

THE SCIENCE MUSEUM GROUP

BUILDING ONE

THE SCIENCE MUSEUM GROUP AT WROUGHTON

Transport Statement

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1 INTRODUCTION

1.1 Introduction

1.1.1 Croft have been commissioned by The Science Museum Group (SMG) to produce a Transport Statement to support a Pre-application enquiry for a collections management facility on land at the Science Museum Group at Wroughton (SMGW).

1.2 Scope of Report

1.2.1 This Transport Statement (TS) has been prepared to consider the development in transport and highways terms in order to provide the necessary reassurance that the development can be accommodated by the local transport network and will not give rise to any highway related issues.

1.2.2 This Transport Statement has been prepared in line with the guidance provided in the Department for Transport document entitled 'Guidance on Transport Assessment' (DfT, March 2007).

1.3 Structure of Report

1.3.1 Following this introduction, Section 2 of the Report details the existing site conditions and provides details of the development including vehicular access.

1.3.2 Section 4 considers the trip generation and traffic impact of the development on the local highway network, while Section 5 provides an analysis of road safety.

1.3.3 Section 6 draws together the Report's findings and conclusions.

2 EXISTING SITE & DEVELOPMENT

2.1 Site Location

- 2.1.1 The application site forms part of the wider site, namely The Science Museum Group at Wroughton. The location of the site in relation to the surrounding area is shown in **Plan 1**, while **Figure 2.1** below identifies the planning application boundary.

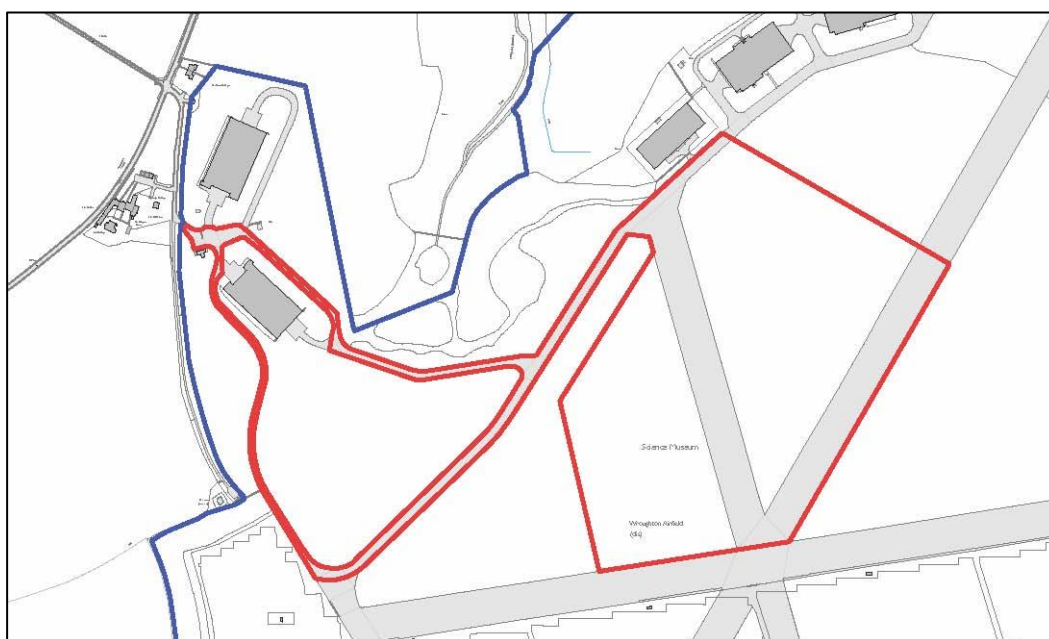


Figure 2.1 – The Existing Site at SMG Wroughton

- 2.1.2 The SMGW occupies a former RAF airfield base located approximately 6.5 kilometres south of the centre of Swindon and approximately 1.4 kilometres south of the intervening village of Wroughton.

2.2 Existing Site

- 2.2.1 The site has been occupied by the SMGW since 1980.
- 2.2.2 The site extends to 220 hectares (545 acres) and contains remnants of the former RAF Wroughton military air base including the runways, hangars and associated buildings, as well as woodland and private open space used for sheep grazing.

- 2.2.3 The site also accommodates the Swindon Solar Farm on the southern half of the site and the 'Hive' research facility for the University of Bath.
- 2.2.4 Vehicular access to SMGW is currently provided via an existing priority controlled junction at Red Barn Gate from the A4361 Wroughton/Avebury Road.
- 2.2.5 The point of access can achieve visibility splays of 2.4 metres by 215 metres to the nearside kerb looking to the right of the junction and 2.4 metres by approximately 170 metres looking at the left.
- 2.2.6 The access road is a 'made' highway (maintained by the Borough Council). It extends in a southbound direction for approximately 170 metres to a gated access leading to the SMGW site.
- 2.2.7 The unnamed access road continues for another 370 metres to the south and in this area, is unmade, until it forms a cul-de-sac. The carriageway is approximately 5 metres in width and the road is subject to the national speed limit.
- 2.2.8 The A4361 Wroughton/Avebury Road runs parallel to the western boundary of the site.
- 2.2.9 Within the vicinity of the site, the A4361 is a single carriageway road and travels in an approximate north-south direction and connects Swindon town centre with Devizes, via the A361 to the south of the site. The A4361 Devizes Road also serves as a bus route from Swindon to Devizes, via Wroughton, being served by the number 49 bus which travels from Swindon to Devizes. The service operates every day of the week and offers 1 service per hour. This provides opportunities for staff and visitors to travel in a sustainable manner.
- 2.2.10 Currently, Science Museum staff numbers are around 20 on site at any one time, although this may vary depending on particular projects and programmes.
- 2.2.11 Car parking is currently catered for by the provision of 200 car parking spaces, while a separate area is allocated for coach parking that would accommodate up to 4 coaches, at any one time.

2.3 The Development

2.3.1 The development relates to the erection of a single collections management facility (use class B8) measuring approximately 289 metres by 91.5 metres and providing a development footprint of approximately 26,000 square metres, with a 9,000 square metre mezzanine floor.

2.3.2 The location of the development in relation to the wider site is identified in **Figure 2.2** below.



Figure 2.2– Location of the Collections Management Facility

2.3.3 The development will be complemented by the provision of suitable servicing facilities and access arrangements.

2.3.4 A total of 12 additional car parking spaces will be provided, including two for the mobility impaired.

- 2.3.5 The development will utilise the existing access arrangements, name the priority controlled 'T' junction at Red Barn Gate from the A4361 Wroughton/Avebury Road to the west of the site and then via the site's internal access roads. The internal access routes will follow the existing established routes to the development site.

3 TRAFFIC IMPACT ANALYSIS

3.1 Introduction

- 3.1.1 This section will consider the potential traffic impact of the development.
- 3.1.2 The development is unique in nature and therefore does not lend itself well to traditional trip generation software.
- 3.1.3 For more conventional development, the TRICS database would be used to establish the number of trips that a development is forecast to generate. The database contains survey data and trip generation information collected from various different existing developments across the UK.
- 3.1.4 In this instance however, an interrogation of the database shows that the Employment – Warehousing (B8) land use (the most comparable land use class within the database) includes traffic data associated with more typical warehousing facilities i.e. an Asda Distribution Centre, a road haulage company and a large warehouse on an industrial estate.
- 3.1.5 The development is not therefore comparable to any of the above from an operational point of view.
- 3.1.6 In light of the above, it is considered that there are no sites within the database that would accurately predict the level of traffic likely to be generated by the development and so it is considered reasonable to base the predicted traffic increase on information provided directly by SMG, as detailed below.

3.2 Traffic Generation

- 3.2.1 On completion of the new collections management facility, SMG staff numbers are likely to increase from its existing levels of around 20 staff per day to around 50 staff per day working across the wider site and within the new facility. This may vary from time to time, dependant on projects and programme.

- 3.2.2 Additional site users will take the following form:
1. Public tours operating on 2 days (2 tours concurrently, 3 times a day) of the week for 30 weeks of the year. On a pre-booked basis (c. 11,000 visitors);
 2. School visits facilitated on 2 days of the week for 30 weeks of the year on a pre-booked basis (c.3,000 visitors); and
 3. Up to 6 collections researchers 5 days a week for 30 weeks of the year on a pre-booked basis (c.1,000 visitors).
- 3.2.3 Visitors would arrive by a combination of personal vehicles, coaches and public transport. There would be approximately 35 additional vehicles arriving at the site each day, primarily in off-peak times.
- 3.2.4 In terms of other traffic, there will be a significant number of trips at the outset as the objects/collections are transferred from London (Blythe House). This however will reduce over time and ultimately, it likely to result in only 2 or 3 additional heavy goods vehicles per week.
- 3.2.5 Servicing and waste collection will continue as it does at present. There will be no increase in these vehicle movements, as these already serve the wider site and will simply continue to do so.

3.3 Cumulative Impact

- 3.3.1 For completeness, consideration has also been given to the relevant cumulative impacts of other nearby developments, namely Dorset & Wiltshire Fire and Rescue Service Safety Centre that will occupy part of Hangar C3 at the SMG site. This is a permitted scheme but is not yet in operation.
- 3.3.2 Having taken the above into consideration, it is not considered that these will have a material impact on the Building ONE development and that cumulatively, the developments combined will not have a detrimental impact on the local highway network.

3.4 Traffic Impact Summary

- 3.4.1 This section of the Report has considered the impact of the development in transport terms, based on information provided by SMG.
- 3.4.2 It is apparent that the development will not have a material impact and in any event, any new traffic movements are unlikely to take place during the traditional AM and PM peak hours.
- 3.4.3 Having considered the levels of traffic that could occur as a result of the development, it can be concluded that the development can be accommodated onto the local highway network and will not give rise to any traffic or highways issues.

4 ACCIDENT DATA

4.1 Introduction

4.1.1 In order to consider the potential impact of the development on road safety, a brief review of the Crashmap website (www.crashmap.co.uk) has been undertaken. The information provided on the website covered the three-year period 2014 to 2016 in the vicinity of the development site.

4.2 Accident Review

4.2.1 The review of the website shows there have been no accidents in the immediate vicinity of the site access over the last 3 years, as identified in **Figure 4.1** below.

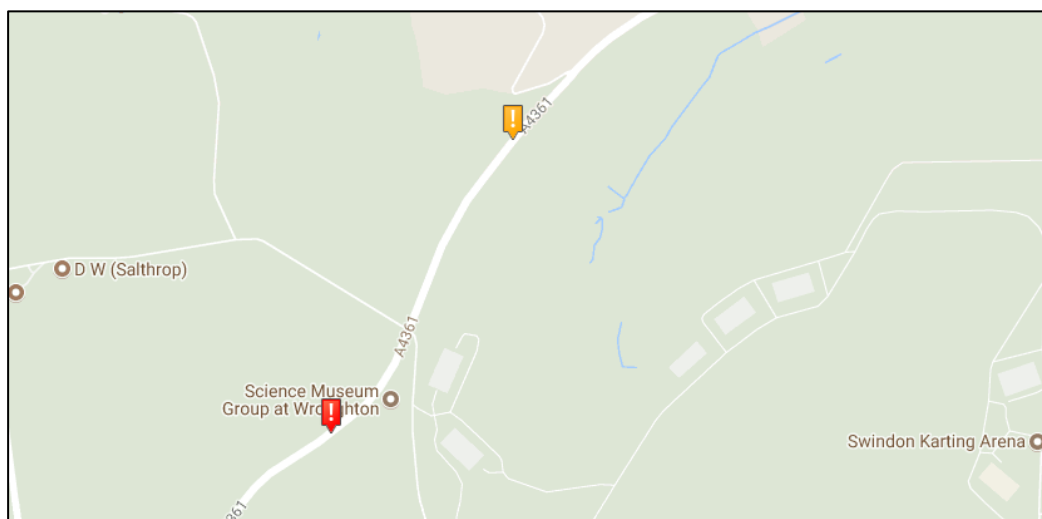


Figure 4.1 – Location of Accidents

4.2.2 As can be seen above, however, one accident has taken place on the A4631 approximately 600 metres to the north of the access and another incident has taken place approximately 500 metres to the south.

4.2.3 The first incident took place in 2015 in fine/dry weather conditions and involved 5 vehicles. The details indicate that one of the vehicles struck the rear of the one in front, followed by the remaining 3 vehicles also shunting the vehicle in front.

- 4.2.4 The records show that one of the drivers sustained slight injuries. While the cause of the accident is not clear, the details indicate that one or all of the drivers were not paying sufficient attention to other road users.
- 4.2.5 The other accident occurred in 2016 and resulted in a serious injury being sustained. The details show that it was dark, when the incident took place (December at 6.57pm), the weather conditions were foggy/misty and the road surface was damp/wet.
- 4.2.6 The records indicate that 3 vehicles were involved with one of the drivers sustaining slight injuries, another sustaining serious injuries and one of the passengers also sustaining serious injuries. The details show that one of the vehicle was over-taking one of the others when they collided, which indicates that one or all of the vehicles were travelling in excess of the speed limit.

4.3 Accident Summary

- 4.3.1 The accident data reviewed has not identified any untypical accidents.
- 4.3.2 There have only been 2 accidents along the A4631 over the last 3 years, thus indicating that there are no specific road safety problems in the area.
- 4.3.3 The records show that the incidents were likely due to driver error or vehicles travelling in excess of the speed limit.
- 4.3.4 In light of the above, it is not considered that there are specific accident or highway safety problems in the area.
- 4.3.5 As such, there is no evidence to suggest that the development will have an adverse effect on road safety or the number of accidents in the vicinity.

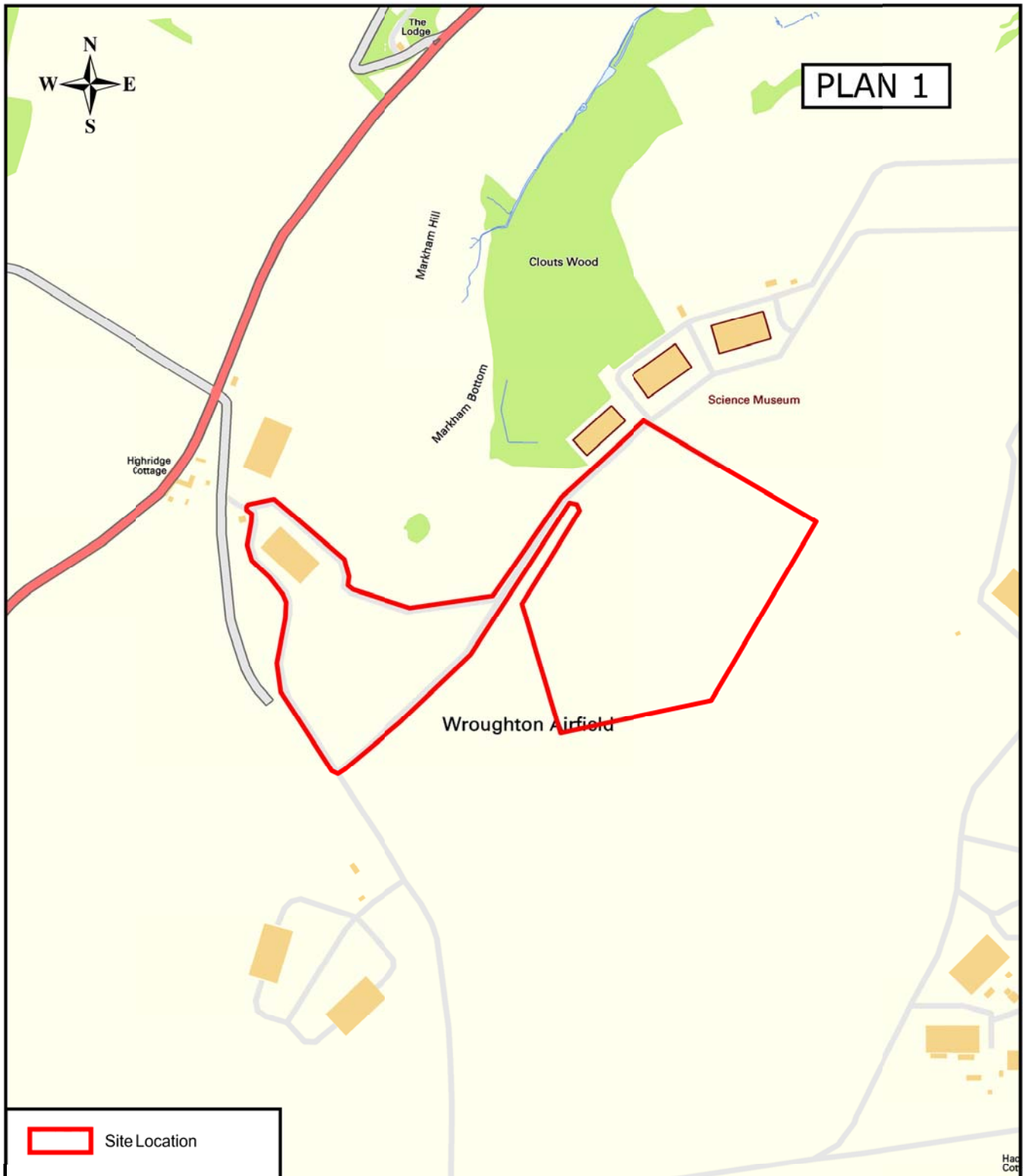
5 CONCLUSIONS

5.1.1 This Report has considered the construction of a single collections management facility on land at the Science Museum Group in Wroughton. The following conclusions have been drawn with regard to the development:

- The Building ONE development is unique in nature and will form part of an already well-established facility.
- It will provide a suitable storage area to assist the Museum and allow flexibility in the exhibits on display.
- There will be traffic associated with the delivery and collection of objects stored at the facility and this will reflect current site operations. The additional transport impacts would be minimal and this is reflected in the layout design, which only provides a single loading bay.
- Visitors would arrive by a combination of personal vehicles, coaches and public transport. There would be approximately 35 additional vehicles arriving at the site each day, primarily in off-peak times.
- In light of the above, it can be assumed that the development will not have a material impact on the local highways network and would not give rise to any highways related issues.
- The site is accessible by public transport, providing opportunities for staff and visitors to travel in a sustainable manner. The majority of visitors however, would visit the facility as a part of an organised event and are more likely to arrive by coach or as part of a large party.
- There is no evidence to suggest that the development would have an adverse effect on road safety or the number of accidents in the vicinity.

5.1.2 In conclusion, the development should be granted in accordance with the National Policy Planning Framework.

PLANS



THE SCIENCE MUSEUM GROUP

PROPOSED BUILDING ONE
LAND AT THE SCIENCE MUSEUM
SCIENCE GROUP, WROUGHTON
SITE LOCATION PLAN

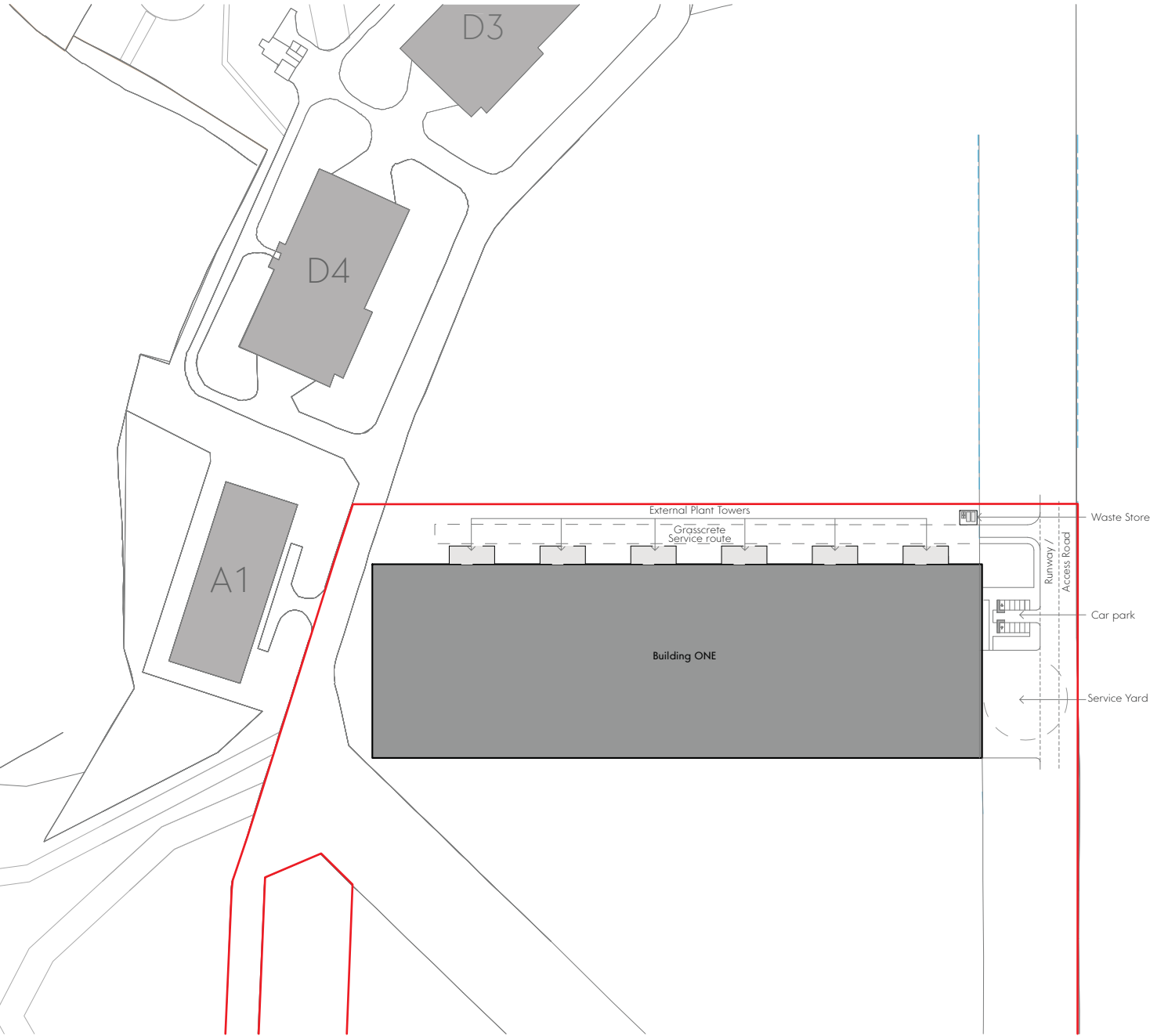
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All drawings and specifications should be read in conjunction with the project health and safety plan, any possible conflicts should be presented to the Planning Coordinator.

All work to be carried out in accordance with current Building Regulations.

Contractors must verify all dimensions at the job before commencing any work or making shop drawings. Do not scale off drawings. Do not take digital dimensions from this drawing. Written dimensions should be taken. Any discrepancies to be reported to the Architect. The design is subject to the following:

- Land Registry Confirmation
- Full Structural Review
- Planning Approval
- Topographical Information
- Review of Easements and Covenants
- Rights of lights Issues
- Building Regulations Approval / Fire Engineering



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Dr/Checked	TA / RT	Date of Issue	24.10.17

SMG Building ONE

Proposed Site Layout

APPENDICES

APPENDIX 1

Personal Injury Accident Data



crashmap.co.uk

Crash Date:	Wednesday, December 02, 2015	Time of Crash:	5:45:00 PM	Crash Reference:	201554A848615
Highest Injury Severity:	Slight	Road Number:	A4361	Number of Casualties:	1
Highway Authority:	Swindon			Number of Vehicles:	5
Local Authority:	Swindon			OS Grid Reference:	413317 179741
Weather Description:	Fine without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	60				
Light Conditions:	Darkness: no street lighting				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Not Applicable				



For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)		2 Female	66 - 75	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None
2	Car (excluding private hire)		14 Female	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None
3	Car (excluding private hire)		3 Female	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None
4	Car (excluding private hire)		14 Male	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None
5	Car (excluding private hire)		7 Female	46 - 55	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	66 - 75	Unknown or other	Unknown or other

Accident Description:

Accident description text currently unavailable for this highway authority / police force

For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



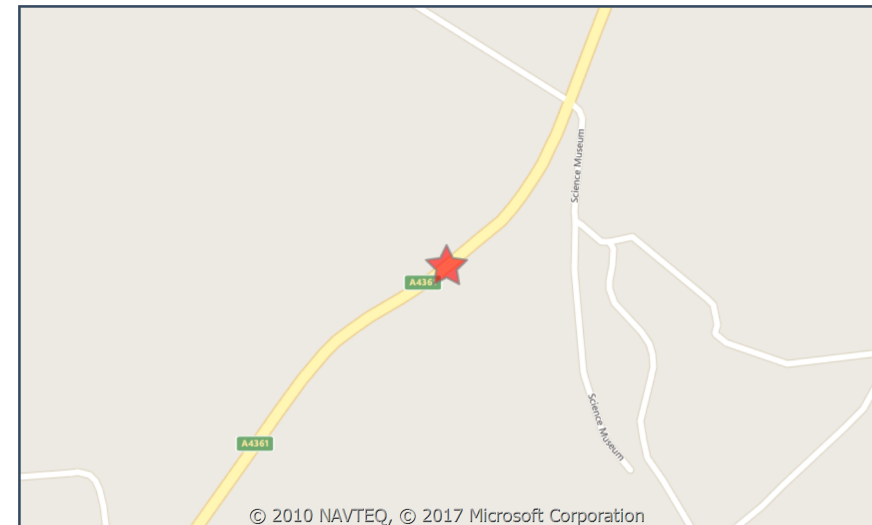
crashmap.co.uk

For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



crashmap.co.uk

Crash Date:	Friday, December 16, 2016	Time of Crash:	6:57:00 PM	Crash Reference:	201654B332716
Highest Injury Severity:	Serious	Road Number:	A4361	Number of Casualties:	3
Highway Authority:	Swindon			Number of Vehicles:	3
Local Authority:	Swindon			OS Grid Reference:	412888 179046
Weather Description:	Fog or mist - if hazard				
Road Surface Description:	Wet or Damp				
Speed Limit:	60				
Light Conditions:	Darkness: no street lighting				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Not Applicable				



For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	15	Male	26 - 35	Vehicle is passing another moving vehicle on its offside	Front	Commuting to/from work	None	Entered ditch
2	Car (excluding private hire)	2	Female	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	Entered ditch
3	Car (excluding private hire)	19	Male	21 - 25	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	Entered ditch

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	26 - 35	Unknown or other	Unknown or other
2	2	Serious	Driver or rider	Female	36 - 45	Unknown or other	Unknown or other
2	3	Serious	Vehicle or pillion passenger	Male	46 - 55	Unknown or other	Unknown or other

Accident Description:

Not Available

For more information about the data please visit: www.crashmap.co.uk/home/aboutthedata and www.crashmap.co.uk/home/definitions



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