

Construction Traffic Management Plan

Project Number: ORA/009 – P11742

Project Name: Toddbrook Reservoir

Project Location / Address: Reservoir Road, Whaley Bridge



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Provision of public access across Memorial Park Refer to 6.2 and Fig 14 added	January 2022
Removal of potential to lower the road under the railway bridge Refer to 4.3 and Fig 05	January 2022
Pre -Commencement Submission – Rev3	March 2022
Enabling Works – Version 2 Rev 1 (changes highlighted red / blue) fig 02 amended, Fig 06 amended, Fig 07 amended, notation added to 4.3,	October 2022
Main Works – Client reserved OOH parking identified, Upper site plan added, road cleaning reviewed, abnormal loads added	July 2023

1. Introduction

This Construction Traffic Management Plan (CTMP) has been prepared by Open Road Associates to help stakeholders understand how Kier (Principal Contractor) will minimise the impact of their works on the surrounding community and local road network, both for the activities on site and transport arrangements for servicing the site.

This CTMP aims to enable third parties to understand the nature of the works and the various activities associated with the project. This CTMP is subject to third party approvals and therefore amendments are possible. Liaison with neighbours and interested parties will continue throughout the project, as information is updated and as the project develops. Attention will be paid to ensure that those affected are kept apprised of progress and future works on the project. The information provided in this document is an overview of the key project activities at the site known as the Toddbrook Reservoir. This document forms part of the planning application.

(Note the term 'vehicles' used in this document refers to all vehicles associated with the implementation of the development, e.g., delivery of plant and materials, construction, etc.)

This plan is a dynamic document that details how the Kier team will plan the works which impact the surrounding highway network **only**, with due regard to safety, health, and environmental matters. It is not a repository for generic risk assessments, records of how decisions were reached or detailed method statements. It should be noted that this document will not contain any formal temporary traffic management design drawings, Kier are aware that they must contact the local highway authority and follow the appropriate road space booking processes with the Network Management team. As part of this process to book road space, formal traffic management drawings will be submitted for each individual phase which impact the public highway.

The CTMP will be reviewed monthly by the Principal Contractor to ensure it is still appropriate and being worked to. This document looks to describe how the activities on site will affect the public highway network only, it is not a method statement for the construction activities taking place within the site.

2. Site Contacts

On approval, contacts will be populated with additional roles & responsibilities provided:

- | | |
|--|---------------|
| • Operations Director | Eddie Quinn |
| • Project Manager | Karen Woods |
| • BU SHE Manager (Business Unit Safety Health Environmental) | Wayne Cahill |
| • BU SHE Advisor (Business Unit Safety Health Environmental) | Steve Vickers |
| • Environmental Manager | Peter Hague |
| • Communications Lead / Traffic Liaison Officer | Tess Smith |

3. Background

- 3.1. The Toddbrook Reservoir is maintained by the Canal & River Trust. It is located to the south-west of the town of Whaley Bridge in the Derbyshire High Peak area of England. Following two heavy rainfall events at the end of July 2019, water levels rose in the reservoir and water flowed down the auxiliary spillway. The second more severe rainfall event was estimated to have the likelihood of happening of around once every 100 years. Some of the concrete slabs on the spillway were damaged and the earth dam underneath was exposed, making it vulnerable to washout and collapse. As a precautionary measure, over 1500 people and businesses were evacuated.
- 3.2. In March 2021 the Canal & River Trust announced details of the repair plan for Toddbrook Reservoir. The work will be carried out by Kier (Principal Contractor), with Arup involved in providing the detailed designs for the repair.
- 3.3. The purpose of the works is to ensure the safety of the dam, reservoir, and downstream community by repairing Toddbrook Reservoir. The works are the construction of a replacement spillway and associated dam infrastructure, replacement sailing club facilities including new access, replacement play equipment and park landscaping.
- 3.4. The surrounding public highway roads to the site are Reservoir Road and Buxton Road (A5004). Reservoir Road is a no through road that joins Buxton Road to the north of the reservoir.

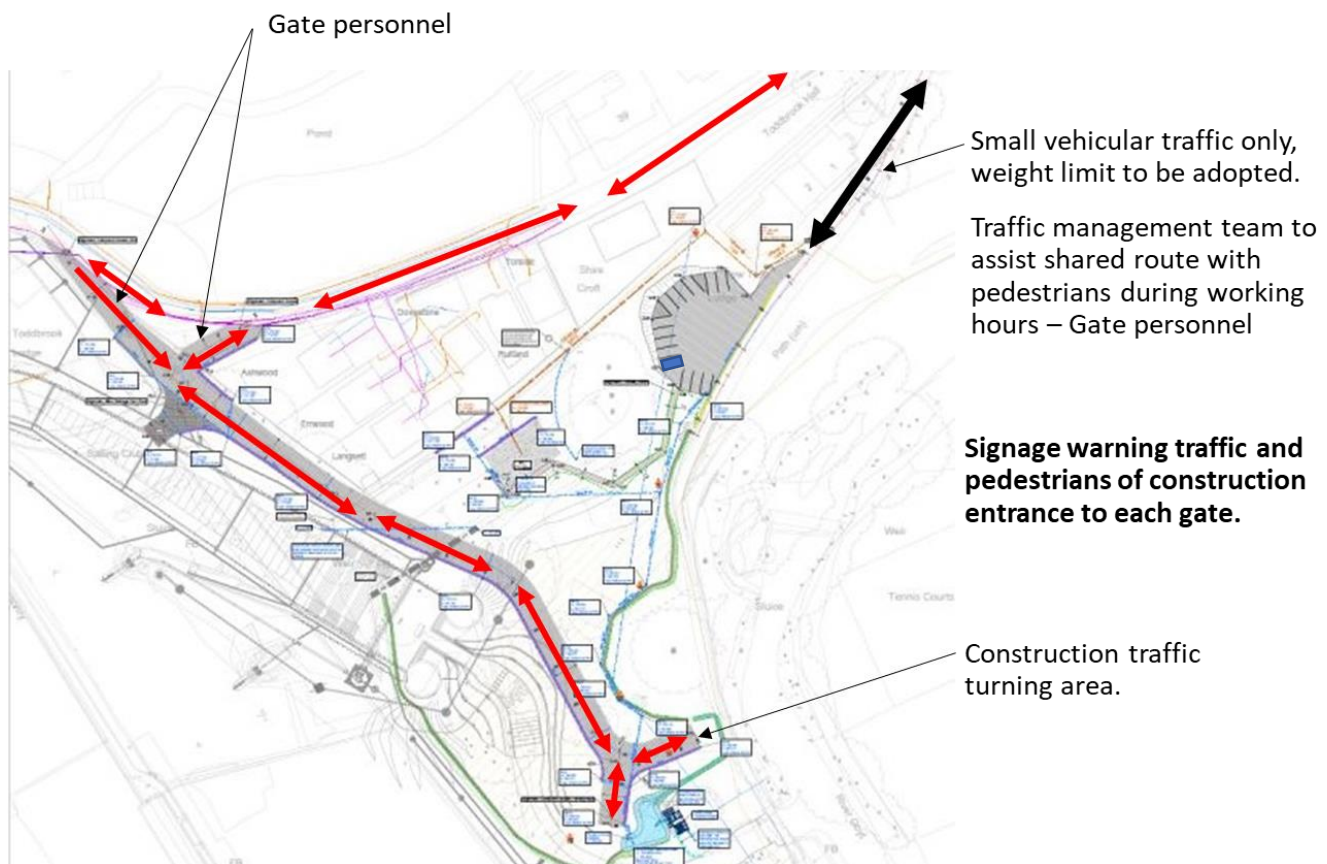
Toddbrook Reservoir – (fig. 01)



4. About the Site

- 4.1. The site is located off the public highway known as Reservoir Road; a carriageway Type 4 road maintained by Derbyshire County Council. The access to the site will be via Reservoir Road, with an internal system allowing vehicles to enter and egress the site in forward gear. A plan of the proposed site and main access arrangement is shown below:

Overview Site Plan – (fig. 02) refer to section 4.6 for extended logistics to site location



- 4.2. The Principal Contractor is aware that modifications/improvements may be necessary to improve the proposed accesses or egress to the reservoir site for the purposes of construction, and these will be subject to approval from Derbyshire County Council as the local highway authority prior to any works starting. Such access improvement works will be subject to a S278/S184 Agreement.

Site consultation has been undertaken with DCC Highways (13.05.2021). Kier provided an overview of the proposed route to the Highway Authority on a walkthrough site visit, during which, it was confirmed that in October 2020, Network Rail had lowered the rail bridge deck and height restriction on the approach from Buxton Road. Vehicle types were discussed, and it was noted 'bridge strikes' had occurred on numerous occasions. It was expressed by all parties that the project team would need to gain the necessary Ground Penetrating Radar (GPR) and Topographical survey data to fully understand the actual physical parameters for construction traffic, both underneath the bridge and along Reservoir Road. Also noted was that the Highways department had received concerns from residents that the road from Disley, Whaley Lane, would not be an appropriate main access route.

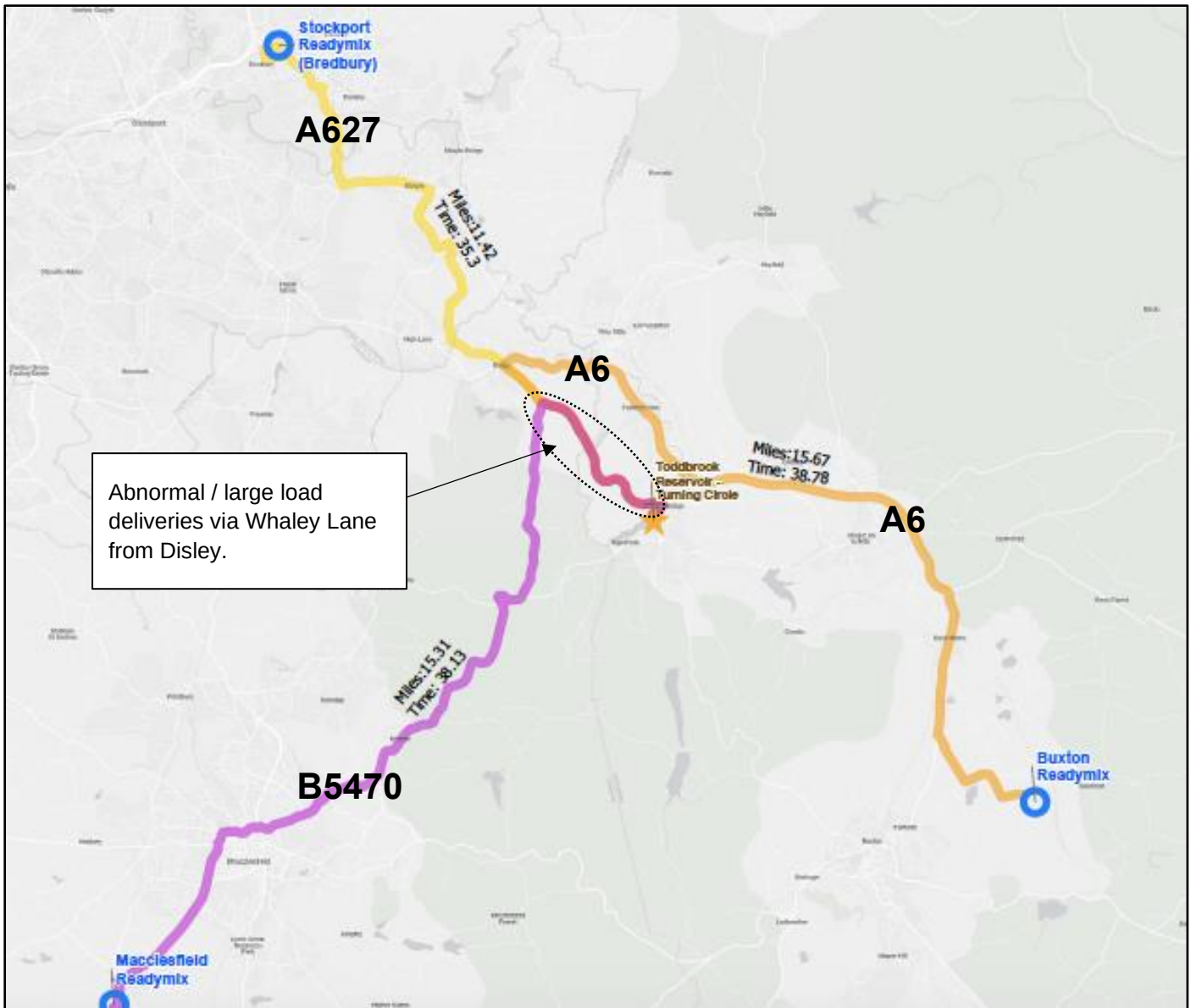
- 4.3. The main route to the site will utilise the existing public highway network. Access to the site is limited and only via Reservoir Road. In total, five routes were considered during the early stages of design with evaluation based on environmental factors, safety and network impact.

The existing highway network has current height restrictions for vehicle options; this is identified at the rail bridge located at the Reservoir Road / Whaley Lane junction. Also identified is a weight restriction on Old Buxton Road coming from the A6. The makeup of the carriageway and footways along the route to the site are in reasonable condition. However, prior to works starting, a further condition survey will be carried out and any highway defects or improvement works requiring attention will be identified and agreed with the highway authority. The exact areas to be surveyed will be agreed with the highway authority. Following the joint inspection with DCC highway team and project owner (25.05.2022) the survey concluded that a 134m section of Reservoir Road would be repaired during the enabling phase, with monitoring during the construction period.

To reduce the overall impact to the surrounding highway network caused by vehicles accessing/egressing the site, lowering the carriageway level under the railway bridge on Reservoir Road (to increase the height capacity at this section of the route) has been considered in discussion with Derbyshire County Council. Following the necessary feasibility assessments, it has subsequently been confirmed that no modifications are to be made to road level under the railway bridge.

- 4.4. Access to the site will be signed in accordance with Chapter 8 of the Traffic Signs Manual and at locations which will be agreed with Derbyshire County Council. Separate detailed temporary traffic management designs will be provided for approval prior to the installation of any signage on the public highway. These plans will be submitted along with any necessary road space booking applications before the public highway is occupied.
- 4.5. The below plan outlines the proposed delivery vehicle routes to and from the site to supply main materials to the site. The routes have been checked by the relevant suppliers and have been deemed suitable for the vehicles selected to access the site. These are the suppliers' existing standard route's, however consultation will still be undertaken with each impacted highway authority including the emergency services:

The proposed plan indicates routes to the site from the wider highway network (fig. 03)

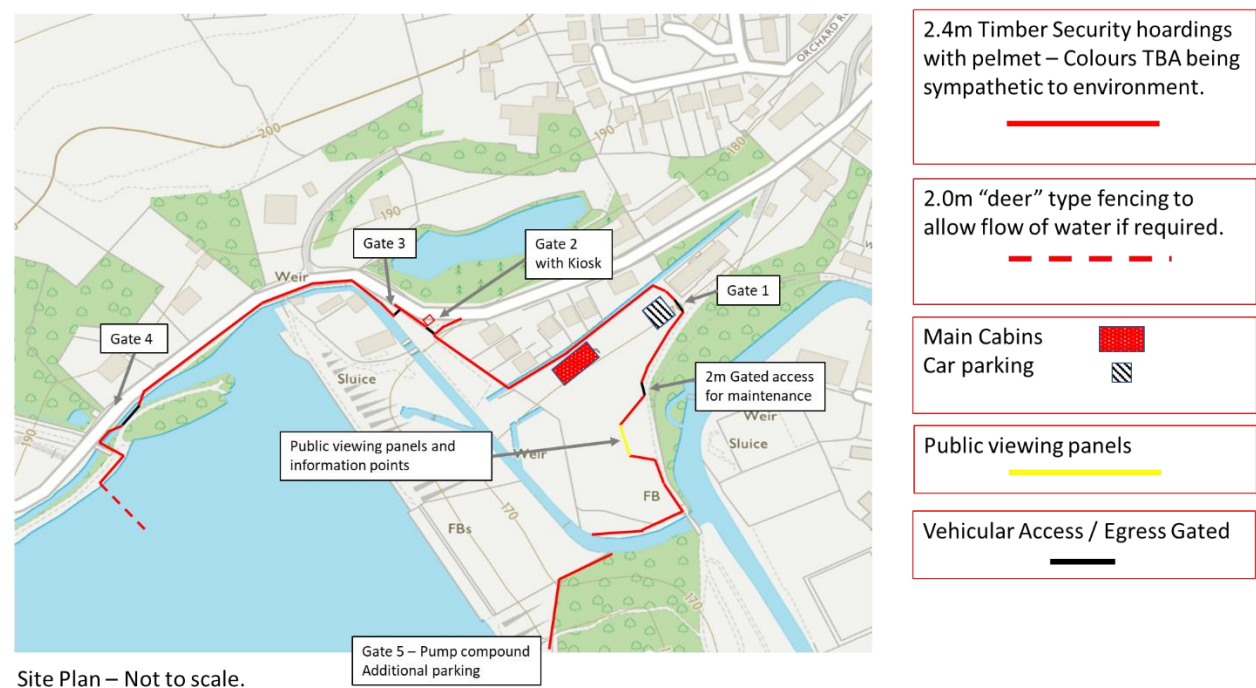


4.6. It is anticipated that the construction working hours will be as follows:

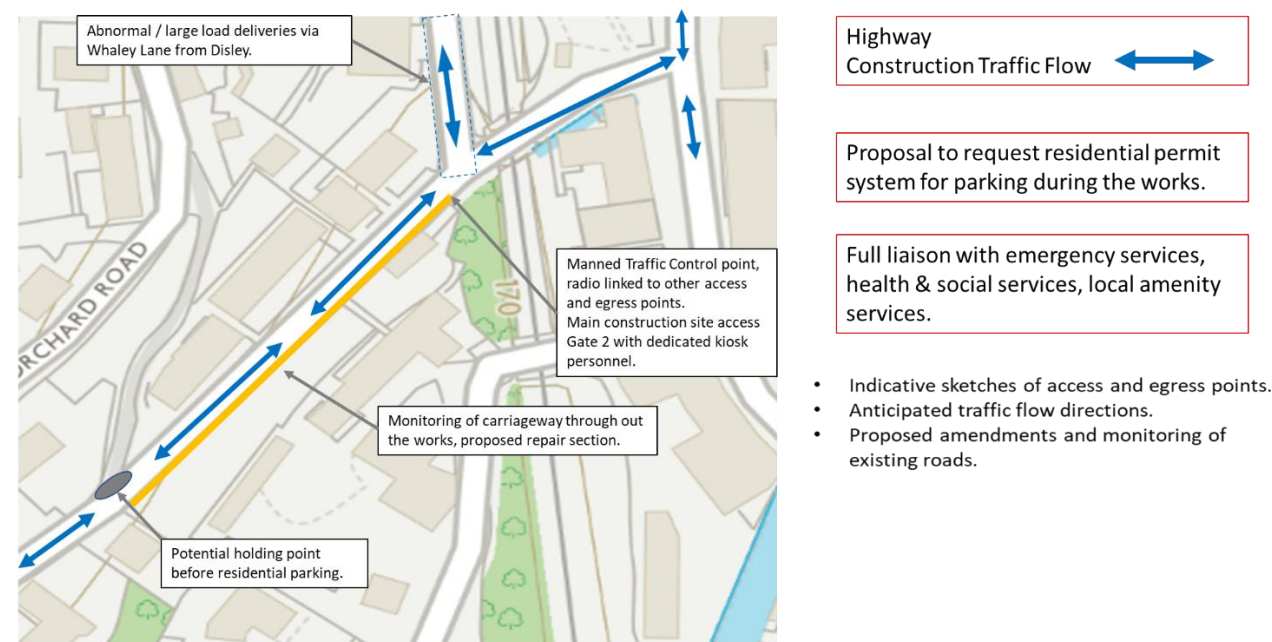
- Monday to Friday, between the hours of 08:00 to 18:00.
- Should Saturday working be necessary, [the local authority will be informed](#).
- No working is anticipated on Sundays or bank holidays.

Should any deliveries to the site be required outside of these hours, prior agreement with the local highway authorities will be required. It is possible that deliveries could take place out of hours due to material/plant availability, but these will be on rare occasions. The below plans indicate the proposed logistics on the highway route, comprising a Stop/Go system, manually operated by accredited Traffic Management operatives. Please also refer to section 5.6 for additional plans.

The proposed construction site layout is shown below - (fig. 04)

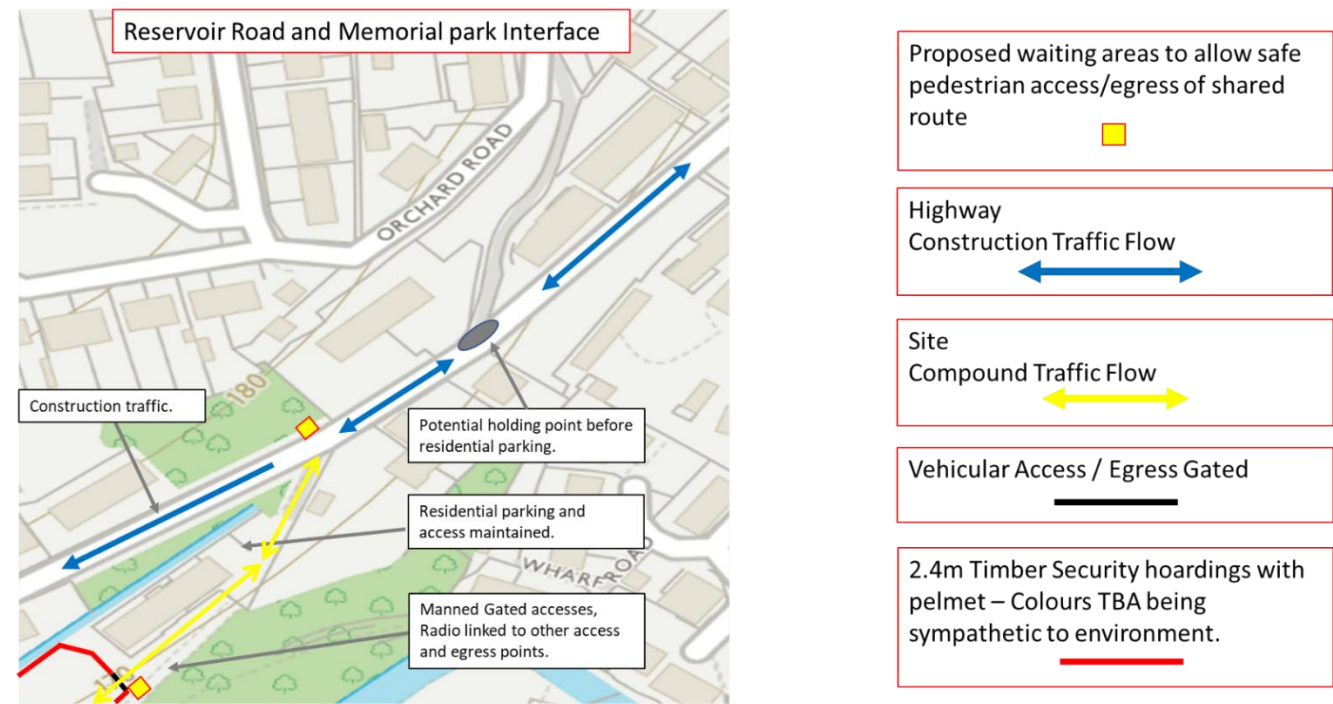


The proposed site access and logistics shown below - (fig. 05)



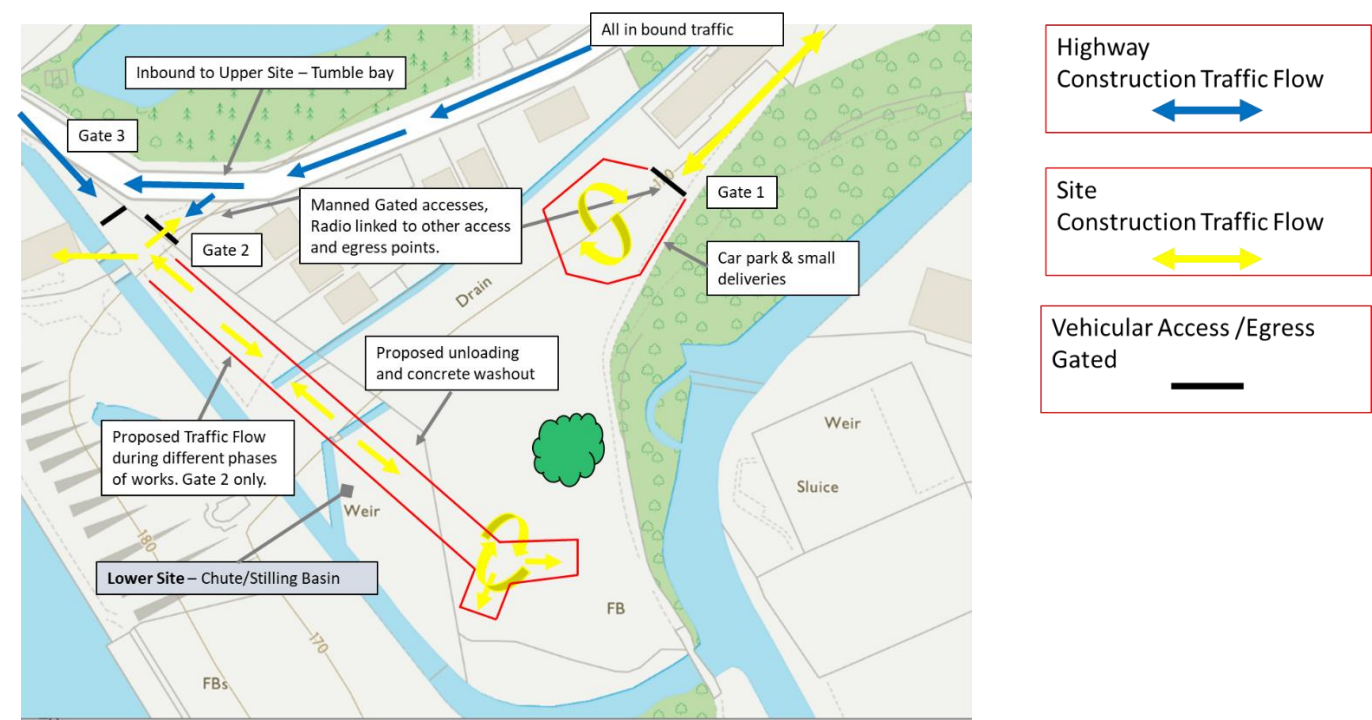
Site Plan – Not to scale.

The proposed site access and logistics shown below - (fig. 06)



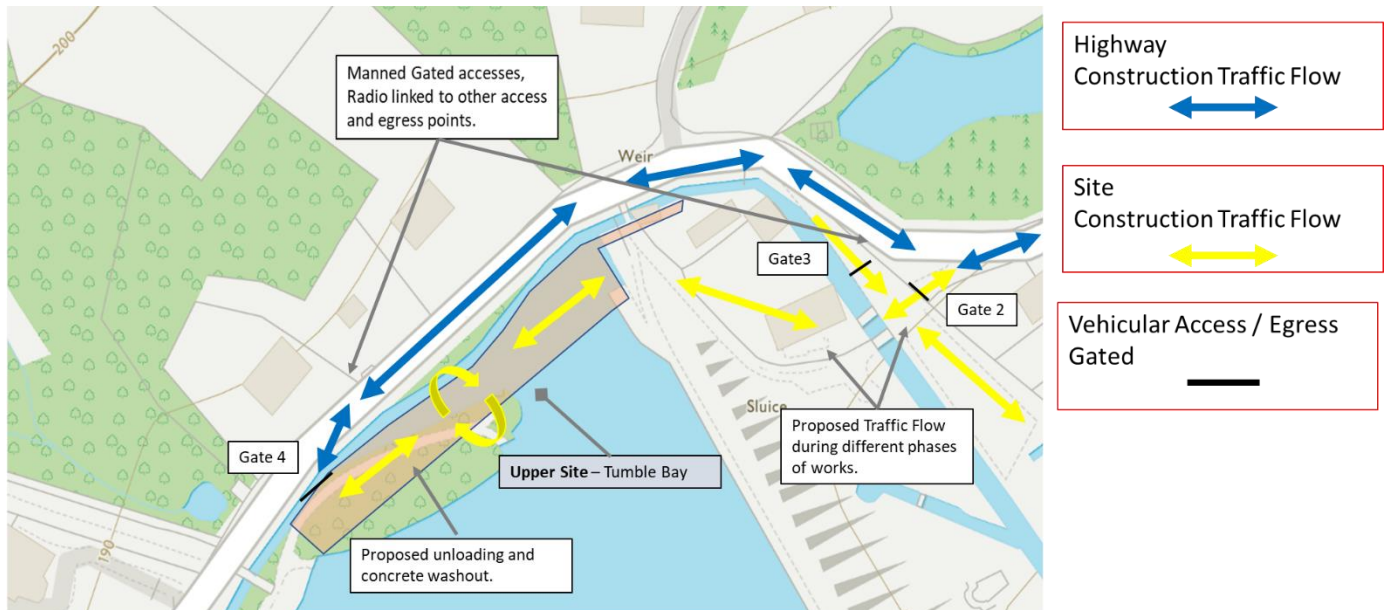
Site Plan – Not to scale.

The proposed site access and logistics shown below - (fig. 07)



Site Plan – Not to scale.

The proposed site access and logistics shown below - (fig. 08)



- Indicative sketches of access and egress points.
- Anticipated traffic flow directions on highway and site .

Site Plan – Not to scale.

- 4.7. All vehicles associated with the site will utilise the strategic road network and avoid lower classification of roads. The existing height restriction at the Whaley Lane bridge, and weight restriction on Old Buxton Road means that smaller vehicles will be required to access Reservoir Road and then onto the site. Details of the temporary traffic management to be deployed are outlined below in section 5.6.
- 4.8. All site operatives, delivery companies, authorities and visitors will be notified of the site access routes. Access to the site will be scheduled and restricted to necessary vehicles only.
- 4.9. Timber hoarding will be erected around the perimeter of the site, to reduce potential visual and noise impacts from the works and prevent unauthorised access to the site for health and safety purposes. This will not encroach onto the public highway; therefore no licences will be required from Derbyshire County Council for this set up. It is anticipated that a site traffic management supervisor will be available during working hours at the hub kiosk located at the delivery entrance gate 2, it would be preferable to contact the stakeholder manager that can provide updates and be contacted in-person. With ongoing interaction with the local community, should they require live updates on traffic movements and construction plans, or have feedback to provide on the works. Further discussion and any associated application will be noted with Derbyshire County Council.
- 4.10. Any vehicles higher than the restriction of the Network Rail bridge located on Reservoir Road, will be sent to and from the site via Whaley Lane to avoid impacting the bridge. These movements will be controlled by the temporary traffic management outlined below.
- 4.11. The typical construction vehicles types that will be accessing the site are:
 - Delivery Vehicle

- Muck Away Vehicles
 - Concrete and Tarmac Lorries
- (Various capacity from 2-Axle > Multi-Axle) also refer to Department of Transport typical lorry Types & Weights (<https://www.gov.uk/government/publications/guide-to-lorry-types-and-weights>).

4.12. During the initial set up of the site and **occasional operational tasks**, there will be the requirement for abnormal load movement. This specifically relates to a 96t gross vehicle weight (GVW) which will be situated at the Reservoir. Police assistance will be required and consultation with the local highway authority prior to this movement taken place.

5. Traffic Management

5.1. Access and egress for delivery and removal of materials will be planned, scheduled, and coordinated by Kier site management to comply with this document and the temporary traffic management which will be in place for the duration of the contract works.

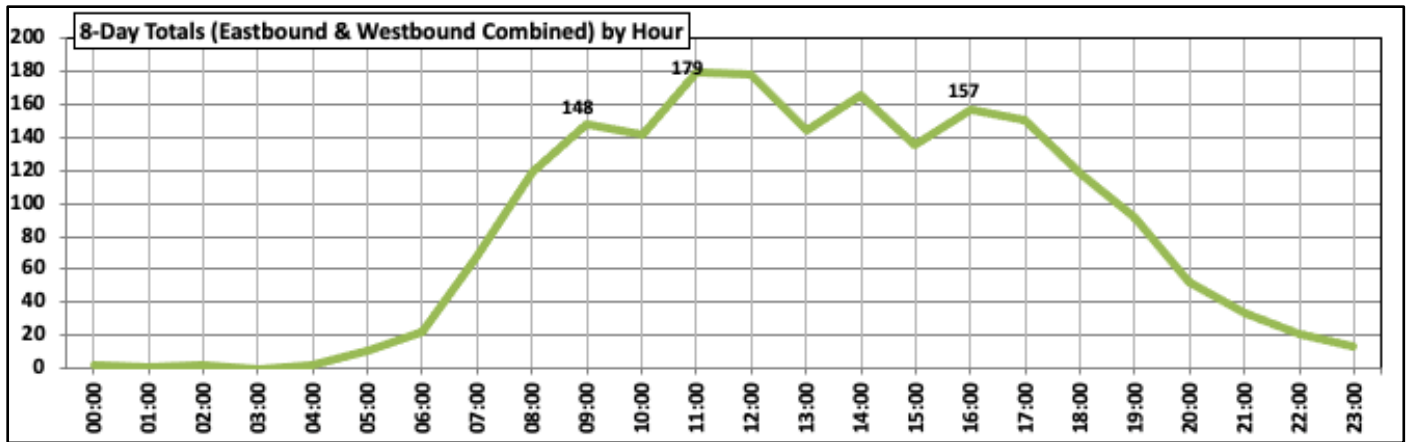
5.2. As outlined above, initial access to the site will be via Reservoir Road. The road has a speed limit of 30mph and is wide enough to accommodate the vehicles associated with the project – TM team have added. However, it is not wide enough for vehicular traffic to pass at the same time. This issue is further compounded closer to the roads junction with Whaley Lane where cars are permitted to park on one side of the carriageway. This would prevent delivery vehicles accessing the site, particularly if being met by an oncoming car.

It is proposed to narrow a section of pavement (fig. 06), still allowing pedestrian access, but also to facilitate continued safe parking in conjunction with vehicle movements. Pavement kerbstones will be retained / protected where necessary.

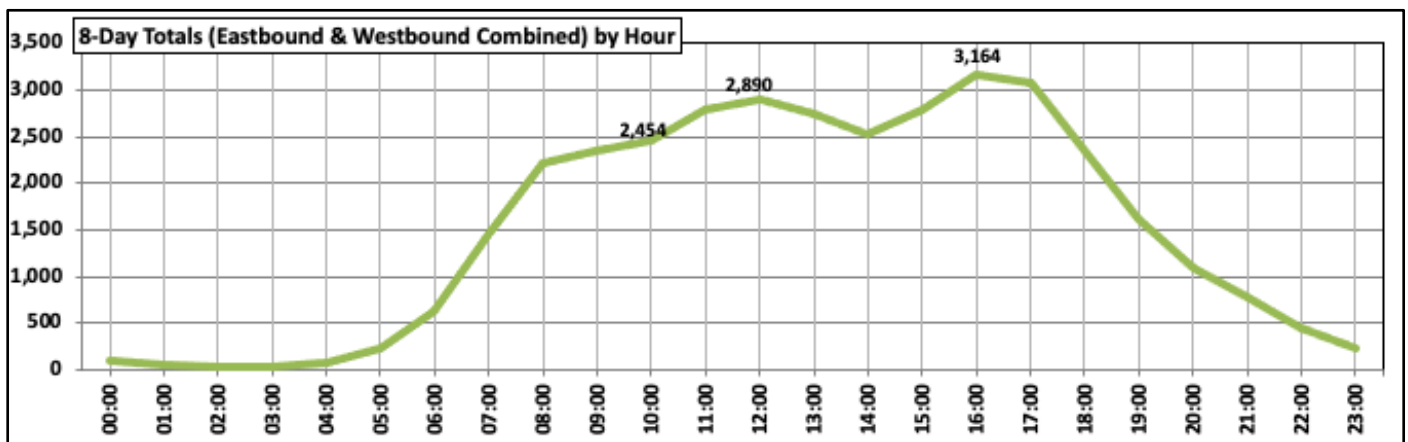
5.3. We have reviewed various temporary traffic management set ups, prioritising safety and not being detrimental to the highway network whilst a delivery is in progress. To understand the true traffic sensitive nature of the local highway network at the Reservoir Road/Whaley Lane junction, a traffic count survey was commissioned by the Principal Contractor. The survey was taken on both roads from Wednesday 28th July 2021 – Wednesday 4th August 2021.

5.4. A summary of the results of the abovementioned traffic count survey are outlined below (fig. 09) & (fig. 10):

Reservoir Road - data - (fig. 09)



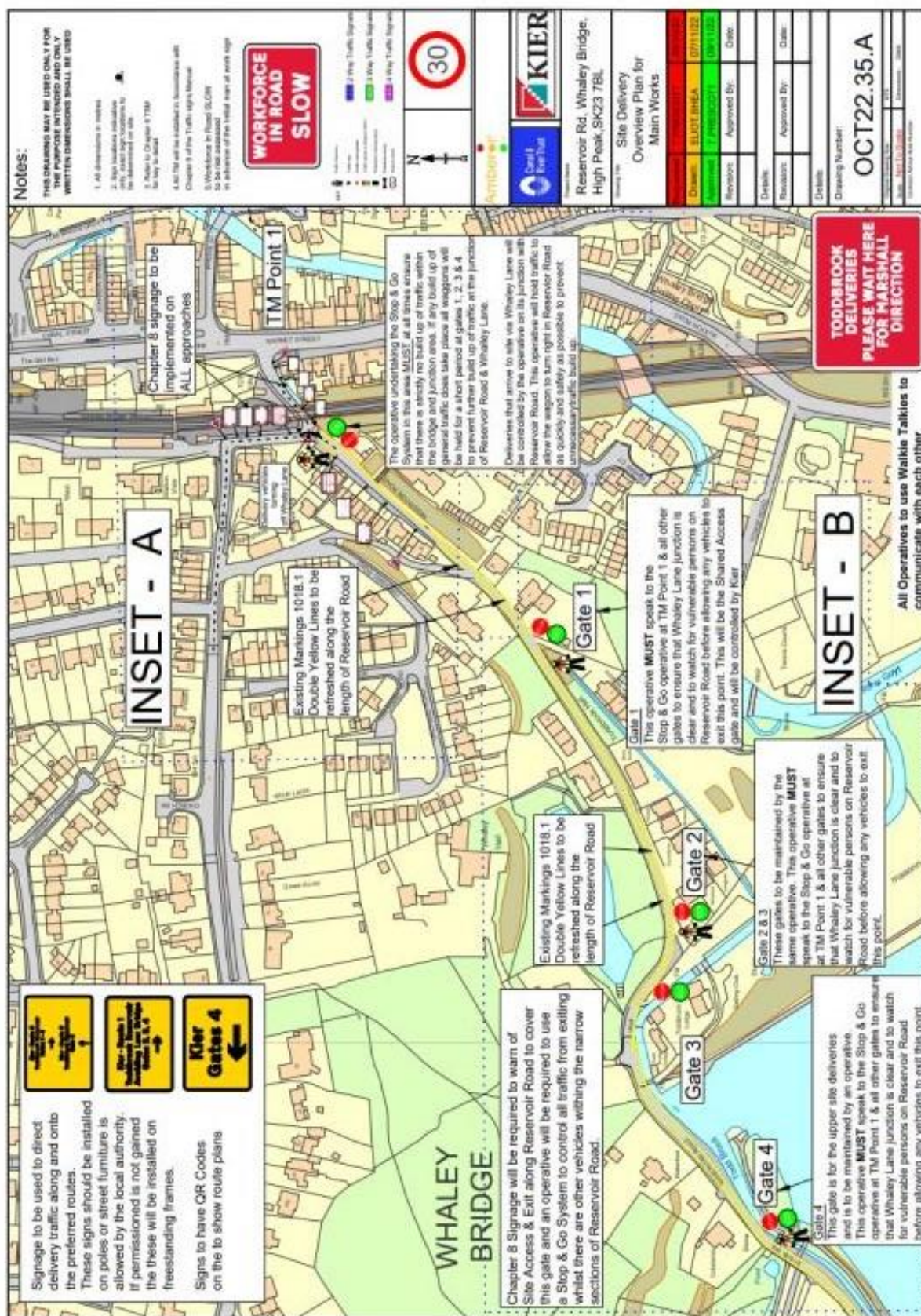
Whale Lane – data - (fig.10)



- 5.5. It was clear from the results of the traffic count data that traffic flows and speed are at a high level throughout the day, including off peak times e.g., 07:30 – 09:30 and 16:30 – 18:30. We therefore had to design an approach which mitigated as much as possible the disruption to the highway network.
- 5.6. We therefore propose to install a Stop/Go system, manually operated by accredited Traffic Management operatives, on Reservoir Road and the Whale Lane junction to enable vehicles to safely access and egress the site without obstructing the carriageway. The plans below indicate how this would operate, with delivery routes noted with QR to assist drivers.

Proposed Construction traffic management plan – Site Overview (fig. 011)

Project Name: Toddbrook Reservoir



Open Road Associates	Page 13 of 21	Rev 2
Author: SB Amendments: TG	Version Date: July 2023	Version: 2
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**Proposed Construction traffic management
Plan (Inset B from overview plan) – (fig. 013)**

Project Name: Toddbrook Reservoir



Delivery routes – (fig. 014)



- 5.7. This activity is considered a Positive form of traffic control as defined in the Safety at Street and Road Works: A Code of Practice. It is therefore a requirement that the Principal Contractor applies to Derbyshire County Council as highway authority for a road space booking permit to install this temporary traffic management set up and occupy the highway.
- 5.8. It is estimated that on average there will be five light goods vehicle movements per day and five heavy goods vehicle movements per day. This results in a combined construction traffic flow of ten vehicle movements per day. This being an average it is possible that this number may be higher for certain periods. Due to the low number of vehicle movements throughout the day, it is expected that the proposed temporary traffic management arrangement will not be detrimental to the local highway network.
- 5.9. Traffic management operatives will use radio control to contact each other and will only be deployed when a vehicle requires access/egress from the site. As demonstrated in the traffic count data; traffic flows remain relatively constant throughout the day. We therefore propose that a Stop/Go system gives the contractor greater control of vehicular traffic therefore ensuring disruption to the highway network is kept to a minimum. Due to supplier constraints and material availability, it is not always possible to avoid peak times. However, Kier will make every effort to limit or avoid delivery vehicle movements during the peak congestion periods throughout the day. It would be understood the traffic site liaison officer and team will have specific guidance for any assistance and communication identified during consultation prior to any works on site.
- 5.10. It is not envisaged at this stage that any site hoarding/fencing will need to be located on the Public Highway. However, there will be a need to over sail the public highway with a crane. The contractor is aware they must apply to Derbyshire County Council for a S178 Over sail Licence to facilitate this activity. A proposed communication hub will be located outside the site boundary but adjacent to the main access / egress point. Prior approval will be agreed with the landowner (Council) for appropriate permissions.
- 5.11. At this time, there are no permanent proposals to alter the existing public highway for the purposes of the construction route. As mentioned within this document the access and egress to the site will require alteration to allow vehicles to make the necessary turning manoeuvres. A detailed condition survey of the surrounding highway network will be commenced prior to the works starting and is detailed below. It is considered beneficial to widen the starting section of Reservoir Road to provide good clearance for all vehicles by means of reducing the footpath.
- 5.12. The risks to cyclists and pedestrians have been assessed throughout the proposed traffic routes and from the site and deemed as low due to actual pedestrian movements along the route. There are therefore no plans to provide temporary traffic management specifically for pedestrians. However, there will be operatives on site during working hours to monitor pedestrian movements and help where appropriate. This could be in the form of pedestrian marshals or if necessary, further pedestrian traffic management will be deployed with prior agreement from the highway authority.
- 5.13. All existing road markings in the vicinity of the temporary traffic management set up and access route will be refreshed prior to the project starting. The local public highway condition will be surveyed prior to commencement of the development and will be carried out in the following sequence:
- Notify Derbyshire County Council when the proposed start date for the project has been confirmed and arrange a suitable date for the survey. Agree scope of survey.
 - Carry out joint survey with Derbyshire County Council.

- Carry out photo survey of Reservoir Road and any other areas to be agreed with the Derbyshire County Council using suitable cameras to record the condition of the carriageway, footway, and verges; the extent of the survey to be agreed with the Council.
- A working brief will be in place in the interim period between survey date and the commencement of site operations. Any additional defects will be documented and provided to Derbyshire County Council.

6. Parking and Loading

6.1. The following arrangements will be instigated on site and will be communicated to all personnel associated with the project. There will be car parking for 19 contractor vehicles in the main compound, an overflow car park provided at the current south access (SK23 7DJ) will be provided, additional visitor parking at the Transshipment Warehouse (SK23 7LS).

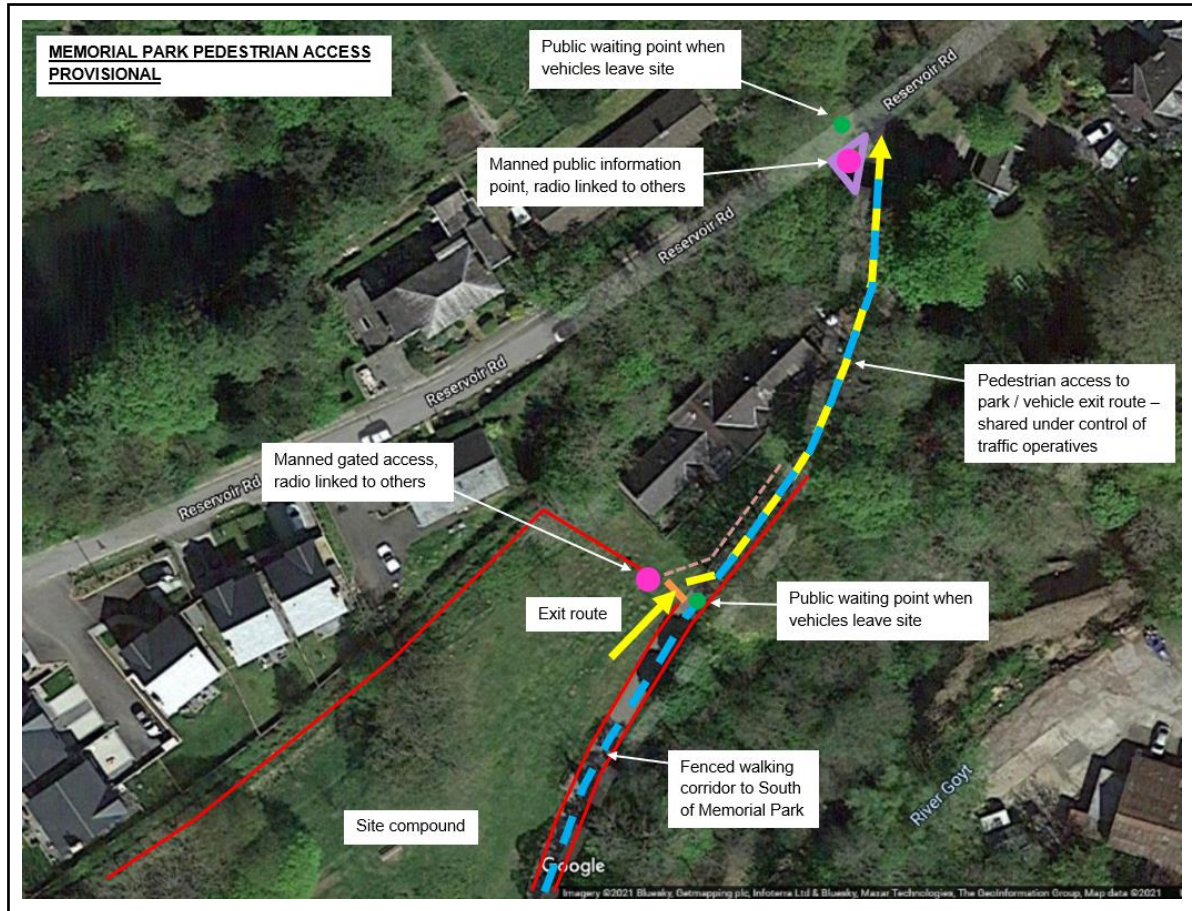
- All loading and unloading must take place on site, [minimal exceptions noted when abnormal loads are unable to, and will be assisted by TM team ie; large Piling Rig.](#)
- A suitable system as mentioned above will be in place so vehicles can leave in forward gear.
- Delivery vehicles will be held on site until they can be unloaded (site coordination with programme)
- [Notwithstanding abnormal loads noted above,](#) parking or vehicle stacking of deliveries will not be permitted on the highway network.
- Parking for contractors and visitors will be provided within the site boundary or agreed location.
- All vehicles will be loaded/unloaded on hardstanding to avoid depositing debris onto the public highway.
- Appropriate hard surface areas will be constructed on site to prevent mud and debris leaving the site. [A road-sweeping facility will be a continual operation where necessary to maintain road condition.](#)

6.2. [Residents on Reservoir Road have agreed to displaying a resident sticker in their vehicle, that is provided by the site / stakeholder manager to assist both residents and TM team to manage and coordinate local amenities vehicles and construction traffic of unrestricted access.](#)

It is understood that the park play area will be relocated therefore parking to access will be redundant until all works are completed. Pedestrian access through Memorial Park will be maintained, with shared access with vehicles exiting site [during site hours](#) under the control of traffic operatives with radio communication to ensure safe segregation before doing so. [It may be required that Out of Hours operatives may need to access on occasions reserved parking via gate 1 or gate 5 car parks, with appropriate assessment on access / egress by the individual.](#)

Pedestrians will be asked to wait in either the park or at the junction to Reservoir Road for a short period if necessary as construction vehicles leave. Outside of construction working hours, the route will be open to pedestrians as normal, through a fenced corridor in the park. The expected arrangements are shown indicatively in the figure below.

Pedestrian access through Memorial Park (fig.14)



7. Access and Egress

- 7.1. On a weekly basis, the site manager will evaluate details of the daily profile of deliveries proposed for the upcoming week. Deliveries will be controlled and communicated.
- 7.2. Sufficient time will be provided between deliveries to allow for any delays because of a vehicle being stuck in traffic or the temporary traffic management requiring set up. This will avoid any vehicles waiting on the surrounding highway network.
- 7.3. Vehicle movements will be governed by the onsite contractor, using radios on-site and with direct communication of the HGVs, to ensure that the required routes to the site are clear when entering and exiting the site. Communication will be in place between the HGVs and traffic management operatives to ensure the temporary traffic management is deployed and the highway is clear of any obstruction.
- 7.4. A banksman will be available at the access and egress points to guide construction traffic and record arrivals and departures of vehicles against the delivery schedule. They will also be in close contact with the traffic management operatives.

8. Sustainable Travel

- 8.1. Contractors will be encouraged to minimise the impact of travel by considering modes of transport to the site. Due to the location of the reservoir some of the public transport facilities may not be available; however there will be a strong promotion for car sharing and providing shuttle buses for personnel.
- 8.2. Due to the nature of the works the teams required to undertake it are specialists that are unlikely to reside locally to the site. A review by the Principal Contractor will be undertaken to ensure there is appropriate accommodation provided for the site team where necessary either onsite with local B&Bs or hotels. At this stage accommodation locations cannot be known, but contractors should be able to exercise a degree of control over the impact of their trips to site when works teams are in place and in accommodation.
- 8.3. Subject to government advice and Principal Contractor guidance and policy COVID restrictions may apply.

9. Community Liaison

- 9.1. The local town hall and in partnership with the Canal & River Trust will have information boards and links to the project website which will include information about the scheme and the construction process including timings and maps. This will include information about access routes, temporary traffic management and any likely disruption to the highway network. Kier communications team will utilise various methods where appropriate to keep the public abreast of the activities on site. It is proposed a monthly meeting could accompany weekly communications updates. As described above (4.9), the communications hub will be a central point for liaison with local residents.
- 9.2. Kier and their sub-contractors / supply chain will maintain a close working relationship with Derbyshire County Council, the local District and Parish Councils and emergency services during the project and any specific issues that are relevant to having an impact on the public highway not envisaged at this stage of the project can be discussed in detail. Close liaison will be maintained with the local police services so that emergency issues relative to the highways can be addressed should they arise in line with programme.

10. Conclusion

10.1. The table below summarises the measures which have been addressed and acknowledged as part of the CTMP:

Measure	Further Actions
Delivery Routes	Contractor informed of approved HGV access routes in contract documentation.
Site Access and key Junctions	As per CTMP
Vehicle Escort	Abnormal load identified. Liaison with Stakeholders and police will be required.
Route Survey	Condition survey of route will be required and checked regularly.
Coordination with Highway Authority and emergency services	As per CTMP
Route and Access Signage	As per CTMP and Road Space Permits
Community Liaison	As per CTMP
Temporary Traffic Management	As per CTMP

The agreed contents of this CTMP will be complied with unless otherwise agreed with the local authorities. The site manager and consultants will work with the Council to review this CTMP in the event of any issues arising in relation to the activities on site.