CAMERON DARROCH ASSOCIATES

SURFACE WATER DRAINAGE STRATEGY FOR REDEVLOPMENT OF LAND AT 57 TOP DARTFORD ROAD, HEXTABLE, KENT, BR8 7SG.

DATE: March 2024

OUR REF: CDA-2601 v1.1

CAMERON DARROCH ASSOCIATES
KESTREL BUSINESS CENTRE, PRIVATE ROAD No. 2, COLWICK,
NOTTINGHAM, NG4 2JR

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INTRODUCTION

This document has been developed based on the planning approved Flood Risk Assessment and drainage strategy prepared by Clancy Consulting and related correspondence with the LPA/LLFA a copy of which is contained in Appendix VI for ease of reference. The proposal is for the redevelopment of an existing dwelling known as 57 Top Dartford Road, Hextable. A copy of the topographical survey, for the existing site, together with the Architects proposed site layout is contained within Appendix II.

Surface Water Drainage

As outlined in the original FRA and as required by current planning guidance and Part H of the Building Regulations, the utilisation of SuDS measures as the primary method of surface water disposal should be considered. The hierarchy for preferred disposal options for surface water run-off is as follows:

1. Infiltration into the ground
2. Discharge to Surface waters
3. Discharge to Sewer

Due to the poor infiltration rates identified for the shallow strata across the site the use of attenuation with direct infiltration was discounted. There are no watercourses within close proximity of the site. Neither is there a surface water sewer. Further deep bore site investigations found good infiltration rates at greater depth and as a result the chosen solution was to adopt deep bore soakaways for the disposal of surface water run-off from the redeveloped site.

A copy of the site investigation and test results, extracted from the Clancy report, are contained in Appendix III for ease of reference.

The proposed drainage network including attenuation structure have been designed to resrict discharge to manageable levels and to suit the infiltration rates for the deeper ground strata across the site. The system(s) have been designed to ensure there is flooding during the critical 1 in 30 year storm event and 1 in 100 year storm event including a 40% allowance for climate change. A copy of the hydraulic calculations are contained in Appendix IV.

Silt sumps have been incorporated directly upstream of the attenuation tank soakaway to provide interception of any minimal silt/detritus and to prevent it entering the structure. The attenuation tanks are to have an inspection tunnel and/or appropriate means of gaining access to the bottom of the soakaway to enable periodic inspection and maintenance, including cleaning, of the structure to ensure optimum performance for the life of the development.

There are opportunities to incorporate various SuDS features in accordance with current best practice and National Policy Guidelines and the Ciria SuDS Manual. The viability and practicality of the various SuDS features has been discussed below:

1.00 SUSTAINABLE DRAINAGE PROPOSALS

1.01 Storm Water Management and SuDS

1.01.01 Sustainable Drainage Systems (SuDS) involve the management of storm water from developments effectively in order to reduce the impact of run-off both to the site in question and properties downstream, and not to exacerbate existing problems. This is achieved by not increasing peak flows that will otherwise result from the development. The philosophy of SuDS is to mimic as closely as possible, the natural drainage from a site before development, and to ensure that storm water runoff is treated so there is no detriment to water quality of the receiving watercourse.

Using SuDS may provide water quantity and quality control, as well as increased amenity value. Appropriately designed and maintained schemes may improve the sustainable water management at the site by:

- Reducing peak flows to watercourses or sewers and potentially reducing the risk of flooding downstream.
- Reducing the volume, rate of discharge, and the frequency of water flowing directly to watercourses or sewers from the developed sites.
- Improving water quality compared with conventional surface water sewers by removing pollutants.

1.01.02 The following section represents the considered views on suitable SuDS options appropriate to this site. CIRIA C7536 The SuDS Manual was consulted to examine the use of SuDS on this site. Conclusions are based on the assessment of the site and the evaluation of the relevant design requirements.

1.02 Potential SuDS Techniques Considered for this Site

1.02.01 Green Roofs

Green roofs comprise a multi-layered system that covers the roof of a building or podium structure with vegetation cover, over a drainage layer. They are designed to intercept and retain precipitation, reducing the volume of run-off and attenuating peak flows.

The proposed building & roof design are not appropriate for the use of green roofs. The cost to the structure can be considerable and prohibitive.

Not recommended or proposed.

1.02.02 Soakaways

Soakaways are square or circular excavations either filled with rubble or lined with brickwork, precast concrete or polyethylene rings/perforated storage structures surrounded by granular backfill. They can be grouped and linked together to drain large areas including highways. The supporting structure and backfill can be substituted by modular geocellular units. Soakaways provide storm water attenuation, storm water treatment and groundwater recharge.

The prevailing ground conditions at shallow depths are unsuitable for infiltration. However, acceptable infiltration rates were identified at greater depth and the use of deep bore soakaways with infiltration into the deeper underlaying strata is considered to be the most appropriate solution for this site.

Recommended and proposed. Refer to drainage plan.

1.02.03 Swales

Swales are linear vegetated drainage features in which surface water can be stored or conveyed. They can be designed to allow infiltration, where appropriate. They should promote low flow velocities to allow much of the suspended particulate load in the storm water runoff to settle out, thus providing effective pollutant removal. Roadside swales can replace conventional gullies and drainage pipes.

Due to the land take for the development swales are not considered feasible.

Not recommended or proposed

1.02.04 Pervious Pavements

Pervious pavements provide a pavement suitable for pedestrian and/or vehicular traffic, while allowing rainwater to infiltrate through the surface and into the underlying layers. The water is temporarily stored between infiltration to the ground, reuse or discharge to a watercourse or other drainage system. Pavements with aggregate sub-bases can provide good water quality treatment.

Due to the limited viability of infiltration at shallow depth a Type C permeable paving system (Non-infiltration) is proposed with perforated collector pipes installed within the granular sub-base to convey run-off to the below ground drainage network.

Recommended and proposed. Refer to drainage plan.

1.02.05 Geo-cellular/Modular Systems

Modular plastic geo-cellular systems with a high void ratio that can be used to create a below ground storage structure.

Modular tanks can be used for run-off attenuation but requires silt trap protection and a suitable means of access for cleaning and inspection.

Recommended and proposed to provide attenuation prior to discharge to the borehole soakaways. Refer to drainage plan.

1.02.06 Ponds/Infiltration Basin

Ponds can provide both storm water attenuation and treatment. They are designed to support emergent and submerged aquatic vegetation along their shoreline. Run off from each rain event is detained and treated in the pool. The retention time promotes removal through sedimentation and the opportunity for biological uptake mechanisms to reduce nutrient concentrations.

Due to the land take for the development ponds are not feasible on this development.

Not recommended or proposed.

1.02.07 Rainwater Gardens

Rain gardens are relatively small depressions in the ground that can act as infiltration points for roof water and other 'clean' surface water — i.e. water that is low in contamination levels. They are designed to intercept and retain precipitation, reducing the volume of run-off and attenuating peak flows.

Due to the limited space within the site rainwater gardens are not considered to be feasible.

Not recommended or proposed.

1.02.09 Vegetation Expansion

Consideration to be given to planting more expansive vegetation rather than traditional lawns.

Areas of soft landscaping and amenity areas have been maximised as part of the development. There are no further areas in which vegetation expansion could be incorporated based on the current proposals.

Not proposed.

Where possible the above SuDS features have been incorporated within the scheme and have been indicated on the drainage layout contained in Appendix I.

In line with recognized practice the drainage and proposed topography have been designed to direct any temporary flood water generated by storm events exceeding the drainage system design parameters away from any buildings or structures. An exceedance diagram has been included in Appendix V.

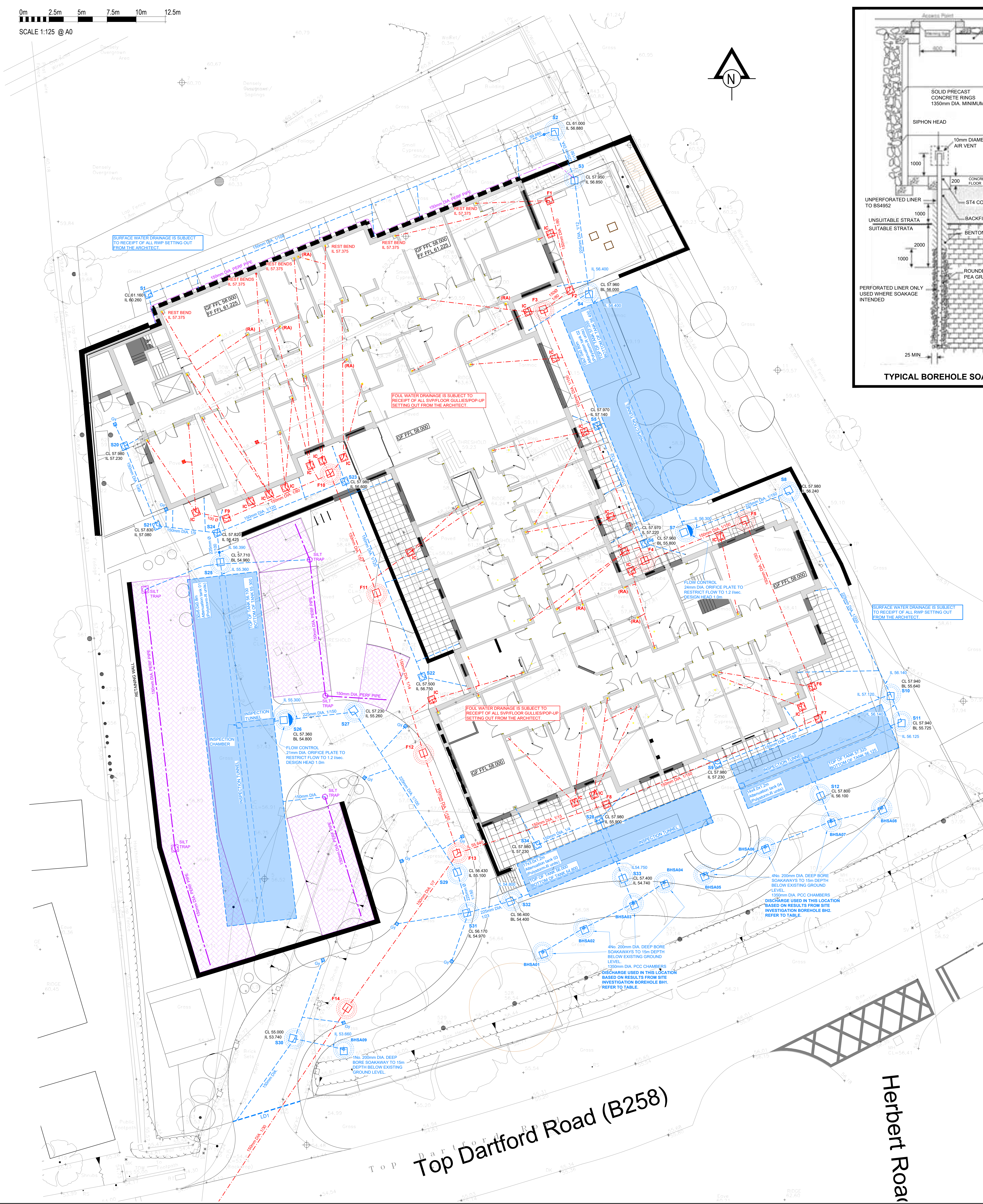
A maintenance regime will need to be established for all drainage systems and SuDS features with the responsibility for maintenance being with the site owner at no cost to the public. Refer to separate CDA Drainage System Maintenance Strategy document.

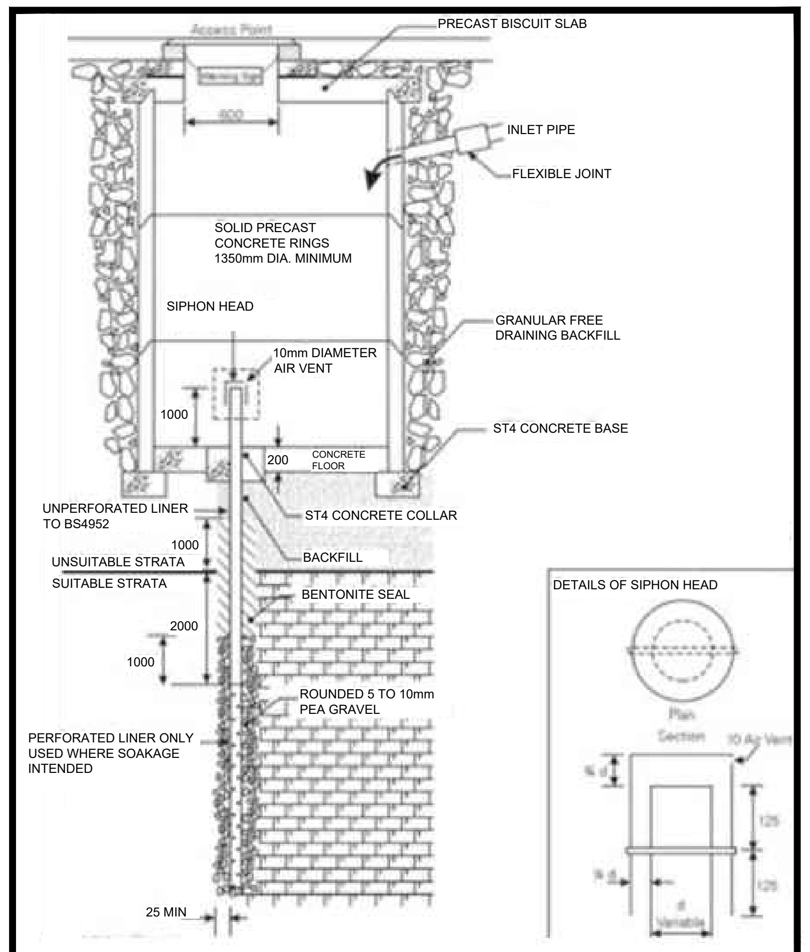
Foul Water Drainage

The site is already served by existing foul drainage connected to the public foul sewer in Top Dartford Road. It is proposed to provide a new connection into the public sewer manhole into which the site already discharges.

APPENDIX I

DO NOT SCALE FROM THIS DRAWING





TYPICAL BOREHOLE SOAKAWAY DETAIL

SURFACE WATER DRAINAGE MANHOLE SCHEDULE					
MANHOLE REF.	BASE / INVERT LEVEL	C.L.	DEPTH	DIA (MIN SIZE)	MIN. COVER SIZE & GRADE
S1*	60.250	61.150	0.900	450mm DIA. POLYPROPELENE	C250 (600x600)
S2*	56.880	61.000	4.120	1200mm DIA. PCC RINGS	C250 (600x600)
S3*	56.850	57.950	1.100	1200mm DIA. PCC RINGS	C250 (600x600)
S4*	56.000	57.960	1.960	1200mm DIA. PCC RINGS	C250 (600x600)
S5*	57.140	57.970	0.830	450mm DIA. POLYPROPELENE	C250 (600x600)
S6*	57.220	57.970	0.750	450mm DIA. POLYPROPELENE	C250 (600x600)
S7*	55.800	57.960	2.160	1200mm DIA. PCC RINGS	C250 (600x600)
S8*	56.240	57.980	1.740	1200mm DIA. PCC RINGS	C250 (600x600)
S9*	57.230	57.980	0.750	450mm DIA. POLYPROPELENE	C250 (600x600)
S10	55.640	57.940	2.300	1200mm DIA. PCC RINGS	C250 (600x600)
S11	55.725	57.940	2.215	1200mm DIA. PCC RINGS	C250 (600x600)
S12	56.125	57.800	1.675	1200mm DIA. PCC RINGS	C250 (600x600)
S20*	57.230	57.980	0.750	450mm DIA. POLYPROPELENE	C250 (600x600)
S21*	57.080	57.830	0.750	450mm DIA. POLYPROPELENE	C250 (600x600)
S22*	56.750	57.500	0.750	450mm DIA. POLYPROPELENE	C250 (600x600)
S23*	56.600	57.980	1.380	450mm DIA. POLYPROPELENE	C250 (600x600)
S24*	56.425	57.820	1.395	450mm DIA. POLYPROPELENE	C250 (600x600)
S25	54.960	57.710	2.750	1200mm DIA. PCC RINGS	D400 (600x600)
S26	54.800	57.360	2.560	1500mm DIA. PCC RINGS	D400 (600x600)
S27	55.260	57.230	1.970	1200mm DIA. PCC RINGS	D400 (600x600)
S28*	55.900	57.980	2.080	1200mm DIA. PCC RINGS	C250 (600x600)
S29	55.100	56.430	1.330	1200mm DIA. PCC RINGS	D400 (600x600)
S30	53.740	55.000	1.260	1200mm DIA. PCC RINGS	D400 (600x600)
S31	54.970	56.170	1.200	1200mm DIA. PCC RINGS	D400 (600x600)
S32*	54.400	56.400	2.000	1200mm DIA. PCC RINGS	C250 (600x600)
S33	54.740	57.400	2.660	1200mm DIA. PCC RINGS	C250 (600x600)
S34*	57.230	57.980	0.750	450mm DIA. POLYPROPELENE	D400 (600x600)

^ WHERE INDICATED MANHOLES ARE TO BE PROVIDED WITH FABRICATED RECESSED COVER AND FRAME TO ACCEPT SURROUNDING FINISHES. COVERS MUST ACHIEVE LOAD CLASS SPECIFIED

FOUL WATER DRAINAGE MANHOLE SCHEDULE					
MANHOLE REF.	I.L.	C.L.	DEPTH	DIA (MIN SIZE)	MIN. COVER SIZE & GRADE
F1^	57.130	57.980	0.850	450mm DIA. POLYPROPELENE	C250 (600x600)
F2^	57.030	57.980	0.950	450mm DIA. POLYPROPELENE	C250 (600x600)
F3^	56.995	57.980	0.985	1200mm DIA. PCC RINGS	C250 (600x600)
F4^	56.840	57.980	1.140	1200mm DIA. PCC RINGS	C250 (600x600)
F5^	56.775	57.980	1.205	1200mm DIA. PCC RINGS	C250 (600x600)
F6^	56.675	57.980	1.305	1200mm DIA. PCC RINGS	C250 (600x600)
F7^	56.650	57.960	1.310	450mm DIA. POLYPROPELENE	C250 (600x600)
F8^	56.520	57.960	1.440	450mm DIA. POLYPROPELENE	C250 (600x600)
F9^	57.015	57.830	0.815	450mm DIA. POLYPROPELENE	C250 (600x600)
F10^	56.890	57.980	1.090	1200mm DIA. PCC RINGS	C250 (600x600)
F11^	56.700	57.500	0.800	1200mm DIA. PCC RINGS	C250 (600x600)
F12	55.700	56.960	1.260	1200mm DIA. PCC RINGS	D400 (600x600)
F13	55.640	56.540	0.900	1200mm DIA. PCC RINGS	D400 (600x600)
F14	53.360	55.320	1.960	1200mm DIA. PCC RINGS	D400 (600x600)

^ WHERE INDICATED MANHOLES ARE TO BE PROVIDED WITH FABRICATED RECESSED COVER AND FRAME TO ACCEPT SURROUNDING FINISHES. COVERS MUST ACHIEVE LOAD CLASS SPECIFIED

LD1 - ACO M100D LINEAR DRAINAGE CHANNEL (OR SIMILAR APPROVED) WITH INTERNAL FALL & D400 GRATING.

IC - 450mm DIA. POLYPROPELENE LEVEL INVERT INSPECTION CHAMBER WITH 600x600mm RECESSED COVER & FRAME WHERE REQUIRED TO ACCEPT SURROUNDING FINISHES. IL 57.130 UNLESS NOTED OTHERWISE.

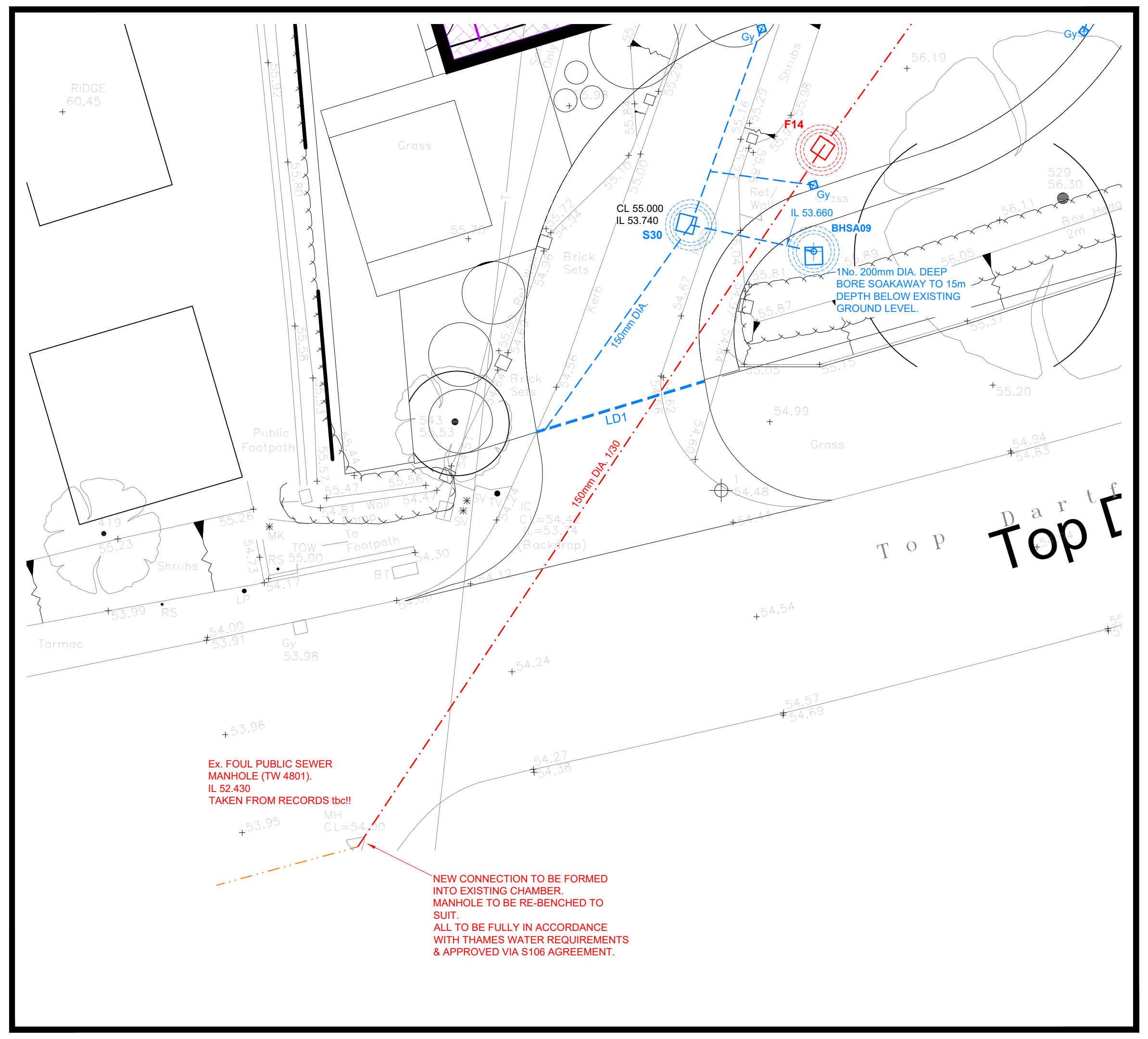
RE - RODDING EYE. 600mm DP. UNLESS NOTED OTHERWISE.

(RA) - RODDABLE ACCESS TO BE FITTED TO SVP ABOVE FLOOR LEVEL

ALL MANHOLES & INSPECTION CHAMBERS WITHIN PAVED AREAS TO HAVE RECESSED COVERS TO RECEIVE SURROUNDING SURFACING. LOAD CLASS SPECIFIED ABOVE TO BE ACHIEVED IN ALL CASES.

SVP REST BEND INVERT LEVEL TO BE 57.325 (-0.675 BELOW FFL) UNLESS NOTED OTHERWISE.

PROPOSED SURFACE WATER DRAIN
PROPOSED FOUL WATER DRAIN
EXISTING SURFACE WATER DRAIN
EXISTING FOUL WATER DRAIN
PROPOSED PERMEABLE PAVING PERFORATED LINK PIPE
RWB ABOVE GROUND 500 litre RAIN WATER BUTT
INDICATES AREAS OF PERMEABLE BLOCK PAVING CONSTRUCTION



DRAINAGE STRATEGY

THE FOLLOWING TEXT DESCRIBES THE SURFACE WATER DRAINAGE DISPOSAL STRATEGY FOR THIS DEVELOPMENT.

THE SITE IS CLASSIFIED AS BROWNFIELD (BEING PREVIOUSLY USED FOR RESIDENTIAL PURPOSES.) KEY POINTS FOR THE STRATEGY ARE AS FOLLOWS:

- THE FIRST CHOICE FOR SURFACE WATER IS ATTENUATION WITH DIRECT INFILTRATION, HOWEVER SITE INVESTIGATIONS IDENTIFIED THAT SHALLOW INFILTRATION WAS NOT FEASIBLE DUE TO POOR INFILTRATION RATES ACHEIVED.
- THERE ARE NO WATERCOURSES WITHIN CLOSE PROXIMITY OF THE SITE. NEITHER IS THERE A SURFACE WATER SEWER.
- FURTHER DEEP BORE INVESTIGATION FOUND GOOD INFILTRATION RATES AS INDICATED BELOW. DRILLING CONTINUED TO 30.0M AND NO GROUND WATER WAS ENCOUNTERED;

Location	Depth (m)	Run	Permeability k (m/s)
BH01	10	1	1.74×10^{-4}
	15	1	5.73×10^{-4}
		2	2.61×10^{-4}
	20	1	4.31×10^{-4}
		2	3.76×10^{-4}
BH02	10	1	2.46×10^{-4}
		2	4.12×10^{-4}
	15	1	1.37×10^{-4}
		2	4.03×10^{-4}
	20	1	2.29×10^{-4}
		2	4.98×10^{-4}

- FOR THIS DESIGN, DISCHARGE HAS BEEN USED IN TWO LOCATIONS (BH1 & BH2) WITH THE HIGHLIGHTED VALUES (ABOVE) USED FOR THE CALCULATIONS.
- THE PROPOSED DEVELOPMENT HAS AN IMPERMEABLE AREA OF APPROXIMATELY 2653m2 (0.265ha) AND HAS A LEVEL DIFFERENCE, FALLING FROM NORTH TO SOUTH BY APPROXIMATELY 6.5M.
- THE SURFACE WATER FLOW HAS BEEN DESIGNED TO CAPTURE AND ATTENUATE RUNOFF IN 4No. CRATED TANKS WITH FLOW RESTRICTED TO 1.2L/S FROM THE UPPER LEVEL TANKS.
- DUE TO THE SITE TOPOGRAPHY AND PROPOSED LAYOUT THERE IS NO SPACE FOR ANY OTHER SUDS FEATURES SUCH AS SWALES AND PONDS ETC.
- FOUL WATER FLOW ASSUMED TO BE UNRESTRICTED INTO THE PUBLIC SEWER WHICH THE NEAREST POINT IS FOUND IN THE JUNCTION OF MABLE ROAD JUST OFF THE SOUTH-WESTERN CORNER OF THE PROPOSED SITE.
- THE SURFACE WATER DESIGN CATERS FOR ALL STORM EVENTS UP TO AND INCLUDING THE 1 IN 100 YEAR EVENT PLUS 40% CLIMATE CHANGE.

1. DO NOT SCALE FROM THIS DRAWING
2. WORK TO ONLY FIGURED DIMENSIONS AND CO-ORDINATES
3. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER IMMEDIATELY
4. THIS DRAWING MUST BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS, ARCHITECTS AND SPECIALIST DRAWINGS SPECIFICATIONS AND DETAILS
5. THE CONTRACTOR SHALL CHECK THE LEVELS AND CONDITION OF ALL EXISTING DRAINAGE PRIOR TO THE CONSTRUCTION OF ANY NEW DRAINAGE TO ENSURE THE PROPOSED DESIGN CAN BE ACHIEVED
6. COVER AND INVERT LEVELS, PIPE DIAMETERS AND PIPE RELATIONSHIPS OF EXISTING DRAINAGE TO BE CHECKED ON SITE AND ANY DISCREPANCIES REPORTED TO ENGINEER
7. BEFORE EXCAVATION COMMENCES THE CONTRACTOR SHALL ASCERTAIN THE DEPTHS, SIZES AND LOCATION OF ALL SERVICES TO BE CROSSED. ANY CONFLICT IN LEVELS BETWEEN NEW AND EXISTING SERVICES/SEWERS TO BE NOTIFIED TO THE ENGINEER.
8. ALL ADOPTABLE DRAINAGE WORKS TO BE IN ACCORDANCE WITH THE WATER AUTHORITIES REQUIREMENTS AND 'SEWERS FOR ADOPTION 7TH EDITION'
9. FOR ALL ADOPTED DRAINAGE WORKS THE MAIN CONTRACTOR SHALL USE A SUB-CONTRACTOR APPROVED BY THE LOCAL WATER AUTHORITY TO CARRY OUT THE WORK.
10. THE CONTRACTOR IS TO APPLY TO AND LIASE WITH THE WATER AUTHORITY ENGINEER IN RESPECT OF ANY NEW CONNECTIONS INTO THE EXISTING PUBLIC SEWERS, AFFORDING THEM REASONABLE NOTICE TO INSPECT THE WORKS DURING CONSTRUCTION
11. THE CONTRACTOR IS TO COMPLY WITH THE 'NEW ROADS AND STREET WORKS ACT:1991' FOR ALL WORKS IN THE PUBLIC HIGHWAY
12. ALL WORKS IN THE PUBLIC HIGHWAY SHALL BE CARRIED OUT WITH THE PRIOR APPROVAL AND TO THE SATISFACTION OF THE LOCAL AUTHORITY.
13. ALL PRIVATE DRAINAGE WORKS TO BE IN ACCORDANCE WITH PART H OF THE BUILDING REGULATIONS, BS EN 752 AND BS EN 12056
14. ALL PIPEWORK TO BE ESVC (HEPWORTH SUPERSLEVE) OR CONCRETE WITH CLASS B BEDDING. PLASTIC MAYBE ADOPTED OUTSIDE OF ANY VEHICULAR TRAFFICKED AREAS (PERMANENT AND TEMPORARY CONDITIONS). PLASTIC MAY BE USED AS AN ALTERNATIVE, SUBJECT TO PROVISION OF PRODUCT DATA SHEETS & ENGINEERS APPROVAL. ALL TO BE INSTALLED FULLY IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
15. ALL BELOW SLAB FOUL DRAINAGE TO BE 100mm ESVC OR CONCRETE UNO. ON PLAN. PLASTIC MAY BE USED AS AN ALTERNATIVE AS FOR NOTE 14 ABOVE. ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
16. ADOPT HEAVY DUTY MANHOLE COVERS & GULLY GRATES IN ALL TRAFFICKED AREAS.
17. WHERE COVER TO CROWN OF PIPE IS LESS THAN 600mm CONCRETE ENCASEMENT (150mm MIN.) IS TO BE PROVIDED TOGETHER WITH COMPRESSIBLE BOARD JOINTS AT EACH SOCKET/SLEEVE JOINT FACE..
18. ALL GULLY, LINEAR DRAIN AND RWP CONNECTIONS TO BE 150mm DIA. U.N.O.
19. ALL SURFACE & FOUL WATER CONNECTIONS ARE SOFFIT TO SOFFIT, INCLUDING NEW PIPES ENTERING EXISTING MANHOLES UNLESS NOTED OTHERWISE
20. WHERE RWP'S, STUB STACKS AND SVP'S ARE CONNECTED DIRECTLY TO THE DRAIN, RODDING ACCESS POINTS ARE TO BE PROVIDED ABOVE FINISHED FLOOR/PATH LEVEL.
21. ALL MANHOLES DEEPER THAN 1.0m TO HAVE METAL STEP IRONS OR FIXED LADDERS.
22. ALL BRANCH PIPES FROM SVP's/STACKS TO BE 110mm DIA. UNLESS NOTED OTHERWISE.
23. ALL REDUNDANT EXISTING DRAINAGE UNDER THE FOOTPRINT OF THE PROPOSED BUILDING TO BE GRUBBED OUT OR FULLY GROUTED AND CAPPED
24. ANY BACKDROP CONNECTIONS ON THE FOUL DRAINAGE SYSTEM TO BE 45 DEGREE RAKING BACK DROPS.
25. ALL INTERNAL MANHOLES TO BE DOUBLE SEALED AND HAVE MECHANICALLY FIXED AIRTIGHT COVERS AND FRAMES
26. PROPOSED EXTERNAL MANHOLE COVER LEVELS AND ORIENTATION INDICATED IS SUBJECT TO CONFIRMATION FROM THE ARCHITECT/LANDSCAPE DESIGNER.
27. IT IS ASSUMED ALL GF EN-SUITE SHOWER GULLIES ARE TO BE CONNECTED TO THE ADJACENT SVP WITHIN THE DEPTH OF THE FLOOR FINISHES.
28. ALL FOUL DRAINS WITHIN 300mm OF UNDERSIDE OF CONCRETE GROUND BEARING SLAB TO BE ENCASED WITH 150mm CONCRETE CAST INTEGRAL WITH SLAB.

PRELIMINARY

REV	INITIALS	DATE	DETAIL
P5	MJC	06.02.24	SCALE BAR ADDED AT LPA REQUEST
P4	MJC	05.02.24	AMENDED TO SUIT CONTRACTORS PREFERRED ATTENUATION CRATE MANUFACTURER. BOREHOLE DESIGN INFILTRATION RATES AND DEPTHS NOTED TO REFLECT DRAINAGE STRATEGY
P3	MJC	31.10.23	UPDATED TO REFLECT LATEST ARCHITECTS LAYOUT. PRELIMINARY ISSUE FOR COMMENT & CO-ORDINATION
P2	MJC	26.07.23	SW FLOW CONTROL DEVICE CRITERIA CONFIRMED. BOREHOLE SOAKAWAY CHAMBER SPEC ADDED.
P1	MJC	26.06.23	PRELIMINARY TENDER

STATUS

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CLIENT: BARCHESTER	JOB NO: CDA-2601
PROJECT: PROPOSED CARE HOME, TOP DARTFORD ROAD, HEXTABLE.	DRG NO: 02
TITLE: PROPOSED SITE DRAINAGE	REVISION: P5
	SCALE: 1:125 @ A0
	DATE: APR 2023
	DRAWN BY: MJC
	CHKD: SEL

APPENDIX II

0m 4m 8m 12m 16m 20m

SCALE 1:200 @ A1

Entrance to be widened to 8m for Construction deliveries

Key

Soft Landscaping:

- Existing Tree with RPA shown in orange hatch
- Existing T2 and T19 Tree to be removed
- Proposed Tree
- Hedge
- Grass
- Meadow

Hard Landscaping:

- 'Chestnut' Resin Bound gravel with Galv edging
- 'Buff' Tobermore Textured Paving Slab
- 'Natural' Tobermore Testured Paving Slab
- 'Cedar' Tobermore Permeable Block Paving
- 'Bracken' Tobermore Permeable Block Paving
- Tarmacadam Entrance Footpath

Boundary Treatments:

- Retaining Wall TBC by Engineer
- Closed Board Fencing at rear
- 1.8m Bow Top Black Metal Railings
- All ramps are 1 in 20 as per levels shown

Refer to landscaping and civils drawings for details of hard and soft landscaping

NOTES

All dimensions are in millimetres unless stated otherwise.

Drawings are not to be scaled for Construction purposes.

This drawing is to be read in conjunction with all other relevant drawings and specifications.

Rev	Date	Description	Drawn By	Checked By
C1	18.01.24	Construction Issue	FF	FF
P6	05.07.23	Boundary wall removed	FF	FF
P5	29.06.23	Landscaping updated	FF	FF
P4	19.05.23	Drainage and Tree RPA shown	FF	FF

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e: enquiries@harrisirwin.com
w: www.harrisirwin.com

Project:
Hextable Care Home,
57 Top Dartford Road,
Hextable,
BR8 7SG

Client: BARCHESTER Celebrating life

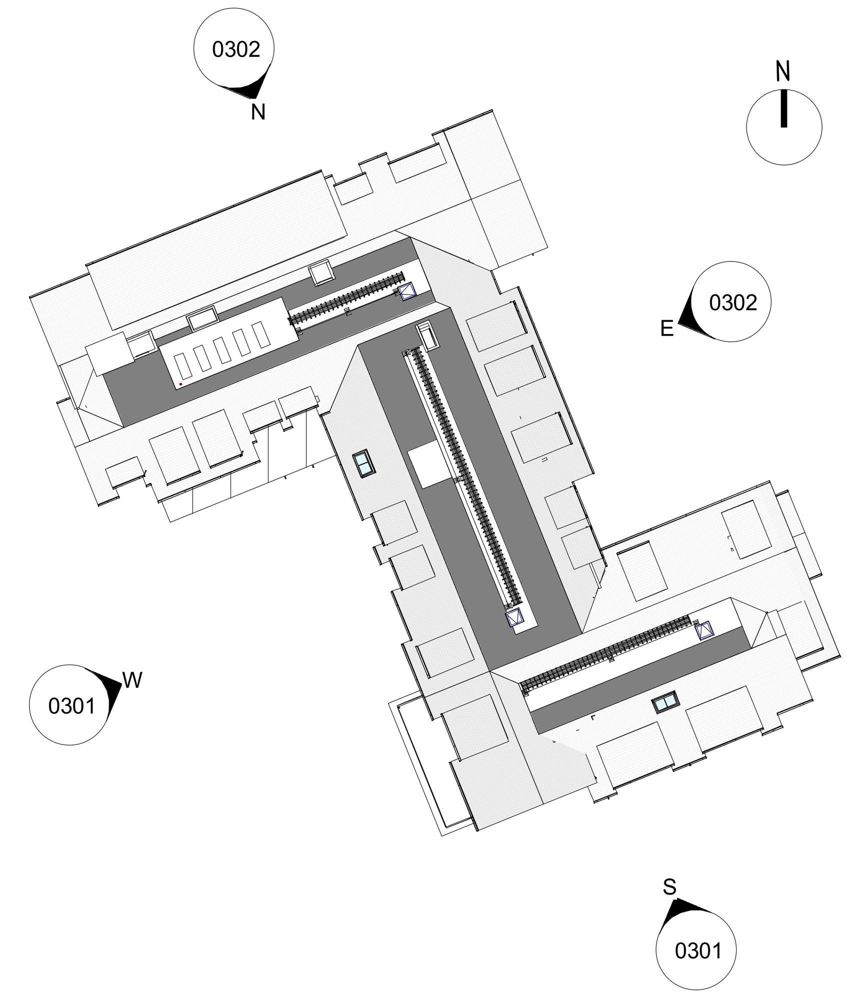
Drawing Title:
Proposed Site Plan

For Construction Approval

HIA Project Number	Scale @ A1	Suitability
3081	1 : 200	A

Project	Originator	Volume	Level	Type	Role	Number
3081	HIA	ZZ	XX	DR	A	0102

S South Elevation
1 : 100



W West Elevation
1 : 100

0m 2m 4m 6m 8m 10m

SCALE 1:100 @ A1

NOTES

All dimensions are in millimetres unless stated otherwise.

Drawings are not to be scaled for Construction purposes.

This drawing is to be read in conjunction with all other relevant drawings and specifications.

Key:

- Red Clay Hanging tiles
- Red Multi-Brick
- Pale Brick work
- Black Timber style Cladding
- Grey Clay Hanging tiles

U VALUE REQUIRMENTS TO BE IN COMPLIANCE WITH PART L OF TECHNICAL STANDARDS

1) Walls :0.26w/m2k

2) Floors : 0.18w/m2k

3) Roof: 0.16w/m2k

4) Flat Roof : 0.18w/m2k

5) Windows/Doors :1.6w/m2k

SBEM to be based on compliance with above minimum U Values

Rev	Date	Description	Drawn By	Checked By
C1	18.01.23	Construction Approval Issue	SB	FF
P3	26.07.23	Lintols - Cills Updated	FF	FF
P2	11.05.23	Final Tender Issue	FF	SA
P1	21.04.23	Tender Part Issue	FF/NM	SA

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Project:
Hextable
57 Top Dartford Road,
Hextable,
Kent BR8 7SG

Client: BARCHESTER Celebrating life

Drawing Title:
Proposed Elevations Sheet 1 of 2

For Construction Approval

HIA Project Number	Scale @ A1	Suitability
3081	As indicated	A

Project	Originator	Volume	Level	Type	Role	Number
3081	HIA	01	XX	DR	A	0301

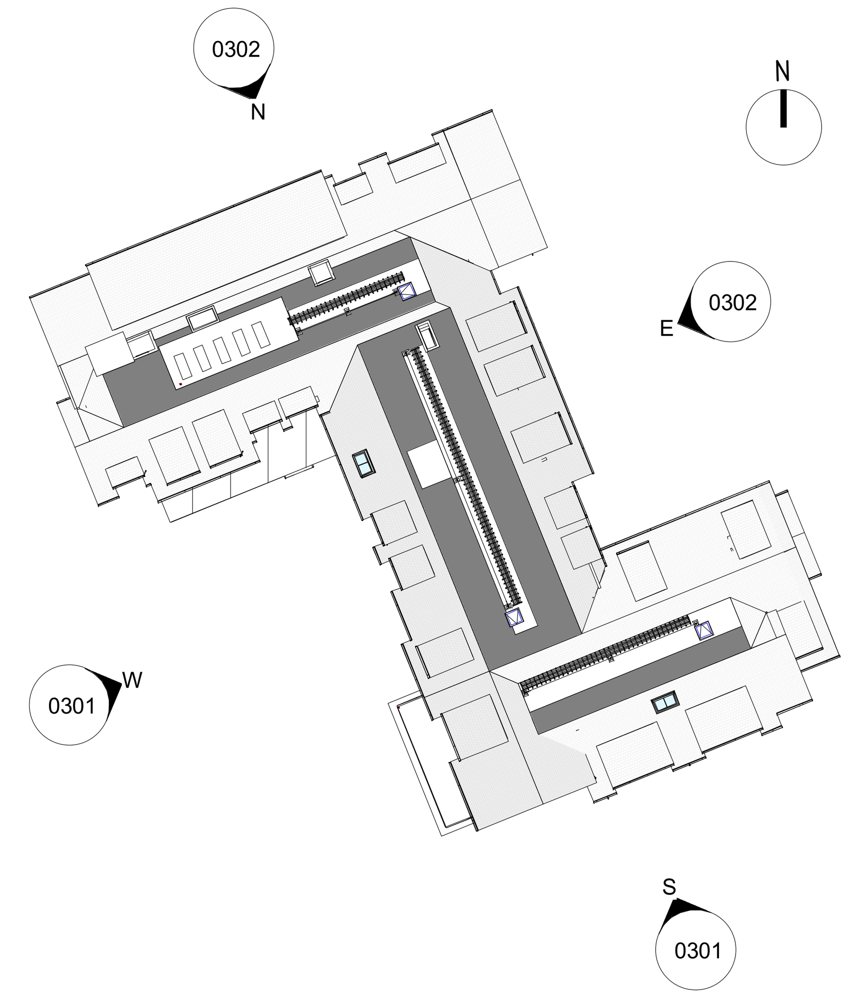
NOTES

All dimensions are in millimetres unless stated otherwise.

Drawings are not to be scaled for Construction purposes.

This drawing is to be read in conjunction with all other relevant drawings and specifications.

N North Elevation
1 : 100



Key:

- Red Clay Hanging tiles
- Red Multi-Brick
- Pale Brick work
- Black Timber style Cladding
- Grey Clay Hanging tiles

E East Elevation
1 : 100

U VALUE REQUIRMENTS TO BE IN COMPLIANCE WITH PART L OF TECHNICAL STANDARDS

1) Walls :0.26w/m2k

2) Floors : 0.18w/m2k

3) Roof: 0.16w/m2k

4) Flat Roof : 0.18w/m2k

5) Windows/Doors :1.6w/m2k

SBEM to be based on compliance with above minimum U Values

Rev	Date	Description	Drawn By	Checked By
C1	18.01.23	Construction Approval Issue	SB	FF
P3	26.07.23	Lintols - Cills Updated	FF	FF
P2	11.05.23	Final Tender Issue	FF	SA
P1	21.04.23	Tender Part Issue	FF/NM	SA

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w: www.harrisirwin.com

Project:
Hextable
57 Top Dartford Road,
Hextable,
Kent BR8 7SG

Client: BARCHESTER Celebrating life

Drawing Title:
Proposed Elevations Sheet 2 of 2

For Construction Approval

HIA Project Number	Scale @ A1	Suitability
3081	As indicated	A

Project	Originator	Volume	Level	Type	Role	Number
3081 -	HIA -	01 -	XX -	DR -	A -	0302

0m 2m 4m 6m 8m 10m

SCALE 1:100 @ A1

NOTES

All dimensions are in millimetres unless stated otherwise.

Drawings are not to be scaled for Construction purposes.

This drawing is to be read in conjunction with all other relevant drawings and specifications.

Rev	Date	Description	Drawn By	Checked By
C1	18.01.24	Construction Issue	FF	FF
P2	28.06.23	Tender Issue	FF	FF
P1	21.04.23	First Issue	NM	FF

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Project:
Hextable Care Home,
57 Top Dartford Road,
Hextable,
BR8 7SG

Client: Barchester

Drawing Title:
Site Location Plan

For Construction Approval

HIA Project Number	Scale @ A2	Suitability
3081	1 : 500	A

Project	Originator	Volume	Level	Type	Role	Number
3081 -	HIA -	ZZ -	XX -	DR -	A -	0101

N

CCTV KEY

- Surface Water
- Assumed Surface Water
- Foul Water
- Assumed Foul Water
- Combined Water
- Assumed Combined Water

ABBREVIATIONS

B	Sewer broken at this point	NCA	No camera access
BJ	Broken joint	MH	Manhole
CC	Circumferential crack	OJ	Open joint medium
CCJ	Circumferential crack on joint	OBP	Obstruction (external pipe or cable)
CIPR	Cured in place repair	REM	General observation at this point with explaination
CIPP	Cured in place pipe	RFJ	Roots fine at joint
CM	Multiple cracks	RMJ	Roots mass at joint
CMJ	Cracks multiple on joint	RE	Rodding eye
CN	Connection	RT	Root tap
CUD	Loss of vision (silt)	SW	Surface Water
CUW	Camera underwater	SA	Survey Abandoned
CUZ	Loss of vision (Camera under water)	UTL	Unable to locate
CW	Combined water	UTR	Unable to raise
CXD	Connection defective	UTS	Unable to survey
CXI	Connection intruding	WL	Water level
DC	Diameter of pipe changes	XP	Collapse to pipe
DEC	Settled desposits hard or compacted		
DEE	Encrustation scale light		
DEEJ	Encrustation light at joint		
DEF	Debris foulings		
DER	Debris rubble		
DES	Debris silt		
DEX	Othersettled deposits		
DEZ	Other attached deposits		
FC	Fracture circumferential		
FCJ	Fracture circumferential on joint		
FL	Fracture longitudinal		
FM, FMJ	Fracture multiple		
FW	Foul water		
GY	Gully		
H	Hole		
HJ	Hole at joint		
HPWJ	High pressure water jetting		
IR	Infiltration running		
IS	Infiltration seeping		
JD	Joint displaced medium		
JN	Junction		
JXD	Junction defective		
LD	Line down		
LL	Line left		
LR	Line right		
LU	Line up		

DISCLAIMER

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All apparatus shall be treated as live unless proved otherwise by the owner. It is the users responsibility to ensure that the information on the location of apparatus is provided to all persons (either direct labour or contractors) working in proximity to the apparatus.

Rev	Date	Description	Drawn	Q. Ref

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- Site Engineering
- Utility / CCTV Surveys
- Measured Building Surveys
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- Revit & BIM Models

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CLIENT
GCH Seven Limited

PROJECT
Barchester Healthcare
57 Top Dartford Road
Hextable, BR8 7SG

TITLE
CCTV Survey

SCALE	DATE
A1@ 1: 250	13/06/2022
DRAWN	**QUALITY REF**
AB	SB

Level datum	Drawing supplied by client
Grid orientation	Drawing supplied by client
Job number	43912

Drawing No.	Rev.
43912_CCTV	0

Comments
This plan should only be used for its original purpose. Greenhatch Group accepts no responsibility for this plan if supplied to any party other than the original client.

All dimensions should be checked on site prior to design and construction.

Drainage information (where applicable) has been visually inspected from the surface and therefore should be treated as approximate only.

Notes:

N

Station Information:

Station	Easting (m)	Northing (m)	Level (m)
GH1	552562.911	170841.202	57.085
GH2	552489.037	170802.642	54.406
GH3	552487.468	170865.762	58.280
GH4	552538.396	170863.905	58.589

OS Note:

Some services may have been omitted due to parked vehicles. The Ordnance Survey tile is to be used as a guide only.

OS Buildings | *Surveyed Buildings*

This survey has been orientated to the Ordnance Survey (O.S) National Grid OSGB36(15) via Global Navigation Satellite Systems (GNSS) and the O.S. Active Network (OS Net).

A true OSGB36 coordinate has been established near to the site centre via a transformation using the OSTN15GB & OSGM15GB transformation models.

The survey has been correlated to this point and a further one or more OSGB36 (15) points established to create a true O.S. bearing for angle orientation.

No scale factor has been applied to the survey therefore the coordinates shown are arbitrary & not true O.S. Coordinates which have a scale factor applied.

Please refer to Survey Station Table to enable establishment of the on-site grid and datum.

Legend:

Buildings
Wall
Kerb line
Line marking
Drop kerb
Centre line
Top of bank
Overhead Cable
Concrete edge
Tarmac edge
Grass verge
Canopy/Overhang
Verge
Bottom of bank
1 100.000 — Station and Name / Station Level
Tree / Bush / Sapling
Area of Undergrowth
Woodland
R: Ridge Level
E: Eaves Level
F: Flat Roof Level
Gate

Fence types:

I\W	Interwoven
I\R	Iron Railings
W\M	Wire Mesh
P\R	Post & Rail
P\W	Post & Wire
C\L	Chain Link
W\P	Wooden Panels
C\B	Close Boarded
S\P	Steel Palisade

IC	Inspection chamber	Bo	Bollard
PInv	Pipe invert	IB	Illuminated bollard
Gy	Gully	Bin	Rubbish bin
Bg	Back gully	Vp	Vent pipe
Dp	Down pipe	Grl	Ground light
Pipe	Pipe above ground	Lbox	Letter box
MH	Manhole	Stmp	Tree Stump
WL	Water level	Sty	Stile
Fl	Flood light	IFL	Internal floor level
Lp	Lamp post	THL	Threshold level
Tp	Telegraph post	Sp	Sign post
Ep	Electricity post	TH	Trialhole
Tl	Traffic light	BH	Borehole
Bus	Bus stop	ELC	Electric
Sv	Stop valve	BT	British Telecom
St	Stop tap	C'box	Control box
Er	Earth rod	TT	Tactile
Wm	Water meter	BP	Brick paved
Gas	Gas valve	CPS	Concrete paving slabs
Av	Air valve	CVR	Cover
ICU	Unidentified inspection	R/wall	Retaining wall
Wo	Wash out	TWL	Top of Wall Level
Re	Rodding eye	TCL	Tree canopy level
BB	Belisha beacon	G:	Girth
CTV	Cable tv	MG	Multi girth
Mkr	Marker post	IC	Inspection chamber
Gmkr	Gas marker post	CL:	Cover level
So	Soffit	IL:	Invert level
Fh	Fire hydrant	UTR	Unable to raise

Rev	Date	Description	Drawn	Q. Ref

greenhatch group

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Utility / CCTV Surveys
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t. (02072) 241806

CLIENT
GCH Seven Limited

PROJECT
57 Top Dartford Road, Hextable BR8 7SG

TITLE
Topographical Survey

SCALE	DATE
A0@ 1: 200	27.05.22
DRAWN	QUALITY REF
JS	GH13870

Level datum	See note
Grid orientation	See note
Job number	43912

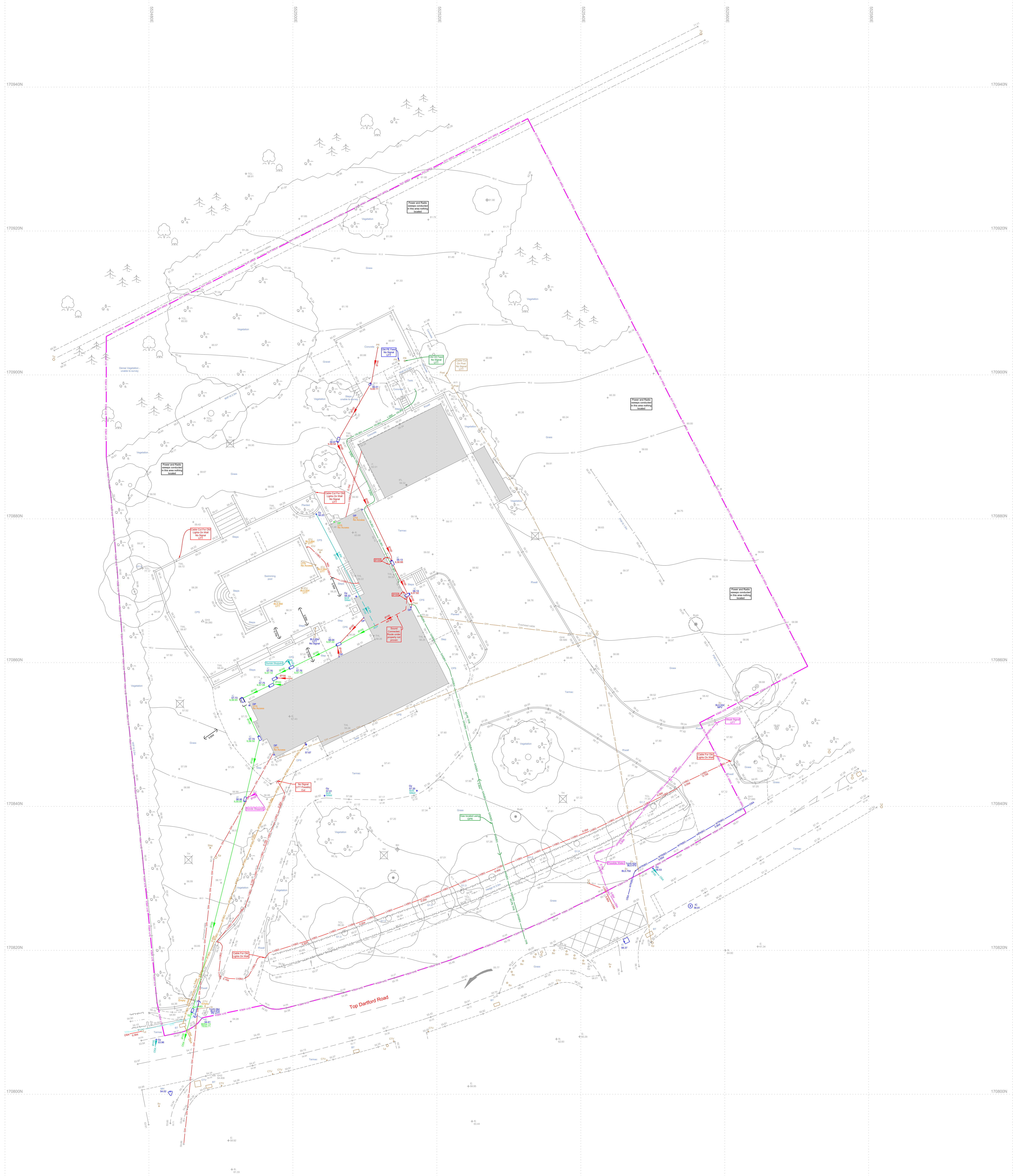
Drawing No.	Rev.
43912_T	0

Comments
This plan should only be used for its original purpose. Greenhatch Group accepts no responsibility for this plan if supplied to any party other than the original client.

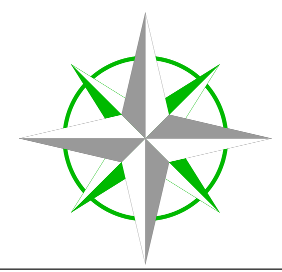
All dimensions should be checked on site prior to design and construction.

Drainage information (where applicable) has been visually inspected from the surface and therefore should be treated as approximate only.

Notes:



N



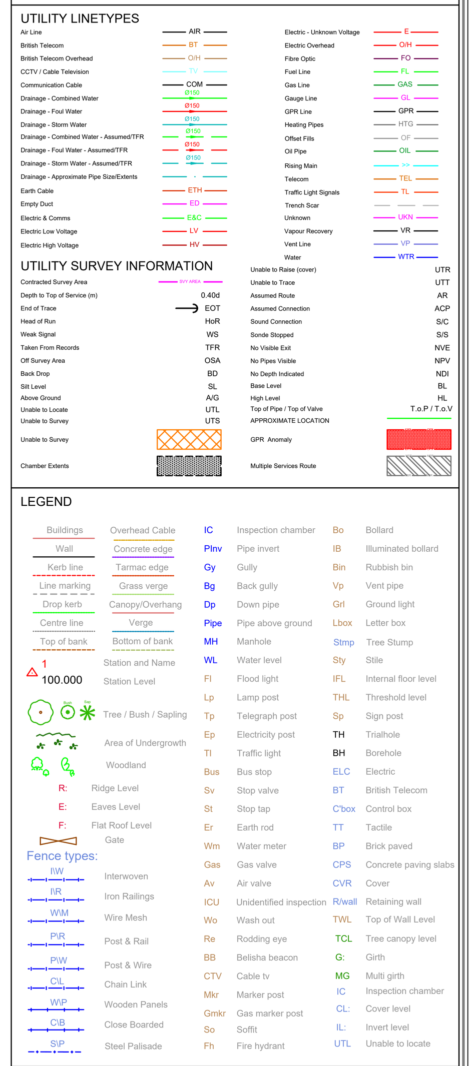
NOTES;

In all cases please call the BT Dial before you dig service to mark their own plant before any site works commence

0800 917 3993

Always consult utility plans

1. *Drainage Information provided has been determined without man entry into the chambers. Whilst every effort has been made to correctly identify the duty/pipes/chamber detail, it is recommended that this information should be checked in areas that are critical to the future proposal/development.*
2. *All sewer runs are presumed to be straight line connections between chambers unless proven otherwise by the use of a sonde or CCTV survey.*
3. *All Gas in area is plastic. Unable to trace. Located using GPR in one location.*
4. *All Swimming pool pipes plastic. Unable to trace.*



PAS 128 : 2014 LEVEL B SURVEY

QUALITY LEVEL	CRITERIA USED IN THE DETERMINATION OF QUALITY LEVEL	ACCURACY
QL-B4	A UTILITY SEGMENT WHICH IS SUSPECTED TO EXIST BUT HAS NOT BEEN DETECTED AND THEREFORE SHOWN AS AN ASSUMED ROUTE. **(NO DETECTION POSSIBLE)**	**UNDEFINED**
QL-B3/B3P	POSITION OF THE UTILITY DETECTED BY ONE OF THE GEOPHYSICAL TECHNIQUES. **(EML OR GPR DETECTION WITH LIMITED CONFIDENCE IN DEPTH)**	**+/- 500mm HORIZONTAL. UNDEFINED VERTICAL**
QL-B2/B2P	POSITION AND DEPTH OF THE UTILITY DETECTED BY ONE OF THE GEOPHYSICAL TECHNIQUES. **(EML OR GPR DETECTION WITH CONFIDENCE IN DEPTH)**	**+/- 250mm OR +/- 40% OF DETECTED DEPTH, WHICHEVER IS GREATER (HORIZONTAL) & +/- 40% OF DETECTED DEPTH (VERTICAL)**
QL-B1/B1P	POSITION AND DEPTH OF THE UTILITY DETECTED BY MULTIPLE GEOPHYSICAL TECHNIQUES. **(EML + GPR DETECTION)**	**+/- 150mm OR +/- 15% OF DETECTED DEPTH, WHICHEVER IS GREATER (HORIZONTAL) & +/- 15% OF DETECTED DEPTH (VERTICAL)**

DISCLAIMER

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Rev	Date	Description	Drawn	Q. Ref.

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Site Engineering
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London: 27, Cornwall Terrace Mews, Regents Park, London, NW1 5LL, t. (02072) 241806

CLIENT
GCH Seven Limited

PROJECT
57 Top Dartford Road, Hextable BR8 7SG

TITLE
Utility Survey

SCALE	DATE
A0@ 1: 200	03/06/22
DRAWN	QUALITY REF
JRM	GH13900

Level datum	See note
Grid orientation	See note
Job number	43912

Drawing No.	Rev.
43912_UG	0

Comments
This plan should only be used for its original purpose. Greenhatch Group accepts no responsibility for this plan if supplied to any party other than the original client.

All dimensions should be checked on site prior to design and construction.

Drainage information (where applicable) has been visually inspected from the surface and therefore should be treated as approximate only.

Notes:

APPENDIX III

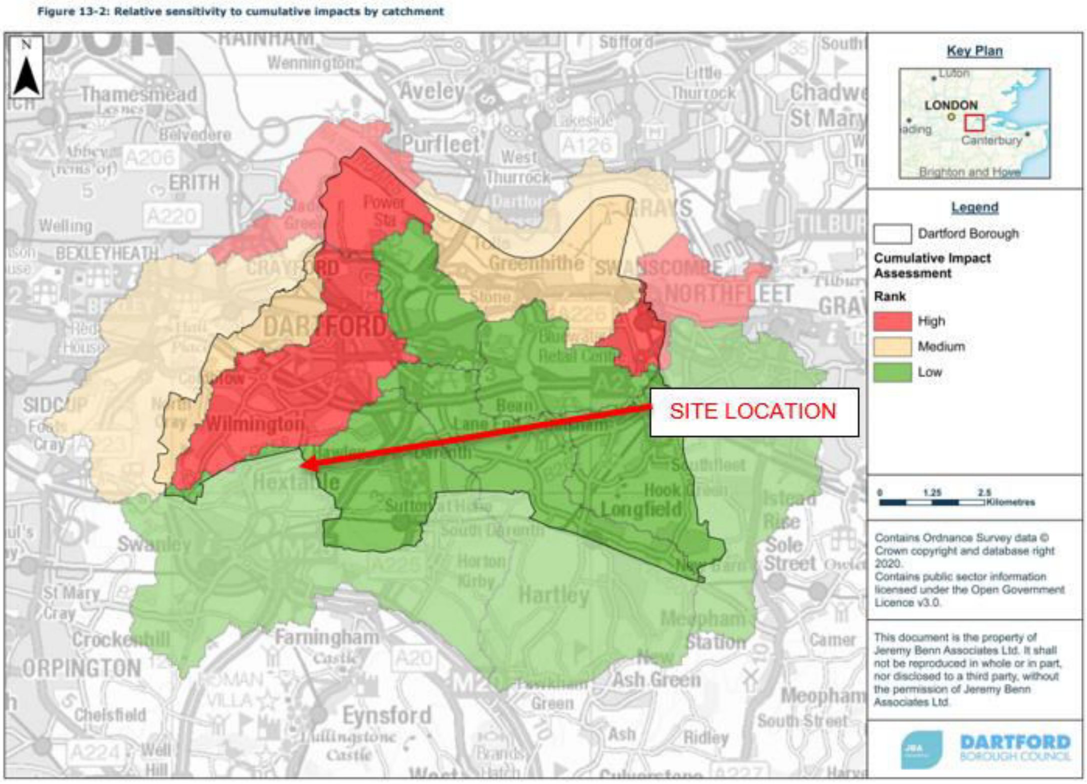

Figure 9 – SFRA mapping for Cumulative impact Assessment.

5.3.2 A ground investigation was carried out in July 2021. This found that the permeability of the ground across the site were not conducive for shallow infiltration features due to the size of attenuation needed to capture and infiltrate via soakaways. There was insufficient available space, given the dimensions of the proposed building.

5.3.3 Further ground investigation was undertaken during October 2021 that included 4 No. trial pits and infiltration tests. Again these determined that shallow infiltration was not a viable option to drain the site.

5.3.4 Given the above results, deep bore investigations where carried out early December 2021. The results confirmed that to a depth of 20m; no ground water was encountered to a depth of 30.0m and infiltration rates are acceptable to drain within the development site boundaries. All results of ground investigations can be found in Appendix B.

Permeability rates recorded from the falling head tests are presented in the table below:

Location	Depth (m)	Run	Permeability k (m/s)
BH01	10	1	$1.74X10^{-4}$
	15	1	$5.73X10^{-4}$
		2	$2.61X10^{-4}$
	20	1	$4.31X10^{-4}$
		2	$3.76X10^{-4}$
BH02	10	1	$2.46X10^{-4}$
		2	$4.12X10^{-4}$
	15	1	$1.37X10^{-4}$
		2	$4.03X10^{-4}$
	20	1	$2.29X10^{-4}$
		2	$4.98X10^{-4}$

Figure 10 – extract of tabled permeability results

clancy consulting	Project Title: 57 Top Dartford Road, Hextable		WS01
	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 1 Of 2
	GL (mAOD):	N Coord: 0.192202	E Coord: 51.416364
Date: 07/07/2021	Method: Window Sampler	Driller: CK Drilling Ltd	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
0.40	ES				0.40	MADE GROUND: Grass over very soft dark brown silty sandy gravelly clay, with low cobble content and rootlets. Sand is fine to coarse. Gravel is sub-rounded to sub-angular, fine to coarse of flint, chalk and brick. Cobbles are sub-rounded of flint.		
					1.20	Structureless white CHALK composed of uncompacted sandy gravelly SILT, with low cobble content. Gravel is sub-rounded to sub-angular, fine to coarse of weak to very weak, low density white chalk and flint. Cobbles are sub-rounded to sub-angular of flint (LEWES NODULAR CHALK FORMATION)		
1.50 - 1.60	GT				1.50	Structureless white CHALK composed of uncompacted sandy SILT, with localised iron staining. (LEWES NODULAR CHALK FORMATION)		
					1.80	Weak, medium density white CHALK composed of uncompacted SILT. No discernible fracture sets. (LEWES NODULAR CHALK FORMATION)		
					2.40	Structureless white CHALK composed of uncompacted sandy SILT, with low cobble content and localised iron staining. Cobbles are sub-rounded to sub-angular of flint. (LEWES NODULAR CHALK FORMATION)		
					3.55	Weak, medium density white CHALK. No discernible fracture sets. (LEWES NODULAR CHALK FORMATION)		
					4.00	Structureless white CHALK composed of uncompacted sandy SILT, with low cobble content and localised iron staining. Cobbles are sub-rounded to sub-angular of flint. (LEWES NODULAR CHALK FORMATION)		
						Borehole Continues		

Depth scale: 1.00, 2.00, 3.00, 4.00

KEY

D - Disturbed Sample
B - Bulk Sample
U - Undisturbed
W - Water Sample
S - Standard Penetration Test
C - Cone Penetration Test
N - Penetration Test 'N' Value
V - Hand Shear Vane kPa
∇ - Groundwater Strike
▼ - Groundwater Level

AGS

REMARKS

No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole backfilled with arisings upon completion.

Scale: 1:25

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

clancy consulting	Project Title: 57 Top Dartford Road, Hextable		WS01
	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 2 Of 2
	GL (mAOD):	N Coord: 0.192202	E Coord: 51.416364
Date: 07/07/2021	Method: Window Sampler	Driller: CK Drilling Ltd	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
					4.25	Structureless white CHALK composed of uncompacted sandy SILT, with low cobble content and localised iron staining. Cobbles are sub-rounded to sub-angular of flint. (LEWES NODULAR CHALK FORMATION)		
						End Of Borehole At 4.25 m		
					5.00			
					6.00			
					7.00			
					8.00			

KEY

D - Disturbed Sample
B - Bulk Sample
U - Undisturbed
W - Water Sample
S - Standard Penetration Test
C - Cone Penetration Test
N - Penetration Test 'N' Value
V - Hand Shear Vane kPa
∇ - Groundwater Strike
▼ - Groundwater Level

AGS

REMARKS

No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole backfilled with arisings upon completion.

Scale: 1:25

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

clancy consulting	Project Title: 57 Top Dartford Road, Hextable		WS02
	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 1 Of 1
	GL (mAOD):	N Coord: 0.192361	E Coord: 51.416238
Date: 07/07/2021	Method:	Driller: CK Drilling Ltd	Logged By: EB

Depth (m)	Type	Test Result	Level
0.20	ES		
2.80 - 3.00	GT		

Depth (m)	Description
0.20	TOPSOIL: Grass over soft dark brown sandy gravelly CLAY, with low cobble content and rootlets. Sand is fine to coarse. Gravel is sub-rounded to sub-angular, fine to coarse of flint and chalk. Cobbles are sub-rounded of flint. Increasing chalk gravel content with depth. (LEWES NODULAR CHALK FORMATION)
0.50	Structureless white CHALK composed of uncompacted sandy gravelly SILT. Gravel is sub-rounded to sub-angular, fine to coarse of weak to very weak, low density white chalk and flint. (LEWES NODULAR CHALK FORMATION)
0.75	Weak, medium density white CHALK, with low cobble content. Cobbles are sub-rounded of flint. No discernible fracture sets. (LEWES NODULAR CHALK FORMATION)
1.00	
1.16	Structureless white CHALK composed of uncompacted SILT. (LEWES NODULAR CHALK FORMATION)
1.80	Structureless white CHALK composed of uncompacted sandy gravelly SILT, with low cobble content. Gravel is sub-rounded to sub-angular, fine to coarse of weak to very weak, low density white chalk. Cobbles are sub-rounded of flint. (LEWES NODULAR CHALK FORMATION)
2.00	
2.10	Structureless white CHALK composed of uncompacted SILT, with rare rounded flint gravel and occasional black specks. (LEWES NODULAR CHALK FORMATION)
3.00	Structureless white CHALK composed of uncompacted SILT, with low cobble content and localised iron staining. Cobbles are sub-rounded of flint. (LEWES NODULAR CHALK FORMATION)
3.40	End Of Borehole At 3.40 m
4.00	

Water | Standpipe

KEY

D - Disturbed Sample
B - Bulk Sample
U - Undisturbed
W - Water Sample
S - Standard Penetration Test
C - Cone Penetration Test
N - Penetration Test 'N' Value
V - Hand Shear Vane kPa
∇ - Groundwater Strike
▼ - Groundwater Level

AGS

REMARKS

No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole backfilled with arisings upon completion.

Scale: 1:25

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

clancy consulting	Project Title: 57 Top Dartford Road, Hextable		**WS03**
	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 1 Of 1
	GL (mAOD):	N Coord: 0.192084	E Coord: 51.416154
Date: 07/07/2021	Method: Window Sampler	Driller: CK Drilling Ltd	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
0.15	ES				0.30	TOPSOIL: Grass over very soft dark brown silty sandy gravelly CLAY, with low cobble content, rootlets and roots. Sand is fine to coarse. Gravel is sub-rounded to sub-angular, fine to coarse of flint and chalk. Cobbles are sub-rounded of flint.		
					0.43	Structureless greyish white CHALK composed of uncompacted sandy gravelly SILT, with low cobble content. Gravel is sub-rounded to sub-angular, fine to coarse of weak to very weak, low density chalk. Cobbles are sub-angular of flint. (LEWES NODULAR CHALK FORMATION)		
					0.90	Structureless white CHALK composed of uncompacted sandy gravelly silt. Gravel is sub-rounded to sub-angular, fine to coarse of weak to very weak, low density white chalk. (LEWES NODULAR CHALK FORMATION)		
					1.00			
					2.00			
					2.20	Weak, medium density white CHALK, with shell fragments. No discernible fracture sets. (LEWES NODULAR CHALK FORMATION)		
2.50	GT				2.75	Structureless white CHALK composed of uncompacted SILT, with low cobble content. Cobbles are sub-rounded of flint. (LEWES NODULAR CHALK FORMATION)		
					3.00			
					3.30	Weak, medium density white CHALK, with localised iron staining. No discernible fracture sets. (LEWES NODULAR CHALK FORMATION)		
						End Of Borehole At 3.30 m		
					4.00			

KEY
D - Disturbed Sample
B - Bulk Sample
U - Undisturbed
W - Water Sample
S - Standard Penetration Test
C - Cone Penetration Test
N - Penetration Test 'N' Value
V - Hand Shear Vane kPa
∇ - Groundwater Strike
▼ - Groundwater Level

AGS

REMARKS
No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole backfilled with arisings upon completion.

Scale: 1:25

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

clancy consulting	Project Title: 57 Top Dartford Road, Hextable	**WS04**
	Project Number: 10/1781 | Client: Barchester Healthcare Ltd.	Sheet 1 Of 1
	GL (mAOD): | N Coord: 0.191532	E Coord: 51.416099
Date: 07/07/2021	Method: Window Sampler | Driller: CK Drilling Ltd	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
0.25	ES				0.20	MADE GROUND: Very soft dark brown silty sandy gravelly clay. Sand is fine. Gravel is sub-rounded to sub-angular fine to coarse of flint.		
					0.50	MADE GROUND: Grass over very soft dark brown sandy gravelly clay, with low cobble content and rootlets. Fragments of charcoal. Sand is fine to coarse. Gravel is sub-rounded to sub-angular, fine to coarse of flint, chalk and brick. Cobbles are sub-rounded of flint.		
					0.70	Structureless greyish white CHALK composed of uncompacted sandy gravelly SILT, with low cobble content. Gravel is sub-rounded to sub-angular, fine to coarse of weak to very weak, low density white chalk and flint. Cobbles are sub-rounded to sub-angular of flint. (LEWES NODULAR CHALK FORMATION)		
					1.00			
					1.10	Structureless yellowish white CHALK composed of uncompacted gravelly SILT, with low cobble content. Gravel is sub-rounded to sub-angular, fine to coarse of weak to very weak, low density white chalk. Cobbles are sub-rounded of flint. (LEWES NODULAR CHALK FORMATION)		
					1.40	Structureless brownish white CHALK composed of uncompacted sandy gravelly SILT. Gravel is sub-angular, fine to coarse of weak low density white chalk. (LEWES NODULAR CHALK FORMATION)		
1.50	GT							
					1.76	Structureless yellowish white CHALK composed of uncompacted SILT, with medium cobble content and localised iron staining. Cobbles are sub-rounded to sub-angular of flint. (LEWES NODULAR CHALK FORMATION)		
					2.00			
					2.35	Weak, medium density yellowish white CHALK, with low cobble content and localised iron staining. Cobbles are sub-rounded to sub-angular of flint. No discernible fracture sets. (LEWES NODULAR CHALK FORMATION)		
					2.66	Structureless white CHALK composed of uncompacted SILT, with medium cobble content and localised iron staining. Cobbles are rounded to sub-angular of flint. (LEWES NODULAR CHALK FORMATION)		
					3.00			
					3.40	Weak, medium density white CHALK, with low cobble content and localised iron staining. Cobbles are sub-rounded to sub-angular of flint. No discernible fracture sets. (LEWES NODULAR CHALK FORMATION)		
					4.00			

End Of Borehole At 3.40 m

Draft

KEY

D - Disturbed Sample
B - Bulk Sample
U - Undisturbed
W - Water Sample
S - Standard Penetration Test
C - Cone Penetration Test
N - Penetration Test 'N' Value
V - Hand Shear Vane kPa
▽ - Groundwater Strike
▼ - Groundwater Level

AGS

REMARKS

No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole backfilled with arisings upon completion.

Scale: 1:25

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

clancy consulting	Project Title: 57 Top Dartford Road, Hextable		WS05
	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 1 Of 1
	GL (mAOD):	N Coord: 0.191476	E Coord: 51.416428
Date: 08/07/2021	Method:	Driller: CK Drilling Ltd	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
					0.30	MADE GROUND: Grass over soft dark brown sandy gravelly clay, with rootlets. Fragments of wood and charcoal. Sand is fine to coarse. Gravel is sub-rounded to angular, fine to coarse of flint, chalk and brick.		
0.50	ES				0.45	MADE GROUND: Soft brown very sandy gravelly clay, with lenses of increased clay content and rootlets. Sand is fine to coarse. Gravel is sub-rounded to angular, fine to coarse of flint, chalk, brick and glass.		
					0.73	MADE GROUND: Soft reddish brown very sandy gravelly clay, with rootlets. Sand is fine to coarse. Gravel is sub-rounded to angular, fine to coarse of chalk, flint and ceramic.		
1.45 - 1.60	GT				0.85	Structureless reddish white CHALK composed of uncompacted gravelly SILT, with low cobble content. Gravel is sub-rounded to sub-angular, fine to coarse of weak, low-density white chalk. Cobbles are sub-rounded to sub-angular of flint and chalk.		
					1.15	Structureless white CHALK composed of uncompacted SILT, with localised iron staining.		
					2.45	Structureless yellowish white CHALK composed of uncompacted SILT, with low cobble content. Cobbles are sub-rounded to sub-angular of flint.		
						End Of Borehole At 2.45 m		

Depth scale: 1.00, 2.00, 3.00, 4.00

KEY

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W - Water Sample
S - Standard Penetration Test
C - Cone Penetration Test
N - Penetration Test 'N' Value
V - Hand Shear Vane kPa
▽ - Groundwater Strike
▼ - Groundwater Level

REMARKS

No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole backfilled with arisings upon completion.

Scale: 1:25

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

clancy consulting	Project Title: 57 Top Dartford Road, Hextable		WS06
	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 1 Of 1
	GL (mAOD):	N Coord: 0.191582	E Coord: 51.416552
Date: 08/07/2021	Method:	Driller: CK Drilling Ltd	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
0.30	ES				0.20	MADE GROUND: Grass over very soft dark brown silty sandy slightly gravelly clay, with rootlets. Sand is fine to coarse. Gravel is sub-rounded to sub-angular, fine to coarse of flint.		
					0.35	MADE GROUND: Very soft dark brown sandy gravelly clay, with low cobble content, rootlets and roots. Sand is fine to coarse. Gravel is rounded to sub-angular, fine to coarse of chalk, flint and brick. Cobbles are sub-rounded to sub-angular of flint.		
					0.90	Structureless yellowish white CHALK composed of uncompacted sandy gravelly SILT, with low cobble content. Gravel is sub-rounded to sub-angular, fine to coarse of weak to very weak, low density white chalk. Cobbles are sub-rounded to sub-angular of flint. (LEWES NODULAR CHALK FORMATION)		
1.70 - 1.80	GT				1.00	Structureless yellowish white CHALK composed of uncompacted SILT, with localised iron staining. (LEWES NODULAR CHALK FORMATION)		
					2.40	End Of Borehole At 2.40 m		

KEY
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S - Standard Penetration Test
C - Cone Penetration Test
N - Penetration Test 'N' Value
V - Hand Shear Vane kPa
∇ - Groundwater Strike
▼ - Groundwater Level

AGS

REMARKS
No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole backfilled with arisings upon completion.

Scale: 1:25

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

	Project Title: 57 Top Dartford Road, Hextable		**WS07**
	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 1 Of 1
	GL (mAOD):	N Coord: 0.191707	E Coord: 51.41648
Date: 08/07/2021	Method: Window Sampler	Driller: CK Drilling Ltd	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
0.10	ES				0.25	MADE GROUND: Grass over very soft dark brown silty sandy gravelly clay, with rootlets. Sand is fine to coarse. Gravel is sub-rounded to sub-angular, fine to coarse of flint and chalk.		
					0.30	MADE GROUND: Soft brown sandy gravelly clay, with low cobble content and rootlets. Sand is fine to coarse. Gravel is sub-rounded to angular, fine to coarse of flint, chalk and rare brick. Cobbles are sub-angular to sub-rounded of flint.		
					0.90	Structureless yellowish white CHALK composed of uncompacted sandy gravelly SILT, with low cobble content. Gravel is sub-rounded to sub-angular, fine to coarse of weak, low density white chalk. Cobbles are sub-rounded to sub-angular of flint. (LEWES NODULAR CHALK FORMATION)		
					1.00			
					1.48	Structureless white CHALK composed of uncompacted SILT, with localised iron staining. (LEWES NODULAR CHALK FORMATION)		
					2.00	Structureless yellowish white CHALK composed of uncompacted sandy gravelly SILT, with localised iron staining. Gravel is sub-rounded to sub-angular, fine to coarse of weak, low density white chalk. (LEWES NODULAR CHALK FORMATION)		
					2.48	Structureless white CHALK composed of uncompacted SILT, with occasional black specks and localised iron staining. (LEWES NODULAR CHALK FORMATION)		
2.80 - 3.00	GT				3.00	Structureless yellowish white CHALK composed of uncompacted gravelly SILT, with localised iron staining. Gravel is sub-rounded to sub-angular, fine to coarse of weak, low density white chalk . (LEWES NODULAR CHALK FORMATION)		
					3.35	End Of Borehole At 3.35 m		
					4.00			

KEY

D - Disturbed Sample
B - Bulk Sample
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W - Water Sample
S - Standard Penetration Test
C - Cone Penetration Test
N - Penetration Test 'N' Value
V - Hand Shear Vane kPa
▽ - Groundwater Strike
▼ - Groundwater Level

REMARKS

No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole backfilled with arisings upon completion.

Scale: 1:25

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

Key

Soakaway locations

Rev	Date	Description	By	Check	App.
00	Oct 2021	Original Drawing	EB	RP	NR

Client: Barchester Healthcare Ltd

Project: 57 Top Dartford Road
Hextable
Kent

Office: London

Discipline: GeoEnvironmental

Title: Exploratory Hole Location Plan

Scale @ A3: NTS

Status: Live

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Originator	Job Number	Discipline	Building/Zone
EB	10/1781	GEO	-

Type	Level	Drawing No.	Revision
GA	00	03	00

Birmingham 0121 200 7800 . Glasgow 0141 222 1720 . Liverpool 0151 227 5300 . London 020 3077 0970 . Manchester 0161 613 6000 . Newcastle 0191 221 0702 . Norwich 01603 305190 . Prestwick 01292 475375 . Reading 0118 941 7888

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Project Title: 57 Top Dartford Road, Hextable			**TP01**
Project Number: 10/1781	Client: Barchester Healthcare Ltd.		Sheet 1 Of 1
GL (mAOD):	N Coord: 170880		E Coord: 552534
Date: 07/10/2021	Method: JCB	Logged By: EB	Scale: 1:10

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water
					0.40	TOPSOIL: Grass over very soft dark brown sandy gravelly CLAY, with rootlets. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular of flint and chalk.	
					1.00	Structureless CHALK, composed of brownish white to white sandy gravelly SILT. Gravel is weak, low density, white, fine to coarse and subangular. (LEWES NODULAR CHALK FORMATION)	
					1.30	Structureless CHALK, composed of yellowish white silty slightly sandy GRAVEL and COBBLES. Clasts are weak, low density white with localised iron staining, fine to coarse and subangular. Low subangular flint cobble content. (LEWES NODULAR CHALK FORMATION) 1.10 - 1.30 Increased flint cobble content.	
					1.50	Structureless CHALK, composed of silty slightly sandy GRAVEL and COBBLES. Clasts are weak, low to medium density, white, fine to coarse and subangular. Low subangular flint cobble content. (LEWES NODULAR CHALK FORMATION)	
						End Of Trial Pit At 1.50 m	
					2.00		

KEY

D - Disturbed Sample
B - Bulk Sample
W - Water Sample
V - Hand Shear Vane kPa

▽ - Groundwater Strike
▼ - Groundwater Level

AGS

REMARKS

No Groundwater Encountered
Location scanned with CAT prior to excavation. Trial pit backfilled with arisings upon completion.

clancy consulting	Project Title: 57 Top Dartford Road, Hextable		TP02
	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 1 Of 1
	GL (mAOD):	N Coord: 170833	E Coord: 552513
Date: 07/10/2021	Method: JCB	Logged By: EB	Scale: 1:10

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water
					0.35	MADE GROUND: Grass over very soft dark brown silty sandy gravelly CLAY, with roots and rootlets. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular of flint, chalk, brick and glass.	
					0.55	Very soft light orangish brown very sandy gravelly CLAY, with low cobble content, roots and rootlets. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular of flint and chalk. Cobbles are subangular of flint.	
					0.75	Structureless CHALK, composed of brownish white sandy gravelly SILT. Gravel is weak, low density, white, fine to coarse and subangular. Low subangular flint cobble content. (LEWES NODULAR CHALK FORMATION)	
					1.30	Structureless CHALK, composed of white silty slightly sandy GRAVEL and COBBLES. Clasts are weak, low to medium density, white with localised iron staining, fine to coarse and subangular. Medium subangular flint cobble content. (LEWES NODULAR CHALK FORMATION) 0.90 - 1.00 Increased flint cobble content.	
					1.50	Structureless CHALK, composed of yellowish white silty sandy GRAVEL and COBBLES. Clasts are weak, low to medium density, white with localised iron staining, fine to coarse and subangular. Low subangular flint cobble content. (LEWES NODULAR CHALK FORMATION)	
						End Of Trial Pit At 1.50 m	

Depth scale: 1.00, 2.00

Draft

KEY
D - Disturbed Sample
B - Bulk Sample
W - Water Sample
V - Hand Shear Vane kPa
▽ - Groundwater Strike
▼ - Groundwater Level

AGS

REMARKS
No Groundwater Encountered
Location scanned with CAT prior to excavation. Trial pit backfilled with arisings upon completion.

clancy consulting	Project Title: 57 Top Dartford Road, Hextable		TP03
	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 1 Of 1
	GL (mAOD):	N Coord: 170856	E Coord: 552485
Date: 07/10/2021	Method: JCB	Logged By: EB	Scale: 1:10

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water
					0.36	MADE GROUND: Grass over very soft sandy gravelly CLAY, with roots and rootlets. Sand is fine to coarse. Gravel is fine to coarse, subrounded to angular of flint, chalk, brick, glass and metal.	
					0.50	Structureless CHALK, composed of brownish white sandy gravelly SILT. Gravel is weak, low density, white, fine to coarse and subangular. (LEWES NODULAR CHALK FORMATION)	
					1.00	Structureless CHALK, composed of white slightly sandy gravelly SILT. Gravel is weak, low density, white, fine to coarse and subangular. (LEWES NODULAR CHALK FORMATION)	
					1.35	Structureless CHALK, composed of white silty slightly sandy GRAVEL and COBBLES. Clasts are weak, medium density, white, fine to coarse and subangular. Low subangular flint cobble content. (LEWES NODULAR CHALK FORMATION)	
					1.45	Structureless CHALK, composed of yellowish white silty slightly sandy GRAVEL and COBBLES. Clasts are weak, medium density, white with localised iron staining, fine to coarse and subangular. Medium subangular flint cobble content. (LEWES NODULAR CHALK FORMATION)	
						End Of Trial Pit At 1.45 m	
					2.00		

KEY

D - Disturbed Sample
B - Bulk Sample
W - Water Sample
V - Hand Shear Vane kPa

▽ - Groundwater Strike
▼ - Groundwater Level

AGS

REMARKS

No Groundwater Encountered
Location scanned with CAT prior to excavation. Trial pit backfilled with arisings upon completion.

Project Title: 57 Top Dartford Road, Hextable		TP04
Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 1 Of 1
GL (mAOD):	N Coord: 170833	E Coord: 552488
Date: 07/10/2021	Method: JCB	Logged By:	Scale: 1:10

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water
					0.30	TOPSOIL: Grass over very soft dark brown silty sandy slightly gravelly CLAY, with roots and rootlets. Sand is fine to medium. Gravel is fine to coarse, subrounded to subangular of flint and chalk.	
					0.46	Very soft light orangish brown sandy gravelly CLAY, with rootlets. Sand is fine to medium. Gravel is fine to coarse, subrounded to subangular of flint and chalk.	
					0.60	Structureless CHALK, composed of brownish white sandy gravelly SILT. Gravel is weak, low density, white fine to coarse and subangular. (LEWES NODULAR CHALK FORMATION)	
					0.90	Structureless chalk composed of white sandy gravelly cobbly SILT. Clasts are weak, low density, white, fine to coarse and subangular. Medium subangular flint cobble content. (LEWES NODULAR CHALK FORMATION)	
					1.60	Structureless CHALK, composed of white silty sandy GRAVEL and COBBLES. Clasts are weak, medium density, white with localised iron staining, fine to coarse and subangular. Medium subangular flint cobble content. (LEWES NODULAR CHALK FORMATION) 1.35 - 1.45 Subangular flint boulder.	
						End Of Trial Pit At 1.60 m	

Scale depths: 1.00, 2.00

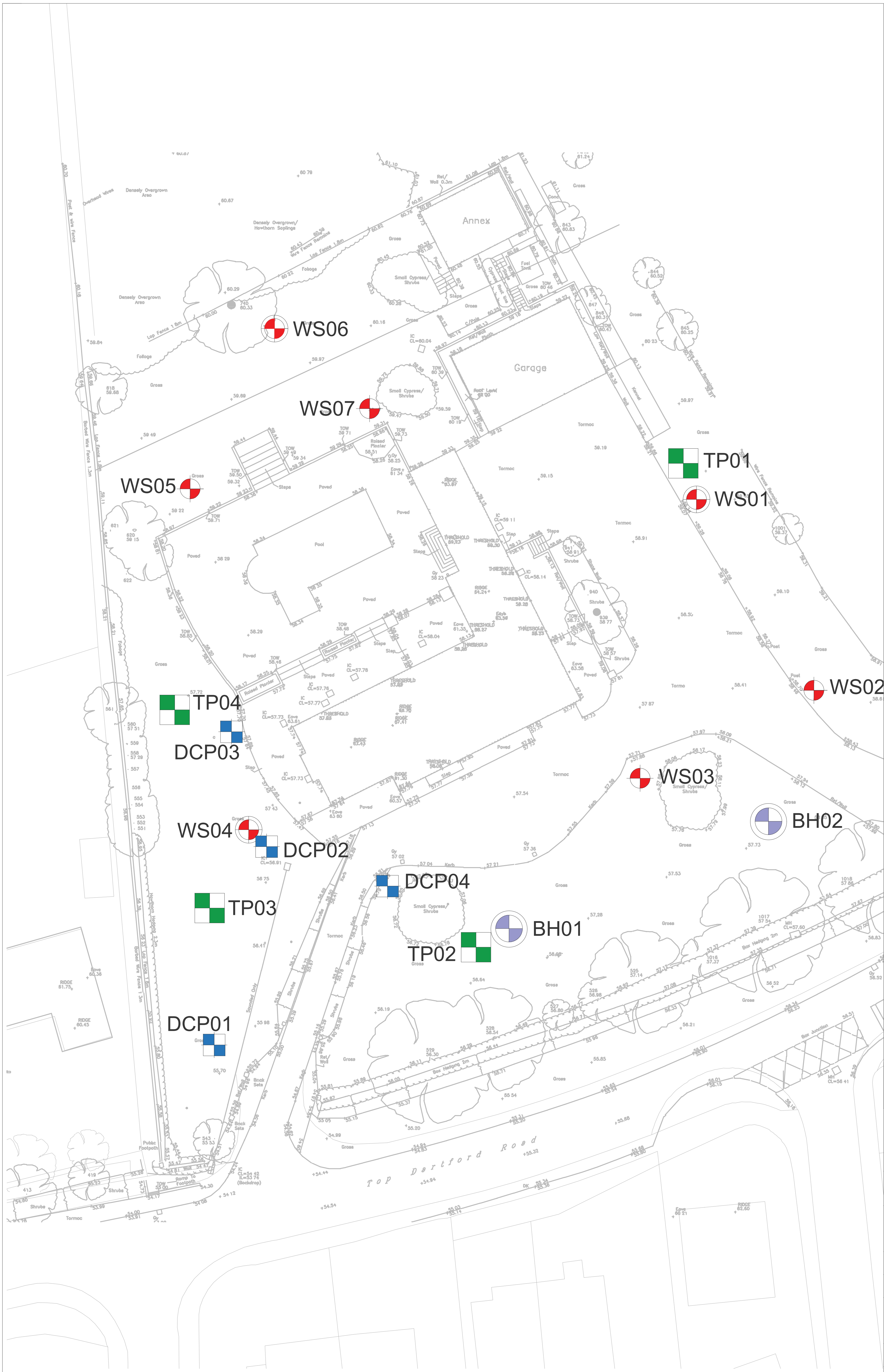
KEY

D - Disturbed Sample
B - Bulk Sample
W - Water Sample
V - Hand Shear Vane kPa
∇ - Groundwater Strike
▼ - Groundwater Level

AGS

REMARKS

No Groundwater Encountered
Location scanned with CAT prior to excavation. Trial pit backfilled with arisings upon completion.



Key

- Window sample borehole with falling head tests
- Window sample boreholes
- DCP test locations
- Soakaway locations
- Cable percussive boreholes with falling head tests

Rev	Date	Description	By	Check	App.
00	Dec 2021	Original Drawing	EB	RP	NR

Client: Barchester Healthcare Ltd

Project: 57 Top Dartford Road, Hextable, Kent

Office: London

Discipline: GeoEnvironmental

Title: Exploratory Hole Location Plan

Scale @ A3: NTS

Status: Live

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Originator	Job Number	Discipline	Building/Zone
EB	10/1781	GEO	-

Type	Level	Drawing No.	Revision
GA	00	04	00

	Project Title: 57 Top Dartford Road, Hextable		**BH01**
clancy consulting	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 1 Of 5
	GL (mAOD): 57.73	N Coord: 170835	E Coord: 552516
Date: 06/12/2021-07/12/2021	Method: Cable Percussion	Driller: South-Eastern Drilling Services	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
			57.48		0.25	MADE GROUND: Grass over very soft dark brown silty sandy gravelly CLAY, with roots and rootlets. Sand is fine to coarse. Gravel is fine to coarse, subrounded to angular of flint, chalk, brick and charcoal.		
			57.33		0.40			
			57.23		0.50	Soft light brown silty slightly sandy gravelly CLAY, with roots and rootlets. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular of flint and chalk. (LEWES NODULAR CHALK FORMATION)		
			56.73		1.00	Structureless CHALK, composed of brownish white sandy gravelly SILT. Gravel is weak, low to medium density, white and subangular. (LEWES NODULAR CHALK FORMATION)		
			56.63		1.10	Structureless CHALK, composed of brownish white sandy gravelly SILT, with medium cobble content. Clasts are weak, low to medium density, white and subangular. (LEWES NODULAR CHALK FORMATION)		
			55.73		2.00			
			54.73		3.00	Structureless CHALK, composed of white, sandy gravelly SILT with medium chalk cobble content. Clasts are weak, low density, white with localised iron staining and subangular. Low subangular flint gravel and cobble content. (LEWES NODULAR CHALK FORMATION)		
			53.73		4.00	Structureless CHALK, composed of cream gravelly SILT, with medium chalk cobble content. Clasts are weak, low density, white and subangular. Low subangular flint gravel and cobble content. (LEWES NODULAR CHALK FORMATION)		
			52.73		5.00	Structureless CHALK, composed of greyish white gravelly SILT, with medium chalk cobble content. Clasts are weak, low density, cream to white and subangular. Subrounded to subangular flint gravel. (LEWES NODULAR CHALK FORMATION)		
			51.73		6.00	Structureless CHALK, composed of cream gravelly SILT, with medium chalk cobble content. Clasts are weak, low density, white and subangular. Lenses of brownish white chalk silt with rare rootlets. Low subangular flint gravel and cobble content. (LEWES NODULAR CHALK FORMATION)		

Borehole Continues

KEY

D - Disturbed Sample
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N - Penetration Test 'N' Value
V - Hand Shear Vane kPa
∇ - Groundwater Strike
▼ - Groundwater Level

AGS

REMARKS

No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole installed to a depth of 30.00m bgl.

Scale: 1:40

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

clancy consulting	Project Title: 57 Top Dartford Road, Hextable		BH01
	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 2 Of 5
	GL (mAOD): 57.73	N Coord: 170835	E Coord: 552516
Date: 06/12/2021-07/12/2021	Method: Cable Percussion	Driller: South-Eastern Drilling Services	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
						Structureless CHALK, composed of cream gravelly SILT, with medium chalk cobble content. Clasts are weak, low density, white and subangular. Lenses of brownish white chalk silt with rare rootlets. Low subangular flint gravel and cobble content. (LEWES NODULAR CHALK FORMATION)		
			47.23		10.50	Structureless CHALK, composed of white to cream silty GRAVEL and occasional COBBLES. Clasts are weak, low density, white with localised iron staining and subangular. Rare subangular flint cobbles. (LEWES NODULAR CHALK FORMATION)		
						Structureless CHALK, composed of white silty GRAVEL and COBBLES. Clasts are weak, low density, white with localised iron staining and subangular. Low subangular flint cobble content. (LEWES NODULAR CHALK FORMATION)		
						Borehole Continues		

KEY
D - Disturbed Sample
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AGS

REMARKS
No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole installed to a depth of 30.00m bgl.

Scale: 1:40

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

clancy consulting	Project Title: 57 Top Dartford Road, Hextable	**BH01**
	Project Number: 10/1781 | Client: Barchester Healthcare Ltd.	Sheet 3 Of 5
	GL (mAOD): 57.73 | N Coord: 170835	E Coord: 552516
Date: 06/12/2021-07/12/2021	Method: Cable Percussion | Driller: South-Eastern Drilling Services	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
						Structureless CHALK, composed of white silty GRAVEL and COBBLES. Clasts are weak, low density, white with localised iron staining and subangular. Low subangular flint cobble content. (LEWES NODULAR CHALK FORMATION)		
						Structureless CHALK, composed of cream with localised iron staining gravelly SILT, with occasional chalk cobbles. Clasts are weak, low to medium density, white and subangular. Low subangular flint gravel and cobble content. (LEWES NODULAR CHALK FORMATION)		
						Structureless CHALK, composed of white gravelly SILT, with medium chalk cobble content. Clasts are weak, low density, white with localised iron staining and subangular. Low subangular flint gravel and cobble content. (LEWES NODULAR CHALK FORMATION)		
						Borehole Continues		

KEY
D - Disturbed Sample
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N - Penetration Test 'N' Value
V - Hand Shear Vane kPa
∇ - Groundwater Strike
▼ - Groundwater Level

AGS

REMARKS
No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole installed to a depth of 30.00m bgl.

Scale: 1:40

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

clancy consulting	Project Title: 57 Top Dartford Road, Hextable		BH01
	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 4 Of 5
	GL (mAOD): 57.73	N Coord: 170835	E Coord: 552516
Date: 06/12/2021-07/12/2021	Method: Cable Percussion	Driller: South-Eastern Drilling Services	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
						Structureless CHALK, composed of white gravelly SILT, with medium chalk cobble content. Clasts are weak, low density, white with localised iron staining and subangular. Low subangular flint gravel and cobble content. (LEWES NODULAR CHALK FORMATION)		
						25.00 - 28.00 Increased iron content.		
						Borehole Continues		

KEY
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V - Hand Shear Vane kPa
∇ - Groundwater Strike
▼ - Groundwater Level

AGS

REMARKS
No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole installed to a depth of 30.00m bgl.

Scale: 1:40

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

Project Title: 57 Top Dartford Road, Hextable		BH01
Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 5 Of 5
GL (mAOD): 57.73	N Coord: 170835	E Coord: 552516

Date: 06/12/2021-07/12/2021	Method: Cable Percussion	Driller: South-Eastern Drilling Services	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
						Structureless CHALK, composed of white gravelly SILT, with medium chalk cobble content. Clasts are weak, low density, white with localised iron staining and subangular. Low subangular flint gravel and cobble content. (LEWES NODULAR CHALK FORMATION)		
						End Of Borehole At 30.00 m		

Draft

KEY

D - Disturbed Sample
B - Bulk Sample
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W - Water Sample
S - Standard Penetration Test
C - Cone Penetration Test
N - Penetration Test 'N' Value
V - Hand Shear Vane kPa
- Groundwater Strike
- Groundwater Level

AGS

REMARKS

No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole installed to a depth of 30.00m bgl.

Scale: 1:40

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

clancy consulting	Project Title: 57 Top Dartford Road, Hextable		BH02
	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 1 Of 4
	GL (mAOD): 56.98	N Coord: 170843	E Coord: 552541
Date:	Method: Cable Percussion	Driller: South-Eastern Drilling Services	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
			56.73		0.25	MADE GROUND: Grass over very soft dark brown silty sandy gravelly CLAY, with roots and rootlets. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular of flint, chalk, brick and charcoal.		
			56.08		0.90	MADE GROUND: Very soft light brown sandy gravelly CLAY, with roots and rootlets. Sand is fine to coarse. Gravel is fine to coarse, subrounded to subangular of flint, chalk, brick and charcoal.		
			55.98		1.00			
			55.83		1.15	Structureless CHALK, composed of brownish white sandy gravelly SILT. Gravel is weak, low to medium density, white and subangular. (LEWES NODULAR CHALK FORMATION)		
			55.48		1.50	Structureless CHALK, composed of white silty GRAVEL. Gravel is weak, low to medium density, white and subangular. (LEWES NODULAR CHALK FORMATION)		
			54.98		2.00	Structureless CHALK, composed of white to greyish white gravelly SILT, with medium chalk cobble content. Clasts are weak, low density, white and subangular. Occasional subangular flint cobbles. (LEWES NODULAR CHALK FORMATION) 2.50 Subangular flint boulders.		
			53.98		3.00			
			52.98		4.00			
			51.98		5.00			
			50.98		6.00	Structureless CHALK, composed of white gravelly SILT, with chalk cobbles. Clasts are weak, low density, white and subangular. Low subangular flint cobble content. (LEWES NODULAR CHALK FORMATION)		

Borehole Continues

KEY

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N - Penetration Test 'N' Value
V - Hand Shear Vane kPa
▽ - Groundwater Strike
▼ - Groundwater Level

AGS

REMARKS

No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole backfilled with arisings upon completion.

Scale: 1:40

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

Project Title: 57 Top Dartford Road, Hextable		BH02
Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 2 Of 4
GL (mAOD): 56.98	N Coord: 170843	E Coord: 552541
Method: Cable Percussion	Driller: South-Eastern Drilling Services	Logged By: EB

Date:

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
						Structureless CHALK, composed of white gravelly SILT, with chalk cobbles. Clasts are weak, low density, white and subangular. Low subangular flint cobble content. (LEWES NODULAR CHALK FORMATION)		
						Structureless CHALK, composed of white gravelly SILT. Gravel is weak, low to medium density, white and subangular. Rare subangular flint cobbles. (LEWES NODULAR CHALK FORMATION)		
						Structureless CHALK, composed of white to cream with localised iron staining, gravelly SILT, with chalk cobbles. Clasts are weak, low density, white and subangular. Low subangular flint cobble content. (LEWES NODULAR CHALK FORMATION) 12.50 - 13.50 Increased flint cobble content.		
						Borehole Continues		

Draft

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AGS

REMARKS
No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole backfilled with arisings upon completion.

Scale: 1:40

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

clancy consulting	Project Title: 57 Top Dartford Road, Hextable		BH02
	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 3 Of 4
	GL (mAOD): 56.98	N Coord: 170843	E Coord: 552541
Date:	Method: Cable Percussion	Driller: South-Eastern Drilling Services	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
						Structureless CHALK, composed of white to cream with localised iron staining, gravelly SILT, with chalk cobbles. Clasts are weak, low density, white and subangular. Low subangular flint cobble content. (LEWES NODULAR CHALK FORMATION) 13.50 - 14.00 Increased iron content.		
						Structureless CHALK, composed of white gravelly SILT, with chalk cobbles, localised iron staining and increasing silt content with depth. Clasts are weak, low density, white and subangular. Increasing subangular flint cobble content with depth. (LEWES NODULAR CHALK FORMATION)		
						Borehole Continues		

Draft

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AGS

REMARKS
No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole backfilled with arisings upon completion.

Scale: 1:40

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours

clancy consulting	Project Title: 57 Top Dartford Road, Hextable		BH02
	Project Number: 10/1781	Client: Barchester Healthcare Ltd.	Sheet 4 Of 4
	GL (mAOD): 56.98	N Coord: 170843	E Coord: 552541
Date:	Method: Cable Percussion	Driller: South-Eastern Drilling Services	Logged By: EB

Depth (m)	Type	Test Result	Level	Legend	Depth (m)	Description	Water	Standpipe
						Structureless CHALK, composed of white gravelly SILT, with chalk cobbles, localised iron staining and increasing silt content with depth. Clasts are weak, low density, white and subangular. Increasing subangular flint cobble content with depth. (LEWES NODULAR CHALK FORMATION)		
						End Of Borehole At 20.00 m		

Draft

KEY

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REMARKS

No Groundwater Encountered
Location scanned with CAT prior to excavation. Borehole backfilled with arisings upon completion.

Scale: 1:40

Water Strikes

Date	Strike	Level	Minutes	Casing	Sealed

Daily Log Of Depths			Chiselling		
Date	Casing	Water	From	To	Hours