

Foul Drainage Key:

- Foul Drain (1000 Unless Noted Otherwise)
- FW Type 3F Non-Entry Access Chamber
- FW Type 4F Non-Entry Access Chamber
- Foul Water Outlet / Soil Pipe

Storm Drainage Key:

- Private storm manhole
- Private Flow Control Chamber
- Storm Drain (1000 Unless Noted Otherwise)
- SW Type 3F Non-Entry Access Chamber
- SW Type 4F Non-Entry Access Chamber
- SW Rodding Eye
- Typical Depth to Invert 0.45-0.6m (Or as specified in schedule)
- Rainwater Pipe
- Road gully
- Sump gully (Heavy duty permeable paving outlet)
- Threshold drain
- 2500 Silt trap chamber (Wavin 6LB300) 0.475m to invert unless noted otherwise
- Outlet Permevoid (1000 outlet 0.45m to invert)
- Heavy duty Permeable Paving
- Finished level
- Formation Level
- SuDS Heavy Duty Permeable Block Paving (Type C system - 350mm attenuation sub-base 32% void ratio)
- SuDS Cellular storage tank
- SuDS Light Duty Permeable Block Paving (Type C system - Light duty)
- SuDS Attenuation pond (1 in 100 Year plus 40% CC)
- Strategic Road gully
- Rainwater Butt

IMPORTANT NOTE ON DEEP DRAINS:

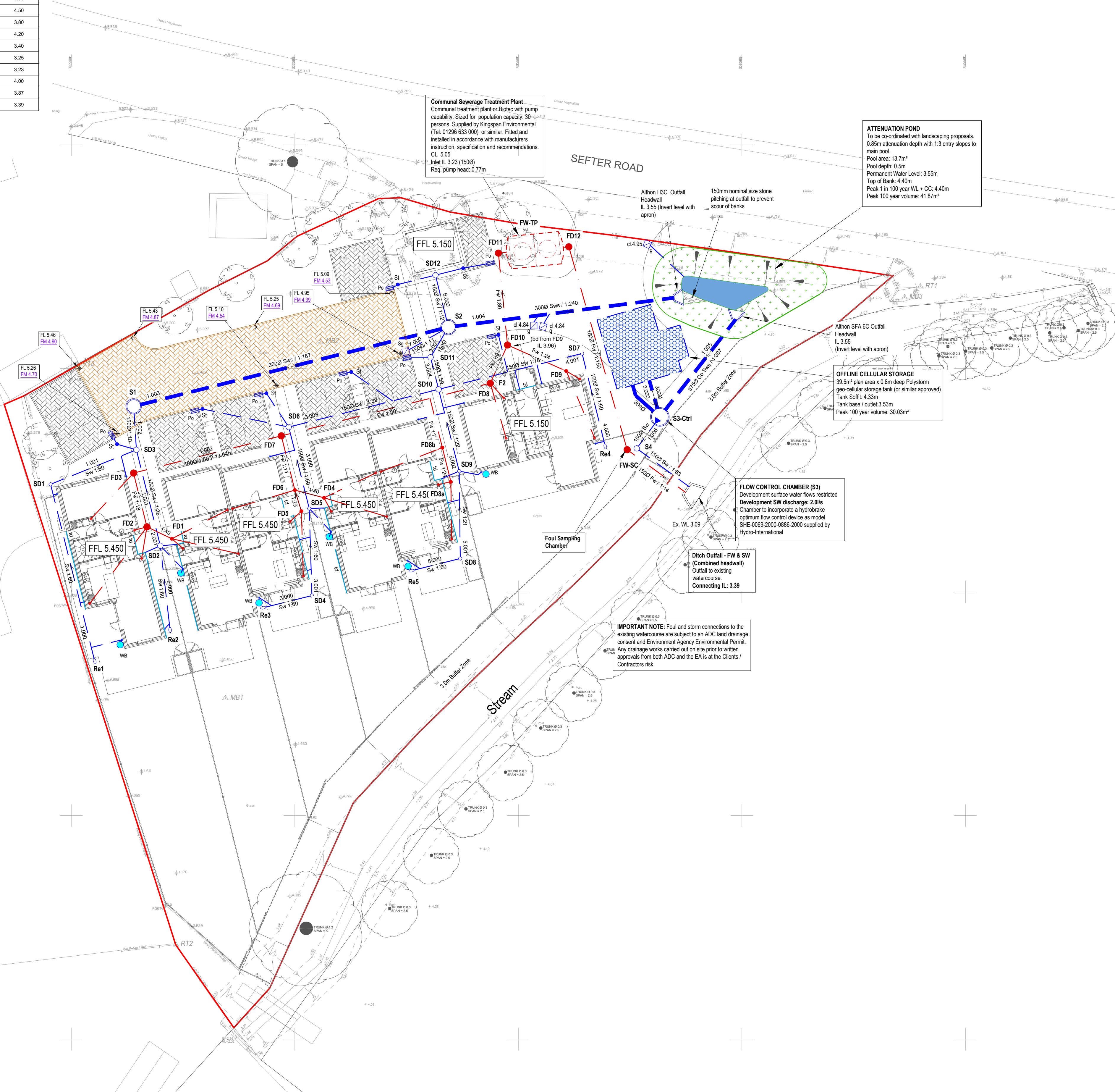
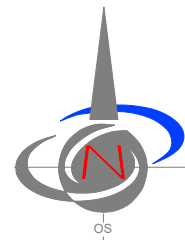
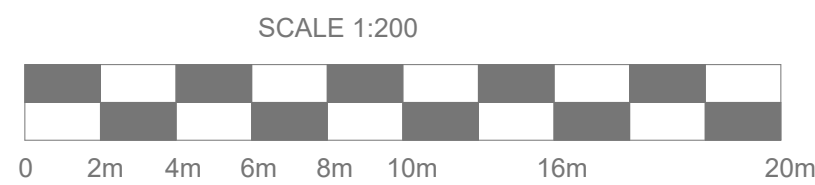
WHERE A DRAIN RUN PASSES NEAR A BUILDING WITHIN THE 45 DEGREE LOADLINE, THE DRAINAGE TRENCH SHALL BE BACKFILLED WITH CONCRETE TO THE BUILDING FOUNDATION FORMATION LEVEL.

STORM CHAMBER SCHEDULES

MH REF	MANHOLE TYPE	MANHOLE SIZE	COVER TYPE	COVER LEVEL	INVERT LEVEL
Re1	Rodding eye	Rodding eye	B125	5.38	4.78
SD1	4F	250	B125	5.30	4.51
Re2	Rodding eye	Rodding eye	B125	5.43	4.85
SD2	3F	450	B125	5.40	4.67
SD3	3F	450	B125	5.30	4.32
S1	MH E	1200	D400	5.29	3.79
Re3	Rodding eye	Rodding eye	B125	5.43	4.85
SD4	4F	250	B125	5.42	4.78
SD5	4F	250	B125	5.40	4.59
SD6	3F	450	B125	5.22	4.45
Re4	Rodding eye	Rodding eye	B125	5.00	4.40
SD7	4F	250	B125	5.00	4.28
Re5	Rodding eye	Rodding eye	B125	5.43	4.85
SD8	4F	250	B125	5.42	4.78
SD9	4F	250	B125	5.43	4.35
SD10	3F	450	B125	5.10	4.09
SD11	3F	450	B125	4.96	4.04
SD12	3F	450	B125	5.07	4.18
Sg	Sump gully	450 x 450	D400	4.96	4.21
S2	MH E	1200	D400	4.93	3.64
Pond	---	---	---	4.40	3.55
CS-Tank	---	---	---	4.98	3.53
S3-Cl	Control Chamber	1500	D400	5.17	3.52
S4	3F	450	B125	5.01	4.83
Watercourse	Outfall	Outfall	---	4.90	3.39

FOUL CHAMBER SCHEDULES

MH REF	MANHOLE TYPE	MANHOLE SIZE	COVER TYPE	COVER LEVEL	INVERT LEVEL
FD1	4F	250	B125	5.43	4.55
FD2	3F	450	B125	5.40	4.49
FD3	3F	450	B125	5.32	4.21
FD4	4F	250	B125	5.43	4.55
FD5	4F	250	B125	5.43	4.55
FD6	4F	250	B125	5.40	4.48
FD7	3F	450	B125	5.24	4.04
FD8a	4F	250	B125	5.43	4.63
FD8b	4F	250	B125	5.40	4.50
FD8	3F	450	B125	4.99	3.80
FD9	4F	250	B125	5.00	4.20
FD10	3F	450	B125	4.93	3.40
FD11	3F	450	B125	5.03	3.25
FW-TP	T-Plant	T.B.C	T.B.C	5.05	3.23
FD12	3F	450	B125	5.05	4.00
FW-SC	Sampling cham.	450	B125	5.10	3.87
Watercourse	Outfall	Outfall	B125	3.90	3.39



Communal Sewerage Treatment Plant
Communal treatment plant or Biocle with pump capability. Sized for population capacity: 30 persons. Supplied by Kingspan Environmental (Tel: 01296 633 000) or similar. Fitted and installed in accordance with manufacturers instruction, specification and recommendations. CL 5.05
Inlet IL 3.23 (1500)
Req. pump head: 0.77m

ATTENUATION POND
To be co-ordinated with landscaping proposals.
0.85m attenuation depth with 1:3 entry slopes to main pool.
Pool area: 13.7m²
Pool depth: 0.5m
Permanent Water Level: 3.55m
Top of Bank: 4.40m
Peak 1 in 100 year WL + CC: 4.40m
Peak 100 year volume: 41.87m³

OFFLINE CELLULAR STORAGE
39.5m² plan area x 0.8m deep Polystorm geo-cellular storage tank (or similar approved).
Tank Soffit: 4.33m
Tank base / outlet: 3.53m
Peak 100 year volume: 30.03m³

FLOW CONTROL CHAMBER (S3)
Development surface water flows restricted
Development SW discharge: 2.0l/s
Chamber to incorporate a hydrobrake optimum flow control device as model SHE-0069-2000-0886-2000 supplied by Hydro-International

IMPORTANT NOTE: Foul and storm connections to the existing watercourse are subject to an ADC land drainage consent and Environment Agency Environmental Permit. Any drainage works carried out on site prior to written approvals from both ADC and the EA is at the Clients / Contractors risk.

NOTES:

Building Drainage

- Building drainage shall comply with BS 8301 1985, BS EN 752 and The Building Regulations Part H.
- All building drainage shall be 100mm diameter unless shown otherwise.
- All SW connections to adoptable sewers shall be minimum 150mm diameter.
- All building drainage shall be dayware to BS EN 295 or UPVC to BS 4660 with Class B or Class S bedding unless shown otherwise.
- All pipes under buildings without suspended floors shall have Class S bedding.
- Concrete protection shall be provided to all UPVC pipes with less than 600mm cover and to all day pipes with less than 300mm cover.
- Where a pipe passes through a wall an opening is to be formed through the wall to give at least 50mm clearance around the pipe. Brickwork over shall be supported by a lintel. The opening is to be masked each side of the opening with rigid sheet material. Pipes embedded in walls shall have a joint formed within 150mm of each wall face. A ROCKER PIPE OF Maximum 600mm length shall be used to continue the pipework.
- Where a pipe trench is within 1m of a building it is to be filled with concrete up to a level below the building equal to the distance from the building less 150mm.
- Where the formation of a pipe trench is above original ground level levels are to be made up with well compacted DTP Type 2 material or better.
- All private drives which fall towards a public highway and exceed two parking bays in area are to be provided with a suitable gully or drainage channel to prevent water discharging onto the highway.
- Where a driveway falls towards a building it shall be provided with a suitable gully or drainage channel to prevent water damaging the building.
- The invert level of an access chamber on a foul drain from a building is to be set 600mm below finished ground level unless otherwise shown.
- The invert level of a rodding eye at the head of a surface water drain is to be set 450mm below finished ground level unless otherwise shown.
- Existing bank, base and water levels of the watercourse must be checked and verified by the Client / Contractor by way of topographical survey and findings presented to the engineer for checking.
- No connection works are permitted to the existing watercourse on-site until approval have been granted by the local drainage authority and environment agency for the proposed outfall from the sewerage treatment plant and stormwater network.
- Installation of the proposed biocle is to be strictly in accordance with the requirements of Kingspan environmental. Client / contractor to liaise with Kingspan technical on tel 01296 633 000.

CDM Notes:

- The attention of the client and the principal contractor is drawn to the following potential risks in conjunction with the proposed on-site and off-site works as designed for this project.
- Works in the vicinity of live services including gas, electricity and hot water must be necessary and the advice of all statutory service companies must be sought before any works commence. Particular attention is drawn to the existing overhead electric line crossing the site. The client must ensure that this is diverted to the satisfaction of UKPN prior to any works on site.
- Works within and abutting the existing highway will entail traffic hazards and all appropriate safety measures including barriers, signs and lighting must be undertaken to the approval of the local authority, the highway authority and the police department.
- Hazardous materials including cement and bituminous materials are specified and the manufacturers advice on safe handling procedures must be obtained and made clear to all operatives.
- The contractor will be responsible for locating all existing services within the vicinity of the works hand dug and ensure these are protected throughout the duration of the works. All utility plant should be clearly marked on the ground prior to commencement of the works.
- The contractor must ensure all working areas are fully secure.

PRELIMINARY DRAWING

NOT FOR CONSTRUCTION
FOR PLANNING PURPOSES ONLY

A	Foul and storm outfall amended following LLFA comments and detailed watercourse survey.	JH	TL	01.04.2022
Rev.	Description	Drm	Ckd	Date

Client

HHD
HAMILTON HOUGH & DAVENPORT
www.hhd.co.uk

Project

Land adjacent Sefter School,
House, Sefter Road

Title

Below Ground
Drainage Layout

ADAMA CONSULTING
Civil & Infrastructure Engineering Design
Unit 34, The Enterprise Centre, Cranborne Road, Potters Bar, EN6 3DQ
Tel: 01707 800 271 E-mail: info@adama-consulting.com
Web: www.adama-consulting.com

Scale	1:200 on A1	Drawn	MD
Date	10/03/2022	Checked	TL
File	21-023-Acad-400	Drawing No	21-023-400
		Rev	A