The Peterloo Massacre Memorial

Construction Works Methodology

Introduction

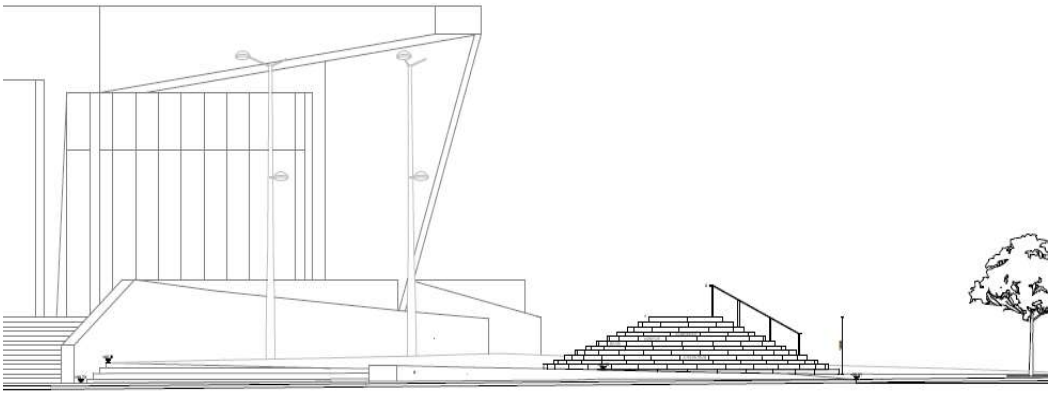
The proposal is to construct a memorial for the Peterloo Massacres that occurred on the 16th August 1819. The memorial is to be located on the forecourt of Manchester Central adjacent to Windmill Street opposite the Midland Hotel.

The memorial will be built in the form of concentric circular steps with the outer step at a radius of approximately 6m. Each step will have a rise of 150mm and a width of 400mm, the platform at the top of the steps will be approximately 3m in diameter.

The construction is relatively simple with a reinforced concrete raft foundation, concentric reinforced concrete ring beams and then the masonry steps bedded onto the concrete ring beams placed from the bottom step and completed with the 3m platform at the top of the steps.

The masonry has been selected to ensure each step contrasts with the step either side for safety. The risers will have hand carved town names on them and the surface of some of the steps will be inlaid with stone emblem's that reflect on some of the images that were linked to the Peterloo Massacre.

The memorial will have attached to it a series of concentric circles of stone which will be flat at pavement level, with the same emblem's as above, which will be accessible to all.



Architect's Proposal.

Site Mobilisation and Security

The site is situated on the easterly forecourt of Manchester Central Convention Centre, it is adjacent to live tram lines, cycle routes and public footpaths and highway.



Site Plan

As part of our Quality Management Plan we will engage the local community prior to commencement. A formal letter drop will be provided to all immediate neighbours advising of the works and proposed start date and contact details at Conlon Construction. As part of our ongoing commitment to engage the local community we will establish an information board on the perimeter of the hoarding. This will be updated regularly with project information, progress, significant milestones in the programme. We will also provide a contact “name photo and number” for the key personnel on site if any queries arise.

In addition to the above we will also provide vision panels in the hoardings so passers by can view the works safely rather than trying to access site. The heights of the panels will vary for small children, people who have access issues and adults.

By agreement the welfare facilities will be positioned within the service yard of MCCC accessed from the A5103 turning left into the rear service yard. A pedestrian access for site personnel and visitors will be created along the existing service road that exists between the forecourt and the rear service yard marked green on the plan.

All visitors are required to sign in and sign out. PPE will be available for visitors at the site office.

All of the site rules and safety requirements will be included in the Construction Phase Health and Safety Plan which will be located in the site office.

Site specific signage for site operatives, visitors, deliveries and the general public will be displayed in prominent positions to avoid confusion.

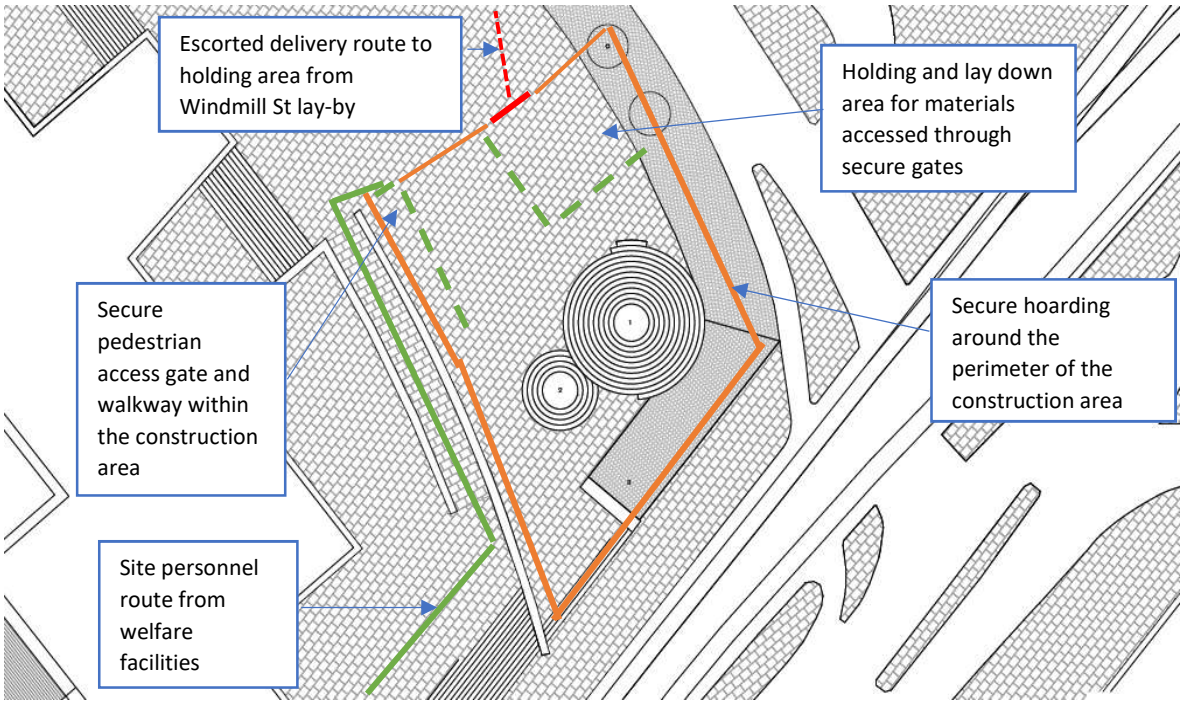
No parking will be permitted in the service yard or the forecourt and all contractors and visitors will be advised to obtain vehicle parking in the NCP car park below MCCC or use public transport.

The construction area will be hoarded off to its boundary with access to the site area via double vehicle access gates and a pedestrian door with a security code to prevent unauthorised access. The hoarding will have suitable viewing positions created in it at various heights so passers by can observe progress safely.

All the surrounding footpaths and forecourt areas will be maintained to the public and not restricted in any way.

There will be a 4 camera CCTV system installed to secure the site for the duration of the Works.

Traffic and Pedestrian Management Plan



Site Security Plan

All sub-contract and purchase orders will contain the Transports and Pedestrian Management Plan to ensure that they are aware of the site restrictions when delivering plant or materials to the project.

Site working hours are 08.00 – 17.00 Monday to Friday and 08.30 – 14.30 on Saturday. All deliveries will be between 08.00 & 17.00 Monday to Friday and Weekends by agreement.

The designated delivery route to site is via A5103 onto Lower Mosley St, then bearing left onto Windmill Street. The site will not accommodate articulated vehicles.

All deliveries will be required to contact the site by telephone on the day before the delivery to confirm the delivery timeslot. On the day of the delivery the driver will be required to contact the Site Manager 1 hour before he is expected on site to ensure the delivery can be accepted.

On approaching the lay-by area on Windmill Street, the delivery driver will meet banksman to escort the vehicle across the forecourt to the vehicle holding area for unloading. The holding area gates will be closed during unloading.

UNDER NO CIRCUMSTANCES MUST A DELIVERY VEHICLE TRAFFIC THE FORECOURT WITHOUT BANKSMAN AT ANY TIME

Once the vehicle has been unloaded the banksman will escort the vehicle back to the lay-by on Windmill Street and the vehicle can then leave the site via Windmill Street onto the A34 and then to Trinity Way.

All unloading in the compound area will be by the use of a hiab, no other means of unloading will be provided on site.

Construction Method Sequence.

- **Demolition**

Once the site is safe and secure the area of stone paving located in the position of the memorial will be lifted and placed on pallets and removed from site to storage and at the appropriate time will be returned and used to make good the paving around the memorial.

The existing sign will be taken down and disposed of. The existing stone plinth will be relocated to its new position with the paving and steps around it made good.

Any waste material will be sent to a licenced tip facility.

- **Substructure Works**

The sub-structure of the memorial is constructed out of reinforced concrete. The existing 300mm deep concrete slab will be used as the main raft foundation, subject to testing for the required bearing pressures.

- **Superstructure Works**

The reinforced ring beams will be constructed in a sequence with the bottom beam 1st and then 1 step up at a time until the top ring beam is cast. Reinforcement has been scheduled and will be delivered to site bent to the correct radius for each ring beam. Once reinforcement and formwork have been fixed concrete will be delivered to site and poured using a concrete pump. This will progress until the stepped concrete structure has been completed.

All concrete “wash-off” will be into a designated skip lined with visqueen. The surplus water will be collected from site and disposed of at a licensed facility. The concrete residue will be recycled.

On completion of the concrete works the paving around the memorial will be reinstated and the site cleared of all waste, spare materials and cleaned prior to the delivery of the pre-manufactured masonry elements that will form the memorial.

Each element will be lifted into place using a spider crane to ensure safe accurate placement of each element.

A lifting plan will be produced to ensure there is no encroachment over the site boundaries, in particular the pedestrian areas and tram routes. We will consult Transport for Greater Manchester and establish the safe working zones for the tram lines and create “collapse radius” for the spider crane in the event of failure. Site specific RAMS for sequencing will be obtained from the contractor to ensure they are cross-referenced between lifting plans.

All stone will be machined off-site and this will significantly reduce the requirement for on-site cutting and reduce dust, however this will not exclude this completely.

In the event of on-site cutting we will consider the effects on the environment and surrounding area. A site-specific cutting area will be established with an impermeable base to prevent water penetration from the slurry produced and debris netting surrounding the area to prevent airborne particulate generated by the cutting process. All cutting tools will be water and noise supressed to prevent nuisance or if slurry cannot be controlled the use of dust extraction equipment will be adopted instead.

Out of hours all plant will remain isolated in the construction works area away from the perimeter hoarding.

Site Demobilisation

Following on from the completion of the works the masons are to remove all the protection, clean the memorial and present for final inspection by the Architect. If there are any defects identified these are to be made good prior to final handover to the client.

The site will be cleared of all plant and machinery and the security hoardings and gates will be removed from the site into the welfare area for collection.

The site compound will then be demobilised and an inspection of the area it occupied will be undertaken and compared to the dilapidation pictures undertaken pre-commencement.

All equipment will be collected via the MCCC service yard.