

Response to ISH5 Action Point 36 on Behalf of the
**Neighbours and Users of
Queen Elizabeth Park**



Nick Jarman

Interested Party reference no: **20022545**

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1. Introduction

Action Point 36 from ISH5 requested the following:

'Submit report regarding potential trenchless solutions in QEP and how the effect of stringing out could be minimised'

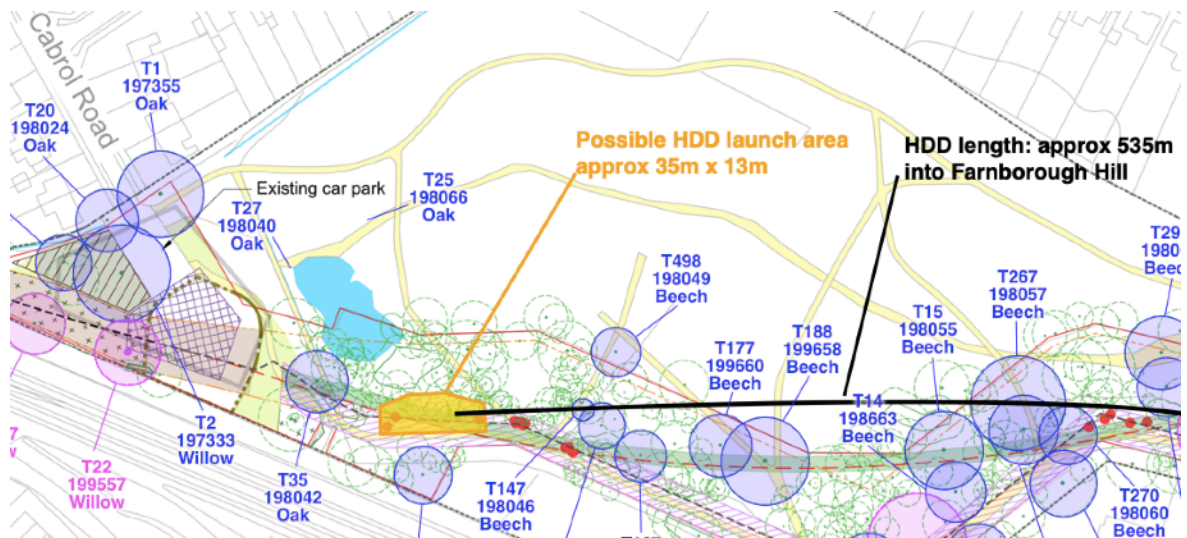
The purpose of this document is to present some options to help find the best solution for the pipeline to be installed in QEP using HDD. Whilst we want to avoid all tree loss in the park, we accept the need to compromise and to consider all possibilities. We have presented our favoured option in detail but have also included an additional possibility which uses only straight bores to show that many solutions are possible.

Although this response is provided on behalf of the Neighbours and Users of Queen Elizabeth Park, it is prepared in co-operation with Rushmoor Borough Council and has their full support.

2. Proposed Alternative HDD Launch Area in QEP

2.1. Location and Access

It would seem that using an HDD launch area further within the park could allow HDD to be used. Our proposed HDD area is adjacent to the southern path, approximately 50 metres from the play area.



Plan extract showing proposed HDD launch area (full drawings in section 4)

1. The proposed HDD area is currently occupied mainly by birch trees and brambles. It does not contain any Notable or Veteran Tree RPAs.
2. The proposed HDD area is completely within the current Order Limits.
3. Three trees in this area are currently identified for removal by Esso, but additional trees could also be cleared to create the necessary working area.
4. Dimensions are approximately 35 x 13 metres.
5. More width might be available depending on suitable care being taken in RPAs and whether the path is used as part of the compound.
6. Access to the site from the Cabrol Road compound area is via the path, with at least 5 metres width available if brambles and rhododendron are cleared. Suitable protection of T35's RPA would be required.
7. The bore can be designed with straight alignment at each end so that the curvature of the alignment is in the vertical plane only at the ends and in the horizontal plane only in the centre section where the bore is level.

The proposal recognises that some trees in the park will need to be removed, but contains this removal to an area where clearance can be tolerated. It also confines all activities to an area which is easily accessible from the Cabrol Road car park.

Our concerns about stringing activities for TC018 and the location of the Cabrol Road construction compound are not addressed by this proposal, but they have already been expressed in previous submissions.

2.2. Bore and Stringing Length

Compared with the HDD option presented by Esso at action point 15 from ISH2¹, the total bore length, from the park to Farnborough Hill, is reduced by roughly 75 metres.

1. Length would be approximately 535 metres instead of 600 metres.
2. The stringing space in Farnborough Hill was said to be 30 metres too short for the 600 metre bore, so there is more than adequate space for this proposal.
3. The reduced length allows the string to be pulled in a single operation.
4. This gives flexibility to move the reception area further into Farnborough Hill grounds if needed to avoid RPAs of potential veteran trees.
5. Using a single pull addresses Esso's concerns that a two pull plan is too risky.
6. Using a single pull also addresses Esso's concerns about the duration of the pull and the risk of works having to take place during term time.

2.3. Connecting the Proposed HDD Bore with TC018

There are two options for connecting the proposed HDD bore with TC018:

1. HDD could be used in a west-to-east direction.
2. An open trench could be used.

Both the trenchless and trenched options are acceptable to us for this scheme in this area of the park. This is because it is consistent with the aim to confine all works to a small area where damage can most easily be mitigated. We still oppose trenching anywhere else in the park.

T35 remains at risk, depending on the final alignment of the pipe and the installation method which is chosen. However this is the only Notable Tree which would be affected by the proposal.

¹ Response to Action Points from the Issue Specific Hearing on Environmental Matters on 3 December 2019 (ISH2), Application Document: 8.20, Revision No. 1.0, December 2019 ([https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070005/EN070005-001004-8.20%20Response%20to%20the%20Action%20Points%20from%20the%20Issue%20Specific%20Hearing%20on%20Environmental%20Matters%20on%203%20December%202019%20\(ISH2\).pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070005/EN070005-001004-8.20%20Response%20to%20the%20Action%20Points%20from%20the%20Issue%20Specific%20Hearing%20on%20Environmental%20Matters%20on%203%20December%202019%20(ISH2).pdf))

2.4. Trees to be Removed

We have identified 26 trees from Esso's QEP tree survey within the proposed HDD area. These are listed in the table below. The In RPA column shows whether the trunk is in a root protection area of a tree which would be retained.

Tree number	Species	Life Stage	Stem Diameter(s)	In RPA?
S2700-T58-C1	Oak	Young	110	Yes
S2700-T59-U	Goat Willow	Over Mature	310, 360	
S2700-T60-U	Oak	Semi Mature	170	
S2700-T62-C1	Oak	Young	150	
S2700-T63-C1	Alder	Early Mature	260	
S2700-T64-C1	Hazel	Young	80	
S2700-T80-C1	Oak	Early Mature	190	
S2700-T86-C2	Silver birch	Early Mature	320	
S2700-T87-C2	Silver birch	Mature	340, 240	
S2700-T88-C2	Silver birch	Early Mature	200	
S2700-T89-C2	Silver birch	Young	140	
S2700-T90-C2	Silver birch	Young	110	
S2700-T91-C2	Silver birch	Semi Mature	190	
S2700-T92-C2	Silver birch	Semi Mature	210	
S2700-T93-C2	Silver birch	Early Mature	310	
S2700-T94-C2	Silver birch	Young	110	
S2700-T95-C1	Silver birch	Semi Mature	160	
S2700-T96-C2	Silver birch	Early Mature	290	
S2700-T97-C2	Silver birch	Semi Mature	160	
S2700-T98-C2	Oak	Mature	320	
S2700-T99-C2	Oak	Semi Mature	180	
S2700-T100-C2	Oak	Semi Mature	240	
S2700-T101-C2	Silver birch	Semi Mature	150	
S2700-T102-C2	Silver birch	Semi Mature	260	
S2700-T103-C2	Birch	Young	130	
S2700-T104-C2	Birch	Young	140	Yes

2.5. Reinstatement

There is scope for planting replacement trees within the proposed HDD compound whilst still respecting the easement. Any trees which cannot be accommodated within the area (to provide one-for-one replacements) could be planted elsewhere within the order limits, as indicated in the Reinstatement Plan within the QEP SSP.

2.6. Photographs



1. View of trees and brambles in the proposed HDD area, path visible on the right



2. Additional view of trees and brambles in proposed HDD area



3. View looking back to play area with the proposed HDD area on the right



4. View from play area showing space available for creating access



5. Additional view showing space for access from play area

2.7. Analysis

We believe this proposal is a good compromise for all parties.

This proposal allows Esso to achieve their objective of routing the new pipeline close to the existing ones within the current order limits.

Our primary concern is to protect the many precious Notable and Veteran Trees within the park by leaving them undisturbed during the project. We have worked to identify possible solutions and this proposal will achieve this protection and will allow most of the park to remain available and undisturbed.

Although trees will be lost from the area we have identified, fewer will be lost than through Esso's trenching proposal. All trees are in a single area rather than spread throughout the park, and none are within the RPAs of Notable Trees.

3. Straight Bore Option

Although this is not our main proposal, there is yet another option for using HDD to cross the park. Two straight bores could be used if the pipeline is routed via the glade.



This reduces the length of the bore from the park to Farnborough Hill to approximately 480 metres.

The shorter run would be bored from the Cabrol Road compound with a stringing area to the north-east of the glade.

Access to the glade is more complex, indicated by the curved red line, however a suitable path between the trees could be found.

We include this to illustrate that all options for the park have not been fully considered. Esso should not feel constrained in finding a solution which meets the needs of all parties.

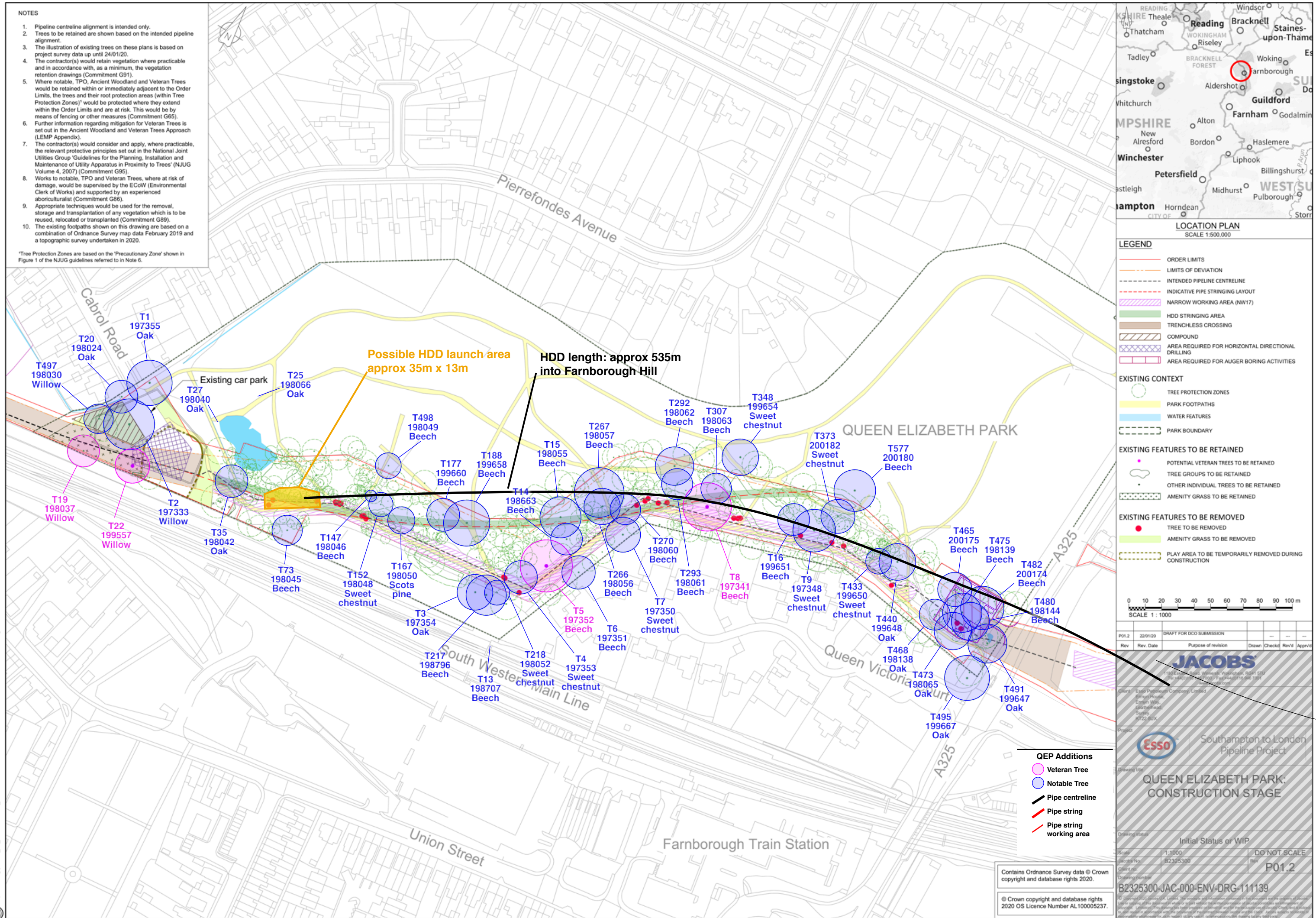
4. Indicative Plans

This section contains plans which illustrate the general position of the HDD launch area proposed in section 2, using plans already submitted by Esso as the basis.

NOTES

1. Pipeline centreline alignment is intended only.
2. Trees to be retained are shown based on the intended pipeline alignment.
3. The illustration of existing trees on these plans is based on project survey data up until 24/01/20.
4. The contractor(s) would retain vegetation where practicable and in accordance with, as a minimum, the vegetation retention drawings (Commitment G91).
5. Where notable, TPO, Ancient Woodland and Veteran Trees would be retained within or immediately adjacent to the Order Limits, the trees and their root protection areas (within Tree Protection Zones) would be protected where they extend within the Order Limits and are at risk. This would be by means of fencing or other measures (Commitment G65).
6. Further information regarding mitigation for Veteran Trees is set out in the Ancient Woodland and Veteran Trees Approach (LEMP Appendix).
7. The contractor(s) would consider and apply, where practicable, the relevant protective principles set out in the National Joint Utilities Group 'Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees' (NJUG Volume 4, 2007) (Commitment G95).
8. Works to notable, TPO and Veteran Trees, where at risk of damage, would be supervised by the ECoW (Environmental Clerk of Works) and supported by an experienced arboriculturalist (Commitment G86).
9. Appropriate techniques would be used for the removal, storage and transplantation of any vegetation which is to be reused, relocated or transplanted (Commitment G89).
10. The existing footpaths shown on this drawing are based on a combination of Ordnance Survey map data February 2019 and a topographic survey undertaken in 2020.

*Tree Protection Zones are based on the 'Precautionary Zone' shown in Figure 1 of the NJUG guidelines referred to in Note 6.



LEGEND

- ORDER LIMITS
- LIMITS OF DEVIATION
- INTENDED PIPELINE CENTRELINE
- INDICATIVE PIPE STRINGING LAYOUT
- NARROW WORKING AREA (NW17)
- HDD STRINGING AREA
- TRENCHLESS CROSSING
- COMPOUND
- AREA REQUIRED FOR HORIZONTAL DIRECTIONAL DRILLING
- AREA REQUIRED FOR AUGER BORING ACTIVITIES

EXISTING CONTEXT

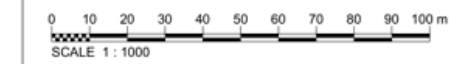
- TREE PROTECTION ZONES
- PARK FOOTPATHS
- WATER FEATURES
- PARK BOUNDARY

EXISTING FEATURES TO BE RETAINED

- POTENTIAL VETERAN TREES TO BE RETAINED
- TREE GROUPS TO BE RETAINED
- OTHER INDIVIDUAL TREES TO BE RETAINED
- AMENITY GRASS TO BE RETAINED

EXISTING FEATURES TO BE REMOVED

- TREE TO BE REMOVED
- AMENITY GRASS TO BE REMOVED
- PLAY AREA TO BE TEMPORARILY REMOVED DURING CONSTRUCTION



Rev	Rev. Date	Purpose of revision	Drawn	Checked	Rev'd	Appr'd
P01.2	22/01/20	DRAFT FOR DCO SUBMISSION				

JACOBS
1158 Church Road, Wokingham, Berkshire RG40 3SU
Tel: 0118 946 1100 Fax: 0118 946 1101
www.jacobs.com

Client: Esso Petroleum Company Limited
Project: Southamton to London Pipeline Project

Project: Southamton to London Pipeline Project

QUEEN ELIZABETH PARK: CONSTRUCTION STAGE

Initial Status or WIP

Scale: 1:1000 DO NOT SCALE

Client ref: B2325300 Rev: P01.2

Drawing number: B2325300-JAC-000-ENV-DRG-111139

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- QEP Additions
- Veteran Tree
- Notable Tree
- Pipe centreline
- Pipe string
- Pipe string working area

