KIER

Construction Management Plan

Kier Construction Management Plan

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1.0 Introduction and brief description of the project

The project is due to commence in September 2019 and consists of the construction of a new 2 storey extension within the existing Manchester Museum Courtyard facing Coupland Street linking back to the existing Museum, as well as a new Museum entrance to Oxford Road and associated internal remodelling works.

2.0 Management of Health and Safety

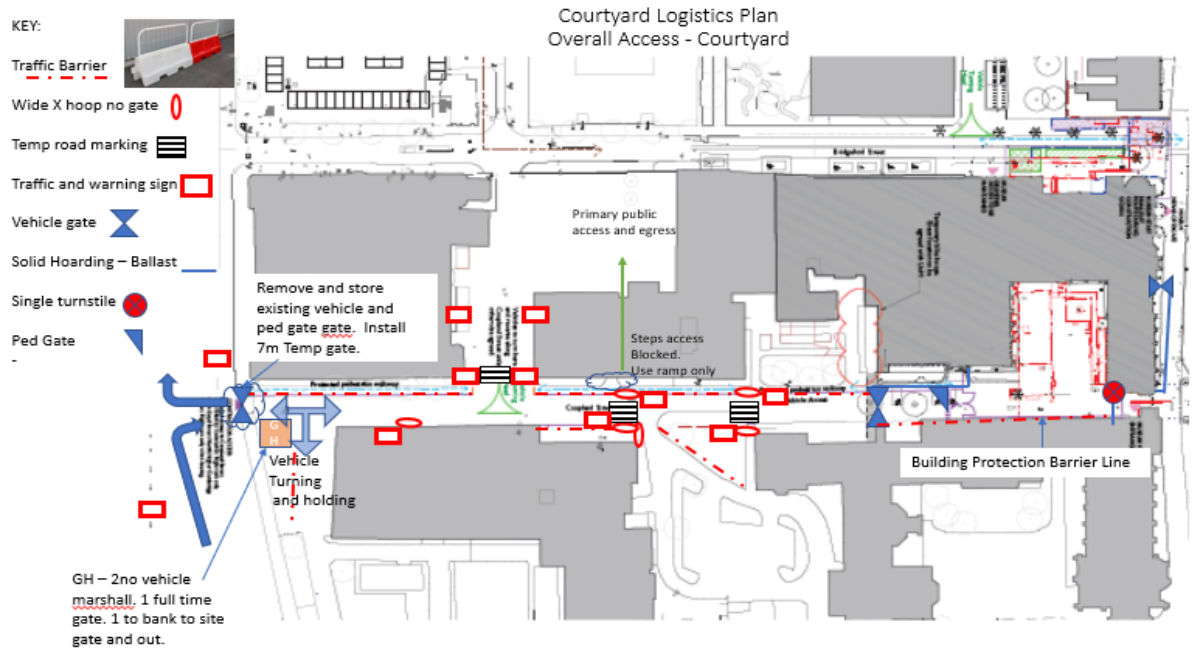
Kier North West will develop a Construction Phase Health and Safety Plan (CPH&SP) using the Pre-Construction Information provided by the client. The Plan will be complete for approval 4 weeks prior to the work commencing on site.

The CPH&SP highlights how we will deal with all current Health and Safety Legislation in construction and highlights potential risks and hazards on the project and how we manage them.

There will be specific focus on the potential for encountering asbestos containing materials within the existing building, as well as work in close proximity to listed structures and prominent public spaces.

3.0 Construction Traffic routes – including provision for access to site

Site access will be off Higher Cambridge Street, via Coupland street. Access will be controlled by a manned gate house at the existing gates on the University Boundary, with deliveries strictly limited to 1 vehicle at any one time. Appropriate warning signage will be installed in the immediate vicinity of the site entrance and will remain in place for the duration of the construction works. The below logistics plan sets out this philosophy in more detail.



As well as the above plan, a swept path analysis has been carried out to ensure that it vehicles can drive onto site and maneuver as necessary, thus reducing disruption to traffic using Higher Cambridge Road. An example of this analysis can be seen below:-



4.0 Entrance/exit from the site for visitors/contractors/deliveries

As there is to be no parking on site, all visiting personnel excluding deliveries will need to access the site on foot via the original Museum entrance archway off Oxford Road. The site offices are to be situated in the existing basement of the museum and accessed via the existing doorway on the righthand side of the arch. Access to the site is to be via a fingerprint controlled turnstile sited adjacent to the site office entrance.

Deliveries are to access as described in section 3, reporting to the gateman in the first instance. The gate house and site management are to be in constant contact via 2 way radio.

All reversing vehicles will need a banksman.

5.0 Location of directional signage within the site

The site will include appropriate signage for pedestrian access routes and vehicular access signs throughout site, mainly on pedestrian barriers, red hoops, and/or site boundary.

6.0 Material Delivery and Storage and machinery on site

All storage is to be within the boundary of the site, with deliveries to be arranged on a “just in time” basis to ease restrictions on space. Materials of value are to be stored inside the building where possible, and all plant is to be locked up when not in use.

Removal of spoil during the basement excavation is to be rigid 20Te tipper trucks, which are to be appropriately spaced to ensure only one vehicle is accessing and egressing the site at any one time.

All vehicles are to be banked by a minimum of 2 traffic marshals at all times when reversing. Maneuvering is to be avoided on higher Cambridge street where possible to reduce disruption to passing traffic. Where this cannot be avoided, appropriate traffic marshalling is to be in place to ensure the safety of passing motorists and pedestrians.

7.0 Siting of temporary containers

As the site offices and welfare facilities are to be housed within the existing building, there is limited requirement for temporary containers. In the event that containers are required for additional storage, they will be sited within the boundary of the site.

8.0 Parking for contractors, site operatives and visitors

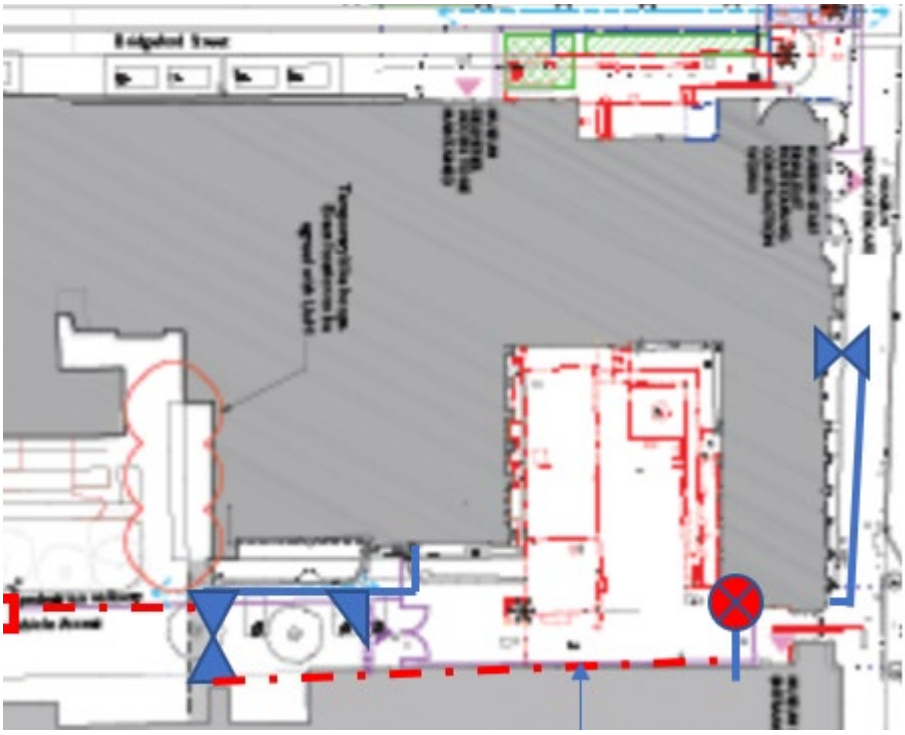
Due to existing parking constraints within the University Grounds, there will be no means to provide contractor and visitor for the duration of the project. Operatives will be encouraged via the induction to use public transport where possible and directed to local parking facilities where not.

9.0 Working space and extent of areas to be temporarily enclosed and secured during each phase of construction

The works will be carried out in a single phase, with two separate workfaces, within the Coupland street courtyard and off Oxford Road, to run concurrently. All access to the site will be via Coupland street, including the Oxford Road entrance element, which will be accessed from within the existing building.

10.0 Site boundary and hoarding treatment

As seen below, the extents of hoarding required to secure the site are minimal (shown in blue solid lines), with existing structures securing a majority of the boundary.



Where hoarding is required, this will be in the form of 3m high, ballast supported fencing, complete with UoM and Kier branding. The project will be registered with the Considerate Constructors Scheme, which will see a direct number for site management displayed at various locations on the outer boundary of the site.

11.0 Temporary roads/areas of hard standing

As the site areas is already predominantly hard landscaped with tarmac and solid foundations, no additional areas of temporary roads or hard standing are required.

12.0 Schedule for large vehicles delivering/exporting materials to and from site

Major construction vehicle movements will be programmed occur at intervals so as to avoid site congestions, with particular consideration made for the school situated adjacent to the site gate, as well as the surrounding university buildings.

It is not currently planned to provide wheel washing, as there should be no access for road vehicles to anything other than hardstanding once on site. The requirement for this will be constantly reviewed however throughout the project, and washing arrangents can be implemented if required.

13.0 Measures to control noise, vibration and dust

The most likely cause of noise, vibration and dust during the project is via the excavation and demolition works. There are already significant constraints in terms of noise and vibration as a result of the existing artefact stores and exhibitions immediately adjacent to the site boundary.

All works are to be carried out using elimination and reduction methods as described in BS5228. All demolition will be carried out using a "cut and lift" technique, which allows a proprietary means of dust and noise control during the cutting operation which will ensure that noise and vibration will be significantly below the legal limits and those deemed acceptable in terms of nuisance during this operation. Designated cutting zones will also be in place for noisy activities such as the cutting/grinding of steel, which will incorporate supression equipment, such as noise barriers and attenuators.

Vibration is to be monitored throughout the project at various locations within the existing museum, with a lower and upper action limit in place. In the event that the lower limit is exceeded, a warning will be issued to the site supervisors, upon which a review is carried out on the working practice and the risk of exceeding the upper limit. Significant testing has been undertaken to ensure the methods proposed can be executed within the limits stipulated.

Dust will be controlled during the excavation via damping down as necessary, however the requirement should not be onerous with most of the ground to be excavated believed to be cohesive in nature.

14.0 Street sweeping/street cleansing

We will carry out road sweeping to the surrounding roads during the excavation works.

15.0 Waste Management/Recycling

There will be a single waste management/collection area from which skips will be exchanged once full and taken away once no longer in use. The waste management area will be situated within the site, with a fire-rated lockable skip used whenever it is necessary to store within 8m of an existing structure.

Working closely with our preferred supply chain waste management company, Premier Waste, we evaluate the constraints of the site to ensure works are planned and coordinated appropriately to make best use of available space.

By engaging Premier Waste rather than having multiple skips for the segregation of waste on site, one skip is provided for general waste and the segregation is undertaken in Premier Wastes' waste transfer centre. This is of benefit when working in confined and live environments where external space is restricted, and there is mass amounts of waste to remove. Kier waste is segregated from other waste at the waste transfer centre for the accuracy of our recycling data.

Premier Waste liaise with the Kier Project Lead to produce the Site Waste Management Plan. The SWMP estimates likely quantities of each potential waste stream, identifies ways in which to reduce, reuse, recover or recycle the waste both onsite and offsite and sets targets in accordance with legislation and duty of care.

All data is recording using SMARTWaste. which issue monthly waste data reports. This data allows the project team to assess the waste forecast against actual generated waste.

Wagons will be scheduled to arrive at intervals to take away demolition waste (to be managed and determined by demolition contractor).

16.0 Hours of working

The proposed hours of working are 07:30hrs to 17:00hrs Monday to Friday.

17.0 Community Engagement

It is proposed that regular leaflet drops will take place in the surrounding neighbourhood, to keep residents informed of site activity, particularly in relation to any potential disruption which could occur. There will be an information board situated at the site gate, which will display photographs, newsletters and dates etc. This will also provide details of the complaints procedure, which will allow us to receive feedback from the local community and act accordingly.

There is also a plan to employ at least 3no unemployed persons and 2no apprentices from the local area via "The Works," an organisation embedded within the uoM framework. Opportunities to engage with the secondary school situated immediately adjacent to the site access will also be explored.

18.0 Phasing of works including start/finish date

The works are due to commence in Spetember 2019, and completed by the end of November 2020.
Key milestone dates include:

Basement Excavation – September 19
Basement Construction – November 19
Structural steel frame – March 20
Envelope – May 20
Fitout – from March 20.