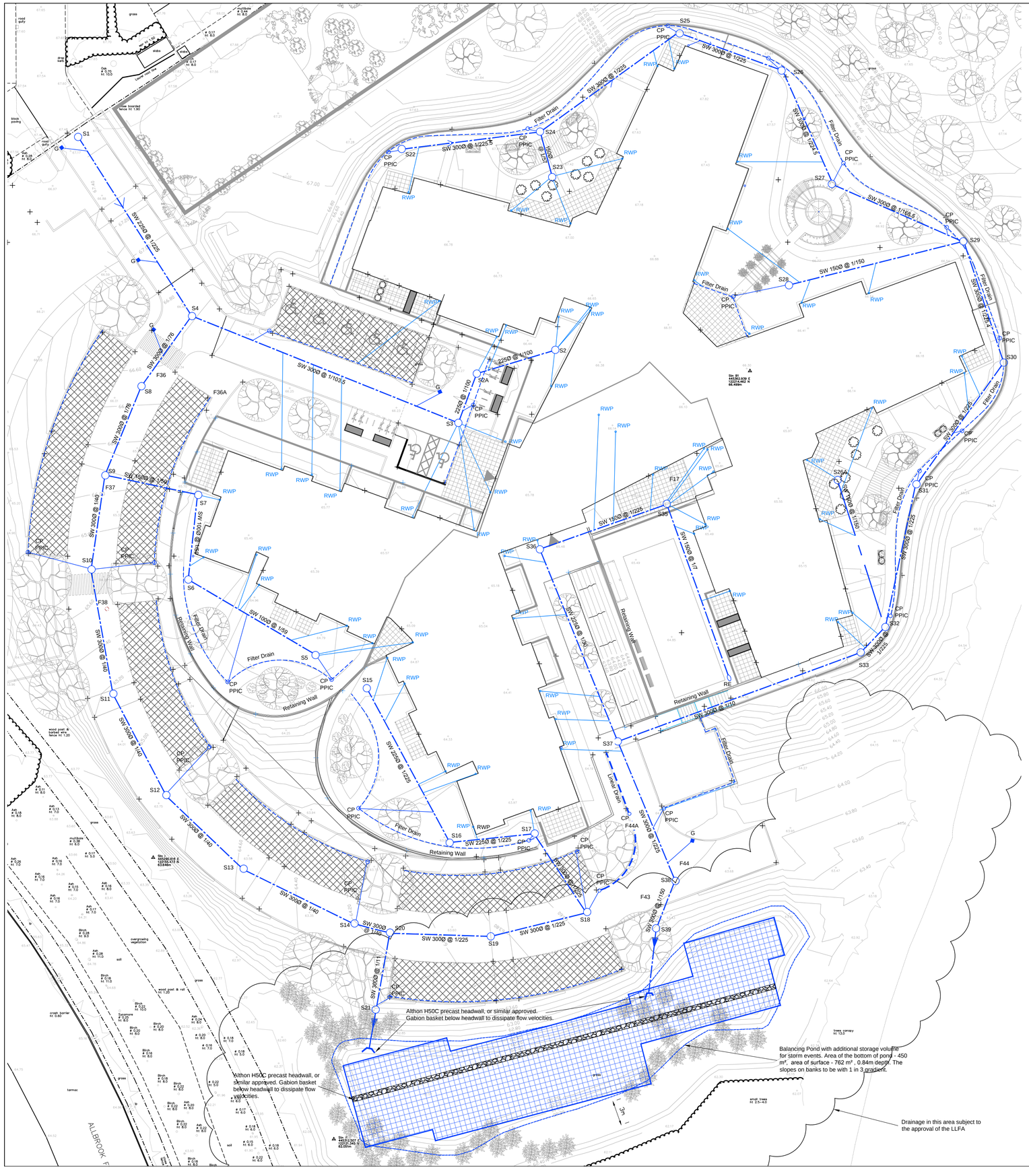

Note

Due to the time of year and the underlying clayey sub-soils, there is a risk that the surface ground conditions could become excessively wet and unworkable. Therefore, the appointed ground worker should be aware of this risk and keep the site capped at all times and not stripped and left exposed to inclement weather conditions. If suitable precautions are not taken, there is a chance that lime/cement stabilisation may be necessary. However, due to the cost implications this should be considered as a last resort.

SAFETY, HEALTH AND ENVIRONMENTAL HAZARD INFORMATION BOX
THE HAZARDS NOTED ARE IN ADDITION TO THE NORMAL HAZARDS AND RISKS FACED BY A COMPETENT CONTRACTOR WHEN DEALING WITH THE TYPE OF WORKS DETAILED ON THIS DRAWING.

CONSTRUCTION RISKS
•

MAINTENANCE/ CLEANING RISK
•

DEMOLITION RISKS
•

Surface Water Manhole Schedule

US MH	US CL (m)	US IL (m)	Depth to Invert (m)	Depth to cover (m)	Pipe Dia (mm)	Gradient (1:x)	MH Dia (mm)	MH Type	MH Cover Grade
S1	67.30	66.250	1.05	0.82	225	226	1200	PCC	D400
S2	66.43	65.162	1.27	1.04	225	100	450	PPIC	B125
S2A	66.19	65.062	1.13	0.90	225	100	450	PPIC	D400
S3	66.14	64.998	1.15	0.84	300	104	450	PPIC	D400
S4	66.67	64.660	2.01	1.71	300	76	1200	PCC	D400
S8	66.38	64.522	1.86	1.56	300	76	450	PPIC	D400
S5	66.40	65.750	0.65	0.50	150	59	450	PPIC	B125
S6	66.40	65.440	0.96	0.81	150	59	450	PPIC	B125
S7	66.40	65.216	1.18	1.03	150	59	450	PPIC	B125
S9	66.06	64.368	1.68	1.39	300	40	450	PPIC	D400
S10	65.67	64.080	1.59	1.29	300	40	450	PPIC	D400
S11	65.27	63.700	1.57	1.27	300	40	450	PPIC	D400
S12	64.87	63.351	1.52	1.22	300	40	450	PPIC	D400
S13	64.54	63.005	1.54	1.24	300	40	450	PPIC	D400
S14	64.22	62.629	1.59	1.29	300	40	450	PPIC	D400
S15	63.35	62.850	0.50	0.35	225	225	450	PPIC	B125
S16	63.35	62.775	0.58	0.43	225	225	450	PPIC	B125
S17	63.35	62.709	0.64	0.34	300	225	450	PPIC	B125
S18	63.48	62.658	0.82	0.52	300	225	450	PPIC	D400
S19	63.82	62.605	1.21	0.91	300	225	450	PPIC	D400
S20	64.15	62.434	1.72	1.42	300	11	450	PPIC	D400
S21	62.80	61.571	1.23	0.93	300	100	1200	PPC	B125
S22	66.40	65.600	0.80	0.50	300	225	450	PPIC	B125
S23	66.50	65.775	0.72	0.50	225	57	450	PPIC	B125
S24	66.35	65.525	0.82	0.52	300	225	450	PPIC	B125
S25	66.40	65.433	0.97	0.67	300	225	450	PPIC	B125
S26	66.40	65.374	1.03	0.73	300	224	450	PPIC	B125
S27	66.40	65.307	1.09	0.79	300	169	450	PPIC	B125
S28	66.45	65.396	1.05	0.83	150	150	450	PPIC	B125
S29	66.40	65.216	1.18	0.88	300	225	450	PPIC	B125
S30	66.45	65.135	1.32	1.02	300	225	450	PPIC	B125
S31	66.45	65.064	1.39	1.09	300	225	450	PPIC	B125
S26A	66.45	65.675	0.78	0.55	225	225	450	PPIC	B125
S32	66.45	65.550	0.90	0.75	300	225	450	PPIC	B125
S33	66.45	64.531	1.92	1.62	300	10	450	PPIC	B125
RE	66.50	65.850	0.65	0.50	150	7	450	PPIC	B125
S35	63.50	62.699	0.80	0.65	225	150	450	PPIC	B125
S36	63.50	62.587	0.91	0.76	225	29	450	PPIC	B125
S37	63.33	61.578	1.75	1.45	300	225	450	PPIC	B125
S38	63.65	61.497	2.15	1.85	300	150	450	PPIC	D400
S39	63.43	61.417	2.01	1.71	300	50	1200	PCC	B125

Drainage Construction Notes Continued:

7. Pipe runs near buildings
If trench fill is within 1 m of the building the trench shall be filled with concrete up to its lowest level of the building.
If trench is greater than 1 m from the building the trench shall be filled with concrete up to a level below the building equal to the distance from the building less 150mm.

8. All connections to be turned in direction of flow using pipe bends.

9. Manhole covers and frames to be ductile iron medium duty grade D400 double triangular to BS EN124 and are to be grade A standard in vehicular trafficked areas.

Manhole covers and frames to be ductile iron medium duty grade B125 circular or rectangular to BS EN124 positions outside vehicular trafficked areas.

10. The Principal Contractor shall be responsible for checking the existing line and invert levels of any connection points for both the foul and surface water systems, prior to undertaking installation of any new drainage works. Any deviation to the levels and positions indicated on the drawing should be brought to the attention of the Project Engineer.

11. Internal inspection chambers and access fittings to be provided with lockable double sealed manhole cover and frames grade A15, B125 or D400 to BSEN124 to suit loading conditions.

12. All polypropylene inspection chambers shall be in accordance with BS EN 13598-2:2009.

13. All drains to be tested prior to backfilling, after backfilling and upon completion of hard landscaping, in addition all drains to be inspected by CCTV methods prior to hard landscaping.

14. All drainage works within retained tree canopy are to be constructed in accordance with BS 5837:2005, the NHBC Standards and the tree preservation officers requirements.

Contractual Notes:

1. It is the responsibility of the contractor to locate any service apparatus in the vicinity of the works. The client will accept no claims whatsoever in respect of any losses or damage caused in respect of such apparatus

2. It is the responsibility of the contractor to execute the works at all times in strict accordance with the requirements of the Health And Safety At Work Act 1974, and the C.D.M Regulations 2007. The Contractor will be deemed to have allowed for full compliance, including full liaison with the CDM Co-ordinator, with his rates.

3. The contractor is responsible for ensuring that all works are to the satisfaction of the engineer, and shall be deemed to have included within his rates for any necessary testing.

4. The contractor will be responsible for providing all necessary de-watering and trench support to execute the works in a satisfactory manner, and shall be deemed to have allowed for the same within his rates.

5. The contractor must ensure that the gradients indicated on the longitudinal sections are checked between the levels shown, prior to laying pipes. At no time must the contractor proceed with pipe laying by dialing the gradient shown into a laser without checking. Any discrepancy in this respect must be reported to the engineer prior to pipe laying.

6. The contractor shall check his pipe gradients by means of boning rods and traveler to verify the laser gradients

7. In the event of the above procedures not being followed, the client will accept no responsibility whatsoever for any consequent loss or damage.

Drainage Construction Notes:

1. For details of ground conditions refer to the Ground Investigation Report.

2. All drainage works shall be carried out in accordance with WSA Sewers for Adoption (6th Edition) and Civil Engineering Specification for the Water Industry (6th Edition). All adoptable sewer works and materials to be in accordance with "Sewers For Adoption" 6th edition and the local water companies requirements regarding sewers for adoption.

3. The position of all RWP's and foul outlets are to be confirmed by the Architect.

4. All work is to be carried out in accordance with the current British and or European standards, BS codes of Practice & Building Regulations

5. The position, line and diameter of all existing drainage apparatus should be confirmed on site prior to the commencement of the works. Any discrepancies should be reported to the engineer in writing immediately.

6. The proposed foul and surface water drainage systems including the connections to the existing public sewer system shall be subject to the approval of all relevant Authorities.

7. PPICs greater than 1.2m deep to invert are to have a 300x300 restricted access.

General Notes:

1. Do not scale.

2. All dimensions shown are in millimetres unless noted otherwise.

3. This drawing is to be read in conjunction with Architects, Engineers & Specialist Contractors Details.

4. Should there be any discrepancy between details indicated on this drawing and those indicated on other drawings the Engineer should be informed PRIOR to construction on site.

5. This drawing is based on Hunters Drawing Number, M9038 APL003/Revision G, dated July 2015.

6. Until technical approval has been obtained from the relevant Authorities it should be understood that all drawings issued are preliminary and NOT for construction. Should the contractor start site work prior to approval been given, it is entirely at his own risk.

7. All survey information is provided by the surveying company and HSP cannot accept any liability for any discrepancies there in. All survey information to be verified on site by contractor. Should discrepancies be identified, HSP to be notified immediately.

Key to Proposals

- Surface Water Drainage - CP denotes catchpit
- Linear Drain
- Filter Drain
- Retaining Wall Filter Drain
- G — Gully
- RE — Rodding Eye
- RWP — Rain Water Pipe
- Permeable Paving

Notes:

- Drawing is preliminary only and not for construction.
- The contractor is responsible for making the S106 application for the discharge of foul water with Southern Water.
- All parking bays to be surfaced in permeable block paving and served by perforated filter drains and PPIC catchpits connecting to proposed surface water drainage runs.
- All RWP locations to be confirmed by the Architect.

Rev.	By	Date	Details	Chkd
-	-	-	-	-

Drawing Status: Preliminary

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Client
Stepnell Construction

Project
Otterborne Hill Dementia Care Centre

Title
Proposed Surface Water Drainage

Scale (A1)	Drawn by.	Drg. No.	Rev.
1:250	IA	C2205-202	-
Date. 25.04.16	Checked by. GC		