enzygo
environmental consultants

Construction Traffic Management Plan

20MW gas powered standby generation plant

Portswood Waste Water Treatment Works (WWTWs)

AMDC Energy Ltd

CRM.341.003.PL.R.002

'Experience and expertise working in union'

enzygo.com

Contact Details:

Enzygo Ltd.
Samuel House
5 Fox Valley Way
Stocksbridge
Sheffield
S36 2AA

tel: 0114 3215151
fax: 0114 2903688
email: barry.roberts@enzygo.com
www: enzygo.com

Construction Traffic Management Plan at Portswood Waste Water Treatment Works (WWTWs)

Project:	Traffic Management Plan at Portswood Waste Water Treatment Works
For:	AMDC Energy Ltd
Status:	Final
Date:	March 2018
Author:	Sarah Strauther – Senior Transport Planner
Reviewer:	Andrew Fosbueary -Principal Transport Planner
Approver:	Barry Roberts BSc (Hons) IEng MICE MIHT – Director of Traffic & Transportation

Enzygo Limited Registered in England No. 6525159
Registered Office Stag House Chipping Wotton-Under-Edge Gloucestershire GL12 7AD

Contents

1.0 Introduction

1.1 Background

1.1.1 Enzygo has been instructed by AMDC Energy Ltd to provide a Traffic Management Plan (TMP) to alleviate concern and reduce objection to the scheme that relates to the works required to develop a 20MW gas powered standby generation plant at land at Portswood Waste Water Treatment Works (WWTWs). Gas would be imported into the facility through an underground pipeline, and when required by National Grid, the facility would be capable of producing up to 20MW of energy.

1.1.2 Following correspondence with Mat Pidgeon from Southampton City Council (SCC) Planning and Development Team, it was apparent that the request from Highways was to provide details of the construction management with specific regard to vehicular movement. Therefore, the purpose of the Traffic Management Plan is to address concerns raised by local residents and ward Councillors.

1.1.3 The proposed site is located within the administrative boundary of Southampton City Council, with the nearest postal code being SO17 2LJ. The Grid Reference of the site is SU 43565 14764. The proposed development occupies an area of 1810 sqm of land. The application area is shown on the Proposed Site Layout Plan (CRM.341.003.P.D.003).

1.1.4 The nearest residential properties to the application site are located 215m south of the site off Saltmead. To the east of the site lies the River Itchen. To the west lies the WWTW, and beyond this a railway line and the A335. To the north of the site lies the WWTW and beyond this an area of dense vegetation.

1.1.5 The site currently comprises undeveloped (Figure 1) consisting of mown grass. The land is within the Portswood WWTWs, and is not accessible to the public, and cannot be seen clearly from outside of the site.

1.1.6 There are no registered Public Rights of Way access routes into or across the site, and the site is not accessible to the public. In terms of vehicular access, there is an existing access into the WWTWs off Kent Road.

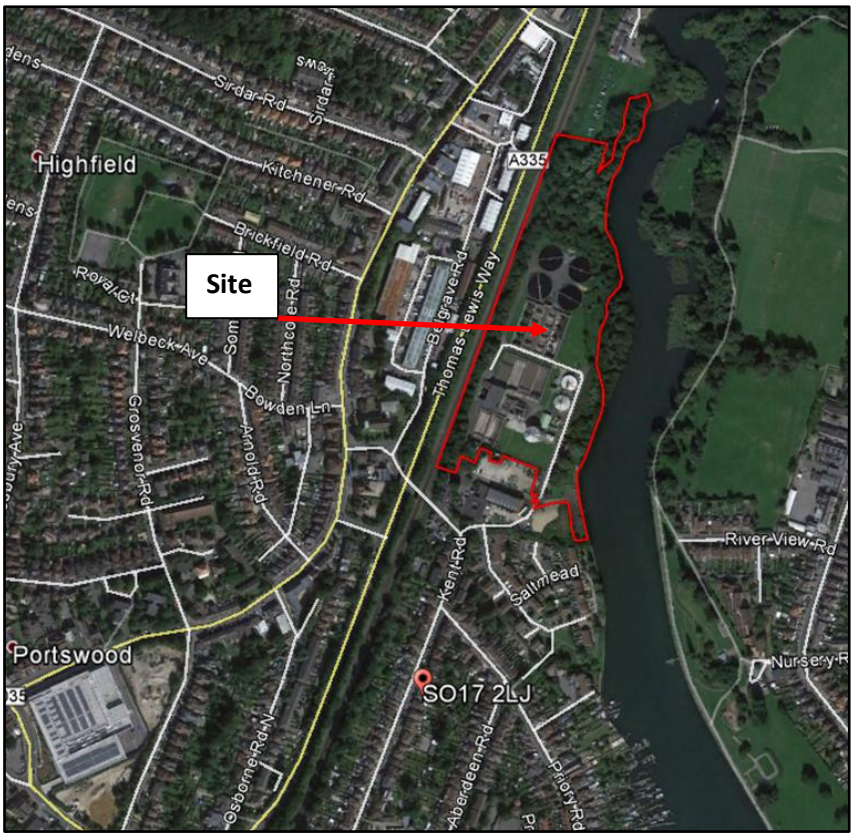

Figure 1: Site Location Plan

Figure 2: Site Access

2.0 Site Proposals

2.1 Site Proposals

2.1.1 The proposed development site would be for the provision of a 20MW gas powered standby generation plant. Gas would be brought into the site via an underground pipeline to power the genset units.

2.1.2 The primary function is to provide electricity to the local distribution network at times of peak demand. This mechanism for balancing the system ensures a sufficient supply of electricity is readily available to local homes and businesses at all times.

2.1.3 The proposed development will primarily respond to calls from National Grid in times referred to as 'stress events' – when the electricity networks' reserve power balance has been reduced due to a surge in demand, or reduced availability of large scale generation (i.e. coal, wind, solar).

2.1.4 Accordingly, when required by National Grid, the facility will be turned on remotely, the gas combusted and the combustion gas would spin a turbine to generate up to 20MW electricity which is exported to the local distribution network via the nearest appropriate substation.

2.1.5 The site layout will consist of the following equipment:

- 8 X 2.5 MW Gensets units (12m x 3.2m x 5.69m (h));
- 8 X stacks, one associated with each engine, 7.8m from the ground;
- 4 X transformers (4.2m x 5m x 4.96m);
- 1 x gas module (3m x 3m x 2.4m);
- Substation/ Switchroom (6m x 5m x 4m);
- All infrastructure will be raised on plinths, above areas of flood risk; and
- Access road.

2.1.6 A paladin fence will be situated around the entire site, and an access gate will be located to the south of the site. The fence, along with the existing WWTW security features will ensure the site is secure.

2.1.7 There will be sufficient space incorporated into the site layout to allow maintenance vehicle access into and around the site, and to aid fire safety.

2.1.8 The site will be connected to the National Grid via underground pipes.

2.2 Access Arrangements

2.2.1 There are no registered Public Rights of Way access routes into or across the site, and the site is not accessible to the public.

2.2.2 In terms of vehicle access, there is an existing access into the WWTWs off Kent Road (Figure 2). This would be utilised as part of the planning application, and the road will be extended into the sight, as shown within the site layout plan (CRM.341.003.P.D.003).

2.3 Concerns to Address

2.3.1 Following submission off planning application 17/01690/FUL for the proposed development, several comments were received from residents and councillors. A summary of the concerns relating to construction traffic are summarised below:

- Congested Roads in peak highway periods;
- Parked cars on street during the day;
- Possible river access for bulky construction materials;
- Maintenance and ongoing traffic to come from Portswood Road;
- Sludge is proposed to be removed by barge. Can plant and materials be delivered by water;
- Vibration would be a concern along Kent Road;
- Priory Road traffic is heavy during rush hour;
- No site access via Priory Road / Kent Road; and
- Access to be from Kent Road under the railway bridge to reduce nuisance and impact to Kent Road and Priory Road residents.

2.0 Construction Traffic

2.1 Construction Period

2.1.1 It should also be noted the team behind Shovel Ready Limited has delivered more than 500MW of new energy infrastructure including standby power (similar to the proposed development at Venture Road) and Combined Heat & Power facilities.

2.1.2 Accordingly, the information provided within this report has been provided using our teams' knowledge and expertise from its involvement in such projects over recent years. Further, the development partner, P3P Partners, possess a wealth of construction management experience on projects in the energy sector and will be responsible for the development of the proposed Venture Road scheme.

2.1.3 The overall construction programme will be approximately 4 – 6 months, with construction restricted between the hours of 09:00 to 16:00 and 18:00 – 20:00 hours Monday to Friday and 09:00 to 13:00 Saturday.

2.1.4 Flexibility is essential for the proposed development to be successful. However, it is useful to understand that in reality, the facility will operate infrequently. The operational hours of the generators will be dictated by the demands of the Grid, but are expected to be between 07:30 and 20:30 hours. However, the site may need to run outside these hours if National Grid instructs the site to run in an emergency situation to fulfil the site's duties under a standing reserve contract.

2.1.5 During the site establishment and construction phases of the development, the number of construction staff on the site will be a maximum of 10.

2.2 Vehicular Traffic

2.2.1 To allow construction traffic vibration and also the concerns relating to available carriageway widths, due to the on-street parking, all construction related vehicles should reduce speeds as much as possible. Furthermore, if it is considered necessary a banksmen could be provided to aid manoeuvring vehicles.

2.2.2 Traffic associated with the construction of the proposed development will be a maximum size of a Heavy Goods Vehicle, with the exception of the abnormal route vehicles as outlined below.

2.2.3 Construction traffic will access the development side outside peak highway periods to avoid adding to heavy traffic on local roads surrounding the development site.

2.2.4 From experience of delivering similar projects, we would assume the construction period will typically generate a total of 50 HGV movements. As the majority of the larger equipment is brought to site in the early phase, the split of movements will typically comprise of 20 HGV movements in month 1, a further 20 HGV movements in month 2 and the remaining 10 HGV movements spread across months 3 and 4.

2.3 Vehicular routing

2.3.1 All drivers and operatives should be given information and/or a formal induction to inform them of the sensitive issues and resident concerns as well as adherence to this Construction Management Plan.

2.3.2 The height restrictions for HGVS make impossible for any HGV traffic to access the site from Portswood Road, under the bridges of the A335 Thomas Lewis Way and the Railway. This would be the preferred route choice but the restrictions make it impossible.

2.3.3 To mitigate the concerns of councillors and residents, routing of construction vehicles will be distributed between Kent Road, Aberdeen Road and Priory Road to reduce impact on individual roads and on Kent Road. These roads will also be used at agreed times to minimise distribution. It should be noted that, as stated above, the HGV movements will be concentrated in the first 2 months of construction and that during these times there is still only predicted to less than 2 HGV movements a day.

2.3.4 Parking sensitivity tests will be undertaken by AMDC Energy Ltd to establish periods of the day when on-street parking levels are low that will enable large vehicles to manoeuvre safely along the residential routes.

2.4 Abnormal Loads

2.4.1 The scheme will require 8 generators which would be considered abnormal loads. The development will require approximately 8 generators, which would be delivered to site in month 2 of the construction period. As with the other construction traffic these will be delivered outside the peaks to reduce the impact on the highway network.

2.4.2 Any abnormal loads, as defined in the national standards, will be subject to a further application which will be controlled via that process.

2.5 Remediation of damage to highways due to construction traffic

2.5.1 Any damages caused to the highway by the movement of construction traffic will be rectified once construction is completed following the completion of a pre and post construction highway condition survey.

Figure 3: Construction Traffic Routes

3.0 Construction Staff Vehicle Controls

3.1 Construction Staff routing

3.1.1 Staff construction vehicles which can will be told to use the A335 Kent Road (north route) to access the site, this will however be limited to the vehicles of a suitable height.

3.2 Construction Staff Parking Controls

3.2.1 All construction staff will park within the site to reduce the impact from parked vehicles on the surround streets.

4.0 Conclusions

4.1 Summary

4.1.1 It is considered that the proposed routing for construction traffic to access the site is very limited and the proposals within this document attempt to address the concerns of local residents as much is reasonably possible.

4.1.2 Assuming the construction traffic uses these roads as instructed and the necessary parking surveys identify suitable periods to avoid high levels of on-street parking, there should be no detrimental impact on the surrounding community.

4.1.3 Banksmen will be employed if required to assist in manoeuvring around parked vehicles.

Enzygo specialise in a wide range of technical services:

Property and Sites
Waste and Mineral Planning
Waste Technologies and Renewables
Landscape and Visual Impact
Environmental Assessment Co-ordination
Hydrology and Flood Risk
Waste Contract Procurement
Noise and Vibration
Environmental Permitting and Regulation
Development Planning & Policy
Ecology Services
Contaminated Land and Geotechnical
Traffic and Transportation
Planning Services

BRISTOL OFFICE
The Byre,
Woodend Lane,
Cromhall,
Gloucestershire GL12 8AA
Tel: 01454 269 237

SHEFFIELD OFFICE
Samuel House,
5 Fox Valley Way,
Stocksbridge,
Sheffield S36 2AA
Tel: 0114 321 5151

MANCHESTER OFFICE
76 King Street,
Manchester,
M2 4NH

Tel: 0161 413 6444

Please visit our website for more information.

enzygo.com