

Eden Geothermal Limited  
The Eden Project  
Bodelva  
Par  
PL24 2SG

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E: [tenders@edengeothermal.com](mailto:tenders@edengeothermal.com)

Date: 17 July 2020

### **INVITATION TO TENDER**

Dear Sir/Madam

<b>Project</b>	<b>Eden Geothermal Project</b> Site enabling works (design and construction) for a deep drilling site at the Eden Project
<b>Tender reference</b>	EGL- ITT- C007

You are invited to submit a competitive tender for the site enabling works (design and construction) for a deep drilling site at the Eden Project in Cornwall, UK. This contract is part of a geothermal development project co-funded by the European Regional Development Fund.

Please submit your proposal in full no later than:

**16:00 hours on Monday 10<sup>th</sup> August 2020**

Except under exceptional circumstances, no extension of time and date by which the tender must be submitted will be granted. Late submissions will not be accepted.

Any query in connection with this tender or the invitation to tender shall be submitted in writing to [tenders@edengeothermal.com](mailto:tenders@edengeothermal.com) by 12:00 hours on Thursday 30<sup>th</sup> July 2020.

We look forward to receiving your submission.

Yours faithfully,

Augusta Grand  
Executive Director



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## Invitation to Tender:

### **C007: Site enabling works (design and construction) for a deep drilling site at the Eden Project**

<b>Project</b>	<b>Eden Geothermal Project</b>
<b>Tender reference</b>	EGL-ITT-C007
<b>Revision</b>	2.0
<b>Release Date</b>	Friday 26 <sup>th</sup> June 2020
<b>Issuer</b>	Eden Geothermal Limited ("EGL")
<b>Supplier Response Date</b>	16.00 hours Monday 10 <sup>th</sup> August 2020

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### ACCOMPANYING FILES

These files provide important background/technical information which will assist bidders in preparing their tenders. Bidders should therefore ensure they have them all. Most are available to download on the EGL website. A further five files cannot be downloaded, but will be sent to bidders by 'wetransfer.com' upon receipt of a formal expression of interest.

#### The following files should be downloaded at:

<https://www.edengeothermal.com/work/invitation-to-tender-for-the-site-enabling-works-of-the-eden-geothermal-site/>

Description	Document Reference
Employer's Reference Design/ Proposed Site Layout (also provided at Appendix A)	EGL Reference Design DR-001
Technical Updates to Employer's Reference Design provided at Appendix A (zoom)	MND Site Layout with Rig zoom
Technical Updates to Employer's Reference Design provided at Appendix A	MND Site Layout with Rig
Drilling Rig Load Plan – File 1	MND Bentec 450 Load Plan Compact Layout_20151005.pdf
Drilling Rig Load Plan – File 2	MND Bentec 450 Load Plan_Substructure Detailed.pdf
Topographical Survey (Kemp Surveying) May 2020 - 4 files	<ul style="list-style-type: none"> <li>• KS 20-9424-01(1) EGL Svy May 2020</li> <li>• KS 20-9424-01(2) EGL Svy May 2020</li> <li>• KS 20-9424-01(3) EGL Svy May 2020 with image</li> <li>• KS 20-9424-01(4) EGL Svy May 2020 with image</li> </ul>
Ground Investigation Report (Parsons Brinckerhoff) July 2014	PB Ground Investigation Report
Construction Environmental Management Plan (Parsons Brinckerhoff) 2013	PB CEMP with Appendices
Ground Conditions and Hydrogeology Report (Buro Happold) July 2010	BH Ground Conditions and Hydrogeology Report
Auto-Tracking 7.5m Van (MMD)	417598-MMD-00-XX-DR-C-002
Auto-Tracking 16.5m Articulated Lorry (MMD)	417598-MMD-00-XX-DR-C-003
Auto-Tracking 16.9m Low Loader (MMD)	417598-MMD-00-XX-DR-C-004
Outline Drainage Strategy (MMD) (N.B. indicative only as subsequent amendments made.)	417598-MMD-00-XX-RP-D-0009
Copy of LPA planning consent 2010	EGL Planning Consent 2010 PA10_04671
Copy of LPA planning consent 2013	EGL Planning Consent 2013 PA13_05057

The following files will be sent to the bidder upon receipt of a formal expression of interest in this contract at [tenders@edengeothermal.com](mailto:tenders@edengeothermal.com)

<b>Description</b>	<b>Document Reference</b>
Topographical Survey (Kemp Surveying) May 2020 – 2 additional files which cannot be downloaded from the website	<ul style="list-style-type: none"><li>• KS 20-9424-01 EGL Svy May 202.dwg</li><li>• KS Eden Geothermal.ecw</li></ul>
EGL Site Videos March 2020 – 3 files which cannot be downloaded from the website	<ul style="list-style-type: none"><li>• EGL Access Road-Rig Exit Gate to Eden Access Road (MP4 file)</li><li>• EGL Access Road-Main Ent to Proposed Rig Ent Gate (MP4 file)</li><li>• EGL Access Road Rig Ent Gate to Rig Exit Gate (MP4 file)</li></ul>
Full Ground Investigation Report	<ul style="list-style-type: none"><li>• BH Geoenvironmental Interpretative Report</li></ul>

## PART A: INSTRUCTIONS TO TENDERERS

### 1 Instructions for Completion

#### 1.1 Submission Details

Eden Geothermal Limited is issuing this Invitation to Tender (ITT) for the enabling works (design and construction) for a deep drilling site at the Eden Project, near St Austell in Cornwall. Post-construction, the site will be used for deep geothermal development.

The Tender submission must arrive at Eden Geothermal Ltd no later than **16.00 hours on Monday 10<sup>th</sup> August 2020**. Applicants must submit their Tenders in two separate documents, comprising (see section 3):

1. Company Information (including responses to Schedules 1 and 2) and Technical Submission (including response to Schedule 3)
2. Commercial submission (Schedule 4)

~~The Applicant will be required to submit a written proposal as part of the response, in the form set out. The Applicant should submit (i) one signed hard copy set of the two documents, inclusive of any relevant appendices, quoting the contract title at the front of this document; and (ii) an electronic copy of these documents in PDF or read-only format, by email. Envelopes and packages must bear no reference to the tenderer by name; franking machines which automatically print the company's name should not be used.~~

The documents must be submitted to the Authorised Officer at Eden Geothermal Ltd:

1. By email to: [tenders@edengeothermal.com](mailto:tenders@edengeothermal.com)
- ~~2. By post to: Eden Geothermal Limited, Foundation Building, Eden Project, Bodelva, Par, Cornwall PL24 2SG~~

Tenders will be received up to the time and date stated. Those received before the due date will be retained unopened until then. It is the responsibility of the tenderer to ensure that their tender is delivered not later than the appointed time. EGL reserves the right to not consider any tenders received after the deadline, in which event late bids will be returned, unopened, to the Applicant.

Applicants may request extensions to this date with a valid reason, which may be accepted at the discretion of the Evaluation Panel of Eden Geothermal Limited. All other Applicants will be notified of any extension that is granted.

Applicants are advised that Eden Geothermal Ltd is not bound to accept the lowest price submitted, and will not reimburse any expense incurred by Applicants during the tendering process.

Any information relating to Eden Geothermal Ltd and supplied by Eden Geothermal Ltd in relation to this project shall be retained by the Applicant in strictest confidence.



## 1.2 Enquiries and Tender Queries

Prospective tenderers **MUST** register their interest by emailing the address below, quoting the tender reference number EGL-ITT-C007.

You should send all enquiries in writing by email, by the deadline stated at Section 2, quoting EGL-ITT-C007, to:

[tenders@edengeothermal.com](mailto:tenders@edengeothermal.com)

Bidders shall provide a single point of contact in their organisation. Eden Geothermal Ltd shall not be responsible for contacting the bidder through any route other than the nominated contact. The bidder must therefore undertake to notify Eden Geothermal Ltd of any changes relating to the point of contact.

Applicants are advised that, where Eden Geothermal Ltd considers appropriate, a copy of any such enquiries will be distributed to all Applicants along with the written response, although the original Applicant's identity will remain confidential. Applicants will only receive the written response if they have registered their interest.

Tenderers wishing to visit the site to assist with the preparation of their tender may do so **by prior arrangement** with EGL. To arrange this, please email the mailbox for all correspondence:

[tenders@edengeothermal.com](mailto:tenders@edengeothermal.com)

## 1.3 Format of Tender Submission

Applicants must provide the following:

1. Company Information – Schedules 1a to 1j inclusive
2. Declarations – Schedule 2
3. Technical submission - Schedule 3
4. Commercial submission – Schedule 4 (to be submitted as a separate document)

## 1.4 Outline Description of Eden Geothermal Project

The Eden Geothermal Project is being run by Eden Geothermal Ltd (EGL), which is an SPV (special purpose vehicle) set-up to manage and implement the development of a deep geothermal energy plant at the Eden Project, Bodelva, Par, Cornwall PL24 2SG. Funding is in place and planning permission has been obtained.

The ultimate aim of EGL is to develop a two-well deep geothermal system that will produce both direct heat and power, some of which will provide direct supply to the Eden Project, with the remainder being exported.

The first stage of the development is co-financed by the European Regional Development Fund, Cornwall Council and private investment and will comprise: (i) construction of a

drilling site (the focus of this ITT); (ii) drilling one well to a nominal depth of 4,500 metres; and (iii) testing and heat production demonstration from this well.

It is anticipated that the drilling of the first deep well will commence in January 2021 and that the project will be completed by October/November 2022. Based on the success of this project, it will form the precursor to the next stage of development for a two-well deep geothermal heat and power plant.

EGL is a partnership between the Eden Project and two specialist companies in the geothermal development sector: BESTEC (UK) Ltd and EGS Energy Ltd.

## 1.5 Outline Scope of Works

(Full details of the scope of works are included in Appendix B.)

Location: Eden Project, Bodelva, Par, Cornwall, UK PL24 2SG. Well co-ordinate location: 204399E 055652N [British National Grid]. Elevation: ~130 ma OD

The Eden Geothermal site enabling programme comprises works to design and construct the site compound, access roads, drainage, security arrangements and drilling platform for the proposed drilling Contractor. The site will be split into:

- An Operational Area – the main working area within the Operational Area (at the southern area of the site) – approximately 12,000m<sup>2</sup>. Associated infrastructure will include aggregate roadways, storage areas and welfare facilities. The working area will be level and centred around the well cellars and drilling pad. It will include a spillage containment area (within which the drilling rig units will be located), cuttings pit and lagoon and compacted unbound surface for portable buildings and storage areas for drilling equipment and materials.
- A Non-Operational Area – within the north east part of the site, comprising a bound roadway at the entrance of the site moving into aggregate roadway and compacted unbound surface for various portable buildings and vehicle parking.

It is anticipated that the site enabling works will commence **at the end of August 2020 and will be completed by 19<sup>th</sup> December 2020.**

## 1.6 Validity Period

Tenders must remain valid for acceptance for a period of 90 days from the Tender Return Date.

## 1.7 Form of Contract

The *conditions of contract* shall be those set out in the NEC4 Engineering and Construction Short Contract June 2017 (Option A) with amendments. A completed form of the Clients Contract Data and amendments to the standard contract is set out in Appendix I, Section

2. 'Section 5 – Scope' and 'Section 6 - Site Information' of the draft contract have also been completed, and are set out in Appendix I.

Please note that this is a contract part-funded by the European Union through the European Regional Development Fund. Therefore, this contract is subject to the Public Contract Regulations 2015 and EGL is unable to agree to substantial modifications to the contract terms issued as part of this ITT.

## 2 Timetable

This procurement will follow a clear, structured and transparent process at all times, to ensure that all Applicants are treated equally. The key dates for this procurement (timetable) are as follows:

Process	Date
Issue of Tender	Friday 26 <sup>th</sup> June 2020
Closing date for clarification questions	12:00 hours Thursday 30 <sup>th</sup> July 2020
EGL to respond to clarification questions	Wednesday 5 <sup>th</sup> August 2020
Tender return date	16:00 hrs Monday 10 <sup>th</sup> August 2020
Award decision communicated to the winning tenderer	Friday 14 <sup>th</sup> August 2020
Notify unsuccessful tenderers	Friday 14 <sup>th</sup> August 2020
Expected contract award date	Friday 28 <sup>th</sup> August 2020
Expected contract start date	Monday 31 <sup>st</sup> August 2020
Expected programme start	Monday 31 <sup>st</sup> August 2020
Expected contract completion date	Saturday 19 <sup>th</sup> December 2020

**The date set for the receipt of bids at Eden Geothermal Ltd is Monday 10<sup>th</sup> August 2020 at 16.00 hours.**

## PART B: RETURN OF TENDER

### 3 Tender Completion Documentation

This Section provides information to help Tenderers prepare their tenders. Applicants are advised to read all the documentation carefully to ensure that they are familiar with the nature and extent of their obligations should their tender be accepted.

The Applicant must complete and return all relevant documents as part of their Tender response. The tender return templates are contained in Part E:

1. Company Information – Schedules 1a to 1j inclusive
2. Declarations – Schedule 2
3. Technical submission - Schedule 3
4. Commercial submission – Schedule 4 (to be submitted separately).

Schedules 1, 2 and 3 may be submitted jointly but Schedule 4 must be submitted as a separate document.

It is the responsibility of the Applicant to inform EGL of any matter that may affect the Applicant's qualification.

All Applicants must complete Schedules 1, 2, 3 and 4. Applicants must ensure that all questions are completed in full, in English, and in the format requested. Failure to do so may result in the submission being disqualified. Applicants are expected to supply all required information, or clearly state the reason for being unable to do so. Where the question does not apply, please state clearly 'N/A'. Where the answer is a statement of fact, it must be accurate. It is the Applicant's responsibility to ensure that EGL is not misled.

Any appropriate supporting documents (e.g.; maps, brochures, organisation charts, etc.) should be included as additional information. Please supply them as an Appendix. They should be numbered clearly and listed as part of your declaration. PDF is the only acceptable file format. Any additional documents provided by the Applicant must refer to a specific item within the ITT and be easily identifiable as the answer to a particular question or set of questions.

Should the Applicant wish to propose a deviation from the specification, please ensure that this is clearly identified where appropriate in the response.

#### 3.1 Company Information

##### 3.1.1 Company Details

The Applicant must complete the details required in **Schedule 1a**. Where the Applicant is a consortium or partnership bidder, Schedule 1a must be completed by each member of the consortium or partnership.

### 3.1.2 Financial Matters

The Applicant is required to provide the information requested in **Schedule 1b**. In the case of a consortium or partnership bid, all members of the consortium or partnership should complete this information. This section may be used, in conjunction with credit reference agency checks if necessary, to gain a basic indication of the financial stability of the Applicant. The determination of the appropriate risk level will be proportionate and relevant to the size, value and nature of the specific contract being tendered. EGL reserves the right to undertake further independent financial checks, if it feels it important to do so. Financial responsibility cannot be shared. Consortium or partnership bids must state one of the members of the partnership as the Lead Applicant, which will be the financially responsible party.

### 3.1.3 Legal Matters, Disputes and Conflicts

EGL is obliged to consider certain legal and conflict matters that could affect the ability of the Lead Applicant, or its partners, to deliver the works or services required for this contract. Some of these matters would lead to a mandatory exclusion. The Lead Organisation and its partner organisations must complete answers to all the questions in **Schedule 1c and 1d**.

The Lead Organisation and its partner organisations must complete answers to all the questions in **Schedule 1e** relating to legal matters. If the answer to any of the questions (a) to (i) is 'yes', please provide full details and the steps taken as a consequence.

### 3.1.4 Insurances

For any Applicant to be successful, adequate insurance cover will be required. The minimum levels are indicated in Schedule 1f. The Lead Organisation, and any partners or consortium members, must complete **Schedule 1f** with the relevant information and confirm that the details entered are correct. If the Applicant does not currently have the required level of insurance, please confirm that it will have the cover required should it be awarded the contract. If the policy held is in the aggregate, the remaining cover must exceed the minimum requirements shown.

### 3.1.5 Equality and Diversity

The Lead Organisation must complete **Schedule 1g** confirming that their organisation and any partner or sub-contract organisation complies with its legal obligations under European law relating to equality and diversity.

### 3.1.6 Health &, Safety, Quality Assurance and Environment

The Applicant must supply a copy of all relevant Health and Safety, Environmental Management and Quality Assurance policies as requested in **Schedules 1h & i**. In the case of a consortium or partnership bid, the Health and Safety, Quality Assurance and Environment policies of the lead Applicant shall be submitted with the proposal and shall prevail.

### 3.1.7 Company Experience

The Applicant should provide details in **Schedule 1j** of up to three contracts which to demonstrate the expertise and experience of the lead Applicant and any proposed partners or sub-contractors in relation to this scope of works.

### 3.18 Declaration

The Applicant (or each partner or member organisation in the case of a consortium bid) must complete the Declaration in **Schedule 2**.

## **3.2 Technical Submission**

The detailed Scope of Works for the contract is provided in Appendix B. The Applicant's submission should take into account all relevant factors contained within this information, although EGL does not accept any responsibility for the accuracy or completeness of this information. Applicants must submit their bid based on the Scope of Works described in Appendix B.

The Applicant must complete **Schedule 3**. Evidence should be provided to demonstrate:

- The relevant expertise and experience of key personnel to be dedicated to the contract;
- Proposed programme, detailing resource availability and steps to complete the contract by the specified date of 19<sup>th</sup> December 2020;
- Methodology and approach.

## **3.3 Commercial Submission**

The Applicant is required to provide a total price for the contract and a detailed price structure and breakdown for the works. On award of the tender, this breakdown and prices will form part of the contract between Eden Geothermal Limited and the contracting party. The breakdown and prices will be entered in to the NEC Engineering and Construction Short Contract (Option A) as Section 4, 'The Price List'. All prices will be quoted in pounds sterling and should exclude VAT. If some prices are only estimated at this stage, please make it clear which these are (excluding VAT).

Where applicable, EGL will pay any VAT incurred at the prevailing rate (currently 20%). If the VAT rate changes, EGL will pay any VAT incurred at the new rate. It is the responsibility of the Applicant to check their VAT position with HMRC before submitting a bid.

Please outline in **Schedule 5** any items that the Lead Organisation or its partners consider to be genuinely Confidential and/or Commercially Sensitive and which should not be disclosed in respect of your Tender.

## PART C: EVALUATION OF TENDER

### 4 Evaluation Process

This Section specifies the criteria to be used to determine the successful applicant and the requirements for the tenderer's qualification to perform the contract.

**All applicants must prepare separate technical and commercial bid documents.**

**Technical and commercial bids must be received by Eden Geothermal Ltd in separate PDF files and hard copy documents, each quoting the tender number EGL-ITT-C007 in the title.**

All bids will be impartially evaluated against the same criteria by an 'Evaluation Panel' on behalf of Eden Geothermal Limited.

The evaluation process will be conducted in a manner that ensures tenders are evaluated fairly to ascertain the most technically and economically advantageous tender. Each tender submission will be evaluated only on the information that is provided by the Applicant. Tenders may be rejected if the information asked for in the ITT and Scope of Works is not given at the time of tendering.

Technical documents and bids will be restricted to the members of the Evaluation Panel, which has full power to make decisions on behalf of Eden Geothermal Limited. The evaluation will be carried out by the Evaluation Panel in two sections, with weightings applied where appropriate:

Title	Evaluation Method
Company Information (Schedules 1a-1j)	Pass / Fail
Declarations (Schedule 2)	Pass/ Fail
Technical Criteria (Schedule 3)	Scored. 40% weighting
Commercial Criteria (Schedule 4)	Scored. 60% weighting

#### 4.1 Company Information

The Company Information will be evaluated first and Applicants will be required to pass this stage before their Tenders are evaluated on the basis of their technical and commercial submission.



Ten criteria will be used to evaluate Applicants, each being scored on a pass or fail basis. Applicants must pass all criteria to proceed to the remainder of the evaluation. The criteria are:

1. Company Information – Schedule 1a
2. Economic and Financial Standing – Schedule 1b
3. Legal Matters & Disputes – Schedule 1c
4. Grounds for Mandatory Exclusion – Schedule 1d
5. Other Grounds for Exclusion – Schedule 1e
6. Insurances – Schedule 1f
7. Equality and Diversity – Schedule 1g
8. Health & Safety – Schedule 1h
9. Quality Assurance and Environmental Management Systems – Schedule 1i
10. Company Experience – Schedule 1j

If the Applicant is made up of a Lead Organisation and other organisations who have jointly entered into a consortium, joint venture or other contracting arrangement, each of the organisations must pass all the criteria in order for the Tender to proceed to the remainder of the evaluation.

Schedules 1a and 1b will be reviewed first. The review of the Applicant's submission will only proceed to the remainder of Schedule 1 (c-j) and Schedule 2 where the reviewer deems that the Applicant has passed these sections.

EGL will exclude any Applicant who answers 'Yes' in any of the situations in Schedule 1d. This includes evidence of convictions relating to specific criminal offences including, but not limited to, bribery, corruption, conspiracy, terrorism, fraud and money laundering, or if you have been the subject of a binding legal decision which found a breach of legal obligations to pay tax or social security obligations (except where this is disproportionate, e.g. only minor amounts involved).

## 4.2 Technical evaluation

Only Applicants that have passed the evaluation of Company Information in Schedules 1a-j, and submitted a fully completed Schedule 2, will have their technical bids evaluated by the Evaluation Panel.

The Technical Evaluation will be made using **Schedule 3**. The Applicant must complete this, and provide sufficient detail and evidence in relation to the following areas:

- The expertise and experience of up to 6 key personnel to be dedicated to the contract;
- Proposed programme, detailing resource availability and steps (Gantt chart) to complete the contract by the specified date of 19<sup>th</sup> December 2020;
- Methodology and approach, to include details of subcontracting arrangements (if any) and of proposals for cost savings/innovative design where appropriate.

Full details of what to include in your technical submission are set out in Schedule 3.

Responses to the questions in Schedule 3 will be scored on the basis of the information provided. References are strongly preferred. Where (i) references are not considered to be relevant, or (ii) a satisfactory number of references have not been provided, EGL will take this into account during evaluation.

The quality of the technical submission will be scored in accordance with the Scoring Matrix shown below:

- |          |                    |   |
|----------|--------------------|---|
| <b>5</b> | Excellent          | Extremely good demonstration of relevant ability, understanding, experience, skills, resources and quality measures required to provide the services, with full evidence provided to support this.            |
| <b>4</b> | Good               | Above average demonstration of the relevant ability, understanding, experience, skills, resource and quality measures required to provide the services, with a majority of evidence provided to support this. |
| <b>3</b> | Acceptable         | Satisfactory demonstration of the relevant ability, understanding, experience, skills, resources and quality measures required to provide the services, with some evidence to support this.                   |
| <b>2</b> | Minor Reservations | Some reservations regarding the relevant ability, understanding, experience, skills, resources or quality measures required to provide the services, and/or with little or no evidence to support this.       |
| <b>1</b> | Major Reservations | Serious reservations regarding the relevant ability, understanding, experience, skills, resources or quality measures required to provide the services, and/or with no evidence to support this.              |
| <b>0</b> | Unacceptable       | Non-compliance and/or insufficient information provided to demonstrate that there is the ability, understanding, experience, skills, resource and quality measures required to provide the services.          |

#### 4.3 Commercial evaluation

The Commercial Evaluation will be carried out for all submissions that that have been included in the Technical Evaluation (Schedule 3). Commercial submissions from those who failed to pass Schedules 1 and 2 will be destroyed unopened.

The commercial offer will be judged by reference to the tendered total price. The median price of all the tender prices will be calculated and this will be judged to equal 50% of the available commercial marks. Points will be awarded or deducted from this median score in proportion to the amount that the tender price is lower than or exceeds the median price. The maximum points will be awarded for offers which are less than or equal to half the median, and nil points will be awarded for offers which are more than or equal to double the median value.

Where EGL believes that the tendered prices have been prepared on an inconsistent basis with the other tenders, which creates an unfair advantage to the tenderer's offer, EGL will request that further information is provided to enable the Commercial valuation to be carried out on a fair basis.

#### **4.4 Total score**

The final 'Total Score' will be calculated by converting the Technical Evaluation score and the Commercial Evaluation score into percentages which are then combined according to the weighting stated in the table in Section 4. The selected Applicant will be the one with the highest Total Score and this will be the award decision.

The Evaluation Panel will have the authority to send out a Letter of Intent to the proposed awardee, which should state that a contract will be awarded.

#### **4.5 Clarification**

During the evaluation process, EGL may need to seek clarification on aspects of an Applicant's submission. If required, EGL will contact the Applicant using the contact details provided. Clarification may require further submission or supplementation or clarification to complete the relevant information or documentation within an appropriate time limit. The purpose of any such clarification will be only to provide EGL with the information required to evaluate and score the submission; it will not be an opportunity for the Applicant to improve or substantially change the information that has already been submitted.

#### **4.6 Sub-contracting arrangements**

Where the Applicant proposes to use one or more sub-contractors to deliver some or all of the requirements, a separate appendix for Schedule 1a should be used to provide details, including the members of the supply chain, the percentage of work being delivered by each subcontractor and the key deliverables each sub-contractor will be responsible for. If the Applicant proposes to use sub-contractors, the Applicant will be the ultimate responsible party for all the sub-contractors' obligations and collateral agreements may be required as per the NEC4 draft contract amendemnts Section 11.2 (27) included in this document at Appendix I. Where information provided to EGL indicates that sub-contractors are to play a significant role in delivering key requirements, any changes to those sub-contracting arrangements may affect the ability of the Applicant to proceed with the procurement process or to provide the supplies and/or services.

#### **4.7 Award and Notification**

Once EGL has completed the evaluation and has identified the successful tenderer(s), EGL will inform the winning Applicant in writing by email of the 'award decision'.

The unsuccessful Applicants will be informed in writing of the fact on the same day. EGL will offer feedback to every bidder submitting an unsuccessful proposal. After the evaluation



has been completed, and all parties have been informed of the outcome, the contract will be awarded.

## PART D: CONDITIONS

### 5 Conditions

#### 5.1 Confidentiality and Freedom of Information

This document is proprietary to EGL and the information contained herein is confidential.

EGL confirms that it will keep confidential and will not disclose to any third parties any information obtained from a named Applicant contact, other than to the EU Managing Authority, to its funders, and under EGL's commitment to meeting its responsibilities under the Freedom of Information Act (FOI) 2000 or the Environmental Information Regulations (EIR) 2004. All information submitted to EGL may need to be disclosed in response to a request under these regulations.

The Applicant must treat all information supplied to it by EGL in confidence and must not disclose it to third parties other than to obtain sureties or quotations for submitting its response as part of the tendering process.

The Applicant must identify in **Schedule 5** any parts of its tender submission which it designates as confidential and would not want published; such information may include technical or trade secrets or other confidential information. The Applicant should explain (in broad terms) what harm may result from disclosure if a request is received, and the time period applicable to that sensitivity. However, the Applicant should be aware that, even where information has been categorised as being commercially sensitive, EGL may still be required to disclose it under the FOI or EIR if a request is received.

Without prejudice to EGL's obligation to disclose information in accordance with the FOI or EIR, EGL shall, acting reasonably, at its absolute discretion and notwithstanding any other provision in this Tender or otherwise, seek to apply the commercial interests exemption to the information/documents listed in this Schedule.

#### 5.2 Language

The completed tender and all accompanying documents must be in English.

#### 5.3 Applicable Law

Any contract concluded as a result of this ITT will be governed by the law of England & Wales.

#### 5.4 Additional costs

Once the contract has been awarded, EGL will not pay any additional costs incurred which are not reflected in the tender submission.

## 5.5 Costs

Unless otherwise stated in this ITT, all costs associated with taking part in this process remain the Applicant's responsibility. The Applicant will not be entitled to claim from EGL any costs or expenses which may have been incurred in preparing the tender, whether or not the tender is successful. EGL will not return any part of the completed tender.

## 5.6 Right to cancel or vary the process

EGL reserves the right to cancel or withdraw from the tendering process at any stage. Cancellation of the procurement process (at any-time) under any circumstances will not render Eden Geothermal Ltd liable for any costs or expenses incurred by bidders during the procurement process.

## 5.7 Inducements

Offering an inducement of any kind in relation to obtaining this or any other contract with EGL will disqualify the Applicant from being considered and may constitute a criminal offence.

## 5.8 Disclaimer

The issue of the information and the tender does not commit Eden Geothermal Ltd to award any contract pursuant to the bid process or enter into a contractual relationship with any provider of the service. Nothing in the tender or in any other communications made between Eden Geothermal Ltd or its agents and any other party, or any part thereof, shall be taken as constituting a contract, agreement or representation between Eden Geothermal Ltd and any other party (save for a formal award of contract made in writing by or on behalf of Eden Geothermal Ltd).

While the information in this ITT and supporting documents has been prepared in good faith by EGL, it may not be comprehensive, and nor has it been independently verified. Neither EGL nor their advisors, nor their respective directors, officers, members, partners, employees, other staff or agents:

- makes any representation or warranty (express or implied) as to the accuracy, reasonableness or completeness of this ITT; or
- accepts any responsibility for the information contained in the ITT or for the accuracy or completeness of that information; or
- shall be liable for any loss or damage (other than in respect of fraudulent misrepresentation) arising as a result of relying on such information or any subsequent communication.

## PART E: TENDER SUBMISSION SCHEDULES

**Schedule 1a - Company Details.** To be completed by each partner organisation/consortium member.

Applicant details	Answer	
Full name of the Applicant completing the ITT		
Trading name (if different)		
Registered company address		
Registered company number		
Registered VAT number		
Name of immediate parent company		
Name of ultimate parent company		
Type of company (please tick relevant boxes)	Public limited company	
	Limited company	
	Limited liability partnership	
	Other partnership	
	Sole trader	
	Other	
	Small or medium enterprise	
Tendering model (please tick relevant box)	Bidding as a Prime Contractor and will deliver 100% of the key contract deliverables	
	Bidding as a Prime Contractor and will use third parties to deliver some of the services	
	Bidding as Prime Contractor but will operate as a Managing Agent and will use third parties to deliver all of the services	
	Other (please specify)	
<b>Contact details</b>		
Name		
Position		
Postal address		
Country		
Phone number		
Email		

## Schedule 1b - Economic and Financial Standing

This section should be filled out by each partner or member of proposed consortium, where applicable.

	<b>Enclosed</b>	<b>Not Applicable</b>
(a) Please state the name and title of the person in your business responsible for financial matters.		
(b) Please enclose copies of the business' audited accounts of the past two years, to include: <ul style="list-style-type: none"> <li>• Balance Sheet</li> <li>• Profit and Loss Account</li> <li>• Full notes to the Accounts</li> <li>• Director's Report</li> <li>• Auditor's Report</li> </ul>		
(c) If the accounts submitted for section (b) above are for an accounting year ended more than 10 months ago, please confirm that the business is still trading and provide the latest summary of management accounts.		
(d) Has there been any event since the last audited accounts that could affect the going concern status of the company?		
(e) Please confirm that we may obtain references from your bankers and provide their name and address.		



## Schedule 1c - Legal Matters and Disputes

<b>Has the Applicant, or any of its proposed partners, in the last three years:</b>	<b>Yes/no If yes, please provide details including details of any unresolved disputes, or outstanding claims or litigation.</b>
(a) been prosecuted or had any Court judgements awarded against it?	
(b) had penalties, default notices or liquidated damages awarded against it?	
(c) been in breach of any contract, had a contract terminated or not had a contract renewed due to a failure to meet its obligations?	
(d) been prosecuted for breaking any UK or EU, or equivalent national legislation relating to the environment or Health and Safety?	
(e) had any notice served upon it by an environmental regulator or authority?	
(f) had any finding of unlawful discrimination made against it by any court of law or industrial or employment tribunal?	
(g) been the subject of a formal investigation on grounds of alleged unlawful discrimination?	
(h) been convicted for failure to prevent corruption or bribery under section 7 of the Bribery Act 2010?	
(i) been the subject of any health / safety on-the-job citations, violations or demands from any employees?	

EGL will decide whether an answer 'Yes' to any of the questions listed above and its consequential details constitutes an acceptable risk. Where the Applicant (including the Lead Organisation and all other organisations) answers 'No' to all of the above the Applicant will pass.

## Schedule 1d - Grounds for Mandatory Exclusion

Within the past five years, has your organisation (or any member of your proposed consortium, if applicable), Directors or partner or any other person who has powers of representation, decision or control been convicted of any of the following offences? Please indicate your answer by marking 'X' in the relevant box.

	Yes	No
(a) conspiracy within the meaning of section 1 or 1A of the Criminal Law Act 1977 or article 9 or 9A of the Criminal Attempts and Conspiracy (Northern Ireland) Order 1983 where that conspiracy relates to participation in a criminal organisation as defined in Article 2 of Council Framework Decision 2008/841/JHA on the fight against organised crime;		
(b) corruption within the meaning of section 1(2) of the Public Bodies Corrupt Practices Act 1889 or section 1 of the Prevention of Corruption Act 1906;		
(c) the common law offence of bribery;		
(d) bribery within the meaning of sections 1, 2 or 6 of the Bribery Act 2010; or section 113 of the Representation of the People Act 1983;		
(e) any of the following offences, where the offence relates to fraud affecting the European Communities' financial interests as defined by Article 1 of the Convention on the protection of the financial interests of the European Communities: <ul style="list-style-type: none"> <li>(i) the offence of cheating the Revenue;</li> <li>(ii) the offence of conspiracy to defraud;</li> <li>(iii) fraud or theft within the meaning of the Theft Act 1968, the Theft Act (Northern Ireland) 1969, the Theft Act 1978 or the Theft (Northern Ireland) Order 1978;</li> <li>(iv) fraudulent trading within the meaning of section 458 of the Companies Act 1985, article 451 of the Companies (Northern Ireland) Order 1986 or section 993 of the Companies Act 2006;</li> <li>(v) fraudulent evasion within the meaning of section 170 of the Customs and Excise Management Act 1979 or section 72 of the Value Added Tax Act 1994;</li> <li>(vi) an offence in connection with taxation in the European Union within the meaning of section 71 of the Criminal Justice Act 1993;</li> <li>(vii) destroying, defacing or concealing of documents or procuring the execution of a valuable security within the meaning of section 20 of the Theft Act 1968 or section 19 of the Theft Act (Northern Ireland) 1969;</li> <li>(viii) fraud within the meaning of section 2, 3 or 4 of the Fraud Act 2006; or</li> </ul>		

	Yes	No
(ix) the possession of articles for use in frauds within the meaning of section 6 of the Fraud Act 2006, or the making, adapting, supplying or offering to supply articles for use in frauds within the meaning of section 7 of that Act; (x) disproportionate history of personnel and technical safety violations		
(f) any offence listed in (i) in section 41 of the Counter Terrorism Act 2008; or (ii) in Schedule 2 to that Act where the court has determined that there is a terrorist connection;		
(g) any offence under sections 44 to 46 of the Serious Crime Act 2007 which relates to an offence covered by subparagraph (f);		
(h) money laundering within the meaning of sections 340(11) and 415 of the Proceeds of Crime Act 2002;		
(i) an offence in connection with the proceeds of criminal conduct within the meaning of section 93A, 93B or 93C of the Criminal Justice Act 1988 or article 45, 46 or 47 of the Proceeds of Crime (Northern Ireland) Order 1996;		
(j) an offence under section 4 of the Asylum and Immigration (Treatment of Claimants etc.) Act 2004;		
(k) an offence under section 59A of the Sexual Offences Act 2003;		
(l) an offence under section 71 of the Coroners and Justice Act 2009;		
(m) an offence in connection with the proceeds of drug trafficking within the meaning of section 49, 50 or 51 of the Drug Trafficking Act 1994; or		
(n) any other offence within the meaning of Article 57(1) of the Public Contracts Directive— <ul style="list-style-type: none"> <li>(i) as defined by the law of any jurisdiction outside England and Wales and Northern Ireland; or</li> <li>(ii) created, after the day on which these Regulations were made, in the law of England and Wales or Northern Ireland.</li> </ul>		
(o) Any breach of obligations related to the deduction of tax or social security from any employee or contractor, or to its obligation for payment of any tax or social security contributions that has been established by a judicial or administrative decision having final and binding effect in accordance with the legal provisions of any part of the United Kingdom or the legal provisions of the country in which your organisation is established (if outside the UK).		

## Schedule 1e - Other Grounds for Exclusion

Within the past three years, please indicate if any of the following situations have applied, or currently apply, to your organisation (or any member of your proposed consortium, if applicable). Please indicate your answer by marking 'X' in the relevant box.

	Yes	No
(a) your organisation has violated applicable obligations referred to in regulation 56 (2) of the Public Contracts Regulations 2015 in the fields of environmental, social and labour law established by EU law, national law, collective agreements or by the international environmental, social and labour law provisions listed in Annex X to the Public Contracts Directive as amended from time to time;		
(b) your organisation is bankrupt or is the subject of insolvency or winding-up proceedings, where your assets are being administered by a liquidator or by the court, where it is in an arrangement with creditors, where its business activities are suspended or it is in any analogous situation arising from a similar procedure under the laws and regulations of any State;		
(c) your organisation is guilty of grave professional misconduct, which renders its integrity questionable;		
(d) your organisation has entered into agreements with other economic operators aimed at distorting competition;		
(e) your organisation has a Conflict of Interest (CoI) within the meaning of regulation 24 of the Public Contracts Regulations 2015 that cannot be effectively remedied by other, less intrusive, measures; (*)		
(f) the prior involvement of your organisation in the preparation of the procurement procedure has resulted in a distortion of competition, as referred to in regulation 41, that cannot be remedied by other, less intrusive, measures;		
(g) your organisation has shown significant or persistent deficiencies in the performance of a substantive requirement under a prior public contract, a prior contract with a contracting entity, or a prior concession contract, which led to early termination of that prior contract, damages or other comparable sanctions;		
(h) your organisation has negligently provided misleading information that may have a material influence on decisions concerning exclusion, selection or award.		
(i) your organisation has committed an offence under the Modern Slavery Act 2015.		

(\*) *Conflicts of interest – see next page*

*\* Conflicts of Interest: EGL may exclude the Applicant if there is a conflict of interest which cannot be effectively remedied. The concept of a conflict of interest includes any situation where relevant staff members have, directly or indirectly, a financial, economic or other personal interest which might be perceived to compromise their impartiality and independence in the context of the procurement procedure. Where there is any indication that a conflict of interest exists or may arise then it is the responsibility of the Applicant to inform EGL, detailing the conflict in a separate Appendix. Provided that it has been carried out in a transparent manner, routine pre-market engagement carried out by EGL should not represent a conflict of interest for the Applicant.*

**If you have answered 'Yes' to any of the above question, please use a separate Appendix to provide further details.**

## Schedule 1f - Insurance Cover

<b>Insurance</b>	
<p><b>Employer's Liability</b> (minimum £5m cover)</p> <p>Employers' Liability insurance shall cover all employees engaged in the performance of the Contractor's services.</p> <p>Insurer</p> <p>Policy Number</p> <p>Amount of cover £</p> <p>Renewal Date</p>	
<p><b>Public Liability</b> (minimum £5m cover)</p> <p>General Third Party Liability insurance for any incident or series of incidents covering the operations of the Contractor and its Sub-Contractors in the performance of the Contract.</p> <p>Insurer</p> <p>Policy Number</p> <p>Amount of cover £</p> <p>Renewal Date</p> <p>The policy shall include, but not be limited to, coverage of (i) damage to third party property, (ii) bodily and personal injury (iii) premises and operations, (iv) independent contractors, (v) completed operations, (vi) contractual liability (or their equivalents).</p>	
<p><b>Professional Indemnity</b> (minimum £2m cover)</p> <p>Insurer</p> <p>Policy Number</p> <p>Amount of cover £</p> <p>Renewal Date</p>	

## Schedule 1g - Equality and Diversity

The Lead Organisation and all other organisations must confirm that their organisation complies with its legal obligations under European law relating to the following:

Item	Confirm Yes / No
a) Race	
b) Sexual Orientation	
c) Gender Reassignment	
d) Disability	
e) Age	
f) Religion or Belief	
g) Sex	
h) Marriage & Civil Partnership	
i) Pregnancy & Maternity	

In order to pass this criterion, all organisations must answer 'yes' to all items.

## Schedule 1h - Health and Safety

This section should be filled out by the lead Applicant on behalf of partners/other consortium members. The lead Applicant's policies should be provided and shall prevail for all partners/consortium members.

	<b>Enclosed</b>	<b>Not Applicable</b>
(a) State the total number of Employees		
(b) Please enclose a signed copy of your Health and Safety Policy indicating when it was last reviewed and by whose authority it was published.		
	<b>None</b>	<b>Enclosed</b>
(c) Please provide evidence of all RIDDOR (the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1999) reportable events for the last three years. This should include a system for reviewing all incidents, and recording the action taken as a result.		
(d) Please enclose details of prosecutions or notices served on your company under the Health and Safety at Work Act 1974, or other health and safety legislation, in the last five years and the action which you have taken to remedy matters subject to enforcement action.		



## Schedule 1i - Quality Assurance, Environmental Management and Corporate Social Responsibility

This section should be filled out by each partner or member of proposed consortium, where applicable.

(a) Name of Director, Partner or persons responsible for the implementation of the company's Environmental and Quality Assurance Policies.		
	<b>Enclosed</b>	<b>Not Applicable</b>
(b) Have you acquired any recognised Quality Assurance accreditation relevant to this contract? If yes, please provide details.  If no accreditation is held, please attach an outline of your Quality Assurance Policy or, if you have no policy, give reasons why.		
(c) Please provide details of any Environmental Management System certification that your company holds, e.g. ISO 14001 or equivalent standard which is pending. Please include a copy of any certificate.  If no accreditation is held, please attach an outline of your Environmental Policy or, if you have no policy, give reasons why.		
(d) Please enclose a copy of your Corporate Social Responsibility Policy, or other equivalent policy document (if available)		

## Schedule 1j - Company Experience

Using the table below, please provide details of **three** contracts, from the past five years, in any combination from either the public or private sector, that are relevant to EGL's requirements for this tender. Contracts should be from within the previous five years, and may include grant-funded work. The named contact provided should be able to provide written evidence to confirm the accuracy of the information provided below. If you attach information for the 'Description of Contract' section, please specify 'attached' in the relevant box and clearly label/reference the supporting material.

Consortium bids should provide relevant examples of where the consortium has delivered similar requirements. If this is not possible (e.g. the consortium is newly formed or a Special Purpose Vehicle is to be created for this contract) then three separate examples should be provided between the principal member(s) of the proposed consortium or Special Purpose Vehicle (three examples are not required from each member).

Where the Supplier is a Special Purpose Vehicle, or a managing agent not intending to be the main provider of the supplies or services, the information requested should be provided in respect of the main intended provider(s) or sub-contractor(s) who will deliver the contract.

	<b>Contract 1</b>	<b>Contract 2</b>	<b>Contract 3</b>
<b>Name of customer organisation</b>			
<b>Point of contact in the organisation</b>			
<b>Position in the organisation</b>			
<b>E-mail address</b>			
<b>Description of contract (max 300 words)</b>			
<b>Contract Start date</b>			
<b>Contract completion date</b>			
<b>Estimated contract value</b>			

**Important note:** ERDF procurement regulations prevent EGL from scoring 'Company Experience' within the technical evaluation; the information submitted in this Schedule 1j will be assessed on a Pass/Fail basis only. With this in mind, we ask tenderers to pay particular attention to the 'Personnel' category of the technical submission (Schedule 3).

Where you intend to sub-contract a proportion of the contract, please demonstrate how you have previously maintained healthy supply chains with your sub-contractor(s).

Evidence should include, but is not limited to, details of your supply chain management tracking systems to ensure performance of the contract and including prompt payment or membership of the UK Prompt Payment Code (or equivalent schemes in other countries).

## Schedule 2 - Declarations

I/We understand that the information provided in this document and any supporting information provided by us will be relied upon and taken to be true and accurate. Should it subsequently be determined that any information supplied by us was inaccurate, I/we understand and accept that Eden Geothermal Limited reserves the right to exclude our offer to supply (if still under evaluation) or if the Contract has been awarded and the information that was inaccurately supplied had a significant influence on the award, that Eden Geothermal Limited shall be at liberty to terminate the Contract.

I/We understand that Eden Geothermal Limited is not bound to accept the lowest price or any tender that may be received.

<b>Name of organisation</b>	
<b>Name of person applying on behalf of organisation</b>	
<b>Signature</b>	
<b>Title / position of person</b>	
<b>Date</b>	
<b>Contact telephone</b>	
<b>Contact e-mail</b>	
<b>Address and post code</b>	
<b>Registered office if different from above</b>	
<b>Organisation VAT registration number</b>	

## Schedule 3 – Technical Submission

### Evaluation Criteria

There are 3 technical evaluation criteria:

- Personnel
- Programme
- Methodology and Approach

Each category will be evaluated in line with the scoring criteria set out in Section 4.2.

### Category 1: Personnel (16% of total marks)

Please provide details of a maximum of six named individuals with job titles and, for each, a detailed outline of qualifications and background/expertise/experience relevant to this contract, either in their current role or prior.

Each person's profile should be no more than 2 sides of A4 in length, but should provide enough detail to enable us to evaluate their experience. Where possible/relevant, you may wish to highlight their direct or transferable experience in relation to the following:

- Design/construction projects of a similar scale (£750K +) and involving groundworks, earthmoving and foundations
- Design/construction of temporary works sites
- Design/construction of sites for large drilling rigs

The individuals proposed should be shown in an organogram, to be submitted with this Schedule, and should be dedicated to this contract if you are successful.

Where subcontractors will be undertaking a significant proportion of the work, you may wish to include key subcontractor personnel.

As part of the six profiles, we expect to receive information for the following personnel:

- Principal Designer
- Designer
- Site Manager
- Project/Contract Manager

*Important note:* ERDF procurement regulations prevent us from scoring 'Company Experience' within the technical evaluation. With this in mind, we ask tenderers to pay particular attention to the 'Personnel' category of the technical submission (Schedule 3).

### Category 2: Programme (8% of total marks)

Please supply the following:

- Gantt chart (PDF format) showing start dates, key tasks and milestones, the timescale and order of component works to be undertaken, interdependencies, contingencies, terminal float, critical path, finish date.

- Statement confirming your ability to meet the required start date and to have completed the works by 19<sup>th</sup> December 2020.
- Full details of key resource availability in respect of your programme.

### **Category 3: Methodology and Approach (16% of total marks)**

Please supply the following:

- Outline of proposed methodology for both design and construction stages. Your outline should demonstrate your understanding of EGL's requirements, and provide sufficient detail to show how you will meet those requirements. It should demonstrate how buildability is encompassed by your approach. (Max 3 pages of A4.)
- Outline of the personnel, plant and equipment to be provided.
- Details of subcontracting arrangements/key subcontractors.
- Where possible and appropriate, identification of opportunities for cost savings, for example through innovative design.
- Covid-19 contingency plan.

If relevant/appropriate, you may provide additional information as an appendix to this category. For example, a statement in relation to sustainability measures, if this is relevant to the approach you have outlined, or other measures which you would like to highlight.

### **Submission of Supporting Information**

Please clearly label/reference any supporting information submitted in conjunction with Schedule 3 and list all documents using the table below. In addition to the document reference/name, you should clearly mark the category under which it is to be considered (1 – Personnel; 2 – Programme; 3 – Methodolgy and Approach) and, if appropriate/necessary, provide a brief explanation of why you have included it. You may add more rows if necessary.

<b>Document Reference</b>	<b>Evaluation Category</b>	<b>Relevance/reason for inclusion</b>

## Declaration

We confirm that:

- We have inspected this Tender Document and accompanying information relating to the Eden Geothermal Ltd Tender and hereby offer to complete the works, to the standard and specifications set out in Appendix B of this ITT document 'Scope of Works'.
- The Technical Submission is accurate to the best of our knowledge.

<b>Name of Organisation</b>	
<b>Name of Person Signing</b>	
<b>Capacity in which Signed</b>	
<b>Signature</b>	
<b>Date</b>	

## Schedule 4 - Commercial Submission (*Please note this Schedule is to be returned in a separate document*).

### Total Price

We confirm that we have inspected this Tender Document EGL-ITT-C007 and the accompanying information relating to it and hereby offer to complete the Works as set out in the Scope of Works (Appendix B) to your entire satisfaction for the following lump sum fees (total of 'the prices' below). The signed declaration below confirms our offer.

<b>Total Price (ex VAT)</b>	<b>£</b>
-----------------------------	----------

### Price Breakdown ('The Prices')

In order to provide consistency in the tender evaluation, please break down the 'Total Price' above according to the headings below. These are a minimum and can be broken down further at the tenderer's preference.

<b>Item</b>	<b>Tendered Price (ex VAT) £</b>
Preliminary and General	
Detailed Design	
Design Fees and Statutory Fees	
Levelling of the site including earthworks	
Compaction and completion of main site including roadways.	
Spillage Containment Area – Main Option 1. Including interceptor drainage.	
Lagoon	
Rig Foundations including cellars	
Conductor Installation	
Site Services	
Fencing and gates	
Allowance for Risk/Contingency (total)	
<b>Total as set out above</b>	

The above fees shall include allowances for the general obligations, management obligations and project requirements as defined by the Scope of Works at Appendix B. The above rates shall include for all reasonable disbursements but should exclude VAT.



<b>The Fee percentage is:</b> <i>The Fee includes all costs the Contractor may incur that are not included in Defined Cost (NEC ECSC 11.2(6)), which may include its overheads, profit, insurance premiums, bank charges, and any allowance for its risks. The Fee is calculated by applying the fee percentage to the Defined Cost (NEC ECSC clause 11.2(8)).</i>	%
---	---

### Personnel

The people rates associated with the contract (including reasonable disbursements but excluding VAT) are:

Staff Designation		Rate £/day
Company	Member of Staff and Grade	

### Equipment

The <i>published list</i> of equipment (as per the Civil Engineering Contractors Association (CEA) Published List) is:	
The <i>percentage for adjustment</i> for equipment is:	% (state plus or minus)

### Risk Allocation

Please complete the Risk Allocation table below. You should set out any risks you have identified in relation to this contract, and how you propose these risks being allocated.

If you wish, you may submit your own more detailed Risk Register in lieu of this table, but this should contain as a minimum the information set out below.

ITT Reference	Description of Risk	Risk Rating	Allowance (time and/or cost)	Owner – EGL or Contractor?

## Declaration

We understand that you do not bind yourselves to accept the lowest or any tender. We accept the contract conditions for this contract and this tender remains open for acceptance for 90 days.

<b>Name of organisation</b>	
<b>Name of person signing</b>	
<b>Capacity in which signed</b>	
<b>Signature</b>	
<b>Date</b>	

## Schedule 5 - Commercially Sensitive Information

Eden Geothermal Limited may be obliged to disclose information in or relating to this Tender following a request for information under the FOIA or EIR. Please outline in the table below items that you consider to be genuinely Confidential and/or Commercially Sensitive which should not be disclosed in respect of your Tender (see Section 5.1)

Information	Reference / page	Reason for non-disclosure	Duration of confidentiality

This schedule will be kept with the Tender documents for consideration should a request for information under the Freedom of Information Act 2000 or Environmental Information Regulations 2004 be received. This document will be destroyed in line with the retention and destruction policy of Eden Geothermal Limited.

# PART F: LOCATION AND SITE

## 6 Location and Site

### 6.1 Eden Project



The Eden Project is Cornwall’s largest visitor attraction with a footfall of approximately 1 million visitors per year. It is located about 2 - 3 km north-east of the town of St Austell in the southern part of Cornwall.

#### Access by car/van

The main route into Cornwall is via the M5 motorway to Exeter and either the A30 or the A38 trunk roads through Cornwall. The majority of the A30 is dual carriageway. The Eden Project is signposted from the A30.

The Eden Project is well connected by road, either (i) from the A30, via the A391; (ii) from Truro by the A390 (eastbound); and (iii) from Plymouth by the A38 and A390 (westbound). The road distance from Plymouth to St Austell is 26 miles or 42 km.

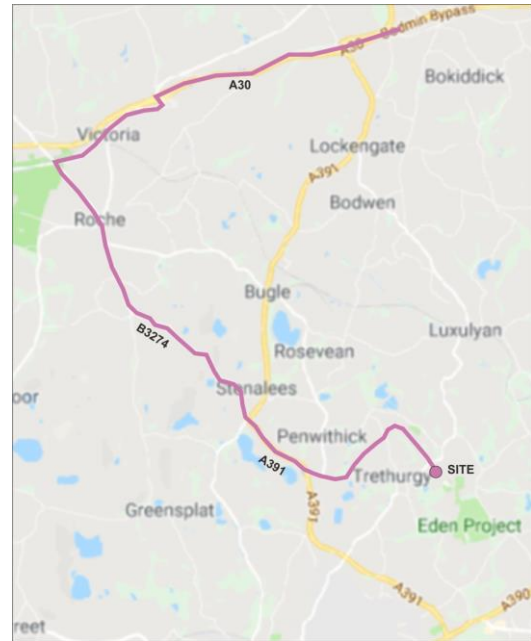


*Location of the Eden Project in Cornwall*

### Access by truck/HGV

The recommended transport route for HGVs to and from the Eden Project is either:

1. from the Innis Downs junction on the A30, taking the A391 through Bugle, Stenalees and Carluddon and on to the Eden Project; or
2. from the Victoria Interchange on the A30, taking the B3274 through Roche and Trezaise to Stenalees, then the A391 to Carluddon and on to the Eden Project.



*HGV road route to the Eden Project*

### Access by train from London:

From Paddington Station, First Great Western runs trains to Cornwall which stop at all the principal stations throughout Cornwall including: **St Austell** and **Par**.

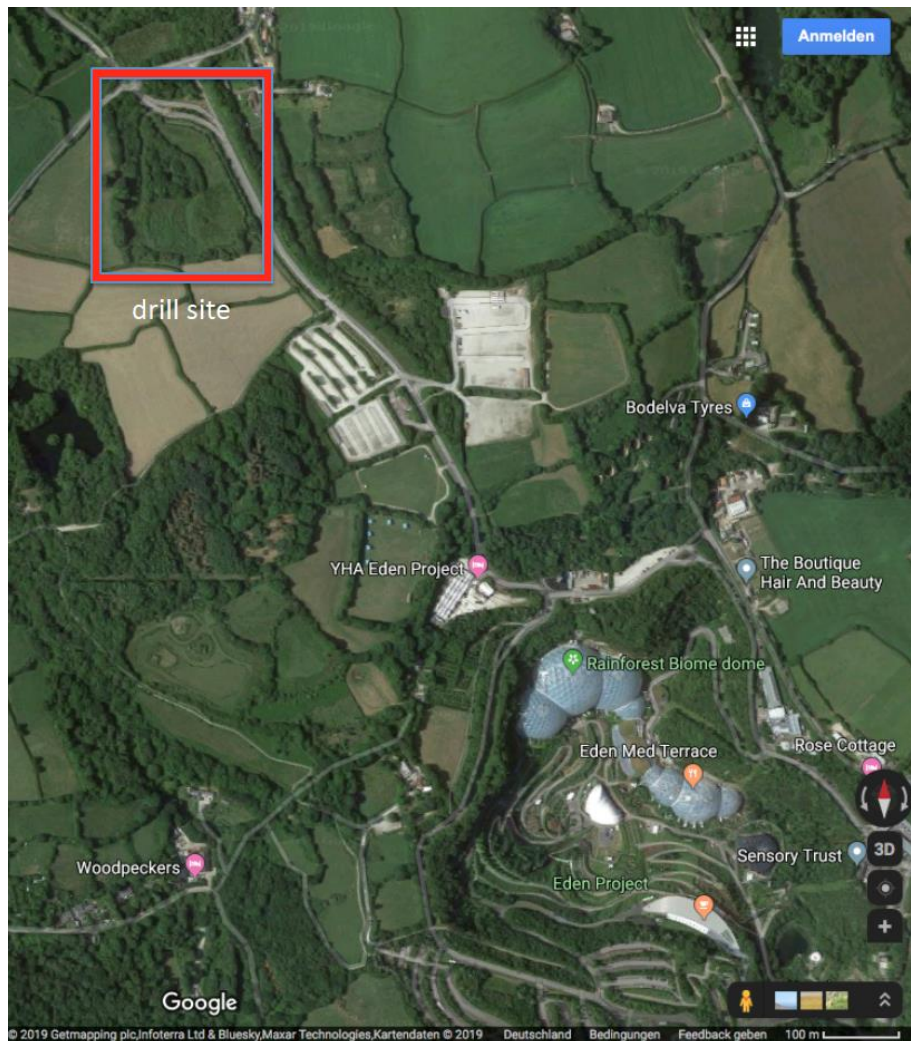
## **6.2 Eden Geothermal development site**

The Eden Geothermal site, which is the site for this contract, is an unoccupied plot of land adjacent to the North Gate of the Eden Project in Cornwall. It is easily accessible from the road.

The site lies in the base of a shallow valley adjacent to the northern entrance of the Eden Project (National Grid Reference (NGR: 204310 055710)). The site is currently unused, comprising a mixture of wetland, landfill rough ground, reeds and scrub. The eastern and western sides of the site were partially covered by fill material (demolition rubble) during the early 1990s to a depth of 1.5 - 3.8m.

The overall area of the site is approximately 28,000m<sup>2</sup> (2.8ha). The ground level generally slopes gently from south to north across the site from approximately +136mOD adjacent to the southern boundary, across a distance of 175m, to approximately +131mOD on the hardstanding at the site entrance. The central area of the site is lower than the remainder of the site with an approximate elevation of +130mOD.





*Aerial view of the deep geothermal drilling site at the Eden Project*

Much of the central north part of the site is wet woodland that will be retained undisturbed for ecological purposes throughout the lifetime of the project. A small Japanese Knotweed control area in the south west corner of the site must also remain undisturbed. The two deep wells will be situated within the southern end of the site; the vegetation has been cleared from this area and from the western side of the site in preparation for the site works.

The western and southern sides of the site are surrounded by drainage ditches, 2 – 5m deep, that serve to collect surface water and drain it into nearby watercourses. The western channel drains into a small attenuation pond at the north end of the site before entering the Treverbyn Stream (classed by the Environment Agency GQA as Grade A). According to the EA website the site does not lie within an area at risk of flooding from rivers or from sea and it does not lie within a published Groundwater Source Protection Zone.

According to the British Geological Survey (BGS) – 1:50,000 sheet 347 (Bodmin) – the site is underlain by valley alluvium overlying coarse grained biotite and topaz granite. Minerals investigations carried out in the vicinity of the site in 1948 have shown that natural ground

comprises a 2 - 3 m layer of brown sandy clay and stones overlying a weathered horizon of sandy kaolinized granite.



*Looking towards Operations Area – facing east*



*Looking towards Operations Area – facing north east*





*Looking towards Operations Area – facing north west*



*Taken from south east corner – looking directly north towards Non-Ops Area/entrance gate*

Three MP4 video files (tour of the site) and two topographical survey files, which cannot be downloaded from the EGL website, will be sent via 'wetransfer.com' to each bidder registering a formal interest in this tender. **You should contact [tenders@edengeothermal.com](mailto:tenders@edengeothermal.com) if you do not receive these files when we confirm your EOI.**

Site visits may be organised **by prior arrangement with EGL** to assist bidders with the preparation of their tenders. If you wish to organise a site visit, please email [tenders@edengeothermal.com](mailto:tenders@edengeothermal.com)



## APPENDICES

### **APPENDIX A – Employer’s Reference Design (Proposed Site Plan)**

The drawing provided at Appendix A is the basic site plan drawn up by the Employer (EGL). It can also be downloaded as a separate file in PDF format - EGL Reference Design DR-001 - at <https://www.edengeothermal.com/work/invitation-to-tender-for-the-site-enabling-works-of-the-eden-geothermal-site/>

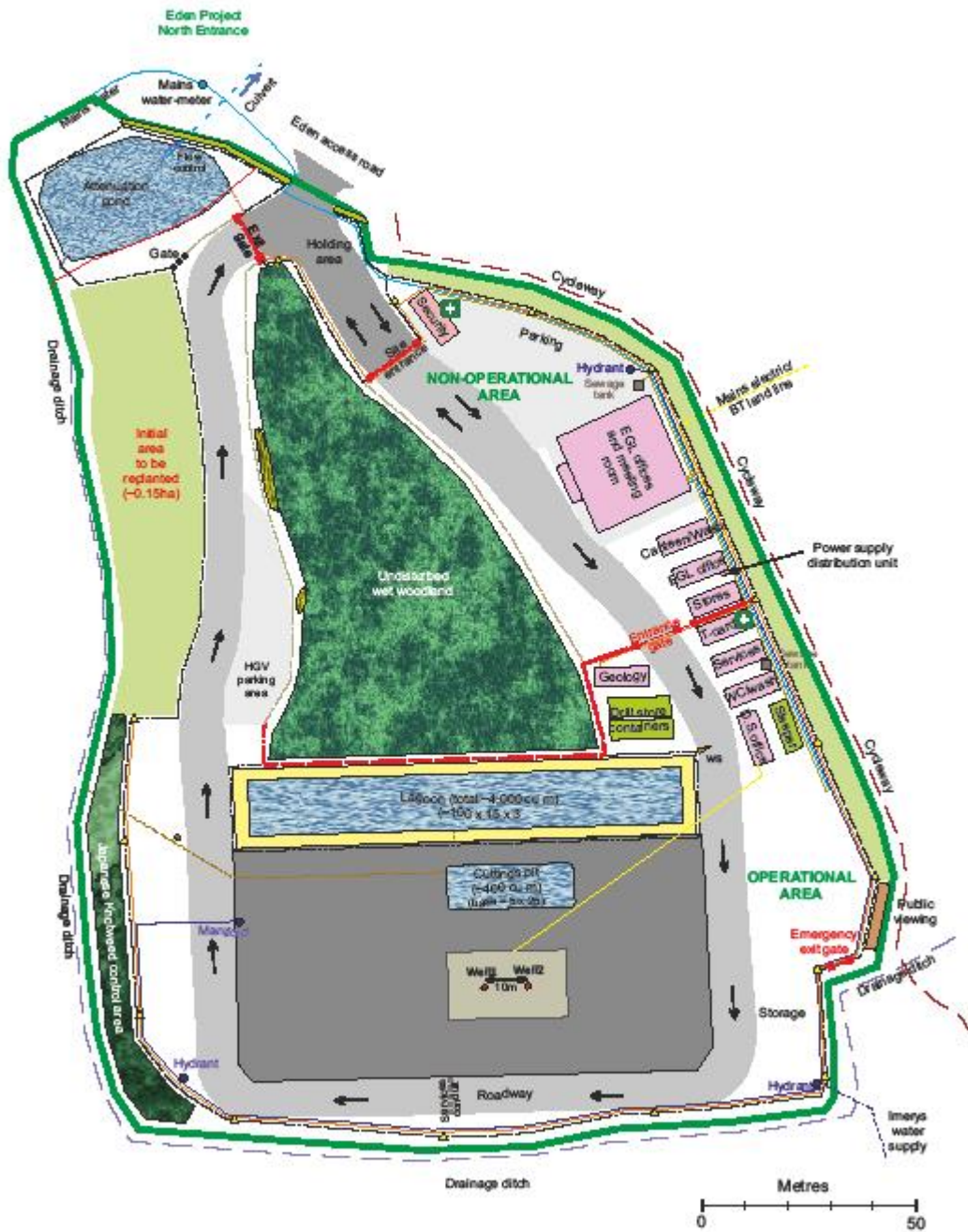
Additional technical detail to supplement the ‘EGL Reference Design’ has been provided by EGL’s drilling contractor. This additional detail is set out in 2 drawings, which bidders should download at <https://www.edengeothermal.com/work/invitation-to-tender-for-the-site-enabling-works-of-the-eden-geothermal-site/>

The 2 drawings are:

- MND Site Layout with Rig
- MND Site Layout with Rig zoom

## Appendix A- Employer's Reference Design (Proposed Site Plan)

Proposed Layout of the Deep Geothermal Site at the Eden Project, Cornwall during the Construction Phase



## APPENDIX B – Scope of Works

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## APENDIX B contd. – Scope of Works

### 1 Introduction and framework

#### 1.1 Definitions

1.1.1 'Others' are defined as other organisations that will have an influence over the detailed design approval process. These bodies are:

- Cornwall Council Asset Team
- Environment Agency
- Natural England
- Parish Councils
- LPA – Local Planning Authority

1.1.2 'The Employer' is Eden Geothermal Ltd, also known as 'the Client'.

#### 1.2 The Site

1.2.1 Background information about the Site is given in Section 6.2 of this document.

#### 1.2 Employer's Reference Design

1.3.1 The *Employer's* Reference Design information is contained in Appendix A and provides the requirements for the general layout of the scheme.

1.3.3 The *Contractor* can choose to adopt the *Employer's* Reference Design, either in whole or in part, whilst recognising that design liability for any of the design adopted shall reside with the *Contractor*. The *Employer* shall not be liable for any errors, omissions or inconsistencies contained in the *Employer's* Reference Design information. If the *Contractor* wishes to incorporate any part of the *Employer's* Reference Design into its design proposals, it must satisfy itself that the *Employer's* Reference Design does meet or exceed the requirements of the remainder of the Works Information and is in accordance with the Planning Conditions and Environmental Statement. The *Contractor* shall develop and modify the design as necessary or appropriate to comply with the Works Information.

1.3.3 The *Contractor* shall refer to Cornwall LHA standard details "Design and Construction Guidance" available on-line dated 27<sup>th</sup> March 2020 in providing the assets necessary to complete the compound GA proposed in this *Employers* Requirements document. Where no relevant detail is provided, The *Contractor* shall refer to Manual of Contract Documents for Highways Works (MCHW) Volumes 1, 2 and 3 as found online dated 17<sup>th</sup> April 2020.

#### 1.4 Design Data

1.4.1 The *Contractor* shall submit to the *Employer* for acceptance the Design Data for providing the works. The *Contractor* shall obtain approval of its design from Others where necessary. The approvals by Others must be agreed prior to submitting to the *Employer* for acceptance.

1.4.2 "Design Data" means all specifications, plans, drawings, graphs, sketches, models and other documents prepared or to be prepared by or on behalf of the *Contractor* relating to the design, construction, and aftercare of the works.

1.4.3 Design Data to be submitted shall be provided in two hard copies to the *Employer* and also in electronic media in a form to be agreed with the *Employer* such as to enable the *Employer* to carry out his obligations without delaying Completion of the works and shall include, without limitation, the following:

- Design Quality Plan; including Designer Risk Assessments, design Elimination Record and Design for Maintenance evaluations. This is to be provided within one month after the start-up meeting.
- The programme for design and construction of the works at intervals specified;
- All relevant drawings, schedules, specifications and completed relevant Numbered Appendices necessary to demonstrate compliance with the Works Information and to enable the works to be constructed, in accordance with the Design and Construction Quality Plans;
- Construction Quality Plan 10 days prior to start on site;
- Risk Assessments and Method statements for all activities (including drilling, grouting, hole surveying etc.);
- Pre-Construction Information (PCI);
- Geotechnical Baseline Report (GBR) to clarify ground related risk between *Employer* and *Contractor*
- Construction Phase Health and Safety Plan;
- Construction Environmental Management Plan (inc. Noise and Vibration Plan);
- Temporary Works Register;
- Site Waste Management Plan;
- Pollution Control and Contingency Plan;
- Material Management Plan (MMP);
- Health and Safety File;
- As-built records;
- Operation and Maintenance Manuals.

## 1.5 The *Contractor's* Submission Procedure

1.5.1 No Design Data shall be submitted to the *Employer*

- Until consultation has been completed with the appropriate Statutory Consultees and Others, including the relevant or local planning authority, in respect of the release of planning conditions. Evidence of the consultations having taken place and/or planning conditions having been met shall accompany each submission;
- until such time as a planning condition to which a design relates has been complied with; and
- without evidence of approval from Others whose interests are affected by the *Contractor's* proposals.

## 1.6 Acceptance of Proposals

1.6.1 The *Employer* shall return one copy of each submission to the *Contractor* endorsed as appropriate:

- "accepted" means that the *Contractor* may proceed with the relevant work;

- “accepted with comments” means that the *Contractor* shall amend the design or other information accompanying the certificate to take account of the comments. The *Contractor* may then proceed with the relevant work without the recertification; and
- "returned unaccepted with comments" means that the *Employer* has not accepted the design or other information. The *Contractor* shall then revise the submission and resubmit to the *Employer* with the relevant Certificate.

1.6.2 Design or other information submitted with a submission which has been endorsed by the *Employer* as "accepted" shall be adhered to under the contract terms and conditions.. Design or other information submitted with a submission which has been endorsed by the *Employer* as "accepted with comments" shall be amended and then adhered to except where varied under the contract terms and conditions.

1.6.3 If the *Employer* fails to return any Certificate duly endorsed within the period for reply then the Certificate shall be deemed to be returned marked “accepted”.

## 2 Preliminaries

### 2.1 Site Accommodation and Services

#### 2.1.1 Temporary Accommodation Buildings

The accommodation and equipment specified below are the site temporary buildings. For further details see the Reference Design in Appendix A.

The buildings will be procured by the *Employer* for lease during the drilling works and will be delivered to the site at an agreed date once the full site construction programme has been formulated. For further details see the Reference Design in Appendix A. The *Contractor* is expected to connect these buildings to all services as specified below.

The buildings will be sited in both the Non-Operations and the Operations areas, as per the Reference Design in Appendix A, and as set out in the table below:

Building	Size (ft)	Site Area	Services Required
EGL non-ops office 1	32 x 10 – 2 no. modular units	Non-ops	Water, waste water, electricity, comms
EGL non-ops office 2	32 x 10	Non-ops	Water, waste water, electricity, comms
EGL non-ops canteen/washroom/WC	32 x 10	Non-ops	Water, waste water, electricity
Security office	32 x 10	Non-ops	Water, waste water, electricity, comms
EGL drilling ops office (DS office)	32 x 10	Ops	Water, waste water, electricity, comms
Ops services office (Services)	32 x 10	Ops	Electricity, comms
Ops washroom/WC	32 x 10	Ops	Water, waste water, electricity
EGL ops geology cabin	24 x 9	Ops	Water, waste water, electricity, comms



Building	Size (ft)	Site Area	Services Required
EGL non-ops office 1	32 x 10 – 2 no. modular units	Non-ops	Water, waste water, electricity, comms
EGL non-ops office 2	32 x 10	Non-ops	Water, waste water, electricity, comms
EGL non-ops canteen/washroom/WC	32 x 10	Non-ops	Water, waste water, electricity
EGL Ops T-Card/First Aid Unit	24 x 9	Ops	Water, waste water, electricity
Sleeper unit	TBC	Ops	Water, waste water, electricity

All the above buildings will remain following completion of the *Works*.

### 2.1.2 Accommodation Services – General Requirements

All connections must satisfy the relevant requirements of the current legislation on Health and Safety and Welfare (Health and Safety at Work Act 1974, etc.)

It should be noted that the drilling site is temporary and therefore (where possible and cost effective to do so) it is expected that certain service ducts and service provisions will be installed above ground, within the limitations of current legislation. Services laid above ground should be protected as required.

### 2.1.3 Water and Waste Water Services

- The *Employer* will arrange the treated water supply to the site boundary. The *Contractor* will need to install a stand-pipe and stop-cock near the site entrance for the South West Water 32mm connection. The *Contractor* shall install a 32mm treated water distribution pipeline around the site perimeter to the various units. All water pipes and storage tanks shall be lagged.
- Waste connections to suitably constructed wastewater tanks shall be designed subject to all the necessary planning and other statutory approvals. The *Employer's* Reference Design at Appendix A shows 2 wastewater tanks, one in the Operations area and the other in the Non-Operations area. Alternative design proposals will be considered by the *Employer*. Connections shall also be provided to proposed welfare units for the drilling contractor (for location refer to Appendix A). For sizing design purposes, the maximum number of people on the site at any one time is 50. However, 95% of the time, there will only be 20 people in the operational area and 5 in the non-operational area.
- Where a mains water supply is provided, drainage facilities shall be put in place to satisfactorily dispose of sewage and waste water from the accommodation, compliant with the requirements of the appropriate Authority.

### 2.1.4 Lighting

- The *Contractor* shall confirm the location of perimeter lighting to ensure optimum light coverage around the edge of the site. The *Contractor* shall connect the power supply to the lighting and to the electronically operated gates.
- The perimeter road and non-operational compound area shall achieve a measured lighting level of 25 Lux average with 5 Lux minimum.
- Perimeter lighting shall have a colour temperature of 3000 Kelvin and shall be controlled by daylight sensors.



### 2.1.5 Electrical

- The Employer will provide a 63 KVa fused 3-phase supply. This will be terminated adjacent to the 'EGL Offices' in the Non-Operations area, as per the Reference Design at Appendix A. Discussions with Wester Power Distribution are ongoing and will determine the final termination location.
- The *Contractor* shall install all the distribution cabling within the site, running on cable ducts around the site perimeter, together with a main isolator with tails within an external consumer panel/box to receive the mains electric feed.
- The electrical demand on site must be sized by the *Contractor* for the mains electrical power supply for the combined operational requirements of the non-operational and operational areas.

### 2.1.6 Communications and Telephone System

The *Employer* will arrange for the local telecommunications company (Openreach) to supply a broadband and phone line connection to the site boundary. This will be terminated adjacent to the 'EGL offices' as per the Reference Design at Appendix A. Discussions are ongoing with Openreach and the final termination location is to be confirmed.

The *Contractor* will distribute the communications to the relevant buildings on site as per the table above.

### 2.1.7 Parking

The *Contractor* shall provide sufficient space within the non-operational area for parking of up to 20 light vehicles (including 10 cars, five short wheel-base transit vans and five long wheel-based transit vans, or equivalent) and up to one 12m rigid vehicles.

### 2.1.8 Security

The entire site, including car parks and access roads shall be enclosed by fencing (See Section 10 for exact requirements).

Access shall be via powered perimeter double gates (minimum width 4.0m) which shall be operated by key pad or remote control and fitted with a good quality heavy duty padlock. 12 No. keys to the padlock shall be supplied to the *Employer*.

### 2.1.9 Public Viewing Area

The *Contractor* shall provide a 2.4m timber hoarding with covered housing, wire mesh for viewing and an unbound surface on the "public" side to allow just off the cycle path.

## **2.2 Extent of the Site.**

### 2.2.1 General

The extent of the Site is shown in Appendix A. Notwithstanding the defined site limits the *Contractor* shall be responsible for those locations remote from the site where permanent or temporary signing shall be necessary (as required in the Contract or because it forms parts of traffic management in advance of the works, temporary works or diversions of traffic proposed by the *Contractor*).

Under planning restrictions, site working hours are limited to:

Monday to Friday 0700 - 1830  
Saturday 0700 - 1300  
Sunday No Working

However, on 13 May 2020 HM Government issued a written ministerial statement outlining its expectation that LPAs will approve requests to extend construction working hours to 9pm Monday-Saturday for a temporary period until May 2021. EGL will submit such a request to the LPA for approval.

The *Contractor* must ensure two-way traffic is maintained on the Eden access road at all times unless proposals are agreed with the *Employer*.

The *Contractor* shall not make any use of the Site for purposes other than the construction of the project without specific authorisation of the *Employer*.

The *Contractor* shall supply and be responsible for all temporary offices, welfare units, storage units, toilet and wash facilities required by the Contractor and their sub-contractors during the site construction works and shall be responsible for providing all plant and equipment required during this period for the purpose of the construction works, including lighting and generators.

The *Contractor* shall be responsible for all waste disposal throughout the construction works.

No principal offices, mobile site offices, messes, stores or workshops shall be sited within the permitted road or other highway boundaries.

All areas outside the limits of the Site which are used or occupied by the *Contractor* shall be restored to their original condition on completion of the Works. Such restoration shall include any necessary reinstatement, re-soiling, seeding or planting to the acceptance of the landowner and Cornwall Council (CC).

No area of the road and local roads shall be used for parking of vehicles used by or on behalf of the *Contractor*. The *Contractor* shall not obstruct any lane, road junction vehicular or cyclist / pedestrian access which has not been closed to traffic.

The *Contractor* shall inform the *Employer* of the name(s) and telephone number(s) of a responsible person(s) who can be contacted at any time in an emergency.

The *Contractor*, his agents, servants or workmen shall not erect nor allow his sub-*Contractors* their agents, servants or workmen to erect within the Site any advertisement without the prior written consent of the *Employer*. Should any advertisement be erected without such consent of the *Employer*, he/she shall have power to order in writing the *Contractor* to remove it forthwith. If the *Contractor* shall fail to comply with such order within 24 hours of its delivery to him, the *Employer* shall be entitled to employ and pay other persons to carry out the same and all expenses consequent thereon or incidental thereto shall be borne by the *Contractor* and shall be recoverable from him/her by the *Employer* or may be deducted by the *Employer* from any monies due or which become due to the *Contractor*.

All advertisements, consented under the previous sub-clause, within the Site shall be removed not later than the completion date of the works, unless the *Employer* consents in writing any advertisement to remain for a further period.

The *Contractor*, or any agent or servant in his employment shall not give any information concerning the Works for publication in the press or radio, television or cinema screen or elsewhere without the written approval of the *Employer*

The *Contractor* shall prevent trespass by his own or his *Sub-Contractor's* employees onto any property adjoining the Site.

The *Contractor* shall ensure that no steps, ladders or other plant are left accessible so as to permit unauthorised access to the Works.

The *Contractor* shall maintain the Site in a clean and tidy state by removing rubbish, demolished concrete and other debris arising from the Works to a tip off Site. All materials and plant for the Works shall be stored neatly. On completion of the works, the *Contractor* shall remove all surplus materials and leave the Site in a clean and tidy condition. The programming of any remedial works required after the actual Completion Date for each section of the works shall be agreed with the *Employer* before commencement of those works.

## 2.3 Control of Noise and Vibration

Noise emissions from enabling works: (Condition 12) is a key condition which restricts any noise emissions from the enabling works. This includes construction, equipment and associated infrastructure importation, erection and export, and drilling rig importation, erection and export. Noise emission shall not exceed 65dB LAeq,1 hour as measured one metre from the façade of any noise sensitive receptor during normal working hours.

### 2.3.1 Noise

As part of the updating and further development of the Construction Environmental Management Plan (CEMP), the *Contractor* shall update and submit the Noise and Vibration Management Plan to the Cornwall Council Environmental Health Officer for approval. The *Contractor* shall refer to the relevant mitigation measures included in the Environmental Statement when developing the Noise and Vibration Management Plan.

The Noise and Vibration Management Plan shall adhere to best practice and mitigation measures on site that would adhere to the codes of practice for construction given in British Standard BS 5228-1:2009 and the guidance given therein minimising noise emissions from the Site.

The *Contractor* must follow for the principle of "Best Practicable Means" (BPM), as referenced in COPA1974 / BS 5228, to be used during the construction of the proposed scheme in order to minimise levels of construction noise. This may include the use of temporary noise barriers and acoustic enclosures, together with silenced plant and equipment that is maintained and in good working order.

Noise limits and other specified parameters, including working hours, shall be agreed as part of the Noise and Vibration Management Plan. These limits shall be complied with in relation to the method of working, type of plant to be used and noise mitigation measures for the work site.

*Contractor's* compliance with the Noise and Vibration Management Plan does not preclude the Local Authority from pursuing formal action under section 82 of the Environmental Protection Act (1990) or Section 60 of the Control of Pollution Act 1974 should circumstances require.

The *Contractor* shall be responsible for monitoring the noise levels given in the schedule or the noise levels agreed with the relevant Local Authority.

### 2.3.2 Vibration

The *Contractor* shall adhere to the contents of the Noise and Vibration Management Plan contained within the CEMP as approved by the Local Authority.

Specifically, nearby residents and users of buildings within the vicinity shall, as far as practicable, be protected from vibration. The Vibration Dose Values (VDV) shall not exceed those specified in BS 6472: 1992 Guide to evaluation of human exposure to vibration in buildings (1 Hz to 80 Hz) which will result in a "low probability of adverse comment". To protect buildings from physical damage, peak particle velocity levels shall not exceed 5 mm/sec. The peak particle velocity levels at particularly sensitive buildings shall not exceed 3 mm / sec.

## **2.4 Progress Photographs**

### 2.4.1 General

The *Contractor* shall arrange for a photographic record of the works to be kept. Photographs shall be digital.

Additional pre-start photographs shall be taken as required to include photographs of adjacent buildings and other features, including vegetation and buildings that may be subject to damage caused by the works. Such photographs shall be of a detail and frequency to establish accurately the condition of such items prior to the start of works.

Repeat ground level photographs shall be taken, as close as practicably possible in the same location, at the same height and on the same bearing.

Most importantly, the focal length must remain unchanged for each successive shot at every location (it must be f 50mm, approximating to the human eye).

### 2.4.2 Site coverage and frequency

The *Contractor* shall supply the *Employer* with an electronic copy on memory stick of each progress photograph, as indicated in the Table below:

Location	No	Aerial / ground	Frequency Required	Remarks
Various: along and around the site. Photo locations to be repeated as agreed with the <i>Employer</i>	120	Ground	Within one week of the access date of the works, and subsequently at every one months' intervals until issue of completion certificate.	The objective is to produce a complete record of the site works progress and subsequent monitoring of the site during defects period.

The date of the photographs may be varied to give suitable weather conditions. The clarity of the pictures must take priority over maintaining the exact frequency.

All photographs shall have the time and date automatically printed giving the time and date the photograph was taken.

The following information shall be given with each photograph:

- Location
- Direction in which the photograph was taken
- Unique reference number
- Any other relevant information such a plan

The copyright of all photographs shall be vested with the *Employer* in accordance with the contract and shall be delivered to the *Employer* within one week of being taken.

### 3 Site Clearance

#### 3.1 General

3.1.1 The *Contractor* shall demolish, break up and remove buildings and structures and superficial obstructions on the site in the way of or otherwise affected by the *works*.

3.1.2 Unless stated otherwise, the *Employer* does not want to retain any materials arising from site clearance disposal.

3.1.3 Where possible, materials removed from site through demolition by the *Contractor* shall be reused within the limits of the site.

3.1.4 The *Contractor's* attention is drawn to the potential for Hazardous Materials described in Section 12.

3.1.5 The burning of materials on site shall not be permitted.

3.1.6 The *Contractor's* proposals for site clearance shall include details in relation to areas of vegetation and woodland to be retained and protected, and the means of protection.

3.1.7 Special care shall be taken to ensure that all trees and shrubs not affected by the works are not harmed in any way. Should any trees, shrubs and other planting features which are intended to be preserved be killed, removed or damaged by the *Contractor* during the course of the works, they shall be replaced by the *Contractor* with five plants

for each one damaged of the same species and equal in size to those killed, removed or damaged. Such work shall be carried out at the *Contractor's* own expense including any penalties levied.

3.1.8 Where an existing fence or hedge is cut by the site boundary the severance shall be made good unless otherwise stated either by the continuation of the fence, hedge or wall in a different direction, or by its termination. In the case of a strained wire or chain-link fence a straining post shall be installed and the fence re-strained.

## 4 Fencing and Gates

### 4.1 Fencing

4.1.1 Fencing must be laid out to prevent being scaled from adjacent trees / walls etc. Further site clearance to achieve this must be notified to the client prior to fence erection.

4.1.2 The perimeter fence must be installed such that it provides a continuous barrier to entry (i.e.: there should be no gaps greater than 50mm between adjacent runs of fencing including between different types of fence). Gaps between fencing components shall otherwise be as per the requirements included in the table below.

Location	Description	Foundation Type
Boundary Fence (north, south, east and west perimeter)	2.4m high palisade fence in accordance with BS 1722-12:2016	Refer to BS 1722-12:2016
Internal fence between operational area and non-operational area	2m high chain link fence in accordance with BS 1722-1:2019	Refer to BS 1722-1:2019
Delineation between site and undisturbed woodland	1m high timber post and rail fence in accordance with BS 1722-7:2006	Refer to BS 1722-7:2006
Between access track and attenuation pond	Armco barrier (or similar approved by the <i>Employer</i> )	In accordance with product manufacturer's requirements.
Between lagoon/cutting pit/access track	Suitable edge protection or high containment kerb	In accordance with product manufacturer's requirements.
At the top of any vertical drops of >0.8m high or any slopes steeper than 1:3 and >1.0m high. Any areas otherwise presenting a risk of falls from height as identified by the <i>Contractor</i> .	Kee Klamp railing (or similar approved by the <i>Employer</i> )	In accordance with product manufacturer's requirements.

## 4.2 Gates

4.2.1 Automatic gates required are to be compliant with the HSE guidance note on powered perimeter gates (see Appendix G) particularly with regard to the safety features listed including:

- Any safety edges (usually rubber 'buffer' strips running the full height of the gate);
- Light beams to detect a person or object in the way of the closing gate;
- The operation of the force limitation device (although this is unlikely to be enough to stop injury on its own);
- Fixed guards at other areas e.g. where the vertical bars of a gate slide close to the vertical bars of a fence.

4.2.2 Cabling and ducting shall be allowed for by the *Contractor* to control and power gates.

Location	Description	Foundation Type
Main Access 'Site Entrance' Control Gates	Secure 2.4m High Gate. Double opening. Automated with manual override. Operated from the security cabin and also from key pads at both interior and exterior of the entrance.	Refer to BS 1722-12:2016
Main Site Exit Control Gates	Secure 2.4m high gate. Double opening. Automatic opening via pressure sensor. Can also be operated from the security cabin. Audible alarm in the security hut on gate opening. Manual override at the gate in the case of pressure pad in operation.	Refer to BS 1722-12:2016
Operational Area Vehicular Entrance Gate	Double Gate 2m chain link or similar. Key Pad controlled with manual override on the non-operational side.	
Operational Area pedestrian entrance/exit gate	Key Pad controlled on either side with manual override.	
Permanent gates from main Eden Access Road	The current main gates will stay in place or can be removed and stored as required.	
Operational area pedestrian emergency egress gate. Adjacent to the public viewing area.	Single pedestrian gate. 1m x 2.4m palisade with, securely lockable/unlockable from inside only as suitable for emergency exit.	

4.2.3 *Contractor* to propose signage and/or barriers/gates to delineate areas where load restrictions apply.



## 5 Drainage and Service Ducts

### 5.1 General

5.1.1 The *Contractor* shall design all the drainage on the scheme (surface water and foul), including discharge.

5.1.2 Discharge arrangements from the site shall include provision of any necessary permits/consents.

5.1.3 The *Contractor* shall refer to Cornwall LHA standard details "Design and Construction Guidance" available on-line dated 27<sup>th</sup> March 2020 in providing the assets necessary to complete the compound GA proposed in this *Employers Requirements* document.

5.1.4 It should be noted that the drilling site is temporary and therefore (where possible and cost-effective to do so, and within the limits of Health and Safety and environmental legislation and regulation) it is expected that certain service ducts and service provisions will be installed above ground. Services laid above ground should be protected as required.

5.1.5 Please see 'Outline Drainage Strategy' – available to download as a separate document - in conjunction with this section, while noting that elements of this strategy have been modified.

### 5.2 Surface water run-off

5.2.1 The *Contractor* is to provide a set of runoff control measures to ensure that the quality of the run-off from the site will be equivalent to, or better than, the quality of surface water which runs off the site at present.

5.2.2 Unless otherwise agreed with the Environment Agency or modified in line with current guidance, the surface water system shall be designed to accommodate a modelled rainfall rate based on a 1:100 year event + 40% CC whilst limiting the net discharge flow rate from the site to 5l/s.

5.2.3 The *Contractor* is to confirm groundwater levels at the site through ground investigations to assess the feasibility of infiltrating surface water run-off directly to ground.

5.2.4 The *Contractor* is to provide an Oil Separator with inbuilt monitoring system and alarm to treat the surface water run-off from the Spillage Containment Area prior to discharge. Vehicle access shall be provided to the separator to allow maintenance.

5.2.5 During the enabling works contract, it shall be the responsibility of the *Contractor* to arrange for checking and emptying of the Oil Separator tank in accordance with any necessary licences or permits.

5.2.6 The *Contractor* is to provide a penstock downstream of the Oil Separator prior to discharge into the ditch, which can be utilised in the case of an emergency to retain any runoff within the site boundary.



5.2.7 Pipes for surface water networks shall be of a type approved by the relevant Statutory Authority. Minimum pipe cover depths shall be designed in accordance with Sewerage Sector Guidance Version 1 Appendix C "Design and Construction Guidance Version 2" (DCG). Pipe trench and bedding details shall be designed in accordance with the Manual of Contract Documents for Highway Works (MCHW) Specification for Highway Works Series NG 500 Drainage and Service Ducts.

5.2.8 The *Contractor* is to provide formal headwalls at all new outfall / discharge locations.

5.2.9 Kerbing identified in section 4.1.5 above shall enable through-flow of surface water to prevent ponding at ground level.

5.2.10 All surface water drainage shall be constructed in accordance with the Civil Engineering Specification for the Water Industry (CESWI).

### 5.3 Foul Water

5.3.1 The *Contractor* is to provide a solution for the storage of foul waste produced from welfare facilities on site. It is envisaged that this will be a sewage tank or tanks as outlined in the Reference Design at Appendix A. It is expected that the contractor will optimise the overall design solution to suit the site. This shall be in accordance with BS EN 12566-1. Adequate ventilation of the tank and inlet pipework shall be provided to prevent the accumulation of fermentation gases.

5.3.2 The *Contractor* shall ensure that the sewage tank(s) (septic tank(s) can be accessed safely by a tanker for emptying. During the enabling works contract, it shall be the responsibility of the *Contractor* to arrange for emptying of the septic tank(s) in accordance with any necessary licences or permits.

5.3.3 Pipes for foul water networks shall be of a type approved by the relevant Statutory Authority. Minimum pipe cover depths shall be designed in accordance with Sewerage Sector Guidance Version 1 Appendix C "Design and Construction Guidance Version 2" (DCG). Pipe trench and bedding details shall be designed in accordance with the Manual of Contract Documents for Highway Works (MCHW) Specification for Highway Works Series NG 500 Drainage and Service Ducts.

5.3.5 The *Contractor* is to provide a capped off 225mm diameter stub connection extending into the Operational Area for future connection of foul pipework within the Operational Area (terminal point shown to be confirmed). The location of this stub connection shall be indicated at surface level by clear signage.

5.3.6 All foul water drainage shall be constructed in accordance with the Civil Engineering Specification for the Water Industry (CESWI).

### 5.4 Service Ducts

5.4.1 Pipes for service ducts shall be of a type approved by the relevant Statutory Authority. Minimum cover to all ducts to be 750mm under carriageway and 450mm in verge; trench

and bedding detail shall generally be Type Z under carriageway and Type S under verge as shown on drawing F1 of the Highway Construction Details unless shown otherwise. Services laid above ground should be protected as required.

5.4.2 Nesting patterns of multiple ducts shall be in accordance with drawing MCX 0814 of HCD.

5.4.3 Polyethylene marker tape 150mm wide, gauge 0.10mm shall be installed 150mm above the topmost duct along the whole length:

Colour	Inscription	Use
Yellow with black and red legend	Road Duct	Road lighting cable and various. See SHW Clause 1511
Yellow with black and red legend	Electricity	Mains
Blue	Water	Mains
Green	BT Cables	Ductwork

5.4.4 The legend shall be continuous along the tape. Additional tapes shall be laid at max 450mm centres when wide trenches are encountered.

5.4.5 Coloured PVC ducts are to be used for relevant service only as set out below. The inscription shall be continuous along its length.

Colour	Inscription	Use
Blue	Water	Water services
Grey	BT	BT
Black	Electricity	Lighting and WPD
Orange	Traffic signals	Traffic signals and site security
Yellow	Gas	Gas
Purple	See Clause 1511	Communication data and power

5.4.6 Draw ropes shall be pigmented, stranded polypropylene to SHW sub-Clause 501.8 with a metallic conductor to facilitate detection. The conductor may be separate from the standard draw wire.

5.4.7 All ducts shall be marked using marker blocks as shown on drawing I1 of the HCD. They shall additionally extend under footways to the outer verge as shown on the drawings, where appropriate.

5.4.8 Ducts other than those used for electrical supplies to road lighting and lit signs shall also be marked using location posts as shown on drawing I1 of the HCD.

5.4.9 The *Contractor's* proposals for the provision of service ducts for Statutory Undertakers apparatus, communications cables and other power cables shall be given in a completed Specification Appendices in the form detailed in the Notes for Guidance on the Specifications for Highway Works together with associated drawings and schedules.

## 6 Geotechnics

### 6.1 General

6.1.1 The *Contractor* shall carry out geotechnical design in accordance with best practice.

### 6.2 Hazardous Materials

6.2.1 It is possible that hazardous materials may be encountered as referenced in Appendix E. Potentially hazardous materials have been recorded on site and their locations are referenced in the site information.

6.2.2 The *Contractor* must agree a safe working procedure (an "Earthworks Management Strategy") before commencing works on site that considers the risk to workers from potentially contaminated soils. These should detail emergency procedures to deal with unexpected contamination and best practices for any proposed confined working. This information will update the Construction Environmental Management Plan (CEMP) which was developed for the site in 2013 and which is available to download separately.

6.2.3 The *Contractor* must consider the risk from unexploded ordinance (UXO) during any excavation works.

6.2.4 The *Contractor* must implement a safe working procedure before commencing works on site that considers the risk to workers from ground gas and radon.

6.2.5 Any work involved with Class U1B and Class U2 shall be carried out by the *Contractor* in accordance with the following documents:

- Protection of Workers and the General Public during the Development of Contaminated Land, HSE, 1991;
- A Guide to Safe Working on Contaminated Sites, R132, CIRIA, 1996;
- Environmental Protection Act 1990;
- Control of Pollution Act 1974; and
- The Special Waste Regulations 1996 (as amended).

6.2.6 Class U1B and Class U2 material removed from site shall be transported by a licensed waste carrier to a suitably licensed waste facility. Waste transfer notices shall be provided to the *Employer* for all material taken off site.

6.2.7 Prior to any handling of Invasive non-native species the *Contractor* must develop an Invasive Non-Native Species Management Plan. Any changes to the Plan must be agreed by the *Employer*. This shall include provision for maintaining the current exclusion zone for Japanese Knotweed.

6.2.8 The *Contractor* shall be responsible for complying with all other relevant legislation, obtaining permits and licenses and maintaining records with respect to any waste disposal, treatment or transfer.

6.2.9 Should the *Contractor* have reason to believe that potentially contaminated material has been encountered then the *Contractor* will immediately consult with the *Employer* to identify a suitable course of action.

6.2.10 Material management at the site shall be undertaken in accordance with the CL:AIRE (Contaminated Land: Applications In Real Environments) Definition of Waste Development Industry Code of Practice (CoP).

6.2.11 A Materials Management Plan (MMP) shall be in place covering the use of materials in the works. The *Contractor* shall ensure that materials are treated and used as set out in the MMP. The *Contractor* shall update the MMP to account for any changes in working methods and/or changes to the works information. Any deviation from the MMP must be recorded in the document control section of the MMP and may take the form of an addendum to the MMP. Any such changes shall subsequently be detailed in the verification report.

## 7 Pavements

### 7.1 Access Roads, parking and lay-down areas

7.1.1 The *Contractor's* proposals shall be submitted for acceptance together with associated drawings and incorporating the specific requirements stated hereafter.

7.1.2 The *Contractor's* proposals for areas that will require a loading capacity shall be suitable to accommodate all vehicle movements required for the mobilisation/demobilisation of the proposed drilling rig and associated equipment. For design purposes the loadings can be found in Appendix H. It is expected that the maximum design loading capacity will be the axle loadings based on the crane lifting capacity. This is expected to be a maximum of 500 tonnes. The axle loadings can be found at <https://www.ainscough.co.uk/crane-specifications/Liebherr-LTM-1450-8-1.pdf>. The heaviest rig transportation load will be the Drawworks at 58 tonnes.

7.1.3 The access road shall allow for two-way light vehicle traffic concurrently entering and leaving the non-operational area as shown in Appendix A. It is accepted that exiting light vehicles will need to give-way to incoming large vehicles. The access road through the Operational Area need only be suitable for one-way traffic. For abnormal loads, it is anticipated that access to the site from the adjacent road will be managed and coordinated with site security (i.e. that staff will be available on site to marshal traffic).

7.1.4 The accessway into and out of the site shall use a bound pavement. This may be either flexible or rigid. (See Reference Design, Appendix A.) A flexible pavement shall be designed in accordance with the Mineral Products Association's (MPA) guide for "construction and surfacing of parking areas for medium and heavyweight vehicles" or an equivalent method approved by the *Employer*. A rigid pavement shall be designed in accordance with TR66 (by the Concrete Society), or an equivalent alternative approved by the *Employer*. The *Employer* will accept different pavement types (bound and unbound) within the operational and non-operational areas.

7.1.5 It is expected that, due to its cost effectiveness, the roadway type within the operational and non-operational areas will be of unbound. However the *Employer* will accept other proposals.

7.1.6 The paved areas and hardstanding areas shall have a design life of 5 years.

7.1.7 The *Contractor* shall design the roadway for the following vehicles:

- 7.5m van;
- 16.5m lorry (legal max. artic);
- 16.9m x 3.5m low loader (VFD unit).

7.1.8 Laydown areas (apart from the Containment area) shall be designed using an unbound surface. The *Contractor* shall design these areas in accordance with CD225 (DMRB) or an alternative method approved by the *Employer*.

7.1.9 The *Employer* shall be responsible for all liaison and planning regarding abnormal vehicle movements outside the site boundary, except within the immediate vicinity of the site entrance, where the *Contractor* shall ensure that their site arrangement is suitable for entry of the largest prescribed vehicle.

7.1.10 The *Contractor* shall specify and design appropriate signage to ensure safe and coherent navigation of the site by all users.

7.1.11 The *Contractor* shall design the layout of the site, such that, unless otherwise stated, gradients are not steeper than 1:40 for laydown or hard-standing areas and no steeper than 1:20 otherwise. Impermeable surfaces shall have a minimum cross-fall or long-fall of 1:60 (preferred) or 1:80 (absolute). The spillage containment area and rig pad must fall to the cuttings pit from all directions and the fall gradient should not be steeper than 1:500.

7.1.12 The *Contractor* shall refer to Cornwall LHA standard details "Design and Construction Guidance" available on-line dated 27<sup>th</sup> March 2020 in providing the assets necessary to complete the compound GA proposed in this *Employers* Requirements document.

## 8 Drilling Facilities

### 8.1 Rig Details

8.1.1 Details of the proposed drilling rig, including required loading, vehicle movements, vehicle sizes, etc. will be provided by the *Employer*. The *Contractor's* proposals shall be designed accordingly.

8.1.2 The detailed rig loading information can be downloaded (2 files) alongside this document. Details are given in Appendix H.

## 8.2 Spillage Containment Area

8.2.1 The *Contractor* shall design the Containment area as a level structural zone. The loading requirements for this area will be dictated by the drilling rig to be used (see 8.1 above) and any ancillary equipment. The structural hardstanding shall be designed to take the load of the rig and ancillary equipment.

8.2.2 The *Contractor* shall ensure their design meets the following minimum requirements:

- Spillage containment area dimensions – minimum plan area is approximately 89m x 50m;
- Surface water drainage solution which will allow only water from the concrete rig pad to enter the cellars;
- Drainage system for the spillage containment area shall discharge into the oil interceptor/separator, which will be dimensioned accordingly. It is envisaged that (depending on the contractors design) the area will be contained using a feathered concrete or tarmac nib around the perimeter of the area in order to ensure any larger spills are controlled adequately;
- The outlet from the oil interceptor/separator shall discharge into the perimeter drainage ditch.

8.2.3 Ideally the *Employer* would like a surface which achieves the loading requirement, deals with multiple vehicle/forklift movements across the surface, can be cleaned/washed down easily and is cost effective (considering the temporary nature of the installation). With this in mind, the *Employer* requests proposals for priced options as per the below:

- **Main Option 1:** A bound flexible tarmac surface over engineered aggregate with membrane beneath to ensure drainage is channelled to the interceptor.
- **Alternative Option 2:** An unbound engineered aggregate surface with membrane beneath to ensure drainage is channelled into the interceptor.
- **Alternative Option 3:** A load bearing concrete surface with engineered fall (within tolerance) to the interceptor.
- **Alternative Option 4:** Any other option to achieve the requirements whilst remaining cost effective.

The above options should also specify any deviations from the programme relative to **Option 1**.

## 8.3 Rig Pad

8.3.1 The loading requirements for this area will be dictated by the drilling rig to be used and any ancillary equipment (see 8.1 above). The structural hardstanding for the rig pad shall be designed with a concrete surface, in accordance with TR66 (by the Concrete Society), or an equivalent alternative approved by the *Employer*.

8.3.2 The *Contractor* shall ensure their design meets the following minimum requirements:

- The *Contractor* will need to design the rig pad, and associated reinforcing or piling, to ensure that the drilling rig loading can be fully supported with allowance for the ground conditions and with no tolerance for movement.



- Rig pad dimensions – The area will be determined by the rig pad loading and foundation requirements as per the rig loading data outlined in Section 8.1.
- The levelling requirements should be strictly adhered to, see Appendix H.
- Cellar dimensions – 2No – with internal dimensions 3m by 3m and 4m deep. The cellar construction can be square or spherical - an example of the cellar can be found in Appendix F. Each of the cellars shall have a strong galvanised grid cover (comprising sections that can be manually lifted) that encircles the raised portion of the conductor pipe. The cellar shall incorporate ladder or rung access;
- The cellars shall be structurally tied into the drilling pad. Note for clarity: The drawings in Appendix H show foundation requirements for only 1No well. The substructure foundations will need to be extended to allow for the 2No wells as per the Drawing in Appendix H.
- The cellars shall be 10 metres apart (centre point to centre point);
- If a segmental approach is adopted, then they must be sealed between units so water ingress is limited to British Tunnelling Society requirements, i.e. 0.1 litres / minute / m<sup>2</sup>;
- Sump requirements – Sump Pump will be 0.5m x 0.5m x 0.5m Depth;
- Rig pad reaches the required design strength (14.1) by the Completion Date.

8.3.3 The *Contractor* shall ensure a conductor is installed as per the below specifications. The precise installation method should be agreed with the *Employer* prior to implementation:

- 30" diameter conductor is required to be installed in each cellar;
- The conductor shall be installed central to the pre-installed cellar;
- The conductor shall be grouted in place (typically this would mean drilling a 36" hole);
- The grout shall be Class A x 15ppg cement with Wait On Cement (WOC) time of at least 12 hours. The cement needs to be in place throughout the annulus and returns to surface are expected. If this is not achieved Contractor shall conduct top up cementing after the required WOC time until cement returns to surface.
- It is expected that the cement job for the conductor would be undertaken in two stages. 1) A Grout Plug so that the shoe is cemented in place; 2) Annulus cementing.
- The conductor pipe material shall be spiral welded pipe according to API 5L PSL1 Grade B / EN10219;
- The conductor pipe shall have the ability to be welded on site and all welds to be undertaken in accordance with the current British Standards or equivalent;
- The installed conductor pipe shall be vertical to below 1° inclination. This will be verified using laser spirit level. Any deviation from this to be discussed with *Employer* on a daily basis to agree if remedial measures are required;
- Required to be installed to an anticipated depth of 30m below rig pad level;
- The minimum thickness of the conductor pipe wall shall be 12.7mm
- The *Contractor* shall provide daily logs relating to drilling, surveying and grouting records to the *Employer*.
- The conductor shall be cut off close to, but no less than 300 mm above ground level (i.e. 4.3m above cellar base);
- Conductor pipe shall be temporarily capped. The cellars will need to be fenced off with a temporary Herras fencing barrier to reduce potential for accidental damage;

- 2 extra lengths of conductor pipe shall be procured by the *Contractor* and left on site for use during the drilling of the main well. These are to be approximately 10m each in length.

## 8.4 Cuttings Pit

8.4.1 The *Contractor* shall ensure their design meets the following minimum requirements:

- The cuttings pit shall be watertight. All liner material will be laid according to manufacturer's recommendations and regulatory guidance where it exists.
- The liner will need to be able to withstand a temperature of 90 degrees centigrade. It is anticipated that the liner will be HDPE, however the *Employer* will consider other proposals.
- A bunded cuttings pit with a minimum capacity of 400 cu m is required. The proposed design shall be agreed by the *Employer* prior to construction taking place. The suggested location of the cuttings pit is as per the plan in Appendix A;
- Capacity: the cuttings pit will have a minimum capacity of 400m<sup>3</sup>. It is envisaged that the pit will be around 2.5m deep.
- It is expected that the sides of the cutting pit shall not be vertical;
- The sides and base of pit shall be sufficiently engineered so that a long-reach excavator, working from the top edge of the pit, will have the ability to scrape out the cuttings from the pit for removal from site without damaging the liner. This would usually mean applying a concrete lining to the side and base of the pit;
- Minimum distance between cutting pit and lagoon – 7m (approximately);
- Minimum distance between the wellhead and cutting pit approximately 10 – 12m (to be confirmed following issue of this ITT).
- We would expect the pit to sustain a loading of at least 20t from vehicles parked adjacent and loading influence from the drilling operations.

## 8.5 Water storage lagoon

8.5.1 The *Contractor's* design shall ensure their design meets the following minimum requirements, and shall submit their design for agreement by the *Employer* prior to construction:

- The water storage lagoon shall be watertight. All liner material will be laid according to manufacturer's recommendations and regulatory guidance where it exists.
- The liner will need to be able to withstand a temperature of 90 degree centigrade. It is anticipated that the liner will be HDPE. However, the *Employer* will consider other proposals.
- The water storage lagoon will not exceed the area designated on site as per the plan in Appendix A;
- The lagoon shall contain a capacity of 3,900 - 4,000m<sup>3</sup>;
- It is envisaged the lagoon will be 3m deep, with 2.5m below ground level and the top edge at 0.5 m above ground level. However, the design may be optimised by the *Contractor*;
- The lagoon may be bunded or constructed with concrete. The final layout may be optimised by the *Contractor's* design team as required;



- There will be an overflow discharge from the lagoon into surface water drainage. The purpose of the lagoon during well testing is to act as a buffer for the storage of production fluid and re-injection fluid;
- Vehicular access to the lagoon is not required;
- There are no specific requirements for operation and maintenance.

## 8.6 Water Supply for Drilling Operation

8.6.1 The *Employer* is arranging for a water supply for the drilling operation to be installed to the site boundary under a separate contract. This will be in place by the access date and will be located in the south east corner of the site, as per the drawing in Appendix A.

8.6.2 The *Contractor* shall ensure their design meets the following minimum requirements:

- The water supply shall enter the southeast corner of the site and will feed into a distribution pipeline running around the edge of the site to be provided by the *Contractor* (see Appendix A);
- The water distribution pipeline will be a 63mm alkythene line or equivalent to permit a flow rate of 15l/s to be supplied to the hydrants and manifold. This will need to operate 24 hours a day and 7 days a week;
- The pipeline will need to be insulated against freezing;
- The *Contractor* shall provide:
  - 3 No. of hydrants located as per the drawing in Appendix A
  - 1 x manifold located as per the drawing in Appendix A

## 9 Privately and Publicly Owned Services or Supplies

### 9.1 General

9.1.1 The approximate locations of known, abandoned or existing apparatus required within the site boundary are shown on the drawings listed and contained in the Site Information. The *Contractor* shall verify the data shown with the respective Statutory Undertaker. The *Contractor* shall obtain definitive rules pertaining to operating in the vicinity of their apparatus from each Statutory Undertaker and then abide by those rules.

9.1.2 The *Contractor* shall be required to source the C3 information and obtain updated C4 quotations from the Statutory Undertakers reflecting their design.

9.1.3 The *Contractor* shall order and pay the Statutory Undertakers.

9.1.4 The *Contractor* shall take account of all environmental aspects, including impacts on landscaping, planting and other mitigation measures, in developing the detailed proposals for necessary diversion works.

9.1.5 The *Contractor* shall manage, co-ordinate and programme the Statutory Undertakers' work.

9.1.6 The *Contractor* shall be responsible for determining the levels required for the diversion, Site clearance requirements, setting out requirements and access requirements and obtaining any wayleaves. The *Contractor* shall be responsible for the full integration of the works to be undertaken by the Statutory Undertakers into the Accepted Programme for the works and for ensuring that any necessary preparatory work is completed in accordance with that programme.

## 9.2 Private Supplies and Services

9.2.1 The *Contractor* shall locate all private supplies and services affected by the works and be responsible for the payment, management, co- ordination and programming of any necessary diversionary or protection works to maintain the existing supplies or services.

# 10 Health and Safety

## 10.1 Principal Contractor

10.1.1 The *Employer* appoints the *Contractor* to act as Principal *Contractor* for the purposes of the Construction (Design and Management) Regulations 2015.

## 10.2 Principal Designer

10.2.1 The *Employer* expects that the *Contractor's* Designer will fulfil this role under the Construction (Design and Management) Regulations 2015 (CDM Regulations).

## 10.3 Designer

10.3.1 The *Contractor* appoints a Designer under the Construction (Design and Management) Regulations 2015 (CDM Regulations) from the Contract Date. In this contract the role of the Designer is referred to as the *Contractor's* designer.

## 10.4 Pre-Construction and Construction Phase Health and Safety Plans

10.4.1 An outline Pre-Construction Information Pack, prepared in accordance with the CDM Regulations (2015) is included in Appendix C.

10.4.2 Prior to commencement of any construction works the *Contractor* will be required to fully develop the Pre-Construction Information Pack in accordance with the CDM Regulations (2015).

10.4.3 The *Contractor* will be required to develop a comprehensive Construction Phase Health and Safety Plan in accordance with the CDM Regulations (2015).

## 10.5 Health and Safety File

10.5.1 A Health and Safety File shall be prepared by the Principal Designer in accordance with the CDM Regulations (2015).

10.5.2 The information shall be issued within one month of completion of the works

## 10.6 Accident Reporting

10.6.1 The *Contractor* shall implement an Accident and Incident Reporting system that allows the completion of a single incident report, which can be submitted to several organisations.

10.6.2 The *Contractor* shall also ensure that all accidents, incidents and near misses that occur while undertaking the Works are reported by phone to the *Employer* within two hours. This in effect means all incidents that are recorded within the accident book/records.

10.6.3 The *Contractor* shall be responsible for all reporting to RIDDOR during Works.

# 11 Progress Meetings

## 11.1 Progress Meetings

11.1.1 The *Contractor* and the *Contractor's* designer shall attend formal progress meetings each month with the *Employer* and such other bodies as may be required from the starting date until Completion.

11.1.2 The agenda for the meetings shall be prepared by the *Contractor* and forwarded to the *Employer* at least one week prior to the meeting for comment.

11.1.3 The *Contractor* shall prepare and submit to the *Employer*, at least two working days in advance of the meeting, a monthly progress report to include the following information:

- Health and Safety / CDM issues;
- Progress report for period covered by meeting;
- Work programme for next reporting period;
- Actual start dates of activities commenced since the previous update and reasons for any changes from the accepted Programme and any impact on the key date stated in Contract Data Part one;
- Actual Completion Dates of activities completed since the previous update and reasons for any changes from the accepted Programme;
- The anticipated time for Completion, in working days, for activities in hand;
- Any change requested by the *Contractor* to the programmed Completion Date appropriate to each Section of the works of the commission and the reasons for any change;
- Proposals for retrieving of any slippage to the accepted Programme;
- Design issues;

- Confirmation of scheme costs estimate and budget forecast;
- Payment Schedule;
- Agreement of Compensation Events;
- Confirmation of payments & progress;
- Subcontractors and Suppliers;
- Quality Matters;
- Environmental Matters; and
- Third Party Claims

11.1.4 The *Contractor* shall prepare minutes of the monthly progress meetings and shall submit them within 5 working days of the meeting to the *Employer* for agreement. The minutes shall include an abbreviated action list with assigned responsibilities.

11.1.5 Within 5 working days before each progress meeting the *Contractor* shall update his work programme and issue "print-outs" two working days prior to the progress meeting. Appropriate data will be provided by the *Employer* in respect of activities for which they are responsible.

11.1.6 The *Contractor* shall allow for weekly meetings with all parties to discuss site issues.

## Appendix C - Extracts from Pre-Construction Information report document reference 417598 | 10 | A 417598-MMD-00-XX-RP-Z-0010, created by Mott Macdonald 16<sup>th</sup> April 2020

Please note that this is an extract from the original document, and as such certain disclaimers and caveats apply.

PCI1	Introduction
PCI1.1	Preparation and Purpose of the Pre-Construction Information
PCI1.2	Clients Duties
PCI 1.2.1	Notification
PPCI 2	Information
PCI 2.1	Significant Health and Safety Information:
PCI 2.2	Key Dates & Working Hours
PCI 2.3	Client
PCI 2.4	Principal Designer
PCI 2.5	Designer
PCI 2.6	Principal Contractor
PCI 2.7	Contractor
PCI 2.8	Clients' Planning and Management
PCI 2.9	Communication & Co-ordination Requirements
PCI 2.10	Compound & Welfare
PCI 2.11	Existing Records and Plans
PCI 2.12	Health and Safety File

### PCI 1 Introduction

This document should be read in conjunction with all other project information. See Appendix A for existing records and plans.

#### PCI 1.1 Preparation and Purpose of the Pre-Construction Information

This Pre-Construction Information has been prepared by Mott MacDonald (MM) in accordance with the Construction (Design & Management) Regulations 2015 (CDM 2015).

In our role as collator of this information, MM does not accept any responsibility for the accuracy of the information provided by others and does not have any liability or responsibility for the methods of construction used throughout the construction process.

#### PCI 1.2 Client's Duties

Before the construction phase begins, the Client (also referred to as 'the Employer' in the Scope of Works at Appendix B) has a legal duty to: -

- Ensure that a Construction Phase Plan (CPP) is drawn up by the Contractor if there is only one Contractor, or by the Principal Contractor. The CPP must adequately address the arrangements for managing risk, must be relevant and must meet the requirements of the project taking into account the PCI information.
- Ensure that workers are provided with suitable welfare facilities for the duration of construction work.
- Where appropriate provide the HSE with *Notification* details for the project using the standard on-line F10 form.

### **PCI 1.2.1 Notification**

Under current law, a construction project is notifiable if the construction work is expected to:

- last longer than 30 working days and have more than 20 workers working at the same time at any point on the project or
- exceed 500 person-days.

Pending discussion with the successful enabling works contractor, it is expected this project will require an F10 notification to the HSE.

The F10 notification will require nomination of the parties formally taking roles under CDM 2015 to deliver this enabling works project (which may vary from those defined in section 2 below) along with an estimate of the current levels of resource employed at the site and anticipated construction program. As a statutory notification mechanism, this should be regularly updated to keep this record current.

## **PCI 2 Information**

### **PCI 2.1 Significant Health and Safety Information:**

- Significant residual risks could arise from development of construction methodologies needed to install the conductor pipe.
- There is recorded presence of landfill material contained within the made ground overlaying the site. The material tested to date has been noted as 'non – hazardous' in previous reporting, but potential exists for presence of hazardous material and a need to dispose of arisings if impossible to use elsewhere on the site.
- At this stage of the design, the following significant risks have been identified:
- Potential for traffic to stack onto highway. (Design mitigation by allowing for set-back entrance security gate).
- Potential for unauthorized pedestrians to walk on to the site. (Design mitigation by provision of perimeter fencing).
- Fluid retaining structures will act as above ground 'reservoirs'. Process water could be up to 90°C
- Potential for confined space in construction and operation of cellars, and connector pipe.
- Presence of gas in made ground throughout in which there may be Methane, CO2 and Radon
- Potential for leaching of harmful concentrations of fluid from made ground.
- Potential for septic tank to be under-size
- (Designer has considered Client accommodation specification for sizing)
- Potential for excessive traffic movement in Operational area (See General Arrangement drawing)
- (Design mitigation by placing septic tank in non-operational area.)
- Ground stability risk of heavy vehicles and plant adjacent to embankments and retaining structures. (e.g. between the lagoon and cuttings pit).
- Potential for harmful materials within arisings from made ground excavated.
- Potential for differential settlement due to decomposition of organic material

## **PCI 2.2 Key Dates & Working Hours:**

Under current planning restrictions, site working hours will be limited to:

Monday to Friday	0700 - 1830
Saturday	0700 - 1300
Sunday	No Working

However, on 13 May 2020 HM Government issued a written ministerial statement outlining its expectation that LPAs will approve requests to extend construction working hours to 9pm Monday-Saturday for a temporary period until May 2021. EGL intends to submit such a request to the LPA for approval.

## **PCI 2.3 Client:**

Eden Geothermal Ltd,  
The Eden Project,  
Bodelva,  
Par,  
Cornwall,  
PL24 2SG

## **PCI 2.4 Principal Designer:**

### **PCI 2.5 Designer**

It is likely other design organisations will be appointed to provide specialist input throughout the development of this project, hence this list is expected to grow and is likely to include the contractor

### **PCI 2.6 Principal Contractor**

Not yet appointed. This role will exist as there will be more than one contractor simultaneously operating at the site during the enabling works. By default, the Client retains this role until a formal appointment is made.

It is the Principal Contractors responsibility to develop the Construction Phase Plan with input from the Contractor(s). It is currently expected this shall be submitted by the Contractor to the Principal Contractor (the Client unless subsequently appointed) for review and acceptance by the Principal Designer.

### **PCI 2.7 Contractor**

The enabling works Contractor responsible for delivery of the counter-part Employers Requirements is shall provide a Construction Phase Plan to the Principal Contractor (currently the Client) for review. This shall include input from any subcontractors they might seek to employ to complete the Employers Requirements.

Prior to the commencement of works on-site the Client must ensure that the CPP adequately addresses the arrangements for managing the risks.



If there are significant changes to the Employers Requirements, the Construction Phase Plan should be updated and similarly submitted for review and 'Accepted' by the Principal Designer and Client prior to its implementation.

### **PCI 2.8 Clients' Planning and Management**

Along with any other relevant Design Data, requested by the Principal Designer, the Contractor is to include in his Construction Phase Plan a Traffic Management Plan to show the layout of traffic and pedestrian routes, welfare location and all storage and lay down areas – to be agreed with the Client.

The Contractor is required to provide the Client with information about the specific emergency procedures to be adopted during the construction phase. This will include arrangements for working and non-working hour periods. Emergency contact details for Client and Contractor should be provided at the start up meeting and enclosed within the Construction Phase Plan.

The Contractors on site will be expected to invoke and clearly identify strict guidelines and procedures in respect of drugs and alcohol use through both induction and within the Construction Phase Plan.

### **PCI 2.9 Communication & Co-ordination Requirements**

The formal Communication and Co-ordination requirements of the project are defined in the Employers Requirements. Separately additional informal discussions aiding development of the designs required are actively encouraged between all parties. Initially the principal contacts for these discussions should be routed through the contacts identified in sections 2.5 to 2.9 of this document.

### **PCI 2.10 Compound & Welfare**

The construction of the compound and suitable welfare arrangements have been specified by the Client and laid out in the Employers Requirements for this enabling works phase. As a minimum this shall be in accordance with Schedule 2 of the CDM Regulations 2015. Until a Principal Contractor is appointed to manage the site, Client approval shall be requested to vary the existing requirements stipulated.

The arrangements and further details beyond what is provide in the Employers Requirements to operate the site are to be laid out in the Contractors Construction Phase Plan. The General Arrangement provided with the Employers Requirements compound

### **PCI 2.11 Existing Records and Plans**

The Principal Contractor shall ensure that this information is passed to Contractors engaged on the site.

<i>Doc/Drawing Name</i>	<i>Document/Drawing Ref</i>
Geotechnical & Geo-environmental Review	Appendix E EGL-ITT-C007
Employers Reference Design	Appendix A EGL-ITT-C007/ EGL Reference Design DR-001
Vehicle Tracking (7.5m Van)	417598-MMD-00-XX-DR-C-0002
Vehicle Tracking (16.5m Articulated Lorry)	417598-MMD-00-XX-DR-C-0003
Vehicle Tracking (19.6m Low Loader)	417598-MMD-00-XX-DR-C-0004

*Doc/Drawing Name*

*Document/Drawing Ref*

Drainage Strategy

417598-MMD-00-XX-RP-D-0009

Pre-Construction Information

Appendix C EGL-ITT-C007

Further supporting documents are accessible through the Cornwall Council Planning Portal, however, if used, please confirm current suitability of this information with the Client.

Relevant Planning applications are: PA10-04671 and PA13-05057 – available to download separately alongside the ITT document.

### **PCI 2.12 Health and Safety File**

Information to be forwarded by the Principal Contractor (PC), Contractors (C), Designers (D) and Principal Designer (PD) for inclusion in the Health and Safety File is shown below. The letters in brackets indicate the party which should be providing the information

Documents are to be originals or clear legible copies

Information	Responsible	Complete
Brief description of design / construction work carried out.	PD/PC	
List of principal parties involved in the project, including company names, addresses and telephone numbers for Client, Contract Administrator, Designer, Principal Designer	PD	
A table is to be provided by the Principal Contractor indicating the names, addresses and contact details of any Contractors employed on the works. The latter to include a brief description of the work carried out by the Contractor. Names of personnel should be excluded	PC	
Any residual hazards and how they would be dealt with. This is to include the presence of any unidentified services encountered. Any unexpected hazards encountered during the works	D/PC	
Key structural principles (for example, bracing, sources of substantial stored energy – including pre- or post-tensioned members) and safe working loads for floors and roofs, particularly where these may preclude placing scaffolding or heavy machinery there	D	
The general details of all materials used	D/PC	
Details of hazardous material used. Material data sheets for any materials used in the works which could be hazardous during future maintenance, alteration, cleaning or demolition	PC	
Details of preparation methods employed and materials applied (including manufacturer’s trade descriptions), the suppliers, their addresses and telephone numbers	PC	
Design criteria for materials and associated components (i.e. their anticipated life before replacement envisaged)	D/PC	
Information regarding the removal or dismantling of installed plant and equipment (for example any special arrangements for lifting, order or other special instructions for dismantling etc.)	D	
Health and safety information about maintenance and cleaning	D/PC	
Details on nature and precise location and marking of services presented schematically. Particularly where services were found to be in a different position than shown or indeed were encountered during the works but were previously unrecorded. In this case, type, size and precise location is required	C/D/PC	
Maintenance/cleaning/dismantling/inspection procedures to be adopted in the future – these can include manufacturer’s documents for the materials/components installed	D/PC	
As-built drawings - all drawings must be marked “As-Built” or “Record Drawing”. They should therefore not carry a revision letter or “clouding”. If the drawings have been reduced, they must remain legible. Drawings specifically produced for the project are to be a true reflection of the structures as constructed and not limited to ‘schematics’. Any hidden services are to be included. It should be noted that construction issue drawings will not be considered adequate for the Health and Safety File.	PC	

## APPENDIX D – Information Delivery Plan

Planning for information delivery is the responsibility of the *Contractor* and plans should be formulated in response to the information requirements and should reflect the scope of the contract within the overall asset life cycle. Each information delivery plan should state:

Requirements	Reference
Originator	Deliverable owner
Deliverable name	ISO 19650-2 National Annex NA
Uniclass code	<a href="https://www.thenbs.com/our-tools/uniclass-2015">https://www.thenbs.com/our-tools/uniclass-2015</a>
Uniclass title	<a href="https://www.thenbs.com/our-tools/uniclass-2015">https://www.thenbs.com/our-tools/uniclass-2015</a>
LOD	Level of definition ( <a href="https://toolkit.thenbs.com/definitions">https://toolkit.thenbs.com/definitions</a> )
Native format	Software extensions
Exchange format	*.IFC, *.PDF, other open formats

## **APPENDIX E – Extract from Mott Macdonald Geotechnical and Geo-Environmental Review and Recommendations document reference 417598-MMD-00-XX-RP-Z-002 6<sup>th</sup> April 2020**

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## GEO 1 Introduction

Mott MacDonald have been commissioned on behalf of Eden Geothermal Limited to produce a geotechnical and geo-environmental review of existing information for proposed enabling works ahead of the construction of a geothermal power station at a site within the Eden Project, Cornwall. This review includes an up to date risk register and identifies potential areas of uncertainty ahead of the development of enabling infrastructure.

### GEO 1.1 Background

Eden Geothermal Limited (the client; also known as 'the Employer' in the Scope of Works at Appendix B of EGL-ITT-C007) are proposing to build the UK's first geothermal power plant on an unoccupied, vegetated, former landfill site located approximately 800m north-west of the Eden Project's rainforest biome dome. Once operational, the power plant will comprise two boreholes drilled to approximately 4.5km depth to allow circulation of super-heated water and subsequent production of electricity.

Ahead of the completion of the main boring works into the underlying granite, site infrastructure including: the main access road; a drilling foundation pad and cellars; a settlement lagoon; a cuttings pit and conductor pipe, must be constructed to enable the access and operation of the drilling rig. The proposed enabling works are detailed separately in Part F or this ITT. It is anticipated that some earthworks will be necessary to permit the construction of the drilling foundation pad, the settlement lagoon and cuttings pit, although details of these workings are yet to be finalised.

### GEO 1.2 Scope and Objective of Work

Mott MacDonald have been commissioned by Eden Geothermal Limited, the client, to review existing information and identify geo-environmental or geotechnical risks to the development.

The objectives of this report are listed below.

- Review works completed on site to date;
- Summarise the geo-environmental and geotechnical setting of the site and identify potential risks to development; and,
- Advise where acceptable risk may be passed to the selected contractor or where further investigative works are required.

### GEO 1.3 Sources of Information

The following have been made available for the purposes of this report:

- Eden Geothermal. Downloaded 19/02/2020. *Summary of Site Design Tender*
- Parsons Brinckerhoff. July 2014. *Ground Investigation Report for the Eden Deep Geothermal Project Pre-Enabling Works, Cornwall. Job No: 3512819A-HHE*<sup>2</sup> (the raw data on which this report draws, collected by CJ Associates, has not been provided).
- Buro Happold. July 2010. *026893 Eden Geothermal, Geoenvironmental Interpretative Report. Revision 01*<sup>3</sup>.

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1 Eden Geothermal. Downloaded 19/02/2020. *Summary of Site Design Tender*

2 Parsons Brinckerhoff. 2014. *Ground Investigation Report for the Eden Deep Geothermal Project Pre-Enabling Works, Cornwall. Job No: 3512819A-HHE*.

3 Buro Happold. July 2010. *026893 Eden Geothermal, Geoenvironmental Interpretative Report. Revision 01*.

## **GEO 2 Existing Investigation**

### **GEO 2.1 Summary Site Description**

At the time of writing, a site walkover has not been possible. Therefore, the following site description has been taken from the summary of site design tender1:

*The site is "an unoccupied plot of land adjacent to the north Gate of the Eden Project in Cornwall. The site lies at the base of a shallow valley adjacent to the northern entrance of the Eden Project (National Grid Reference 204310 055710). The site is currently unused, comprising a mixture of wetland, landfill, rough ground, reeds and scrub. The eastern and western sides of the site were partially covered by fill material (demolition rubble) during the early 1990s to a depth of 1.5 – 3.8m."*

*"The overall area of the site is approximately 28,000m<sup>2</sup> (2.8ha). the ground level generally slopes gently from south to north across the site from approximately +136mOD adjacent to the southern boundary, across a distance of 175m, to approximately +131mOD on the hardstanding at the site entrance. The central area of the site is lower than the remainder of the site with an approximate elevation of +130mOD."*

#### **GEO 2.1.1 Hydrology Summary**

The southern and western boundaries of the site comprise streams/drainage channels that ultimately flow towards the north and Treverbyn Stream (designated as a GQA Grade A by the Environment Agency). There is an attenuation pond located on the north of the site and another 24m north-east of the site boundary. There are 12 surface water abstractions within 2km of the site, the nearest of which is 1.23km to the south-east.

#### **GEO 2.2 John Grimes Partnership (2002)**

John Grimes Partnership was commissioned in 2002 to provide a ground investigation report in support of a now expired planning application to construct a car park on the site. The report has not been made available for the purposes of this report but it has been summarised by Buro Happold in their report<sup>(3)</sup>. The intrusive works included five machine excavated trial pits dug to between 2.4m and 4.2m depth below ground level (bgl). Limited geo-environmental testing was carried out as part of the investigation. The testing suggested the absence of significant contamination.

#### **GEO 2.3 Buro Happold (2010)**

Buro Happold was commissioned in 2010 by EGS Energy Limited to provide an interpretative report<sup>3</sup> to assess the potential for significant contamination on the site with respect to the existing proposal and to provide baseline on-site contamination conditions of the soils and groundwater.

It is understood that much of the operational area to the south of the site, identified in the proposed construction drawing in Appendix A, was inaccessible at the time and as such intrusive investigations were concentrated to the east and west of the central wooded area of the site. The locations of the exploratory holes are shown in the report document, available to download separately.

The works included a comprehensive desk study, intrusive ground investigative works, gas and groundwater monitoring, geo-environmental laboratory testing of surface water, groundwater and soil samples and the production of a generic quantitative risk assessment



(GQRA) of the site with respect to the existing proposal. Intrusive works included four boreholes drilled using dynamic sampling and rotary techniques to between 23.0m and 50.0m bgl, ten window sample boreholes to between 3.0m and 6.0m bgl and seven trial pits excavated to between 1.5m and 3.6m bgl.

## GEO 2.4 Parsons Brinckerhoff (2014)

Parsons Brinckerhoff was commissioned in 2014 by EGS Energy Limited to provide an interpretative report detailing: the ground and groundwater conditions on site; preliminary geotechnical parameters and develop a geotechnical risk register for the existing proposal. Intrusive works were completed by CJ Associates in 2013<sup>4</sup> which included two rotary cored boreholes to 20.0m and 60.0m bgl and seven piezocone penetration tests (CPTs) to between 0.56m and 10.00m bgl. Downhole geophysical testing (including fluid temperature and conductivity, calliper and natural gamma and gamma gamma density) and geotechnical laboratory testing (including geochemical testing, Atterberg limits and particle size distribution) were carried out as part of the investigation. The CJ Associates report has not been made available for the purposes of this report.

## GEO 2.5 Ground Model

A summary ground model has been reproduced below using information taken from the reports referenced above.

Encountered strata	Depth to top of strata (m bgl)	Strata thickness (m)	General description	Aquifer Designation
Made Ground	0.00	0.00 – 3.80	Variable composition, including clay, silt, sand and gravel to varying proportions. Variable anthropogenic component, including concrete, brick, tree branches, tarmac, plastic and white goods.	N/A
Peat	0.00 – 3.80	0.15 – 0.70	Soft silty dark brown amorphous PEAT with occasional vegetation fragments to soft dark brown clayey very peaty TOPSOIL	N/A
Alluvial Deposits	0.65 – 4.00	0.48 – 2.25	Soft to firm grey very sandy granitic CLAY and medium dense grey clayey fine to coarse granitic SAND with an occasional angular coarse granitic gravel.	Secondary A
Kaolinised Granite*	3.23 – 11.0	1.17 – 34.40	Granite recovered as medium dense clayey sand (Grade VI – V)	Secondary A
	14.50 – 31.50	9.40	Granite recovered as medium dense clayey sand (Grade IV)	Secondary A

<sup>4</sup> CJ Associates. September 2013. *Ground Investigation No: AB0533. Factual Report – The Eden Deep Geothermal Project Pre-enabling Works, Cornwall.*

<b>Encountered strata</b>	<b>Depth to top of strata (m bgl)</b>	<b>Strata thickness (m)</b>	<b>General description</b>	<b>Aquifer Designation</b>
Granite*	40.00-43.40	Unproven	Generally strong fine to medium grained granite with very closely to medium spaced sub-horizontal fractures (Grade III to I)	Secondary A

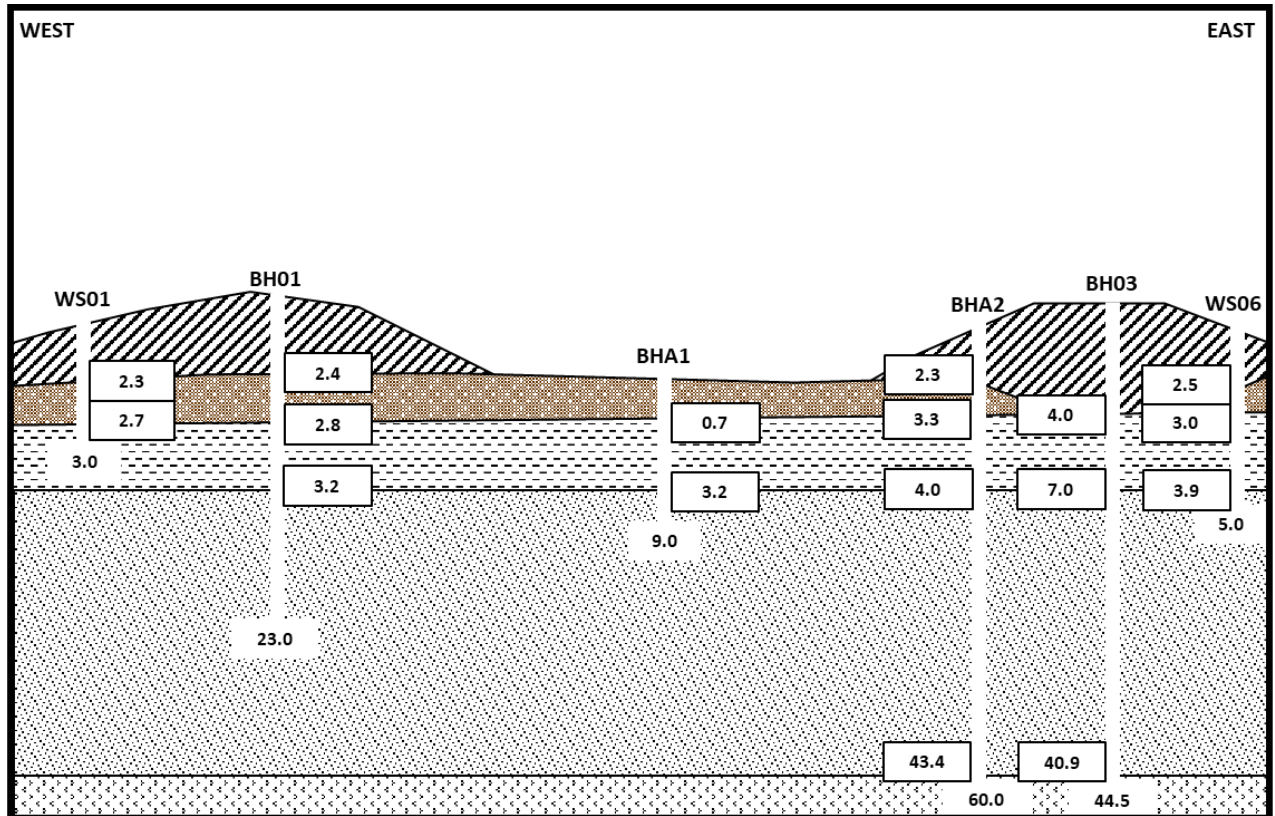
\* Where possible, similar strata encountered from previous investigations have been grouped together to inform a single ground model. Where different standards have been used to log the encountered granite, the Buro Happold descriptions have been given above.

It is understood that Made Ground was likely placed on site between January 1990 and July 1992 when the site was a licenced landfill. The relatively elevated parts of the site to the west and east of the central wooded area are thought to have been formed by the placement of fill. The central wooded area likely represents the natural elevation of the site.







A plan from the Parson Brinckerhoff report 2 showing exploratory hole locations from the Buro Happold and Parsons Brinckerhoff investigations as well as topography is available to download separately.

A conceptual geological cross section has been produced in Figure GEO 2.5 below using available information.

Figure GEO 2.5: Conceptual geological cross section (west to east) through the south of the site



#### Legend:

 - Made Ground	 - Peat	 - Alluvial Deposits	 - Kaolinised Granite
 - Granite	XX.X - Borehole Depth (m)	 - Boundary Depth (m)	

### GEO 3 Contaminated Land Summary

A contaminated land risk assessment for the site has been conducted by Buro Happold3. The assessment takes little from the limited geo-environmental testing carried out by John Grimes Partnership in 2002.

#### GEO 3.1 Evidence of Contamination

Visual and olfactory indications of contamination identified during site works are listed below:

- Made Ground was noted across the site and contained variable anthropogenic inclusions of concrete, brick, tree branches, asphalt, plastic and white goods.
- A black layer containing pottery, pipe plastic and a refrigerator was identified between 1.1 and 2.0mbgl in TP02.
- Fragments of sheeting identified as possible asbestos containing material (PACM) was noted between 0.2 and 0.6mbgl in TP01.
- Suspected tipping was noted around TP01, WS01 and WS02.
- An area of Japanese Knotweed was identified on the drainage channel bank adjacent to WS01.

## **GEO 3.2 Soil Assessment**

The Buro Happold investigation tested 18 samples of Made Ground and six samples of natural ground for a suite on contaminants including heavy metals, TPH, PAH, phenols and cyanide. The results were compared with SGV/GAC (5,6,7) for both a residential (without plant uptake) and commercial/industrial land use scenario to assess chronic risk to future site users. Exceedances of the arsenic, chromium and benzo(a)pyrene residential SGV/GAC were identified within the Made Ground. However, the benzo(a)pyrene result has been considered an outlier and chromium exceedances have resulted from comparing total chromium laboratory results with threshold values for the more hazardous hexavalent chromium threshold for a worst case assessment.

No exceedances were identified from samples of natural soils.

The assessment concludes that chronic (long term) risks to human health from potentially contaminated soils on site is low.

SGV/GAC thresholds cannot be used to assess acute (short term) risks to construction workers, however, the assessment estimates exposure to impacted soils by workers during construction and operation is likely to be limited. The assessment therefore concludes that there is a low risk to construction and maintenance workers.

This assessment is considered representative although contamination testing and investigation in the proposed operational area is limited.

## **GEO 3.3 Asbestos Assessment**

Fragments of cement bound chrysotile sheeting were identified in TP07, just east of the central wooded area. Nine samples of Made Ground were subjected laboratory asbestos screening, and none were found to contain asbestos. The assessment recommends that a visual inspection, or watching brief, for possible asbestos containing material is undertaken during any excavation works.

## **GEO 3.4 Water Assessment**

### GEO 3.4.1 Leachate

A total of four soil samples of Made Ground were subject to leachate testing to assess the leachability of a variety of contaminants within the Made Ground. The results were compared with environmental quality standard (EQS) data (8) for freshwaters (to assess the risk to surface waters) and with the UK drinking water standards (UKDWS) (9) (to assess the risks to waters in the underlying secondary aquifer). Leachate exceedances of the arsenic and copper EQS values were identified as were exceedances of the arsenic, lead and nickel UKDWS values. Given the rigorous nature of laboratory leachate extraction, the assessment concludes that

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5 Environment Agency. 2009. Soil Guideline Value reports for nickel, selenium, inorganic arsenic, mercury, cadmium, benzene, toluene, ethylbenzene, xylene, phenol, dioxin, furan and dioxin like PCBs in soil - Science Report SC050021 / Nickel SGV.

6 Environment Agency. 2009. Updated technical background to the CLEA model. Science Report – SC050021/SR3. January 2009.

7 Environment Agency. 2009. Human health toxicological assessment of contaminants in soil. Science Report – SC050021/SR2. January 2009.

8 The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.

9 UK Drinking Water Inspectorate, 2000. The Water Supply (Water Quality) Regulations.

contaminants within the Made Ground are not significantly leachable and the risk to groundwater and surface water is considered low.

#### GEO 3.4.2 Groundwater

A total of 12 samples of groundwater were collected and subjected to laboratory testing. The results were, like the leachate values, compared to both EQS8 and UKDWS9 values. A single sample was shown to exceed the selenium EQS threshold value and three samples exceeded the UKDWS copper threshold value.

The assessment estimates the risk to surface and groundwaters from on-site contamination as low.

The assessment also provides baseline water quality of groundwater sampled from two locations, although these are not shown the exploratory hole location plan.

### **GEO 3.5 Gas Assessment**

Ground gas monitoring was undertaken in ten monitoring wells across the site over a period of two months, spread over five visits. All monitoring wells screened Made Ground although three of the ten wells also screened a section of the underlying peat. Gas monitoring data from within the operational area to the south of the site is limited.

Significant concentrations of both methane, up to 69.7%, and carbon dioxide, up to 18.6%, were recorded. Recorded flow rates were consistently low, generally below 0.3l/hr. A characteristic situation for the site has been determined as CS2 (10), equivalent to low risk with a requirement for gas protection measures for commercial/industrial developments.

#### **GEO 3.5.1 Radon**

According to the Public Health England (11), greater than 30% of homes within a 1km radius of the site are above the action level. Therefore, full radon protective measures are necessary in the construction of new buildings. It is recommended that a radon protection strategy for the development should be agreed with local authorities as early as possible.

### **GEO 3.6 Waste Assessment**

The Buro Happold report anticipates that the Made Ground present on site is likely to be considered 'non-hazardous' and the natural soils on site as 'inert' although this is based on an initial assessment only. It is likely that most earthworks will be centred to the south of the site around the construction of the cuttings pits and settlement lagoon and as such these materials should be characterised to allow an earthworks strategy to be formulated.

### **GEO 4 Geotechnical Summary**

Parsons Brinckerhoff2 (PB) have provided preliminary geotechnical parameters for the Made Ground, Alluvial Deposits and Kaolinised Clay (weathered granite) found on site based on in-situ field tests and geotechnical laboratory testing summarised in this review. A detailed engineering interpretation of the results is included in PB's report for: the main access road; the rig plant, spill containment area and drilling rig foundation pad; and, the conductor pipe.

Key recommendations and risks from the report are summarised below.

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10 CIRIA, 2007. Report C665 - Assessing risks posed by hazardous ground gases to buildings.

11 Public Health England via (<https://www.ukradon.org/information/ukmaps>) accessed March 2020.

## **GEO 4.1 Geotechnical Risks and Recommendations from PB Report**

- It is recommended that California bearing ratio (CBR) testing is carried out along the proposed access road route to allow suitable ground parameters to be established.
- Foundations should not be seated upon peat or Made Ground, thicknesses of which vary across the site.
- Foundations for the rig foundation should be upon the kaolinized granite at approximately 4m depth
- Foundations for the concrete platform for the spill containment area should be seated at least 1m bgl and any soft or organic material should be dug out and replaced with suitable material.
- To minimise the risk of the conductor pipe buckling during installation, it should be drilled and grouted up from the base rather than driven.
- There is tolerable risk from excessive or differential settlement from varying, underlying ground conditions.
- There is a tolerable risk from aggressive ground conditions and sulphate attack on buried concrete and grout.

## **GEO 4.2 Earthworks**

It is anticipated that cut and fill works will be required given the varying topography of the site in the proposed operational area although details of these works are currently unknown. It is recommended that settlement analysis and slope stability analysis is undertaken once earthworks have been specified. Depending on the quantity of fill required to be placed using site won material, consideration could be given to undertaking compaction testing of the proposed fill material to determine the suitability, workability and compaction requirements.

Off-site disposal of materials can be costly. To reduce the volume of soils for disposal, it may be possible to re-use suitable, site-won material in the development under CL:AIRE's DoWCoP12. Any materials brought on to site will need to be free of contamination and meet relevant geo-environmental and geotechnical import criteria.

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12 CL:AIRE. March 2011. The Definition of Waste: Development Industry Code of Practice, Version 2.

## GEO 5 Risks Register

A risk register has been compiled using available information. The risk has been estimated using the definitions given in Section GEO 7.

**GEO Table 0-1: Risk Register**

Hazard	Consequence	Impact Likelihood		Risk	Risk Type	Potential Risk Control Measure/Action	Impact Likelihood		Residual Risk	Owner	Action
		2	1				2	1			
Risk to human health from potentially contaminated soils (few SGV/GAC exceedances identified)	Chronic (long term) health impact to future site users	2	1	N	H&S	N/A	2	1	N	Designer	Designer
Risk to human health from potentially contaminated soils	Acute (short term) health impact to maintenance and construction workers	2	2	N	H&S	Contractor to include risk mitigation into method statements including site specific procedures to manage unexpected contamination.	2	1	N	Contractor	Contractor
Asbestos (fragments of cement-bound asbestos identified during site works).	Health impact to construction/maintenance workers.  Expensive disposal costs/specialist handling.	3	2	A	H&S, C	Contractor to include risk mitigation into method statements, including watching brief for all excavations and site-specific procedures to manage unexpected contamination.  Reduce/eliminate the need to dispose of soils off-site.	3	1	N	Designer	Designer & Contractor
Risks to controlled waters from potentially contaminated soils (some exceedances of the EQS and UKDWS threshold values identified).	Deterioration of groundwater and surface water, environmental impact.	2	2	N	E	Contractor to include risk mitigation into method statements including site specific procedures to manage unexpected contamination.  Management of earthworks to prevent sediment run off into nearby water courses	2	1	N	Designer	Contractor
Risk to human health from ground gas (elevated methane and carbon dioxide levels identified).	Acute (short term) health impact to construction/maintenance workers and future site users.	4	3	H	H&S	Appropriate gas protection measures to be included into design. Contractor to include risk mitigation into method statements including any confined or subterranean working.	4	1	N	Designer & Contractor	Designer & Contractor
Risk to human health from radon (>30% of properties in the area are above the radon action level).	Chronic (long term) health risks to future site users.	4	3	H	H&S	Appropriate gas protection measures to be included into design.	4	1	N	Designer & Contractor	Designer & Contractor



Unforeseen cost for off-site disposal of excavated soils.	Programme delayed and additional cost to allow further testing and classification of soils to be carried out.	2	3	A	C, T	Contractor to carry out adequate testing to characterise site materials prior to construction.  Option for client to carry out additional testing once earthwork designs are drafted.	2	1	N	Designer	Designer & Contractor
Cost to dispose of excess/unsuitable material from site.	Additional cost to construction.	2	3	A	C, T	Where possible, earthwork designs to permit re-use of site-won material in proposed development. Earthworks design to aim to balance cut/fill volumes.	2	1	N	Designer	Designer
Excessive or differential settlement due to varying, underlying ground conditions (varying thicknesses of Made Ground, peat and alluvial deposits identified across the site)	Non-standard design requirements / ground improvements / additional costs	3	3	A	C, T, R, H&S	Foundations to be laid in accordance with recommendations given in Parsons Brinckerhoff report. Foundations should not be seated upon Made Ground or organic rich soils.	3	1	N	Designer	Designer
Lack of information to permit road design	Additional cost due to over conservative design/construction	2	3	A	C, T, R	In-situ CBR testing to be carried out along proposed road route.	1	1	N	Designer	Designer
Insufficient design of earthworks	Slope instability and excessive/differential settlement in any placed material	4	3	H	C, T, R	Slope stability and settlement assessment to be carried out ahead of any earthworks.	4	1	N	Designer	Designer
Aggressive ground conditions	Corrosion / degradation of foundations. Impact on programme, cost, H&S	3	3	A	C, T, R, H&S	Design of structures to relevant DS and ACEC class recommended in Parsons Brinckerhoff's report.	3	1	N	Designer	Designer
Risk from unexploded ordinance (UXO) (area designated as generally low risk according Zetica preliminary risk assessment included in Appendix)	Health and safety implications, possible casualties. Cost and programme additions	4	2	A	H&S	Contractor to factor UXO risk and mitigation into works methodology.	4	1	N	Designer	Contractor

## **GEO 6 Risk and Recommendations Summary**

### **GEO 6.1 Recommendations for Further Works**

It is recommended that the client considers the following before commencing enabling construction works.

- Gas and radon protection measures must be incorporated into development designs.
- An appropriate settlement and slope stability assessment should be carried out to permit earthworks design.
- Efforts should be made to balance cut and fill volumes as best as possible within earthworks design to minimise the quantity of material to be disposed of off-site and the amount of material required to be bought on to site.
- In-situ CBR testing should be carried out along the proposed road routes to enable road design.
- Technical recommendations set out in the reports produced by Parsons Brinckerhoff and Buro Happold should adhered to.

### **GEO 6.2 Risks to be Passed to Contractor**

It is thought that the following risks may be flagged and pass on to the selected contractor.

- The contractor will be responsible for designing a suitably safe system of work that minimises the risks to workers from potentially contaminated soils and produce emergency procedures to deal with unexpected contamination. The contractor will also be responsible for designing a safe working system during excavations or confined works to minimise the risks from ground gas and radon.
- The contractor should arrange for watching briefs to be carried out during excavations by a suitably competent person to assess the risk from asbestos, and design working systems accordingly, as recommended by Buro Happold.
- The contractor should consider risk from UXO when designing working methods, especially during intrusive workings.

## **GEO 7 Risk Estimation**

A geotechnical risk register has been prepared, highlighting the risks, consequences and mitigation measures of this scheme.

- GEO Table 7.2 and GEO Table 7.3 show the impact index and likelihood index respectively.
- GEO Table 7-3 is the risk matrix, showing the risk levels, which are rated from severe (maximum risk level) to negligible (minimum risk level).

- GEO Table 7.5 tabulates the designer's actions based on the risk level.

The actual risk register, showing potential hazards, consequences, risk level and associated mitigation measures, is given in GEO Table 0-1.

### GEO Table 7-2: Impact index

<b>Impact</b>	<b>Cost (C)</b>	<b>Time (T)</b>	<b>Reputation (R)</b>	<b>Health &amp; Environment Safety (E) (H&amp;S)</b>	
1 Very low	Negligible	Negligible	Negligible effect on programme	Negligible Negligible	
2 Low	Significant	>1 % budget	>5 % effect on programme	Minor effect on local company image/business relationship mildly affected	Minor injury Minor environmental incident
3 Medium	Serious	>10 % budget	>12 % effect on programme	local media exposure/ business relationship affected	Major injury Environmental incident requiring management input
4 High	Threat to future work and client relations	>20 % budget	>25 % effect on programme	nationwide media exposure / business relationship greatly affected	Fatality Environmental incident leading to prosecution or protestor action
5 Very High	Threat to business survival and credibility	>50 % budget	>50 % effect on programme	Permanent nationwide effect on company image/ significant impact on business relationship	Multiple fatalities Major environmental incident with irreversible effects and threat to public health or protected natural resource

**Table 7-3: Likelihood index**

Likelihood	Probability
1 Negligible / improbable	<1%
2 Unlikely / remote	>1%
3 Likely / possible	>10%
4 Probable	>50%
5 Very likely / almost certain	>90%

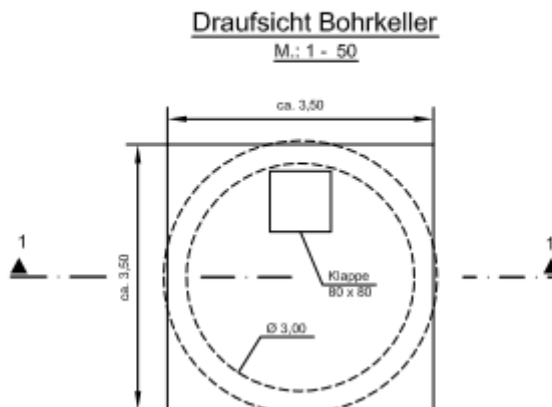
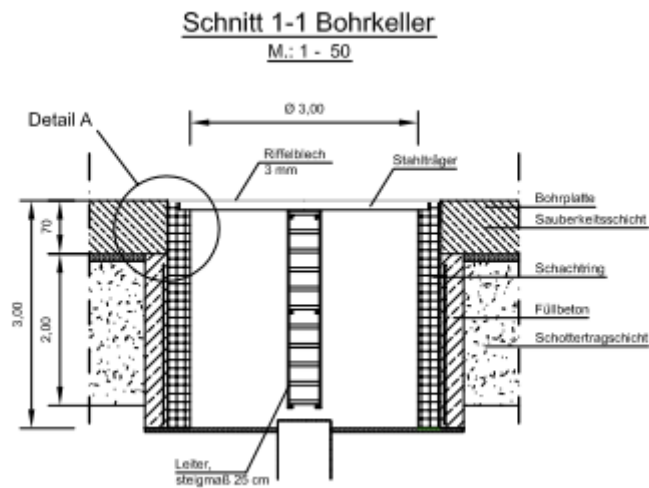
**GEO Table 7-4: Risk matrix**

Impact		1	2	3	4	5
Likelihood	1	N	N	N	N	A
	2	N	N	A	A	H
	3	N	A	A	H	S
	4	N	A	H	S	S
	5	A	H	S	S	S

**GEO Table 7-5: Designers' actions**

Risk Level	Description	Action by Designer
N	Negligible	None
A	Acceptable	Check that risks cannot be further reduced by simple design changes
H	High	Amend design to reduce risk, or seek alternative option. Only accept option if justifiable on other grounds
S	Severe	

## APPENDIX F – Cellar Requirements



Riffelblech = Steel Chequer Plate  
 Stahlschriger = Steel Beam  
 Bohrplatte = Rig Plate  
 Sauberkellschicht = geotextile  
 Schatring = Concrete rings for cellar wall  
 Fulbeton = concrete  
 Schottertraggesshit = Gravel

## APPENDIX G – HSE Perimeter Gate Guidance Notes



# Powered perimeter gates

Health and Safety Executive - General Safety Notice	
Department Name:	Operational Strategy Division - Services Transportation and Safety Unit
Bulletin No:	OPSTD 1-2011
Issue Date:	21 January 2011
Target Audience:	Landlord, Commercial owner or facilities manager of property with Powered Perimeter Gates
Key Issues:	What you must do if you are the Landlord, Commercial owner or facilities manager of property with these gates

### Introduction:

The purpose of this General Safety Notice is to advise Landlords, Commercial owners or facilities managers of properties with Powered Perimeter Gates, what they must do to ensure the safety of people in the vicinity of such gates.

The advice below summarises the action you need to take so that the public, your staff, and other workers are not put at risk by the gate's design, construction, operation or lack of maintenance.

### Background:

During the summer of 2010 two children died after becoming trapped in powered gates. They were trapped because:

- Their presence at the closing edge was not detected; and
- The closing force of the gate when they obstructed it was too high.

HSE issued two Safety Notices in 2010 giving some details on the risks and the protection methods needed. This detailed information is intended primarily for

the gate industry, but it will help you check that the company or person you employ to maintain or install such gates is competent, as they should be aware of the content and be able to explain its details to you. These Safety Notices are available on the HSE website at:

- [Risks to pedestrians from crushing zones on electrically powered gates](#)<sup>[1]</sup>
- [Risks to pedestrians from crushing zones on electrically powered gates - 2](#)<sup>[2]</sup>

#### **Action required:**

Following this guidance will help you comply with your legal duties under the Health and Safety at Work Act, and other related regulations.

#### **Action to take:**

- Check your gate is being maintained by a reputable company who regularly test the safety features of the gate to ensure they are set and working correctly - they should use measuring equipment to test closing forces. Keep a log of maintenance.
- Ask the gate maintenance company to show you how to release the gate in an emergency - this should be easy and quick to do. You may need to inform your staff or other users how to do this.
- Also ask them to show you the safety features including:
  - any safety edges (usually rubber "buffer" strips running the full height of the gate);
  - light beams to detect a person or object in the way of the closing gate;
  - the operation of the force limitation device (although this is unlikely to be enough to stop injury on its own);
  - fixed guards at other areas e.g. where the vertical bars of a gate slide close to the vertical bars of a fence.
- If you are purchasing a new gate, check that the installer can show you the features explained above, and that they will CE mark the gate and issue you a Declaration of Conformity. If they are unsure about how to do this it may be a reason to doubt their competence.

#### **General note:**

Please pass this information to others who have this equipment on their premises.

#### **Link URLs in this page**

- Risks to pedestrians from crushing zones on electrically powered gates  
<https://www.hse.gov.uk/safetybulletins/electricgates.htm>
- Risks to pedestrians from crushing zones on electrically powered gates - 2  
<https://www.hse.gov.uk/safetybulletins/electricgates2.htm>



## **APPENDIX H – Drilling Rig Loading Information**

The drilling rig loading information is set out in following drawings, which should be downloaded from <https://www.edengeothermal.com/work/invitation-to-tender-for-the-site-enabling-works-of-the-eden-geothermal-site/>

- MND Bentec 450 Load Plan Compact Layout\_20151005.pdf
- MND Bentec 450 Load Plan\_Substructure detailed.pdf

## **Appendix I – Draft form of contract**

The *conditions of contract* shall be those set out in the NEC4 Engineering and Construction Short Contract June 2017 (Option A) with amendments.

A completed form of the Clients Contract Data and amendments to the standard contract is set out in Section 2.

Section 5, Scope and Section 6, Site Information have also been completed.

### **Eden Geothermal: Amendments to the NEC4 Engineering and Construction Short Contract Option A (June 2017)**

Site Enabling Works (Design and Construction) for the  
Eden Geothermal Site EGL-ITT-C007

DRAFT FOR INFORMATION

[Date to be inserted here]

Section	Title	Page No.
<b>CONTRACT DOCUMENT</b>		
<b>Section 1</b>	Form of Agreement	3
<b>Section 2</b>	Contract Data – Part One Additional <i>conditions of contract</i>	7
<b>Section 3</b>	Contract Data – Part Two	30
<b>Section 4</b>	Price List	32
<b>Section 5</b>	Scope	34
<b>Section 6</b>	Site Information	37
<b>Section 7</b>	Appendices	39
	A. Risk Register	
	B. Third Party Agreements (not applicable)	
	C. Form of Contractor Collateral Warranty	
	D. Form of Subcontractor Collateral Warranty	
	E. Form of Parent Company Guarantee	
	F. Form of Performance Bond	

# Section 1

## Form of Agreement

**THIS AGREEMENT** is made on

**BETWEEN:**

- (1) **Eden Geothermal Limited** (Company No. 10216419) whose registered office is at Bodelva, St Austell, Cornwall, (the "**Client**"); and
- (2) [**CONTRACTOR**] (Company No. [□]) whose registered office is at [.....] (the "**Contractor**").

**WHEREAS:**

The *Client* wishes to appoint the *Contractor* to carry out the following *works* **To prepare the site for the drilling of a 4,500m deep well. This will entail enabling the site for the drilling rig and include: civil engineering design and build including site preparation, groundworks, foundations and services.**

**IT IS HEREBY AGREED** as follows:-

INTERPRETATION

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the *conditions of contract* hereinafter referred to.

THE CONTRACT

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, namely
  - (a) the *conditions of contract*, referred to below
  - (b) the Contract Data Part One;
  - (c) the Contract Data Part Two;
  - (d) the Price List;
  - (e) the Scope;
  - (f) the Site Information; and
  - (g) the Appendices.

THE WORKS

3. The *Contractor* shall carry out the *works* as identified in the Scope, in accordance with this Agreement.

## CONDITIONS OF CONTRACT

4. The *conditions of contract* shall be those set out in the NEC4 Engineering and Construction Short Contract June 2017 as amended by the additional conditions set out after the Contract Data Part One in Section 2.

## CONSIDERATION

5. In consideration of the payments to be made by the *Client* to the *Contractor* as hereinafter mentioned the *Contractor* hereby covenants with the *Client* to carry out and complete the *works* in conformity in all respects with the provisions of this Agreement and to otherwise comply with and fulfil all his obligations and duties arising under this Agreement.

## PAYMENT

6. The *Client* hereby covenants to pay to the *Contractor* the amount due at the times and in the manner specified in the *conditions of contract*.

## LAW AND JURISDICTION

7. This Agreement shall be governed by and construed according to the laws of England and Wales and any disputes arising under or in connection with it shall be settled in accordance with Clause 93.

## LIMITATION

8. The Parties agree the Contractor's liability shall be limited as set out in the *conditions of contract*.



**IN WITNESS** whereof this Agreement has been executed as a deed and delivered on the date first before written.

Executed as a deed by **Eden Geothermal Limited** acting by [**NAME OF DIRECTOR**], a director, in the presence of:

.....  
[SIGNATURE OF DIRECTOR]  
Director

.....  
[SIGNATURE OF WITNESS]

Name of Witness  
[IN BLOCK CAPITALS]

.....

Address of Witness

.....

.....

Occupation of Witness

.....

Executed as a deed by [**CONTRACTOR**] acting by [**NAME OF DIRECTOR**], a director, in the presence of:

.....  
[SIGNATURE OF DIRECTOR]  
Director

.....  
[SIGNATURE OF WITNESS]

Name of Witness  
[IN BLOCK CAPITALS]

.....

Address of Witness

.....

.....

Occupation of Witness

.....



## Section 2 Contract Data



## Contract Data - Part 1 The *Client's* Contract Data

The *Client* is

Name Eden Geothermal Limited

Address for Electronic Communications **[To be inserted]**

The *Works* are **[To be inserted]**

The *site* is Eden Project located at Bodelva, St Austell, Cornwall

The *starting* date is The date as notified by the *Employer* to the *Contractor* provided that such notice shall be provided no later than **[TBC]** days after the date of this contract.

The *completion* date is **[To be inserted] in principle October 31<sup>st</sup> 2020**

The *delay* damages are **£10,000** per day for 10 days, up to the delay damages limit

The *period for reply* is **1** week

The *defects* date is **52** weeks after Completion

The *defects* correction *period* is **4** weeks except that in respect of Defects affecting safety and/or which create an emergency, in which case Clause 42.5 shall apply.

The *assessment* day is the **The 15<sup>th</sup> working day** of each month

The *retention* is **2.5%**. 50% to be released following certification of practical completion and the remainder of on completion of defects liability

The United Kingdom Housing Grants, Construction and Regeneration Act (1996) **does** apply.

	The <i>Adjudicator</i> is
Name	To be appointed by the Technology and Construction Solicitors' Association
Address for Communications	As per the Technology and Construction Solicitors' Association Rules
Address for Electronic Communications	As per the Technology and Construction Solicitors' Association Rules
The interest rate on late payment is	2% per complete week of delay.
For any one event, the liability of the <i>Contractor</i> to the <i>Client</i> for loss of or damage to the <i>Client's</i> property is limited to	Minimum £5M Cover (Public Liability Cover; see Schedule 1f of EGL-ITT-C007
The <i>Client</i> provides this insurance	Not applicable
The minimum amount of cover for the third insurance stated in the Insurance Table is, for any one event	Minimum £5M Cover (Employer's Liability Cover; see Schedule 1f of EGL-ITT-C007
The minimum amount of cover for the fourth insurance stated in the Insurance Table is, for any one event	Minimum £2M Cover (Professional Indemnity Cover; see Schedule 1f of EGL-ITT-C007
The <i>Adjudicator</i> nominating <i>body</i> is	The Technology and Construction Solicitors' Association
The <i>tribunal</i> is	Arbitration
If the <i>tribunal</i> is arbitration, the arbitration procedure is	LCIA Rules

## Schedule of Amendments

The *conditions of contract* are the NEC4 Engineering and Construction Short Contract (June 2017) and the following amendments and additional conditions.

Clause	Amendment
11.2 (1)	Delete and replace with a new Clause as follows: "Completion is when the <i>Contractor</i> has: <ul style="list-style-type: none"> <li>completed the <i>works</i> in accordance with the Scope and corrected all Defects excepting those Defects the <i>Client</i> has agreed may be corrected after Completion;</li> <li>provided the <i>Client</i> with all the documentation specified in the Scope to be provided to the <i>Client</i> prior to Completion and as a condition of Completion; and</li> <li>executed and delivered all collateral warranties relating to this contract as required in Clause Z3 (if any)."</li> </ul>
	Add the following at the end of Clause 11.2:
11.2 (17)	" <b>Applicable Law</b> " means any statute, law, order, regulation, by-law, statutory instrument, decision, judgment, rule, order, consent or delegated or subordinate legislation, or any modification or amendment of any of the foregoing having the force of law in England. References to "law of the contract" and "applicable law" shall be deemed to be references to "Applicable Law".
11.2 (18)	" <b>CDM Regulations</b> " means the Construction (Design and Management) Regulations 2015 and any Approved Code of Practice together with any guidance or requirements issued from time to time by the Health and Safety Executive, as all of the above may be amended, revised or supplemented from time to time.
11.2 (19)	" <b>Client Agent</b> " means a person(s) or organisation appointed by the <i>Client</i> to perform the function as set out in Clause 14.6.
11.2 (20)	" <b>Documents</b> " means data, records, reports, documents, manuals, designs, drawings, plans, specifications and other works or materials of any nature in any form or medium (excluding proprietary software).
11.2 (21)	" <b>Environment</b> " means any and all of the following: air (including without limitation air within manmade structures or natural structures); water; land (including without limitation the surface and the subsurface of land); and organisms (including without limitation human beings), ecosystems and habitats.
11.2 (22)	" <b>Environmental Harm</b> " means any adverse impact on or deterioration in the quality of air, land or water or the Environment as a whole, harm to the health of human beings or other organisms, offence to the senses of human beings, impairment or interference with ecosystems and habitats, impairment or interference with the amenity of the Environment or any release, discharge or spillage of Hazardous Substances.

Clause	Amendment
11.2(23)	<p><b>“Funder”</b> means any person providing finance for or in connection with the Project, including any agent or trustee acting on behalf of such a person.</p>
11.2 (24)	<p><b>“Good Industry Practice”</b> means using standards, practices, methods and procedures as would be expected of an adequately resourced contracting organisation experienced in the provision of design and construction works similar in nature scale and complexity to the <i>works</i> with knowledge of the <i>Contractor’s</i> obligations under this contract.</p>
11.2 (25)	<p><b>“Hazardous Substances”</b> means any substance whatsoever (whether a solid, liquid, gas or any other state of matter and whether alone or in combination with any other substance) which is capable of causing Environmental Harm (including without limitation substances defined as hazardous in the European Waste Catalogue).</p>
11.2(27)	<p><b>“Insolvent”</b> means a party:</p> <ul style="list-style-type: none"> <li>• is insolvent or</li> <li>• being an individual, has presented an application for bankruptcy, had a bankruptcy order made against it, had a receiver appointed over its assets or made an arrangement with its creditors or</li> <li>• being company or partnership has had a winding up order made against it, had a provisional liquidator appointed to it, has passed a resolution for winding-up (other than in order to amalgamate or reconstruct), has had an administration order made against it or had an administrator an administrator appointed over it, had a receiver, receiver and manager or administrative receiver appointed over the whole or a substantial part of its undertaking or assets or made an arrangement with its creditors or</li> <li>• has been subject to anything substantially similar to the above occurrences in any jurisdiction.</li> </ul>
11.2 (26)	<p><b>“Intellectual Property Rights”</b> are any current and future legal and equitable interests in patents, trademarks, design rights, copyright, know-how and other similar rights, whether or not registered or capable of registration.</p>
11.2(27)	<p><b>“Key Subcontractor”</b> means any subcontractor responsible for the following: [Collateral warranties may be required depending on the delivery method of the main contractor] and clarification of proposed supply chain for the works. For example: If the main contractor uses the services of an engineering consultancy in order to undertake the detailed design then a collateral warranty for that company will be required.</p> <p>If the main contractor uses the services of an electrician to connect the site building to the mains supply then a collateral warranty will not be required for the third party.</p>
11.2(28)	<p><b>“LCIA Rules”</b> are the LCIA Arbitration Rules current at the date the relevant dispute is referred to arbitration.</p>

Clause	Amendment
11.2 (29)	<p><b>“Licence”</b> means any permit, consent, approval, authorisation, agreement, no objection certificate, waiver or licence which must be obtained from any person (including both private persons and public sector entities) in order for the <i>works</i> to be performed and for any goods to be transported, imported or exported.</p>
11.2 (30)	<p><b>“Project”</b> means the enabling works required to design and construct the temporary drilling site at the <i>site</i> (as defined in the Scope of Works at Appendix B of EGL-ITT-C007).</p>
11.2 (31)	<p><b>“Regulator”</b> means any statutory authority being any governmental or local authority, statutory undertaker or other body of competent jurisdiction which has any jurisdiction with regard to the <i>works</i> and/or the performance of the <i>Contractor’s</i> obligations under this contract and/or with whose requirements the <i>Client</i> is required or accustomed to comply and/or with whose systems the <i>works</i> are or will be connected.</p>
11.2 (32)	<p><b>“Regulatory Requirement”</b> means any legally enforceable requirement of any Regulator and any condition, stipulation, proviso, restriction or requirement of any licence, authorisation, consent, omission, order, permit, warrant, approval or notice (whether obtained by the <i>Client</i> or by the <i>Contractor</i>) required in order to enable the <i>Contractor</i> to carry out the <i>works</i> or otherwise required in connection with the <i>works</i> and any condition precedent or other requirement of any Regulator which must be satisfied prior to the grant, issuance, renewal, variation, extension, continuation and/or reconfirmation of any such licence, authorisation, consent, permission, order, permit, warrant, approval or notice.</p>
11.2 (33)	<p><b>“Third Party Agreements”</b> means the documents noted as Third Party Agreements in the Scope.</p> <p><b>Not Applicable</b></p>
12.5 Additional clause	<p>Add as Clause 12.5:</p> <p>“A person who is not a party to this contract may not enforce any of its terms under the Contracts (Rights of Third Parties) Act 1999.”</p>
12.6 Additional clause	<p>Add as Clause 12.6:</p> <p>“To the extent that there is any conflict between the meaning of terms and conditions within the core clauses of the <i>conditions of contract</i>, these additional conditions and anything contained within any schedules, appendices or the Scope, these additional conditions of contract followed by the core clauses of the <i>conditions of contract</i> shall prevail.”</p>
12.7 Additional clause	<p>Add as Clause 12.7:</p> <p>“12.7 In this contract, unless the context otherwise requires:</p> <ul style="list-style-type: none"> <li>• the headings are for convenience only and shall not affect its interpretation,</li> <li>• reference to a Clause, schedule, appendix or paragraph are to a</li> </ul>

Clause	Amendment
	<p>Clause, a schedule, an appendix or a paragraph in this contract,</p> <ul style="list-style-type: none"> <li>• any reference to this contract or to any other document shall include any permitted variation, amendment or supplement to such document,</li> <li>• the schedules and appendices to this contract shall have the same effect as if contained in the body of the contract, and any reference to this contract shall include the schedules and appendices,</li> <li>• any reference to any statute shall include references to the same as it may have been, or may from time to time be amended/modified, consolidated or re-enacted and to any regulation or subordinate legislation made under it (or under such an amendment, modification, consolidation or re-enactment) subject to the provisions of this contract which relate to change of law,</li> <li>• reference to the plural shall include the singular and vice versa, and reference to one gender includes reference to all genders. Any reference to a person shall be a legal person of whatever kind whether incorporated or unincorporated and to its successors, permitted assigns and transferees, and</li> <li>• words shall not be given a restrictive interpretation by reason of their being preceded or followed by words indicating a particular class of acts, matters or things."</li> </ul>
13.1	<p>Before the full stop at the end of the first sentence insert "(including email and web based collaboration tools)" and at the end of the clause insert a new sentence "Communications relating to termination of the <i>Contractor's</i> obligations under this contract or a dispute are not to be given by email or web based collaboration tools."</p>
14.6 Additional clause	<p>The <i>Client's</i> authority and delegation</p> <p>Insert a new clause as follows:</p> <p>"The <i>Client's Agent</i> acts on behalf of the <i>Client</i> with the authority set out in the Contract Data. The <i>Client</i> may replace the <i>Client's Agent</i> after he has notified the <i>Contractor</i> of the name of the replacement."</p>
20.3 Additional clause	<p>Add as new Clause 20.3:</p> <p>"The <i>Contractor</i> shall be fully responsible and liable for the design of the <i>works</i>, including the selection of any Plant and Materials in connection thereto (including any design prepared by the <i>Client</i> or on behalf of the <i>Client</i> prior to the contract being entered into)."</p>
20.4 Additional	<p>Add as new Clause 20.4:</p> <p>"The <i>Contractor</i> submits the particulars of his design as the Scope requires to the</p>

Clause	Amendment
clause	<i>Client</i> for acceptance. A reason for not accepting the <i>Contractor's</i> design is that it does not comply with either the Scope or the Applicable Law."
21.3	The Contractor does not enter into any subcontracts with Key Subcontractors without the prior written consent of the Client (not to be unreasonably withheld or delayed).
21.4 Additional clause	Add as new Clause 21.4: "The <i>Contractor</i> is responsible for ensuring that any preferred and/or named subcontractor or supplier specified in the Scope performs his obligations under the relevant subcontract. The naming by the <i>Client</i> of preferred subcontractor or supplier does not, in any way, relieve the <i>Contractor</i> from his obligations and liabilities under this contract."
21.5 Additional clause	Add as new Clause 21.5: "21.5 The <i>Contractor</i> : 21.5.1 shall at all times consult and co-operate with the <i>Client's</i> employees, representatives and agents, and any statutory undertakers or utility companies; 21.5.2 is fully responsible for all aspects of and the execution and completion of the <i>works</i> , including, without limitation, the interfaces between items consisting of the <i>works</i> which have either been recommended, designed, named, selected or incorporated into the <i>works</i> from any other contractor or subcontractor; 21.5.3 is fully responsible for ensuring that the design of the <i>works</i> is coordinated and integrated with the design of the Project for which other persons are responsible paying due regard to the responsibilities of the <i>Client</i> under, pursuant to, or arising out of, the contract; and 21.5.4 shall provide access and co-operation to any other contractors or consultants engaged by the <i>Client</i> in relation to the Project as directed by the <i>Client</i> ."
22.2 Additional clause	Add as new Clause 22.2: "The <i>Contractor</i> permits work being carried out by any other contractors or consultants engaged by the <i>Client</i> in relation to the Project concurrently with the execution of the <i>works</i> ."
23 Additional clause	Add as new Clause 23: <b>Other responsibilities</b>
23.1	Add as new Clause 23.1:



Clause	Amendment
Additional clause	"23.1 Notwithstanding any other provision of the contract the <i>Contractor</i> will comply with and ensure that at the Completion Date, the <i>works</i> comply with all Licences, Applicable Laws and Regulatory Requirements."
23.2 Additional clause	Add as new Clause 23.2:  "23.2.1 The <i>Contractor</i> warrants and undertakes that he has not and shall not specify nor authorise, cause or allow to be used any material which does not comply with the Scope or is known to or is reasonably believed to pose a hazard to the health of any person or to the Environment or which, at the time of specification or use in the <i>works</i> is generally accepted as being deleterious (" <b>Prohibited Materials</b> ").  23.2.2 The <i>Contractor</i> shall immediately notify the <i>Client</i> if he suspects or becomes aware of any proposed or actual use within or in connection with the <i>works</i> of any of the Prohibited Materials."
23.3 Additional clause	Add as new Clause 23.3:  "23.3.1 The <i>Contractor</i> grants to the <i>Client</i> , with immediate effect, an irrevocable, non-exclusive, royalty-free licence to copy and make full use of the Documents for any purpose relating to the <i>works</i> .  23.3.2 The <i>Client's</i> licence carries the right to grant sub-licences and is transferable to third parties without the consent of the <i>Contractor</i> and shall survive the termination (for any reason) of the Contract.  23.3.3 The <i>Contractor</i> obtains from any subcontractors equivalent rights in favour of the <i>Client</i> over the material prepared by the subcontractors.  23.3.4 The <i>Contractor</i> is not liable for use of the Documents for any purpose other than that for which they were prepared or provided.  23.3.5 The <i>Contractor</i> makes available to the <i>Client</i> all Documents created by the <i>Contractor</i> or any subcontractor in relation to the contract for use by the <i>Client</i> to carry out any statutory duty or for any purpose connected with construction, alteration or demolition of the <i>works</i> and for other purposes stated in the Scope. The <i>Contractor</i> makes available the Documents in the format and manner specified in the Scope.  23.3.6 The <i>Contractor</i> warrants that the <i>Client's</i> exercise of any such Intellectual Property Rights in the Documents shall not infringe the Intellectual Property Rights of any third parties. The <i>Contractor</i> shall indemnify the <i>Client</i> against any claims, damages, losses, costs or expenses suffered by the <i>Client</i> (or its assignees or licensees) as a result of the <i>Client's</i> exercise of such Intellectual Property Rights or for which the <i>Client</i> is otherwise liable arising out of or in connection with any infringement of any Intellectual Property Rights of any third party caused by or arising out of performing any statutory duty or for any purpose connected with construction, alteration or demolition of the <i>works</i> and for other purposes stated in the Scope.  23.3.7 The <i>Contractor</i> has the right to use Documents provided by the <i>Client</i>

Clause	Amendment
	<p>only to satisfy its obligations under the Contract. The <i>Contractor</i> may make this right available to subcontractors for the same purpose. On Completion the <i>Contractor</i> returns all such Documents to the <i>Client</i>.</p> <p>23.3.8 Where any Documents are held on computer or in other machine readable format, the <i>Contractor</i> provides a licence for and supplies any software necessary to enable the <i>Client</i> and its representatives to access and use the Documents for the purpose of performing any statutory duty or carrying out any function in relation to the <i>site</i> or the works either before or after Completion.</p> <p>23.3.9 The <i>Client</i> and the <i>Contractor</i> do anything necessary to confirm the terms of any assignment of Intellectual Property Rights or license to use the Documents.</p> <p>23.3.10 As contemplated by the Copyright, Designs and Patents Act 1988, to the extent the <i>Contractor</i> or any subcontractor is the author of Documents which comprise Intellectual Property Rights, the <i>Contractor</i> waives and shall ensure that the subcontractor waives its rights against the <i>Client</i>, the <i>Client's</i> assignees and licensees to the extent that the exercise of such rights would prevent or impede the <i>Client's</i> exercise of the Intellectual Property Rights."</p>
<p>23.4 Additional clause</p>	<p>Add as new Clause 23.4:</p> <p>"23.4.1 Where and to the extent that the CDM Regulations apply to any <i>works</i> and, to the extent specified in the contract, the <i>Contractor</i> is appointed as "principal contractor", the "principal designer" and/or "designer" (as those terms are defined in the CDM Regulations) and performs all the functions and obligations of these appointments. The <i>Contractor</i> hereby confirms and agrees that in relation to the preparation of any design in any <i>works</i> for which he is responsible under this contract:</p> <ul style="list-style-type: none"> <li>• the <i>Contractor</i> shall (and shall ensure that and subcontractor, or suppliers who undertake any responsibility in relation to the preparation, development and completion of such design or any part thereof shall) carry out and fulfill in all respects the duties of a designer under the CDM Regulations;</li> <li>• the <i>Contractor</i> has or shall be deemed to have made all due allowance in the programming, planning and pricing of the <i>works</i> for compliance with this clause.</li> </ul> <p>23.4.2 The <i>Contractor</i> warrants and undertakes that he is competent for the purposes of the CDM Regulations and that he has allocated and will continue to allocate adequate resources to comply with the duties and obligations imposed on him by the CDM Regulations.</p> <p>23.4.3 Where the <i>Contractor</i> is not or ceases to be the principal contractor, the <i>Contractor</i> shall (and shall ensure that all subcontractors or suppliers shall) comply with its duties and obligations as a contractor under the CDM Regulations and, to the extent that the <i>Contractor</i> is not appointed as the principal designer, liaise and co-operate fully with the principal designer for the <i>works</i>.</p>

Clause	Amendment
	23.4.4 The <i>Contractor</i> shall not commence any work on <i>site</i> until an adequate construction phase plan is in place, as required by the CDM Regulations."
23.5 Additional clause	Add as new Clause 23.5: <b>"Protection of the Environment</b> 23.5.1 The <i>Contractor</i> shall at all times be responsible for and take reasonable and proper steps for protecting the Environment and shall ensure that in carrying out the <i>works</i> he does not cause Environmental Harm. 23.5.2 In doing so, the <i>Contractor</i> shall comply with all Regulatory Requirements. 23.5.3 The <i>Contractor</i> shall be liable for, and shall indemnify the <i>Client</i> against any expense (including without limitation site investigation and remediation costs), liability, loss, claim, proceedings (including without limitation informal and formal enforcement proceedings brought by a Regulator), or Regulatory Requirements (including without limitation compulsory remediation required by a Regulator) arising in respect of Environmental Harm as a result of any breach of contract, breach of statutory duty or negligence by the <i>Contractor</i> or any of its subcontractors, operatives, employees or agents."
23.6 Additional clause	Add as new Clause 23.6: "23.6.1 The <i>Contractor</i> shall be deemed to have read the Third Party Agreements and to be fully aware of the obligations, risks and liabilities assumed by the <i>Client</i> under them. 23.6.2 The <i>Contractor</i> shall have due regard to the Third Party Agreements and shall perform its duties and comply with its obligations under the contract in such a manner so that no act or omission of the <i>Contractor</i> shall cause or contribute to any breach by the <i>Client</i> of its obligations under the Third Party Agreements. The <i>Contractor</i> shall be responsible for and pay to the <i>Client</i> any and all costs, expenses, losses or other sums that the <i>Client</i> may suffer or incur under or pursuant to the Third Party Agreements (or any of them) to the extent that the same is attributable to any breach by the <i>Contractor</i> of his obligations under this Clause 23.6."
25 Additional clause	Add as new Clause 25: <b>Obtaining of Licences</b>
25.1 Additional clause	Add Clause 25.1: "The <i>Contractor</i> obtains all Licences required for the carrying out of the <i>works</i> except for those which the Scope expressly states will be obtained by the <i>Client</i> ."
25.2	Add Clause 25.2:

Clause	Amendment
Additional clause	<p>"In relation to Licences which it is the <i>Client's</i> responsibility to obtain, the <i>Contractor</i>:</p> <ul style="list-style-type: none"> <li>• provides such support as the Scope states the <i>Contractor</i> is to provide to the <i>Client</i> in applying for and obtaining such Licences, and</li> <li>• provides such other support as the <i>Client</i> reasonably requires." </li></ul>
25.3 Additional clause	<p>Add Clause 25.3:</p> <p>"The Contractor ensures that the <i>works</i> complies with all Licences, Applicable Laws and Regulatory Requirements (including, without limitation, those relating to the protection of human health and the Environment) (and procures that its subcontractors so comply) in Providing the <i>works</i>."</p>
26 Additional clause	<p>Add as new Clause 26:</p> <p><b>Performance Security</b></p>
26.1	<p>Add Clause 26.1:</p> <p>"On or before the <i>starting date</i> the <i>Contractor</i> provides the <i>Client</i> with a parent company guarantee in the form set out in this Contract, executed as a deed by the <i>Contractor's</i> ultimate parent company or other group company approved by the <i>Client</i> in writing in advance."</p> <p><b>[It is expected that a bond will be provided on the terms specified however a Parent Company Guarantee may be relevant in addition / in lieu of a bond subject to the bidder's corporate structure and in the context of the bid as a whole.]</b></p>
26.2	<p>Add Clause 26.2:</p> <p>"On or before the <i>starting date</i> the <i>Contractor</i> provides the <i>Client</i> with a performance bond, duly executed by a bank or financial institution approved by (and located in a jurisdiction approved by) the <i>Client</i>, for the proper performance of its obligations under this Contract in the form set out in this Contract in the amount of 10% of the total of the Prices. The <i>Contractor</i> ensures that the performance bond is valid and enforceable until the issuance of the Defects Certificate (the "<b>Permitted Expiry Date</b>"). If the terms of the performance bond specify its expiry date, and the Permitted Expiry Date has not occurred by the date 28 Days prior to the expiry date, the Contractor shall extend the validity of the Performance Bond until the Permitted Expiry Date.</p> <p>If the bond provider's long-term unsecured debt has credit ratings of less than [A-] S&amp;P or [A-] Moodys (the "<b>Required Rating</b>"), the <i>Contractor</i> notifies the <i>Client</i> and promptly (in any event within 14 days) replaces the performance bond with a replacement performance bond meeting the requirements of this Clause 26.2.</p> <p>Where the total of the Prices increases by an amount in aggregate equal to or greater than two percent (2%) of the total of the Prices as at the issuance or last</p>

Clause	Amendment
	increase of the value of the performance bond, the <i>Contractor</i> procures within 30 days of such increase the issuance of an amended or supplementary performance bond meeting the requirements of this Clause 26.2."
26.3	Add Clause 26.3:  "Where the <i>Contractor</i> fails to procure, maintain or replace [a parent company guarantee and / or a performance bond] in accordance with this Clause 26, the <i>Client</i> may (subject to Clause 50.5 [but without prejudice to its rights under Clause 90 withhold further payment to the <i>Contractor</i> until such time as the <i>Contractor</i> complies with its obligations under this Clause 26."
42.5 Additional clause	Correcting Defects  Add Clause 42.5:  "In respect of Defects affecting health and safety and/or which create an emergency, the <i>Contractor</i> shall correct such Defects as quickly as is reasonably practicable with the <i>Contractor</i> using reasonable endeavours."
50.2	Assessing the amount due  At the end of Clause 50.2, add a new sentence:  "The <i>Contractor's</i> application for payment shall be accompanied by an invoice raised by the <i>Contractor</i> for the amount assessed as due in the <i>Contractor's</i> application for payment together with the amount of VAT due and shall be issued to the <i>Client</i> ."
51.1	Payment  In the first line of Clause 51.1 replace the words "within three weeks after the <i>assessment day</i> " with "within thirty days of receipt of the <i>Contractor's</i> invoice by the <i>Client</i> (or sixty days in the case of the final payment)".
60.1	Compensation Events  In line 1 after "are" insert: "to the extent they do not result from any error, omission, negligence or default of the <i>Contractor</i> ".
60.1(1)	Insert at the end: "or a change to the Scope provided by the <i>Contractor</i> which is made at his request."
60.1(10)	Add at the end: "unless the correction by the <i>Client</i> was necessary due to inaccurate, incomplete or incorrect information provided by the <i>Contractor</i> ."
60.1(11)	Delete text of Clause 60.1(11) and insert "An event or circumstance which is beyond the control of the <i>Contractor</i> and which makes it impossible or illegal for the <i>Contractor</i> to perform its obligations under or in relation to this contract."

Clause	Amendment
60.2	<p>Delete text of Clause 60.2 and insert:</p> <p>"The <i>Contractor</i> has inspected the physical conditions (including the subsurface conditions), and other conditions affecting the <i>site</i> and has fully acquainted himself with the same before the date of this contract and has obtained all necessary information as to risks, contingencies and all other circumstances which may influence or affect the design or execution of the works. Notwithstanding any other provision of this contract, no unexpected physical conditions or obstructions (other than weather conditions constituting a compensation event), and no failure on the part of the Contractor to discover or foresee any such condition, risk, contingency or circumstance constitutes a compensation event, unless such condition, obstruction, risk, contingency or circumstances was Unforeseeable.</p> <p><i>"Unforeseeable" means not foreseen by the Contractor at the date of this contract and/or not reasonably foreseeable at the date of this contract by an appropriately qualified contractor, with experience in carrying out work for projects of a similar type, nature and complexity to the Works, employing Good Industry Practice.</i></p>
60.3	<p>Add as new Clause 60.3:</p> <p>"Provided that the <i>Contractor</i> complies with his obligations in Core Clause 6 [<i>Compensation Events</i>], the <i>Contractor</i> is entitled to an extension to the Completion Date, or such other adjustment to the accepted programme for the performance of his obligations under this contract to take account of delay due to a compensation event pursuant to Clause 60.1(11). Notwithstanding Core Clause 6 [<i>Compensation Events</i>], the <i>Contractor</i> is not entitled to a change in the Prices due to a compensation event pursuant to Clause 60.1(11)."</p>
60.4	<p>Add Clause 60.4:</p> <p>"The <i>Contractor</i> shall mitigate the effects of any compensation event. Any failure to comply with this obligation shall be taken into account when assessing a compensation event."</p>
70.3 Additional clause	<p>Add a new Clause 70.3:</p> <p>"The value of Plant and Materials outside the <i>site</i> is excluded from the Price for Work Done to Date unless:</p> <p>70.3.1 the Plant and Materials is within the United Kingdom,</p> <p>70.3.2 the <i>Contractor</i> demonstrates to the satisfaction of the <i>Client's Agent</i> that the Contractor has unencumbered title to the Plant and Materials,</p> <p>70.3.3 the Plant and Materials is stored separately and is clearly and visibly marked as for the <i>Client</i> and this contract,</p> <p>70.3.4 the Plant and Materials is adequately protected against water, theft, vandalism and other casualties,</p> <p>70.3.5 the Plant and Materials is insured against loss or damage while stored or in transit to the <i>site</i> for its full reinstatement value under a policy of insurance protecting the interests of the Parties in respect of the usual insured risks for the period until it is brought within the <i>site</i>."</p>

Clause	Amendment
70.4 Additional clause	<p>Add a new Clause 70.4:</p> <p>"Where the value of Plant and Materials outside the <i>site</i> is included in the Price for Work Done to Date:</p> <p>70.4.1 the Contractor's title in the Plant and Materials passes to the <i>Client</i>,</p> <p>70.4.2 the Contractor does not remove it from where it is stored except for use on the <i>works</i>, and</p> <p>70.4.3 the risk of loss or damage to the Plant and Materials remains with the <i>Contractor</i>."</p>
70.5 Additional clause	<p>Add a new Clause 70.5:</p> <p>"The value of Plant and Materials within the <i>site</i> is excluded from the Price for Work Done to Date unless:</p> <p>70.5.1 title in the Plant and Materials has already passed to the <i>Client</i> under Clause 70.4, or</p> <p>70.5.2 the <i>Contractor</i> demonstrates to the satisfaction of the <i>Client's Agent</i> that the <i>Contractor</i> has unencumbered title in the Plant and Materials."</p>
70.6 Additional clause	<p>Add a new Clause 70.6:</p> <p>"The <i>Contractor's</i> title in Plant and Materials passes to the <i>Client</i> when it is brought within the <i>site</i>, but the risk of loss or damage to the Plant and Materials remains with the <i>Contractor</i>."</p>
70.7 Additional clause	<p>Add a new Clause 70.7:</p> <p>"The <i>Contractor</i> does not remove Plant and Materials within the <i>site</i> from where it is stored except for use on the <i>works</i> or with the <i>Client's Agent's</i> permission."</p>
81.1	<p>Delete text of Clause 81.1 and replace with:</p> <p>"The <i>Contractor's</i> total liability to the <i>Client</i> for all matters arising under or in connection with this contract, other than the excluded matters, is limited to <b>100% of the Prices</b> and applies in contract, tort or delict and otherwise to the extent allowed under the Applicable Law.</p> <p>The excluded matters are amounts payable by the <i>Contractor</i> as stated in this contract for</p> <ul style="list-style-type: none"> <li>• loss of or damage to the <i>works</i>, Plant and Materials and Equipment,</li> <li>• claims and proceedings from others and compensation and costs payable to others which arise from or in connection with the <i>Contractor</i> providing the <i>works</i>,</li> <li>• loss of or damage to the <i>Client's</i> property,</li> <li>• delay damages,</li> <li>• indemnities given under this contract,</li> <li>• claims as a result of any failure by the <i>Contractor</i> to take out and/or</li> </ul>



Clause	Amendment
	<p>maintain insurances and/or any act or omission invalidating or otherwise restricting the entitlement of the <i>Client</i> to receive proceeds pursuant to any insurances;</p> <ul style="list-style-type: none"> <li>• amounts due on or after termination, and</li> <li>• cases of fraud, deliberate default or reckless misconduct by the <i>Contractor</i>." </li></ul>
82.4	<p>Delete Clause 82.4 and replace with the following:</p> <p>"For any one event, the liability of the <i>Contractor</i> to the <i>Client</i> for loss of or damage to the <i>Client's</i> property is limited to the amount stated in the Contract Data. To the extent permitted by the Applicable Law, neither Party shall be liable to the other for any indirect and/or consequential loss (including, without limitation, such indirect: loss of profit; loss of use; loss of revenues; loss of production; loss of any contract; or loss of savings) that may be suffered by the other Party in connection with this contract, whether caused by breach of contract, breach of statutory duty, tort (including negligence), except in relation to the excluded matters listed at Clause 81.1."</p>
82.5 Additional clause	<p>Add a new Clause 82.5:</p> <p>"If and to the extent that a liability of the <i>Contractor</i> is covered by any insurance policy which the <i>Client</i> or the <i>Contractor</i> is obliged to take out or maintain under this contract, and the <i>Contractor</i> receives proceeds in respect thereof (or would have done so but for any act or omission on the part of the <i>Contractor</i>), the payment of sums equivalent to the proceeds shall not count towards or act to reduce the unexpended amount of any limitation of liability (under Clause 81 or otherwise) of the <i>Contractor</i>."</p>
82.6 Additional clause	<p>Add a new Clause 82.6:</p> <p>"The <i>Contractor's</i> liability in respect of <i>delay damages</i> in accordance with Clause 50.6 shall be limited to <b>£100,000</b>."</p>
83.3	<p>In the fourth row, second column delete: "applicable law" and replace with "Applicable Law".</p>
90.2	<p>Delete "insolvent or its equivalent" insert "Insolvent".</p>
90.2A Additional clause	<p>Add a new clause 90.2A</p> <p>"The <i>Client</i> may terminate if the <i>Contractor</i> fails to procure, maintain or replace a [parent company guarantee and / or a performance bond in accordance with Clause 26 [or if the guarantor under the parent company guarantee has become Insolvent] (Reason 1A)."</p>

Clause	Amendment
90.3	<p>In Clause 90.3:</p> <p>At end of first bullet point before: "(Reason 2)" add:</p> <p>"which includes any persistent or material failure".</p>
90.6	<p>After "<i>Contractor</i>" in the first line insert ", or any person employed by the <i>Contractor</i> or acting on his behalf (whether with or without the knowledge of the <i>Contractor</i>),"</p>
91.1	<p>Insert after "<i>works</i>": "himself or employ other people to do so."</p> <p>Insert at the end: ", makes good the <i>site</i> to the satisfaction of the <i>Client</i> and co-operates with the <i>Client</i> and provides all assistance necessary to enable another person to complete the <i>works</i>".</p>
92.2	<p>After "1" insert ", 1A"</p>
92.3	<p>Delete Clause 92.3 and replace with:</p> <p>"The receipt of payment set out in this Clause 92 shall be the <i>Contractor's</i> sole and exclusive remedy on termination of this contract."</p>
92.5	<p>Add as new Clause 92.5:</p> <p>"Without prejudice to Clauses 92.1, 92.2, 92.3 and 92.4 and to the extent permitted by the Applicable Law, the <i>Client</i> shall not be liable to the <i>Contractor</i> for loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the <i>Contractor</i> as a result of termination."</p>
93	<p>Delete and replace with a new clause as follows:</p> <p>93.1 If a dispute or difference arises in relation to any aspect of this contract, the <i>Contractor</i> and the <i>Client</i> shall consult in good faith in an attempt to come to an agreement in relation to the disputed matter.</p> <p>93.2 <b>Adjudication</b></p> <p>Notwithstanding any other provision of this contract, the parties each have the right to refer a dispute or difference arising under this contract to adjudication, and either party may at any time give to the other notice in writing of his intention to do so. Any information submitted by the referring party to the adjudicator shall be copied at the same time to the other party. The adjudication shall be conducted under The Technology and Construction Solicitors Association Adjudication Rules current at the time of the referral of the dispute or difference ("<b>TeCSA Adjudication Rules</b>") thereby incorporating the TeCSA Adjudication Rules into this contract.</p> <p>93.3 <b>Arbitration</b></p> <p>Any claim, dispute or difference arising under or in connection with this contract or its subject matter or formation shall be referred to and finally resolved by arbitration under the LCIA Rules, which are deemed to be incorporated by reference into this clause.</p>

Clause	Amendment
	<p>Unless otherwise agreed between the Parties, the number of arbitrators shall be one.</p> <p>The seat, or legal place, of the arbitration shall be London, England.</p> <p>The language to be used in the arbitral proceedings shall be English.</p> <p>This arbitration clause shall be governed by and interpreted in accordance with English law.</p> <p><b>93.4 Joinder</b></p> <p>Where a dispute or difference between the <i>Client</i> and any other contractor(s) or any other party engaged on the Project (or the operation and maintenance of the Project) is connected to the facts, matters or issues raised in or giving rise to a dispute or difference under this contract (a "<b>Related Dispute</b>") and such dispute or difference under this contract has been referred to adjudication under clause 93.2 or arbitration under clause 93.3, the parties shall, if the <i>Client</i> so requires by written notice to the <i>Contractor</i> (copied to the relevant other contractor(s) or the other party) refer the Related Dispute to the adjudicator or arbitrator(s) (as the case may be) which is hearing the dispute or difference under this contract.</p> <p><b>93.5 Assistance</b></p> <p>The <i>Contractor</i> shall give the <i>Client</i> such reasonable assistance as the <i>Client</i> may require in dealing with any claims made against the <i>Client</i> by any other contractor or any other party engaged on the Project (or the operation and maintenance of the Project) except for any proceedings that are subject to dispute resolution proceedings under this Contract. Such assistance shall include, without limitation, the provision of information and documentation. To the extent that the provision of such assistance requires the <i>Contractor</i> to provide information or documentation which has not already been generated by the <i>Contractor</i> in the usual course of business in carrying out the Contract, the <i>Client</i> shall reimburse the <i>Contractor</i> for any costs reasonably incurred by the <i>Contractor</i> in providing such assistance. In addition, the <i>Contractor</i> shall make available its personnel to provide witness evidence and the <i>Client</i> shall reimburse the <i>Contractor's</i> reasonable costs of so doing.</p>
Clause Z1	<p>Add as new clause:</p> <p><b>"Contractor Obligations</b></p> <p>The <i>Contractor</i> provides the <i>works</i> diligently, in a good and workmanlike manner, using good quality and suitable materials of their respective kinds and in accordance with:</p> <ul style="list-style-type: none"> <li>• the Contract;</li> <li>• Good Industry Practice;</li> <li>• any Licences;</li> <li>• Regulatory Requirements; and</li> <li>• Applicable Law." </li></ul>
Clause Z2	<p>Add as new clause:</p>

Clause	Amendment
	<b>"Assignment"</b>
Clause Z2.1	Add as new sub-clause: "The <i>Contractor</i> may not assign novate or otherwise transfer any interest in or any rights arising under this contract without the consent of the <i>Client</i> ."
Clause Z2.2	Add as new sub-clause: "The <i>Client</i> may assign, charge or transfer his interest in this contract or any rights arising under it at any time without the consent of the <i>Contractor</i> . The <i>Client</i> notifies the <i>Contractor</i> of any such assignment, charge or transfer."
Clause Z2.3	Add as new sub-clause: "The <i>Contractor</i> shall not contend that any person to whom the benefit of the contract is assigned under Clause Z2.2 may not recover any sum under the contract because that person is an assignee and not a named party to the Contract."
Clause Z3	Add as new clause: <b>"Collateral Warranties"</b>  Z3.1 Within 14 days of a request from the <i>Client</i> , the <i>Contractor</i> shall execute and deliver a deed of collateral warranty in favour of any Funder, or any other beneficiary whom the <i>Client</i> may notify to the <i>Contractor</i> from time to time, in the form appended to this contract. In addition to the requirement to provide any deed or deeds of collateral warranty pursuant to this clause, the Contractor shall, within 14 days of a request from the <i>Client</i> execute and deliver a direct agreement in favour of any Funder, in such form as such Funder may reasonably require.  Z3.2 Within 21 days of the appointment of any Key Subcontractor (or in the case of a beneficiary which is not the <i>Client</i> , within 21 days of a notice from the <i>Client</i> ), the <i>Contractor</i> shall procure that the relevant Key Subcontractor executes and delivers a deed of collateral warranty in favour of (as relevant) the <i>Client</i> and/or any Funder, or any other beneficiary whom the <i>Client</i> may notify to the <i>Contractor</i> from time to time, in the form appended to this contract. The <i>Contractor</i> shall submit to the <i>Client</i> a certified copy of each subcontract with a Key Subcontractor within one week of each such subcontract being entered into (redacting any commercially-sensitive information). In addition to the requirement to provide any deed or deeds of collateral warranty pursuant to this clause, the <i>Contractor</i> shall, within 21 days of a request from the <i>Client</i> procure that any Key Subcontractor executes and delivers a direct agreement in favour of any Funder, in such form as such Funder may reasonably require.  Z3.3 In the event of any failure by the <i>Contractor</i> to provide any collateral warranty or direct agreement as required by this Contract, the <i>Client</i> may deduct and withhold all sums due to the Contractor. Such monies may be withheld until such time as the relevant collateral warranty is provided to the <i>Client</i> and notwithstanding the carrying out of or the completion of the <i>works</i> .

Clause	Amendment
Clause Z4	<p>Add as new clause:</p> <p><b>“Order of Precedence</b></p> <p>If there is any discrepancy, inconsistency, divergence, ambiguity or anomaly in or between the documents comprising or the provision of the contract, the order of precedence shall be:</p> <ul style="list-style-type: none"> <li>- the Client’s Contract Data;</li> <li>- the additional conditions of contract;</li> <li>- the Scope provided by the Client;</li> <li>- the conditions of contract;</li> <li>- the Contractor’s Contract Data;</li> <li>- the Scope provided by the Contractor</li> <li>- the Price List;</li> <li>- the Site Information;</li> <li>- any other document forming part of the Contract.”</li> </ul>
Clause Z5	<p>Add as new clause:</p> <p><b>“Confidentiality”</b></p>
Clause Z5.1	<p>Add as new sub-clause:</p> <p>“The <i>Contractor</i> treats the contract and everything in it or connected with it as confidential and shall not give any information regarding the contract to any member of the press or general public without the prior written acceptance of the <i>Client</i>.”</p>
Clause Z5.2	<p>Add as new sub-clause:</p> <p>“The <i>Contractor</i> does not use or disclose information concerning the contract obtained either by the <i>Contractor</i> or by any person employed by him except for the purposes of the contract.”</p>
Clause Z5.3	<p>Add as new sub-clause:</p> <p>“The <i>Contractor</i> does not (and ensures that its employees and subcontractors do not) use any confidential or proprietary information regarding the contract by it for any purpose other than to provide the <i>works</i>.”</p>
Clause Z5.4	<p>Add as new sub-clause:</p> <p>“The <i>Contractor</i> shall also (and shall procure that any third parties it engages in the delivery of the obligations under this Contract shall) at all times comply with:</p> <p>(a) Articles 115 and Annex XII of Regulation (EU) No 1303/2013 of the European Parliament and of the Council of 17 December 2013, as amended; and</p>

Clause	Amendment
	(b) Chapter II and Annex II of Commission Implementing Regulation (EU) No 821/2014 of 28 July 2014."
Clause Z6	Add as new clause: <b>"Warranties and guarantees"</b> The <i>Contractor</i> will assign the benefit of all product warranties and guarantees as required by the <i>Client</i> including but not limited to those described in the Scope and at the times specified in the Scope."
Clause Z7	Add as new clause : <b>"Notices"</b>
Clause Z7.1	Add as new sub-clause: <b>"Giving of Notices and Payment of Fees"</b> The <i>Contractor</i> shall give all notices and pay all fees required to be given or paid by any Applicable Law, Regulatory Requirement or Licence in relation to the execution of any <i>works</i> ."
Clause Z7.2	Add as new sub-clause: <b>"Contractor to Conform with Statutes, etc."</b> The <i>Contractor</i> shall ascertain and conform in all respects with the provisions of any Applicable Law, Regulatory Requirement or Licence."
Clause Z8	Add as new clause: <b>"Nuisance and Trespass"</b>
Clause Z8.1	Add as new sub-clause: "The <i>Contractor</i> shall: <ul style="list-style-type: none"> <li>• at all times prevent any public or private nuisance (including, any nuisance caused by noxious fumes, noisy working operations or the deposit of any material or debris on the public highway) or other interference with the rights of any adjoining or neighbouring landowner, tenant or occupier (including occupiers of completed sections of any <i>works</i>) or any statutory undertaker arising out of the carrying out of the <i>works</i>;</li> <li>• at all times prevent the escape of any dangerous, harmful or damaging substance on any site or from such site and, further, prevent any escape (of whatever nature) which causes any injury, damage or actionable loss;</li> <li>• assist the <i>Client</i> in defending any action or proceedings which may be instituted in relation to such nuisance, interference or escape; and</li> </ul>

Clause	Amendment
	<ul style="list-style-type: none"> <li>indemnify the <i>Client</i> from and against any and all expenses, liabilities, losses, claims and proceedings whatsoever resulting from any such nuisance, interference or escape, save and to the extent that such nuisance, interference or escape is caused by or as a result of an instruction of the <i>Client</i>."</li> </ul>
Clause Z8.2	<p>Add as new sub-clause:</p> <p>"The <i>Contractor</i> shall ensure that there is no trespass on or over any adjoining or neighbouring property arising out of or in the course of or caused by the carrying out of the <i>works</i>. If the carrying out of the <i>works</i> is likely to necessitate any interference with the rights of adjoining or neighbouring owners or occupiers, the <i>Contractor</i> shall, at the request of the <i>Client</i> and at no cost to the <i>Client</i>, assist the <i>Client</i> in obtaining any prior written agreement of such owners and/or occupiers to such interference."</p>
Z9	<p>Add as new clause:</p> <p><b>"Professional Indemnity Insurance"</b></p>
Z9.1	<p>Add a new sub-clause:</p> <p>"Without prejudice to the <i>Contractor's</i> obligations under this contract, or otherwise at law, the <i>Contractor</i> shall effect and maintain in full force and effect for a period commencing on the date of this contract and expiring no earlier than twelve (12) years from the date of Completion of this contract, professional indemnity insurance with a limit of indemnity of not less than £5 Million for each and every claim in respect of any claims against the <i>Contractor</i> provided that such insurance continues to be available in the insurance market at commercially reasonable premium rates and on commercially reasonable terms. Any increased or additional premium required by reason of the <i>Contractor's</i> own claims record or other acts, omissions, matters or things particular to the <i>Contractor</i> shall be deemed to be within commercially reasonable rates."</p>
Z9.2	<p>Add as new sub-clause:</p> <p>"The insurance required by this Clause Z9 is to be maintained with a reputable insurance company or underwriter licensed to carry on business in the United Kingdom and shall not be subject to any material excess or unusual exclusions."</p>
Z9.3	<p>Add as new sub-clause:</p> <p>"When required to do so by the <i>Client</i>, the <i>Contractor</i> shall provide to the <i>Client</i> satisfactory documentary evidence that the insurance required by this Clause Z9 is being maintained, and the <i>Contractor</i> hereby warrants and undertakes to the <i>Client</i> that, if and when required in order to maintain such insurance in full force and effect, this contract has been or shall be disclosed to the <i>Contractor's</i> professional indemnity insurers."</p>
Z9.4	<p>Add as new sub-clause:</p> <p>"The <i>Contractor</i> shall immediately inform the <i>Client</i> if such insurance ceases to be available at commercially reasonable premium rates and/or on commercially reasonable terms in order that the <i>Client</i> and the <i>Contractor</i> can discuss means</p>



Clause	Amendment
	of best protecting the respective positions of the <i>Client</i> and the <i>Contractor</i> in the absence of such insurance.”
Z10	Add as new clause: <b>“Contractor Personnel”</b>
Z10.1	Add as new sub-clause: “The <i>Contractor</i> shall at all relevant times ensure that there is an adequate number of <i>Contractor</i> personnel to provide the <i>works</i> and that the <i>Contractor</i> personnel: <ul style="list-style-type: none"> <li>• have appropriate qualifications, training and expertise and demonstrate suitable competence in carrying out the duties for which they are engaged;</li> <li>• are entitled to work in the UK (or other relevant jurisdiction) without contravening any statutory or other legal requirement;</li> <li>• shall comply with such policies and security requirements as are notified to the <i>Contractor</i> from time to time;</li> <li>• have satisfied such background and security checks as the <i>Client</i> may require from time to time;</li> <li>• carry out their duties in relation to the provision of <i>works</i> in a professional manner and in accordance with the provisions of this contract.”</li> </ul>
Z10.2	Add as new sub-clause: “The <i>Contractor</i> shall maintain up-to-date and adequate personnel records in relation to the <i>Contractor</i> personnel and shall provide to the <i>Client</i> such information or documents as the <i>Client</i> may request from time-to-time to demonstrate that the <i>Contractor</i> personnel satisfy the provisions in Clause Z10.1.”
Z11	<b>Add as new clause:</b> <b>“Interface”</b>
Z11.1	The <i>Contractor</i> warrants that it shall: <ul style="list-style-type: none"> <li>• provide the <i>Client</i> (at the <i>Client's</i> reasonable request) with any calculations, details, drawings, manuals, specifications, layouts, programme related documentation and other documents and information relating to the <i>works</i> and performance of the <i>Contractor's</i> obligations under this contract as the <i>Client</i> may require from time to time, in such format as may be specified in the Scope</li> <li>• co-operate with, co-ordinate with, liaise with and render reasonable assistance to the <i>Client</i>, the <i>Client's</i> Personnel, the <i>Client's</i> other contractors and their subcontractors, advisors and any other persons and parties which the <i>Client</i> may identify to the <i>Contractor</i> from time to time in relation to the co-ordination, integration and interface between (a) the design, programmes, works to be performed by such other contractors, advisors, persons and/or parties and (b) the <i>works</i> and the <i>Contractor's</i> performance of its obligations under this contract. Without prejudice to</li> </ul>



Clause	Amendment
	<p>the other provisions of the contract, the <i>Contractor</i> shall not (and shall procure that his subcontractors of any tier shall not), other than in connection with the proper performance of the <i>Contractor's</i> obligations under the contract, delay, impede and/or hinder any or all of those persons mentioned above in the carrying out of their obligations in respect of the Project. The <i>Contractor</i> shall comply with all reasonable instructions issued by the <i>Client</i> in respect of the coordination, integration and interface of the <i>works</i> and the <i>Contractor's</i> performance of its obligations under this contract with any other goods, <i>works</i> and/or <i>works</i> relating to the Project;</p> <ul style="list-style-type: none"> <li>• use all reasonable endeavours to ensure that no delay, interruption or interference is caused by the <i>Contractor</i> to the <i>Client</i>, the <i>Client's</i> Personnel, the <i>Client's</i> other contractors, advisors and/or any other person or party that the <i>Client</i> may identify to the <i>Contractor</i> from time to time in relation to the <i>works</i> and performance of the <i>Contractor's</i> obligations under this contract;</li> <li>• report to the <i>Client</i> at such intervals as identified in the Scope or at such intervals as the <i>Client</i> may reasonably require in relation to the <i>works</i> and the <i>Contractor's</i> performance of its obligations under this contract;</li> <li>• co-operate with the <i>Client</i>, the <i>Client's</i> Personnel, the <i>Client's</i> other contractors, advisors and any other persons and parties which the <i>Client</i> may identify to the <i>Contractor</i> from time to time to ensure the co-ordination of health and safety and environmental matters and shall undertake such measures and provide such reports as the <i>Client</i> may reasonably request from time to time;</li> <li>• comply with any site rules issued by the <i>Client</i> or the <i>Client's</i> Personnel affecting the Site and all health and safety and Regulatory Requirements and not do anything which may cause the <i>Contractor</i> or the <i>Client</i> to contravene them; in particular, but without prejudice to the generality of the preceding sentence, the <i>Contractor</i> shall comply with all Regulatory Requirements relating to the protection of human health and the Environment; and</li> <li>• comply with its obligations under this clause Z11 at its own cost.</li> </ul>
Z12	<p>Add as a new Clause:</p> <p><b>“Joint Ventures</b></p> <p>If the <i>Contractor</i> is a joint venture of two or more persons, all such persons are jointly and severally bound to the <i>Client</i> for the purposes of this contract. The persons designate one of such persons to act as a partner in charge with authority to bind the joint venture. The composition or the constitution of the joint venture is approved by the <i>Client</i> and is not altered without the prior consent of the <i>Client</i>.”</p>
	<p><b>If the United Kingdom Housing Grants, Construction and Regeneration Act 1996 as amended by the Local Democracy, Economic Development and Construction Act 2009 (the Act) applies to the contract and the additional conditions relating to the Act set out in the contract apply:</b></p>

Clause	Amendment
	<p>In Clause 1.1(3) of the additional conditions, delete 'The final date for payment is three weeks after the payment due date' and replace with:</p> <p>"The final date for payment is the date by which payment must be made, as specified in Clause 51.1."</p> <p>In Clause 1.4 replace "seven" with "two".</p>



## **Section 3**

### **Contract Data Part Two**

## Contract Data - Part 2

### The *Contractor's* Contract Data

The *Contractor* is

Name **[To be inserted]**

Address for Communications **[To be inserted]**

Address for Electronic Communications **[To be inserted]**

The fee percentage is **[To be inserted]** %

The *people* rates are

category of person	unit	rate

The *published list* of Equipment is **[To be inserted]**

The *percentage for adjustment* for Equipment is **[To be inserted]** % (state plus or minus)



## Section 4 Price List

## Price List

Entries in the first four columns in this Price List are made either by the *Client* or the tenderer.

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tenderer enters the amount in the Price column only; the Unit, Quantity and Rate columns being left blank.

If the *Contractor* is to be paid an amount for the item of work which is the rate for the work multiplied by the quantity completed, the tenderer enters the rate which is then multiplied by the expected quantity to produce the Price, which is also entered.

Item number	Description	Unit	Quantity	Rate	Price

**The total of the Prices** [To be inserted]

The method and rules used to compile the Price List are [To be inserted]



## Section 5 Scope

## Scope

### Part 1 – Description of the *works*

The Scope of Works is set out in Appendix B of the ITT document – EGL-ITT-C007.

### Part 2 – Drawings

List the drawings that apply to the contract

Drawing number	Revision	Title
EGL Reference Design DR-001	1	EGL-ITT-C007 Appendix A: Employer's Reference Design/ Proposed Site Layout
MND Site Layout with Rig zoom	1	Technical Updates to Employer's Reference Design provided at Appendix A (zoom)
MND Site Layout with Rig	1	Technical Updates to Employer's Reference Design provided at Appendix A
MND Bentec 450 Load Plan Compact Layout_20151005	1	Drilling Rig Load Plan – File 1
MND Bentec 450 Load Plan_Substructure Detailed	1	Drilling Rig Load Plan – File 2



### Part 3 – Specifications

List the specifications which apply to the contract.

[These will be listed as per the Scope of Works at Appendix B of EGL-ITT-C007.]

Title	Date or revision	Tick if publicly available

### Part 4 – Constraints on how the *Contractor* Provides the Works

State any constraints on the sequence and timing of work and on the methods and conduct of work including the requirements for any work by the Client.

The contractor shall complete the Works as set out in the Scope of Works, Appendix B of the ITT document: EGL-ITT-C007

### Part 5 – Requirements for the programme

A detailed programme showing key dates, tasks and milestones, deliverables, critical path, interdependencies, contingencies, terminal float and finish date and key dates will be required – as set out in Schedule 3 of EGL-ITT-C007. This is to be supplied as a Gantt chart.

The Site is a temporary site which will enable a drilling rig (with a maximum pulling capacity of 450t) to drill a geothermal well to approximately 4,500m. Completion will be when the groundworks, drilling rig foundations, lagoon, roadways, fencing and all services are complete as per the specification/Scope of Works (Appendix B of EGL-ITT-C007) and the drilling rig mobilisation to site can commence.

The site is to be complete by the finish date of 19<sup>th</sup> December as set out in EGL-ITT-C007.

## Part 6 – Services and other things provided by the *Client*

Describe what the Client will provide, such as services (including water and electricity) and “free issue” Plant Materials and equipment.

Item	Date by which it will be provided?
Electricity (to the boundary) as detailed in Scope of Works, Appendix B EGL-ITT-C007	15 <sup>th</sup> October 2020 (tbc)
Communications, internet, phone etc (to the boundary) as detailed in Scope of Works, Appendix B EGL-ITT-C007	15 <sup>th</sup> October 2020 (tbc)
Drinking Water Supply (to the boundary) as detailed in Scope of Works, Appendix B EGL-ITT-C007	15 <sup>th</sup> October 2020 (tbc)
RAW Water Supply as detailed in Scope of Works, Appendix B EGL-ITT-C007	30 <sup>th</sup> October 2020 (tbc)



## Section 6 Site Information

## Site Information

<b>Description</b>	<b>Document Reference</b>
Employer's Reference Design/ Proposed Site Layout (also provided at Appendix A)	EGL Reference Design DR-001
Technical Updates to Employer's Reference Design provided at Appendix A (Zoom)	MND Site Layout with Rig zoom
Technical Updates to Employer's Reference Design provided at Appendix A	MND Site Layout with Rig
Drilling Rig Load Plan – File 1	MND Bentec 450 Load Plan Compact Layout_20151005.pdf
Drilling Rig Load Plan – File 2	MND Bentec 450 Load Plan_Substructure Detailed.pdf
Topographical Survey (Kemp Surveying) May 2020 - 4 files	<ul style="list-style-type: none"> <li>• KS 20-9424-01(1) EGL Svy May 2020</li> <li>• KS 20-9424-01(2) EGL Svy May 2020</li> <li>• KS 20-9424-01(3) EGL Svy May 2020 with image</li> <li>• KS 20-9424-01(4) EGL Svy May 2020 with image</li> <li>• KS 20-9424-01 EGL Svy May 202.dwg</li> <li>• KS Eden Geothermal.ecw</li> </ul>
Ground Investigation Report (Parsons Brinckerhoff) July 2014	PB Ground Investigation Report
Construction Environmental Management Plan (Parsons Brinckerhoff) 2013	PB CEMP with Appendices
Ground Conditions and Hydrogeology Report (Buro Happold) July 2010	BH Ground Conditions and Hydrogeology Report
Auto-Tracking 7.5m Van (MMD)	417598-MMD-00-XX-DR-C-002
Auto-Tracking 16.5m Articulated Lorry (MMD)	417598-MMD-00-XX-DR-C-003
Auto-Tracking 16.9m Low Loader (MMD)	417598-MMD-00-XX-DR-C-004
Outline Drainage Strategy (MMD) (N.B. Indicative only as subsequent amendments made.)	417598-MMD-00-XX-RP-D-0009
Copy of LPA planning consent 2010	EGL Planning Consent 2010 PA10_04671
Copy of LPA planning consent 2013	EGL Planning Consent 2013 PA13_05057
EGL Site Videos March 2020 – 3 files	<ul style="list-style-type: none"> <li>• EGL Access Road-Rig Exit Gate to Eden Access Road (MP4 file)</li> <li>• EGL Access Road-Main Ent to Proposed Rig Ent Gate (MP4 file)</li> <li>• EGL Access Road Rig Ent Gate to Rig Exit Gate (MP4 file)</li> </ul>

## Section 7 - Appendices

### Appendices

The following documents shall be appended to and will form part of this contract.

#### **Appendix I - Risk Register**

The *Contractor* shall complete the Risk Register detailing all risks and opportunities which they have made specific allowance for in their price. Such items shall be individually detailed and descriptions shall be clear and unambiguous so that the potential risk can easily be identified and understood.

The summation of these risks and opportunities shall be entered into the Price List.

#### **Appendix III – Form of Contractor Collateral Warranty**

[To be inserted]

#### **Appendix IV – Form of Subcontractor Collateral Warranty**

[To be inserted]

#### **Appendix V – Form of Parent Company Guarantee**

[To be inserted]

#### **Appendix VI – Form of Performance Bond**

[To be inserted]