterplan based on SRP1029-MAC-XX-XX-D-L-0007 by MAC CONSULTING LTD dated 23/05/2023. Received from LLOYDBORE LANDSCAPE ECOLOGY ARBORICULTURE 07/04/2026 in CAD format.
- All existing topographical survey information shown or referred to is based upon topographical survey (ref. SRP1029-SVS-XX-XX-D-Y-0001) prepared by SUBVISION SURVEYS in Mar 2026 - no warranty as to the accuracy of the information is given or implied.
- All existing drainage information shown or referred to is based upon PAS128 survey conducted by SUBVISION SURVEYS in Mar 2026 (ref. SRP1029-SVS-XX-XX-D-Y-0001) - no warranty as to the accuracy of the information is given or implied.
- Existing site utilities information can be found on utilities survey drawing (ref. SRP1029-SVS-XX-XX-D-Y-0001) produced by SUBVISION SURVEYS.
- For the location of proposed utilities please refer to latest external services layout produced by HAWDEN ENGINEERING MEP SOLUTIONS.
- All details in this drawing shall be read in conjunction with Building Regulations 2015 Approved Document H.
- Surface water drainage system has been designed to prevent at surface flooding for all events up to and including the 1:30 year plus 40% CC event and to prevent off site flooding for all events up to and including 1:100 year plus 45% CC event.
- External rainwater pipes are to be roddable above ground. All SVPs to have rodding plates at ground floor level.
- U.N.O. SVP and floor gully connections have IL of 42.295m and all RWP connection IL's are 42.595m.
- At least one soil pipe at the head of each run shall vent to the atmosphere.
- All SVPs have been positioned manually. Any setting out should be undertaken using Architects and MEP drawings.

P02	For Information	01/05/26	YL
P01	For Information	20/04/26	YL
Rev	Description	Date	By

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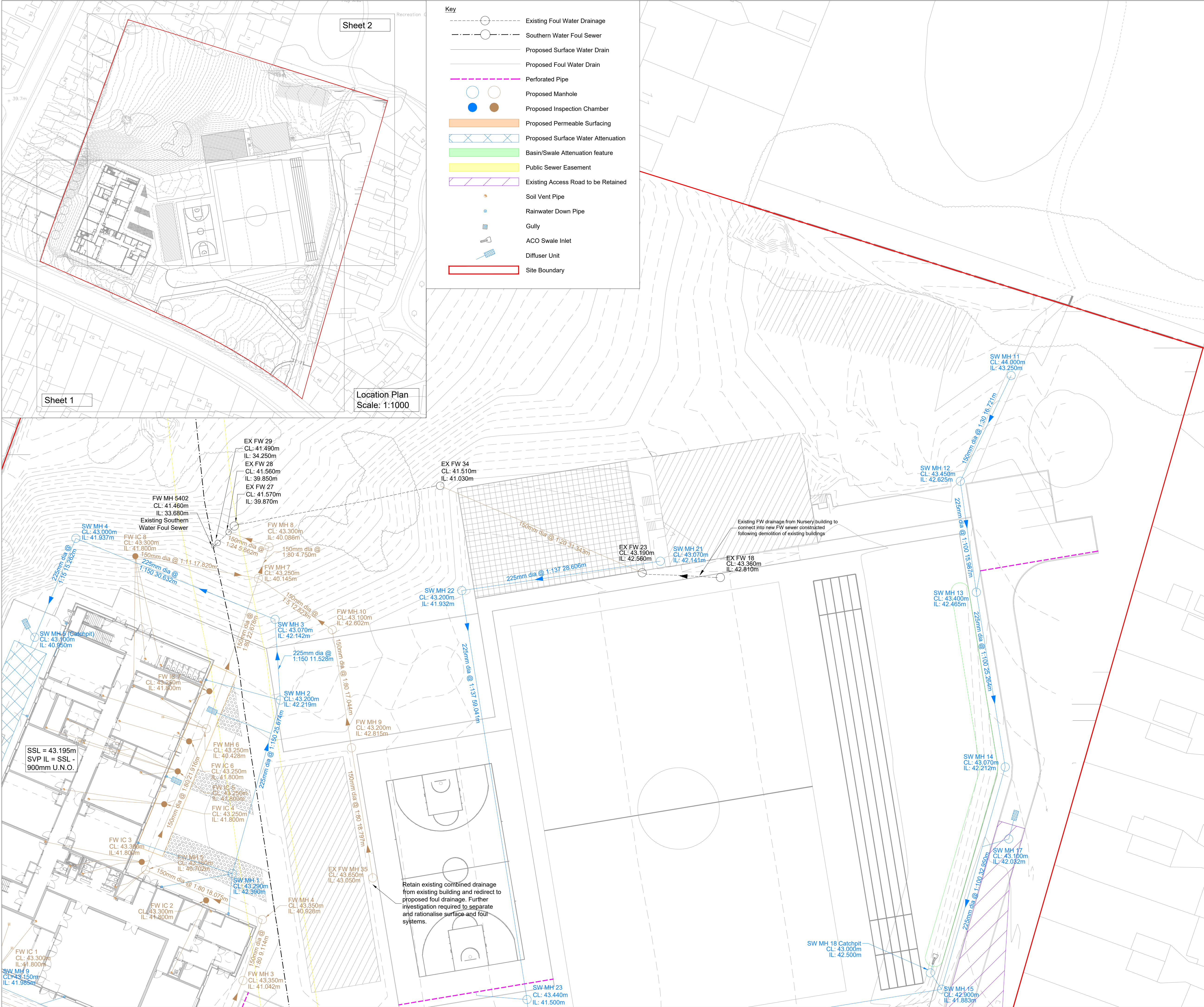
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Drainage Strategy for Consented Scheme (Sheet 1 of 2)

Drawn by	Date made	Scale @ A1	Checked by	Suitability	CR Project
YL	15/04/26	1:250	LM	-	14500

Project No	Orig.	Funct.	Spatial	Form	Disc.	Number	Rev
SRP1029	CRH	00	XX	D	C	5510	P02

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Job Title
Greenway School

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Drainage Strategy for Consented Scheme (Sheet 2 of 2)

Drawn by	Date made	Scale @ A1	Checked by	Suitability	CR Project
YL	10/04/26	1:250	LM	-	14500

Project No	Orig.	Funct.	Spatial	Form	Disc.	Number	Rev
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Appendix 2

InfoDrainage
Calculations for
Consented Scheme

