# Construction Management Plan




**Project:** Brigham Street, Openshaw

**Client:** One Manchester

**Principal Contractor:** John Southworth

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## Introduction

Brigahm Street involves the erection of 24no new homes with a mix of semi detached houses and walk up flats all with associated external works including car parking, landscaping and boundary treatments.

20no Homes will be timber frame structures which minimises assembly time and overall contract duration, 4no apartments will be traditional construction. Piled foundations with a suspended floor support the buildings with a brickwork facade.

This Construction Management Plan outlines the working practices for the Project to minimise the impact and disruption on the General Public in terms of Site traffic, noise, waste, dirt and dust.



## 1.0 Traffic Management Plan

Avoiding hazards and controlling the risks arising from the use of the vehicles in construction work is essential. The Health and Safety Executive (H.S.E) expect to see traffic management plans that include:

- Planning and managing both vehicles and pedestrian routes
- The elimination of reversing where possible
- Safe driving and working practices
- Protection of the public
- Adequate vision and lines of sight
- The provision of signs and barriers
- Adequate parking and off-loading/storage areas

APPENDIX 1 shows the proposed access point that bulk deliveries will take to access the site. The proposal is to construct the new street as designed as part of preliminary works, this will provide 22no parking bays, a loading/unloading bay with turning space allowing all vehicles including the largest site vehicle (11m (L) x 2.55m (W) x 4m (H) 26 tonne rigid wagon) to enter and exit in a forward facing position. There will also be 1no lay up space within the site, allowing a wagon space within the site whilst the 2nd vehicle is unloaded, this will prevent wagons being laid up on the highway.

During initial construction the existing access from station road will be used and a section of the site surfaced with a temporary stone turning point. The earth works will commence to the rear of the site and work towards the front, at the point that the works reaches the front of the site any excavated materials will be stock piled, and removed once the road is completed.

Upon commencement all deliveries, operatives and visitors to the Project will report to the Site Manager's Office. This will be communicated to all contractors at their pre-start meeting.

They will be inducted by the Site Manager, and be informed of emergency procedures, assembly points, first aid, site rules, and the location of welfare facilities, etc. They will be instructed to text sign in and out at the site office each day. We will check that their PPE is appropriate to the tasks being undertaken, upon signing in.

Contractors, visitors, and staff will use the designated pedestrian pathway to access the site.

An integral part of the progress meetings held with all trade contractors is the delivery schedule pro-forma. All contractors are required to give details of proposed timing of material deliveries to the site. At this stage, they will be given a specific area for delivery.

The Traffic Management Plan and the control measures contained therein, are included within all trade contractor tender enquiries, to ensure early understanding and acceptance, and to ensure compliance with the rules that will be in place on this project.
**Under no circumstance will lorries be allowed to lay-up in surrounding roads.**

**Delivery Vehicles / Laying-Up**

Prevention Steps

1. Delivery hours will be limited to within site working hours. This condition forms part of subcontract documentation, and subcontractors will be reminded of this at pre-start meetings.
2. Deliveries are booked in with our Site Manager and logged on a central register.
3. Staff will be on site at least half an hour before the earliest delivery time.
4. **No deliveries to take place between 8.00am – 9.15am and 3.00 – 3.45pm, whilst children and parents are going to and from the nearby schools.**
5. Site Working Hours are as follows:

   **Mon – Thurs:** 7.30 am – 4.30 pm, **Fri:** 7.30 am – 3.30 pm
   **Sat:** 8.30 am – 1.00 pm
   There will be no working on Sundays or Bank Holidays

6. Persistent offenders disobeying the site delivery hours will be reported to the Managing Director, who will action with the management of the offending company.

**Site Administration**

Responsibility for construction traffic movement is that of the Site Manager, who together with the site team will:

a) Ensure that subcontractors and suppliers adhere to procedures set out in the pre-start conditions, by booking in deliveries, giving the required notices.

b) Prevent unauthorised parking by contractors parking and the consequent congestion of the surrounding roads. All personnel in the team will be in contact with each other and site management, who in turn, will have mobile and telephone contact with the subcontractors.

c) Provide security at the access gate and the loading/unloading area.

d) Maintain roads in a clean and safe condition.

We recognise that all deliveries may not be notified before arrival; such as smaller deliveries by third parties and on occasion, simply not booked in.

Deliveries from overseas often have difficulty in providing accurate arrival times. The Site Manager will then manage the delivery situation, with the priority being to get the vehicle off the public road system and within the site, the wagon holding bay designed will ensure that unplanned deliverys will not impact on the surrounding roads.

Other options open to the team are to send deliveries away (persistent offenders) or temporarily send deliveries to a lorry park with a return time. We reiterate that lorries will not be allowed to lay-up along the site or adjacent public roads.

'Muck-away' lorries and concrete delivery wagons will be booked in, but these vehicles are usually prevalent early in the Project, when other deliveries are less numerous.

**Wheel Cleaning Strategy**

a) It is inevitable that dust will be occurring during a construction project, wherever works are being undertaken, that could cause dust, suppression systems will be used to keep dust to a minimum.
b) Dust masks will be worn always during these situations.
c) To prevent mud and debris 'tracking' from the site onto local roads, the loading area for 'muck away' will be 'tarmaced, to prevent mud and debris carrying out onto the highway, no vehicles will be allowed to enter/leave the site from unmade ground.
d) Wherever possible, materials will be reused on site for raising levels to eliminate, or at least reduce the need for lorry movements, consequently reducing the traffic impact on the surrounding area.
e) Site labour will monitor the condition of the local roads and clean-up, as necessary.
f) Should mud/dust be spread on the carriageway the loading point will be inspected and repaired as required, surpression by water employed to prevent future occurrence, a road sweeper will sweep the local roads to clear any mud/dust.
g) To prevent or minimise the use of resources i.e. water and electricity, wheel-cleaning equipment will be at the base of our mud and debris control hierarchy, should it be required.
h) Site management will monitor and maintain clean footpaths and the entrance to the site daily before close of play.

**Waste Removal**

Waste removal as part of the construction works needs to be considered as part of management plans. Waste to be removed from this site will be categorised as follows;

**Soil / Hardcore – Categorisation Inert Fill (non-hazardous)**

Waste removal will be removed by 8 wheeler truck transported with **debris nets/sheeting**. Vehicle to be loaded within the site by Excavator from bulk store/or grab wagon)

**Soil / Hardcore – Categorisation Treatment Req (hazardous)**

We do not envisage any hazardous materials on site.

**Site Waste General Use – Mixed Waste (non-hazardous)**

Site waste generated from construction works will be placed in open skips with care to prevent debris flying in adverse weather. 8 yard builders skips will be utilised and segregation will take place off site by the approved waste carrier.

**Site Waste Gypsum - Hazardous**

Gypsum products will be placed in 8 yard enclosed (lidded) skips segregated on site for treatment by a licensed waste carrier.

Regular appraisal of waste storage points are assessed to accommodate works on site to ensure the safety of site personal and the general public.

## 2.0 Pedestrian Route Checklist

| Question | Yes | No | N/A |
|---|---|---|---|
| **Q1** Are pedestrian routes clearly separated from vehicle routes by fencing and/or a kerb, or other suitable means.<br>If 'no' see action 1 | ✓ | | |
| **Q2** Are pedestrian routes wide enough to safely accommodate the number of people likely to use them at peak times.<br>If 'no' see note 2 | ✓ | | |
| **Q3** Do pedestrian routes allow easy access to work areas.<br>If 'no' see note 3 | ✓ | | |
| **Q4** Pedestrian routes are kept free of obstructions<br>If 'no' see note 4 | ✓ | | |
| **Q5** Pedestrian routes are clearly and suitably signed<br>If 'no' see note 5 | ✓ | | |
| **Q6** Can pedestrians safely cross the main vehicle routes.<br>If 'no' see note 6 | | | ✓ |
| **Q7** Do pedestrians have a clear view of traffic movements at crossings and at gates which lead onto traffic routes.<br>If 'no' see note 7 | | | ✓ |
| **Q8** Do pedestrians have clearly marked, separate access for use at loading bays and site gates.<br>If 'no' see note 8 | ✓ | | |
| **Q9** Do pedestrian routes provide safe access to welfare facilities.<br>If 'no' see note 9 | ✓ | | |

| No | Actions to be taken | Action taken |
|---|---|---|
| **1** | Ensure routes are clearly designated and protected | Pedestrian route is shown on current site drawing. This is reviewed daily in accordance with risk assessments and updated if required. Pedestrian routes are explained during induction. |
| **2** | Base the plan on peak numbers | |
| **3** | Plan routes to allow safe access | Routes reviewed daily |
| **4** | Ensure plan includes the need to keep access routes clear | Routes to be checked daily via supervisor's inspections |
| **5** | Ensure sufficient signage | Part of inspection |
| **6** | Ensure sufficient crossing points are planned. | |
| **7** | Ensure that blind spots are eradicated during the planning process. | |
| **8** | Consider separate access to loading bays and gates. | |
| **9** | Provide safe routes at parking areas.<br>Plan site set up to avoid need for pedestrians to cross routes | |

## 3.0 Vehicle Movements

| Question | Yes | No | N/A |
|---|---|---|---|
| **Q1** Are routes planned to reduce the need for excessive vehicle movement<br>If 'no' see action1 | ✓ | | |
| **Q2** Are vehicles fitted with reversing aids.<br>If 'no' see action 2 and Section 5 | ✓ | | |
| **Q3** Will vehicles reverse without reversing aids.<br>If 'yes' see action 3 and Section 5 | ✓ | | |
| **Q4** Will vehicles reverse to excavations.<br>If 'yes' see action 4 and Section 5 | | ✓ | |
| **Q5** Are routes kept free of obstructions.<br>If 'no' see action 5 | ✓ | | |
| **Q6** Are routes clearly and suitably signed<br>If 'no' see action 6 | ✓ | | |
| **Q7** Can pedestrians safely cross the main vehicle routes.<br>If 'no' see action 7 | ✓ | | |
| **Q8** Do pedestrians have a clear view of traffic movements at crossings and at gates which lead onto traffic routes.<br>If 'no' see action 8 | ✓ | | |
| **Q9** Do drivers have a clear view.<br>If 'no' see action 9 | ✓ | | |
| **Q10** Will vehicles run a risk of depositing mud on the road.<br>If 'yes' see action 10 | | ✓ | |
| **Q11** Will vehicles need sheeting up.<br>If 'yes' see action 11 | ✓ | | |

| No | Actions to be taken | Action taken |
|---|---|---|
| **1** | Ensure routes provide sufficient space to turn. Keep routes to a minimum | |
| **2** | Request vehicles are fitted with reversing aids. | |
| **3** | Vehicles not fitted with reversing aids must be banked when reversing. | All Vehicles must be CLOCS |
| **4** | Ensure banksman present or adequate stop block. | |
| **5** | Ensure plan includes need to keep access routes clear. Include in induction. | |
| **6** | Ensure sufficient signage | |
| **7** | Ensure sufficient crossing points are planned for. Ensure drivers are told of crossing points. | |
| **8** | Ensure that blind spots are eradicated during the planning process. | |
| **9** | Plan routes to reduce or eliminate reversing and blind spots | |
| **10** | Consider wheel wash facilities or other suitable alternative | |
| **11** | Ensure provision of sheeting area, if required | Vehicles to be sheeted. |

## 4.0 Hierarchy of Control Measures for Reversing Operations

| | | |
|---|---|---|
| **1** | Eliminate need to reverse | Implement one-way systems around the site<br>Allocate loading and unloading areas.<br>Provide designated turning areas. |
| **2** | Reduce reversing operations | Reduce the number of vehicle movements as far as possible.<br>Instruct drivers not to reverse, unless necessary. |
| **3** | Ensure adequate visibility for drivers | Fit CCTV, convex mirrors, Fresnel lens, etc. to overcome restrictions to visibility from the driver's seat, particularly at the sides and rear of vehicle, |
| **4** | Ensure safe systems of work are followed | Design vehicle reversing areas which,<br>• Allow adequate space for vehicles to manoeuvre safely<br>• Exclude pedestrians; and<br>• Are clearly signed and have physical stops or buffers to warn drivers that they have reached the limit of the safe reversing area.<br><br>Fit radar proximity devices to vehicles to indicate to drivers when there are objects near the vehicle.<br>Ensure everyone on site understands site rules on vehicle safety.<br>Drivers and signallers need to be in constant communication during reversing operations.<br>Signallers should not be put at risk from vehicle movement, e.g. by standing directly behind reversing vehicles.<br>Ensure all vehicles on site are fitted with appropriate warning devices. |
| **5** | Provide warnings when vehicles are reversing | Ensure reversing warning lights and alarms are in good working order and instruct workers to keep clear of moving vehicles. |

## 5.0 Driver's Safe Working Practices Checklist

| | |
|---|---|
| **1** | Only operate vehicles if you are competent and authorised to drive them |
| **2** | Do not drive when your abilities are impaired by ill health, poor vision, prescribed/illegal drugs, or alcohol |
| **3** | Make sure you fully understand the operating procedures of the vehicles you control |
| **4** | Know the site routes and follow them. Take care at pedestrian cross-overs. |
| **5** | Understand the system of signals used on site |
| **6** | Visiting drivers: seek appropriate authority to enter the site and operate vehicles |
| **7** | Know the safe operating limitations of your vehicles, particularly relating to safe maximum loads and gradients |
| **8** | Carry out daily checks on your vehicles and report all defects immediately to supervisors |
| **9** | Follow site procedures and comply with all site rules |
| **10** | Do not drive at excessive speeds |
| **11** | Wear appropriate PPE when out of the cab |
| **12** | Ensure that windows and mirrors are kept clean and clear |
| **13** | Keep the vehicle tidy and free from items which may hinder the operation of vehicle controls |
| **14** | Do not allow passengers to ride on vehicles unless safe seating is provided |
| **15** | Park vehicles on flat ground wherever possible, with the engine switched off, the handbrake and trailer brake applied and where necessary use wheel chocks |
| **16** | Do not reverse without reversing aid or banksman assistance |
| **17** | Where visibility from the driving position is restricted, use visibility aids or a signaller. Stop if you lose site of the signaller or the visibility aids become defective. |
| **18** | Do not remain on vehicles during loading operations, unless the drivers position is adequately protected |
| **19** | Ensure loads are safe to transport |
| **20** | Do not attempt to get on or off moving vehicles |
| **21** | Do not adjust with the engine running and guards removed |
| **22** | Do not smoke during refuelling operations |
| **23** | Do not use a mobile phone whilst driving on site |
| **24** | **Sign below to acknowledge receipt of the above information**<br><br>**Signature…… Date……** |

## 6.0 Signaller's/Banksman Checklist

| | |
|---|---|
| **1** | Use relevant safety procedures and correct signalling systems |
| **2** | Ensure drivers understand the correct signalling systems |
| **3** | Signal instructions clearly |
| **4** | Ensure you are visible to the driver and the driver is visible to you; if not, stop the vehicle moving |
| **5** | Stand in a safe location always |
| **6** | Warn pedestrians and make sure they are kept away from vehicle operations. |
| **7** | Wear appropriate protective clothing, including high-visibility clothing |
| **8** | Report work hazards to supervisors |
| **9** | Make sure you can get to and from your work location safely |
| **10** | Do not ride on the vehicle you are directing unless you are in a designated safe position |
| **11** | Do not direct vehicles if your ability is affected by alcohol or drugs |
| **12** | Do not use a mobile phone whilst directing vehicles |
| **13** | **Sign below to confirm acknowledgement of the above rules**<br><br>**Signature……. Date…….** |

## 7.0 Safe Use of Site Dumper's Checklist

| | |
|---|---|
| **1** | Allow only competent people to drive site dumpers |
| **2** | Provide stop blocks at the edges of excavations, pits, spoil heaps, etc. to prevent dumpers falling when tipping. The blocks need to be positioned a sufficient distance away from any unsupported edges and slopes to prevent the weight of the vehicle causing collapse |
| **3** | Do not operate the site dumper's controls unless seated on the driving seat |
| **4** | Do not carry passengers unless purpose-built seats are provided |
| **5** | Do not drive on gradients in excess of those safe for the dumper (see manufacturer's instructions) |
| **6** | Avoid manoeuvring on sloping ground |
| **7** | Drive at appropriate speeds for site conditions |
| **8** | Load on flat ground with brakes applied |
| **9** | Get off dumper when it is being loaded |
| **10** | Ensure loads are distributed evenly and do not let them obscure your vision |
| **11** | Securely fix loads which may cause danger if they move |
| **12** | Stop the vehicle, take out of gear, and apply parking brake, before tipping loads |
| **13** | Do not drive around with the skip in the vertical discharge position |
| **14** | Use the appropriate towing pins (not bent pieces of reinforcement bars) |
| **15** | Do not leave the engine running when you leave the vehicle |
| **16** | Be aware of the differences in performance of site dumpers when loaded and unloaded, particularly speed, braking and stability on slopes |
| **17** | Be aware of the different handling and braking characteristics of the vehicle in wet or icy conditions |
| **18** | Do not alter tyre pressures outside the manufacturer's specifications. |
| **19** | When using a starting handle ensure<br>• Neutral gear is selected, and the handbrake is firmly applied, and the area is clear of obstructions<br>• The starting-handle is the correct type and in good condition with a handle grip which rotates freely<br>• Your thumb is kept on top of the grip of the handle to prevent injury in case of kickback |
| **20** | Do not use a mobile phone whilst driving a dumper |
| **21** | **Sign below to confirm acknowledgement of the above rules**<br><br>**Signature…… Date……** |

## 8.0 Dust Sources and Control Measures

| Dust Source | Control measures |
|---|---|
| ***Routes and access to site*** | |
| Public roads | All vehicles will be kept within hardstanding's and loaded from temporary site hardstanding's to prevent the spread of spoil onto public roads<br>A road sweeper will be on standby should the public roads require cleaning as a result of our works |
| Vehicle hardstanding on site | These will be regularly inspected and kept clean and free from dust, water bowsers will be on site for washing down or dampening in dry weather |
| Site traffic | Restricted to hard standings or public roads, site speed limit 5MPH |
| ***Static and mobile plant emissions*** | |
| Exhaust smoke | Vehicles and plant will not be permitted to emit black smoke |
| Maintenance and servicing | Only well maintained vehicles and plant will be permitted to operate on the site |
| Operation | All vehicles will be switched off when not in use |
| Location of plant and equipment | When locating plant and equipment, consideration will be paid to sensitive receptors |
| ***Handling, storage, stockpiling and spillage*** | |
| Materials handling operations | The number of times a materials has to be handled will be kept to a minimum to prevent double handling and ensure dusty materials are not handled unnecessarily |
| Transport of fine dusty materials and aggregates | Either closed tankers or sheeted vehicles will be used |
| Vehicle loading/unloading materials | Dusty materials will be dampened down, Drop heights will be kept to a minimum and enclosed where possible. |
| ***Storage of materials*** | |
| Bulk cement/mortar | Stored in sealed containers and kept in dedicated areas, the use of ready mixed mortar will be used. |
| Stockpile location | Stockpiles placed to avoid double handling and facilitate clear removal from site |
| Large and long term stockpiles | Long term storage is to be avoided<br>Where unavoidable stockpiles will be vegetated and stabilised as soon as possible<br>Stockpiles will be dampened down where necessary until stabilised<br>Wind barriers of a similar height will be erected if control measures are not possible |

| | |
|---|---|
| Small and temporary stockpiles | Where possible stockpiles will be stored under sheeting<br>Dusty materials will be damped down<br>Consideration to smaller delivery's to prevent stockpiles |
| ***Site preparation and restoration*** | |
| Earthworks | These activities will be kept damp where required and if possible avoided during dry and/or windy periods<br>Surfaces will be stabilised and re-vegetation applied as soon as possible |
| ***Construction process*** | |
| Crushing and/or reuse of materials | Will not be permitted on site |
| Cutting/grinding, sawing, drilling | Where reasonably practicable these activities will be avoided by selected materials at pre cut sizes<br>Equipment and techniques that minimise dust will be implemented<br>Water will be used to suppress dust |
| Storage of waste (general) | Where required closed lidded skips will be used for storage of fine materials<br>Skips to be located away from sensitive areas and enclosed with netted harris fencing |

## 9.0 Central Control Register

| W/C: | | | |
|---|---|---|---|
| **Date** | **Delivery Details** | **Contractor** | **Contact No.** |
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## 10.0 Noise and Vibration

Construction Noise and Vibration Management Plan.

1.1 Objective

This management plan defins the measures to control and limit noise emission and vibration levels both on site and to the site boundarys.

1.2 General Requirements - Noise

Best Practicable Means of noise control will be applied during construction works to minimise noise (including vibration) at neighbouring residential properties and other sensitive receptors arising from construction activities.

The general principles of noise management are given below:

**Control at source:**

- Equipment – noise emissions limits for equipment brought to site.
- Equipment – method of directly controlling noise e.g. by retrofitting controls to plant and machinery.
- Equipment - indirect method of controlling noise e.g. acoustic screens.

**Control across site by:**

- Administrative and legislative control,
- Control of working hours,
- Control of delivery areas and times,
- Careful choice of compound location,
- Physically screening site,
- Control of noise via Contract specification of limits,
- Noise Monitoring, to check compliance with noise level limits, cessation of works until alternative method is found.
- Many of the activities which generate noise can be mitigated to some degree by careful operation of machinery and use of tools. This may best be addressed by tool box talks and site inductions.

### 1.3 Noise and Vibration Control Measures

Without prejudice to the other requirements of this section, the Contractor shall comply with the recommendations set out in BS5228:2009 and in particular with the following requirements:

- Vehicles and mechanical plant will be maintained in a good and effective working order and operated in a manner to minimise noise emissions. The contractor will ensure that all plant complies with the relevant statutory requirements;
- HGV and site vehicles will be equipped with broadband, non-tonal reversing alarms;

- Compressor, generator and engine compartment doors will be kept closed and plant turned off when not in use;
- All pneumatic tools will be fitted with silencers/mufflers;
- Care would be taken when unloading vehicles to avoid un-necessary noise;
- The use of particularly noise plant will be limited, i.e. avoiding use of particularly noisy plant early in the morning;
- Restrict the number of plant items in use at any one time;
- Plant maintenance operations will be undertaken at distance from noise-sensitive receptors;
- Reduce the speed of vehicle movements;
- Ensure that operations are designed to be undertaken with any directional noise emissions pointing away from noise-sensitive receptors;
- When replacing older plant, ensure that the quietest plant available is considered;
- Drop heights will be minimised when loading vehicles with rubble;
- Vehicles should be prohibited from waiting within the site with their engines running or alternatively, located in waiting areas away from sensitive receptors;
- Local hoarding, screens or barriers should be erected to shield particularly noisy activities;
- Temporary noise screens will be used to reduce noise from particularly noisy activities and the height of perimeter hoarding will be extended where this would assist in reducing noise disturbance at sensitive receptors; and
- Hours of operation should be strictly enforced and any deviations other than those previously identified will be with the consent of the local authority.

**Notifications**

Occupiers of adjacent properties will be informed by the Contractor up to 2 weeks in advance of the works taking place, including the duration and likely noise and vibration effects.

### 1.4 Construction activities identified to cause excessive noise and/or vibration

**Piling**

**Piling is required as part of the construction activities**

Piling is typically one of the most intrusive vibration sources associated with construction works, vibration monitoring will be undertaken with regular readings taken at no more than 1 hour intervals throughout the works, Works are programmed to last 2 weeks and should readings at the site boundary exceed 1.0 mm/s Peak Particle Velocity (PPV) works will stop and pre-arguring will be adopted.

These activities will be limited to the hours of 8:30 – 4.00Pm and prior notice will be given of a minimum of 2 weeks to the local neighbours.

**Vibration rollering**

**Vibration compact rollering is required to form temporary basis, sub-bases for roads and pavements.**

Vibration levels due to the use of vibratory rollers at 10m from the works are predicted to be approximately 1.5 mm/s PPV.

BS5228-2 notes “It is likely that vibration of this level in residential environments will cause complaint, but can be tolerated if prior warning and explanation has been given to residents”

Residents should therefore be given prior warning of the use of vibratory rollers.

Works are to be short duration (no more that 15 minutes in any one time)

**Mixed construction activity**

Whilst each construction activity in isolation can be controlled to prevent excessive noise, when activities are combined noise levels can become excessive. Careful planning and monitoring of noise on site and at the site boundary's must be implemented to manage the combined noise.

Where, in spite of the mitigation measures applied, noise levels at site bounarys exceed the scheduled periods defined below, a scheme for the installation of noise insulation or resequencing works will be implemented immediately.

## 1.5 Maximum levels and monitoring

Table 9.3 is adapted from Table E.1 in BS 5228-1 Annex E where the impact thresholds for construction activities at residential premises have been classified in terms of government policy based on the ABC Method set out in BS 5228-1 In relation to construction noise, day is 07:00 to 19:00, evening is 19:00 to 23:00 and night is 23:00 to 07:00. The level provided for the day time is for the entire period, whereas that for evening and night is applicable to any single hour within the respective period.

Table 9.3 Noise Effect Levels from Construction Works at Dwellings

| **Construction noise effect level (BS5228-** | **Threshold Value, 1m in front of the relevant façade (dB)** |
|---|---|
| Lowest Observed Adverse Effect Level (LOAEL) – Category A in BS5228-1 | Day 65 dB $L_{Aeq,\ daytime}$<br>Evening 55 dB $L_{Aeq,1h}$<br>Night 45 dB$L_{Aeq,1h}$ |
| Significant Observed Adverse Effect Level (SOAEL) – Category C in BS5228-1 | Day 75 dB $L_{Aeq,\ daytime}$<br>Evening 65 dB $L_{Aeq,1h}$<br>Night 55 dB$L_{Aeq,1h}$ |
| Unacceptable Observed Adverse Effect Level (UOAEL) | Day 85 dB $L_{Aeq,\ daytime}$<br>Evening 75 dB $L_{Aeq,1h}$<br>Night 65 dB$L_{Aeq,1h}$ |

The effects of construction noise are temporary and defined by the intrusion that construction noise causes in the existing noise environment (or soundscape) of the area. Noise levels above the SOAEL in Table 9.3 are significant adverse and BS 5228-1 states that noise insulation may be offered (using the discretionary powers provided by Regulation 5 of the Noise Insulation Regulations) if those noise levels remain for a long enough period of time (i.e. for a period of 10 or more days of working in any 15 consecutive days or for a total number of days exceeding 40 in any 6 consecutive months (BSI, 2014n)).

**Monitoring**

Noise monitoring shall be conducted by the Site Manager using the construction monitoring survey sheet.

The provisional monitoring programme for each type of activity is:

* When the works start to verify the sound levels assumed for each of the major items of equipment, and to assess the effectiveness of noise control measures and implementation of this plan.
* At regular intervals during the works, at least every four weeks in line with the site safety inspection, to check ongoing compliance with the construction noise limits.
* During critical phases of construction, such as piling and during the use of heavy earth moving machinery and other noisy activities within 50 metres of neighbours.
* As required by a construction noise management schedule.

**Vibration**

Vibration monitoring will be conducted by the specialist contractor.

**Summary**

This reports gives details of a noise and vibration construction management plan to be implemented prior to and during the construction of the Project
The location of noise sensitive receptors are identified where there is the potential for disturbance from either noise and or vibration during construction.
The principles of noise management are outlined for which the Contractor shall comply with based on the recommendations set out in BS5228:2009.
Best Practicable Means (BPM) of noise control are outlined and will be applied by the contractor during construction works to minimise noise (including vibration) at neighbouring residential properties and other sensitive receptors arising from construction activities.
Specific mitigation measures should be implemented by the contractor during those construction activities identified as having the highest potential to cause disturbance from either noise and or vibration.

## Appendix 1 – Site setup plan

- The hoardings to the site shall incorporate a pair of lockable double gates at the site entrance to facilitate site access and egress
- Access and egress is via gated entrances, as detailed.
- The site is accessed via Station Street with residential premises in proximity.
- The gated footpath surrounding the site shall remain open throughout the works.
- 22no parking bays will be available on site
- Employees, subcontractors, staff and visitors will be encouraged to use public transport or cycle wherever possible.
- Deliveries will be supervised to ensure the protection of the public and site users.
- Deliveries will be managed to run with the progress of works so that storage is kept to a minimum.
- Deliveries will not be unloaded without prior agreement from the Site Manager.
- We will ensure that the roads and footpaths are maintained and cleaned on a regular basis, particularly during 'muck away' activities and in inclement weather.
- **No deliveries to take place between 8.00am – 9.15am and 3.00 – 3.45pm, whilst children and parents are going to and from school.**
- Temporary traffic management shall be required for utility connections however, these will be arranged and approved by Manchester Highways.



## Vehicle Types and Dimensions

**Skip Lorries**
6.8m (L) x 2.6m (W) x 3.6m (H)

**Soil removal/Loose bulk materials 8 wheeler**
9.1M (L) x 2.6M (W) x 3.5m (H)

**Low Loaders (Plant/Machinery Delivery Vehicles)**
8.45 (L) x 2.5m (W) x 3.3 (H)

**Concrete Mixers**
8.2m (L) x 3m (W) x 3.7m (H)

**Scaffold Delivery/Collection Vehicles**
5m (L) x 2m (W) x 2.5m (H)

**Timber Frame Delivery Vehicles**
11m (L) x 2.55m (W) x 4m (H) (26 tonne rigid wagon)

**Material Delivery Vehicles (HIAB ONLY< NO RIDGED)**
7.4m (L) x 2.5m (W) x 3.7m (H) (Hiab wagon)

## Appendix 2 - Site Notice Board

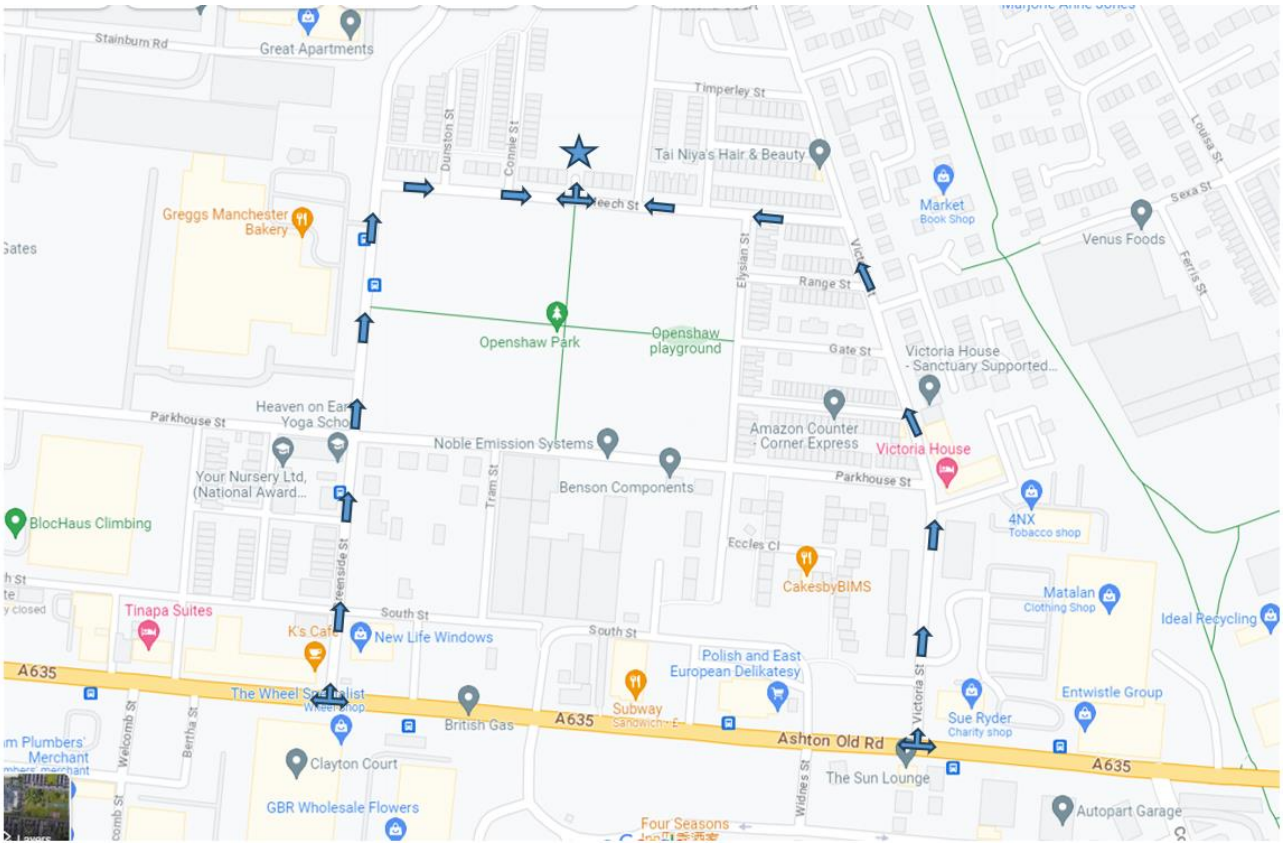
Site noticeboard will contain the following information;

- Site contact number
- Company details for John Southworth (Main Contractor)
- Company details for One Manchester (Developer)
- Emergency contact details
- Considerate constructors details/contacts
- Community notice board

The noticeboard board will be displayed for the duration of the works.

## Appendix 3 - Access route for all vehicles to the site

Access route for vehicles coming to site;

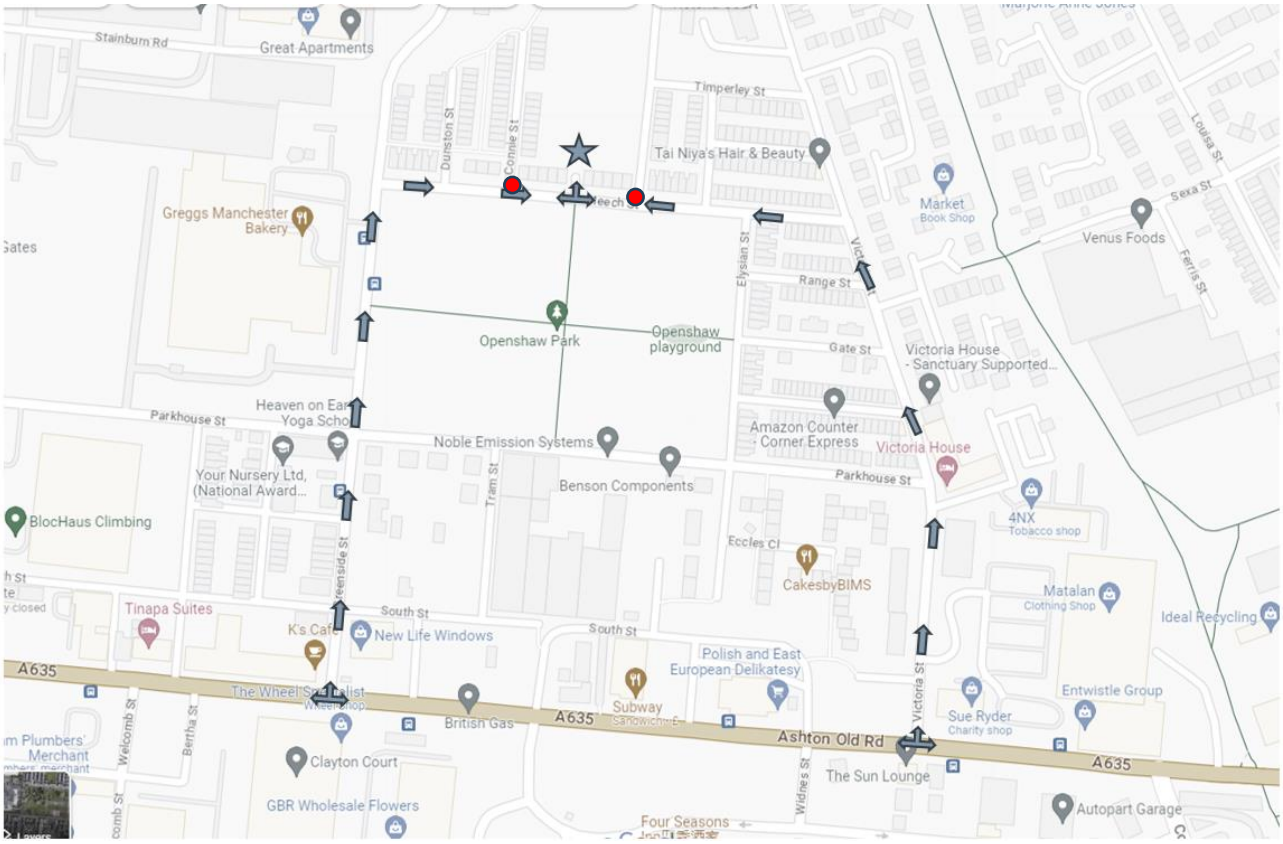


## Appendix 4 – Proposed Site Signage on Approach to the site

Proposed site signage on approach to site entrance;




Construction site signage to warn of construction site



## Appendix 5 – Proposed Traffic Access Route Within Site

Proposed traffic access route within site;



## Appendix 6 – Proposed Parking & Material Storage Within Site

Proposed parking and material storage within site;

