

Domestic Green-field New-Build

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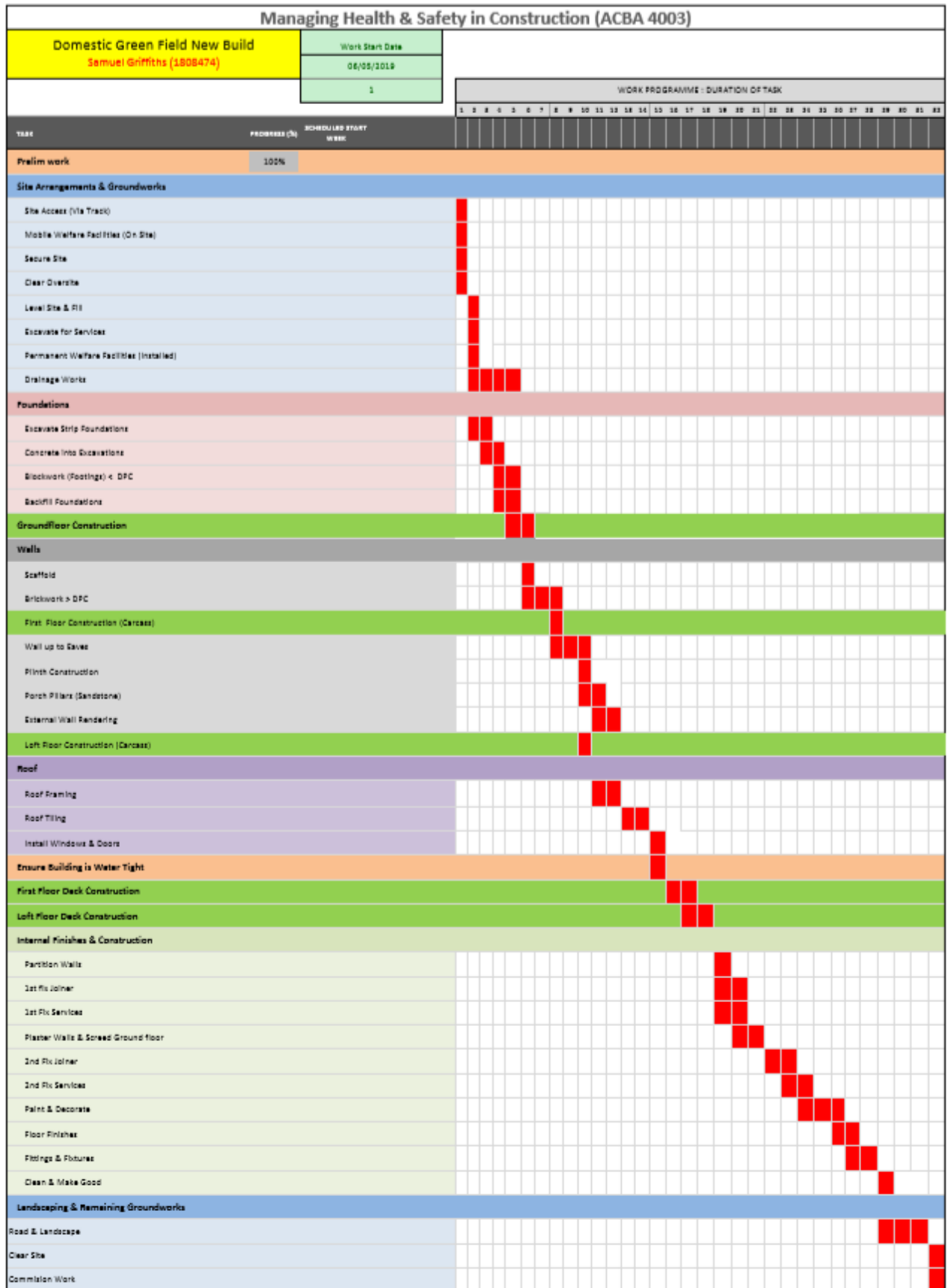
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Submitted in part fulfilment for the requirements of the module ‘Managing Health & Safety, Welfare and Risk in Construction’ (ACBA 4003) for the completion of a HNC In Civil Engineering at UWTSD.

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- 1. Produce a detailed schedule of work for all the major activities related to this project – from start until completion**

Please Refer to Table 1 – Attached on overleaf



2. Produce a specific method statement for the major work activities identified.

2.1 General Site - Method Statement

The Construction Method Statement will suffice for the major task undertaken during the construction but will require adjustments and alterations throughout the project and is based on current known information that will be subject to change as the project development takes place. The Method statement will identify specific project related risks and hazards as well as specific roles and responsibilities that are under a variety of up to date health and safety legislation. It will identify and evaluate these hazards and risks and how they will be mitigated through risk assessments in order to generate a safer system of work.

This method statement is a procedure that should be followed at all times any nonconformity to this document should be authorised by either a health and safety officer or a manager. This entire document should be read before starting any of the tasks outlined. The document will include a detailed work programme, risk assessments and method statements related to the phasing construction of the property.

2.2 Scope of Work

The proposal is for the complete construction of a new development of a single, two storey domestic detached property with a loft room. The property is to be built on a green-field site accessed via a small track of 3.5m with direct access from a public highway. The project is scheduled to begin the week commencing the 6th May and has an anticipated construction period over 32 weeks although may be subject to change due to unforeseen delays as of current.

The Project is to include:

- Foundations that are concrete strip with a depth of 1m.
- Standard cavity wall construction of which is block and block with a partial cavity fill insulation
- Smooth render on the external wall face
- Plinths are to be soldier courses are to be constructed over all openings
- Porch pillars are to be made of natural sandstone
- A suspended concrete beam and block ground floor
- Upper floors are to be traditional solid timber with particle board sheet covering

- Openings i.e. Doors & Windows are to have a light oak wood effect uPVC and are to be sealed as a double-glazed unit.
- The roof is to consist of a trussed rafter structure with a pitch of 40°
- The roof covering is to be of a natural slate and the eaves are to be closed.

2.3 Site Hazards

There are a variety of hazards that need to be covered by health and safety. Everyone on the site is responsible for health and safety. A list below is constructed that outlines any hazards that may be encountered during the works any other hazards that are found during hazard assessment of a task must be addressed prior to any further work being carried out.

Hazards:

- Dust Inhalation
- Injury to operators from tools
- Injury to operators from plant
- Public
- Injury via Slips, Trips & Falls
- Working at height
- Vibration (White finger etc)
- Noise (Deafness)
- Contact with live services
- COSHH
- Incorrect Manual Handling
- Water Borne Diseases (Weils Disease)

The site rules i.e. established health and safety policies are to be followed at all times via verbal and written instructions from the site management team. The site should not be left in an unsafe condition that may cause any injury, damage to work, equipment or plant. Broken or defective equipment is to be immediately disposed of.

2.4 PPE

Personal Protective Equipment (PPE) outlined within this section should be worn at all times while on site Chudley and Greeno (2017) outline that all equipment intended to be worn or held by a person at work that protects them against one or more risks to health and safety.

All equipment should be provided from the contractors to the workers respectively at no cost to employees. PPE should be relevant to the task at hand for the working environment and weather. Any defective PPE should be replaced immediately. All PPE is to be of a British Standard.

Mandatory PPE on site is listed below as to British Standard (Bsigroup.com, 2019)

- Gloves
- Hard Hats
- Steel Toe Capped Boots
- High Visibility Jacket

Any other PPE requested for a task or by an operative is to be considered for the task at hand relevant to a risk assessment and individual method statement this may include:

- Disposable face masks
- Safety Glasses
- Face Guards
- Ear Defenders
- Knee Pads
- Safety Harnesses
- Waterproof High Visibility Clothing
- Etc.

2.5 Welfare Facilities

Welfare on site are to be supplied either by the client or the main contractor and should be in format with the Construction Design & Management Regulations of 2015 (CDM). The site is to have a minimum amount of welfare dependant on the number of personnel on site.

These facilities are listed below:

- Washing Facilities
- Drinking Water
- Accommodation for rest, changing, eating and shelter
- Toilets

Griffiths & Watson (2014) outline specific requirements of the individual facilities in line with the Health and Safety Executive (HSE) legislation.

2.6 First Aid

Site office is to have an onsite safety notice board with all relevant first aid information. There is to be first aid boxes readily accessible and marked, with the contents sufficient for the relative personnel on site. The trained first aiders should also be relevant to personnel on site. Chudley and Greeno (2014), state that a first aider at work should hold a relevant HSE recognised FAW qualification or that of an emergency first aid at work EFAW qualification. Health and safety first aid regulations (The Health and Safety (First-Aid) Regulations, 1981)

2.7 Accident Reporting

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations of 2013 (Hse.gov.uk, 2013) (RIDDOR) accidents that occur on site must be reported to the Health and Safety Executive. Near misses as well as accidents on site must also be written in the 'accident book' contained within the site office. These accidents refer to those that prevent an injured person returning to work for more than seven days (ATL - The Education Union, 2019). Employers are responsible for reporting these accidents.

2.8 Emergency Procedures

Client and/or principal contractor are to ensure that there is site emergency procedures in place and are followed and that all emergency procedures are given to all visitors and workforce at time of induction. The contractor should also inform staff of all changes to any measures.

2.9 Work Area/Access & Egress

The site is to be accessed via a short 3.5m width track directly from a public highway. The main contractor is responsible for the site access and egress is maintained. Site layout to be determined by the contractor.

2.10 Major Task List

Within this proposed construction of this building there are a variety of major tasks, these are listed below with a Method Statement for each of the individual tasks. These can be linked in part back to the Schedule of Work in section 1.

- Level Site & Fill
- Excavation and Foundations (Groundworks)
- Ground Floor, First Floor & Second Floor Construction
- Wall Construction
- Roof Construction
- Openings

2.11 Method Statement - Excavations and Foundations (Groundworks)

Scheme:

Domestic New Build Property

Location:

Green Field Site

Expected Duration of Task:

Weeks 2 to 5 (13.05.2019 to 07.06.2019)

Scope of Works:

- Locate & Excavate for Services
- Excavate Strip Foundations
- Concrete into Excavations
- Blockwork (Footings) < DPC
- Backfill Foundations

PPE to British Standard (Bsigroup.com, 2019):

- Gloves
- Hard Hats
- Steel Toe Capped Boots
- High Visibility Jacket
- Safety Glasses (with side shields)

Personnel:

- Plant Operatives
- Labourers
- Site Supervisor
- Surveyors

Training:

- CSCS Card (Valid and up to date) for all Operatives.
- Plant Operators hold a valid CTA card and licences for all equipment/vehicles that are going to be operated.
- Training on all equipment to be used.
- Training on avoidance of cables (CAT Scan)
- All PPE i.e safety equipment has been identified and used.
- Banksman Training

Plant/Equipment:

No.	Description of Plant/Equipment
1	Hand Power Tools (110v)
2	Hand Excavation Tools
3	Shovels & Wheel Barrow
4	Hand tools (Non electric)
5	Excavator
6	Loader
7	JCB
8	Trench Shields
9	Whacker Plate
10	Concrete Pump
11	Delivery Truck
12	Trench boxes (support

- All electrical power tools are to be PAT tested before use.
- All vehicles are to have an inspection before use on site
- All vehicles, plant and equipment need to be fit for purpose, any other Plant or equipment required should be brought to the attention of the site supervisor and subsequently approve use of more plant/equipment where required.

Materials:

No.	Description of Materials
1	Hard Core
2	Concrete Blockwork
3	Soil
4	Cement
5	Aggregate
6	Water
7	DPC
8	Stakes
9	Spray Cannisters

Work Procedures:

Site Prep for Excavation:

- Any existing services will have been identified prior to work undertaking, via contracting the statutory undertaker companies (BT, Virgin, WPD (Electric), WWU (Gas), Welsh Water etc)
- Services are to be identified on site via CAT Scans (CAT, 2019)
- Services where found will be then either be protected and/or rerouted to suit the purpose of the project/foundations/welfare facilities.
- Trial pits (Hand Dug) should be used where required to locate exact utility locations
- Surveyor should then conduct a site survey to determine building boundaries that are indicated in lengths of the approved drawings.
- This outline will be marked by Spray/Stakes

Excavation:

- The area that is to be excavated will have been marked in the site prep stage, before starting excavation
- Area to be excavated to have signs/boards indicating excavations/ use barricades where feasible (Elcosh.org, 2019)
- Mechanical excavator to be used when possible, hand dig around utilities.
- Depth of Excavation is 1m as directed by client, this will be checked by the site supervisor/surveyor through the processes.
- Width of trench to conform to drawings.

- The width should be the $\frac{\text{Load Per Metre}}{\text{Bearing capacity of soil}}$ (Chudley & Greeno, 2014) or as per approved drawing
- Foundations are also typically 3x the width of the supported wall) (Construction Studies Q1, 2019)
- Once 1m depth trench and desired width has been reached then bottom of excavation should be compacted with a 'whacker plate'.
- Any extra fill should be stored in a suitable site location or used for backfilling or carted off site.

Foundation:

- Ready-mix lorry to enter site and guided by a trained banksman.
- Ready-mix should be to clients spec (typically 1:3:6 mix, (Chudley and Greeno, 2014).
- Foundation is to be a 'Traditional Strip' to a depth of 1m.
- Concrete is to be poured/pumped into the excavation.
- Concrete is then to be 'tamped' down in order to consolidate it and remove any air pockets within and will bring more level to the surface.
- Concrete is then left until dry.

Blockwork Footings < DPC:

- Blockwork footings are then to be built up to the DPC which is to be at least 150mm above the ground level (Osbourn and Greeno, 2012)
- Block and Block construction and to be of suitable quality to spec
- Backfill should be brought over from site storage via wheelbarrows.
- Backfill should be that of the excavated material taken out previously.
- Backfill should be placed in the remaining trench on the side of the foundation that is going to be the external wall.
- Backfill should be brought up to ground level and compacted with 'whacker plate' before the other side is backfilled (Nhbccampaigns.co.uk, 2011)
- Cavity is then be filled with lean mix concrete to prevent leaves of block moving towards each-other and must have a clear cavity for at least 225mm below the DPC should be maintained.

- DPC should have a Polypropylene ventilator that is stepped beneath the DPC. (Chudley and Greeno, 2017). This is due to the fact that the floor is to be concrete suspended.
- Hardcore should be brought in and compacted on floor side of wall up to ground level.

2.12 Method Statement – Ground Floor, First Floor & Second Floor

Scheme:

Domestic New Build Property

Location:

Green Field Site

Expected Duration of Task:

Ground-floor Block and Beam construction Weeks 6 & 7 (13.05.2019 to 07.06.2019)

1st Floor Carcass Week 8 (10.06.2019 to 14.06.2019)

Loft Floor Carcass Week 10 (24.06.2019 to 30.06.2019)

1st Floor & Loft Floor Deck Construction Weeks 16 to 18 (05.08.2019 to 23.08.2019)

Ground floor Finishes Weeks 19 & 20 (26.08.2019 – 06.09.2019)

Scope of Works:

- Ground Floor : Suspended Concrete Beam & Block
- Ground- floor construction
- 1st Floor & Loft Floor Carcass Construction
- 1st Floor & Loft Floor Deck Construction

PPE to British Standard (Bsigroup.com, 2019):

- Gloves Hard Hats
- Steel Toe Capped Boots
- High Visibility Jacket
- Safety Glasses (with side shields)
- Respiratory Protective Equipment (RPE) Dust Masks (FFP3)

Personnel:

- Plant Operatives
- Labourers
- Site Supervisor

Training:

- CSCS Card (Valid and up to date) for all Operatives.
- Plant Operators hold a valid CTA card and licences for all equipment/vehicles that are going to be operated.
- Training on all equipment to be used.
- All PPE i.e. safety equipment has been identified and used.
- Working at Height
- Manual Handling

Plant/Equipment:

No.	Description of Plant/Equipment
1	Hand Power Tools (110v)
2	Small Mobile Crane
3	Scaffolding
4	Hand tools (Non electric)
5	Temporary Floor Coverings (plywood)
6	Boards and hop-ups for work within trusses
7	Soft Landing System
8	Ladders
9	Delivery Truck
10	Skip
11	Hygrometer
12	Internal Platform
13	Soft Landing bags

- All electrical power tools are to be PAT tested before use.
- All vehicles are to have an inspection before use on site
- All vehicles, plant and equipment need to be fit for purpose, any other Plant or equipment required should be brought to the attention of the site supervisor and subsequently approve use of more plant/equipment where required.

- Scaffolding is to be inspected when required and must conform to the Work at Height Regulations of 2005 (Eurosafes Solutions, 2019). Scaffolding defects or concerns should be notified to trained workers before any other work commences on scaffolding.
- Ladder use must be correctly secured and extended a minimum of 1m past landing point and set at an angle of 75 degrees (The Ladder Association, 2019)
- Fall protection systems are to be installed at ground level at earliest possible opportunity when installing first and loft floors

Materials:

No.	Description of Materials
1	Timber
2	Lightweight Concrete Blockwork
3	Prestressed Concrete beam
4	Insulation – EPS Sheets
5	DPM – Polyethylene foils
6	Silicone Mastic Sealant
7	Joists
8	Struts
9	Concrete
10	Galvanised Steel Herringbone Strutting

Work Procedures:

Ground Floor: Suspended Concrete Beam & Block:

- Foundations are built to correct height as per spec.
- Polypropylene vents installed as required
- Beams are laid on DPC when on the ground floor.
- Beams are checked to ensure that they are laid at correct centres and are flush with their bearing wall
- Slip bricks are to be installed and are subsequently flushed with mortar
- All internal walls where cross beams are located are to be fully filled
- Waste pipe locations should be allowed for as per designer spec.
- Blocks are to be placed between beams and infill blocks at the edges.
- After all blocks are laid beam and block floor is complete.

Ground Floor Finishes

- Building must be watertight before finishes can go ahead.
- Block and beams to be overlain by EPS sheets
- DPM (Polyethelene Foil) to be installed on top of EPS sheets (Energuide, 2019)
- Subfloor must be dry, free from tears and clean from any other materials that would prevent adhesion
- Sweep and vacuum floor
- Floor should be tested to ensure that relative humidity is not above 75% with a Hygrometer (Nwfacilities.com, 2019)
- Floor should then be primed
- Cement screed should then be mixed in a bucket at a ratio of 6 litres of water per 25kg bag. (Nwfacilities.com, 2019)
- Mechanical mixer should also be used to agitate the compound.
- Concrete screed should be then poured on the surface and distributed with a trowel
- Screed should be left to dry for 24 hours.
- Lay floor finish as per client request
- After finishing site will be made good for next stage

1st Floor & Loft Floor Carcass Construction

- 1st floor and loft floor carcass should be constructed similarly.
- During wall construction 1st floor and loft floor carcasses should be built as wall reaches levels for 1st and loft floor
- Access from external/internal scaffold/platforms. No walking along joists or wall heads.
- All recommended PPE should be worn at all times
- Soft landing bags to be installed as per manufacturers installation guide (The Hire Xperts, 2019).
- Joists when delivered should be unloaded and walked then lifted into position.
- Joists are also to be braced to prevent rolling and moving
- Joists are to be sized as per the Building Regs Approved Document A – Structure Refs. Or as per drawing (Portal, 2019)
- Joists should be constructed within internal wall and only on load bearing walls

- Joists are to be equally spaced to support the dead and imposed loads (Chudley and Greeno, 2017).
- Joists are to be installed so that they are flush with inner skin of cavity wall
- Joists are then to be sealed with a silicone mastic sealant on the internal wall.
- Folding wedges are to be installed at each end of the strutting with the internal wall.
- Joists must be trimmed so that it can accommodate the internal structures such as stairs.
- These openings are to be butted with a traditional house joint.
- Struts are to be installed after all joists are in place
- Struts are to be positioned on the centre line of the span, these are to be installed in an 'x' shape from two galvanised steel herringbone strutting.
- Once complete wall construction can continue.
- Floor decking to be installed as Particle Board (PB), when laying particle board, it is to be laid from the edge inwards and to be completed in one operation.
- After finishing site will be made good for next stage

2.13 Method Statement – Wall Construction & External Wall Rendering

Scheme:

Domestic New Build Property

Location:

Green Field Site

Expected Duration of Task:

Wall Construction: Weeks 7 to 13 (03.06.2019 to 19.07.2019)

Scope of Works:

- Blockwork > DPC to Eaves
- External Wall Rendering

PPE to British Standard (Bsigroup.com, 2019):

- Gloves
- Hard Hats

- Steel Toe Capped Boots
- High Visibility Jacket
- Safety Glasses (with side shields) (When Required)
- Respiratory Protective Equipment (RPE) Dust Masks (FFP3) (When Required)

Personnel:

- Plant Operatives
- Labourers
- Site Supervisor
- Surveyor

Training:

- CSCS Card (Valid and up to date) for all Operatives.
- Plant Operators hold a valid CTA card and licences for all equipment/vehicles that are going to be operated.
- Training on all equipment to be used.
- All PPE i.e safety equipment has been identified and used.
- Working at Height
- Manual Handling

Plant/Equipment:

No.	Description of Plant/Equipment
1	Hand Power Tools (110v)
2	Forklift
3	Scaffolding
4	Hand tools (Non electric)
5	Cement Mixer
6	Ladders
7	Delivery Truck
8	Skip
9	Trowel
10	Spirit Level
11	Lump Hammer
12	Block Pins
13	Measuring Tape
14	Buckets
15	Tarpaulin

16	Polyfloat
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- All electrical power tools are to be PAT tested before use.
- All vehicles are to have an inspection before use on site
- All vehicles, plant and equipment need to be fit for purpose, any other Plant or equipment required should be brought to the attention of the site supervisor and subsequently approve use of more plant/equipment where required.
- Scaffolding is to be inspected when required and must conform to the Work at Height Regulations of 2005 (Eurosafe Solutions, 2019). Scaffolding defects or concerns should be notified to trained workers before any other work commences on scaffolding.

Materials:

No.	Description of Materials
1	Ordinary Portland Cement
2	Concrete Blocks
3	Water
4	Insulation – EPS Sheets
5	Aggregate
6	Galvanised Wall Ties
7	Mortar
8	FEB (additive)

Work Procedures:

Blockwork > DPC to Eaves:

- All materials should be near by for ease of access during construction, i.e position blocks near with fork lift.
- Mortar is to be made up as 5 parts sand, 1 part cement and feb/water to be added to the mix.
- Mortar is to be collected in buckets from mixers
- Site surveyor is to mark out first level of blockwork above DPC with a string line to ensure that the blocks are set with proper alignment.
- Mortar thickness when laying should conform between 8-12mm.

- The wall is to be built as a standard cavity block and block wall (50mm cavity, 50mm Insulation)
- Insulation should be placed within cavity as wall is being constructed. (DIY Doctor, 2019)
- Wall ties are to be placed every 2.5m² as specified by Chudley and Greeno (2017). And should cross a minimum of 75mm into each wall partition (Villegras, 2019)
- Walls should be built up to a level of viability then scaffold installed
- Openings such as windows and doors are to be left as per drawings and are highlighted in depth in section 2.15.
- Soldier courses are to be constructed above all Openings (Section 2.15).
- Scaffold access will be built up as height of walls increase.
- Floor carcasses covered in section 2.12 must be installed before work can continue above 1st floor.
- During construction of walls the tops should be covered with a tarpaulin between stopping and resuming work.
- Mortar should be prevented from falling between cavity.
- Blocks should be removed if broken or damaged.
- Walls should continue to be constructed up to eaves
- Sandstone porch pillar to be installed in conjunction with walls, it is to be installed with dust masks when cutting and laying blocks.
- After finishing site will be made good for next stage

External Wall Rendering:

- Walls are to be surveyed by site surveyor to ensure that construction of wall is to a good standard, defects will cause the render to fail (Holmes, 2019)
- Rendering process will be carried out before any pipes, boxes, sills are in place, this will provide clean edges for a render
- Render mix will consist of 1 part Masonry cement and 3 part smooth sand to be mixed with 1 part lime and water in a mixer
- Mix will be put in buckets and applied with a trowel and held with a polyfloat
- Metal mesh is to be nailed to the surface as a support for render and reinforcing (Chudley and Greeno, 2017)
- Mesh to be nailed every 300mm, within blocks

- Render to be applied in a series of layers 8-10mm and should cover the metal mesh/reinforcement
- Rendering should be allowed 1-2 days to cure between coat
- One final coat will be applied at 8-10mm as a smooth surface to be finished with a steel trowel.
- Rendering should be allowed 1-2 days to cure between coat
- After finishing site will be made good for next stage

2.14 Method Statement – Roof Trusses & Tiling

Scheme:

Domestic New Build Property

Location:

Green Field Site

Expected Duration of Task:

Roof Framing Weeks 11 & 12

Roof Tiling Weeks 13 & 14

Scope of Works:

- Roof Framing (Trussed Rafters at 40⁰ Pitch, Eaves to be closed)
- Roof Tiling (Natural slate covering)

PPE to British Standard (Bsigroup.com, 2019):

- Gloves
- Hard Hats
- Steel Toe Capped Boots
- High Visibility Jacket
- Safety Glasses (with side shields) (When Required)
- Respiratory Protective Equipment (RPE) Dust Masks (FFP3) (When Required)

Personnel:

- Plant Operatives
- Labourers
- Site Supervisor

Training:

- CSCS Card (Valid and up to date) for all Operatives.
- Plant Operators hold a valid CTA card and licences for all equipment/vehicles that are going to be operated.
- Training on all equipment to be used.
- All PPE i.e safety equipment has been identified and used.
- Working at Height
- Manual Handling

Plant/Equipment:

No.	Description of Plant/Equipment
1	Hand Power Tools (110v)
2	Small Crane
3	Scaffolding
4	Hand tools (Non electric)
5	Nails
6	Ladders
7	Delivery Truck
8	Skip
9	Gussets
10	Square
11	Measuring Tape
12	Bucket
13	Soft Landing Bags

- All electrical power tools are to be PAT tested before use.
- All vehicles are to have an inspection before use on site
- All vehicles, plant and equipment need to be fit for purpose, any other Plant or equipment required should be brought to the attention of the site supervisor and subsequently approve use of more plant/equipment where required.
- Scaffolding is to be inspected when required and must conform to the Work at Height Regulations of 2005 (Eurosafes Solutions. (2019)).
- Scaffolding defects or concerns should be notified to trained workers before any other work commences on scaffolding.

Materials:

No.	Description of Materials
1	Loft Roof Trusses (Delivered)
2	Natural Slate
3	Tile Underlay
4	Timber Battens
5	Ridges
6	Eaves
7	Wall Plate
8	Galvanised Mild Steel Plate Connectors
9	Rigid Insulation Underlay
10	Breather Membrane
11	Ceiling Tie
12	Mortar

Work Procedures:

Roof Framing (Trussed Rafters at 40° Pitch & Closed Eaves):

- Scaffold should be checked and/or erected around walls of property by trained scaffolder
- Soft landing bags to be installed as per manufacturers installation guide in case of falling while constructing.
- Loft Trusses will be delivered on Trucks and will be directed into site and to offloading location by a trained banksman
- Loft Trusses are to be unloaded by a mobile crane into a suitable storage location
- All trusses are to be secured in a vertical position to ensure they are not damaged.
- Mobile crane will then raise trusses into position as per design
- First truss when lifted to be secured to a wall plate (Alc-prd-media-01.azureedge.net, 2019)
- The trusses remaining as per drawing are to be lifted by mobile crane and braced temporarily until fixed in place.
- These will then be bolted down to their final position
- Bracing will be fixed to ties and struts were required.
- Eaves are to be closed
- Rafter ends are to be fastened to the soffit and fascia
- Ledger plate will be fasted to wall and a soffit attached (Extreme How To, 2019)

Roof Tiling (Natural slate covering):

- Roof tiling and slating process will be followed to the British Standard 5534:2003 Code of practice for slating and tiling (Redland.co.uk, 2019)
- Tile underlay should be lifted to the roof
- Underlay will be laid out in the same direction of the roof gradient and allow for side and end flaps
- Battens should then be lifted by mobile crane set out in accordance with the width of the slates and mark out on the battens by operatives
- Thickest slates should be installed at the lowest areas of roof and thinnest near the ridges (Welshslate.com, 2019).
- Slates will be transported into the working area and lifted via mobile crane onto the scaffold.
- Slates will be fixed to battens using two aluminium nails to a British standard 1202 (Roof Tile Association, 2019)
- This process will be repeated until roof slates are all in place
- Ridge will then be cemented in place
- Roof edge tile to be attached to roof with cement (Cstevensroofing.co.uk, 2019)
- Guttering to be attached after roofing is complete (Doityourself.com, 2019)
- Excess materials will be removed either via mobile crane or by operatives via the scaffold to the ground.
- After finishing site will be made good for next stage.

2.15 Method Statement – Openings

Scheme:

Domestic New Build Property

Location:

Green Field Site

Expected Duration of Task:

Install Windows (Week 15)

Install Doors (Week 15)

Scope of Works:

- Install Windows (Light Oak Wood effect uPVC with sealed double glaze units)
- Install Doors (Light Oak Wood effect uPVC with sealed double glaze units)

PPE to British Standard (Bsigroup.com, 2019):

- Gloves
- Hard Hats
- Steel Toe Capped Boots
- High Visibility Jacket
- Safety Glasses (with side shields) (When Required)
- Respiratory Protective Equipment (RPE) Dust Masks (FFP3) (When Required)

Personnel:

- Plant Operatives
- Labourers
- Site Supervisor

Training:

- CSCS Card (Valid and up to date) for all Operatives.
- Plant Operators hold a valid CTA card and licences for all equipment/vehicles that are going to be operated.
- Training on all equipment to be used.
- All PPE i.e safety equipment has been identified and used.
- Working at Height
- Manual Handling

Plant/Equipment:

No.	Description of Plant/Equipment
1	Hand Power Tools (110v)
2	Wrecking Bar
3	Scaffolding

4	Hand tools (Non electric)
5	Glue
6	Ladders
7	Delivery Truck
8	Skip
9	Work Bench
10	Lump Hammer
11	Measuring Tape
12	Clamps
13	Dust sheets
14	Podium Steps
15	Safety Harness (When required)

- All electrical power tools are to be PAT tested before use.
- All vehicles are to have an inspection before use on site
- All vehicles, plant and equipment need to be fit for purpose, any other Plant or equipment required should be brought to the attention of the site supervisor and subsequently approve use of more plant/equipment where required.
- Scaffolding is to be inspected when required and must conform to the Work at Height Regulations of 2005(Eurosafe Solutions, 2019). Scaffolding defects or concerns should be notified to trained workers before any other work commences on scaffolding.

Materials:

No.	Description of Materials
1	Loft Roof Trusses (Delivered)
2	Trims and Packing
3	uPVC Double Glazed window in light oak effect
4	Door in light oak effect
5	Frames
6	Hinges
7	Brackets
8	Locks
9	Fixings
10	Expanding foam
11	Gripfill
12	Bead Seal

Work Procedures:

Window Installation:

- Openings should be measured after wall construction in order to make sure delivery is on time
- All materials to be delivered to site via truck, trained banksman to guide truck into suitable unloading position.
- Care should be taken when unloading large, heavy and awkward shaped objects such as the glazed windows.
- Areas of flooring should be covered with dust sheets to protect from any damage that may be incurred during works
- All windows should be checked to ensure the appropriate size of windows have been delivered
- Openings should be cleaned and prepared for the installation of window (Alternativewindows.com, 2019)
- New frames should be lifted into position by operator ensuring a snug fit and that the frame is suitable.
- Once the frames have been suitably fitted, expanding foam is used to provide added protection against weather.
- Hinges can then be attached where appropriate to individual windows.
- Frames Installed
- Glazing can now be inserted into the window and each once secured should be beaded/sealed (Modernupvcwindows.co.uk, 2019).
- Cut resistant gloves should be worn and large panels require 2+ operators
- Windows once installed should be tested to ensure they open and closed effectively.
- Window frame then should be sealed and trimmed internally and externally
- All rubbish should be disposed of in skips appropriately.
- After finishing site will be made good for next stage.

Doors:

- Door openings should be measured after wall construction in order to make sure delivery is on time
- All materials to be delivered to site via truck, trained banksman to guide truck into suitable unloading position.
- Care should be taken when unloading large, heavy doors
- All doors should be checked to ensure the appropriate size of doors have been delivered
- Areas of flooring should be covered with dust sheets to protect from any damage that may be incurred during works
- Door opening walls should be checked to ensure they are sound and secure and suitable for the fittings.
- Openings should be cleaned and prepared for the new doors.
- Frames should then be fitted into position

- Door hinges should then be fitted to the frame and the door installed 2+ operators should lift the doors (Wembleywindows.co.uk, 2019)
- The door frames should then be trimmed and sealed internally and externally with sealant/beading
- Area should be cleaned and made good
- All rubbish should be transported and disposed of efficiently in relevant skips.
- After finishing site will be made good for next stage

3. Develop, evaluate and produce site specific risk assessment for three of the work activities. Highlighting significant hazards, control measures and mitigations

Activity to be Assessed		Assessment Number		
3.1 Wall Construction – Domestic New Build Property (Green Field)		001		
Persons undertaking or affected by the activity				
- Contractors - Operatives - Site Supervisors				
Identified Hazards Associated Risks		Likelihood	Severity	Risk Level
1	Working at Height – injuries, platforms, incorrect use of ladders, scaffold.	2	3	6LR
2	Ground Conditions - Trips, falls and slides	4	5	20HR
3	Eye Injury – Flying particles	3	3	9MR
4	Manual Handling – Heavy/Awkward Objects	2	2	4LR
5	Use of Tools/Equipment – sprains/strains	2	2	4LR
6	Encountering vehicles - Being struck by moving vehicle.	3	5	15HR
7	Falling Objects – Head injury to operatives	3	5	15HR
8	Powered work tools – electric shock, moving parts damage to limbs/extremities	2	5	10MR
9	Dust – Cutting bricks	3	3	9MR
10	Vibration – development of ‘Vibration White Finger’	3	3	9MR
11	Noise – Use of equipment i.e. disk cutters	3	3	9MR
12	Harmful Substances – Concrete, Mortar	3	4	12HR
13	Inclement Weather – Storms/Rain/Snow/Ice	3	3	9MR
14	Lifting Operations – Use of Mobile Crane, overturning, collapse of a load, crushed, struck	2	5	10MR
15	Collapse of newly erected work – Falling objects, adverse weather	2	5	10MR
Existing Control Measures / Additional Control Measures Required				
1	Working at Height Training Correct use of scaffolding Site supervisor to liaise with scaffold supervisor to ensure correct scaffolding is installed/maintained/inspected Correct use of ladders (Training), ladders in suitable condition Operators to inform of any change in equipment to site supervisor			

2	Use of footpaths where possible. Avoid dangerous areas and choose the safest possible routes over ground which is in a poor condition. Suitable footwear - wear appropriate Steel Toe Capped boots (British Standard) Awareness of weather and potential changes to ground condition caused by weather Employees should be aware of the Hazard/Accident reporting procedure. Clear methods of communications between employees. Occasional visits by line manager/deputy. Wear appropriate protective clothing (gloves, ballistic trousers). Good housekeeping to be maintained Waste to be disposed of correctly
3	Safety goggles worn when breaking bricks Correct use of PPE
4	All heavy equipment and materials to be lifted to scaffold via mobile crane provided by contractor. Maximum weight to be repetitively manually lifted to not exceed personal limit. Operatives trained in Manual Handling Operatives to be instructed not to move materials by hand when possible
5	See other risk assessments for hand tools Training provided if needed by competent operative/supervisor/safety officer
6	Always wear high visibility clothing on site Vehicle guided by trained banksman Site induction carried out to show appropriate vehicle routes Vehicles must have even loads on truck to ensure no tipping
7	Kicker plates to be used on scaffolding to help prevent falling objects Waste material is to be removed from scaffolding and placed in correct waste area. Safety helmets must always be worn on site Steel toe caps must be worn at all time on site Site supervisor to monitor use of appropriate PPE
8	See separate risk assessment for powered work tools Training provided if needed by competent operative/supervisor/safety officer All electrical tools to be PAT tested every 3 months
9	Dust exposure may cause silicosis Use of disk/angle grinders to be replaced with block splitters lowering risk Use of dust masks to be worn when cutting bricks etc (British Standard) Use of PPE to be enforced by site supervisors Site supervisor to be aware of early silicosis
10	Angle grinders as previously specified to be replaced with block splitter
11	Angle grinders as previously specified to be replaced with block splitter, reducing noise levels Site supervisor to monitor levels of noise
12	See manufacturers data sheet and COSHH schedule for mortar and concrete Risks of chemical burns and dermatitis and associated risks of them explained to operatives Gloves to be used that are made of PVC Welfare facilities available to wash skin when contact happens (hot & cold water) Eyewash available in emergency first kit Training given to all operatives on how to minimise and treat exposure to burns Supervisor trained on the early signs of dermatitis and burns.

13	In event of severe inclement weather site supervisor to instruct when incurred to get off all scaffolding Move away from construction Move into welfare facilities to take shelter All work to stop work and reconvene when inclement weather has stopped
14	Procedures put in place for use of mechanical lifting machinery Ensure it is available for reference Follow manufacturers guidance Trained operatives only to use plant
15	Consider high winds on newly erected work – temporary propping may be required Ensure all vehicles/plant is correctly guided by trained banksman to ensure they do not hit newly constructed building

Reassessment of Activity Hazards		Likelihood	Severity	Risk Level
1	Working at Height – injuries, platforms, incorrect use of ladders, scaffold.	1	3	3LR
2	Ground Conditions - Trips, falls and slides	2	5	10MR
3	Eye Injury – Flying particles	1	3	3LR
4	Manual Handling – Heavy/Awkward Objects	1	2	2LR
5	Use of Tools/Equipment – sprains/strains	1	2	2LR
6	Encountering vehicles - Being struck by moving vehicle.	1	3	3LR
7	Falling Objects – Head injury to operatives	1	5	5LR
8	Powered work tools – electric shock, moving parts damage to limbs/extremities	1	5	5LR
9	Dust – Cutting bricks	1	3	3LR
10	Vibration – development of ‘Vibration White Finger’	1	3	3LR
11	Noise – Use of equipment i.e. disk cutters	1	3	3LR
12	Harmful Substances – Concrete, Mortar	2	4	8MR
13	Inclement Weather – Storms/Rain/Snow/Ice	2	3	6MR
14	Lifting Operations – Use of Mobile Crane, overturning, collapse of a load, crushed, struck	1	5	5LR
15	Collapse of newly erected work – Falling objects, adverse weather	1	5	5LR

Name:		Signed:		Date 22.02.2019					
Position:									
Reviews	Key								
Review Date :	Likelihood	Severity	Likelihood of Injury	5	5	10	15	20	25
Reviewed by:	1 very unlikely 2 unlikely 3 likely 4 very likely 5 certainty	1 nuisance 2 minor 3 medical treatment 4 major 5 fatal		4	4	8	12	16	20
Review Date:				3	3	6G	9	12	15
				2	2	4	6	8	10
				1	1	2	3	4	5
				0	1	2	3	4	5
				Severity of Injury					
					Low Risk		Medium Risk		High Risk

Activity to be Assessed		Assessment Number		
3.2 Ground Excavations & Foundations– Domestic New Build Property (Green Field)		002		
Persons undertaking or affected by the activity				
- Contractors - Operatives - Site Supervisors				
Identified Hazards Associated Risks		Likelihood	Severity	Risk Level
1	Working at Height – Falling into excavations	2	3	6LR
2	Ground Conditions - Trips, falls and slides	4	5	20HR
3	Eye Injury – Flying particles	1	3	3LR
4	Manual Handling – movement of spoil and materials by wheelbarrow	3	2	5LR
5	Use of Tools/Equipment – sprains/strain/use of tamper	2	2	4LR
6	Encountering vehicles - Being struck by moving vehicle (Excavator)	4	5	20HR
7	Falling Objects – injury to operatives working in excavation	2	3	6LR
8	Underground services – Septic Tank, drainage,	2	3	6LR
9	Dust – Excavations, equipment uses pouring cement, cutting blocks for foundations	3	3	9MR
10	Noise – Use of equipment i.e. disk cutters	3	3	9MR
11	Harmful Substances – Concrete, Mortar	4	4	16HR
12	Inclement Weather – Storms/Rain/Snow/Ice, flooding of excavation	3	3	9MR
13	Leptospirosis (Weils Disease) – Excavations, contact with sewer septic tank connections	1	5	5LR
14	Collapse of Excavations - crushing	3	5	15HR
Existing Control Measures / Additional Control Measures Required				
1	Working at Height Training Correct use of ladders (Training), ladders in suitable condition to get into excavations if required Operators to inform of any change in equipment to site supervisor Excavations to be heras fenced off when works have stopped			

2	Use of footpaths where possible. Avoid dangerous areas and choose the safest possible routes over ground which is in a poor condition. Suitable footwear - wear appropriate Steel Toe Capped boots (British Standard) Awareness of weather and potential changes to ground condition caused by weather Employees should be aware of the Hazard/Accident reporting procedure. Clear methods of communications between employees. Occasional visits by site supervisor Wear appropriate protective clothing (gloves, ballistic trousers). Good housekeeping to be maintained Waste to be disposed of correctly
3	Safety goggles worn when breaking bricks Correct use of PPE
4	Maximum weight to be repetitively manually lifted to not exceed personal limit. Operatives trained in Manual Handling Operatives to be instructed not to move materials by hand when possible
5	See other risk assessments for hand tools Training provided if needed by competent operative/supervisor/safety officer
6	Always wear high visibility clothing on site Vehicle guided by trained banksman Site induction carried out to show appropriate vehicle routes Vehicles must have even loads on truck to ensure no tipping Bucket changes to be completed away from any excavations Buckets are not to be stored away from any excavations
7	Waste material is to be removed from ground work area and placed in correct waste area. Safety helmets must always be worn on site Steel toe caps must be worn at all time on site Site supervisor to monitor use of appropriate PPE
8	Area to be worked is to be CAT scanned prior to ANY excavations taking place Statutory undertakers to be contacted to help determine any services on site Any services are to be hand dug around
9	Dust exposure may cause silicosis Use of disk/angle grinders to be replaced with block splitters lowering risk for blockwork to DPC Use of dust masks to be worn when cutting bricks etc (British Standard) Use of PPE to be enforced by site supervisors Site supervisor to be aware of early silicosis
10	Site supervisor to monitor levels of noise of plant and workers
11	See manufacturers data sheet and COSHH schedule for mortar and concrete Risks of chemical burns and dermatitis and associated risks of them explained to operatives Gloves to be used that are made of PVC Welfare facilities available to wash skin when contact happens (hot & cold water) Eyewash available in emergency first kit Training given to all operatives on how to minimise and treat exposure to burns Supervisor trained on the early signs of dermatitis and burns.
12	Move away from excavations Move into welfare facilities to take shelter All work to stop work and reconvene when inclement weather has stopped

13	All operatives to be made aware of Leptospirosis and the associated risks and early signs All operatives to wear appropriate PPE (gloves) when handling earth especially near any water Operatives to wash hands before handling any food/water/cigarettes Welfare facilities available for good personal hygiene								
14	Use of trench boxes is required while working in excavations Excavations to be stepped where it is possible Excavated material is to be stored in a suitable location indicated by site supervisor away from excavations Inspection of excavations required by competent persons								
Reassessment of Activity Hazards		Likelihood	Severity	Risk Level					
1	Working at Height – Falling into Excavations	1	3	3LR					
2	Ground Conditions – Trips, falls and slides	2	5	10MR					
3	Eye Injury – Flying particles	1	3	3LR					
4	Manual Handling -movement of spoil and materials by wheelbarrow	1	2	2LR					
5	Use of Tools/Equipment – sprains/strains/use of tamper	1	2	2LR					
6	Encountering Vehicles – being struck by moving vehicle (excavator)	1	5	5LR					
7	Falling Objects – Injury to operatives working in excavation	1	3	3LR					
8	Underground services – septic tank, drainage systems	1	3	3LR					
9	Dust – Excavations, equipment uses pouring cement, cutting blocks for foundations	1	3	2LR					
11	Harmful Substances – Concrete, Mortar	2	4	8MR					
12	Inclement Weather – Storms/Rain/Snow/Ice, flooding of excavation	2	3	6MR					
13	Leptospirosis (Weils Disease) – Excavations, contact with sewer, septic tank connections	1	5	5LR					
14	Collapse of Excavations - crushing	1	5	5LR					
Name:		Signed:		Date 22.02.2019					
Position:									
Reviews		Key							
Review Date :	Likelihood	Severity	Likelihood of Injury	5	5	10	15	20	25
Reviewed by:	1 very unlikely 2 unlikely 3 likely 4 very likely 5 certainty	1 nuisance 2 minor 3 medical treatment 4 major 5 fatal		4	4	8	12	16	20
				3	3	6G	9	12	15
				2	2	4	6	8	10
				1	1	2	3	4	5
				0	1	2	3	4	5
				Severity of Injury					
			Low Risk	Medium Risk	High Risk				

Activity to be Assessed		Assessment Number		
3.3 Roof Trusses & Tiling – Domestic New Build Property (Green Field)		003		
Persons undertaking or affected by the activity				
- Contractors - Operatives - Site Supervisors				
Identified Hazards Associated Risks		Likelihood	Severity	Risk Level
1	Working at Height – Falling off scaffolding/roof	3	5	15HR
2	Ground Conditions on Scaffolding/Roofs - Trips, falls and slides	3	5	15HR
3	Eye Injury – Flying particles when cutting slates	2	3	6LR
4	Manual Handling – Movement of Tiles, manipulating the roof trusses	3	3	9MR
5	Use of Tools/Equipment – sprains/strain	2	2	4LR
6	Encountering vehicles - Being struck by moving vehicle (mobile crane)	3	5	15HR
7	Falling Objects – injury to operatives working under scaffolding/roof	3	5	15HR
8	UV/Heat Exposure – Sun working on roof	4	4	16HR
9	Dust – wood cutting	4	3	12HR
10	Noise – Use of equipment i.e. disk cutters	3	3	9MR
11	Overloading roof – Roof Caves in with operatives on	2	5	10MR
12	Inclement Weather – Storms/Rain/Snow/Ice	3	3	9MR
13	Sloping Roof (40°) – slippery roof	3	5	15HR
Existing Control Measures / Additional Control Measures Required				
1	Working at Height Training Correct use of ladders (Training), ladders in suitable condition to get into excavations if required Operators to inform of any change in equipment to site supervisor Soft landing bags to be installed underneath roof when installing trusses and roof underlay			
2	Use of footpaths where possible. Avoid dangerous areas and choose the safest possible routes over ground/roof which is in a poor condition. Suitable footwear - wear appropriate Steel Toe Capped boots (British Standard) Awareness of weather and potential changes to ground/roof condition caused by weather Employees should be aware of the Hazard/Accident reporting procedure. Clear methods of communications between employees. Occasional visits by site supervisor Wear appropriate protective clothing (gloves, ballistic trousers). Good housekeeping to be maintained Waste to be disposed of correctly			

3	Safety goggles worn when breaking slates Correct use of PPE			
4	Maximum weight to be repetitively manually lifted to not exceed personal limit. Operatives trained in Manual Handling Operatives to be instructed not to move materials by hand when possible			
5	See other risk assessments for hand tools Training provided if needed by competent operative/supervisor/safety officer			
6	Always wear high visibility clothing on site Vehicle guided by trained banksman Site induction carried out to show appropriate vehicle routes Vehicles must have even loaded on truck to ensure no tipping			
7	Waste material is to be removed from scaffold/roof work area and placed in correct waste area. Safety helmets must always be worn on site Steel toe caps must be worn at all time on site Site supervisor to monitor use of appropriate PPE			
8	Long sleeve Hi-visibility jacket PPE to be worn Stay in shade when possible especially during the lunch time & hottest periods of day Easy access to welfare facilities to get water to avoid dehydration High factor sunscreen (SPF15 to be worn) Site supervisor to enforce PPE All staff to be trained in the early signs of dehydration			
9	Dust exposure may cause silicosis Use of disk/angle grinders to be replaced with splitters for slates Use of dust masks to be worn when cutting slates etc (British Standard) Use of PPE to be enforced by site supervisors Site supervisor to be aware of early silicosis			
10	Site supervisor to monitor levels of noise of plant and workers			
11	Where large amounts of equipment/tiles are placed on a roof consideration must be given regarding a safe amount of working load for the roof. Consult suitable person regarding suitable working load			
12	Move into welfare facilities to take shelter All work to stop work and reconvene when inclement weather has stopped Distribute loads where possible			
13	Sloping roofs should have edge protection Correct footwear should be worn Extra care should be taken when roofs are wet/icy Edges of roof should be avoided where possible Use of scaffolding should be used when possible			
Reassessment of Activity Hazards		Likelihood	Severity	Risk Level
1	Working at Height – Falling off Scaffolding/roof	2	5	10MR
2	Ground Conditions of Scaffolding/Roofs – Trips, falls and slides	1	5	5LR
3	Eye Injury – Flying particles when cutting slates	1	3	3LR
4	Manual Handling – Movement of tiles and manipulating the roof trusses	2	3	6LR

5	Use of Tools/Equipment – Sprains/strains	1	2	3LR					
6	Encountering Vehicles – Being struck by moving vehicle (mobile crane)	1	5	5LR					
7	Falling Objects – Injury to operatives working under scaffolding/roof	2	5	10MR					
8	UV/Heat Exposure – Injury to operatives working under scaffolding/roof	2	4	8MR					
9	Dust – Wood cutting	1	3	3LR					
10	Noise – Use of equipment i.e. disk cutters	1	3	3LR					
11	Overloading of roof – Roof caves in with materials and operatives on	1	5	5LR					
12	Inclement Weather – Storms/Rain/Snow/Ice	2	3	6LR					
13	Sloping Roof (40°) – Slippery roof	2	5	10MR					
Name:		Signed:		Date 22.02.2019					
Position:									
Reviews	Key								
Review Date :	Likelihood	Severity	Likelihood of Injury	5	5	10	15	20	25
Reviewed by:	1 very unlikely 2 unlikely 3 likely 4 very likely 5 certainty	1 nuisance 2 minor 3 medical treatment 4 major 5 fatal		4	4	8	12	16	20
				3	3	6G	9	12	15
				2	2	4	6	8	10
				1	1	2	3	4	5
				0	1	2	3	4	5
				Severity of Injury					
			Low Risk	Medium Risk	High Risk				

4. Identify which Health & Safety legislation, based upon this construction project, is relevant and identify who is the responsible person/dutyholder under those separate regulations.

4.1 Overview

There is a variety of different health and safety legislation that is associated with this construction project for a domestic new build property on a greenfield site. The main legislation related to this project is the Construction Design Management Regulations of 2015 (CDM) it outlines the roles of each 'person' within the construction project and aims to improve health and safety within the industry outlined by the Health and Safety Executive (Hse.gov.uk, 2019)

The Health and Safety Executive gives guidance under CDM of 2015 and explains what each duty holder must do to comply with the law associated with risks within an individual construction project. The CDM 2015 cover the management of health and safety and welfare when carrying out a construction project, the duty holders and their responsibilities as 'far as reasonably practicable' (Hse.gov.uk, 2019)

There are several different duty holders that are highlighted under CDM relevant to this project and are listed below and their individual responsibilities explained in depth:

- 4.2 Clients Responsibility

- As this project is scheduled to last more than 30 days with the potential of more than 20 operatives working simultaneously the HSE define this project as 'notifiable' and an F10 form (Hse.gov.uk, 2019) must be completed (Chudley & Greeno, 2017).
- To appoint the principal designer & principal contractor
- Check the competence of the principal designer/contractors, other designers and that they carry out their duties effectively
- Must ensure that there are suitable welfare facilities available related to the number of staff on site at any one time (Chudley & Greeno, 2017)
- To provide suitable amounts of time for all phases of construction as well as a construction phase plan is prepared before construction begins.
- Ensure relevant information packs such as health and safety information files and plans are available to all.

- 4.3 Principal Designers Responsibility

- Create a pre-construction phase plan (Plan, manage, monitor, health and safety pack) this will identify any risks and how to minimise them

- They must ensure that designers effectively carry out their duties as well as highlighting the client and contractor of their responsibilities.
- Help provide any health and safety information that may be appropriate to the job (Hse.gov.uk, 2019)
- Ensure compliance when dealing with workplace and facilities regulations (Chudley & Greeno, 2017)
- Liaise during work construction of any design information with the principal contractor.
- **4.4 Designers Responsibility**
 - Designers roles are similar to that of Principal Designers in that they will help to eliminate, reduce and control any risks/hazards that may arise during construction (Hse.gov.uk, 2019)
 - They must agree with principal designer their roles for sharing information to avoid any duplicated efforts for designing (https://www.designingbuildings.co.uk/wiki/CDM_2015_designer_duties).
- **4.5 Principal Contractors Responsibility**
 - Manage and develop a construction phase plan (Chudley & Greeno, 2017)
 - Liaise with client and principal designers (Designingbuildings.co.uk, 2019)
 - Ensure all health and safety procedures on site are followed with the employee's duties highlighted
 - Ensure all operatives have necessary knowledge, experience, skills and their ability to carry out any work that involves health and safety implications
 - Manage and co-ordinate all work of contractors
 - Ensure site inductions are carried out on site (Hse.gov.uk, 2019)
 - Ensure welfare facilities are in place through the duration of the construction phase of the project
 - Any changes or agreements made on site must be included in an updated construction phase plan and sent to the client/designer.
- **4.6 Contractors Responsibility**
 - Similar roles to that of a principal contractor however with less responsibility.
 - Plan and manage any work so that it is carried out without any risks to health and safety of workers
 - Liaise with Principal contractor on work updates

- Co-ordinate with any other contractors that may be working on the same task/project and take direction from the principal designer and/or contractor (Hse.gov.uk, 2019)

4.7 Health & Safety Legislation

Health & Safety at Work Act

Health and Safety at Work Act of 1974 (HASAWA) indicates that all employees must protect health, safety and welfare of all workforce on the site including those of client, visitors, contractors and operatives as 'far as reasonably practicable' (Worksmart.org.uk, 2019). It is important to minimise risk and hazards on sites, however it does not mean all employees can avoid their responsibilities

Control of Substances Hazardous to Health of 2002 (COSHH)

It is the employers duty to protect all workers from substances that are hazardous to health this via the client, designer and principal contractor in this project (Worksmart.org.uk, 2019). The HSE states that employees must find out what the health hazards are, how to prevent and control any substances that may cause harm as well as enforcing these controls, providing training to staff and to plan in case of emergencies (Hse.gov.uk, 2019). It should be noted that asbestos, radioactive materials and lead are not covered under COSHH.

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)

The HSE states that a competent person (employer – client & contractor) must report certain serious accidents I the work place as well as near misses and/or diseases (Hse.gov.uk, 2013)

Other

There are a variety of other regulations that will need to be followed and enforced by the principal contractor as well as providing any training, equipment to all operatives on site to ensure that they are competent to use any equipment and work safely to minimise risk and hazards to all those on site a few of these are stated below.

- Work at Height Regs 2005 (Eurosafes Solutions ,2019).
- Personal Protective Equipment at Work Regs 2002 (Hse.gov.uk, 2019)

- Manual Handling Operations Regs 2002 (Hse.gov.uk, 2019)
- Lifting Operations and Lifting Equipment Regulations 1998 (Hse.gov.uk, 1998)

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