

105, Hardy Lane, Manchester, M21 8DN Construction Management Plan

July 2020

1 Rev B

Introduction

Works:

‘Erection of a 4 bedroom detached dwellinghouse with one-bedroom annexe, new access drive and associated car parking and landscaping’

Location:

105 Hardy Lane, Manchester, M21 8DN

Project Team:

Principal Contractor	- Hardy Farm Ltd
Principal Designer	- Buttress
Architect	- Buttress
Structural Engineer	- Bell Munro
Cost Consultant	- Tozer Gallagher
H&S Advisors	- RJD Associates

Hardy Farm Ltd Project Team:

Project Manager

Mr Simon Povah - 0161 200 8590 s.povah@step-places.com

The Build:

The core works will be:

- Steel Piled foundations with RC beams
- Suspended concrete floor at ground level
- Timber Frame built off concrete floor
- 3 story timber frame constructed ,with brickwork clad

Programme:

Site Commencement TBA -2020 (40 weeks)

Construction Methodology

Power:

The site temporary power will be connected to an acoustic silent generator for larger plant items and welfare.

Once the permanent supply has been installed site will utilise this for further construction activities.

Traffic Management:

All deliveries will access from the roundabout at the end of Hardy Lane, between the hours of 08:00 to 17:00 Monday to Friday, and 08:00 to 12:00 on Saturday. The delivery routes can be seen on the below logistics plan:



Most material deliveries and storage will be taken and unloaded in the hard standing area indicated on the plan. Other short term deliveries will access the site via the service road at the end of Hardy Lane.

All deliveries will be managed by the site Manager and trained operatives during pre-contract meetings HF Ltd will inform all sub-contractors of the road restrictions and that they must be adhered to throughout the project. Sub-contractors will be advised of delivery routes to site and recommended routes out of the Chorlton area.

Site operative's car parking:

HF Ltd will provide a car parking for all sub-contractor operatives and visitors, this will be located within the hard standing area accessed from the end of Hardy Lane, shown on plan.

Site Establishment

Welfare:

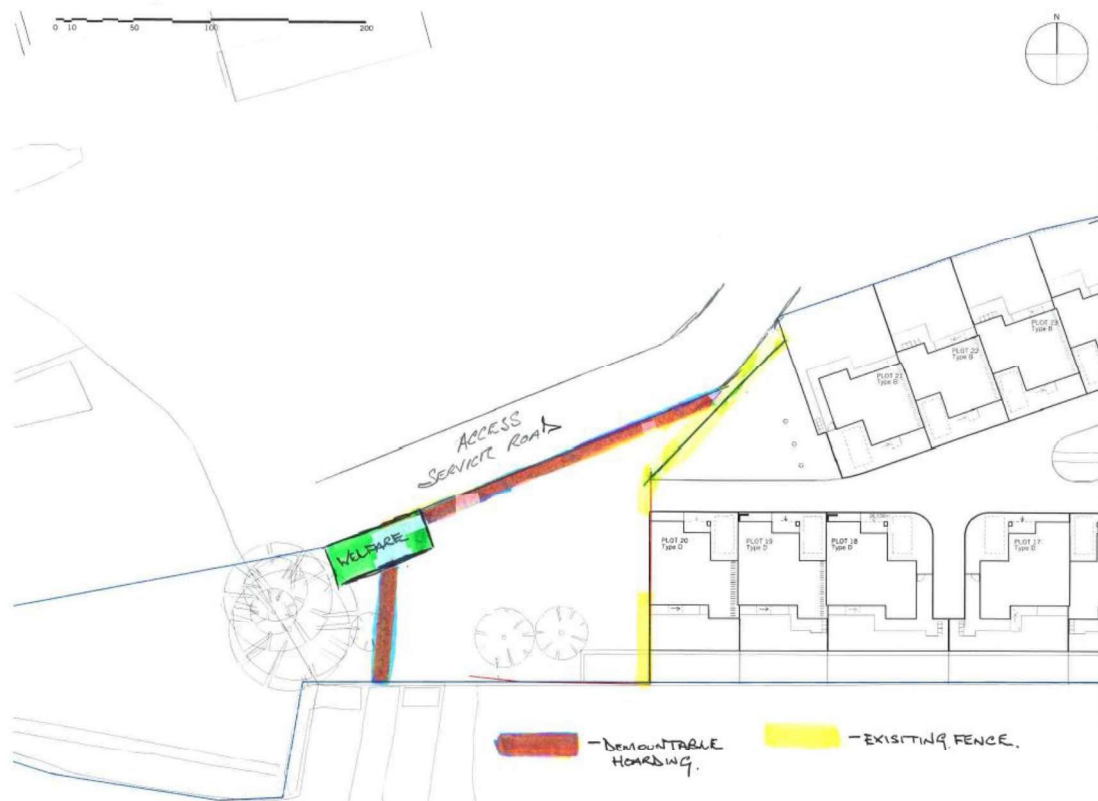
Site will provide sufficient welfare facilities that will be available at all times to HF Ltd sub-contractors.

These will comprise of two container type units 10 x 20 stacked (Office and canteen) and one container type toilet unit 10 x 10

Hoarding:

There will be an element of solid of existing fence (2.1 m) in height on the eastern boundary that will remain permanent for most of the duration of the project protecting the existing development from the construction works.

The North and Western boundaries will have hoarding that will be demountable due to the footprint of the site and the potential requirement to enter the construction area with plant & materials during construction. There will be 1 no vehicle gate and pedestrian gate allowing access onto the indicated service road. See mark-up below that highlights this strategy.



Site Working Hours:

08:00am – 5pm Mon – Fri
08:00am – 1pm Saturday

Security:

CCTV with audio control will be implemented once the main hoarding is installed and temporary power is established to site.

Site Licence, Notifications and Permits:

HF Ltd have previously applied for and been issued a hoarding licence for Hardy Lane and has notified MCC of previous S278 works, but don't for see any notices or permits needed.

Sustainability & Environment:

HF Ltd will develop an environmental plan; this will detail pollution, noise and dust. Further info on these items is detailed.

A SWMP will be utilised on site.

Community engagement:

HF Ltd will engage with the local community and the site will be enrolled in the Considerate Constructors Scheme.

Noise Control

In general, the construction phase of the foundation works can be viewed as intense activities of work over a short timescale.

These construction processes involve concentrated activities in a localised area of the site for a short period of time.

Construction methodologies will be made as efficient as possible to minimise noise impacts to local residential area.

Additionally, every opportunity should be taken to provide 'temporary' screening where it is likely to provide effective mitigation. In places where screening is recommended as part of the traffic noise mitigation plan, the early installation of these screening measures where practicable would also reduce the construction noise levels considerably.

Locations closest to the scheme are likely to be subject to the highest construction noise levels, although this will depend on topography and existing infrastructure providing natural screening. The level of impact would also vary considerably, dependent on the current ambient noise levels for given areas. Where properties are already subject to road traffic and Tram noise, the impact from construction noise will be less than those areas which are set further back from existing road transport corridors.

All measures to minimise construction noise would be taken according to best practicable means, as described in the mitigation measures section.

A more detailed Noise Assessment will be carried out by the Site Manager upon commencement and at regular intervals throughout the construction process.

Surrounding Area:

The area surrounding the site comprises of the following;

- North** – Large hard standing and Hardy Lane round about
- East** – Residential
- South** – Chorlton Hardy golf club
- West** – Open fields



Mitigation Measures:

The noise impact of the construction phase can be minimised by use of the noise control measures, as suggested in Section 8 of BS 5228-1:2009. General principles for the control of noise during the construction works are presented below.

- Appropriate choice of plant and equipment;
- Regular plant maintenance to keep plant in good working condition and reduce noise from machinery;
- Careful phasing of the proposed operations; and
- Provision of temporary barriers.

The Hardy Farm Ltd site staff will be utilising the methods of mitigation outlined, alongside regular monitoring and utilising feedback from residents.

This regular noise monitoring will be carried out by the Site Manager. This may be substituted by sub-contractors noise readings as stated in their method of work.

Operating methods of noise reduction:

- HF Ltd will ensure that all staff and operatives are briefed on the requirement to minimise nuisance from site activities.
- At the development site this will be mentioned within the site inductions, a programme of toolbox talks and all method statements.
- Any significant changes in numbers of workforce on site will force a review of the monitoring programme.
- No equipment shall operate other than at the manufacturers' rated working levels; site staff shall not 'rev' equipment unnecessarily.
- Use of machine based equipment on site shall be kept to an absolute minimum and only silenced or sound models shall be used.
- No plant and equipment shall be left running if not required for immediate use. Where this is not practicable, equipment shall be set to idle in the quietest manner to minimise noise emissions.
- Resilient materials will be used where possible to reduce impact noise where materials are being moved or dropped e.g. lining chutes and dumpers. Materials will be lowered whenever practicable and otherwise drop heights will be kept to a minimum.
- Site times will be strictly adhered to as per the Construction Phase Plan; this is 8am to 6pm Monday to Friday and 8am – 2pm on Saturday.

Noise Reduction of Mobile Plant:

- The movement of plant onto and around the site will have regard to the normal operating hours of the site and the location of any noise sensitive receptors.
- Audible reversing alarms will be of a type, which whilst ensuring that they give proper warning, have a minimum noise impact external to the site.
- The service road from the end of Hardy Lane will be well maintained throughout the project thus reducing noise pollution.
- No plant and equipment shall be left running if not required for immediate use. Where this is not practicable, equipment shall be set to idle in the quietest manner to minimise noise emissions.
- Earth moving plant will be fitted with efficient sound reduction equipment and manufacturers' enclosure panels should be kept closed.

Noise Reduction of Stationary Plant and Tools:

Noise reduction measures for tools are as follows:

- Use of hydraulic or electric tools where possible.
- Use of alternative quieter equipment for concrete breaking/cutting.
- Fitting suitably designed sound reduction equipment to reduce noise without impairing efficiency.
- Use of damped tool piece or saw blade.
- Enclose in a suitably designed portable or fixed acoustic enclosure with suitable ventilation (with due regard to the health and safety of operatives).

These measures will be considered for selection by the Site Manager.

This site will be powered by electricity so electric tools can be used, and minimal generator noise occurs.

Control of Noise Propagation on Site:

Hoarding when positioned close to the source or the receiver will assist in the reduction of noise levels experienced at nearest receivers. The degree of protection will be limited to 5-10dB(A) and care must be taken to avoid reflecting noise and increasing the problem elsewhere. If practical, consideration has been given to retain the existing acoustic boundary fence to the eastern boundary, providing an acoustic screen on the edge of the boundary to existing properties before any construction activities take place.

Barriers should be:

- A fairly uniform panel, free from holes with no gaps or openings at joints (uneven ground may leave gaps to be filled).
- Stable and robust enough to stand up to site conditions.
- Of a height and width more than enough to completely cut off sight of the source from the receiver.
- Preferably at right angles to the line of sight of the receiver.



The plan above shows the perimeter hoarding. The Site Manager will determine the necessity of further acoustic barriers elsewhere on the site upon commencement

Further Noise Guidance:

- BS 5228 -1:2009 'Code of practice for noise and vibration control on construction and open sites – Part: Noise'
- HF Ltd Sustainable Construction Tool Box monthly talks with contractors operating on site

Dust Control

The control of dust arising from the construction works will be controlled in a number of ways depending on the work source causing/providing the dust and the timing/stage at which the construction works are at.

Dust Assessment:

Environmental risk assessments are completed for every contract and particular attention is focused at statutory nuisance. If excessive dust levels are reached, works will be temporarily suspended whilst the Environmental Coordinator is consulted and further appropriate dust measures are implemented to enable works to recommence. This will be recorded.

Should the need arise it is possible to undertake dust monitoring in and around site. This will be determined in relation to the wind direction and stage of works.

Wheel Washing:

HF Ltd ensures that the working machinery, plant & vehicles, which may have the potential to cause an excessive dust or mud problem onto the public highway, will have access to a wash down facility prior to leaving site. This will be placed at a strategic point near to the service road exit of the site to prevent the mud being carried on to Hardy Lane. In addition road sweepers will be hired in to ensure the surrounding area is maintained in a mud free state while construction works are being undertaken.

Due to the nature of the project logistics and size of the development a spray gun is seen as sufficient as below. The site operative will manage this.



Mitigation Measures:

Measures that may be taken include, but are not limited to:

Haulage Routes, Vehicles and Construction Plant

Potential dust Source	Control Measure	Responsibility for implementation
Haul roads and traffic routes	Scheduled deliveries to avoid standing traffic on routes to site	Site Manager
Vehicle waiting areas and hard standing	Vehicles will be directed into site service road or hard standing storage area and unloaded. If waiting is required engines will be switched off	Site Manager and site operative
Vehicle and wheel washing	Wheel washing facilities easily available and signed. Site operative to be responsible.	Site operative
Site traffic	Speed restrictions will be in place including signage and managed by site personnel to avoid back up	Site manager and site operative
Public roads	Site Manager to be aware of scheduled deliveries and coordinate traffic and operations affecting access	Site Manager and site operative
Road cleaning	Road sweeper to be employed to clean access roads to site should there be a requirement. These operations will be increased when critical activities occur	Site Manager
High level walkways and surfaces (Scaffolding and others)	Operatives will be briefed at induction to the requirements of dust control and suppression	Site Manager

Static and mobile plant emissions

Potential dust Source	Control Measure	Responsibility for implementation
Visible exhaust smoke	All standing/waiting traffic to have engines switched off. All plant brought to site to be well maintained and suppliers advised of this at order stage	Site Manager
Maintenance	All plant and equipment to be maintained off site	Site Manager
Servicing	All plant and equipment to be serviced off site	Site Manager
Operating time	All operations will be conducted in line with the planning conditions and all sub contractors being made aware of restrictions at order stage	Site Team
Exhaust time	Operating plant to be monitored to ensure it is not left running unnecessarily	Site Manager
Exhaust direction and heights	Exhausts from plant will be in line with manufacturers specifications and directed from ground to atmosphere	Site Manager
Location of plant and equipment	Plant and equipment operating close to other businesses and sensitive receptors will be kept to critical activities only.	Site Manager

Material handling

Potential dust Source	Control Measure	Responsibility for implementation
Material Handling operations	Handling and movement of materials to be kept to a minimum through planning	Site Manager
Transport of powdery materials	Loose materials to be moved in containers or remain wrapped until use	Site Manager
Transport of aggregates	Use enclosed or sheeted vehicles	Site Manager
Handling areas	Keep areas clean and free from dust	Site Manager
Vehicle loading	Use methods that minimise the creation of dust. Damp down with water	Site Manager
Filling Skips	Use enclosed skips where possible	Site Manager
Reducing dust spread	Use damping down methods	Site Manager

Storage of powder materials

Potential dust Source	Control Measure	Responsibility for implementation
Bulk Cement	To be delivered to site in tubs / use of neighbouring EWC site silo	Site Manager
Silos	To be kept in good condition. Regular checks for damage	Site Manager
Accidental spillage when filling or operating silos	Emergency preparedness plan in place identifying R+R	Site Manager
Dry materials > 3mm	Storage to be kept to minimum. Use materials at point of delivery	Site Manager
Dry materials < 3mm	Storage to be kept to minimum. Use materials at point of delivery	Site Manager
Storage	Store materials away from site boundaries and sensitive receptors	Site Manager

Stockpiles

Potential dust Source	Control Measure	Responsibility for implementation
Stockpiles	Stockpiles will be kept away from sensitive receptors and kept to a minimum; damping down systems	Site Manager
Building stockpiles	Ensure any stockpiling is done so that the angle of repose is not such that slippage will occur	Site Manager
Short term stockpiles	Ensure that these are kept to a minimum and avoided by use of material at source	Site Manager
Long term stockpiles	Ensure that these are kept to a minimum and avoided by use of material at source	Site Manager

Site establishment and restoration on completion

Potential dust Source	Control Measure	Responsibility for implementation
Earthworks	Will be completed in sections to minimise over exposure and as programme phasing.	Site Manager
Completed earthworks	To be reinstated as soon as possible in line with programme	Site Manager
Storage mounds	Any mounding will be sealed	Site Manager
Landscaping	To be in line with programme and design. No screening to be on site	Site Manager

Construction and fabrication process

Potential dust Source	Control Measure	Responsibility for implementation
Cutting, grinding, drilling, sawing etc	Consider prefabrication to avoid cutting. Quality checks to prevent errors and re-work. Use dust suppression sprays. Use exhaust ventilation. Robust design to prevent cutting	Site Manager
Dust control exhaust ventilation	Always use diamond cutting blades and water sprays	Site Manager
Cutting roads, pavements, blocks	Always use diamond cutting blades and water sprays	Site Manager
Angle grinders	Always use diamond cutting blades and water sprays	Site Manager
Mixing of granular materials	Use pre mixed materials. Mix under controlled conditions. Store dry powder materials in a safe dry environment	Site Manager

Internal and external finishing

Potential dust Source	Control Measure	Responsibility for implementation
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Painting and decorating	Use of suppression or extraction equipment should be used. Vacuum cleaning where possible	Site Manager
Plastering rendering, finishing and fitting out	Housekeeping to control dust related activities	Site Manager
Electrical plumbing systems requiring chasing into walls	Use of suppression or extraction equipment should be used. Vacuum cleaning where possible	Site Manager

Further Dust Guidance:

- 'The Control of Dust From Construction and Demolition Activities' document (BRE, 2003)
- HF Ltd sustainable Construction Tool Box monthly talks with contractor operating on site

Light Control

On site lighting must be able to provide safe working conditions for staff, and therefore the following measures will be put in place when situating & using site lighting:

- All lighting will be situated in such a manner as to provide as much lighting as is necessary for the work & no more, thereby reducing the risk of light pollution & the use of unnecessary numbers of generators.
- The lights will face downwards/sideways so that they do not shine into any nearby premises.
- Appropriate selection of innovative site lighting methods e.g. LED to improve the energy efficiency of the site and minimise the spread of the light beyond where required.

Communication

Group communications to HF Ltd Staff:

Alerts are issued via a **SHEQ Bulletin** to communicate urgent environmental information. These are issued to all staff via email, and hard copies displayed in all site cabins.

The Project Managers will contact any external body such as (Natural England, Environment Agency, Local Authority) when an imperative issue arises, thus keeping continual communication channels open.

Communication with Operatives:

It will be mandatory, for all sub-contractors and operatives working on the site to undergo a formal **induction** prior to entering the site where all relevant environmental information for the site will be briefed. **Toolbox talks** will also be delivered and records maintained.

Communication with the Local Community:

Local residents and businesses that could be disturbed by the works will receive a hand delivered **newsletter** detailing the job, including details of proposed start and completion dates and a summary of the work schedule. Letters are delivered at least 14 days prior to the start of the works and at regular intervals throughout the works.

A **complaints log** exists on each site that records any feedback from local residents. HF Ltd staff are encouraged to respond proactively to any complaints in a timely and fair manner. All environmental complaints are shared to the Project Manager to assist with an appropriate response.

A **noticeboard** exists affixed to the hoardings on all our sites.

This contains:

- Contact details of the Site Manager
- Most recent newsletter
- Notification of any work opportunities
- Most recent environmental dashboard that contains information regarding waste and carbon data.