Maynooth Montane Limited

Construction & Environmental Management Plan.

For

Residential Development Works,
Rail Park West Maynooth,
Co Kildare.

Revision No	Date	Approved By	Reason for Revision
Rev A	28/11/2025	V Carty	Planning submission.

Index:

1.0 Approach to the Works.

This Construction Management Plan (CMP) has been prepared on behalf of Maynooth Montane Limited for the construction of a new Residential Development at Rail Park West, Maynooth, Co Kildare.

The CMP provides the construction management framework to be adhered to during the pre-commencement, construction and operational phases of the project and incorporates the mitigating principles to ensure that the work is carried out in a way that minimises the potential for negative construction or environmental impacts to occur.

This CMP identifies the key planning and environmental considerations that must be adhered to and delivered during site construction and operation. The appointed contractor will be required to implement all of the requirements set out in this CMP. The CMP may be updated and revised throughout the construction phase of the project, but all future iterations must meet or exceed the standards and requirements set out in this document and the appointed Contractor must be satisfied that all requirements set out in this document can and will be implemented in full during the construction phase of the project.

The CMP will act as a single amalgamated document that can be used during the construction phase of the project, as a single consolidated point of reference relating to all construction, environmental and drainage requirements for the Planning Authority and Client alike. The CMP may evolve over further iterations as the construction works progress, but at all times must meet or exceed the standards and requirements set out in this document.

1.1 Scope of Works:

The development will comprise a Large-Scale Residential Development (LRD) on a site at “Railpark West”, in the townland of Railpark, Maynooth, Co. Kildare.

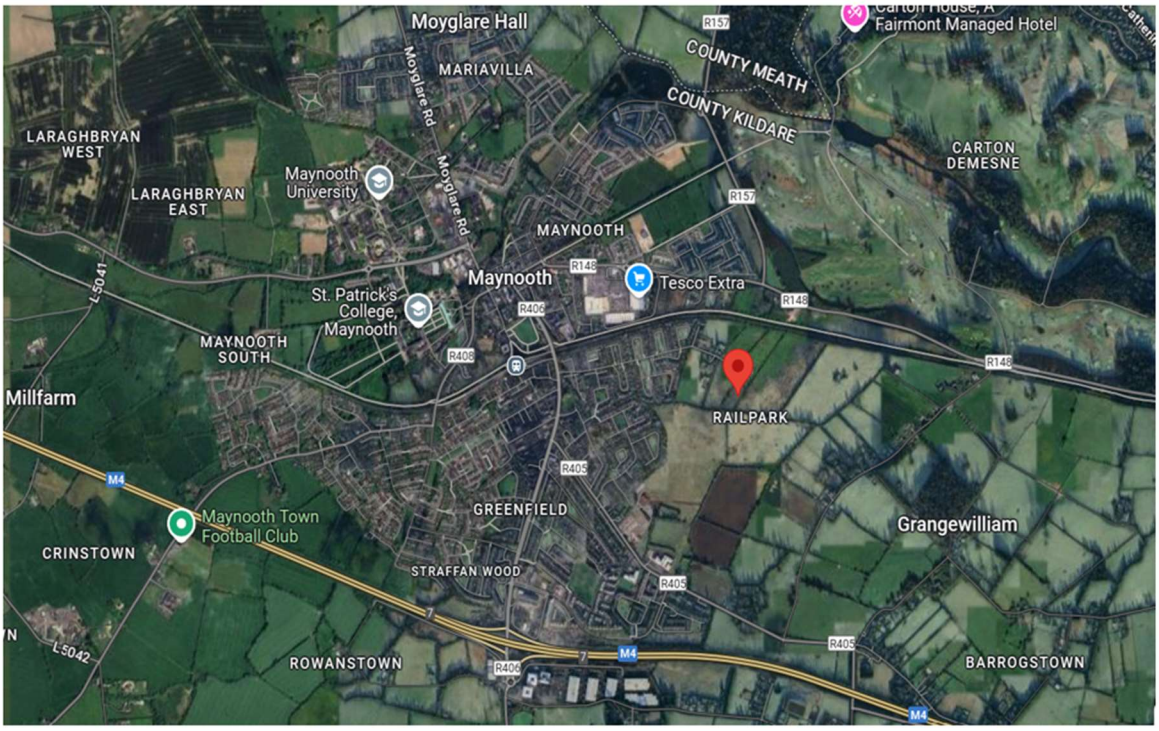
The proposed development is for 139 no. units comprising 36 no. houses (ranging in heights up to 3 storeys), 95 no. apartments (5 no. blocks ranging in heights up to 5 storeys partially over podium parking) and 08 no. duplexes (1 no. 3/4 storey Block).

The proposal includes for a new vehicular/pedestrian/cyclist access from the permitted Maynooth Eastern Ring Road (MERR) to the east and the adjoining development to the South, and pedestrian/cyclist access (and vehicular access for one of the proposed houses) to Parklands Grove/Old Railpark to the north of the site.

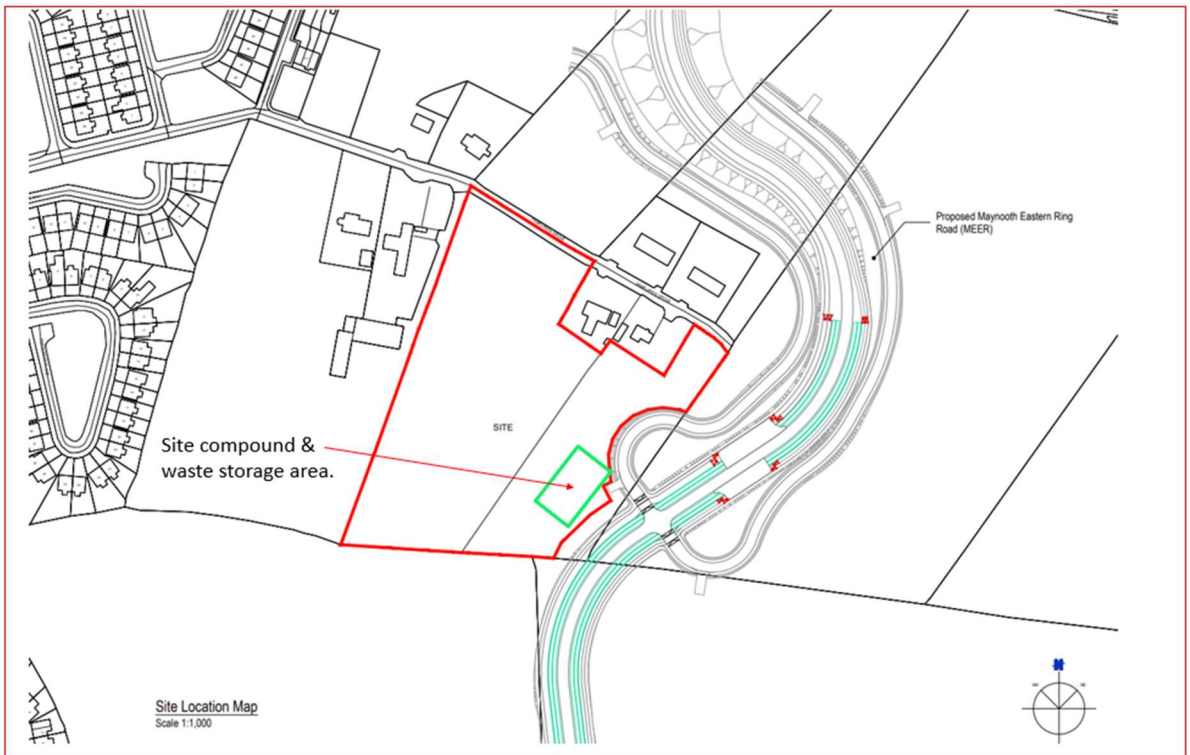
The development also includes all car and bicycle parking at surface and podium underdeck level, new streets and footpaths, bin stores, residential private open spaces, public & communal open spaces, boundary treatments, waste management areas, landscaping and all associated site development works.

1.2 Site Location:

The development is located on a greenfield site to the east of Maynooth Town will be serviced by the new Maynooth Eastern Ring Road (MERR).



Project	Railpark East.	Title	Location	Doc. No.	CMP 2025003	MONTANE
Client	Maynooth Montane.		Revision - A		28/11/2025	



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1.3 Management of the works:

One of the key aspects to successful delivery of this project will be forming good relationship and interaction with all key stakeholders from the outset. A project such as this cannot be delivered purely by process, it is the expert management of the people within that process that will provide the required results.

The best, most effective project teams have a collective understanding of not only what needs to be accomplished, but also what it takes to get there.

The management and transfer of resources and knowledge through the construction stage will be a key factor on this project, procedures which aim to control and manage resources will help ensure continuity is maintained and achieved.

To achieve management continuity, key objectives may be summarised as:

- Establishing clearly defined roles, particularly at senior level which are allocated to dedicated personnel common to all stages of the process.
- Promoting knowledge retention through same personnel, same organisations and similar processes through each stage of the project.
- Implementing contingency and ascension planning for key personnel, to ensure knowledge continuity and ownership of decisions.
- Production of project team briefing documents, execution plans and master programmes.
- Communicating and transferring knowledge through regular meetings at all levels.
- Undertaking internal gateway reviews and feedback sessions to identify and promote lessons learnt throughout the life of the project.
- Implement and maintain management systems such as change control procedures which provide a systematic log of events for future reference.
- Promoting interaction internally and externally between our own and the site management team, and thereby fostering a partnering approach at all stages.

1.4 Site Conditions of note:

The following site conditions / restraints are present and must be carefully managed throughout the construction process.

- The subject site is located to the east of Maynooth Town, the surrounding areas are predominately agricultural land.
- The site bounded as follows:
  - North Elevation is bounded by Agricultural Lands and Parkland Grove Residential properties.
  - East Elevation – Lands zoned for future development.
  - South Elevation – Agricultural lands and future Maynooth Eastern Ring Road.
  - West Elevation - Existing Residential properties.
- All surrounding public areas including access routes to and from the site, will remain live. One of the key challenges presented by the project will be movement of men, materials and equipment both onto and off the site areas. It is planned to provide a site access road along the route of the new Maynooth Eastern Ring Road.
- Given the live nature of the surrounding areas, the appointed contractor will be required to provide a detailed traffic, pedestrian management plan.
- Secure hoardings / fencing will be required around the site, absolute separation of the works and live adjoining areas will be required. A suitable inspection regime to be in place for all site hoardings and fencing. Detailed street cleaning regime to be in place for all shared access routes.
- All required Local Authority Permits will be obtained in advance of any works outside the site boundary.
- Detailed security plan to be developed and deployed for the project.
- No parking of vehicles on approaches to the site, adequate parking to be provided within the confines of the site.
- Best practice site safety & environmental management must be observed at all times.

1.5 Surrounding / Neighbouring Environments:

One of the main risks associated with this project will be interface between construction activities and live areas including existing commercial properties.

The safety of all third parties including pedestrians, cyclists and road users will be a paramount concern on this project, all works including movement of materials on and off site will be carefully planned to ensure the safety, health and welfare of our neighbours and the surrounding environs.

The project will be carried out in a planned, sequenced manner ensuring all works likely to impact on live areas have appropriate control measures in place. Maynooth Montane Limited will seek to achieve this goal by implementing the following control measures.

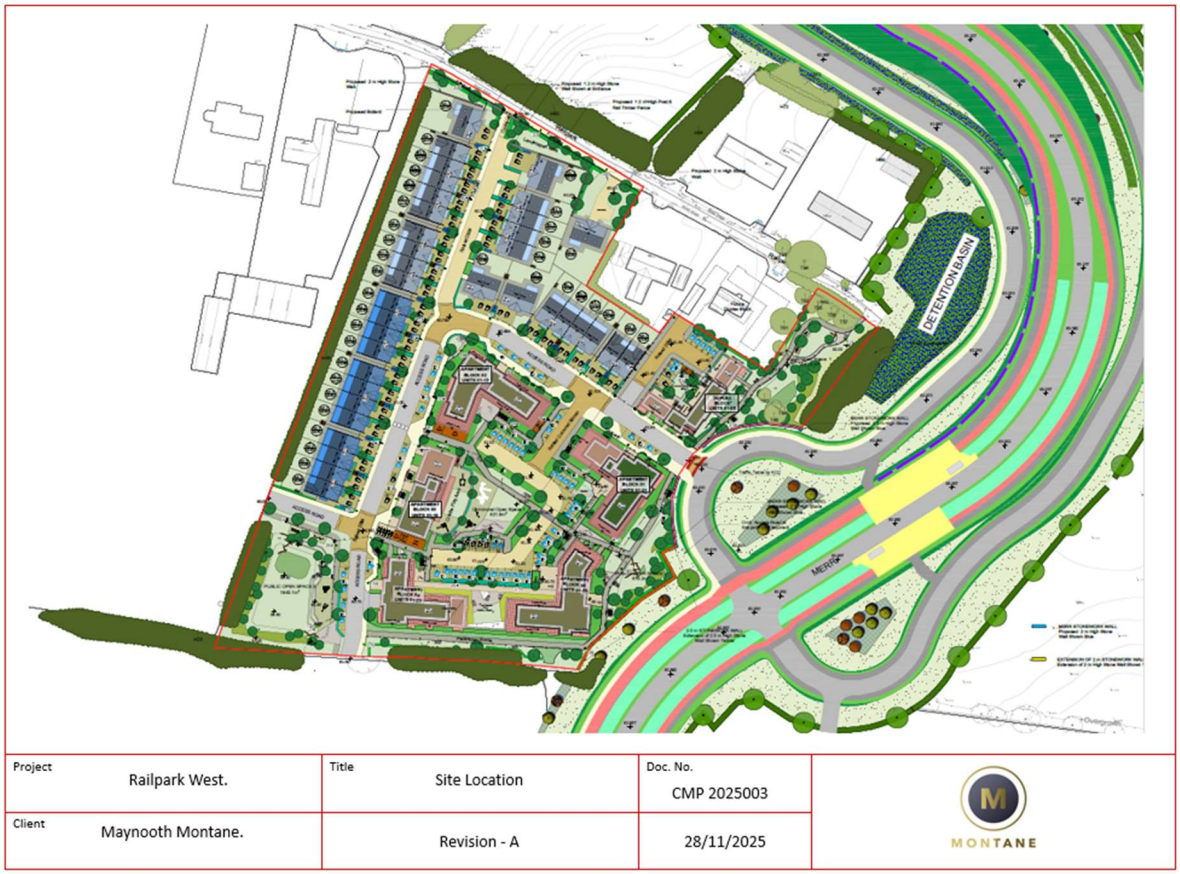
- Appointing from the outset a competent Construction Manager to oversee all works.
- Ensuring robust safety management procedures are implemented on site from the outset.
- Ensuring competent contractors are used to complete the works.
- Ensuring all / any third-party queries or comments in relation to the works are addressed.
- Ensuring all personnel involved in the works are competent and are familiar with required operating procedures and control measures.
- Ensuring all high-risk activities are adequately planned, supervised and carried out.
- Drafting and issuing in advance of commencing Waste Recovery & Management Plans for the site.
- Establishing, from the outset a good working relationship with our neighbours.
- Ensure best practice Traffic Management is implemented on the site.
- Ensure best practice Work at Height procedures are implemented on the site.
- Ensuring the security of the site and surrounding areas is maintained for the duration of the works.
- Ensuring preventive and corrective measures are in place.
- Ensuring a proactive approach to potential issues is implemented from the outset.
- In the event of issues arising during the project, ensure the issues are dealt with in a professional and timely manner.
- Prior to works commencing on the site, the appointed contractor will carry out a full dilapidation survey of all neighbouring areas, including footpaths, roadways etc. The results of these surveys will be held on file and will be made available to all parties when / as required.
- Ensure we establish a good working relationship with our neighbours from the outset and seek to address any concerns the neighbouring tenants have in relation to the works.

1.6 Restrictions on Working Hours:

Hours of operation during the construction phase to be 08.00 hours to 18.00 hours Monday to Friday and 0.800 hours to 14.00 hours Saturday. No work permitted on the Sundays and public holidays.

1.7 Phasing & Programme:

It is intended to complete the Railpark West works under a single phase.



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2.0 Traffic & Pedestrian Management.

Vehicular access to the proposed development will be via the proposed Maynooth Eastern Ring Road which is expected to be delivered by Kildare County Council in advance of this development becoming operational. The new ring road will link both the R148 Leixlip Road and R405 Celbridge Road with a new bridge to be provided over the Royal Canal and Dublin to Sligo Railway Line.

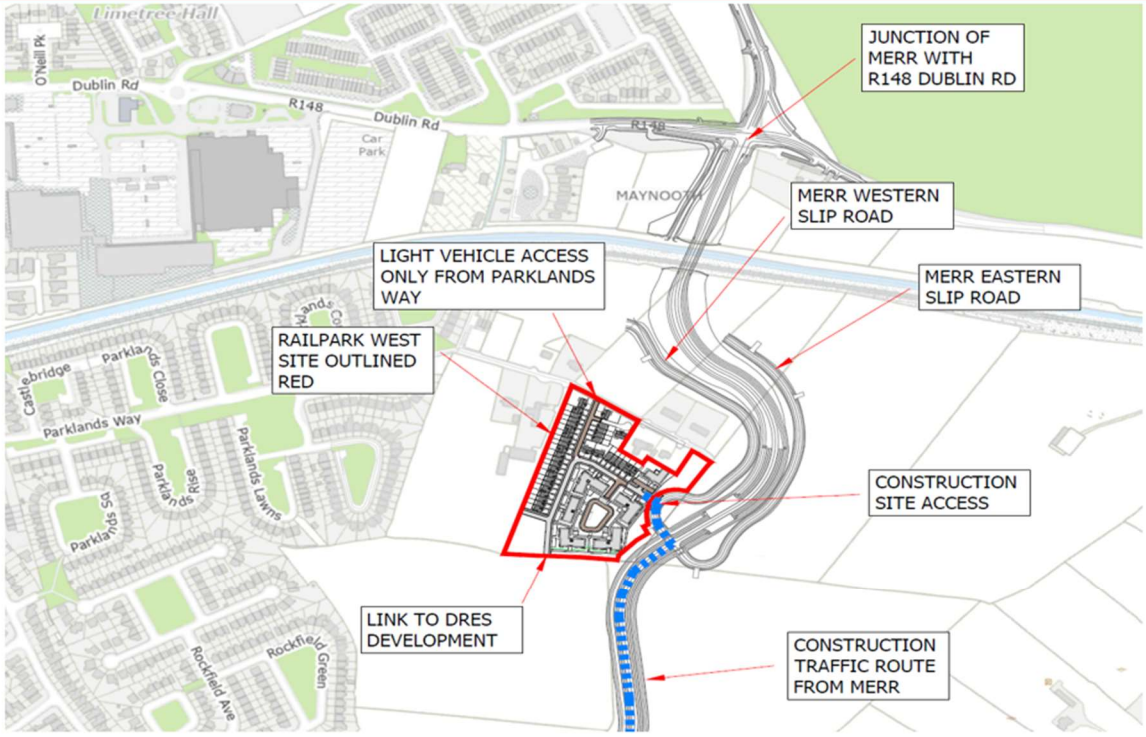
Construction traffic will only be permitted to access the development via the M4 and regional roads. Following completion of the Maynooth Eastern Ring Road, construction traffic access will be via the M4 Junction 6 and the R148 only.

All Traffic Management proposals will be agreed with Kildare County Council and An Garda Síochána prior to construction of the development. Significant traffic management installations or changes will be subject to Road Safety Audits, as required by the Local Authority. The Contractor's security arrangements will include protocols for managing all construction traffic movements to and from the site.

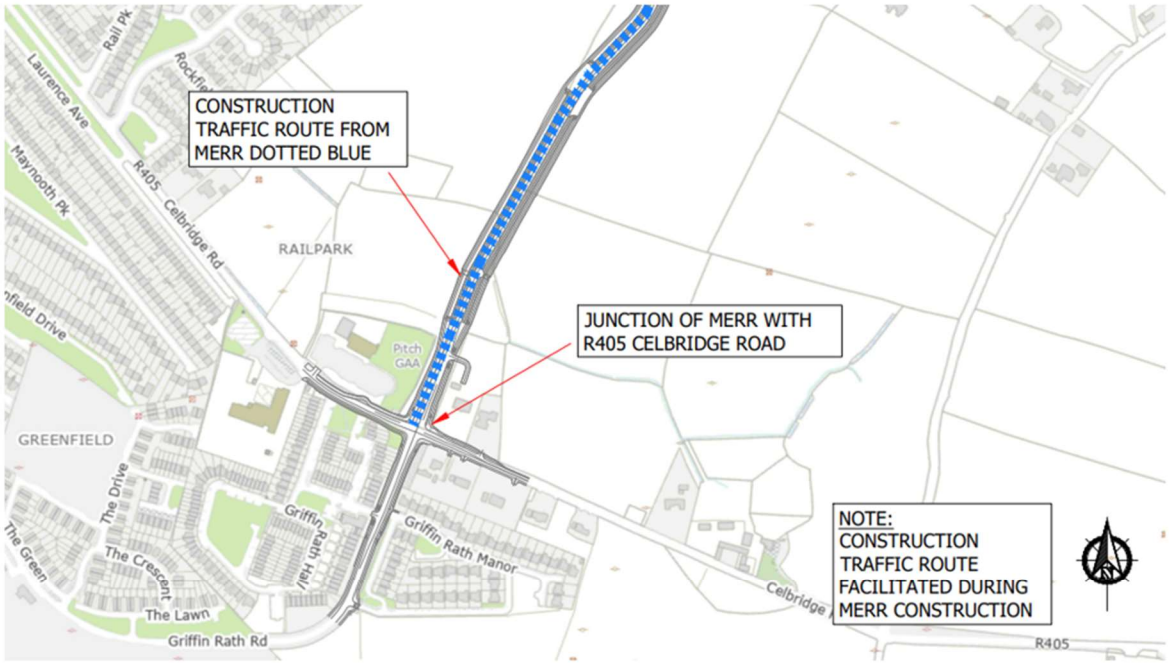
2.1 Existing Road Conditions / Constraints:

There will be no major constraints to traffic on the surrounding roads during the construction works. Foul and water supply connection will involve only short term and minor interference with the road network, and traffic conditions will not cause inconvenience to residents.

There may be construction works related to the Maynooth Eastern Ring Road ongoing during the construction of the development. The appointed contractor for the development will fully liaise with the contractor for the new ring road to ensure that all construction activities and site deliveries are co-ordinated.



Project	Railpark West.	Title	Location & Set Up	Doc. No.	CMP 2025003	MONTANE
Client	Montane Developments.		Revision - A		21/04/2025	



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2.2 Maintenance of Public Roads:

There will be potential for delivery vehicles and other site traffic to carry mud and silt onto the public roads when exiting the site. In order to prevent this, a portable wheelwash will be utilised on site which will be used as required to wash down vehicles prior to leaving the site.

The site layout during excavation works will be designed to ensure vehicles do not enter the works area unless necessary for the excavation and soil removal processes. All machinery leaving the works area will be thoroughly cleaned before being allowed on to public roads.

A road sweeper (including vacuum) will be in place (as required) to unsure cleanliness of nearby and haul roads (where necessary), particularly during enabling works. Roadside gullies will be maintained by the road sweeper contractor. Road line markings will be monitored and markings that require replacement throughout the duration of the project will be replaced by a specialist contractor.

2.3 Vehicle Access / Egress Arrangements:

As previously noted, it is proposed to provide a temporary construction route to the site along the Maynooth Eastern Ring Road. Delivery times for plant and materials and waste collection shall have consideration to morning and evening peak school times in the area and peak traffic periods.

This plan is also to contain mitigation measures to minimize the effects the proposed development would have on the immediate public road network and existing traffic movements. Construction Traffic is not permitted through the main street of Maynooth.

This designated site access point shall be used exclusively for construction purposes, i.e. access/ egress of all construction related vehicles including personnel cars. The following non-exhaustive list of controls measures will be in place for the duration of the works.

- The designated site entrance point will be set up to provide good lines in both directions.
- All deliveries to site including delivery of heavy goods, plant and the removal of materials off site will be carefully co-ordinated keeping in mind the restrictive nature of the site and the safety of third parties.
- Point guards will be utilised when heavy vehicles are moving into and out of the site.
- Advance warning signage will be posted along Celbridge Road on approaches to the site.
- No construction related vehicles including site personnel private vehicles will park on approach roads or within the neighbouring residential areas, adequate parking within the agreed site compound area.
- Procedures for maintaining the areas directly outside the site will be agreed from the outset, procedures to include walk down checks by site management team and use of road sweepers.
- Appropriate hoardings / fencing to be erected to secure the site boundary.
- Internal haul roads will be provided using compacted stone & tarrum.
- Areas of hard standing will be provided within the site compound for off-loading & loading purposes.
- All access points to the site will be kept secure at all times.
- No storage of materials will be permitted external to the designated / agreed site area. This is to avoid congestion or contact with the public areas and ensuring storage is secure.
- Existing areas including areas directly adjacent to site will be maintained in good order and free from construction spoil at all times.
- Construction plant and vehicles will give right away to pedestrians at all times.
- Existing areas including areas directly adjacent to site will be maintained in good order and free from construction spoil at all times.
- Agreed procedures will be checked and audited by the project Safety team.
- Vehicle access / egress arrangements will remain under review for the duration of the contract, including during establishing of all temporary routes during sub-phasing.

Vehicles Egress from the Site:

All Traffic exiting the site will be required to observe the following control measures;

- Vehicles will pass through Wheel Wash area.
- Traffic leaving the site will be escorted of the site by the appointed Traffic Marshall.
- Traffic leaving the site will yield to oncoming traffic, pedestrians & cyclists before exiting the site in a safe manner.

- A 15Kph speed limit will be in place for construction traffic within the site boundaries.
- All vehicles travelling to and from the site will be expected to observe this speed limit.
- Advance warning signs will be posted to notify road users of site location and the possibility of vehicles exiting ahead, i.e. Site Entrance 100m, 50m, and 25m ahead, Caution Vehicles Exiting Site.
- All vehicles leaving the site must do so only at an appropriate break in the traffic and must not force their way into traffic, Point Guards will be provided as and when required.
- Any notified incidents must be fully investigated, and appropriate action taken.
- All Traffic Exiting the site will observe the controls as listed below;
  - Traffic leaving the site will yield to oncoming traffic before exiting the site in a safe manner. Point guards will be used where required to assist with marshalling traffic.
  - All vehicles leaving the site must do so only at an appropriate break in the traffic and must not force their way into traffic.
  - All heavy vehicle drivers must check their wheels for lodged stones and remove them prior to returning to the public road system.
  - It is imperative that the surrounding areas are maintained free of construction spoil; an area of clean hard standing will be provided for loading purposes on site.

2.4 Pedestrian Access / Egress Arrangements:

Proposed pedestrian access point to the site will be along the temporary construction access route. Pedestrians will be given right of way at all times, all methodologies issued in relation to the project will consider the movement of vehicles, pedestrians and cross over with public areas. Traffic and pedestrian movement will be considered during each phase of works.

Established procedures will be checked and audited as the works progress, including the following:.

- A segregated pedestrian access point will be provided to the site.
- Existing routes to the neighbouring properties will not be blocked or obstructed.
- Contractor will ensure that live areas are segregated from works areas; a secure timber hoarding will be erected to the site boundary.
- Required safety & hazard warning signs will be in place to provide notification of boundaries.
- All firms involved in works including appointed sub-contractors will be required to observe all site safety controls.
- All personnel involved in works on this project are required to complete the site safety induction session in advance of entering site areas.
- Access to site areas will be strictly controlled as works progress. All personnel working on or visiting the site will be required to log in at the main site entrance point.

No persons will be permitted access to or may work on this project without fulfilling the above requirements. The appointed Contractor / PSCS will co-ordinate the above arrangements, including carrying out spot checks in relation to site induction records, PPE compliance etc.

Existing public footpath directly outside the site boundary will remain live for the duration of the project. Pedestrians using the footpath will be given right of way at all times. All methodologies issued in relation to the project will consider the movement of vehicles, pedestrians and cross over with public areas. The following controls will be observed in relation to the safety of pedestrians:

1. All works, including access & egress of site vehicles will be carefully planned to take into consideration the potential proximity of pedestrians.
2. Segregated construction access point for pedestrians will be provided.
3. When entering and exiting the site construction plant and vehicles will give right away to pedestrians at all times.
4. Existing footpaths and roads bounding the site will be maintained free of construction spoils.
5. Pedestrian & vehicle access arrangements will be covered during site safety induction session.
6. Any deviation from agreed controls will be immediately challenged and rectified.
7. Agreed procedures will be checked and audited by the company safety team.
8. Should any issues or complaints arise they will eb addressed in a timely manner.

The management of pedestrian access / egress arrangements will remain under review for the duration of the contract.

2.5 Approx. Number & Type of Traffic Movements expected during the Construction Phase:

It is expected that traffic movements to and from the site will peak at around 10-15 movements a day with the peak in these movements during the initial stages of the project including demolition, site clearance and civil works.

Based on the anticipated site working hours, traffic movements by workers will generally be outside the road network peak periods, which are 0800 – 0900 and 1700 – 1800 according to the Transport Impact Assessment Report. Truck movements will generally be restricted at peak periods to avoid exacerbating rush-hour traffic, and to minimise interaction with vulnerable road users – especially cyclists - during these periods.

Once initial site clearance works and works to forming foundations are complete it is expected traffic movements to and from the site will taper off to around 6-8 movements each day.

2.6 Site Deliveries:

Delivery times for plant and materials and waste collection shall have consideration to morning and evening peak school times in the area and peak traffic periods. Construction Traffic is not permitted through the main street of Maynooth.

All deliveries will be dealt with behind site boundaries, no construction plant, materials, skips, vehicles etc will park on the approach roads to the site.

Site Deliveries will be coordinated and sequenced so that smaller delivery vehicles and load sizes can be utilised where possible. Point guards will be on hand when vehicles are reversing onto or out of site. Delivery schedule to be in place and site delivery protocols will be agreed and detailed in our Construction Stage Health & Safety Plan.

2.7 Speed Limits:

It is proposed to operate a 15ph speed limit for all construction related traffic once they enter the site. Site directional and speed limit signage will be posted. The posted speed limit on Celbridge Road is 50Kph.

All vehicles entering the site will be expected to travel to and from the area in a safe manner, this expectation will be outlined during the site safety induction session. All site vehicles to have fully conform to relevant Regulations. All site vehicles to be maintained in a road worthy condition. Drivers found in breach of site rules will be noted and will be dealt with through our internal site disciplinary procedures.

2.8 Traffic Route Safety Control Measures:

The following are a non-exhaustive list of control measures which will be implemented to ensure the required Traffic Control Standards are achieved.

- Secure access will be maintained to the site for the duration of the works.
- There will be no off loading / loading of materials on the public areas adjacent to the site.
- A drop-off zone will be provided within the main site compound to accommodate construction deliveries. The provision of this compound will assist with ensuring that the existing main entrance and road network is kept clear and will not be subject to any blockage.
- The temporary parking of delivery vehicles on any of the roads adjacent to the site, will be strictly prohibited.
- Great care will be taken to protect members of the public regarding slips, trips and falls. It is the responsibility of all who carry out construction work to keep the public who interface with the works safe.
- Designated Site foreman to monitor conditions and report as required.
- All deliveries will be planned and controlled by the appointed contractor.
- Signage will be put in place informing construction workers of the dedicated construction traffic route.
- The agreed site Traffic Management Plan will be developed and will remain under review as necessary to include any improvements that are required as the project progresses.
- Just in time delivery protocols to be in place.

2.9 On-Site Traffic Rules:

The following non-exhaustive list of traffic control measures will be observed at all times on the site,

- Adequate onsite parking will be provided for personnel vehicles; no parking will be permitted on approaches to the site or neighbouring commercial or residential areas.
- Caution must be exercised entering and leaving the site due to proximity to live areas.
- All vehicles must stop at main gates.
- All instructions from security/site management must be obeyed.
- All vehicles leaving the site must do so only at an appropriate break in the traffic and must not force their way into traffic.
- All heavy vehicle drivers must check their wheels for lodged stones and remove them prior to returning to the public road system.
- The designated site speed limit of 15kph inside site boundaries, to be observed for all construction related vehicles once inside the Business campus.
- Drivers must check that their vehicle is road worthy, clean and loads stacked safely and tied down.
- All delivery vehicles must have flashing beacons and reversing vehicles and must comply with the Site delivery protocol.
- The site rules will be implemented by the site management team.

2.10 Temporary Traffic Management Plans – TTMP

The following provisions will be in place in relation to TTMP on this project:

- All signs to comply with Chapter 8 of the “Traffic Signs Manual”-Guidance Document.
- All Traffic Management to be carried out in accordance with Chapter 8 of the “Traffic Signs Manual”.
- Detailed Risk Assessment to be carried out prior to the installation of Traffic Management System.
- The appointed contractor shall be responsible for providing all required ramp access to all changes in road surface level where traffic runs on a temporary surface and also for cycle/pedestrian ramps where footpath, cycle paths or any surface which has a level discontinuity as a result of the works.
- Exact sign positions to be agreed and noted on drawings.
- All safety zones to be maintained at all times.
- All affected parties and An Garda Siochana to be notified prior to works commencing, (Applicable to Public roads only).
- Signs to be positioned so as not to cause an obstruction to other road users.
- Minimum lane width of 3.25m to be maintained at all times.
- All signs to be 600 X 600mm and faced with retro-reflective material to class ref 2 of EN 12899.
- All delineation devices should be designed in accordance with IS EN 13422.
- All signage shall be per Tables 8.2.1, 8.2.2 and 8.2.4 of the Chapter 8 “Traffic Signs Manual”.
- Safety barrier to be in accordance with IS EN 1317.
- “End of Roadwork” sign placed 20m to 50m from end of works area.

2.11 Site Parking:

The contractor will provide within the designated site compound, adequate parking for construction & private vehicles during the construction of the works. Secure, covered bicycle parking will be provided, and the use of bicycles by construction workers will be encouraged. Workers will also be encouraged to use public transport services where possible.

3.0 Environmental Management.

The purpose of this section is to outline the Environmental Controls Measures which will be required in order to minimize the potential Environmental Impact of the Project.

This section identifies the potential impacts and mitigation measures to minimize impacts which will be required during the construction phase of the project.

In order to ensure the site meets the required level of Environmental Performance, suitable mitigation measures will be required for each of the headings identified.

Suitable management controls will be required from the outset of the project with a view to controlling and mitigating the negative environmental impact of the works.

Throughout the project works, the appointed contractor will need to ensure site activities do not contribute to a negative environmental impact.

The contractor appointed to carry out the works on site will be required to provide a level of supervision on site in the form of an Environmental Manager who will also fulfil the role of Waste Manager. Due to the scale of activity proposed for the site, this role can be adopted by a Site Manager/Foreman as part of their duties.

In general, this Environmental Manager will maintain responsibility for monitoring the works and Contractors/Sub-contractors from an environmental perspective. The Environmental Manager will act as the regulatory interface on environmental matters by reporting directly to the client and liaising with the Local Authority and other statutory bodies as required. The duties of the appointed Environmental Manager are summarised as follows:

- Review/approval of the CEMP and supporting environmental documentation and review/approval of contractor method statements.

- Undertake environmental monitoring, inspections and reviews to ensure the works are carried out in compliance with the CEMP by the project contractor.
- Monitor the implementation of the CEMP, particularly all proposed/required Environmental Monitoring.
- Generate environmental reports as required to show environmental data trends and incidents and ensure environmental records are maintained throughout the construction period.
- Advise site management/contractor/sub-contractors on:
  - Prevention of environmental pollution and improvement to existing working methods.
  - Changes in legislation and legal requirements affecting the environment.
  - Suitability and use of plant, equipment and materials to prevent pollution.
  - Environmentally sound methods of working and systems to identify environmental hazards.

- Ensure that all construction activities are planned and performed such that minimal risk to the environment is introduced.
- Ensure proper mitigation measures are initiated and adhered to during the construction phase.
- Ensure that all environmental standards are achieved during the construction phase of the project.
- Liaise with Project Team and present the findings of site audits/inspections that are completed.
- Ensure adequate arrangements are in place for site personnel to identify potential environmental incidents.
- Ensure immediate notification of any environmental incidents are issued to the Construction Manager and Client.
- Ensure that details of environmental incidents are communicated in a timely manner to the relevant regulatory authorities, initially by phone and followed up as soon as is practicable by email.
- Support the investigation of incidents of significant, potential or actual environmental damage, and ensure corrective actions are carried out, recommend means to prevent recurrence and communicate incident findings to relevant parties.
- Identify environmental training requirements and arrange relevant training for all levels of site-based staff/workers.

3.1 Natura Protection:

Pollution Prevention – Suspended solids/Silt.
The main construction related potential impact on water quality on site is the release of sediments into existing watercourses. Silt and silt laden water/contaminated water can be caused by various construction related activities, such as dewatering and pumping of excavations, run-off from exposed ground, run-off from spoil storage areas, etc. It is noted that the subject site is located approx. 1km away from the River Rye.

Where runoff water is contaminated with silt or other pollutants such as oil, this water must not be pumped or allowed to flow directly or indirectly into surface waters or groundwater without treatment.

Sediment control will comprise a combination of the control measures as detailed below; it is envisioned that a combination of these measures will be implemented, thus minimise the likelihood of a negative impact from run off.

- All spoil generated during the construction phase will be stored in areas at a minimum distance of 30m from any existing surface water gully or entry point.
- Standard dust suppression measures will be implemented during demolition works and periods of dry weather. This will help to avoid impacts arising from the spread of dust particles during the construction phase.
- An area of clean hard standing will be provided inside the site boundary, this area will be used for all loading & unloading operations and will be maintained in good condition and free from contamination. Where required the area will be topped up with compacted stone as works progress.
- The surrounding road network will be maintained in good condition, thus preventing debris deposits which in turn may get washed into the existing surface water system.
- No pumping of wastewater or other water from site directly into surface water drains.
- Stockpiles will be located away from site boundaries in a sheltered location. These stockpiles will be monitored during dry weather conditions to prevent dusts entering the watercourses.
- Weather conditions will be considered when planning construction activities to minimise risk of runoff from the site.

- Heavy civil works in proximity to site boundaries will be suspended during periods of heavy rain.
- Water used for dust suppression purposes will be carefully applied to minimise silty runoff from the site.

Pollution Prevention – Chemical Substances

- Storage – all equipment, materials and chemicals will be stored a minimum distance of 30m away from any surface waterbody.
- Chemical, fuel and oil stores will be sited on impervious bases and within a secured bund of 110% of the storage capacity.
- Spill kits will be provided on site, training in the use of these kits will be provided to key members of the site team.
- All chemical substances being brought to the site must be preapproved by the Waste & Environmental Manager.
- Designated re-fuelling points will be established on site in the compound area away from the watercourse and all machines will re-fuel at this point only. Diesel spill kits will be provided at this location for the duration of the works.
- Daily plant inspections will be completed by all plant operators on site to ensure that all plant is maintained in good working order. Where leaks are noted on these inspection sheets, the plant will be removed from operation until repairs are completed.
- All fuel oil fill areas will have an appropriate spill apron and spill kits will be provided on site.
- Vehicles and refuelling – standing machinery will have drip trays placed underneath to prevent oil and fuel leaks causing pollution. Where practicable, refuelling of vehicles and machinery will be carried out on an impermeable surface in designated areas, well away from any surface waterbody.
- Maintenance – maintenance to construction plant will not be permitted on site, unless vehicles have broken down and require it at the point of breakdown. In this case all necessary pollution prevention measures will be put in place before commencement of maintenance.
- Concrete - Wet concrete operations will be carried out in dry conditions.
- Refuse, sanitation and welfare facilities will be required during construction and will be located within the construction compound. Foul effluent will be connected to the existing onsite network, where required chemical facilities with periodic removal for offsite disposal will be provided.
- As part of the site induction, all site staff will be made aware of the presence of the sensitive ecological areas in the vicinity of the site. Employees will also be informed about the risks associated with stormwater runoff to soakaways/attenuation areas on site and will be required to remain vigilant to prevent runoff or chemicals spillages.

Ecology Protection:

The following measures will be put in place to prevent disturbance of fauna during the project:

- Noise control measures such as limited working hours and minimising noise emissions will assist in reducing the disturbance of animals; dusk and dawn is high faunal activity time.
- Plant machinery will be turned off when not in use to reduce noise emissions.

- Illumination of the site will be kept to the minimum required for health and safety purposes and established on a task specific basis to prevent disturbance to local fauna that may occur in the wider area.
- Operating equipment and machinery will be restricted to the site boundary.

The required mitigation measures will be put in place to avoid significant negative impacts to protected fauna and to accord with The Wildlife Act 1976 (as amended) and the European Communities (Birds and Natural Habitats) Regulations, 2011-2015.

Mitigation Measures for Breeding Birds:
Site clearance should preferably take place outside the summer bird breeding season which occurs from March 1st to August 31st inclusive. Where this schedule cannot be accommodated an ecologist will be required to check the vegetation (trees, hedgerows, scrub and grassland) for the presence of nesting birds prior to vegetation clearance. If nesting birds are found to be present, NPWS should be consulted, and appropriate mitigation measures should be put in place to avoid disturbance to nesting birds until the young have fledged.

M**easures to avoid the Spread of Non-Native Invasive Species.**
In order to avoid the introduction and spread of non-native invasive species during the construction phase of the project the following measures will be implemented:
- Prior to works commencing an Invasive Species report will be completed.
- All plant, machinery and site operative clothing will be inspected prior to site access and washed if necessary to ensure that they are not contaminated with invasive species.
- Where any works are required in or adjacent to aquatic habitats within the project site all plant, machinery and site operative clothing will be cleaned and disinfected prior to entering watercourses to avoid the spread of non-native invasive species.

3.2 Waste Management & Disposal:

The generation of waste as a result of construction related activity will account for on-site wastes which will need to be managed. A separate Waste Management Plan (WMP) has been prepared for the project, this WMP will detail the specific quantities and disposal streams.

The Construction Stage Waste Management Plan will be developed by Montane as the project progresses. This plan will be compiled based on The Department of the Environment document entitled, 'Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects' (2006).

The plan is based on the European waste hierarchy which sets out the most to least preferred options for waste management. Waste prevention and re-use are viewed as the most desirable options for managing wastes with the least desirable option considered being disposal to a licensed landfill.

It is expected that the following non exhaustive list of protocols will be implemented on site with a view to minimising waste generation, contamination and assist with our goal of reducing waste to landfill.
- Whenever possible materials will be ordered to minimise storage time on site, thus reducing the likelihood of damage and spoilage.
- Materials will be kept in well organised storage areas before being released to site for use.
- Materials shall be ordered, where possible, in quantities to minimise and prevent wastage.
- Materials delivered to the project will be received and controlled by the appointed Site Manager (or similar). Materials will be stored to minimise the potential for damage or wastage. Measures will include off-ground storage e.g. on pallets, remaining in original packaging, protection from rain damage or collision by plant or vehicles.
- The materials storage area will be secured at all times.
- Waste management / storage areas will be set up to handle waste generated from the works. This will be designed to facilitate the segregation of key waste streams to maximise the opportunity to re-use, recycle and return wastes generated on site.
- The segregated waste will be placed in skip containers. Waste will be placed in the skips in such a way to minimise 'empty' space.
- All skips will be labelled to clearly highlight waste stream for each skip. As a minimum skips and containers will be provided for segregating of the following key waste streams:
- Where encountered, all hazardous waste will be kept in a secure area away from other wastes to ensure no contamination takes place.

- Separate areas within the waste compound shall also be allocated for the storage of plastic piping awaiting return to supplier, waste tyres etc.

Waste & Recycling Targets for the project.

- 100% recycling of all steel including surplus reinforcement where possible.
- Reuse of earthworks materials including topsoil on site where possible, all topsoil will be reused for boundary and soft landscaping works.
- 100% recycling of all timber on site.
- 100% recycling of al paper on site.
- 100% recycling of all compostable materials on site.
- Segregation of all Gypsum wastes for recovery during the works.
- Ensuring all hazardous waste streams are identified and treated accordingly.
- No contamination of skips.

3.3 Sediment & Run-off Control:

The main construction related potential impact on water quality on site is the release of sediments into existing watercourses. Silt and silt laden water/contaminated water can be caused by various construction related activities, such as dewatering and pumping of excavations, run-off from exposed ground, run-off from spoil storage areas, etc.

Where runoff water is contaminated with silt or other pollutants such as oil, this water must not be pumped or allowed to flow directly or indirectly into surface waters or groundwater without treatment.

Sediment control will comprise a combination of the control measures as detailed below; it is envisioned that a combination of the measures as listed will be implemented on the project, thus minimise the potential impacts of the proposed development on water quality.

- All road gullies local to the site must be protected.
- No pumping of wastewater directly into surface water drains.
- Designated refuelling area to be set up on site.
- Ensure spill kits are available on site.
- Ensure all loading operations are carried out in an area of clean hard standing, thus preventing contamination to wheels.
- Road sweeping will be provided as required.

Ensure operations do not give rise to the discharge of ‘dirty’ water into the surrounding surface water network, the control measures outlined below will be implemented

3.4 Haul Roads & Loading area:

The temporary construction route to the site will be constructed using a layer of tarrum and compacted stone should, the site compound area will be constructed using similar materials.

It is envisioned that all loading of materials from the site and delivery of materials to the site will be completed within the designed area of clean hard standing, thus preventing contamination to the local road network.

Should the hard standing become contaminated with soil during works, it should be replaced as required. The effectiveness of on-site procedures should be audited and checked as part of the site environmental auditing procedures.

3.5 Excavation & Site Clearance works.

Maintenance of soil stability is a fundamental requirement and must be sustained for the full duration of the works. All actions and undertakings must be planned in accordance with the contract requirements with the aim, at all times, to minimise the risk of soil instability. The potential impact of road construction, drainage, materials excavation and fill must be carefully addressed. The following mitigation measures will be implemented on site;

- Restricting construction to within well marked areas, adherence to the non-carrying out of construction after or during heavy rainfall.

- Supporting of excavations to avoid collapse, stockpiling of vegetation and overburden excavated and maintaining the work to be implemented under the supervision of experienced and competent personnel, will mean that no issues with respect to construction works will ensue.
- Storage of topsoil's for reuse in defined areas.

3.6 Plant Management and Refuelling during the works.

The following non exhaustive list of procedures should be implemented in relation to fuel & chemical storage and refuelling operations on the project.

- A dedicated re-fuelling location should be established within the site compound area.
- Spill kits stations will be provided at the fuelling location for the duration of the works.
- Staff must be provided with training on spill control and the use of spill kits.
- All fuel storage containers will be appropriately bunded, roofed and protected from vehicle movements. These bunds will provide added protection in the event of a flood event on site.
- All chemicals must be stored as per manufacturer's instructions. A dedicated chemical bund should be provided on site.
- Storage of fuel, and servicing and refuelling of equipment or machinery will be at least 20m away from ground clearance activities.
- The dedicated refuelling area will be underlain by concrete hard standing. All fuel and oil tank will be inspected on a regular basis for signs of spillages, leaks and damage during use. A record of these inspections should be maintained, and any improvements needed carried out immediately.

- The risk of fuel spillages on a construction site is at its greatest when refuelling plant. Therefore, only designated trained and competent operatives will be authorised to refuel plant on site. Plant and equipment must be brought to a designated refuelling area rather than refuelling at numerous locations about the site.
- Chemicals used on site should be returned to the site compound and secured in a lockable and sealed container overnight in proximity to the fuel storage area.
- Drip trays should be utilised on site for all pumps situated within 20m away from ground clearance areas.
- Procedures and contingency plans must be established to address cleaning up small spillages as well as dealing with an emergency incident.
- A stock of absorbent materials such as sand, spill granules, absorbent pads and booms should be kept at the site refuelling area.
- Daily plant inspections must be completed by all plant operators on site to ensure that all plant is maintained in good working order. Where leaks are noted, the plant must be removed from operations.
- All personnel shall observe standard precautions for handling of materials as outlined in the Safety Data Sheets (SDS) for each material, including the use of PPE. Where conditions warrant, emergency spill containment supplies will be available for immediate use.

3.7 Concrete & Aggregate Management.

Best practice concrete / aggregate management measures will be employed on site, these will include:

- A designated concrete wash-out area should be established on the site. Typically, this will involve washing the chutes, pumps into a designated IBC before removing the wastewater off site for disposal. These procedures should be covered during the site safety & environmental induction session.
- Best practice in bulk-liquid concrete management must be employed on site addressing pouring and handling, secure shuttering, adequate curing times, emergency clean up etc.
- Stockpile areas for sands and gravel will be kept to a minimum size, well away from the drains and watercourses (minimum 50m).
- Where concrete shuttering is used, measures should be put in place to prevent against shutter failure and control storage, handling and disposal of shutter oils. All chemicals stored on the site, whether liquid or solid must be stored in designated protected areas. The storage of chemicals and fuels must be carefully controlled and managed.
- Activities which result in the creation of dust will be controlled by dampening down the areas.
- Stockpile areas for sands and gravel must be kept to a minimum size.

3.8 Spill and Sediment Emergency Response Plan;

A Pollution Prevention Plan (PPP) will be implemented and monitored by the site manager and will apply to potentially polluting activities during all phases of the project.

As a minimum, the PPP will comply with best practice as advocated by CIRIA. The PPP will identify site-specific measures, and incorporate a Pollution Incident Plan, which will include emergency contact details, details of spill kits on site, and instructions on actions in case of spillage/emergency.

It is not proposed to store any large volumes of oils/fuels for the purpose of refuelling on the site. A bunded fuel tank will be stored at the temporary construction compound which will be used for smaller plant and equipment i.e. site dumpers and teleporters. This will be stored on an impermeable surface and will be equipped with spill kit.
In the event of minor spills and leaks from road vehicles and the onsite excavator the following steps provide the procedure to be followed in the event of any significant spill or leak.

- Stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers.
- If applicable, eliminate any sources of ignition in the immediate vicinity of the incident
- Contain the spill using the spill control materials, track mats or other material as required. Do not spread or flush away the spill.
- If possible, cover or bund off any vulnerable areas where appropriate such as drains or watercourses.
- If possible, clean up as much as possible using the spill control materials.
- Contain any used spill control material and dispose of used materials appropriately using a fully licensed waste contractor with the appropriate permits so that further contamination is limited.
- Containment materials and equipment will be stored in a readily available area for immediate use and be of sufficient quantity to receive contaminants for later disposal at an acceptable location.
- If safe to do so, every effort shall be made to contain the materials within berms, by absorbent materials, or through other appropriate means until proper handling by disposal personnel may be mobilized to site. Particular attention needs to be taken to avoid contamination of surface water, storm sewers, groundwater, plants and animals.
- All non-essential personnel shall be removed and kept back from the area until the remediation of the area has been completed.
- Emergency spill kits will be made easily available in case of any spillage. All spillages will be recorded, and the Local Authority / EPA will be informed immediately.
- Dedicated site operatives such as equipment operators and site labourers must be trained and equipped to respond to containment and clean up in the event of a spill.
- The following spill response measures will be followed in the event of an accident:
    a) Ensure worker and public safety.
    b) Control the spill source.
    c) Secure the spill site and eliminate potential ignition sources.
    d) Contain the spill and prevent contaminant entry into water.
    e) Report the incident.
    f) Clean-up, store and dispose of contaminants.
    g) Detail and put in place any further remedial measures.

3.9 Dust Control during the Project:

Whilst construction activities are likely to produce some level of dust, these activities will mainly be confined to particles of dust greater than 10 microns. Particles of dust greater than 10 microns are considered a nuisance but do not have potential to cause significant health impacts.

Construction dust can be generated from many on-site activities such as excavation and backfilling. The extent of dust generation will depend on the type of activity undertaken, the location, the nature of the dust, i.e. soil, sand, etc and the weather. In addition, dust dispersion is influenced by external factors such as wind speed and direction and/or, periods of dry weather.

Construction traffic movements also have the potential to generate dust as they travel along the haul route. The measures below will also prevent construction debris arising on the public road.

The appointed contractor will be required to develop a dust minimisation plan, this document must outline control measures for controlling the spread of dusts from the site. The following suggested controls should be included.

- Ensure adequate provision is made to damp down areas where activities are likely to create dust.
- Measures to include the provision of water mist on site during dry periods, care to be taken not to over-wet the area.
- Wet cutting techniques to be observed at all times on site, i.e. when cutting concrete etc.
- Provision of suction road sweepers to be used on the surrounding road network.
- Where stockpiles are stored on site, they should be located in sheltered areas away from neighbouring properties. Stockpiles should be covered where required until such time as they are removed off site for disposal.
- Plant must be sited in such a way as to minimise dust emission to adjoining areas, again the use of water mist of internal routes will be used to supress dusts.
- The appointed contractor should actively engage with the neighbouring property owners to ensure any issues which may arise are addressed in a timely manner.
- Take all measures necessary to prevent spillage of debris onto public roads adjoining the site and all roads forming part of the site.
- Public roads / footpaths outside the site must be inspected regularly, at least daily, for cleanliness and cleaned as necessary, i.e. using a road sweeper.
- Ensure that exhaust emissions are minimized by ensuring that plant and machinery are maintained in good working order and regularly serviced to ensure efficient running.
- Road sweepers will be employed as required to reduce the drag out of muck onto public roads.
- All trucks containing soil or similar fine material will cover the load with tarpaulin or similar material, when necessary.
- All on-site vehicles will be restricted to a speed limit of 10km/hr.

3.10 Noise & Vibration:

The operation of plant and machinery, including construction vehicles, is a source of potential noise impacts. Noise levels shall be kept below those levels specified in the National Roads Authority – "Guidelines for the Treatment of Noise and Vibration in National Roads Schemes" or such further limits as imposed by Limerick County Council.

The proposed development shall comply with BS 5228 "Noise Control on Construction and open sites Part 1: Code of practice for basic information and procedures for noise control." During the works, any plant introduced to the site will not be excessively noisy.

Exhaust and silencer systems on plant will be maintained in a satisfactory condition and operating correctly at all times. Defective silencers will be immediately replaced.

Proposed measures to control noise include:

- Construction equipment for use outdoors shall comply with the European Communities Regulations– Noise Emission by Equipment for Use Outdoors – SI 241 - 2006.
- Diesel generators will be enclosed in sound proofed containers to minimise the potential for noise impacts.
- Plant and machinery with low inherent potential for generation of noise and/or vibration will be selected. All construction plant and equipment to be used on-site will be modern equipment and will comply with the European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations.
- Plant with the potential of generating noise or vibration will be placed as far away from sensitive properties as permitted by site constraints.
- If work activities have the potential to result in vibration, the appointed contractor shall source vibration monitoring equipment immediately from a specialist company who specialise in monitoring equipment.
- Regular maintenance of plant will be carried out in order to minimise noise emissions. Particular attention will be paid to the lubrication of bearings and the integrity of silencers;
- All vehicles and mechanical plant will be fitted with effective exhaust silencers and maintained in good working order for the duration of the works.
- Compressors will be of the "sound reduced" models fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use and all ancillary pneumatic tools shall be fitted with suitable silencers.
- Machines, which are used intermittently, will be shut down during those periods when they are not in use.

- Training will be provided by the Site Management to drivers to ensure smooth machinery operation/driving, and to minimise unnecessary noise generation; and,
- Local areas of the haul route will be condition monitored and maintained if necessary.

It is recommended that drivers of heavy goods vehicles (HGVs) associated with the development extend due care and courtesy to other road users. Excessive use of and unnecessary engine racing will be avoided.

Deviation from agreed working hours will only be allowed in exceptional circumstances where written approval has been received from the planning authority.

Complaints Procedure:
Where complaints are raised in relation to environmental issues such as noise on site, the appointed contractor will immediately raise a non-conformance report (NCR) to rectify the issue and close it out.

3.11 Ecology Protection Procedure.

No part of the site lies within any area that is designated for nature conservation purposes. All proposed development works within the application site will take place on areas of low biodiversity value.

Prior to the commencement of construction works, the tree lines and hedgerows on the site that are to be retained, will be cordoned off during all site preparation and construction activities on the site.

It is important that no tree removal be undertaken during the bird nesting season. To comply with the Irish Wildlife Acts 1976 and 2000, no hedge cutting, or tree removal should be carried out between 1st March and 31st August.

3.12 Aquatic Environmental Controls:

There are no existing aquatic receptors identified in close proximity to the site. The following control measures will be in place to protect existing environments;

- Designated re-fuelling points will be established on site in the compound area away from the watercourse and all machines will re-fuel at this point only. Diesel spill kits will be provided at this location for the duration of the works.
- Storage of fuel, and servicing and refuelling of equipment or machinery will be at least 25m away existing surface water drain.
- Chemicals used on site will be returned to the site compound and secured in a lockable container overnight away from the site boundary.
- Spill kits will be available on site.
- Daily plant inspections will be completed by all plant operators on site to ensure that all plant is maintained in good working order. Where leaks are noted on these inspection sheets, the plant will be removed from operation until repairs are completed.
- Stockpiles will be located away from site boundaries in a sheltered location. These stockpiles will be monitored during dry weather conditions to prevent dusts entering the watercourses.
- Sandbags will be used around any surface water gullies/drains not already blocked on site.
- Weather conditions will be considered when planning construction activities to minimise risk of runoff from the site.
- There will be minimal concrete wash water generated on site.
- Heavy civil works in proximity to site boundaries will be suspended during heavy periods of rain.
- Water used for dust suppression purposes will be carefully applied to minimise silty runoff from the site.
- It is not anticipated that vehicle washing will be required on site, an area of clean hard standing will be provided at the site compound for receiving deliveries and loading of waste.
- The appointed contractor must take care in disposing of water from excavations, washing, flushing or testing to ensure that no damage is caused to existing watercourses by erosion, siltation or contamination.

3.13 Management Review:

A management review of the CMP will be completed during the project team meetings. During this review the following items will be reviewed / discussed:

- Results of internal audits and evaluations of compliance with legal requirements and with other requirements to which the organisation subscribes
- Communication from external interested parties, including complaints
- The EMS performance of the organisation
- The extent to which objectives and targets have been met
- Status of incident investigation, corrective and preventive actions
- Follow-up actions from previous management reviews
- Changing circumstances, including developments in legal and other requirements related to organisations EMS
- Recommendation for improvement.

The site-specific Environmental Management Plan will be reviewed by the Environmental Manager on a six-monthly basis to ensure that it continues to be adequate and effective, and changes implemented as required. Any changes will be made by the Environmental Manager and the revised CMP will be circulated to the site agent.

3.14 Environmental Non-Conformance.

Where an environmental issue is raised, or realised, the site agent will investigate the issue without delay, remedial and preventative measures will be implemented immediately. The Environmental Manager will be notified along with the relevant Contracts Manager for the site.

An Environmental Non-Conformance Report (NCR) is then filled out by the site agent/site engineer following completion of the corrective action and forwarded to the Environmental Manager for completion.

Section 1 of the NCR typically outlines the environmental issue noted on site and names the initiator of the compliant. Section 2, which is completed by the site agent/site engineer, typically outlines the Actions to be completed (CAPA Plan):

- Root Cause Analysis (How did the incident/issue happen)
- Corrective Action (Fix now)
- Preventative Action (Prevent recurrence).

Section 3 typically outlines the Verification of the Implementation of the Action Plan (CAPA). This is completed by the Environmental Manager following a site visit and confirmation by the site agent/site engineer that the CAPA Plan has been followed through. The NCR is then closed out by the Environmental Management Committee during a Directors meeting and the Environmental Manager will confirm in writing to the initiator of the complaint that all issues noted have been resolved.

3.15 Environmental Inspection, Auditing & Monitoring;

Due to the scope of the proposed works and the nature of the surrounding areas it is critical that the environmental standards and required control measures remain under review for the duration of the project, particularly as the project progresses and the site changes. Every effort must be made to ensure the planned works do not have an adverse impact on required environmental standards.

3.16 Implementation.

The Site Supervisor/Construction Manager will have overall responsibility for the organisation and execution of the demolition and construction phases of the development in accordance with the provisions of this CEMP. A series of daily checks of all works and the implementation of the mitigation measures set out throughout this document will be maintained. The findings of these daily checks should be documented by the site manager and will inform the overall site audit and inspection procedure.

4.0 Safety Management on Site:

A site-specific Construction Phase H&S Plan must be developed for the works, this document will remain live for the duration of the project and must be updated as works progress. The Construction Stage H&S Plan is the key safety management document for the project and will detail all required safety related control measures.

4.1 Health & Safety Training.

All personnel attending site must be trained and competent in the works being undertaken. All personnel must complete a site induction session which covers all requirements of the Health & Safety Plan including their specific responsibilities regarding health and safety and any site-specific environmental considerations.

New arrivals (sub-contractors and visitors) must be inducted to highlight health, safety & environmental requirements on site and specific hazards and risks associated with the site.

4.2 Health & Safety Procedures.

Site Specific Induction session, toolbox talks / workshops, regular sub-contractor meetings and regular white board briefing sessions should be used to communicate with all subcontractors and site personnel.

4.3 PSCS Role;

Co-ordination between the PSDP, PSCS, and Design Team is critical to the safe running of any site. Initial site meetings will be arranged on receipt of an appointment for a contract. On foot of the meeting the following documents must be drafted and issued for Client Review, Construction Stage H&S Plan, Site Set up Methodology, Site Traffic & Pedestrian Management Plan, Site Environmental Management Plan & Site Emergency Plan.

All documents must take account the control measures as outlined in the Preliminary Health & Safety Plan which will be issued with Tender Documents.

4.4 Post Tender / Procurement / Mobilisation Stage:

As PSCS on the project, the appointed contractor must ensure the co-ordination of all works on the site. The appointed PSCS must:

- Identify hazards arising from the design or from the technical, organisational, planning or time related aspects of the project.
- Work with designers to eliminate the hazards or reduce risk.
- Work with Designers to ensure coordination of Health and Safety.
- Organise work activities in a sequential format.
- Notify the Health and Safety Authority using form AF2.
- Develop the PSDP plan into the construction phase plan.
- Co-operate with the PSDP regarding information transfer, temporary design certificates and the safety file.
- Identify the key health & safety hazards applicable to the project.
- By taking into account the 'General Principles of Prevention', the PSCS will evaluate risks associated to each of the issues and outline the relevant risk mitigation measures. Where risks cannot be eliminated or reduced, outline the residual risks that remain.
- Obtain a copy of a Design Risk Assessments from each of the Design Team and will in review in conjunction with relevant drawings accordingly.

4.5 Construction Stage Safety Controls.

It is expected that the following procedures will be implemented at site level.

A. Daily Site Walk downs.
Daily site safety walk downs to be carried out to ensure contractors are complying with their written method statements and site safety standards are being maintained.

B. Toolbox Talks.
Ensure Toolbox talk's deal with the immediate risks associated with construction process at the time of delivery, the content of which will change as the works develop, they should also deal with environmental issues as they arise. Attendance at TBT will be mandatory for all site personnel.

C. Safety Observation reports.
All site employees must be encouraged to complete Safety Observation reports (SOR) on site, these SOR's help to identify specific risks of operations taking place on site to ensure site safety management is comprehensive and thorough as the project develops.

D. Monitor Health & Safety Performance.
Ensure, as a matter of policy to regularly monitor H&S performance on site through an audit process to establish the level of compliance being achieved. The site should be subjected to at least one documented safety audit each week.

E. Non-Compliance.
When Non-compliances are reported through external or internal audits, they must be recorded for close out, the person responsible for rectifying the issue should be identified and a time frame for corrections agreed.

F. Accident Reports.
All accidents regardless of how minor must be reported and noted. Accident / Near Miss reporting procedures must be outlined in the Construction Stage H&S Plan and during the site safety induction process.

G. Risk Assessments.
Risk assessments for identified areas of the construction works must be completed and inserted into the construction phase health & safety plan for reference; more detailed risk assessments and safe systems of work should be produced by the appropriate specialist sub-contractor following appointment, explaining their exact sequence of work activities.

H. Monitoring, Audit & Review;
A schedule of independent site H&S inspections should be agreed. These inspections will be used to provide Key Performance Indicators (KPI's) thus helping to monitor the safety performance on site. Any non-conformances found during site inspections must be addressed and closed out by the Site Management Team.

The primary objective of site inspections is to provide the site management team with a planned, systematic and independent assessment of Environmental, Health and Safety performance. Project managers should complete their own inspections, in conjunction with a representative from the relevant subcontractor. This allows managers to identify areas of weaknesses/non-conformance within the project as works progress.

The frequency of inspection is on the basis of risk level but as a minimum they should be carried out at least weekly.

4.6 Construction Phase Safety Monitoring:

Once works have commenced on site, agreed procedures for the auditing of detailed safety controls must be agreed, normally this involves the appointed contractors Safety Advisor visiting the site at least once a week to carryout documented checks on all procedures.

Daily safety walk downs should be completed by the site-based management team. These procedures once implemented should remain in operation until the completion of the project.

4.7 Sub-Contractor Management.

It is expected that the Appointed contractor will only use the services of competent, experienced sub-contractors on the project. All following is a non-exhaustive list of documents required from Sub-contractors prior to being appointed.

- Copies of current insurance, i.e. Employers & Public Liability, Products Liability & Professional Indemnity where design is required. All / any exclusion must be clearly identified.
- Copies of Sub-contractor company safety statements, site specific copies are held on file in our site offices.
- Method statements where required, i.e. for high risk tasks, method statement issue sheets are maintained for all projects.

All subcontractors should be required to provide examples of previously completed similar projects and points of contact in relation to reference checks.

Once successfully appointed to the project, a pre-commencement meeting should be arranged, this meeting should outline key details of the project, including long lead in items, project safety management, project programme including key milestones etc.

Once commenced on site subcontractors should be required to attend weekly site meetings where site safety, programme, quality of works completed, upcoming works etc. are discussed.

4.8 Control of Lifting Operations:

Some lifting operations maybe required on the project, (it is planned to have 1No Tower Crane on site), the following control measures will be observed for lifting operations:

For any planned "Lifting Works" taking place on site, the following will apply; Calculated Load to be Lifted = Actual Load + 25% + Weight of Lifting Equipment e.g. Crane Hook, Chains etc.

- All lifts will be covered under task specific RAMS / Lift Plan.
- It is acceptable practice that some routine off-loading such as delivery of blocks, sand etc can be covered under a task specific SPA, all other lifting operation requirements including certification of lifting equipment & competent personnel must be observed.
- Details of the competence of the Appointed Person, Crane Operator and Banksman etc will be circulated.
- The current test certificate for selected lifting equipment must be issued and filed on site.
- Each lifting Equipment and its' accessories shall be inspected weekly by a competent person and such inspections shall be recorded in the Lifting Equipment Register.
- All lifting Equipment shall conform to Regulation 119 of the 'Safety, Health & Welfare at Work (General Application) Regulations, 2007'. The employer shall ensure that all work equipment, where the work equipment is exposed to conditions causing deterioration liable to result in a danger to safety or health, then Periodic inspections and, where appropriate, testing are carried out.
- All Lifting Equipment operators shall be trained and competent.
- All slinger/signallers shall be trained and competent.
- Regular inspections of lifting equipment and accessories – their condition, storage and use, shall be carried out by a competent person or persons from the Works Contractor involved. Such inspections shall be recorded, and such records held in the D&D site manager's Safety Records.
- Slinger/signallers shall be aware of Safe working loads and these loads shall not be exceeded.
- Montane site manager shall ensure Method Statements provide for safety of adjacent construction personnel and/or public during lifting operations.
- All Personnel will be kept clear of the danger zone while Hazardous loads, are being hoisted by any lifting equipment. The Work Area involved shall be cordoned off.
- Site Management shall ensure that such Method Statements are properly implemented.
- Site Management shall ensure that correct slinging procedures are observed by slinger/signallers. Material loads shall be securely fastened (use of nets with block grabs etc.) while being lifted.
- Barriers and signs shall exclude the third parties and all non-essential personnel from the Lifting zone. No one shall be allowed to access the Danger Area under the materials being hoisted into position.
- All Chains, Ropes or other lifting accessories shall conform to Regulation 57 of the 'Safety, Health & Welfare at Work (General Application) Regulations, 2007' in that they shall not be used in raising or lowering or as a means of suspension unless:
  - The lifting accessory is of good construction, sound material, adequate strength, suitable quality and free from obvious defect.
  - It is properly installed and used.
  - It is properly maintained.
  - It is used only for the purpose for which it was intended.
  - It is marked in plain legible figures and letters with the Safe Working Load.

4.9 Control of Excavation Works:

Due to the scope of works on the project, excavation works are seen as inevitable, the non-exhaustive list of controls will be observed for all excavation works on site.

- Plant to be operated by competent persons only, i.e. CSCS card holders.
- All plant to hold up to date certification.
- Groundwork's to be subject to underground scanning by a competent person prior to commencing. It is essential that existing underground services are identified in advance of commencing works.
- Safe digging procedures including the use of spotters and toothless buckets to be implemented when working within 2m of live services or in areas where services are suspected but not identified.
- No digging permitted within the danger zone of gas services.
- Safe digging procedures to be observed.
- Trail holes or slit trenches to be dug by hand to confirm service locations, taking into account of physical indications such as junction boxes, manholes and ground conditions.
- Assume all services to be live until proven otherwise.
- Services crossing excavations must be supported.
- Maintain at least 600mm clearance between machine and obstructions to allow for tail swing.
- No persons are allowed to stand or work within the operating radius without the operator's permission.
- Bucket/arms must not be slewed over personnel, vehicles cabins, huts etc.
- Certified banksman to be used where a driver's vision is impaired or operating in congested conditions, large excavators must never be permitted to travel in a confined area, or around people, without a banksman to guide the driver.
- Site Manager to ensure speed restrictions are enforced on site, i.e. all moving plant is subject to a 10KPh speed limit on site.
- Arrangement to remain under review for the duration of the project.
- All quick hitches and other safety devices must be checked prior to operation and at least on a daily basis, these checks should be carried out after each attachment change.
- Operators to carry out inspection after each bucket change, this inspection to include a physical check that the quick hitch is fitted correctly.

Best practice concrete / aggregate management measures will be employed on site, these will include,

- A designated concrete wash-out area should be established on the site. Typically, this will involve washing the chutes, pumps into a designated IBC before removing the wastewater off site for disposal. These procedures should be covered during the site safety & environmental induction session.
- Best practice in bulk-liquid concrete management must be employed on site addressing pouring and handling, secure shuttering, adequate curing times, emergency clean up etc.
- Stockpile areas for sands and gravel will be kept to a minimum size, well away from the drains and watercourses (minimum 50m).
- Where concrete shuttering is used, measures should be put in place to prevent against shutter failure and control storage, handling and disposal of shutter oils. All chemicals stored on the site, whether liquid or solid must be stored in designated protected areas. The storage of chemicals and fuels must be carefully controlled and managed.
- Activities which result in the creation of dust will be controlled by dampening down the areas.
- Stockpile areas for sands and gravel must be kept to a minimum size.

Maintenance of soil stability is a fundamental requirement and must be sustained for the full duration of the works. All actions and undertakings must be planned in accordance with the contract requirements with the aim, at all times, to minimise the risk of soil instability. The potential impact of road construction, drainage, materials excavation and fill must be carefully addressed. The following mitigation measures will be implemented on site.

- Arrange for all agreed environmental monitoring to be in place from the outset of works.
- Restricting construction to within well marked areas, adherence to the non-carrying out of construction after or during heavy rainfall.
- Supporting of excavations to avoid collapse, stockpiling of vegetation and overburden excavated and maintaining the work to be implemented under the supervision of experienced and competent personnel, will mean that no issues with respect to construction works will ensue.
- Storage of topsoil for reuse in defined areas.

5.0 Construction Management:

5.1 Introduction:

The appointed contractors for the construction of the proposed development will be required to comply with this CEMP and any revisions made to this document throughout the construction phase.
An overview of the anticipated Construction Methodologies is provided below.

5.2 Overview of Proposed Construction Methodology:

The proposed anticipated construction methodology is summarised under the following main headings:

- Site Establishment.
- Site Separation.
- Site Clearance.
- Site Roads.
- Services and Utilities.
- Construction Phase
- Landscaping Works.

5.2.1 Site Establishment.

The site access point will be from Celbridge Road (R405). Prior to the commencement of any construction, this site entrance will need to be fully established with security gates and completed haul road to the site. A parking area for construction worker's vehicles will be provided within the confines of the site.

There will be no parking permitted for any vehicles associated with the project on the public road during the construction phase of the development. Any works outside of the site boundary must be covered under a task specific methodology & Traffic Management Plan, all required Local Authority Licences to be in place.

5.2.2 Site Separation.

Perimeter hoarding or fencing will be provided around the site to provide a barrier against unauthorised access from the public areas. A controlled access point in the form of a gated main site entrance will be kept locked outside of normal working hours.

The hoarding will be well maintained and painted or covered with graphics portraying project information. Due to the nature of the works and the construction traffic using the site entrance, appropriate signage will be provided along Ballymount Rd Lower to alert pedestrians to the traffic exiting/entering the site. Likewise, appropriate signage will be installed within and outside the site to alert drivers of the pedestrians crossing ahead. The appointed contractor will be required to undertake the following;

- Operate a Site Induction Process for all site staff,
- Ensure all site staff shall have current 'Safe Pass' cards'
- Maintain Site Security staff at all times,
- Install access security in the form of turn-styles and gates for staff,
- Separate public pedestrian access from construction vehicular access,
- Ensure restricted access is maintained to the works.

5.2.3 Site Clearance & Demolition Phase.

Soil stripping and temporary stockpiling of soils and subsoils will be required around the site as the proposed project progresses. Where these works occur, the following will apply:

- The area where excavations are planned will be surveyed and all existing services will be identified.
- All relevant bodies i.e. ESB, Gas Networks Ireland, Eir, Kildare County Council etc. will be contacted and all drawings for all existing services obtained.
- All plant operators and general operatives will be inducted and informed as to the location of any services.
- All plant operators and general operatives will be inducted and informed as to the identification of invasive species.

- A tracked 360-degree excavator will be used to strip the topsoil, and a dumper will be used to move the excavated materials to the temporary stockpile location.
- All excavated material will be reused for future landscaping works and the construction of required banking to the site boundaries.
- All stockpiles will be damped down or covered in a sheet of polythene, as required, which will prevent the creation of nuisance dust, and will also prevent sediment runoff in times of heavy precipitation.

5.2.4 Site Roads.

The construction methodology for the proposed access road is outlined as follows:

- Excavation will take place until a competent stratum is reached.
- The competent stratum will be overlain with up to 500mm of granular fill as determined by the Project Engineer.
- A layer of geogrid/geotextile may be required at the surface of the competent stratum.
- A final hard surface layer will be placed over the excavated road to provide a road profile to accommodate construction traffic.
- Prior to completion of the construction works on site, the finished tarmacadam road surface will be applied.

5.2.5 Services & Utilities.

The surface water management system has been designed to ensure that no polluted surface water runoff is discharged from the project site during the operational phase of the project. The system will collect and treat all surface water generated from impermeable surfaces within the project site.

All surplus surface water from the project site will discharge to the existing drain to the west at a controlled rate equivalent to the Greenfield Runoff rate. Prior to discharge from the site all surface water will be passed through a Class 1 by-pass separator to remove pollutants. Oil and silt interceptors will be cleaned regularly so that they retain capacity.

The installation of services and connections to the residential units will be carried out as follows:

- The area where excavations are planned will be surveyed and all existing services will be identified.
- All relevant bodies i.e. ESB, Irish Water, Eir, Kildare County Council etc. will be contacted and all drawings for all existing services sought.
- A traffic management plan will be produced if required for connection works to the existing service network.
- A road opening licence will be obtained where required for connection to existing services.
- All plant operators and general operatives will be inducted and informed as to the location of any services.
- A tracked 360-degree excavator or similar will be used to excavate the trench to the required dimensions.
- All excavated material will be removed to an authorised waste recovery facility or, if suitable, stockpiled and reused for backfilling and landscaping where appropriate.
- Once the trench has been excavated the ducting/pipework will then be placed in the trench as per specification.
- Once the service ducts/pipework has been installed couplers will be fitted as required and capped to prevent any dirt etc. entering the ducts/pipes.
- The as built location of the ducting/pipework will be surveyed using a total station/GPS.
- Backfill material will be carefully placed so as not to displace the ducting/pipework within the trench.
- The appropriate warning/marker tape will be installed above the ducts/pipes at the appropriate depths.

5.2.6 Construction Phase.

The buildings will be constructed by the following methodology:

- The area where excavations are foundations are to be installed will be surveyed and all existing services will be identified.
- The building footprint will be marked out using ranging rods or wooden posts and the soil and overburden stripped and removed to nearby storage area for later use in landscaping.

- A tracked 360-degree excavator or similar will be used to excavate the area down to the level indicated by the designer and appropriately shuttered reinforced concrete will be laid over it.
- The block work walls will be built up from the foundation (including a DPC) and the floor slab constructed, having first located any ducts or trenches required by the follow on mechanical and electrical contractors.
- The required block work & structural steel elements will then be raised to the required levels.
- Any concrete roof & floor slabs will be lifted into position using an adequately sized mobile crane.
- The timber roof trusses will then be lifted into position using a teleporter or mobile crane depending on site conditions. The roof trusses will then be felted, battened, tiled and sealed against the weather.
- Windows, electrics, plumbing and all other building components and services will be installed in as timely a manner as is possible.
- The building will be inspected and certified by the project design engineer at the appropriate stages of construction.
- All required soft & hard external landscaping finishes will be carried out.

5.2.7 Finishing Works:

Prior to completion of works on the site, the landscaping works will be carried out. This work will be carried out before the completion of the main build works to ensure that areas are reinstated in a timely manner. These works will involve the use of plant and machinery in order to carry out tasks such as earth moving. Materials which have been temporarily stockpiled for the task will be used as much as possible, and material will only be imported where it is required.

Appendix A - Sample Site Forms - Environmental Checklist

Purpose:	To provide a summary checklist of environmental requirements for the site in accordance with the Company Environmental Management System (EMS).			
Scope:	All sites			
Responsibility:	Contract/Project Manager			
1. Environmental Documents				
The following documents must be available on site:		N/A	Yes	No
Environmental Policy	(Is the current policy displayed?)			
Environmental Risk Assessment Report	(Is it attached to the EMP?)			
Site Specific EMP/WMP	(Is the information up to date?)			
2. Environmental Compliance Requirements				
Have all compliance requirements for the project site been identified in section 3.3 of the EMP (refer to EP-01)?				
Are documents available (e.g. Planning permission, Contract, EIS, Env. Protection License)?				
Are all Waste Permits/ Collection Permits/Licences available?				
If discharge licence is required, is it available?				
Guidance/Standards/Best Practice Documents	(Is a copy available if referenced in the EMP/WMP?)			
3. Environmental Risk Assessment (ERA)				
Are the significant environmental aspects identified in the EMP (Table 4.1)?				
Are Objectives and Targets set in EMP&WMP and do they relate to significant aspects?				
Have significant environmental aspects updated where new or additional risks have been identified?				
4. Operational Control				
Are restrictions and hold points correctly identified in the EMP (Section 6.2)?				
Are control measures in the EMP/WMP adequate to address compliance requirements?				
Are control measures in Method Statements adequate to comply with EMP and WMP?				
Do all method statements refer to EMP/WMP?				
5. Communication				
Are subcontractors identified in the EMP (Section 6.7)?				
Are EMS requirements communicated and agreed during subcontractor pre-start meetings?				
Are relevant authorities identified in the EMP?				
6. Responsibilities				
Are responsibilities defined in the EMP (Section 8)?				
Are those personnel with responsibilities aware of and fulfilling their role?				
7. Competence, Training and Awareness				
Are toolbox talks listed in the EMP (Table 9.1)?				
8. Emergency Preparedness and Response				
Are emergency plans in place and are they adequate to address potential emergencies?				
9. Monitoring, Measurement and Review				
Are inspection and monitoring requirements identified in EMP (Section 10)?				
10. Non-conformances, Corrective & Preventive Action				
Are Environmental Incident Reports being completed and sent to the SHE Dept.?				
Are measures in place to prevent tracking of sediment from the site and clean vehicles and public roads?				
Are measures in place to protect any sensitive habitat areas or species including fences and signs?				
11. Fuel & Hazardous Substances Storage & Handling				
Are fuel tanks/drums/containers adequately bunded and covered and are drip trays in place?				
Are drip trays/bunds well maintained?				
Is a hazardous substances store available and signed, and are all drums, containers stored appropriately?				
Are spill kits available/clearly visible and located close to the refuelling/storage areas/watercourses?				
Do spill kits contain PPE and a laminated copy of spill procedure?				
12. Waste Management				
Are skip bins or designated storage areas available for all reusable / recyclable / disposable wastes?				
Are there signs on all skips/bins?				
Is there good litter and housekeeping controls?				
13. Material Storage and Consumption				
Are materials stored to avoid damage?				
Please contact the Company Environmental Coordinator with any questions.				

Sample Safety Review / Inspection:

	Action Date (A/D)
Project Name;	Items to be actioned according to rate applied A - Immediately. B - Within 24hrs. C - Within 7 Days. D - Within 14 Days. E - Identifed during previous audit.
Date / Time of Inspection;	
Weather Conditions;	
Walk-down Completed by;	

Site Access; (Are safe routes provided, are they clear of trip hazards, is lighting good etc).
Housekeeping; (Is Housekeeping good, being addressed, trailing leads, waste removed etc).
Segregation & Signage; (Site fencing, hoarding in good order, adequate signage etc).
Work @ Height; (Ladder controls, scaffold tower inspections, ladder permits etc).
Welfare Facilities; (Are they set up being maintained, is access good).
Mobile Plant; (Plant & Operator certs, Underground Services, Traffic Management, Segregation etc).
Emergency Planning & Fire Safety; (Fire Points set up, Emergency Plan Posted).
Sub-Contractors; (Paperwork being issued, signed off, site rules being observed).
PPE Rules; (Site controls being observed?).

Comments on Foot of Safety Walk-down.	Action By;	Action Complet
Any Other Business, (upcoming works, method statements required, outstanding safety issues etc).		
Signed (Auditor);		
Copied to;		

Appendix B - Waste Contractor Checklist

		Yes	No
1.	Do you have a Waste Collection Permit (WCP) for EVERY Waste Contractor that collects ANY waste from the site (full copies)	✓	
2.	Is the waste contractor permitted to collect the type of waste in question? Is the specific waste type being collected detailed in the waste collection permit?	✓	
3.	Have you contacted the waste contractor and asked what licensed / permitted facility our waste is being brought to?	✓	
4.	Is this licensed / permitted facility stated in the waste collection permit? If not, the waste contractor should be contacted and asked.	✓	
5.	Have you checked the waste facility permit / license to see if they can accept the waste in question? (It is very important to check this if the waste is hazardous)	✓	

Appendix C - Definitions

Re-use;

Products or components that are not waste are used again for the same purpose for which they were conceived.

Recycling;

Any recovery operation by which waste materials are reprocessed into products, materials or substances.

Recovery;

Any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy.

Disposal;

Any operation which is not recovery even where the operation has as a secondary consequence the reclamation of substances or energy. Annex I set out a non-exhaustive list of disposal operations.

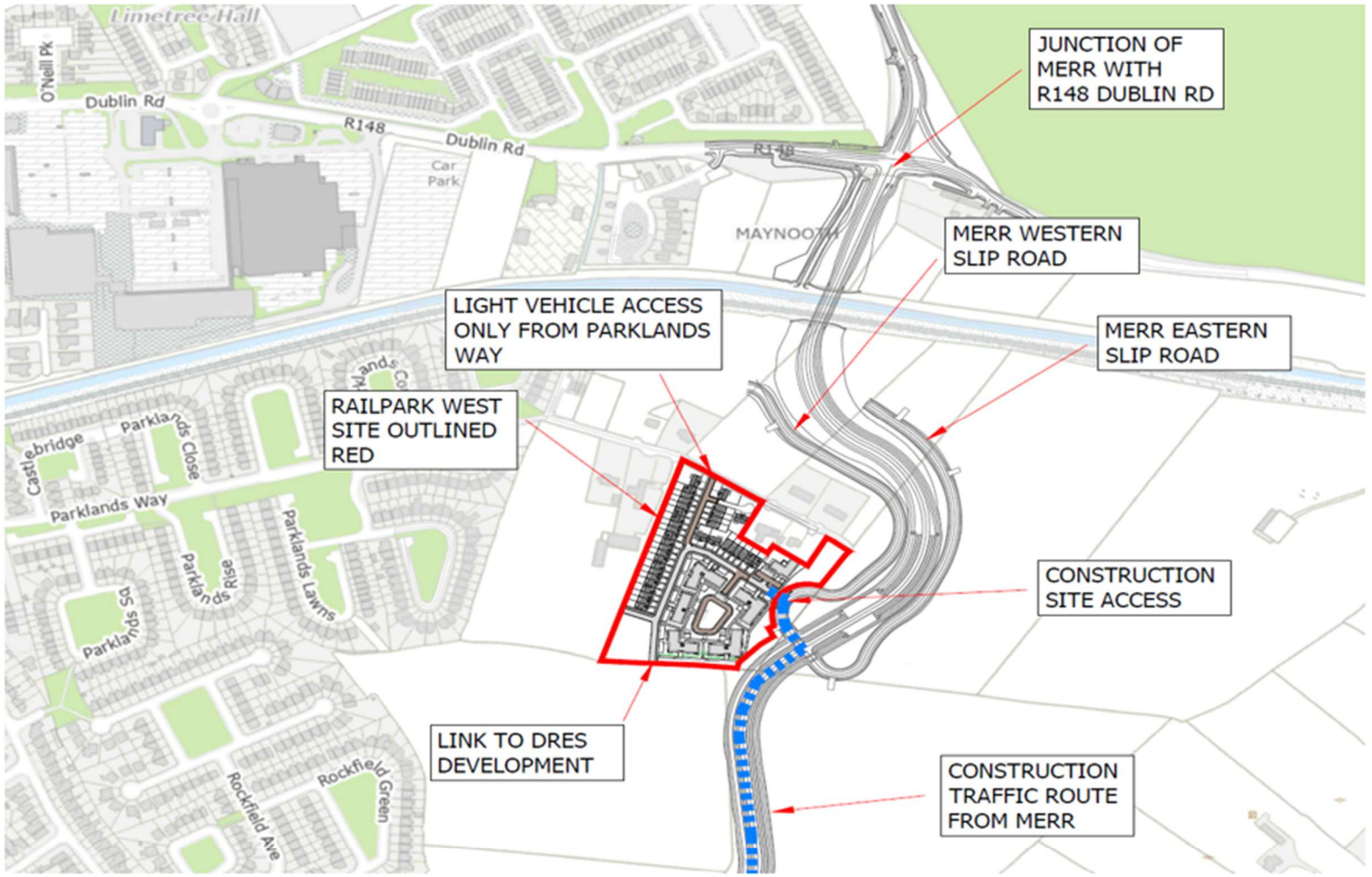
Inert Waste;

Waste that -
- does not undergo any significant physical, chemical or biological transformations,
- will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter, or be adversely affected by other matter, including waters, with which it comes into contact in a way that causes or is likely to cause environmental pollution, or
- will not endanger the quality of surface water or groundwater.

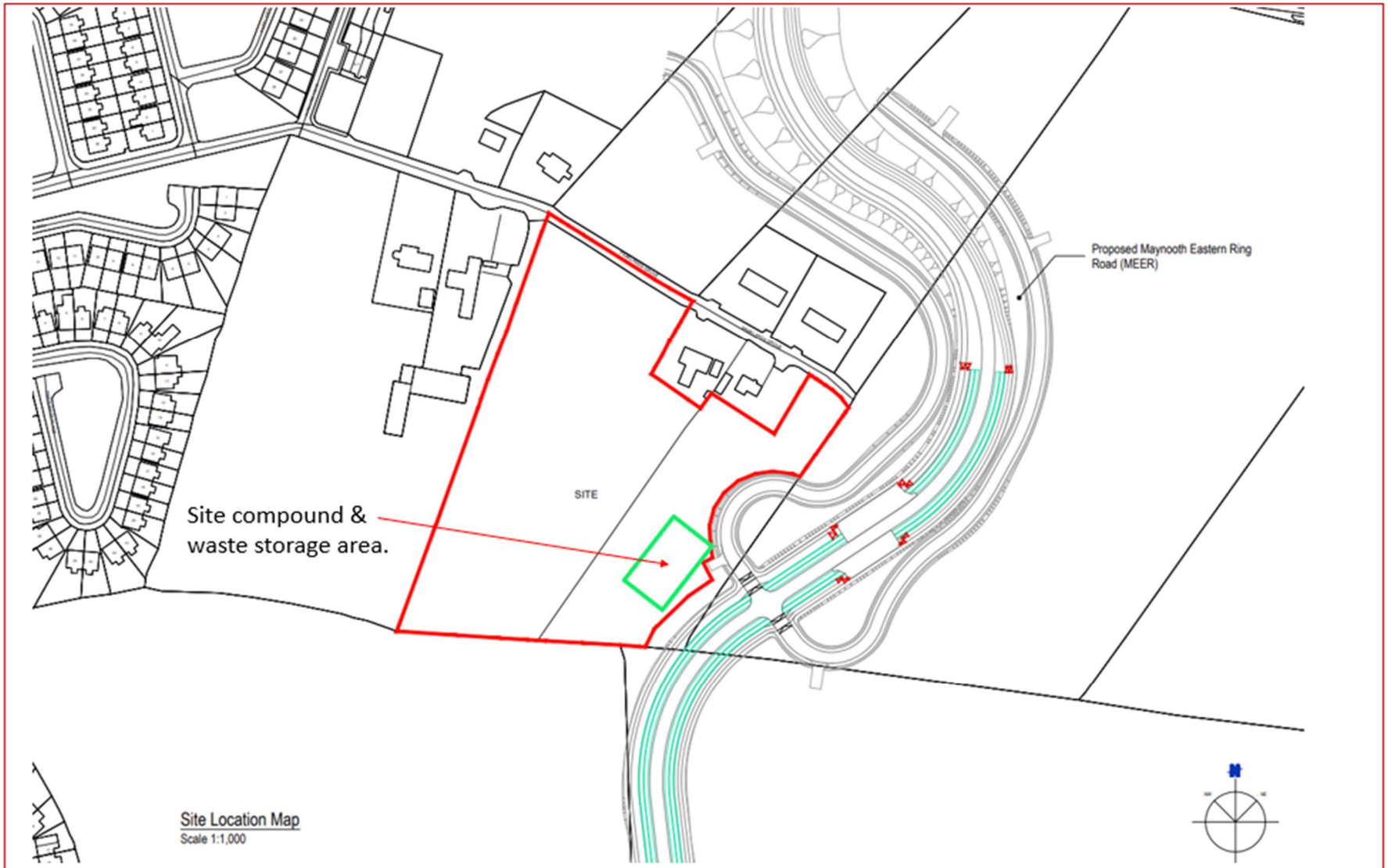
Hazardous Waste;

Waste which displays one or more of the hazardous properties listed below:-
- Explosive
- Oxidizing
- Highly flammable (liquids, substance, solid liquid, gaseous substance)
- Flammable liquid substances
- Irritant
- Harmful
- Toxic
- Carcinogenic
- Corrosive
- Infectious
- Toxic for reproduction
- Mutagenic
- Waste which releases toxic or very toxic gases in contact with water, air or an acid
- Sensitizing substances
- Eco-toxic
- Waste capable by any means, after disposal, of yielding another substance, e.g. a leachate, which possesses any of the characteristics listed above.

Appendix D - Proposed Site Layout & Access;



Project: Railpark West.	Title: Location & Set Up	Doc. No. CMP 2025003	MONTANE
Client: Montane Developments.	Revision - A	21/04/2025	



Project: Railpark West.	Title: Site Location	Doc. No. CMP 2025003	MONTANE
Client: Maynooth Montane.	Revision - A	28/11/2025	