

FM-OHS-0500-02 RAMS Template

Project Name:	Etihad North Stand Expansion
Project No.:	7425
Date:	31/08/2023
Sisk RAMS No.:	7425-RAMS-CARA
Revision No.:	A
RAMS expiry date (max 3 months):	30/11/2023

Sisk/Sub-Contractor:	Cara Construction Ltd
Work Package:	Civils to foundations to wall and installation of ducting
Activity/Works scope:	Metrolink Overspill Area
Other related activities:	Trial Pits to determine the existing ground conditions. Stripping the existing vegetation. Reduce level dig down to design formation level. CBR Test to formation level. Install associated ducting and bases for kiosk. Spread, trim and compact subbase layer. Place concrete blinding layer over prepared subbase Construct reinforced concrete foundation for 3kN Metrolink fencing. Install all items required for the permeable asphalt construction to the Metrolink overspill area.
Start Date:	TBC
Duration of works:	5 Weeks
No. of working hours/days:	20 Days
Nighttime working anticipated?	TBC
Package Lead Supervisor:	Stefan Wieczorek
Task Supervisor(s):	Anthony Barton

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Declaration by RAMS Author	Name	Signature	Date of visit
I have visited the site to assess the workplace hazards & risks and the site-specific requirement/controls required.	Stefan Wieczorek	<i>Click here to enter text.</i>	30/08/2023
Sisk Manager who attended the site assessment visit.	Stefan Wieczorek	<i>Click here to enter text.</i>	30/08/2023

Package Lead Supervisor	Signature	Date
Conor Keating	<i>Click here to enter text.</i>	<i>Click here to enter a date.</i>

Note: The Sisk Package Manager will evaluate and accept/reject. The RAMS Control Sheet and the master copy of the approved RAMS must be maintained within the project filing system.

Hold Point	Applicable to the works?	
If these risks apply to the works, and are not adequately addressed in the RAMS, the RAMS will be rejected.	Plant & People Segregation	☒ Yes ☐ No
	Working at Heights	☐ Yes ☒ No
	Live Energies	☒ Yes ☐ No
	Excavations and/or Temporary Works	☒ Yes ☐ No
	Lifting & Lowering loads	☒ Yes ☐ No

Project/Location:	Manchester City Football Club
Project No.:	<i>Click here to enter text.</i>
Assessment Date:	<i>Click here to enter text.</i>
Assessed By:	<i>Click here to enter text.</i>
Assessment Review Period:	<i>Click here to enter text.</i>
Brief Description of Activity/Package:	Metrolink works associated with main works
Associated Tasks:	See Scope of Works

Risk Assessment

Complete FM-OHS-0500-01 Risk Assessment –



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Methodology: Outline how the work will take place from arrival on site, to completion of works, step by step in detail to ensure no ambiguity.



Business Function
Health and Safety

Document Owner
Director – Health and Safety

Document Type
FORM

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**Actions required before arrival on site and access/egress to the site.
(Include project specific restrictions/requirements supplied by Sisk)**



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All operatives and trades will have completed the John Sisk and Sons Site Induction prior to arrival on site.

Transport to site will be limited to maximise the number of men in vehicles, parking facilities are provided adjacent to the site by John Sisk and Son.

All operatives and trades to have been provided with the correct High Visibility PPE.

Access onto site will be via the turnstile adjacent the main entrance.

Pedestrian walkways are clearly identified to and from the welfare facilities.

From the welfare to the place of work, access again will be via the site-specific pedestrian walkways provided by John Sisk and Son.

Site Manager, Mr Stefan Wieczorek, is to convey the contents of this method statement to all ops prior to commencement and have them sign for it as read and understood on the communication page.

This Safe System of Work will form part of the Site Induction.

Fortnightly Visits will be made by our Safety Advisor and Group HSQE Manager Paul Grimes.

Before commencement of work tiltmeters are installed to alarm in the event of any affect on the slope. In the event the alarms are triggered work to cease immediately and issue investigated



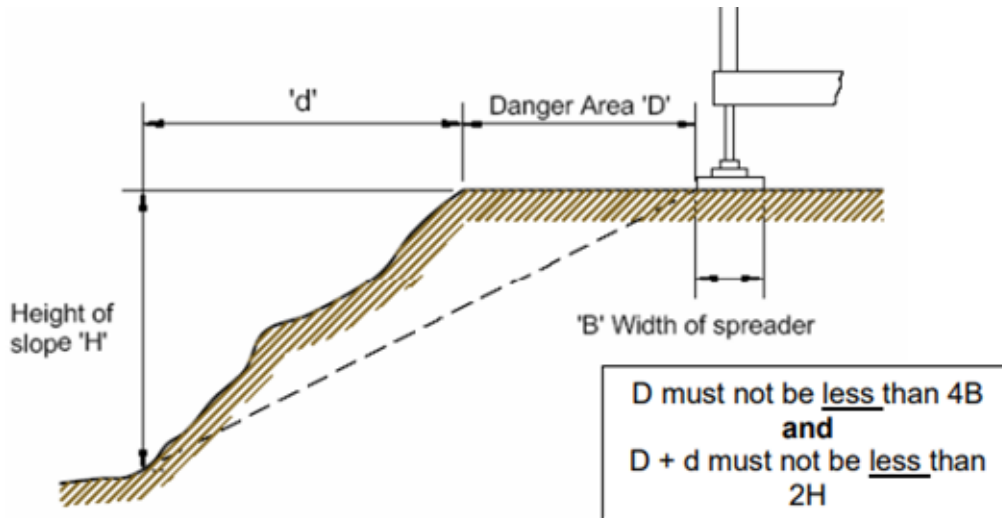
As per BH report tilt meters are to be installed at shallow locations. Operatives to carry out hand dig trial hole before installing tilt meters to ensure that there is no presence of underground services. As they are at shallow locations operatives shall be able to install from top of slope.

Barriers are to be installed to the top of the slope 1m from edge with stop block utilised to prevent the excavator coming within 2m of the top of the slope.

To avoid surcharge on the slope the following criteria as been utilised:

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(guidance from CPA document Ground Conditions for Construction Plant)



Measurements as follows:

$H = 5.5\text{m}$

$d = 11\text{m}$

$B = 0.35\text{m}$

Therefore $4B = 1.4\text{m}$

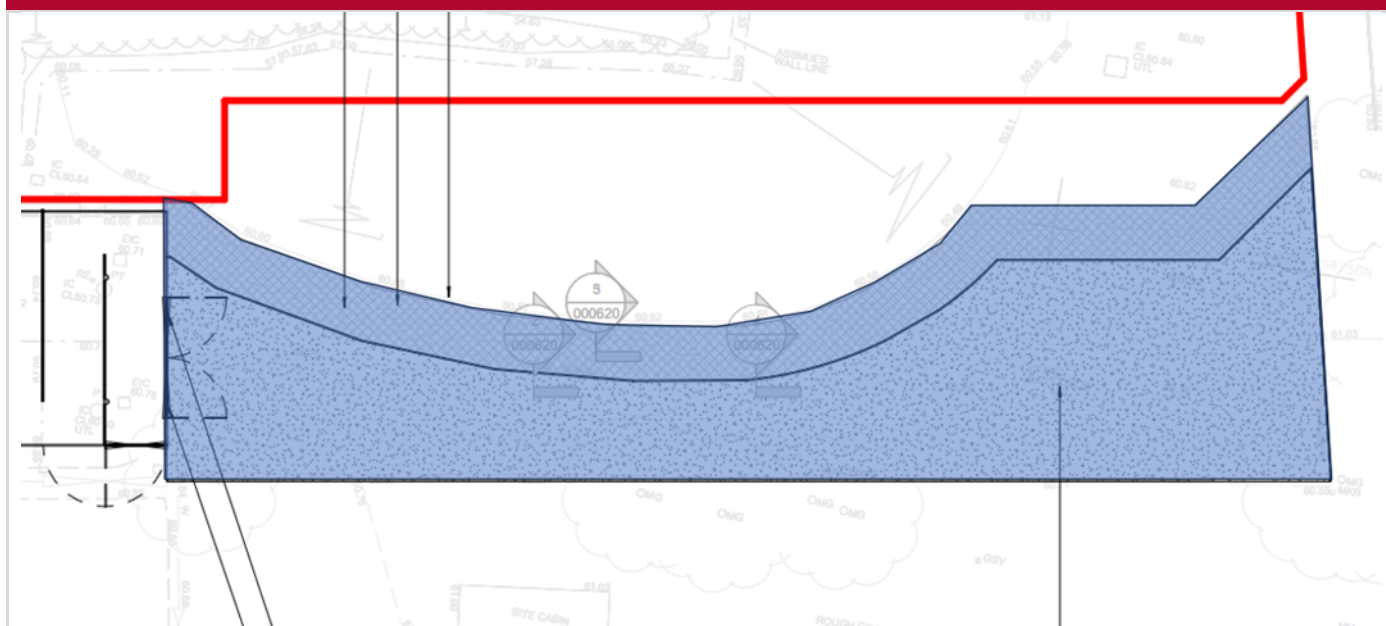
$2H = 11\text{m}$

Therefore D must be minimum 1.4m so place stop blocks at 2m.



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Location of the works (insert drawing/photograph showing task location and access arrangements)



Work area covered in these RAMS shown in blue

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Material Delivery, Storage and Distribution

Outline safe arrangements for segregating people from vehicles/plant, traffic management, delivery (type of wagon), offloading including how materials will be offloaded/who by and secure storage

Click here to enter text.

Sequence of Tasks Involved in The Activity

- Access for all deliveries via site entrance off the main road
- Site deliveries will be Hiab / Excavator /FLT off load and will be placed in designated storage areas. A security container will also be delivered in the first week for the small tools and consumables.

HOLD POINT: Edge protection (easy edge) or Davitt Arms will be used if operatives need to mount the vehicle to off load materials.



(drawings above demonstrating installation of edge protection onto lorries)

- A detailed traffic management/pedestrian drawing will be submitted and approved prior to commencement.
- A designated Banksman will be required to monitor deliveries & plant movements. CCL will supervise once in the work zone.
- Deliveries will be scheduled to avoid peak traffic / pedestrian flows.
- The works will be carried out and planned to limit the disruption to the local public.
- Storage Areas – The location of storage areas will be nominated by the main contractor and highlighted on their main site logistics plan. Once an area(s) has been appointed to CARA by the main contractor, it is then our responsibility to securely Heras fence off the areas, from both other trades and the public.
- Material Distribution – Materials will distribute around site via either our Wheeled Excavator or Tracked Loading Shovel (Bobcat)
- Plant & Equipment deliveries (Offloading & Loading of Plant) – These operations will be undertaken by trained & competent plant operators.

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Title: Avoiding Danger from Underground Services

(1) Key safety messages

- Risks associated with this activity are burns; electric shock; fire & explosion.
- Use cable avoidance tools (CAT and Genny) to detect / identify services and mark up.
- If you have not exposed the service and come across a hard surface or concrete – STOP and call your supervisor.
- All operators must have received the appropriate 'Safe Dig' training and can only undertake this activity.

(2) Persons who may be at risk



Operatives



Visitors / Support Staff



Members of Public

(3) Additional PPE required for this activity

(The PPE below should be worn in addition to or instead of the minimum PPE defined in your Operatives manual)



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- High visibility upper body clothing with reflective tape which complies with BS EN 471: 2003 class 2 and Railway Group Standard RIS/3279/TOM.
- HV orange lower body clothing to BS EN 471:2003 class 1 and Railway Group Standard RIS/3279/TOM as a minimum (HV trousers or HV over-trousers)
- A safety helmet that complies with BS EN 397: 1995. The safety helmet shall be white in colour.
- Safety footwear which complies with EN-iso-20345-s1p, provides support to the ankle, includes mid-sole protection, and has a protective toe cap. Where used, steel or other conductive toe caps must be covered.
- Safety glasses that comply with EN166 1F
- Cut-Resistant gloves that complies with EN 388:2016

(4) Training required to carry out this activity

1. CARA HSEQ Induction.
2. Emergency First Aid at Work.
3. Manual Handling.
4. NRSWA (When working in the highway, at least one operative on site).
5. EUSR Safe Digging Training and Assessment.

(5) Method Statement

1. Review the job pack to understand the required work.
2. Review your Safe Dig prints which must be clear and legible and in date (3 months for electric) 28 days for gas. If they are not, then STOP and call your supervisor.
3. Check the 'Line Search' report which will indicate any intermediate or high-pressure pipelines and extra high voltage electric cables in the vicinity. These often have exclusion zones that prohibit digging around them without prior consent from the asset owner. You must call your supervisor if the asset owner has not been consulted. If in doubt always STOP and call your supervisor.
4. Define the area to be excavated. Walk around the area to identify any above ground indicators such as scarring, street furniture, marker posts and valve boxes. Always refer to your Safe Dig drawings and Line Search reports.
5. Complete a site-specific risk assessment and record any additional Hazards that you have identified, ensuring that you list the additional control measures required to mitigate.

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Cable Location

1. Check that you're C.A.T and Genny is within calibration and that the batteries have charge. Perform a function test to check that it is working correctly (15m for Genny).
2. Start in Avoidance Mode and scan the perimeter of the work area listening for tones omitted from the loudspeaker to gain an understanding of the services that may be present.
3. In Power Mode with the sensitivity control at maximum. Carry out a grid pattern sweep, turning the sensitivity control to the left to pinpoint the location of all services. Mark the position of all services in the mode you found them in with chalk or bio-degradable paint extending the markings 500mm outside the area to be excavated.
4. Repeat the same steps in Radio Mode. Remember to mark-up what you find as above.
5. Conduct a Two Man Induction Sweep by turning the C.A.T to Genny Mode. Ensure the Genny is parallel to the C.A.T and they are 10 metres apart. Remember to mark-up what you find as above.
6. Whenever you identify a signal, you should null out the signal by turning the Genny on its side and rescanning the area with the C.A.T, this allows any smaller signals to be located. Remember to mark-up as above.
7. Use a direct connection to trace exposed mains or services such as streetlights. To do this first scan the area where you are going to insert the ground spike (in Avoidance). Connect the earth lead to the earth spike and then the live lead to the street furniture. Plug the leads in to the Genny and listen for a change in tone to make sure that you have a good connection. When you have pinpointed the position of the conductor turn the C.A.T at right angles to identify the direction that the conductor is running. Remember to mark-up as above.
8. If you have access to a service, then you must use the signal clamp to induce a signal which will allow you to locate the service you are clamped to.
9. Before starting any excavation always recheck your C.A.T and Genny results a second time, consulting your Safe Dig Drawings and Line Search as you go.

Safe Digging

1. Excavation may proceed, with trial holes dug using suitable hand tools as necessary to confirm the position of any buried services.
2. Hand-held power tools used to break up hard surfaces must not be used within 500 mm from the indicated line of a cable buried in or below a hard surface. Having done so, the cable must then be positively located by careful hand digging under the hard surface. The hard surface must be gradually removed until the cable is exposed. If the cable is not so exposed, then it must be assumed to be embedded within the surface.
3. Where possible use a cable locator as a depth guide down the side of the excavation to pinpoint its position within the hard service.
4. If the cable is embedded within the hard surface call your supervisor as the cable will have to be isolated.
5. Hand-dig as many trial holes as necessary to identify the location and depth of all known underground services.
6. If you have not exposed the cable and come across a hard surface or concrete always assume that the cable will be in the hard surface or concrete. Where the cable must be broken out of a hard surface or concrete STOP and call your supervisor. The asset owner will need to make the cable dead or agree and

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document a safe method for the work. Documented proof must be obtained from the asset owner/operator stating that the cable is dead.

7. Where possible use a vacuum excavator or air lance, if these are not suitable then use a round nosed safety graft or shovel. Excavate alongside cables and never directly above them. Apply gentle foot pressure and never a striking motion. Forks and picks are not permitted for use.
8. Mechanical equipment and handheld power tools should only be used 500mm away from any marked service. If it is not practical not to use mechanical equipment or handheld power tools 500mm away from the marked position of a service, STOP and call your supervisor. The 500mm safety margin can be reduced in certain circumstances but only when the cable has been positively identified, located with the C.A.T and Genny and the defined controls have been documented in your risk assessment.

Example - if using a Stihl saw to remove tarmac, do not use the Stihl saw over the marked position of the cable. Carefully hand dig underneath from the side to identify that the cable is at least 300mm below the bottom of the hard surface. If you are unable to dig under from the side because the cable is in hard ground, the C.A.T should be used as a depth guide down the side of the excavation.

9. When using an excavator keep everyone out of the excavation and clear of the bucket during excavation.
10. Where a service has been exposed, handheld power tools should not be used within a distance of 500mm unless it is agreed with your supervisor and physical means have been used to prevent the tool striking it. You must document the agreed controls in your risk assessment.
11. Remember to use the C.A.T and Genny every 300mm during excavation as there may still be services present, look for markers such as tape or sand that may indicate the presence of services.
12. Do not use exposed services as a convenient step or handhold, protect and support exposed services at 1m intervals. Where required, use timber boards to protect services.

(6) Risk Assessment and Controls - Avoiding Danger from Underground Services

Hazards	Control Measures
Lone working	This operation is NOT PERMITTED for Lone Workers – there must be always more than one person on site.
Operatives not Trained to use locating equipment	Only trained operatives are to carry out this operation.
Electricity / Fire / Explosion	- Do not break ground unless you have up to date electrical drawings. - Use your CAT to locate and mark the electrical service. - Use safe digging techniques and only had dig around the service(s) once identified. - FR / ARC PPR must be work when excavation.
Poor Quality Prints	- If you collect your prints from the depot, check them before you leave. - If you are on site STOP and call your supervisor
Defective Locating Equipment	- Only use equipment that is within calibration. - Ensure the C.A.T and Genny passes the function test in all three modes.

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Hazards	Control Measures
	- Change batteries regularly and have spares available. - Stop work if you suspect that you're C.A.T and Genny is faulty, and report this to your supervisor.
Unidentified Cables/services/pipes	- Treat all services as live electricity unless proven otherwise. - If in doubt, STOP and call your supervisor.
Shallow laid or undetectable services	Hand-dig as many trial holes as necessary to identify the location and depth of all known services. Remember to use the C.A.T and Genny every 300mm as the excavation progresses.
Tools/Mechanical excavators encountering live services.	- Follow the advice provided in the Method Statement above 'Step 3 – Safe Digging'. - Remember - Gas pipes may have valve housings, siphons and standpipes coming off them which are not shown on the plans. To allow for this, mechanical excavators should not be used within 500 mm of a gas pipe.
Cables Buried in Hard Surfaces or Concrete	- If you have not exposed the cable and come across a hard surface or concrete always assume that the cable will be in the hard surface or concrete. - Where the cable must be broken out of a hard surface or concrete STOP and call your supervisor. The asset owner will need to make the cable dead or agree and document a safe method for the work. Documented proof must be obtained from the asset owner/operator stating that the cable is dead.
Excavating within 3m of a High-Pressure Gas Main	- All teams must be in possession of an authorisation letter and agreed method of work from the asset owner if they are to dig within 3 metres or cross a High-Pressure Main. - If you have not been issued with authorisation from the asset owner, then STOP and contact your supervisor.
Damaged services	- Do not attempt to repair any damages yourself. - Exit the excavation, make the area safe and prevent anyone from entering the working area. - If a cable is struck with an excavator, the driver must stay in the cab until the cable is made dead. If you must leave the cab, you must jump clear from the excavator landing with both feet together. NEVER Climb down as you could be electrocuted. - Report any damage immediately to your supervisor.
Gas Leaks/Damages or if you smell gas	- Do not attempt to repair any damages yourself. - Evacuate everyone from the immediate vicinity of the escape and warn all others including people in adjacent buildings. - Ensure no sources of ignition or smoking within a 5m radius. - Report the incident to your supervisor.

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SPECIAL REQUIREMENTS

- All ops to be briefed on the contents of this method statement prior to commencement.
- All ops CSCS certificated.
- All plant ops CPCs trained. Excavator operatives to hold current quick hitch & lifting operations certification.
- All plant to be fitted with rotating beacons, and 360 deg. Vision. Bungee cords for keys
- Permit to Dig will be issued and all operatives made to sign and agree to its contents. This must be current and have all relevant drawings and surveys incorporated in it. **If any services are located, then they must be identified and clearly marked to plot the position. Trial holes will be carried out by hand with no mech/pneumatic tools being used. Even if the excavation is given “all clear” then vigilance is still required treating all services as live unless received in writing otherwise. All services that are encountered will be surveyed, recorded. EXCAVATORS OR PNEUMATIC TOOLS WILL NOT BE ALLOWED TO EXCAVATE WITHIN 600mm OF ANY KNOWN SERVICE. IT IS THE INTENTION TO USE VAC EX. Once located a *free-standing barrier with signage* will be positioned along the line of services to alert all ops of the danger.**
- Fencing to excavations will be Heras fencing with foot blocks & double clips. Barrier fencing will be control or chapter 8 fencing. These will be used to create exclusion zones, in accordance with procedure. CCL will issue a works zoning plan for approval. Barriers used to create a safe working zone around minor excavation works.



- A designated refuelling area will be required with the items listed below made available. This will be of a safe distance from any “Hot Works” to avoid sparking ignition



- An exclusion zone will be located for the Re fuelling station complete with drip trays which will be utilised for all mobile plant.



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Preparation of Road / Walkways (HRA)

- Firstly, investigation works will be required to determine the depth of elements like the construction makeup of the existing pavement areas. CCL operatives are to undertake these investigation works by following the safe digging procedures as detailed within our RAMS – Avoiding the dangers of underground services.
- Vegetation Clearance will commence with our 360-excavator gathering it up and stockpiling it away from the main works, to be removed off site by a licenced haulier.
- Once the investigations work has been carried out and the engineer has surveyed the findings, the reduced level excavations will commence with a 360-degree operated machinery, working to line and level using a rotating laser.
- Excavated material will be carted to the designated temporary stockpiled area & weathered at the end of each day to avoid water filtration before off-site removal.
- The formation layer is to be graded smooth and compacted.
- When required, the specified stone fill will be imported by road wagons and deposited directly into the work area. The stone will then be placed in layers of no more than 200mm thick & compacted using vibratory rollers to the correct level. The material will be imported from licensed quarries. Access to the work area will be through the orange carpark. Exclusion zones will be established via crowd barriers, prior to road wagon tipping off material (aggregates, sand etc)
- The engineer will then check the levels and take possession prior to tarmac sub-base (by specialist subcontractor)

Ducting Installation

- A permit to excavate will be issued by the Engineer to the duct laying team prior to commencement.
- Trench excavations are to be fenced off, where it is deemed necessary, due to the nature of the site and the low depth of excavation. This is to be reviewed during the progress of the works, but where necessary excavations will be fenced off locally using a crowd barrier system to be provided & continually maintained by CCL.
- The Depth & Width of Ducting Trenches will be detailed by the Main Contractors M&E Coordinator and detailed on construction issue drawings.
- Excavations will be carried out using 360° and 180° type excavators. All arising to be placed adjacent the excavation and is to be reused in the backfill operation.
- An offset peg/pin will be set up before the excavation of draw pits to determine the centre while excavating for the position & level. The excavation will be square with neat sides and teeth marks diminished at base to receive concrete. The disposal of spoil will follow same procedure as foundations. It will be kept free from water to receive a concrete base.
- The draw pit base will be in accordance with the M&E drawings and specification and where ducts are coming into chamber it is good practice to install plastic bunds at the end of the ducts.
- Back filling will be done by using material selected by the site management. It will be done by levelling backfill material in 300mm layers compacted with a mechanical compactor, giving each layer the correct number of passes, depending on the type of backfill material used. The first 300mm is not to be compacted. The number of compaction passes will be specified by the main contractor's structural engineer and in accordance with RASWA regulations.
- Ducting runs will be Sanded over along with the correct Marker Tape used, which needs to correspond with the utility installed. In this case BT. BT ducting and materials are issued directly from BT, free of charge.

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R.C Foundation Construction

- CAT survey to be carried out & permit to excavate to be issued to CCL, agreed & signed.
- Foundations bases are to be marked out by the site engineer.
- Base excavations will be carried using 6t 360 excavators, spoil will be loaded onto a 6 tonne dumper (FWT or Hydrema) and disposed onsite to a designated stockpile as work proceeds. Then removed from site to a licensed tip via 8-wheel waggons. Small plant being utilised to avoid surcharge onto slope.



- A level survey will be carried out to establish if the completed formation meets with the specification and design drawings, using calibrated surveying equipment.
- Barrier fencing with feet blocks are to be utilised to isolate the working areas and establish edge protection.
- The requirement for stop blocks to prevent plant from falling into the excavations will be reviewed and implemented if necessary.
- Access / Egress for the workforce will be established via stepped excavation performed by the excavator.
- Once the level(s) have been established and accepted, 50mm blinding concrete will be brought to site by our ready-mix concrete supplier and placed into the excavation via the excavator bucket.
- This blinding concrete will be levelled and compacted as necessary by experienced operatives, using an easy float to create a smooth surface finish.

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• HOLD POINT FOR JOINERS & FIXERS

Electrical Tools

It is important to point out that electrical tools face harsh conditions on site and when misused, they get damaged and become dangerous. Incorrectly used and poorly maintained tools can cause serious injury.

The misuse of plant and work equipment or lack of maintenance can lead to injuries to the user and others. Operators of power operated plant and equipment must be trained in its use and authorised.

Consider the risks to other people who are nearby when operating power tools.

Exclusion zones must be set up where required. These should be identified with the relevant signage.

Key Points

All electrical tools to be 110v.

All tools to be kept in good condition. Ensure that all electrical tools are visually checked by the user, prior to use.

Ensure switches are working correctly before connecting to a power supply.

Ensure that all electrical tools are inspected by a competent person (supplier) periodically in accordance with HSG107 and the item must be ID tagged.

Records of electrical tools must be kept onsite.

Keep tools clean and dry. Portable electrical tools that have become wet must be allowed time to dry and then be checked by a competent person, for electrical safety, before use.

All extension leads must be in good condition and routed to work areas to prevent damage by vehicles, other equipment, and inclement conditions. Ensure that supply cables do not create trip hazards.

Any electrical tools found to be faulty must not be used, the fault reported to the supervisor, who will then arrange for repairs or an exchange.

Electrical tools often present a noise and vibration hazard. Wearing hearing protection and following guidance on trigger times are controls to avoid HAVs syndrome. Refer also to risk assessments and manufacturers information sheets.

Reduce periods of use of power tools and regularly rotate users to minimize the risk of hand arm vibration.

If using the tool creates dust, the operative should wear RPE to protect against dust inhalation.

Only use plant and equipment for its intended purpose. Ensure all guards are fitted and in position. Any individuals found to be interfering with or misusing equipment provided in the interest of health, safety and environment shall be excluded from site.

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Cutting Wood / Timber

Portable wood working power tools can be particularly dangerous if they are not operated correctly. To function, at least one part of the blade must be exposed during use.

Ensure all pivoting guards are free to move and correctly positioned during use.

Ensure that you have the correct personal protective equipment before starting work. This must include suitable hearing, eye, and respiratory protection.

The operator must ensure that they are not wearing any loose clothing.

Promptly clean up timber offcuts from the floor. DO NOT leave them as tripping hazards.

Ensure that the power lead is disconnected from the supply before adjusting the saw or carrying out maintenance works.

Ensure on-tool extraction is fitted and used during cutting operations.

Ensure that the blade is securely fitted, sharp and free from cracks / damage, prior to use.

Timber is classified as an Irritant / Harmful under COSHH regulations.

Cutting operations will create harmful dust.

Exposure to respiratory hazards such as wood dust can lead to immediate and long-term health problems.

Try to avoid the need for on-site cutting or other dust producing activities by ordering materials pre-cut to site requirements.

Timber can contain sharp edges and splinters. Avoid skin contact and always wear the correct PPE.

Working with Cut & Bent Reinforcement

Manual Handling

A significant proportion of all injuries at work are caused by manual handling and spinal injuries, can be permanent.

All manual handling activities must be assessed and avoided where they can be, using mechanical aids where possible. Simple aids such as wheelbarrows can reduce the risk of injury.

Ensure that walkways and work areas are clear with good lighting.

Suitable gloves must be worn to protect against cuts and safety footwear to protect from falling loads.

Material Storage

Unsafe stacking can lead to collapse and life changing injuries.

When handling reinforcement, wear cut resistant work gloves and safety footwear.

Only stack or store materials in authorized laydown areas, away from walkways and emergency escape routes.

Ensure that the materials are stored on a firm and level surface.

Where possible, store materials close to the working area to reduce the amount of handling.

Keep limbs clear of loads when materials are being moved by machinery.

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Slips, Trips and Falls

Every year, many injuries occur through slips, trips, and falls. Most of these injuries are easily preventable with little care.

Most injuries from slips, trips and falls occur because of poor housekeeping. Leaving items such as leads, hand tools and surplus materials on the ground will create a trip hazard.

Operatives must ensure that they clear up waste as it is created and work in a tidy manner. DO NOT leave tools, equipment or unused materials lying about the place.

Abrasive Wheels

Many accidents involving abrasive wheels are caused by wheels being fitted incorrectly, using the wrong type of wheel on the material being cut and operators not being appropriately trained. Without the correct knowledge, workers are at risk and accidents will continue to happen.

Key Points:

Only authorized and trained operatives are permitted to mount an abrasive wheel onto a cutting tool.

DO NOT exert heavy pressure on the wheel during cutting.

NEVER use the side of the wheel unless the wheel is designed to be used in that way.

RPE, hearing protection and high impact eye protection must always be worn. Always refer to risk assessments provided for the task.

Use wet cutting equipment or on-tool extraction to suppress or collect dust.

Ensure the correct grade of wheel is being used for the material and task.

Never use equipment without a guard.

Be aware of other workers in your area and DON'T put them at risk with your actions.

Be aware of noise and vibration hazards and take appropriate preventative or protective actions.

ALWAYS allow the wheel to stop before leaving the machine unattended.

DO NOT wear loose clothing that could become entangled in the rotating wheel.

FIRE (HOT WORKS)

Use purpose made containers when handling or storing flammable liquids.

Ensure there are no adjacent flammable materials, before commencing Hot Works activities.

ALWAYS obtain a Permit to Work before commencing cutting operations. Permits MUST always be adhered to.

ALWAYS wear the mandatory PPE as detailed within the Permit prior to commencing works. Helmet, Impact Resistant Goggles, Gloves, Safety Footwear, Flame Retardant Clothing, Suitable Hearing Protection and High Visibility Vest.

Make sure that you know what to do in the event of a fire.

Make sure that you know where the escape routes and assembly points are.

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Keep escape routes clear and unobstructed, always.

Don't obstruct access to firefighting equipment.

In the event of a fire, stop work immediately and raise the alarm. Go to the site assembly point and inform your supervisor.

- Once excavation level has been achieved and approval given that the ground conditions are suitable, the prefabricated reinforced cages will be placed into position on proprietary spacer blocks, prior to the approved concrete mix being placed, as per specification.
- The reinforcement will be tied together with tying wire at the centres described on the design drawings.
- Adjustments to the reinforcement cages to accommodate HD bolts should be made.
- Sacrificial shuttering will be formed via peccafill / beamform boards. These will be tied to the cages using tying wire. Concrete cover will be provided via proprietary spacers blocks / tric-trac.
- Open ended rebar, presumably from pile bars will be protected via a Mushroom Cap.
- Base should now be inspected for line/level prior to pour, ground to be agreed with Photographs taken for QA records.
- A concrete inspection QA report is to be issued & relevant signatures to be obtained prior to the pouring of structural concrete.
- Concrete to be poured to foundations by means of:

a) Using (Bobcat) Tracked Loading Shovel Bucket. – Bobcat will approach concrete wagon, concrete discharged into loading bucket.

b) Using the 360 tracked excavator – Excavator will receive concrete from the Bobcat Loading Bucket. Our excavator has the capability to set a Height Restrictions Level into the computer when traversing within the concourse.

c) Using a concrete pump – Concrete wagons backs onto pumps hoppers and concrete is poured through the pump lines.

- Concrete inspection QA report "During Concrete" section is to be issued & relevant signatures to be obtained.
- Once concrete has been placed this will be compacted using a vibrating poker & the surface will be floated to the specified finish
- Concrete bases are to be securely fenced off during their curing period.
- Concrete Delivery Wagons are to wash out in designated / controlled concrete wash out area(s).
- The working area will be protected by crowd barrier fencing whilst works are being carried out & maintained by a designated team member during these activities.
- If / when formwork is required, protruding nails will be removed and all materials will be stacked in a safe, neat manner, ready for re-use.
- On completion of the works, the area will be tidied and handed over to the main contractor.

Anticipated Waste Control and Disposal Arrangements

(Sisk must be notified of waste leaving site)

Any waste arisings will be placed in to designated skips provided by John Sisk and Son

These deliveries will be booked in with Gate 11 security and wagons movement will be managed by CCL banksmen.

FM-OHS-0500-02 RAMS Template

Supervisory and Monitoring Resources

State the name with relevant health and safety and other relevant training of your lead supervisor(s) on site.

Name:	H&S Qualification (e.g., MSIC, SMSTS):	Contact No:
Stefan Wieczorek	SMSTS	07805 458472
Owen Keane	SMSTS	07818 453230
Anthony Barton	SMSTS	07423 171383

Additional Supervision & Duties (incl. Appointed Persons, Temporary Works Coordinator and/or Supervisor, Authorised Person etc.)

Name:	Role/Responsibility:	Contact No:	Company:
Paul Grimes	Cara Group SHEQ Manager	07795 101496	Cara Construction Ltd
Conor Keating	SISK PM	07825 312124	John Sisk
Peter Dudfield	SISK Engineer	07500 063123	John Sisk
Sophie Rothwell	Senior Asset Engineer	07341 098439	TFGM
David Tootell	KAM	07890 983732	KAM
Peter Hemmingway	Track and Civil Engineer	07775 705726	TFGM

State the arrangements for monitoring compliance with this RAMS and Site Rules:

All employees, subcontractors, and the like, once inducted onto site by John Sisk and Son, will then have a further formal Cara induction for the whole of the works. Furthermore, Daily Morning Prayers will be held detailing the days relevant activities complete with identifying any coordination issues and specific risk items that may affect the activities being carried out on that day. Regular Toolbox talks will be held and specific topics that may have presented themselves through the regular progress of the works. In addition to regular RAMS Briefing, CCL will also produce SPA's & Take Times prior to commencing daily tasks.

Competency and training requirements required for the activities including minimum (CSCS/Safe pass etc.) as well as task specific (Plant Operators, Confined Spaces, Height Rescue, Harness and Lanyard etc.):

All Cara trades ops and subcontractors will have as an absolute minimum a valid CSCS/CPCS card.

FM-OHS-0500-02 RAMS Template

Communication to Personnel on Site

Number of persons anticipated on site	10 (approx. for these works) 700 on whole site		
Will any of your workforce be non-English speaking or reading	☐ Yes	☒ No	
Confirm the % of your workforce that will be non-English speaking or reading			0 %
If yes, please state their first language(s)			
<i>Click here to enter text.</i>			
How will the contents of this RAMS be communicated to your non-English speaking workforce?			
<i>Click here to enter text.</i>			

Plant and Equipment



List the plant and equipment that will be used on site. Include any special risk controls such as restrictors fitted when traveling under overhead cables:

360° 3t – 16t Hydraulic excavators	Calibrated Cable Avoiding Tools
3-10t dumpers	Fencing
F & R DPU Wacker Plate	Vibrating Pokers
Ride On Rollers	Portable Generators
Stihl Saws	Hammer Drills
Circular Saws	Rotating Lasers

If this includes mobile plant, state how pedestrians will be protected:

Designated locations will be agreed in advance with John Sisk and Son, complete with designated access and egress routes.

Plant exclusion zones will be managed in accordance with the standards as detailed within Sisk TBT – People Plant Interface. All Ops are to attend this TBT as part of their main site induction.

Our excavators have the capability to set a Height Restrictions Level into the computer when traversing within the concourse.

Vibrating tools will be fitted with HAVi Meters which will monitor the trigger times for each item equipment being used.

FM-OHS-0500-02 RAMS Template

Live Energies



Describe the energy sources involved in the work:

Trial Hole Investigation Works – As detailed with RAMS 952/01 – Avoiding Danger with Underground Services

Describe the Lock Out Tag Out arrangements to be put in place:

Click here to enter text.

Temporary Works and Excavations



Describe the temporary works and excavations involved in the work:

Specific designs for shoring, ground support and falsework will be issued separately by Cara Site Manager Stefan Wieczorek for review as required

Name of Temporary Works Coordinator	Peter Dudfield
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Name of Temporary Works Supervisor	Cara Supervisor
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Name of Excavation Works Coordinator	Sisk Groundworks Package Manager
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Name of Excavation Works Supervisor	Cara Supervisor
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Confirm the Temporary Works and Excavation design arrangements

Click here to enter text.

FM-OHS-0500-02 RAMS Template**Lifting Operations**

Describe the lifting operations involved in the work including type of lifting equipment:

Lifting of fabricated reinforcement.

Note there is no lifting to be carried out over the slope

Name of Appointed Person preparing the Lift Plan
(State if this is the responsibility of Sisk):

Owen Keane

Name of Crane/Lift Supervisor:

Owen Keane

Note: The Lift Plan must be attached to this RAMS – AP not currently onsite to compile lift plan.

Working at Height

Describe any special issues relating to work at height that require specific management such as working over water:

Click here to enter text.

Describe any special arrangements for working at height not previously stated (for example close boarded plywood on scaffold platforms to prevent objects falling):

Click here to enter text.

Other High-Risk Activities such as Hot Works

There should be hot works carried out via Petrol Stihl Saw for cutting reinforcing fabric.

For event day protocols:

5.1.1 All Premiership, Women's Super League, FA Cup and Carabao Cup (EFL Cup) Matches (weekend or weekday)

- Cease all works outside Event Day Hoarding Line, secure all hoardings and hand back circulation areas to MCFC, in preparation for SAG inspection – 29 hours before kick-off.
- Works within the Event Day Hoarding Line are to cease 3 hours before kick off, unless particular tasks have been pre-agreed with MCFC to continue during the match.
- Last delivery must leave site onto public highway by 3 hours prior to kick off.
- No Contractor parking will be available on Grey Car Park on a matchday. Contractor parking allowed until 3 hours before kick off on Car Park 'K'.
- Hand back to Contractor – 7:00am on the first working day after the match.

5.1.2 Weekday European Match

- Cease all works outside Event Day Hoarding Line, secure all hoardings and hand back circulation areas to MCFC, in preparation for SAG inspection – 53 hours before kick-off.

FM-OHS-0500-02 RAMS Template

- Works within the Event Day Hoarding Line are to cease 3 hours before kick off, unless particular tasks have been pre-agreed with MCFC to continue during the match.
- Last delivery must leave site onto public highway by 3 hours prior to kick off.
- No Contractor parking will be available on Grey Car Park on a matchday. Contractor parking allowed until 3 hours before kick off on Car Park 'K'.
- Hand back to Contractor – 7:00am on the first working day after the match

When undertaking hot works, these activities must be controlled and segregated from other works / trades, in designated, free from combustible materials. Signage will be erected in and around the cutting zones with suitable fire extinguishers close by. Task specific PPE will be worn during Hot Works Activities: -

- Safety Goggles
- Cut Resistant Gloves
- Flame Retardant Boiler Suit
- Orange Hi Vis Clothing
- Ear Defenders
- Safety Footwear

NO WORK IS TO BE CARRIED OUT WITHIN 6M OF THE LINE HOWEVER SEE BELOW SAFE PROCEDURES FOR WORKING CLOSE TO METROLINK INFRASTRUCTURE AND EMERGENCY PROCEDURE.

The Metrolink tram network is powered by overhead power lines that run above the tramway and carry high voltage electricity.

The power lines are over five metres (around 18 feet) above the tracks and do not pose a danger to pedestrians and motorists at ground level or to those living and working in the vicinity of the tramway.

However, if you own or occupy a property near the tramway or wish to carry out work within 2.75 metres (9 feet) of the overhead power lines, you need to be aware of the potential dangers. We want you to stay safe near Metrolink.

This information relates to street-running sections of the tramway. Contractors wishing to access the segregated sections of Metrolink should contact us using the details under 'How to get authorisation'.

Remember:

- Trams cannot be diverted around a work site.
- They are powered by 750 volts dc power lines above the track which are always live.
- Cables, services, and equipment may be buried and cannot be seen.
- Sometimes overhead line support fixings may be located within buildings. You must contact Metrolink before considering work that might affect these fixings.

FM-OHS-0500-02 RAMS Template

Before you start work near Metrolink you must agree a safe method of working with us and obtain authorisation to work. You must do the work in the agreed way.

Failure to do so will mean the work will be suspended. Unauthorised work can be dangerous and is an offence.

You should also ensure that anyone who occupies your property or carries out work on or near your property is aware of the potential dangers and the need to obtain authorisation to work.

Authorisation is needed for any of the following activities:

- Any work where part of the site, tools, materials, machines, suspended loads or persons could enter the Metrolink Hazard Zone.
- Any work which could force pedestrians to be diverted into the Metrolink Hazard Zone.
- Piling, using a crane, excavating more than two metres, or erecting and dismantling scaffolding within four metres of the Metrolink Hazard Zone.
- Any excavation within three metres of any pole supporting overhead lines.
- Any work on sites near Metrolink where vehicles fitted with cranes, tipping bodies or skip loaders could come within the Metrolink Hazard Zone when the equipment is in use.
- Any work on sites above Metrolink tunnels or underneath structures carrying Metrolink.

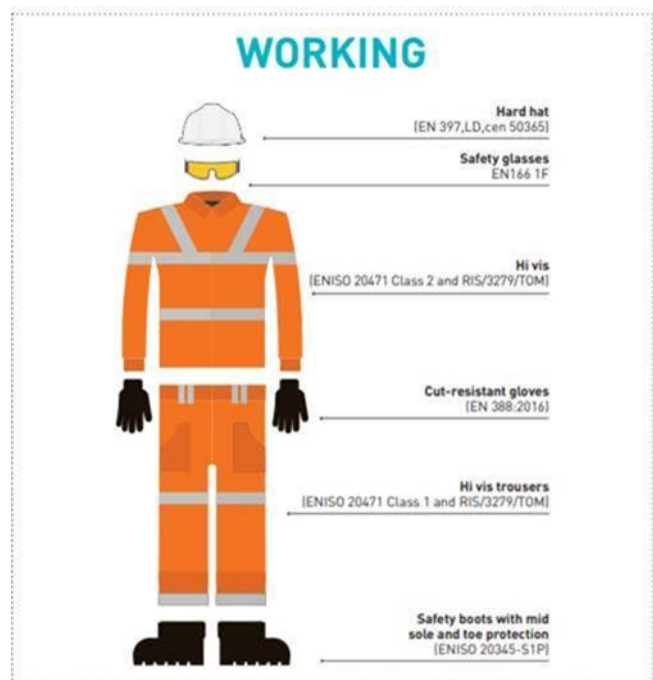
Any issues or incidents must be reported to the Production network managers [PNM's] on 0161 2050141 for NMC

FM-OHS-0500-02 RAMS Template

Permits Required – Type	
Sisk Permits	Permit Required
Permit to Break Ground	Yes
Lift Plan	No
MCWP Permit	No
Shaft Access Control Permit	No
Ladder Permit	No
Unguarded Proprietary Access Equipment Permit	No
Hot Works Permit	Yes
Confined Spaces Permit	No
Live Energies Permit	No
Other specified permit	
TFGM Permit to Work	Yes

FM-OHS-0500-02 RAMS Template

Specific PPE Requirements				
				
Specify type of gloves required	Specify type of eye protection	Specify type of respiratory protection	Specify type of hearing protection	Specify type of harness and lanyard
Cut Resistance for general works. Chemical Resistant for refuelling operations	Light impact glasses for general works High impact glasses for cutting operations	Activity Specific FFP3 face fit Dust Masks will be provided	Activity Specific Ear Defenders and Disposal Ear Plugs will be provided	N/A
State any other PPE required by the Risk Assessment:				
5-point PPE is always required as a minimum – Hard Hat, Glasses, Gloves, Hi visibility Jacket, Steel Toe Cap boots				



FM-OHS-0500-02 RAMS Template

Work Specific Emergency & Rescue Procedures

Set out the Emergency Rescue procedures to include details of equipment required, where it will be stored and any mandatory training requirements:

If work obstructs the track unexpectedly, if anyone or anything contacts the overhead wires or if tramway equipment is damaged, please inform the Metrolink control room immediately.

The control room can be contacted at any time by:

- Using the emergency help point at any tram stop.
- By telephoning 0161 203 5619 (emergencies only)
- Contacting a Metrolink representative
- Contacting the emergency services using 999

You must tell the control room that there is an emergency.

The controller will ask you for details of the emergency.

Please answer the questions as quickly and clearly as possible:

- Who are you and where are you?
- What has happened?
- Is anyone or anything touching the overhead lines?
- Is the track obstructed?
- Which emergency services are needed (if any)?

Please ensure you follow any instructions given by the controller.

If an approaching tram must be stopped, signal to the driver by holding both arms above your head. You should stand where the driver can see you, but not in the path of the tram.

FIRE & EVACUATION

This procedure will form part of the site induction.

The site muster point will be part of the site logistics plan.

FIRST AID

First Aid Facilities are in the main site office.

The Emergency First Aider for Cara Construction are: Mr Stefan Wieczorek

The route to the nearest hospital is displayed on the site office notice board.

FM-OHS-0500-02 RAMS Template

First Aid Measures for the work:

Name of First Aider	Stefan Wieczorek
No of additional trained First Aiders	1
Location of First Aid kit	Cara Site Office

Hazardous Substances

Identify any hazardous substances you will be using or potentially encountering on site

							
Toxic	Explosive	Asbestos	Corrosive	Hazardous to the environment	Flammable	Pressurised Gas	Other
☐ Y ☒ N	☐ Y ☒ N	☐ Y ☒ N	☐ Y ☒ N	☒ Y ☐ N	☒ Y ☐ N	☐ Y ☒ N	☐ Y ☐ N

Please list any applicable substance below and attach relevant Hazardous Substance Assessment Sheets:

Diesel, Cement, Petrol, Mould Oil, Concrete, Concrete Curing Agent, Line Marking Spray Paint

Identify details of emergency response to spill, escape, and combustion:

All items of small / portable plant will have Spill Nappies located under the equipment, complete with fire extinguishers.

COSHH Assessments for each Hazardous Substance are stored with CARA Group Health & Safety Site File Ref: B
The specific site COSHH register will be continually updated as works progress.

FM-OHS-0500-02 RAMS Template**Occupational Health**

List the heavy and challenging objects that require manual handling. Specify the weights of the objects, the lifting methods and any other controls required.

Material	Weight per unit (kg)	Lifting method/No. of operatives
Formworks	Various weights	2 men are to lift between them
Reinforcement	Various weights	2 men are to lift between them

Identify tasks or risks relating to Dust, Noise and Vibration.

The Risk Assessment must address Noise and Vibration. It must include vibration levels for all tools and an indication of the maximum daily exposure level.

Vibrating Poker, Petrol & Diesel Compaction Plates, 110v & Hydraulic Breakers, Combi Hammer Drills

Manual Handling should be completely removed, if possible, with lifts undertaken via mechanical means
The maximum weight that can be lifted by one individual is 25kg.

FM-OHS-0500-02 RAMS Template**Work Specific Emergency & Rescue Procedures**

Any information that is critical to the safety of the project; this may include elements of the structural engineer's reports, temporary works, soils, and ground reports:

EMERGENCY CONTACTS – SITE DETAILS

**IN THE EVENT OF AN EMERGENCY CALL THE NECESSARY EMERGENCY SERVICES
FIRE, POLICE, AMBULANCE, 999**

**Environmental Emergencies call the Environment Agency Incident Hotline on: 0800
807060**

Contract Number	Site Address
C.952	Manchester City Football Club
Contract Name	400 Ashton New Road
MCFC	Manchester
Etihad North Stand Expansion	M11 4TQ

Emergency Contact No's		
Name	Position	Phone
Stefan Wieczorek	Site Manager	07805 458472
Dave Noar	Contracts Mgr.	07789 376888

Group SHE Manager	
Name	Phone
Paul Grimes	07795 101496

First Aiders	
Name	Phone
Stefan Wieczorek	07805 458472

Nearest Hospital Address	
Manchester Royal Infirmary	
Oxford Road	
Manchester (M13 9WL)	