Llangatwg Community School

Construction of a Net Zero Carbon secondary school and community facilities

Cadoxton, Neath

Noise Monitoring, Vibration and Dust Suppression Assessment

Rev. 0. 20.2.26

Planning Application No. P2025/0314

CYNGOR CASTELL-NEDD PORT TALBOT
NEATH PORT TALBOT COUNCIL

MID BOD OND BYW

MORGAN SINDALL CONSTRUCTION

CONDITION

4 No development shall take place until a Construction Noise and Vibration Management Plan has been submitted to and approved in writing by the Local Planning Authority. The approved Management Plan shall identify all significant construction and demolition noise and vibration sources; detail the physical and operational management controls necessary to mitigate emissions from these sources; hours of working on site, and specified hours for deliveries; and any elements of operation that could lead to amenity issues from noise and vibration disturbance to surrounding properties. The approved Construction Noise and Vibration Management Plan shall also detail noise limit monitoring and noise and vibration complaint investigation procedures, together with any phase-specific plans. The approved Construction Noise and Vibration Management Plan, and any associated phase-specific plans, shall be adhered to throughout the construction of the approved development. A copy of the plan should be retained by the developer.

CYNGOR CASTELL-NEDD PORT TALBOT
NEATH PORT TALBOT COUNCIL

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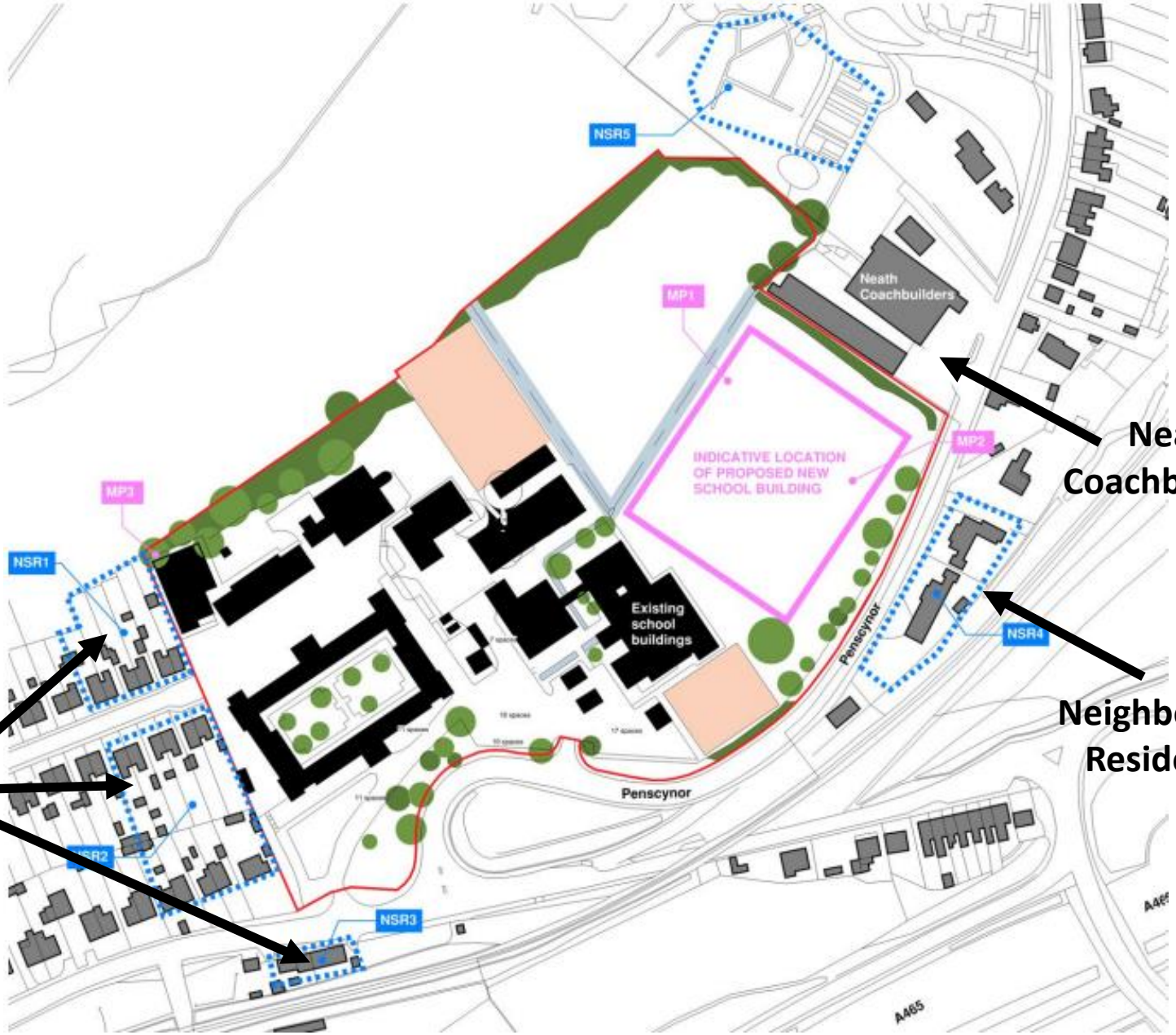
Protection of Key Stakeholders



Neath Coachbuilders

Neighbours / Residents

Neighbours / Residents

Notes

- Considered Stakeholders
  - School
  - Residents
  - Neath Coachbuilders

- Regular letter drops and progress updates will be issued both physically and via electronic channels. An open-door policy will be adopted
- Scope and extent of neighbours to be contacted yet to be agreed with the Client. This plan will be amended to suit those agreements.
- Method and frequency of liaison with neighbours yet to be agreed with the Client
- All newsletters and the like will be copied to NPT Council for approval and translation in Welsh prior to proceeding
- We will also be engaging with the local community in person via both charitable and informative events

1.0

Noise Management

Noise Monitoring Methodology and Comments

Noise Monitoring Method & Ancillary Comments

- A Baseline Noise Survey Report was produced in May 2025 (see report ref. 26CC07-FOR-10-XX-T-OJ-0001). This was commissioned to support and inform the design of the proposed new development, but the results can be used to inform our construction environmental management plan also
- Noise monitoring uses sound level meters to measure and record ambient noise levels, which are the existing background sounds in an environment, often measured in A-weighted decibels (dBA). This monitoring is crucial for assessing the baseline noise before construction commences
- We shall then use the BS 5228 Pt 1 'A,B,C Method' to establish threshold values which we will comply with going forward.
- Monitoring works will be undertaken by the site management team
- Noise Risk Assessments shall be undertaken considering the construction activities that we are planning to undertake
- The above assessments will then seek to mitigate / minimise any potential noise disturbance(s) using suitable protection measures i.e. screen, baffles, bunds etc
- Noise monitoring will be undertaken at key locations around site to protect the existing environment at stakeholders (school & residents in particular)
- Monitoring will be undertaken using mobile sound recorder (see photo opposite for typical device).
- Threshold levels will be configured within the monitor(s)
- Sound levels exceeding threshold limits will trigger the site team to challenge the source of sound and put in place mitigation measures.
- Weekly noise reports shall be produced to assess correlation between potential "noisy" activities and threshold exceedances.
- Exceedance of threshold values will activate management and improvement works. Activities will be stopped, reassessed and only recommenced following suitable improvements or protection / screening

2.0

Dust Management

Dust Monitoring Methodology & Comments

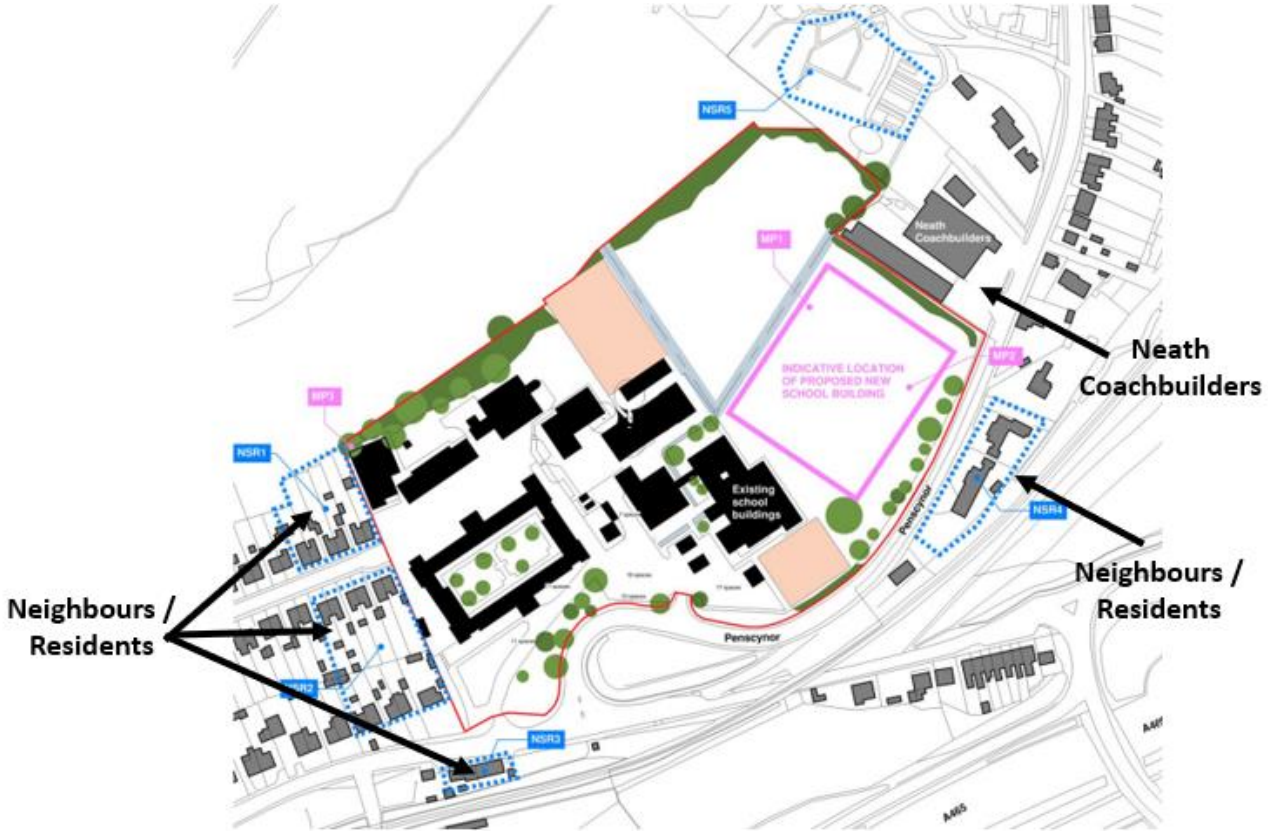
Procedures

The site will be managed in line with the requirements of Morgan Sindall procedures, policies and systems as part of our ISO accredited Integrated Management System. We will produce and populate Environmental Management Plans that will detail all aspects of our operations and the means by which we will safeguard all surrounding environmental receptors.

We will:

- Produce, manage and maintain a Dust Management Plan (DMP). This shall be the responsibility of our Project Manager (Competent Person)
- Produce Dust Suppression Assessments for each phase of the project and in doing so we will assess:
    - Dust Emission Magnitudes (for the various activities)
    - Area Sensitivities (relating to dust soiling, human health and ecology)
    - Dust Impact Risks (for the various activities)
    - Relevant / appropriate Mitigation Measures (to ensure that risks are reduced appropriately)

Dust Monitoring Methodology & Comments



Notes

- As dictated by activity specific risk assessments, dust monitoring will be undertaken at strategic locations along the site boundary in line with the identified Neighbors, Residents, School and Local Businesses.
- We will record / monitor real time measurements of PM1, PM2.5 and PM10.0 particulate matter, which can be hazardous to human health – mainly in enclosed / unventilated spaces. Site Management will manage this.
- Threshold to be set at:
  - **190µg/m3 (1-Hour Average) and**
  - **45µg/m3 (24-hour Average).**
- In accordance with our Dust Management Plan, should threshold levels be exceeded, then we will stop work immediately and assess our operations, particularly those causing a negative effect on surrounding air quality. Works will only restart when the areas have been ventilated / cleared and necessary amendments to our works methodology have been assessed, agreed and actioned.
- Our EMP & Dust Management Plan will detail all mitigation works that we will undertake during our operations including (but not limited to):
  - Tarmacking main access route into site
  - Dampening down traffic routes
  - Locating high risk works away from sensitive receptors
  - Ensuring high standards of housekeeping and waste management
  - Installing screens when risk assessment dictates
  - Maintaining cleanliness of nearby roads
- We will partner with an Environmental Monitoring / Management Consultant for the duration of the works who will provide help and advice to ensure that our operations are compliant with legislation and best practice guidance.

3.0

Vibration Management

Vibration Monitoring Methodology and Comments

Vibration Monitoring Method & Ancillary Comments

- Construction works can cause vibration levels to be perceived as excessive and problematic from a structural safety point of view.
- Often the case is that the vibration levels are an environmental nuisance, which do not give rise to a wider, more serious problem.
- We do acknowledge that vibration levels need to be carefully managed to mitigate this nuisance as far as practicably possible and that nearby property (school, residential areas) are not affected.
- Our EMP will consider all work activities that could cause potentially excessive vibration levels around our site. Such activities would include:
    - Deep Excavations
    - Heavy goods deliveries and site haulage
    - Machine movements across / around site (particularly tracked excavators)
    - Demolition Works
- To protect nearby property and people from nuisance associated with vibration, during the demolition phase we will install vibration monitors for sample areas of demolition so that we ensure we remain within the acceptable limits.
- Typical monitors are pictured opposite. They can be quickly and easily moved and fixed to walls as works progress.
- Vibration levels that are considered appropriate to manage are as follows:
    - 0.7mm/s (Caution level) – closely monitor works to ensure levels do increase
    - 1mm/s (Alert level) – not to be exceeded for sustained periods of time without prior warning/explanation given to those affected (aligns up with **Table B.1 Guidance on effects of vibration levels - BS 5228-1:2009+A1:2014**). Stop works, reassess operations and mitigate / manage accordingly if level is sustained without warning explanation.
    - 10mm/s (Alert level) – Intolerable for any more than a very brief exposure at this level - stop works, reassess operations and mitigate / manage accordingly
- Works will be compliant with limits set out within BS 5228-1:2009+A1:2014 (See Tables B.1 and B.2 for relevant limits and guidance on vibration levels)
- We will provide regular and frequent communication and works updates to the local neighbours, school and other third parties to ensure that all are aware of our operations, particularly if any give rise to perceived site generated vibration.
- Damage to nearby properties will only likely occur due to vibration at levels well above those noted above
- Real time monitoring and alerts will be communicated to the site management team who will be able to investigate any issues or concerns that may arise. We will also have access to an environmental monitoring platform that will be set up and managed by our Environmental Monitoring Consultant partners.