

<u>Construction Method Statement</u> (Construction Phase Plan)

To comply with the requirements of the Construction (Design and Management) Regulations 2015

PROJECT: Construction of Phase 2 of the Enviroparks Hirwaun Project Ninth Avenue, Hirwaun Industrial Estate, Hirwaun, Aberdare, CF44 9YN

CLIENT: Enviroparks (Wales) Limited

CONTRACT NO: 550943

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NOTE: The Construction Method Statement (Construction Phase Plan) is considered to be a live revised document and as such is to be monitored, reviewed and updated where required as the project proceeds by the site construction manager.

	REVIEW		
Reviewed by:	Action taken:	Date:	Signature



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1. DESCRIPTION OF WORK TO BE UNDERTAKEN



Site Address Bouygues Energies & Services Site Office Ninth Avenue Hirwaun Aberdare CF44 9YN

Works to include construction of the following integrated buildings to join up with the existing Phase 1 Fuel Preparation Facility.

- Fuel Storage Hall
- Gasification Hall
- Turbine Hall
- HV Sub-Station

Phase 2 also includes the following works

- Balance of Plant Yard.
- Landscaping along the boundary with Fifth Avenue and Ninth Avenue.
- Phase 2 foul and surface water drainage including SUDS.
- Installation of Phase 1 external lighting scheme with additional lighting resulting from the requirements of Phase 2.
- Construction of the approved car parking.
- Installation of the cycle storage facility approved in Phase 1.
- Installation of weighbridges.
- Construction of the HV Sub-station.
- Balance of Plant Yard housing Air Cooled Condensers, Firewater Tanks, Transformers, Water Treatment Plant, Standby Generators and associated Diesel Storage Tank

The works will be carried out over a 24 month programme period.

Please see a Site Layout plan overleaf.



Enviroparks Site Layout:



1.1 Site Set Methodology

The site setup will utilise the newly created access roads constructed as part of the Phase 1 development. The existing temporary welfare and office accommodation used during the previous works will retained and expanded to take account of the larger Phase 2 development together with additional car parking and laydown areas as shown on the site setup drawing –Appendix C

1.1.1 Temporary Buildings

Additional temporary buildings will be installed adjacent to the existing in 2 phases (construction & process plant installation) as shown on the temporary office & welfare layout _ Appendix C

Temporary stores will also be installed as shown on the site setup drawing -Appendix C

Temporary Buildings and Temporary Accommodation must be fitted with Detection Systems and be tested for electrical safety. These systems must be tested every week and results recorded in the site safety management recording system.

Temporary accommodation must be constructed of materials with a 30 minute fire rating and temporary stores must be constructed of materials with a 60 minute fire rating. General rules:

• Heaters for use in Temporary Buildings and Temporary Accommodation must be fixed, preferably above floor level, fitted with securely fixed metal guards and maintained in a sound

Figure 1 : Site Layout

condition

- Coat stands and drying racks must be firmly positioned at a safe distance from heaters, which should be thermostatically controlled and have enclosed elements
- All heaters must be properly installed and adequate ventilation provided

- In areas where flammable liquids and gases are stored, the installation of suitable automatic Fire Detection System is required
- Temporary Building(s) should not contain more than the minimum of furniture and fittings made from synthetic materials

1.1.2 Laydown & Storage Areas

The existing Phase 1 fuel preparation building will be utilised as a construction laydown area together with the area shown adjacent to the site office and welfare.

The permanent site car park will also be used as storage and laydown area for the HV substation, visitor centre and fit out of the fuel preparation area.

During the Process plant installation phase additional laydown area will be created adjacent to the existing area and site car park.

Large scale materials or parts will be brought to site on a 'just in time' basis. Localised laydown areas will also be allocated to sub-contractors at the work fronts.

1.1.3 Vehicle access and control

All construction traffic will enter the industrial estate via the roundabout from the A465 onto Rhigos Rd . this rote will be signed and communicated to all contractors and suppliers.

Regular meetings will be held with Rhondda Cyon Taf highways to coordinate with the proposed works upgrading the A465 Heads of the valley road

All vehicular access to the site will enter via the existing access from Ninth Avenue. All vehicles will be monitored and controlled by site security at the Gatehouse.

Vehicle & plant movements across the site will be communicated to the workforce on a daily basis via tool box talks and daily work briefings. Reference shall be made to: BYES-CONT-HSE-P- 3.20 Transport - Moving Plant & Vehicles.

BYes shall institute a site speed limit not exceeding 10mph. Traffic calming measures may be introduced where necessary in order to achieve this target if speeding vehicles are observed on site. All loading and unloading of vehicles and plant will be within the site.

Restrictions

All deliveries will only be allowed during the working construction hours. (*Working construction hours will be strictly in accordance with those set out in the planning conditions – unless otherwise agreed with planning authorities.*)

Any abnormal loads that require a movement order will have all the relevant permits and authorisation applied for in advance

The parking of vehicles outside of the site on the industrial estate roads will be prohibited.

1.1.4 Car parking

All vehicles for staff and visitors will be parked on the separate car park created on site as indicated on the site setup drawing - Appendix C

The existing hard surface car park will thus be expanded to accommodate approx. 50 no cars and vans for the initial construction phase of the overall programme.

The entrance to the car park will be from the existing site roadway with all cars and vans entering and existing via the gatehouse and gated entrance from Ninth Avenue.

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During the process fit out phase of the project the car parking area will be extended to accommodate additional vehicles so that all cars and vans are segregated from the working area, site security is maintained and that there is sufficient space for staff and visitors with in the site boundary.

1.1.5 Pedestrian Traffic

Access to the main site will be from Ninth Avenue via the existing site entrance. Access to the site compound will be segregated for pedestrian and vehicular traffic. These routes being clearly marked on the site plan. Safe segregated, pedestrian routes shall be maintained as per the site set up plan (Appendix C) and as a means of escape.

1.1.6 Road Cleaning

- If due to ground conditions, adverse weather conditions then road-sweeping operations are to be utilised as required to ensure that the site roads and any public roads affected externally are kept clean.
- A mobile power washer and lance will be used to clean any vehicle prior to leaving site that has been off the site roads or likely to cause dust or contamination of the public roads when leaving site.
- Environmental risk assessments should be carried out in order to identify risks and appropriate environmental control measures.

1.1.7 Site Security

The existing site is fully enclosed by a 2.4m high permanent security fence and gate. As such, temporary site hoardings are not required. Daytime security will be manned operation from the gatehouse and out-of-hours security will comprise of remote CCTV monitoring units and mobile patrols if required.

1.1.8 Waste Management

The principles of the European Waste Hierarchy, which prioritises the prevention, recycling and recovery of waste in preference to landfilling form the basis of the site waste management policy. This approach applies to the management of Construction and Demolition (C&D) wastes nationally. The guiding principle (of the EU Waste Hierarchy) has been consistently endorsed in subsequent national waste policy document and remains at the heart of the revised EU Waste Framework Directive which was completed in 2008.

Each Plan is required to address the following aspects of the project:

- Analysis of the waste arising/material surpluses;
- Specific waste management objectives for the project;
- Methods proposed for prevention, reuse and recycling of wastes;
- Material handling procedures; and
- Proposals for education of workforce and plan dissemination programme.

Waste management for the construction project will be managed in accordance to the waste management plan specified in Appendix A.

The objectives of this Waste Management Plan are to meet the needs of the following requirements of the project:

- To comply with relevant policy and legislation on waste management.
- To set out a framework for the sustainable management of waste materials.



- To maximise the reuse and recovery of material generated by the construction activities.
- To minimise the volumes of waste from the project being sent to landfill and to maximise recovery.

1.1.9 Monitoring and Reviewing the Construction Method Statement

The Construction Method Statement (Construction Phase Plan) is considered to be a live revised document and as such is to be monitored, reviewed and updated where required as the project proceeds by the site construction manager.

1.2 Construction Works

The project scope is for the construction of a power generating station for the treatment of refuse derived fuel (RDF), capable of producing 16.3MWe power via Energy from Waste plant.

Bouygues Energies and Services Ltd (BYes) are the Engineer, Procurement and Construction (EPC) contractor, contracted to carry out the design, procurement, construct, commission and operate the facility in its entirety.

The building is to be constructed on a augered pile foundation incorporating below ground drainage and services; insitu concrete ground beams, insitu concrete suspended floor slabs, steel structure, panelled walls (with timber cladding to match the existing fuel preparation building), main fuel store, process hall, ash handling bay, water treatment rooms, switch rooms, sub-station, laboratory, workshop, 2nd floor office, welfare, stores, stairs and control room.

External works will include a service yard, foul drainage system, surface water system including swale run-off capture and attenuation, contaminated water drainage system, fire water retention system, external lighting, ancillary services, extension to the existing permanent site access road, hard standing and landscaping.

Externally, there will be an installation of below ground cables from the new facility to a new substation located adjacent to the visitors centre.

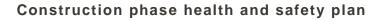
1.2.1 Mechanical Services

The mechanical services within the facility can be categorised into two main areas:

- Process Mechanical Services and
- Building Services Mechanical Services.

Process Mechanical Services

- Fuel reception and storage
- Steam boiler and gasification plant
- Feed water treatment plant
- Flue gas treatment and flue gas monitoring
- Bag house filters, ID fan and flue
- Ash handling and storage equipment
- Steam turbine generator
- Air coolers and condenser water system
- Steam, condensate and compressed air distribution systems



- Sprinkler fire protection systems
- Overhead cranes
- Drainage systems

Building Services Mechanical services

- Air conditioning
- Mechanical ventilation
- Hot and cold water services
- Fire suppression system
- BMS controls
- Drainage

1.2.2 Electrical Services

The electrical services within the facility can be categorised into two main areas namely,

- Process Electrical Services
- Building services electrical services

Process Electrical Services

- 11kV to 33kV step up transformer
- HV/LV Transformer
- LV distribution system

Building Services Electrical Services

- HV network
- HV/LV transformer
- LV distribution
- Containment
- Earthing & bonding
- Lightning protection
- Internal lighting
- External lighting to complement the Phase 1 Scheme
- Automatic fire detection & alarm system
- Intruder detection system (IDS)
- Access control / video intercom
- Security systems (CCTV)
- Communications systems

N.B. The following sections are to be completed in further detail nearer to the project start date:

Distribution

General Lighting

Small Power

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Emergency Lighting

Data Outlets & Telephone

Fire Detection System

Earthing and Bonding

Earthing and bonding would be provided in accordance with BS7671.

Testing

Upon completion we would test and commission the installation in accordance with BS7671.

1.2.3 Process: including:

- Fuel storage and feeding system
- Energy Island
- Power Island
- Balance of Plant
- Control systems, MCC & instrumentation
- Safe shut down generation



2. MANAGEMENT OF THE WORK : USE OF THE CONSTRUCTION PHASE PLAN

2.1 Objective

The objective of this construction phase plan is to define the organisation and arrangements that have been put in place to manage risk, co-ordinate the work and how Bouygues Energies & Services (BYes) intends to manage the safety of employees and subcontractors and others during the project works.

Targets and Objectives (Refer to Table 1)

Health & Safety

- 1. Our objective is zero accident/incidents: In order to achieve this target this plan will be used in conjunction with our Health, Safety and Environmental Management Manual and Site Safety and Environmental Documentat
- 2. We will promote a 'Just', 'interdependent' culture on site
- 3. 100% CSCS Compliant workforce
- 4. To perform beyond compliance standards as set by the Considerate Constructors Scheme

Environmental Objectives

- 1. To minimize waste
- 2. To maximize recycling
- 3. To ensure the works are carried out with minimal disruption to the stakeholders and adjoining properties are kept informed and updated

Health Safety	КРІ	Target	Status
Leading Indicators	Directors Walks	1 per Month	Mandatory
	SORs per Month	4 Per worker	Mandatory
	Employee Response to Climate surveys-	>60%	
	Behaviour Code (+ / -)	1 per 10 workers	Mandatory
	HSE Training Attendance	100 %	Mandatory
	Safety Inspection Score	>/=95%	Mandatory
	Town hall Meeting.	1 per quarter	Mandatory
Lagging Indicators	Near Misses	0	
	No. 1 st Aids	0	
	Reportable Accidents (AFR)	0	
	Dangerous Incidents	0	
	Enforcement Notices	0	
Environmental			
Leading Indicators	Environmental Audit Score	3	Mandatory
	Recycled / recovered waste	> 90%	
	as a percentage of		
	total waste		
	(SMARTWaste)		
	%Waste sent to landfill	<10%	

Table 1 EHS objectives and Targets



	CO_2 produced as a %of	Set baseline
	£100K turnover	2
	Volume (m3) of water	8m ³ per £100,000
	used as a % of £100K	turnover
	turnover	
	% Sustainable timber	100%
Lagging Indicators	No. of Environmental	0
	Incidents	
	Number of Complaints	0
	Environment Authority	0
	Notices	
Water / Effluent		No Complaints
Discharge		
Dust		No Complaints
Noise		No Complaints
Vibration		No Complaints

<u>3. TYPE OF CONTRACT</u>

3.1 The following documents form the basis of the contract between the client and BYes: IChemE: The Red Book Lump Sum Contract

4. CONTRACT DOCUMENTS

- 4.1 As detailed above.
- 4.2 Byes' HSE documentation includes:

HSE Management Manual (ref' docs' BYES-CONT) Site Safety & Environmental Documentation (ref' docs' SSED 125) Site Starter Pack (ref' docs' SS) COSHH assessments



5. EXISTING SERVICES, BUILDINGS AND LAND USE

5.1 Hazards

The following hazards presented by the existing environment have been considered. Further details of the hazards applicable to this project are set out below:

Contamination (ground, plant, disposal)	1	Fire/Explosion/Ignition Sources/Fire Alarms	11	Electrical Tools/Supplies	21
Stability (ground/structures)	2	Pedestrian Traffic	12	Atmosphere	22
Underground Services	3	Vehicles	13	Cold/Heat	23
Overhead Services	4	Laydown/Storage	14	Lifting Equipment	24
Hidden Services	5	Special PPE	15	Manual Handling	25
Live Plant/Services	6	Noise	16	Load Bearing	26
Chemicals/Substances	7	Maintenance	17	Confined Space	27
Flammables	8	Falls from height	18	Radiation	28
Lighting	9	Access	19	Biological Hazards	29
Dust	10	Headroom	20	Asbestos	30
				Temporary works	31

5.1.1 Contamination (ground, plant, disposal)

Any contamination issues that were identified in the site investigation works have been dealt with during the previous construction works relating to the fuel preparation building and site access roads and associated service yards.

If any contaminated material is identified during the works on the project the contaminated hotspot will be excavated, comprising removal of soils in a 5m radius of the hotspot location, excavated to at least 0.5m below the depth of the hotspot. Validation testing of the base and the sides of the excavation will then be undertaken in line with the recommendations.

Although site surveys to date have not provided any indication, the presence of Asbestos cannot be ruled out.

All staff and employees will be notified of the possible presence of ACM on site- should any ACM be discovered work in the area will stop. A member of staff will contact the site EHS manager who shall ensure a competent person identifies and verifies the presence of ACM and arrange for its safe disposal by an accredited contractor for final disposal at an approved off-site disposal facility.

5.1.2 Stability: Ground

Through core sampling, trial pit analysis and design in areas where new structures are to be erected the design will incorporate suitable trench support where needed to provide safe access and egress to construction personnel and ground stability to surrounding structures. See design risk assessments. Deliveries of heavy pieces of plant /equipment will be assessed on a load by load basis. This is to ensure that ground conditions are suitable to support the load including the delivery vehicle and any vehicles utilised in the unloading thereof.

Stability: of structures whilst carrying out construction work.

BYes will carry out a detailed dilapidation survey of structures that may be damaged during the construction phase – this will include the potential damage to neighbouring structures or processes caused by piling work.



A designed piling mat will be installed as per design.

5.1.3 Underground Services

Due to the nature of the site unknown underground services may be encountered. All work will be carried out in line with BYES-CONT-HSE-G-6.20 below Ground Working in the HSE Management Manual. Task specific Risk Assessments and Method Statements (RAMS) to be provided.

Before any work takes place Bouygues will liaise with the Utility providers to establish the nature and extent of local services.

The location of all known services will be marked on the ground and held on a site map at the task site. All excavations will be controlled by a permit to work (PTW).

Extreme care MUST be taken when working on areas suspected to contain LIVE services – surveys indicate that marker tapes have not been used / bricks tiles have been used in – services have been discovered directly below marker tiles.

Other services have been discovered that have not been marked or claimed by any service provider.

All temporary electrical connections will be made by a competent electrician inspected as per the requirements of the safety management system.

Before any excavation takes place the target area will be scanned using Ground Penetrating Radar – this is a critical requirement for all works.

5.1.4 Overhead Services

There are no live overhead services within the footprint of the proposed site.

5.1.5 Hidden Services

BYES will collate all relevant information on known services in or close to the works area and liaise with local Utility Providers.

Any planned activity close to areas defined as high risk e.g. Excavation (drilling, moling etc.) within 3m of gas line or Excavation (drilling, moling etc.) within 10m of pressure reduction equipment will be notified to permit inspection authorisation by utility engineers.

Potential for hidden services to be highlighted in the residual risks register and noted on construction drawings for the construction team. Required precautions to be clearly stated within construction Risk Assessments and Method Statements.

BYes shall take all the necessary precautions to support, maintain and protect any existing pipes, ducts, drainage, sewers, services, overhead or buried cables, etc. during the execution of the Works.

BYes shall notify the relevant authority where appropriate, immediately if any damage is caused to any services, cables, etc. During the progress of the Works, BYes shall not interfere with the operations of the existing services such as electricity, gas, water, telephone, buried cable, sewers, drainage and ditches, both on site and adjoining premises, without the prior agreement and permissions being in place.

BYes will ensure that no diversion of any of the existing services, etc. shall be carried out without the prior agreement of the appropriate authority and/or owner. Any temporary disconnection of the services, etc. which may be necessary in connection with the Works shall be done at such times as may be directed by the relevant statutory authority and/or owner. The Contractor shall be responsible for maintaining close liaison with the local authority and the public undertakings so as to avoid any disruption of the existing services.

- All excavations will be made safe (battered or shored) and protective barriers provided
- All underground services will be marked prior to commencing on site. Hand dig to expose
- Safe access and egress will be maintained to all excavations. Alternative means of escape from the excavation will be provided.

- The lowering of materials into excavations if persons are working within will not be permitted
- Materials will not be stored or stacked close to excavated edges
- Machinery will not be permitted to operated close to excavated edges
- Any deterioration in excavations will result in the immediate evacuation of the area and securing of the excavation, pumping equipment will be available
- Excavations will be inspected by a competent person before use, every 7 days and after inclement weather.
- If contamination or Asbestos is discovered all work will stop in the area, Bouygues site managers and EHS will assess the area and initiate the incident response plan

5.1.6 Live Plant/Services

For all existing live plant/services that cannot be isolated prior to works commencing they will be clearly identified, risk assessed, suitably segregated/barriered off where practicable. A section is to be included within the site induction ensuring all site personnel are fully aware of their presence.

5.1.7 Chemicals/Substances

Careful consideration must be made in respect of chemicals/solvents used during construction works and all COSHH requirements must be strictly adhered to. COSHH assessments are available on BYes' intranet site through our CMS provider SYPOL. All assessments are to be attached to relevant Risk Assessment /Method Statements. Sub-contractors are to provide relevant COSHH assessments for any hazardous substances they require fulfilling their duties.

A COSHH register shall be maintained by BYes in order to comply with Bouygues EcoSite initiative.

5.1.8 Flammables

All flammable materials such as solvents will be assessed using a site specific Fire Risk Assessment (SSED 112) in the Site Safety and Environmental Documentation. Careful consideration must be made in respect of chemicals/solvents used during construction works and all COSHH requirements must be strictly adhered to. COSHH assessments are available on BYes' intranet site through our CMS provider SYPOL. All assessments are to be attached to relevant Risk Assessment /Method Statements. Sub-contractors are to provide relevant COSHH assessments for any hazardous substances they require fulfilling their duties.

A COSHH register shall be maintained by BYes in order to comply with Bouygues EcoSite initiative.

5.1.9 Lighting

The phase 1 approved permanent lighting scheme will be installed as soon as practicable following commencement of works. The external lighting scheme for the phase 2 building will be installed as approved when the building construction progress permits

Suitable temporary site lighting will be installed within the new building to cover access, egress and emergency escape until such time as the permanent lighting is installed. Specific task lighting is to be provided by sub-contractors.

Where practicable LED lighting will be used.

5.1.10 Dust

The generation of dust must be prevented. Control measures will be assessed on a task specific basis. Suitable methods of dust suppression/extraction will be deployed to ensure a safe system of work and

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environment is maintained. In general water spray from mobile bowsers will be employed, debris netting will be secured to the perimeter fence with plastic cable ties and the use of road sweepers will be used to control any dust which could cause a nuisance. Consideration of external third parties will form part of the assessment.

5.1.11 Fire/Explosion/Ignition Sources/Fire Alarms

Control of Hot Works

To ensure fire is prevented and ignition sources are controlled all hot work will be controlled by a Permit to Work System (PTW) the permit to work will define areas where hot works are not permitted. All hot work will require a fire extinguisher to be at the work site and fire watch to be in place after works are completed as identified in the Risk Assessment and Method Statement.

During construction BYes will provide and maintain temporary fire points where extinguishers and alarm sounders can be found, firefighting equipment will only be used by suitably trained persons. A weekly inspection plan will be implemented. These activities will be covered under a BYes Permit to Work (21-SSED115) or superseded by the client's procedures.

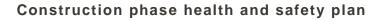
The majority of fires can be prevented by taking simple precautions and by adopting safe working practices. All parties involved must work together to ensure that the work on site is undertaken to the highest standard of fire safety thereby afford the maximum level of protection to the building and its occupants.

Organisation and Responsibilities

- A Fire Marshall and Hot Works Co-ordinator will be appointed
- The Fire Marshall will ensure that all procedures, precautionary measures and safety standards as laid down in the Site Fire Safety Plan are clearly understood and complied with by all those on site
- The Hot Works Permit Co-ordinator will ensure that the Hot Works Permit System is strictly followed and monitored for compliance
- Bouygues will carry out weekly checks of Fire Fighting Equipment and test all alarm and detection devices installed on site
- Bouygues will conduct weekly inspections of escape routes, fire brigade access, firefighting facilities and work areas and monitor the requirements laid down in the Site Fire Safety Plan. The results of this inspection will be recorded
- The Fire Marshall will liaise with Fire and Rescue Service and arrange site inspections and familiarisation tours
- The Safety Officer and Site Manager will liaise with the Site Security personnel for night checks of the site.
- Bouygues will ensure that a proper maintenance regime for fire protection equipment is instituted, including the keeping of a written record of all checks, inspections and tests.
- Bouygues will maintain a written record of training of site operatives and of all fire patrols and fire drill procedures
- The Fire Marshall will regularly monitor and check the detailed arrangements and actual procedures for calling the Fire Service.
- All site Management staff will promote "a fire safe working environment" at all times

Bouygues emergency coordinator will liaise with all stakeholders in the event of an alert on site. A list of all local facilities and stakeholders is posted in the following areas.

- Site Safety Managers office
- Project Managers office
- Site meeting room
- Security Gate House



• Written Emergency Procedures will be displayed in prominent locations and given to all employees on site.

Temporary Buildings and Temporary Accommodation

Temporary Buildings and Temporary Accommodation must be fitted with Detection Systems and be tested for electrical safety. These systems must be tested every week and results recorded in the site safety management recording system.

Temporary accommodation must be constructed of materials with a 30 minute fire rating and temporary stores must be constructed of materials with a 60 minute fire rating.

General rules:

- Heaters for use in Temporary Buildings and Temporary Accommodation must be fixed, preferably above floor level, fitted with securely fixed metal guards and maintained in a sound condition
- Coat stands and drying racks must be firmly positioned at a safe distance from heaters, which should be thermostatically controlled and have enclosed elements
- All heaters must be properly installed and adequate ventilation provided
- In areas where flammable liquids and gases are stored, the installation of suitable automatic Fire Detection System is required
- Temporary Building(s) should not contain more than the minimum of furniture and fittings made from synthetic materials

5.1.12 Pedestrian Traffic

Access to the main site will be from Ninth Avenue via the existing site entrance. Access to the site compound will be segregated for pedestrian and vehicular traffic. These routes being clearly marked on the site plan. Safe segregated, pedestrian routes shall be maintained as per the site set up plan (Appendix C) and as a means of escape.

Pedestrian and vehicle access routes to and around site may vary on a day to day, week to week basis. As these changes occur briefings will be held to ensure all site personnel are aware of the new pedestrian/vehicle and thus escape routes.

PEDESTRIAN TRAFFIC

- All pedestrian routes are to be clearly signed and adequately fenced off from main traffic and construction routes on site.
- Where practical, Heras fencing or pedestrian barriers should be used to fence off routes.
- Heras fences must have additional ballast fitted and be double clipped.
- Where pedestrian routes cross vehicle/plant traffic routes these areas shall be clearly marked on the site map.
- Pedestrian crossing points shall provide maximum visibility to both pedestrians and vehicle/plant operators.
- Pedestrian routes should be levelled, stoned and barriered where practical to permit safe use.
- Additional lighting will be installed as required

5.1.13 Vehicles

All construction traffic will enter the industrial estate via the roundabout from the A465 onto Rhigos Rd . this rote will be signed and communicated to all contractors and suppliers.

Regular meetings will be held with Rhondda Cyon Taf highways to coordinate with the proposed works upgrading the A465 Heads of the valley road

All vehicular access for the project will access the site via the existing access from Ninth Avenue. All vehicles will be monitored and controlled by site security at the Gatehouse.

BOUYGUE



Vehicle & plant movements across the site will be communicated to the workforce on a daily basis via tool box talks and daily work briefings. Reference shall be made to: BYES-CONT-HSE-P- 3.20 Transport - Moving Plant & Vehicles.

Restrictions

All deliveries will only be allowed during the working construction hours. (*Working construction hours* will be strictly in accordance with those set out in the planning conditions – unless otherwise agreed with planning authorities.)

Any abnormal loads that require a movement order will have all the relevant permits and authorisation applied for in advance

The parking of vehicles outside of the site on the industrial estate roads will be prohibited

VEHICLE MOVEMENT:

- A security access point will be located in the site gatehouse.
- BYes shall institute a site speed limit not exceeding 10mph. Traffic calming measures may be introduced where necessary in order to achieve this target if speeding vehicles are observed on site.
- All plant/lifting equipment being operated on site is to have a current Certificate of Thorough Examination of Certificate of EC Conformity and SF.HSE.85.9P must be completed prior to plant being used.
- All persons operating plant/lifting equipment are to supply a copy of their current Training Certificates/Licences.
- When not in use all plant/equipment is to be left in a safe and secure condition. (When practical keys should be retained in a central location under strict control).
- All plant/lifting equipment should be fitted with a serviceable flashing orange beacon to be used whenever transiting the site.
- All plant/lifting equipment is to be fitted with an automatically engaged audible reversing alarm.
- All dumpers in use on site are to be fitted with a serviceable lap belt, which is to be worn by the operator at all times during use. Roll over protection to be fitted as standard as well.
- Parking is only permitted in designated area on site.
- Where conditions dictate that provision of a turning point is not practical then a Banksman must be used to assist vehicles/plant when reversing.
- During works at an occupied area all vehicles/plant that are required to manoeuvre through operational areas may need to have a Banksman. This shall be risk assessed at the time.

SITE TERRAIN:

- The terrain on the site does not present a significant risk of vehicles/plant overturning (made ground) when operated in accordance with manufacturer's instructions and at the site speed limit. Specific risk assessments shall assess the hazards plant/vehicle operators may encounter.
- All drivers shall be advised of high-risk or danger areas via the BYes site induction.
- Excavations will be protected by a physical barrier to prevent mobile plant over running into the excavation.
- Where practicable all mobile plant and delivery vehicles will be fitted with suitable tyres to address the terrain and weather conditions prevailing at the time of the works. (A suitable and sufficient amount of tread will be present as specified in manufacturer's specifications).

5.1.14 Laydown/Storage

All plant and vehicles will be unloaded on the site. The lay-down / storage areas are shown on the site set up drawing. The existing phase 1 building will be utilised. All deliveries will be directed to the BYes



site office then to the site storage area designated locations. Large scale materials or parts will be brought to site on a 'just in time' basis. Localised laydown areas will also be allocated to subcontractors at the work fronts.

COMPOUND AREAS:

- BYes shall endeavour to ensure that laydown/storage areas should have a separate pedestrian access, clearly identified; this includes access to offices and welfare facilities.
- Laydown and storage areas should provide enough space so as to allow delivery and FLT vehicles free and easy movement within.
- Materials are to be stored in designated areas only.

MATERIAL DELIVERY:

• All deliveries will be within the permitted hours of work (*working construction hours will be strictly in accordance with those set out in the planning conditions – unless otherwise agreed with planning authorities*).

Any abnormal loads that require a movement order will have all the relevant permits and authorisation applied for in advance

ROAD CLEANING - BRUSHING:

- If due to ground conditions, adverse weather conditions then road-sweeping operations are to be utilised as required to ensure that the site roads and any public roads affected externally are kept clean.
- A mobile power washer and lance will be used to clean any vehicle prior to leaving site that has been off the site roads or likely to cause dust or contamination of the public roads when leaving site.
- Environmental risk assessments should be carried out in order to identify risks and appropriate environmental control measures.

5.1.15 Special PPE

BYes operates a 5 point PPE policy as stated in BYES-CONT-HSE-G-624 (hard hat, LEP (Light Eye Protection), high-vis (with arms covered unless specifically risk assessed out for hot weather etc. (sleeves do not have to be high-vis), safety footwear, gloves (minimum cut level 3 unless specifically risk assessed out for specific tasks otherwise cut level 3 gloves must be worn on site). Where required, task specific PPE will be highlighted in specific RAMS. Activity specific PPE will be highlighted and implemented.

5.1.16 Noise

Where noisy activities are identified BYes' operating instruction BYES-CONT-HSE-G-6.11 Noise guide will be implemented. A noise assessment will be conducted; plant and equipment will be assessed to eliminate the noise at source. For works such as pre-cast driven piles the work area will be segregated with barriers and notices posted for "no unauthorised entry" and wearing of "ear protection".

Where applicable, BYes shall establish mandatory hearing protection zones around the site, dependant on site activities. These zones will be determined after BYes weekly recorded site noise monitoring is carried out by the site management team using 47 SSED138 General Site Noise Assessment. These noise assessments shall be kept as part of BYes site safety and environmental documentation set up.



This is in addition to task specific noise assessments which shall be carried out by either BYes site management or BYes sub-contractor supervision using 59 SSED146 Task Specific Noise assessments. These task specific noise assessments shall be attached to the specific task RAMS.

5.1.17 Vibration

Vibration monitoring will be carried out for the duration of piling works. Bouygues E&S recognise piling activities may have an impact and as such will be carrying out vibration monitoring at the nearest receptors as required.

5.1.18 Maintenance

All plant and equipment used on site will be maintained in good order and records kept in the Site Safety and Environmental documentation. These records shall include

- Hire company hand over certificates; records of thorough inspections etc.
- All mobile plant and equipment is to be inspected daily pre use checks and weekly recorded inspections.
- Planned maintenance of plant and equipment will be carried out in a designated area on an impermeable surface to prevent contamination/ pollution by spill or leak.
- In exceptional circumstances e.g. unplanned maintenance or repair outside the designated area temporary impermeable surfaces or drip trays will be deployed.

5.1.19 Falls from Height

BYes operates a hierarchy of control when working at height (BYES-CONT-HSE-G-6.16). Suitable risk assessments must be approved prior to the work being carried out. Stepladders are to be used only as a last resort and only after completing the specific Risk Assessment (SSED108). Collective protection is to be used in preference to personal protection.

Ladders: Not permitted on site

Ladders must only be used as a last resort and only with the express permission of the Bouygues EHS Manager subject to a comprehensive written task specified risk assessment and under permit (PTW). There are many proprietary mobile scaffolds available and it is only in situations where these are impractical that ladders will be permitted.

Scaffolds:

All scaffolding will be erected, dismantled and adjusted by competent scaffolders.

Advanced scaffolders will set out all scaffolds at base level

All scaffold will be built in accordance with manufacturers' instruction and TG 2013

Prefab stair units will be used in preference to ladders.

All scaffolds will be tagged using the 'ScaffTag' System, all access points will be secured out of hours. All scaffolds are be inspected before use, inspected after alteration or damage and weekly thereafter. The following rules apply

•Never interfere with a scaffold

•Report any obvious defects to your supervisor immediately

•Obey the signs, do not use scaffolds with "Scaffold Incomplete" signs. If a "ScaffTag" system is in use do not use unless the "ScaffTag" displays green safe to use card. The scaffold must not be used if the red card is displayed or if there is no "ScaffTag" on the scaffold. Always inspect the last recorded date

of

inspection if the Scaffold has not been inspected in the previous 7 days DO NOT USE THE SCAFFOLD!!



- Access scaffolds should be kept clear
- •Never climb up the outside of a scaffold, use the ladder access provided.

MEWPs:

•All operators must have received recognised training in operation of the MEWP and in particular the facilities for allowing manual lowering of the basket during mechanical / electrical failure of the unit. Proof of training to be copied to Bouygues EHS.

•A safety harness of the restraint type must be worn by all personnel in a MEWP, with the harness tied off within the MEWP cage

•Site adaptations (e.g. hop-ups) to the machine is strictly prohibited

•Certification of recent test and inspection must accompany all plant delivered to site – a recorded pre-use inspection must be carried out before first use and repeated every 7 days.

•All plant must be fitted with a plant identification decal – this will only be issued on receipt of test and examination certificate and pre-use inspection.

•Ground conditions comprise of an engineered piling platform – spreader plates may be required – always check ground conditions before lifting any machine to its operating height.

Preventing Falls - Roof Work including fragile roofs or materials

•Only personnel authorised by Bouygues are permitted onto the roof area- Permit to work system applies

•Only trained roofers / cladders are allowed to undertake roof work

•Obtain and follow the requirements of the Roof Access Permit

•Only approved certified access routes will be used, the location of access routes will be indicated on a site plan.

- •Edge protection is to be in place. Report any openings or unprotected edges to your supervisor immediately
- •Obey all signs and keep well clear of fragile roof materials and openings
- Unfixed materials will be secured against strong winds at all times
- •Collective Protection will always be given priority over personal protection measures.

•Nets will be used for all roof work

5.1.20 Access

All vehicular access to the site will be via the existing access from Ninth Avenue. All vehicles will be monitored and controlled by site security at the Gatehouse.

Access to the site compound will be segregated for pedestrian and vehicular traffic. These routes being clearly marked on the site plan. Safe segregated, pedestrian routes shall be maintained as per the site set up plan (Appendix C) and as a means of escape.

5.1.21 Headroom

Main Site: Not applicable.

5.1.22 Electrics

All equipment is to have current PAT certification. All site tools/equipment/lighting will be 110v via a transformer. Points of electrical supply within the area are to be agreed with the client and transformers to be supplied by the PC. Where external works are taking place local generator power may be utilised as required providing the equipment is placed on a drip tray.



5.1.23 Atmosphere

Not applicable.

5.1.24 Cold/Heat

Suitable welfare units with rest areas, changing areas and drying rooms will be provided. Contractors planning to deliver additional accommodation units to site must comply with standards imposed by BYes. Accommodation and storage units with services must comply with onsite rules in relation to installation certification, testing and inspection.

5.1.25 Lifting Equipment

For one-off heavy lifts such as the boiler installation a contracted specialist lifting contractor will be engaged. The contractor will provide lifting plans; risk assessments, Specific Risk Assessment Method Statement (RAMS), specialist certified lifting equipment (crane age) and a competent appointed person (AP) to supervise and control all aspects of the contracted lift.

Activities such as structural steel erection and the use of mobile cranes will be fully risk assessed, lifting plans and crane movements will be produced by the contractor. A suitably competent appointed person (AP) will supervise and control all lifts

All lifting equipment cranes and accessories will have current test certification, inspection and maintenance records available for inspection prior to entering the site.

5.1.26 Manual Handling

Any materials required to be handled by site personnel must be suitably risk assessed using SSED111. To assist in the assessment of manual handling please refer to BYES-CONT-HSE-G-6.7.

Equipment such as forklifts will be fully certified and operated by a competent trained person.

For the offloading, movement and installation of materials and equipment using mechanical aids (BYES-CONT-HSE-G-6.33) will be adhered to.

5.1.27 Load Bearing

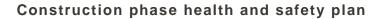
All new or existing modified structures are to be compliant with design and controlled through inspection in conjunction with the quality plan.

5.1.28 Confined Space

Confined spaces work e.g. work in trenches, tanks, vessels etc. will be subject to Permit to Work controls. Specific RAMS, Emergency procedures including rescue plans and systems will be put in place to control the works. Only competent, trained persons will work within these areas under a "Permit to Work" system. All equipment listed in the Method Statement must be on site and inspected before permit to work is issued.

5.1.29 Radiation

N/A





5.1.30 Biological Hazard

Weil's disease (Leptospirosis) is caused by an organism, which can be present in the urine of rats and other animals. This can contaminate water and thus present a possibility of infection to humans. The protection of operatives from waterborne diseases such as Weil's disease (Leptospirosis) and hepatitis is a potential issue to be addressed.

Gloves are to be worn at all times, report the presence of vermin on site. Cover all cuts or grazes, wash hands before eating drinking or smoking.

Materials such as bird excrement can also represent a biohazard. BYes shall address the potential for encountering these and other materials as part of our induction process.

We will discourage birds by covering all skips containing waste food. Canteens will be provided for the workforce. No eating in cars or vans.

5.1.31 Asbestos

BYes will ensure through the induction procedure that all operatives are made fully aware of the seriousness of locating any asbestos on site. If asbestos is suspected of being present then please refer to BYES-CONT-HSE-G-6.27. In principle stop work and report any suspected asbestos to BYes site management who will in turn notify the client.

5.1.32 Temporary Works

Temporary works include earthworks, structures and equipment and plant foundations would need to be managed and adequately controlled. To appropriately manage temporary works BYes will ensure the provision of a documented design brief and of a competent temporary works co-coordinator and supervisor. Temporary works register shall be maintained by BYes.

6. PROJECT PROGRAMME

6.1 The project programme: Tender document avalable (Appendix B, see note)

> Approx. dates for the works: Site occupation:

Commencement of works:

Practical completion/handover:

7. SITE LOCATION AND ACCESS

7.1 The site address is:

Enviroparks EfW Hirwaun Industrial Estate Ninth Avenue Hirwaun Aberdare CF44 9YN

7.2 A site set-up plan may be found in Appendix C.



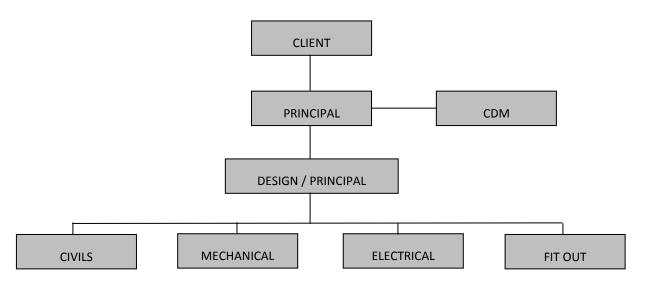
7.3 Site parking is as per the Site Plans in Appendix C.

8. WELFARE FACILITIES

- 8.1 The welfare and storage facilities for both sites will be located adjacent to the construction sites, indicated on the site plan in Appendix C.
- 8.2 All contractors will be responsible for providing adequate and suitable first aid for their personnel. Details of the named person(s) and location of the first aid facilities will be clearly displayed. BYes will also provide first aid. Named personnel and contact details will be found on SS101.
- 8.2.1 Toilet and washing facilities will be installed before work starts on site and will be maintained by BYes throughout the contract.
- 8.3 All workers / visitors to the site must undergo a site induction which will identify the procedures in place in the event of an emergency evacuation. Upon hearing an alarm operatives should make their way to the agreed muster points where BYes will use the daily site attendance register (SSED123) as a roll call.

9. OVERALL CONTRACT ORGANISATION

9.1 Organisational Chart





9.2 Details of the Client, Designers, CDM Coordinator

Client:	Enviroparks (Wales) Limited
Contact:	Simon Forshaw
E-mail:	Simon.forshaw@zeusrenewables.co.uk
Project Manager:	Royal HaskoningDHV
Contact:	James Heath
E-mail:	James.Heath@rhdhv.com

Principal Designer:	Bouygues Energies & Services Ltd One Didsbury Point 2 The Avenue Didsbury Manchester M20 2EY
Contact:	Zeb Ahmed - 07772117721
E-mail:	Zeb.ahmed@bouygues-es.co.uk

Principal Contractor	Bouygues Energies & Services Ltd One Didsbury Point 2 The Avenue Didsbury Manchester M20 2EY
Project Director:	Simon Whitehouse
E-mail:	Simon.whitehouse@bouygues-es.co.uk
Project Manager:	TBC
Contact:	N/A

Designer:	JPG (Leeds) Limited



Director:	Kim Han
Contact:	07775835063
E-mail:	kim.han@jpg.group

CDM Coordinator:	Bouygues Energies & Services Ltd One Didsbury Point 2 The Avenue Didsbury Manchester M20 2EY
Contact:	Greg Hamill
E-mail:	greg.hamill@bouygues-es.co.uk
Civils Contractor:	Dawnus Limited
Lee Davies (Regional	LeeDavies@dawnus.co.uk
Manager)	Contact : 01685 814748

Project Directory included as an appendix

10. BOUYGUES E&S CONTRACTING UK LTD PROJECT ORGANISATION

10.1 Appendix D

11. CONSTRUCTION PHASE PLAN IMPLEMENTATION

- 11.1 The effective implementation of the Construction Phase Plan is the duty and responsibility of the Project Manager / Design / Project Engineer. The site manager is responsible for safety on site.
- 11.2 Any accidents or incidents occurring shall be reported immediately to the client and BYes' HSE Manager. All accidents and incidents must have appropriate remedial action taken and recorded. RIDDOR events shall be reported to the HSE by the BYes Infra HSE Manager.
- 11.3

Everyone involved in the project (including workers) has a duty to report instances where they or others are working in a way that puts them or anyone else in danger. Any instances must be reported to the Site Manager in control of the work. The Site Manager in control should encourage workers to stop work and report dangerous conditions when they see them.

12. PROJECT STAFF RESPONSIBILITIES

BYes staff responsibilities are defined by industry standard definitions, in documented procedures, task instructions and, where appropriate, job descriptions.

12.2 BYes' Application of the Construction (Design & Management) Regulations 2015

Cross-References:

Construction (Design and Management) Regulations 2015 Industry guidance for Clients (PDF, 436 KB) Industry guidance for Contractors (PDF, 586 KB)



Industry guidance for Designers (PDF, 718 KB) Industry guidance for Principal Contractors (PDF, 717 KB) Industry guidance for Principal Designers (PDF, 150 KB) Industry guidance for Workers (PDF, 150 KB) HSE management procedure BYES-CONT-HSEP-2.5 – CDM Regulations

Who's responsible for what under Construction (Design & Management) Regulations 2015

The Client –has overall responsibility for the successful management of the project and is supported by the CDM Coordinator and principal contractor in different phases of the project. Specific duties are:

- Notify the project to the enforcing authorities (F10 form Appendix E).
- Appoint a competent CDM Coordinator/ Principal Designer.
- Provide pre –construction information to help with design and construction planning to designers and contractors.
- Appoint a competent Principal Contractor.
- Ensure that the CDM Coordinator /Principal Designer or designer has the capability and necessary skills, knowledge, training and experience to fulfil their duties.
- Ensure that the Principal Contractor has the capability and necessary skills, knowledge, training and experience to fulfil their duties.
- Identify and agree with the CDM Coordinator /Principal Designer the structure, content and format for the health and safety file.
- Ensure that the construction phase does not start unless there are suitable welfare facilities, and construction phase plan in place.
- Allow sufficient time and resources for all stages.
- Ensure the management arrangements are working.
- Maintain and make available the health and safety file.

The CDM Coordinator (and in transition to Principal Designer) - has an important role in influencing how the risks to health and safety should be managed and incorporated into the wider management of a project – specific duties are:

- Assist the client in identifying, obtaining and collating the pre-construction information.
- Provide pre-construction information to designers, principal contractor and contractors.
- Identifying, eliminating or controlling foreseeable risks.
- Ensure that designers comply with their duties and co-operate with each other.
- Ensure adequacy of the pre-construction information and design information during the construction phase.
- Liaise with the principal contractor and share with the principal contractor information relevant to the planning, management and monitoring of the construction phase and the coordination of health and safety matters during the construction phase.
- Ensure that all designers receive any health and safety related questions or queries from the principal contractor regarding the design.
- Prepare the health and safety file.
- Ensure that the health and safety file is handed over to the client.

The Designer – specific duties are:

- Make the client aware of their duties under CDM.
- Prepare and modify designs for safety and health.



- Eliminate, reduce and control risks through design taking into account the general principles of prevention of any potential health and safety risks which may affect workers, or anyone else who may be affected during construction. Including those who may maintain or clean the building once it is built and those who will use the building as a workplace.
- Co-operate with the client, other designers, the principal designer other interested parties.
- Ensure that when arranging for any other Designer to prepare designs that they have adequate knowledge, experience and skills.

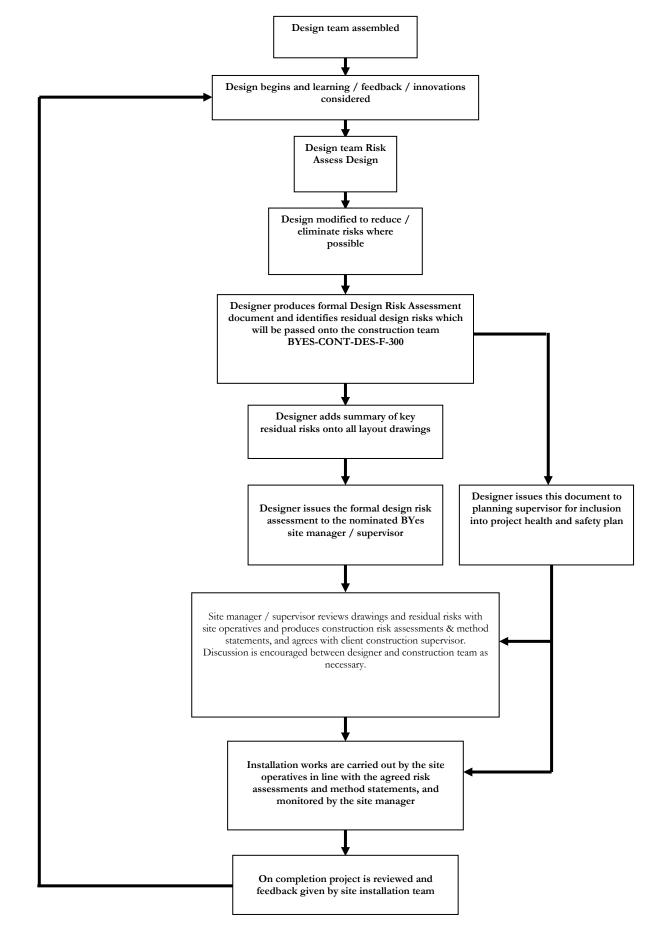
The Principal Contractor – has the overall charge of the construction phase. Specific duties are:

- Liaise with the other duty holders.
- Manage the construction phase.
- Prepare the construction phase plan.
- Ensure welfare facilities are provided.
- Provide a site induction.
- Secure the site.
- Appoint contractors and workers.
- Provide the right management and supervision.
- Engage contractors and workers.
- Monitor the risks on site.
- Contribute to the health and safety file.

Contractor - has duty to comply with directions given to them by the principal designer and principal contractor. Specific duties are:

- Co-operate with the duty holders.
- Comply with directions of Principal Contractor and the rules in the health & safety plan.
- Provide the right supervision.
- Provide the Principal Contractor with information relevant to the health & safety file, (e.g. Drawings, specifications etc.); relevant to health & safety, (e.g. site inspections, system audits, risk assessments, method statements, records of training or competence etc.); relevant to RIDDOR (i.e. reporting of accidents).
- Provide information and training to employees.
- Ensure that their sub-contractors are competent and adequately resourced for health & safety.







13. SELECTION OF SUBCONTRACTORS/SUPPLIERS

- 13.1 The Group Manager and / or the Project Manager will vet all subcontractors and suppliers used from the approved sub-contractors database.
- 13.2 BYes maintains an approved database of subcontractors and suppliers which is based on contractors who have provided a historically good service to BYes and its clients. Where possible, sub-contractors and suppliers on this contract will be drawn from this list. New subcontractors must successfully complete our Subcontractor / Supplier Questionnaire BYES-CONT-PUR-F-302 or BYES-CONT-PUR-F-400) and be vetted before being allowed to work on this project. Preference is given to CHAS registered contractors.
- 13.3 BYes will only use subcontractors who have trained and competent personnel. Where applicable, we shall ensure that operatives have training certificates available for inspection e.g. welders, electricians, scaffolders, crane & plant drivers. Training must include IPAF, PASMA, asbestos awareness etc.
- 13.4 BYes will check that plant and equipment used on site has the necessary documentation, where applicable, e.g. cranes, slings, fork lift trucks, etc.

14. CLIENT'S SAFETY REQUIREMENTS

- 14.1 The site manager must attend (the client's) site induction course which outlines site rules for contractors. This will enable our site manager to include and pass on the salient points from the client induction into our own.
- 14.2 For the duration of the project, Enviroparks (Wales) Limited will hand over the work area to BYes who will in turn implement Safe Systems of Work, Permit to Works (PTW) controls, monitor and measure safety performance. A full list of permits is included as an appendix.
- 14.3 BYes staff will check if the client has any other specific safety requirements i.e. site restrictions, security arrangements, times of working, etc.

15. SAFETY EQUIPMENT AND SAFETY AWARENESS ON SITE

- 15.1 The client will send the necessary notification of commencement of work to the Health and Safety Executive and ensure that a copy of the F10 (Appendix E) is posted on site.
- 15.2 Competent First Aider(s) to be provided with first aid arrangements displayed using not exclusively BYes SS101 Emergency Services document. First Aiders to have completed minimum 3 day course with HSE recognised provider. All sub-contractors to provide at least one trained first aider.
- 15.3 A construction fire plan will be put in place and include trained Fire Marshals. They will in turn complete and display the fire action arrangements notice with assistance from BYes QSE team. BYes shall carry out fire/emergency drills on a regular basis taking into account new personnel/sub-contractors on site.



15.4 In addition with the Environmental Aspects and Impact Register created for the project which highlights potential emergency situations the Environmental Emergency Plan shall be completed and posted in appropriate locations.

Environmental Compliance Register to be completed to ensure all relevant environmental legislation is complied with.

15.5 All site personnel must receive a full BYes site induction upon arriving on site: 08 SSED104 BYes site induction presentation. All visitors to site may receive the BYes visitors' site induction: 09 SSED105 BYes visitors site induction presentation.

Our site Health and Safety manager will deliver induction training to all operatives, staff and visitors to the site.

Site inductions will be conducted as follows: Monday, Wednesday & Friday at 08:30

All are required to complete the site induction questionnaire and submit any relevant trade/skill cards/certificates so that copies can be taken. They must state time served in their respective trades along with training certification to show levels of competence.

Site induction application forms will be issued electronically – to be completed and returned before induction takes place.

15.6 All employees are to wear, as a minimum, safety head wear (hard hats), Light Eye Protection (minimum BS EN 166 F class 1 optics for general site activities) hi-visibility vests (long sleeve clothing, although this does not have to be high-vis, no shorts), gloves (minimum cut level 3 unless specifically risk assessed for tasks) whilst within the BYes working area. Other safety equipment is to be worn as stipulated by legislation.

Task specific PPE in addition to that stated above may be required. This will be identified within the task specific RAMS.

- 15.7 It is a requirement that workers are aware of the specific risks to themselves and others whilst carrying out work on site. Before any work is undertaken on site, our site manager will ensure that workers are aware of any specific risks. Formal review of RA/MS and operative acceptance sheet to be completed (SSED107). Before any RAMS are accepted and sub-contractors are authorised to work on site: 19 SSED114 Sub-contractor Risk Assessments Authorisation shall be completed highlighting any amendments required.
- 15.8 BYes will undertake formal safety inspections using our Safety and Environmental inspection at fortnightly intervals (SSED125).
- 15.9 Our safety auditing officers will visit site at agreed intervals to carry out independent audits (BYES-CONT-HSE-F-4.5) on site safety and will participate in client safety meetings as required.
- 15.10 Training and awareness sessions will be arranged to ensure that all employees and subcontractors are kept informed of affecting legislation and are continually made aware of their PERSONAL responsibilities with respect to health and safety.
- 15.11 BYes will arrange regular project health & safety meetings (exact dates to be confirmed but otherwise to be held on a monthly basis) using: 31 SSED124 Site Safety Meeting minutes. Invitations shall be sent to elected safety representatives from each sub-contractor working on site as well as is usually the case the client, CDM-C/PD (this is not a comprehensive list of invitees).



The meetings look to highlight health & safety issues on site, review accidents/incidents/near misses on site, monthly health & safety reports, and compliance with health & safety rules on site, safe act cards that have been submitted, environmental issues and ideas and innovations.

- 15.12 Tool box talks will be carried out at regular intervals on site, covering both site specific issues and pre-scheduled topics as per Byes' programme.
- 15.13 Employees and sub-contractors will be encouraged to raise health and safety issues and concerns, unsafe conditions and hazards with the Site Supervisor and Project Manager on an ongoing basis and during toolbox talks.

15.14 ARRANGEMENTS FOR DISCIPLINE

Bouygues have disciplinary systems in place for both direct employees and those of Subcontractors employed on our sites. Our direct employees are subject to the Company disciplinary rules that are enforced when a breach of the standards may be subject to disciplinary action. A breach may result in the following:-

- (a) Verbal Warning
- (b) Written Warning
- (c) Final Written Warning
- (d) Dismissal, either with or without notice.

In the case of Sub-contractors' employees we adopt a three strike rule process Any behaviour considered to be in breach of health and safety standards may be subject to disciplinary action, which will result in the 3 Strike Rule procedure being implemented:-

- 1st strike (1st letter to employer)
- 2nd strike (2nd letter to employer)
- 3rd strike (removal from site work area and phone call to employer followed by 3rd letter)

If an individual receives 3 strikes in the two year period leading up to the third strike they will be removed from site at the discretion of the Contract Director. A full report is completed by the Contract Manager detailing the circumstances of the three strikes, and submitted to the Contract Director.

Site Rules

• All contractors, employees & visitors will be required to comply with the requirements detailed in the site Health & Safety Plan.

- All contractors & visitors to sign in/out of visitor's book.
- All contractors & visitors must be inducted prior to entering or working on site.
- Contractors are to have a nominated H&S representative, First Aider and Fire Warden.

• PPE – In line with BYes 5 point PPE policy: Head protection, Light Eye Protection, High Visibility clothing (arms to be covered, although these do not have to be High vis), hand protection minimum cut level 3 and safety footwear Class S3. This is the minimum required standard on site unless specifically risk assessed otherwise compulsory for all personnel. Additional PPE such as ear and eye protection may also be required.



• Smoking will only be allowed in the designated smoking areas within the compound; smoking is not permitted in any building or enclosed area or where food/drink is prepared or consumed this includes the use of e-cigarettes.

• No alcohol or non-prescribed drugs are to be brought onto the site. Any person under the influence; or suspected of being under the influence of alcohol or non-prescribed drugs will be dismissed from site; further disciplinary action may follow.

• No one should operate plant or equipment for which they are not trained and on possession of a current competence certificate for the plant or equipment.

• No one should interfere with, alter or remove scaffolding components or boards. If there is a problem, raise it with the Site Manager.

• Mobile tower scaffolds are to be erected / altered by a competent person.

• Ladder & stepladder work must be of short duration and suitable for work from a ladder. The ladder must be secured or footed.

• Welfare facilities are available for all site workers. These should be respected and kept clean and tidy.

• Any injury, incident or near miss situation should be reported or brought to the attention of the Site Manager as soon as possible.

• Dress Code: wearing of shorts and exposure of the upper body is forbidden.

• Contractors are responsible for keeping their work area clean, tidy and appropriately maintained. A "Clean as you go" policy is in operation. Rubbish is not to be burnt.

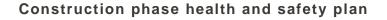
• Dust, noise and light pollution is to be strictly managed.

• Consideration is to be given to our neighbours and the public, loud, foul or abusive language will not be tolerated.

• Mobile Phones: only used in designated areas or by designated users.(Permit only)

• Do not take chances. If you are not sure, ask!

- Cameras/ Video/ Phones are not permitted on site
- Lighters or matches are not permitted on site
- All operatives and crafts people entering the site need to be able to understand the language and signage in place. In the event that employees have poor or no understanding of English, the operative's employer is required to have an interpreter / translator on site to facilitate safety inductions and normal day to day communication. The numbers of translators required for each employer will be determined on a case by case basis by BYes site management
- All electrical work contractors to be aware that IP 67, 3 phase volt sockets are to be used as opposed to IP 56 sockets
- Certain types of skips are prohibited for use on BYes sites, this will be advised at induction stage
- Keep your place of work, canteen and storage areas in a tidy state and clear of rubbish
- Keep access routes clear of obstruction
- Observe all site rules and hazards and safety warning signs and notices on site
- Place all waste / debris only in designated containers or areas
- Comply with all Permit to Work conditions issued by Sisk
- All ladders must be secured or footed
- Observe site speed limits max 10mph 5mph at crossing points
- Canteens and toilets to be kept clean at all times
- Operate a "clean as you go" system. A clean site is a safer site
- Provide bunding for chemicals and fuel
- All Hazardous materials to be stored / handled and disposed of in accordance with MSDS/ COSHH Assessment
- Report all injuries and dangerous occurrences to your own supervisor



- Wear a safety belt when driving plant
- Do not operate mechanical / mobile plant unless you are specifically trained with a recognised ticket
- Do not travel on mobile plant unless you are the operator or a proper seat belt is fitted
- Do not throw any items from a height or scaffold
- Do not alter scaffolding or scaffolding towers or remove barriers erected for the protection of openings and edges without the expressed permission of Sisk
- Do not use damaged tools or access equipment
- Do not remove guards from tools or machines
- Do not change abrasive / cutting wheels unless you are trained
- Do not make connections to services without authorisation from Sisk
- Do not enter confined spaces and excavations without proper detection and escape devices
- Do not drink Alcohol or take un-prescribed Drugs
- Do not eat food in drying rooms
- There are NO PETROL GENERATORS allowed on site
- Every person entering this site must be pre-inducted by their own employer at this time they will sign off their employer's Safety Statement and Method Statements. Sub-contractors employees must be inducted by Sisk Safety Officer
- All new starts or students to be with 'buddy' or safety officer until they are familiar with dangers and controls
- Back support is required for all seating in Welfare facilities
- Personnel are not allowed to be carried in / on goods hoist
- Harnesses are mandatory when working in hoists

Hand and Power Tools: Pre- use inspection before all tasks.

- Do not use any tools or equipment unless you are trained i.e. abrasive wheels, cartridge tools and wood-working machinery
- Report defects or damage to your supervisor. Damaged tools must not be used
- Do not interfere with guards or safety devices
- Ensure that you are wearing relevant PPE i.e. eye and ear protection, respiratory protection and gloves as necessary
- Tools should be securely held during operation

The following is strictly prohibited:-

- The display of calendars, photographs, or other material which could be perceived by either male or female as offensive, is strictly prohibited

16. METHOD STATEMENTS

- 16.1 The sequence of construction and installation will be indicated by the programme and by the design drawings. Specific activities which present a potentially greater risk will require method statements to be prepared using document SSED108.
- 16.2 Each Sub-Contractor will be required to submit appropriate documentation which includes site specific risk assessment and method statement (RAMS) which includes control measures required for elements of their work. RAMS must also consider coordination with other trades.

The Method Statement/Risk Assessment (RAMS) must be submitted no less than 7* days prior to starting work, for evaluation by Bouygues site management prior to any work commencing

BOUYGUE



and be specific to the project. A written Method Statement must be submitted for ALL operations. No deviation from Method Statements is permitted without referring to BYes site management and a revised statement produced.

All risk assessments are to be completed on an approved Method Statement Template and will be critically reviewed by the site team – Only on receipt of Method Statement Approval may operations commence. Work on site without an approved method statement will be stopped. Method statements will be prepared for this specific contract for any hazardous or high risk activity and issued for approval no later than two days prior to work commencing. All Risk Assessment Method Statements will be reviewed by Bouygues on review completion authorisation will be issued. Work must not start until all safety documents have been approved by the site team. The site manager is to keep a record on site of all method statements during the construction period.

17. COSHH AND RISK ASSESSMENTS

- 17.1 Prior to starting works on site BYes shall ensure that relevant Risk assessments/method statements are completed, briefed and where applicable reviewed on a regular basis for items including but not wholly consisting of site security, traffic management, first aid, fire and emergency situations and environmental.
- 17.2 COSHH assessments for all hazardous materials that are to be used on this contract are to be attached when the risk assessment is issued for approval. All necessary precautions to prevent or control the risk will be taken.
- 17.3 Risk assessments will be prepared for this specific contract and issued for approval no later than two days prior to work commencing. The site manager is to keep a record on site of all risk assessments during the construction period. All necessary precautions to prevent or control the risk will be taken.
- 17.4 Additional risk assessments will be produced and issued as and when necessary.

18. INSPECTION RECORDS AND SAFETY REPORTING

- 18.1 Details of specific approvals or inspection requirements not covered above but required as part of this contract are detailed below:
 - Daily pre-start inspection of all plant and equipment
 - Weekly recorded inspections of all plant and equipment
 - Daily inspections of excavations/ weekly recorded
 - Daily inspections of all fixed scaffolding / weekly recorded
 - Daily inspections of all roads and access routes
 - Weekly Health, Safety and Environmental report from all contractors
 - Weekly tool box talk all contractors

No additional requirements at time of printing.

18.3 BYes shall where requested to do so provide reports on health & safety and environmental matters on site. Content to be confirmed.

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- BYes shall report all incidents, accidents, environmental incidents via: 29 SSED122 Accident Reporting form.
 BYES-CONT-HSE-P-3.7 Accident Incident management Accident/Incident Investigation form to be used in the event of a RIDDOR reportable incident.
- 18.5 BYes shall carry out site safety inspections, senior management tours, QSE site Audits as set out in 39 BYES-CONT-HSE-P-4.1

Monitoring and Auditing responsibilities

Daily Monitoring

Daily monitoring is carried out by all members of the site management team. Remedial action from this type of monitoring is usually instantaneous.

Weekly Auditing

Weekly monitoring is carried out by the site safety officers. The audit is formally copied to all concerned and action progress tracked during site safety meetings. All actions must be closed out by the appropriate persons.

Monthly Auditing

Regional safety managers carry out monthly audits. These audits are divided equally between the physical site and the safety management system. These monthly audits are scored. This enables comparison with pre-determined targets, peer comparisons and performance trend projections. The results of these audits are used as the basis for safety league tables, all the sites are compared according to set criteria and the results published in league table format and displayed on all sites. The audit report is distributed to the project director. The sites must action all non-conformances and return a signed off copy of the close out to the safety department within two weeks. Results of all audits nationally are summarised for the Board of Directors and discussed at the monthly board meeting.

Project Communication

Effective lines of communication will be established through the Project directory. As Principal Contractor, Bouygues Director in charge will ensure that the Contracts Managers, Designers, the Clients Team and Project Engineer, CDM Co-ordinator, Subcontractors, Safety Advisors and other participants in the project are kept up to date with changes, progress and events. In addition

The communication protocols are as follows

1. All communication regarding contract administration, submittals, site issues etc. Directly from Bouygues to Colin Martin and Brian Needham (Fichtner Project Managers)

2. All communication regarding wider project related issues, site visits, stakeholder management, stakeholder meetings should be directly from Bouygues to Orla Carew and Grant Carmichael

Design Team

The Design Team is given in the Organisation Chart included as an appendix.

Design Management and Control



The Company's procedures for managing and controlling design include provisions for assessing the competence of designers; appointment of designers including S/C's with design; programming design activities to meet the Contract Programme; and for co-ordinating the review, approval and issue of drawings for use.

Design Programme/Information Required Schedule

The Design Programme and a Schedule of Information Required from the Design Team are based on the Contract Programme and released by the Contracts Manager.

Design Team Meetings

Design Issues are dealt with at Design Team Meetings. These will take place fortnightly; a schedule has been prepared and will be issued via 4P.

Design Responsibility Register

The Design Responsibility Register is maintained by Jonathan Airey Risk Assessment Register is held by Greg Hamill

Consultation with the workforce

Appropriate means of effective two way consultation on this project will be implemented by the Byes site management team.

At least one method of consultation will be selected for each level.

- Project level
- Work gang level- Task Briefings
- Individual level- Safety Conversations

The Contracts Manager can from time to time vary the chosen method of consultation to suit project conditions.

Regular site meetings with representatives from subcontractors will be held to discuss, amongst other items health and safety issues relating to the site. The results of these meetings will be communicated to subcontractors' employees via their supervisors and foremen.

All site personnel are informed in their induction that any concerns or recommendations for improving Health and Safety on site should be made to the Contracts Manager or other management representative.

Employees' Responsibilities

Report any accident incident or near miss

Comply with site safety rules and measures in place for their protection

Comply with reasonable instructions

All employees must treat each other with dignity and respect, all are encouraged to make safety interventions and respond to safety interventions by others.



Employees must not commit acts of bullying or harassment against any person – such behaviour will not be permitted or condoned. Any employee who is aware of any incidence of harassment or bullying should alert a manager or supervisor to enable us to deal with the issue.

Open Door Policy

Many workers like to raise concerns direct with the site management but could feel that their concern will not be taken seriously or will lead to them being labelled as a troublemaker. An open door policy where workers are invited to speak directly with members of the site management team will be actively implemented on this site. A 'No Blame' policy will be operated by the site safety teams. In an effort to promote reporting of safety concerns.

19. CLIENT INSTRUCTIONS, CORRESPONDENCE AND DRAWINGS

19.1 All client issues of drawings, site instructions, variation orders and correspondence are requested to be issued to BYes' office:

Bouygues Energies & Services One Didsbury Point 2 The Avenue Didsbury Manchester M20 2EY

19.2 Action cannot be taken on verbal instructions alone.

20. RETENTION OF PROJECT RECORDS

20.1 Records will be kept in accordance with the BYes quality system and will be retained for six years after our contract works are completed.

21. REVIEW OF THE CONSTRUCTION PHASE PLAN

- 21.1 This construction phase plan will be reviewed at weekly project meetings. Shortfalls and excessively demanding elements may be amended at this time.
- 21.2 The construction phase plan will also be under constant review by the Project Team.
- 21.3 If amended, the revised construction phase plan will be issued to all holders (Controlled copies only) with instructions to destroy previous copies.
- 21.3 Please note this is a live document and will continue to evolve and amend over the course of the project.

22. HEALTH AND SAFETY FILE



Arrangements for collecting and storing information for inclusion in the safety file to be agreed by the Client, CDM Coordinator and Principal Contractor. Information to be included in the Health & Safety File will be agreed with the Client. Information

will include but is not limited to:-

- As-built records, including drawings and plans
- Details of materials used
- Test certificates, product data sheets and COSHH data sheets for all materials, plant and equipment installed
- Details of all utilities and services including emergency and firefighting systems
- Any statutory documentation
- Completion certificates
- Design criteria
- Residual hazards
- Contact details for all contractors, sub-contractors, suppliers and manufacturers
- Copies of any guarantees, warranties or reports called for by the specification
- Operating and maintenance instructions for equipment and systems installed
- Copies of any consents or approvals obtained
- Hard copies of ALL waste consignment notices where appropriate.
- Any other information

This information will be collated by BYes as it becomes available during the construction phase.

23. DESIGN & DOCUMENT CONTROL

- 23.1 All design information distribution will be controlled via 4 Projects, the online collaborative working software being used throughout the project. The relevant parties will be notified via email of documents/drawings awaiting their review or approval. When a drawing/document is uploaded to 4Projects for Preliminary, Construction or for Tender issue it will be entered into a workflow. Once in the workflow the necessary parties are invited to mark-up, comment and vote upon the status of the drawing (Status A: Approved, Status B: Approved with Comments or Status C: Rejected) the Design Manager then collaborates the comments and has the casting vote.
- 23.2 Fichtner Consulting Engineers, the client's representative engineer, will review all documentation detailed in Schedule 02A of the contract documents and provide their comments to BYes.



APPENDIX A - SITE WASTE MANAGEMENT PLAN (SSED127)

PLEASE REFER TO ATTACHED DOCUMENT – APPENDIX A

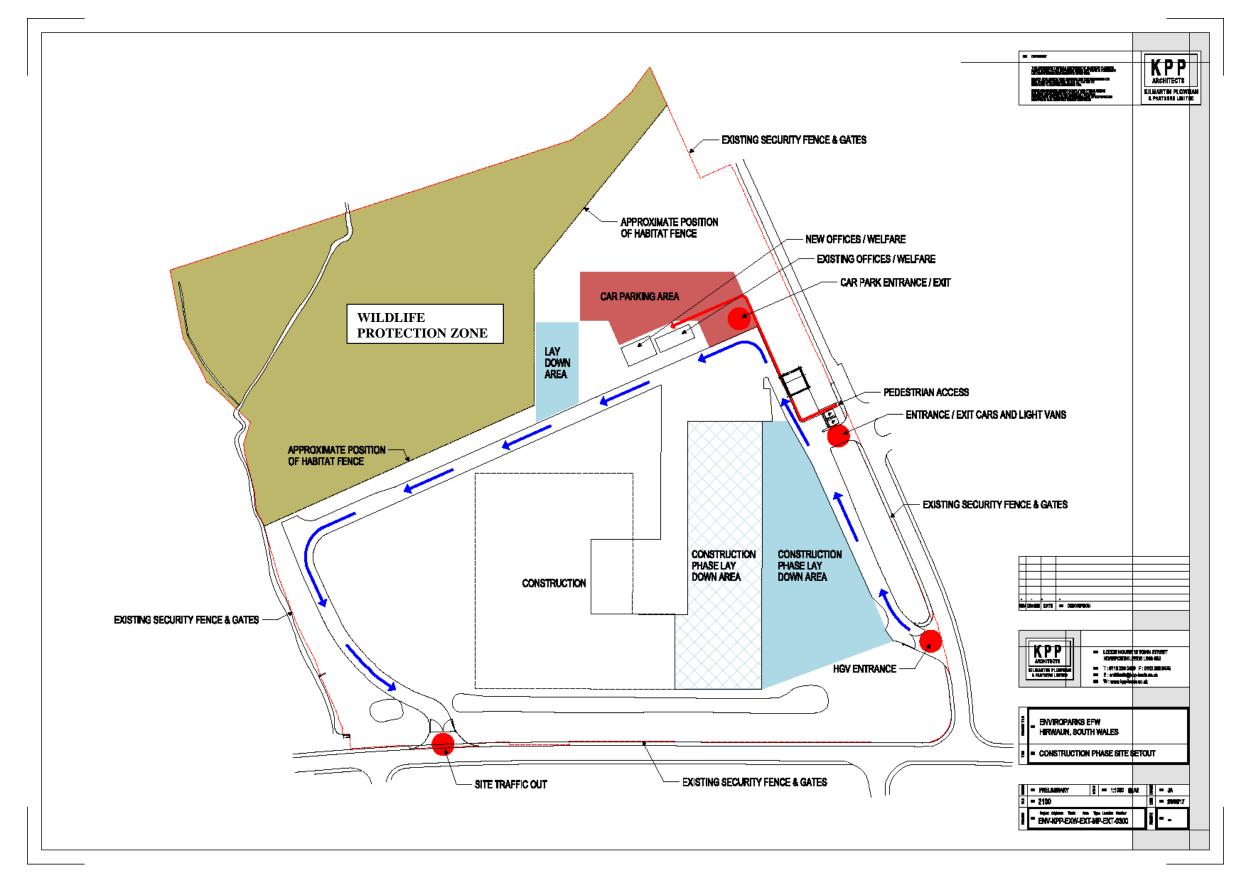
APPENDIX B - PROJECT PROGRAMME

PLEASE REFER TO ATTACHED DOCUMENT – APPENDIX B





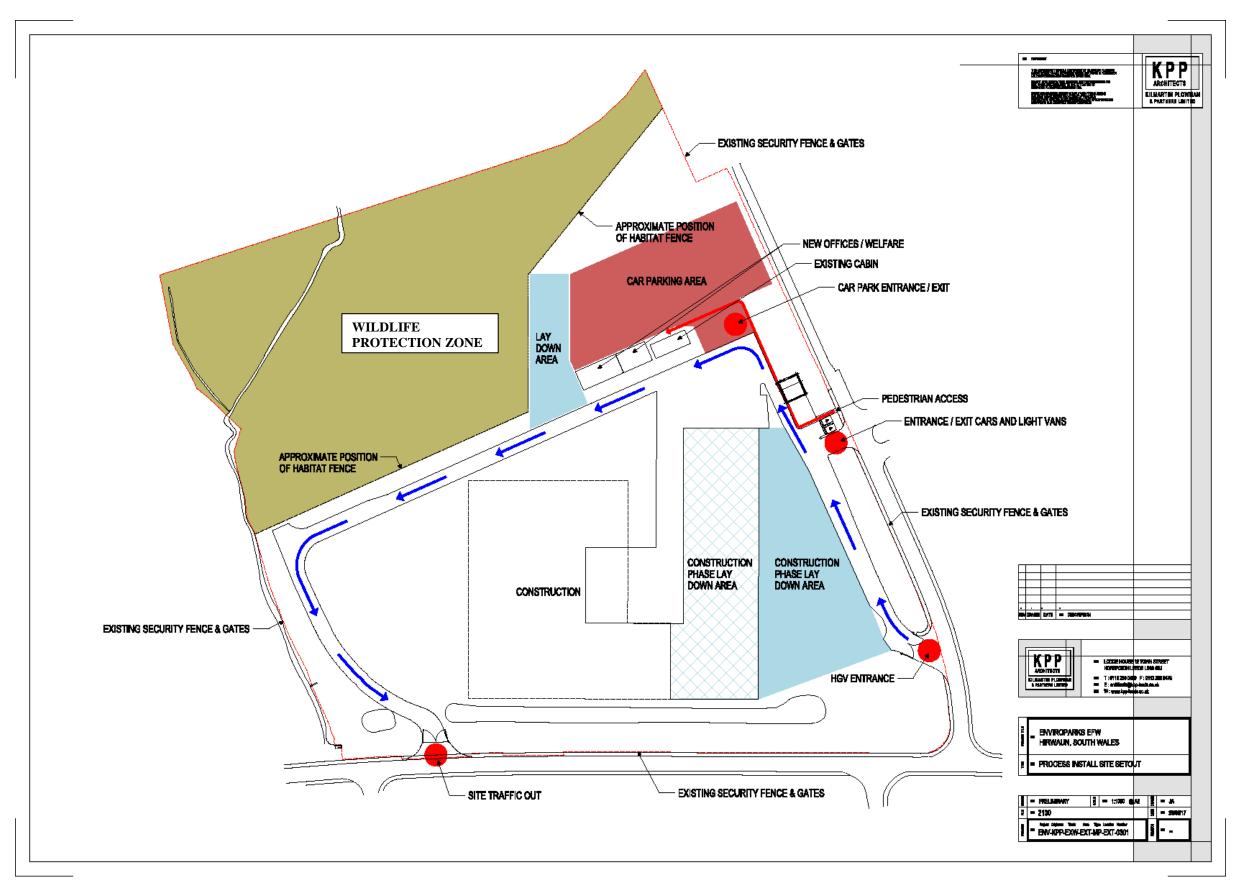
APPENDIX C - SITE SETUPS & ON SITE TRAFFIC MANAGEMENT PLANS



CONSTRUCTION PHASE SITE SETOUT



PROCESS INSTALL SITE SETOUT

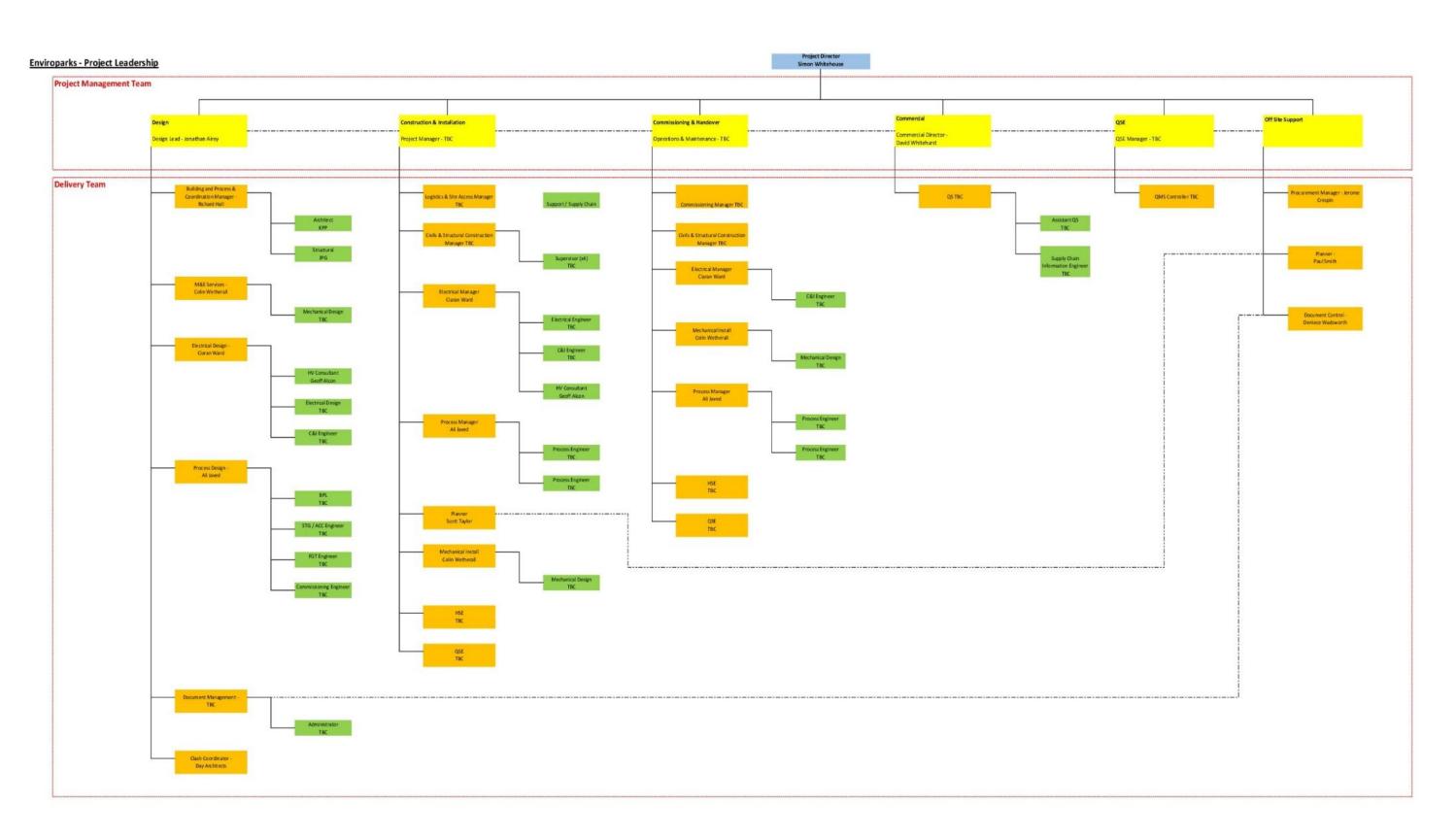


Bouygues Energies & Services

Construction phase health and safety plan



APPENDIX D - PROJECT ORGANOGRAM



APPENDIX E - F10



Health and Safety Executive

Notification of construction project

Notification No 72BF88029D Date Submitted 03/04/2017 12:20:12

Notification type This is an UPDATE to a previously submitted notification

About the location of the site

Address of the construction site	Enviroparks Hirwaun Fifth Avenue Hirwaun Industrial Estate ABERDARE Mid Glamorgan CF44 9YN
In which local authority is the site address (Country, Geographical Area and Local Authority)?	Wales, Wales, Rhondda, Cynon, Taff UA

About the project

Description of project	New Build - Commercial - Factory		
Time Allowed by Client (in weeks)	120		
Start date	03/07/2017	Duration (in weeks)	120
No of people on site	150	No of contractors on site	20
Description of the construction work	Construction of a waste to energy gasification plant. Phase 1 which involved the construction of a fuel preparation hall, gatehouse and associated infrastructure was completed in March 2016. Phase 2 involves the construction of a fuel storage hall, gasification hall, turbine hall, HV sub- station, balance of plant yard and further additional infrastructure. It also includes the installation and commissioning of the fuel preparation and gasification plant and the exhaust stack.		

About those involved in the project

Role	Contractor	Name	Dawnus Construction Ltd - Lee Davies
Email	leedavies@dawnus.co.uk	Phone no	01792781870
Address	Unit 1-7 Dyffryn Court Riverside Business Park Swansea Vale SWANSEA SA7 0AP Wales		

Role	Designer	Name	Western Power Distribution Ltd - Gavin Rogers
Email	garogers@westernpower.co.uk	Phone no	02920 535356
Address	Lamby Way Cardiff CF3 2EQ		





APPENDIX F - EMERGENCY SERVICES DOCUMENT (SS101)

uygues Energies & Services hergency services	BOUYGUES		
Our site address:	Emergency numbers for:		
Bouygues Energies & Services Site Office	Fire: 01443 232000 (local) / 999		
Ninth Avenue	Ambulance: 01685 721721 (local) / 999		
Hirwaun	Police: 999		
Aberdare CF44 9YN	Gas: 0800 111 999		
	Electric: 0800 6783 105		
Tel no. TBA			
	Water: 0800 052 0130		
Adjacent to the gatehouse. Nearest casualty hospital: Prince Charles Hospital, Gurnos, Merthyr Tyd Telephone no. 01685 721721 Site safety representative TBA Contact no.	dfil, CF47 9DT		
Name of First Aider: Richard Hal	и		
Available at: Site Offices			
Contact no: 07772 11 77 55			
Name of First Aider: TBA			
Available at			
Contact no:			

Approved by: Managing Director	Issued: Jan 2014	Issue: 2
Owned by: HSE Manager	Doc ref. : SS101	Date printed: 03/05/2017