

FIGURE 2

SITE LAYOUT PLAN

635600 635700 635800 635900 636000 636100 636200 636300 636400



150900
150800
150700
150600
150500
150400
150300

Legend:
 Site Boundary

Coordinate System: British National Grid
 Projection: Transverse Mercator
 Datum: OSGB 1936
 Units: Meter

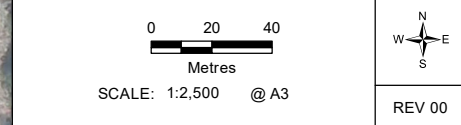


Rev	Date	Description	Drm	Chk	App
00	22/06/2021	First Draft	DR	JC	JC

Deal, Kent



TITLE: Figure 2:
Site Layout Plan



APPENDICES

APPENDIX A

SERVICE CONSTRAINTS

1. This report and the site investigation carried out in connection with the report (together the "Services") were compiled and carried out by RSK Environment Limited (RSK) for Gladman Developments (the "Client") in accordance with the terms of a contract [RSK Environment Standard Terms and Conditions] between RSK and the Client, dated 22nd June 2022. The Services were performed by RSK with the reasonable skill and care ordinarily exercised by an environmental consultant at the time the Services were performed. Further, and in particular, the Services were performed by RSK taking into account the limits of the scope of works required by the client, the time scale involved and the resources, including financial and manpower resources, agreed between RSK and the Client.
2. Other than that, expressly contained in paragraph 1 above, RSK provides no other representation or warranty whether express or implied, in relation to the Services.
3. Unless otherwise agreed in writing, the Services were performed by RSK exclusively for the purposes of the Client. RSK is not aware of any interest of or reliance by any party other than the Client in or on the Services. Unless expressly provided in writing, RSK does not authorise, consent or condone any party other than the client relying upon the Services. Should this report or any part of this report, or otherwise details of the Services or any part of the Services be made known to any such party, and such party relies thereon that party does so wholly at its own and sole risk and RSK disclaims any liability to such parties. **Any such party would be well advised to seek independent advice from a competent environmental consultant and/or lawyer.**
4. It is RSK's understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was a significant factor in determining the scope and level of the Services. Should the purpose for which the report is used, or the proposed use of the site change, this report may no longer be valid and any further use of or reliance upon the report in those circumstances by the client without RSK 's review and advice shall be at the client's sole and own risk. Should RSK be requested to review the report after the date of this report, RSK shall be entitled to additional payment at the then existing rates or such other terms as agreed between RSK and the client.
5. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of RSK. In the absence of such written advice of RSK, reliance on the report in the future shall be at the Client's own and sole risk. Should RSK be requested to review the report in the future, RSK shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between RSK and the client.
6. The observations and conclusions described in this report are based solely upon the Services which were provided pursuant to the agreement between the Client and RSK. RSK has not performed any observations, investigations, studies or testing not specifically set out or required by the contract between the client and RSK. RSK is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the Services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, RSK did not seek to evaluate the presence on or off site of asbestos, invasive plants, electromagnetic fields, lead paint, heavy metals, radon gas, persistent, bioaccumulative or toxic chemicals (including PFAS/ PFOS) or other radioactive or hazardous materials, unless specifically identified in the Services.
7. The Services are based upon RSK's observations of existing physical conditions at the Site gained from a visual inspection of the site together with RSK's interpretation of information, including documentation, obtained from third parties and from the Client on the history and usage of the site,

unless specifically identified in the Services or accreditation system (such as UKAS ISO 17020:2012 clause 7.1.6):

- a. The Services were based on information and/or analysis provided by independent testing and information services or laboratories upon which RSK was reasonably entitled to rely.
- b. The Services were limited by the accuracy of the information, including documentation, reviewed by RSK and the observations possible at the time of the visual inspection.
- c. The Services did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the Services.

RSK is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to RSK and including the doing of any independent investigation of the information provided to RSK save as otherwise provided in the terms of the contract between the Client and RSK.

8. The intrusive environmental site investigation aspects of the Services are a limited sampling of the site at pre-determined locations based on the known historic / operational configuration of the site. The conclusions given in this report are based on information gathered at the specific test locations and can only be extrapolated to an undefined limited area around those locations. The extent of the limited area depends on the properties of the materials adjacent and local conditions, together with the position of any current structures and underground utilities and facilities, and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters (as stipulated in the scope between the client and RSK, based on an understanding of the available operational and historical information) and it should not be inferred that other chemical species are not present.
9. Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan but is (are) used to present the general relative locations of features on, and surrounding, the site. Features (intrusive and sample locations etc) annotated on site plans are not drawn to scale but are centred over the approximate location. Such features should not be used for setting out and should be considered indicative only.
10. The comments given in this report and the opinions expressed are based on the ground conditions encountered during the site work and on the results of tests made in the field and in the laboratory. However, there may be conditions pertaining to the site that have not been disclosed by the investigation and therefore could not be taken into account. In particular, it should be noted that there may be areas of made ground not detected due to the limited nature of the investigation or the thickness and quality of made ground across the site may be variable. In addition, groundwater levels and ground gas concentrations and flows, may vary from those reported due to seasonal, or other, effects and the limitations stated in the data should be recognised.
11. Asbestos is often observed to be present in soils in discrete areas. Whilst asbestos-containing materials may have been locally encountered during the fieldworks or supporting laboratory analysis, the history of brownfield and demolition sites indicates that asbestos fibres may be present more widely in soils and aggregates, which could be encountered during more extensive ground works.
12. Unless stated otherwise, only preliminary geotechnical recommendations are presented in this report and these should be verified in a Geotechnical Design Report, once proposed construction and structural design proposals are confirmed.

APPENDIX B
DEVELOPMENT PLAN

















Dover District Council Reg 18 Draft Local Plan - Open Space Requirements (DM Policy 31)

Typology	Standard Required per 1000 pop. (Ha)	Required (Ha)	Onsite required?	Proposed (Ha)	
Accessible greenspace - Parks & Gardens	0.45	0.1566	-	-	
Accessible greenspace - Amenity Greenspace	1.46	0.508	Yes	4.19	✓
Provision for children & young people	0.06	0.04	Yes	0.04	✓
Allotments	0.21	0.073	-	-	

Calculations based on 2.4 persons per household based on a density of 35 DPH (giving an estimated population of


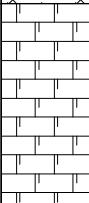


This drawing is the property of FPCR Environment and Design Ltd and is issued on the condition it is not reproduced, retained or disclosed to any unauthorised person, either wholly or in part without written consent of FPCR Environment and Design Ltd.

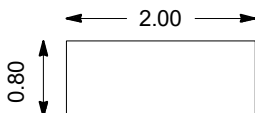

-  Application Boundary [8.71 Ha]
- BUILT DEVELOPMENT**
-  Residential Area [4.23Ha]
(Up to 140 dwellings at 33 DPH)
- ACCESS**
-  Proposed Vehicular Access
-  Proposed Indicative Roads
-  Proposed Pedestrian Connections
-  Proposed Footpaths
- GREEN INFRASTRUCTURE [4.48 Ha]**
-  Existing Woodland and Trees to be Retained and Enhanced [2.0 ha]
-  Public Open Space [1.72 ha]
-  Proposed Woodland Planting [0.15 Ha]
-  Proposed Shrub and Tree Planting
-  Proposed Hedgerow Planting
-  Proposed Play Area (LEAP) [0.04 Ha]
-  Proposed Habitat Area - Mown Route with Information Boards and Reptile Hibernacula [0.16ha]
-  Proposed Attenuation Basin [0.16 ha]
-  Proposed Drainage Swales [0.15ha]
-  Proposed Community Orchard [0.10ha]

APPENDIX C
TRIAL PIT LOGS – RSK REPORT 52285 L01, 30 SEPTEMBER 2021


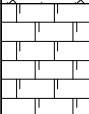

Contract: Land West of Cross Road, Deal		Client: Gladman Developments Ltd		Trial Pit: TP2
Contract Ref: 52285	Start: 22.09.21 End: 22.09.21	Ground Level (m AOD): ---	National Grid Co-ordinate: E:626056.0 N:150375.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
						Soft dark brown silty sandy gravelly CLAY with occasional fine rootlets. Sand is fine. Gravel is fine to coarse angular to rounded chalk and flint.	(0.80)	
						Unstructured light brown CHALK with fine to cobble sized angular to rounded flints. (SEAFORD CHALK FORMATION)	0.80 (0.70)	
						Trial pit terminated at 1.50m depth.	1.50	

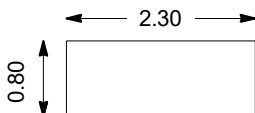

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 52285-LAND WEST OF CROSS ROAD, DEAL.GPJ - v10_01. | 30/09/21 - 08:08 | CJB1

Plan (Not to Scale)		General Remarks		
		<ol style="list-style-type: none"> 1. Trial pit terminated at 1.50m depth. 2. Trial pit remained dry and stable. 3. Trial pit backfilled with arisings. 		
		All dimensions in metres		Scale: 1:25
Method Used: Machine dug	Plant Used: Mini tracked excavator	Logged By: JCurnow	Checked By:	

Contract: Land West of Cross Road, Deal		Client: Gladman Developments Ltd		Trial Pit: TP3
Contract Ref: 52285	Start: 22.09.21 End: 22.09.21	Ground Level (m AOD): ---	National Grid Co-ordinate: E:636020.0 N:150413.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
						Soft dark brown silty sandy gravelly CLAY with occasional fine rootlets. Sand is fine. Gravel is fine to coarse angular to rounded chalk and flint.	(0.80)	
						Unstructured light brown CHALK with fine to cobble sized angular to rounded flints. (SEAFORD CHALK FORMATION)	0.80 (0.40)	
						Trial pit terminated at 1.20m depth.	1.20	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 52285-LAND WEST OF CROSS ROAD, DEAL.GPJ - v10_01. | 30/09/21 - 08:08 | CJB1

Plan (Not to Scale)		General Remarks		
		<ol style="list-style-type: none"> 1. Trial pit terminated at 1.20m depth. 2. Trial pit remained dry and stable. 3. Trial pit backfilled with arisings. 		
		All dimensions in metres		Scale: 1:25
Method Used: Machine dug	Plant Used: Mini tracked excavator	Logged By: JCurnow	Checked By:	

APPENDIX D
CORRESPONDENCE WITH SOUTHERN WATER



Planning Section
Dover District Council
Head Office
White Cliffs Business Park
Dover
Kent
CT16 3PJ

Your ref
21/01822

Our ref
DSA000006453

Date
01/02/2022

Contact
Tel 0330 303 0119

Dear Sir/Madam,


Proposal: Outline planning application for the erection of up to 140 dwellings including affordable housing, with public open space, landscaping, and vehicular access (all matters reserved except for access).

Site: 21/01822: - Land on The West Side of Cross Road, Deal, CT14 9LA.

Thank you for your letter dated 09/12/2021.

Southern Water consider there is a high risk of this planning application negatively impacting groundwater quality and Southern Waters legal duty to supply customers with potable drinking water from its public licensed groundwater abstraction in Deal. Due to the close proximity of the proposed development to the EA SPZ1 and Southern Waters underground abstraction point (via the laterally extensive adit system), in addition to the unconfined Chalk aquifer here being highly vulnerable to surface contamination and disturbance. Southern Water would therefore OBJECT to this development going ahead in its current guise. We would expect to see the risk to groundwater (and Southern Waters adits) being properly quantified and assessed, and sufficiently robust groundwater protection measures are implemented, including revision of the current drainage plans which we would consider to be inappropriate in this location given the sensitive hydrogeological context.

In addition, please note that the EA SPZ2 has a 400 day OR LESS travel time to the public water supply, not a 400-day travel time for the entire area as implied in the FRA & Outline Drainage Design. As the most southern section of site is located on the EA SPZ1 boundary it is anticipated the travel times will be closer to 50 days than 400 days. Due to the inaccuracy of estimating travel times in dual porosity aquifers, such as the Chalk, which the EA acknowledge in their SPZ guidance document, the actual travel time could be even less than 50 days, where enhanced fracture flow pathways are present in the Chalk aquifer.



Please see the attached extract from Southern Water records showing the approximate position of our existing public foul sewer, trunk sewer and water main asset within the development site. The exact position of the public assets must be determined on site by the applicant in consultation with Southern Water before the layout of the proposed development is finalised.

Please note:

- The 225 mm public foul sewer requires a clearance of 3 metres and 1200 mm public foul trunk sewer requires a clearance of 5 metres on either side of the gravity sewers to protect it from construction works and to allow for future access for maintenance.
- No development or tree planting should be carried out within 3 and 5 metres of the external edge of the public gravity sewer and foul trunk sewer without consent from Southern Water.
- The 450 mm public water distribution main requires a clearance of 6 metres on either side of the water main to protect it from construction works and to allow for future access for maintenance.
- No excavation, mounding or tree planting should be carried out within 6 metres of the external edge of the public water main without consent from Southern Water.
- No soakaway, swales, ponds, watercourses or any other surface water retaining or conveying features should be located within 5 metres of a public sewer.
- All existing infrastructure should be protected during the course of construction works.

Please refer to: southernwater.co.uk/media/3011/stand-off-distances.pdf.

The impact of any works within the highway/access road on public apparatus shall be assessed and approved, in consultation with Southern Water, under a NRSWA enquiry in order to protect public apparatus. Please send these enquiries to Developer.Services@southernwater.co.uk.


Furthermore, it is possible that a sewer now deemed to be public could be crossing the development site. Therefore, should any sewer be found during construction works, an investigation of the sewer will be required to ascertain its ownership before any further works commence on site.

In order to protect public sewers, Southern Water requests that if consent is granted, the following condition is attached to the planning permission; The developer must agree with Southern Water, prior to commencement of the development, the measures to be taken to protect the public sewers.

Our investigations indicate that Southern Water can facilitate foul sewerage disposal to service the proposed development. Southern Water requires a formal application for a connection to the public sewer to be made by the applicant or developer.

To make an application visit Southern Water's Get Connected service: developerservices.southernwater.co.uk and please read our New Connections Charging Arrangements documents which are available on our website via the following link: southernwater.co.uk/developing-building/connection-charging-arrangements

The supporting documents make reference to drainage using Sustainable Drainage Systems (SuDS).



Under certain circumstances SuDS will be adopted by Southern Water should this be requested by the developer. Where SuDS form part of a continuous sewer system, and are not an isolated end of pipe SuDS component, adoption will be considered if such systems comply with the latest Sewers for Adoption (Appendix C) and CIRIA guidance available here:

water.org.uk/sewerage-sector-guidance-approved-documents/

ciria.org/Memberships/The_SuDS_Manual_C753_Chapters.aspx

Where SuDS rely upon facilities which are not adoptable by sewerage undertakers the applicant will need to ensure that arrangements exist for the long-term maintenance of the SuDS facilities. It is critical that the effectiveness of these systems is maintained in perpetuity. Good management will avoid flooding from the proposed surface water system, which may result in the inundation of the foul sewerage system.

Thus, where a SuDS scheme is to be implemented, the drainage details submitted to the Local Planning Authority should:

- Specify the responsibilities of each party for the implementation of the SuDS scheme.
- Specify a timetable for implementation.
- Provide a management and maintenance plan for the lifetime of the development.

This should include the arrangements for adoption by any public authority or statutory undertaker and any other arrangements to secure the operation of the scheme throughout its lifetime.


The Council's Building Control officers or technical staff should be asked to comment on the adequacy of soakaways to dispose of surface water from the proposed development.

The Council's technical staff and the relevant authority for land drainage consent should comment on the adequacy of the proposals to discharge surface water to the local watercourse.

We request that should this planning application receive planning approval, the following informative is attached to the consent: Construction of the development shall not commence until details of the proposed means of foul sewerage and surface water disposal have been submitted to, and approved in writing by, the Local Planning Authority in consultation with Southern Water.

This initial assessment does not prejudice any future assessment or commit to any adoption agreements under Section 104 of the Water Industry Act 1991. Please note that non-compliance with Sewers for Adoption standards will preclude future adoption of the foul and surface water sewerage network on site. The design of drainage should ensure that no groundwater or land drainage is to enter public sewers.

Our investigations indicate that Southern Water can facilitate water supply to service the proposed development. Southern Water requires a formal application for a connection to the water supply to be made by the applicant or developer.



To make an application visit Southern Water's Get Connected service: developerservices.southernwater.co.uk and please read our New Connections Charging Arrangements documents which are available on our website via the following link: southernwater.co.uk/developing-building/connection-charging-arrangements

For further advice, please contact Southern Water, Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX (Tel: 0330 303 0119).

Website: southernwater.co.uk or by email at: SouthernWaterPlanning@southernwater.co.uk

Yours faithfully,

Growth Planning Team
Business Channels

southernwater.co.uk/developing-building/planning-your-development



Planning Section
Dover District Council
Head Office
White Cliffs Business Park
Dover
Kent
CT16 3PJ

Your ref
DOV/21/01822

Our ref
DSA000006453

Date
10/03/2022

Contact
Tel 0330 303 0119

Dear Sir/Madam,

Proposal: Outline planning application for the erection of up to 140 dwellings including affordable housing, with public open space, landscaping, and vehicular access (all matters reserved except for access).

Site: DOV/21/01822: - Land on The West Side of Cross Road, Deal, CT14 9LA.

Thank you for your letter dated 04/03/2022.

Further to our previous response dated 01/02/2022 and the additional information submitted in relation to catchment hydrology please find our following comments.

Southern Water's original objection stands on the basis the information returned does not address the points raised our original objection. Although specific issues can be conditioned, the planning documents provided undervalues the groundwater resource and associated public groundwater supply. Southern Water hope to receive a comprehensive and specific response to our concerns.

All other comments in our previous response dated 01/02/2022 remain valid.

For further advice, please contact Southern Water, Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX (Tel: 0330 303 0119).

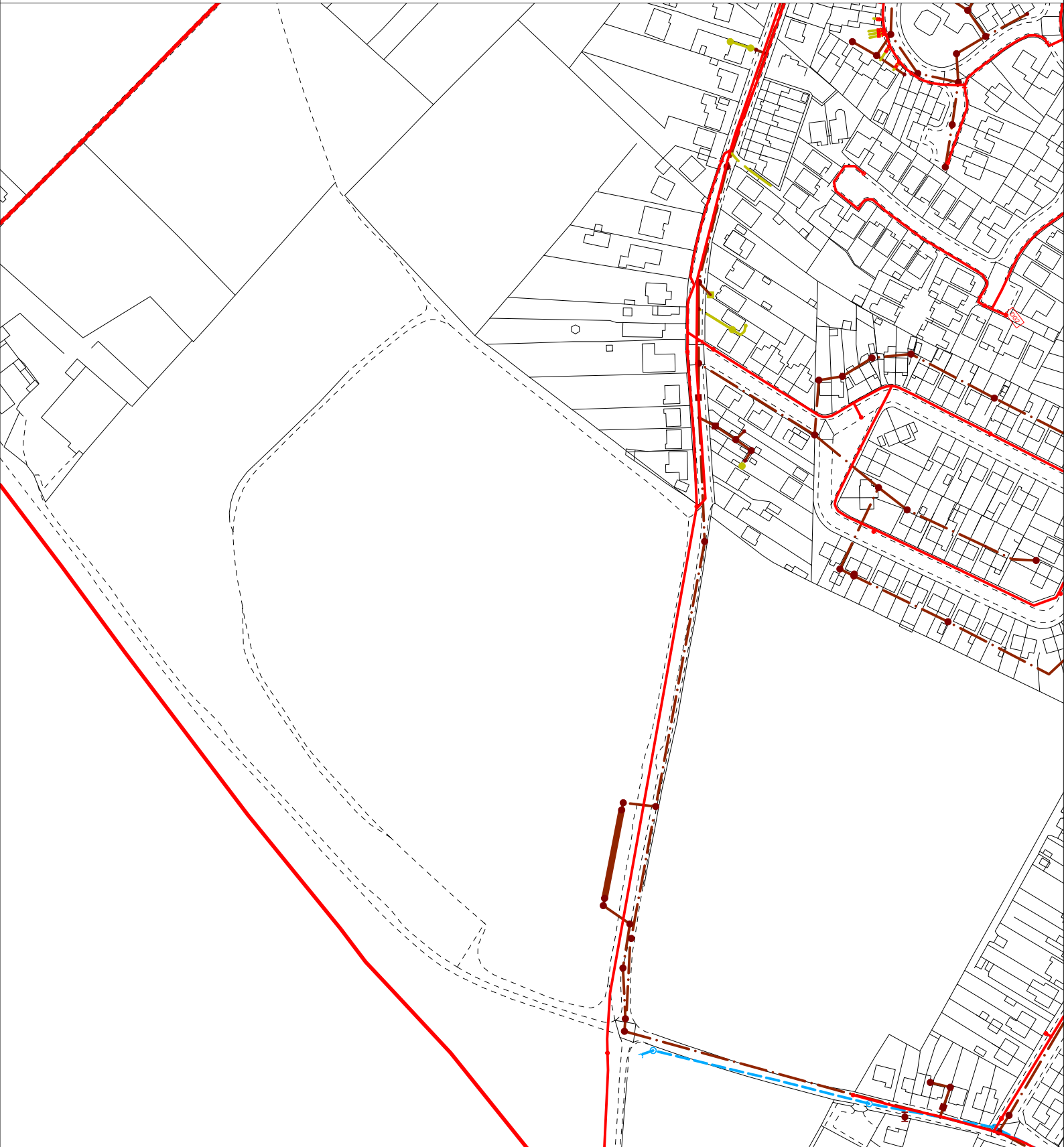
Website: southernwater.co.uk or by email at: SouthernWaterPlanning@southernwater.co.uk

Your faithfully,

Growth Planning Team
Business Channels

southernwater.co.uk/developing-building/planning-your-development

SOUTHERN WATER



The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site.

Based upon Ordnance Survey Digital Data with the permission of the controller of H.M.S.O. Crown Copyright Reserved Licence No. WU 298530

O.S. REF: TR3650NW

Scale: 1:2500

Screen Print

WARNING: BAC pipes are constructed of Bonded Asbestos Cement

WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement



Printed By: vsveena

Date: 3-11-2022

Southern Water MapGuide Browser

Requested By:





Planning Section
Dover District Council
Head Office
White Cliffs Business Park
Dover
Kent
CT16 3PJ

Your ref
21/01822

Our ref
DSA000016415

Date
03/11/2022

Contact
Tel 0330 303 0119

Dear Sir/Madam,

Proposal: Outline planning application for the erection of up to 140 dwellings including affordable housing, with public open space, landscaping, and vehicular access (all matters reserved except for access).

Site: 21/01822: - Land on The West Side Of, Cross Road, Deal, CT14 9LA.

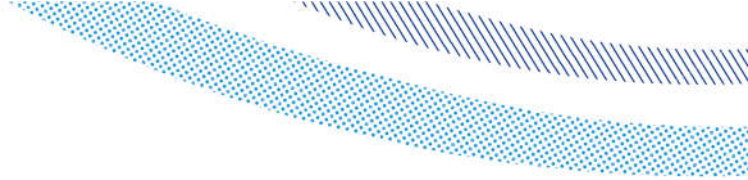
Thank you for your letter dated 27/09/2022.

An Environment Information Request was responded to by Southern Water on 21st July 2022. The Hydrogeological report states no response was provided by Southern Water. Please update the Hydrogeological Appraisal report with the provided information. Southern Water note the report was created on 8th July 2022, with the data request received by Southern Water on 6th July 2022. Southern Water confirmed on 6th July 2022 that we require 20 working days to process data request response.

The hydrogeology report and conceptual model do not consider karst, fracture flow or adit flow. Southern Water note that our adit location has been identified in the north east area of the proposed development. The under appreciation of groundwater flow mechanisms and sensitivities compromise the report's hydrogeological interpretation, assessment, and mitigation strategy, increasing the development's risk to our public water supply. The document and the conceptual model should be updated to include reference to these hydrogeological characteristics. Please also revisit our original response as this document presently does not cover the points raised.

The unsaturated zone thickness in section 4.4 appears to be incorrect. The report states that the regional groundwater level to be +10mAOD with site topography elevated between 16 and 28mAOD. The report unsaturated zone is said to be between 26 and 38m. This should be 6 and 18m unless the +10mAOD should be -10mAOD?

Section 5 Development Design and Proposed Mitigations should be revised following reconsideration of the groundwater flow mechanisms. Please also expand and elaborate on the current control measures as the text presently does not consider the sensitivity of the below lying



principal aquifer or our groundwater abstraction. Note turbidity risks are also not discussed, a sensitive Drinking Water Standard parameter for construction projects with a large geographic footprint. Very strict water quality parameters are set by the DWI, turbidity generated by construction in proximity to our abstractions can result in a failure of supply to customers which has significant financial and reputational costs associated with it.

In regard to the PRA and previous reports, the hydrogeology appraisal states that the infiltration trial pit excavation locations penetrated the weathered Chalk to a maximum depth of 1.8mBGL (3.2), revealing a permeability between 1.34×10^{-5} to 1.24×10^{-4} . Only topsoil is present at these locations, up-to 0.8mBGL as per Section 4.2. Section 3.1.2 states that the development risks to controlled waters was considered unlikely. The evidence as to why the pathway is severed and risks to controlled waters can be deescalated has not been presented within the early Sections.

All other comments in our previous response dated 01/02/2022 remain valid.

For further advice, please contact Southern Water, Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX (Tel: 0330 303 0119).

Website: southernwater.co.uk or by email at: SouthernWaterPlanning@southernwater.co.uk

Yours faithfully,

Future Growth Planning Team
Business Channels

southernwater.co.uk/developing-building/planning-your-development

Deal WSW EIR Request

Licensing and abstraction information

Licensing

The Deal sources are licensed under **9/40/04/0279/GR**

- hourly abstraction limit is **0.55 MI/hour**
- maximum daily abstraction limit of **9.09 MI/d.**
- annual abstraction limit **2,273 MI/annum.**

from Abstraction licences WSM 413.02 Sept 2019

Outputs

As Deal Well 1 and Well 2 are connected by a short adit, it is considered to act like a single source therefore the output information has been combined.

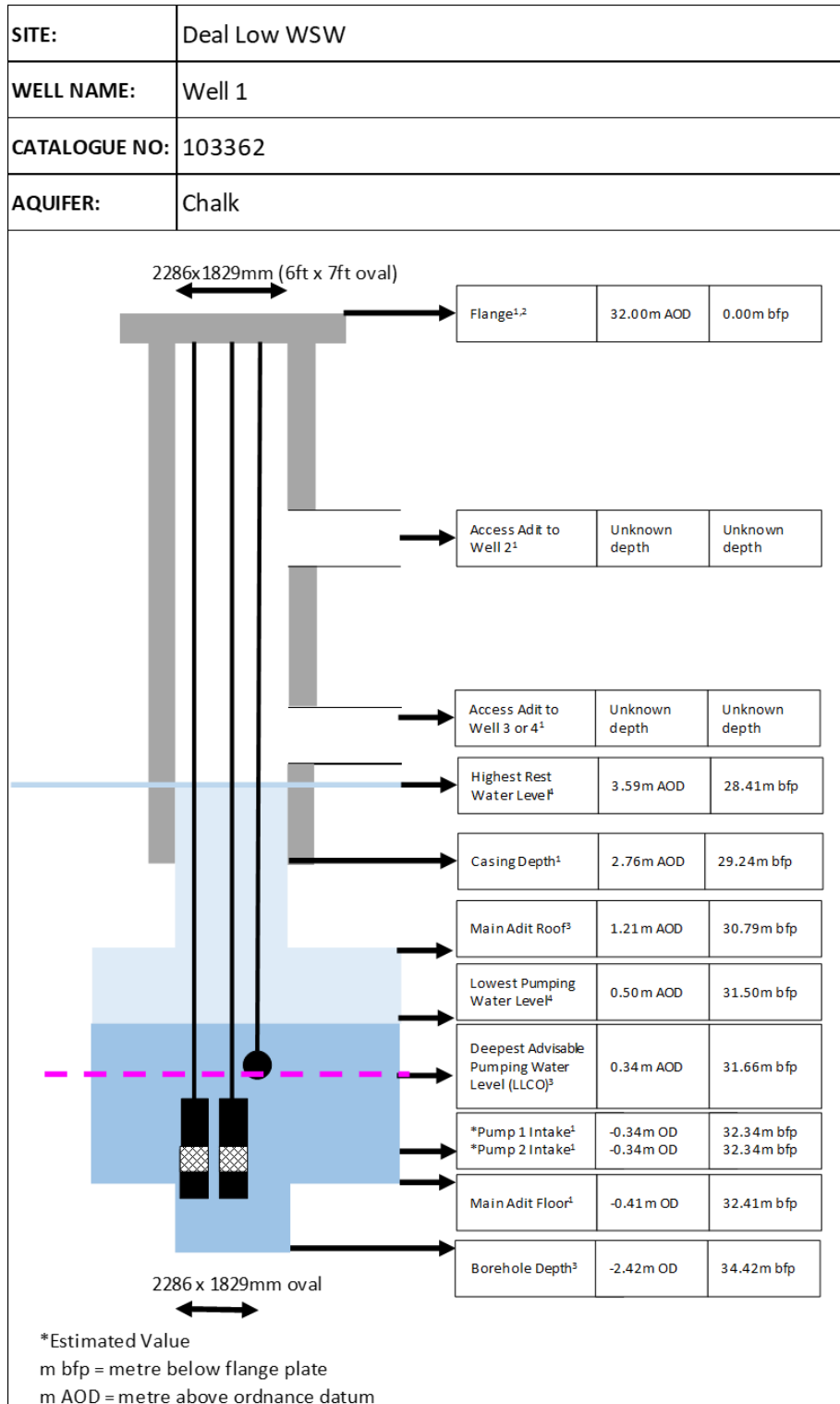
- typical operational rate is **2.5 – 4.0 MI/d**
- max sustained rate is **4.5 MI/d**
- borehole criticality status is **low**

As defined by the ACP003 UGS

Current Operational Status

- Not currently operational – but included in future works programmes to return to service
- Well 1 and Well 2 were the operational abstraction points
- All wells and shafts are connected by an adit/tunnel.
- Extent of adits has not been corroborated/confirmed

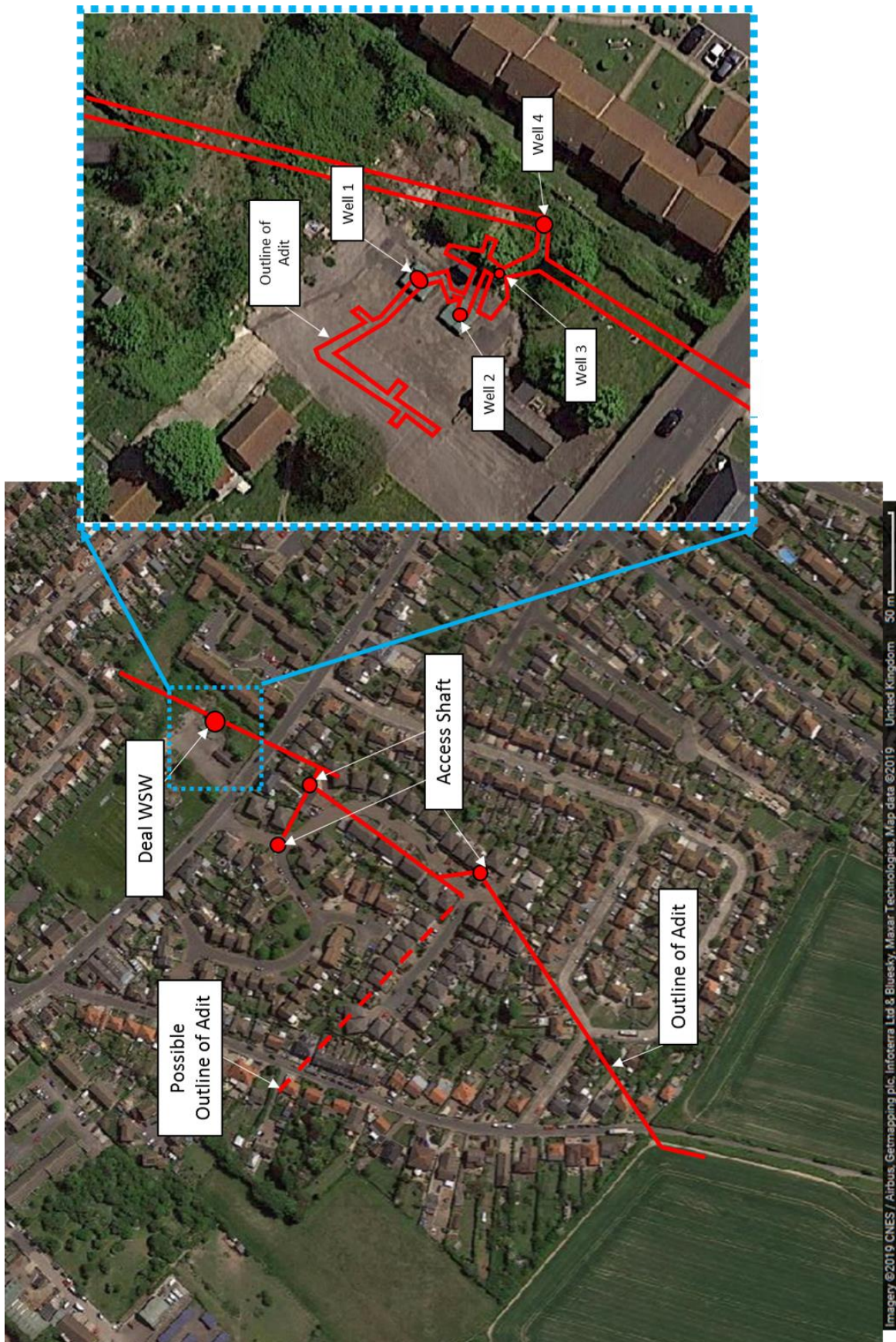
Well 1 Schematic



References

- ¹ Deal WSW Source File
- ² Deal Well 1 & Well 2 Headwork Survey 10/01/2019
- ³ Deal 2006 Deployable Output Report
- ⁴ Deal SDMS Graph
- ⁵ Pump plate info 2010 copied from site
- ⁶ MEICA calibration sheets 2017 copied from site

Summary (Interpreted) Adit Plan From Operations Manual



Available Borehole Construction Summary Data, and key Water Level Information

Summary Deal Low Well 1 Details

m AOD = m above ordnance datum
m bfp = m below flange plate

Construction Details

Deal Well 1	
Construction Date ¹	1879
Geology ¹	Chalk
Original Drilled Depth ¹	-2.42m <u>AOD</u> (-34.42m <u>bfp</u>)
Ground Level ¹	33.00m AOD
Datum – Top of Flange Plate ^{1,2}	32.00m AOD
Depth of Solid Casing ¹	2.76m <u>AOD</u> (-29.24m <u>bfp</u>)
Diameter of Solid Casing ¹	2286x1829mm
Diameter of Open Hole ¹	2286x1829mm
Main Adit Roof ³	1.21m <u>AOD</u> (-30.79m <u>bfp</u>)
Main Adit Floor ³	-0.41m <u>AOD</u> (-32.41m <u>bfp</u>)

Summary Deal Low Well 2 Details

m AOD = m above ordnance datum
m bfp = m below flange plate

Construction Details

Deal Well 2	
Construction Date ¹	1883
Geology ¹	Chalk
Original Drilled Depth ¹	-1.53m <u>AOD</u> (-33.49m <u>bfp</u>)
Ground Level ¹	33.00m AOD
Datum – Top of Flange Plate ^{1,2}	31.96m AOD
Depth of Solid Casing ¹	2.94m <u>AOD</u> (-29.02m <u>bfp</u>)
Diameter of Solid Casing ¹	2134x1829mm
Diameter of Open Hole ¹	1676mm
Main Adit Roof ³	1.21m <u>AOD</u> (-30.75m <u>bfp</u>)
Main Adit Floor ³	-0.41m <u>AOD</u> (-32.37m <u>bfp</u>)

Important Levels

Deal Well 2	
Highest Rest Water Level ⁴	3.59m <u>AOD</u> (-28.37m <u>bfp</u>) Jan 2016
Lowest Pumping Water Level ⁴	0.50m <u>AOD</u> (-31.46m <u>bfp</u>) Oct 2008
Deepest Advisable Pumping Water Level ⁵	0.34m <u>AOD</u> (-31.64m <u>bfp</u>)
Low Level Cut Out ⁶	-0.04m OD (32.00m <u>bfp</u>)

Historic Construction Records

290/16 Borough of Deal, Deal Waterworks, St. Richards Road, Deal

(a) W.S.K. p. 212. Surface +108%. Shaft 111¼ x 4. Heading: 149, floor 109 down. Yield 200,000 g.p.d. 1845.

Hardness: P. 59, T. 204. July 1869.

(b) W.S.K. p. 212. Surface +108%. Shaft 118%. 1879.

(c) Surface +108%. Shaft x 6 x 7 (oval) reduced to x 5¼ at 99 down. Depth 113%. 1883.

(d) Access shaft. Surface +99%. Shaft 105 x 6. 1896.

(e) Access shaft. Surface +117%. Shaft 124 x 6. 1896.

(f) Surface +108%. Shaft 116. Headings: floor c.110 down. 1901.

(g) Access shaft. Surface +117%. Shaft x 6. R.W.L. -2%. P.W.L. -2%. Yield 27,500 g.p.h. LeGrand, Sept. 1935.

(a) - (g) Connected by headings: 881 x 6 x 4½. Before 1896; extended 225.

396 - 1897; extended 364. 1900 - 1901; extended to 1,750. LeGrand, 1935; extended 400 from (g). 1949.

(a) (b) (c) and (f) R.W.L. +11 (max.). Feb. 1904; +c.8. P.W.L. +3%. Spring 1907.

R.W.L. +4%. P.W.L. -2%. Apr. Hardness: P. 60, T. 220. Anal. July. R.W.L. +2%.

P.W.L. -3%. Aug. - Sept. Yield 65,000 g.p.h. 1934. R.W.L. +7½ to +9%. 1946; +11%.

P.W.L. +3%. Recovered to +11¼ in 5 - 6 h. Yield 850,000 g.p.d. Mar. 1947. R.W.L. +5%.

Hardness: total 270. Anal. Dec. 1948. R.W.L. +5%. Hardness: total 274. Anal. June.

Hardness: total 260. Anal. Oct. 1949. R.W.L. +9%. Feb.; +6%. June 1950; +8%. June;

+8%. Nov. 1951; +11. Apr. 1952; +7%. Sept. 1953; +4%. P.W.L. +1%. Yield 68,000 g.p.h.

Oct. 1956. R.W.L. +9%. Hardness: total 270. Apr. 1958. R.W.L. +9%. P.W.L. +4%. Yield

66,000 g.p.h. Oct. 1960.

(g) Made	1	1
UCK	124%	125%



ALanders@rsk.co.uk

Date

21st July 2022

Contact

Tel 0330 303 0368

Dear Alena

**The Environmental Information Regulations 2004
Request for Information
EIR reference 1282**

Thank you for your request for information which we received on 6th July 2022. We have dealt with your request under the Environmental Information Regulations 2004. This letter provides the response to your request, as follows:

Land on The West Side of Cross Road, Deal, CT14 9LA

RSK was commissioned by Gladman to prepare a hydrogeological study of the above site situated in SPZ1. It is understood that the site is proposed for redevelopment with residential housing.

In order to conceptualise sensitive receptors, would you please provide some information regarding the Southern Water boreholes at the pumping station off St Richard's Road?


- . *How many abstraction boreholes are in use?*
- . *How deep are the boreholes and are these cased?*
- . *Are the boreholes connected by adits?*
- . *What are the abstraction rates?*
- . *What depth is groundwater abstracted from?*

Please let us know if there is a fee associated with provision of the requested information

We can confirm that Southern Water does hold information of the type you have requested as follows:

Please find attached the information concerning boreholes at the pumping station off St Richard's Road.

Please note although the annual and daily licensed rates are correct the hourly rate should be 409 m3 / hour. (90,000 gals/hour)



We are entitled to make a reasonable charge for information provided under the Regulations. Details of our charging scheme can be found on our website: <https://www.southernwater.co.uk/water-for-life/protecting-the-environment/environmental-information>. In this case we have decided to waive our charge.

If you are dissatisfied with the handling of your request, you have the right to ask for an internal review. Internal review requests should be submitted within forty working days of the date of receipt of this response and should be addressed to Head of Legal, Southern Water Services Ltd, Southern House, Yeoman Road, Worthing, West Sussex BN13 3NX or you can email EIR.Internal.Review@southernwater.co.uk.

If you are dissatisfied with the outcome of the internal review, you can apply, without charge, to the Information Commissioner, who will consider whether Southern Water has complied with its obligations under the Regulations, and can require Southern Water to remedy any problems. You can find out more about how to do this, and about the Regulations in general, on the Information Commissioner's website at: www.ico.org.uk. Complaints to the Information Commissioner can be made via the "report a concern" section of the Information Commissioner's website.

Please do not hesitate to contact us if you have any queries.

Yours sincerely

EIR Officer