

Englemere Rehabilitation Centre Site Logistics & Site Movement Plan

Introduction

The day to day running of a construction site has to be managed effectively so it doesn't have any adverse effects on the actual main works, we will be looking at the best solution for the site logistics which involves the movement of materials, plant and any equipment required for the project. This is outlined in Part 4 duties relating to health and safety on construction sites Regulation 27 Traffic routes of the Construction and management Design 2015 guidelines states the following: "Item 1 A construction site must be organised in such a way that, so far as is reasonably practicable, pedestrians and vehicles can move without risks to health or safety" (HSE, Guidance to CDM 2015, p54). Further to this Item 4 states that each traffic route indicated by suitable signs where necessary for reasons of health and safety, regularly checked and properly maintained" (HSE, Guidance to CDM 2015, p50).

Appendix A is showing phase 1 of the works, Site remediation and piling mat and site set up phase 2 Base build showing the central access road into site and traffic directions, they also show the site set up and information relating to the site plan, that is referred to in the answer

Site Security

One of the pedestrian gates is for access and egress and is fitted with a digital Lock and the two other gates are emergency exits gates, fitted with panic bars and break glasses, these are padlocked overnight. This is noted by the CDM guidance on regulations in 'Part 4 Regulation 31 Emergency routes and exits': "Where necessary in the interests of the health or safety of a person on a construction site, a sufficient number of suitable emergency routes and exits must be provided to enable any person to reach a place of safety quickly in the event of danger." (HSE, Guidance to CDM 2015, p56). On all the sides of the hoarding signage will be installed making the public, site operatives aware of all relevant General & H&S information, PPE requirements, Site Entrance/ Exit, CCTV.

The construction site security system will be installed with close circuit television (CCTV) which will record once activated security lights which have passive infrared sensors (PIRs) which will be activated automatically if someone or something is picked up in the detection zone and infrared security beam sensors when broken sets off the sounder that delivers a warning message which is triggered when beams are broken.

Also, a message goes back to a call centre who can check the site in case of a false alarm like an animal or something is blowing about in the wind, or they will notify a mobile security team member to attend site. The mobile security team will also attend site for inspections once a night or to an agreed schedule.

Storage

At the rear of the site there will be storage containers for materials like the cedar boarding, Double Glazed (DG) aluminium windows and doors, solar panels, cement that need to be kept dry. Covered storage area for Bricks, Blocks, Rainwater Goods and drainage pipes and fittings. There is a separate skip area for 4 separate skips for timber, metal, plasterboard, and general waste.

Temporary Protection

On this site the pedestrian walkways will have pedestrian safety barriers which are 2 metres wide x 1.1 metre high and are orange. The barriers come with feet & can be easily linked together.



Figure 1 Chapter 8 Barrier (Safefence, 2022)



Figure 2 Pedestrian Barrier (Greenham, 2022)



Figure 3 Blue Road Barrier (Safefence, 2022)



Figure 4 Green Road Barrier (Safefence, 2022)

The traffic routes will have Chapter 8 barriers which are 2 metres wide x 1.1 metre high and are blue (So it's easier to identify the traffic routes from the pedestrian walkways), these barriers come with feet & can be easily linked together

The temporary excavations will have Chapter 8 barriers which are 2 metres wide x 1.1 metre high and are green, these barriers come with feet & can be easily linked together, these will be used along with the edge protection system

Heras fencing panels (Figure 5) will be used for various tasks throughout the project when required because it's a quick solution if you need to make an area safe with no access.

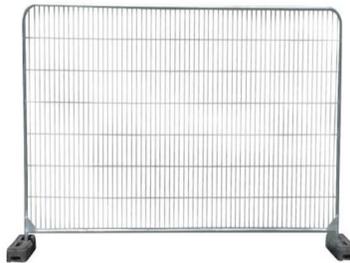


Figure 5 Heras Fencing (Safe Fence, 2022)

Brick guards (Figure 6) are fitted to the scaffolding on the inside of the handrail and clip on to the top of the toe board. They protect workers below from any hand tools or materials that could fall on them and also could prevent any damage to vehicles

Trench boxes (Figures 7-9), manhole boxes and edge protection system will be used for excavations on site for drainage and services this to protect anyone working in the trench from collapse and from falling into the excavation.



Figure 6 Brickguard (G&M Safe Deck, 2022)



Figure 7 Manhole Boxes (Industry Search, 2022)



Figure 8 Trench Box (mabeyhire.co.uk, 2022)



Figure 9 Trench Box (mabeyhire.co.uk, 2022)

Hoarding

The site will have a painted plywood hoarding that is 2.4 m high and will have been designed as part of temporary works. (Figure 10). Hoarding or fencing up to 3 m high and is classed as medium risk according to the BS5975:2019 *Code of Practice for temporary Works* (HSE, Temporary works, 2010). This is also required as part of CDM, according to 'PART 4 Duties relating to health and safety on construction sites - Regulation 19 (stability of structures)', which states that "...any support or temporary structure must be designed, installed, and maintained so as to withstand foreseeable loads". (HSE, *Guidance to CDM 2015*, p50).



Figure 10 Hoarding (KaystFencing.co.uk 2022)

There will be two vehicle gates, one will be an entrance and exit the other gate will be exit only, the two vehicle gates are both Sliding to allow for more room at the front of the site and ease of use, these are both locked with heavy duty chains and tamperproof padlocks overnight and will be managed throughout the day by the Security Guard / Forklift operator. The Construction (Design and Management) Regulations 2015 (CDM). States the following:

“Regulation 13 paragraph 135 Preventing unauthorised access to the site...The principal contractor must ensure reasonable steps are taken to prevent unauthorised access onto the construction site.... The principal contractor should also take steps to ensure that only those authorised to access the site do so.” (HSE, Guidance on Regulations, p40)

Fully bunded Fuel tanks and spill kits



Figure 11 Fuel Spill Kit (Direct 365, 2022)



Figure 12 Portatank (Tanks for Everything 2022)

Fuel Tanks will be fully bunded and with spill kits for the site plant in two locations on the site

Site Logistics

The site is restricted for space so a one-way system for the site wouldn't work, we have decided to have just the one entrance but have two exits, there is also no room for any contractors vehicles, but we have been permitted by the local highways department to park any contractors vans in the road next to the site which is a dead end shown on the drawing (XP/12/A), showing bollards, also we would apply for a permit for a footpath closure for the whole period of the project, which then allows us more room at the front of the site and also makes it safer as no pedestrians should be crossing the entrances, Englemere Road is also a dead end so hopefully the road is not busy apart from the construction traffic

“On average, each year, about 7 workers die as a result of accidents involving vehicles or mobile plant on construction sites. A further 93 are seriously injured”. (HSE, 2022)

There is a pedestrian walkway around the perimeter of the site with various entry and exit gates and a pedestrian crossing the walkways have all had type 1 laid and levelled and compacted to minimise any slips, trips, and falls

At the front of the site, is situated the main vehicle entrance and exits, at this point once you have entered the site and spoken to the site security guard you will have an option of carrying straight on where there is the right of way for incoming traffic, which leads to the rear of the site and the entrances into the two main work areas you will have an option of turning left or right to enter the areas, a banksman must be present when reversing in these areas at all times and also when the skips are being changed

The other option once you have spoken to the security guard is to turn right and then be off loaded by a forklift or by hand if a small package, once off loaded you can drive straight out of the exit onto Englemere Road

There will be one forklift, one to off load the lorries at the front of site and then a telehandler can move materials to the designated areas or straight into the storage

The reasons behind the two options is so that it shouldn't cause congestion at the front entrance, also there isn't the room at the rear of the site to be off loading a lorry or have muck away lorries or concrete lorries coming into the site

Access for emergency vehicles into the site is not complicated as the site is small and restricted, and if needed pedestrian barriers could be moved to enable better access

All contractors were told at tender stage that a logistics programme (LP) would be used so that once on site a master LP could be used, so we would have control of deliveries and know that they were coming on to site and we would have control plus recording all deliveries and checking for any damage and recording at an early stage.

Plant Movement

There are two main work areas, and, in those areas, there will be a bunded refuelling area for all plant on site and bucket changing area for the 360 excavators., which should limit the movement on site and to carry out these tasks

The telehandler will be used extensively to move materials around the site to limit the lorries going to the rear of the site

When bigger plant like the 360 excavator or a piling rig is needed on site this would be arranged for an early morning or Saturday if permitted, a haulage lorry could be reversed on to site, the barriers could be moved to allow for easier access into the areas and this could then be repeated when collecting.

There will be a tyre and wheel cleaner installed on the road out of site to limit the transfer of mud or spoil on to the public highways

The offloading and short-term storage area will have a type 1 base laid and levelled, then compacted with a sacrificial tarmac base course to try and limit any mud or spoil transfer on to the public highways

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Appendix A Site Plan Phase 1 and Phase 2