



Construction Environmental Management Plan (CEMP)

The Dean Trust Ardwick

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1. Introduction

This Construction Environmental Management Plan (CEMP) has been developed in order to minimise any impact that might be caused by the construction of a new MUGA pitch. The Plan will identify the risks to the local environment and then detail the action required to mitigate these risks during the construction phase.

The CEMP will be submitted to the Local Planning Authority (Manchester City County Council), in order to discharge Pre-commencement Planning Conditions 3. The approved CEMP will then be adopted by Novus once approved by the Council.

The CEMP will be reviewed every month during the project to ensure that it remains appropriate and effective.

2. The Project

The Project involves of the construction of the following sections: -

The construction of a MUGA pitch

The site is situated on the school playing fields. The address of the site is The Dean Trust Ardwick. 345 Stockport Road, Manchester, M13 0LF

The project will commence in July 2021 and be completed by October 2021.

3. Special Environmental Considerations of the Site

The site comprises

The site comprises The Dean Trust Academy, a secondary school built and opened in 2015. The school building is an irregular shape two to three storey which is situated in the north-western corner of the site. The southern half of the site comprises a Multi-Use Games Area (MUGA), hard surfaced sports courts are present centrally in the east of the site and a grass sports field is present in the north-east of the site. A hard play area is located within a semi-enclosed courtyard between two wings of the school building and a large area of car parking is present centrally in the north half of the site. A large mound is present in the north-eastern of the site approximately 3m (H) x 45m (L) x 20m (W). A smaller mound is present to the south of the playground which was approximately 1.5m (H) x 25m (L) x 20m (W).

Since the original site walkover, an extension has been made to the east and northern sides of the school, with an area of car parking now extending to the north of the proposed MUGA. The mound in this area has been reduced to make way for the car parking.

The area of the proposed MUGA is a grass sports pitch, however an area of gravel surfacing is present towards the west of this. This area was previously used as a compound / parking for the contractors associated with the recent extension works.

No significant sources of contamination were noted during the site walkover. Car parking was present in the east of the site but given the age and quality of surfacing any spillages and leakages are considered unlikely. Contractor parking on gravel surfacing has taken place in recent months within the extents of the proposed MUGA, however given the duration of this, significant spillages and leakages are considered unlikely.

Vegetation

There are sporadic mature/semi-mature trees in the northeast of the site.

Topography The site is generally flat, however, as noted above two mounds are present at the site.

Site Boundaries

The site is enclosed by palisade fencing to the north, east, south, and west.

Surrounding Area

The site is set within residential area, bordered by Langport Avenue to the north with St Luke's C of E Primary School and a park beyond. The east of the site is bound by Cochrane Avenue and South Street with residential properties beyond. The south of the site is bound by a religious building and residential properties. The west of the site is bound by Stockport Road with residential properties beyond

Site History.

Information has been obtained from historical Ordnance Survey Maps with the pertinent issues that may have affected the site, or its environs summarized below. Notable features within 100m of the site boundary have been presented. Any features that have potentially been infilled will be considered up to 250m from the site boundary.

Feature	Distance	Years Present	Description
Ponds	On-site	1848	The earliest mapping of 1848 shows the northern part of the site to consist of open fields with four ponds present in one of the fields. By the subsequent mapping of 1890 these had potentially been infilled and built over with residential properties.
Depots	On-site	1891 – 1908 1976 – 2002	Manchester Carriage & Tramway Company Depot is present in the centre of the site from at least 1891 until 1908 denoted with sidings. However, by the mapping of 1922 it had been replaced. By 1976 another depot was erected adjacent to the Daisy Bank works and was present until the mapping of 2002; however, it no longer appears on the map of 2010.
Brewery	On-site	1891 – 1908	The Longsight Brewery is present along the northern boundary of the site from the mapping of 1891 to 1908, by 1922 it appears to have been replaced with a different, unlabeled, building.



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Works	On-site	1922 – 2010	Daisy Bank works replace the old Carriage & Tramway Depot by the mapping of 1922. A mineral water works, and the Thornville works are also present on the mapping of 1922. By 1933 the Thornville works were demolished and replaced by an enlarged Daisy Bank works. By 1976 the eastern part of the Daisy Bank works had been demolished and replaced with a depot. The Daisy Bank works last appears on the mapping of 2010; however, by 2014 it had been demolished and replaced with the education facility that currently occupies the site
Laundry	On-site	1922 only	No longer present by 1933 mapping.
Wash House / Laundry	On-site	1933 - 1976	A wash house is present on-site by 1933 mapping and denoted with a chimney by 1949 mapping. The area was demolished and replaced with a laundry by 1976 mapping which was no longer present by 1991 mapping.
Electricity Substations	On-site	1949 – 1976 1992 – Present	An electricity substation is present on-site from the mapping of 1949 until 1976. By 1992 this original substation appears to have been demolished and replaced with a new substation closer to South Street which is still present on-site today.
School	On-site	2014 – Present	By the mapping of 2014 an education facility had been built on-site, this is the school that currently occupies the site today.
Warehouse / Garage	0m SE	1949 – Present	A small warehouse is present directly adjacent to the SE corner of the site from the mapping of 1949 until 1976. By 1991, however it is no longer labelled. Although, unlabeled the building still exists on present-day online mapping as 'Sinclair Autos', a small garage.
Mineral Water Works / Raven Flour Mills	20m NW	1922 – 1960	Mineral water works located approximately 20m NW of the site on the opposite side of Ducie Street on the mapping of 1922. By 1933 these works had been converted into a flour mill that remained until the mapping of 1960. By the mapping of 1976 this had been demolished and replaced with a playing field for a new C of E primary school.
Electricity Substation	20m N	1976 – Present	On the far side of Langport Avenue an electrical substation is present from the mapping of 1976.
Mineral Water Works	40m SW	1933 – 1960	Located approximately 40m SW of the site, the mineral waterworks are present between the mapping of 1933 and 1960; however, by the mapping of 1976 they had been demolished

			and replaced with residential properties.
Shield Works	50m SW	1922 – 1960	Located approximately 50m SW of the site, the Shield works are present between the mapping of 1922 and 1960; however, by the mapping of 1976 they had been demolished and replaced with residential properties.
Garage	70m SE	1976 – Present	A garage is present on mapping by 1976. The original building seems to have been replaced by 1991 with the building that is still present today. This new building appears to have originally been used as a petrol filling station; however, by today it's use has changed to that of a hand car wash. An auto centre and detailing centre also appear to be located on the same plot by present day.
Joinery Works	80m SW	1933 – 1960	Located approximately 80m SW of the site, the joinery works are present between the mapping of 1933 and 1960; however, by the mapping of 1976 they had been demolished and replaced with residential properties.

In summary, the map evidence indicates that the site consisted of open fields with ponds in the north, and a small row of residential terraces in the south. By 1890 these ponds had potentially been infilled and the whole site had been developed into residences and Daisy Mill. Industrial works replaced the depot by 1922, with various industries including Manchester Carriage & Tramway Company Depot, Brewery, Laundry, and wash house occupying the site then until at least 2010. By 2014 the last of the works had been demolished and replaced with the education facility that continues to occupy the site today.

The majority of the site is surrounded by residential developments and small-scale industry. The majority of this industry was shut down between the mapping of 1960 and 1976, to be replaced with residential properties. The significant sources of off-site contamination include the garages to the south-east of the site.

Published Geology

The following publications of the British Geological Survey (BGS) were examined in respect of the geology underlying the site:

- 1:50,000 Scale Geological Map Sheet 85 Manchester. Solid and Drift Edition.
- British Geological Survey (BGS) Geology of Britain Map Viewer.
- Environmental Data Report.

Made Ground

BGS mapping does not display any made ground deposits on site, however based on the historical mapping and the development that has taken place, made ground deposits are highly likely to be present.

Superficial Deposits

The site is indicated to be underlain by glacial till. This stratum typically comprises firm to stiff boulder clay with sand and gravel.

Solid Geology

The majority of the solid geology underlying the superficial deposits is indicated to be part of the Chester Sandstone Formation, which typically comprises a fine to coarse sandstone with rounded gravel, cobbles, pebbles and boulders. The Sherwood Sandstone Group is this formation's parent unit. The northern part of the site is indicated to be underlain by the Manchester Marls Formation described as red marl (calcareous mudstone and siltstone) with thin beds of fossiliferous marine limestone and dolomite.

The site is shown to lie atop the East Manchester Fault, a north-west to south-east trending fault that downthrows to the north-east. However, any movements associated with this fault should now have stopped.

The Ardwick Fault, another north-west to south-east trending fault that downthrows to the north-east is present approximately 250m north-east of the site. The two faults converge approximately 0.8km south-east of the site.

An official CON29M Coal Mining Search identified no evidence of coal seams or coal mining on or within the vicinity of the site.

Hydrogeology

The superficial deposits beneath the site are classified by the Environment Agency as a Secondary Aquifer (Undifferentiated). The classification is assigned where it is not possible to attribute either category A or B to the aquifer. In general, these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the superficial deposits.

The bedrock underlying the site is mostly classified as a Principal Aquifer. This is Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers.

The northernmost part of the site underlain by the Manchester Marls Formation is classified as a Secondary (B) Aquifer. These are predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localized features such as fissures, thin permeable horizons and weathering.

These are generally the water-bearing parts of the former non-aquifers.

The site is not indicated to lie within 500m of a Source Protection Zone (SPZ).

The nearest active groundwater abstraction licence is located 525m north-west of the site and is used as a heat pump.

There are no potable water abstraction licences identified within 2000m of the site.

The soils have been assigned a Soil Vulnerability Category of HU (High). This is a worst-case classification for urban areas and restored mineral workings. These soils are assumed to be highly permeable in the absence of site-specific information.

Reference to the BGS Onshore Geoindex reveals there are two water wells located on-site, with a further two located to the north of the site, all of which appear to have been used for historical commercial purposes and not potable drinking water supply.

The nearest watercourse is the River Medlock located 1409m to the north-west of the site.

There are no surface water features within 250m of the site.

Chemical River Quality data indicates the River Medlock to have received a Chemical Quality Grade C in 2009.

There are no surface water abstraction licences within 2000m of the site.

There are no active licenced discharge consents within 500m of the site.

Information obtained from the Environment Agency (EA) Risk of Flooding from Rivers and the Sea (RoFRaS) database indicates that the risk of flooding across the site is very low (less than 1 in 1000 chance of flooding in any given year).

The site is not indicated to lie within an EA designated flood plain.

No further consideration of flood risk is undertaken in this report. Specialist flood risk advice should be sought with regards to drainage and flooding

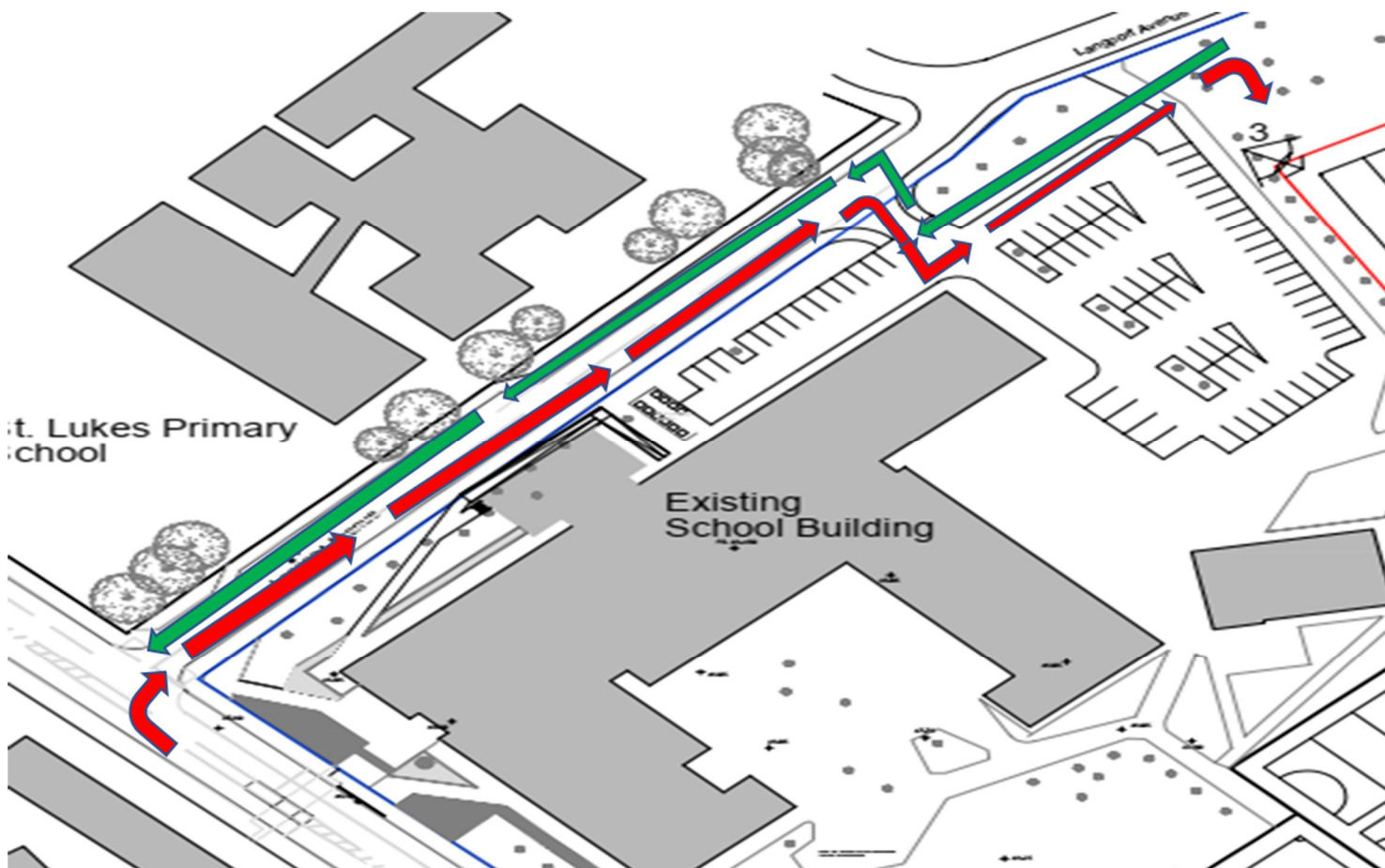
Traffic Routes

Off-site Traffic

Access to the site for [construction traffic](#) will be via Langport Avenue as shown on the following plan. Using this route will ensure that construction traffic is kept away from the residential areas as much as possible.

Site workers will be encouraged to car share or use public transport as much as possible in order to reduce traffic to the site and parking. Onsite car-parks will be used for site personnel.

Clear signage to the roads around the site will ensure that deliveries and visitors reach their destination as promptly as possible.



On- Site Traffic

The traffic routes within the site can be seen on the following diagram.



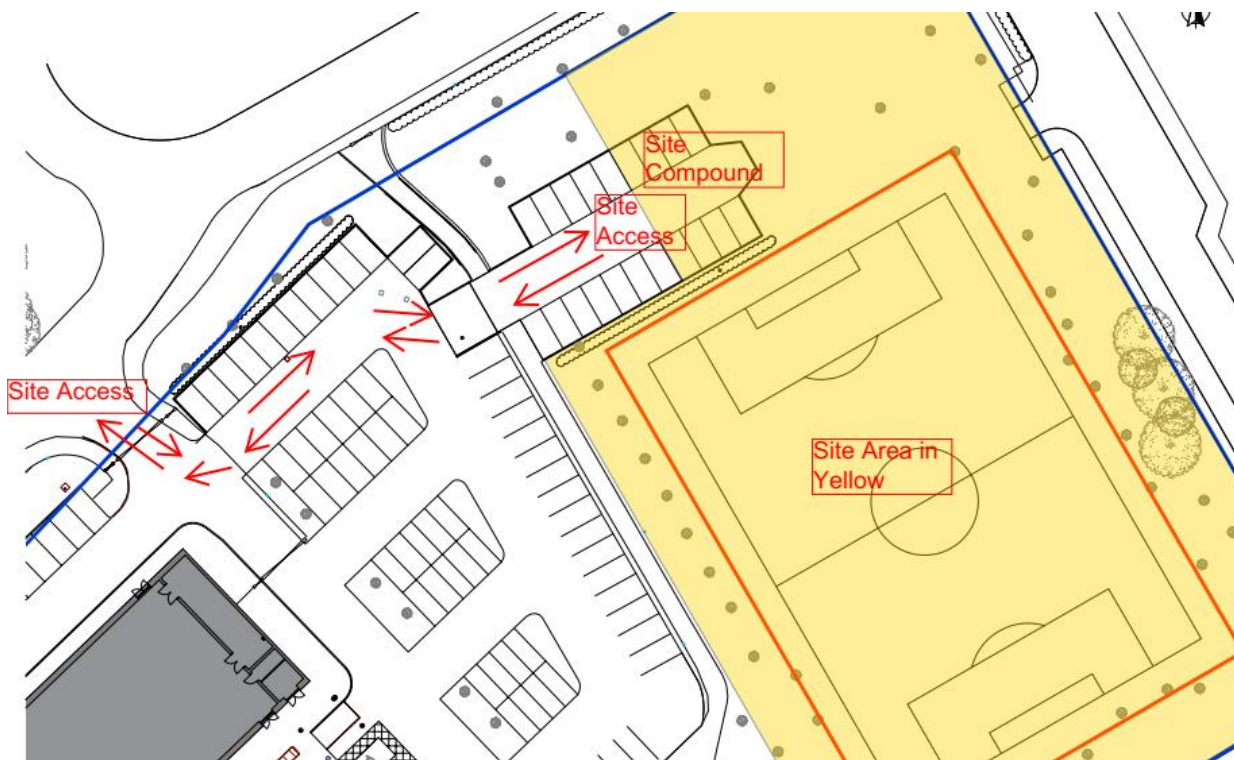
The prompt construction of the road within the site will be made a priority as this will assist in keeping the site and surrounding roads as clean as possible. Clearly defined routes, in a good condition, will also assist with Health and Safety.

Site Setup

Site Compound

The site compound will be laid out as shown in the following plan. Pedestrian access will be directly from Langport road where new employees will be guided to the induction area. The induction will cover all health, safety and environmental aspects associated with the project.

The site compound will contain all the health and welfare facilities necessary on a project of this type.



5.1 Dust & Mud Control

Access to and from the site will be carefully managed to ensure that it does not adversely affect the condition of the roads outside the site.

Traffic entering and working on site shall be restricted to 5 mph to prevent dust being generated.

We will utilise a wheel wash onsite to ensure that it does not adversely affect the condition of the roads outside the site.

Dust suppression kits shall be provided to all cutting plant to reduce. Mobile water bowsers and sprayers shall be used during dry periods if required dependant on site activities.

All sub-contractor method statements will be checked to ensure that they contain appropriate measures for controlling dust and mud. The requirements will be discussed with contractors during the site induction and regular tool box talks will be used to maintain focus.

5.2 Noise & Vibration

The following action will be taken to ensure that noise from the site does not become a nuisance.

- a) Work will only be carried out on site between 8am and 5pm, Monday to Friday and 8am to 1pm on a Saturday. No work will be carried out outside these hours unless agreed.
- b) Methods of working that reduce noise emissions will be chosen whenever possible.
- c) All plant will be turned off when not in use.
- d) Plant will be checked and maintained regularly to ensure that it is working efficiently (it will be replaced with more modern and quiet plant when appropriate).
- e) Shouting will not be allowed on site.
- f) Radios will not be allowed on site.
- g) Any activity that might cause a nuisance will be discussed with the council beforehand. Local residents will also be kept informed.

- h) The requirements of BS 5228-2:2009 'Code of practice for noise and vibration control on construction and open sites' shall be implemented
- i) All machinery will be fitted with effective silencers where possible.

All method statements will be checked to ensure that they contain appropriate measures for controlling noise. The requirements will also be discussed during the site induction and regular tool box talks.

5.3 Waste Management

Novus's waste management goal is to avoid sending waste to landfill waste on all of our construction projects.

We will implement a Site Waste Management Plan (SWMP) for the scheme, and this will outline ways of minimising construction waste on the Dean Trust project.

All waste removal will be recorded in the SWMP which will be presented in the monthly client meeting. Detailed recording and monitoring will ensure that any trends or patterns are recognised so that the appropriate action can be taken.

The following action will be taken to ensure that site waste has a minimal effect on the environment.

- a) Segregate waste where possible i.e. Wood Skip, Metal, Plastic, etc.
- b) All waste containers and skips will be clearly labelled with their content (i.e. Inert Waste, Mixed C&D Waste, COSHH Waste etc.).
- c) Any waste that cannot be segregated on site (usually due to a lack of space), will be placed in a mixed skip – our waste contractor will then segregate the waste off-site.
- d) Our waste contractor provides us with a breakdown of all waste leaving the site
- e) Skips will be located away from sensitive areas such as watercourses or drains.
- f) All skips and containers will be checked to ensure that all containers are secure (ie. the waste cannot blow away or be subject to theft/fly-tipping).
- g) The site Inductions will advise all workers of the proper waste management procedures together with the requirement to work efficiently and minimise waste.
- h) Unused materials will be returned to the storage areas to prevent theft and damage.

- i) Storage areas will be positioned and set up to prevent damage from vehicles or theft.
- j) Local building merchants will be used to reduce transport.
- k) Negotiations will be undertaken with suppliers about packaging and re-stocking items if required.
- l) The site will be kept tidy to minimize damage/waste and encourage efficient working.

5.4 Ground & Water Contamination

The following action will be taken to ensure that the site works do not have a detrimental effect on the environment.

- a) Fuel stores will be located away from water courses and drains. A plan of the “as-built” drainage will be kept up to date and on display; this will ensure that live drains can be protected in the event of any spillage.
- b) All fuel storage tanks will be bunded to hold a minimum of 110% of the stored volume in the event of a leak.
- c) All storage tanks will be regularly maintained in accordance with manufacturer’s recommendations. Tanks will also be inspected for damage on a regular basis.
- d) All fuel spills will be reported to site management immediately and the agreed protocol followed.
- e) Re-fuelling will only be carried out within the designated area by authorised and competent operatives.
- f) Fuel spill kits will be located within the fuel storage area in order to deal with any leaks or spills. Anyone involved in re-fuelling will be trained in use of spill kit.
- g) Plant will be inspected regularly for faults and maintained in accordance with manufacturer’s recommendations.
- h) Harmful substances will be “designed out” wherever possible and working practices will be adjusted to minimise the potential for contamination.

The method statement for any work involving potentially harmful materials will contain a section to describe the correct procedure to avoid potential problems in detail.

4. Working Hours

Work will only be carried out on site between 8am and 5pm, Monday to Friday and 8am to 1pm on Saturday. No work will be carried out outside these hours unless agreed.

5. Communication of the CEMP

The CEMP will be communicated to site operatives, site management staff and delivery drivers as follows:

1. Prior to material and sub-contract orders being placed the requirements of the CEMP will be sent out with the enquiry documentation.
2. During final negotiations with all material suppliers and sub-contractors the CEMP requirements will be discussed and agreed by all parties.
3. During the pre-construction phase the CEMP will be communicated to all site management staff through induction from the Contract Manager.
4. During the construction phase the CEMP will be communicated to all operatives through standard induction and regular toolbox talks by the site management team.



