

AEDI



Ardwick Green Construction Method Statement

26/6/24



**Ardwick Green
Construction Method
Statement**

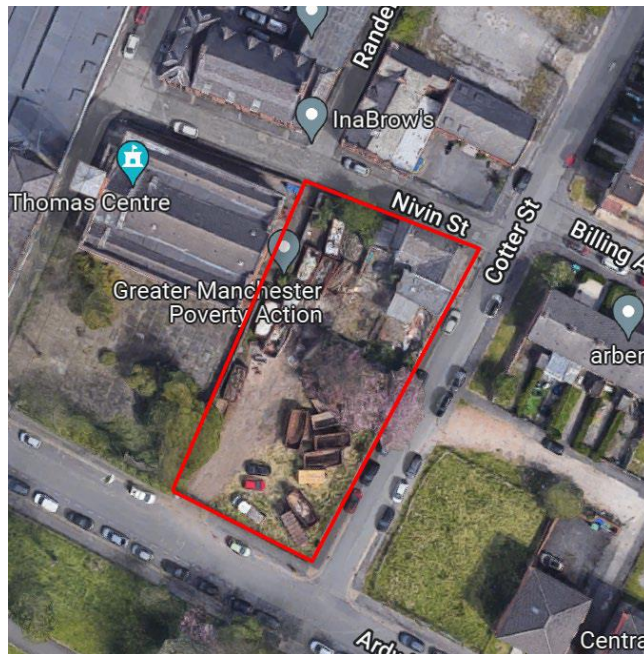
Project No: T006

Rev No:03

Rev Date:12/4/2024

Project Description: The project is for the development of 16 townhouses (Class C3) with new vehicular access from Cotter Street with associated parking and associated works. The Site is approximately 0.18 hectares in size and falls within the administrative boundary of Manchester City Council ("MCC"). The Site is located within Ardwick in Central Manchester, approximately 0.5 km to the southeast of Manchester City Centre.

Site location



1. Introduction: This Construction Method Statement has been specifically prepared to respond to the decision notice 135857/FO/2022 pre-commencement condition No 3, it outlines the procedures and safety protocols for the construction activities at Ardwick Green. The document includes:

- Logistics Planning
- Demolition Procedures
- Wheel Wash Facilities
- Community Engagement
- Health and Safety
- Environmental Considerations
- Prior to Commencement of Construction Works
- Schedule for Vehicle Deliveries
- Dust Control Measures
- Waste management Plan
- Site working hours

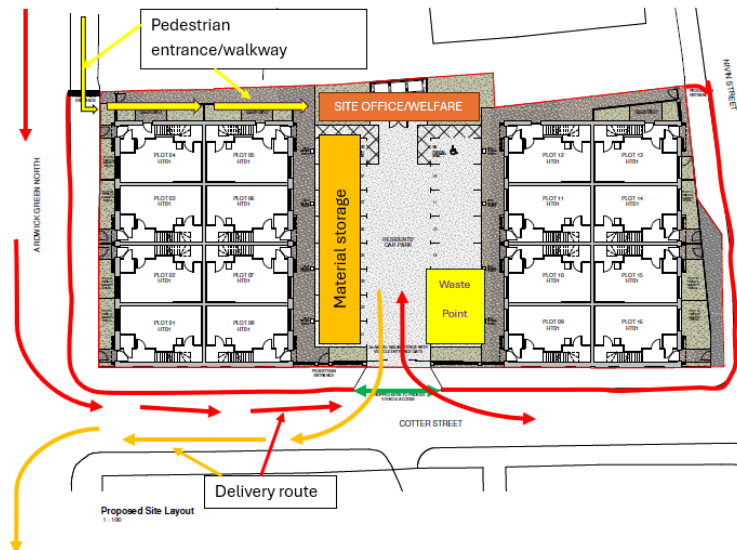
2. Logistics Planning:

- **Site Access:** Prior to commencement, access points to the site will be identified and designated for construction traffic. All vehicles entering and exiting the site must adhere to the specified routes to minimise disruption to neighbouring properties and ensure safety.
- **Material Delivery:** A designated area will be allocated for the delivery and storage of construction materials. Delivery schedules will be coordinated to minimise congestion and maintain efficient workflow.
- **Waste Management:** Proper waste segregation and disposal procedures will be implemented to ensure compliance with environmental regulations. Waste bins will be provided and regularly emptied to maintain cleanliness and safety on-site.

Site Plan

SITE PLAN

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3. Demolition Procedures:

- **Site Survey:** A thorough site survey will be conducted to identify any hazards, utilities, or structures that need to be removed.
- **Demolition Plan:** A demolition plan will be developed in consultation with qualified engineers and demolition experts. This plan will outline the sequence of demolition activities, including the use of machinery and safety precautions.



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- **Dust Control:** Measures will be implemented to minimise dust generation during demolition, including the use of water sprays and dust suppression systems.
- **Safety Measures:** Adequate safety barriers and signage will be erected around the demolition site to prevent unauthorised access and ensure the safety of workers and the public.

4. Wheel Wash Facilities:

- **Installation:** Wheel wash facilities will be installed at designated entry and exit points to prevent the tracking of mud, debris, and other contaminants onto public roads.
- **Maintenance:** The wheel wash facilities will be regularly inspected and maintained to ensure their proper functioning throughout the construction phase.
- **Training:** Construction personnel will be trained on the proper use of wheel wash facilities and instructed to adhere to the designated routes to access and exit the site.

5. Community Engagement:

- **Letter Drops:** Prior to the commencement of works, letters will be distributed to neighbouring properties in the vicinity of the site. These letters will inform residents of the construction activities being carried out, including details of the project, anticipated duration, and potential impacts such as noise or disruption.
- **Point of Contact:** The letter will include the name and contact details of the site manager for community liaison. Residents will be encouraged to contact the site manager or head office directly with any queries or concerns they may have regarding the works.
- **Notification to Ward Councillors:** Ward Councillors will be formally notified when construction works commence. This notification will include relevant project details and contact information for the appointed contractor. The purpose of this notification is to ensure that local authorities are informed of ongoing construction activities within their jurisdiction.

6. Health and Safety:

- All personnel working on-site must adhere to relevant health and safety regulations and always wear appropriate personal protective equipment (PPE).
- Regular safety briefings and toolbox talks will be conducted to reinforce safe working practices and address any concerns raised by the workforce.



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- Emergency procedures, including evacuation routes and assembly points, will be clearly communicated to all personnel on-site.

7. Environmental Considerations:

- Measures will be implemented to minimise the environmental impact of construction activities, including the containment of pollutants and the preservation of vegetation where possible.
- Any hazardous materials encountered during demolition will be handled and disposed of in accordance with relevant regulations to prevent contamination of the surrounding environment.

8. Prior to Commencement of Construction Works:

1. **Road Condition Assessment:** A comprehensive survey will be conducted to assess the current condition of the highways and adjacent infrastructure within the project vicinity.
2. **Documentation:** Detailed documentation will be carried out, including photographs, videos, and written descriptions, to accurately record the existing condition of the highways.
3. **Measurement of Defects:** Any existing defects such as cracks, potholes, uneven surfaces, or other forms of damage will be measured and documented.
4. **Structural Assessment:** The structural integrity of bridges, culverts, retaining walls, and other highway structures will be evaluated to identify any signs of deterioration or weakness.
5. **Survey Methodology:** The survey will utilise appropriate tools and techniques such as visual inspection, non-destructive testing, and geotechnical assessments to provide a thorough analysis of the highways' condition.
6. **Documentation of Surrounding Environment:** Factors such as nearby vegetation, drainage systems, utility lines, and adjacent properties will be documented to provide context for any changes observed during and after construction works.

Upon Completion of Construction Works:

1. **Post-Construction Assessment:** A follow-up survey will be conducted upon completion of construction works to assess any changes or damages that may have occurred to the highways and surrounding infrastructure during the construction process.
2. **Comparison with Pre-Construction Survey:** The post-construction survey findings will be compared with the pre-construction survey results to identify any discrepancies or new defects that have emerged.



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3. **Measurement of Changes:** Any changes in the dimensions, alignment, or surface condition of the highways will be measured and documented to assess the impact of the construction works.
4. **Verification of Compliance:** The post-construction survey will verify that the construction works have been completed in accordance with the approved plans, specifications, and relevant regulations.
5. **Identification of Defects:** Any new defects, damages, or deterioration observed post-construction will be documented, including their location, severity, and potential causes.
6. **Recommendations for Remedial Actions:** Based on the findings of the post-construction survey, recommendations for remedial actions such as repairs, maintenance, or further investigations will be provided to ensure the long-term integrity and safety of the highways.

9.Schedule for Vehicle Deliveries

This schedule outlines the planned timings and logistics for large vehicles delivering materials to and exporting materials from the construction site. The purpose is to ensure efficient coordination of transportation activities, minimise disruption to local traffic, and maintain safety on the roads.

Coordination with Suppliers:

- Liaise with suppliers to establish delivery schedules based on project requirements and material availability.
- Coordinate with transport companies to ensure availability of large vehicles for transportation of materials to and from the site.

Determination of Delivery/Export Timings:

- Schedule deliveries and exports during off-peak hours to minimise congestion on local roads and highways.
- Avoid scheduling deliveries during school drop-off/pick-up times and rush hours to reduce traffic impact.

Routing and Access Points:

- Identify designated routes for large vehicles to access the site, considering road capacity, weight restrictions, and any local regulations.
- Ensure clear communication with drivers regarding approved access points and routes to avoid unnecessary detours or delays.



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Loading and Unloading Procedures:

- Establish designated loading and unloading areas within the site to facilitate efficient operations and minimise disruption to other construction activities.
- Implement safety measures to ensure the secure loading and unloading of materials, including the use of appropriate equipment and personnel.

Traffic Management:

- Deploy traffic marshals to manage traffic flow during deliveries/exports and ensure the safe movement of large vehicles on and off the site.
- Implement temporary traffic control measures such as signage, cones, or barriers to alert motorists to the presence of large vehicles and construction activities.
- Details of the location and arrangements for contractor parking will be Ardwick Green North, most contractors now car/van share to reduce the number of vehicles traveling to site.

Communication with Local Authorities:

- Provide contact information for the site manager or designated personnel to address any concerns or emergencies related to transportation activities.

Monitoring and Adjustment:

- Regularly monitor delivery/export activities and traffic conditions to identify any issues or delays that may arise.
- Adjust schedules or routes as necessary to optimise efficiency and minimise disruption to surrounding communities.

Reporting and Documentation:

- Maintain records of delivery/export schedules, including dates, times, materials transported, and vehicle details, for accountability and compliance purposes.
- Document any incidents, complaints, or deviations from the planned schedule, along with corrective actions taken to address them.

By following this schedule for large vehicle deliveries, we aim to ensure the safe and efficient transportation of materials to and from the construction site while minimising disruption to local traffic and maintaining compliance with regulations.



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Figure below showing detail the vehicular activity associated with the construction including appropriate swept path assessment.



10.Maximum Number of Vehicles Accessing the Site During Demolition/Construction

Purpose: This information aids in the effective management of the highway network by providing insight into the maximum number of vehicles accessing the construction site during demolition and construction phases. By identifying peak periods of activity, local authorities and transportation departments can implement appropriate traffic management measures to minimise congestion and maintain safety on the roads.

Identification of Peak Vehicle Access:

- During the demolition and construction phases, the maximum number of vehicles accessing the site is expected to vary based on the stage of the project and the nature of the activities being carried out.
- Peak periods of vehicle access typically coincide with major construction milestones, such as the delivery of large materials or the mobilisation of heavy machinery.

Programme of Works and Phases:

- The maximum number of vehicles accessing the site will be determined by the project's programme of works and construction phases.
- Throughout the construction phase, the number of vehicles accessing the site may fluctuate based on the progress of construction activities, the delivery of construction materials, and the movement of construction equipment and personnel.



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Timeframes for Peak Activity:

- Peak periods of vehicle access are expected to occur during weekdays, particularly during daylight hours when construction activities are typically scheduled.
- Additional vehicle access may occur during specific phases of the project, such as concrete pours, structural installations, or road closures for utility works.

Management of Highway Network:

- To manage the impact of increased vehicle access on the highway network, traffic management measures will be implemented in coordination with local authorities and transportation departments.
- These measures may include temporary traffic controls, lane closures, detours, and signage to alert motorists to construction activities and minimise disruption to traffic flow.
- Communication with residents, businesses, will be essential to inform them of anticipated traffic impacts and provide alternative routes or transportation options where feasible.

11. Dust Control Measures

Dust control is essential during construction activities to minimise environmental impact, maintain air quality, and ensure the safety and comfort of workers and the surrounding community. The following measures will be implemented to control dust effectively:

Water Spraying:

- Regularly spray water on exposed surfaces, construction sites, and haul roads to suppress dust formation.
- Use water trucks, hoses, or sprinkler systems to apply water evenly and effectively.

Dust Suppressants:

- Apply dust suppressant chemicals or agents to surfaces prone to dust generation, such as unpaved roads, stockpiles, and construction areas.
- Choose environmentally friendly suppressants that are safe for workers and wildlife.

Enclosures and Barriers:

- Erect temporary wind barriers or enclosures around dusty operations to contain airborne dust.
- Install windbreaks, fences, or barriers made of fabric, netting, or solid materials to prevent dust dispersion.



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Vegetation and Ground Cover:

- Plant vegetation or establish ground cover in bare or disturbed areas to stabilise soil and reduce dust emissions.
- Mulch, straw, or geotextile fabrics can also be used to cover soil and minimise dust generation.

Speed Reduction and Traffic Management:

- Implement speed limits and traffic control measures on construction sites to reduce vehicle-induced dust.
- Minimise vehicle acceleration and braking to prevent dust kick-up from loose surfaces.

Dust Collection and Suppression Equipment:

- Use dust collectors, vacuum systems, or dust suppression equipment on machinery and equipment to capture airborne particles.
- Install dust collection systems on crushers, conveyors, and other equipment generating dust.

Paving and Surface Stabilisation:

- Pave or stabilise roads, parking areas, and construction access points to reduce dust from vehicle traffic.

Work Scheduling and Wind Conditions:

- Schedule dusty activities during calm weather conditions and avoid working during windy periods to prevent dust dispersion.
- Monitor weather forecasts and adjust work plans accordingly to minimise dust impacts.

Personal Protective Equipment (PPE):

- Provide workers with appropriate respiratory protection, such as dust masks or respirators, when working in dusty environments.
- Ensure workers wear protective clothing and eyewear to prevent dust exposure and irritation.

Regular Site Inspections and Maintenance:

- Conduct regular inspections of the construction site to identify dust sources and areas requiring dust control measures.
- Maintain equipment, vehicles, and dust control systems in good working condition to ensure effective dust suppression.



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Conclusion: By implementing these dust control measures, we aim to minimise dust emissions, protect air quality, and mitigate the impact of construction activities on the environment and surrounding community.

12. Waste management Plan

Waste Segregation:

- Segregate construction waste into different categories such as concrete, wood, metal, plastic, and hazardous materials on-site.
- Provide separate skips for each waste type to facilitate recycling and proper disposal.

Recycling Facilities:

- Identify local recycling facilities and waste management centres capable of processing construction waste.
- Coordinate with licensed recycling companies to collect and recycle recyclable materials such as concrete, metal, and wood.

Hazardous Waste Management:

- Handle hazardous materials such as paints, solvents, adhesives, and asbestos-containing materials (if present) in accordance with local regulations.
- Arrange for licensed hazardous waste disposal services to collect and properly dispose of hazardous materials.

Disposal of Non-Recyclable Waste:

- Dispose of non-recyclable waste at authorised landfills or waste disposal sites.
- Ensure that waste disposal is conducted in compliance with environmental regulations and permits.

Waste Reduction Measures:

- Implement waste reduction measures to minimise the generation of construction waste.
- Optimise material usage, avoid over-ordering, and adopt efficient construction methods to reduce waste generation.

Documentation and Reporting:

- Maintain accurate records of waste generated, recycled, and disposed of during construction activities.



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- Prepare waste reports, receipts, and documentation to track the movement and disposal of construction waste.

Environmental Compliance:

- Comply with all relevant environmental regulations, permits, and waste management guidelines.
- Conduct regular inspections and audits to ensure compliance with waste management requirements.

Training and Awareness:

- Provide training to construction personnel on waste segregation, recycling procedures, and proper waste handling techniques.
- Raise awareness among workers about the importance of waste management and environmental protection.

Continuous Improvement:

- Continuously evaluate and improve waste management practices based on feedback, lessons learned, and best practices.
- Implement measures to optimise waste recycling rates and minimise environmental impact throughout the construction project.

Conclusion: By adhering to this waste recycling and disposal plan, we aim to minimise the environmental impact of construction activities, promote sustainable waste management practices, and ensure compliance with regulatory requirements.

13. Site working hours

Monday to Friday - 0800 to 1800
Saturdays - 0800 to 1300 Saturdays
Sundays or Bank Holidays site will be closed.

14. Identify measures to reduce noise emissions

Noise and vibration will be managed in accordance with the Control of Noise at Work Regulations 2005, BS ISO 4866:2010 Vibration of Fixed Structures & BS 5228 part 1 for noise and vibration on construction sites.

Elements of works that may be affective by noise:

- Site clearance
- Groundworks
- Piling



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Prior to the site works commencing fencing will be erected around the working boundary and other locations (St. Thomas Centre) where required. During this period, a pre-start noise survey will be undertaken to establish the background average noise levels at each monitoring location. See below.



All vehicles and mechanical plant used for the purpose of the works shall be fitted with effective exhaust silencers and shall be maintained in good and efficient works order. NOTE: once subcontractors have been appointed full list of machinery and equipment will be added to the CMP, along with manufacture data sheet. **See appendix 1.**

All compressors shall be 'sound reduced' models fitted with properly lined and sealed acoustic covers which shall be kept closed whenever the machines are in use, and all ancillary pneumatic percussions tools shall be fitted with mufflers or silencers of the type recommended by the manufacturers.

Best Practicable Means (BPM)

Onsite monitoring of noise levels will be conducted three times daily. If noise is significantly higher than the background noise survey (i.e. >20dB above the average recorded for the pre start survey at each location) then noise monitoring will be increased from 3 to 6 times daily over regular intervals to ensure that the limit of 85dB is not breached, and noise is being effectively managed on site as far as reasonably practicable, in accordance with this document.

- Use of quieter machinery and equipment.
- Implementation of noise barriers or enclosures.
- Scheduling high-noise activities during less sensitive times.
- Regular maintenance of machinery to minimize noise emissions.
- Position noisy equipment and activities away from sensitive areas.

Response Actions

- Immediate cessation of activities causing the exceedance.
- Investigation into the cause of the exceedance.
- Implementation of additional mitigation measures as necessary.
- Communication with affected neighbours regarding the exceedance and measures taken.



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Note- specific activity related noise readings are also conducted as part of the Health and Safety Plan, which uses the measured noise levels to assess hearing protection requirements for operatives using the HSE Noise Calculator. This assessment is continually updated and will be conducted for each item of plant as soon as it commences work on site.

Small items of plant such as Stihl saws and breakers regularly exceed the established 85dB limit, so operatives will be required to use the correct, assessed hearing protection and works when utilising plant are to be conducted away from the site boundaries to prevent hearing damage to passers-by, where possible.

Regular communication will be maintained with the local residents for the entire duration of the works and a complaint number and contact person shall be provided in the event of any incident occurring. All personnel will be reminded of good practice and standards through a series of “Toolbox Talks” and Safety Inductions.

Implementing these measures in line with BS 5228-1 will help ensure effective noise management during construction, minimizing the impact on the surrounding community. Regular reviews and updates to the CMP should be conducted to reflect any changes in site activities or advancements in noise control technologies.

By thoroughly planning and monitoring noise and vibration, this ensures compliance with regulatory requirements and maintain good relations with the local community.

Conclusion: This Construction Method Statement outlines the procedures and protocols for the safe and efficient execution of construction activities, including logistics planning, demolition procedures, wheel wash facilities, and community engagement through letter drops to neighbouring properties. Adherence to these guidelines will ensure the successful completion of the project while prioritising the safety of personnel, the surrounding environment, and maintaining positive relationships with the local community.

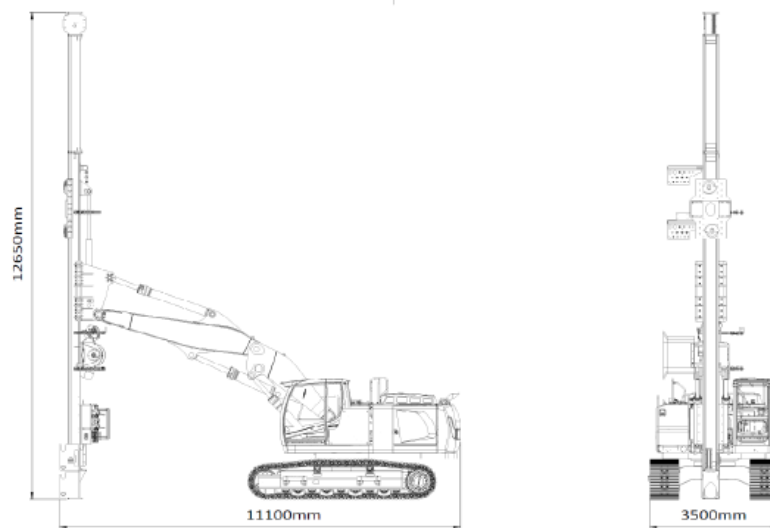
See appendix 1.

Piling machine data sheets.

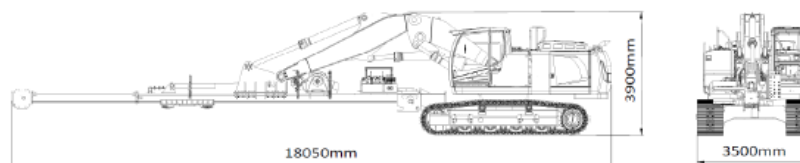


Appendix C – Equipment, Noise & Vibration Data Sheets

SPD Rig Data



Operating Weight = 55Tn





VIBRO MENARD

Noise Assessment



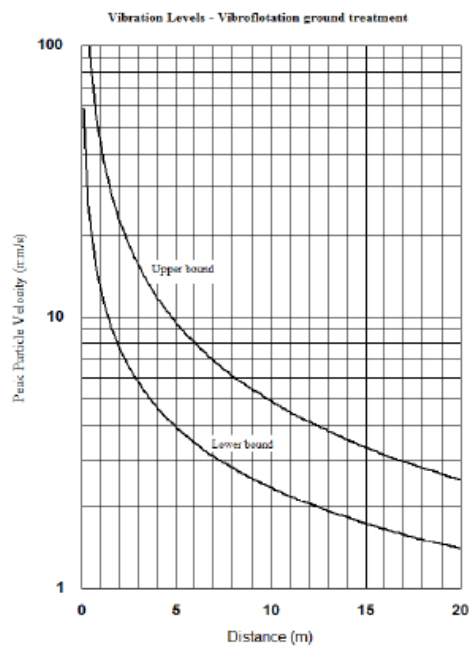
Ground Borne Vibration Assessment

Vibro Menard- Vibration Hazard Assessment				
Hazard	Peak Particle Velocity (mm/sec)			Action
	>10	5 - 10	<5	
Vibration damage to adjacent structures	High	Med-Low	Low	Visual inspection as the work proceeds. Halt operations if vibration levels excessive or if any damage is observed
Minor architectural damage to adjacent structures (i.e. plaster cracking)	High	Med	Low	Halt operations if any reported and seek instructions.
Damage to underground services				
1. Older non-flexible services (e.g. gas or water)	High	Med	Low	All services to be identified and clearly marked by the Main Contractor.
2. Modern flexible services	Med	Low	Low	All services to be identified and clearly marked by the Main Contractor.
Vibration nuisance at adjacent occupied buildings	High	High	Med	Seek instructions from the Contractor if complaints received.



VIBRO MENARD

The vibration levels and actions noted in the table are for general guidance only. In practice each site must be considered individually taking into account all known adjacent structures and services. Where appropriate, obtain advice from relevant body (e.g. Statutory Undertakers) on safe working levels.



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Ground Works Data Sheet



Low noise and easy maintenance mean greater value A new design approach leads to a revolutionary double

By reviewing the INDr configuration, Kobelco achieved both great visibility and a compelling design even though the engine compartment has been enlarged to meet TIER IV Final standards, maintaining the value of INDr.

INDr absorbs sound energy to minimize noise by making a path of air, which cools down engine, as one engine cooling ducts. The new model is equipped with a selective catalytic reduction (SCR) unit, which required a new design with two offset ducts on top. This allows ample space to absorb engine noise, making these new excavators as quiet as conventional models.



The Results Are Exceptional. The Big Merits:

"Ultimate Low Noise" is achieved by minimizing sound leakage during operation

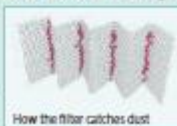
Noise from the engine and cooling fan is absorbed by the duct, so the machine far surpasses legal requirements. Kobelco calls this system, which exceeds all noise standards, "Ultimate Low Noise," and it reduces noise to 95dB(A).



Reducing noise

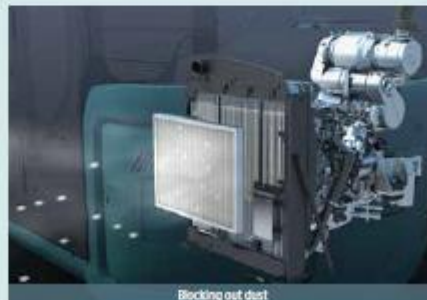
Eliminating dust maintains cooling system performance

The high-density 60-mesh filter* blocks out dust in the intake air. This prevents clogging of the cooling system and the air cleaner, which maintains peak performance. The waveform filter allows air through the tops of the waves while collecting dust at the bottom, ensuring a smooth airflow.



How the filter catches dust

*"60-mesh" means that there are 60 holes formed by horizontal and vertical wires in every square inch of filter.



Blocking out dust

Easy filter maintenance system simplifies cleaning

Daily inspection consists of a visual check of the INDr filter only. If it looks dirty, it can be removed and washed without special tools.



than ever offset duct structure



Wide, clear view to the rear

Even with the larger engine compartment, the design minimizes hood height, ensuring an excellent direct view to the rear. In addition, the operator can monitor conditions behind the machine with clear, wide-angle images from the rear-view camera, which comes as standard equipment.

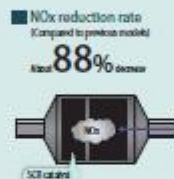


NOx emissions cut

New, Environmentally Friendly Engine

New TIER IV Final compliance engine NEW

The new type of TIER IV Final compliant engine is fitted with a diesel oxidation catalyst (DOC) and an SCR device to control emissions without using a diesel particulate filter (DPF). It has a large-capacity DEF/AdBlue tank, extending intervals between fill-ups.



A newly developed engine raises the bar for construction machinery

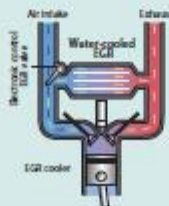
The latest Kobelco construction machinery uses an ISUZU engine that is renowned for environmental performance, and has been tuned specifically for use in Kobelco machines. This new, environmentally friendly engine changes conventional wisdom on balancing powerful performance with eco-friendliness. Eliminating the DPF makes maintenance faster and easier than ever.



At high temperatures, nitrogen and oxygen combine to produce nitrous oxides (NOx). Reducing the amount of oxygen and lowering the combustion temperature results in much less NOx.

EGR cooler

While ensuring sufficient oxygen for combustion, cooled emission gases are mixed with the intake air and recirculated into the engine. This reduces oxygen content and lowers combustion temperature.



PM emissions cut

Particulate matter (PM) is mostly soot resulting from incomplete combustion; improved combustion efficiency reduces PM emissions. filter further reduces PM emissions.

Common rail system

High-pressure injection atomizes the fuel, and more precise injection improves combustion efficiency. This also contributes to better fuel economy.





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