



BS5837: 2012 Arboricultural Survey
& Impact Assessment
at
Granville Oil & Chemicals

Site Address:	Unit 28, Goldthorpe Industrial Estate, Rotherham, S63 9BL	Client:	James Todd (GGP) / Granville Oil & Chemicals
Report Ref:	GR01-19	Report Date:	7th Feb 2019
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1 Caveats and Limitations

1.1

All trees have been inspected from ground level using non-invasive techniques unless otherwise stated. In some instances a drone may have been used to capture images from the site or observe overall canopy health, however this does not constitute as an arial inspection.

1.2

Climate conditions including storm, drought and temperature-related factors can cause damage and failure in apparently healthy trees. It should be remembered that all trees potentially pose a hazard, however they should be managed based on their level of risk. Whilst every effort has been made to detect any major defects in inspected trees, no guarantee can be given as to their safety.

1.3

Comments on tree conditions and their associated risk relate to the date and time the survey was undertaken. Tree health and condition is subject to development due to the biological nature of trees or other mechanical or physical changes in conditions and the proximity of these to the tree. As such, trees should be inspected at intervals relative to identified site risks and in accordance with relevant HSE and Central Government guidance.

1.4

No reports regarding underground utilities or past construction works have been made available, and therefore it should be noted that it is possible that such documentation may affect the recommendations of the report.

1.5

As an arboricultural report, the author is not qualified to comment on damage to buildings or underground utilities that may or may not have been caused by roots. Any observations made regarding the condition of such structures are from a lay person view.

1.6

In instances where trees are protected by Tree Protection Orders (TPO) or another protection status such as being located within a conservation area, no tree works should be undertaken without first obtaining permission from the relevant organisation.

1.7

All works should be undertaken in accordance with the appropriate duty of care and carried out to the standards set out in the British standards document BS 3998:2010 '*Tree work - recommendations*'. This should include, for example, site specific risk assessments and due diligence inspections for the presence of protected species which includes all nesting birds.

2. Introduction

2.1 Intention of the Report

Mr J. Todd of GGP, working on behalf of Granville Oil & Chemicals, requested that Key Tree Solutions conduct an independent arboricultural survey of the trees and vegetation located both within and directly adjacent to the site at the above address, in the context of potential land development.

This has been conducted in order to ascertain what the impact of developing the land for a proposed unit extension, as illustrated on the Site Plan As Proposed Drg. no. 27988 AA_(100)_10 (Appendix 4), would have on the trees and vegetation at the site.

A tree condition survey (Appendix 1) was undertaken on the 6th February 2019 which collected information on the tree stock and existing vegetation in line with the recommendations set out in the British standards document BS 5837:2012 *'Trees in relation to design, demolition and construction – Recommendations'* (BS 5837:2012).

This report will make recommendations for any tree works within the site in line with the duty of care, alongside the categorisation of individual trees, tree groups and hedgerows. The report will also assess the impact of the design in terms of feasibility and the impact on local amenity.

2.2 Reference Documents

Tree and vegetation locations have been allocated using the topographical map provided by GDP which forms the basis for the Arboricultural Constraints Plan. The topographical map is assumed to be correct and no checking of such documents will be undertaken. Due to the dense nature of the woody vegetation to the south, the group was illustrated with a green bounding box and no individual trees were marked. As such, the locations of the trees have been estimated using the surrounding buildings as reference points. Key Tree Solutions can not be held responsible for incorrect data supplied by other parties or data which was not previously marked on the topographical map.

Additional site plans include:

- Tree Removals Plan
- Location Plan (Drawing no. 27988 AA_(100)_01)
- Site Plan as Existing (Drawing no. 27988 AA_(100)_02)
- Site Plan as Proposed (Drawing no. 27988 AA_(100)_10)

These plans have been provided by GDP and are assumed to be correct.

2.3 Scope of the Report

This report has been compiled in line with the recommendations given in BS 5837:2012 to give an impartial assessment of the trees and vegetation currently present on or directly adjacent to the site.

Any recommendations have been given with the view of maintaining a high quality of tree cover wherever possible, while ensuring that tree risk is managed to acceptable levels.

In some regions, trees are located outside the boundary but still have the potential to impact on any development, such as overhanging branches or root protection areas. In instances where it may not be possible to collect accurate data for off-site trees, such as where access is prohibited, data has been estimated and suffixed with (*)

2.4 Survey Details

The survey took place during the month of February when the trees were in leaf-off conditions.

Due to the lack of photosynthetic material, it was difficult to make a full evaluation of tree vigour, however this did enable a more detailed inspection of the branch and stem architecture.

All trees were visually inspected from the ground level. In some instances, further investigations such as climbing inspection or the use of decay detection tools may be necessary to provide additional information. These will be recommended where deemed appropriate.

Tree data was collected using an electronic distometer and specialist measuring tape in all reasonable situations.

3. Site Description

3.1 Land Use

The site is predominantly given over to industrial units with associated storage areas, parking and road network. To the rear of the industrial area there is a large group of woody vegetation.

3.2 Topography

The topography where the woody vegetation exists consists of a steep slope rising upwards, travelling south from the rear of the unit and storage area, which then plateaus and becomes relatively flat.

3.3 Soil

Information gathered from the Cranfield University Soilscape viewer suggests that soils in the area are considered to be “Loamy and clayey with Impeded drainage”. This type of soil can be prone to compaction and every effort should be made not to damage any rooting environments.

All comments regarding soils should be verified with on-site geotechnical investigations and laboratory testing if necessary, with foundation depth and design undertaken by a structural engineer in accordance with the requirements of NHBC document Chapter 4.2.

3.4 Local Tree Cover

Tree cover in the region is relatively poor, typical of an urban setting, with the trees on site having a moderate impact on the tree presence in the area and providing a reasonable amenity value.

3.5 Age Class Mix and Diversity

Trees on site are exclusively young or semi-mature native broad-leaved varieties.

4. Tree Status

Information obtained from the Rotherham Metropolitan Borough Council Online Mapping Service indicates that the trees on site are not covered by a conservation area, nor are they subject to any Tree Preservation Orders (TPO's).

Given the implications for unauthorised tree removal or works, it is highly recommended that a further check is carried out prior to any works being undertaken. This is especially relevant as the Council is able to serve a TPO at any time.

5. Tree Descriptions and Recommendations

Full details of all individual trees surveyed have been recorded in the table set out in Appendix 1. An explanation for the table including any shorthand or acronyms can be found in Appendix 2. This information can be cross referenced with the Arboricultural Constraints Plan in Appendix 3.

6. Summary of the Tree Resource

6.1 Tree classification and recommendations

Results of the tree survey show that there are approximately($\pm$) 700 trees currently on site. Of these trees, 59 of them were identified as having a retention category of C while the remaining 641 $\pm$ fall into category U, predominantly due to their small diameter. Please refer to Appendix 2 for further information regarding retention categorisation. The tree category distribution, alongside any known tree protection orders, has been displayed in Table 1. Category colour is consistent with the Arboricultural Constraints Plan.

Due to the abundance of young trees under the 150mm minimum diameter to be classed as retention category C, only those that had a diameter over this figure or had other notable attributes were recorded into the survey. This eased collection of data and interpretation of the results.

Table 1. Tree categories and their level of protection.

Protection Status	Category A	Category B	Category C	Category U
No known protective status			59	641±
Conservation area				
Tree Preservation Order				
Total			59	641±

In some instances, recommendations have been made in the interests of public safety to ensure the long term value of on-site trees. These recommendations have been made irrespective of any plans for development and should be acted upon to mitigate on-site risks. These recommendations can be found in Appendix 1.

6.2 Remedial Tree Works

Tree work recommendations have been provided for a number of trees, however, given the extremely low usage of the area, the risk these trees pose is negligible and they have more value as potential habitat if they were to fail.

6.3 Monitoring / Further Investigation

No trees have been recorded for addition monitoring.

7. Arboricultural Impact Assessment

7.1 Tree Removals

Approximately 75% of the current tree stock would need to be removed in order to facilitate the proposed design. This information can be cross referenced with the Tree Removals Plan. The removals data has been summarised in Table 2 alongside mitigation opportunities for the loss of woody species.

In addition to the trees proposed for removal, the development has the potential to have an impact on those trees proposed for retention, such as ground compaction or damage from vehicles. Where potential impacts exist, arrangements will need to be made to safeguard the retained trees from damage during the construction.

Table 2. Retention categorised trees and mitigation opportunity.

Number of trees to be removed	Comments	Mitigation
641±	The general quality of tree cover across the site is low, albeit some groups do provide an element of reasonable boundary screening. Species content is generally fast growing species and thus of limited long term landscape value.	Those tree removed can be replaced within the development as part of a landscaping package including the planting of a mixture of native and ornamental trees.

7.2 Hedgerows

In accordance with the Hedgerow Regulations 1997 ‘important’ hedgerows (in the context of the Regulations) should not be removed without a Hedgerow Removal Notice issued by the relevant Local Authority, unless that removal is subject to an appropriate consent under the Town and Country Planning Act 1990. In this instance however, there are no hedgerows within or immediately adjacent the site that could be considered important in the context of the regulations.

7.3 Potential for Shading

Shading from trees is unlikely to become an issue as the proposed site is of an industrial nature.

7.4 Boundary Screening

The loss of boundary screening trees, while significant, could easily be replaced within 10-15 years to filter views and integrate the development into the surrounding landscape.

7.5 Long Term Constraints

Given the industrial nature of the proposed development, no long-term constraints from any retained trees have been envisaged.

7.6 Future Nuisance from Trees

It is unlikely that any retained trees will become a nuisance to the development.

7.7 Existing areas of Hard Standing

There are no existing areas of hard standing across the site, therefore there are no implications for retained trees from any works associated with the removal of such features.

7.8 Proposed areas of Hard Standing

There are no areas within the proposed development where proposed hard surfaces encroach within the Root Protection Areas of retained trees. There is therefore no need in this instance to consider special construction methodologies in order to safeguard trees from the impacts of road, driveway or footpath construction.

7.9 Buildings Located Adjacent or RPA's

There are no areas within the proposed development where proposed buildings encroach within, or are located immediately adjacent to the Root Protection Areas of retained trees. There is therefore no need in this instance to consider special construction methodologies in order to safeguard trees from the impacts of construction works.

7.10 Proposed Drainage and Domestic Services

At the planning application stage of the project, details of proposed drainage arrangements and provision of domestic services (gas, electricity, telephone, cable etc) are generally not known. During the installation process however, general guidance can be obtained from the National Joint Utilities Group publication *Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Volume 4* such as to minimise the impact of works on retained trees.

7.11 Working Space During the Construction Phase

The site is of a size such that there will be adequate working space throughout the construction phase, with little if any potential impact on retained trees. It is however important that construction exclusion zones created to safeguard retained trees are not breached without prior consideration and implementation of control measures to limit any potentially negative impacts on trees.

7.12 Access Facilitation Pruning

The proposed layout is such that access facilitation pruning will not be required for trees located within / adjacent the site

7.13 Protection of Planting Areas

It is often desirable to fence off areas to protect the soil structure for new planted areas, however works will be required across the majority of the site, therefore there is little scope to set aside areas for such treatment. Provided that adequate provisions are made for ground preparations in advance of the landscape stage, there is unlikely to be a negative impact on the viability of newly planted stock.

7.14 Requirement of an Arboricultural Method Statement

Provided that protective fencing is erected in advance of the commencement of the development and retained intact throughout the construction phase, there should be no specific requirement for an arboricultural method statement in this case. The erection of protective fencing in accordance with a suitable tree protection plan should however be subject to a suitably worded condition attached to the planning consent notice.

7. 15 Planning for New Landscaping

If not considered carefully at the design stage, new planting and landscaping can have an adverse impact on existing trees and cause long term problems for future residents. Care should be taken in the design of new landscapes to prevent physical damage to retained trees during the planting process, and to ensure that schemes are designed to survive and thrive rather than competing for resources. Similarly, new trees and shrubs should not be planted where they will cause damage to structures, either directly or indirectly in the future.

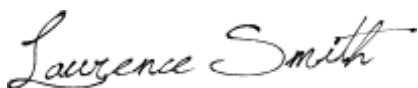
8. Conclusions

The development as proposed will directly require the removal of a large number of existing trees. Whilst the removal of trees can sometimes be considered a negative impact on the local landscape, the wider benefits of the development as proposed, which includes the planting of a significant number of new trees, outweigh the relatively short-term benefits of retaining those trees proposed for removal.

Given the low quality of the current tree stock recommended for removal and the ease in which it can be replaced, there are therefore no arboricultural reasons of any significance why planning consent should not be granted for the development.

We would recommend that a landscape proposal be prepared for the site, to include provision for the planting of a mixture of native, as well as ornamental trees and implemented as a condition of planning consent.

Signed

A handwritten signature in cursive script that reads "Laurence Smith".

Laurence Smith BSc (Hons) Arboriculture, M Arbor A

References

British standards document BS 5837:2012 *'Trees in relation to design, demolition and construction – Recommendations'*

British standards document BS 3998:2010 *'Tree work - recommendations'*

Management of the risk from falling trees or branches - Health & Safety Executive (HSE) Document

2018 National House Building Council (NHBC) standards

Appendix 1

Survey Details

Please see the following pages

Tree ID	Age Common name Botanical name	Height (m)	Diameter (mm)	Crown Spread	First Branch	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (Years)	Category	RPA
G1	Young Birch (Betula pendula)	6	<150	1.5	N/A	Ornamental group. Furthest south specimen has an included union	Remove southerly specimen	Good	Fair	Average	20+	U	N/A
T1	Semi mature Beech (Fagus sylvatica)	8	160	2 1 1 2	3N	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	1.9
T2	Semi mature Birch (Betula pendula)	9	210	3 1 3 1	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Fair	Low	20+	C2	2.5
T3	Semi mature Birch (Betula pendula)	9	190	2 3 1 1	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	2.3
T4	Semi mature Birch (Betula pendula)	9	240	1 2.5 2 2	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	2.9
T5	Semi mature Birch (Betula pendula)	8	160	1.5 2 0.5 2	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	1.9
T6	Semi mature Birch (Betula pendula)	9	180	2 1 1.5 2	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	2.2
T7	Semi mature Oak (Quercus robur)	9	310	3 5 3.5 1.5	1W	Minor deadwood with lateral growth growing into fence to the west.	Canopy raise over the fence.	Good	Good	Average	20+	C2	3.7
T8	Semi mature Birch (Betula pendula)	10	190	1.5 1.5 1 0.5	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Average	20+	C2	2.3
T9	Semi mature Birch (Betula pendula)	10	230	1 3 1 2	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Average	20+	C2	2.8

Tree ID	Age Common name Botanical name	Height (m)	Diameter (mm)	Crown Spread	First Branch	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (Years)	Category	RPA
T10	Semi mature Birch (Betula pendula)	10	220	2 1 2 2	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Average	20+	C2	2.6
T11	Semi mature Birch (Betula pendula)	10	230	2 2 1 4	N/A	Woodland tree with minimal lateral branching.	N/A	Fair	Fair	Average	20+	C2	2.8
T12	Semi mature Birch (Betula pendula)	10	250	2 2 3 3	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Average	20+	C2	3.0
T13	Semi mature Birch (Betula pendula)	10	200	2 1 2 2	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Average	20+	C2	2.4
T14	Semi mature Birch (Betula pendula)	10	200	2 1 1.5 3	N/A	Woodland tree with minimal lateral branching.	N/A	Fair	Poor	Low	20+	C2	2.4
T15	Semi mature Bird Cherry (Prunus padus)	8.5	180	4 3 3.5 2	N/A	Multi stem tree with additional stem being under 150mm. Included bark between union.	N/A	Fair	Poor	Low	20+	C2	2.2
T16	Semi mature Oak (Quercus robur)	8	200	1.5 2.5 3.5 2	N/A	Minor deadwood with poor canopy distribution.	N/A	Fair	Fair	Low	20+	C2	2.4
T17	Semi mature Bird Cherry (Prunus padus)	8.5	160	1.5 3 2 1	N/A	Woodland tree with minimal lateral branching.	N/A	Fair	Good	Low	20+	C2	1.9
T18	Semi mature Bird Cherry (Prunus padus)	8.5	160	2 3 2 1.5	N/A	Multi stem tree with additional stems being under 150mm. Included bark between unions.	N/A	Fair	Fair	Low	20+	C2	1.9
T19	Semi mature Birch (Betula pendula)	9	200	2 1 0.5 1.5	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Fair	Average	20+	C2	2.4

Tree ID	Age Common name Botanical name	Height (m)	Diameter (mm)	Crown Spread	First Branch	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (Years)	Category	RPA
T20	Semi mature Birch (Betula pendula)	9	200	1.5 2 2.5 1	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Average	20+	C2	2.4
T21	Semi mature Birch (Betula pendula)	9	200	1 3 1 1	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Average	20+	C2	2.4
T22	Semi mature Birch (Betula pendula)	11	230	1 0.5 0.5 2	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Average	20+	C2	2.8
T23	Semi mature Birch (Betula pendula)	11	230	2 2 1 2	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	2.8
T24	Semi mature Oak (Quercus robur)	10	160	0.5 1 0.5 2	N/A	Significant vertical tear.	Remove	Poor	Poor	Low	<10	U	N/A
T25	Semi mature Oak (Quercus robur)	11	230 290	0.5 3.5 2 5	N/A	Woodland tree with minimal lateral branching.	N/A	Fair	Fair	Average	20+	C2	3.5
T26	Semi mature Beech (Fagus sylvatica)	10	170	3 1 2 1	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Fair	Low	20+	C2	2.0
T27	Semi mature Ash (Fraxinus excelsiour)	11	200	2 2 1 1	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	2.4
T28	Semi mature Norway maple (Acer platanoides)	11	180	2 1 4 0.5	0.5E	Woodland tree with minimal lateral branching.	N/A	Good	Fair	Low	20+	C2	2.2
T29	Semi mature Wild Cherry (Prunus avium)	9.5	200	2 2 1.5 4	N/A	Significant included union	N/A	Fair	Poor	Low	20+	C2	2.4

Tree ID	Age Common name Botanical name	Height (m)	Diameter (mm)	Crown Spread	First Branch	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (Years)	Category	RPA
T30	Semi mature Birch (Betula pendula)	9	160	1 1 3 1	N/A	Significant stem damage	Remove	Fair	Poor	Average	10+	U	N/A
T31	Semi mature Oak (Quercus robur)	9	190	4 1 2 0.5	N/A	Partial tear at 1.5m	Remove	Fair	Poor	Low	20+	U	N/A
T32	Semi mature Oak (Quercus robur)	10	320	3 0 3.5 3.5	2E	Woodland tree with minimal lateral branching.	N/A	Good	Good	Average	20+	C2	3.8
T33	Semi mature Hornbeam (Carpinus betulus)	10	200	2.5 1 1 3.5	2E	Woodland tree with minimal lateral branching.	N/A	Good	Good	Average	20+	C2	2.4
T34	Semi mature Bird Cherry (Prunus padus)	10	190	2 1 1 2	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Fair	Average	20+	C2	2.3
T35	Semi mature Oak (Quercus robur)	10	210	3 2 2 1.5	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	2.5
T36	Early mature Goat willow (Salix caprea)	9	<150	4 3 3 4	N/A	9 x Stems under <150	N/A	Fair	Poor	Average	20+	C2	N/A
T37	Semi mature Beech (Fagus sylvatica)	9	160	0.5 1 0.5 3.5	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Fair	Average	20+	C2	1.9
G2	Early mature Laurel (Prunus laurocerasus)	7	<150	3	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Average	20+	U	N/A
T38	Semi mature Bird Cherry (Prunus padus)	9	200	2 3 3 3	N/A	Woodland tree with minimal lateral branching and ivy around stem.	N/A	Good	Fair	Low	20+	C2	2.4

Tree ID	Age Common name Botanical name	Height (m)	Diameter (mm)	Crown Spread	First Branch	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (Years)	Category	RPA
T39	Semi mature Oak (Quercus robur)	10	240	2	N/A	Large included union at 3m	N/A	Fair	Poor	Low	20+	C2	2.9
T40	Semi mature Oak (Quercus robur)	10	200 200	3 1.5 3 2	N/A	Bark and stem damage at various points around the tree. Possibly due to squirrels	N/A	Fair	Fair	Low	20+	C2	2.4
T41	Semi mature Oak (Quercus robur)	9	200	1 0 4 3	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Fair	Average	20+	C2	2.4
T42	Semi mature Oak (Quercus robur)	11	210	0 1 4 5	N/A	Woodland tree with minimal lateral branching and ivy around stem.	N/A	Good	Fair	Average	20+	C2	2.5
T43	Semi mature Oak (Quercus robur)	9	170	3 2 4 0	N/A	Woodland tree with minimal lateral branching and ivy around stem.	N/A	Good	Fair	Low	20+	C2	2.0
T44	Semi mature Wild Cherry (Prunus avium)	10	200	3	N/A	Significant included union with damage to main stem	Remove	Fair	Poor	Average	<10	U	N/A
T45	Semi mature Wild Cherry (Prunus avium)	9	170	1 3 1 2.5	N/A	Formation of included union at 2m	N/A	Fair	Fair	Average	20+	C2	2.0
T46	Semi mature Birch (Betula pendula)	10	170	1 1 0.5 0.5	N/A	Woodland tree with minimal lateral branching.	N/A	Poor	Fair	Average	20+	C2	2.0
T47	Semi mature Wild Cherry (Prunus avium)	9	200	3 3 2 0	N/A	Suppressed	N/A	Fair	Fair	Average	20+	C2	2.4
T48	Semi mature Wild Cherry (Prunus avium)	10	210	3 0.5 0 1	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Average	20+	C2	2.5

Tree ID	Age Common name Botanical name	Height (m)	Diameter (mm)	Crown Spread	First Branch	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (Years)	Category	RPA
T49	Semi mature Wild Cherry (Prunus avium)	10	300	3 6 1 2.5	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Avarage	20+	C2	3.6
T50	Semi mature Bird Cherry (Prunus padus)	9	280	1 4 3 1	N/A	Occluded vertical fracture at 1m	Remove	Fair	Poor	Avarage	10+	C2	3.4
T51	Semi mature Oak (Quercus robur)	9	160	1 2 1 1	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	1.9
T52	Semi mature Oak (Quercus robur)	9	160	1 2 0 1	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	1.9
T53	Semi mature Ash (Fraxinus excelsiour)	11	160	1	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	1.9
T54	Semi mature Ash (Fraxinus excelsiour)	11	180	2 3 2 2	N/A	Included union	N/A	Good	Fair	Low	20+	C2	2.2
T55	Semi mature Sycamore (Acer pseudopltanus)	11	250	3 2.5 2.5 3	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	3.0
T56	Semi mature Field maple (Acer campestre)	11	190	4 1 1 0	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	2.3
T57	Semi mature Wild Cherry (Prunus avium)	11	190	4 2 1 0	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	2.3
T58	Semi mature Wild Cherry (Prunus avium)	11	220	1 1 1 2	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	2.6

Tree ID	Age Common name Botanical name	Height (m)	Diameter (mm)	Crown Spread	First Branch	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	Life Expectancy (Years)	Category	RPA
T59	Semi mature Sycamore (Acer pseudoplatanus)	11	160 160	2.5 1 2 3	N/A	Significant included union at base.	Remove	Fair	Poor	Low	<10	U	N/A
T60	Semi mature Field maple (Acer campestre)	10	160	2.5 2 1 1.5	N/A	Woodland tree with minimal lateral branching.	N/A	Fair	Fair	Low	20+	C2	1.9
T61	Semi mature Field maple (Acer campestre)	10	170	3 2 2 2	N/A	4x stems with only one over 150mm	N/A	Good	Good	Low	20+	C2	2.0
T62	Semi mature Field maple (Acer campestre)	11	180	3 1 2 1	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Good	Low	20+	C2	2.2
T63	Semi mature Wild Cherry (Prunus avium)	10.5	180 170	3 2 1 1	N/A	Included union at the base	N/A	Good	Fair	Low	20+	C2	2.2
T64	Semi mature Field maple (Acer campestre)	11	200	3 2 1 1	N/A	Woodland tree with minimal lateral branching.	N/A	Good	Fair	Low	20+	C2	2.4

Appendix 2

2.1 Survey Reference Information

Tree ID

Each tree/group has been given a unique number, which coincides with the plans given in Appendix 3. Where specifically instructed small durable numbered metal tags will be applied to each tree/group surveyed. (T) Tree, (G) Group, (H) Hedge, (W) Woodland

Age

The tree is described as young, semi-mature, early-mature, mature, over-mature, veteran or dead.

Common Name & Botanical Name

Where identifiable the common name and full botanical name has been given. Where a cultivar, variety or species cannot be correctly identified the genus name will be given only.

Crown Spread

The distance the live crown extends in each of the four cardinal directions.

First Branch

The height at which the first significant branch extends from the stem and in what direction (North, East, South or West).

Observations

Narrative comment on the general condition, significant defects and overall appearance. (e.g. the presence of decay).

Recommendations & Priority

Any works recommended in order to minimise risk, improve form or maintain a high value. These are given alongside a priority stated as Low, Medium or High.

Physiological Condition

A judgment of the tree's health taking into account vigour, presences of decay, disease and dieback. Classified as Good, Fair, Poor.

Structural Condition

A judgment of the tree's current structural integrity considering branch and stem architecture, branch unions and presence of decay. Classified as Good, Fair, Poor.

Amenity Value

An estimation of the tree or group value in terms of the local landscape and surrounding area.

Life Expectancy

An estimated remaining safe contribution in years, given as <10, 10+, 20+, 40+.

BS: 5837 Category

Categorised in line with the recommendations given in the BS 5837: 2012 further information can be found under Appendix 2.2.

RPA

A minimum volume of soil which should be protected during construction in order to prevent damage to retained trees. Given as a radius measurement in metres from the stem.

*

Indicates where tree data may have been estimated due to the tree being offsite / restricted access or dense vegetation hindering full inspection

2.2 Tree Categorisation Methodology

Trees have been surveyed and categorised using the methodology set out in BS 5837:2012 in order to identify them within a prioritised system of retention.

- **A Category** - Trees of high quality and value in such a condition as to be able to make a substantial contribution for a minimum of 40 years.
- **B Category** - Trees of moderate quality and value in such a condition as to make a significant contribution for a minimum 20 years.
- **C Category** - Trees of low quality and value currently in adequate condition to remain until new planting could be established and expected to remain for a minimum of 10 years, or young trees with a stem diameter less than 150mm measured at 1.5 metres above ground level.
- **U Category** - Trees in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural or forestry management.

Additionally, BS5837:2012 provides subcategories 1-3 within the category system outlined above which indicate the area(s) in which a tree or group retention value lies.

- 1 - Retention values that are mainly arboricultural.
- 2 - Retention values that are mainly landscape.
- 3 - Retention values that are mainly cultural, including conservation.

Appendix 3

Arboricultural Site Plans

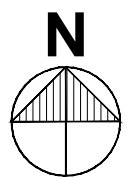
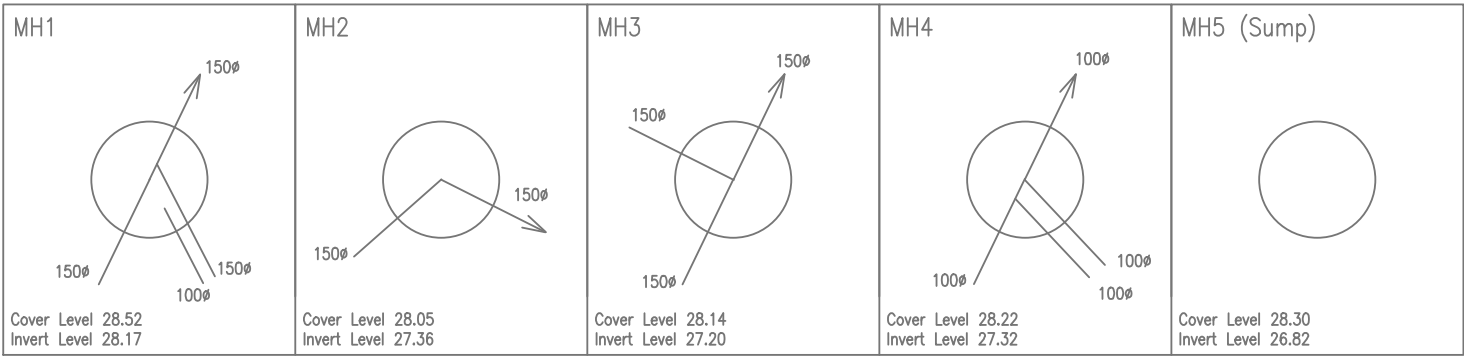
Please see following page.

KEY- Tree Survey and Tree Constraints Plan
(to be read in conjunction with Key Tree Solutions Arboricultural Survey report ref. GR01-19)

- Tree surveyed by K.T.S. -
tree location approximated
by K.T.S.
- Woody species group
boundary

Tree categories (BS 5837:2012)

- Category A Trees
- Category B Trees
- Category C Trees
- Category U Trees



Site Location Unit 28,
Goldthorpe
Industrial Estate,
Rotherham,
S63 9BL

Job
Arboricultural Report

Title
Arboricultural Constraints Plan

Drawn by L.Smith	Date Feb 2019	Scale @ A1 1:250	Drg. no. 1/1
---------------------	------------------	---------------------	-----------------

KEY- Tree Survey and Tree Constraints Plan
(to be read in conjunction with Key Tree Solutions Arboricultural Survey, report ref. GR01-19)

○ Tree surveyed by K.T.S -
tree location approximated
by K.T.S

Woody species group
boundary

Tree categories (BS 5837:2012)

○ Category A Trees

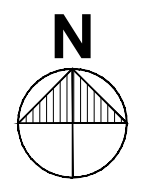
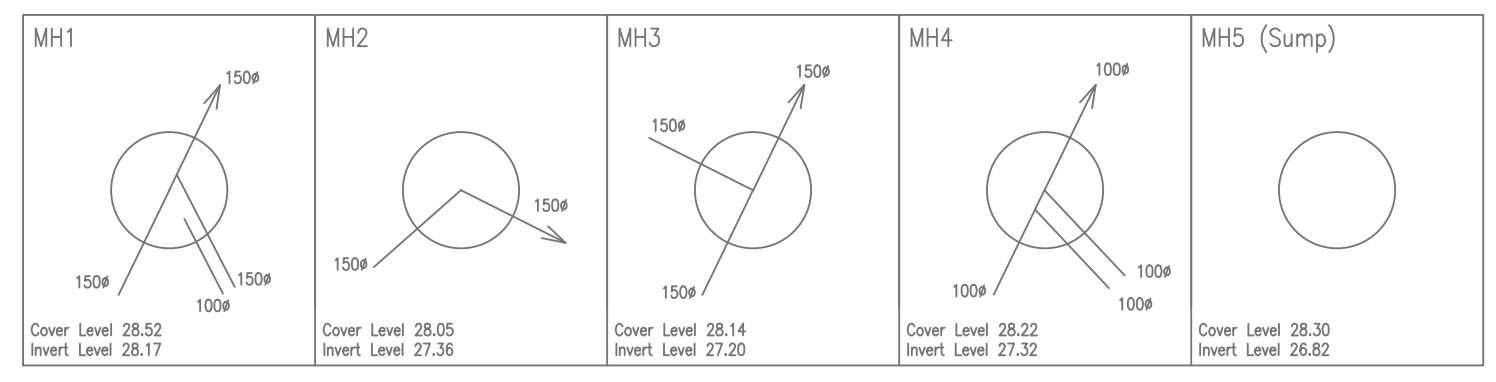
○ Category B Trees

○ Category C Trees

○ Category U Trees

Root Protection Area (RPA) of
category A, B and C trees

Trees to be Removed
T**

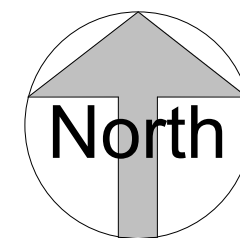
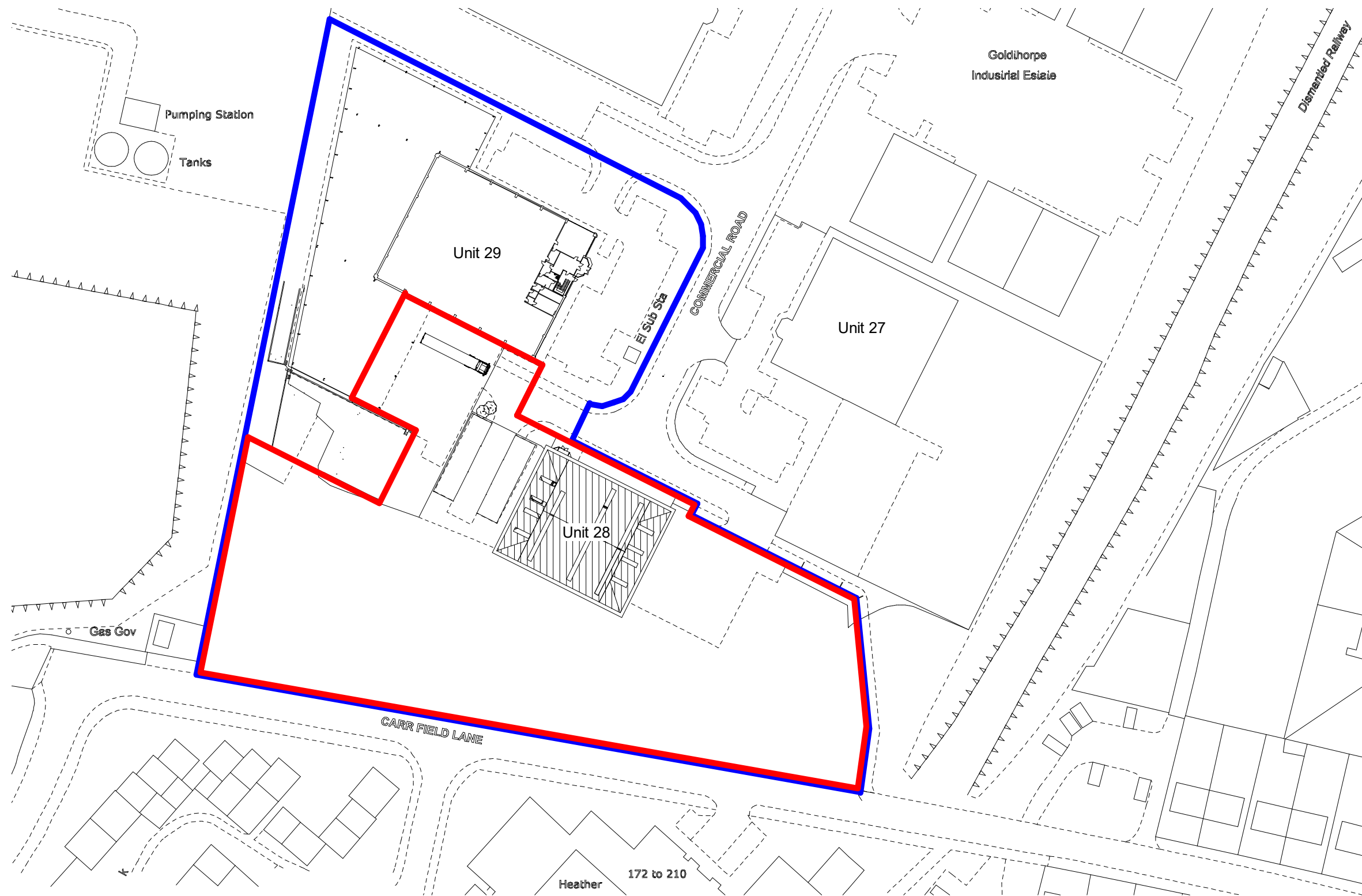


Site Location Unit 28, Goldthorpe Industrial Estate, Rotherham, S63 9BL			
Job Arboricultural Report			
Title Arboricultural Constraints Plan			
Drawn by L.Smith	Date Feb 2019	Scale @ A1 1:250	Drg. no. 2/2

Appendix 4

Site Plans

Please see following page.



1 Location Plan

1 : 1000

Extent of Land Ownership

Extent of Proposed Site

Boundary Legend

1 : 1000

Drawn By
JHT
Date
02/01/2019
Checked
JC
Approved
AT

Title
Granville Oil & Chemicals Ltd.
Location Plan

Scales
1 : 1000
Status
PLANNING

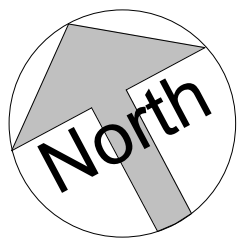
A	17/12/18	For Comments	TD	AT
Rev	Date	Description	DR	CH
GGP CONSULT CONSULTING ENGINEERS ARCHITECTS PROJECT MANAGEMENT 2 Hallam Road Priory Park East HULL HU4 7DY UNITED KINGDOM Telephone (+44) 01482 627963 Fax (+44) 01482 641736 Email info@ggpconsult.co.uk				
Drg. No. 27988			Rev AA_(100)_01 A	

Extent of Land Ownership

Extent of Proposed Site

Boundary Legend

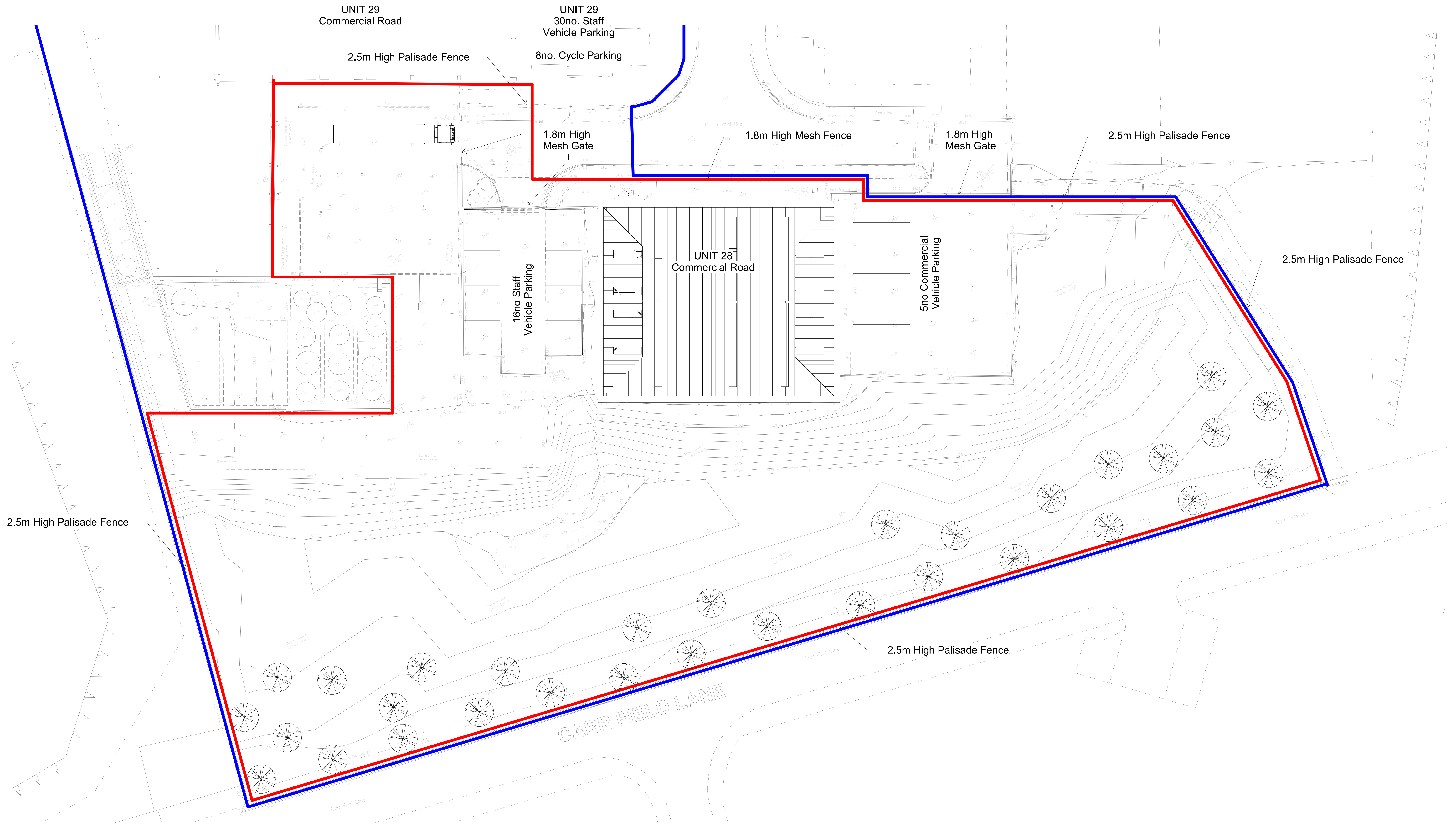
1 : 1000



0m 5m 10m 20m

Scale Bar

1 : 200



1 Site Plan As Existing

1 : 200

NOTES

Rev	Date	Parking identified	Description	JHT	JH
A	21.01.19			DR	CH



GGP
CONSULT

CONSULTING ENGINEERS
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PROJECT MANAGEMENT
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Priory Park East
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United Kingdom

Telephone (+44) 01482 627963
Fax (+44) 01482 641736
Email info@ggpconsult.co.uk

Client:
Granville Oil & Chemicals
Ltd.

Job Title
Proposed Extension Unit 28
Goldthorpe Industrial Estate
Rotherham

Drawing Title
Site Plan As Existing

Status
PLANNING

Scale
As indicated

Date
02/01/2019

Drawn By
JHT

Checked
JC

Approved
AT

Dwg. No.
27988 AA_(100)_02

Rev
A

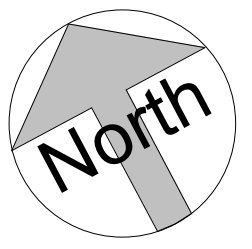
A0 - ORIGINAL SHEET SIZE

Extent of Land Ownership

Extent of Proposed Site

Boundary Legend

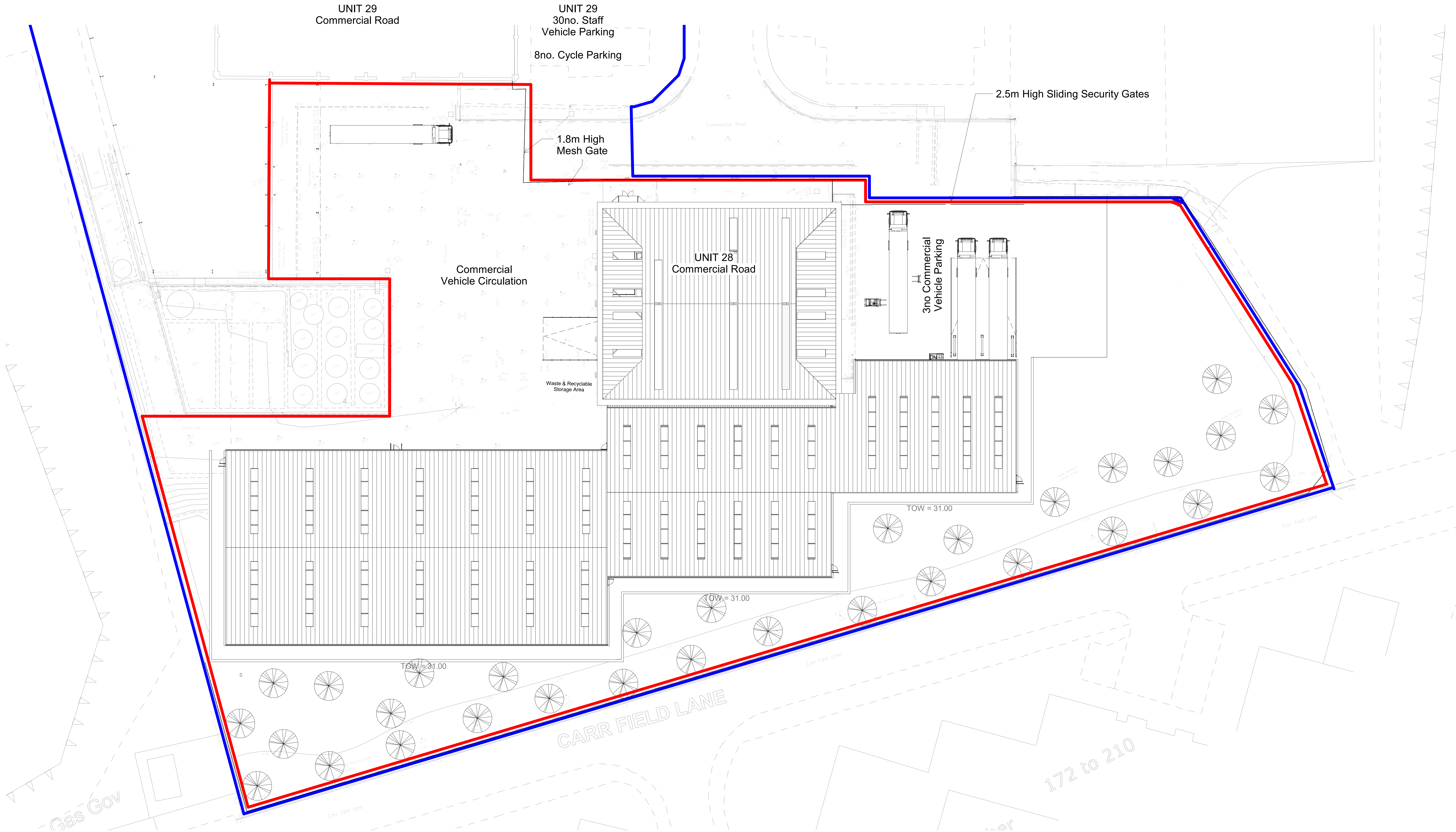
1 : 1000



0m 5m 10m 20m

Scale Bar

1 : 200



1 Site Plan As Proposed

1 : 200

NOTES

Rev	Date	Description	JHT	JH
A	21.01.19	Parking identified	JHT	JH
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**GGP
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Client:
**Granville Oil & Chemicals
Ltd.**

Job Title
**Proposed Extension Unit 28
Goldthorpe Industrial Estate
Rotherham**

Drawing Title
Site Plan As Proposed

Status
PLANNING

Scale
As indicated

Date
02/01/2019

Drawn By
JHT

Checked
JC

Approved
AT

Dwg. No.
27988 AA_(100)_10

Rev
A

