Wm. Neville & Sons Construction

Construction Management Plan

For development at Park, Carcur, Wexford

Incorporating Site Specific

SAFETY, HEALTH & WELFARE STATEMENT

Expected Start Date on Site: Pending Grant of Planning Permission

OFFICE ADDRESS:

Rockfield House
Spawell Road
Wexford

July 2020

NOTE: See also Appendix C of the Arthur Murphy & Co Engineering Report for

Construction Management Plan on The Importation of Fill
and
Related Ecological Protection Measures.

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SECTION 3. HAZARDS, RISKS AND PRECAUTIONS

SUPPLEMENTARY SHEET

SITE NAME : **Former Roadstone Quarry**

ADDRESS: **Park**
Carcur
Wexford

SITE FOREMAN: **Mr Eoin Neville**

Normal Working Hours of this site;

- 8am to 5pm Monday to Friday
- 8.30am to 1pm Saturday
- No work on Sundays or Bank Holidays

GENERAL STATEMENT OF HEALTH AND SAFETY POLICY

It is the policy of this company to carry out the works in accordance with the "Safety, Health and Welfare at Work (SHWW)" Act 2005 together with the related SHWW General Application Regulations 2007 and the SHWW Construction Regulations 2013 and all related amendments. The Contractor will be required to provide evidence of adequate consideration of the risks associated with the task and to comply with the Safety, Health & Welfare at Work (Control of Noise at Work) Regulations 2006, the Safety, Health & Welfare at Work (Control of Vibrations at Work) Regulations 2006, the Safety, Health & Welfare at Work (Work at Height) Regulations 2006, the Safety, Health & Welfare at Work (Construction Regulations) 2006, The Safety, Health and Welfare at Work (Construction) Regulations 2008 (SI No. 130 of 2008) and the safety, Health and Welfare at Work (Construction) (Amendment) (No.2) Regulations 2008(SI No. 423 of 2008)

It is also our policy to ensure so far as is reasonably practicable, the safety, health and welfare of all employees whilst at work, and to provide such information, training and supervision needed for this purpose.

It is the policy of this company to protect so far as is reasonably practicable, persons not in our employment, who may be affected by our acts or omissions.

It is the goal of the company to complete this project, and all projects undertaken by Wm. Neville & Sons Construction, without the loss of any working time due to an accident.

All employees have a duty to co-operate with Supervisors and managers to achieve a safe and healthy workplace, and to take care of themselves, and others who might be affected by their acts or omissions.

It is our policy to consult with all staff and employees on matters of safety and health, and this safety Statement is part of that consultation.
Employees are encouraged to comply with their duties under the above legislation, and to assist management in identification of hazards in the workplace.

The allocation of responsibilities for safety matters and particular arrangements to implement the policy are set out in this company Safety Statement.

This Safety Statement will be kept up to date especially where the business changes.
It will be reviewed annually in any case and will be revised as necessary.
This Safety Statement is distributed to all Contract Managers, Agents, Site Managers and Designated Supervisors.

It will be kept available at all locations where the company carries out work, and will be freely accessible to all concerned.

Important:

The hazards and risks included in this safety statement are those identified as normally encountered in our line of business.

Any residual or additional hazards specific to this particular site which are not included in the main body of the Safety Statement will be found in the Safety and Health Plan for the project.

Signed *Seamus Neville* **Date: 20/7/2020**
(Managing Director)

1.1 RESPONSIBILITIES OF THE MANAGING DIRECTOR

The Managing Director Seamus Neville will:

(a) Ensure that an effective Safety Statement exists within the Company and take responsibility for its implementation.

(b) Ensure that adequate resources are provided for the effective implementation of this Safety Statement.

(c) Ensure that adequate arrangements exist for employees to make representations on matters of Safety, Health and Welfare.

(d) Ensure that an evaluation of the extent to which the Safety Statement was put into effect in included in the Company's Annual Report.

(e) Make safety a priority and show good example by having it on top of the agenda at all Management meetings.

(f) Ensure that adequate provisions for safety, health and welfare are made, when work is being planned and when tenders are being compiled.

(g) Obtain, where necessary, the services of a competent person to advise on Safety and Health, if such expertise is not available in company.

1.2 DIRECTOR WITH RESPONSIBILITY FOR SAFETY

(a) Review the effectiveness of the Company Safety Statement annually and ensure that it is modified as necessary.

(b) Ensure that all risks are insured especially in relation to injuries to employees, members of the public and loss or damage to company property.

(c) Ensure that the terms of the Company Safety Statement are implemented on all projects.

(d) Ensure that all Sub-Contractors have an adequate Safety Statement.

(e) Ensure that all relevant employees and sub-contractors are in possession of a current valid Safe Pass Card or CSCS certification, and that a system for control of this item implemented.

(f) Ensure that all relevant Operators and Scaffolders are in possession of a Construction Skills Certification Scheme card as required by the Regulations.

(g) Ensure that a preliminary Safety & Health Plan is prepared for each new project and that it is developed for the construction stage, before the project commences.

(h) Ensure all accidents and dangerous occurrences are thoroughly investigated, cause identified and prevention procedures put in place.

(i) Inform the Health and Safety Authority (HSA) of any accident where an employee is off work for more than three days.

(j) Review insurance and claims records periodically and make any changes deemed necessary.

(k) Ensure that any residual or additional hazards applicable to this site that are not included in the main body of the Safety Statement, are identified and inserted in the Project Safety & Health Plan.

(l) Arrange that the Health and safety File is stored on site, updated on a regular basis, that all personnel on site are made aware of the file and its contents.

(m) The safety file with all relevant user manuals and maintenance requirements is to be handed over to the client on completion of the project.

(n) Approve Risk Assessments and safe methods of work.

1.3 CONTRACTS MANAGER

(a) Takes overall responsibility for Safety, Health and Welfare on projects under his control and has a full knowledge of the contents of the Company Safety Statement.

(b) Ensures that adequate provision for Safety and Health is made in planning and pricing contracts.

(c) Ensures that the provisions of the Safety Statement are executed from project inception to completion.

(d) Ensures that Construction Reports Form (AF2 Form) is issued to H.S.A.

(e) Holds a Start-up Meeting on Site with the Site Agent and the Company Safety, Health and Welfare Officer.

(f) Ensures that all hazards, reasonably foreseeable, are identified and adequate arrangements formulated to safeguard against them before the project commences or any new phase of the Project begins.

(g) Ensures that all personnel under his control fully understand and accept their responsibilities in matters of Safety, Health and Welfare.

(h) Takes disciplinary action where co-operation on Health & Safety matters is not forthcoming.

(i) Gives full support to the Safety, Health and Welfare Officer, makes safety a priority and gives good example by showing a personal interest in safety at all times.

(j) Ensures that training is provided for Supervisors and Foremen to enable them to carry out their safety roles effectively.

(k) Ensures that plant and machinery allocated to each project is inspected in accordance with the regulations, certificates are to hand and records of Inspections entered in the appropriate AF Forms.

(l) Ensures that all personnel recruited for or assigned to each site are suitable for and competent to carry out their duties.

(m) Ensures that all new employees undergo Safety Induction Course and that other training will be provided for those who need it particularly on plant operation and deep excavations.

(n) Ensures that Sub-Contractors and Self Employed Persons are aware of Company Policy and that they will comply with these procedures.

(o) Ensures that Sub-Contractors have prepared their own Safety Statement and a copy has been received.

(p) Ensures that adequate protection is provided to protect the public and particular attention is given to ensure children cannot gain access to site as far as reasonably practicable.

1.4 SITE MANAGER

(a) Take full on-site responsibility for Safety, Health and Welfare.

(b) Acquires a full and accurate knowledge and understanding of the Safety Statement and ensure that all under his supervision appreciate their responsibilities.

(c) Carries out induction of all new employees in accordance with this Document bringing to their attention and making available to them, the Company Safety Statement and the hazards set out in other Contractor's Statements.

(d) Understands and implements all statutory and Client's specific safety requirements.

(e) Shall ensure the issue of permits for commencement of work in excavations in deep trenches.

(f) Controls the use of Site Services and ensures that all electrical installations, temporary or permanent are installed, used and maintained safely.

(g) Ensures that all necessary Personal Protective Equipment is available, issued, records kept of its issue and used in compliance with statutory regulations and Company rules.

(h) Co-operates with the Company Safety, Health and Welfare Officer, accompanies him on site inspections and reviews and implements the recommendations for improvement.

(i) Ensures that all accidents and dangerous occurrences are entered in the Accident Book and all registers are kept up to date.

(j) Ensures that all relevant safety publications are on display or available for reference.

(k) Reviews Accident Investigation Reports, satisfies himself that they come to the correct conclusion and where appropriate, take corrective action.

(l) Ensures that non-employees and visitors are aware of the Safety, Health and Welfare Statement by drawing their attention to it and making it accessible to them at all times.

(m) Ensures that all machinery and plant is in good condition and has the necessary test certificates before being allowed to work.

(n) Considers the possible consequences of vibration due to works on site. This can be due to piling, heavy machinery or power tools. The impact on neighbouring premises must be considered, assessed and mitigated as much as possible.

1.5 RESPONSIBILITIES OF SITE FOREMAN

(a) Acquire a full and accurate knowledge and understanding of the Safety Statement and ensure that all employees, self-employed persons and sub-contractors are made aware of their responsibilities under it.

(b) Ensure all sub-contractors make available a copy of their Safety Statement and agree to operate under the requirements of it while operating on this site.

(c) Ensure so far as reasonably practicable that safe systems of work are in place and adequate supervision is provided at all times.

(d) Maintain a tidy workplace and arrange for regular clean-ups.

(e) Ensure that all access routes, walkways and haul roads are clear adequately sign posted. This to include the safe delivery and removal of materials and work equipment onto and off site while taking care of members of the public.

(f) Issue any personal protective equipment such as hard hats, gloves, goggles, earmuffs and dust masks to employees as is necessary.

(g) Ensure all sub-contractors personnel are issued with the same by their employer.

(h) Enforce the wearing of such equipment for all on site.

(i) Perform a safety check on scaffolding before sending people to work on it.

(j) Perform a safety check on all electrical equipment, hand tools, and site equipment and machinery.

(k) Arrange for defects in any equipment, plant or machinery to be repaired immediately or withdrawn from use.

(l) Ensure safe disposal of all waste material.

(m) Ensure all accidents are recorded in the Company Accident Book and persons receive proper medical attention and/or first aid.

(n) Ensure that First Aid Box on site is fully stocked.

(o) Ensure all sub-contractors comply with the site safety statement and safety procedures.

(p) Instruct all employees in safe use of tools and equipment and general safe work practices.

(q) Ensure that all visitors are issued with helmet and boots (if necessary) and accompanied while on site.

(r) Ensure that unauthorised access by children is considered on all sites and that works or equipment is made as safe as reasonably practicable.

(r) Ensure that dust is not allowed to develop on site by arranging for selective watering if necessary.

(s) Ensure that, during the course of the works, storm water runoff and consequential sediment deposits off site (i.e. on the public road or paths) do not exceed that which currently exists for the site in its present undeveloped state. The new storm water design for the development will deal with all surface water runoff and attenuation if necessary.

1.6 RESPONSIBILITIES OF EMPLOYEES

Employees shall:

(a) Take reasonable care of their own Safety, Health and Welfare and that of any other person that may be affected by their acts or omission while at work.

(b) Familiarise themselves with and always conform to, the organisation Safety, Health and Welfare Policy as detailed in the Company Safety Statement.

(c) Observe all safety rules and co-operate with their employer to comply with any of the relevant statutory regulations and directives.

(d) Use any suitable appliance, protective clothing, convenience or equipment in such a manner so as to provide the protection intended for securing their Safety, Health and Welfare while at work. This to include exposure to sun, frost, dust, mud etc.

(e) Conform to all instructions given by those with responsibility for Safety, Health and Welfare on the site.

(f) Use only as intended the correct tools and equipment for the jobs, with all appropriate safety devices and keep tools in good condition.

(g) Report all accidents and damage to Director in Charge of Safety without unreasonable delay, whether persons are injured or not.

(h) Direct any suggestions or concern on matters of Safety and Health to Director in Charge of Safety.

Employees shall not:

(a) Intentionally or recklessly interfere with, or misuse any appliance, protective clothing, convenience, equipment or other means or things provided in pursuance of any of the relevant statutory provisions or otherwise, for securing the Safety, Health and Welfare of persons arising out of work activities.

(b) Carry out any tasks which they feel they are not competent to carry out or which involves unreasonably high risks.

(c) Present themselves for work while under the influence of alcohol or drugs. Any employee found to be under the influence of these or similar substances will be suspended from work with immediate effect.

1.7 SUB-CONTRACTORS AND SELF-EMPLOYED

The self-employed and sub-contractor are controlled by the same Safety, Health and Welfare Legislation and are legally and morally obliged to safeguard the health and safety of themselves and of others affected by their activities.

All sub-contractors, whether providing materials and labour or labour only, are considered to be self-employed and have the following legal and moral responsibilities.

(a) To take all reasonably practicable precautions, to avoid any risk to themselves or anyone else who may be affected by their acts or omissions.

(b) Provide full and clear information to those who may be affected by their work activities, so as to minimise their exposure to risk.

(c) Advise and warn any public persons (third party) who may be exposed to a dangerous situation resulting from their activities.

(d) Provide their Safety Statement, familiarise themselves and comply with this Safety Statement and co-operate on all Safety, Health and Welfare matters.

(e) Provide evidence where requested that all their employees have a FAS Safe Pass Card and C.S.C.S. Card where applicable.

(f) Produce evidence, when requested, showing Employers Liability and Public Liability Insurance appropriate to the scope of work is in place.

Selection and Control of Contractors will be overseen by Wm. Neville & Sons Construction. All contractors that are appointed to any element of the project must have Employers Liability and Public Liability Insurance appropriate to the scope of work is in place and must have the appropriate training and certification of such training for their employees. Failure to comply with this will mean the appointment cannot be made and another contractor will have to be sourced in their place.

SECTION 2

ARRANGEMENTS

2.0 SITE SECURITY

Setting Up New Sites:

1. A Health & Safety Plan must be drawn up and approved by the Planning Supervisor prior to the commencement of any project which attracts the requirements of The Safety, Health and Welfare at Work (Construction) Regulations.

2. The Planning Supervisor will notify the Health & Safety Authority if the work is 'Notifiable' i.e. liable to last more than 30 days or involves more than 500 man hours of construction work

3. A copy of the notification form (AF2) should be displayed on the site together with the statutory notices

4. Wm. Neville & Sons Construction will supply a standard health & safety pack to site which will include Accident books, Registers, Statutory Notices, Generic Risks and COSHH Assessments, Company Safety Policy and associated guidance literature.

5. The site should be secured, as far as is reasonably practicably, by means of hoarding, security fencing or other suitable defence. All plant and mobile equipment must be effectively immobilised during out of site hours or placed in a security compound.

6. The Site Supervisor should ensure that all amenities required by the Regulations such as Toilets, Washing facilities, Drying Rooms etc. are set up and maintained to standard required by the Regulations, taking into account the maximum number of persons likely to be on site.

7. If electricity cables pass in close proximity to where work is to be carried out, the Site Supervisor shall contact the relevant Electricity authority in writing to ascertain whether such cables can be removed, diverted or otherwise made safe.

8. The Site Supervisor shall also contact all relevant public utilities/authorities e.g. Telecom, Gas, Water, Mercury, Cable TV etc.

Risk Assessment:

1. It is the responsibility of the Senior Site Supervisor to ensure that a suitable and sufficient assessment has been carried out of all the risks liable to arise during the construction phase.

2. All measures necessary to control those risks identified as being of significant danger must be incorporated into the Health & Safety Plan.

3. It is important to be systematic in the carrying out of this task and to understand the concepts of hazard and risk. A hazard is something that has potential to cause harm e.g. a deep excavation, erection of steelwork, entry into a confined space, work at height etc. Risk is the likelihood that harm will arise from a hazard in the form of injury or ill health.

4. Severity of risk is a function of the probability of an event occurring and the degree of injury or ill health liable to arise. In assessing the risk consideration must be given to the level and adequacy of the existing precautions. Where an activity is of a high risk nature then in depth planning in the form of a detailed method statement must be carried out.

2.1 PERSONAL PROTECTIVE EQUIPMENT

Supply and Issue:

(a) Wm. Neville & Sons Construction Ltd. will supply free of charge helmets, Hi-vis Vests, gloves, eye protection, ear protection, dust masks as necessary to all employees.

(b) Safety Boots with steel mid sole and toe-cap, and will be worn by all employees.

(c) All sub-contractors will be responsible for ensuring their own personnel comply with the same.

(d) All equipment issued will be recorded and the employees' signature obtained.

General Guidelines

(a) All persons on site will wear a safety helmet at all times.

(b) All persons on site will wear safety boots with steel midsole and toe-cap at all times.

(c) All persons on site will wear high visibility clothing at all times.

(d) All employees and subcontractors must wear clothing suitable for their work, sufficiently tight fitting to avoid catching in objects or machinery.

(e) All employees and subcontractors must wear goggles, earmuffs, dust masks, safety harnesses, gloves etc as required for their particular jobs or tasks.

(f) No exemptions will be allowed for jobs which take "Just a few minutes" always use appropriate protection.

(g) Always ensure that safety equipment is of the right type, of good quality and in good condition and to an approved standard.

(h) Safety harnesses and lifelines are used when other safeguards such as nets, planking or scaffolding cannot be used. All harnesses will be accompanied by an appropriate test certificate and checked before use for any wear or tear. Operatives are instructed in how to use equipment safely, and how to carry out visual checks before use.

(i) All equipment and clothing is maintained in a hygienic condition, free of any defects and will be the responsibility of the user to ensure this.

2.2 ARRANGEMENTS FOR ACCIDENT REPORTING AND INVESTIGATION

General:
An accident is defined as "any unexpected, unforeseen or unplanned occurrence that interrupts or interferes with the orderly progression of an activity." Most accidents are a blend of unsafe acts and unsafe conditions.

The multi-causation theory states that accidents have more than one cause which demands that an investigation must not only find the trigger cause but the background causes also.

Accident Reporting Procedures

(a) All accidents are reported to the Site Foreman immediately or without unreasonable delay.

(b) All injuries received at work are recorded in the Company Accident Book.

(c) The site foreman will notify William Neville of any accident without unreasonable delay.

An accident which disables a person for more than three days is a reportable accident and will be notified to H.S.A. on the prescribed form (IR1).

When a serious accident occurs the Site Foreman or other nominated person on site takes charge of the proceedings and the procedure is as follows:

(a) Observe accident location and status of injured person.

(b) If there is a risk of further injury move injured person to safety, otherwise do not move.

(c) Call for immediate medical assistance or emergency service.

(d) See that first-aid is summoned and administered as required.

(e) If emergency services are summoned ensure they are given exact location and ensure they can access the site as near as possible to the injured person.

(f) Appoint a suitable person to travel with the injured person and establish location of hospital.

(g) Notify family of injured person and if required arrange for them to be transported to the hospital.

(h) Ensure that the scene of the accident is not disturbed and if H.S.E. are to inspect the scene do not move anything unless further serious risks have to be avoided.

(i) William Neville will decide if the Accident requires a thorough investigation, and will enlist external assistance where considered necessary.

(j) The Foreman will gather all information immediately about the accident and what led up to it.

(k) Take photographs or draw sketches of the scene to include measurements.

(l) Obtain statements from all witnesses, write them down as they are given and get signature.

(m) The Contract Manager assisted by the Site Foreman will complete an Accident Report Form and send it to William Neville.

(n) The site foreman will give every assistance to the H.S.A. Inspector if/when they carry out the investigation.

(o) William Neville will notify Insurers and forward copies of reports to them and will notify the H.S.A. as required.

2.3 WELFARE FACILITIES

Wm. Neville & Sons Construction are aware of their responsibility to ensure that reasonable Welfare facilities are provided for their workers and those of our sub-contractors.

(a) Canteen Facilities

Site accommodation will be provided which will include a canteen containing the following;

Suitable tables with a surface that can be washed down, cleaned and maintained in a hygienic state.

Suitable seating for use when taking meals and resting.

A tea boiler or electric kettle.

(b) Dry Facilities

Clothes hooks will be provided in a separate site hut for hanging up clothes and a heater where necessary to dry clothes is provided.

(c) Toilet Facilities

A flushing toilet will be available on site with washing facilities. If this is not possible a chemical toilet unit will be provided and separate washing facilities set up with warm running water, a means for drying hands and soap.

(d) First Aid.

A stocked first aid kit will be kept with the Site Foreman on site and is maintained and restocked as necessary.
A qualified First Aid attendant will be available, to render first aid to injured persons.

Sub-Contractors will have a First Aid kit for their employees.

(e) Fire Fighting equipment

Site Offices and canteens will be equipped with a dry powder fire extinguisher.

Each sub-contractor using blow torches, oxygen/acetylene sets and any other heat producing equipment will be instructed to provide their own fire extinguisher.

2.4 Ecology Mitigation Measures

Wm. Neville & Sons Construction are aware of their responsibility to ensure the protection of the current site ecology. To this end the following procedures will be put in place;

All mitigation measures contained within the EIAR and NIS produced in respect of this development will be implemented. An outline of mitigation measures is given in Section 3.20. below.

A Project Ecologist will be appointed to the project to oversee the implementation of the mitigation measures and liaise with the National Parks and Wildlife Service are required.

All contractors will receive tool box talks on protection of the Natura sites and the ecology interests on and adjacent to the site.

SECTION 3

HAZARDS, RISKS AND CONTROL ARRANGEMENTS

3.1 SCAFFOLDING

Hazards:

(a) Uneven or unstable ground conditions.

(b) Poorly constructed scaffold i.e. scaffold not level, not braced or secured properly.

(c) Missing planks, handrails and toeboards from platforms.

(d) Stacked materials on platform.

(e) Working at heights.

(f) Damaged fittings, tubes and split planks.

Risks:

(a) Risk of scaffold collapsing due to unstable ground conditions or poorly constructed scaffold causing serious injury or death.

(b) Risk of falling from a height causing serious injury or death.

(c) Risk of injury from falling materials.

(d) Risk of overloading scaffold, causing it to collapse and materials to fall resulting in serious injury or death.

(e) Risk of children getting onto scaffold and falling.

Precautions:

Before instructing employees to work on any scaffold ensure that:

(a) Ground is level and not likely to be undermined by any excavation.

(b) Timber sole plates are used to spread the weight of the scaffold and prevent sinking when loaded.

(c) Steel base plates and levelling jacks are used to level base of scaffold.

(d) All scaffold sections, tubes and fittings are in good condition.

(e) No split knotted or damaged planks are used.

(f) All scaffolding will be erected in accordance with the H.S.E. guidelines on Access and Working Scaffolds.

(g) All scaffolders will hold a ticket appropriate to the type of scaffolding being erected.

(h) Scaffolds are firmly braced diagonally in both directions and secured into building every 32 square metres.

(i) All scaffold platforms are fully boarded.

(j) All scaffold platforms above 2 metres are toeboarded and handrailed.

(k) Ladder access is provided to all working platform levels during working hours. Ladders will be removed at the end of working day or have a scaffold board tied- on to prevent children climbing them where the site is not fenced off.

(l) Ladders are in good condition, on a firm footing, at the correct angle of 1 in 4 (75%), secured at the top and rising above the platform at least 1m (3ft).

(m) Any materials stacked above toeboard height are protected from falling under the handrail by fitting brick guards or placing a barrier at handrail height.

(n) Trestles are in good condition.

(m) Planks used on scaffolding trestles are supported properly i.e.

- 32mm planks maximum span 1.0 metres
- 38 mm planks maximum span 1.5 metres
- 50mm planks maximum span 2.4 metres.

(o) Trestles are only used on level ground and are a minimum 3 planks wide.

3.2 HAZARDS FROM EXCAVATIONS & TRENCHES

General Hazards

All work below ground level is dangerous. Excavation work usually indicates the commencement of work but, sadly, it can equally become the termination of life for an employee. Any one or a combination of the following can cause accidents:

(a) Excavator or person makes contact with underground services.

(b) Lack of care in unstable soil.

(c) Inadequate protection.

(d) Poorly secured protection and insufficient inspections.

(e) Lack of care during weather changes.

(f) Inexperience of supervisors and workforce.

Risk Involved

When persons may be required to work in an excavation, the risks of collapse and crushing are provided for. A cubic metre of soil weighs over 1 tonne and a man buried under this will almost certainly die. The causes of soil collapse are:

(a) Mechanical failure of soil unable to hold its own weight.

(b) Mechanical failure caused by change in soil consistency, brought on by rain or frost.

(c) Mechanical failure due to proximity of a previous soil movement or excavation.

(d) Soil movement caused by variations in structure, e.g. sand pockets, etc.

(e) Soil movement caused by vibration of moving vehicles or plant.

(f) Overloading at the edge of the trench, impact of the soil, or its support by moving equipment or materials.

Arrangements To Guard Against The Risks

Before work begins:

(a) A permit shall be issued prior to commencement of work.

(b) Schedule work so that excavations are not open for any longer than necessary.

(c) Check soil types and decide on type of supports required with a competent Engineer/Supervisor.

(d) Find, locate and mark all underground services.

(e) Ensure adjacent buildings, roads, footpaths and scaffolds, etc. are not undermined.

(f) Liaise with Safety Officer and appoint a competent person to supervise work.

(g) Organise suitable plant, equipment and required working space.

(h) Provide appropriate protective clothing and equipment.

(i) Provide suitable barriers.

(j) Prevent access especially of children and other members of the public.

While work is in progress:

(a) Liaise with Safety Officer and competent person regarding inspections and suitable record keeping.

(b) Organise a balanced workforce, avoid overcrowding in a trench.

(c) Arrange adequate fencing, lights and warnings around the excavations.

(d) Arrange safety stops for all site transport near trench areas or excavations.

(e) Check regularly for "unseen hazards", e.g. noxious gases and fumes. Install an evacuation procedure.

(f) Plan and prepare for safe backfilling activities.

(g) Maintain tidy work areas at all times.

General Precautions

Ensure that:

(a) All excavations and trenches, and work done in them conform to established standards and comply with regulations.

(b) Sheeting, walling and strutting can be carried out with traditional materials or with hydraulic struts. Proprietary support system e.g. hydraulic frames, boxes, etc. can be used.

(c) Materials are placed 2 feet or more from the edge of the excavation. Precautions are taken to prevent such materials from falling into the excavation.

(d) Excavations 1.25m or deeper are shored or sloped back to the angle of repose. Any excavation in unsuitable soil is shored or sloped back even if less than 1.25m. For deep excavations the sides have to be benched.

(e) Each excavation is inspected daily by the appointed competent person. If any hazards exists, all work ceases in the excavation until precautions are taken to safeguard employees.

(f) Where vehicles or equipment operate near excavations, the sides are shored

or braced to withstand the forces exerted by any superimposed load. Also stop blocks or other substantial barricades are installed at the edges of such excavations.

(g) Materials used for sheeting, shoring or bracing are in good condition. Timbers are sound, free of large or loose knots, and are of adequate dimensions.

(h) Safe access and egress is provided for all excavations by means of ladders, stairs or ramps.

(i) Excavations 1.2m or more in depth have ladders spaced so that employees' lateral travel does not exceed 10m. Such ladders extended at least 1m above grade level.

(j) Walkways or bridges with standard handrails are provided were employees or equipment are required or permitted to cross over excavations or trenches.

(k) Safe systems of work are devised for all stages of excavation and adequate supervision maintained.

3.3 TIDINESS / MAINTENANCE OF WORKPLACES AND WALKWAYS.

Hazards:

(a) Waste timber and timber with nails protruding.

(b) Tie wire and bands from bundles of materials.

(c) Tie wrapping from bales of blocks.

(d) Poorly Stacked materials.

(e) Broken blocks and rubble

(f) Flammable material.

(g) Oil spillage.

Risks:

(a) High risk of slips, trips and falls causing injury.

(b) Risk of standing on protruding nails causing serious injury.

(c) Risk of fire from flammable waste material.

(d) Risks to members of the public where site is beside thoroughfare.

Precautions:

(a) All materials are stored and stacked safely away from access routes or entrances.

(b) All access walkways and roadways around the site are maintained free from any rubble, rubbish or any other trip hazard.

(c) All work areas are tidied up continuously and at the end of each work day.

(d) All timbers are denailed immediately.

(e) All rubbish is gathered into piles at central locations for daily removal into skip.

(f) All tie wire and tie wrapping from bales of materials is gathered up immediately and not left lying around.

(g) All flammable or combustible rubbish such as wrapping from materials, cardboard etc is skipped immediately.

(h) Ensure that stacks of materials, especially Roof trusses cannot be knocked by children.

(i) Ensure that children do not have access to any hazardous substance.

3.4 LADDERS

Hazards:

(a) Unsecured ladders.

(b) Unstable footing for ladders.

(c) Damaged ladder.

(d) Ladder too short.

(e) Ladder unsuitable for the work task.

(f) Overreaching while on ladder.

(g) Ladder at too steep an angle.

(h) Made-up Ladder.

Risks:

(a) Risk of falling off ladder causing serious injury or even death.

Precautions

(a) All ladders are in good condition before you use them. Do not use any ladder with damaged or missing rungs, damaged feet or stiles.

(b) The ladder is suitable for your job task. Remember only light work may be performed off a ladder.

(c) The ladder is erected to the correct angle 1 in 4 (75%).

(d) The ladder has a level and firm footing, wedges blocks etc must not be used to level the footing.

(e) Ladders are never placed where there is danger of moving vehicles, overhead power lines or cranes.

(f) Ladders are secured at all times and if they cannot be secured a second man foots the ladder.

(g) The ladder rises above any platform, floor level or slab at least 1 m (3 ft).

(h) Ladder stays or similar devices are used to avoid placing ladders against a fragile surface.

(i) The area around the foot and top of the ladder is kept free of all rubble, rubbish, materials, trailing cables and any other trip hazard.

(j) Ladders are moved to avoid over reaching.

(k) Users face the ladder at all times when ascending or descending and be sure footwear is free of mud, grease etc. which could case a slip or fall.

(i) Scaffolding or slab edge does not interfere with your footing when you step on or off the ladder.

(m) Ladders are never supported by their rungs and are always secured by both styles.

(n) Stepladders are fully opened to permit the spreader to lock and the top two steps are never used.

(o) Ladders are removed at finishing time or made safe to prevent children climbing them.

(p) Homemade ladders will not be used at any time.

3.5 ROOF WORK

Hazards:

(h) Working at Heights.

(i) Fragile roof surfaces.

(j) Unprotected edges of flat roofs.

(k) Openings in roofs i.e. roof lights etc.

(l) High wind at roof level.

Risks

(m) Falling off roof causing serious injury or death.

(n) Falling through rafters and Floor Joists.

(o) Wind blowing materials or person off roof causing serious injury or death.

(p) Falling objects striking people below causing serious injury.

Precautions:

Ensure that:

(q) A fully boarded, handrailed and toeboarded scaffold or other suitable proprietary fall protection will be provided at eaves level and gables.

(r) A safe working platform is provided when fixing gable ladders and erecting Trusses.

(s) Roof openings are covered and covers marked “Danger Roof Opening Do Not Remove”.

(t) Roof ladders and crawling board are used.

(u) Materials are stacked and stored safely and are strapped down or removed during high winds.

(v) Precautions are taken when working in windy conditions.

3.6 UNGUARDED FLOOR EDGES AND STAIRS

Hazards

Common hazards associated with construction of two-storey or taller buildings are the unguarded Stair Openings and no Handrails on Stairs.

Risks

(a) Falls from first floors onto floor below, causing serious injury.

(b) Falls from stairs whilst going up or down or carrying materials to the upper floor.

(c) Materials falling from edge of upper floor onto workers below.

Precautions;

(a) When Joists are installed and supported the First floor area is boarded out and a solid temporary Timber Guardrail is erected along the side and back of the Stair opening.

(b) This Guardrail is kept in position until Stud partitions are installed, to provide edge protection.

(c) A suitable ladder extending at least one metre above the floor edge, and secured near the top will be kept in position until the stairs is installed.

(d) When the Stairs is installed it will be immediately fitted with a temporary handrail, solid enough to provide fall protection.

(e) This Handrail will be kept in position until the permanent one is installed.

3.7 MANUAL HANDLING

Hazards

(a) Heavy Loads

(b) Awkward Loads.

(c) Using improper lifting methods.

(d) Sharp or rough surfaces.

(e) Carrying loads over rough or uneven ground.

(f) Carrying loads which obstruct carriers view.

(g) Loading onto low platforms.

(h) Loading onto high platforms.

(i) Overreaching.

(j) Repetitive movements.

(k) Bending rather than squatting.

Risks

(a) Strained back injuries.

(b) Slipped disks.

(c) Industrial deformities.

(d) Repetitive strain injury.

(e) Injury to feet and legs from dropping objects.

(f) Injuries to hands from sharp, rough, hot or cold surfaces.

Precautions

(a) Mechanical lifting methods are used where possible.

(b) Persons required to perform manual lifting are instructed on correct lifting methods. (See rules of safe lifting).

(c) All manual lifting tasks are assessed and planned to minimise risks.

(d) Work areas and access routes are free of trip hazards.

(e) Proper personal protective equipment such as safety boots and gloves are used.

Rules for Safe Lifting

(a) Assess the work task looking at the size, weight and awkwardness of the load.

(b) Assess whether mechanical lifting methods can be employed.

(c) Before attempting to lift any load by any means, know where

you are going to set it down and ensure that the route is clear of obstructions.

(d) If lifting manually and the load is too heavy or awkward, then assistance of one or more people will be needed.

(e) When lifting always ensure that the heavy side is close to the body.

(f) Get as close as possible to the load, this brings the lines of gravity of both the load and body as close together as possible.

(g) Position your feet approximately the width of your hips apart with one foot lightly in front of the other, this provides good balance during the lift.

(h) Relax your knees, lower your hands and drop down beside the load, inclining your head.

(i) Check for sharp, rough, hot or cold surfaces and wear appropriate gloves.

(j) Grasp the object with a firm grip, test the weight making sure it is not excessive and keep the arms as close as possible to the body.

(k) Raise your head and look straight forward, this locks the cervical vertebrae and helps to keep the spine straight.

(l) Move forward and about at a comfortable pace and never rush.

3.8 HAND AND POWER TOOLS

Hazards

(a) Sharp edges.

(b) Electric power.

(c) Flying materials, wood chippings, dust etc.

(d) Hot surfaces.

(e) Trailing cables.

(f) Rotating chucks or blades.

(g) Noise.

Risks

(a) Risk of injury to hands and other body parts from sharp tools or edges.

(b) Risk of serious cuts or other injury from unguarded electric tools such as Skill Saws, Chop Saws, Drills and Planers.

(c) Risk of muscular strain to wrists and hands.

(d) Risk of injury to eyes from flying materials such as sparks, wood chippings and/or dust.

(e) Risk of minor burns from hot surfaces.

(f) Risk of electric shock from unearthed or un-insulated tools.

(g) Risk of tripping over trailing cables.

(h) Risk of noise induced hearing loss from over exposure to noisy equipment.

Precautions

Ensure that:

(a) Sharp or pointed tools and equipment are stored and carried safely in tool boxes or tool belts.

(b) Any defective tool or other piece of equipment is removed from service immediately, repaired or replaced.

(c) All electrical equipment with metal casing are properly earthed and all other tools are double insulated.

(d) All cables are kept tidy and away from access routes and walkways.

(e) All personal protective equipment such as goggles, safety glasses earmuffs and gloves are worn appropriate to the equipment used.

(f) All rotating blades or discs are guarded and guards maintained in good condition.

(g) Power supply is disconnected before making any adjustment, changing any discs or blades.

(h) All Power tools are 110 Volt.

(i) Manufacturers instructions are read and fully understood before operating.

(j) All tools and equipment are immobilised or kept out of reach of children.

(k) Any hazardous materials that may be required on site (unknown at present) are to be securely stored under lock and key in the on-site sealed steel container.

(l) COSHH assessments are to be obtained from suppliers as materials are ordered and these documents are to be handed to the site foreman who will place them on the safety file and work in accordance with the instructions therein.

3.9 TEMPORARY ELECTRIC'S

Hazards

(a) Live electrical current.

(b) Trailing cables across access routes.

(c) Damaged equipment and cables.

(d) Surface water on site.

(e) Overloaded sockets and cables.

Risks:

(a) Risk of serious injury or death from electric shock.

(b) Risk of injury from tripping over trailing cables.

(c) Risk of mechanical damage to cables trailing across site access ways and roads.

(d) Risk of burns from contact with live electric equipment.

(e) Risk of fire from overloaded equipment or cables.

Precautions

(a) All temporary electrical distribution cables and equipment is 110 volt and wired into an earth leakage circuit breaker. (ELCB).

(b) All sockets are yellow waterproof sockets and are in good condition without any exposed wires and wired by a competent electrician.

(c) All transformers and distribution boards are in good condition with all trip switches working properly.

(d) A weekly check is done on all equipment by a competent person.

(e) Damaged cables are replaced immediately and no temporary joints used.

(f) Cables do not trail across access walkway, doorways, stairs etc. causing trip hazard.

(g) Cables crossing site roadways are buried in cable ducting.

(h) Electrical system is wired through miniature circuit breakers (MCB) to prevent current overload.

(i) All power is isolated at finishing time.

3.10 TEMPORARY LIGHTING

Hazard

(a) Poor lighting to work areas.

(b) Poorly lit corridors and stairways.

(c) Poor site lighting.

Risks

(a) Risk of injury from trips or falls.

(b) Risk of injury from walking into unseen hazards.

Precautions

Ensure that:

(a) All work areas are well lighted.

(b) All stairs and access corridors and walkways are well lighted.

(c) Adequate lighting is provided where necessary for safe access around site.

(d) All temporary lighting is 11O voltage.

(e) All lights and cables are in good condition and suspended properly to prevent causing a trip hazard and from coming in contact with surface water.

(f) All lighting circuits are wired through an E.L.C.B. and M.C.B. (see temporary electric's).

3.11 HAZARDS TO TRAFFIC ROUTES & SEGREGATION OF VEHICLES & PEDESTRIANS

General Hazards

Public traffic at road works may cause hazards to site workers and other road users by disobeying warning signs, not able to understand them, travelling at high speed, not able to see workers especially in poor light conditions or through affects of glare from sun or other lights.

Site operations, road works and machinery may cause hazards to road traffic and other road users.

Risks Involved.

(a) Risk of serious injury to employees if struck by passing vehicle.

(b) Risk of serious injury to employees if struck by flying stones or Chipping's.

(c) Risk of injury caused by collision of site vehicles due to excavations, uneven surfaces, unprotected sides of gradients etc.

Arrangement to Guard Against Risks

(a) The Site Agent will be in charge of the project and the Foreman will deputise in his absence.

(b) Before any work, in close proximity to public roads, or affecting passing traffic in any way commences, a Traffic layout plan will be prepared and submitted to the Borough Council for approval. This plan will take into consideration type of road, sight lines, prevailing traffic, poor visibility, glare from sun and headlights, heavy or wide loads.

(c) Warning, directional and other signs, cones, barriers and other traffic control devices will be selected from the layout plan well in advance to ensure their availability work commences.

(d) All signs, cones and other control devices will be erected in sufficient quantities in accordance with the plan and maintained in clearly visible condition as far as is reasonably practicable throughout their use.

(e) Signs will be covered at times when they are not to apply.

(f) Temporary road surfaces where necessary will be kept in as good a condition as practicable.

(g) All site machinery will have hazard warning beacons and lights when working on or near road areas.

(h) Workers will wear high visibility reflective jackets when working on or near the road.

(i) Flashing warning lights are provided and maintained during hours of darkness.

(j) Any mud or other debris shall be frequently cleaned off.

(k) Site Management in co-operation with the Site Safety Officer shall inspect on a regular basis the road hazards/ warnings put in place to ensure they are effective in reducing Safety, Health and Welfare risk.

3.12 HAZARDS FROM MECHANICAL LIFTING

Mechanical lifting devices include winches, slings, pulley-blocks, gin-wheels, cranes, fork-lifts.

General

Accidents with cranes and lifting appliances are caused by abuse, misuses or neglect by those who operate them and by Supervisors and others responsible for their operation.

It is people who cause accidents by ignoring or disregarding the regulations provided for safe systems of work.

(a) Lifting tackle may break allowing a heaving load to be dropped on workers.

(b) Slings may slip allowing load to fall.

(c) Loads may swing causing serious injury.

(d) Workers may be struck by mobile crane, jib or load causing serious injury.

(e) Workers struck by hook or block whilst being lowered or lifted.

(f) Safe working load may be exceeded causing equipment to fail.

(g) Equipment may come into contact with over head power lines.

(h) Cranes may overturn with tragic circumstances.

Risks

The risks attached to any failure of cranes or other lifting appliances are very high as many people can be seriously injured by a heavy load falling or a crane overturning.

Precautions To Guard Against The Risks

The Construction Regulations applicable to lifting appliances are complied with.

Lifting machines must be constructed, installed, protected, worked and maintained so as to prevent damage.

They will be examined and tested by competent persons before taken into use and after any substantial alterations or repairs. Test certificates will be issued and the result of each examination entered with the permanent mark of identification and safe working load also recorded. Weekly inspections will be carried out by a competent person and records of such inspection entered.

General Precautions

(a) Keep the test certificates for all lifting machinery and tackle showing its safe working load, and the annual or six-monthly examination reports.

(b) Only use certified lifting equipment, marked with its S.W.L. (Safe Working Load), which is not overdue for examination.

(c) Never exceed the S.W.L. of machines or tackle. Remember the load in the legs of a sling increases as the angle between the legs increases.

(d) Never lift a load if in doubt of its weight or the adequacy of the equipment.

(e) Before lifting an unbalanced load find out its centre of gravity, raise it slightly off the ground and pause, there will be little harm if it drops.

(f) Never use makeshift, damaged or badly worn equipment, chains shortened with knots, linked or twisted wire ropes, frayed or rotted fibre ropes.

(g) A wire rope must not be used if more than five percent (one in twenty) of the wires

can be seen to be broken in any ten centimetre lengths.

(h) All loads, irrespective of their shape or size, are slung so that their centre of gravity falls immediately below the crane hook.

(i) Provide suitable packing to protect slings from damage by sharp edges of loads and do not allow tackle to be damaged by being dropped or dragged from under a load.

(j) Take care to avoid snatch or sudden loading, particularly in very cold weather.

(k) Cranes must have the correct counterweight, load radius indicator and/or automatic safe load indicator.

(l) Have a fully competent slinger or banks man and use a recognised signalling system.

(m) Ensure that people or loads cannot fall from a high level when using lifting machines like lifts, hoists, cranes.

(n) Never allow anyone to be carried with a load.

3.13 FALSEWORK

Hazards

The main hazards associated with falsework are:

(a) Failure to prepare design (particularly for minor work).

(b) Inadequate design - not taking into account lateral loadings, wind loadings, total weight of building or structures to be supported etc.

(c) Failure to agree procedures between other contractors and personnel involved.

(d) Failure to construct falsework as designed.

(e) Failure to prepare base.

(f) Poor workmanship, e.g. props not plumb, bracing left out, wrong fittings used etc.

(g) No protection from plant or vehicles provided to prevent damage to falsework.

(h) Safe working platforms and access not provided.

(i) Precautions to prevent falls of materials not provided.

(j) Use of defective materials.

Control Measures

At tender or negotiation stage, the above hazards will be taken into account.

Where falsework to support formwork or sections of buildings or structures during construction, will be required, the Contracts Manager will ensure that the falsework is designed and planned in accordance with the procedures defined in BS 5975. This will apply to falsework of any size.

The planning must take into account and safety of other contractors and the public.

Training and instruction will be provided for Supervisors and Operatives engaged in the erection and dismantling of falsework and for persons required to carry out the duties of "Falsework Co-Coordinator".

All personnel required to work on or near falsework must wear safety helmets.

Where an unintentional collapse of any falsework or any building or involving a fall of more than 1 ton of material, the Company Safety Officer, must be notified immediately and the procedure for dangerous occurrences in the Policy Section on the Reporting of Accidents must be carried out.

Supervision

The Site Agent will ensure that all necessary design drawings, sketches and calculations are available on site before work starts to enable the falsework to be erected properly.

The Site Agent will ensure that all materials in falsework structures are in good order.

A Safe System of Work will be provided by the Site Agent for the erection and dismantling of falsework providing safe access and working places for personnel involved.

3.14 HAZARDS IN CONNECTION WITH FORM WORK AND CONCRETE PLACEMENT

General Hazards

(a) Protruding pins/brackets in supports.

(b) Inadequate access/working platforms.

(c) Formwork inadequately supported.

(d) Damage to property.

(e) Mechanical/hydraulic failure of lifting plant.

(f) Incorrect connection of lifting tackle to shutters, re-enforcement, etc.

(g) High winds.

(h) Loose pump/hose connections.

(i) Skin burns.

(j) Eye injury.

Risks Involved

(a) Fall from height when working on column and beam formwork/shutters or edge of floor slabs.

(b) Sudden collapse of columns or beams due to inadequate ties/clamps or supports.

(c) Over pouring/spillage of concrete in close proximity to site boundary causing injury to employees.

(d) Gusts of high winds on exposed beams, slabs or columns resulting in dislodgement of materials, tools or personnel.

(e) Burns to skin from concrete additives.

(f) Injuries to personnel from incorrect/protruding pins used in supports and protruding nails in stepped timbers.

(g) Pulsating hoses when using concrete pumps and loose connections may injure/knock personnel.

(h) Injuries to personnel beneath the range of lifting equipment caused by the sudden failure of lifting chains or plant.

(i) Lifting tackle connected to timbers/tying wire on reinforcing steel bundles may give way when lifting with crane.

(j) When using compressed air to clear out debris, there is a risk of eye injury from fragments of tying wire, concrete chips, timber splinters, etc.

Precautions To Guard Against The Risks

(a) All column shutters/formwork will be erected using tower scaffolds/trestle.

Note: Never climb column clamps.

(b) Tower scaffolds (to regulation) will be used to provide an access for personnel and equipment when pouring concrete from skip or pump.

(c) All beam shutters will have access platforms with handrails, toeboards and ladder access erected before work progresses on side shutters, steel, etc.

(d) All materials, plant, etc. used in the erection of formwork will be free from defects and proper pins of correct diameter and length will be used in supports. All lifting equipment and lifting gear will have up to date Certs.

(e) Only necessary materials will be stored at the workplace and will be weighed down or removed to a lower level during periods of anticipated high winds/gusts. Personnel will be removed from danger areas.

(f) All necessary chutes, equipment and material will be provided to deflect concrete into formwork during pouring to avoid unnecessary spillage.

(g) All pumping equipment will be maintained in a clean condition, free from defects and with properly secured coupling on hose connections.

(h) All personnel working with concrete will wear the necessary personal protective equipment to reduce risk of skin burns from contact with concrete.

(i) When using compressed air blow pipes to clean out shutters, eye protection will be worn by operator and material will be blown away from other personnel in the area.

(j) Steel divi bolts or suitable equivalent will be used to attach lifting chains to timber shutters and chains will be wrapped around bundles of reinforcing steel rather than connected to bundle tying wires.

3.15 HAZARDS FROM MECHANICAL PLANT

Plant used by this Company falls into different categories

Mobile Plant

Powered plant which may be used in one area for a time but constantly moving such as J.C.B, fork lifts, bulldozers, dumpers, tractors etc.

Static Plant

Powered plant which is static but which may be moved at different times to other areas of the site such as mixers, compressors, pumps, welding machines, saw benches, etc.

Manual Mechanical Plant

Which are manually operated but uses leverage etc., such as bending machines, jacks, winches, tirfors, etc.

Hazards

(a) Congestion caused by moving plant around active work areas.

(b) Driving over rough areas or false ground.

(c) Speeding of mobile plant on Site.

(d) Revolving shafts, spindles, pulleys and projections from those.

(e) Revolving cutters, saws, planers, routers.

(f) Whiplash from winches or tifors may kill.

(g) Cables, hoses, etc., may be damaged by being driven over of pulled against sharp edges.

(h) Plant in poor condition.

(i) Inexperienced operatives.

(j) Inhalation of dust and fumes.

(k) Drivers of plant unsighted when reversing

Precautions To Guard Against The Risks

(a) Regular Safety Inspections will take place.

(b) Defective and unsafe plant will be removed or demobilised until repaired.

(c) A site speed limit of 10 kph will be strictly adhered to.

(d) Emergency repairs will be safe and permanent repairs carried out as soon as possible. All repairs will be carried out by authorised personnel.

(e) Hired plant and equipment will be checked before use.

(f) Guards will be in position and secure on all machines.

(g) Dump trucks, J.C.B.'s, fork lifts etc. should have clearly audible reversing horns.

(h) Airlines will never be directed towards other persons or any part of the body.

(i) Hoses, pipes and cables will be kept clear of traffic.

(j) All drivers of plant must be proficient in their use, possess the relevant C.S.C.S Card or otherwise trained to an acceptable standard. Personnel must be over 18 years to drive any powered plant. All operators will drive powered plant with due care and attention.

Mechanical Operators Safety Checklist

Check every time that:

(a) You know how to stop the machine before you start it.

(b) All fixed guards are fitted securely and mechanical guards are working properly.

(c) All materials to be used are clear or working parts of the machine.

(d) The area around the machine is clean, tidy and free from obstruction.

(e) Your Foreman is informed immediately if you think the machine is not working properly.

(f) You are wearing the necessary protective clothing and equipment such as safety shoes, safety glasses, ear protection.

(g) The windscreen and other glass is kept clean at all times to ensure maximum visibility.

Never:

(a) Use a machine unless you are trained and authorised to do so.

(b) Attempt to free or clean a machine while it is running, switch off, unplug and isolate it if possible and ensure it cannot be started up by someone else.

(c) Use a machine or appliance which has a danger sign or tag attached.

(d) Wear loose clothing, dangling chains, rings or long hair which could get caught in moving parts.

(e) Allow yourself to be distracted or distract others whilst using mechanical plant.

(f) Attempt to refuel the machine whilst the engine is running.

3.16 HAZARDS FROM FIRE

Three factors are essential for combustion:

(a) Fuel e.g. paper, wood, petrol, clothing etc.

(b) Oxygen - either natural or pressurised

(c) Heat (source of ignition)

Every fuel has a minimum ignition temperature. Solids burn, liquids give off vapour when heated and it is this vapour which ignites. A number of liquids give off vapour at normal room temperature.

All gases can be ignited at any temperature above freezing point.

Without any of the above three factors, a fire cannot burn.

As oxygen is normally present in the air the single most important rule is to keep combustible materials away from sources of ignition.

Hazards

(a) Burning waste materials at times and locations where they cannot be controlled properly.

(b) Combustible refuse such as oily rags, wood shavings, or packing materials being left accumulate.

(c) Highly flammable and flammable liquids especially if not stored properly and clearly labelled.

(d) Carelessly discarded matches and cigarette ends.

(e) Smoking in non smoking areas.

(f) Children and other trespassers may start fires.

(g) Flame, heat and spark producing equipment.

Risks Involved

(a) Explosion due to ignition of highly flammable materials, cylinders, etc., which may injure or kill a number of people.

(b) Fire which may injure, kill or destroy property spreads very quickly and may block your path to safety.

(c) Smoke from a blazing fire or smouldering material may cause death.

(d) Site offices may be destroyed if paper, etc., is allowed to build up.

Precautions To Guard Against The Risks

Storage of flammable liquids and their appliances, paints, solvents, thinners, petrol, etc.

The nature of these liquids and other flammable liquids represent a fire hazard and the following precautions are taken.

(a) All containers are clearly marked, showing their contents.

(b) Only approved secure capping containers are used.

(c) Flammable liquids are stored in a securely locked store a safe distance from any other stores, hutting, site boundaries or structural building.

(d) Sufficient warning notices posted prohibiting naked flames and other sources of ignition from that area.

(e) Only sufficient quantities of flammable liquids brought out for the days requirements and all unused flammable liquids returned to the store at the end of the day.

(f) Transportation only takes place in robust safety containers and not in open tins, jam jars, buckets, etc.

(g) All empty containers are returned to the store or supplier as soon as possible.

(h) Spillage’s are cleaned up or covered with sand.

(i) Suitable non-sparking tools are used in places where flammable liquids are kept or used.

(j) Adequate ventilation is provided where flammable liquids are stored or used, with flame proof lighting installed, where necessary.

(k) Any appliance or apparatus that requires a flammable liquid receives the basic precautionary measures as stored liquids.

(k) The nearest hospital is within 100 meters of the site on Palgrave Road.

3.17 HAZARDS FROM CONCRETE PIPE LAYING

Hazards

(a) Lifting tackle i.e. chains, slings, ropes, hairpin lifting devices may break allowing pipes to drop on workers.

(b) Slewing pipes into position.

(c) Workers being struck by pipes while being lowered or lifted.

(d) Overhead powerlines.

(e) Exceed safe working load of lifting equipment.

(f) Weills Disease.

(g) Hands, feet may be crushed between pipes during laying.

Risks

(a) Risk of serious injury or death due to failure of lifting appliances which may result in pipe falling on workers.

(b) Risk of serious injury to workers from being struck in the side of the head if pipe swings while being slewed into position.

(c) Risk of electrocution if excavator comes into contact with an arched power line during pipe laying.

(d) Risk of serious injury if pipe load exceeds S.W.L. of lifting appliances.

(e) Risk of death if Weills Disease is contracted through contact with rats' urine during pipe laying.

(f) Risk of serious bone fractures or crushing if trapped between ends of pipes during laying.

General Precautions

(a) Keep test certificates for all lifting machinery and tackle showing its safe working load, and the arrival of six monthly examination reports.

(b) All overhead cables will be rendered harmless where possible or warning devices will be provided.

(c) Appropriate Personal Protective Equipment will be provided to guard against Weills Infection.

- Personal Hygiene will be top priority before meals.
- Adequate washing facilities will be provided to guard against the risk of infection.

(d) Appropriate training to guard against the disease will be given.

(e) Pipes will be placed at right angles to the trench to avoid rolling in.

(f) All pipes will be choked or wedged to prevent rolling.

3.18 NOISE AT WORK:

1. The Safety, Health & Welfare at Work (Control of Noise at Work) Regulations 2006 require Wm. Neville & Sons Construction to carry out an assessment of personal noise exposure whenever the daily personal noise exposure $L_{EP,d}$ of an employee is likely to exceed the first 85dB(A) Action Level. If people have difficulty in speaking to each other over 2meters, using normal speech levels, it is likely that a noise assessment will be required. Further advice is given in the HSE Guidance Leaflet: Noise in Construction, issued to site.

2. Wear ear protection if exposed to high noise levels. If the daily personal noise exposure is liable to exceed 90dB(A) then ear protection must be worn.

3. Should work be planned involving exposure to high levels of noise e.g. prolonged use of breakers in confined areas such as manholes or lift shafts, consultation should be made with Wm. Neville & Sons Construction safety advisor who may decide to visit the site and carry out an octave band analysis of the noise levels in order to advise as to the correct levels of hearing protection.

4. Whenever hiring or purchasing plant and equipment insist that silencers are provided, acoustic enclosures fitted to compressors and that breakers are supplied with exhaust mufflers.

5. Table 6.6 in the Environmental Impact Statement carried out by AWN specifies construction noise levels and distances that they will extend into the estuary. These parameters will be monitored during Construction Phase to ensure compliance.

3.19 ECOLOGY MITIGATION MEASURES:

(See Also Arthur Murphy & Co Engineering Report's *"Appendix C - Construction Management Plan on The Importation of Fill and Related Ecological Protection Measures"* which sets out measures to prevent contamination of the estuary and the protection of the otter habitat during the construction of the development.)

All mitigation measures included in the NIS and EIAR for the Carcur Residential Development will be implemented in full.

Project Ecologist

A project ecologist will be appointed to the project to monitor the implementation of the ecology mitigation measures contained within the NIS, the EIAR and this construction management plan (CMP). Compliance with the CMP will be mandatory for all contractors and personnel employed on the construction phase of the project.

Soils and invasive plant species

1. Prior to site clearance and/or infill soils, sand and gravel identified for reuse in landscaping will be saved. This includes sands and gravels from the centre of site near cement batching plant for recreation of the sand/gravel and topsoil identified to be saved for landscaping of green areas. Saving of soils will follow best practice guidance.
2. Prior to site clearance, infilling or construction commencing an invasive species management plan will be drawn up by an invasive plant specialist. The invasive species management plan will:
   - Identify and map all locations of the invasive plant species within the site.
   - Implement appropriate measures to remove the species and/or prevent the spread of the species within or outside of the site.
   - Provide for monitoring of potential regrowth of the species after removal or control.
3. Soil imported onto the site will be certified free from contamination and invasive species.

Protection of trees/hedgerows

4. Prior to site clearance, infilling and during construction protective measures for the protection of trees due to be retained on and adjacent to the site will be put in place following the advice of a qualified arborist.
5. A dust minimization plan will be implemented with reference to the EIAR Chapter 8 and EIAR Appendix 8.4.3

Protection of flora

- Prior to site clearance a botanical survey will take place conducted across the entire site to check for the presence of rare and/or protected plant species and appropriate mitigation measures put in place if necessary.
- Prior to site clearance a botanical survey of the sand/gravel habitat will take place to record the baseline flora prior to soils being saved and reused.

Protection of water quality

- The appointed contractor will be required to develop and implement site-specific construction method statements for the protection of water quality which will be approved by Inland Fisheries Ireland and/or the NPWS. Measures to protect watercourses from siltation or pollution by fuels or concrete will be incorporated into works method statements following guidelines including:
    - IFI (2016*) Guidelines on Protection of Fisheries During Construction Works In and Adjacent to Water*. Inland Fisheries Ireland, 2016.
    - CIRIA C532 Control *of Water Pollution from Construction sites*.

Protection of otter

- In advance of construction commencing, a new pond will be constructed 6 months prior to infilling of the original pond and its use by otters monitored to ensure acceptance of the new habitat. The old pond will not be filled in until it has been established that otters are using the new pond area through monitoring. The pond will have scrub and hedgerow species planted around it to provide privacy, shelter and screening from the development.
- Prior to development commencing, detailed construction method statements will be drawn up and agreed with NPWS. The construction method statements will include best practice construction methodology to prevent any significant damage to the otter habitat at the boundary of the development during site clearance, infilling or construction.
- Prior to construction commencing, a preconstruction otter survey will take place to identify any changes in otter activity and holt locations since the otter survey. The area of survey will include the development site, particularly the shoreline and up to 250 m from the boundary of the site upstream and downstream along the shoreline. The preconstruction survey will take place no more than 10-12 months in advance of construction.
- This preconstruction survey will be supplemented by a further inspection of the development area, immediately prior to site clearance to ensure that no new holts have been created in the intervening period and to check if any of the previous identified potential holts are in active use by breeding females or have otter cubs present.
- The preconstruction otter surveys will inform site-specific measures to avoid disturbance to otter at the time of construction following NRA Guidelines for the

Protection of Otters Prior to the Construction of National Road Schemes (NRA (2006) and these will be agreed with the NPWS.

- Prior to construction commencing, fencing will be established along the otter habitat boundary line. This otter habitat boundary line establishes otter habitat as a minimum of 10m from the high water mark along the northern and eastern boundaries of the site with additional areas provided as otter habitat around the new pond and at the western end of the site as per site layout plan (P15-209K-RAU-ZZ-ZZ-DR-A-31006).

Protection of bats

- Prior to site clearance, a pre-construction bat roost survey of buildings and mature trees scheduled for removal will take place to inform site specific mitigation measures to reduce or avoid harm to bats during site clearance. The bat roost survey will follow guidelines outlined in Hundt L (2012) Bat Surveys: Good Practice Guidelines, Bat Conservation Trust. Site specific measures anticipated include sensitive felling of trees if necessary to allow bats to escape uninjured. Mitigation will be devised in consultation with the NPWS and under derogation licence if required.

Protection of birds

- Site clearance will take place outside of the breeding season (March 31st to September 1st) to avoid direct injury and disturbance to breeding birds. If this is not possible then a breeding bird survey will be carried out on any areas to be cleared and site specific mitigation measures put in place in consultation with the NPWS and appropriate licensing will be sought if necessary in to ensure compliance with the Wildlife Act 2000 (as amended).

Protection of amphibians

- Should site clearance or construction works occur during the breeding season for frogs (January-May) then a survey of the affected areas will be carried out and mitigation measures implemented in consultation with the NPWS to avoid harm to the species and to translocate the frog spawn under licence to the pond.

Construction lighting

- Any temporary external and/or security lighting proposed for construction on the site will be located so as to avoid illumination of the boundary habitats and will be designed in accordance with the following guidance: -

    - Guidance Notes for the Reduction of Obtrusive Light GN01 (Institute of Lighting Professionals, 2011);

- Bats & Lighting - Guidance Notes for Planners, Engineers, Architects and Developers (Bat Conservation Ireland, 2010);
- Bats and Lighting in the UK – Bats and the Built Environment Series, Bat Conservation Trust UK

- **Additional Measures**

  - ***For a details of the overall site management of***

    a. ***Fill quantity, quality and phasing***

    b. ***Otter habitat fencing and protection during construction***

    c. ***Surface water management during construction***

    Refer to the Engineering Report "Appendix C - Construction Management Plan on The Importation of Fill and Related Ecological Protection Measures".

  - Soil imported onto the site will be certified free from contamination and invasive species.
  - Prior to site clearance, infilling and during construction protective measures for the protection of trees due to be retained on and adjacent to the site will be put in place following the advice of a qualified arborist.
  - Prior to construction commencing, a construction site drainage and sedimentation control plan (compaction of spoil heaps, silt fencing and silts ponds as appropriate) will be drawn up and agreed with the National Parks and Wildlife Service and implemented to avoid any sedimentation of the estuary as a result of earthworks.
  - Standard best practice construction site management will be implemented to control and avoid any pollution of the estuary or groundwater. Indicative measures include:
    - Avoid refuelling on site if possible. If on-site refuelling is necessary, this should take place in a designated area away from the boundary of the SAC and appropriate measures taken to avoid contamination to groundwater by leakages or spillages.
    - All small plant such as generators and pumps should be stood in drip trays capable of holding 110% of their tank contents.
    - All items of plant are to be monitored for leaks and drips while in operation, and drip trays are to be maintained and emptied at regular intervals
    - A spillage response plan should be drawn up prior to the start of construction so that in the event of a major spillage or potential pollution incident there is a rapid clean-up protocol to follow.
    - Prevent seepage of concrete contaminated water to groundwater or surface water. Avoid wash out of ready mix on site. Storage and appropriate disposal of any washout (from concrete mixers etc.)
    - Correct procedures for the containment and disposal of hazardous waste and chemicals such as heavy metals, mettaloids, solvents, cleaning agents, detergents, paint, adhesives, sealant, drilling fluids, herbicides and other chemicals.

On site in Carcur, Park, Co. Wexford;

An earth berm made up of local soils or inert imported material will be constructed to an approximate height of 1.0m along the length of the boundary for each construction Phase to the shore side of the coast road that extends the boundary of the site. This berm will act as a barrier to debris entering the River Slaney during construction. The berm will be constructed prior to any works taking place in each specific Phase and will be removed when all construction work has been completed within each Phase including retaining wall, infilling and otter fencing.

3.20 Waste Management:

All building/construction waste is classified as 'Controlled Waste' and must be handled and disposed of in accordance with the requirements of the Government best practice guidelines on the preparation of Waste Management Plans for Construction.

In particular:

1. Waste awaiting disposal must be stored safely and securely: loose material loaded in a vehicle or skip should be covered.

2. Waste should only be carried by an authorised person i.e. a registered waste carrier or a person holding a waste management licence.

3. Before handing waste on to someone else, first check that the person is legally authorised to handle the particular type of waste material in question.

4. Hand over to the person a written description of the waste, and fill in and sign a transfer note.

5. Repeated transfers of the same kind of waste between parties e.g. building waste being taken to a disposal site may be covered by one transfer note for up to a year.

On site in Carcur, Park, Co. Wexford;

- A C&D Waste Manager will be appointed by Wm Neville & Sons Construction
- Each phase of the development will have its own settlement pond.
- There will be an Earth Berm approximately 1.0m high constructed along the entire length of each phase of the development to prevent debris blowing into the River.
- Each settlement pond will correspond in volume capacity to the proposed attenuation volume proposed for each phase.
- Permanent attenuation will be placed into service after completion of the construction of each phase of development once the risk of excess silting has passed.

3.21 Drugs and Alcohol Policy Statement

Wm Neville & Sons Construction recognises that alcohol, drugs, or other substance abuse by individuals can have an adverse effect on their ability to perform work and consequently put themselves, the Company and others at significant risk.

All employees, Contractors, Sub-contractors and Visitors must be able to perform their duties whilst on company business, or when they are in Company premises/work areas in such a manner that will not affect their safety or the safety of others by acts or omissions.

If the Company has reasonable grounds to suspect that an Employee or Contractor or Sub-Contractor is under the influence of alcohol or drugs (illegal or misused legal substances), disciplinary action will be taken which may lead to dismissal of the individual concerned.

The possession, distribution or sale of drugs or any associated materials whilst you are on company property, company owned vehicles or other off site locations, will lead to disciplinary action being taken.

3.22 Bullying at Work Policy

Wm Neville & Sons Construction recognises and accepts its responsibilities as an employer to provide a safe and healthy working environment for our employees. As part of our policy of maintaining good employer practice, Seamus Neville of Wm Neville & Sons Construction wishes to clearly state that bullying of any kind will not be tolerated.

Bullying at work is defined as; “Persistent criticism and personal abuse, both in public and in private which humiliates and demeans the individual, gradually eroding their sense of self.” Bullying can be best described as repeated inappropriate behaviour whether verbal, physical, or otherwise, conducted by one or more persons against another or others, at the place of work and/or in the course of employment, which could reasonably be regarded as undermining the individuals right to dignity at work. An isolated incident of the behaviour described in this definition may be an affront to dignity at work, but as a once off incident is not considered to be bullying.

Wm Neville & Sons Construction will strive to ensure that all employees are free to perform their work in an environment which is free from threat, harassment, and intimidation. All complaints of objectionable or offensive behaviour should be made to any member of management or the safety representative.

Wm Neville & Sons Construction gives the undertaking that it will investigate all complaints sensitively and will resolve locally – if possible – the source and cause of the bullying behaviour. If the circumstances warrant it, the Company will not be deterred in invoking the formal disciplinary /grievance procedures.

All employees are invited to strive in ensuring that our working environment remains a pleasant and friendly atmosphere.

3.23 Young Persons and inexperienced Workers Policy

Wm Neville & Sons Construction may from time to time employ Apprentices. If and when this occurs the Apprentice will be fully registered with SOLAS and will receive full Health & Safety Training as per the requirements of the Apprentice Curriculum.

With the exception of new apprentices, Wm Neville & Sons Construction do not offer employment to inexperienced workers. Wm Neville & Sons Construction do not offer work experience places to local schools or colleges. All technical employees have trade qualifications and are experienced in their profession.

New employees who are experienced in their trade/profession receive in-house induction training and spend an agreed period of time in the company workshops before being assigned to an installation crew.

All workers are supervised at all times by an experienced foreman. All workers are subject to site specific safety inductions by the relevant site managers or safety managers.

3.24 Policy & Protection for Covid-19 outbreak 2020

COVID-19 is a new illness that can affect the lungs and airways. It is caused by a new (novel) Coronavirus called CoronavirusSARS-CoV-2. Current evidence suggests that the virus is significantly more infectious than the flu that circulates every winter.

Due to significant deaths, levels of illness and disruption that this virus has caused, Wm Neville & Sons Construction has developed the following policy and procedures for our employees, sub-contractors and any person affected by our activities.

Return to Work Process after the April 2020 Shutdown

All staff will take the CIF online C19 Induction and will ensure they have their digital card on their phones when calling to or working on a site.
All staff will abide by the Covid 19 Safe Working Plan for the site or location they are working at or visiting.
All staff will complete the questionnaire/self-declaration (see appendix) before commencing work on site.
All site Health and Safety Plans will be reviewed and updated if necessary to comply.
All revised access procedures to sites will be adhered to.
All staff will follow the directions of the site **C-19 Compliance Officer.**

Travelling to and from Work.
If an employee is displaying any signs of Covid 19 or has been exposed to a confirmed case, they should not travel to work. Where possible workers should travel alone in their own vehicle. If this is not possible then social distancing should be observed in vehicles.

Good Hygiene and Hand Washing
All site personnel should follow this advice and encourage others to follow this advice as well. Do wash your hands properly and often. Hands should be washed;

- After coughing or sneezing
- Before and after eating
- Before and after preparing food
- If you were in contact with someone who has a fever or respiratory symptoms (cough, shortness of breath, difficulty breathing)
- Before and after being on public transport if you must use it.
- Before and after being in a crowd (especially an indoor crowd) when you arrive and leave buildings including your home or anyone else's home.
- Before having a cigarette or vaping
- If your hands aere dirty
- After toilet use
- Cover your mouth and nose with a tissue or your sleeve when you cough and sneeze
- Put used tissues into a bin and wash your hands.
- Clean and disinfect frequently touched objects and surfaces
- **Do not touch your eyes nose or mouth if your hands are not clean.**
- **Do not share objects that touch your mouth – e.g. bottles or mugs.**

Disposable Gloves

Do not wear disposable gloves in place of washing hands. The virus can get on gloves in the same way it gets on hands. Also, hands can become contaminated when gloves are taken off. Disposable gloves are worn in medical settings. They are not as effective in daily life. Wearing disposable gloves can give a false sense of security.

Face Masks

Current guidelines from the HSE do not recommend the wearing of face masks and /or the undertaking of temperature testing at work; the preferred approach is to ensure social distancing and good hygiene measures.

Cleaning and Hygiene to Prevent Contamination

On all Wm Neville & Sons Construction sites enhanced cleaning and sterilisation shall be in place across all;

- Taps and washing facilities
- Toilet flush and seats
- Door handles and push plates
- Handrails on staircases and corridors
- Lift controls and other control panels
- Desk phones and ancillary equipment
- Printer, copier and other similar control panels
- Food preparation and storage areas
- Rubbish collection and storage points/areas

In the company vehicles/machines the Driver shall clean and disinfect the following;

- Steering wheel
- Gearstick
- Handbrake
- Door handles
- Radio controls
- Elbow rests
- Seat position controls
- Door frame.

Tools and Equipment

All tools and equipment shall be sanitised to prevent cross contamination. Arrangements for one individual to use the same tool, equipment and plant as much as possible. Make available cleaning material for all tools to be disinfected between each user. Organise work practices to reduce transmission points.

First Aid and Incident Response for Covid 19

While Covid 19 is not necessarily an issue for First Aid, it is necessary that all our first aid trained staff are protected in the event that they need to treat a person at work.
The following equipment will be provided to the First Aid staff and they must use it foer all events;

- Disposable gloves
- FFP3 mor FFP2 Face Masks
- Enclosed Eye Protection.

First Aid Responder must ensure that the mask covers both the moutn and nose and is fitted correctly to create an adequate seal to the face.
Following first aid treatment, disposable PPE and any waste should be disposed of appropriately and reusable PPE cleaned/disinfected thoroughly.
Wash hands thoroughly with warm water and soap before putting on and after taking off PPE.

Rules for Close Working

While Social Distancing will remain the rule for most work, occasionally it is necessary for two people to assist each other. In that event the following shall apply;

- No worker has symptoms of Covid-19
- The close contact work cannot be avoided
- PPE is present in line with the RAMS/ Risk Assessment (full face shield etc).
- An exclusion zone for ,2m work will be set up pre-task commencement.
- Prior to donning appropriate gloves, personnel shall wash/sanitise their hands thoroughly.

Suspect Covid 19 case at Work

If someone becomes unwell in the workplace with symptoms such as cough, fever, difficulty breathing, the unwell person should be removed to an area which is at least 2 meters away from others. If possible, find a room or area where they can be isolated behind a closed door, such as a staff office. Request the individual to wear a face mask to prevent contamination of the area and close by personnel. The individual should make contact with their own doctor and outline their current symptoms and take advice from their doctor on what the next steps of action are to be.
Closure of the workplace is not a requirement.
The management team of the workplace will be contacted by the HSE to discuss the case, identify people that have been in contact and advise on what actions are to be taken.

Confirmed Covid-19 case at work

If a confirmed case is identified in our workplace, the HSE will provide the relevant staff with advice. These staff include;

- Any employee in close face to face or touching contact
- Talking with or being coughed on for any length of time while the employee was symptomatic
- Anyone who has cleaned up any bodily fluids
- Close friendship groups or workgroups.
- Any employee living in the same household as a confirmed case.

Contacts are not considered to be cases and if they are well, they are very unlikely to have spread the infection to others. Contacts will be advised by the HSE as to what measures are to be taken by them regarding self-isolation, continue to work or return too work protocols.

Return to Work Process after a confirmed case of Covid-19

In the event of an employee either being a suspected/confirmed case of Covid-19 or a known "close contact" with a confirmed or suspected case, this protocol must be followed to ensure they are fit to return to work by means of self-declaration.
Fitness for work should be considered from 2 perspectives;

- Does the illness pose a risk to the individual themselves in performing their work duties?
- Does the illness pose a risk to other individuals in the workplace?

An individual must only return to work if deemed fit to do so and upon approval of their medical advisor and having coordinated with their line manager/employer contact.
When an individual is symptom-free and are deemed fit to return to work the key criteria are;

- 14 days since their last "close contact" with a confirmed/suspected case and have not developed symptoms in that time, or
- 14 days since the onset of their symptoms and 5 days since their last fever (high temperature), or
- They have been advised by a GP/healthcare provider to return to work.

(APPENDIX A)

ADDITIONAL HAZARDS IDENTIFIED ON THIS PARTICULAR PROJECT

PROJECT:

HAZARD:

RISKS:

PRECAUTIONS TO SAFEGUARD AGAINST RISKS:

(a)

(b)

(c)

Declaration of Sight

I have read and understand the contents of this document, including my duties as an employee.

Print Name	***Date***	***Signature***
